

General
 Install modular block retaining wall at location and elevations shown on plan by St. Charles Engineering & Surveying Inc. These plans are for structural/geotechnical design only. All layout shall be per the approved civil plans by St. Charles Engineering & Surveying, Inc. The contractor shall protect all existing utilities, and shall be responsible for all worker and public safety at the retaining wall site. All installation shall be per the retaining wall manufacturer's construction recommendations and/or as noted herein.

Materials
 The **Leveling Pad** shall be constructed 1" minus crushed limestone compacted by at least 4 passes with a vibratory compactor with minimum dimensions of 6" thick and 24" wide.

Retaining Wall Units shall be Rockwood Monument Colonial. Units must be 9" deep. Concrete wall units shall meet the requirements of ASTM C90-90 and compressive strength shall be a minimum of 3000 psi. The maximum water adsorption shall be limited to 8.0 percent. The concrete shall have adequate freeze thaw resistance in accordance with ASTM 666-90.

The **reinforced wall backfill** material shall be compacted oversized 2" clean or smaller.

Geogrid shall be Carthage Mills GX as indicated on the plan, or approved equivalent.

Filter Fabric shall be Carthage Mills FX35HS or approved equivalent.

Drain Tile shall be 4" HDPE.

The **Soil Cap** shall consist of compacted low plastic impervious soil above the granular backfill in areas not to be paved.

Wall Foundation Excavation
 Foundation soil shall be excavated as required for the leveling pads and the reinforcing zone. We recommend the exposed soils be observed by a qualified geotechnical engineer to confirm the materials are consistent with the design assumptions. Any soils that are soft, plastic (LL > 50%), frozen, or wet and untested fills shall be removed and recompacted to 90% modified Proctor under the direction of the geotechnical engineer.

Wall Construction
 Install toe first course of units on the leveling pad. Install the next course in a running bond stack. Adjust for setback per course. Backfill, install reinforcement as shown and continue construction. Filter fabric shall separate the granular backfill from the retained soil and the soil cap. Filter fabric shall not cover the foundation materials.

Geogrid Reinforcing
 The geogrids shall be cut to the design lengths "L" and placed between the blocks at the elevations shown on the plans. Wall heights between the design section heights shall be reinforced in accordance with the next higher design section. The geogrid's primary strength direction shall be perpendicular to the wall face (into the fill). The geogrid shall be placed horizontally and laid flat on the reinforcing fill material. The geogrid shall be placed so that a minimum of 8" of grid is between the block layers. Slack in the geogrid shall be removed prior to placing backfill.

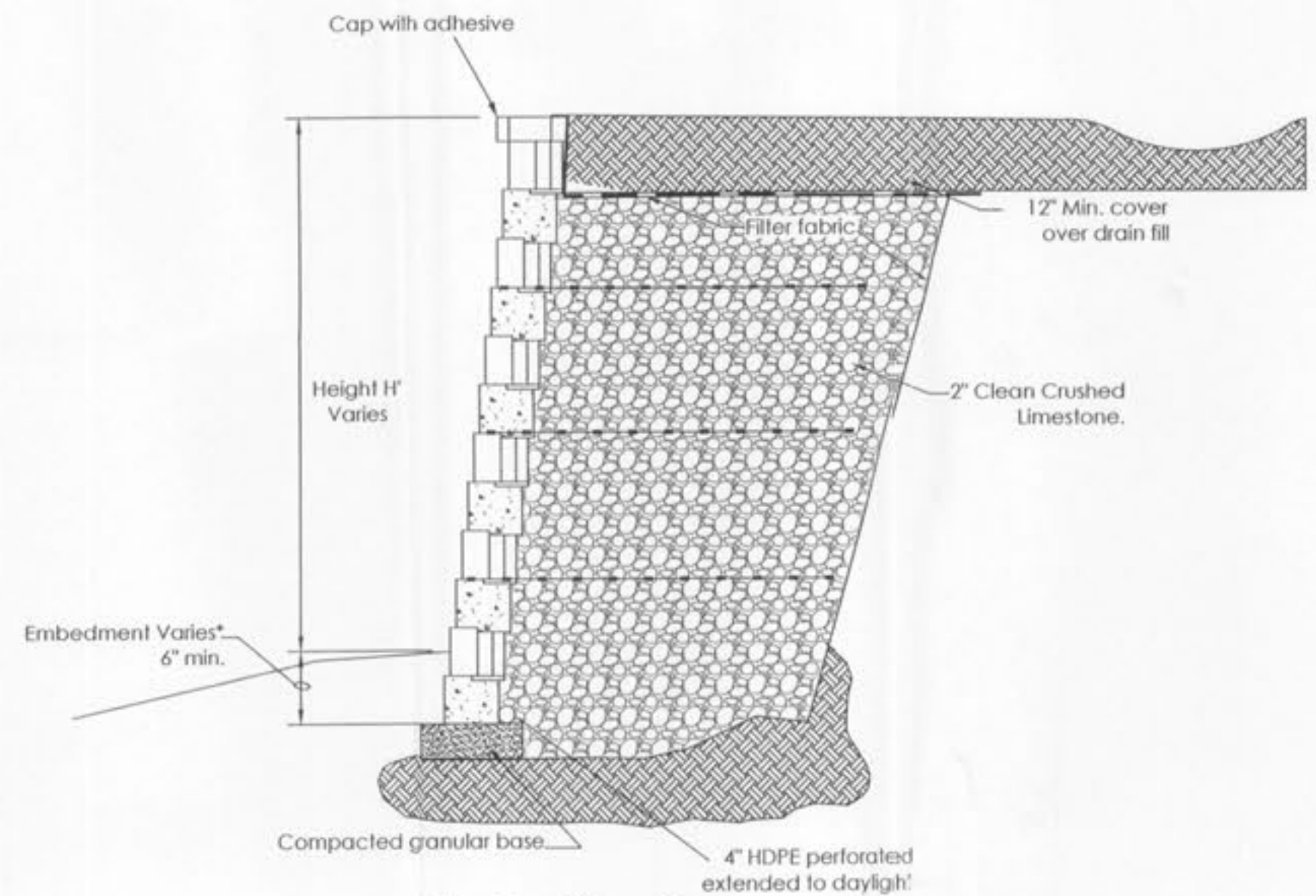
Utility Crossing/Trenches Under Wall Locations
 Where it is necessary that a trench is excavated under a proposed retaining wall it should be backfilled with compacted granular material. This work should be observed and tested by the project geotechnical engineer.

Wall Backfill
 Backfill material shall be placed in maximum 24" lifts and compacted. Backfill shall be placed, spread and compacted in such a manner that minimizes wrinkles and movement of the geogrid. During backfill placement only hand operated equipment shall be used in the 4' zone directly behind the wall. The front of the wall shall be backfilled and compacted to finished grade.

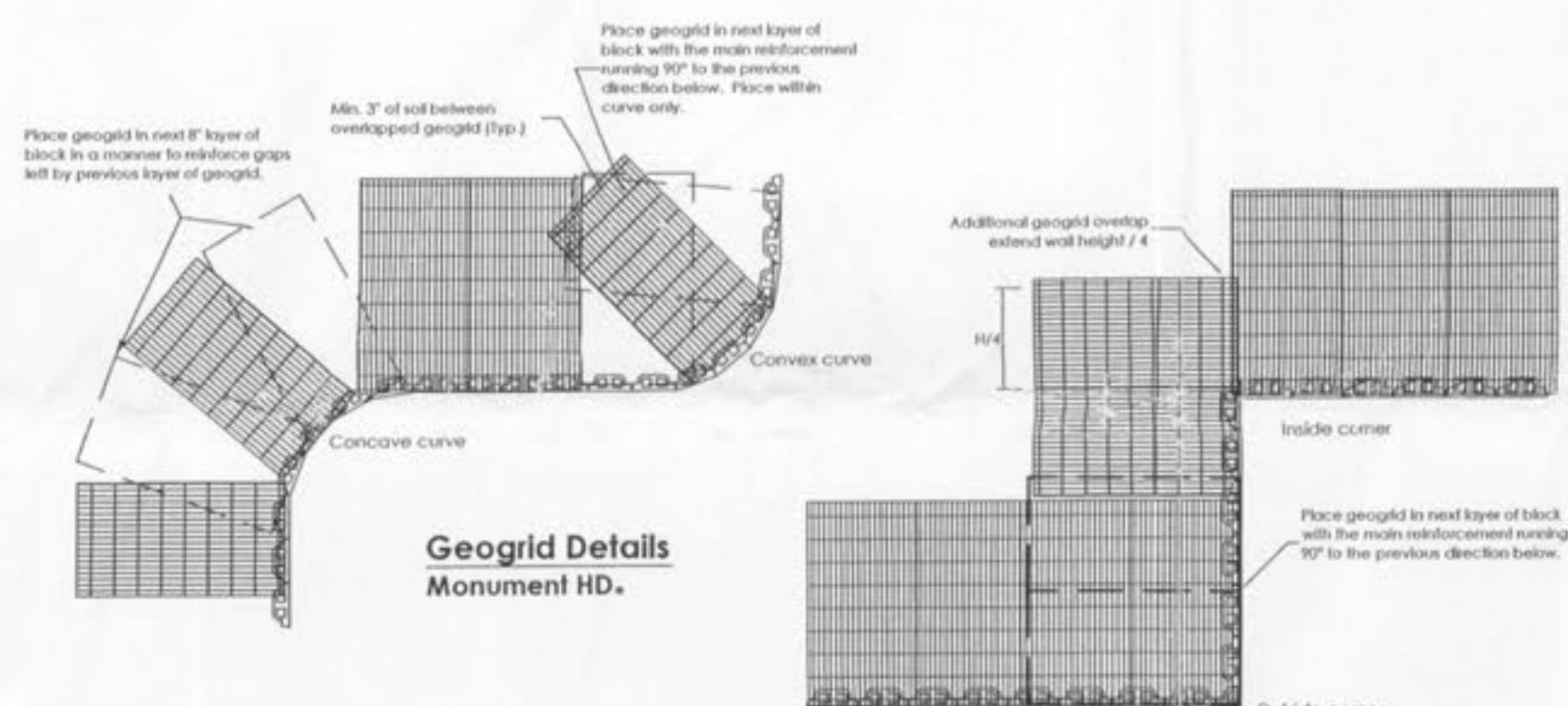
Protection of Work
 The surfaces surrounding the wall shall be graded at the end of each day to provide positive drainage away from the wall. Grading shall include proper contouring of fills in adjacent areas to prevent the flow of excessive surface water toward the wall. Finish grading should be completed in accordance with the approved site development plan.

The stability of temporary excavation during wall construction is beyond the scope of this design and are the responsibility of the contractor.

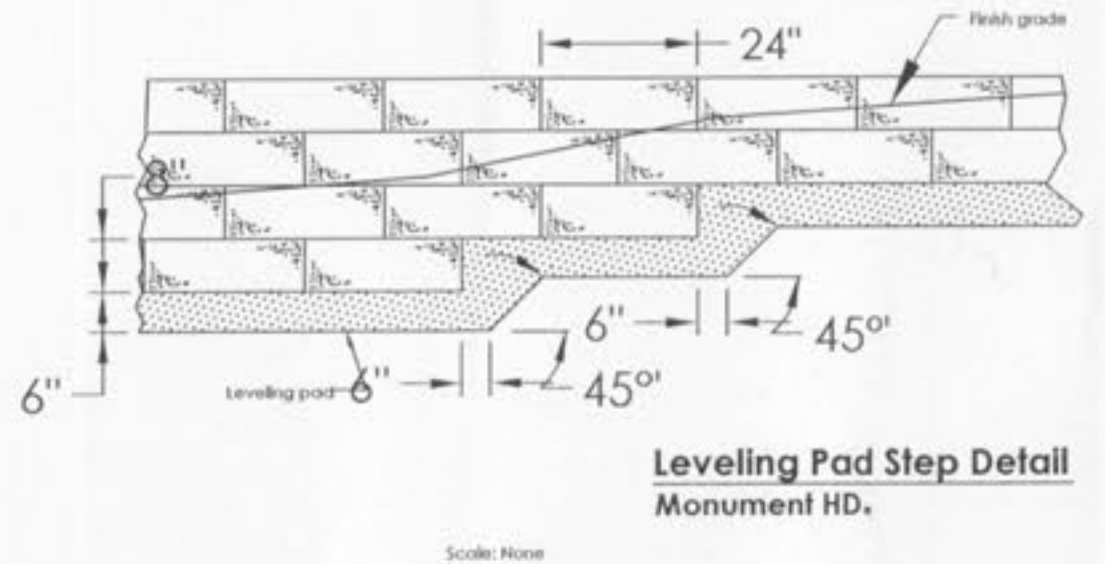
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



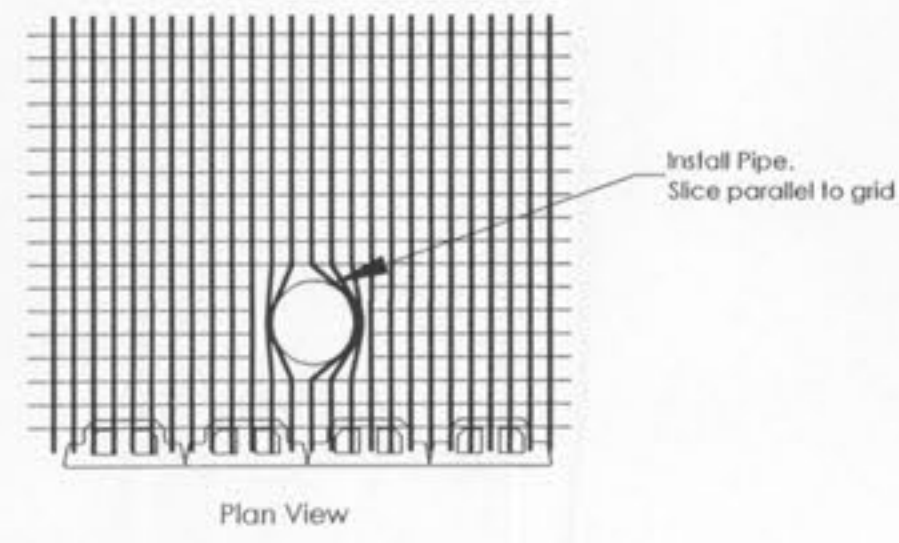
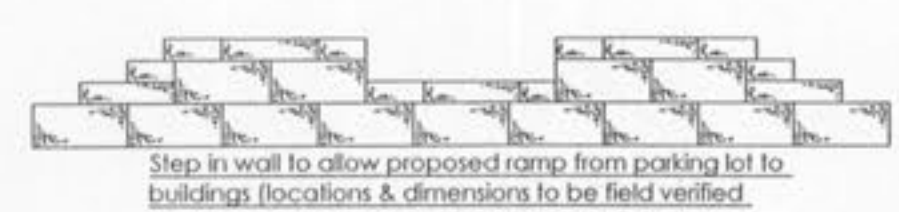
Scale: None
Typical Section Monument HD.



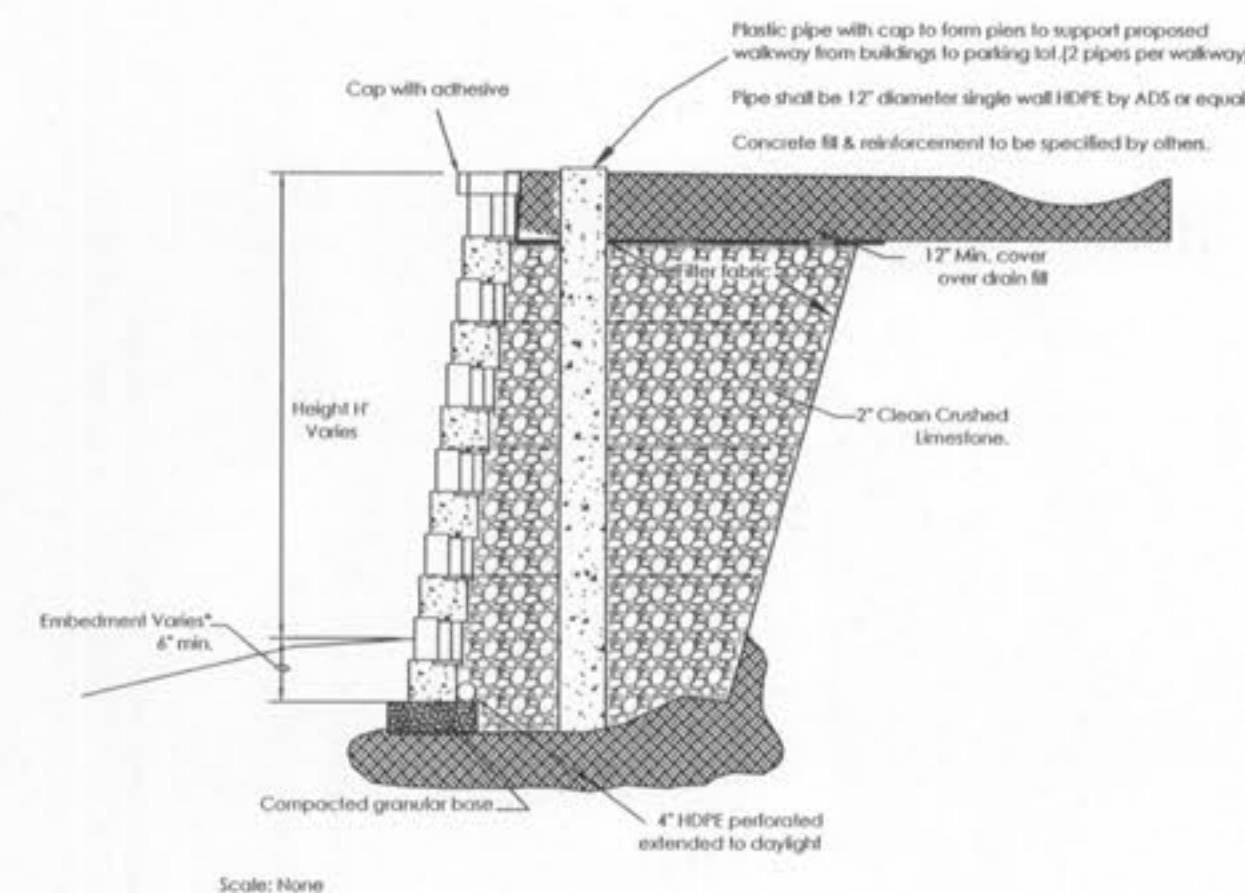
Geogrid Details Monument HD.



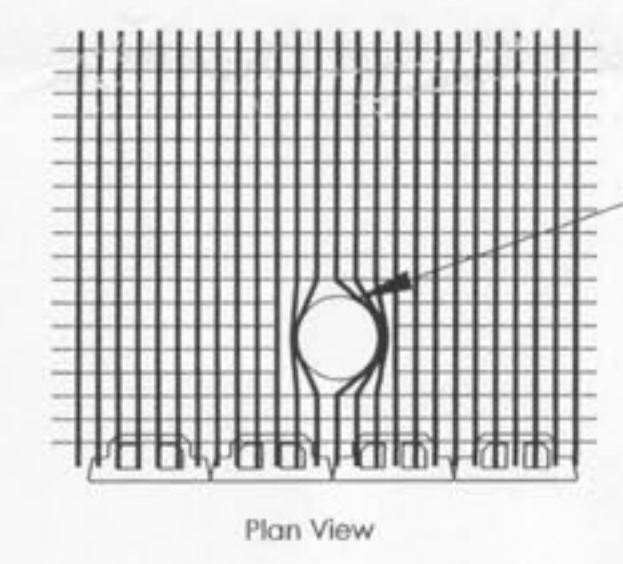
Scale: None
Leveling Pad Step Detail Monument HD.



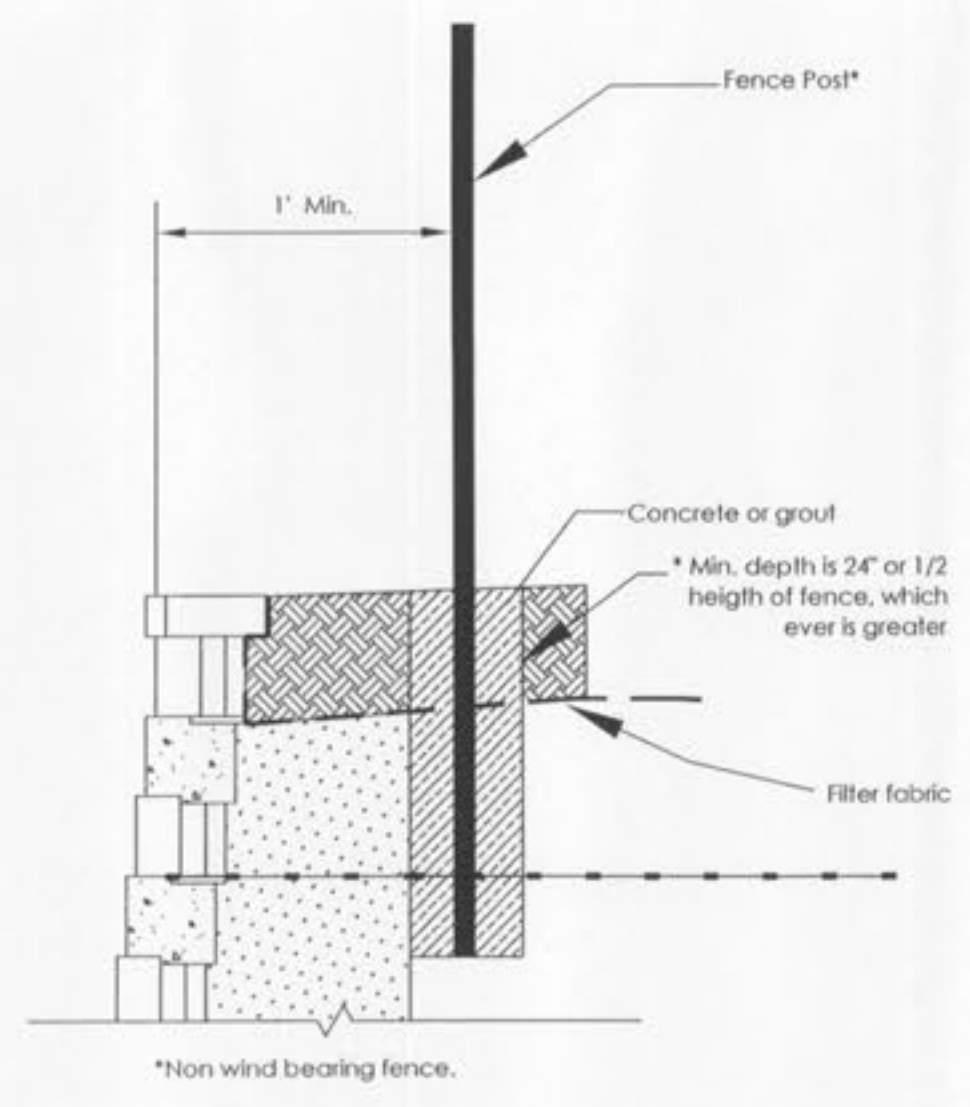
Scale: None
 Note: Fill successive layers of geogrid around proposed pier installation points. Backfill and compact around pipe.



Scale: None
Piers Supporting Ramp Over Wall Monument HD.

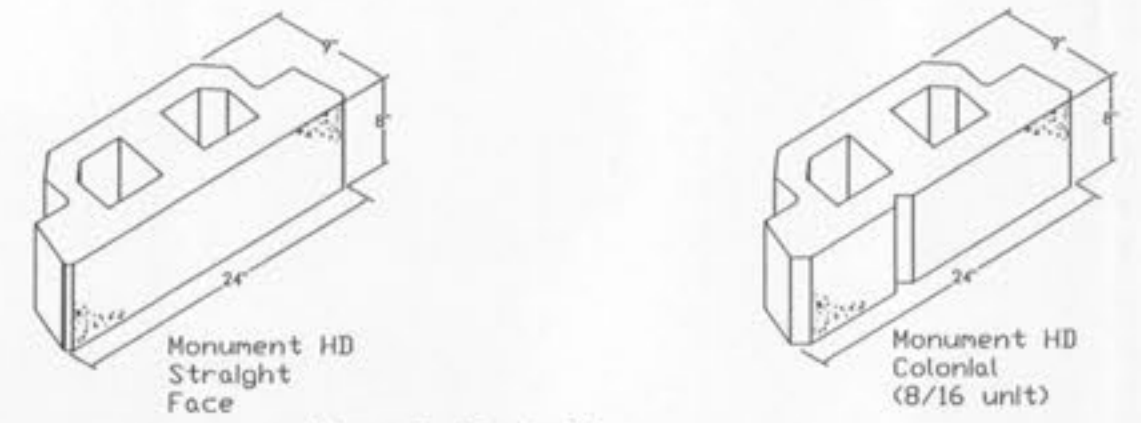


Scale: None
 Note: Fill successive layers of geogrid around proposed fence post or guardrail post installation points. Backfill and compact around sonotube. Check fence design for embedment depth of fence post.

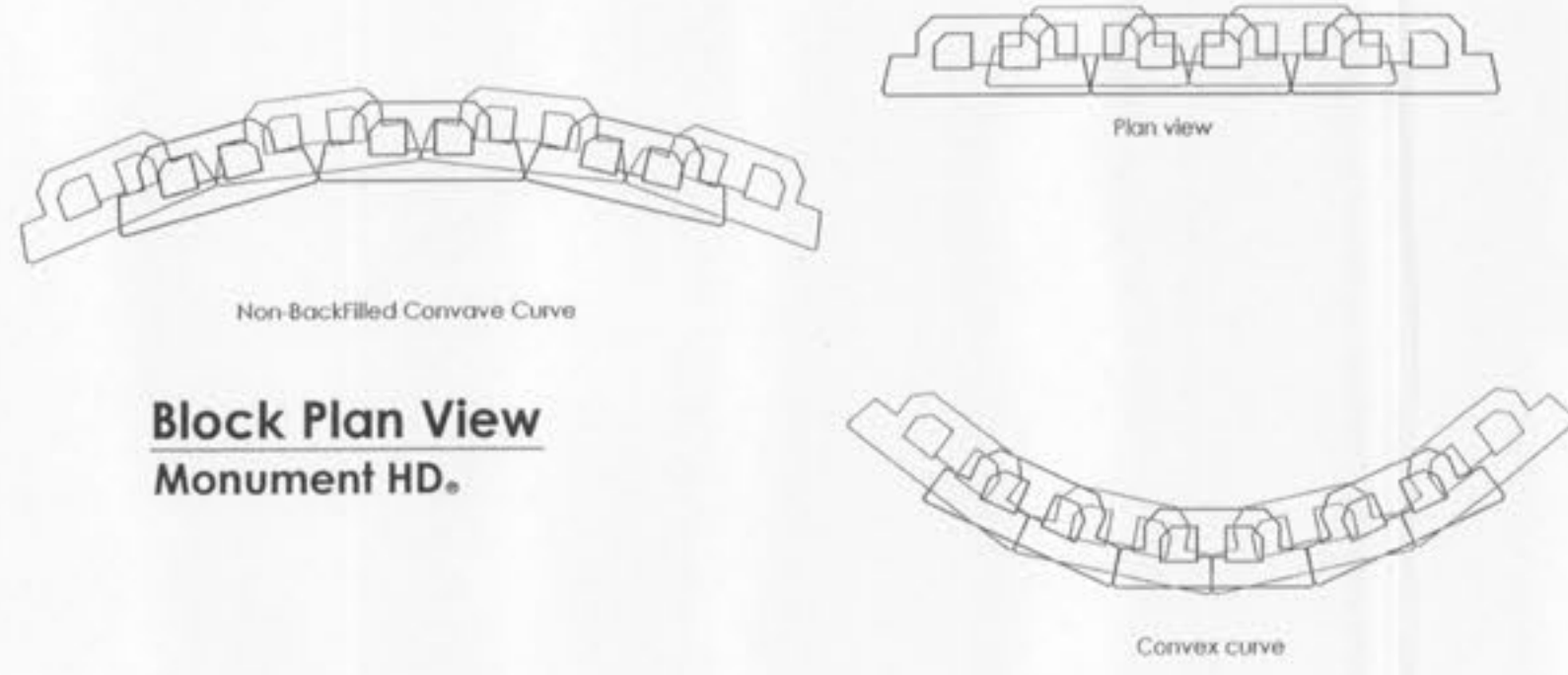


Scale: None
Fence Near Wall Monument HD.

CITY OF O'FALLON
 COMMUNITY DEVELOPMENT DEPARTMENT
 ACCEPTED FOR CONSTRUCTION RECEIVED
 BY: [Signature] DATE: 6-26-08 JUN 16 2008
 PROFESSIONAL ENGINEER'S SEAL
 INDICATES RESPONSIBILITY FOR DESIGN



Block Detail Monument HD.



Block Plan View Monument HD.



Engineering Solutions, P.C. 12955 Gravois Road Sunset Hills, Mo. 63127 Phone (314) 280-7748 Fax (314) 842-8201	Retaining Wall Specs & Details Belleau Crossing O'Fallon, Mo		
SIZE	FSCM NO.	DWG NO.	REV
SCALE			SHEET 1 of 5

Bldg Inspector