## **TYPICAL SEWER TRENCH DETAIL**

ENGINEERING 

Established 1911

DESIGNED -CB REVISED -DRAWN LEV. DMM REVISED CHECKED -JGG REVISED DATE -7-1-2011 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

# SCALE: NONE

## **DRAINAGE DETAILS** SHEET NO. 1 OF 1 SHEETS STA.

TO STA.

SECTION COUNTY RTE SHEETS 2763 41 21 FIELD BOOK NO. 1552 CONTRACT NO. 63631 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

E.H.E. PROJECT NO. 612-10-2090

#### **DRAINAGE AND UTILITIES NOTES**

THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, COMBINED SEWERS, TELEPHONE LINES, COMMUNICATION LINES, ELECTRIC LINES, GAS MAINS, AND WATER SERVICES ARE APPROXIMATE AND THEIR SPECIFIC LOCATIONS ARE TO BE DETERMINED IN THE FIELD, INCLUDED IN THE COST OF THE RESPECTIVE

COORDINATION OF ALL UTILITY WORK INVOLVED WITHIN THE CONSTRUCTION AREAS SHALL BE SUBJECT TO DISCUSSION AND CLARIFICATION AT A PRECONSTRUCTION MEETING.

WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINAGE STRUCTURES OR SEWERS UNTIL PERMANENT CONNECTIONS TO SEWERS ARE BUILT AND IN SERVICE. THIS WORK SHALL BE INCLUDED IN THE APPLICABLE SEWER CONTRACT ITEMS.

WHEN, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIALS ARE DEPOSITED IN THE FLOW LINES OF GUTTERS OR DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE
OBSTRUCTING MATERIALS SHALL BE REMOVED AT THE CLOSE OF EACH WORK DAY. AT THE CONCLUSION OF THE
CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES ARE TO BE FREE OF ALL DIRT, DEBRIS, AND OBSTRUCTING MATERIALS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF INLET FILTERS

THE TYPE OF FRAMES AND GRATES REQUIRED FOR ALL CATCH BASINS AND MANHOLES LISTED IN THE SUMMARY OF QUANTITIES MAY BE FOUND ON THE PLANS AT THEIR RESPECTIVE LOCATIONS. WHERE LIDS ARE CALLED FOR ON THE PLANS, THEY SHALL BE IN ACCORDANCE WITH ARTICLE 604.01 OF THE STANDARD SPECIFICATIONS AND THE TERM LID IS USED IN LIEU OF GRATE.

ON ALL IMPROVEMENTS. THE FRAMES AND LIDS OF EXISTING CATCH BASINS, INLETS, MANHOLES, AND VALVE VAULTS WHICH ARE TO BE ABANDONED DUE TO CONSTRUCTION OF THIS IMPROVEMENT ARE TO REMAIN THE PROPERTY OF THE VILLAGE OF NORRIDGE AND BE SALVAGED. THE CONTRACTOR IS TO DELIVER FRAMES AND LIDS TO THE VILLAGE OF NORRIDGE PUBLIC WORKS YARD LOCATED AT THE INTERSECTION OF FOSTER AND

ANY COSTS FOR SHEETING OR SHORING REQUIRED FOR THE STORM SEWER INSTALLATION OR OTHER CONSTRUCTION ELEMENTS REQUIRING RELATIVELY DEEP EXCAVATIONS SHALL BE INCLUDED IN THE PARTICULAR PAYMENT ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY SUPPLEMENTAL WORK ASSOCIATED WITH THE MAINTENANCE OF TRENCH SIDES OR OTHER EXCAVATED AREAS.

UNLESS OTHERWISE SPECIFIED, ABANDONED SEWERS AND DRAINS, AS DESIGNATED BY THE ENGINEER, SHALL BE PLUGGED WITH CLASS "SI" CONCRETE OR BRICK AND SUITABLE MORTAR TO THE SATISFACTION OF TH ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE PAY ITEMS FOR REMOVING AND/OR FILLING THE VARIOUS TYPES OF STRUCTURES.

SEWER PIPE INSTALLED ON THIS PROJECT SHALL CONFORM TO THE FOLLOWING STANDARD:

#### MATERIAL STANDARD TYPE OF PIPE

REINFORCED CONCRETE PIPE POLYVINYLCHLORIDE PIPE (8"-12") ASTM D-2241

JOINT STANDARD

ASTM D-3139

FINAL ADJUSTMENT OF ALL STRUCTURES IN THE PAVEMENT, INCLUDING THOSE IN THE PROPOSED BASE COURSE, SHALL NOT BE COMPLETED UNTIL AFTER THE PLACEMENT OF THE BITUMINOUS CONCRETE BINDER COURSE

### **DUCTILE IRON PIPE SPECIFICATIONS**

- ALL DUCTILE IRON PIPE SEWER MAINS SHALL BE CLASS 52, CEMENT-LINED AND TAR-COATED, MEETING THE REQUIREMENTS OF SPECIFICATIONS ANSI/AWWA C151/A21.51 WITH "PUSH-ON" JOINTS MEETING THE REQUIREMENTS OF SPECIFICATIONS ANSI/AWWA C111/A21.11. WHERE SPECIFIED ON THE PLANS OR IN THE SPECIFICATIONS MECHANICAL JOINTS AND "LOCK-TYPE" JOINTS SHALL BE USED IN LIEU OF "PUSH-ON" JOINTS.
- 2. ALL PIPE FITTINGS AND SPECIAL CASTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSIJAWWA C153/A21.53 AND ANSIJAWWA C111/A21.11 SPECIFICATIONS AND SHALL MEET THE MINIMUM REQUIREMENTS OF CLASS 150 DUCTILE IRON PIPE. IF CERTAIN FITTINGS ARE NOT MANUFACTURED IN DUCTILE IRON, CAST IRON FITTINGS SHALL BE ACCEPTABLE. MECHANICAL JOINT TYPE FITTINGS SHALL BE USED.
- 3. ALL PROPOSED DUCTILE IRON PIPE SEWER MAIN WILL BE ENCASED WITHIN FOUR (4) MIL THICK, HIGH-DENSITY POLYETHYLENE TUBING. ALL FITTINGS SHALL BE ENCASED IN A DOUBLE-LAYER OF POLYETHYLENE TUBING. THE POLYETHYLENE MATERIAL SHALL BE MANUFACTURED AND INSTALLED IN COMPLIANCE WITH ANSI/AWWA C105/A21.5. ALL
  PROPOSED SEWER SERVICES SHALL BE ENCASED IN POLYETHYLENE TUBING FOR A MINIMUM DISTANCE OF THREE FEET (3') FROM THE PROPOSED SEWER MAIN.