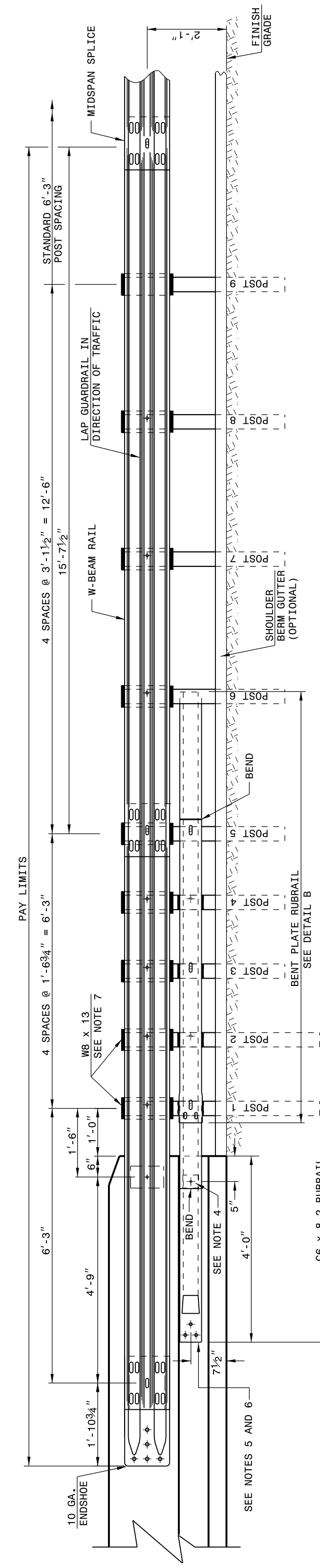


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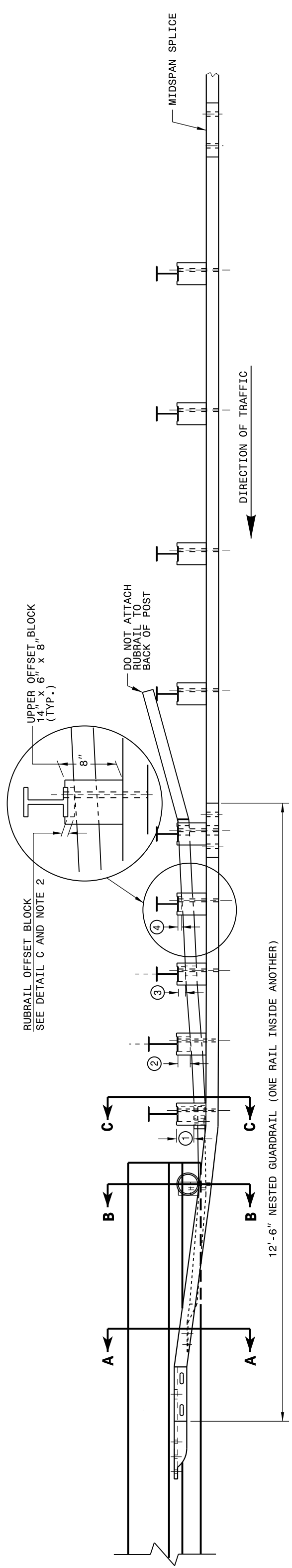
ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
 FOR F-SHAPE BARRIER

SHEET 4 OF 7
862D03



ELEVATION

- GENERAL NOTES:
- POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS AND/OR RUBRAIL.
 - RUBRAIL BLOCKOUTS LOCATED ON POSTS 1 THROUGH 4 ARE OFFSET DRILLED AND SECURED WITH 5/8" BUTT-ON BOLTS (SEE CHART FOR BOLT LENGTHS). SECURE BLOCKS ONLY TO POSTS 2 AND 4. SECURE RUBRAIL AND BLOCKOUTS TO POSTS 1 AND 3. RUBRAIL IS SECURED TO POST 5 WITH 5/8" X 1 1/4" LONG BUTT-ON BOLTS. RUBRAIL IS FLARED TO BACK OF POST 6, AND NOT SECURED.
 - 5/8" X 1 1/4" LONG BUTT-ON BOLTS AND RECTANGULAR PLATE WASHERS. PLATE WASHERS ARE 9" LONG. ATTACH TUBE TO GUARDRAIL ONLY WITH 5/8" X 1 1/4" LONG BUTT-ON BOLTS AND RECTANGULAR PLATE WASHERS.
 - SEE DETAIL D FOR SLOPED RUBRAIL BLOCKOUT. BLOCKOUT IS ATTACHED TO RAIL ELEMENT ONLY. USE 3/8" X 3" LAG BOLT WITH FLAT WASHER. TOE OF THE BARRIER OR BRIDGE RAIL.
 - SHOP FABRICATE THE C6 X 8.2 RUBRAIL END TO BE CONSISTENT WITH THE SLOPE OF THE F SHAPE AND ATTACH FLUSH WITH THE SLOPED ANCHOR.
 - ANCHOR AT EXISTING BRIDGE RAIL AND NEW OR EXISTING BARRIERS. ANCHOR RUBRAIL USING THREE 5/8" X 6" CHEMICALLY ANCHORED BOLTS WITH WASHERS. MAXIMUM PROJECTION FOR BOLTS IS 1/2".
 - AT EXISTING BRIDGE RAIL AND NEW OR EXISTING BARRIERS, ANCHOR THE W-BEAM END SHOE USING A 4 BOLT HOLD DOWN PLATE (SEE STD. DWG. 862.041). A 4 BOLT INSERT ASSEMBLY IS ALLOWED ON PRECAST REINFORCED CONCRETE BARRIER (SEE STD. DWG. 857.01).
 - INSTALL THE W-BEAM END SHOE BEHIND THE NESTED W-BEAM ELEMENTS.
 - 1 1/2" DIA. HOLES IN RUBRAIL AND BEAM END SHOE. RUBRAIL AND BEAM END SHOE ARE 12'-6" LONG. ALL OTHER POSTS IN THE ANCHOR UNIT ARE W8 X 8.5.
 - POSTS 1 AND 2 ARE W8 X 13, 7'-6" LONG. ALL OTHER POSTS IN THE ANCHOR UNIT ARE W8 X 8.5.



PLAN

GUARDRAIL ANCHOR UNIT TYPE B-77

SHEET 4 OF 7
862D03

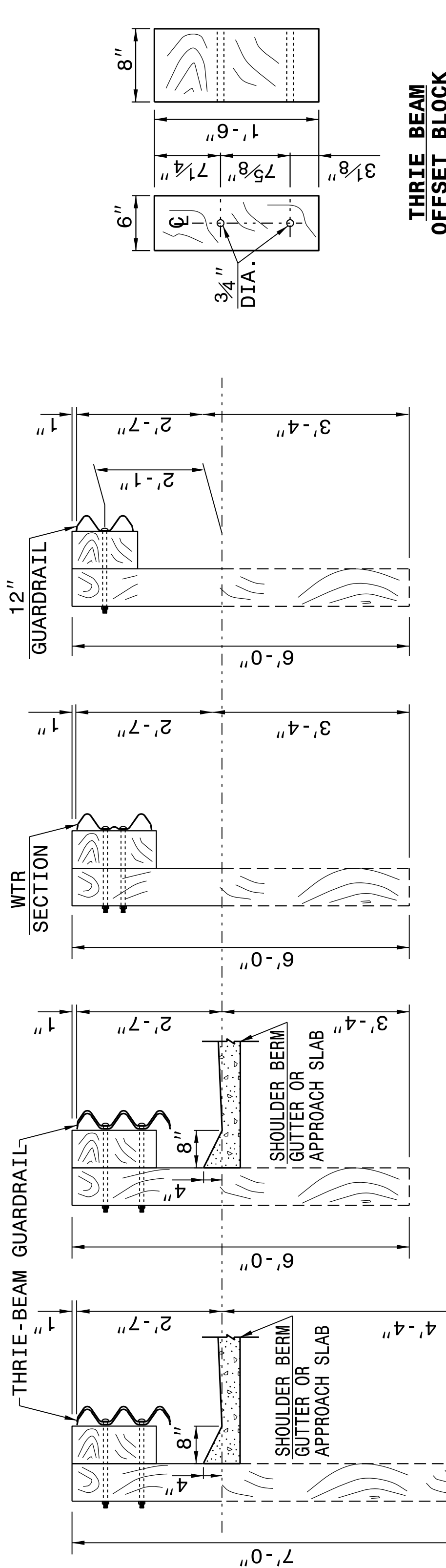
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ROADWAY DETAIL DRAWING FOR
GUARDRAIL ANCHOR UNIT
 GUARDRAIL ANCHOR UNIT TYPE B-77
 FOR F-SHAPE BARRIER

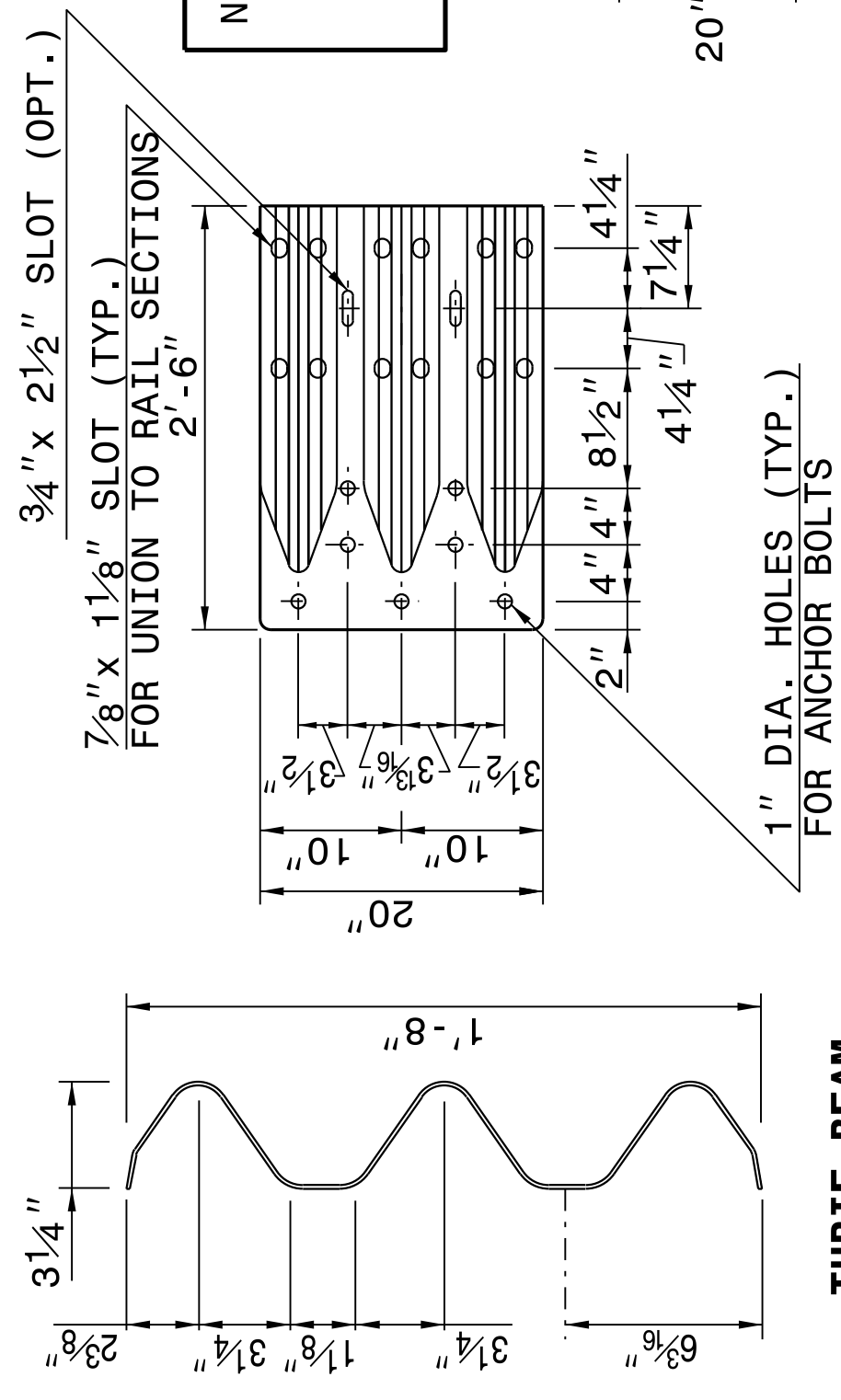
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ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNITS
 GUARDRAIL ANCHOR UNIT, TYPE III

SHEET 3 OF 7
862D03

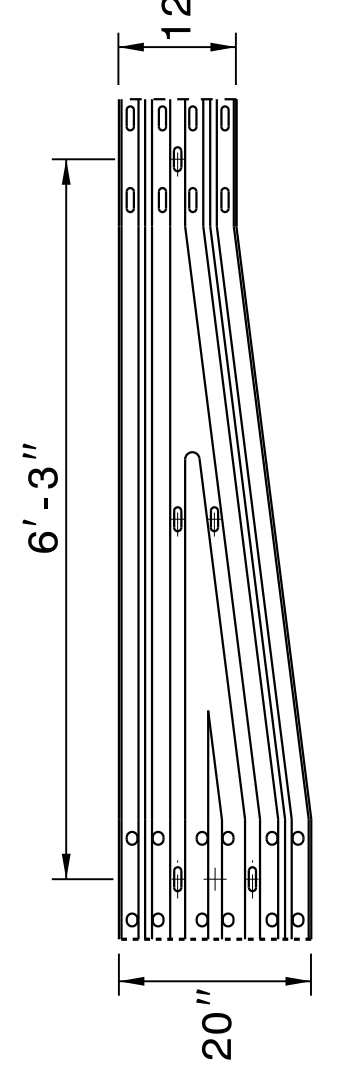


SECTION OF THREE BEAM POSTS 1 THRU 6 **SECTION OF THREE BEAM POST 7** **SECTION OF WTR BEAM POST 8** **SECTION OF 'W' BEAM POST 9**



THRIE-BEAM SECTION

END SHOE



WTR SECTION ELEVATION VIEW

NOTE: THE MID POST AND OFFSET BLOCK OF SPECIAL BOLT HOLE DRILLING IN THE THRIE BEAM OFFSET BLOCK AND LINE POST.

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ROADWAY DETAIL DRAWING FOR
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 GUARDRAIL ANCHOR UNIT, TYPE III

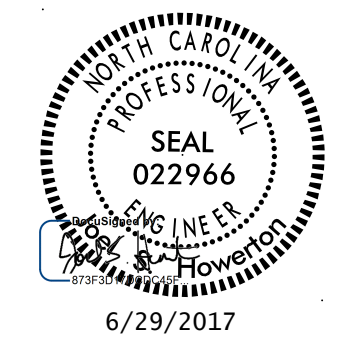
SHEET 3 OF 7
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6/29/2017