

REINFORCING STEEL CODE

TYPE	SIZE	SERIES	COUPLER
A	16	01	②

### BI-DIRECTIONAL CELL LOCATION SCHEDULE

LOCATION	BI-DIRECTIONAL CELL MIDPOINT (FT)
Upper	-XX.X
Lower	-XX.X

### PRELIMINARY STRAIN GAUGE LOCATION SCHEDULE

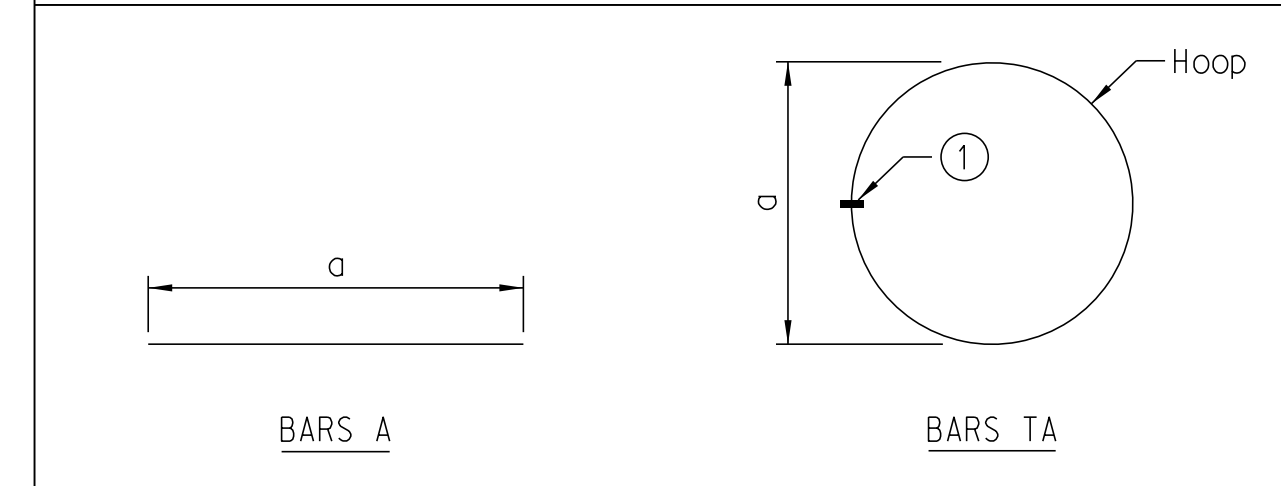
LOCATION	GAUGE TYPE	ELEVATION (FT) ▲
STA. XX+XX.XX	Vibrating Wire Strain Gauge	XX.X
		XX.X
		XX.X
		XX.X
		XX.X
	Resistance Gauge	XX.X
		XX.X
		XX.X
		XX.X
		XX.X

▲ Elevations are based on an existing ground elevation of XX.X ft. If elevation varies from XX.X ft., adjust gauges accordingly.

### REINF. STEEL SCHED.

MARK	NO. REQ'D	DIMENSION				LENGTH
		"a"	"b"	"c"	"d"	
AXXXXU	X	XX'-X"				XX'-X"
AXXXXU	X	XX'-X"				XX'-X"
AXXXXU	X	XX'-X"				XX'-X"
AXXXXU	X	XX'-X"				XX'-X"
TAXXXX	X	XX'-X"				XX'-X"

### BAR BENDING DETAIL



### ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Reinforcing Steel For Structures (Bridge)	LB	X,XXX
Hoop Reinforcing Steel For Struct. (Bridge)	LB	X,XXX
Drilled Shaft w/ Wet & Dry Excav. - XX" Dia.	LF	XX.X
Drilled Shaft w/ Wet & Dry Excav. - XX" Dia.	LF	XX.X
Construction Casing - XX" Dia. ③	LF	XX.X
Crosshole Sonic Logging Setup	EA	1
Drilled Shaft Axial Load Test XX"	EA	1
Drilled Shaft Setup	EA	1

**Notes:**

Dimensions shown are out-to-out and Standard C.R.S.I. bending details shall apply, except as noted.

Construct all drilled shaft foundations in accordance with the Standard Specifications.

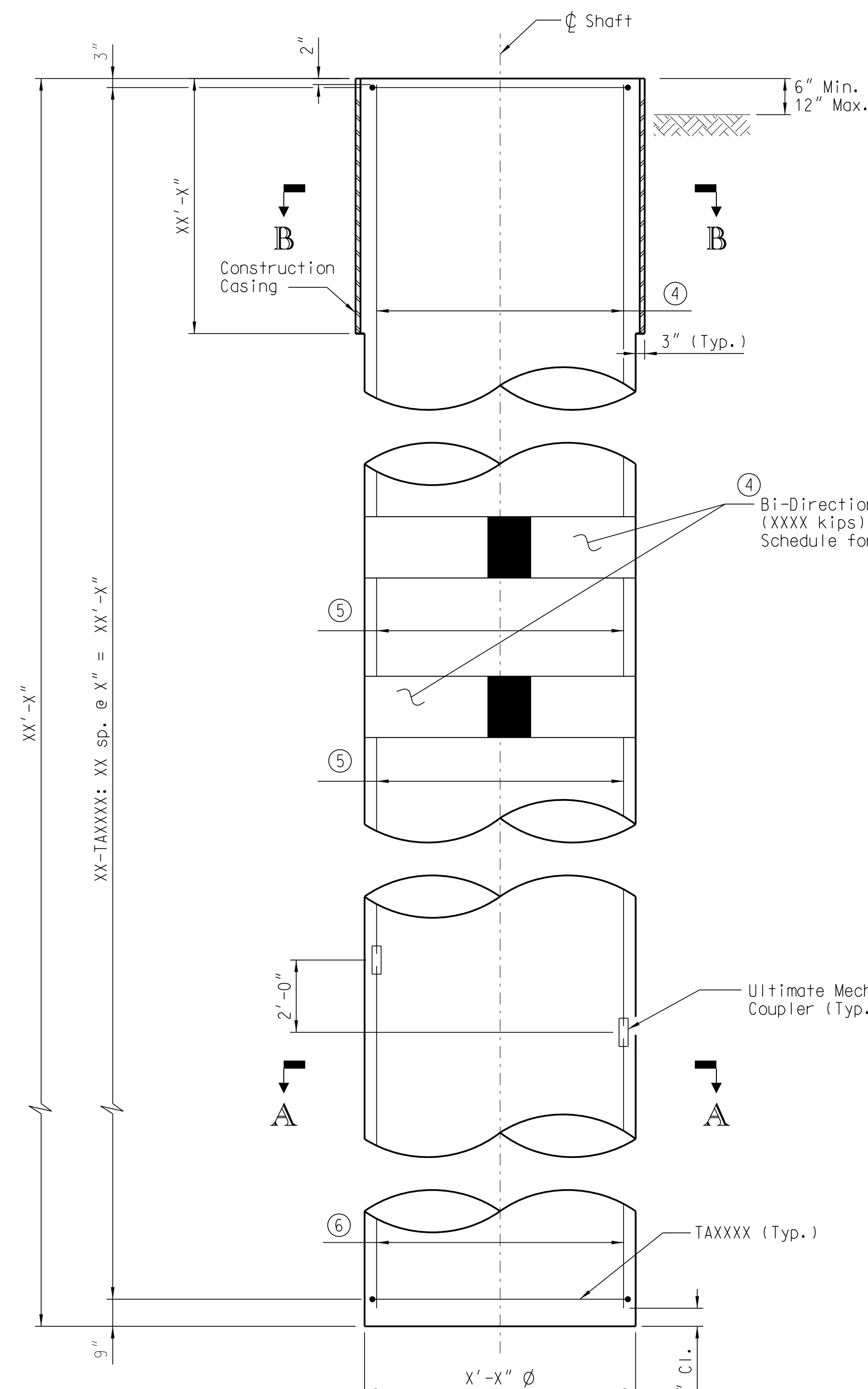
Use grade 60 reinforcing steel conforming to ASTM A706. Fabricate reinforcing bars in accordance with the current C.R.S.I. Manual of Standard Practice.

Test shafts axially with a test load of XXXX tons. See Special Provisions for additional information.

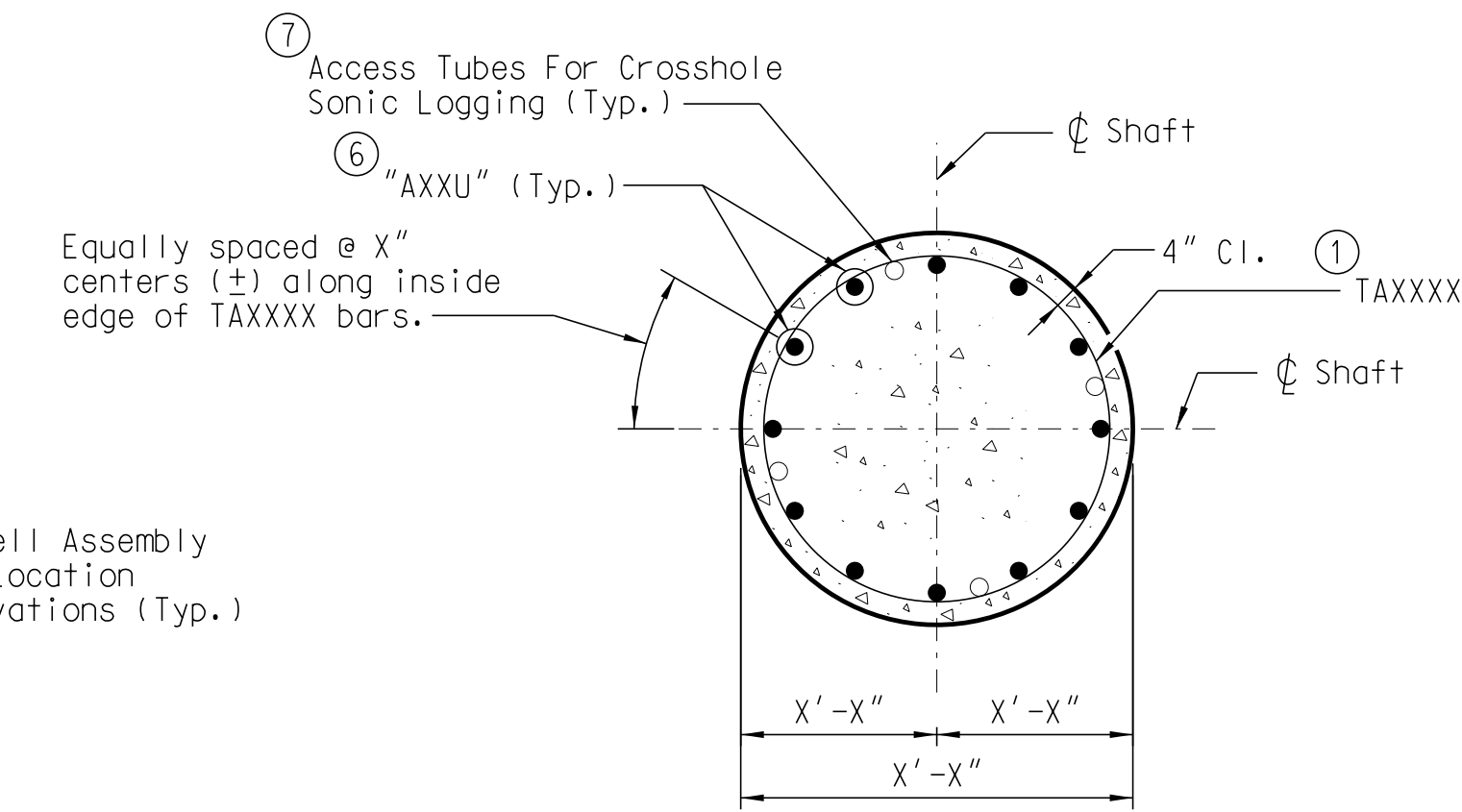
Install instrumentation for load test along the reinforcing steel cage prior to placing the cage in the excavated hole at the locations indicated. Prior to beginning construction, submit shop drawings for all appurtenances required for load testing to the Engineer for approval.

To prevent the hoop weld splices from being located on the same vertical plane, stagger locations of the splices around the perimeter of the shaft by a minimum distance of 1/2 the hoop circumference.

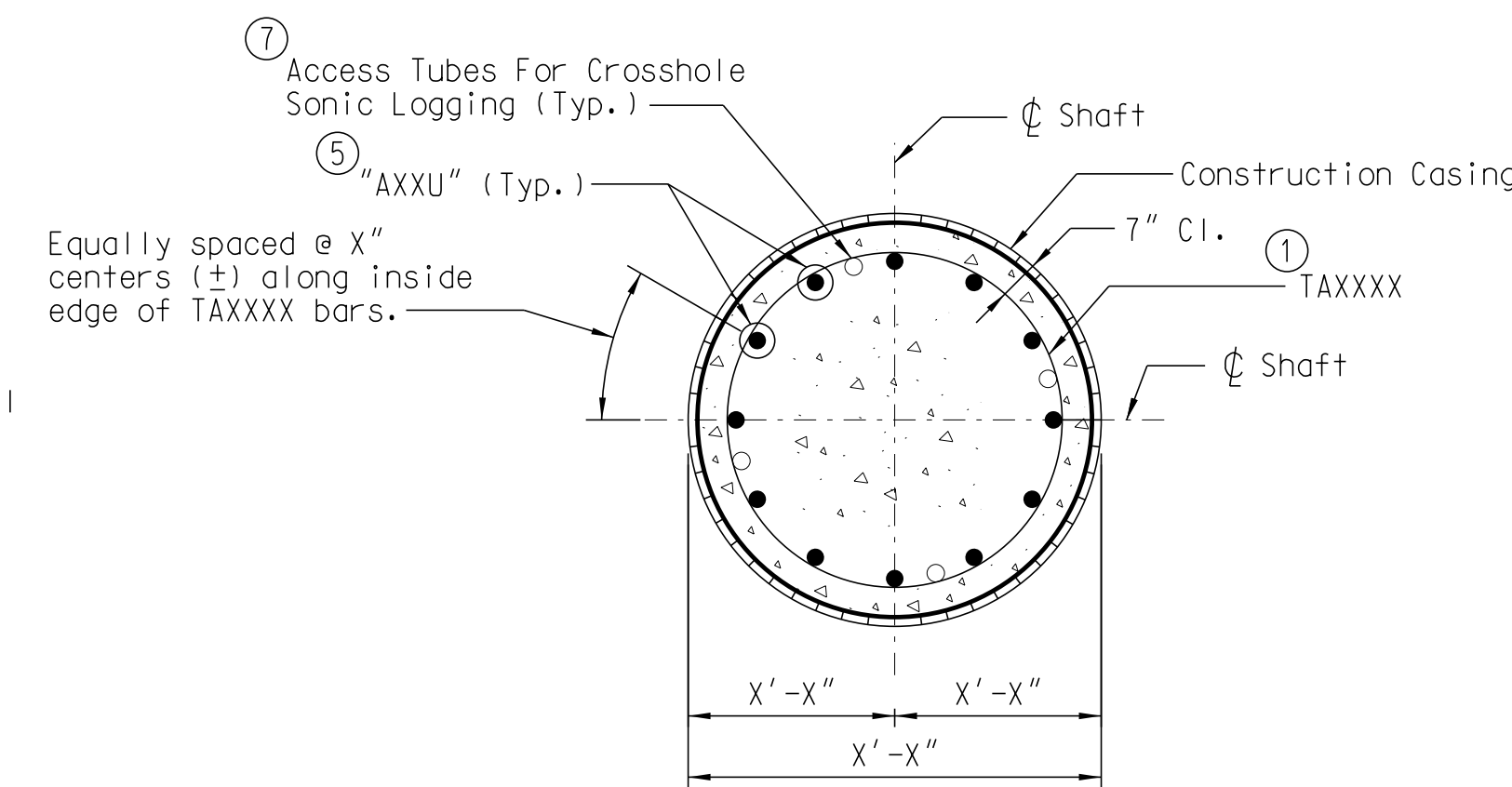
Adjust dimensions necessary to accommodate Bi-Directional Cell.



**ELEVATION - SHAFT**  
(Not to Scale)



**SECTION A-A**



**SECTION B-B**

**Note to Designer:**  
This template drawing furnished for information only. The sample details provided on this drawing must be replaced with project specific details and the notes must be modified appropriately. All drawings must be signed and sealed by a South Carolina Registered Professional Engineer when used.

- ④ Field cut "AXXU" bars as necessary at the Bi-Directional Cell Assemblies and weld to cell bearing plates per manufacturer's installation procedures.
- ⑤ Alternate X-AXXXU and X-AXXXU @ equal spaces.
- ⑥ Alternate X-AXXXU and X-AXXXU @ equal spaces.
- ⑦ Adjust location of Access Tubes as necessary for proper placement of strain gauges and adjust lengths as necessary to accommodate Bi-Directional Cell Assemblies. Score Access Tubes with pipe cutter at Bi-Directional Cell bottom plate or splice with short sections of PVC pipe at Bi-Directional Cell location to create weak points at Bi-Directional Cell Assemblies. Protect the scored areas or PVC pipe connections with waterproof tape.

- ① Ultimate Butt-Welded Splice - Use complete joint penetration butt weld conforming to the requirements of Structural Welding Code - Reinforcing Steel (ANSI/AWS D1.4, latest edition) and the Standard Specifications.
- ② If a mechanical coupler is required, the reinforcing steel code includes a designation of "S" for a standard coupler and a designation of "U" for an Ultimate Coupler. Unless noted otherwise, bar lengths shown in the Reinforcing Steel Schedules are to the center of the coupler. If necessary, adjust the length of the bars to maintain the required concrete cover.
- ③ Quantities shown are approximate and are for bid purposes only. The Engineer will determine the actual quantity based on field conditions and adjust quantities accordingly. At a minimum, provide the upper 10 feet of casing for each drilled shaft to accommodate load testing procedures.

REV.				SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION  <b>AXIAL SHAFT LOAD TEST - XX" DIA. BI-DIRECTIONAL</b>			
REV.							
REV.							
REVIEWED							
QUAN.							
DR.				FILE NO.	ROUTE	COUNTY	DWG. NO.
DES.				XX.XXXXX	XXXX	XXXX	712-15
BY				CHK.		DATE	