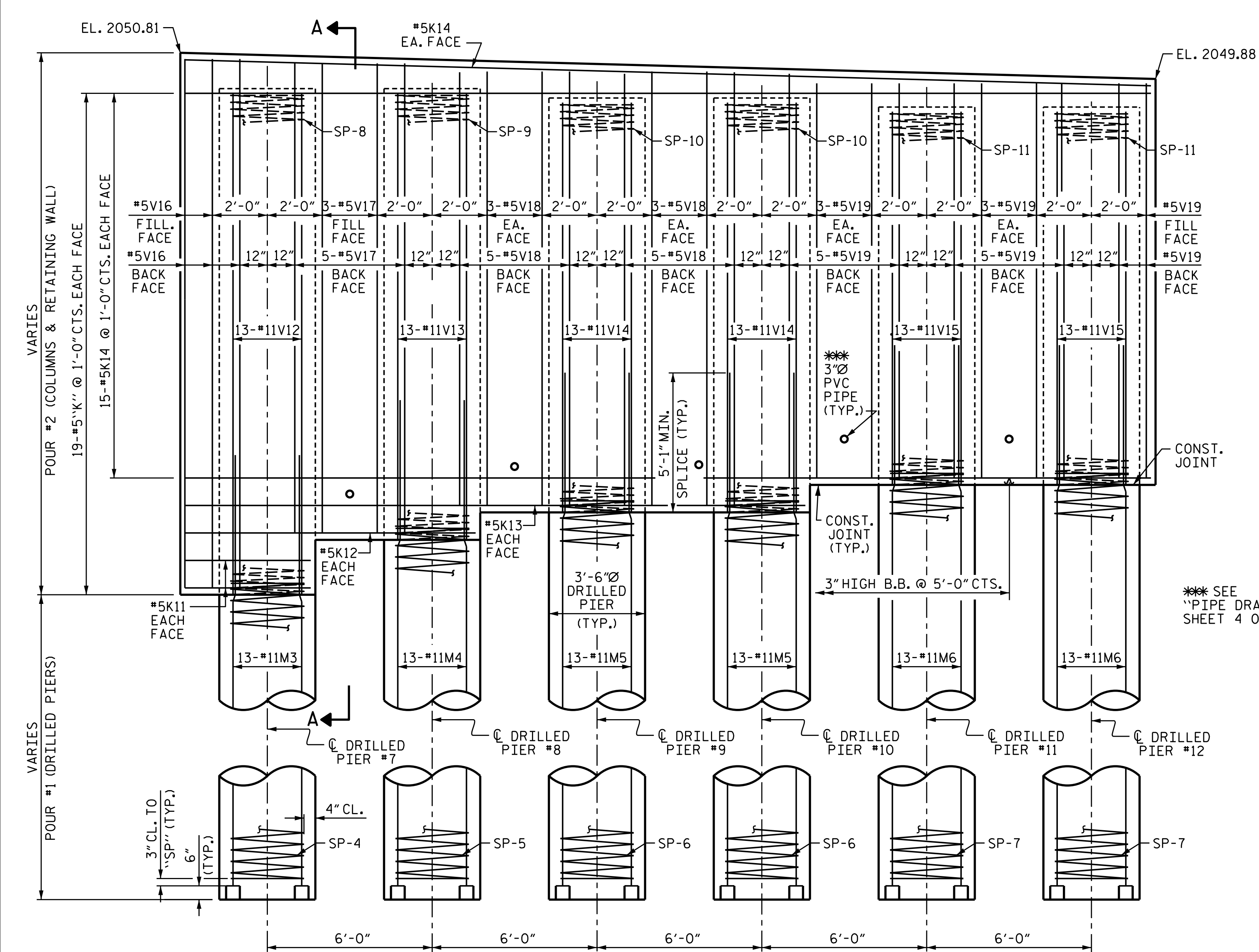
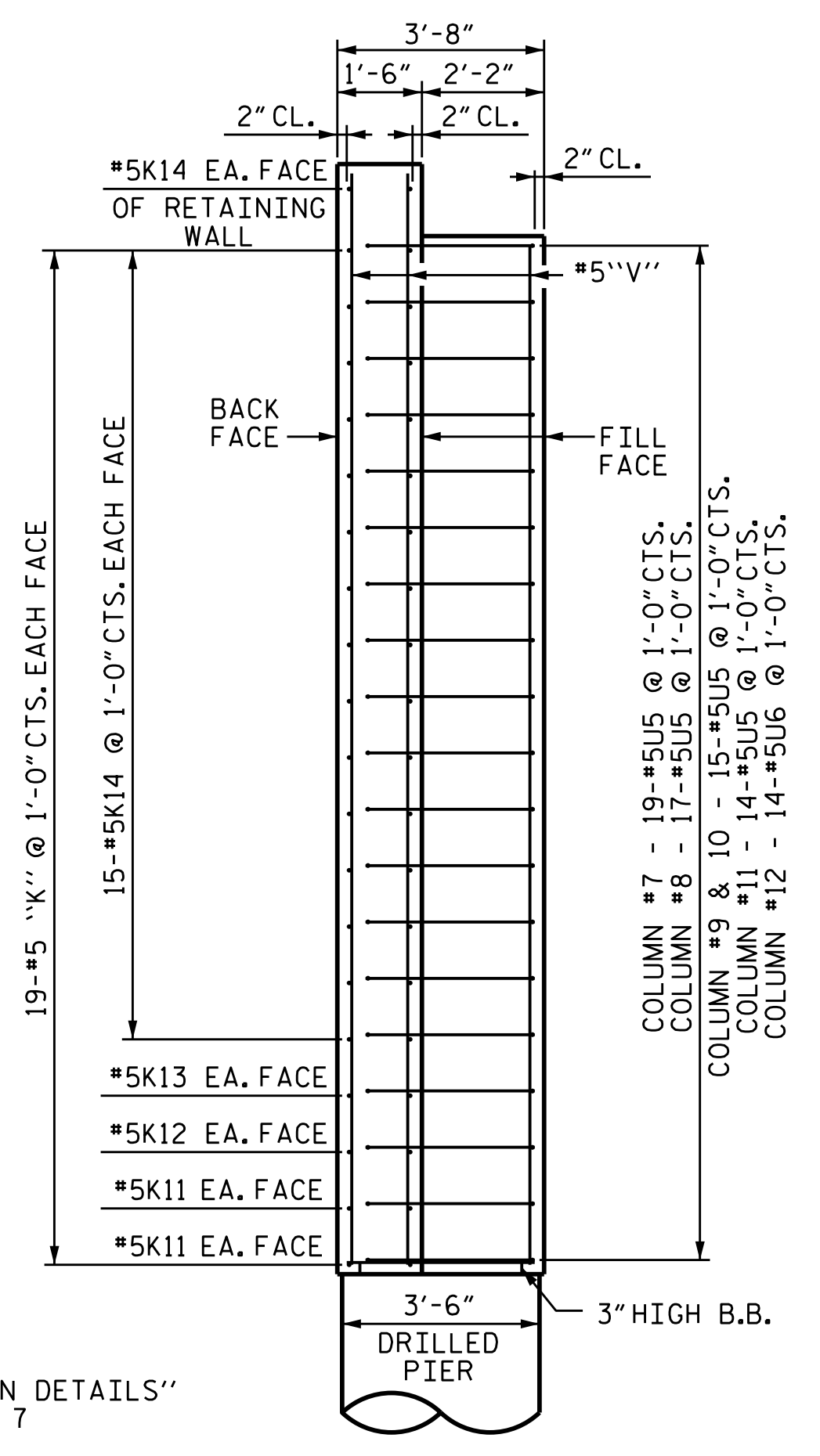


PLAN - ABUTMENT WING WALL

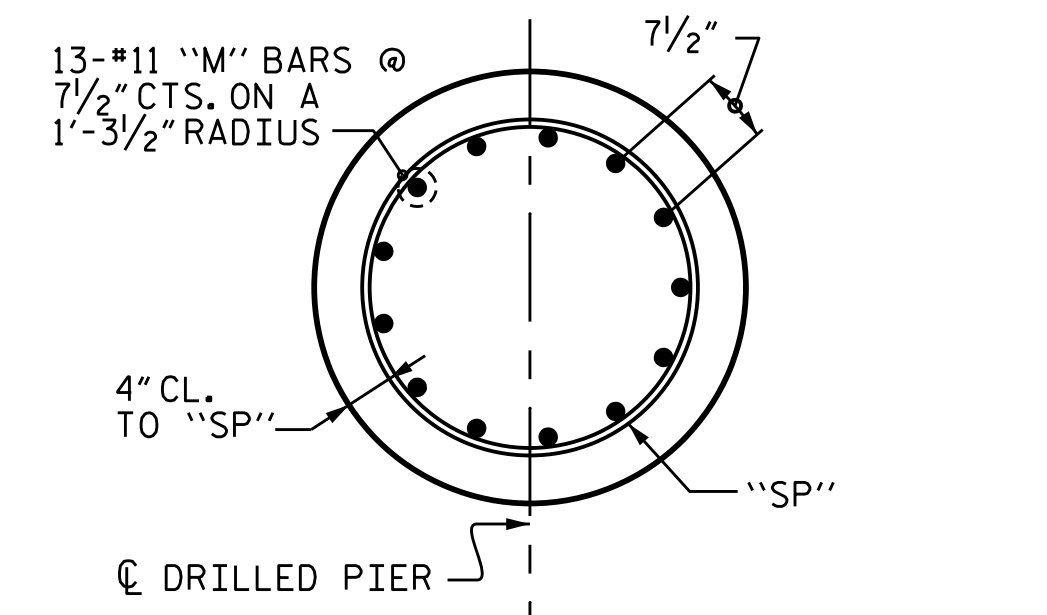


ELEVATION - ABUTMENT WING WALL

| DRILLED PIER ELEVATIONS |                      |                     |               |
|-------------------------|----------------------|---------------------|---------------|
| DRILLED PIER            | BOT. OF DRILLED PIER | TOP OF DRILLED PIER | TOP OF COLUMN |
| #7                      | EL. 2010.11          | EL. 2031.11         | EL. 2049.53   |
| #8                      | EL. 2010.11          | EL. 2033.11         | EL. 2049.53   |
| #9 & #10                | EL. 2010.11          | EL. 2034.11         | EL. 2049.19   |
| #11 & #12               | EL. 2010.11          | EL. 2035.11         | EL. 2048.86   |

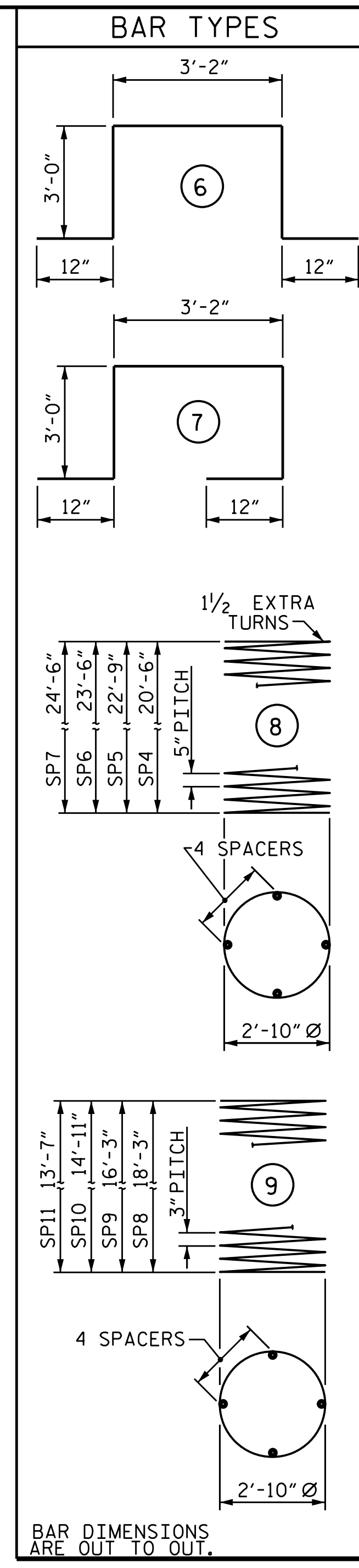


SECTION A-A



PLAN OF DRILLED PIER

REINFORCING STEEL AND DIMENSIONS ARE TYPICAL FOR EACH DRILLED PIER.



| ABUTMENT WING WALL BILL OF MATERIAL |     |      |      |         |        |
|-------------------------------------|-----|------|------|---------|--------|
| BAR                                 | NO. | SIZE | TYPE | LENGTH  | WEIGHT |
| K11                                 | 4   | #5   | STR  | 4'-7"   | 19     |
| K12                                 | 2   | #5   | STR  | 10'-7"  | 22     |
| K13                                 | 2   | #5   | STR  | 22'-7"  | 47     |
| K14                                 | 32  | #5   | STR  | 35'-2"  | 1174   |
| M3                                  | 13  | #11  | STR  | 28'-7"  | 1974   |
| M4                                  | 13  | #11  | STR  | 30'-7"  | 2112   |
| M5                                  | 26  | #11  | STR  | 31'-7"  | 4363   |
| M6                                  | 26  | #11  | STR  | 32'-7"  | 4501   |
| U5                                  | 80  | #5   | 6    | 11'-2"  | 932    |
| U6                                  | 14  | #5   | 7    | 11'-2"  | 163    |
| V12                                 | 13  | #11  | STR  | 18'-3"  | 1261   |
| V13                                 | 13  | #11  | STR  | 16'-3"  | 1122   |
| V14                                 | 26  | #11  | STR  | 14'-11" | 2061   |
| V15                                 | 26  | #11  | STR  | 13'-7"  | 1876   |
| V16                                 | 5   | #5   | STR  | 19'-3"  | 100    |
| V17                                 | 8   | #5   | STR  | 17'-1"  | 143    |
| V18                                 | 16  | #5   | STR  | 15'-9"  | 263    |
| V19                                 | 19  | #5   | STR  | 14'-4"  | 284    |
| V20                                 | 2   | #5   | STR  | 18'-0"  | 38     |
| V21                                 | 2   | #5   | STR  | 16'-0"  | 33     |
| V22                                 | 4   | #5   | STR  | 14'-8"  | 61     |
| V23                                 | 4   | #5   | STR  | 13'-4"  | 56     |

REINFORCING STEEL = 22605 LBS.

| SP    | NO. | SIZE | TYPE | LENGTH  | WEIGHT |
|-------|-----|------|------|---------|--------|
| SP-4  | 1   | *    | 8    | 444'-0" | 463    |
| SP-5  | 1   | *    | 8    | 485'-6" | 506    |
| SP-6  | 2   | *    | 8    | 507'-5" | 1058   |
| SP-7  | 2   | *    | 8    | 529'-3" | 1104   |
| SP-8  | 1   | **   | 9    | 653'-8" | 437    |
| SP-9  | 1   | **   | 9    | 581'-4" | 388    |
| SP-10 | 2   | **   | 9    | 535'-3" | 715    |
| SP-11 | 2   | **   | 9    | 489'-2" | 654    |

SPIRAL REINFORCING STEEL = 5325 LBS

CLASS A CONCRETE BREAKDOWN :  
POUR 2 ABUTMENT WING WALL - 58.9 C.Y.

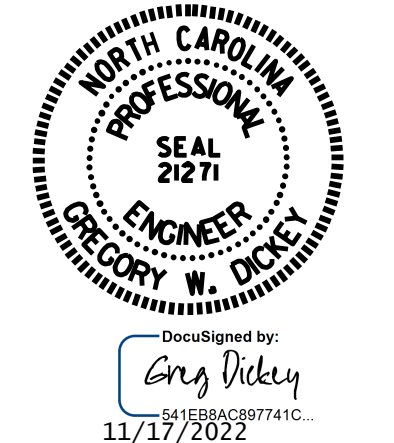
3'-6" Ø DRILLED PIERS  
DRILLED PIER CONCRETE :  
POUR 1 ----- 50.6 C.Y.

\* THE SP4-7 SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #5 PLAIN OR DEFORMED BAR.  
\* THE SP8-11 SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR.

BAR DIMENSIONS ARE OUT TO OUT.

Prepared in the Office of:  
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PROJECT NO. B-5989  
MADISON COUNTY  
STATION: 16+18.00 -L-  
SHEET 7 OF 7



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE  
ABUTMENT WING WALL  
AT  
END BENT #2

| REVISIONS |     |       |     | SHEET NO. |       |
|-----------|-----|-------|-----|-----------|-------|
| NO.       | BY: | DATE: | NO. | BY:       | DATE: |
| 1         |     |       | 3   |           |       |
| 2         |     |       | 4   |           |       |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

S-31  
TOTAL SHEETS 35

\$LASTSAVEDDATE\$ TIME\$ FILE\$

DRAWN BY : KEITH D LAYNE DATE : 09/22  
CHECKED BY : G. DICKEY DATE : 09/22  
DESIGN ENGINEER OF RECORD: GDICKEY DATE : 09/22