

# Project Estimate Report: Development Phase

for

## SW 6<sup>th</sup> Ave and Jackson Crossing Improvements

January 2022

Requested by: Gabe Graff

TB

Prepared by: Tim Bowers

Location: SW 6<sup>th</sup> Ave and SW Jackson St

**Description:** Construct new RRFB to provide enhanced crossing of SW 6<sup>th</sup> Ave at SW Jackson St. with ADA improvements on the west side of SW 6<sup>th</sup> Ave. Add truncated domes to the existing island refuge.

No Changes to current cross section.

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### Issues:

(describe issues, or indicate "none identified")

- Water – None identified
- BES (storm, sanitary, water-quality facilities) – New inlet and stormwater lead.
- Signals and Street Lighting – New RRFB
- Environmental and Zoning – None identified
- Contaminated Media – No LUST sites identified in this area.
- Right-of-Way Needs – None identified
- Railroads (BNSF; UPRR; PTTR) – None identified
- Parks (landscaping and irrigation) – None identified
- Other Jurisdictions (counties, schools, Port, ODOT, Tri-Met) – ODOT partially funded project, potential ramp closure for advanced pedestrian warning. New push button on the east side of the crossing will close the ramp access to the max. Coordinate with Tri-met during design.

### Cost Estimate:

(Estimates greater than \$10,000 round numbers to the nearest \$1,000; for less than \$10,000 round to the nearest \$100)

Total Construction	\$322,000
Project Management (10%)	\$28,000
Design Engineering (30%)	\$84,000
Construction Management (20%)	\$56,000
Overhead (74.97%)	\$126,000
Total Inflation and Allowance for Design Refinement	\$209,000
Subtotal	\$825,000
Program Contingency (10%)	\$31,000
Total Project Estimate	\$856,000



**Estimating Assumptions:**

*(Written explanation of contingencies, variations from the base unit prices and why)*

- RRFB estimate provided by Charles Radosta.
- Traffic estimate provided by Michelle Dellinger.
- Place domes on existing refuge island cut through.
- Existing ramp on the east side to be preserved.
- For NW corner construction (installation of mast arm for overhead RRFBs and related concrete sidewalk repair) assume that the sidewalk on the west side of 6<sup>th</sup> Avenue can remain open. Use PCDs to delineate around the work zone keeping peds on the building side of the work zone. For same work assume the curb lane of 6<sup>th</sup> Avenue is closed for duration of work. Assume ped crossing of 6<sup>th</sup> Avenue and the ramp remains open for duration of the work except for installation of truncated domes which will require a one-day pedestrian detour. For truncated dome installation in median island and for striping assume standard left lane and right lane closure TCPs
- For conduit across the two NB 6th Avenue travel lanes assume trenchless construction so that 6th Ave can remain Open at all time. Closing 6th Avenue would require Trimet bus stops closures and a reroute for lines 8 and 68.
- Assume 6<sup>th</sup> Ave ramp from I-405 is closed for 5 workdays for installation of side mounted RRFB on the east side of the crossing. Open ramp back up overnight. Closure needed for conduit trenching, trench paving, excavation/foundation work for RRFB pedestal, and installation of RRFB post/equipment. Additional closure likely needed for crosswalk striping once RRFB is ready to turn on – one day duration.
- Long line thermoplastic on the ramp approaching the crossing to narrow the travel way and create a bulb-out on the east side of the crossing (per ODOT concept drawing). Assume 200ft of striping, both sides of ramps. 8” striping each line.
- General excavation calculated for sidewalk work. It is incidental to the asphalt repair.
- The level of confidence for this estimate is low.

**Review & Approval:**

*ebh*

 Reviewed by Engineer of Record	01/21/22 Date
 Approved by City Engineer	01/21/22 Date

**Attachments:**

- Detailed estimate spreadsheet
- Site map

Version: December 2021

**CITY OF PORTLAND, OREGON  
BUREAU OF TRANSPORTATION  
ENGINEERS ESTIMATE FOR 2020 STANDARD CONSTRUCTION SPECIFICATIONS  
SW 6th and Jackson crossing improvements**

Date: January, 2022

Tim Bowers

[30%/60%/95%/FINAL] ENGINEER'S ESTIMATE FOR THE IMPROVEMENT OF SW 6TH AVE AT SW JACKSON ST

**##### BID ITEMS #####**

NO.	ITEMS OF WORK AND MATERIALS	SPEC REFERENCE	UNIT	TOTAL QUANTITY	UNIT PRICES	TOTAL AMOUNT
1	MOBILIZATION	0210	LS	1.00	\$ 25,000.00	\$ 25,000.00
3	TEMPORARY WORK ZONE TRAFFIC CONTROL, COMPLETE	0221	LS	1.00	\$ 50,000.00	\$ 50,000.00
39	EROSION CONTROL	0280	LS	1.00	\$ 2,500.00	\$ 2,500.00
44	INLET PROTECTION, TYPE 3	0280	EACH	2.00	\$ 102.72	\$ 205.44
45	POLLUTION CONTROL PLAN	0290	LS	1.00	\$ 1,642.67	\$ 1,642.67
59	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	0310	LS	1.00	\$ 8,400.00	\$ 8,400.00
61	CLEARING AND GRUBBING	0320	LS	1.00	\$ 1,050.00	\$ 1,050.00
64	GENERAL EXCAVATION	0330	CUYD	13.00	\$ 68.17	\$ 886.21
87	10 INCH PIPE, PVC ASTM D3034 SDR35, BEDDING TYPE: D, COMPLETE	0445	FOOT	35.00	\$ 185.00	\$ 6,475.00
103	CONCRETE INLETS, TYPE G-2	0470	EACH	1.00	\$ 4,500.00	\$ 4,500.00
152	17 INCH ASPHALT CONCRETE PAVEMENT REPAIR, COMPLETE	0748	SQYD	266.00	\$ 166.19	\$ 44,205.21
168	MONOLITHIC CURB AND SIDEWALKS	0759	SQFT	610.00	\$ 45.00	\$ 27,450.00
175	EXTRA FOR NEW CURB RAMPS	0759	EACH	2.00	\$ 505.00	\$ 1,010.00
176	TRUNCATED DOMES ON NEW SURFACES	0759	SQFT	20.00	\$ 40.00	\$ 800.00
177	TRUNCATED DOMES ON EXISTING SURFACES	0759	SQFT	36.00	\$ 58.68	\$ 2,112.48
201	THERMOPLASTIC, EXTRUDED, SURFACE, NON-PROFILED	0865	FOOT	800.00	\$ 1.58	\$ 1,264.00
204	PAVEMENT BAR , TYP B-HS	0867	SQFT	180.00	\$ 11.00	\$ 1,980.00
231	FLASHING BEACON INSTALLATION, JACKSON	0990	LS*	1.00	\$ 100,000.00	\$ 100,000.00
<b>TOTAL BID ITEMS</b>						<b>\$ 279,481.01</b>

**##### ANTICIPATED ITEMS #####**

NO.	ITEMS OF WORK AND MATERIALS	SPEC REFERENCE	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL AMOUNT
17	BOLI FEE PAYMENT		LS	1.00	\$ 279.48	\$ 279.48
18	CONTRACT CONTINGENCY		LS	1.00	\$ 27,948.10	\$ 27,948.10

TOTAL ANTICIPATED ITEMS \$ 28,227.58

**SCHEDULE SUMMARY**

BID ITEMS		\$ 279,481
CONSTRUCTION CONTINGENCY	5% of Bid Items*	\$ 13,974
SUBTOTAL		\$ 293,455
ANTICIPATED ITEMS		\$ 28,228
<b>TOTAL CONSTRUCTION</b>		<b>\$ 321,683</b>

NO.	ITEMS OF WORK AND MATERIALS	SPEC REFERENCE	UNIT	TOTAL QUANTITY	UNIT PRICES	TOTAL AMOUNT
PROJECT MANAGEMENT				10%	of Bid Items	\$ 27,948
DESIGN ENGINEERING				30%	of Bid Items	\$ 83,844
CONSTRUCTION MANAGEMENT				20%	of Bid Items	\$ 55,896
SUBTOTAL						<u>\$ 167,688</u>
PROJECT ENGINEERING & MANAGEMENT OVERHEAD						<u>\$ 125,716</u>
<b>TOTAL PROJECT ENGINEERING &amp; MANAGEMENT</b>						<b>\$ 293,404</b>
RIGHT-OF-WAY LAND, IMPROVEMENTS, AND DAMAGES						\$ -
RIGHT-OF-WAY APPRAISAL, TITLE INSURANCE, AND NEGOTIATION						\$ -
RIGHT-OF-WAY CONTINGENCY						<u>\$ -</u>
<b>TOTAL PROJECT RIGHT-OF-WAY</b>						<b>\$ -</b>
			<i>Years</i>		<i>Inflation</i>	
INFLATION RATE ON CONSTRUCTION CONTRACT			3	5.1%	of Construction	\$ 51,770
INFLATION RATE ON PERSONNEL COSTS			3	2.3%	of Eng. & Mgmt.	\$ 20,714
ALLOWANCE FOR DESIGN REFINEMENT				20%	of Const. Eng. & Mgmt., and Inflation	<u>\$ 137,514</u>
<b>TOTAL INFLATION AND ALLOWANCE FOR DESIGN REFINEMENT</b>						<b>\$ 209,998</b>
<b>PROJECT ESTIMATE</b>						<b>\$ 825,085</b>
PROGRAM CONTINGENCY						<u>\$ 30,771</u>
<b>TOTAL PROJECT ESTIMATE WITH PROGRAM CONTINGENCY</b>						<b>\$ 855,855</b>



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Engineer

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Steve Townsen

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City Engineer

City of Portland

Security Level: Email, Account Authentication  
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