

PILE LAYOUT

| Pile | Station at Working Point | Top of Parapet EL. | Top of Pile EL. | Bot. of Wall EL. | Section | Pile Tip EL. | Pile Length |
|------|--------------------------|--------------------|-----------------|------------------|----------|--------------|-------------|
| P-1 | 1249+17.22 | 0.65 | -3.52 | -6.19 | HP14x117 | -25.27 | 21'-9" |
| P-2 | 1249+24.70 | 0.65 | -3.52 | -6.19 | | -25.27 | 21'-9" |
| P-3 | 1249+32.17 | 0.65 | -3.52 | -6.19 | | -25.27 | 21'-9" |
| P-4 | 1249+39.64 | 0.65 | -3.52 | -6.19 | | -25.27 | 21'-9" |
| P-5 | 1249+47.11 | 0.65 | -3.52 | -6.19 | | -25.27 | 21'-9" |
| P-6 | 1249+54.59 | 0.65 | -3.52 | -6.19 | | -25.27 | 21'-9" |
| P-7 | 1249+62.06 | 0.65 | -3.52 | -6.19 | | -25.27 | 21'-9" |
| P-8 | 1249+69.53 | 0.65 | -3.52 | -6.19 | | -25.27 | 21'-9" |
| P-9 | 1249+77.02 | 0.68 | -3.49 | -6.15 | | -25.16 | 21'-8" |
| P-10 | 1249+84.50 | 0.73 | -3.44 | -6.08 | | -25.10 | 21'-8" |
| P-11 | 1249+91.98 | 0.79 | -3.38 | -6.01 | | -25.05 | 21'-8" |
| P-12 | 1249+99.46 | 0.84 | -3.32 | -5.94 | | -24.99 | 21'-8" |
| P-13 | 1250+06.94 | 0.90 | -3.27 | -5.87 | | -24.93 | 21'-8" |
| P-14 | 1250+14.42 | 0.96 | -3.21 | -5.80 | | -24.88 | 21'-8" |
| P-15 | 1250+21.90 | 1.01 | -3.16 | -5.73 | | -24.74 | 21'-7" |
| P-16 | 1250+29.38 | 1.07 | -3.10 | -5.66 | | -24.68 | 21'-7" |
| P-17 | 1250+36.86 | 1.12 | -3.04 | -5.59 | | -24.63 | 21'-7" |
| P-18 | 1250+44.34 | 1.18 | -2.99 | -5.52 | | -24.57 | 21'-7" |
| P-19 | 1250+51.82 | 1.24 | -2.93 | -5.45 | | -24.51 | 21'-7" |
| P-20 | 1250+59.30 | 1.29 | -2.87 | -5.38 | HP14x117 | -24.46 | 21'-7" |
| P-21 | 1250+66.78 | 1.40 | -2.77 | -5.37 | W18x143 | -27.43 | 24'-8" |
| P-22 | 1250+74.26 | 1.56 | -2.61 | -5.43 | | -27.44 | 24'-10" |
| P-23 | 1250+81.74 | 1.72 | -2.44 | -5.49 | | -27.53 | 25'-1" |
| P-24 | 1250+89.22 | 1.88 | -2.28 | -5.54 | | -27.62 | 25'-4" |
| P-25 | 1250+96.70 | 2.04 | -2.12 | -5.60 | | -27.62 | 25'-6" |
| P-26 | 1251+04.18 | 2.21 | -1.96 | -5.65 | | -27.71 | 25'-9" |
| P-27 | 1251+11.66 | 2.37 | -1.80 | -5.71 | | -27.72 | 25'-11" |
| P-28 | 1251+19.14 | 2.53 | -1.64 | -5.76 | | -27.81 | 26'-2" |
| P-29 | 1251+26.62 | 2.69 | -1.48 | -5.82 | | -27.90 | 26'-5" |
| P-30 | 1251+34.10 | 2.85 | -1.32 | -5.87 | | -27.90 | 26'-7" |
| P-31 | 1251+41.58 | 3.01 | -1.16 | -5.93 | | -27.99 | 26'-10" |
| P-32 | 1251+49.06 | 3.17 | -1.00 | -5.99 | W18x143 | -28.00 | 27'-0" |
| P-33 | 1251+56.54 | 3.34 | -0.83 | -6.03 | W21x147 | -30.08 | 29'-3" |
| P-34 | 1251+64.02 | 3.55 | -0.61 | -6.08 | | -30.11 | 29'-6" |
| P-35 | 1251+71.50 | 3.77 | -0.40 | -6.13 | | -30.15 | 29'-9" |
| P-36 | 1251+78.98 | 3.98 | -0.19 | -6.18 | | -30.19 | 30'-0" |
| P-37 | 1251+86.46 | 4.19 | 0.03 | -6.23 | | -30.31 | 30'-4" |
| P-38 | 1251+93.94 | 4.40 | 0.24 | -6.16 | | -30.18 | 30'-5" |
| P-39 | 1251+101.42 | 4.62 | 0.45 | -6.07 | | -30.13 | 30'-7" |
| P-40 | 1252+08.90 | 4.83 | 0.66 | -5.98 | | -30.00 | 30'-8" |
| P-41 | 1252+16.38 | 5.04 | 0.88 | -5.89 | | -29.96 | 30'-10" |
| P-42 | 1252+23.86 | 5.26 | 1.09 | -5.80 | | -29.83 | 30'-11" |
| P-43 | 1252+31.34 | 5.47 | 1.30 | -5.71 | | -29.78 | 31'-1" |
| P-44 | 1252+38.82 | 5.68 | 1.51 | -5.62 | | -29.65 | 31'-2" |
| P-45 | 1252+46.30 | 5.89 | 1.73 | -5.53 | | -29.61 | 31'-4" |
| P-46 | 1252+53.78 | 6.11 | 1.94 | -5.43 | | -29.48 | 31'-5" |
| P-47 | 1252+61.26 | 6.29 | 2.12 | -5.36 | | -29.38 | 31'-6" |
| P-48 | 1252+68.74 | 6.50 | 2.33 | -5.27 | | -29.33 | 31'-8" |
| P-49 | 1252+76.22 | 6.71 | 2.55 | -5.17 | | -29.20 | 31'-9" |
| P-50 | 1252+83.70 | 6.93 | 2.76 | -5.08 | | -29.16 | 31'-11" |
| P-51 | 1252+91.18 | 7.14 | 2.97 | -4.99 | | -29.03 | 32'-0" |
| P-52 | 1252+98.66 | 7.30 | 3.13 | -4.90 | | -28.95 | 32'-1" |
| P-53 | 1252+106.14 | 7.44 | 3.28 | -4.81 | | -28.89 | 32'-2" |
| P-54 | 1252+113.62 | 7.59 | 3.42 | -4.72 | | -28.74 | 32'-2" |
| P-55 | 1252+121.10 | 7.74 | 3.57 | -4.63 | | -28.68 | 32'-3" |
| P-56 | 1253+08.58 | 7.86 | 3.70 | -4.54 | | -28.55 | 32'-3" |
| P-57 | 1253+16.06 | 7.92 | 3.75 | -4.45 | | -28.50 | 32'-3" |
| P-58 | 1253+23.54 | 7.97 | 3.80 | -4.36 | | -28.36 | 32'-2" |
| P-59 | 1253+31.02 | 8.02 | 3.86 | -4.26 | | -28.31 | 32'-2" |
| P-60 | 1253+38.50 | 8.08 | 3.91 | -4.17 | | -28.26 | 32'-2" |
| P-61 | 1253+45.98 | 8.11 | 3.94 | -4.09 | | -28.14 | 32'-1" |
| P-62 | 1253+53.46 | 8.12 | 3.95 | -4.00 | | -28.05 | 32'-0" |
| P-63 | 1253+60.94 | 8.13 | 3.97 | -3.90 | | -27.95 | 31'-11" |
| P-64 | 1253+68.42 | 8.15 | 3.98 | -3.81 | | -27.85 | 31'-10" |
| P-65 | 1253+75.90 | 8.16 | 3.99 | -3.71 | W21x147 | -27.76 | 31'-9" |

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|-------|--------------------------|--------------------|-----------------|------------------|---------|--------------|-------------|
| P-66 | 1253+83.38 | 8.17 | 4.01 | -3.62 | W21x147 | -27.66 | 31'-8" |
| P-67 | 1253+90.86 | 8.19 | 4.02 | -3.52 | | -27.56 | 31'-7" |
| P-68 | 1253+98.34 | 8.20 | 4.04 | -3.42 | | -27.46 | 31'-6" |
| P-69 | 1253+105.82 | 8.22 | 4.05 | -3.33 | | -27.37 | 31'-5" |
| P-70 | 1253+113.30 | 8.23 | 4.06 | -3.23 | | -27.27 | 31'-4" |
| P-71 | 1254+00.78 | 8.24 | 4.07 | -3.14 | | -27.18 | 31'-3" |
| P-72 | 1254+08.26 | 8.25 | 4.09 | -3.04 | | -27.08 | 31'-2" |
| P-73 | 1254+15.74 | 8.27 | 4.10 | -2.95 | | -26.98 | 31'-1" |
| P-74 | 1254+23.22 | 8.28 | 4.11 | -2.85 | | -26.89 | 31'-0" |
| P-75 | 1254+30.70 | 8.30 | 4.13 | -2.75 | | -26.79 | 30'-11" |
| P-76 | 1254+38.18 | 8.31 | 4.15 | -2.64 | | -26.69 | 30'-10" |
| P-77 | 1254+45.66 | 8.33 | 4.16 | -2.53 | | -26.59 | 30'-9" |
| P-78 | 1254+53.14 | 8.34 | 4.18 | -2.42 | | -26.49 | 30'-8" |
| P-79 | 1254+60.62 | 8.36 | 4.19 | -2.31 | | -26.39 | 30'-7" |
| P-80 | 1254+68.10 | 8.38 | 4.21 | -2.20 | | -26.21 | 30'-5" |
| P-81 | 1254+75.58 | 8.39 | 4.22 | -2.09 | | -26.11 | 30'-4" |
| P-82 | 1254+83.06 | 8.41 | 4.24 | -1.98 | | -26.01 | 30'-3" |
| P-83 | 1254+90.54 | 8.42 | 4.26 | -1.87 | | -25.91 | 30'-2" |
| P-84 | 1254+98.02 | 8.44 | 4.27 | -1.76 | | -25.81 | 30'-1" |
| P-85 | 1255+05.50 | 8.45 | 4.29 | -1.65 | | -25.71 | 30'-0" |
| P-86 | 1255+12.98 | 8.47 | 4.30 | -1.54 | | -25.61 | 33'-11" |
| P-87 | 1255+20.46 | 8.50 | 4.33 | -1.43 | | -25.50 | 33'-10" |
| P-88 | 1255+27.94 | 8.54 | 4.37 | -1.32 | | -25.38 | 33'-9" |
| P-89 | 1255+35.42 | 8.58 | 4.41 | -1.21 | | -25.26 | 33'-8" |
| P-90 | 1255+42.90 | 8.62 | 4.45 | -1.10 | | -25.13 | 33'-7" |
| P-91 | 1255+50.38 | 8.66 | 4.49 | -0.99 | | -25.01 | 33'-6" |
| P-92 | 1255+57.86 | 8.70 | 4.53 | -0.88 | | -24.88 | 33'-5" |
| P-93 | 1255+65.34 | 8.74 | 4.57 | -0.77 | | -24.84 | 33'-5" |
| P-94 | 1255+72.82 | 8.78 | 4.61 | -0.66 | | -24.72 | 33'-4" |
| P-95 | 1255+80.30 | 8.82 | 4.65 | -0.55 | | -24.60 | 33'-3" |
| P-96 | 1255+87.78 | 8.86 | 4.69 | -0.44 | | -24.47 | 33'-2" |
| P-97 | 1255+95.26 | 8.90 | 4.73 | -0.32 | | -24.35 | 33'-1" |
| P-98 | 1255+102.74 | 8.94 | 4.77 | -0.21 | | -24.23 | 33'-0" |
| P-99 | 1256+10.22 | 8.99 | 4.82 | -0.10 | | -24.18 | 33'-0" |
| P-100 | 1256+17.70 | 9.03 | 4.87 | 0.01 | | -24.05 | 32'-11" |
| P-101 | 1256+25.18 | 9.08 | 4.92 | 0.13 | | -23.92 | 32'-10" |
| P-102 | 1256+32.66 | 9.13 | 4.96 | 0.24 | | -23.79 | 32'-9" |
| P-103 | 1256+40.14 | 9.18 | 5.01 | 0.36 | | -23.65 | 32'-8" |
| P-104 | 1256+47.62 | 9.23 | 5.06 | 0.47 | | -23.50 | 32'-8" |
| P-105 | 1256+55.10 | 9.28 | 5.11 | 0.59 | | -23.37 | 32'-7" |
| P-106 | 1256+62.58 | 9.33 | 5.16 | 0.70 | | -23.24 | 32'-6" |
| P-107 | 1256+70.06 | 9.37 | 5.21 | 0.81 | | -23.11 | 32'-5" |
| P-108 | 1256+77.54 | 9.42 | 5.26 | 0.93 | | -23.08 | 32'-4" |
| P-109 | 1256+85.02 | 9.47 | 5.31 | 1.04 | | -23.03 | 32'-4" |
| P-110 | 1256+92.50 | 9.52 | 5.35 | 1.16 | W21x147 | -26.90 | 32'-3" |
| P-111 | 1256+100.00 | 9.58 | 5.42 | 1.29 | W18x130 | -24.75 | 30'-2" |
| P-112 | 1257+07.48 | 9.66 | 5.49 | 1.43 | | -24.59 | 30'-1" |
| P-113 | 1257+14.96 | 9.74 | 5.57 | 1.57 | | -24.43 | 30'-0" |
| P-114 | 1257+22.44 | 9.82 | 5.65 | 1.71 | | -24.35 | 30'-0" |
| P-115 | 1257+29.92 | 9.89 | 5.73 | 1.86 | | -24.19 | 29'-11" |
| P-116 | 1257+37.40 | 9.97 | 5.80 | 2.00 | | -24.03 | 29'-10" |
| P-117 | 1257+44.88 | 10.05 | 5.88 | 2.14 | | -23.87 | 29'-9" |
| P-118 | 1257+52.36 | 10.13 | 5.96 | 2.29 | | -23.79 | 29'-9" |
| P-119 | 1257+59.84 | 10.21 | 6.04 | 2.43 | | -23.63 | 29'-8" |
| P-120 | 1257+67.32 | 10.29 | 6.13 | 2.57 | | -23.46 | 29'-7" |
| P-121 | 1257+74.80 | 10.38 | 6.21 | 2.71 | | -23.29 | 29'-6" |
| P-122 | 1257+82.28 | 10.47 | 6.30 | 2.86 | | -23.20 | 29'-6" |
| P-123 | 1257+89.76 | 10.55 | 6.39 | 3.00 | | -23.03 | 29'-5" |
| P-124 | 1257+97.24 | 10.64 | 6.47 | 3.14 | | -22.86 | 29'-4" |
| P-125 | 1258+04.72 | 10.73 | 6.56 | 3.29 | | -22.77 | 29'-4" |
| P-126 | 1258+12.20 | 10.81 | 6.65 | 3.43 | | -22.60 | 29'-3" |
| P-127 | 1258+19.68 | 10.90 | 6.73 | 3.57 | | -22.44 | 29'-2" |
| P-128 | 1258+27.16 | 10.98 | 6.82 | 3.71 | | -22.35 | 29'-2" |
| P-129 | 1258+34.64 | 11.07 | 6.90 | 3.86 | | -22.18 | 29'-1" |
| P-130 | 1258+42.12 | 11.16 | 6.99 | 4.00 | | -22.01 | 29'-0" |
| P-131 | 1258+49.60 | 11.22 | 7.05 | 4.08 | | -21.95 | 29'-0" |
| P-132 | 1258+57.08 | 11.25 | 7.08 | 4.11 | | -21.92 | 29'-0" |
| P-133 | 1258+64.56 | 11.41 | 7.24 | 4.27 | | -21.76 | 29'-0" |
| P-134 | 1258+72.04 | 11.56 | 7.39 | 4.42 | W18x130 | -21.61 | 29'-0" |

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|---------------------|------|------|--------|-------|
| d(E) | 1022 | #4 | 3'-0" | L |
| d ₁ (E) | 1022 | #5 | 3'-0" | L |
| d ₂ (E) | 1022 | #4 | 3'-10" | L |
| d ₃ (E) | 1022 | #5 | 4'-10" | L |
| d ₄ (E) | 16 | #4 | 5'-3" | L |
| d ₅ (E) | 16 | #5 | 6'-6" | L |
| d ₆ (E) | 8 | #5 | 7'-10" | L |
| d ₇ (E) | 8 | #6 | 7'-1" | L |
| e(E) | 114 | #4 | 31'-8" | — |
| e ₁ (E) | 38 | #5 | 32'-2" | — |
| e ₂ (E) | 38 | #8 | 34'-6" | — |
| e ₃ (E) | 66 | #4 | 29'-8" | — |
| e ₄ (E) | 22 | #5 | 29'-8" | — |
| e ₅ (E) | 22 | #8 | 29'-8" | — |
| e ₆ (E) | 6 | #4 | 30'-0" | — |
| e ₇ (E) | 2 | #5 | 30'-0" | — |
| e ₈ (E) | 2 | #8 | 30'-0" | — |
| e ₉ (E) | 8 | #5 | 15'-2" | — |
| e ₁₀ (E) | 10 | #4 | 6'-8" | — |
| h(E) | 361 | #5 | 32'-2" | — |
| h ₁ (E) | 203 | #5 | 29'-8" | — |
| h ₂ (E) | 15 | #5 | 30'-0" | — |
| h ₃ (E) | 9 | #5 | 15'-8" | — |
| h ₄ (E) | 8 | #6 | 15'-2" | — |
| h ₅ (E) | 12 | #6 | 4'-6" | — |
| h ₆ (E) | 18 | #5 | 4'-2" | — |
| h ₇ (E) | 9 | #6 | 5'-6" | — |
| s(E) | 24 | #5 | 5'-5" | U |
| w(E) | 310 | #4 | 3'-9" | — |
| | | | | |