STANDARD SPECIFICATION
SECTION 15290 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes materials and installation of polyvinyl chloride (PVC) pipe and fittings with iron pipe size outside diameters for miscellaneous applications. Size range is 1/2- to 6-inch nominal size.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Standard Drawings.

B. Record Drawings and Submittals: STD SPEC 01300.

C. Trenching, Backfilling and Compacting: STD SPEC 02223.

1.03 SUBMITTALS

A. Submit submittal packages in accordance with Standard Specification Section 01300.

B. Submit manufacturer's catalog data and descriptive literature for PVC, pipe, fittings, solvent, and miscellaneous materials. Show dimensions and materials of construction by specification reference and grade.

PART 2 - MATERIALS

2.01 PVC PIPE

PVC pipe shall be Schedule 40 or 80, Type I, Grade I (Class 12454-B), conforming to ASTM D 1784 and D 1785. Provide PVC pipe with the schedule as shown on the Drawings.

2.02 NIPPLES

Short nipples shall be the same as the PVC pipe.

2.03 FITTINGS

Provide fittings that have the same schedule as the PVC pipe.

A. Fittings shall be Schedule 40 conforming to ASTM D 2466 for socket-type.

B. Fittings shall be Schedule 80 conforming to ASTM D 2464 for threaded type and ASTM D 2467 for socket type.

2.04 JOINTS

A. Pipe and fitting joints shall be solvent welded except where threaded joints are required.

B. Solvent cement for socket joints shall comply with ASTM D 2564 and F 656.

PART 3 - EXECUTION

3.01 GENERAL

A. Do not install PVC pipe when the temperature is below 40 degrees F or above 90 degrees F.

B. Store fittings indoors in their original cartons.

C. Store solvent cement indoors or, if outdoors, shade from direct sunlight exposure. Do not use solvent cements which have exceeded the shelf life marked on the storage container.

D. Before installation, check pipe and fittings for cuts, scratches, gouges, buckling, kinking, or splitting on pipe ends. Remove any pipe section containing defects by cutting out the damaged section as a complete cylinder.

3.02 INSTALLATION

Do not drag PVC pipe over the ground, drop it into the ground, or drop objects on it. Cut pipe ends square and remove all burrs, chips, and filings before joining pipe or fittings. Bevel solvent welded pipe ends as recommended by the pipe manufacturer.

3.03 SOLVENT WELDED JOINTS

A. Prior to solvent welding, remove fittings and couplings from their cartons and expose them to the air for at least one hour to the same temperature conditions as the pipe.

B. Wipe away loose dirt and moisture from the ID and OD of the pipe end and the ID of the fitting before applying solvent cement. Do not apply solvent cement to wet surfaces.

C. Make up solvent welded joints per ASTM D 2855.

D. Allow at least 8 hours of drying time before moving solvent welded joints or subjecting the joints to any internal or external loads or pressures.

3.04 INSTALLING BURIED PIPE

A. See Standard Specification Section 02223 for earthwork requirements. Use imported sand in the pipe base and pipe zone.

B. Remove foreign matter and dirt from inside of pipe and keep clean during and after laying.

C. Grade the bottom of the trench to the line and grade to which the pipe is to be laid. Remove hard spots that would prevent a uniform thickness of pipe base material. Before laying the pipe, check the grade with a straightedge and correct any irregularities found.

D. Do not backfill the pipe trench until the solvent welded joints have set. Support the pipe uniformly and continuously over its entire length on firm, stable bedding. Do not use blocking to change pipe grade or to support pipe in the trench.

END OF SECTION