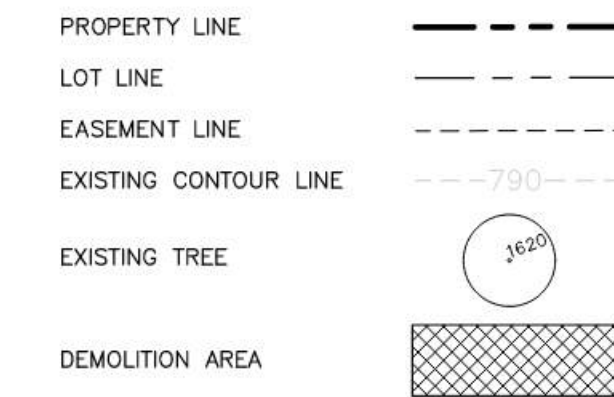




LINE TABLE		
TAG NO.	BEARING	LENGTH
L2	S19°23'W	45.43'
L3	S25°39'W	38.35'
L1	N61°17'W	78.84'
L4	N01°04'W	80.51'
L5	N61°56'W	44.96'
L6	N14°47'W	70.75'

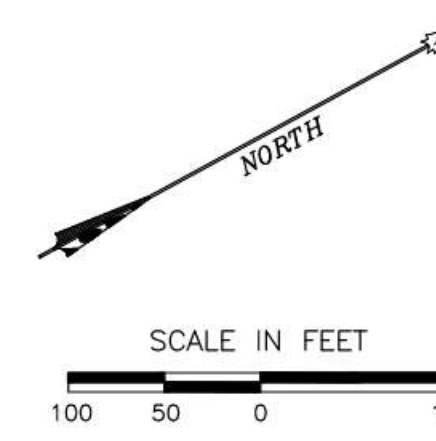
# TOPO SOURCE: DESIGN SURVEY DATE OF SURVEY: AUGUST 2020

## LEGEND



## NOTE

A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.



DYNAMIC FINANCE CORPORATION  
"TRACT 3-1"  
39.285 ACRES  
DOC. 2013122753  
O.P.R.W.C.T.

DYNAMIC FINANCE CORPORATION  
"TRACT 2-2"  
56.597 ACRES  
DOC. 2013122753  
O.P.R.W.C.T.

C.O.A. INT.  
#26140

6" G.V.  
#252115

6" G.V.  
#24719

CONTRACTOR TO REMOVE  
EXIST. INLET (1 EA)

CONTRACTOR TO REMOVE  
EXIST. 6" CURB (1,153 LF)

CONTRACTOR TO REMOVE  
EXIST. INLET (1 EA)

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EXIST. INLET (1 EA)

JAMISON CIVIL ENGINEERING LLC  
(TX. PE FIRM REG. #F-17756)  
13812 RESEARCH BLVD. #B-2  
AUSTIN, TEXAS 78750  
OFFICE: (737) 484-0880  
INFO@JAMISONENG.COM

BKO PARMER  
EXISTING CONDITIONS & DEMOLITION PLAN  
4801 EAST YAGER LANE  
AUSTIN, TEXAS

The seal appearing on this document was authorized by Stephen Roy Jamison 06/28/2022



Job No.	Snapshot: EXISTING
Scale (Hor.):	1"=100'
Scale (Vert.):	Scale (Vert.):
Date:	02/05/21
Checked By:	SRJ
Drawn By:	MM
Revision 1:	
Revision 2:	
Revision 3:	
Revision 4:	

SHEET  
05 of 120

SP-2021-0034D

CAUTION!!!  
CONTRACTOR SHALL LOCATE ANY/ALL EXISTING UTILITIES PRIOR TO ANY SITE WORK. (BOTH HORIZONTALLY AND VERTICALLY). THE DESIGN ENGINEER WILL NOT BE RESPONSIBLE FOR DAMAGES TO ANY EXISTING UTILITIES OR FOR ANY CONFLICTS THAT MAY ARISE DUE TO ANY UTILITIES NOT PROPERLY LOCATED.



TOPO SOURCE: DESIGN SURVEY  
DATE OF SURVEY: AUGUST 2020

DYNAMIC FINANCE CORPORATION  
TRACT 3-1  
39.285 ACRES  
DOC. 2013122753  
O.P.R.W.C.T.

DYNAMIC FINANCE CORPORATION  
TRACT 2-2  
56.597 ACRES  
DOC. 2013122753  
O.P.R.W.C.T.

SCALE IN FEET  
100 50 0 100

NORTH

JCE 1% ANNUAL CHANCE  
FLOOD PLAIN  
(FULLY DEVELOPED CONDITIONS)  
JCE 4% ANNUAL CHANCE  
FLOOD PLAIN  
(FULLY DEVELOPED CONDITIONS)

JCE 1% ANNUAL CHANCE  
FLOOD PLAIN  
(FULLY DEVELOPED CONDITIONS)  
JCE 4% ANNUAL CHANCE  
FLOOD PLAIN  
(FULLY DEVELOPED CONDITIONS)

JCE 1% ANNUAL CHANCE  
FLOOD PLAIN  
(FULLY DEVELOPED CONDITIONS)  
JCE 4% ANNUAL CHANCE  
FLOOD PLAIN  
(FULLY DEVELOPED CONDITIONS)

**CEF NOTE**  
ALL ACTIVITIES WITHIN THE CEF AND CEF BUFFER  
MUST COMPLY WITH THE CITY OF AUSTIN CODE AND  
CRITERIA. THE NATURAL VEGETATIVE COVER MUST BE  
RETAINED TO THE MAXIMUM EXTENT PRACTICABLE;  
CONSTRUCTION IS PROHIBITED; AND WASTEWATER  
DISPOSAL OR IRRIGATION IS PROHIBITED.

**MULCH LOG NOTE**  
WHEN INSTALLING MULCH LOG, IF  
DAYLIGHT CAN BE SEEN UNDER  
MULCH LOG DUE TO TOPOGRAPHIC  
CHANGES, ADD ADDITIONAL ROWS OF  
MULCH LOG TO CLOSE GAPS

**NOTE**  
A PRECONSTRUCTION MEETING WITH THE  
ENVIRONMENTAL INSPECTOR IS REQUIRED  
PRIOR TO ANY SITE DISTURBANCE.  
MID-CONSTRUCTION SILT FENCE TO BE  
PLACED AFTER INITIAL GRADING IS  
COMPLETE.

**CAUTION!!!**  
CONTRACTOR SHALL LOCATE ANY/ALL EXISTING  
UTILITIES PRIOR TO ANY SITE WORK.  
(BOTH HORIZONTALLY AND VERTICALLY).  
THE DESIGN ENGINEER WILL NOT BE RESPONSIBLE  
FOR DAMAGES TO ANY EXISTING UTILITIES  
OR FOR ANY CONFLICTS THAT MAY ARISE DUE TO  
ANY UTILITIES NOT PROPERLY LOCATED.

**JAMISON CIVIL ENGINEERING LLC**  
(TX. PE FIRM REG. #F-17756)  
13812 RESEARCH BLVD. #B-2  
AUSTIN, TEXAS 78750  
OFFICE: (737) 484-0880  
INFO@JAMISONENG.COM

**BKO PARTNER**  
**OVERALL EROSION SEDIMENTATION  
CONTROL PLAN**  
4801 EAST YAGER LANE  
AUSTIN, TEXAS

The seal appearing on  
this document was  
authorized by  
Stephen Ray Jamison  
on 07/26/2022

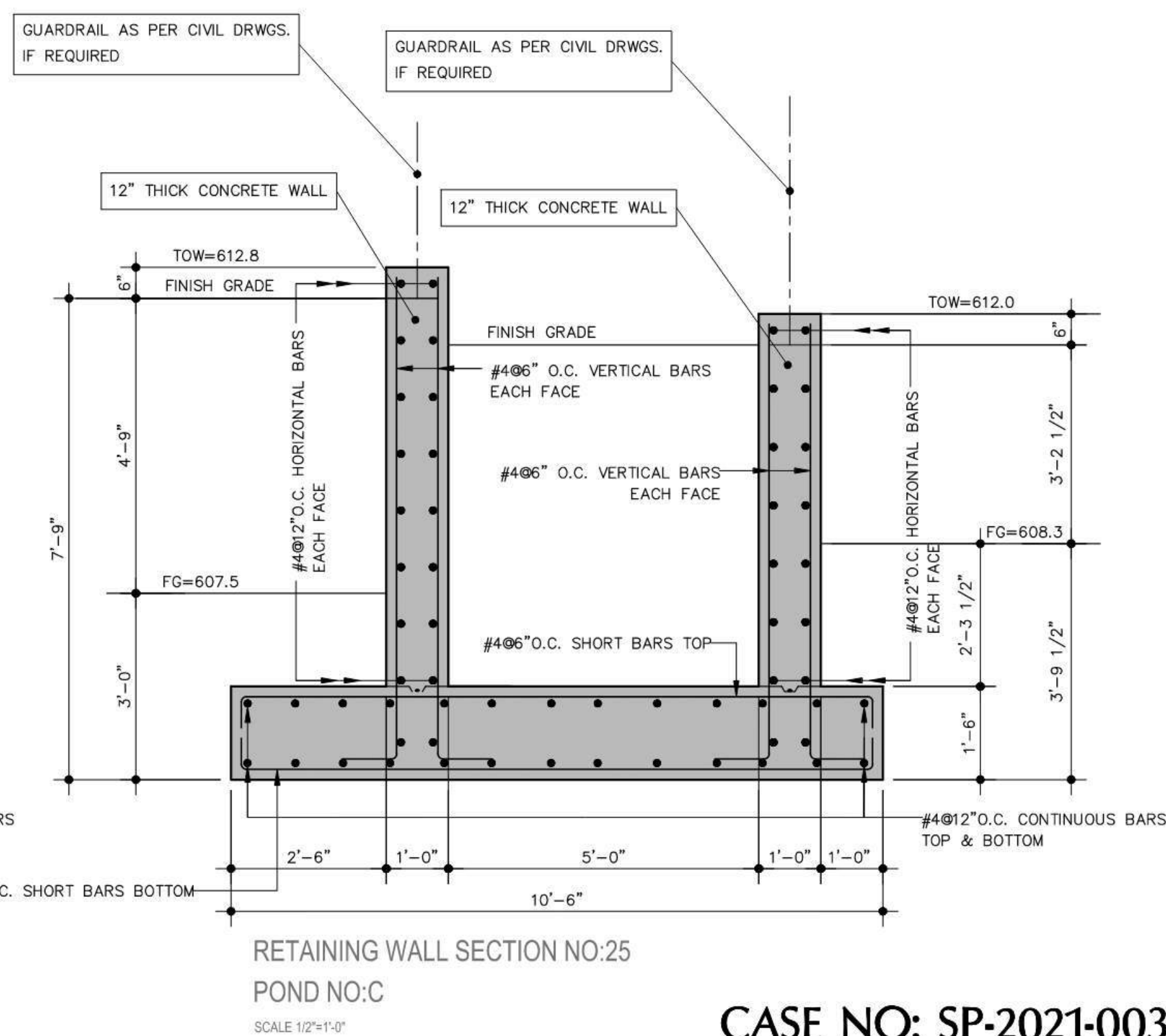
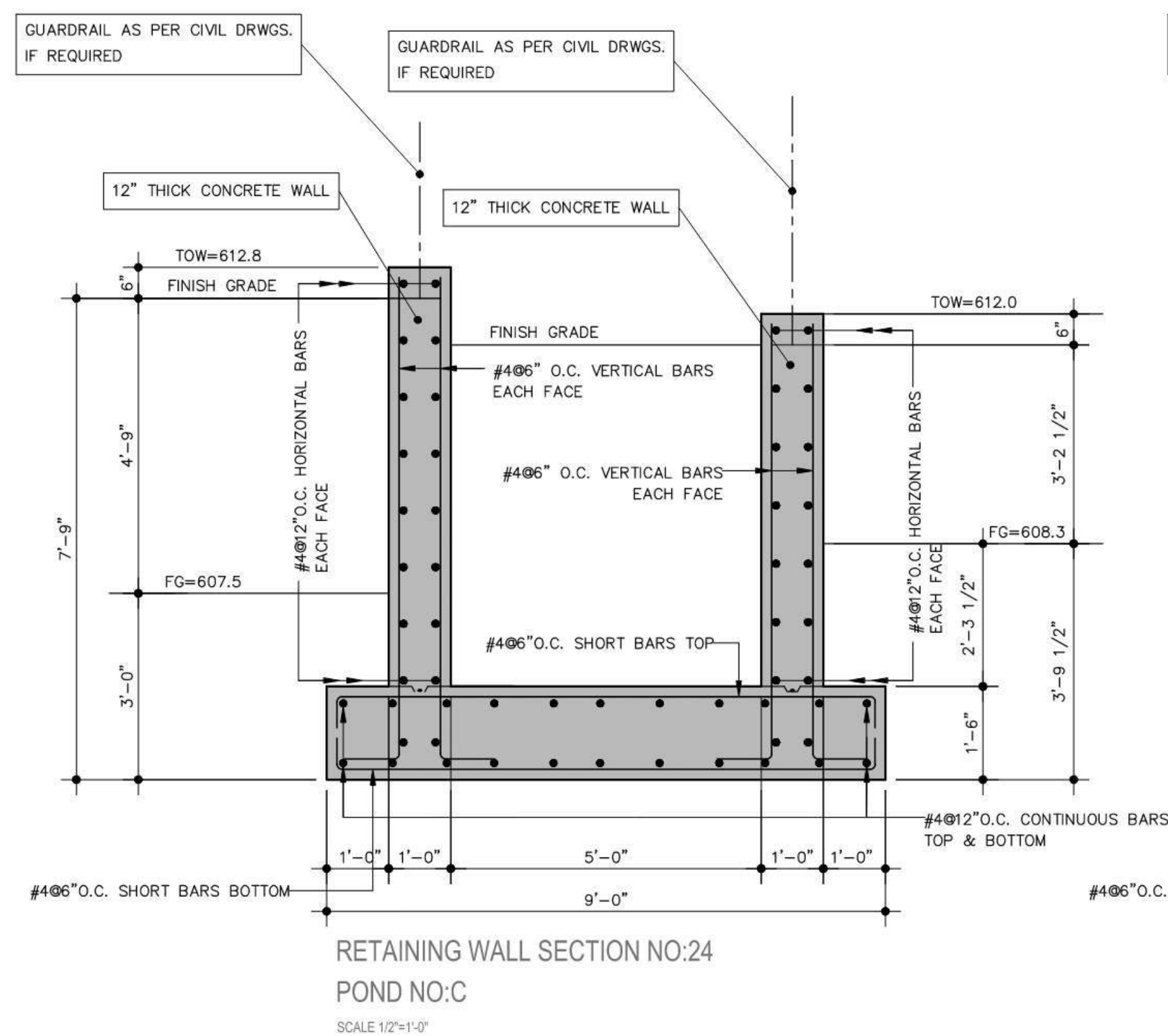
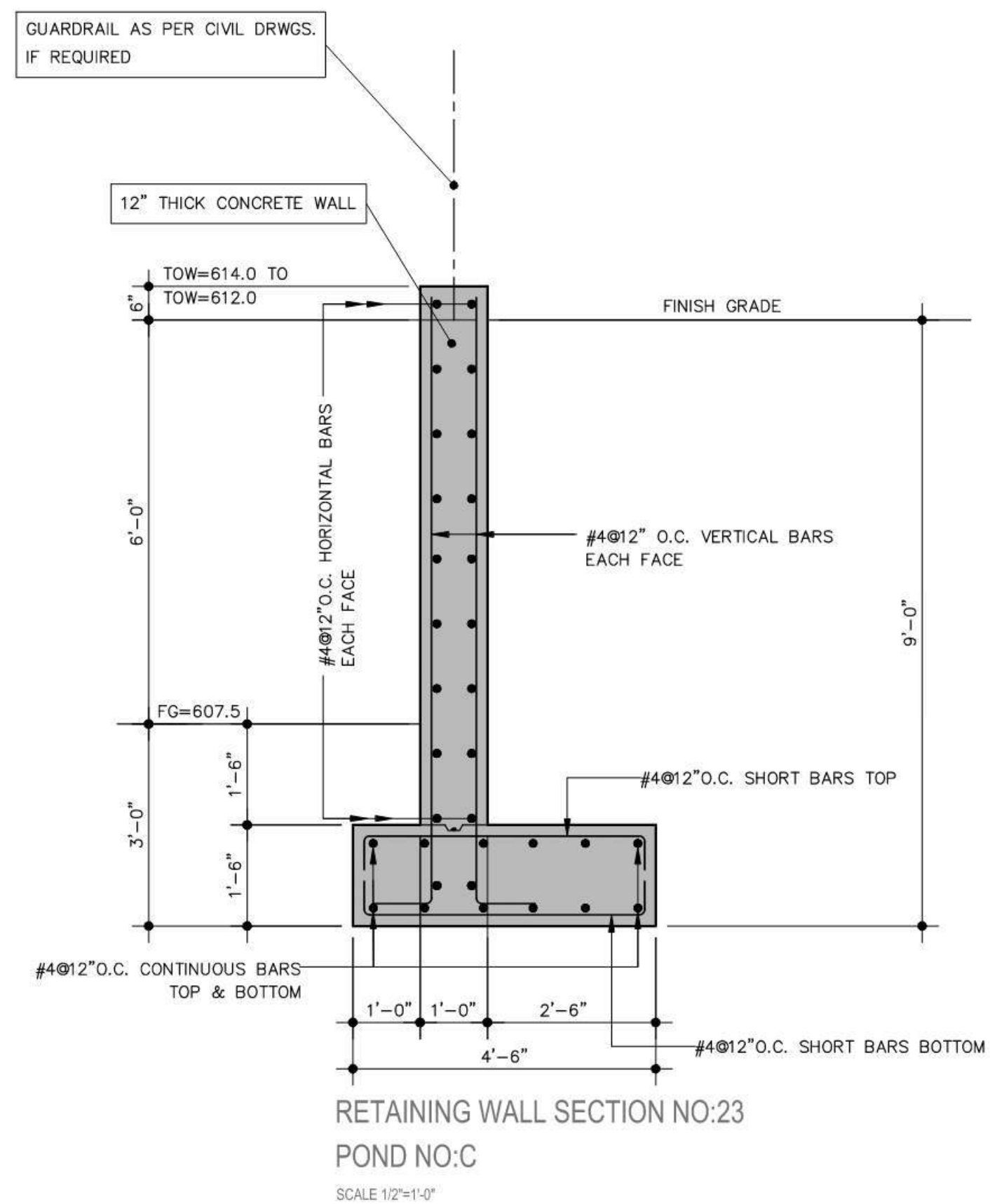


File: H:\BKO Partner\DWG\PLAN\EROSION.dwg	Snapshot: OVERALL
Job No.	Scale (Hor.): 1"=100'
Date: 02/05/21	Scale (Vert.):
Checked By: SRJ	Drawn By: DSP
Revision 1:	
Revision 2:	
Revision 3:	
Revision 4:	

**SHEET**  
08 of 165

**JCE**





CASE NO: SP-2021-0034D

**PROFESSIONAL STRUCTURAL ENGINEERS, INC.**  
CONSULTING CIVIL AND STRUCTURAL ENGINEERS  
2205 W. PARKER LANE, SUITE #210, AUSTIN, TX 78727 | TEL. 512.238.4422 | [PSCE@PSCINC.COM](mailto:PSCE@PSCINC.COM)

Figure 1 shows a 2x4 grid of boxes. Each box contains a 2x2 sub-grid. The top-left sub-grid in each box contains a letter (P or E) and a black square. The bottom-right sub-grid contains a letter (P or E) and a black square. The other two sub-grids are empty.

Project : **BKO PARMER**  
4801 E YAGER LANE, AUSTIN, TEXAS

Title : **RETAINING WALL DETAILS**

PROJECT  
30639

P

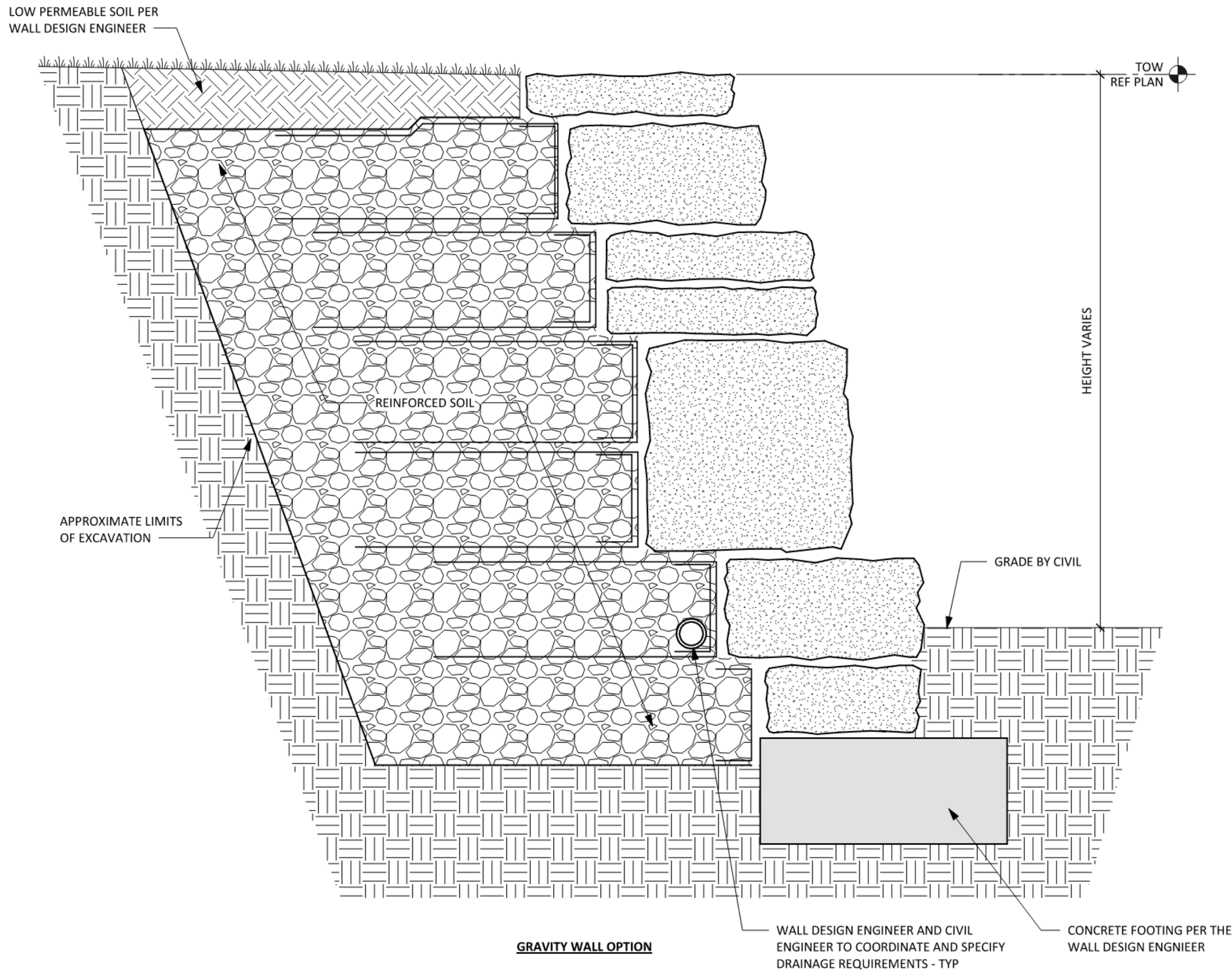
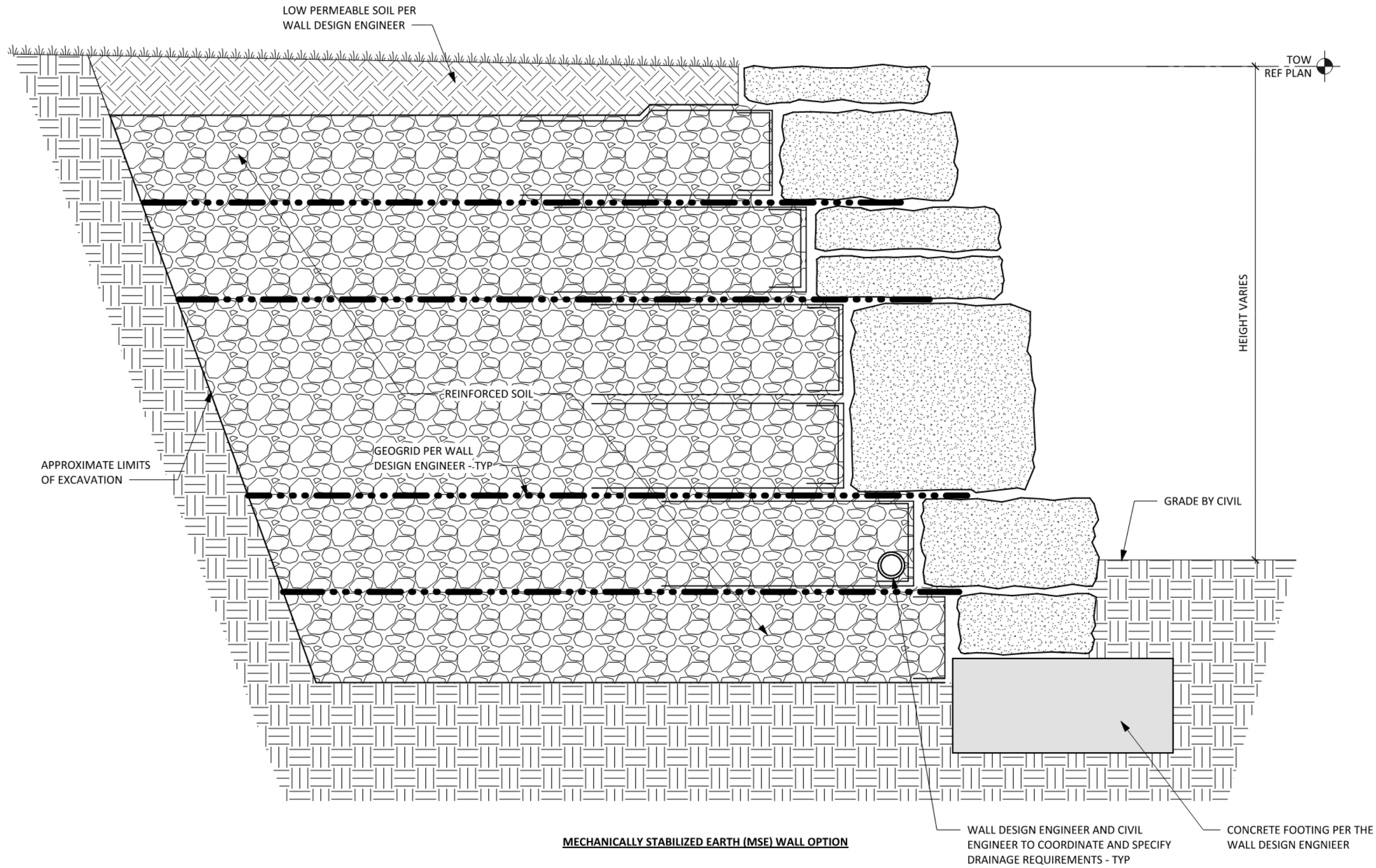
E

P

SHEET  
SP8

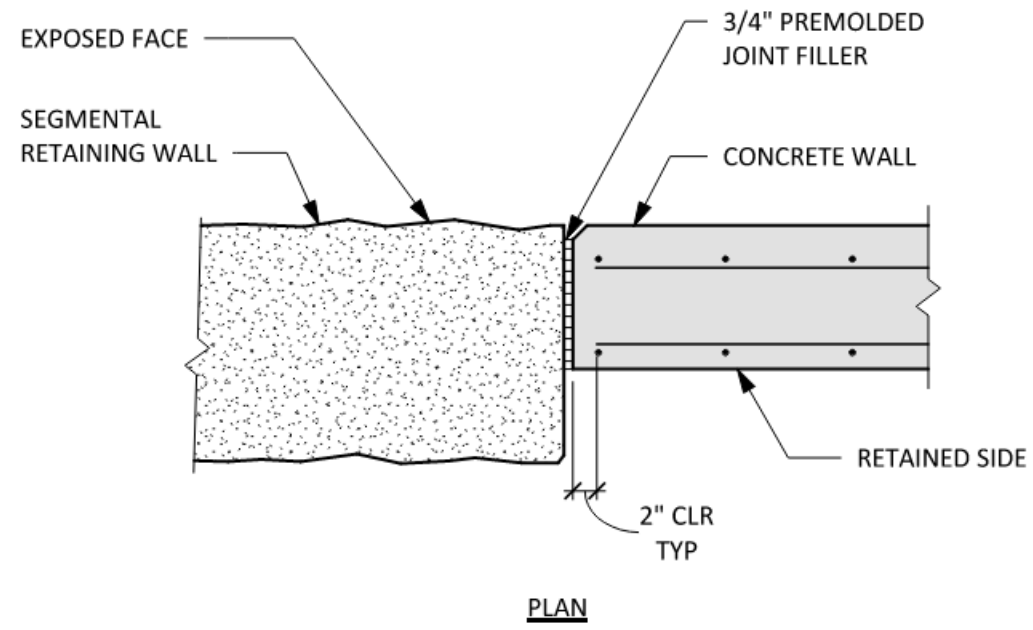


- NOTE:**
1. SEGMENTAL RETAINING WALL TO BE DESIGNED & SEALED BY THE MANUFACTURER'S ENGINEER LICENSED IN THE STATE OF TEXAS. THIS STRUCTURE IS OUTSIDE THE SCOPE OF SERVICES PROVIDED BY ENCOTECH ENGINEERING CONSULTANTS.
  2. SEGMENTAL WALL DESIGNER TO DETERMINE IF MSE OR GRAVITY WALL DESIGN OPTION IS APPROPRIATE FOR WALL GEOMETRY AND LOADING
  3. UNITS SHOWN TO ILLUSTRATE DESIGN INTENT. FINAL DESIGN IS THE RESPONSIBILITY OF THE SEGMENTAL RETAINING WALL DESIGNER AND ALL UNITS SHALL BE APPROVED BY THE OWNER.
  4. REF SHEET S110 FOR PERFORMANCE SPECIFICATION.



## 1 SEGMENTAL RETAINING WALL

SCALE: 3/4" = 1'-0"



## 2 SEGMENTAL RETAINING WALL EXPANSION JOINT

SCALE: 3/4" = 1'-0"



TBPE Firm 1141 8500 Bluffstone Cove, Suite B-103 Austin, Texas 78759 | 512.338.1101

**CAUTION!!!**  
CONTRACTOR SHALL LOCATE ANY/ALL EXISTING UTILITIES PRIOR TO ANY SITE WORK, (BOTH HORIZONTALLY AND VERTICALLY). THE DESIGN ENGINEER WILL NOT BE RESPONSIBLE FOR DAMAGES TO ANY EXISTING UTILITIES OR FOR ANY CONFLICTS THAT MAY ARISE DUE TO ANY UTILITIES NOT PROPERLY LOCATED.

File:	Job No. 21137	Snapshot:	Scale (Hor.): AS NOTED	Scale (Vert.): AS NOTED
	Date: 05/13/22	Checked By: FRV	Drawn By: AR	
	Revision 1:			
	Revision 2:			
	Revision 3:			
	Revision 4:			



SEGMENTAL RETAINING WALL SPECIFICATION

PART 1: GENERAL

- 1.01DESCRIPTION
- A. WORK SHALL CONSIST OF FURNISHING AND CONSTRUCTION OF A SEGMENTAL RETAINING WALL SYSTEM OR EQUAL IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DESIGN, AND DIMENSIONS SHOWN ON THE CIVIL DRAWINGS.

B. WORK INCLUDES PREPARING FOUNDATION SOIL, FURNISHING AND INSTALLING LEVELING PAD, UNIT DRAINAGE FILL AND BACKFILL TO THE LINES AND GRADES SHOWN ON THE CIVIL DRAWINGS.

C. WORK INCLUDES FURNISHING AND INSTALLING GEOGRID SOIL REINFORCEMENT OF THE TYPE, SIZE, LOCATION, AND LENGTHS AS DETERMINED BY THE WALL DESIGN ENGINEER.
- 1.02REFERENCE DOCUMENTS
- A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

1. ASTM C-1372 SPECIFICATION FOR SEGMENTAL RETAINING WALL UNITS

2. ASTM D-422 PARTICLE SIZE ANALYSIS

3. ASTM D-698 LABORATORY COMPACTION CHARACTERISTICS OF SOIL -STANDARD EFFORT

4. ASTM D-4318 LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS

5. ASTM D-4595 TENSILE PROPERTIES OF GEOTEXTILES - WIDE WIDTH STRIP

6. ASTM D-5262 UNCONFINED TENSION CREEP BEHAVIOR OF GEOSYNTHETICS

7. ASTM D-3034 POLYVINYL CHLORIDE PIPE (PVC)

8. ASTM D-1248 CORRUGATED PLASTIC PIPE

9. ASTM D-4475 HORIZONTAL SHEAR STRENGTH OF PULTRUDED REINFORCED PLASTIC RODS

B. GEOSYNTHETIC RESEARCH INSTITUTE (GRI)

1. GRI-GG4 DETERMINATION OF LONG TERM DESIGN STRENGTH OF GEOGRIDS

2. GRI-GG5 DETERMINATION OF GEOGRID (SOIL) PULLOUT

C. NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA)

1. NCMA SRWU-1 TEST METHOD FOR DETERMINING CONNECTION STRENGTH OF SRW

2. NCMA SRWU-2 TEST METHOD FOR DETERMINING SHEAR STRENGTH OF SRW
- 1.03SUBMITTALS/CERTIFICATION
- A. CONTRACTOR SHALL SUBMIT CONSTRUCTION DRAWINGS FOR THE RETAINING WALL SYSTEM PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS. THIS DESIGN MUST CONSIDER INTERSECTIONS BETWEEN THE RETAINING WALL AND HEADWALLS OF DRAINAGE PIPING, SURCHARGE DUE TO ADJACENT DRIVEWAY STRUCTURES AND SURCHARGE DUE TO ADJACENT SECTIONS OF THE BUILDING. THE ENGINEERING DESIGNS, TECHNIQUES, AND MATERIAL EVALUATIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S DESIGN MANUAL, NCMA DESIGN GUIDELINES FOR SEGMENTAL RETAINING WALLS.

B. CONTRACTOR SHALL SUBMIT A TEST REPORT DOCUMENTING STRENGTH OF SPECIFIC MODULAR CONCRETE UNIT AND GEOGRID REINFORCEMENT CONNECTION. THE MAXIMUM DESIGN TENSILE LOAD OF THE GEOGRID SHALL BE EQUAL TO THE LABORATORY TESTED ULTIMATE STRENGTH OF GEOGRID / FACING UNIT CONNECTION AT A MAXIMUM NORMAL FORCE LIMITED BY THE "HINGE HEIGHT" OF THE STRUCTURE DIVIDED BY A SAFETY FACTOR OF 1.5. THE CONNECTION STRENGTH EVALUATION SHALL BE PERFORMED IN ACCORDANCE WITH NCMA TEST METHOD SRWU-1.
- 1.04QUALITY ASSURANCE
- A. CONTRACTOR SHALL SUBMIT CERTIFICATION, PRIOR TO START OF WORK, THAT THE RETAINING WALL SYSTEM (MODULAR CONCRETE UNITS AND SPECIFIC GEOGRID):

1. HAS BEEN SUCCESSFULLY UTILIZED ON A MINIMUM OF FIVE SIMILAR PROJECTS, I.E., HEIGHT, SOIL FILL TYPES, ERECTION TOLERANCES, ETC.; AND

2. HAS BEEN SUCCESSFULLY INSTALLED ON A MINIMUM OF 1 MILLION (1,000,000) SQUARE FEET OF RETAINING WALLS.

B. CONTRACTOR SHALL SUBMIT A LIST OF FIVE (5) PREVIOUSLY CONSTRUCTED PROJECTS OF SIMILAR SIZE AND MAGNITUDE BY THE WALL INSTALLER WHERE THE SPECIFIC RETAINING WALL SYSTEM HAS BEEN CONSTRUCTED SUCCESSFULLY. CONTACT NAMES AND TELEPHONE NUMBERS SHALL BE LISTED FOR EACH PROJECT.

C. OWNER SHALL/MAY PROVIDE SOIL TESTING AND QUALITY ASSURANCE INSPECTION DURING EARTHWORK AND WALL CONSTRUCTION OPERATIONS. CONTRACTOR SHALL PROVIDE ANY QUALITY CONTROL TESTING OR INSPECTION NOT PROVIDED BY THE OWNER. OWNER'S QUALITY ASSURANCE PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR QUALITY CONTROL AND WALL PERFORMANCE.
- 1.05DELIVERY, STORAGE AND HANDLING
- A. CONTRACTOR SHALL CHECK ALL MATERIALS UPON DELIVERY TO ASSURE THAT THE PROPER TYPE, GRADE, COLOR, AND CERTIFICATION HAVE BEEN RECEIVED.

B. CONTRACTOR SHALL PROTECT ALL MATERIALS FROM DAMAGE DUE TO JOBSITE CONDITIONS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DAMAGED MATERIALS SHALL NOT BE INCORPORATED INTO THE WORK.

PART 2: PRODUCTS

- 2.01DEFINITIONS
- A. MODULAR UNIT - A CONCRETE RETAINING WALL ELEMENT MACHINE MADE FROM PORTLAND CEMENT, WATER, AND AGGREGATES.

B. STRUCTURAL GEOGRID - A STRUCTURAL ELEMENT FORMED BY A REGULAR NETWORK OF INTEGRALLY CONNECTED TENSILE ELEMENTS WITH APERTURES OF SUFFICIENT SIZE TO ALLOW INTERLOCKING WITH SURROUNDING SOIL, ROCK, OR EARTH AND FUNCTION PRIMARILY AS REINFORCEMENT.

C. UNIT DRAINAGE FILL - DRAINAGE AGGREGATE, WHICH IS PLACED WITHIN AND IMMEDIATELY BEHIND THE MODULAR CONCRETE UNITS.

D. REINFORCED BACKFILL - COMPACTED SOIL, WHICH IS PLACED WITHIN THE REINFORCED SOIL VOLUME AS OUTLINED ON THE PLANS.
- 2.02MODULAR CONCRETE RETAINING WALL UNITS
- A. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING ARCHITECTURAL REQUIREMENTS:

1. FACE COLOR - APPROVAL BY OWNER.

2. FACE FINISH - APPROVAL BY OWNER.

3. BOND CONFIGURATION - RUNNING WITH BONDS NOMINALLY LOCATED AT MIDPOINT VERTICALLY ADJACENT UNITS, IN BOTH STRAIGHT AND CURVED ALIGNMENTS.

4. EXPOSED SURFACES OF UNITS SHALL BE FREE OF CHIPS, CRACKS OR OTHER IMPERFECTIONS WHEN VIEWED FROM A DISTANCE OF 10 FEET UNDER DIFFUSED LIGHTING.

B. MODULAR CONCRETE MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1372 - STANDARD SPECIFICATIONS FOR SEGMENTAL RETAINING WALL UNITS.

C. MODULAR CONCRETE UNITS SHALL CONFORM TO THE STRUCTURAL AND GEOMETRIC REQUIREMENTS PER WALL DESIGN ENGINEER.
- 2.03SHEAR CONNECTORS
- A. SHEAR CONNECTORS SHALL BE 1/2-INCH DIAMETER THERMOSET ISOPHTHALIC POLYESTER RESIN- PULTRUDED FIBERGLASS REINFORCEMENT RODS OR EQUIVALENT TO PROVIDE CONNECTION BETWEEN VERTICALLY AND HORIZONTALLY ADJACENT UNITS. STRENGTH OF SHEAR CONNECTORS BETWEEN VERTICAL ADJACENT UNITS SHALL BE APPLICABLE OVER A DESIGN TEMPERATURE OF 10 DEGREES F TO + 110 DEGREE F.

B. SHEAR CONNECTORS SHALL BE CAPABLE OF HOLDING THE GEOGRID IN THE PROPER DESIGN POSITION DURING GRID PRE-TENSIONING AND BACKFILLING.
- 2.04BASE LEVELING PAD MATERIAL
- A. MATERIAL SHALL MEET REQUIREMENTS OF GEOTECHNICAL AND WALL DESIGN ENGINEERS.
- 2.05UNIT DRAINAGE FILL
- A. UNIT DRAINAGE FILL SHALL MEET THE REQUIREMENTS PER THE WALL DESIGN ENGINEER.
- 2.06REINFORCED BACKFILL
- A. REINFORCED BACKFILL SHALL MEET THE REQUIREMENTS OF THE WALL DESIGN ENGINEER.

B. CONTRACTOR SHALL SUBMIT REINFORCED FILL SAMPLE AND LABORATORY TEST RESULTS TO THE WALL DESIGN ENGINEER FOR APPROVAL PRIOR TO THE USE OF ANY PROPOSED REINFORCED FILL MATERIAL.
- 2.07GEOGRID SOIL REINFORCEMENT
- A. GEOSYNTHETIC REINFORCEMENT SHALL CONSIST OF GEOGRIDS MANUFACTURED SPECIFICALLY FOR SOIL REINFORCEMENT APPLICATIONS AND SHALL BE MANUFACTURED FROM HIGH TENACITY POLYESTER YARN OR HIGH-DENSITY POLYETHYLENE. POLYESTER GEOGRID SHALL BE KNITTED FROM HIGH TENACITY POLYESTER FILAMENT YARN WITH A MOLECULAR WEIGHT EXCEEDING 25,000 G/M AND A CARBOXYL END GROUP VALUES LESS THAN 30. POLYESTER GEOGRID SHALL BE COATED WITH AN IMPREGNATED PVC COATING THAT RESISTS PEELING, CRACKING, AND STRIPPING.

B. TA, LONG TERM ALLOWABLE TENSILE DESIGN LOAD, OF THE GEOGRID MATERIAL SHALL BE DETERMINED AS FOLLOWS:

TA = TULT / (RFCR\*RFD\*RFID\*FS)

TA SHALL BE EVALUATED BASED ON A 75-YEAR DESIGN LIFE.

1. TULT, SHORT TERM ULTIMATE TENSILE STRENGTH

TULT IS BASED ON THE MINIMUM AVERAGE ROLL VALUES (MARV)

2. RFCR, REDUCTION FACTOR FOR LONG TERM TENSION CREEP

RFRC SHALL BE DETERMINED FROM 10,000-HOUR CREEP TESTING PERFORMED IN ACCORDANCE WITH ASTM D5262. REDUCTION VALUE = 1.60 MINIMUM.

3. RFD, REDUCTION FACTOR FOR DURABILITY

RFD SHALL BE DETERMINED FROM POLYMER SPECIFIC DURABILITY TESTING COVERING THE RANGE OF EXPECTED SOIL ENVIRONMENTS. RFD = 1.10 MINIMUM.

4. RFID, REDUCTION FACTOR FOR INSTALLATION DAMAGE

RFID SHALL BE DETERMINED FROM PRODUCT SPECIFIC CONSTRUCTION DAMAGE TESTING PERFORMED IN ACCORDANCE WITH GRI-GG4. TEST RESULTS SHALL BE PROVIDED FOR EACH PRODUCT TO BE USED WITH PROJECT SPECIFIC OR MORE SEVERE SOIL TYPE. RFID = 1.05 MINIMUM.

5. FS, OVERALL DESIGN FACTOR OF SAFETY

FS SHALL BE 1.5 UNLESS OTHERWISE NOTED FOR THE MAXIMUM ALLOWABLE WORKING STRESS CALCULATION.

C. THE MAXIMUM DESIGN TENSILE LOAD OF THE GEOGRID SHALL NOT EXCEED THE LABORATORY TESTED ULTIMATE STRENGTH OF THE GEOGRID/FACING UNIT CONNECTION AS LIMITED BY THE "HINGE HEIGHT" DIVIDED BY A FACTOR OF SAFETY OF 1.5. THE CONNECTION STRENGTH TESTING AND COMPUTATION PROCEDURES SHALL BE IN ACCORDANCE WITH NCMA SRWU-1 TEST METHOD FOR DETERMINING CONNECTION STRENGTH OF SRW.

D. SOIL INTERACTION COEFFICIENT, CI

CI VALUES SHALL BE DETERMINED PER GRI-GG5 AT A MAXIMUM 0.75-INCH (19 MM) DISPLACEMENT.

E. MANUFACTURING QUALITY CONTROL

THE GEOGRID MANUFACTURER SHALL HAVE A MANUFACTURING QUALITY CONTROL PROGRAM THAT INCLUDES QC TESTING BY AN INDEPENDENT LABORATORY. THE QC TESTING SHALL INCLUDE:

• TENSILE STRENGTH TESTING

• MELT FLOW INDEX (HDPE)

• MOLECULAR WEIGHT (POLYESTER)
- 2.08 DRAINAGE PIPE
- A. THE DRAINAGE PIPE SHALL BE PERFORATED OR SLOTTED PVC PIPE MANUFACTURED IN ACCORDANCE WITH ASTM D-3034 OR CORRUGATED HDPE PIPE MANUFACTURED IN ACCORDANCE WITH ASTM D-1248.

PART 3: EXECUTION

3.01EXCAVATION

A. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. OWNER'S REPRESENTATIVE SHALL INSPECT THE EXCAVATION AND APPROVE PRIOR TO PLACEMENT OF LEVELING MATERIAL OR FILL SOILS. PROOF ROLL FOUNDATION AREA AS DIRECTED TO DETERMINE IF REMEDIAL WORK IS REQUIRED.

3.02BASE LEVELING PAD

A. LEVELING PAD MATERIAL SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS PER THE WALL DESIGN AND CIVIL ENGINEERS.

B. LEVELING PAD SHALL BE COMPACTED AND PREPARED TO INSURE FULL CONTACT TO THE BASE SURFACE OF THE CONCRETE UNITS.

3.03MODULAR UNIT INSTALLATION

A. FIRST COURSE OF UNITS SHALL BE PLACED ON THE LEVELING PAD AT THE APPROPRIATE LINE AND GRADE. ALIGNMENT AND LEVEL SHALL BE CHECKED IN ALL DIRECTIONS AND INSURE THAT ALL UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERLY SEATED.

B. PLACE THE FRONT OF UNITS SIDE-BY-SIDE. DO NOT LEAVE GAPS BETWEEN ADJACENT UNITS. LAYOUT OF CORNERS AND CURVES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

C. INSTALL SHEAR/CONNECTING DEVICES PER MANUFACTURER'S RECOMMENDATIONS.

D. PLACE AND COMPACT DRAINAGE FILL WITHIN AND BEHIND WALL UNITS PER WALL DESIGN ENGINEER. PLACE AND COMPACT BACKFILL SOIL BEHIND DRAINAGE FILL. FOLLOW WALL ERECTION AND DRAINAGE FILL CLOSELY WITH STRUCTURE BACKFILL.

E. MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS, PRIOR TO UNIT DRAINAGE FILL AND BACKFILL PLACEMENT AND COMPACTION, SHALL NOT EXCEED TWO COURSES.

3.04STRUCTURAL GEOGRID INSTALLATION

A. GEOGRID SHALL BE ORIENTED WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL ALIGNMENT.

B. GEOGRID REINFORCEMENT SHALL BE PLACED AT THE STRENGTHS, LENGTHS, AND ELEVATIONS SHOWN ON THE CONSTRUCTION DESIGN DRAWINGS OR AS DIRECTED BY THE ENGINEER.

C. THE GEOGRID SHALL BE LAID HORIZONTALLY ON COMPACTED BACKFILL AND ATTACHED TO THE MODULAR WALL UNITS. PLACE THE NEXT COURSE OF MODULAR CONCRETE UNITS OVER THE GEOGRID. THE GEOGRID SHALL BE PULLED TAUT, AND ANCHORED PRIOR TO BACKFILL PLACEMENT ON THE GEOGRID.

D. GEOGRID REINFORCEMENTS SHALL BE CONTINUOUS THROUGHOUT THEIR EMBEDMENT LENGTHS AND PLACED SIDE-BY-SIDE TO PROVIDE 100% COVERAGE AT EACH LEVEL. SPLICED CONNECTIONS BETWEEN SHORTER PIECES OF GEOGRID OR GAPS BETWEEN ADJACENT PIECES OF GEOGRID ARE NOT PERMITTED.

3.05REINFORCED BACKFILL PLACEMENT

A. REINFORCED BACKFILL SHALL BE PLACED, SPREAD, AND COMPACTED IN SUCH A MANNER THAT MINIMIZES THE DEVELOPMENT OF SLACK IN THE GEOGRID AND INSTALLATION DAMAGE.

B. REINFORCED BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 6 INCHES (150 MM) WHERE HAND COMPACTION IS USED, OR 8 - 10 INCHES ( 200 TO 250 MM) WHERE HEAVY COMPACTION EQUIPMENT IS USED. LIFT THICKNESS SHALL BE DECREASED TO ACHIEVE THE REQUIRED DENSITY AS REQUIRED.

C. REINFORCED BACKFILL SHALL BE COMPACTED AS DIRECTED BY WALL ENGINEER.

D. ONLY LIGHTWEIGHT HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET (1 M) FROM THE TAIL OF THE MODULAR CONCRETE UNIT.

E. TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY UPON THE GEOGRID REINFORCEMENT. A MINIMUM FILL THICKNESS OF 6 INCHES (150 MM) IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOGRID. TRACKED VEHICLE TURNING SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING THE GEOGRID.

F. RUBBER Tired EQUIPMENT MAY PASS OVER GEOGRID REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH (15 KPH). SUDDEN BRAKING AND SHARP TURNING SHALL BE AVOIDED.

G. AT THE END OF EACH DAY'S OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LIFT OF REINFORCED BACKFILL AWAY FROM THE WALL UNITS TO DIRECT RUNOFF AWAY FROM WALL FACE. THE CONTRACTOR SHALL NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION SITE.

3.06CAP INSTALLATION

A. CAP UNITS SHALL BE GLUED TO UNDERLYING UNITS WITH AN ALL-WEATHER ADHESIVE RECOMMENDED BY THE MANUFACTURER.

3.07AS-BUILT CONSTRUCTION TOLERANCES

A. VERTICAL ALIGNMENT: ± 1.5" OVER ANY 10' DISTANCE.

B. WALL BATTER: WITHIN 2 DEGREES OF DESIGN BATTER.

C. HORIZONTAL ALIGNMENT: ± 1.5" OVER ANY 10' DISTANCE. CORNERS, BENDS & CURVES: ± 1 FT (300 MM) TO THEORETICAL LOCATION.

D. MAXIMUM HORIZONTAL GAP BETWEEN ERECTED UNITS SHALL BE 1/2 INCH (13 MM).
- 3.08 FIELD QUALITY CONTROL
- A. QUALITY ASSURANCE - THE OWNER SHALL/MAY ENGAGE INSPECTION AND TESTING SERVICES, INCLUDING INDEPENDENT LABORATORIES, TO PROVIDE QUALITY ASSURANCE AND TESTING SERVICES DURING CONSTRUCTION. THIS DOES NOT RELIEVE THE CONTRACTOR FROM SECURING THE NECESSARY CONSTRUCTION QUALITY CONTROL TESTING.

B. QUALITY ASSURANCE SHOULD INCLUDE FOUNDATION SOIL INSPECTION. VERIFICATION OF GEOTECHNICAL DESIGN PARAMETERS, AND VERIFICATION THAT THE CONTRACTOR'S QUALITY CONTROL TESTING IS ADEQUATE AS A MINIMUM. QUALITY ASSURANCE SHALL ALSO INCLUDE OBSERVATION OF CONSTRUCTION FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND PROJECT SPECIFICATIONS. (QUALITY ASSURANCE IS USUALLY BEST PERFORMED BY THE SITE GEOTECHNICAL ENGINEER.)

C. QUALITY CONTROL - THE CONTRACTOR SHALL ENGAGE INSPECTION AND TESTING SERVICES TO PERFORM THE MINIMUM QUALITY CONTROL TESTING DESCRIBED IN THE RETAINING WALL DESIGN PLANS AND SPECIFICATIONS. ONLY QUALIFIED AND EXPERIENCED TECHNICIANS AND ENGINEERS SHALL PERFORM TESTING AND INSPECTION SERVICES.

D. QUALITY CONTROL TESTING SHALL INCLUDE SOIL AND BACKFILL TESTING TO VERIFY SOIL TYPES AND COMPACTION AND VERIFICATION THAT THE RETAINING WALL IS BEING CONSTRUCTED IN ACCORDANCE WITH THE DESIGN PLANS AND PROJECT SPECIFICATIONS.
- END OF SECTION
- 
- TBPE Firm 1141 8500 Bluffstone Cove, Suite B-103 Austin, Texas 78759 | 512.338.1101
- CAUTION!!!  
CONTRACTOR SHALL LOCATE ANY/ALL EXISTING UTILITIES PRIOR TO ANY SITE WORK. (BOTH HORIZONTALLY AND VERTICALLY). THE DESIGN ENGINEER WILL NOT BE RESPONSIBLE FOR DAMAGES TO ANY EXISTING UTILITIES OR FOR ANY CONFLICTS THAT MAY ARISE DUE TO ANY UTILITIES NOT PROPERLY LOCATED.
- JAMISON CIVIL ENGINEERING LLC
- (TX, PE FIRM REG. #F-17756)  
13812 RESEARCH BLVD. #B-2  
AUSTIN, TEXAS 78750  
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- BKO PARMER
- SEGMENTAL WALL SPECIFICATION  
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- 
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| File: | Job No. 21137  | Snapshot:       | Scale (Ver.): AS NOTED | Scale (Hor.): AS NOTED |
|       | Date: 05/13/22 | Checked By: FRV | Drawn By: AR           |                        |
|       | Revision 1:    |                 |                        |                        |
|       | Revision 2:    |                 |                        |                        |
|       | Revision 3:    |                 |                        |                        |
|       | Revision 4:    |                 |                        |                        |
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