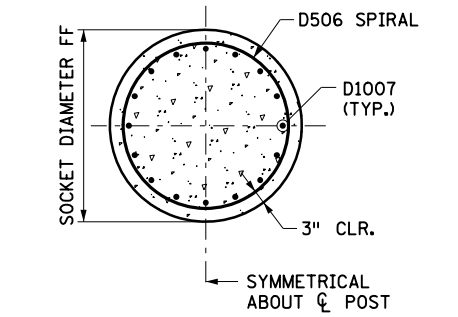
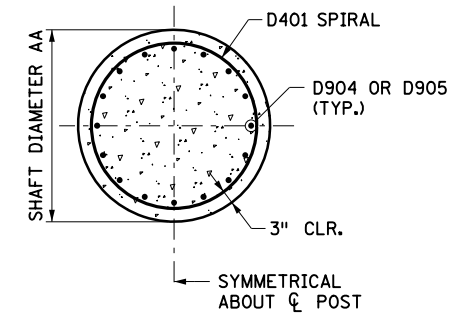


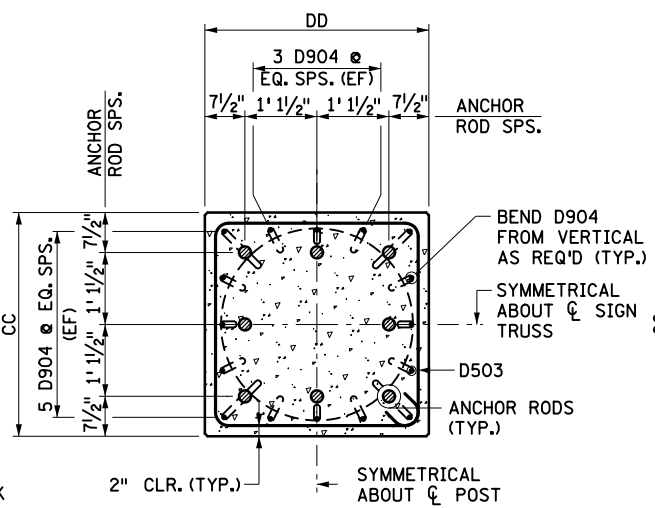
DRILLED SHAFT ELEVATION



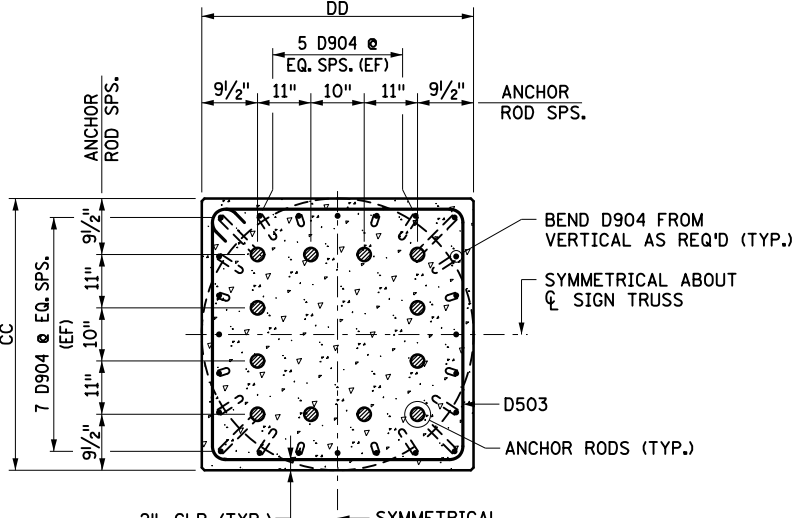
ROCK SOCKET SECTION A-A
SECTION FOR POST TYPE 1-4 SHOWN
SECTION FOR POST TYPE 5-6 SIMILAR



DRILLED SHAFT SECTION B-B
SECTION FOR POST TYPE 1-4 SHOWN
SECTION FOR POST TYPE 5-6 SIMILAR



POST TYPE 1 THRU 4



POST TYPE 5 THRU 6

DRILLED SHAFT SECTION C-C

BAR	POST TYPE				SHAPE	LOCATION
	POST TYPE 1-4		POST TYPE 5-6			
	QTY.	LENGTH	QTY.	LENGTH		
D401	1	EE	1	EE	SPIRAL	DRILLED SHAFT SPIRAL
D502	5	14' 1"	5	17' 1"	—	TRANSITION TIES
D503	8	13' 7"	8	16' 7"	—	PEDESTAL TIES
D904	16	BB - 6"	24	BB - 6"	—	USE FOR BB < 7' 0"
D905	16	BB + 9"	24	BB + 9"	—	USE FOR BB = 7' 0" OR LESS
D506	1	GG	1	GG	SPIRAL	ROCK SOCKET SPIRAL
D1007	16	GG + HH + 1' 2"	24	GG + HH + 1' 2"	—	ROCK SOCKET VERTICALS

POST TYPE	FOUNDATION DATA AND QUANTITIES										
	DRILLED SHAFT DIMENSIONS					ROCK SOCKET DIMENSIONS			STRUCTURAL CONCRETE (3G52)	REINFORCEMENT BARS	ANCHORAGE ASSEMBLY
	AA	BB	CC	DD	EE	FF	GG	HH	CU YD	POUND	POUND
1-4	3' 6"	5'-7"	3' 6"	3' 6"	0'-3"	3' 0"	6' 0"	2' 0"	1.57 + 0.45BB	875 + 82BB	799
		7'-10"			3'-8"		5' 6"	3' 11"	1.98 + 0.36BB	890 + 75BB	
		10'-15"			8'-13"		4' 6"	3' 11"	1.71 + 0.36BB	795 + 77BB	
		15'-20"			13'-18"		2' 6"	3' 11"	1.19 + 0.36BB	610 + 78BB	
		20'-25"			---		1' 6"	3' 11"	0.93 + 0.36BB	515 + 80BB	
5-6	4' 3"	5'-7"	4' 3"	4' 3"	0'-3"	3' 6"	7' 0"	2' 0"	2.49 + 0.67BB	1390 + 115BB	1392
		7'-10"			3'-8"		6' 6"	3' 11"	3.11 + 0.53BB	1420 + 107BB	
		10'-15"			8'-13"		6' 0"	3' 11"	2.93 + 0.53BB	1355 + 110BB	
		15'-20"			13'-18"		3' 6"	3' 11"	2.04 + 0.53BB	1020 + 112BB	
		20'-25"			---		2' 0"	3' 11"	1.50 + 0.53BB	820 + 115BB	

GEOTECHNICAL PARAMETERS:

A SUBSURFACE INVESTIGATION IN THE FORM OF A STANDARD PENETRATION TEST (SPT) SHOULD BE PERFORMED WITHIN 30' HORIZONTALLY FROM EACH POST FOUNDATION. THE SOIL SPT BORING SHOULD EXTEND TO A MINIMUM DEPTH OF 35' IF BEDROCK IS ENCOUNTERED DURING THE DRILLING OPERATIONS, A MINIMUM OF 10' OF ROCK CORE SHOULD BE REMOVED. IN LIEU OF SPT BORINGS, CONE PENETRATION TEST SOUNDINGS MAY BE PUSHED TO A MINIMUM DEPTH OF 35' IF REFUSAL OR BEDROCK IS NOT ENCOUNTERED.

THE WATER TABLE SHALL BE 1.5' BELOW FINISHED GRADE OR LOWER.

THE FOUNDATION DIMENSIONS SHOWN ON THIS SHEET HAVE BEEN DESIGNED WITH THE FOLLOWING ASSUMED GEOTECHNICAL PROPERTIES:

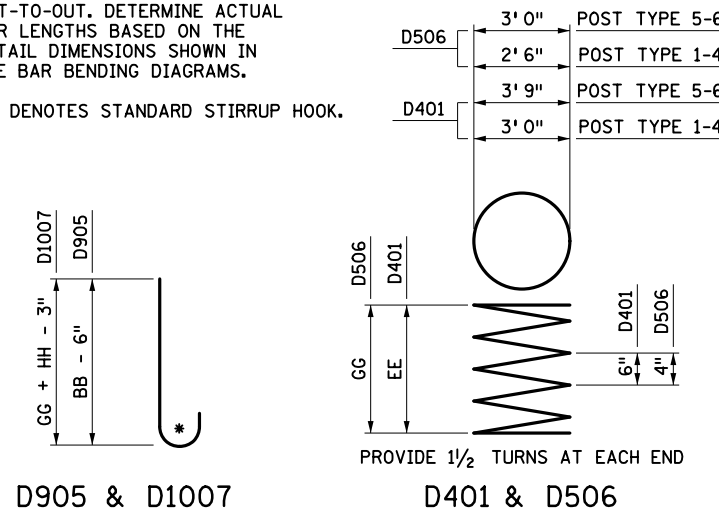
- DRILLED SHAFTS:**
- COHESIVE SOILS:**
- MIN. SHEAR STRENGTH: C = 1.0 ksf
 - UNIT WEIGHT OF SOIL: $\gamma = 125 \pm 10$ pcf
- GRANULAR SOILS:**
- MIN. ANGLE OF FRICTION: $\phi = 30^\circ$
 - UNIT WEIGHT OF SOIL: $\gamma = 125$ pcf
 - MAX. COEFFICIENT OF FRICTION: $\mu = 0.70$
- ROCK SOCKETS:**
- MIN. UNIAXIAL COMPRESSIVE STRENGTH: 700 psi
 - MIN. ROCK QUALITY DESIGNATION (RQD): 50%
 - MIN. JOINT CONDITION RATING (JCOND₈₉): 20

A SPECIAL FOUNDATION DESIGN IS REQUIRED IN CASES WHERE THE REQUIRED VALUES AND/OR CONDITIONS LISTED ABOVE ARE NOT MET.

BAR BENDING DIAGRAMS

BENT BAR DIMENSIONS GIVEN ARE OUT-TO-OUT. DETERMINE ACTUAL BAR LENGTHS BASED ON THE DETAIL DIMENSIONS SHOWN IN THE BAR BENDING DIAGRAMS.

* DENOTES STANDARD STIRRUP HOOK.



- NOTES:**
- PERMANENT CASINGS ARE NOT ALLOWED FOR DRILLED SHAFT FOUNDATIONS.
 - USE PREFORMED JOINT FILLER BETWEEN THE FOUNDATION AND SIDEWALK OR OTHER CONCRETE AREAS.
 - COLD CONCRETE CONSTRUCTION JOINTS ARE NOT PERMITTED.
 - PROVIDE CONCRETE IN ACCORDANCE WITH SPEC. 2461, MIX 3G52.
 - (EF) DENOTES EACH FACE.
 - 1/2" AND 3" SERVICE CONDUITS. HOWEVER, IF DMS IS MOUNTED ON THE SPAN, FURNISH AND INSTALL CONDUIT PER PLAN.
 - SEE STANDARD PLANS 5-297.763 FOR ANCHOR ROD ASSEMBLY DETAILS.
 - FORM A MINIMUM OF 6" BELOW THE GROUND SURFACE. BACKFILL AND TAMP THE EXCAVATIONS REQUIRED FOR FORMING IN ACCORDANCE WITH SPEC. 2106.3.F.2. BACKFILL MATERIAL AND COMPACTION TO BE EQUIVALENT TO THE SURROUNDING MATERIAL. PROVIDE 5' LENGTH IF BEDROCK IS ENCOUNTERED WITHIN THIS REGION.
 - EXCAVATE TO NEAT LINES AND PLACE CONCRETE AGAINST UNDISTURBED SOIL. ELIMINATE TRANSITION AND EXTEND SQUARE SECTION TO BOTTOM OF EXCAVATION IF BEDROCK IS ENCOUNTERED WITHIN THIS REGION.
 - BEND AS REQUIRED TO FORM A CLOSED LOOP.
 - SEE STANDARD PLANS 5-297.763 FOR REINFORCEMENT DETAILS NOT SHOWN.
 - NOT USED IF BEDROCK ENCOUNTERED LESS THAN 6' BELOW FINISHED GRADE.
 - USE FORMULA TO CALCULATE LENGTHS AND DIMENSIONS.



STANDARD PLAN

STATE PROJ. NO.	SHEET NO.
TRUNK HWY.	TOTAL SHEETS