



PUGET SOUND ENERGY

BELLINGHAM SERVICE CENTER REBUILD

Implementation Plan

2015-2017

CURRENT OWNER: Paul Wu

	Puget Sound Energy	updated
	Project Implementation Plan	BHM-SVC REBUILD Reviewed as of 5/12/2016

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Section 1. Document Revision History and Chronological Summary

1.1. Document Revision History

Revision	Date	Description	Phase
0.0	10/20/2015	Initiate document based on 2015 CSA approval; Project Planning 90% complete as of 10/20/2015	Project Plan Development
0.1			
1.0	1/06/2016	Approved Gate 3 PCR PIP	Project Plan Development
2.0	N.A.	Approved Gate 4 PCR PIP	Detailed Engineering
3.0	5/15/2016	Approved Gate 5 PCR PIP	Procurement & Contracting
4.0		Approved Gate 6 PCR PIP	Project Close-out


1.2. Chronological Summary

Since the Gate 3 approval in January 2016 the detailed design was completed, the permits received, and the project was bid out. We identified 10 selected general contractors to submit bids for the Project. Of the 5 general contractors who agreed to submit bids, we received 3 bids for the Project on 5/03/16. Due to the unfavorable construction market conditions, we experienced higher than anticipated construction costs (20+% premium). This is an additional \$2.9M or 20% to the lifetime cost of the project.

The existing Bellingham Service Center was constructed in 1960. It consists of a 12,500 sq. ft. service center building, line headquarters building with covered truck bays, a 6,600 sq. ft. garage/substation wire shop, and a four acre paved storage yard. The facility shares its 10-acre site abutting the I-5 corridor with the Bellingham Substation. The facility currently supports 53 employees, including Electric First Response (EFR), Meter and Substation crews, as well as Potelco engineers and crews. Approximately seven to 10 business customers frequent the site each day.

A company-wide facilities assessment effort was undertaken in 2008-09, during which several facilities were identified as deficient, including the Bellingham Service Center. Schematic and programmatic planning activities were conducted by PSE Facility Services in 2010-11. An extensive RFP process was conducted in 2011 which resulted in the selection of Zervas Group Architects (an Architectural firm based in Bellingham) to provide full A/E services. A project team was assembled (updated and attached) and the capital project under work order 131103981 was pursued in earnest by early 2012. A Business Case was prepared under the CSA guidelines in March 2013. By June 2013, the capital project was deferred due to budgetary constraints.

Interim improvements (to address safety concerns) were completed in November 2013 to remove asbestos material and install new flooring.

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Section 2. Project Overview

2.1. Purpose:

The improvements support the company's primary location for customer engagement in Whatcom County and the north end of PSE's service territory, as identified in the 2013 regional planning Heat Map.

Project Objectives:

1. Completely renovate and enlarge the service center to address and resolve significant life, health and safety concerns. The new building will be structurally strengthened to withstand seismic events (earthquakes), protected with fire suppression systems and equipped with the latest emergency (power and communications) backup systems. The building design will also meet the standards of the Americans with Disabilities Act (ADA).
2. Installing new or enhanced building systems including; security, heating, ventilating and air conditioning (HVAC), plumbing, electrical, fire suppression and IT/communications systems.
3. Correcting and enhancing safe and efficient on-site operations; providing vehicle service bays, an environmental storage facility, larger truck bays, efficient storage yard layout, fences and gates.
4. Connecting Nevada Street to Kentucky Street to facilitate better and safer vehicle access. Vehicular traffic currently uses the service yard to access these 2 streets which interferes with maneuvering space in front of the truck bays (a safety concern). Opening and improvements to Nevada Street for vehicular traffic to accommodate on-street parking for service center customers and better access for emergency vehicles and personnel.
5/12/2016 permit note: As a result of the City of Bellingham's adoption of the City-wide bicycle masterplan, the proposed street opening was rejected by City of Bellingham Public Works. The City of Bellingham completed bicycle route improvements on the Nevada Street ROW in early 2015.
5. Improving communications infrastructure allowing the Bellingham Substation to serve as the PSE/Whatcom fiber hub and provide diverse fiber routing to the outlying service centers, substations, cogeneration sites and protection for the Bonneville Power Administration's (BPA's) circuits.

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2.2. Need Statement:

Located adjacent to I-5, the service center is highly visible in the Bellingham service area, and was identified for improvements and upgrades in PSE's Facilities 5-Year Plan. The need to demonstrate PSE's commitment to the Whatcom community is well recognized.

The existing Bellingham Service Center was constructed in 1960. Over the past 55 years, no major improvements have been made to the facility or site. Substantial deficiencies were identified in the FM Global risk report. These deficiencies include structural (seismic), regulatory (ADA) and other operational safety concerns.

Bellingham Service Center is PSE's telecommunications hub for Whatcom County and its northern service areas. There are currently eight fiber optic lines terminating in the substation control house. All but one of these fiber optic cables are actually routed through the windows of the substation control house, posing risks to the integrity of the communications system. The need to protect and upgrade the fiber hub is well demonstrated.

2.3. Benefits:

Quantitative

1. The new facility will exceed current State Energy Codes and provide efficient building systems. Addressing facility deficiencies identified in the FM Global risk report may reduce financial risks arising from loss and/or liability.
2. Synergistic savings in communications fiber network infrastructure in relation to the Bellingham Substation Expansion Project (currently deferred to 2018-19).

Qualitative

1. Opening and improvements to Nevada Street will enhance facility access, provide additional on-street parking, and reduce vandalism currently occurring on the un-opened street front.
Bicycle route improvements to Nevada Street made by City of Bellingham have reduced vandalism on the un-opened street front.
2. Providing a safe, efficient and comfortable work environment in parity with other PSE facilities for employees, customers and service providers.
3. Green strategies, including rainwater harvesting, LED lighting and VRF high efficiency HVAC system highlight PSE's commitment to environmental stewardship.
4. The Bellingham Service Center is highly visible in the community; visible through the I-5 corridor and reflective of PSE's commitment to the Whatcom County/Bellingham communities.

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2.4. Project Assumptions:

1. Permits can be obtained without further delays.
2. PSE's funding commitment for the next 2 years (2016-17).
3. The Gate 5 cost estimate (currently at \$19,028,585,) is based on current competitive bids received on 5/03/2016. Unforeseen site conditions and regulatory requirement may also impact construction costs. We anticipate nominal construction variances and have set aside a 10% (\$1,210,607 construction risk contingency) to address these challenges.
4. The Project budget assumes that the existing soils testing results will continue to be valid and that we do not encounter adverse soils during construction.
5. PSE will solicit bids in the second quarter of 2016 and enter a guaranteed maximum price (GMP) construction contract to predetermine costs for construction and allow unhindered access to the Contractor's books/accounting.

2.5. Alternatives

The Project Team identified and evaluated eight (8) facility alternatives/options in 2012-13. The alternatives range from do-nothing (current state) to constructing a new facility on a new site. These alternatives were each analyzed and evaluated based on key criteria (risk/benefit analysis; initial investment, life cycle cost, timing, functionality, etc.) Detailed listing submitted in the CSA dated: 7/17/2015.

2.6. Scope:

Current Project Scope:

Phased construction (to maintain core service center operations during construction) of a new single-story, fully sprinklered, Type II-B (non-combustible) structure (with provisions for 2-stories).

Gross Site Improvements area: 227,820 SF (5.23 Acres)

Gross Floor area: 28,420 SF

14,275 SF office (40+ workstations and support spaces);

6,525 SF Wire Shop/Garage/PCB Storage;

7,620 SF Warehouse.

14 dock height truck-bays;

43 fenced-in parking stalls (2 accessible);


equipment stalls in service yard; 500KW diesel generator;

Nevada Street Improvements.

Green features:

rainwater harvesting/Variable Refrigerant Flow (VRF) high efficiency HVAC system/dimmable LED lighting;


remove existing underground fuel storage and dispensing systems.

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At Gate 5: The scope for Nevada Street improvements was reduced as a result of City of Bellingham’s rejection of opening the street ROW for vehicular traffic. Other minor scope changes include construction of interior access ramp to elimination the ADA chair-lift and office area reconfigurations to accommodate the new workspace strategy/standards.

2.7. Project Constraints:

1. Maintain nominal Service Center operations throughout the construction project. Under the current plan, the Project will be executed in 4 phases. Detailed planning will commence together with the General Contractor, after a Guaranteed Maximum Price (GMP) contract is negotiated and executed.
2. All construction will be conducted within the existing property and adjacent un-opened Nevada Street.
3. The Project Team will work with the General Contractor to identify additional savings through value engineering.
4. The Project Team is actively working with City of Bellingham to address review comments regarding ADA access (elimination of chair-lift) and water main extension into the Service Center Yard (fire flow requirements).

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Section 3. Budget and Schedule Milestones

3.1. Estimated Budget

Assumptions:

1. Based on professional cost estimate prepared in 2012 with cost escalation projected to 2016 (bidding period).
2. PSE internal staff and IT/Infrastructure cost estimates provided by IT/Communications, and Corporate Security in 2015. The budget estimates will be updated prior to Gate 4.
3. Building and Street Improvement permit fees estimated by A/E consultants.

Planning Estimate						
	Actual Costs through 2014	Current Year 2015	2016	2017	2018+	Total Lifetime
Capital	\$935,952	\$200,000	\$4,595,000	\$10,005,000	\$0	\$15,735,952
Expense	\$0	\$0	\$115,000	\$255,000	\$0	\$370,000
Gate 3 Project Team Baseline Estimate						
	Actual Costs through 2014	Current Year 2015	2016	2017	2018+	Total Lifetime
Phase (at year end)	<i>Development</i>	<i>Engineering</i>	<i>Procurement</i>	<i>Construction</i>	<i>Close-out</i>	
Capital	\$935,952	\$200,000	\$4,135,500	\$9,004,500	\$0	\$14,275,952
Expense	\$0	\$0	\$115,000	\$255,000	\$0	\$370,000
Estimate to Completion (ETC)		\$14,275,952				
Risk Contingency		\$1,460,000				
Note: Estimate accuracy is \$1.72 - 3.68M (-30% to +50%) based on ETC						

PROJECT PLAN DEVELOPMENT PHASE: CONTINGENCY = N/A, RANGE = -30% TO +50%

DETAILED ENGINEERING PHASE: CONTINGENCY = 15%, RANGE = -20% TO +30%

PROCUREMENT PHASE: CONTINGENCY = 10%, RANGE = -5% TO +15%


CONSTRUCTION PHASE: CONTINGENCY = 5%, RANGE = -2% TO +5%

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Gate 4 Project Estimate						
	Actual Costs through 20XX	Current Year 20XX	20XX	20XX	20XX	Total Lifetime
Phase (at year end)		<input type="button" value="v"/>				
Capital						\$0
Expense						\$0
Estimate to Completion (ETC)		\$0				
Risk Contingency		-				
Note: Estimate accuracy is \$X - XM (-X% to +X%) based on ETC						

Phase (at year end)	<i>Procurement</i>					
Capital	\$0	\$935,952	\$4,595,000	\$13,497,633		\$19,028,585
Expense	\$0	\$0	\$115,000	\$255,000		\$370,000
Estimate to Completion (ETC)		\$19,028,585				
Risk Contingency		\$1,210,607				
Note: Estimate accuracy is \$.81 - 1.63M (-5% to +10%) based on ETC						
Note:	Gate 5 Total lifetime estimate include 10% Risk Contingency (\$1,210,607)					
	Prior Gate lifetime estimates did not include Risk Contingency amount					

Gate 6: Project Estimate vs. Actual Summary					
Gate	Planning/ Gate 2	Gate 3	Gate 4	Gate 5	Actual
Year Completed	20XX	20XX	20XX	20XX	
Est. Lifetime Capital	\$1	\$1	\$1	\$1	\$1
Est. Lifetime Expense					
Capital % Delta		0.00%	0.00%	0.00%	0.00%
Capital % Delta to Planning Estimate		0.00%	0.00%	0.00%	0.00%

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3.2. Milestones and Deliverables

Milestones and Deliverables	Description	Schedule Baseline Date	Approximate Date
	Feasibility	2009	2009
	Property Purchase	N.A.	N.A.
	Develop Project Plan	2010	2010
	Detailed Design	2015	12/31/2015
	Permitting/Bidding	3/4/2016	5/03/2016
	Construction	6/10/2016	6/10/2016
	Commissioning Complete	10/12/2017	
	Project Close-Out Complete	11/30/2017	

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Section 4. Permitting and Real Estate Strategy

4.1. Permitting Jurisdictions Impacted

1. City of Bellingham
2. Washington State Department of Ecology

4.2. Permits Needed

1. City of Bellingham Public Works Water Main Extension
2. City of Bellingham Building Permit
3. City of Bellingham Mechanical/Plumbing Permits
4. City of Bellingham Electrical Permit
5. City of Bellingham Low Voltage Permit
6. Washington State DOE (UST removal completed: 2/19/2016)

4.3. Permitting Special Considerations

None

4.4. Easements Needed

None

4.5. Condemnation


None

4.6. Real Estate Special Considerations

None

4.7. External Consultants

- Zervas Group Architects (building permit)
- Freeland & Associates (water main extension)

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Section 5. Communications Strategy

5.1. Project External Stakeholders

1. City of Bellingham.
2. Immediate neighbors, including City of Bellingham Public Works (north on Virginia Street), Brooks Manufacturing plant (east on Nevada Street), and several commercial businesses across Kentucky Street.

5.2. Public Relations/Corporate Communications Strategy

1. Jurisdictional Requirements (what issues might arise as a result of building in that jurisdiction)
2. Project need, benefit to community (and messaging to communicate that need)
3. Understanding of community/neighborhood "personality" (what issues might arise as a result of building in that community/neighborhood)
4. Develop communications plan, including timeline (initial stakeholder and public outreach meetings, web page development, fact sheet development, public notice development).
5. Conduct meetings to inform adjacent neighbors on Virginia Street, Nevada Street and Kentucky Street.
6. Internal customers, including current and future occupants, PSE employees, service providers (Potelco, vendors, and suppliers).
7. Complete CCW (Change Characteristics Worksheet). Address/comply with OCM (Organizational Change Management) guidelines in communicating with affected employees and internal/external stakeholders.

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Section 6. Coordination with Other Projects

The Bellingham Substation Expansion Project, currently in planning...

Contacted Project Manager, Bob Parker III (425-462-3937) on October 2015. Substation Expansion Project is currently deferred for 2-3 years. Interim plan is being developed by Communications Infrastructure; fiber hub issues will be incorporated within the Service Center Rebuild project.

Bellingham Business Office...

The current lease for the Bellingham Business Office expires on 11/30/2018. The Service Center Rebuild Project is designed to accommodate the business office operations should the decision be made not to extend the lease. Provisions were made to re-route the existing Bellingham Business Office communications infrastructure through the rebuilt Service Center.

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Section 7. Summary of Risk Assessment and Mitigation Plan

7.1. Risks and Opportunities

Permitting Risk

Street Improvements Permit was approved in 2013; re-applied in December 2015. The opening of that portion of the Nevada Street ROW was rejected by City of Bellingham as a result of the City's adoption of a City-wide bicycle plan. The City has since made bicycle route improvements in the ROW.

Construction Risk

Escalations due to market conditions in the region resulted in increased construction costs around 20% above our earlier estimates. The revised estimate reflects the bid price on a Guaranteed Maximum Price contract that will be entered into during the Execution phase of this project. Efforts will be made to value engineer the project to reduce construction costs below the bid price.

Unforeseen subsurface conditions may result in construction delays and added construction costs.

Weather conditions in winter 2016 may impact construction schedule.

Labor disputes and material availability issues (albeit low probability) may also affect the project outcome in terms of schedule slippage and/or costs.

7.2. Mitigation Plan

Permitting Mitigation


Permit activities closely coordinated by the Design Team (both Architect and Civil consultants are local to Bellingham); most of the permit issues were addressed in 2013 when the Project was deferred. We do not expect any jurisdictional surprises.

Construction Mitigation

Construction risks include unforeseen sub-surface conditions, long lead time material/equipment deliveries; available of specialty labor and labor disputes.

Detailed geotechnical investigations were conducted in April, 2012 by GeoEngineers, Inc. (Aaron Hartvigsen, PE, 360-647-1510; report available on file). Multiple exploration borings were completed (see attached boring map) to ascertain subsurface conditions to minimize unforeseen conditions. The foundation/structural design was based on the results and recommendations of the geotechnical investigation..

Project Team will implement close/continuous coordination with the general contractor before commencement of construction activities. May implement revisions/changes to building systems and construction phasing to reduce construction costs.

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Approved By:

Asset Manager _____ Date _____

Facilities Project Manager _____ Date _____

I.T. Project Manager _____ Date _____

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Appendices

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Appendix A. Project Team


BELLINGHAM SERVICE CENTER RE-BUILD PROJECT 2015-2017

4/15/2016

2131 Nevada Street, Bellingham, WA 98226

work orders
 Design Phase 141003029
 Execution Phase 141003028
 IT Network 141003030
 IT Communications 141003031
 Retirement Account 10840560
 OMCRC 93500022

PROJECT CONTACT LIST	Name	Office	Cell	email
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Mgr. Corporate Facilities	Larry Hurwitz	425-462-3290	206-604-5114	larry.hurwitz@pse.com
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Space Planner/Interior Design	Kathy Clark	425-462-3132	206-458-8441	kathy.clark@pse.com
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I.T. Proj. Mgr.	Joel Snow	425-457-5740	425-457-1799	joel.snow@pse.com
I.T. Facilities Infrastructure	Chris Perez	425-688-7231		Christopher.Perez@pse.com
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Electric Meter Operations Supv.	Rachel Montoya		206-901-3215	rachel.montoya@pse.com
Engineering-Elec.&Gas Syst. Mgr.	Dave Landers	425-456-2381		david.landars@pse.com
System Design-Elec. Supv.	Matt Wiegand	425-456-2147		matt.wiegand@pse.com
Community Engagement, Outreach Mgr.	Pinky Vargas	360-647-6554		pinky.vargas@pse.com
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Environmental & Program Svcs.	Greg Andrina	425-462-3198		greg.andrina@pse.com
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Contract Management Mgr.	Bob Stafford	425-456-2090		robert.stafford@pse.com
Material Distribution & Planning Mgr.	James Pruchnic	253-395-6889		james.ppruchnic@pse.com
Ltd. Energy Svcs- Security On-site vendor	Phill Moran		253 569 9855	phill.moran@ltdes.com
T&D Engineering	Mike Schroyer		360-941-2007	
CONSULTANTS				
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Zervas Architects - Arch.	Matt Reeves	360-734-4744	360-220-2764	matt@zervasgroup.com
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Freeland & Associates - Civil	Tony Freeland	360-650-1408	360-739-1589	tfreeland@freelandengineering.com
Kingsworks Consulting - Struct.	Jack King	360-714-8260x3	360-820-0735	jack@king-works.com
Coffman Engineering - Elec.	Paul Jones	206-521-0772	206-714-0243	jones@coffman.com
Coffman Engineering - Elec.	Jonathan Maxwell	206-623-0717		maxwell@coffman.com
Coffman Engineering - Lighting	Mokki S. Kiger	206-623-0717	206-624-3775	kiger@coffman.com
Coffman Engineering - Elec.	Jay Jack	206-521-0756	206-949-5037	jack@coffman.com
Coffman Engineering - Mech.	Michel Sotura	206-521-0748	425-218-9707	sotura@coffman.com
Coffman Engineering - Mech.	Oyvind Naess	206-521-0706	206-734-2570	naess@coffman.com
BRC Acoustics	Dan Bruck	206-270-8910	206-229-1311	danb@brcacoustics.com
Ltd. Energy Svcs- Security On-site vendor	Phill Moran		253 569 9855	phill.moran@ltdes.com
Ltd. Energy Svcs- Security On-site vendor	Marty Prough		256 579 4864	marty.prough@ltdes.com
CONTRACTORS				
Project Mgr.	TBD			
Proj. Engr.				
Field Engr.				
Superintendent				
Asst Supt				

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Appendix B. Work Order Structure

WBS Element - S.00746.01


<u>Work Order</u>	<u>Title</u>	<u>Inception-to-date</u>
130005643	Bellingham SVC Remodel (2010)	\$112,954
131201101	Bellingham SVC Feasibility Study (2006)	\$0
131103981	Bellingham SVC Rebuild (2010)	\$811,003
131104060	Bellingham SVC Telecom Equipment (2010)	\$28,965
Total I-T-D:		<u>\$952,923 (see note)</u>

Note: I-T-D amount includes 2015 costs under work orders 130005643 and 131103981.



Appendix D. Estimated Costs

FACILITIES PROJECT COST ESTIMATE				
PROJECT: BELLINGHAM SERVICE CENTER IMPROVEMENTS			BY: P. Wu	
DATE: 5/20/2016			WORK ORDER NO.: 141003029	
CONSTRUCTION ITEMS	ITEM COST	ITEM TOTAL	TOTAL	REMARKS
A. LAND COSTS			\$0	FSE owned
B. SITE INVESTIGATION		\$5,000		construction testing services
Topographic	\$ -			Axis Surveying + Freeland Assoc.
Soils	\$ 5,000			GeoEngineers
C. PERMITS AND FEES		\$ 68,822		building permit + impact fees
D. CONSULTING FEES		\$ 350,000		total A/E fees
Architectural	\$ 300,000			Zervas Architects (scope changes)
Civil	\$ -			included
Structural	\$ -			included
Mechanical	\$ -			included
Electrical	\$ -			included
Landscape	\$ -			included
Other	\$ 50,000			commissioning
E. TESTING AND INSPECTION		\$50,000		construction testing services
F. PUGET STAFF COSTS		\$ 483,151		
Corporate Facilities	\$ 80,000			Facility Services PM
Corporate Security	\$ 25,000			PM staff time
Space Planning	\$ 75,000			Facility Services
I.T. & Communications	\$ 233,151			IT project mgt + labor (revised 5/6/16)
Safety	\$ -			
Construction Management	\$ -			included in Zervas Architects fees
Reproductions / Printing / Travel	\$ 20,000			
Other	\$ 50,000			other PSE staff supports
TOTAL 1 (B, C, D, E, F)			\$956,973	
G. SITE DEVELOPMENT		\$0		
Demolition	\$ -			UST removal completed 2/19/2016
Storm Drainage / Retention				included
Site Utilities / Septic				included
Earthwork				included
Paving				included 2" overlay + patch
Fencing				including new gates (3)
Site Improvements				included in building construction
Other				
H. BUILDING		\$ 11,416,072		
Demolition	\$ -			phased demolition included
Construction	\$ 10,540,533			low bid received: 5/3/16
I.T. & Communications	\$ 533,539			IT estimate (revised 5/6/16)
Security & Fire Protection	\$ 342,000			Security systems (7/2/2015)
I. FURNISHINGS		\$ 690,000		
Furniture	\$ 600,000			furniture systems (7/2/2015)
Equipment	\$ 80,000			copiers; printers
Signage	\$ 10,000			exterior + interior signs
J. LANDSCAPING		\$ -		included in construction costs
Plant Materials & Labor	\$ -			
Irrigation	\$ -			
Site Improvements	\$ -			
TOTAL 2 (G, H, I, J)			\$12,106,072	
K. CONTINGENCY (10 % Total 2)			\$1,210,607	10% construction risk contingency
L. SALES TAX (8.7% of Total 2)			\$1,158,551	Bellingham sales tax rate
SUBTOTAL 3 (Total 1, Total 2, K, L)		\$15,432,203		
M. PUGET OVERHEAD (14.7% subtotal 3)			\$2,288,534	current Facilities O/H rate
N. PUGET STAFF OVERHEADS (F.)			\$374,925	current labor O/H rates
PTO/Taxes/Benefits (77.6%)		\$374,925		
TOTAL PROJECT COST (A, Total 1, Total 2, K, L, M, N)			\$18,075,662	OMRC: \$370,000
PROJECT IMPLEMENTATION PLAN		CHANGE FROM PLANNING PHASE		
Development Phase:	\$952,923			sunk cost prior to 2015
Planning Phase estimate:	\$15,735,952	\$0		budget request in addition to sunk costs \$952,923
Gate 3 Estimate:	\$14,275,952	(\$1,460,000)		-9% decrease from Planning Phase
Gate 5 Estimate:	\$18,075,662	\$2,339,710		15% increase from Planning Phase
Lifetime project cost:	\$19,028,585			Gate 5 + sunk costs
Approved 2016 funding:	\$4,595,000	unchanged		
2017 funding requirement:	\$13,480,662	funding include \$	funding include \$1.21MM	construction risk contingency

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Appendix E. Current Schedule

Task Name	Duration	Start	Finish
GATE APPROVAL - PLANNING PHASE	5 days	10/23/15	10/29/15
FACILITY PLANNING/DESIGN	45 days	10/30/15	12/31/15
PROJECT RE-START + TEAM REVIEW	2 wks	10/30/15	11/12/15
PERMIT PACKAGE (A/E)	4 wks	11/13/15	12/10/15
PEER REVIEW + SIGN OFF	3 wks	12/11/15	12/31/15
PSE SUPPORT GROUPS	40 days	10/7/15	12/1/15
SERVICE CENTER FUNCTIONAL GROUPS	4 wks	10/7/15	11/3/15
SPACE PLANNING	6 wks	10/7/15	11/17/15
CORPORATE SECURITY	4 wks	10/7/15	11/3/15
IT/COMMUNICATIONS	8 wks	10/7/15	12/1/15
PERMITS	61 days	12/11/15	3/4/16
STREET IMPROVEMENTS PERMIT	4 wks	12/11/15	1/7/16
BUILDING PERMIT	12 wks	12/11/15	3/3/16
PERMIT ISSUANCE	1 day	3/4/16	3/4/16
CONSTRUCTION CONTRACT	50 days	3/4/16	5/12/16
RFQ	3 wks	3/4/16	3/24/16
RFP/BIDDING	4 wks	3/25/16	4/21/16
CONTRACT REVIEW/NEGOTIATION	1 wk	4/22/16	4/28/16
CONTRACT AWARD	1 wk	5/6/16	5/12/16
GATE APPROVAL - DESIGN PHASE	1 wk	4/29/16	5/5/16
CONSTRUCTION	355 days	5/13/16	9/21/17
SUBCONTRACTS + VALUE ENGINEERING	4 wks	5/13/16	6/9/16
MOBILIZATION	1 wk	6/10/16	6/16/16
SITE PREPARATION	4 wks	6/17/16	7/14/16
STREET IMPROVEMENTS	4 wks	7/15/16	8/11/16
PHASE 1 CONSTRUCTION (SOUTH END)	26 wks	7/15/16	1/12/17
PHASE 2 DEMOLITION (NORTH PORTIONS)	4 wks	1/20/17	2/16/17
PHASE 2 CONSTRUCTION (NORTH PORTIONS)	16 wks	2/17/17	6/8/17
PHASE 3 DEMOLITION (GARAGE/SUB. SHOP)	4 wks	6/30/17	7/27/17
SITE IMPROVEMENTS	8 wks	7/28/17	9/21/17
IT/COMMUNICATIONS	110 days	1/13/17	6/15/17
COMM. RM. CONSTRUCTION	4 wks	1/13/17	2/9/17
RELOCATE COMM. RM.	5 days	2/10/17	2/16/17
NETWORK INTERIM FACILITIES	10 days	2/17/17	3/2/17
NETWORK PHASE 1 SPACES	4 wks	3/3/17	3/30/17
NETWORK PHASE 2 SPACES	1 wk	6/9/17	6/15/17
EMPLOYEE RELOCATIONS	185 days	1/13/17	9/28/17
RELOCATE STAFF	1 wk	1/13/17	1/19/17
PHASE 1 MOVE-IN	1 wk	3/31/17	4/6/17
PHASE 2 MOVE-IN	2 wks	6/16/17	6/29/17



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FULL OCCUPANCY	1 wk	9/22/17	9/28/17
GATE APPROVAL - EXECUTION PHASE	1 wk	9/29/17	10/5/17
PROJECT CLOSEOUT	40 days	9/29/17	11/23/17
COMMISSIONING	2 wks	9/29/17	10/12/17
CONTRACT CLOSEOUTS	2 wks	10/13/17	10/26/17
POST-CONSTRUCTION SURVEY	4 wks	9/29/17	10/26/17
LESSONS LEARN	2 wks	10/27/17	11/9/17
PROJECT CLOSEOUT	2 wks	11/10/17	11/23/17
GATE APPROVAL - CLOSE-OUT	1 wk	11/24/17	11/30/17



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Appendix F. Financial Analysis

*Bellingham Service Center Renovation - Amend 1
Cash flow is modeled through the asset's full FERC depreciable life
Assumes Perfect Regulation*

FINANCIAL SUMMARY	TOTAL	2014	2015	2016	2017	2018	2019	2020+	In 5-yr Plan?
Net Income		-	-	-	-	1,983,390	1,963,416	42,485,249	yes
EBITDA		-	-	-	-	2,582,172	2,553,717	52,494,203	yes
NPV, includes Rev Rqmt	227,005								
Payback Period (yrs)	17								
FERC Depreciable Life (yrs)	35								
CAPITAL AND OPERATING COSTS	TOTAL	2014	2015	2016	2017	2018	2019	2020+	In 5-yr Plan?
CAPEX (excl AFUDC)									
Previously Incurred Costs	952,923	935,952	16,971	-	-	-	-	-	
Initiation	-	-	-	-	-	-	-	-	
Planning	-	-	-	-	-	-	-	-	
Design	-	-	-	-	-	-	-	-	
Execution	16,865,055	-	-	4,595,000	12,270,055	-	-	-	
Close-out	-	-	-	-	-	-	-	-	
Contingency - Base	1,210,607	-	-	-	1,210,607	-	-	-	
Contingency - Reserve	-	-	-	-	-	-	-	-	
Total CAPEX (excl AFUDC)	19,028,585	935,952	16,971	4,595,000	13,480,662	-	-	-	
OMRC	370,000	-	-	115,000	255,000	-	-	-	
Incram Costs/Benefits									
Incremental O&M Expense									
Incremental Revenue									
O&M Savings									
Total Incram Costs/Benefits		-	-	-	-	-	-	-	
INCOME STATEMENT	TOTAL	2014	2015	2016	2017	2018	2019	2020+	In 5-yr Plan?
Revenue Requirement		-	-	120,444	267,072	2,704,411	2,674,609	54,979,266	
Expenses									
O&M		-	-	-	-	-	-	-	
OMRC		-	-	115,000	255,000	-	-	-	
Depreciation		-	-	-	-	573,050	573,050	18,910,664	
Revenue Taxes		-	-	5,444	12,072	122,239	120,892	2,485,063	
Taxes		-	-	-	-	493,619	486,628	8,251,105	
Operating Expenses		-	-	120,444	267,072	1,188,909	1,180,571	29,646,832	
Operating Income		-	-	-	-	1,515,503	1,494,038	25,332,434	
EBITDA		-	-	-	-	2,582,172	2,553,717	52,494,203	
Interest		-	-	-	-	(598,782)	(590,301)	(10,008,954)	
Net Income		-	-	-	-	1,983,390	1,963,416	42,485,249	
Ratebase		-	-	-	-	19,504,286	19,228,046		

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Appendix G. Risk Assessment and Risk Management Report

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Appendix H. Project Change Approval Record (CAR) Log

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Appendix I. Lessons Learned Document



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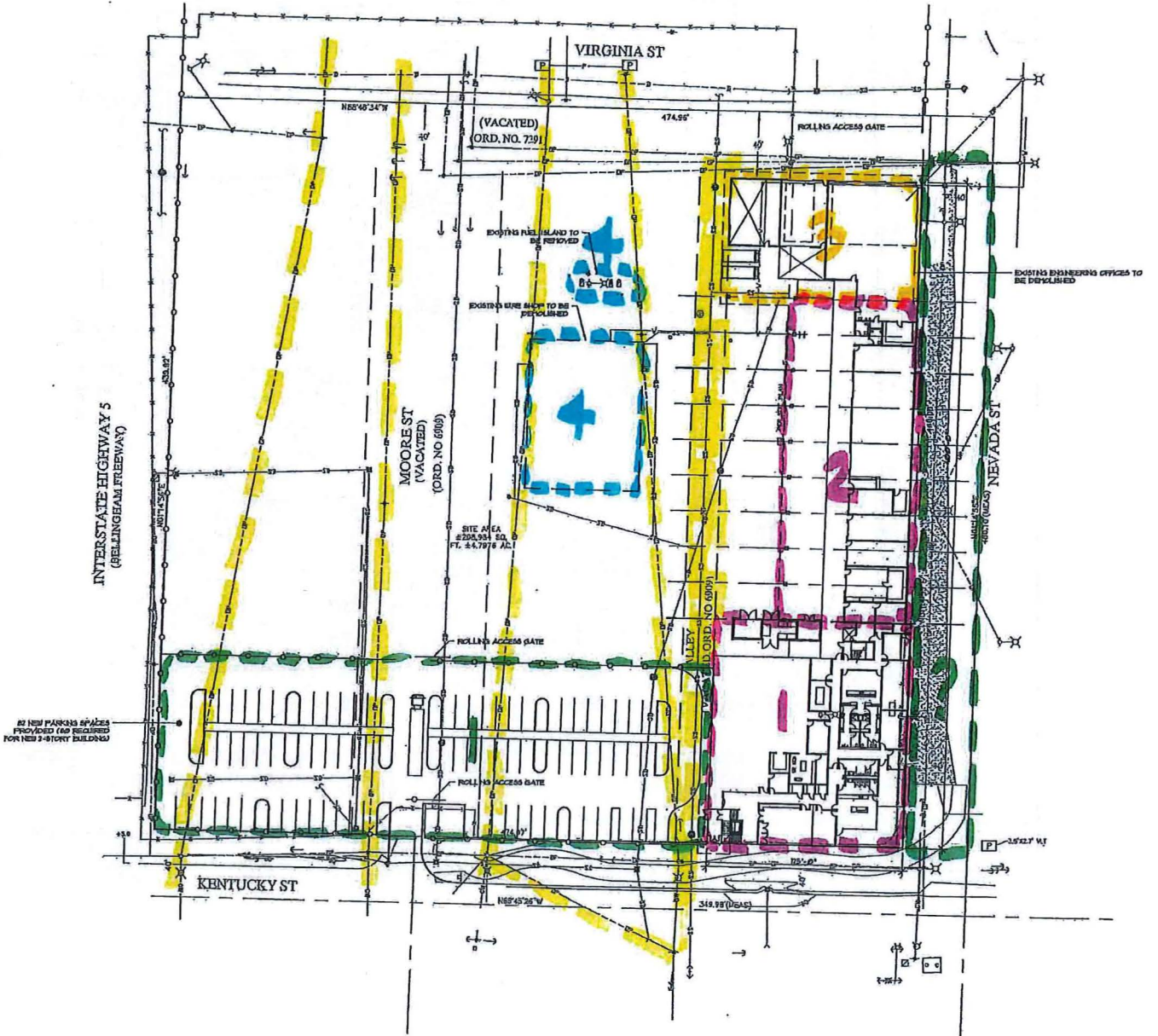
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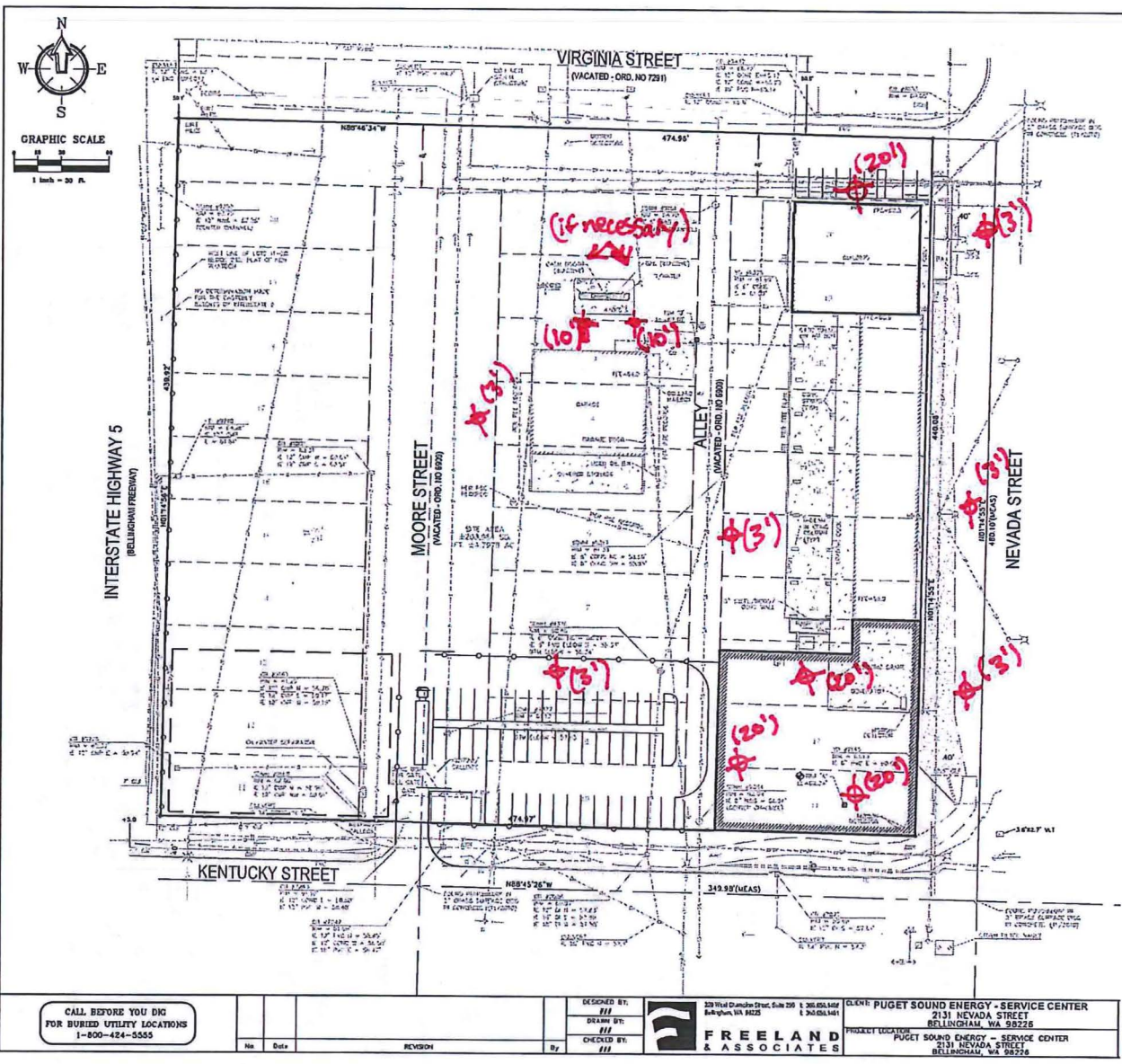
Appendix J. Maps





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 FOR BURIED UTILITY LOCATIONS
 1-800-424-5555

No.	Date	REVISION	By

DESIGNED BY:
 III
 DRAWN BY:
 III
 CHECKED BY:
 III



CLIENT: PUGET SOUND ENERGY - SERVICE CENTER
 2131 NEVADA STREET
 BELLINGHAM, WA 98226
 PROJECT LOCATION:
 PUGET SOUND ENERGY - SERVICE CENTER
 2131 NEVADA STREET
 BELLINGHAM, WA 98226