



**CLASS 'A' PIPE EMBEDMENT**                      **CLASS 'B' PIPE EMBEDMENT**                      **CLASS 'C' PIPE EMBEDMENT**

NOTES:

1. MAXIMUM EXCAVATED TRENCH WIDTH: THE MAXIMUM EXCAVATED TRENCH WIDTH FROM THE BOTTOM OF THE TRENCH TO 12" OVER THE TOP OF THE PIPE (WITHIN PIPE EMBEDMENT) SHALL BE O.D. + 24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D. + 30" FOR PIPE FROM 24" I.D. TO 54" I.D. AND O.D. + 48" FOR PIPES SIZES 60" I.D. AND OVER.
2. FOUNDATION: WHEN AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER.
3. PIPE EMBEDMENT:
  - CLASS A: CLASS A PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12 INCHES OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS "OC-1". THE INITIAL BACKFILL SHALL BE ASHTO NO. 57 GRANULAR PIPE EMBEDMENT.
  - CLASS B: CLASS B PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNLESS OTHERWISE NOTED ON THE PLANS OR AUTHORIZED BY THE ENGINEER. THE BEDDING AND REPLACEMENT SHALL BE ASHTO NO. 57 GRANULAR PIPE EMBEDMENT. IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE ASHTO NO. 57 STONE GRANULAR PIPE EMBEDMENT. IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER FOR ONLY REINFORCED CONCRETE PIPE AND DUCTILE IRON PIPE. THE INITIAL BACKFILL FOR ALL OTHER PIPE SHALL BE ASHTO NO. 57 GRANULAR PIPE EMBEDMENT.
  - CLASS OC-1: CLASS OC-1 PIPE EMBEDMENT SHALL ONLY BE USED FOR DUCTILE IRON WATER MAIN (4" AND LARGER), DUCTILE IRON FORCE MAINS OR AS AUTHORIZED BY THE ENGINEER. THE BEDDING AND PIPE EMBEDMENT SHALL BE SAND OR PEA GRAVEL IN ALL AREAS.
  - FINAL BACKFILL: IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE THE FINAL BACKFILL SHALL BE ODOT ITEM 304. IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE, THE FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER.
5. SPECIFICATIONS: ALL TRENCHING, PIPE EMBEDMENT AND BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH SP611 AS MODIFIED BY THIS DETAIL AND THE CONTRACT DOCUMENTS.
6. CLAY TRENCH DAMS: CLAY TRENCH DAMS SHALL BE REQUIRED AS SHOWN ON PLANS OR WHEN AND WHERE NECESSARY AS DIRECTED BY THE ENGINEER.
7. DETECTOR TAPE: IF REQUIRED IN THE SPECIFICATIONS, INSTALL DETECTABLE WARNING TAPE ABOVE UTILITIES, 12" BELOW FINISHED GRADE, EXCEPT 6 INCHES BELOW SUBGRADE UNDER PAVEMENT AND SLABS.
8. APPLICABLE FOR ALL SITE STORM SEWER, SANITARY SEWER AND WATER MAINS.

**TRENCHING, EMBEDMENT & BACKFILL DETAIL FOR  
STORM SEWER, SANITARY SEWER & WATER MAIN**

