80 Leighton Road . Falmouth, Maine 04105

MSE CALCULATIONS SHOP DRAWING SUBMITTAL FOR BAYVIEW CONDOMINIUMS MSE RETAINING WALL PORTLAND, ME

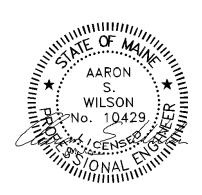
SUBMITTED ON June 6, 2014

BY

A. H. GROVER, INC.

PO BOX 207 Cumberland, ME 04021 207-829-3373 Contact: Polly Sewall

PREPARED BY:
ASSOCIATED DESIGN PARTNERS INC.
80 LEIGHTON ROAD
FALMOUTH, MAINE 04105
(207) 878-1751 FAX (207) 878-1788
ADP# 14205



CALCULATIONS

Bayview Condominiums ANCHORWALL MSE RETAINING WALL PORTLAND, MAINE

- THESE CALCULATIONS ARE PROVIDED FOR AN "ANCHOR WALL SYSTEMS" MECHANICALLY STABILIZED EARTH RETAINING STRUCTURE FOR THE ABOVE REFERENCED PROJECT. THE ATTACHED ANALYSIS IS BASED UPON THE SITE CIVIL DRAWINGS DATED 6/10/13. SHOULD ANY VARIATIONS OR DISCREPANCIES IN THOSE DOCUMENTS BE IN EXISTENCE, OUR CALCULATIONS AND SUBMITTAL MAY CHANGE ACCORDINGLY. ASSOCIATED DESIGN PARTNERS, INC. MAKES NO CERTIFICATION TO THE ACCURACY OR COMPLETENESS OF CONTRACT DOCUMENTS PROVIDED BY OTHERS. PRESENTATION OF THIS SUBMITTAL IN NO WAY IMPLIES ACCEPTABILITY OR ADEQUACY OF THE COMPONENTS OR SYSTEMS USED WITHIN THE OVERALL STRUCTURE FOR PERFORMANCE OR CAPACITY OTHER THAN THAT, WHICH IS SPECIFICALLY REPRESENTED ON THE DRAWINGS AND CALCULATIONS HEREIN.
- THE WALL HAS BEEN DESIGNED FOR SUPPORT OF A UNIFORMLY DISTRIBUTED LIVE LOAD SURCHARGE OF 125PSF AT AREAS ABOVE THE WALL.
- THE ATTACHED COMPUTER CALCULATIONS ARE BASED UPON THE MODIFIED COULOMB METHOD WITH SEISMIC PROVISIONS CONSIDERED. THIS ANALYSIS ASSUMES A= 0.08
- THIS ANALYSIS PROVIDES REASONABLE RESULTS FOR THE WALL DESIGN SCENARIOS AND GEOMETRY
 DEPICTED ON THE CIVIL SITE CONTRACT DRAWINGS. WALL DISPLACEMENT ANALYSIS, GLOBAL
 INSTABILITY, AND SOIL LIQUIFACTION ASSOCIATED WITH SEISMIC ANALYSIS ARE BEYOND THE SCOPE
 OF THIS ANALYSIS.

ASW

Designer



Project Information

Client AH Grover Inc

Name Bayview MSE Number

Site Ocean Ave, Portland ME

Revision 1 **Created** 6/6/2014 **Modified** 6/6/2014

Standard National Concrete Masonry Association 3rd Edition

Selected Wall Unit

Diamond Pro® Licensor: Anchor Wall Systems, Inc.

Selected Reinforcement Types

SF35 - Synteen Geogrid SF35 Supplier: Synteen Technical Fabrics, Inc.

Project Design Inputs

Design Standard National Concrete Masonry Association 3rd Edition

Reinforced Analysis

| Category | Factor | | | |
|----------|-------------------------------|-----------------|---------|---------|
| Category | Factor | Variable | Minimum | Minimum |
| | Max. Reinforcement Separation | Rs | 2.6667 | 2.0000 |
| | Max. multiple of Wu at bottom | RsBottom | 2.50 | 2.50 |
| | Max. multiple of Wu at top | RsTop | 2.50 | 2.50 |
| | Min. Anchorage Length | La | 0.9999 | 0.9999 |
| | Min. L/H Ratio | L/H Ratio | 0.6000 | 0.6000 |
| | Min. Reinforcement Length | L | 3.9993 | 4.0000 |
| External | Base Sliding | FSsl | 1.50 | 1.50 |
| External | Bearing Capacity | FSbc | 2.00 | 2.00 |
| External | Crest Toppling | FSct | 1.50 | 1.50 |
| External | Overturning | FSot | 2.00 | 2.00 |
| Internal | Global Stability | FSGlobal | 1.30 | 1.30 |
| Internal | Internal Compound Stabilty | FSics | 1.30 | 1.30 |
| Internal | Internal Sliding | FSsl | 1.50 | 1.50 |
| Internal | Pullout | FSpo | 1.50 | 1.50 |
| Internal | Tensile Overstress | FSto | 1.50 | 1.50 |
| Local | Connection Strength | FScs | 1.50 | 1.50 |
| Local | Facing Shear | FSsc | 1.50 | 1.50 |
| Seismic | | | | |
| External | Base Sliding | FSslseismic | 1.10 | 1.10 |
| External | Bearing Capacity | FSbcseismic | 1.10 | 1.10 |
| External | Crest Toppling | FSctseismic | 1.10 | 1.10 |
| External | Overturning | FSotseismic | 1.10 | 1.10 |
| Internal | Global Stability | FSGlobalSeismic | 1.30 | 1.30 |
| Internal | Internal Compound Stabilty | FSicsseismic | 1.10 | 1.10 |
| Internal | Internal Sliding | FSslseismic | 1.10 | 1.10 |
| Internal | Pullout | FSposeismic | 1.10 | 1.10 |
| Internal | Tensile Overstress | FStoseismic | 1.10 | 1.10 |
| Local | Connection Strength | FScsseismic | 1.10 | 1.10 |
| Local | Facing Shear | FSscseismic | 1.10 | 1.10 |

Conventional Analysis

| Category | Factor | Variable | Default Minimum | Used Minimum |
|----------|----------------------------|-----------------|--------------------|-----------------|
| External | Base Sliding | FSsl | 1.50 | 1.50 |
| External | Bearing Capacity | FSbc | 2.00 | 2.00 |
| External | Overturning | FSot | 2.00 | 2.00 |
| Internal | Global Stability | FSGlobal | 1.50 | 1.50 |
| Internal | Internal Compound Stabilty | FSics | 1.50 | 1.50 |
| Internal | Internal Sliding | FSsl | 1.50 | 1.50 |
| Internal | Shear Capacity | FSsc | 1.50 | 1.50 |
| Seismic | | | | |
| External | Base Sliding | FSslseismic | 1.10 | 1.10 |
| External | Bearing Capacity | FSbcseismic | 1.10 | 1.10 |
| External | Overturning | FSotseismic | 1.10 | 1.10 |
| Internal | Global Stability | FSGlobalSeismic | 1.50 | 1.50 |
| Internal | Internal Compound Stabilty | FSicsseismic | 1.10 | 1.10 |
| Internal | Internal Sliding | FSslseismic | 1.10 | 1.10 |
| Internal | Shear Capacity | FSscseismic | 1.10 | 1.10 |

Common Criteria

| | | | Default | Used |
|----------|---------------------|----------|---------|---------|
| Category | Factor | Variable | Minimum | Minimum |
| | Minimum Embedment | MinHemb | 6.0000 | 6.0000 |
| | Minimum Embedment | MinHemb | 6.0000 | 6.0000 |
| | Minimum Embedment % | Hemb | 0.1000 | 0.1000 |
| | Minimum Embedment % | Hemb | 0.1000 | 0.1000 |

| | | | Default | Used |
|----------|----------------------------------|----------|---------|---------|
| Category | Factor | Variable | Minimum | Minimum |
| | Minimum Embedment over 18.4° toe | Hemb2 | 0.1428 | 0.1428 |
| | Minimum Embedment over 18.4° toe | Hemb2 | 0.1428 | 0.1428 |

Seismic

Anchorplex Analysis

| Category | Factor | Variable | Default Minimum | Used Minimum |
|----------|----------------------------|----------------------|--------------------|-----------------|
| | Min. Anchorplex Depth | Anchorplex Depth | 1.0000 | 1.0000 |
| | Min. Anchorplex L/H Ratio | Anchorplex L/H Ratio | 0.3000 | 0.3000 |
| External | Base Sliding | FSsl | 1.50 | 1.50 |
| External | Bearing Capacity | FSbc | 2.00 | 2.00 |
| External | Overturning | FSot | 1.50 | 1.50 |
| Internal | Internal Compound Stabilty | FSics | 1.50 | 1.50 |
| Seismic | | | | |
| External | Base Sliding | FSslseismic | 1.10 | 1.10 |
| External | Bearing Capacity | FSbcseismic | 1.50 | 1.50 |
| External | Overturning | FSotseismic | 1.10 | 1.10 |
| Internal | Internal Compound Stabilty | FSicsseismic | 1.10 | 1.10 |

Selected Wall Unit

| Diamond Pro® | Licensor: Anchor Wall Systems, Inc. |
|--------------|-------------------------------------|
|--------------|-------------------------------------|

| Unit Height | Hu | 0.67 ft |
|------------------------|---------|---------------------------|
| Coping Height | Hcu | 0.33 ft |
| Face Width | Lu | 1.50 ft |
| Unit Depth | Wu | 1.00 ft |
| Unit Weight | Xu | 129.91 lb/ft ³ |
| Center of Gravity | Gu | 0.50 ft |
| Setback | u | 0.08 ft |
| Batter | | 7.13 deg |
| Initial Shear Capacity | au | 1,180.97 lb/ft |
| Apparent Shear Angle | u | 45.00 deg |
| Maximum Shear Capacity | Vu(max) | 2,660.97 lb/ft |
| | | |

Selected Reinforcement Types

SF35 - Synteen Geogrid SF35 Supplier: Synteen Technical Fabrics, Inc.

| Coeff. of Direct Sliding | Cds | 0.80 |
|--|---------|----------------|
| Coeff. of Interaction | Ci | 0.80 |
| Ultimate Tensile Strength | Tult | 3,436.09 lb/ft |
| Reduction Factor - Creep | RFcr | 1.54 |
| Reduction Factor - Install. Damage | RFid | 1.08 |
| Reduction Factor - Durability | RFd | 1.10 |
| Long-term Allowable Design Strength | Ta | 2,892.33 lb/ft |
| Long-term Allowable Design Strength (creep) | Ta(cr) | 1,878.14 lb/ft |
| Connection Properties for Wall Unit Diamond Pro® | | |
| Minimum Connection Capacity | acs | 1,184.38 lb/ft |
| Normal Load (IP-1) | | 1,944.62 lb/ft |
| Connection Capacity | | 1,667.53 lb/ft |
| Normal Load (IP-2) | | 1,944.62 lb/ft |
| Maximum Connection Capacity | Sc(max) | 1,667.53 lb/ft |
| Initial Shear Capacity | au | 1,181.38 lb/ft |
| Apparent Shear Angle | u | 45.00 deg |
| Maximum Shear Capacity | Vu(max) | 2,660.84 lb/ft |

Selected Soil Types

| | | | In Situ | | |
|----------------|-----------|----------|----------|----------|-------------|
| | | Friction | Density | Friction | Cohesion Cf |
| Soil Zone | Soil Type | Angle | [lb/ft³] | Factor µ | [lb/ft²] |
| Infill (i) | GW | 32° | 130.00 | n/a | n/a |
| Retained (r) | GM | 28° | 125.00 | n/a | n/a |
| Foundation (f) | SM | 28° | 120.00 | 0.60 | 500.00 |
| Base (b) | GW | 39° | 140.02 | 0.70 | n/a |
| Drainage (d) | GW | 32° | 130.00 | 0.70 | n/a |

Soil Glossary

CH: Inorganic clays, high plasticity

CL: Inorganic clays, low to medium plasticity, gravelly, sandy, silty, lean clays

GC: Clayey gravels, poorly graded gravel-sand-clay mixtures
GM: Silty gravels, poorly graded gravel-sand-silt mixtures
GP: Poorly-graded gravels, gravel-sand. Little or no fines.
GW: Well-graded gravels, gravel-sand. Little or no fines.

MH: Inorganic clayey silts, elastic silts

ML: Inorganic silts, very fine sands, silty or clayey, slight plasticty

SC: Clayey sands, poorly graded sand-clay mixtures
SM: Silty sands, poorly graded sand-silt mixtures

SP: Poorly-graded sands, gravelly sands. Little or no fines.SW: Well-graded sands, gravelly sands. Little or no fines.

Panel Geometry

Reinforcement Details

| | | Length | Area | | |
|-------|--------|--------|-------|-----------------------------|--|
| Panel | Course | [ft] | [ft²] | Reinforcement | |
| 1 | 1 | 5.50 | 57.75 | SF35 - Synteen Geogrid SF35 | |
| | 4 | 5.50 | 57.75 | SF35 - Synteen Geogrid SF35 | |
| | 7 | 5.50 | 57.75 | SF35 - Synteen Geogrid SF35 | |

Analysis Summary

Lowest Values - Reinforced

Static Analysis

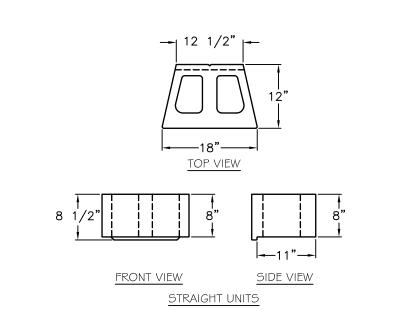
| | | | Layer/ | Minimum | | |
|-----------|-------------------------------|-------|--------|-------------|--------|--------|
| Test | Description | Panel | Course | Requirement | Result | Status |
| Rs | Max. Reinforcement Separation | 1 | | 2.0000 | 2.0000 | Pass |
| RsBottom | Max. multiple of Wu at bottom | 1 | | 2.50 | 0.67 | Pass |
| RsTop | Max. multiple of Wu at top | 1 | | 2.50 | 1.33 | Pass |
| La | Min. Anchorage Length | 1 | | 0.9999 | 1.5242 | Pass |
| L/H Ratio | Min. L/H Ratio | 1 | | 0.6000 | 0.9167 | Pass |
| L | Min. Reinforcement Length | 1 | | 4.0000 | 5.5000 | Pass |
| FSsl | Base Sliding | 1 | | 1.50 | 3.30 | Pass |
| FSbc | Bearing Capacity | 1 | | 2.00 | 24.03 | Pass |
| FSct | Crest Toppling | 1 | 7 | 1.50 | 7.42 | Pass |
| FSot | Overturning | 1 | | 2.00 | 7.09 | Pass |
| FSsl | Internal Sliding | 1 | 1 | 1.50 | 5.03 | Pass |
| FSpo | Pullout | 1 | 3 | 1.50 | 5.06 | Pass |
| FSto | Tensile Overstress | 1 | 1 | 1.50 | 6.81 | Pass |
| FScs | Connection Strength | 1 | 1 | 1.50 | 4.92 | Pass |
| | | | | | | |

Seismic Analysis

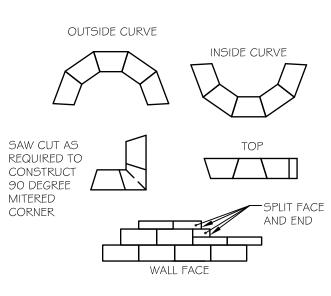
| | | | Layer/ | Minimum | | |
|--------------------|---------------------|-------|--------|-------------|--------|--------|
| Test | Description | Panel | Course | Requirement | Result | Status |
| FSslseismic | Base Sliding | 1 | | 1.10 | 3.01 | Pass |
| FSbcseismic | Bearing Capacity | 1 | | 1.10 | 23.46 | Pass |
| FSctseismic | Crest Toppling | 1 | 7 | 1.10 | 3.55 | Pass |
| FSotseismic | Overturning | 1 | | 1.10 | 6.19 | Pass |
| FSslseismic | Internal Sliding | 1 | 1 | 1.10 | 4.70 | Pass |
| FSposeismic | Pullout | 1 | 3 | 1.10 | 2.23 | Pass |
| FStoseismic | Tensile Overstress | 1 | 1 | 1.10 | 5.74 | Pass |
| FScsseismic | Connection Strength | 1 | 1 | 1.10 | 3.83 | Pass |

Below Standard Values

None



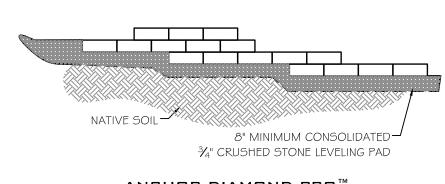
ANCHOR DIAMOND PRO™ 3-WAY BLOCK VIEWS



- I. ALWAYS START CAPPING WALL FROM THE LOWEST ELEVATION. 2. LAYOUT CAPS PRIOR TO USING ADHESIVE. 3. CUT CAPS TO FIT. VARIOUS COMBINATIONS OF LONG AND SHORT CAP FACES WILL BE NECESSARY FOR RADII GREATER THAN THE MINIMUM.
- ACHIEVE A STRAIGHT ROW OF CAPS. 5. USE EXTERIOR-GRADE ELASTOMERIC POLYMER CONSTRUCTION ADHESIVE TO SECURE CAPS.

4. ALTERNATE SHORT AND LONG CAP FACES EVERY OTHER CAP TO

ANCHOR DIAMOND PRO™



ANCHOR DIAMOND PRO™ TYPICAL STEP-UP DETAIL

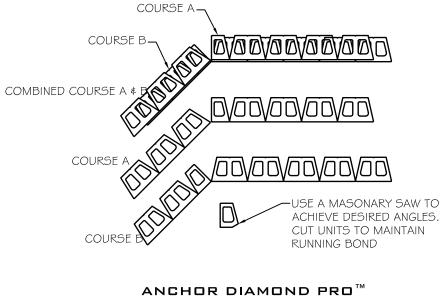
STRAIGHT UNITS

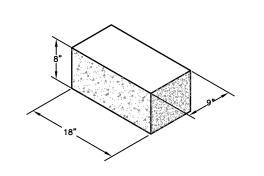
EXTEND GEOSYNTHETIC REINFORCEMENT

TO WITHIN 2" OF THE LOWER BLOCK FACE -

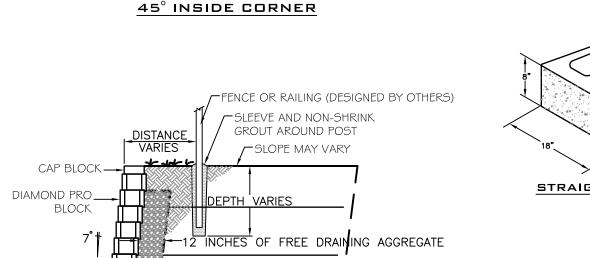
ANCHOR DIAMOND PRO™

REINFORCEMENT CONNECTION DETAIL





CORNER UNIT



INFORCEMENT LENGTH----

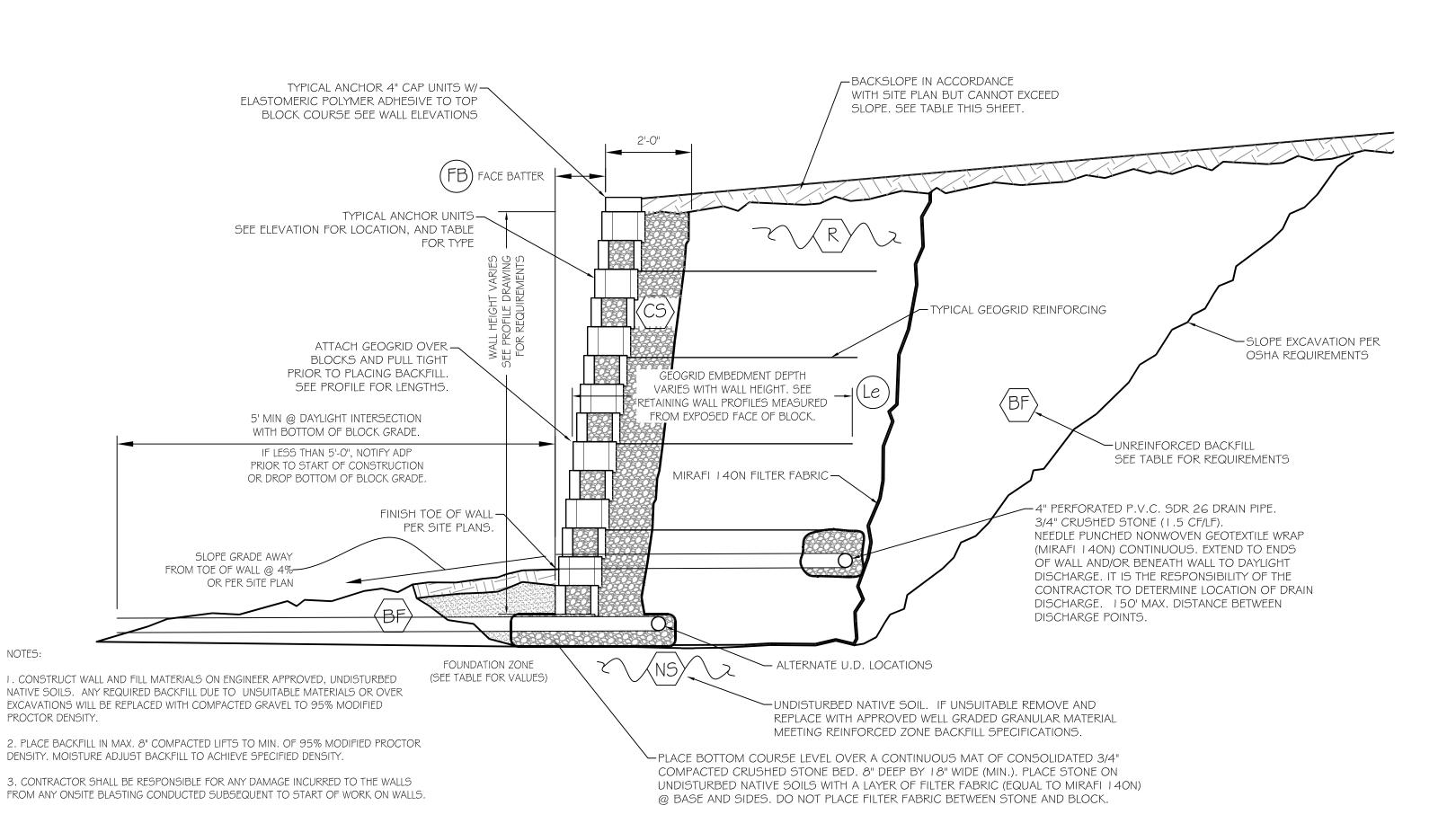
ANCHOR DIAMOND PRO™

FENCE BEHIND WALL

STRAIGHT UNIT CAP UNIT

> ANCHOR DIAMOND PRO ISO BLOCK VIEWS

3" CAP BLOCK DESIGN DETAILS



TYPICAL ANCHOR WALL SECTION

1. SHOP DRAWING ACTION STAMP:

1.1. THIS IS AN ENGINEERED SHOP DRAWING DESIGN BASED UPON INFORMATION PROVIDED BY OTHERS. THE WALL DESIGN DEPICTED HEREIN SHOULD BE REVIEWED BY THE SITE DESIGNER OR OTHERWISE RESPONSIBLE ENTITY TO VERIFY COMPLIANCE WITH THE GENERAL INTENT OF THE SITE DESIGN WITH RESPECT TO GRADING, WALL ALIGNMENT AND GEOMETRY, WALL STEPS, ETC. 1.2. THIS DESIGN IS BASED UPON INFORMATION PROVIDED BY OTHERS. SHOULD VARIATIONS BE ENCOUNTERED THE CONTRACTOR, SITE

DESIGNER OF RECORD, OR OTHER RESPONSIBLE ENTITY SHALL NOTIFY THE OWNER/ENGINEER AND ASSOCIATED DESIGN PARTNERS, INC, (ADP) TO MAKE APPROPRIATE ADJUSTMENTS.

2. WALL DESIGN NOTES:

2.1 THE WALL DESIGN(S) REPRESENTED HEREIN ARE BASED ON THE PROCEDURES DESCRIBED IN THE INDUSTRY STANDARD PUBLICATION NCMA TR127A "DESIGN MANUAL FOR SEGMENTAL RETAINGING WALLS, 2ND ED".

2.2 IN ACCORDANCE WITH NCMA TR127A "DESIGN MANUAL FOR SEGMENTAL RETAINGING WALLS, 2ND ED" SEC. 5.1.4, EXTERNAL GLOBAL STABILITY HAS NOT BEEN ADDRESSED AS PART OF THIS RETAINING WALL DESIGN.

2.3 THE WALL STABILITY ANALYSES IS BASED ON ANTICIPATED SOIL DESIGN VALUES AS REPRESENTED IN THE TABLE BELOW. THE PROJECT GEOTECHNICAL ENGINEER SHOULD REVIEW THE VALUES REPRESENTED HEREIN, AND NOTIFY ASSOICATED DESIGN PARTNERS AND/OR THE SITE CONTRACTOR IF MODIFICATIONS TO THE SOIL DESIGN PARAMETERS IS NECESSARY. A GEOTECHNICAL REPORT HAS NOT BEEN PROVIDED AT THIS TIME.

3. FILL SOIL COMPACTION:

3.1. ALL GRANULAR SOIL FILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698 STANDARD PROCTOR.

3.2. STONE IN WALL BASE PAD AND IN FILL LOCATIONS TO BE CONSOLIDATED TO 100% OF DRY RODDED UNIT WIEIGHT PER ASTM C-29. ROUNDED ROCK OR PEA STONE IS SPECIFICALLY NOT ALLOWED AT CRUSHED STONE FILL LOCATIONS.

4. GENERAL:

4.1. PLACE ANCHOR BLOCKS ON A 8" DEEP BASE FOOTING OF CONSOLIDATED 3/4" CRUSHED STONE. LEAN CONCRETE MAY ALSO BE USED FOR THE BASE FOOTING. IF LEAN CONCRETE IS USED IT SHALL BE PLACED ON 6" OF CRUSHED STONE, WITH SMOOTH FORMED VERTICAL SURFACES, BELOW ANTICIPATED FROST DEPTH.

4.3. INSTALL GEOGRID REINFORCING FABRIC AT LOCATIONS AND ELEVATIONS SHOWN ON THE WALL ELEVATION DRAWINGS. 4.4. ROLL GEOGRID OUT WITH STRONG FIBER (MACHINE DIRECTION) DIRECTION PERPENDICULAR TO WALL FACE TO EMBEDMENT LENGTH (LE) AS SPECIFIED ON THE PROFILE ELEVATIONS. IMPORTANT: GRID MUST BE LAID SMOOTH, FREE OF WRINKLES, PULLED TAUT AND STAKED PRIOR TO FILL PLACEMENT.

4.5. PLACE A MINIMUM OF 6" OF SOIL OVER GRID BEFORE ALLOWING MACHINERY ON THE REINFORCEMENT AREA. 4.6. GENERAL SOIL COMPACTION GUIDELINES: SITE EXCAVATION CONTRACTOR IS RESPONSIBLE FOR THE METHODS AND RESULTS OF THE

COMPACTION PROCESS. THE FOLLOWING IS A SUGGESTED METHOD OF INSTALLATION. 4.6.1. PLACE SOIL IN MAXIMUM 8" LOOSE LIFT THICKNESS AND COMPACT TO 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-698, STANDARD PROCTOR. USE ONLY HAND OPERATED ROLLER OR PLATE COMPACTORS WITHIN 5' OF THE BACK OF WALLS FOR LESS THAN 15' HIGH AND WITHIN 10' OF WALLS GREATER THAN 15' HIGH FOLLOW CONTRACT DOCUMENT COMPACTION SPECIFICATION. 4.7. LAY SUCCESSIVE COURSES OF BLOCK AND LAYERS OF GEOGRID ACCORDING TO PLANS AND PROFILE ELEVATIONS.

4.8. NOTIFY ENGINEER IMMEDIATELY IF ACTUAL SITE GRADES/CONTOURS DIFFER BY MORE THAN 1'-0" FROM THOSE INDICATED ON THESE SITE PLANS. VERTICAL AND HORIZONTAL DIMENSIONS AND THIS SPECIFIC WALL(S) DESIGN IS BASED UPON APPROXIMATE SITE GRADES TAKEN FROM SITE PLANS PREPARED BY OTHERS. IT IS COMMON FOR ACTUAL GRADES TO DIFFER FROM THOSE AS REPRESENTED BY CONTOURS OR SPOT GRADES SHOWN ON SITE DESIGN PLANS. VARIATIONS OF MORE THAN 1'-0" WILL EFFECT THE DESIGN OF THIS WALL. (SEE NOTE #1.2)

4.9. ALL SOIL TESTING TO FOLLOW CONTRACT SPECIFICATIONS. PROVIDE SEIVE ANALYSIS, SHEAR TEST, AND COMPACTION TEST REPORTS TO ASSOCIATED DESIGN PARTNERS INC, AND THE OWNER.

4.10 MAX STATIC BEARING PRESSURE = 840 PSF

PROJECT SPECIFIC DESIGN VALUES

| DETAIL REFERENCE LETTER | DESIGN VALUES DESCRIPTION | E/P A/C | VALUE | UNITS | CONSTRUCTION COMPLIANCE CONFIRMED |
|--------------------------------|---|------------|------------------------------|---------|---|
| NS | NATIVE SOIL SUBGRADE ALLOWABLE BEARING CAPACITY | E/A | 2000 | P.S.F. | |
| | NATIVE SOIL SUBGRADE INTERNAL FRICTION ANGLE | E/A | 28° | DEGREES | |
| | NATIVE SOIL SUBGRADE UNIT WEIGHT TOTAL ±5 P.C.F. | E/A | 120 | P.C.F. | |
| | NATIVE SOIL SUBGRADE COHESION | E/A | 500 | P.C.F. | |
| | NATIVE RETAINED SOIL INTERNAL FRICTION ANGLE | E/A | 28° | DEGREES | |
| | NATIVE RETAINED SOIL UNIT WEIGHT TOTAL ±5 P.C.F. | E/A | 125 | P.C.F. | |
| R MDOT 703.06a TYPE B | REINFORCED FILL MATERIAL INTERNAL FRICTION ANGLE | Р | 32 | DEGREES | |
| | REINFORCED FILL MATERIAL UNIT WEIGHT TOTAL ±5 P.C.F. | Р | 130 | P.C.F. | |
| | REINFORCED FILL MATERIAL MAXIMUM PARTICLE SIZE | Р | 3 | INCHES | |
| | REINFORCED FILL MATERIAL MAXIMUM FINES PASSING 200 SIEVE | Р | 5 | PERCENT | |
| BF GRANULAR BORROW | UNREINFORCED BACKFILL MATERIAL INTERNAL FRICTION ANGLE | Р | 28 | DEGREES | |
| | UNREINFORCED BACKFILL UNIT WEIGHT | Р | 125 | P.C.F. | |
| | UNREINFORCED BACKFILL MATERIAL MAXIMUM PARTICAL SIZE | Р | 6 | INCHES | |
| | UNREINFORCED BACKFILL MATERIAL MAXIMUM FINES PASSING 200 SIEVE | Р | 20 | PERCENT | |
| (C5) | CRUSHED STONE UNIT FILL MEDIAN PARTICLE SIZE | Р | 3/4 | INCHES | |
| BS | TOP OF WALL MAXIMUM BACKSLOPE ANGLE | Р | 14 | DEGREES | |
| FB | FACE BATTER | Р | 7.13 | DEGREES | |
| K | SIZE / TYPE OF UNITS | P | STRAIGHT-FACE DIAMOND-PRO | BLOCK | |

- EXISTING CONDITION OR VALUE

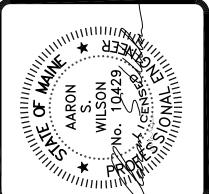
P - PROPOSED CONDITION OR VALUE

A - ASSUMED VALUE BASED UPON ANTICIPATED SITE CONDITIONS D - DERIVED VALUE GIVEN BY OTHERS BASED UPON EXPLORATION, TESTING, OR OBSERVATION

PCF - POUNDS PER CUBIC FOOT

PSF - POUNDS PER SQUARE FOOT





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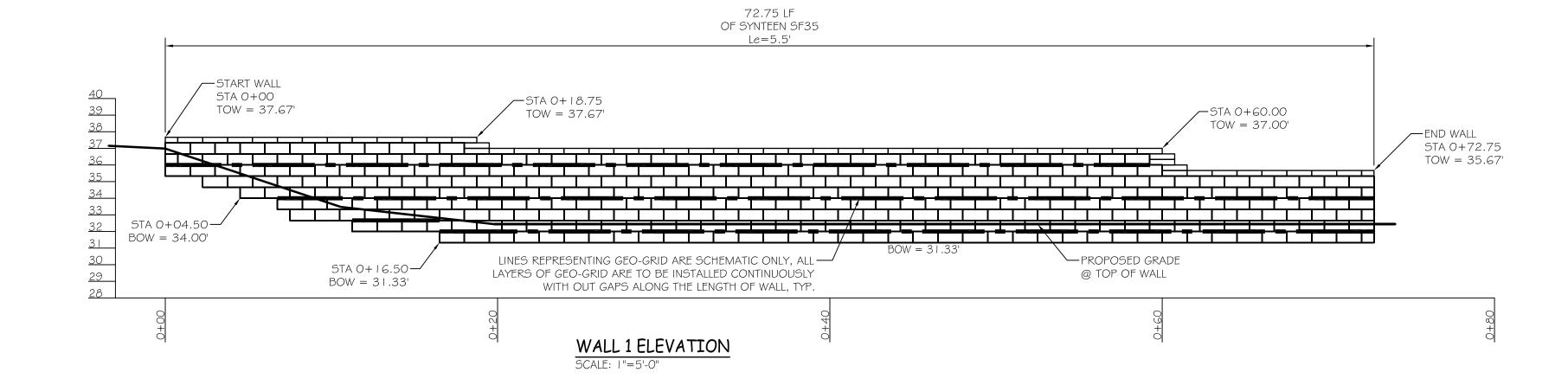
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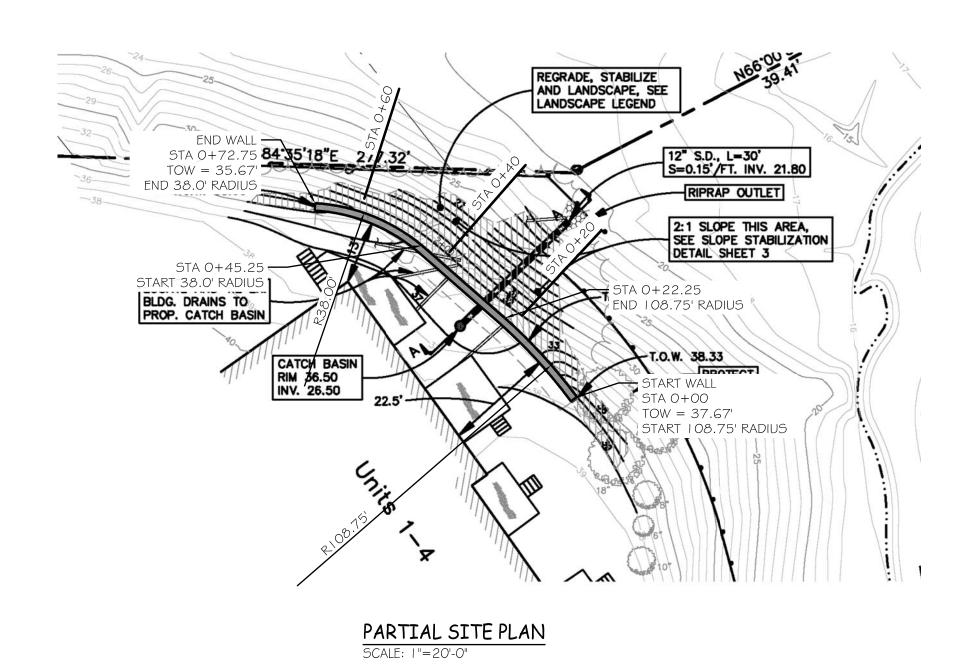
DATE : 6-9-14 SCALE : AS NOTED DESIGN BY: ASW DRAWN BY: RSC FILE #: 11302-RT.DWG

PROJECT NUMBER:

SHEET NO: RT1 WALL TOTALS

101.5 - 3" CAPS 1131.5 - ANCHOR DIAMOND PRO UNITS 504 - SY OF SYNTEEN SF35





SITE PLAN GENERATED FROM DIGITAL FILE. SCALE IS APPROXIMATE AND USER IS CAUTIONED AGAINST

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SSOCIATED DESIGNATIONS.

DESIGN

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EVATION AND SITE PLAN MININMS

CONDO BAYVIEW PORTLAND, FOR: A.H. GROVE

DATE : 6-9-14 SCALE : AS NOTED DESIGN BY: ASW DRAWN BY: RSC FILE #: 11302-RT.DWG PROJECT NUMBER:

14205 SHEET NO: RT2