Diary Number: _____ Inspector Name: _____

TRACS Number: _____ Date: _____

Division VI: Structures
Title: Drilled Shaft Placement (Wet Excavation)

Structure Number
Structure Name
Station
Shaft Number
Abutment 1 or 2
Pier Number

Attribute Numbers	Compliance	Narratives	References
0.		All stakeholders have participated in the pre-activity meeting (can be combined with other pre-activity). Geotech Engineer of Record should be invited.	Construction Manual 601-3.03 (B) Standard Specifications 609-1.03
1.		The mix design has been submitted and reviewed by the Resident Engineer and approved by the Regional Materials Engineer.	Materials Practice and Procedure Directives 15a
2.		Certificates of compliance conforming to the requirements of Standard Specification Sub-Section 106.05 are on file for liquid-membrane forming (curing) compound (when used), whether pre-approved with a green sticker or not.	Materials Practice and Procedure Directives 3a
3.		A detailed installation plan has been submitted, reviewed, and approved prior to the start of work. Plan should be reviewed by Geotech Engineer of record and copied to Geotech Services.	Standard Specifications 609-1.03
4.		The contractor safety plan has been reviewed and approved by the engineer and is being followed. The plan shall satisfy occupational safety guidelines in all construction activities involved in the project. For additional information, refer to ADOT Standard Specification 107.08.	OSHA 29 CFR 1910 OSHA 29 CFR 1926 Standard Specifications 107.08

5.		The Certificates of Compliance to which state that steel or iron products incorporated into the project meet the Buy America Act requirements', certifying that all manufacturing processes producing a steel or iron product, including any application of a coating to iron or steel, occurred in the United States.	23 CFR Part 635.410 Special Provisions 106.05 Special Provisions 106.15
6.		When drilling slurry is required, all methods to mix, circulate, desand, dispose of etc., have been reviewed and approved by the Engineer.	Standard Specifications 609-1.03 Standard Specifications 609-3.04 (A)
7.		Adequate survey offset points have been set to allow for checking of the center axis of the hole and rebar cage locations.	Standard Specifications 609-3.03
8.		The confirmation shaft was constructed to verify the contractor's means and methods to proceed. Can be used in the structure.	Standard Specifications 609-3.02
9.		When casing is required, the inside diameter is not less than the specified drill shaft size.	Standard Specifications 609-2.03
10.		When steel casing is used, it conforms to the requirements of AASHTO M270 (ASTM A709), Grade 36, unless otherwise specified.	Standard Specifications 609-2.03
11.		When caving conditions are encountered, drilling is suspended; construction methods are revised and approved by the Engineer.	Standard Specifications 609-3.03
12.		Slurry is required, tanks of adequate capacity are provided for circulation, storage and treatment.	Standard Specifications 609-3.04 (A)
13.		An experienced manufacturer's representative is present at all times to supervise the development and required testing during the initial slurry drilling process.	Special Provisions 609-3.04 A
14.		The contractor has suitable equipment available on-site capable of obtaining slurry samples from any depth within the drilled shaft.	Standard Specifications 609-1.03 Standard Specifications 609-3.04 (B)
15.		All slurry, water and contaminated concrete are contained as provided for in the approved project SWPPP.	Erosion and Pollution Control Manual NS-3 Special Provision 104.09
16.		During the slurry drilling process, the slurry level in the shaft excavation is maintained at not less than 5 feet above the highest expected piezo metric pressure head along the depth of the shaft.	Special Provisions 609-3.04 A
17.		Prior to placing concrete, slurry samples are extracted from the bottom of the shaft and at 10 foot increments up the shaft to verify acceptable values for the slurry mixture.	Standard Specifications 609-3.04 (B)
18.		A minimum of four sets of tests are made by the contractor during the first eight hours of slurry use for density, viscosity or yield point, pH and sand content.	Standard Specifications 609-3.04 (B)
19.		After consistency is achieved, one set of tests is made by the contractor every four hours of slurry use.	Standard Specifications 609-3.04 (B)

20.		Whenever test result values are found to be unacceptable, concrete is not placed until corrective actions are taken, the slurry is retested and the values are acceptable.	Standard Specifications 609-3.04 (B)
21.		Reports of all slurry tests, signed by an authorized contractor representative are furnished to the Engineer upon completion of each drilled shaft.	Standard Specifications 609-3.04 (B)
22.		The maximum variation from the drilled shaft axis is checked and documented on each shaft (maximum allowed is 5% of the shaft diameter, not to exceed three inches from the plans location).	Standard Specifications 609-3.03
23.		The contractor is checking and verifying compliance of all plumbness checks for each shaft and submitting the results to the Engineer (maximum deviation = 1-1/2%).	Standard Specifications 609-3.03
24.		Satisfactory material is encountered during the drilling of the shaft (stratum is the same as indicated on the boring logs).	Construction Manual 105.11 Standard Specifications 609-3.03
25.		All loose material is satisfactorily removed from the bottom of the shaft in accordance with the approved plan prior to placement of the reinforcing steel cage.	Construction Manual 105.11 Standard Specifications 609-3.03
26.		The shaft excavation depth and diameter are checked and the excavation is evaluated and approved prior to placement of the reinforcing steel cage.	Construction Manual 105.11 Standard Specifications 609-3.05
27.		Adjacent shafts, unless separated by a minimum of three shaft diameters, are not drilled until the concrete in the first shaft has been in place for a minimum of 48 hours.	Special Provisions 609-3.05 A
28.		Open excavations are covered at the end of each shaft per the approved safety plan.	Standard Specifications 609-3.03
29.		A Reinforcing steel quantlist has been completed.	Construction Bulletin 07-01
30.		Schedule 80 PVC (2 inch) is properly installed and secured to the reinforcing steel cage. The piping provides a clean, watertight, and unobstructed opening from the top of the shaft to within one foot of the tip.	Special Provisions 609-3.05
31.		The PVC Schedule 80 pipe is capped on the bottom and filled with water prior to concrete placement.	Special Provisions 609-3.05
32.		Reinforcing steel cage was picked per the approved plan and set in drill shaft.	Standard Specifications 609-1.03
33.		Concrete placement is started within 24 hours after completion of the shaft excavation or the same day the excavation is completed.	Standard Specifications 609-3.07 (A)
34.		Tremie downpipes are steel with an inside diameter of at least 10 inches for shafts four feet or greater in diameter.	Standard Specifications 609-3.07 (A)
35.		The inside diameter of the pump pipe is at least 5 inches.	Standard Specifications 609-3.07 (A)
36.		Concrete is placed uninterrupted without cold joints at a minimum rate of rise of 40 feet per hour.	Standard Specifications 609-3.07 (A)
37.		Unless otherwise specified, the slump is 8 inches +/- 1 inch, or as per approved mix design.	Standard Specifications 609-3.07 (A)
38.		Concrete placed by free fall does not strike the reinforcing steel cage or sidewalls of the excavation.	Standard Specifications 609-3.07 (B)

39.		A Concrete quantlist has been completed.	Construction Bulletin 07-01
40.		The concrete is vibrated in the top 5 feet of the shaft.	Standard Specifications 609-3.07 (B)
41.		An approved curing method is applied to the concrete immediately after completion of finishing the top of the drilled shaft.	Standard Specifications 1006-6.01 A
42.		A Concrete Curing quantlist has been completed.	Construction Bulletin 07-01
43.		Quantlist Minimum Frequency is being followed, once a week.	Construction Bulletin 07-01