

First Defense Material & Design



- Structures for precast stormwater treatment systems shall conform to ASTM C478, C857 and C858 and meet the following additional requirements:
- In all cases the wall thickness shall be no less than the minimum thickness necessary to sustain HS20-44 loading requirements as determined by a licensed professional engineer.
- Sections shall have tongue and groove or ship-lap joints with butyl mastic sealant conforming to ASTM C 990.
- Cement shall be Type II or Type III Portland cement conforming to ASTM C150.
- Aggregates shall conform to ASTM C33

- All sections shall be cured by an approved method. Sections shall not be shipped until the concrete has attained a compressive strength of 4,000 psi and shall have a 28-day compressive strength of 5000 psi.
- Pipe openings shall be sized to accept pipes of the specified size(s) and material(s) and shall be sealed by the Contractor with hydraulic cement conforming to ASTM C595M.

- Internal stainless-steel components shall be grade 304 stainless steel in accordance with ASTM A314.

- 4' & 6' diameter internal plastic components shall be rotationally molded from linear low-density polyethylene.

- Casting for manhole frames and covers shall be in accordance with ASTM A48, CL. 35B and AASHTO M 105. Castings shall be placed on top of the structure per the requirements of the project engineer.