

12 - Precast Concrete Advantages Vs. CMP - HDPP & Plastic Chambers.

Important Considerations when selecting underground Stormwater detention system.

- 1 Application: Heavy Loads - High Traffic / Bury Depth / Reactive-Corrosive, Issues: Precast Concrete is Superior on all issues!
- 2 Cost: Evaluate final buried cost (ie) Less Backfill - Concrete has Smaller Footprint - Less Stone backfill / less hauling & handling stone - Precast Concrete Wins.
- 3 Strength: Concrete Arrives on site @ 100 % Structural Cap. **CMP & HDPE & Plastic Chambers do-not! They require Precise Backfill, Compaction & inspection for Structural Cap.**
- 4 **Liability:** **Engineer is Responsible & liable for Ensuring inspection for Proper Backfilling of CMP & HDPE Plastic Chambers. Spec. Concrete....HS-20 loading - No Liability.**
- 5 Service Life: Concrete has long Tracks record of Excellent & Superior Service Life Vs. CMP - HDPE or Plastic Chambers Plastic can burn! Plastic can creep!
- 6 Installation & Inspection: Concrete is Proven Vs. **CMP - HDPE have High Deflections as well as Higher Cost for installation & inspection.** Engineered Installation.
- 7 Sustainability: Concrete has Provides Max. Sustainability - Concrete is Locally Mfg. with Excellent Long Term Service Record. 100 yr. +.
- 8 Material Completion: Evaluate total & final buried cost not 1 st. cost.: Less Design Time using LRFD Concrete Structures than CMP & HDPE or Plastic chambers.
- 9 Engineers knowledge of Materials: New High Performance SCC Precast Concrete Mix designs ensure Superior Life Cycle Costs Vs. CMP- HDPE or Plastic Chambers.
- 10 LEED Credits: Precast Concrete Reinforced Concrete Structures are High in Recycled materials (i.e.) Recycled Steel - Fly Ash & slag.
- 11 Warranty: Precast Mfg.'s are typically Well Established Local Businesses - Plastic / CMP Co.'s are typically New... with little track record.
- 12 Safety **Precast Concrete can take the loading from Truck traffic - Cranes and emergency vehicles outriggers that can creating point load issues.**

** CMP Corrigated Metal Pipe
HDPP High Density Polyethelene Pipe