

# EXIST. SAN. SWR. LINE EMBEDMENT AND CORROSION PROTECTION FOR SANITARY SEWER DUCTILE IRON PIPE

### DETAIL 4 - NOTES:

NO SCALE

- FOLLOWING EXCAVATION OF TRENCH, PLACE A 6" LAYER OF CEMENT STAB. SAND AT BOTTOM OF TRENCH. LAY POLYETHYLENE WRAP IN TRENCH, AND LAY PIPE ON TOP OF WRAP. FOLD WRAP AROUND PIPE WITH A 6" OVERLAP (MIN.) AND TIE AROUND PIPE WITH HEAVY BINDER TWINE, OR EQUAL, ON 6" CENTERS. PROVIDE A 12" OVERLAP (MIN.) AND TIE WITH HEAVY BINDER TWINE END LAPS. PLACE ADDITIONAL CEMENT SAND UP TO 12" ABOVE.
- 2. ALL DUCTILE IRON PIPE SHALL HAVE A POLYETHYLENE "WRAP" OF 4 MIL. THICKNESS (MINIMUM) EXCEPT AS NOTED
- WHERE PIPE IS PLACED IN AN AUGER OR TUNNEL OR IN A CASING, PIPE IS TO HAVE A DOUBLE WRAP OF 4 MIL POLYETHYLENE AND SHALL BE BONDED ON 12" CENTERS WITH ½" STAINLESS STEEL BANDS. END LAPS TO BE AS SPECIFIED FOR TRENCH SECTIONS.
- 4. REFER TO SPECIFICATION SECTION 02528 POLYETHYLENE ENCASEMENT/WRAP.

#### DETAILS 1 & 2 - NOTES:

- 1. SEE TRENCH SAFETY SYSTEM SPECIFICATIONS.
- FOR WET BOTTOM EXCAVATION LIMITS OF CRUSHED STONE, EXTEND AS SHOWN.
- PLACEMENT OF TRENCH DAM WITH A MINIMUM OF 12 INCHES INTO TRENCH BOTTOM AND WALLS.
- TRENCH DAM MAY BE FORMED OR UNFORMED. ACTUAL SHAPE OF TRENCH DAM CROSS SECTION MAY BE DETERMINED BY CONTRACTOR IN FIELD, MEETING 12—INCH MINIMUM THICKNESS AND 12—INCH KEY DEPTH REQUIREMENTS
- TRENCH DAM SHALL BE PLACED AT LEAST 5 FT. AWAY FROM ANY PIPELINE STRUCTURE (EACH SIDE). SEE SECTION 02317 FOR OTHER REQUIREMENTS.
- THIS PORTION OF PIPE EMBEDMENT ZONE MUST BE RECOMPACTED TO PROPER DENSITIES AFTER MOVING SUPPORT SYSTEM FORWARD.
- USE FILTER FABRIC AS A BOND BREAKER IN PPCA LIMITS AND USE POLYETHYLENE WRAP AS A BOND BREAKER AT OTHER LOCATIONS BETWEEN CEMENT STABILIZED SAND AND DIDE
- 8. REFER TO SPEC 02317 FOR GEOTEXTILE REQUIREMENTS AROUND EMBEDMENT.
- ADJUST HEIGHT OF UNSUPPORTED TRENCH AS NEEDED

# 6" OVERLAP (MINIMUM) CEMENT STABILIZED SAND DUCTILE IRON PIPE POLYETHYLENE -"FERNCO" TYPE ADAPTOR, OR EQUAL

### **EXCAVATION & BACKFILL DETAIL** NO SCALE

FILTER FABRIC

HALF - SECTION HALF - SECTION
UNDER OPEN AREAS UNDER PAVEMENTS

- BACKFILL

MIN. TRENCH WIDTH

WATERLINE O.D. + 5'

WATERLINE O.D. + 4'-0"
MAX. TRENCH WIDTH =

SEE SPEC. 02317

6" TOP SOIL-

(OPEN AREAS)

TRENCH SUPPORT PER SPEC 02260

SHAPE TO CONFORM TO O.D. AFTER COMPACTION BEDDING AND PRIOR TO PLACEMENT OF PIPE.

12" MI

PAVEMENT REPAIR, SEE COH STANDARD DETAILS 02902-1 & 02902-2 FOR PAVEMENT REPAIR

- INITIAL BACKFILL COMPACT PER SPEC

HAUNCHING BACKFILL COMPACT PER

FILTER FABRIC (FOR WET CONDITIONS) (MIN. LAP 12")

BEDDING MATERIAL UNIFORMLY

PLACED & COMPACTED PER SPEC 02317 BELOW WATERLINE

ALTERNATIVE TRENCH BOTTOM

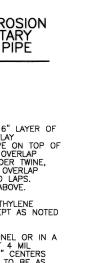
DRY BOTTOM EXCAVATION GRADE

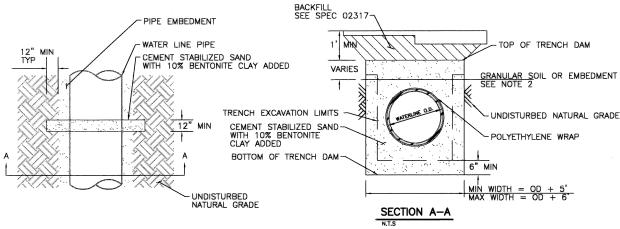
WET BOTTOM EXCAVATION GRADE (USE 12" CRUSHED STONE FOR WET CONDITIONS BELOW BOTTOM OF PIPE. NO SAND BELOW PIPE REQUIRED.)

SPRING LINE

DETAIL APPLICABLE IN FOLLOWING LIMITS:

- WATER MAIN WITH DEPTH OF COVER GREATER THAN 16 FT
- TUNNEL SHAFT LIMITS
- PPCA LIMITS





## TRENCH DAM DETAIL NO SCALE

#### DETAIL 5 - NOTES:

- 1. REFER TO SPEC 02317 FOR INSTALLATION REQUIREMENTS.
- 2. EXTEND TRENCH DAM 5 FEET MIN ABOVE TOP OF SURROUNDING GRANULAR SOIL LAYERS OR TOP OF GRANULAR EMBEDMENT MATERIAL, WHICHEVER IS HIGHEST.



STANDARD LDWL **EXCAVATION AND BACKFILL** DETAIL

(NOT TO SCALE)



# DETAILS 1 & 2 ← Ç PROPOSED WATER MAIN D.I.P. OVER PROPOSED WATER LINE

- DETAIL 3 NOTES:
- 1. IF PERMITTED BY PROGRAM MANAGER, P.V.C. PIPE DR18 MAY BE USED.

DETAIL APPLICABLE IN FOLLOWING LIMITS:

BACKFILL

-CENTER 1—18' JOINT OF D.I.P. THK. CL 52 OVER PROP. WATER MAIN (SEE NOTE 1)

PIPE TRANSITION

CEMENT STABILIZED -SAND BACKFILL MIN 12" THICK IN EACH

PIPE EMBEDMENT PER

- WATER MAIN WITH DEPTH OF COVER LESS THAN 16 FT

DETAIL ALSO APPLIES IN CASES WHERE EXISTING SAN. SWR. IS LOCATED BELOW PROPOSED WATER MAIN.