

PROJECT NUMBER

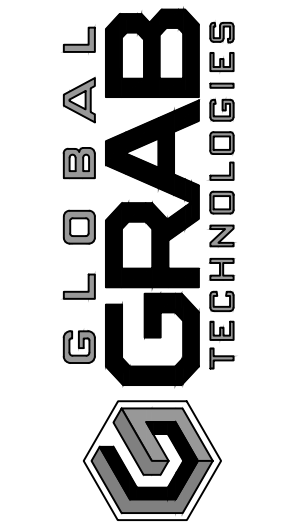
PROJECT DESCRIPTION, LOCATION

CATSCLAW PERMANENT SYSTEM – GATE

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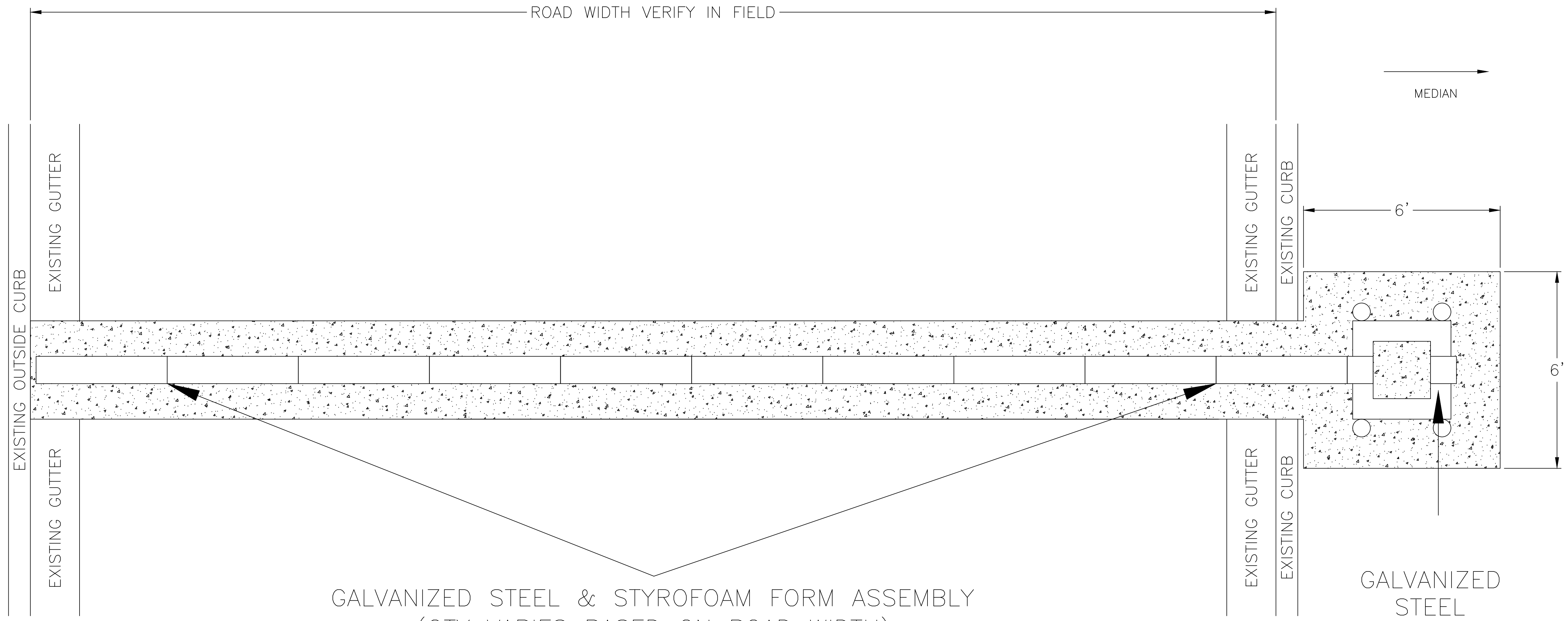
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GGT MARKETING
 CATSCLAW PERMANENT SYSTEM
 DRAWING INDEX

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GALVANIZED STEEL & STYROFOAM FORM ASSEMBLY
(QTY VARIES BASED ON ROAD WIDTH)

GALVANIZED
STEEL
FRAME
ASSEMBLY

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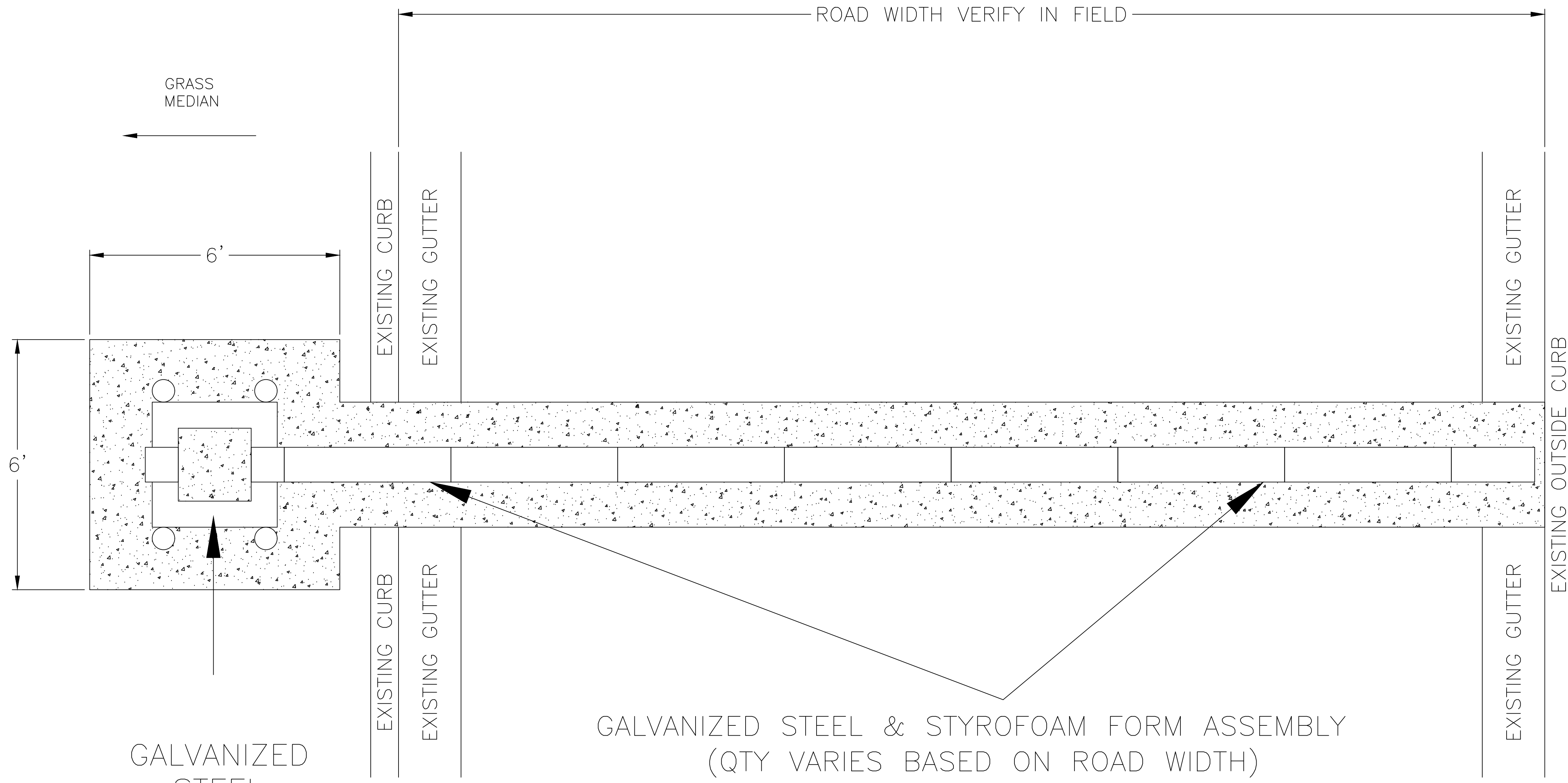


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GGT MARKETING
CATSCLAW PERMANENT SYSTEM
RIGHT SIDE DRIVE FOUNDATION PLAN

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GALVANIZED
STEEL
FRAME
ASSEMBLY

GALVANIZED STEEL & STYROFOAM FORM ASSEMBLY
(QTY VARIES BASED ON ROAD WIDTH)

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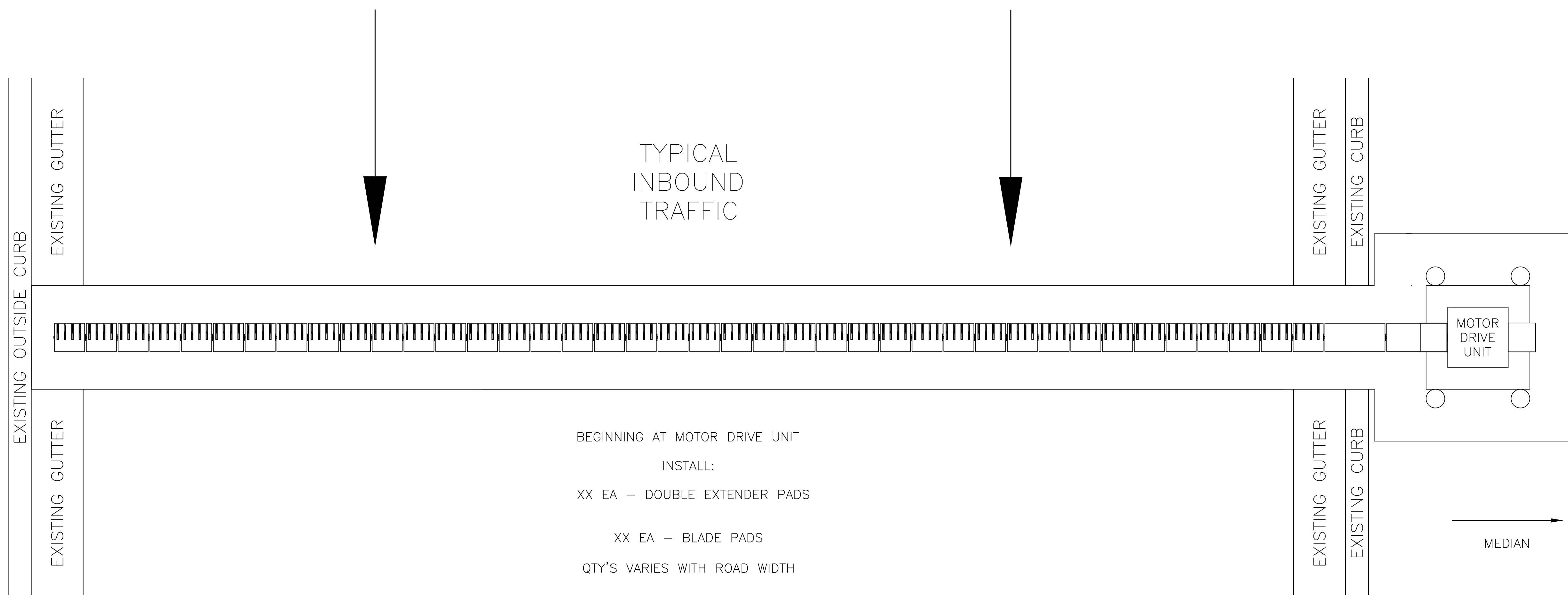


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LEFT SIDE DRIVE FOUNDATION PLAN

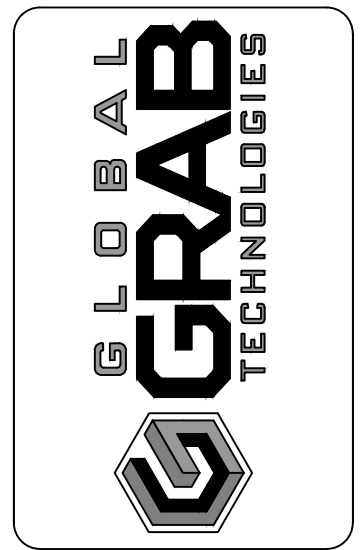
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BEGINNING AT MOTOR DRIVE UNIT
 INSTALL:
 XX EA – DOUBLE EXTENDER PADS
 XX EA – BLADE PADS
 QTY'S VARIES WITH ROAD WIDTH

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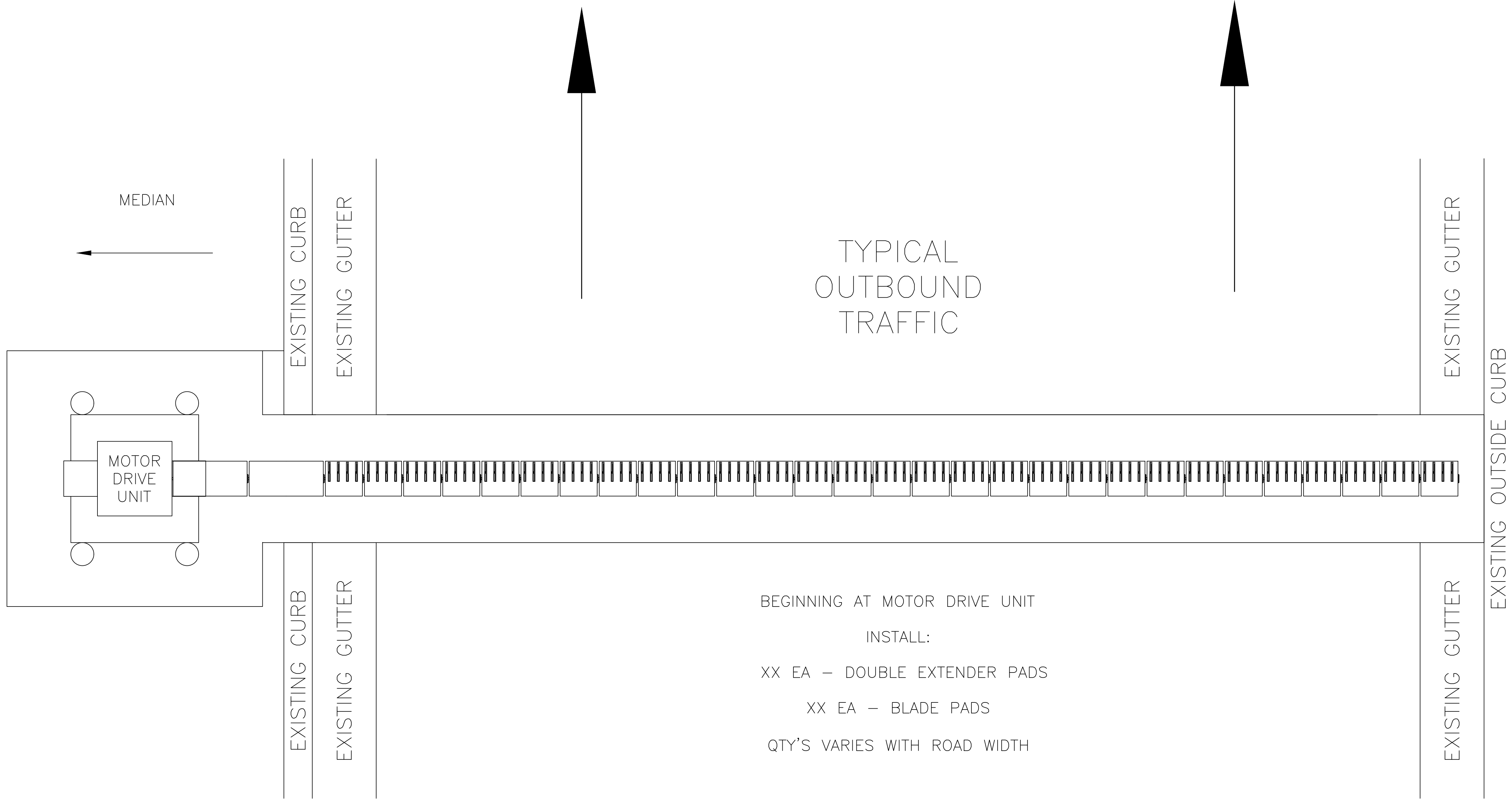


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 RIGHT SIDE DRIVE MDU &
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LEFT SIDE DRIVE MDU &
BLADE PADS CONFIGURATION

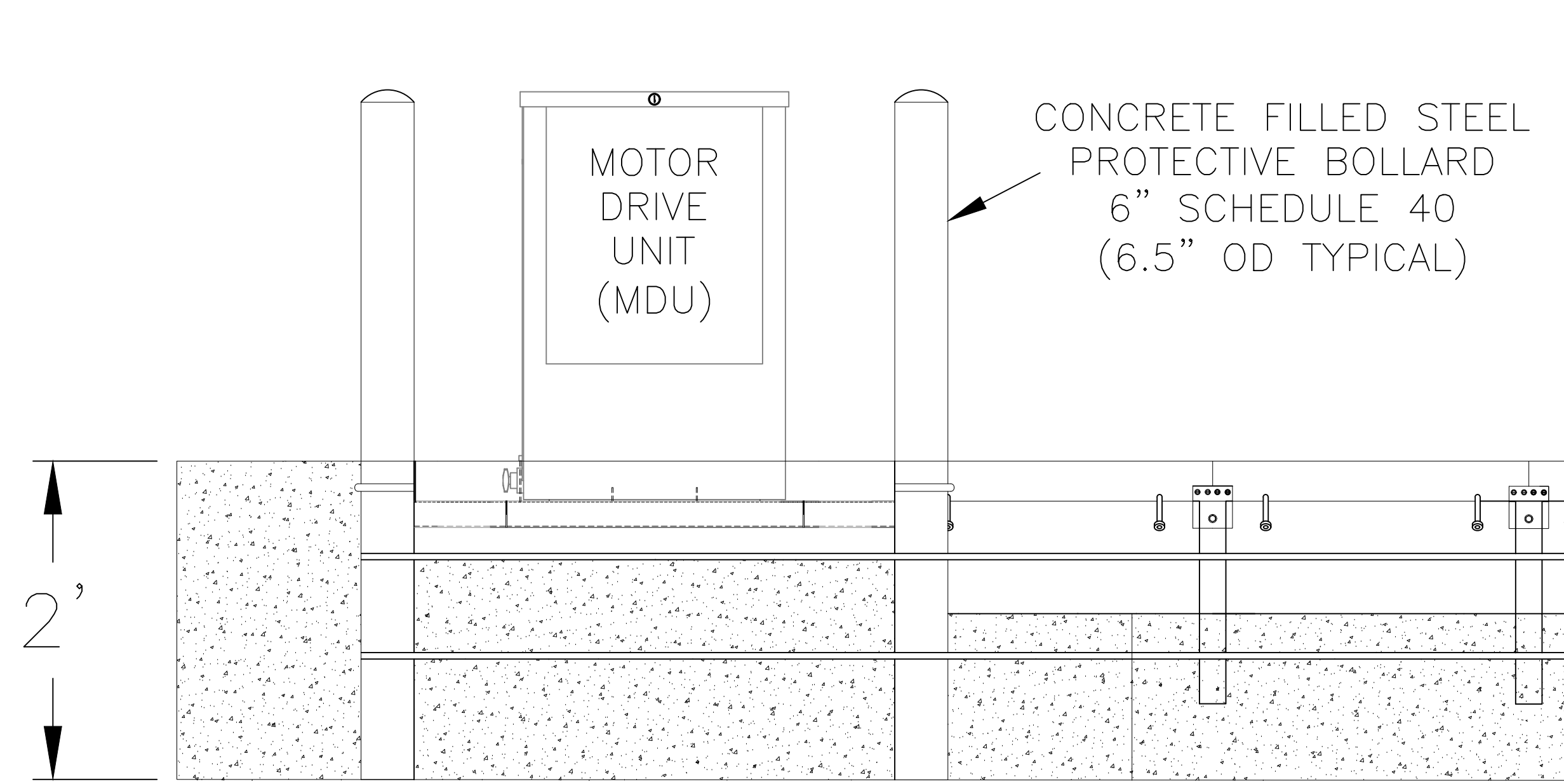
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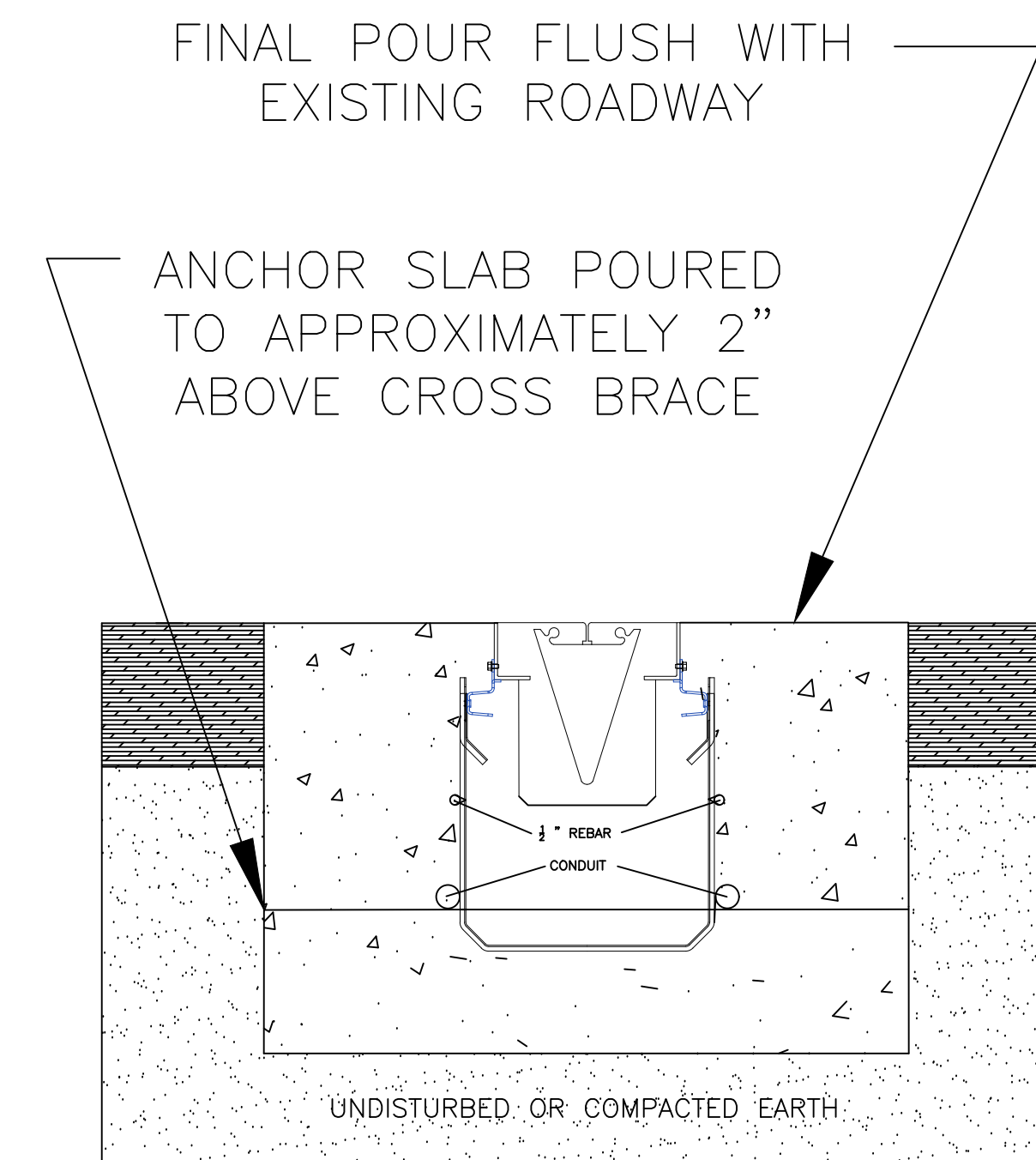
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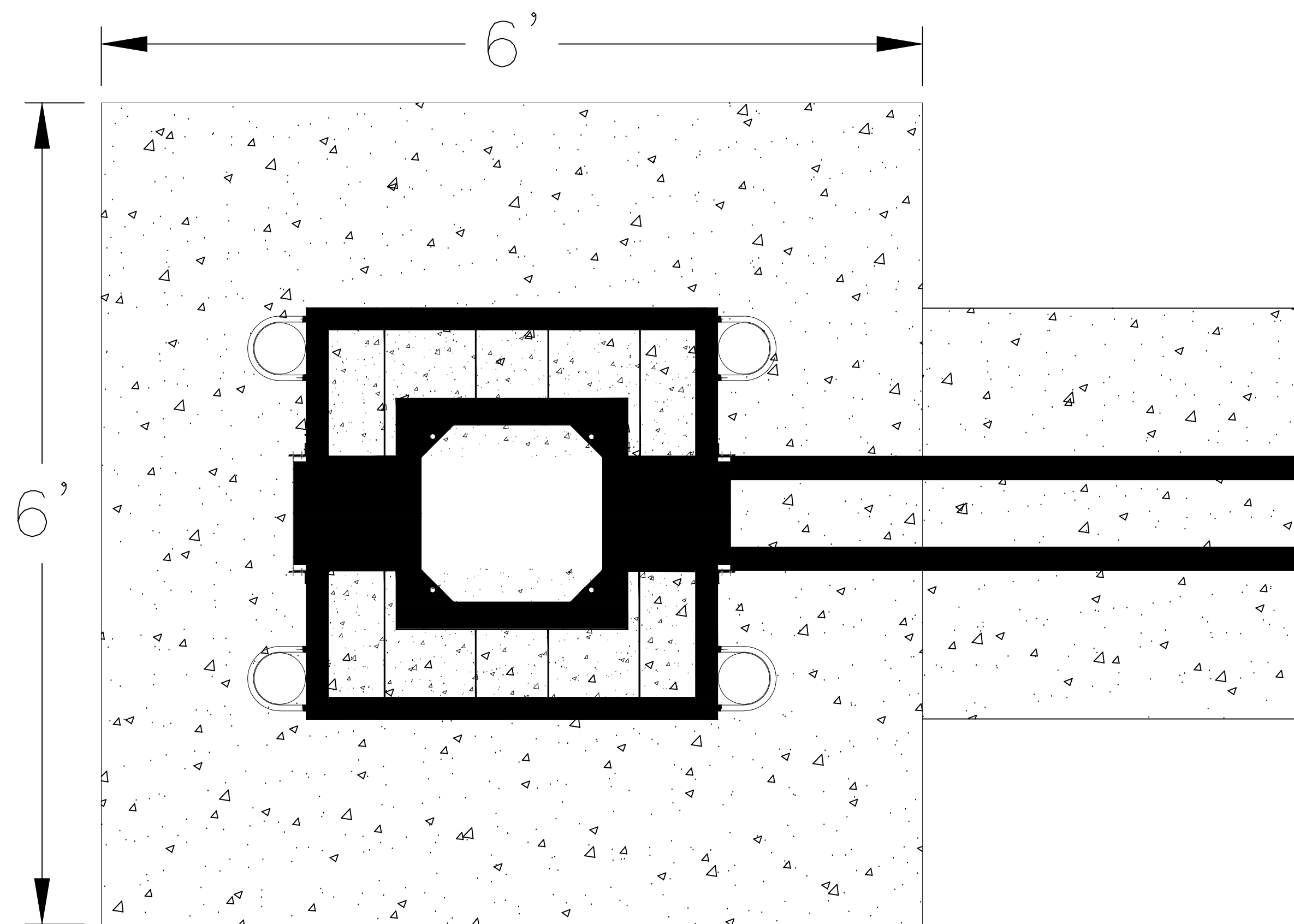
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ELEVATION



END VIEW



TOP VIEW

- NOTES:
1. ALL CONCRETE MINIMUM 4000 PSI WITH LIGHT BROOM FINISH.
 2. ALL REBAR MINIMUM 1/2" STEEL. RECOMMEND USE OF TIE WIRES, NOT WELDING.
 3. IF CROWN IN ROADWAY EXCEEDS 3", DRAIN FROM BOTH ENDS IS RECOMMENDED.



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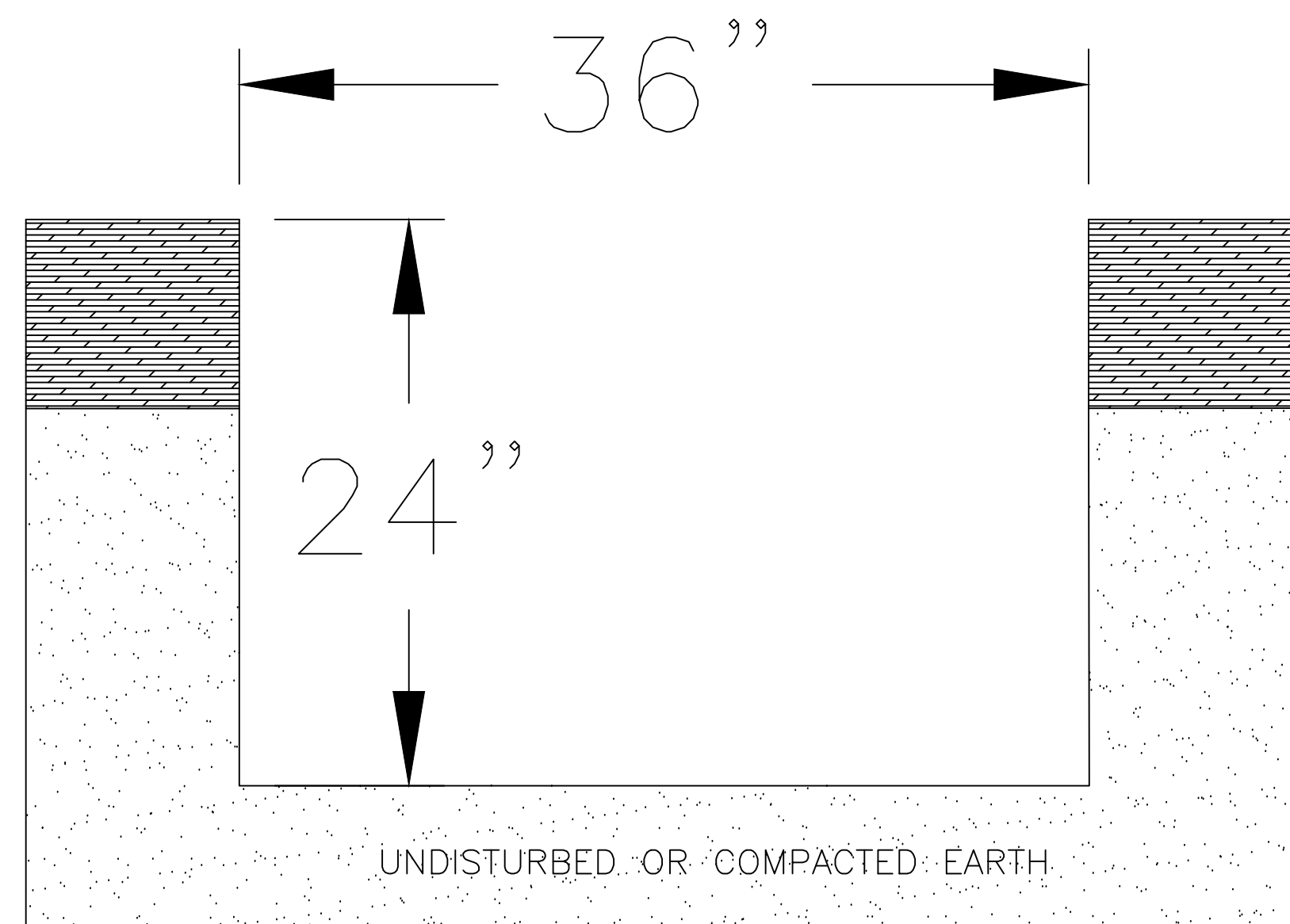
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CATSCLAW PERMANENT SYSTEM
FOUNDATION DETAILS

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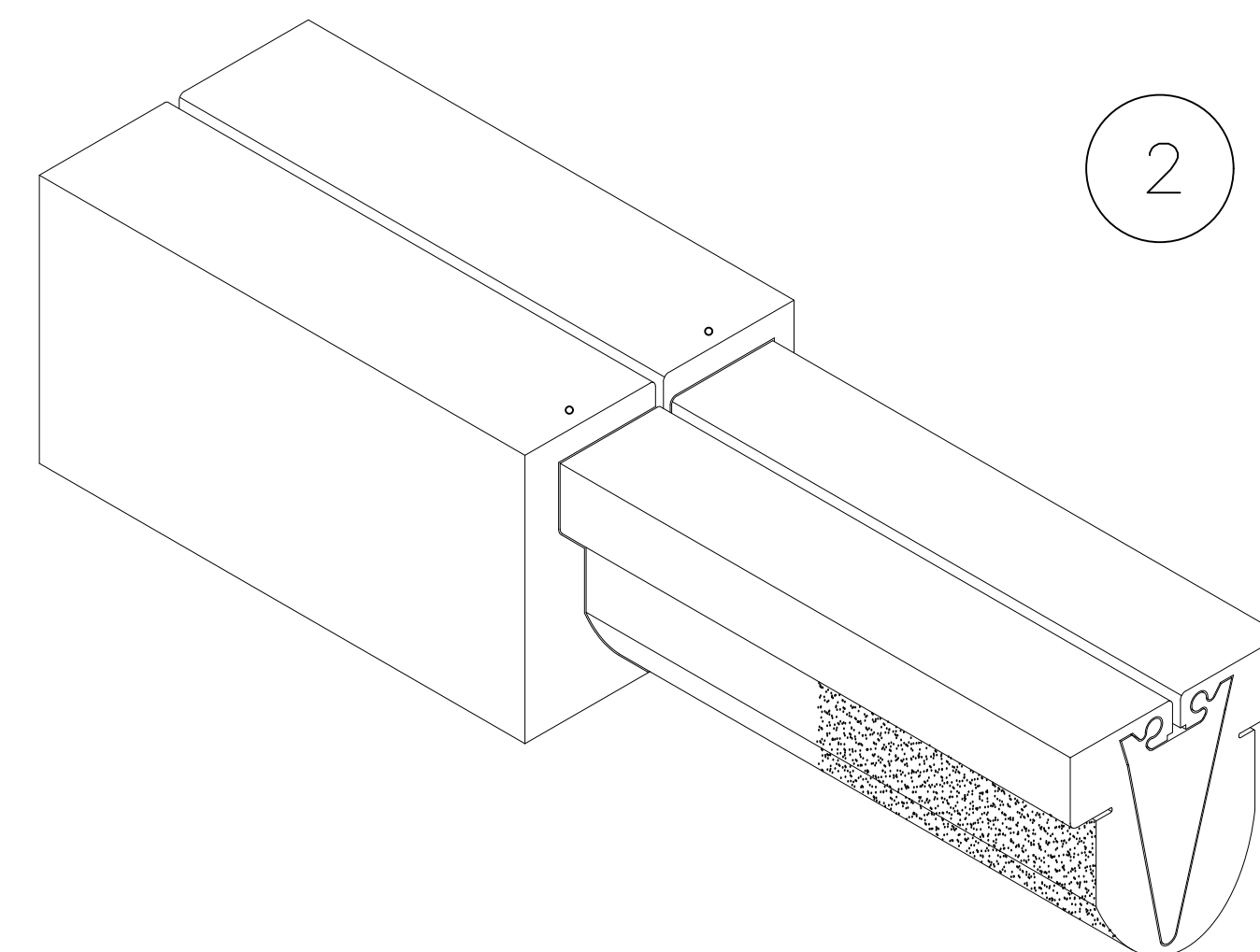


1

MAKE 2 PARALLEL SAW CUTS 36 INCHES APART ACROSS THE EXISTING ROADWAY.

THICKNESS OF ROADWAY MATERIAL WILL VARY BY LOCATION.

EXCAVATE BETWEEN THE CUTS TO A DEPTH OF 24 INCHES, REMOVING ALL ROADWAY MATERIAL AND SUBSTRATE.

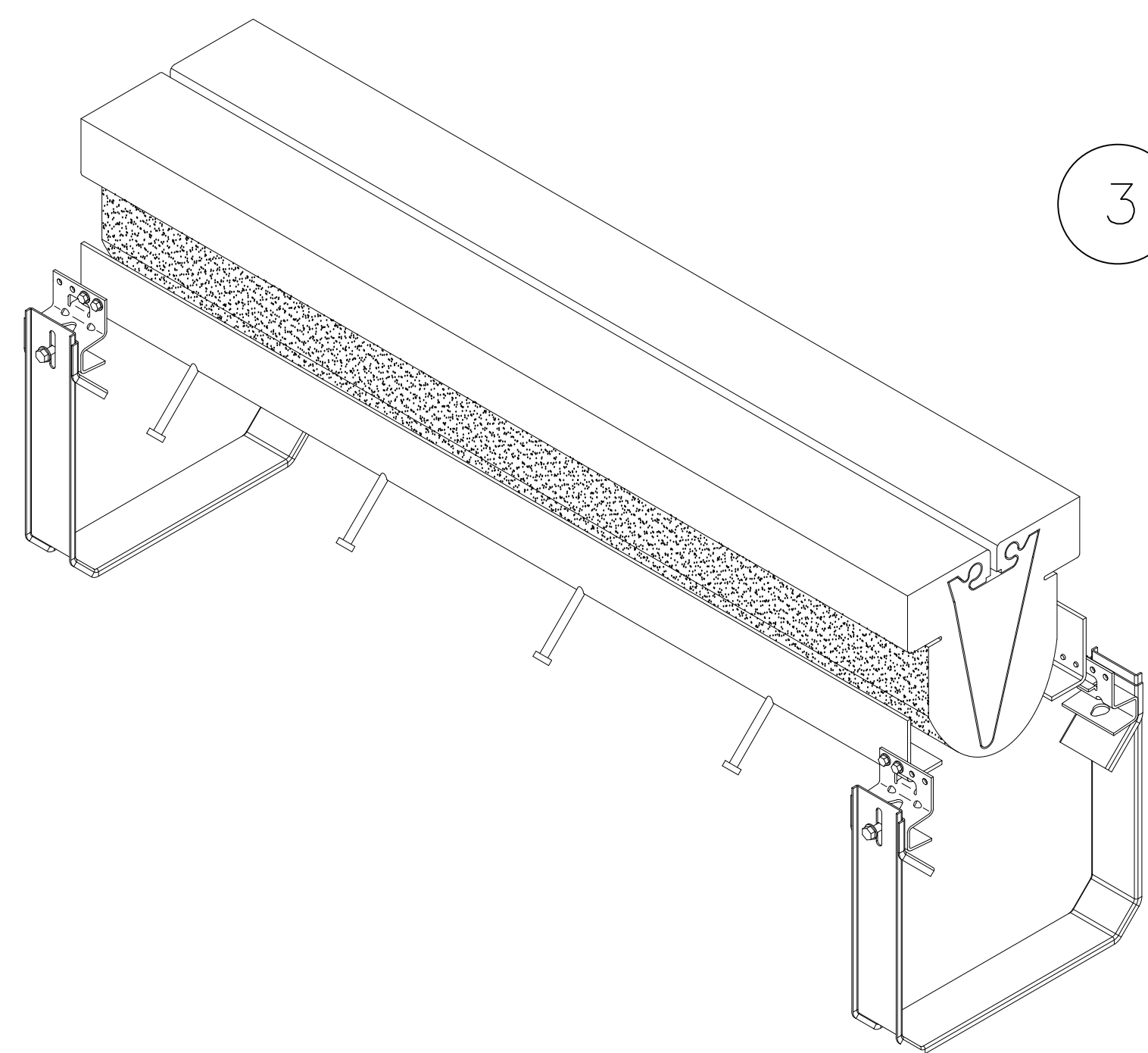


2

REMOVE THE SHIPPING NAILS AND GENTLY SLIDE THE INNER FOAM FORM OUT OF THE PROTECTIVE SLEEVE.

PAINT THE BOTTOM AND SIDES OF THE FOAM WITH RELEASE COMPOUND. PROTECT THE PAINTED FOAM FROM RAIN AND FREEZING TEMPERATURES UNTIL THE RELEASE COMPOUND HAS DRIED.

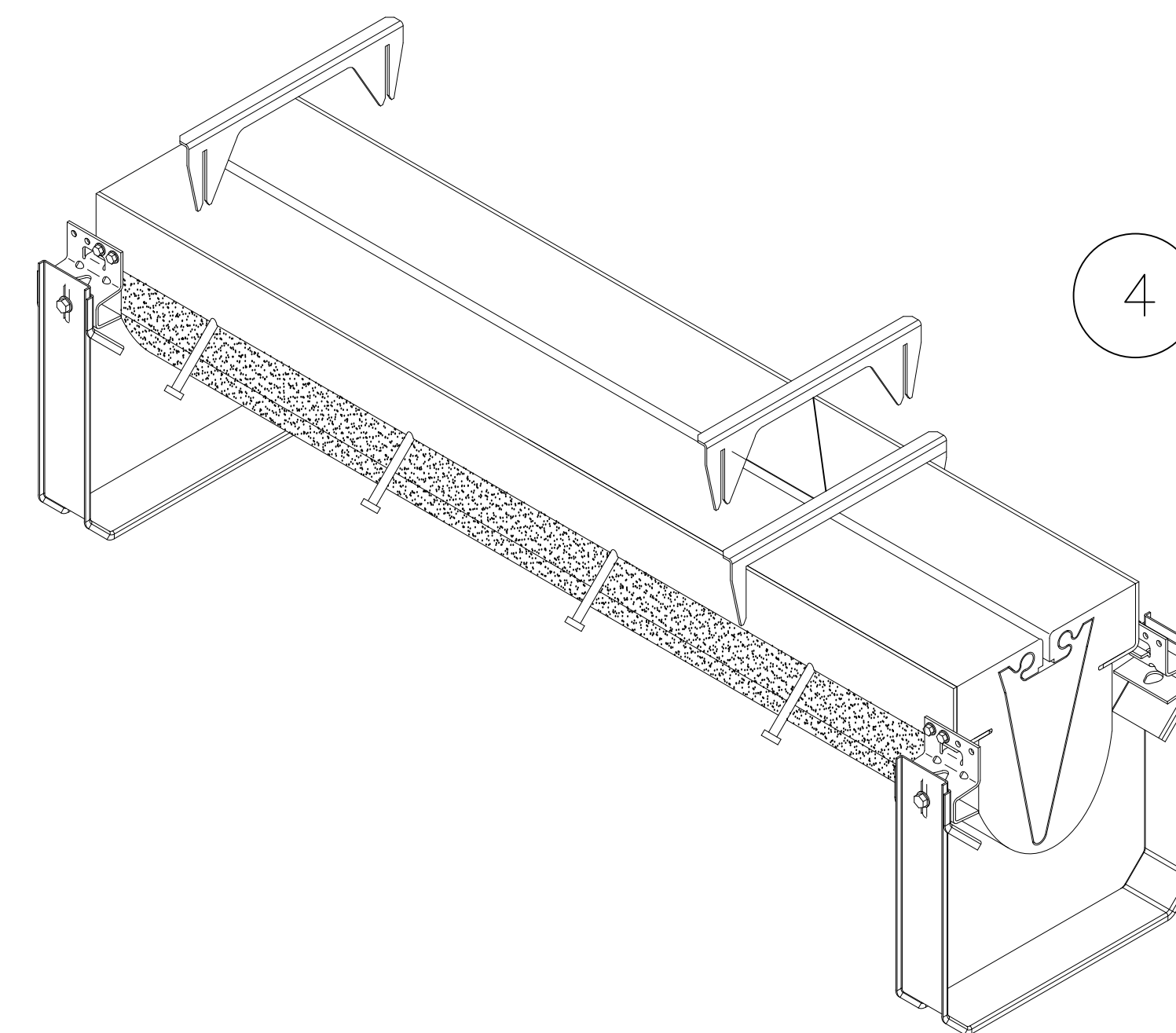
THE SHAPE OF THE INNER FORM MAY VARY FROM A HALF-ROUND BOTTOM TO STRAIGHT SIDES AND BOTTOM WITH CAMFERED CORNERS.



3

ASSEMBLE THE RAILS, RAIL JOINERS, SUPPORT LEGS, AND FOAM AS SHOWN.

DO NOT ASSEMBLE MORE THAN 3 SECTIONS AT A TIME. EACH GROUP OF 3 OR FEWER SECTIONS MUST BE SUPPORTED IN THE OPEN TRENCH BEFORE ADDING ADDITIONAL SECTIONS.



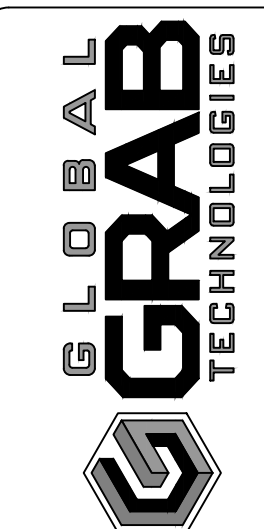
4

INSTALL THE INSTALLATION SPREADER BARS BY PRESSING STRAIGHT DOWN ONTO THE STEEL RAILS ABOUT 6-8 INCHES FROM EACH END OF THE RAILS. THE INNER PART OF THE SPREADER BAR IS ACTUALLY PRESSED INTO THE FOAM.

THESE SPREADER BARS ARE LEFT IN PLACE ONLY LONG ENOUGH TO ENSURE THE STEEL RAILS WILL NOT MOVE WITHIN THE CONCRETE. THESE MUST BE REMOVED IN TIME TO FINISH THE CONCRETE. THE TIME WILL VARY DRAMATICALLY DEPENDING ON CONCRETE MIX, TEMPERATURE, AND GROUND CONDITIONS.

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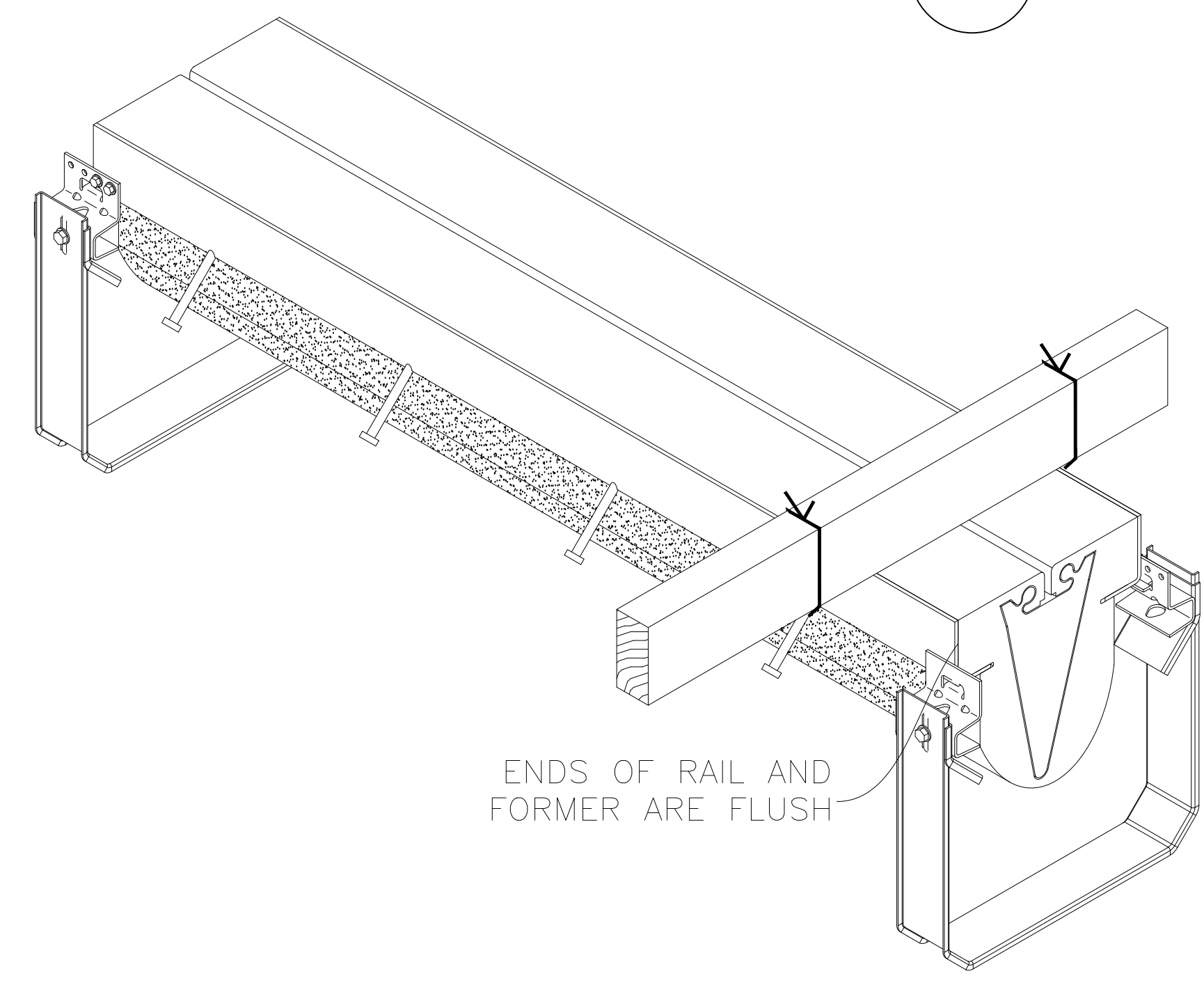


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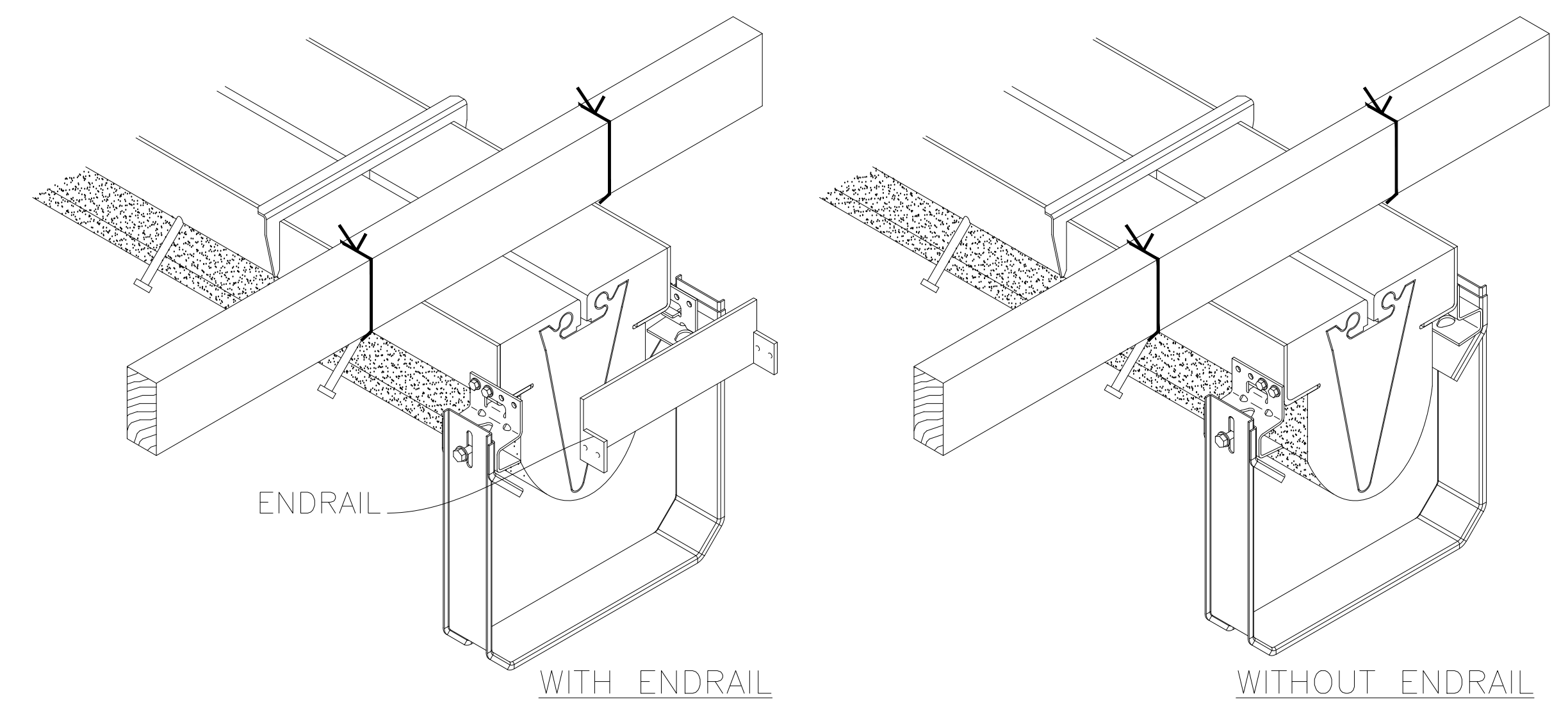
5



ENDS OF RAIL AND FORMER ARE FLUSH

USING STEEL TIE WIRE, TIE WOODEN 2X4 SUPPORTS TO THE TOP EDGE OF THE STEEL RAIL AND FOAM ASSEMBLY. THE SUPPORTS MUST BE LONG ENOUGH TO SPAN THE ENTIRE TRENCH AND REST ON THE ADJOINING ROADWAY.

7



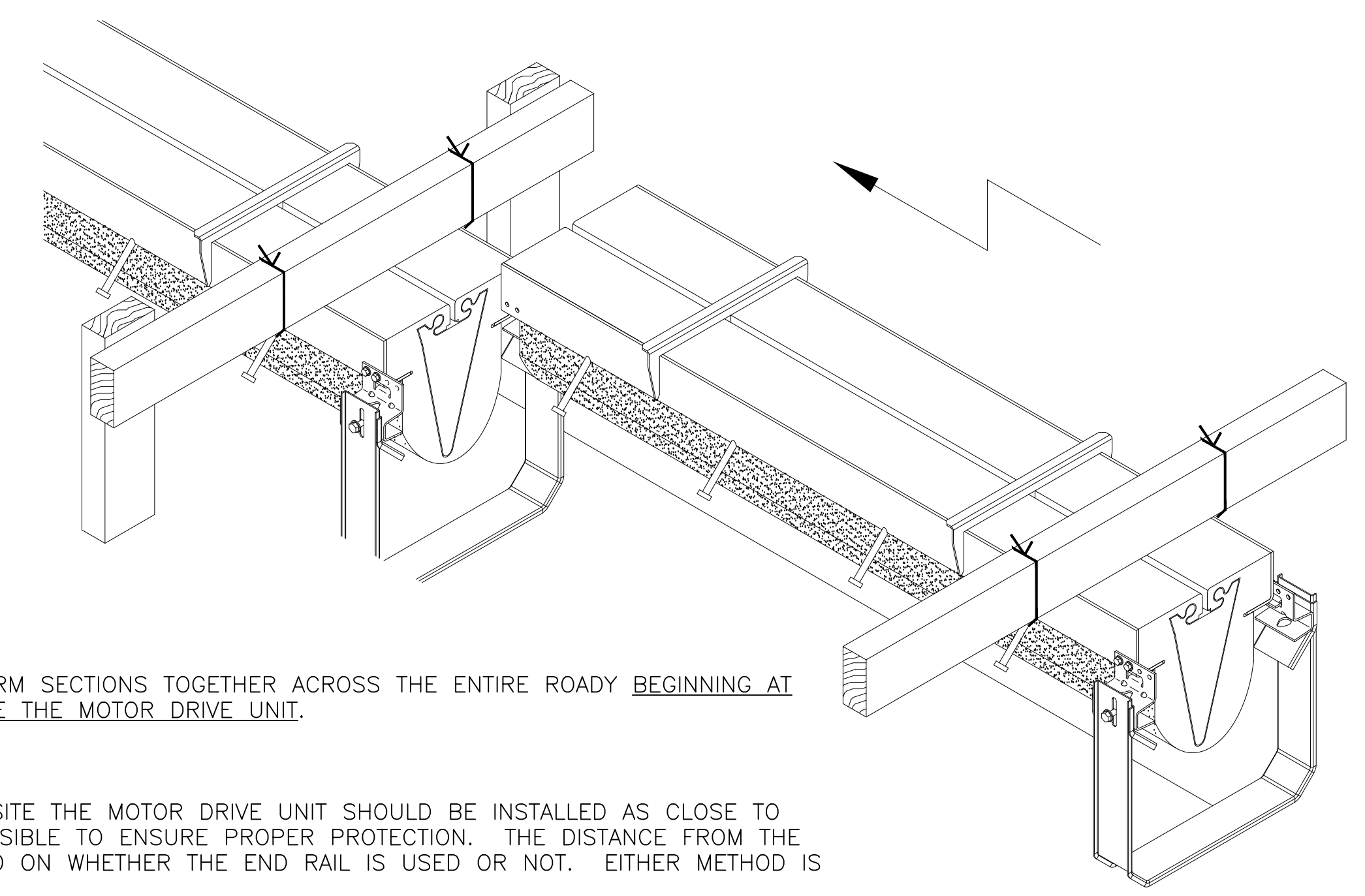
ENDRAIL

WITH ENDRAIL

WITHOUT ENDRAIL

THE END OPPOSITE THE MOTOR DRIVE UNIT SHOULD BE INSTALLED AS CLOSE TO THE CURB AS POSSIBLE TO ENSURE PROPER PROTECTION. THE DISTANCE FROM THE CURB WILL DEPEND ON WHETHER THE END RAIL IS USED OR NOT. EITHER METHOD IS ACCEPTABLE.

6

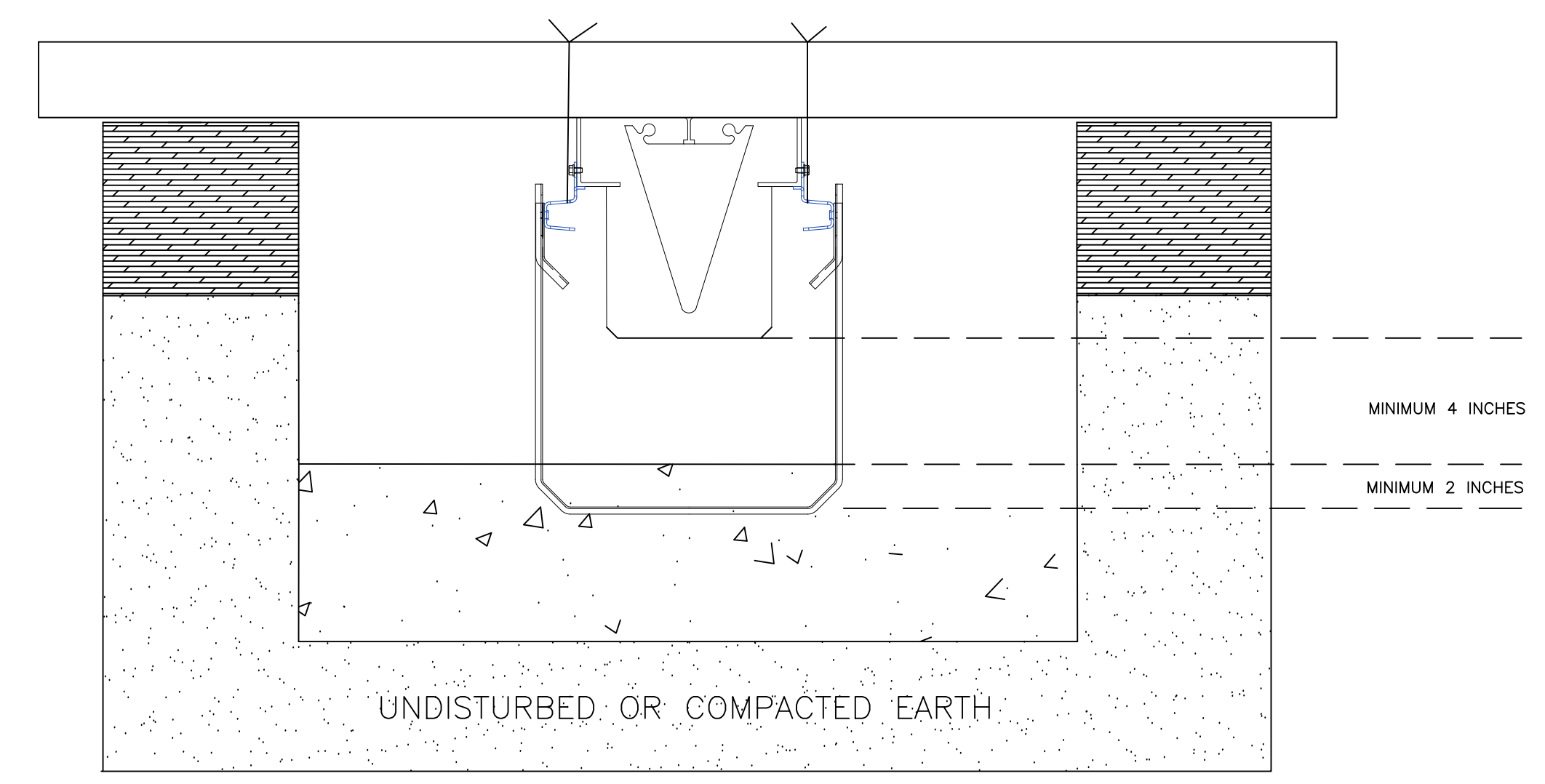


ASSEMBLE THE FORM SECTIONS TOGETHER ACROSS THE ENTIRE ROADY BEGINNING AT THE SIDE OPPOSITE THE MOTOR DRIVE UNIT.

IMPORTANT NOTES:

1. THE END OPPOSITE THE MOTOR DRIVE UNIT SHOULD BE INSTALLED AS CLOSE TO THE CURB AS POSSIBLE TO ENSURE PROPER PROTECTION. THE DISTANCE FROM THE CURB WILL DEPEND ON WHETHER THE END RAIL IS USED OR NOT. EITHER METHOD IS ACCEPTABLE.
2. THE TOP EDGE OF THE RAILS SHOULD BE KEPT AS STRAIGHT AND LEVEL AS POSSIBLE ACROSS THE ENTIRE ROADWAY. IF THE ROADWAY HAS MORE THAN 2 INCHES IN 20 FEET CROWN, THE FORMS SHOULD BE KEPT LEVEL AND STRAIGHT AND THE ROADWAY RE-PAVED TO MATCH THE CHANNEL. FAILURE TO FOLLOW THIS PROCEDURE CAN RENDER THE FOUNDATION USELESS AND VOID ANY APPLICABLE EQUIPMENT WARRANTIES.

8



MINIMUM 4 INCHES

MINIMUM 2 INCHES

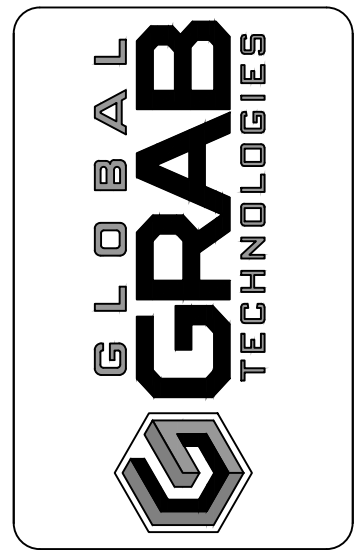
UNDISTURBED OR COMPACTED EARTH

WITH THE FORM SECTIONS SUSPENDED BY THE WOODEN 2X4 SUPPORTS, CENTER THE FORMS IN THE TRENCH. ENSURE THAT THEY ARE STRAIGHT ACROSS THE ROADWAY AND DO NOT EXCEED THE MAXIMUM CROWN OF 2 INCHES IN 20 FEET. SECURE THE WOODEN SUPPORTS SO THAT THE FORMS CANNOT MOVE.

POUR AN ANCHOR SLAB OF 4000 PSI (MINIMUM) CONCRETE TO A POINT AT LEAST 2 INCHES ABOVE THE HORIZONTAL PART OF THE SUPPORT LEGS.

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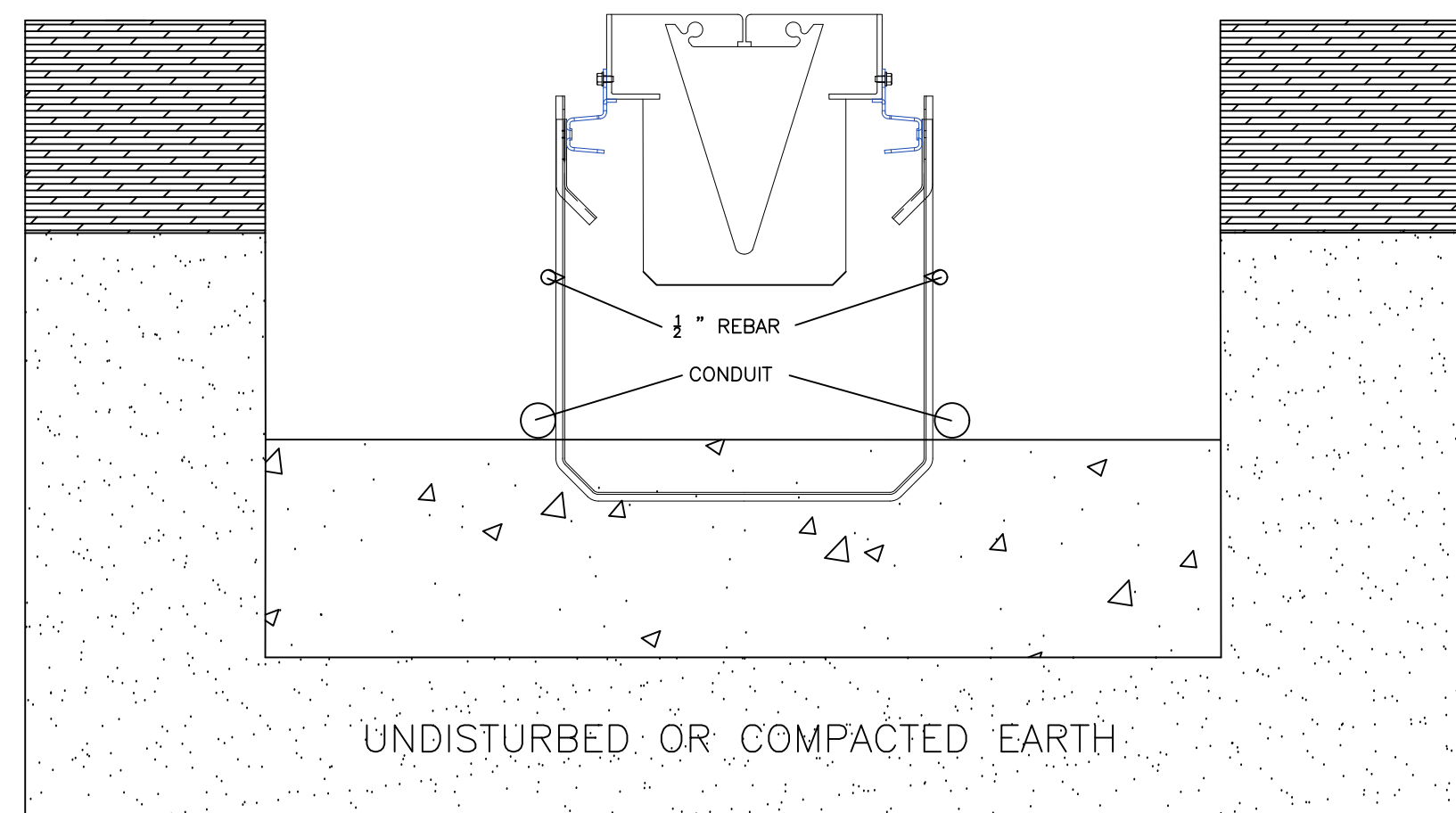
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CATSCLAW PERMANENT SYSTEM
FOUNDATION DETAILS
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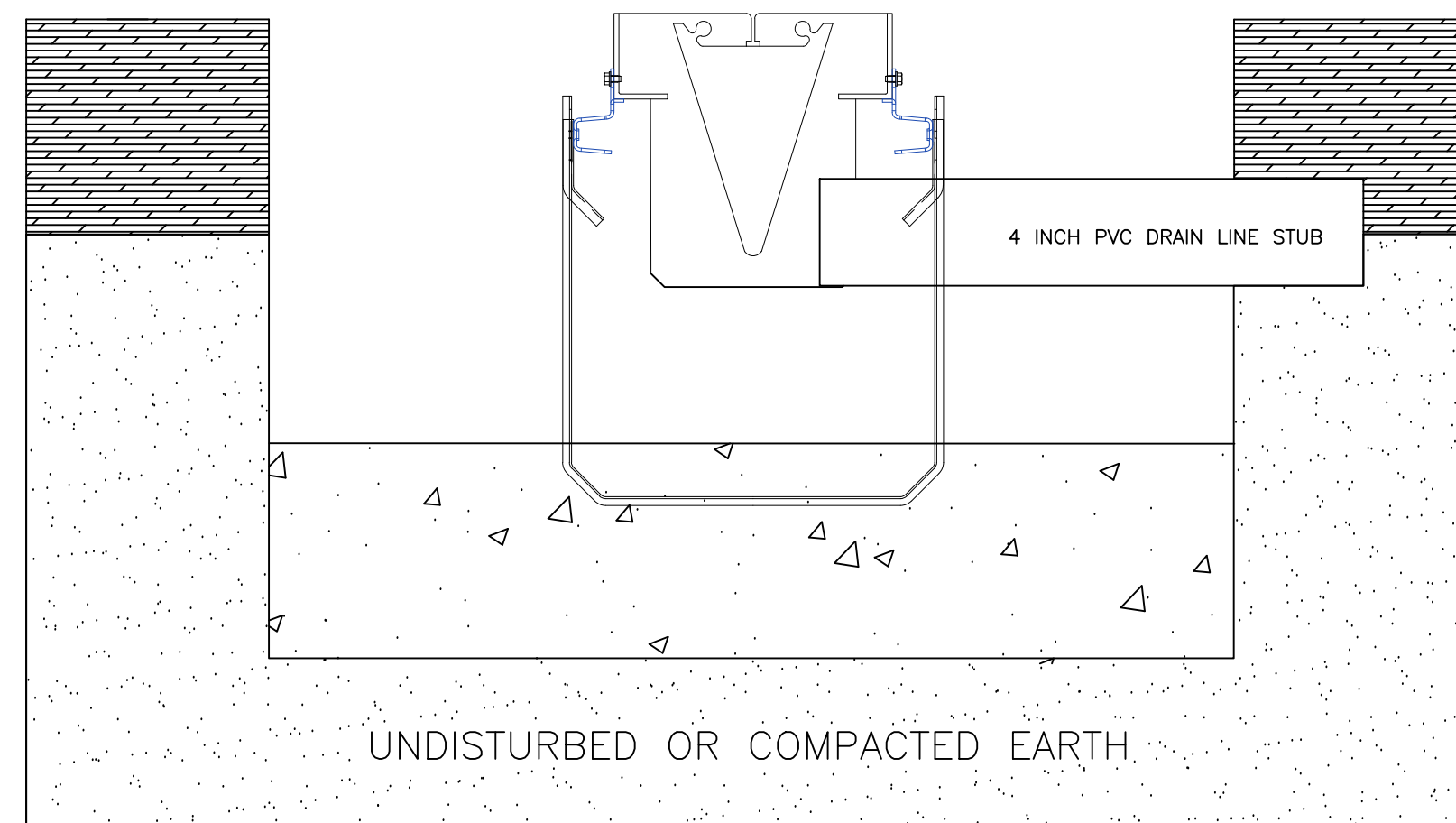
ALLOW THE ANCHOR SLAB TO CURE FOR 24 HOURS OR LONG ENOUGH TO ENSURE THE SUPPORT LEGS ARE SECURE, DEPENDING ON SITE CONDITIONS.

REMOVE THE WOODEN 2X4 SUPPORTS.

INSTALL 1/2" REBAR THE FULL LENGTH OF THE ROADWAY AND MDU BASE FRAME BY TYING WITH STEEL TIE WIRE TO THE SUPPORT LEGS AS SHOWN ABOVE.

INSTALL CONDUIT AND DRAIN LINE(S) AS REQUIRED DEPENDING ON SYSTEM CONFIGURATION AND TYPICAL CONDUIT PLAN.

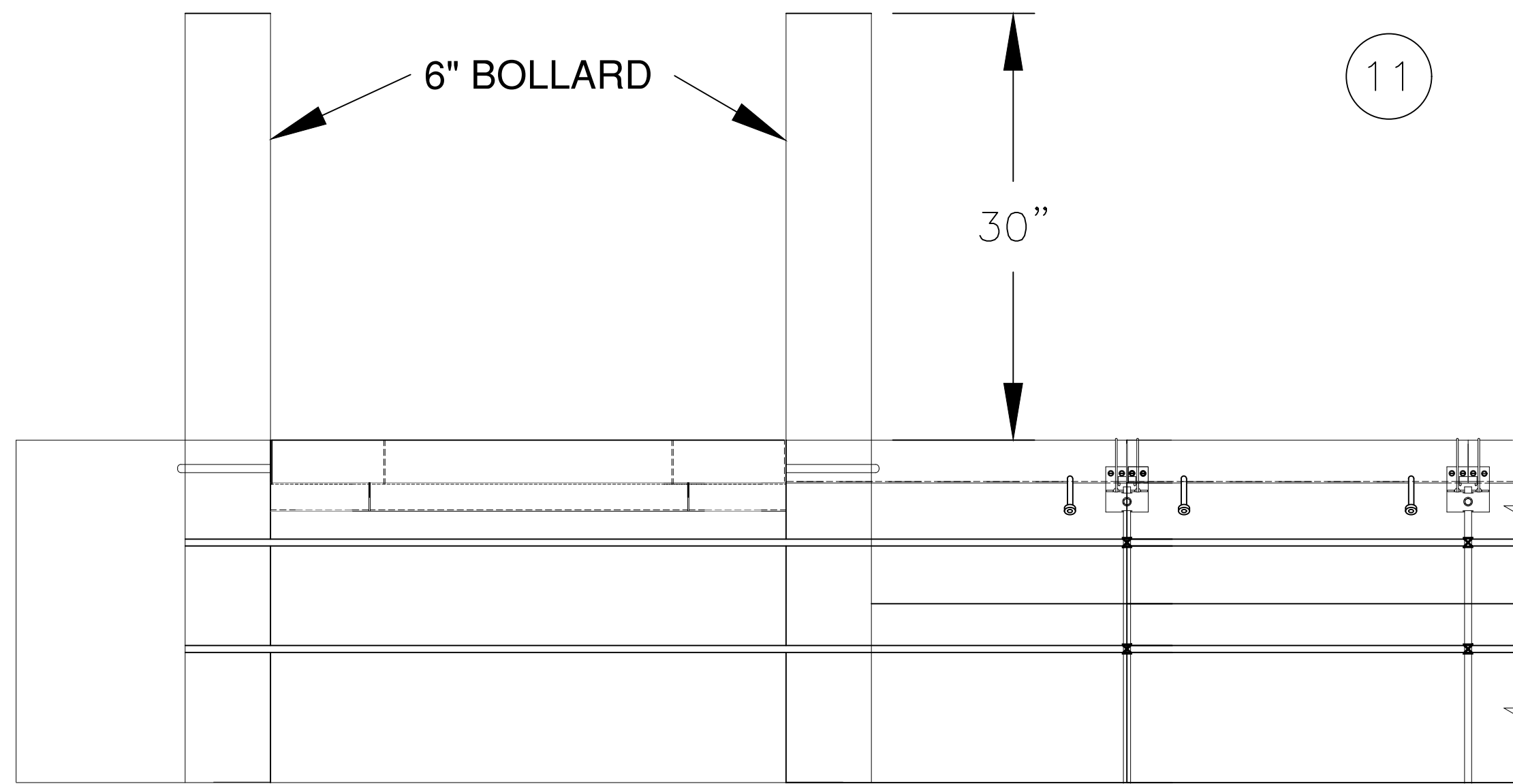
10



INSTALL AT LEAST ONE 4 INCH PVC DRAIN LINE AT THE LOWEST POINT IN THE TRENCH FORMS. THE PVC PIPE MUST BE COVERED ON BOTH ENDS TO PREVENT CONCRETE INFILTRATION DURING THE POURING PROCESS.

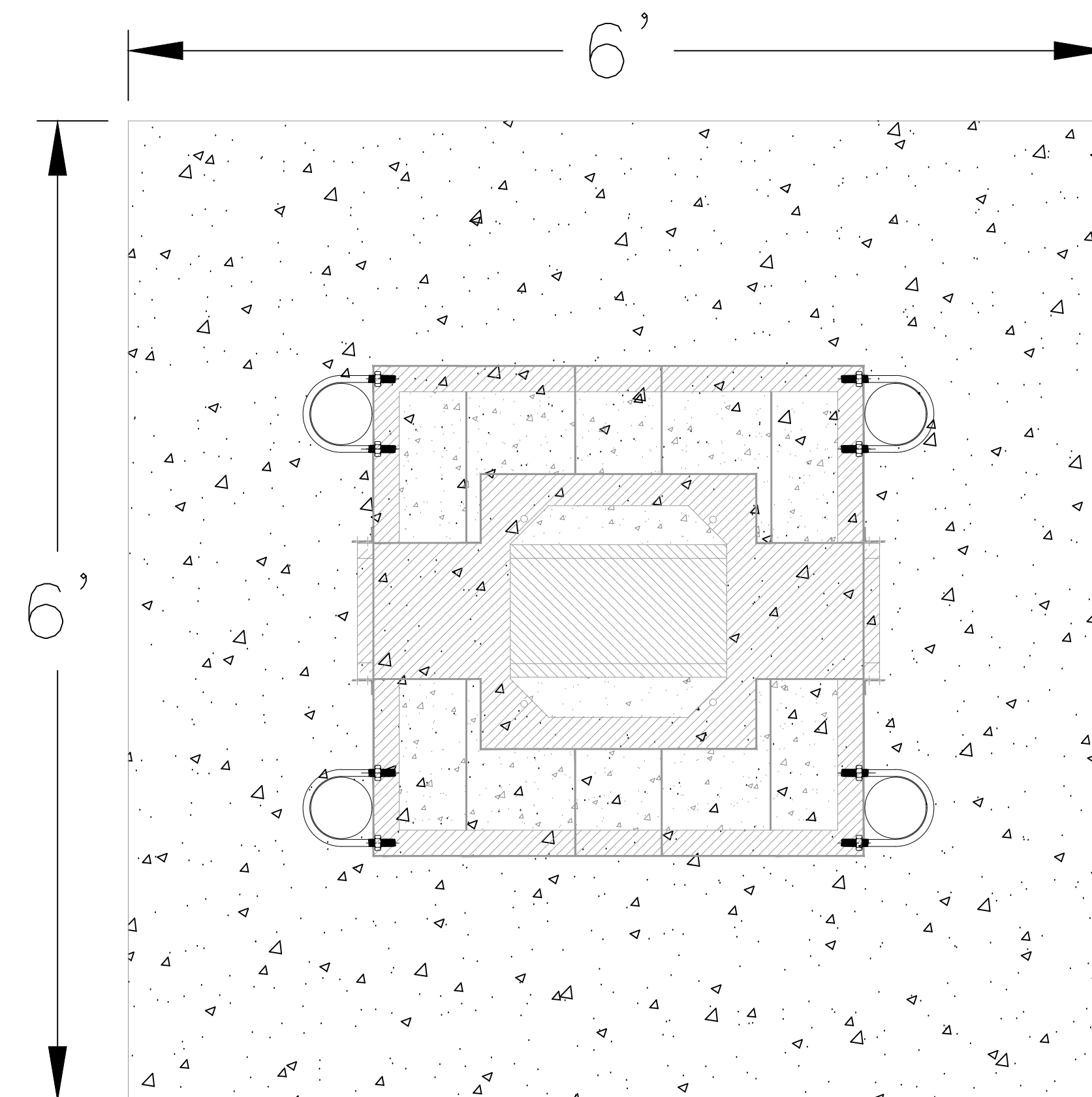
THE DRAIN STUB MAY INSTALLED ON THE END OR SIDE OF THE FOAM FORM. AFTER THE CONCRETE HAS CURED AND FOAM IS REMOVED, THE DRAIN STUB MUST BE EXTENDED TO A STORM DRAIN OR NATURAL DRAINAGE POINT TO ALLOW UNRESTRICTED GRAVITY DRAIN FLOW FROM THE TRENCH TO THE DRAINAGE POINT.

11



ATTACHED THE MDU BASE FRAME TO THE END OF THE TRENCH RAILS. ATTACHED FOUR 6" X 60" SCHEDULE 40 BOLLARDS TO THE CORNERS OF THE BASE FRAME USING U-BOLTS OR 1/2" THREADED ROD, WASHERS, AND NUTS. LEVEL AND PLUMB THE BOLLARDS AND BASE FRAME.

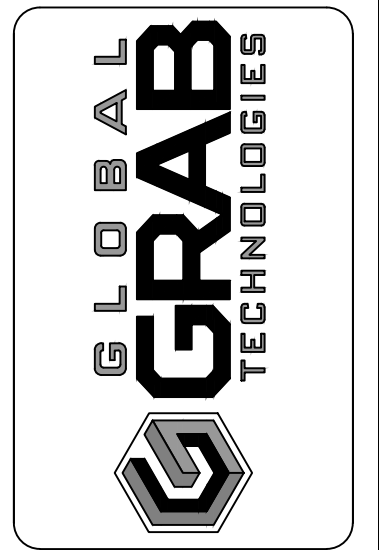
12



TOP VIEW OF MDU FRAME

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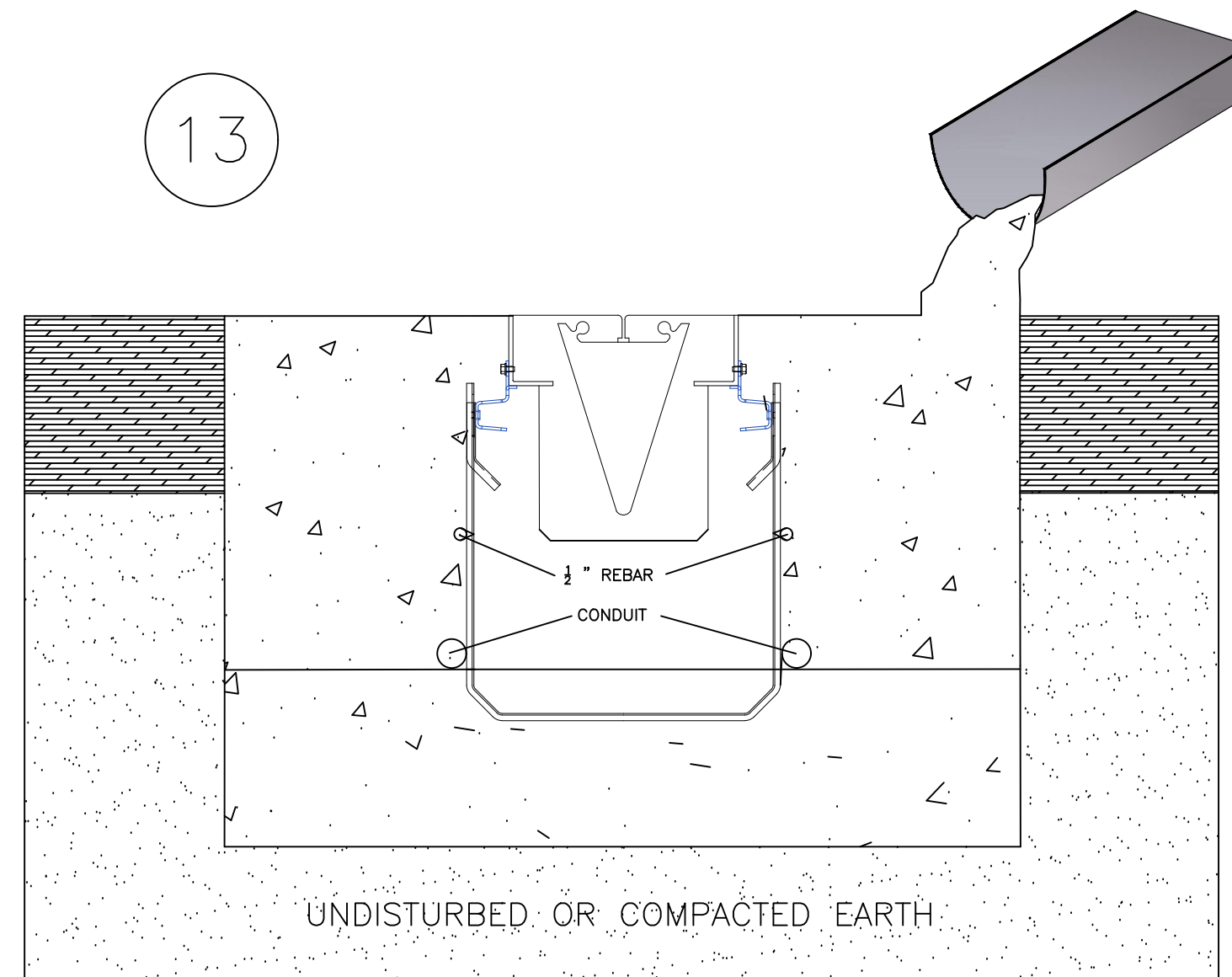
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CATSCLAW PERMANENT SYSTEM
FOUNDATION DETAILS
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13



ALLOW THE ANCHOR SLAB TO CURE SUFFICIENTLY THAT THE STEEL RAILS WILL NOT MOVE.

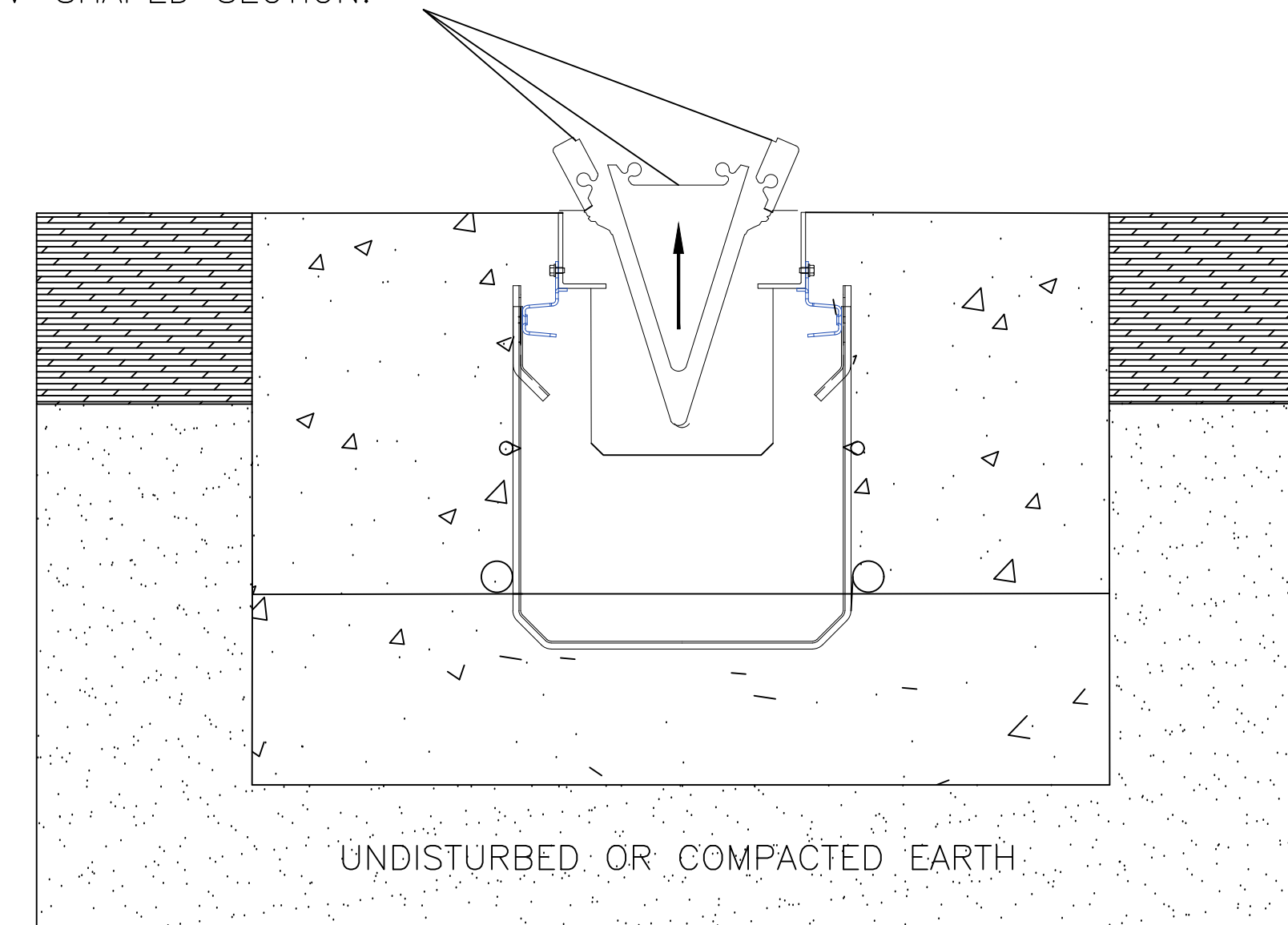
CHECK AND ADJUST THE ALIGNMENT OF THE STEEL RAILS AS NECESSARY. THE RAILS SHOULD BE STRAIGHT, LEVEL, AND NOT EXCEED A CROWN OF 2 INCHES IN 20 FEET. VERTICAL ADJUSTMENT IS DONE USING THE SLOTTED HOLES IN THE SUPPORT LEGS. HORIZONTAL ADJUSTMENT IS DONE BY GENTLY BENDING THE SUPPORT LEGS.

POUR ADDITIONAL 4000 PSI (MINIMUM) CONCRETE TO THE TOP OF THE RAILS AND ROADWAY SURFACE.

ALLOW THE CONCRETE TO CURE ONLY ENOUGH TO ENSURE THE RAILS WILL NOT MOVE BEFORE REMOVING THE INSTALLATION SPREADER BARS AND FINISHING THE CONCRETE EDGES USING STANDARD EDGING TOOL.

14

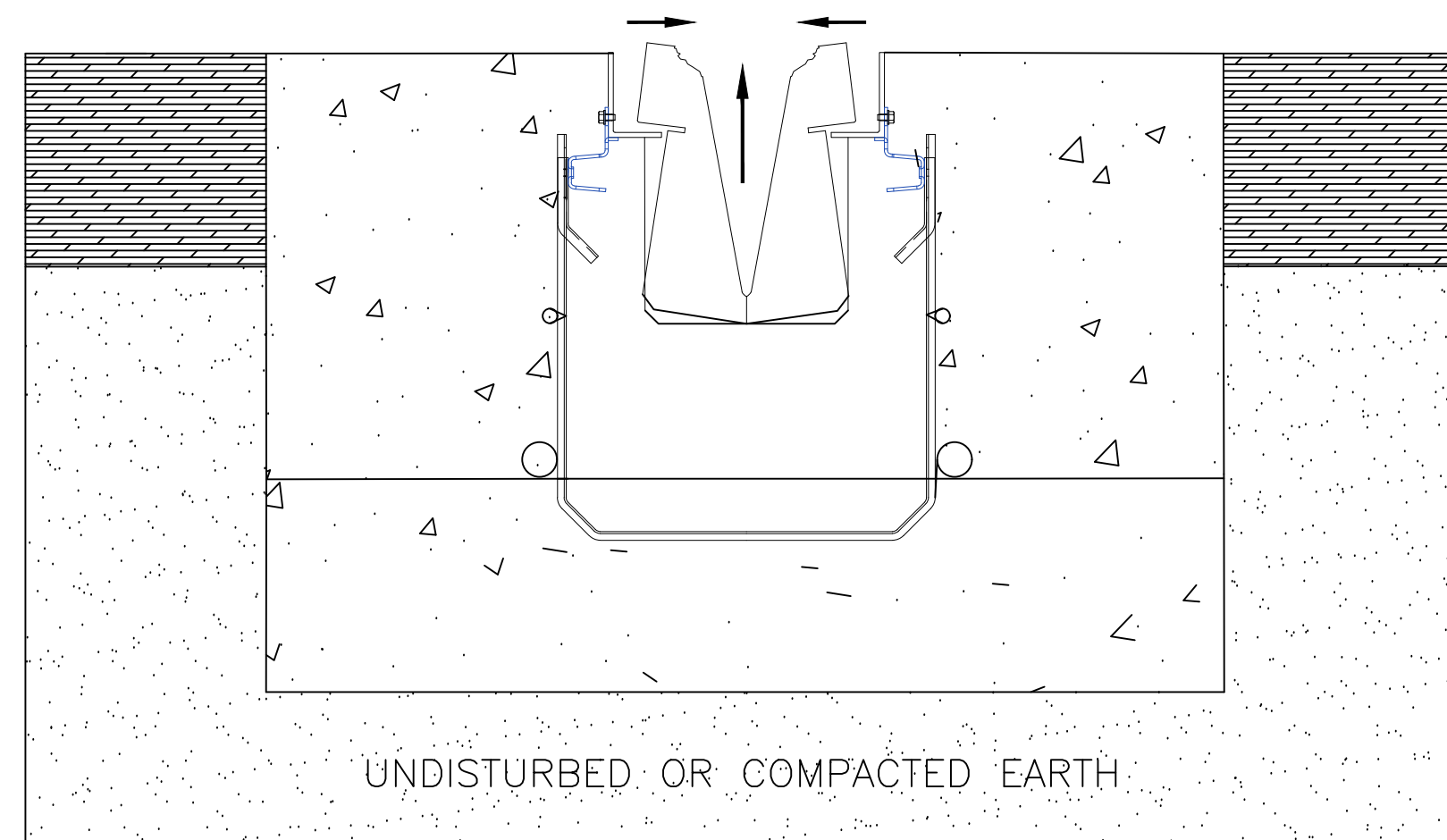
ALLOW THE CONCRETE TO CURE TO A HARD SURFACE.
BREAK OUT THE 2 TOP SECTIONS OF THE FOAM AND REMOVE THE CENTER V-SHAPED SECTION.



15

BREAK OUT THE 2 SIDE SECTIONS OF THE FOAM BY PRYING TOWARD THE CENTER AND REMOVE THE FOAM SECTIONS.

CLEAN THE CONCRETE TRENCH. THE FOUNDATION IS NOW READY TO INSTALL THE CATSCLAW BLADE PADS.



THIS SPACE INTENTIONALLY LEFT BLANK

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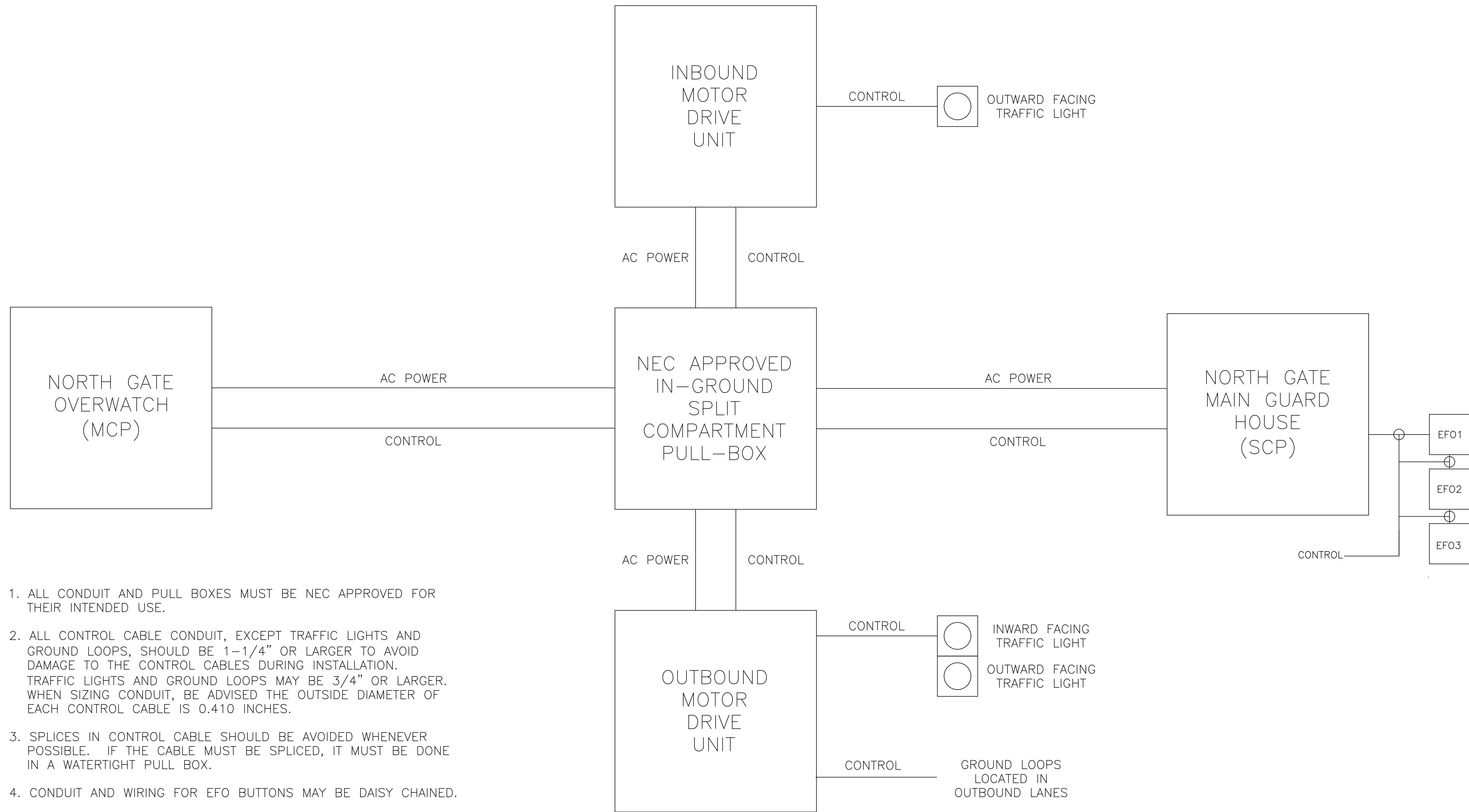
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 FOUNDATION DETAILS
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1. ALL CONDUIT AND PULL BOXES MUST BE NEC APPROVED FOR THEIR INTENDED USE.
2. ALL CONTROL CABLE CONDUIT, EXCEPT TRAFFIC LIGHTS AND GROUND LOOPS, SHOULD BE 1-1/4" OR LARGER TO AVOID DAMAGE TO THE CONTROL CABLES DURING INSTALLATION. TRAFFIC LIGHTS AND GROUND LOOPS MAY BE 3/4" OR LARGER. WHEN SIZING CONDUIT, BE ADVISED THE OUTSIDE DIAMETER OF EACH CONTROL CABLE IS 0.410 INCHES.
3. SPLICES IN CONTROL CABLE SHOULD BE AVOIDED WHENEVER POSSIBLE. IF THE CABLE MUST BE SPLICED, IT MUST BE DONE IN A WATERTIGHT PULL BOX.
4. CONDUIT AND WIRING FOR EFO BUTTONS MAY BE DAISY CHAINED.

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EXAMPLE RECOMMENDED CONDUIT PLAN

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