RACETRAC #1301

PEACHTREE PARKWAY @ ENGINEERING DRIVE

PEACHTREE CORNERS, GEORGIA MODULAR BLOCK RETAINING WAL FEBRUARY 23, 2018

1.0 REINFORCED ZONE
THE REINFORCED BACKFILL SOIL SHALL BE COMPACTED GRANULAR FILL FREE OF DEBRIS AND MEETING THE FOLLOWING
GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D422.

SIEVE SIZE 1 INCH PERCENT PASSING

THE MAXIMUM SIEVE SIZE SHOULD BE LIMITED TO 1 INCH. REINFORCED BACKFILL SOIL SHALL CONSIST OF MATERIAL MEETING USCS CRITERIA FOR GW, GP, SW, SP, SC OR SM & THE MATERIAL TO HAVE A PH RANGE OF 3 - 9. THE PORTION PASSING THE NO. 40 SIEVE SHALL HAVE A PLASTICITY INDEX LESS THAN 20.

2.0 TECHNICAL REQUIREMENTS FILL SHALL BE COMPACTED AS SPECIFIED BY THE PROJECT SPECIFICATIONS OR TO A MINIMUM 95% OF THE MAXIMUM DENSITY AND WITHIN +3/-3 PERCENT OF OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH ASTM D-698 (STANDARD PROCTOR DENSITY), WHICHEVER IS GREATER.

FILE SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 8 INCHES IN COMPACTED THICKNESS FOR HEAVY COMPACTION FICU SHALL BE PLACED IN HORIZONTAL LATERS NOT EXCEEDING 8 INCRES IN COMPACTED THICKNESS FOR HEAVY COMPACTION EQUIPMENT, FOR ZONES WHERE COMPACTION IS ACCOMPLISHED WITH HAND EQUIPMENT, FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN UNCOMPACTED THICKNESS. ONLY HAND OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET OF THE WALL FACE.

IN THE ABSENCE OF OWNER'S DIRECTION TO EMPLOY MORE STRINGENT COMPACTION SPECIFICATIONS, THE COMPACTED DENSITY OF THE FILL SHALL BE TESTED EVERY 2,000 SQUARE FEET PER 8 INCH LIFT OR EVERY 200 LINEAR FEET OF A SINGLE COURSE OF BLOCKS, WHICHEVER IS LESS. (THESE TESTS MUST INCLUDE THE BACKFILL ZONE IMMEDIATELY BEHIND THE WAL WHERE HEAVY COMPACTION EQUIPMENT MAY NOT OPERATE.)

THE CAP UNIT SHALL BE GLUED TO THE TOP MOST STANDARD UNIT.

OF THE WALL FACE UNTIL FINAL PAVEMENT AND CURBING IS IN PLACE BEHIND.

GEOGRID SHALL BE PLACED AT THE LOCATIONS, ELEVATIONS AND WITH T CONSTRUCTION DRAWINGS. EMBEDMENT LENGTH IS MEASURED FROM THE OULD BE VISIBLE AT THE WALL FACE FOR CONSTRUCTION VER

IDS SHALL BE CONNECTED TO THE WALL UNIT PER THE MANUFACTURE

NO MORE THAN TWO COURSES OF BLOCK SHOULD BE STACKED GEOGRID LAYER MUST BE INFILLED WITH #57 STONE PRIOR

PRIOR TO PLACING FILL MATERIALS THE GEOGRIDS SHALL BE ANCHORED TO THE WALL UNITS. PULLED TIGHT TO REMOVE ANY STEEPER THAN 10% GRADE FROM TAL. NO PORTION OF THE GEOGRID PLACEMENT SHALL BE DROOP DOWN DIRECTLY BEHIND THE BLOCK.

RECTLY ON THE GEOGRID MATERIALS. A MINIMUM FIL

ALL FACE AND COMPACTED TO 95% STANDARD PROCTOR AT THE END OF EACH DIRECTED TOWARDS THE REINFORCED SOIL MASS.

ITE GRADING SHALL BE PERFORMED TO PREVENT RUNOFF FROM BEING DIRECTED OVER THE WALI

OW EITHER TEMPORARY OR PERMANENT SHOULD NOT BE ALLOWED TO RUN ALONG TOE OF EARTH TIME. CONCENTRATED WATER FLOW ALONG THE WALL TOE CAN UNDERMINE & DAMAGE THE EARTH TION. CIVIL SITE DESIGNER IS RESPONSIBLE FOR ADDRESSING ALL POSSIBLE EROSION CONCERNS TO

REINFORCED ZONE

250 PSF; 500 PSF BUILDING SURCHARGE (WALL C: STA. 0+71 - 1+66) BOTTOM OF WALL ELEVATION

ANCHOR DIAMOND PRO (BATTER 7.1°)

ACCEPTABLE GEOGRID REINFORCEMENTS ARE: TYPE I STRATAGRID 200 STRATAGRID 500 MIRAFI 3XT HTG 35 HTG 80 MIRAFI 5XT HTG 120 MIRAFI 5XT HTG 120 MIRAFI 13XT HTG 120 MIRAFI

GEOSTAR HP200 GEOSTAR HP300 GEOSTAR HP500

OTHER BLOCK AND GRID SYSTEMS MUST BE SUBMITTED FOR APPROVAL BY EES PRIOR TO CONSTRUCTION

ENGINEERED EARTH SOLUTIONS, LLC. (EES) ASSUMES NO LIABILITY FOR INTERPRETATIONS OF SUBSURFACE CONDITIONS ENGINEERED EARTH SOLUTION, LLC. (EES) ASSUMES NO LIBIT FOR THE REFER FAIL ON SOLUTIONS OF SUBSURFACE CONDITIONS, SUITABILITY OF SOIL PARAMETERS, AND SUBSURFACE GROUNDWATER CONDITIONS. THE WALL CONTRACTOR AND/OR CONSTRUCTION VERIFICATION ENGINEER IS RESPONSIBLE FOR REVIEWING AND VERIFYING THAT CONDITIONS DESCRIBED ABOVE ARE ACCURATE PRIOR TO AND DURING CONSTRUCTION.

THE WALL CONTRACTOR AND/OR OWNER IS RESPONSIBLE FOR HAVING SUPERVISION OF ALL PHASES OF CONSTRUCTION BY A QUALIFIED GEOTECHNICAL ENGINEER (CONSTRUCTION VERIFICATION ENGINEER)

SETTLEMENT AND ITS EFFECT ON THE RETAINING WALL SYSTEM HAS NOT BEEN EVALUATED BY EES. FOR THE EVALUATION OF SETTLEMENT, ADDITIONAL TESTING OF THE SUBGRADE AND ADDITIONAL ENGINEERING IS REQUIRED WHICH IS OUTSIDE THE SCOPE OF PRODUCING THESE SHOP DRAWINGS. EES CAN PROVIDE A PROPOSAL TO PERFORM THE ADDITIONAL TESTING AND CALCULATIONS UPON REQUEST.

A COPY OF THESE DRAWINGS SHALL BE PROVIDED TO FUTURE OWNERS OF THE DEVELOPED PROPERTY TO PROVIDE THEM WITH A RECORD OF THE LOCATION OF THE REINFORCED ZONE AND RECOMMENDATIONS REGARDING PERMISSIBLE CONSTRUCTION ACTIVITIES AROUND THE MECHANICALLY STABILIZED EARTH STRUCTURE.

1 SOIL INSTALLED IN SLOPES BOTH ABOVE AND BELOW THE REINFORCED STRUCTURE SHALL BE COMPACTED TO WITHIN 95% OF THIS MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST (ASTM D-698). FILL SOLIS INSTALLED ABOVE AND BELOW THE REINFORCED ZONE MUST MEET THE REINFORCED STONE PARAMETERS NOTED IN NOTE 5.0 DESIGN PARAMETERS.

2. CONSTRUCTION VERIFICATION OF THE WALL INSTALLATION BY AN ENGINEER IS REQUIRED AND MUST BE PROVIDED BY A KNOWLEDGEABLE GEOTECHNICAL ENGINEER FAMILIAR WITH MECHANICALLY STABILIZED STRUCTURES. EES CAN PERFORM THIS VERIFICATION AS REQUESTED BUT MUST INCLUDE DAILY SITE VISITS.

3. IDENTIFICATION OF ALL UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY CONFLICTS SHALL BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION

4. EXCAVATION THROUGH THE GEOSYNTHETIC REINFORCEMENT FOR THE PURPOSE OF PLANTING TREES OR INSTALLATION OF

5. WATERLINES INCLUDING IRRIGATION SYSTEMS MUST BE WATER TIGHT WITHIN 100 FEET OF THE REINFORCED ZONE. LEAKAGE BEHIND A RETAINING WALL WILL INCREASE THE HORIZONTAL PRESSURE AGAINST THE WALL LEADING TO WALL FAILURE. FOR THIS REASON, SUBSURFACE WATERLINES AND IRRIGATION SYSTEMS SHOULD NOT BE INSTALLED ABOVE THE REINFORCED ZONES OF

6. THE RETAINING WALLS DESIGNED HEREIN ARE IN ACCORDANCE WITH THE STANDARD OF PRACTICE AS OUTLINED BY THE NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA) DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS, SECOND EDITION.

8. THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF MATERIALS WHICH ARE PROPRIETARY. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS OR CHANGE IN STRUCTURE GEOMETRY WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHEI FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED, IN WHOLE OR IN PART, NOR DISCLOSED TO OTHERS WITHOUT THE CONSENT OF ENGINEERED EARTH SQLUTIONS LLC. THIS DRAWING DESIGN NOTES AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY

9. DISCOVERY OF SUBSURFACE GROUNDWATER SHALL BE REPORTED IMMEDIATELY TO THE PROJECT GEOTECHNICAL ENGINEER, CONSTRUCTION VERIFICATION ENGINEER AND EES FOR ADDITIONAL DRAINAGE CONSIDERATION.

10. STORM DRAIN SYSTEMS ARE PRONE TO LEAKING. THEREFORE, IF A JOINT IN A STORM WATER PIPE IS LOCATED WITHIN 100 FEET OF THE RETAINING WALL THE STORM WATER PIPE MUST BE WATER TIGHT. NEOPRENE O-RINGS MUST BE INSTALLED AT ALL STORM PIPE JOINTS AS A MINIMUM.

11. CONSTRUCTION ACTIVITIES, WHICH OCCUR ON THE SITE AFTER COMPLETION OF THE RETAINING WALL, SHOULD BE MONITORED BY THE OWNERS REPRESENTATIVE TO INSURE THAT THEY DO NOT RESULT IN EXCAVATION THOUGH GEOSYNTHETIC REINFORCEMENT OR IN THE VICINITY OF THE WALL FOUNDATION. HEAVY CONSTRUCTION EQUIPMENT SHOULD NOT BE PERMITTED TO OPERATE WITHIN 10.0 FEET BEHIND O WALL FACE.

12. EARTH STRUCTURE LOCATION IN RELATION TO PROPERTY LINES, WATERSHED EASEMENTS, UTILITY EASEMENTS OR ANY OTHER TYPE OF EASEMENT OR BUFFER ARE THE RESPONSIBILITY OF THE OWNER OR THE SITE CIVIL ENGINEER. EES ASSUMES NO LIBBILITY FOR THE LOCATION OF THE EARTH STRUCTURE. SURVEY CONTROL MUST BE PERFORD USING THE CIVIL SITE DESIGNER'S LOCATION INFORMATION AND ACCOUNT FOR ALL STRUCTURE FACE BATTER. DEVIATION FROM THE CIVIL SITE DESIGN LAYOUT MUST BE REPORTED TO AND APPROVED BY THE CIVIL SITE DESIGNER PRIOR TO THE CONSTRUCTION OF THE EARTH

13. GEOTECHNICAL REPORT BY ECS SOUTHEAST LLP DATED 01/08/2018 WAS PROVIDED FOR USE. BORINGS WERE INCLUDED 13. SECHEDINICAL REPORT BY EAST SUIT TYPES. THE OWNER OF OWNERS REPRESENTATIVE HAS PROVIDED SPECIFIC SOIL PARAMETERS FOR THE PROPOSED EARTH STRUCTURE. THESE SOIL PARAMETERS WERE USED. CONSTRUCTION VERIFICATION OF THE ABOVE SOIL CONDITIONS IS IMPERATIVE PRIOR TO CONSTRUCTION. FAILURE TO VALIDATE THESE SOIL PARAMETERS OF RESULT IN

14. ALL ROOF DRAINS AND ROOF DRAIN OUTLETS MUST BE PIPED TO STORM DRAIN SYSTEM. ROOF DRAINS SHALL NOT BE EMPTIED INTO DRY WELLS OR POP UP DISSIPATERS WITHIN 20.0' OF THE REINFORCED ZONE.

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NOTE: THE CIVIL SITE DESIGNER SHALL APPROVE PRIOR TO CONSTRUCTION THE DETAILED LAYOUT FOR THE RETAINING WALL(S) AS SHOWN IN THESE SHOP DRAWINGS. DESIGN AND COORDINATION OF SURFACE DRAINAGE, STORM STRUCTURES, UTILITIES, FENCES, CURBS, GUARDRAILS AND OTHER NEW AND EXISTING IMPROVEMENTS IN THE RETAINING WALL AREA REMAINS THE SOLE RESPONSIBILITY OF

THE WALL INSTALLER IS RESPONSIBLE FOR PROVIDING DRAINAGE AS SHOWN ON THE CONSTRUCTION DRAWINGS. FAILURE TO FOLLOW THESE DRAWINGS IN THEIR ENTIRETY WILL INVALIDATE THE DESIGN.

AS NOTED

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