

STANDARD FOUNDATION NOTES ON PLANS (LRFD)

(10-19-21)

(Choices/optional note modifications are in parentheses.)

DRILLED PIERS

L 001 FOR DRILLED PIERS, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

H 001 *** (LRFD) REVISED GEOTECH 6/17 ***

L 002 INSTALL PERMANENT STEEL CASINGS AT BENT NO. ____ BY VIBRATING, SCREWING OR DRIVING PERMANENT CASINGS BEFORE EXCAVATING OR DISTURBING ANY MATERIAL BELOW ELEVATION _____ FT.

H 002 *** REVISED GEOTECH 3/10 ***

L 003 DO NOT USE MULTIPLE TEMPORARY STEEL CASINGS IN A TELESCOPED ARRANGEMENT TO STABILIZE DRILLED PIER EXCAVATIONS AT BENT NO. ____.

H 003 *** REVISED GEOTECH 3/10 ***

L 004 DO NOT DEWATER DRILLED PIER EXCAVATIONS AT BENT NO. ____ . CLEAN THE BOTTOM OF EXCAVATIONS WITH A SUBMERSIBLE PUMP OR AN AIRLIFT. WET PLACEMENT OF CONCRETE IS REQUIRED.

H 004 *** REVISED GEOTECH 11/07 ***

L 005 DO NOT USE SLURRY CONSTRUCTION FOR DRILLED PIERS AT BENT NO. ____.

H 005 *** REVISED GEOTECH 7/06 ***

L 006 SLURRY CONSTRUCTION IS REQUIRED FOR DRILLED PIERS AT BENT NO. ____.

H 006 *** REVISED GEOTECH 11/07 ***

L 007 DO NOT USE POLYMER SLURRY FOR DRILLED PIERS AT BENT NO. ____.

H 007 *** REVISED GEOTECH 7/06 ***

L 008 POLYMER SLURRY IS REQUIRED FOR DRILLED PIERS AT BENT NO. ____.

H 008 *** REVISED GEOTECH 11/07 ***

L 009 DRILLED PIER EXCAVATIONS AT BENT NO. ____ WILL EXTEND INTO MATERIAL THAT DETERIORATES WHEN EXPOSED TO THE ELEMENTS. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE AND PLACE CONCRETE IMMEDIATELY AFTER THE EXCAVATION IS COMPLETED.

H 009 *** (LRFD) GEOTECH 9/08 ***

END BENT EMBANKMENTS/MSE ABUTMENT WALLS/PILE SLEEVES

L 010 SEE ROADWAY PLANS AND SECTION 235 OF THE STANDARD SPECIFICATIONS FOR THE (SETTLEMENT GAUGES AND SURCHARGE or SETTLEMENT GAUGES or SURCHARGE) REQUIRED AT END BENT NO. ____.

H 010 *** REVISED GEOTECH 6/17 ***

L 011 OBSERVE A ___ MONTH WAITING PERIOD AFTER CONSTRUCTING THE EMBANKMENT TO WITHIN 2 FT OF FINISHED GRADE BEFORE BEGINNING END BENT CONSTRUCTION AT END BENT NO. ___. FOR BRIDGE WAITING PERIODS, SEE ROADWAY PLANS AND SECTION 235 OF THE STANDARD SPECIFICATIONS.

H 011 *** REVISED GEOTECH 6/17 ***

L 012 OBSERVE A ___ MONTH WAITING PERIOD AFTER CONSTRUCTING THE EMBANKMENT, END BENT AND REINFORCED BRIDGE APPROACH FILL, IF APPLICABLE, BEFORE BEGINNING APPROACH SLAB CONSTRUCTION AT END BENT NO. ___. FOR BRIDGE WAITING PERIODS, SEE ROADWAY PLANS AND SECTION 235 OF THE STANDARD SPECIFICATIONS.

H 012 *** REVISED GEOTECH 6/17 ***

L 013 OBSERVE A ___ MONTH WAITING PERIOD AFTER CONSTRUCTING THE EMBANKMENT TO THE BOTTOM OF CAP ELEVATION BEFORE BEGINNING END BENT CONSTRUCTION AT END BENT NO. ___. FOR BRIDGE WAITING PERIODS, SEE ROADWAY PLANS AND SECTION 235 OF THE STANDARD SPECIFICATIONS.

H 013 *** REVISED GEOTECH 6/17 ***

L 014 OBSERVE A ___ MONTH WAITING PERIOD AFTER CONSTRUCTING THE MECHANICALLY STABILIZED EARTH (MSE) ABUTMENT WALL TO WITHIN 1 FT OF THE BOTTOM OF CAP ELEVATION BEFORE BEGINNING END BENT CONSTRUCTION AT END BENT NO. ___. FOR BRIDGE WAITING PERIODS, SEE ROADWAY PLANS AND SECTION 235 OF THE STANDARD SPECIFICATIONS.

H 014 *** GEOTECH 6/17 ***

L 015 INSTALL PILE SLEEVES BEFORE CONSTRUCTING THE MECHANICALLY STABILIZED EARTH (MSE) ABUTMENT WALL AT END BENT NO. ___. OBSERVE A ___ MONTH WAITING PERIOD AFTER CONSTRUCTING THE MSE ABUTMENT WALL TO WITHIN 1 FT OF THE BOTTOM OF CAP ELEVATION. THEN, INSTALL PILES THROUGH THE CORRUGATED STEEL PIPES AND FILL PIPES WITH LOOSE UNCOMPACTED SAND BEFORE CONSTRUCTING END BENT CAPS. FOR PILE SLEEVES, SEE MSE RETAINING WALL PLANS AND PROVISION. FOR BRIDGE WAITING PERIODS, SEE ROADWAY PLANS AND SECTION 235 OF THE STANDARD SPECIFICATIONS.

H 015 *** (LRFD) GEOTECH 10/21 ***

PILES

L 016 FOR PILES, SEE PILES PROVISION AND SECTION 450 OF THE STANDARD SPECIFICATIONS.

H 016 *** (LRFD) REVISED GEOTECH 10/21 ***

L 017 AT THE CONTRACTOR'S OPTION, SUBSTITUTE STEEL PILES FOR PRESTRESSED CONCRETE PILES AT BENT NO. ___ WITH THE FOLLOWING CONDITIONS:

H 017

L 018 1) SUBMIT STEEL PILE TYPE AND SIZE FOR APPROVAL.

H 018

L 019 2) SUBSTITUTE GALVANIZED STEEL PILES IN ACCORDANCE WITH SECTION 450 OF THE STANDARD SPECIFICATIONS FOR INTERIOR BENT PRESTRESSED CONCRETE PILES WITHOUT CALCIUM NITRITE CORROSION INHIBITOR.

H 019

L 020 3) SUBSTITUTE METALLIZED STEEL PILES WITH AN 8 MIL THICK 1350 ALUMINUM (W-AL-1350) THERMAL SPRAYED COATING AND A 0.5 MIL THICK SEAL COAT IN ACCORDANCE WITH THE THERMAL SPRAYED COATINGS (METALLIZATION) PROVISION FOR ALL PRESTRESSED CONCRETE PILES WITH CALCIUM NITRITE CORROSION INHIBITOR.

H 020

L 021 4) REGARDLESS OF THE TYPE, SIZE OR QUANTITY OF STEEL PILES SUBSTITUTED, PAYMENT FOR STEEL PILES WILL BE MADE FOR THE PLAN QUANTITY OF PRESTRESSED CONCRETE PILES AT THE CONTRACT UNIT PRICE FOR THE PRESTRESSED CONCRETE PILES. NO ADDITIONAL PAYMENT WILL BE MADE FOR STEEL PILE QUANTITIES IN EXCESS OF THE PLAN QUANTITY OF PRESTRESSED CONCRETE PILES REPLACED.

H 021

L 022 5) NO ADDITIONAL PAYMENT WILL BE MADE FOR CORROSION PROTECTION (GALVANIZING OR METALLIZING), STEEL PILE POINTS OR PIPE PILE PLATES. THESE ITEMS WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE FOR THE PRESTRESSED CONCRETE PILES.

H 022 *** (LRFD) REVISED GEOTECH 4/11 ***

L 023 INSTALL PRESTRESSED CONCRETE AND STEEL H-PILE SECTIONS OF COMPOSITE PILES AT BENT NO. ___ TO TIP ELEVATIONS NO HIGHER THAN _____ FT AND _____ FT, RESPECTIVELY.

H 023 *** REVISED GEOTECH 4/11 ***

L 024 IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF ___ FT-LBS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT BENT NO. ___. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM PROVIDING DRIVING EQUIPMENT IN ACCORDANCE WITH SUBARTICLE 450-3(D)(2) OF THE STANDARD SPECIFICATIONS.

H 024 *** (LRFD) REVISED GEOTECH 4/11 ***

L 025 DO NOT BEGIN WORK AT BENT NO. ___ UNTIL FILL HAS BEEN PLACED.

H 025 *** REVISED GEOTECH 6/05 ***

L 026 THE CONTRACTOR MAY CHOOSE TO CONSTRUCT BENT NO. ___ BEFORE PLACING FILL. PLACE FILL IN ACCORDANCE WITH ARTICLE 410-8 OF THE STANDARD SPECIFICATIONS.

H 026 *** REVISED GEOTECH 11/07 ***

L 027 THE QUANTITY SHOWN FOR FOUNDATION EXCAVATION IS BASED ON PLACING FILL BEFORE CONSTRUCTING BENT NO. ____. IF THE CONTRACTOR CHOOSES TO CONSTRUCT THE BENT(S) BEFORE PLACING FILL, THE QUANTITY FOR FOUNDATION EXCAVATION WILL BE MEASURED FROM THE GROUND LINE AT THE TIME OF BENT CONSTRUCTION.

H 027 *** REVISED GEOTECH 11/07 ***

L 028 BEFORE FILLING HOLES FOR PILE EXCAVATION AT BENT NO. ____, DRIVE PILES TO THE REQUIRED DRIVING RESISTANCE.

H 028 *** (LRFD) GEOTECH 10/21 ***

L 0296 FILL HOLES FOR PILE EXCAVATION AT BENT NO. ___ WITH CONCRETE OR GROUT.

H 029 *** REVISED GEOTECH 10/21 ***

L 030 FILL THE BOTTOM 3 FT OF HOLES FOR PILE EXCAVATION AT BENT NO. ___ WITH CONCRETE OR GROUT AND THE REST OF HOLES WITH CLASS II OR III SELECT MATERIAL THAT MEETS SECTION 1016 OF THE STANDARD SPECIFICATIONS.

H 030 *** (LRFD) REVISED GEOTECH 10/21 ***

L 031 SPUDGING MAY BE USED INSTEAD OF PREDRILLING AT BENT NO. ___.

H 031 *** REVISED GEOTECH 4/11 ***

L 032 TEMPORARY STEEL CASINGS ARE REQUIRED FOR PREDRILLING (AND SPUDGING) AT BENT NO. ___.

H 032 *** GEOTECH 3/10 ***

L 033 PIER SCOUR PROTECTION IS REQUIRED FOR FOOTINGS AT BENT NO. ____. DO NOT PLACE RIP RAP ABOVE THE STREAM BED.

H 033 *** REVISED GEOTECH 7/06 ***

SPREAD FOOTINGS

L 034 (KEY or CARRY IN) SPREAD FOOTINGS AT BENT NO. ___ AT LEAST 12" INTO ROCK WITH MINIMUM THICKNESS AS SHOWN ON THE PLANS.

H 034 *** REVISED GEOTECH 11/07 ***

L 035 PIER SCOUR PROTECTION IS REQUIRED FOR SPREAD FOOTINGS AT BENT NO. ____. DO NOT PLACE RIP RAP ABOVE THE STREAM BED.

H 035 *** REVISED GEOTECH 7/06 ***

L 036 FOR BLASTING ADJACENT TO HIGHWAY STRUCTURES, SEE ARTICLE 410-9 OF THE STANDARD SPECIFICATIONS.

H 036 *** REVISED GEOTECH 4/11 ***

L 371 FOOTING EXCAVATIONS AT BENT NO. ____ WILL EXTEND INTO MATERIAL THAT DETERIORATES WHEN EXPOSED TO THE ELEMENTS. CHECK FIELD CONDITIONS FOR THE REQUIRED RESISTANCE AND PLACE CONCRETE IMMEDIATELY AFTER THE EXCAVATION IS COMPLETED.

H 037 *** (LRFD) GEOTECH 9/08 ***

CULVERT FOOTINGS

L 038 CONSTRUCT THE REINFORCED CONCRETE BOX CULVERT AT STATION _____ WITH ____" OF CAMBER TO ACCOUNT FOR ANTICIPATED SETTLEMENT.

H 038 *** REVISED GEOTECH 11/07 ***

L 039 BACKFILL WITH SELECT MATERIAL, CLASS _____ MEETING THE REQUIREMENTS OF SECTION 1016 OF THE STANDARD SPECIFICATIONS.

(Geotechnical Engineering Unit will determine select material class.)

H 039 *** REVISED GEOTECH 11/07 ***

L 040 (KEY or CARRY IN) FOOTINGS FOR THE REINFORCED BOX CULVERT AT STATION _____ AT LEAST 12" INTO ROCK WITH A MINIMUM THICKNESS AS SHOWN ON THE PLANS.

H 040 *** REVISED GEOTECH 11/07 ***