

## EXHIBIT E

CITY OF PORTLAND, OREGON  
BUREAU OF TRANSPORTATION  
PRELIMINARY ENGINEER'S ESTIMATE

N Suttle Rd LID

Date: August 12, 2016

By: Ryan Webb

PRELIMINARY ENGINEER'S ESTIMATE FOR THE IMPROVEMENT OF NORTH SUTTLE ROAD

VALUES IN BLUE ARE PERCENT OF CONTRACT.

## ##### BID ITEMS #####

NO.	ITEMS OF WORK AND MATERIALS	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL AMOUNT
1	MOBILIZATION	LS	1.00	\$272,160.06	\$272,160.06
2	TEMPORARY PROTECTION & DIRECTION OF TRAFFIC	LS	1.00	\$81,648.02	\$81,648.02
3	TEMPORARY SIGNS	SQFT	1,000.00	\$20.00	\$20,000.00
5	TEMPORARY BARRICADES, TYPE III	EACH	20.00	\$150.00	\$3,000.00
19	FLAGGERS	HOURL	1,440.00	\$48.50	\$69,840.00
23	EROSION CONTROL	LS	1.00	\$27,216.01	\$27,216.01
29	INLET PROTECTION	EACH	20.00	\$88.00	\$1,760.00
30	POLLUTION CONTROL PLAN	LS	1.00	\$2,721.60	\$2,721.60
31	CONTAMINATED MEDIA DISPOSAL	CUYD	400.00	\$163.00	\$65,200.00
43	REMOVAL OF STRUCTURES & OBSTRUCTIONS	LS	1.00	\$108,864.02	\$108,864.02
45	CLEARING AND GRUBBING	LS	1.00	\$70,761.62	\$70,761.62
49	GENERAL EXCAVATION	CUYD	5,717.00	\$49.00	\$280,133.00
53	12 INCH SUBGRADE STABILIZATION	SQYD	1,200.00	\$30.17	\$36,204.00
58	SUBGRADE GEOTEXTILE	SQYD	12,000.00	\$1.25	\$15,000.00
65	VIDEO INSPECTION OF SEWERS, MAINLINE	FOOT	2,822.00	\$3.30	\$9,312.60
69	DEWATERING	LS	1.00	\$50,000.00	\$50,000.00
72	STORMWATER PLANTERS	SQFT	1,730.00	\$45.00	\$77,850.00
83	12 INCH PIPE, HDPE ASTM F714 SDR 26 BEDDING TYPE:D, COMPLETE	FOOT	2,620.00	\$130.00	\$340,600.00
84	18 INCH PIPE, HDPE ASTM F714 SDR 26 BEDDING TYPE:D, COMPLETE	FOOT	65.00	\$140.00	\$9,100.00
85	24 INCH PIPE, HDPE ASTM F714 SDR 26 BEDDING TYPE:D, COMPLETE	FOOT	62.00	\$160.00	\$9,920.00
87	OUTFALL	EACH	1.00	\$10,000.00	\$10,000.00
88	CONCRETE MANHOLES, 48 INCH, 0-8 FT DEPTH	EACH	8.00	\$4,400.00	\$35,200.00
100	CONCRETE INLETS, TYPE G-2	EACH	1.00	\$1,800.00	\$1,800.00
107	CONCRETE INLETS, TYPE BEEHIVE	EACH	7.00	\$1,500.00	\$10,500.00
146	AGGREGATE BASE, 8 INCH THICK	SQYD	12,000.00	\$12.30	\$147,600.00
149	LEVEL 3, 1/2 INCH DENSE, MWMAC MIXTURE	TON	6,300.00	\$89.50	\$563,850.00
163	CONCRETE CURBS, CURB AND GUTTER	FOOT	3,000.00	\$33.03	\$99,090.00
169	CONCRETE DRIVEWAYS, REINFORCED	SQFT	11,240.00	\$9.20	\$103,408.00
170	CONCRETE WALKS	SQFT	2,700.00	\$7.40	\$19,980.00
172	MONOLITHIC CURB GUTTER AND SIDEWALKS	SQFT	23,030.00	\$19.00	\$437,570.00
206	THERMOPLASTIC, NON-PROFILE, 120 MILS, EXTRUDED	FOOT	3,000.00	\$1.40	\$4,200.00
210	PAVEMENT LEGEND, TYPE B-HS: RR CROSSING	EACH	6.00	\$300.00	\$1,800.00
216	REMOVE & REINSTALL EXISTING SIGNS	LS	1.00	\$2,000.00	\$2,000.00
217	SIGN SUPPORT FOOTINGS, BREAKAWAY	LS	1.00	\$2,500.00	\$2,500.00
219	PIPE SIGN SUPPORTS	LS	1.00	\$2,500.00	\$2,500.00
226	TYPE "R" SIGNS IN PLACE	SQFT	30.00	\$20.90	\$627.00
233	TYPE "W12" SIGNS IN PLACE	SQFT	60.00	\$25.60	\$1,536.00
238	POLE FOUNDATIONS	LS	1.00	\$20,000.00	\$20,000.00
239	LIGHTING POLES, FIXED BASE	LS	1.00	\$20,000.00	\$20,000.00
240	LIGHTING POLE ARMS	LS	1.00	\$18,000.00	\$18,000.00
241	LUMINAIRES, LAMPS AND BALLASTS	LS	1.00	\$2,000.00	\$2,000.00
242	SWITCHING, CONDUIT AND WIRING	LS	1.00	\$40,000.00	\$40,000.00
245	FLASHING BEACON INSTALLATION	LS	1.00	\$40,000.00	\$40,000.00
252	TOPSOIL	CUYD	320.00	\$60.00	\$19,200.00
255	DECIDUOUS TREES, 2-1/2 INCH CALIPER	EACH	120.00	\$822.00	\$98,640.00
269	ADDITIONAL ESTABLISHMENT PERIOD	YEAR	120.00	\$264.00	\$31,680.00
TOTAL BID ITEMS					\$3,284,971.93

## ##### ANTICIPATED ITEMS #####

EXHIBIT E

NO.	ITEMS OF WORK AND MATERIALS	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL AMOUNT
NO.	ITEMS OF WORK AND MATERIALS	UNIT	QUANTITY	UNIT PRICE	TOTAL AMOUNT
2	RELOCATE WATER FACILITIES - FIRE HYDRANT	EACH	2.00	\$20,000.00	\$40,000.00
3	RELOCATE WATER FACILITIES - METER	EACH	12.00	\$6,000.00	\$72,000.00
7	STORMWATER PLANTINGS AND PLANT ESTABLISHMENT	SQFT	1,557.00	\$20.00	\$31,140.00
9	RAILROAD TRACK ACCESS PANELS	SQFT	9000.00	\$20.00	\$180,000.00
10	RAILROAD FLAGGER	HR	500.00	\$100.00	\$50,000.00
13	TESTING CONTAMINATED MEDIA	LS	1.00	\$5,000.00	\$5,000.00
14	BOLI FEE PAYMENT	LS	1.00	\$3,284.97	\$3,284.97
15	CONTRACT CONTINGENCY (REQUIREMENT TO ACCEPT BIDS UP TO 10% OVER ESTIMATE)	LS	1.00	\$328,497.19	\$328,497.19

TOTAL ANTICIPATED ITEMS

\$709,922.16

**SCHEDULE SUMMARY**

BID ITEMS		\$3,284,971.93
CONSTRUCTION CONTINGENCY	5% of Bid Items*	\$164,249.00
SUBTOTAL		\$3,449,220.93

ANTICIPATED ITEMS \$709,922.16

**TOTAL CONSTRUCTION \$4,159,143.09**

PROJECT MANAGEMENT	3% of Bid Items	\$98,549.16
DESIGN ENGINEERING (INCLUDING ENVIRONMENTAL PERMITS)	20% of Bid Items	\$806,994.00
CONSTRUCTION MANAGEMENT	15% of Bid Items	\$492,746.00
SUBTOTAL		\$1,398,289.16

PROJECT ENGINEERING & MANAGEMENT OVERHEAD **79.27%** of PM, Eng, and CM \$1,108,423.82

**TOTAL PROJECT ENGINEERING & MANAGEMENT \$2,506,712.97**

RIGHT-OF-WAY LAND, IMPROVEMENTS, AND DAMAGES		\$328,939.00
RIGHT-OF-WAY APPRAISAL, TITLE INSURANCE, AND NEGOTIATION		\$37,350.00

RIGHT-OF-WAY CONTINGENCY **30%** of Land, Improve, and Damages \$98,681.70

**TOTAL PROJECT RIGHT-OF-WAY \$464,970.70**

	Years	Inflation	
INFLATION RATE ON CONTRACT	2	4.5%	of Construction
INFLATION RATE ON PERSONNEL	2	2.0%	of Eng & Mgmt
ESTIMATE CONTINGENCY FOR UNDEFINED OR CHANGE IN SCOPE		25%	of Const, Eng & Mgmt, and Inflation
			\$1,787,468.02

**TOTAL PROJECT CONTINGENCY \$2,271,484.02**

**TOTAL PROJECT ESTIMATE \$9,402,310.79**