SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 603 -- CULVERTS AND STORM DRAINS

The purpose of this Supplemental Specification is to allow polypropylene pipe, clarify UV light requirements as well as Contractor's Option requirements.

Amend 2.3 to read:

2.3 Plastic Pipe.

- **2.3.1** Manufacturers of Polyvinyl Chloride (PVC) pipe, Polyethylene (PE) pipe and Polypropylene (PP) pipe must participate in and maintain compliance with the AASHTO National Transportation Product Evaluation Program (NTPEP) that audits producers of plastic pipe.
- **2.3.2** Polyvinyl chloride profile wall pipe shall conform to the requirements of AASHTO M 304. PVC pipe and associated fittings shall not be used in applications where it will be exposed to long term ultraviolet light .
- **2.3.3** Polyethylene pipe shall conform to the requirements of AASHTO M 252 or M 294, Type C, Type S, or Type D as specified on the plans. PE pipe and associated fittings shall be protected from ultraviolet light degradation by the inclusion of carbon black as specified in AASHTO M 294.
- **2.3.4** Polypropylene pipe shall conform to the requirements of AASHTO M 330, Type C, Type S, or Type D as specified on the plans. PP pipe and associated fittings shall be protected from ultraviolet light degradation by the inclusion of carbon black or ultraviolet light stabilizers as specified in AASHTO M 330.
- **2.3.5** Only soil tight pipefittings supplied or recommended by the manufacturer shall be used, unless otherwise specified.
- **2.3.6** When watertight joints are specified, watertight pipefittings supplied or recommended by the manufacturer shall be used and shall conform to ASTM D3212.
- **2.3.7** When the item description includes plastic pipe or plastic pipe material with the plastic material type not specified, either polyvinyl chloride, polyethylene, or polypropylene pipe shall be furnished meeting the requirements of 2.3.

Amend 2.6 to read:

2.6 Pipe for Slope Drainage.

- **2.6.1** Pipe for slope drain shall conform to the requirements of 2.3 and shall be limited to Type C.
- **2.6.2** The pipe coupler for plastic pipe shall consist of a plastic coupler and a minimum of 2 stainless steel or 3 plastic bands installed on the exterior corrugations. Slope pipe coupling bands shall engage a minimum of two full corrugations of each pipe section being joined, and shall be reinforced to meet the criteria for the "Downdrain Joint" category of Section 26 of the AASHTO LRFD Bridge Construction Specifications.

Amend 2.7 to read:

2.7 Pipe for Drives and Minor Approaches.

2.7.1 It shall be the Contractor's option to furnish reinforced concrete pipe or corrugated aluminized steel type 2 pipe, unless otherwise specified, for pipe for drives and minor approaches. Reinforced concrete pipe shall meet the requirements of 2.1. Corrugated aluminized steel pipe shall meet the requirements of 2.2. The strength or thickness shall meet the requirements of Table 3. Where cover is 2' or greater, and where load requirements can be met, polyethylene or polypropylene pipe, meeting the requirements of 2.3, may be used.

Add 2.13:

2.13 Contractor's Option. When the pipe material is not specified in the item description, pipe conforming to either 2.1 or 2.3 shall be supplied. Once selected, pipe of similar type shall be used for the entire pipe run.

Amend Table 3 to read:

Table 3 - Required Strength of Culvert Pipes

	Thickness, in.			
Material	Diameter	Strength	"Specified"	Pipe Stiffness
		Concrete	Steel	Plastic
Reinforced Concrete	All	2000 D		
Corrugated Metal	12"-18"		0.064	
	24"-30"		0.079	
	36"		0.109	
Plastic				Reference
(Polyethylene)	All			AASHTO M294
(Polypropylene)	All			AASHTO M 330

Amend .4 under Pay Items to read:

.4 Pipe for Slope Drainage (Plastic only)

Linear Foot

- B Material
- 0 Unspecified
- 1 Blank
- 2 Blank
- 3 Blank
- 4 Plastic
 - C Type
 - 0 Blank
 - 1 Blank
 - 2 Polyethylene (Type C)
 - 3 Polypropylene (Type C)

Amend .8 under Pay Items to read:

.8 Plastic Pipe Linear Foot

- B Materials
- 0 Unspecified
- 1 PVC
- 2 Polyethylene
- 3 Polypropylene
 - C Type
 - 1 Corrugated Interior (Type C)
 - 2 Smooth Interior, Double Wall (Type S)
 - 3 Smooth Interior, Triple Wall (Type D)
 - 4 Blank
 - 5 Corrugated Interior (Type C) (Watertight)
 - 6 Smooth Interior, Double Wall (Type S) (Watertight)
 - 7 Smooth Interior, Triple Wall (Type D) (Watertight)