



Allan Block Retaining Wall Units

Technical Attributes

1. Allan Block Unit Specifications: Per ASTM C1372

Standard Specifications for Dry-Cast Segmental Retaining Wall Units

- Compressive Strength: Average of 3 units 3000 psi (20.7 MPa)
 Any one individual unit 2500 psi (17.2 MPa)
- Water Absorption: Normal Weight Concrete 13 lb/ft³ (208 kg/m³)
- Freeze Thaw Durability:
 - Weight Loss Requirements
 - 1) weight loss of each of five test specimens at the conclusion of 100 cycles shall not exceed 1% of its initial weight; or
 - 2) the weight loss of each of four of the five test specimens at the conclusion of 150 cycles shall not exceed 1.5% of its initial weight.
 - Test Method: Standard Test Method for Evaluating the Freeze-Thaw
 Per ASTM C1262 Durability of dry-cast segmental retaining wall units and related concrete units

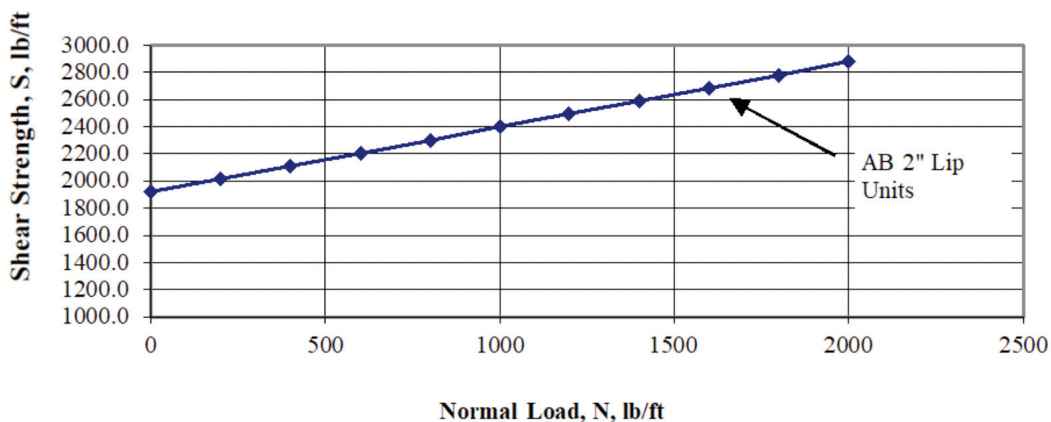
2. Allan Block System Verification

- ASTM D6916: Standard Test Method for Determining the Shear Strength Between Segmental Concrete Units

Commentary:

Allan Block's shear strength is a function of the raised front lip. This is a continuous precast concrete interlocking and alignment device that provides significant shear capacity. In order for block shear to occur the concrete within the lip must actually fail in shear.

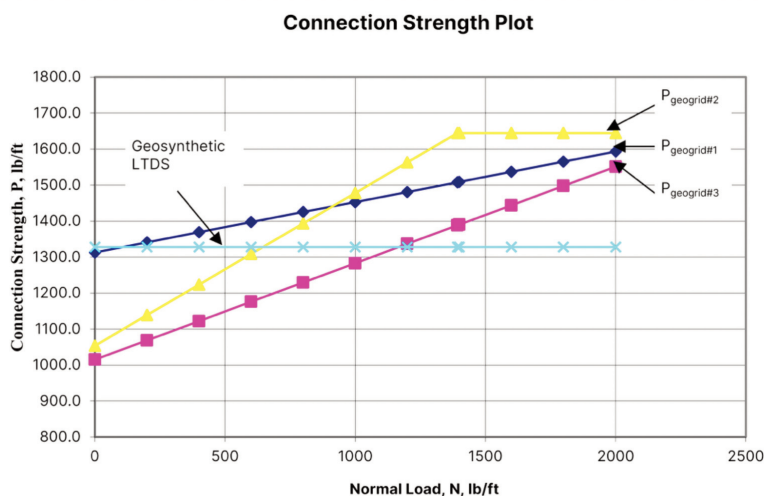
Shear Strength Plot



- ASTM D6638: Standard Test Method for Determining Strength Between Geosynthetic Reinforcement and Segmental Concrete Units

Commentary:

The Allan Block System's connection strength is designed to utilize the mechanism between soil and geosynthetic reinforcement. The hollow cores of Allan Block filled with compacted wall rock provides a contact area that interacts with geosynthetic reinforcements. The connection loads achieved by the locking together of the aggregate and geosynthetic are unmatched. The simple hollow core design of the Allan Block system eliminates connection strength as the limiting design element in an Allan Block Retaining Wall Design.



3. Government and Building Code Approvals

- U.S. DOT Approvals
Alaska, Arizona, Colorado, Delaware, Illinois, Indiana, Iowa, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas, Washington
- Canada MoTH Approval
British Columbia, Canada
- Office of the State Architects Approval
California, United States
- British Board of Agreement (BBA)
BBA Certificate Granted
- ICC-ES Evaluation Service
- U.S. ARMY Corp of Engineers Approval
Individual Project Approvals

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