

CASE STUDY

HP Storm Replaces Concrete at Frito Lay Expansion Site

Rosenberg, TX

OWNER

Frito Lay subsidiary of PepsiCo, Purchase, NY

ENGINEER

Haskell Architects, Jacksonville, FL

CONTRACTOR

S. Thomas Construction, Magnolia, TX

INSTALLATION DATE

May 2020

PRODUCTS

440' (134 m) of 18" (450 mm) HP Storm
400' (122 m) of 24" (600 mm) HP Storm
600' (183 m) of 30" (750 mm) HP Storm
160' (49 m) of 36" (900 mm) HP Storm
80' (24 m) of 48" (1200 mm) HP Storm
4,860' (1,481 m) of 60" (1500 mm) HP Storm

CHALLENGE

The Frito-Lay site in Rosenberg needed to expand its manufacturing and warehouse facility due to growing demand. To support this expansion, the project required a stormwater management system capable of directing runoff from the new area to a nearby drainage ditch.

SOLUTION

The project was originally designed with box culverts and reinforced concrete pipe (RCP) for stormwater conveyance. Advanced Drainage Systems (ADS) successfully converted the design to HP Storm polypropylene pipe, which offered a light weight alternative ease handling and speed up installation.

HP Storm pipe in diameters 18"–48" (450–1200 mm) was installed to collect and route stormwater into a 60" (1500 mm) HP Storm main. Several runs of the 60" (1500 mm) pipe



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replaced what would otherwise have required a double-barrel 72" (1800 mm) RCP system. The mains ultimately conveyed stormwater to the site's drainage ditch.

The contractor, S. Thomas Construction, installed 4,860' (1,481 m) of 60-inch HP Storm pipe in under two weeks, demonstrating the efficiency gains made possible by the lighter, more manageable polypropylene system.

PRODUCT DESCRIPTIONS

HP Storm is a high-performance polypropylene pipe for gravity-flow storm drainage applications. HP Storm is the perfect choice with premium joint performance and increased pipe stiffness. HP Storm couples advanced polypropylene resin technology with a proven, dual-wall profile design for superior performance and durability. The smooth interior wall offers additional strength as well as superior flow. HP Storm has an extended bell that adds an additional factor of safety within each joint. This innovative product meets or exceeds typical standards for pipe stiffness and joint integrity and meets ASTM F2881 and AASHTO M330 for the respective diameters. HP Storm pipe is approved for use by the Army Corps of Engineers, FAA, and AREMA.



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