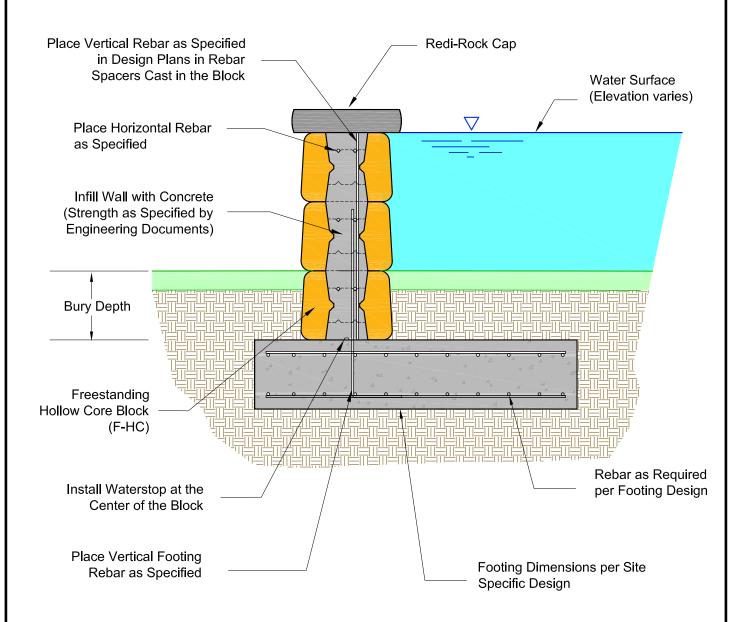


#### **CONCEPTUAL FLOOD CONTROL WALL**



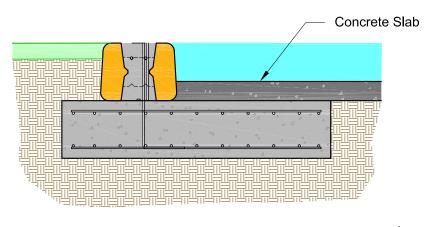
NOTE: Degree of water tightness depends on many factors. Slight seepage through joints can be expected using standard construction practices. See www.Redi-Rock.com for more information on flood control walls including detailed notes from full scale demonstration project testing.

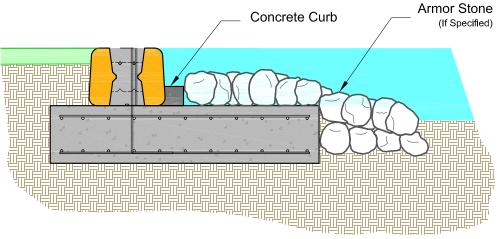
This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site. Final wall design must address both internal and external drainage and all modes of wall stability.

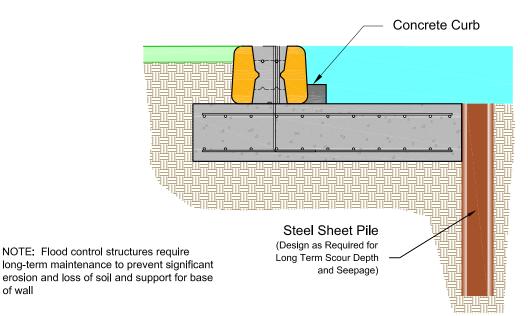
| DRAWN BY:    | D. Cerminaro     | Conceptual Flood Control                                    |
|--------------|------------------|---|
| APPROVED BY: | J. Johnson       | Conceptual Flood Control                                    |
| DATE:        | 20 December 2017 | Wall Section  |
| SHEET:       | 1 of 2           | FILE: F-HC Conceptual Flood Control Wall Section 122017.dwg |



### OPTIONAL BASE DETAILS FOR FLOOD CONTROL WALLS





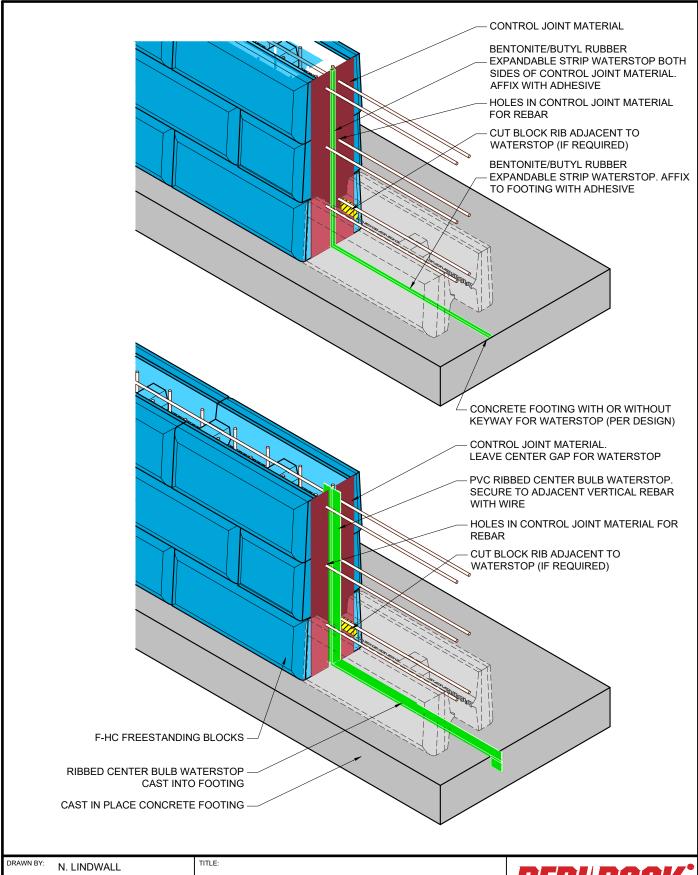


This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site. Final wall design must address both internal and external drainage and all modes of wall stability.

| DRAWN BY:   | D. Cerminaro     | Ontional Pass Datails for                            |  |
|-------------|------------------|--|--|
| APPROVED BY | J. Johnson       | Optional Base Details fo                             |  |
| DATE:       | 20 December 2017 | Flood Control Walls                                  |  |
| SHEET:      | 2 of 2           | FILE: F-HC Conceptual Flood Control Wall Section 122 |  |

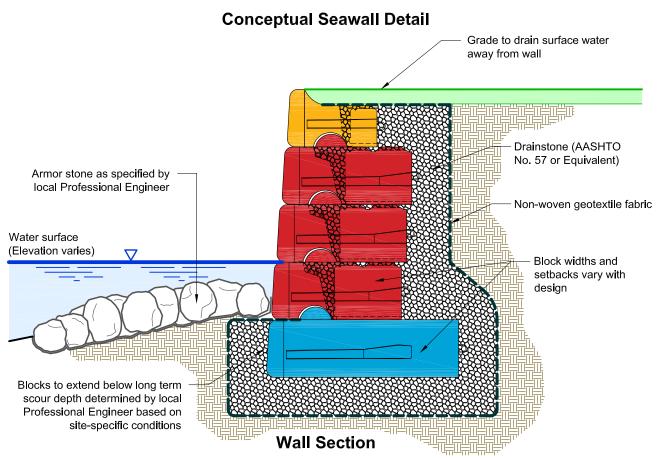
of wall





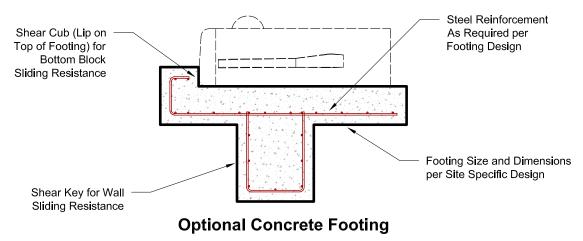
| DRAWN BY: | N. LINDWALL    | THE EDECTANDING DIOCK                   |
|-----------|----------------|---|
| APPROVED  | BY: J. JOHNSON | F-HC FREESTANDING BLOCK                 |
| DATE:     | 12/20/17       | WATERSTOP OPTIONS                       |
| SHEET:    | 1 of 1         | FILE: F-HC Waterstop Options 122017.dwg |
|           |                |   |





#### Notes:

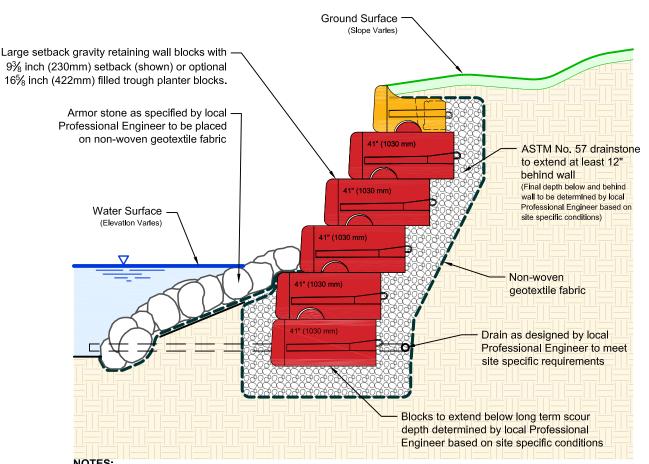
- Use ASTM No. 57 stone (or as specified by local Professional Engineer) to infill between blocks.
- Preliminary wall height charts do not apply and should not be used for walls in water applications
  due to the variety of site-specific variables.
- · Contact your local Professional Engineer for specific details and final design.
- Walls may require geogrid reinforcement.
- Refer to final engineering plans.



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| DRAWN BY:    | JRJ       | TITLE: | Conceptual Seawall Detail                       |  |
|--------------|-----------|--------|---|--|
| APPROVED BY: | JRJ       |        |   |  |
| DATE:        | 17MAR2016 |        | Normal Setback Blocks                           |  |
| SHEET:       | 1 of 1    | FILE:  | 1 Conceptual Seawall Detail - Normal 031716.dwg |  |



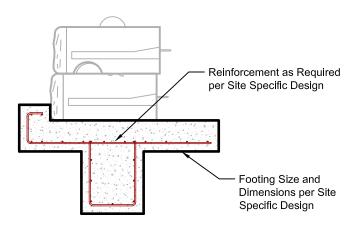


#### NOTES:

- Both 9%" (230mm) and 16%" (422mm) (with filled trough) setback blocks could be considered for seawall applications Use ASTM No. 57 stone (or as specified by local Professional Engineer) to infill between blocks.
- Maximum wall height charts are not provided for walls in water applications due to the variety of site-specific variables. Contact your local Professional Engineer for specific details and final design.
- Walls may require geogrid reinforcement. Refer to final engineering plans.

# SEAWALL WITH LARGE SETBACK BLOCKS - CONCEPTUAL SECTION

(NO SCALE)



## OPTIONAL CONCRETE FOOTING

(NO SCALE)

| DRAWN BY:    | JRJ       | Conceptual Seawall Detail                                    |  |
|--------------|-----------|--|--|
| APPROVED BY: | JRJ       | •  |  |
| DATE:        | 23MAR2016 | Large Setback Blocks   |  |
| SHEET:       | 1 of 1    | FILE: 2 Conceptual Seawall Detail - Large Setback 032316.dwg |  |



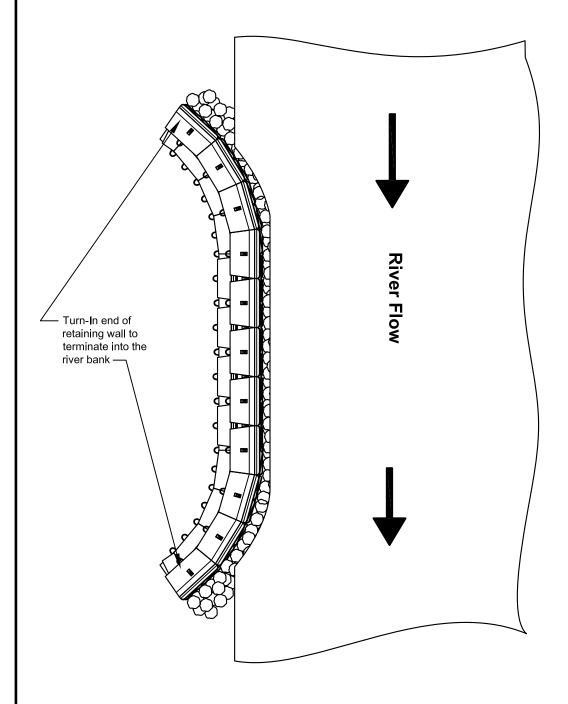
# **Conceptual Sheetpile Protected Seawall Detail** Ground Surface -41" (1030 mm) Water Surface (Elevation Varies) 41" (1030 mm) Armor Stone (If Specified) ASTM No. 57 Drainstone Non-woven geotextile fabric Steel Sheet Pile (Design as Required for Long Term Scour Depth and Global Stability) Use ASTM No. 57 stone (or as specified by local Professional Engineer) to infill between blocks. Maximum wall height charts are not provided for walls in water applications due to the variety of site-specific variables. Contact your local Professional Engineer for specific details and final design. Walls may require geogrid reinforcement. Refer to final engineering plans. Seawalls could be constructed with filled trough Planter Blocks using a 165/8" setback per course.

This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site.

| DRAWN BY:    | JRJ       | Conceptual Seawall Detail                                    |  |
|--------------|-----------|--|--|
| APPROVED BY: | JRJ       | •  |  |
| DATE:        | 17MAR2016 | Sheetpile Scour Protection                                   |  |
| SHEET:       | 1 of 1    | FILE: 3 Conceptual Seawall Detail Sheetpile Scour 031716.dwg |  |



## STREAM SEAWALL RADIAL TERMINATION INTO BANK



Design must adaquately address turning walls into the bank at both ends to assure water will not erode material from behind the wall.

Redi-Rock walls are an effective channel hardscape product when properly designed and installed.

| DRAWN BY:    | JRJ        | TITLE: |
|--------------|------------|--------|
| APPROVED BY: | JRJ        |        |
| DATE:        | 06-22-2015 |        |
| SHEET:       | 1 of 1     | FILE:  |

Stream Seawall Radial Termination Into Bank

4 Stream Seawall Radial Termination Into Bank 062215.dwg



# CONCEPTUAL OVERHANG BLOCK INSTALLATION Non-woven geotextile fabric (per design details) ASTM #57 crushed stone backfill shown Ground surface varies with project Blocks drilled and connected with dowels and high strength anchoring epoxy Custom bottom block with shear knobs in the planter setback position (custom R-60B shown) Custom middle block with no shear knobs (custom R-60M shown) Overhang area Water surface (elevation varies) Channel lining Drains per sealed design (common locations shown) (design to address long-term scour) NOTES:

- Use ASTM No. 57 stone to infill between blocks.
- Project specific final design by a Professional Engineer competent in wall design required.
- All details including block sizes shown for reference only.
- Walls may require geogrid reinforcement.
- Crushed stone backfill shown as conceptual only.
- Refer to final engineering plans for all details.

This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site.

| DRAWN BY:   | J. Johnson    | TITLE: | Conceptual Waterfront Wall with             |  |
|-------------|---------------|--------|---|--|
| APPROVED BY | <b>'</b> :    |        | Block Overhang                              |  |
| DATE:       | March 2, 2023 |        |   |  |
| SHEET:      | 1 of 1        | FILE:  | Waterfront Block Overhang Detail 030223.dwg |  |

