UTC
Washington Utilities and Transportation Commission

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Yakima County Petitioner, vs. BNSF Railway Company, and Central Washington Railroad Respondent	DOCKET NO. TR- PETITION TO RELOCATE A HIGHWAY-RAIL GRADE CROSSING USDOT CROSSING NO.:

The Petitioner asks the Washington Utilities and Transportation Commission (UTC) to approve relocation of a highway-rail grade crossing.

Section 1 – Petitioner's Information

Yakima County
Petitioner

Brett H Sheffield
Signature

128 N. 2nd Street, 4th Floor Courthouse
Street Address

Yakima, WA 98901
City, State and Zip Code

Mailing Address, if different than the street address

Brett Sheffield
Contact Person Name

509-574-2300 brett.sheffield@co.yakima.wa.us
Contact Phone Number and E-mail Address

Section 2 – Respondent's Information

BNSF \ Central Washington Railroad
Respondent

2454 Occidental Ave. South, Suite 1A \ 111 University Pkwy, Suite 200
Street Address

Seattle, WA 98134-1451 \ Yakima, WA 98901
City, State and Zip Code

Mailing Address, if different than the street address

Stephen Semenick \ Tim Marshall
Contact Person Name

206-625-6152 \ 509-433-9166
Contact Phone Number and E-mail Address
Stephen.semenick@bnsf.com \ tmarshal@cbrr.com

Section 3 – Current and Proposed Location of Crossing

1. Existing highway/roadway: Butterfield Road

2. Existing railroad: BNSF \ CWRR

3. Current GPS location Lat. 46° 36' 46.96" Long. -120°28' 20.29"
N 00466666.54 E 01647377.01

4. Current railroad mile post (nearest tenth): 2.5

5. City N/A County Yakima

6. Highway/roadway for relocated crossing: Mill Parkway

7. GPS location for relocated crossing: Lat. 46°36' 48.63" Long. -120° 28' 23.59"
N 00466835.48 E 01647146.70

8. Railroad mile post for relocated crossing (nearest tenth): 2.5

Section 4 – Proposed Relocated Crossing Information

1. Railroad company: BNSF (Owner) \ CWR (operator)

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

□ Passenger □ Excursion

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

4. Number of tracks at crossing 1

5. Average daily train traffic, freight 2

Authorized freight train speed 10 Operated freight train speed 10

6. Average daily train traffic, passenger 0

Authorized passenger train speed _____ Operated passenger train speed _____

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

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

There is an existing private crossing located approximately 125 feet north and west of the proposed new crossing location.

Section 5 – Current Highway Traffic Information

1. Name of roadway/highway Butterfield Road

2. Roadway classification Major Collector

3. Road authority Yakima County

4. Average annual daily traffic (AADT) 2,910 (2017 Counts)

5. Number of lanes 2

6. Roadway speed 35

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

8. If so, trucks are what percent of total daily traffic? 10%

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

10. If so, how many school buses travel over the crossing each day? 2

11. Describe any changes to the information in 1 through 10, above, expected within ten years:
Yakima County is in the process of constructing a new regional corridor. As a result, the roadway network in this area will be modified, requiring the relocation of the crossing.

Section 6 – Alternatives to the Proposal

1. 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 X

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

The topography is flat and near the Yakima River. The roadway is being constructed to serve an area zoned Light Industrial. The roadway would not be able to provide access to several parcels if the roadway was elevated.

3. Is there an existing public or private crossing in the vicinity of the proposed relocated crossing?
Yes X No ____

4. If a crossing exists, state:
   - ♦ The distance and direction from the proposed crossing.
   - ♦ Whether it is feasible to divert traffic from the relocation to the existing crossing.

There is an existing private crossing located approximately 125 feet north and west of the proposed new crossing location that provides access to a single-family residence.

Section 7 – Sight Distance

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

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

Direction of sight (left or right)	Number of feet from proposed crossing	Provides an unobstructed view for how many feet
Right	300	750
Right	200	950
Right	100	1600
Right	50	1600
Right	25	1600
Left	300	550
Left	200	600
Left	100	650
Left	50	720
Left	25	1000

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

Direction of sight (left or right)	Number of feet from proposed crossing	Provides an unobstructed view for how many feet
Right	300	430
Right	200	400
Right	100	2000
Right	50	2000
Right	25	2000
Left	300	400
Left	200	400
Left	100	1000
Left	50	2000
Left	25	2000

2. 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 relocated crossing?

Yes ____ No _X_

3. 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; or how the petitioner or another party can mitigate the hazard caused by the barrier.

_____

_____

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

Yes _X_ No ____

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

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

Yes _X_ No ____

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

_____

_____

_____

Section 8 – Illustration of Proposed Crossing Configuration

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

- ♦ The vicinity of the proposed relocated crossing.
- ♦ Layout of the railway and highway 500 feet adjacent to the crossing in all directions.
- ♦ Percent of grade.
- ♦ Obstructions of view.
- ♦ Traffic control layout showing the location of the existing and proposed signage.

Section 9 – Proposed Warning Signals or Devices

Describe in detail the number and type of automatic signals or other warning devices planned at the proposed relocated crossing. Please include information such as crossing surface upgrades, signage, etc., at the proposed crossing.

The proposed crossing will have a constant warning time system installed, consistent with other crossings on the Moxee Branch Line. The project will: install two 28-foot gates on side mounted masts with bells and flashing lights for the eastbound and westbound traffic (both vehicular and pedestrian); and, install pedestrian gates on the opposite side of the track (see attached plan sheet). The new crossing will be constructed with timber ties and concrete panels (see attached plan sheet). Standard advanced warning signs and pavement markings will be installed per the MUTCD. The project will install 7-foot sidewalk on both sides of the roadway, and the sidewalk will have ADA ramps with truncated domes on all four quadrants of the rail crossing.

Section 10 – Additional Information

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

Yakima County, in coordination with the City of Yakima, WSDOT and FHWA has been working to establish a new corridor that will reduce congestion in the Yakima Avenue Interchange, provide redundant bridge crossings of the Yakima River, alleviate congestion on Terrace Heights Drive and provide additional access to the region. This project will also address flooding issues in this reach of the Yakima River and provide habitat enhancement. This new roadway will stretch from N. 1st Street in Yakima to Keys Road in Terrace Heights. Future phases will extend the roadway west to Fruitvale Boulevard in Yakima, and east to N.57th Street in Terrace Heights. This roadway should have an Annual Daily Travel volume of around 20,000 on opening day.

Section 11 – Waiver of Hearing by Respondent

Waiver of Hearing

The undersigned represents the Respondent in the petition to relocate a highway-rail grade crossing as described in the petition.

USDOT Crossing No.: _____

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

Dated at Seattle, Washington, on the 23rd day of January, 2020.

Stephen Semenick
Printed name of Respondent

Signature of Respondent's Representative

Manager Public Projects
Title

BNSF Railway Co.
Name of Company

206-625-6152; stephen.semenick@BNSF.com
Phone number and e-mail address

2454 Occidental Ave S, Ste 2D, Seattle, WA 98134
Mailing address

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The undersigned represents the Respondent in the petition to relocate a highway-rail grade crossing as described in the petition.

USDOT Crossing No.: _____

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

Dated at Yakima 1/24/20, Washington, on the Yakima 24 day of Jan, 20 20.

Nicholas Temple Jr (Brig)
Printed name of Respondent

Signature of Respondent's Representative

President
Title

Central Washington Railroad
Name of Company

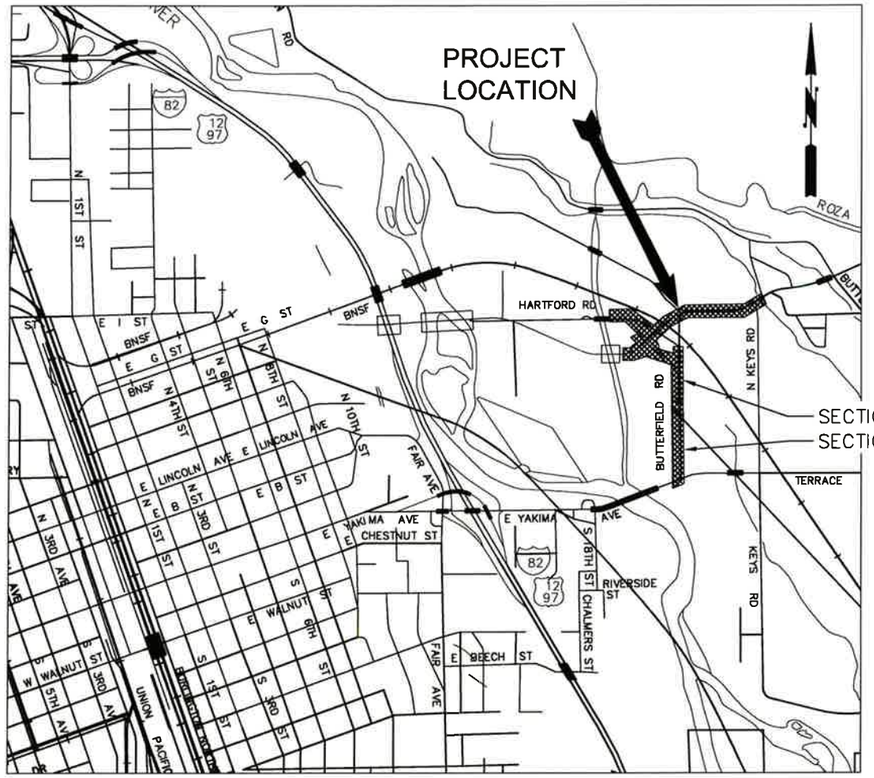
509-453-9166 brigtemple@cwr.com
Phone number and e-mail address
WITH COPY TO - * KYEAGER@IHDLLC.COM

111 University Pkwy #200

Yakima WA 98901
Mailing address

YAKIMA COUNTY

MILL PARKWAY
ROZA CANAL TO KEYS RD
PROJECT NO. XXXXX
APRIL 2018



VICINITY MAP

NOT TO SCALE

SHEET INDEX

DATUM ELEVATION

NGS BRASS CAP SET IN CONCRETE, INSIDE AN IRRIGATION CONTROL BOX AT SARG HUBBARD PARK. LOCATION WEST OF A CONCRETE BENCH NEAR THE PARKING AREA. STAMPED "SARG 1990" ELEVATION: 1030.13 (NAVD 88)

YAKIMA COUNTY

MILL PARKWAY PROJECT
ROZA CANAL TO KEYS ROAD

PROJECT NO. XX

PREPARED UNDER THE DIRECTION OF:

PRELIMINARY DESIGN

PROGRESS PLAN NOT FOR CONSTRUCTION

LOCHNER

DATE:

PROJECT ENGINEER:
A. BUTTERS

DRAWN: | *CHECKED BY:*

REVISION:

CVR1
COVER SHEET

SHEET 1 OF XX

4/19/2018 8:30 AM

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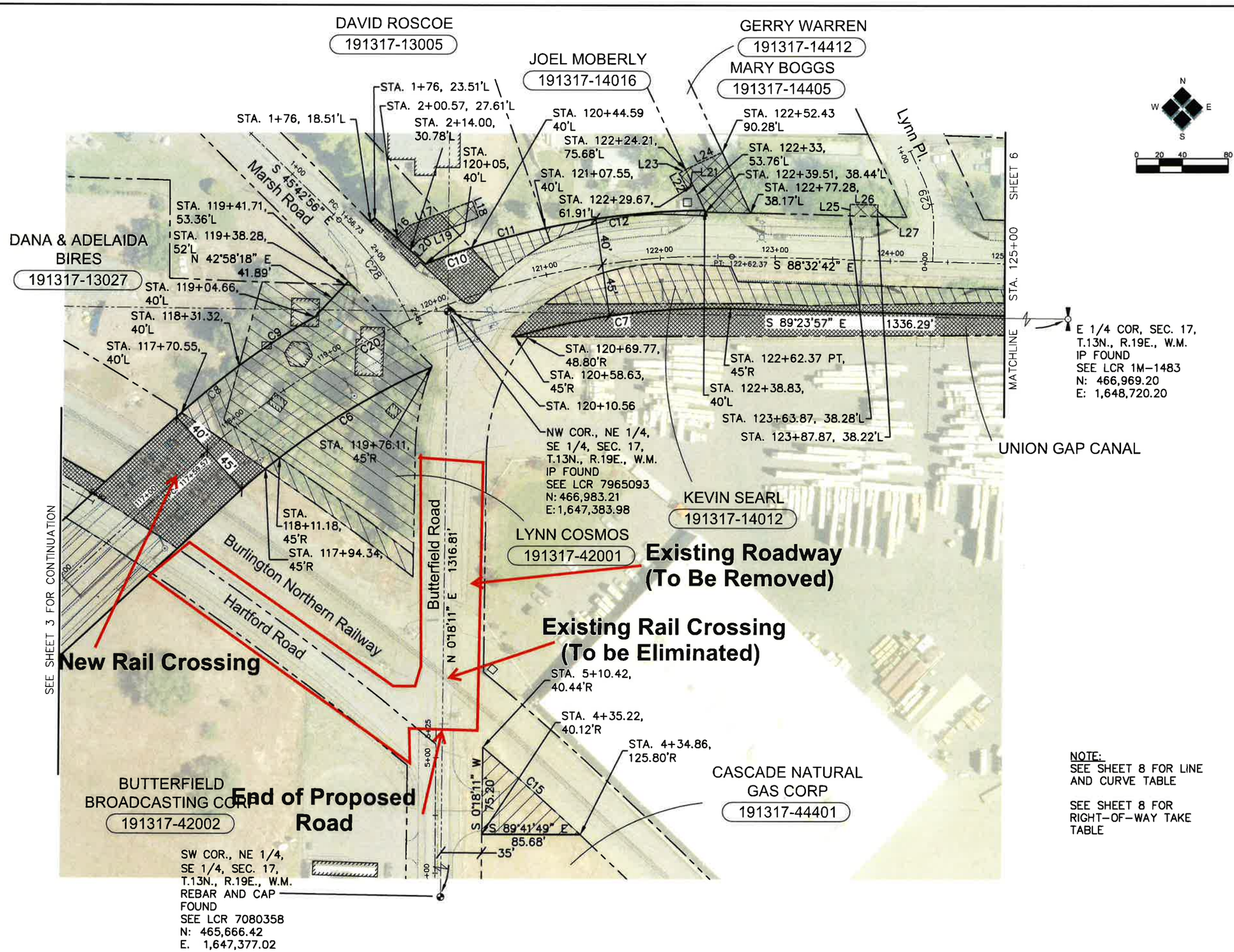


NOTE:
SEE SHEET 8 FOR LINE AND CURVE TABLE

SEE SHEET 8 FOR RIGHT-OF-WAY TAKE TABLE

YAKIMA COUNTY

EAST-WEST CORRIDOR PROJECT

N. FAIR AVE TO BUTTERFIELD RD
PHASE 1

PROJECT NO. 17084

PREPARED UNDER THE DIRECTION OF:

ERIC T. HERZOG
STATE OF WASHINGTON
PROFESSIONAL LAND SURVEYOR

DATE: 3-25-19

PROJECT ENGINEER: TDA

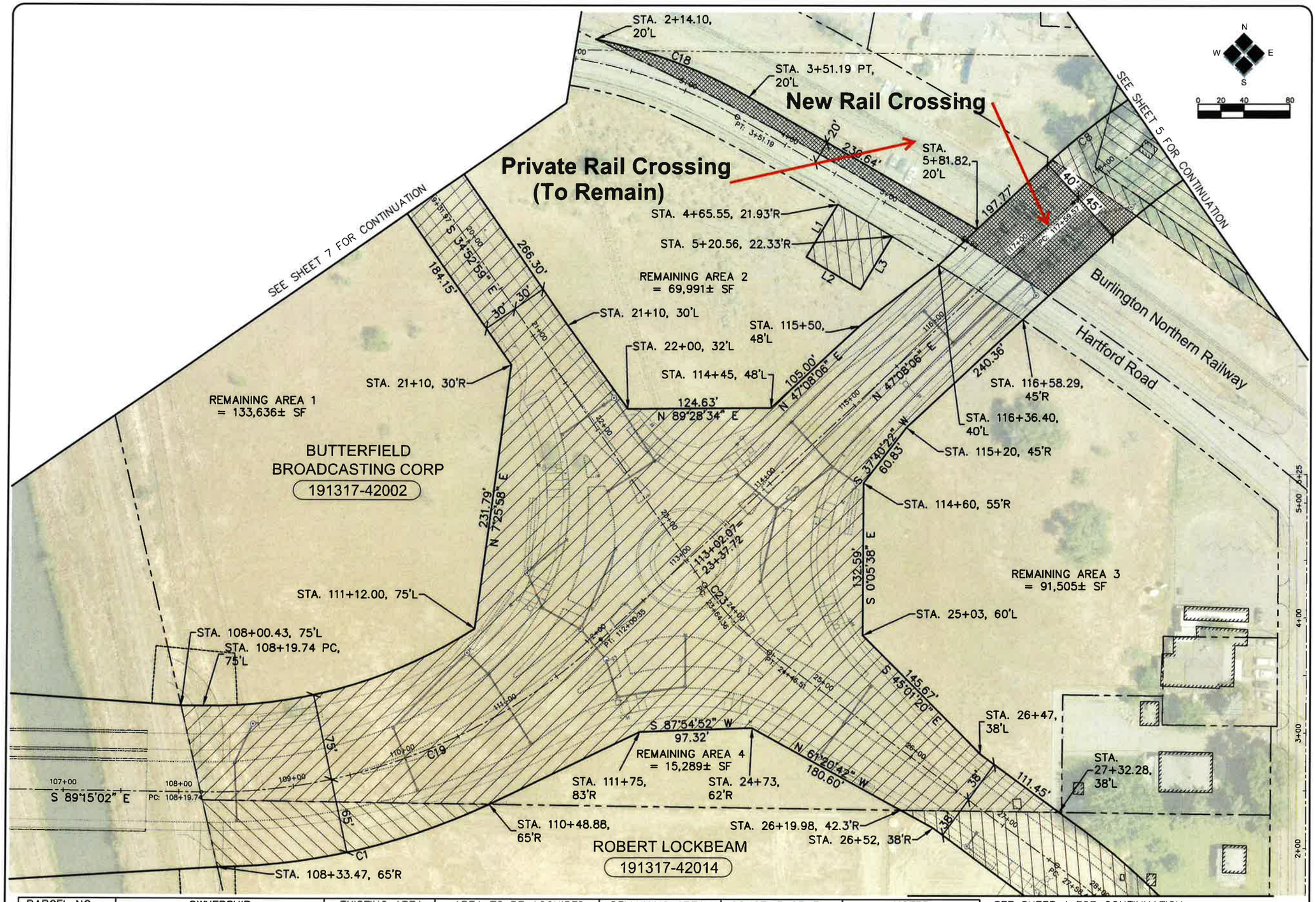
DRAWN:	CHECKED BY:
AJH	ETH

REVISION:

FILE PATH: P:\PROJECTS\2011\11062\RIGHT-OF-WAY SHEETS\SHEETSEWROW.DWG

RIGHT OF WAY SHEETS

SHEET 5 OF 10



PARCEL NO.	OWNERSHIP	EXISTING AREA	AREA TO BE ACQUIRED	REMAINING AREA	CONST. EASEMENT	NOTES
191317-42002	BUTTERFIELD BROADCASTING CORP	489,768± SF	179,347± SF	310,421± SF		
191317-42014	ROBERT LOCKBEAM					SEE SHEET 4
	BURLINGTON NORTHERN RAILWAY				13,109± SF	

SEE SHEET 4 FOR CONTINUATION

NOTE:
SEE SHEET 8 FOR LINE AND CURVE TABLE

YAKIMA COUNTY
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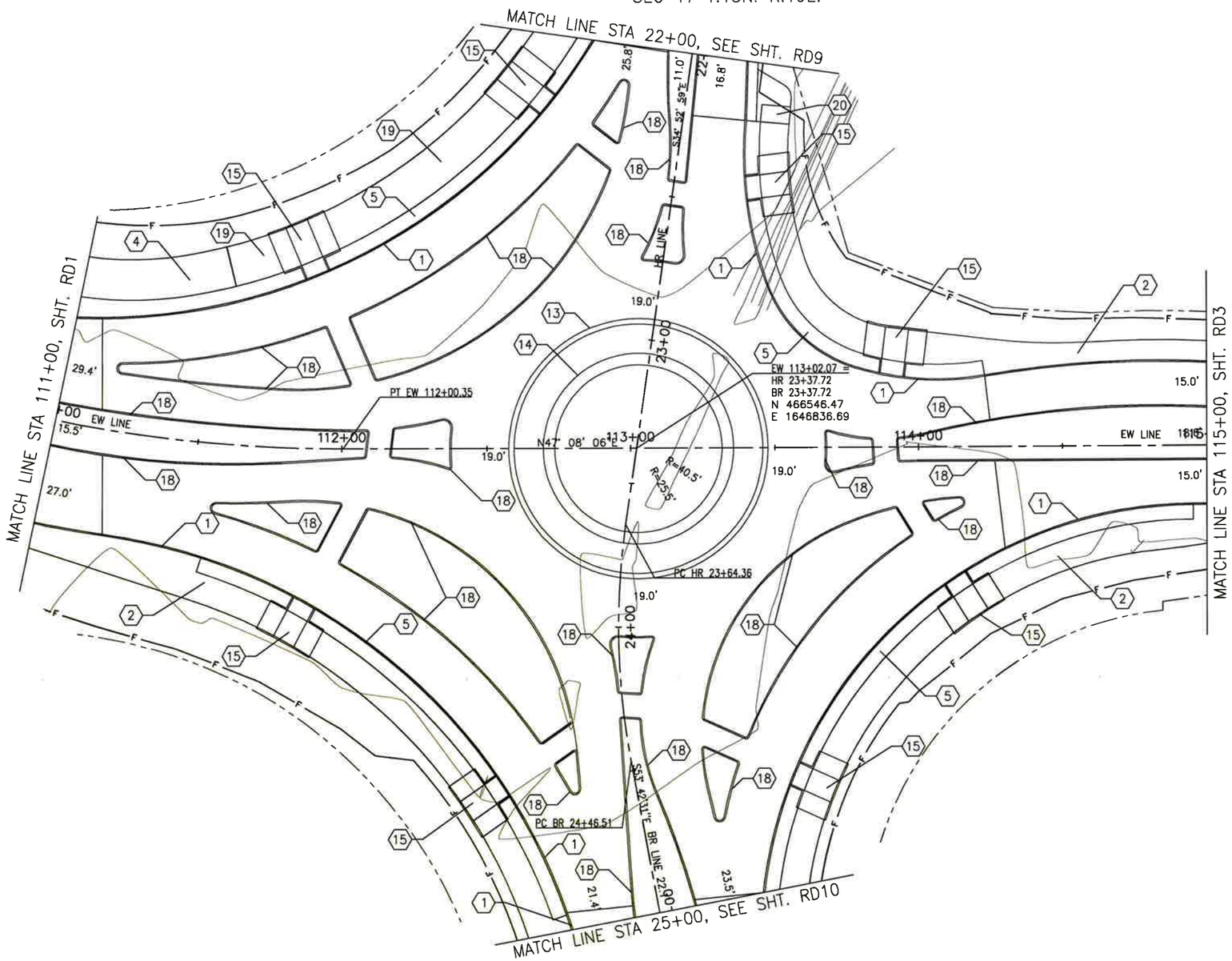
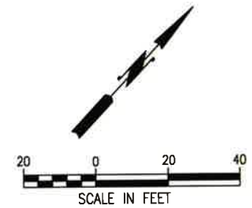
RIGHT OF WAY SHEETS

SEC 17 T.13N. R.19E.





CONSTRUCTION NOTES

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20. CEMENT CONCRETE TRANSITION RAMP, SEE SHEET DET1

GENERAL NOTES

1. SEE SHEET CPJ1 FOR CONCRETE PANEL JOINT LIMITS
2. SEE RA SHEETS FOR SPLITTER ISLAND DETAIL

NAVD OF 1988

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

YAKIMA COUNTY

MILL PARKWAY PROJECT
ROZA CANAL TO KEYS ROAD

PROJECT NO. XX

PREPARED UNDER THE DIRECTION OF:

PRELIMINARY DESIGN

PROGRESS PLAN NOT FOR CONSTRUCTION

LOCHNER

DATE:

PROJECT ENGINEER:
A. BUTTERS

DRAWN: | CHECKED BY:

REVISION:

RD2
ROADWAY PLAN AND PROFILE

SHEET ## OF XX

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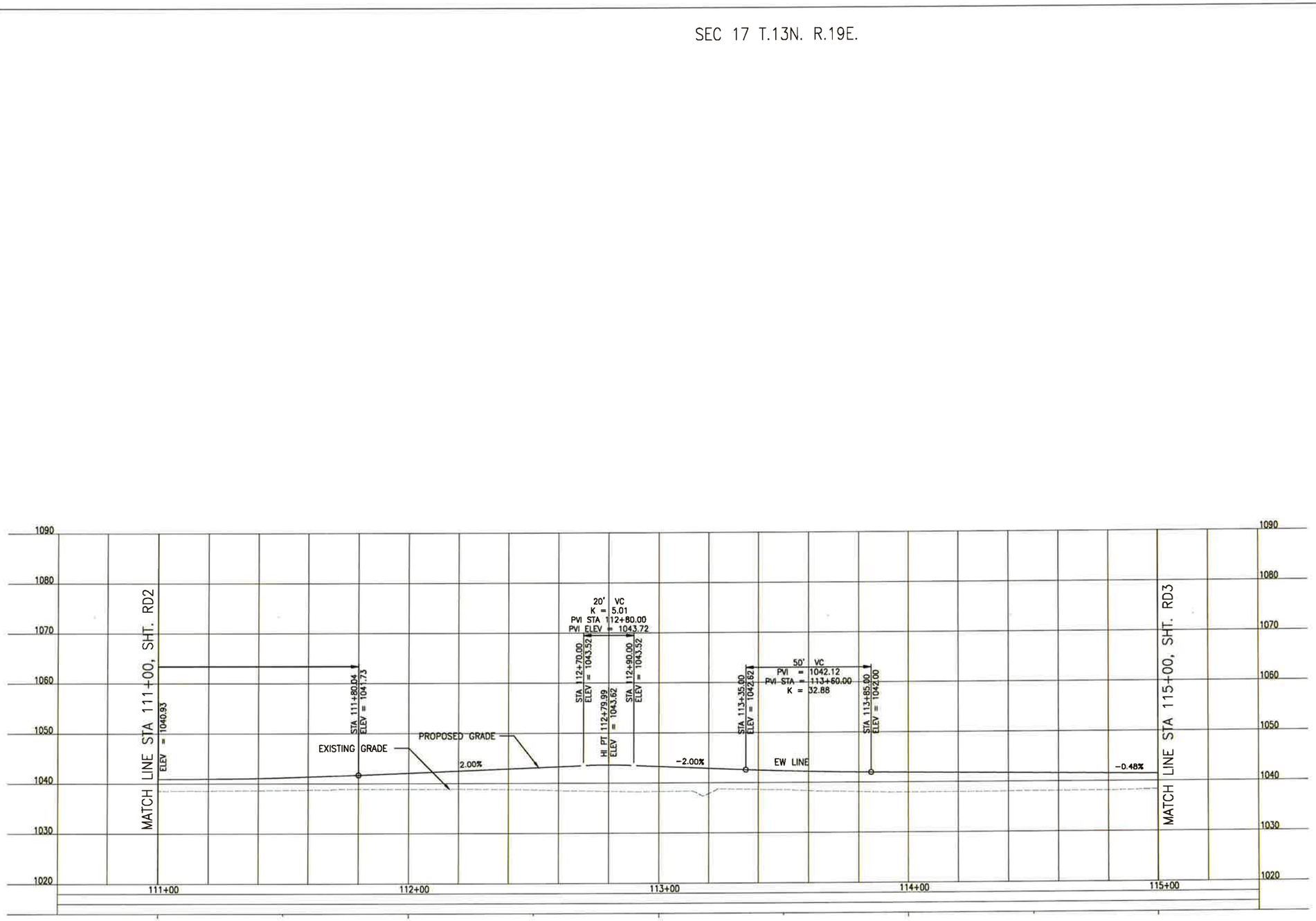
SEC 17 T.13N. R.19E.



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REVISION:

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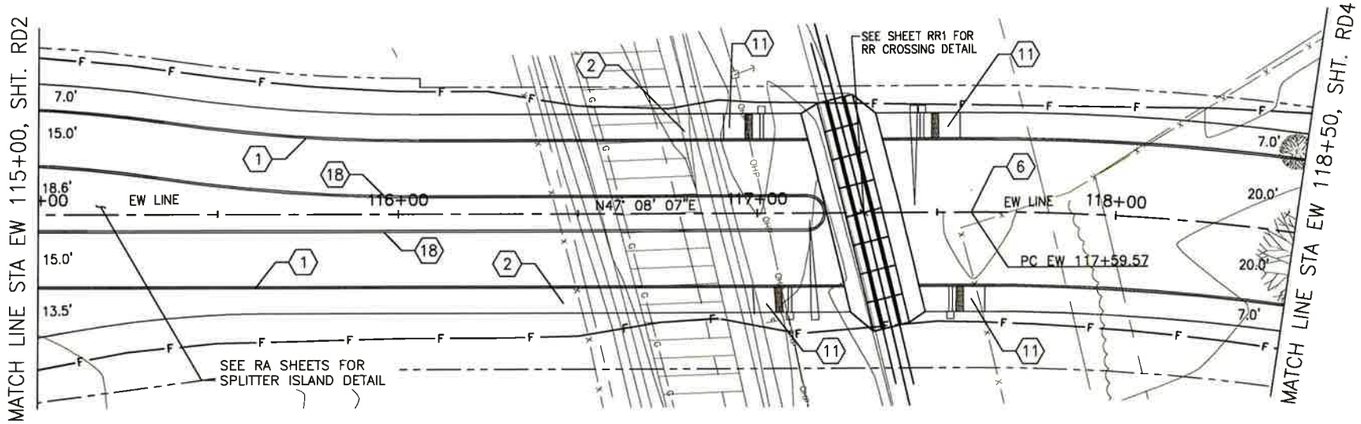

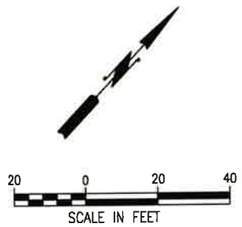

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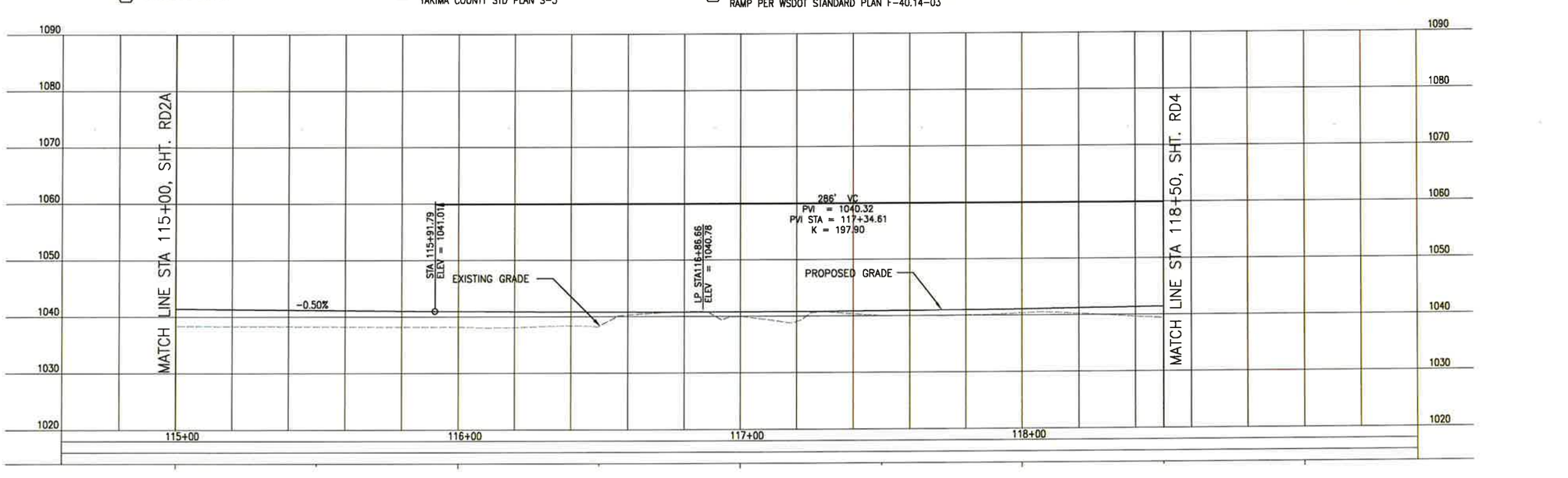
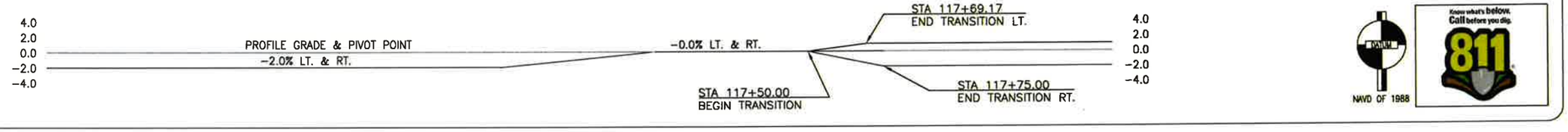
CENTERLINE CURVE DATA

PI STA	RADIUS	LENGTH	TANGENT	DELTA
EW 120+24.30	650.00'	502.79'	264.73'	44°19'12"
–	–	–	–	–





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LOCHNER

DATE:

PROJECT ENGINEER:
A. BUTTERS

DRAWN: | CHECKED BY:

REVISION:

RD3
ROADWAY PLAN AND PROFILE

SHEET ## OF XX

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SEC 17 T.13N. R.19E.

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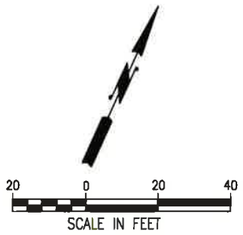
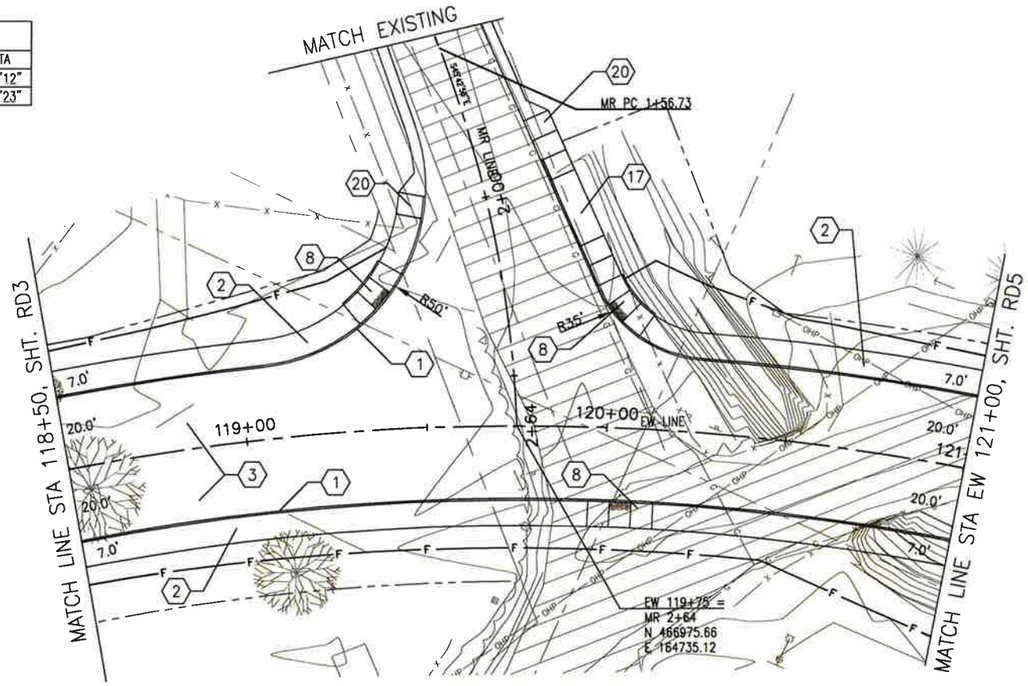
EW 120+24.30	650.00'	502.79'	264.73'	44°19'12"
MR 2+83.63	300.00'	240.10'	126.90'	45°51'23"





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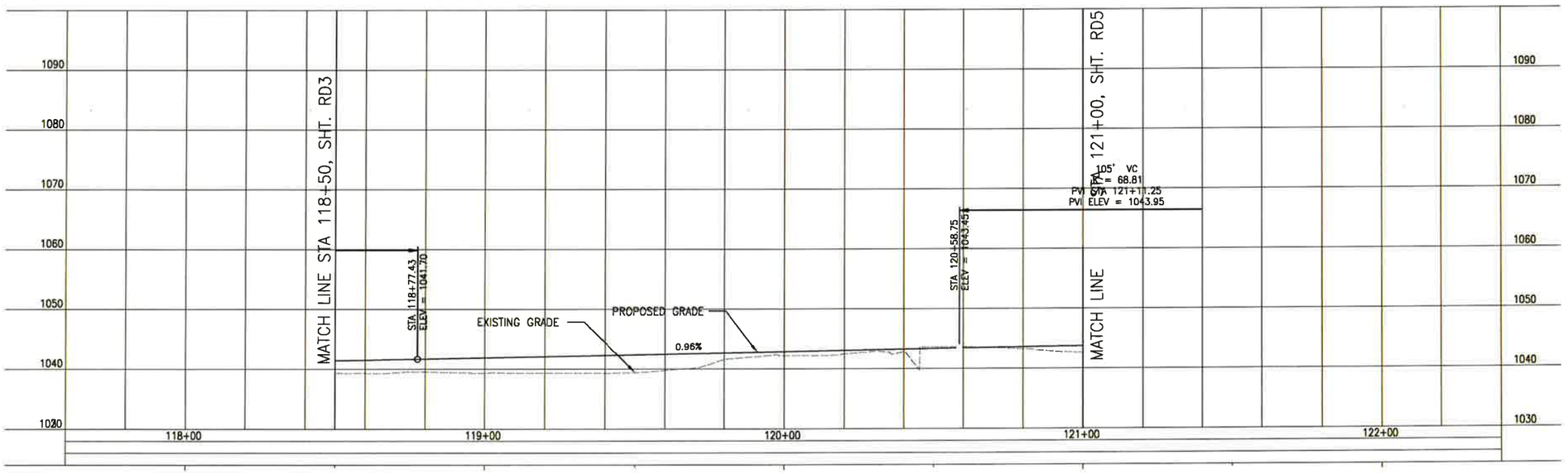

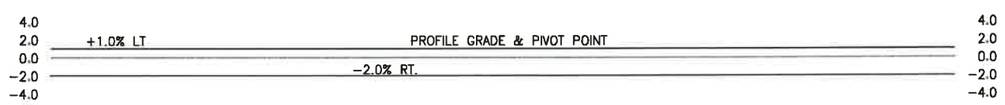

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ROADWAY PLAN AND PROFILE

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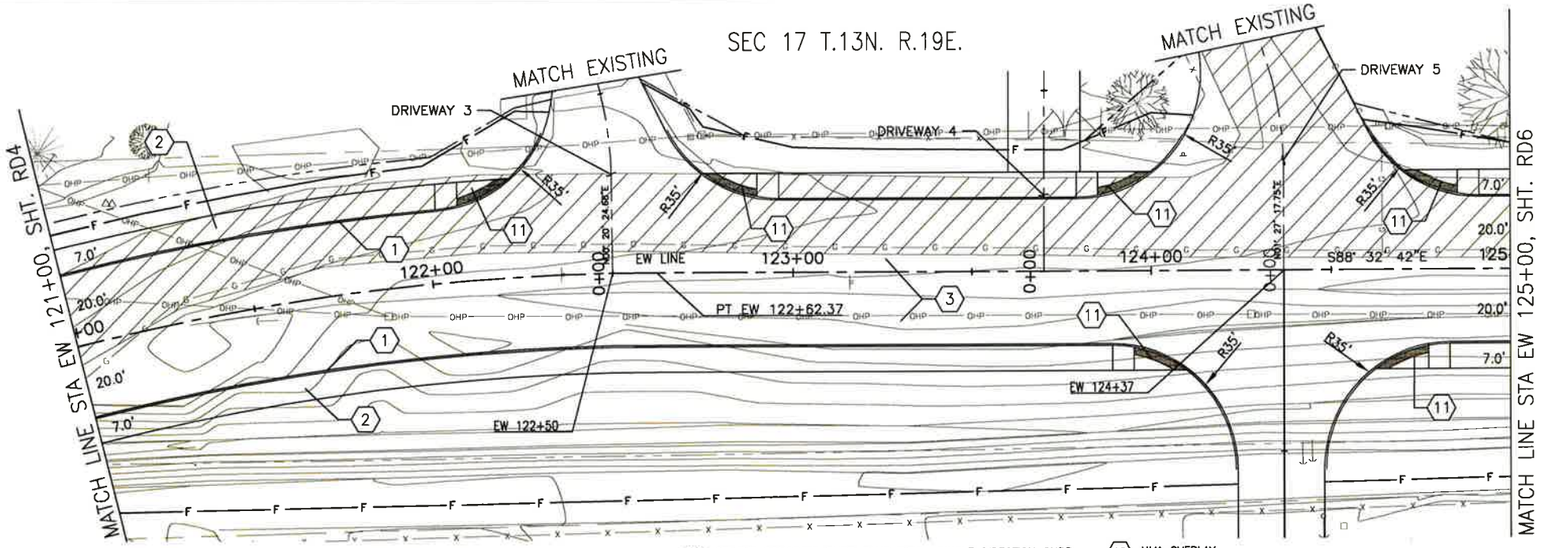
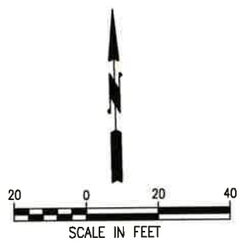


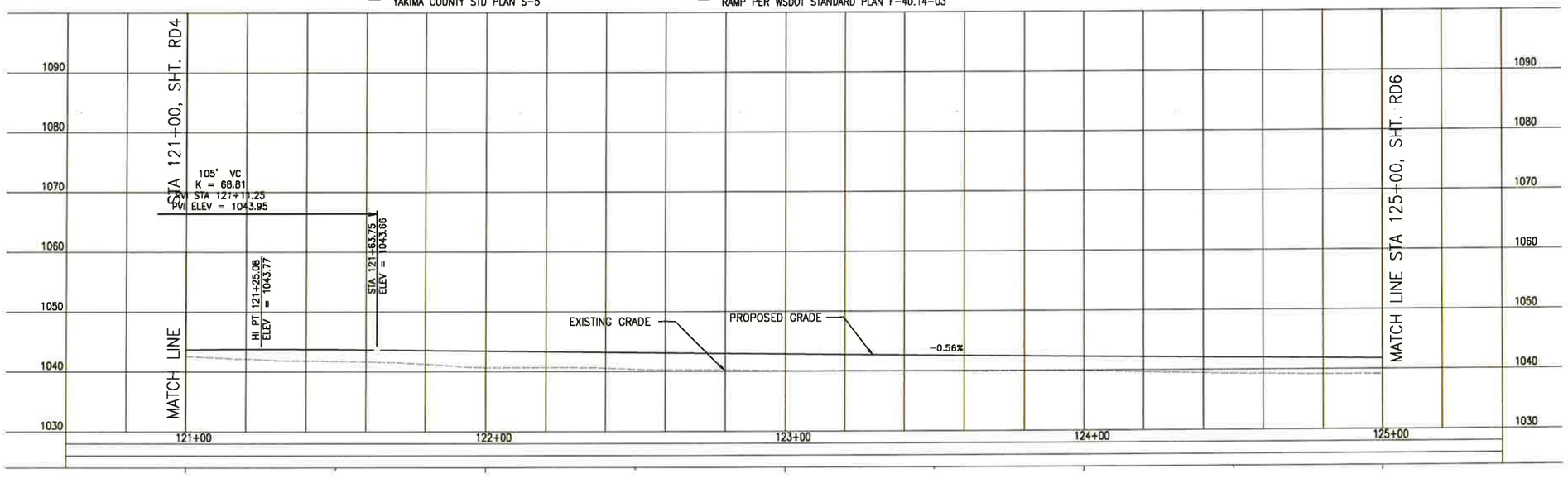


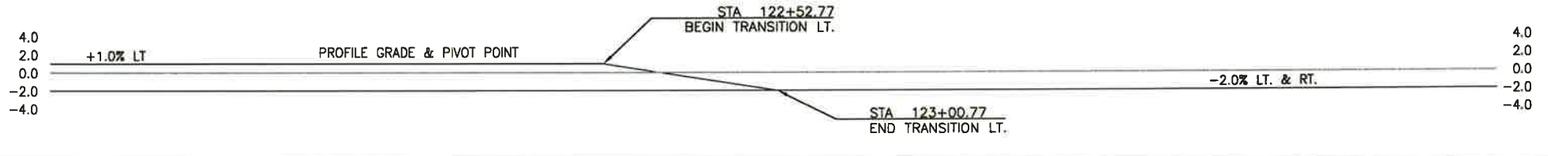
CONSTRUCTION NOTES

1. CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER YAKIMA COUNTY STANDARD PLAN S-1
2. CEMENT CONCRETE SIDEWALK PER YAKIMA COUNTY STANDARD PLAN S-3
3. FULL DEPTH HMA PAVEMENT (SEE RS SHEET)
4. SHARED PATH, HMA
5. LANDSCAPE BUFFER
6. MONUMENT CASE AND COVER
7. ADJUST SURVEY MONUMENT
8. CEMENT CONCRETE CURB RAMP PARALLEL A PER YAKIMA COUNTY STANDARD PLAN S-4
9. NOT USED
10. CEMENT CONCRETE CURB RAMP TYPE PARALLEL B PER YAKIMA COUNTY STD PLAN S-5
11. CEMENT CONCRETE CURB RAMP TYPE SINGLE DIRECTION CURB RAMP TYPE A PER WSDOT STANDARD PLAN F-40-16.03
12. NOT USED
13. ROUNDABOUT TRUCK APRON CEM. CONC. CURB AND GUTTER PER WSDOT STANDARD PLAN F-10.18-01
14. ROUNDABOUT CENTRAL ISLAND CEMENT CONCRETE CURB PER WSDOT STANDARD PLAN F-10.18-01
15. CEMENT CONCRETE CURB RAMP TYPE COMBINATION CURB RAMP PER WSDOT STANDARD PLAN F-40.14-03
16. HMA OVERLAY
17. CEMENT CONCRETE DRIVEWAY PER YAKIMA COUNTY STANDARD PLAN S-7
18. RROUNDABOUT CEMENT CONCRETE CURB AND GUTTER PER WSDOT STANDARD PLAN F-10.18-01
19. SHARED PATH, CEMENT CONCRETE
20. CEMENT CONCRETE TRANSITION RAMP, SEE SHEET DET1

CENTERLINE CURVE DATA

PI STA	RADIUS	LENGTH	TANGENT	DELTA
EW 120+24.30	650.00'	502.79'	264.73'	44°19'12"
-	-	-	-	-





NAVD OF 1988

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

YAKIMA COUNTY

MILL PARKWAY PROJECT
ROZA CANAL TO KEYS ROAD

PROJECT NO. XX

PREPARED UNDER THE DIRECTION OF:

PRELIMINARY DESIGN

PROGRESS PLAN NOT FOR CONSTRUCTION

LOCHNER

DATE:

PROJECT ENGINEER:
A. BUTTERS

DRAWN: | CHECKED BY:

REVISION:

RD5
ROADWAY PLAN AND PROFILE

SHEET ## OF XX

4/17/2018 2:41 PM

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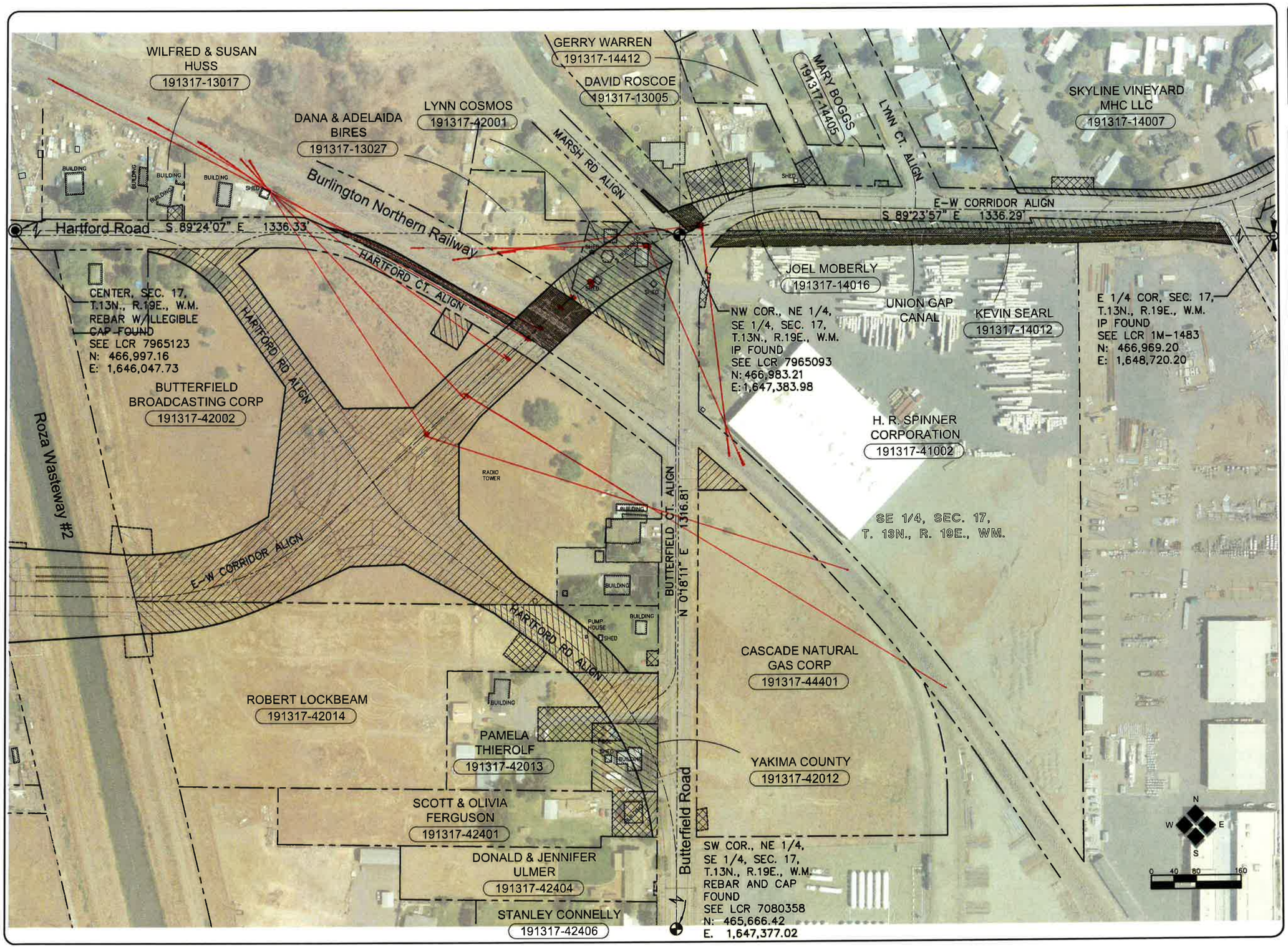


COMMUNITY SERVICE EXCELLENCE
YAKIMA COUNTY

EAST-WEST CORRIDOR PROJECT

N. FAIR AVE TO BUTTERFIELD RD
PHASE 1

PROJECT NO. 17084

PREPARED UNDER THE DIRECTION OF:

ERIC T. HERZOG
STATE OF WASHINGTON
33132
REGISTERED
PROFESSIONAL LAND SURVEYOR

HLA
Engineering and Land Surveying, Inc.
2803 River Road
Yakima, WA 98902
509.966.7000
Fax 509.965.3500
www.hlacivil.com

DATE: 5-29-19

PROJECT ENGINEER: TDA

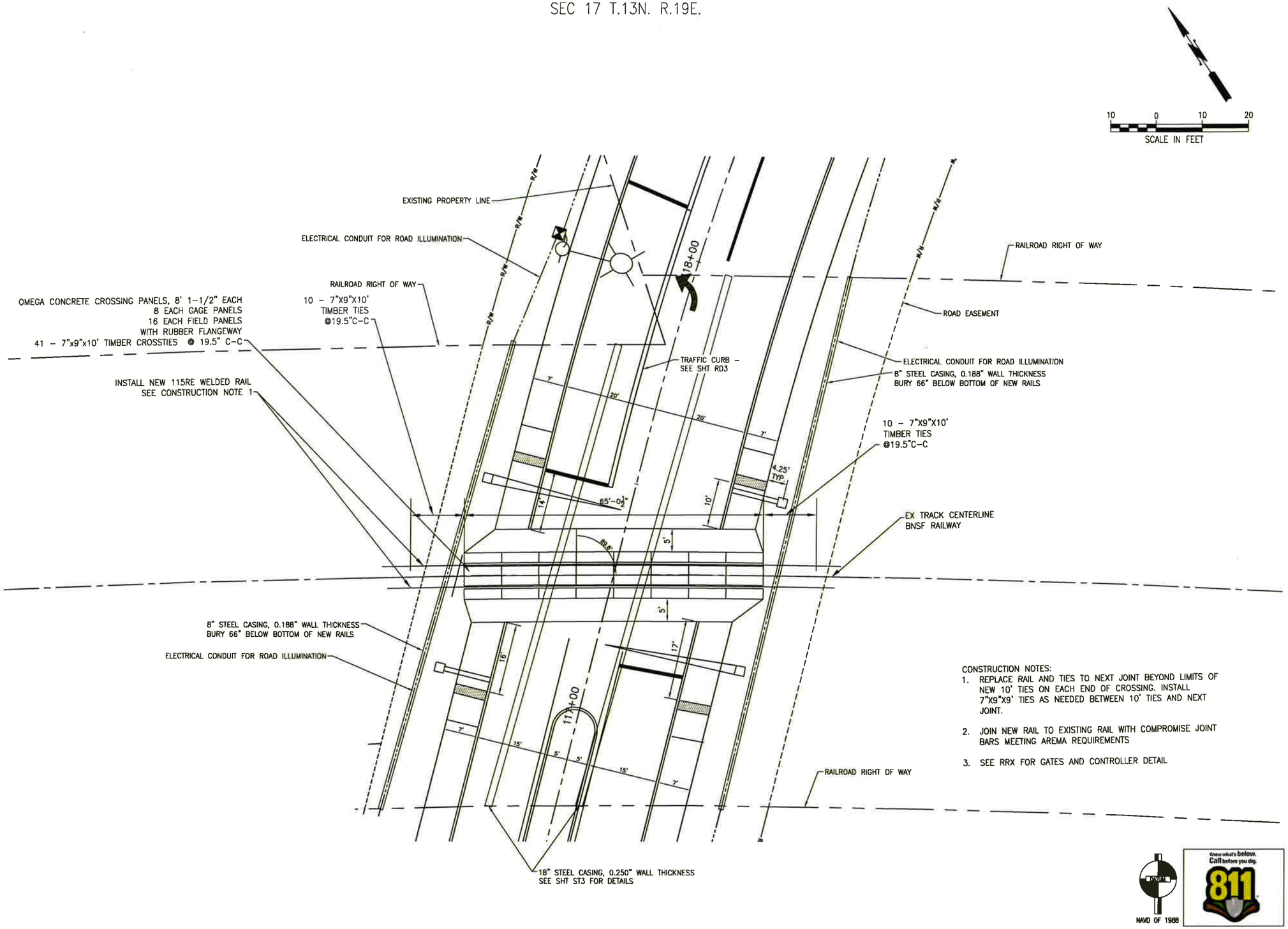
DRAWN:	CHECKED BY:
AJH	ETH

REVISION:

FILE PATH: P:\PROJECTS\2011\11062\RIGHT-OF-WAY SHEETS\SHEETSEWROW.DWG

RIGHT OF WAY SHEETS

SEC 17 T.13N. R.19E.



CONSTRUCTION NOTES:

1. REPLACE RAIL AND TIES TO NEXT JOINT BEYOND LIMITS OF NEW 10' TIES ON EACH END OF CROSSING. INSTALL 7"X9"X9' TIES AS NEEDED BETWEEN 10' TIES AND NEXT JOINT.
2. JOIN NEW RAIL TO EXISTING RAIL WITH COMPROMISE JOINT BARS MEETING AREMA REQUIREMENTS
3. SEE RRX FOR GATES AND CONTROLLER DETAIL

NAVD OF 1988

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

YAKIMA COUNTY

MILL PARKWAY PROJECT
ROZA CANAL TO KEYS ROAD

PROJECT NO. XX

PREPARED UNDER THE DIRECTION OF:

PRELIMINARY DESIGN

PROGRESS PLAN NOT FOR CONSTRUCTION

LOCHNER

DATE:

PROJECT ENGINEER:
A. BUTTERS

DRAWN:	CHECKED BY: A. BUTTERS
REVISION:	

RR1
RAILROAD PLAN

SHEET ## OF XX

9/27/2019 8:26 AM

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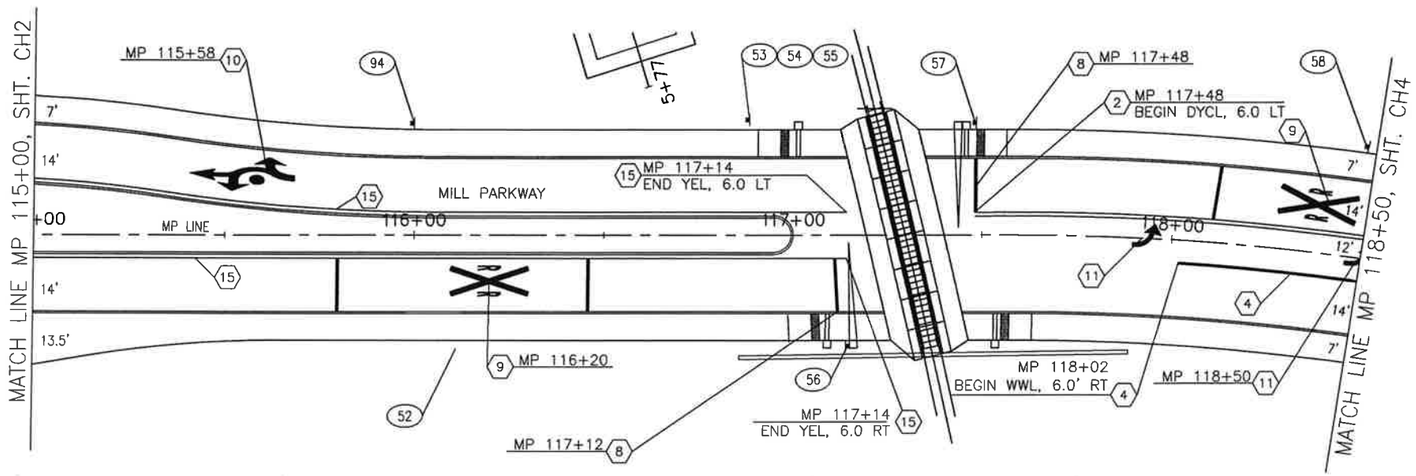
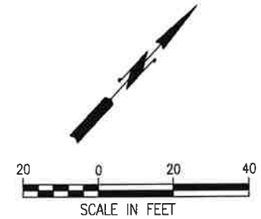
SEC 17 T.13N. R.19E.





STRIPING NOTES

1. PAINTED 4" (WLL) WHITE LANE LINE PER WSDOT STANDARD PLAN M-20.10-02
2. PAINTED 4" (DYCL) DOUBLE YELLOW CENTER LINE PER WSDOT STANDARD PLAN M-20.10-02
3. PAINTED (TWLT) TWO-WAY LEFT TURN PER WSDOT STANDARD PLAN M-20.10-02
4. PAINTED 8" (WWL) WHITE WIDE LANE LINE PER WSDOT STANDARD PLAN M-20.10-02
5. NOT USED
6. PAINTED 12" (WWDEL) WIDE WHITE DOTTED ENTRY LINE PER WSDOT STANDARD PLAN M-12.10-00
7. PAINTED CROSSWALK, SEE STRIPING DETAIL SHEET CH16
8. PAINTED STOP LINE PER WSDOT STANDARD PLAN M-24.60-04
9. PAINTED RAILROAD CROSSING SYMBOL PER WSDOT STANDARD PLAN M-11.10-02
10. PAINTED ROUNDABOUT TRAFFIC ARROW PER WSDOT STANDARD PLAN M-24.50-00
11. PAINTED TRAFFIC ARROW PER WSDOT STANDARD PLAN M-24.40-02
12. PAINTED 6' TRAFFIC LETTER PER WSDOT STANDARD PLAN M-80.10-01
13. PAINTED YIELD LINE SYMBOL PER WSDOT STANDARD PLAN M-24.60-04
14. PAINTED 8" (WEL) WHITE EDGE LINE OR (WWL) WIDE LANE LINE PER WSDOT STANDARD PLAN M-20.10-02
15. PAINTED 4" (YEL) YELLOW EDGE LINE PER WSDOT STANDARD PLAN M-20.10-02
16. NOT USED
17. PAINTED 4" (WEL) WHITE EDGE LINE PER WSDOT STANDARD PLAN M-20.10-02

SIGNING SCHEDULE

	ALIGNMENT	STATION	OFFSET	NEW/EXST	MUTCD CODE	SIZE (INCHES)	DESCRIPTION	REMARKS
52	MP	116+10	32' RT	NEW	W10-1	36dia	RAILROAD WARNING	
53	MP	116+89	30' LT	NEW	W16-8P	36x18	MILL PARKWAY/ HARTFORD RD	
54	MP	116+89	30' LT	NEW	W2-6	30X30	INTERSECTION WARNING	
55	MP	116+89	30' LT	NEW	W13-1P	18x18	ADVISORY SPEED (15)	
56	MP	117+17	29' RT	NEW	R15-1	48x9	GRADE CROSSING	
57	MP	117+48	28' LT	NEW	R15-1	48x9	GRADE CROSSING	
58	MP	118+48	28' LT	NEW	W10-1	36dia	RAILROAD WARNING	
94	MP	116+00	30' LT	NEW	R3-8(MOD)*	24X30	LANE CONTROL ARROW	

*WSDOT SIGN CODE

GENERAL NOTES

1. SIGN POST ARE APPROXIMATELY LOCATED & MAY BE MOVED AS DIRECTED BY THE FIELD ENGINEER.
2. FOR SIGN REMOVAL SEE SHEET CH17 AND SITE PREP SHEETS SP1 TP SP14
3. SEE RA SHEETS FOR SPLITTER ISLAND AND CURB RADIUS DETAILS

NAVD OF 1988

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

YAKIMA COUNTY

MILL PARKWAY PROJECT
ROZA CANAL TO KEYS ROAD

PROJECT NO. XX

PREPARED UNDER THE DIRECTION OF:

PRELIMINARY DESIGN

PROGRESS PLAN NOT FOR CONSTRUCTION

LOCHNER

DATE:

PROJECT ENGINEER:
A. BUTTERS

DRAWN:	CHECKED BY:
SG	A. BUTTERS

REVISION:

CH3
CHANNELIZATION AND SIGNING PLAN

SHEET ## OF XX

2/1/2019 9:29 AM

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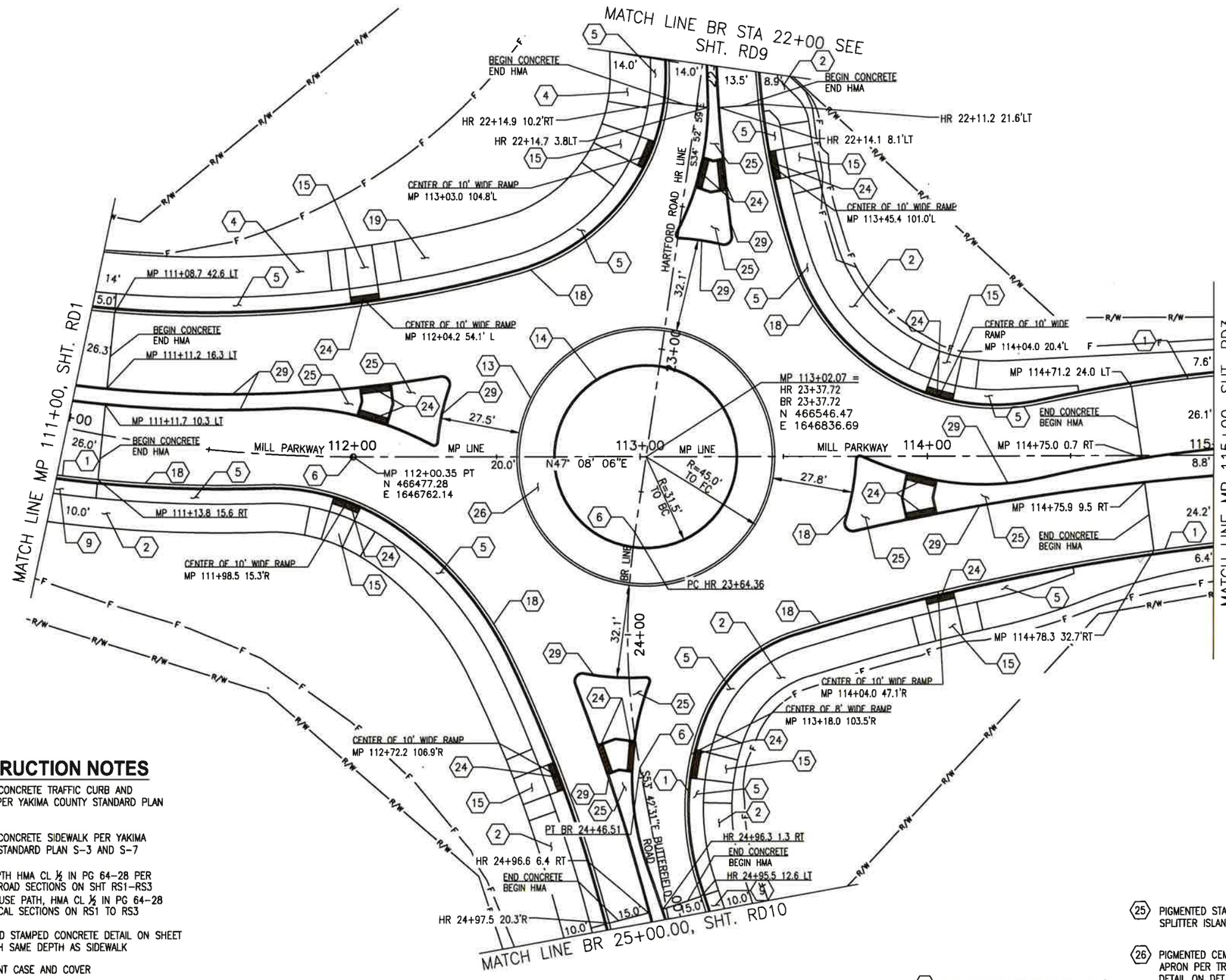
SEC 17 T.13N. R.19E.



20 0 20 40
SCALE IN FEET

CONSTRUCTION NOTES

1. CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER YAKIMA COUNTY STANDARD PLAN S-1
2. CEMENT CONCRETE SIDEWALK PER YAKIMA COUNTY STANDARD PLAN S-3 AND S-7
3. FULL DEPTH HMA CL ½ IN PG 64-28 PER TYPICAL ROAD SECTIONS ON SHT RS1-RS3
4. SHARED-USE PATH, HMA CL ½ IN PG 64-28 PER TYPICAL SECTIONS ON RS1 TO RS3
5. PIGMENTED STAMPED CONCRETE DETAIL ON SHEET DET1 WITH SAME DEPTH AS SIDEWALK
6. MONUMENT CASE AND COVER
7. ADJUST SURVEY MONUMENT
8. CEMENT CONCRETE CURB RAMP TYPE PARALLEL A PER YAKIMA COUNTY STANDARD PLAN S-4
9. LANDSCAPE BUFFER/LANDSCAPE AREA. SEE LANDSCAPING PLANS.
10. CEMENT CONCRETE CURB RAMP TYPE PARALLEL B PER YAKIMA COUNTY STD PLAN S-5
11. CEMENT CONCRETE CURB RAMP TYPE SINGLE DIRECTION A PER WSDOT STANDARD PLAN F-40.16-03
12. GRAVEL SHOULDER PER SECTIONS ON SHT. RS3
13. ROUNDABOUT TRUCK APRON CEM. CONC. CURB AND GUTTER PER WSDOT STANDARD PLAN F-10.18-01
14. ROUNDABOUT TRUCK APRON INNER CEMENT CONCRETE CURB PER DETAIL ON SHT. DET1
15. CEMENT CONCRETE CURB RAMP TYPE COMBINATION CURB RAMP PER WSDOT STANDARD PLAN F-40.14-03
16. 12" WIDE DUAL-FACED CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-03
17. CEMENT CONCRETE DRIVEWAY PER YAKIMA COUNTY STANDARD PLAN S-7
18. ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER PER WSDOT STANDARD PLAN F-10.18-01
19. SHARED-USE PATH, CEMENT CONCRETE SEE ROADWAY SECTION D, SHEET RS1
20. CEMENT CONCRETE TRANSITION RAMP, SEE SHEET DET1
21. NON-COMMERCIAL RURAL DRIVEWAY APPROACH PER YAKIMA COUNTY STANDARD PLAN DR-1/DR-2 AND TYPICAL SECTION ON SHEET RS3
22. SAWCUT AND MATCH EXISTING PER BUTT JOINT DETAIL ON SHT DET1
23. CEMENT CONCRETE PEDESTRIAN CURB YAKIMA COUNTY STANDARD PLAN S-1
24. DETECTABLE WARNING SURFACE PER WSDOT STANDARD PLAN F-45.10-02
25. PIGMENTED STAMPED CONCRETE PER SPLITTER ISLAND DETAIL ON DET1
26. PIGMENTED CEMENT CONC. TRUCK APRON PER TRUCK APRON TRUCK DETAIL ON DET1
27. ADJUST SEWER MANHOLE
28. ADJUST WATER VALVE BOX
29. [redacted] CEMENT CONCRETE TRAFFIC CURB PER WSDOT STANDRD PLAN F-10.12-03

GENERAL NOTES

1. SEE CPJ SHEET FOR CONCRETE PANEL JOINT LIMITS.
2. SEE RA SHEETS FOR CURB RADIUS DETAILS, SPLITTER ISLAND DETAILS, AND ELEVATION INFORMATION.
3. ROAD DIMENSIONS ARE SHOWN TO FACE OF CURB OR EDGE OF PAVEMENT. SIDEWALK DIMENSIONS ARE SHOWN TO BACK OF CURB.
4. SEE SHEET RD2A FOR CENTERLINE PROFILES.

NAVD OF 1988

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

YAKIMA COUNTY

MILL PARKWAY PROJECT
STAGE 1B
ROZA CANAL TO KEYS ROAD

PROJECT NO. 3446

PREPARED UNDER THE DIRECTION OF:

FINAL DESIGN

PROGRESS PLAN NOT FOR CONSTRUCTION

LOCHNER

DATE: JAN. 2020

PROJECT ENGINEER:
A. BUTTERS

DRAWN: MAS	CHECKED BY: A. BUTTERS
REVISION:	

RD2
ROADWAY PLAN AND PROFILE

SHEET ## OF XX

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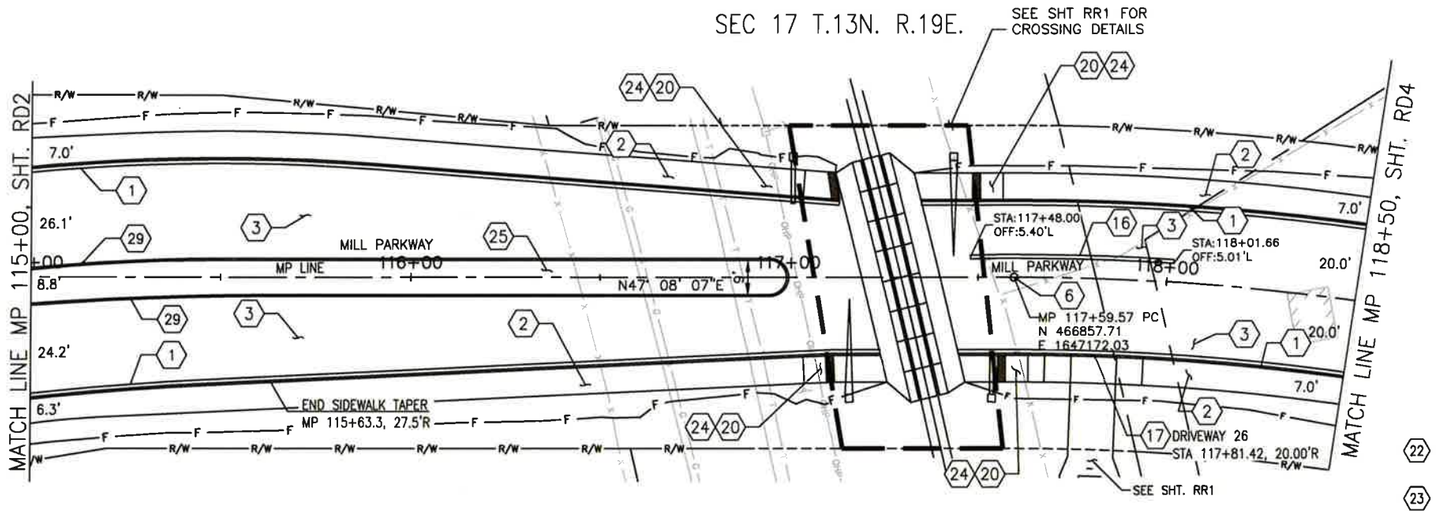
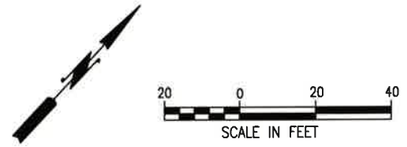




CENTERLINE CURVE DATA

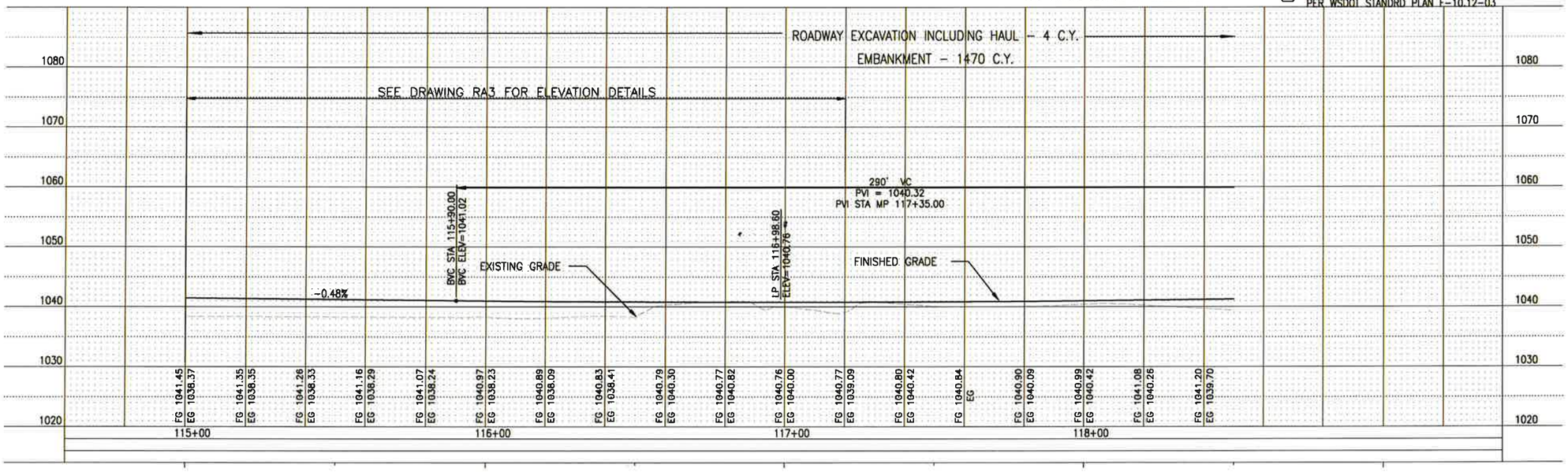
PI STA	RADIUS	LENGTH	TANGENT	DELTA
MP 120+24.30	650.00'	502.79'	264.73'	44°19'12"
–	–	–	–	

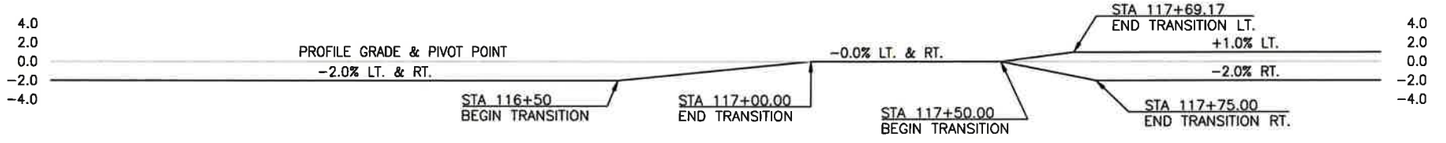
GENERAL NOTES

1. ROAD DIMENSIONS ARE SHOWN TO FACE OF CURB OR EDGE OF PAVEMENT. SIDEWALK DIMENSIONS ARE SHOWN TO BACK OF CURB.
2. STATION AND OFFSET FOR DUAL-FACED CEMENT CONCRETE TRAFFIC CURB ARE TO CENTERLINE OF CURB AT BEGINNING AND END.

CONSTRUCTION NOTES

1. CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER YAKIMA COUNTY STANDARD PLAN S-1
2. CEMENT CONCRETE SIDEWALK PER YAKIMA COUNTY STANDARD PLAN S-3 AND S-7
3. FULL DEPTH HMA CL ½ IN PG 64-28 PER TYPICAL ROAD SECTIONS ON SHT RS1-RS3
4. SHARED-USE PATH, HMA CL ½ IN PG 64-28 PER TYPICAL SECTIONS ON RS1 TO RS3
5. PIGMENTED HERRINGBONE STAMPED CONCRETE PER 45 DEGREE HERRINGBONE DETAIL ON SHEET DET1 WITH SAME DEPTH AS SIDEWALK
6. MONUMENT CASE AND COVER
7. ADJUST SURVEY MONUMENT
8. CEMENT CONCRETE CURB RAMP TYPE PARALLEL A PER YAKIMA COUNTY STANDARD PLAN S-4
9. LANDSCAPE BUFFER. SEE LANDSCAPING PLANS.
10. CEMENT CONCRETE CURB RAMP TYPE PARALLEL B PER YAKIMA COUNTY STD PLAN S-5
11. CEMENT CONCRETE CURB RAMP TYPE SINGLE DIRECTION A PER WSDOT STANDARD PLAN F-40.16-03
12. GRAVEL SHOULDER PER SECTIONS ON SHT. RS3
13. ROUNDABOUT TRUCK APRON CEM. CONC. CURB AND GUTTER PER WSDOT STANDARD PLAN F-10.18-01
14. ROUNDABOUT TRUCK APRON INNER CEMENT CONCRETE CURB
15. CEMENT CONCRETE CURB RAMP TYPE COMBINATION CURB RAMP PER WSDOT STANDARD PLAN F-40.14-03
16. 12" WIDE DUAL-FACED CEMENT CONCRETE TRAFFIC CURB PER WSDOT STD PLAN F-10.12-03
17. CEMENT CONCRETE DRIVEWAY PER YAKIMA COUNTY STANDARD PLAN S-7
18. ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER PER WSDOT STANDARD PLAN F-10.18-01
19. SHARED-USE PATH, CEMENT CONCRETE SEE ROADWAY SECTION D, SHEET RS1
20. CEMENT CONCRETE TRANSITION RAMP, SEE SHEET DET1
21. NON-COMMERCIAL RURAL DRIVEWAY APPROACH PER YAKIMA COUNTY STANDARD PLAN DR-1/DR-2 AND TYPICAL SECTION ON SHEET RS3
22. SAWCUT AND MATCH EXISTING PER BUTT JOINT DETAIL ON SHEET DET1
23. CEMENT CONCRETE PEDESTRIAN CURB YAKIMA COUNTY STANDARD PLAN S-1
24. DETECTABLE WARNING SURFACE PER WSDOT STANDARD PLAN F-45.10-02
25. PIGMENTED STAMPED CONCRETE PER SPLITTER ISLAND DETAIL ON DET1
26. PIGMENTED CEMENT CONC. TRUCK APRON PER TRUCK APRON TRUCK DETAIL ON DET1
27. ADJUST SEWER MANHOLE
28. ADJUST WATER VALVE BOX
29. [redacted] CEMENT CONCRETE TRAFFIC CURB PER WSDOT STANDRD PLAN F-10.12-03





NAVD OF 1988

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

YAKIMA COUNTY

MILL PARKWAY PROJECT
STAGE 1B
ROZA CANAL TO KEYS ROAD

PROJECT NO. 3446

PREPARED UNDER THE DIRECTION OF:

PROGRESS PLAN NOT FOR CONSTRUCTION

LOCHNER

DATE: JAN. 2020

PROJECT ENGINEER:
A. BUTTERS

DRAWN: MAS	CHECKED BY: A. BUTTERS
REVISION:	

RD3
ROADWAY PLAN AND PROFILE

SHEET ## OF XX

1/17/2020 1:20 PM

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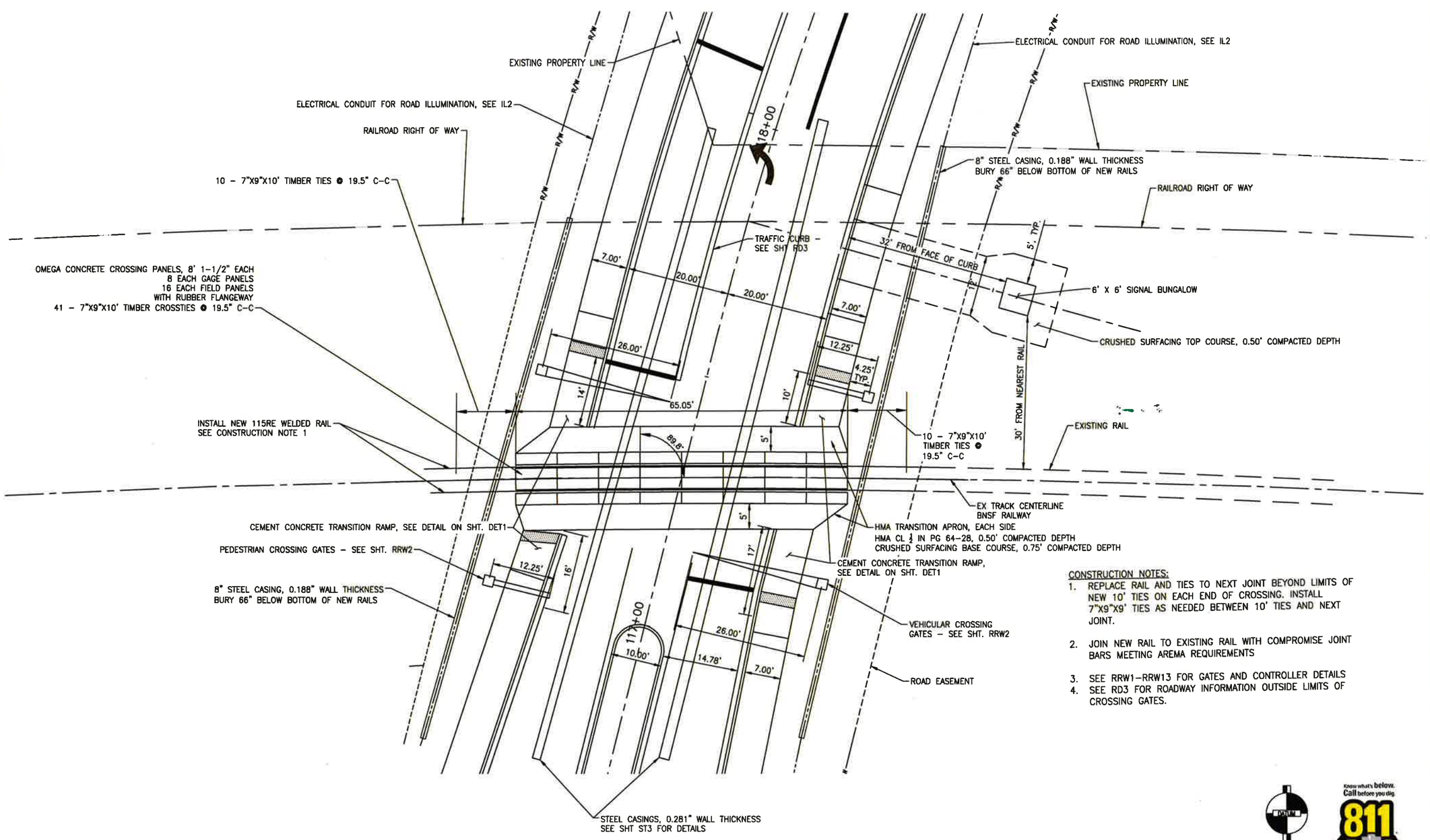

CONSTRUCTION NOTES:

1. REPLACE RAIL AND TIES TO NEXT JOINT BEYOND LIMITS OF NEW 10' TIES ON EACH END OF CROSSING. INSTALL 7"X9"X9' TIES AS NEEDED BETWEEN 10' TIES AND NEXT JOINT.
2. JOIN NEW RAIL TO EXISTING RAIL WITH COMPROMISE JOINT BARS MEETING AREMA REQUIREMENTS
3. SEE RRW1–RRW13 FOR GATES AND CONTROLLER DETAILS
4. SEE RD3 FOR ROADWAY INFORMATION OUTSIDE LIMITS OF CROSSING GATES.

NAVD OF 1988

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

1/17/2020 1:53 PM

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YAKIMA COUNTY

MILL PARKWAY PROJECT
STAGE 1B
ROZA CANAL TO KEYS ROAD

PROJECT NO. 3446

PREPARED UNDER THE DIRECTION OF:

PROGRESS PLAN NOT FOR CONSTRUCTION

LOCHNER

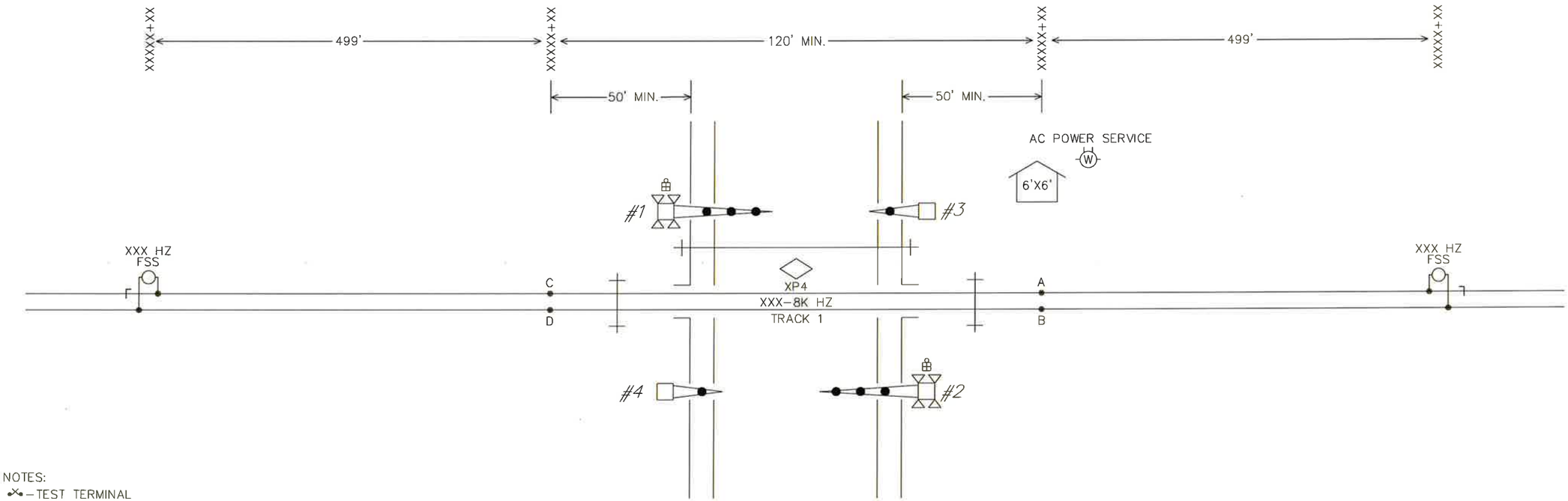
DATE: JAN. 2020

PROJECT ENGINEER:
A. BUTTERS

DRAWN:	CHECKED BY: A. BUTTERS
REVISION:	

RR1
RAILROAD PLAN

SHEET ## OF XX



XXXXXXXXXXXXXXX
DOT # XXX XXX X
℄XXXXX+XX

NOTES:
- ⊸ – TEST TERMINAL
- ⊿ – EQUALIZER
- ∠ – LINE ARRESTER
- ◢ – HEAVY DUTY ARRESTER
- ⊸ – TWISTED WIRE 2 TURNS PER FOOT

ALL WIRES #16 AWG UNLESS OTHERWISE NOTED

NOTES:
EQUIPMENT IS DESIGNED FOR 20 SECONDS MINIMUM WARNING TIME AT 10 MPH.
APPROACHES WERE LENGTHENED 10 SECONDS FOR SPEED VARIANCE AND BALLAST CHANGES.
APPROACHES WERE LENGTHENED 4 SECONDS FOR EQUIPMENT RESPONSE TIME.
ALL LAMPS TO BE LED.

VERIFY THERE ARE NO INTERFERING TRACK CIRCUITS, INSULATED JOINTS, OR OTHER CONDITIONS WITHIN THE APPROACH THAT MAY ADVERSELY AFFECT CROSSING OPERATION. CONTRACTOR TO SELECT APPROACH FREQUENCY COMPATIBLE WITH EXISTING CONDITIONS AND ACCORDING TO MANUFACTURER SPECIFICATIONS.

NO.	DATE	BY	APPR.	REVISIONS

APPROVED FOR CONSTRUCTION

ENGINEERING MANAGER DATE

PROJECT MANAGER DATE

PROJECT ENGINEER DATE

DESIGNED BY DATE

DRAWN BY DATE

CHECKED BY DATE

APPROVED BY DATE

FILENAME: Circuit drawings.dwg

LOCHNER

RANI engineering

COUNTY OF YAKIMA
XXXXXXXXXXXXXXXXXXXXX

E-W CORRIDOR RR CROSSING
TRAIN DETECTION CIRCUIT AND WARNING DEVICE LAYOUT

DRAWING NUMBER
RRW1

SHT 1 OF 14

5/29/2019 3:30 PM

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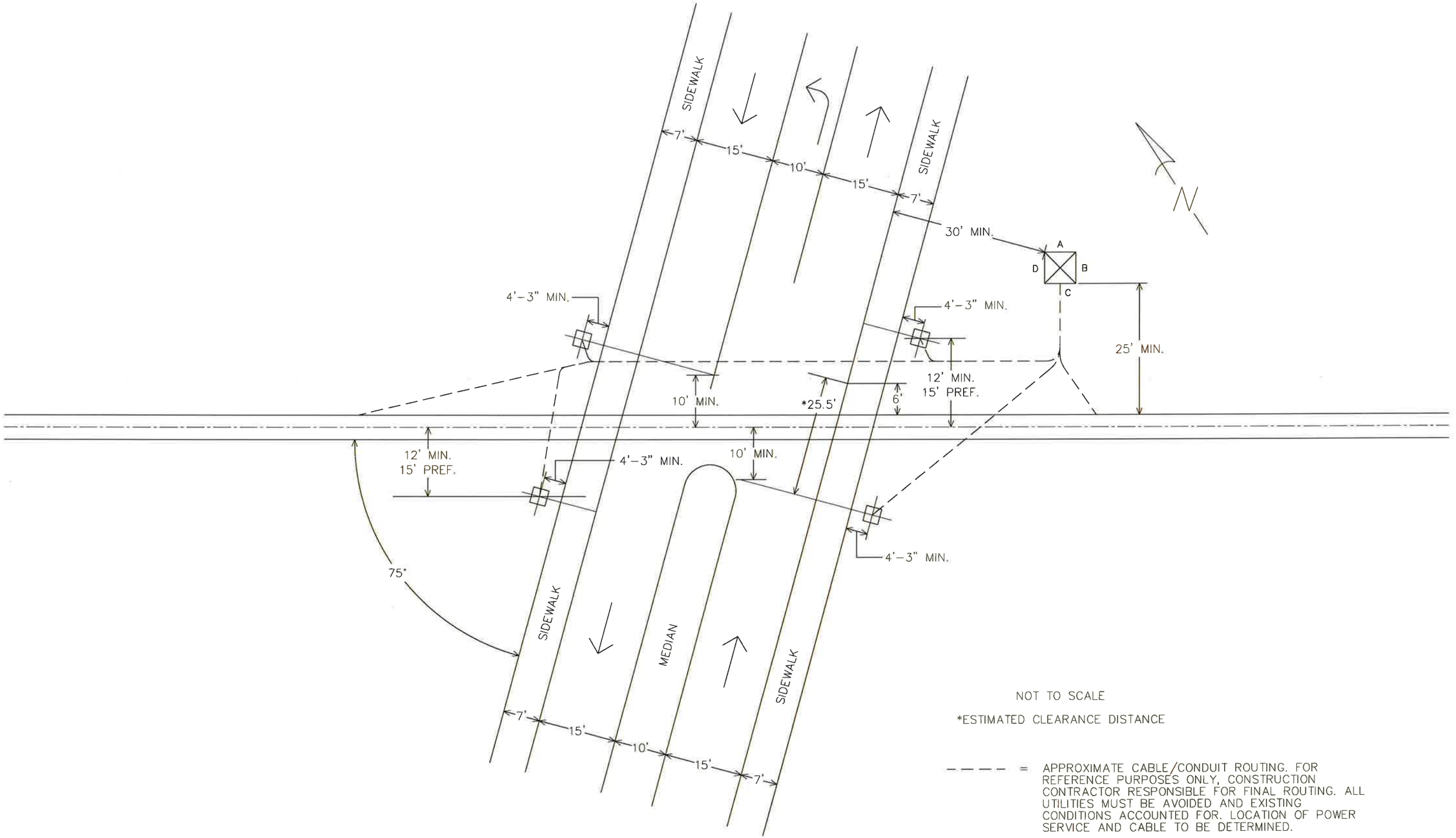

NOT TO SCALE

*ESTIMATED CLEARANCE DISTANCE

– – – – = APPROXIMATE CABLE/CONDUIT ROUTING. FOR REFERENCE PURPOSES ONLY, CONSTRUCTION CONTRACTOR RESPONSIBLE FOR FINAL ROUTING. ALL UTILITIES MUST BE AVOIDED AND EXISTING CONDITIONS ACCOUNTED FOR. LOCATION OF POWER SERVICE AND CABLE TO BE DETERMINED.

NO.	DATE	BY	APPR.	REVISIONS

APPROVED FOR CONSTRUCTION

ENGINEERING MANAGER DATE

PROJECT MANAGER DATE

PROJECT ENGINEER DATE

DESIGNED BY DATE

DRAWN BY DATE

CHECKED BY DATE

APPROVED BY DATE

FILENAME: Circuit drawings.dwg

LOCHNER

RANI engineering

COUNTY OF YAKIMA
XXXXXXXXXXXXXXXXXXXX

E-W CORRIDOR RR CROSSING
WARNING DEVICE FOUNDATION PLACEMENT

DRAWING NUMBER
RRW2

SHT 2 OF 14

5/29/2019 3:30 PM

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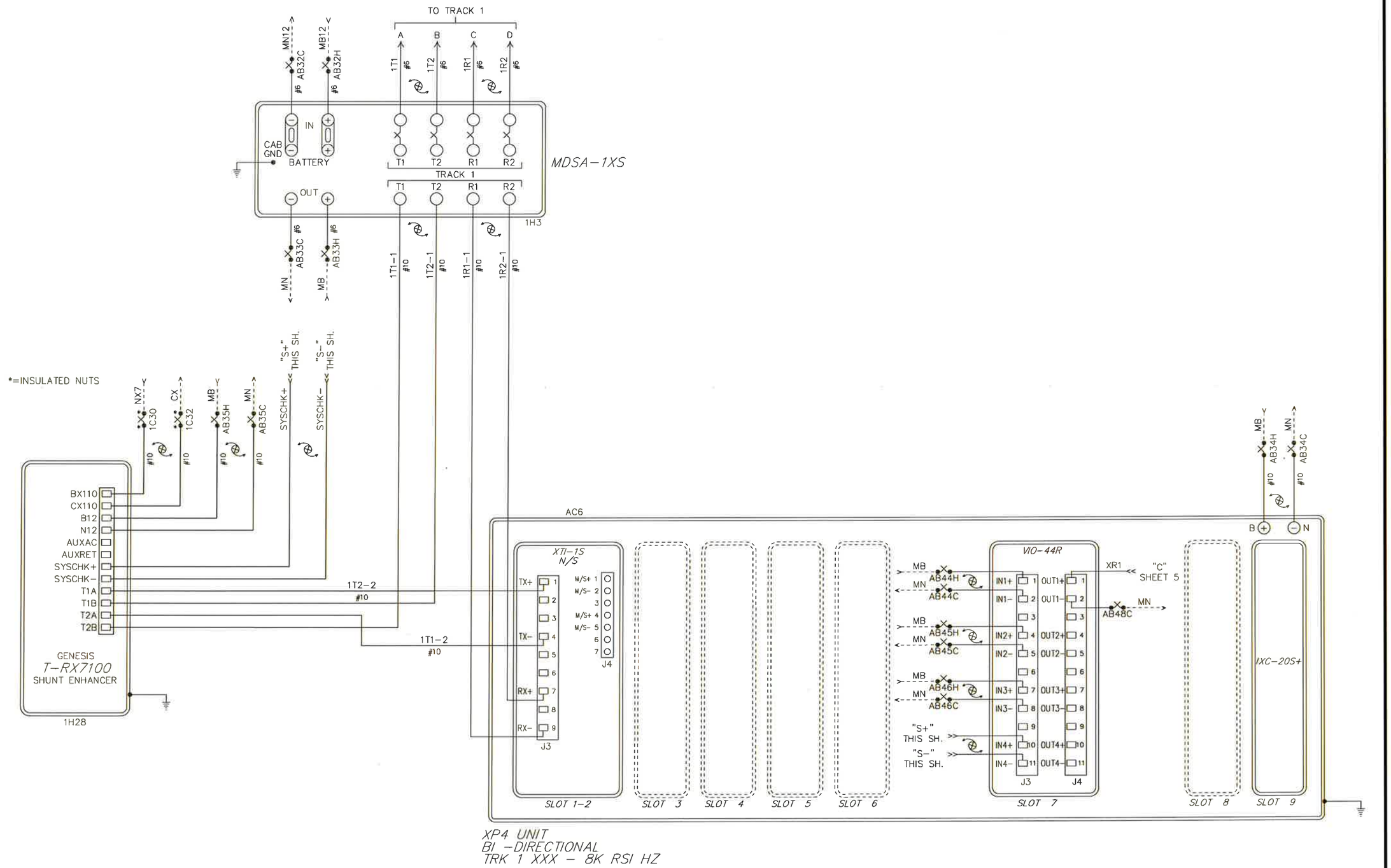

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RANI engineering

COUNTY OF YAKIMA
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E-W CORRIDOR RR CROSSING
XP4 TRACK CIRCUITS

DRAWING NUMBER
RRW3

SHT 3 OF 14

APPLICATION SOFTWARE INFO								
TYPE	REDUNDANT							
NAME	1r_1_1i_1x_a							
CONFIGURATION	1							
CHECKSUM	D8AE							
CRC	3A40							
CHASSIS ID								
DIP NO.	1	2	3	4	5	6	7	8
SHUNT	X	X	X	X	X	X	I	X
CHASSIS ID DECIMAL	2							

I = TAB INTACT
X = TAB PUNCHED OUT

VITAL I/O		
SLOT 7 INPUTS		
INPUT #	NAME	FUNCTION
INPUT 1	S7_IN1_AUX1	AUX/CWE For MDR1
INPUT 2	S7_IN2_AUX2	AUX/CWE For MDR2
INPUT 3	S7_IN3_AUX3	AUX/CWE For MDR3
INPUT 4	S7_IN4_AUX1	AUX/CWE For MDR1
SLOT 7 OUTPUTS		
OUTPUT #	NAME	FUNCTION
OUTPUT 1	S7_OUT1_MDR1	RELAY OUTPUT-MDR1
OUTPUT 2	S7_OUT2_MDR2	RELAY OUTPUT-MDR2
OUTPUT 3	S7_OUT3_MDR3	RELAY OUTPUT-MDR3
OUTPUT 4	S7_OUT4_ISL1	RELAY OUTPUT-ISL1

PROGRAM VERSION 5.9 OR LATER
*=FIELD ADJUSTMENT TO BE MADE ACCORDING TO THE XP4 INSTRUCTION MANUAL 100323-010 AH0 & SUPPLEMENTS.

BASIC TRACK SETUP	
ADJUSTMENT NAME	TRACK 1
ISLAND ASSIGNMENT	ISL1_ASSIGN
APPROACH FREQUENCY (HZ)	XXX HZ
APPROACH LENGTH (FEET)	499
MASTER/SLAVE	MASTER
UNI/BI	BI
RX ADJUST	100
TCA (TRANSMITTER CHECK)	*
LIA (LUMPED IMPEDANCE)	*
ADVANCED APR. CAL	INACTIVE
NBS COMP RX	*
AUTO RX	ENABLE
MD TIMER ENABLE	DISABLE
MD TIMER DELAY (MIN.)	10
LOS TIME (SEC.)	16 SEC.
IJ-LOS TIME (SEC.)	5 SEC.
FALSE SHUNT ENABLE	DISABLE
FALSE SHUNT RX	0
FALSE SHUNT DELAY (MIN.)	10
APPROACH RELEASE ENABLE	DISABLE
APPROACH RELEASE RX	0
APPROACH RELEASE DELAY (MIN.)	10
NRML_SHRT_VRYSHRT	NRML
ISLAND SETUP	
TRACK #	TRACK 1
FREQUENCY (HZ)	8000 HZ
ISLAND ENABLE	ENABLE
FAULT DELAY	1
LOS COUNT (SEC.)	2.0
MAINTENANCE MENU	
TRACK #	TRACK 1
ENABLE/DISABLE	ENABLE
DISABLE TIMEOUT	*
BALLAST COMP.	*
PHASE COMP.	*

NOTE: DL = DEFAULT LEVEL
NA = NON APPLICABLE

MDR SETUP			
MDR #	MDR 1	MDR 2	MDR 3
WARNING TIME (SECS.)	30	99	99
CONSTANT WARNING (CW) OR MOTION DETECTOR (MD)	CW	MD	MD
TRACK ASSIGN	1	1	1
TRACK OFFSET DISTANCE (FEET)	0	0	0
MD-RESTART RX	*0	*0	*0
SUDDEN SHUNT ZONE RX	0	0	0
POST JOINT	ENABLE	ENABLE	ENABLE
POST JOINT RX	15	15	15
POST JOINT DELAY (SECS.)	15	15	15
POSITIVE START	DISABLE	DISABLE	DISABLE
POSITIVE START RX	0	0	0
POSITIVE START ACTIVE TIME (MIN.)	0	0	0
AUX RECOVERY DELAY (SECS.)	0	0	0
CWE-WT	80	80	80

NOTE:
THESE ARE DEFAULT VALUES. FIELD ASSIGNABLE.

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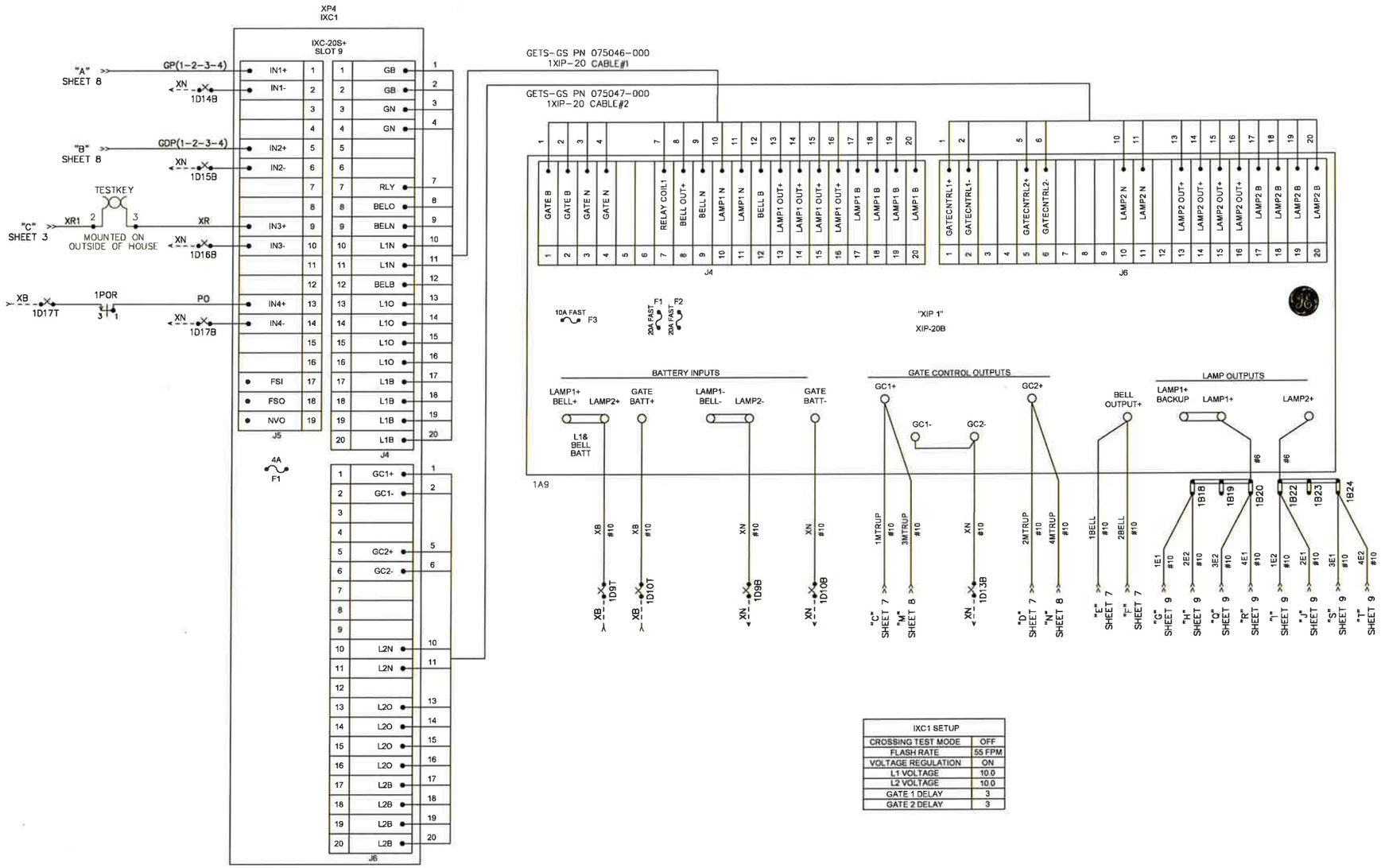
E-W CORRIDOR RR CROSSING
XP4 PROGRAM CONFIGURATION

DRAWING NUMBER
RRW4

SHT 4 OF 14



IXC1 SETUP	
CROSSING TEST MODE	OFF
FLASH RATE	55 FPM
VOLTAGE REGULATION	ON
L1 VOLTAGE	10.0
L2 VOLTAGE	10.0
GATE 1 DELAY	3
GATE 2 DELAY	3

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E-W CORRIDOR RR CROSSING
XP4 SLOT 9 - IXC-20S AND XIP-20B CIRCUITS

DRAWING NUMBER
RRW5

SHT 5 OF 14

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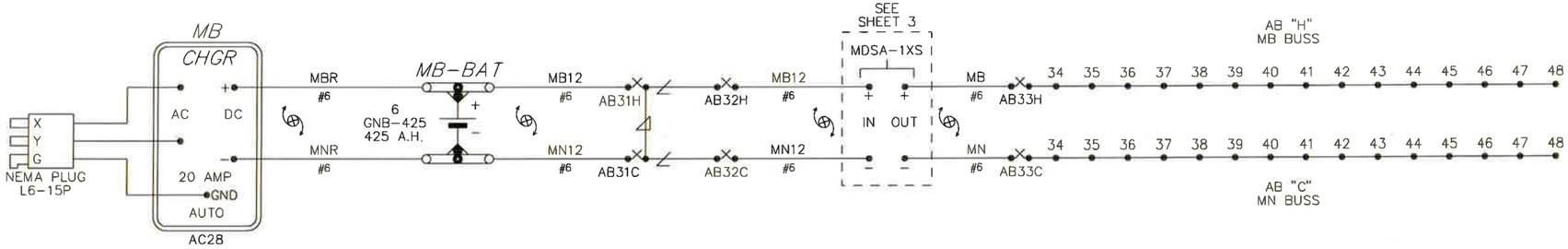

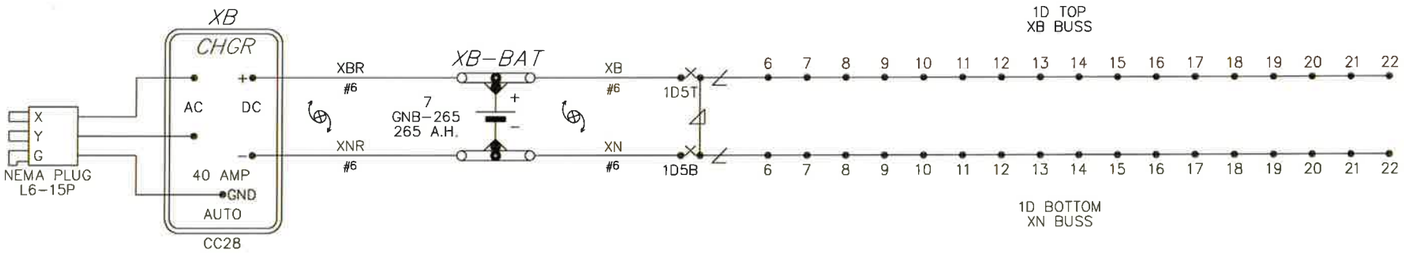

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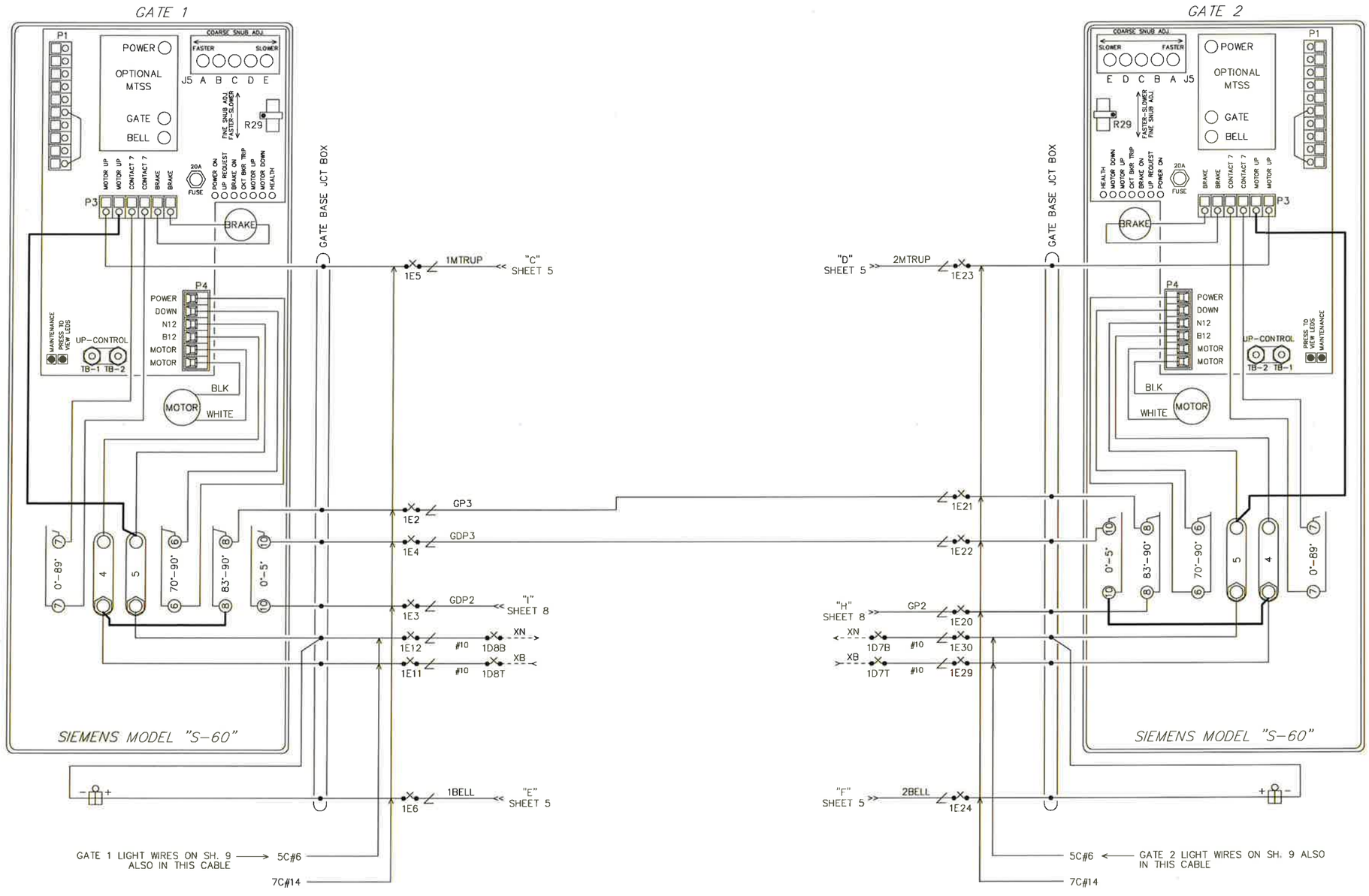
E-W CORRIDOR RR CROSSING
BATTERY CIRCUITS

DRAWING NUMBER
RRW6

SHT 6 OF 14



NOTES:

1. ADD JUMPERS IN GATE SHOWN IN BOLD.
2. MAXIMUM WIRE SIZE FOR TERMINAL 5 TO MOTOR UP CONTROL (–) IS #12 AWG.

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E-W CORRIDOR RR CROSSING
GATES 1 & 2 CIRCUIT PLAN

DRAWING NUMBER
RRW7

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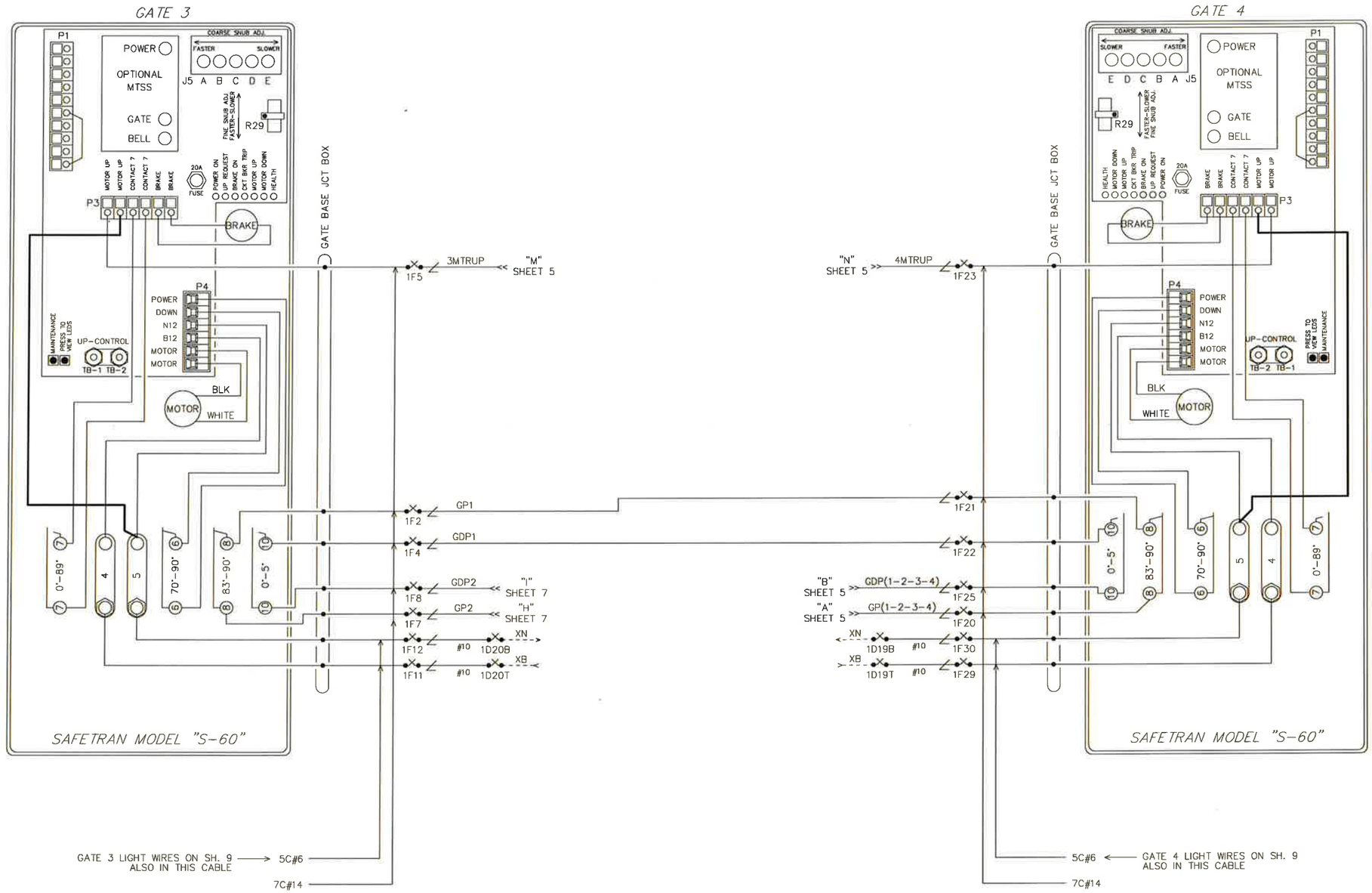

NOTES:

1. ADD JUMPERS IN GATE SHOWN IN BOLD.
2. MAXIMUM WIRE SIZE FOR TERMINAL 5 TO MOTOR UP CONTROL (–) IS #12 AWG.

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E-W CORRIDOR RR CROSSING
GATES 3 & 4 CIRCUIT PLAN

DRAWING NUMBER
RRW8

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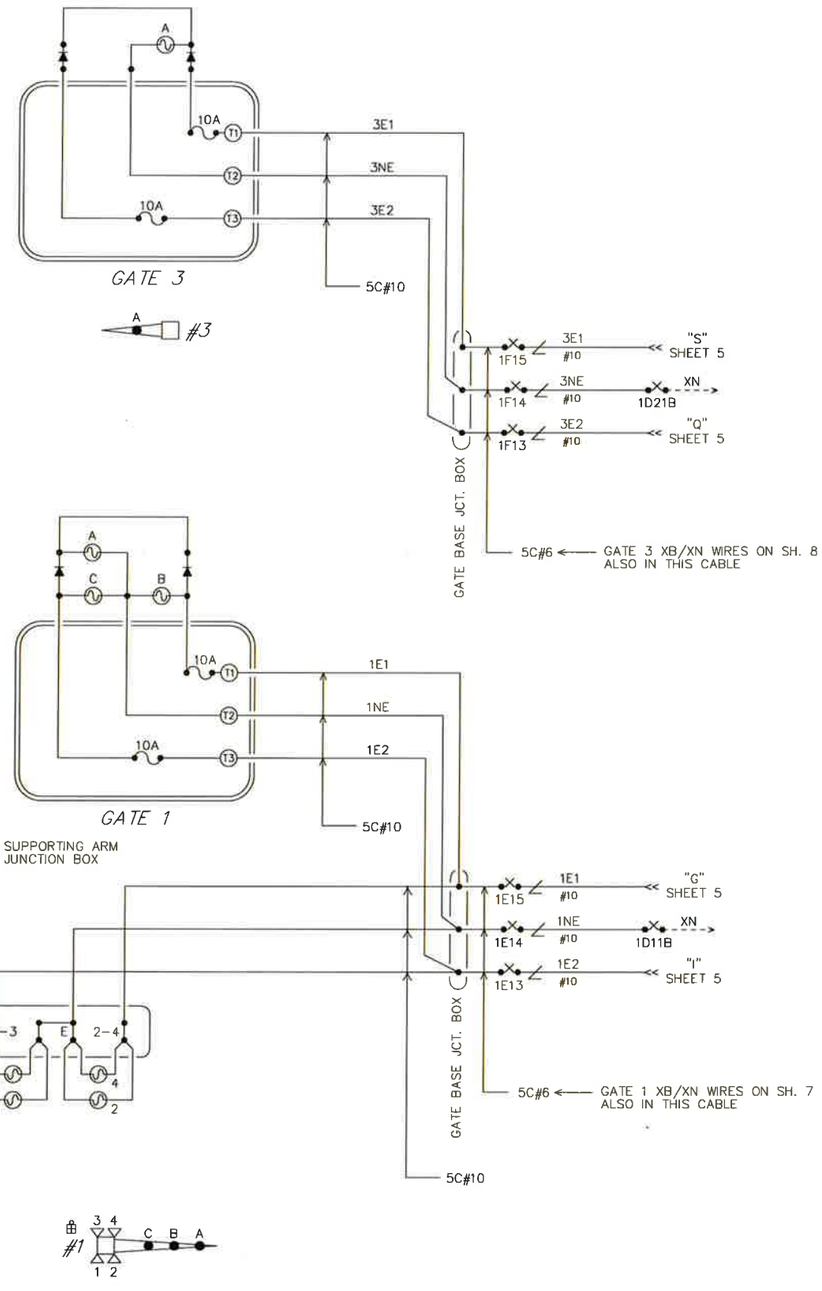

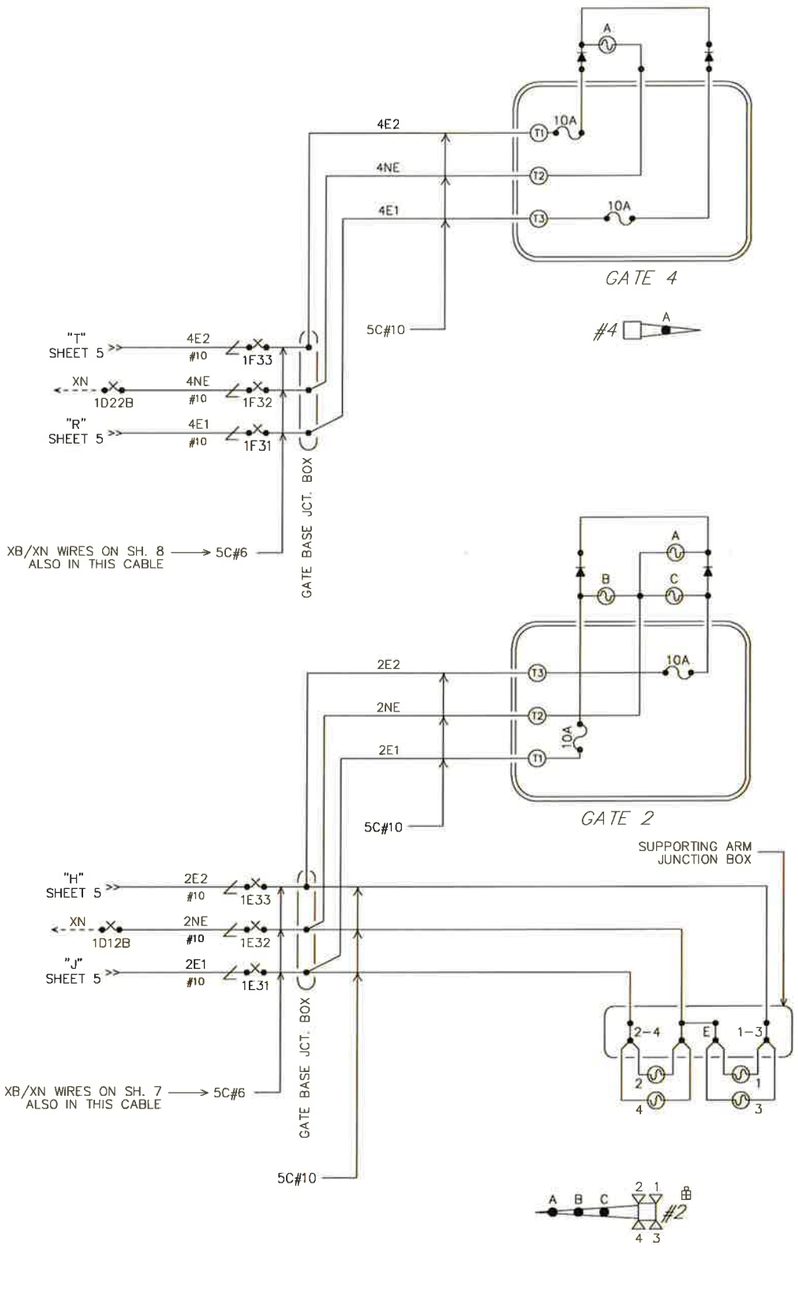

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E-W CORRIDOR RR CROSSING
FLASHER CIRCUIT PLAN

DRAWING NUMBER
RRW9

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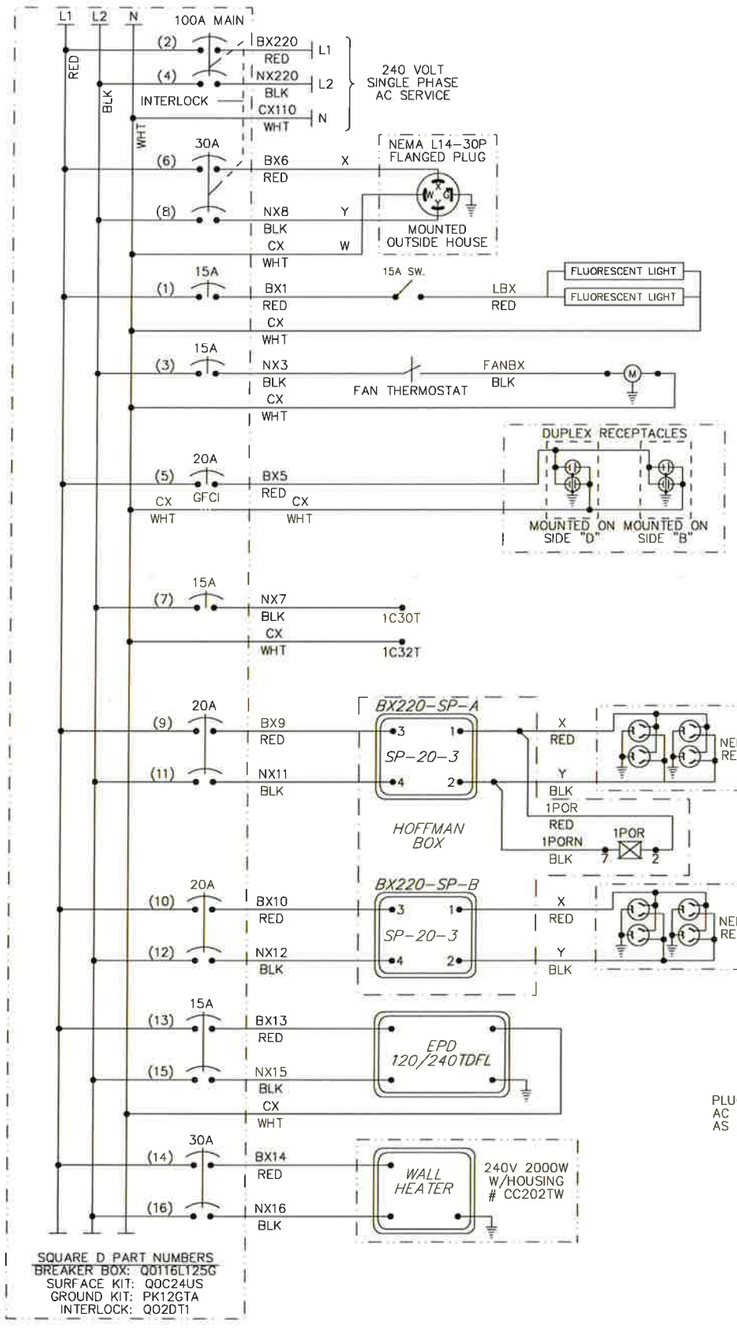
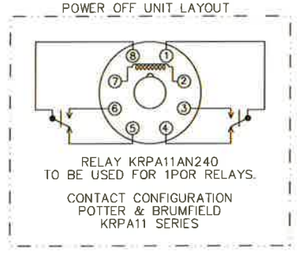
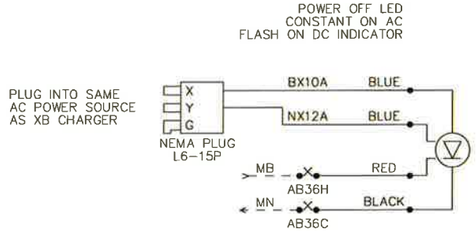


NOTES:

1. USE THE FOLLOWING COLOR CODE:
   GRN – GREEN – SAFETY EQUIPMENT GROUND
   WHT – WHITE – CX110 (NEUTRAL)
   BLK – BLACK – NX220 (L2)
   RED – RED – BX220 (L1)
   EXCEPTIONS TO THE ABOVE COLOR CODE ARE THE PRE-WIRED, SEALED ARRESTOR UNITS MOUNTED ON THE BREAKER BOX WHICH HAVE TWO BLACK AND ONE WHITE WIRE EACH.
2. ■= WIRE NUT
3. MINIMUM WIRE SIZE
   10 AMP – NO. 14 AWG THHN OR THWN SOLID
   20 AMP – NO. 12 AWG THHN OR THWN SOLID
   30 AMP – NO. 10 AWG THHN OR THWN SOLID
4. GROUND FAULT INTERRUPT (GFCI) MUST BE USED ON ALL CIRCUITS SERVING CONVENIENCE OUTLETS AND ANY EQUIPMENT OUTSIDE THE BUNGALOW. RECEPTACLE MOUNTED GFCI MAY BE USED INSTEAD OF BREAKER TYPE.
5. ISOLATION TRANSFORMER IF INSTALLED.
   OLD JUMPER WIRES BLK/YEL TO BLK/GRN WITH CX (WHT)
   OLD JUMPER WIRES BLK TO BLK/RED WITH NX7 (BLK)
   JUMPER WIRES YEL TO BRN WITH CX (WHT)
   NEW JUMPER WIRES BLK TO BLU WITH NX7 (BLK)
6. ALL GROUND WIRES RUN TO BREAKER BOX GROUND BUSS





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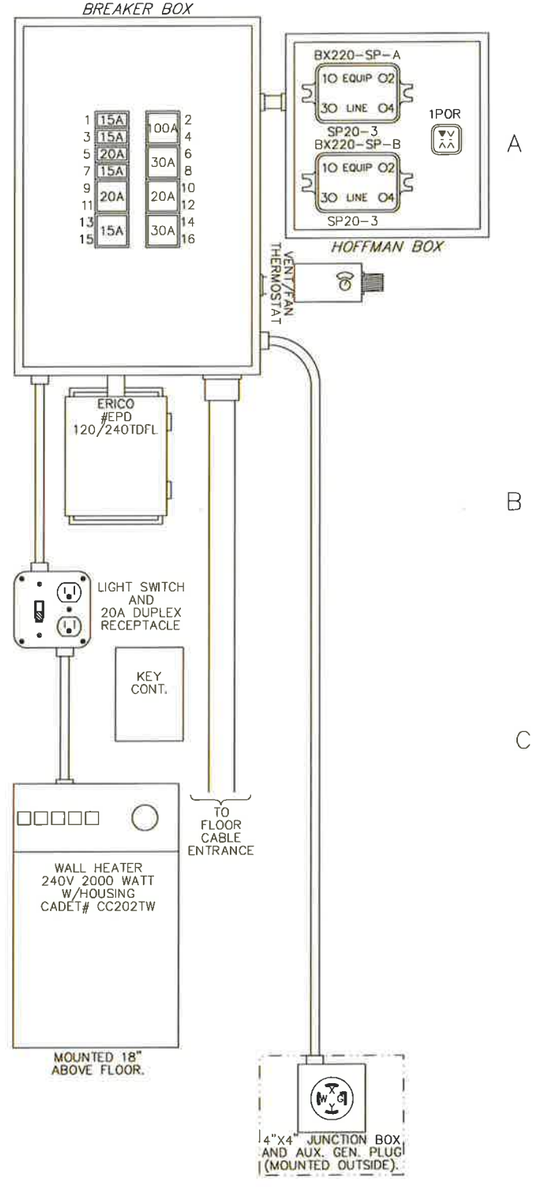

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COUNTY OF YAKIMA
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E-W CORRIDOR RR CROSSING
BUNGALOW POWER DISTRIBUTION

DRAWING NUMBER
RRW10

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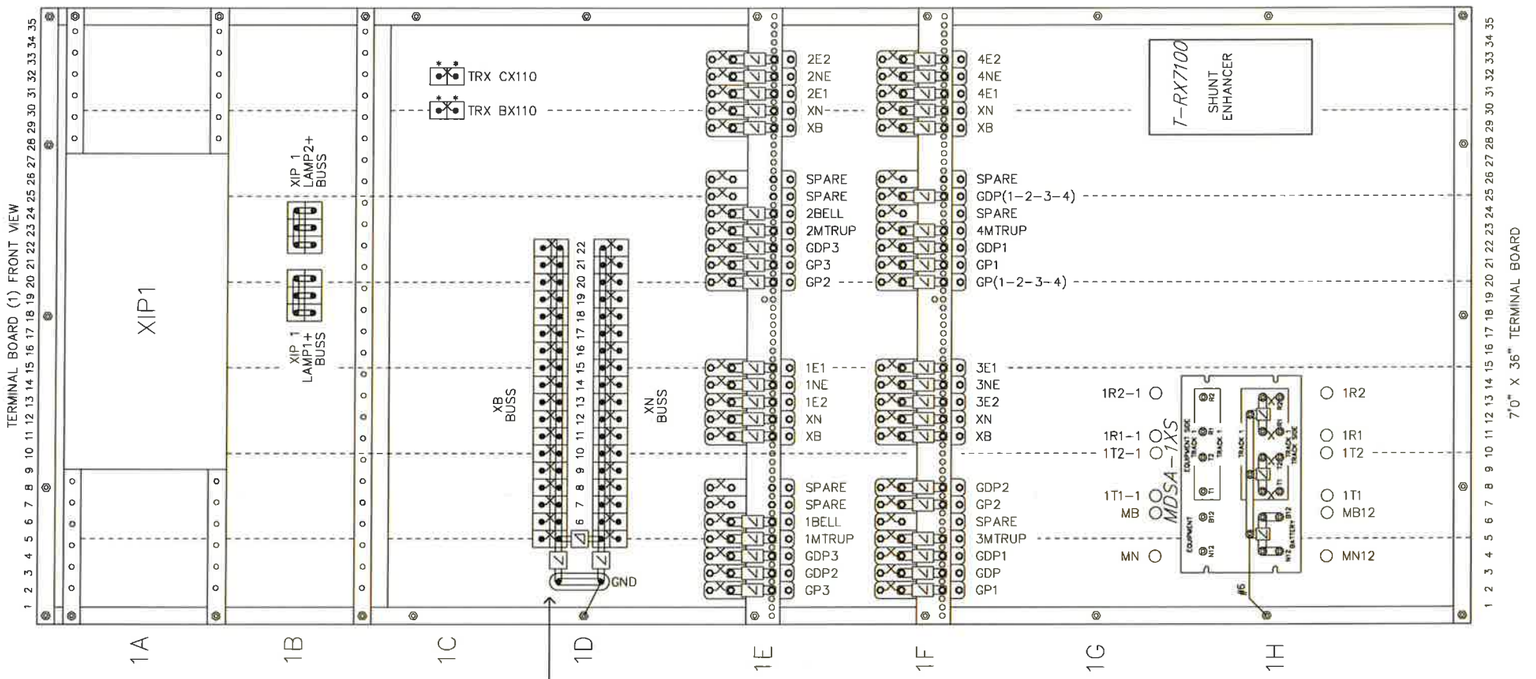

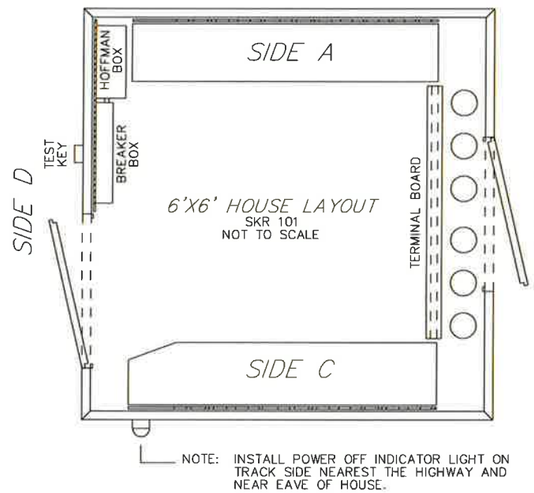

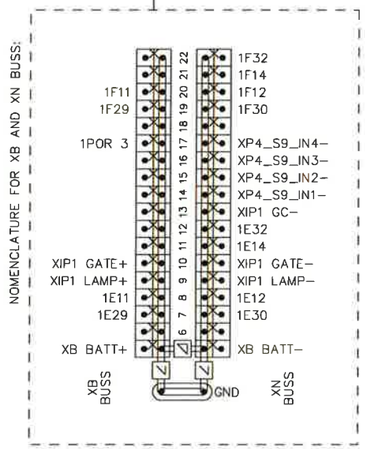

*=INSULATED NUTS

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COUNTY OF YAKIMA
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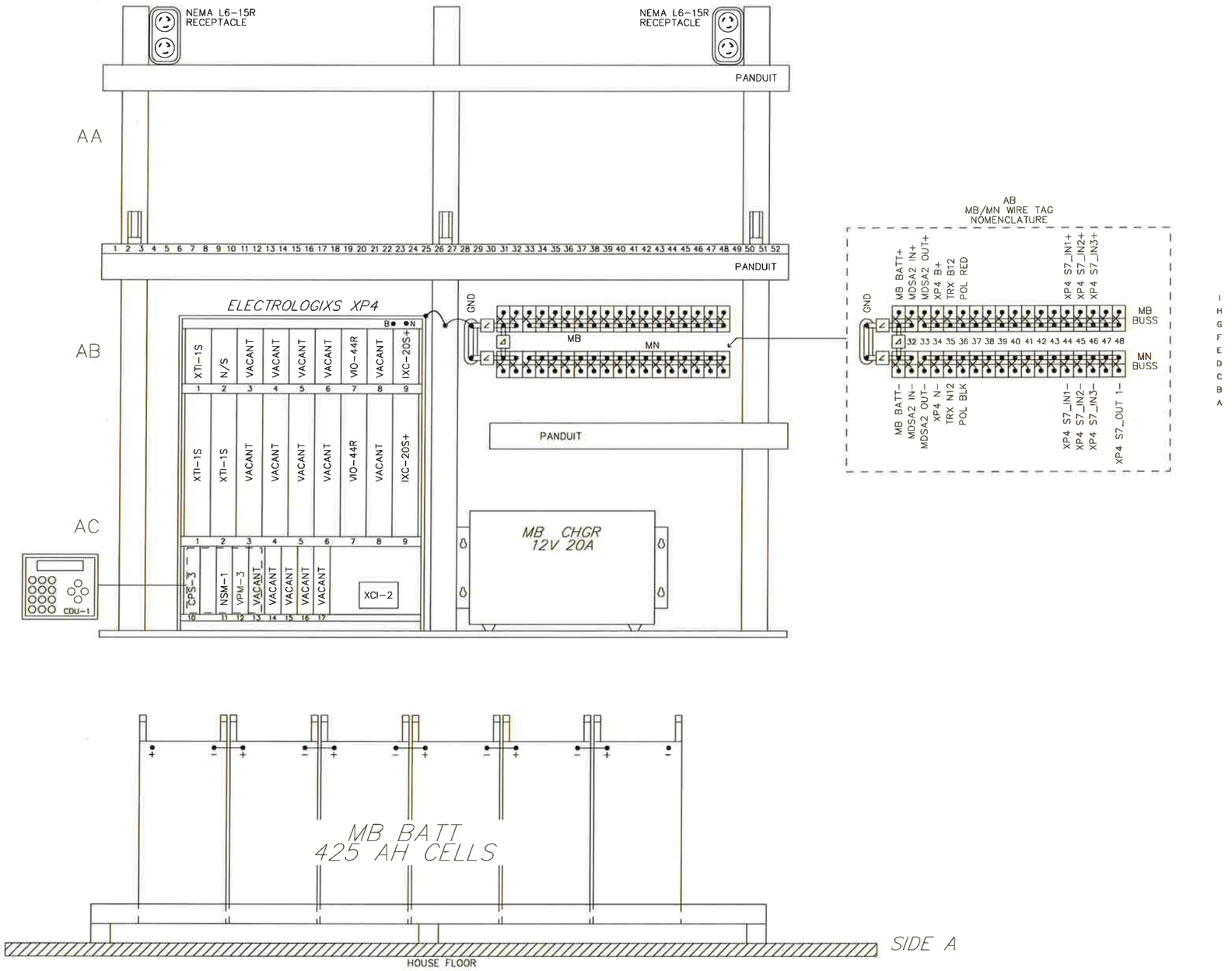
E-W CORRIDOR RR CROSSING
TERMINAL BOARD

DRAWING NUMBER
RRW11

SHT 11 OF 14



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COUNTY OF YAKIMA
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E-W CORRIDOR RR CROSSING
BUNGALOW SIDE 'A' SHELF LAYOUT

DRAWING NUMBER
RRW12

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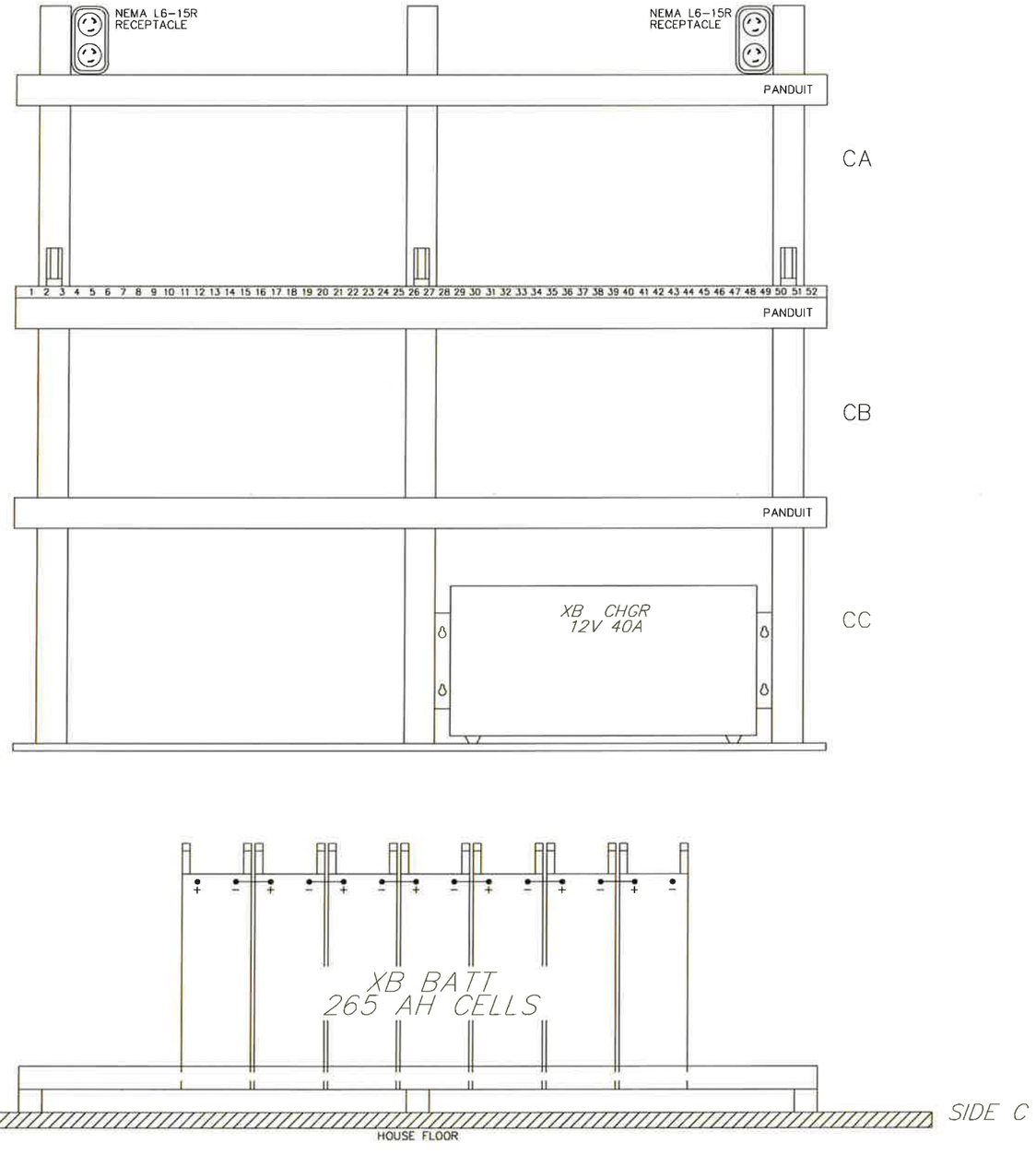

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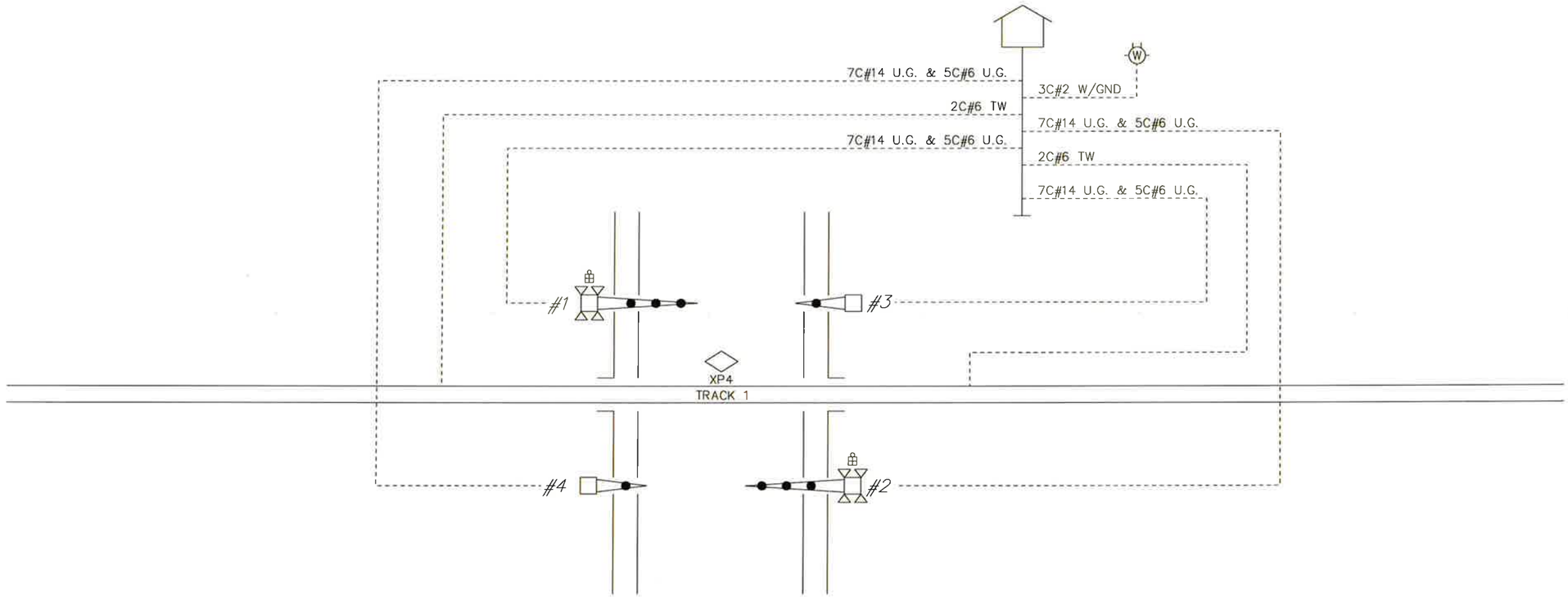
E-W CORRIDOR RR CROSSING
BUNGALOW SIDE 'C' SHELF LAYOUT

DRAWING NUMBER
RRW13

SHT 13 OF 14



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E-W CORRIDOR RR CROSSING
CABLE LAYOUT

DRAWING NUMBER
RRW14

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