

THE MINIMUM REQUIRED BEARING CAPACITY OF THE BASE SHALL BE: 94 Kpa

TYPICAL SECTION - REDI ROCK WALL - REINFORCED
(TYPICAL DETAIL ONLY - SEE WALL FACE DRAWING
FOR SPECIFIC BLOCK CONFIGURATIONS)

"REDIROCK" SEGMENTAL RETAINING WALL
 (NOT TO SCALE)

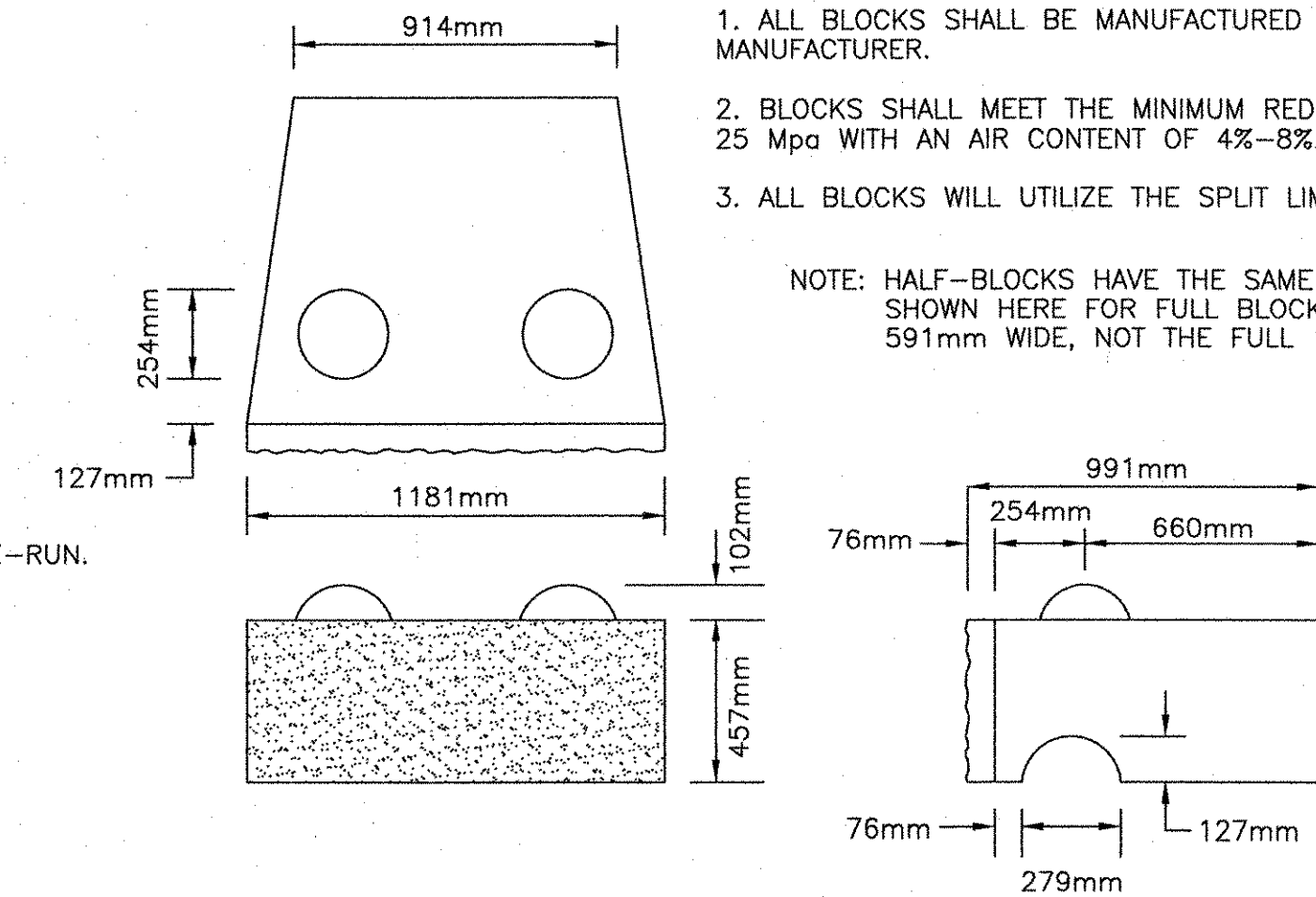
GENERAL NOTES:

- STRIP ALL VEGETATION, ORGANIC SOILS AND UNSUITABLE FILL SOILS FROM THE WALL ALIGNMENT AREA.
- BENCH CUT ALL EXCAVATED SLOPES.
- DO NOT OVER EXCAVATE UNLESS DIRECTED TO DO SO BY THE OWNER'S SITE REPRESENTATIVE IN ORDER TO REMOVE UNSUITABLE SOIL.
- THE OWNER'S SITE REPRESENTATIVE SHALL VERIFY FOUNDATION SOILS AS BEING COMPETENT PER THE DESIGN STANDARDS AND PARAMETERS.
- LEVELING PAD SHALL CONSIST OF COMPACTED, 19.0mm CRUSHED GRAVEL, 300mm THICK AND EXTENDING AT LEAST 300mm TO EITHER SIDE OF THE BASE BLOCK. A SMOOTHING SURFACE LAYER OF 9.5mm CRUSHED STONE MAY BE UTILIZED.
- MINIMUM EMBEDMENT OF WALL BELOW FINISH GRADE SHALL BE AS INDICATED ON THE WALL FACE DRAWING.
- FOLLOW APPLICABLE PROVISIONS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS, ESPECIALLY WITH REGARDS TO LEVELING OF BLOCKS AND BASE.
- DRAINAGE FILL SHALL CONSIST OF BANK-RUN SAND AND GRAVEL, LESS THAN 10% FINES, PLACED AND COMPACTED BEHIND THE WALL FOR A DEPTH OF AT LEAST 600mm BEHIND THE WALL. 19.0mm CRUSHED STONE MAY BE SUBSTITUTED FOR THE BANK-RUN. A FILTER FABRIC SHALL BE PLACED OVER THE CUT OR FILL FACE BEHIND THE WALL AREA TO PREVENT SOIL MIGRATION INTO THE DRAINAGE MATERIAL.
- WHERE PERFORATED HDPE DRAINS ARE USED, PROVIDE OUTLETS AT THE ENDS OF THE WALL OR AT A LOW COLLECTION POINT ALONG THE WALL. (ALTERNATE OUTLET METHODS MAY BE APPROVED BY THE DESIGN ENGINEER.)
- BACKFILL AND COMPACT THE FILL MATERIAL BEHIND THE WALL AS THE WALL IS INSTALLED.
- COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE OWNER'S SITE REPRESENTATIVE.
- PLACE A FILTER FABRIC (MIRAFI 140N, OR EQUAL) OVER THE DRAINAGE MATERIAL TO MINIMIZE SOIL MIGRATION FROM THE SURFACE MATERIAL INTO THE DRAINAGE MATERIAL.
- COMPACTION SHALL BE TO 92% (MODIFIED PROCTOR) OR 95% (STANDARD PROCTOR).
- PROVIDE LATERAL DRAINAGE SWALES TO DIRECT FLOWS AROUND THE ENDS OF THE WALL AND AWAY FROM THE WALL DURING CONSTRUCTION. DO NOT CONSTRUCT A SWALE BEHIND THE WALL AS PART OF THE FINISHED WALL. GRADE ABOVE THE WALL SO THAT WATER FLOWS OVER THE WALL FACE OR TO A POINT AT LEAST AS FAR BEHIND THE WALL AS THE WALL HEIGHT.
- TURF, OR SOME ACCEPTABLE FORM OF SOIL EROSION PROTECTION, SHOULD BE ESTABLISHED AT THE TOP OF THE WALL (WHERE REQUIRED) BY THE LANDSCAPE CONTRACTOR AS SOON AS THE WALL IS COMPLETED.
- FINAL WALL ALIGNMENT SHALL BE LOCATED IN THE FIELD.
- RECOMMENDED COMPACTION EQUIPMENT WITHIN 4.5 METERS OF THE BACK OF THE WALL IS AS FOLLOWS:
 0 - 1.2 METERS HAND TAMP OR VIBRATORY PLATE COMPACTOR
 1.2 - 4.5 METERS NOTHING LARGER THAN TWO-DRUM, WALK-BEHIND VIBRATORY ROLLER
 (LARGER ROLLERS CAN BE USED STATICALLY, PROVIDED LIFT SIZE DOES NOT COMPROMISE ACHIEVEMENT OF NECESSARY COMPACTION RATES.)
- THESE WALLS HAVE BEEN DESIGNED WITH CONSIDERATION OF SEISMIC LOADINGS.

BLOCK SPECIFICATION NOTES:

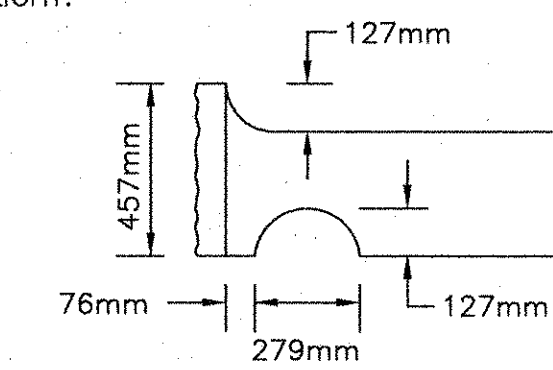
- ALL BLOCKS SHALL BE MANUFACTURED BY A LICENSED REDI-ROCK (TM) MANUFACTURER.
- BLOCKS SHALL MEET THE MINIMUM REDI-ROCK SPECIFICATIONS OF 25 Mpa WITH AN AIR CONTENT OF 4%-8%.
- ALL BLOCKS WILL UTILIZE THE SPLIT LIMESTONE FACE CONFIGURATION.

NOTE: HALF-BLOCKS HAVE THE SAME FEATURES AS SHOWN HERE FOR FULL BLOCKS BUT THEY ARE 591mm WIDE, NOT THE FULL 1181mm WIDE.

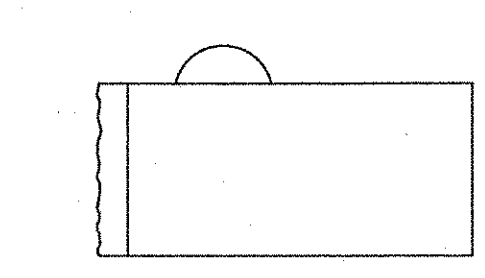


TYPICAL UNIT-MIDDLE BLOCK

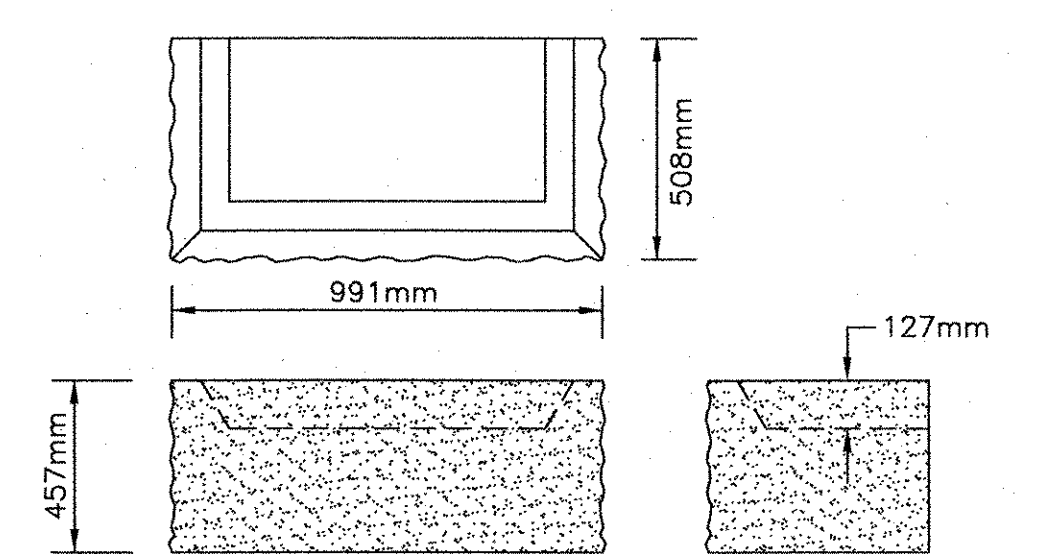
UNIT DIMENSIONS
 (NOT TO SCALE)



TOP BLOCK



BOTTOM BLOCK



TYPICAL END BLOCK

IF CONDITIONS ARE DIFFERENT THAN THOSE STATED IN THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR MUST CONTACT THE DESIGN ENGINEER PRIOR TO PROCEEDING WITH THE CONSTRUCTION OF THE WALL.

COMPACTION NOTE: WHERE THE RETAINING WALL PASSES OVER ANY UTILITY LINES, COMPACTION OF THE SOIL WITHIN THE UTILITY TRENCH IS CRITICAL IN ORDER TO PREVENT SETTLEMENT OF THE WALL. COMPACTION OF ALL FILL MATERIAL IN UTILITY TRENCHES WHICH PASS UNDER THIS RETAINING WALL MUST BE AT LEAST 95% OF THE MAXIMUM DENSITY OF THE FILL MATERIAL.

FILTER FABRIC NOTE: A FILTER FABRIC (MIRAFI 140N OR EQUAL) SHALL BE PLACED BETWEEN THE REINFORCED FILL AND THE DRAINAGE MATERIAL (WHERE THEY ARE NOT OF THE SAME MATERIAL) FOR THE ENTIRE HEIGHT OF THE WALL.

SITE SPECIFIC NOTE: THE WALL HEIGHTS AT THIS SITE VARY AND ARE SHOWN ON THE WALL FACE DRAWINGS ON SHEET 2 OF 2. THE GEOGRID SHALL BE SYNTEEN PRODUCTS AS DETAILED ON THE WALL FACE DRAWINGS. THE CUT LENGTHS OF THE GEOGRID LAYERS, AND THE PLACEMENT ELEVATIONS OF THE GEOGRID LAYERS ARE SHOWN ON THE WALL FACE DRAWINGS. THE GEOGRID SHALL PROVIDE 100% COVERAGE. THE CONTRACTOR SHOULD CONTACT THE DESIGN ENGINEER WITH ANY QUESTIONS.

IMPERVIOUS MATERIAL GENERAL REQUIREMENTS

SIEVE SIZE	% PASSING
75 mm	100%
4.76 mm	80-100%
0.425 mm	50-90%
0.15 mm	40-80%
0.075 mm	30-80%

REINFORCED BACKFILL GENERAL REQUIREMENTS

SIEVE SIZE	% PASSING
75 mm	100%
12.5 mm	50-85%
4.76 mm	40-75%
0.297 mm	8-28%
0.075 mm	0-10%

NOTE: THE DESIGN ENGINEER MUST BE MADE AWARE WHENEVER THE PERCENT PASSING THE .075 mm SIEVE EXCEEDS 10%. GROUNDWATER CONTROL METHODS MAY BE REQUIRED.

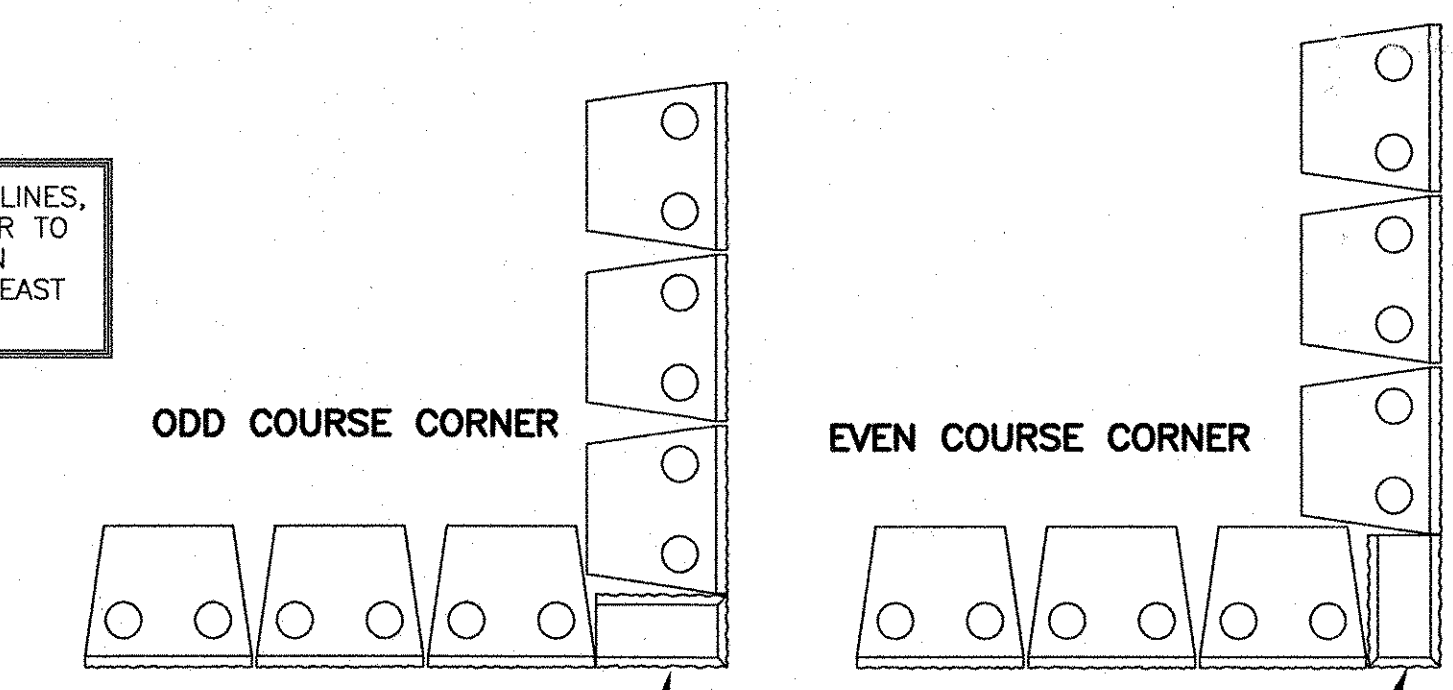
DESIGN ASSUMPTIONS

SOIL	SOIL UNIT WEIGHT	φ
SELECT FILL/BACKFILL	22.0	34
RETAINED EARTH	22.0	30
FOUNDATION SOIL	22.0	36

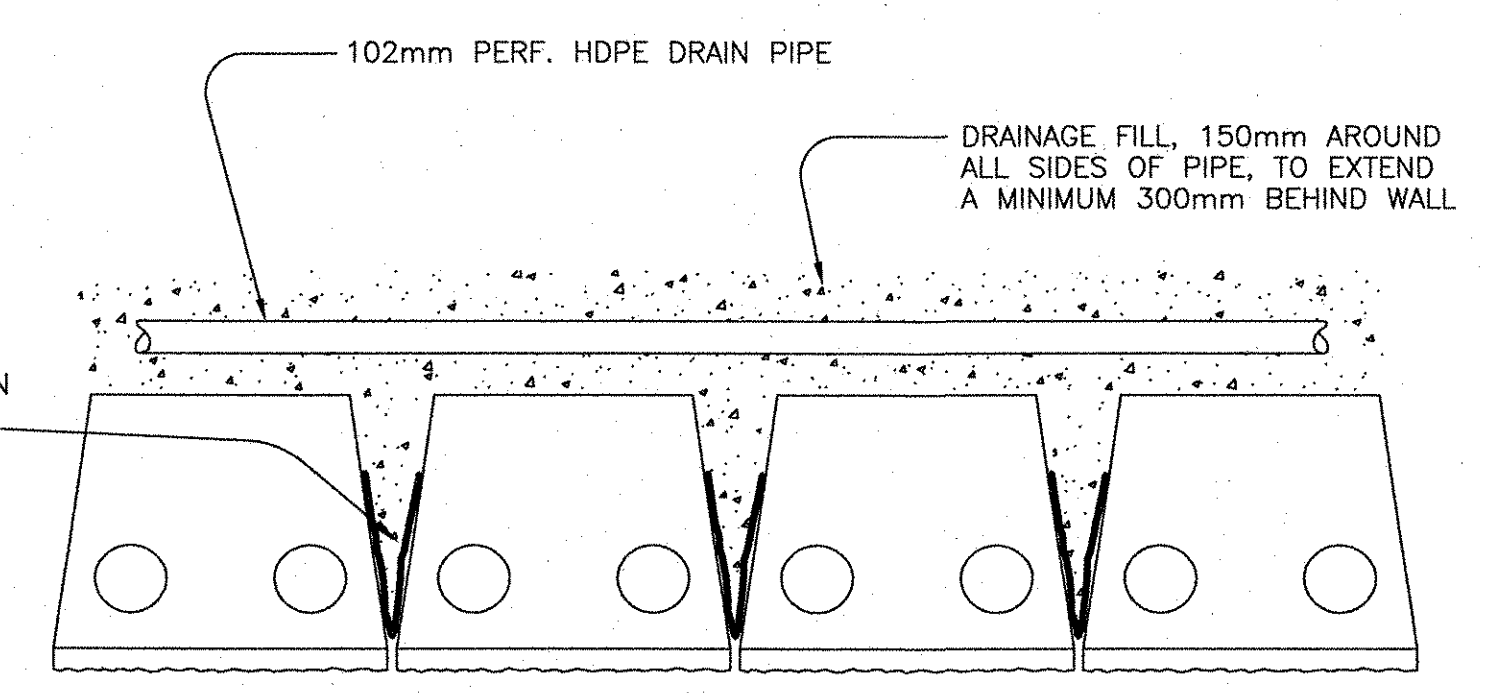
APPLIED SURCHARGE LOADING = NONE
 SEISMIC ACCELERATION = 0.06
 MAX. SLOPE ABOVE WALL = 2.5H:1V (STA. 0+02)
 MAX. SLOPE ABOVE WALL = 5H:1V (STA. 0+18)

MINIMUM FACTORS OF SAFETY

OVERTURNING	1.5
SLIDING	1.5
BEARING CAPACITY	2.0

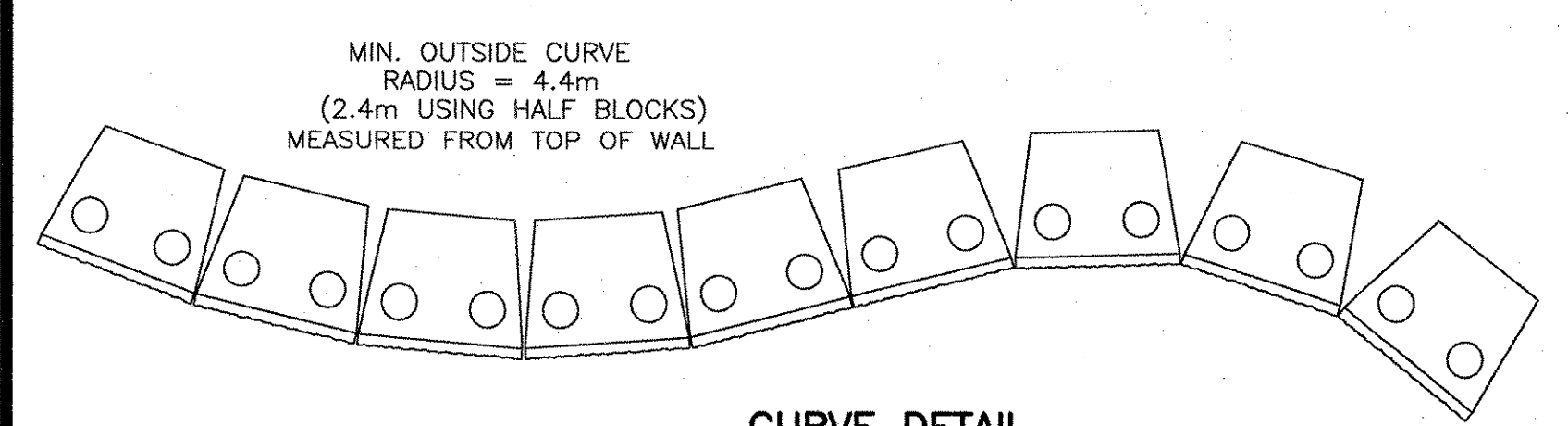


TYPICAL CORNER INSTALLATION
 (NOT TO SCALE)

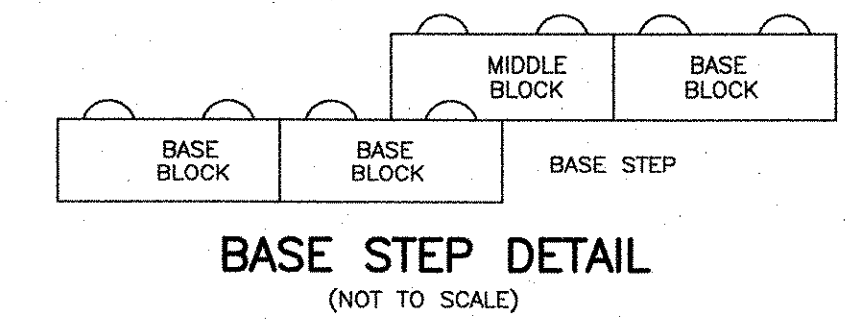


- SLOPE DRAIN TO WALL ENDS, MIN. 1% SLOPE, OR SLOPE TO LOW POINT AND DROP THE DRAIN UNDER THE WALL.
- WALL DRAIN MAY TIE TO NEARBY CLOSED DRAINAGE SYSTEM, IF AVAILABLE.

DRAIN & FABRIC DETAIL
 (NOT TO SCALE)



CURVE DETAIL
 TYPICAL CURVES
 (NOT TO SCALE)



BASE STEP DETAIL
 (NOT TO SCALE)

New England's
SVE
 Retaining Wall Designers

RECEIVED
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 FEB 08 2007
 RESUBMIT: [Signature] APPROVED:
 BY: [Signature] DATE: 2/8/07



NOTE: THIS DRAWING WAS PREPARED FOR USE WITH REDI-ROCK (TM) RETAINING WALL SYSTEMS. CONTACT REDI-ROCK WALLS OF NEW ENGLAND AT (603) 863-1000.

SOUHEGAN VALLEY ENGINEERING, INC.
 CIVIL ENGINEERING CONSULTANTS SITE DESIGN SPECIALISTS
 434 LEAR HILL ROAD NEWPORT (UNITY), NEW HAMPSHIRE 03773
 TEL: (603) 863-5454 FAX: (603) 863-3629
 Est. 1990 Available On The Web At www.SVEngineering.com

CLIENT: **REDI-ROCK WALLS OF NEW ENGLAND**
 8 REEDS MILL ROAD, NEWPORT, NH 03773

PROJECT: **PROPOSED BRIDGE IMPROVEMENT PROJECT**
 BETHEL, VT

SHEET TITLE: **RETAINING WALL DESIGN SHEET 1**

REVISION SET NUMBER

REVISION #1	1/5/07	REVISE WALL DESIGN TO REFLECT CONCRETE FOUNDATION DESIGNED BY VAOT	ETM
			2

DATE:	SCALE:	PROJECT No.:
MARCH 7, 2005	AS SHOWN	05-169

SHEET 1 OF 2