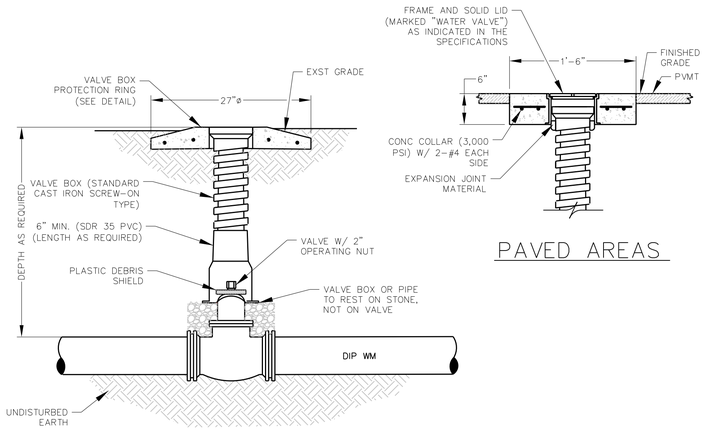


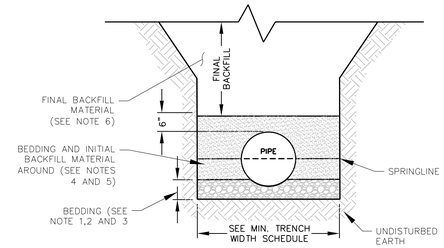
PAVED AREAS

GATE VALVE AND VALVE BOX DETAIL

NOT TO SCALE

NOTES:

1. FOR UNPAVED LOCATIONS, A CONCRETE VALVE BOX PROTECTOR RING SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. PROTECTOR RING PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED OTHERWISE.
3. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS. ROUTE LOCATE WIRES THROUGH THE ADJUSTMENT SECTION OF BOX OR DRILL ¾" HOLE IN THE BOX TOP SECTION. THE LOCATE WIRES SHALL BE CONNECTED TOGETHER WITH WIRE NUT.
4. GATE VALVES SHALL OPEN LEFT.
5. PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. SHIELD SHALL BE BY AFC, BOXLOK OR APPROVED EQUAL.



MINIMUM TRENCH WIDTH SCHEDULE				
PIPE SIZE I.D.	12" OR LESS	12" TO 21"	24" TO 30"	33" TO 54"
TRENCH WIDTH (W/O SHORING)	36"	I.D. + 24"	I.D. + 30"	I.D. + 30"
TRENCH WIDTH (W/ SHORING)	48"	I.D. + 36"	I.D. + 42"	I.D. + 42"

MINIMUM BEDDING FOR WATER MAIN DETAIL

NOT TO SCALE

NOTES:

1. BEDDING DEPTH SHALL BE 6" MINIMUM FOR PIPE DIAMETER LESS THAN 12".
2. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING MATERIAL BELOW THE PIPE. THE ENGINEER SHALL DETERMINE IN THE FIELD THE AMOUNT OF UNSUITABLE MATERIAL REQUIRED TO REACH A SUITABLE FOUNDATION.
3. THE PIPE BEDDING SHALL BE CONSOLIDATED NO. 57 STONE IN 6" LAYERS TO THE BOTTOM OF THE PIPE. THEN BACKFILLED WITH HAND PLACED MATERIAL CONSOLIDATED IN 6" LAYERS TO THE SPRINGLINE OF THE PIPE.
4. BEDDING AND INITIAL BACKFILL MATERIAL SHALL MEET REQUIREMENTS OF AASHTO M145 GROUP CLASSIFICATION A1-A3 AND BE COMPACTED IN 6" LAYERS TO A MINIMUM COMPACTION OF 98% STANDARD PROCTOR WITH AN ALLOWABLE ±5% OF OPTIMUM MOISTURE CONTENT. BACKFILL MATRIAL UP TO A LEVEL ONE FOOT (1') OVER TOP OF PIPE AND SHALL EXCLUDE CLAY MATERIALS AND LOOSE ROCKS LARGER THAN 3".
5. BELL HOLES SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST THE SUITABLE UNDISTURBED SOIL OR BEDDING MATERIAL.
6. FINAL BACKFILL MATERIAL
   - A. AREAS OUTSIDE THE NCDOT, COUNTY, AND CITY RIGHT-OF-WAYS: FINAL BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO M145 GROUP CLASSIFICATION A1-A6 AND BE COMPACTED IN SUFFICIENT DEPTHS TO MEET A MINIMUM COMPACTION OF 85% STANDARD PROCTOR WITH AN ALLOWABLE ±5% OF OPTIMUM MOISTURE CONTENT.
   - B. AREAS INSIDE THE NCDOT, COUNTY, AND CITY RIGHT-OF-WAYS: FINAL BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO M145 GROUP CLASSIFICATION A1-A3 AND BE COMPACTED IN 6" LAYERS TO A MINIMUM COMPACTION OF 95% STANDARD PROCTOR WITH AN ALLOWABLE ±5% OF OPTIMUM MOISTURE CONTENT.
   - C. UNDER PAVEMENT: FINAL BACKFILL MATERIAL SHALL MEET REQUIREMENTS OF AASHTO M145 GROUP CLASSIFICATION A1 AND BE COMPACTED IN 6" LAYERS TO A MINIMUM COMPACTION OF 98% STANDARD PROCTOR WITH AN ALLOWABLE ±5% OF OPTIMUM MOISTURE CONTENT.
   - D. UNDER DRIVEWAYS: FINAL BACKFILL MATERIAL SHALL MEET REQUIREMENTS OF AASHTO M145 GROUP CLASSIFICATION A1-A3 AND BE COMPACTED IN 6" LAYERS TO A MINIMUM COMPACTION OF 98% STANDARD PROCTOR WITH AN ALLOWABLE ±5% OF OPTIMUM MOISTURE CONTENT.
   - E. USE OF NATIVE MATERIAL: NATIVE MATERIAL MAY BE USED IN FINAL BACKFILL ONLY WHEN APPROVED BY THE ENGINEER.

PROJECT REFERENCE NO.	SHEET NO.
R-5861	UC-3D
DESIGNED BY: KTC	
DRAWN BY: ATL	
CHECKED BY: GHH	
APPROVED BY: GHH	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)707-6690
FAX:(919)250-4151

NORTH CAROLINA PROFESSIONAL SEAL 024207 ENGINEER GREGORY K HODGES
Digitally signed by: Greg Hodges
20F1713502B94C3...

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

9/27/2023
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