Allan Block – Water Application Details

Water Application High Wall Section

- Refer to design details: Allan Block typical reinforced wall application for all other notes, details and specifications.

CUT NOTCH IN ALLAN BLOCK TO ALLOW FOR DRAIN PIPE

HIGH WATER ELEVATION

LOW WATER ELEVATION

4 in (100 mm) DRAIN PIPE PLACED ALONG BACK OF BLOCK AND VENTED THROUGH THE FACE OF THE WALL AT THE LOW WATER ELEVATION. OUTLETS ON 30 ft (10 m) CENTERS MAXIMUM. RODENT SCREEN AS REQUIRED.

FILTER FABRIC TO BE PLACED BETWEEN TOPSOIL AND WALL ROCK

EXTENDED LENGTH MAY BE REQUIRED DUE TO SITE OR SEISMIC CONDITIONS

INSTALL EMBANKMENT PROTECTION FABRIC TO A MINIMUM OF 1 ft (300 mm) ABOVE HIGH WATER LINE

RIP-RAP TO PREVENT EROSION (AS REQUIRED)

WELL-GRADED, 1 in - 2 in (25 mm - 50 mm) COMPACTED GRANULAR WALL ROCK WITH NO FINES

INSTALL GEOGRID LAYERS PER DESIGN REQUIREMENTS

EMBANKMENT PROTECTION FABRIC (TERRATEX EP OR EQUIVALENT)

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Title:

WATER APPLICATION HIGH WALL SECTION

Date:

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**Water Application Low Wall Section**

*Refer to Design Details: Allan Block Typical Reinforced Wall Application for all other Notes, Details and Specifications.

- **Cut Notch in Allan Block to allow for drain pipe.**
- **Filter fabric to be placed between topsoil and wall rock.**
- **Install geoGRID layers per design requirements.**
- **Install embankment protection fabric to top of wall rock.**
- **Well-graded, 1 in - 2 in (25 mm - 50 mm) compacted granular wall rock with no fines.**
- **Install geoGRID layers per design requirements.**
- **Embankment protection fabric (TERRATEX EP or equivalent).**

**Notes:**
- 4 in (100 mm) drain pipe placed along back of block and vented through the face of the wall at the low water elevation. Outlets on 30 ft (10 m) centers maximum. Rodent screen as needed.
- Cut notch in Allan block to allow for drain pipe.
- Low water elevation.
- Rip-rap to prevent erosion (as required).
- High water elevation.
- GeoGRID length.
- Embankment protection fabric (TERRATEX EP or equivalent).
- Well-graded, 1 in - 2 in (25 mm - 50 mm) compacted granular wall rock with no fines.
- Install geoGRID layers per design requirements.

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Storm Pipe Wall Section

* Refer to design details Allan Block typical reinforced wall application for all other notes, details and specifications.

- Reinforced Concrete Lintel
- Poured Concrete Collar as required
- Concrete Splash Apron
- Pipe

Steel reinforcement (dowels cut flush in sides of Allan Block with top of dowel for rebar placement) do not remove back of block.

- Extend rebar a minimum of 2 ft (600 mm) past edge of pipe collar side
- Poured concrete collar as required

** Steel reinforcement is optional and should be placed per design of engineer of record

3 in (75 mm) minimum cover

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Outside Corner Application

GEOGRID LAYER MUST BE INSTALLED INTO THE OUTSIDE CORNER WITH THE PRINCIPAL DIRECTION RUNNING PERPENDICULAR TO THE WALL FACE

ADDITIONAL WALL ROCK TO EXTEND H/2

GEOGRID MUST BE PLACED ONE COURSE ABOVE OR BELOW ADJACENT LAYER ON THE RETURN SIDE OF THE CORNER TO ELIMINATE GEOGRID CONTACT

H/2

WALL ROCK DEPTH VARIES IN CORNER

PRINCIPAL REINFORCEMENT DIRECTION

PRINCIPAL REINFORCEMENT DIRECTION

ALLAN BLOCK CORNER UNIT

ALLAN BLOCK UNIT

Designed By:

Title:

OUTSIDE CORNER APPLICATION

Date:

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Drawing No:
Inside Curve Application

**INSIDE CURVE APPLICATION**

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**Title:**

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**Drawing No:**

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Outside Curve Application

WALL ROCK DEPTH VARIES IN CURVE

PRINCIPAL REINFORCEMENT DIRECTION

3 in (75 mm) OF SOIL REQUIRED BETWEEN OVERLAPPING REINFORCEMENT TO AVOID GEOPRINT CONTACT

ADDITIONAL WALL ROCK TO EXTEND H/2

TRIM REINFORCEMENT TO FIT CURVE, MINIMUM GRID LENGTH TO MATCH DESIGN LENGTH

H/2

OUTSIDE CURVE APPLICATION

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Step Up at Base

ALLAN BLOCK UNIT

WELL-GRADED GRANULAR WALL ROCK 0.25 in TO 1.5 in (5 mm TO 38 mm) LESS THAN 10% FINES

MINIMUM OF ONE BURIED BLOCK EXTENDED INTO SLOPE TO PREVENT EROSION

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STEP UP AT BASE

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**Terraced Wall Section**

* Refer to Design Details: Allan Block Typical Reinforced Wall Application for all other notes, details and specifications.

- **Upper Allan Block Terraced Wall or Structure**
- **Well-Graded Angular Wall Rock**: 0.5 in to 1.2 in (6 mm to 38 mm), less than 10% fines
- **Filter Fabric** to be placed between topsoil and wall rock
- **4 in (100 mm) Heel Drain Pipe** vented to daylight
- **4 in (100 mm) Toe Drain Pipe** vented to daylight
- **The entire area below the upper terrace or structure must be compacted to a minimum of 96% standard Proctor to minimize potential settlement and must meet all requirements of the engineer of record**

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**TERRACED WALL SECTION**

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Allen block Step up Finishing Details

AB STEP UP FINISHING DETAILS

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AB CAP UNIT

AB CAP UNITS FIELD CUT AT 45° TO FORM CORNER

AB LITE STONES UNIT

Allan Block Corner Unit

AB TYPICAL SECTION – STEP UPS WITH AB LITE STONE

AB TYPICAL SECTION – FULL COURSE STEP UPS WITH AB CORNER BLOCK

Westbrook Concrete Block Co., Inc.  439 Spencer Plains Road  Westbrook, CT 06498  t.860.399.6201  info@westbrookblock.com