

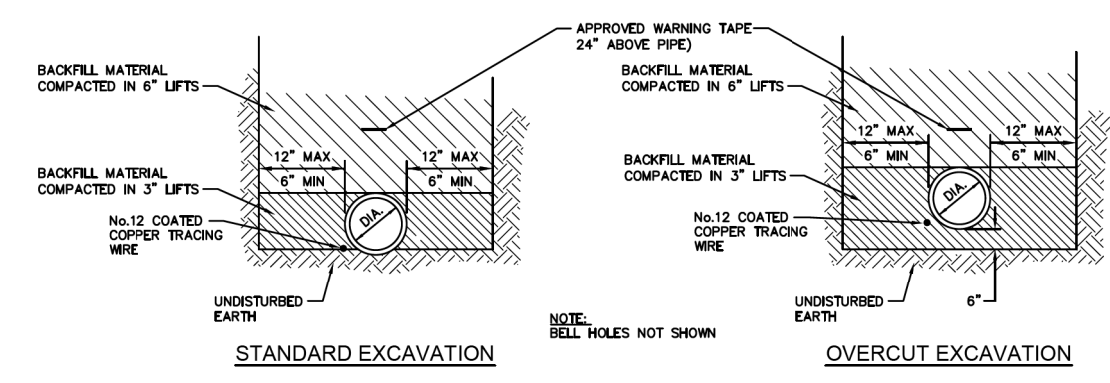


PROJECT REFERENCE NO. BR-0035	SHEET NO. UC-3C
DESIGNED BY: MRJ	
DRAWN BY: ALH	
CHECKED BY: MRJ	
APPROVED BY: DLH	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

PROJECT TYPICAL DETAILS (SOUTHERN PINES)

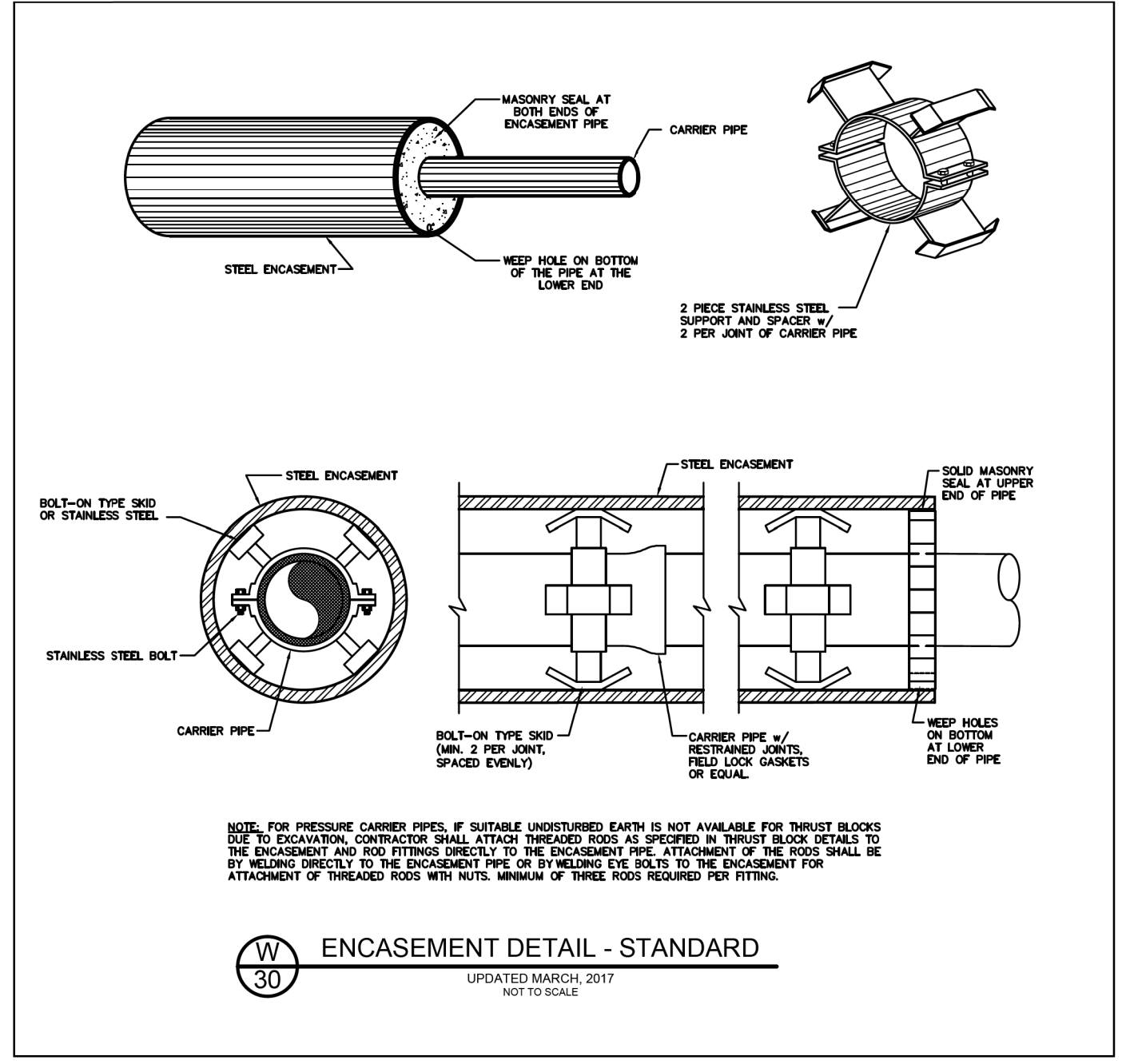
UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED



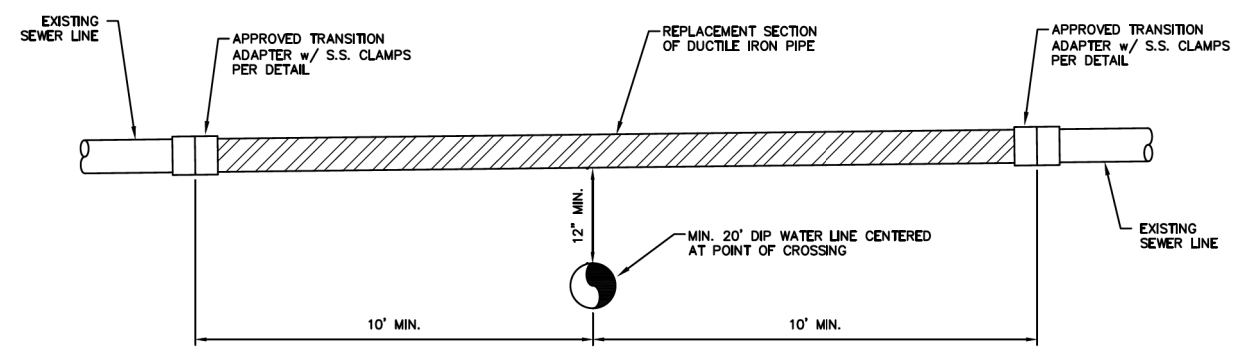
NOTE:
 1. CONSTRUCTION OF TRENCHES SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY AND HEALTH REGULATIONS WHICH HAVE JURISDICTION AT THE PROJECT SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE APPLICABLE REGULATIONS AND FOLLOW THEM ACCORDINGLY.
 2. PAYMENT FOR ROCK EXCAVATION AND SELECT BACKFILL IN TRENCH SHALL BE FOR ACTUAL QUANTITIES AND SHALL NOT EXCEED THE WIDTH OF TRENCH SHOWN ON THIS DETAIL.

W 1
WATER LINE TRENCHING
 UPDATED FEBRUARY, 2018
 NOT TO SCALE



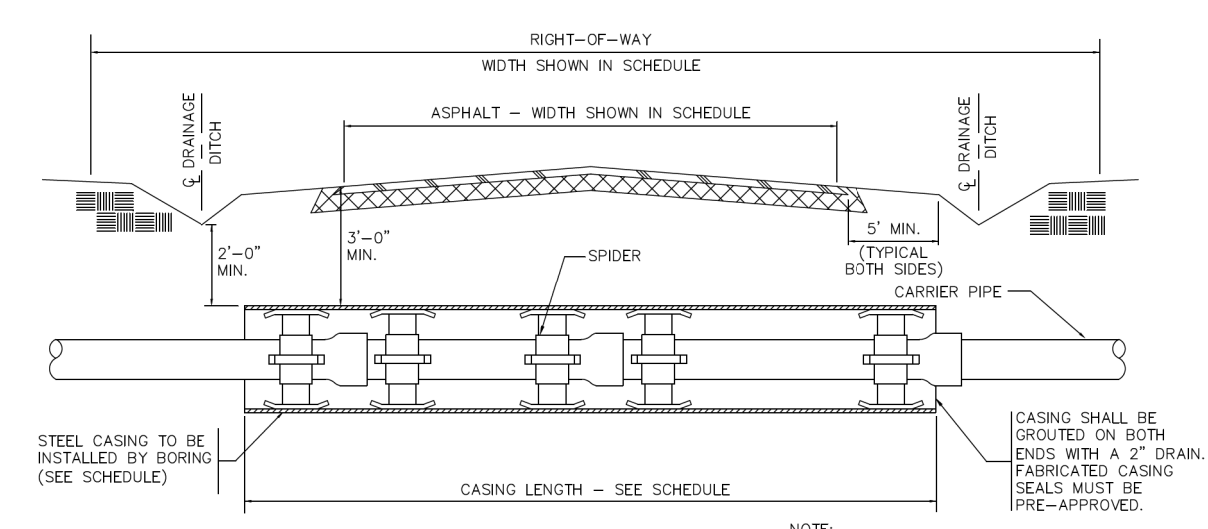
NOTE: FOR PRESSURE CARRIER PIPES, IF SUITABLE UNDISTURBED EARTH IS NOT AVAILABLE FOR THRUST BLOCKS DUE TO EXCAVATION, CONTRACTOR SHALL ATTACH THREADED RODS AS SPECIFIED IN THRUST BLOCK DETAILS TO THE ENCASEMENT AND ROO FITTINGS DIRECTLY TO THE ENCASEMENT PIPE. ATTACHMENT OF THE RODS SHALL BE BY WELDING DIRECTLY TO THE ENCASEMENT PIPE OR BY WELDING EYE BOLTS TO THE ENCASEMENT FOR ATTACHMENT OF THREADED RODS WITH NUTS. MINIMUM OF THREE RODS REQUIRED PER FITTING.

W 30
ENCASEMENT DETAIL - STANDARD
 UPDATED MARCH, 2017
 NOT TO SCALE



NOTE: THIS DETAIL SHALL ONLY BE USED IF WATER AND SEWER SEPARATIONS AS REQUIRED IN NOTE 8 OF THE GENERAL WATER NOTES CANNOT BE MET

W 45
WATER AND SEWER CROSSING
 UPDATED MARCH, 2017
 NOT TO SCALE



NOTE:
 CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE "POLICES" AND PROCEDURES FOR ACCOMMODATING UTILITIES ON HIGHWAY RIGHTS-OF-WAY AS PREPARED BY N.C.D.O.T.

W-50
TYPICAL BORE AND JACK DETAIL
 N.T.S.

SECTION 508
FIRE PROTECTION WATER SUPPLIES

508.1 Required water supply. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

508.2 Type of water supply. A water supply shall consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the required fire flow.

508.2.1 Private fire service mains. Private fire service mains and appurtenances shall be installed in accordance with NFPA 24.

508.2.2 Water tanks. Water tanks for private fire protection shall be installed in accordance with NFPA 22.

508.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method.

508.4 Water supply test. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official or approved documentation of the test shall be provided to the fire code official prior to approval of the water supply system.

508.5 Fire hydrant systems. Fire hydrant systems shall comply with Sections 508.5.1 through 508.5.6.

508.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exceptions:

- For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m).
- For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).

508.5.2 Inspection, testing and maintenance. Fire hydrant systems shall be subject to periodic tests as required by the fire code official. Fire hydrant systems shall be maintained in an operative condition at all times and shall be repaired where defective. Additions, repairs, alterations and servicing shall comply with approved standards.

508.5.3 Private fire service mains and water tanks. Private fire service mains and water tanks shall be periodically inspected, tested and maintained in accordance with NFPA 25 at the following intervals:

- Private fire hydrants (all types): inspection annually and after each operation; flow test and maintenance annually.
- Fire service main piping: inspection of exposed, annually; flow test every 5 years.
- Fire service main piping strainers: inspection and maintenance after each use.

508.5.4 Obstruction. Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department inlet connections or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

508.5.5 Clear space around hydrants. A 3-foot (914 mm) clear space shall be maintained around the circumference of the hydrants except as otherwise required or approved.

508.5.6 Physical protection. Where fire hydrants are subject to impact by a motor vehicle, guard posts or other approved means shall comply with Section 312.