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1. **Design & Performance Criteria:**

- a. Review proposed block finish options with UVM project manager.
- b. Some manufacturers license fabrication to local producers. Use of local production shall be allowed.
- c. Excavation, drainage, installation, and backfill shall be designed by a qualified civil engineer employed by Design Consultant.
- d. Conduct a preconstruction conference to clarify sub-contract roles during construction of all parties involved.
- e. Preconstruction soil tests shall be conducted to establish the soil properties necessary to properly design the modular retaining wall.

2. **Reference Standards:**

- a. ASTM C90 Standard Specification for Loadbearing Concrete Masonry Units
- b. ASTM C1372 Standard Specification for Dry-Cast Segmental Retaining Wall Units
- c. ASTM D6916 Standard Test Method for Determining the Shear Strength Between Segmental Concrete Units (Modular Concrete Blocks)
- d. FHWA NH1-10-024 Design of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, Volume I and II
- e. NCMA TR-127 Design Manual for Segmental Retaining Walls
- f. NCMA TR-160 Seismic Design Manual for Segmental Retaining Walls
- g. NCMA "Segmental Retaining Wall Installation Guide"
- h. NCMA "Segmental Retaining Wall Best Practices Guide"
- i. NCMA TEK 15-03A "Roles and Responsibilities on Segmental Retaining Wall Projects"
- j. NCMA TEK 15-05B "Segmental Retaining Wall Design"
- k. NCMA TEK 15-06 "Concrete Masonry Gravity Retaining Walls"

3. **Submittals to be reviewed by University:**

- a. All equipment and product information.
- b. All product warranty information.
- c. Finish samples for selection and verification.
- d. Engineered shop drawings for wall construction from the manufacturer.
  - i. Drawings shall include elevations, details of elevations, typical sections, connections, soil reinforcement, and drainage provisions.

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4. **Products, Materials & Equipment:**

- a. Precast concrete blocks for the use as gravity or reinforced retaining walls.
- b. Basis of design manufacturers include:
  - i. Verti-Block: <https://verti-block.com/>
  - ii. Recon Retaining Walls: <https://www.reconwalls.com/>
  - iii. Stoneterra: <https://stoneterra.net/>
- c. Design consultant shall specify filter fabric/geogrid products.
- d. Use railing blocks where railings are indicated at top of wall.
- e. Use special shapes such as corner blocks and capstones as required.

5. **Installation, Fabrication, and Construction:**

- a. Design consultant shall specify these items based on selected manufacturer's recommendations and industry standards for site preparation, leveling, wall construction, and soil engineering.

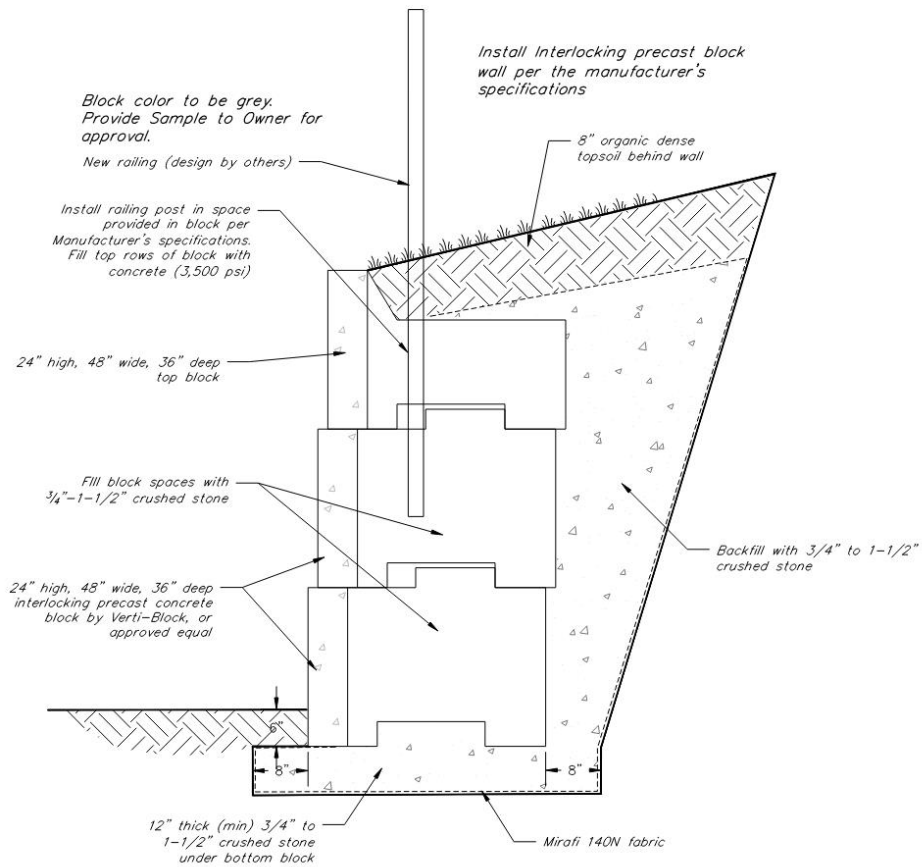
6. **Warranties:**

- a. Manufacturers standard warranty on products and equipment
- b. Installer's standard one-year warranty on installation and workmanship

7. **List of attached sketches:**

- a. Sketch of typical verti-block wall. Refer to the UVM Exterior Upgrades Project at 474 South Prospect Street for a recent example.

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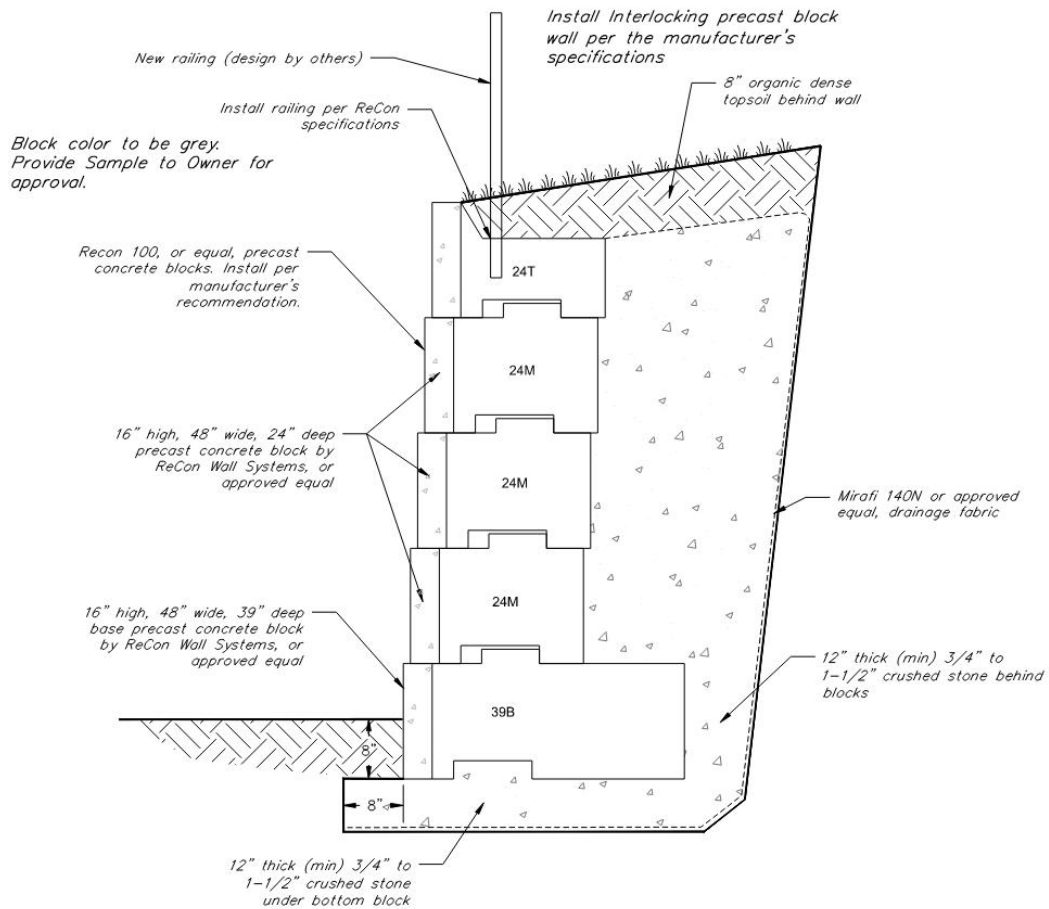


*Verti-Block Precast Concrete Interlocking Wall Detail*

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- b. Sketch of typical Recon block wall which is a basis-of design manufacturer in addition to Verti-Block (above)



*ReCon Precast Concrete Interlocking Wall Detail*

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