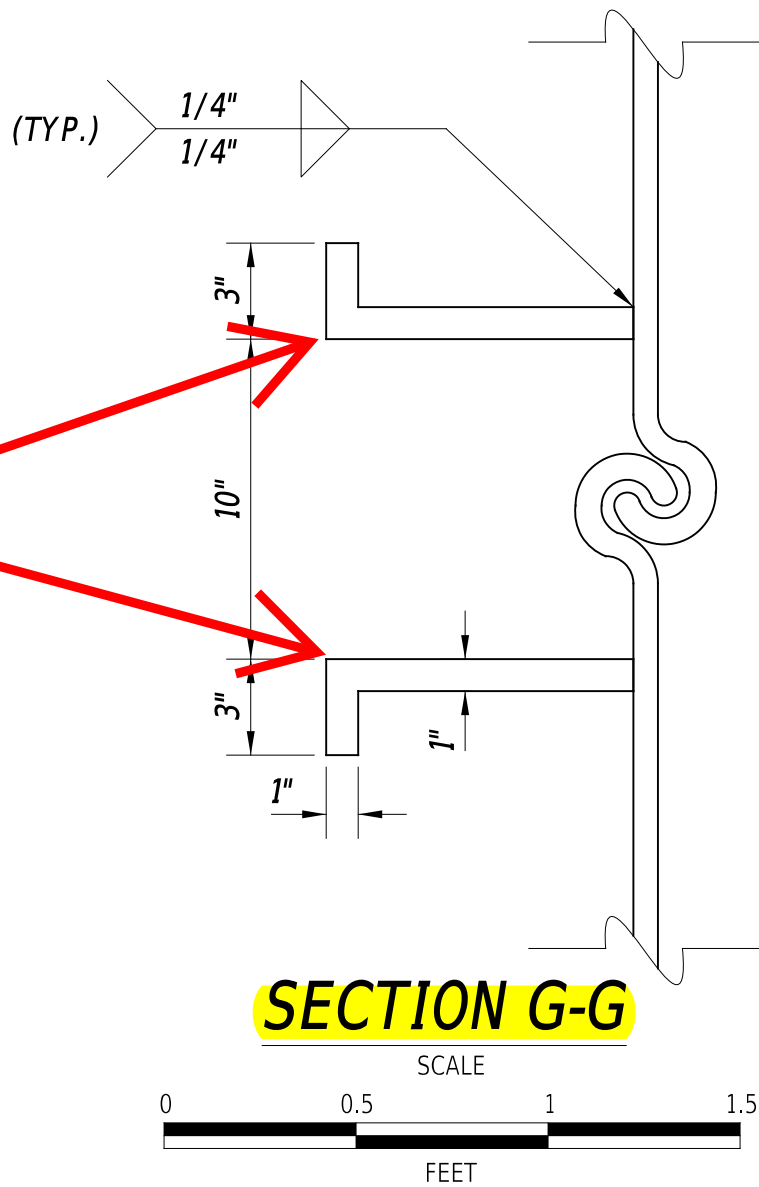
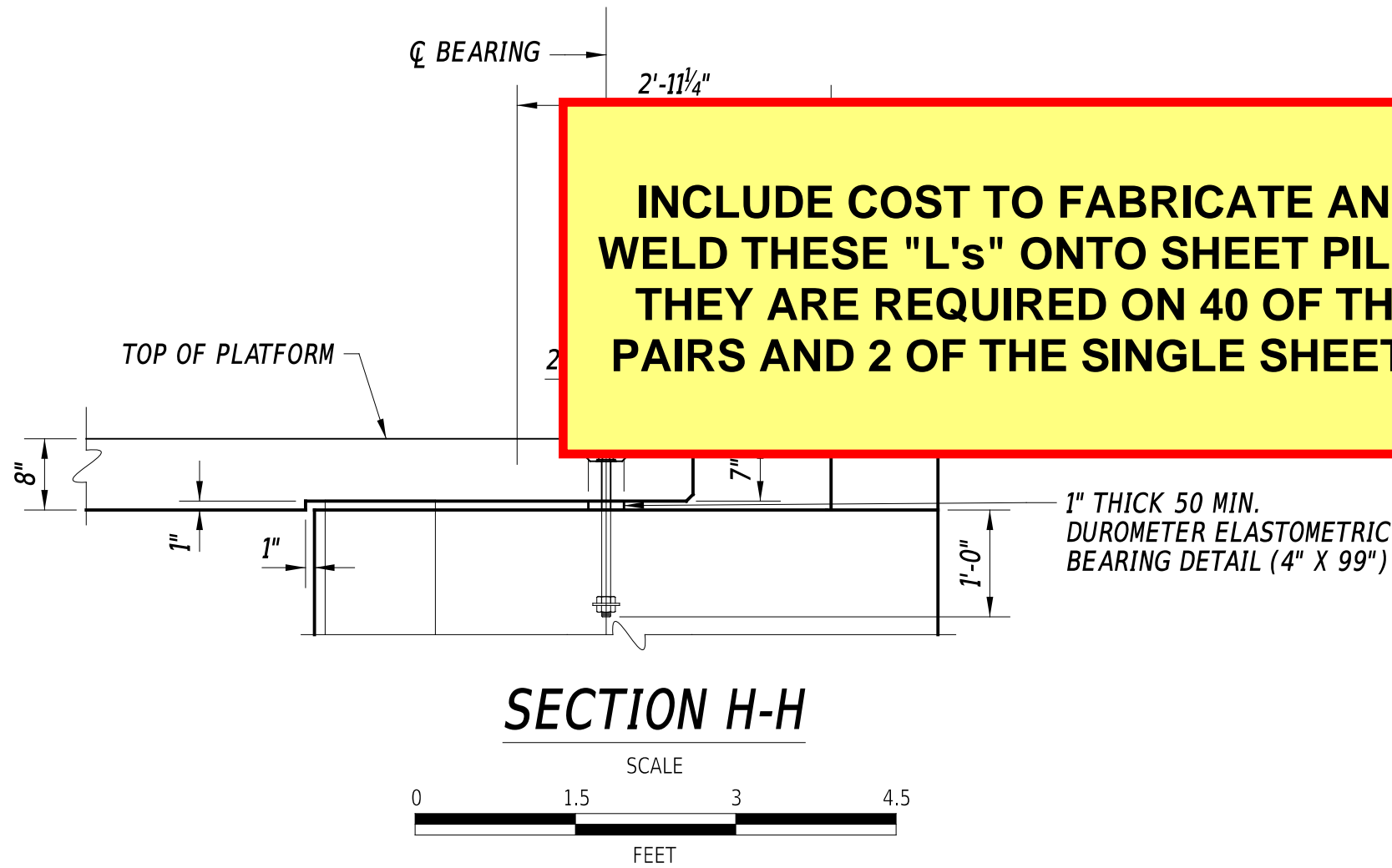
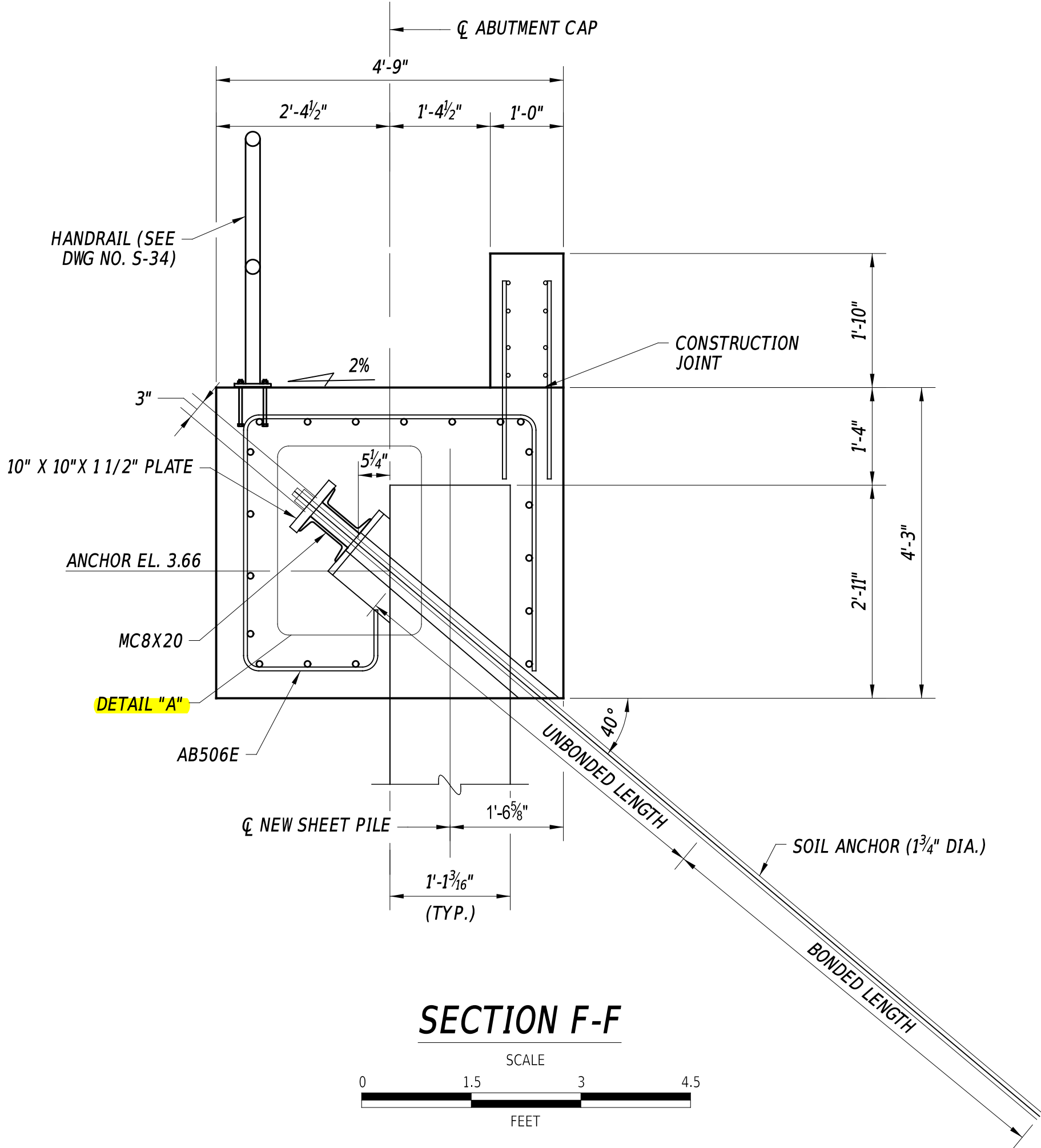
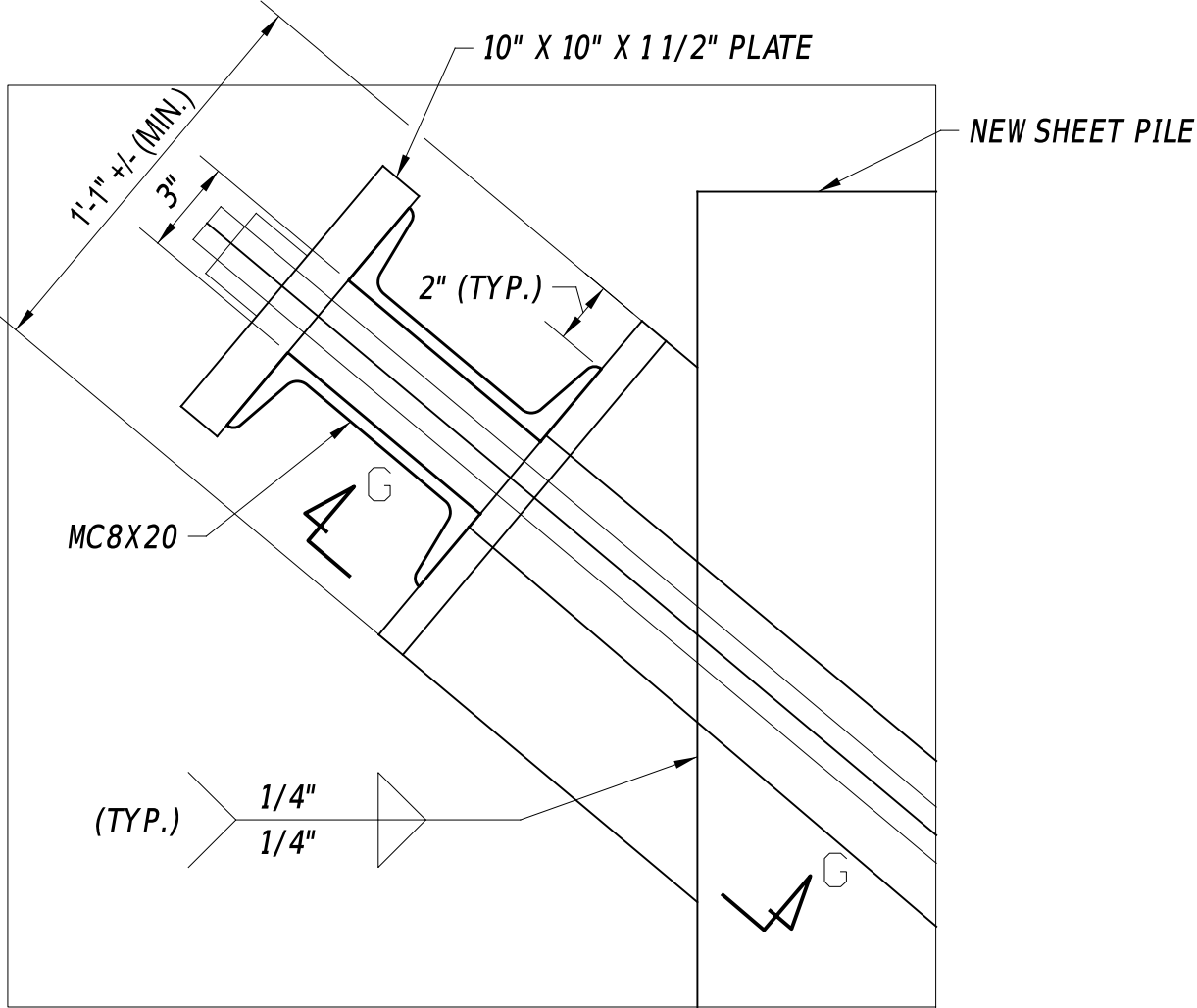
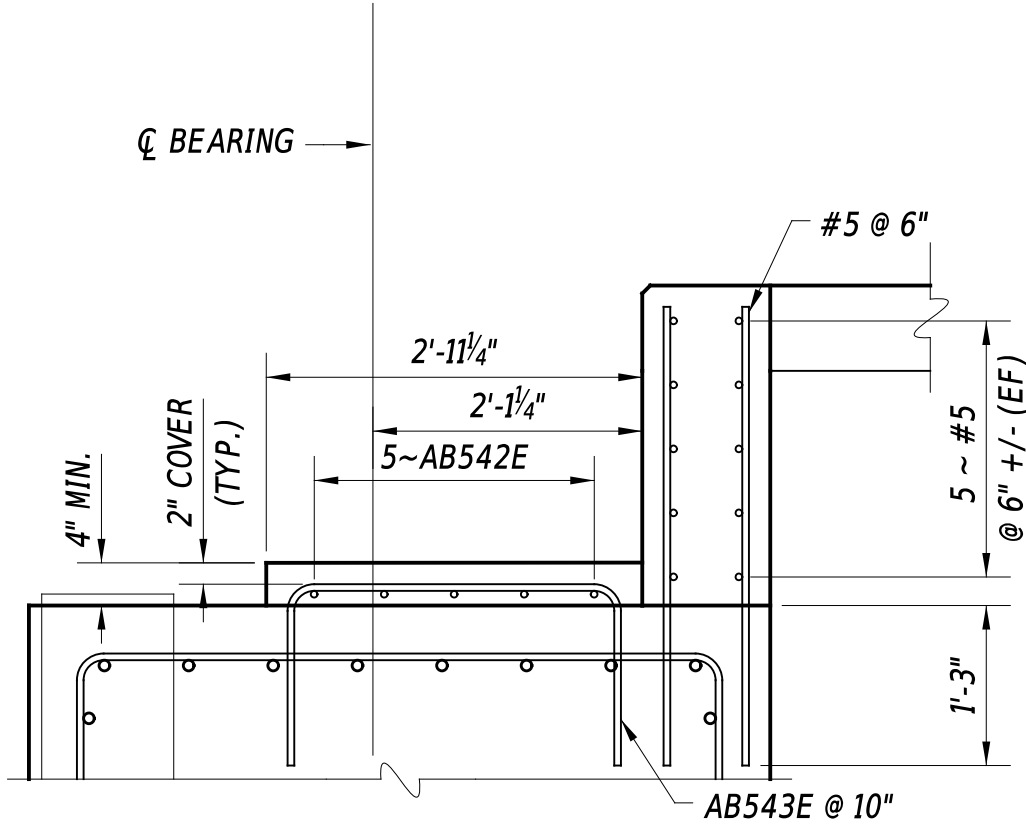
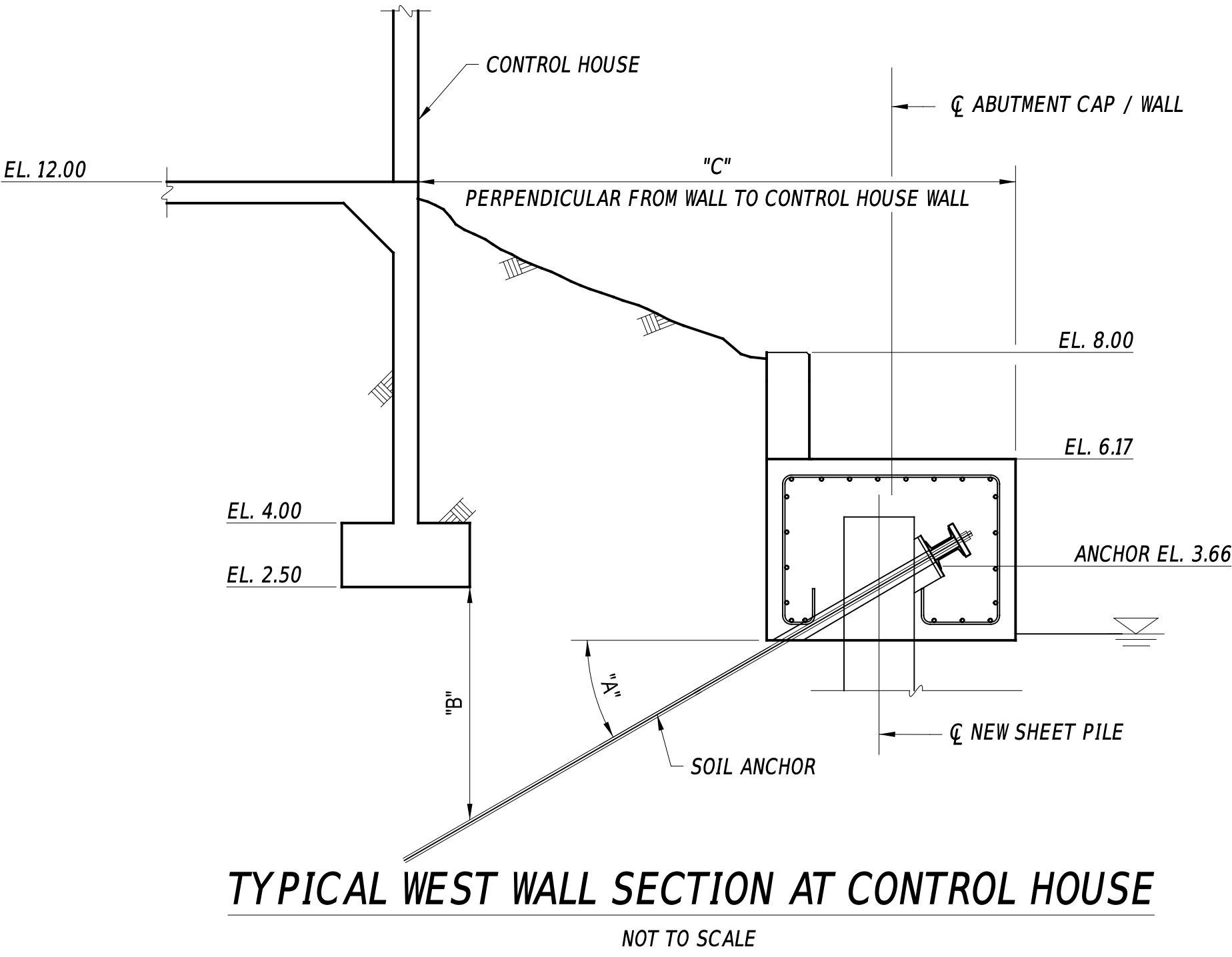


SOIL ANCHOR NOTES

1. THE CONTRACTOR SHALL DESIGN SOIL ANCHORS (OR GROUND ANCHORS) AS PER THE LATEST AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND SPECIAL PROVISIONS SECTION 608030-SHEET PILE WALL TIE-BACKSYSTEM AND SUBMIT FOR APPROVAL.
2. ALL SOIL ANCHORS SHALL BE INSTALLED AND PROOF TESTED AS PER THE SPECIAL PROVISION SECTION 608030. A TOTAL OF FOUR SACRIFICIAL SOIL ANCHORS (THREE FOR THE WEST ABUTMENT WALLS AND ONE FOR THE EAST ABUTMENT WALLS FOR EACH INCLINATION ANGLE SPECIFIED IN THE FOLLOWING TABLE) SHOULD BE DESIGNED AND PERFORMANCE TESTED AS PER THE SPECIAL PROVISION SECTION 608030. THE CONTRACTOR SHALL SELECT PERFORMANCE TEST LOCATIONS AND SUBMIT TO THE ENGINEER FOR APPROVAL.
3. ALL SOIL ANCHORS AND TIE RODS SHALL BE OF DOUBLE CORROSION PROTECTION AS PER SPECIAL PROVISION SECTION 608030.
4. PRIOR TO BIDDING, THE CONTRACTOR SHALL INSPECT THE PROJECT SITE TO BECOME FAMILIAR WITH WORKING CONDITIONS FOR SOIL ANCHORS INSTALLATION AND UNDERSTAND THE POTENTIAL CONSTRUCTION ACTIVITY EFFECTS ON THE ADJACENT BUILDINGS, STRUCTURES AND UTILITIES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR INSTALLATION OF SOIL ANCHORS IN DIFFICULT WORKING CONDITIONS.
5. PRIOR TO INSTALLING ANY SOIL ANCHORS, THE CONTRACTOR SHALL VERIFY THE SOIL ANCHOR LOCATIONS IN FIELD AND ENSURE THE SOIL ANCHORS WILL NOT CONFLICT WITH ANY STRUCTURES, SUBSTRUCTURES, AND UTILITIES. IF ANY CONFLICT IS EXPECTED AND/OR OBSERVED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR RELOCATION. THE SOIL ANCHORS WITH POTENTIAL CONFLICTS SHALL NOT BE INSTALLED UNTIL THE RELOCATION IS APPROVED.
6. CONSTRUCTION OF SOIL ANCHORS SHALL BE COORDINATED WITH GENERAL CONSTRUCTION SEQUENCE OF THE PROJECT AND IN COMPLIANCE WITH PROJECT PERMITS AND/OR RESTRICTIONS (INCLUDING ENVIRONMENTAL PERMITS).
7. SOIL ANCHORS THAT ENCOUNTER EXISTING CONCRETE, MASONRY, TIMBER, METAL, BOULDERS OR OTHER OBSTRUCTIONS SHALL BE DRILLED THROUGH THESE OBSTACLES TO ACHIEVE THE REQUIRED DESIGN RESISTANCE AT NO ADDITIONAL COST TO THE CLIENT.
8. GROUT SHALL HAVE A MINIMUM 3 DAY COMPRESSIVE STRENGTH OF 2000 PSI AND A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI.
9. MINIMUM SOIL ANCHOR REQUIREMENTS ARE PROVIDED IN THE FOLLOWING TABLE.
10. EXPOSED PORTION OF ANY SOIL ANCHOR DUE TO THE EXCAVATION DURING THE CONSTRUCTION SHALL BE ENCASED IN A 6" OR MORE O.D. PVC SLEEVE THAT SHOULD BE SUBMITTED FOR APPROVAL. PVC PIPE SLEEVE WILL NOT BE MEASURED AND PAID SEPARATELY, AND ALL INCIDENTAL COST SHALL BE PAID UNDER ITEM NO. 608030.

| INCLINATION ANGLE OF SOIL ANCHOR (DEG) | REQUIRED UNFACTORED RESISTANCE (KIPS/ANCHOR) | REQUIRED NOMINAL RESISTANCE (KIPS/ANCHOR) | TESTING 1.33 DESIGN LOAD (1.33 X DL) (KIPS/ANCHOR) | LOCK-OFF LOAD (KIPS/ANCHOR) | MIN. UNBONDED LENGTH (FT.) | ESTIMATED BOND ZONE DIAMETER (IN.) | ESTIMATED BOND LENGTH (FT.) |
|--|--|---|--|-----------------------------|----------------------------|------------------------------------|-----------------------------|
| 15 | 53 | 94 | 94 | 53 | 55 | 9 | 45 |
| 30 | 59 | 104 | 104 | 59 | 50 | 6 | 30 |
| 40 | 67 | 118 | 118 | 67 | 40 | 6 | 35 |

| WEST WALL SECTION DIMENSIONS | | | |
|------------------------------|-----------|---------------|--------------|
| WALL LOCATION | ANGLE "A" | DIMENSION "B" | DISTANCE "C" |
| SOUTH WEST | 15° | 1.7' | 12' |
| WEST | 30° | 5.5' | 14' |
| SOUTH | 40° | 11.5' | 18' |



INCLUDE COST TO FABRICATE AND WELD THESE "L"s" ONTO SHEET PILES. THEY ARE REQUIRED ON 40 OF THE PAIRS AND 2 OF THE SINGLE SHEETS.

| | | | | | | | | | | |
|---------------------|--|--|--|----------------|---|------------|--------------|-------------|---------------------------|-----------|
| ADDENDA / REVISIONS | | | | SCALE AS NOTED | REPLACEMENT OF BR 3-164 ON SR 36 CEDAR BEACH ROAD | CONTRACT | BRIDGE NO. | 3-164 | ABUTMENT DETAILS (2 OF 2) | S-21 |
| | | | | | | T202007301 | DESIGNED BY: | J. SOTO | | SECTION |
| | | | | | | COUNTY | CHECKED BY: | C. GRANADOS | | SHEET NO. |
| | | | | | | SUSSEX | | | | 30 |
| | | | | | | | | | | |