

REINFORCED EARTH®

8614 Westwood Center Drive, Vienna, VA 22182 (703)821-1175

- Record Plans -
FIELD COPY

GENERAL NOTES

DESIGN CRITERIA

1. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE REINFORCED EARTH VOLUME, METHODS OF CONSTRUCTION AND QUALITY OF PREFABRICATED MATERIALS SHALL CONFORM TO THE CONTRACTING AGENCY'S TECHNICAL SPECIFICATIONS FOR REINFORCED EARTH WALLS.

2. SOILS CHARACTERISTICS USED FOR DESIGN:
(PER PROJECT SPECIAL PROVISIONS ITEM 900.670 and CONTRACT PLANS SHT. BR102)

1 SELECT GRANULAR BACKFILL
 $\phi = 34$ degrees, $c = 0$ p.s.f., $\gamma = 140$ p.c.f.

RANDOM BACKFILL
 $\phi = 33$ degrees, $c = 0$ p.s.f., $\gamma = 140$ p.c.f.

FOUNDATION MATERIAL
 $\phi = 22$ degrees, $c = 0$ p.s.f.,

3. THE MAXIMUM FACTORED AND ALLOWABLE (UNFACTORED) BEARING PRESSURE AT THE FOUNDATION LEVEL IS AS SHOWN ON THE WALL ELEVATIONS FOR EACH DESIGN CASE. IT IS THE RESPONSIBILITY OF THE OWNER TO DETERMINE THAT THIS APPLIED BEARING PRESSURE IS ALLOWABLE FOR THAT LOCATION.

4. ANY UNSUITABLE FOUNDATION MATERIAL BELOW THE REINFORCED EARTH VOLUME, AS DETERMINED BY THE ENGINEER, SHALL BE EXCAVATED AND REPLACED WITH SUITABLE MATERIAL OR OTHERWISE STABILIZED AS DIRECTED BY THE ENGINEER.

5. REINFORCING STRIPS SHALL BE RIBBED 50mm WIDE AND 4mm THICK, AND SHALL CONFORM TO THE PHYSICAL AND MECHANICAL PROPERTIES OF ASTM A-572 GRADE 65. GALVANIZATION SHALL BE APPLIED IN ACCORDANCE WITH ASTM A-123, A-153, OR AASHTO M111 (2oz/ft²).

WALL CONSTRUCTION

6. STATIONS SHOWN ARE ALONG CENTERLINE OF US ROUTE 2.

7. REINFORCED EARTH WALLS IN CURVES WILL FORM A SERIES OF SHORT CHORDS OF 4.92' EACH TO MATCH DESIRED WALL ALIGNMENT.

8. FOR LOCATION AND ALIGNMENT OF REINFORCED EARTH WALLS. SEE SHEET 2 OF THESE PLANS AND SHEETS 109-111 OF THE CONTRACT PLANS.

9. IF MANHOLES AND DROP INLETS ARE PRESENT, THEY SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS. IF DRAINAGE STRUCTURES OR OTHER OBSTRUCTIONS BLOCK NORMAL PLACEMENT OF REINFORCING STRIPS & SPECIFIC DETAILS ARE NOT INCLUDED HEREIN, PLEASE CONTACT THE REINFORCED EARTH COMPANY FOR APPROPRIATE DETAILS.

10. IF PILES ARE LOCATED WITHIN THE REINFORCED EARTH VOLUME, THEY SHALL BE DRIVEN PRIOR TO CONSTRUCTION OF THE REINFORCED EARTH WALL UNLESS A METHOD TO PROTECT THE STRUCTURE, WHICH IS ACCEPTABLE TO THE ENGINEER AND THE REINFORCED EARTH COMPANY, AND IS PROPOSED AND APPROVED IN WRITING.

11. BACKFILL MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR REINFORCED EARTH WALLS TO A LEVEL OF 2" (±) ABOVE THE TIE STRIPS EMBEDDED IN THE PANELS. INSTALLATION OF REINFORCING STRIPS SHALL BE PERMITTED ONLY AFTER PLACEMENT AND COMPACTION OF THE BACKFILL MATERIAL HAS REACHED THE REQUIRED LEVEL.

12. COMPACTION AND OPERATION EQUIPMENT SHALL BE KEPT A MINIMUM DISTANCE OF 3'-0" FROM THE BACK FACE OF THE REINFORCED EARTH PANELS. COMPACTION WITHIN 3'-0" OF THE REINFORCED EARTH PANELS SHALL BE ACHIEVED WITH AT LEAST THREE (3) PASSES OF A LIGHTWEIGHT MECHANICAL TAMPER, ROLLER OR VIBRATORY SYSTEM. NO COMPACTION DENSITY TESTS SHALL BE TAKEN WITHIN THE 3 FT. ZONE.

WALL CONSTRUCTION (CONT.)

13. IF STRUCTURES IN EXCESS OF 20' IN HEIGHT OCCUR, THE FINISHED GRADE IN FRONT OF THE WALL SHALL BE PLACED AND COMPACTED BEFORE WALL CONSTRUCTION EXCEEDS A HEIGHT OF 20'. FINISHED GRADE BACKFILL SHALL BE COMPACTED TO 95% OF ASTM D-698, METHODS 'c' OR 'd', UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

14. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF ANY GUIDERAIL POSTS BEHIND THE REINFORCED EARTH PANELS. PRIOR TO PLACEMENT OF THE TOP LAYER OF REINFORCING STRIPS, INDIVIDUAL STRIPS MAY BE SKEWED TO AVOID THE POST LOCATIONS IF AUTHORIZED BY THE REINFORCED EARTH COMPANY. ANY DAMAGE DONE TO THE REINFORCING STRIPS DUE TO THE INSTALLATION OF THE GUIDERAIL SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

15. IF EXISTING OR FUTURE STRUCTURES, PIPES, FOUNDATIONS OR GUIDERAIL POSTS WHICH ARE WITHIN THE REINFORCED EARTH VOLUME INTERFERE WITH THE NORMAL PLACEMENT OF REINFORCING STRIPS AND SPECIFIC DIRECTION HAS NOT BEEN PROVIDED ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE REINFORCED EARTH COMPANY TO DETERMINE WHAT COURSE OF ACTION SHOULD BE TAKEN.

16. ALL DETAILING AND CHECKING OF REINFORCING STEEL FOR ANY C.I.P. CONCRETE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

17. TOP PANELS BELOW COPING SHALL EACH HAVE THREE (3) #4 REBAR DOWELS PER 4.92' WIDE STANDARD PANEL.

18. FOR OTHER INFORMATION PERTAINING TO WALL CONSTRUCTION PLEASE REFER TO THE REINFORCED EARTH CONSTRUCTION MANUAL.

19. THE CONTRACTOR IS RESPONSIBLE FOR GRADUALLY DEFLECTING UPPER REINFORCING STRIPS DOWNWARD TO AVOID CONFLICTS WITH PAVING AND SUBGRADE PREPARATION. THE CONTRACTOR'S ATTENTION IS DIRECTED ESPECIALLY TO SITUATIONS WHERE ROADWAY SUPERELEVATION AND/OR SOIL MIXING ARE ANTICIPATED.

20. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING STORM WATER DRAINAGE IN THE VICINITY OF THE WALL DURING CONSTRUCTION. STORM WATER RUNOFF IS TO BE COLLECTED AND DISCHARGED AWAY FROM THE WALL AND REINFORCED BACKFILL.

MATERIALS NOTES

21. NOMINAL STRIP LENGTHS

THE REINFORCING STRIP LENGTHS SHOWN ON THE PLANS, MEASURED FROM BACK FACE OF PANEL, ARE THE NOMINAL LENGTHS REQUIRED BY CALCULATION. THE ACTUAL FABRICATED STRIP LENGTHS ARE OFTEN LONGER (UP TO 6") DUE TO MANUFACTURING TOLERANCES. THE REQUIRED HORIZONTAL LIMIT OF GRANULAR BACKFILL IS EQUAL TO THE NOMINAL STRIP LENGTH. ADDITIONAL GRANULAR BACKFILL BEYOND THE NOMINAL STRIP LENGTH IS NOT REQUIRED BY CALCULATION.

22. SELECT BACKFILL QUANTITY

THE SELECT BACKFILL QUANTITY, IF INDICATED BY THE REINFORCED EARTH COMPANY, IS CALCULATED BY MULTIPLYING THE NOMINAL STRIP LENGTHS SHOWN ON THE PLANS (PLUS 0 FT.) BY THEIR TRIBUTARY WALL SURFACE AREA AND CONVERTING THE RESULT TO A NEATLINE CUBIC YARD QUANTITY. THIS INFORMATION IS FURNISHED FOR THE CONTRACTOR'S INFORMATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL QUANTITIES REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR MUST CALCULATE HIS OWN EXCAVATION AND BACKFILL QUANTITIES BASED UPON THE SPECIFIC CONDITIONS OF THE PROJECT.

MATERIALS NOTES (CONT.)

23. PANEL FINISH

THE PRECAST PANELS FOR THIS PROJECT SHALL HAVE AN ASHLAR STONE FORMLINER FINISH.

SLIP JOINT COVERS AND COPING/HFC UNITS SHALL HAVE A SMOOTH FORM FINISH.

24. NOTE TO CONTRACTORS

ONLY THE FOLLOWING MATERIALS ARE SUPPLIED BY THE REINFORCED EARTH COMPANY:

- PRECAST CONCRETE FACING PANELS
- REINFORCING STRIPS
- BOLT SETS (FOR ATTACHING PANELS TO THE REINFORCING STRIPS)
- BEARING BLOCKS
- RUBBER SHIMS
- FILTER CLOTH AND ADHESIVE (FOR PANEL JOINTS ONLY)
- PRECAST COPING UNITS
- PRECAST HALF CONNECTOR UNITS

ANY OTHER MATERIALS CALLED FOR IN THE CONTRACT PLANS OR SPECIFICATIONS ARE TO BE SUPPLIED BY THE CONTRACTOR. ANY JOINT MATERIALS SHOWN AT THE INTERFACE OF PRECAST PANELS AND CAST-IN-PLACE CONCRETE STRUCTURES ARE TO BE SUPPLIED BY THE ERECTION CONTRACTOR. ALL SANDBLASTING, PAINTING, SEALERS OR OTHER SPECIAL APPLIED COATINGS ARE ALSO SUPPLIED/INSTALLED BY THE CONTRACTOR IN THE FIELD FOLLOWING PANEL ERECTION.

25. THE REINFORCED EARTH COMPANY SUPPLIES PRECAST CONCRETE FACING PANELS AND ACCESSORIES TO BE USED IN CONJUNCTION WITH OTHER MATERIALS IN THE CONSTRUCTION OF THE REINFORCED EARTH® RETAINING WALLS DETAILED HEREIN. THE CONSTRUCTION AND QUALITY CONTROL PROCEDURES MANUAL FURNISHED BY THE REINFORCED EARTH COMPANY IS INTENDED TO PROVIDE A GENERAL EXPLANATION OF THE SYSTEM. IT IS THE CONTRACTOR'S OBLIGATION TO DEVISE AND EXECUTE A PROJECT SPECIFIC ERECTION SEQUENCE, PANEL UNLOADING, HANDLING AND BRACING SYSTEM, AND FALL PROTECTION SYSTEM. THE BRACING SYSTEM SHOWN IN THE CONSTRUCTION AND QUALITY CONTROL PROCEDURES MANUAL IS GENERAL IN NATURE AND DOES NOT ACCOUNT FOR PROJECT SPECIFIC CRITERIA. COMPLIANCE WITH THE GUIDELINES IN THIS MANUAL DOES NOT RELIEVE THE CONTRACTOR OF ITS RESPONSIBILITY TO ADHERE TO THE PROJECT PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS OR COMPLIANCE WITH ALL FALL PROTECTION, SAFETY, LAWS, STANDARDS AND PROCEDURES AT THE JOBSITE. CONTRACTORS SHOULD TAKE SPECIAL PRECAUTIONS TO PREVENT THE PANELS FROM SHIFTING OR FALLING DURING THE ERECTION PROCESS.

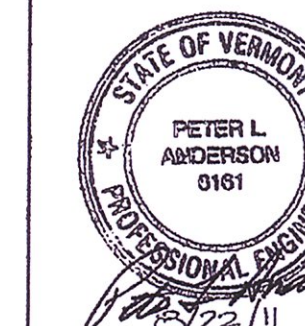
26. SEE CONTRACT PLANS FOR ADDITIONAL NOTES.

INDEX	
DRAWING	TITLE
1	GENERAL NOTES
2	PLAN LAYOUT
3	WALL ELEVATIONS
4	TYPICAL SECTIONS
5	TOPOUT DETAILS
6	MISCELLANEOUS DETAILS
7	STANDARD PANEL DETAILS

R:\RE15053_REW_VT_CABOT_DANVILLE\DWGS\01_GENERAL NOTES.DWG

APPROVED Approved as Noted
Revise and Resubmit DISAPPROVED
CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE. PREPARATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF HIS WORK.
GREEN INTERNATIONAL AFFILIATES, INC.
CONSULTING ENGINEERS
CHECKED BY: *[Signature]* DATE: 9/11
SHOWN BY: *[Signature]* DATE: 9/11

CERTIFIED WITH RESPECT TO THE INTERNAL STABILITY OF REINFORCED EARTH STRUCTURES ONLY



This drawing contains information proprietary to The Reinforced Earth Company, and is being furnished for the use of VTAOT only in connection with this project, and the information contained herein is not to be transmitted to any other organization unless specifically authorized in writing by The Reinforced Earth Company. The Reinforced Earth Company is exclusive licensee in the United States under patents issued to Henri Vidal, and the furnishing of this drawing does not constitute an expressed or implied license under the Vidal patents.

The design contained on these drawings is based on information provided by the owner. On the basis of this information, The Reinforced Earth Company has designed, and is responsible for the internal stability of the structure only. External stability, including foundation (bearing capacity and settlement) and slope (global) stability, is the responsibility of the owner.



"REINFORCED EARTH" is the registered trademark of The Reinforced Earth Company.

DESIGNED BY: DTM				PROJECT NAME	U.S. ROUTE 2 OVER EXISTING STREAM	DATE 04/6/11
PROJECT ENGR: LY	2	8/19/11	REV. PER GIA COMMENTS REV. HALF CONNECTOR DETAILS	LOCATION	CABOT-DANVILLE VERMONT	CONTRACT NO. RE-15053
CHECKED BY: PLA/EEH	1	7/19/11	REV. PER GIA COMMENTS	OWNER	VTAOT	DRAWING NO. 1 OF 7
REV.	DATE		DESCRIPTION	DRAWING COVERS	GENERAL NOTES	SCALE AS SHOWN