

ORIGINAL GROUND LINE

STABLE ROCK

TYPE A SOIL
i: 3/4 (53°)

TYPE B SOIL
i: 1 (45°)

TYPE C SOIL
i: 1 1/2 (34°)

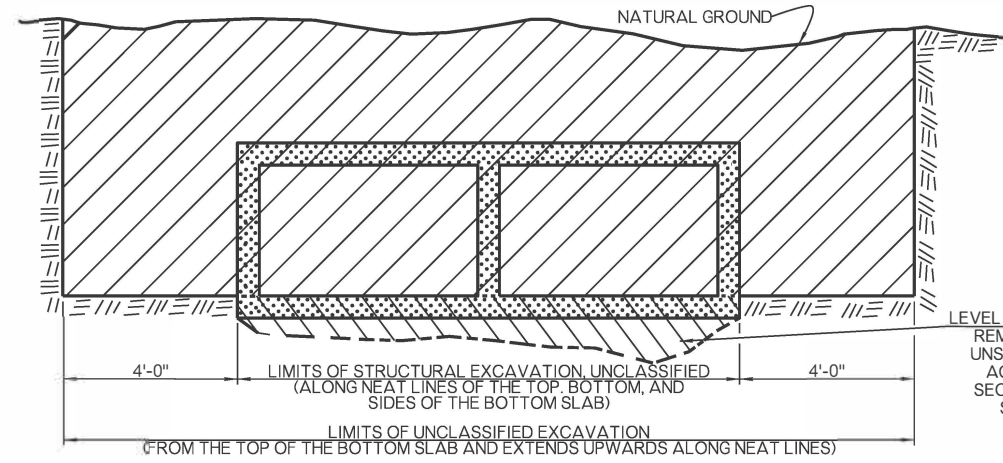
APPROXIMATE ANGLE OF REPOSE FOR SLOPING OF SIDES OF EXCAVATIONS IN TRENCHES WITH DEPTH GREATER THAN 5 FEET AND LESS THAN 20 FEET, AS A METHOD TO PROTECT PERSONNEL WORKING IN EXCAVATIONS FROM CAVE-INS. ♦

NOTE: THE PRESENCE OF GROUND WATER REQUIRES SPECIAL TREATMENT.

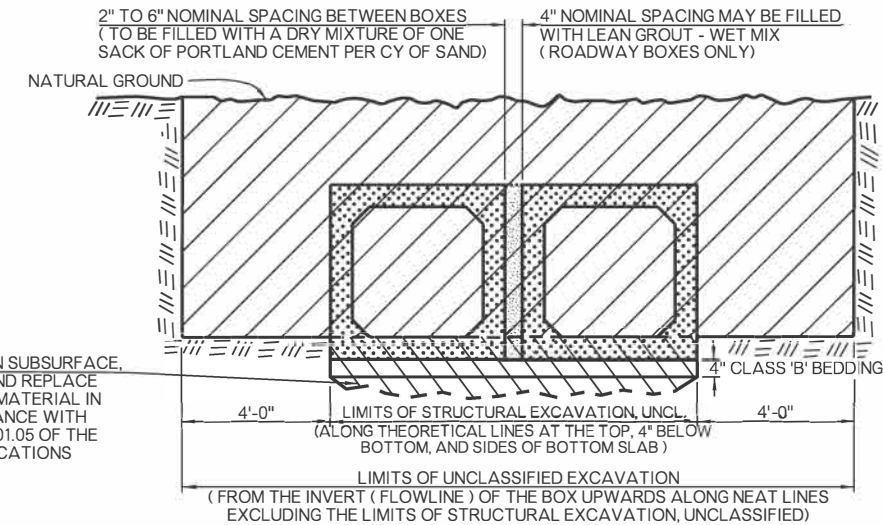
OPTIONAL TRENCHES WITH DEPTH GREATER THAN 5.0 FEET
EXCAVATION AND BEDDING MATERIAL WILL BE MEASURED AND PAID FOR AS IF TRENCHED WALLS WERE VERTICAL. (SPECIAL TRENCHING = STD. WIDTH TRENCH + 12")

NATURAL SOLID MINERAL MATTER THAT CAN BE EXCAVATED WITH VERTICAL SIDES AND REMAIN INTACT WHILE EXPOSED.

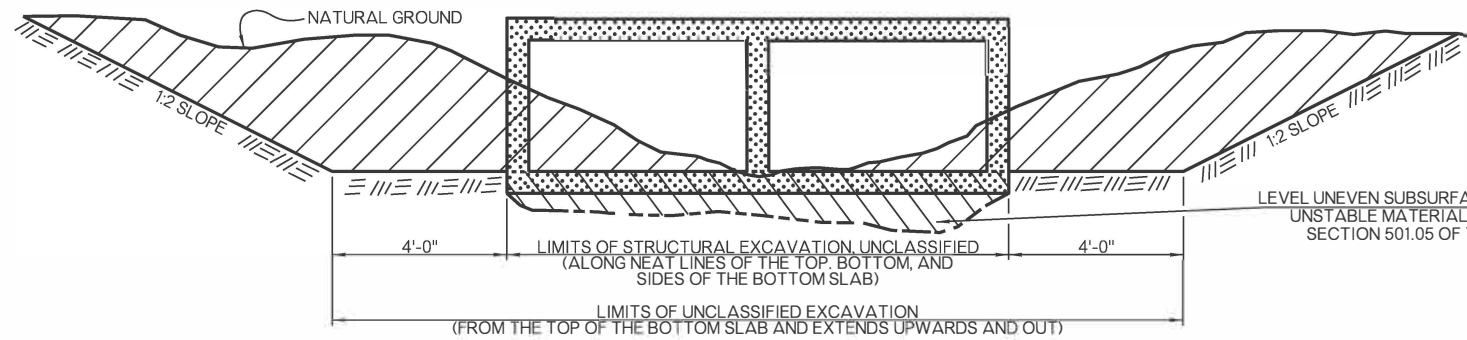
SOIL CLASSIFICATION - SOIL AND ROCK DEPOSITS SHALL BE CLASSIFIED IN ACCORDANCE WITH APPENDIX A UNDER SUBPART P 'EXCAVATIONS' OF 29 CFR 1926.



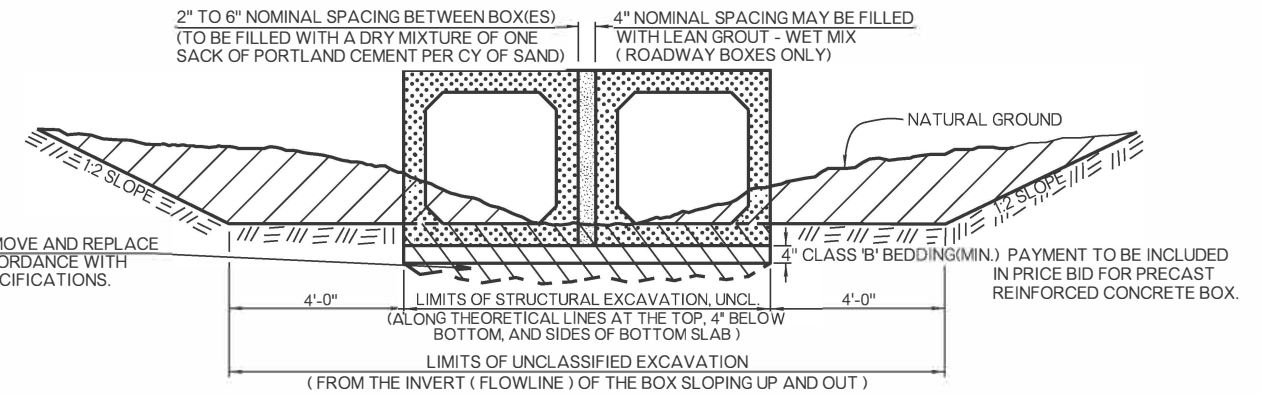
REQUIREMENTS FOR UNCLASSIFIED AND STRUCTURAL EXCAVATION OF RCB STORM SEWERS



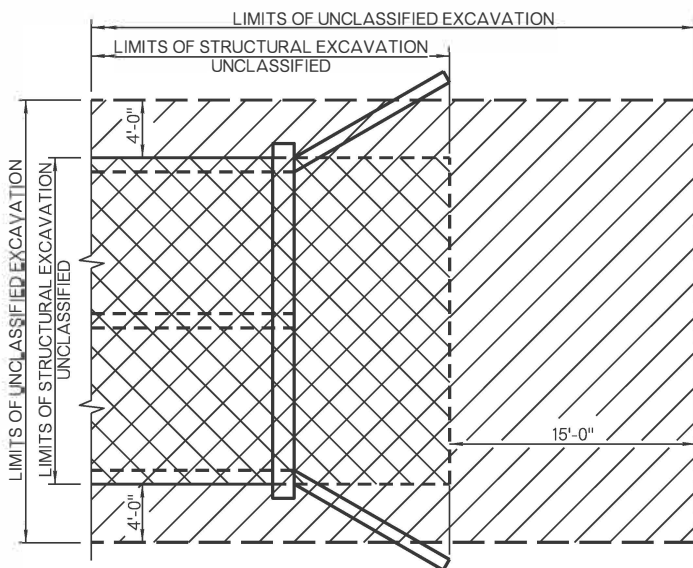
REQUIREMENTS FOR EXCAVATION OF PRECAST RCB STORM SEWERS



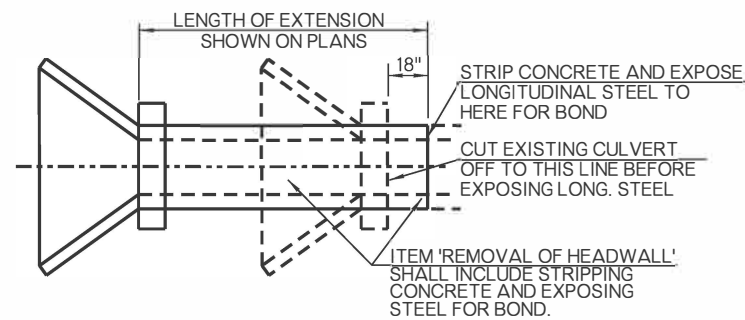
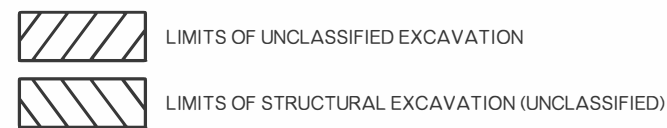
REQUIREMENTS FOR UNCLASSIFIED AND STRUCTURAL EXCAVATION OF RCB CULVERTS OF ROADWAY AND BRIDGE CLASSIFICATION



REQUIREMENTS FOR EXCAVATION OF PRECAST RCB CULVERTS OF ROADWAY AND BRIDGE CLASSIFICATION

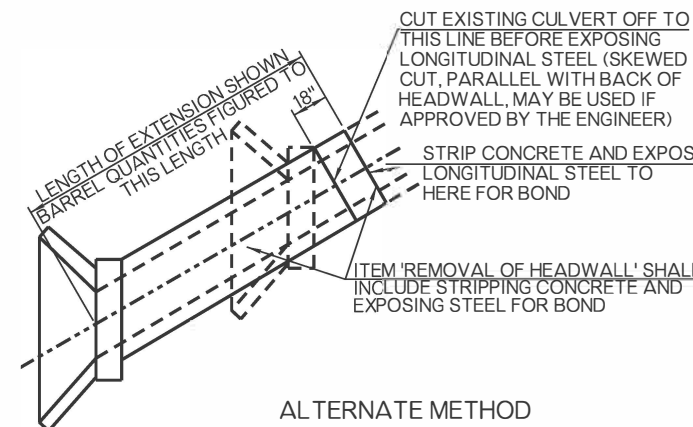


PLAN VIEW



ALTERNATE METHOD FOR EXTENDING 90° BOXES

ALTERNATIVE METHOD FOR 'REMOVAL OF HEADWALL' WILL ALLOW FOR SAWING AND REMOVING HEADWALL BEHIND CURB, DRILL HORIZONTAL HOLES AND USE AN APPROVED EPOXY BOND MATERIAL, OR APPROVED ANCHOR, TO ATTACH HORIZONTAL TIE STEEL



ALTERNATE METHOD FOR EXTENDING SKEWED BOXES

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2019 ODOT STANDARD SPECIFICATIONS.
2. PAYMENT FOR CAST-IN-PLACE REINFORCED CONCRETE BOXES WILL BE IN CUBIC YARDS OF CLASS A OR CLASS AA CONCRETE AND POUNDS OF REINFORCING STEEL, IN ACCORDANCE WITH SECTION 509 AND 511 OF THE SPECIFICATIONS.
3. PAYMENT FOR PRECAST CONCRETE BOX CULVERTS WILL BE MADE BASED ON THE UNIT PRICE BID FOR ITEMS AND QUANTITIES OF A CAST-IN-PLACE BOX OF THE LENGTH REQUIRED AS DETERMINED BY FIELD MEASUREMENTS, AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 508 OF THE SPECIFICATIONS.
4. PRECAST CONCRETE BOX SECTIONS, USED IN LIEU OF CAST-IN-PLACE CONCRETE BOXES, SHALL MEET MINIMUM DESIGN REQUIREMENTS OF AASHTO M 259 OR M 273, AND ASTM C1433 OR C1577, AND JOINT FILLER SHALL MEET THE REQUIREMENTS OF SUBSECTION 726.01.B OF THE SPECIFICATIONS.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
202 (A)	UNCLASSIFIED EXCAVATION	CY
501 (A)	STRUCTURAL EXCAVATION UNCLASSIFIED	CY
619 (B)	REMOVAL OF HEADWALL	EA

APPROVED BY ROADWAY ENGINEER: DATE: 6/30/22
ROADWAY DESIGN DIVISION STANDARD



STANDARD BOX INSTALLATION