1. THE ATTACHED DESIGN DRAWINGS AND DETAILS ARE BASED ON THE ASSUMPTIONS THAT THE MATERIAL WITHIN THE REINFORCED SOIL VOLUME, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED CONCRETE PANELS USED TO CONSTRUCT THE RETAINING WALL SYSTEM, ARE CONFORMING TO THE REQUIREMENTS OF THE OWNER'S SPECIFICATIONS.


3. LOAD FACTOR DESIGN USED FOR MSE WALL SYSTEM IS IN ACCORDANCE WITH THE ASCI (ASCE) PRECAST SPECIFICATION (CURRENT EDITION SHOWN IN CONTRACT DOCUMENTS). THE CURRENT VERSION OF THE PRECAST CONCRETE FREEZE-THAW SPECIFICATIONS, AND STRUCTURAL DESIGN GUIDELINES.

4. THE FOLLOWING MATERIALS SHALL BE KEPT SEPARATELY AND IDENTIFIED:
- PRECAST CONCRETE PANELS
- PRECAST CONCRETE COPING
- GEOTEXTILE (FILTER) FABRIC AND ADHESIVE
- BEARING PADS AND PLASTIC LEVELING SHIMS
- TRIWEB FASTEN OR PARAWEB SOIL REINFORCING STRIPS
- PRECAST CONCRETE COPING (IF PURCHASED)
- PRECAST CONCRETE FACING PANELS

5. BACKFILL MATERIAL FOR THE MSE WALL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, SECTION 548, TO A LEVEL NO HIGHER THAN 2" ABOVE THE SOIL REINFORCEMENT PANEL ANCHOR ELEVATION. TRIWEB SOIL REINFORCEMENT SHALL NOT BE PLACED UNTIL THE BACKFILL IS IN PLACE AND PROPERLY COMPACTED.

6. ANY DEEP FOUNDATIONS REQUIRED WITHIN THE REINFORCED SOIL MASS SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE MSE WALL.

7. GUARDRAIL TYPE POSTS ARE REQUIRED IN THE REINFORCED SOIL MASS SHALL BE LOCATED PRIOR TO PLACEMENT OF THE TOP REINFORCING STRIPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF GUARDRAIL POSTS AS SHOWN IN THE CONTRACT DOCUMENTS.

8. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (11.10.6.3.2-2) FOR GEOSYNTHETIC SOIL REINFORCEMENT, F* = 0.67 TAN(\(\theta\)) OF SELECT REINFORCED SOIL.

9. WALL CONSTRUCTION:
- PANEL DESIGN THICKNESS IS 5". PANEL REINFORCING STEEL SHALL MEET THE MINIMUM SPECIFICATION OF ASTM A-615, GRADE 60.
- DRAINAGE AND SHEET FABRICS REQUIRED WITHIN THE REINFORCED SOIL MASS SHALL BE LOCATED AS SHOWN IN THE CONTRACT DRAWINGS WITH ELEVATION DRAWINGS.
- ANY DEEP FOUNDATIONS REQUIRED WITHIN THE REINFORCED SOIL MASS SHALL BE COMPLETE PRIOR TO CONSTRUCTION OF THE MSE WALL.
- PANEL DESIGN THICKNESS IS 5". PANEL REINFORCING STEEL SHALL MEET THE MINIMUM SPECIFICATION OF ASTM A-615, GRADE 60.
- DRAINAGE AND SHEET FABRICS REQUIRED WITHIN THE REINFORCED SOIL MASS SHALL BE LOCATED AS SHOWN IN THE CONTRACT DRAWINGS WITH ELEVATION DRAWINGS.
- ANY DEEP FOUNDATIONS REQUIRED WITHIN THE REINFORCED SOIL MASS SHALL BE COMPLETE PRIOR TO CONSTRUCTION OF THE MSE WALL.

10. MISCELLANEOUS NOTES:
- THE ATTACHED DESIGN DRAWINGS AND DETAILS ARE BASED ON THE ASSUMPTIONS THAT THE MATERIAL WITHIN THE REINFORCED SOIL VOLUME, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED CONCRETE PANELS USED TO CONSTRUCT THE RETAINING WALL SYSTEM, ARE CONFORMING TO THE REQUIREMENTS OF THE OWNER'S SPECIFICATIONS.
- LOAD FACTOR DESIGN USED FOR MSE WALL SYSTEM IS IN ACCORDANCE WITH THE AASHTO BRIDGE SPECIFICATION (CURRENT EDITION SHOWN IN CONTRACT DOCUMENTS). THE CURRENT VERSION OF THE PRECAST CONCRETE FREEZE-THAW SPECIFICATIONS, AND STRUCTURAL DESIGN GUIDELINES.
- THE FOLLOWING MATERIALS SHALL BE KEPT SEPARATELY AND IDENTIFIED:
- PRECAST CONCRETE PANELS
- PRECAST CONCRETE COPING
- GEOTEXTILE (FILTER) FABRIC AND ADHESIVE
- BEARING PADS AND PLASTIC LEVELING SHIMS
- TRIWEB FASTEN OR PARAWEB SOIL REINFORCING STRIPS
- PRECAST CONCRETE COPING (IF PURCHASED)
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- DRAINAGE AND SHEET FABRICS REQUIRED WITHIN THE REINFORCED SOIL MASS SHALL BE LOCATED AS SHOWN IN THE CONTRACT DRAWINGS WITH ELEVATION DRAWINGS.
- ANY DEEP FOUNDATIONS REQUIRED WITHIN THE REINFORCED SOIL MASS SHALL BE COMPLETE PRIOR TO CONSTRUCTION OF THE MSE WALL.
STANDARD PANEL JOIN DETAILS

OF PANEL

BACK FACE

(HORIZONTAL JOINT)

VERTICAL JOINT - TOP VIEW

SHIPLAP

(TYP.)

CHAMFER

B

BRG. PAD RECESS

LIFTING INSERTS

ANCHOR SPACING

SECTION A-A

WHERE APPLICABLE.

THICKNESS DOES NOT INCLUDE FINISH

NOTE:

BACK FACE ELEVATION

STANDARD PANEL "2P(3-3),A"

SECTION B-B

REVIEWING ENGINEER:

ENGINEER:

DRAWN BY:

DESIGNED BY:

CHECKED BY:

FLORIDA DEPARTMENT OF TRANSPORTATION

PROJECT NO.

CSJ NO.

15055 HENRY ROAD

HOUSTON, TEXAS, 77060

(281) 931-9832

www.triconprecast.com

SUBMITTAL: WALLS:

STRUCTURE NO.

XXXXX

NOTICE:

THE DESIGN CONTAINED IN THESE DRAWINGS IS BASED ON THE TRICON PRECAST, LTD. SPECIFICATIONS

AND THE INFORMATION PROVIDED BY THE OWNER. TEG ENGINEERING, LLC. IS ONLY RESPONSIBLE FOR THE

INTERNAL STABILITY OF THE MSE WALL SYSTEM. GLOBAL STABILITY, EXTERNAL STABILITY, AND BEARING

CAPACITY ARE NOT THE RESPONSIBILITY OF TEG ENGINEERING, LLC.

THESE DRAWINGS ARE FURNISHED ONLY FOR THE USE OF THIS PROJECT. THE PROPRIETARY INFORMATION

SHOWN HEREIN IS NOT TO BE TRANSMITTED TO ANY OTHER ORGANIZATION

WITHOUT AUTHORIZATION FROM TRICON PRECAST, LTD.
STANDARD PANEL "2P(4-4)A" BACK FACE ELEVATION

SECTION A-A

NOTE: THICKNESS DOES NOT INCLUDE FINISH

SECTION B-B

TYPICAL LOOP ANCHOR DETAILS

NOTE: (TYP.)
NOTE:
1. APPLIES TO WALL TYPES 2A, 2B, 2C, 2D, 2E, AND 2F. USE FDOT DESIGN STANDARDS PANEL NO. 4029 FOR CONCRETE COVER AND CONCRETE CLASS FOR PANELS FOR EACH WALL TYPE.
2. EACH PANEL SHOWN IS CLEARLY MARKED PER FDOT SPECIFICATION SECTION S005.
1. Leveling pad shall be placed per wall shop drawings with an elevation tolerance of ± 1/4".

2. It is acceptable to use leveling pad to allow field fit for panel placement.

3. Any openings between leveling pad strips shall be completely filled after completion of the first row of panels. Where opening is wide than 2", fill the opening with lean unreinforced cast-in-place concrete. After embedment of panels, place filter fabric over the opening of the gap left by the concrete on each side and fill the opening with concrete foundation soil.

It is acceptable to cut leveling pad to allow field fit for panel placement.

Leveling pad shall be placed per wall shop drawings with an elevation tolerance of ± ".

6" increments (typ.)

Step elevation - 5' panels

Do not apply adhesive directly to the filter fabric on top of newly placed panels.

Adhesive shall be applied per manufacturer recommendations. Do not apply adhesive sheets to the panels.

1'-0" min overlap if fabric was cut or damaged. It is acceptable to apply adhesive to the filter fabric on previously placed panels. Apply adhesive to filter fabric continuous at all vertical and horizontal joints.

Filter fabric detail: Notes: See the shipping take-off for quantities of adhesive and filter fabric.

Field face of top panel

TYPICAL TOP PANEL

Filter fabric detail continues at all vertical and horizontal joints.

Backfill and compact toe at face of wall.

TYPICAL BOTTOM PANEL

TYPICAL INTERMEDIATE PANEL

TYPICAL CONSTRUCTION SEQUENCE

1A. Cast or place leveling pad on prepared foundation.

1B. Layout proper panel face alignment on leveling pad.

1C. Place and plumb bottom row of panels. Use shims as required.

1D. Cover all vertical and horizontal joints with specified filter fabric.

2A. Place and compact soil to level of first panel: height 5'-2".

2B. Place soil reinforcing strip around panel anchor. Remove slack in strip and connection and anchor strip at back of reinforcing zone.

2C. Place and compact soil to next anchor row. Place the horizontal band of panel and work towards top of panel.

3A. Cast or place leveling pad on prepared foundation.

3B. Place and compact soil to level of first panel: height 6'-5".

3C. Repeat sequence 2B thru 3C until top of wall is reached.

3D. Backfill and compact toe at face of wall.

Typical construction sequence continues.
TYPICAL MSE WALL SECTION

NOTE: TOP AND BOTTOM PANELS VARY IN HEIGHT. STANDARD INTERMEDIATE PANEL IS AN "A" PANEL; "B" PANELS RISE FROM A 7'-0" NOMINAL HEIGHT TO 1' BELOW THE NEAREST 6'-6" WALL. STANDARD "T" PANELS RANGE FROM A 7'-0" TO A 8'-0" NOMINAL HEIGHT. SELECT BACKFILL LIMITS VARY PER PLAN.

STANDARD "A" PANELS
STANDARD "B" PANEL RANGES FROM A 1'-0" TO 6'-6" NOMINAL HEIGHT, RESPECTIVELY.

NOTE: TOP AND BOTTOM PANELS VARY IN HEIGHT. STANDARD INTERMEDIATE PANEL IS AN "A" PANEL; "B" PANELS RISE FROM A 7'-0" NOMINAL HEIGHT TO 1' BELOW THE NEAREST 6'-6" WALL. STANDARD "T" PANELS RANGE FROM A 7'-0" TO A 8'-0" NOMINAL HEIGHT. SELECT BACKFILL LIMITS VARY PER PLAN.

STANDARD BOTTOM PANELS RANGE FROM A "B-7" TO "B+3" PANEL, 1'-6" TO 6'-6" NOMINAL HEIGHT, RESPECTIVELY.

STANDARD TOP PANELS RANGE FROM A "T-7" TO A "T+3", 1'-6" TO 6'-6" NOMINAL HEIGHT, RESPECTIVELY.

STANDARD INTERMEDIATE PANEL IS AN "A" PANEL, 5'-0" NOMINAL HEIGHT AND 25 SFT NOMINAL AREA. STANDARD BOTTOM PANELS RANGE FROM A "B-7" TO "B+3" PANEL, 1'-6" TO 6'-6" NOMINAL HEIGHT, RESPECTIVELY. STANDARD TOP PANELS RANGE FROM A "T-7" TO A "T+3", 1'-6" TO 6'-6" NOMINAL HEIGHT, RESPECTIVELY.

NOTE: LONG TERM SETTLEMENT GREATER THAN 2".
The design contained in these drawings is based on the Tricon Precast, Ltd. specifications.

The strength of concrete shall be class IV and have a minimum compressive strength of 5500 PSI at 28 days.

Coping concrete shall be Class IV and have a minimum compressive strength of 5500 PSI at 28 days.

Reinforcement shall meet the requirements of ASTM A615 Grade 60.

Cast to fit by contractor.

Special length and mitered pieces shall be field measured and precast coping to be manufactured in standard 10'-0" lengths.

Coping has been designed as solid. If any drain slots, etc. are required please advise HHI.

MSE panels or coping with this designation. HHI will not build these panels until the supporting wall has been completed.

The information provided by the owner, TEG Engineering, LLC, is only responsible for the internal stability of the MSE wall system. Global stability, external stability, and bearing capacity are not the responsibility of TEG Engineering, LLC.

These drawings have been reviewed by HHI. The information provided by the owner, TEG Engineering, LLC, is only responsible for the internal stability of the MSE wall system. Global stability, external stability, and bearing capacity are not the responsibility of TEG Engineering, LLC.

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NOTICE: USE OF CONTRACTOR MUST CONTACT HHI PRECAST LTD. AND "VERIFY IN FIELD" ANY PANEL OR COPING WITH THIS DESIGNATION. HHI WILL NOT BUILD THESE PANELS OR COPING WITH THIS DESIGNATION. PLEASE ADVISE HHI OF ANY "VIF" NOTED PRODUCT UNTIL CONFIRMATION IS RECEIVED.

INDEX 6100 7 1/2" PRECAST COPING

FRONT FACE ELEVATION

SECTION A-A

INDEX 6100 7 1/2" PRECAST COPING

NOTE: SEE CASTING DRAWINGS FOR PRECAST COPING DETAILS AND REINFORCEMENT DETAILS.
TYPICAL CORNER ELEMENT DETAIL

STANDARD CORNER ELEMENT "2P(2-2).CA@90"

TYPICAL CORNER ELEMENT DETAIL

STANDARD CORNER ELEMENT "2P(2-2).CA@90"

90° ELEMENT

NOTICE:

These drawings have been sealed on Mar 25, 2016

No. 68788
STATE OF FLORIDA ENGINEER

Mar 25, 2016

Mar 25, 2016

Mar 25, 2016

Mar 25, 2016
1. See wedge anchor installation procedures.

2. These details are for normal weight concrete with a 4000 psi min compressive strength at the time of installation.

3. 3765 lb max allowable tension load for Power Stud, wedge expansion anchor Cat. No. 7742.

4. 2375 lb max allowable shear load for Power Stud, wedge expansion anchor Cat. No. 7742.

5. Factor of safety is 4 for both tension and shear loads.

6. Loads listed above are not multiplied by reduction factors for anchor spacing or edge distance.

7. Substitution of the supplied wedge anchors is acceptable. Acceptable substitutions are mild steel & 1/4" diameter 7/8" long and mild steel fully threaded 1/4" diameter 7/8" long part no. W-1994H. See manufacturer's recommendations for installation and use.

8. If any tolerance is not met as shown on these details, acceptance of the change must be determined by conducting a tension test at 1.5 times the 3765 lb allowable tension load, any change to the anchor or panel shall be at the risk of the contractor. Any item requiring replacement shall also be at the expense of the contractor.

NOTES:

1. See wedge anchor installation procedures.

2. These details are for normal weight concrete with a 4000 psi min compressive strength at the time of installation.

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TYPICAL MSE WALL ELEVATION

VIEW IS FRONT FACE

NOTE:
- STANDARD INTERMEDIATE PANEL IS AN "A" PANEL.
  5'-0" NOMINAL HEIGHT AND 20" MINIMUM AREA.
- STANDARD TOP PANELS RANGE FROM A "B-7" TO A "B+3" PANEL, 1'-6" TO 6'-6" NOMINAL HEIGHT AND 7.5FT TO 32.5FT NOMINAL AREA, RESPECTIVELY.
- STANDARD BOTTOM PANELS RANGE FROM A "B-7" TO A "B+3" PANEL, 1'-6" TO 6'-6" NOMINAL HEIGHT.
- STANDARD INTERMEDIATE PANEL IS AN "A" PANEL.
- 25FT NOMINAL AREA.
- STANDARD TOP PANELS RANGE FROM A "T-7" TO A "T+3" PANEL, 1'-6" TO 6'-6" NOMINAL HEIGHT AND 25FT NOMINAL AREA.
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