

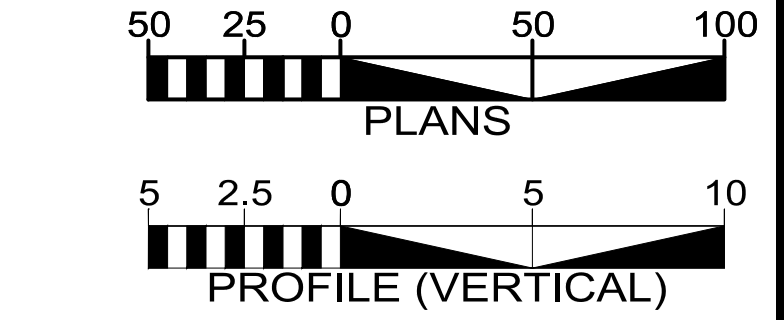
PROJECT REFERENCE NO.	BR-0011	SHEET NO.	UC-3A
DESIGNED BY:	JDG	DocuSigned by:	
DRAWN BY:	JDG	CAROLINA PROFESSIONAL SEAL	
CHECKED BY:	RDH	45958788310742	
APPROVED BY:	JDG	047761	
REVISED:	11/03/20	ENGINEER	JACOB D GRAY
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		UTILITY CONSTRUCTION PLANS ONLY	
UTILITIES ENGINEERING SEC. PHONE: (828)255-0313 FAX: (919)250-4151			

UTILITY CONSTRUCTION

WithersRavenel
Engineers | Planners | Surveyors

84 Cox Avenue, Suite 260 | Asheville, NC 28801 | 828.255.0313 | license #: C-0832 | www.withersravenel.com

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



1. CONTRACTOR SHALL REPAIR ALL WATER LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL REPORT IMMEDIATELY ALL WATER MAIN AND LATERAL BREAKS TO THE TOWN OF MURPHY PROJECT COORDINATOR. THE CONTRACTOR SHALL INITIATE IMMEDIATE REPAIRS IN ACCORDANCE WITH TOWN OF MURPHY STANDARDS. CONTRACTOR SHALL NOT OPERATE TOWN OF MURPHY WATER MAIN VALVES WITHOUT TOWN OF MURPHY APPROVAL. AND SHALL COORDINATE ALL VALVE CLOSINGS WITH THE TOWN OF MURPHY.

2. THE CONTRACTOR SHALL NOT USE HOUSE HOSE BIBBS OR ANY OTHER METHOD OF BLOW OFF WHICH ALLOWS DOMESTIC WATER CONTAINING SEDIMENTS OR HIGH LEVELS OF CHLORINE TO PASS THROUGH RESIDENTS' METERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ALLOWING "DIRTY" WATER TO ENTER RESIDENTS' PLUMBING SYSTEM, SUCH AS WATER HEATERS, STAINED CLOTHING, CLOGGED SCREENS, ETC.

3. WATER MAINS AND LATERALS SHALL BE INSTALLED UTILIZING A TOWN OF MURPHY APPROVED CUT-SHEET INDICATING INSTALLATION DEPTH.

4. TRANSFER OF WATER SERVICES SHALL BE ACCORDING AS FOLLOWS:
A. INSTALL TEST AND STERILIZE NEW MAIN AND LATERALS. LATERALS SHALL BE INSTALLED 18" INSIDE RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE TOWN OF MURPHY.
B. TRANSFER EXISTING METER TO NEW METER BOX AND THE NEW WATER LATERAL TO EXISTING DOMESTIC SERVICE UTILIZING BRASS FITTINGS. SAME METER TRANSFER SHALL BE INSTALLED ON SAME ADDRESS AND/OR CUSTOMER. BLOW OFF SERVICE AT HOSE BIBB ON HOUSE ONLY AFTER METER HAS BEEN TRANSFERRED.
C. AFTER ALL SERVICES ARE TRANSFERRED TO THE NEW SYSTEM, SHUT OFF VALVE ON EXISTING SYSTEM AND ABANDON EXISTING MAINS IN ACCORDANCE WITH TOWN OF MURPHY DETAILS.
D. CONTRACTOR SHALL SUPPLY NEW METER BOXES AND DISPOSE OF EXISTING METER BOXES.

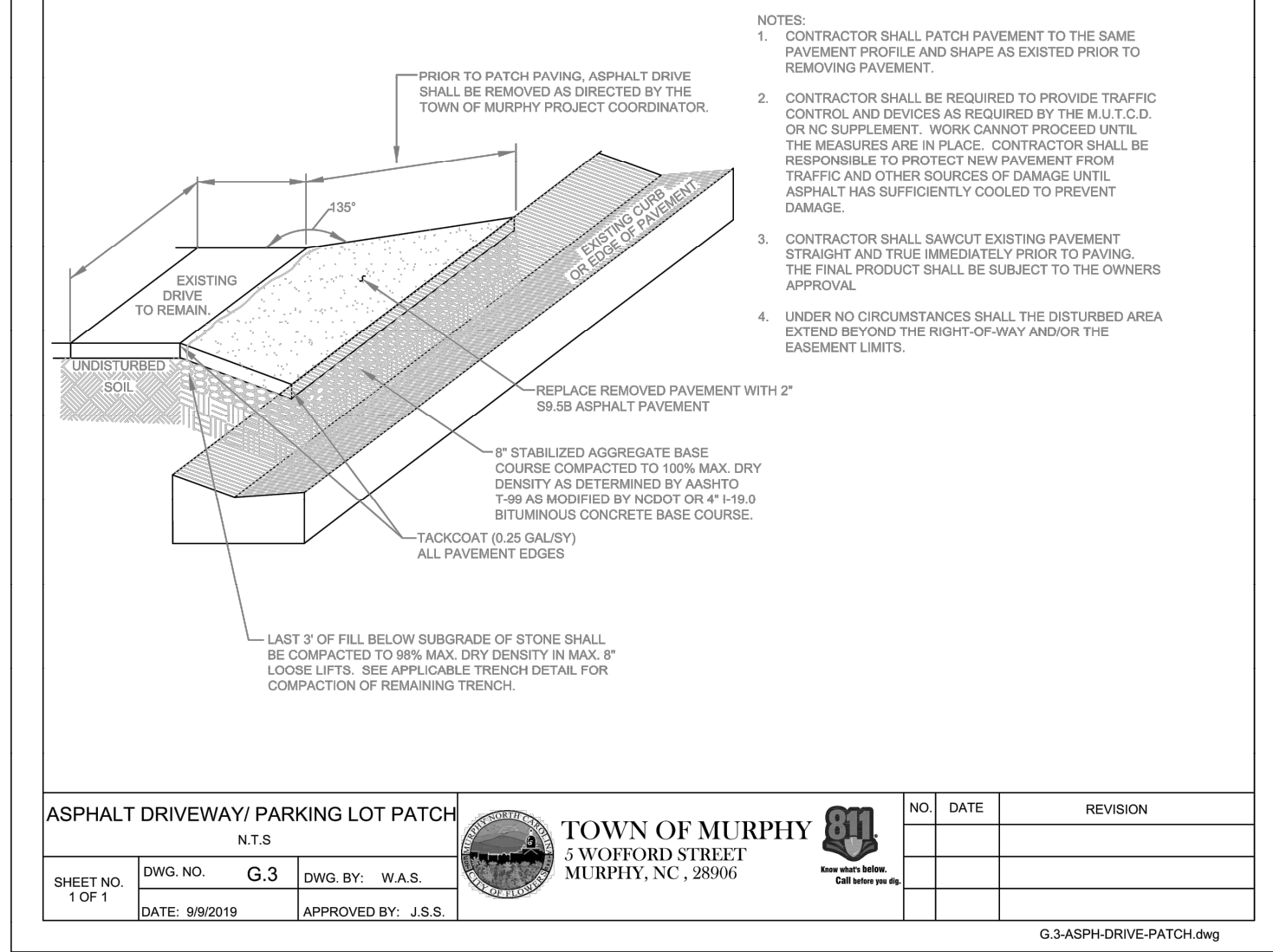
5. WHEN MAIN IS NOT TO BE ABANDONED, CONTRACTOR SHALL UNCOVER OLD CORPORATION AT MAIN, CLOSE AND PLUG CORPORATION TO ABANDON OLD SERVICE.

6. CONTRACTOR SHALL ABANDON ANY EXISTING WATER SERVICES THAT WILL NOT BE UTILIZED BY CUTTING THE SERVICE AT THE MAIN, PLUGGING THE CORPORATION, AND TURNING OFF THE CORPORATION. AT THE METER BOX, THE ABANDONED SERVICE IS TO BE CUT OR CRIMPED, AND BURIED A MINIMUM OF 3 FEET BELOW GRADE.

7. ALL EXISTING UTILITIES IMPACTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE, IN ACCORDANCE WITH TOWN OF MURPHY REQUIREMENTS.

8. ALL WORK ON TOWN OF MURPHY WATER UTILITIES (MAINS, LATERALS, ETC) SHALL BE PERFORMED BY A LICENSED CONTRACTOR. THE TOWN OF MURPHY SHALL OBSERVE AND APPROVE ALL WORK ON TOWN OF MURPHY WATER UTILITIES. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH TOWN OF MURPHY REQUIREMENTS.

9. SEPARATION REQUIREMENTS:
A. LATERAL SEPARATION OF SEWERS AND WATER MAINS: WATER MAINS SHALL BE LAD AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWER MAIN/LATERAL, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10-FOOT LATERAL SEPARATION - IN WHICH CASE:
I. THE WATER MAIN IS LAD IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN/LATERAL; OR
II. THE WATER MAIN IS LAD IN THE SAME TRENCH AS THE SEWER MAIN/LATERAL, WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN/LATERAL.
B. CROSSING A WATER MAIN OVER A SEWER: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER MAIN/LATERAL, THE WATER MAIN SHALL BE LAD AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN/LATERAL, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION - IN WHICH CASE BOTH THE WATER MAIN AND SEWER MAIN/LATERAL SHALL BE DUCTILE IRON IN ACCORDANCE WITH TOWN OF MURPHY REQUIREMENTS.
C. CROSSING WATER MAIN UNDER A SEWER: WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAIN/LATERAL, BOTH THE WATER MAIN AND THE SEWER MAIN/LATERAL SHALL BE DUCTILE IRON IN ACCORDANCE WITH TOWN OF MURPHY REQUIREMENTS. A FULL JOINT OF DUCTILE IRON PIPE SHALL BE INSTALLED ON THE WATER MAIN CENTERED AT THE POINT OF CROSSING.
D. CROSSING STORM DRAINAGE LINES: A MINIMUM OF 12-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN A WATER LINE CROSSING OVER A STORM DRAINAGE LINE UNLESS DUCTILE IRON PIPE IS USED. IN ADDITION, THREE AND A HALF (3.5) FEET OF COVER MUST BE MAINTAINED OVER THE WATER MAIN OR IT SHALL BE DUCTILE IRON. IF DUCTILE IRON PIPE IS USED THEN TWO AN A HALF (2.0) FEET OF COVER MUST BE MAINTAINED OVER THE WATER MAIN AND A MINIMUM OF 4-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND THE STORM DRAINAGE LINE. WHERE A WATER MAIN CROSSES UNDER A STORM DRAINAGE LINE THE MINIMUM OF TWELVE (12) INCHES OF VERTICAL SEPARATION SHALL BE MAINTAINED AND THE WATER MAIN SHALL BE DUCTILE IRON FOR A DISTANCE OF 10-FOOT ON EACH SIDE OF THE CROSSING.



ASPHALT DRIVEWAY/ PARKING LOT PATCH		TOWN OF MURPHY 5 WOFFORD STREET MURPHY, NC, 28906		NO.	DATE	REVISION
SHEET NO.	DWG. NO.	DWG. BY:	DATE:	APPROVED BY:		
1 OF 1	G.3	W.A.S.	9/9/2019	J.S.S.		

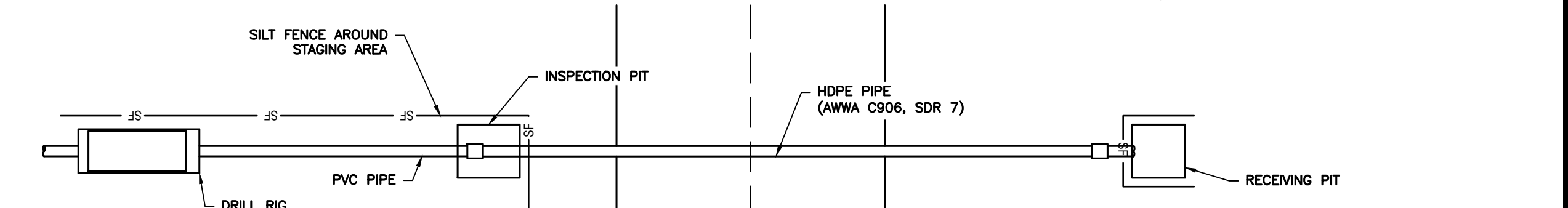
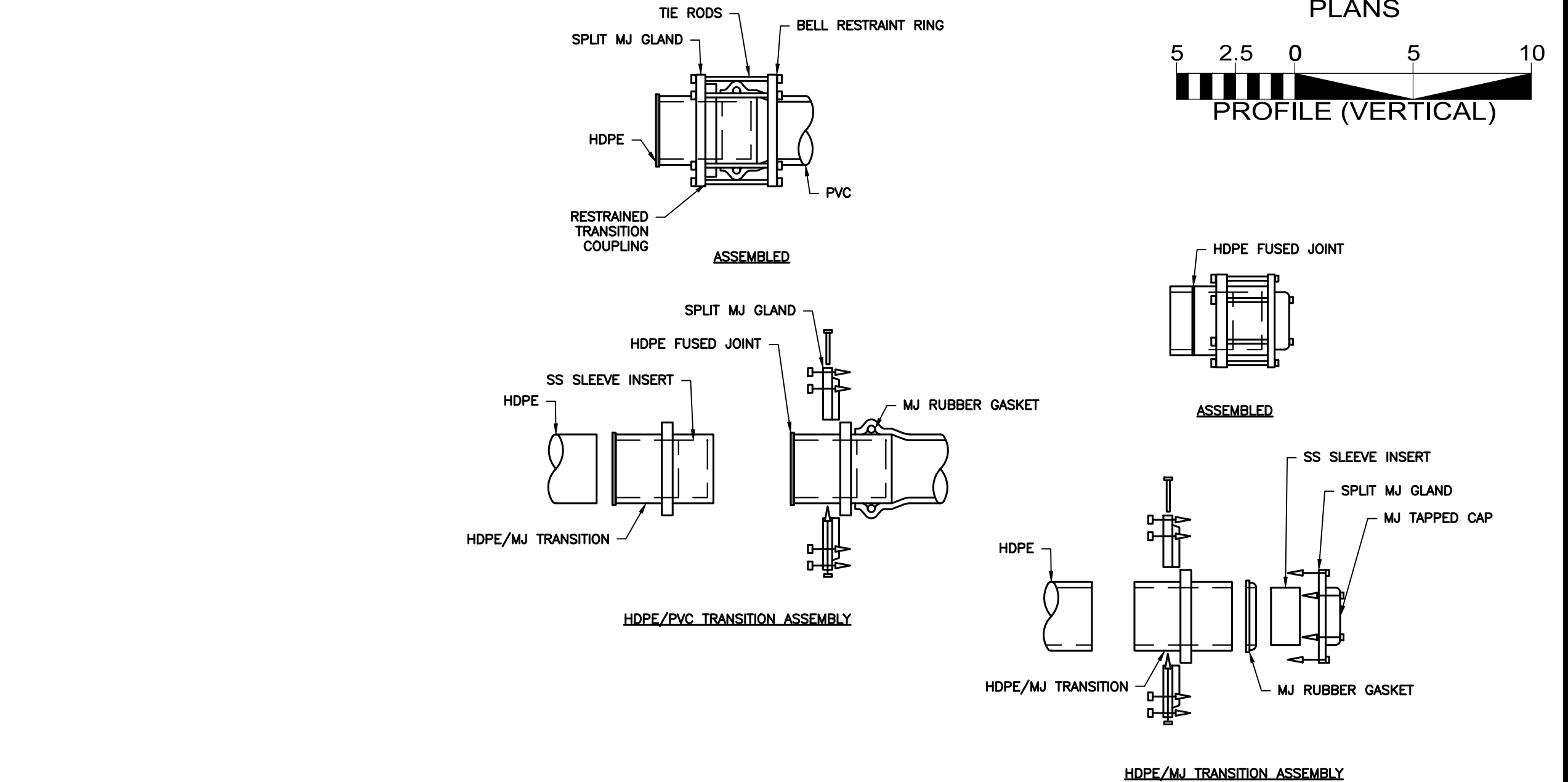
10. WATER OUTAGES: THE CONTRACTOR SHALL SCHEDULE A COORDINATION MEETING WITH THE TOWN OF MURPHY PROJECT COORDINATOR AND PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO ANY PLANNED WATER OUTAGE. THE COORDINATION MEETING SHALL BE CONDUCTED PRIOR TO ANY NOTICES BEING ISSUED. ADDITIONALLY, THE CONTRACTOR SHALL LOCATE VERTICALLY AND HORIZONTALLY ANY UTILITIES WITHIN THE WORK AREA IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS. THE LOCATIONS OF ALL UTILITIES WITHIN THE WORK AREA SHALL BE DETERMINED PRIOR TO THE COORDINATION MEETING. ANY CONFLICTS WITH THE PLANNED WORK AND THE EXISTING UTILITIES SHALL BE IDENTIFIED AND A PLAN FOR RESOLVING ANY CONFLICTS SHALL BE PRESENTED. THE PURPOSE OF THIS COORDINATION MEETING IS TO ENSURE THAT THE CONTRACTOR HAS A GOOD UNDERSTANDING OF THE REQUIREMENTS RELATED TO THE PENDING OUTAGE, VERIFY THAT THERE ARE NO UTILITY CONFLICTS THAT WILL PREVENT THE WORK FROM BEING COMPLETED, ALL EQUIPMENT IS IN GOOD WORKING ORDER, ALL EQUIPMENT IS FUNCTIONAL, ALL MATERIALS ARE ON SITE, ALL NECESSARY TOOLS ARE ON SITE, DISCUSS ANY NECESSARY CONTINGENCY PLANS, AND ANY OTHER ITEMS NECESSARY TO ENSURE THAT THE TOWN OF MURPHY HAS CONFIDENCE THAT THE WORK CAN BE ACCOMPLISHED WITHIN THE GIVEN TIME PERIOD. SHOULD, FOR ANY REASON, THE TOWN OF MURPHY DEEM THAT THE CONTRACTOR IS NOT PREPARED FOR THE PROPOSED OUTAGE, THE OUTAGE NOTIFICATIONS WILL NOT BE DISTRIBUTED AND THE OUTAGE SHALL BE POSTPONED A MINIMUM OF TWO (2) WEEKS. THE TOWN OF MURPHY WILL PROVIDE WRITTEN NOTIFICATION TO THE CONTRACTOR OF THIS DECISION. NO ADDITIONAL CONTRACT TIME WILL BE GRANTED FOR THIS DELAY.

ONCE THE WATER OUTAGE NOTIFICATIONS HAVE BEEN ISSUED, A FOLLOW-UP COORDINATION MEETING WITH THE TOWN OF MURPHY PROJECT COORDINATOR AND PROJECT ENGINEER SHALL BE HELD A MINIMUM OF 24 HOURS PRIOR TO THE SCHEDULED OUTAGE. THE PURPOSE OF THIS MEETING IS TO VERIFY THAT THE CONTRACTOR IS PREPARED TO PROCEED WITH THE OUTAGE, AND THAT ALL EQUIPMENT, MATERIALS, TOOLS, AND ALL OTHER INCIDENTALS ARE ON THE PROJECT SITE AND FUNCTIONING. IF FOR ANY REASON THE TOWN OF MURPHY DEEMS THAT THE CONTRACTOR IS NOT PREPARED, THE OUTAGE SHALL BE POSTPONED AND ALL CUSTOMERS IMMEDIATELY NOTIFIED OF THE CANCELLATION. THE OUTAGE SHALL BE POSTPONED A MINIMUM OF TWO (2) WEEKS.

11. CONTRACTOR IS RESPONSIBLE FOR ADHERENCE TO ALL LOCAL, STATE, AND FEDERAL OSHA REQUIREMENTS FOR SAFETY. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO PERFORM WORK IN ACCORDANCE WITH LATEST OSHA REQUIREMENTS AND SHALL INDEMNIFY THE TOWN OF MURPHY OF ANY RESPONSIBILITY.

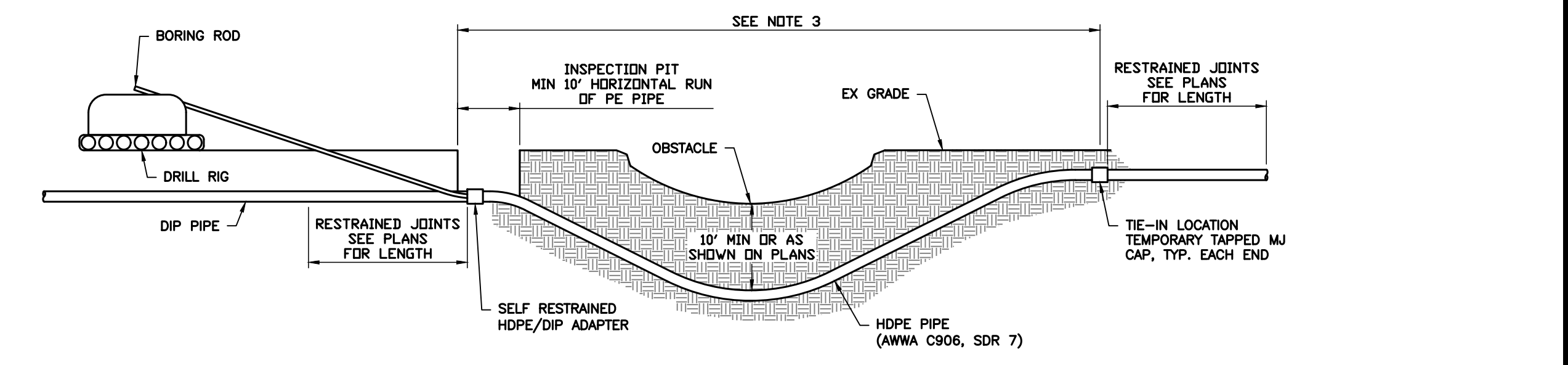
12. TOWN OF MURPHY STAFF AND REPRESENTATIVES SHALL ONLY DIRECT CONTRACTOR AS REQUIRED IN THESE STANDARD DETAILS AND TOWN OF MURPHY SPECIFICATIONS. CONTRACTOR IS TO PROVIDE NECESSARY SUPERVISION TO PROPERLY PERFORM ALL WORK.

WATER UTILITY NOTES		TOWN OF MURPHY 5 WOFFORD STREET MURPHY, NC, 28906		NO.	DATE	REVISION
SHEET NO.	DWG. NO.	DWG. BY:	DATE:	APPROVED BY:		
2 OF 2	W.1	W.A.S.	9/9/2019	J.S.S.		



NOTES:

- A PLAN & PROFILE SHALL BE PROVIDED FROM ENTRY TO EXIT FOR EACH DIRECTIONAL BORE SECTION BY THE BORE CONTRACTOR.
- ALL BORE SECTIONS SHALL BE HYDROSTATICALLY TESTED PER SPECIFICATIONS UPON COMPLETION OF INSTALLATION & PRIOR TO PLACING THE PIPELINE INTO SERVICE.
- LENGTH OF CROSSING, LOCATION OF INSPECTION PIT, NUMBER OF HDPE PIPE JOINTS, LOCATION OF BORE MACHINE, AUGER ENTRANCE LOCATION, & TIE-IN POINTS ARE TO BE APPROVED BY ENGINEER PRIOR TO START OF WORK.
- THE BORE DEVELOPED FOR THE LEAD-IN END OF THE PIPE SHALL BE KEPT TO A MINIMUM DIAMETER FOR THE PIPE INSTALLATION. THE LEAD-IN END SHALL BE PULLED THROUGH WITHOUT THE MH FLANGE ATTACHED FOR LARGER THAN 6" PIPE INSTALLATIONS. THE MJ FLANGE FOR SAID LEAD-IN END SHALL BE INSTALLED AFTER THE PIPE INSTALLATION WITH THE USE OF A SPLIT MH FLANGE.



HORIZONTAL DIRECTIONAL DRILL
NOT TO SCALE

REVISIONS

V:\1919-09\00\B0039-Town of Murphy Water Line Relocation\DWG\SHEETS-08190939.dwg - Tuesday, November 10, 2020 9:27:28 AM - GRAY, JACOB