

Engineering Brief # 38

December 12, 1986

Subject: INFORMATION: Engineering Brief No. 38,
Concrete-Lined Corrugated Steel Pipe

From: Manager, Engineering and Specifications Division, AAS-200
To: All Regions

ATTN: Manager, Airports Division

Engineering Brief No. 38, Concrete-Lined Corrugated Steel Pipe, announces the availability of concrete-lined corrugated steel pipe that can be include@d as an alternative in Item D-701, Pipe for Storm Drain and Culverts.

Any comments you care to offer, will be appreciated.

ORIGINAL SIGNED BY
RICHARD J. WORCH

for
Robert Bates

Attachment

WORCH/lal/12/11/86/78744
cc:
AAS-200
AAS-280
AAS-1
ARP-11B
No control

ENGINEERING BRIEF NUMBER 38

CONCRETE-LINED CORRUGATED STEEL PIPE

The purpose of this engineering brief is to announce the availability of concrete-lined corrugated steel pipe. Concrete-lined corrugated steel pipe is manufactured from high-strength, helically corrugated steel in diameters from 24 inches to 120 inches and in 20 foot lengths. Inside, the corrugated steel pipe is lined with a machine-applied, dense, high strength concrete lining to a minimum 1/8 inch thickness above the crest of the corrugation.

A standard specification for concrete-lined corrugated pipe is currently under development by ASTM and is expected to be issued within two years.

Pending issuance of an AS@M standard and incorporation into Item D-701, Pipe for Storm Drains and Culverts, the interim

specification presented below may be included in project specifications.

The pipe shall conform to ASTM A760 and shall be lined with concrete. The lining shall be applied by a machine travelling through the pipe and discharging the concrete over each pipe section. The concrete lining shall have a minimum thickness of 1/8 inch (3.2 mm) above the crest of the corrugations. Concrete for the lining shall be composed of cement, fine aggregates, and water that are well mixed and of such a consistency to produce a dense, homogeneous, nonsegregated lining. The minimum allowable cement content is 470 pounds per cubic yard of concrete. Damage to concrete lining such as chipped or spalled areas shall be repaired with a cement rich mixture. The damaged area shall be cleaned of loose material and rinsed with water. Repair coatings shall be hand troweled and be of equal thickness to the adjacent lining.

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