

# 190340 EXHIBIT C

## CITY OF PORTLAND, OREGON BUREAU OF TRANSPORTATION IN-LIEU ENGINEER'S ESTIMATE NW 20th Avenue LID

IN-LIEU ENGINEER'S ESTIMATE FOR THE IMPROVEMENT OF 20TH AVE: UPSHUR ST. TO RALEIGH ST. AND NW 23RD & VAUGHN & U.S. 30 INTERSECTION

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

| NO. | ITEMS OF WORK AND MATERIALS                                    | TOTAL QUANTITY | UNIT | UNIT PRICE   | TOTAL AMOUNT |
|-----|--|----------------|------|--------------|--------------|
| 1   | MOBILIZATION   | 0.82           | LS   | \$401,250.00 | \$327,741.22 |
| 2   | TEMPORARY PROTECTION & DIRECTION OF TRAFFIC                    | 0.82           | LS   | \$125,000.00 | \$102,099.33 |
| 3   | TEMPORARY SIGNS  | 2,106.42       | SQFT | \$20.00      | \$42,128.40  |
| 4   | TEMPORARY BARRICADES, TYPE II                                  | 6.00           | EACH | \$50.00      | \$300.00     |
| 5   | TEMPORARY BARRICADES, TYPE III                                 | 43.00          | EACH | \$95.00      | \$4,085.00   |
| 6   | TEMPORARY CONCRETE BARRIER, REFLECTORIZED                      | 0.00           | FOOT | \$18.00      | \$0.00       |
| 7   | TEMPORARY IMPACT ATTENUATOR                                    | 0.00           | EACH | \$2,500.00   | \$0.00       |
| 8   | TEMPORARY PEDESTRIAN CHANNELIZING DEVICES                      | 1,214.00       | FOOT | \$20.00      | \$24,280.00  |
| 9   | TEMPORARY PLASTIC DRUMS  | 157.00         | EACH | \$50.00      | \$7,850.00   |
| 10  | STRIPING & STRIPE REMOVAL MOBILIZATION                         | 2.00           | EACH | \$1,400.00   | \$2,800.00   |
| 11  | SEQUENTIAL ARROW SIGNS   | 1.00           | EACH | \$4,850.00   | \$4,850.00   |
| 12  | PORTABLE CHANGEABLE MESSAGE SIGNS                              | 5.00           | EACH | \$9,000.00   | \$45,000.00  |
| 13  | FLAGGERS   | 584.64         | HOUR | \$50.00      | \$29,232.03  |
| 14  | TRAFFIC CONTROL SUPERVISOR                                     | 0.00           | HOUR | \$60.00      | \$0.00       |
| 15  | TEMPORARY TYPE ORANGE PLASTIC MESH FENCE                       | 54.84          | FOOT | \$5.00       | \$274.20     |
| 16  | EROSION CONTROL  | 0.82           | LS   | \$49,500.00  | \$40,431.33  |
| 17  | INLET PROTECTION   | 24.00          | EACH | \$75.00      | \$1,800.00   |
| 18  | POLLUTION CONTROL PLAN   | 0.82           | LS   | \$5,000.00   | \$4,083.67   |
| 19  | CONTAMINATED MEDIA DISPOSAL                                    | 224.00         | CUYD | \$150.00     | \$33,600.00  |
| 20  | HASP/CMDP WORKPLANS  | 0.82           | LS   | \$10,000.00  | \$8,170.00   |
| 21  | REMOVAL OF RAILROAD TRACK AND TIES                             | 66.00          | FOOT | \$125.00     | \$8,250.00   |
| 22  | REMOVE AND REINSTALL HORSE RINGS                               | 0.00           | EACH | \$750.00     | \$0.00       |
| 23  | REMOVAL OF STRUCTURES & OBSTRUCTIONS                           | 0.95           | LS   | \$262,746.15 | \$248,873.40 |
| 24  | REMOVAL OF FENCES  | 480.00         | FOOT | \$1.00       | \$480.00     |
| 25  | CLEARING AND GRUBBING  | 0.82           | LS   | \$25,600.00  | \$20,910.29  |
| 26  | GENERAL EXCAVATION   | 6,164.30       | CUYD | \$28.00      | \$172,600.40 |
| 27  | 12 INCH SUBGRADE STABILIZATION                                 | 616.10         | SQYD | \$35.00      | \$21,563.50  |
| 28  | SUBGRADE GEOTEXTILE  | 4,813.60       | SQYD | \$1.00       | \$4,813.60   |
| 29  | VIDEO INSPECTION OF SEWERS, MAINLINE                           | 0.00           | FOOT | \$5.00       | \$0.00       |
| 30  | VIDEO INSPECTION OF SEWERS, LATERALS                           | 0.00           | FOOT | \$600.00     | \$0.00       |
| 31  | POTHOLE EXCAVATION   | 2.00           | EACH | \$1,000.00   | \$2,000.00   |
| 32  | STORMWATER PLANTERS  | 0.00           | SQFT | \$80.00      | \$0.00       |
| 33  | 6 INCH PIPE, PVC ASTM D3034 SDR35, BEDDING TYPE: D, COMPLETE   | 0.00           | FOOT | \$68.00      | \$0.00       |
| 34  | 10 INCH PIPE, PVC ASTM D3034 SDR35, BEDDING TYPE: D, COMPLETE  | 219.00         | FOOT | \$72.00      | \$15,768.00  |
| 35  | 12 INCH PIPE, PVC ASTM D3034 SDR35, BEDDING TYPE: D, COMPLETE  | 0.00           | FOOT | \$89.50      | \$0.00       |
| 36  | 15 INCH PIPE, PVC ASTM D3034 SDR35, BEDDING TYPE: D, COMPLETE  | 0.00           | FOOT | \$100.00     | \$0.00       |
| 37  | CONCRETE CLOSURE COLLAR  | 3.00           | EACH | \$5,000.00   | \$15,000.00  |
| 38  | 18 INCH PIPE, RCP ASTM C76 CLASS IV, BEDDING TYPE: B, COMPLETE | 0.00           | FOOT | \$135.00     | \$0.00       |
| 39  | 24 INCH PIPE, RCP ASTM C76 CLASS IV, BEDDING TYPE: B, COMPLETE | 0.00           | FOOT | \$198.00     | \$0.00       |
| 40  | CONCRETE MANHOLES, 48 INCH, 0-8 FT DEPTH                       | 0.00           | EACH | \$6,580.00   | \$0.00       |
| 41  | CONCRETE MANHOLES, 48 INCH, DEEPER THAN 8 FT                   | 0.00           | FOOT | \$550.00     | \$0.00       |
| 42  | CONCRETE MANHOLES, 60 INCH, 0-8 FT DEPTH                       | 0.00           | EACH | \$8,550.00   | \$0.00       |
| 43  | CONCRETE MANHOLES, 60 INCH, DEEPER THAN 8 FT                   | 0.00           | FOOT | \$750.00     | \$0.00       |
| 44  | CONCRETE INLETS, TYPE CG-2                                     | 12.00          | EACH | \$1,910.00   | \$22,920.00  |
| 45  | CONCRETE INLETS, TYPE G-2                                      | 10.00          | EACH | \$1,750.00   | \$17,500.00  |
| 46  | CONCRETE INLETS, TYPE METAL, MODIFIED                          | 0.00           | EACH | \$450.00     | \$0.00       |
| 47  | CONCRETE INLETS, TYPE CHANNEL & GRATE                          | 2.00           | EACH | \$4,400.00   | \$8,800.00   |
| 48  | CATCH BASINS, METAL SUMP                                       | 0.00           | EACH | \$1,580.00   | \$0.00       |
| 49  | DRAINAGE CURBS   | 335.10         | FOOT | \$24.00      | \$8,042.40   |
| 50  | ADJUSTING BOXES  | 7.00           | EACH | \$450.00     | \$3,150.00   |
| 51  | CONNECTION TO EXISTING STRUCTURES                              | 10.00          | EACH | \$3,580.00   | \$35,800.00  |
| 52  | MINOR ADJUSTMENT OF MANHOLES                                   | 0.00           | EACH | \$1,500.00   | \$0.00       |
| 53  | DIVERSION OF FLOW  | 0.00           | EACH | \$3,500.00   | \$0.00       |
| 54  | RECONSTRUCT MANHOLE BASE                                       | 0.00           | EACH | \$7,500.00   | \$0.00       |
| 55  | RODENT CONTROL   | 0.00           | LS   | \$1,500.00   | \$0.00       |
| 56  | TRENCH RESURFACING   | 237.00         | SQYD | \$115.00     | \$27,255.00  |
| 57  | AGGREGATE BASE, 6 INCH THICK                                   | 4,813.60       | SQYD | \$10.00      | \$48,136.00  |
| 58  | LEVEL 3, 1/2 INCH DENSE, MWMAC MIXTURE                         | 2,498.25       | TON  | \$84.00      | \$209,853.00 |

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| NO.   | ITEMS OF WORK AND MATERIALS   | TOTAL QUANTITY | UNIT | UNIT PRICE   | TOTAL AMOUNT   |
|---|---|----------------|------|--------------|----------------|
| 59  | 9 INCH ASPHALT CONCRETE PAVEMENT REPAIR, Temporary Driveway & parking | 240.00         | SQYD | \$50.00      | \$12,000.00    |
| 60  | 17 INCH ASPHALT CONCRETE PAVEMENT REPAIR                              | 473.44         | SQYD | \$132.00     | \$62,494.08    |
| 61  | 16 INCH ASPHALT CONCRETE PAVEMENT REPAIR, US 30 ramp                  | 978.36         | SQYD | \$142.00     | \$138,927.12   |
| 62  | EXTRA FOR ASPHALT APPROACHES  | 0.00           | EACH | \$1,000.00   | \$0.00         |
| 63  | CONCRETE CURBS, CURB AND GUTTER                                       | 222.00         | FOOT | \$40.00      | \$8,880.00     |
| 64  | CONCRETE CURBS, STANDARD CURB   | 348.80         | FOOT | \$29.00      | \$10,115.20    |
| 65  | CONCRETE CURBS, THICKENED CURB AND GUTTER                             | 78.70          | FOOT | \$55.00      | \$4,328.50     |
| 66  | CONCRETE ISLANDS  | 1,600.65       | SQFT | \$29.00      | \$46,418.83    |
| 67  | MONOLITHIC CURB AND DRIVEWAYS   | 639.05         | SQFT | \$16.00      | \$10,224.80    |
| 68  | MONOLITHIC CURB AND GUTTER DRIVEWAYS                                  | 1,324.90       | SQFT | \$20.00      | \$26,498.00    |
| 69  | CONCRETE WALKS  | 8,221.30       | SQFT | \$10.00      | \$82,213.00    |
| 70  | MONOLITHIC CURB AND SIDEWALKS   | 3,221.80       | SQFT | \$28.00      | \$90,210.40    |
| 71  | MONOLITHIC CURB GUTTER AND SIDEWALKS                                  | 32,125.23      | SQFT | \$19.50      | \$626,441.99   |
| 72  | DETECTABLE WARNING SURFACE  | 16.00          | SQFT | \$120.00     | \$1,920.00     |
| 73  | CONCRETE BARRIER  | 230.00         | FOOT | \$28.50      | \$6,555.00     |
| 74  | PAVEMENT LINE REMOVAL   | 8,146.00       | FOOT | \$0.85       | \$6,924.10     |
| 75  | PAVEMENT LEGEND REMOVAL   | 21.00          | EACH | \$105.00     | \$2,205.00     |
| 76  | PAVEMENT BAR REMOVAL  | 331.30         | SQFT | \$3.75       | \$1,242.38     |
| 77  | MONO-DIRECTIONAL WHITE TYPE I MARKERS                                 | 65.00          | EACH | \$6.50       | \$422.50       |
| 78  | 60" WHITE ROUND TOP SURFACE MOUNTED TUBULAR MARKERS                   | 0.00           | EACH | \$150.00     | \$0.00         |
| 79  | CURB MARKINGS - PAINT   | 249.00         | FOOT | \$6.00       | \$1,494.00     |
| 80  | THERMOPLASTIC, NON-PROFILE, 120 MILS, EXTRUDED                        | 12,259.00      | FOOT | \$1.30       | \$15,936.70    |
| 81  | PAVEMENT LEGEND, TYPE B-HS: ARROWS                                    | 13.00          | EACH | \$300.00     | \$3,900.00     |
| 82  | PAVEMENT LEGEND, TYPE B-HS: BICYCLE LANE STENCIL                      | 15.00          | EACH | \$300.00     | \$4,500.00     |
| 83  | PAVEMENT LEGEND, TYPE B-HS: BIKE YIELD LINE TRIANGLE                  | 3.00           | EACH | \$70.00      | \$210.00       |
| 84  | PAVEMENT LEGEND, TYPE F: GREEN BICYCLE LANE MARKINGS                  | 12,090.00      | SQFT | \$9.60       | \$116,064.00   |
| 85  | PAVEMENT BAR, TYP B-HS  | 1,656.00       | SQFT | \$9.50       | \$15,732.00    |
| 86  | REMOVE EXISTING SIGNS   | 1.00           | LS   | \$2,500.00   | \$2,500.00     |
| 87  | REMOVE & REINSTALL EXISTING SIGNS                                     | 1.00           | LS   | \$3,200.00   | \$3,200.00     |
| 88  | WOOD SIGN POSTS   | 0.00           | FBM  | \$32.00      | \$0.00         |
| 89  | SIGN SUPPORT FOOTINGS, BREAKAWAY                                      | 1.00           | LS   | \$21,000.00  | \$21,000.00    |
| 90  | PIPE SIGN SUPPORTS  | 1.00           | LS   | \$14,500.00  | \$14,500.00    |
| 91  | BIKE RACK SIGN SUPPORTS   | 0.00           | EACH | \$700.00     | \$0.00         |
| 92  | 60" WHITE ROUND TOP SURFACE MOUNTED TUBULAR MARKER SIGN MOUNTS        | 10.00          | EACH | \$480.00     | \$4,800.00     |
| 93  | TYPE "B" SIGNS IN PLACE   | 10.00          | SQFT | \$25.00      | \$250.00       |
| 94  | TYPE "BL1" SIGNS IN PLACE   | 4.50           | SQFT | \$25.00      | \$112.50       |
| 95  | TYPE "F" SIGNS IN PLACE   | 10.00          | SQFT | \$25.00      | \$250.00       |
| 96  | TYPE "G" SIGNS IN PLACE   | 62.89          | SQFT | \$36.00      | \$2,264.04     |
| 97  | TYPE "R" SIGNS IN PLACE   | 81.75          | SQFT | \$20.00      | \$1,635.00     |
| 98  | TYPE "W1" SIGNS IN PLACE  | 24.50          | SQFT | \$20.00      | \$490.00       |
| 99  | TYPE "W2" SIGNS IN PLACE  | 14.00          | SQFT | \$20.00      | \$280.00       |
| 100   | TYPE "W12" SIGNS IN PLACE   | 47.24          | SQFT | \$30.00      | \$1,417.20     |
| 101   | TYPE "Y1" SIGNS IN PLACE  | 9.33           | SQFT | \$20.00      | \$186.60       |
| 102   | TYPE "Y4" SIGNS IN PLACE  | 18.75          | SQFT | \$20.00      | \$375.00       |
| 103   | 42 INCH DIAMETER SIGNAL SUPPORT DRILLED SHAFT                         | 45.00          | FOOT | \$800.00     | \$36,000.00    |
| 104   | POLE FOUNDATIONS  | 1.00           | LS   | \$48,100.00  | \$48,100.00    |
| 105   | LIGHTING POLES, FIXED BASE  | 1.00           | LS   | \$62,000.00  | \$62,000.00    |
| 106   | LIGHTING POLE ARMS  | 1.00           | LS   | \$2,300.00   | \$2,300.00     |
| 107   | LUMINAIRES, LAMPS AND BALLASTS  | 1.00           | LS   | \$50,500.00  | \$50,500.00    |
| 108   | SWITCHING, CONDUIT AND WIRING   | 1.10           | LS   | \$90,000.00  | \$99,000.00    |
| 109   | TRAFFIC SIGNAL INSTALLATION   | 1.00           | LS   | \$266,000.00 | \$266,000.00   |
| 110   | INTERCONNECT SYSTEM (underground)                                     | 1.00           | LS   | \$25,000.00  | \$25,000.00    |
| 111   | LAWN SEEDING  | 238.20         | SQYD | \$6.00       | \$1,429.20     |
| 112   | TOPSOIL   | 48.30          | CUYD | \$110.00     | \$5,313.00     |
| 113   | REMOVING AND REBUILDING FENCE   | 263.55         | FOOT | \$26.00      | \$6,852.39     |
| 30A   | VIDEO INSPECTION OF SEWERS, LATERALS                                  | 0.00           | EACH | \$600.00     | \$0.00         |
| CO 3.01   | MAJOR ADJUSTMENT OF MANHOLES  | 0.00           | EACH | \$3,500.00   | \$0.00         |
| CO 3.02   | CONNECTION TO EXISTING STRUCTURES                                     | 1.00           | EACH | \$3,580.00   | \$3,580.00     |
| CO 6.01   | LIQUIDATED DAMAGES  | 131.00         | DAYS | -\$3,400.00  | -\$445,399.00  |
| CO 7.01   | ASPHALT ESCALATION  | 1.00           | LS   | \$8,994.20   | \$8,994.20     |
| CO 8.01   | CONCRETE PAVERS   | 2,830.40       | SQFT | \$41.75      | \$118,169.20   |
| CO 9.01   | EXTRA REMOVAL OF STRUCTURES & OBSTRUCTIONS                            | 0.79           | LS   | \$185,440.00 | \$146,044.25   |
| CO 11.01  | CONTAMINATED MEDIA DISPOSAL   | 1,775.80       | CUYD | \$130.00     | \$230,854.00   |
|   | ROUNDING  |                |      |              | \$0.01         |
| * Unit Price Shown is on Pound, Each, or Foot Basis as Applicable |   |                |      |              |                |
| TOTAL BID ITEMS   |   |                |      |              | \$3,584,295.96 |