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DESIGN REPORT

Park Avenue N Extension

Submitted to
City of Renton

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EXECUTIVE SUMMARY

Once completed, the Park Avenue N Extension will improve traffic operations in the vicinity of the Southport development, along the Logan Avenue N / N Southport Drive and Lake Washington Boulevard N corridors. The City of Renton (hereinafter, City) hired Perteet Inc. (hereinafter, Perteet) to review current and future traffic operations, evaluate potential roadway improvement opportunities, and provide preliminary design services for the preferred alternative.

The Southport development is located in between Lake Washington, The Landing mixed-use center, the Boeing factory, and Gene Coulon Memorial Beach Park. The final stage of the Southport site, three (3) nine-story office buildings, is currently in construction, with the Hyatt Regency Lake Washington hotel and Bristol residences already completed and open. Occupancy for the office buildings is scheduled for July 2018.

Under current conditions, motorists access Southport using a two-lane roadway extending from Coulon Beach Park Drive. This access road has one travel lane in each direction and currently dead-ends at the Hyatt Regency Lake Washington. At full build-out, Southport will feature an internal roadway network surrounding many of the buildings, but none of these are proposed to connect to any other City surface streets to provide secondary access to the site.

Traffic operations on the existing street network in the morning and afternoon peak hours are within City standards at the intersections of Logan Avenue N at N 10th Street, Logan Avenue N / N Southport Drive at Park Avenue N / 757th Avenue, Lake Washington Boulevard N at Coulon Beach Park Drive, and Coulon Beach Park Drive at the Southport access road. However, the intersection of N Southport Drive at Garden Avenue N / Lake Washington Boulevard N is too congested to meet City standards and operates at level of service F during both peak hours.

By 2040, if no action is taken to improve the surrounding street network, the increased traffic demands from Southport and other local growth in the study area will cause operations to worsen to the point where the intersections of Logan Avenue N at N 10th Street and Lake Washington Boulevard N at Coulon Beach Park Drive will be nearing the operations thresholds for acceptable performance, and the intersection of Coulon Beach Park Drive at the Southport access roadway will join N Southport Drive at Garden Avenue N / Lake Washington Boulevard N in failing to meet City standards for PM peak hour delays.

Three (3) alternatives were tested to evaluate impacts on traffic operations at 2040:

1. Extending Park Avenue N from Logan Avenue N / N Southport Drive to the internal Southport roadways;
2. Extending Garden Avenue N from Lake Washington Boulevard N to the Southport access roadway; and
3. Removing the existing tandem traffic signals at Lake Washington Boulevard N and Coulon Beach Park Drive and at Coulon Beach Park Drive at the Southport access roadway and installing a five-leg, multi-lane roundabout.

Of the three (3) options tested, the first alternative—the Park Avenue N extension—was most effective in relieving congestion throughout the study area. As a result, the City advanced this alternative as the recommended improvement. Perteet prepared conceptual (10%) plan sheets for the City for the Park Avenue N extension, as well as an accompanying concept-level (10%) cost estimate. Afterwards, Perteet developed 30% and 60% plans and estimates for the City to review.

Originally, Perteet prepared plans for improvements extending Park Avenue N from the intersection of Logan Avenue N / N Southport Drive, through the Boeing right-of-way, across BNSF railroad right-of-way, and through

Puget Sound Energy right-of-way to connect to the internal Southport roadways. During the preparation of these plans, the City informed Perteet that they would only commit the funds required to extend Park Avenue N to the northern limit of the BNSF railroad right-of-way. The Southport developer may be required to construct the portion of the improvements north of the railroad right-of-way as a condition of their permitting, although that portion of the project may also be designed by Perteet to retain continuity between the two segments. The 60%-level opinion of cost is $4,076,000 (in 2018 dollars) for the City's portion of the Park Avenue N extension project, which includes the cost that will be reimbursed to Boeing to cover the modifications to their existing duct bank system.

As a part of this project, Perteet also reviewed opportunities to enhance the transit facilities along the Logan Avenue N / N Southport Drive corridor, including a future transit center between N Southport Drive and the BNSF railroad. According to Perteet's analysis, the best available improvement is upgrading the existing in-line bus zones at Garden Avenue N to RapidRide stations. The planning-level opinion of cost for this work is $130,000 (in 2019 dollars), not including the costs of the RapidRide facilities, which would be provided by King County Metro Transit.

Additionally, discussions with Boeing introduced a companion project to the Park Avenue N Extension: the construction of a N 7th Street Driveway for Boeing to use for construction activities if the plant experienced a labor strike. This piece of the project was introduced at the 60% submittal phase and was included at the end of the 60% plans set. That portion of the plans may be separated from the Park Avenue N Extension plans for future submittals and designated as a stand-alone project. The 60%-level opinion of cost is $134,000 (in 2018 dollars) for the N 7th Street Driveway.

CHAPTER 1. INTRODUCTION.

Southport is a multi-use development located near The Landing in Renton, Washington. Portions of Southport have been completed and are open to vehicle traffic, while the large Class A office space is currently being constructed. Southport was planned to be fully open to occupancy and traffic by mid-2018.

The completion of the office buildings will introduce a large influx in traffic demand to and from the site. The Southport development is currently served by a single, two-lane access roadway that connects to Lake Washington Boulevard N via Gene Coulon Beach Park Drive.

The City hired Perteet to estimate the increased traffic demands, develop roadway and network alternatives to accommodate the additional traffic, and evaluate transit improvements near Southport.

Project Location

Southport is being developed along Lake Washington in between the Renton Boeing factory and Gene Coulon Memorial Beach Park. The site extends toward the Landing, but does not reach the existing BNSF railroad. Figure 1-1 shows the study area.

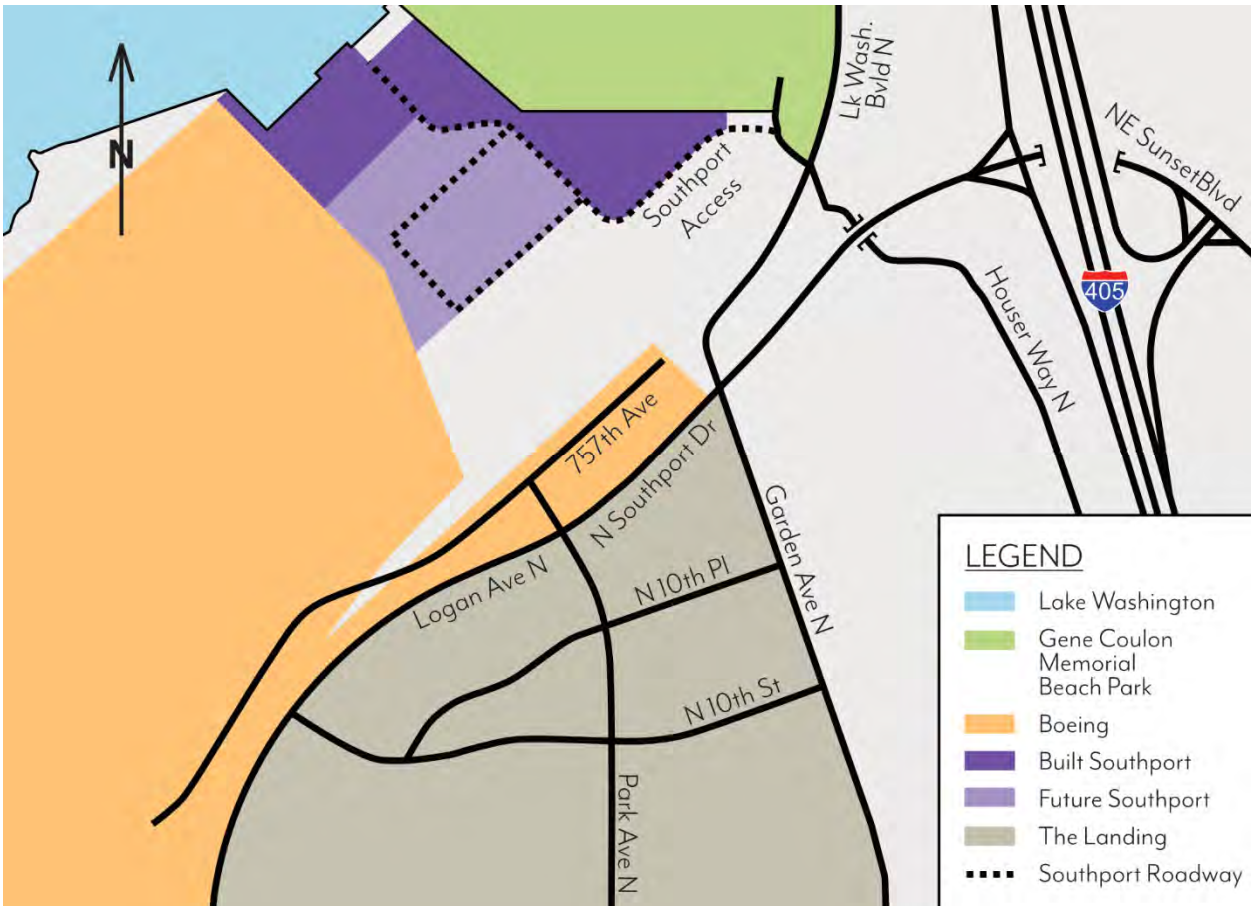


Figure 1-1. Park Avenue N Extension Study Area.

On December 4, 2017, the Renton City Council adopted a change to the street names involved in this project. Previously, Logan Avenue N continued beyond Park Avenue N to Garden Avenue N / Lake Washington Boulevard N. East of there, the road was named NE Park Drive. As of December 4, 2017, Logan Avenue N terminates at Park Avenue N, and the roadway between Park Avenue N and I-405 is now N Southport Drive. East of I-405, the roadway is now NE Sunset Boulevard.

These changes are reflected in Figure 1-1. However, because this change was adopted after a majority of the preliminary design work was completed, some portions in this document and its appendices still show or reference the old street names.

Project Need

Improving the traffic operations—or mitigating the impacts of the traffic influx from the development—is important to the existing roadway users in the study area, the Southport occupants, and the economic vitality of the Southport development.

Once Southport is completed, the additional traffic to and from the new office developments will increase demand on the intersections surrounding Southport, particularly along the Logan Avenue N / N Southport Drive and Lake Washington Boulevard N corridors. Without any improvements to the City's existing street network, over time, some of the intersections surrounding Southport will reach unacceptable levels of service, failing to meet City standards.

The existing two-lane access road for Southport will become congested and experience long delays and queues if no roadway improvements are made to the study area network. Additionally, the current roadway only provides one access route for emergency vehicles to enter the development to respond to a life-threatening situation. Similarly, if any vehicular crash or event traffic blocks the existing roadway, there is no alternative way for the residents or occupants of Southport to enter or exit the development.

If traffic congestion is severe enough—particularly on the existing access roadway—occupants may be unwilling to move into the Southport office space. This would result in lost potential revenue for the City and could lead to decreased interest among future development partners in the future.

Preliminary Design Tasks

The preliminary design process began in April 2017. After traffic data was gathered for the study area, Perteet created existing conditions models in VISSIM and Synchro. Concurrently, Perteet and City staff discussed potential roadway design alternatives that could mitigate the traffic increases from Southport. Perteet then modeled each of the design alternatives in Synchro to determine which alternative should be advanced to a full VISSIM analysis, ultimately deciding on the Park Avenue N extension (Alternative A). Perteet then analyzed the Park Avenue N extension in the year of opening and in the design year.

Perteet recorded video simulations in VISSIM to demonstrate to City staff how the corridor would operate under Alternative A and a no-build scenario. Perteet addressed City comments on some aspects of the simulation, ultimately creating a VISSIM model that accurately depicted existing conditions.

After the City's selection of the Park Avenue N extension as the preferred alternative, Perteet developed preliminary paving and channelization plans for the new roadway. City and Perteet staff met with Boeing and shared these preliminary plans in November 2017 to discuss the acquisition of Boeing property for the Park Avenue N extension. Boeing was receptive to the concept. After meeting with Boeing, Perteet prepared a preliminary, concept-level cost estimate for the Park Avenue N extension.

Perteet began reviewing transit options in July 2017. After laying out a potential transit center and a new in-line RapidRide stop at Park Avenue N, Perteet evaluated upgrading the existing bus zones at Garden Avenue N / Lake Washington Boulevard N to RapidRide stations. Perteet prepared a planning-level opinion of cost for the RapidRide station upgrades in late December 2017.

Perteet developed the conceptual (10%) Park Avenue N extension plans and submitted them to the City in early March 2018. The conceptual plans included cover, legend and abbreviations, typical roadway sections, paving and channelization, and roadway profile sheets. Perteet also provided supplemental exhibits illustrating horizontal turn and vertical path simulations through the design for Boeing's unique 90-foot trucks.

After the conceptual plans submittal, the City, Perteet, and Boeing met to discuss additional details associated with the project. Boeing informed the project team of additional project elements that will need to be included or addressed as preliminary and final design tasks progress. Additionally, the Southport developer provided comments on the conceptual roadway design, including requests to widen the proposed roadway and adjust the alignment to connect to the Southport internal roadway network at a different point. See Chapter 4 for more information on these comments and requests.

Perteet issued 30% and 60% plans and opinion of cost submittals in August 2018 and November 2018, respectively. Between the 10% and 60% submittals, City staff and Perteet held weekly coordination meetings to address design questions associated with the project and keep all parties apprised of the progress with the design effort, stakeholder coordination, funding, and project scope.

CHAPTER 2. ROADWAY DESIGN ALTERNATIVES AND TRAFFIC ANALYSIS

Perteet modeled a total of four (4) scenarios as part of the traffic analysis associated with this project, described below. The analysis was performed first using Synchro as a screening tool. Synchro revealed that the best alternative to advance to further study was Alternative A, the Park Avenue N extension. This concept was then modeled with VISSIM, which provided a more detailed evaluation of how all of the study intersections would interact with each other, and how travel times would change in the corridor if the Park Avenue N extension were built.

A detailed discussion of these alternatives, the data collected by the Perteet team, and the entire traffic analysis can be found in Appendix D. The paragraphs below briefly summarize the major alternatives that were considered, along with a brief explanation of why they were or were not selected for preliminary design.

Note that these alternatives were developed without detailed site plan information on the Southport development. The configuration of the internal Southport roadways was unknown until after the traffic analysis task was completed, when SECO provided Perteet with their most recent development plans. The information provided regarding the internal access roads does not alter the recommendations from the traffic analysis.

No Action

The No Action or No-Build scenario would see large traffic queues and delays develop with the introduction of Southport traffic on the existing roadway network. Perteet assumed a worst-case scenario of full occupancy of all Southport office buildings for the analysis. In the PM peak hour, the 95% percentile queue length along the existing Southport access road would extend over 1,000 feet. The volume of traffic leaving Southport in the evening would also cause the intersection of the access road with Coulon Beach Park Drive to operate at levels that fail to meet City standards. Plus, this option would not add in the network redundancy that would allow some traffic to continue flowing if the existing access road were blocked due to an emergency or crash event. As such, this alternative was not recommended.

Alternative A: Park Avenue N Extension

Alternative A would extend Park Avenue N past 757th Avenue to the Southport development and access road. This option would allow traffic to and from the Southport development to use two distinct paths depending on their destination. Traffic to and from I-405 could access the site using the existing Southport access road/Coulon Beach Park Drive/Lake Washington Boulevard N route, while traffic to and from the Renton City Center could use the new Park Ave N extension. The traffic results for this alternative were superior to all other options studied; as a result, the Park Avenue N extension was advanced for further modeling and preliminary design.

After the traffic analysis was complete and Alternative A was advanced for preliminary design, Perteet developed two (2) different options for accommodating the connection to Boeing via 757th Avenue. The first option retained the existing location of 757th Avenue, with the connection to the Park Avenue N extension in between Logan Avenue N / N Southport Drive and the BNSF railroad track. The second option closed the existing 757th Avenue and shifted the connection north of the BNSF railroad track. The shifted option would have required some revisions to the internal Boeing road layouts to allow the large Boeing trucks to move between Park Avenue N and the center of the Boeing parcels. Ultimately, the shifted option was deemed infeasible because it would necessitate acquiring additional right-of-way that is currently owned by Puget Sound Energy but would ideally be commercially developed in the future.

Alternative B: Garden Avenue N Extension

This alternative would create an extension of Garden Avenue N, north of N Southport Drive, that would connect into the existing Southport access road. Like Alternative A, this option would allow for a second route for Southport traffic. However, the complication with this configuration is that it also creates a new intersection with Lake Washington Boulevard N, very close to the existing intersection with N Southport Drive. This new intersection would need to combine the high traffic volumes from both Southport and Lake Washington Boulevard N, leading to long delays for each road in the PM peak hour. Additionally, this alternative would be difficult from a geometric perspective because the Garden Avenue N extension would require vehicles to traverse an at-grade railroad crossing with minimum space to adjust roadway grades to provide a smooth vertical transition on either approach. This alternative was not considered feasible because the traffic demands from Southport and Lake Washington Boulevard N cannot be merged into one so close to an existing, high-volume signalized intersection.

Alternative C: Lake Washington Boulevard N Roundabout

Changing the existing tandem signal at Lake Washington Boulevard, Coulon Beach Park Drive, and the Southport access roadway would improve operations in the immediate vicinity. However, it would not address the increased traffic demand at the downstream intersections along N Southport Drive and Logan Avenue N. These intersections would still be a traffic bottleneck, particularly at the intersection of N Southport Drive and Garden Avenue N / Lake Washington Boulevard N. As such, this alternative was not recommended for further design.

Garden Avenue N Modification

During the traffic analysis, the intersection of N Southport Drive and Garden Avenue N / Lake Washington Boulevard N frequently operated worse than all other study intersections, due to the high volume demands from all four (4) legs. Perteet recognized that the existing phasing scheme could be improved and recommended a set of changes to the City of Renton, which were adopted and implemented prior to the Park Avenue N extension project reaching final design.

The changes included three (3) components:

1. Removal of the existing northbound left-turn lane, which served very low left-turn volumes in the morning or afternoon peak hours;
2. Change in the timing pattern from north and southbound split phasing to standard concurrent phasing, except for the high-volume southbound left-turn; and
3. Removal of the northbound right-turn on red restriction.

CHAPTER 3. TRANSIT ALTERNATIVES.

Transit Center

A medium-sized transit center could be built in between N Southport Drive, the Park Avenue N extension, Lake Washington Boulevard N, and the BNSF railroad. This parcel is currently owned by Boeing and contains a truck inspection station and power substation. A transit center at this location could serve as a termination point for a new RapidRide Bus Rapid Transit (BRT) route serving the Renton Highlands, east of I-405.

The site is not ideal for a transit center, with some access limitations due to the railroad on the north side and the proposed Park Avenue N extension on the west side. One potential layout for the transit center is shown below in Figure 3-1. This configuration provides ingress for buses to the east directly from a mid-block driveway along N Southport Drive, while buses from the west or south would enter via the Park Avenue N extension, across from 757th Avenue. Similarly, a mid-block driveway would provide direct egress from the transit center to N Southport Drive for westbound traffic, while all other buses would exit to the Park Avenue N extension.

Perteet developed this alternative before conversations with Boeing provided additional detail on future desired railroad operations. Boeing hopes to use the segment of railroad shown in the figure below to unload airplane fuselages from rail cars for transport across the factory grounds. This type of operation would close down a potential transit center for an unacceptable amount of time each day.

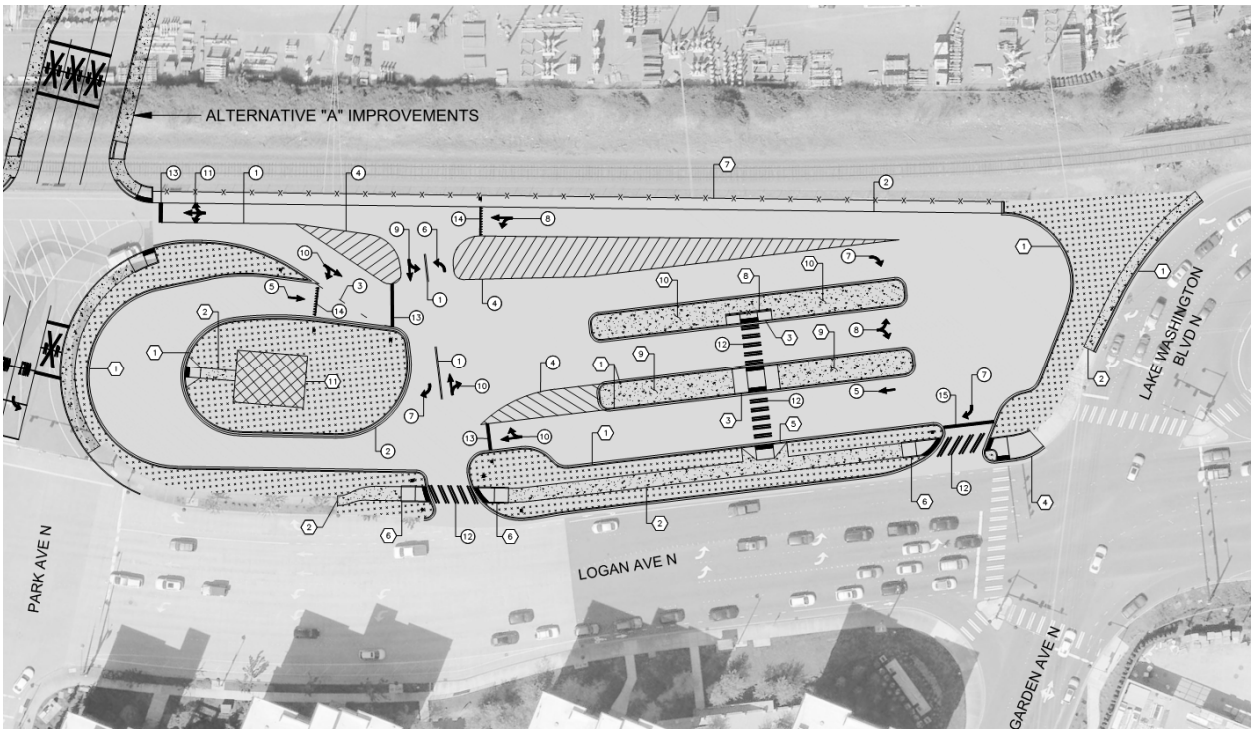


Figure 3-1. Potential Transit Center Configuration.

In-Line RapidRide Bus Stop

The existing westbound, far side bus stop at Garden Avenue N is a standard King County Metro stop. As a far side stop, the bus dwell periods may interfere with movements from the intersection of N Southport Drive and

Garden Avenue N / Lake Washington Boulevard N. Multiple alternatives were reviewed to evaluate if the bus stop could be moved to the west to be at the nearside of the Park Avenue N intersection. All designs were done on the assumption that the Park Avenue N extension would be implemented. The two (2) alternatives are fundamentally the same in terms of the transit operations, but differ in the accessibility to 757th Avenue and the Boeing properties.

Figure 3-2, below, shows a proposed in-line transit stop at Park Avenue N, with the Park Avenue N extension, and with access to/from 757th Avenue maintained. The existing right-turn lane is maintained, though it is shifted north to provide adequate space for a transit-only lane and bus stop island. This design separates the bus movements from the right-turn movements, improving the mobility and reducing conflicts for each. The island would be accessible from the east crosswalk at the Park Avenue N intersection, which would still be signalized on either side of the island.

Access from westbound N Southport Drive to 757th Avenue via the Park Avenue N extension would not be possible with this configuration because of how far north the right-turn lane would be shifted. So, to continue to provide access into Boeing, the right-turn lane would also allow through movements that would use a new access lane to connect to 757th Avenue. This lane would be in ingress only. Egress would still be achieved through the intersection of 757th Avenue and the Park Avenue N extension. This configuration does divide the west crossing into two crosswalks, which would both operate during the same signal phase.

Figure 3-2. In-Line RapidRide Stop at Park Avenue N with Boeing Access.

Figure 3-3, on the following page, shows a similar design, but without the Boeing access. This concept assumes that all movements into and out of Boeing would be made at another location, such as from N 6th Street. At this time, Boeing wishes to maintain the current access with 757th Avenue.

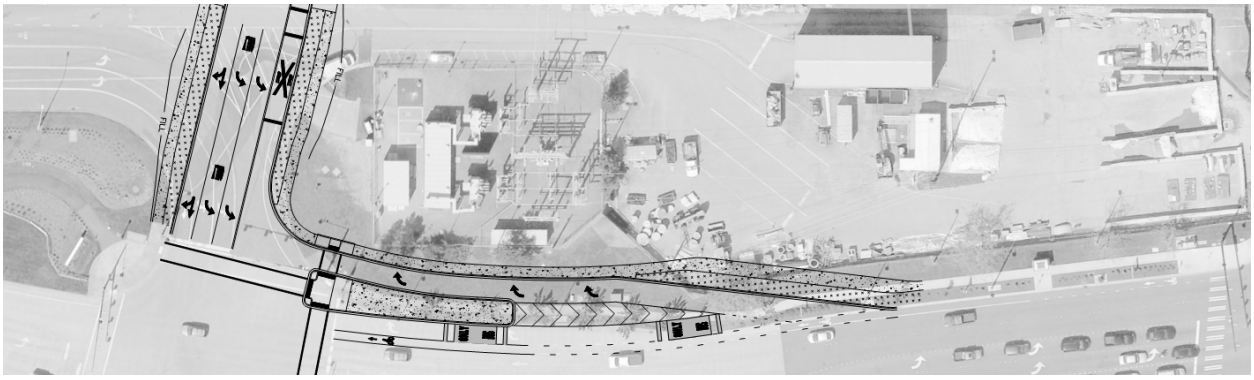


Figure 3-3. In-Line RapidRide Stop at Park Avenue N without Boeing Access.

Upgrades to RapidRide Stations

The existing pair of westbound and eastbound bus stops on N Southport Drive to the west of Garden Avenue N / Lake Washington Boulevard N are not designed as RapidRide stops. King County Metro has considered providing RapidRide service to the Renton Highlands, east of I-405, via the Logan Avenue N / N Southport Drive / Sunset Boulevard NE corridor. The two (2) bus stops at the Garden Avenue N / Lake Washington Boulevard N intersection could likely be upgraded to RapidRide stations with few complications.

The desired 75-foot minimum station length is available at the existing stop locations. The westbound far side bus stop already has a planter strip, so the necessary King County Metro boarding zone requirements can be met without widening or re-aligning the sidewalk. The eastbound nearside bus stop does not feature a planter strip currently, and only has an 8-foot sidewalk, so some widening will be required to achieve King County Metro's desired 10-foot by 10-foot front door boarding zone. Based on GIS right-of-way lines, acquisition is not anticipated to be required at either stop. Potential passenger facility layouts are shown in Figure 3-4, below.

Figure 3-4. Potential RapidRide Station Passenger Facility Layouts.

CHAPTER 4. PREFERRED ALTERNATIVE.

Summary

The selection of the preferred alternative was primarily based on the results of the traffic analysis (see Appendix D) and discussions with Boeing. The Preferred Alternative consists of three pieces:

1. Park Avenue N extension
2. N 7th Street Driveway, and
3. Transit stop RapidRide enhancements at N Southport Drive and Garden Avenue N / Lake Washington Boulevard N.

Design Elements

The preliminary Park Avenue N extension was designed using the following design criteria. The tables below list design elements, the appropriate local standards, the sources for that standard, and, if necessary, any deviating design values with a justification. These design criteria are anticipated to be applicable for the final design portions of the project, and will be updated if any design standards, elements, or values change during the design process.

Table 4-1. Park Avenue N Extension Roadway Design Criteria.

Design Element	Design Value	Local Standard	Reference
General			
Year of Opening	2019	N/A	N/A
Design Year	2040	N/A	N/A
Function Classification of Roadway	Commercial-Mixed Use and Industrial Access	N/A	City of Renton Comprehensive Plan, Transportation Element, Figure T-1 RMC 4-6-060 (F)(2)
Design Speed	25 mph	N/A	N/A
Design Vehicle	Boeing-90' for movements between Boeing and I-405 Boeing trike for movements on 757th Avenue SU-30 for all other movements [1]	N/A	N/A
Cross Section			
Right-of-Way Width	95' in four-lane section	69' for two-lane sections [2] 80' for three-lane sections	RMC 4-6-060 (F)(2)
Sidewalk Width	6', both sides [3]	6', both sides	RMC 4-6-060 (F)(2)
Outer Buffer (behind Sidewalk) Width	1', both sides, unless wall abuts sidewalk	1', both sides, unless wall abuts sidewalk	COR Standard Plan 102

Design Element	Design Value	Local Standard	Reference
Planting Strip Width	8', between back of curb and face of sidewalk, both sides	8', between back of curb and face of sidewalk, both sides	RMC 4-6-060 (F)(2)
Street Trees	Included, both sides	Required	RMC 4-6-060 (F)(2)
Curbs	Included, both sides	Required, both sides	RMC 4-6-060 (F)(2)
Parking Lanes	Not included	8', both sides	RMC 4-6-060 (F)(2)
	Justification: Parking will be prohibited near train tracks and there is not enough space between the train tracks and Logan Avenue N / N Southport Drive to support parking. Parking needs for the Park Avenue N extension should be coordinated with the Southport development.		
Bicycle Facilities	None [3]	None	RMC 4-6-060 (F)(2)
Paved Roadway Width (Including Gutters), not Including Parking	44'-47' on Park Avenue N 53' on 757th Avenue (west portion) 30' on 757th Avenue (east portion)	20' for two-lane sections 31' for three-lane sections	RMC 4-6-060 (F)(2)
	Note: 757th Avenue widths are typical; they vary in select locations. **Justification:** Existing approach lane widths for 757th Avenue at the intersection with Park Avenue N are 12' each. The design maintains those lane widths to fit Boeing truck movements.		
Travel Lane Widths	11' throughout, except for 12' southbound at Logan Avenue N / N Southport Drive intersection approach and 12' on 757th Avenue.	10'	RMC 4-6-060 (F)(2)
	Justification: Wider lanes are necessary between 757th Avenue and Logan Avenue N / N Southport Drive to fit Boeing truck movements. City of Renton staff directed Perteet to use 11' lanes as the project standard.		
Center TWLTL Width	Not included [2]	11' for collector roadways	RMC 4-6-060 (F)(2)
Center Median	Not included [2]	Allowed on arterial or collector roadways	RMC 4-6-060 (F)(2)
Pavement Thickness	8" HMA Cl ½" PG 64-22 over 4" CSTC	4" HMA over 6" crushed rock, minimum	RMC 4-6-060 (F)(5)
	Justification: Pavement section assumed based on prior project experience.		
Roadway Cross Slope	2% (away from crown) preferred	N/A	N/A
	Note: Above cross slope is applicable for Park Avenue N. Cross slopes for 757th Avenue will vary between the profile grade of Park Avenue N and the existing cross slopes near the security gate. Currently, that range is from 0.0% to 5.94%, all sloping to the south.		
Sidewalk/Planter Cross Slope	1.5% (toward crown)	1.5% (toward crown)	COR Standard Plan 102
Outer Buffer Cross Slope	2% (away from crown)	2% (away from crown)	COR Standard Plan 102
Fill Slopes	4:1	4:1 maximum	COR Standard Plan 102

Design Element	Design Value	Local Standard	Reference
Retaining Wall	Mechanically Stabilized Earth (MSE) with geogrid tie-backs along substation.	N/A	N/A
	Note: Preliminary design assumes a modular block wall system such as GravityStone®.		
Horizontal Geometry			
Intersection Radii	50' and 75' at intersection with Logan Avenue N / N Southport Drive, 25' and 35' at intersection with 757th Avenue	35' at arterial intersections 25' at all other intersections	RMC 4-6-060 (F)(2)
	Justification: Large Boeing trucks require larger than standard intersection curb return radii. Above values are based on turn simulations with Boeing design vehicle.		
Horizontal Alignment Shift	25:1 maximum (2°17')	2°17', maximum	WSDOT DM Ex. 1210-1
Horizontal Curve Radii	N/A	200' minimum radius	WSDOT DM Ex. 1250-5
	Note: Based on low-speed urban roadway criteria. No superelevation used.		
Reverse Curve Tangents	N/A	150' minimum for collectors 100' for residential access	RMC 4-6-060 (F)(7)(c)
Vertical Geometry			
Centerline Grades	0.5% to 15%	0.5% to 15%	RMC 4-6-060 (F)(2)
	Note: The slope and elevations across the existing railroad tracks will be maintained.		
Vertical Curve Length	200' on 757th Avenue No minimum on Park Avenue N	200' minimum, unless otherwise authorized	RMC 4-6-060 (F)(7)(b)
	Justification: Distances between Logan Avenue N / N Southport Drive and the railroad tracks are too short to provide 200' vertical curves. Where curves are shorter than 200', WSDOT K-values and sag criteria shall govern.		
Crest Curve K-Values	12, minimum	12, minimum	WSDOT DM 1260.03(1)(b)
Sag Curve K-Values	13, minimum	26, minimum	WSDOT DM 1260.03(1)(b)
	Note: Where K-values must be less than 26, sag curves will be designed for "comfort" in accordance with WSDOT Design Manual 1220.02(2).		
Miscellaneous			
Pedestrian Bulb-Outs	Not included	Use with on-street parking	RMC 4-6-060 (F)(2)
Cul-de-Sacs	Not included	Limited application	RMC 4-6-060 (F)(2)
Street Lighting	Included	Included	RMC 4-6-060 (F)(2)
757th Avenue (items not listed below are as defined previously)			
Typical Roadway Slope	2%	N/A	City of Renton comments
Vertical Grade Transitions	200' minimum vertical curves preferred Grade breaks where 200' vertical curves cannot be provided	N/A	City of Renton comments

Design Element	Design Value	Local Standard	Reference
Roadway Cross Slope	6% maximum	10.5% (6°) maximum	Boeing comments
Travel Lane Widths	12'	N/A	N/A

Notes:
[1] TENW provided a comment on the March 20, 2018 10% plans submittal that the Southport design vehicle should be a WB-62. The City considered this comment and deemed it no longer relevant to the City's portion of the project; north of the railroad the SECO design team may establish their own design vehicle. The design vehicles for the City's project all have larger footprints than a WB-62.
[2] TENW provided comments on the March 20, 2018 10% plans submittal recommending that the Park Avenue N extension have a three-lane section north of the four-lane section. The City considered this recommendation and deemed it no longer relevant to the City's portion of the project; north of the railroad the SECO design team may consider different numbers of travel lanes.
[3] TENW provided comments on the March 20, 2018 10% plans submittal recommending installing a multi-use path on the east side of Park Avenue N to increase pedestrian space and provide a bicycle facility. The City considered this recommendation and decided to not incorporate a multi-use trail within the City's portion of the project. The rationale for this decision was that the standard sidewalks along the west and east sides of Park Avenue N will accommodate non-motorized demands adequately and confirm to City standards.
Abbreviations: N/A = Not Applicable, RMC = Renton Municipal Code, COR = City of Renton, TWLTL = two-way left-turn lane, WSDOT DM = Washington State Department of Transportation Design Manual, July 2017 revision.

Final Design Considerations

The following topics have been identified as items of particular importance to this project that should be considered or continued during final design.

Boeing Coordination

Boeing currently controls the 757th Avenue access point. As such, Boeing will not grant any right-of-way without agreeing to the proposed improvements. The Park Avenue N Extension project team should continue to include Boeing in discussions and plan reviews so that they can provide comments on the proposed designs.

Currently, there is a Boeing electrical duct bank that crosses what will become Park Avenue N. There is an existing manhole for that electrical system in the middle of the proposed roadway location. In order to install the Park Avenue N Extension and to minimize impacts in the future, the Boeing duct bank requires redesign to remove that manhole and retain connections across the future Park Avenue N. Perteet has teamed with Casne Engineering, Inc. to design the electrical system and provide cost estimates for that work.

Railroad At-Grade Crossing Coordination

The Park Avenue N extension would create a new at-grade crossing with the BNSF track serving Boeing. This new crossing requires approval from the Washington Utilities and Transportation Commission (UTC) before it can be constructed. Their standard process for approving a project, such as this, includes having the agency requesting the new at-grade crossing complete a petition. A template for this petition is included in Appendix C. Railroad coordination is being led by Ross Widener of Widener & Associates.

King County Metro Coordination

The design of the proposed RapidRide station upgrades at the northwest corner of the N Southport Drive at Garden Avenue N / Lake Washington Boulevard N will require coordination with King County Metro Transit, the operator of the RapidRide transit service. In particular, King County Metro Transit will want to review the placement the footings for their passenger facilities, as well as if the existing pavement section proposed in front of the bus platform is acceptable. Because these pavements were recently constructed and are currently used for bus loadings, the existing pavement was assumed to be sufficient for the RapidRide upgrades for the preliminary opinion of cost.

Storm Drainage for Transit Improvements

The RapidRide station upgrades are assumed at this time to maintain the existing curbs and pavements, so no storm drainage work is assumed. As part of the final design effort one or more detention pond locations may need to be established.

Current Opinion of Cost

60% construction cost estimates were prepared for the City's portion of the Park Avenue N Extension and the N 7th Street Driveway project. Casne prepared a 60% construction cost estimate for the Boeing duct bank modifications. Table 4-2 lists the costs for each component, and the total project cost. The Park Avenue N Extension and 7th Street Driveway costs below include a 20% contingency. See Appendix A for the full estimates.

At this time, the Park Avenue N extension is anticipated to be split into three projects. The City of Renton will construct the improvements between Logan Avenue N / N Southport Drive and the BNSF railroad right-of-way. North of the railroad, SECO will construct the remainder of the Park Avenue N extension as a private street. Prior to the City's work, Boeing will contract to install the duct bank improvements that Casne has designed, and those construction costs will be reimbursed by City of Renton as part of the right-of-way negotiation with the Boeing Company.

Table 4-2. 60% Opinion of Construction Cost per Component.

Component	Cost (2018)
Park Avenue N Extension – City of Renton Portion	$3,116,000
Boeing Duct Bank Modification (Reimbursement to Boeing)	$960,000
N 7th Street Driveway	$134,000
Total Cost	**$4,210,000**

A preliminary opinion of cost was generated for the RapidRide station enhancements along N Southport Drive. That cost was a planning-level cost developed using 2017 prices forecasted to a 2019 construction year. It includes a 30% continency, as well as design and construction expenses. The planning-level cost for the enhancements is $130,000. See Appendix B for the full estimate.

REFERENCES.

City of Renton. *City of Renton Municipal Code.*

City of Renton. *Comprehensive Plan. Transportation Element.*

City of Renton. *Standard Details.*

King County Metro Transit. *Metro Transit Passenger Facility Standards. Rapid Ride Plans.*

Transportation Research Board. *2010 Highway Capacity Manual.*

Washington State Department of Transportation. *M 22-01: Design Manual (July 2017 revision).*

Washington State Department of Transportation. *M 41-10: Standard Specifications for Road, Bridge, and Municipal Construction (amended August 7, 2017).*

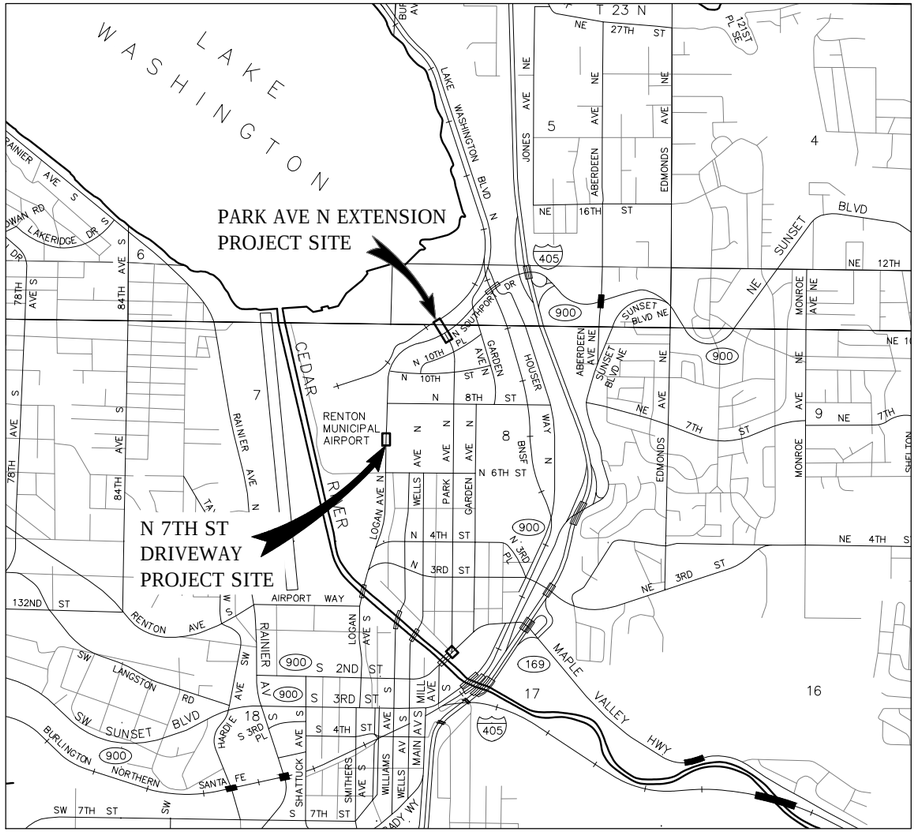
Washington State Department of Transportation. *Standard Plans.*

APPENDIX A

60% Submittal Park Avenue N Extension Design and Opinion of Cost

PARK AVENUE N EXTENSION

60% SUBMITTAL



VICINITY MAP

NOT TO SCALE

CONTACTS:

CITY OF RENTON PROJECT MANAGER	HEBÉ BERNARDO	(206) 430–7232
PERTEET PROJECT MANAGER	PETER DE BOLDT, PE	(206) 436–0515

CITY OFFICIALS:

MAYOR:

DENIS LAW

COUNCIL MEMBERS:

ED PRINCE, PRESIDENT
DON PERSSON, PRESIDENT PRO–TEM
RANDY CORMAN
RYAN McIRVIN
ARMONDO PAVONE
RUTH PÉREZ
CAROL ANN WITSCHI

APPROVED FOR BID

CITY OF RENTON _____ DATE _____

SHEET INDEX

SHEET TITLE	DRAWING #	SHEET #
PARK AVENUE N EXTENSION		
COVER, INDEX AND VICINITY MAP	CV1	1
LEGEND AND ABBREVIATIONS	G1	2
ALIGNMENT AND CONTROL PLAN	AL1	3
SITE PREPARATION PLAN	SP1	4
TYPICAL ROADWAY SECTIONS	RS1	5
ROADWAY PROFILE	RP1	6
PAVING AND GRADING PLAN	PV1	7
MISCELLANEOUS DETAILS	MD1–MD4	8–11
WALL PLAN, PROFILE AND DETAILS	WL1	12
DRAINAGE PLAN	DR1	13
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ILLUMINATION PLAN	IL1	18
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CONSTRUCTION SEQUENCING PLAN	CS1–CS3	27–29
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SITE PREPARATION PLAN	SP2	31
PAVING AND GRADING PLAN	PV2	32
PLANTING PLAN AND DETAILS	PL3	33

GENERAL NOTES

1. THE EXISTING TOPOGRAPHIC AND PHYSICAL FEATURES SHOWN ON THESE PLANS ARE BASED ON A COMBINATION OF FIELD SURVEY BY 1 ALLIANCE GEOMATICS AND RECONNAISSANCE BY PERTEET.
2. EXISTING CONDITIONS SHOWN ON THESE PLANS WERE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF PLAN PREPARATION. ACTUAL CONDITIONS MAY BE DIFFERENT, THE CONTRACTOR MAY ENCOUNTER VARIATIONS BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN. THESE VARIATIONS WILL NOT BE THE BASIS FOR A CLAIM OF EXTRA COMPENSATION.
3. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER, CITY OF RENTON OR PERTEET. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
4. UTILITY LOCATES FOR THIS PROJECT WERE PERFORMED BY APPLIED PROFESSIONAL SERVICES, (425) 954–8436.

CITY OF Renton

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PETER G. DE BOLDT STATE OF WASHINGTON 29359 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: NTS
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

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CITY OF RENTON
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PARK AVENUE N EXTENSION

COVER, INDEX AND VICINITY MAP

DATE: 11/19/18
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SHEET: 1 OF: 33

FILENAME: Nov 19, 2018 - 7:42am jorn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 GN.dwg Layout Name: CV

WATER SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
		CAP/PLUG
		COUPLING
		GUARD POST
		REDUCER
		THRUST BLOCKING
		WATER METER
		FIRE HYDRANT 2–NOZZLE
		FIRE HYDRANT 3–NOZZLE
		FLANGE/BLIND FL (FL) (BL FL)
		MECHANICAL JOINT (MJ)
		PUSH–ON/HUB
		THREAD
		AIR RELIEF VALVE
		BLOW–OFF VALVE
		BUTTERFLY VALVE
		CHECK VALVE
		GATE/GENERAL VALVE
		PLUG VALVE

GAS/POWER/TELEPHONE SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
		GAS METER
		GAS VALVE
		PAD MOUNTED TRANSFORMER
P	P	POWER VAULT
		TRANSMISSION TOWER
		UTILITY POLE
		UTILITY POLE ANCHOR
		TELEPHONE RISER
T	T	TELEPHONE VAULT

SURVEY SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
		ANGLE/CONTROL POINT
		BENCH MARK
		BLOCK CORNER
		IRON PIPE
		MONUMENT (IN CASE)
		MONUMENT (SURFACE)
		OWNERSHIP TIE
		SECTION CENTER
		SECTION CORNER
		QUARTER CORNER
		SIXTEENTH CORNER
		CLOSING CORNER
MC	MC	MEANDER CORNER
WC	WC	WITNESS CORNER
		SOIL BORING/POTHOLING
		SPOT ELEVATION
		TAX LOT/PARCEL NUMBER

SIGNALIZATION SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
	RR	BNSF POWER BUNGALOW
		EMERGENCY VEHICLE PRE–EMPTION DETECTOR
		VIDEO DETECTION CAMERA
		DIPOLE DETECTOR
		QUADRAPOLE DETECTOR
		ROUND LOOP DETECTOR
		PEDESTRIAN DETECTOR
		INDICATOR LIGHT
		OPTICOM SENSOR
		OPTICOM SENSOR W/ INDICATOR LIGHTS
		FLASHING WARING SYSTEM
		JUNCTION BOXES (TYPE I, II, VIII)
		PEDESTRIAN PUSHBUTTON POST W/ PUSHBUTTON
		PEDESTRIAN SIGNAL HEAD
		SIGNAL POLE NOTE
		R/R CROSSING GATE – ROADWAY
		R/R CROSSING GATE – SIDEWALK
		SIGNAL CONTROLLER
		SERVICE CABINET
		STREET LIGHT ASSEMBLY
		TRAFFIC SIGN–BRIDGE
		TRAFFIC SIGN–CANTILEVERED
		TRAFFIC SIGN ON SIGNAL POLE
		TRAFFIC SIGNAL POLE
		TRAFFIC SIGNAL POLE W/ LUMINAIRE
		TRAFFIC SIGNAL SUPPORT POLE
		VEHICLE SIGNAL HEAD
		VEHICLE SIGNAL HEAD W/ ARROW INDICATOR
		WIRE NOTE

SANITARY/STORM SEWER SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
		SANITARY SEWER CLEAN OUT
		SANITARY SEWER MANHOLE
		STORM DRAIN CATCH BASIN (TYPE 1)
		STORM DRAIN CULVERT
		STORM DRAIN CATCH BASIN (TYPE 2)
		STORM DRAIN MANHOLE
		ENERGY DISSIPATOR
		OVERFLOW STRUCTURE

CHANNELIZATION SYMBOLS

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
		BIKE PATH
		ACCESSIBILITY SYMBOL
		H.O.V. LANE SYMBOL
ONLY	ONLY	ONLY
RR	RR	RAILROAD CROSSING
SCHOOL	SCHOOL	SCHOOL
STOP	STOP	STOP
		STRAIGHT ARROW
		LT.RT.STR. ARROW
		LEFT–RIGHT ARROW
		2–WAY LEFT TURN
		LEFT TURN ARROW
		RIGHT TURN ARROW
		LEFT–STRAIGHT ARROW
		RIGHT–STRAIGHT ARROW
		LANE MARKER TYPE I
		LANE MARKER TYPE II

SURFACE FEATURES/LANDSCAPING

SYMBOL EXIST.	SYMBOL PROP.	DESCRIPTION
BUS	BUS	BUS STOP
		EMBANKMENT
		MAIL BOX
		RIP RAP
		ROCKERY
		SHRUB
		SIGN
		TREE (CONIFER)
		TREE (DECIDUOUS)
		FENCE POST
		CURB RAMP
		YARD LIGHT

NORTH ARROW

ABBREVIATIONS

ADS	ADVANCE DRAINAGE SYSTEMS
ALT	ALTERNATE
AP	ANGLE POINT
APPR	APPROVED
APPROX	APPROXIMATELY
ASPH	ASPHALT
AVE	AVENUE
AVG	AVERAGE
BM	BENCH MARK
BOT	BOTTOM
BTWN	BETWEEN
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
C/L, ℄	CENTERLINE
CL	CLASS
CB	CATCH BASIN
CG	CURB & GUTTER
COM	COMMON
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUED / CONTINOUS
CSTC	CRUSHED SURFACING TOP COURSE
DET	DETAIL
DI	DUCTILE IRON
DIAM	DIAMETER
DR	DRIVE
DWG	DRAWING
E	EAST
EA	EACH
EL	ELEVATION
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EVP	EMERGENCY VEHICLE PRE–EMPTION
EX, EXIST	EXISTING
FH	FIRE HYDRANT
FT	FEET/FOOT
G	GAS LINE
GE	GROUND ELEVATION
GV	GAS VALVE
HMA	HOT MIX ASPHALT
HORIZ, H	HORIZONTAL
HT	HEIGHT
IE	INVERT ELEVATION
IN	INCH/INCHES
INCL	INCLUDING
INT	INTERSECTION
K	RATE OF CURVATURE
L	LENGTH
LB(S)	POUND(S)
LF	LINEAL FOOT/FEET
LT	LEFT
MAG	MAG NAIL
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MIC	MONUMENT IN CASE
MIN	MINIMUM
MON	MONUMENT
MSE	MECHANICALLY STABLIZIED EARTH
MSP	SPIKE
MSX	SCRIBED "X"
N	NORTH
NA	NOT APPLICABLE
NO.	NUMBER
NTS	NOT TO SCALE
OFF	OFFSET
OPP	OPPOSITE
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PG	PERFORMANCE GRADE
PRC	POINT OF REVERSE CURVE
PROP	PROPOSED
PT	POINT OF TANGENT
PVC	POLYVINYL CHRLORIDE / POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENT
R	RADIUS
R/W, ROW	RIGHT OF WAY
RGS	RIGID GALVANIZED STEEL
REF	REFERENCE
RR, R/R	RAILROAD
RT	RIGHT
RTM	RUBBER TILE MAT
S	SOUTH
S/W	SIDEWALK
SD	STORM DRAIN
SS	SANITARY SEWER
ST	STREET
STA	STATION
STD	STANDARD
VDC	VIDEO DETECTION CAMERA
VERT, V	VERTICAL
W	WEST, WATER
W/	WITH
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

DATUM

LINETYPES

LINETYPE	DESCRIPTION
	SURFACE FEATURES:
	EXISTING BUILDING LINE
	PROPOSED BUILDING LINE
	EXISTING DITCH
	PROPOSED DITCH
	EXISTING CURB/PAVEMENT/SIDEWALK
	PROPOSED CURB/PAVEMENT/SIDEWALK
	EXISTING FENCE LINE
	PROPOSED FENCE LINE
	EXISTING GRAVEL
	EXISTING GUARDRAIL
	PROPOSED GUARDRAIL
	LAKE/POND
	WETLAND/SWAMP PERIMETER
	RAILROAD
	EXISTING RETAINING WALL
	PROPOSED RETAINING WALL
	RIVERBANK/SHORELINE
	VEGETATION LINE
	SURVEY:
	EXISTING CENTERLINE
	PROPOSED CENTERLINE
	EXISTING CONTOUR (INTERMEDIATE)
	EXISTING CONTOUR (INDEX)
	PROPOSED CONTOUR (INTERMEDIATE)
	PROPOSED CONTOUR (INDEX)
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING PROPERTY LINE
	EXISTING RIGHT OF WAY CENTERLINE
	EXISTING RIGHT OF WAY
	EXISTING RIGHT OF WAY (USED)
	PROPOSED RIGHT OF WAY
	SECTION LINE
	QUARTER SECTION LINE
	16TH SECTION LINE
	UTILITIES (EXISTING)
G	EXISTING GAS LINE
OP	EXISTING AERIAL POWER
BP	EXISTING BURIED POWER
SD	EXISTING STORM DRAIN
FM	EXISTING FORCE MAIN
SS	EXISTING SANITARY SEWER
OT	EXISTING AERIAL TELEPHONE
BT	EXISTING BURIED TELEPHONE
W	EXISTING WATER LINE
	UTILITIES (PROPOSED)
G	PROPOSED GAS LINE
OP	PROPOSED AERIAL POWER
BP	PROPOSED BURIED POWER
SD	PROPOSED STORM DRAIN
FM	PROPOSED FORCE MAIN
SS	PROPOSED SANITARY SEWER
OT	PROPOSED AERIAL TELEPHONE
BT	PROPOSED BURIED TELEPHONE
W	PROPOSED WATER LINE
	CUSTOM:
CUT	CUT LINE
FILL	FILL LINE
	SILT FENCE
	CONSTRUCTION FENCE

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MARCUS R. ELLIOTT — STATE OF WASHINGTON — 46716 — REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: NTS
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

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DATUM

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Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

LEGEND AND ABBREVIATIONS

DATE: 11/19/18
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SHEET: 2 OF: 33

FILENAME: Nov 19, 2018 - 7:42am jerri.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 GN.dwg Layout Name: Legend

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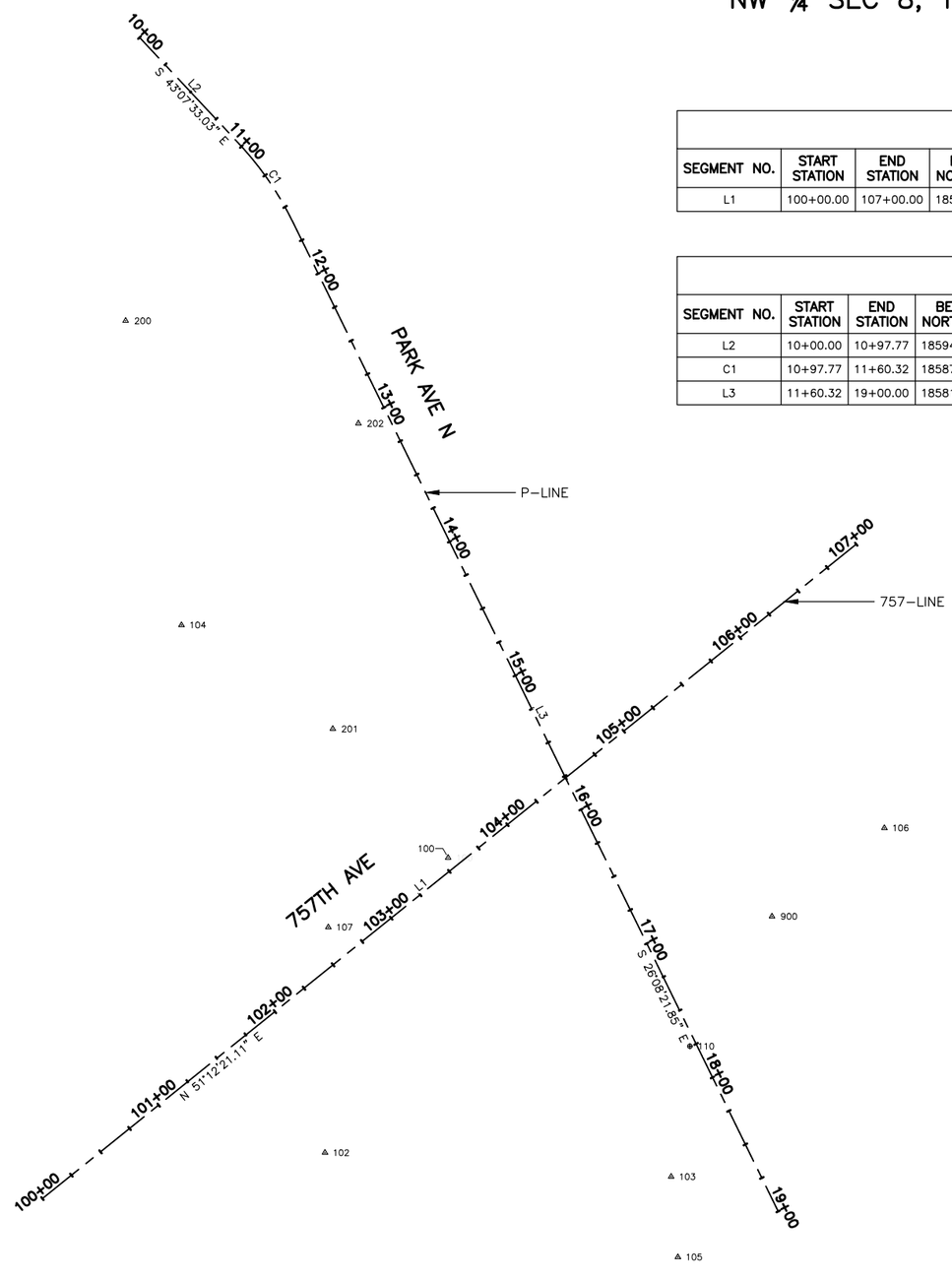

757–LINE											
SEGMENT NO.	START STATION	END STATION	BEGIN NORTHING	BEGIN EASTING	END NORTHING	END EASTING	BEARING	DELTA	RADIUS	TANGENT	LENGTH
L1	100+00.00	107+00.00	185163.982	1301477.977	185602.549	1302023.559	N51°12'21.11"E				700.000'

P–LINE											
SEGMENT NO.	START STATION	END STATION	BEGIN NORTHING	BEGIN EASTING	END NORTHING	END EASTING	BEARING	DELTA	RADIUS	TANGENT	LENGTH
L2	10+00.00	10+97.77	185942.080	1301543.148	185870.725	1301609.981	S43°07'33.03"E				97.766'
C1	10+97.77	11+60.32	185870.725	1301609.981	185819.442	1301645.402		16°59'11"	211.00'	31.51'	62.555'
L3	11+60.32	19+00.00	185819.442	1301645.402	185155.414	1301971.273	S26°08'21.85"E				739.679'

1–ALLIANCE CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	185392.365	1301749.990	28.90	MAG
102	185194.743	1301667.369	30.99	MAG
103	185178.663	1301899.459	27.80	MSX
104	185548.363	1301571.249	22.23	MSP
105	185124.788	1301903.980	27.76	MAG
106	185412.363	1302042.403	29.81	MAG
107	185345.860	1301669.625	31.73	MAG
110	185266.079	1301912.065	28.60	MIC
111	185507.063	1302212.710	27.99	MIC
200	185752.230	1301533.843	22.40	MAG
201	185478.738	1301672.633	23.23	MAG
202	185683.465	1301689.778	22.96	MAG
900	185353.124	1301967.080	28.91	MSX
901	185564.531	1302338.609	28.17	MSX

HORIZONTAL DATUM

CITY OF RENTON

BASIS OF BEARING

N 88°33'18" E BETWEEN FOUND CITY OF RENTON PUBLISHED MONUMENT NOS. 57 & 71

VERTICAL DATUM

CITY OF RENTON (NAVD88)

PROJECT BENCHMARK

CITY OF RENTON BENCHMARK NO. 1847, ELEV=37.84 FEET

NOTES

1. FIELD WORK FOR THIS SURVEY WAS PERFORMED BY 1 ALLIANCE GEOMATICS ON FEBRUARY 21–23, 26–27 AND MARCH 3, 8 & 9, 2018 . MONUMENTS AND CONTROL POINTS SHOWN HEREIN WERE VISITED AND/OR SET IN FEBRUARY, 2018.
2. ALL DISTANCES SHOWN ON THIS SURVEY ARE GROUND DISTANCES BASED UPON THE U.S. SURVEY FOOT.
3. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREIN ARE APPROXIMATE LOCATIONS ONLY BASED ON THE FIELD LOCATION OF UTILITY LOCATE PAINT MARKS, PHYSICAL FEATURES VISIBLE ON OR ABOVE THE GROUND SURFACE AND PUBLIC RECORDS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ANY AND ALL UNDERGROUND UTILITIES BEFORE BEGINNING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AN ALL DAMAGES ARISING OUT OF HIS/HER FAILURE TO EXACTLY LOCATE AND PROTECT ALL EXISTING UTILITY FACILITIES.
4. UTILITY LOCATES FOR THIS PROJECT WERE PERFORMED BY APPLIED PROFESSIONAL SERVICES, (425) 954–8436.
5. THIS SURVEY WAS PERFORMED USING A LIECA MS50 ONE–SECOND MULTISTATION AND GS14 GNSS RTK ROVER. CLOSURE RATIOS OF THE TRAVERSE MEET OR EXCEEDED THOSE SPECIFIED IN WAC 332–130–090. ALL MEASURING INSTRUMENTS AND EQUIPMENT ARE MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

SCALE
50 0 50 100
FEET

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PETER G. DE BOLDT STATE OF WASHINGTON 25359 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: 1"=50'
ONE INCH AT FULL SCALE. IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
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CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

ALIGNMENT AND CONTROL PLAN

DATE: 11/19/18
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FILENAME: Nov 19, 2018 - 7:43am jerri.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 AL.dwg Layout Name: AL1

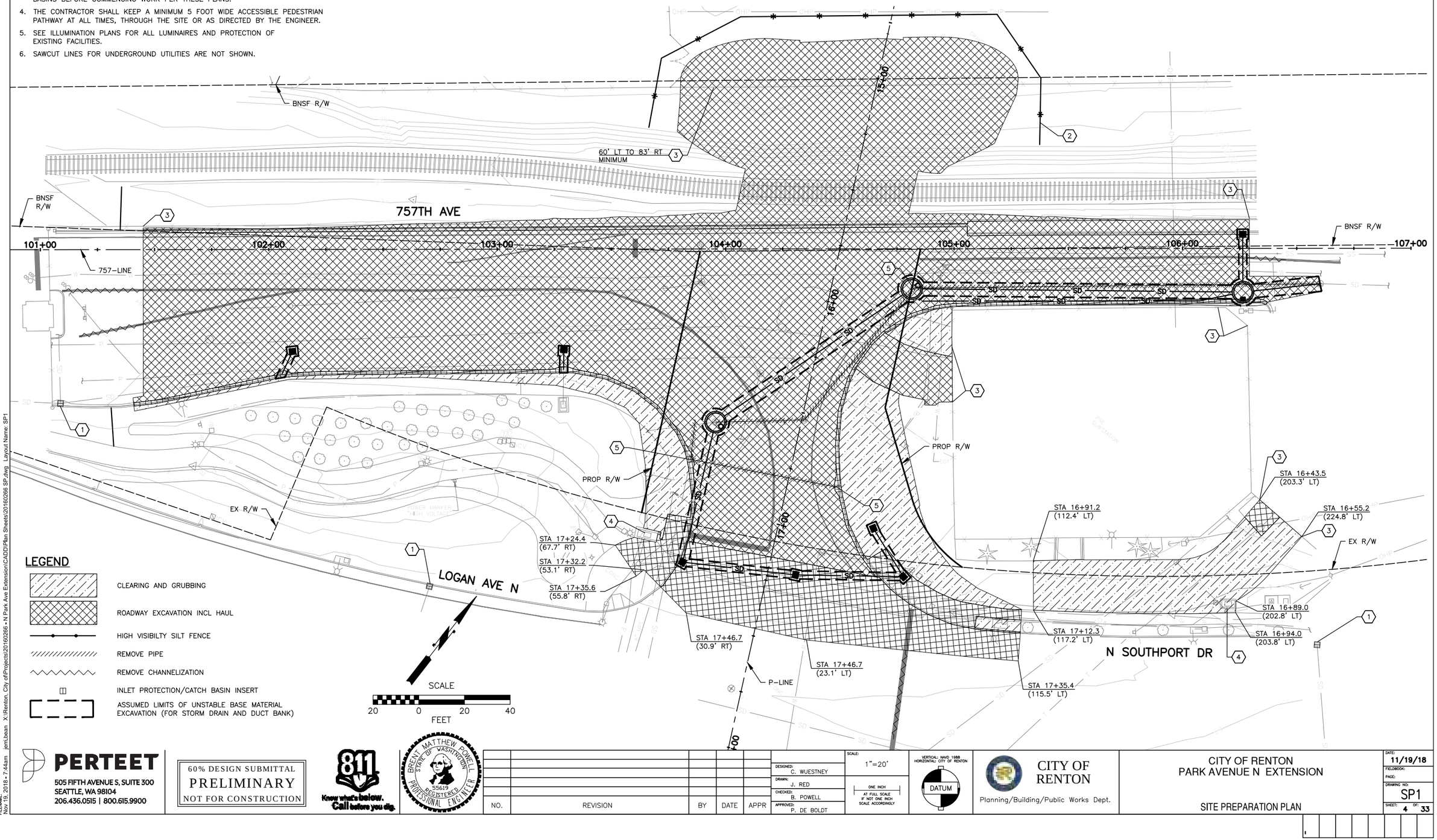
NW ¼ SEC 8, T 23 N, R 5 E, W.M.

GENERAL NOTES:

1. APPROXIMATE CLEARING AND GRUBBING LIMITS ARE SHOWN ON THE PLAN. ACTUAL CLEARING AND GRUBBING LIMITS SHALL BE STAKED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. TREES WITHIN THE CLEARING AND GRUBBING LIMITS SHALL BE PROTECTED OR REMOVED AS SHOWN ON THE PLANS. TREE REMOVAL IS COVERED UNDER THE BID ITEM CLEARING AND GRUBBING.
2. TREES AND THEIR ROOT STRUCTURES SHALL BE REMOVED IN A MANNER THAT IS NOT DESTRUCTIVE TO THE TREES THAT ARE TO REMAIN.
3. STORM DRAIN INLET PROTECTION OR CATCH BASIN INSERTS SHALL BE INSTALLED IN ALL NEW CATCH BASINS AT THE TIME OF INSTALLATION AND IN ALL EXISTING CATCH BASINS BEFORE COMMENCING WORK PER THESE PLANS.
4. THE CONTRACTOR SHALL KEEP A MINIMUM 5 FOOT WIDE ACCESSIBLE PEDESTRIAN PATHWAY AT ALL TIMES, THROUGH THE SITE OR AS DIRECTED BY THE ENGINEER.
5. SEE ILLUMINATION PLANS FOR ALL LUMINAIRES AND PROTECTION OF EXISTING FACILITIES.
6. SAWCUT LINES FOR UNDERGROUND UTILITIES ARE NOT SHOWN.
7. REMOVE EXISTING IRRIGATION HEADS, VALVES, AND ALL OTHER RELATED IRRIGATION EQUIPMENT AS NECESSARY FOR CONSTRUCTION WORK. CAP EXISTING IRRIGATION LINES AT RIGHT-OF-WAY LINE.
8. ALL EXISTING RAISED PAVEMENT MARKERS, PAINTED LINES, AND PAVING MARKING SYMBOLS IN CONFLICT WITH THE CHANNELIZATION AND SIGNING PLAN SHALL BE REMOVED.
9. EXISTING PIPES SHOWN AS TO BE REMOVED ARE TO BE ABANDONED IN PLACE OR REMOVED AS NEEDED IF IN CONFLICT WITH NEW UTILITIES. REMOVAL OF EXISTING PIPES IS INCIDENTAL TO OTHER BID ITEMS.

CONSTRUCTION NOTES

1. INSTALL CATCH BASIN INSERT PER CITY OF RENTON STD PLAN 216.30 OR BLOCK AND GRAVEL CURB INLET PROTECTION PER CITY OF RENTON STD PLAN 216.40.
2. INSTALL SILT FENCE PER CITY OF RENTON STD PLAN 214.00.
3. REMOVE BOEING OR PSE SECURITY FENCE TO NEAREST POST BEYOND REMOVAL LIMITS.
4. PROTECT EXISTING ELECTRICAL VAULT.
5. REMOVE EXISTING DRAINAGE STRUCTURES.



LEGEND

- CLEARING AND GRUBBING
- ROADWAY EXCAVATION INCL HAUL
- HIGH VISIBILTY SILT FENCE
- REMOVE PIPE
- REMOVE CHANNELIZATION
- INLET PROTECTION/CATCH BASIN INSERT
- ASSUMED LIMITS OF UNSTABLE BASE MATERIAL EXCAVATION (FOR STORM DRAIN AND DUCT BANK)

PERTEET
505 FIFTH AVENUE S, SUITE 300
SEATTLE, WA 98104
206.436.0515 | 800.615.9900

60% DESIGN SUBMITTAL
PRELIMINARY
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

BRENT MATTHEW POWELL STATE OF WASHINGTON 55619 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: C. WUESTNEY
DRAWN: J. RED
CHECKED: B. POWELL
APPROVED: P. DE BOLDT

SCALE: 1"=20'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

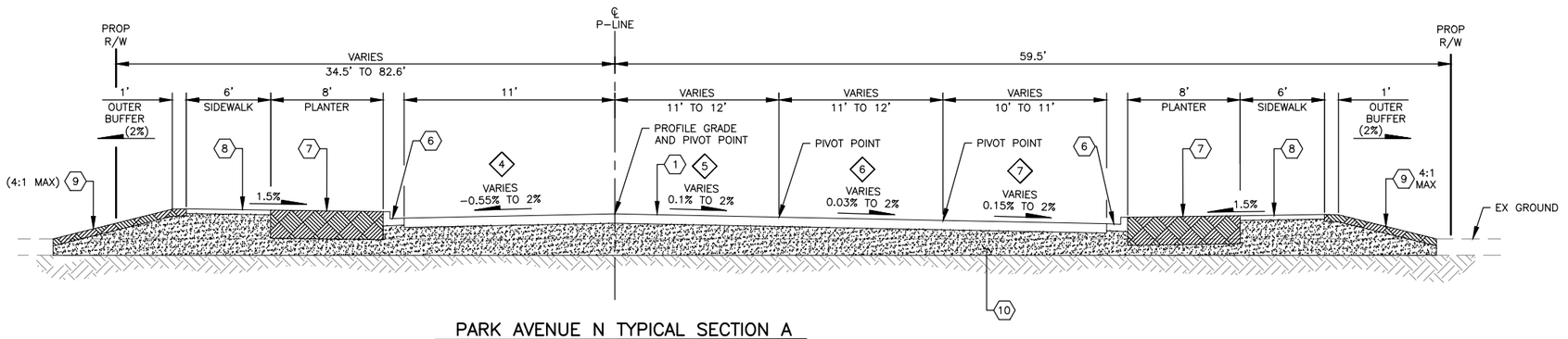
CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

SITE PREPARATION PLAN

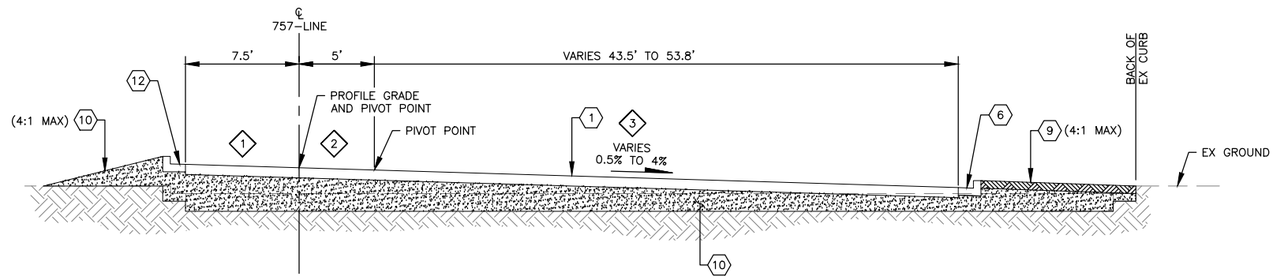
DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: SP1
SHEET: 4 OF: 33

FILENAME: Nov 19, 2018 - 7:44am jenn.Lasan X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 SP.dwg Layout Name: SP1



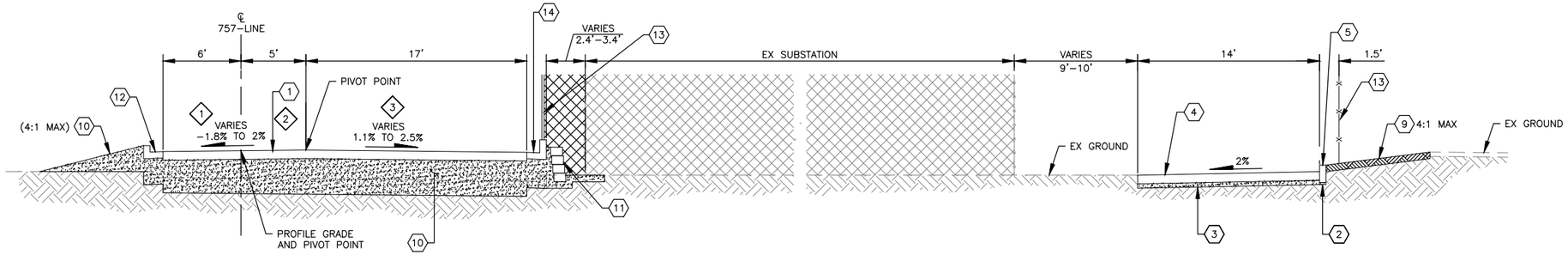
PARK AVENUE N TYPICAL SECTION A

P–LINE
15+00.22 TO 17+46.67



757TH AVENUE TYPICAL SECTION A

757–LINE
101+45.00 TO 104+25.00



757TH AVENUE TYPICAL SECTION B

757–LINE
104+25.00 TO 106+29.28

CONSTRUCTION NOTES

1. 8" HMA CL 1/2" PG 64–22
2. 2" CRUSHED SURFACING TOP COURSE
3. 4" CRUSHED SURFACING TOP COURSE
4. 6" HMA CL 1/2" PG 64–22
5. CEMENT CONCRETE TRAFFIC CURB PER CITY OF RENTON STD PLAN 101
6. CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER CITY OF RENTON STD PLAN 101
7. PLANTER STRIP 2" MULCH OVER 24" TOPSOIL TYPE A
8. CEMENT CONCRETE SIDEWALK PER CITY OF RENTON STD PLAN 102
9. SEEDED LAWN INSTALLATION OVER 6" TOPSOIL TYPE A
10. CRUSHED SURFACING TOP COURSE
11. MODULAR BLOCK WALL PER WL DRAWINGS
12. CEMENT CONCRETE TRAFFIC CURB AND GUTTER WITH VARIABLE SLOPE PER DETAIL DWG MD1
13. BOEING SECURITY FENCE PER MD DRAWINGS
14. 12–INCH CEMENT CONCRETE CURB AND GUTTER WITH ANCHOR–BOLTED BOEING SECURITY FENCE PER WL DRAWINGS

LEGEND

- TOPSOIL TYPE A
- CRUSHED SURFACING TOP COURSE
- EXISTING SUBGRADE
- NEW BOEING SECURITY FENCE
- EXISTING BOEING SECURITY FENCE
- (X) LANE NO. (SEE SUPERELEVATION TABLE ON DWG RP1)

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BRENT MATTHEW POWELL STATE OF WASHINGTON 53619 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: NTS
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

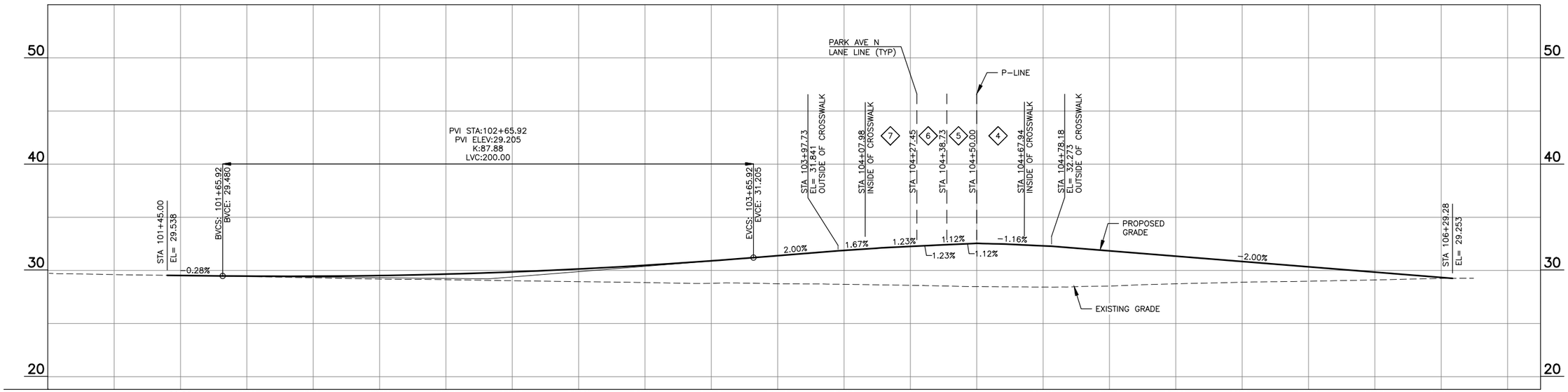
CITY OF RENTON
PARK AVENUE N EXTENSION

TYPICAL ROADWAY SECTIONS

DATE: 11/19/2018
FIELDBOOK:
PAGE:
DRAWING NO: RS1
SHEET: 5 OF 33

FILENAME: Nov 19, 2018 - 7:45am jerri.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 RS.dwg Layout Name: RS1

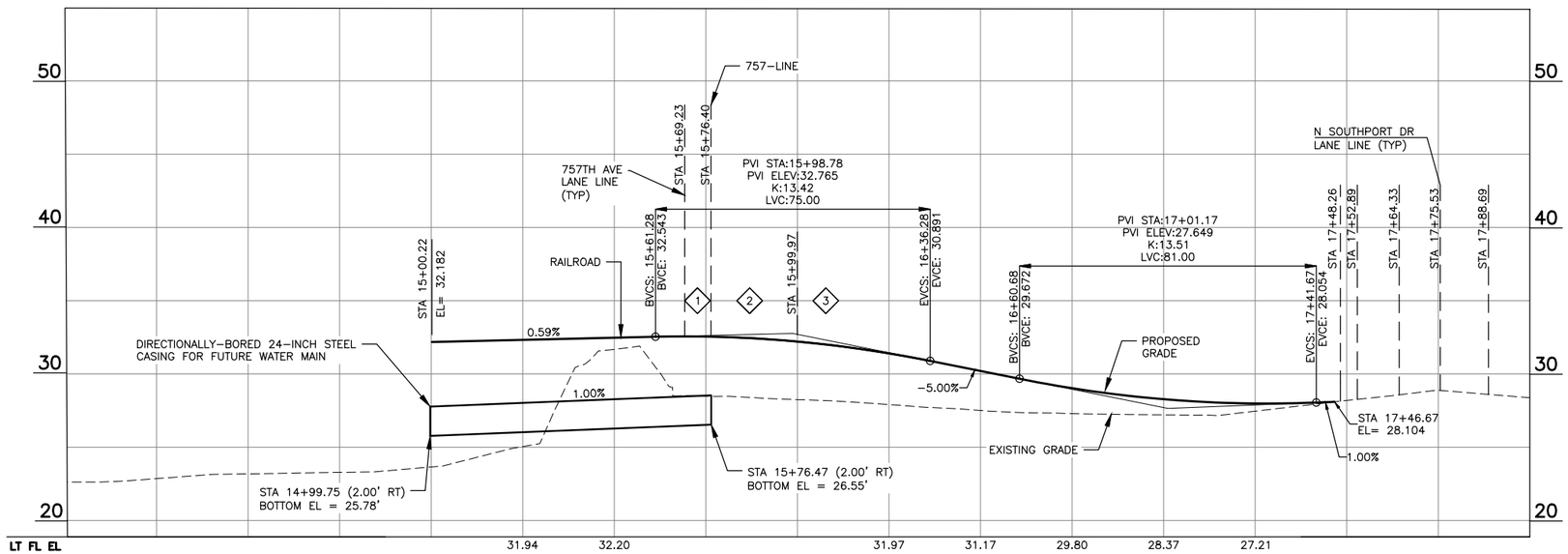
757–LINE



LT FL EL	29.58	29.58	29.59	29.68	29.82	30.03	30.30	30.64	31.03	31.48	31.95			32.40	31.93	31.33	30.72	30.20	29.70	29.24
CL EL	29.52	29.46	29.45	29.52	29.65	29.86	30.13	30.48	30.90	31.39	31.88	32.26	32.55	32.31	31.84	31.34	30.84	30.34	29.84	29.34
RT FL EL	28.77	28.69	28.64	28.63	28.74	28.94	29.22	29.56	29.89	29.96				31.89	31.39	30.97	30.54	30.06	29.56	28.97

101+00 102+00 103+00 104+00 105+00 106+00

P–LINE



LT FL EL	31.94	32.20		31.97	31.17	29.80	28.37	27.21
CL EL		32.33	32.48	32.55	32.21	31.41	30.21	29.03	28.28
RT FL EL		31.92					29.79	28.77	27.89

14+00 15+00 16+00 17+00 18+00

SUPERELEVATION TABLE

STATION	LANE NO. AND CROSS SLOPE		
757–LINE	◇1	◇2	◇3
101+45.01	0.40%	−0.40%	−1.03%
101+60.56	1.25%	−1.25%	−1.25%
102+29.97	2.00%	−2.00%	−2.00%
103+17.43			
103+88.00	0.88%	−0.88%	−2.67%
103+97.73	0.72%	−0.72%	−2.39%
SEE NOTE 2			
104+73.25	1.80%	−1.80%	−1.29%
104+79.53	1.33%	−1.47%	−2.00%
104+99.53		−1.33%	
105+54.53	−2.00%	−2.00%	
106+15.46			
106+29.28	−1.07%	−0.37%	−2.27%

℄

SUPERELEVATION TABLE

STATION	LANE NO. AND CROSS SLOPE			
P–LINE	◇4	◇5	◇6	◇7
15+00.22	−2.00%	−2.00%	−2.00%	−2.00%
15+08.00	−2.00%	−2.00%	−2.00%	−2.00%
15+46.50	0.55%	−0.10%	−0.03%	−0.15%
15+60.52				
15+76.57	−1.00%	−1.00%	−1.00%	−1.00%
15+96.70				
16+17.51	−2.00%	−1.00%	−1.00%	−1.00%
17+00.35				
17+43.98	0.35%	−0.54%	−0.45%	−0.39%
17+46.67	0.49%	−0.49%	−0.40%	−0.35%

℄

NOTES

1. LANES ARE BOUNDED BY GRADE BREAKS SHOWN ON PV1, 757–LINE, AND P–LINE.
2. P–LINE LANES GOVERN GRADES THROUGH INTERSECTION OF PARK AVE N AND 757TH AVE.
3. NEGATIVE CROSS SLOPES FLOW AWAY FROM CENTERLINE. POSITIVE CROSS SLOPES FLOW TOWARD CENTERLINE.
4. TRANSITION CROSS SLOPES LINEARLY BETWEEN STATIONS PROVIDED.

HORIZONTAL SCALE
20 0 20 40
FEET

VERTICAL SCALE
5 0 5 10
FEET

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BRENT MATTHEW POWELL
STATE OF WASHINGTON
55619
REGISTERED
PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: H 1"=20' V 1"=5'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

ROADWAY PROFILE

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: RP1
SHEET: 6 OF: 33

FILENAME: Nov 19, 2018 - 8:43am jenn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 PR.dwg Layout Name: RP1

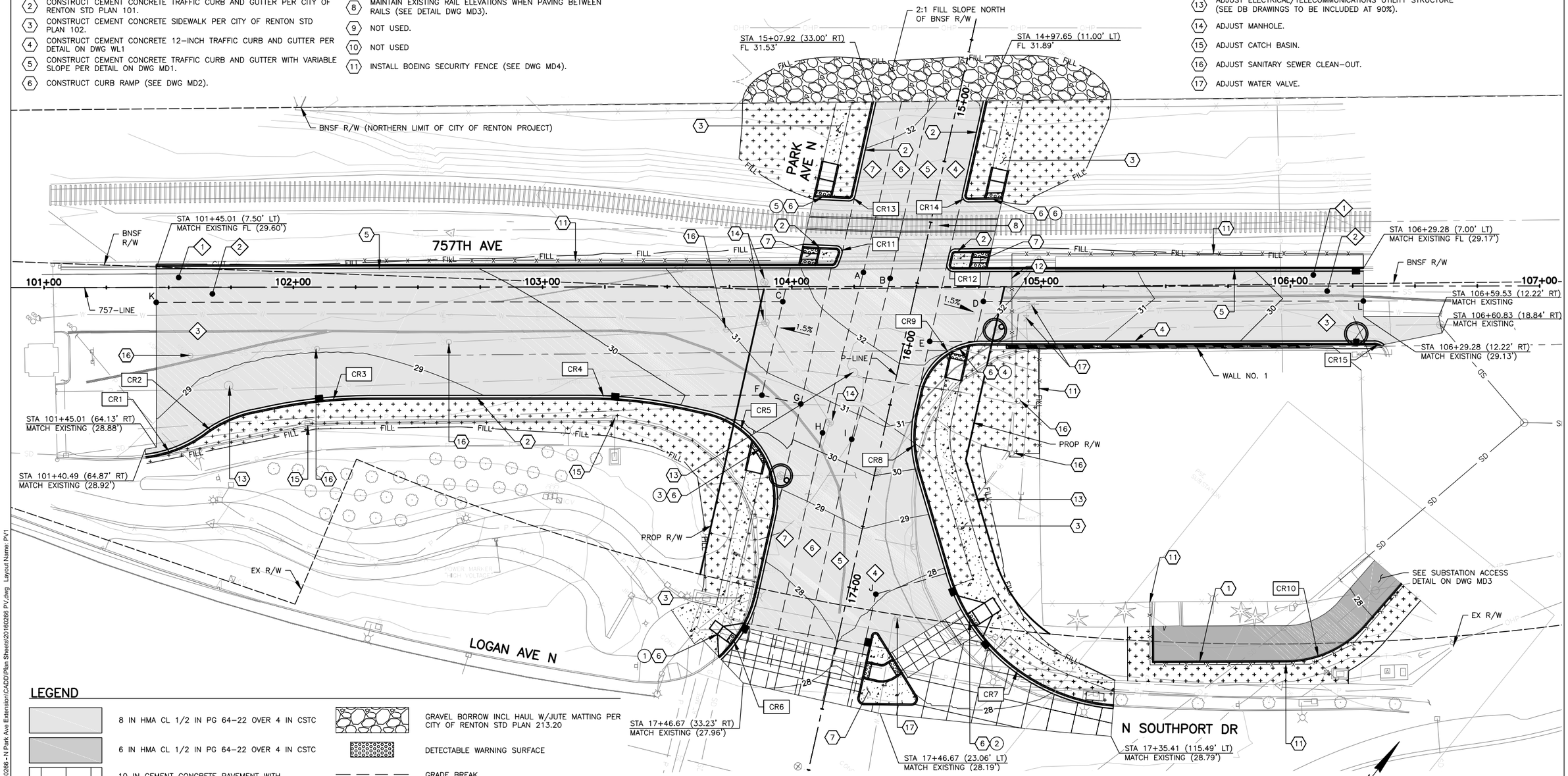
NW ¼ SEC 8, T 23 N, R 5 E, W.M.

CONSTRUCTION NOTES

1. CONSTRUCT CEMENT CONCRETE TRAFFIC CURB PER CITY OF RENTON STD PLAN 101.
2. CONSTRUCT CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER CITY OF RENTON STD PLAN 101.
3. CONSTRUCT CEMENT CONCRETE SIDEWALK PER CITY OF RENTON STD PLAN 102.
4. CONSTRUCT CEMENT CONCRETE 12–INCH TRAFFIC CURB AND GUTTER PER DETAIL ON DWG WL1
5. CONSTRUCT CEMENT CONCRETE TRAFFIC CURB AND GUTTER WITH VARIABLE SLOPE PER DETAIL ON DWG MD1.
6. CONSTRUCT CURB RAMP (SEE DWG MD2).
7. CONSTRUCT ISLAND (SEE MD DRAWINGS).
8. MAINTAIN EXISTING RAIL ELEVATIONS WHEN PAVING BETWEEN RAILS (SEE DETAIL DWG MD3).
9. NOT USED.
10. NOT USED
11. INSTALL BOEING SECURITY FENCE (SEE DWG MD4).

CONSTRUCTION NOTES (CONTINUED)

12. INSTALL BOEING SECURITY GATE. (SEE DWG MD4).
13. ADJUST ELECTRICAL/TELECOMMUNICATIONS UTILITY STRUCTURE (SEE DB DRAWINGS TO BE INCLUDED AT 90%).
14. ADJUST MANHOLE.
15. ADJUST CATCH BASIN.
16. ADJUST SANITARY SEWER CLEAN–OUT.
17. ADJUST WATER VALVE.



LEGEND

- 8 IN HMA CL 1/2 IN PG 64–22 OVER 4 IN CSTC
- 6 IN HMA CL 1/2 IN PG 64–22 OVER 4 IN CSTC
- 10 IN CEMENT CONCRETE PAVEMENT WITH DECORATIVE INTERSECTION TREATMENT OVER 6 IN CSTC
- 10 IN CEMENT CONCRETE PAVEMENT WITH DECORATIVE CROSSWALK TREATMENT OVER 6 IN CSTC
- CEMENT CONCRETE SIDEWALK
- LANDSCAPE (SEE PL DRAWINGS)
- GRAVEL BORROW INCL HAUL W/JUTE MATTING PER CITY OF RENTON STD PLAN 213.20
- DETECTABLE WARNING SURFACE
- GRADE BREAK
- FILL WALL
- BOEING SECURITY FENCE
- CRX — CURB RETURN (SEE TABLES ON MD DRAWINGS)
- (X) — CURB RAMP NO. (SEE DWG MD2)
- X — LANE NO. (SEE SUPERELEVATION TABLE ON DWG RP1)

CRITICAL GRADE BREAK POINTS TABLE

POINT	STATION (OFFSET)	ELEVATION	NOTES	POINT	STATION (OFFSET)	ELEVATION	NOTES
A	15+75.49 (22.00' RT)	32.35	GRADE BREAK AP	G	16+32.43 (35.00' RT)	30.73	
B	15+75.49 (11.00' RT)	32.45	GRADE BREAK AP	H	16+41.85 (24.00' RT)	30.37	GRADE BREAK AP
C	103+96.61 (5.00' RT)	31.79		I	16+41.85 (12.00' RT)	30.49	GRADE BREAK AP
D	104+77.06 (5.00' RT)	32.21		J	17+00.35 (11.00' LT)	28.05	GRADE BREAK AP
E	15+96.70 (10.00' LT)	32.22		K	101+45.01 (5.00' RT)	29.47	MATCH EXISTING
F	16+32.43 (51.00' RT)	30.48	GRADE BREAK AP	L	106+29.28 (5.00' RT)	29.27	MATCH EXISTING

SCALE
20 0 20 40
FEET

PERTEET
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BRENT MATTHEW POWELL
STATE OF WASHINGTON
55619
REGISTERED
PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT
SCALE: 1"=20'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY
VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

PAVING AND GRADING PLAN

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: PV1
SHEET: 7 OF 33

FILENAME: Nov 19, 2018 - 7:47am jerri.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 PV.dwg Layout Name: PV1

CR1 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 101+40.83 (67.85' RT)	FLOW LINE ELEVATIONS
Δ = 29° 36' 8.28"	PC = 28.84'
R = 50.00'	1/4 = 28.79'
L = 25.83'	1/2 = 28.74'
T = 13.21'	3/4 = 28.70'
PRC = 101+64.62 (58.55' RT)	PRC = 28.69'
CENTER RADIUS – STA 101+35.12 (18.18' RT)	

CR2 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PRC = 101+64.62 (58.55' RT)	FLOW LINE ELEVATIONS
Δ = 24° 30' 38.16"	PRC = 28.69'
R = 50.00'	1/4 = 28.69'
L = 21.39'	1/2 = 28.68'
T = 10.86'	3/4 = 28.68'
PT = 101+84.03 (49.94' RT)	PT = 28.66'
CENTER RADIUS – STA 101+94.13 (98.91' RT)	

CR3 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 101+91.29 (48.45' RT)	FLOW LINE ELEVATIONS
Δ = 11° 39' 2.88"	PC = 28.65'
R = 191.50'	1/4 = 28.63'
L = 38.94'	1/2 = 28.62'
T = 19.54'	3/4 = 28.62'
PT = 102+29.97 (44.50' RT)	PT = 28.62'
CENTER RADIUS – STA 102+29.97 (236.00' RT)	

CR4 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 103+17.43 (44.50' RT)	FLOW LINE ELEVATIONS
Δ = 12° 39' 16.92"	PC = 29.45'
R = 185.88'	1/4 = 29.58'
L = 41.06'	1/2 = 29.72'
T = 20.61'	3/4 = 29.86'
PT = 103+58.15 (49.02' RT)	PT = 29.99'
CENTER RADIUS – STA 18+30.23 (78.88' RT)	

CR5 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 103+65.84 (50.74' RT)	FLOW LINE ELEVATIONS
Δ = 90° 0' 0.00"	PC = 30.10'
R = 35.00'	1/4 = 29.88'
L = 54.98'	1/2 = 29.67'
T = 35.00'	3/4 = 29.39'
PT = 16+79.35 (36.00' RT)	PT = 28.47'
CENTER RADIUS – STA 16+79.35 (71.00' RT)	

CR6 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 17+10.79 (36.00' RT)	FLOW LINE ELEVATIONS
Δ = 34° 12' 54.00"	PC = 27.74'
R = 50.00'	1/4 = 27.56'
L = 29.86'	1/2 = 27.45'
T = 15.39'	3/4 = 27.53'
PCC = 17+38.90 (44.65' RT)	PCC = 27.71'
CENTER RADIUS – STA 17+10.79 (86.00' RT)	

CR7 – CURB RETURN DATA

HORIZONTAL			VERTICAL		
PC	=	16+85.58 (37.57' LT)	FLOW LINE ELEVATIONS		
Δ	=	69° 5' 29.04"	PC	=	27.87'
R	=	75.00'	1/4	=	27.10'
L	=	90.44'	1/2	=	27.16'
T	=	51.63'	3/4	=	28.07'
PT	=	17+23.39 (113.77' LT)	PT	=	28.60'
CENTER RADIUS – STA 16+49.14 (103.13' LT)					

CR8 – CURB RETURN DATA

HORIZONTAL			VERTICAL		
PC	=	16+24.81 (11.00' LT)	FLOW LINE ELEVATIONS		
Δ	=	29° 3' 50.76"	PC	=	31.17'
R	=	50.00'	1/4	=	30.87'
L	=	25.36'	1/2	=	30.54'
T	=	12.96'	3/4	=	30.20'
PT	=	16+49.10 (17.30' LT)	PT	=	29.85'
CENTER RADIUS – STA 16+24.81 (61.00' LT)					

CR9 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 15+93.12 (30.52' LT)	FLOW LINE ELEVATIONS
Δ = 77° 20' 43.08"	PC = 31.87'
R = 25.00'	1/4 = 31.98'
L = 33.75'	1/2 = 31.94'
T = 20.01'	3/4 = 31.76'
PT = 16+17.51 (11.00' LT)	PT = 31.46'
CENTER RADIUS – STA 16+17.51 (36.00' LT)	

CR10 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 105+98.20 (150.16' RT)	FLOW LINE ELEVATIONS
Δ = 48° 40' 36.84"	PC = 28.52'
R = 42.00'	1/4 = 28.61'
L = 35.68'	1/2 = 28.57'
T = 19.00'	3/4 = 28.37'
PT = 106+29.71 (135.81' RT)	PT = 28.21'
CENTER RADIUS – STA 105+98.09 (108.16' RT)	

CR11 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 15+68.47 (34.78' RT)	FLOW LINE ELEVATIONS
R1 = 1.50'	
PCC = 15+70.02 (33.03' RT)	PC = 32.34'
R2 = 25.00'	PCC = 32.31'
PCC = 15+74.36 (33.62' RT)	1/2 = 32.27'
R3 = 1.50'	PCC = 32.22'
PT = 15+75.49 (34.75' RT)	PT = 32.15'

CR12 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 15+59.27 (12.16' LT)	FLOW LINE ELEVATIONS
R1 = 1.50'	
PT = 15+60.73 (11.00' LT)	PC = 32.54'
PC = 15+64.88 (11.00' LT)	PT = 32.54'
R2 = 1.50'	PC = 32.52'
PT = 15+66.35 (12.83' LT)	PT = 32.47'

CR13 – CURB RETURN DATA

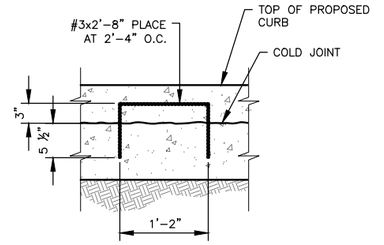
HORIZONTAL	VERTICAL
PC = 15+46.36 (33.00' RT)	FLOW LINE ELEVATIONS
R = 1.50'	
L = 2.10'	PC = 32.37'
PT = 15+47.84 (34.24' RT)	PT = 32.38'

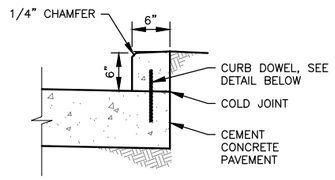
CR14 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 15+36.27 (11.00' LT)	FLOW LINE ELEVATIONS
R = 1.50'	
L = 2.70'	PC = 32.33'
PT = 15+37.73 (12.84' LT)	PT = 32.37'

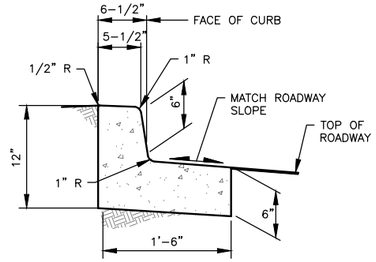
CR15 – CURB RETURN DATA

HORIZONTAL	VERTICAL
PC = 106+33.61 (23.00' LT)	FLOW LINE ELEVATIONS
R = 5.00'	
L = 3.52'	PC = 29.00'
PT = 106+36.85 (24.19' LT)	PT = 29.00'

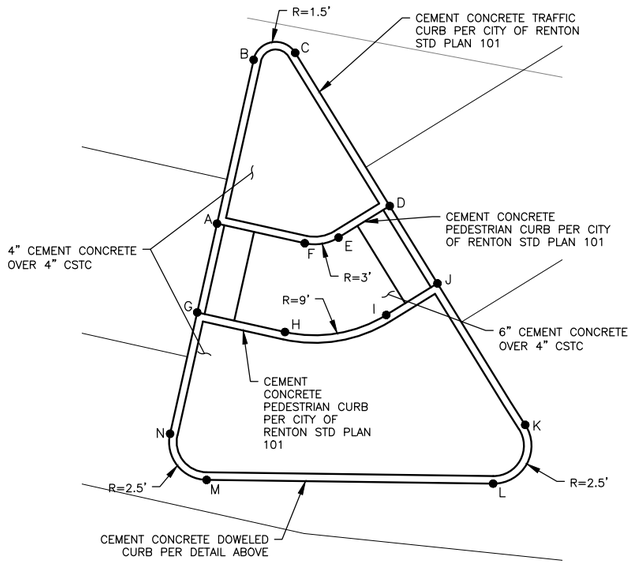




CEMENT CONCRETE DOWELED CURB
NTS



CEMENT CONCRETE TRAFFIC CURB AND GUTTER W/VARIABLE SLOPE
NTS

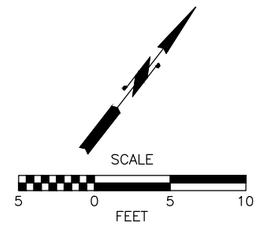


PEDESTRIAN ISLAND GRADING
1"=5'

PEDESTRIAN ISLAND POINTS

POINT	STATION	OFFSET	ELEVATION	DESCRIPTION
A	17+27.97	13.00' LT	27.95	
B	17+16.89	13.00' LT	27.88	PC
C	17+15.84	15.57' LT	27.83	PT
D	17+24.35	23.86' LT	27.86	
E	17+27.12	21.02' LT	27.91	PC
F	17+27.97	18.93' LT	27.92	PT
G	17+33.97	13.00' LT	28.00	
H	17+33.97	18.93' LT	27.97	PC
I	17+31.41	25.21' LT	27.93	PT
J	17+28.64	28.05' LT	27.91	
K	17+36.49	35.74' LT	28.01	PC
L	17+40.74	34.52' LT	28.11	PT
M	17+44.62	16.01' LT	28.14	PC
N	17+42.17	13.00' LT	28.09	PT

NOTE: ALL ELEVATIONS ARE AT FLOWLINE.



PERTEET
505 FIFTH AVENUE S, SUITE 300
SEATTLE, WA 98104
206.436.0515 | 800.615.9900

60% DESIGN SUBMITTAL
PRELIMINARY
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

BRENT MATTHEW POWELL STATE OF WASHINGTON 55619 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: NTS
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

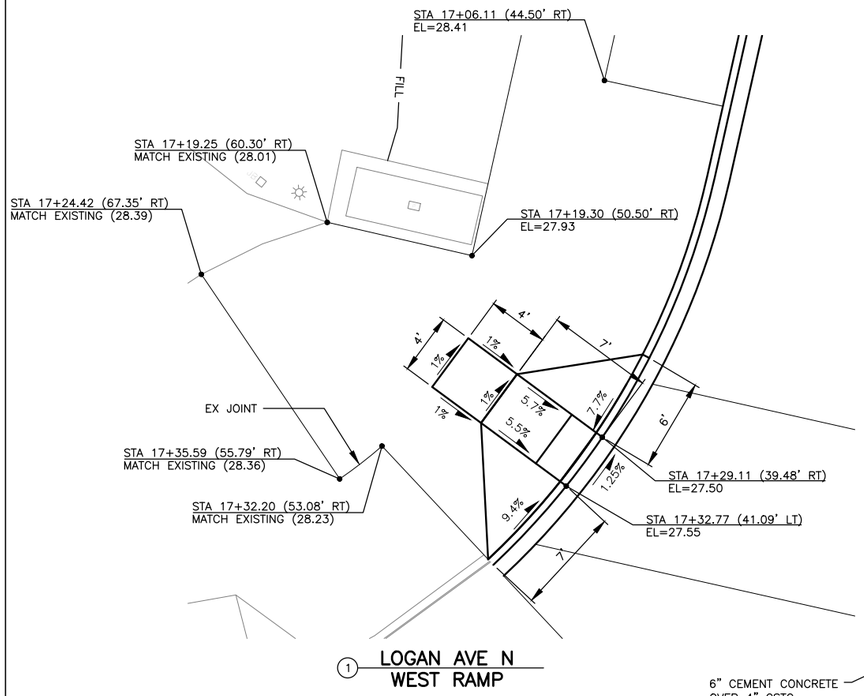
CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

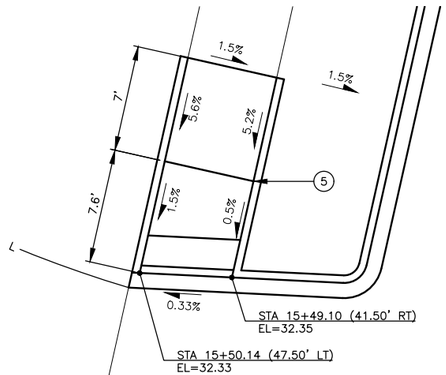
MISCELLANEOUS DETAILS

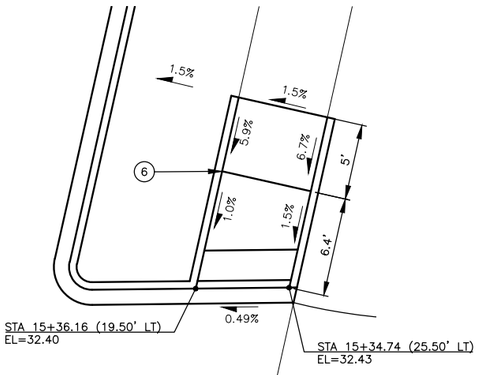
DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: MD1
SHEET: 8 OF: 33

FILENAME: Nov 19, 2018 - 7:48am jenn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 MD.dwg Layout Name: MD1



① LOGAN AVE N
WEST RAMP





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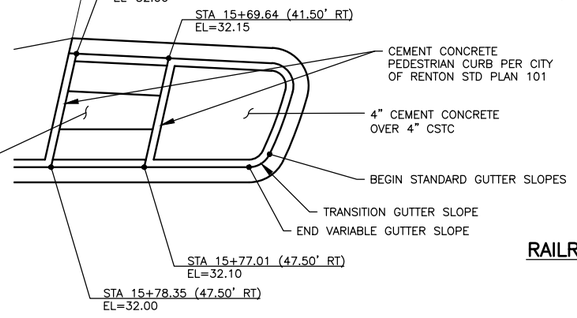

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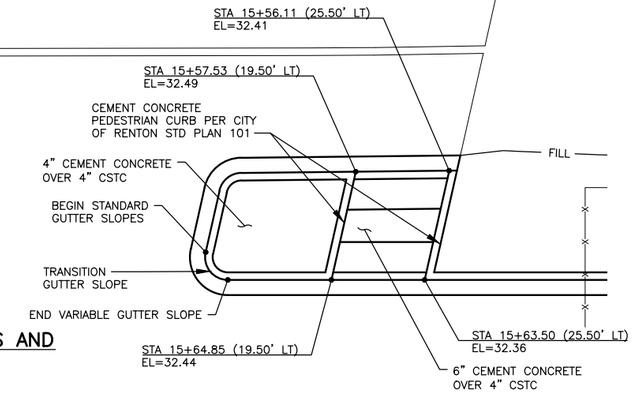
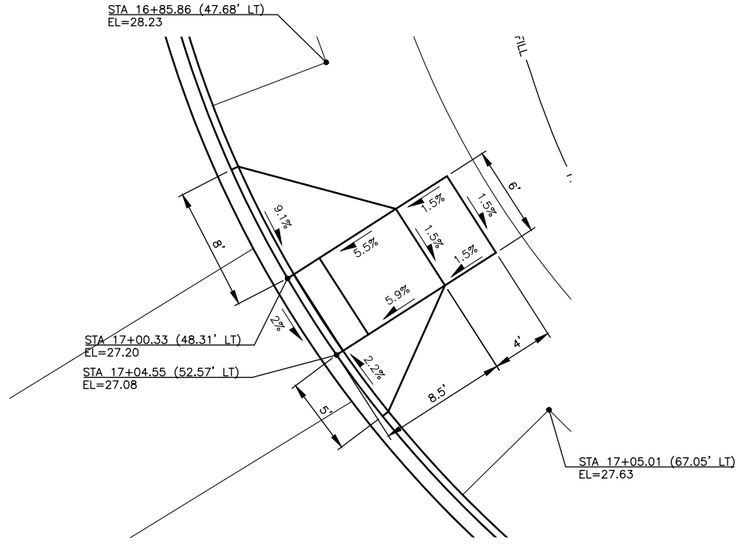
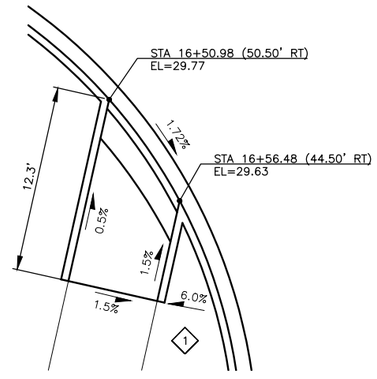


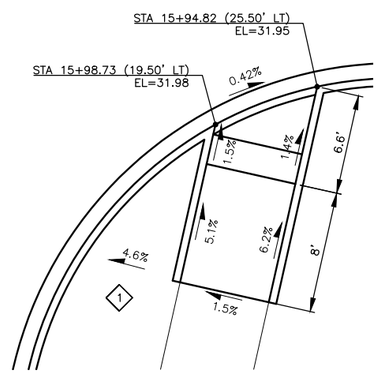
RAILROAD CURB RAMPS AND REFUGE ISLANDS



② N SOUTPORT DRIVE
EAST RAMP



③ 757TH
WEST RAMP



④ 757TH
EAST RAMP

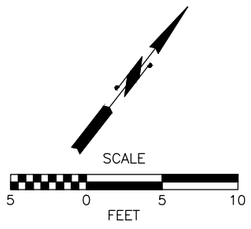
CURB RAMP NOTES:

(1)(2) TYPE PERPENDICULAR A CURB RAMP PER WSDOT STD PLAN F-40.15-03

(3)(4)(5)(6) TYPE SINGLE DIRECTION A CURB RAMP PER WSDOT PLAN F-40.1-03.

GRADING NOTES:

(1) TRANSITION PLANTER CROSS SLOPE SOUTH OF CURB RAMP AT 0.5%/FT UNTIL SLOPE IS 1.5% TOWARD PARK AVE N CENTERLINE



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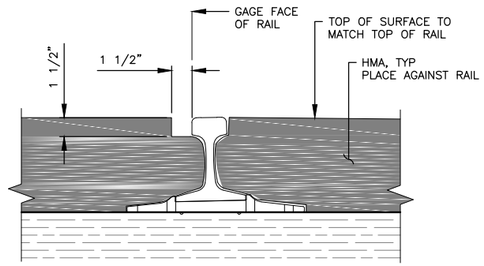
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

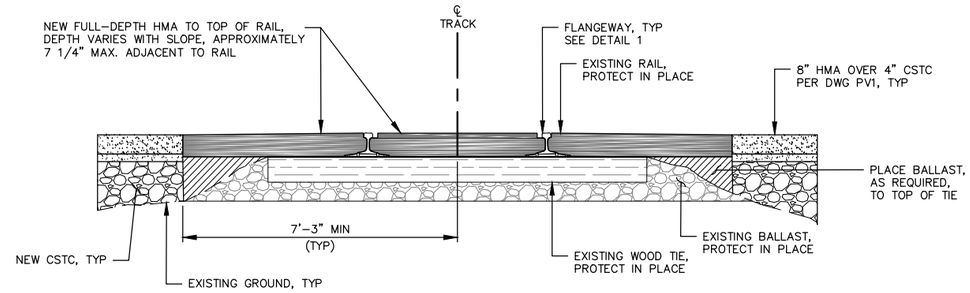
MISCELLANEOUS DETAILS

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: MD2
SHEET: 9 OF: 33

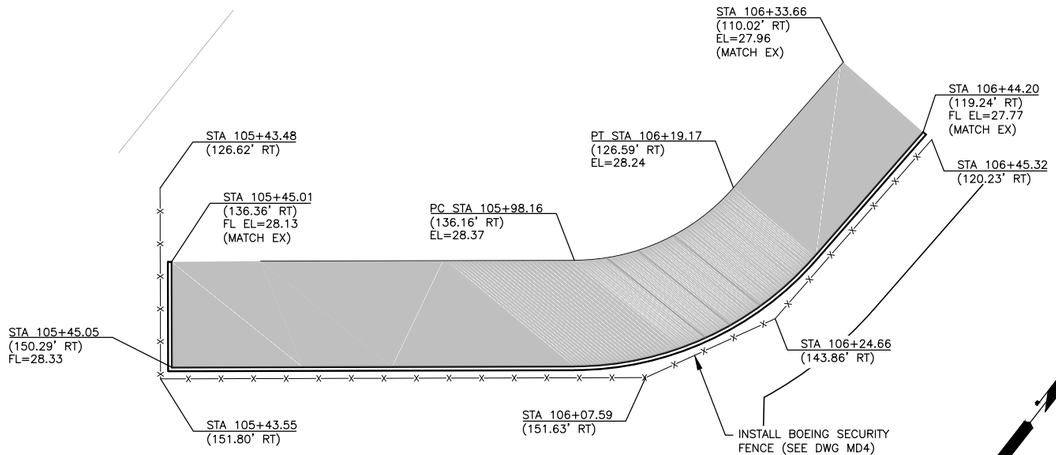
FILENAME: Nov 19, 2018 - 7:48am jenn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 MD.dwg Layout Name: MD2



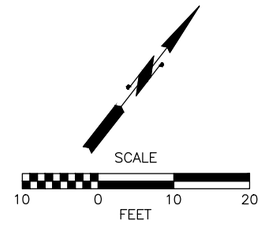
PAVED FLANGEWAY
NTS



SECTION A-A
NTS

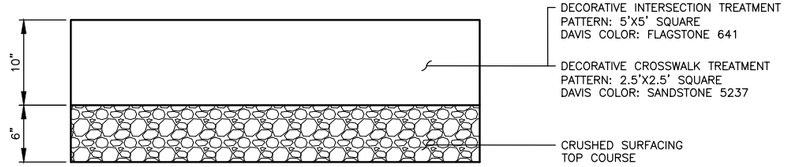


SUBSTATION ACCESS DETAIL



LEGEND

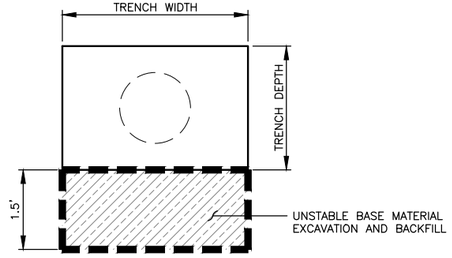
- HMA CL 1/2" PG 64-22
- CRUSHED SURFACING TOP COURSE
- BALLAST
- EXISTING BALLAST
- UNSTABLE BASE MATERIAL EXCAVATION/BACKFILL
- BOEING SECURITY FENCE



DECORATIVE CEMENT CONCRETE TYPICAL SECTION
NTS

DECORATIVE CEMENT CONCRETE NOTES

1. EXTEND LONGITUDINAL JOINTS FROM EXISTING CEMENT CONCRETE PAVEMENT.
2. REFER TO WSDOT STD PLAN A-40.10-03 FOR TRANSVERSE JOINT SPACING, LONGITUDINAL AND TRANSVERS CONTRACTOR/CONSTRUCTION JOINTS, DOWEL BAR SIZE AND QUANTITIES, AND TRANSITION DETAILS.



UNSTABLE BASE MATERIAL EXCAVATION AND BACKFILL
NTS

NOTES:

1. UNSTABLE BASE MATERIAL EXCAVATION AND GRAVEL BACKFILL (UNSTABLE BASE) SHALL BE 1.5 FEET DEEP AND SHALL EXTEND THE FULL WIDTH AND LENGHT OF THE TRENCH, REGARDLESS OF TRENCH SIZE.
2. UNSUITABLE BASE FOUNDATION EXCAVATION SHALL BE USED WHERE DIRECTED BY THE ENGINEER DUE TO INSUFFICIENT EXISTING SOIL STRENGTH. IT IS ASSUMED TO BE REQUIRED FOR ALL STORM DRAINAGE AND DUCT BANK UTILITY TRENCHES IN EXISTING SUBBASE.
3. GRAVEL BACKFILL (UNSTABLE BASE) SHALL BE USED TO REPLACE THE EXCAVATED MATERIAL REMOVED WITH UNSTABLE BASE MATERIAL EXCAVATION.

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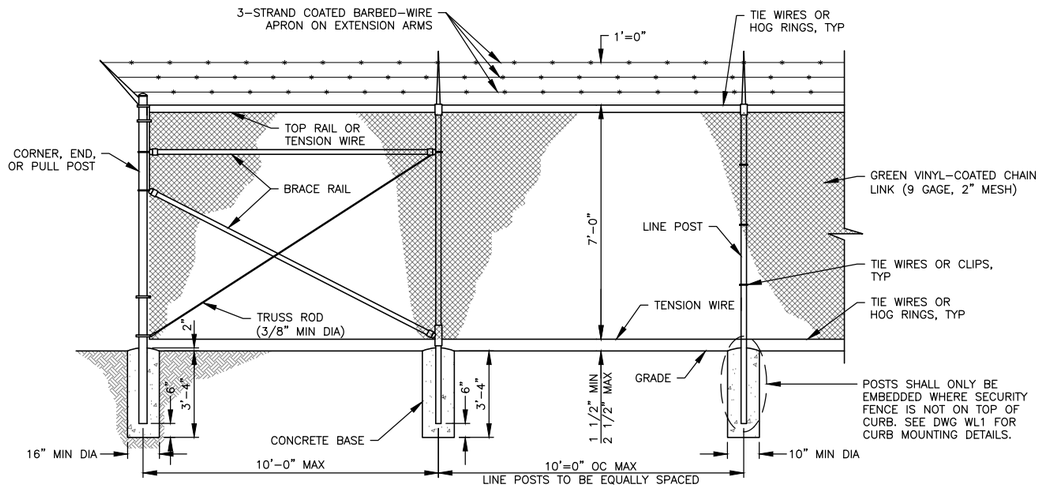
CITY OF RENTON
PARK AVENUE N EXTENSION

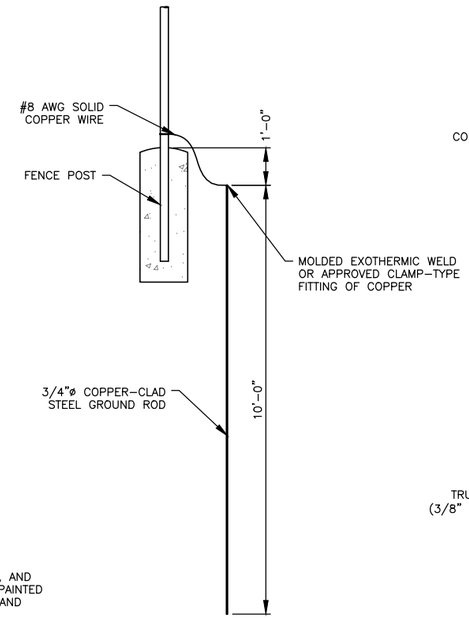
MISCELLANEOUS DETAILS

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: MD3
SHEET: 10 OF 33

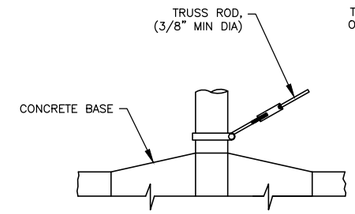
FILENAME: Nov 19, 2018 - 7:49am jerri.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 MD.dwg Layout Name: MD3



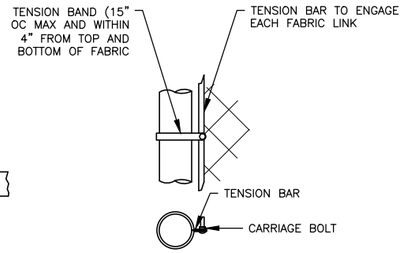
BOEING SECURITY FENCE
NTS



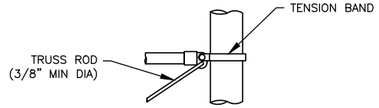
GROUNDING DETAIL
NTS



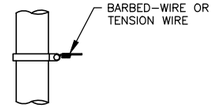
TRUSS ROD AND BAND



END OR GATE POST

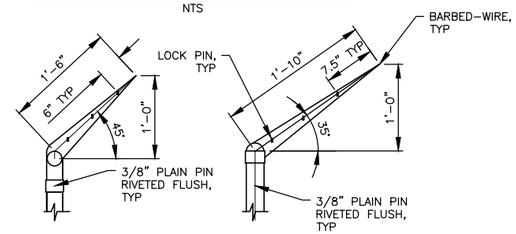


BRACE RAIL CLAMP



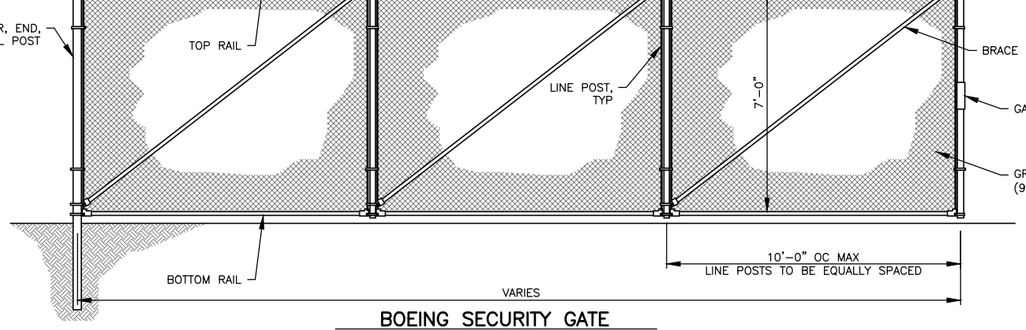
TENSION BAND

FASTENING DETAILS
NTS



LINE POST CORNER POST

EXTENSION ARM DETAILS
NTS



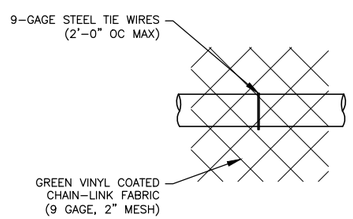
BOEING SECURITY GATE
NTS

NOTE:
TOP RAIL, BOTTOM RAIL, AND LINE POSTS SHALL BE PAINTED WITH ALTERNATIVE RED AND WHITE STRIPES.

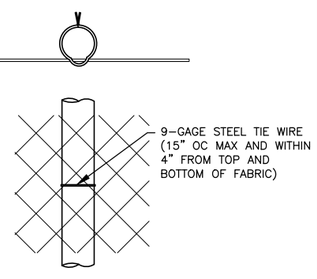
GENERAL NOTES

1. WIRE TIES, RAILS, POSTS, AND BRACES SHALL BE CONSTRUCTED ON THE SECURE SIDE OF THE FENCE ALIGNMENT. GREEN VINYL COATED CHAIN–LINK SHALL BE PLACED ON THE SIDE OPPOSITE THE SECURE AREA.

STEEL POST SCHEDULE	
MINIMUM OUTSIDE DIMENSIONS (NOMINAL)	
USE AND SECTION	FABRIC WIDTH 84" TO 96"
CORNER, END, AND PULL POSTS TUBULAR–ROUND	2.875" OD
LINE POSTS TUBULAR–ROUND	2.375" OD
TOP, BOTTOM, AND BRACE RAILS TUBULAR–ROUND	1.66" OD



TOP OR BASE RAIL



ROUND POST

ATTACHMENT DETAILS
NTS

PERTEET
505 FIFTH AVENUE S, SUITE 300
SEATTLE, WA 98104
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DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT
SCALE: NTS
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DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

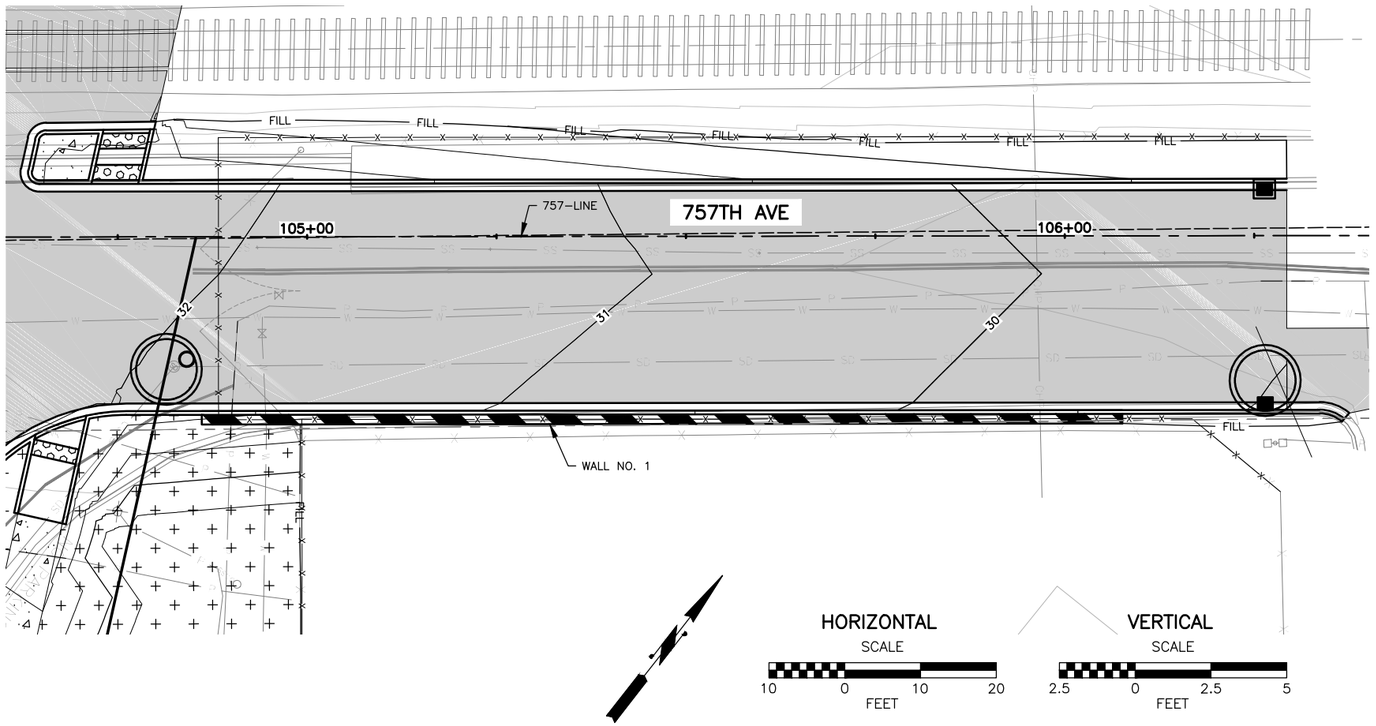
CITY OF RENTON
PARK AVENUE N EXTENSION

MISCELLANEOUS DETAILS

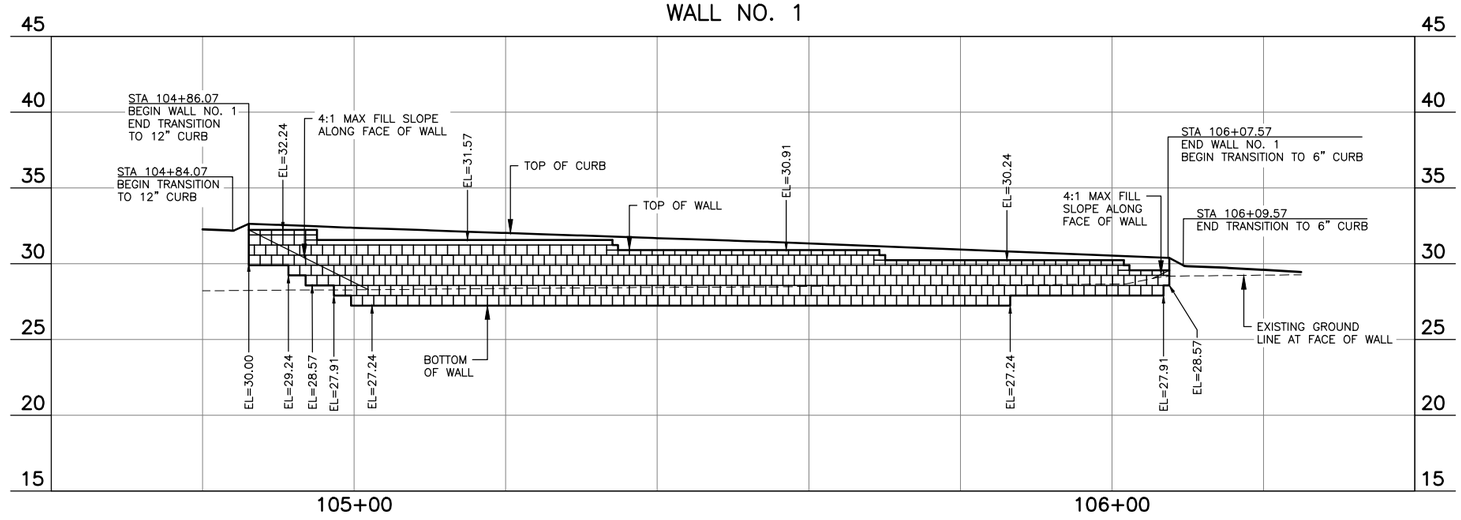
DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: MD4
SHEET: 11 OF: 33

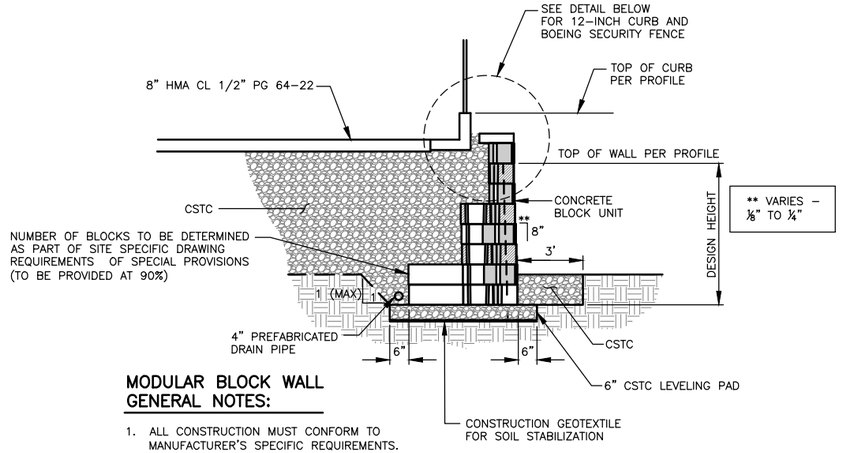
FILENAME: Nov 19, 2018 - 7:50am jerri.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 MD.dwg Layout Name: MD4

NW ¼ SEC 8, T 23 N, R 5 E, W.M.



WALL NO. 1



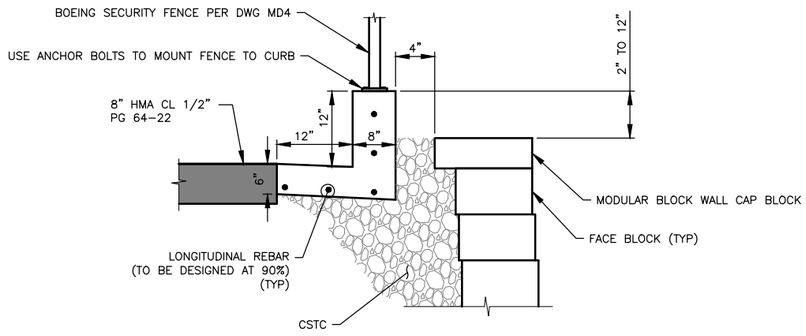


MODULAR BLOCK WALL GENERAL NOTES:

1. ALL CONSTRUCTION MUST CONFORM TO MANUFACTURER'S SPECIFIC REQUIREMENTS.
2. SEE SPECIAL PROVISIONS FOR WALL DESIGN REQUIREMENTS. (TO BE PROVIDED AT 90%)

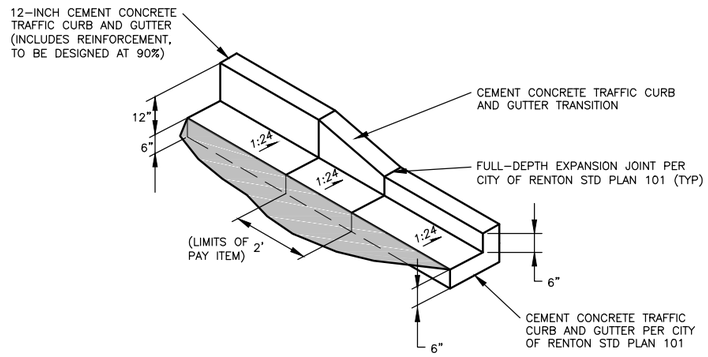
MODULAR BLOCK WALL DETAIL

STANDARD UNIT – NEAR VERTICAL SETBACK
NTS



12–INCH CURB AND COPING

NTS



CEMENT CONCRETE TRAFFIC CURB AND GUTTER TRANSITION

NTS

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STATE OF WASHINGTON
35619
REGISTERED
PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: H: 1"=20' V: 1"=5'
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Planning/Building/Public Works Dept.

CITY OF RENTON
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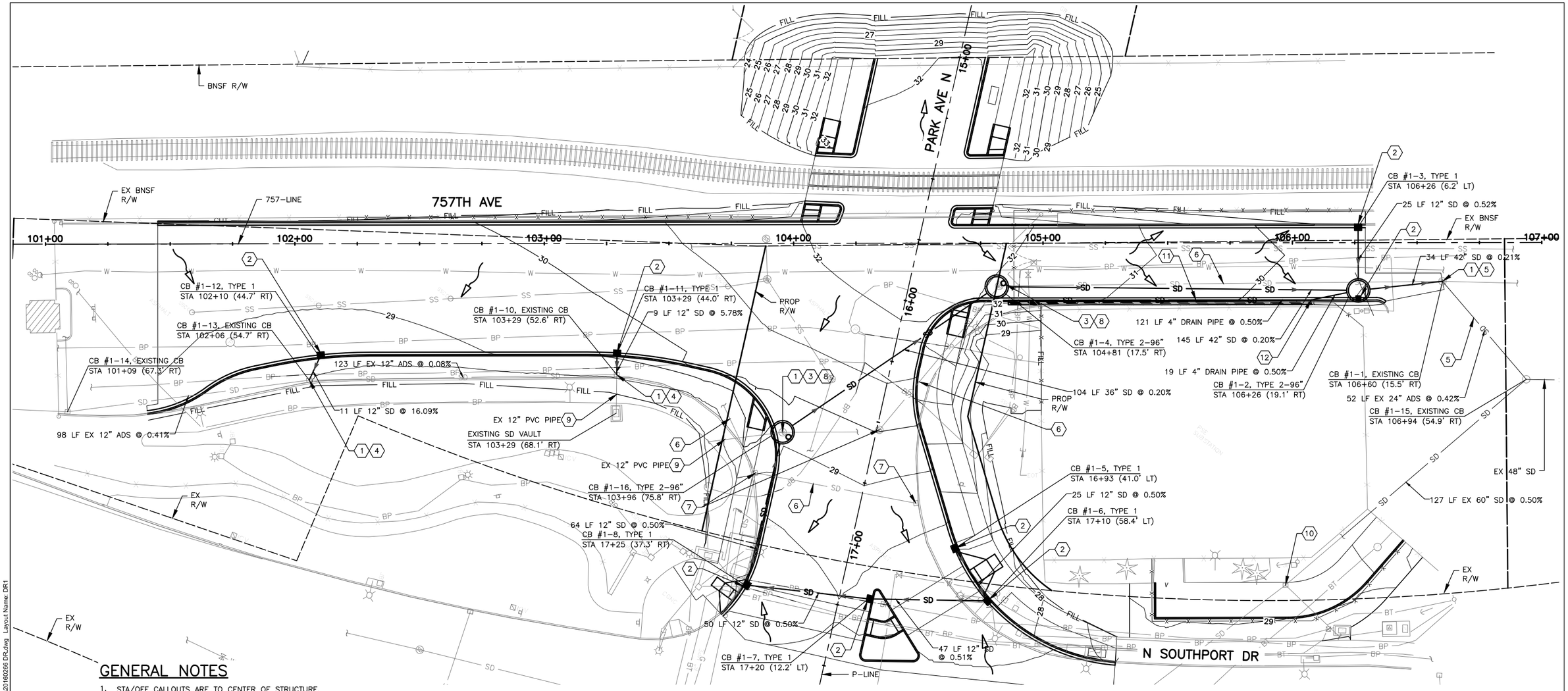
WALL PLAN, PROFILE AND DETAILS

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: WL1
SHEET: 12 OF: 33

FILENAME: Nov 19, 2018 - 10:41am jeni.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CAD\Plan Sheets\20160266 WL.dwg Layout Name: WL1



GENERAL NOTES

1. STA/OFF CALLOUTS ARE TO CENTER OF STRUCTURE.
2. ALL STORM SEWER PIPE SHALL BE SCHEDULE A SMOOTHER INTERIOR WALL HIGH–PERFORMANCE POLYPROPYLENE STORM SEWER PIPE, UNLESS OTHERWISE NOTED.
3. ALL CATCH BASINS AND MANHOLES SHALL BE FITTED WITH DUCTILE IRON, BOLT–LOCKING LIDS PER THE CITY OF RENTON PLANS 204.10, 204.20, 204.30, AND 204.50.
4. ALL PIPE AND STRUCTURES SHALL BE STAKED FOR SURVEY LINE AND GRADE BY A SURVEYOR LICENSED IN WASHINGTON STATE, AND CUT SHEETS SHALL BE PROVIDED BY THE CITY PRIOR TO CONSTRUCTION. WHERE SHOWN ON THE PLANS OR WHERE DIRECTED BY THE CITY, THE EXISTING MANHOLES, CATCH BASINS, OR INLETS SHALL BE ADJUSTED TO THE GRADE AS STAKED.
5. LIDS OF MANHOLES/CATCH BASINS WITHIN PUBLIC RIGHT–OF–WAY SHALL NOT BE ADJUSTED TO FINAL GRADE UNTIL AFTER PAVING. ALL MANHOLE/CATCH BASIN RIMS SHALL BE ADJUSTED TO BE FLUSH WITH FINAL FINISHED GRADES, UNLESS OTHERWISE SHOWN.
6. ALL STORM SYSTEM EXTENSIONS SHALL BE STAKED FOR LINE AND GRADE BY A SURVEYOR LICENSED IN WASHINGTON STATE, AND CUT SHEETS SHALL BE PROVIDED BY THE CITY PRIOR TO CONSTRUCTION.
7. ALL NEWLY–INSTALLED AND NEWLY–REHABILITATED STORM CONVEYANCE SYSTEMS SHALL BE INSPECTED BE MEANS OF REMOTE CCTV ACCORDING TO THE CITY STANDARD 266.00. CCTV INSPECTIONS AND REPORTS SHALL BE SUBMITTED TO THE CITY PRIOR TO RECEIVING APPROVAL TO INSTALL PROJECT CURBS, GUTTERS AND/OR PAVEMENT.
8. ALL STORM SYSTEMS AND CONNECTIONS TO EXISTING MAINS SHALL BE TESTED IN ACCORDANCE WITH SECTION 7–04.3(1) OF THE WSDOT STANDARD SPECIFICATION AND IN THE PRESENCE OF A REPRESENTATIVE OF THE CITY.

CONSTRUCTION NOTES

1. CONNECT NEW STRUCTURE/PIPE TO EXISTING STRUCTURE/PIPE.
2. RECTANGULAR BI–DIRECTIONAL VANED GRATE PER COR STD PLAN 204.30.
3. CIRCULAR FRAME AND COVER PER COR STD PLAN 204.50 WITH LETTERING "DRAIN".
4. REPLACE EXISTING GRATE W/ RECTANGULAR SOLID METAL COVER PER COR STD PLAN 204.10.
5. SURVEYOR WAS UNABLE TO MEASURE CONNECTING PIPES. DESIGN IS BASED OFF OF CITY OF RENTON SOUTH LAKE WASHINGTON ROADWAY IMPROVEMENTS RECORD DRAWING DATED ON 4/17/06. CONTRACTOR TO CONFIRM INVERTS.
6. PLUG AND ABANDON EXISTING PIPE. REMOVE AS NECESSARY.
7. REMOVE EXISTING DRAINAGE STRUCTURE
8. REPLACE EXISTING STRUCTURE W/ NEW CATCH BASIN TYPE 2
9. EXISTING PIPE CONNECTING TO EXISTING STORM DRAIN VAULT. DESIGN IS BASED OFF OF THE CITY OF RENTON SOUTH LAKE WASHINGTON ROADWAY IMPROVEMENTS RECORD DRAWINGS DATED ON 4/17/06. CONTRACTOR TO CONFIRM INVERTS.
10. ADJUST CATCH BASIN
11. 4 IN. DRAIN PIPE TO BE INSTALLED AT THE BOTTOM OF THE WALL
12. PREFABRICATED FIXED AND FLEXIBLE BEND AT 11.25 DEGREES PER WSDOT STD PLAN 9–29.1(5) D2.

LEGEND

- EXISTING TYPE 1 CATCH BASIN
- PROPOSED TYPE 1 CATCH BASIN
- EXISTING TYPE 2 CATCH BASIN
- PROPOSED TYPE 2 CATCH BASIN
- SD — STORM DRAIN PIPE
- FLOW DIRECTION

SCALE
20 0 20 40
FEET

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SEATTLE, WA 98104
206.436.0515 | 800.615.9900

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811 Know what's below. Call before you dig.

NICHOLE R. PELLETT
STATE OF WASHINGTON
49514
REGISTERED
PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: T. CHEONG
DRAWN: T. CHEONG
CHECKED: N. PELLETT
APPROVED: P. DE BOLDT

SCALE: 1"=20'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

DRAINAGE PLAN

DATE: 11/19/2018
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DRAWING NO: DR1
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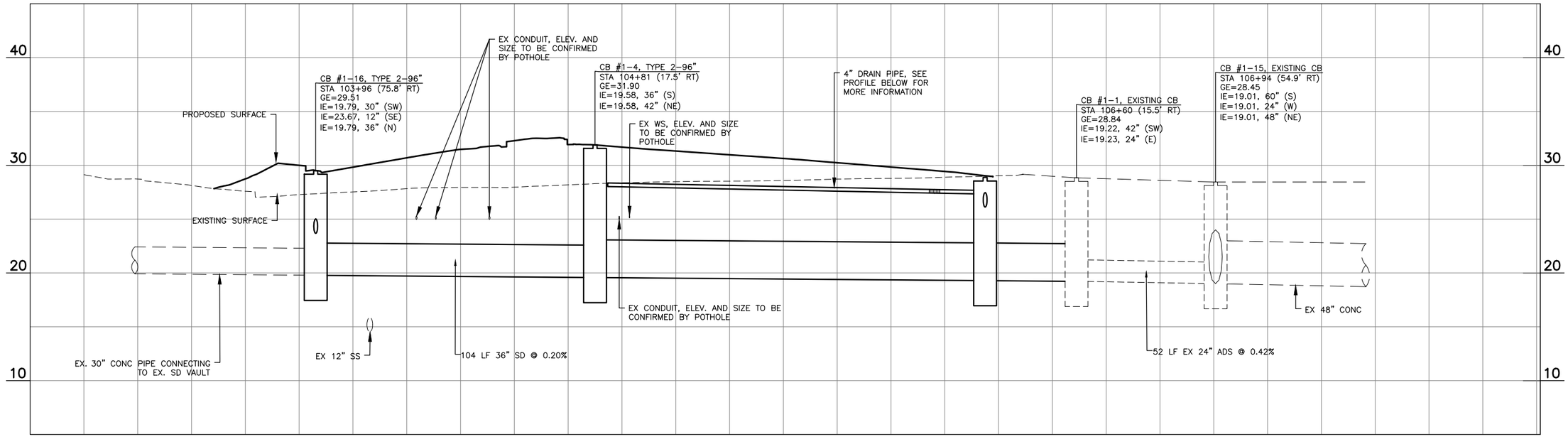

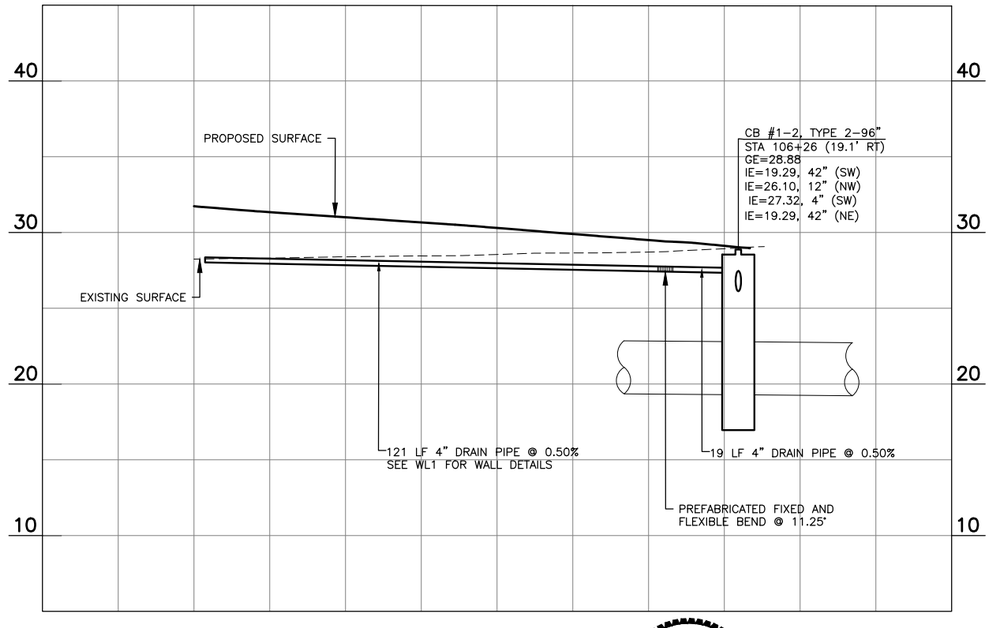

HORIZONTAL
SCALE
20 0 20 40
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VERTICAL
SCALE
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FEET

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DATE: 11/19/2018
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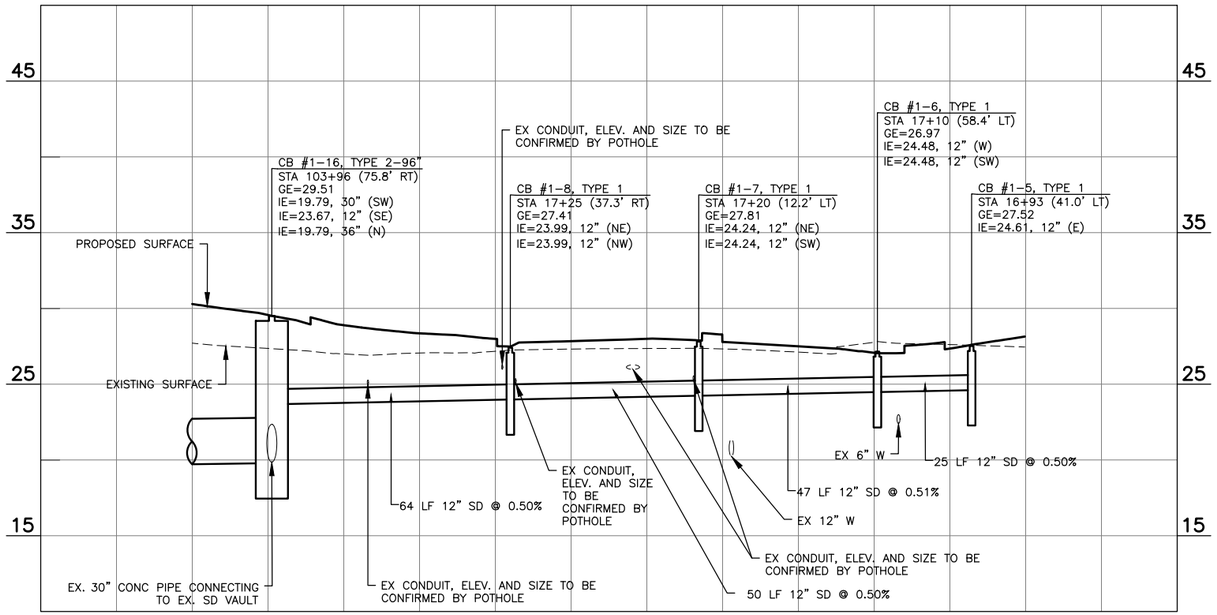

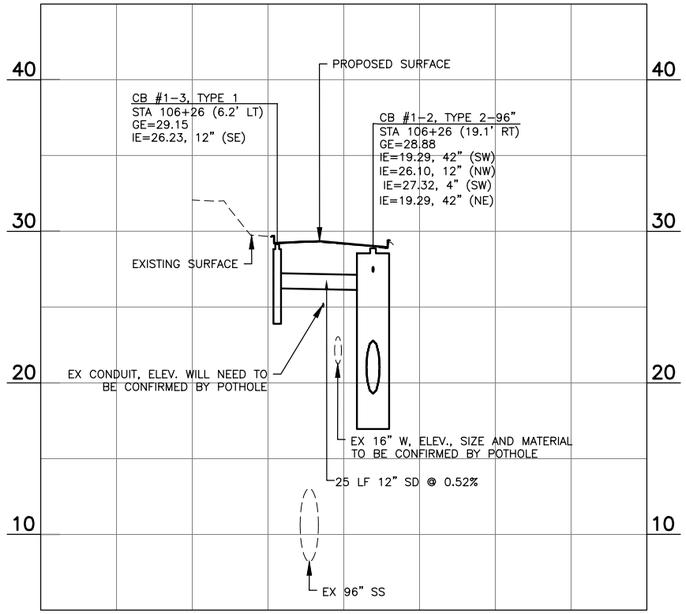

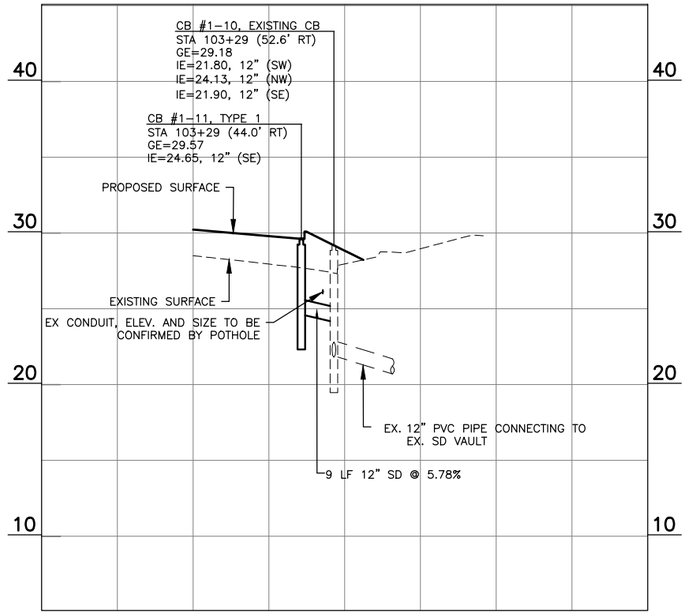

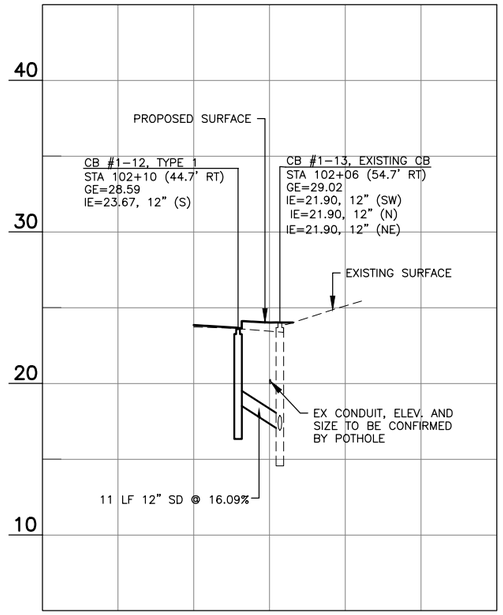

HORIZONTAL
SCALE
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VERTICAL
SCALE
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FEET

FILENAME: Nov 19, 2018 - 8:43am jeni.jbean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 DR.dwg Layout Name: DR3

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NICHOLE R. PELLETT STATE OF WASHINGTON 49514 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: T. CHEONG
DRAWN: T. CHEONG
CHECKED: N. PELLETT
APPROVED: P. DE BOLDT

SCALE: 1"=20'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
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Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

DRAINAGE PROFILE

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: DR3
SHEET: 15 OF: 33

NW ¼ SEC 8, T 23 N, R 5 E, W.M.

CHANNELIZATION NOTES

1. INSTALL YELLOW DOUBLE CENTERLINE (SEE NOTE 1).
2. INSTALL YELLOW NO PASS LINE PER WSDOT STD PLAN M-20.50-02.
3. INSTALL WHITE LANE LINE PER CITY OF RENTON STD PLAN 109
4. INSTALL WHITE WIDE LANE/APPROACH LINE (SEE NOTE 1).
5. INSTALL WHITE DOTTED EXTENSION LINE (SEE NOTE 1).
6. INSTALL WHITE EDGE LINE PER WSDOT STD PLAN M-20.10-02.
7. INSTALL WHITE GORE AREA - TYPE 1 PER DETAIL DWG CH2.
8. INSTALL WHITE GORE AREA - TYPE 2 PER DETAIL DWG CH2.
9. INSTALL YELLOW GORE AREA - TYPE 1 PER DETAIL DWG CH2.
10. INSTALL STOP LINE PER CITY OF RENTON STD PLAN H008.
11. INSTALL CROSSWALK PER CITY OF RENTON STD PLAN 127.
12. INSTALL CROSSWALK PER CITY OF RENTON STD PLAN 128.
13. INSTALL TYPE 2L (LEFT) TRAFFIC ARROW PER CITY OF RENTON STD PLAN H009.
14. INSTALL TYPE 2R (RIGHT) TRAFFIC ARROW PER CITY OF RENTON STD PLAN H009.
15. INSTALL THRU & RIGHT TURN ONLY ARROW PER CITY OF RENTON STD PLAN H011.
16. INSTALL THRU & LEFT TURN ONLY ARROW PER CITY OF RENTON STD PLAN H010.
17. INSTALL TYPE 7S TRAFFIC ARROW PER WSDOT STD PLAN M-24.40-02.
18. INSTALL RAILROAD CROSSING SYMBOL (ALTERNATE SYMBOL) PER WSDOT STD PLAN M-11.10-02.
19. INSTALL "ONLY" TRAFFIC LETTERS PER WSDOT STD PLANS M-80.10-01 AND M-80.30-00.

SIGN LEGEND

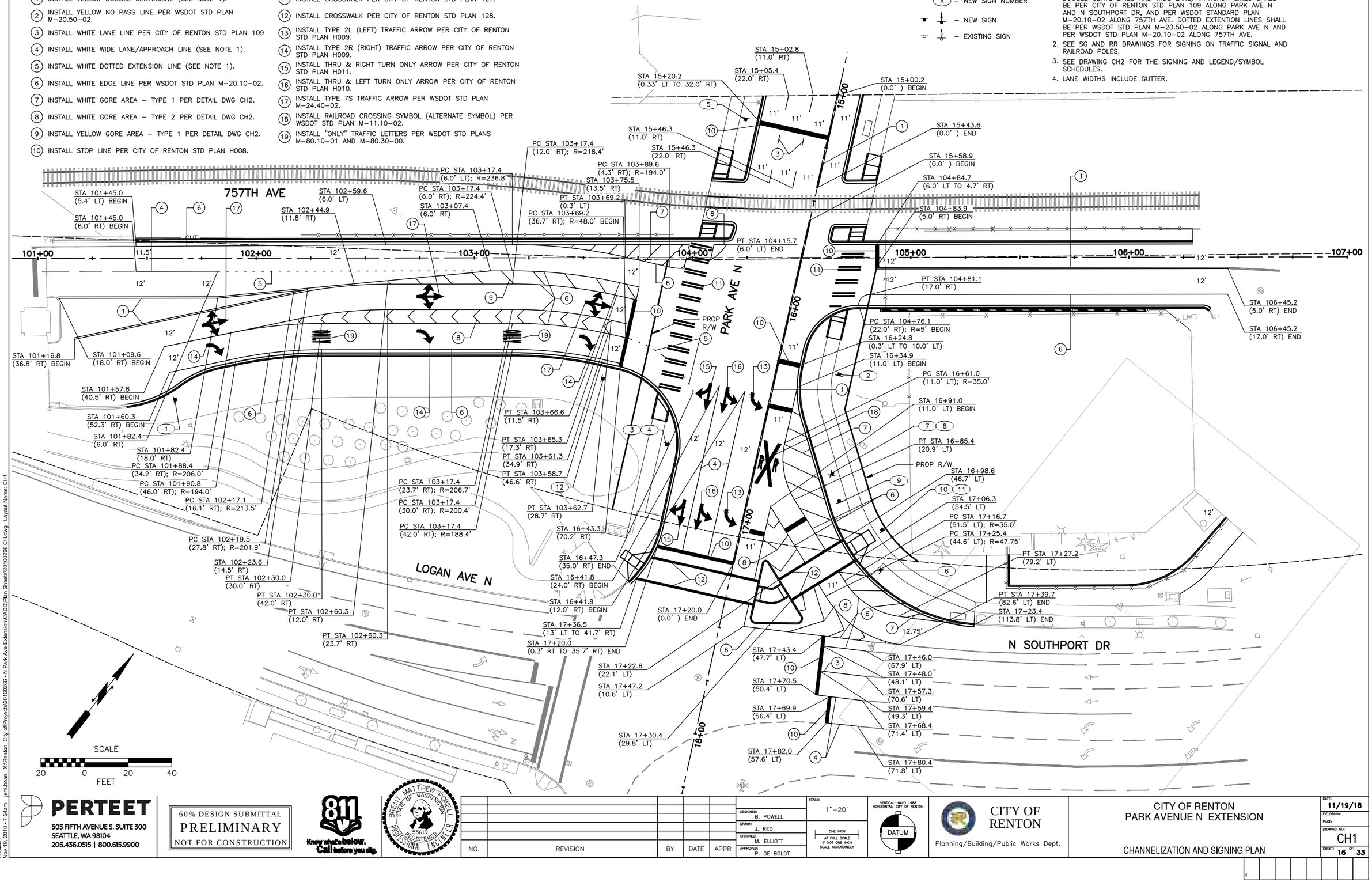
(X) – NEW SIGN NUMBER

– NEW SIGN

– EXISTING SIGN

NOTES

1. DOUBLE CENTERLINES AND WIDE LANE/APPROACH LINES SHALL BE PER CITY OF RENTON STD PLAN 109 ALONG PARK AVE N AND N SOUTHPORT DR, AND PER WSDOT STANDARD PLAN M-20.10-02 ALONG 757TH AVE. DOTTED EXTENTION LINES SHALL BE PER WSDOT STD PLAN M-20.50-02 ALONG PARK AVE N AND PER WSDOT STD PLAN M-20.10-02 ALONG 757TH AVE.
2. SEE SG AND RR DRAWINGS FOR SIGNING ON TRAFFIC SIGNAL AND RAILROAD POLES.
3. SEE DRAWING CH2 FOR THE SIGNING AND LEGEND/SYMBOL SCHEDULES.
4. LANE WIDTHS INCLUDE GUTTER.



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BRENT MATTHEW POWELL STATE OF WASHINGTON 55619 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: 1"=20'
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CHANNELIZATION AND SIGNING PLAN

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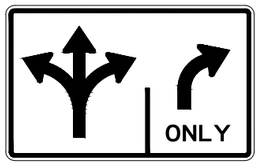
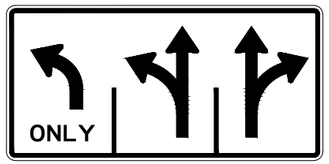
SIGN SCHEDULE

SIGN NO.	WSDOT SIGN CODE	WIDTH (IN)	HEIGHT (IN)	DESCRIPTION	STATION	OFFSET	NOTES
1	R3-802 (MOD)	36	30	[LEFT/THROUGH/RIGHT ARROW] | [RIGHT ARROW] ONLY	101+62.8	64.8' RT	INSTALL NEW SIGN AND POST
2	R10-6A	24	30	STOP HERE [CURVED ARROW] ON RED	16+24.9	28.5' LT	INSTALL NEW SIGN AND POST
3	R3-8A (MOD)	48	30	[LEFT ARROW] ONLY | [LEFT/THROUGH ARROW] | [THROUGH/RIGHT ARROW]	16+73.5	41.6' RT	INSTALL NEW SIGN AND POST (FACING NW)
4	R9-3A	18	18	[NO PEDESTRIAN CROSSING]	16+73.5	41.6' RT	INSTALL NEW SIGN BELOW SIGN NO. 3 (FACING NE)
5	R10-6A	24	30	STOP HERE [CURVED ARROW] ON RED	15+20.2	38.9' RT	INSTALL NEW SIGN AND POST
6	R1-5L	30	30	STOP HERE [CURVED ARROW] FOR [PEDESTRIAN]	17+08.3	66.5' LT	INSTALL NEW SIGN AND POST
7	W10-1	36 DIAM.		[RAILROAD CROSSING]	16+70.2	35.3' LT	INSTALL NEW SIGN AND POST (FACING SE)
8	R9-3A	18	18	[NO PEDESTRIAN CROSSING]	16+70.2	35.3' LT	INSTALL NEW SIGN BELOW SIGN NO. 7 (FACING SW)
9	R1-2	36 x 36 x 36		YIELD	16+81.6	41.2' LT	INSTALL NEW SIGN AND POST
10	W11-2	30	30	[PEDESTRIAN]	16+90.2	63.2' LT	INSTALL NEW SIGN AND POST
11	W16-7PL	24	12	[DOWNWARD LEFT ARROW]	16+90.2	63.2' LT	INSTALL NEW SIGN BELOW SIGN NO. 10
12	R3-802 (MOD)	36	30	[LEFT/THROUGH/RIGHT ARROW] | [RIGHT ARROW] ONLY	103+58.9	55.4' RT	INSTALL NEW SIGN AND POST

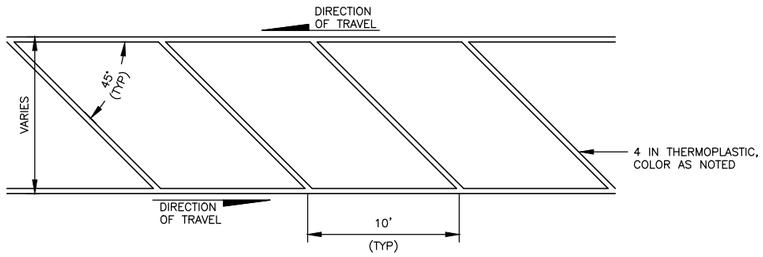
NOTE: STATIONING IS TO THE CENTER OF POST.



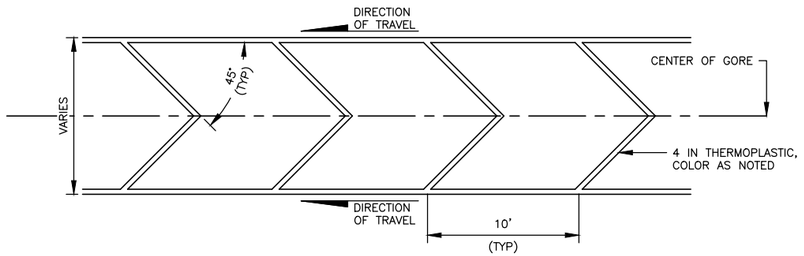
R3-802 (MOD)
NTS



R3-8A (MOD)
NTS

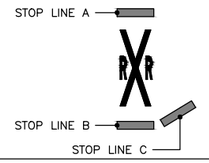


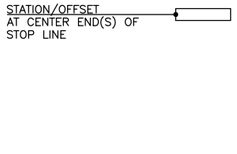
GORE AREA – TYPE 1
SCALE: 1"=5'



GORE AREA – TYPE 2
SCALE: 1"=5'

LEGEND/SYMBOL SCHEDULE

LEGEND/ SYMBOL	STATION	OFFSET	
	16+41.9	8.4' RT	
	16+96.6	8.4' RT	
	101+77.1	40.1' RT	
	102+73.7	33.5' RT	
	103+48.4	35.9' RT	
	16+91.9	19.9' RT	
	16+46.6	19.9' RT	
	16+41.9	28.1' RT	
	16+96.6	28.1' RT	
	101+75.2	30.8' RT	
	102+73.7	17.7' RT	
	103+50.8	20.3' RT	
	16+71.9	5.5' LT	(SYMBOL)
	16+45.9	0.3' LT TO 11.0' LT	(STOP LINE A)
	17+03.9	0.3' LT TO 11.0' LT	(STOP LINE B)
	16+92.6 (27.9' LT) TO 17+00.2 (20.1' LT)		(STOP LINE C)
	102+30.0	36.3' RT	
	103+17.4	36.3' RT	



LEGEND/SYMBOL STATIONING
SCALE: NTS

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BRENT MATTHEW POWELL STATE OF WASHINGTON 53619 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: 1"=5'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
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PARK AVENUE N EXTENSION

CHANNELIZATION AND SIGNING DETAILS

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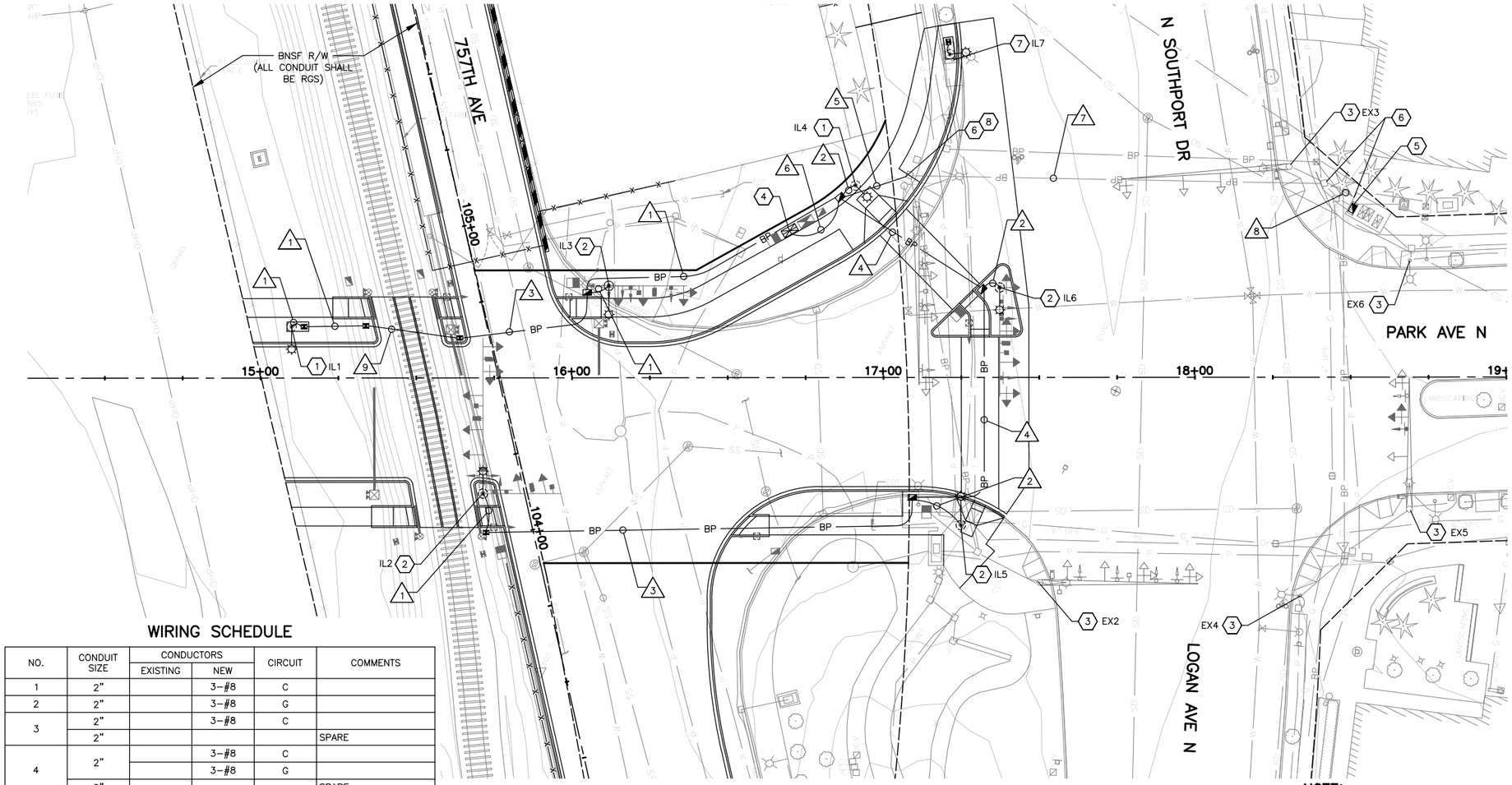

WIRING SCHEDULE

NO.	CONDUIT SIZE	CONDUCTORS		CIRCUIT	COMMENTS
		EXISTING	NEW		
1	2"		3-#8	C	
2	2"		3-#8	G	
3	2"		3-#8	C	
	2"				SPARE
4	2"		3-#8	C	
			3-#8	G	
	2"				SPARE
5	3"		3-#6	D	
			3-#6	E	
			3-#6	F	
			3-#8	G	
6	3"		3-#8	C	
			3-#6	D	
			3-#6	E	
			3-#6	F	
			3-#8	G	
	2"				SPARE
7	EX 2"		BY PSE		EX SPARE
		3-#6		D	
			3-#6	E	
		3-#6		F	
			3-#8	G	
8	EX 2"	3-#6		D	
			3-#6	E	
		3-#6		F	
		3-#8		G	
9	2"		3-#8	C	DIRECTIONALLY-BORED
	2"				SPARE; DIRECTIONALLY-BORED

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH 2018 WSDOT STANDARD PLANS & SPECIFICATIONS AND THE LATEST AMENDMENTS, APWA STANDARDS, THE CITY DEVELOPMENTAL GUIDELINES, EXCEPT AS MODIFIED BY CONTRACT PLANS AND SPECIAL PROVISIONS.
2. UTILITY LOCATION (1-800-424-5555) PRIOR TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
3. THE CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE CONNECTION WITH THE POWER COMPANY. CONTACT PUGET SOUND ENERGY REPRESENTATIVE SHERI CLARKE AT (425) 456-2701 PRIOR TO INSTALLATION OF METER BASE. SEE SECTION 8-20.3 OF THE SPECIAL PROVISIONS.
4. CONTACT TRANSPORTATION MAINTENANCE ASSISTANT MANAGER ERIC CUTSHALL AT 425-430-7423 FOR POLE NUMBERS TO BE INSTALLED PER COR STD PLAN 121.
5. ALL ILLUMINATION CONDUIT WITHIN BNSF RIGHT-OF-WAY SHALL BE RIGID GALVANIZED STEEL. ALL OTHER ILLUMINATION CONDUIT SHALL BE RIGID PVC SCHEDULE 80.
6. ALL CONDUIT CONTAINING COPPER CONDUCTORS SHALL INCLUDE 1-#8 GROUND WIRE (MIN. SIZE UNLESS SPECIFIED IN WIRE SCHEDULE). ALL CONDUIT SHALL CONTAIN A PULL-LINE TAPE LABELED "CITY OF RENTON".
7. JUNCTION BOXES SHALL BE KEPT OUT OF THE SIDEWALK UNLESS APPROVED BY THE ENGINEER OR INSTRUCTED ON THE PLANS. JUNCTION BOXES INSTALLED IN SIDEWALKS SHALL HAVE SKID RESISTANT LIDS PER SPECIAL PROVISIONS. JUNCTION BOXES IN PLANTER STRIP SHALL HAVE A CONCRETE PAD PER COR STD PLAN 120. ALL JUNCTION BOXES SHALL REMOVE SPACES HAVE LOCKING LIDS PER COR STD PLAN 119.
8. ALL TYPE 1 AND 2 JUNCTION BOXES SHALL BE PER WSDOT STD PLAN J-40.10-03.
9. ILLUMINATION CONDUIT AND JUNCTION BOX LOCATIONS ARE SCHEMATIC AND SHOWN FOR REFERENCE TO EASE WITH INSTALLATION. FINAL LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER IN THE FIELD.
10. NUMBER OF CONDUIT BENDS BETWEEN PULL POINTS SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL). IF NUMBER OF BENDS EXCEEDS 360 DEGREES, THE CONTRACTOR SHALL INSTALL ADDITIONAL JUNCTION BOXES AS REQUIRED.

CONSTRUCTION NOTES

1. CONSTRUCT ILLUMINATION POLE FOUNDATION PER CITY OF RENTON STD PLAN 117.1. FURNISH AND INSTALL DECORATIVE LUMINAIRE POLE, DECORATIVE LUMINAIRE, CONDUIT, WIRING, AND ALL ASSOCIATED EQUIPMENT. APPLY DECAL NUMBERING WITH CITY OF RENTON POLE ID# TO ILLUMINATION POLE PER CITY OF RENTON STD PLAN 121. SEE DETAIL ON DWG IL2 FOR POLE AND LUMINAIRE REQUIREMENTS.
2. INSTALL LUMINAIRE ON SIGNAL POLE. SEE SG DRAWINGS.
3. PROTECT EXISTING LUMINAIRE AND CONDUIT.
4. INSTALL SERVICE CABINET WITH BATTERY BACK-UP SYSTEM (BBS) PER CITY OF RENTON STD PLAN 122.2. SEE BREAKER SCHEDULE ON DWG IL2. SEE SG DRAWINGS FOR CONNECTION TO TRAFFIC SIGNAL SYSTEM. COORDINATE WITH PSE FOR SERVICE CONNECTION.
5. INSTALL TYPE 2 JUNCTION BOX IN PLACE AFTER SERVICE CABINET HAS BEEN REMOVED AND SALVAGED. COORDINATE WITH PSE TO EXTEND SERVICE TO PROPOSED SERVICE CABINET LOCATION.
6. SPLICE NEW WIRING TO EXISTING WIRING ON THE SAME CIRCUIT.
7. RELOCATE EXISTING POLE AND FIXTURE TO NEW LOCATION PER LUMINAIRE SCHEDULE. INSTALL NEW TYPE 1 JUNCTION BOX AND EXTEND OR INTERCEPT EXISTING CONDUITS TO RETAIN SYSTEM AND FIXTURE POWER. CONSTRUCT CONCRETE PAD PER CITY OF RENTON STD PLAN 121.
8. EXTEND CONDUIT INTO EXISTING JUNCTION BOX.

NOTE:
FOUNDATION DEPTHS TO BE DESIGNED AFTER 60% WHEN GEOTECHNICAL EXPLORATIONS ARE COMPLETE.

LUMINAIRE SCHEDULE

LUMINAIRE	STATION	OFFSET	FIXTURE TYPE	POLE TYPE	ARM LENGTH	MOUNTING HEIGHT	FOUNDATION DEPTH	CIRCUIT	DECAL #	COMMENTS
IL1	15+10.00	16.50' LT	LUMEC DMS50-135W80LED4K-R-LE3F	DECORATIVE ROADWAY LUMINAIRE	6'	35'	SEE NOTE	C		
IL2	SEE SG DRAWINGS							C		
IL3	SEE SG DRAWINGS							C		
IL4	16+91.10	61.65' LT	LUMEC DMS50-135W80LED4K-R-LE3F	DECORATIVE ROADWAY LUMINAIRE	4'	35'	SEE NOTE	G		
IL5	SEE SG DRAWINGS							G		
IL6	SEE SG DRAWINGS							G		
IL7	17+21.41	103.78' LT	EX	EX	EX	EX	SEE NOTE	F		RELOCATE EX POLE
EX2	EX	EX	EX	EX	EX	EX	EX	G		
EX3	EX	EX	EX	EX	EX	EX	EX	G		
EX4	EX	EX	EX	EX	EX	EX	EX	G		
EX5	EX	EX	EX	EX	EX	EX	EX	G		
EX6	EX	EX	EX	EX	EX	EX	EX	G		

SCALE
20 0 20 40
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STATE OF WASHINGTON
55619
REGISTERED
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NO.	REVISION	BY	DATE	APPR

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DRAWN: J. RED
CHECKED: M. HENDRIX
APPROVED: P. DE BOLDT

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PARK AVENUE N EXTENSION

ILLUMINATION PLAN

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: IL1
SHEET: 18 OF 33

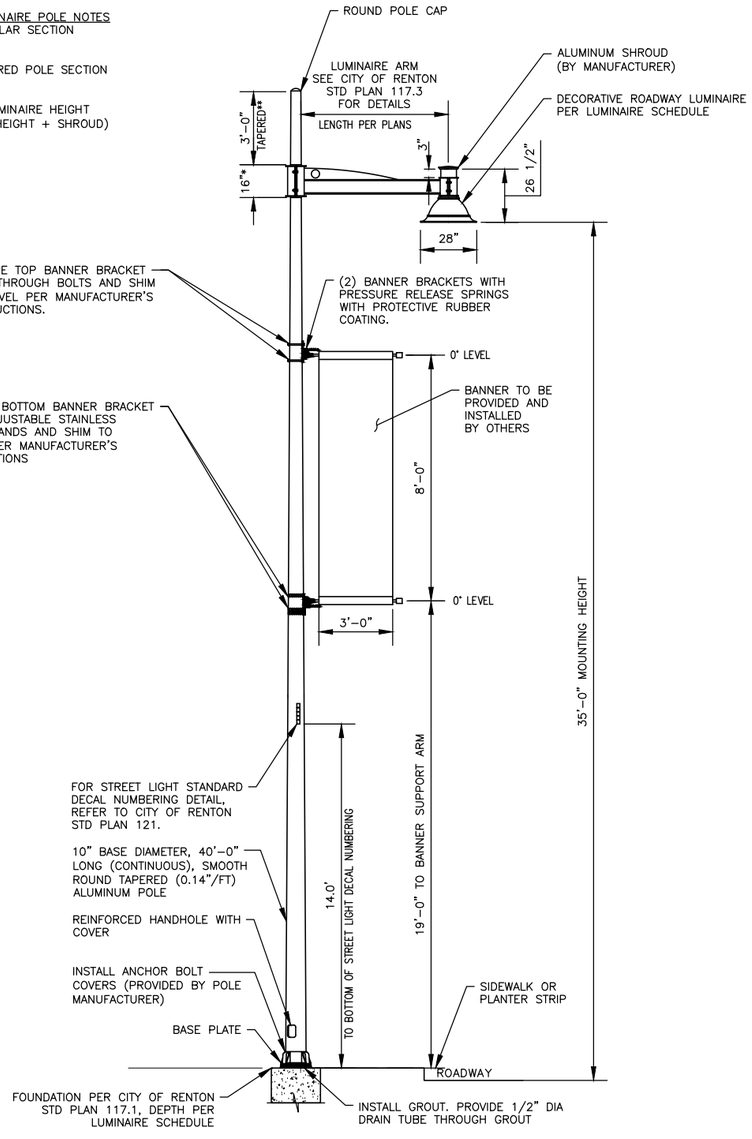
FILENAME: jenl,bsan X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 IL.dwg Layout Name: IL1
Nov 19, 2018 - 7:55am

PAINT SPECIFICATIONS:
ALL ALUMINUM LUMINAIRE AND POLE RELATED PARTS SHALL BE FACTORY PRIMED AND POWDER COATED.
FINISH COLOR: RAL 9005TX "JET BLACK"

DECORATIVE LUMINAIRE POLE NOTES
* ROUND TUBULAR SECTION (NO TAPER)

** ROUND TAPERED POLE SECTION (0.14"/FT)

*** NOMINAL LUMINAIRE HEIGHT (LUMINAIRE HEIGHT + SHROUD)



DECORATIVE ROADWAY LUMINAIRE POLE
NTS

NOTE TO REVIEWER:
CIRCUIT DIAGRAM WILL BE PROVIDED AT 90%

BREAKER SCHEDULE — SERVICE "S1" @ 16+75, 120/240 VOLT

CIRCUIT	DESCRIPTION	BREAKER RATING	CONTACTOR RATING	VOLTAGE	LOAD (KVA)
	SERVICE	100 AMP			
A	SIGNAL	50 AMP		120	3.26
B	GROUND FAULT RECEPTACLE (GFR)	20 AMP		120	1.80
C	NEW LIGHTING 1	15 AMP	30 AMP	240	0.46
D	EX LIGHTING 1	20 AMP	30 AMP	240	0.77
E	EX LIGHTING 2	20 AMP	30 AMP	240	1.08
F	EX LIGHTING 3	20 AMP	30 AMP	240	1.08
G	EX LIGHTING 4	15 AMP	30 AMP	240	1.39
H	PHOTOCELL	15 AMP		120	0.001
			PEAK		9.86
			CONTINUOUS		8.06

NOTE:
EXISTING SERVICE CABINET TO BE REMOVED POWERS FOUR(4) DEDICATED EXISTING ILLUMINATION CIRCUITS. THOSE FOUR ILLUMINATION CIRCUITS SHALL BE RECONNECTED AT NEW SERVICE CABINET SO THAT EXISTING LUMINAIRES DO NOT REQUIRE RE-WIRING.

FILEWIRE:
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505 FIFTH AVENUE S, SUITE 300
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206.436.0515 | 800.615.9900

60% DESIGN SUBMITTAL
PRELIMINARY
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

BRENT MATTHEW POWELL STATE OF WASHINGTON 55619 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. HENDRIX
APPROVED: P. DE BOLDT

SCALE: NTS
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

ILLUMINATION DETAILS

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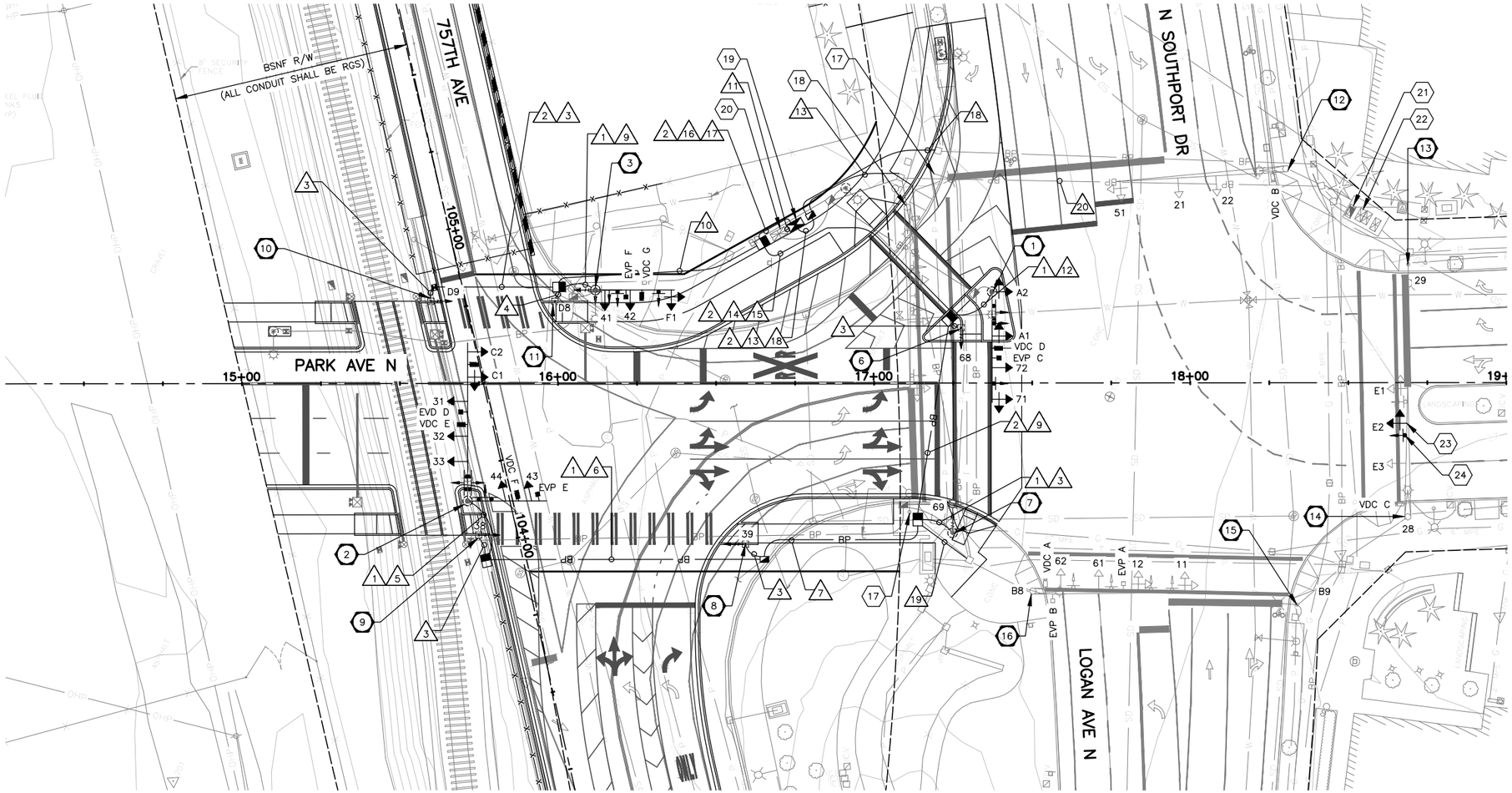

CONSTRUCTION NOTES

1. CONSTRUCT FOUNDATION PER SIGNAL DETAIL DWG SG3. PROVIDE AND INSTALL TYPE III SIGNAL POLE PER THE DETAILS SHOWN ON THE SIGNAL POLE DRAWING. PROVIDE AND INSTALL FOUR VEHICLE SIGNAL HEADS, ONE MODEL 764 OPTICOM DETECTOR, ONE RZ-4 AWDR VIDEO DETECTION CAMERA, ONE R3-6 SIGN, TWO R3-5R SIGNS, ONE D3-101 SIGN, ONE LUMINAIRE ARM ASSEMBLY WITH LED FIXTURE, AND ONE TERMINAL CABINET, INCLUDING MOUNTINGS.
2. CONSTRUCT FOUNDATION PER SIGNAL DETAIL DWG SG3. PROVIDE AND INSTALL TYPE III SIGNAL POLE PER THE DETAILS SHOWN ON THE SIGNAL POLE DRAWING. PROVIDE AND INSTALL SEVEN VEHICLE SIGNAL HEADS, TWO MODEL 764 OPTICOM DETECTORS, THREE RZ-4 AWDR VIDEO DETECTION CAMERAS, ONE R3-1 SIGN, ONE R9-3A SIGN, THREE D3-101 SIGNS, ONE LUMINAIRE ARM ASSEMBLY WITH LED FIXTURE, AND TWO TERMINAL CABINETS, INCLUDING MOUNTINGS.
3. CONSTRUCT FOUNDATION PER SIGNAL DETAIL DWG SG3. PROVIDE AND INSTALL TYPE III SIGNAL POLE PER THE DETAILS SHOWN ON THE SIGNAL POLE DRAWING. PROVIDE AND INSTALL THREE VEHICLE SIGNAL HEADS, ONE PEDESTRIAN SIGNAL HEAD, ONE MODEL 764 OPTICOM DETECTOR, ONE RZ-4 AWDR VIDEO DETECTION CAMERA, ONE R3-2 (MOD) LED BLANK-OUT SIGN, ONE R3-5R SIGN, ONE R3-6 (MOD) SIGN, ONE D3-101 SIGN, ONE LUMINAIRE ARM ASSEMBLY WITH LED FIXTURE, AND ONE TERMINAL CABINET, INCLUDING MOUNTINGS.
4. NOT USED
5. NOT USED
6. CONSTRUCT FOUNDATION PER WSDOT STD PLAN J-20.11-02 (SHEET 2 OF 2). PROVIDE AND INSTALL TYPE PS POLE PER THE DETAILS SHOWN ON THE SIGNAL POLE DRAWING. PROVIDE AND INSTALL ONE PEDESTRIAN SIGNAL HEAD AND ONE PEDESTRIAN PUSHBUTTON, INCLUDING MOUNTINGS.
7. CONSTRUCT FOUNDATION AND INSTALL POLE PER ILLUMINATION PLAN. PROVIDE AND INSTALL ONE PEDESTRIAN SIGNAL HEAD AND ONE PEDESTRIAN PUSHBUTTON, INCLUDING MOUNTINGS.
8. CONSTRUCT FOUNDATION PER WSDOT STD PLAN J-20.11-02 (SHEET 2 OF 2). PROVIDE AND INSTALL TYPE PS POLE PER THE DETAILS SHOWN ON THE SIGNAL POLE DRAWING. PROVIDE AND INSTALL ONE PEDESTRIAN SIGNAL HEAD AND ONE PEDESTRIAN PUSHBUTTON, INCLUDING MOUNTINGS.
9. SAME AS 8
10. SAME AS 8
11. CONSTRUCT FOUNDATION PER WSDOT STD PLAN J-20.11-02 (SHEET 1 OF 2). PROVIDE AND INSTALL TYPE PPB POST PER THE DETAILS SHOWN ON THE SIGNAL POLE DRAWING. PROVIDE AND INSTALL ONE PEDESTRIAN PUSHBUTTON, INCLUDING MOUNTINGS.
12. EXISTING DECORATIVE MAST ARM POLE TO REMAIN.
13. EXISTING DECORATIVE STREET LIGHT POLE TO REMAIN.
14. EXISTING DECORATIVE MAST ARM POLE TO REMAIN.
15. EXISTING DECORATIVE STREET LIGHT POLE TO REMAIN.
16. EXISTING DECORATIVE MAST ARM POLE TO REMAIN.
17. REMOVE AND SALVAGE EXISTING DECORATIVE STREET LIGHT POLE AND ATTACHMENTS. REMOVE EXISTING WIRING AND CONDUIT.
18. REMOVE EXISTING DECORATIVE MAST ARM POLE AND ATTACHMENTS. REMOVE EXISTING WIRING AND CONDUIT.
19. CONSTRUCT CONTROLLER CABINET FOUNDATION PER CITY OF RENTON STD PLAN 1261. FURNISH AND INSTALL TYPE "P" CABINET, TYPE TS2 CONTROLLER, AND ALL ASSOCIATED EQUIPMENT. CONNECT FIELD WIRING. CONNECT TO PROPOSED ELECTRICAL SERVICE CABINET FOR POWER.SEE ILLUMINATION PLANS FOR SERVICE CABINET.
20. SEE ILLUMINATION PLAN FOR SERVICE CABINET INSTALLATION.
21. SEE ILLUMINATION PLAN FOR REMOVAL OF EXISTING SERVICE CABINET.
22. REMOVE SIGNAL CONTROLLER COMPONENTS. PROTECT CABINET IN PLACE. INSTALL TERMINAL BLOCKS PER WIRING DIAGRAM (TO BE PROVIDED AT 90%).
23. REMOVE AND SALVAGE EXISTING SIGNAL HEAD.
24. REMOVE AND SALVAGE EXISTING R3-5L SIGN.

DISPLAY NOTES

1. ALL VEHICLE SIGNAL HEADS SHALL HAVE 12" L.E.D. LENSES. THE HOUSING SHALL BE ALUMINUM AND PAINTED TRAFFIC YELLOW ON BACK WITH A FLAT BLACK FRONT.
2. VEHICLE HEADS SHALL BE INSTALLED ON TYPE "M" MOUNTING PER WSDOT STD. PLAN J-75.20-01.
3. ALL PEDESTRIAN SIGNAL HEADS SHALL BE COUNTDOWN TYPE AND SOLID (NOT OUTLINED) L.E.D. WITH SYMBOLIC LEGENDS AND "Z-CRATE" VISORS. THE ALUMINUM HOUSING SHALL BE PAINTED YELLOW WITH FLAT BLACK VISORS.
4. PEDESTRIAN HEADS ON TYPE II AND TYPE III POLES SHALL BE INSTALLED WITH TYPE "E" MOUNTING PER WSDOT STD. PLAN J-75.10-02. PEDESTRIAN HEADS ON PS POLES SHALL BE INSTALLED WITH TYPE "D" MOUNTING FOR SINGLE HEADS AND OR TYPE "A" MOUNTING FOR TWO HEADS PER WSDOT STD. PLAN J-75.10-02.
5. ALL MAST-ARM MOUNTED STREET NAME SIGNS SHALL HAVE HIGH INTENSITY PRISMATIC TYPE IV REFLECTIVE SHEETING AND MOUNTED WITH STAINLESS STEEL STRAPS AND BRACKETS (SEE WSDOT STD. PLAN G-30.10-04).

GENERAL NOTES

1. UTILITY LOCATION (DIAL-A-DIG) PRIOR TO CONSTRUCTION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONFLICTS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
2. ALL JUNCTION BOXES AND CONDUIT RUNS SHALL BE INSTALLED AS SHOWN ON THE PLANS, LOCATIONS SHOWN ARE SCHEMATIC AND THE ENGINEER WILL PROVIDE EXACT LOCATIONS. SEE WSDOT STD. PLANS J-10, J-40.10-04, J-40.30-04, J-50.15-01 AND J-90.10-03.
3. COIL 8 FT. OF EACH 5C, 7C, OR 10C CONDUCTOR FROM EACH MAST ARM MOUNTED SIGNAL HEAD INSIDE THE SIGNAL POLE.
4. UNLESS OTHERWISE SPECIFIED, ALL PROPOSED SIGNAL CONDUIT SHALL BE PVC SCH 80 UNDER ROADWAY AND PVC SCH 40 ELSEWHERE.
5. EQUIPMENT GROUNDS SHALL BE #4 CONDUCTOR TO THE #4 HOOPS OF SIGNAL POLE OR STREET LIGHT FOUNDATION. AND RE-BAR OF THE SERVICE FOUNDATION PER NEC. #8 CONDUCTOR SHALL CONNECT FROM J-BOX TO ELECTRICAL SERVICE CABINET. SEE WSDOT STD. PLAN J-60.05-01.
6. PEDESTRIAN PUSHBUTTONS SHALL BE MOUNTED PER MANUFACTURER REQUIREMENTS AND WSDOT STD. PLAN J-20.26-01.

EMERGENCY VEHICLE PRE-EMPTION SCHEDULE	
CIRCUIT	PHASE(S)
A	1 & 6
B	2 & 5
C	7
D	3
E	4
F	4

SCALE
20 0 20 40
FEET

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NO.	REVISION	BY	DATE	APPR

DESIGNED: C. WEUSTNEY
DRAWN: J. RED
CHECKED: M. HENDRIX
APPROVED: B. POWELL
SCALE: 1"=20'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY
VERTICAL: NAVD 1988 HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

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TRAFFIC SIGNAL PLAN

DATE: 11/19/18
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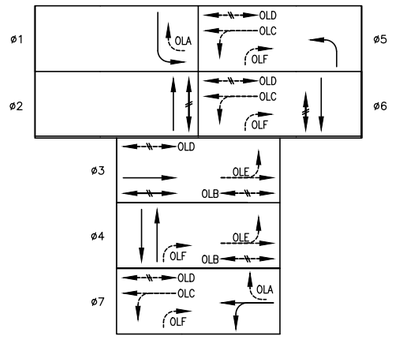
PHASING DIAGRAM – GENERAL

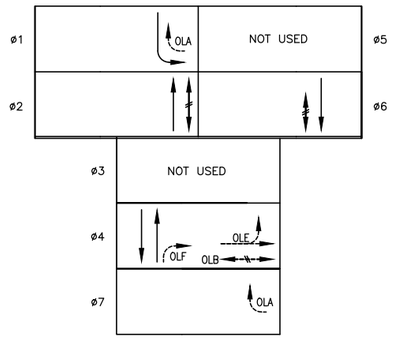


VEHICLE MOVEMENT
PEDESTRIAN MOVEMENT
OVERLAP VEHICLE MOVEMENT
OVERLAP PEDESTRIAN MOVEMENT

NOTES:
1. ONLY PROTECTED MOVEMENTS SHOWN.
2. PEDESTRIAN MOVEMENTS ACROSS RAILROAD TRACKS ARE CONTROLLED BY RAILROAD GATES NOT THE TRAFFIC SIGNAL.

OVERLAPS
OLA = ø1 + ø7
OLB = ø3 + ø4
OLC = ø5 + ø6 + ø7
OLD = ø3 + ø5 + ø6 + ø7
OLE = ø3 + ø4
OLF = ø4 + ø5 + ø6 + ø7

PHASING DIAGRAM – DURING RAILROAD PREEMPTION

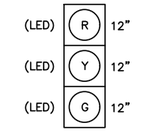


VEHICLE MOVEMENT
PEDESTRIAN MOVEMENT
OVERLAP VEHICLE MOVEMENT
OVERLAP PEDESTRIAN MOVEMENT

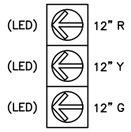
NOTES:
1. ONLY PROTECTED MOVEMENTS SHOWN.
2. PEDESTRIAN MOVEMENTS ACROSS RAILROAD TRACKS ARE CONTROLLED BY RAILROAD GATES.

OVERLAPS
OLA = ø1 + ø7
OLB = ø4
OLC = NOT USED
OLD = NOT USED
OLE = ø4
OLF = ø4

SIGNAL DISPLAYS



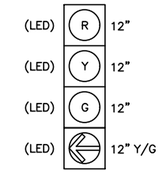
EX 21, EX 22, 31, 32, 33, 41, 42, 43, 44, 72, EX 61, EX 62, EX E3



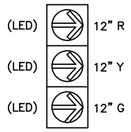
EX 11, EX 12, EX 51, EX E1

COUNTDOWN

EX 28, EX 29, 38, 39, 68, 69, EX B8, EX B9, D8, D9

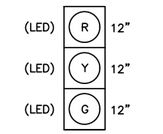


71, E2



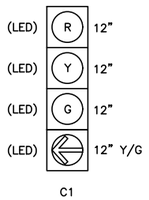
A1, A2

LOUVERED



C2

LOUVERED



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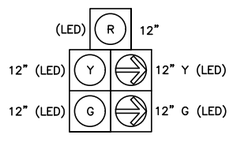

F1

WIRING SCHEDULE

NO.	CONDUIT SIZE	P/V DETECT 2C(S)	E.V. DETECT 3C(S)	SIGNAL 5C	SIGNAL 7C	VIDEO	TRANSIT SIGNAL PRIORITY CAT5e	24–SMFO	CABINET POWER #6	SIGN POWER #10	NOTES
1	2"										SPARE
2	3"										SPARE
3	2"	1		1							
4	1"	1									
5	3"		2	3	1	3					
6	3"	1	2	4	1	3					
7	3"	2	2	5	1	3					
8	3"		1	2	1	1				2	
9	4"	4	4	8	1	4					
10	3"	2	1	3	1	1				2	
11	2"								3		
12	3"		1	1	1	1					
13	3"	4		8		2	1				
14	4"			10	2						
15	3"	5	5			5					
16	4"			13	3					2	
17	3"	7	6			6					
18	2"							1			SIGNAL INTERCONNECT
19	3"	1	2	2		1					
20	EX 3"	4		7	1	2	1				

TRAFFIC SIGNAL POLE GATE SIGNING SCHEDULE

LEGEND	WSDOT SIGN CODE	WIDTH IN	HEIGHT IN	SIGN NO.	POLE NO.	MOUNTING LOCATION	FACING	NOTES
← Logan Ave N N Southport Dr →	D3–101	156	42	S1	1	MAST ARM	SE	ADJACENT TO POLE SHAFT
Park Ave N	D3–101	96	24	S2	2	MAST ARM 25'	NE	ADJACENT TO POLE SHAFT
				S3	3	POLE SHAFT	SW	CANTILEVERED (DETAIL TO BE PROVIDED AT 90%)
757th Ave	D3–101	90	24	S4	2	MAST ARM 50'	NW	ADJACENT TO POLE SHAFT
				S5	2	MAST ARM 50'	SE	OPPOSITE S4
	R3–1	30	30	S6	10	POLE SHAFT	NE	
				S7	2	POLE SHAFT	NE	
TRAIN	R3–2 MOD	30	36	S8	3	POLE SHAFT	SW	LED BLANK–OUT MOUNT SIGN TO MAST PER WSDOT STD PLAN J–75.30–02 "TRAIN" SHALL BE WHITE
ONLY	R3–5R	30	36	S9	1	MAST ARM	SE	ADJACENT TO SIGNAL HEAD A1
				S10	1	MAST ARM	SE	ADJACENT TO SIGNAL HEAD A2
				S11	3	MAST ARM	SW	ADJACENT TO SIGNAL HEAD F1
	R3–6	30	36	S12	1	MAST ARM	SE	ADJACENT TO SIGNAL HEAD 71
				S13	14	MAST ARM	NW	ADJACENT TO SIGNAL HEAD E2
	R9–3A	18	18	S14	2	POLE SHAFT	NE	BELOW S7
	R3–6 (MOD)	30	36	S16	3	MAST ARM	SW	BETWEEN SIGNAL HEADS 41 AND 42

NOTE: EXISTING SIGNS NOT SHOWN.

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TRAFFIC SIGNAL DETAILS

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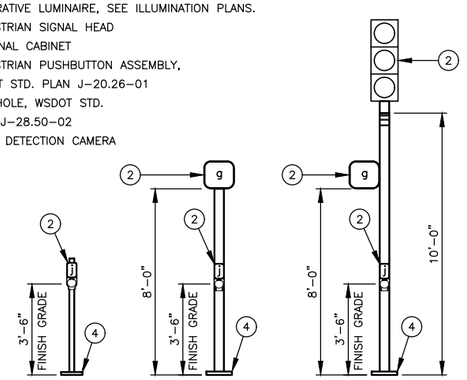
NOTES

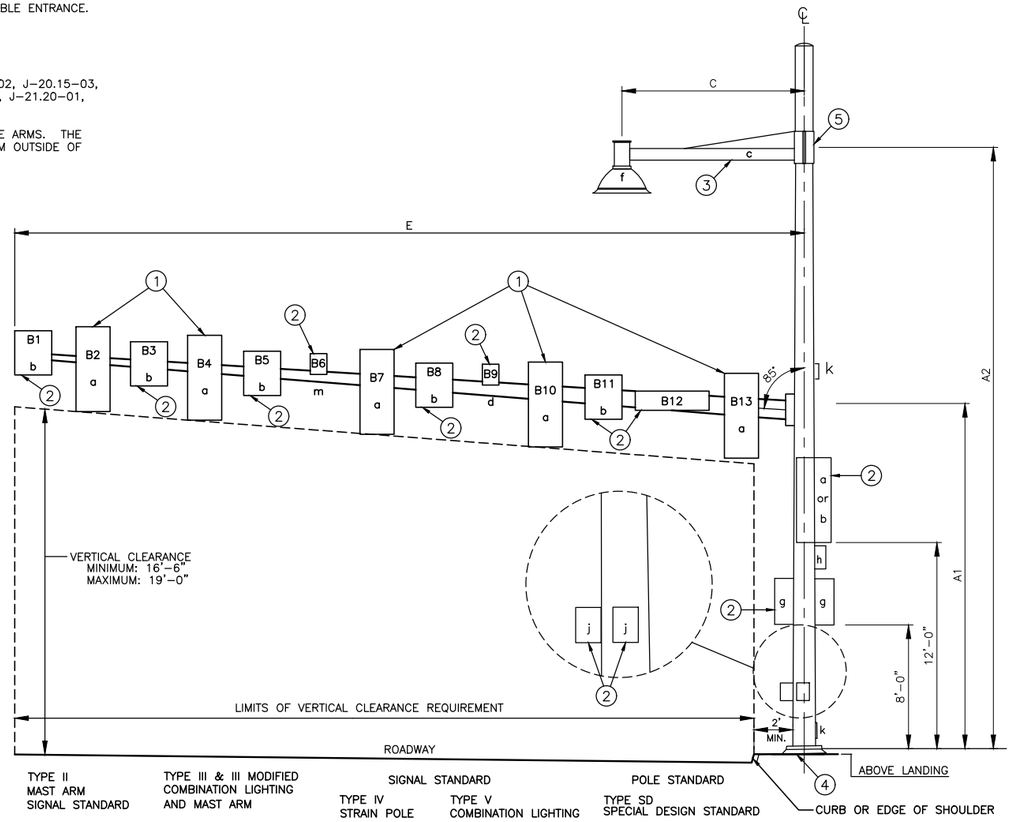
1. MOUNTING TENON TO BE INSTALLED BY FABRICATOR AT OFFSET DISTANCES INDICATED IN CHART. IF TYPE "N" MOUNTING IS USED, DRILL 1" HOLE IN MAST ARM AND INSTALL PLASTIC SPLIT BUSHING FOR CABLE ENTRANCE.
2. FIELD INSTALLED.
3. DECORATIVE LUMINAIRE ARM. SEE ILLUMINATION PLANS.
4. FOUNDATIONS SHALL CONFORM TO THE WSDOT STD PLAN J-28.30-03, J-20.10-03, J-20.11-02, J-20.15-03, J-20.16-02, J-20.20-02, J-20.26-01, J-21.10-04, J-21.15-01, J-21.16-01, J-21.17-01, J-21.20-01, J-22.15-01, J-22.16-03 OR J-26.10-03.
5. ALL TYPE III SIGNAL STANDARDS AND STREET LIGHT STANDARDS SHALL HAVE BOLT ON LUMINAIRE ARMS. THE BOLTS AND/OR NUTS SHALL BE FIELD INSTALLED AND BE ACCESSIBLE AFTER INSTALLATION FROM OUTSIDE OF POLE.

LEGEND

a. VEHICLE SIGNAL HEAD
b. SIGN, WSDOT STD. PLAN G-30.10-03
c. DECORATIVE LUMINAIRE ARM, SEE ILLUMINATION PLANS.
d. PRE-EMPT DETECTOR
e. SIGNAL MAST ARM
f. DECORATIVE LUMINAIRE, SEE ILLUMINATION PLANS.
g. PEDESTRIAN SIGNAL HEAD
h. TERMINAL CABINET
j. PEDESTRIAN PUSHBUTTON ASSEMBLY, WSDOT STD. PLAN J-20.26-01
k. HANDHOLE, WSDOT STD. PLAN J-28.50-02
m. VIDEO DETECTION CAMERA



TYPE PPB PPB POST | TYPE PS PED. HEAD STANDARD | TYPE I VEHICLE HEAD STANDARD



TYPE II MAST ARM SIGNAL STANDARD | TYPE III & III MODIFIED COMBINATION LIGHTING AND MAST ARM

SIGNAL STANDARD
TYPE IV STRAIN POLE STANDARD | TYPE V COMBINATION LIGHTING AND STRAIN

POLE STANDARD
TYPE SD SPECIAL DESIGN STANDARD

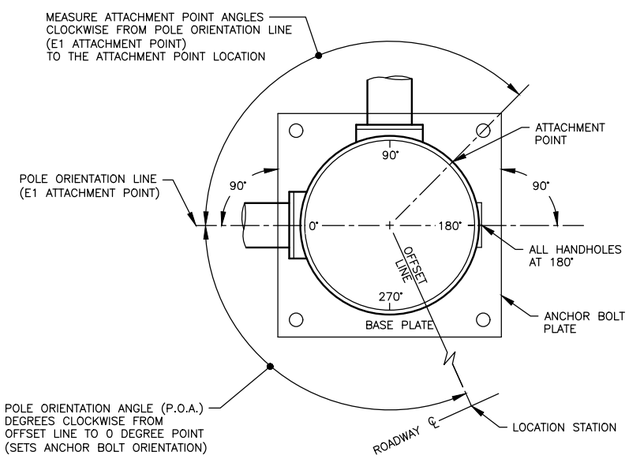
NOTE TO REVIEWER:
FOUNDATION DEPTH AND SIZE MAY CHANGE AT 90% AFTER GEOTECHNICAL EXPLORATION IS COMPLETED.

PUSH BUTTON SCHEDULE

PUSH BUTTON	PHASE	POLE LOCATION	ARROW DIRECTION	SIGN	SPECIAL VOICE MESSAGE
68	6	6	LEFT	R10-4E(L)	
69	6	7	RIGHT	R10-4E(R)	
39	3	8	RIGHT	R10-4E(R)	
38	3	9	LEFT	R10-4E(L)	
D9	OLD	10	RIGHT	R10-4E(R)	
D8	OLD	11	LEFT	R10-4E(L)	

NOTES:

1. SEE POLE SCHEDULE FOR MOUNTING LOCATION ON POLE.
2. PUSH BUTTONS SHALL INCLUDE LOCATOR TONE, CONFIRMATION LIGHT, AND CONFIRMATION MESSAGE UPON ACTIVATION.
3. ARROW DIRECTION ON SIGN SHALL MATCH TACTILE ARROW DIRECTION ON PUSH BUTTON.
4. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
5. EXISTING PUSH BUTTONS TO REMAIN ARE NOT LISTED.



POLE ORIENTATION & ATTACHMENT POINT DETAIL

PLAN VIEW

SIGNAL STANDARD DETAIL CHART

FIELD LOCATION							POLE TYPE	MOUNTING HEIGHT (FT)		ARM LENGTH (FT)		OFFSET DISTANCES: POLE CL TO ATTACHMENT POINT (FT) (X)												WINDLOAD AREAS (FT²) (XY)												XYZ TOTAL (FT³)	POLE ATTACHMENT POINT ANGLES (DEG)										FOUNDATION DEPTH (FT)			
POLE	STATION	OFFSET	LT.	RT.	ELEV.	POA		A1	A2	E	C	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13		a/b	c	d	e	g1	g2	h	j1	j2	k	m	3' RD.	3' SQ.	4' RD.	REMARKS
1	17+37.32	28.86'	LT			0	III	17	35	35	12		34.0	29.0	24.0		20.9	14.0	10.0	17.9			6.5			11.6	7.5	9.2			9.2	7.5				45.5		1332.25	0	0	0	0			180			180	0	11.0	9.0	9.0	
2	15+71.42	37.16'		RT		90	III	17	35	50	12		47.2		39.2		43.2						5.8			9.2		11.6								15		1656.36	0	0		0			180			180		18.0	11.0	11.0	N. FACE 50' MAST ARM
													31.5		20.5		24.2	12.5		28.2			5.8			9.2		9.2			9.2					15			0							0				S. FACE 50' MAST ARM
								17		25			20.2		12.0		16.1			22.6			5.5			9.2		9.2								16		384.24	90		90							90				E. FACE 25' MAST ARM
3	16+11.85	29.50'	LT			270	III	17	35	25	12		24.0	20.0	11.0	7.0	14.7	3.0		9.7			4.4			9.2	7.5	9.2	7.5		9.2					16		747.30	0	90	0	0	180					180	0	10.0	8.0	8.0	
6	17+27.53	17.50'	LT			0	PS																																			0		270					WSDOT STD. J-20.10-03			
7	17+24.80	47.40'		RT		0	LIGHT																																	0				0		90		180		WSDOT STD. J-20.10-03			
8	16+59.26	50.87'		RT		270	PS																																	0		90		180		WSDOT STD. J-20.10-03			
9	15+74.86	47.94'		RT		90	PS																																	0		270		180		WSDOT STD. J-20.10-03			
10	15+59.80	26.00'	LT			270	PS																																	0		90		180		WSDOT STD. J-20.10-03			
11	15+99.03	25.94'	LT			90	PPB																																			270				WSDOT STD. J-20.10-03			
14	18+68.79	42.38'		RT		0	III						40.5	36.3	29.5	25.7		16.9					6.5			9.2	7.5	11.6	7.5		9.2					30.0		1530.28														

PERTEET
505 FIFTH AVENUE S, SUITE 300
SEATTLE, WA 98104
206.436.0515 | 800.615.9900

60% DESIGN SUBMITTAL
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NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

BRENT MATTHEW POWELL STATE OF WASHINGTON 55619 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: C. WUESTNEY
DRAWN: J. RED
CHECKED: M. HENDRIX
APPROVED: B. POWELL

SCALE: NTS
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

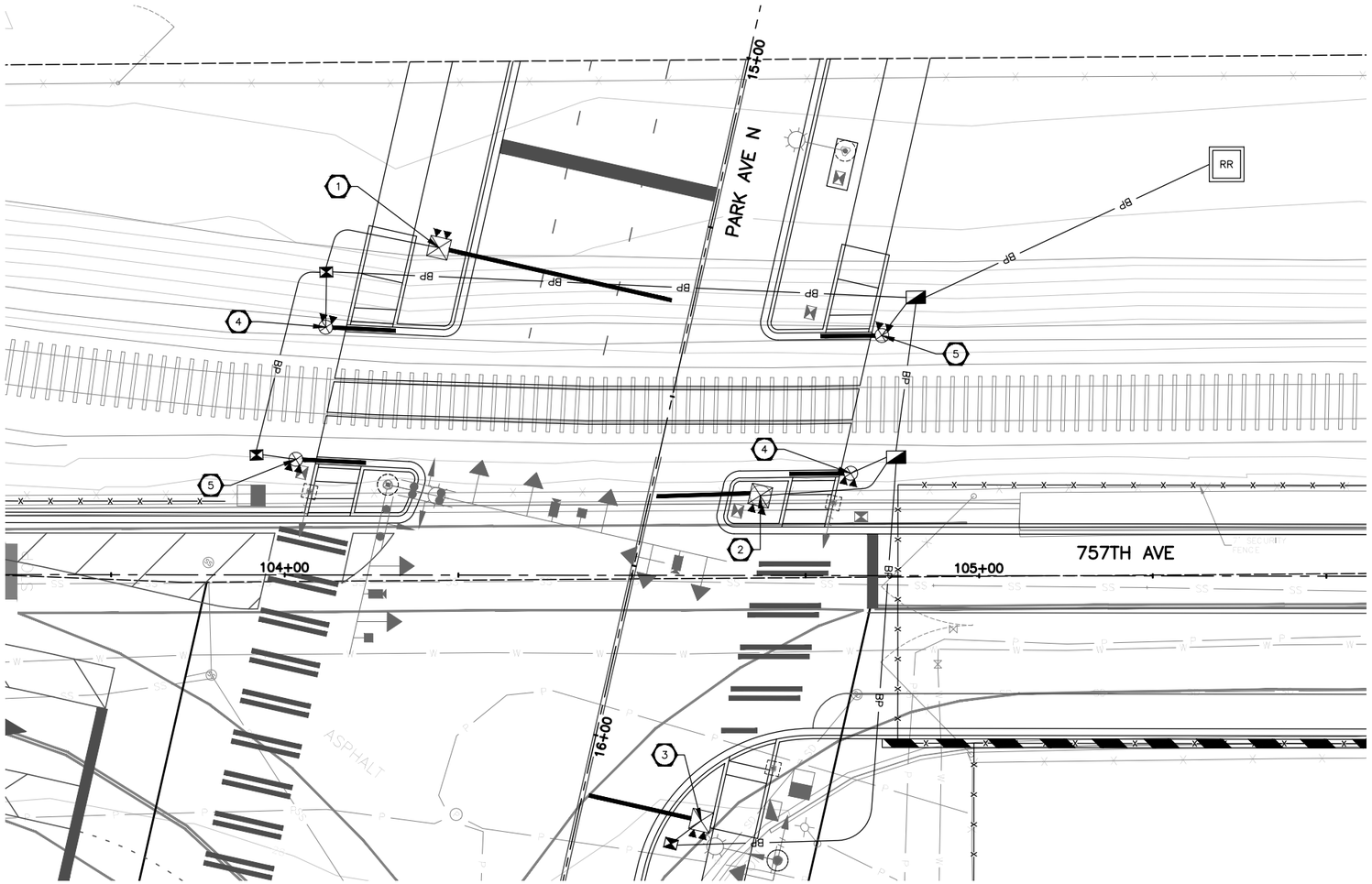
CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

TRAFFIC SIGNAL DETAILS

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: SG3
SHEET: 22 OF 33

FILENAME: Nov 19, 2018 - 7:56am jerri.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 SG.dwg Layout Name: SG3



INSTALLATION NOTES

1. CONSTRUCT FOUNDATION PER ROADWAY GATE FOUNDATION DETAIL ON DWG RR2. PROVIDE AND INSTALL ROADWAY GATE ASSEMBLY WITH 34.5–FOOT GATE ARM PER DETAIL ON DWG RR2.
2. CONSTRUCT FOUNDATION PER ROADWAY GATE FOUNDATION DETAIL ON DWG RR2. PROVIDE AND INSTALL ROADWAY GATE ASSEMBLY WITH 15–FOOT GATE ARM PER DETAIL ON DWG RR2.
3. CONSTRUCT FOUNDATION PER ROADWAY GATE FOUNDATION DETAIL ON DWG RR2. PROVIDE AND INSTALL ROADWAY GATE ASSEMBLY WITH 16.5–FOOT GATE ARM PER DETAIL ON DWG RR2.
4. CONSTRUCT FOUNDATION PER SIDEWALK GATE FOUNDATION DETAIL ON DWG RR2. PROVIDE AND INSTALL SIDEWALK GATE ASSEMBLY (LEFT SIDE) PER DETAIL ON DWG RR2.
5. CONSTRUCT FOUNDATION PER SIDEWALK GATE FOUNDATION DETAIL ON DWG RR2. PROVIDE AND INSTALL SIDEWALK GATE ASSEMBLY (RIGHT SIDE) PER DETAIL ON DWG RR2.

GENERAL NOTES

1. CONTRACTOR SHALL CONFIRM POLE LOCATIONS WITH BNSF AND THE ENGINEER PRIOR TO CONSTRUCTING FOUNDATIONS.
2. BNSF SHALL LOCATE, PROCURE, AND INSTALL ALL CONDUITS AND WIRING. BNSF SHALL PROCURE AND INSTALL BUNGALOW AND COORDINATE WITH PSE FOR POWER.

NOTE TO REVIEWER:

RAILROAD PRE–EMPTION SYSTEM WILL BE SHOWN AT 90% AND BASED ON PRIOR CITY OF RENTON PROJECTS WITH BNSF. PLEASE PROVIDE RECORD DRAWINGS FOR REFERENCE.

SCALE
10 0 10 20
FEET

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BRENT MATTHEW POWELL STATE OF WASHINGTON 53619 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. HENDRIX
APPROVED: P. DE BOLDT

SCALE: 1"=10'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

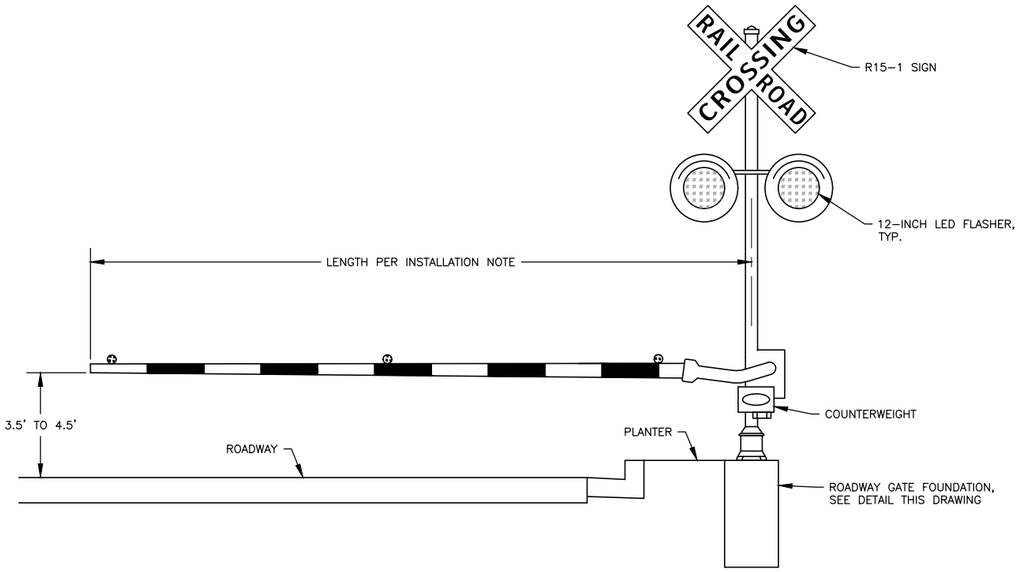
CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

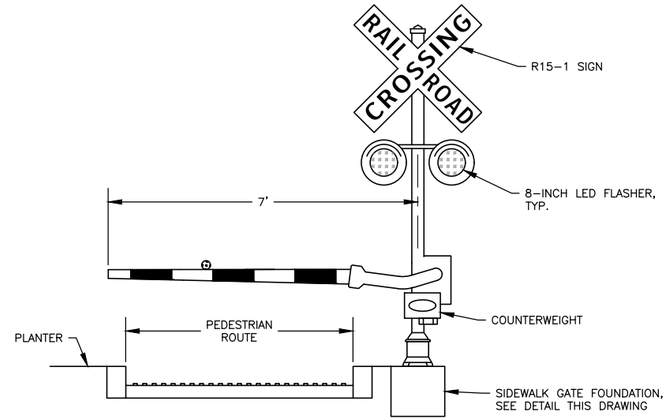
RAILROAD CROSSING PLAN

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: RR1
SHEET: 23 OF 33

FILENAME: jent.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 RR.dwg Layout Name: RR1
Nov 19, 2018 - 7:57am



ROADWAY GATE ASSEMBLY
NTS



NOTE: RIGHT-SIDE ASSEMBLIES SHALL MATCH THE ABOVE DETAIL BUT BE MIRRORED ABOUT THE POLE CENTERLINE

SIDEWALK GATE ASSEMBLY (LEFT SIDE)
NTS

NOTE TO REVIEWER:
FOUNDATION DESIGN TO BE PROVIDED AT 90% AFTER GEOTECHNICAL INVESTIGATION IS COMPLETE.

ROADWAY GATE FOUNDATION
NTS

NOTE TO REVIEWER:
FOUNDATION DESIGN TO BE PROVIDED AT 90% AFTER GEOTECHNICAL INVESTIGATION IS COMPLETE.

SIDEWALK GATE FOUNDATION
NTS

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STATE OF WASHINGTON
55619
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PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
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CHECKED: M. HENDRIX
APPROVED: P. DE BOLDT

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RAILROAD CROSSING DETAILS

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: RR2
SHEET: 24 OF 33

FILENAME: Nov 19, 2018 - 7:57am jenn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 RR.dwg Layout Name: RR2

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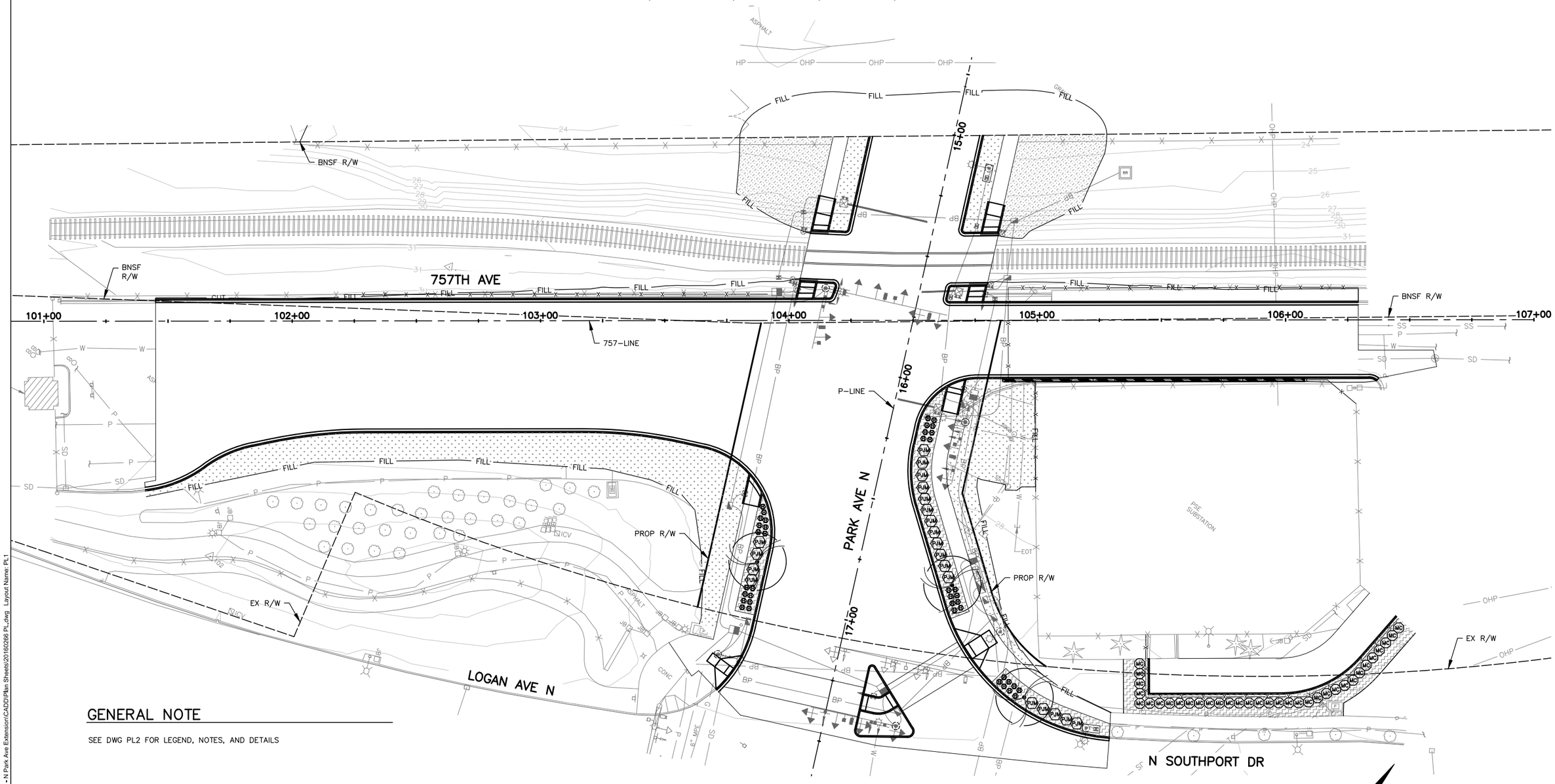

GENERAL NOTE

SEE DWG PL2 FOR LEGEND, NOTES, AND DETAILS

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

JASON TODD WALKER
CERTIFICATE NO. 766

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SEATTLE, WA 98104
206.436.0515 | 800.615.9900

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DESIGNED: J. WALKER
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: 1"=20'
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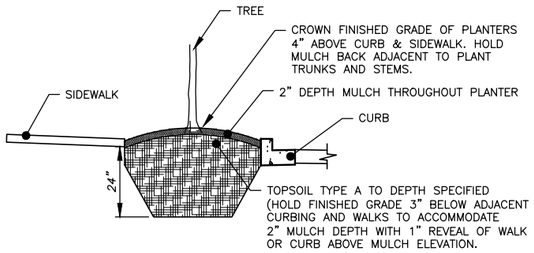
PLANTING PLAN

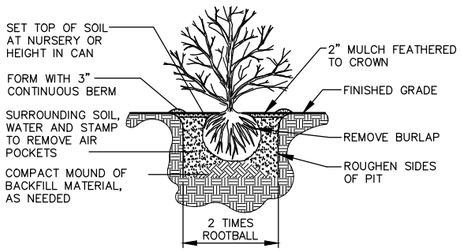
DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: PL1
SHEET: 25 OF: 33

FILENAME: Nov 19, 2018 - 7:58am jenn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 PL.dwg Layout Name: PL1



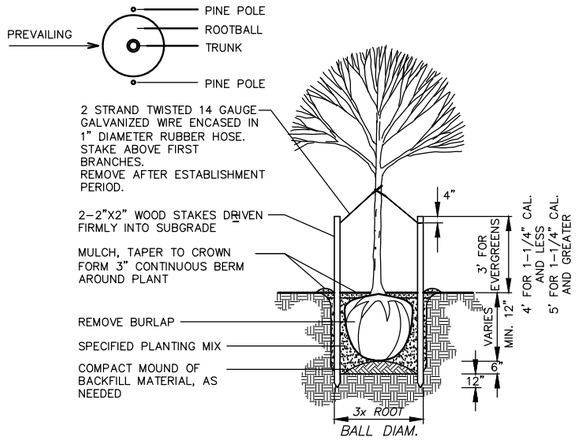
TYPICAL PLANTING BED DETAIL

N.T.S.



TYPICAL SHRUB PLANTING DETAIL

N.T.S.



TYPICAL TREE PLANTING DETAIL

N.T.S.

GENERAL PLANTING NOTES

1. ON-SITE SOIL MIXING OR PLACEMENT NOT ALLOWED WHEN SOIL IS SATURATED, FROZEN, OR IN THE OPINION OF THE ENGINEER, IN A CONDITION DETRIMENTAL TO THE WORK.
2. LANDSCAPE PLANTING AREAS (ALL SHRUB AND TREE AREAS) SHALL RECEIVE 24" DEPTH TOPSOIL TYPE A AND MIN. 2" DEPTH OF MEDIUM BARK MULCH ON FINISHED GRADE OF SOIL.
3. AFTER PLANTING, IMMEDIATELY SATURATE ALL PLANTING PITS TO ELIMINATE AIR POCKETS AND FACILITATE SETTLING OF BACKFILL MATERIAL.
4. ROOT MASSES OF CONTAINERIZED STOCK SHOULD BE "SCORED" WITH A SHARP OBJECT TO INSURE THE PLANTS WILL NOT BECOME ROOT BOUND.
5. ANY PLANT SUBSTITUTIONS SHALL BE APPROVED BY LANDSCAPE ARCHITECT.
6. LANDSCAPE PLANTING SHALL BE INSTALLED AFTER SITE WORK IS DONE, INCLUDING ROADS, UTILITIES, DRIVEWAYS, ETC.
7. SEED AREAS FOR LAWN ON FINISHED GRADE OF MINIMUM 6" DEPTH TOPSOIL.
8. SEE SPEC FOR BIDDER PROVIDED IRRIGATION OF SHRUB AND TREE AREAS AT LOGAN AVE N. AND PARK AVE N. AUTOMATIC IRRIGATION TO BE PROVIDED BY BIDDER DESIGN AND SHALL REQUIRE BACKFLOW PROTECTION. SLEEVES BY GENERAL CONTRACTOR ARE INDICATED ON LANDSCAPE PLAN. SEE SPEC. IRRIGATION SHALL BE OPERATIONAL FOR AT LEAST TWO YEARS. (SPEC TO BE PROVIDED AT 90%)
9. ALL LANDSCAPING MAY BE INSPECTED AND REVIEWED FOR POTENTIAL ACCEPTANCE BY THE OWNER AND BY PERMIT AGENCIES AS WELL AS THE PROJECT ENGINEER.
10. ALL TREES PLANTED NEAR SIDEWALKS AND ROADWAYS SHALL INCLUDE A ROOT BARRIER PER SPEC.

PLANT SCHEDULE – PARK AVE N EXTENSION

TREES

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
	PRUNUS SERRULATA 'ROYAL BURGUNDY'	ROYAL BURGUNDY CHERRY	AS SHOWN	3	2" CAL.	B&B, SINGLE STRAIGHT TRUNK, MATCHED, 6' CLEAR CANOPY

SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
	RHODODENDRON AUGUSTINII X 'INTRAFAST'	BLUE DIAMOND RHODODENDRON	2' O.C.	40	15"-18", 1 GAL.	FULL
PJM	RHODODENDRON PEMAKOENSE	PJM ROHDODENDRON	4' O.C.	21	18"-21" 2 GAL.	FULL
MC	MYRICA CALIFORNICA	PACIFIC WAX MYRTLE	4' O.C.	34	5 GAL.	FULL

GROUNDCOVERS

COMMON NAME	SPACING	AREA (SF)	QTY.	SIZE (MIN.)	NOTES
GRASS SEED AT DISTURBED AREAS		6,200			OUTSIDE OF PLANTING AREAS AS INDICATED AND ALONG ROW
MULCH AT PLANTING AREAS		2,725			IN PLANTING STRIPS
EROSION CONTROL HYDROSEED		2,350			BEHIND SIDEWALKS IN BNSF RIGHT-OF-WAY AS INDICATED

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

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CERTIFICATE NO. 766

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NO.	REVISION	BY	DATE	APPR

DESIGNED: J. WALKER
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: NTS
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

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PLANTING DETAILS

DATE: 11/19/18
FIELDBOOK:
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DRAWING NO: PL2
SHEET: 26 OF 33

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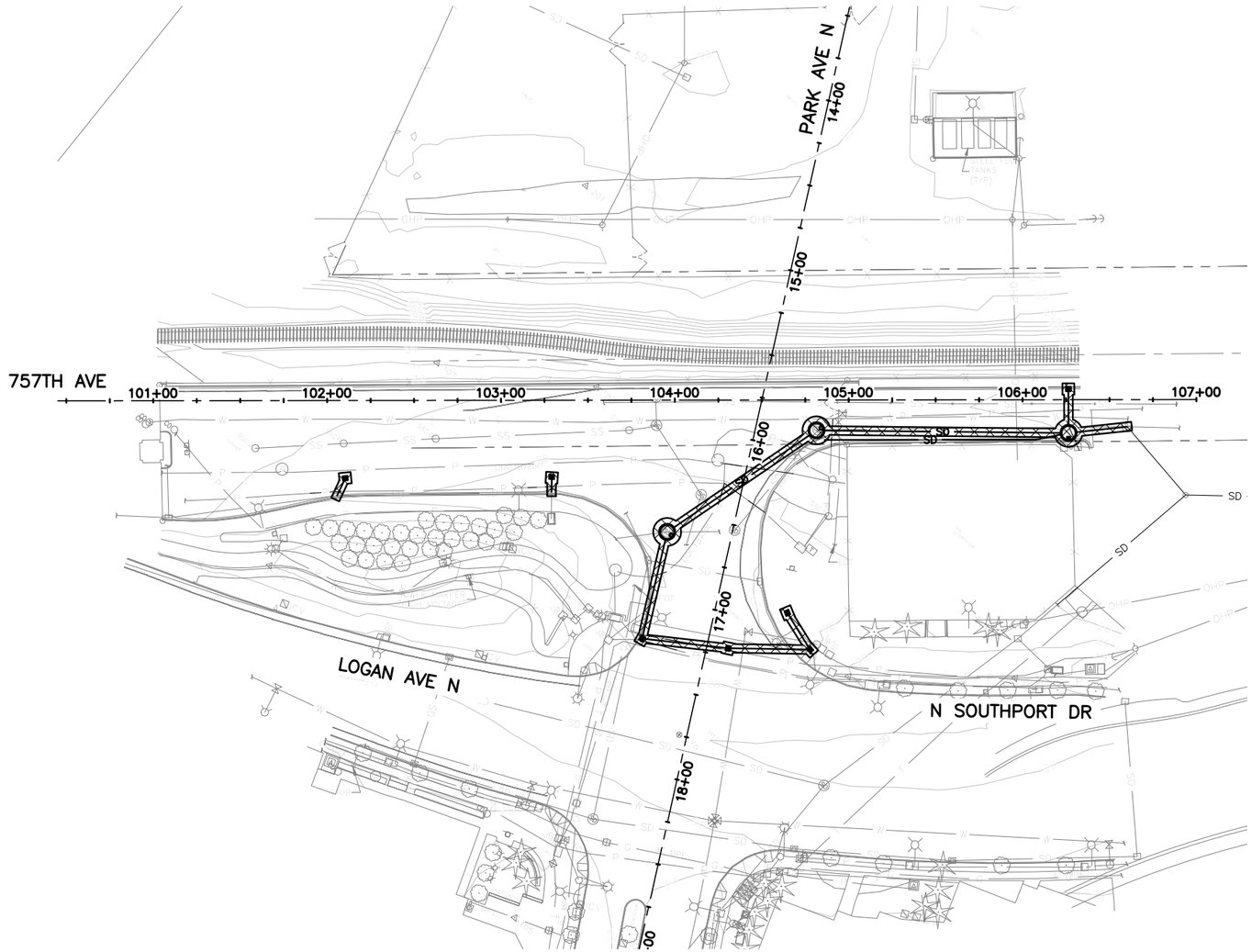

CONSTRUCTION SEQUENCING NOTES:

1. ALL EXISTING AND FUTURE IMPROVEMENTS, INCLUDING UTILITIES, ARE NOT SHOWN ON THIS DRAWING. FOR ADDITIONAL INFORMATION, SEE THE APPLICABLE CONTRACT DRAWINGS.
2. IN ALL CASES, UNDERGROUND UTILITIES SHALL BE CONSTRUCTED PRIOR TO START OF FINAL SURFACE IMPROVEMENTS SUCH AS, BUT NOT LIMITED TO, PAVEMENT BASE MATERIAL, SIDEWALKS, CURBS AND GUTTERS, PAVEMENTS, ETC.
3. CONSTRUCTION SEQUENCING SHOWN ON THESE PLANS IS THE AGENCY'S PREFERRED COURSE OF ACTION. ALTERNATIVE SEQUENCING MAY BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. ACCEPTANCE OF ALTERNATIVE SEQUENCING CONCEPTS SHALL BE AT THE SOLE DISCRETION OF THE ENGINEER AND THE CONTRACTOR SHALL NOT PRESUME THAT ALTERNATIVES WILL BE ACCEPTED. THE CONTRACTOR SHALL USE THESE CONSTRUCTION SEQUENCING PLANS AS THE BASIS FOR THE CONTRACT BID.
4. CONSTRUCTION ACTIVITIES NOT SPECIFICALLY SEQUENCED HEREON SHALL BE CONDUCTED IN A MANNER TO MINIMIZE PUBLIC IMPACT. FULL PROGRESS SCHEDULES IN ACCORDANCE WITH SECTION 1-08.3 OF THE STANDARD SPECIFICATIONS ARE STILL NECESSARY.
5. WHEN WORKING ON CURB RAMPS AND SIDEWALK SEGMENTS, PROVIDE A 5 FOOT WIDTH ADA PEDESTRIAN ACCESS DETOUR PER WSDOT TRAFFIC CONTROL PLAN TC16. PROVIDE THIS DETOUR DURING WORKING HOURS ONLY. DURING NON-WORKING HOURS PROVIDE ADA PEDESTRIAN ACCESS THROUGH THE WORK ZONE BY THE USE OF TEMPORARY MEASURES SUCH AS STEEL PLATES, CRUSHED SURFACING, COLD MIX ASPHALT, OR OTHER MEASURES APPROVED BY THE ENGINEER.
6. A FLAGGER MUST BE PROVIDED AT ALL TIMES WHILE WORK IS OCCURRING ON A CURB RAMP TO SERVE AS A PEDESTRIAN ESCORT THRU SIDEWALK DETOURS.
7. CONTRACTOR SHALL REMOVE OR COVER CONFLICTING EXISTING CHANNELIZATION OR SIGNS.
8. SIGN PLACEMENT IS SUBJECT TO REVISION BY THE INSPECTOR ON-SITE IF NEEDED TO ADDRESS TRAFFIC OR PEDESTRIAN SAFETY OR TRAVEL.
9. CONTRACTOR IS REQUIRED TO COMPLETE CITY OF RENTON TRAFFIC CONTROL PLAN FORM AND LAYOUT FOR EACH CONSTRUCTION PHASE.
10. CONTRACTOR SHALL INSTALL UTILITY CONNECTIONS/EXTENSIONS OUTSIDE THE CONSTRUCTION ZONE AS NECESSARY TO PROVIDE FULLY FUNCTIONING UTILITY SYSTEMS THE ENTIRE CONSTRUCTION DURATION. ANY PAVEMENT CUTS OUTSIDE THE CONSTRUCTION ZONE FOR A PARTICULAR PHASE SHALL BE PATCHED WITH HOT MIX ASPHALT. FULL ROAD CLOSURE ARE NOT ALLOWED OUTSIDE THOSE SHOWN ON THE PLANS.

LEGEND

CONSTRUCTION ZONE (PHASE 1)

PHASE 1 WORK ELEMENTS:

1. INSTALL SITE TEMPORARY EROSION CONTROL MEASURES
2. INSTALL BOEING DUCT BANK SYSTEM
3. INSTALL STORM DRAINAGE SYSTEM

NOTE TO REVIEWER:

BOEING DUCT BANK CONSTRUCTION ZONE WILL BE SHOWN AT 90%.

SCALE
40 0 40 80
FEET

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MARCUS R. ELLIOTT
STATE OF WASHINGTON
46716
REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: 1"=40'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

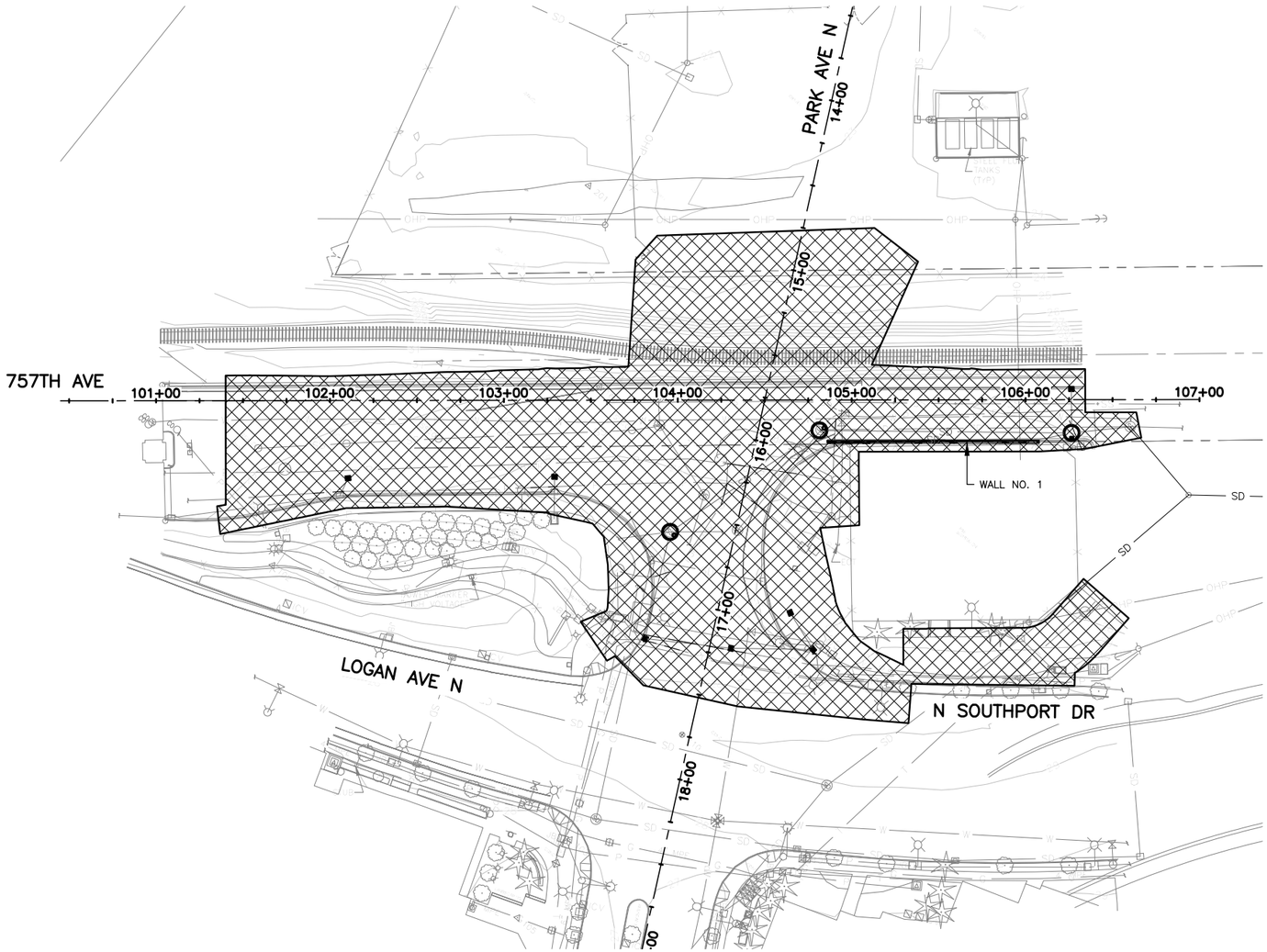
CITY OF RENTON
PARK AVENUE N EXTENSION

CONSTRUCTION SEQUENCING PLAN

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: CS1
SHEET: 27 OF: 33

FILENAME: Nov 19, 2018 - 7:59am jenn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 CS.dwg Layout Name: CS1

NW ¼ SEC 8, T 23 N, R 5 E, W.M.



CONSTRUCTION SEQUENCING NOTES:

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5. WHEN WORKING ON CURB RAMPS AND SIDEWALK SEGMENTS, PROVIDE A 5 FOOT WIDTH ADA PEDESTRIAN ACCESS DETOUR PER WSDOT TRAFFIC CONTROL PLAN TC16. PROVIDE THIS DETOUR DURING WORKING HOURS ONLY. DURING NON-WORKING HOURS PROVIDE ADA PEDESTRIAN ACCESS THROUGH THE WORK ZONE BY THE USE OF TEMPORARY MEASURES SUCH AS STEEL PLATES, CRUSHED SURFACING, COLD MIX ASPHALT, OR OTHER MEASURES APPROVED BY THE ENGINEER.
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LEGEND

CONSTRUCTION ZONE (PHASE 2)

PHASE 2 WORK ELEMENTS:

1. DEMOLISH EXISTING PAVEMENTS, REMOVE STRUCTURES AND OBSTRUCTIONS, AND PERFORM NECESSARY SITE PREPARATION ACTIVITIES
2. ADJUST GRADES TO PROPOSED SUBBASE AND ADJUST UTILITY STRUCTURE AS NECESSARY
3. CONSTRUCT WALL NO. 1

SCALE
40 0 40 80
FEET

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811 Know what's below. Call before you dig.

MARCUS R. ELLIOTT
STATE OF WASHINGTON
46716
REGISTERED
PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: 1"=40'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

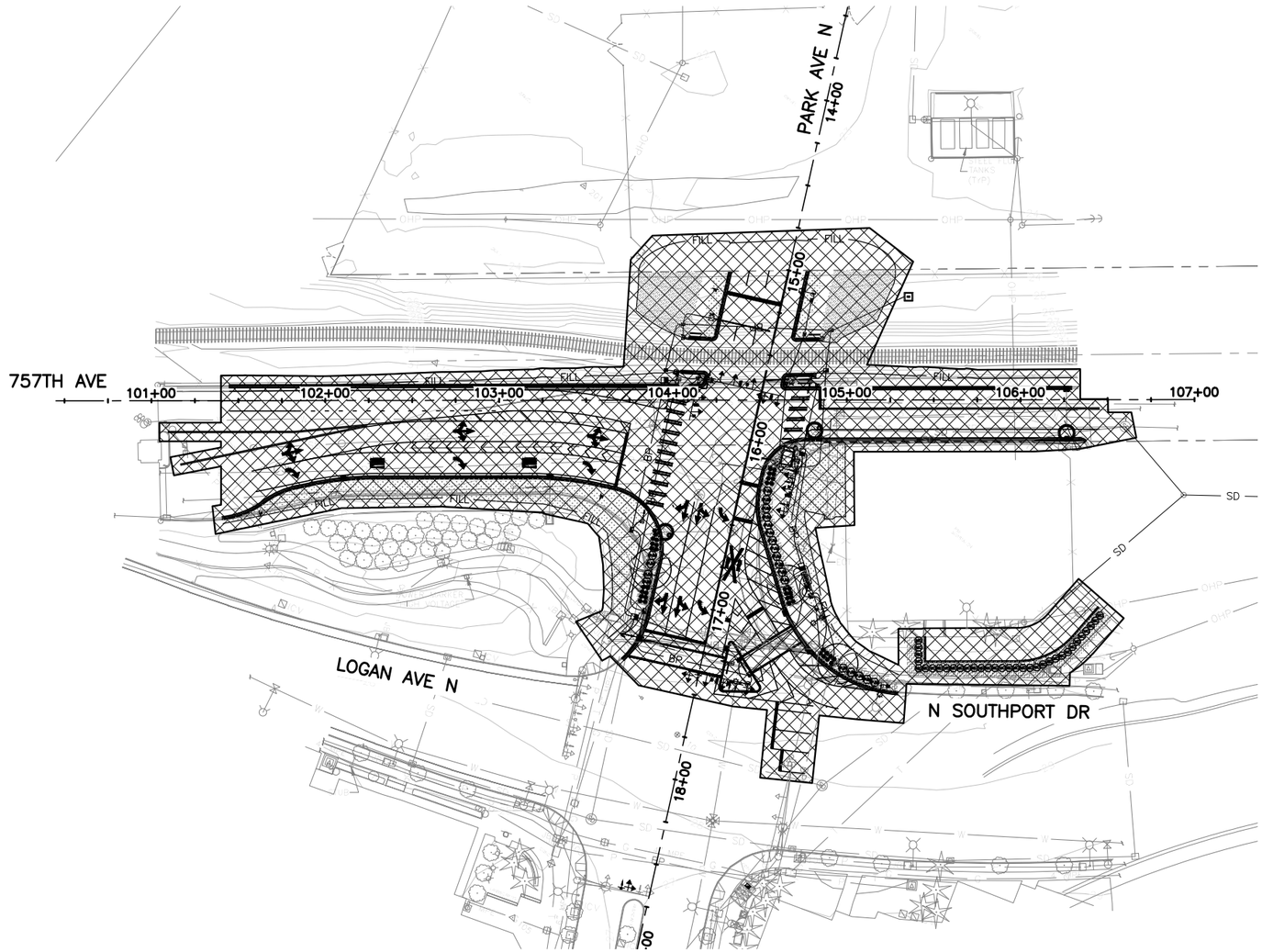
CITY OF RENTON
PARK AVENUE N EXTENSION

CONSTRUCTION SEQUENCING PLAN

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: CS2
SHEET: 28 OF 33

FILENAME: Nov 19, 2018 - 8:03am jenn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 CS.dwg Layout Name: CS2

NW ¼ SEC 8, T 23 N, R 5 E, W.M.



CONSTRUCTION SEQUENCING NOTES:

1. ALL EXISTING AND FUTURE IMPROVEMENTS, INCLUDING UTILITIES, ARE NOT SHOWN ON THIS DRAWING. FOR ADDITIONAL INFORMATION, SEE THE APPLICABLE CONTRACT DRAWINGS.
2. IN ALL CASES, UNDERGROUND UTILITIES SHALL BE CONSTRUCTED PRIOR TO START OF FINAL SURFACE IMPROVEMENTS SUCH AS, BUT NOT LIMITED TO, PAVEMENT BASE MATERIAL, SIDEWALKS, CURBS AND GUTTERS, PAVEMENTS, ETC.
3. CONSTRUCTION SEQUENCING SHOWN ON THESE PLANS IS THE AGENCY'S PREFERRED COURSE OF ACTION. ALTERNATIVE SEQUENCING MAY BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. ACCEPTANCE OF ALTERNATIVE SEQUENCING CONCEPTS SHALL BE AT THE SOLE DISCRETION OF THE ENGINEER AND THE CONTRACTOR SHALL NOT PRESUME THAT ALTERNATIVES WILL BE ACCEPTED. THE CONTRACTOR SHALL USE THESE CONSTRUCTION SEQUENCING PLANS AS THE BASIS FOR THE CONTRACT BID.
4. CONSTRUCTION ACTIVITIES NOT SPECIFICALLY SEQUENCED HEREON SHALL BE CONDUCTED IN A MANNER TO MINIMIZE PUBLIC IMPACT. FULL PROGRESS SCHEDULES IN ACCORDANCE WITH SECTION 1-08.3 OF THE STANDARD SPECIFICATIONS ARE STILL NECESSARY.
5. WHEN WORKING ON CURB RAMPS AND SIDEWALK SEGMENTS, PROVIDE A 5 FOOT WIDTH ADA PEDESTRIAN ACCESS DETOUR PER WSDOT TRAFFIC CONTROL PLAN TC16. PROVIDE THIS DETOUR DURING WORKING HOURS ONLY. DURING NON-WORKING HOURS PROVIDE ADA PEDESTRIAN ACCESS THROUGH THE WORK ZONE BY THE USE OF TEMPORARY MEASURES SUCH AS STEEL PLATES, CRUSHED SURFACING, COLD MIX ASPHALT, OR OTHER MEASURES APPROVED BY THE ENGINEER.
6. A FLAGGER MUST BE PROVIDED AT ALL TIMES WHILE WORK IS OCCURRING ON A CURB RAMP TO SERVE AS A PEDESTRIAN ESCORT THRU SIDEWALK DETOURS.
7. CONTRACTOR SHALL REMOVE OR COVER CONFLICTING EXISTING CHANNELIZATION OR SIGNS.
8. SIGN PLACEMENT IS SUBJECT TO REVISION BY THE INSPECTOR ON-SITE IF NEEDED TO ADDRESS TRAFFIC OR PEDESTRIAN SAFETY OR TRAVEL.
9. CONTRACTOR IS REQUIRED TO COMPLETE CITY OF RENTON TRAFFIC CONTROL PLAN FORM AND LAYOUT FOR EACH CONSTRUCTION PHASE.
10. CONTRACTOR SHALL INSTALL UTILITY CONNECTIONS/EXTENSIONS OUTSIDE THE CONSTRUCTION ZONE AS NECESSARY TO PROVIDE FULLY FUNCTIONING UTILITY SYSTEMS THE ENTIRE CONSTRUCTION DURATION. ANY PAVEMENT CUTS OUTSIDE THE CONSTRUCTION ZONE FOR A PARTICULAR PHASE SHALL BE PATCHED WITH HOT MIX ASPHALT. FULL ROAD CLOSURE ARE NOT ALLOWED OUTSIDE THOSE SHOWN ON THE PLANS.

LEGEND

CONSTRUCTION ZONE (PHASE 3, 4 AND 5)

PHASE 3 WORK ELEMENTS:

1. COORDINATE WITH BNSF FOR BNSF TO INSTALL RAILROAD CROSSING SIGNAL CONTROL ELEMENTS
2. PLACE SIGNAL, ILLUMINATION, AND RAILROAD SYSTEM CONDUITS AND JUNCTION BOXES
3. CONSTRUCT SIGNAL, ILLUMINATION, AND RAILROAD SYSTEM FOUNDATIONS
4. CONSTRUCT CURBS AND GUTTERS
5. ADJUST UTILITY STRUCTURES AS NECESSARY

PHASE 4 WORK ELEMENTS:

1. PAVE ROADWAYS, SIDEWALKS, AND CURB RAMPS
2. ERECT SIGNAL AND ILLUMINATION POLES
3. WIRE SIGNAL AND ILLUMINATION SYSTEMS

PHASE 5 WORK ELEMENTS:

1. INSTALL CHANNELIZATION
2. INSTALL LANDSCAPING

SCALE
40 0 40 80
FEET

PERTEET
505 FIFTH AVENUE S, SUITE 300
SEATTLE, WA 98104
206.436.0515 | 800.615.9900

60% DESIGN SUBMITTAL
PRELIMINARY
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

MARCUS R. ELLIOTT — STATE OF WASHINGTON — 46716 — REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: 1"=40'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

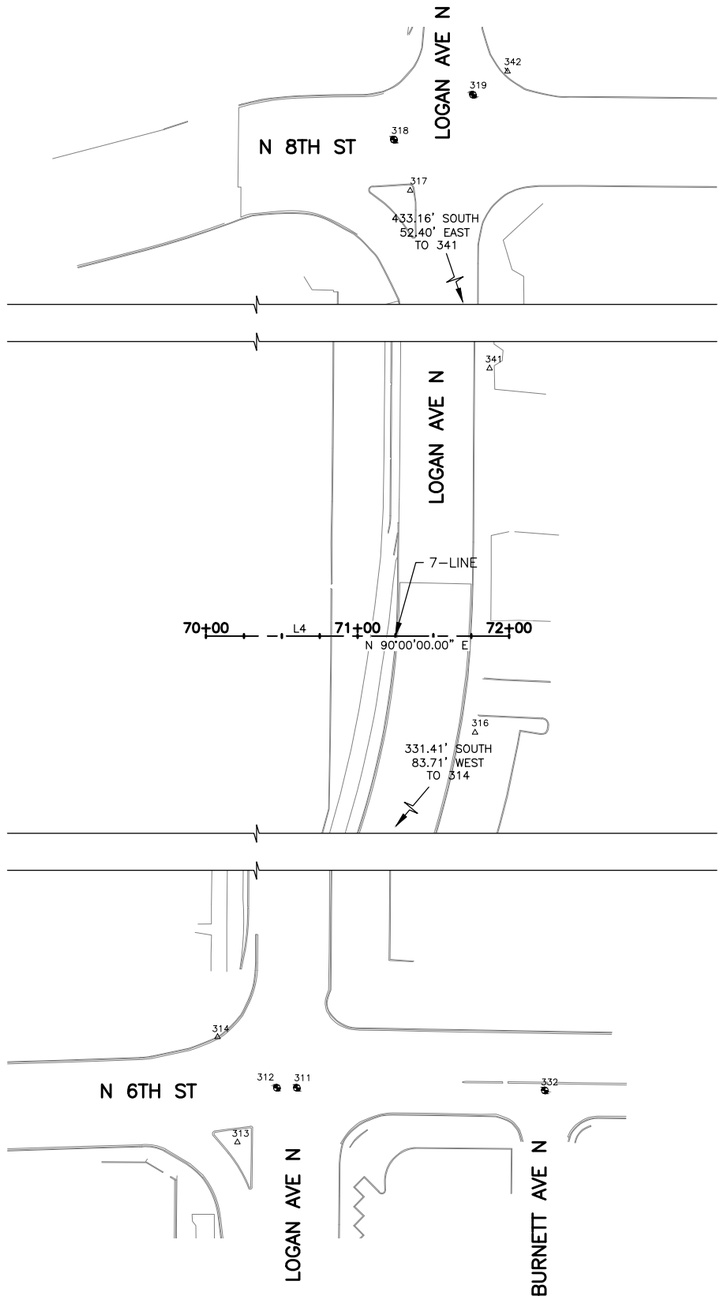
CITY OF RENTON
PARK AVENUE N EXTENSION

CONSTRUCTION SEQUENCING PLAN

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: CS3
SHEET: 29 OF 33

FILENAME: Nov 19, 2018 - 8:01am jenn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 CS.dwg Layout Name: CS3

SE ¼ SEC 7, T 23 N, R 5 E, W.M.



7–LINE											
SEGMENT NO.	START STATION	END STATION	BEGIN NORTHING	BEGIN EASTING	END NORTHING	END EASTING	BEARING	DELTA	RADIUS	TANGENT	LENGTH
L4	70+00.00	72+00.00	183174.530	1300670.612	183174.530	1300870.612	N90°00'00.00"E				200.000'

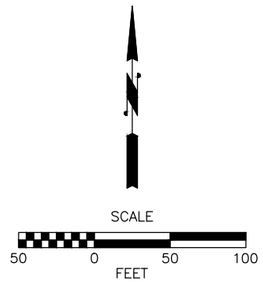
PERTEET CONTROL POINTS

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	TYPE
311	70+59.99	650.61' RT	182523.92	1300730.60	31.47	MONUMENT
312	70+46.79	650.57' RT	182523.96	1300717.40	31.26	MONUMENT
313	70+20.70	686.45' RT	182488.08	1300691.32	32.07	ANGLE POINT
316	71+77.53	63+67' RT	183110.86	1300848.15	30.27	ANGLE POINT
317	71+34.72	609.73' LT	183784.26	1300805.33	31.21	ANGLE POINT
318	71+24.03	643.39' LT	183817.92	1300794.64	30.10	MONUMENT
319	71+76.12	672.94' LT	183847.47	1300846.74	45.26	MONUMENT
340	70+93.82	395.08' RT	182779.45	1300764.43	31.59	ANGLE POINT
341	71+87.11	176.57' LT	183351.10	1300857.73	30.29	ANGLE POINT
342	71+98.92	688.39' LT	183862.92	1300869.53	30.21	ANGLE POINT

GENERAL NOTES

HORIZONTAL CONTROL IS WASHINGTON NORTH ZONE STATE PLANE COORDINATES UTILIZING STATIC AND RTK GPS OBSERVATIONS ON SEVEN MONUMENTS IN THE PROJECT AREA, PUBLISHED IN BOTH NAD83(2011) AND NAD83(1991). HORIZONTAL POSITIONS WERE FIRST OBSERVED IN THE NAD83(2011) DATUM, THEN CONVERTED TO THE NAD83(1991) DATUM.

VERTICAL CONTROL IS IN THE NAVD88 VERTICAL DATUM, BASED ON STATIC GPS AND LEVEL RUN OBSERVATIONS ON CONTROL POINTS IN THE PROJECT VICINITY. THE PROJECT VERTICAL BENCHMARK IS PERTEET CONTROL POINT NO. 308, A 3/8" DIAMETER BRASS PLUG IN A CONCRETE MONUMENT, IN CASE, IN THE CENTER TURN LANE OF LOGAN AVENUE, APPROXIMATELY 115 FT. NORTH OF THE CEDAR RIVER BRIDGE. THE NAVD88 ELEVATION OF THIS POINT IS 35.78 FT. THE ELEVATION OF PT. NO. 308 IS BASED ON A STATIC GPS OBSERVATION, HOLDING THE DIFFERENTIAL LEVEL DERIVED ORTHOMETRIC ELEVATION OF 134.809 ON WSDOT CONTROL POINT BM17405–91.



PERTEET
505 FIFTH AVENUE S, SUITE 300
SEATTLE, WA 98104
206.436.0515 | 800.615.9900

60% DESIGN SUBMITTAL
PRELIMINARY
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

PETER G. DE BOLDT STATE OF WASHINGTON 25359 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: 1"=50'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION

N 7TH STREET DRIVEWAY
ALIGNMENT AND CONTROL PLAN

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: AL2
SHEET: 30 OF: 33

FILENAME: Nov 19, 2018 - 8:01am jenn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 AL.dwg Layout Name: AL2

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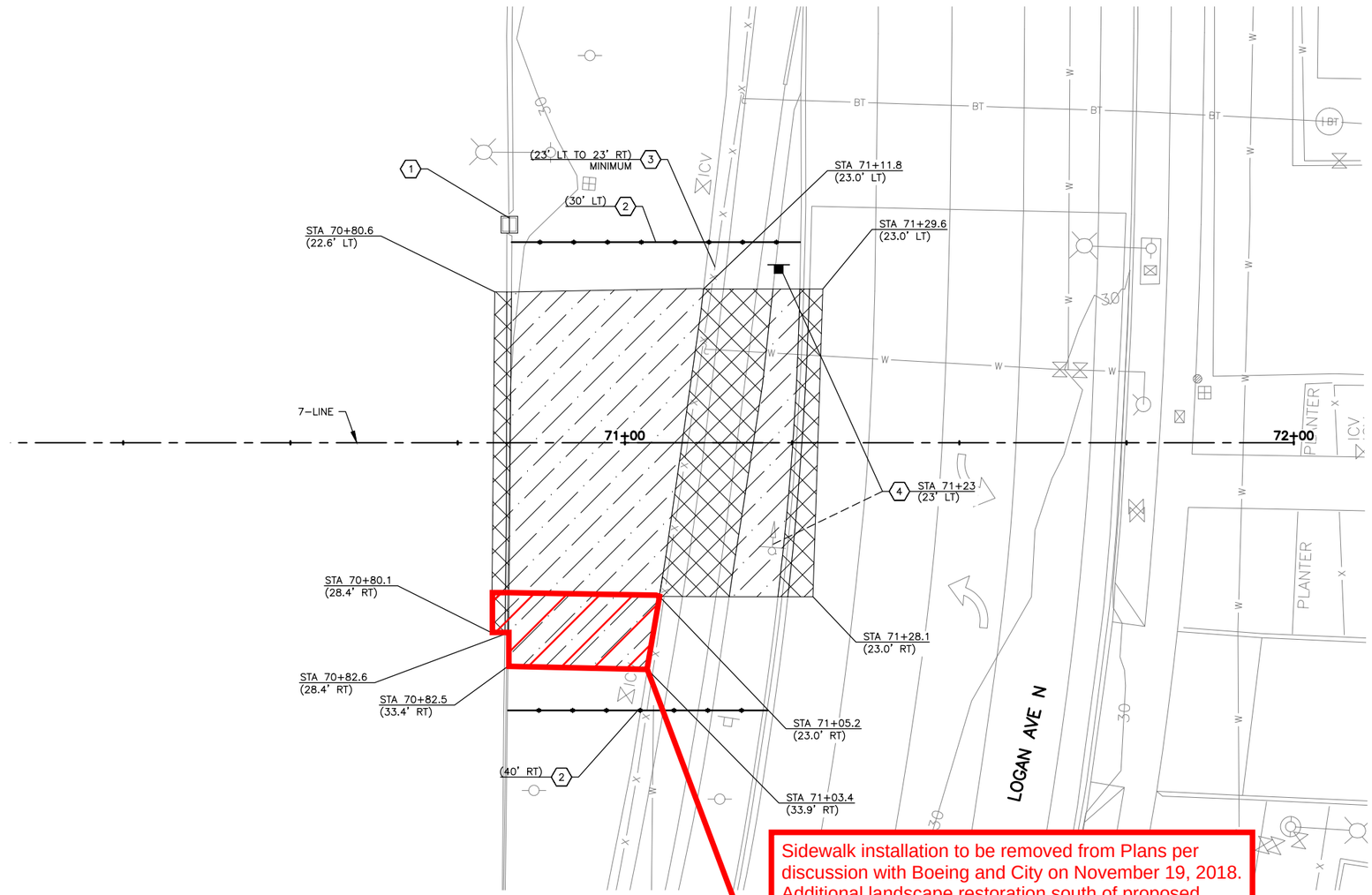


CONSTRUCTION NOTES

1. INSTALL CATCH BASIN INSERT PER CITY OF RENTON STD PLAN 216.30 OR BLOCK AND GRAVEL CURB INLET PROTECTION PER CITY OF RENTON STD PLAN 216.40.
2. INSTALL SILT FENCE PER CITY OF RENTON STD PLAN 214.00.
3. REMOVE BOEING OR PSE SECURITY FENCE TO NEAREST POST BEYOND REMOVAL LIMITS.
4. RELOCATE SIGN AND POST TO LOCATION PER PLANS. (PAID AS REMOVAL OF STRUCTURES AND OBSTRUCTIONS.)

LEGEND

- CLEARING AND GRUBBING
- ROADWAY EXCAVATION INCL HAUL
- HIGH VISIBILTY SILT FENCE
- INLET PROTECTION/CATCH BASIN INSERT

GENERAL NOTES:

1. APPROXIMATE CLEARING AND GRUBBING LIMITS ARE SHOWN ON THE PLAN. ACTUAL CLEARING AND GRUBBING LIMITS SHALL BE STAKED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. TREES WITHIN THE CLEARING AND GRUBBING LIMITS SHALL BE PROTECTED OR REMOVED AS SHOWN ON THE PLANS. TREE REMOVAL IS COVERED UNDER THE BID ITEM CLEARING AND GRUBBING.
2. TREES AND THEIR ROOT STRUCTURES SHALL BE REMOVED IN A MANNER THAT IS NOT DESTRUCTIVE TO THE TREES THAT ARE TO REMAIN.
3. STORM DRAIN INLET PROTECTION OR CATCH BASIN INSERTS SHALL BE INSTALLED IN ALL NEW CATCH BASINS AT THE TIME OF INSTALLATION AND IN ALL EXISTING CATCH BASINS BEFORE COMMENCING WORK PER THESE PLANS.
4. THE CONTRACTOR SHALL KEEP A MINIMUM 5 FOOT WIDE ACCESSIBLE PEDESTRIAN PATHWAY AT ALL TIMES, THROUGH THE SITE OR AS DIRECTED BY THE ENGINEER.

SCALE
10 0 10 20
FEET

PERTEET
505 FIFTH AVENUE S, SUITE 300
SEATTLE, WA 98104
206.436.0515 | 800.615.9900

60% DESIGN SUBMITTAL
PRELIMINARY
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

BRENT MATTHEW POWELL
STATE OF WASHINGTON
55619
REGISTERED
PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: 1"=10'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

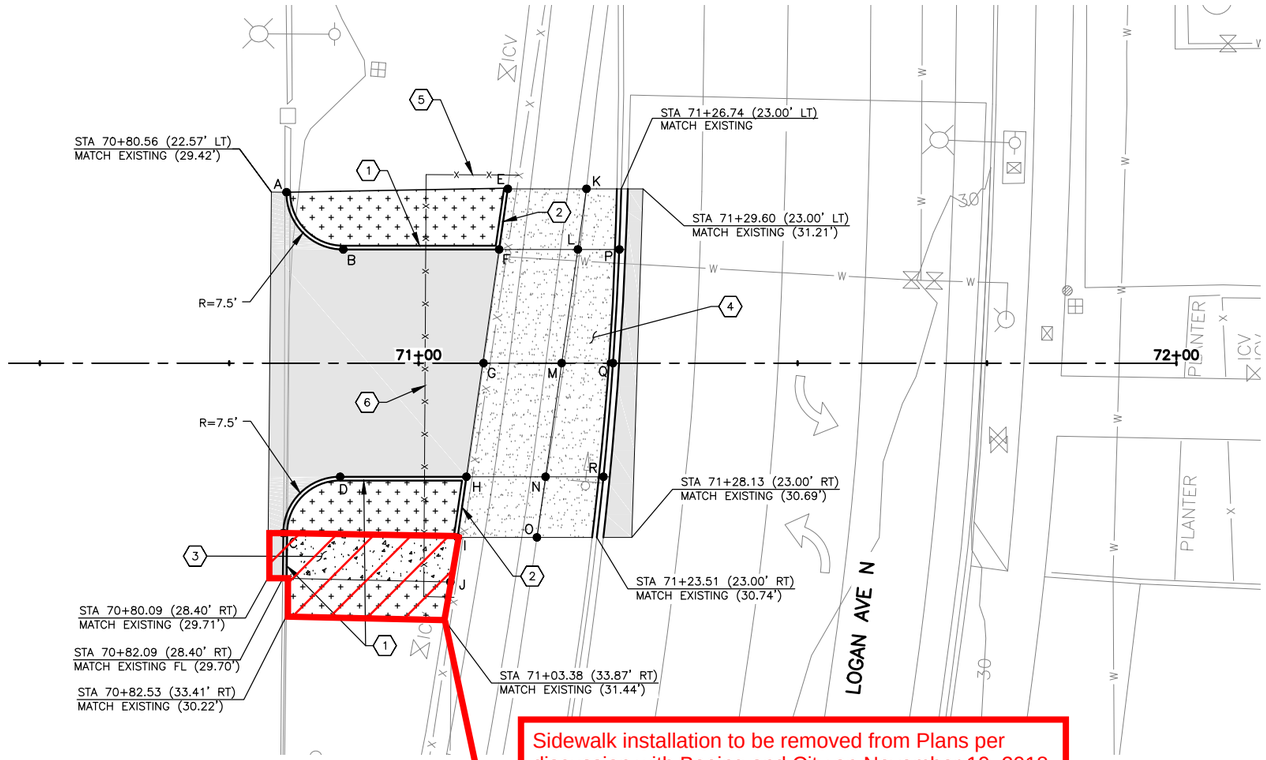
CITY OF RENTON
PARK AVENUE N EXTENSION

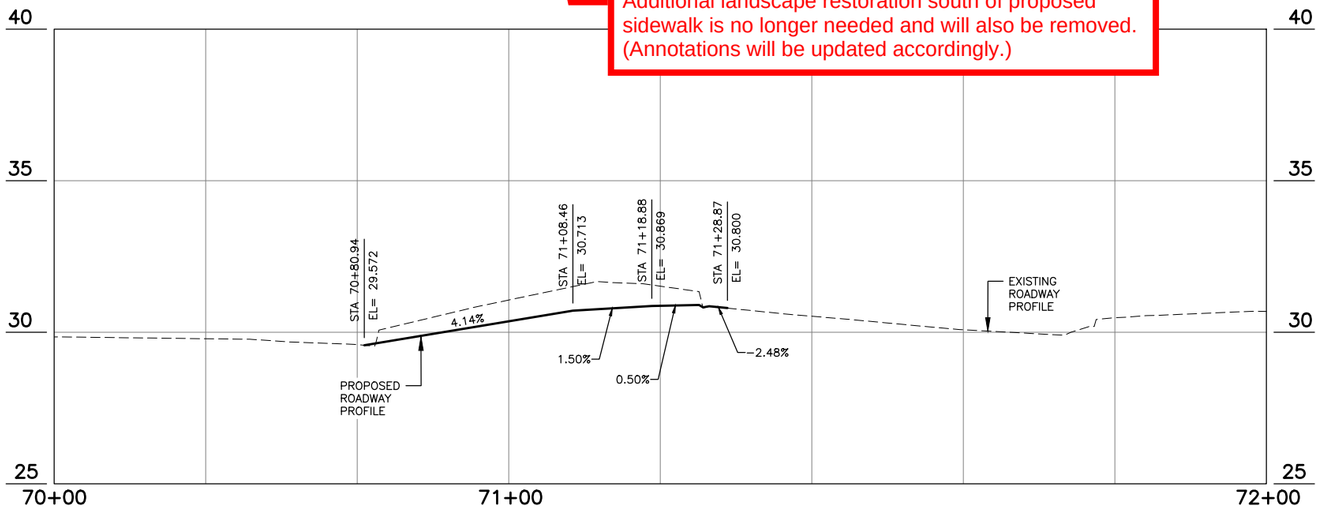
N 7TH STREET DRIVEWAY
SITE PREPARATION PLAN

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: SP2
SHEET: 31 OF 33

FILENAME: X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 SP.dwg Layout Name: SP2
Nov 19, 2018 - 8:02am jenn.bean

SE ¼ SEC 7, T 23 N, R 5 E, W.M.





CONSTRUCTION NOTES

1. CONSTRUCT CEMENT CONCRETE TRAFFIC CURB PER CITY OF RENTON STD PLAN 101.
2. CONSTRUCT CEMENT CONCRETE PEDESTRIAN CURB PER CITY OF RENTON STD PLAN 101.
3. CONSTRUCT CEMENT CONCRETE SIDEWALK PER CITY OF RENTON STD PLAN 102.
4. CONSTRUCT CEMENT CONCRETE DRIVEWAY ENTRANCE – TYPE C2B PER CITY OF RENTON STD PLANS 104.2 AND 104.4.
5. INSTALL BOEING SECURITY FENCE (SEE DWG MD4).
6. INSTALL BOEING SECURITY GATE. (SEE DWG MD4).

LEGEND

- 8 IN HMA CL 1/2 IN PG 64–22 OVER 4 IN CSTC
- CEMENT CONCRETE SIDEWALK
- LANDSCAPE
- CEMENT CONCRETE DRIVEWAY ENTRANCE

N 7TH ST DRIVEWAY POINTS

POINT	STATION	OFFSET	ELEVATION	DESCRIPTION
A	70+82.56	22.56' LT	MATCH EX (29.38)	PC; FLOWLINE
B	70+90.06	15.00' LT	29.92	PT; FLOWLINE
C	70+82.14	22.43' RT	29.67	PC; FLOWLINE
D	70+89.64	15.00' RT	29.96	PT; FLOWLINE
E	71+11.77	23.00' LT	MATCH EX (31.67)	
F	71+10.62	15.00' LT	30.86	AP; FLOWLINE
G	71+08.46	0'	30.71	
H	71+06.30	15.00' RT	30.56	AP; FLOWLINE
I	71+05.15	23.00' RT	MATCH EX (31.53)	
J	71+04.19	28.89' RT	MATCH EX (31.46)	
K	71+22.15	23.00' LT	MATCH EX (31.55)	
L	71+21.01	15.00' LT	31.02	
M	71+18.88	0'	30.87	
N	71+16.75	15.00' RT	30.72	
O	71+15.61	23.00' RT	MATCH EX (31.48)	
P	71+26.47	15.00' LT	30.99	FLOWLINE
Q	71+25.64	0'	30.82	FLOWLINE
R	71+24.38	15.00' RT	30.65	FLOWLINE

HORIZONTAL
SCALE
10 0 10 20
FEET

VERTICAL
SCALE
2.5 0 2.5 5
FEET

PERTEET
505 FIFTH AVENUE S, SUITE 300
SEATTLE, WA 98104
206.436.0515 | 800.615.9900

60% DESIGN SUBMITTAL
PRELIMINARY
NOT FOR CONSTRUCTION

811 Know what's below. Call before you dig.

BRENT MATTHEW POWELL STATE OF WASHINGTON 55619 REGISTERED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE	APPR

DESIGNED: B. POWELL
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT

SCALE: H: 1"=10' V: 1"=2.5'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

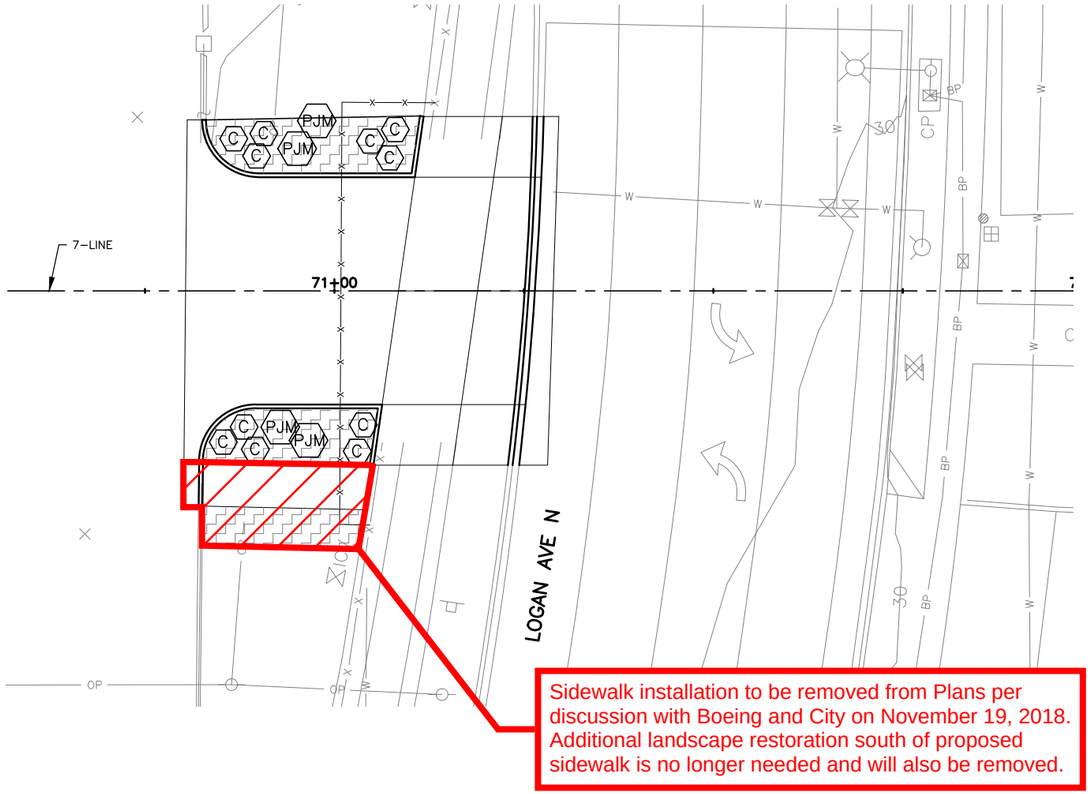
CITY OF RENTON
PARK AVENUE N EXTENSION

N 7TH STREET DRIVEWAY
PAVING AND GRADING PLAN

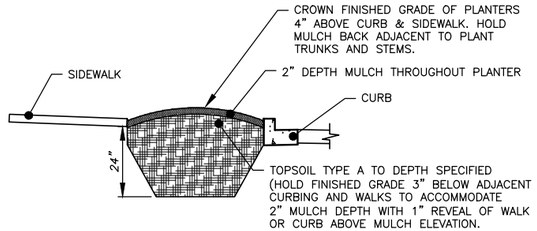
DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: PV2
SHEET: 32 OF: 33

FILENAME: Nov 19, 2018 - 8:04am jerri.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 PV.dwg Layout Name: PV2

SE ¼ SEC 7, T 23 N, R 5 E, W.M.

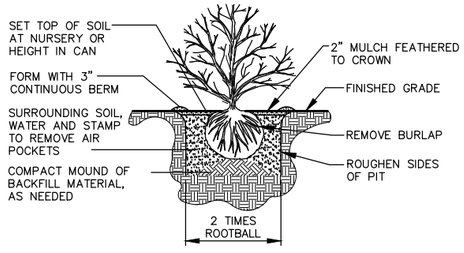


Sidewalk installation to be removed from Plans per discussion with Boeing and City on November 19, 2018. Additional landscape restoration south of proposed sidewalk is no longer needed and will also be removed.



TYPICAL PLANTING BED DETAIL

N.T.S.



TYPICAL SHRUB PLANTING DETAIL

N.T.S.

GENERAL PLANTING NOTES

1. ON–SITE SOIL MIXING OR PLACEMENT NOT ALLOWED WHEN SOIL IS SATURATED, FROZEN, OR IN THE OPINION OF THE ENGINEER, IN A CONDITION DETRIMENTAL TO THE WORK.
2. LANDSCAPE PLANTING AREAS (ALL SHRUB AND TREE AREAS) SHALL RECEIVE 24" DEPTH TOPSOIL TYPE A AND MIN. 2" DEPTH OF MEDIUM BARK MULCH ON FINISHED GRADE OF SOIL.
3. AFTER PLANTING, IMMEDIATELY SATURATE ALL PLANTING PITS TO ELIMINATE AIR POCKETS AND FACILITATE SETTLING OF BACKFILL MATERIAL.
4. ROOT MASSES OF CONTAINERIZED STOCK SHOULD BE "SCORED" WITH A SHARP OBJECT TO INSURE THE PLANTS WILL NOT BECOME ROOT BOUND.
5. ANY PLANT SUBSTITUTIONS SHALL BE APPROVED BY LANDSCAPE ARCHITECT.
6. LANDSCAPE PLANTING SHALL BE INSTALLED AFTER SITE WORK IS DONE, INCLUDING ROADS, UTILITIES, DRIVEWAYS, ETC.
7. SEED AREAS FOR LAWN ON FINISHED GRADE OF MINIMUM 6" DEPTH TOPSOIL.
8. SEE SPEC FOR BIDDER PROVIDED IRRIGATION OF SHRUB AND TREE AREAS AT LOGAN AVE N. AND PARK AVE N. AUTOMATIC IRRIGATION TO BE PROVIDED BY BIDDER DESIGN AND SHALL REQUIRE BACKFLOW PROTECTION. SLEEVES BY GENERAL CONTRACTOR ARE INDICATED ON LANDSCAPE PLAN. SEE SPEC. IRRIGATION SHALL BE OPERATIONAL FOR AT LEAST TWO YEARS. (SPEC TO BE PROVIDED AT 90%)
9. ALL LANDSCAPING MAY BE INSPECTED AND REVIEWED FOR POTENTIAL ACCEPTANCE BY THE OWNER AND BY PERMIT AGENCIES AS WELL AS THE PROJECT ENGINEER.

PLANT SCHEDULE – N 7TH STREET DRIVEWAY

SHRUBS

SYMBOL	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
PJM	RHODODENDRON PEMAKOENSE	PJM ROHDODENDRON	4' O.C.	4	18"–21" 2 GAL.	FULL
C	COTONEASTER DAMMERI 'CORAL BEAUTY'	CORAL BEAUTY COTONEASTER	3' O.C.	11	2 GAL.	FULL

GROUNDCOVERS

COMMON NAME	SPACING	AREA (SF)	QTY.	SIZE (MIN.)	NOTES
MULCH AT PLANTING AREAS		450			IN PLANTING STRIPS

SCALE
10 0 10 20
FEET

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
JASON TODD WALKER
CERTIFICATE NO. 766

PERTEET
505 FIFTH AVENUE S, SUITE 300
SEATTLE, WA 98104
206.436.0515 | 800.615.9900

60% DESIGN SUBMITTAL
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NO.	REVISION	BY	DATE	APPR

DESIGNED: J. WALKER
DRAWN: J. RED
CHECKED: M. ELLIOTT
APPROVED: P. DE BOLDT
SCALE: 1"=10'
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VERTICAL: NAVD 1988 HORIZONTAL: CITY OF RENTON
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVENUE N EXTENSION
N 7TH STREET DRIVEWAY
PLANTING PLAN AND DETAILS

DATE: 11/19/18
FIELDBOOK:
PAGE:
DRAWING NO: PL3
SHEET: 33 OF: 33

FILENAME: Nov 19, 2018 - 8:05am jenn.bean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 PL.dwg Layout Name: PL3

60% Opinion of Cost
City of Renton
Park Avenue N Extension
Revised 12/21/2018 (Original Submittal: 11/19/2018)
20160266

SPEC. SECTION	ITEM	UNITS	QUANTITY	UNIT PRICE	AMOUNT
	SCHEDULE A - Park Avenue N Extension				
1-04.4	Unexpected Site Changes (2%)	LS	1	$ 42,000	$ 42,000
1-05.4 SP	Roadway Surveying (2%)	LS	1	$ 42,000	$ 42,000
1-05 SP	Record Drawings (Min. Bid = $5,000)	LS	1	$ 5,000	$ 5,000
1-07	SPCC Plan	LS	1	$ 500	$ 500
1-07 SP	Potholing	EA	30	$ 300	$ 9,000
1-08 SP	Type B Progress Schedule (Min. Bid = $5,000)	LS	1	$ 5,000	$ 5,000
1-09.7	Mobilization (10%)	LS	1	$ 209,000	$ 209,000
1-10 SP	Project Temporary Traffic Control (5%)	LS	1	$ 105,000	$ 105,000
1-10 SP	Traffic Control Supervisor	HR	750	$ 60	$ 45,000
1-10 SP	Uniformed Police Officer	HR	50	$ 80	$ 4,000
2-01	Clearing and Grubbing	LS	1	$ 4,000	$ 4,000
2-02 SP	Removal of Structures and Obstructions	LS	1	$ 24,000	$ 24,000
2-03	Roadway Excavation Incl. Haul	CY	1,380	$ 30	$ 41,400
2-03	Gravel Borrow Incl. Haul	TON	730	$ 25	$ 18,250
2-09	Structure Excavation Class A Incl. Haul	CY	15	$ 40	$ 600
2-09	Shoring or Extra Excavation Class B	SF	2,500	$ 2	$ 5,000
2-09 SP	Gravel Backfill (Unstable Base)	FA	1	$ 9,000	$ 9,000
2-09 SP	Unstable Base Material Excavation	FA	1	$ 15,000	$ 15,000
2-12	Construction Geotextile for Soil Stabilitization	SY	440	$ 5	$ 2,200
4-04	Crushed Surfacing Top Course	TON	7,790	$ 40	$ 311,600
4-04	Ballast	CY	20	$ 150	$ 3,000
5-04	HMA Cl. 1/2 in. PG 64-22	TON	1,850	$ 100	$ 185,000
5-05 SP	Cement Conc. Pavement (Decorative Intersection Finish)	SY	260	$ 300	$ 78,000
5-05 SP	Cement Conc. Pavement (Decorative Crosswalk Finish)	SY	120	$ 300	$ 36,000
6-13 SP	Modular Block Wall	SF	420	$ 40	$ 16,800
7-01	Drain Pipe 4 In. Diam.	LF	140	$ 30	$ 4,200
7-04 SP	High-Density Polyethelyene (HDPE) Pipe 12 In. Diam.	LF	240	$ 90	$ 21,600
7-04 SP	High-Density Polyethelyene (HDPE) Pipe 36 In. Diam.	LF	110	$ 300	$ 33,000
7-04 SP	High-Density Polyethelyene (HDPE) Pipe 42 In. Diam.	LF	180	$ 400	$ 72,000
7-05	Catch Basin Type 1	EA	6	$ 1,600	$ 9,600
7-05	Catch Basin Type 1L	EA	1	$ 1,800	$ 1,800
7-05	Catch Basin Type 2 96 In. Diam.	EA	3	$ 7,500	$ 22,500
7-05	Adjust Manhole	EA	3	$ 900	$ 2,700
7-05	Adjust Catch Basin	EA	4	$ 700	$ 2,800
7-05	Connection to Drainage Structure	EA	3	$ 500	$ 1,500
7-05 SP	Rectangular Solid Metal Cover	EA	2	$ 750	$ 1,500
7-09 SP	24 In. Water Main Casing	LF	80	$ 500	$ 40,000
7-12SP	Adjust Water Valve	EA	3	$ 500	$ 1,500
7-19SP	Adjust Existing Sanitary Sewer Clean Out	EA	6	$ 350	$ 2,100
8-01	Erosion/Water Pollution Control (2%)	FA	1	$ 42,000	$ 42,000
8-02	Topsoil Type A	CY	400	$ 45	$ 18,000
8-02	PSIPE Prunus Serrulata / Royal Burgundy Cherry (2" Cal)	EA	3	$ 150	$ 450
8-02	PSIPE Rhododendron Augustinii X / Blue Diamond Rhododendron (1 Gal)	EA	40	$ 15	$ 600
8-02	PSIPE Rhododendron Pemakoense / PJM Rhododendron (2 Gal)	EA	21	$ 50	$ 1,050
8-02	PSIPE Myrica Californica / Pacific Wax Myrtle (5 Gal)	EA	34	$ 50	$ 1,700
8-02 SP	Bark or Wood Chip Mulch	CY	25	$ 150	$ 3,750
8-02	Seeded Lawn Installation	SY	700	$ 2	$ 1,400
8-02 SP	Root Barrier	LF	220	$ 15	$ 3,300
8-02 SP	Property Restoration	EST	1	$ 25,000	$ 25,000
8-04	Cement Conc. Traffic Curb and Gutter	LF	730	$ 25	$ 18,250
8-04	Cement Conc. Traffic Curb	LF	90	$ 25	$ 2,250
8-04	Cement Conc. Pedestrian Curb	LF	150	$ 30	$ 4,500
8-04 SP	12-inch Cement Conc. Traffic Curb and Gutter	LF	130	$ 50	$ 6,500
8-04 SP	Cement Conc. Traffic Curb and Gutter Transition	EA	2	$ 200	$ 400
8-04 SP	Cement Conc. Traffic Curb and Gutter Variable Slope	LF	440	$ 40	$ 17,600
8-04 SP	Cement Conc. Dowelled Traffic Curb	LF	90	$ 50	$ 4,500
8-09	Raised Pavement Marker Type 1	HUND	2	$ 500	$ 1,000
8-09	Raised Pavement Marker Type 2	HUND	1	$ 500	$ 500

60% Opinion of Cost
City of Renton
Park Avenue N Extension
Revised 12/21/2018 (Original Submittal: 11/19/2018)
20160266

SPEC. SECTION	ITEM	UNITS	QUANTITY	UNIT PRICE	AMOUNT
8-12 SP	Boeing Security Fence	LF	660	$ 60	$ 39,600
8-12 SP	Boeing Security Gate	EA	1	$ 5,000	$ 5,000
8-14	Cement Conc. Sidewalk	SY	270	$ 80	$ 21,600
8-14	Cement Conc. Curb Ramp Type Perpendicular A	SY	30	$ 300	$ 9,000
8-14	Cement Conc. Curb Ramp Type Single Direction A	SY	40	$ 275	$ 11,000
8-14	Cement Conc. Curb Ramp Type Refuge Island	SY	20	$ 270	$ 5,400
8-20	Illumination System	LS	1	$ 140,300	$ 140,300
8-20	Traffic Signal System	LS	1	$ 383,000	$ 383,000
8-21	Permanent Signing	LS	1	$ 16,400	$ 16,400
8-22	Plastic Line	LF	2,300	$ 1	$ 2,300
8-22	Plastic Wide Lane Line	LF	630	$ 2	$ 1,260
8-22	Plastic Stop Line	LF	160	$ 8	$ 1,280
8-22	Plastic Crosswalk Line	SF	460	$ 8	$ 3,680
8-22	Plastic Traffic Arrow	EA	12	$ 185	$ 2,220
8-22	Plastic Traffic Letter	EA	8	$ 120	$ 960
8-22	Plastic Railroad Crossing Symbol	EA	1	$ 200	$ 200
8-22	Plastic Crosshatch Marking	LF	520	$ 3	$ 1,560
8-22	Removing Paint Line	LF	210	$ 2	$ 420
8-22	Removing Plastic Line	LF	50	$ 2	$ 100
8-27 SP	Railroad Gate System	LS	1	$ 350,000	$ 350,000
8-28 SP	Temporary Field Office	LS	1	$ 15,000	$ 15,000
				Construction Subtotal	$ 2,596,180
				Construction Contingency (20%)	$ 519,236
				Construction Total	**$ 3,115,416**
				60% Opinion of Cost - Schedule A	$ 3,116,000

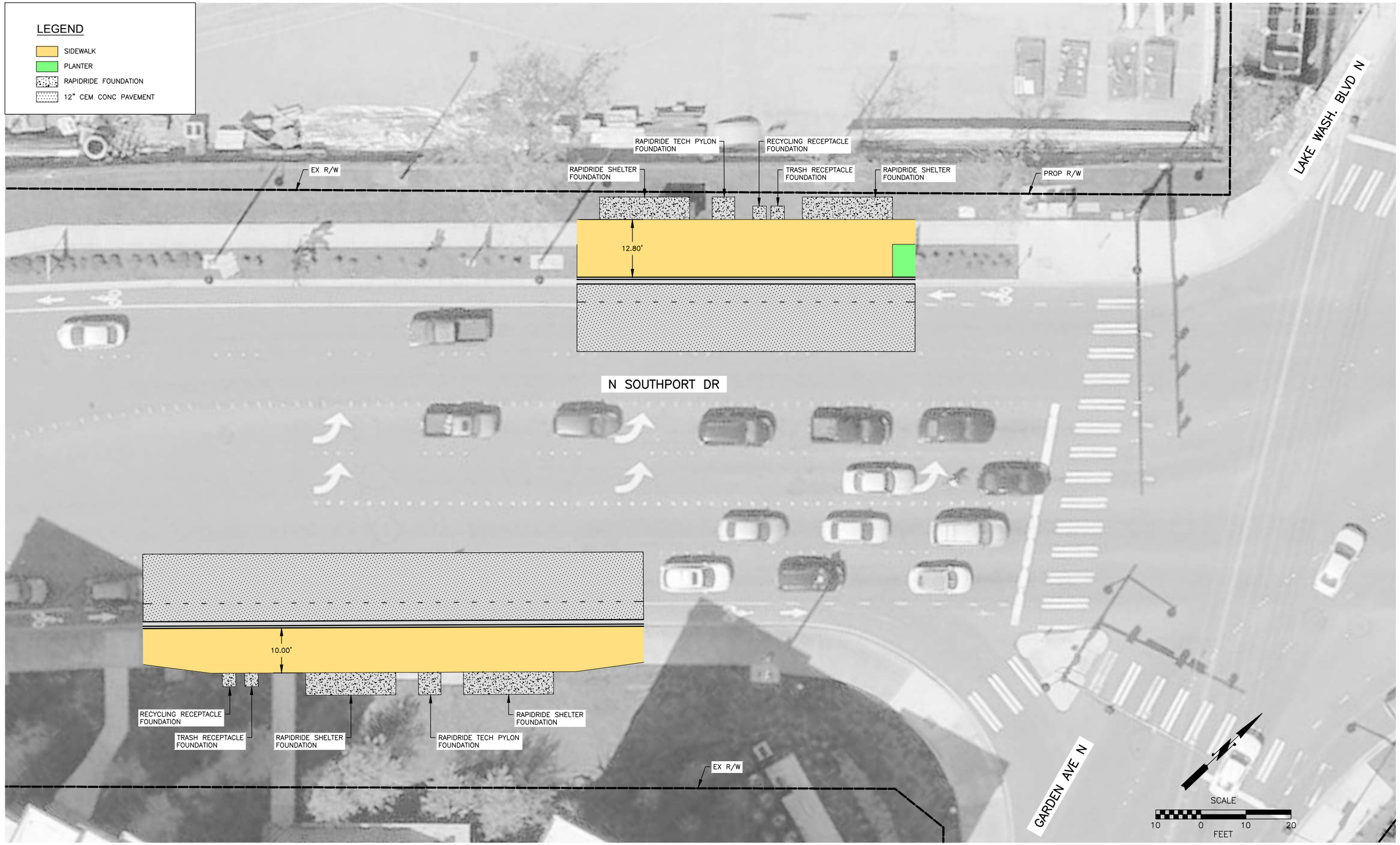
60% Opinion of Cost
City of Renton
Park Avenue N Extension
Revised 12/21/2018 (Original Submittal: 11/19/2018)
20160266

SPEC. SECTION	ITEM	UNITS	QUANTITY	UNIT PRICE	AMOUNT
	SCHEDULE B - N 7th Street Driveway				
1-04.4	Unexpected Site Changes (10%)	LS	1	$ 7,000	$ 7,000
1-05.4 SP	Roadway Surveying (2%)	LS	1	$ 2,000	$ 2,000
1-05 SP	Record Drawings (Min. Bid = $500)	LS	1	$ 500	$ 500
1-07	SPCC Plan	LS	1	$ 500	$ 500
1-08 SP	Type B Progress Schedule (Min. Bid = $500)	LS	1	$ 500	$ 500
1-09.7	Mobilization (10%)	LS	1	$ 7,000	$ 7,000
1-10 SP	Project Temporary Traffic Control (20%)	LS	1	$ 13,310	$ 13,310
1-10 SP	Traffic Control Supervisor	HR	200	$ 60	$ 12,000
2-01	Clearing and Grubbing	LS	1	$ 1,000	$ 1,000
2-02 SP	Removal of Structures and Obstructions	LS	1	$ 5,000	$ 5,000
2-03	Roadway Excavation Incl. Haul	CY	40	$ 50	$ 2,000
4-04	Crushed Surfacing Top Course	TON	40	$ 45	$ 1,800
5-04	HMA Cl. 1/2 in. PG 64-22	TON	60	$ 150	$ 9,000
8-01	Erosion/Water Pollution Control (2%)	FA	1	$ 2,000	$ 2,000
8-02	Topsoil Type A	CY	50	$ 45	$ 2,250
8-02	PSIPE Cotoneaster Dammeri / Coral Beauty Cotoneaster (2 Gal)	EA	11	$ 50	$ 550
8-02	PSIPE Rhododendron Pemakoense / PJM Rhododendron (2 Gal)	EA	4	$ 50	$ 200
8-02 SP	Bark or Wood Chip Mulch	SY	25	$ 150	$ 3,750
8-02 SP	Property Restoration	EST	1	$ 15,000	$ 15,000
8-04	Cement Conc. Traffic Curb and Gutter	LF	50	$ 30	$ 1,500
8-04	Cement Conc. Traffic Curb	LF	70	$ 30	$ 2,100
8-04	Cement Conc. Pedestrian Curb	LF	20	$ 30	$ 600
8-06	Cement Conc. Driveway Entrance Type A	SY	90	$ 120	$ 10,800
8-12 SP	Boeing Security Fence	LF	20	$ 200	$ 4,000
8-12 SP	Boeing Security Gate	EA	1	$ 5,000	$ 5,000
8-14	Cement Conc. Sidewalk	SY	20	$ 100	$ 2,000
				Construction Subtotal	$ 111,360
				Construction Contingency (20%)	$ 22,272
				Construction Total	**$ 133,632**
				60% Opinion of Cost - Schedule B	**$ 134,000**

SPEC. SECTION	ITEM	UNITS	QUANTITY	UNIT PRICE	AMOUNT
	SCHEDULE C - Boeing Duct Bank Modification				
-	Removal of 15V Cable	FT	15,200	$ 3.80	$ 57,760
-	Removal of 600V Cable	FT	2,400	$ 0.95	$ 2,280
-	Duct Bank Removal	FT	110	$ 665.00	$ 73,150
-	Demolition Equipment	LOT	1	$ 41,400.00	$ 41,400
-	15kV Terminations	EA	39	$ 421.00	$ 16,419
-	15kV 500kcmil Cable	FT	12,450	$ 19.12	$ 237,982
-	5" PVC Conduit	FT	4,140	$ 27.06	$ 112,028
-	3" PVC Conduit	FT	920	$ 13.23	$ 12,172
-	#250kcmil 600V CU	FT	660	$ 9.07	$ 5,986
-	#10 600V CU	FT	1,100	$ 1.00	$ 1,097
-	#4/0 600V CU	FT	4,370	$ 6.62	$ 28,915
-	Concrete	CY	120	$ 422.50	$ 50,700
-	Installation Equipment	LOT	1	$ 82,800.00	$ 82,800
				Construction Subtotal	$ 722,689
				Miscellaneous (15%)	$ 108,403
				Contractor Overhead (15.5%)	$ 128,819
				Construction Total	**$ 959,912**
				60% Opinion of Cost - Schedule C	**$ 960,000**

APPENDIX B

Preliminary N Southport Drive RapidRide Station Designs and Opinion of Cost



Jan 04, 2018 - 10:08am Jbean X:\Renton, City of\Projects\20160266 - N Park Ave Extension\CADD\Plan Sheets\20160266 PV Refined.dwg Layout Name: PV1_20

FILENAME:

CALL 2 BUSINESS DAYS BEFORE YOU DIG
1 800 424-5555
UTILITIES UNDERGROUND LOCATION CENTER

PERTEET
505 FIFTH AVENUE S, SUITE 300
SEATTLE, WA 98104
206.436.0515 | 800.615.9900

NO.	REVISION	BY	DATE	APPR

SURVEYED:
DESIGNED:
DRAWN:
CHECKED:
APPROVED:

SCALE: 1"=20'
ONE INCH AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY

VERTICAL: NAVD 1988
HORIZONTAL: NAD 1983/1991
DATUM

CITY OF RENTON
Planning/Building/Public Works Dept.

CITY OF RENTON
PARK AVE N EXTENSION

RAPIDRIDE PLAN

DATE:
FIELDBOOK:
PAGE:
DRAWING NO: RP1
SHEET: 1 OF: 1

505 Fifth Avenue S, Suite 900, Seattle, WA 98104 | P 206.436.0515

PLANNING LEVEL OPINION OF COST SUMMARY

Project Description: Park Avenue N Extension
Corridor Section: RapidRide Bus Stops
Location: City of Renton, N Soutport Drive & Garden Avenue N / Lake Washington Bouelvard N

Client: City of Renton
Date: 1/4/2018
Date of Cost Index: 2017
Calculated By/Entered By: B. Powell
Checked By: (checker)

Park Avenue N Extension

		ITEM	UNIT	ESTIMATED UNIT COST	QTY	COST
I.		**RIGHT OF WAY**				
		RIGHT OF WAY (urban developed)	SF	$45	-	$0
		RIGHT OF WAY (urban undeveloped)	SF	$20	-	$0
		RELOCATIONS: BUSINESSES	EA	$150,000	-	$0
		RELOCATIONS: RESIDENCES	EA	$110,000	-	$0
		CONDEMNATION PROCEDURE	EA	$100,000	-	$0
		ADMINISTRATION (TITLES, APPRAISALS, ETC.)	EA	$15,000	-	$0
		RIGHT OF WAY TOTAL				**$0**
II.		**CONSTRUCTION**				
1		**PREPARATION/GRADING/DRAINAGE**				
	1.1	**PREPARATION**				
		CLEARING & GRUBBING	ACRE	$20,000	0.11	$2,200
		REMOVING EXISTING PAVEMENT	SY	$20	-	$0
		REMOVAL STRUCTURES & OBSTRUCTIONS	LS	$0	1	$0
	1.2	**EARTHWORK**				
		ROADWAY EXCAVATION INCL, HAUL	CY	$30	200	$6,000
		STRUCTURE EX. CL. A INCL. HAUL	CY	$60	-	$0
		BORROW INCL. HAUL	TON	$30	-	$0
		EMBANKMENT COMPACTION	CY	$5	-	$0
	1.3	**STORMWATER MITIGATION**				
		DETENTION AND TREATMENT	SF	$6	2,800	$16,800
	1.4	**STORM SEWER**				
		CATCH BASIN TYPE 1	EA	$1,500	-	$0
		CATCH BASIN TYPE 2	EA	$2,500	2	$5,000
		PLAIN CONC. STORM SEWER PIPE 12 IN. DIAM.	LF	$35	-	$0
		PLAIN CONC. STORM SEWER PIPE 18 IN. DIAM.	LF	$120	-	$0
		STRUCTURE EXCAVATION CL. B	CY	$15	-	$0
2		**STRUCTURE**				
		CONCRETE BRIDGES	SF	$150	-	$0
		CONCRETE BRIDGES WIDENING	SF	$200	-	$0
		PEDESTRIAN BRIDGES	SF	$250	-	$0
		STEEL BRIDGES	SF	$100	-	$0
		BRIDGE ABUTMENT RETROFIT	SF	$150	-	$0
		RETAINING WALLS (Gravity Block, Fill)	SF	$50	-	$0
		RETAINING WALLS (Soil Nail with Cast in Place Facing)	SF	$150	-	$0
		BRIDGE REMOVAL	SF	$20	-	$0
		NOISE WALLS	SF	$25	-	$0
3		**SURFACING**				
		PORTLAND CEMENT CONCRETE	SY	$175	-	$0
		HOT MIX ASPHALT	TON	$100	-	$0
		CRUSHED SURFACING	TON	$30	100	$3,000
4		**ROADSIDE DEVELOPMENT**				
		FENCING	LF	$30	-	$0
		HANDRAIL	LF	$150	-	$0
		SEEDING, MULCHING & FERTILIZING	ACRE	$200,000	0.01	$2,000
		WETLAND MITIGATION	LS	$0	1	$0
		TEMPORARY WATER POLLUTION & EROSION CONTROL (6%)	LS	$3,300	1	$3,300
		LANDSCAPING	LS	$1,000	1	$1,000

505 Fifth Avenue S, Suite 900, Seattle, WA 98104 | P 206.436.0515

PLANNING LEVEL OPINION OF COST SUMMARY

Project Description:		Park Avenue N Extension			Client: City of Renton	
Corridor Section:		RapidRide Bus Stops			Date: 1/4/2018	
Location:		City of Renton, N Soutport Drive & Garden Avenue N / Lake Washington Bouelvard N			Date of Cost Index: 2017	
5		TRAFFIC				
		GUARD RAIL	LF	$200	-	$0
		CONCRETE BARRIER	LF	$50	-	$0
		SIGNAL SYSTEMS	LS	$0	1	$0
		ILLUMINATION	LS	$0	1	$0
		SIGNING	LS	$1,000	1	$1,000
		CURBS	LF	$25	300	$7,500
		SIDEWALKS	SY	$35	300	$10,500
		TRAFFIC CONTROL (10%)	LS	$5,600	1	$5,600
5.1		OTHER ITEMS				
		SURVEYING (2%)	LS	$1,200	1	$1,200
		SPECIAL ITEMS (RapidRide Foundations)	EST	$16,000	1	$16,000
		UTILITY RELOCATIONS	EST	$0	1	$0
6		MISCELLANEOUS (10%)	LS	$8,200	1	$8,200
7		CONSTRUCTION SUBTOTAL (ITEMS 1 THRU 6)				$89,300
8		MOBILIZATION (10%)				
		10% OF ITEM 7	EST	$9,000	1	$9,000
9		SUBTOTAL (ITEMS 7 & 8)				$98,300
10		SALES TAX				
		0.0% OF ITEM 9	EST	$0	1	$0
11		AGREEMENTS (Utilities, WSP, etc.)				
			EST	$0	1	$0
12		SUBTOTAL (ITEMS 9 THRU 11)				$99,000
13		CONSTRUCTION				
		ENGINEERING (12% OF ITEM 12)	EST	$12,000	1	$12,000
		ENVIRONMENTAL COMPLIANCE (2% OF ITEM 12)	EST	$2,000	1	$2,000
		CONTINGENCY (30% OF ITEM 12)	EST	$30,000	1	$30,000
14		CONSTRUCTION TOTAL (ITEMS 12 & 13)				$143,000
III.		PRELIMINARY WORK				
		PRELIMINARY ENGINEERING (15.0% OF ITEM 14)	EST	$21,500	1	$21,500
		ENVIRONMENTAL PERMITS	EST	$0	1	$0
IV.		TOTAL ESTIMATED COST				
		(ITEMS I, 14 & III)				$170,000
V.		FUTURE ESTIMATED COST				
			Inflation	Const. Year	Cost Index	Future Cost
		FUTURE COST BASED ON INFLATION RATE	10.00%	2019	2017	$210,000

The above opinion of cost is a planning level estimate only. It is based on best available information and scope at the time, not on the results of a detailed engineering study, and is supplied as a budgeting guide only. Perteet Inc. does not guarantee or warrant the accuracy of this planning level estimate.

APPENDIX C

Washington Utilities and Transportation Commission At-Grade Crossing Petition

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

	DOCKET NO. TR-
	PETITION TO CONSTRUCT A HIGHWAY-RAIL GRADE CROSSING
Petitioner, vs. Respondent	USDOT CROSSING NO.:

The Petitioner asks the Washington Utilities and Transportation Commission (UTC) to approve construction of a highway-rail grade crossing as described in this petition.

Prior to submitting this petition to the UTC, State Environmental Protection Act (SEPA) requirements must be met. Washington Administrative Code (WAC) 197-11-865 (2) requires:

> **All actions of the utilities and transportation commission under statutes administered as of December 12, 1975, are exempted, except the following:**
>
> **(2) Authorization of the openings or closing of any highway/railroad grade crossing, or the direction of physical connection of the line of one railroad with that of another;**

Please attach sufficient documentation to demonstrate that the SEPA requirement has been fulfilled. For additional information on SEPA requirements contact the Department of Ecology.

Section 1 – Petitioner's Information

Petitioner

Signature

Street Address

City, State and Zip Code

Mailing Address, if different than the street address

Contact Person Name

Contact Phone Number and E-mail Address

Section 2 – Respondent's Information

Respondent

Street Address

City, State and Zip Code

Mailing Address, if different than the street address

Contact Person Name

Contact Phone Number and E-mail Address

Section 3 – Proposed Crossing Location

1. Existing highway/roadway _____

2. Existing railroad _____

3. GPS location _____

4. Railroad mile post (nearest tenth) _____

5. City _____ County _____

Section 4 – Current Highway Traffic Information

1. Name of roadway/highway _____

2. Roadway classification _____

3. Road authority _____

4. Average annual daily traffic (AADT) _____

5. Number of lanes _____

6. Roadway speed _____

7. Is the road part of an established truck route? Yes _____ No _____

8. If so, trucks are what percent of total daily traffic? _____

9. Is the road part of an established school bus route? Yes _____ No _____

10. If so, how many school buses travel over the crossing each day?_____

11. Describe any changes to the information in 1 through 9, above, expected within ten years:

_____

Section 5 – Railroad Information

1. Railroad company _____

2. Type of railroad at crossing □ Common Carrier □ Logging □ Industrial

□ Passenger □ Excursion

3. Type of tracks at crossing □ Main Line □ Siding or Spur

4. Number of tracks at crossing _____

5. Average daily train traffic, freight _____

Authorized freight train speed _____ Operated freight train speed _____

6. Average daily train traffic, passenger _____

Authorized passenger train speed _____ Operated passenger train speed _____

7. Will the proposed crossing eliminate the need for one or more existing crossings?
Yes ____ No ____

8. If so, state the distance and direction from the proposed crossing.

_____

9. Does the petitioner propose to close any existing crossings?
Yes ____ No ____

Section 6 – Temporary Crossing

1. Is the crossing proposed to be temporary? Yes ____ No ____

2. If so, describe the purpose of the crossing and the estimated time it will be needed

_____

_____

3. Will the petitioner remove the crossing at completion of the activity requiring the temporary crossing? Yes ____ No ____

Approximate date of removal _____

Section 7 – Alternatives to the Proposal

1. Does a safer location for a crossing exist within a reasonable distance of the proposed location?
   Yes ____ No ____

2. If a safer location exists, explain why the crossing should not be located at that site.

_____

_____

_____

3. Are there any hillsides, embankments, buildings, trees, railroad loading platforms or other barriers in the vicinity which may obstruct a motorist's view of the crossing?
   Yes ____ No ____

4. If a barrier exists, describe:
   - ♦ Whether petitioner can relocate the crossing to avoid the obstruction and if not, why not.
   - ♦ How the barrier can be removed.
   - ♦ How the petitioner or another party can mitigate the hazard caused by the barrier.

_____

_____

_____

_____

5. Is it feasible to construct an over-crossing or under-crossing at the proposed location as an alternative to an at-grade crossing?
   Yes ____ No ____

6. If an over-crossing or under-crossing is not feasible, explain why.

_____

_____

_____

_____

7. Does the railway line, at any point in the vicinity of the proposed crossing, pass over a fill area or trestle or through a cut where it is feasible to construct an over-crossing or an under-crossing, even though it may be necessary to relocate a portion of the roadway to reach that point?

Yes ____ No ____

8. If such a location exists, state:

- ♦ The distance and direction from the proposed crossing.
- ♦ The approximate cost of construction.
- ♦ Any reasons that exist to prevent locating the crossing at this site.

_____

_____

_____

_____

_____

_____

_____

_____

9. Is there an existing public or private crossing in the vicinity of the proposed crossing?

Yes ____ No ____

10. If a crossing exists, state:

- ♦ The distance and direction from the proposed crossing.
- ♦ Whether it is feasible to divert traffic from the proposed to the existing crossing.

_____

_____

_____

_____

_____

Section 8 – Sight Distance

1. Complete the following table, describing the sight distance for motorists when approaching the tracks from either direction.

a. Approaching the crossing from _____, the current approach provides an unobstructed view as follows: (North, South, East, West)

Direction of sight (left or right)	Number of feet from proposed crossing	Provides an unobstructed view for how many feet
Right	300	
Right	200	
Right	100	
Right	50	
Right	25	
Left	300	
Left	200	
Left	100	
Left	50	
Left	25	

b. Approaching the crossing from _____ , the current approach provides an unobstructed view as follows: (Opposite direction-North, South, East, West)

Direction of sight (left or right)	Number of feet from proposed crossing	Provides an unobstructed view for how many feet
Right	300	
Right	200	
Right	100	
Right	50	
Right	25	
Left	300	
Left	200	
Left	100	
Left	50	
Left	25	

2. Will the new crossing provide a level approach measuring 25 feet from the center of the railway on both approaches to the crossing?

Yes ____ No ____

3. If not, state in feet the length of level grade from the center of the railway on both approaches to the crossing. _____

4. Will the new crossing provide an approach grade of not more than five percent prior to the level grade?

Yes ____ No ____

5. If not, state the percentage of grade prior to the level grade and explain why the grade exceeds five percent.

_____

_____

_____

Section 9 – Illustration of Proposed Crossing Configuration

Attach a detailed diagram, drawing, map or other illustration showing the following:

- ♦ The vicinity of the proposed crossing.
- ♦ Layout of the railway and highway 500 feet adjacent to the crossing in all directions.
- ♦ Percent of grade.
- ♦ Obstructions of view as described in Section 7 or identified in Section 8.
- ♦ Traffic control layout showing the location of the existing and proposed signage.

Section 10 – Sidewalks

1. Provide the following information, if applicable:
   a. Provide a description of the type of sidewalks proposed.
   b. Describe who will maintain the sidewalks.
   c. Attach a proposed diagram or design of the crossing including the sidewalks.

_____

_____

_____

_____

_____

_____

_____

_____

Section 11 – Proposed Warning Signals or Devices

1. Explain in detail the number and type of automatic signals or other warning devices planned at the proposed crossing, including a cost estimate for each. If requesting preemption, include the type of train detection circuitry, sequencing and advance preemption time.

2. Provide an estimate for maintaining the signals for 12 months. _____

3. Is the petitioner prepared to pay to the respondent railroad company its share of installing the warning devices as provided by law?

Yes ____ No ____

Section 12 – Additional Information

Provide any additional information supporting the proposal, including project-specific information such as the public benefits that would be derived from constructing a new crossing as proposed.

Section 13 – Waiver of Hearing by Respondent

Waiver of Hearing

The undersigned represents the Respondent in the petition to construct a highway-railroad grade crossing.

USDOT Crossing No.: _____

We have investigated the conditions at the proposed crossing site. We are satisfied the conditions are the same as described by the Petitioner in this docket. We agree that a crossing be installed and consent to a decision by the commission without a hearing.

Dated at _____ , Washington, on the _____ day of

_____ , 20 ____ .

_____
Printed name of Respondent

_____
Signature of Respondent's Representative

_____
Title

_____
Name of Company

_____
Phone number and e-mail address

_____

_____
Mailing address

APPENDIX D

Park Avenue N Extension Traffic Analysis Memorandum (including Appendices)

MEMORANDUM

505 5th Avenue S, Suite 300, Seattle, WA 98104 | P 206.436.0515

To: Hebé Bernardo
Bob Hanson, PE
Flora Lee, PE, PTOE

From: Peter De Boldt, PE
Marcus Elliott, PE
Mike Hendrix, PE, PTOE
Brent Powell, EIT

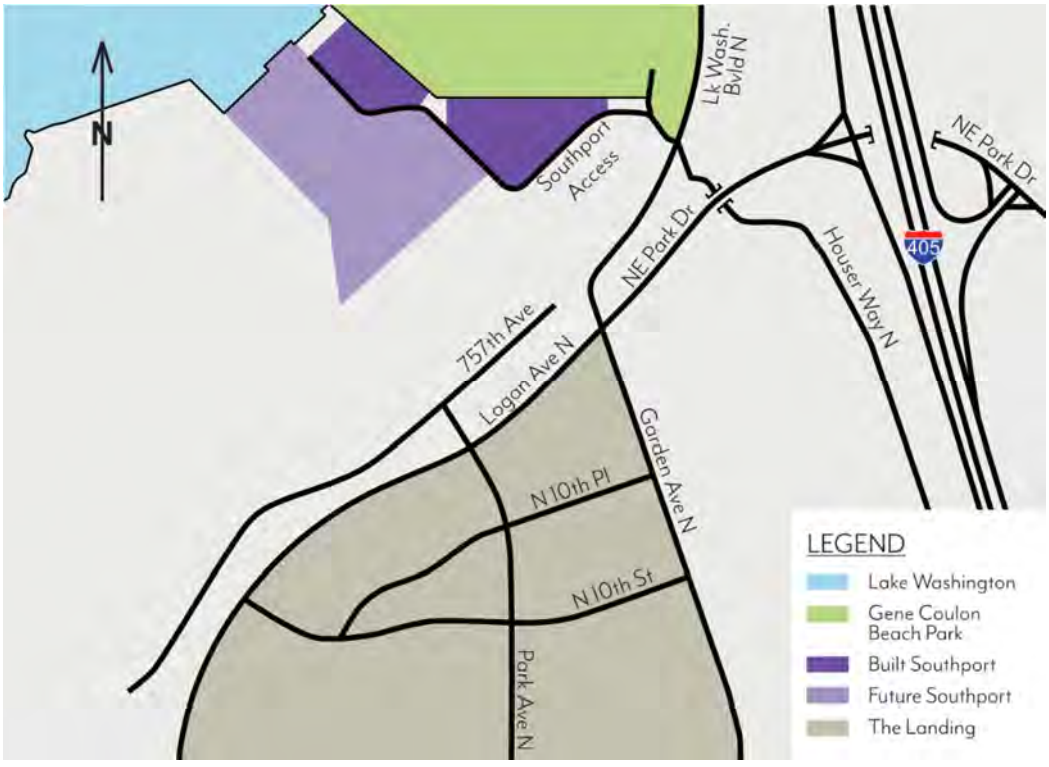
Date: November 7, 2017

Re: Park Avenue N Extension Traffic Analysis

INTRODUCTION

The City of Renton hired Perteet to review the existing and projected traffic demands on the roadway network surrounding the Southport development, which is currently in construction. This memorandum summarizes existing conditions, anticipated increased traffic demand from Southport as well as other nearby developments, and traffic operating conditions at a 2040 horizon year. Various alternatives were tested under the projected 2040 PM peak hour traffic demand to evaluate if there are options to improve mobility in the surrounding area as compared to maintaining the existing roadway network. Figure 1 is a vicinity map illustrating the study area roadway network.

Figure 1. Study Area Existing Roadway Network.



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Southport Development

The Southport development has been in the works for nearly 20 years. The project is currently under the control of SECO Development, Inc. At full build-out, Southport will include the following:

- Three, nine-story office buildings with Class "A" office space, retail, and underground parking;
- A 347-room Hyatt Regency hotel with conference space, fine dining, and surface parking; and
- The 295-unit Bristol apartments with first-floor retail, underground parking, and surface parking.

Currently, only the Bristol portion is completed. The remaining portions are anticipated to be completed by July 2018.

Existing Roadway Network

Southport currently connects to the City's roadway network via a private access road (henceforth referred to as "Southport Access"). Southport has not been authorized to create any additional connection points to the City's roads at this time.

Southport Access intersects Coulon Beach Park Drive, which provides access to the Gene Coulon Beach Park to the north. Coulon Beach Park Drive intersects Lake Washington Boulevard N, a major north-south arterial in the City, and Houser Way N, a one-way eastbound roadway. The developments to the north along Lake Washington Boulevard N are primarily residential, whereas travel to and from the south connects Southport with The Landing, I-405, and central Renton.

The study's traffic analyses included an evaluation of five existing intersections:

1. Logan Avenue N at N 10th Street,
2. Logan Avenue N at Park Avenue N / 757th Avenue,
3. Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N,
4. Lake Washington Boulevard N at Coulon Beach Park Drive / Houser Way N, and
5. Southport Access at Coulon Beach Park Drive.

All five of these intersections are fully signalized. Note that Intersections 4 and 5 operate in a tandem configuration using a single controller with a series of overlap phases.

Intersection Direction Notation

The roadways within the study area do not follow a north-south or east-west grid system. To avoid confusion, the following notation will be used whenever movements are described at these roadways:

- Logan Avenue N is a north-south roadway at the intersection with N 10th Street;
- Logan Avenue N is an east-west roadway at the intersection with Park Avenue N / 757th Avenue;
- Logan Avenue N / NE Park Drive are east-west roadways at the intersection with Lake Washington Boulevard / Garden Avenue N, which are always north-south roadways;
- Coulon Beach Park Drive / Houser Way N are east-west roadways at the intersection with Lake Washington Boulevard N;
- Coulon Beach Park Drive is the north and east legs of the intersection with Southport Access; and
- Southport Access is a north-south roadway only where it is adjacent to the east side of the Bristol Apartment's main building, elsewhere it is an east-west roadway.

Traffic Analysis Metrics and Tools

Level of Service (LOS) provides a letter grade for intersection performance. The *Highway Capacity Manual* (HCM) provides the standard procedure for determining LOS, which is a function of the delay produced by the traffic control devices at an intersection.

The procedures for determining intersection control delay are different for signalized intersections, two-way stop controlled (TWSC) intersections, all-way stop controlled (AWSC) intersections, and roundabouts. At signals, roundabouts, and AWSC intersections, all vehicles using the intersection are considered when evaluating average control delay. At TWSC locations, the intersection LOS is based on the delay for the worst stop-controlled movement.

The level of service delay thresholds vary based on whether or not the intersection is signalized. Table 1 outlines the LOS control delay thresholds.

Table 1. Intersection Level of Service Criteria.

Level of Service	Average Control Delay (seconds per vehicle)			
	Signal (All Vehicles)	AWSC (All Vehicles)	Roundabout (All Vehicles)	TWSC (Worst Movement)
A	≤ 10	≤ 10	≤ 10	≤ 10
B	10-20	10-15	10-15	10-15
C	20-35	15-25	15-25	15-25
D	35-55	25-35	25-35	25-35
E	55-80	35-50	35-50	35-50
F	> 80	> 50	> 50	> 50

The City of Renton Comprehensive Plan Transportation Element specifies that intersections within the Renton Urban Center (which includes the Boeing / Landing area) must meet LOS E or better.

The traffic analysis for this project was performed in three steps. First, a screening analysis was conducted to assess the relative performance of each alternative in the 2040 design year. This modeling evaluated individual intersections without multi-modal interactions. Second, the preferred alternative from the first step was modeled in both the 2019 and 2040 design years and compared to a No Build scenario in the isolated analysis. Third, the preferred alternative from the screening analysis was then advanced to a network analysis, which provided increased detail on traffic operations and considered the effects of bus dwell times and queuing between intersections.

The screening analysis and isolated analysis were conducted using Synchro 9, a software program which performs intersection delay, queue length, and level of service calculations based on user-defined variables, such as intersection geometry, signal timing, and traffic volumes. Synchro's calculations are based on the HCM (2010) methodology. However, Synchro is able to handle more advanced signal phasing, such as overlaps, which the HCM methodology alone cannot accommodate. To be consistent, all signalized intersections for this analysis were evaluated with Synchro 9's algorithm. All two-way stop controlled intersections for this analysis were evaluated with the HCM 2010 two-way stop-control module within Synchro 9.

The Alternative C roundabout was modelled using Sidra Studio 6, which is an analysis tool designed for roundabouts. It is the industry-standard deterministic analysis program for roundabout intersection control. Like Synchro, it returns intersection operations information based on user-defined variables.

The network analysis was performed using VISSIM 9, which is a program that simulates traffic throughout an entire network. Because this tool simulates the entire network at once, interactions between adjacent signals and queues are captured, providing a more realistic picture of traffic operations in the study area. See the NETWORK ANALYSIS chapter for more information.

Lane geometry for the existing condition Synchro model was based on recent aerial maps. Signal timing plans for all existing study intersections were provided by City of Renton. Existing condition traffic volumes used in the study were collected on Thursday, May 18, 2017 by Traffic Data Gathering.

Future Traffic Volumes

The 2019 and 2040 traffic volumes build on the existing traffic count data by adding in a 1% background annual traffic growth percentage and volumes from pipeline developments, including from Southport.

The methods and calculations behind the development of the future volumes are included as part of the Park Avenue N Extension Screening Analysis. See Appendix A and Appendix A-1.

SCREENING ANALYSIS

The screening analysis is presented in the Park Avenue N Extension Screening Analysis Memorandum, included as Appendix A to this document.

Alternative A—the Park Avenue N extension—had the best performance and was advanced to the isolated and network analyses.

ISOLATED ANALYSIS

Comparison to Screening Analysis

The Synchro models used for the isolated analysis were adjusted from the models in the screening analysis in two primary ways. First, the signal timings were corrected to include all pedestrian phases at all intersections. Second, the base saturation flow rate was returned to 1,900 passenger cars per hour per lane and the lost time adjustment was returned to 0 seconds. The returned values are Synchro defaults and were found to provide control delays in line with City of Renton expectations.

Boeing (Mid-day) Peak Hour Analysis

The Boeing factory releases a large number of employees prior to the traditional PM peak hour window of 4pm to 6pm. The Boeing shift change usually occurs between 2pm and 3:30pm, which is locally referred to as the "Boeing Peak Hour".

The City of Renton provided counts during the Boeing Peak Hour at the intersection of Logan Avenue N / NE Park Drive and Garden Avenue N / Lake Washington Boulevard N on three separate days over the span of three weeks. Each of these counts were reviewed using Synchro and compared to the 2017 PM peak hour model results to determine if the Boeing Peak Hour conditions create more control delay at the intersection. Table 2 summarizes the results of the comparison.

Table 2. Boeing Peak Hour Comparison at Logan Avenue N / NE Park Drive and Garden Avenue N / Lake Washington Boulevard N.

Peak Hour	Data Date	Control Delay (s/veh)												
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
PM	5/18/17	98	57	57	57	33	14	443	443	52	53	49	6	96
Boeing	6/7/17	87	59	59	58	34	16	304	304	46	54	50	6	72
Boeing	6/14/17	91	62	62	56	34	16	406	406	48	54	53	6	86
Boeing	6/21/17	84	68	68	57	34	16	319	319	45	55	51	6	76

As Table 2 shows, all three of the tested Boeing Peak Hours returned overall intersection control delays that were less than the design PM Peak Hour delay. As a result, the Boeing Peak Hour was not analyzed further and is assumed to operate as well or better than the PM peak hour in all future analyses.

Existing Conditions

The following graphics, Figures 2 and 3, present the AM and PM peak hour volumes, delays, and level of service at each of the study intersections in the 2017 existing conditions model.

Figure 2. Isolated Analysis: 2017 AM Existing Volumes, Delays, and LOS.

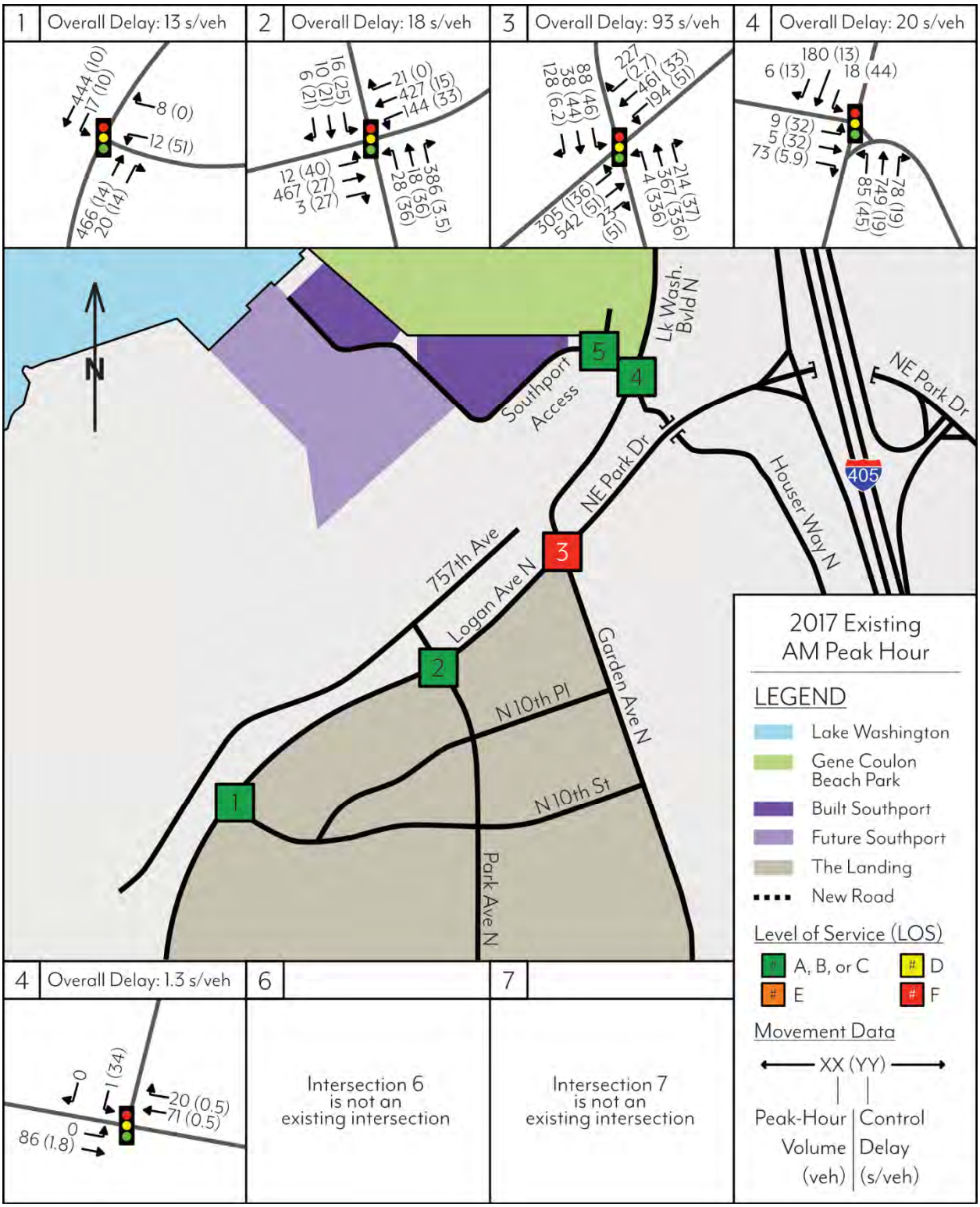

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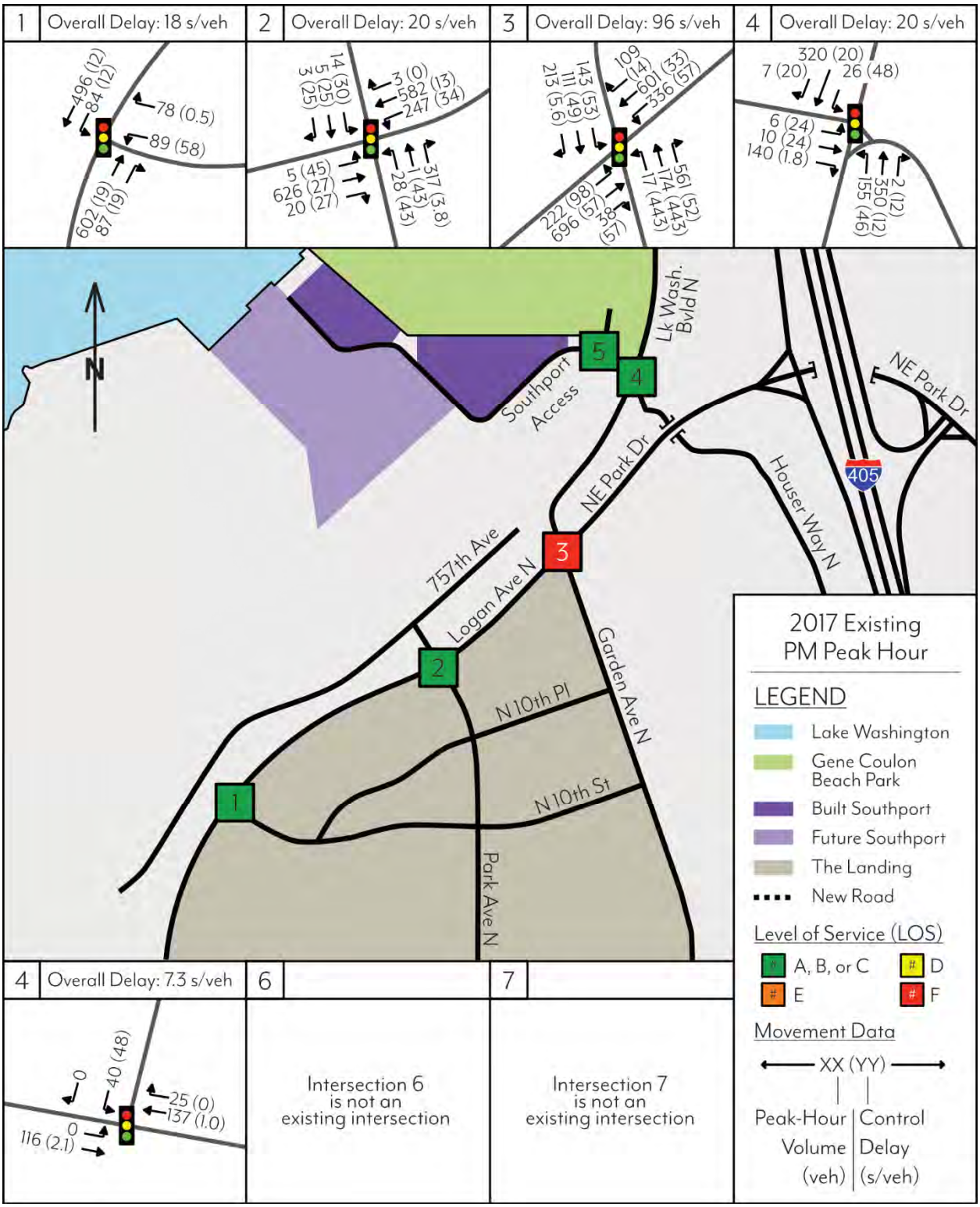
Figure 3. Isolated Analysis: 2017 PM Existing Volumes, Delays, and LOS.



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Findings

Figures 2 and 3 reveal that four of the five study intersections currently operate at LOS B or better in both the AM and PM peak hours. As such, they currently meet City of Renton LOS standards for this Urban Center zone. The non-compliant intersection is at Logan Avenue N / NE Park Drive and Garden Avenue N / Lake Washington Boulevard N, which operates at LOS F in both the AM and PM peak hours.

Operations between the two peak hours are similar, with all intersections operating at the same letter grade in each time of day. In both peak hours, the highest demand movements at Intersections 2 and 3 are the eastbound and westbound through movements along the Logan Avenue N / NE Park Drive corridor. In both peak hours the volumes for these opposing movements are similar, indicating that there is a high level of demand to travel to and from both the Renton core (via Logan Avenue N) and I-405 or the Highlands (via NE Park Drive). Traffic volumes on Lake Washington Boulevard N behave differently, however, with a highly-directional major movement: southbound in the AM peak hour and northbound in the PM peak.

The LOS F designation at Logan Avenue N / NE Park Drive and Garden Avenue N / Lake Washington Boulevard N is primarily due to the large control delays Synchro has produced for the northbound Garden Avenue N movements. These values—above 300 seconds per vehicle in the morning and 400 in the afternoon—skew the overall average delay for the intersection.

2019 Conditions (Year of Opening) and 2040 Conditions

Adjustments to Model Inputs

The 2019 and 2040 Isolated Analyses use the traffic volumes developed in Appendix A-1.

By 2019, not only is the Southport development projected to be complete, so too is the widening of Lake Washington Boulevard N between Logan Avenue N and Gene Coulon Beach Park Drive. In addition to providing additional vehicle lanes to increase capacity, the signal at Lake Washington Boulevard N and Gene Coulon Beach Park Drive / Houser Way NE was slated to change to split phasing for the north and south approaches. (This change was tested using the VISSIM traffic model and found to be more effective than maintaining the current phasing scheme, see the NETWORK ANALYSIS chapter for more information.)

The City of Renton has developed a plan to revise the existing signal timing and channelization at the intersection of Logan Avenue N / NE Park Drive and Garden Avenue N / Lake Washington Boulevard N to increase efficiency. Currently, this signal has split north-south phasing. The proposed changes—the "Garden Modification"—will eliminate the split phasing and alter some phase durations. Additionally, the northbound left-turn movement will be restricted and the northbound right-turn on red will be permitted (it is currently prohibited). The north leg of the intersection will be re-channelized to provide two left-turn only lanes and a shared through, right-turn lane. These changes will all combine to produce lower control delays at the intersection during all analysis years.

The City of Renton provided the proposed Garden Modification signal timings to Perteet for use in modeling the 2019 and 2040 analysis years. Perteet found that while these timings were optimized for 2017 traffic volumes, the opening of Southport by 2019 will cause the Garden Modification timings to operate inefficiently. Perteet and City of Renton developed an alternate set of timings to better serve the 2019 and 2040 traffic demands. (See the Synchro worksheets in Appendix E.)

The above model changes were made to all Isolated Analysis models.

Isolated Analysis Scenarios

Like with the screening analysis, the isolated analysis includes an evaluation of the 2017 AM and PM peak hours. Additionally, the isolated analysis includes Synchro simulations in the 2019 year of opening and 2040 design year. (While the Southport development is projected to be complete in mid-2018, the Alternative A improvements would likely lag until at least 2019 due to coordination with Boeing, Southport, the railroads, and potentially WSDOT.)

In each analysis year, two scenarios were reviewed:

1. No Build, and
2. Build (i.e. Park Avenue N extension to connect to the existing Southport Access roadway).

The intersections created by the Park Avenue N extensions were modelled as two-way stop controlled.

Results

The following graphics, Figures 4 through 7, present the PM peak hour volumes, delays, and level of service at each of the study intersections in the future conditions models.

Figure 4. Isolated Analysis: 2019 PM No Build Volumes, Delays, and LOS.

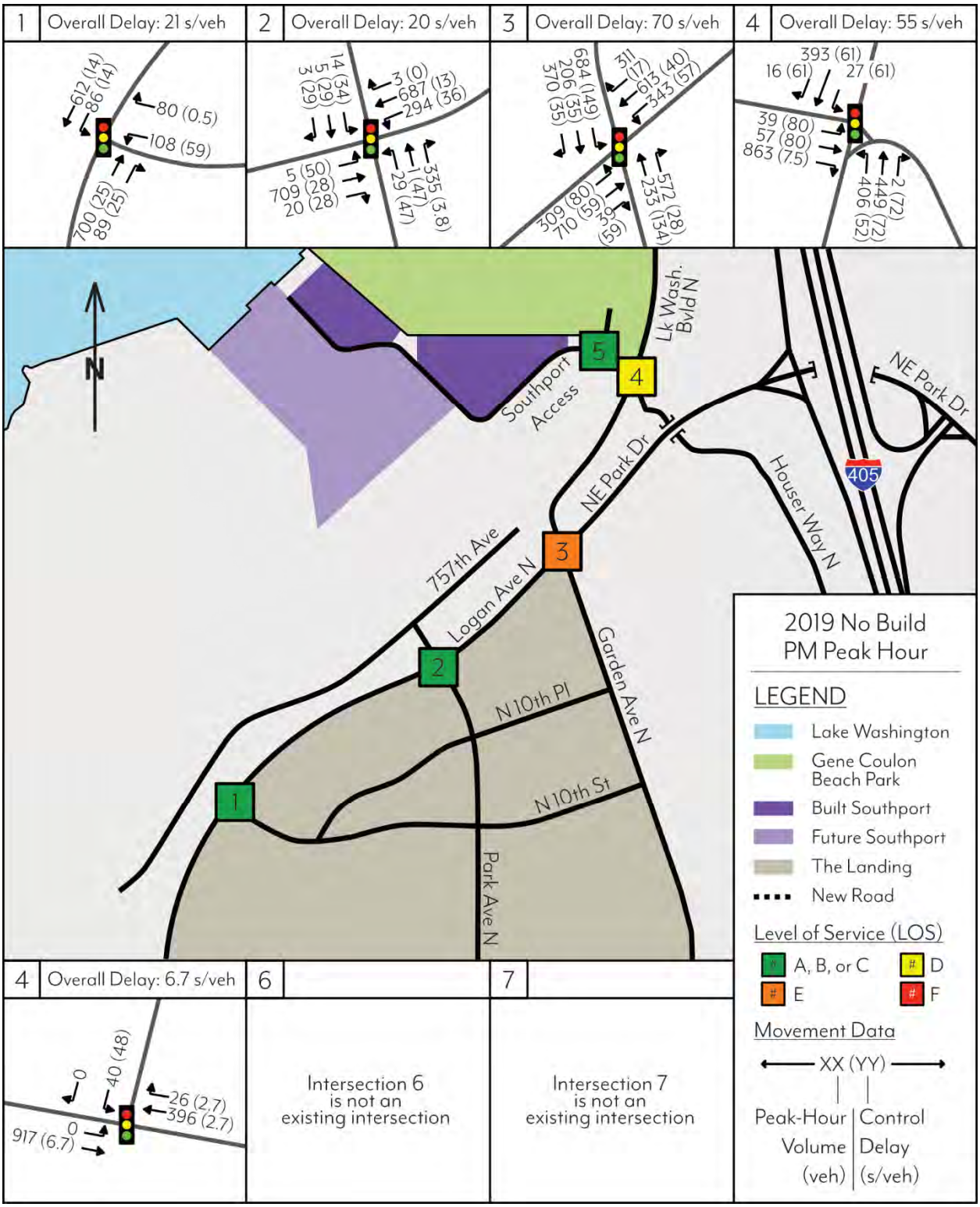

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Figure 5. Isolated Analysis: 2019 PM Build Volumes, Delays, and LOS.

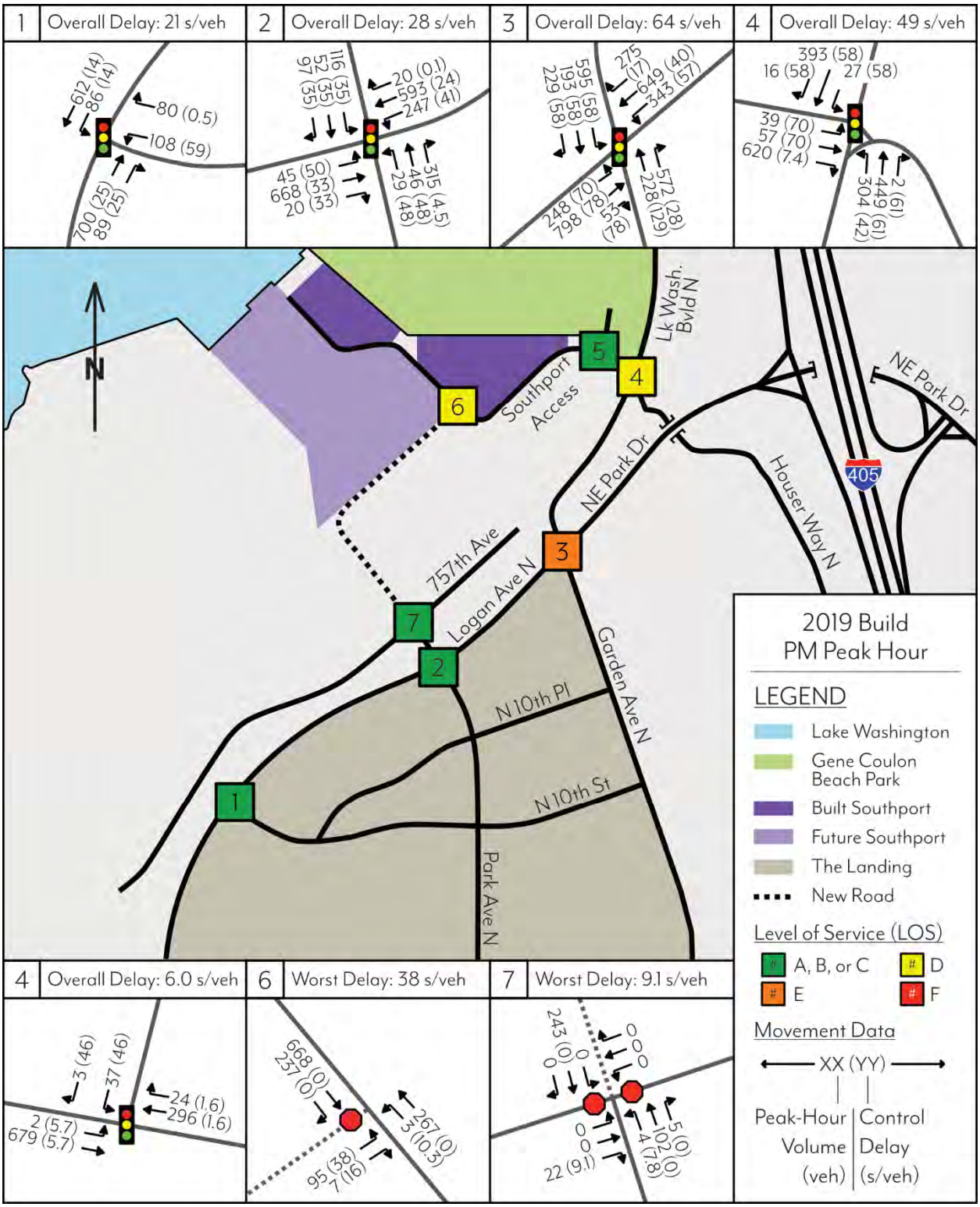

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Figure 6. Isolated Analysis: 2040 PM No Build Volumes, Delays, and LOS.

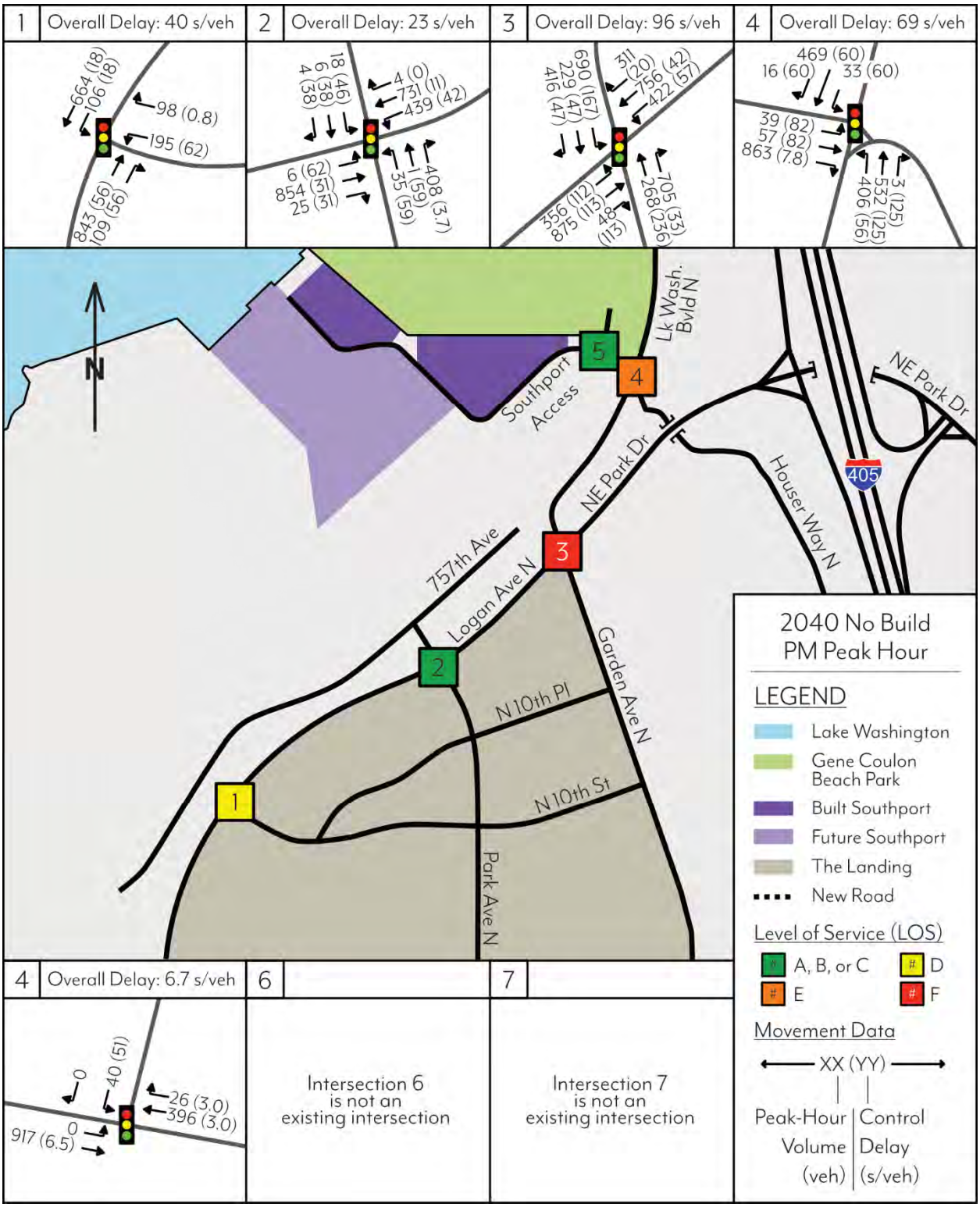

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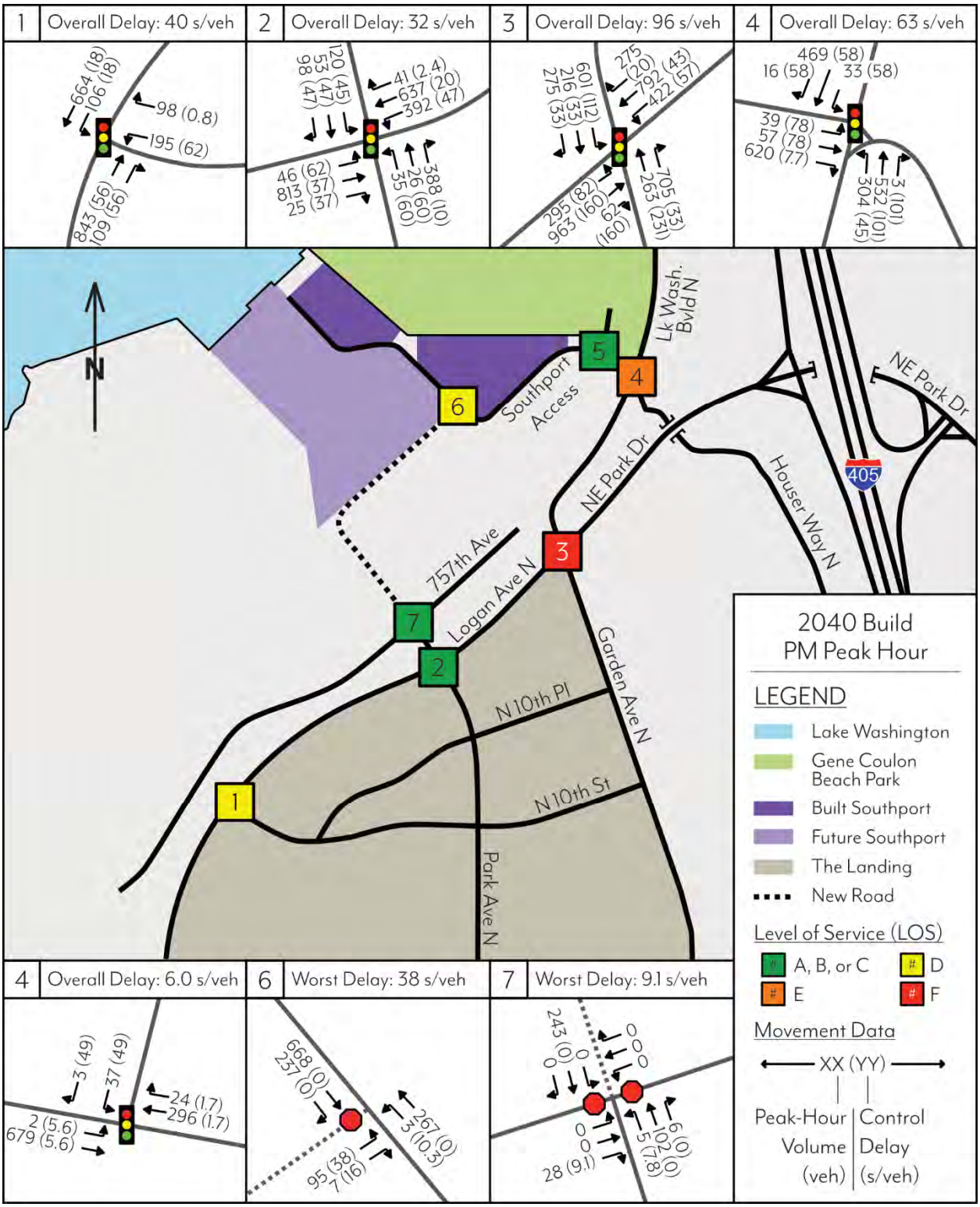
Figure 7. Isolated Analysis: 2040 PM Build Volumes, Delays, and LOS.



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Findings

Figures 4 and 5 show that with or without the Park Avenue N extension, the addition of the full-buildout Southport traffic volumes, along with general traffic growth, will increase overall control delays at the intersections of Logan Avenue N at N 10th Street and Logan Avenue N at Park Avenue N / 757th Avenue in 2019. Control delays at Logan Avenue N / NE Park Drive at Garden Avenue N / Lake Washington Boulevard N have decreased from the 2017 model due to the implementation of the Garden Modification, even though there is additional traffic loading from Southport.

By 2019, all five study intersections will meet City of Renton level of service standards.

Figures 6 and 7 show that by 2040, average control delays at Intersection 3 will have returned to over 90 seconds per vehicle, which leads to a LOS F classification. This increase is due to the regional background growth over the 21 years since 2019. The Lake Washington Boulevard N at Coulon Beach Park Drive / Houser Way N intersection will operate at LOS E in 2040, though operations will be improved if the Park Avenue N extension is completed, as fewer vehicles will use the intersection to access Southport if the option of using the Park Avenue N extension is available.

All other study intersections will operate at LOS D or better in 2040, with or without the Park Avenue N extension.

NETWORK ANALYSIS

Comparison to Isolated Analysis

The network analysis was performed using VISSIM 9, which is considered to be an industry-standard analysis tool for congested urban corridors featuring multi-modal interactions. This study area is primarily used by passenger car and freight traffic, but Logan Avenue N has RapidRide and local-route bus stops in each direction within the study area, leading to substantial pedestrian volumes at some crossings.

VISSIM addresses the Synchro deficiencies highlighted in the text box to the right by simulating every vehicle, bus, and pedestrian that enters the network until it passes through one of the model edge boundaries, whereas a deterministic program like Synchro calculates delay based on HCM formulas. The VISSIM method provides a more detailed, informed, and accurate analysis of the study area. Where appropriate, the Findings section for each scenario in this chapter features a brief comparison of the VISSIM results to the comparable isolated analysis Synchro results, and provide insight into what the Synchro model may have overlooked if the delay results are different between programs.

Synchro—used in the screening analysis—does not have the capacity to handle public transit operations. Additionally, Synchro analyzes on an intersection level, meaning that it processes each study intersection in a vacuum. If a large downstream queue backs up and restricts flow at an upstream intersection, for example, that restriction will not be captured by the program and the upstream results will not be impacted. Too, in Synchro, turn lanes with defined storage lengths (i.e. left-turn pockets) are assumed to be continuously accessible by left-turning traffic; the length of an adjacent through movement queue does not alter the delay values for the left-turn traffic, and vice versa.

Calibration

The VISSIM traffic models were calibrated based on WSDOT standard criteria and procedures. A Confidence and Calibration Memorandum was prepared to document this work in detail, and is included as Appendix B.

Additional Model Detail with VISSIM

In addition to considering the effects of transit, queue impacts on throughput, and storage bay accessibility, VISSIM can produce average vehicle travel time measurements because it considers the entirety of the study area. For this project, corridor travel times were measured for the Logan Avenue N / NE Park Drive corridor, spanning from just north of N 8th Street to just west of the I-405 southbound ramps intersection, in both directions. (Note that the model does not include the intersections of Logan Avenue N at N 8th Street or NE Park Drive at the I-405 southbound ramps, so any travel time increases from queues at those intersections will not be captured. However, the magnitude of any delay at those locations is assumed to be equivalent under any scenario in a given analysis year.)

Queue lengths were also captured from the VISSIM models. This queue lengths are displayed graphically on each scenario delay figure, with a color-coded scale based on a comparison of that 95th percentile queue to the available distance to the nearest upstream intersection.

The final unique data output taken from the VISSIM model is the number of vehicles in the analysis hours that were not able to enter the study network. This can happen if vehicles are not able to access their assigned entry boundary link during the 60-minute analysis. For example, Logan Avenue N is modeled starting just north of the N

8th Street intersection. At times during some scenarios, queues develop so that the entire link between N 8th Street and N 10th Street is occupied in the northbound direction and additional vehicles that would otherwise be added to the network do not have enough space to enter. In reality, this would have the effect of decreasing throughput at the upstream intersection, but those analyses are outside the scope of this analysis.

Adjustments to Model Inputs for 2019 and 2040 Analyses

Park Avenue N Extension Route Assignment

The ability to view the entire network model with simulated vehicles and pedestrians often reveals opportunities to improve route assignment assumptions that are hard to detect with Synchro. For the network analysis, the only scenarios where those assumptions come into play are the Alternative A scenarios. Initially, the trips between Southport and I-405 or The Highlands via NE Park Drive were assumed to favor using the Park Avenue N extension (66%) as opposed to Lake Washington Boulevard (33%). The VISSIM model runs for this assumption showed heavy queueing along the new roadway and minimal queuing along Lake Washington Boulevard N. The assumptions were adjusted to find a balance so that queue lengths appeared to be roughly similar between the two route choices. Balance was achieved when the percentages were changed to 15% and 85% for the new road and Lake Washington Boulevard N, respectively. These percentages were used for all VISSIM Build model runs.

Lake Washington Boulevard N Signal Phasing

The 30% design plans for the Lake Washington Boulevard N widening project were provided to Perteet, and those plans call for a re-channelization that would require split-phasing the northbound and southbound approaches of Lake Washington Boulevard N. Perteet discussed this proposed phasing scheme with the City and was told that the City had not yet decided which phasing scheme to employ at the intersection.

Perteet reviewed each phasing scheme in the 2040 PM No Build scenario to determine if either proved to operate significantly better than the other. The results of that analysis at the tandem intersections are displayed in Table 3.

Table 3. Network Analysis: Lake Washington Boulevard N Phasing Comparison, 2040 PM No Build.

		Control Delay (s/veh)												
Phasing	Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Existing Phasing	LWB / Coulon[1]	31	41	8	-	-	-	89	32	0	543	577	547	137
	Coulon / Southport[2]	0	120	-	-	0.6	0.6	-	-	-	43	-	0	83
Split Phasing	LWB / Coulon[1]	8.7	24	9.4	-	-	-	49	53	0	70	48	73	34
	Coulon / Southport[2]	0	145	-	-	8.7	0	-	-	-	58	-	0	103

[1] "LWB / Coulon" is Lake Washington Boulevard N at Coulon Beach Park Drive
[2] "Coulon / Southport" is Coulon Beach Park Drive at Southport Access

Table 3 shows a clear improvement for the Lake Washington Boulevard N at Coulon Beach Park Drive intersection under split phasing as compared to the existing phasing scheme. The split phasing analysis maintained the same cycle length and splits for Coulon Beach Park Drive traffic as the existing phasing. Because the improvement for Lake Washington Boulevard is so significant, split phasing at this intersection was assumed for all VISSIM future model runs.

Network Analysis Scenarios

The network analysis modelled the same six scenarios as the isolated analysis:

1. 2017 AM,
2. 2017 PM,
3. 2019 PM No Build,
4. 2019 PM Build,
5. 2040 PM No Build, and
6. 2040 PM Build.

Existing Conditions

Figures 8 and 9 present the vehicle volumes, control delays, and 95th percentile queue lengths from the 2017 AM and PM network analyses.

Figure 8. Network Analysis: 2017 AM Existing Conditions Volumes, Delays, Queues, and LOS.

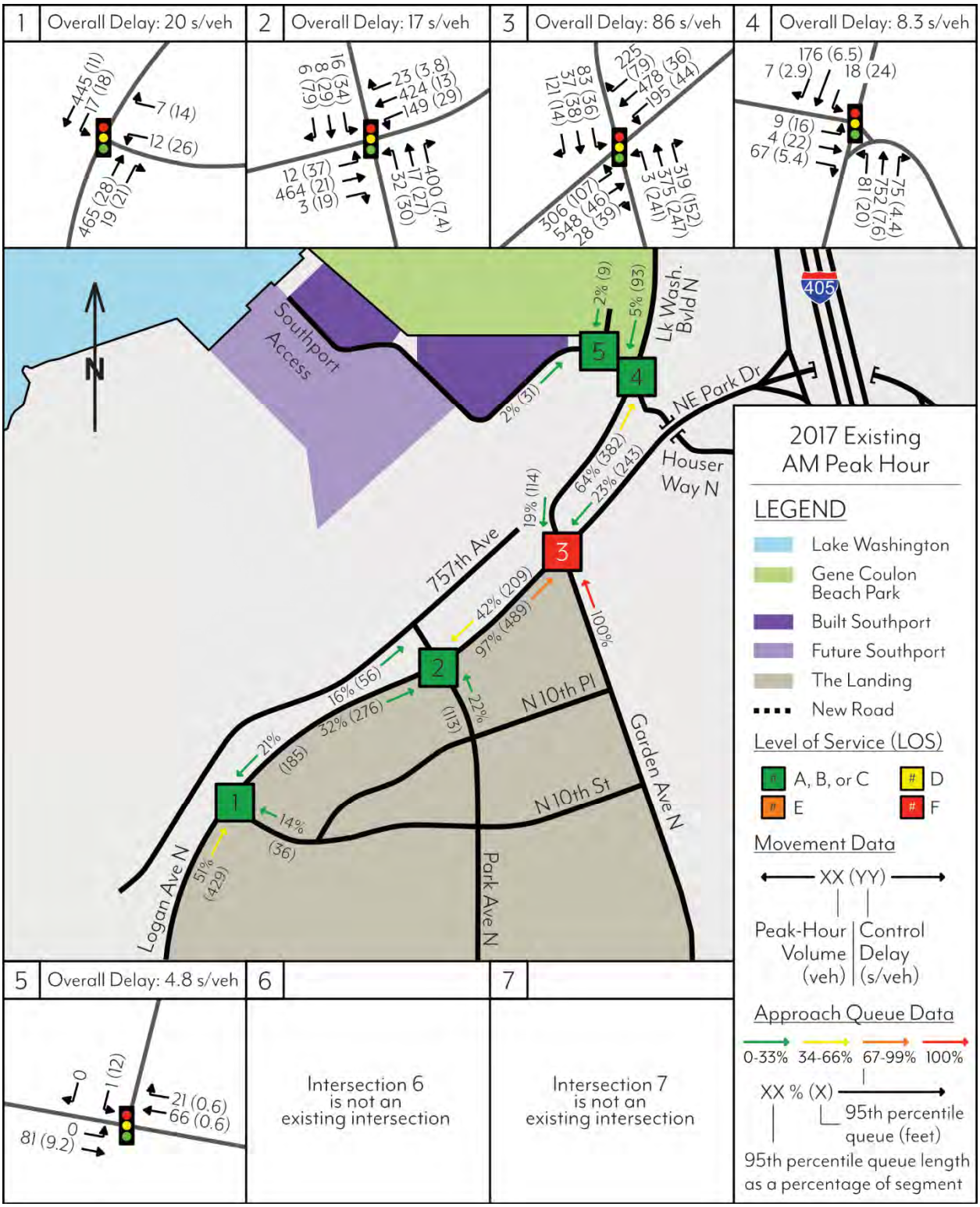

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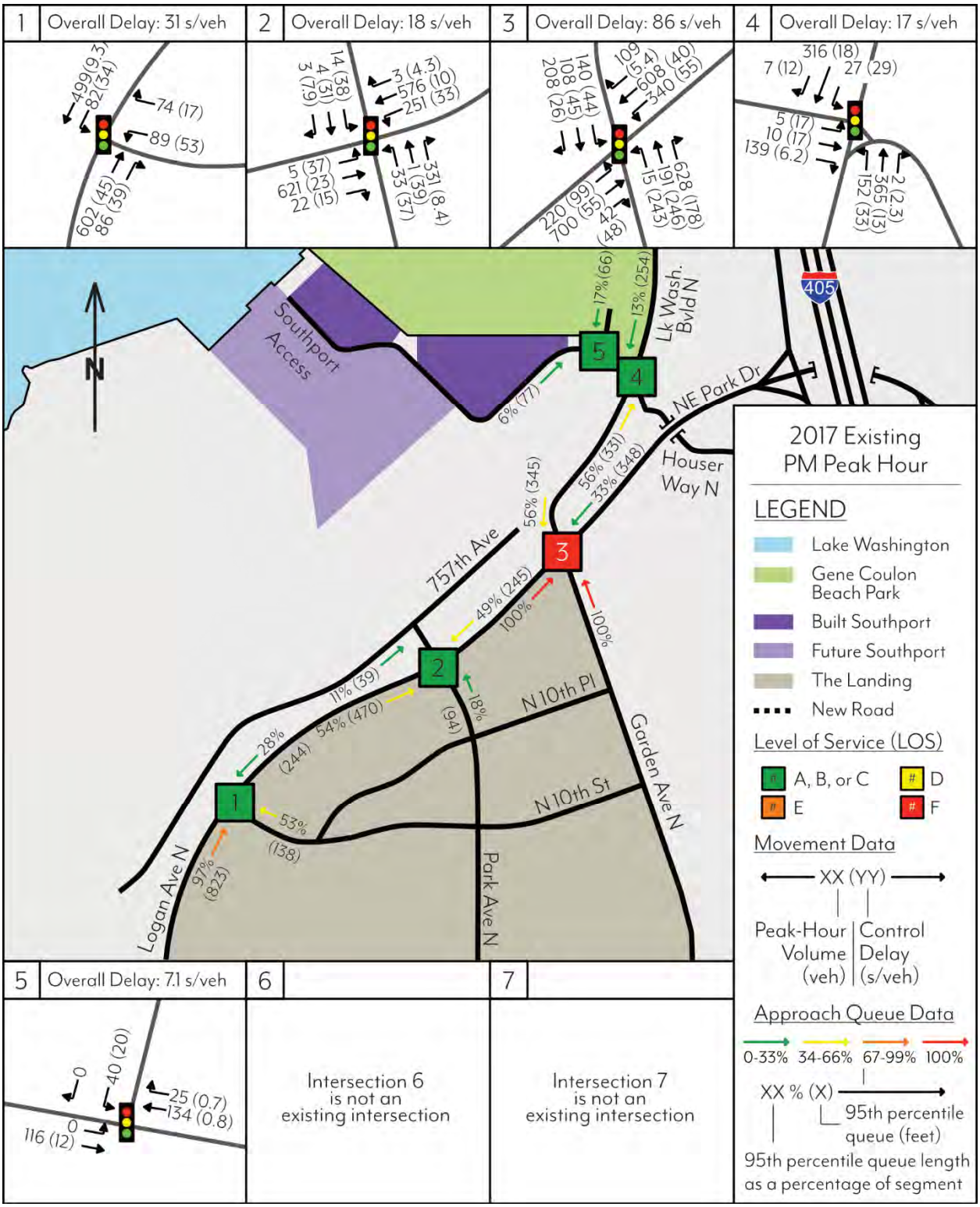
Figure 9. Network Analysis: 2017 PM Existing Conditions Volumes, Delays, Queues, and LOS.



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Findings

The intersection of Logan Avenue N / NE Park Drive at Garden Avenue N / Lake Washington Boulevard N operates at LOS F in both the 2017 AM and PM peak hour Network Analysis models. This matches the Synchro outputs observed in the Isolated Analysis, which makes sense because no nearby intersections have queues that form and impede traffic at this location.

All other study intersections meet City of Renton level of service standards of LOS E or better under the 2017 AM and PM network analyses, coming in at LOS C or better.

The VISSIM 2017 control delays are similar to the Synchro Isolated Analysis values at nearly all intersections. The largest difference is at the intersection of Logan Avenue N at N 10th Street in the PM peak hour. VISSIM reports this intersection as LOS C, whereas Synchro reported it as LOS B. The northbound delays in the VISSIM model are more than double the Synchro model. This is explained by the delay induced by the bus traffic in the corridor. There is an existing RapidRide F-Line stop at the farside of the intersection that restricts flow in the single northbound travel lane, increase intersection control delays.

2019 Conditions (Year of Opening) and 2040 Conditions

The 2019 and 2040 Network Analyses use the traffic volumes developed in Appendix A-1. Note that because VISSIM is a simulation tool, turning movement measurements will not always exactly match Synchro model volumes. Generally, volumes fall very close to the Synchro target, but the turning movements from a given approach are based on probabilities, so minor difference may exist. Major volume differences are present when a movement is so congested that the theoretical number of vehicles using the movement cannot actually reach the stop bar, so the VISSIM output is lower.

Like with the Isolated Analysis, the 2019 and 2040 Network Analyses include the Garden Modification and the Lake Washington Boulevard N widening and split phasing.

The VISSIM 2040 network analysis models include a restriction on the left-turn ingress and egress for the midblock Landing driveway (near the Regal Cinemas) between N 10th Street and Park Avenue N. By 2040, the conflicting traffic on Logan Avenue N will make each left-turn movement for the driveway too difficult to accomplish, so City staff directed that they be restricted in the model. Consequently, this closure shifts the driveway volumes slightly:

- Vehicles leaving the driveway are now assumed to use the other garage exit onto N 10th Place, then turn right at the roundabout with N 10th Street, before turning left onto southbound Logan Avenue N; and
- Vehicles wishing to enter the garage from southbound/westbound Logan Avenue N will now turn left onto Park Avenue N instead of proceeding straight through Intersection 2, then they will turn right onto N 10th Place and use the other garage entrance.

Figures 10 through 13 present the vehicle volumes, control delays, and 95th percentile queue lengths from the 2019 and 2040 PM network analyses. Note that for the Build scenarios, the control delays for the eastbound movements at Intersection 6 and the southbound movements at Intersection 7 are not listed in the following figures. Because these are free-flowing movements at two-way stop controlled intersections, any delays experienced by these vehicles are the result of a downstream signal (at Intersections 5 and 2, respectively) and the delays for those vehicles are attributed to the signalized intersection instead.

Figure 10. Network Analysis: 2019 PM No Build Volumes, Delays, Queues, and LOS.

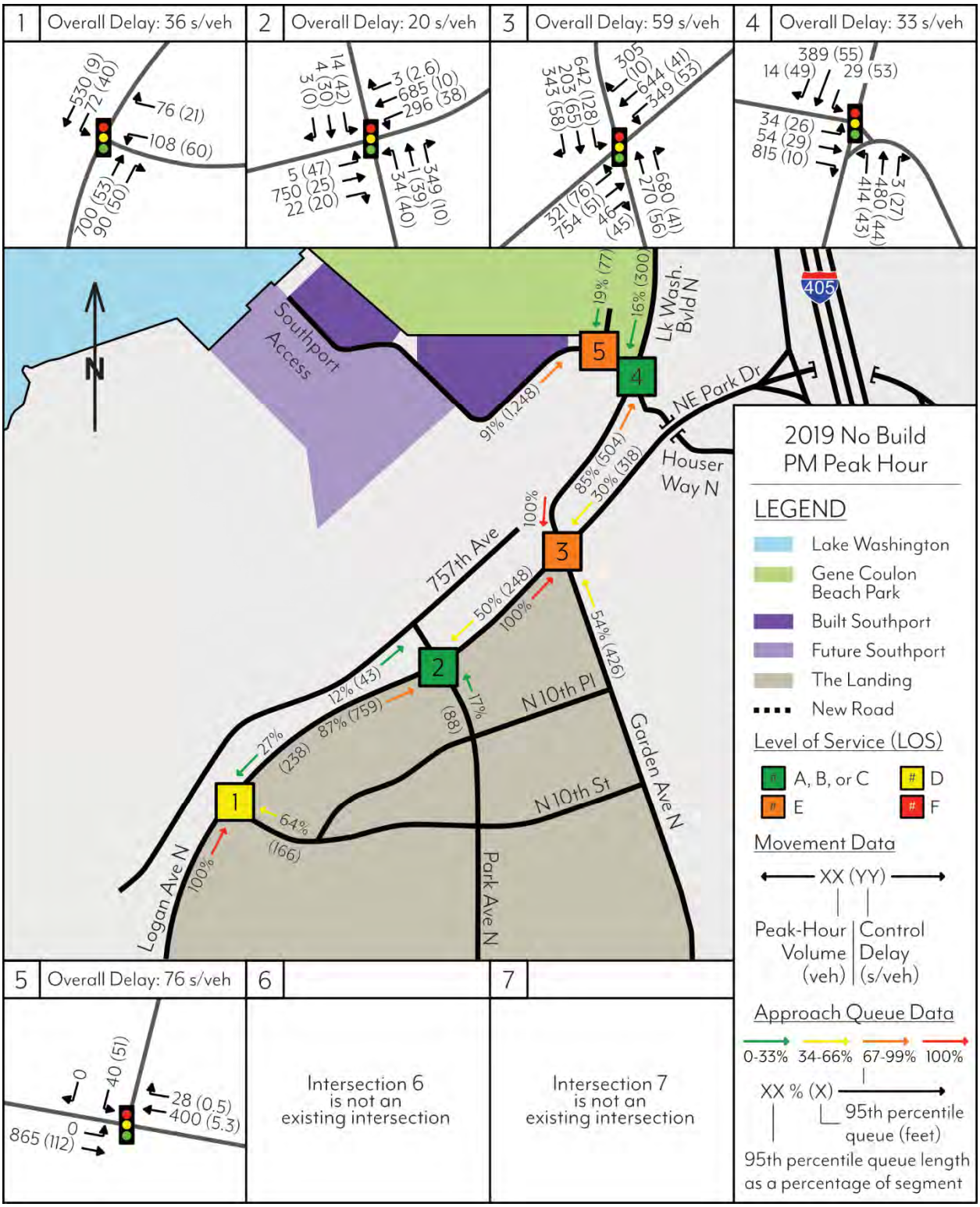

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Figure 11. Network Analysis: 2019 PM Build Volumes, Delays, Queues, and LOS.

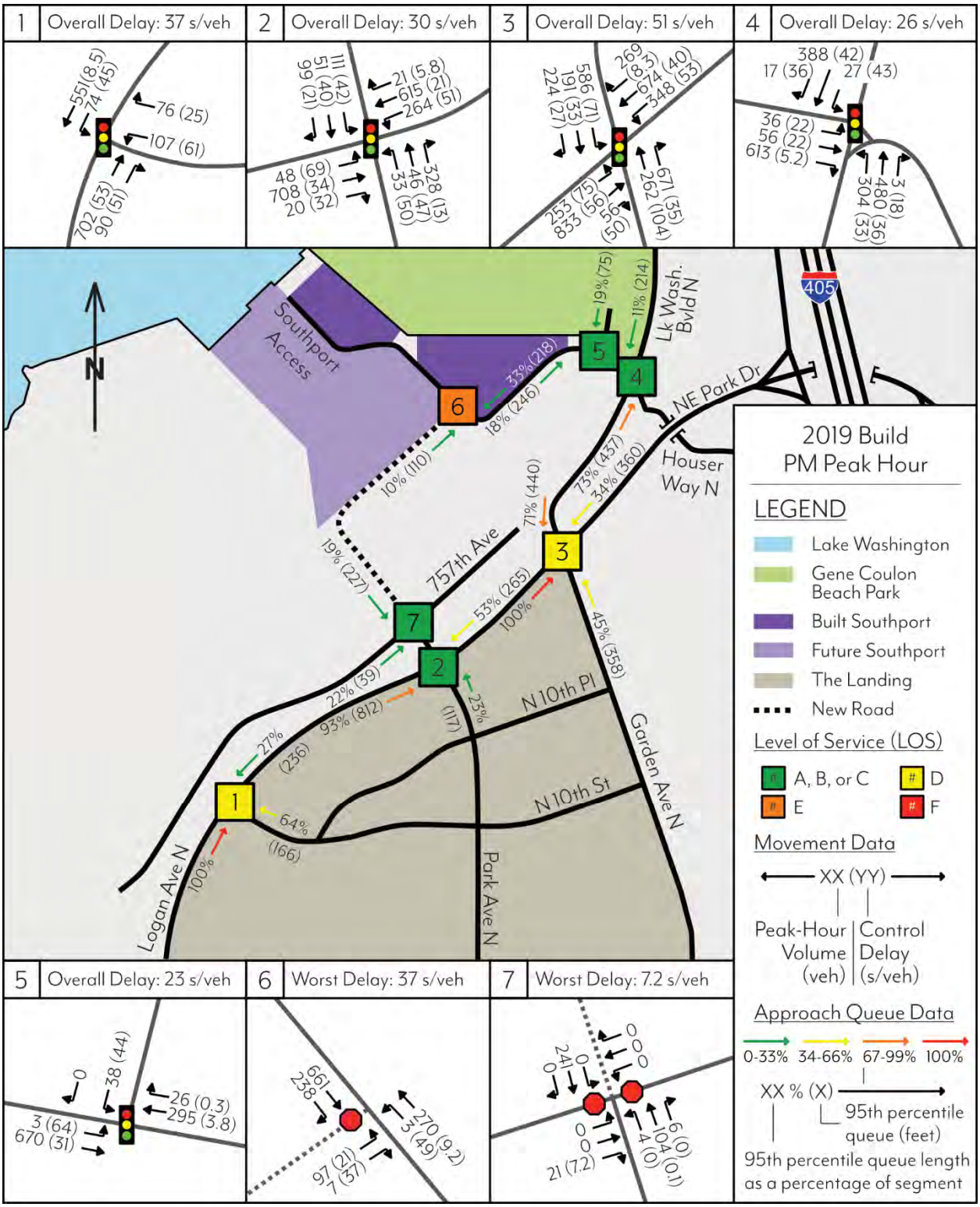

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Figure 12. Network Analysis: 2040 PM No Build Volumes, Delays, Queues, and LOS.

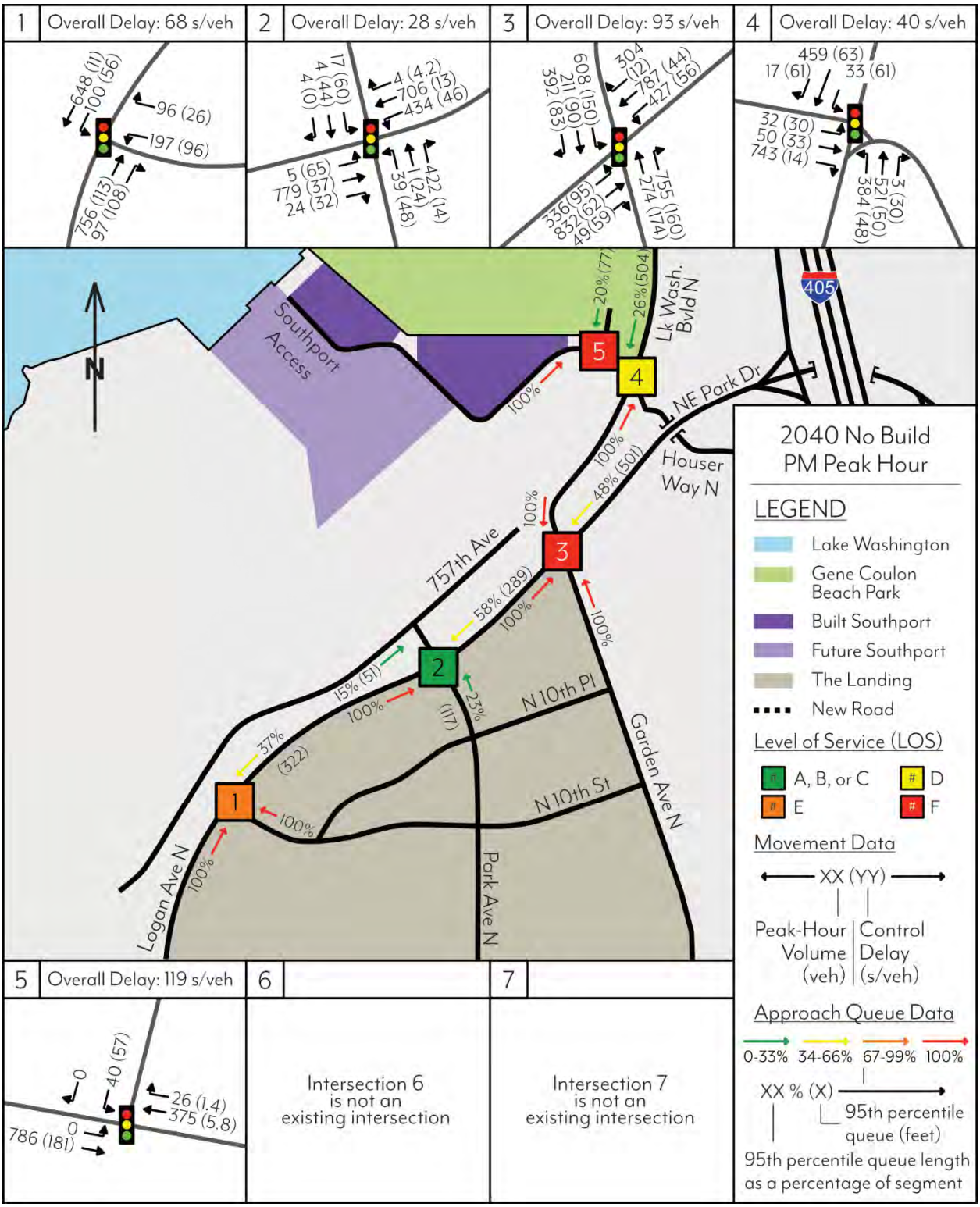

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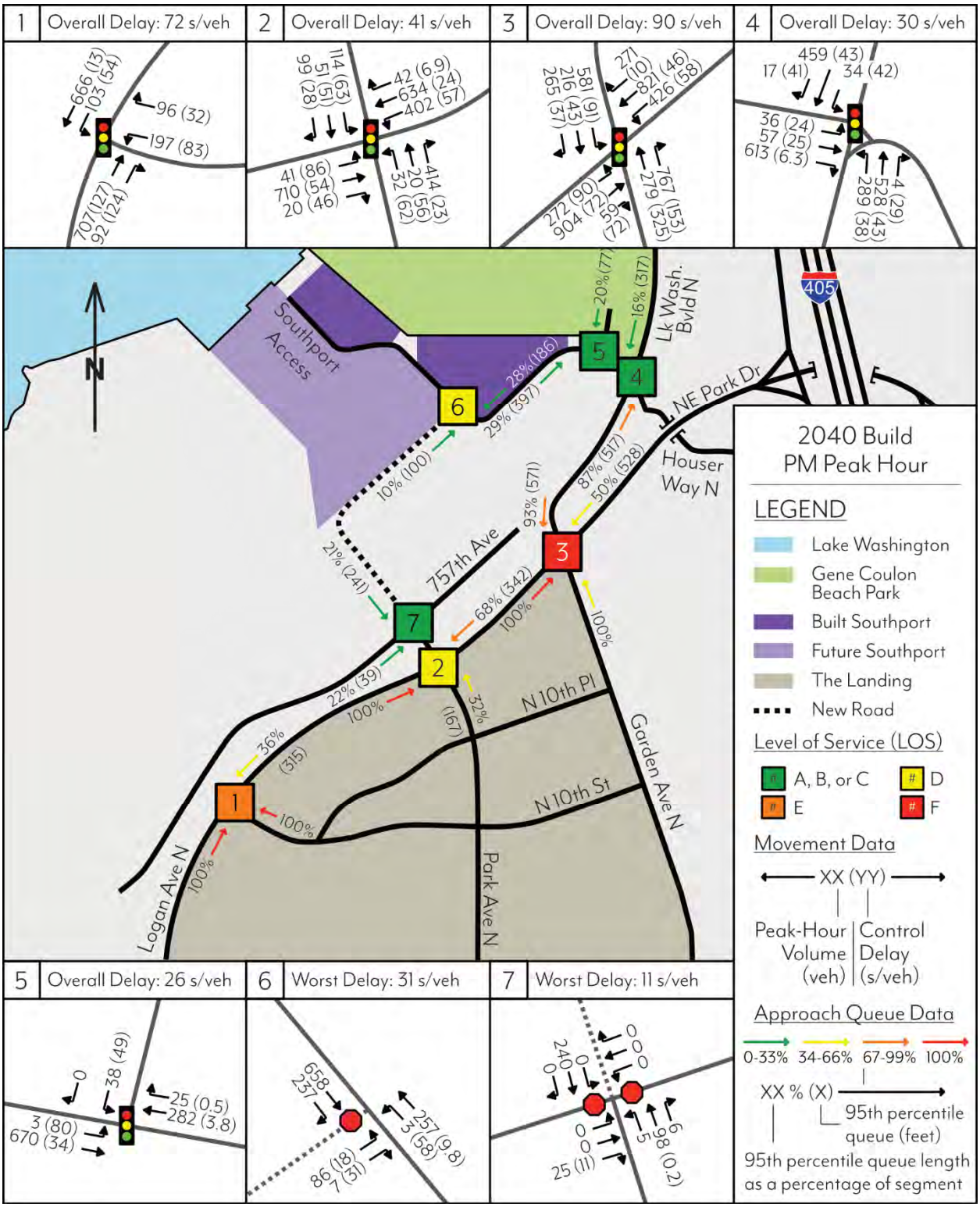
Figure 13. Network Analysis: 2040 PM Build Volumes, Delays, Queues, and LOS.



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Findings

As observed with the Isolated Analysis, the Garden Modification will have significant benefits by 2019, with control delays decreasing at Intersection 3 to less than 60 seconds per vehicle, even with the increased traffic demand from Southport. If the Park Avenue N extension is constructed, the control delays at Logan Avenue N / NE Park Drive and Garden Avenue N / Lake Washington Boulevard N fall all the way to LOS D levels at 50.5 seconds per vehicle.

Without the Park Avenue N extension, the outbound Southport traffic will queue at the intersection of Southport Access and Gene Coulon Beach Park Drive, and eastbound control delays will reach 112 seconds per vehicle in the 2019 PM peak hour. This control delay will increase to 180.5 seconds per vehicle without the second Southport access point, due primarily to increased traffic along Lake Washington Boulevard N requiring additional green time.

With the Park Avenue N extension, control delays for outbound Southport traffic are significantly reduced, as the volumes will distribute between the two access roads. Under the 2019 PM Build scenario, Intersection 5 only experiences 23 seconds per vehicle of overall control delay, and the eastbound exiting Southport traffic only experiences 31 seconds per vehicle. Roughly the same values are to be expected in 2040 if the Park Avenue N extension is constructed.

The Park Avenue N extension generally has a minimal impact on control delays and level of service elsewhere in the study area. If constructed, the north leg of the Logan Avenue N and Park Avenue N intersection would serve additional vehicles and therefore would require more green time, decreasing the green time for the major east-west movements and increasing overall intersection delay, though still to levels within City of Renton standards.

Outbound vehicles from Boeing using 757th Avenue headed toward I-405 experience would experience higher levels of delay in the Build scenario (145 seconds) as compared to the No Build scenario (122).

As Figures 10 through 13 show, some locations within the corridor will experience 95th percentile queue lengths that completely fill (or exceed) the available approach storage space. These queues can have dramatic impacts at an upstream intersection, as a queue blockage may cause a traffic signal to temporarily stop processing vehicles.

In 2040, under the No Build scenario, a majority of the study links have 95th percentile queue lengths that extend the length of the storage space. The implementation of the Park Avenue N extension would not eliminate all of these occurrences, but it would shorten the 95th percentile queues along Lake Washington Boulevard between Logan Avenue N / NE Park Drive and Gene Coulon Beach Park Drive / Houser Way N so that those intersections are no longer blocked. Additionally, the addition of a second access point results in decreased queue lengths for the exiting Southport traffic. Without the extension, queues would be expected to form all the way to the end of the Southport Access roadway in the 2040 PM peak hour. With the extension, these queues will form only one-quarter of the distance.

Summary and Recommendations

Table 4 summarizes the intersection control delays at each of the study intersections under each 2040 PM peak hour network analysis scenario. A similar trend is seen in the 2019 PM data.

Table 4. Network Analysis: 2040 PM Intersection Delay (seconds per vehicle) Summary.

Intersection	No Build	Build
1. Logan Avenue N at N 10th Street	67.5	72.3
2. Logan Avenue N at Park Avenue N / 757th Avenue N	28.1	41.1
3. Logan Avenue N / NE Park Drive at Garden Avenue N / Lake Washington Boulevard N	92.6	90.2
4. Lake Washington Boulevard N at Coulon Beach Park Drive / Houser Way N	39.9	30.3
5. Coulon Beach Park Drive at Southport Access	119.3	25.6
6. Southport Access at Park Avenue N Extension	-	30.7
7. 757th Avenue at Park Avenue N Extension	-	11.0

The construction of the Park Avenue N extension would help to improve operations at two of the study intersections. Lake Washington Boulevard N at Coulon Beach Park Drive / Houser Way N would see approximately 25% reduced delays overall, and implementing the Park Avenue N extension would improve operations from LOS D to LOS C. Constructing the new roadway would have an increased impact at the intersection of Coulon Beach Park Drive at Southport Access, as the eastbound through movement—for outbound Southport traffic—would have significantly lower volumes. The additional access point would improve operations from a non-compliant LOS F to a complaint LOS C.

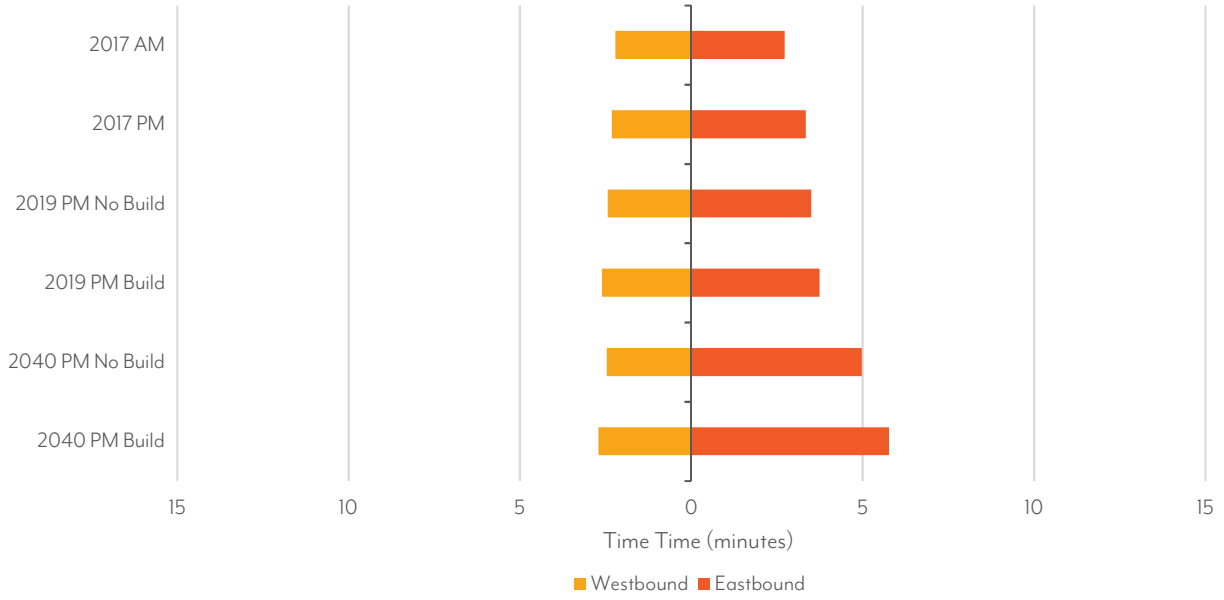
Installing the Park Avenue N extension would create two new intersections with minor-street stop control. Both of these locations would operate at LOS D or better, meeting City of Renton standards.

The increases in control delays at the intersections of Logan Avenue N at N 10th Street and Logan Avenue N at Park Avenue N because of the Park Avenue N extension would maintain the LOS E conditions at the former and escalate the latter to LOS D, due to the shift in traffic volumes to the currently infrequently-served north approach.

The overall control delays at the intersection of Logan Avenue N / NE Park Drive at Garden Avenue N / Lake Washington Boulevard N would remain essentially unchanged if the Park Avenue N extension were completed. However, some of the individual approach delays are different between the two scenarios. In particular, the No Build option would lead to lower northbound delays and higher southbound delays than the Build scenario.

Figure 14, on the following page, shows the eastbound and westbound recorded average travel times from VISSIM for each network analysis scenario.

Figure 14. Network Analysis: Corridor Travel Times between N 8th Street and I-405 Southbound Ramps.

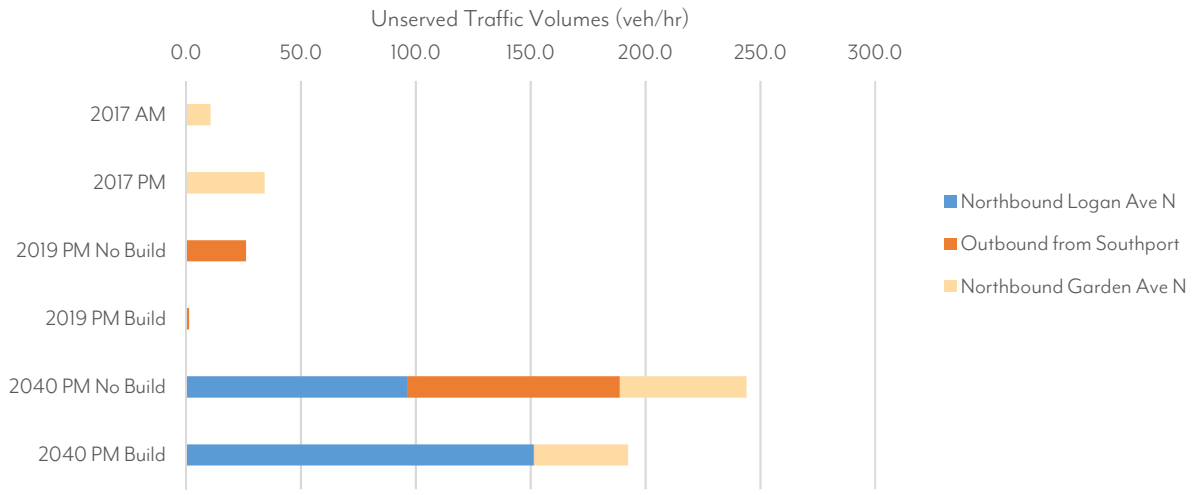


As Figure 14 shows, the completion of Southport and the regional background growth will not dramatically change the corridor travel times for westbound traffic. And, the westbound travel times do not vary much under different scenarios in the same analysis year.

In 2019, the travel times are roughly even between the Build and No Build scenarios. By 2040, the No Build scenario will provide travel times approximately 50 seconds quicker in the eastbound direction as compared to the Build scenario, primarily because the Build scenario increases the number of eastbound vehicles at Intersection 3 in the PM peak hour.

Even with the construction of the Park Avenue N extension, the limited number of lanes along certain roadways in the study area will mean that not all of the PM peak hour demand will be able to be served in 2040. For example, the single-lane northbound Logan Avenue N stretch between N 8th Street and Park Avenue N means that not all of the demand volume for the northbound through movement at the intersection of Logan Avenue N at N 10th Street will be able to reach the intersection during the analysis hour.
Figure 15 shows the unserved demand trying to access the study area at the following entry points. Note that all other entry points to the study area can serve all of the demand across all scenarios and years. Increasing the number of travel lanes on roadways like Logan Avenue N could help to reduce these values.

Figure 15. Unserved Hourly Demand by Study Area Entry Point and Scenario.



As Figure 15 shows, the unserved demand in the existing condition is along Garden Avenue N. However, with the implementation of the Garden Modification by 2019, all of this demand is serviced. In the No Build scenarios, outbound Southport traffic only has one exit point, resulting in long queues and unserved demand during the analysis hour. If the Park Avenue N extension is constructed, nearly all of the Southport traffic is able to be served during the 2040 PM peak hour, though the number of unserved vehicles along Logan Avenue N south of N 10th Street increases.

The construction of the Park Avenue N extension would have benefits outside of a PM peak hour analysis. First, during the AM commute, Southport ingress from northbound Logan Avenue N would mean some drivers could bypass Lake Washington Boulevard N, allowing for more throughput from NE Park Drive and I-405. Second, adding redundancy to the network would allow for one Southport route to remain open if the other one is blocked due to a collision or other obstruction. Third, the additional access point would provide a more appealing roadway network for Southport tenants, potentially spurring additional economic activity for the City.

Thought the Park Avenue N extension does slightly increase Logan Avenue N corridor travel times and control delays at some study intersections, it provides a significant benefit to the large number of vehicles that will access the Southport development during the day and improves queueing within the study area. Critically, a second access point for the large Southport development will add redundancy to the network, which may prove crucial during a collision or emergency event, and potentially could spur economic growth for the region. Based on these factors, Perteet recommends designing and constructing the Park Avenue N extension. The final decision on whether to extend Park Avenue N will require an analysis of various non-traffic factors, such as right-of-way availability and construction cost.

ATTACHMENTS

Appendix A	Park Avenue N Extension Screening Analysis Memorandum
Appendix A-1	Travel Demand Forecasting and Volumes Analysis
Appendix A-2	Screening Analysis Synchro Worksheets
Appendix A-3	Screening Analysis Sidra Results
Appendix B	Park Avenue N Extension VISSIM Confidence and Calibration Memorandum
Appendix B-1	Confidence and Calibration Calculations and Reports
Appendix C	Collected Traffic Count Data
Appendix D	City of Renton Signal Timing Plans
Appendix E	Isolated Analysis Synchro Worksheets

APPENDIX A

Park Avenue N Extension Screening Analysis Memorandum

MEMORANDUM

505 5th Avenue S, Suite 300, Seattle, WA 98104 | P 206.436.0515

To: Hebé Bernardo
Bob Hanson, PE
Flora Lee, PE, PTOE

From: Peter De Boldt, PE
Marcus Elliott, PE
Mike Hendrix, PE, PTOE
Brent Powell, EIT

Date: November 3, 2017

Re: Park Avenue N Extension Screening Analysis

INTRODUCTION

This memorandum contains the results of the screening analysis performed for the Park Avenue N Extension project. The screening analysis was used as a preliminary tool to assess which alternative concept would provide the best operations within the study zone.

Additionally, this memorandum documents the traffic demand modelling process that led to the development of the 2040 traffic volumes.

Refer to the Park Avenue N Extension Traffic Analysis Memorandum for details on all other aspects of the project analysis.

Note that the Synchro results included in this memorandum are different than the results included in the Park Avenue N Extension Traffic Analysis Memorandum. The results in that document are based on different calibration parameters and signal timings than this analysis, and are more recent than this analysis. The analysis included in this memorandum is consistent between the initial alternatives considered, and therefore served the desired purpose of screening alternative concepts.

Incoming Data and Adjustments

Traffic Data Gathering provided count volumes and data for the following four intersections during the AM and PM peak hours:

1. Logan Avenue N at N 10th Street,
2. Logan Avenue N at Park Avenue N / 757th Avenue,
3. Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N, and
4. Lake Washington Boulevard N at Coulon Beach Park Drive / Houser Way N.

As is typical with counted traffic volumes, there were differences between departure volumes from upstream intersections and approach volumes at downstream intersections along all of the connecting links. Between Intersections 1 and 2 the volumes were not adjusted as the volume differences were attributed to the mid-block

driveway for the Regal Cinemas / Landing. Similarly, between Intersections 3 and 4 the volumes were not adjusted as the volumes were attributed to the mid-block Boeing driveway. However, between Intersections 2 and the 3 there are no mid-block driveways, so the turning movement counts were adjusted so that the volumes were balanced between intersections. See Appendix A-1 for the calculation.

Concurrent with the turning movement counts, Perteet staff recorded queue lengths at Intersection 4. These queue measurements were used to calibrate the Synchro model, so that it produced queue lengths consistent with real-world operations. Two variables were modified throughout the corridor to achieve calibrated results (within 15% of recorded values):

- Ideal Saturation Flow Rate (vehicles per hour per lane) increased to 2,500 from 1,900; and
- Lost Time Adjust (seconds) changed to -5 from 0, -1, or -2.

These are the standard variables within Synchro available to assist in calibrating the Synchro model to match observed conditions.

Note that the above calibration parameter changes were not used for the analysis in the next step Park Avenue N Extension Traffic Analysis Memorandum, as they were found to be too aggressive to match the true peak operations because the queues that were collected where taken at the very beginning of the peak hour.

2040 ALTERNATIVES AND TRAFFIC DEMAND MODELING

Five roadway alternatives were reviewed in addition to a 2040 baseline (existing) configuration to assess how to best handle the additional traffic from the Southport development at full build-out. Each of these alternatives are described in the following paragraphs.

Every 2040 model eliminates the northbound right-turn on red restriction for Garden Avenue N at the intersection with Logan Avenue N / NE Park Drive. With this restriction, traffic today can back up all the way to N 10th Street. Without this restriction, queues and control delays for northbound traffic are decreased dramatically.

2040 Alternatives Considered

Baseline

Maintain the existing roadways and intersections.

Alternative A

Extend Park Avenue N to the north through 757th Avenue and curve to connect to the existing Southport Access Road. The traffic control at the new Park Avenue N and 757th Avenue intersection would be two-way stop-controlled (757th Avenue) due to low volumes from the east and west approaches. The extended roadway would create a new T-intersection near the southern tip of the Bristol Apartments, which would be stop-controlled for the south leg of the new road.

Alternative B1

Extend the existing Southport Access to Lake Washington Boulevard N, creating an intersection near the existing Logan Avenue N / NE Park Drive and Lake Washington Boulevard N / Garden Avenue N intersection. The extended roadway would have a new T-intersection at the southern tip of the Bristol Apartments, which would be stop-controlled for the east leg of the Southport Access road. The new intersection with Lake Washington Boulevard N would require partial signalization (i.e. a "flying T" configuration that would permit free, unsignalized

flow for northbound through traffic) at a minimum. The extended roadway would support two-way traffic and all turning movements would be available at the new intersection with Lake Washington Boulevard N.

Alternative B2

This alternative matches B1 except the northbound left-turn movement from Lake Washington Boulevard N to the extended roadway would be prohibited. Stop control for the extended roadway is proposed in this configuration.

Alternative B3

This alternative matches B1 except the extended roadway would be a one-way roadway leaving the Southport development. As such, the northbound left-turn and southbound right-turn movements from Lake Washington Boulevard N to the extended roadway would be prohibited. Stop control for the extended roadway is proposed in this configuration.

Alternative C

Replace the existing signalized intersections of Lake Washington Boulevard N, Houser Way N, Coulon Beach Park Drive, and Southport Access with a multi-lane, five-leg roundabout.

Travel Demand Modeling

All of the above alternatives will be subject to the same increase in traffic volumes brought about by the completion of Southport. However, the different alternatives will open up new routes for drivers to use, and therefore, traffic may be distributed differently between alternatives. The following travel demand modeling process was performed to fully develop traffic volumes for each 2040 alternative.

The traditional travel demand modeling process has four steps:

1. Trip generation,
2. Trip distribution,
3. Mode choice, and
4. Route Assignment.

Stages 1, 2, and 4 were performed for this project. The third step—mode choice—was skipped and all trips were assumed to be single-occupancy vehicle trips. This assumption matches the previous traffic analysis efforts done for the Southport development.

Each step is described below. All calculations for these steps are provided in Appendix A-1.

Trip Generation

This step in the process determines how many trip ends (origin or destination) a development will introduce into the network. This step is consistent for all alternatives because the alternatives do not impact the size or type of the Southport development.

The information for this step was provided by Transportation Engineering NorthWest (TENW) in their May 2014 report, which updated the trip generation calculations prepared by Entranco in 1999 for the Southport development. This is the most recent documented trip generation calculation for the site. The values are presented in Table 1.

Table 1. Southport Trip Generation (from TENW).

Land Use	Quantity	PM Peak Hour Trip Ends		
		Inbound	Outbound	Total
Apartments (Built)	383 units	137	61	198
Hotel	350 rooms	91	95	186
Office	717,400 sq. ft.	110	718	828
Retail	24,400 sq. ft.	23	33	56
Quality Restaurant	10,000 sq. ft.	35	10	45
	Total	**396**	**917**	**1,313**

Trip Distribution

This step establishes origin-destination pairs for the movements to and from the development. Trip distribution is limited by the boundaries of the study zone, so each major roadway in the network that passes through the boundary was evaluated. An assumed percentage of trips for each route was developed based on the 1999 Southport study prepared by Entranco, but modified to include the now-complete Landing development, which made substantive changes to the roadway network in the western half of the study zone.

Because origin-destination pairs are not impacted by the roadway network, these distributions are applicable across all alternatives.

The following distribution routes and percentages were used for analysis:

A. 4% via Lake Washington Boulevard N north of Southport,
B. 25% via I-405 north of NE Park Drive,
C. 5% via NE Park Drive,
D. 25% via I-405 south of NE Park Drive,
E. 10% via Garden Avenue N,
F. 10% via Logan Avenue N,
G. 5% via Park Avenue N, and
H. 6% via Houser Way N.

Note, since Houser Way N is a one-way outbound route from Southport, those incoming trips are assumed to use Garden Avenue N.

Route Assignment

While the trip distribution step provides volumes at the limits of the study area, the final step in the modeling process evaluates how traffic will move within the study area. The results of this step vary significantly for different alternative configurations for the Southport site. For the Baseline and Alternative C analyses, this step was skipped because all Southport traffic uses one access point.

Route assignment is typically a function of travel time, which can be impacted by link distances, control delays, traffic volumes, and other variables. To estimate these effects, different route choices were developed to split traffic between "west" and "east" routes for Alternatives A, B1, B2, and B3. A "west" route uses the new roadway, while the "east" routes use only existing roadways. To provided additional detail and accuracy, different distributions

between "west" and "east" routes were assumed for each of the above trip distribution letters as well as into three separate "classes" of traffic that currently use the Coulon Beach Park Drive at Southport Access intersection:

Class A. Traffic from the currently constructed Bristol Apartments building that uses the driveways along the east side of the building;

Class B. All other traffic from the Southport development, including the remaining Bristol Apartments traffic; and

Class C. All traffic using Coulon Beach Park Drive to access Gene Coulon Beach Park.

In general, the Class A and Class C traffic will be more likely to use the "east" routes since they are located closer to Lake Washington Boulevard N, whereas Class B traffic will be more likely to use "west" routes, where available. The detailed route assignment calculations are included in Appendix A-1.

Nearby Pipeline Developments and Additional Volume Impacts

In addition to the modeled Southport volumes described above, four other known pipeline developments are included in the 2040 traffic volumes:

- Quendall Terminal,
- Hawks Landing,
- Residence Inn, and
- Hampton Inn.

Volumes for each of these four developments were taken from their respective traffic impact analysis documents. The volumes are included in Appendix A-1.

Additionally, all existing "background" traffic (not from pipeline developments, Southport, or Gene Coulon Beach Park) is assumed to grow at a 1% annual rate. This background growth is applied for all turning movements.

Construction traffic for the Southport development was parsed from the existing turning movement counts collected at the intersection of Lake Washington Boulevard at Coulon Beach Park Drive / Houser Way N by comparing the actual counts to the projected trip ends from the residential portion of Southport (since that is all that is currently constructed) determined in the trip generation step. The difference of 55 vehicles in the PM peak hour is assumed to be exiting construction traffic. These volumes were removed for the 2040 analysis since the Southport construction will be complete.

2040 Conditions

The 2040 analysis volumes, described above, resulted in the model outputs found in the following Figures 1 through 6.

Figure 1. Screening Analysis: 2040 PM Baseline Volumes, Delays, and LOS.

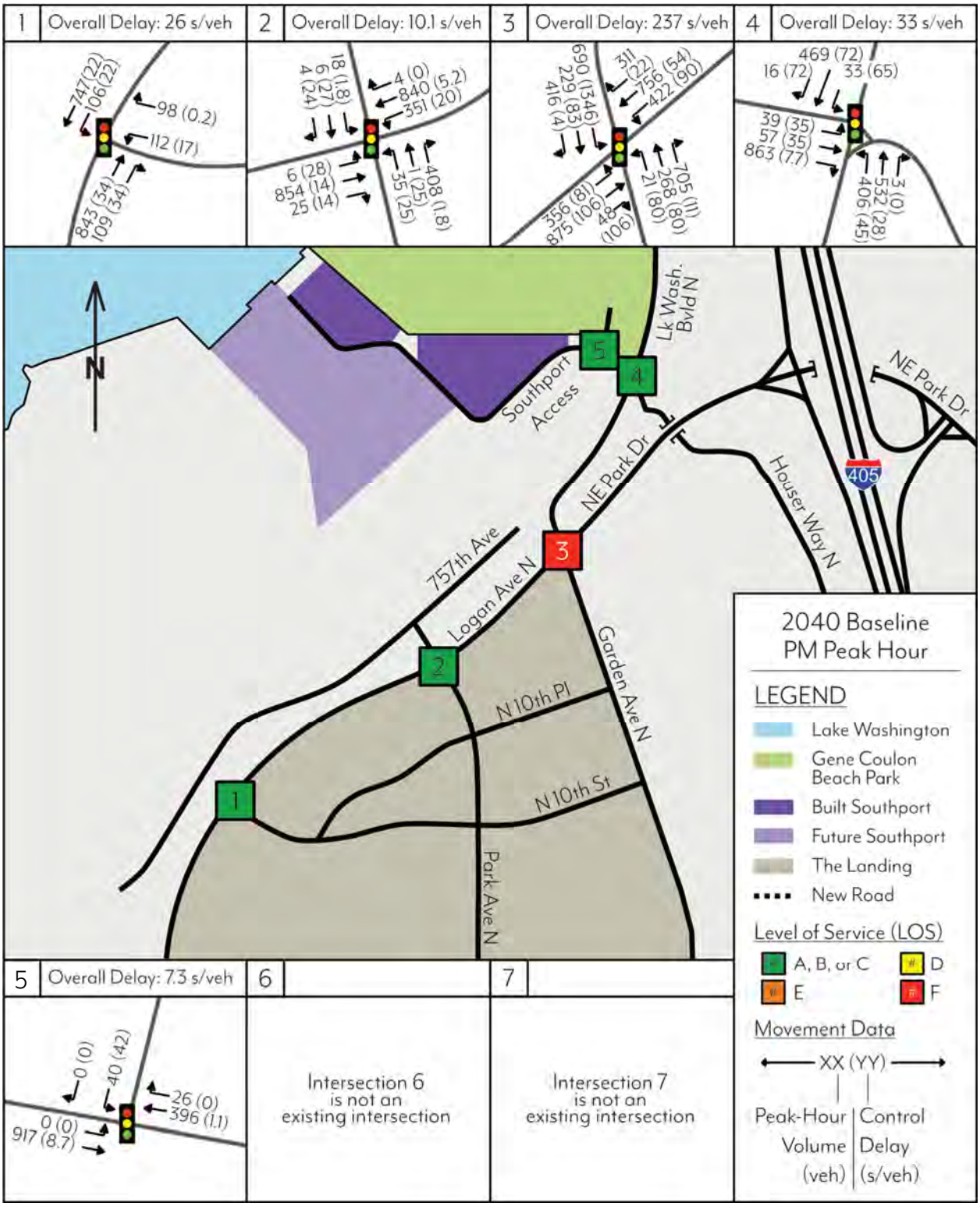


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Figure 2. Screening Analysis: 2040 PM Alternative A Volumes, Delays, and LOS.

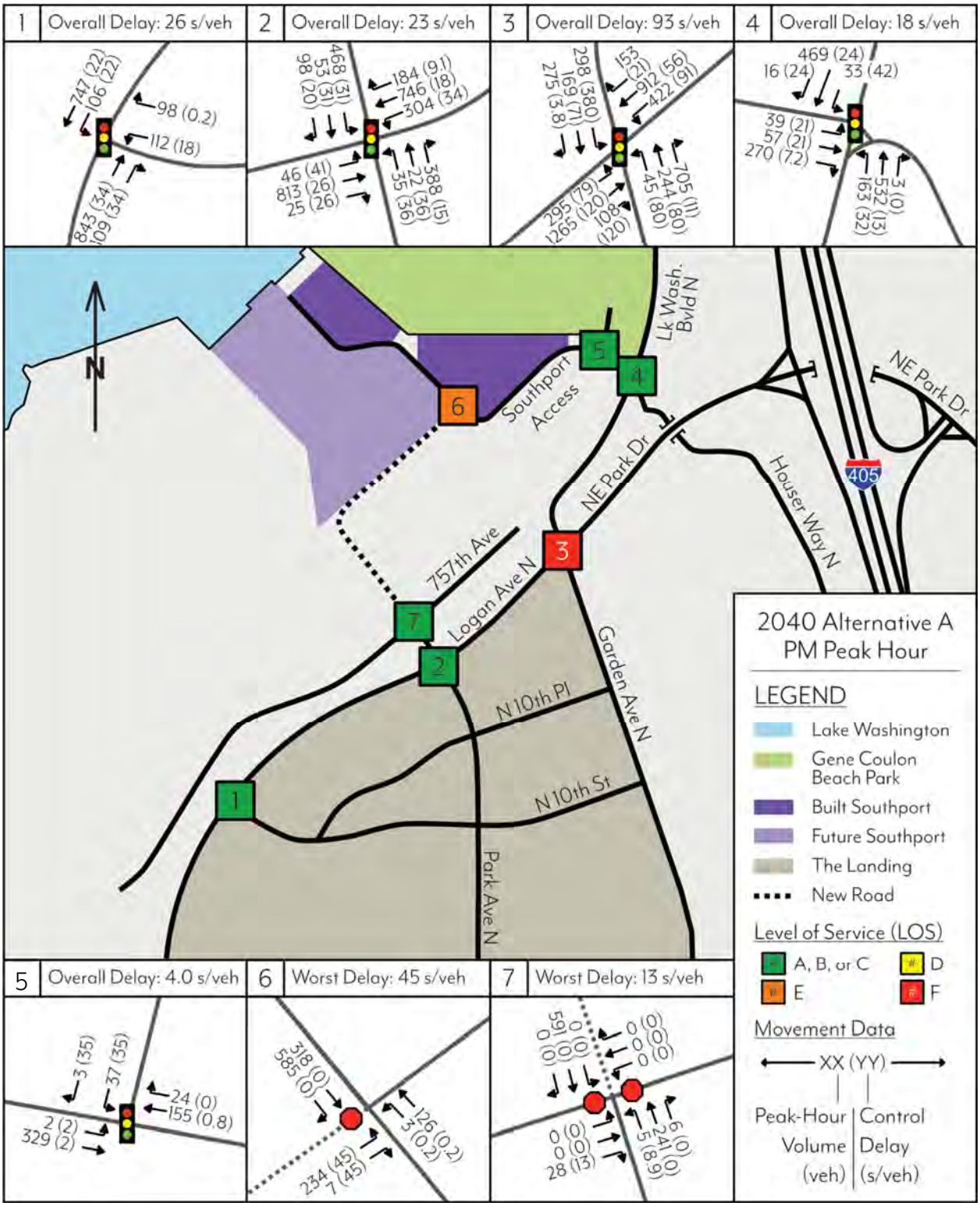

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Figure 3. Screening Analysis: 2040 PM Alternative B1 Volumes, Delays, and LOS.

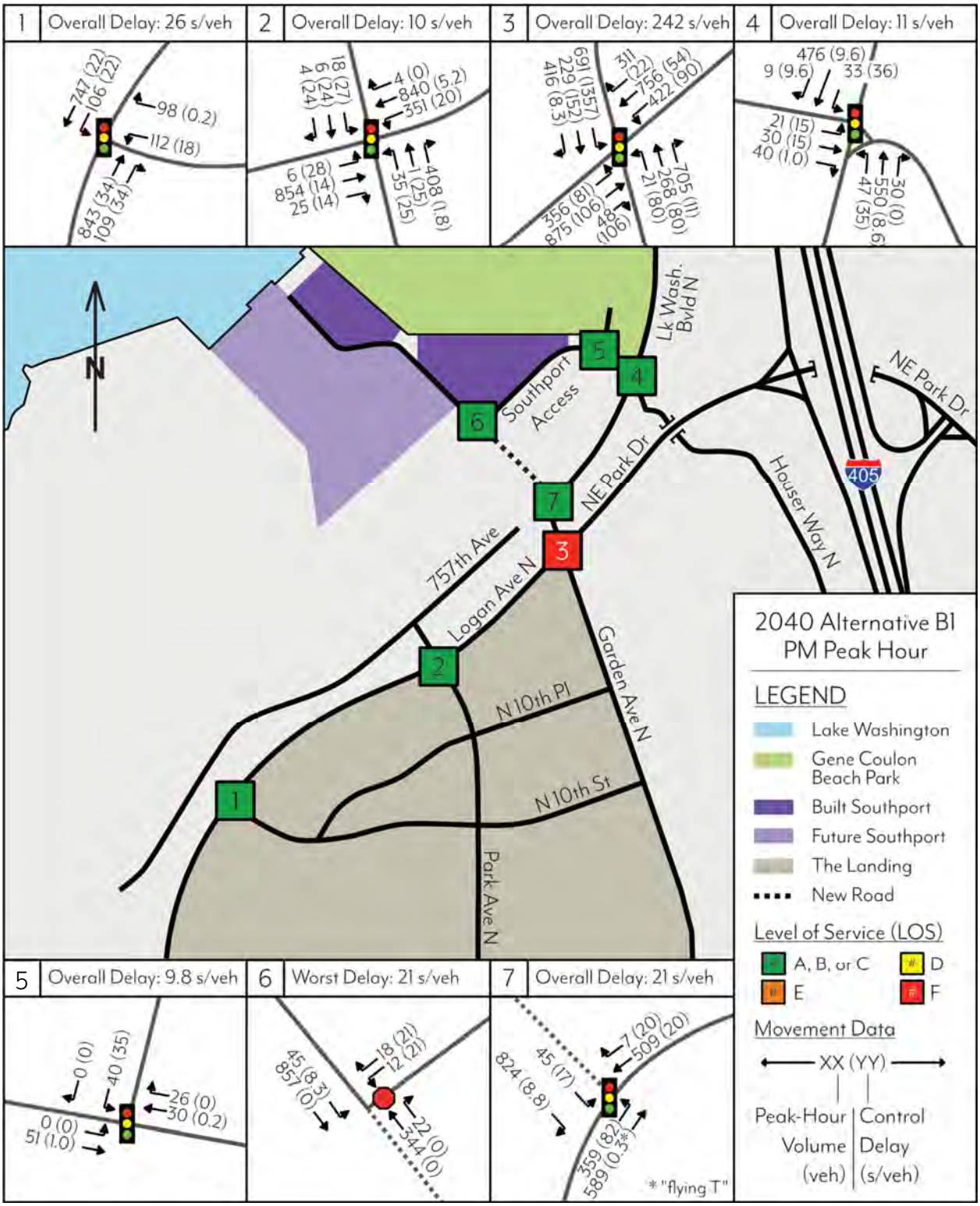

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Figure 4. Screening Analysis: 2040 PM Alternative B2 Volumes, Delays, and LOS.

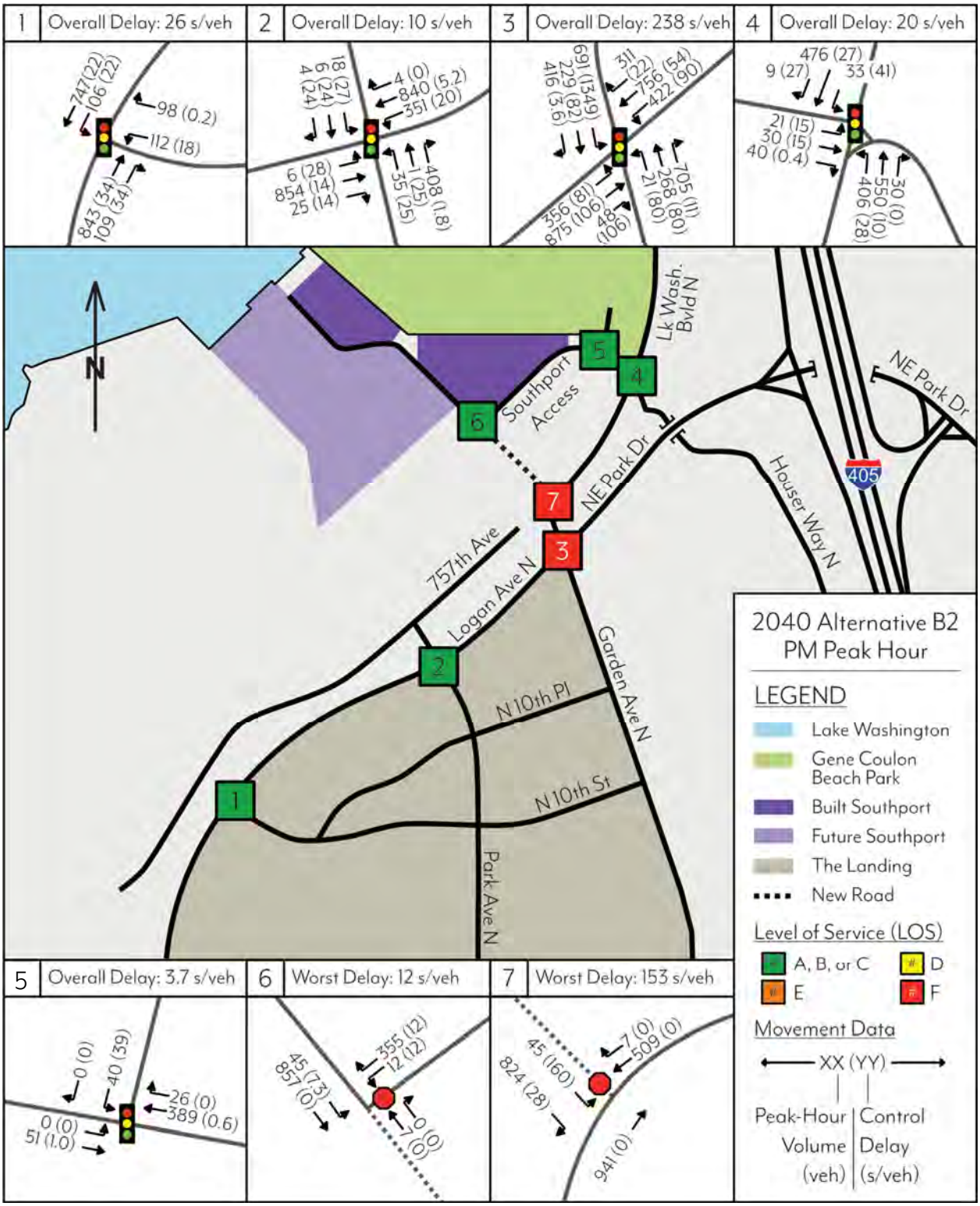

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Figure 5. Screening Analysis: 2040 PM Alternative B3 Volumes, Delays, and LOS.

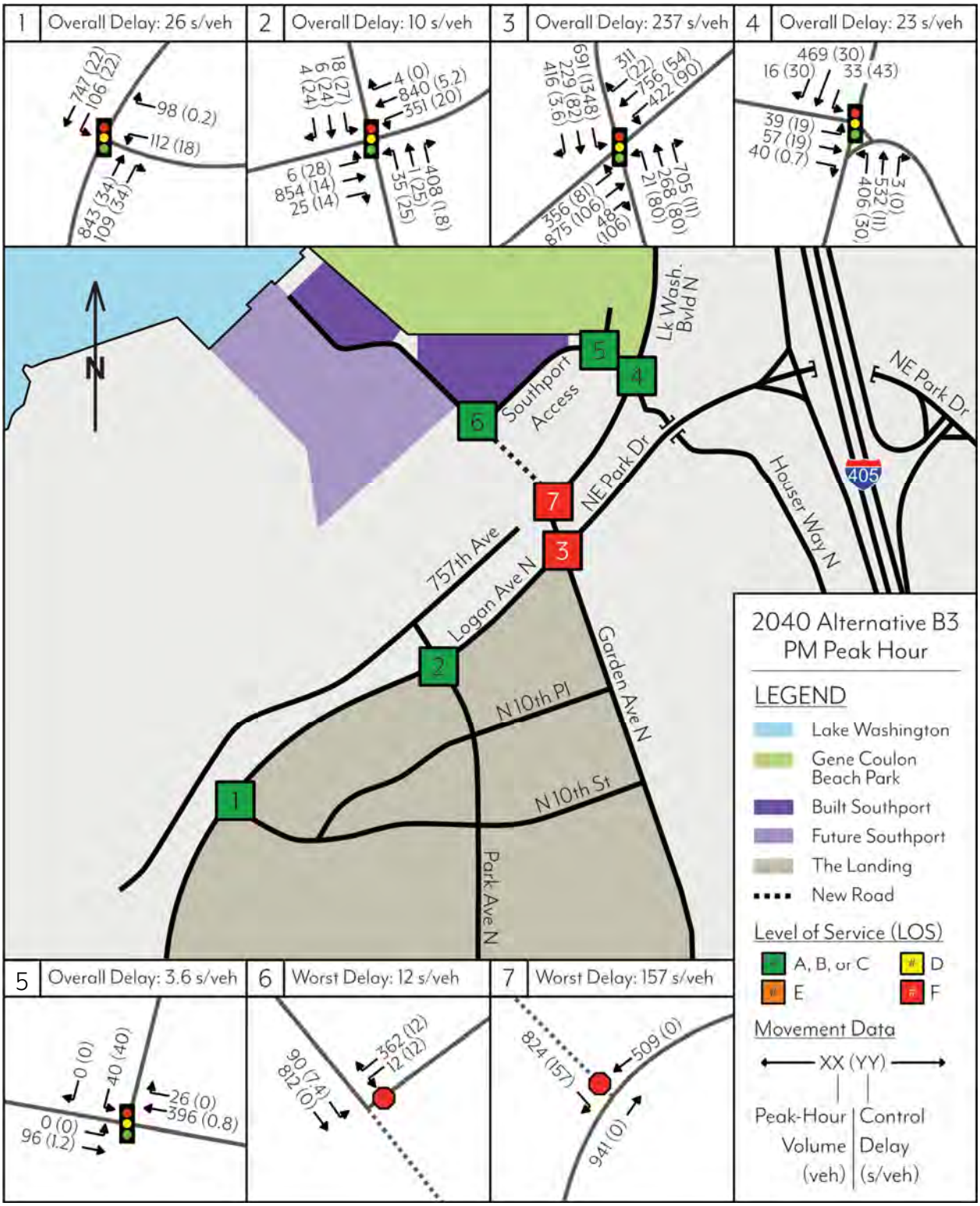

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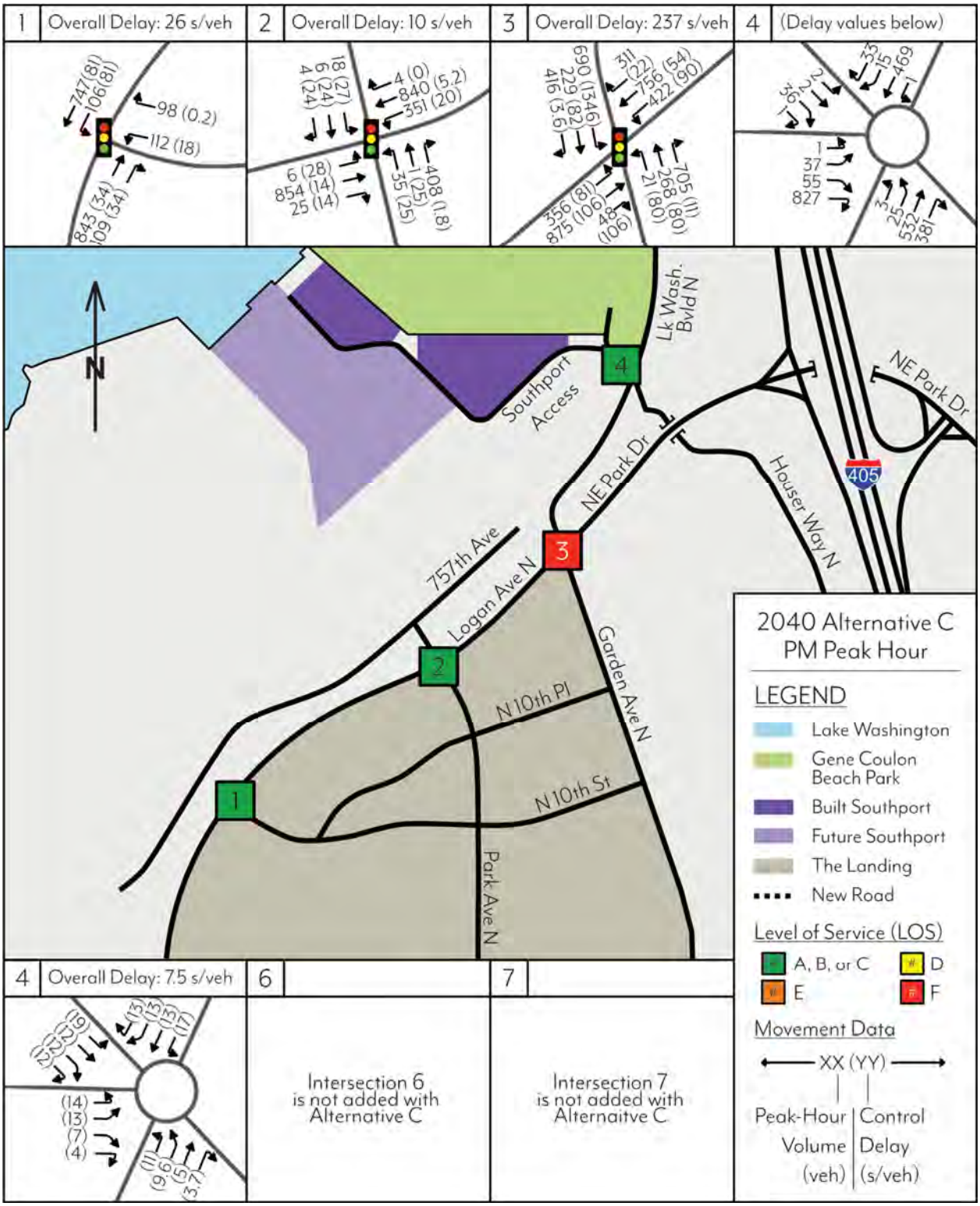
Figure 6. Screening Analysis: 2040 PM Alternative C Volumes, Delays, and LOS.



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Supplemental Analysis and Findings

The Baseline model analysis indicates that if no roadway improvements are made by 2040, the intersection of Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N will have reached increased congestion of LOS F during the PM peak period. Depending on the alternative, the delays will range from 93 seconds per vehicle to 242 seconds per vehicle.

Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N

The situation at the intersection with the largest delay in the 2040 PM Peak period —Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N—is complex. This intersection currently has north-south split signal phasing, meaning that the northbound and southbound through movements are never served concurrently. This is necessary due to the current lane configurations on both the north and south legs, which have shared through and left-turn lanes.

Split-phased intersections typically struggle to operate at a high level of service as approach volumes increase. This is because both north and south movements are served separately instead of concurrently. This inefficiency is evident in the Baseline and Alternatives B1, B2, B3, and C model outputs. The large increase to the southbound left-turn movements (Southport outbound traffic headed to I-405 or the Highlands) causes the southbound left-turn delay to increase to extremely high levels (over 1,400 seconds per vehicle). Comparatively, in Alternative A, the lower left-turn demand reduces delay by nearly 75%, and the overall intersection average delay falls to 91 seconds per vehicle.

The most effective solution for this intersection would be to reconfigure the Garden Avenue N and Lake Washington Boulevard N approaches to remove the split phasing. To do this, the Garden Avenue N leg would need to be widened to the west to create a single left-turn only lane, a shared through/right-turn lane, and a right-turn only lane. This could be accomplished within the right-of-way by eliminating the existing parking lane along the west side of Garden Avenue N and reconstructing the southwest corner of the intersection. The Lake Washington Boulevard N approach would need to provide two approach lanes (an improvement currently in design), with the inside lane leading the existing left-turn lanes, which would no longer allow any through movements. The outside approach lane would lead to either a shared through/right-turn lane or to one through lane and one right-turn only lane. The latter would preserve the right-turn overlap, but would require widening at the curb return.

Table 2 shows the impact of making the above change on each of the model runs in Figures 1 through 6. A no action comparison is shown, based on the 2040 Baseline analysis volumes, but without the reconfiguration of the intersection. (The numbers below are based on optimized splits for a 100-second cycle length.)

Table 2. Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N Supplemental Screening Analysis

2040 PM	Control Delay (s/veh)												
Alternative	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
No Action	81	106	106	90	54	22	80	80	11	1346	83	4	237
Baseline	47	32	32	46	28	29	34	38	9.7	43	24	7.7	31
A	46	32	32	43	19	16	38	37	12	50	32	8.9	29
B1	47	32	32	46	28	29	34	38	9.7	97	27	43	41
B2 / B3 / C	47	32	32	46	28	29	34	38	9.7	43	24	7.7	31

The control delays shown in Table 2 are the same for the 2040 PM Baseline, Alternative B2, Alternative B3, and Alternative C because all of those models feature the same volumes at the intersection. Alternative B1 also has the same volumes, but because of the immediately adjacent signal at Intersection 7, some queue delay is added to the southbound movements, decreasing the overall performance of the intersection. Alternative A sees the best improvements with the modifications because of the redistribution of volumes (see below).

This intersection modification dramatically improves performance under any 2040 PM alternative as compared to the Baseline scenario. Many movement delays decrease by approximately half, while the overall intersection delay is reduced substantially because of the significant decrease to the southbound left-turn and thru delays.

Under the proposed modifications, the intersection of Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N would operate at LOS D under Alternative B1 and LOS C under all other options.

Baseline Performance

Other than at the intersection of Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N, maintaining the existing roadway network and traffic control through to 2040 would allow for operations to continue at LOS C or better.

Alternative A Performance

This alternative minimizes the delay at the intersection of Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N compared to all other alternatives. This is due primarily to the location of the new road in Alternative A, which connects at Park Avenue N, and therefore shifts some traffic away from Intersection 3, but also changes some movements from southbound to eastbound at Intersection 3.

Intersection 6 operates at LOS E as modelled with a shared northbound stop-controlled approach. This is a developer-controlled intersection, so the low LOS does not impact the City network traffic.

The intersection of Logan Avenue N at Park Avenue N is able to handle the increased traffic loading from Southport. In the PM peak hour, all movement control delays are less than 45 seconds per vehicle.

All other intersections perform at LOS C or better.

Alternative B Performance

The three alternatives that propose the extension of the Southport Access road to Lake Washington Boulevard N have poor LOS due to the proximity of the proposed intersection to the existing intersection of Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N.

Under Alternative B1, which permits a northbound left-turn movement from Lake Washington Boulevard N to Southport Access, the left-turn 95th percentile queue length would be 225 feet. This queue would spill into the intersection of Logan Avenue N / NE Park Drive. This would adversely impact operations at the signalized intersection.

Under Alternatives B2 and B3, the stop control for the Southport outbound movements along the new road would make it difficult for traffic to find gaps to not only enter Lake Washington Boulevard N but to quickly move into the proper lane for the upcoming signalized intersection with Logan Avenue N / NE Park Drive. The intersection of Logan Avenue N / NE Park Drive has 95th percentile queue lengths for the southbound left-turn, right-turn, and through movements that are all above 100 feet in the PM peak hour. These queues would not only block outbound

Southport traffic, but they would create difficulty for left turn traffic from the proposed roadway due to sight limitations. As a result, the stop-controlled vehicles leaving Southport would experience LOS F.

Alternative C Performance

The installation of a roundabout in place of Intersections 4 and 5 would reduce intersection delays compared to the Baseline results. The lane configuration used in the Sidra analysis is shown below in Figure 7. This configuration provides two northbound approach lanes, with one approach lane for all other movements. All movement delays would be less than 16 seconds per vehicle, and 95th percentile queue lengths would be less than 100 feet for all movements from the west, south and east. The southbound movements from Lake Washington Boulevard N would have a longer 95th percentile queue length at 210 feet.

Figure 7. Modelled Roundabout Configuration.

File location: X:\Renton, City of\Projects\20160266 - N Park Ave Extension\Traffic\Memorandum\03 - Final Traffic Analysis Memorandum\05 - Third Update\Park Avenue N Extension Screening Analysis Memo.docx

Summary and Recommendations

Table 3 summarizes the intersection control delays at each of the study intersections under each 2040 analysis model.

Table 3. Screening Analysis: 2040 Intersection Delay (seconds per vehicle) Summary.

Intersection	Baseline	Alternative A	Alternative B1	Alternative B2	Alternative B3	Alternative C
Logan Ave N / N 10th St	26	26	26	26	26	26
Logan Ave N / Park Ave N	10	23	10	10	10	10
Logan Ave N / NE Park Dr / Garden Ave N / Lk. WA Blvd	237	93	242	238	237	237
Logan Ave N / NE Park Dr / Garden Ave N / Lk. WA Blvd (with modifications)	31	29	41	31	31	31
Lake Washington Blvd / Coulon Beach Park Dr	33	18	11	20	23	7.5
Coulon Beach Park Dr / Southport Access	7.3	4	9.8	3.7	3.6	
Southport Access / New Rd	-	45	21	12	12	-
757th Ave / New Rd	-	13	-	-	-	-
Lake Washington Bvld / New Rd	-	-	21	153	157	-

The Baseline and Alternative A models in conjunction with the recommended modifications to the intersection of Logan Avenue N / NE Park Drive at Lake Washington Boulevard N / Garden Avenue N outperform Alternatives B1/B2/B3 and C. As such, these two will be advanced to a network analysis using VISSIM microsimulation. In particular, this analysis will reveal if there are any queueing issues that are harder to detect with the deterministic Synchro models. With the proposed intersection modification, these two scenarios achieve levels of service at all study intersections that comply with City of Renton standards under the Synchro model.

The proximity of intersections in Alternatives B1, B2, and B3 constitutes a fatal flaw, and we expect that any configuration with the extension of Garden Avenue would be in-operable with any significant amount of traffic volume during the peak periods.

Alternative C provides an improvement to the control delays at the Lake Washington Boulevard N intersection with Coulon Beach Park Drive / Houser Way N, however, the sizable roundabout is an expensive solution to deliver marginally better results. Plus, this option could be saved for a future intersection improvement, if necessary.

While these Synchro model results used different calibration parameters and signal timings than the final Isolated Analysis models, the differences between the models are still assumed to be valid, and Alternative A would still report as the best alternative for additional analysis.

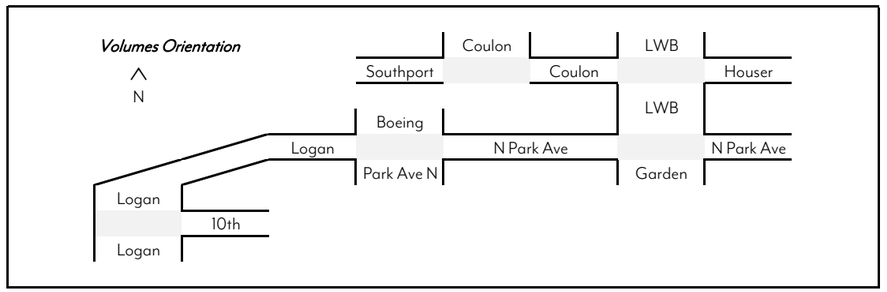
APPENDIX A-1

Travel Demand Forecasting and Volumes Analysis

Existing Traffic Volumes

Intersection	Peak Hour	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM													
Logan / 10th	7:00a - 8:00a				12		8		466	20	17	444	
Logan / Park / Boeing	7:00a - 8:00a	12	483	3	144	427	21	28	18	399	17	10	6
Park / Garden	7:00a - 8:00a	305	542	23	194	491	227	4	367	214	88	38	136
LWB / Coulon / Houser	7:00a - 8:00a	9	5	73				85	749	78	18	180	6
Southport / Coulon	7:00a - 8:00a	0	86			71	20				1		0
PM													
Logan / 10th	4:45p - 5:45p				89		78		602	87	84	496	
Logan / Park / Boeing	4:45p - 5:45p	5	646	20	247	582	3	28	1	327	14	5	3
Park / Garden	4:15p - 5:15p	222	696	38	336	621	109	18	174	561	143	111	220
LWB / Coulon / Houser	4:45p - 5:45p	6	10	140				155	350	2	26	320	7
Southport / Coulon	4:45p - 5:45p	0	116			137	25				40		0

Intersection	Peak Hour	EB HV	WB HV	NB HV	SB HV	PHF	EB Bikes	WB Bikes	NB Bikes	SB Bikes	W Peds	E Peds	S Peds	N Peds
AM														
Logan / 10th	7:30a - 8:30a		4.3%	8.2%	4.8%	0.97		1	4	9		6	5	91
Logan / Park / Boeing	7:00a - 8:00a	9.4%	4.2%	9.0%	51.5%	0.95	0	7	0	0	21	0	0	6
Park / Garden	7:00a - 8:00a	7.9%	3.7%	5.5%	1.5%	0.91	0	1	0	12	31	2	4	5
LWB / Coulon / Houser	7:00a - 8:00a	6.9%		4.8%	1.5%	0.95	3		1	14	4		1	4
Southport / Coulon	7:00a - 8:00a	2.0%	2.0%	2.0%	2.0%	0.92	0	0		0	0	0		0
PM														
Logan / 10th	4:45p - 5:45p		0.6%	2.0%	1.4%	0.95		0	10	1		11	12	83
Logan / Park / Boeing	4:45p - 5:45p	1.8%	1.9%	3.4%	21.7%	0.97	10	5	2	0	22	0	2	8
Park / Garden	4:15p - 5:15p	2.6%	4.4%	0.9%	0.0%	0.93	4	1	3	11	53	5	1	7
LWB / Coulon / Houser	4:45p - 5:45p	1.3%		0.3%	0.4%	0.97	3		16	6	2		0	3
Southport / Coulon	4:45p - 5:45p	2.0%	2.0%	2.0%	2.0%	0.92	0	0		0	0	0		0



Note:

- All traffic volumes from turning movement counts except for Southport / Coulon, which was calculated. See the "Class C (Coulon Park) Traffic" tab. Assume no pedestrians or bikes at Southport / Coulon, with 2% HV in each direction and a 0.92 PHF.

- Logan / 10th AM peak hour counted at 7:30a to 8:30a. This count had 5 more vehicles than the 7a to 8a count. Used 7a to 8a hour to be consistent with nearby intersections.

Existing Balanced Traffic Volumes

Balancing Adjustments												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
AM												
Logan / 10th				0		0		0	0	0	0	
Logan / Park / Boeing	0	**-16**	0	0	0	0	0	0	**-13**	**-1**	0	0
Park / Garden	0	0	0	0	**-30**	0	**0**	0	0	0	0	**-8**
LWB / Coulon / Houser	0	0	0				0	0	0	0	0	0
Southport / Coulon	0	0			0	0				0		0
PM												
Logan / 10th				0		0		0	0	0	0	
Logan / Park / Boeing	0	**-20**	0	0	0	0	0	0	**-10**	**0**	0	0
Park / Garden	0	0	0	0	**-20**	0	**-1**	0	0	0	0	**-7**
LWB / Coulon / Houser	0	0	0				0	0	0	0	0	0
Southport / Coulon	0	0			0	0				0		0

Balanced Traffic Volumes												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
AM												
Logan / 10th				12		8		466	20	17	444	
Logan / Park / Boeing	12	467	3	144	427	21	28	18	386	16	10	6
Park / Garden	305	542	23	194	461	227	4	367	214	88	38	128
LWB / Coulon / Houser	9	5	73				85	749	78	18	180	6
Southport / Coulon	0	86			71	20				1		0
PM												
Logan / 10th				89		78		602	87	84	496	
Logan / Park / Boeing	5	626	20	247	582	3	28	1	317	14	5	3
Park / Garden	222	696	38	336	601	109	17	174	561	143	111	213
LWB / Coulon / Houser	6	10	140				155	350	2	26	320	7
Southport / Coulon	0	116			137	25				40		0

Balanced Traffic Details (same as on "Existing Volumes" tab)													
Intersection	**EB HV**	**WB HV**	**NB HV**	**SB HV**	**PHF**	**EB Bikes**	**WB Bikes**	**NB Bikes**	**SB Bikes**	**W Peds**	**E Peds**	**S Peds**	**N Peds**
AM													
Logan / 10th		4.3%	8.2%	4.8%	0.97		1	4	9		6	5	91
Logan / Park / Boeing	9.4%	4.2%	9.0%	51.5%	0.95	0	7	0	0	21	0	0	6
Park / Garden	7.9%	3.7%	5.5%	1.5%	0.91	0	1	0	12	31	2	4	5
LWB / Coulon / Houser	6.9%		4.8%	1.5%	0.95	3		1	14	4		1	4
Southport / Coulon	6.9%	2.0%		2.0%	0.92	0	0		0	0	0		0
PM													
Logan / 10th		0.6%	2.0%	1.4%	0.95		0	10	1		11	12	83
Logan / Park / Boeing	1.8%	1.9%	3.4%	21.7%	0.97	10	5	2	0	22	0	2	8
Park / Garden	2.6%	4.4%	0.9%	0.0%	0.93	4	1	3	11	53	5	1	7
LWB / Coulon / Houser	1.3%		0.3%	0.4%	0.97	3		16	6	2		0	3
Southport / Coulon	1.3%	2.0%		2.0%	0.92	0	0		0	0	0		0

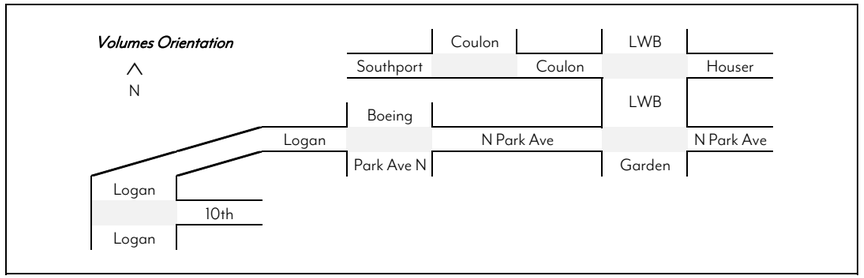
Eastbound Balancing	Existing	Balanced
AM		
Departure at Boeing	899	869
Approach at Garden	870	870
Difference	-29	1
PM		
Departure at Boeing	987	957
Approach at Garden	956	956
Difference	-31	-1

Westbound Balancing	Existing	Balanced
AM		
Departure at Garden	631	593
Approach at Boeing	592	592
Difference	-39	-1
PM		
Departure at Garden	859	831
Approach at Boeing	832	832
Difference	-27	1

- In all cases, departure volumes exceed approach volumes. So, the departure volumes will be reduced per movement so that the total departure volume is reduced by the difference listed for each scenario.

- Reductions will be made in proportion with the volumes for each movement feeding into a departure volume. So, for example, for the Eastbound Balancing AM Departure at Boeing scenario, 29 vehicles need ot be removed from the volumes at the Logan / Park / Boeing EBT, NBR, and SBL movements. The existing volumes for these movements are 483, 399, and 17 vehicles per hour, respectively (899 total vehicles). So, the volume reduction for the EBT will be 29*483/899 = 15.58 = 16 vehicles. All vehicles will be rounded to the nearest vehicle. All other movements will be calculated similarly.

- Rounding may result in balanced volumes +/- 1 of the target. This difference is acceptable.



Driveway Ingress/Egress Calculations

Regal Garage	AM	PM
Eastbound		
Departure from 10th	474	680
Approach at Boeing	482	651
Difference	8	29
Analysis	8 more egress than ingress	29 more ingress than egress
Westbound		
Departure from Boeing	461	613
Approach at 10th	461	580
Difference	0	33
Analysis	0 more ingress than egress	33 more ingress than egress

Boeing Weigh Station	AM	PM
Southbound		
Departure from Coulon	253	460
Approach at Garden	254	467
Difference	1	7
Analysis	1 more egress than ingress	7 more egress than ingress
Northbound		
Departure from Garden	899	505
Approach at Coulon	912	507
Difference	13	2
Analysis	13 more egress than ingress	2 more egress than ingress

Regal Garage "Intersection" Volumes

AM

465	→	WB: +0 egress	←	452
9	↴	EB: +8 egress	↲	9
		↰ 9 ↱ 17		

PM

578	→	WB: +33 ingress	←	552
102	↴	EB: +29 ingress	↲	61
		↰ 28 ↱ 73		

Boeing Weigh Station "Intersection" Volumes

AM

	0 ↵	253 ↓
13 ↴ ↴ 1	SB: +1 egress NB: +13 egress	
	↰ 0	↑ 899

PM

	0 ↵	460 ↓
2 ↴ ↴ 7	SB: +7 egress NB: +2 egress	
	↰ 0	↑ 505

Notes:

- Assume 98% of adjacent traffic at Regal in the AM is thru traffic.

- Assume 100% of adjacent traffic at Boeing in AM and PM is thru traffic based on field observations.

DEIS Traffic Volumes												
Park / Garden	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
AM												
Quendall 2015 DEIS No-Build [1]	250	440	10	385	850	105	20	130	115	125	20	190
Quendall 2015 DEIS Alt. 1 [2]	295	440	10	385	850	115	20	140	115	135	30	230
Difference [3]	**+45**	0	0	0	0	**+10**	0	**+10**	0	**+10**	**+10**	**+40**
PM												
Quendall 2015 DEIS No-Build [1]	260	895	25	445	785	185	10	90	710	125	95	265
Quendall 2015 DEIS Alt. 1 [2]	305	895	25	445	785	195	10	100	710	135	105	315
Difference [3]	**+45**	0	0	0	0	**+10**	0	**+10**	0	**+10**	**+10**	**+50**

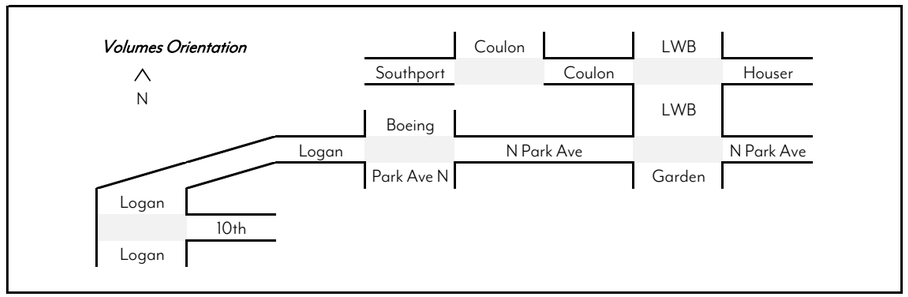
DEIS Trip Generation				
Full Net Trip Generation	AM Enter	AM Exit	PM Enter	PM Exit
Quendall 2015 DEIS Alt. 1 [4]	445	421	442	509
Quendall 2015 DEIS Preferred [5]	104	331	340	190
Ratio of Preferred to Alt. 1	0.23371	0.78622	0.76923	0.37328

Quendall Terminals Preferred Alternative Traffic Volumes												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
AM												
Logan / 10th				0		0		**+11**	0	0	**+31**	
Logan / Park / Boeing	0	**+11**	0	0	**+31**	0	0	0	0	0	0	0
Park / Garden	**+11**	0	0	0	0	**+2**	0	**+2**	0	**+8**	**+8**	**+31**
LWB / Coulon / Houser	0	0	0				0	**+15**	0	0	**+47**	0
Southport / Coulon	0	0			0	0				0		0
PM												
Logan / 10th				0		0		**+35**	0	0	**+19**	
Logan / Park / Boeing	0	**+35**	0	0	**+19**	0	0	0	0	0	0	0
Park / Garden	**+35**	0	0	0	0	**+8**	0	**+8**	0	**+4**	**+4**	**+19**
LWB / Coulon / Houser	0	0	0				0	**+51**	0	0	**+27**	0
Southport / Coulon	0	0			0	0				0		0

Notes

[1] Figure 14 on pg 181.
[2] Figure 15 on pg 182.
[3] Represents Quendall 2015 development volumes.
[4] Table 3 on pg 170.
[5] Table 11 on pg 190.
[6] All volumes rounded to nearest vehicle.

DEIS Addendum available at:
http://rentonwa.gov/uploadedFiles/Business/CED/PLANNING_FORMS/QuendallTerminals_EISAddendum_101



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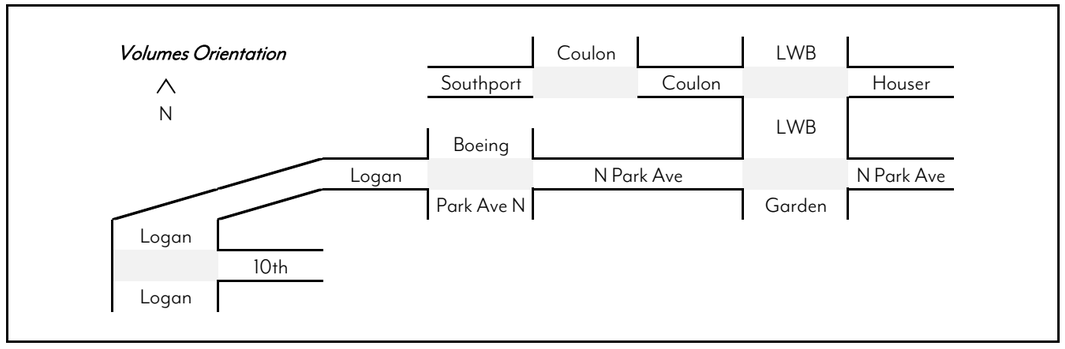
Hawks Landing Development Traffic Volumes

Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM												
Logan / 10th				0		0		+4	0	0	+2	
Logan / Park / Boeing	0	+4	0	0	+2	0	0	0	0	0	0	0
Park / Garden	+4	0	0	0	0	+1	0	+1	0	+1	+1	+2
LWB / Coulon / Houser	0	0	0				0	+6	0	0	+4	0
Southport / Coulon	0	0			0	0				0		0
PM												
Logan / 10th				0		0		+3	0	0	+3	
Logan / Park / Boeing	0	+3	0	0	+3	0	0	0	0	0	0	0
Park / Garden	+3	0	0	0	0	+1	0	+1	0	+1	+1	+3
LWB / Coulon / Houser	0	0	0				0	+5	0	0	+5	0
Southport / Coulon	0	0			0	0				0		0



Notes:

- Preferred alterntive traffic volumes taken from Quendall Terminals EIS Addendum, Pages 13 or 14 of TENW's Updated Transportation Impact Study. Available at http://rentonwa.gov/uploadedFiles/Business/CED/PLANNING_FORMS/QuendallTerminals_EISAddendum_101912.pdf (PDF pages 167 or 168). Volumes impacts at Park / Garden intersection are equivalent between With I-405 Improvements and Without I-405 Improvements scenarios.

- Two developments (Barbee Mill and Hawks Landing) and 15% vicinity traffic volume growth are included in the numbers on PDF page 166. However, Barbee Mill has already been developed, so the volumes were manually adjusted to only account for volumes into and out of the Hawks Landing Access road (intersection 5 on this PDF).

- Volumes in study only provided at Park / Garden intersection. Above analysis carries those volume increases through to adjacent study intersections as necessary, assuming that the movements shown above make no other turns at any study intersections. For example. the +3 PM southbound right turns are assumed to continue as WBT and SBT at Logan / Park / Boeing and Logan / 10th, respectively.

Hotel Developments

Residence Inn TIA Volumes												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
AM [1]												
Logan / 10th				0		0		+7	0	0	+5	
Logan / Park / Boeing	0	+7	0	0	+5	0	0	0	0	0	0	0
Park / Garden	+7	0	0	0	0	+32	0	+4	0	+22	+3	+5
LWB / Coulon / Houser	0	0	0				0	+43	0	0	+30	0
Southport / Coulon	0	0			0	0				0		0
PM [2]												
Logan / 10th				0		0		+7	0	0	+7	
Logan / Park / Boeing	0	+7	0	0	+7	0	0	0	0	0	0	0
Park / Garden	+7	0	0	0	0	+32	0	+4	0	+30	+4	+7
LWB / Coulon / Houser	0	0	0				0	+43	0	0	+41	0
Southport / Coulon	0	0			0	0				0		0

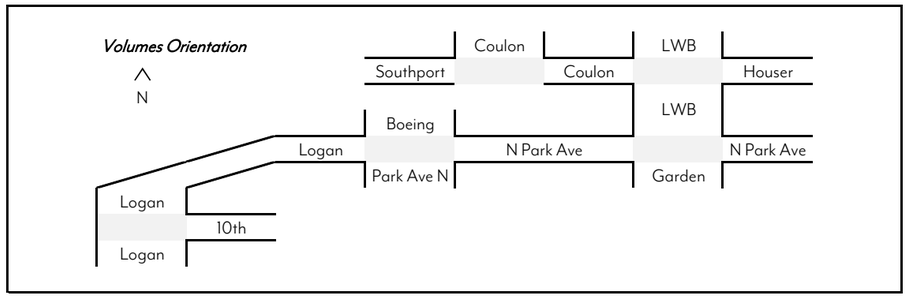
Hampton Inn (i.e. "Renton Hotel" PDF) TIA Volumes												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
AM [3]												
Logan / 10th				0		0		+6	0	0	+4	
Logan / Park / Boeing	0	+6	0	0	+4	0	0	0	0	0	0	0
Park / Garden	+6	0	0	0	0	+27	0	+4	0	+19	+3	+4
LWB / Coulon / Houser	0	0	0				0	+37	0	0	+26	0
Southport / Coulon	0	0			0	0				0		0
PM [4]												
Logan / 10th				0		0		+6	0	0	+5	
Logan / Park / Boeing	0	+6	0	0	+5	0	0	0	0	0	0	0
Park / Garden	+6	0	0	0	0	+26	0	+4	0	+26	+4	+5
LWB / Coulon / Houser	0	0	0				0	+36	0	0	+35	0
Southport / Coulon	0	0			0	0				0		0

Notes

[1] Figure 2 (pg 7) from *33 Traffic Study - Renton Residence Inn.pdf*
[2] Figure 3 (pg 8) from *33 Traffic Study - Renton Residence Inn.pdf*
[3] Developed by taking ratios of entry/exit traffic for AM vs. PM. See calculation below. All volumes rounded.
[4] Figure 2 (pg 7) from *TIA 6.2014.pdf*

Files available at:
X:\Renton, City of\Projects\20160266 - N Park Ave Extension\Traffic\Incoming\Studies

Trips	AM	PM	Ratio
Inbound	39	38	1.02632
Outbound	27	37	0.72973



AM Southport Developments

			ITE Trip Generation Manual Data [9]			AM Development Volumes		
Land Use	**Quantity**	**ITE Land Use Code**	**Inbound %**	**Outbound %**	**Total Trips Formula**	**Inbound**	**Outbound**	**Total**
Residental (Apartments) [units] [1]	189	220	20%	80%	T = 0.49(X) + 3.73	12	46	58
Internal Trips					Apartment <--> Office (10%) =	1	5	6
					Apartment <--> Restaurant/Retail (See Below) =	0	2	2
					Apartment Total =	**11**	**39**	**50**
Residental (Condo/Townhouse) [units] [2]	206	230	17%	83%	Ln(T) = 0.80 Ln(X) + 0.26	11	52	63
Internal Trips					Condo <--> Office (10%) =	1	5	6
					Condo <--> Restaurant/Retail (See Below) =	0	2	2
					Condo Total =	**10**	**45**	**55**
Hotel [rooms] [3]	347	310	61%	39%	Ln(T) = 1.24 Ln(X) - 2.00	117	75	191
Internal Trips					Hotel <--> Office (10%) =	12	7	19
					Hotel <--> Restaurant/Retail (See Below) =	2	3	5
					Hotel Total =	**103**	**65**	**168**
Office [1,000 GFA] [4]	717.4	710	88%	12%	Ln(T) = 0.80 Ln(X) + 1.55	798	109	907
Internal Trips					Office <--> Apartment/Condo/Hotel (See Above) =	14	17	31
					Office <--> Restaurant/Retail (See Below) =	13	5	18
					Office Total =	**771**	**87**	**858**
Retail [1,000 GLA] [5]	24.4	814	48%	52%	T = 6.84(X) [11]	80	87	167
					Passby Trips (20%) =	16	17	33
Internal Trips					Retail <--> Apartment/Condo/Hotel/Office (10%) [8] =	6	7	13
					Retail Total =	**58**	**63**	**121**
High-Turnover Restaurant [1,000 GFA] [6]	10	932	52%	48%	T = 11.52(X) [10]	60	55	115
					Passby Trips (33%) =	20	18	38
Internal Trips					Restaurant <--> Apartment/Condo/Hotel/Office (10%) [8] =	4	4	8
					High-Turnover Restaurant Total =	**36**	**33**	**69**
Quality Restaurant [1,000 GFA] [7]	10	931	82%	18%	T = 5.57(X) [10]	46	10	56
Internal Trips					Restaurant <--> Apartment/Condo/Hotel/Office (10%) [8] =	5	1	6
					Quality Restaurant Total =	**41**	**9**	**50**
					Development Total =	1030	341	1371
					Construction Total =	60	0	60
					Currently Constructed Total (Incl. Construction) =	81	84	165
					Future Construction Total =	949	257	1206

Notes:

[1] 395 total residential units per http://rentonwa.gov/business/default.aspx?id=2814 Adjusted EIS number (171) to get total. See Note 12.

[2] 206 units taken from EIS. See Note 12.

[3] Room count from http://www.secodev.com/southport-hotel

[4] SF from http://www.secodev.com/southport-office. Quoted as ~720,000 "Class A" office space. Assume 700,000 as LUC "Office" and the remaining as Restaurant.

[5] SF from http://www.secodev.com/southport-office and http://rentonwa.gov/business/default.aspx?id=40595 combined.

[6] SF from http://www.secodev.com/southport-office. Quoted as ~720,000 "Class A" office space. Assume 10,000 as LUC "High-Turnover Restaurant".

[7] SF from http://www.secodev.com/southport-office. Quoted as ~720,000 "Class A" office space. Assume 10,000 as LUC "Quality Restaurant".

[8] Percentage does not include passby trips.

[9] 8th Edition

[10] Average trips used since no fitted curve eqn. available

[11] AM Peak of Generator and average rate used, since AM peak of adjacent street data unavailable and fitted curve equation is inaccurate with small SF.

[12] ITE trip generation returned a higher number of AM peak hour trips leaving Southport (134) than was counted as an eastbound approach volume at LWB / Coulon (87). Count volumes are not available at the Coulon Beach Pk entrance, but it is assumed that vehicles in the AM peak hour are minimial, and are entry only. Therefore, it is assumed that the EBL + EBT + EBR volumes at LWB / Coulon are equal to the actual residential (apartment + condo + townhome) Southport outbound trips (+/- 1 veh). To rectify this, the trip generation rate was reduced to 0.305 trips per unit in both directions to develop accurate inbound and outbound traffic volumes for the built residential Southport land uses. This adjustment was not done for the PM peak, as the ITE volumes there appear to match the count volumes. In the inbound direction for Southport, the count volumes recorded a LWB / Coulon WB departure volume of 91 in the AM peak. The ratioed ITE inbound trips is only 18 (maintaining the ITE inbound/outbound directional percentages). 10% of the departure volume (9 veh) was assumed to be right-turning traffic into Coulon Park, with the remaining 82 vehicles continuing through to Southport. It is assumed that the difference between the ITE trips (22) and the counted trips (82) is construction traffic, since multiple parcels are currently in development (82-22 = 60 veh).

* Unless otherwise noted, all ITE Manual data corresponds to the given unit for the AM peak hour (of adjacent traffic).

PM Southport Developments

			ITE Trip Generation Manual Data [9]			PM Development Volumes		
Land Use	**Quantity**	**ITE Land Use Code**	**Inbound %**	**Outbound %**	**Total Trips Formula**	**Inbound**	**Outbound**	**Total**
Residental (Apartments) [units] [1]	189	220	65%	35%	T = 0.55(X) + 17.65	79	43	122
		Internal Trips			Apartment <--> Office (10%) =	8	4	12
					Apartment <--> Restaurant/Retail (See Below) =	3	0	3
					Apartment Total =	**68**	**39**	**107**
Residental (Condo/Townhouse) [units] [2]	206	230	67%	33%	T = 0.17(X) + 32.33	45	22	67
		Internal Trips			Condo <--> Office (10%) =	5	2	7
					Condo <--> Restaurant/Retail (See Below) =	2	0	2
					Condo Total =	**38**	**20**	**58**
Hotel [rooms] [3]	347	310	53%	47%	T = 0.59(X) [10]	109	96	205
		Internal Trips			Hotel <--> Office (10%) =	11	10	21
					Hotel <--> Restaurant/Retail (See Below) =	4	1	5
					Hotel Total =	**94**	**85**	**179**
Office [1,000 GFA] [4]	717.4	710	17%	83%	T = 1.12(X) + 78.81	150	732	882
		Internal Trips			Office <--> Apartment/Condo/Hotel (See Above) =	24	16	40
					Office <--> Restaurant/Retail (See Below) =	5	8	13
					Office Total =	**121**	**708**	**829**
Retail [1,000 GLA] [5]	24.4	814	44%	56%	T = 2.40(X) + 21.48	35	45	80
					Passby Trips (20%) =	7	9	16
		Internal Trips			Retail <--> Apartment/Condo/Hotel/Office (10%) [8] =	3	4	7
					Retail Total =	**25**	**32**	**57**
High-Turnover Restaurant [1,000 GFA] [6]	10	932	59%	41%	T = 11.15(X) [10]	66	46	112
					Passby Trips (33%) =	22	15	37
		Internal Trips			Restaurant <--> Apartment/Condo/Hotel/Office (10%) [8] =	4	3	7
					High-Turnover Restaurant Total =	**40**	**28**	**68**
Quality Restaurant [1,000 GFA] [7]	10	931	62%	38%	T = 9.02(X) [10]	56	34	90
		Internal Trips			Restaurant <--> Apartment/Condo/Hotel/Office (10%) [8] =	6	3	9
					Quality Restaurant Total =	**50**	**31**	**81**
					Development Total =	**436**	**943**	**1379**
					Construction Total =	**0**	**55**	**55**
					Currently Constructed Total (Incl. Constuction) =	**106**	**114**	**220**
					Future Construction Total =	**330**	**829**	**1159**

Notes:

[1] 395 total residential units per http://rentonwa.gov/business/default.aspx?id=2814. Adjusted EIS number (171) to get total.

[2] 206 units taken from Southport Appendices - June 1999

[3] Room count from http://www.secodev.com/southport-hotel

[4] SF from http://www.secodev.com/southport-office. Quoted as ~720,000 "Class A" office space. Assume 700,000 as LUC "Office" and the remaining as Restaurant.

[5] SF from retail http://www.secodev.com/southport-office and http://rentonwa.gov/business/default.aspx?id=40595 and retail http://www.secodev.com/southport-office combined.

[6] SF from http://www.secodev.com/southport-office. Quoted as ~720,000 "Class A" office space. Assume 10,000 as LUC "High-Turnover Restaurant".

[7] SF from http://www.secodev.com/southport-office. Quoted as ~720,000 "Class A" office space. Assume 10,000 as LUC "Quality Restaurant".

[8] Percentage does not include passby trips.

[9] 8th Edition

[10] Average trips used since no fitted curve eqn. available

[11] Assume 55 of the 60 AM construction vehicles leave site in PM. It was originally assumed that all 60 would leave during PM, however, once removed from the turning movement counts that returned some negative values. Adjusted to 55 to resolve issue.

*

Unless otherwise noted, all ITE Manual data corresponds to the given unit for the PM peak hour (of adjacent traffic).

Southport Trip Generation Summary

	AM Development Volumes		PM Development Volumes	
Land Use	**Inbound**	**Outbound**	**Inbound**	**Outbound**
Class A Trips (Built)				
Residential (Apartments)	3	22	34	15
Residential (Condo/Townhome)	0	0	0	0
Class A Total	**3**	**22**	**34**	**15**
Class B Trips				
Class B Trips (Built)				
Residential (Apartments)	8	64	103	46
Residential (Condo/Townhome)	0	0	0	0
Class B Trips (Built) Total	8	64	103	46
Class B Trips (Future)				
Hotel	103	65	91	95
Office	771	87	110	718
Retail	58	63	23	33
High-Turnover Restaurant	0	0	0	0
Quality Restaurant	41	9	35	10
Class B Trips (Future) Total	973	224	259	856
Class B Total	**981**	**288**	**362**	**902**
Total All Classes	**984**	**310**	**396**	**917**
Construction Total	**60**	**0**	**0**	**55**

Notes:

- Class A consists of the full Southport development, except for the assumed 1/2 of Bristol Apartments (and Condos/Townhomes). The access points on the eastern part of the Bristol are close enough to the existing Lake Washington Blvd / Coulon Park Drive that it is assumed they will behave differently under certain scenarios as compared to the rest of the Southport development.

- One surface parking lot and one garage access point are located on each side of the Bristol development. Volumes on each side of the building are assumed to be equal.

- All vehicles are rounded to the nearest whole veh. Rounding may result in volumes +/- 1 from other tabs, which is acceptable.

- Only the residential buildings are in operation currently.

Class C (Coulon Park) Traffic Determination

LWB / Coulon [4]	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM												
Existing Balanced Volume	9	5	73				85					6
Built Southport Volume [5]	9	5	72				9					2
Construction Volume [6]	0	0	0				60					0
Difference [2]	0	0	1				16					4
PM												
Existing Balanced Volume	6	10	140				155					7
Built Southport Volume [1]	2	4	55				132					5
Construction Volume [6]	3	4	48				0					0
Difference [2]	1	2	37				23					2

Southport / Coulon Access	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM												
"Class" Traffic	0	86			11	20				1		0
Construction Volume	0	0			60	0				0		0
PM												
"Class" Traffic	0	61			137	25				40		0
Construction Volume	0	55			0	0				0		0

	AM Volumes		PM Volumes	
Land Use	Inbound	Outbound	Inbound	Outbound
Class C Trips (Built)				
Coulon Park	20	1	25	40
Class C Total	**20**	**1**	**25**	**40**

Notes

[1] Built Southport volumes are from the Bristol (residential, classes A + B). Turn movement percentages (4%, 6%, and 90% respectively) based on existing turning movement counts. See Southport Trip Distribution tab for more information.

[2] This represents the existing Coulon Park traffic volumes. Assume no traffic turns right out of Coulon Park to access Southport currently.

[3] All volumes rounded to nearest vehicle.

[4] Only movements in consideration are EBL/T/R, NBL, and SBR. All other movements do not serve Coulon Park or Southport.

[5] See AM Southport Developments tab for detailed discussion of how these volumes were developed.

[6] All construction volumes assumed to access site via Park / Garden.

Boeing Traffic Determination

	PM
Logan / Park / Boeing SB Approach Volume [1]	22
Logan / Park / Boeing NB Departure Volume [1 3]	9
Boeing Access Drive Exit Volume [2 3]	9
Boeing Access Drive Entry Volume [2 3]	0

Boeing / New	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM												
Existing			22		0		4		5			
Future (2040) [4 5]			28		0		5		6			
Y.O.O. (2019)			22		0		4		5			

Notes

[1] From "Existing Balanced Volumes" tab.

[2] From "Existing Driveways" tab.

[3] Boeing access drive serves construction traffic. Assume that some of the traffic is parked near the driveway and doesn't pass through the Boeing / New intersection. Other traffic does, and continues east through to the boeing access drive. Assume that all 5 of the Boeing access driveway left-turn movements go through the Boeing / New intersection. Assume none of the 9 Boeing access driveway right-turn movements go through the Boeing / New intersection. So, based on this, the number of NBR at the Boeing / New intersection is 5 and the remaining departure volumes from Logan / Park / Boeing (9-5=4) are NBL at Boeing / New in the PM peak. Assume that all Boeing access driveway entry traffic continues through to Boeing plant via WBT at Boeing / New, since it would be unlikely that construction traffic could be entering during the PM peak.

[4] See "PM 2040 Volumes wo Southport" tab for growth rate.

[5] Boeing construction traffic not removed at 2040. Other projects may be in progress. Construction is outside City control/knowledge.

Bristol Driveways

West Bristol Driveways (Class B)						
Driveway	SEBT	LT In	NWBT	RT In	LT Out	RT Out
AM						
Existing						
Surface	42	0	65	1	4	0
Garage	46	0	66	4	16	0
PM						
Existing						
Surface	86	0	69	7	3	0
Garage	89	0	76	28	12	0
Alternative A						
Surface	887	0	328	7	3	0
Garage	890	0	335	28	12	0
Alternative B1						
Surface	887	0	328	7	3	0
Garage	890	0	335	28	12	0
Alternative B2						
Surface	887	0	328	7	3	0
Garage	890	0	335	28	12	0
Alternative B3						
Surface	887	0	328	7	3	0
Garage	890	0	335	28	12	0
Alternative C						
Surface	887	0	328	7	3	0
Garage	890	0	335	28	12	0

East Bristol Driveways (Class A)						
Driveway	NEBT	LT In	SWBT	RT In	LT Out	RT Out
AM						
Existing						
Garage	62	0	70	4	16	0
Surface	78	0	74	1	4	0
PM						
Existing						
Garage	101	0	104	28	12	0
Surface	113	0	132	7	3	0
Alternative A						
Garage	668	4	271	23	11	2
Surface	678	1	293	6	3	1
Alternative B1						
Garage	49	18	20	10	5	10
Surface	50	4	28	2	1	2
Alternative B2						
Garage	45	0	357	28	5	10
Surface	50	0	383	6	1	2
Alternative B3						
Garage	90	0	364	28	5	10
Surface	95	0	390	6	1	2
Alternative C						
Garage	902	0	363	28	12	0
Surface	914	0	391	7	3	0

Notes:

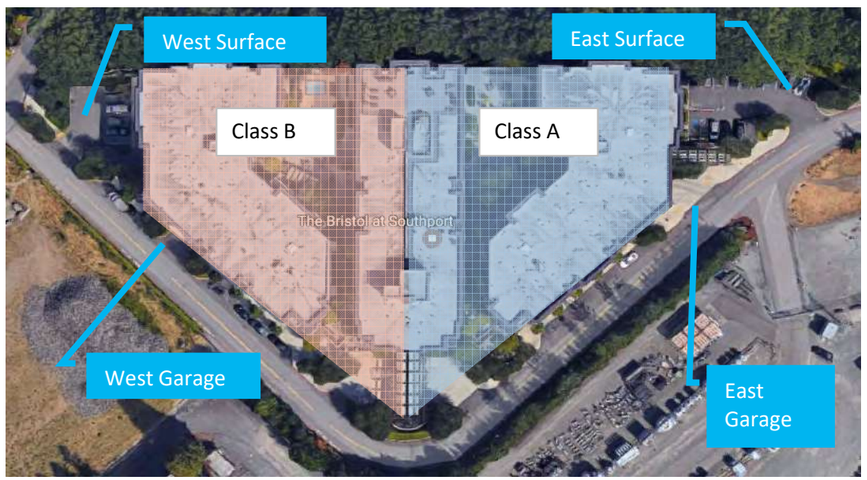
- Existing Bristol volumes currently use the driveways shown in the picture as well as at the Bristol II building near Lake Washington. These calculations provide volumes to be used in the VISSIM analysis for the various alternatives to show roughly accurate driveway movements.

- Per the assumed trip generation calculations on other tabs, 25% of the Bristol driveway volumes are assumed to be "Class A" (i.e. use the eastern surface or garage) and the remainder are "Class B".

- The Class B volumes from this Bristol building are assumed to equal the Class A volumes, therefore, the turning movements into and out of each side of the building are assumed to be equal. In other words, the Bristol II volumes are assumed to be 50% of the total Bristol volumes, and the east and west Bristol I volumes are assumed to each be 25%.

- Internal trip volumes ignored.

- Assume that surface volumes are 25% of garage volumes.



PM 2019 Driveway Ingress/Egress Calculations

Regal Garage	Alternative A	Alternative B1/B2/B3	Alternative C
Eastbound			
Departure from 10th	780	941	780
Approach at Boeing	733	733	733
Difference	47	47	47
Analysis	47 more ingress than egress	47 more ingress than egress	47 more ingress than egress
Westbound			
Departure from Boeing	736	736	736
Approach at 10th	715	715	715
Difference	21	21	21
Analysis	21 more ingress than egress	21 more ingress than egress	21 more ingress than egress

Notes

- Assume Regal ingress right turns 15% of thru traffic. Boeing ingress assumed to be 0% of thru traffic based on low-volume field observations.

- Volumes between 10th and Boeing the same for the Regal garage driveway under all alternatives.

Regal Garage "Intersection" Volumes					
All Alternatives					
702	→	WB: +124 ingress		←	589
78	↴	EB: +8 ingress		↓	147
		↰	↱		
		23	70		

PM 2040 Driveway Ingress/Egress Calculations

Regal Garage	Alternative A	Alternative B1/B2/B3	Alternative C
Eastbound			
Departure from 10th	941	941	941
Approach at Boeing	884	884	884
Difference	57	57	57
Analysis	57 more ingress than egress	57 more ingress than egress	57 more ingress than egress
Westbound			
Departure from Boeing	791	791	791
Approach at 10th	791	791	791
Difference	0	0	0
Analysis	0 more ingress than egress	0 more ingress than egress	0 more ingress than egress

Boeing Weigh Station	Alternative A	Alternative B1/B2/B3	Alternative C
Southbound			
Departure from Coulon	1089	Assume Driveway will be Closed due to Proximity to Proposed New Roadway	1332
Approach at Garden	1092		1335
Difference	3		3
Analysis	3 more egress than ingress		3 more egress than ingress
Northbound			
Departure from Garden	833	Assume Driveway will be Closed due to Proximity to Proposed New Roadway	935
Approach at Coulon	839		941
Difference	6		6
Analysis	6 more egress than ingress		6 more egress than ingress

Notes

- Assume Regal ingress right turns 15% of thru traffic. Boeing ingress assumed to be 0% of thru traffic based on low-volume field observations.

- Volumes between 10th and Boeing the same for the Regal garage driveway under all alternatives.

Regal Garage "Intersection" Volumes

All Alternatives

800	→	WB: +0 egress	←	791
141	↴	EB: +57 ingress	↱	0
		↰ 0	↱ 84	

Re-routed volumes for driveway RIRO configuration:

Additional WBL / Reduced WBT @ Boeing =	79	veh
Additional WBL / Reduced SBT @ 10th =	79	veh

Boeing Weigh Station "Intersection" Volumes

Alternative A

	0 ↵	1089 ↓
18 ↱	SB: +37 egress	
↴ 37	NB: +18 egress	
	↰ 0	↑ 833

Alternative C

	0 ↵	1332 ↓
4 ↱	SB: +14 egress	
↴ 14	NB: +4 egress	
	↰ 0	↑ 935

AM Southport / Coulon Park Trip Distribution

Class Totals from "Southport TripGen Summary" and "Class C Traffic" Tabs	3	22	8	64	981	288	20	1

AM		Alternative A (Park Avenue N Extension)																			
		Route Distribution by Class						Class A				Class B (Built)				Class B (Built + Future)				Class C			
Route	O-D Loading	Class A West	Class A East	Class B West	Class B East	Class C West	Class C East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East
A	10%	0	1	0	1	0	1	0	0	0	2	0	1	0	6	0	98	0	29	0	2	0	0
B	25%	0	1	0.67	0.33	0	1	0	1	0	6	0	2	0	16	164	82	48	24	0	5	0	0
C	5%	0	1	0.67	0.33	0	1	0	0	0	1	0	0	0	3	33	16	10	5	0	1	0	0
D	35%	0	1	0.67	0.33	0	1	0	1	0	8	0	3	0	22	229	114	67	34	0	7	0	0
E	5%	0	1	0.67	0.33	0	1	0	0	0	1	0	0	0	3	33	16	10	5	0	1	0	0
F	10%	1	0	1	0	0.5	0.5	0	0	2	0	1	0	6	0	98	0	29	0	1	1	0	0
G	5%	1	0	1	0	0.5	0.5	0	0	1	0	0	0	3	0	49	0	14	0	1	1	0	0
H	5%	0	1	0	1	0	1	0	0	0	1	0	0	0	3	0	49	0	14	0	1	0	0
	Class Totals							2		22		7		62		981		289		21		0	

AM		Alternative B (Garden Avenue N Extension)																			
		Route Distribution by Class						Class A				Class B (Built)				Class B (Built + Future)				Class C			
Route	O-D Loading	Class A West	Class A East	Class B West	Class B East	Class C West	Class C East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East
A	10%	0	1	0.5	0.5	0	1	0	0	0	2	0	1	0	6	49	49	14	14	0	2	0	0
B	25%	0.67	0.33	1	0	0	1	1	0	4	2	1	1	11	5	245	0	72	0	0	5	0	0
C	5%	0.67	0.33	1	0	0	1	0	0	1	0	0	0	2	1	49	0	14	0	0	1	0	0
D	35%	0.67	0.33	1	0	0	1	1	0	5	3	2	1	15	7	343	0	101	0	0	7	0	0
E	5%	0.67	0.33	1	0	0	1	0	0	1	0	0	0	2	1	49	0	14	0	0	1	0	0
F	10%	1	0	1	0	0	1	0	0	2	0	1	0	6	0	98	0	29	0	0	2	0	0
G	5%	1	0	1	0	0	1	0	0	1	0	0	0	3	0	49	0	14	0	0	1	0	0
H	5%	0	1	0.5	0.5	0	1	0	0	0	1	0	0	0	3	25	25	7	7	0	1	0	0
	Class Totals							2		22		7		62		981		286		20		0	

AM		Alternative C (No New Links)																			
		Route Distribution by Class						Class A				Class B (Built)				Class B (Built + Future)				Class C			
Route	O-D Loading	Class A West	Class A East	Class B West	Class B East	Class C West	Class C East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East
A	10%		1		1		1		0		2		1		6		98		29		2		0
B	25%		1		1		1		1		6		2		16		245		72		5		0
C	5%		1		1		1		0		1		0		3		49		14		1		0
D	35%		1		1		1		1		8		3		22		343		101		7		0
E	5%		1		1		1		0		1		0		3		49		14		1		0
F	10%		1		1		1		0		2		1		6		98		29		2		0
G	5%		1		1		1		0		1		0		3		49		14		1		0
H	5%		1		1		1		0		1		0		3		49		14		1		0
	Class Totals							2		22		7		62		980		287		20		0	

Notes:

- The following breakdown was provided in the Southport development Traffic Report:
  - 5% to/from the north on LWB
  - 25% to/from the north on I-405
  - 20% to/from the south on Park Drive
  - 35% to/from the south on I-405
  - 15% to/from the east on Park Drive

- The Southport traffic report was prepared in 1999, prior to the construction of the Landing or the extension of Logan Avenue N into the study area. As such, the following revised percentages were developed to provide a distribution more in-line with existing conditions and assumed demand: Additionally, EB traffic volumes at the LWB / Coulon intersection provide a distribution between A, H and the remaining routes. This distribution was applied here.
  - 10% to/from the north on LWB
  - 25% to/from the north on I-405
  - 5% to/from the south on Park Ave N
  - 35% to/from the south on I-405
  - 5% to/from the south on Garden
  - 10% to/from the south on Logan
  - 5% to/from the east on Park Drive
  - 5% to/from the south on Houser/Garden

- Houser is a one-way outbound route. All inbound H traffic is assumed to use NB Garden and then LWB.

- Sample calculation for Alt A Class B Inbound East Route E (Cell R12): =(Q3:R3)*BI2*E12

- All vehicles are rounded to the nearest whole veh. Rounding may result in volumes +/- 5 from other tabs, which is acceptable.

- West and East designations correspond to travel paths to the west or east of the developments. The "west" designation means traffic uses a roadway link that doesn't currently exist.

PM Southport / Coulon Park Trip Distribution

X — 10% / 90% split used for VISSIM analysis; 67% / 33% split used for Syncho analysis

Class Totals from "Southport TripGen Summary" and "Class C Traffic" Tabs	34	15	103	46	362	902	25	40

PM		Alternative A (Park Avenue N Extension)																			
		Route Distribution by Class						Class A				Class B (Built)				Class B (Built + Future)				Class C			
Route	O-D Loading	Class A West	Class A East	Class B West	Class B East	Class C West	Class C East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East
A	4%	0	1	0	1	0	1	0	1	0	1	0	4	0	2	0	14	0	36	0	1	0	2
B	25%	0	1	0.15	0.85	0	1	0	9	0	4	4	22	2	10	14	77	34	192	0	6	0	10
C	5%	0	1	0.15	0.85	0	1	0	2	0	1	1	4	0	2	3	15	7	38	0	1	0	2
D	35%	0	1	0.15	0.85	0	1	0	12	0	5	5	31	2	14	19	108	47	268	0	9	0	14
B+C+D	*65%*	*0*	*1*	*0.15*	0.85	*0*	*1*	*0*	*23*	*0*	*10*	*10*	*57*	*4*	*26*	*36*	*200*	*88*	*498*	*0*	*16*	*0*	*26*
E	10%	0	1	0.15	0.85	0	1	0	3	0	2	2	9	1	4	5	31	14	77	0	3	0	4
F	10%	1	0	1	0	0.5	0.5	3	0	2	0	10	0	5	0	36	0	90	0	1	1	2	2
G	5%	1	0	1	0	0.5	0.5	2	0	1	0	5	0	2	0	18	0	45	0	1	1	1	1
H	6%	0	1	0	1	0	1	0	2	0	1	0	6	0	3	0	22	0	54	0	2	0	2
							Class Totals	34		17		103		47		362		902		26		40	

PM		Alternative B (Garden Avenue N Extension)																			
		Route Distribution by Class						Class A				Class B (Built)				Class B (Built + Future)				Class C			
Route	O-D Loading	Class A West	Class A East	Class B West	Class B East	Class C West	Class C East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East
A	4%	0	1	0.5	0.5	0	1	0	1	0	1	2	2	1	1	7	7	18	18	0	1	0	2
B	25%	0.67	0.33	1	0	0	1	6	3	3	1	26	0	12	0	91	0	226	0	0	6	0	10
C	5%	0.67	0.33	1	0	0	1	1	1	1	0	5	0	2	0	18	0	45	0	0	1	0	2
D	35%	0.67	0.33	1	0	0	1	8	4	4	2	36	0	16	0	127	0	316	0	0	9	0	14
B+C+D	*65%*	*0.67*	*0.33*	*1*	*0*	*0*	*1*	*15*	*8*	*8*	*3*	*67*	*0*	*30*	*0*	*236*	*0*	*587*	*0*	*0*	*16*	*0*	*26*
E	10%	0.67	0.33	1	0	0	1	2	1	1	1	10	0	5	0	36	0	90	0	0	3	0	4
F	10%	1	0	1	0	0	1	3	0	2	0	10	0	5	0	36	0	90	0	0	3	0	4
G	5%	1	0	1	0	0	1	2	0	1	0	5	0	2	0	18	0	45	0	0	1	0	2
H	6%	0	1	0.5	0.5	0	1	0	2	0	1	3	3	1	1	11	11	27	27	0	2	0	2
							Class Totals	34		18		102		46		362		902		26		40	

PM		Alternative C (No New Links)																			
		Route Distribution by Class						Class A				Class B (Built)				Class B (Built + Future)				Class C			
Route	O-D Loading	Class A West	Class A East	Class B West	Class B East	Class C West	Class C East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East	Inbound West	Inbound East	Outbound West	Outbound East
A	4%		1		1		1		1		1		4		2		14		36		1		2
B	25%		1		1		1		9		4		26		12		91		226		6		10
C	5%		1		1		1		2		1		5		2		18		45		1		2
D	35%		1		1		1		12		5		36		16		127		316		9		14
B+C+D	*65%*		*1*		*1*		*1*		*23*		*10*		*67*		*30*		*236*		*587*		*16*		*26*
E	10%		1		1		1		3		2		10		5		36		90		3		4
F	10%		1		1		1		3		2		10		5		36		90		3		4
G	5%		1		1		1		2		1		5		2		18		45		1		2
H	6%		1		1		1		2		1		6		3		22		54		2		2
							Class Totals	34		17		102		47		362		902		26		40	

Notes:

- The following breakdown was provided in the Southport development Traffic Report:
  - 5% to/from the north on LWB
  - 25% to/from the north on I-405
  - 20% to/from the south on Park Drive
  - 35% to/from the south on I-405
  - 15% to/from the east on Park Drive

- The Southport traffic report was prepared in 1999, prior to the construction of the Landing or the extension of Logan Avenue N into the study area. As such, the following revised percentages were developed to provide a distribution more in-line with existing conditions and assumed demand: Additionally, EB traffic volumes at the LWB / Coulon intersection provide a distribution between A, H and the remaining routes. This distribution was applied here.
  - 4% to/from the north on LWB
  - 25% to/from the north on I-405
  - 5% to/from the south on Park Ave N
  - 35% to/from the south on I-405
  - 10% to/from the south on Garden
  - 10% to/from the south on Logan
  - 5% to/from the east on Park Drive
  - 6% to/from the south on Houser/Garden

- Houser is a one-way outbound route. All inbound H traffic is assumed to use NB Garden and then LWB.

- Sample calculation for Alt A Class B Inbound East Route E

- All vehicles are rounded to the nearest whole veh. Rounding may result in volumes +/- 5 from other tabs, which is acceptable.

- West and East designations correspond to travel paths to the west or east of the developments. The "west" designation means traffic uses a roadway link that doesn't currently exist.

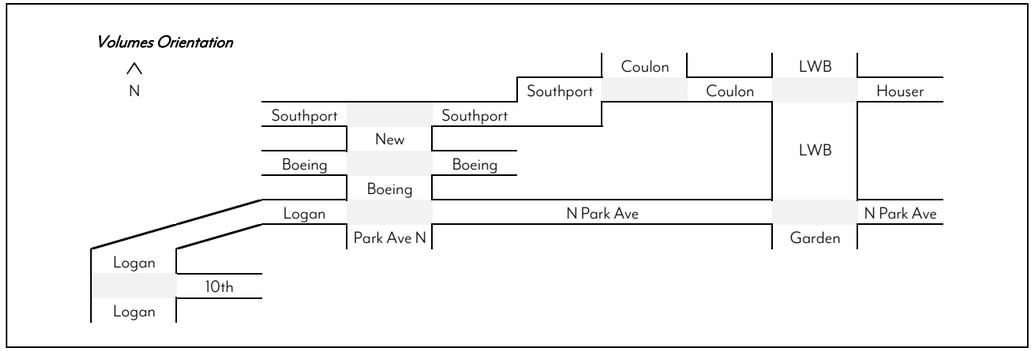
PM Southport / Coulon Park Trip Distribution (Continued) (Alternative A)

Alternative A - Class A												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+3	0	0	+2	
Logan / Park / Boeing	+3	0	0	0	0	0	0	+2	0	0	+1	+2
Park / Garden	0	0	0	0	0	+23	0	+5	0	+10	+2	0
LWB / Coulon / Houser	+1	+1	+12				+28	0	0	0	0	+1
Southport / Coulon	0	+14			+29	0				0		0
Southport / New		0	0	+3	0		0		+5			
Boeing / New	0	0	0	0	0	0	0	+5	0	0	+3	0

Alternative A - Class B (Built + Future)												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+36	0	0	+90	
Logan / Park / Boeing	+36	0	0	0	0	+41	0	+18	0	+102	+45	+90
Park / Garden	0	+88	+14	0	+36	+200	+5	+53	0	+498	+77	0
LWB / Coulon / Houser	+36	+54	+575				+253	0	0	0	0	+14
Southport / Coulon	0	+665			+267	0				0		0
Southport / New		+665	+237	0	+267		+95		0			
Boeing / New	0	0	0	0	0	0	0	+95	0	0	+237	0

Alternative A - Class C												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+2	0	0	+4	
Logan / Park / Boeing	+1	+1	0	+1	+2	0	0	+1	+1	0	+1	+2
Park / Garden	+2	0	0	0	0	+16	0	+5	0	+26	+4	+3
LWB / Coulon / Houser	+2	+2	+33				+23	0	0	0	0	+1
Southport / Coulon	+2	0			0	+24				+37		+3
Southport / New		+3	0	0	0		0		+2			
Boeing / New	0	0	0	0	0	0	0	+2	0	0	+3	0

Alternative A - All Classes Total												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+41	0	0	+96	
Logan / Park / Boeing	+40	+1	0	+1	+2	+41	0	+21	+1	+102	+47	+94
Park / Garden	+2	+88	+14	0	+36	+239	+5	+63	0	+534	+83	+3
LWB / Coulon / Houser	+39	+57	+620				+304	0	0	0	0	+16
Southport / Coulon	+2	+679			+296	+24				+37		+3
Southport / New		+668	+237	+3	+267		+95		+7			
Boeing / New	0	0	0	0	0	0	0	+102	0	0	+243	0



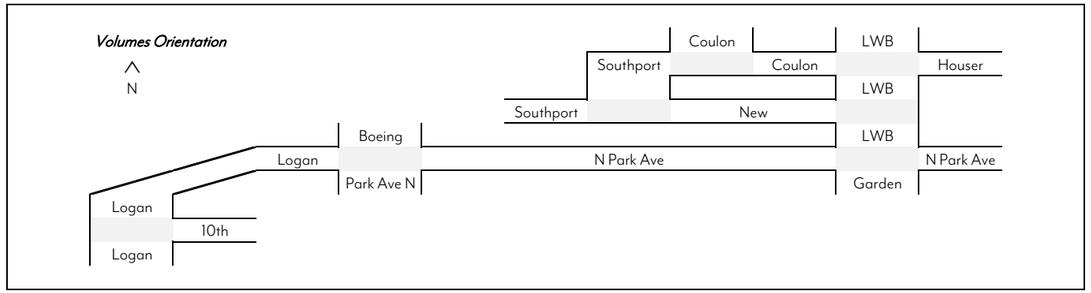
PM Southport / Coulon Park Trip Distribution (Continued) (Alternative B1)

Alternative B1 - Class A												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+3	0	0	+2	
Logan / Park / Boeing	0	+3	0	+1	+2	0	0	0	+2	0	0	0
Park / Garden	+5	0	0	0	0	+23	0	+5	0	+11	+2	+3
LWB / Coulon / Houser	+1	+1	+4				+11	0	0	0	0	+1
Southport / Coulon	0	+6			+12	0				0		0
Southport / New	0	0			0	+22				+12		0
LWB / New	0		+12				+22	+11			+4	0

Alternative B1 - Class B (Built + Future)												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+36	0	0	+90	
Logan / Park / Boeing	0	+36	0	+45	+90	0	0	0	+18	0	0	0
Park / Garden	+54	0	0	0	0	+236	0	+58	0	+587	+90	+135
LWB / Coulon / Houser	+18	+27	0				+11	+18	+27	0	+7	+7
Southport / Coulon	0	+45			+18	0				0		0
Southport / New	+45	+857			+344	0				0		+18
LWB / New	+45		+812				+337	+18			0	+7

Alternative B1 - Class C												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+3	0	0	+4	
Logan / Park / Boeing	0	+3	0	+2	+4	0	0	0	+1	0	0	0
Park / Garden	+4	0	0	0	0	+16	0	+5	0	+26	+4	+6
LWB / Coulon / Houser	+2	+2	+36				+25	0	0	0	0	+1
Southport / Coulon	0	0			0	+26				+40		0
Southport / New	0	0			0	0				0		0
LWB / New	0		0				0	+25			+36	0

Alternative B1 - All Classes Total												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+42	0	0	+96	
Logan / Park / Boeing	0	+42	0	+48	+96	0	0	0	+21	0	0	0
Park / Garden	+63	0	0	0	0	+275	0	+68	0	+624	+96	+144
LWB / Coulon / Houser	+21	+30	+40				+47	18	27	0	7	+9
Southport / Coulon	0	+51			+30	+26				+40		0
Southport / New	+45	+857			+344	+22				+12		+18
LWB / New	+45		+824				+359	+54			+40	+7



PM Southport / Coulon Park Trip Distribution (Continued) (Alternative B2)

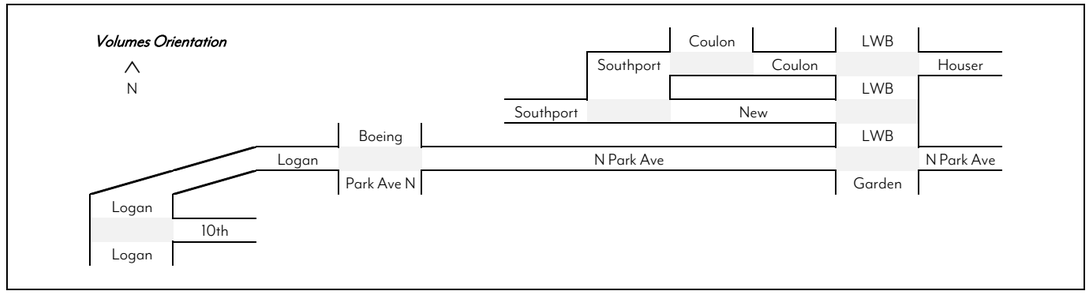
Alternative B2 - Class A												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		0	0	0	0	
Logan / Park / Boeing	0	+3	0	+1	+2	0	0	0	+2	0	0	0
Park / Garden	+5	0	0	0	0	+23	0	+5	0	+11	+2	+3
LWB / Coulon / Houser	+1	+1	+4				+33	0	0	0	0	+1
Southport / Coulon	0	+6			+34	0				0		0
Southport / New	0	0			0	0				+12		0
LWB / New	0		+12				0	+33			+4	0

Alternative B2 - Class B (Built + Future)												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+36	0	0	+90	
Logan / Park / Boeing	0	+36	0	+45	+90	0	0	0	+18	0	0	0
Park / Garden	+54	0	0	0	0	+236	0	+58	0	+587	+90	+135
LWB / Coulon / Houser	+18	+27	0				+348	+18	+27	0	+7	+7
Southport / Coulon	0	+45			+355	0				0		0
Southport / New	+45	+857			+7	0				0		+355
LWB / New	+45		+812				0	+348			0	+7

Alternative B2 - Class C												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+3	0	0	+4	
Logan / Park / Boeing	0	+3	0	+2	+4	0	0	0	+1	0	0	0
Park / Garden	+4	0	0	0	0	+16	0	+5	0	+26	+4	+6
LWB / Coulon / Houser	+2	+2	+36				+25	0	0	0	0	+1
Southport / Coulon	0	0			0	+26				+40		0
Southport / New	0	0			0	0				0		0
LWB / New	0		0				0	+25			+36	0

Alternative B2 - All Classes Total												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+39	0	0	+94	
Logan / Park / Boeing	0	+42	0	+48	+96	0	0	0	+21	0	0	0
Park / Garden	+63	0	0	0	0	+275	0	+68	0	+624	+96	+144
LWB / Coulon / Houser	+21	+30	+40				+406	+18	+27	0	+7	+9
Southport / Coulon	0	+51			+389	+26				+40		0
Southport / New	+45	+857			+7	0				+12		+355
LWB / New	+45		+824				0	+406			+40	+7

X = Volume change from Alternative B1



PM Southport / Coulon Park Trip Distribution (Continued) (Alternative B3)

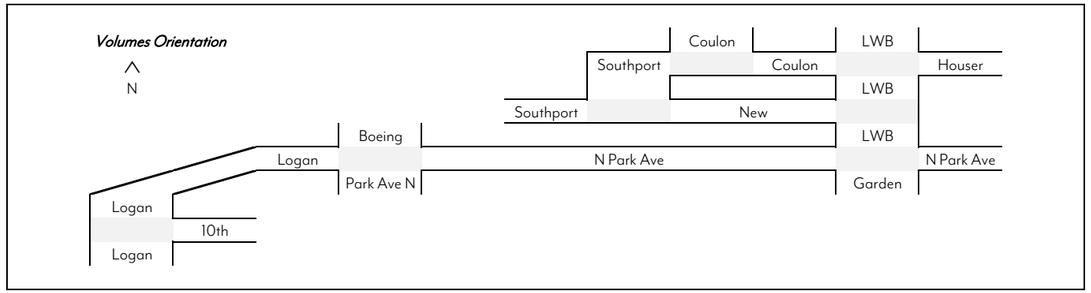
Alternative B3 - Class A												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		0	0	0	0	
Logan / Park / Boeing	0	+3	0	+1	+2	0	0	0	+2	0	0	0
Park / Garden	+5	0	0	0	0	+23	0	+5	0	+11	+2	+3
LWB / Coulon / Houser	+1	+1	+4				+33	0	0	0	0	+1
Southport / Coulon	0	+6			+34	0				0		0
Southport / New	0	0			0	0				+12		0
LWB / New	0		+12				0	+33			+4	0

Alternative B3 - Class B (Built + Future)												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+36	0	0	+90	
Logan / Park / Boeing	0	+36	0	+45	+90	0	0	0	+18	0	0	0
Park / Garden	+54	0	0	0	0	+236	0	+58	0	+587	+90	+135
LWB / Coulon / Houser	+36	+54	0				+348	0	0	0	0	+14
Southport / Coulon	0	+90			+362	0				0		0
Southport / New	+90	+812			0	0				0		+362
LWB / New	0		+812				0	+348			0	0

Alternative B3 - Class C												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+3	0	0	+4	
Logan / Park / Boeing	0	+3	0	+2	+4	0	0	0	+1	0	0	0
Park / Garden	+4	0	0	0	0	+16	0	+5	0	+26	+4	+6
LWB / Coulon / Houser	+2	+2	+36				+25	0	0	0	0	+1
Southport / Coulon	0	0			0	+26				+40		0
Southport / New	0	0			0	0				0		0
LWB / New	0		0				0	+25			+36	0

Alternative B3 - All Classes Total												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+39	0	0	+94	
Logan / Park / Boeing	0	+42	0	+48	+96	0	0	0	+21	0	0	0
Park / Garden	+63	0	0	0	0	+275	0	+68	0	+624	+96	+144
LWB / Coulon / Houser	+39	+57	+40				+406	0	0	0	0	+16
Southport / Coulon	0	+96			+396	+26				+40		0
Southport / New	+90	+812								+12		+362
LWB / New	0		+824				0	+406			+40	0

X = Volume change from Alternative B2



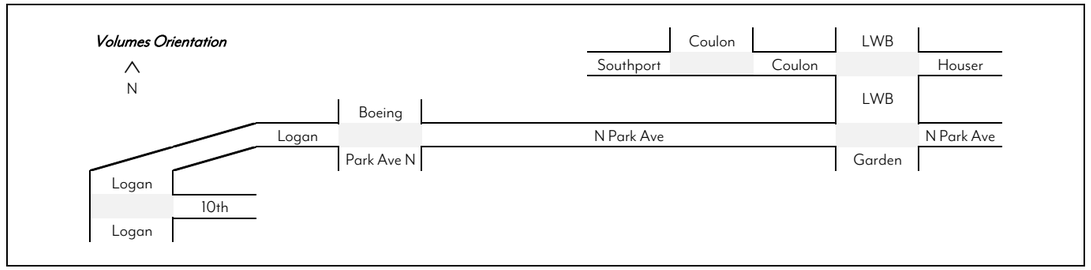
PM Southport / Coulon Park Trip Distribution (Continued) (Alternative C)

Alternative C - Class A												
Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM												
Logan / 10th				0		0		+3	0	0	+2	
Logan / Park / Boeing	0	+3	0	+1	+2	0	0	0	+2	0	0	0
Park / Garden	+5	0	0	0	0	+23	0	+5	0	+10	+2	+3
LWB / Coulon / Houser	+1	+1	+15				+33	0	0	0	0	+1
Southport / Coulon	0	+15			+34	0				0		0

Alternative C - Class B (Built + Future)												
Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM												
Logan / 10th				0		0		+36	0	0	+90	
Logan / Park / Boeing	0	+36	0	+45	+90	0	0	0	+18	0	0	0
Park / Garden	+54	0	0	0	0	+236	0	+58	0	+587	+90	+135
LWB / Coulon / Houser	+36	+54	+812				+348	0	0	0	0	+14
Southport / Coulon	0	+902			+362	0				0		0

Alternative C - Class C												
Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM												
Logan / 10th				0		0		+3	0	0	+4	
Logan / Park / Boeing	0	+3	0	+2	+4	0	0	0	+1	0	0	0
Park / Garden	+4	0	0	0	0	+16	0	+5	0	+26	+4	+6
LWB / Coulon / Houser	+2	+2	+36				+25	0	0	0	0	+1
Southport / Coulon	0	0			0	+26				+40		0

Alternative C - All Classes Total												
Intersection	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
PM												
Logan / 10th				0		0		+42	0	0	+96	
Logan / Park / Boeing	0	+42	0	+48	+96	0	0	0	+21	0	0	0
Park / Garden	+63	0	0	0	0	+275	0	+68	0	+623	+96	+144
LWB / Coulon / Houser	+39	+57	+863				+406	0	0	0	0	+16
Southport / Coulon	0	+917			+396	+26				+40		0

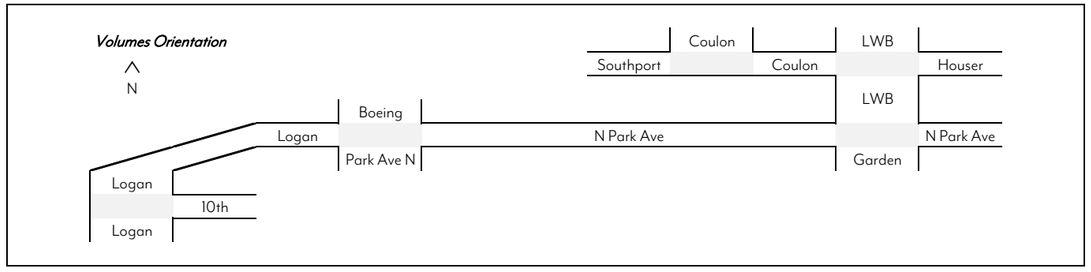


X — Volume decreased by 2 to return non-negative values on following tabs.

PM Existing Class A+B+C Trips; Existing Construction Trips

Existing Trips - All Classes Total [B (Built) = A]												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		+15	0	0	+12	
Logan / Park / Boeing	0	+15	0	+6	+12	0	0	0	+9	0	0	0
Park / Garden	+24	0	0	0	0	+108	0	+25	0	+66	+12	+18
LWB / Coulon / Houser	+4	+6	+94				+155	0	0	0	0	+5
Southport / Coulon	0	+61			+137	+26				+40		0

Existing (Temporary) Construction Trips												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		0	0	0	0	
Logan / Park / Boeing	0	0	0	0	0	0	0	0	0	0	0	0
Park / Garden	0	0	0	0	0	0	0	0	0	+48	0	0
LWB / Coulon / Houser	+3	+4	+48				0	0	0	0	0	0
Southport / Coulon	0	+55			0	0				0		0



X	Volume increased by 1 to zero Southport / Coulon traffic on following tabs.
X	Volume reduced by 2 to avoid a negative volume on following tabs.

General formula is 4x(Class A)+(Class C), since 3xClass A = Class B (Built) volumes with the existing roadway network

PM 2019 (Year of Opening) Volumes with Non-Southport Volumes

Existing Volumes *(from "Existing Balanced Volumes" Tab)*												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				89		78		602	87	84	496	
Logan / Park / Boeing	5	626	20	247	582	3	28	1	317	14	5	3
Park / Garden	222	696	38	336	601	109	17	174	561	143	111	213
LWB / Coulon / Houser	6	10	140				155	350	2	26	320	7
Southport / Coulon	0	116			137	25				40		0

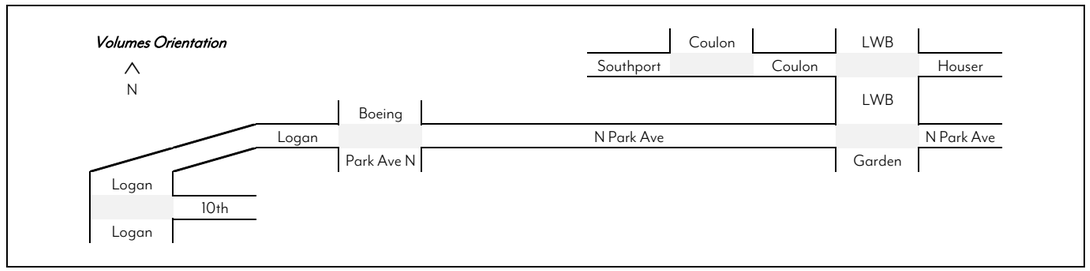
Existing Trips - All Classes Total *(from "PM Existing Class A B C Trips" Tab)*												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		0	0	0	0	
Logan / Park / Boeing	0	15	0	6	12	0	0	0	9	0	0	0
Park / Garden	24	0	0	0	0	108	0	25	0	66	12	18
LWB / Coulon / Houser	3	6	92				155	0	0	0	0	7
Southport / Coulon	0	61			137	25				40		0

Existing (Temporary) Construction Trips *(from "PM Existing Class A B C Trips" Tab)*												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		0	0	0	0	
Logan / Park / Boeing	0	0	0	0	0	0	0	0	0	0	0	0
Park / Garden	0	0	0	0	0	0	0	0	0	48	0	0
LWB / Coulon / Houser	3	4	48				0	0	0	0	0	0
Southport / Coulon	0	55			0	0				0		0

Existing Volumes without Class and Construction Volumes												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				89		78		602	87	84	496	
Logan / Park / Boeing	5	611	20	241	570	3	28	1	308	14	5	3
Park / Garden	198	696	38	336	601	1	17	149	561	29	99	195
LWB / Coulon / Houser	0	0	0				0	350	2	26	320	0
Southport / Coulon	0	0			0	0				0		0

2019 Volumes without Class and Construction Volumes												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				91		80		614	89	86	506	
Logan / Park / Boeing	5	623	20	246	581	3	29	1	314	14	5	3
Park / Garden	202	710	39	343	613	1	17	152	572	30	101	199
LWB / Coulon / Houser	0	0	0				0	357	2	27	326	0
Southport / Coulon	0	0			0	0				0		0

2019 Volumes with Non-Southport Pipeline Volumes without Class Volumes												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				91		80		658	89	86	533	
Logan / Park / Boeing	5	667	20	246	608	3	29	1	314	14	5	3
Park / Garden	246	710	39	343	613	36	17	165	572	61	110	226
LWB / Coulon / Houser	0	0	0				0	449	2	27	393	0
Southport / Coulon	0	0			0	0				0		0



Note:

- 2019 analysis year (of opening)

- All volumes rounded to nearest vehicle

- Annual growth rate = 1%
- Over 2 years = 1.0201

X	Cell manually reduced by 1 to remove rounding error that was returning a negative value in the fourth table.
X	Cell manually reduced by 2 to remove rounding error that was returning a negative value in the fourth table.
X	Cell manually increased by 2 to remove rounding error that was returning a negative value in the fourth table.

General process:

1 Subtract existing Class A+B+C trips and Southport construction from existing balanced volumes
2 Apply annual growth rate (over 2 years) to result from (1)
3 Add in non-Southport pipeline developments to result from (2)
4 (See "PM 2019 Alternatives Volumes" for calculation) Add in alternative-specific Class A+B+C volumes.

PM 2019 (Year of Opening) Alternatives Volumes

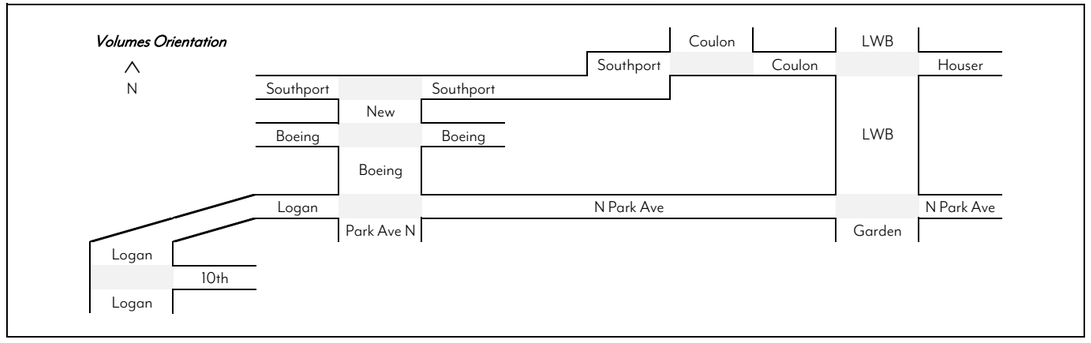
Baseline												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				91		80		700	89	86	629	
Logan / Park / Boeing	5	709	20	294	704	3	29	1	335	14	5	3
Park / Garden	309	710	39	343	613	311	17	233	572	684	206	370
LWB / Coulon / Houser	39	57	863				406	449	2	27	393	16
Southport / Coulon	0	917			396	26				40		0

Garden Modification												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				108		80		700	89	86	612	
Logan / Park / Boeing	5	709	20	294	687	3	29	1	335	14	5	3
Park / Garden	309	710	39	343	613	311		233	572	684	206	370
LWB / Coulon / Houser	39	57	863				406	449	2	27	393	16
Southport / Coulon	0	917			396	26				40		0

Alternative A												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				91		80		700	89	86	629	
Logan / Park / Boeing	45	668	20	247	610	44	29	22	315	116	52	97
Park / Garden	248	798	53	343	649	275	22	228	572	595	193	229
LWB / Coulon / Houser	39	57	620				304	449	2	27	393	16
Southport / Coulon	2	679			296	24				37		3
Southport / New		668	237	3	267		95		7			
Boeing / New	0	0	22	0	0	0	4	102	5	0	243	0

Alternative A + Garden Modification												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				108		80		700	89	86	612	
Logan / Park / Boeing	45	668	20	247	593	20	29	46	315	116	52	97
Park / Garden	248	798	53	343	649	275		228	572	595	193	229
LWB / Coulon / Houser	39	57	620				304	449	2	27	393	16
Southport / Coulon	2	679			296	24				37		3
Southport / New		668	237	3	267		95		7			
Boeing / New	0	0	22	0	0	0	4	102	5	0	243	0

Alternative A Intersection Orientations



Note:

- All intersection details (PHF, HV%, Ped Volumes, Bike Volumes) match existing conditions. For new intersections, PHF = 0.92 and HV% = 2% for all movements. Assume no bike or ped volumes.

X — Manually adjusted to match other scenarios (correct rounding errors)

PM 2040 Volumes with Non-Southport Volumes

Existing Volumes *(from "Existing Balanced Volumes" Tab)*												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				89		78		602	87	84	496	
Logan / Park / Boeing	5	626	20	247	582	3	28	1	317	14	5	3
Park / Garden	222	696	38	336	601	109	17	174	561	143	111	213
LWB / Coulon / Houser	6	10	140				155	350	2	26	320	7
Southport / Coulon	0	116			137	25				40		0

Existing Trips - All Classes Total *(from "PM Existing Class A B C Trips" Tab)*												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		0	0	0	0	
Logan / Park / Boeing	0	15	0	6	12	0	0	0	9	0	0	0
Park / Garden	24	0	0	0	0	108	0	25	0	66	12	18
LWB / Coulon / Houser	3	6	92				155	0	0	0	0	7
Southport / Coulon	0	61			137	25				40		0

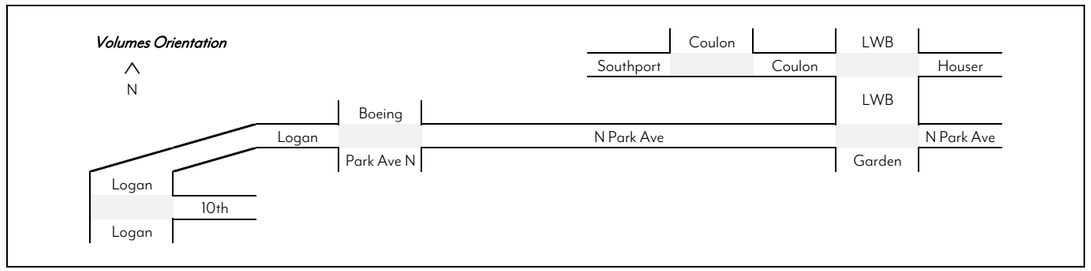
Existing (Temporary) Construction Trips *(from "PM Existing Class A B C Trips" Tab)*												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				0		0		0	0	0	0	
Logan / Park / Boeing	0	0	0	0	0	0	0	0	0	0	0	0
Park / Garden	0	0	0	0	0	0	0	0	0	48	0	0
LWB / Coulon / Houser	3	4	48				0	0	0	0	0	0
Southport / Coulon	0	55			0	0				0		0

Existing Volumes without Class and Construction Volumes												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				89		78		602	87	84	496	
Logan / Park / Boeing	5	611	20	241	570	3	28	1	308	14	5	3
Park / Garden	198	696	38	336	601	1	17	149	561	29	99	195
LWB / Coulon / Houser	0	0	0				0	350	2	26	320	0
Southport / Coulon	0	0			0	0				0		0

2040 Volumes without Class and Construction Volumes												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				112		98		757	109	106	624	
Logan / Park / Boeing	6	768	25	303	717	4	35	1	387	18	6	4
Park / Garden	249	875	48	422	756	1	21	187	705	36	124	245
LWB / Coulon / Houser	0	0	0				0	440	3	33	402	0
Southport / Coulon	0	0			0	0				0		0

2040 Volumes with Non-Southport Pipeline Volumes without Class Volumes												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				112		98		801	109	106	651	
Logan / Park / Boeing	6	812	25	303	744	4	35	1	387	18	6	4
Park / Garden	293	875	48	422	756	36	21	200	705	67	133	272
LWB / Coulon / Houser	0	0	0				0	532	3	33	469	0
Southport / Coulon	0	0			0	0				0		0

(New) / LWB (Alternative B only)								535			469	



Note:

- 2040 analysis year

- All volumes rounded to nearest vehicle

- Annual growth rate = 1%
- Over 23 years = 1.25716

X	Cell manually reduced by 1 to remove rounding error that was returning a negative value in the fourth table.
X	Cell manually reduced by 2 to remove rounding error that was returning a negative value in the fourth table.
X	Cell manually increased by 2 to remove rounding error that was returning a negative value in the fourth table.

General process:

1 Subtract existing Class A+B+C trips and Southport construction from existing balanced volumes
2 Apply annual growth rate (over 23 years) to result from (1)
3 Add in non-Southport pipeline developments to result from (2)
4 (See "PM 2040 Alternatives Volumes" for calculation) Add in alternative-specific Class A+B+C volumes.

PM 2040 Alternatives Volumes

Alternative A												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				174		98		843	109	106	685	
Logan / Park / Boeing	46	813	25	392	658	45	35	22	388	120	53	98
Park / Garden	295	963	62	422	792	275	26	263	705	601	216	275
LWB / Coulon / Houser	39	57	620				304	532	3	33	469	16
Southport / Coulon	2	679			296	24				37		3
Southport / New		668	237	3	267		95		7			
Boeing / New	0	0	28	0	0	0	5	102	6	0	243	0

Alternative B1												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				112		98		843	109	106	747	
Logan / Park / Boeing	6	854	25	351	840	4	35	1	408	18	6	4
Park / Garden	356	875	48	422	756	311	21	268	705	691	229	416
LWB / Coulon / Houser	21	30	40				47	550	30	33	476	9
Southport / Coulon	0	51			30	26				40		0
Southport / New	45	857			344	22				12		18
LWB / New	45		824				359	589			509	7

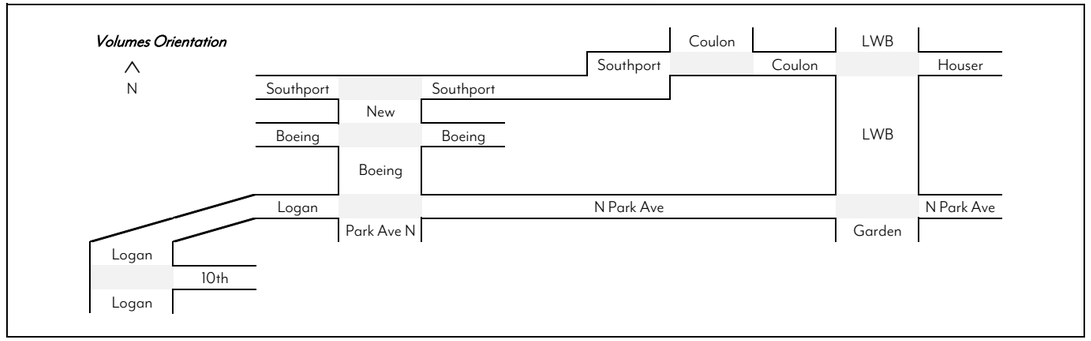
Alternative B2												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				112		98		843	109	106	747	
Logan / Park / Boeing	6	854	25	351	840	4	35	1	408	18	6	4
Park / Garden	356	875	48	422	756	311	21	268	705	691	229	416
LWB / Coulon / Houser	21	30	40				406	550	30	33	476	9
Southport / Coulon	0	51			389	26				40		0
Southport / New	45	857			7	0				12		355
LWB / New	45		824					941			509	7

Alterntive B3												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				112		98		843	109	106	747	
Logan / Park / Boeing	6	854	25	351	840	4	35	1	408	18	6	4
Park / Garden	356	875	48	422	756	311	21	268	705	691	229	416
LWB / Coulon / Houser	39	57	40				406	532	3	33	469	16
Southport / Coulon	0	96			396	26				40		0
Southport / New	90	812								12		362
LWB / New	0		824					941			509	0

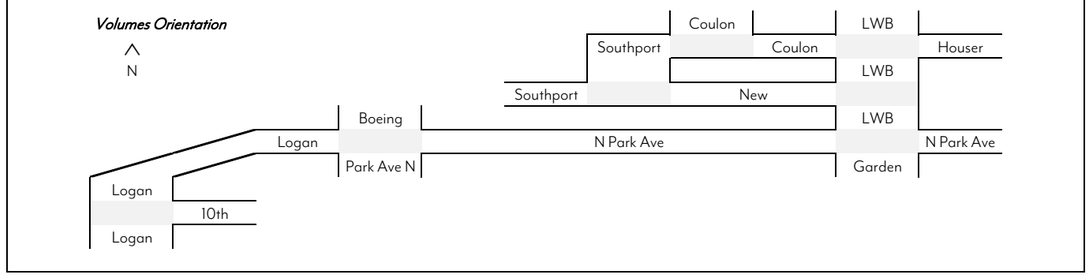
Alternative C / Baseline												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				174		98		843	109	106	685	
Logan / Park / Boeing	6	854	25	439	752	4	35	1	408	18	6	4
Park / Garden	356	875	48	422	756	311	21	268	705	690	229	416
LWB / Coulon / Houser	39	57	863				406	532	3	33	469	16
Southport / Coulon	0	917			396	26				40		0

Garden Modification												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				195		98		843	109	106	664	
Logan / Park / Boeing	6	854	25	439	731	4	35	1	408	18	6	4

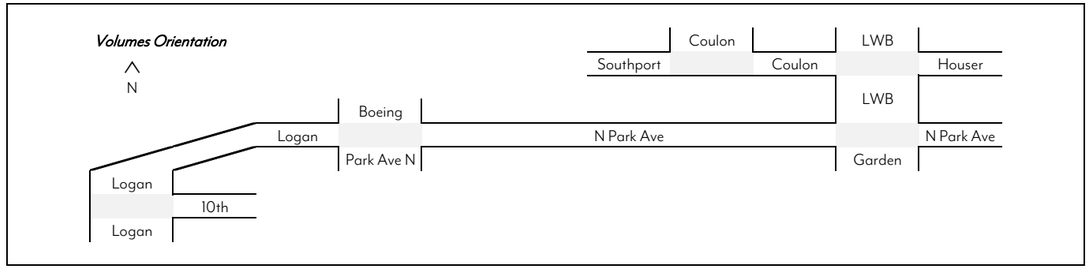
Alternative A Intersection Orientations



Alternative B1 / B2 / B3 Intersection Orientations



Alternative C Intersection Orientations



Note:

- All intersection details (PHF, HV%, Ped Volumes, Bike Volumes) match existing conditions. For new intersections, PHF = 0.92 and HV% = 2% for all movements. Assume no bike or ped volumes.

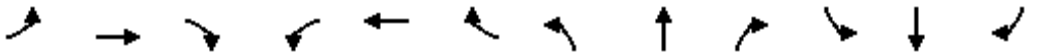
X — Manually adjusted to match other scenarios (correct rounding errors)

Park / Garden	356	875	48	422	756	311		268	705	690	229	416
LWB / Coulon / Houser	39	57	863				406	532	3	33	469	16
Southport / Coulon	0	917			396	26				40		0

Alternative A with Garden Modification												
Intersection	**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**
PM												
Logan / 10th				195		98		843	109	106	664	
Logan / Park / Boeing	46	813	25	392	637	41	35	26	388	120	53	98
Park / Garden	295	963	62	422	792	275		263	705	601	216	275
LWB / Coulon / Houser	39	57	620				304	532	3	33	469	16
Southport / Coulon	2	679			296	24				37		3
Southport / New		668	237	3	267		95		7			
Boeing / New	0	0	28	0	0	0	5	102	6	0	243	0

APPENDIX A-2

Screening Analysis Synchro Worksheets

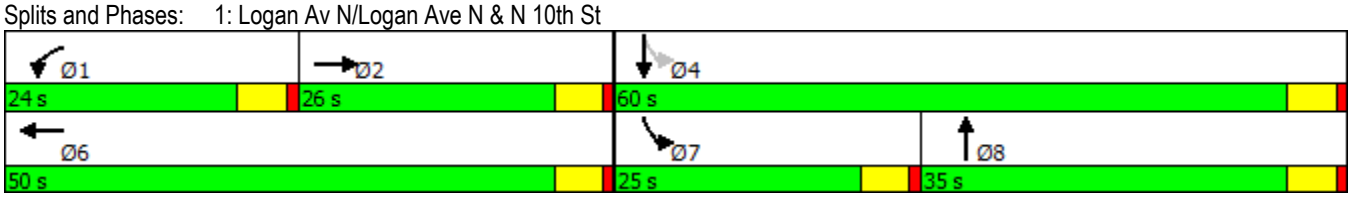


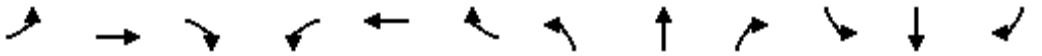
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	12	0	8	0	466	20	17	444	0
Future Volume (vph)	0	0	0	12	0	8	0	466	20	17	444	0
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.88			1.00			1.00	
Frt					0.850			0.994				
Flt Protected				0.950							0.998	
Satd. Flow (prot)	0	2451	0	2284	1802	0	0	2298	0	0	4515	0
Flt Permitted				0.950							0.931	
Satd. Flow (perm)	0	2451	0	2284	1802	0	0	2298	0	0	4211	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					521			2				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						91			6	6		
Peak Hour Factor	0.90	0.90	0.90	0.97	0.97	0.97	0.90	0.97	0.97	0.97	0.97	0.90
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	8%	8%	5%	5%	2%
Adj. Flow (vph)	0	0	0	12	0	8	0	480	21	18	458	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	12	8	0	0	501	0	0	476	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		1		1	1			1		1	1	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		100		20	100			100		20	100	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		26.0		24.0	32.0			27.0		25.0	27.0	
Total Split (s)		26.0		24.0	50.0			35.0		25.0	60.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)		23.6%		21.8%	45.5%			31.8%		22.7%	54.5%	
Maximum Green (s)		21.0		19.0	45.0			30.0		20.0	55.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		-5.0		-5.0	-5.0			-5.0			-5.0	
Total Lost Time (s)		0.0		0.0	0.0			0.0			0.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Act Effct Green (s)				50.0	50.0			60.0			60.0	
Actuated g/C Ratio				0.45	0.45			0.55			0.55	
v/c Ratio				0.01	0.01			0.40			0.21	
Control Delay				16.6	0.0			15.7			13.1	
Queue Delay				0.0	0.0			0.0			0.0	
Total Delay				16.6	0.0			15.7			13.1	
LOS				B	A			B			B	
Approach Delay					9.9			15.7			13.1	
Approach LOS					A			B			B	
Queue Length 50th (ft)				5	0			195			86	
Queue Length 95th (ft)				16	0			271			115	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				1038	1103			1254			2296	
Starvation Cap Reductn				0	0			0			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.01	0.01			0.40			0.21	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Natural Cycle: 105			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 14.3		Intersection LOS: B	
Intersection Capacity Utilization 32.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St



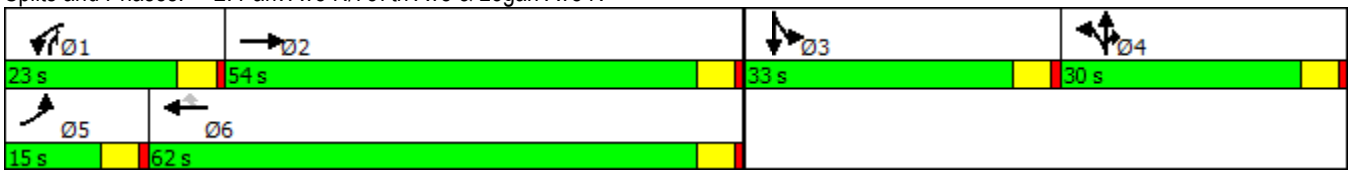


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	467	3	144	427	21	28	18	386	16	10	6
Future Volume (vph)	12	467	3	144	427	21	28	18	386	16	10	6
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor						0.97					0.99	
Frt		0.999				0.850			0.850		0.947	
Flt Protected	0.950			0.950				0.971		0.950		
Satd. Flow (prot)	2179	4353	0	4430	4567	2043	0	2227	3431	3031	1537	0
Flt Permitted	0.950			0.950				0.971		0.950		
Satd. Flow (perm)	2179	4353	0	4430	4567	1989	0	2227	3431	3031	1537	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						94			406		6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			281	
Travel Time (s)		31.8			11.3			14.1			6.4	
Confl. Peds. (#/hr)						6						21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	9%	4%	4%	4%	9%	9%	9%	52%	52%	52%
Adj. Flow (vph)	13	492	3	152	449	22	29	19	406	17	11	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	495	0	152	449	22	0	48	406	17	17	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1	1	1	1	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	100		20	100	20	20	100	20	20	100	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	15.0	54.0		23.0	62.0	62.0	30.0	30.0		33.0	33.0	
Total Split (%)	10.7%	38.6%		16.4%	44.3%	44.3%	21.4%	21.4%		23.6%	23.6%	
Maximum Green (s)	10.0	49.0		18.0	57.0	57.0	25.0	25.0		28.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0		-5.0		-5.0	-5.0	
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Act Effct Green (s)	11.7	17.4		13.1	28.7	28.7		12.7	25.7	11.9	11.9	
Actuated g/C Ratio	0.25	0.37		0.28	0.61	0.61		0.27	0.55	0.25	0.25	
v/c Ratio	0.02	0.31		0.12	0.16	0.02		0.08	0.20	0.02	0.04	
Control Delay	19.2	12.4		16.0	6.5	0.0		17.2	1.5	18.8	16.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	19.2	12.4		16.0	6.5	0.0		17.2	1.5	18.8	16.2	
LOS	B	B		B	A	A		B	A	B	B	
Approach Delay		12.6			8.6			3.2			17.5	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	2	36		12	10	0		8	0	1	2	
Queue Length 95th (ft)	17	107		44	87	0		39	21	10	18	
Internal Link Dist (ft)		1321			418			539			201	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	738	4178		2301	4540	1978		1508	2795	2259	1146	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.02	0.12		0.07	0.10	0.01		0.03	0.15	0.01	0.01	

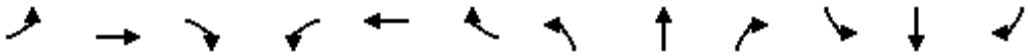
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 46.8			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.31			
Intersection Signal Delay: 8.5		Intersection LOS: A	
Intersection Capacity Utilization 35.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Park Ave N/757th Ave & Logan Ave N



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	305	542	23	194	461	227	4	367	214	88	38	128
Future Volume (vph)	305	542	23	194	461	227	4	367	214	88	38	128
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00						1.00				0.96
Frt		0.994				0.850		0.992	0.850			0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	4266	4365	0	4430	4567	2043	0	2221	1778	2065	2328	2014
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	4266	4365	0	4430	4567	2043	0	2221	1778	2065	2328	1927
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				187		2	171			141
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			35			7			2			31
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	6%	6%	6%	2%	2%	2%
Adj. Flow (vph)	335	596	25	213	507	249	4	403	235	97	42	141
Shared Lane Traffic (%)									10%	0%		
Lane Group Flow (vph)	335	621	0	213	507	249	0	431	211	97	42	141
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø6	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Prot	NA	custom
Protected Phases	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Permitted Phases												9
Detector Phase	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0		10.0		
Total Split (s)	23.0	57.0		22.0			49.0	49.0		16.0		
Total Split (%)	15.5%	38.5%		14.9%			33.1%	33.1%		10.8%		
Maximum Green (s)	18.0	52.0		17.0			44.0	44.0		11.0		
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0		1.0		
Lost Time Adjust (s)	-5.0	-5.0		-5.0				-5.0		-5.0		
Total Lost Time (s)	0.0	0.0		0.0				0.0		0.0		
Lead/Lag	Lead	Lead		Lag			Lead	Lead				
Lead-Lag Optimize?	Yes						Yes	Yes				
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0		4.0		
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0		3.0		
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0		5.0		
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0		5.0		
Recall Mode	None	None		None			None	None		None		
Act Effct Green (s)	19.5	31.8		17.2	29.5	45.0		31.8	49.1	15.4	19.6	39.0
Actuated g/C Ratio	0.19	0.32		0.17	0.29	0.45		0.32	0.49	0.15	0.20	0.39
v/c Ratio	0.41	0.45		0.28	0.38	0.24		0.61	0.22	0.31	0.11	0.16
Control Delay	39.6	29.2		40.3	29.9	3.5		34.2	4.6	46.2	42.7	5.2
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	29.2		40.3	29.9	3.5		34.2	4.6	46.2	42.7	5.2
LOS	D	C		D	C	A		C	A	D	D	A
Approach Delay		32.9			25.4			24.4			25.0	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	95	162		61	134	11		238	13	56	23	0
Queue Length 95th (ft)	178	265		120	219	47		420	60	140	69	46
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	1013	2570		1006	2641	1481		1124	1259	341	406	947
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.33	0.24		0.21	0.19	0.17		0.38	0.17	0.28	0.10	0.15

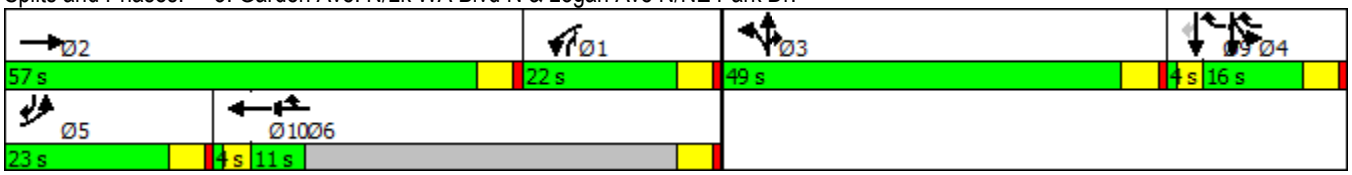
Intersection Summary	
Area Type:	Other
Cycle Length: 148	

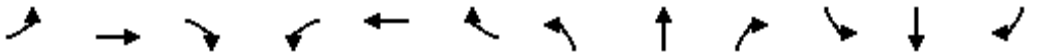
Lane Group	Ø6	Ø9	Ø10
Detector 2 Extend (s)			
Detector 3 Position(ft)			
Detector 3 Size(ft)			
Detector 3 Type			
Detector 3 Channel			
Detector 3 Extend (s)			
Turn Type			
Protected Phases	6	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	1.0	1.0
Minimum Split (s)	10.0	4.0	4.0
Total Split (s)	11.0	4.0	4.0
Total Split (%)	7%	3%	3%
Maximum Green (s)	6.0	1.0	1.0
Yellow Time (s)	4.0	3.0	3.0
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	10.0	0.0	0.0
Time To Reduce (s)	10.0	0.0	0.0
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

Actuated Cycle Length: 100.4	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 27.7	Intersection LOS: C
Intersection Capacity Utilization 52.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





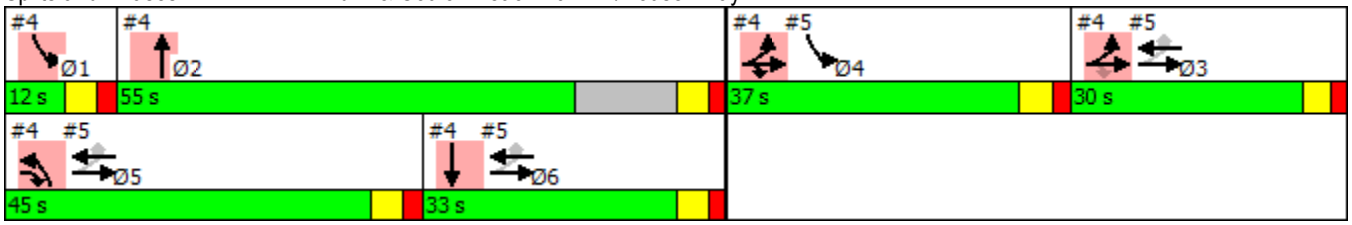
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	5	73	0	0	0	85	749	78	18	180	6
Future Volume (vph)	9	5	73	0	0	0	85	749	78	18	180	6
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.98								1.00	
Frt			0.850					0.986			0.995	
Flt Protected		0.969					0.950			0.950		
Satd. Flow (prot)	0	2264	1986	0	0	0	2262	2348	0	2328	2437	0
Flt Permitted		0.969					0.950			0.950		
Satd. Flow (perm)	0	2264	1945	0	0	0	2262	2348	0	2328	2437	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77					5			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			818			721	
Travel Time (s)		4.3			8.7			18.6			16.4	
Confl. Peds. (#/hr)			1									4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	7%	7%	7%	0%	0%	0%	5%	5%	5%	2%	2%	2%
Adj. Flow (vph)	9	5	77	0	0	0	89	788	82	19	189	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	77	0	0	0	89	870	0	19	195	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1				1	1		1	1	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	100	20				20	100		20	100	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Turn Type	Split	NA	custom				Prot	NA		Prot	NA	
Protected Phases	3 4	3 4	4 5				5	2		1	6	
Permitted Phases			3									
Detector Phase	3 4	3 4	4 5				5	2		1	6	
Switch Phase												
Minimum Initial (s)							5.0	5.0		5.0	5.0	
Minimum Split (s)							24.0	26.0		10.5	32.5	
Total Split (s)							45.0	55.0		12.0	33.0	

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	28.0	26.0
Total Split (s)	30.0	37.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)							31.0%	37.9%		8.3%	22.8%	
Maximum Green (s)							39.5	49.5		6.5	27.5	
Yellow Time (s)							3.5	3.5		3.5	3.5	
All-Red Time (s)							2.0	2.0		2.0	2.0	
Lost Time Adjust (s)							-5.0	-5.0		-5.0	-5.0	
Total Lost Time (s)							0.5	0.5		0.5	0.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)							3.0	3.0		3.0	3.0	
Recall Mode							None	Max		None	Max	
Act Effct Green (s)		20.1	33.0				13.8	55.3		11.2	45.2	
Actuated g/C Ratio		0.25	0.41				0.17	0.69		0.14	0.56	
v/c Ratio		0.02	0.09				0.23	0.54		0.06	0.14	
Control Delay		24.9	4.1				32.2	9.5		34.1	9.6	
Queue Delay		0.0	0.0				0.0	0.0		0.0	0.0	
Total Delay		24.9	4.2				32.2	9.5		34.1	9.6	
LOS		C	A				C	A		C	A	
Approach Delay		7.3						11.6			11.8	
Approach LOS		A						B			B	
Queue Length 50th (ft)		5	1				37	159		8	46	
Queue Length 95th (ft)		21	23				85	403		30	87	
Internal Link Dist (ft)		110			303			738			641	
Turn Bay Length (ft)												
Base Capacity (vph)		1162	1630				1276	1951		339	1377	
Starvation Cap Reductn		0	327				0	0		0	0	
Spillback Cap Reductn		0	0				0	0		0	0	
Storage Cap Reductn		0	0				0	0		0	0	
Reduced v/c Ratio		0.01	0.06				0.07	0.45		0.06	0.14	

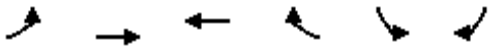
Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 80			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 51.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N

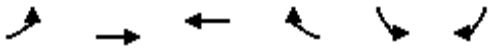


Lane Group	Ø3	Ø4
Total Split (%)	21%	26%
Maximum Green (s)	25.0	31.5
Yellow Time (s)	3.0	3.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



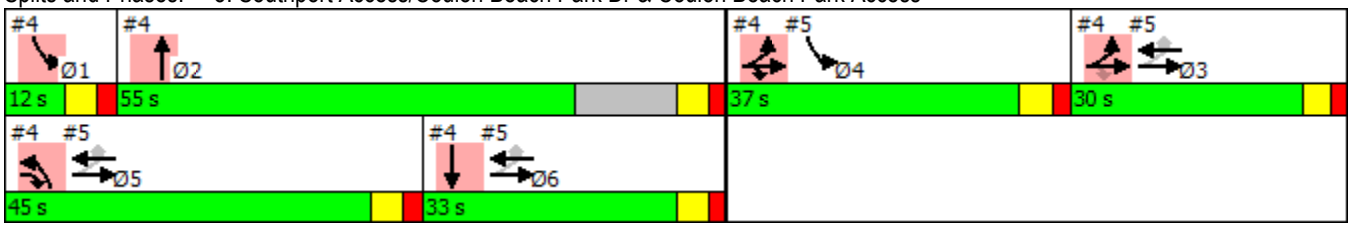
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	0	86	71	20	1	0					
Future Volume (vph)	0	86	71	20	1	0					
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			1	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Frt				0.850							
Flt Protected					0.950						
Satd. Flow (prot)	0	2451	2451	2083	2328	0					
Flt Permitted					0.950						
Satd. Flow (perm)	0	2451	2451	2083	2328	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)				22							
Link Speed (mph)		30	30		30						
Link Distance (ft)		676	190		350						
Travel Time (s)		15.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Adj. Flow (vph)	0	93	77	22	1	0					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	93	77	22	1	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	1	1	1	1						
Detector Template	Left	Thru	Thru	Right	Left						
Leading Detector (ft)	20	100	100	20	20						
Trailing Detector (ft)	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0						
Detector 1 Size(ft)	20	100	100	20	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0						
Turn Type		NA	NA	Perm	Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6
Permitted Phases	3 5 6			3 5 6							
Detector Phase	3 5 6	3 5 6	3 5 6	3 5 6	4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					26.0		10.5	26.0	28.0	24.0	32.5
Total Split (s)					37.0		12.0	55.0	30.0	45.0	33.0

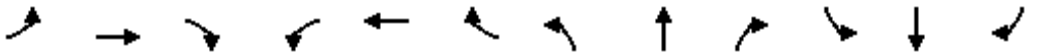


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Total Split (%)					25.5%		8%	38%	21%	31%	23%
Maximum Green (s)					31.5		6.5	49.5	25.0	39.5	27.5
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					-5.0						
Total Lost Time (s)					0.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Act Effct Green (s)		71.1	71.1	71.1	11.1						
Actuated g/C Ratio		0.89	0.89	0.89	0.14						
v/c Ratio		0.04	0.04	0.01	0.00						
Control Delay		0.9	0.1	0.0	34.0						
Queue Delay		0.0	0.3	0.0	0.0						
Total Delay		0.9	0.4	0.0	34.0						
LOS		A	A	A	C						
Approach Delay		0.9	0.3		34.0						
Approach LOS		A	A		C						
Queue Length 50th (ft)		4	0	0	0						
Queue Length 95th (ft)		9	1	0	5						
Internal Link Dist (ft)		596	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		2177	2177	1853	1077						
Starvation Cap Reductn		0	1768	0	0						
Spillback Cap Reductn		0	0	0	0						
Storage Cap Reductn		0	0	0	0						
Reduced v/c Ratio		0.04	0.19	0.01	0.00						

Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 80			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 0.8		Intersection LOS: A	
Intersection Capacity Utilization 15.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access



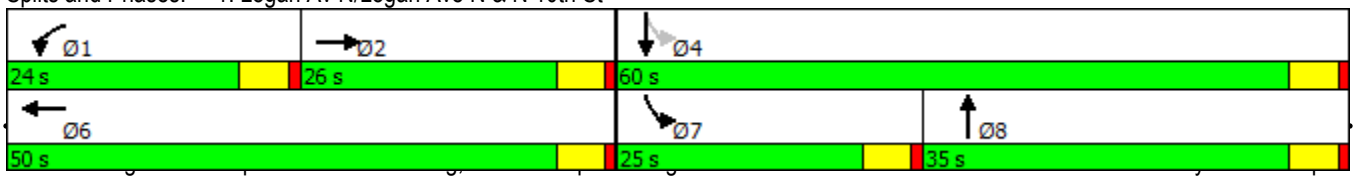


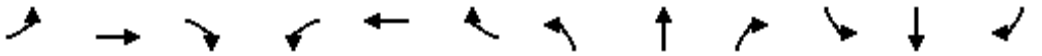
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	89	0	78	0	602	87	84	496	0
Future Volume (vph)	0	0	0	89	0	78	0	602	87	84	496	0
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.89			1.00				
Frt					0.850			0.983				
Flt Protected				0.950							0.993	
Satd. Flow (prot)	0	2451	0	2351	1874	0	0	2398	0	0	4670	0
Flt Permitted				0.950							0.641	
Satd. Flow (perm)	0	2451	0	2351	1874	0	0	2398	0	0	3015	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					478			7				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	94	0	82	0	634	92	88	522	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	94	82	0	0	726	0	0	610	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		26.0		24.0	32.0			27.0		25.0	27.0	
Total Split (s)		26.0		24.0	50.0			35.0		25.0	60.0	
Total Split (%)		23.6%		21.8%	45.5%			31.8%		22.7%	54.5%	
Maximum Green (s)		21.0		19.0	45.0			30.0		20.0	55.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		-5.0		-5.0	-5.0			-5.0			-5.0	
Total Lost Time (s)		0.0		0.0	0.0			0.0			0.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Act Effct Green (s)				50.0	50.0			60.0			60.0	
Actuated g/C Ratio				0.45	0.45			0.55			0.55	
v/c Ratio				0.09	0.07			0.55			0.37	
Control Delay				17.4	0.1			18.1			15.1	
Queue Delay				0.0	0.0			1.2			0.0	
Total Delay				17.4	0.1			19.3			15.1	
LOS				B	A			B			B	
Approach Delay					9.3			19.3			15.1	
Approach LOS					A			B			B	
Queue Length 50th (ft)				37	0			315			123	
Queue Length 95th (ft)				67	0			423			162	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				1068	1112			1311			1644	
Starvation Cap Reductn				0	0			350			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.09	0.07			0.76			0.37	

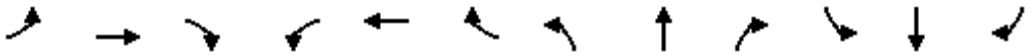
Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Natural Cycle: 105			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





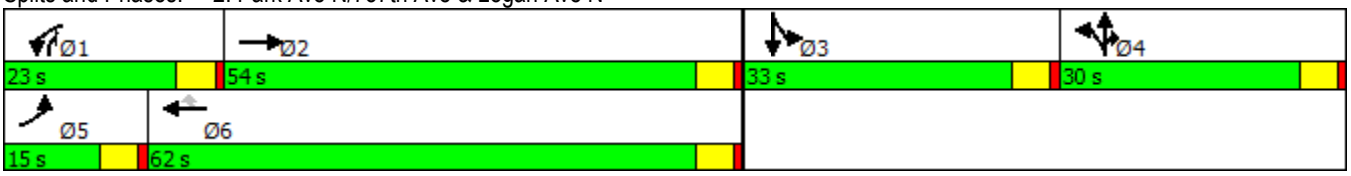
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	626	20	247	582	3	28	1	317	14	5	3
Future Volume (vph)	5	626	20	247	582	3	28	1	317	14	5	3
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.97					0.99	
Frt		0.995				0.850			0.850		0.944	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	2328	4632	0	4517	4657	2083	0	2316	3631	3777	1906	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	2328	4632	0	4517	4657	2023	0	2316	3631	3777	1906	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				94			327		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			281	
Travel Time (s)		31.8			11.3			14.1			6.4	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	5	645	21	255	600	3	29	1	327	14	5	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	666	0	255	600	3	0	30	327	14	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	15.0	54.0		23.0	62.0	62.0	30.0	30.0		33.0	33.0	
Total Split (%)	10.7%	38.6%		16.4%	44.3%	44.3%	21.4%	21.4%		23.6%	23.6%	
Maximum Green (s)	10.0	49.0		18.0	57.0	57.0	25.0	25.0		28.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0		-5.0		-5.0	-5.0	
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Act Effct Green (s)	11.6	20.3		14.4	33.1	33.1		12.2	26.6	11.6	11.6	
Actuated g/C Ratio	0.23	0.40		0.29	0.66	0.66		0.24	0.53	0.23	0.23	
v/c Ratio	0.01	0.36		0.20	0.20	0.00		0.05	0.16	0.02	0.02	
Control Delay	21.6	12.2		16.4	5.5	0.0		19.9	1.7	21.1	18.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	21.6	12.2		16.4	5.5	0.0		19.9	1.7	21.1	18.6	
LOS	C	B		B	A	A		B	A	C	B	
Approach Delay		12.3			8.7			3.3			20.2	
Approach LOS		B			A			A			C	
Queue Length 50th (ft)	1	54		24	13	0		6	0	1	1	
Queue Length 95th (ft)	10	143		70	107	0		30	21	9	13	
Internal Link Dist (ft)		1321			418			539			201	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	728	4352		2166	4572	1988		1448	2708	2599	1312	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.01	0.15		0.12	0.13	0.00		0.02	0.12	0.01	0.01	

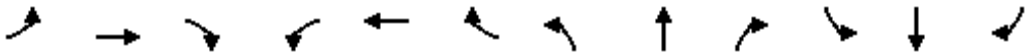
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 50.4			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.36			
Intersection Signal Delay: 9.1		Intersection LOS: A	
Intersection Capacity Utilization 37.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Park Ave N/757th Ave & Logan Ave N



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	696	38	336	601	109	17	174	561	143	111	213
Future Volume (vph)	222	696	38	336	601	109	17	174	561	143	111	213
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00										0.95
Frt		0.992				0.850		0.924	0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	0	2168	1866	2106	2375	2054
Flt Permitted	0.950			0.950				0.998		0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	2043	0	2168	1866	2106	2375	1953
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		3						28	392			229
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	239	748	41	361	646	117	18	187	603	154	119	229
Shared Lane Traffic (%)									35%	0%		
Lane Group Flow (vph)	239	789	0	361	646	117	0	416	392	154	119	229
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø6	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Prot	NA	custom
Protected Phases	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Permitted Phases												9
Detector Phase	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0		10.0		
Total Split (s)	23.0	57.0		22.0			49.0	49.0		16.0		
Total Split (%)	12.8%	31.7%		12.2%			27.2%	27.2%		8.9%		
Maximum Green (s)	18.0	52.0		17.0			44.0	44.0		11.0		
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0		1.0		
Lost Time Adjust (s)	-5.0	-5.0		-5.0				-5.0		-5.0		
Total Lost Time (s)	0.0	0.0		0.0				0.0		0.0		
Lead/Lag	Lead	Lead		Lag			Lead	Lead				
Lead-Lag Optimize?	Yes						Yes	Yes				
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0		4.0		
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0		3.0		
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0		5.0		
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0		5.0		
Recall Mode	None	None		None			None	None		None		
Act Effct Green (s)	19.6	46.5		22.0	48.8	69.8		39.9	61.9	16.6	45.0	64.6
Actuated g/C Ratio	0.13	0.30		0.14	0.32	0.46		0.26	0.40	0.11	0.29	0.42
v/c Ratio	0.42	0.57		0.57	0.44	0.13		0.71	0.40	0.68	0.33	0.23
Control Delay	67.6	47.9		69.1	44.5	13.9		57.2	4.1	85.9	56.1	4.1
Queue Delay	0.0	0.5		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	67.6	48.3		69.1	44.5	13.9		57.2	4.1	85.9	56.1	4.1
LOS	E	D		E	D	B		E	A	F	E	A
Approach Delay		52.8			49.2			31.4			41.5	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	124	380		191	295	33		403	0	172	97	0
Queue Length 95th (ft)	185	475		273	386	67		572	72	#328	172	55
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	695	1760		659	1529	952		737	1091	227	369	1029
Starvation Cap Reductn	0	497		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.34	0.62		0.55	0.42	0.12		0.56	0.36	0.68	0.32	0.22

Intersection Summary	
Area Type:	Other
Cycle Length: 180	

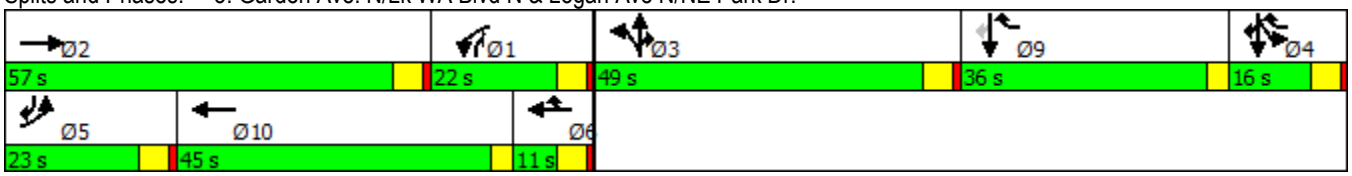
Lane Group	Ø6	Ø9	Ø10
Detector 2 Extend (s)			
Detector 3 Position(ft)			
Detector 3 Size(ft)			
Detector 3 Type			
Detector 3 Channel			
Detector 3 Extend (s)			
Turn Type			
Protected Phases	6	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	1.0	1.0
Minimum Split (s)	10.0	36.0	45.0
Total Split (s)	11.0	36.0	45.0
Total Split (%)	6%	20%	25%
Maximum Green (s)	6.0	33.0	42.0
Yellow Time (s)	4.0	3.0	3.0
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	10.0	0.0	0.0
Time To Reduce (s)	10.0	0.0	0.0
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

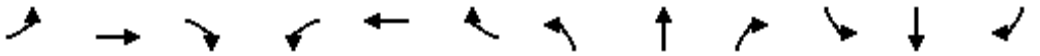
Intersection Summary

Actuated Cycle Length: 153.4	
Natural Cycle: 125	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 45.0	Intersection LOS: D
Intersection Capacity Utilization 58.0%	ICU Level of Service B
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	10	140	0	0	0	155	350	2	26	320	7
Future Volume (vph)	6	10	140	0	0	0	155	350	2	26	320	7
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											1.00	
Frt			0.850					0.999			0.997	
Flt Protected		0.982					0.950			0.950		
Satd. Flow (prot)	0	2431	2104	0	0	0	2375	2498	0	2375	2492	0
Flt Permitted		0.982					0.950			0.950		
Satd. Flow (perm)	0	2431	2104	0	0	0	2375	2498	0	2375	2492	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			144								1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			818			721	
Travel Time (s)		4.3			8.7			18.6			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	6	10	144	0	0	0	160	361	2	27	330	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	144	0	0	0	160	363	0	27	337	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Prot	NA		Prot	NA	
Protected Phases	3 4	3 4	4 5				5	2		1	6	
Permitted Phases			3									

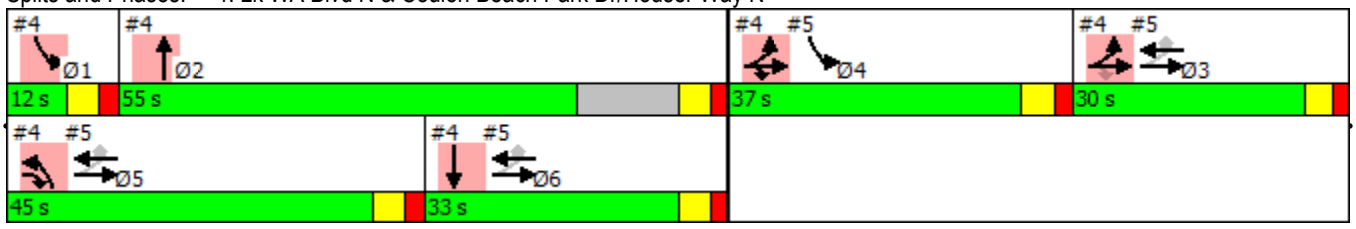
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	3	4
Permitted Phases		

Lanes, Volumes, Timings
4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N 6/28/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4 5				5	2		1	6	
Switch Phase												
Minimum Initial (s)							5.0	5.0		5.0	5.0	
Minimum Split (s)							24.0	26.0		10.5	32.5	
Total Split (s)							45.0	55.0		12.0	33.0	
Total Split (%)							31.0%	37.9%		8.3%	22.8%	
Maximum Green (s)							39.5	49.5		6.5	27.5	
Yellow Time (s)							3.5	3.5		3.5	3.5	
All-Red Time (s)							2.0	2.0		2.0	2.0	
Lost Time Adjust (s)							-5.0	-5.0		-5.0	-5.0	
Total Lost Time (s)							0.5	0.5		0.5	0.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)							3.0	3.0		3.0	3.0	
Recall Mode							None	Max		None	Max	
Act Effct Green (s)		24.1	41.3				17.2	54.9		11.2	41.6	
Actuated g/C Ratio		0.29	0.49				0.21	0.65		0.13	0.50	
v/c Ratio		0.02	0.13				0.33	0.22		0.09	0.27	
Control Delay		18.0	0.8				30.8	7.4		35.4	13.9	
Queue Delay		0.0	0.1				0.0	0.0		0.0	0.0	
Total Delay		18.0	0.9				30.8	7.4		35.4	13.9	
LOS		B	A				C	A		D	B	
Approach Delay		2.6						14.6			15.5	
Approach LOS		A						B			B	
Queue Length 50th (ft)		4	0				67	54		12	97	
Queue Length 95th (ft)		16	10				132	146		39	181	
Internal Link Dist (ft)		110			303			738			641	
Turn Bay Length (ft)												
Base Capacity (vph)		1240	1755				1270	1966		328	1236	
Starvation Cap Reductn		0	797				0	0		0	0	
Spillback Cap Reductn		0	0				0	0		0	0	
Storage Cap Reductn		0	0				0	0		0	0	
Reduced v/c Ratio		0.01	0.15				0.13	0.18		0.08	0.27	

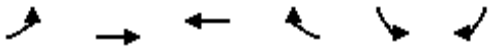
Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 83.9			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.33			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 33.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N



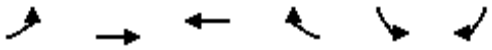
Lane Group	Ø3	Ø4
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	28.0	26.0
Total Split (s)	30.0	37.0
Total Split (%)	21%	26%
Maximum Green (s)	25.0	31.5
Yellow Time (s)	3.0	3.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	0	116	137	25	40	0					
Future Volume (vph)	0	116	137	25	40	0					
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			1	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Frt				0.850							
Flt Protected					0.950						
Satd. Flow (prot)	0	2475	2451	2083	2328	0					
Flt Permitted					0.950						
Satd. Flow (perm)	0	2475	2451	2083	2328	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)				27							
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	0	126	149	27	43	0					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	126	149	27	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2	1	1						
Detector Template	Left	Thru	Thru	Right	Left						
Leading Detector (ft)	20	100	100	20	20						
Trailing Detector (ft)	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0						
Detector 1 Size(ft)	20	6	6	20	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type		NA	NA	Perm	Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6

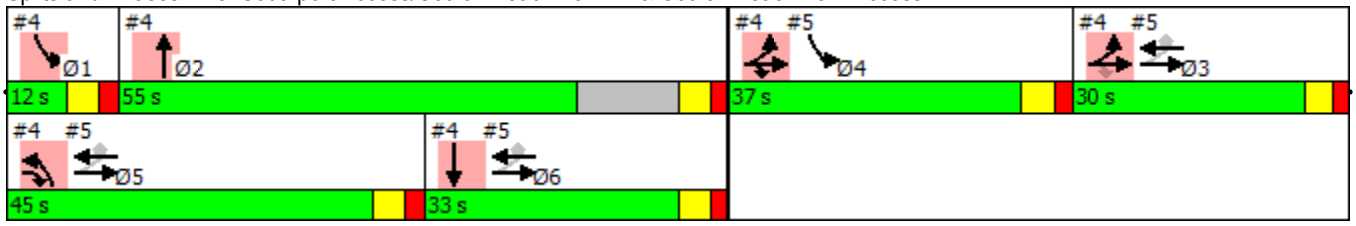
Lanes, Volumes, Timings
5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access 6/28/2017

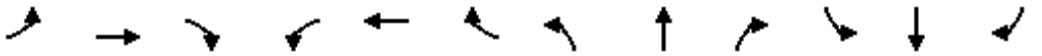


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6			3 5 6							
Detector Phase	3 5 6	3 5 6	3 5 6	3 5 6	4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					26.0		10.5	26.0	28.0	24.0	32.5
Total Split (s)					37.0		12.0	55.0	30.0	45.0	33.0
Total Split (%)					25.5%		8%	38%	21%	31%	23%
Maximum Green (s)					31.5		6.5	49.5	25.0	39.5	27.5
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					-5.0						
Total Lost Time (s)					0.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Act Effct Green (s)		71.3	71.3	71.3	12.1						
Actuated g/C Ratio		0.85	0.85	0.85	0.14						
v/c Ratio		0.06	0.07	0.02	0.13						
Control Delay		1.1	0.1	0.0	34.4						
Queue Delay		0.0	0.5	0.0	0.0						
Total Delay		1.1	0.6	0.0	34.4						
LOS		A	A	A	C						
Approach Delay		1.1	0.5		34.4						
Approach LOS		A	A		C						
Queue Length 50th (ft)		6	1	0	18						
Queue Length 95th (ft)		14	2	0	53						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		2103	2083	1774	1020						
Starvation Cap Reductn		0	1602	0	0						
Spillback Cap Reductn		0	0	0	0						
Storage Cap Reductn		0	0	0	0						
Reduced v/c Ratio		0.06	0.31	0.02	0.04						

Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 83.9			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.33			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 16.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Future Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.89			1.00				
Frt					0.850			0.985				
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	2451	0	2351	1874	0	0	2404	0	0	4675	0
Flt Permitted				0.950							0.509	
Satd. Flow (perm)	0	2451	0	2351	1874	0	0	2404	0	0	2394	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					450			6				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	118	0	103	0	887	115	112	786	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	118	103	0	0	1002	0	0	898	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

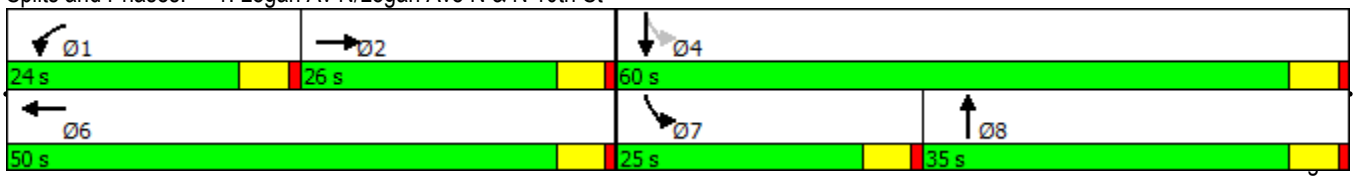
Lanes, Volumes, Timings
1: Logan Av N/Logan Ave N & N 10th St 6/28/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		26.0		24.0	32.0			27.0		25.0	27.0	
Total Split (s)		26.0		24.0	50.0			35.0		25.0	60.0	
Total Split (%)		23.6%		21.8%	45.5%			31.8%		22.7%	54.5%	
Maximum Green (s)		21.0		19.0	45.0			30.0		20.0	55.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		-5.0		-5.0	-5.0			-5.0			-5.0	
Total Lost Time (s)		0.0		0.0	0.0			0.0			0.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Act Effct Green (s)				50.0	50.0			60.0			60.0	
Actuated g/C Ratio				0.45	0.45			0.55			0.55	
v/c Ratio				0.11	0.09			0.76			1.24dl	
Control Delay				17.6	0.2			24.1			21.7	
Queue Delay				0.0	0.0			9.8			0.0	
Total Delay				17.6	0.2			34.0			21.7	
LOS				B	A			C			C	
Approach Delay					9.5			34.0			21.7	
Approach LOS					A			C			C	
Queue Length 50th (ft)				47	0			522			231	
Queue Length 95th (ft)				81	0			692			306	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				1068	1097			1314			1305	
Starvation Cap Reductn				0	0			290			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.11	0.09			0.98			0.69	

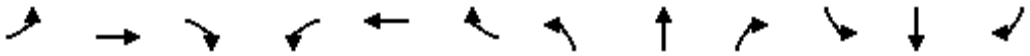
Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Natural Cycle: 125			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 77.0%		ICU Level of Service D	
Analysis Period (min) 15			

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St



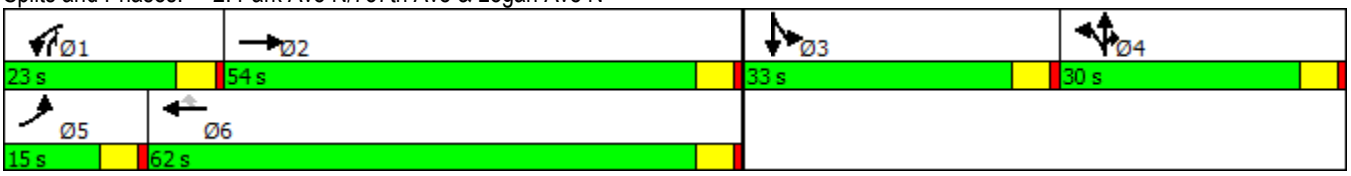
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	854	25	351	840	4	35	1	408	18	6	4
Future Volume (vph)	6	854	25	351	840	4	35	1	408	18	6	4
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.97					0.98	
Frt		0.996				0.850			0.850		0.940	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	2328	4636	0	4517	4657	2083	0	2316	3631	3777	1896	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	2328	4636	0	4517	4657	2023	0	2316	3631	3777	1896	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				94			421		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			281	
Travel Time (s)		31.8			11.3			14.1			6.4	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	6	880	26	362	866	4	36	1	421	19	6	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	906	0	362	866	4	0	37	421	19	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

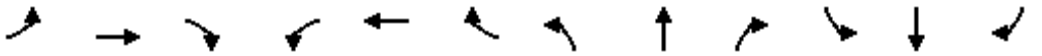


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	15.0	54.0		23.0	62.0	62.0	30.0	30.0		33.0	33.0	
Total Split (%)	10.7%	38.6%		16.4%	44.3%	44.3%	21.4%	21.4%		23.6%	23.6%	
Maximum Green (s)	10.0	49.0		18.0	57.0	57.0	25.0	25.0		28.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0		-5.0		-5.0	-5.0	
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Act Effct Green (s)	11.8	26.7		17.4	42.5	42.5		12.8	30.2	11.8	11.8	
Actuated g/C Ratio	0.20	0.44		0.29	0.70	0.70		0.21	0.50	0.20	0.20	
v/c Ratio	0.01	0.44		0.28	0.26	0.00		0.08	0.21	0.03	0.03	
Control Delay	28.2	13.7		19.5	5.1	0.0		25.4	1.8	27.4	23.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	28.2	13.7		19.5	5.2	0.0		25.4	1.8	27.4	23.5	
LOS	C	B		B	A	A		C	A	C	C	
Approach Delay		13.8			9.4			3.7			26.0	
Approach LOS		B			A			A			C	
Queue Length 50th (ft)	2	95		46	22	0		10	0	2	2	
Queue Length 95th (ft)	14	225		113	159	0		42	26	13	17	
Internal Link Dist (ft)		1321			418			539			201	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	614	4032		1828	4282	1867		1222	2397	2193	1102	
Starvation Cap Reductn	0	0		0	1190	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.01	0.22		0.20	0.28	0.00		0.03	0.18	0.01	0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 60.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 44.4%		ICU Level of Service A	
Analysis Period (min) 15			

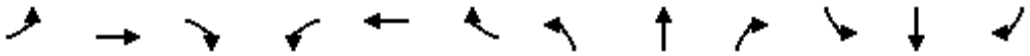
Splits and Phases: 2: Park Ave N/757th Ave & Logan Ave N





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	21	268	705	690	229	416
Future Volume (vph)	356	875	48	422	756	311	21	268	705	690	229	416
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00										0.95
Frt		0.992				0.850		0.934	0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	0	2192	1866	2106	2375	2054
Flt Permitted	0.950			0.950				0.998		0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	2043	0	2192	1866	2106	2375	1953
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		3						21	401			447
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	23	288	758	742	246	447
Shared Lane Traffic (%)									32%	0%		
Lane Group Flow (vph)	383	993	0	454	813	334	0	554	515	742	246	447
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø6	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Prot	NA	custom
Protected Phases	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Permitted Phases												9
Detector Phase	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0		10.0		
Total Split (s)	23.0	57.0		22.0			49.0	49.0		16.0		
Total Split (%)	12.8%	31.7%		12.2%			27.2%	27.2%		8.9%		
Maximum Green (s)	18.0	52.0		17.0			44.0	44.0		11.0		
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0		1.0		
Lost Time Adjust (s)	-5.0	-5.0		-5.0				-5.0		-5.0		
Total Lost Time (s)	0.0	0.0		0.0				0.0		0.0		
Lead/Lag	Lead	Lead		Lag			Lead	Lead				
Lead-Lag Optimize?	Yes						Yes	Yes				
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0		4.0		
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0		3.0		
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0		5.0		
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0		5.0		
Recall Mode	None	None		None			None	None		None		
Act Effct Green (s)	22.7	55.7		22.0	55.1	73.8		48.3	70.3	16.0	52.0	74.7
Actuated g/C Ratio	0.13	0.31		0.12	0.31	0.41		0.27	0.39	0.09	0.29	0.42
v/c Ratio	0.67	0.69		0.83	0.58	0.39		0.91	0.53	3.93	0.75	0.41
Control Delay	81.0	56.6		90.0	53.7	21.6		80.1	10.6	1346.0	82.3	3.6
Queue Delay	0.0	48.9		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	81.0	105.5		90.0	53.7	21.6		80.1	10.6	1346.0	82.3	3.6
LOS	F	F		F	D	C		F	B	F	F	A
Approach Delay		98.7			57.3			46.6			711.2	
Approach LOS		F			E			D			F	
Queue Length 50th (ft)	226	541		275	426	140		650	94	~1668	244	0
Queue Length 95th (ft)	286	620		#352	497	215		#876	212	#1942	335	69
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	577	1462		547	1412	846		618	984	189	329	1103
Starvation Cap Reductn	0	557		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.66	1.10		0.83	0.58	0.39		0.90	0.52	3.93	0.75	0.41

Intersection Summary	
Area Type:	Other
Cycle Length: 180	

Lane Group	Ø6	Ø9	Ø10
Detector 2 Extend (s)			
Detector 3 Position(ft)			
Detector 3 Size(ft)			
Detector 3 Type			
Detector 3 Channel			
Detector 3 Extend (s)			
Turn Type			
Protected Phases	6	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	1.0	1.0
Minimum Split (s)	10.0	36.0	45.0
Total Split (s)	11.0	36.0	45.0
Total Split (%)	6%	20%	25%
Maximum Green (s)	6.0	33.0	42.0
Yellow Time (s)	4.0	3.0	3.0
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	10.0	0.0	0.0
Time To Reduce (s)	10.0	0.0	0.0
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

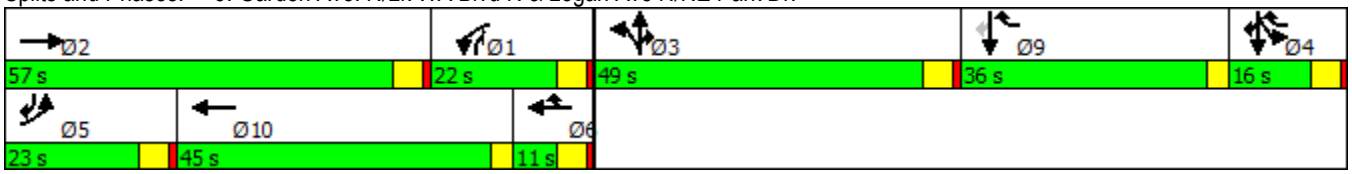
Intersection Summary

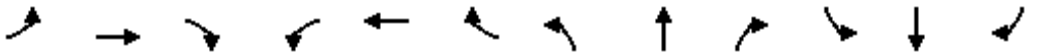
Actuated Cycle Length: 178.1	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.93	
Intersection Signal Delay: 236.8	Intersection LOS: F
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

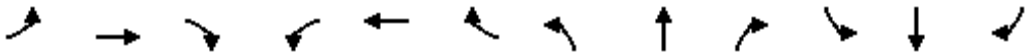
Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	57	863	0	0	0	406	532	3	33	469	16
Future Volume (vph)	39	57	863	0	0	0	406	532	3	33	469	16
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											1.00	
Frt			0.850					0.999			0.995	
Flt Protected		0.980					0.950			0.950		
Satd. Flow (prot)	0	2426	2104	0	0	0	2375	2498	0	2375	2486	0
Flt Permitted		0.980					0.950			0.950		
Satd. Flow (perm)	0	2426	2104	0	0	0	2375	2498	0	2375	2486	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			59								1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			818			721	
Travel Time (s)		4.3			8.7			18.6			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	40	59	890	0	0	0	419	548	3	34	484	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	890	0	0	0	419	551	0	34	500	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Prot	NA		Prot	NA	
Protected Phases	3 4	3 4	4 5				5	2		1	6	
Permitted Phases			3									

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	3	4
Permitted Phases		

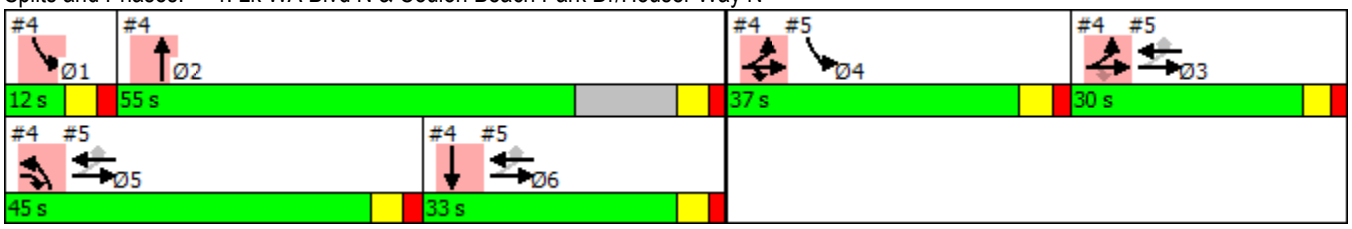


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4 5				5	2		1	6	
Switch Phase												
Minimum Initial (s)							5.0	5.0		5.0	5.0	
Minimum Split (s)							24.0	26.0		10.5	32.5	
Total Split (s)							45.0	55.0		12.0	33.0	
Total Split (%)							31.0%	37.9%		8.3%	22.8%	
Maximum Green (s)							39.5	49.5		6.5	27.5	
Yellow Time (s)							3.5	3.5		3.5	3.5	
All-Red Time (s)							2.0	2.0		2.0	2.0	
Lost Time Adjust (s)							-5.0	-5.0		-5.0	-5.0	
Total Lost Time (s)							0.5	0.5		0.5	0.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)							3.0	3.0		3.0	3.0	
Recall Mode							None	Max		None	Max	
Act Effct Green (s)		64.7	109.2				44.5	68.1		11.3	32.5	
Actuated g/C Ratio		0.45	0.77				0.31	0.48		0.08	0.23	
v/c Ratio		0.09	0.55				0.57	0.46		0.18	0.88	
Control Delay		23.7	6.8				45.0	27.8		64.8	71.5	
Queue Delay		11.5	1.0				0.0	0.0		0.0	0.0	
Total Delay		35.2	7.7				45.0	27.8		64.8	71.5	
LOS		D	A				D	C		E	E	
Approach Delay		10.5						35.2			71.1	
Approach LOS		B						D			E	
Queue Length 50th (ft)		49	240				334	361		31	462	
Queue Length 95th (ft)		95	278				446	466		68	#659	
Internal Link Dist (ft)		110			303			738			641	
Turn Bay Length (ft)												
Base Capacity (vph)		1099	1623				740	1191		191	566	
Starvation Cap Reductn		968	440				0	0		0	0	
Spillback Cap Reductn		0	0				0	0		0	0	
Storage Cap Reductn		0	0				0	0		0	0	
Reduced v/c Ratio		0.76	0.75				0.57	0.46		0.18	0.88	

Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 142.7			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 33.1		Intersection LOS: C	
Intersection Capacity Utilization 66.8%		ICU Level of Service C	
Analysis Period (min) 15			

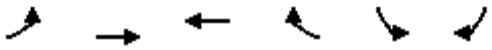
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N

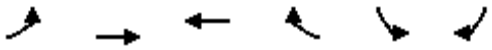


Lane Group	Ø3	Ø4
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	28.0	26.0
Total Split (s)	30.0	37.0
Total Split (%)	21%	26%
Maximum Green (s)	25.0	31.5
Yellow Time (s)	3.0	3.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



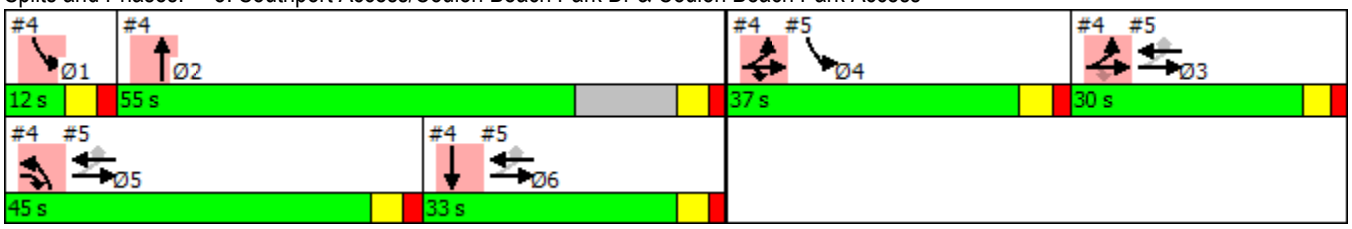
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	0	917	396	26	40	0					
Future Volume (vph)	0	917	396	26	40	0					
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			1	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Frt				0.850							
Flt Protected					0.950						
Satd. Flow (prot)	0	2475	2451	2083	2328	0					
Flt Permitted					0.950						
Satd. Flow (perm)	0	2475	2451	2083	2328	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)				28							
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	0	997	430	28	43	0					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	997	430	28	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2	1	1						
Detector Template	Left	Thru	Thru	Right	Left						
Leading Detector (ft)	20	100	100	20	20						
Trailing Detector (ft)	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0						
Detector 1 Size(ft)	20	6	6	20	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type		NA	NA	Perm	Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6

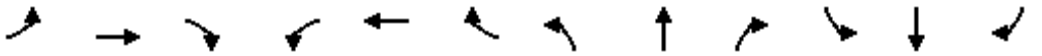


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6			3 5 6							
Detector Phase	3 5 6	3 5 6	3 5 6	3 5 6	4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					26.0		10.5	26.0	28.0	24.0	32.5
Total Split (s)					37.0		12.0	55.0	30.0	45.0	33.0
Total Split (%)					25.5%		8%	38%	21%	31%	23%
Maximum Green (s)					31.5		6.5	49.5	25.0	39.5	27.5
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					-5.0						
Total Lost Time (s)					0.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Act Effct Green (s)		108.0	108.0	108.0	34.2						
Actuated g/C Ratio		0.76	0.76	0.76	0.24						
v/c Ratio		0.53	0.23	0.02	0.08						
Control Delay		8.6	0.6	0.0	42.0						
Queue Delay		0.1	0.6	0.0	0.0						
Total Delay		8.7	1.1	0.0	42.0						
LOS		A	A	A	D						
Approach Delay		8.7	1.1		42.0						
Approach LOS		A	A		D						
Queue Length 50th (ft)		360	5	0	31						
Queue Length 95th (ft)		448	m8	m0	64						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		1873	1855	1583	596						
Starvation Cap Reductn		0	1010	0	0						
Spillback Cap Reductn		168	0	0	20						
Storage Cap Reductn		0	0	0	0						
Reduced v/c Ratio		0.58	0.51	0.02	0.07						

Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 142.7			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 7.3		Intersection LOS: A	
Intersection Capacity Utilization 47.5%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Future Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.89			1.00				
Frt					0.850			0.985				
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	2451	0	2351	1874	0	0	2404	0	0	4675	0
Flt Permitted				0.950							0.509	
Satd. Flow (perm)	0	2451	0	2351	1874	0	0	2404	0	0	2394	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					450			6				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	118	0	103	0	887	115	112	786	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	118	103	0	0	1002	0	0	898	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

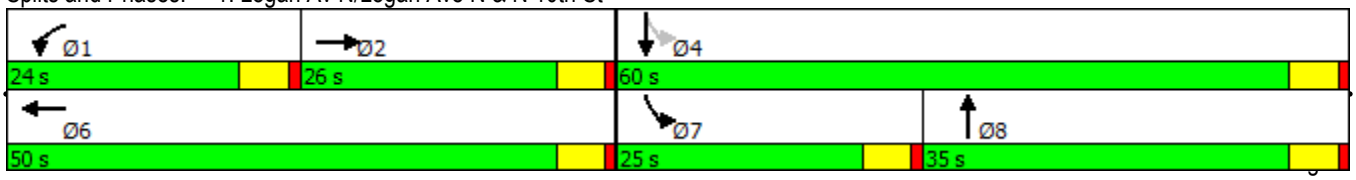
Lanes, Volumes, Timings
1: Logan Av N/Logan Ave N & N 10th St 6/28/2017

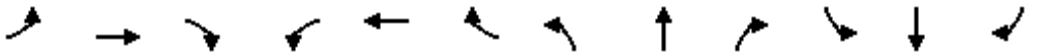
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		26.0		24.0	32.0			27.0		25.0	27.0	
Total Split (s)		26.0		24.0	50.0			35.0		25.0	60.0	
Total Split (%)		23.6%		21.8%	45.5%			31.8%		22.7%	54.5%	
Maximum Green (s)		21.0		19.0	45.0			30.0		20.0	55.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		-5.0		-5.0	-5.0			-5.0			-5.0	
Total Lost Time (s)		0.0		0.0	0.0			0.0			0.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Act Effct Green (s)				50.0	50.0			60.0			60.0	
Actuated g/C Ratio				0.45	0.45			0.55			0.55	
v/c Ratio				0.11	0.09			0.76			1.24dl	
Control Delay				17.6	0.2			24.1			21.7	
Queue Delay				0.0	0.0			9.8			0.0	
Total Delay				17.6	0.2			34.0			21.7	
LOS				B	A			C			C	
Approach Delay					9.5			34.0			21.7	
Approach LOS					A			C			C	
Queue Length 50th (ft)				47	0			522			231	
Queue Length 95th (ft)				81	0			692			306	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				1068	1097			1314			1305	
Starvation Cap Reductn				0	0			290			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.11	0.09			0.98			0.69	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Natural Cycle: 125			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 77.0%		ICU Level of Service D	
Analysis Period (min) 15			

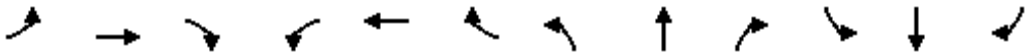
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





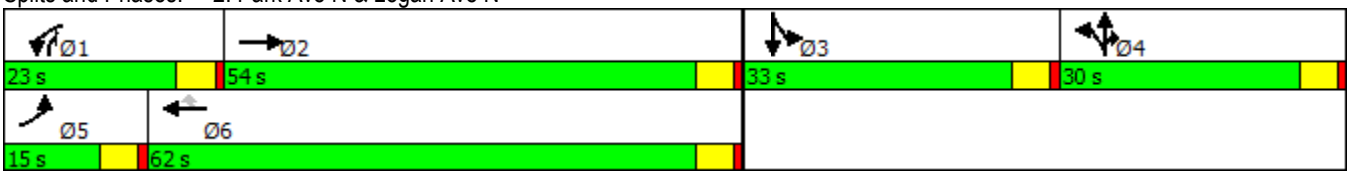
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	813	25	304	746	184	35	22	388	468	53	98
Future Volume (vph)	46	813	25	304	746	184	35	22	388	468	53	98
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.97					0.97	
Frt		0.995				0.850			0.850		0.903	
Flt Protected	0.950			0.950				0.970		0.950		
Satd. Flow (prot)	2328	4632	0	4517	4657	2083	0	2354	3631	3777	1803	0
Flt Permitted	0.950			0.950				0.970		0.950		
Satd. Flow (perm)	2328	4632	0	4517	4657	2023	0	2354	3631	3777	1803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				108			111		62	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			182	
Travel Time (s)		31.8			11.3			14.1			4.1	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	47	838	26	313	769	190	36	23	400	482	55	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	864	0	313	769	190	0	59	400	482	156	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

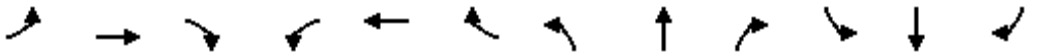


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	15.0	54.0		23.0	62.0	62.0	30.0	30.0		33.0	33.0	
Total Split (%)	10.7%	38.6%		16.4%	44.3%	44.3%	21.4%	21.4%		23.6%	23.6%	
Maximum Green (s)	10.0	49.0		18.0	57.0	57.0	25.0	25.0		28.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0		-5.0		-5.0	-5.0	
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Act Effct Green (s)	12.9	31.0		18.0	41.8	41.8		16.4	34.4	24.1	24.1	
Actuated g/C Ratio	0.14	0.35		0.20	0.47	0.47		0.18	0.38	0.27	0.27	
v/c Ratio	0.14	0.54		0.34	0.35	0.19		0.14	0.27	0.47	0.29	
Control Delay	40.7	25.9		34.3	18.2	9.1		35.9	15.1	30.7	19.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	40.7	25.9		34.3	18.2	9.1		35.9	15.1	30.7	19.5	
LOS	D	C		C	B	A		D	B	C	B	
Approach Delay		26.7			20.8			17.8			28.0	
Approach LOS		C			C			B			C	
Queue Length 50th (ft)	23	198		76	153	27		28	59	113	40	
Queue Length 95th (ft)	69	340		151	267	86		76	125	208	112	
Internal Link Dist (ft)		1321			418			539			102	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	407	2917		1211	3366	1492		823	1699	1453	731	
Starvation Cap Reductn	0	0		0	575	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.12	0.30		0.26	0.28	0.13		0.07	0.24	0.33	0.21	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 89.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 23.4		Intersection LOS: C	
Intersection Capacity Utilization 52.8%		ICU Level of Service A	
Analysis Period (min) 15			

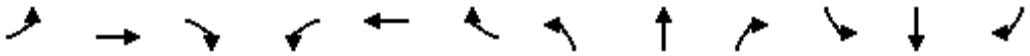
Splits and Phases: 2: Park Ave N & Logan Ave N





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	1265	108	422	912	153	45	244	705	298	169	275
Future Volume (vph)	295	1265	108	422	912	153	45	244	705	298	169	275
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00										0.95
Frt		0.988				0.850		0.934	0.850			0.850
Flt Protected	0.950			0.950				0.996		0.950		
Satd. Flow (prot)	4473	4534	0	4430	4567	2043	0	2188	1866	2106	2375	2054
Flt Permitted	0.950			0.950				0.996		0.950		
Satd. Flow (perm)	4473	4534	0	4430	4567	2043	0	2188	1866	2106	2375	1953
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		5						22	397			296
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	317	1360	116	454	981	165	48	262	758	320	182	296
Shared Lane Traffic (%)									32%	0%		
Lane Group Flow (vph)	317	1476	0	454	981	165	0	553	515	320	182	296
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø6	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Prot	NA	custom
Protected Phases	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Permitted Phases												9
Detector Phase	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0		10.0		
Total Split (s)	23.0	57.0		22.0			49.0	49.0		16.0		
Total Split (%)	12.8%	31.7%		12.2%			27.2%	27.2%		8.9%		
Maximum Green (s)	18.0	52.0		17.0			44.0	44.0		11.0		
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0		1.0		
Lost Time Adjust (s)	-5.0	-5.0		-5.0				-5.0		-5.0		
Total Lost Time (s)	0.0	0.0		0.0				0.0		0.0		
Lead/Lag	Lead	Lead		Lag			Lead	Lead				
Lead-Lag Optimize?	Yes						Yes	Yes				
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0		4.0		
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0		3.0		
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0		5.0		
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0		5.0		
Recall Mode	None	None		None			None	None		None		
Act Effct Green (s)	22.1	57.0		22.0	56.9	68.6		48.5	70.5	16.0	51.5	73.6
Actuated g/C Ratio	0.12	0.32		0.12	0.32	0.38		0.27	0.39	0.09	0.29	0.41
v/c Ratio	0.58	1.02		0.83	0.68	0.21		0.91	0.53	1.70	0.56	0.30
Control Delay	78.6	87.6		90.8	56.2	20.5		80.3	10.9	380.3	71.2	3.8
Queue Delay	0.0	32.1		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	78.6	119.6		90.8	56.2	20.5		80.3	10.9	380.3	71.2	3.8
LOS	E	F		F	E	C		F	B	F	E	A
Approach Delay		112.4			62.3			46.8			170.2	
Approach LOS		F			E			D			F	
Queue Length 50th (ft)	184	~971		275	538	73		648	98	~583	175	0
Queue Length 95th (ft)	239	#1111		#352	617	113		#873	217	#806	252	61
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	574	1447		544	1452	783		614	979	188	326	1008
Starvation Cap Reductn	0	470		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.55	1.51		0.83	0.68	0.21		0.90	0.53	1.70	0.56	0.29

Intersection Summary	
Area Type:	Other
Cycle Length: 180	

Lane Group	Ø6	Ø9	Ø10
Detector 2 Extend (s)			
Detector 3 Position(ft)			
Detector 3 Size(ft)			
Detector 3 Type			
Detector 3 Channel			
Detector 3 Extend (s)			
Turn Type			
Protected Phases	6	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	1.0	1.0
Minimum Split (s)	10.0	36.0	45.0
Total Split (s)	11.0	36.0	45.0
Total Split (%)	6%	20%	25%
Maximum Green (s)	6.0	33.0	42.0
Yellow Time (s)	4.0	3.0	3.0
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	10.0	0.0	0.0
Time To Reduce (s)	10.0	0.0	0.0
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

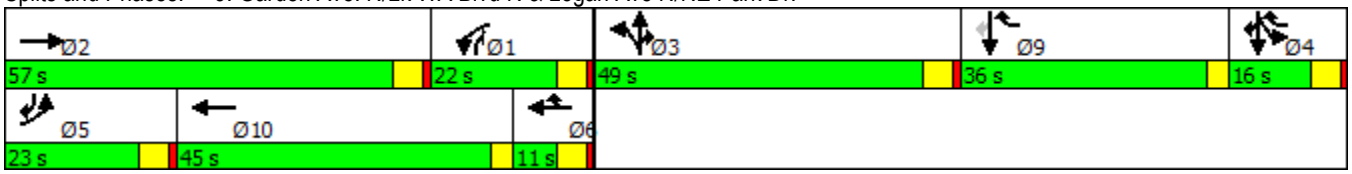
Intersection Summary

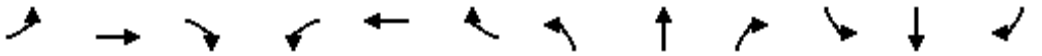
Actuated Cycle Length: 179	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.70	
Intersection Signal Delay: 92.6	Intersection LOS: F
Intersection Capacity Utilization 84.2%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	57	270	0	0	0	163	532	3	33	469	16
Future Volume (vph)	39	57	270	0	0	0	163	532	3	33	469	16
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											1.00	
Frt			0.850					0.999			0.995	
Flt Protected		0.980					0.950			0.950		
Satd. Flow (prot)	0	2426	2104	0	0	0	2375	2498	0	2375	2486	0
Flt Permitted		0.980					0.950			0.950		
Satd. Flow (perm)	0	2426	2104	0	0	0	2375	2498	0	2375	2486	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			59								1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			818			721	
Travel Time (s)		4.3			8.7			18.6			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	40	59	278	0	0	0	168	548	3	34	484	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	278	0	0	0	168	551	0	34	500	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Prot	NA		Prot	NA	
Protected Phases	3 4	3 4	4 5				5	2		1	6	
Permitted Phases			3									

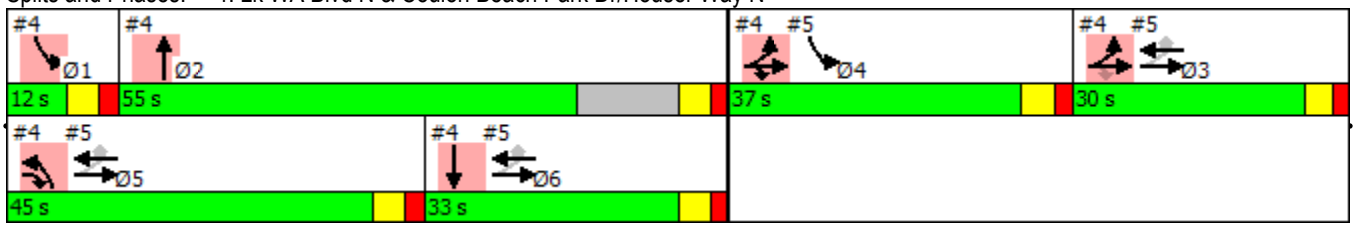
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	3	4
Permitted Phases		

Lanes, Volumes, Timings
4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N 6/28/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4 5				5	2		1	6	
Switch Phase												
Minimum Initial (s)							5.0	5.0		5.0	5.0	
Minimum Split (s)							24.0	26.0		10.5	32.5	
Total Split (s)							45.0	55.0		12.0	33.0	
Total Split (%)							31.0%	37.9%		8.3%	22.8%	
Maximum Green (s)							39.5	49.5		6.5	27.5	
Yellow Time (s)							3.5	3.5		3.5	3.5	
All-Red Time (s)							2.0	2.0		2.0	2.0	
Lost Time Adjust (s)							-5.0	-5.0		-5.0	-5.0	
Total Lost Time (s)							0.5	0.5		0.5	0.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)							3.0	3.0		3.0	3.0	
Recall Mode							None	Max		None	Max	
Act Effct Green (s)		31.7	53.1				21.4	55.2		11.3	39.9	
Actuated g/C Ratio		0.34	0.56				0.23	0.59		0.12	0.42	
v/c Ratio		0.12	0.23				0.31	0.38		0.12	0.47	
Control Delay		20.6	7.1				32.1	13.1		41.9	23.5	
Queue Delay		0.2	0.2				0.0	0.0		0.0	0.0	
Total Delay		20.8	7.2				32.1	13.1		41.9	23.5	
LOS		C	A				C	B		D	C	
Approach Delay		10.8						17.5			24.7	
Approach LOS		B						B			C	
Queue Length 50th (ft)		40	59				89	187		19	208	
Queue Length 95th (ft)		72	74				144	308		52	388	
Internal Link Dist (ft)		110			303			738			641	
Turn Bay Length (ft)												
Base Capacity (vph)		1206	1728				1138	1762		294	1055	
Starvation Cap Reductn		629	807				0	0		0	0	
Spillback Cap Reductn		0	0				0	0		0	0	
Storage Cap Reductn		0	0				0	0		0	0	
Reduced v/c Ratio		0.17	0.30				0.15	0.31		0.12	0.47	

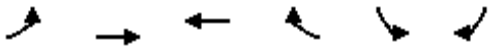
Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 94			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 18.3		Intersection LOS: B	
Intersection Capacity Utilization 40.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N

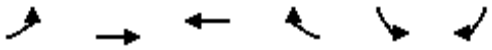


Lane Group	Ø3	Ø4
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	28.0	26.0
Total Split (s)	30.0	37.0
Total Split (%)	21%	26%
Maximum Green (s)	25.0	31.5
Yellow Time (s)	3.0	3.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



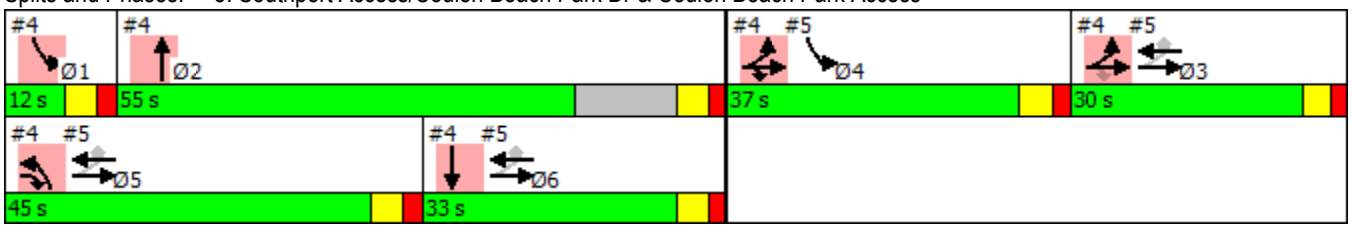
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	2	329	155	24	37	3					
Future Volume (vph)	2	329	155	24	37	3					
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			1	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Frt				0.850	0.991						
Flt Protected					0.956						
Satd. Flow (prot)	0	2475	2451	2083	2322	0					
Flt Permitted		0.999			0.956						
Satd. Flow (perm)	0	2473	2451	2083	2322	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)				26	2						
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	2	358	168	26	40	3					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	360	168	26	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2	1	1						
Detector Template	Left	Thru	Thru	Right	Left						
Leading Detector (ft)	20	100	100	20	20						
Trailing Detector (ft)	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0						
Detector 1 Size(ft)	20	6	6	20	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type	Perm	NA	NA	Perm	Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6			3 5 6							
Detector Phase	3 5 6	3 5 6	3 5 6	3 5 6	4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					26.0		10.5	26.0	28.0	24.0	32.5
Total Split (s)					37.0		12.0	55.0	30.0	45.0	33.0
Total Split (%)					25.5%		8%	38%	21%	31%	23%
Maximum Green (s)					31.5		6.5	49.5	25.0	39.5	27.5
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					-5.0						
Total Lost Time (s)					0.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Act Effct Green (s)		77.6	77.6	77.6	15.9						
Actuated g/C Ratio		0.83	0.83	0.83	0.17						
v/c Ratio		0.18	0.08	0.02	0.11						
Control Delay		2.0	0.2	0.0	34.9						
Queue Delay		0.0	0.6	0.0	0.0						
Total Delay		2.0	0.8	0.0	34.9						
LOS		A	A	A	C						
Approach Delay		2.0	0.7		34.9						
Approach LOS		A	A		C						
Queue Length 50th (ft)		30	1	0	22						
Queue Length 95th (ft)		59	2	m0	54						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		2042	2023	1724	914						
Starvation Cap Reductn		0	1558	0	0						
Spillback Cap Reductn		0	0	0	3						
Storage Cap Reductn		0	0	0	0						
Reduced v/c Ratio		0.18	0.36	0.02	0.05						

Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 94			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 4.0		Intersection LOS: A	
Intersection Capacity Utilization 25.2%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access



Intersection	
Int Delay, s/veh	8.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	318	585	3	126	234	7
Future Vol, veh/h	318	585	3	126	234	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	353	650	3	140	260	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1003	0	825	678
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	147	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	690	-	342	452
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	880	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	690	-	340	452
Mov Cap-2 Maneuver	-	-	-	-	340	-
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	44.8
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	342	-	-	690	-
HCM Lane V/C Ratio	0.783	-	-	0.005	-
HCM Control Delay (s)	44.8	-	-	10.2	0
HCM Lane LOS	E	-	-	B	A
HCM 95th %tile Q(veh)	6.4	-	-	0	-

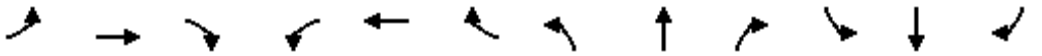
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	28	0	0	0	5	241	6	0	591	0
Future Vol, veh/h	0	0	28	0	0	0	5	241	6	0	591	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	31	0	0	0	6	268	7	0	657	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	939	943	657	954	939	271	657	0	0	274	0	0
Stage 1	657	657	-	282	282	-	-	-	-	-	-	-
Stage 2	282	286	-	672	657	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	244	263	465	238	264	768	931	-	-	1289	-	-
Stage 1	454	462	-	725	678	-	-	-	-	-	-	-
Stage 2	725	675	-	445	462	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	243	261	465	221	262	768	931	-	-	1289	-	-
Mov Cap-2 Maneuver	243	261	-	221	262	-	-	-	-	-	-	-
Stage 1	450	462	-	719	673	-	-	-	-	-	-	-
Stage 2	719	670	-	415	462	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	0	0.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	931	-	-	465	-	1289	-	-
HCM Lane V/C Ratio	0.006	-	-	0.067	-	-	-	-
HCM Control Delay (s)	8.9	0	-	13.3	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Future Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.89			1.00				
Frt					0.850			0.985				
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	2451	0	2351	1874	0	0	2404	0	0	4675	0
Flt Permitted				0.950							0.509	
Satd. Flow (perm)	0	2451	0	2351	1874	0	0	2404	0	0	2394	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					450			6				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	118	0	103	0	887	115	112	786	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	118	103	0	0	1002	0	0	898	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

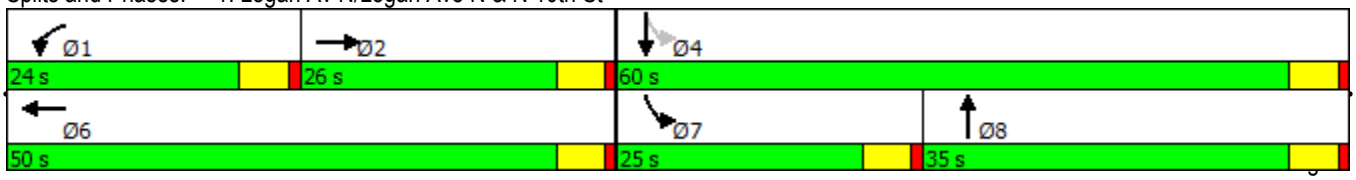
Lanes, Volumes, Timings
1: Logan Av N/Logan Ave N & N 10th St 6/28/2017

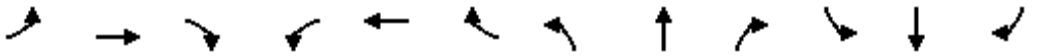
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		26.0		24.0	32.0			27.0		25.0	27.0	
Total Split (s)		26.0		24.0	50.0			35.0		25.0	60.0	
Total Split (%)		23.6%		21.8%	45.5%			31.8%		22.7%	54.5%	
Maximum Green (s)		21.0		19.0	45.0			30.0		20.0	55.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		-5.0		-5.0	-5.0			-5.0			-5.0	
Total Lost Time (s)		0.0		0.0	0.0			0.0			0.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Act Effct Green (s)				50.0	50.0			60.0			60.0	
Actuated g/C Ratio				0.45	0.45			0.55			0.55	
v/c Ratio				0.11	0.09			0.76			1.24dl	
Control Delay				17.6	0.2			24.1			21.7	
Queue Delay				0.0	0.0			9.8			0.0	
Total Delay				17.6	0.2			34.0			21.7	
LOS				B	A			C			C	
Approach Delay					9.5			34.0			21.7	
Approach LOS					A			C			C	
Queue Length 50th (ft)				47	0			522			231	
Queue Length 95th (ft)				81	0			692			306	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				1068	1097			1314			1305	
Starvation Cap Reductn				0	0			290			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.11	0.09			0.98			0.69	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Natural Cycle: 125			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 77.0%		ICU Level of Service D	
Analysis Period (min) 15			

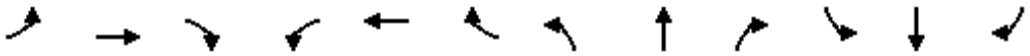
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





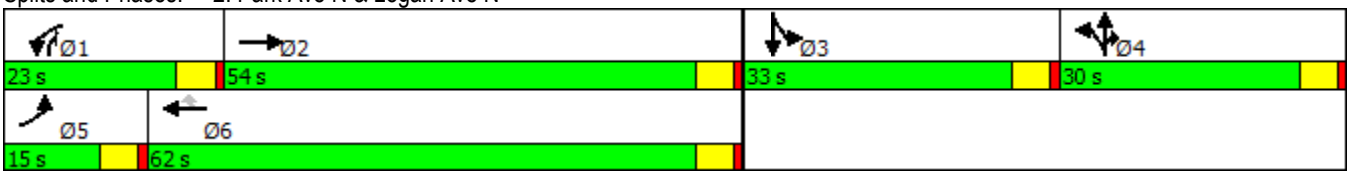
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	854	25	351	840	4	35	1	408	18	6	4
Future Volume (vph)	6	854	25	351	840	4	35	1	408	18	6	4
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.97					0.98	
Frt		0.996				0.850			0.850		0.940	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	2328	4636	0	4517	4657	2083	0	2316	3631	3777	1896	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	2328	4636	0	4517	4657	2023	0	2316	3631	3777	1896	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				94			421		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			182	
Travel Time (s)		31.8			11.3			14.1			4.1	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	6	880	26	362	866	4	36	1	421	19	6	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	906	0	362	866	4	0	37	421	19	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

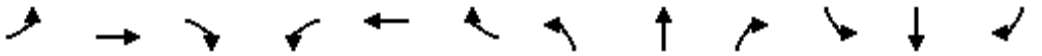


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	15.0	54.0		23.0	62.0	62.0	30.0	30.0		33.0	33.0	
Total Split (%)	10.7%	38.6%		16.4%	44.3%	44.3%	21.4%	21.4%		23.6%	23.6%	
Maximum Green (s)	10.0	49.0		18.0	57.0	57.0	25.0	25.0		28.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0		-5.0		-5.0	-5.0	
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Act Effct Green (s)	11.8	26.7		17.4	42.5	42.5		12.8	30.2	11.8	11.8	
Actuated g/C Ratio	0.20	0.44		0.29	0.70	0.70		0.21	0.50	0.20	0.20	
v/c Ratio	0.01	0.44		0.28	0.26	0.00		0.08	0.21	0.03	0.03	
Control Delay	28.2	13.7		19.5	5.1	0.0		25.4	1.8	27.4	23.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	28.2	13.7		19.5	5.2	0.0		25.4	1.8	27.4	23.5	
LOS	C	B		B	A	A		C	A	C	C	
Approach Delay		13.8			9.4			3.7			26.0	
Approach LOS		B			A			A			C	
Queue Length 50th (ft)	2	95		46	22	0		10	0	2	2	
Queue Length 95th (ft)	14	225		113	159	0		42	26	13	17	
Internal Link Dist (ft)		1321			418			539			102	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	614	4032		1828	4282	1867		1222	2397	2193	1102	
Starvation Cap Reductn	0	0		0	1190	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.01	0.22		0.20	0.28	0.00		0.03	0.18	0.01	0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 60.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 44.4%		ICU Level of Service A	
Analysis Period (min) 15			

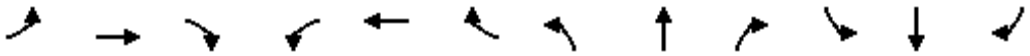
Splits and Phases: 2: Park Ave N & Logan Ave N





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Future Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	0		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00										0.95
Frt		0.992				0.850		0.934	0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	0	2192	1866	2106	2375	2054
Flt Permitted	0.950			0.950				0.998		0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	2043	0	2192	1866	2106	2375	1953
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		3						21	401			447
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			196	
Travel Time (s)		12.0			26.4			36.9			4.5	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	23	288	758	743	246	447
Shared Lane Traffic (%)									32%	0%		
Lane Group Flow (vph)	383	993	0	454	813	334	0	554	515	743	246	447
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø6	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Prot	NA	custom
Protected Phases	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Permitted Phases												9
Detector Phase	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0		10.0		
Total Split (s)	23.0	57.0		22.0			49.0	49.0		16.0		
Total Split (%)	12.8%	31.7%		12.2%			27.2%	27.2%		8.9%		
Maximum Green (s)	18.0	52.0		17.0			44.0	44.0		11.0		
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0		1.0		
Lost Time Adjust (s)	-5.0	-5.0		-5.0				-5.0		-5.0		
Total Lost Time (s)	0.0	0.0		0.0				0.0		0.0		
Lead/Lag	Lead	Lead		Lag			Lead	Lead				
Lead-Lag Optimize?	Yes						Yes	Yes				
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0		4.0		
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0		3.0		
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0		5.0		
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0		5.0		
Recall Mode	None	None		None			None	None		None		
Act Effct Green (s)	22.7	55.7		22.0	55.1	73.8		48.3	70.3	16.0	52.0	74.7
Actuated g/C Ratio	0.13	0.31		0.12	0.31	0.41		0.27	0.39	0.09	0.29	0.42
v/c Ratio	0.67	0.69		0.83	0.58	0.39		0.91	0.53	3.93	0.75	0.41
Control Delay	81.0	56.6		90.0	53.7	21.6		80.1	10.6	1348.3	82.3	3.6
Queue Delay	0.0	48.9		0.0	0.0	0.0		0.0	0.0	8.1	69.4	4.7
Total Delay	81.0	105.5		90.0	53.7	21.6		80.1	10.6	1356.4	151.7	8.3
LOS	F	F		F	D	C		F	B	F	F	A
Approach Delay		98.7			57.3			46.6			730.4	
Approach LOS		F			E			D			F	
Queue Length 50th (ft)	226	541		275	426	140		650	94	~1671	244	0
Queue Length 95th (ft)	286	620		#352	497	215		#876	212	#1947	335	69
Internal Link Dist (ft)		450			1080			1272			116	
Turn Bay Length (ft)	190					500						
Base Capacity (vph)	577	1462		547	1412	846		618	984	189	329	1103
Starvation Cap Reductn	0	557		0	0	0		0	0	67	205	572
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.66	1.10		0.83	0.58	0.39		0.90	0.52	6.09	1.98	0.84

Intersection Summary	
Area Type:	Other
Cycle Length: 180	

Lane Group	Ø6	Ø9	Ø10
Detector 2 Extend (s)			
Detector 3 Position(ft)			
Detector 3 Size(ft)			
Detector 3 Type			
Detector 3 Channel			
Detector 3 Extend (s)			
Turn Type			
Protected Phases	6	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	1.0	1.0
Minimum Split (s)	10.0	36.0	45.0
Total Split (s)	11.0	36.0	45.0
Total Split (%)	6%	20%	25%
Maximum Green (s)	6.0	33.0	42.0
Yellow Time (s)	4.0	3.0	3.0
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	10.0	0.0	0.0
Time To Reduce (s)	10.0	0.0	0.0
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

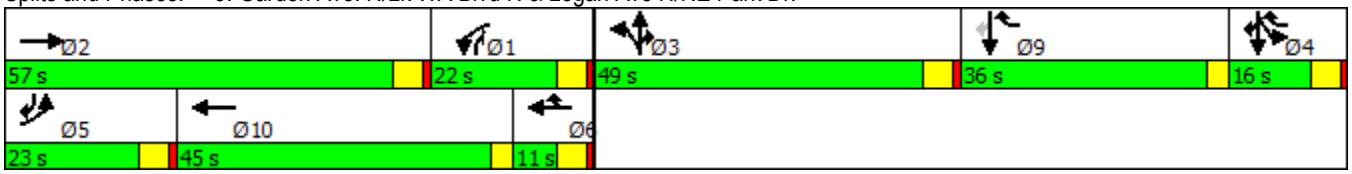
Intersection Summary

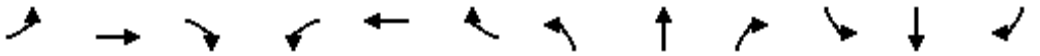
Actuated Cycle Length: 178.1	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.93	
Intersection Signal Delay: 241.9	Intersection LOS: F
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	30	40	0	0	0	47	550	30	33	476	9
Future Volume (vph)	21	30	40	0	0	0	47	550	30	33	476	9
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											1.00	
Frt			0.850					0.992			0.997	
Flt Protected		0.980					0.950			0.950		
Satd. Flow (prot)	0	2426	2104	0	0	0	2375	2480	0	2375	2492	0
Flt Permitted		0.980					0.950			0.950		
Satd. Flow (perm)	0	2426	2104	0	0	0	2375	2480	0	2375	2492	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			41					2			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			802			721	
Travel Time (s)		4.3			8.7			18.2			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	22	31	41	0	0	0	48	567	31	34	491	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	41	0	0	0	48	598	0	34	500	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Prot	NA		Prot	NA	
Protected Phases	3 4	3 4	4 5				5	2		1	6	
Permitted Phases			3									

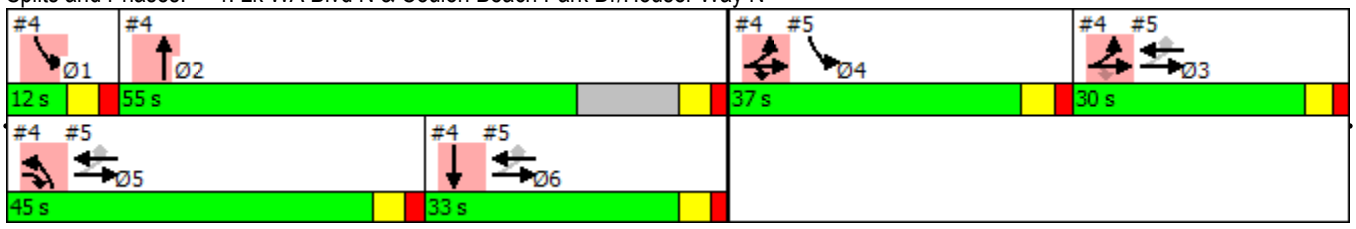
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	3	4
Permitted Phases		

Lanes, Volumes, Timings
4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N 6/28/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4 5				5	2		1	6	
Switch Phase												
Minimum Initial (s)							5.0	5.0		5.0	5.0	
Minimum Split (s)							24.0	26.0		10.5	32.5	
Total Split (s)							45.0	55.0		12.0	33.0	
Total Split (%)							31.0%	37.9%		8.3%	22.8%	
Maximum Green (s)							39.5	49.5		6.5	27.5	
Yellow Time (s)							3.5	3.5		3.5	3.5	
All-Red Time (s)							2.0	2.0		2.0	2.0	
Lost Time Adjust (s)							-5.0	-5.0		-5.0	-5.0	
Total Lost Time (s)							0.5	0.5		0.5	0.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)							3.0	3.0		3.0	3.0	
Recall Mode							None	Max		None	Max	
Act Effct Green (s)		21.0	30.5				12.2	58.9		11.3	55.4	
Actuated g/C Ratio		0.25	0.36				0.14	0.70		0.13	0.66	
v/c Ratio		0.09	0.05				0.14	0.34		0.11	0.30	
Control Delay		14.5	1.0				34.9	8.5		36.1	9.6	
Queue Delay		0.0	0.0				0.0	0.1		0.0	0.0	
Total Delay		14.5	1.0				34.9	8.6		36.1	9.6	
LOS		B	A				C	A		D	A	
Approach Delay		8.6						10.5			11.3	
Approach LOS		A						B			B	
Queue Length 50th (ft)		13	0				25	163		17	132	
Queue Length 95th (ft)		29	5				56	243		46	212	
Internal Link Dist (ft)		110			303			722			641	
Turn Bay Length (ft)												
Base Capacity (vph)		1210	1592				1269	1984		328	1641	
Starvation Cap Reductn		436	651				0	278		0	0	
Spillback Cap Reductn		0	0				0	0		0	0	
Storage Cap Reductn		0	0				0	0		0	0	
Reduced v/c Ratio		0.07	0.04				0.04	0.35		0.10	0.30	

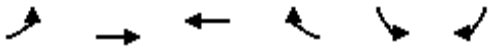
Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 84.2			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 40.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N



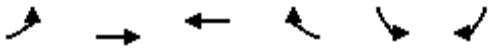
Lane Group	Ø3	Ø4
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	28.0	26.0
Total Split (s)	30.0	37.0
Total Split (%)	21%	26%
Maximum Green (s)	25.0	31.5
Yellow Time (s)	3.0	3.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	0	51	30	26	40	0					
Future Volume (vph)	0	51	30	26	40	0					
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			1	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Frt				0.850							
Flt Protected					0.950						
Satd. Flow (prot)	0	2475	2451	2083	2328	0					
Flt Permitted					0.950						
Satd. Flow (perm)	0	2475	2451	2083	2328	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)				28							
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	0	55	33	28	43	0					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	55	33	28	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2	1	1						
Detector Template	Left	Thru	Thru	Right	Left						
Leading Detector (ft)	20	100	100	20	20						
Trailing Detector (ft)	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0						
Detector 1 Size(ft)	20	6	6	20	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type		NA	NA	Perm	Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6

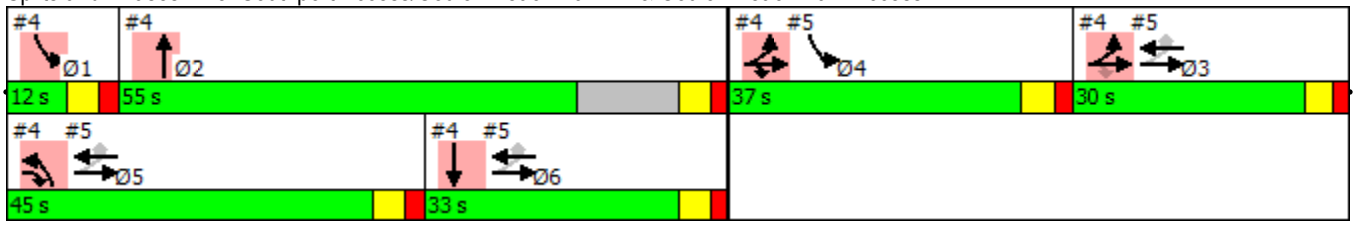
Lanes, Volumes, Timings
5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access 6/28/2017

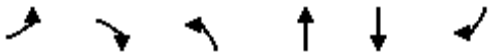


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6			3 5 6							
Detector Phase	3 5 6	3 5 6	3 5 6	3 5 6	4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					26.0		10.5	26.0	28.0	24.0	32.5
Total Split (s)					37.0		12.0	55.0	30.0	45.0	33.0
Total Split (%)					25.5%		8%	38%	21%	31%	23%
Maximum Green (s)					31.5		6.5	49.5	25.0	39.5	27.5
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					-5.0						
Total Lost Time (s)					0.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Act Effct Green (s)		74.2	74.2	74.2	12.1						
Actuated g/C Ratio		0.88	0.88	0.88	0.14						
v/c Ratio		0.03	0.02	0.02	0.13						
Control Delay		1.0	0.2	0.0	35.0						
Queue Delay		0.0	0.0	0.0	0.0						
Total Delay		1.0	0.2	0.0	35.0						
LOS		A	A	A	C						
Approach Delay		1.0	0.1		35.0						
Approach LOS		A	A		C						
Queue Length 50th (ft)		3	0	0	22						
Queue Length 95th (ft)		7	1	0	52						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		2182	2160	1839	1020						
Starvation Cap Reductn		0	0	0	0						
Spillback Cap Reductn		0	0	0	0						
Storage Cap Reductn		0	0	0	0						
Reduced v/c Ratio		0.03	0.02	0.02	0.04						

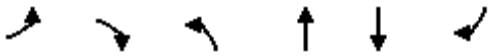
Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 84.2			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay: 9.8		Intersection LOS: A	
Intersection Capacity Utilization 15.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	45	824	359	589	509	7
Future Volume (vph)	45	824	359	589	509	7
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500
Storage Length (ft)	200	0	0			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.850			0.998	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	2328	2083	2328	2451	4648	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	2328	2083	2328	2451	4648	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		116			2	
Link Speed (mph)	30			25	30	
Link Distance (ft)	708			196	802	
Travel Time (s)	16.1			5.3	18.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	916	399	654	566	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	50	916	399	654	574	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	
Detector Template	Left	Right	Left	Thru	Thru	
Leading Detector (ft)	20	20	20	100	100	
Trailing Detector (ft)	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot	pt+ov	Prot	NA	NA	
Protected Phases	5!	5 6	6	2!	7	
Permitted Phases						



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	5	5 6	6	2	7	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	25.0		25.0	30.0	25.0	
Total Split (s)	25.0		25.0	75.0	25.0	
Total Split (%)	33.3%		33.3%	100.0%	33.3%	
Maximum Green (s)	20.0		20.0	73.0	20.0	
Yellow Time (s)	4.0		4.0	2.0	4.0	
All-Red Time (s)	1.0		1.0	0.0	1.0	
Lost Time Adjust (s)	-5.0		-5.0	0.0	-5.0	
Total Lost Time (s)	0.0		0.0	2.0	0.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		C-Max	C-Max	Max	
Walk Time (s)	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)	15.0		15.0	15.0	15.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	25.0	50.0	25.0	75.0	25.0	
Actuated g/C Ratio	0.33	0.67	0.33	1.00	0.33	
v/c Ratio	0.06	0.64	0.51	0.27	0.37	
Control Delay	17.4	8.8	23.0	0.3	19.8	
Queue Delay	0.0	0.0	58.8	0.0	0.0	
Total Delay	17.4	8.8	81.8	0.3	19.8	
LOS	B	A	F	A	B	
Approach Delay	9.2			31.2	19.8	
Approach LOS	A			C	B	
Queue Length 50th (ft)	16	180	147	0	105	
Queue Length 95th (ft)	38	285	227	0	145	
Internal Link Dist (ft)	628			116	722	
Turn Bay Length (ft)	200					
Base Capacity (vph)	776	1427	776	2451	1550	
Starvation Cap Reductn	0	0	468	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.06	0.64	1.30	0.27	0.37	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:NBL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 20.5		Intersection LOS: C	
Intersection Capacity Utilization 56.3%		ICU Level of Service B	
Analysis Period (min) 15			

! Phase conflict between lane groups.

Splits and Phases: 7: Lk WA Blvd N & New Road

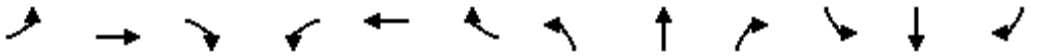
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	45	857	344	22	12	18
Future Vol, veh/h	45	857	344	22	12	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	952	382	24	13	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	407	0	-	0	1446	394
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	1052	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1152	-	-	-	145	655
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	336	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1152	-	-	-	132	655
Mov Cap-2 Maneuver	-	-	-	-	132	-
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	305	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	21.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1152	-	-	-	253
HCM Lane V/C Ratio	0.043	-	-	-	0.132
HCM Control Delay (s)	8.3	0	-	-	21.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Future Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.89			1.00				
Frt					0.850			0.985				
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	2451	0	2351	1874	0	0	2404	0	0	4675	0
Flt Permitted				0.950							0.509	
Satd. Flow (perm)	0	2451	0	2351	1874	0	0	2404	0	0	2394	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					450			6				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	118	0	103	0	887	115	112	786	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	118	103	0	0	1002	0	0	898	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

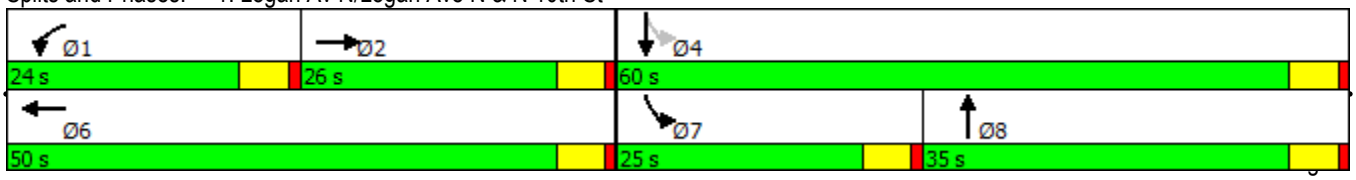
Lanes, Volumes, Timings
1: Logan Av N/Logan Ave N & N 10th St 6/28/2017

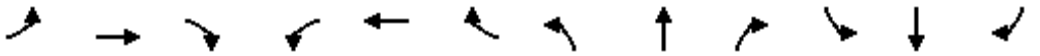
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		26.0		24.0	32.0			27.0		25.0	27.0	
Total Split (s)		26.0		24.0	50.0			35.0		25.0	60.0	
Total Split (%)		23.6%		21.8%	45.5%			31.8%		22.7%	54.5%	
Maximum Green (s)		21.0		19.0	45.0			30.0		20.0	55.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		-5.0		-5.0	-5.0			-5.0			-5.0	
Total Lost Time (s)		0.0		0.0	0.0			0.0			0.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Act Effct Green (s)				50.0	50.0			60.0			60.0	
Actuated g/C Ratio				0.45	0.45			0.55			0.55	
v/c Ratio				0.11	0.09			0.76			1.24dl	
Control Delay				17.6	0.2			24.1			21.7	
Queue Delay				0.0	0.0			9.8			0.0	
Total Delay				17.6	0.2			34.0			21.7	
LOS				B	A			C			C	
Approach Delay					9.5			34.0			21.7	
Approach LOS					A			C			C	
Queue Length 50th (ft)				47	0			522			231	
Queue Length 95th (ft)				81	0			692			306	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				1068	1097			1314			1305	
Starvation Cap Reductn				0	0			290			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.11	0.09			0.98			0.69	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Natural Cycle: 125			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 77.0%		ICU Level of Service D	
Analysis Period (min) 15			

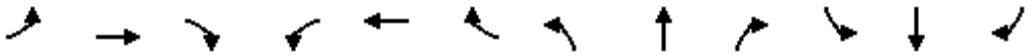
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





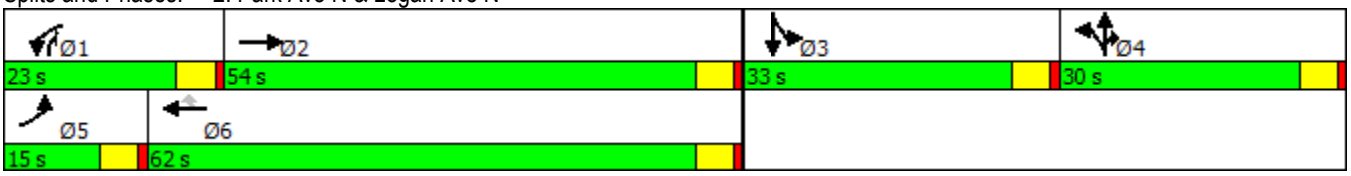
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	854	25	351	840	4	35	1	408	18	6	4
Future Volume (vph)	6	854	25	351	840	4	35	1	408	18	6	4
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.97					0.98	
Frt		0.996				0.850			0.850		0.940	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	2328	4636	0	4517	4657	2083	0	2316	3631	3777	1896	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	2328	4636	0	4517	4657	2023	0	2316	3631	3777	1896	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				94			421		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			182	
Travel Time (s)		31.8			11.3			14.1			4.1	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	6	880	26	362	866	4	36	1	421	19	6	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	906	0	362	866	4	0	37	421	19	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	15.0	54.0		23.0	62.0	62.0	30.0	30.0		33.0	33.0	
Total Split (%)	10.7%	38.6%		16.4%	44.3%	44.3%	21.4%	21.4%		23.6%	23.6%	
Maximum Green (s)	10.0	49.0		18.0	57.0	57.0	25.0	25.0		28.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0		-5.0		-5.0	-5.0	
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Act Effct Green (s)	11.8	26.7		17.4	42.5	42.5		12.8	30.2	11.8	11.8	
Actuated g/C Ratio	0.20	0.44		0.29	0.70	0.70		0.21	0.50	0.20	0.20	
v/c Ratio	0.01	0.44		0.28	0.26	0.00		0.08	0.21	0.03	0.03	
Control Delay	28.2	13.7		19.5	5.1	0.0		25.4	1.8	27.4	23.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	28.2	13.7		19.5	5.2	0.0		25.4	1.8	27.4	23.5	
LOS	C	B		B	A	A		C	A	C	C	
Approach Delay		13.8			9.4			3.7			26.0	
Approach LOS		B			A			A			C	
Queue Length 50th (ft)	2	95		46	22	0		10	0	2	2	
Queue Length 95th (ft)	14	225		113	159	0		42	26	13	17	
Internal Link Dist (ft)		1321			418			539			102	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	614	4032		1828	4282	1867		1222	2397	2193	1102	
Starvation Cap Reductn	0	0		0	1190	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.01	0.22		0.20	0.28	0.00		0.03	0.18	0.01	0.01	

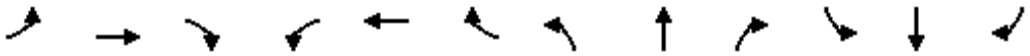
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 60.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 44.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Park Ave N & Logan Ave N



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Future Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	0		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00										0.95
Frt		0.992				0.850		0.934	0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	0	2192	1866	2106	2375	2054
Flt Permitted	0.950			0.950				0.998		0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	2043	0	2192	1866	2106	2375	1953
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		3						21	401			447
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			196	
Travel Time (s)		12.0			26.4			36.9			4.5	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	23	288	758	743	246	447
Shared Lane Traffic (%)									32%	0%		
Lane Group Flow (vph)	383	993	0	454	813	334	0	554	515	743	246	447
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø6	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Prot	NA	custom
Protected Phases	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Permitted Phases												9
Detector Phase	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0		10.0		
Total Split (s)	23.0	57.0		22.0			49.0	49.0		16.0		
Total Split (%)	12.8%	31.7%		12.2%			27.2%	27.2%		8.9%		
Maximum Green (s)	18.0	52.0		17.0			44.0	44.0		11.0		
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0		1.0		
Lost Time Adjust (s)	-5.0	-5.0		-5.0				-5.0		-5.0		
Total Lost Time (s)	0.0	0.0		0.0				0.0		0.0		
Lead/Lag	Lead	Lead		Lag			Lead	Lead				
Lead-Lag Optimize?	Yes						Yes	Yes				
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0		4.0		
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0		3.0		
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0		5.0		
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0		5.0		
Recall Mode	None	None		None			None	None		None		
Act Effct Green (s)	22.7	55.7		22.0	55.1	73.8		48.3	70.3	16.0	52.0	74.7
Actuated g/C Ratio	0.13	0.31		0.12	0.31	0.41		0.27	0.39	0.09	0.29	0.42
v/c Ratio	0.67	0.69		0.83	0.58	0.39		0.91	0.53	3.93	0.75	0.41
Control Delay	81.0	56.6		90.0	53.7	21.6		80.1	10.6	1348.3	82.3	3.6
Queue Delay	0.0	48.9		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	81.0	105.5		90.0	53.7	21.6		80.1	10.6	1348.3	82.3	3.6
LOS	F	F		F	D	C		F	B	F	F	A
Approach Delay		98.7			57.3			46.6			712.9	
Approach LOS		F			E			D			F	
Queue Length 50th (ft)	226	541		275	426	140		650	94	~1671	244	0
Queue Length 95th (ft)	286	620		#352	497	215		#876	212	#1947	335	69
Internal Link Dist (ft)		450			1080			1272			116	
Turn Bay Length (ft)	190					500						
Base Capacity (vph)	577	1462		547	1412	846		618	984	189	329	1103
Starvation Cap Reductn	0	557		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.66	1.10		0.83	0.58	0.39		0.90	0.52	3.93	0.75	0.41

Intersection Summary	
Area Type:	Other
Cycle Length: 180	

Lane Group	Ø6	Ø9	Ø10
Detector 2 Extend (s)			
Detector 3 Position(ft)			
Detector 3 Size(ft)			
Detector 3 Type			
Detector 3 Channel			
Detector 3 Extend (s)			
Turn Type			
Protected Phases	6	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	1.0	1.0
Minimum Split (s)	10.0	36.0	45.0
Total Split (s)	11.0	36.0	45.0
Total Split (%)	6%	20%	25%
Maximum Green (s)	6.0	33.0	42.0
Yellow Time (s)	4.0	3.0	3.0
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	10.0	0.0	0.0
Time To Reduce (s)	10.0	0.0	0.0
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

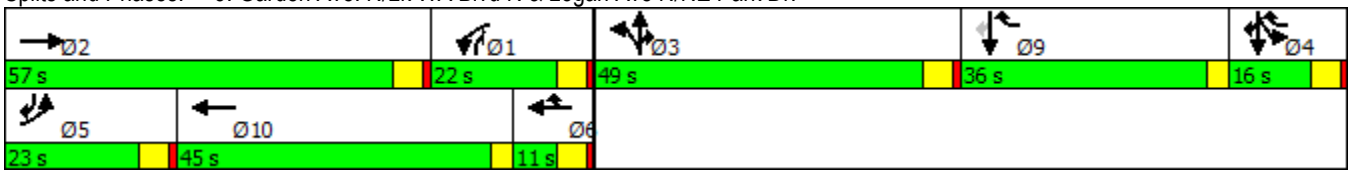
Intersection Summary

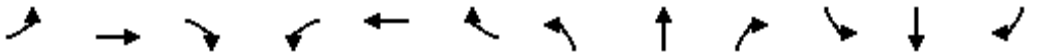
Actuated Cycle Length: 178.1	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.93	
Intersection Signal Delay: 237.3	Intersection LOS: F
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	30	40	0	0	0	406	550	30	33	476	9
Future Volume (vph)	21	30	40	0	0	0	406	550	30	33	476	9
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											1.00	
Frt			0.850					0.992			0.997	
Flt Protected		0.980					0.950			0.950		
Satd. Flow (prot)	0	2426	2104	0	0	0	2375	2480	0	2375	2492	0
Flt Permitted		0.980					0.950			0.950		
Satd. Flow (perm)	0	2426	2104	0	0	0	2375	2480	0	2375	2492	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			41					2			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			802			721	
Travel Time (s)		4.3			8.7			18.2			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	22	31	41	0	0	0	419	567	31	34	491	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	41	0	0	0	419	598	0	34	500	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Prot	NA		Prot	NA	
Protected Phases	3 4	3 4	4 5				5	2		1	6	
Permitted Phases			3									

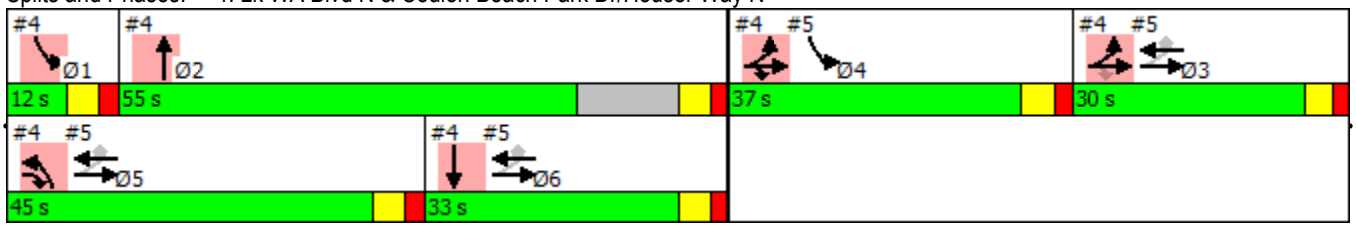
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	3	4
Permitted Phases		

Lanes, Volumes, Timings
4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N 6/28/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4 5				5	2		1	6	
Switch Phase												
Minimum Initial (s)							5.0	5.0		5.0	5.0	
Minimum Split (s)							24.0	26.0		10.5	32.5	
Total Split (s)							45.0	55.0		12.0	33.0	
Total Split (%)							31.0%	37.9%		8.3%	22.8%	
Maximum Green (s)							39.5	49.5		6.5	27.5	
Yellow Time (s)							3.5	3.5		3.5	3.5	
All-Red Time (s)							2.0	2.0		2.0	2.0	
Lost Time Adjust (s)							-5.0	-5.0		-5.0	-5.0	
Total Lost Time (s)							0.5	0.5		0.5	0.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)							3.0	3.0		3.0	3.0	
Recall Mode							None	Max		None	Max	
Act Effct Green (s)		24.3	53.3				29.2	58.4		11.5	35.2	
Actuated g/C Ratio		0.27	0.60				0.33	0.65		0.13	0.39	
v/c Ratio		0.08	0.03				0.54	0.37		0.11	0.51	
Control Delay		14.7	0.3				27.9	10.3		40.9	26.6	
Queue Delay		0.1	0.1				0.0	0.0		0.0	0.0	
Total Delay		14.7	0.4				27.9	10.3		40.9	26.6	
LOS		B	A				C	B		D	C	
Approach Delay		8.5						17.5			27.5	
Approach LOS		A						B			C	
Queue Length 50th (ft)		13	0				209	182		18	219	
Queue Length 95th (ft)		31	2				301	290		52	416	
Internal Link Dist (ft)		110			303			722			641	
Turn Bay Length (ft)												
Base Capacity (vph)		1159	1653				1215	1869		314	979	
Starvation Cap Reductn		513	1116				0	0		0	0	
Spillback Cap Reductn		0	0				0	0		0	0	
Storage Cap Reductn		0	0				0	0		0	0	
Reduced v/c Ratio		0.08	0.08				0.34	0.32		0.11	0.51	

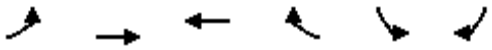
Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 89.5			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 20.3		Intersection LOS: C	
Intersection Capacity Utilization 50.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N

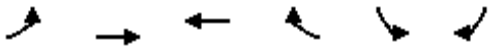


Lane Group	Ø3	Ø4
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	28.0	26.0
Total Split (s)	30.0	37.0
Total Split (%)	21%	26%
Maximum Green (s)	25.0	31.5
Yellow Time (s)	3.0	3.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



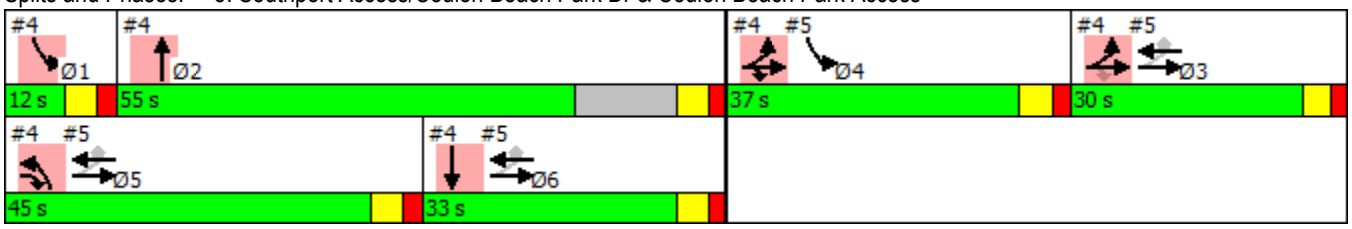
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	0	51	389	26	40	0					
Future Volume (vph)	0	51	389	26	40	0					
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			1	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Frt				0.850							
Flt Protected					0.950						
Satd. Flow (prot)	0	2475	2451	2083	2328	0					
Flt Permitted					0.950						
Satd. Flow (perm)	0	2475	2451	2083	2328	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)				28							
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	0	55	423	28	43	0					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	55	423	28	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2	1	1						
Detector Template	Left	Thru	Thru	Right	Left						
Leading Detector (ft)	20	100	100	20	20						
Trailing Detector (ft)	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0						
Detector 1 Size(ft)	20	6	6	20	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type		NA	NA	Perm	Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6			3 5 6							
Detector Phase	3 5 6	3 5 6	3 5 6	3 5 6	4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					26.0		10.5	26.0	28.0	24.0	32.5
Total Split (s)					37.0		12.0	55.0	30.0	45.0	33.0
Total Split (%)					25.5%		8%	38%	21%	31%	23%
Maximum Green (s)					31.5		6.5	49.5	25.0	39.5	27.5
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					-5.0						
Total Lost Time (s)					0.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Act Effct Green (s)		79.5	79.5	79.5	12.5						
Actuated g/C Ratio		0.89	0.89	0.89	0.14						
v/c Ratio		0.03	0.19	0.02	0.13						
Control Delay		1.0	0.2	0.0	39.4						
Queue Delay		0.0	0.4	0.0	0.0						
Total Delay		1.0	0.6	0.0	39.4						
LOS		A	A	A	D						
Approach Delay		1.0	0.6		39.4						
Approach LOS		A	A		D						
Queue Length 50th (ft)		3	1	0	23						
Queue Length 95th (ft)		7	2	m0	60						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		2199	2178	1854	977						
Starvation Cap Reductn		0	1218	0	0						
Spillback Cap Reductn		0	0	0	0						
Storage Cap Reductn		0	0	0	0						
Reduced v/c Ratio		0.03	0.44	0.02	0.04						

Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 89.5			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 3.7		Intersection LOS: A	
Intersection Capacity Utilization 26.4%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access



Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	45	857	7	0	12	355
Future Vol, veh/h	45	857	7	0	12	355
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	952	8	0	13	394

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	8	0	-	0	1060	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	1052	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1612	-	-	-	248	1074
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	336	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1612	-	-	-	232	1074
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	314	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1612	-	-	-	960
HCM Lane V/C Ratio	0.031	-	-	-	0.425
HCM Control Delay (s)	7.3	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	2.1

Intersection	
Int Delay, s/veh	57.2

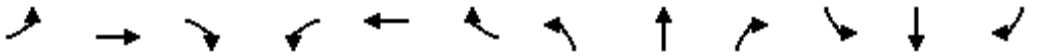
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	45	824	0	941	509	7
Future Vol, veh/h	45	824	0	941	509	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	916	0	1046	566	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1092	287	573	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	209	~ 710	996	-	-	-
Stage 1	530	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	209	~ 710	996	-	-	-
Mov Cap-2 Maneuver	209	-	-	-	-	-
Stage 1	530	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	153.1	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	996	-	209	710	-	-
HCM Lane V/C Ratio	-	-	0.239	1.29	-	-
HCM Control Delay (s)	0	-	27.6	160	-	-
HCM Lane LOS	A	-	D	F	-	-
HCM 95th %tile Q(veh)	0	-	0.9	35.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Future Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.89			1.00				
Frt					0.850			0.985				
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	2451	0	2351	1874	0	0	2404	0	0	4675	0
Flt Permitted				0.950							0.509	
Satd. Flow (perm)	0	2451	0	2351	1874	0	0	2404	0	0	2394	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					450			6				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	118	0	103	0	887	115	112	786	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	118	103	0	0	1002	0	0	898	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

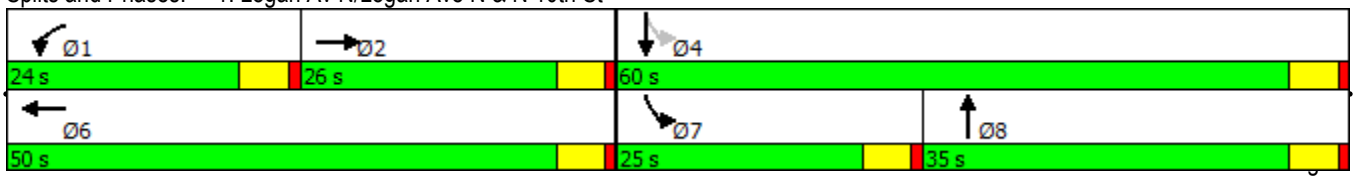
Lanes, Volumes, Timings
1: Logan Av N/Logan Ave N & N 10th St 6/28/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		26.0		24.0	32.0			27.0		25.0	27.0	
Total Split (s)		26.0		24.0	50.0			35.0		25.0	60.0	
Total Split (%)		23.6%		21.8%	45.5%			31.8%		22.7%	54.5%	
Maximum Green (s)		21.0		19.0	45.0			30.0		20.0	55.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		-5.0		-5.0	-5.0			-5.0			-5.0	
Total Lost Time (s)		0.0		0.0	0.0			0.0			0.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Act Effct Green (s)				50.0	50.0			60.0			60.0	
Actuated g/C Ratio				0.45	0.45			0.55			0.55	
v/c Ratio				0.11	0.09			0.76			1.24dl	
Control Delay				17.6	0.2			24.1			21.7	
Queue Delay				0.0	0.0			9.8			0.0	
Total Delay				17.6	0.2			34.0			21.7	
LOS				B	A			C			C	
Approach Delay					9.5			34.0			21.7	
Approach LOS					A			C			C	
Queue Length 50th (ft)				47	0			522			231	
Queue Length 95th (ft)				81	0			692			306	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				1068	1097			1314			1305	
Starvation Cap Reductn				0	0			290			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.11	0.09			0.98			0.69	

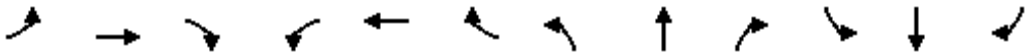
Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Natural Cycle: 125			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 77.0%		ICU Level of Service D	
Analysis Period (min) 15			

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St



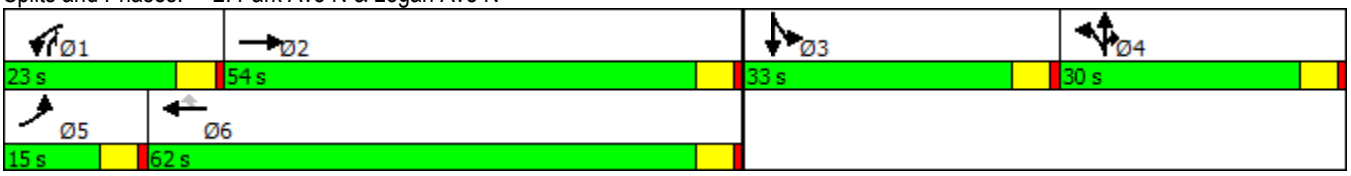
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	854	25	351	840	4	35	1	408	18	6	4
Future Volume (vph)	6	854	25	351	840	4	35	1	408	18	6	4
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.97					0.98	
Frt		0.996				0.850			0.850		0.940	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	2328	4636	0	4517	4657	2083	0	2316	3631	3777	1896	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	2328	4636	0	4517	4657	2023	0	2316	3631	3777	1896	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				94			421		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			182	
Travel Time (s)		31.8			11.3			14.1			4.1	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	6	880	26	362	866	4	36	1	421	19	6	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	906	0	362	866	4	0	37	421	19	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

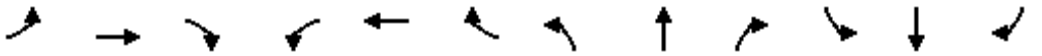


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	15.0	54.0		23.0	62.0	62.0	30.0	30.0		33.0	33.0	
Total Split (%)	10.7%	38.6%		16.4%	44.3%	44.3%	21.4%	21.4%		23.6%	23.6%	
Maximum Green (s)	10.0	49.0		18.0	57.0	57.0	25.0	25.0		28.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0		-5.0		-5.0	-5.0	
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Act Effct Green (s)	11.8	26.7		17.4	42.5	42.5		12.8	30.2	11.8	11.8	
Actuated g/C Ratio	0.20	0.44		0.29	0.70	0.70		0.21	0.50	0.20	0.20	
v/c Ratio	0.01	0.44		0.28	0.26	0.00		0.08	0.21	0.03	0.03	
Control Delay	28.2	13.7		19.5	5.1	0.0		25.4	1.8	27.4	23.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	28.2	13.7		19.5	5.2	0.0		25.4	1.8	27.4	23.5	
LOS	C	B		B	A	A		C	A	C	C	
Approach Delay		13.8			9.4			3.7			26.0	
Approach LOS		B			A			A			C	
Queue Length 50th (ft)	2	95		46	22	0		10	0	2	2	
Queue Length 95th (ft)	14	225		113	159	0		42	26	13	17	
Internal Link Dist (ft)		1321			418			539			102	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	614	4032		1828	4282	1867		1222	2397	2193	1102	
Starvation Cap Reductn	0	0		0	1190	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.01	0.22		0.20	0.28	0.00		0.03	0.18	0.01	0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 60.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 44.4%		ICU Level of Service A	
Analysis Period (min) 15			

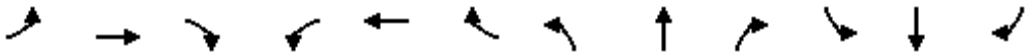
Splits and Phases: 2: Park Ave N & Logan Ave N





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Future Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	0		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00										0.95
Frt		0.992				0.850		0.934	0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	0	2192	1866	2106	2375	2054
Flt Permitted	0.950			0.950				0.998		0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	2043	0	2192	1866	2106	2375	1953
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		3						21	401			447
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			196	
Travel Time (s)		12.0			26.4			36.9			4.5	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	23	288	758	743	246	447
Shared Lane Traffic (%)									32%	0%		
Lane Group Flow (vph)	383	993	0	454	813	334	0	554	515	743	246	447
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø6	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Prot	NA	custom
Protected Phases	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Permitted Phases												9
Detector Phase	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0		10.0		
Total Split (s)	23.0	57.0		22.0			49.0	49.0		16.0		
Total Split (%)	12.8%	31.7%		12.2%			27.2%	27.2%		8.9%		
Maximum Green (s)	18.0	52.0		17.0			44.0	44.0		11.0		
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0		1.0		
Lost Time Adjust (s)	-5.0	-5.0		-5.0				-5.0		-5.0		
Total Lost Time (s)	0.0	0.0		0.0				0.0		0.0		
Lead/Lag	Lead	Lead		Lag			Lead	Lead				
Lead-Lag Optimize?	Yes						Yes	Yes				
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0		4.0		
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0		3.0		
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0		5.0		
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0		5.0		
Recall Mode	None	None		None			None	None		None		
Act Effct Green (s)	22.7	55.7		22.0	55.1	73.8		48.3	70.3	16.0	52.0	74.7
Actuated g/C Ratio	0.13	0.31		0.12	0.31	0.41		0.27	0.39	0.09	0.29	0.42
v/c Ratio	0.67	0.69		0.83	0.58	0.39		0.91	0.53	3.93	0.75	0.41
Control Delay	81.0	56.6		90.0	53.7	21.6		80.1	10.6	1348.3	82.3	3.6
Queue Delay	0.0	48.9		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	81.0	105.5		90.0	53.7	21.6		80.1	10.6	1348.3	82.3	3.6
LOS	F	F		F	D	C		F	B	F	F	A
Approach Delay		98.7			57.3			46.6			712.9	
Approach LOS		F			E			D			F	
Queue Length 50th (ft)	226	541		275	426	140		650	94	~1671	244	0
Queue Length 95th (ft)	286	620		#352	497	215		#876	212	#1947	335	69
Internal Link Dist (ft)		450			1080			1272			116	
Turn Bay Length (ft)	190					500						
Base Capacity (vph)	577	1462		547	1412	846		618	984	189	329	1103
Starvation Cap Reductn	0	557		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.66	1.10		0.83	0.58	0.39		0.90	0.52	3.93	0.75	0.41

Intersection Summary	
Area Type:	Other
Cycle Length: 180	

Lane Group	Ø6	Ø9	Ø10
Detector 2 Extend (s)			
Detector 3 Position(ft)			
Detector 3 Size(ft)			
Detector 3 Type			
Detector 3 Channel			
Detector 3 Extend (s)			
Turn Type			
Protected Phases	6	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	1.0	1.0
Minimum Split (s)	10.0	36.0	45.0
Total Split (s)	11.0	36.0	45.0
Total Split (%)	6%	20%	25%
Maximum Green (s)	6.0	33.0	42.0
Yellow Time (s)	4.0	3.0	3.0
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	10.0	0.0	0.0
Time To Reduce (s)	10.0	0.0	0.0
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

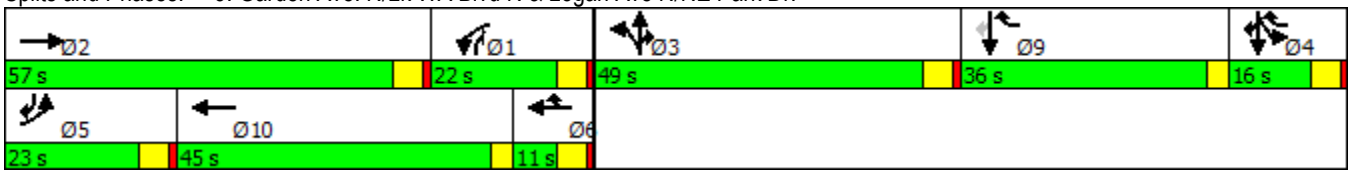
Intersection Summary

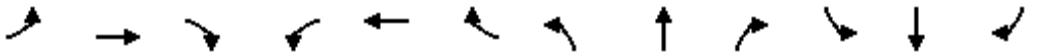
Actuated Cycle Length: 178.1	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.93	
Intersection Signal Delay: 237.3	Intersection LOS: F
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	57	40	0	0	0	406	532	3	33	469	16
Future Volume (vph)	39	57	40	0	0	0	406	532	3	33	469	16
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											1.00	
Frt			0.850					0.999			0.995	
Flt Protected		0.980					0.950			0.950		
Satd. Flow (prot)	0	2426	2104	0	0	0	2375	2498	0	2375	2486	0
Flt Permitted		0.980					0.950			0.950		
Satd. Flow (perm)	0	2426	2104	0	0	0	2375	2498	0	2375	2486	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			41								1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			802			721	
Travel Time (s)		4.3			8.7			18.2			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	40	59	41	0	0	0	419	548	3	34	484	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	41	0	0	0	419	551	0	34	500	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Prot	NA		Prot	NA	
Protected Phases	3 4	3 4	4 5				5	2		1	6	
Permitted Phases			3									

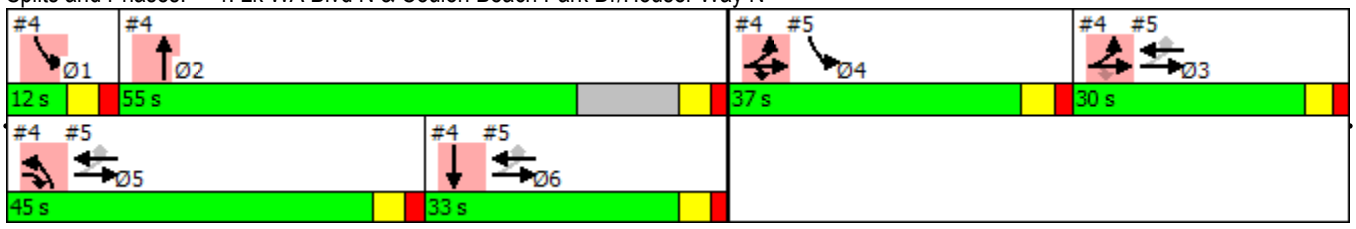
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	3	4
Permitted Phases		

Lanes, Volumes, Timings
4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N 6/28/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4 5				5	2		1	6	
Switch Phase												
Minimum Initial (s)							5.0	5.0		5.0	5.0	
Minimum Split (s)							24.0	26.0		10.5	32.5	
Total Split (s)							45.0	55.0		12.0	33.0	
Total Split (%)							31.0%	37.9%		8.3%	22.8%	
Maximum Green (s)							39.5	49.5		6.5	27.5	
Yellow Time (s)							3.5	3.5		3.5	3.5	
All-Red Time (s)							2.0	2.0		2.0	2.0	
Lost Time Adjust (s)							-5.0	-5.0		-5.0	-5.0	
Total Lost Time (s)							0.5	0.5		0.5	0.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)							3.0	3.0		3.0	3.0	
Recall Mode							None	Max		None	Max	
Act Effct Green (s)		29.5	60.2				30.8	58.6		11.4	33.9	
Actuated g/C Ratio		0.31	0.63				0.32	0.62		0.12	0.36	
v/c Ratio		0.13	0.03				0.55	0.36		0.12	0.56	
Control Delay		18.5	0.6				29.2	11.3		43.3	30.3	
Queue Delay		0.1	0.1				0.0	0.0		0.0	0.0	
Total Delay		18.7	0.7				29.2	11.3		43.3	30.3	
LOS		B	A				C	B		D	C	
Approach Delay		13.4						19.0			31.1	
Approach LOS		B						B			C	
Queue Length 50th (ft)		31	0				212	175		19	237	
Queue Length 95th (ft)		65	4				313	282		55	448	
Internal Link Dist (ft)		110			303			722			641	
Turn Bay Length (ft)												
Base Capacity (vph)		1133	1659				1128	1747		291	887	
Starvation Cap Reductn		536	1167				0	0		0	0	
Spillback Cap Reductn		0	0				0	0		0	0	
Storage Cap Reductn		0	0				0	0		0	0	
Reduced v/c Ratio		0.17	0.08				0.37	0.32		0.12	0.56	

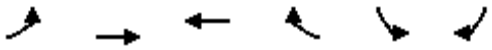
Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 95.2			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 22.5		Intersection LOS: C	
Intersection Capacity Utilization 50.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N

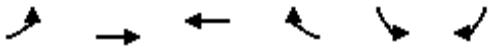


Lane Group	Ø3	Ø4
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	28.0	26.0
Total Split (s)	30.0	37.0
Total Split (%)	21%	26%
Maximum Green (s)	25.0	31.5
Yellow Time (s)	3.0	3.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



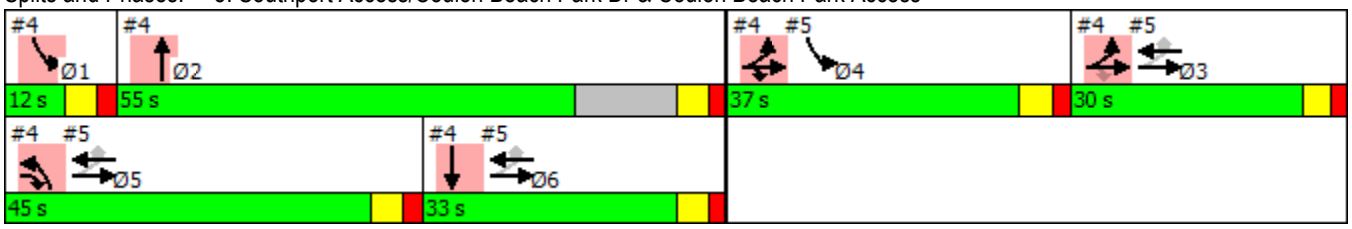
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	0	96	396	26	40	0					
Future Volume (vph)	0	96	396	26	40	0					
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			1	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Frt				0.850							
Flt Protected					0.950						
Satd. Flow (prot)	0	2475	2451	2083	2328	0					
Flt Permitted					0.950						
Satd. Flow (perm)	0	2475	2451	2083	2328	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)				28							
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	0	104	430	28	43	0					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	104	430	28	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2	1	1						
Detector Template	Left	Thru	Thru	Right	Left						
Leading Detector (ft)	20	100	100	20	20						
Trailing Detector (ft)	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0						
Detector 1 Size(ft)	20	6	6	20	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type		NA	NA	Perm	Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6			3 5 6							
Detector Phase	3 5 6	3 5 6	3 5 6	3 5 6	4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					26.0		10.5	26.0	28.0	24.0	32.5
Total Split (s)					37.0		12.0	55.0	30.0	45.0	33.0
Total Split (%)					25.5%		8%	38%	21%	31%	23%
Maximum Green (s)					31.5		6.5	49.5	25.0	39.5	27.5
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					-5.0						
Total Lost Time (s)					0.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Act Effct Green (s)		81.2	81.2	81.2	13.5						
Actuated g/C Ratio		0.85	0.85	0.85	0.14						
v/c Ratio		0.05	0.21	0.02	0.13						
Control Delay		1.2	0.3	0.0	40.4						
Queue Delay		0.0	0.5	0.0	0.0						
Total Delay		1.2	0.8	0.0	40.4						
LOS		A	A	A	D						
Approach Delay		1.2	0.7		40.4						
Approach LOS		A	A		D						
Queue Length 50th (ft)		6	2	0	23						
Queue Length 95th (ft)		14	3	m0	63						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		2111	2091	1781	907						
Starvation Cap Reductn		0	1183	0	0						
Spillback Cap Reductn		0	0	0	0						
Storage Cap Reductn		0	0	0	0						
Reduced v/c Ratio		0.05	0.47	0.02	0.05						

Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 95.2			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 3.6		Intersection LOS: A	
Intersection Capacity Utilization 26.7%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access



Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	90	812	0	1	12	362
Future Vol, veh/h	90	812	0	1	12	362
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	100	902	0	1	13	402

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	1103	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	1102	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	234	1084
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	318	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	205	1084
Mov Cap-2 Maneuver	-	-	-	-	205	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	279	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	953
HCM Lane V/C Ratio	0.062	-	-	-	0.436
HCM Control Delay (s)	7.4	0	-	-	11.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	2.2

Intersection	
Int Delay, s/veh	56.9

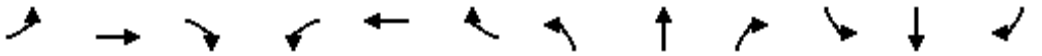
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	0	824	0	941	509	0
Future Vol, veh/h	0	824	0	941	509	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	916	0	1046	566	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1089	283	566	0	-	0
Stage 1	566	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	210	~ 714	1002	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	210	~ 714	1002	-	-	-
Mov Cap-2 Maneuver	210	-	-	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	156.9	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1002	-	714	-	-
HCM Lane V/C Ratio	-	-	1.282	-	-
HCM Control Delay (s)	0	-	156.9	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0	-	35	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Future Volume (vph)	0	0	0	112	0	98	0	843	109	106	747	0
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.89			1.00				
Frt					0.850			0.985				
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	2451	0	2351	1874	0	0	2404	0	0	4675	0
Flt Permitted				0.950							0.509	
Satd. Flow (perm)	0	2451	0	2351	1874	0	0	2404	0	0	2394	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					450			6				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	118	0	103	0	887	115	112	786	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	118	103	0	0	1002	0	0	898	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

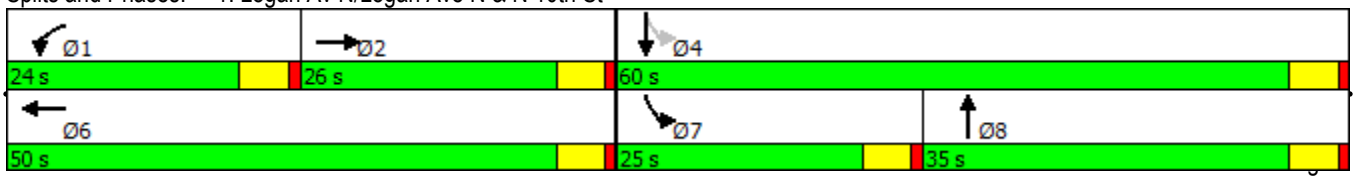
Lanes, Volumes, Timings
1: Logan Av N/Logan Ave N & N 10th St 6/28/2017

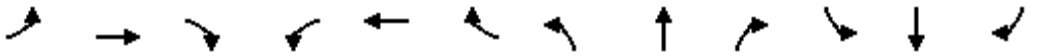
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		26.0		24.0	32.0			27.0		25.0	27.0	
Total Split (s)		26.0		24.0	50.0			35.0		25.0	60.0	
Total Split (%)		23.6%		21.8%	45.5%			31.8%		22.7%	54.5%	
Maximum Green (s)		21.0		19.0	45.0			30.0		20.0	55.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		-5.0		-5.0	-5.0			-5.0			-5.0	
Total Lost Time (s)		0.0		0.0	0.0			0.0			0.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Act Effct Green (s)				50.0	50.0			60.0			60.0	
Actuated g/C Ratio				0.45	0.45			0.55			0.55	
v/c Ratio				0.11	0.09			0.76			1.24dl	
Control Delay				17.6	0.2			24.1			21.7	
Queue Delay				0.0	0.0			9.8			0.0	
Total Delay				17.6	0.2			34.0			21.7	
LOS				B	A			C			C	
Approach Delay					9.5			34.0			21.7	
Approach LOS					A			C			C	
Queue Length 50th (ft)				47	0			522			231	
Queue Length 95th (ft)				81	0			692			306	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				1068	1097			1314			1305	
Starvation Cap Reductn				0	0			290			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.11	0.09			0.98			0.69	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Natural Cycle: 125			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 77.0%		ICU Level of Service D	
Analysis Period (min) 15			

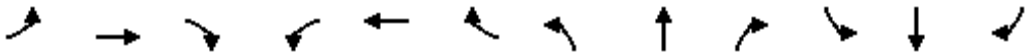
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





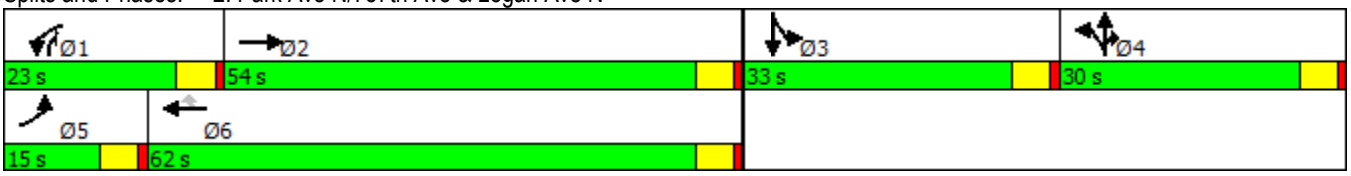
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	854	25	351	840	4	35	1	408	18	6	4
Future Volume (vph)	6	854	25	351	840	4	35	1	408	18	6	4
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.97					0.98	
Frt		0.996				0.850			0.850		0.940	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	2328	4636	0	4517	4657	2083	0	2316	3631	3777	1896	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	2328	4636	0	4517	4657	2023	0	2316	3631	3777	1896	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				94			421		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			281	
Travel Time (s)		31.8			11.3			14.1			6.4	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	6	880	26	362	866	4	36	1	421	19	6	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	906	0	362	866	4	0	37	421	19	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	15.0	54.0		23.0	62.0	62.0	30.0	30.0		33.0	33.0	
Total Split (%)	10.7%	38.6%		16.4%	44.3%	44.3%	21.4%	21.4%		23.6%	23.6%	
Maximum Green (s)	10.0	49.0		18.0	57.0	57.0	25.0	25.0		28.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0		-5.0		-5.0	-5.0	
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Act Effct Green (s)	11.8	26.7		17.4	42.5	42.5		12.8	30.2	11.8	11.8	
Actuated g/C Ratio	0.20	0.44		0.29	0.70	0.70		0.21	0.50	0.20	0.20	
v/c Ratio	0.01	0.44		0.28	0.26	0.00		0.08	0.21	0.03	0.03	
Control Delay	28.2	13.7		19.5	5.1	0.0		25.4	1.8	27.4	23.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	28.2	13.7		19.5	5.2	0.0		25.4	1.8	27.4	23.5	
LOS	C	B		B	A	A		C	A	C	C	
Approach Delay		13.8			9.4			3.7			26.0	
Approach LOS		B			A			A			C	
Queue Length 50th (ft)	2	95		46	22	0		10	0	2	2	
Queue Length 95th (ft)	14	225		113	159	0		42	26	13	17	
Internal Link Dist (ft)		1321			418			539			201	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	614	4032		1828	4282	1867		1222	2397	2193	1102	
Starvation Cap Reductn	0	0		0	1190	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.01	0.22		0.20	0.28	0.00		0.03	0.18	0.01	0.01	

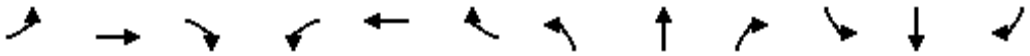
Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 60.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 44.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Park Ave N/757th Ave & Logan Ave N



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	21	268	705	690	229	416
Future Volume (vph)	356	875	48	422	756	311	21	268	705	690	229	416
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00										0.95
Frt		0.992				0.850		0.934	0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	0	2192	1866	2106	2375	2054
Flt Permitted	0.950			0.950				0.998		0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	2043	0	2192	1866	2106	2375	1953
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		3						21	401			447
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	23	288	758	742	246	447
Shared Lane Traffic (%)									32%	0%		
Lane Group Flow (vph)	383	993	0	454	813	334	0	554	515	742	246	447
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø6	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Prot	NA	custom
Protected Phases	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Permitted Phases												9
Detector Phase	5	2		1	6 10	6 9 4	3	3	3 1	4	4 9	5 4
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0		10.0		
Total Split (s)	23.0	57.0		22.0			49.0	49.0		16.0		
Total Split (%)	12.8%	31.7%		12.2%			27.2%	27.2%		8.9%		
Maximum Green (s)	18.0	52.0		17.0			44.0	44.0		11.0		
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0		1.0		
Lost Time Adjust (s)	-5.0	-5.0		-5.0				-5.0		-5.0		
Total Lost Time (s)	0.0	0.0		0.0				0.0		0.0		
Lead/Lag	Lead	Lead		Lag			Lead	Lead				
Lead-Lag Optimize?	Yes						Yes	Yes				
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0		4.0		
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0		3.0		
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0		5.0		
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0		5.0		
Recall Mode	None	None		None			None	None		None		
Act Effct Green (s)	22.7	55.7		22.0	55.1	73.8		48.3	70.3	16.0	52.0	74.7
Actuated g/C Ratio	0.13	0.31		0.12	0.31	0.41		0.27	0.39	0.09	0.29	0.42
v/c Ratio	0.67	0.69		0.83	0.58	0.39		0.91	0.53	3.93	0.75	0.41
Control Delay	81.0	56.6		90.0	53.7	21.6		80.1	10.6	1346.0	82.3	3.6
Queue Delay	0.0	48.9		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	81.0	105.5		90.0	53.7	21.6		80.1	10.6	1346.0	82.3	3.6
LOS	F	F		F	D	C		F	B	F	F	A
Approach Delay		98.7			57.3			46.6			711.2	
Approach LOS		F			E			D			F	
Queue Length 50th (ft)	226	541		275	426	140		650	94	~1668	244	0
Queue Length 95th (ft)	286	620		#352	497	215		#876	212	#1942	335	69
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	577	1462		547	1412	846		618	984	189	329	1103
Starvation Cap Reductn	0	557		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.66	1.10		0.83	0.58	0.39		0.90	0.52	3.93	0.75	0.41

Intersection Summary	
Area Type:	Other
Cycle Length: 180	

Lane Group	Ø6	Ø9	Ø10
Detector 2 Extend (s)			
Detector 3 Position(ft)			
Detector 3 Size(ft)			
Detector 3 Type			
Detector 3 Channel			
Detector 3 Extend (s)			
Turn Type			
Protected Phases	6	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	1.0	1.0
Minimum Split (s)	10.0	36.0	45.0
Total Split (s)	11.0	36.0	45.0
Total Split (%)	6%	20%	25%
Maximum Green (s)	6.0	33.0	42.0
Yellow Time (s)	4.0	3.0	3.0
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0
Time Before Reduce (s)	10.0	0.0	0.0
Time To Reduce (s)	10.0	0.0	0.0
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

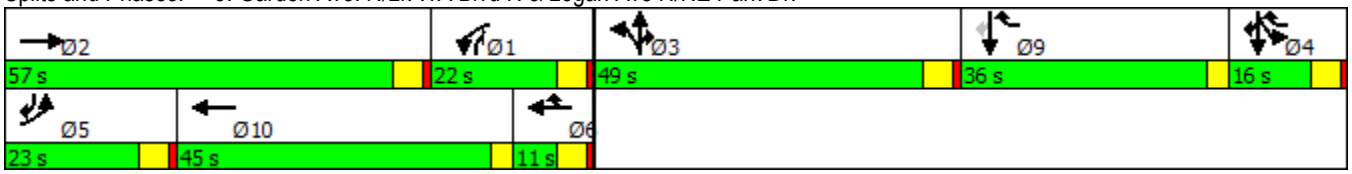
Intersection Summary

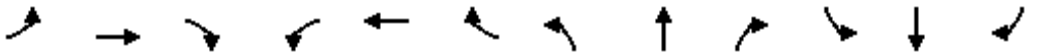
Actuated Cycle Length: 178.1	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.93	
Intersection Signal Delay: 236.8	Intersection LOS: F
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

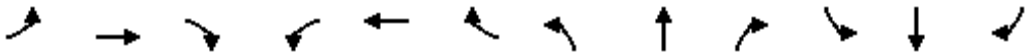
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	1265	108	422	912	153	45	244	705	298	169	275
Future Volume (vph)	295	1265	108	422	912	153	45	244	705	298	169	275
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	1		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Ped Bike Factor		1.00				0.98						0.95
Frt		0.988				0.850		0.925	0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	4473	4538	0	4430	4567	2043	2351	2175	1866	4300	2500	2054
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	4473	4538	0	4430	4567	2003	2351	2175	1866	4300	2500	1957
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		11						53	131			131
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	317	1360	116	454	981	165	48	262	758	320	182	296
Shared Lane Traffic (%)									35%			
Lane Group Flow (vph)	317	1476	0	454	981	165	48	527	493	320	182	296
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

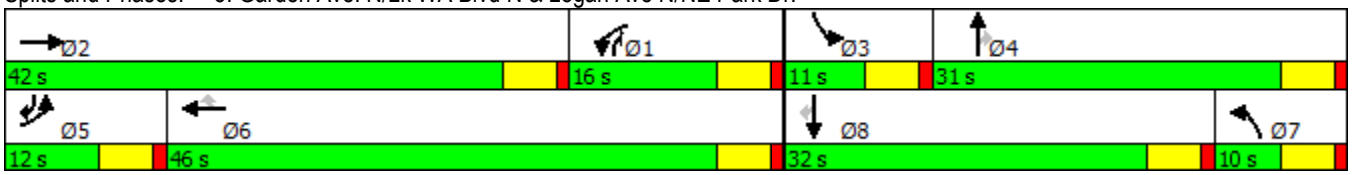


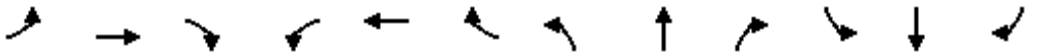
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6		7	4	1	3	8	5
Permitted Phases						6			4			8
Detector Phase	5	2		1	6	6	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	30.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	12.0	42.0		16.0	46.0	46.0	10.0	31.0	16.0	11.0	32.0	12.0
Total Split (%)	12.0%	42.0%		16.0%	46.0%	46.0%	10.0%	31.0%	16.0%	11.0%	32.0%	12.0%
Maximum Green (s)	7.0	37.0		11.0	41.0	41.0	5.0	26.0	11.0	6.0	27.0	7.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0	-1.0	-5.0	-5.0	-5.0	-5.0	-5.0
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		4.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Gap (s)	2.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
Time Before Reduce (s)	10.0	0.0		0.0	10.0	10.0	10.0	5.0	0.0	5.0	5.0	10.0
Time To Reduce (s)	5.0	0.0		0.0	10.0	10.0	5.0	5.0	0.0	5.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	None	None	None	None	None
Act Effct Green (s)	12.0	42.0		16.0	46.0	46.0	12.8	29.2	45.2	11.0	27.5	39.5
Actuated g/C Ratio	0.12	0.43		0.16	0.47	0.47	0.13	0.30	0.46	0.11	0.28	0.40
v/c Ratio	0.58	0.76		0.63	0.46	0.18	0.16	0.77	0.53	0.66	0.26	0.34
Control Delay	45.9	27.0		43.1	18.8	16.2	37.6	36.8	11.5	49.6	31.7	8.9
Queue Delay	0.0	4.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	31.6		43.1	18.8	16.2	37.6	36.8	11.5	49.6	31.7	8.9
LOS	D	C		D	B	B	D	D	B	D	C	A
Approach Delay		34.2			25.4			25.1			30.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	100	412		141	219	60	25	285	122	102	103	50
Queue Length 95th (ft)	144	498		193	273	101	59	415	195	148	159	94
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	546	1948		721	2140	938	306	723	929	482	873	876
Starvation Cap Reductn	0	397		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.95		0.63	0.46	0.18	0.16	0.73	0.53	0.66	0.21	0.34

Intersection Summary	
Area Type:	Other
Cycle Length: 100	

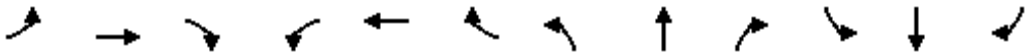
Actuated Cycle Length: 98.2	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 29.1	Intersection LOS: C
Intersection Capacity Utilization 79.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Future Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	0		0
Storage Lanes	2		0	2		1	1		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Ped Bike Factor		1.00				0.98						0.96
Frt		0.992				0.850		0.929	0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	2351	2185	1866	4300	2500	2054
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	1998	2351	2185	1866	4300	2500	1972
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		6						47	131			148
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			196	
Travel Time (s)		12.0			26.4			36.9			4.5	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	23	288	758	743	246	447
Shared Lane Traffic (%)									34%			
Lane Group Flow (vph)	383	993	0	454	813	334	23	546	500	743	246	447
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

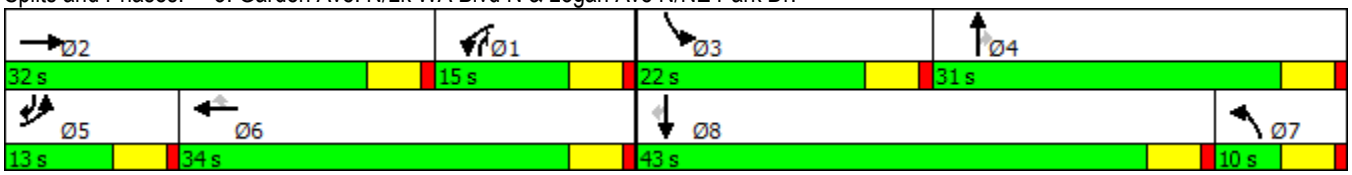


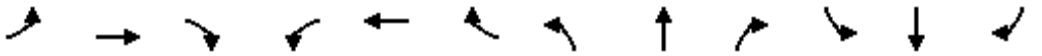
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6		7	4	1	3	8	5
Permitted Phases						6			4			8
Detector Phase	5	2		1	6	6	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	30.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	13.0	32.0		15.0	34.0	34.0	10.0	31.0	15.0	22.0	43.0	13.0
Total Split (%)	13.0%	32.0%		15.0%	34.0%	34.0%	10.0%	31.0%	15.0%	22.0%	43.0%	13.0%
Maximum Green (s)	8.0	27.0		10.0	29.0	29.0	5.0	26.0	10.0	17.0	38.0	8.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0	-1.0	-5.0	-5.0	-5.0	-5.0	-5.0
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		4.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Gap (s)	2.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
Time Before Reduce (s)	10.0	0.0		0.0	10.0	10.0	10.0	5.0	0.0	5.0	5.0	10.0
Time To Reduce (s)	5.0	0.0		0.0	10.0	10.0	5.0	5.0	0.0	5.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	None	None	None	None	None
Act Effct Green (s)	13.0	32.0		15.0	34.0	34.0	13.3	29.7	44.7	22.0	40.5	53.5
Actuated g/C Ratio	0.13	0.32		0.15	0.34	0.34	0.13	0.30	0.45	0.22	0.41	0.54
v/c Ratio	0.65	0.67		0.67	0.52	0.49	0.07	0.79	0.55	0.78	0.24	0.39
Control Delay	46.8	31.5		45.5	27.5	28.8	33.5	38.4	9.7	42.8	23.8	7.7
Queue Delay	0.0	0.3		0.0	0.0	0.0	0.0	0.0	0.0	54.3	3.2	35.2
Total Delay	46.8	31.9		45.5	27.5	28.8	33.5	38.4	9.7	97.0	27.0	42.9
LOS	D	C		D	C	C	C	D	A	F	C	D
Approach Delay		36.0			32.8			24.8			68.2	
Approach LOS		D			C			C			E	
Queue Length 50th (ft)	121	286		143	216	167	14	304	88	231	78	68
Queue Length 95th (ft)	169	356		195	275	251	32	438	142	297	199	112
Internal Link Dist (ft)		450			1080			1272			116	
Turn Bay Length (ft)	190					500						
Base Capacity (vph)	589	1482		673	1573	688	315	718	917	958	1209	1147
Starvation Cap Reductn	0	126		0	0	0	0	0	0	533	853	718
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.73		0.67	0.52	0.49	0.07	0.76	0.55	1.75	0.69	1.04

Intersection Summary	
Area Type:	Other
Cycle Length: 100	

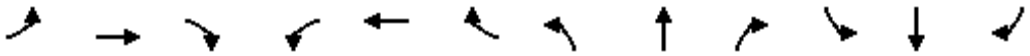
Actuated Cycle Length: 98.8	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 41.3	Intersection LOS: D
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Future Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	0		0
Storage Lanes	2		0	2		1	1		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Ped Bike Factor		1.00				0.98						0.96
Frt		0.992				0.850		0.929	0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	2351	2185	1866	4300	2500	2054
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	1998	2351	2185	1866	4300	2500	1972
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		6						47	131			148
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			196	
Travel Time (s)		12.0			26.4			36.9			4.5	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	23	288	758	743	246	447
Shared Lane Traffic (%)									34%			
Lane Group Flow (vph)	383	993	0	454	813	334	23	546	500	743	246	447
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

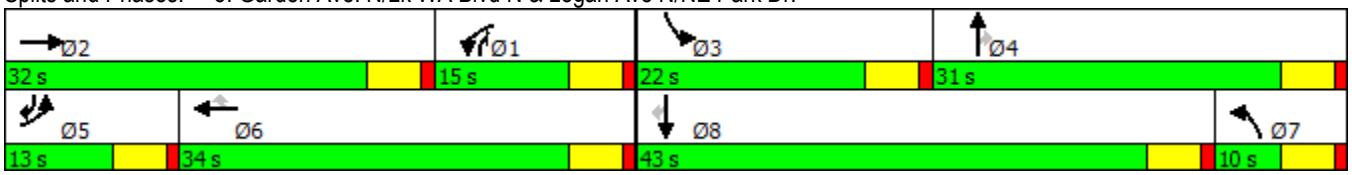


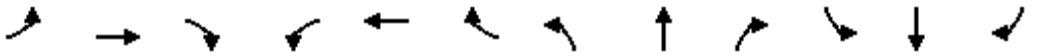
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6		7	4	1	3	8	5
Permitted Phases						6			4			8
Detector Phase	5	2		1	6	6	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	30.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	13.0	32.0		15.0	34.0	34.0	10.0	31.0	15.0	22.0	43.0	13.0
Total Split (%)	13.0%	32.0%		15.0%	34.0%	34.0%	10.0%	31.0%	15.0%	22.0%	43.0%	13.0%
Maximum Green (s)	8.0	27.0		10.0	29.0	29.0	5.0	26.0	10.0	17.0	38.0	8.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0	-1.0	-5.0	-5.0	-5.0	-5.0	-5.0
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		4.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Gap (s)	2.0	3.0		3.0	3.0	3.0	2.0	3.0	3.0	3.0	3.0	2.0
Time Before Reduce (s)	10.0	0.0		0.0	10.0	10.0	10.0	5.0	0.0	10.0	5.0	10.0
Time To Reduce (s)	5.0	0.0		0.0	10.0	10.0	5.0	5.0	0.0	5.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	None	None	None	None	None
Act Effct Green (s)	13.0	32.0		15.0	34.0	34.0	13.3	29.7	44.7	22.0	40.5	53.5
Actuated g/C Ratio	0.13	0.32		0.15	0.34	0.34	0.13	0.30	0.45	0.22	0.41	0.54
v/c Ratio	0.65	0.67		0.67	0.52	0.49	0.07	0.79	0.55	0.78	0.24	0.39
Control Delay	46.8	31.5		45.5	27.5	28.8	33.5	38.4	9.7	42.8	23.8	7.7
Queue Delay	0.0	0.3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	31.9		45.5	27.5	28.8	33.5	38.4	9.7	42.8	23.8	7.7
LOS	D	C		D	C	C	C	D	A	D	C	A
Approach Delay		36.0			32.8			24.8			28.6	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	121	286		143	216	167	14	304	88	231	78	68
Queue Length 95th (ft)	169	356		195	275	251	32	438	142	297	199	112
Internal Link Dist (ft)		450			1080			1272			116	
Turn Bay Length (ft)	190					500						
Base Capacity (vph)	589	1482		673	1573	688	315	718	917	958	1209	1147
Starvation Cap Reductn	0	126		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.73		0.67	0.52	0.49	0.07	0.76	0.55	0.78	0.20	0.39

Intersection Summary	
Area Type:	Other
Cycle Length: 100	

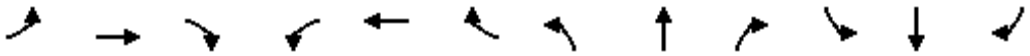
Actuated Cycle Length: 98.8	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 31.0	Intersection LOS: C
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Future Volume (vph)	356	875	48	422	756	311	21	268	705	691	229	416
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	0		0
Storage Lanes	2		0	2		1	1		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Ped Bike Factor		1.00				0.98						0.96
Frt		0.992				0.850		0.929	0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	2351	2185	1866	4300	2500	2054
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	1998	2351	2185	1866	4300	2500	1972
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		6						47	131			148
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			196	
Travel Time (s)		12.0			26.4			36.9			4.5	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	23	288	758	743	246	447
Shared Lane Traffic (%)									34%			
Lane Group Flow (vph)	383	993	0	454	813	334	23	546	500	743	246	447
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

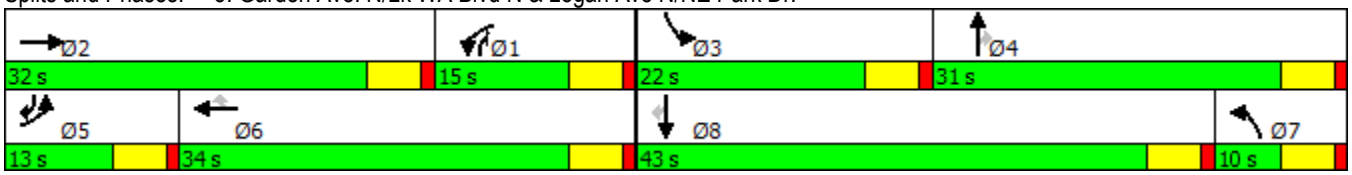


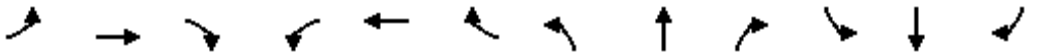
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6		7	4	1	3	8	5
Permitted Phases						6			4			8
Detector Phase	5	2		1	6	6	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	30.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	13.0	32.0		15.0	34.0	34.0	10.0	31.0	15.0	22.0	43.0	13.0
Total Split (%)	13.0%	32.0%		15.0%	34.0%	34.0%	10.0%	31.0%	15.0%	22.0%	43.0%	13.0%
Maximum Green (s)	8.0	27.0		10.0	29.0	29.0	5.0	26.0	10.0	17.0	38.0	8.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0	-1.0	-5.0	-5.0	-5.0	-5.0	-5.0
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		4.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Gap (s)	2.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
Time Before Reduce (s)	10.0	0.0		0.0	10.0	10.0	10.0	5.0	0.0	5.0	5.0	10.0
Time To Reduce (s)	5.0	0.0		0.0	10.0	10.0	5.0	5.0	0.0	5.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	None	None	None	None	None
Act Effct Green (s)	13.0	32.0		15.0	34.0	34.0	13.3	29.7	44.7	22.0	40.5	53.5
Actuated g/C Ratio	0.13	0.32		0.15	0.34	0.34	0.13	0.30	0.45	0.22	0.41	0.54
v/c Ratio	0.65	0.67		0.67	0.52	0.49	0.07	0.79	0.55	0.78	0.24	0.39
Control Delay	46.8	31.5		45.5	27.5	28.8	33.5	38.4	9.7	42.8	23.8	7.7
Queue Delay	0.0	0.3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	31.9		45.5	27.5	28.8	33.5	38.4	9.7	42.8	23.8	7.7
LOS	D	C		D	C	C	C	D	A	D	C	A
Approach Delay		36.0			32.8			24.8			28.6	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	121	286		143	216	167	14	304	88	231	78	68
Queue Length 95th (ft)	169	356		195	275	251	32	438	142	297	199	112
Internal Link Dist (ft)		450			1080			1272			116	
Turn Bay Length (ft)	190					500						
Base Capacity (vph)	589	1482		673	1573	688	315	718	917	958	1209	1147
Starvation Cap Reductn	0	126		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.73		0.67	0.52	0.49	0.07	0.76	0.55	0.78	0.20	0.39

Intersection Summary	
Area Type:	Other
Cycle Length: 100	

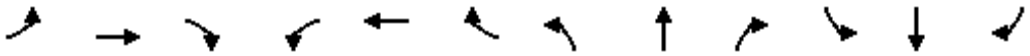
Actuated Cycle Length: 98.8	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 31.0	Intersection LOS: C
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	21	268	705	690	229	416
Future Volume (vph)	356	875	48	422	756	311	21	268	705	690	229	416
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	1		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Ped Bike Factor		1.00				0.98						0.96
Frt		0.992				0.850		0.929	0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	2351	2185	1866	4300	2500	2054
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	1998	2351	2185	1866	4300	2500	1972
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		6						47	131			148
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	23	288	758	742	246	447
Shared Lane Traffic (%)									34%			
Lane Group Flow (vph)	383	993	0	454	813	334	23	546	500	742	246	447
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

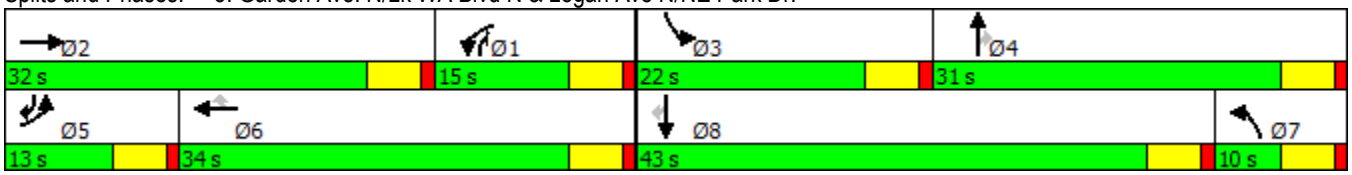


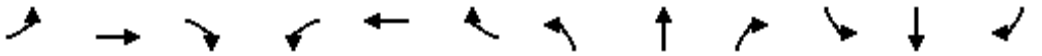
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6		7	4	1	3	8	5
Permitted Phases						6			4			8
Detector Phase	5	2		1	6	6	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	30.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	13.0	32.0		15.0	34.0	34.0	10.0	31.0	15.0	22.0	43.0	13.0
Total Split (%)	13.0%	32.0%		15.0%	34.0%	34.0%	10.0%	31.0%	15.0%	22.0%	43.0%	13.0%
Maximum Green (s)	8.0	27.0		10.0	29.0	29.0	5.0	26.0	10.0	17.0	38.0	8.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0	-1.0	-5.0	-5.0	-5.0	-5.0	-5.0
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		4.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Gap (s)	2.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
Time Before Reduce (s)	10.0	0.0		0.0	10.0	10.0	10.0	5.0	0.0	5.0	5.0	10.0
Time To Reduce (s)	5.0	0.0		0.0	10.0	10.0	5.0	5.0	0.0	5.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	None	None	None	None	None
Act Effct Green (s)	13.0	32.0		15.0	34.0	34.0	13.3	29.7	44.7	22.0	40.5	53.5
Actuated g/C Ratio	0.13	0.32		0.15	0.34	0.34	0.13	0.30	0.45	0.22	0.41	0.54
v/c Ratio	0.65	0.67		0.67	0.52	0.49	0.07	0.79	0.55	0.77	0.24	0.39
Control Delay	46.8	31.5		45.5	27.5	28.8	33.5	38.4	9.7	42.7	23.8	7.7
Queue Delay	0.0	0.3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	31.9		45.5	27.5	28.8	33.5	38.4	9.7	42.7	23.8	7.7
LOS	D	C		D	C	C	C	D	A	D	C	A
Approach Delay		36.0			32.8			24.8			28.6	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	121	286		143	216	167	14	304	88	231	78	68
Queue Length 95th (ft)	169	356		195	275	251	32	438	142	297	199	112
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	589	1482		673	1573	688	315	718	917	958	1209	1147
Starvation Cap Reductn	0	126		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.73		0.67	0.52	0.49	0.07	0.76	0.55	0.77	0.20	0.39

Intersection Summary	
Area Type:	Other
Cycle Length: 100	

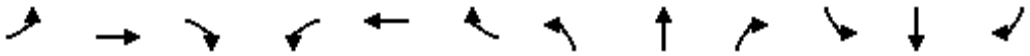
Actuated Cycle Length: 98.8	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 31.0	Intersection LOS: C
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	21	268	705	690	229	416
Future Volume (vph)	356	875	48	422	756	311	21	268	705	690	229	416
Ideal Flow (vphpl)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	1		0	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Ped Bike Factor		1.00				0.98						0.96
Frt		0.992				0.850		0.929	0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	4473	4560	0	4430	4567	2043	2351	2185	1866	4300	2500	2054
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	4473	4560	0	4430	4567	1998	2351	2185	1866	4300	2500	1972
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		6						47	131			148
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	23	288	758	742	246	447
Shared Lane Traffic (%)									34%			
Lane Group Flow (vph)	383	993	0	454	813	334	23	546	500	742	246	447
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.76	0.76	0.69	0.72
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

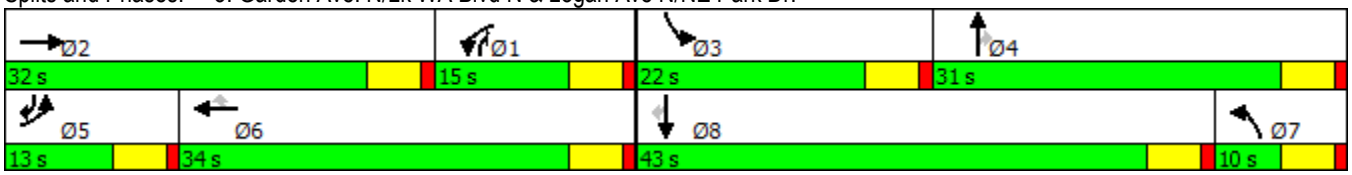


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6		7	4	1	3	8	5
Permitted Phases						6			4			8
Detector Phase	5	2		1	6	6	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	30.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	13.0	32.0		15.0	34.0	34.0	10.0	31.0	15.0	22.0	43.0	13.0
Total Split (%)	13.0%	32.0%		15.0%	34.0%	34.0%	10.0%	31.0%	15.0%	22.0%	43.0%	13.0%
Maximum Green (s)	8.0	27.0		10.0	29.0	29.0	5.0	26.0	10.0	17.0	38.0	8.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-5.0	-5.0		-5.0	-5.0	-5.0	-1.0	-5.0	-5.0	-5.0	-5.0	-5.0
Total Lost Time (s)	0.0	0.0		0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		4.0	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Gap (s)	2.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
Time Before Reduce (s)	10.0	0.0		0.0	10.0	10.0	10.0	5.0	0.0	5.0	5.0	10.0
Time To Reduce (s)	5.0	0.0		0.0	10.0	10.0	5.0	5.0	0.0	5.0	5.0	5.0
Recall Mode	None	None		None	None	None	None	None	None	None	None	None
Act Effct Green (s)	13.0	32.0		15.0	34.0	34.0	13.3	29.7	44.7	22.0	40.5	53.5
Actuated g/C Ratio	0.13	0.32		0.15	0.34	0.34	0.13	0.30	0.45	0.22	0.41	0.54
v/c Ratio	0.65	0.67		0.67	0.52	0.49	0.07	0.79	0.55	0.77	0.24	0.39
Control Delay	46.8	31.5		45.5	27.5	28.8	33.5	38.4	9.7	42.7	23.8	7.7
Queue Delay	0.0	0.3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	31.9		45.5	27.5	28.8	33.5	38.4	9.7	42.7	23.8	7.7
LOS	D	C		D	C	C	C	D	A	D	C	A
Approach Delay		36.0			32.8			24.8			28.6	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	121	286		143	216	167	14	304	88	231	78	68
Queue Length 95th (ft)	169	356		195	275	251	32	438	142	297	199	112
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	589	1482		673	1573	688	315	718	917	958	1209	1147
Starvation Cap Reductn	0	126		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.73		0.67	0.52	0.49	0.07	0.76	0.55	0.77	0.20	0.39

Intersection Summary	
Area Type:	Other
Cycle Length: 100	

Actuated Cycle Length: 98.8	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 31.0	Intersection LOS: C
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.



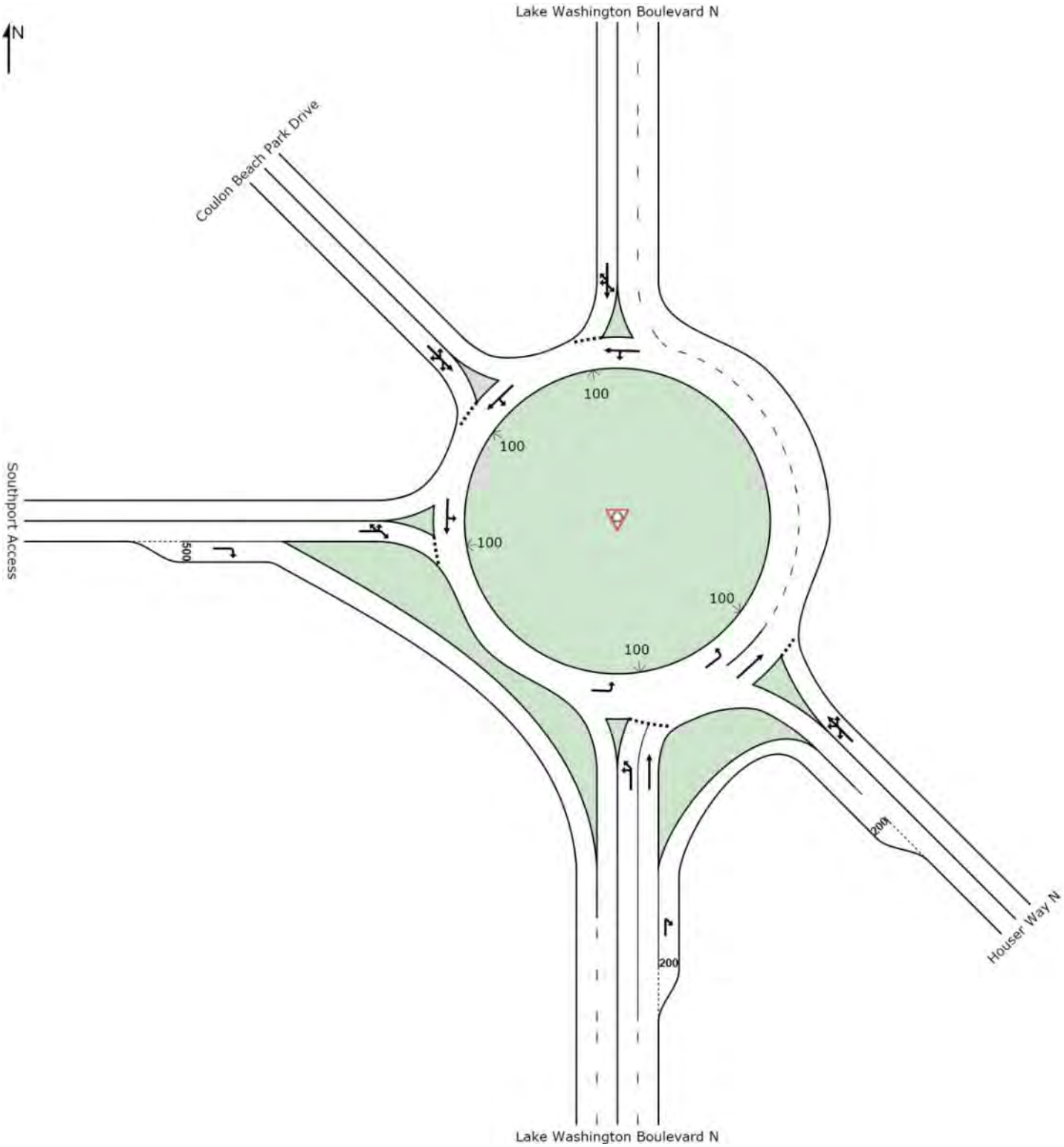
APPENDIX A-3

Screening Analysis Sidra Results

SITE LAYOUT

Site: Lake Washington Boulevard N at Coulon Beach Park Rd / Houser Way N / Southport Access v2

New Site
Roundabout



DELAY (CONTROL)

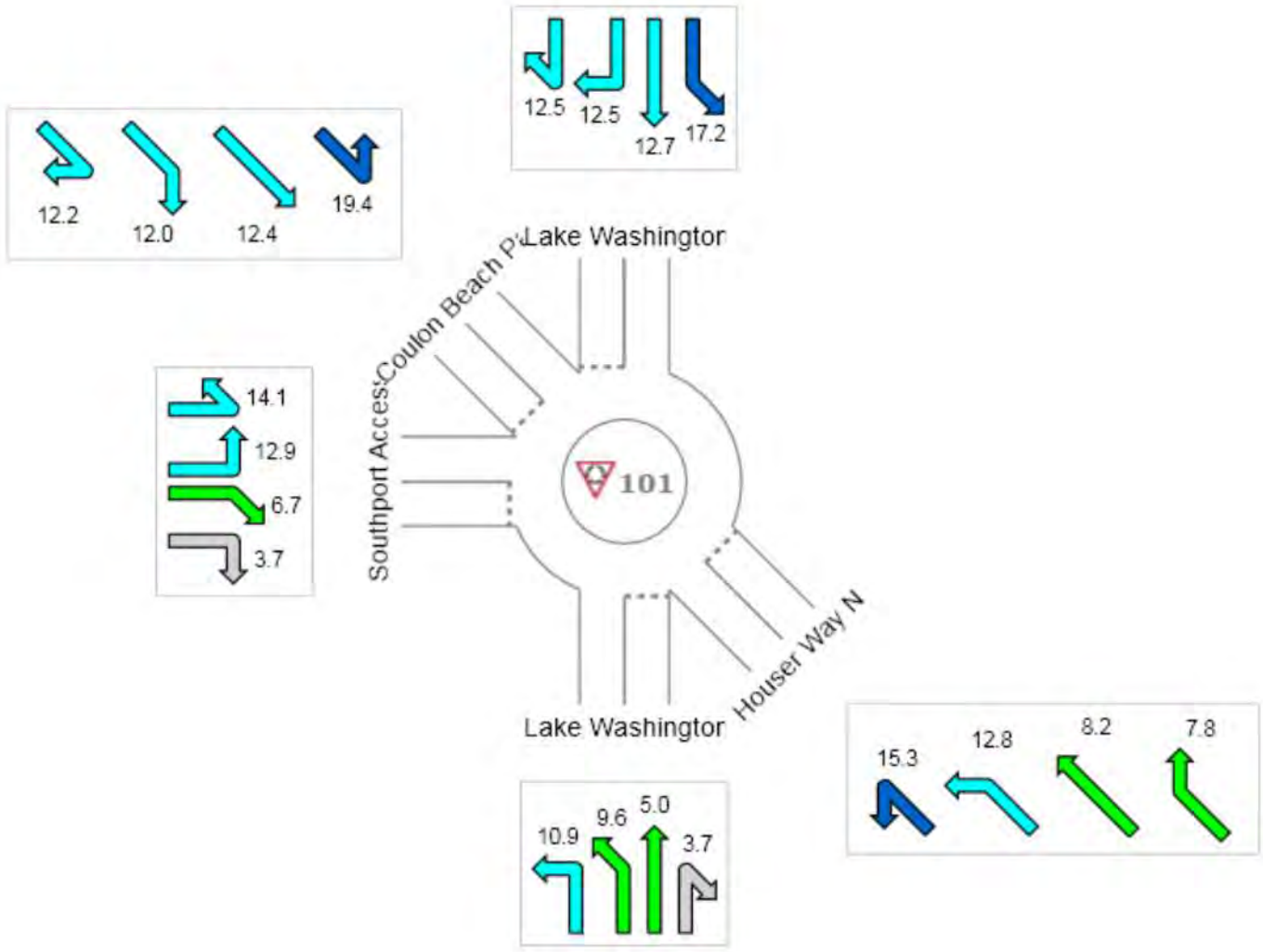
Average control delay per vehicle, or average pedestrian delay (seconds)

Site: Lake Washington Boulevard N at Coulon Beach Park Rd / Houser Way N / Southport Access v2

New Site
Roundabout

All Movement Classes

	South	Southeast	North	Northwest	West	Intersection
	7.5	11.0	13.0	12.4	4.2	7.5
LOS	A	B	B	B	A	A



Colour code based on Level of Service

LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	Continuous

Level of Service Method: Delay & v/c (HCM 2010)
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Roundabout Level of Service Method: Same as Sign Control
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

QUEUE DISTANCE (%ILE)

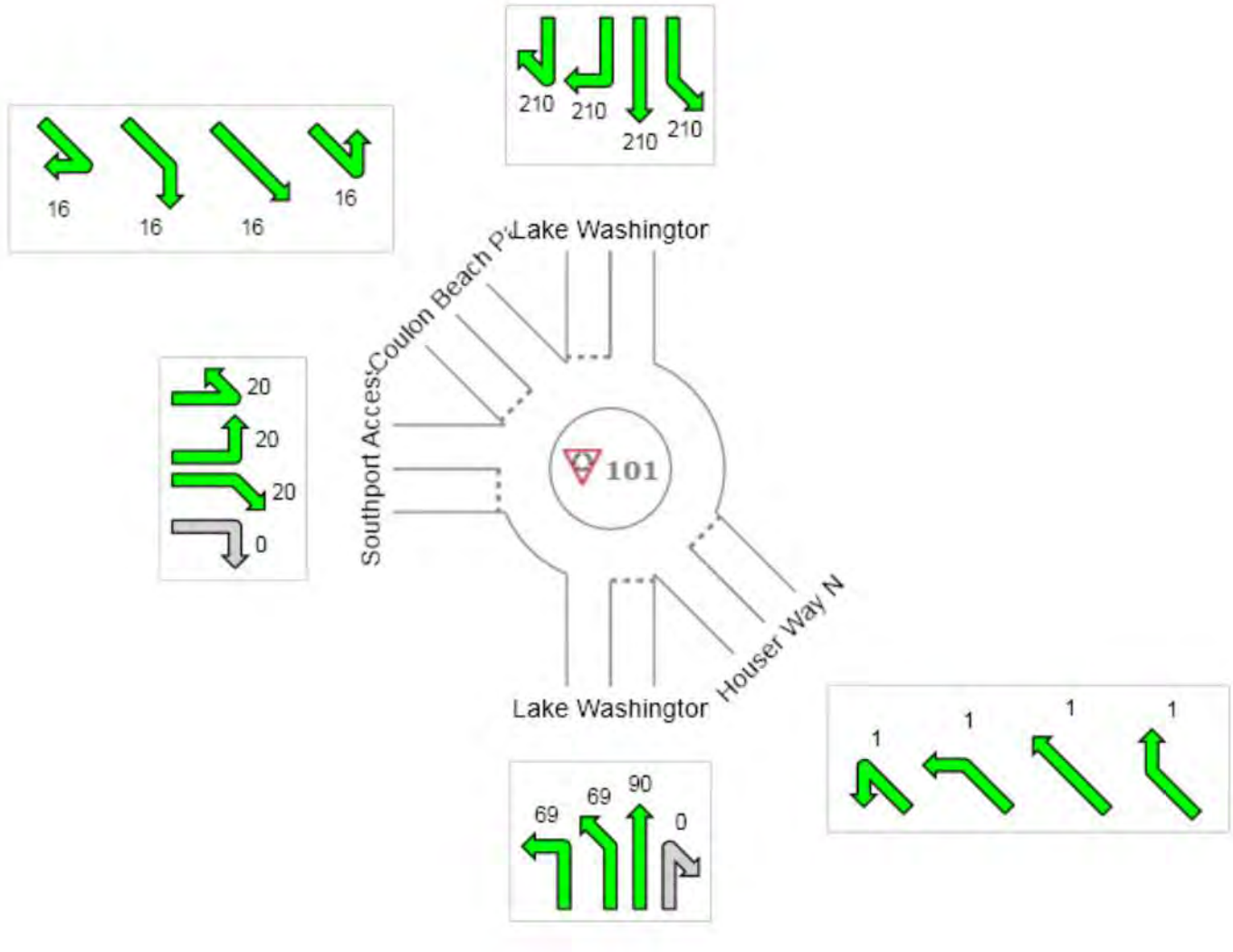
Largest 95% Back of Queue for any lane used by movement (feet)

Site: Lake Washington Boulevard N at Coulon Beach Park Rd / Houser Way N / Southport Access v2

New Site
Roundabout

All Movement Classes

	South	Southeast	North	Northwest	West	Intersection
	90	1	210	16	20	210



Colour code based on Queue Storage Ratio

[< 0.6] [0.6 – 0.7] [0.7 – 0.8] [0.8 – 0.9] [0.9 – 1.0] [> 1.0] Continuous

APPENDIX B

Park Avenue N Extension VISSIM Confidence and Calibration Memorandum

MEMORANDUM

505 5th Avenue S, Suite 300, Seattle, WA 98104 | P 206.436.0515

To: Hebé Bernardo
Bob Hanson, PE
Flora Lee, PE, PTOE

From: Peter De Boldt, PE
Marcus Elliott, PE
Mike Hendrix, PE, PTOE
Brent Powell, EIT

Date: November 3, 2017

Re: Park Avenue N Extension Traffic Analysis – VISSIM Confidence and Calibration Analysis

Introduction

This memorandum documents the confidence testing and calibration process for the VISSIM traffic models as part of the Park Avenue N Extension project.

The procedures followed for this process were taken from the Washington State Department of Transportation (WSDOT) *Protocol for VISSIM Simulation* (September 2014). The *Protocol* outlines the two-step process for ensuring that the VISSIM model is representative of the existing conditions. First, the model is tested for confidence. Second, the model is calibrated.

The primary goals of this two-step process are to identify how many simulation runs need to be performed for data collection, which simulation runs should be used, and which driving behavior parameters need to be adjusted to match measured field conditions. In VISSIM, simulation runs are called "seeds". Every seed provides the model with a unique set of variables (things like arrival rates and aggressiveness probabilities) that will lead to unique data results in VISSIM. If the same seed is run through different alternatives within a project, the random parameters will remain the same across alternatives, allowing for an apples-to-apples comparison.

Data Sources

The 2017 AM and PM peak hour VISSIM models were compared to the data that was collected in the field in May 2017. All intersection turning movement count volumes at the five intersections were evaluated. As were the corridor travel times that were recorded. Four different segment travel times were recorded:

1) Eastbound on Logan Avenue N from N 10th Street to Park Avenue N / 757th Avenue,
2) Eastbound on Logan Avenue N from Park Avenue N / 757th Avenue to Garden Avenue N / Lake Washington Boulevard N,
3) Westbound on Logan Avenue from Garden Avenue N / Lake Washington Boulevard N to Park Avenue N / 757th Avenue, and
4) Westbound on Logan Avenue N from Park Avenue N / 757th Avenue to N 10th Street.

Each individual turning movement and segment travel time was tested for confidence and calibration.

Confidence Testing

As described above, using different seeds in a VISSIM model will produce different results. During the analysis, the theoretical "true" result of the model is unknown, but it can be estimated by reviewing the range of results that the model produces for a set of random seeds. The confidence test ensures that the model is reporting a set of results that generally conforms to a bell-curve, as opposed to being skewed toward a statistical outlier.

WSDOT requires testing a set of 11 seeds (seed numbers 1 through 11 in VISSIM) to ensure confidence. Depending on the results of the initial review of these seeds, additional seeds may need to be used. The formula that governs how many seeds are necessary for a given measure of effectiveness (MOE) is given below:

$$N = \left(2 * t_{0.025,N-1} * \frac{s}{R}\right)^2$$

where, R = Confidence interval for the true mean
$t_{0.025,N-1}$ = Student's t-statistic for two-sided error of 2.5% (5% total) with N-1 degrees of freedom (this is related to a 95% confidence level)
s = Standard deviation about the mean for the selected MOE
N = Number of required simulation runs

For a set of 11 runs, t = 2.228. The formula can be reduced and re-arranged to evaluate the confidence interval bounds as a function of the standard deviation of a given MOE:

$$R = 1.344\ s$$

For example, the PM VISSIM model across all eleven seeds returned an average value of 604 northbound-through vehicles at the intersection of Logan Avenue N and N 10th Street with a standard deviation of 19.00. This MOE, therefore, has a confidence interval of R = 1.344*19.00 = 25.53. This interval is symmetrical about the average value, so any volume measurements of 604 +/- 12.76 would have a 95% confidence level.

Similarly, the PM VISSIM model across all eleven seeds returned an average travel time of 55.0 seconds for northbound/eastbound travel on Logan Avenue N between N 10th Street and Park Avenue N / 757th Avenue with a standard deviation of 3.27 seconds. This MOE, therefore, has a confidence interval of R = 1.344*3.27 = 4.40.

WSDOT has set standards for how large a confidence interval can for a given project, which the agency refers to as the confidence interval target. If the 95% confidence interval is smaller than the confidence interval target, the MOE is considered to have passed the confidence test and the number of runs used is sufficient.

WSDOT prescribes two different ways to calculate the confidence interval target, one for travel times and one for all other MOEs.

Confidence Interval Target – Travel Times

WSDOT provides different formulas to compute the confidence interval based on facility type. The formula for interrupted flow is presented below:

$$\pm \Delta = \frac{1}{\frac{1}{t} - \frac{0.1*5280\,S}{3600\,L}} - t$$

where, Δ = allowable travel time variation (seconds)
t = Real world travel time (seconds)
L = Segment length (feet)
S = Free flow speed (mph)

The posted speed limit may be used where the free flow speed is unknown. That is the case in this analysis, so the posted speed of 35 mph was used for S.

Using the above travel time example, which has a segment length of 1,010 feet, the allowable travel time variation is:

$$\pm \Delta = \frac{1}{\frac{1}{55.0} - \frac{0.1*5280*35}{3600*1010}} - 55.0 = \frac{1}{0.018-0.0051} - 55.0 = 76.4 - 55.0 = 21.6\ seconds$$

Because the 95% confidence interval (4.40) is less than the confidence interval by facility type (21.6), this MOE has met the WSDOT confidence criteria using 11 simulation runs.

All four PM segment travel times met the WSDOT criteria using 11 simulation runs. The calculations are provided in Appendix B-1.

Confidence Interval Target - Volumes

WSDOT uses a GEH statistic to determine a confidence interval target for traffic volumes. The formula for the GEH statistic is below:

$$GEH = \sqrt{\frac{2(m-c)^2}{m+c}}$$

where, m = output traffic volume from VISSIM (vehicles per hour)
c = traffic volume from field data (vehicles per hour)

For a given MOE, the acceptable GEH statistic is 3.0 or lower for most WSDOT applications. However, a GEH of 5 or lower is allowed for local roadways. Additionally, WSDOT tests that the sum of all traffic volumes at the study locations is within 5% of the field data traffic volumes.

Using the above turning movement count example, which had a field measurement of 604 vehicles, and the maximum GEH of 5, the range of acceptable VISSIM volumes can be computed as follows:

$$5 \geq \sqrt{\frac{2(m-604)^2}{m+604}} \quad \rightarrow \quad 25(m+604) \geq 2(m-604)^2 \quad \rightarrow \quad 487 \leq m \leq 733$$

Since the count volume (602) is within the confidence range, this MOE passes the WSDOT test for confidence.

All turning movement counts met the WSDOT criteria using 11 simulation runs. The calculations are provided in Appendix B-1.

PM Peak Hour Calibration

While the confidence test determines if your VISSIM data sample is large enough, the calibration process makes sure that the VISSIM outputs closely match the recorded field conditions.

The calibration process builds upon the formulas used by WSDOT in confidence testing, and like before, the process is different for travel time MOEs and volumes MOEs.

VISSIM by default uses a set of driver parameters to influence things like how closely spaced vehicles are, distraction probabilities, and how well informed drivers are. These values typically do not accurately reflect the conditions for a particular project site, so manual adjustment is required to reach calibrated conditions. Table 1, below, lists the modifications that were made to the VISSIM driving behaviors in order to arrive at the calibrated conditions. All other driver behavior values are defaults.

Table 1. VISSIM Driver Behavior Value Changes.

Parameter	Default Value	Calibrated Value
Car Following Parameters		
[1]Observed Vehicles	4	6
[2]Average Standstill Distance (ft)	6.56	5.00
[2]Additive Part of Safety Distance	2.60	1.50
[2]Multiplicative Part of Safety Distance	3.60	2.50
Lane Change Parameters		
[3]Maximum Deceleration		
Own	-13.12	-16.00
Trailing Vehicle	-9.84	-12.00
[3]-1 ft/sec^2 per distance (ft)		
Own	100	75
Trailing Vehicle	100	75
[4]Safety Distance Reduction Factor	0.70	0.55

Notes:

[1] The number of Observed vehicles affects how well vehicles in the network can predict other vehicles´ movements and react accordingly.

[2] Average standstill distance defines the average desired distance between stopped cars. Additive part of desired safety distance and multiplicative part of desired safety distance affect the computation of the safety distance. The higher these values, the higher the distance between stopped cars.

[3] The aggressiveness of lane change is defined by deceleration thresholds both for the lane changer (Own) and the vehicle that he is moving ahead of (Trailing). The range of these decelerations is defined by the Maximum and Accepted Decelerations. In addition, a reduction rate (as meters per 1 m/s^2) is used to reduce the Maximum Deceleration with increasing distance from the emergency stop position.

[4] During lane changes, the safety reduction factor is regarded. During any lane change, the resulting shorter safety distance is calculated as follows: original safety distance x reduction factor. The default factor of 0.6 reduces the safety distance by 40%. After the lane change, the original safety distance is regarded again.

The calibrated values and notes are generally based on a set of "urban aggressive" parameters used by CDM Smith for a project for the Kentucky Department of Transportation (see References). Minor modifications to the safety distance variables were made to achieve more accurate VISSIM results.

Travel Time Calibration

The model is considered calibrated for travel times if the differences between the measured and modelled travel times is less than the WSDOT calibration goal for facility type. The calibration goal for facility type is equal to the confidence goal for interrupted facilities calculated as part of the confidence testing process.

All four segment travel times met the calibration targets. The results are summarized in Table 2.

Table 2. PM Travel Time Calibration Results.

Segment	Measured Average Travel Time (seconds)	Modelled Average Travel Time (seconds)	Average Travel Time Difference (seconds)	Calibration Goal based on Facility Type (+/- seconds)	Calibration Test
Eastbound Logan Avenue N, N 10th Street to Park Avenue N	52.63	54.54	1.91	+/- 21	PASS
Eastbound Logan Avenue N, Park Avenue N to Garden Avenue N	95.34	116.31	20.97	+/- 1696	PASS
Westbound Logan Avenue N, Garden Avenue N to Park Avenue N	20.62	25.44	4.82	+/- 7	PASS
Westbound Logan Avenue N, Park Avenue N to N 10th Street	25.96	29.88	3.92	+/- 6	PASS

Note that the WSDOT calibration goal formula has a quirk that with a given free flow speed and segment length, it is possible for certain travel time values to cause the formula to rapidly approach infinity. This was encountered with the second travel time data point—eastbound Logan Avenue N from Park Avenue N / 757th Avenue to Garden Avenue N / Lake Washington Boulevard N—which has a segment length of 638 feet. With this combination of variables, the denominator of the first term of the formula becomes zero (thus creating an infinite allowable travel time variation) with t = 124.29 seconds. The VISSIM average travel time for this segment was 116.31. That value was close enough to the breaking point for the formula that the confidence interval by facility range was +/- 1696 seconds, which was determined to be unreasonable. However, this MOE is still considered to be calibrated because the difference in travel times is less than 25% of the field-measured travel times.

Additionally, note that the modelled average values are slightly conservative, because they each slightly overestimate the corridor travel times.

Traffic Volumes Calibration

The modelled traffic volumes are considered calibrated if the GEH statistic for each movement is less than 5.0. Table 3 presents the calibration calculations.

Table 3. PM Traffic Volumes Calibration Results.

	Movement	Measured Volume (veh/hr)	Average Modelled Volume (veh/hr)	Maximum Allowable GEH	GEH	Calibration Test
Logan Avenue N at N 10th Street	Northbound Through	602	604	5	0.1	PASS
	Northbound Right	87	86	5	0.1	PASS
	Westbound Left	89	89	5	0.0	PASS
	Westbound Right	78	74	5	0.5	PASS
	Southbound Left	84	82	5	0.2	PASS
	Southbound Through	496	501	5	0.2	PASS
Logan Avenue N at Park Avenue N / 757th Avenue	Eastbound Left	5	5	5	0.0	PASS
	Eastbound Through	626	619	5	0.3	PASS
	Eastbound Right	20	22	5	0.4	PASS
	Southbound Left	14	14	5	0.0	PASS
	Southbound Through	5	4	5	0.5	PASS
	Southbound Right	3	3	5	0.0	PASS
	Northbound Left	28	33	5	0.9	PASS
	Northbound Right	317	331	5	0.8	PASS
	Northbound Through	1	1	5	0.0	PASS
	Westbound Left	247	253	5	0.4	PASS
	Westbound Through	582	582	5	0.0	PASS
	Westbound Right	3	3	5	0.0	PASS
Logan Avenue N / NE Park Drive at Garden Avenue N / Lk. WA Blvd. N	Eastbound Left	222	221	5	0.1	PASS
	Eastbound Through	696	701	5	0.2	PASS
	Eastbound Right	38	43	5	0.8	PASS
	Northbound Left	17	17	5	0.0	PASS
	Northbound Through	174	189	5	1.1	PASS
	Northbound Right	561	630	5	2.8	PASS
	Westbound Left	336	341	5	0.3	PASS
	Westbound Through	601	613	5	0.5	PASS
	Westbound Right	109	108	5	0.1	PASS
	Southbound Left	143	139	5	0.3	PASS
	Southbound Through	111	107	5	0.4	PASS
	Southbound Right	213	207	5	0.4	PASS
Lk. WA Blvd. N at Coulon Beach Drive	Northbound Left	155	158	5	0.2	PASS
	Northbound Through	350	359	5	0.5	PASS
	Southbound Left	2	2	5	0.0	PASS
	Southbound Through	26	27	5	0.2	PASS
	Southbound Right	320	316	5	0.2	PASS
	Eastbound Left	7	7	5	0.0	PASS
	Eastbound Through	6	5	5	0.4	PASS
Coulon at Southport	Eastbound Right	10	10	5	0.0	PASS
	Eastbound Through	140	139	5	0.1	PASS
	Westbound Through	116	116	5	0.0	PASS
	Westbound Right	137	139	5	0.2	PASS
	Southbound Left	25	26	5	0.2	PASS
	Network Total	7,842	7,966			

As Table 3 shows, all PM traffic volumes meet the calibration criteria. In fact, the maximum volume GEH statistic is 1.1, meaning that the modelled volumes very closely match the recorded data. The difference in total network volumes is less than 2%.

The above model results include a 150-vehicle supplement to the northbound approach at the Logan Avenue N / NE Park Drive at Garden Avenue N / Lake Washington Boulevard N intersection. This volume supplement was added due to City of Renton observations that the control delays for the northbound Garden Avenue N movements were much lower than had been observed in the field, but the remainder of the model outputs were in-line with expectations.

AM Peak Hour Calibration

The volumes supplement necessary for the northbound movement on Garden Avenue N for the AM model was 350 vehicles; the 150-vehicle supplement used in the PM model did not increase the approach control delays enough. The 350-vehicle supplement was included in the below analysis.

The AM peak hour models were calibrated using a similar process. The results of this calibration effort are presented in Tables 4 and 5, below.

Table 4. AM Travel Time Calibration Results.

Segment	Measured Average Travel Time (seconds)	Modelled Average Travel Time (seconds)	Average Travel Time Difference (seconds)	Calibration Goal based on Facility Type (+/- seconds)	Calibration Test
Eastbound Logan Avenue N, N 10th Street to Park Avenue N	43.59	45.86	2.27	+/- 14	PASS
Eastbound Logan Avenue N, Park Avenue N to Garden Avenue N	138.7	124.25	-14.45	+/- 448917	PASS
Westbound Logan Avenue N, Garden Avenue N to Park Avenue N	21.61	28.93	7.32	+/- 9	PASS
Westbound Logan Avenue N, Park Avenue N to N 10th Street	27.01	29.70	2.69	+/- 6	PASS

All segments pass the calibration procedure. Note that the travel time for the second segment is approaching the point where the calibration goal approaches infinity. However, the difference between the modelled and measured travel times on eastbound Logan Avenue N between Park Avenue N and Garden Avenue N is only 14.5 seconds, which is less than 10% of the measured value, so this model is considered calibrated.

The volume calibration tests is presented in Table 5, on the following page.

Table 5. AM Traffic Volumes Calibration Results.

	Movement	Measured Volume (veh/hr)	Average Modelled Volume (veh/hr)	Maximum Allowable GEH	GEH	Calibration Test
Logan Avenue N at N 10th Street	Northbound Through	466	461	5	0.2	PASS
	Northbound Right	20	19	5	0.2	PASS
	Westbound Left	12	11	5	0.3	PASS
	Westbound Right	8	7	5	0.4	PASS
	Southbound Left	17	18	5	0.2	PASS
	Southbound Through	444	442	5	0.1	PASS
Logan Avenue N at Park Avenue N / 757th Avenue	Eastbound Left	12	12	5	0.0	PASS
	Eastbound Through	467	447	5	0.9	PASS
	Eastbound Right	3	3	5	0.0	PASS
	Southbound Left	16	16	5	0.0	PASS
	Southbound Through	10	8	5	0.7	PASS
	Southbound Right	6	6	5	0.0	PASS
	Northbound Left	28	31	5	0.6	PASS
	Northbound Right	386	397	5	0.6	PASS
	Northbound Through	18	17	5	0.2	PASS
	Westbound Left	144	147	5	0.2	PASS
	Westbound Through	427	425	5	0.1	PASS
	Westbound Right	21	22	5	0.2	PASS
Logan Avenue N / NE Park Drive at Garden Avenue N / Lk. WA Blvd. N	Eastbound Left	305	298	5	0.4	PASS
	Eastbound Through	542	538	5	0.2	PASS
	Eastbound Right	23	28	5	1.0	PASS
	Northbound Left	4	2	5	1.2	PASS
	Northbound Through	367	355	5	0.6	PASS
	Northbound Right	214	429	5	12.0	FAIL
	Westbound Left	194	191	5	0.2	PASS
	Westbound Through	461	471	5	0.5	PASS
	Westbound Right	227	222	5	0.3	PASS
	Southbound Left	88	83	5	0.5	PASS
	Southbound Through	38	37	5	0.2	PASS
	Southbound Right	128	120	5	0.7	PASS
Lk. WA Blvd. N at Coulon Beach Drive	Northbound Left	85	77	5	0.9	PASS
	Northbound Through	749	758	5	0.3	PASS
	Southbound Left	78	71	5	0.8	PASS
	Southbound Through	18	18	5	0.0	PASS
	Southbound Right	180	173	5	0.5	PASS
	Eastbound Left	6	6	5	0.0	PASS
	Eastbound Through	9	9	5	0.0	PASS
Coulon at Southport	Eastbound Right	5	4	5	0.5	PASS
	Eastbound Through	73	67	5	0.7	PASS
	Westbound Through	86	80	5	0.7	PASS
	Westbound Right	71	64	5	0.9	PASS
	Southbound Left	20	21	5	0.2	PASS
	Network Total	6,477	6, 611			

As Table 5 shows, all but one AM traffic volume meets the calibration criteria. The lone FAIL in Table 5 is the northbound right-turn movement on Garden Avenue N. The model volumes are substantially higher for this movement because of the introduction of the volume supplement to address City of Renton control delay concerns. All other volume GEH statistics are 1.2 or less, meaning that the modelled volumes very closely match the recorded data. The difference in total network volumes is 2%.

This calibration process was accepted for the AM model. The lone FAIL in Table 5 is for a movement that does not continue elsewhere in the study limits and was requested by City of Renton staff.

References

Protocol for VISSIM Simulation, September 2014. Washington State Department of Transportation. Available at: http://www.wsdot.wa.gov/NR/rdonlyres/378BEAC9-FE26-4EDA-AA1F-B3A55F9C532F/0/VissimProtocol.pdf

WSDOT Provided Example:
Technical Memorandum on I-5 Mellon Street to Blakeslee Junction VISSIM Model Confidence and Calibration Report Existing Conditions – PM Peak. Available at: http://www.wsdot.wa.gov/NR/rdonlyres/D4F37179-1DCA-41D8-AC1D-30390DD59B8C/0/ApdxICalibration.pdf

Driving Behavior Parameters Reference:
VISSIM Development and Calibration Report, October 2014. CDM Smith. Available at: http://transportation.ky.gov/Planning/Planning%20Studies%20and%20Reports/Appendix%20B%20-%20VISSIM%20Development%20and%20Calibration%20Report.pdf

APPENDIX B-1

Confidence and Calibration Calculations and Reports

WSDOT VISSIM Throughput Volume Confidence Report
Model Results Confidence Test

Project: Park Avenue N Extension
Scenario: 2017 PM Peak Hour
Prepared By: B. Powell
Date: November 1, 2017

Select Confidence Level for this analysis *(typically 95% Confidence Level is used)*	95.0%
Select Confidence Interval Target Acceptable Variation in Results Based on the Selected GEH Statistic	5
Number of Sample Runs	11
Number of Sites Failing to meet the Confidence Interval Target	0

Location Description						Model Results				Confidence Interval Target		Model Results Confidence Test		Calibration Results				
VISSIM Model Data Measurement	Intersection	Turn	-	-	Additional Description	Average Model Volume (vph)	Standard Deviation (Model)	Confidence Interval based on a 95.0% Confidence Level (Volume Range)	Confidence Interval based on a 95.0% Confidence Level (Percentage)	Confidence Interval based on GEH of 5 (Volume Range)	Confidence Interval based on GEH of 5 (Percentage)	TEST - Model Results meet the following criteria. Selected Confidence Level = 95.0% Uniquely Defined Desired Confidence Interval	Number of Runs Required to meet Desired Confidence Criteria	Field Data	Model Data	Max GEH	GEH	TEST
7	Logan / 10th	NBT				604	19.00	+/- 13	+/- 2.1%	+/- 123	+/- 20.4%	PASS	11	602	604	5	0.1	PASS
8	Logan / 10th	NBR				86	7.00	+/- 5	+/- 5.5%	+/- 41	+/- 47.7%	PASS	11	87	86	5	0.1	PASS
9	Logan / 10th	WBL				89	9.00	+/- 6	+/- 6.8%	+/- 42	+/- 47.2%	PASS	11	89	89	5	0.0	PASS
10	Logan / 10th	WBR				74	8.00	+/- 5	+/- 7.3%	+/- 37	+/- 50.0%	PASS	11	78	74	5	0.5	PASS
11	Logan / 10th	SBL				82	9.00	+/- 6	+/- 7.4%	+/- 40	+/- 48.8%	PASS	11	84	82	5	0.2	PASS
12	Logan / 10th	SBT				501	23.00	+/- 15	+/- 3.1%	+/- 109	+/- 21.8%	PASS	11	496	501	5	0.2	PASS
13	Logan / 757th	EBL				5	2.00	+/- 1	+/- 26.9%	+/- 5	+/- 100.0%	PASS	11	5	5	5	0.0	PASS
14	Logan / 757th	EBT				619	12.00	+/- 8	+/- 1.3%	+/- 119	+/- 19.2%	PASS	11	626	619	5	0.3	PASS
15	Logan / 757th	EBR				22	6.00	+/- 4	+/- 18.3%	+/- 18	+/- 81.8%	PASS	11	20	22	5	0.4	PASS
16	Logan / 757th	SBL				14	4.00	+/- 3	+/- 19.2%	+/- 13	+/- 92.9%	PASS	11	14	14	5	0.0	PASS
17	Logan / 757th	SBT				4	2.00	+/- 1	+/- 33.6%	+/- 4	+/- 100.0%	PASS	11	5	4	5	0.5	PASS
18	Logan / 757th	SBR				3	2.00	+/- 1	+/- 44.8%	+/- 3	+/- 100.0%	PASS	11	3	3	5	0.0	PASS
19	Logan / 757th	NBL				33	5.00	+/- 3	+/- 10.2%	+/- 23	+/- 69.7%	PASS	11	28	33	5	0.9	PASS
20	Logan / 757th	NBR				331	13.00	+/- 9	+/- 2.6%	+/- 87	+/- 26.3%	PASS	11	317	331	5	0.8	PASS
21	Logan / 757th	NBT				1	1.00	+/- 1	+/- 67.2%	+/- 1	+/- 100.0%	PASS	11	1	1	5	0.0	PASS
22	Logan / 757th	WBL				253	11.00	+/- 7	+/- 2.9%	+/- 76	+/- 30.0%	PASS	11	247	253	5	0.4	PASS
23	Logan / 757th	WBT				582	23.00	+/- 15	+/- 2.7%	+/- 117	+/- 20.1%	PASS	11	582	582	5	0.0	PASS
24	Logan / 757th	WBR				3	2.00	+/- 1	+/- 44.8%	+/- 3	+/- 100.0%	PASS	11	3	3	5	0.0	PASS
25	Logan / Garden	EBL				221	14.00	+/- 9	+/- 4.3%	+/- 74	+/- 33.5%	PASS	11	222	221	5	0.1	PASS
26	Logan / Garden	EBT				701	20.00	+/- 13	+/- 1.9%	+/- 137	+/- 19.5%	PASS	11	696	701	5	0.2	PASS
27	Logan / Garden	EBR				43	4.00	+/- 3	+/- 6.2%	+/- 27	+/- 62.8%	PASS	11	38	43	5	0.8	PASS
28	Logan / Garden	NBL				17	4.00	+/- 3	+/- 15.8%	+/- 15	+/- 88.2%	PASS	11	17	17	5	0.0	PASS
29	Logan / Garden	NBT				189	15.00	+/- 10	+/- 5.3%	+/- 77	+/- 40.7%	PASS	11	174	189	5	1.1	PASS
30	Logan / Garden	NBR				630	19.00	+/- 13	+/- 2.0%	+/- 187	+/- 29.7%	PASS	11	561	630	5	2.8	PASS
31	Logan / Garden	WBL				341	14.00	+/- 9	+/- 2.8%	+/- 93	+/- 27.3%	PASS	11	336	341	5	0.3	PASS
32	Logan / Garden	WBT				613	25.00	+/- 17	+/- 2.7%	+/- 129	+/- 21.0%	PASS	11	601	613	5	0.5	PASS
33	Logan / Garden	WBR				108	10.00	+/- 7	+/- 6.2%	+/- 46	+/- 42.6%	PASS	11	109	108	5	0.1	PASS
34	Logan / Garden	SBL				139	7.00	+/- 5	+/- 3.4%	+/- 53	+/- 38.1%	PASS	11	143	139	5	0.3	PASS
35	Logan / Garden	SBT				107	10.00	+/- 7	+/- 6.3%	+/- 46	+/- 43.0%	PASS	11	111	107	5	0.4	PASS
36	Logan / Garden	SBR				207	11.00	+/- 7	+/- 3.6%	+/- 68	+/- 32.9%	PASS	11	213	207	5	0.4	PASS
39	LWB / Coulon	NBL				158	11.00	+/- 7	+/- 4.7%	+/- 58	+/- 36.7%	PASS	11	155	158	5	0.2	PASS
40	LWB / Coulon	NBT				359	11.00	+/- 7	+/- 2.1%	+/- 103	+/- 28.7%	PASS	11	350	359	5	0.5	PASS
41	LWB / Coulon	NBR				2	2.00	+/- 1	+/- 67.2%	+/- 2	+/- 100.0%	PASS	11	2	2	5	0.0	PASS
42	LWB / Coulon	SBL				27	3.00	+/- 2	+/- 7.5%	+/- 20	+/- 74.1%	PASS	11	26	27	5	0.2	PASS
43	LWB / Coulon	SBT				316	14.00	+/- 9	+/- 3.0%	+/- 87	+/- 27.5%	PASS	11	320	316	5	0.2	PASS
45	LWB / Coulon	SBR				7	3.00	+/- 2	+/- 28.8%	+/- 7	+/- 100.0%	PASS	11	7	7	5	0.0	PASS
46	LWB / Coulon	EBL				5	3.00	+/- 2	+/- 40.3%	+/- 5	+/- 100.0%	PASS	11	6	5	5	0.4	PASS
48	LWB / Coulon	EBT				10	3.00	+/- 2	+/- 20.2%	+/- 10	+/- 100.0%	PASS	11	10	10	5	0.0	PASS
49	LWB / Coulon	EBR				139	12.00	+/- 8	+/- 5.8%	+/- 53	+/- 38.1%	PASS	11	140	139	5	0.1	PASS
97	Coulon / Southport	EBT				116	11.00	+/- 7	+/- 6.4%	+/- 48	+/- 41.4%	PASS	11	116	116	5	0.0	PASS
98	Coulon / Southport	WBT				139	15.00	+/- 10	+/- 7.2%	+/- 52	+/- 37.4%	PASS	11	137	139	5	0.2	PASS
99	Coulon / Southport	WBR				26	6.00	+/- 4	+/- 15.5%	+/- 19	+/- 73.1%	PASS	11	25	26	5	0.2	PASS
100	Coulon / Southport	SBL				40	5.00	+/- 3	+/- 8.4%	+/- 26	+/- 65.0%	PASS	11	40	40	5	0.0	PASS
														7842	7966			

WSDOT VISSIM Travel Time Confidence Report
Model Results Confidence Test

Project: Park Avenue N Extension
Scenario: 2017 PM Peak Hour
Prepared By: B. Powell
Date: September 6, 2017

Number of Sample Runs	11
Select Confidence Level for this analysis *(typically 95% Confidence Level is used)*	95.0%
Number of Sites Failing to meet the Confidence Interval Target	0

Confidence Test: Passed

Confidence Interval Target Acceptable Variation in Results Based on Facility Type	Uninterrupted Flow	$\Delta = \frac{1}{\frac{1}{t} - \frac{4.4}{L}} - t$
	Interrupted Flow	$\Delta = \frac{1}{\frac{1}{t} - \frac{0.1 * 5280\ S}{3600\ L}} - t$

Notes:
Δ = Allowable Travel Time Variation (+/- seconds)
t = Travel Time (seconds)
L = Length (feet)
S = Free Flow Speed (mph); Under certain circumstances the Posted Speed Limit may be used

Analysis Interval	
Model Start Time	900
Model End Time	4500

Location Description								Model Results				Confidence Interval Target		Model Results Confidence Test		Calibration Results				
VISSIM Model Data Measurement	Route	Start Location	End Location	Distance (ft)	Additional Description	Facility Type	Free-Flow Speed (MPH)	Average Model Travel Time (s)	Standard Deviation	Confidence Interval based on a 95.0% Confidence Level (+/- seconds)	Confidence Interval based on a 95.0% Confidence Level (+/-Percentage)	Confidence Interval based on Facility Type (+/- seconds)	Confidence Interval based on Facility Type (+/- Percentage)	TEST - Model Results meet the following criteria. Selected Confidence Level = 95.0% Uniquely Defined Desired Confidence Interval	Number of Runs Required to meet Desired Confidence Criteria	Field Data	Model Data	Difference	Calibration Goal based on Facility Type	TEST
1	EB	Logan / 10th	Logan / 757th	1010		Interrupted Flow	35	55	3.27	+/- 2	+/- 4.0%	+/- 21	+/- 38.4%	PASS	11	52.63	54.54	1.91	+/- 21	PASS
2	EB	Logan / 757th	Logan / Garden	638		Interrupted Flow	35	116.31	7.31	+/- 5	+/- 4.2%	+/- 1696	+/- 1457.9%	PASS	11	95.34	116.31	20.97	+/- 1696	PASS
3	WB	Logan / Garden	Logan / 757th	626		Interrupted Flow	35	25	1.43	+/- 1	+/- 3.8%	+/- 7	+/- 26.4%	PASS	11	20.62	25.44	4.82	+/- 7	PASS
4	WB	Logan / 757th	Logan / 10th	891		Interrupted Flow	35	30	1.53	+/- 1	+/- 3.4%	+/- 6	+/- 20.8%	PASS	11	25.96	29.88	3.92	+/- 6	PASS

WSDOT VISSIM Travel Time Confidence Report
Model Results Confidence Test

Project: Park Avenue N Extension
Scenario: 2017 AM Peak Hour
Prepared By: B. Powell
Date: September 6, 2017

Number of Sample Runs	11
Select Confidence Level for this analysis *(typically 95% Confidence Level is used)*	95.0%
Number of Sites Failing to meet the Confidence Interval Target	0

Confidence Test: Passed

Confidence Interval Target Acceptable Variation in Results Based on Facility Type	Uninterrupted Flow	$\Delta = \frac{1}{\frac{1}{t} - \frac{4.4}{L}} - t$
	Interrupted Flow	$\Delta = \frac{1}{\frac{1}{t} - \frac{0.1 * 5280\ S}{3600\ L}} - t$

Notes:
Δ = Allowable Travel Time Variation (+/- seconds)
t = Travel Time (seconds)
L = Length (feet)
S = Free Flow Speed (mph); Under certain circumstances the Posted Speed Limit may be used

Analysis Interval	
Model Start Time	900
Model End Time	4500

Location Description								Model Results				Confidence Interval Target		Model Results Confidence Test		Calibration Results				
VISSIM Model Data Measurement	Route	Start Location	End Location	Distance (ft)	Additional Description	Facility Type	Free-Flow Speed (MPH)	Average Model Travel Time (s)	Standard Deviation	Confidence Interval based on a 95.0% Confidence Level (+/- seconds)	Confidence Interval based on a 95.0% Confidence Level (+/-Percentage)	Confidence Interval based on Facility Type (+/- seconds)	Confidence Interval based on Facility Type (+/- Percentage)	TEST - Model Results meet the following criteria. Selected Confidence Level = 95.0% Uniquely Defined Desired Confidence Interval	Number of Runs Required to meet Desired Confidence Criteria	Field Data	Model Data	Difference	Calibration Goal based on Facility Type	TEST
1	EB	Logan / 10th	Logan / 757th	1010		Interrupted Flow	35	46	3.51	+/- 2	+/- 5.1%	+/- 14	+/- 30.4%	PASS	11	43.59	45.86	2.27	+/- 14	PASS
2	EB	Logan / 757th	Logan / Garden	638		Interrupted Flow	35	124	28.94	+/- 19	+/- 15.6%	+/- 448917	+/- 361297.7%	PASS	11	138.7	124.25	-14.45	+/- 448917	PASS
3	WB	Logan / Garden	Logan / 757th	626		Interrupted Flow	35	29	2.02	+/- 1	+/- 4.7%	+/- 9	+/- 31.1%	PASS	11	21.61	28.93	7.32	+/- 9	PASS
4	WB	Logan / 757th	Logan / 10th	891		Interrupted Flow	35	30	2.10	+/- 1	+/- 4.8%	+/- 6	+/- 20.6%	PASS	11	27.01	29.70	2.69	+/- 6	PASS

WSDOT VISSIM Throughput Volume Confidence Report
Model Results Confidence Test

Project: Park Avenue N Extension
Scenario: 2017 PM Peak Hour
Prepared By: B. Powell
Date: November 1, 2017

Select Confidence Level for this analysis *(typically 95% Confidence Level is used)*	95.0%
Select Confidence Interval Target Acceptable Variation in Results Based on the Selected GEH Statistic	5
Number of Sample Runs	11
Number of Sites Failing to meet the Confidence Interval Target	0

Location Description						Model Results				Confidence Interval Target		Model Results Confidence Test		Calibration Results				
VISSIM Model Data Measurement	Intersection	Turn	-	-	Additional Description	Average Model Volume (vph)	Standard Deviation (Model)	Confidence Interval based on a 95.0% Confidence Level (Volume Range)	Confidence Interval based on a 95.0% Confidence Level (Percentage)	Confidence Interval based on GEH of 5 (Volume Range)	Confidence Interval based on GEH of 5 (Percentage)	TEST - Model Results meet the following criteria. Selected Confidence Level = 95.0% Uniquely Defined Desired Confidence Interval	Number of Runs Required to meet Desired Confidence Criteria	Field Data	Model Data	Max GEH	GEH	TEST
7	Logan / 10th	NBT				461	21.00	+/- 14	+/- 3.1%	+/- 101	+/- 21.9%	PASS	11	466	461	5	0.2	PASS
8	Logan / 10th	NBR				19	4.00	+/- 3	+/- 14.1%	+/- 16	+/- 84.2%	PASS	11	20	19	5	0.2	PASS
9	Logan / 10th	WBL				11	3.00	+/- 2	+/- 18.3%	+/- 11	+/- 100.0%	PASS	11	12	11	5	0.3	PASS
10	Logan / 10th	WBR				7	2.00	+/- 1	+/- 19.2%	+/- 7	+/- 100.0%	PASS	11	8	7	5	0.4	PASS
11	Logan / 10th	SBL				18	5.00	+/- 3	+/- 18.7%	+/- 16	+/- 88.9%	PASS	11	17	18	5	0.2	PASS
12	Logan / 10th	SBT				442	22.00	+/- 15	+/- 3.3%	+/- 97	+/- 21.9%	PASS	11	444	442	5	0.1	PASS
13	Logan / 757th	EBL				12	2.00	+/- 1	+/- 11.2%	+/- 12	+/- 100.0%	PASS	11	12	12	5	0.0	PASS
14	Logan / 757th	EBT				447	22.00	+/- 15	+/- 3.3%	+/- 100	+/- 22.4%	PASS	11	467	447	5	0.9	PASS
15	Logan / 757th	EBR				3	2.00	+/- 1	+/- 44.8%	+/- 3	+/- 100.0%	PASS	11	3	3	5	0.0	PASS
16	Logan / 757th	SBL				16	6.00	+/- 4	+/- 25.2%	+/- 14	+/- 87.5%	PASS	11	16	16	5	0.0	PASS
17	Logan / 757th	SBT				8	2.00	+/- 1	+/- 16.8%	+/- 8	+/- 100.0%	PASS	11	10	8	5	0.7	PASS
18	Logan / 757th	SBR				6	2.00	+/- 1	+/- 22.4%	+/- 6	+/- 100.0%	PASS	11	6	6	5	0.0	PASS
19	Logan / 757th	NBL				31	6.00	+/- 4	+/- 13.0%	+/- 22	+/- 71.0%	PASS	11	28	31	5	0.6	PASS
20	Logan / 757th	NBR				397	14.00	+/- 9	+/- 2.4%	+/- 93	+/- 23.4%	PASS	11	386	397	5	0.6	PASS
21	Logan / 757th	NBT				17	3.00	+/- 2	+/- 11.9%	+/- 15	+/- 88.2%	PASS	11	18	17	5	0.2	PASS
22	Logan / 757th	WBL				147	10.00	+/- 7	+/- 4.6%	+/- 54	+/- 36.7%	PASS	11	144	147	5	0.2	PASS
23	Logan / 757th	WBT				425	22.00	+/- 15	+/- 3.5%	+/- 96	+/- 22.6%	PASS	11	427	425	5	0.1	PASS
24	Logan / 757th	WBR				22	4.00	+/- 3	+/- 12.2%	+/- 17	+/- 77.3%	PASS	11	21	22	5	0.2	PASS
25	Logan / Garden	EBL				298	20.00	+/- 13	+/- 4.5%	+/- 77	+/- 25.8%	PASS	11	305	298	5	0.4	PASS
26	Logan / Garden	EBT				538	14.00	+/- 9	+/- 1.7%	+/- 107	+/- 19.9%	PASS	11	542	538	5	0.2	PASS
27	Logan / Garden	EBR				28	4.00	+/- 3	+/- 9.6%	+/- 21	+/- 75.0%	PASS	11	23	28	5	1.0	PASS
28	Logan / Garden	NBL				2	2.00	+/- 1	+/- 67.2%	+/- 2	+/- 100.0%	PASS	11	4	2	5	1.2	PASS
29	Logan / Garden	NBT				355	21.00	+/- 14	+/- 4.0%	+/- 95	+/- 26.8%	PASS	11	367	355	5	0.6	PASS
30	Logan / Garden	NBR				429	18.00	+/- 12	+/- 2.8%	+/- 285	+/- 66.4%	PASS	11	214	429	5	12.0	FAIL
31	Logan / Garden	WBL				191	9.00	+/- 6	+/- 3.2%	+/- 64	+/- 33.5%	PASS	11	194	191	5	0.2	PASS
32	Logan / Garden	WBT				471	22.00	+/- 15	+/- 3.1%	+/- 106	+/- 22.5%	PASS	11	461	471	5	0.5	PASS
33	Logan / Garden	WBR				222	15.00	+/- 10	+/- 4.5%	+/- 68	+/- 30.6%	PASS	11	227	222	5	0.3	PASS
34	Logan / Garden	SBL				83	7.00	+/- 5	+/- 5.7%	+/- 39	+/- 47.0%	PASS	11	88	83	5	0.5	PASS
35	Logan / Garden	SBT				37	4.00	+/- 3	+/- 7.3%	+/- 24	+/- 64.9%	PASS	11	38	37	5	0.2	PASS
36	Logan / Garden	SBR				120	7.00	+/- 5	+/- 3.9%	+/- 48	+/- 40.0%	PASS	11	128	120	5	0.7	PASS
39	LWB / Coulon	NBL				77	9.00	+/- 6	+/- 7.9%	+/- 34	+/- 44.2%	PASS	11	85	77	5	0.9	PASS
40	LWB / Coulon	NBT				758	24.00	+/- 16	+/- 2.1%	+/- 158	+/- 20.8%	PASS	11	749	758	5	0.3	PASS
41	LWB / Coulon	NBR				71	12.00	+/- 8	+/- 11.4%	+/- 32	+/- 45.1%	PASS	11	78	71	5	0.8	PASS
42	LWB / Coulon	SBL				18	3.00	+/- 2	+/- 11.2%	+/- 16	+/- 88.9%	PASS	11	18	18	5	0.0	PASS
43	LWB / Coulon	SBT				173	7.00	+/- 5	+/- 2.7%	+/- 59	+/- 34.1%	PASS	11	180	173	5	0.5	PASS
45	LWB / Coulon	SBR				6	3.00	+/- 2	+/- 33.6%	+/- 6	+/- 100.0%	PASS	11	6	6	5	0.0	PASS
46	LWB / Coulon	EBL				9	4.00	+/- 3	+/- 29.9%	+/- 9	+/- 100.0%	PASS	11	9	9	5	0.0	PASS
48	LWB / Coulon	EBT				4	2.00	+/- 1	+/- 33.6%	+/- 4	+/- 100.0%	PASS	11	5	4	5	0.5	PASS
49	LWB / Coulon	EBR				67	8.00	+/- 5	+/- 8.0%	+/- 35	+/- 52.2%	PASS	11	73	67	5	0.7	PASS
97	Coulon / Southport	EBT				45	7.00	+/- 5	+/- 10.4%	+/- 28	+/- 62.2%	PASS	11	86	80	5	0.7	PASS
98	Coulon / Southport	WBT				64	8.00	+/- 5	+/- 8.4%	+/- 32	+/- 50.0%	PASS	11	71	64	5	0.9	PASS
99	Coulon / Southport	WBR				21	2.00	+/- 1	+/- 6.4%	+/- 17	+/- 81.0%	PASS	11	20	21	5	0.2	PASS
100	Coulon / Southport	SBL				0	0.00	+/- 0	#DIV/0!	+/- 0	#DIV/0!	PASS	#DIV/0!	1	0	5	1.4	PASS

APPENDIX C

Collected Traffic Count Data

TRAFFIC DATA GATHERING
LAKE STEVENS, WA (425) 334-3348
email: CarlaN@trafficdatagathering.com

Location : Logan Ave N between Garden Ave N & Park Ave N
City/County, State : Renton, WA
Counter : NT-1848

Site: 17-152-01
5/16/2017
Tuesday

24 Hour Volume, per Channel

NEB

Interval Start			Interval Start		
12:00 AM	82	214	12:00 PM	188	723
12:15 AM	38		12:15 PM	162	
12:30 AM	56		12:30 PM	184	
12:45 AM	38		12:45 PM	189	
1:00 AM	34	146	1:00 PM	204	1010
1:15 AM	24		1:15 PM	208	
1:30 AM	54		1:30 PM	304	
1:45 AM	34		1:45 PM	294	
2:00 AM	8	58	2:00 PM	246	1001
2:15 AM	20		2:15 PM	238	
2:30 AM	16		2:30 PM	269	
2:45 AM	14		2:45 PM	248	
3:00 AM	10	28	3:00 PM	272	1046
3:15 AM	8		3:15 PM	276	
3:30 AM	4		3:30 PM	264	
3:45 AM	6		3:45 PM	234	
4:00 AM	18	81	4:00 PM	252	1055
4:15 AM	22		4:15 PM	250	
4:30 AM	20		4:30 PM	291	
4:45 AM	21		4:45 PM	262	
5:00 AM	98	388	5:00 PM	270	1059
5:15 AM	73		5:15 PM	281	
5:30 AM	110		5:30 PM	270	
5:45 AM	107		5:45 PM	238	
6:00 AM	203	1012	6:00 PM	230	856
6:15 AM	221		6:15 PM	210	
6:30 AM	298		6:30 PM	204	
6:45 AM	290		6:45 PM	212	
7:00 AM	270	1223	7:00 PM	203	688
7:15 AM	299		7:15 PM	182	
7:30 AM	342		7:30 PM	142	
7:45 AM	312		7:45 PM	161	
8:00 AM	296	1212	8:00 PM	179	577
8:15 AM	310		8:15 PM	143	
8:30 AM	330		8:30 PM	129	
8:45 AM	276		8:45 PM	126	
9:00 AM	230	1037	9:00 PM	137	452
9:15 AM	281		9:15 PM	120	
9:30 AM	292		9:30 PM	107	
9:45 AM	234		9:45 PM	88	
10:00 AM	221	935	10:00 PM	138	456
10:15 AM	282		10:15 PM	88	
10:30 AM	230		10:30 PM	130	
10:45 AM	202		10:45 PM	100	
11:00 AM	170	759	11:00 PM	111	621
11:15 AM	175		11:15 PM	122	
11:30 AM	230		11:30 PM	202	
11:45 AM	184		11:45 PM	186	

24 Hour Total 16637

12:00 AM - 12:00 PM		**12:00 PM - 12:00 AM**	
12 Hour Count	7093	12 Hour Count	9544
Peak Hour	7:30 AM	Peak Hour	4:30 PM
Peak Volume	1260	Peak Volume	1104
Factor	0.92	Factor	0.95

TRAFFIC DATA GATHERING
LAKE STEVENS, WA (425) 334-3348
email: CarlaN@trafficdatagathering.com

Location : Logan Ave N between Garden Ave N & Park Ave N
City/County, State : Renton, WA
Counter : NT-2817

Site: 17-153-01
5/16/2017
Tuesday

24 Hour Volume, per Channel

SWB

Interval Start			Interval Start		
12:00 AM	30	74	12:00 PM	156	705
12:15 AM	23		12:15 PM	183	
12:30 AM	14		12:30 PM	188	
12:45 AM	7		12:45 PM	178	
1:00 AM	9	33	1:00 PM	176	722
1:15 AM	5		1:15 PM	197	
1:30 AM	14		1:30 PM	190	
1:45 AM	5		1:45 PM	159	
2:00 AM	11	60	2:00 PM	209	857
2:15 AM	17		2:15 PM	218	
2:30 AM	14		2:30 PM	210	
2:45 AM	18		2:45 PM	220	
3:00 AM	13	143	3:00 PM	178	789
3:15 AM	22		3:15 PM	184	
3:30 AM	48		3:30 PM	210	
3:45 AM	60		3:45 PM	217	
4:00 AM	76	565	4:00 PM	258	908
4:15 AM	124		4:15 PM	224	
4:30 AM	195		4:30 PM	230	
4:45 AM	170		4:45 PM	196	
5:00 AM	134	572	5:00 PM	200	888
5:15 AM	164		5:15 PM	246	
5:30 AM	156		5:30 PM	218	
5:45 AM	118		5:45 PM	224	
6:00 AM	104	507	6:00 PM	188	789
6:15 AM	108		6:15 PM	221	
6:30 AM	144		6:30 PM	206	
6:45 AM	151		6:45 PM	174	
7:00 AM	155	644	7:00 PM	184	689
7:15 AM	152		7:15 PM	181	
7:30 AM	165		7:30 PM	178	
7:45 AM	172		7:45 PM	146	
8:00 AM	134	550	8:00 PM	105	425
8:15 AM	135		8:15 PM	122	
8:30 AM	156		8:30 PM	96	
8:45 AM	125		8:45 PM	102	
9:00 AM	112	461	9:00 PM	112	425
9:15 AM	109		9:15 PM	104	
9:30 AM	114		9:30 PM	111	
9:45 AM	126		9:45 PM	98	
10:00 AM	138	458	10:00 PM	74	253
10:15 AM	104		10:15 PM	70	
10:30 AM	106		10:30 PM	61	
10:45 AM	110		10:45 PM	48	
11:00 AM	142	547	11:00 PM	40	130
11:15 AM	143		11:15 PM	40	
11:30 AM	126		11:30 PM	20	
11:45 AM	136		11:45 PM	30	

24 Hour Total 12194

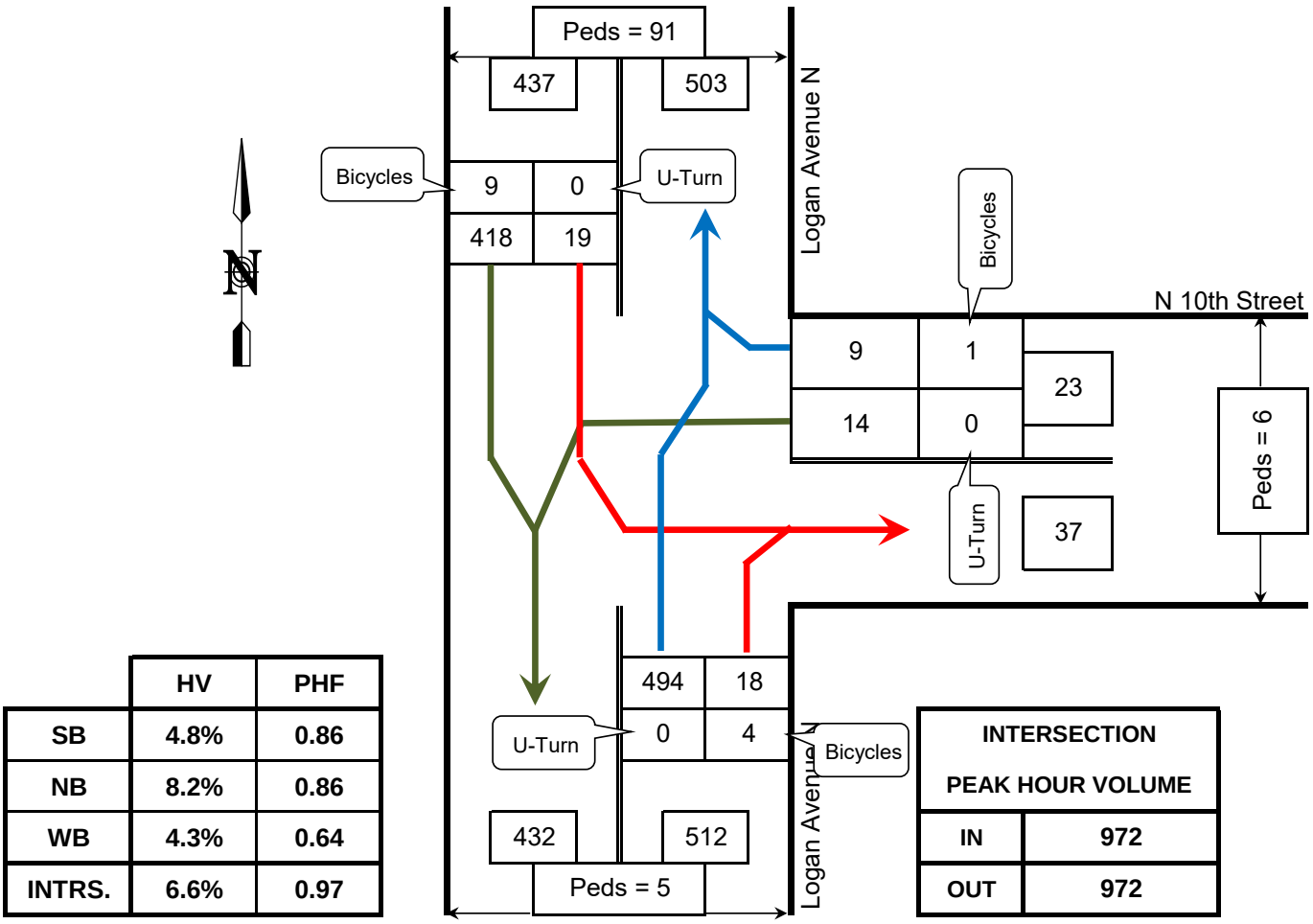
12:00 AM - 12:00 PM	
12 Hour Count	4614
Peak Hour	4:30 AM
Peak Volume	663
Factor	0.85

12:00 PM - 12:00 AM	
12 Hour Count	7580
Peak Hour	3:45 PM
Peak Volume	929
Factor	0.90

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

7:00 AM - 8:30 AM PEAK HOUR: 7:30 AM TO 8:30 AM



	HV	PHF
SB	4.8%	0.86
NB	8.2%	0.86
WB	4.3%	0.64
INTRS.	6.6%	0.97

INTERSECTION PEAK HOUR VOLUME	
IN	972
OUT	972

HV = Heavy Vehicles
PHF = Peak Hour Factor

Logan Avenue N @ N 10th Street

Renton, WA

COUNTED BY: VT/CN

REDUCED BY: CN

REDUCTION DATE: Wed. 5/24/17

DATE OF COUNT: Tue. 5/23/17

TIME OF COUNT: 7:00 AM - 8:30 AM

WEATHER: Sunny

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Logan Avenue N @ N 10th Street
Renton, WA

DATE OF COUNT: Tue. 5/23/17
TIME OF COUNT: 7:00 AM - 8:30 AM

COUNTED BY: VT/CN
WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON Logan Avenue N							FROM SOUTH ON Logan Avenue N							FROM EAST ON N 10th Street							FROM WEST ON							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	18	2	4	0	4	126	0	2	1	11	0	0	134	4	0	0	0	0	2	0	5	0	0	0	0	0	0	0	0	275
07:30 AM	22	1	8	0	4	88	0	2	1	13	0	0	110	7	2	2	0	0	3	0	1	0	0	0	0	0	0	0	0	213
07:45 AM	28	4	4	0	6	106	0	0	2	7	0	0	110	3	2	0	0	0	2	0	1	0	0	0	0	0	0	0	0	228
08:00 AM	18	2	5	0	3	124	0	1	1	12	0	0	112	6	3	1	0	0	5	0	1	0	0	0	0	0	0	0	0	251
08:15 AM	28	1	7	0	5	96	0	1	1	14	0	0	126	6	0	0	1	0	3	0	6	0	0	0	0	0	0	0	0	242
08:30 AM	17	2	5	0	5	92	0	3	0	9	0	0	146	3	1	0	0	0	4	0	1	0	0	0	0	0	0	0	0	251
PEAK HOUR TOTALS	91	9	21	0	19	418	0	5	4	42	0	0	494	18	6	1	1	0	14	0	9	0	0	0	0	0	0	0	0	INTERSECTION
ALL MOVEMENTS				437							512							23							0				972
% HV			4.8%							8.2%							4.3%							#N/A					6.6%
PEAK HOUR FACTOR				0.86							0.86							0.64							#N/A					0.97

HV = Heavy Vehicle
PHF = Peak Hour Factor

7:00 AM - 8:30 AM PEAK HOUR: 7:30 AM TO 8:30 AM

REDUCED BY: CN

DATE OF REDUCTION: 5/24/2017

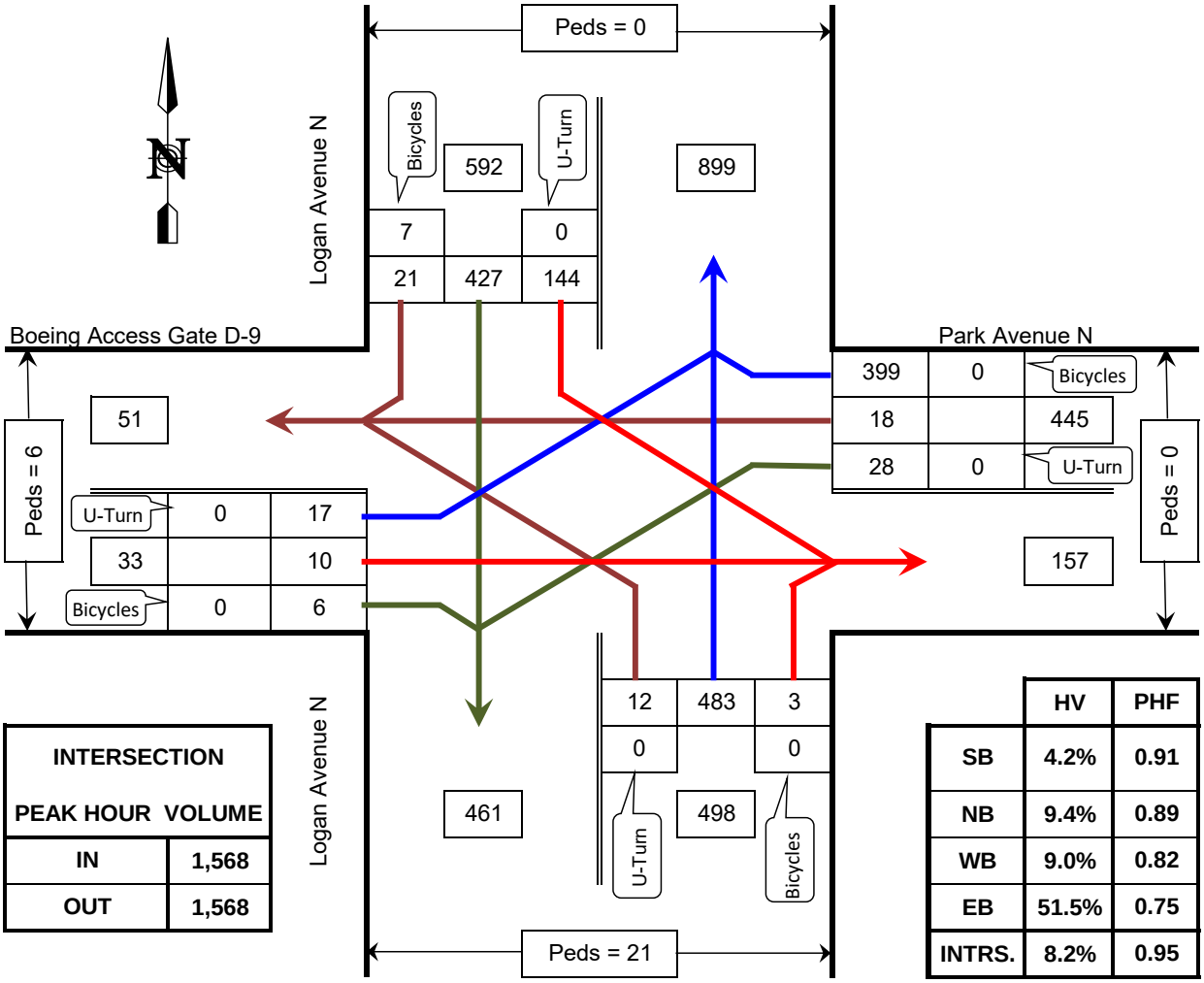
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON Logan Avenue N							FROM SOUTH ON Logan Avenue N							FROM EAST ON N 10th Street							FROM WEST ON							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
4:30 AM - 5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM - 5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 8:00 AM	86	9	21	0	17	444	0	5	5	43	0	0	466	20	7	3	0	0	12	0	8	0	0	0	0	0	0	0	967
7:15 AM - 8:15 AM	96	8	24	0	18	414	0	4	5	46	0	0	458	22	7	3	1	0	13	0	9	0	0	0	0	0	0	0	934
7:30 AM - 8:30 AM	91	9	21	0	19	418	0	5	4	42	0	0	494	18	6	1	1	0	14	0	9	0	0	0	0	0	0	0	972
7:00 AM - 8:30 AM Total:	131	12	33	0	27	632	0	9	6	66	0	0	738	29	8	3	1	0	19	0	15	0	0	0	0	0	0	0	1460

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

7:00 AM - 8:30 AM PEAK HOUR: 7:00 AM TO 8:00 AM



INTERSECTION PEAK HOUR VOLUME	
IN	1,568
OUT	1,568

	HV	PHF
SB	4.2%	0.91
NB	9.4%	0.89
WB	9.0%	0.82
EB	51.5%	0.75
INTRS.	8.2%	0.95

PHF = Peak Hour Factor
HV = Heavy Vehicle

Logan Avenue N @ Park Avenue N

Renton, WA

COUNTED BY:	VT/SN	DATE OF COUNT:	Thu. 5/18/17
REDUCED BY:	CN	TIME OF COUNT:	7:00 AM - 8:30 AM
REDUCTION DATE:	Mon. 5/22/17	WEATHER:	Overcast

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Logan Avenue N @ Park Avenue N
Renton, WA

DATE OF COUNT: Thu. 5/18/17
TIME OF COUNT: 7:00 AM - 8:30 AM

COUNTED BY: VT/SN
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON Logan Avenue N							FROM SOUTH ON Logan Avenue N							FROM EAST ON Park Avenue N							FROM WEST ON Boeing Access Gate D-9							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
07:15 AM	0	2	5	0	23	122	8	4	0	11	0	4	136	0	0	0	9	0	10	5	97	1	0	4	0	4	3	2	**414**
07:30 AM	0	2	7	0	47	93	7	7	0	8	0	3	132	2	0	0	12	0	6	4	103	2	0	6	0	7	2	2	**408**
07:45 AM	0	2	7	0	35	93	2	6	0	12	0	3	113	1	0	0	7	0	3	4	128	0	0	3	0	2	4	0	**388**
08:00 AM	0	1	6	0	39	119	4	4	0	16	0	2	102	0	0	0	12	0	9	5	71	3	0	4	0	4	1	2	**358**
08:15 AM	0	0	4	0	42	94	2	6	1	9	0	3	98	3	0	0	10	0	10	4	104	2	0	6	0	3	1	5	**369**
08:30 AM	0	2	6	0	35	116	5	5	1	14	0	1	148	2	1	0	8	0	2	4	99	1	1	6	0	5	3	2	**422**
PEAK HOUR TOTALS	**0**	**7**	**25**	**0**	**144**	**427**	**21**	**21**	**0**	**47**	**0**	**12**	**483**	**3**	**0**	**0**	**40**	**0**	**28**	**18**	**399**	**6**	**0**	**17**	**0**	**17**	**10**	**6**	**INTERSECTION**
ALL MOVEMENTS				**592**						**498**							**445**							**33**				**1568**
% HV			**4.2%**						**9.4%**							**9.0%**						**51.5%**					**8.2%**
PEAK HOUR FACTOR				**0.91**						**0.89**							**0.82**							**0.75**				**0.95**

HV = Heavy Vehicle
PHF = Peak Hour Factor

7:00 AM - 8:30 AM PEAK HOUR: 7:00 AM TO 8:00 AM

REDUCED BY: CN

DATE OF REDUCTION: 5/22/2017

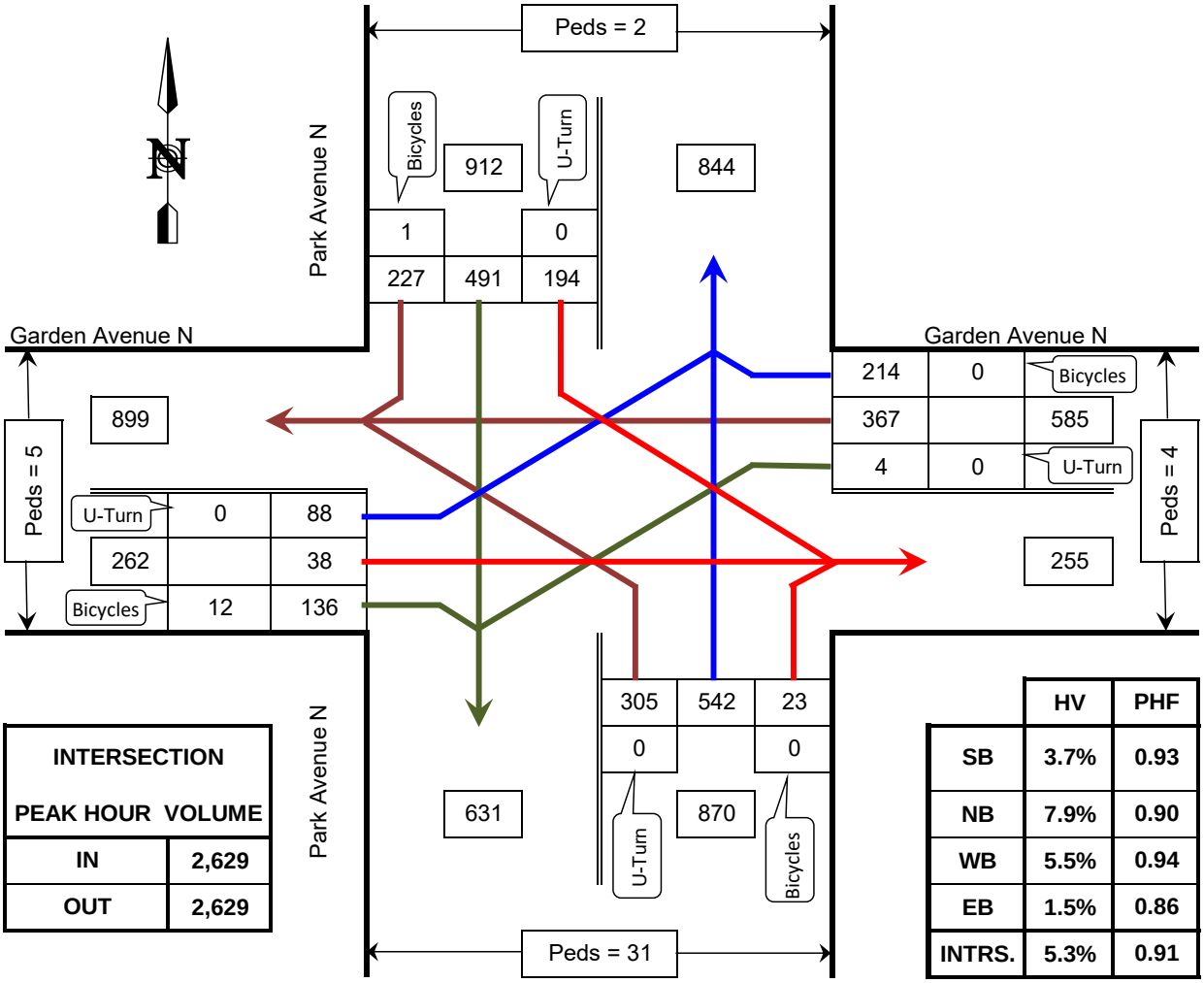
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON Logan Avenue N							FROM SOUTH ON Logan Avenue N							FROM EAST ON Park Avenue N							FROM WEST ON Boeing Access Gate D-9							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
4:30 AM - 5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM - 5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 8:00 AM	0	7	25	0	144	427	21	21	0	47	0	12	483	3	0	0	40	0	28	18	399	6	0	17	0	17	10	6	1568
7:15 AM - 8:15 AM	0	5	24	0	163	399	15	23	1	45	0	11	445	6	0	0	41	0	28	17	406	7	0	19	0	16	8	9	1523
7:30 AM - 8:30 AM	0	5	23	0	151	422	13	21	2	51	0	9	461	6	1	0	37	0	24	17	402	6	1	19	0	14	9	9	1537
7:00 AM - 8:30 AM Total:	0	9	35	0	221	637	28	32	2	70	0	16	729	8	1	0	58	0	40	26	602	9	1	29	0	25	14	13	2359

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

7:00 AM - 8:30 AM PEAK HOUR: 7:00 AM TO 8:00 AM



INTERSECTION PEAK HOUR VOLUME	
IN	2,629
OUT	2,629

	HV	PHF
SB	3.7%	0.93
NB	7.9%	0.90
WB	5.5%	0.94
EB	1.5%	0.86
INTRS.	5.3%	0.91

PHF = Peak Hour Factor
HV = Heavy Vehicle

Park Avenue N @ Garden Avenue N

Renton, WA

COUNTED BY:	VT/SN	DATE OF COUNT:	Thu. 5/18/17
REDUCED BY:	CN	TIME OF COUNT:	7:00 AM - 8:30 AM
REDUCTION DATE:	Tue. 5/23/17	WEATHER:	Overcast

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Park Avenue N @ Garden Avenue N
Renton, WA

DATE OF COUNT: Thu. 5/18/17
TIME OF COUNT: 7:00 AM - 8:30 AM

COUNTED BY: VT/SN
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON Park Avenue N							FROM SOUTH ON Park Avenue N							FROM EAST ON Garden Avenue N							FROM WEST ON Garden Avenue N							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	7	0	45	144	57	8	0	14	0	85	144	12	1	0	6	0	0	102	54	2	3	1	0	34	7	35	719
07:30 AM	1	0	10	0	44	117	63	6	0	20	0	74	146	3	2	0	8	0	2	94	54	2	3	0	0	17	7	37	658
07:45 AM	1	0	8	0	46	99	55	9	0	14	0	67	146	6	0	0	8	0	2	87	54	1	3	1	0	21	13	35	631
08:00 AM	0	1	9	0	59	131	52	8	0	21	0	79	106	2	1	0	10	0	0	84	52	0	3	2	0	16	11	29	621
08:15 AM	1	0	6	0	41	104	42	4	0	19	0	74	134	4	1	0	7	0	0	67	46	1	3	1	0	24	6	26	568
08:30 AM	1	2	6	0	34	101	36	8	0	18	0	83	119	6	1	0	10	0	3	87	54	1	1	2	0	21	5	47	596
PEAK HOUR TOTALS	2	1	34	0	194	491	227	31	0	69	0	305	542	23	4	0	32	0	4	367	214	5	12	4	0	88	38	136	INTERSECTION
ALL MOVEMENTS				912							870							585							262				2629
% HV			3.7%							7.9%							5.5%							1.5%					5.3%
PEAK HOUR FACTOR				0.93							0.90							0.94							0.86				0.91

HV = Heavy Vehicle
PHF = Peak Hour Factor

7:00 AM - 8:30 AM PEAK HOUR: 7:00 AM TO 8:00 AM

REDUCED BY: CN

DATE OF REDUCTION: 5/23/2017

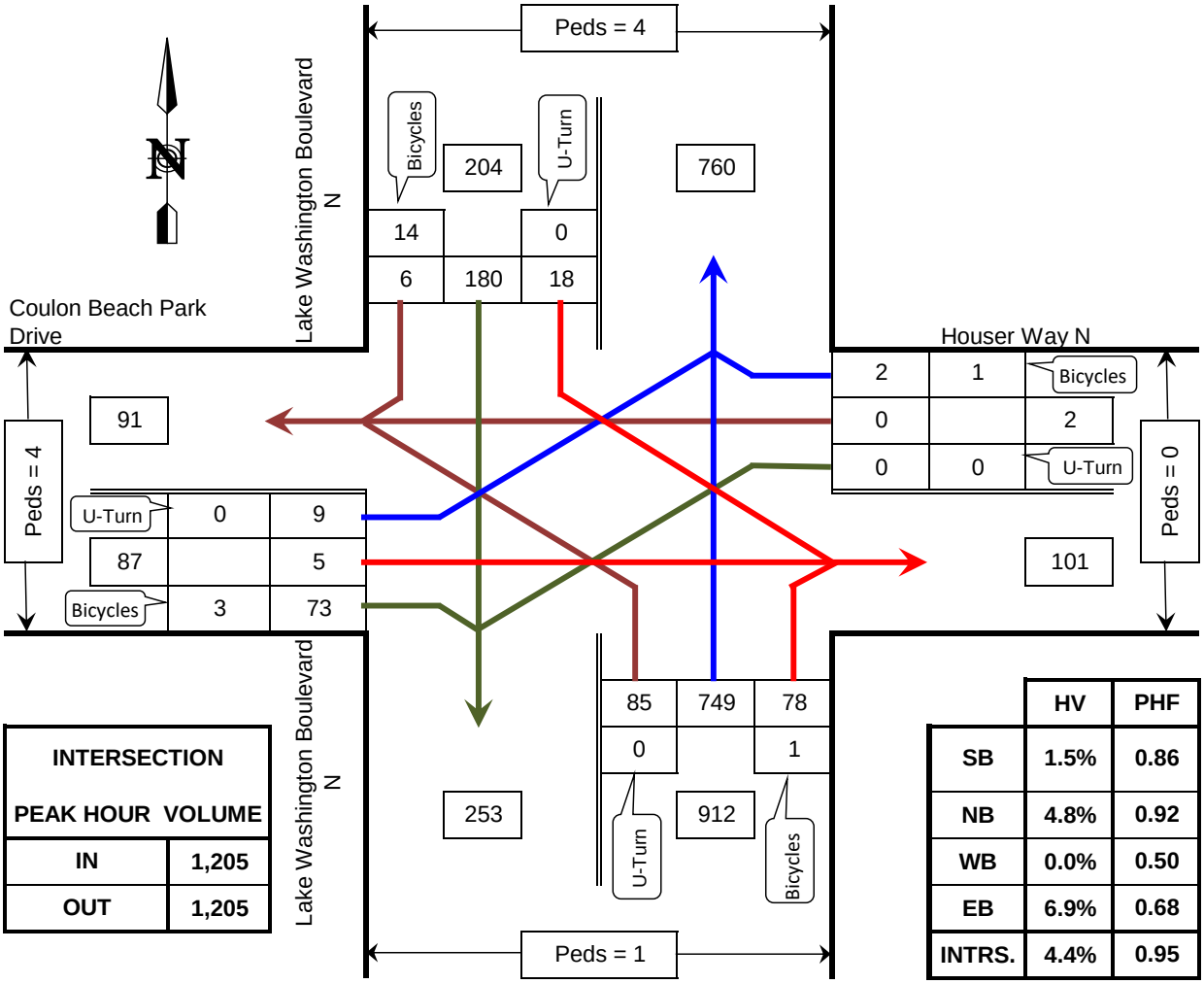
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON Park Avenue N							FROM SOUTH ON Park Avenue N							FROM EAST ON Garden Avenue N							FROM WEST ON Garden Avenue N							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
4:30 AM - 5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM - 5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 8:00 AM	2	1	34	0	194	491	227	31	0	69	0	305	542	23	4	0	32	0	4	367	214	5	12	4	0	88	38	136	2629
7:15 AM - 8:15 AM	3	1	33	0	190	451	212	27	0	74	0	294	532	15	4	0	33	0	4	332	206	4	12	4	0	78	37	127	2478
7:30 AM - 8:30 AM	3	3	29	0	180	435	185	29	0	72	0	303	505	18	3	0	35	0	5	325	206	3	10	6	0	82	35	137	2416
7:00 AM - 8:30 AM Total:	4	3	46	0	269	696	305	43	0	106	0	462	795	33	6	0	49	0	7	521	314	7	16	7	0	133	49	209	3793

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

7:00 AM - 8:30 AM PEAK HOUR: 7:00 AM TO 8:00 AM



INTERSECTION PEAK HOUR VOLUME	
IN	1,205
OUT	1,205

	HV	PHF
SB	1.5%	0.86
NB	4.8%	0.92
WB	0.0%	0.50
EB	6.9%	0.68
INTRS.	4.4%	0.95

PHF = Peak Hour Factor
HV = Heavy Vehicle

Lake Washington Boulevard N @ Coulon Beach Park Drive

Renton, WA

COUNTED BY:	VT/RM	DATE OF COUNT:	Thu. 5/18/17
REDUCED BY:	CN	TIME OF COUNT:	7:00 AM - 8:30 AM
REDUCTION DATE:	Mon. 5/22/17	WEATHER:	Overcast

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Lake Washington Boulevard N @ Coulon Beach Park Drive
Renton, WA

DATE OF COUNT: Thu. 5/18/17
TIME OF COUNT: 7:00 AM - 8:30 AM

COUNTED BY: VT/RM
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON Lake Washington Boulevard N							FROM SOUTH ON Lake Washington Boulevard N							FROM EAST ON Houser Way N							FROM WEST ON Coulon Beach Park Drive							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	2	3	0	0	7	40	1	0	0	8	0	18	191	26	0	0	0	0	0	0	1	0	0	1	0	5	0	27	316
07:30 AM	1	5	0	0	3	42	0	1	0	8	0	15	212	20	0	0	0	0	0	0	1	1	0	2	0	2	0	17	312
07:45 AM	1	3	0	0	5	51	3	0	0	11	0	21	179	18	0	1	0	0	0	0	0	2	3	3	0	1	2	16	296
08:00 AM	0	3	3	0	3	47	2	0	1	17	0	31	167	14	0	0	0	0	0	0	0	1	0	0	0	1	3	13	281
08:15 AM	0	2	1	0	7	45	1	0	1	9	0	25	138	17	2	0	0	0	0	0	0	0	0	6	0	6	4	22	265
08:30 AM	0	0	2	0	3	43	0	0	0	19	0	18	174	13	2	0	0	0	0	0	0	1	1	0	0	2	1	14	268
PEAK HOUR TOTALS	4	14	3	0	18	180	6	1	1	44	0	85	749	78	0	1	0	0	0	0	2	4	3	6	0	9	5	73	INTERSECTION
ALL MOVEMENTS				204							912							2							87				1205
% HV			1.5%							4.8%							0.0%							6.9%					4.4%
PEAK HOUR FACTOR				0.86							0.92							0.50							0.68				0.95

HV = Heavy Vehicle
PHF = Peak Hour Factor

7:00 AM - 8:30 AM PEAK HOUR: 7:00 AM TO 8:00 AM

REDUCED BY: CN

DATE OF REDUCTION: 5/22/2017

ROLLING HOUR COUNT

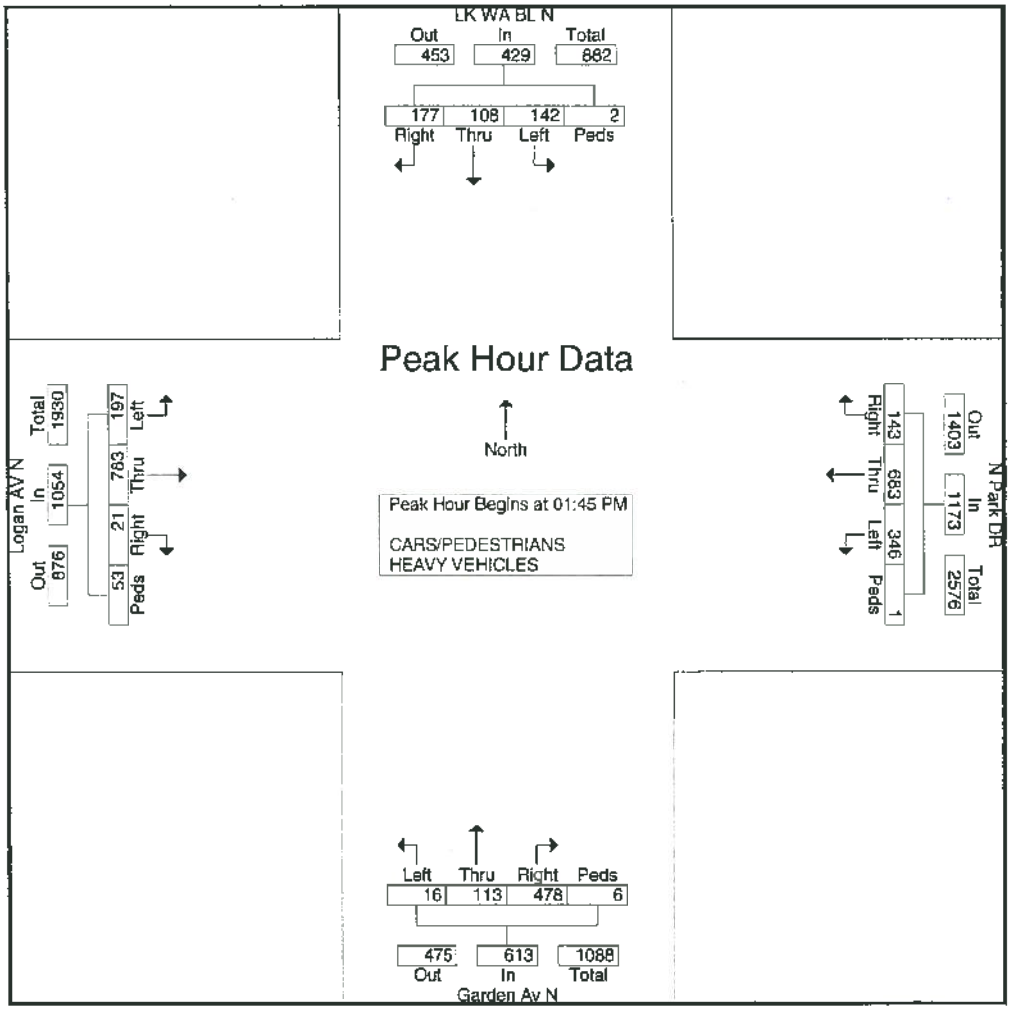
TIME INTERVAL	FROM NORTH ON Lake Washington Boulevard N							FROM SOUTH ON Lake Washington Boulevard N							FROM EAST ON Houser Way N							FROM WEST ON Coulon Beach Park Drive							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
4:30 AM - 5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM - 5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 8:00 AM	4	14	3	0	18	180	6	1	1	44	0	85	749	78	0	1	0	0	0	0	2	4	3	6	0	9	5	73	1205
7:15 AM - 8:15 AM	2	13	4	0	18	185	6	1	2	45	0	92	696	69	2	1	0	0	0	0	1	4	3	11	0	10	9	68	1154
7:30 AM - 8:30 AM	1	8	6	0	18	186	6	0	2	56	0	95	658	62	4	1	0	0	0	0	0	4	4	9	0	10	10	65	1110
7:00 AM - 8:30 AM Total:	4	16	6	0	28	268	7	1	2	72	0	128	1061	108	4	1	0	0	0	0	2	5	4	12	0	17	10	109	1738

City of Renton

1055 South Grady Way
Renton, WA 98057
Ahead of the Curve

File Name : TMC022N1
Site Code : 00000022
Start Date : 06/07/2017
Page No : 2

Start Time	LK WA BL N From North					N Park DR From East					Garden Av N From South					Logan AV N From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 01:30 PM to 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:45 PM																					
01:45 PM	42	24	35	0	101	30	171	**89**	0	290	118	29	2	0	149	5	**236**	**61**	12	**314**	854
02:00 PM	41	24	33	**2**	100	34	**185**	86	**1**	306	**132**	19	4	0	155	**4**	170	47	**19**	240	801
02:15 PM	**51**	**32**	35	0	**118**	**46**	181	88	0	**315**	97	18	2	0	117	**6**	151	42	4	203	753
02:30 PM	43	28	**39**	0	110	33	146	83	0	262	131	**47**	**8**	**6**	**192**	6	226	47	18	297	**861**
Total Volume	177	108	142	2	429	143	683	346	1	1173	478	113	16	6	613	21	783	197	53	1054	3269
% App. Total	41.3	25.2	33.1	0.5		12.2	58.2	29.5	0.1		78	18.4	2.6	1		2	74.3	18.7	5		
PHF	.868	.844	.910	.250	.909	.777	.923	.972	.250	.931	.905	.601	.500	.250	.798	.875	.829	.807	.697	.839	.949



022N1

City of Renton

1055 South Grady Way
Renton, WA 98057
Ahead of the Curve

RWM

Counter:T12-150
Counted By: K2G
Weather: SUNNY
Other: DRY

File Name : TMC022N1
Site Code : 00000022
Start Date : 06/07/2017
Page No : 1

Groups Printed- CARS/PEDESTRIANS - HEAVY VEHICLES

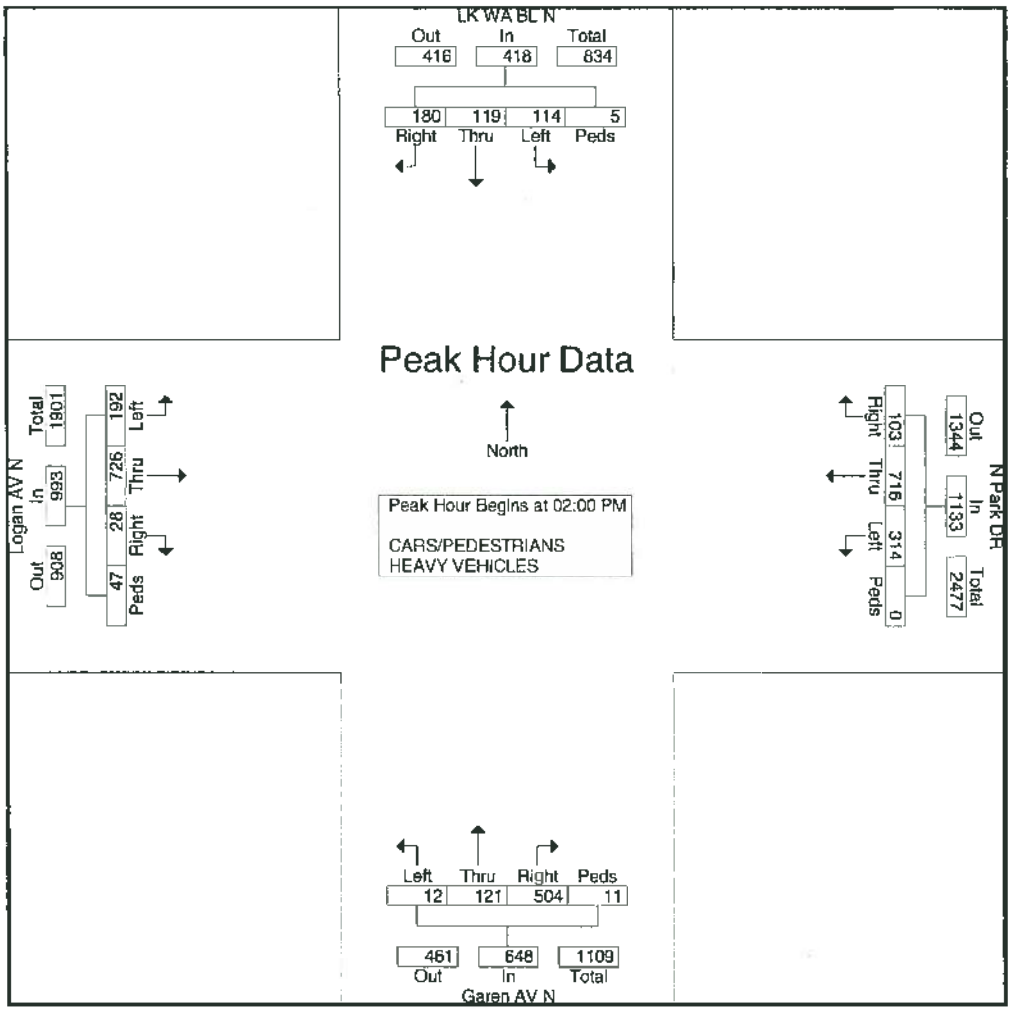
	LK WA BL N From North					N Park DR From East					Garden Av N From South					Logan AV N From West					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int. Total
01:30 PM	44	21	27	1	93	37	161	88	0	286	124	29	5	0	158	3	228	28	8	267	804
01:45 PM	42	24	35	0	101	30	171	89	0	290	118	29	2	0	149	5	236	61	12	314	854
Total	86	45	62	1	194	67	332	177	0	576	242	58	7	0	307	8	464	89	20	581	1658
02:00 PM	41	24	33	2	100	34	185	86	1	306	132	19	4	0	155	4	170	47	19	240	801
02:15 PM	51	32	35	0	118	46	181	88	0	315	97	18	2	0	117	6	151	42	4	203	753
02:30 PM	43	28	39	0	110	33	146	83	0	262	131	47	8	6	192	6	226	47	18	297	861
02:45 PM	40	32	20	0	92	29	122	68	0	219	120	40	1	2	163	7	221	63	11	302	776
Total	175	116	127	2	420	142	634	325	1	1102	480	124	15	8	627	23	768	199	52	1042	3191
Grand Total	261	161	189	3	614	209	966	502	1	1678	722	182	22	8	934	31	1232	288	72	1623	4849
Apprch %	42.5	26.2	30.8	0.5		12.5	57.6	29.9	0.1		77.3	19.5	2.4	0.9		1.9	75.9	17.7	4.4		
Total %	5.4	3.3	3.9	0.1	12.7	4.3	19.9	10.4	0	34.6	14.9	3.8	0.5	0.2	19.3	0.6	25.4	5.9	1.5	33.5	
CARS/PEDESTRIANS																	1202				
% CARS/PEDESTRIANS	98.9	98.1	95.2	100	97.6	85.6	97.1	98.2	100	96	96	96.7	100	100	96.3	80.6	97.6	98.3	100	97.5	96.7
HEAVY VEHICLES																					
% HEAVY VEHICLES	1.1	1.9	4.8	0	2.4	14.4	2.9	1.8	0	4	4	3.3	0	0	3.7	19.4	2.4	1.7	0	2.5	3.3

City of Renton

1055 South Grady Way
Renton, WA 98057
Ahead of the Curve

File Name : TMC022N2
Site Code : 00000022
Start Date : 06/14/2017
Page No : 2

Start Time	LK WA BL N From North					N Park DR From East					Garen AV N From South					Logan AV N From West					
	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int. Total
Peak Hour Analysis From 01:30 PM to 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:00 PM																					
02:00 PM	32	26	31	2	91	30	169	67	0	266	109	29	2	0	140	5	177	60	3	245	742
02:15 PM	43	22	23	0	88	18	196	87	0	301	117	28	2	4	151	7	132	34	16	189	729
02:30 PM	46	40	36	3	125	29	201	91	0	321	131	28	3	4	166	7	231	39	16	293	905
02:45 PM	59	31	24	0	114	26	150	69	0	245	147	36	5	3	191	9	186	59	12	266	816
Total Volume	180	119	114	5	418	103	716	314	0	1133	504	121	12	11	648	28	726	192	47	993	3192
% App. Total	43.1	28.5	27.3	1.2		9.1	63.2	27.7	0		77.8	18.7	1.9	1.7		2.8	73.1	19.3	4.7		
PHF	.763	.744	.792	.417	.836	.858	.891	.863	.000	.882	.857	.840	.600	.688	.848	.778	.786	.800	.734	.847	.882



022N2

City of Renton

1055 South Grady Way
Renton, WA 98057
Ahead of the Curve

RWM

Counter:T12-150
Counted By: K2G
Weather: CLOUDY
Other: DRY

File Name : TMC022N2
Site Code : 00000022
Start Date : 06/14/2017
Page No : 1

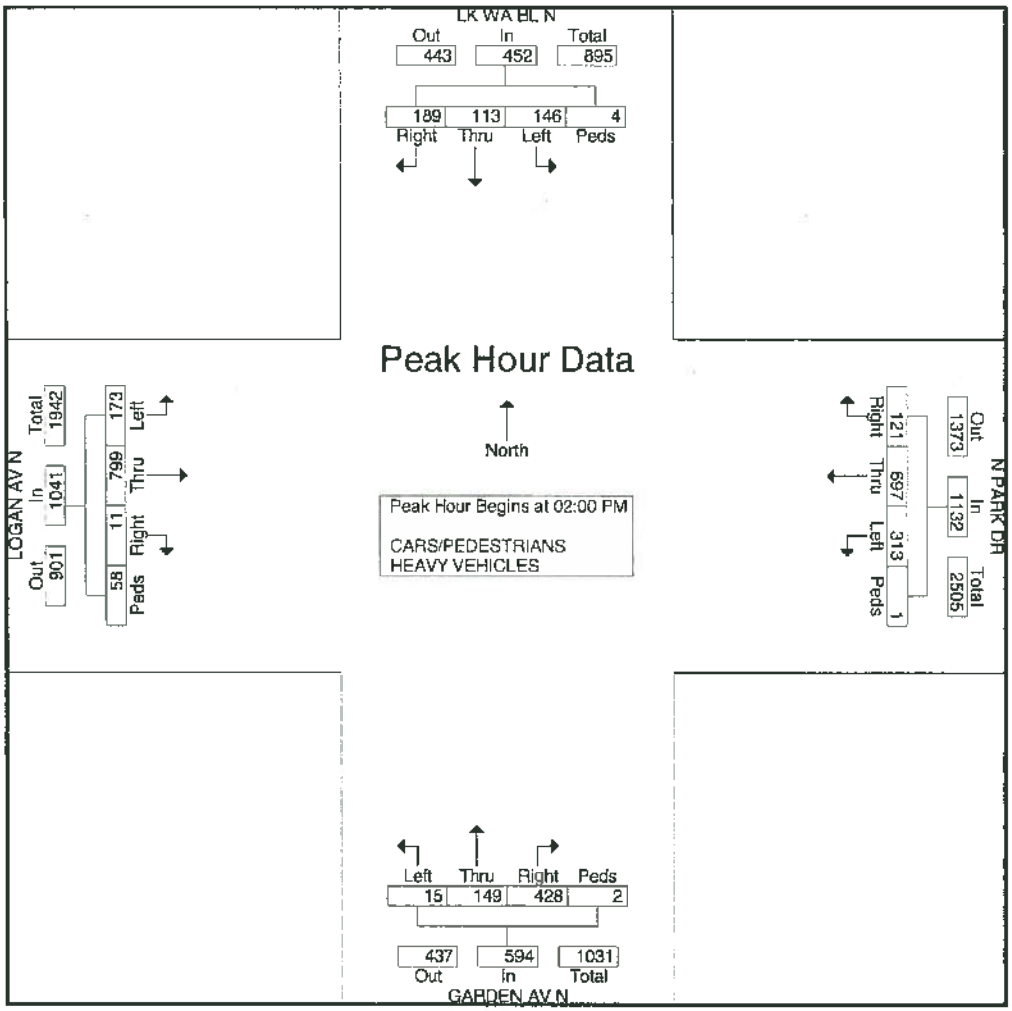
Groups Printed- CARS/PEDESTRIANS - HEAVY VEHICLES

	LK WA BL N From North					N Park DR From East					Garen AV N From South					Logan AV N From West					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int. Total
01:30 PM	35	17	42	0	94	25	165	90	0	280	103	28	4	1	136	2	245	40	3	290	800
01:45 PM	33	25	22	3	83	28	197	88	0	313	108	34	1	0	143	4	175	39	5	223	762
Total	68	42	64	3	177	53	362	178	0	593	211	62	5	1	279	6	420	79	8	513	1562
02:00 PM	32	26	31	2	91	30	169	67	0	266	109	29	2	0	140	5	177	60	3	245	742
02:15 PM	43	22	23	0	88	18	196	87	0	301	117	28	2	4	151	7	132	34	16	189	729
02:30 PM	46	40	36	3	125	29	201	91	0	321	131	28	3	4	166	7	231	39	16	293	905
02:45 PM	59	31	24	0	114	26	150	69	0	245	147	36	5	3	191	9	186	59	12	266	816
Total	180	119	114	5	418	103	716	314	0	1133	504	121	12	11	648	28	726	192	47	993	3192
Grand Total	248	161	178	8	595	156	1078	492	0	1726	715	183	17	12	927	34	1146	271	55	1506	4754
Apprch %	41.7	27.1	29.9	1.3		9	62.5	28.5	0		77.1	19.7	1.8	1.3		2.3	76.1	18	3.7		
Total %	5.2	3.4	3.7	0.2	12.5	3.3	22.7	10.3	0	36.3	15	3.8	0.4	0.3	19.5	0.7	24.1	5.7	1.2	31.7	
CARS,PEDESTRIANS							1047										1122				
% CARS,PEDESTRIANS	98	96.9	97.8	100	97.6	92.9	97.1	98.2	0	97	97.2	96.7	94.1	100	97.1	82.4	97.9	99.3	100	97.9	97.4
HEAVY VEHICLES																					
HEAVY VEHICLES	2	3.1	2.2	0	2.4	7.1	2.9	1.8	0	3	2.8	3.3	5.9	0	2.9	17.6	2.1	0.7	0	2.1	2.6

City of Renton
1055 South Grady Way
Renton, WA 98057
Ahead of the Curve

File Name : tmc022n3
Site Code : 00000022
Start Date : 06/21/2017
Page No : 2

Start Time	LK WA BL N From North					N PARK DR From East					GARDEN AV N From South					LOGAN AV N From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 01:30 PM to 02:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:00 PM																					
02:00 PM	49	27	37	0	113	24	**182**	86	0	292	99	**38**	2	0	139	2	181	42	11	236	780
02:15 PM	54	21	30	0	105	31	181	**90**	0	**302**	98	35	2	0	135	**5**	157	39	10	211	753
02:30 PM	**55**	**37**	**43**	**2**	**137**	**37**	175	70	1	283	**124**	38	5	**2**	**169**	2	**243**	43	17	**305**	**894**
02:45 PM	31	28	36	2	97	29	159	67	0	255	107	38	**6**	0	151	2	218	**49**	**20**	289	792
Total Volume	189	113	146	4	452	121	697	313	1	1132	428	149	15	2	594	11	799	173	58	1041	3219
% App. Total	41.8	25	32.3	0.9		10.7	61.6	27.7	0.1		72.1	25.1	2.5	0.3		1.1	76.8	16.6	5.6		
PHF	.859	.764	.849	.500	.825	.818	.957	.869	.250	.937	.863	.980	.625	.250	.879	.550	.822	.883	.725	.853	.900



022N3

City of Renton

1055 South Grady Way
Renton, WA 98057
Ahead of the Curve

Counter: T12-150
Counted By: MWM
Weather: SUNNY
Other: DRY PAVEMENT

RWM

File Name : tmc022n3
Site Code : 00000022
Start Date : 06/21/2017
Page No : 1

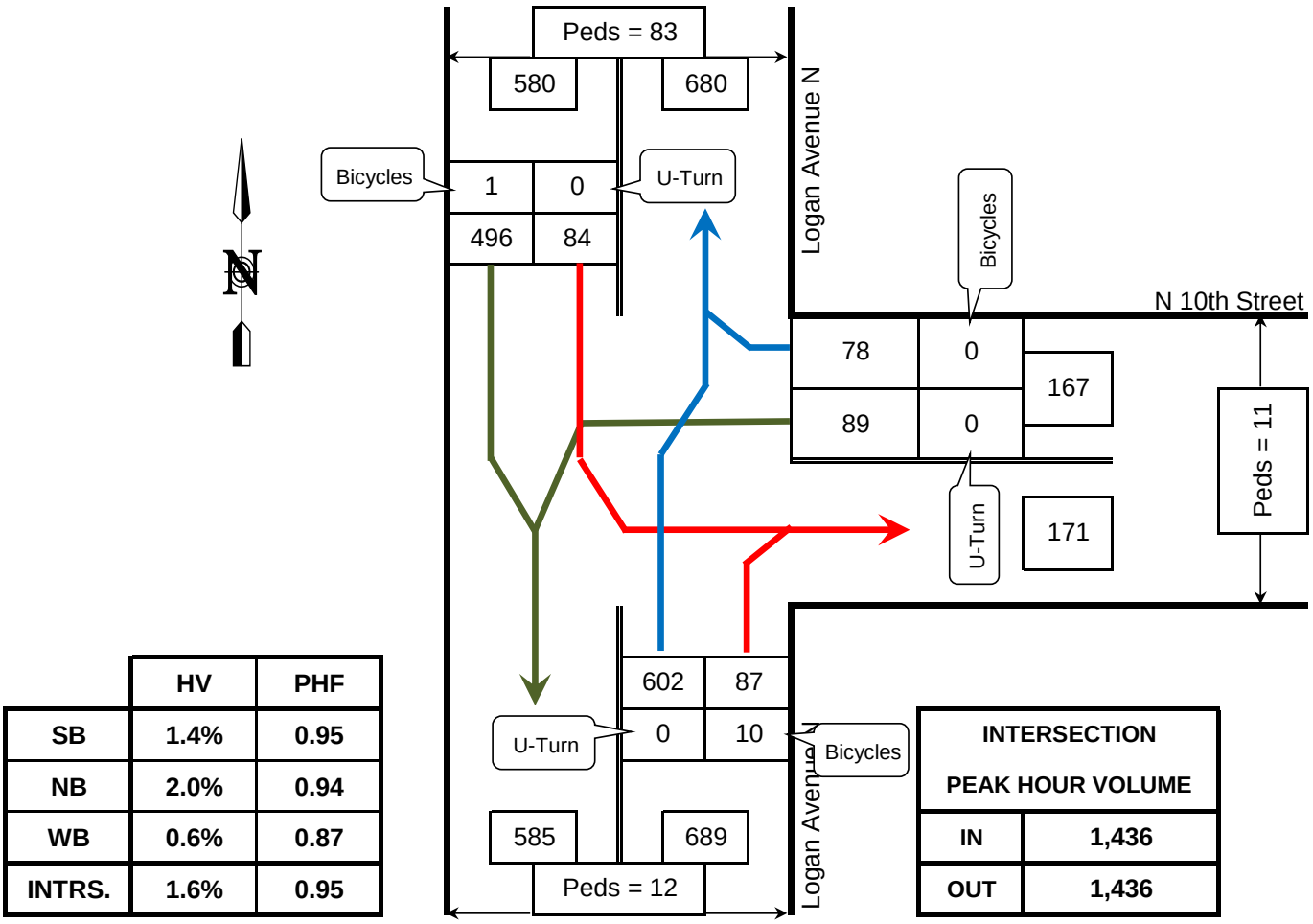
Groups Printed- CARS/PEDESTRIANS - HEAVY VEHICLES

	LK WA BL N From North					N PARK DR From East					GARDEN AV N From South					LOGAN AV N From West					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int. Total
01:30 PM	43	27	34	0	104	29	207	61	1	298	107	23	1	0	131	1	292	42	11	346	879
01:45 PM	48	24	31	0	103	29	181	79	0	289	92	41	1	0	134	0	185	42	15	242	768
Total	91	51	65	0	207	58	388	140	1	587	199	64	2	0	265	1	477	84	26	588	1647
02:00 PM	49	27	37	0	113	24	182	86	0	292	99	38	2	0	139	2	181	42	11	236	780
02:15 PM	54	21	30	0	105	31	181	90	0	302	98	35	2	0	135	5	157	39	10	211	753
02:30 PM	55	37	43	2	137	37	175	70	1	283	124	38	5	2	169	2	243	43	17	305	894
02:45 PM	31	28	36	2	97	29	159	67	0	255	107	38	6	0	151	2	218	49	20	289	792
Total	189	113	146	4	452	121	697	313	1	1132	428	149	15	2	594	11	799	173	58	1041	3219
Grand Total	280	164	211	4	659	179	1085	453	2	1719	627	213	17	2	859	12	1276	257	84	1629	4866
Apprch %	42.5	24.9	32	0.6		10.4	63.1	26.4	0.1		73	24.8	2	0.2		0.7	78.3	15.8	5.2		
Total %	5.8	3.4	4.3	0.1	13.5	3.7	22.3	9.3	0	35.3	12.9	4.4	0.3	0	17.7	0.2	26.2	5.3	1.7	33.5	
CARS/PEDESTRIANS							1062										1247				
% CARS/PEDESTRIANS	98.6	96.3	96.7	100	97.4	89.4	97.9	98.9	100	97.3	97.3	98.6	100	100	97.7	50	97.7	99.6	100	97.8	97.5
HEAVY VEHICLES																					
% HEAVY VEHICLES	1.4	3.7	3.3	0	2.6	10.6	2.1	1.1	0	2.7	2.7	1.4	0	0	2.3	50	2.3	0.4	0	2.2	2.5

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:15 PM - 5:45 PM PEAK HOUR: 4:45 PM TO 5:45 PM



	HV	PHF
SB	1.4%	0.95
NB	2.0%	0.94
WB	0.6%	0.87
INTRS.	1.6%	0.95

INTERSECTION PEAK HOUR VOLUME	
IN	1,436
OUT	1,436

HV = Heavy Vehicles
PHF = Peak Hour Factor

Logan Avenue N @ N 10th Street

Renton, WA

COUNTED BY: VT/RM

REDUCED BY: CN

REDUCTION DATE: Mon. 5/22/17

DATE OF COUNT: Thu. 5/18/17

TIME OF COUNT: 4:15 PM - 5:45 PM

WEATHER: Overcast

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Logan Avenue N @ N 10th Street
Renton, WA

DATE OF COUNT: Thu. 5/18/17
TIME OF COUNT: 4:15 PM - 5:45 PM

COUNTED BY: VT/RM
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON Logan Avenue N							FROM SOUTH ON Logan Avenue N							FROM EAST ON N 10th Street							FROM WEST ON							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	18	1	6	0	25	134	0	3	0	6	0	0	139	23	2	0	0	0	12	0	13	0	0	0	0	0	0	0	0	346
04:45 PM	24	1	8	0	18	121	0	4	1	0	0	0	118	31	2	0	0	0	14	0	12	0	0	0	0	0	0	0	0	314
05:00 PM	22	1	3	0	24	108	0	3	5	6	0	0	127	25	1	0	0	0	23	0	25	0	0	0	0	0	0	0	0	332
05:15 PM	24	0	2	0	22	128	0	4	1	3	0	0	160	21	4	0	1	0	23	0	22	0	0	0	0	0	0	0	0	376
05:30 PM	14	0	1	0	18	127	0	1	3	3	0	0	158	14	2	0	0	0	24	0	14	0	0	0	0	0	0	0	0	355
05:45 PM	23	0	2	0	20	133	0	4	1	2	0	0	157	27	4	0	0	0	19	0	17	0	0	0	0	0	0	0	0	373
PEAK HOUR TOTALS	83	1	8	0	84	496	0	12	10	14	0	0	602	87	11	0	1	0	89	0	78	0	0	0	0	0	0	0	INTERSECTION
ALL MOVEMENTS				580							689							167							0				1436
% HV			1.4%							2.0%							0.6%							#N/A					1.6%
PEAK HOUR FACTOR				0.95							0.94							0.87							#N/A					0.95

HV = Heavy Vehicle
PHF = Peak Hour Factor

4:15 PM - 5:45 PM PEAK HOUR: 4:45 PM TO 5:45 PM

REDUCED BY: CN

DATE OF REDUCTION: 5/22/2017

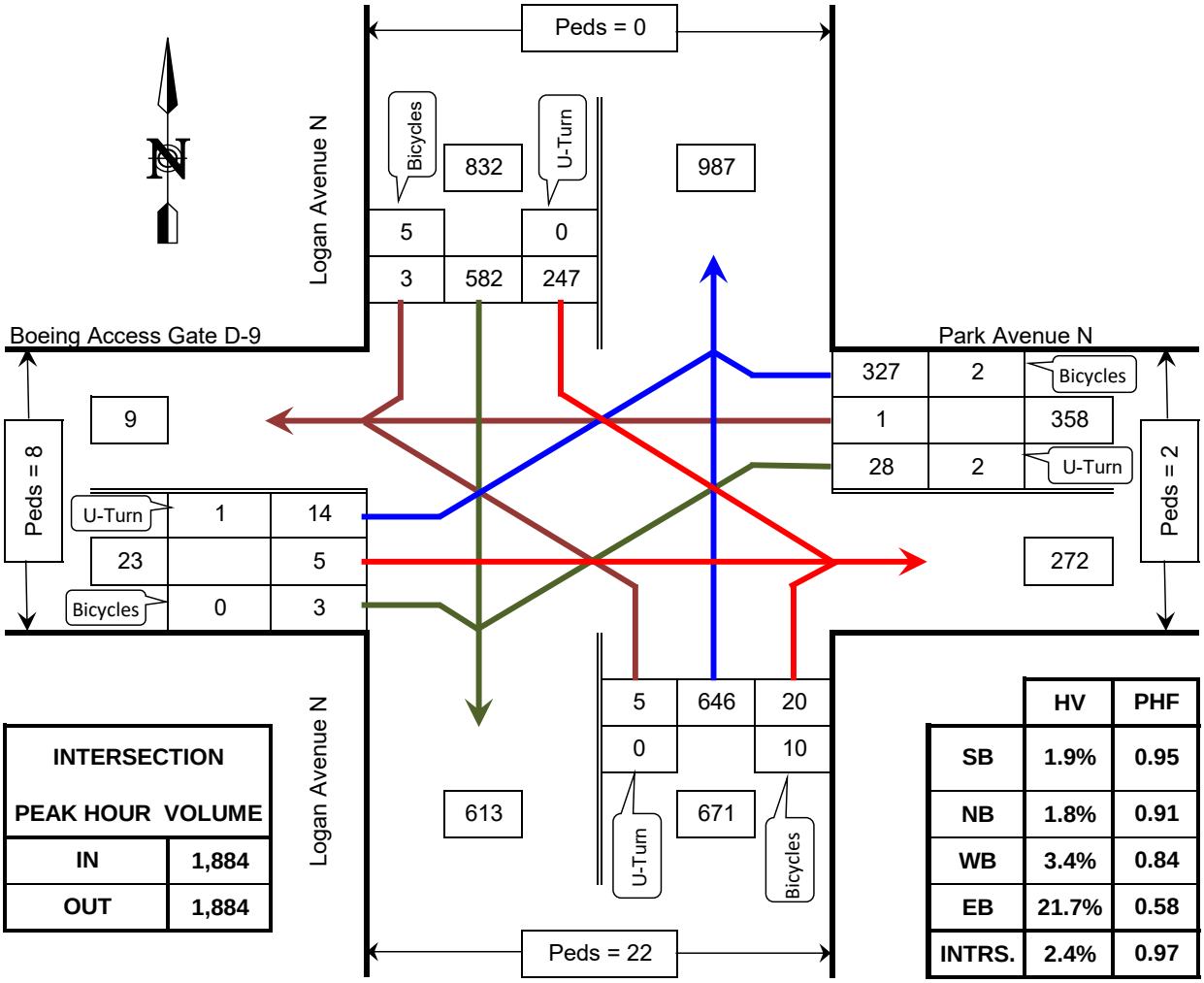
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON Logan Avenue N							FROM SOUTH ON Logan Avenue N							FROM EAST ON N 10th Street							FROM WEST ON							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
1:45 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	88	3	19	0	89	491	0	14	7	15	0	0	544	100	9	0	1	0	72	0	72	0	0	0	0	0	0	0	1368
4:30 PM - 5:30 PM	84	2	14	0	82	484	0	12	10	12	0	0	563	91	9	0	1	0	84	0	73	0	0	0	0	0	0	0	1377
4:45 PM - 5:45 PM	83	1	8	0	84	496	0	12	10	14	0	0	602	87	11	0	1	0	89	0	78	0	0	0	0	0	0	0	1436
4:15 PM - 5:45 PM Total:	125	3	22	0	127	751	0	19	11	20	0	0	859	141	15	0	1	0	115	0	103	0	0	0	0	0	0	0	2096

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:15 PM - 5:45 PM PEAK HOUR: 4:45 PM TO 5:45 PM



INTERSECTION PEAK HOUR VOLUME	
IN	1,884
OUT	1,884

	HV	PHF
SB	1.9%	0.95
NB	1.8%	0.91
WB	3.4%	0.84
EB	21.7%	0.58
INTRS.	2.4%	0.97

PHF = Peak Hour Factor
HV = Heavy Vehicle

Logan Avenue N @ Park Avenue N

Renton, WA

COUNTED BY:	VT/SN	DATE OF COUNT:	Thu. 5/18/17
REDUCED BY:	CN	TIME OF COUNT:	4:15 PM - 5:45 PM
REDUCTION DATE:	Mon. 5/22/17	WEATHER:	Overcast

DTG TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Logan Avenue N @ Park Avenue N
Renton, WA

DATE OF COUNT: Thu. 5/18/17
TIME OF COUNT: 4:15 PM - 5:45 PM

COUNTED BY: VT/SN
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON Logan Avenue N							FROM SOUTH ON Logan Avenue N							FROM EAST ON Park Avenue N							FROM WEST ON Boeing Access Gate D-9							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	2	4	0	70	161	0	8	0	8	0	3	126	3	3	0	6	0	6	4	87	0	0	2	0	3	3	0	466
04:45 PM	1	1	11	0	56	150	3	10	1	5	0	1	139	6	2	0	5	0	5	4	57	4	0	2	0	6	3	1	431
05:00 PM	0	3	4	0	65	143	1	3	5	4	0	1	145	3	1	0	2	1	6	0	99	0	0	0	0	4	2	1	471
05:15 PM	0	2	3	0	58	139	0	5	1	3	0	2	180	3	0	1	4	0	10	0	83	3	0	2	0	7	2	1	485
05:30 PM	0	0	3	0	62	146	0	9	3	3	0	1	166	8	0	1	3	1	7	1	76	2	0	2	0	3	1	0	472
05:45 PM	0	0	6	0	62	154	2	5	1	2	0	1	155	6	1	0	3	0	5	0	69	3	0	1	1	0	0	1	456
PEAK HOUR TOTALS	0	5	16	0	247	582	3	22	10	12	0	5	646	20	2	2	12	2	28	1	327	8	0	5	1	14	5	3	INTERSECTION
ALL MOVEMENTS					832							671							358							23			1884
% HV			1.9%							1.8%							3.4%							21.7%					2.4%
PEAK HOUR FACTOR					0.95							0.91							0.84							0.58			0.97

HV = Heavy Vehicle
PHF = Peak Hour Factor

4:15 PM - 5:45 PM PEAK HOUR: 4:45 PM TO 5:45 PM

REDUCED BY: CN

DATE OF REDUCTION: 5/22/2017

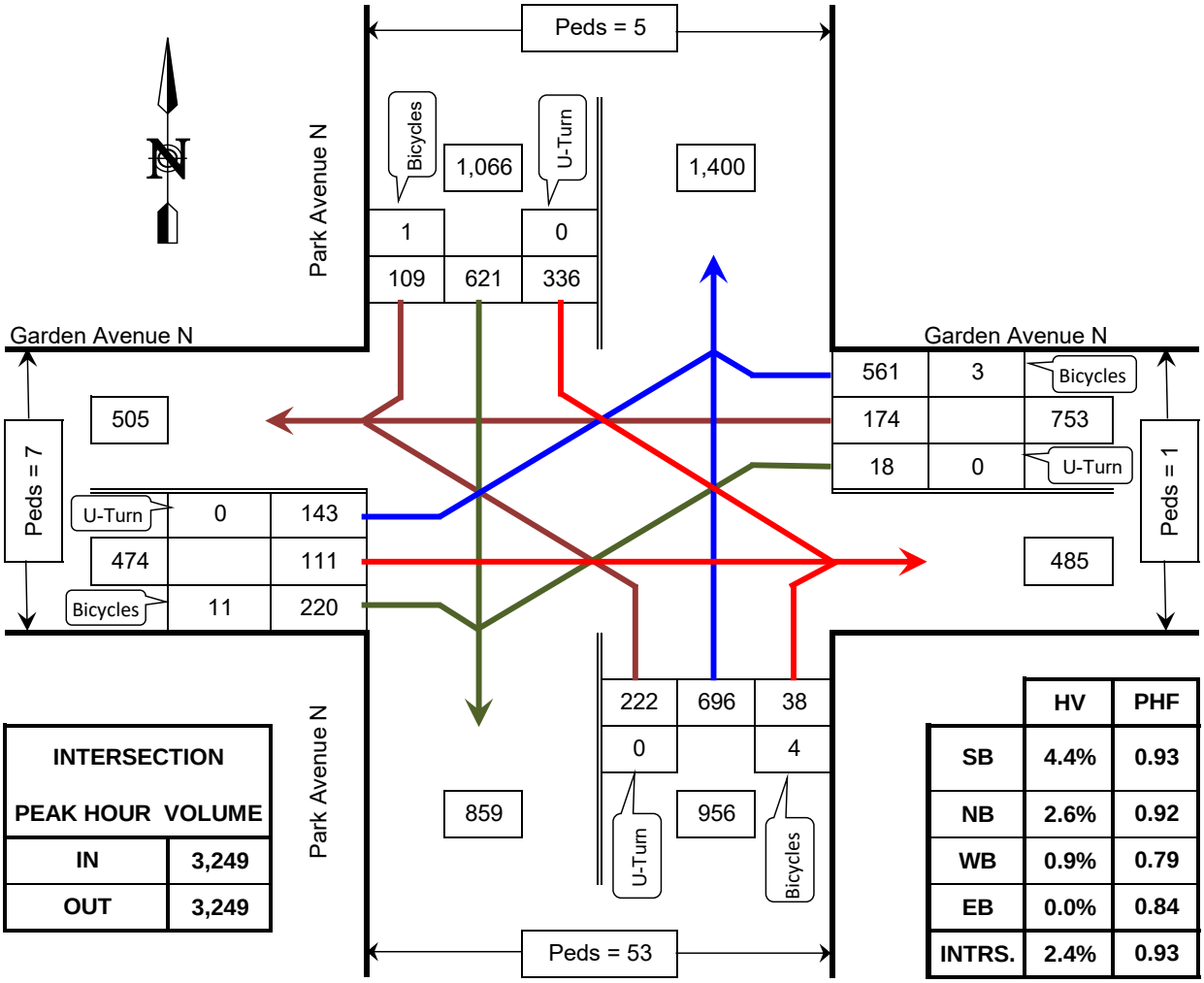
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON Logan Avenue N							FROM SOUTH ON Logan Avenue N							FROM EAST ON Park Avenue N							FROM WEST ON Boeing Access Gate D-9							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
1:45 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	1	8	22	0	249	593	4	26	7	20	0	7	590	15	6	1	17	1	27	8	326	7	0	6	0	20	10	3	1853
4:30 PM - 5:30 PM	1	6	21	0	241	578	4	27	10	15	0	5	630	20	3	2	14	2	28	5	315	9	0	6	0	20	8	3	1859
4:45 PM - 5:45 PM	0	5	16	0	247	582	3	22	10	12	0	5	646	20	2	2	12	2	28	1	327	8	0	5	1	14	5	3	1884
4:15 PM - 5:45 PM Total:	1	8	31	0	373	893	6	40	11	25	0	9	911	29	7	2	23	2	39	9	471	12	0	9	1	23	11	4	2781

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:15 PM - 5:45 PM PEAK HOUR: 4:15 PM TO 5:15 PM



INTERSECTION PEAK HOUR VOLUME	
IN	3,249
OUT	3,249

	HV	PHF
SB	4.4%	0.93
NB	2.6%	0.92
WB	0.9%	0.79
EB	0.0%	0.84
INTRS.	2.4%	0.93

PHF = Peak Hour Factor
HV = Heavy Vehicle

Park Avenue N @ Garden Avenue N

Renton, WA

COUNTED BY:	VT/SN	DATE OF COUNT:	Thu. 5/18/17
REDUCED BY:	CN	TIME OF COUNT:	4:15 PM - 5:45 PM
REDUCTION DATE:	Tue. 5/23/17	WEATHER:	Overcast

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Park Avenue N @ Garden Avenue N
Renton, WA

DATE OF COUNT: Thu. 5/18/17
TIME OF COUNT: 4:15 PM - 5:45 PM

COUNTED BY: VT/SN
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON Park Avenue N							FROM SOUTH ON Park Avenue N							FROM EAST ON Garden Avenue N							FROM WEST ON Garden Avenue N							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	3	1	9	0	66	168	26	10	0	8	0	54	176	10	0	0	4	0	1	23	134	1	1	0	0	30	45	20	753
04:45 PM	1	0	19	0	100	148	24	15	1	5	0	51	143	4	0	0	0	0	8	61	169	3	1	0	0	39	1	74	822
05:00 PM	0	0	9	0	75	141	31	10	3	3	0	63	188	9	0	3	0	0	3	45	119	0	5	0	0	44	30	50	798
05:15 PM	1	0	10	0	95	164	28	18	0	9	0	54	189	15	1	0	3	0	6	45	139	3	4	0	0	30	35	76	876
05:30 PM	0	0	5	0	53	121	35	13	4	6	0	54	211	8	0	3	0	0	3	20	100	1	3	0	0	28	35	74	742
05:45 PM	1	0	8	0	60	164	30	8	1	10	0	39	184	8	1	1	0	0	0	24	109	0	1	3	0	36	41	78	773
PEAK HOUR TOTALS	5	1	47	0	336	621	109	53	4	25	0	222	696	38	1	3	7	0	18	174	561	7	11	0	0	143	111	220	INTERSECTION
ALL MOVEMENTS				1066							956							753							474			3249
% HV			4.4%							2.6%							0.9%							0.0%				2.4%
PEAK HOUR FACTOR				0.93							0.92							0.79							0.84			0.93

HV = Heavy Vehicle
PHF = Peak Hour Factor

4:15 PM - 5:45 PM PEAK HOUR: 4:15 PM TO 5:15 PM

REDUCED BY: CN

DATE OF REDUCTION: 5/23/2017

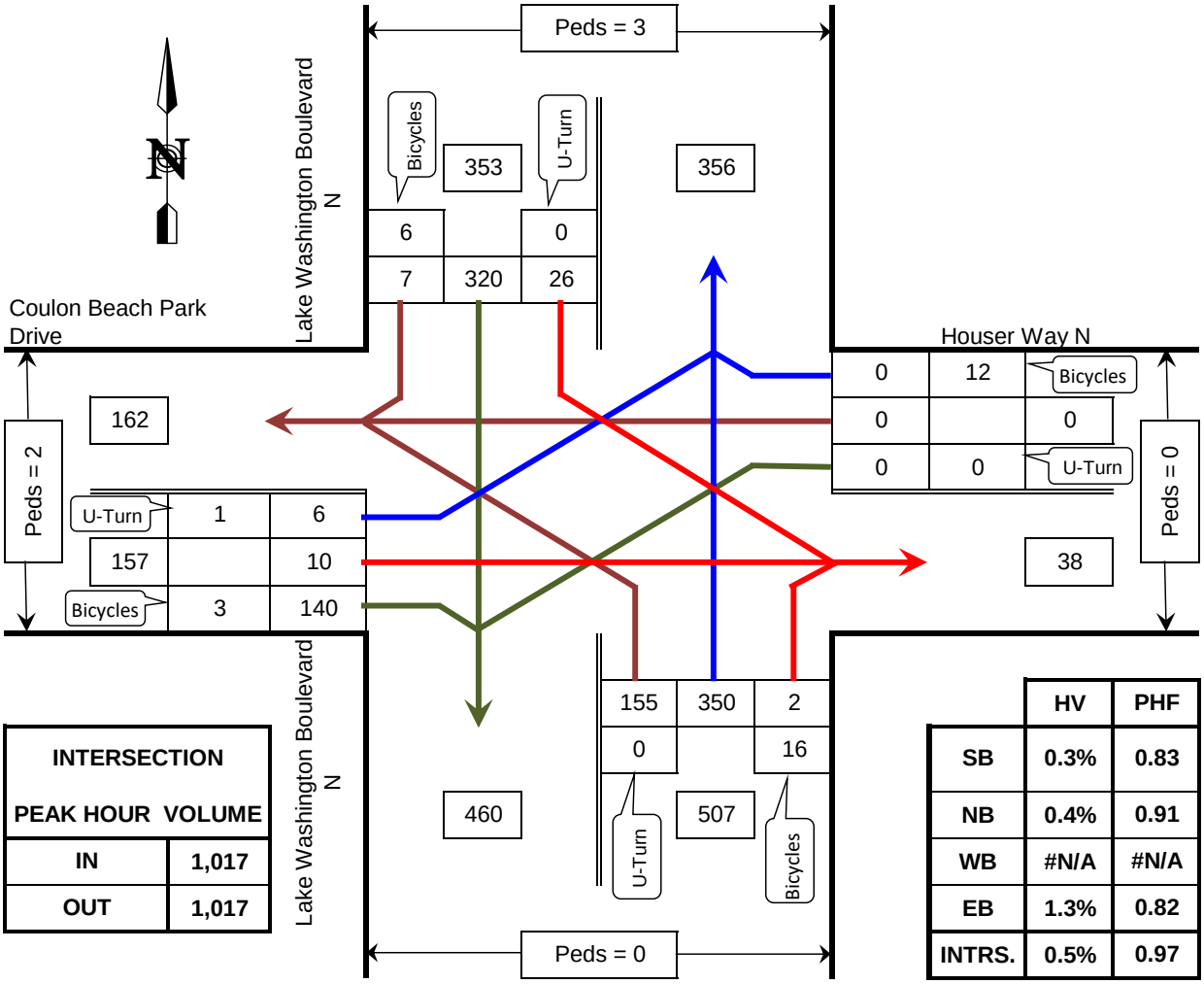
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON Park Avenue N							FROM SOUTH ON Park Avenue N							FROM EAST ON Garden Avenue N							FROM WEST ON Garden Avenue N							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
1:45 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	5	1	47	0	336	621	109	53	4	25	0	222	696	38	1	3	7	0	18	174	561	7	11	0	0	143	111	220	3249
4:30 PM - 5:30 PM	2	0	43	0	323	574	118	56	8	23	0	222	731	36	1	6	3	0	20	171	527	7	13	0	0	141	101	274	3238
4:45 PM - 5:45 PM	2	0	32	0	283	590	124	49	8	28	0	210	772	40	2	7	3	0	12	134	467	4	13	3	0	138	141	278	3189
4:15 PM - 5:45 PM Total:	6	1	60	0	449	906	174	74	9	41	0	315	1091	54	2	7	7	0	21	218	770	8	15	3	0	207	187	372	4764

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:15 PM - 5:45 PM PEAK HOUR: 4:45 PM TO 5:45 PM



INTERSECTION PEAK HOUR VOLUME	
IN	1,017
OUT	1,017

	HV	PHF
SB	0.3%	0.83
NB	0.4%	0.91
WB	#N/A	#N/A
EB	1.3%	0.82
INTRS.	0.5%	0.97

PHF = Peak Hour Factor
HV = Heavy Vehicle

Lake Washington Boulevard N @ Coulon Beach Park Drive

Renton, WA

COUNTED BY:	VT/RM	DATE OF COUNT:	Thu. 5/18/17
REDUCED BY:	CN	TIME OF COUNT:	4:15 PM - 5:45 PM
REDUCTION DATE:	Tue. 5/23/17	WEATHER:	Overcast

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: Lake Washington Boulevard N @ Coulon Beach Park Drive
Renton, WA

DATE OF COUNT: Thu. 5/18/17
TIME OF COUNT: 4:15 PM - 5:45 PM

COUNTED BY: VT/RM
WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON Lake Washington Boulevard N							FROM SOUTH ON Lake Washington Boulevard N							FROM EAST ON Houser Way N							FROM WEST ON Coulon Beach Park Drive							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	3	44	3	0	2	0	0	35	66	3	1	1	0	0	0	0	0	0	0	0	0	2	2	38	196
04:45 PM	1	2	0	0	4	66	3	0	2	2	0	33	80	3	1	1	0	0	0	0	0	1	0	0	0	0	1	38	228
05:00 PM	0	4	0	0	4	69	2	0	9	1	0	42	93	1	0	3	0	0	0	0	0	2	0	0	0	0	5	36	252
05:15 PM	0	2	0	0	6	84	2	0	0	1	0	47	91	1	0	2	0	0	0	0	0	0	3	0	0	2	2	27	262
05:30 PM	3	0	1	0	7	71	2	0	6	0	0	45	84	0	0	5	0	0	0	0	0	0	0	0	1	4	2	41	257
05:45 PM	0	0	0	0	9	96	1	0	1	0	0	21	82	0	0	2	0	0	0	0	0	0	0	2	0	0	1	36	246
PEAK HOUR TOTALS	3	6	1	0	26	320	7	0	16	2	0	155	350	2	0	12	0	0	0	0	0	2	3	2	1	6	10	140	INTERSECTION
ALL MOVEMENTS					353							507							0							157			1017
% HV			0.3%							0.4%							#N/A							1.3%				0.5%
PEAK HOUR FACTOR					0.83							0.91							#N/A							0.82			0.97

HV = Heavy Vehicle
PHF = Peak Hour Factor

4:15 PM - 5:45 PM PEAK HOUR: 4:45 PM TO 5:45 PM

REDUCED BY: CN

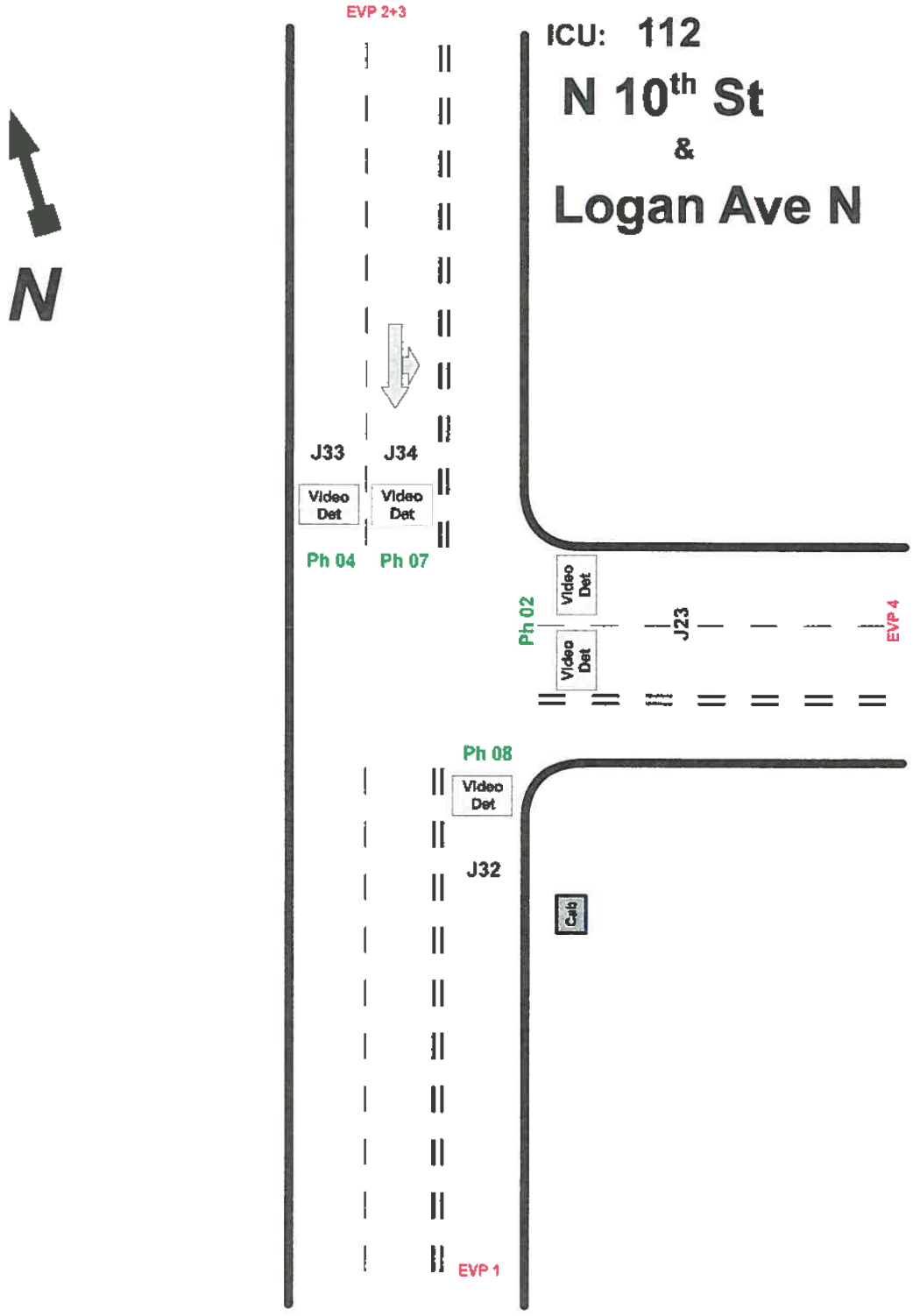
DATE OF REDUCTION: 5/23/2017

ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON Lake Washington Boulevard N							FROM SOUTH ON Lake Washington Boulevard N							FROM EAST ON Houser Way N							FROM WEST ON Coulon Beach Park Drive							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
1:45 PM - 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	1	9	0	0	17	263	10	0	13	4	0	157	330	8	2	7	0	0	0	0	0	3	3	0	0	4	10	139	938
4:30 PM - 5:30 PM	4	8	1	0	21	290	9	0	17	4	0	167	348	5	1	11	0	0	0	0	0	3	3	0	1	6	10	142	999
4:45 PM - 5:45 PM	3	6	1	0	26	320	7	0	16	2	0	155	350	2	0	12	0	0	0	0	0	2	3	2	1	6	10	140	1017
4:15 PM - 5:45 PM Total:	4	9	1	0	33	430	13	0	20	4	0	223	496	8	2	14	0	0	0	0	0	3	3	2	1	8	13	216	1441

APPENDIX D

City of Renton Signal Timing Plans


N
EVP 2+3
ICU: 112
N 10th St
&
Logan Ave N
J33
J34
Video Det
Video Det
Ph 04
Ph 07
Ph 02
Video Det
Video Det
J23
EVP 4
Ph 08
Video Det
J32
Cab
EVP 1

SEPAC ECOM All Data

3/24/2017
3:50:48PM

Intersection Name: **Logan Ave N @ N 10th St TSP** Intersection Alias: **ICU-112**

Access Data

1 :**1200 Baud**
3 :**1200 Baud**

Access Code: **9999** Channel: Address: **1**

Revision: **3.51b** IP Address: **10.10.112.1**

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	1-Inact	0-None	4-Grn	0-None	1-Inact	1-Inact	4-Grn	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

Vehical Basic Timings							Misc Timings						Pedestrian Timings						
Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
Phase Data Bank:				**1**															
1	6	3.0	15	20	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	6	3.0	25	40	4.0	1.0	0.0	0.0	0	0-Advance	0	0	7	13	0	0	No	0	No
3	0	3.0	0	0	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
4	6	3.0	100	120	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	0	3.0	0	0	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	6	3.0	40	60	4.0	1.0	0.0	0.0	0	0-Advance	0	0	7	20	0	0	No	0	No
7	6	3.0	25	40	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	6	3.0	83	100	4.0	1.0	0.0	0.0	0	0-Advance	0	0	7	13	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**2**															
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**3**															
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No

4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**4**															
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No

	Vehicle Density Timings						General Control				Miscellaneous					Special Sequence		
Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
Phase Data Bank:				**1**														
1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	Yes	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	Soft	None	0	Yes	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	Yes	Yes	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	8	0	4
8	0.0	0	0	0	0	0.0	None	Soft	None	0	Yes	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 2

16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 3

1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 4

16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Vehical Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Veh Det:1	1	Veh	0	0.0	0
Veh Det:2	2	Veh	0	0.0	5
Veh Det:3	3	Veh	0	0.0	0
Veh Det:4	4	Veh	0	0.0	0
Veh Det:5	5	Veh	0	0.0	0
Veh Det:6	6	Veh	0	0.0	0
Veh Det:7	7	Veh	0	0.0	0
Veh Det:8	8	Veh	0	0.0	0

Pedestrian Detector

Assign Phase	Mode	Switch Phase	Extend	Delay
Default Data				

Special Detector Phase Assignment

Assign Phase	Mode	Switch Phase	Extend	Delay
Default Data				

Unit Data

General Control

Startup Time:	6 sec
Startup State:	All Red
Red Revert:	40.0 sec
Auto Ped Clr:	No
Stop T Reset:	No
Alt Sequence:	0
Special Seq:	0-Standard

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

I/O Modes:

ABC Input(Entry) Modes: 0 **D Input(Entry) Modes:** 0

ABC Output(O/STS) Modes: 0 **D Output(O/STS) Modes:** 0

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data
- No Flash

Default Data
- No Flash

Overlaps

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Overlaps																

Start Green

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Overlaps																

Minus PED

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Overlaps																

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trail Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Trail Red	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TG Preempt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stop Grn/Yel Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring

Phase	Ring	Next Phase
1	1	2
2	1	3
4	1	1
6	2	7
7	2	8
8	2	5

Concurrent Phases	Phase(s) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1	2	3	4	1	1	3	3	9	10	11	12	13	14	15	16
	5	5	7	7	2	2	4	4								
	6	6	8	8	5	6	7	8								

Alternate Sequences

	Ph. Pair 1
Alt. Seq. 1	**7/8**

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40

Default Data

Signal Driver Ouput

Channel	Control	Hardware Pins
1	1 - Veh Phase 1	1 - Phase 1 RYG
2	0 - None	2 - Phase 2 RYG
3	3 - Veh Phase 3	3 - Phase 3 RYG
4	4 - Veh Phase 4	4 - Phase 4 RYG
5	5 - Veh Phase 5	5 - Phase 5 RYG
6	6 - Veh Phase 6	6 - Phase 6 RYG
7	7 - Veh Phase 7	7 - Phase 7 RYG
8	8 - Veh Phase 8	8 - Phase 8 RYG
9	18 - Ped Phase 2	10 - Phase 2 DPW
10	20 - Ped Phase 4	12 - Phase 4 DPW
11	22 - Ped Phase 6	14 - Phase 6 DPW
12	24 - Ped Phase 8	16 - Phase 8 DPW
13	33 - Overlap A	17 - Overlap A RYG
14	34 - Overlap B	18 - Overlap B RYG
15	35 - Overlap C	19 - Overlap C RYG
16	36 - Overlap D	20 - Overlap D RYG
17	17 - Ped Phase 1	9 - Phase 1 DPW
18	19 - Ped Phase 3	11 - Phase 3 DPW
19	21 - Ped Phase 5	13 - Phase 5 DPW
20	23 - Ped Phase 7	15 - Phase 7 DPW

Coordination Data

General Coordination Data

Operation Mode: 1=Auto

Coordination Mode: 1=Yield

Maximun Mode: 0=Inhibit

Correction Mode: 2=Short Way

Offset Mode: 0=Beg Grn

Force Mode: 0=Plan

Max Dwell Time: 0

Yield Period: 0

Manual Dial: 3

Manual Split: 4

Manual Offset: 2

Dial/Split	Cycle
1/2	110
3/1	120
3/2	120
3/3	120
3/4	120
4/4	155

Split Times and Phase Modes

Dial 1 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	15	0=Actuated	2	26	0=Actuated	4	69	1=Coordinate	6	33	0=Actuated
7	25	0=Actuated	8	52	1=Coordinate						

Dial 3 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
2	28	0=Actuated	4	92	1=Coordinate	7	24	0=Actuated	8	68	1=Coordinate

Dial 3 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
2	39	0=Actuated	4	81	1=Coordinate	7	32	0=Actuated	8	49	1=Coordinate

Dial 3 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
2	28	0=Actuated	4	92	1=Coordinate	7	21	0=Actuated	8	71	1=Coordinate

Dial 3 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
2	25	0=Actuated	4	95	1=Coordinate	7	11	0=Actuated	8	84	1=Coordinate

Dial 4 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	30	0=Actuated	4	105	0=Actuated	6	45	0=Actuated
7	30	0=Actuated	8	88	0=Actuated						

Traffic Plan Data

Plan: 1/2/1	Offset Time: 0	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/1	Offset Time: 109	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/1/3	Offset Time: 116	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Plan: 3/2/1	Offset Time: 36	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/1	Offset Time: 35	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/1	Offset Time: 35	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/2	Offset Time: 117	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Local TBC Data

Start of Daylight Saving Month: 3 Week: 2 Cycle Zero Reference Hours: 24 Min: 0

End of Daylight Saving Month: 11 Week: 1

Source Day	Equate Days 1	2	3	4	5	6	7

Traffic Data

Event	Day	Time	D/S/O	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		:	//		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								

Phase Function

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Max2	X															
Phase 2 Max2		X														
Phase 3 Max2			X													
Phase 4 Max2				X												
Phase 5 Max2					X											
Phase 6 Max2						X										
Phase 7 Max2							X									
Phase 8 Max2								X								

Phase Omit

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Phase Omit									X							
Phase 2 Phase Omit										X						
Phase 3 Phase Omit											X					
Phase 4 Phase Omit												X				
Phase 5 Phase Omit													X			
Phase 6 Phase Omit														X		
Phase 7 Phase Omit															X	
Phase 8 Phase Omit																X

Ped Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Coord ReSvc

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Function Phase Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Phase Min Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Ped Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Bike Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Vehicle Function

Veh Det Switch Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Switch Now

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Switch Also

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Overlap Function

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Dimming Data

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

program_day program_hour program_minute LanePhFun

Preemption Data

General Preemption Data

Flash > Preempt 1	Preempt 2 = Preempt 3	Preempt 4 = Preempt 5
Preempt 1 = Preempt 2	Preempt 3 = Preempt 4	Preempt 5 = Preempt 6

Preempt Timers

Preempt	Non-Locking	Link to Preempt	Delay	Ext end	Duration	Max Call	Lock-Out	Min Green	Min Walk	Debounce	Gate ext end	Select: Ped Clear	Select: Yel	Select: Red	Track: Grn	Track: Ped	Track: Yel	Track: Red	Dwell Green	Return: Ped Clear	Return: Yel	Return: Red
1	Yes	0	0	0	0	300	0	0	0	0	0	4	40	20	1	0	0	0	10	0	0	0
2	Yes	0	0	0	0	300	0	0	0	0	0	8	40	20	0	8	40	20	0	8	40	20
3	Yes	0	0	0	0	300	0	0	0	0	0	4	40	20	0	0	0	0	10	0	0	0
4	Yes	0	0	0	0	300	0	0	0	0	0	4	40	20	0	0	0	0	10	0	0	0
5	No	0	0	0	0	0	0	0	0	0	0	8	40	20	10	8	40	20	10	8	40	20
6	No	0	0	0	0	0	0	0	0	0	0	8	40	20	10	8	40	20	10	8	40	20

Preempt 1

Phase	Exit Phase	Exit Calls
4	Yes	No
8	Yes	No

Preempt 2

Phase	Exit Phase	Exit Calls

Preempt 3

Phase	Exit Phase	Exit Calls
4	Yes	No
8	Yes	No

Preempt 4

Phase	Exit Phase	Exit Calls
4	Yes	No
8	Yes	No

Preempt 5

Phase	Exit Phase	Exit Calls

Preempt 6

Phase	Exit Phase	Exit Calls

Priority Timers

Priority	Non-Locking	Delay	Ext end	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap: Signal Type	Transit Overlap: Blankout
1	No	0	0	4	4	10	0	120	120	108	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
2	No	0	0	4	4	10	0	120	120	125	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
3	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
4	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
5	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
6	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output

Priority Detector Channels

Priority 1

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 2

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 3

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 4

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 5

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 6

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority Fixed Phases

Priority 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Legend: 0 1
CO-PHASE FALSE TRUE
QJ-PHASE

Priority Bank

Priority **1**

Priority Bank : **1** Level 1

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	7	Force full Priority	False	PedWait	0
		Frequency	240	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **2** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **3** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

Priority Bank : 1 Level 1

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	7	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Codes: 0 FALSE X TRUE

Priority : 1

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 2

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 3

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 4

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 5

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 6

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 1

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
TSD	14	0	0	0	0	0	0	0
TED	16	0	0	0	0	0	0	0
TTL	120	0	0	0	0	0	0	0

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority : 2

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
TSD	0	0	0	0	0	0	0	0
TED	10	0	0	0	0	0	0	0
TTL	120	0	0	0	0	0	0	0

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority : 3

Bank 1

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority : 4

Bank 1

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority : 5

Bank 1

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority : 6

Bank 1

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Preempt 1

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph	Track	Dwell	Cycle	Ovlp	Track	Dwell	Cycle	Trail Grn
8	Red	Green	No									

Default Data **Default Data**

Preempt 2

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
4	Red	Green	No									
7	Red	Green	No	**Default Data**				**Default Data**				

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No									
6	Red	Green	No	**Default Data**				**Default Data**				

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
Default Data				**Default Data**				**Default Data**				

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
Default Data				**Default Data**				**Default Data**				

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15 1st Phone:

2nd Phone:

Local Free: No Cycle Failure: No Coord Failure: No Conflict Flash: No Remote Flash: No

Local Fash: No Cycle Fault: No Coord Fault: No Premption: No Voltage Monitor: No

Special Status 1: No Special Status 2: No Special Status 3: No Special Status 4: No Special Status 5: No Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	System Detectors	Weight Factor	Queue 2 Detectors	System Detectors	Weight Factor
Default Data												

Sample Interval:

Default Data

Queue: 1 Input Selection: 0=Average

Detector Failed Level : 0

Queue: 2 Input Selection: 0=Average

Detector Failed Level : 0

Default Data

Queue:

Level	Enter	Leave	Dial / Split / Offset
			/ /

Default Data

Vehical Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - Diag 0 Values

Vehical Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Valu

Pedestrian Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values

Pedestrian Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Speed Trap Data

Speed Trap:

Measurement:

Detector 1	Detector_2	Distance :	Dial/Split/Offset	Speed Trap Low Treshold	Speed Trap High Treshold
			//		

Default Data

Default Data

Volume Detector Data

Report Interval	0

Volume Detector Number	Controller Detector Channel

Default Data

SEPAC ECOM All Data

3/14/2017
2:34:55PM

Intersection Name: **Park Ave N @ N 10th St.** Intersection Alias: **ICU-3**

Access Data

1 :**1200 Baud**
3 :**1200 Baud**

Access Code: **9999** Channel: Address: **1**

Revision: **3.51b** IP Address: **10.10.3.1**

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	3-Yel	1-Inact	1-Inact	1-Inact	3-Yel	1-Inact	1-Inact	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

	Vehical Basic Timings						Misc Timings						Pedestrian Timings						
Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
Phase Data Bank:				**1**															
1	6	3.0	25	30	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
2	6	3.0	35	50	4.0	1.0	0.0	0.0	0	0-Advance	0	0	4	16			No	0	No
3	6	3.0	25	30	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
4	6	3.0	35	50	4.0	1.0	0.0	0.0	0	0-Advance	0	0	4	10			No	0	No
5	6	3.0	25	30	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
6	6	3.0	35	50	4.0	1.0	0.0	0.0	0	0-Advance	0	0	4	16			No	0	No
7	6	3.0	25	30	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
8	6	3.0	35	50	4.0	1.0	0.0	0.0	0	0-Advance	0	0	4	12			No	0	No
9	0	0.0	0	0	4.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
Phase Data Bank:				**2**															
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
Phase Data Bank:				**3**															
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No

4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No

Phase Data Bank: 4

16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No

	Vehicle Density Timings						General Control				Miscellaneous					Special Sequence		
Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call

Phase Data Bank: 1

1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	2	0	6
2	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	Soft	None	0	Yes	No	No	Yes	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	6	0	2
6	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	Soft	None	0	Yes	No	No	Yes	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 2

16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 3

1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 4

16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Vehical Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Default Data					

Pedestrian Detector

	Assign Phase	Mode	Switch Phase	Extend	Delay
Default Data					

Special Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Default Data					

Unit Data

General Control

Startup Time: 5 sec
Startup State: Flash
Red Revert: 40.0 sec
Auto Ped Clr: No
Stop T Reset: No
Alt Sequence: 0
Special Seq: 0-Standard

I/O Modes:

ABC Input(Entry) Modes: 0
ABC Output(O/STS) Modes: 0
D Input(Entry) Modes: 0
D Output(O/STS) Modes: 0

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data
- No Flash

Default Data
- No Flash

Overlaps

Overlaps

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

Start Green

Overlaps

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

Minus PED

Overlaps

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trail Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Trail Red	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TG Preempt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stop Grn/Yel Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring

Phase	Ring	Next Phase
1	1	2
2	1	3
3	1	4
4	1	1
5	2	6
6	2	7
7	2	8
8	2	5

Phase(s)

Concurrent Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1	2	3	4	1	1	3	3	9	10	11	12	13	14	15	16
	5	5	7	7	2	2	4	4								
	6	6	8	8	5	6	7	8								

Alternate Sequences

	Ph. Pair 1	Ph. Pair 2
Alt. Seq. 1	**3/4**	
Alt. Seq. 2	**7/8**	
Alt. Seq. 3	**3/4**	**7/8**

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40

Default Data

Signal Driver Ouput

Channel	Control	Hardware Pins
1	1 - Veh Phase 1	1 - Phase 1 RYG
2	2 - Veh Phase 2	2 - Phase 2 RYG
3	3 - Veh Phase 3	3 - Phase 3 RYG
4	4 - Veh Phase 4	4 - Phase 4 RYG
5	5 - Veh Phase 5	5 - Phase 5 RYG
6	6 - Veh Phase 6	6 - Phase 6 RYG
7	7 - Veh Phase 7	7 - Phase 7 RYG
8	8 - Veh Phase 8	8 - Phase 8 RYG
9	18 - Ped Phase 2	10 - Phase 2 DPW
10	20 - Ped Phase 4	12 - Phase 4 DPW
11	22 - Ped Phase 6	14 - Phase 6 DPW
12	24 - Ped Phase 8	16 - Phase 8 DPW
13	33 - Overlap A	17 - Overlap A RYG
14	34 - Overlap B	18 - Overlap B RYG
15	35 - Overlap C	19 - Overlap C RYG
16	36 - Overlap D	20 - Overlap D RYG
17	17 - Ped Phase 1	9 - Phase 1 DPW
18	19 - Ped Phase 3	11 - Phase 3 DPW
19	21 - Ped Phase 5	13 - Phase 5 DPW
20	23 - Ped Phase 7	15 - Phase 7 DPW

Coordination Data

General Coordination Data

Operation Mode: 1=Auto
Coordination Mode: 0=Permissive
Maximun Mode: 0=Inhibit
Correction Mode: 2=Short Way
Offset Mode: 0=Beg Grn
Force Mode: 0=Plan
Max Dwell Time: 0
Yield Period: 0
Manual Dial: 3
Manual Split: 3
Manual Offset: 1

Dial/Split	Cycle
3/1	120
3/2	120
3/3	120
4/4	140

Split Times and Phase Modes

Dial 3 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	36	0=Actuated	3	25	0=Actuated	4	34	1=Coordinate
5	25	0=Actuated	6	36	0=Actuated	7	25	0=Actuated	8	34	1=Coordinate

Dial 3 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	26	0=Actuated	2	37	0=Actuated	3	26	0=Actuated	4	31	1=Coordinate
5	26	0=Actuated	6	37	0=Actuated	7	26	0=Actuated	8	31	1=Coordinate

Dial 3 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	36	0=Actuated	3	26	0=Actuated	4	33	0=Actuated
5	25	0=Actuated	6	36	0=Actuated	7	25	0=Actuated	8	34	0=Actuated

Dial 4 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	30	0=Actuated	2	40	0=Actuated	3	30	0=Actuated	4	40	0=Actuated
5	30	0=Actuated	6	40	0=Actuated	7	30	0=Actuated	8	40	0=Actuated

Traffic Plan Data

Plan: 3/1/1	Offset Time: 36	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Plan: 3/2/1	Offset Time: 96	Alternat Sequence: 3	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Plan: 3/3/1 Offset Time: 60 Alternat Sequence: 1 Rg 2 Lag Time: 0 Rg 3 Lag Time: 0 Rg 4 Lag Time: 0

Mode: 0=Normal Special Function: 0 Correction Mode: 0=No

Local TBC Data

Start of Daylight Saving Month: 3 Week: 2 Cycle Zero Reference Hours: 24 Min: 0

End of Daylight Saving Month: 11 Week: 1

Source Day	Equate Days 1	2	3	4	5	6	7
1	7	0	0	0	0	0	0
2	3	4	5	6	0	0	0

Traffic Data

Event	Day	Time	D/S/O	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	0:1	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2	2	0:1	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								

Phase Function

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Max2	X															
Phase 2 Max2		X														
Phase 3 Max2			X													
Phase 4 Max2				X												
Phase 5 Max2					X											
Phase 6 Max2						X										
Phase 7 Max2							X									
Phase 8 Max2								X								

Phase Omit

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Phase Omit									X							
Phase 2 Phase Omit										X						
Phase 3 Phase Omit											X					
Phase 4 Phase Omit												X				
Phase 5 Phase Omit													X			
Phase 6 Phase Omit														X		
Phase 7 Phase Omit															X	
Phase 8 Phase Omit																X

Ped Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Coord ReSvc

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Function Phase Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Phase Min Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Veh Det Ped Recall	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Veh Det Bike Recall	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Vehicle Function																
Veh Det Switch Omit	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Veh Det Switch Now	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Veh Det Switch Also	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Overlap Function	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Dimming Data

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

program_day	program_hour	program_minute	LanePhFun

Preemption Data

General Preemption Data

Flash > Preempt 1	Preempt 2 = Preempt 3	Preempt 4 = Preempt 5
Preempt 1 > Preempt 2	Preempt 3 = Preempt 4	Preempt 5 = Preempt 6

Preempt Timers

Preempt	Non-Locking	Link to Preempt	Delay	Ext end	Duration	Max Call	Lock-Out	Min Green	Min Walk	Debounce	Gate ext end	Select: Ped Clear	Select: Yel	Select: Red	Track: Grn	Track: Ped	Track: Yel	Track: Red	Dwell Green	Return: Ped Clear	Return: Yel	Return: Red
1	Yes	0	0	0	0	300	0	0	0	0	0	8	40	20	0	0	0	0	5	0	0	0
2	Yes	0	0	6	0	300	0	0	0	0	0	8	40	20	0	0	0	0	5	0	0	0
3	Yes	0	0	10	0	300	0	0	0	0	0	8	40	20	0	0	0	0	5	0	0	0
4	Yes	0	0	0	0	300	0	0	0	0	0	8	40	20	0	0	0	0	5	0	0	0
5	No	0	0	0	0	0	0	0	0	0	0	8	40	20	10	8	40	20	10	8	40	20
6	No	0	0	0	0	0	0	0	0	0	0	8	40	20	10	8	40	20	10	8	40	20

Preempt 1

Phase	Exit Phase	Exit Calls
2	Yes	No
6	Yes	No

Preempt 2

Phase	Exit Phase	Exit Calls
2	Yes	No
6	Yes	No

Preempt 3

Phase	Exit Phase	Exit Calls
4	Yes	No
8	Yes	No

Preempt 4

Phase	Exit Phase	Exit Calls
4	Yes	No
8	Yes	No

Preempt 5

Phase	Exit Phase	Exit Calls

Preempt 6

Phase	Exit Phase	Exit Calls

Priority Timers

Priority	Non-Locking	Delay	Ext end	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap: Signal Type	Transit Overlap: Blankout
1	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
2	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
3	No	0	0	4	4	10	0	120	120	60	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
4	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
5	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
6	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output

Priority Detector Channels

Priority 1

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 2

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 3

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 4

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 5

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 6

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority Fixed Phases

Priority 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Legend: 0 1
CO-PHASE FALSE TRUE
QJ-PHASE

Priority Bank

Priority **1**

Priority Bank : **1** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **2** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **3** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

Priority Bank : 1 Level 1

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	7	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Codes: 0 FALSE X TRUE

Priority : 1

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 2

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 3

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 4

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 5

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 6

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 1

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						

Priority : 2

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						

Priority : 3

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
TSD	0	0	0	0	0	0	0	0
TED	5	0	0	0	0	0	0	0
TTL	120	0	0	0	0	0	0	0
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						

Priority : 4

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						

Priority : 5

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						

Priority : 6

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
		Default Data						

Preempt 1

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph	Track	Dwell	Cycle	Ovlp	Track	Dwell	Cycle	Trail Grn
3	Red	Green	No									
8	Red	Green	No	**Default Data**				**Default Data**				

Preempt 2

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
4	Red	Green	No									
7	Red	Green	No	**Default Data**				**Default Data**				

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
2	Red	Green	No									
5	Red	Green	No									

Default Data **Default Data**

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No									
6	Red	Green	No									

Default Data **Default Data**

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15 1st Phone:

Local Free: No Cycle Failure: No Coord Failure: No Conflict Flash: No Remote Flash: No 2nd Phone:

Local Fash: No Cycle Fault: No Coord Fault: No Premption: No Voltage Monitor: No

Special Status 1: No Special Status 2: No Special Status 3: No Special Status 4: No Special Status 5: No Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	System Detectors	Weight Factor	Queue 2 Detectors	System Detectors	Weight Factor

Default Data **Default Data** **Default Data**

Sample Interval:

Queue: 1 Input Selection: 0=Average

Detector Failed Level : 0

Queue: 2 Input Selection: 0=Average

Detector Failed Level : 0

Queue:

Level	Enter	Leave	Dial / Split / Offset
			/ /

Default Data

Vehical Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - Diag 0 Values

Vehical Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Valu

Pedestrian Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values

Pedestrian Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Speed Trap Data

Speed Trap:

Measurement:

Detector 1	Detector_2	Distance :

Default Data

Volume Detector Data

Report Interval	0

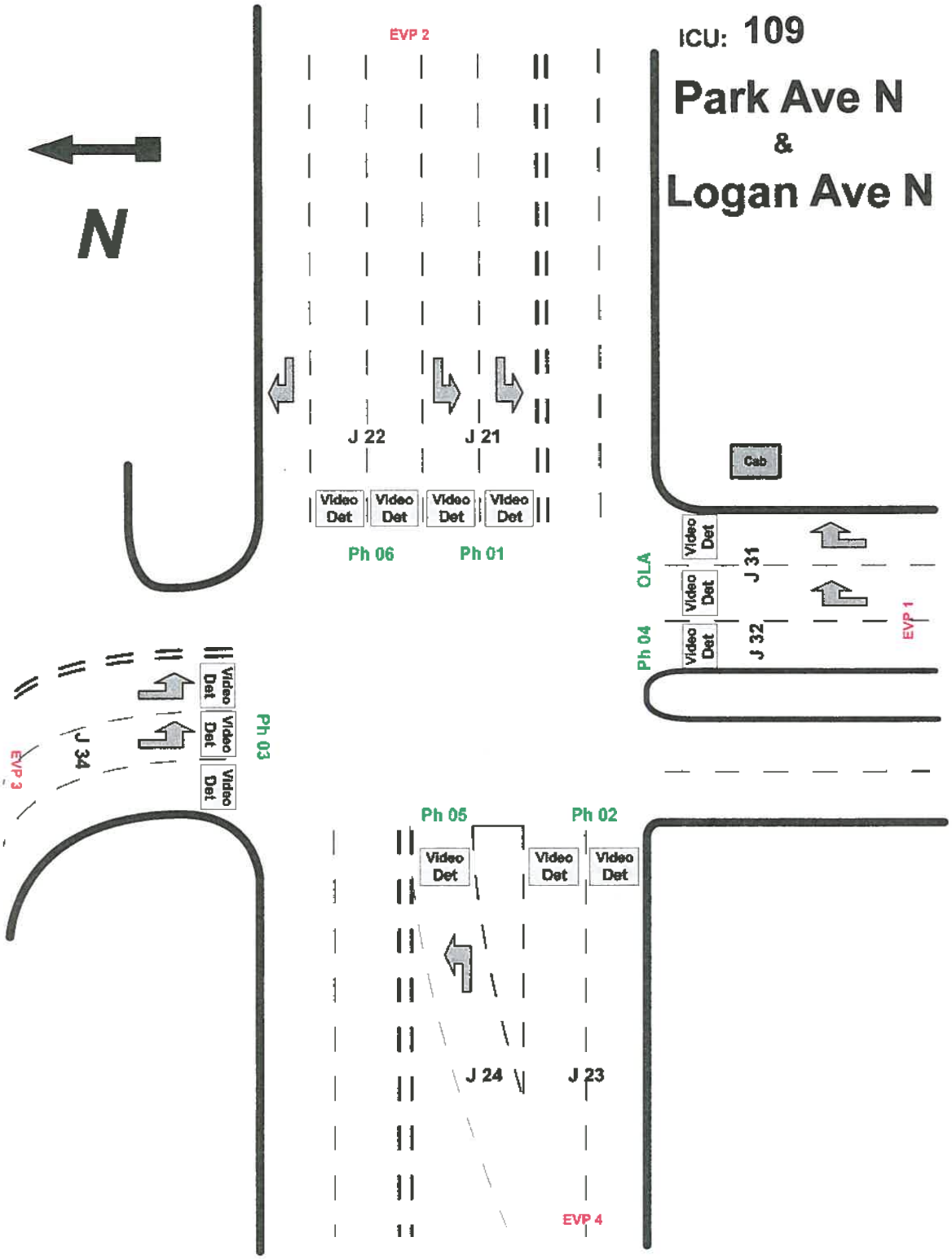
Volume Detector Number	Controller Detector Channel

Default Data

Dial/Split/Offset	Speed Trap Low Treshold	Speed Trap High Treshold

//

Default Data


ICU: 109
Park Ave N
&
Logan Ave N
N
EVP 2
J 22
J 21
Video Det
Ph 06
Ph 01
Cab
OLA
J 31
J 32
Ph 04
EVP 1
Ph 03
J 34
EVP 3
Ph 05
Ph 02
J 24
J 23
EVP 4

SEPAC ECOM All Data

3/14/2017
2:28:03PM

Intersection Name: **Park Ave N @ Logan Ave** Intersection Alias: **ICU-109**

Access Data

1 :**1200 Baud**
3 :**1200 Baud**

Access Code: **9999** Channel: Address: **1**

Revision: **3.51b** IP Address: **10.10.109.1**

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	4-Grn	1-Inact	1-Inact	1-Inact	4-Grn	1-Inact	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

Vehical Basic Timings							Misc Timings						Pedestrian Timings						
Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
Phase Data Bank:				**1**															
1	6	3.0	60	30	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	6	3.0	60	50	4.0	1.0	0.0	0.0	0	0-Advance	0	0	7	19	0	0	No	0	No
3	6	3.0	35	45	4.0	1.0	0.0	0.0	0	0-Advance	0	0	7	20	0	0	No	0	No
4	6	3.0	43	55	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	6	3.0	20	35	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	6	3.0	60	55	4.0	1.0	0.0	0.0	0	0-Advance	0	0	7	24	0	0	No	0	No
7	6	3.0	43	55	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	4.0	0	0	4.0	0.5	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**2**															
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**3**															
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No

4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**4**															
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No

	Vehicle Density Timings						General Control				Miscellaneous					Special Sequence		
Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
Phase Data Bank:				**1**														
1	0.0	0	0	0	0	0.0	None	Soft	None	0	Yes	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	Yes	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	Soft	None	0	Yes	No	No	Yes	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 2

16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 3

1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 4

16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Vehical Detector Phase Assignment

Assign Phase	Mode	Switch Phase	Extend	Delay
Default Data				

Pedestrian Detector

Assign Phase	Mode	Switch Phase	Extend	Delay
Default Data				

Special Detector Phase Assignment

Assign Phase	Mode	Switch Phase	Extend	Delay
Default Data				

Unit Data

General Control

Startup Time: 6 sec
Startup State: All Red
Red Revert: 40.0 sec
Auto Ped Clr: No
Stop T Reset: No
Alt Sequence: 0
Special Seq: 0-Standard

I/O Modes:

ABC Input(Entry) Modes: 0
ABC Output(O/STS) Modes: 0
D Input(Entry) Modes: 0
D Output(O/STS) Modes: 0

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data
- No Flash

Default Data
- No Flash

Overlaps

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

Start Green

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

Minus PED

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trail Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Trail Red	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TG Preempt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stop Grn/Yel Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring

Phase	Ring	Next Phase
1	1	2
2	1	3
3	1	4
4	1	1
5	2	6
6	2	7
7	2	8

Phase(s)

Concurrent Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1	2	3	4	1	1	3	3	9	10	11	12	13	14	15	16
	5	5	7	7	2	2	4	4								
	6	6	8	8	5	6	7	8								

Alternate Sequences

	Ph. Pair 1	Ph. Pair 2	Ph. Pair 3
Alt. Seq. 1	**1/2**	**3/4**	
Alt. Seq. 2	**5/6**		
Alt. Seq. 3	**1/2**	**5/6**	
Alt. Seq. 4	**7/8**		
Alt. Seq. 5	**1/2**	**3/4**	**5/6**
Alt. Seq. 6	**3/4**	**5/6**	

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40

Default Data

Signal Driver Ouput

Channel	Control	Hardware Pins
1	1 - Veh Phase 1	1 - Phase 1 RYG
2	2 - Veh Phase 2	2 - Phase 2 RYG
3	3 - Veh Phase 3	3 - Phase 3 RYG
4	4 - Veh Phase 4	4 - Phase 4 RYG
5	5 - Veh Phase 5	5 - Phase 5 RYG
6	6 - Veh Phase 6	6 - Phase 6 RYG
7	7 - Veh Phase 7	7 - Phase 7 RYG
8	8 - Veh Phase 8	8 - Phase 8 RYG
9	18 - Ped Phase 2	10 - Phase 2 DPW
10	20 - Ped Phase 4	12 - Phase 4 DPW
11	22 - Ped Phase 6	14 - Phase 6 DPW
12	24 - Ped Phase 8	16 - Phase 8 DPW
13	33 - Overlap A	17 - Overlap A RYG
14	34 - Overlap B	18 - Overlap B RYG
15	35 - Overlap C	19 - Overlap C RYG
16	36 - Overlap D	20 - Overlap D RYG
17	17 - Ped Phase 1	9 - Phase 1 DPW
18	19 - Ped Phase 3	11 - Phase 3 DPW
19	21 - Ped Phase 5	13 - Phase 5 DPW
20	23 - Ped Phase 7	15 - Phase 7 DPW

Coordination Data

General Coordination Data

Operation Mode: 1=Auto
Coordination Mode: 0=Permissive
Maximun Mode: 0=Inhibit
Correction Mode: 2=Short Way

Offset Mode: 0=Beg Grn
Force Mode: 0=Plan
Max Dwell Time: 0
Yield Period: 0

Manual Dial: 3
Manual Split: 4
Manual Offset: 2

Dial/Split	Cycle
1/2	140
1/3	140
3/2	120
3/3	120
3/4	120
4/4	188

Split Times and Phase Modes

Dial 1 / **Split** 1

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	25	0=Actuated	2	42	1=Coordinate	3	35	0=Actuated	4	43	0=Actuated
5	21	0=Actuated	6	46	1=Coordinate						

Dial 1 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	42	1=Coordinate	3	35	0=Actuated	4	43	0=Actuated
5	15	0=Actuated	6	47	1=Coordinate						

Dial 1 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	15	0=Actuated	2	47	1=Coordinate	3	35	0=Actuated	4	43	0=Actuated
5	15	0=Actuated	6	47	1=Coordinate						

Dial 3 / **Split** 2

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	32	1=Coordinate	3	30	0=Actuated	4	38	0=Actuated
5	15	0=Actuated	6	37	1=Coordinate						

Dial 3 / **Split** 3

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	23	0=Actuated	2	29	1=Coordinate	3	30	0=Actuated	4	38	0=Actuated
5	15	0=Actuated	6	37	1=Coordinate						

Dial 3 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	20	0=Actuated	2	32	1=Coordinate	3	30	0=Actuated	4	38	0=Actuated
5	12	0=Actuated	6	69	1=Coordinate						

Dial 4 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	35	0=Actuated	2	65	0=Actuated	3	40	0=Actuated	4	48	0=Actuated
5	25	0=Actuated	6	65	0=Actuated	7	48	0=Actuated			

Traffic Plan Data

Plan: 1/1/1	Offset Time: 0	Alternat Sequence: 0	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 1=Perm	Special Function: 0	Correction Mode: 0=No		
Plan: 1/2/1	Offset Time: 54	Alternat Sequence: 6	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 1=Perm	Special Function: 0	Correction Mode: 0=No		
Plan: 1/3/1	Offset Time: 32	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 1=Perm	Special Function: 0	Correction Mode: 0=No		

Plan: 3/2/1	Offset Time: 14	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/3/1	Offset Time: 112	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/1	Offset Time: 112	Alternat Sequence: 1	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		
Plan: 3/4/2	Offset Time: 111	Alternat Sequence: 3	Rg 2 Lag Time: 0	Rg 3 Lag Time: 0	Rg 4 Lag Time: 0
	Mode: 0=Normal	Special Function: 0	Correction Mode: 0=No		

Local TBC Data

Start of Daylight Saving	Month: 3	Week: 2	Cycle Zero Reference	Hours: 24	Min: 0
End of Daylight Saving	Month: 11	Week: 1			

Source Day	Equate Days 1	2	3	4	5	6	7

Traffic Data

Event	Day	Time :	D/S/O //	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
					☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								

Phase Function

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Max2	X															
Phase 2 Max2		X														
Phase 3 Max2			X													
Phase 4 Max2				X												
Phase 5 Max2					X											
Phase 6 Max2						X										
Phase 7 Max2							X									
Phase 8 Max2								X								

Phase Omit

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Phase Omit									X							
Phase 2 Phase Omit										X						
Phase 3 Phase Omit											X					
Phase 4 Phase Omit												X				
Phase 5 Phase Omit													X			
Phase 6 Phase Omit														X		
Phase 7 Phase Omit															X	
Phase 8 Phase Omit																X

Ped Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Coord ReSvc

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Function Phase Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Phase Min Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Ped Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Bike Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Vehicle Function

Veh Det Switch Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Switch Now

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Switch Also

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Overlap Function

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Dimming Data

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

program_day program_hour program_minute LanePhFun

Preemption Data

General Preemption Data

Flash > Preempt 1	Preempt 2 = Preempt 3	Preempt 4 = Preempt 5
Preempt 1 = Preempt 2	Preempt 3 = Preempt 4	Preempt 5 = Preempt 6

Preempt Timers

Preempt	Non-Locking	Link to Preempt	Delay	Ext end	Duration	Max Call	Lock-Out	Min Green	Min Walk	Debounce	Gate ext end	Select: Ped Clear	Select: Yel	Select: Red	Track: Grn	Track: Ped	Track: Yel	Track: Red	Dwell Green	Return: Ped Clear	Return: Yel	Return: Red
1	Yes	0	0	0	0	300	0	0	0	0	0	4	40	20	0	0	0	0	5	0	0	0
2	Yes	0	0	0	0	300	0	0	0	0	0	4	40	20	0	0	0	0	5	0	0	0
3	Yes	0	0	0	0	300	0	0	0	0	0	4	40	20	0	0	0	0	5	0	0	0
4	Yes	0	0	0	0	300	0	0	0	0	0	4	40	20	0	0	0	0	5	0	0	0
5	No	0	0	0	0	0	0	0	0	0	0	8	40	20	10	8	40	20	10	8	40	20
6	No	0	0	0	0	0	0	0	0	0	0	8	40	20	10	8	40	20	10	8	40	20

Preempt 1

Phase	Exit Phase	Exit Calls
2	Yes	No
6	Yes	No

Preempt 2

Phase	Exit Phase	Exit Calls
3	Yes	No

Preempt 3

Phase	Exit Phase	Exit Calls
4	Yes	No

Preempt 4

Phase	Exit Phase	Exit Calls
3	Yes	No

Preempt 5

Phase	Exit Phase	Exit Calls

Preempt 6

Phase	Exit Phase	Exit Calls

Priority Timers

Priority	Non-Locking	Delay	Ext end	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap: Signal Type	Transit Overlap: Blankout
1	No	0	0	4	4	10	0	120	120	68	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
2	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
3	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
4	No	0	0	4	4	10	0	120	120	85	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
5	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
6	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output

Priority Detector Channels

Priority 1

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 2

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 3

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 4

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 5

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 6

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority Fixed Phases

Priority 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Legend: 0 1
CO-PHASE FALSE TRUE
QJ-PHASE

Priority Bank

Priority **1**

Priority Bank : **1** Level 1

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	7	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **2** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **3** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

Priority Bank : 1 Level 1

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	7	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Codes: 0 FALSE X TRUE

Priority : 1

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 2

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 3

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 4

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 5

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 6

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 1

Bank 1

Detector	PE	1A	2A	3A	4A	5A	6A	B
TSD	0	0	0	0	0	0	0	0
TED	10	0	0	0	0	0	0	0
TTL	120	0	0	0	0	0	0	0

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority : 2

Bank 1

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority : 3

Bank 1

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority : 4

Bank 1

Detector	PE	1A	2A	3A	4A	5A	6A	B
TSD	0	0	0	0	0	0	0	0
TED	10	0	0	0	0	0	0	0
TTL	120	0	0	0	0	0	0	0

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority : 5

Bank 1

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority : 6

Bank 1

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 2

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 3

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Bank 4

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Preempt 1

Vehical Phases

Ph.	Track	Dwell	Cycle
4	Red	Green	No

Default Data

Pedestrian Phases

Ph	Track	Dwell	Cycle

Default Data

Overlaps

Ovlp	Track	Dwell	Cycle	Trail Grn

Default Data

Preempt 2

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No									
6	Red	Green	No									

Default Data **Default Data**

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
3	Red	Green	No									

Default Data **Default Data**

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
2	Red	Green	No									
5	Red	Green	No									

Default Data **Default Data**

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15 1st Phone:

Local Free: No Cycle Failure: No Coord Failure: No Conflict Flash: No Remote Flash: No 2nd Phone:

Local Fash: No Cycle Fault: No Coord Fault: No Premption: No Voltage Monitor: No

Special Status 1: No Special Status 2: No Special Status 3: No Special Status 4: No Special Status 5: No Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	System Detectors	Weight Factor	Queue 2 Detectors	System Detectors	Weight Factor

Default Data **Default Data** **Default Data**

Sample Interval:

Queue: 1 Input Selection: 0=Average

Detector Failed Level : 0

Queue: 2 Input Selection: 0=Average

Detector Failed Level : 0

Queue:

Level	Enter	Leave	Dial / Split / Offset
			/ /

Default Data

Vehical Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - Diag 0 Values

Vehical Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Valu

Pedestrian Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values

Pedestrian Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Speed Trap Data

Speed Trap:

Measurement:

Detector 1	Detector_2	Distance :

Default Data

Volume Detector Data

Report Interval	0

Volume Detector Number	Controller Detector Channel

Default Data

Dial/Split/Offset	Speed Trap Low Treshold	Speed Trap High Treshold
//		

Default Data

OLA= ph 4+ ph9
OLB= ph 4+ Ph 5
OLC= Ph 4+ Ph 6+ Ph9
OLD= Ph1+ Ph 3
OLE= Ph 4+ Ph10

SEPAC ECOM All Data

3/14/2017
2:16:32PM

Intersection Name: **Lk Wash @ Prk @Garden@LoganTSP**

Intersection Alias: **ICU-4**

Access Data

1 :**1200 Baud**

3 :**1200 Baud**

Access Code: **9999**

Channel:

Address: **1**

Revision: **3.51b**

IP Address: **10.10.4.1**

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	3-Yel	1-Inact	1-Inact	1-Inact	3-Yel	0-None	0-None	1-Inact	1-Inact	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

Vehical Basic Timings							Misc Timings						Pedestrian Timings						
Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
Phase Data Bank:				**1**															
1	5	4.0	30	30	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
2	5	4.0	45	50	4.0	1.0	0.0	0.0	0	0-Advance	0	0	7	18			No	0	No
3	5	4.0	20	30	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
4	5	4.0	30	50	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
5	5	4.0	12	15	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
6	5	4.0	30	50	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
7	0	0.0	0	0	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
8	0	0.0	0	0	4.0	1.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
9	1	0.1	0	0	3.0	0.0	0.0	0.0	50	0-Advance	0	0	7	26			No	0	No
10	1	0.1	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	7	35			No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
Phase Data Bank:				**2**															
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
Phase Data Bank:				**3**															
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0			No	0	No

4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
Phase Data Bank:				**4**														
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0		No	0	No

	Vehicle Density Timings						General Control				Miscellaneous					Special Sequence		
Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
Phase Data Bank:				**1**														
1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	Yes	Yes	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	Yes	Yes	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 2

16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 3

1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 4

16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Vehical Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Veh Det:2	6	Veh	0	0.0	0
Veh Det:5	2	Veh	0	0.0	0
Veh Det:6	5	Veh	0	0.0	0
Veh Det:9	3	Veh	0	0.0	0
Veh Det:13	4	Veh	0	0.0	0
Veh Det:21	1	Veh	0	0.0	0
Veh Det:22	2	Veh	0	0.0	0
Veh Det:23	3	Veh	0	0.0	0
Veh Det:24	4	Veh	0	0.0	0
Veh Det:25	5	Veh	0	0.0	0
Veh Det:26	6	Veh	0	0.0	0

Pedestrian Detector

	Assign Phase	Mode	Switch Phase	Extend	Delay
Ped Det:4	9	Ped	0	0.0	0
Ped Det:6	10	Ped	0	0.0	0

Default Data

Special Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Spc Det:1	1	Veh	0	0.0	0
Spc Det:2	2	Veh	0	0.0	0
Spc Det:3	3	Veh	0	0.0	0
Spc Det:4	4	Veh	0	0.0	0
Spc Det:5	5	Veh	0	0.0	0
Spc Det:6	6	Veh	0	0.0	0
Spc Det:7	7	Veh	0	0.0	0
Spc Det:8	8	Veh	0	0.0	0

Unit Data

General Control

Startup Time: 5 sec
Startup State: Flash
Red Revert: 40.0 sec
Auto Ped Clr: No
Stop T Reset: No
Alt Sequence: 0
Special Seq: 0-Standard

I/O Modes:

ABC Input(Entry) Modes: 0
ABC Output(O/STS) Modes: 0
D Input(Entry) Modes: 0
D Output(O/STS) Modes: 0

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data
- No Flash

Default Data
- No Flash

Overlaps

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)	4	4	4	1	6											
	9	5	6	3	10											
			9													

Start Green

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

Minus PED

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trail Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Trail Red	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TG Preempt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stop Grn/Yel Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring

Phase	Ring	Next Phase
1	1	3
2	1	1
3	1	9
4	1	2
5	2	10
6	2	5
9	1	4
10	2	6

Phase(s)

Concurrent Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1	2	3	4	1	1	7	8	9	1	11	12	13	14	15	16
	5	5			2	2				2						
	6	6			5	6				10						
	10	10														

Alternate Sequences

No Alternate Sequences Programmed

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40
0	Used	No	No
1	Used	No	No
8	Used	No	No
9	Used	No	No
16	Used	No	No

Signal Driver Ouput

Channel	Control	Hardware Pins
1	1 - Veh Phase 1	1 - Phase 1 RYG
2	2 - Veh Phase 2	2 - Phase 2 RYG
3	3 - Veh Phase 3	3 - Phase 3 RYG
5	5 - Veh Phase 5	5 - Phase 5 RYG
7	0 - None	7 - Phase 7 RYG
8	0 - None	8 - Phase 8 RYG
9	18 - Ped Phase 2	10 - Phase 2 DPW
10	25 - Ped Phase 9	12 - Phase 4 DPW
11	26 - Ped Phase 10	14 - Phase 6 DPW
12	24 - Ped Phase 8	16 - Phase 8 DPW
13	0 - None	4 - Phase 4 RYG
14	34 - Overlap B	18 - Overlap B RYG
15	35 - Overlap C	19 - Overlap C RYG
16	36 - Overlap D	20 - Overlap D RYG
17	0 - None	6 - Phase 6 RYG
18	19 - Ped Phase 3	11 - Phase 3 DPW
19	21 - Ped Phase 5	13 - Phase 5 DPW
20	23 - Ped Phase 7	15 - Phase 7 DPW

Coordination Data

Dial/Split	Cycle
4/4	180

General Coordination Data

Operation Mode: 1=Auto
Coordination Mode: 0=Permissive
Maximun Mode: 2=Max 2
Correction Mode: 0=Dwell
Offset Mode: 0=Beg Grn
Force Mode: 0=Plan
Max Dwell Time: 0
Yield Period: 0
Manual Dial: 1
Manual Split: 1
Manual Offset: 1

Split Times and Phase Modes

Dial 4 / **Split** 4

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode
1	35	0=Actuated	2	55	0=Actuated	3	35	0=Actuated	4	55	0=Actuated
5	35	0=Actuated	6	55	0=Actuated						

Traffic Plan Data

Local TBC Data

Start of Daylight Saving Month: 3 Week: 2 Cycle Zero Reference Hours: 24 Min: 0

End of Daylight Saving Month: 11 Week: 1

Source Day	Equate Days 1	2	3	4	5	6	7
1	7	0	0	0	0	0	0
2	3	4	5	6	0	0	0

Traffic Data

Event	Day	Time	D/S/O	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	0:1	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2	2	0:1	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								

Phase Function

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Max2	X															
Phase 2 Max2		X														
Phase 3 Max2			X													
Phase 4 Max2				X												
Phase 5 Max2					X											
Phase 6 Max2						X										
Phase 7 Max2							X									
Phase 8 Max2								X								

Phase Omit

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Phase Omit									X							
Phase 2 Phase Omit										X						
Phase 3 Phase Omit											X					
Phase 4 Phase Omit												X				
Phase 5 Phase Omit													X			
Phase 6 Phase Omit														X		
Phase 7 Phase Omit															X	
Phase 8 Phase Omit																X

Ped Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Coord ReSvc

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Function Phase Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Phase Min Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Ped Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Bike Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Vehicle Function

Veh Det Switch Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Switch Now

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Switch Also	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Overlap Function	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Dimming Data

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

program_day program_hour program_minute LanePhFun

Preemption Data

General Preemption Data

Flash > Preempt 1	Preempt 2 = Preempt 3	Preempt 4 = Preempt 5
Preempt 1 = Preempt 2	Preempt 3 = Preempt 4	Preempt 5 = Preempt 6

Preempt Timers

Preempt	Non-Locking	Link to Preempt	Delay	Ext end	Duration	Max Call	Lock-Out	Min Green	Min Walk	Debounce	Gate ext end	Select: Ped Clear	Select: Yel	Select: Red	Track: Grn	Track: Ped	Track: Yel	Track: Red	Dwell Green	Return: Ped Clear	Return: Yel	Return: Red
1	Yes	0	0	5	0	300	0	0	0	0	0	4	40	20	0	0	0	0	10	0	0	0
2	Yes	0	0	10	0	300	0	0	0	0	0	4	40	20	0	0	0	0	10	0	0	0
3	Yes	0	0	5	0	300	0	0	0	0	0	4	40	20	0	0	0	0	10	0	0	0
4	Yes	0	0	5	0	300	0	0	0	0	0	4	40	20	0	0	0	0	10	0	0	0
5	No	0	0	0	0	0	0	0	0	0	0	8	40	20	10	8	40	20	10	8	40	20
6	No	0	0	0	0	0	0	0	0	0	0	8	40	20	10	8	40	20	10	8	40	20

Preempt 1

Phase	Exit Phase	Exit Calls
2	Yes	No
5	Yes	No

Preempt 2

Phase	Exit Phase	Exit Calls
2	Yes	No
5	Yes	No

Preempt 3

Phase	Exit Phase	Exit Calls
2	Yes	No
5	Yes	No

Preempt 4

Phase	Exit Phase	Exit Calls
2	Yes	No
5	Yes	No

Preempt 5

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 6

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Priority Timers

Priority	Non-Locking	Delay	Extend	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap	
														Signal Type	Blankout
1	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
2	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
3	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
4	No	0	0	4	4	10	0	120	120	75	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
5	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
6	No	0	0	4	4	0	0	0	0	0	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output

Priority Detector Channels

Priority 1

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 2

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 3

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 4

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 5

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority 6

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority Fixed Phases

Priority 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Legend: 0 1
CO-PHASE FALSE TRUE
QJ-PHASE

Priority Bank

Priority **1**

Priority Bank : **1** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **2** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **3** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

Priority Bank : 1 Level 1

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	7	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Codes: 0 FALSE X TRUE

Priority : 1

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 2

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 3

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 4

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 5

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 6

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 1

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 2

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 3

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 4

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
TSD	0	0	0	0	0	0	0	0
TED	5	0	0	0	0	0	0	0
TTL	120	0	0	0	0	0	0	0
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 5

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 6

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Preempt 1

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph	Track	Dwell	Cycle	Ovlp	Track	Dwell	Cycle	Trail Grn
2	Red	Green	No									
5	Red	Green	No	**Default Data**				**Default Data**				

Preempt 2

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
4	Red	Green	No					A	Red	Grn	No	No Trail
				Default Data				B	Red	Grn	No	No Trail

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No					C	Red	Grn	No	No Trail
6	Red	Green	No					E	Red	Grn	No	No Trail

Default Data

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
3	Red	Green	No					D	Red	Grn	No	No Trail

Default Data

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn

Default Data **Default Data** **Default Data**

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15 1st Phone:

Local Free: No Cycle Failure: No Coord Failure: No Conflict Flash: No Remote Flash: No 2nd Phone:

Local Fash: No Cycle Fault: No Coord Fault: No Premption: No Voltage Monitor: No

Special Status 1: No Special Status 2: No Special Status 3: No Special Status 4: No Special Status 5: No Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	System Detectors	Weight Factor	Queue 2 Detectors	System Detectors	Weight Factor

Default Data **Default Data** **Default Data**

Sample Interval:

Queue: 1 Input Selection: 0=Average

Detector Failed Level : 0

Queue: 2 Input Selection: 0=Average

Detector Failed Level : 0

Queue:

Level	Enter	Leave	Dial / Split / Offset
			/ /

Default Data

Vehical Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - Diag 0 Values

Vehical Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Valu

Pedestrian Detector Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values

Pedestrian Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Speed Trap Data

Speed Trap:

Measurement:

Detector 1	Detector_2	Distance :

Default Data

Volume Detector Data

Report Interval	0

Volume Detector Number	Controller Detector Channel

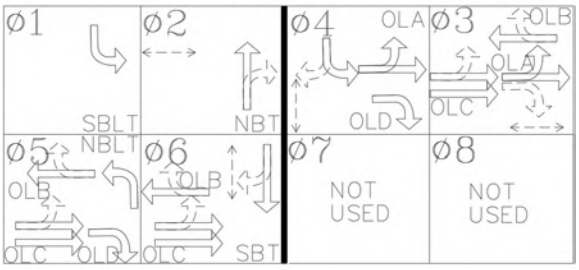
Default Data

Dial/Split/Offset	Speed Trap Low Treshold	Speed Trap High Treshold

//

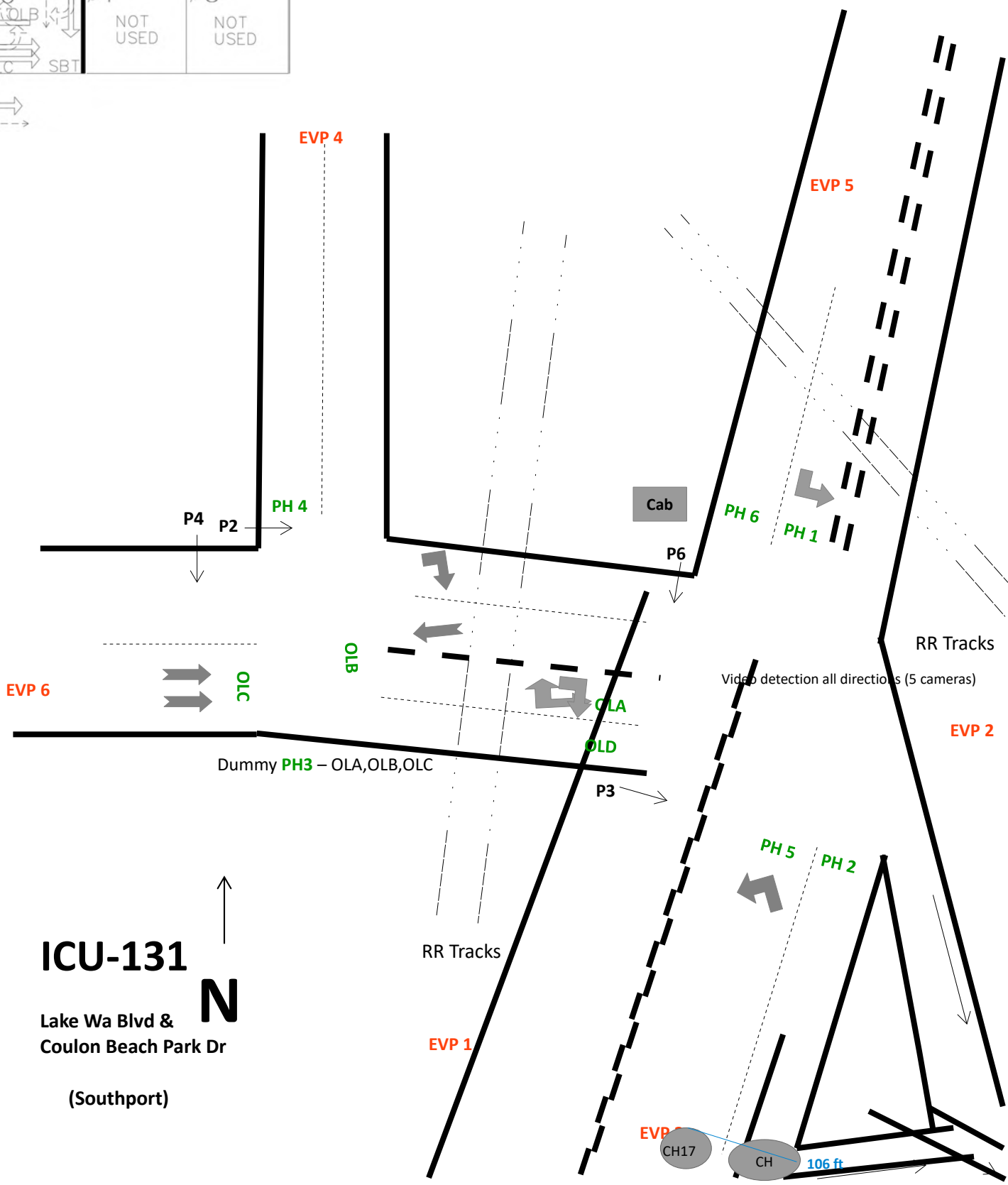
Default Data

NEW PHASING DIAGRAM



VEHICLE ⟹
PEDESTRIAN ⟷

06/05/2017



ICU-131

Lake Wa Blvd &
Coulon Beach Park Dr

(Southport)

N

SEPAC ECOM All Data

3/14/2017
2:21:40PM

Intersection Name: **Lk Wa@S.Port_CoulonRR 3.57** Intersection Alias: **ICU-131**

Access Data

1 :**1200 Baud**
3 :**1200 Baud**

Access Code: **9999** Channel: Address: **1**

Revision: **3.57** IP Address: **10.10.131.10**

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	4-Grn	1-Inact	1-Inact	1-Inact	4-Grn	1-Inact	1-Inact	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

Vehical Basic Timings							Misc Timings						Pedestrian Timings						
Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
Phase Data Bank:				**1**															
1	5	3.0	12	12	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	5	3.0	55	40	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	11	0	0	No	0	No
3	5	3.0	30	15	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
4	5	3.0	30	95	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	5	3.0	45	20	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	5	3.0	33	40	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	20	0	0	No	0	No
7	0	0.0	0	0	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	16	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**2**															
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	29	29	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	16	0	0	No	0	No
7	0	0.0	0	0	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	5	3.0	33	33	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	20	0	0	No	0	No
5	5	3.0	18	18	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
4	5	3.0	12	12	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	5	3.0	17	17	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	5	3.0	39	39	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	11	0	0	No	0	No
1	5	3.0	12	12	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**3**															
1	5	3.0	12	12	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	5	3.0	55	51	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	11	0	0	No	0	No
3	5	3.0	30	15	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No

4	5	3.0	30	95	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	5	3.0	45	30	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	5	3.0	33	33	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	20	0	0	No	0	No
7	0	0.0	0	0	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	16	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:			**4**																
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	16	0	0	No	0	No
7	0	0.0	0	0	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	5	3.0	33	33	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	20	0	0	No	0	No
5	5	3.0	45	30	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
4	5	3.0	30	95	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	5	3.0	30	15	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	5	3.0	55	51	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	11	0	0	No	0	No
1	5	3.0	12	12	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No

	Vehicle Density Timings						General Control				Miscellaneous					Special Sequence		
Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
Phase Data Bank:				**1**														
1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
2	0.0	0	0	0	0	0.0	None	Min	None	0	Yes	No	No	No	Yes	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
6	0.0	0	0	0	0	0.0	None	Min	None	0	Yes	No	No	No	Yes	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank:		**2**																
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
6	0.0	0	0	0	0	0.0	None	Min	None	0	Yes	No	No	No	Yes	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
2	0.0	0	0	0	0	0.0	None	Min	None	0	Yes	No	No	No	Yes	0	0	0
1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
Phase Data Bank:		**3**																
1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
2	0.0	0	0	0	0	0.0	None	Min	None	0	Yes	No	No	No	Yes	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
6	0.0	0	0	0	0	0.0	None	Min	None	0	Yes	No	No	No	Yes	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
Phase Data Bank:		**4**																
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
6	0.0	0	0	0	0	0.0	None	Min	None	0	Yes	No	No	No	Yes	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
2	0.0	0	0	0	0	0.0	None	Min	None	0	Yes	No	No	No	Yes	0	0	0

1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0

Vehical Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Veh Det:1	3	Veh	0	0.0	0
Veh Det:3	4	Veh	0	0.0	0
Veh Det:6	3	Veh	0	0.0	0
Veh Det:8	2	Veh	0	0.0	0
Veh Det:9	1	Veh	0	0.0	0
Veh Det:10	1	Veh	0	0.0	0
Veh Det:11	6	Veh	0	0.0	0
Veh Det:12	6	Veh	0	0.0	0

Pedestrian Detector

Assign Phase	Mode	Switch Phase	Extend	Delay

Default Data

Special Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Spc Det:1	1	Veh	0	0.0	0
Spc Det:2	2	Veh	0	0.0	0
Spc Det:3	3	Veh	0	0.0	0
Spc Det:4	4	Veh	0	0.0	0
Spc Det:5	5	Veh	0	0.0	0
Spc Det:6	6	Veh	0	0.0	0

Unit Data

General Control

Startup Time:	6 sec
Startup State:	All Red
Red Revert:	40.0 sec
Auto Ped Clr:	No
Stop T Reset:	No
Alt Sequence:	0
Special Seq:	0-Standard

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

I/O Modes:

ABC Input(Entry) Modes: 0 **D Input(Entry) Modes:** 0

ABC Output(O/STS) Modes: 0 **D Output(O/STS) Modes:** 0

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data
- No Flash

Default Data
- No Flash

Overlaps

Overlaps

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	3	1														
	4	2														
	8	3														
		5														
		6														

Start Green

Overlaps

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

Stop Green Yel

Overlaps

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

Minus PED

Overlaps

Phase(s)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trail Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail Yellow	3.5	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Trail Red	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TG Preempt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring

Phase	Ring	Next Phase
1	1	2
2	1	4
3	1	1
4	1	3
5	2	6
6	2	7

Phase(s)

Concurrent Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1	2	3	4	1	1	3	3	9	10	11	12	13	14	15	16
	5	5	7	7	2	2	4	4								
	6	6	8	8	5	6	7	8								

Alternate Sequences

No Alternate Sequences Programmed

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40
0	Used	No	No
1	Used	No	No
8	Used	No	No
9	Used	No	No
16	Used	No	No
18	Used	No	No

Load Switch	Red Type	Red Arg	Yellow Type	Yellow Arg	Green Type	Green Arg
1	1 - Phase Vehicle 1	Red	1 - Phase Vehicle 1	Yellow	1 - Phase Vehicle 1	Green
2	2 - Phase Vehicle 2	Red	2 - Phase Vehicle 2	Yellow	2 - Phase Vehicle 2	Green
3	3 - Phase Vehicle 3	Red	3 - Phase Vehicle 3	Yellow	3 - Phase Vehicle 3	Green
4	4 - Phase Vehicle 4	Red	4 - Phase Vehicle 4	Yellow	4 - Phase Vehicle 4	Green
5	5 - Phase Vehicle 5	Red	5 - Phase Vehicle 5	Yellow	5 - Phase Vehicle 5	Green
6	6 - Phase Vehicle 6	Red	6 - Phase Vehicle 6	Yellow	6 - Phase Vehicle 6	Green
7	7 - Phase Vehicle 7	Red	7 - Phase Vehicle 7	Yellow	7 - Phase Vehicle 7	Green
8	8 - Phase Vehicle 8	Red	8 - Phase Vehicle 8	Yellow	8 - Phase Vehicle 8	Green
9	18 - Phase Pedestrian 2	Don't Walk	18 - Phase Pedestrian 2	Ped Clear	18 - Phase Pedestrian 2	Walk
10	20 - Phase Pedestrian 4	Don't Walk	20 - Phase Pedestrian 4	Ped Clear	20 - Phase Pedestrian 4	Walk
11	22 - Phase Pedestrian 6	Don't Walk	22 - Phase Pedestrian 6	Ped Clear	22 - Phase Pedestrian 6	Walk
12	24 - Phase Pedestrian 8	Don't Walk	24 - Phase Pedestrian 8	Ped Clear	24 - Phase Pedestrian 8	Walk
13	33 - Overlap A	Red	33 - Overlap A	Yellow	33 - Overlap A	Green
14	34 - Overlap B	Red	34 - Overlap B	Yellow	34 - Overlap B	Green
15	35 - Overlap C	Red	35 - Overlap C	Yellow	35 - Overlap C	Green
16	36 - Overlap D	Red	36 - Overlap D	Yellow	36 - Overlap D	Green
17	17 - Phase Pedestrian 1	Don't Walk	17 - Phase Pedestrian 1	Ped Clear	17 - Phase Pedestrian 1	Walk
18	19 - Phase Pedestrian 3	Don't Walk	19 - Phase Pedestrian 3	Ped Clear	19 - Phase Pedestrian 3	Walk
19	21 - Phase Pedestrian 5	Don't Walk	21 - Phase Pedestrian 5	Ped Clear	21 - Phase Pedestrian 5	Walk
20	23 - Phase Pedestrian 7	Don't Walk	23 - Phase Pedestrian 7	Ped Clear	23 - Phase Pedestrian 7	Walk
21	55 - Phase Status 1	On	55 - Phase Status 1	Next	55 - Phase Status 1	Check
22	56 - Phase Status 2	On	56 - Phase Status 2	Next	56 - Phase Status 2	Check
23	57 - Phase Status 3	On	57 - Phase Status 3	Next	57 - Phase Status 3	Check
24	58 - Phase Status 4	On	58 - Phase Status 4	Next	58 - Phase Status 4	Check
25	59 - Phase Status 5	On	59 - Phase Status 5	Next	59 - Phase Status 5	Check
26	60 - Phase Status 6	On	60 - Phase Status 6	Next	60 - Phase Status 6	Check
27	61 - Phase Status 7	On	61 - Phase Status 7	Next	61 - Phase Status 7	Check
28	62 - Phase Status 8	On	62 - Phase Status 8	Next	62 - Phase Status 8	Check

P2P Sources

Unit Bank:

ID	Peer IP	Timeout	PeerName

Peer Functions

Unit Bank:

ID	Peer ID	Source Functio	Source Index	Input Function	Input Index	Fail State

Coordination Data

Dial/Split **Cycle**

/

General Coordination Data

Operation Mode: 1=Auto
Coordination Mode: 2=Permissive Yield
Maximun Mode: 0=Inhibit
Correction Mode: 2=Short Way

Offset Mode: 0=Beg Grn
Force Mode: 0=Plan
Max Dwell Time: 0
Yield Period: 0

Manual Dial: 1
Manual Split: 1
Manual Offset: 1

Split Times and Phase Modes

Dial / **Split**

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode

Traffic Plan Data

Plan: //
Offset Time:
Mode:
Alternat Sequence:
Special Function:
Rg 2 Lag Time:
Correction Mode:
Rg 3 Lag Time:
Rg 4 Lag Time:

Local TBC Data

Start of Daylight Saving Month: 3 Week: 2
End of Daylight Saving Month: 11 Week: 1
Cycle Zero Reference Hours: 24 Min: 0

Source Day	Equate Days 1	2	3	4	5	6	7
1	7	0	0	0	0	0	0
2	3	4	5	6	0	0	0

Traffic Data

Event	Day	Time	D/S/O	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	0:1	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2	1	17:0	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3	1	21:15	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4	2	0:1	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5	2	17:0	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6	2	21:15	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								

Phase Function

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Max2	X															
Phase 2 Max2	X															
Phase 3 Max2	X															
Phase 4 Max2	X															
Phase 5 Max2	X															
Phase 6 Max2	X															
Phase 7 Max2	X															
Phase 8 Max2	X															

Phase Omit

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Phase Omit									X							
Phase 2 Phase Omit										X						
Phase 3 Phase Omit											X					
Phase 4 Phase Omit												X				
Phase 5 Phase Omit													X			
Phase 6 Phase Omit														X		
Phase 7 Phase Omit															X	
Phase 8 Phase Omit																X

Ped Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Veh Det Coord ReSvc

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16

Function Phase Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Phase Min Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Ped Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Bike Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Vehicle Function

Veh Det Switch Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Switch Now

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Switch Also

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Overlap Function

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Dimming Data

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

program_day program_hour program_minute LanePhFun

Preemption Data

General Preemption Data

Flash > Preempt 1	Preempt 2 = Preempt 3	Preempt 4 = Preempt 5
Preempt 1 > Preempt 2	Preempt 3 = Preempt 4	Preempt 5 = Preempt 6

Preempt Timers

Preempt	Non-Locking	Link to Preempt	Delay	Ext end	Duration	Max Call	Lock-Out	Min Green	Min Walk	Debounce	Gate ext end	Select: Ped Clear	Select: Yel	Select: Red	Track: Grn	Track: Ped	Track: Yel	Track: Red	Dwell Green	Return: Ped Clear	Return: Yel	Return: Red
1	No	0	0	0	0	0	0	5	0	0	0	20	35	20	49	0	35	20	0	20	35	20
2	No	0	0	0	0	0	0	5	0	0	0	20	35	20	43	0	35	20	0	20	35	20
3	No	0	0	0	0	150	0	5	0	0	0	20	35	20	0	0	0	0	10	20	35	20
4	No	0	0	0	0	150	0	5	0	0	0	20	35	20	0	0	0	0	10	20	35	20
5	No	0	0	0	0	150	0	5	0	0	0	20	35	20	0	0	0	0	10	20	35	20
6	No	0	0	0	0	150	0	5	0	0	0	20	35	20	0	0	0	0	10	20	35	20

Preempt 1

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	Yes	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 2

Phase	Exit Phase	Exit Calls
1	No	Yes
2	Yes	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	Yes	Yes
7	No	Yes
8	No	Yes

Preempt 3

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 4

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 5

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 6

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Priority Timers

Priority	Non-Locking	Delay	Ext end	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap: Signal Type	Transit Overlap: Blankout
1	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
2	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
3	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
4	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
5	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
6	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output

Priority Detector Channels

Priority **1**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority **2**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority **3**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority **4**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority **5**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority **6**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority Fixed Phases

Priority 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Legend: 0 1
CO-PHASE FALSE TRUE
QJ-PHASE

Priority Bank

Priority **1**

Priority Bank : **1** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **2** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **3** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	1-Partial		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Codes: 0 FALSE X TRUE

Priority : 1

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 2

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 3

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 4

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 5

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 6

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 1

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 2

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 3

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 4

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 5

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 6

Bank 1								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Preempt 1

Vehical Phases

Ph.	Track	Dwell	Cycle
2	Red	Green	No
6	Red	Green	No

Pedestrian Phases

Ph	Track	Dwell	Cycle
Default Data			

Overlaps

Ovlp	Track	Dwell	Cycle	Trail Grn
A	Green	Red	No	No Trail
B	Green	Red	No	No Trail

Preempt 2

Vehical Phases

Ph.	Track	Dwell	Cycle
1	Green	Red	No
6	Green	Red	No

Pedestrian Phases

Ph.	Track	Dwell	Cycle
Default Data			

Overlaps

Ovlp.	Track	Dwell	Cycle	Trail Grn
B	Grn	Red	No	No Trail

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
2	Red	Green	No					B	Red	Grn	No	No Trail
5	Red	Green	No									

Default Data

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
4	Red	Green	No					A	Red	Grn	No	No Trail

Default Data

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No					B	Red	Grn	No	No Trail
6	Red	Green	No									

Default Data

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
3	Red	Green	No					A	Red	Grn	No	No Trail

Default Data

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15

1st Phone:

2nd Phone:

Local Free: No | Cycle Failure: No | Coord Failure: No | Conflict Flash: No | Remote Flash: No

Local Fash: No | Cycle Fault: No | Coord Fault: No | Premption: No | Voltage Monitor: No

Special Status 1: No | Special Status 2: No | Special Status 3: No | Special Status 4: No | Special Status 5: No | Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	System Detectors	Weight Factor	Queue 2 Detectors	System Detectors	Weight Factor

Default Data

Sample Interval:

Default Data

Queue: 1

Input Selection: 0=Average

Detector Failed Level : 0

Queue: 2

Input Selection: 0=Average

Detector Failed Level : 0

Default Data

Queue:

Level	Enter	Leave	Dial / Split / Offset
			/ /

Default Data

Vehical Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - Diag 0 Values

Vehical Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Valu

Pedestrian Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values

Pedestrian Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Speed Trap Data

Speed Trap:

Measurement:

Detector 1	Detector_2	Distance :

Default Data

Volume Detector Data

Report Interval	0

Volume Detector Number	Controller Detector Channel

Default Data

Dial/Split/Offset	Speed Trap Low Treshold	Speed Trap High Treshold

//

Default Data

SEPAC ECOM All Data

6/15/2017
4:06:43PM

Intersection Name: **Lk Wa@S.Port_CoulonRR 3.57** Intersection Alias: **ICU-131**

Access Data

1 :**1200 Baud**
3 :**1200 Baud**

Access Code: **9999** Channel: Address: **1**

Revision: **3.57** IP Address: **10.10.131.10**

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	4-Grn	1-Inact	1-Inact	1-Inact	4-Grn	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

Vehical Basic Timings							Misc Timings						Pedestrian Timings						
Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Offset Time	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
Phase Data Bank:				**1**															
1	5	3.0	12	12	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	5	3.0	55	40	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	11	0	0	No	0	No
3	5	3.0	30	15	3.0	2.0	0.0	0.0	0	0-Advance	0	0	7	16	0	0	No	0	No
4	5	3.0	37	95	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	13	0	0	No	0	No
5	5	3.0	45	20	3.5	2.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	5	3.0	33	40	3.5	2.0	0.0	0.0	0	0-Advance	0	0	7	20	0	0	No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**2**															
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**3**															
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No

4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
Phase Data Bank:				**4**															
16	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
7	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
6	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
5	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
4	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
3	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
2	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No
1	0	0.0	0	0	3.0	0.0	0.0	0.0	0	0-Advance	0	0	0	0	0	0	No	0	No

	Vehicle Density Timings						General Control				Miscellaneous					Special Sequence		
Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
Phase Data Bank:				**1**														
1	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
2	0.0	0	0	0	0	0.0	None	Soft	None	0	Yes	No	No	No	Yes	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	Yes	0	0	0
6	0.0	0	0	0	0	0.0	None	Soft	None	0	Yes	No	No	No	Yes	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 2

16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 3

1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Phase Data Bank: 4

16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
6	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
2	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

1	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Vehical Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Veh Det:1	3	Veh	0	0.0	0
Veh Det:3	4	Veh	0	0.0	0
Veh Det:6	3	Veh	0	0.0	0
Veh Det:8	2	Veh	0	0.0	0
Veh Det:9	1	Veh	0	0.0	0
Veh Det:10	1	Veh	0	0.0	0
Veh Det:11	6	Veh	0	0.0	0
Veh Det:12	6	Veh	0	0.0	0

Pedestrian Detector

	Assign Phase	Mode	Switch Phase	Extend	Delay
Ped Det:1	1	Ped	0	0.0	0
Ped Det:2	2	Ped	0	0.0	0
Ped Det:3	3	Ped	8	0.0	0
Ped Det:4	4	Ped	0	0.0	0
Ped Det:5	5	Ped	0	0.0	0
Ped Det:6	6	Ped	0	0.0	0
Ped Det:7	7	Ped	0	0.0	0
Ped Det:8	8	Ped	0	0.0	0

Special Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Spc Det:1	1	Veh	0	0.0	0
Spc Det:2	2	Veh	0	0.0	0
Spc Det:3	3	Veh	0	0.0	0
Spc Det:4	4	Veh	0	0.0	0
Spc Det:5	5	Veh	0	0.0	0
Spc Det:6	6	Veh	0	0.0	0
Spc Det:7	7	Veh	0	0.0	0
Spc Det:8	8	Veh	0	0.0	0

Unit Data

General Control

Startup Time: 6 sec
Startup State: All Red
Red Revert: 40.0 sec
Auto Ped Clr: No
Stop T Reset: No
Alt Sequence: 0
Special Seq: 0-Standard

I/O Modes:

ABC Input(Entry) Modes: 0
ABC Output(O/STS) Modes: 0
D Input(Entry) Modes: 0
D Output(O/STS) Modes: 0

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data
- No Flash

Default Data
- No Flash

Overlaps

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)	3	3	3	4												
	4	5	5	5												
		6	6													

Start Green

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

Stop Green Yel

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

Minus PED

Overlaps

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trail Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Trail Red	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TG Preempt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring

Phase	Ring	Next Phase
1	1	2
2	1	4
3	1	1
4	1	3
5	2	6
6	2	7

Phase(s)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Concurrent Phases	1	2	3	4	1	1	3	3	9	10	11	12	13	14	15	16
	5	5	7	7	2	2	4	4								
	6	6	8	8	5	6	7	8								

Alternate Sequences

No Alternate Sequences Programmed

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40
0	Used	No	No
1	Used	No	No
8	Used	No	No
16	Used	No	No

Load Switch	Red Type	Red Arg	Yellow Type	Yellow Arg	Green Type	Green Arg
1	1 - Phase Vehicle 1	Red	1 - Phase Vehicle 1	Yellow	1 - Phase Vehicle 1	Green
2	2 - Phase Vehicle 2	Red	2 - Phase Vehicle 2	Yellow	2 - Phase Vehicle 2	Green
3	3 - Phase Vehicle 3	Red	3 - Phase Vehicle 3	Yellow	3 - Phase Vehicle 3	Green
4	4 - Phase Vehicle 4	Red	4 - Phase Vehicle 4	Yellow	4 - Phase Vehicle 4	Green
5	5 - Phase Vehicle 5	Red	5 - Phase Vehicle 5	Yellow	5 - Phase Vehicle 5	Green
6	6 - Phase Vehicle 6	Red	6 - Phase Vehicle 6	Yellow	6 - Phase Vehicle 6	Green
7	7 - Phase Vehicle 7	Red	7 - Phase Vehicle 7	Yellow	7 - Phase Vehicle 7	Green
8	8 - Phase Vehicle 8	Red	8 - Phase Vehicle 8	Yellow	8 - Phase Vehicle 8	Green
9	18 - Phase Pedestrian 2	Don't Walk	18 - Phase Pedestrian 2	Ped Clear	18 - Phase Pedestrian 2	Walk
10	20 - Phase Pedestrian 4	Don't Walk	20 - Phase Pedestrian 4	Ped Clear	20 - Phase Pedestrian 4	Walk
11	22 - Phase Pedestrian 6	Don't Walk	22 - Phase Pedestrian 6	Ped Clear	22 - Phase Pedestrian 6	Walk
12	19 - Phase Pedestrian 3	Don't Walk	19 - Phase Pedestrian 3	Ped Clear	19 - Phase Pedestrian 3	Walk
13	33 - Overlap A	Red	33 - Overlap A	Yellow	33 - Overlap A	Green
14	34 - Overlap B	Red	34 - Overlap B	Yellow	34 - Overlap B	Green
15	35 - Overlap C	Red	35 - Overlap C	Yellow	35 - Overlap C	Green
16	36 - Overlap D	Red	36 - Overlap D	Yellow	36 - Overlap D	Green
17	17 - Phase Pedestrian 1	Don't Walk	17 - Phase Pedestrian 1	Ped Clear	17 - Phase Pedestrian 1	Walk
18	19 - Phase Pedestrian 3	Don't Walk	19 - Phase Pedestrian 3	Ped Clear	19 - Phase Pedestrian 3	Walk
19	21 - Phase Pedestrian 5	Don't Walk	21 - Phase Pedestrian 5	Ped Clear	21 - Phase Pedestrian 5	Walk
20	23 - Phase Pedestrian 7	Don't Walk	23 - Phase Pedestrian 7	Ped Clear	23 - Phase Pedestrian 7	Walk
21	55 - Phase Status 1	On	55 - Phase Status 1	Next	55 - Phase Status 1	Check
22	56 - Phase Status 2	On	56 - Phase Status 2	Next	56 - Phase Status 2	Check
23	57 - Phase Status 3	On	57 - Phase Status 3	Next	57 - Phase Status 3	Check
24	58 - Phase Status 4	On	58 - Phase Status 4	Next	58 - Phase Status 4	Check
25	59 - Phase Status 5	On	59 - Phase Status 5	Next	59 - Phase Status 5	Check
26	60 - Phase Status 6	On	60 - Phase Status 6	Next	60 - Phase Status 6	Check
27	61 - Phase Status 7	On	61 - Phase Status 7	Next	61 - Phase Status 7	Check
28	62 - Phase Status 8	On	62 - Phase Status 8	Next	62 - Phase Status 8	Check

P2P Sources

Unit Bank:

ID	Peer IP	Timeout	PeerName

Peer Functions

Unit Bank:

ID	Peer ID	Source Functio	Source Index	Input Function	Input Index	Fail State

Coordination Data

Dial/Split **Cycle**

/

General Coordination Data

Operation Mode: 1=Auto
Coordination Mode: 0=Permissive
Maximun Mode: 2=Max 2
Correction Mode: 0=Dwell

Offset Mode: 0=Beg Grn
Force Mode: 0=Plan
Max Dwell Time: 0
Yield Period: 0

Manual Dial: 1
Manual Split: 1
Manual Offset: 1

Split Times and Phase Modes

Dial / **Split**

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode

Traffic Plan Data

Plan: //
Offset Time:
Mode:
Alternat Sequence:
Special Function:
Rg 2 Lag Time:
Correction Mode:
Rg 3 Lag Time:
Rg 4 Lag Time:

Local TBC Data

Start of Daylight Saving Month: 3 Week: 2
End of Daylight Saving Month: 11 Week: 1
Cycle Zero Reference Hours: 24 Min: 0

Source Day	Equate Days 1	2	3	4	5	6	7
1	7	0	0	0	0	0	0
2	3	4	5	6	0	0	0

Traffic Data

Event	Day	Time	D/S/O	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	0:1	0/0/4																	
2	1	18:30	0/0/0																	
3	1	21:15	0/0/4																	
4	2	0:1	0/0/4																	
5	2	18:30	0/0/0																	
6	2	21:15	0/0/4																	
7	10	18:30	0/0/0		X															
8	10	21:15	0/0/4																	

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								

Phase Function

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Max2	X															
Phase 2 Max2	X															
Phase 3 Max2	X															
Phase 4 Max2	X															
Phase 5 Max2	X															
Phase 6 Max2	X															
Phase 7 Max2	X															
Phase 8 Max2	X															

Phase Omit

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Phase Omit									X							
Phase 2 Phase Omit										X						
Phase 3 Phase Omit											X					
Phase 4 Phase Omit												X				
Phase 5 Phase Omit													X			
Phase 6 Phase Omit														X		
Phase 7 Phase Omit															X	
Phase 8 Phase Omit																X

Ped Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Coord ReSvc

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Function Phase Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Phase Min Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Ped Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Bike Recall

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Vehicle Function

Veh Det Switch Omit

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Switch Now

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Veh Det Switch Also

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Overlap Function

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Dimming Data

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

program_day program_hour program_minute LanePhFun

Preemption Data

General Preemption Data

Flash > Preempt 1	Preempt 2 = Preempt 3	Preempt 4 = Preempt 5
Preempt 1 > Preempt 2	Preempt 3 = Preempt 4	Preempt 5 = Preempt 6

Preempt Timers

Preempt	Non-Locking	Link to Preempt	Delay	Ext end	Duration	Max Call	Lock-Out	Min Green	Min Walk	Debounce	Gate ext end	Select: Ped Clear	Select: Yel	Select: Red	Track: Grn	Track: Ped	Track: Yel	Track: Red	Dwell Green	Return: Ped Clear	Return: Yel	Return: Red
1	No	0	0	0	0	0	0	5	0	0	0	20	35	20	49	0	35	20	0	20	35	20
2	No	0	0	0	0	0	0	5	0	0	0	5	35	20	43	0	35	20	0	20	35	20
3	No	0	0	0	0	150	0	5	0	0	0	20	35	20	0	0	0	0	10	20	35	20
4	No	0	0	0	0	150	0	5	0	0	0	20	35	20	0	0	0	0	10	20	35	20
5	No	0	0	0	0	150	0	5	0	0	0	20	35	20	0	0	0	0	10	20	35	20
6	No	0	0	0	0	150	0	5	0	0	0	20	35	20	0	0	0	0	10	20	35	20

Preempt 1

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	Yes	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 2

Phase	Exit Phase	Exit Calls
1	No	Yes
2	Yes	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	Yes	Yes
7	No	Yes
8	No	Yes

Preempt 3

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 4

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 5

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Preempt 6

Phase	Exit Phase	Exit Calls
1	No	Yes
2	No	Yes
3	No	Yes
4	No	Yes
5	No	Yes
6	No	Yes
7	No	Yes
8	No	Yes

Priority Timers

Priority	Non-Locking	Delay	Ext end	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap: Signal Type	Transit Overlap: Blankout
1	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
2	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
3	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
4	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
5	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output
6	No	0	0	4	4	0	0	0	0	1	0.0	0-None	No	0-None,0-No Output	0-None,0-No Output

Priority Detector Channels

Priority **1**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority **2**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority **3**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority **4**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority **5**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority **6**

Detector	1A	2A	3A	4A	5A	6A	B	C	X
Channel	0	0	0	0	0	0	0	0	0

Priority Fixed Phases

Priority 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Co-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJ-Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Legend: 0 1
CO-PHASE FALSE TRUE
QJ-PHASE

Priority Bank

Priority **1**

Priority Bank : **1** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **2** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : **3** Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 2

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 3

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 4

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 5

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority 6

Priority Bank : 1 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 2 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 3 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Priority Bank : 4 Level 0

Partial Priority		Full Priority		Recovery	
Alt Seq	0	Freq. Override	False	Method	0-Normal
Alt Seq Enabled	False	Ped skip	0	Return	0-Cycle
Min Walk	0	Force full Priority	False	PedWait	0
		Frequency	0	PedOverride	0
		Freq. Level	0-Min		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Exit Call	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Codes: 0 FALSE X TRUE

Priority : 1

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 2

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 3

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 4

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 5

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 6

Priority Bank : 1
Queue Phase Detector Time
Default data

Priority Bank : 2
Queue Phase Detector Time
Default data

Priority Bank : 3
Queue Phase Detector Time
Default data

Priority Bank : 4
Queue Phase Detector Time
Default data

Priority : 1

Bank 1							
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 2

Bank 1							
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 3

Bank 1							
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 4

Bank 1							
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 5

Bank 1							
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Priority : 6

Bank 1							
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 2								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 3								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								
Bank 4								
Detector	PE	1A	2A	3A	4A	5A	6A	B
Default Data								

Preempt 1

Vehical Phases

Ph.	Track	Dwell	Cycle
2	Red	Green	No
6	Red	Green	No

Pedestrian Phases

Ph	Track	Dwell	Cycle
Default Data			

Overlaps

Ovlp	Track	Dwell	Cycle	Trail Grn
A	Green	Red	No	No Trail
B	Green	Red	No	No Trail

Preempt 2

Vehical Phases

Ph.	Track	Dwell	Cycle
1	Green	Red	No
5	Red	Green	No
6	Green	Red	No

Pedestrian Phases

Ph.	Track	Dwell	Cycle
Default Data			

Overlaps

Ovlp.	Track	Dwell	Cycle	Trail Grn
C	Red	Grn	No	No Trail
D	Red	Grn	No	No Trail
B	Grn	Grn	No	No Trail

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
2	Red	Green	No					B	Red	Grn	No	No Trail
5	Red	Green	No									

Default Data

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
4	Red	Green	No					A	Red	Grn	No	No Trail

Default Data

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
1	Red	Green	No					B	Red	Grn	No	No Trail
6	Red	Green	No									

Default Data

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps				
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle	Trail Grn
								A	Red	Grn	No	No Trail
								C	Red	Grn	No	No Trail

Default Data **Default Data**

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15 1st Phone:

Local Free: No Cycle Failure: No Coord Failure: No Conflict Flash: No Remote Flash: No 2nd Phone:

Local Fash: No Cycle Fault: No Coord Fault: No Premption: No Voltage Monitor: No

Special Status 1: No Special Status 2: No Special Status 3: No Special Status 4: No Special Status 5: No Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	System Detectors	Weight Factor	Queue 2 Detectors	System Detectors	Weight Factor

Default Data

Sample Interval:

Default Data

Queue: 1 Input Selection: 0=Average

Detector Failed Level : 0

Queue: 2 Input Selection: 0=Average

Detector Failed Level : 0

Default Data

Queue:

Level	Enter	Leave	Dial / Split / Offset
			/ /

Default Data

Vehical Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - Diag 0 Values

Vehical Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Valu

Pedestrian Detector

Diagnostic Value 0

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values

Pedestrian Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Special Detector

Diagnostic Value 1

Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 1 Values

Speed Trap Data

Speed Trap:

Measurement:

Detector 1	Detector_2	Distance :

Default Data

Volume Detector Data

Report Interval	0

Volume Detector Number	Controller Detector Channel

Default Data

Dial/Split/Offset	Speed Trap Low Treshold	Speed Trap High Treshold

//

Default Data

Channel Mod. Timing Optimization

Lanes, Volumes, Timings
4: Garden Ave. N/Lake Washington Blvd & N Park Dr

AM 2017 LWB/Gdn Modification
10/24/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	305	542	23	194	491	228	0	371	214	88	38	148
Future Volume (vph)	305	542	23	194	491	228	0	371	214	88	38	148
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	225		0	190		0	475		0	100		150
Storage Lanes	2		0	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	2463	2189	0	2398	3197	1430	0	1555	1333	3162	1439	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	2463	2189	0	2398	3197	1409	0	1555	1333	3162	1439	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				245		2	136		139	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		530			1160			780			363	
Travel Time (s)		10.3			22.6			21.3			9.9	
Confl. Peds. (#/hr)			4			5			2			31
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.93	0.94	0.94	0.94	0.86	0.86	0.86
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	6%	6%	6%	2%	2%	2%
Shared Lane Traffic (%)									10%			
Lane Group Flow (vph)	339	628	0	209	528	245	0	418	205	102	216	0
Turn Type	Prot	NA		Prot	NA	custom		NA	pt+ov	Prot	NA	
Protected Phases	5	2		1	6 10			8	8 1	7	4 9	
Permitted Phases						4 6 9						
Detector Phase	5	2		1	6 10	4 6 9		8	8 1	7	4 9	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0				5.0		4.0		
Minimum Split (s)	10.0	30.0		10.0				10.0		8.0		
Total Split (s)	20.0	72.0		24.0				60.0		12.0		
Total Split (%)	11.9%	42.9%		14.3%				35.7%		7.1%		
Maximum Green (s)	15.0	67.0		19.0				55.0		8.0		
Yellow Time (s)	4.0	4.0		4.0				4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0				1.0		0.0		
Lost Time Adjust (s)	0.0	0.0		0.0				0.0		0.0		
Total Lost Time (s)	5.0	5.0		5.0				5.0		4.0		
Lead/Lag	Lead	Lag		Lead				Lag		Lead		
Lead-Lag Optimize?	Yes							Yes				
Vehicle Extension (s)	4.0	4.0		4.0				4.0		3.0		
Recall Mode	None	None		None				None		None		
Walk Time (s)		7.0										
Flash Dont Walk (s)		18.0										
Pedestrian Calls (#/hr)		4										
Act Effct Green (s)	15.6	50.1		17.2	51.7	86.8		43.7	66.2	8.1	55.9	
Actuated g/C Ratio	0.11	0.36		0.12	0.37	0.62		0.31	0.48	0.06	0.40	
v/c Ratio	1.22	0.79		0.70	0.44	0.25		0.85	0.29	0.56	0.33	
Control Delay	179.1	48.8		75.6	33.9	2.1		63.1	9.5	81.8	12.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	179.1	48.9		75.6	33.9	2.1		63.1	9.5	81.8	12.8	
LOS	F	D		E	C	A		E	A	F	B	
Approach Delay		94.5			34.9			45.5			34.9	

Lane Group	Ø4	Ø6	Ø9	Ø10
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	4	6	9	10
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	1.0	1.0
Minimum Split (s)	10.0	10.0	36.0	45.0
Total Split (s)	36.0	31.0	36.0	45.0
Total Split (%)	21%	18%	21%	27%
Maximum Green (s)	31.0	26.0	33.0	42.0
Yellow Time (s)	4.0	4.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lag
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	4.0	0.2	0.2
Recall Mode	None	None	None	None
Walk Time (s)			7.0	7.0
Flash Dont Walk (s)			26.0	35.0
Pedestrian Calls (#/hr)			31	5
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			C			D			C	
Queue Length 50th (ft)	~257	388		126	191	0		381	35	48	45	
Queue Length 95th (ft)	#457	537		#230	262	39		#626	105	#92	110	
Internal Link Dist (ft)		450			1080			700			283	
Turn Bay Length (ft)	225			190						100		
Base Capacity (vph)	277	1101		341	1294	981		642	738	189	677	
Starvation Cap Reductn	0	21		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	1.22	0.58		0.61	0.41	0.25		0.65	0.28	0.54	0.32	

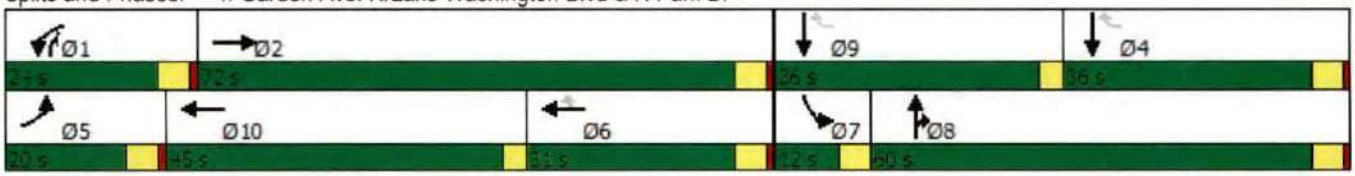
Intersection Summary

Area Type: Other
Cycle Length: 168
Actuated Cycle Length: 138.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.22
Intersection Signal Delay: 57.1 Intersection LOS: E
Intersection Capacity Utilization 69.3% ICU Level of Service C
Analysis Period (min) 15
Description: TMC2017

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Garden Ave. N/Lake Washington Blvd & N Park Dr



Lane Group	Ø4	Ø6	Ø9	Ø10
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	696	42	336	621	110	0	192	564	143	111	231
Future Volume (vph)	222	696	42	336	621	110	0	192	564	143	111	231
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (ft)	225		0	190		0	475		0	100		150
Storage Lanes	2		0	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	2583	2288	0	2375	3167	1417	0	1646	1399	3225	1455	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	2583	2288	0	2375	3167	1394	0	1646	1399	3225	1455	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				118			79		70	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		530			1160			780			363	
Travel Time (s)		10.3			22.6			21.3			9.9	
Confl. Peds. (#/hr)			1			7			5			53
Confl. Bikes (#/hr)			4			1			3			11
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	1%	1%	1%	0%	0%	0%
Shared Lane Traffic (%)									0%			
Lane Group Flow (vph)	239	793	0	361	668	118	0	206	606	154	367	0
Turn Type	Prot	NA		Prot	NA	custom		NA	pt+ov	Prot	NA	
Protected Phases	5	2		1	6 10			8	8 1	7	4 9	
Permitted Phases						4 6 9						
Detector Phase	5	2		1	6 10	4 6 9		8	8 1	7	4 9	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0				5.0		4.0		
Minimum Split (s)	10.0	30.0		10.0				10.0		9.0		
Total Split (s)	20.0	69.0		33.0				46.0		15.0		
Total Split (%)	12.3%	42.3%		20.2%				28.2%		9.2%		
Maximum Green (s)	15.0	64.0		28.0				41.0		10.0		
Yellow Time (s)	4.0	4.0		4.0				4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0				1.0		1.0		
Lost Time Adjust (s)	0.0	0.0		0.0				0.0		0.0		
Total Lost Time (s)	5.0	5.0		5.0				5.0		5.0		
Lead/Lag	Lead	Lag		Lead				Lag		Lead		
Lead-Lag Optimize?	Yes							Yes				
Vehicle Extension (s)	4.0	4.0		4.0				4.0		3.0		
Recall Mode	None	None		None				None		None		
Walk Time (s)		7.0										
Flash Dont Walk (s)		18.0										
Pedestrian Calls (#/hr)		1										
Act Effct Green (s)	15.1	58.5		26.9	70.3	100.6		40.7	72.7	9.9	55.6	
Actuated g/C Ratio	0.10	0.37		0.17	0.45	0.64		0.26	0.47	0.06	0.36	
v/c Ratio	0.96	0.92		0.88	0.47	0.13		0.48	0.87	0.76	0.65	
Control Delay	117.3	63.6		86.6	30.8	2.5		54.8	48.4	96.0	41.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	117.3	63.6		86.6	30.8	2.5		54.8	48.4	96.0	41.2	
LOS	F	E		F	C	A		D	D	F	D	

Lane Group	Ø4	Ø6	Ø9	Ø10
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	4	6	9	10
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	1.0	1.0
Minimum Split (s)	10.0	10.0	36.0	45.0
Total Split (s)	25.0	37.0	36.0	45.0
Total Split (%)	15%	23%	22%	28%
Maximum Green (s)	20.0	32.0	33.0	42.0
Yellow Time (s)	4.0	4.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				Lag
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	4.0	0.2	0.2
Recall Mode	None	None	None	None
Walk Time (s)			7.0	7.0
Flash Dont Walk (s)			26.0	35.0
Pedestrian Calls (#/hr)			53	7
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		76.0			45.4			50.0			57.4	
Approach LOS		E			D			D			E	
Queue Length 50th (ft)	~163	574		254	247	0		198	556	85	274	
Queue Length 95th (ft)	#281	#728		#372	303	30		292	#826	#143	402	
Internal Link Dist (ft)		450			1080			700			283	
Turn Bay Length (ft)	225			190						100		
Base Capacity (vph)	249	944		427	1432	933		434	698	207	563	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.96	0.84		0.85	0.47	0.13		0.47	0.87	0.74	0.65	

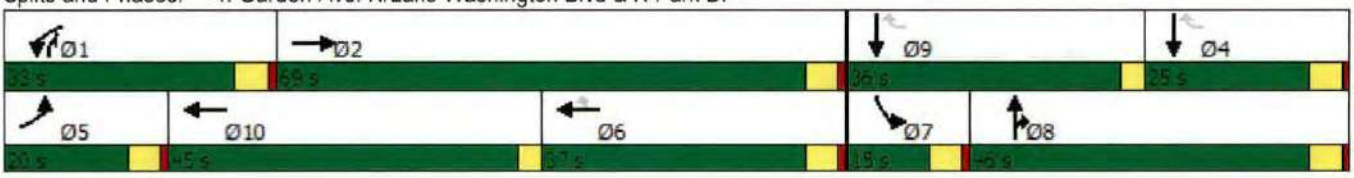
Intersection Summary

Area Type: Other
Cycle Length: 163
Actuated Cycle Length: 156.1
Natural Cycle: 115
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 57.2 Intersection LOS: E
Intersection Capacity Utilization 77.6% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Garden Ave. N/Lake Washington Blvd & N Park Dr

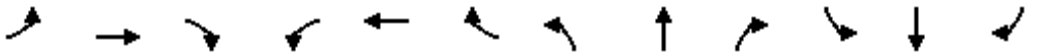


Lane Group	Ø4	Ø6	Ø9	Ø10
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

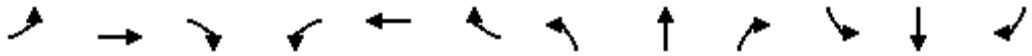
Intersection Summary

APPENDIX E

Isolated Analysis Synchro Worksheets



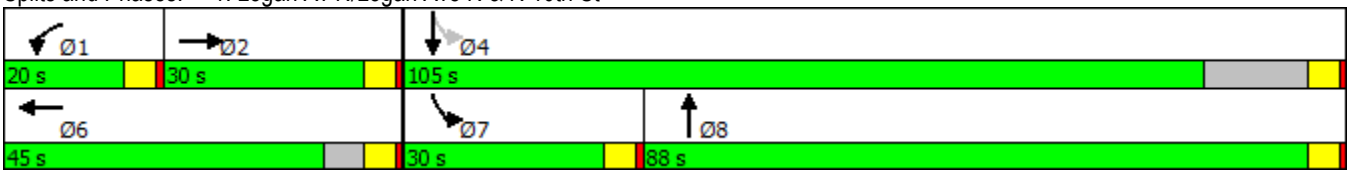
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	12	0	8	0	466	20	17	444	0
Future Volume (vph)	0	0	0	12	0	8	0	466	20	17	444	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.70			1.00				
Frt					0.850			0.994				
Flt Protected				0.950							0.998	
Satd. Flow (prot)	0	1863	0	1736	1091	0	0	1745	0	0	3431	0
Flt Permitted				0.950							0.925	
Satd. Flow (perm)	0	1863	0	1736	1091	0	0	1745	0	0	3180	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					483			2				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						91			6	6		
Peak Hour Factor	0.90	0.90	0.90	0.97	0.97	0.97	0.90	0.97	0.97	0.97	0.97	0.90
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	8%	8%	5%	5%	2%
Adj. Flow (vph)	0	0	0	12	0	8	0	480	21	18	458	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	12	8	0	0	501	0	0	476	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		1		1	1			1		1	1	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		100		20	100			100		20	100	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		25.0		11.0	32.0			25.0		11.0	11.0	
Total Split (s)		30.0		20.0	45.0			88.0		30.0	105.0	

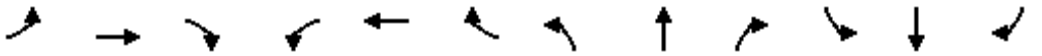


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)		17.9%		11.9%	26.8%			52.4%		17.9%	62.5%	
Maximum Green (s)		25.0		15.0	40.0			83.0		25.0	100.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Walk Time (s)		7.0			7.0			7.0				
Flash Dont Walk (s)		13.0			20.0			13.0				
Pedestrian Calls (#/hr)		4			20			5				
Act Effct Green (s)				35.0	40.0			100.0			100.0	
Actuated g/C Ratio				0.23	0.27			0.67			0.67	
v/c Ratio				0.03	0.01			0.43			0.22	
Control Delay				51.2	0.0			13.0			10.1	
Queue Delay				0.0	0.0			1.0			0.0	
Total Delay				51.2	0.0			14.0			10.1	
LOS				D	A			B			B	
Approach Delay					30.7			14.0			10.1	
Approach LOS					C			B			B	
Queue Length 50th (ft)				9	0			214			90	
Queue Length 95th (ft)				33	0			288			115	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				404	665			1164			2395	
Starvation Cap Reductn				0	0			403			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.03	0.01			0.66			0.20	

Intersection Summary			
Area Type:	Other		
Cycle Length: 168			
Actuated Cycle Length: 150			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.43			
Intersection Signal Delay: 12.5		Intersection LOS: B	
Intersection Capacity Utilization 56.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	467	3	144	427	21	28	18	386	16	10	6
Future Volume (vph)	12	467	3	144	427	21	28	18	386	16	10	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor						0.96					0.98	
Frt		0.999				0.850			0.850		0.947	
Flt Protected	0.950			0.950				0.971		0.950		
Satd. Flow (prot)	1656	3309	0	3367	3471	1553	0	1693	2608	2304	1158	0
Flt Permitted	0.950			0.950				0.971		0.950		
Satd. Flow (perm)	1656	3309	0	3367	3471	1490	0	1693	2608	2304	1158	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						60			406		6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			281	
Travel Time (s)		31.8			11.3			14.1			6.4	
Confl. Peds. (#/hr)						6						21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	9%	9%	9%	4%	4%	4%	9%	9%	9%	52%	52%	52%
Adj. Flow (vph)	13	492	3	152	449	22	29	19	406	17	11	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	495	0	152	449	22	0	48	406	17	17	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1	1	1	1	1	1	1	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	100		20	100	20	20	100	20	20	100	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												

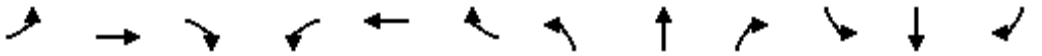
Lanes, Volumes, Timings
2: Park Ave N/757th Ave & Logan Ave N 10/23/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	25.0	65.0		65.0	65.0	65.0	48.0	48.0		40.0	40.0	
Total Split (%)	11.5%	29.8%		29.8%	29.8%	29.8%	22.0%	22.0%		18.3%	18.3%	
Maximum Green (s)	20.0	60.0		60.0	60.0	60.0	43.0	43.0		35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Walk Time (s)		7.0			7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		19.0			24.0	24.0				20.0	20.0	
Pedestrian Calls (#/hr)		0			5	5				16	16	
Act Effct Green (s)	7.3	18.2		10.5	32.7	32.7		9.2	25.5	12.9	12.9	
Actuated g/C Ratio	0.11	0.27		0.16	0.49	0.49		0.14	0.38	0.19	0.19	
v/c Ratio	0.07	0.55		0.29	0.26	0.03		0.21	0.33	0.04	0.07	
Control Delay	39.7	26.6		33.0	15.3	0.0		36.4	3.5	25.2	21.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	39.7	26.6		33.0	15.3	0.0		36.4	3.5	25.2	21.3	
LOS	D	C		C	B	A		D	A	C	C	
Approach Delay		26.9			19.1			7.0			23.3	
Approach LOS		C			B			A			C	
Queue Length 50th (ft)	5	82		27	44	0		17	0	3	4	
Queue Length 95th (ft)	27	196		75	159	1		62	35	12	22	
Internal Link Dist (ft)		1321			418			539			201	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	574	2791		2840	3471	1490		1213	2441	1398	705	
Starvation Cap Reductn	0	0		0	31	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.02	0.18		0.05	0.13	0.01		0.04	0.17	0.01	0.02	

Intersection Summary

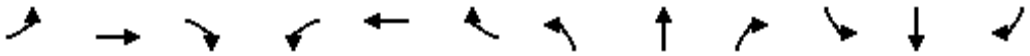
Area Type: Other
Cycle Length: 218
Actuated Cycle Length: 66.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 18.2 Intersection LOS: B
Intersection Capacity Utilization 52.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Park Ave N/757th Ave & Logan Ave N



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	305	542	23	194	461	227	4	367	214	88	38	128
Future Volume (vph)	305	542	23	194	461	227	4	367	214	88	38	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00						1.00				0.96
Frt		0.994				0.850		0.992	0.850			0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	3242	3310	0	3367	3471	1553	0	1688	1351	1569	1770	1531
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	3242	3310	0	3367	3471	1553	0	1688	1351	1569	1770	1476
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		2				249						141
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			35			7			2			31
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	8%	8%	4%	4%	4%	6%	6%	6%	2%	2%	2%
Adj. Flow (vph)	335	596	25	213	507	249	4	403	235	97	42	141
Shared Lane Traffic (%)									10%	0%		
Lane Group Flow (vph)	335	621	0	213	507	249	0	431	211	97	42	141
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø4	Ø6	Ø9	Ø10
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6 10	6 4 9	3	3	3 1	4 9	4 9	5
Permitted Phases												4 9
Detector Phase	5	2		1	6 10	6 4 9	3	3	3 1	4 9	4 9	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0				5.0
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0				10.0
Total Split (s)	17.0	50.0		35.0			25.0	25.0				17.0
Total Split (%)	8.8%	25.9%		18.1%			13.0%	13.0%				8.8%
Maximum Green (s)	12.0	45.0		30.0			20.0	20.0				12.0
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0				4.0
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0				1.0
Lost Time Adjust (s)	0.0	0.0		0.0				0.0				0.0
Total Lost Time (s)	5.0	5.0		5.0				5.0				5.0
Lead/Lag	Lead	Lead		Lag			Lead	Lead				Lead
Lead-Lag Optimize?	Yes						Yes	Yes				Yes
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0				4.0
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0				2.0
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0				10.0
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0				5.0
Recall Mode	None	None		None			None	None				None
Walk Time (s)		7.0										
Flash Dont Walk (s)		18.0										
Pedestrian Calls (#/hr)		3										
Act Effct Green (s)	12.6	36.2		25.4	48.9	56.1		21.1	51.7	30.8	30.8	43.4
Actuated g/C Ratio	0.09	0.27		0.19	0.36	0.42		0.16	0.38	0.23	0.23	0.32
v/c Ratio	1.10	0.70		0.34	0.40	0.31		1.63	0.41	0.27	0.10	0.24
Control Delay	136.3	50.9		51.0	32.7	2.7		336.0	36.8	46.4	44.0	6.2
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	136.3	50.9		51.0	32.7	2.7		336.0	36.8	46.4	44.0	6.2
LOS	F	D		D	C	A		F	D	D	D	A
Approach Delay		80.8			29.0			237.7			25.8	
Approach LOS		F			C			F			C	
Queue Length 50th (ft)	~204	281		93	192	0		~652	165	73	30	0
Queue Length 95th (ft)	#373	408		140	243	37		#1050	263	151	75	51
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	304	1168		1108	1460	1101		264	520	640	722	576
Starvation Cap Reductn	0	28		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	1.10	0.54		0.19	0.35	0.23		1.63	0.41	0.15	0.06	0.24

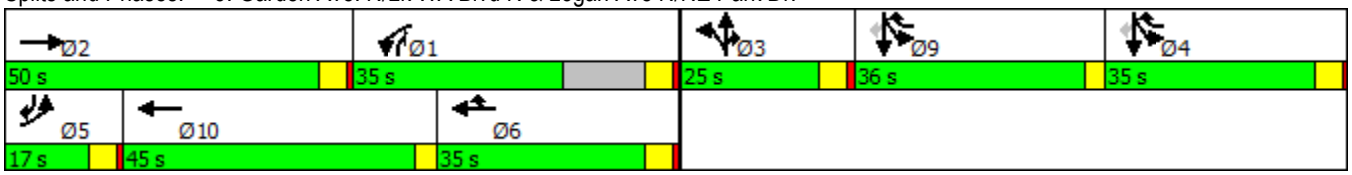
Intersection Summary

Area Type:	Other		
Cycle Length: 193			
Actuated Cycle Length: 134.5			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.63			
Intersection Signal Delay: 93.2		Intersection LOS: F	
Intersection Capacity Utilization 69.5%		ICU Level of Service C	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

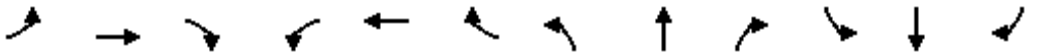
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.



Lane Group	Ø4	Ø6	Ø9	Ø10
Detector 2 Extend (s)				
Detector 3 Position(ft)				
Detector 3 Size(ft)				
Detector 3 Type				
Detector 3 Channel				
Detector 3 Extend (s)				
Turn Type				
Protected Phases	4	6	9	10
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	1.0	1.0
Minimum Split (s)	10.0	10.0	36.0	45.0
Total Split (s)	35.0	35.0	36.0	45.0
Total Split (%)	18%	18%	19%	23%
Maximum Green (s)	30.0	30.0	33.0	42.0
Yellow Time (s)	4.0	4.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag			Lag	Lag
Lead-Lag Optimize?			Yes	Yes
Vehicle Extension (s)	4.0	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0	3.0
Time Before Reduce (s)	5.0	10.0	0.0	0.0
Time To Reduce (s)	5.0	10.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	7.0
Flash Dont Walk (s)			26.0	35.0
Pedestrian Calls (#/hr)			20	4
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	5	73	0	0	0	85	749	78	18	180	6
Future Volume (vph)	9	5	73	0	0	0	85	749	78	18	180	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			0.98								1.00	
Frt			0.850					0.986			0.995	
Flt Protected		0.969					0.950			0.950		
Satd. Flow (prot)	0	1721	1509	0	0	0	1719	1784	0	1770	1852	0
Flt Permitted		0.969					0.950			0.950		
Satd. Flow (perm)	0	1721	1478	0	0	0	1719	1784	0	1770	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77					4			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			818			721	
Travel Time (s)		4.3			8.7			18.6			16.4	
Confl. Peds. (#/hr)			1									4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	7%	7%	7%	0%	0%	0%	5%	5%	5%	2%	2%	2%
Adj. Flow (vph)	9	5	77	0	0	0	89	788	82	19	189	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	77	0	0	0	89	870	0	19	195	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1				1	1		1	1	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	100	20				20	100		20	100	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Turn Type	Split	NA	custom				Prot	NA		Prot	NA	
Protected Phases	3 4	3 4	4 5				5	2		1	6	
Permitted Phases			3									
Detector Phase	3 4	3 4	4 5				5	2		1	6	
Switch Phase												
Minimum Initial (s)							5.0	5.0		5.0	5.0	
Minimum Split (s)							10.5	23.5		10.5	32.5	
Total Split (s)							50.5	60.5		17.5	38.5	

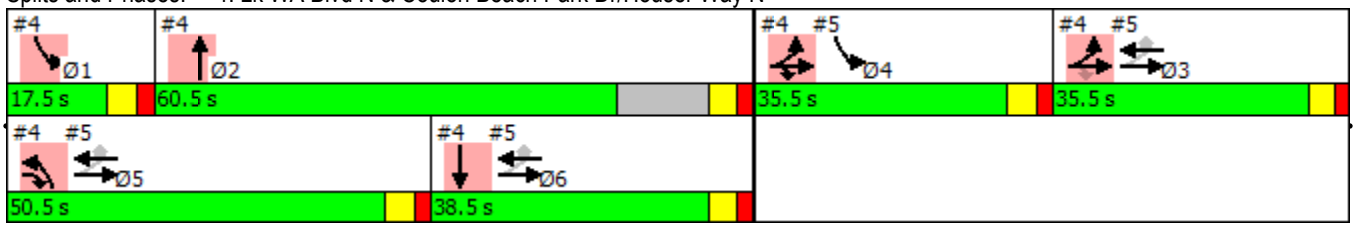
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	28.0	25.5
Total Split (s)	35.5	35.5

Lanes, Volumes, Timings
4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N 10/23/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)							31.6%	37.8%		10.9%	24.1%	
Maximum Green (s)							45.0	55.0		12.0	33.0	
Yellow Time (s)							3.5	3.5		3.5	3.5	
All-Red Time (s)							2.0	2.0		2.0	2.0	
Lost Time Adjust (s)							0.0	0.0		0.0	0.0	
Total Lost Time (s)							5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)							3.0	3.0		3.0	3.0	
Recall Mode							None	Max		None	Max	
Walk Time (s)								7.0			7.0	
Flash Dont Walk (s)								11.0			20.0	
Pedestrian Calls (#/hr)								0			3	
Act Effct Green (s)		15.6	21.0				10.2	55.8		6.5	44.7	
Actuated g/C Ratio		0.18	0.24				0.12	0.64		0.08	0.52	
v/c Ratio		0.05	0.18				0.44	0.76		0.14	0.20	
Control Delay		32.0	5.9				44.9	19.3		43.7	13.4	
Queue Delay		0.0	0.0				0.0	0.0		0.0	0.0	
Total Delay		32.0	5.9				44.9	19.3		43.7	13.4	
LOS		C	A				D	B		D	B	
Approach Delay		10.0						21.7			16.1	
Approach LOS		A						C			B	
Queue Length 50th (ft)		6	1				44	262		9	57	
Queue Length 95th (ft)		24	27				99	#730		34	111	
Internal Link Dist (ft)		110			303			738			641	
Turn Bay Length (ft)												
Base Capacity (vph)		797	1172				906	1381		248	956	
Starvation Cap Reductn		0	31				0	0		0	0	
Spillback Cap Reductn		0	0				0	0		0	0	
Storage Cap Reductn		0	0				0	0		0	0	
Reduced v/c Ratio		0.02	0.07				0.10	0.63		0.08	0.20	

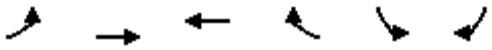
Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 86.6			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 19.9		Intersection LOS: B	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N

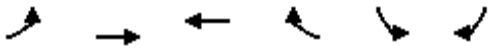


Lane Group	Ø3	Ø4
Total Split (%)	22%	22%
Maximum Green (s)	30.5	30.0
Yellow Time (s)	3.0	3.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



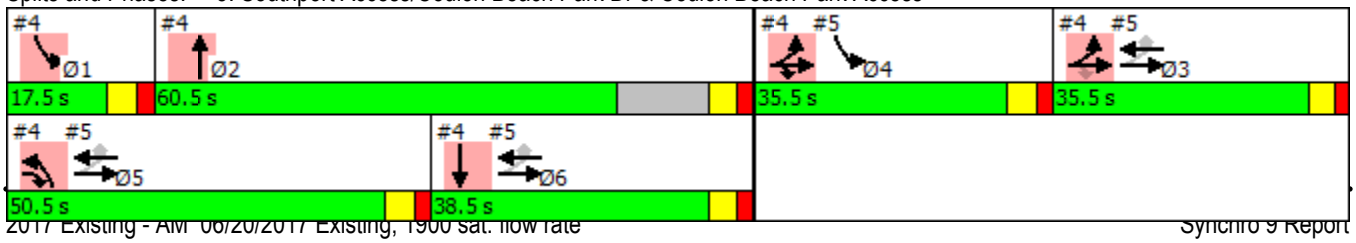
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	0	86	71	20	1	0					
Future Volume (vph)	0	86	71	20	1	0					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			1	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Frt				0.850							
Flt Protected					0.950						
Satd. Flow (prot)	0	1863	1863	1583	1770	0					
Flt Permitted					0.950						
Satd. Flow (perm)	0	1863	1863	1583	1770	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)				22							
Link Speed (mph)		30	30		30						
Link Distance (ft)		676	190		350						
Travel Time (s)		15.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Adj. Flow (vph)	0	93	77	22	1	0					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	93	77	22	1	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	1	1	1	1						
Detector Template	Left	Thru	Thru	Right	Left						
Leading Detector (ft)	20	100	100	20	20						
Trailing Detector (ft)	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0						
Detector 1 Size(ft)	20	100	100	20	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0						
Turn Type		NA	NA	Perm	Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6
Permitted Phases	3 5 6			3 5 6							
Detector Phase	3 5 6	3 5 6	3 5 6	3 5 6	4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					25.5		10.5	23.5	28.0	10.5	32.5
Total Split (s)					35.5		17.5	60.5	35.5	50.5	38.5

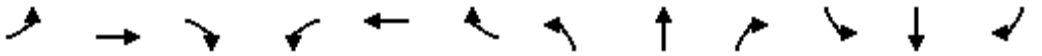


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Total Split (%)					22.2%		11%	38%	22%	32%	24%
Maximum Green (s)					30.0		12.0	55.0	30.5	45.0	33.0
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					0.0						
Total Lost Time (s)					5.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Walk Time (s)								7.0			7.0
Flash Dont Walk (s)								11.0			20.0
Pedestrian Calls (#/hr)								0			3
Act Effct Green (s)		73.6	73.6	73.6	6.3						
Actuated g/C Ratio		0.85	0.85	0.85	0.07						
v/c Ratio		0.06	0.05	0.02	0.01						
Control Delay		1.8	0.2	0.0	42.0						
Queue Delay		0.0	0.3	0.0	0.0						
Total Delay		1.8	0.5	0.0	42.0						
LOS		A	A	A	D						
Approach Delay		1.8	0.4		42.0						
Approach LOS		A	A		D						
Queue Length 50th (ft)		7	0	0	1						
Queue Length 95th (ft)		16	1	0	6						
Internal Link Dist (ft)		596	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		1582	1582	1348	622						
Starvation Cap Reductn		0	1187	0	0						
Spillback Cap Reductn		0	0	0	0						
Storage Cap Reductn		0	0	0	0						
Reduced v/c Ratio		0.06	0.19	0.02	0.00						

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 86.6			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 1.3		Intersection LOS: A	
Intersection Capacity Utilization 17.4%		ICU Level of Service A	
Analysis Period (min) 15			

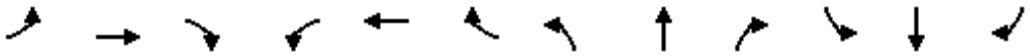
Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	783	21	346	683	143	16	113	478	142	108	177
Future Volume (vph)	197	783	21	346	683	143	16	113	478	142	108	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00										0.95
Frt		0.996				0.850		0.912	0.850			0.850
Flt Protected	0.950			0.950				0.997		0.950		
Satd. Flow (prot)	3400	3489	0	3367	3471	1553	0	1578	1377	1569	1770	1531
Flt Permitted	0.950			0.950				0.997		0.950		
Satd. Flow (perm)	3400	3489	0	3367	3471	1553	0	1578	1377	1569	1770	1451
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		1										186
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			6			2						53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	207	824	22	364	719	151	17	119	503	149	114	186
Shared Lane Traffic (%)									38%	0%		
Lane Group Flow (vph)	207	846	0	364	719	151	0	327	312	149	114	186
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø4	Ø6	Ø9	Ø10
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6 10	6 4 9	3	3	3 1	4 9	4 9	5
Permitted Phases												4 9
Detector Phase	5	2		1	6 10	6 4 9	3	3	3 1	4 9	4 9	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0				5.0
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0				10.0
Total Split (s)	17.0	50.0		35.0			25.0	25.0				17.0
Total Split (%)	8.8%	25.9%		18.1%			13.0%	13.0%				8.8%
Maximum Green (s)	12.0	45.0		30.0			20.0	20.0				12.0
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0				4.0
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0				1.0
Lost Time Adjust (s)	0.0	0.0		0.0				0.0				0.0
Total Lost Time (s)	5.0	5.0		5.0				5.0				5.0
Lead/Lag	Lead	Lead		Lag			Lead	Lead				Lead
Lead-Lag Optimize?	Yes						Yes	Yes				Yes
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0				4.0
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0				2.0
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0				10.0
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0				5.0
Recall Mode	None	None		None			None	None				None
Walk Time (s)		7.0										
Flash Dont Walk (s)		18.0										
Pedestrian Calls (#/hr)		6										
Act Effct Green (s)	12.1	45.5		30.4	63.8	66.4		20.2	55.7	33.5	33.5	45.6
Actuated g/C Ratio	0.08	0.30		0.20	0.43	0.44		0.13	0.37	0.22	0.22	0.30
v/c Ratio	0.75	0.80		0.53	0.49	0.22		1.54	0.61	0.43	0.29	0.32
Control Delay	86.5	56.3		57.5	33.6	15.5		304.4	45.9	53.5	49.9	5.9
Queue Delay	0.0	3.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	86.5	59.3		57.5	33.6	15.5		304.4	45.9	53.5	49.9	5.9
LOS	F	E		E	C	B		F	D	D	D	A
Approach Delay		64.7			38.5			178.2			32.9	
Approach LOS		E			D			F			C	
Queue Length 50th (ft)	110	436		178	295	55		~511	286	131	96	0
Queue Length 95th (ft)	#194	#600		234	360	109		#787	406	221	170	55
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	275	1060		954	1489	931		213	506	590	666	577
Starvation Cap Reductn	0	126		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.75	0.91		0.38	0.48	0.16		1.54	0.62	0.25	0.17	0.32

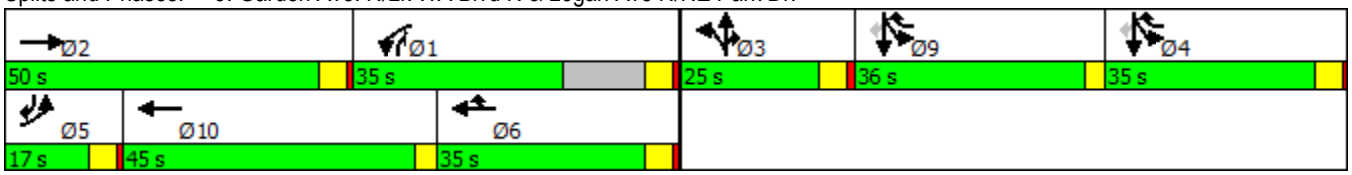
Intersection Summary

Area Type:	Other		
Cycle Length: 193			
Actuated Cycle Length: 149.9			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.54			
Intersection Signal Delay: 72.4		Intersection LOS: E	
Intersection Capacity Utilization 72.2%		ICU Level of Service C	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

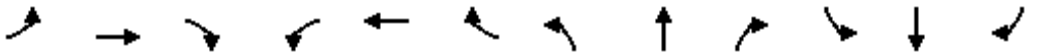
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.



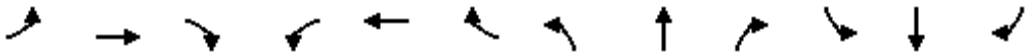
Lane Group	Ø4	Ø6	Ø9	Ø10
Detector 2 Extend (s)				
Detector 3 Position(ft)				
Detector 3 Size(ft)				
Detector 3 Type				
Detector 3 Channel				
Detector 3 Extend (s)				
Turn Type				
Protected Phases	4	6	9	10
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	1.0	1.0
Minimum Split (s)	10.0	10.0	36.0	45.0
Total Split (s)	35.0	35.0	36.0	45.0
Total Split (%)	18%	18%	19%	23%
Maximum Green (s)	30.0	30.0	33.0	42.0
Yellow Time (s)	4.0	4.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag			Lag	Lag
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0	3.0
Time Before Reduce (s)	5.0	10.0	0.0	0.0
Time To Reduce (s)	5.0	10.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	7.0
Flash Dont Walk (s)			26.0	35.0
Pedestrian Calls (#/hr)			20	2
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	192	726	28	314	716	103	12	121	504	114	119	180
Future Volume (vph)	192	726	28	314	716	103	12	121	504	114	119	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00										0.95
Frt		0.994				0.850		0.911	0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	3400	3479	0	3367	3471	1553	0	1578	1377	1569	1770	1531
Flt Permitted	0.950			0.950				0.998		0.950		
Satd. Flow (perm)	3400	3479	0	3367	3471	1553	0	1578	1377	1569	1770	1458
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		2										205
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			11			5						47
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	2%	2%	2%
Adj. Flow (vph)	218	825	32	357	814	117	14	138	573	130	135	205
Shared Lane Traffic (%)									39%	0%		
Lane Group Flow (vph)	218	857	0	357	814	117	0	375	350	130	135	205
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø4	Ø6	Ø9	Ø10
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6 10	6 4 9	3	3	3 1	4 9	4 9	5
Permitted Phases												4 9
Detector Phase	5	2		1	6 10	6 4 9	3	3	3 1	4 9	4 9	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0				5.0
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0				10.0
Total Split (s)	17.0	50.0		35.0			25.0	25.0				17.0
Total Split (%)	8.8%	25.9%		18.1%			13.0%	13.0%				8.8%
Maximum Green (s)	12.0	45.0		30.0			20.0	20.0				12.0
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0				4.0
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0				1.0
Lost Time Adjust (s)	0.0	0.0		0.0				0.0				0.0
Total Lost Time (s)	5.0	5.0		5.0				5.0				5.0
Lead/Lag	Lead	Lead		Lag			Lead	Lead				Lead
Lead-Lag Optimize?	Yes						Yes	Yes				Yes
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0				4.0
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0				2.0
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0				10.0
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0				5.0
Recall Mode	None	None		None			None	None				None
Walk Time (s)		7.0										
Flash Dont Walk (s)		18.0										
Pedestrian Calls (#/hr)		11										
Act Effct Green (s)	12.1	45.5		32.7	66.1	64.9		20.2	58.0	32.6	32.6	44.8
Actuated g/C Ratio	0.08	0.30		0.22	0.44	0.43		0.13	0.38	0.22	0.22	0.30
v/c Ratio	0.80	0.82		0.49	0.54	0.18		1.79	0.66	0.38	0.35	0.35
Control Delay	91.2	58.2		55.6	34.1	16.0		405.7	47.5	53.7	52.6	6.0
Queue Delay	0.0	3.9		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	91.2	62.0		55.6	34.1	16.0		405.7	47.5	53.7	52.6	6.0
LOS	F	E		E	C	B		F	D	D	D	A
Approach Delay		68.0			38.4			232.8			32.6	
Approach LOS		E			D			F			C	
Queue Length 50th (ft)	119	453		174	345	45		~633	332	115	118	0
Queue Length 95th (ft)	#200	#587		223	404	84		#883	453	189	191	53
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	272	1047		945	1524	907		210	523	578	652	581
Starvation Cap Reductn	0	121		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.80	0.93		0.38	0.53	0.13		1.79	0.67	0.22	0.21	0.35

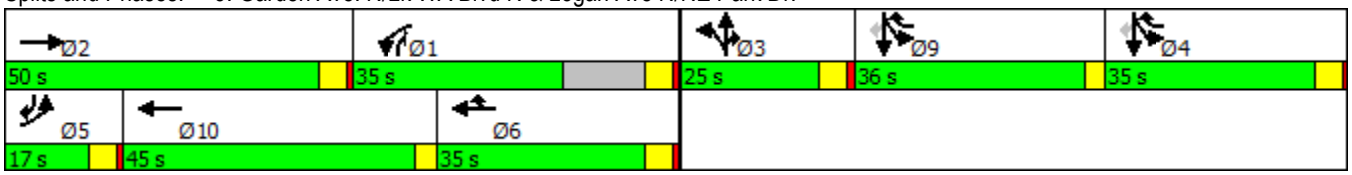
Intersection Summary

Area Type:	Other		
Cycle Length: 193			
Actuated Cycle Length: 151.4			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.79			
Intersection Signal Delay: 86.2		Intersection LOS: F	
Intersection Capacity Utilization 70.2%		ICU Level of Service C	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.

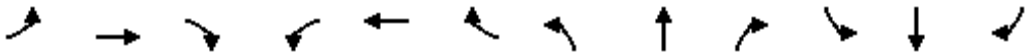


Lane Group	Ø4	Ø6	Ø9	Ø10
Detector 2 Extend (s)				
Detector 3 Position(ft)				
Detector 3 Size(ft)				
Detector 3 Type				
Detector 3 Channel				
Detector 3 Extend (s)				
Turn Type				
Protected Phases	4	6	9	10
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	1.0	1.0
Minimum Split (s)	10.0	10.0	36.0	45.0
Total Split (s)	35.0	35.0	36.0	45.0
Total Split (%)	18%	18%	19%	23%
Maximum Green (s)	30.0	30.0	33.0	42.0
Yellow Time (s)	4.0	4.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag			Lag	Lag
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0	3.0
Time Before Reduce (s)	5.0	10.0	0.0	0.0
Time To Reduce (s)	5.0	10.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	7.0
Flash Dont Walk (s)			26.0	35.0
Pedestrian Calls (#/hr)			20	5
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	173	799	11	313	697	121	15	149	428	146	113	189
Future Volume (vph)	173	799	11	313	697	121	15	149	428	146	113	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		1.00										0.94
Frt		0.998				0.850		0.930	0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	3400	3497	0	3400	3505	1568	0	1642	1404	1554	1752	1516
Flt Permitted	0.950			0.950				0.998		0.950		
Satd. Flow (perm)	3400	3497	0	3400	3505	1568	0	1642	1404	1554	1752	1431
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		1										210
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			2			4						58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	3%	3%	3%
Adj. Flow (vph)	192	888	12	348	774	134	17	166	476	162	126	210
Shared Lane Traffic (%)									34%	0%		
Lane Group Flow (vph)	192	900	0	348	774	134	0	345	314	162	126	210
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø4	Ø6	Ø9	Ø10
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6 10	6 4 9	3	3	3 1	4 9	4 9	5
Permitted Phases												4 9
Detector Phase	5	2		1	6 10	6 4 9	3	3	3 1	4 9	4 9	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0				5.0
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0				10.0
Total Split (s)	17.0	50.0		35.0			25.0	25.0				17.0
Total Split (%)	8.8%	25.9%		18.1%			13.0%	13.0%				8.8%
Maximum Green (s)	12.0	45.0		30.0			20.0	20.0				12.0
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0				4.0
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0				1.0
Lost Time Adjust (s)	0.0	0.0		0.0				0.0				0.0
Total Lost Time (s)	5.0	5.0		5.0				5.0				5.0
Lead/Lag	Lead	Lead		Lag			Lead	Lead				Lead
Lead-Lag Optimize?	Yes						Yes	Yes				Yes
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0				4.0
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0				2.0
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0				10.0
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0				5.0
Recall Mode	None	None		None			None	None				None
Walk Time (s)		7.0										
Flash Dont Walk (s)		18.0										
Pedestrian Calls (#/hr)		2										
Act Effct Green (s)	12.1	45.5		31.0	64.4	65.6		20.2	56.3	34.0	34.0	46.1
Actuated g/C Ratio	0.08	0.30		0.21	0.43	0.43		0.13	0.37	0.23	0.23	0.31
v/c Ratio	0.70	0.85		0.50	0.52	0.20		1.58	0.60	0.46	0.32	0.36
Control Delay	84.2	60.1		56.6	34.3	15.8		319.1	45.4	55.0	50.9	5.9
Queue Delay	0.0	7.4		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	84.2	67.5		56.6	34.3	15.8		319.1	45.4	55.0	50.9	5.9
LOS	F	E		E	C	B		F	D	D	D	A
Approach Delay		70.4			38.5			188.7			33.2	
Approach LOS		E			D			F			C	
Queue Length 50th (ft)	102	473		169	323	50		~543	286	144	108	0
Queue Length 95th (ft)	#173	#665		223	392	97		#822	406	238	185	58
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	273	1054		956	1504	922		219	518	585	659	590
Starvation Cap Reductn	0	124		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.70	0.97		0.36	0.51	0.15		1.58	0.61	0.28	0.19	0.36

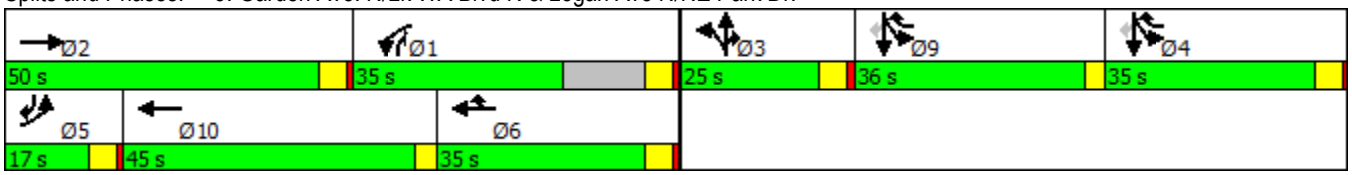
Intersection Summary

Area Type:	Other		
Cycle Length: 193			
Actuated Cycle Length: 151			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.58			
Intersection Signal Delay: 75.9		Intersection LOS: E	
Intersection Capacity Utilization 72.4%		ICU Level of Service C	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

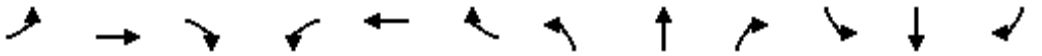
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.

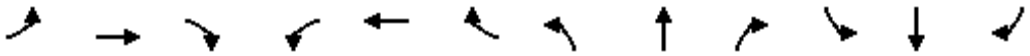


Lane Group	Ø4	Ø6	Ø9	Ø10
Detector 2 Extend (s)				
Detector 3 Position(ft)				
Detector 3 Size(ft)				
Detector 3 Type				
Detector 3 Channel				
Detector 3 Extend (s)				
Turn Type				
Protected Phases	4	6	9	10
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	1.0	1.0
Minimum Split (s)	10.0	10.0	36.0	45.0
Total Split (s)	35.0	35.0	36.0	45.0
Total Split (%)	18%	18%	19%	23%
Maximum Green (s)	30.0	30.0	33.0	42.0
Yellow Time (s)	4.0	4.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag			Lag	Lag
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0	3.0
Time Before Reduce (s)	5.0	10.0	0.0	0.0
Time To Reduce (s)	5.0	10.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	7.0
Flash Dont Walk (s)			26.0	35.0
Pedestrian Calls (#/hr)			20	4
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



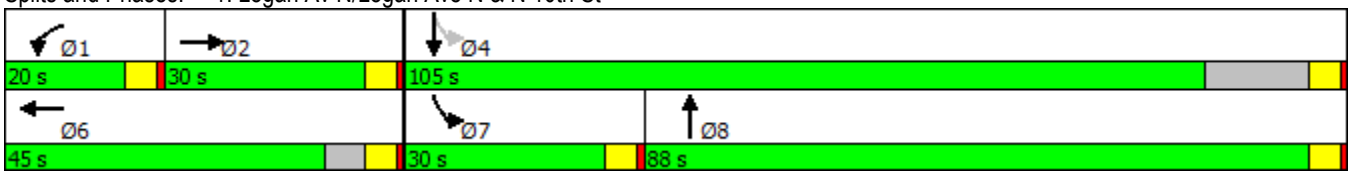
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	89	0	78	0	602	87	84	496	0
Future Volume (vph)	0	0	0	89	0	78	0	602	87	84	496	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.73			0.99				
Frt					0.850			0.983				
Flt Protected				0.950							0.993	
Satd. Flow (prot)	0	1863	0	1787	1162	0	0	1816	0	0	3549	0
Flt Permitted				0.950							0.649	
Satd. Flow (perm)	0	1863	0	1787	1162	0	0	1816	0	0	2320	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					400			6				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	94	0	82	0	634	92	88	522	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	94	82	0	0	726	0	0	610	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

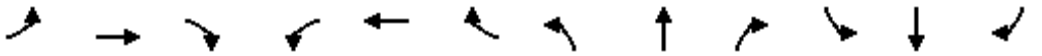


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		25.0		11.0	32.0			25.0		11.0	11.0	
Total Split (s)		30.0		20.0	45.0			88.0		30.0	105.0	
Total Split (%)		17.9%		11.9%	26.8%			52.4%		17.9%	62.5%	
Maximum Green (s)		25.0		15.0	40.0			83.0		25.0	100.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Walk Time (s)		7.0			7.0			7.0				
Flash Dont Walk (s)		13.0			20.0			13.0				
Pedestrian Calls (#/hr)		9			20			8				
Act Effct Green (s)				30.0	40.0			100.0			100.0	
Actuated g/C Ratio				0.20	0.27			0.67			0.67	
v/c Ratio				0.26	0.14			0.60			0.39	
Control Delay				57.8	0.5			16.3			12.2	
Queue Delay				0.0	0.0			2.8			0.0	
Total Delay				57.8	0.5			19.1			12.2	
LOS				E	A			B			B	
Approach Delay					31.1			19.1			12.2	
Approach LOS					C			B			B	
Queue Length 50th (ft)				72	0			366			133	
Queue Length 95th (ft)				152	0			483			170	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				357	628			1212			1747	
Starvation Cap Reductn				0	0			361			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.26	0.13			0.85			0.35	

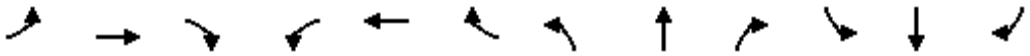
Intersection Summary			
Area Type:	Other		
Cycle Length: 168			
Actuated Cycle Length: 150			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 17.7		Intersection LOS: B	
Intersection Capacity Utilization 88.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	626	20	247	582	3	28	1	317	14	5	3
Future Volume (vph)	5	626	20	247	582	3	28	1	317	14	5	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.95					0.98	
Frt		0.995				0.850			0.850		0.944	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	1770	3520	0	3433	3539	1583	0	1760	2760	2870	1435	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	1770	3520	0	3433	3539	1508	0	1760	2760	2870	1435	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				60			327		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			281	
Travel Time (s)		31.8			11.3			14.1			6.4	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	5	645	21	255	600	3	29	1	327	14	5	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	666	0	255	600	3	0	30	327	14	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

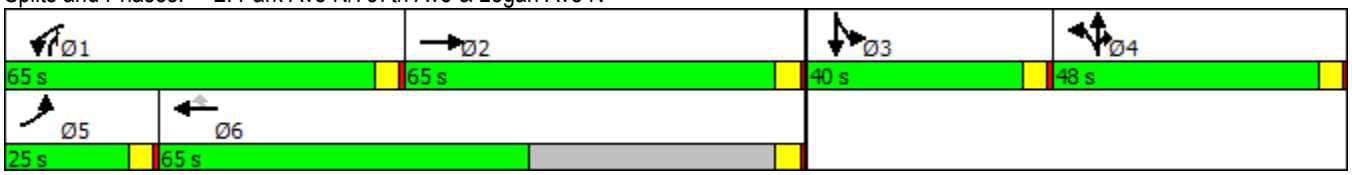


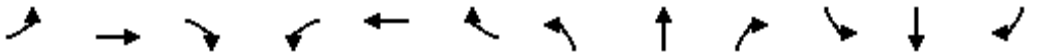
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	25.0	65.0		65.0	65.0	65.0	48.0	48.0		40.0	40.0	
Total Split (%)	11.5%	29.8%		29.8%	29.8%	29.8%	22.0%	22.0%		18.3%	18.3%	
Maximum Green (s)	20.0	60.0		60.0	60.0	60.0	43.0	43.0		35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Walk Time (s)		7.0			7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		19.0			24.0	24.0				20.0	20.0	
Pedestrian Calls (#/hr)		2			6	6				17	17	
Act Effct Green (s)	7.0	23.9		14.0	42.0	42.0		8.3	28.0	12.9	12.9	
Actuated g/C Ratio	0.09	0.32		0.19	0.56	0.56		0.11	0.37	0.17	0.17	
v/c Ratio	0.03	0.59		0.40	0.30	0.00		0.15	0.26	0.03	0.03	
Control Delay	45.4	26.7		33.9	13.0	0.0		42.9	3.8	30.1	25.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	45.4	26.7		33.9	13.1	0.0		42.9	3.8	30.1	25.4	
LOS	D	C		C	B	A		D	A	C	C	
Approach Delay		26.9			19.2			7.1			28.4	
Approach LOS		C			B			A			C	
Queue Length 50th (ft)	2	123		52	58	0		12	0	3	2	
Queue Length 95th (ft)	16	276		125	203	0		50	34	12	16	
Internal Link Dist (ft)		1321			418			539			201	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	543	2801		2732	3469	1479		1157	2481	1540	771	
Starvation Cap Reductn	0	0		0	419	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.01	0.24		0.09	0.20	0.00		0.03	0.13	0.01	0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 218			
Actuated Cycle Length: 74.8			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 19.7		Intersection LOS: B	
Intersection Capacity Utilization 55.9%		ICU Level of Service B	

Analysis Period (min) 15

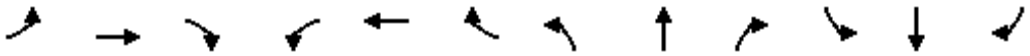
Splits and Phases: 2: Park Ave N/757th Ave & Logan Ave N





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	696	38	336	601	109	17	174	561	143	111	213
Future Volume (vph)	222	696	38	336	601	109	17	174	561	143	111	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		0.99										0.95
Frt		0.992				0.850		0.924	0.850			0.850
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	3400	3453	0	3367	3471	1553	0	1648	1418	1600	1805	1561
Flt Permitted	0.950			0.950				0.998		0.950		
Satd. Flow (perm)	3400	3453	0	3367	3471	1553	0	1648	1418	1600	1805	1480
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3										229
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	239	748	41	361	646	117	18	187	603	154	119	229
Shared Lane Traffic (%)									35%	0%		
Lane Group Flow (vph)	239	789	0	361	646	117	0	416	392	154	119	229
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1	1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	30	253		50	160	0	50	50	35	40	50	40
Trailing Detector (ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Position(ft)	10	10		0	5	0	0	0	12	15	0	15
Detector 1 Size(ft)	20	6		50	6	0	50	50	23	25	50	25
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø4	Ø6	Ø9	Ø10
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom	Split	NA	pt+ov	Split	NA	pm+ov
Protected Phases	5	2		1	6 10	6 4 9	3	3	3 1	4 9	4 9	5
Permitted Phases												4 9
Detector Phase	5	2		1	6 10	6 4 9	3	3	3 1	4 9	4 9	5
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0			5.0	5.0				5.0
Minimum Split (s)	10.0	30.0		10.0			10.0	10.0				10.0
Total Split (s)	17.0	50.0		35.0			25.0	25.0				17.0
Total Split (%)	8.8%	25.9%		18.1%			13.0%	13.0%				8.8%
Maximum Green (s)	12.0	45.0		30.0			20.0	20.0				12.0
Yellow Time (s)	4.0	4.0		4.0			4.0	4.0				4.0
All-Red Time (s)	1.0	1.0		1.0			1.0	1.0				1.0
Lost Time Adjust (s)	0.0	0.0		0.0				0.0				0.0
Total Lost Time (s)	5.0	5.0		5.0				5.0				5.0
Lead/Lag	Lead	Lead		Lag			Lead	Lead				Lead
Lead-Lag Optimize?	Yes						Yes	Yes				Yes
Vehicle Extension (s)	4.0	4.0		4.0			4.0	4.0				4.0
Minimum Gap (s)	2.0	3.0		3.0			3.0	3.0				2.0
Time Before Reduce (s)	10.0	0.0		0.0			10.0	10.0				10.0
Time To Reduce (s)	5.0	0.0		0.0			5.0	5.0				5.0
Recall Mode	None	None		None			None	None				None
Walk Time (s)		7.0										
Flash Dont Walk (s)		18.0										
Pedestrian Calls (#/hr)		1										
Act Effct Green (s)	12.1	44.5		31.1	63.5	68.5		20.2	56.3	33.5	33.5	45.6
Actuated g/C Ratio	0.08	0.30		0.21	0.43	0.46		0.14	0.38	0.22	0.22	0.31
v/c Ratio	0.87	0.77		0.52	0.44	0.16		1.87	0.73	0.43	0.29	0.37
Control Delay	97.5	54.8		57.0	32.7	14.3		443.1	51.9	53.1	49.4	5.6
Queue Delay	0.0	1.6		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	97.5	56.5		57.0	32.7	14.3		443.1	51.9	53.1	49.4	5.6
LOS	F	E		E	C	B		F	D	D	D	A
Approach Delay		66.0			38.6			253.3			30.6	
Approach LOS		E			D			F			C	
Queue Length 50th (ft)	128	398		176	258	38		~702	384	135	102	0
Queue Length 95th (ft)	#229	510		232	319	86		#982	537	218	171	59
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	275	1051		955	1499	962		222	534	604	682	617
Starvation Cap Reductn	0	122		0	0	0		0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	0
Reduced v/c Ratio	0.87	0.85		0.38	0.43	0.12		1.87	0.73	0.25	0.17	0.37

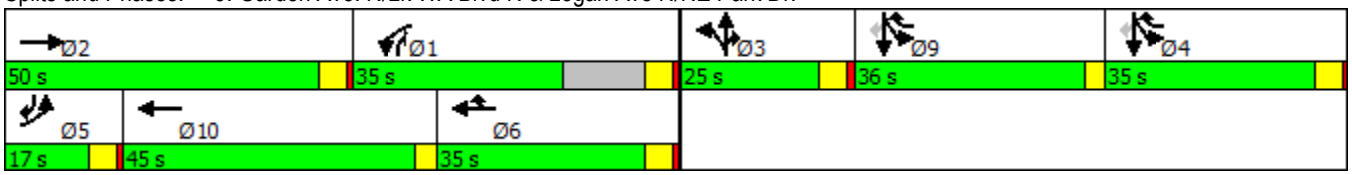
Intersection Summary

Area Type:	Other		
Cycle Length: 193			
Actuated Cycle Length: 149.4			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.87			
Intersection Signal Delay: 95.7		Intersection LOS: F	
Intersection Capacity Utilization 75.5%		ICU Level of Service D	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

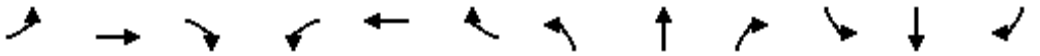
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.



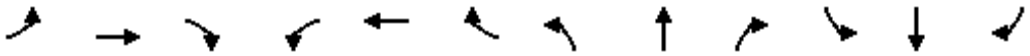
Lane Group	Ø4	Ø6	Ø9	Ø10
Detector 2 Extend (s)				
Detector 3 Position(ft)				
Detector 3 Size(ft)				
Detector 3 Type				
Detector 3 Channel				
Detector 3 Extend (s)				
Turn Type				
Protected Phases	4	6	9	10
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	1.0	1.0
Minimum Split (s)	10.0	10.0	36.0	45.0
Total Split (s)	35.0	35.0	36.0	45.0
Total Split (%)	18%	18%	19%	23%
Maximum Green (s)	30.0	30.0	33.0	42.0
Yellow Time (s)	4.0	4.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag			Lag	Lag
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	6.0	0.2	0.2
Minimum Gap (s)	3.0	3.0	3.0	3.0
Time Before Reduce (s)	5.0	10.0	0.0	0.0
Time To Reduce (s)	5.0	10.0	0.0	0.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	7.0
Flash Dont Walk (s)			26.0	35.0
Pedestrian Calls (#/hr)			20	5
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	10	140	0	0	0	155	350	2	26	320	7
Future Volume (vph)	6	10	140	0	0	0	155	350	2	26	320	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											1.00	
Frt			0.850					0.999			0.997	
Flt Protected		0.982					0.950			0.950		
Satd. Flow (prot)	0	1847	1599	0	0	0	1805	1898	0	1805	1894	0
Flt Permitted		0.982					0.950			0.950		
Satd. Flow (perm)	0	1847	1599	0	0	0	1805	1898	0	1805	1894	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			128								1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			818			721	
Travel Time (s)		4.3			8.7			18.6			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	6	10	144	0	0	0	160	361	2	27	330	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	144	0	0	0	160	363	0	27	337	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Prot	NA		Prot	NA	
Protected Phases	3 4	3 4	4 5				5	2		1	6	
Permitted Phases			3									

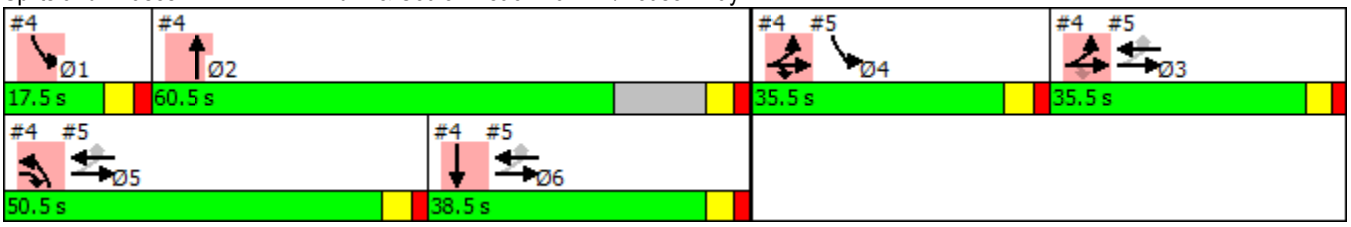
Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	3	4
Permitted Phases		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4 5				5	2		1	6	
Switch Phase												
Minimum Initial (s)							5.0	5.0		5.0	5.0	
Minimum Split (s)							10.5	23.5		10.5	32.5	
Total Split (s)							50.5	60.5		17.5	38.5	
Total Split (%)							31.6%	37.8%		10.9%	24.1%	
Maximum Green (s)							45.0	55.0		12.0	33.0	
Yellow Time (s)							3.5	3.5		3.5	3.5	
All-Red Time (s)							2.0	2.0		2.0	2.0	
Lost Time Adjust (s)							0.0	0.0		0.0	0.0	
Total Lost Time (s)							5.5	5.5		5.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)							3.0	3.0		3.0	3.0	
Recall Mode							None	Max		None	Max	
Walk Time (s)								7.0			7.0	
Flash Dont Walk (s)								11.0			20.0	
Pedestrian Calls (#/hr)								0			2	
Act Effct Green (s)		20.6	40.3				14.7	55.5		6.9	42.7	
Actuated g/C Ratio		0.22	0.43				0.16	0.59		0.07	0.45	
v/c Ratio		0.04	0.19				0.57	0.32		0.20	0.39	
Control Delay		23.7	1.7				45.6	12.4		47.5	20.0	
Queue Delay		0.0	0.1				0.0	0.0		0.0	0.0	
Total Delay		23.7	1.8				45.6	12.4		47.5	20.0	
LOS		C	A				D	B		D	C	
Approach Delay		4.0						22.5			22.1	
Approach LOS		A						C			C	
Queue Length 50th (ft)		6	0				95	116		16	127	
Queue Length 95th (ft)		19	16				158	202		45	242	
Internal Link Dist (ft)		110			303			738			641	
Turn Bay Length (ft)												
Base Capacity (vph)		865	1238				871	1343		232	860	
Starvation Cap Reductn		0	458				0	0		0	0	
Spillback Cap Reductn		0	0				0	0		0	0	
Storage Cap Reductn		0	0				0	0		0	0	
Reduced v/c Ratio		0.02	0.18				0.18	0.27		0.12	0.39	

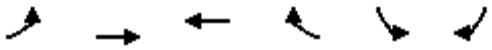
Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 94.1			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 48.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N

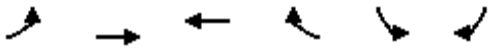


Lane Group	Ø3	Ø4
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	10.0	10.5
Total Split (s)	35.5	35.5
Total Split (%)	22%	22%
Maximum Green (s)	30.5	30.0
Yellow Time (s)	3.0	3.5
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	Lead
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		
Flash Dont Walk (s)		
Pedestrian Calls (#/hr)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	0	116	137	25	40	0					
Future Volume (vph)	0	116	137	25	40	0					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			1	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Frt				0.850							
Flt Protected					0.950						
Satd. Flow (prot)	0	1881	1863	1583	1770	0					
Flt Permitted					0.950						
Satd. Flow (perm)	0	1881	1863	1583	1770	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)				27							
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	0	126	149	27	43	0					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	126	149	27	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2	1	1						
Detector Template	Left	Thru	Thru	Right	Left						
Leading Detector (ft)	20	100	100	20	20						
Trailing Detector (ft)	0	0	0	0	0						
Detector 1 Position(ft)	0	0	0	0	0						
Detector 1 Size(ft)	20	6	6	20	20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0						
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type		NA	NA	Perm	Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6

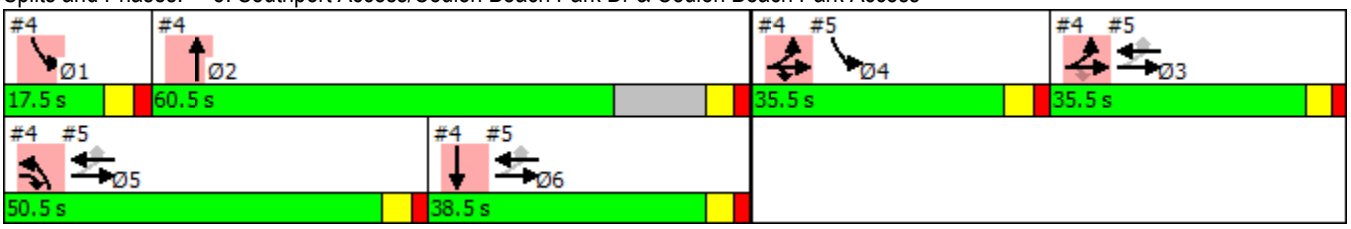


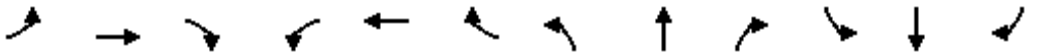
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6			3 5 6							
Detector Phase	3 5 6	3 5 6	3 5 6	3 5 6	4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					10.5		10.5	23.5	10.0	10.5	32.5
Total Split (s)					35.5		17.5	60.5	35.5	50.5	38.5
Total Split (%)					22.2%		11%	38%	22%	32%	24%
Maximum Green (s)					30.0		12.0	55.0	30.5	45.0	33.0
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					0.0						
Total Lost Time (s)					5.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Walk Time (s)								7.0			7.0
Flash Dont Walk (s)								11.0			20.0
Pedestrian Calls (#/hr)								0			2
Act Effct Green (s)		75.8	75.8	75.8	7.7						
Actuated g/C Ratio		0.81	0.81	0.81	0.08						
v/c Ratio		0.08	0.10	0.02	0.30						
Control Delay		2.1	0.2	0.0	48.4						
Queue Delay		0.0	0.8	0.0	0.0						
Total Delay		2.1	1.0	0.0	48.4						
LOS		A	A	A	D						
Approach Delay		2.1	0.9		48.4						
Approach LOS		A	A		D						
Queue Length 50th (ft)		12	1	0	26						
Queue Length 95th (ft)		24	2	m0	62						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		1514	1500	1280	569						
Starvation Cap Reductn		0	1104	0	0						
Spillback Cap Reductn		0	0	0	0						
Storage Cap Reductn		0	0	0	0						
Reduced v/c Ratio		0.08	0.38	0.02	0.08						

Intersection Summary			
Area Type:	Other		
Cycle Length: 160			
Actuated Cycle Length: 94.1			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 7.3		Intersection LOS: A	
Intersection Capacity Utilization 20.1%		ICU Level of Service A	
Analysis Period (min) 15			

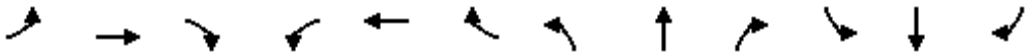
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access





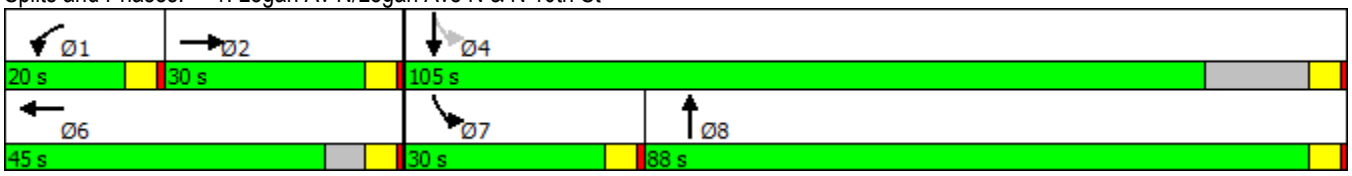
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	108	0	80	0	700	89	86	612	0
Future Volume (vph)	0	0	0	108	0	80	0	700	89	86	612	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.73			0.99				
Frt					0.850			0.985				
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	1863	0	1787	1162	0	0	1821	0	0	3553	0
Flt Permitted				0.950							0.612	
Satd. Flow (perm)	0	1863	0	1787	1162	0	0	1821	0	0	2187	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					363			5				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	114	0	84	0	737	94	91	644	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	114	84	0	0	831	0	0	735	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

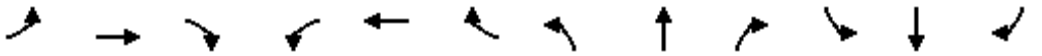


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		25.0		11.0	32.0			25.0		11.0	11.0	
Total Split (s)		30.0		20.0	45.0			88.0		30.0	105.0	
Total Split (%)		17.9%		11.9%	26.8%			52.4%		17.9%	62.5%	
Maximum Green (s)		25.0		15.0	40.0			83.0		25.0	100.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Walk Time (s)		7.0			7.0			7.0				
Flash Dont Walk (s)		13.0			20.0			13.0				
Pedestrian Calls (#/hr)		9			20			8				
Act Effct Green (s)				30.0	40.0			100.0			100.0	
Actuated g/C Ratio				0.20	0.27			0.67			0.67	
v/c Ratio				0.32	0.15			0.68			0.50	
Control Delay				58.5	0.5			18.9			14.0	
Queue Delay				0.0	0.0			6.1			0.0	
Total Delay				58.5	0.5			24.9			14.0	
LOS				E	A			C			B	
Approach Delay					33.9			24.9			14.0	
Approach LOS					C			C			B	
Queue Length 50th (ft)				88	0			464			178	
Queue Length 95th (ft)				#181	0			613			227	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				357	602			1215			1647	
Starvation Cap Reductn				0	0			326			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.32	0.14			0.93			0.45	

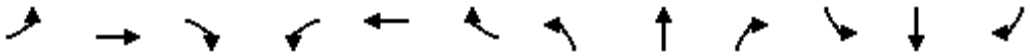
Intersection Summary			
Area Type:	Other		
Cycle Length: 168			
Actuated Cycle Length: 150			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 21.4		Intersection LOS: C	
Intersection Capacity Utilization 96.8%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	709	20	294	687	3	29	1	335	14	5	3
Future Volume (vph)	5	709	20	294	687	3	29	1	335	14	5	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.95					0.98	
Frt		0.996				0.850			0.850		0.944	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	1770	3523	0	3433	3539	1583	0	1760	2760	2870	1435	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	1770	3523	0	3433	3539	1508	0	1760	2760	2870	1435	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				60			345		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			281	
Travel Time (s)		31.8			11.3			14.1			6.4	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	5	731	21	303	708	3	30	1	345	14	5	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	752	0	303	708	3	0	31	345	14	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

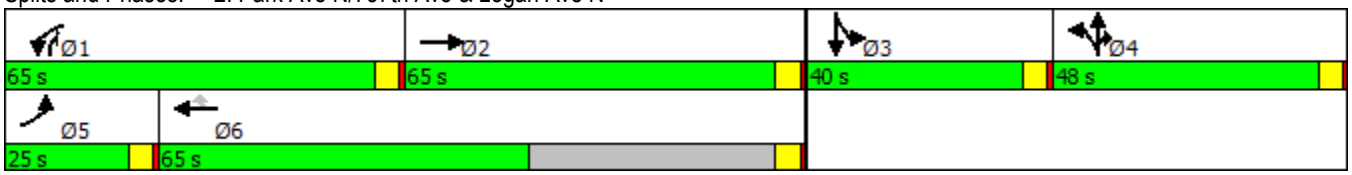


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	25.0	65.0		65.0	65.0	65.0	48.0	48.0		40.0	40.0	
Total Split (%)	11.5%	29.8%		29.8%	29.8%	29.8%	22.0%	22.0%		18.3%	18.3%	
Maximum Green (s)	20.0	60.0		60.0	60.0	60.0	43.0	43.0		35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Walk Time (s)		7.0			7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		19.0			24.0	24.0				20.0	20.0	
Pedestrian Calls (#/hr)		2			6	6				17	17	
Act Effct Green (s)	7.0	27.9		16.4	48.5	48.5		8.5	30.6	12.9	12.9	
Actuated g/C Ratio	0.09	0.34		0.20	0.60	0.60		0.10	0.38	0.16	0.16	
v/c Ratio	0.03	0.62		0.44	0.34	0.00		0.17	0.28	0.03	0.03	
Control Delay	50.0	27.7		35.7	12.5	0.0		47.0	3.8	34.4	29.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	50.0	27.7		35.7	12.5	0.0		47.0	3.8	34.4	29.0	
LOS	D	C		D	B	A		D	A	C	C	
Approach Delay		27.9			19.4			7.4			32.5	
Approach LOS		C			B			A			C	
Queue Length 50th (ft)	2	152		67	73	0		14	0	3	2	
Queue Length 95th (ft)	17	328		155	242	0		55	36	13	17	
Internal Link Dist (ft)		1321			418			539			201	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	499	2689		2620	3364	1436		1069	2392	1418	710	
Starvation Cap Reductn	0	0		0	582	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.01	0.28		0.12	0.25	0.00		0.03	0.14	0.01	0.01	

Intersection Summary			
Area Type:	Other		
Cycle Length: 218			
Actuated Cycle Length: 81.5			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 20.4		Intersection LOS: C	
Intersection Capacity Utilization 58.6%		ICU Level of Service B	

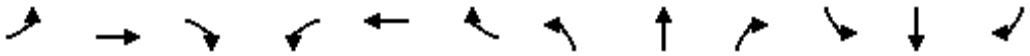
Analysis Period (min) 15

Splits and Phases: 2: Park Ave N/757th Ave & Logan Ave N



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	309	710	39	343	613	311	0	233	572	684	206	370
Future Volume (vph)	309	710	39	343	613	311	0	233	572	684	206	370
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Ped Bike Factor		0.99				0.98					0.97	
Frt		0.992				0.850		0.933	0.850		0.904	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	3400	3459	0	3367	3471	1553	0	1667	1418	3268	1662	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	3400	3459	0	3367	3471	1523	0	1667	1418	3268	1662	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		4						26	78		81	
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	332	763	42	369	659	334	0	251	615	735	222	398
Shared Lane Traffic (%)									33%			
Lane Group Flow (vph)	332	805	0	369	659	334	0	454	412	735	620	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1		1	1	1	1	
Detector Template												
Leading Detector (ft)	30	253		50	160	0		50	35	40	50	
Trailing Detector (ft)	10	10		0	5	0		0	12	15	0	
Detector 1 Position(ft)	10	10		0	5	0		0	12	15	0	
Detector 1 Size(ft)	20	6		50	6	0		50	23	25	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø4	Ø6	Ø9	Ø10
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom		NA	pt+ov	Prot	NA	
Protected Phases	5	2		1	6 10			8	8 1	7	4 9	
Permitted Phases						4 6 9						
Detector Phase	5	2		1	6 10	4 6 9		8	8 1	7	4 9	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0				5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0				10.0		10.0		
Total Split (s)	20.0	40.0		35.0				35.0		30.0		
Total Split (%)	14.3%	28.6%		25.0%				25.0%		21.4%		
Maximum Green (s)	15.0	35.0		30.0				30.0		25.0		
Yellow Time (s)	4.0	4.0		4.0				4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0				1.0		1.0		
Lost Time Adjust (s)	0.0	0.0		0.0				0.0		0.0		
Total Lost Time (s)	5.0	5.0		5.0				5.0		5.0		
Lead/Lag	Lead	Lag		Lead				Lag		Lead		
Lead-Lag Optimize?	Yes							Yes				
Vehicle Extension (s)	4.0	4.0		4.0				4.0		3.0		
Recall Mode	None	None		None				None		None		
Walk Time (s)		7.0										
Flash Dont Walk (s)		18.0										
Pedestrian Calls (#/hr)		1										
Act Effct Green (s)	15.0	35.0		22.7	42.7	78.7		30.0	57.7	25.0	60.1	
Actuated g/C Ratio	0.11	0.26		0.17	0.32	0.59		0.23	0.43	0.19	0.45	
v/c Ratio	0.86	0.88		0.64	0.59	0.37		1.14	0.62	1.20	0.78	
Control Delay	80.3	59.1		56.6	40.0	17.1		133.9	27.8	148.6	35.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	80.3	59.1		56.6	40.0	17.1		133.9	27.8	148.6	35.3	
LOS	F	E		E	D	B		F	C	F	D	
Approach Delay		65.3			38.9			83.4			96.8	
Approach LOS		E			D			F			F	
Queue Length 50th (ft)	146	348		154	249	135		~461	232	~391	391	
Queue Length 95th (ft)	#247	#498		206	312	272		#741	351	#558	613	
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	384	916		761	1137	902		397	734	615	796	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.86	0.88		0.48	0.58	0.37		1.14	0.56	1.20	0.78	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	

Lane Group	Ø4	Ø6	Ø9	Ø10
Detector 2 Extend (s)				
Detector 3 Position(ft)				
Detector 3 Size(ft)				
Detector 3 Type				
Detector 3 Channel				
Detector 3 Extend (s)				
Turn Type				
Protected Phases	4	6	9	10
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	1.0	1.0
Minimum Split (s)	10.0	10.0	36.0	45.0
Total Split (s)	29.0	10.0	36.0	45.0
Total Split (%)	21%	7%	26%	32%
Maximum Green (s)	24.0	5.0	33.0	42.0
Yellow Time (s)	4.0	4.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag		Lead	Lag
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	4.0	4.0	0.2	0.2
Recall Mode	None	None	None	None
Walk Time (s)			7.0	7.0
Flash Dont Walk (s)			26.0	35.0
Pedestrian Calls (#/hr)			53	7
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

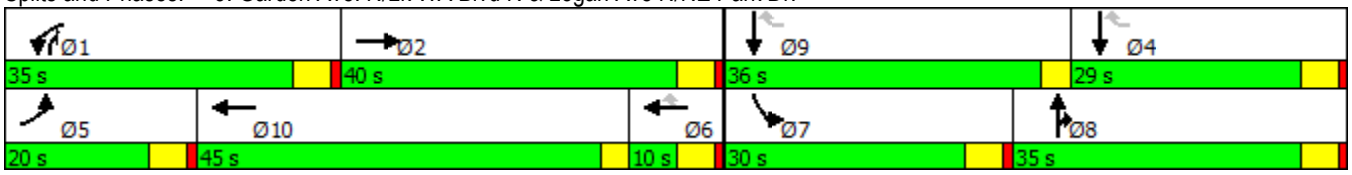
Intersection Summary

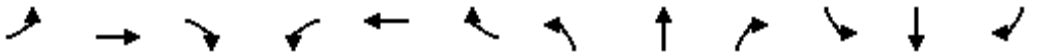
Actuated Cycle Length: 132.8	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 70.0	Intersection LOS: E
Intersection Capacity Utilization 91.0%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

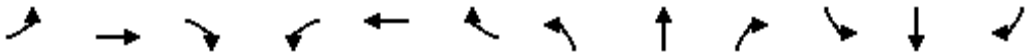
Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	57	863	0	0	0	406	449	2	27	393	16
Future Volume (vph)	39	57	863	0	0	0	406	449	2	27	393	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Ped Bike Factor											1.00	
Frt		0.880	0.850					0.999			0.995	
Flt Protected		0.996					0.950	0.996			0.997	
Satd. Flow (prot)	0	1566	1519	0	0	0	1715	1796	0	0	3579	0
Flt Permitted		0.996					0.950	0.996			0.997	
Satd. Flow (perm)	0	1566	1519	0	0	0	1715	1796	0	0	3579	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		153	489								2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			818			721	
Travel Time (s)		4.3			8.7			18.6			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	40	59	890	0	0	0	419	463	2	28	405	16
Shared Lane Traffic (%)			45%				10%					
Lane Group Flow (vph)	0	500	489	0	0	0	377	507	0	0	449	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Split	NA		Split	NA	
Protected Phases	3 4	3 4	4				2	2		1	1	
Permitted Phases			3									

Lane Group	Ø3	Ø5	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			

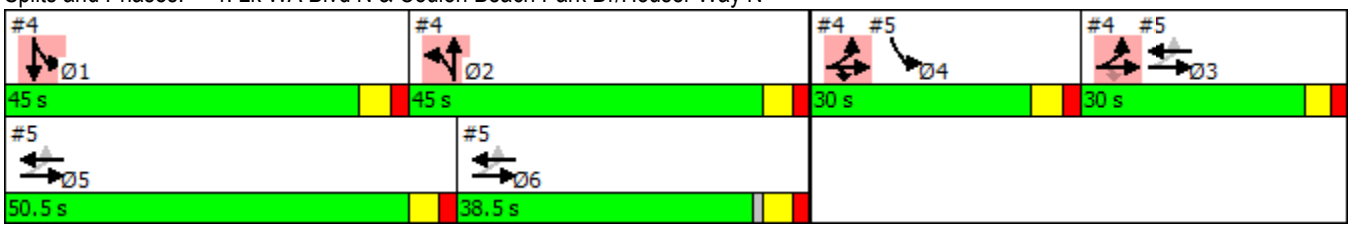


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4				2	2		1	1	
Switch Phase												
Minimum Initial (s)			5.0				5.0	5.0		5.0	5.0	
Minimum Split (s)			10.5				23.5	23.5		10.5	10.5	
Total Split (s)			30.0				45.0	45.0		45.0	45.0	
Total Split (%)			20.0%				30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)			24.5				39.5	39.5		39.5	39.5	
Yellow Time (s)			3.5				3.5	3.5		3.5	3.5	
All-Red Time (s)			2.0				2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0				0.0	0.0			0.0	
Total Lost Time (s)			5.5				5.5	5.5			5.5	
Lead/Lag			Lead				Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0				3.0	3.0		3.0	3.0	
Recall Mode			None				Max	Max		None	None	
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							11.0	11.0				
Pedestrian Calls (#/hr)							0	0				
Act Effct Green (s)		54.1	53.6				39.6	39.6			21.9	
Actuated g/C Ratio		0.41	0.41				0.30	0.30			0.17	
v/c Ratio		0.68	0.54				0.73	0.94			0.75	
Control Delay		25.0	5.0				51.8	71.9			60.6	
Queue Delay		54.5	2.5				0.0	0.0			0.0	
Total Delay		79.5	7.5				51.8	71.9			60.6	
LOS		E	A				D	E			E	
Approach Delay		43.9						63.3			60.6	
Approach LOS		D						E			E	
Queue Length 50th (ft)		200	10				305	447			195	
Queue Length 95th (ft)		295	67				462	#730			254	
Internal Link Dist (ft)		110			303			738			641	
Turn Bay Length (ft)												
Base Capacity (vph)		733	907				516	540			1077	
Starvation Cap Reductn		302	288				0	0			0	
Spillback Cap Reductn		0	0				0	0			0	
Storage Cap Reductn		0	0				0	0			0	
Reduced v/c Ratio		1.16	0.79				0.73	0.94			0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 131.6			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 54.5		Intersection LOS: D	
Intersection Capacity Utilization 72.0%		ICU Level of Service C	
Analysis Period (min) 15			

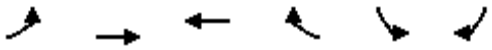
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N

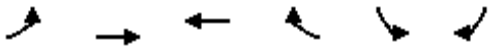


Lane Group	Ø3	Ø5	Ø6
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	10.0	10.5	32.5
Total Split (s)	30.0	50.5	38.5
Total Split (%)	20%	34%	26%
Maximum Green (s)	25.0	45.0	33.0
Yellow Time (s)	3.0	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag	Lead	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	Max
Walk Time (s)			7.0
Flash Dont Walk (s)			20.0
Pedestrian Calls (#/hr)			2
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	0	917	396	26	40	0					
Future Volume (vph)	0	917	396	26	40	0					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			0	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00					
Frt			0.991								
Flt Protected					0.950						
Satd. Flow (prot)	0	3574	3507	0	1770	0					
Flt Permitted					0.950						
Satd. Flow (perm)	0	3574	3507	0	1770	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)			14								
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	0	997	430	28	43	0					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	997	458	0	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2		1						
Detector Template	Left	Thru	Thru		Left						
Leading Detector (ft)	20	100	100		20						
Trailing Detector (ft)	0	0	0		0						
Detector 1 Position(ft)	0	0	0		0						
Detector 1 Size(ft)	20	6	6		20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0		0.0						
Detector 1 Queue (s)	0.0	0.0	0.0		0.0						
Detector 1 Delay (s)	0.0	0.0	0.0		0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type		NA	NA		Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6

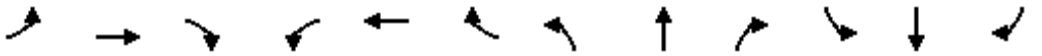


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6										
Detector Phase	3 5 6	3 5 6	3 5 6		4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					10.5		10.5	23.5	10.0	10.5	32.5
Total Split (s)					30.0		45.0	45.0	30.0	50.5	38.5
Total Split (%)					20.0%		30%	30%	20%	34%	26%
Maximum Green (s)					24.5		39.5	39.5	25.0	45.0	33.0
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					0.0						
Total Lost Time (s)					5.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Walk Time (s)								7.0			7.0
Flash Dont Walk (s)								11.0			20.0
Pedestrian Calls (#/hr)								0			2
Act Effct Green (s)		97.6	97.6		23.5						
Actuated g/C Ratio		0.74	0.74		0.18						
v/c Ratio		0.38	0.18		0.14						
Control Delay		6.6	1.7		48.0						
Queue Delay		0.1	1.0		0.1						
Total Delay		6.7	2.7		48.1						
LOS		A	A		D						
Approach Delay		6.7	2.7		48.1						
Approach LOS		A	A		D						
Queue Length 50th (ft)		146	7		31						
Queue Length 95th (ft)		176	m26		70						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		2649	2603		330						
Starvation Cap Reductn		0	1846		0						
Spillback Cap Reductn		372	0		27						
Storage Cap Reductn		0	0		0						
Reduced v/c Ratio		0.44	0.61		0.14						

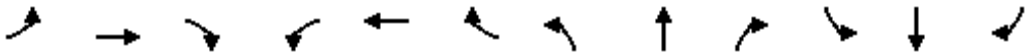
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 131.6			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 38.3%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	108	0	80	0	700	89	86	612	0
Future Volume (vph)	0	0	0	108	0	80	0	700	89	86	612	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.73			0.99				
Frt					0.850			0.985				
Flt Protected				0.950							0.994	
Satd. Flow (prot)	0	1863	0	1787	1162	0	0	1821	0	0	3553	0
Flt Permitted				0.950							0.612	
Satd. Flow (perm)	0	1863	0	1787	1162	0	0	1821	0	0	2187	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					363			5				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	114	0	84	0	737	94	91	644	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	114	84	0	0	831	0	0	735	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

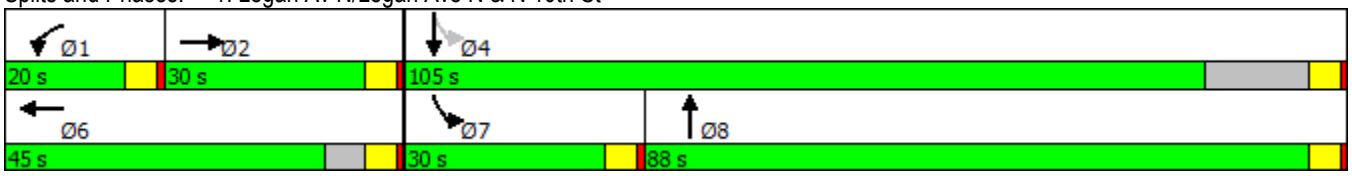


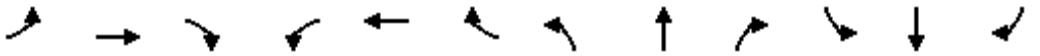
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		25.0		11.0	32.0			25.0		11.0	11.0	
Total Split (s)		30.0		20.0	45.0			88.0		30.0	105.0	
Total Split (%)		17.9%		11.9%	26.8%			52.4%		17.9%	62.5%	
Maximum Green (s)		25.0		15.0	40.0			83.0		25.0	100.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Walk Time (s)		7.0			7.0			7.0				
Flash Dont Walk (s)		13.0			20.0			13.0				
Pedestrian Calls (#/hr)		9			20			8				
Act Effct Green (s)				30.0	40.0			100.0			100.0	
Actuated g/C Ratio				0.20	0.27			0.67			0.67	
v/c Ratio				0.32	0.15			0.68			0.50	
Control Delay				58.5	0.5			18.9			14.0	
Queue Delay				0.0	0.0			6.1			0.0	
Total Delay				58.5	0.5			24.9			14.0	
LOS				E	A			C			B	
Approach Delay					33.9			24.9			14.0	
Approach LOS					C			C			B	
Queue Length 50th (ft)				88	0			464			178	
Queue Length 95th (ft)				#181	0			613			227	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				357	602			1215			1647	
Starvation Cap Reductn				0	0			326			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.32	0.14			0.93			0.45	

Intersection Summary			
Area Type:	Other		
Cycle Length: 168			
Actuated Cycle Length: 150			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 21.4		Intersection LOS: C	
Intersection Capacity Utilization 96.8%		ICU Level of Service F	
Analysis Period (min) 15			

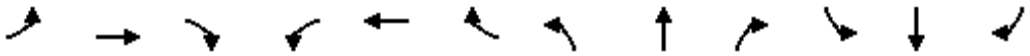
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	668	20	247	593	20	29	46	315	116	52	97
Future Volume (vph)	45	668	20	247	593	20	29	46	315	116	52	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.95					0.96	
Frt		0.996				0.850			0.850		0.903	
Flt Protected	0.950			0.950				0.981		0.950		
Satd. Flow (prot)	1770	3523	0	3433	3539	1583	0	1810	2760	2870	1348	0
Flt Permitted	0.950			0.950				0.981		0.950		
Satd. Flow (perm)	1770	3523	0	3433	3539	1508	0	1810	2760	2870	1348	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				60			310		36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			217	
Travel Time (s)		31.8			11.3			14.1			4.9	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	46	689	21	255	611	21	30	47	325	120	54	100
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	710	0	255	611	21	0	77	325	120	154	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

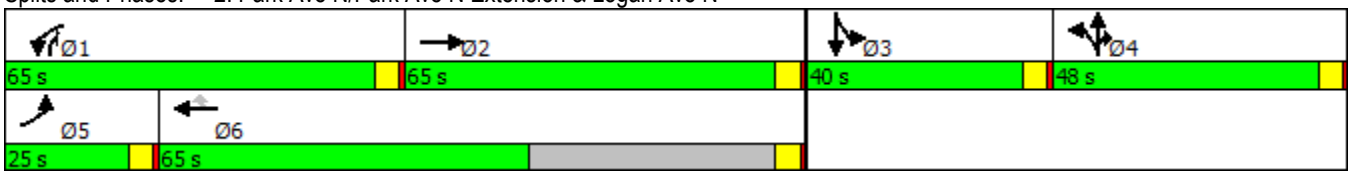


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	25.0	65.0		65.0	65.0	65.0	48.0	48.0		40.0	40.0	
Total Split (%)	11.5%	29.8%		29.8%	29.8%	29.8%	22.0%	22.0%		18.3%	18.3%	
Maximum Green (s)	20.0	60.0		60.0	60.0	60.0	43.0	43.0		35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Walk Time (s)		7.0			7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		19.0			24.0	24.0				20.0	20.0	
Pedestrian Calls (#/hr)		2			6	6				17	17	
Act Effct Green (s)	8.8	27.9		14.7	37.0	37.0		10.9	30.9	17.5	17.5	
Actuated g/C Ratio	0.10	0.30		0.16	0.40	0.40		0.12	0.34	0.19	0.19	
v/c Ratio	0.27	0.67		0.47	0.43	0.03		0.36	0.29	0.22	0.54	
Control Delay	49.8	32.8		41.4	23.6	0.1		48.0	4.5	35.1	35.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	49.8	32.8		41.4	23.6	0.1		48.0	4.5	35.1	35.4	
LOS	D	C		D	C	A		D	A	D	D	
Approach Delay		33.9			28.1			12.9			35.3	
Approach LOS		C			C			B			D	
Queue Length 50th (ft)	24	176		67	131	0		40	3	29	60	
Queue Length 95th (ft)	75	323		139	242	0		107	39	69	155	
Internal Link Dist (ft)		1321			418			539			137	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	406	2428		2365	3349	1430		893	2363	1153	563	
Starvation Cap Reductn	0	0		0	145	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.11	0.29		0.11	0.19	0.01		0.09	0.14	0.10	0.27	

Intersection Summary			
Area Type:	Other		
Cycle Length: 218			
Actuated Cycle Length: 92.2			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 28.2		Intersection LOS: C	
Intersection Capacity Utilization 64.5%		ICU Level of Service C	

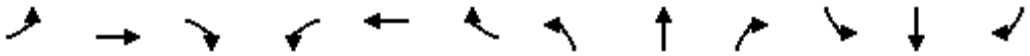
Analysis Period (min) 15

Splits and Phases: 2: Park Ave N/Park Ave N Extension & Logan Ave N



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	248	798	53	343	649	275	0	228	572	595	193	229
Future Volume (vph)	248	798	53	343	649	275	0	228	572	595	193	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Ped Bike Factor		0.99				0.98					0.97	
Frt		0.991				0.850		0.932	0.850		0.919	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	3400	3451	0	3367	3471	1553	0	1666	1418	3268	1699	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	3400	3451	0	3367	3471	1523	0	1666	1418	3268	1699	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		5						27	78		53	
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	267	858	57	369	698	296	0	245	615	640	208	246
Shared Lane Traffic (%)									33%			
Lane Group Flow (vph)	267	915	0	369	698	296	0	448	412	640	454	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1		1	1	1	1	
Detector Template												
Leading Detector (ft)	30	253		50	160	0		50	35	40	50	
Trailing Detector (ft)	10	10		0	5	0		0	12	15	0	
Detector 1 Position(ft)	10	10		0	5	0		0	12	15	0	
Detector 1 Size(ft)	20	6		50	6	0		50	23	25	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø4	Ø6	Ø9	Ø10
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom		NA	pt+ov	Prot	NA	
Protected Phases	5	2		1	6 10			8	8 1	7	4 9	
Permitted Phases						4 6 9						
Detector Phase	5	2		1	6 10	4 6 9		8	8 1	7	4 9	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0				5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0				10.0		10.0		
Total Split (s)	20.0	40.0		35.0				35.0		30.0		
Total Split (%)	14.3%	28.6%		25.0%				25.0%		21.4%		
Maximum Green (s)	15.0	35.0		30.0				30.0		25.0		
Yellow Time (s)	4.0	4.0		4.0				4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0				1.0		1.0		
Lost Time Adjust (s)	0.0	0.0		0.0				0.0		0.0		
Total Lost Time (s)	5.0	5.0		5.0				5.0		5.0		
Lead/Lag	Lead	Lag		Lead				Lag		Lead		
Lead-Lag Optimize?	Yes							Yes				
Vehicle Extension (s)	4.0	4.0		4.0				4.0		3.0		
Recall Mode	None	None		None				None		None		
Walk Time (s)		7.0										
Flash Dont Walk (s)		18.0										
Pedestrian Calls (#/hr)		1										
Act Effct Green (s)	14.3	35.1		22.7	43.4	78.2		30.0	57.7	25.0	60.1	
Actuated g/C Ratio	0.11	0.26		0.17	0.33	0.59		0.23	0.43	0.19	0.45	
v/c Ratio	0.73	1.00		0.64	0.62	0.33		1.13	0.62	1.04	0.57	
Control Delay	70.2	78.4		56.6	40.3	16.9		128.6	27.8	99.1	27.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	70.2	78.4		56.6	40.3	16.9		128.6	27.8	99.1	27.5	
LOS	E	E		E	D	B		F	C	F	C	
Approach Delay		76.6			39.6			80.3			69.4	
Approach LOS		E			D			F			E	
Queue Length 50th (ft)	115	413		154	268	123		~448	232	~304	249	
Queue Length 95th (ft)	173	#611		206	332	238		#727	351	#461	396	
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	384	915		761	1139	896		397	734	615	797	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.70	1.00		0.48	0.61	0.33		1.13	0.56	1.04	0.57	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	

Lane Group	Ø4	Ø6	Ø9	Ø10
Detector 2 Extend (s)				
Detector 3 Position(ft)				
Detector 3 Size(ft)				
Detector 3 Type				
Detector 3 Channel				
Detector 3 Extend (s)				
Turn Type				
Protected Phases	4	6	9	10
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	1.0	1.0
Minimum Split (s)	10.0	10.0	36.0	45.0
Total Split (s)	29.0	10.0	36.0	45.0
Total Split (%)	21%	7%	26%	32%
Maximum Green (s)	24.0	5.0	33.0	42.0
Yellow Time (s)	4.0	4.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag		Lead	Lag
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	4.0	4.0	0.2	0.2
Recall Mode	None	None	None	None
Walk Time (s)			7.0	7.0
Flash Dont Walk (s)			26.0	35.0
Pedestrian Calls (#/hr)			53	7
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

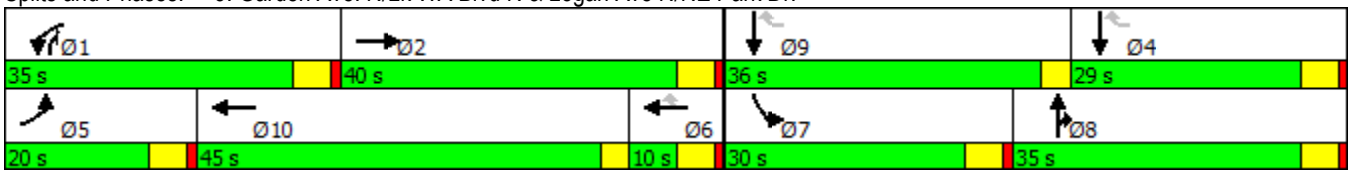
Intersection Summary

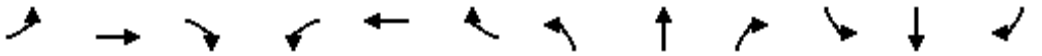
Actuated Cycle Length: 132.8	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 64.3	Intersection LOS: E
Intersection Capacity Utilization 91.1%	ICU Level of Service F
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

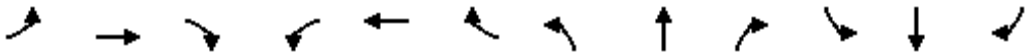
Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	57	620	0	0	0	304	449	2	27	393	16
Future Volume (vph)	39	57	620	0	0	0	304	449	2	27	393	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Ped Bike Factor											1.00	
Frt		0.890	0.850					0.999			0.995	
Flt Protected		0.995					0.950	0.997			0.997	
Satd. Flow (prot)	0	1583	1519	0	0	0	1715	1798	0	0	3579	0
Flt Permitted		0.995					0.950	0.997			0.997	
Satd. Flow (perm)	0	1583	1519	0	0	0	1715	1798	0	0	3579	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		105	364								2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			818			721	
Travel Time (s)		4.3			8.7			18.6			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	40	59	639	0	0	0	313	463	2	28	405	16
Shared Lane Traffic (%)			43%				10%					
Lane Group Flow (vph)	0	374	364	0	0	0	282	496	0	0	449	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Split	NA		Split	NA	
Protected Phases	3 4	3 4	4				2	2		1	1	
Permitted Phases			3									

Lane Group	Ø3	Ø5	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			

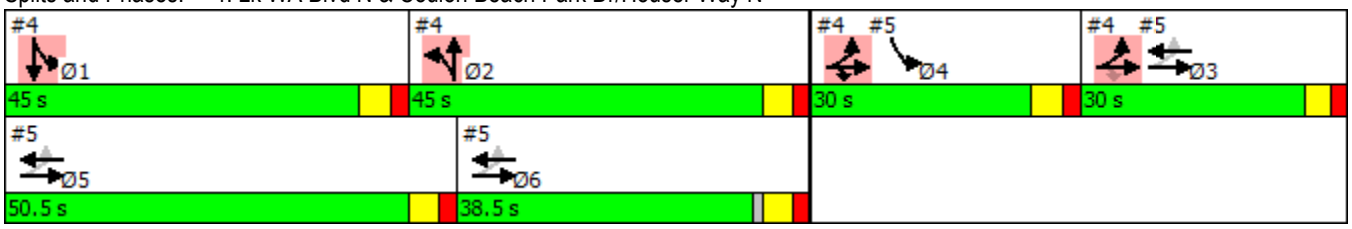


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4				2	2		1	1	
Switch Phase												
Minimum Initial (s)			5.0				5.0	5.0		5.0	5.0	
Minimum Split (s)			10.5				23.5	23.5		10.5	10.5	
Total Split (s)			30.0				45.0	45.0		45.0	45.0	
Total Split (%)			20.0%				30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)			24.5				39.5	39.5		39.5	39.5	
Yellow Time (s)			3.5				3.5	3.5		3.5	3.5	
All-Red Time (s)			2.0				2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0				0.0	0.0			0.0	
Total Lost Time (s)			5.5				5.5	5.5			5.5	
Lead/Lag			Lead				Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0				3.0	3.0		3.0	3.0	
Recall Mode			None				Max	Max		None	None	
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							11.0	11.0				
Pedestrian Calls (#/hr)							0	0				
Act Effct Green (s)		49.1	48.6				39.9	39.9			21.6	
Actuated g/C Ratio		0.39	0.38				0.31	0.31			0.17	
v/c Ratio		0.55	0.45				0.52	0.88			0.73	
Control Delay		22.5	3.9				42.2	60.7			58.0	
Queue Delay		47.0	3.5				0.0	0.0			0.0	
Total Delay		69.5	7.4				42.2	60.7			58.0	
LOS		E	A				D	E			E	
Approach Delay		38.9						54.0			58.0	
Approach LOS		D						D			E	
Queue Length 50th (ft)		154	2				213	433			195	
Queue Length 95th (ft)		236	51				333	#708			254	
Internal Link Dist (ft)		110			303			738			641	
Turn Bay Length (ft)												
Base Capacity (vph)		712	804				539	565			1127	
Starvation Cap Reductn		363	340				0	0			0	
Spillback Cap Reductn		0	0				0	0			0	
Storage Cap Reductn		0	0				0	0			0	
Reduced v/c Ratio		1.07	0.78				0.52	0.88			0.40	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 126.7			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 49.2		Intersection LOS: D	
Intersection Capacity Utilization 67.0%		ICU Level of Service C	
Analysis Period (min) 15			

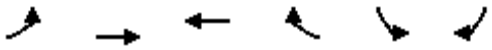
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N

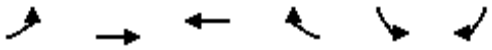


Lane Group	Ø3	Ø5	Ø6
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	10.0	10.5	32.5
Total Split (s)	30.0	50.5	38.5
Total Split (%)	20%	34%	26%
Maximum Green (s)	25.0	45.0	33.0
Yellow Time (s)	3.0	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag	Lead	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	Max
Walk Time (s)			7.0
Flash Dont Walk (s)			20.0
Pedestrian Calls (#/hr)			2
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	2	679	296	24	37	3					
Future Volume (vph)	2	679	296	24	37	3					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			0	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00					
Frt			0.989		0.991						
Flt Protected					0.956						
Satd. Flow (prot)	0	3574	3500	0	1765	0					
Flt Permitted		0.955			0.956						
Satd. Flow (perm)	0	3413	3500	0	1765	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)			17		2						
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	2	738	322	26	40	3					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	740	348	0	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2		1						
Detector Template	Left	Thru	Thru		Left						
Leading Detector (ft)	20	100	100		20						
Trailing Detector (ft)	0	0	0		0						
Detector 1 Position(ft)	0	0	0		0						
Detector 1 Size(ft)	20	6	6		20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0		0.0						
Detector 1 Queue (s)	0.0	0.0	0.0		0.0						
Detector 1 Delay (s)	0.0	0.0	0.0		0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type	Perm	NA	NA		Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6										
Detector Phase	3 5 6	3 5 6	3 5 6		4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					10.5		10.5	23.5	10.0	10.5	32.5
Total Split (s)					30.0		45.0	45.0	30.0	50.5	38.5
Total Split (%)					20.0%		30%	30%	20%	34%	26%
Maximum Green (s)					24.5		39.5	39.5	25.0	45.0	33.0
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					0.0						
Total Lost Time (s)					5.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Walk Time (s)								7.0			7.0
Flash Dont Walk (s)								11.0			20.0
Pedestrian Calls (#/hr)								0			2
Act Effct Green (s)		94.7	94.7		21.4						
Actuated g/C Ratio		0.75	0.75		0.17						
v/c Ratio		0.29	0.13		0.14						
Control Delay		5.7	1.1		46.3						
Queue Delay		0.0	0.6		0.1						
Total Delay		5.7	1.6		46.4						
LOS		A	A		D						
Approach Delay		5.7	1.6		46.4						
Approach LOS		A	A		D						
Queue Length 50th (ft)		100	4		30						
Queue Length 95th (ft)		124	m7		68						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		2544	2613		346						
Starvation Cap Reductn		0	1854		0						
Spillback Cap Reductn		258	0		26						
Storage Cap Reductn		0	0		0						
Reduced v/c Ratio		0.32	0.46		0.13						

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 126.7			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 6.0		Intersection LOS: A	
Intersection Capacity Utilization 33.1%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	668	237	3	267	95	7
Future Vol, veh/h	668	237	3	267	95	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	742	263	3	297	106	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1006	0	1177	874
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	303	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	689	-	211	349
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	689	-	210	349
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	745	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	36.7
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	210	349	-	-	689	-
HCM Lane V/C Ratio	0.503	0.022	-	-	0.005	-
HCM Control Delay (s)	38.3	15.6	-	-	10.2	0
HCM Lane LOS	E	C	-	-	B	A
HCM 95th %tile Q(veh)	2.5	0.1	-	-	0	-

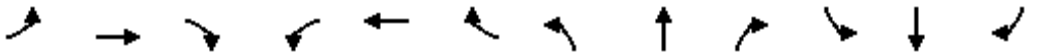
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	22	0	0	0	4	102	5	0	243	0
Future Vol, veh/h	0	0	22	0	0	0	4	102	5	0	243	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	24	0	0	0	4	113	6	0	270	0

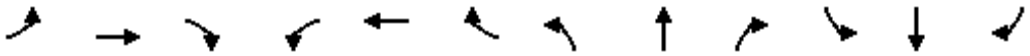
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	395	398	135	260	395	116	270	0	0	119	0	0
Stage 1	270	270	-	125	125	-	-	-	-	-	-	-
Stage 2	125	128	-	135	270	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	552	539	890	682	541	936	1292	-	-	1468	-	-
Stage 1	713	685	-	878	792	-	-	-	-	-	-	-
Stage 2	878	790	-	855	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	551	537	890	662	539	936	1292	-	-	1468	-	-
Mov Cap-2 Maneuver	551	537	-	662	539	-	-	-	-	-	-	-
Stage 1	711	685	-	875	790	-	-	-	-	-	-	-
Stage 2	875	788	-	832	685	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	0	0.3	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1292	-	-	890	890	-	1468	-	-
HCM Lane V/C Ratio	0.003	-	-	0.009	0.018	-	-	-	-
HCM Control Delay (s)	7.8	0	-	9.1	9.1	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	-	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	195	0	98	0	843	109	106	664	0
Future Volume (vph)	0	0	0	195	0	98	0	843	109	106	664	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.73			0.99				
Frt					0.850			0.985				
Flt Protected				0.950							0.993	
Satd. Flow (prot)	0	1863	0	1787	1162	0	0	1821	0	0	3549	0
Flt Permitted				0.950							0.515	
Satd. Flow (perm)	0	1863	0	1787	1162	0	0	1821	0	0	1841	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					325			5				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	205	0	103	0	887	115	112	699	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	205	103	0	0	1002	0	0	811	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

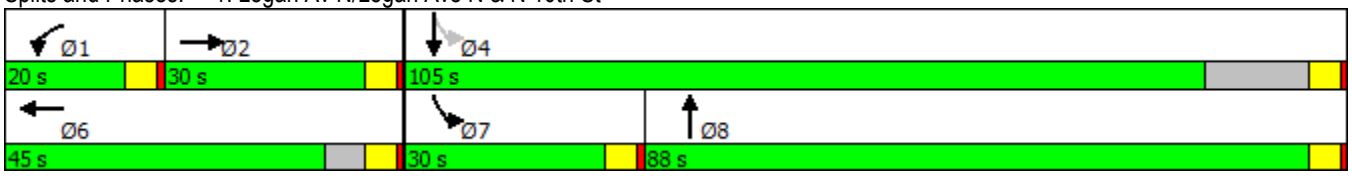


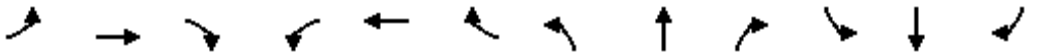
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		25.0		11.0	32.0			25.0		11.0	11.0	
Total Split (s)		30.0		20.0	45.0			88.0		30.0	105.0	
Total Split (%)		17.9%		11.9%	26.8%			52.4%		17.9%	62.5%	
Maximum Green (s)		25.0		15.0	40.0			83.0		25.0	100.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Walk Time (s)		7.0			7.0			7.0				
Flash Dont Walk (s)		13.0			20.0			13.0				
Pedestrian Calls (#/hr)		9			20			8				
Act Effct Green (s)				30.0	40.0			100.0			100.0	
Actuated g/C Ratio				0.20	0.27			0.67			0.67	
v/c Ratio				0.57	0.19			0.82			0.66	
Control Delay				61.8	0.8			25.8			18.2	
Queue Delay				0.0	0.0			30.4			0.0	
Total Delay				61.8	0.8			56.2			18.2	
LOS				E	A			E			B	
Approach Delay					41.4			56.2			18.2	
Approach LOS					D			E			B	
Queue Length 50th (ft)				167	0			678			233	
Queue Length 95th (ft)				#403	0			907			306	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				357	576			1215			1386	
Starvation Cap Reductn				0	0			264			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.57	0.18			1.05			0.59	

Intersection Summary			
Area Type:	Other		
Cycle Length: 168			
Actuated Cycle Length: 150			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 39.5		Intersection LOS: D	
Intersection Capacity Utilization 107.5%		ICU Level of Service G	
Analysis Period (min) 15			

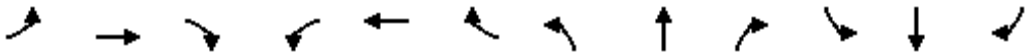
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	854	25	439	731	4	35	1	408	18	6	4
Future Volume (vph)	6	854	25	439	731	4	35	1	408	18	6	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.95					0.97	
Frt		0.996				0.850			0.850		0.940	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	1770	3523	0	3433	3539	1583	0	1760	2760	2870	1426	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	1770	3523	0	3433	3539	1508	0	1760	2760	2870	1426	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				60			421		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			281	
Travel Time (s)		31.8			11.3			14.1			6.4	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	6	880	26	453	754	4	36	1	421	19	6	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	906	0	453	754	4	0	37	421	19	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

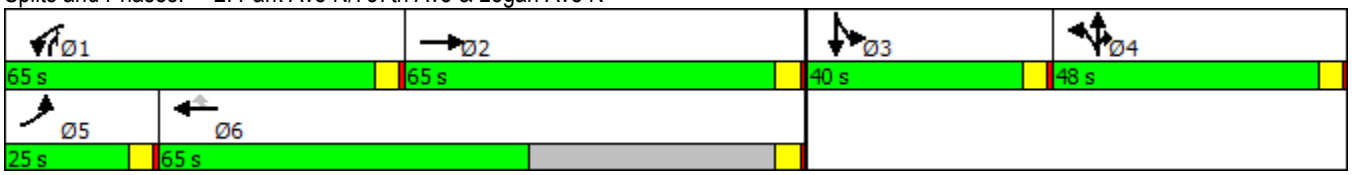


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	25.0	65.0		65.0	65.0	65.0	48.0	48.0		40.0	40.0	
Total Split (%)	11.5%	29.8%		29.8%	29.8%	29.8%	22.0%	22.0%		18.3%	18.3%	
Maximum Green (s)	20.0	60.0		60.0	60.0	60.0	43.0	43.0		35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Walk Time (s)		7.0			7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		19.0			24.0	24.0				20.0	20.0	
Pedestrian Calls (#/hr)		2			6	6				17	17	
Act Effct Green (s)	7.0	40.3		23.9	68.2	68.2		9.2	38.8	13.0	13.0	
Actuated g/C Ratio	0.07	0.39		0.23	0.67	0.67		0.09	0.38	0.13	0.13	
v/c Ratio	0.05	0.65		0.56	0.32	0.00		0.23	0.32	0.05	0.05	
Control Delay	62.3	30.5		41.9	10.6	0.0		58.5	3.7	46.0	37.6	
Queue Delay	0.0	0.0		0.0	0.1	0.0		0.0	0.0	0.0	0.0	
Total Delay	62.3	30.5		41.9	10.7	0.0		58.5	3.7	46.0	37.6	
LOS	E	C		D	B	A		E	A	D	D	
Approach Delay		30.7			22.4			8.2			43.1	
Approach LOS		C			C			A			D	
Queue Length 50th (ft)	4	237		134	83	0		23	0	6	4	
Queue Length 95th (ft)	22	457		261	259	0		72	40	20	22	
Internal Link Dist (ft)		1321			418			539			201	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	392	2309		2249	3129	1340		838	2204	1112	555	
Starvation Cap Reductn	0	0		0	1002	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.02	0.39		0.20	0.35	0.00		0.04	0.19	0.02	0.02	

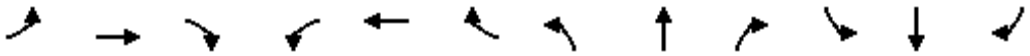
Intersection Summary			
Area Type:	Other		
Cycle Length: 218			
Actuated Cycle Length: 102.1			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 23.0		Intersection LOS: C	
Intersection Capacity Utilization 65.3%		ICU Level of Service C	

Analysis Period (min) 15

Splits and Phases: 2: Park Ave N/757th Ave & Logan Ave N



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	356	875	48	422	756	311	0	268	705	690	229	416
Future Volume (vph)	356	875	48	422	756	311	0	268	705	690	229	416
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		0	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Ped Bike Factor		0.99									0.95	
Frt		0.992				0.850		0.929	0.850		0.903	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	3400	3457	0	3367	3471	1553	0	1660	1418	3268	1624	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	3400	3457	0	3367	3471	1553	0	1660	1418	3268	1624	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		3						28	87		87	
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	383	941	52	454	813	334	0	288	758	742	246	447
Shared Lane Traffic (%)									34%			
Lane Group Flow (vph)	383	993	0	454	813	334	0	546	500	742	693	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1		1	1	1	1	
Detector Template												
Leading Detector (ft)	30	253		50	160	0		50	35	40	50	
Trailing Detector (ft)	10	10		0	5	0		0	12	15	0	
Detector 1 Position(ft)	10	10		0	5	0		0	12	15	0	
Detector 1 Size(ft)	20	6		50	6	0		50	23	25	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	pt+ov		NA	pt+ov	Prot	NA	
Protected Phases	5	2		1	6	6 3		4	1 4	3	8	
Permitted Phases												
Detector Phase	5	2		1	6	6 3		4	1 4	3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Minimum Split (s)	22.0	30.0		10.0	45.0			22.0		10.0	38.0	
Total Split (s)	25.0	40.0		30.0	45.0			40.0		40.0	80.0	
Total Split (%)	16.7%	26.7%		20.0%	30.0%			26.7%		26.7%	53.3%	
Maximum Green (s)	20.0	35.0		25.0	40.0			35.0		35.0	75.0	
Yellow Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag			Lead		Lag		
Lead-Lag Optimize?	Yes				Yes			Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	6.0			4.0		4.0	4.0	
Minimum Gap (s)	2.0	3.0		3.0	3.0			3.0		3.0	3.0	
Time Before Reduce (s)	10.0	0.0		0.0	10.0			5.0		10.0	5.0	
Time To Reduce (s)	5.0	0.0		0.0	10.0			5.0		5.0	5.0	
Recall Mode	None	None		None	None			None		None	None	
Walk Time (s)	5.0	7.0			7.0			5.0			7.0	
Flash Dont Walk (s)	12.0	18.0			33.0			12.0			26.0	
Pedestrian Calls (#/hr)	3	1			5			3			20	
Act Effct Green (s)	19.6	35.0		25.0	40.4	75.4		35.0	65.0	35.0	75.0	
Actuated g/C Ratio	0.13	0.23		0.17	0.27	0.50		0.23	0.43	0.23	0.50	
v/c Ratio	0.86	1.23		0.81	0.87	0.43		1.34	0.75	0.97	0.81	
Control Delay	83.1	160.8		72.4	63.5	14.3		209.2	37.6	83.3	36.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	83.1	160.8		72.4	63.5	14.3		209.2	37.6	83.3	36.3	
LOS	F	F		E	E	B		F	D	F	D	
Approach Delay		139.2			55.7			127.2			60.6	
Approach LOS		F			E			F			E	
Queue Length 50th (ft)	191	~629		223	403	115		~709	363	374	501	
Queue Length 95th (ft)	#272	#769		#289	#508	163		#958	527	#506	693	
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	453	808		561	934	780		408	663	762	855	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.85	1.23		0.81	0.87	0.43		1.34	0.75	0.97	0.81	

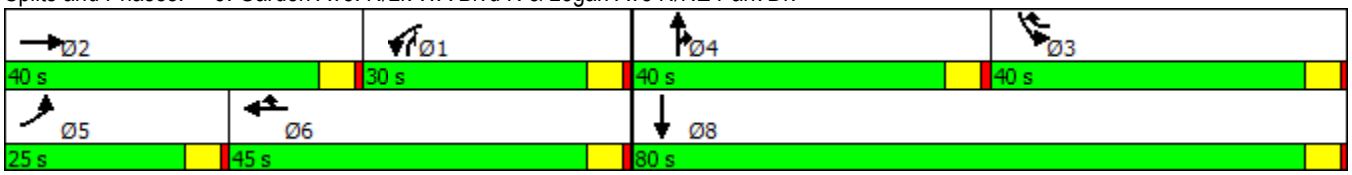
Intersection Summary

Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.34			
Intersection Signal Delay: 91.8		Intersection LOS: F	
Intersection Capacity Utilization 102.8%		ICU Level of Service G	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

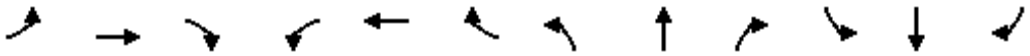
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	57	863	0	0	0	406	532	3	33	469	16
Future Volume (vph)	39	57	863	0	0	0	406	532	3	33	469	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Ped Bike Factor											1.00	
Frt		0.880	0.850					0.999			0.996	
Flt Protected		0.996					0.950	0.996			0.997	
Satd. Flow (prot)	0	1566	1519	0	0	0	1715	1796	0	0	3583	0
Flt Permitted		0.996					0.950	0.996			0.997	
Satd. Flow (perm)	0	1566	1519	0	0	0	1715	1796	0	0	3583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		153	489								2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			818			721	
Travel Time (s)		4.3			8.7			18.6			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	40	59	890	0	0	0	419	548	3	34	484	16
Shared Lane Traffic (%)			45%				10%					
Lane Group Flow (vph)	0	500	489	0	0	0	377	593	0	0	534	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Split	NA		Split	NA	
Protected Phases	3 4	3 4	4				2	2		1	1	
Permitted Phases			3									

Lane Group	Ø3	Ø5	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4				2	2		1	1	
Switch Phase												
Minimum Initial (s)			5.0				5.0	5.0		5.0	5.0	
Minimum Split (s)			10.5				23.5	23.5		10.5	10.5	
Total Split (s)			30.0				45.0	45.0		45.0	45.0	
Total Split (%)			20.0%				30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)			24.5				39.5	39.5		39.5	39.5	
Yellow Time (s)			3.5				3.5	3.5		3.5	3.5	
All-Red Time (s)			2.0				2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0				0.0	0.0			0.0	
Total Lost Time (s)			5.5				5.5	5.5			5.5	
Lead/Lag			Lead				Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0				3.0	3.0		3.0	3.0	
Recall Mode			None				Max	Max		None	None	
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							11.0	11.0				
Pedestrian Calls (#/hr)							0	0				
Act Effct Green (s)		54.2	53.7				39.6	39.6			26.0	
Actuated g/C Ratio		0.40	0.40				0.29	0.29			0.19	
v/c Ratio		0.70	0.55				0.76	1.13			0.78	
Control Delay		27.0	5.2				55.6	125.4			60.3	
Queue Delay		54.5	2.6				0.0	0.0			0.0	
Total Delay		81.5	7.8				55.6	125.4			60.3	
LOS		F	A				E	F			E	
Approach Delay		45.0						98.3			60.3	
Approach LOS		D						F			E	
Queue Length 50th (ft)		211	10				322	~647			238	
Queue Length 95th (ft)		312	68				#509	#961			303	
Internal Link Dist (ft)		110			303			738			641	
Turn Bay Length (ft)												
Base Capacity (vph)		715	894				499	523			1045	
Starvation Cap Reductn		292	280				0	0			0	
Spillback Cap Reductn		0	0				0	0			0	
Storage Cap Reductn		0	0				0	0			0	
Reduced v/c Ratio		1.18	0.80				0.76	1.13			0.51	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 135.8			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay: 69.0		Intersection LOS: E	
Intersection Capacity Utilization 78.7%		ICU Level of Service D	
Analysis Period (min) 15			

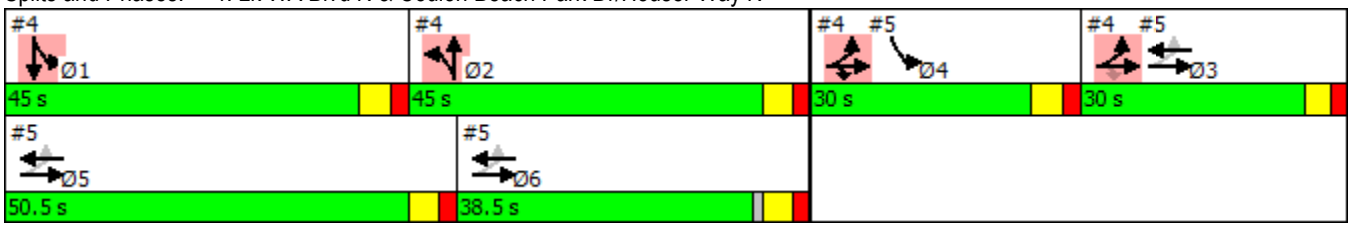
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

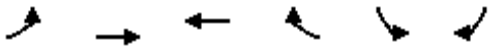
Lane Group	Ø3	Ø5	Ø6
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	10.0	10.5	32.5
Total Split (s)	30.0	50.5	38.5
Total Split (%)	20%	34%	26%
Maximum Green (s)	25.0	45.0	33.0
Yellow Time (s)	3.0	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag	Lead	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	Max
Walk Time (s)			7.0
Flash Dont Walk (s)			20.0
Pedestrian Calls (#/hr)			2
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

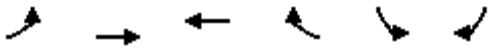
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	0	917	396	26	40	0					
Future Volume (vph)	0	917	396	26	40	0					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			0	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00					
Frt			0.991								
Flt Protected					0.950						
Satd. Flow (prot)	0	3574	3507	0	1770	0					
Flt Permitted					0.950						
Satd. Flow (perm)	0	3574	3507	0	1770	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)			14								
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	0	997	430	28	43	0					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	997	458	0	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2		1						
Detector Template	Left	Thru	Thru		Left						
Leading Detector (ft)	20	100	100		20						
Trailing Detector (ft)	0	0	0		0						
Detector 1 Position(ft)	0	0	0		0						
Detector 1 Size(ft)	20	6	6		20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0		0.0						
Detector 1 Queue (s)	0.0	0.0	0.0		0.0						
Detector 1 Delay (s)	0.0	0.0	0.0		0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type		NA	NA		Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6

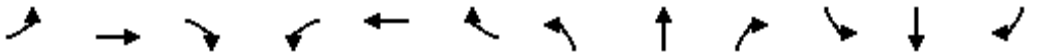


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6										
Detector Phase	3 5 6	3 5 6	3 5 6		4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					10.5		10.5	23.5	10.0	10.5	32.5
Total Split (s)					30.0		45.0	45.0	30.0	50.5	38.5
Total Split (%)					20.0%		30%	30%	20%	34%	26%
Maximum Green (s)					24.5		39.5	39.5	25.0	45.0	33.0
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					0.0						
Total Lost Time (s)					5.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Walk Time (s)								7.0			7.0
Flash Dont Walk (s)								11.0			20.0
Pedestrian Calls (#/hr)								0			2
Act Effct Green (s)		101.7	101.7		23.6						
Actuated g/C Ratio		0.75	0.75		0.17						
v/c Ratio		0.37	0.17		0.14						
Control Delay		6.4	1.7		50.4						
Queue Delay		0.1	1.3		0.1						
Total Delay		6.5	3.0		50.5						
LOS		A	A		D						
Approach Delay		6.5	3.0		50.5						
Approach LOS		A	A		D						
Queue Length 50th (ft)		146	8		32						
Queue Length 95th (ft)		175	m26		72						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		2675	2628		320						
Starvation Cap Reductn		0	1909		0						
Spillback Cap Reductn		402	0		26						
Storage Cap Reductn		0	0		0						
Reduced v/c Ratio		0.44	0.64		0.15						

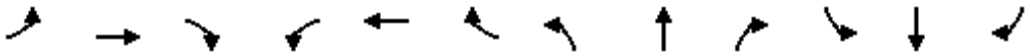
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 135.8			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 38.3%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	195	0	98	0	843	109	106	664	0
Future Volume (vph)	0	0	0	195	0	98	0	843	109	106	664	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor					0.73			0.99				
Frt					0.850			0.985				
Flt Protected				0.950							0.993	
Satd. Flow (prot)	0	1863	0	1787	1162	0	0	1821	0	0	3549	0
Flt Permitted				0.950							0.515	
Satd. Flow (perm)	0	1863	0	1787	1162	0	0	1821	0	0	1841	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					325			5				
Link Speed (mph)		30			30			35			30	
Link Distance (ft)		109			1127			686			1401	
Travel Time (s)		2.5			25.6			13.4			31.8	
Confl. Peds. (#/hr)						83			11			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	0	0	0	205	0	103	0	887	115	112	699	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	205	103	0	0	1002	0	0	811	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2			2		1	2	
Detector Template		Thru		Left	Thru			Thru		Left	Thru	
Leading Detector (ft)		100		20	100			100		20	100	
Trailing Detector (ft)		0		0	0			0		0	0	
Detector 1 Position(ft)		0		0	0			0		0	0	
Detector 1 Size(ft)		6		20	6			6		20	6	
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Queue (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 1 Delay (s)		0.0		0.0	0.0			0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type				Prot	NA			NA		pm+pt	NA	
Protected Phases		2		1	6			8		7	4	
Permitted Phases										4		

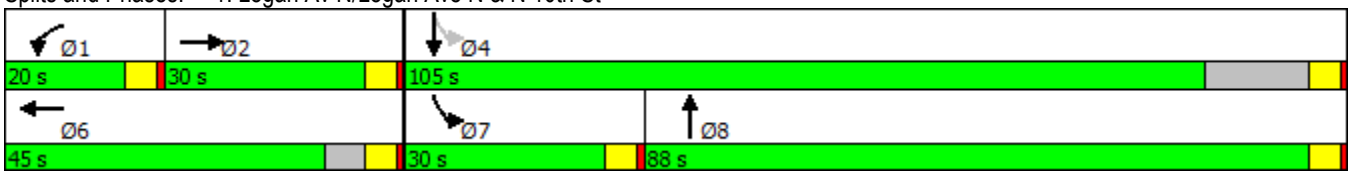


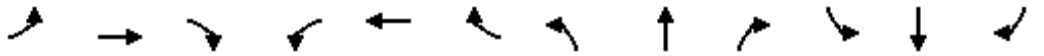
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2		1	6			8		7	4	
Switch Phase												
Minimum Initial (s)		6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)		25.0		11.0	32.0			25.0		11.0	11.0	
Total Split (s)		30.0		20.0	45.0			88.0		30.0	105.0	
Total Split (%)		17.9%		11.9%	26.8%			52.4%		17.9%	62.5%	
Maximum Green (s)		25.0		15.0	40.0			83.0		25.0	100.0	
Yellow Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
All-Red Time (s)		1.0		1.0	1.0			1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag		Lag		Lead				Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode		None		Max	Max			Max		None	Max	
Walk Time (s)		7.0			7.0			7.0				
Flash Dont Walk (s)		13.0			20.0			13.0				
Pedestrian Calls (#/hr)		9			20			8				
Act Effct Green (s)				30.0	40.0			100.0			100.0	
Actuated g/C Ratio				0.20	0.27			0.67			0.67	
v/c Ratio				0.57	0.19			0.82			0.66	
Control Delay				61.8	0.8			25.8			18.2	
Queue Delay				0.0	0.0			30.4			0.0	
Total Delay				61.8	0.8			56.2			18.2	
LOS				E	A			E			B	
Approach Delay					41.4			56.2			18.2	
Approach LOS					D			E			B	
Queue Length 50th (ft)				167	0			678			233	
Queue Length 95th (ft)				#403	0			907			306	
Internal Link Dist (ft)		29			1047			606			1321	
Turn Bay Length (ft)												
Base Capacity (vph)				357	576			1215			1386	
Starvation Cap Reductn				0	0			264			0	
Spillback Cap Reductn				0	0			0			0	
Storage Cap Reductn				0	0			0			0	
Reduced v/c Ratio				0.57	0.18			1.05			0.59	

Intersection Summary			
Area Type:	Other		
Cycle Length: 168			
Actuated Cycle Length: 150			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 39.5		Intersection LOS: D	
Intersection Capacity Utilization 107.5%		ICU Level of Service G	
Analysis Period (min) 15			

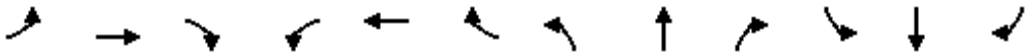
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Logan Av N/Logan Ave N & N 10th St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	813	25	392	637	41	35	26	388	120	53	98
Future Volume (vph)	46	813	25	392	637	41	35	26	388	120	53	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		400	180		100	0		0	0		0
Storage Lanes	1		1	2		1	0		2	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Ped Bike Factor		1.00				0.95					0.96	
Frt		0.995				0.850			0.850		0.903	
Flt Protected	0.950			0.950				0.972		0.950		
Satd. Flow (prot)	1770	3520	0	3433	3539	1583	0	1793	2760	2870	1348	0
Flt Permitted	0.950			0.950				0.972		0.950		
Satd. Flow (perm)	1770	3520	0	3433	3539	1508	0	1793	2760	2870	1348	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				60			279		36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1401			498			619			217	
Travel Time (s)		31.8			11.3			14.1			4.9	
Confl. Peds. (#/hr)			2			8						22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	22%	22%	22%
Adj. Flow (vph)	47	838	26	404	657	42	36	27	400	124	55	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	864	0	404	657	42	0	63	400	124	156	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

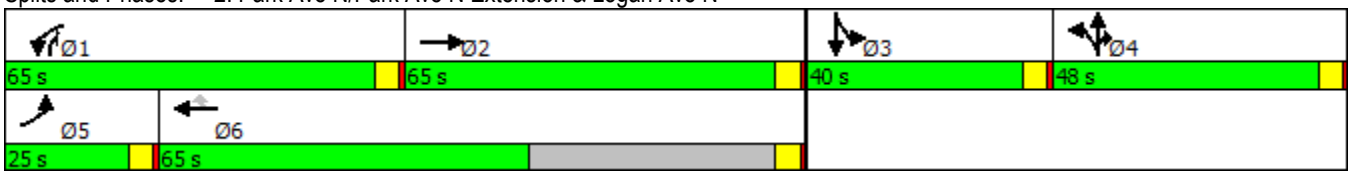


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA	pt+ov	Split	NA	
Protected Phases	5	2		1	6		4	4	4 1	3	3	
Permitted Phases						6						
Detector Phase	5	2		1	6	6	4	4	4 1	3	3	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	31.0		11.0	36.0	36.0	11.0	11.0		32.0	32.0	
Total Split (s)	25.0	65.0		65.0	65.0	65.0	48.0	48.0		40.0	40.0	
Total Split (%)	11.5%	29.8%		29.8%	29.8%	29.8%	22.0%	22.0%		18.3%	18.3%	
Maximum Green (s)	20.0	60.0		60.0	60.0	60.0	43.0	43.0		35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	None		Min	Min	Min	None	None		None	None	
Walk Time (s)		7.0			7.0	7.0				7.0	7.0	
Flash Dont Walk (s)		19.0			24.0	24.0				20.0	20.0	
Pedestrian Calls (#/hr)		2			6	6				17	17	
Act Effct Green (s)	9.3	38.8		22.4	55.1	55.1		10.9	38.6	18.7	18.7	
Actuated g/C Ratio	0.08	0.35		0.20	0.49	0.49		0.10	0.34	0.17	0.17	
v/c Ratio	0.32	0.71		0.59	0.38	0.05		0.36	0.35	0.26	0.61	
Control Delay	62.3	36.5		47.1	20.4	2.4		60.4	10.3	45.4	47.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	62.3	36.5		47.1	20.4	2.4		60.4	10.3	45.4	47.0	
LOS	E	D		D	C	A		E	B	D	D	
Approach Delay		37.8			29.5			17.1			46.3	
Approach LOS		D			C			B			D	
Queue Length 50th (ft)	32	271		132	152	0		42	32	39	79	
Queue Length 95th (ft)	88	447		242	258	13		108	92	86	188	
Internal Link Dist (ft)		1321			418			539			137	
Turn Bay Length (ft)	200			180		100						
Base Capacity (vph)	335	1998		1948	3077	1319		729	2046	950	470	
Starvation Cap Reductn	0	0		0	583	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.14	0.43		0.21	0.26	0.03		0.09	0.20	0.13	0.33	

Intersection Summary			
Area Type:	Other		
Cycle Length: 218			
Actuated Cycle Length: 111.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 31.9		Intersection LOS: C	
Intersection Capacity Utilization 72.7%		ICU Level of Service C	

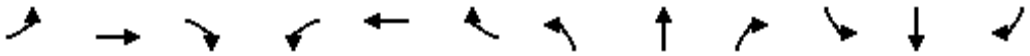
Analysis Period (min) 15

Splits and Phases: 2: Park Ave N/Park Ave N Extension & Logan Ave N



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	963	62	422	792	275	0	263	705	601	216	275
Future Volume (vph)	295	963	62	422	792	275	0	263	705	601	216	275
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	10	10	12	11
Storage Length (ft)	190		200	0		500	0		0	100		0
Storage Lanes	2		0	2		1	0		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	0.95	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Ped Bike Factor		0.99				0.98					0.97	
Frt		0.991				0.850		0.928	0.850		0.916	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	3400	3452	0	3367	3471	1553	0	1658	1418	3268	1691	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	3400	3452	0	3367	3471	1523	0	1658	1418	3268	1691	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		4						30	78		57	
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		530			1160			1352			204	
Travel Time (s)		12.0			26.4			36.9			4.6	
Confl. Peds. (#/hr)			54			12						53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	317	1035	67	454	852	296	0	283	758	646	232	296
Shared Lane Traffic (%)									34%			
Lane Group Flow (vph)	317	1102	0	454	852	296	0	541	500	646	528	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.09	1.00	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	3		1	2	1		1	1	1	1	
Detector Template												
Leading Detector (ft)	30	253		50	160	0		50	35	40	50	
Trailing Detector (ft)	10	10		0	5	0		0	12	15	0	
Detector 1 Position(ft)	10	10		0	5	0		0	12	15	0	
Detector 1 Size(ft)	20	6		50	6	0		50	23	25	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		128			154							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												

Lane Group	Ø4	Ø6	Ø9	Ø10
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Detector 2 Position(ft)				
Detector 2 Size(ft)				
Detector 2 Type				
Detector 2 Channel				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0							
Detector 3 Position(ft)		247										
Detector 3 Size(ft)		6										
Detector 3 Type		Cl+Ex										
Detector 3 Channel												
Detector 3 Extend (s)		0.0										
Turn Type	Prot	NA		Prot	NA	custom		NA	custom	Prot	NA	
Protected Phases	5	2		1	6 10			8		7	4 9	
Permitted Phases						4 6 9			8 1			
Detector Phase	5	2		1	6 10	4 6 9		8	8 1	7	4 9	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0				5.0		5.0		
Minimum Split (s)	10.0	30.0		10.0				10.0		10.0		
Total Split (s)	20.0	40.0		35.0				35.0		30.0		
Total Split (%)	14.3%	28.6%		25.0%				25.0%		21.4%		
Maximum Green (s)	15.0	35.0		30.0				30.0		25.0		
Yellow Time (s)	4.0	4.0		4.0				4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0				1.0		1.0		
Lost Time Adjust (s)	0.0	0.0		0.0				0.0		0.0		
Total Lost Time (s)	5.0	5.0		5.0				5.0		5.0		
Lead/Lag	Lead	Lag		Lead				Lag		Lead		
Lead-Lag Optimize?	Yes							Yes				
Vehicle Extension (s)	4.0	4.0		4.0				4.0		3.0		
Recall Mode	None	None		None				None		None		
Walk Time (s)		7.0										
Flash Dont Walk (s)		18.0										
Pedestrian Calls (#/hr)		1										
Act Effct Green (s)	14.9	35.0		26.4	46.5	75.6		30.0	61.5	25.0	60.0	
Actuated g/C Ratio	0.11	0.26		0.19	0.34	0.55		0.22	0.45	0.18	0.44	
v/c Ratio	0.85	1.24		0.70	0.72	0.35		1.40	0.73	1.08	0.68	
Control Delay	81.5	159.9		57.4	43.3	19.5		230.8	33.0	111.8	32.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	81.5	159.9		57.4	43.3	19.5		230.8	33.0	111.8	32.9	
LOS	F	F		E	D	B		F	C	F	C	
Approach Delay		142.4			42.9			135.8			76.4	
Approach LOS		F			D			F			E	
Queue Length 50th (ft)	146	~651		195	346	140		~665	324	~336	339	
Queue Length 95th (ft)	#230	#807		255	423	238		#924	476	#467	489	
Internal Link Dist (ft)		450			1080			1272			124	
Turn Bay Length (ft)	190					500				100		
Base Capacity (vph)	374	888		740	1180	843		387	716	598	775	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.85	1.24		0.61	0.72	0.35		1.40	0.70	1.08	0.68	

Intersection Summary	
Area Type:	Other
Cycle Length: 140	

Lane Group	Ø4	Ø6	Ø9	Ø10
Detector 2 Extend (s)				
Detector 3 Position(ft)				
Detector 3 Size(ft)				
Detector 3 Type				
Detector 3 Channel				
Detector 3 Extend (s)				
Turn Type				
Protected Phases	4	6	9	10
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	1.0	1.0
Minimum Split (s)	10.0	10.0	36.0	45.0
Total Split (s)	29.0	10.0	36.0	45.0
Total Split (%)	21%	7%	26%	32%
Maximum Green (s)	24.0	5.0	33.0	42.0
Yellow Time (s)	4.0	4.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag		Lead	Lag
Lead-Lag Optimize?	Yes			
Vehicle Extension (s)	4.0	4.0	0.2	0.2
Recall Mode	None	None	None	None
Walk Time (s)			7.0	7.0
Flash Dont Walk (s)			26.0	35.0
Pedestrian Calls (#/hr)			53	7
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

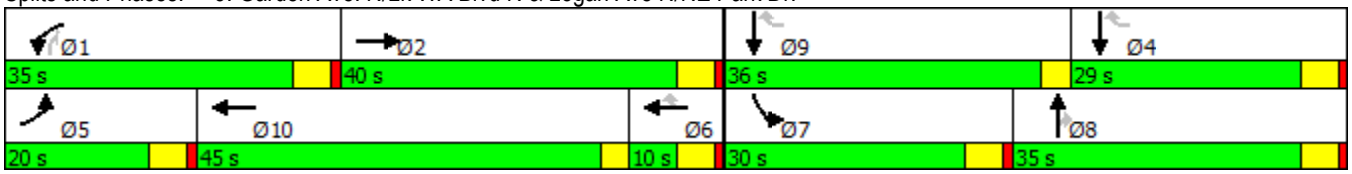
Intersection Summary

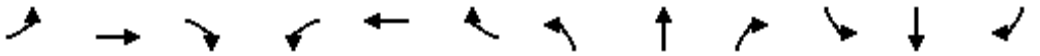
Actuated Cycle Length: 136.5	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.40	
Intersection Signal Delay: 95.8	Intersection LOS: F
Intersection Capacity Utilization 102.9%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

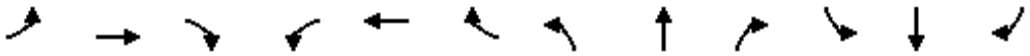
Splits and Phases: 3: Garden Ave. N/Lk WA Blvd N & Logan Ave N/NE Park Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	57	620	0	0	0	304	532	3	33	469	16
Future Volume (vph)	39	57	620	0	0	0	304	532	3	33	469	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Ped Bike Factor											1.00	
Frt		0.890	0.850					0.999			0.996	
Flt Protected		0.995					0.950	0.997			0.997	
Satd. Flow (prot)	0	1583	1519	0	0	0	1715	1798	0	0	3583	0
Flt Permitted		0.995					0.950	0.997			0.997	
Satd. Flow (perm)	0	1583	1519	0	0	0	1715	1798	0	0	3583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		105	364								2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		190			383			818			721	
Travel Time (s)		4.3			8.7			18.6			16.4	
Confl. Peds. (#/hr)												2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	40	59	639	0	0	0	313	548	3	34	484	16
Shared Lane Traffic (%)			43%				10%					
Lane Group Flow (vph)	0	374	364	0	0	0	282	582	0	0	534	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1				1	2		1	2	
Detector Template	Left	Thru	Right				Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20				20	100		20	100	
Trailing Detector (ft)	0	0	0				0	0		0	0	
Detector 1 Position(ft)	0	0	0				0	0		0	0	
Detector 1 Size(ft)	20	6	20				20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0				0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Split	NA	custom				Split	NA		Split	NA	
Protected Phases	3 4	3 4	4				2	2		1	1	
Permitted Phases			3									

Lane Group	Ø3	Ø5	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Ped Bike Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Detector 2 Position(ft)			
Detector 2 Size(ft)			
Detector 2 Type			
Detector 2 Channel			
Detector 2 Extend (s)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	3 4	3 4	4				2	2		1	1	
Switch Phase												
Minimum Initial (s)			5.0				5.0	5.0		5.0	5.0	
Minimum Split (s)			10.5				23.5	23.5		10.5	10.5	
Total Split (s)			30.0				45.0	45.0		45.0	45.0	
Total Split (%)			20.0%				30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)			24.5				39.5	39.5		39.5	39.5	
Yellow Time (s)			3.5				3.5	3.5		3.5	3.5	
All-Red Time (s)			2.0				2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0				0.0	0.0			0.0	
Total Lost Time (s)			5.5				5.5	5.5			5.5	
Lead/Lag			Lead				Lag	Lag		Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0				3.0	3.0		3.0	3.0	
Recall Mode			None				Max	Max		None	None	
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							11.0	11.0				
Pedestrian Calls (#/hr)							0	0				
Act Effct Green (s)		49.4	48.9				39.9	39.9			25.6	
Actuated g/C Ratio		0.38	0.37				0.30	0.30			0.20	
v/c Ratio		0.56	0.46				0.54	1.06			0.76	
Control Delay		24.2	4.1				45.1	101.1			57.8	
Queue Delay		53.9	3.7				0.0	0.0			0.0	
Total Delay		78.1	7.7				45.1	101.1			57.8	
LOS		E	A				D	F			E	
Approach Delay		43.4						82.8			57.8	
Approach LOS		D						F			E	
Queue Length 50th (ft)		164	2				225	~624			238	
Queue Length 95th (ft)		251	52				350	#935			303	
Internal Link Dist (ft)		110			303			738			641	
Turn Bay Length (ft)												
Base Capacity (vph)		693	790				522	547			1092	
Starvation Cap Reductn		350	330				0	0			0	
Spillback Cap Reductn		0	0				0	0			0	
Storage Cap Reductn		0	0				0	0			0	
Reduced v/c Ratio		1.09	0.79				0.54	1.06			0.49	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 131.1			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay: 62.9		Intersection LOS: E	
Intersection Capacity Utilization 73.7%		ICU Level of Service D	
Analysis Period (min) 15			

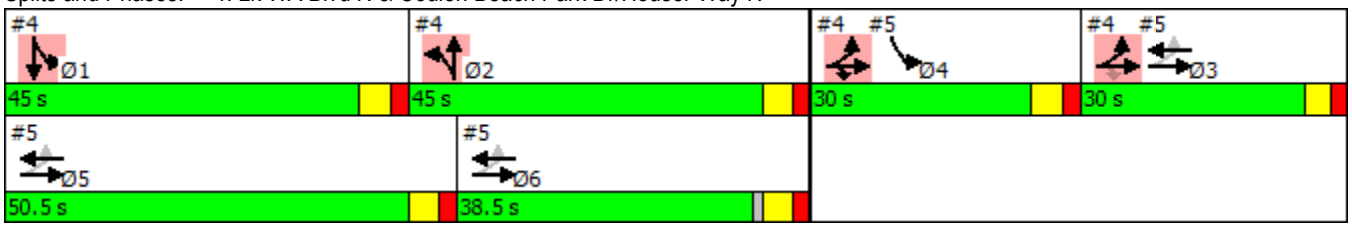
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

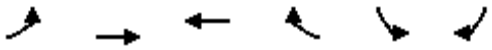
Lane Group	Ø3	Ø5	Ø6
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	10.0	10.5	32.5
Total Split (s)	30.0	50.5	38.5
Total Split (%)	20%	34%	26%
Maximum Green (s)	25.0	45.0	33.0
Yellow Time (s)	3.0	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag	Lead	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	Max
Walk Time (s)			7.0
Flash Dont Walk (s)			20.0
Pedestrian Calls (#/hr)			2
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			

Intersection Summary

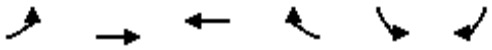
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Lk WA Blvd N & Coulon Beach Park Dr/Houser Way N





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Lane Configurations											
Traffic Volume (vph)	2	679	296	24	37	3					
Future Volume (vph)	2	679	296	24	37	3					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Storage Length (ft)	50			0	0	0					
Storage Lanes	0			0	1	0					
Taper Length (ft)	25				25						
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00					
Frt			0.989		0.991						
Flt Protected					0.956						
Satd. Flow (prot)	0	3574	3500	0	1765	0					
Flt Permitted		0.955			0.956						
Satd. Flow (perm)	0	3413	3500	0	1765	0					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)			17		2						
Link Speed (mph)		30	30		30						
Link Distance (ft)		281	190		350						
Travel Time (s)		6.4	4.3		8.0						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%					
Adj. Flow (vph)	2	738	322	26	40	3					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	740	348	0	43	0					
Enter Blocked Intersection	No	No	No	No	No	No					
Lane Alignment	Left	Left	Left	Right	Left	Right					
Median Width(ft)		0	0		12						
Link Offset(ft)		0	0		0						
Crosswalk Width(ft)		16	16		16						
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00					
Turning Speed (mph)	15			9	15	9					
Number of Detectors	1	2	2		1						
Detector Template	Left	Thru	Thru		Left						
Leading Detector (ft)	20	100	100		20						
Trailing Detector (ft)	0	0	0		0						
Detector 1 Position(ft)	0	0	0		0						
Detector 1 Size(ft)	20	6	6		20						
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex						
Detector 1 Channel											
Detector 1 Extend (s)	0.0	0.0	0.0		0.0						
Detector 1 Queue (s)	0.0	0.0	0.0		0.0						
Detector 1 Delay (s)	0.0	0.0	0.0		0.0						
Detector 2 Position(ft)		94	94								
Detector 2 Size(ft)		6	6								
Detector 2 Type		Cl+Ex	Cl+Ex								
Detector 2 Channel											
Detector 2 Extend (s)		0.0	0.0								
Turn Type	Perm	NA	NA		Prot						
Protected Phases		3 5 6	3 5 6		4		1	2	3	5	6



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø5	Ø6
Permitted Phases	3 5 6										
Detector Phase	3 5 6	3 5 6	3 5 6		4						
Switch Phase											
Minimum Initial (s)					5.0		5.0	5.0	5.0	5.0	5.0
Minimum Split (s)					10.5		10.5	23.5	10.0	10.5	32.5
Total Split (s)					30.0		45.0	45.0	30.0	50.5	38.5
Total Split (%)					20.0%		30%	30%	20%	34%	26%
Maximum Green (s)					24.5		39.5	39.5	25.0	45.0	33.0
Yellow Time (s)					3.5		3.5	3.5	3.0	3.5	3.5
All-Red Time (s)					2.0		2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)					0.0						
Total Lost Time (s)					5.5						
Lead/Lag					Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Vehicle Extension (s)					3.0		3.0	3.0	3.0	3.0	3.0
Recall Mode					None		None	Max	None	None	Max
Walk Time (s)								7.0			7.0
Flash Dont Walk (s)								11.0			20.0
Pedestrian Calls (#/hr)								0			2
Act Effct Green (s)		98.8	98.8		21.7						
Actuated g/C Ratio		0.75	0.75		0.17						
v/c Ratio		0.29	0.13		0.15						
Control Delay		5.5	1.1		48.5						
Queue Delay		0.0	0.7		0.1						
Total Delay		5.6	1.7		48.6						
LOS		A	A		D						
Approach Delay		5.6	1.7		48.6						
Approach LOS		A	A		D						
Queue Length 50th (ft)		100	5		31						
Queue Length 95th (ft)		123	m7		71						
Internal Link Dist (ft)		201	110		270						
Turn Bay Length (ft)											
Base Capacity (vph)		2566	2635		335						
Starvation Cap Reductn		0	1914		0						
Spillback Cap Reductn		291	0		25						
Storage Cap Reductn		0	0		0						
Reduced v/c Ratio		0.33	0.48		0.14						

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 131.1			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay: 6.0		Intersection LOS: A	
Intersection Capacity Utilization 33.1%		ICU Level of Service A	
Analysis Period (min) 15			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Southport Access/Coulon Beach Park Dr & Coulon Beach Park Access

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	668	237	3	267	95	7
Future Vol, veh/h	668	237	3	267	95	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	742	263	3	297	106	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1006	0	1177	874
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	303	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	689	-	211	349
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	749	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	689	-	210	349
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	745	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	36.7
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	210	349	-	-	689	-
HCM Lane V/C Ratio	0.503	0.022	-	-	0.005	-
HCM Control Delay (s)	38.3	15.6	-	-	10.2	0
HCM Lane LOS	E	C	-	-	B	A
HCM 95th %tile Q(veh)	2.5	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	28	0	0	0	5	102	6	0	243	0
Future Vol, veh/h	0	0	28	0	0	0	5	102	6	0	243	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	31	0	0	0	6	113	7	0	270	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	398	401	135	263	398	117	270	0	0	120	0	0
Stage 1	270	270	-	128	128	-	-	-	-	-	-	-
Stage 2	128	131	-	135	270	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	549	537	890	679	539	934	1292	-	-	1467	-	-
Stage 1	713	685	-	875	790	-	-	-	-	-	-	-
Stage 2	875	787	-	855	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	547	534	890	653	536	934	1292	-	-	1467	-	-
Mov Cap-2 Maneuver	547	534	-	653	536	-	-	-	-	-	-	-
Stage 1	709	685	-	871	786	-	-	-	-	-	-	-
Stage 2	871	783	-	825	685	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	0	0.3	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1292	-	-	890	890	-	1467	-	-
HCM Lane V/C Ratio	0.004	-	-	0.012	0.023	-	-	-	-
HCM Control Delay (s)	7.8	0	-	9.1	9.1	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	-	0	-	-