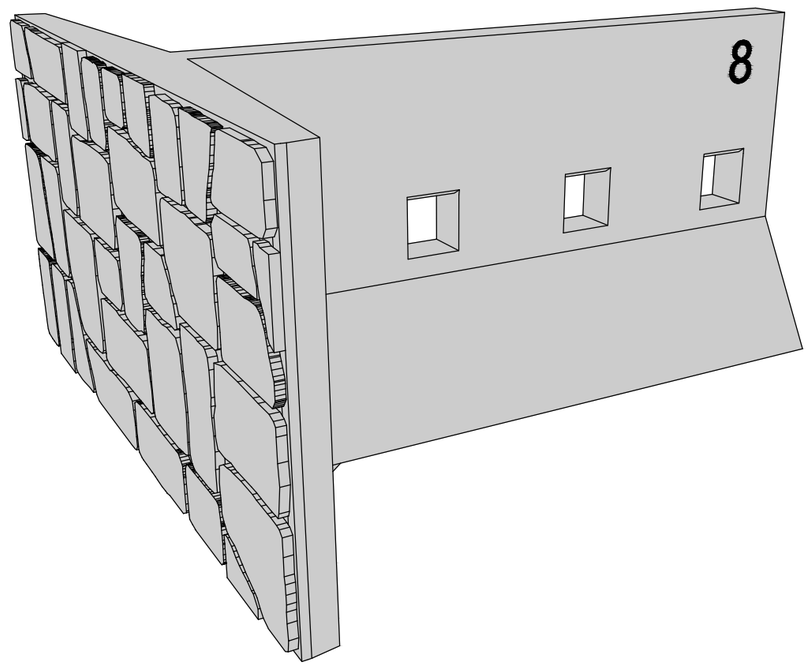
GRAVIX

RETAINING WALL SYSTEM DRAWINGS



REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

COVER SHEET

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
1 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 1:59 PM

INDEX OF DRAWINGS

GRAVIX 6-6-2018.dwg

6/6/2018 1:59 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

PROJECT AND DESIGN SPECIFICATIONS

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
2 OF 97

PROJECT SPECIFICATIONS

1. FINAL CONSTRUCTION DRAWINGS MUST BE SUBMITTED TO THE ENGINEER, FOR REVIEW AND APPROVAL. DO NOT BEGIN FABRICATION NOR CONSTRUCTION PRIOR TO APPROVAL OF CONSTRUCTION DRAWINGS.

2. THESE DRAWINGS WERE PREPARED BASED ON INFORMATION PROVIDED BY OTHERS AS FOLLOWS:
   1.)
   2.)

3. REPORT DISCREPANCIES BETWEEN CONTRACT INFORMATION AND ACTUAL CONDITIONS AS SITE WORK PROGRESSES TO ENGINEER OF RECORD FOR REDESIGN. NO LIABILITY IS ACCEPTED FOR INACCURATE INFORMATION SUPPLIED BY OTHERS.

4. THE FOLLOWING DESIGN ASSUMPTIONS WERE MADE:
   - FOUNDATION IS ABLE TO SUPPORT BEARING PRESSURE AS NOTED ON ELEVATION VIEW.

5. SELECT BACKFILL BETWEEN/WITHIN UNITS:
   - 95% STANDARD PROCTOR COMPACTION (ASTM D-698)
   - WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT
   - GRADATION LIMITS AS FOLLOWS:

SIEVE SIZE	PERCENT PASSING
1 INCH [25MM]	100
NO. 4	20-100
NO. 40	0-60
NO. 200	0-35

   BACKFILL BEHIND UNITS:
   - ANGLE OF INTERNAL FRICTION - PROJECT SPECIFIC
   - UNIT WEIGHT - PROJECT SPECIFIC
   - 50 % MAXIMUM PASSING #200 SIEVE
   - 95% STANDARD PROCTOR COMPACTION (ASTM D-698)
   - WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT

6. UNIFORM SURCHARGE = 250 PSF
   SEISMIC LOADING = 0.1 G

7. THE GRANULAR MATERIAL FOR THE DRAINAGE BLANKET SHALL MEET THE FOLLOWING REQUIREMENTS:
   - GRADATION LIMITS AS DETERMINED BY AASHTO T-27

SIEVE SIZE	PERCENT PASSING
3 INCH [76MM]	100
3/4 INCH [19MM]	20-100
NO. 40	0-60
NO. 200	0-5

   THE MATERIAL MAY CONTAIN A MAXIMUM OF 2% DELETERIOUS SHALE AND THE TOTAL OF DELETERIOUS SHALE-LIKE CLAY LUMPS, FRIABLE PARTICLES, COAL AND COKE WILL BE 2% MAXIMUM.

8. GRAVIX FACE FORM FINISH:
   - MARYLAND ASHLAR PATTERN
   - CONTRACTOR TO COORDINATE APPROVAL OF A TYPICAL SAMPLE OF THE GRAVIX UNIT TO VERIFY COLOR, TEXTURE AND FINISH.

9. SCOUR PROTECTION NOTE:
   - ENGINEER OF RECORD HAS NOT PERFORMED ANY SCOUR ANALYSIS FOR THIS WALL. EES ASSUMES THAT THE BOTTOM OF WALL'S ELEVATION SHOWN ON THESE PLANS ARE BELOW SCOUR DEPTH FOR THIS LOCATION. THE ENGINEER/CONTRACTOR MUST VERIFY THIS ASSUMPTION. IF THIS ASSUMPTION IS NOT CORRECT, EES MUST BE NOTIFIED SO THAT THE WALL DESIGN MAY BE REVIEWED.

10. IT IS CRITICAL THAT REAR FORM BOARD OF LEVELING PAD BE SURVEY CONTROLLED SINCE GRAVIX UNIT NODES WILL BE SET AGAINST REAR LEVELING PAD AND ESTABLISH FINAL WALL FACE LOCATION.

11. CONSTRUCTION VERIFICATION OF THE WALL INSTALLATION BY AN ENGINEER IS REQUIRED BY THE LOCAL MUNICIPALITY AND MUST BE PROVIDED BY A KNOWLEDGEABLE GEOTECHNICAL ENGINEER FAMILIAR WITH GRAVITY RETAINING WALL STRUCTURES. ENGINEER OF RECORD CAN PERFORM THIS VERIFICATION AS REQUESTED BUT MUST INCLUDE DAILY SITE VISITS.

12. ENGINEER OF RECORD HAS NOT EVALUATED SETTLEMENT. THE OWNER MUST INVESTIGATE AND EVALUATE THE IMPACT OF ANY AND ALL SETTLEMENT OF THE EARTH STRUCTURE PRIOR TO CONSTRUCTING ALL BUILDING AND SITE IMPROVEMENTS ABOVE AND IN CLOSE PROXIMITY TO THE SUBJECT RETAINING WALL. ENGINEER OF RECORD IS NOT RESPONSIBLE FOR THE ADVERSE IMPACT TO BUILDINGS, ROADWAYS AND OR SITE IMPROVEMENTS DUE TO SHORT OR LONG TERM SETTLEMENT WITHIN OR BELOW THE GRAVITY WALL MASS.

13. RETAINING WALL 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. ENGINEER OF RECORD ASSUMES NO LIABILITY FOR THE LOCATION OF THE RETAINING WALL. SURVEY CONTROL MUST BE PERFORMED 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 RETAINING WALL CONSTRUCTION.

DESIGN SPECIFICATIONS

1. ENGINEER OF RECORD CERTIFIES THE DESIGN AND CONSTRUCTION SPECIFICATIONS OUTLINED HEREIN FOLLOWS ACCEPTABLE ENGINEERING THEORY AND MEETS CURRENT INDUSTRY STANDARDS. THE PROFESSIONAL ENGINEER OF RECORD FURTHER CERTIFIES THAT ALL ASSUMPTIONS MADE IN DESIGNING THE WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES, INSTRUCTIONS TO THE FABRICATOR, AND CERTIFICATION BY THE ERECTOR, CONSTRUCTION VERIFICATION ENGINEER AND CONTRACTORS. THE GRAVIX RETAINING WALL IS A GRAVITY SYSTEM WHICH DEPENDS ON THE BACKFILL AND PRECAST UNIT WEIGHT TO CREATE A STABLE GRAVITY MASS. THE GRAVITY MASS IS DESIGNED TO RESIST THE DRIVING FORCES OF THE RETAINED SOIL AND ANTICIPATED SURCHARGE PRESSURE.

2. THE DESIGN AS SHOWN ON THESE DRAWINGS IS BASED UPON INFORMATION PROVIDED BY THE OWNER AS OUTLINED IN THE PROJECT SPECIFICATIONS SECTION. ENGINEER OF RECORD HAS DESIGNED AND IS RESPONSIBLE FOR INTERNAL STABILITY, SLIDING, BEARING AND OVERTURNING OF THE EARTH STRUCTURE. EXTERNAL STABILITY INCLUDING FOUNDATION (BEARING CAPACITY AND SETTLEMENT) AND SLOPE STABILITY (SLIDING AND ROTATION) IS THE RESPONSIBILITY OF THE OWNER.

3. THIS DRAWING CONTAINS PROPRIETARY AND INTELLECTUAL PROPERTY OF EARTH WALL PRODUCTS, LLC AND IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. THE INFORMATION CONTAINED HEREIN IS NOT TO BE TRANSMITTED TO ANY OTHER PARTY OR ORGANIZATION UNLESS SPECIFICALLY AUTHORIZED IN WRITING BY EARTH WALL PRODUCTS, LLC.

4. THE GRAVIX DESIGN MEETS AASHTO LRFD DESIGN GUIDELINES.

5. THE FOLLOWING MINIMUM EMBEDMENT IS PROVIDED AT THE FACE OF THE WALL UNLESS CONSTRUCTED ON A ROCK FOUNDATION. THE MINIMUM EMBEDMENT IS DETERMINED AS A FUNCTION OF THE HEIGHT OF THE STRUCTURE (H) ABOVE THE TOP OF THE LEVELING PAD.

CONDITIONS AT TOE OF WALL	MINIMUM EMBEDMENT
HORIZONTAL GRADE	H/20
3(H):1(V) SLOPE	H/10
2(H):1(V) SLOPE	H/7
BRIDGE ABUTMENTS	H/10

   THE MINIMUM EMBEDMENT DEPTH FROM THE ADJOINING FINISHED GROUND TO THE BOTTOM OF THE LEVELING PAD SHALL BE 24" [610MM] OR GREATER BASED ON THE PREVAILING DEPTH OF FROST PENETRATION AND EXTERNAL STABILITY REQUIREMENTS.

6. FOR WALLS CONSTRUCTED ON SLOPES, A MINIMUM HORIZONTAL BENCH 4' [1219MM] WIDE SHALL BE PROVIDED.

7. FOR CONSTRUCTION ALONG RIVERS AND STREAMS, FOUNDATION DEPTHS MUST BE ESTABLISHED AT A MINIMUM OF 6' [1829MM] BELOW POTENTIAL SCOUR DEPTH. IN ADDITION, SATURATED SOIL CONDITION MUST BE CONSIDERED IN DETERMINING THE INTERNAL AND EXTERNAL STABILITY OF THE WALLS.

8. DRAINAGE REQUIREMENTS - ALL GRAVIX RETAINING WALLS SHALL BE DESIGNED AS A MINIMUM WITH A CONTINUOUS SUBSURFACE DRAIN PLACED BEHIND THE LEVELING PAD EXTENDING TO THE BACK OF THE LOWEST GRAVIX UNIT AND OUTLETTED AS REQUIRED. IN CUT AND SIDE-HILL FILL AREAS WITH ESTABLISHED OR POTENTIAL GROUNDWATER LEVELS ABOVE THE LEVELING PAD GRADE, A CHIMNEY DRAIN SHALL BE PROVIDED AND CONNECTED TO THE HORIZONTAL BLANKET DRAIN SYSTEM.

9. TRAFFIC LOADS SHALL BE CONSIDERED IN ACCORDANCE WITH AASHTO CRITERIA.

10. SEISMIC FORCES SHALL BE CONSIDERED FOR DESIGN AS REQUIRED BY LOCAL CODE AND APPROPRIATE GROUND ACCELERATION COEFFICIENT.

11. RETAINING WALL: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FOURTH EDITION, WITH 2010 INTERIM REVISIONS.

12. TRAFFIC BARRIER IMPACT LOAD TL-4.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

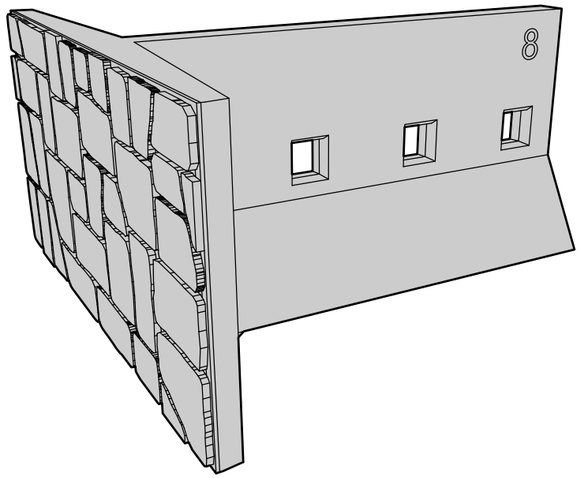
[PROJECT NAME]
[PROJECT LOCATION]

PROJECT AND DESIGN SPECIFICATIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

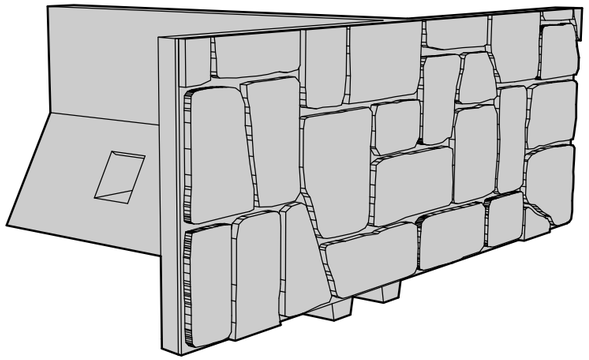
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
3 OF 97



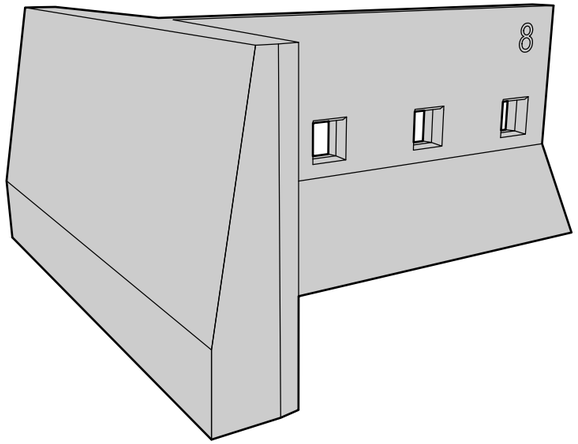
GRAVIX STANDARD UNIT

SCALE: NOT TO SCALE



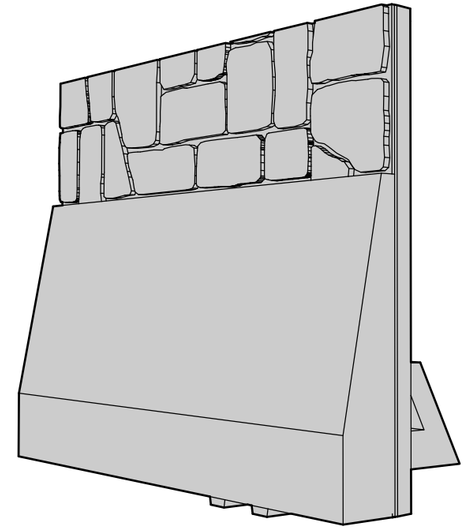
GRAVIX LEVELING UNIT HALF HEIGHT

SCALE: NOT TO SCALE



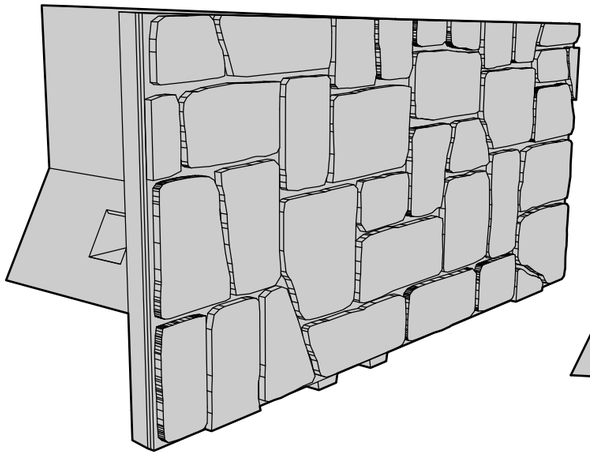
GRAVIX STANDARD UNIT BARRIER FACE OPTION

SCALE: NOT TO SCALE



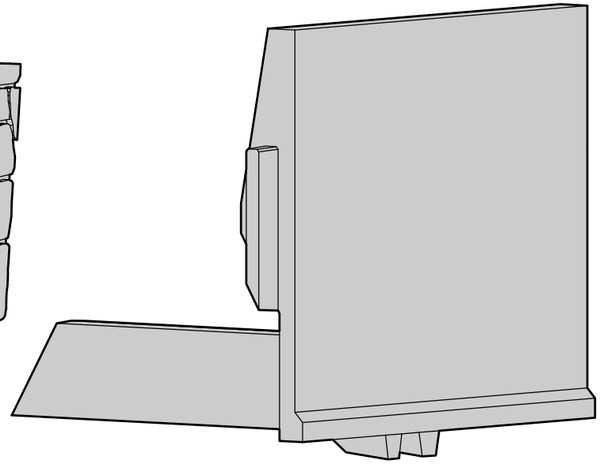
GRAVIX TOP UNIT BARRIER FACE OPTION

SCALE: NOT TO SCALE



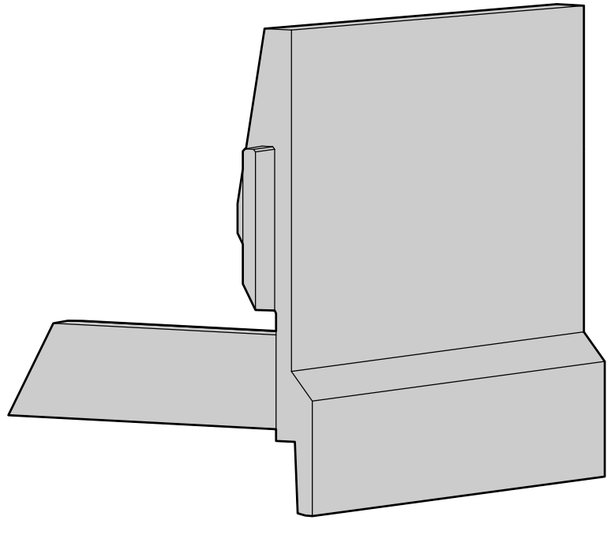
GRAVIX LEVELING UNIT

SCALE: NOT TO SCALE



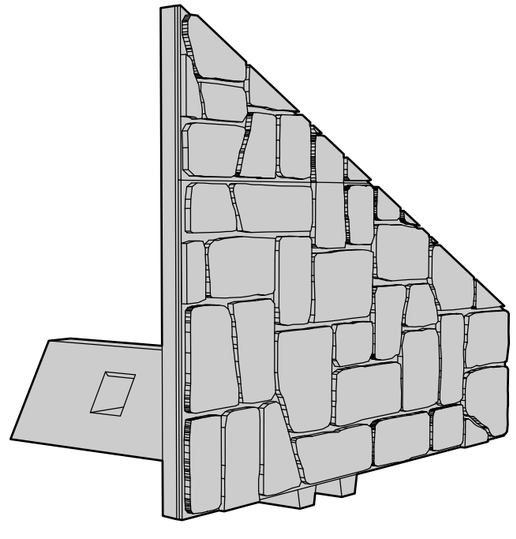
GRAVIX TRAFFIC BARRIER UNIT

SCALE: NOT TO SCALE



GRAVIX MSE TRAFFIC BARRIER UNIT

SCALE: NOT TO SCALE



GRAVIX TOP UNIT

SCALE: NOT TO SCALE

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX

DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]

DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]

[PROJECT LOCATION]

GRAVIX UNITS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR

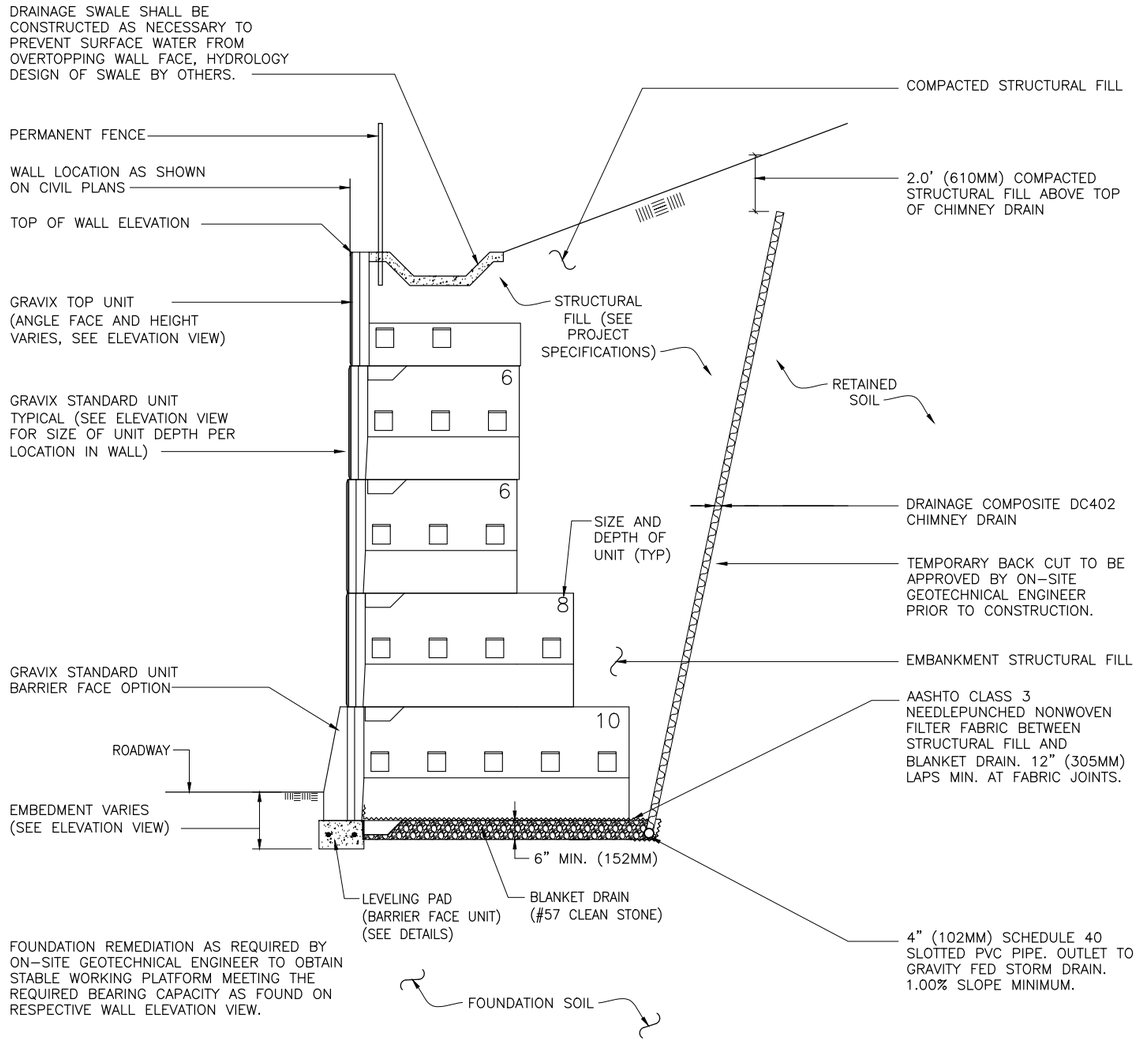
DRAWN ERM

REVIEWED TLR

SHEET NUMBER 4 OF 97

GRAVIX 6-6-2018.dwg

6/6/2018 1:59 PM

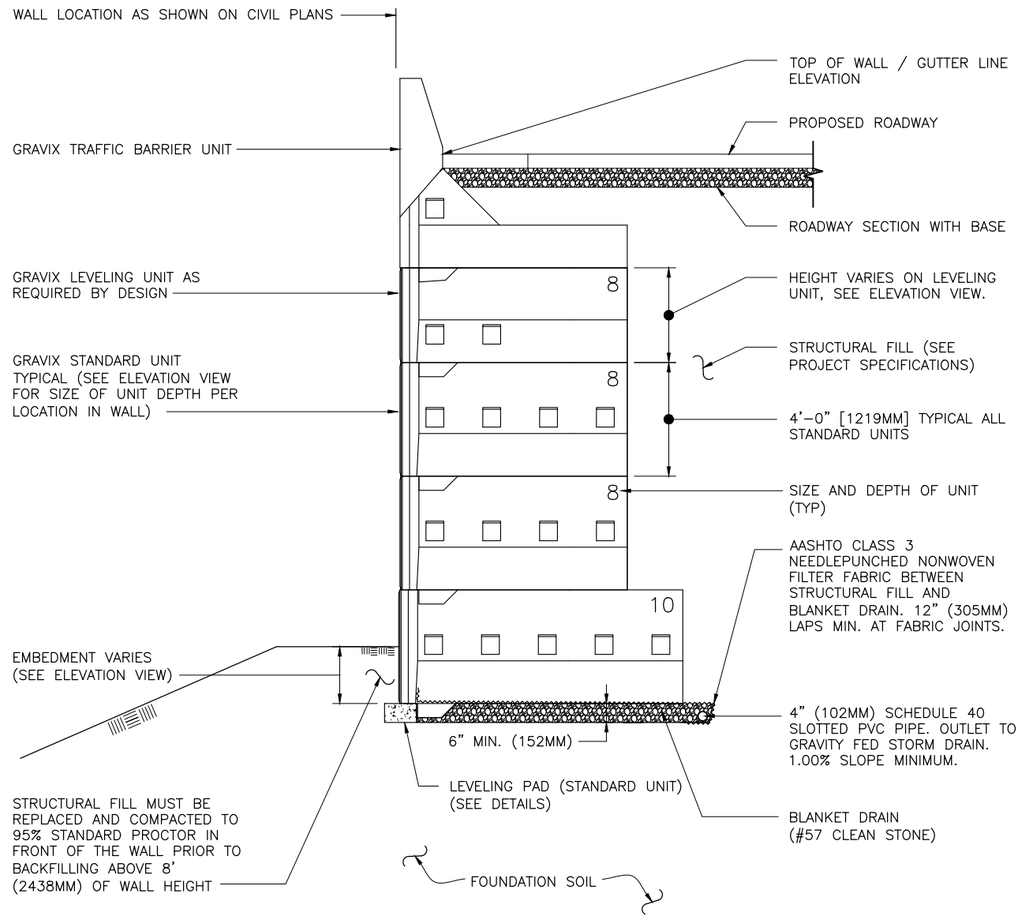


NOTE: CHIMNEY DRAIN IS NOT REQUIRED WHEN USING FREE DRAINING (LESS THAN 25% FINES) STRUCTURAL FILL AS BACKFILL.

TYPICAL CUT CROSS SECTION

SCALE: 3/8" = 1'-0"

0 5 FT



TYPICAL FILL CROSS SECTION

SCALE: 3/8" = 1'-0"

0 5 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

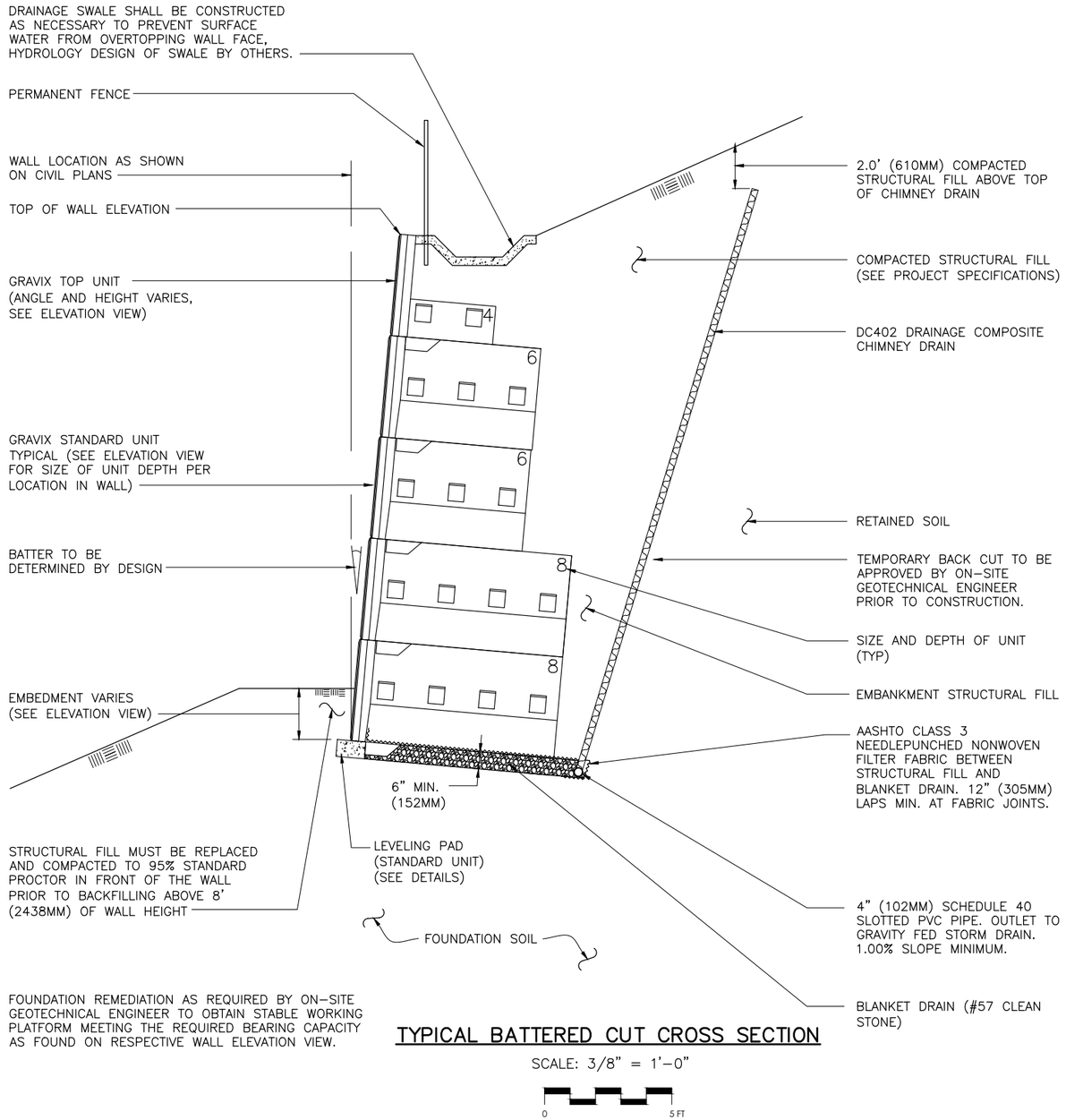
[PROJECT NAME]
[PROJECT LOCATION]

TYPICAL CUT AND FILL CROSS SECTIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
5 OF 97

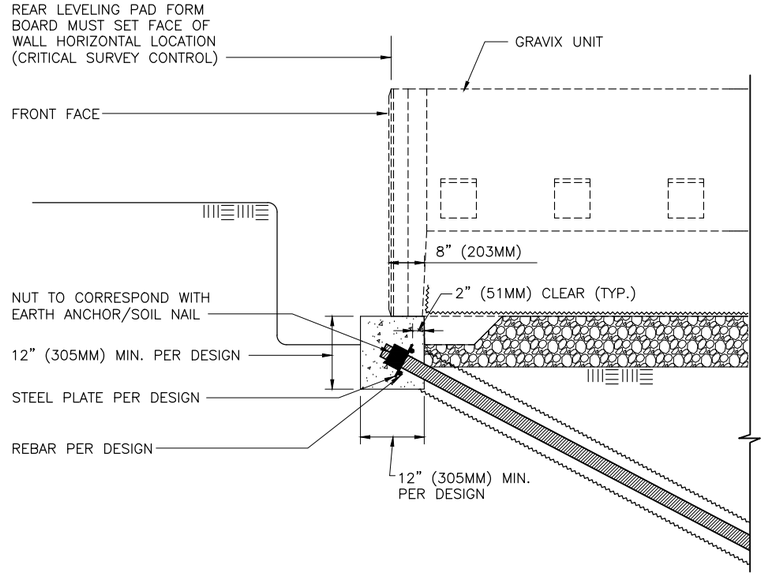


FOUNDATION REMEDIATION AS REQUIRED BY ON-SITE GEOTECHNICAL ENGINEER TO OBTAIN STABLE WORKING PLATFORM MEETING THE REQUIRED BEARING CAPACITY AS FOUND ON RESPECTIVE WALL ELEVATION VIEW.

TYPICAL BATTERED CUT CROSS SECTION

SCALE: 3/8" = 1'-0"

0 5 FT



TYPICAL CUT CROSS SECTION WITH EARTH ANCHORED FOOTING OPTIONAL - WHERE REQUIRED IN DESIGN

SCALE: 3/8" = 1'-0"

0 5 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

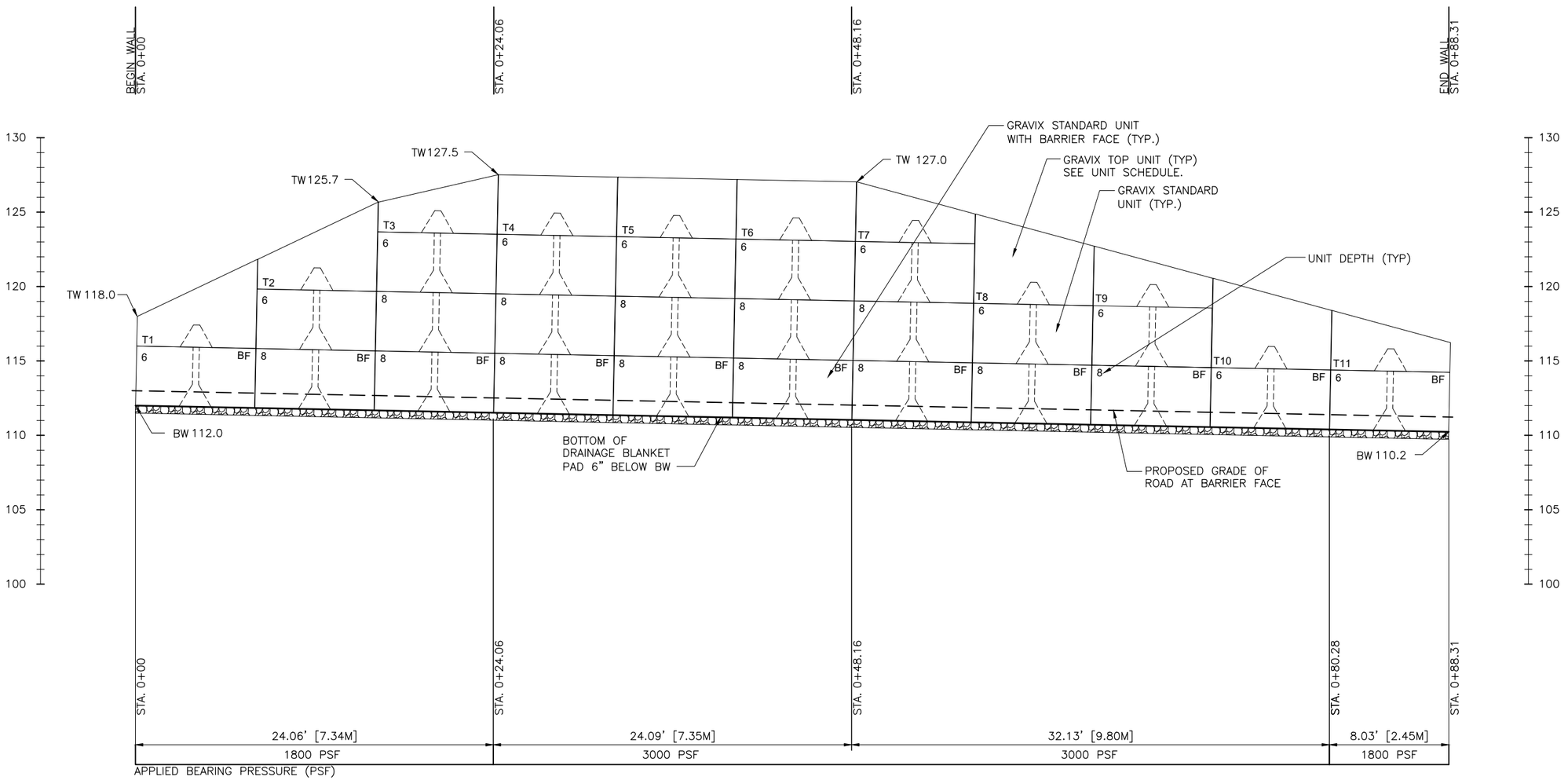
TYPICAL BATTERED CUT CROSS SECTION AND EARTH ANCHOR FOOTINGS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
6 OF 97

6/6/2018 2:00 PM GRAVIX 6-6-2018.dwg



FRONT FACE ELEVATION VIEW (EXAMPLE WALL)

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

0 5 10 FT

GRAVIX 6-6-2018.dwg

6/6/2018 2:00 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

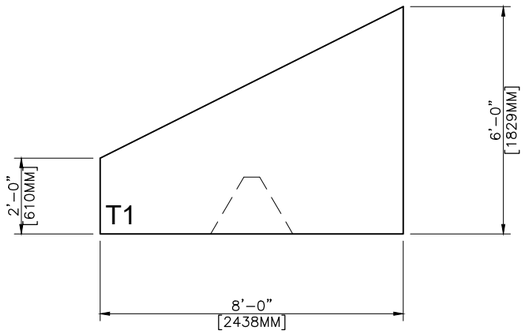
[PROJECT NAME]
[PROJECT LOCATION]

ELEVATION VIEW WITH STANDARD UNIT BARRIER FACE OPTION AND TOP UNIT

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

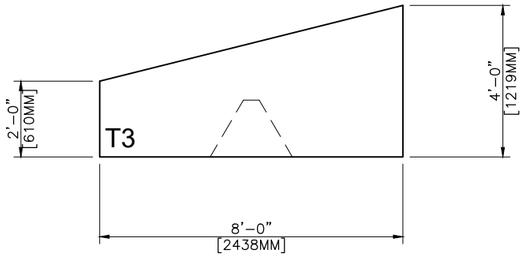
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
7 OF 97



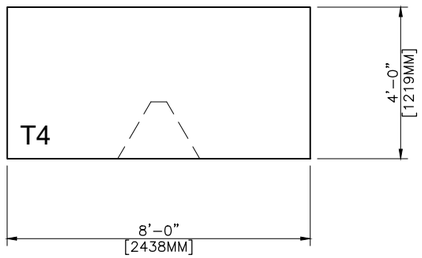
PANEL ELEVATION T1, & T2

SCALE: 1/2" = 1'-0"



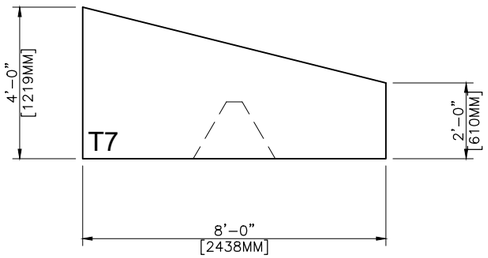
PANEL ELEVATION T3

SCALE: 1/2" = 1'-0"



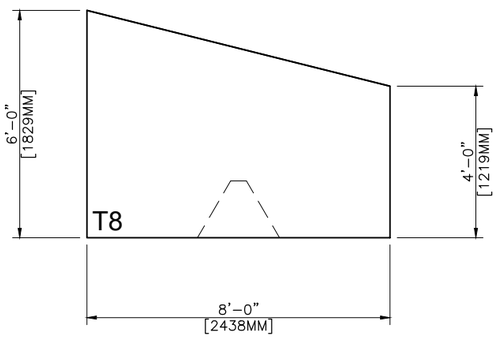
PANEL ELEVATION T4, T5, & T6

SCALE: 1/2" = 1'-0"



PANEL ELEVATION T7, T9, & T11

SCALE: 1/2" = 1'-0"



PANEL ELEVATION T8, & T10

SCALE: 1/2" = 1'-0"

NOTE:
FOR PARAPET UNIT MANUFACTURING SPECIFICATIONS INCLUDING REINFORCEMENT REQUIREMENTS, SEE SHEET 21, 34, 35, & 37.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

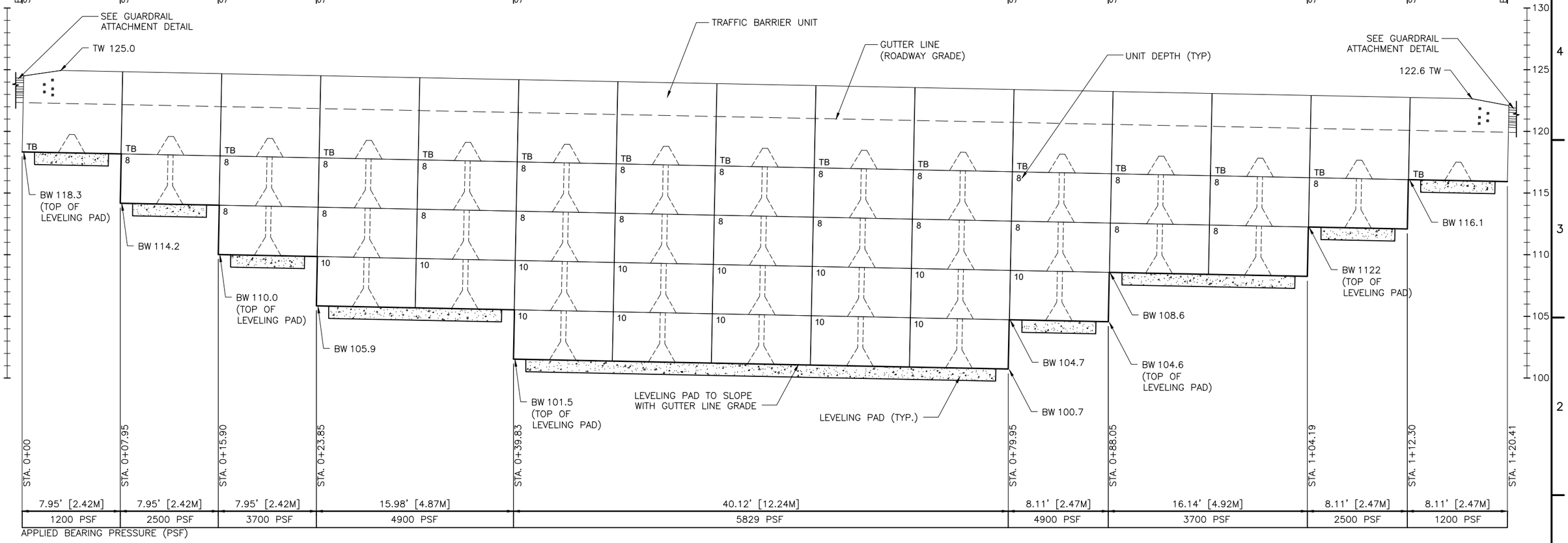
TOP UNIT SCHEDULE

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
8 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:00 PM



FRONT FACE ELEVATION VIEW (EXAMPLE WALL)

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

0 5 10 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

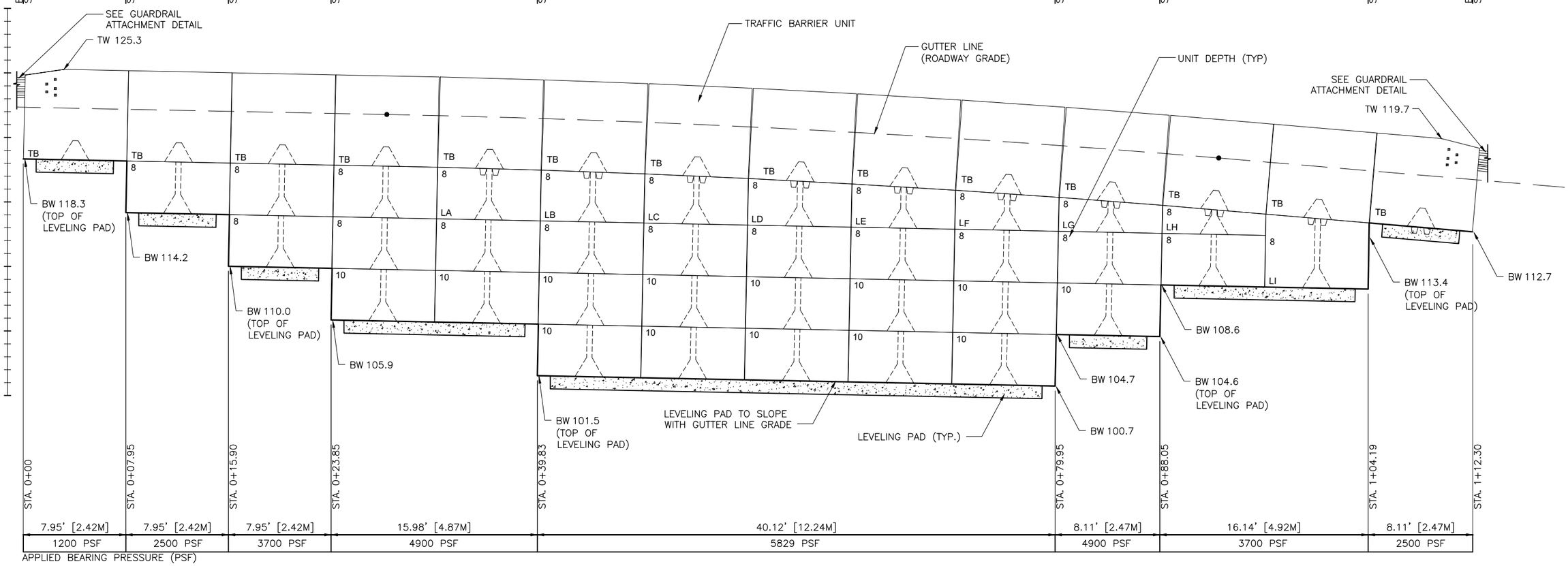
ELEVATION VIEW WITH TRAFFIC BARRIER

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
9 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:00 PM



FRONT FACE ELEVATION VIEW IN VERTICAL CURVE – 1,000 FT. RADIUS (EXAMPLE WALL)

SCALE: 1/4" = 1'–0"

0 5 10 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

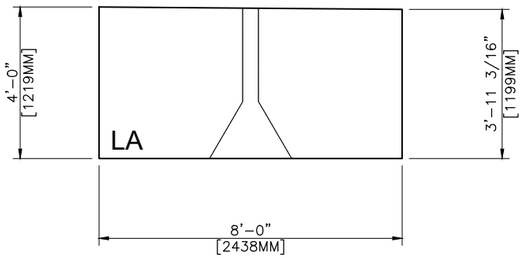
ELEVATION VIEW WITH TRAFFIC BARRIER IN VERTICAL CURVE

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

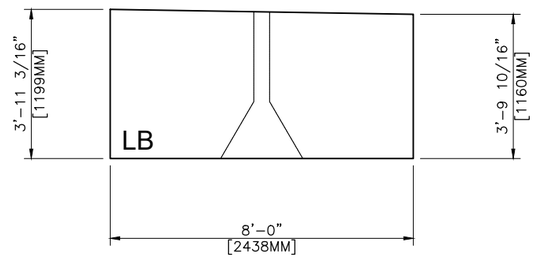
SHEET NUMBER
10 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:00 PM



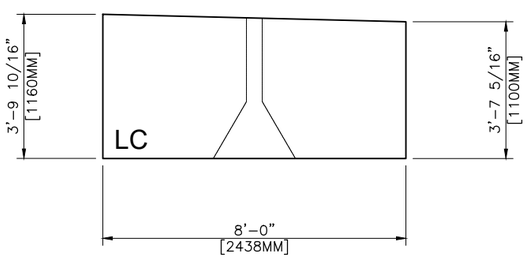
PANEL ELEVATION LA

SCALE: 1/2" = 1'–0"



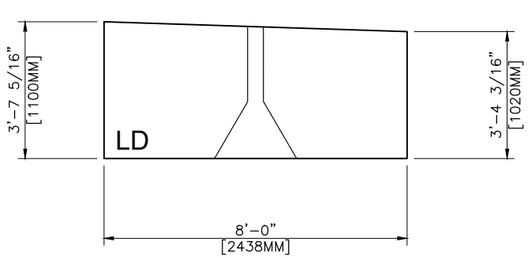
PANEL ELEVATION LB

SCALE: 1/2" = 1'–0"



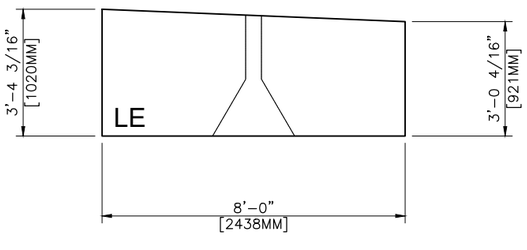
PANEL ELEVATION LC

SCALE: 1/2" = 1'–0"



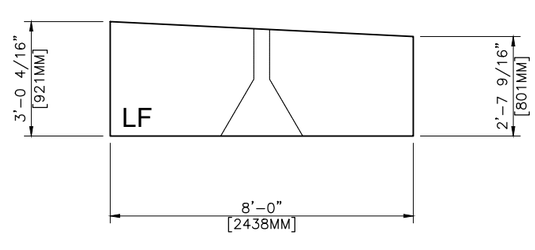
PANEL ELEVATION LD

SCALE: 1/2" = 1'–0"



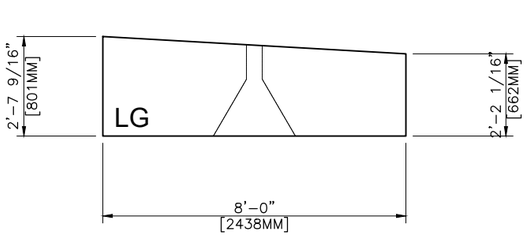
PANEL ELEVATION LE

SCALE: 1/2" = 1'–0"



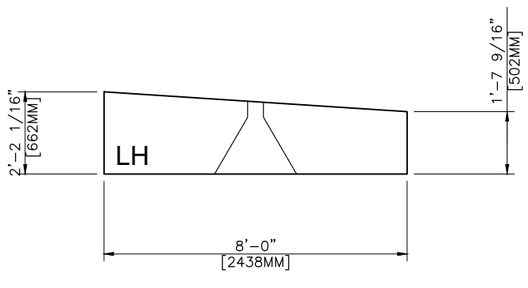
PANEL ELEVATION LF

SCALE: 1/2" = 1'–0"



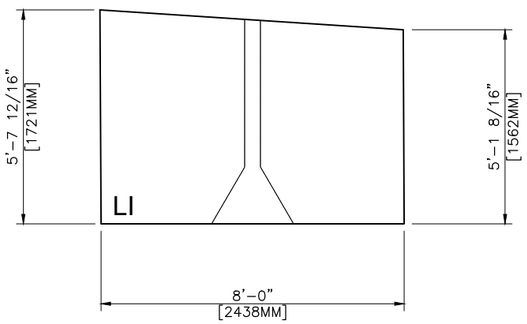
PANEL ELEVATION LG

SCALE: 1/2" = 1'–0"



PANEL ELEVATION LH

SCALE: 1/2" = 1'–0"



PANEL ELEVATION LI

SCALE: 1/2" = 1'–0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

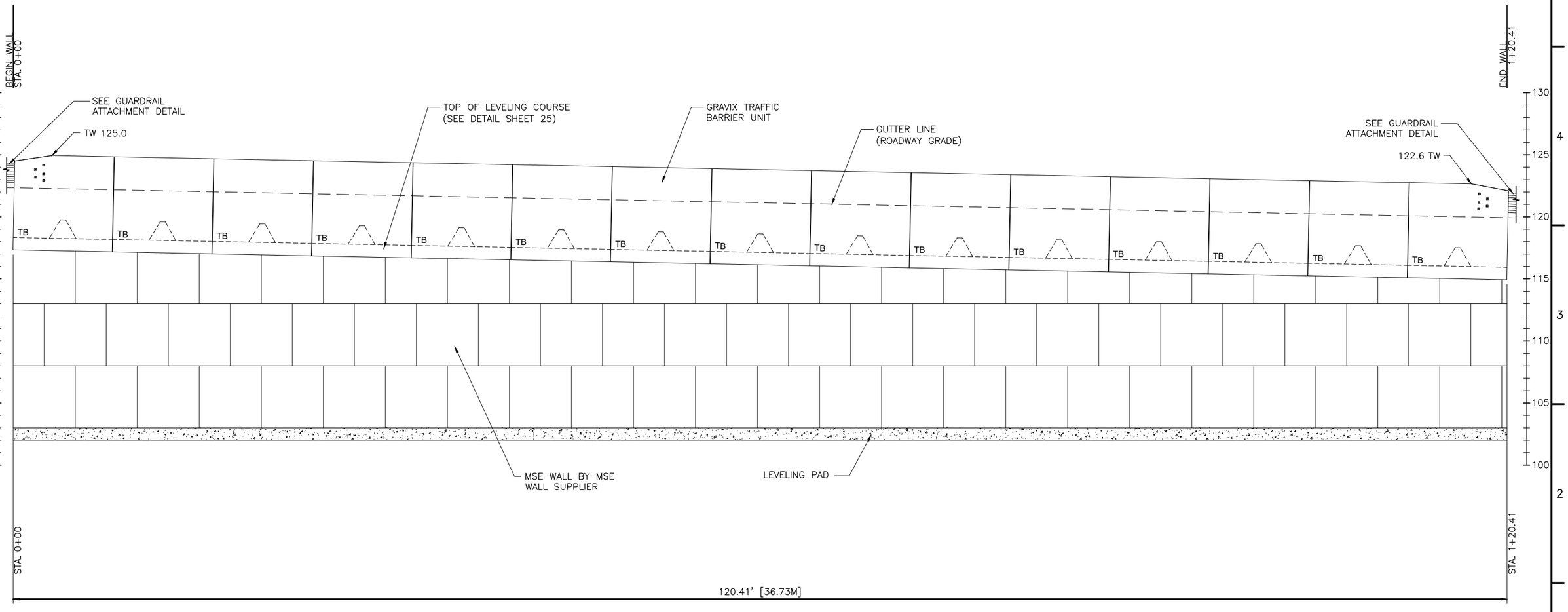
LEVELING UNIT SCHEDULE

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 11 OF 97

GRAVIX 6–6–2018.dwg
6/6/2018 2:00 PM



FRONT FACE ELEVATION VIEW OF TRAFFIC BARRIER ON MSE WALL

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

0 5 10 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

ELEVATION VIEW WITH TRAFFIC BARRIER ON MSE WALL

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
12 OF 97

CONSTRUCTION SPECIFICATIONS

1. CONSTRUCTION AND INSTALLATION OF THE GRAVIX RETAINING WALL CANNOT BEGIN UNTIL CONSTRUCTION DRAWINGS ARE APPROVED.

2. 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.

3. GRAVIX CONSTRUCTION SHALL FOLLOW MANUFACTURER'S INSTALLATION GUIDELINES. LEVELING PAD SHALL BE CONSTRUCTED WITH CLASS A CONCRETE. REPAIR OR REPLACE LEVELING PADS WHICH DO NOT MEET THIS REQUIREMENT AS DIRECTED BY THE ENGINEER.

4. DRAINAGE BLANKET FOUNDATION SHALL BE EXCAVATED AND GRADED TO THE LINES AND GRADES AS DETAILED IN THE DESIGN DRAWINGS. THE DEPTH OR WIDTH OF THE GRAVITY MASS ZONE EQUAL TO OR EXCEEDING THE LENGTH OF THE BOTTOM GRAVIX STEM. THE TOP OF THE LEVELING PAD AT THE CENTER OF THE UNIT FACE IS CONSIDERED THE ELEVATION OF THE BOTTOM OF WALL FOR EACH COLUMN OF UNITS.

5. OVER-EXCAVATION MUST BE REINSTALLED AS DIRECTED BY THE ENGINEER USING APPROVED COMPACTED STRUCTURAL FILL. FOUNDATION MATERIAL FOUND TO BE UNSUITABLE SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL AS DIRECTED BY THE ENGINEER. LEVELING PAD SHALL FOLLOW THE DESIGN GRADE TO WITHIN 1/4" [6MM] OVER 10' [3,048MM]. PRIOR TO WALL CONSTRUCTION, PROOF ROLL THE ENTIRE WALL FOUNDATION SUBGRADE. ANY SOFT OR UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL PER ENGINEER'S DIRECTIONS. WALL FOUNDATION EXCAVATION SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY THAT THE BEARING SOILS ARE AS SPECIFIED ON THE ELEVATION VIEW FOR EACH RESPECTIVE WALL SECTION.

6. SHIMS MAY BE USED AS NECESSARY TO LEVEL THE GRAVIX UNITS TO THE DESIGN GRADE AND HORIZONTAL LOCATION. USE NO MORE THAN 3/8" [10MM] COMBINED THICKNESS OF SHIMS AT ANY ONE LOCATION. SHIMS SHALL BE HDPE, LDPE, NYLON OR APPROVED NON-BIODEGRADABLE MATERIAL BY ENGINEER WITH A MINIMUM BEARING SURFACE AREA OF 4"X4" [102MM X 102MM].

7. LEVELING PADS SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. CONCRETE FINISH SHALL BE WOOD FLOAT. IT IS CRITICAL THAT THE REAR FORM BOARD OF THE LEVELING PAD BE SURVEY CONTROLLED. GRAVIX UNIT BOTTOM NODES WILL SET AGAINST REAR OF LEVELING PAD AND ESTABLISH FINAL WALL FACE LOCATION.

8. PLACE BOTTOM OF LEVELING PAD AT A MINIMUM DEPTH EQUAL TO PREVAILING FROST DEPTH BUT NOT LESS THAN 24" [610MM] BELOW FINISHED GROUND ELEVATION, UNLESS OTHERWISE INDICATED.

9. INSTALL DRAINAGE SYSTEM BEHIND THE WALL AS SHOWN OR OTHERWISE INDICATED ON THE APPROVED DESIGN DRAWINGS.

10. DISCOVERY OF SUBSURFACE GROUNDWATER SHALL BE REPORTED IMMEDIATELY TO THE PROJECT GEOTECHNICAL ENGINEER AND ENGINEER OF RECORD, INC. FOR ADDITIONAL DRAINAGE CONSIDERATIONS.

11. INSTALL THE GRAVIX UNITS AS SHOWN ON THE APPROVED DESIGN DRAWINGS. ERECTION OF THE UNITS TYPICALLY SHOULD BEGIN AT THE LOWEST ELEVATION AND PROCEED LATERALLY ALONG THE WALL LENGTH. WHERE A WALL MEETS A FIXED STRUCTURE OR A CRITICAL LOCATION SUCH AS A TURNING POINT, ERECTION SHOULD BEGIN AT THAT POINT, PROVIDED THE SITE CONFIGURATION IS SUITABLE.

12. WALL INSTALLATION TOLERANCE:

OVERALL BATTER	2.0 DEGREES +/-
HORIZONTAL ALIGNMENT	1.5" [38MM] AS MEASURED OVER 10' [3048MM] SPAN
VERTICAL ALIGNMENT	1.5" [38MM] AS MEASURED OVER 10' [3048MM] SPAN

13. GRAVIX UNIT COUNT FOR WALL

TRAFFIC BARRIER	__ UNITS	STANDARD UNIT 20	__ UNITS
		STANDARD UNIT 18	__ UNITS
TOP T6	__ UNITS	STANDARD UNIT 16	__ UNITS
TOP T4	__ UNITS	STANDARD UNIT 14	__ UNITS
TOP T4-6L	__ UNITS	STANDARD UNIT 12	__ UNITS
TOP T2-6L	__ UNITS	STANDARD UNIT 10	__ UNITS
TOP T2-4L	__ UNITS	STANDARD UNIT 8	__ UNITS
TOP T6-4R	__ UNITS	STANDARD UNIT 6	__ UNITS
TOP T6-2R	__ UNITS	STANDARD UNIT 4	__ UNITS
TOP T4-2R	__ UNITS		

STD. UNIT BARRIER FACE 20	__ UNITS
STD. UNIT BARRIER FACE 18	__ UNITS
STD. UNIT BARRIER FACE 16	__ UNITS
STD. UNIT BARRIER FACE 14	__ UNITS
STD. UNIT BARRIER FACE 12	__ UNITS
STD. UNIT BARRIER FACE 10	__ UNITS
STD. UNIT BARRIER FACE 8	__ UNITS
STD. UNIT BARRIER FACE 6	__ UNITS
STD. UNIT BARRIER FACE 4	__ UNITS

LEVELING UNIT (AS REQUIRED IN DESIGN)	__UNITS
CUSTOM TOP UNITS (AS REQUIRED IN DESIGN)	__UNITS

14. IN THE CASE OF BATTERED WALLS, GRAVIX UNITS SHOULD BE SET AT THE BATTER RATE OF THE STRUCTURE. IN THE CASE OF VERTICAL WALLS, GRAVIX BLOCKS SHOULD BE SET SUCH THAT THE FRONT FACE IS VERTICAL.

15. HORIZONTAL JOINT MATERIAL SHALL BE 6" [153MM] WIDE MINIMUM POLYPROPYLENE NEEDLE-PUNCHED NONWOVEN FABRIC MEETING THE FOLLOWING CRITERIA:

WEIGHT (TYPICAL)	OZ/SY (G/SM)	ASTM D5261	16.0 (552)
GRAB TENSILE	LBS (KN)	ASTM D4632	380 (1.69)
GRAB ELONGATION	%	ASTM D4632	50
TRAPEZOID TEAR	LBS (KN)	ASTM D4543	145 (.644)
PUNCTURE RESISTANCE	LBS (KN)	ASTM D4833	240 (1.07)
PERMITTIVITY	I/SEC	ASTM D4491	0.7
WATER FLOW	GPM/SF (1/MIN/SM)	ASTM D4491	50 (2035)
A.O.S	U.S. SIEVE (MM)	ASTM D4752	100 (.150)
U.V. RESISTANCE	% / HRS	ASTM D4356	70/500

16. VERTICAL JOINT (SOIL BACKFILL - GREATER THAN 25% FINES);
- 3/4" [19MM] SPACE
- 4' [1219MM] WIDE DRAINAGE COMPOSITE
- DRAINAGE COMPOSITE MEETING THE FOLLOWING CRITERIA:

CORE:		
THICKNESS, NOMINAL	ASTM D-1777	220 +/- 20 mils
TENSILE STRENGTH	ASTM D 5035	45 lb/in (7.88 kN/m)
FLOW (HYDRAULIC GRADIENT=1)	ASTM D 4716	8.5 g/min/ft
FABRIC:		
FLOW	ASTM D-4491	135 g/min/sf 5502
PUNCTURE	ASTM D-4833	65 lbs (0.30 kN)
AOS	EOS	70 U.S. Sieve (.212 mm)
GRAB TENSILE	ASTM D-4632	120 lbs (0.54 kN)

17. VERTICAL JOINT (STONE BACKFILL - LESS THAN 25% FINES):
- 3/4" [19MM] SPACE
- 12" [305MM] WIDE NEEDLE-PUNCHED NON-WOVEN AASHTO CLASS 2 FILTER FABRIC
- JOINT BACKING MEETING THE FOLLOWING CRITERIA:

WEIGHT (OZ/SY) (G/SM)	ASTM D5261	6.0 (203)
PERMITTIVITY SEC -1	ASTM D4491	1.5
AOS US SIEVE (MM)	ASTM D4751	70 (0.212)
GRAB ELONGATION (%)	ASTM D4632	50
TRAPEZOID TEAR STRENGTH LBS (KN)	ASTM D4533	60 (0.267)
GRAB TENSILE LBS (KN)	ASTM D4632	160 (0.711)
PUNCTURE RESISTANCE LBS (KN)	ASTM D4833	90 (0.400)
UV RESISTANCE %/HRS	ASTM D4355	70/500
WATER FLOW GPM/SF (L/MIN/SM)	ASTM D4491	110 (4480)
MULLEN BURST PSI (KPA)	ASTM D3786	305 (2103)
CBR PUNCTURE RESISTANCE LBS (KN)	ASTM D6241	410 (1.82)

- PROVIDE MINIMUM WIDTH AND LAP OF THE FABRIC AS FOLLOWS: VERTICAL JOINT = 12□ [305MM]; LAP = 4□ [102MM]

18. GRAVIX UNITS VERTICAL JOINT WIDTH OF 3/4" [19MM] SHOULD BE VERIFIED UPON PLACEMENT OF EACH UNIT. FOR CURVED STRUCTURES THE JOINT OPENING IS MEASURED AT THE FRONT FACE OF THE UNIT.

19. FACIAL IMPERFECTIONS ON UNITS CAN BE REPAIRED AT JOB SITE BY EXPERIENCED PERSONNEL UTILIZING METHODS AND MATERIALS RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.

20. PLACE THE HORIZONTAL JOINT MATERIAL ON THE TOP OF THE FRONT FACE OF THE GRAVIX UNIT PRIOR TO STACKING A UNIT ATOP. ADHESIVE PLACED 2" [51MM] FROM FRONT FACE USING 1/4" [6MM] BEAD NON CONTINUOUS, 6" [152MM] ON 6" [152MM] OFF ALONG LENGTH OF JOINT MATERIAL. FILTER FABRIC ADHESIVE SHALL BE GRAVIX ADHESIVE, 100% POLYURETHANE OR ENGINEER APPROVED EQUILIVENT. THE HORIZONTAL JOINT MATERIAL SHOULD BE PLACED IN LINE WITH THE FRONT EDGE OF THE FRONT FACE. (ON TEXTURED FACE FRONT EDGE IS BOTTOM OF CREVICES)

21. INSTALL THE VERTICAL JOINT BACKING DRAINAGE COMPOSITE OR FABRIC CENTERED ON THE JOINT. TAKE THE NECESSARY PRECAUTIONS TO CONFIRM THE DRAINAGE COMPOSITE OR FABRIC IS NOT DISPLACED DURING THE BACKFILL OPERATION. ADHESIVE PLACED 3" [76MM] FROM THE UNIT SIDE EDGE SHALL BE WITH A CONTINUOUS 1/4" [6MM] BEAD ON EACH SIDE OF THE JOINT TO HOLD DRAINAGE COMPOSITE OR FABRIC IN PLACE DURING BACKFILLING.

22. FILL THE INTERIOR BETWEEN THE STEM AREA OF EACH SUCCESSIVE COURSE OF THE GRAVIX UNITS WITH THE DESIGN BACKFILL MATERIAL. FILL UNITS IN NO MORE THAN 8" (205MM) UNIFORM LAYERS (LIFT THICKNESS) AND THOROUGHLY CONSOLIDATE WITH A VIBRATORY TAMPING DEVICE.

23. BACKFILL PLACEMENT SHALL CLOSELY FOLLOW THE ERECTION OF EACH COURSE OF GRAVIX UNITS. BACKFILL SHALL BE PLACED IN APPROXIMATE EQUAL AMOUNTS ON EACH SIDE OF THE STEMS TO AVOID DISPLACEMENT OF THE UNITS. BACKFILL MAY BE CAREFULLY DISCHARGED DIRECTLY ON TOP OF THE STEMS TO FACILITATE THIS REQUIREMENT. THE BACKFILL SHOULD BE SLOPED SO THAT THE SURFACE DRAINAGE IS AWAY FROM THE FRONT FACE OF THE UNIT. LIFT THICKNESS SHALL BE DECREASED AS NEEDED TO OBTAIN THE SPECIFIED DENSITY. BACKFILL SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM STANDARD PROCTOR DENSITY, ASTM D-698 AND BE WITHIN +/- 2% OF THE OPTIMUM MOISTURE CONTENT. COMPACTION SHOULD PROCEED FROM THE BACK-FACE OF THE UNIT TOWARD THE END OF THE STEM. WHENEVER A COMPACTION TEST FAILS, NO ADDITIONAL BACKFILL SHALL BE PLACED OVER THE AREA UNTIL THE LIFT IS RE-COMPACTED AND A PASSING COMPACTION TEST IS ACHIEVED.

24. IN THE ABSENCE OF OWNERS DIRECTION TO EMPLOY MORE STRINGENT COMPACTION SPECIFICATIONS, THE COMPACTED DENSITY OF THE BACKFILL SHALL BE TESTED EVERY 2000 SQUARE FEET PER EVERY 24" [610MM] INCREASE IN ELEVATION.

25. SOIL INSTALLED IN SLOPES BOTH ABOVE AND BELOW THE GRAVITY WALL STRUCTURE SHALL BE COMPACTED TO WITHIN 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST (ASTM D698).

26. FOR WALLS IN EXCESS OF 20' [6096MM] IN HEIGHT OCCUR, THE FINISHED GRADE IN FRONT OF THE WALL SHALL BE PLACED AND COMPACTED BEFORE WALL CONSTRUCTION HEIGHTS EXCEED 8' [2438MM]. FINISHED GRADE BACKFILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR OF ASTM D-698 UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

27. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF ANY GUARDRAIL POSTS BEHIND THE RETAINING WALL AND COORDINATE LOCATION TO AVOID GRAVIX STEMS. ANY DAMAGE DONE TO THE GRAVIX UNITS DUE TO THE INSTALLATION OF THE GUARDRAIL SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

28. IF EXISTING OR FUTURE STRUCTURES, PIPES, FOUNDATIONS OR GUARDRAIL POSTS WHICH ARE WITHIN THE GRAVITY MASS VOLUME INTERFERE WITH THE NORMAL PLACEMENT OF GRAVIX UNITS AND SPECIFIC DIRECTION HAS NOT BEEN PROVIDED ON THE PLANS, THE CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD TO DETERMINE WHAT COURSE OF ACTION SHOULD BE TAKEN.

29. 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. BACKFILL SHALL BE GRADED AWAY FROM THE WALL FACE AND COMPACTED TO 95% STANDARD PROCTOR AT THE END OF EACH WORK DAY TO PREVENT PONDING OF WATER ON THE SURFACE OF THE REINFORCED SOIL MASS.

30. PERMANENT DRAINAGE AND SITE GRADING SHALL BE PERFORMED TO PREVENT RUNOFF FROM BEING DIRECTED OVER THE WALL FACE OR ALLOWED TO POND ABOVE THE WALL GRAVITY MASS.

31. SURFACE WATER FLOW EITHER TEMPORARY OR PERMANENT SHOULD NOT BE ALLOWED TO RUN ALONG THE TOE OF THE WALL AT ANY TIME. CONCENTRATED WATER FLOW ALONG THE WALL TOE CAN UNDERMINE AND DAMAGE THE WALL FOUNDATION.

32. STORM DRAIN SYSTEMS ARE PRONE TO LEAKING. THEREFORE, IF A JOINT IN A STORM WATER LINE PIPE IS LOCATED WITHIN 100 FEET [30.48M] OF THE RETAINING WALL THE STORM WATER PIPE MUST BE WATER LIGHT. NEOPRENE O-RINGS MUST BE INSTALLED AT ALL STORM PIPE JOINTS AS A MINIMUM.

33. RETAINING WALLS IN CURVES WILL FORM A SERIES OF SHORT CHORDS OF 8' [2438MM] EACH TO MATCH DESIRED WALL ALIGNMENT.

34. IF PILES ARE LOCATED WITHIN THE GRAVITY MASS VOLUME, THEY SHALL BE DRIVEN PRIOR TO CONSTRUCTION AND LOCATION COORDINATED TO AVOID GRAVIX STEMS.

35. TEMPORARY SAFETY FENCE SHALL BE INSTALLED MEETING CURRENT OSHA STANDARDS UNTIL PERMANENT FENCE (DESIGNED BY OTHERS) IS INSTALLED.

36. AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOBSITE INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ENGINEER'S PRESENCE AT THE JOB SITE FOR REVIEW OF WORK DOES NOT IMPLY CONFIRMATION OF THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLIANCE WITH OSHA REGULATIONS.

37. CHIMNEY DRAIN AS REQUIRED IN DESIGN SHALL BE DC402 OR APPROVED EQUIVALENT MEETING THE FOLLOWING SPECIFICATIONS:

CORE:		
THICKNESS, NOMINAL	ASTM D-1777	220 +/- 20 mils
TENSILE STRENGTH	ASTM D 5035	45 lb/in (7.88 kN/m)
FLOW (HYDRAULIC GRADIENT=1)	ASTM D 4716	8.5 g/min/ft
FABRIC:		
FLOW	ASTM D-4491	135 g/min/sf 5502
PUNCTURE	ASTM D-4833	65 lbs (0.30 kN)
AOS	EOS	70 U.S. Sieve (.212 mm)
GRAB TENSILE	ASTM D-4632	120 lbs (0.54 kN)

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

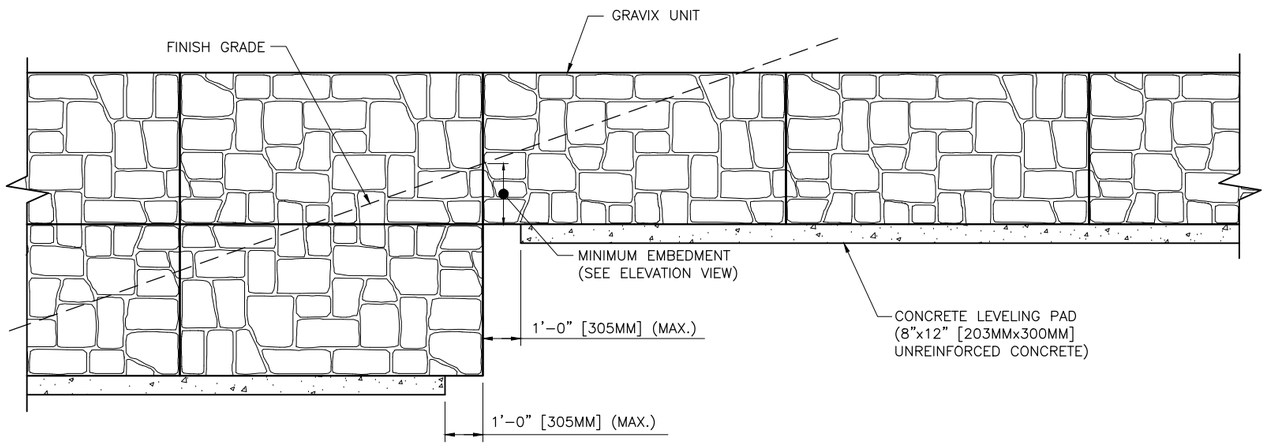
CONSTRUCTION SPECIFICATIONS

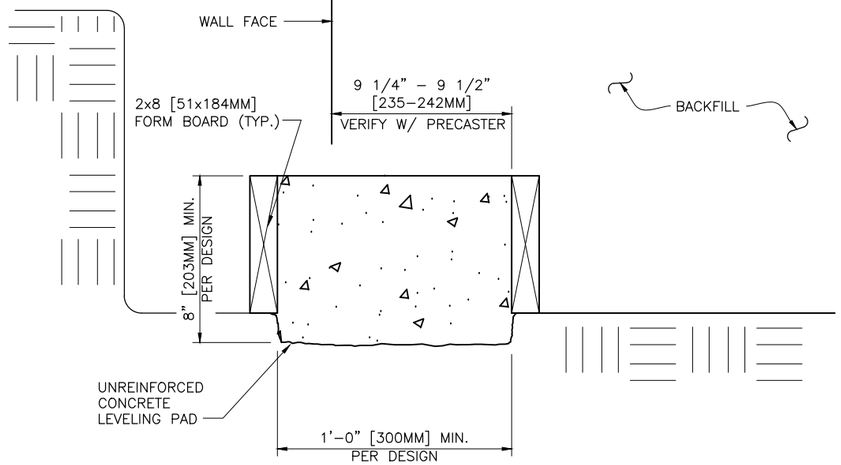
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 13 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:00 PM

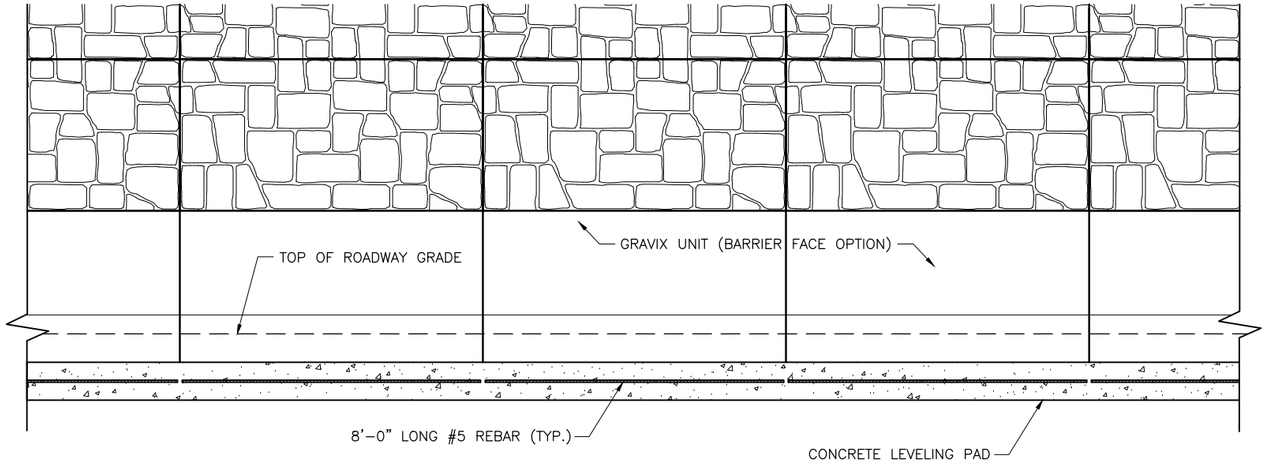




LEVELING PAD CROSS SECTION (STANDARD UNIT)

SCALE: 3" = 1'-0"

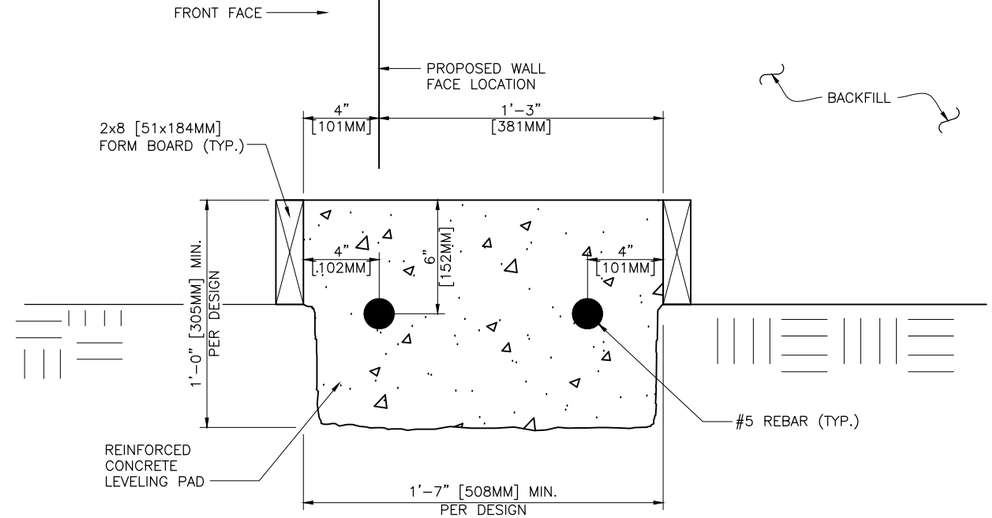
0 3 6 9 12 IN



TYPICAL LEVELING PAD ELEVATION (BARRIER FACE)

SCALE: 1/2" = 1'-0"

0 3 6 9 12 IN



LEVELING PAD CROSS SECTION (BARRIER FACE UNIT)

SCALE: 3" = 1'-0"

0 3 6 9 12 IN

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

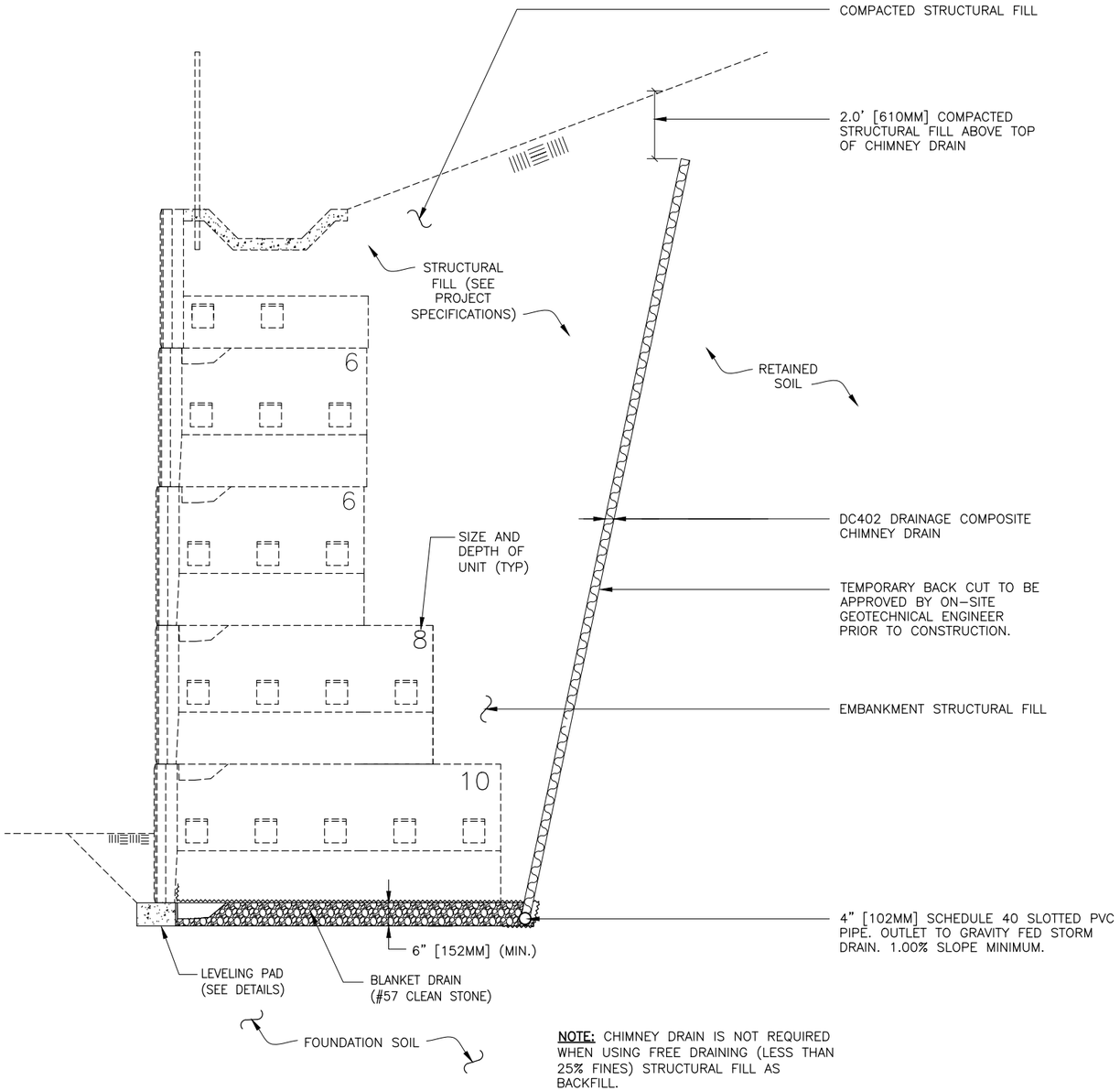
DETAILS LEVELING PAD

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
14 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:01 PM

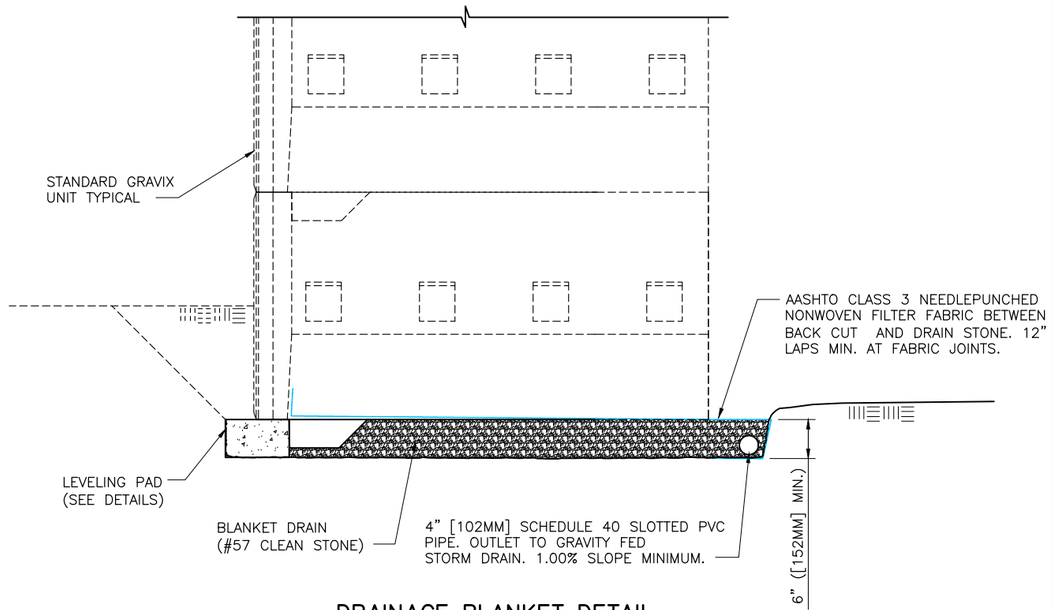


NOTE: CHIMNEY DRAIN IS NOT REQUIRED WHEN USING FREE DRAINING (LESS THAN 25% FINES) STRUCTURAL FILL AS BACKFILL.

CHIMNEY DRAIN DETAIL

SCALE: 1/2" = 1'-0"

0 3 6 9 12 IN



DRAINAGE BLANKET DETAIL

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

0 3 6 9 12 IN

GRAVIX 6-6-2018.dwg

6/6/2018 2:01 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

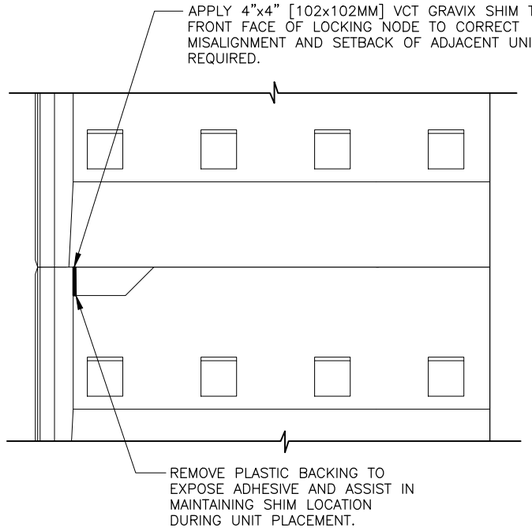
[PROJECT NAME]
[PROJECT LOCATION]

DETAILS DRAINAGE

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

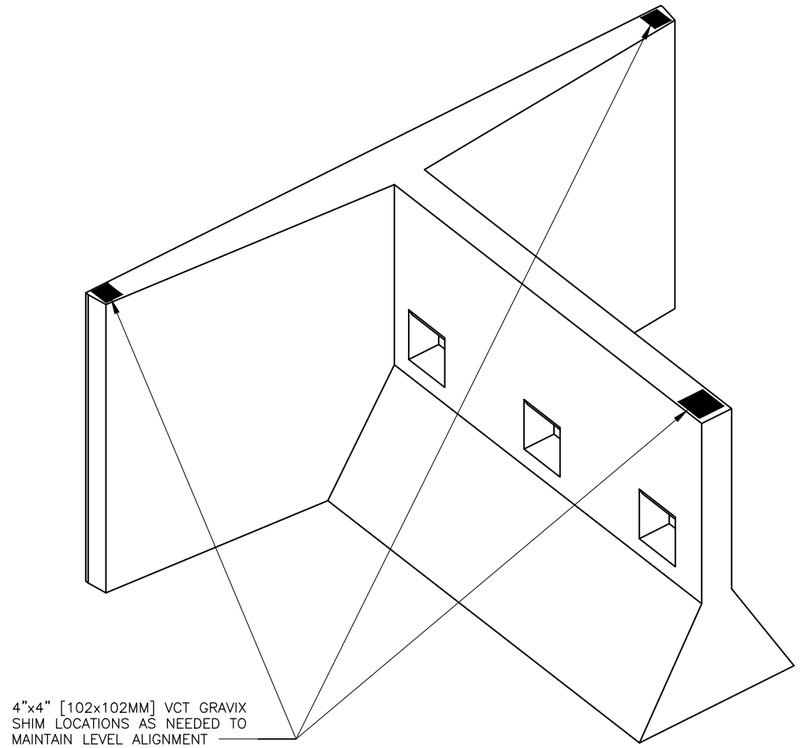
SHEET NUMBER
15 OF 97



HORIZONTAL ALIGNMENT SHIMMING

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

0 3 6 9 12 IN



VERTICAL ALIGNMENT SHIMMING

SCALE: NOT TO SCALE

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

DETAILS ALIGNMENT SHIMMING

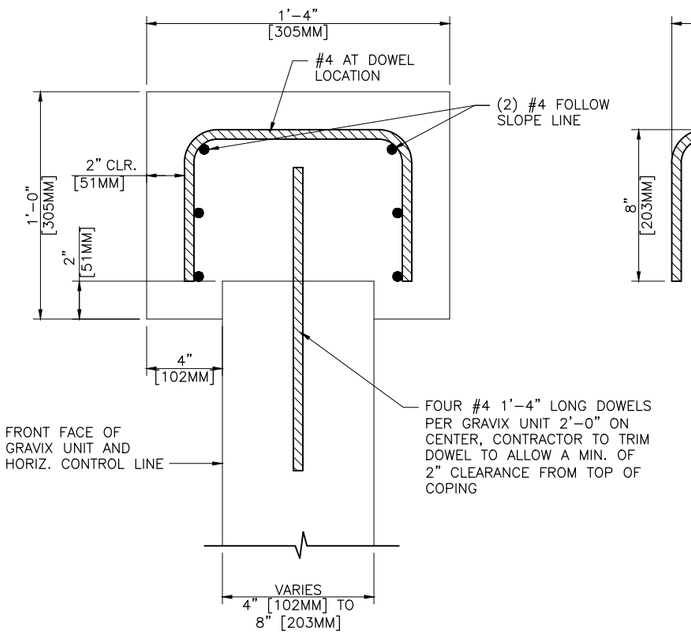
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

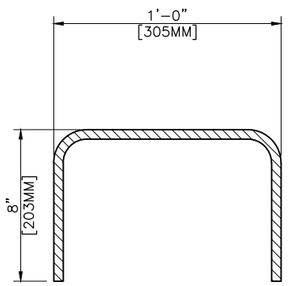
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
16 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:01 PM

CONCRETE: CLASS A, f'c = 3,000 PSI
REINF. STEEL: ASTM A-615 GRADE 60, fy = 60 KSI



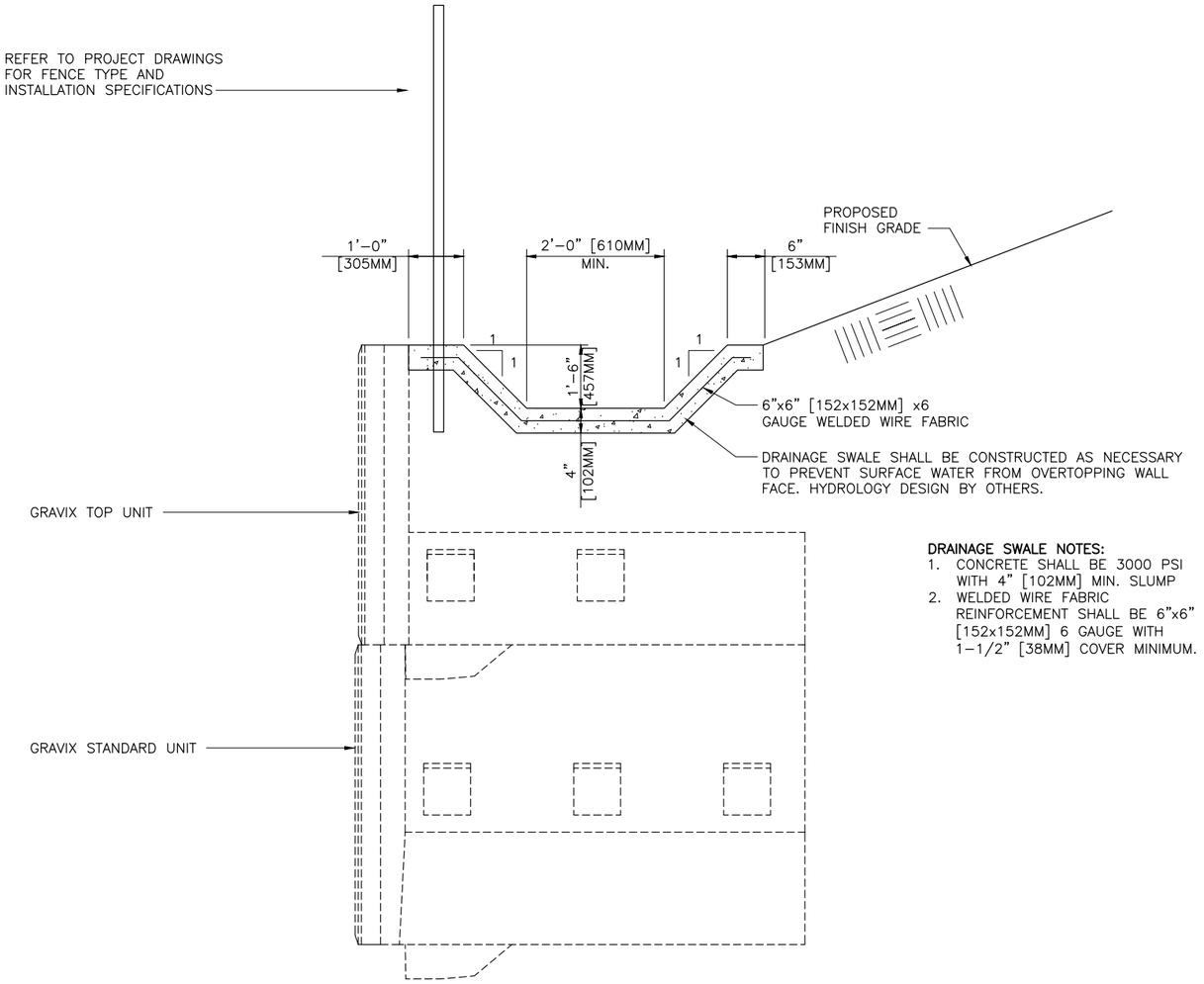


#4 BAR

CAST-IN-PLACE COPING (OPTION)

SCALE: 3" = 1'-0"

0 3 6 9 12 IN



DRAINAGE SWALE NOTES:
1. CONCRETE SHALL BE 3000 PSI WITH 4" [102MM] MIN. SLUMP
2. WELDED WIRE FABRIC REINFORCEMENT SHALL BE 6"x6" [152x152MM] 6 GAUGE WITH 1-1/2" [38MM] COVER MINIMUM.

FENCE & PAVED DITCH

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

GRAVIX 6-6-2018.dwg
6/6/2018 2:01 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

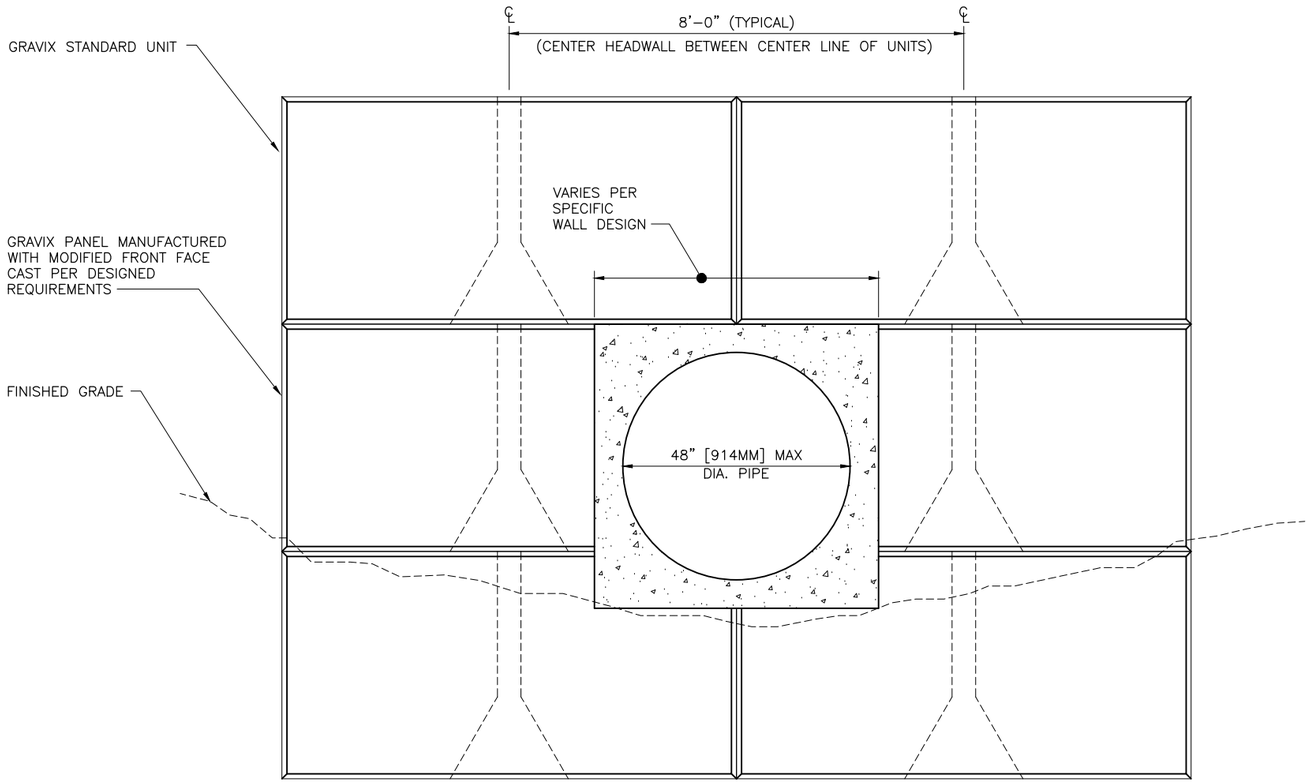
[PROJECT NAME]
[PROJECT LOCATION]

DETAILS CONCRETE SWALE, FENCE AND COPING OPTION

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
17 OF 97

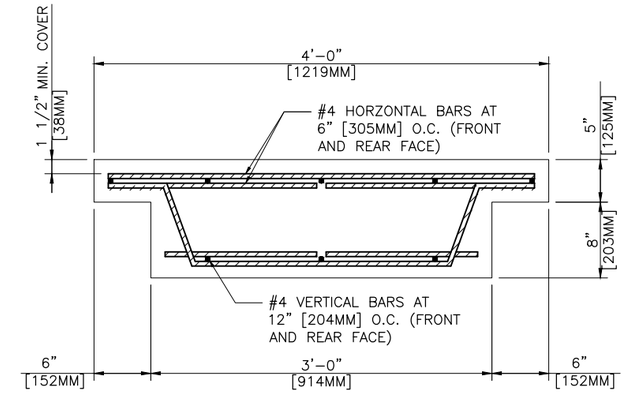


PRECAST HEADWALL DETAIL

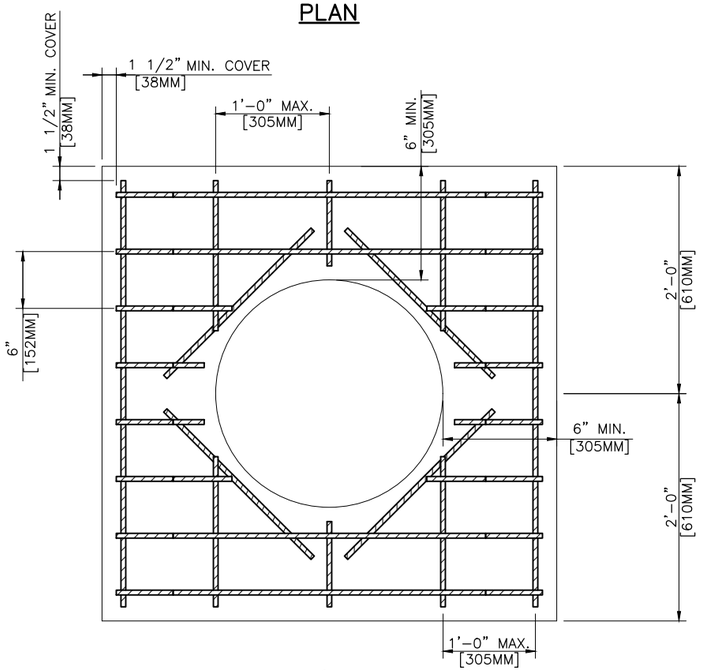
SCALE: 3/4" = 1'–0"

0 3 6 9 12 IN

NOTE:
REFER TO RETAINING WALL DESIGN SPECIFIC DETAILS FOR PIPES GREATER THAN 36 INCH DIAMETER.



PLAN



ELEVATION (FRONT VIEW)

TYPICAL 4'x4' [1218x1218MM] PRECAST OR CAST IN PLACE HEADWALL

SCALE: 1–1/2" = 1'–0"

0 6" 1 2 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

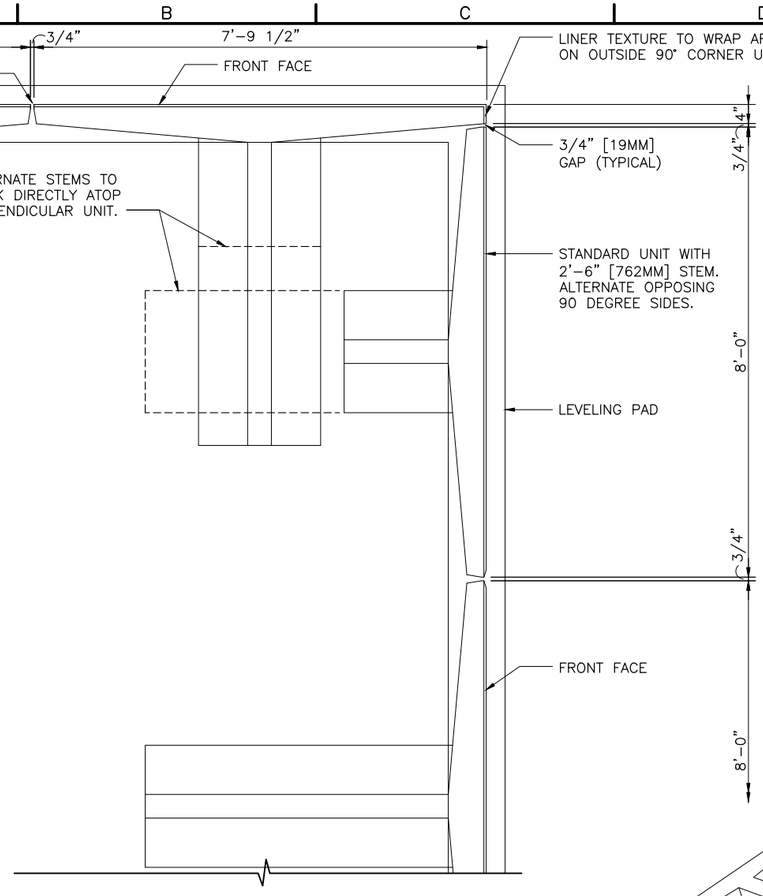
[PROJECT NAME]
[PROJECT LOCATION]

DETAILS PIPE HEADWALL

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

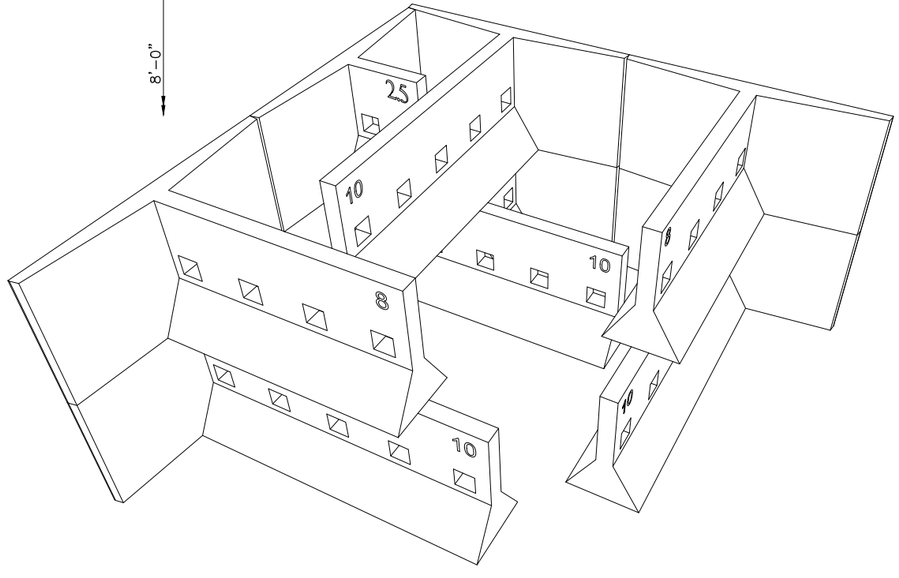
SHEET NUMBER
18 OF 97



OUTSIDE 90° CORNER DETAIL

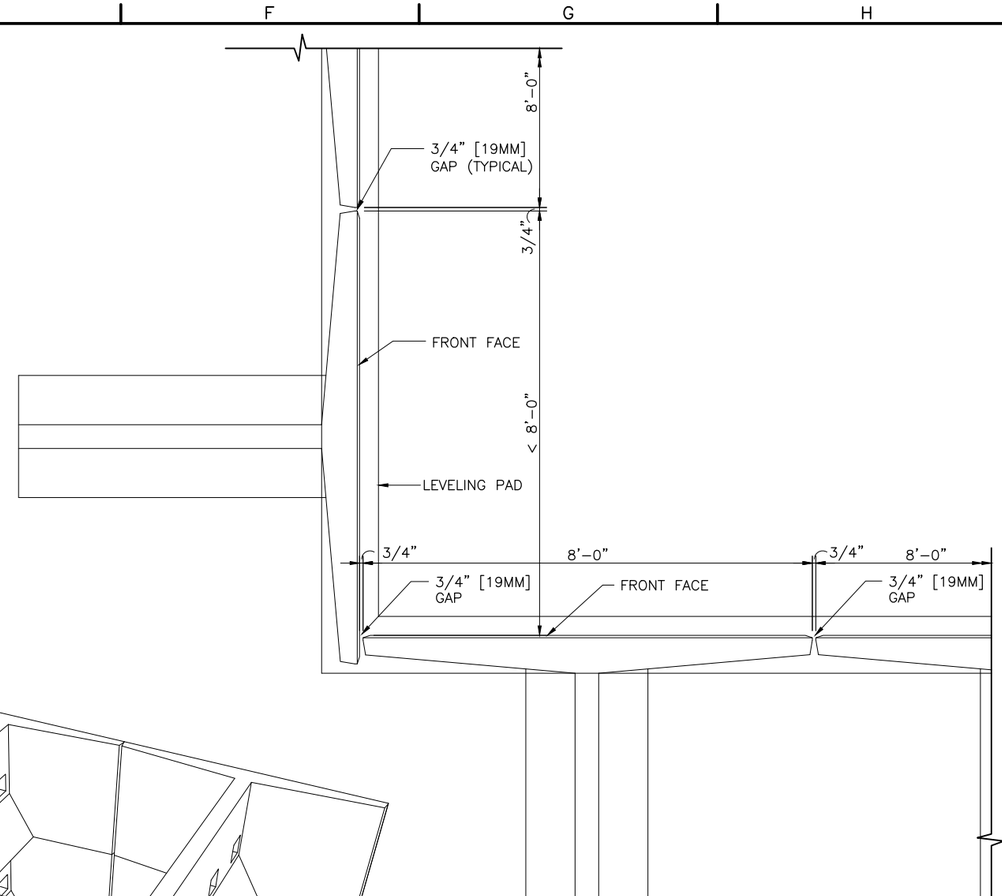
SCALE: 3/4" = 1'-0"

0 1 2 3 FT



OUTSIDE 90° CORNER 3D ISOMETRIC

SCALE: NOT TO SCALE



INSIDE 90° CORNER DETAIL

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

0 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

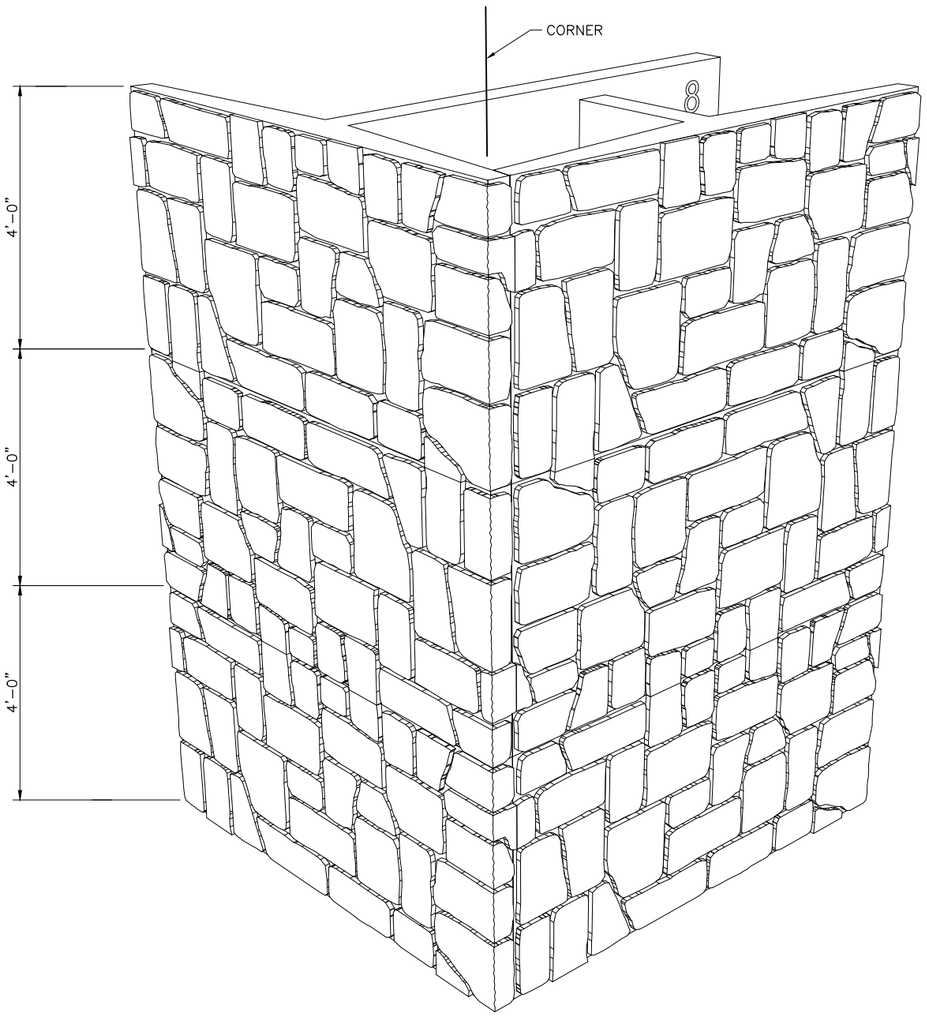
DETAILS 90 DEGREE CORNER

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
19 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:01 PM



ISOMETRIC VIEW

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

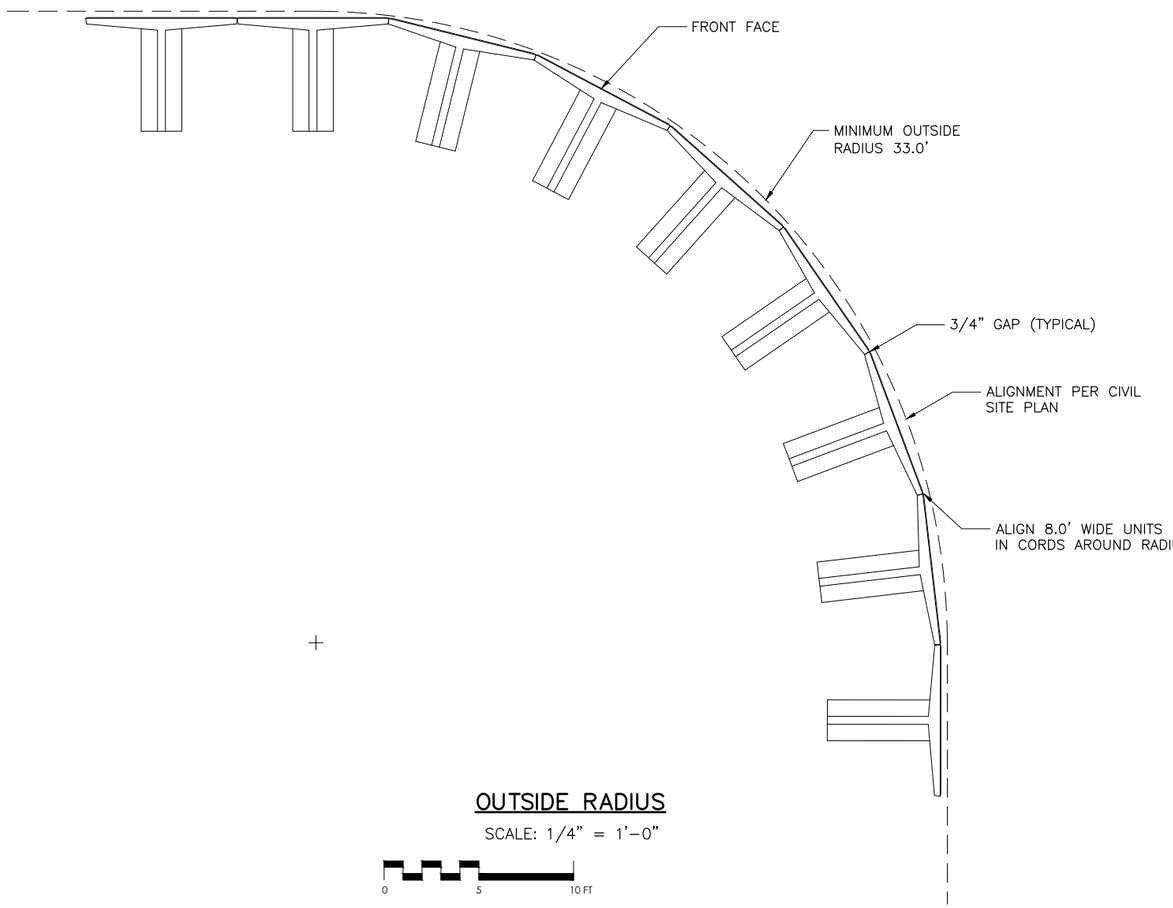
[PROJECT NAME]
[PROJECT LOCATION]

DETAILS 90 DEGREE FACE LAYOUT

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

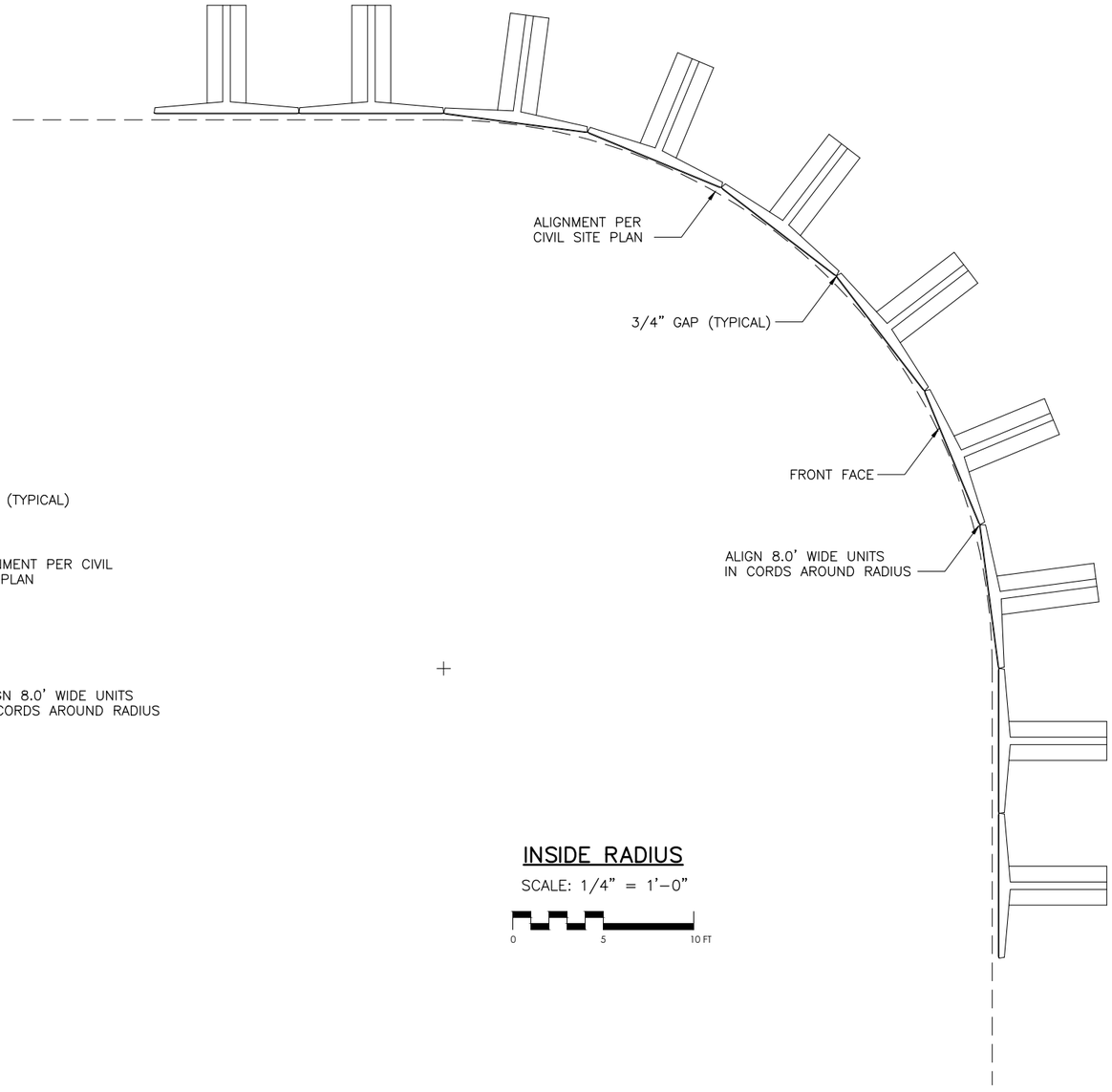
SHEET NUMBER
20 OF 97



OUTSIDE RADIUS

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

0 5 10 FT



INSIDE RADIUS

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

0 5 10 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX

DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

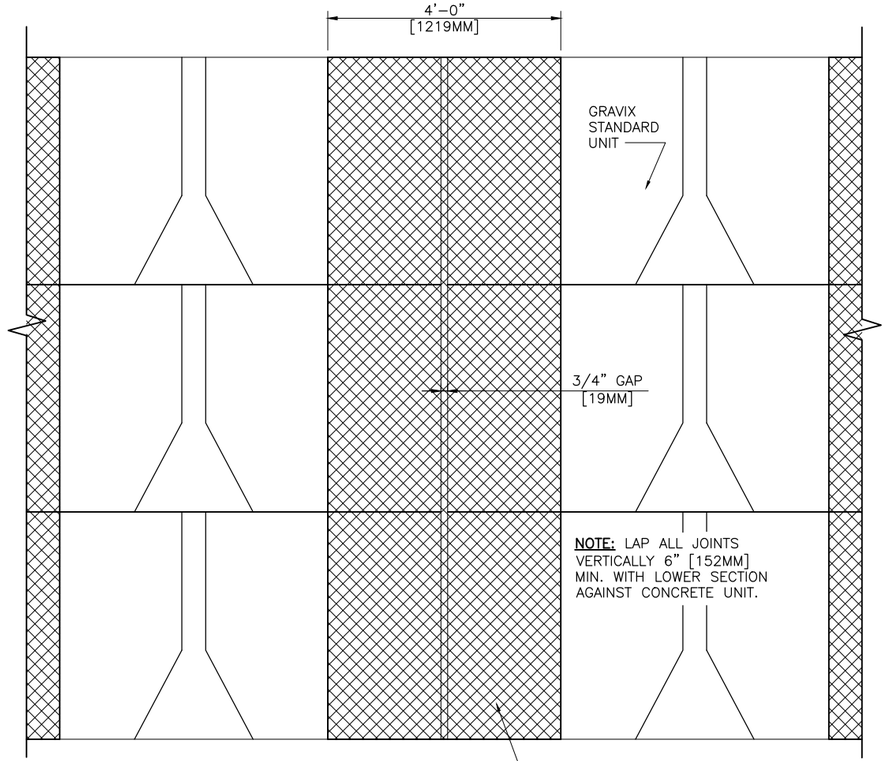
DETAILS RADIUS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 21 OF 97

6/6/2018 2:01 PM GRAVIX 6-6-2018.dwg



DRAINAGE COMPOSITE SPECIFICATION:
DRAINAGE COMPOSITE MUST BE FOR SUBSURFACE DRAINAGE AGAINST CONCRETE SURFACES THAT CONSIST OF A DRAIN CORE WITH NEEDLEPUNCHED NONWOVEN FILTER FABRIC MEETING THE FOLLOWING MINIMUM CRITERIA:

CORE:

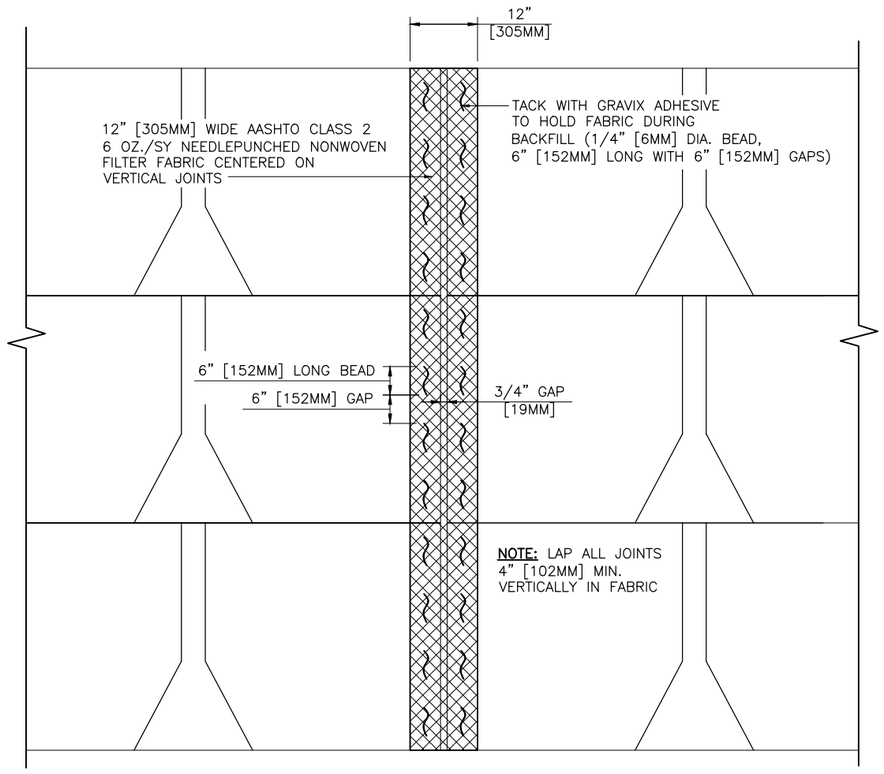
THICKNESS, NOMINAL	ASTM D–1777	220 +/– 20 mils
Tensile Strength	ASTM D 5035	45 lb/in (7.88 kN/m)
Flow (hydraulic Gradient =1)	ASTM D 4716	8.5 g/min/ft

FABRIC:

Flow	ASTM D–4491	135 g/min/sf 5502
Puncture	ASTM D–4833	65 lbs (0.30 kN)
AOS	EOS	70 U.S. Sieve (.212 mm)
Grab Tensile	ASTM D–4632	120 lbs (0.54 kN)

BACKFILL WITH SOIL – GREATER THAN 25% FINES (PASSING THE NO. 200 SIEVE) VERTICAL JOINT DETAIL

SCALE: 3/4" = 1'–0"



FILTER FABRIC SPECIFICATION:

Weight (oz/sy) (g/sm)	ASTM D5261	6.0 (203)
Permittivity sec –1	ASTM D4491	1.5
AOS US Sieve (mm)	ASTM D4751	70 (0.212)
Grab Elongation (%)	ASTM D4632	50
Trapezoid Tear Strength lbs (kN)	ASTM D4533	60 (0.267)
Grab Tensile lbs (kN)	ASTM D4632	160 (0.711)
Puncture Resistance lbs (kN)	ASTM D4833	90 (0.400)
UV Resistance %/hrs	ASTM D4355	70/500
Water Flow gpm/sf (l/min/sm)	ASTM D4491	110 (4480)
Mullen Burst psi (kPa)	ASTM D3786	305 (2103)
CBR Puncture Resistance lbs (kN)	ASTM D6241	410 (1.82)

BACKFILL WITH STONE – LESS THAN 25% FINES (PASSING THE NO. 200 SIEVE) VERTICAL JOINT DETAILS

SCALE: 3/4" = 1'–0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

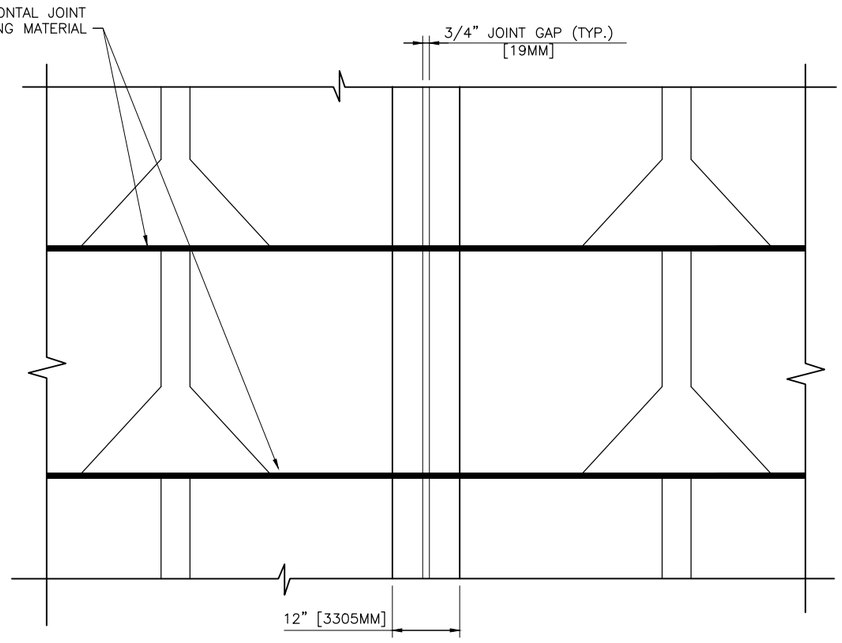
[PROJECT NAME]
[PROJECT LOCATION]

DETAILS VERTICAL JOINT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

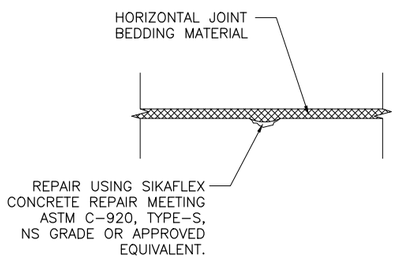
SHEET NUMBER
22 OF 97



HORIZONTAL JOINT DETAIL
BACK FACE VIEW

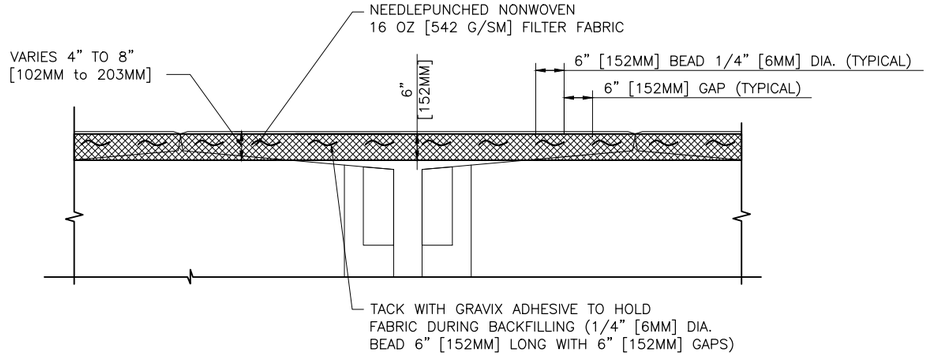
SCALE: 3/4" = 1'-0"

0 1 2 3 FT



HORIZONTAL JOINT
REPAIR DETAIL

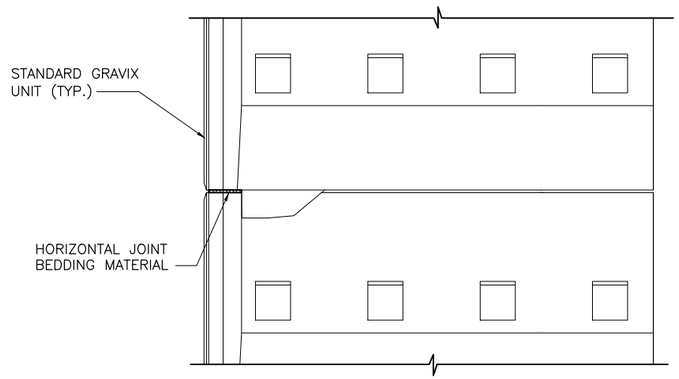
SCALE: NOT TO SCALE



HORIZONTAL JOINT DETAIL
PLAN VIEW

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

0 1 2 3 FT



HORIZONTAL JOINT DETAIL
SIDE VIEW

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

0 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

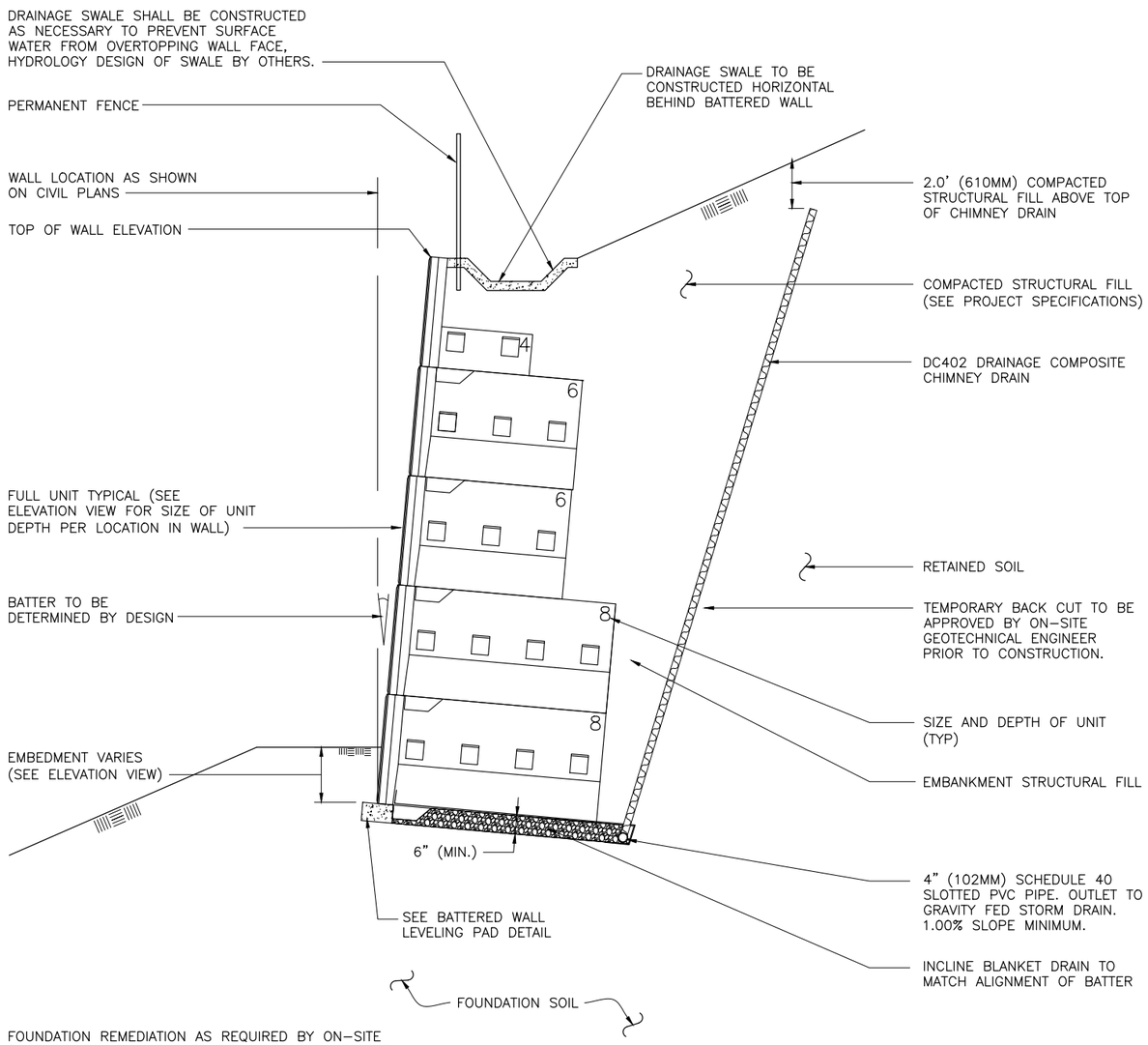
DETAILS HORIZONTAL JOINT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
23 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:01 PM



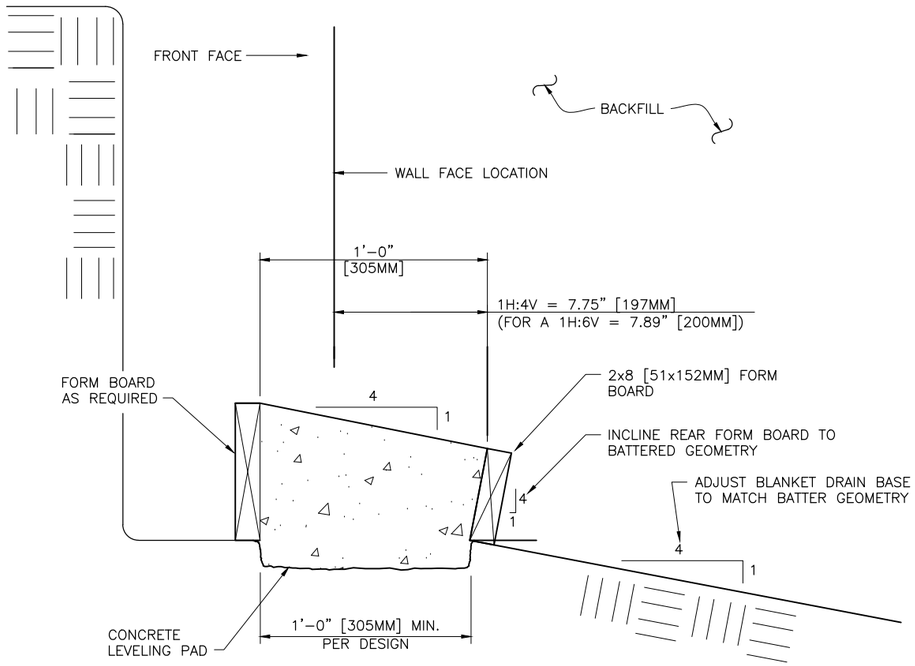
FOUNDATION REMEDIATION AS REQUIRED BY ON-SITE GEOTECHNICAL ENGINEER TO OBTAIN STABLE WORKING PLATFORM MEETING THE REQUIRED BEARING CAPACITY AS FOUND ON RESPECTIVE WALL ELEVATION VIEW.

NOTE: CHIMNEY DRAIN IS NOT REQUIRED WHEN USING FREE DRAINING (LESS THAN 25% FINES) STRUCTURAL FILL AS BACKFILL.

TYPICAL BATTERED CUT CROSS SECTION

SCALE: 3/8" = 1'-0"

0 5 FT

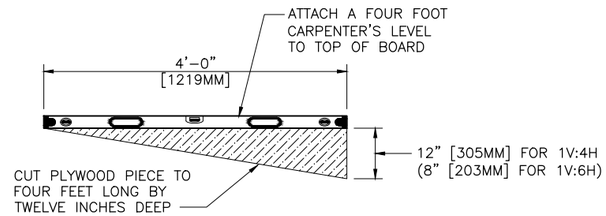


NOTE: THE ABOVE DETAIL IS DRAWN USING A 1H:4V BATTER. ADJUST THE BATTER THROUGHOUT FOR OTHER DESIGN BATTERS.

BATTERED WALL LEVELING PAD DETAIL

SCALE: 3" = 1'-0"

0 3 6 9 12 IN



(TO BE USED WHEN LEVELING UNIT STEMS) BATTERED WALL TEMPLATE

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

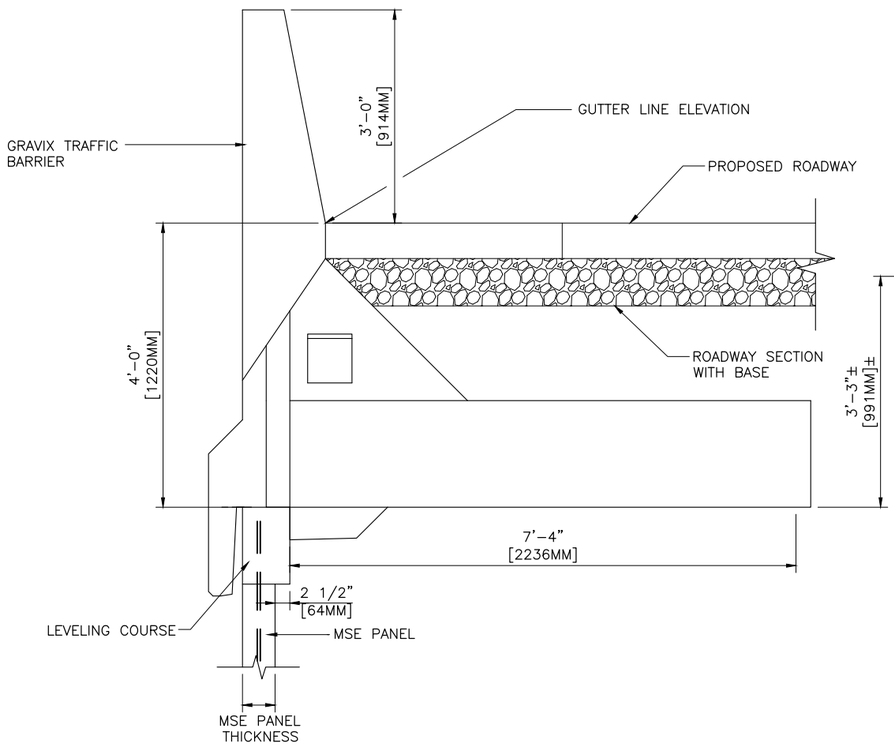
[PROJECT NAME]
[PROJECT LOCATION]

DETAILS BATTERED WALL

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

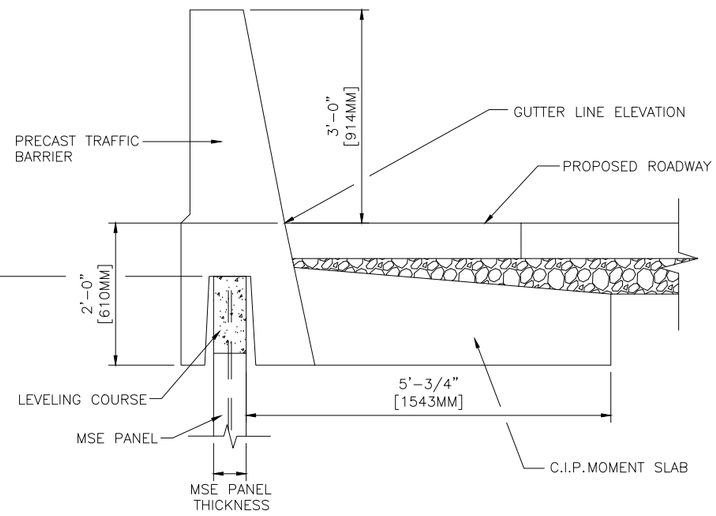
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
24 OF 97



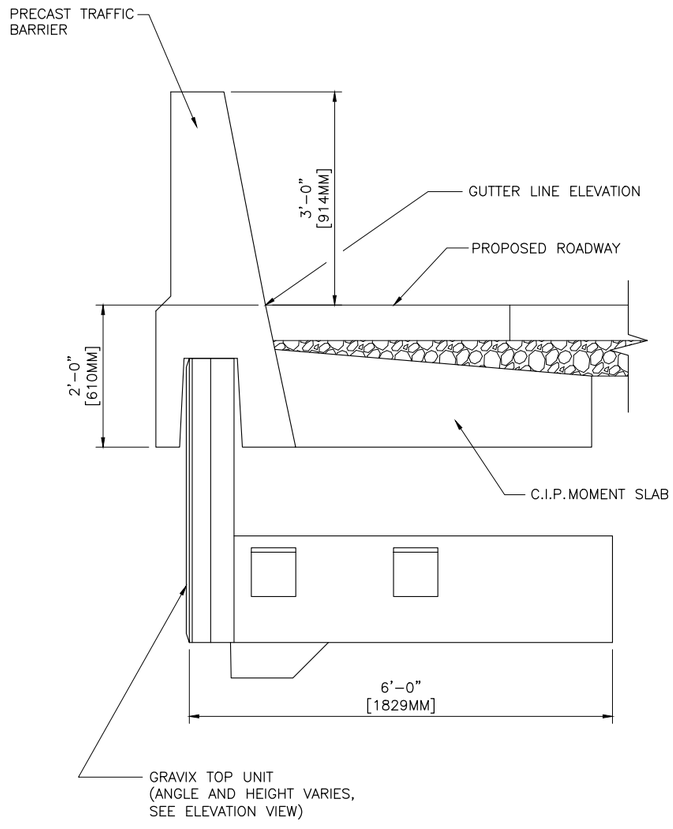
GRAVIX TRAFFIC BARRIER UNIT
ON AN MSE WALL DETAIL

SCALE: NOT TO SCALE



CONVENTIONAL
PRECAST TRAFFIC BARRIER UNIT
ON AN MSE WALL DETAIL

SCALE: NOT TO SCALE



CONVENTIONAL
PRECAST TRAFFIC BARRIER UNIT
ON A GRAVIX WALL DETAIL

SCALE: NOT TO SCALE

GRAVIX 6-6-2018.dwg

6/6/2018 2:02 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

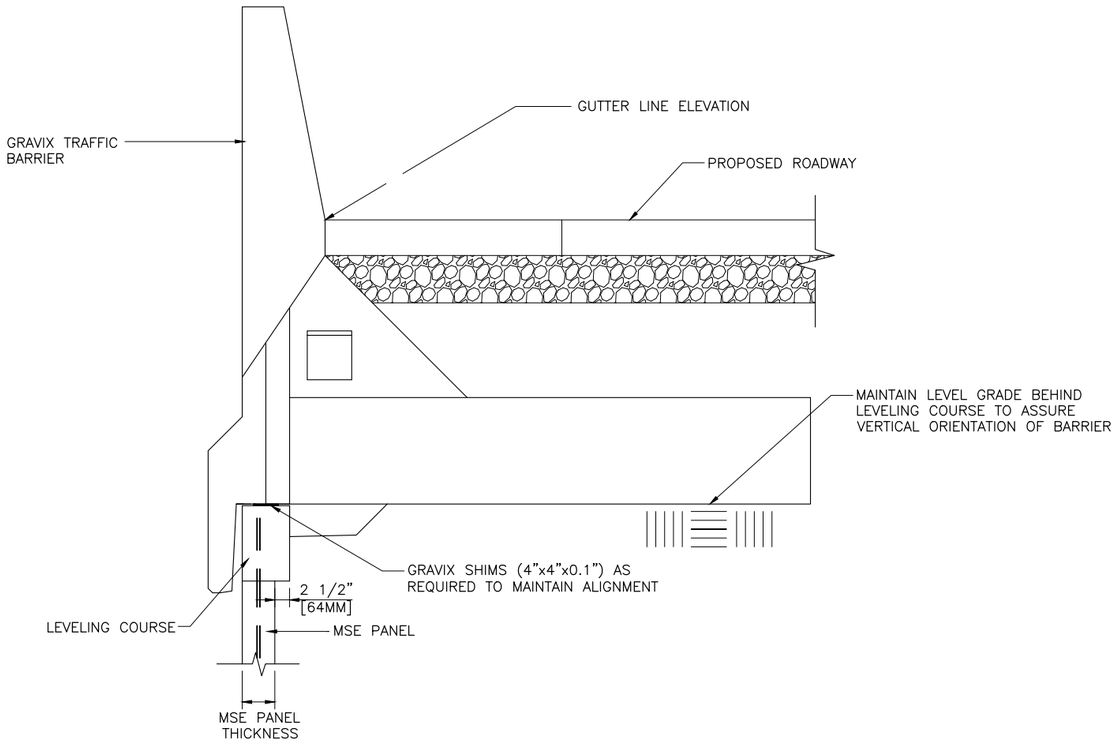
[PROJECT NAME]
[PROJECT LOCATION]

GRAVIX TRAFFIC BARRIER ON MSE WALL AND CONVENTIONAL PRECAST TRAFFIC BARRIER ON GRAVIX WALL

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

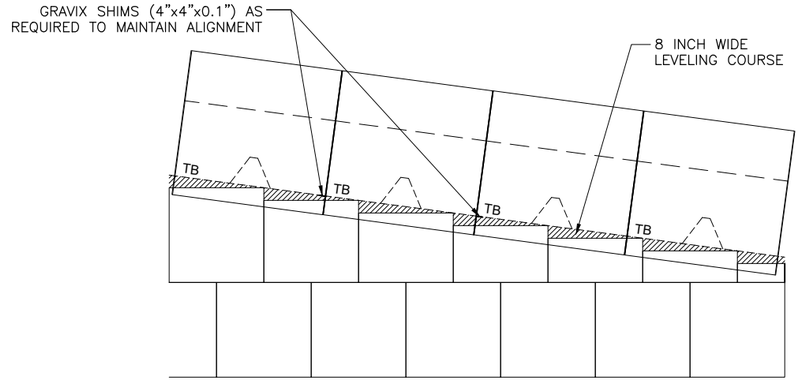
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
25 OF 97



GRAVIX TRAFFIC BARRIER UNIT PLACEMENT ON AN MSE WALL DETAIL

SCALE: NOT TO SCALE



FRONT FACE ELEVATION VIEW OF TRAFFIC BARRIER ON MSE WALL

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

0 5 10 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

TRAFFIC BARRIER ON TOP OF MSE WALL INSTALLATION

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
26 OF 97

MANUFACTURE SPECIFICATIONS

1. FABRICATION OF GRAVIX UNITS CANNOT BEGIN UNTIL CONSTRUCTION DRAWINGS ARE APPROVED.

2. GRAVIX PRECAST UNITS SHALL BE FABRICATED AT AN APPROVED PLANT. PROVIDE CONCRETE FOR CASTING THE UNITS WITH A 28–DAY MINIMUM COMPRESSIVE STRENGTH OF 27.6 MPA [4000 PSI]. AIR CONTENT TO BE BETWEEN 4% AND 6.5%.

3. SET THE REINFORCING STEEL IN PLACE TO THE DIMENSIONS AND TOLERANCES INDICATED OR AS APPROVED BY THE ENGINEER PRIOR TO CASTING.

4. ACCEPTANCE OF THE PRECAST GRAVIX UNITS WILL BE DETERMINED IN ADDITION TO VISUAL INSPECTION ON THE BASIS OF TESTING FOR COMPRESSIVE STRENGTH, SLUMP AND ENTRAINED AIR IN THE CONCRETE MIXTURE. THE APPROVED PLANT MUST PROVIDE FACILITIES FOR THE DEPARTMENT TO PERFORM ALL NECESSARY SAMPLING AND TESTING IN AN EXPEDITIOUS AND SATISFACTORY MANNER.

5. THE ACCEPTANCE OF THE GRAVIX UNITS IS DETERMINED IN PART BY THE COMPRESSION STRENGTH TESTING OF EACH LOT. A LOT IS DEFINED AS A TOTAL OF FOUR DAYS PRODUCTION WHERE A SINGLE CYLINDER IS TAKEN EACH DAY. OF THE FOUR CYLINDERS PER LOT MOLDED TO VERIFY THE MINIMUM COMPRESSIVE STRENGTH, TEST IN ACCORDANCE WITH ASTM C–31.

6. GRAVIX MOLDS SHALL BE CONSTRUCTED IN A MANNER THAT WILL ASSURE THE PRODUCTION OF UNIFORM UNITS WITHIN SPECIFIED MANUFACTURING TOLERANCES.

7. PREPARE AND MIX CONCRETE THEN DELIVER TO THE MOLD. USE METHODS THAT WILL PREVENT SEGREGATION OF THE CONCRETE MATERIALS AND THE DISPLACEMENT OF THE STEEL REINFORCEMENT FROM ITS PROPER POSITION IN THE MOLD WHEN TRANSPORTING, PLACING AND CONSOLIDATING CONCRETE. CAREFULLY PLACE AND VIBRATE THE CONCRETE IN THE MOLD TO PRODUCE A SURFACE FREE FROM IMPERFECTIONS SUCH AS HONEYCOMB, SEGREGATION, OR CRACKING. USE CLEAR FORM OIL FROM THE SAME MANUFACTURER THROUGHOUT THE CASTING OPERATION.

8. DO NOT PLACE CONCRETE WHEN AMBIENT TEMPERATURES ARE BELOW 40F (14C) OR ABOVE 100F (122C). ADMIXTURES CONTAINING CALCIUM CHLORIDE OR ADMIXES THAT CONTAIN CALCIUM ARE NOT PERMITTED.

9. ACCEPTABLE TOLERANCE FOR FINAL GRAVIX UNITS ARE AS FOLLOWS:
   - FACE WIDTH AND HEIGHT PLUS OR MINUS 3/16" [5MM]
   - DEVIATION FROM SQUARE MEASURED ON THE DIAGONAL OF THE FRONT FACE 1/2" [13MM]
   - UNIFORMED TOP SURFACE SHALL BE FLOAT FINISHED SUFFICIENTLY TO ELIMINATE OPEN AGGREGATE POCKETS AND DISTORTIONS IN EXCESS OF 1/4" [6MM]
   - SMOOTH FORM FINISH 1/4" (6MM) DEVIATION FROM A 5' [1524MM] STRAIGHT EDGE
   - TEXTURED FORMED FINISH 3/8" [10MM] DEVIATION FROM A 5' [1524MM] STRAIGHT EDGE
   - REINFORCING STEEL COVER SHALL BE MINUS 1/4" [6MM] TO PLUS 1/2" [13MM]
   - ALL REINFORCING STEEL DIMENSIONS PLUS OR MINUS 1/2" [13MM]
   - OTHER REINFORCING STEEL TOLERANCES SHALL BE IN ACCORDANCE WITH ACI 117

10. MARK WITH WATERPROOF PAINT ON THE REAR FACE SURFACE OF EACH UNIT AN IDENTIFICATION CODE. RECORDS MUST BE KEPT OF ALL UNITS MANUFACTURER, DATE OF CASTING AND LOT NUMBER AS A MINIMUM.

11. HANDLE, STORE AND SHIP ALL UNITS IN SUCH A MANNER AS TO ELIMINATE CHIPPING, CRACKS AND FRACTURES.

12. BEFORE SHIPMENT, EXAMINE ALL SURFACES OF PRECAST GRAVIX UNITS; PATCH ALL SURFACE VOIDS AND OTHER DEFECTS IN WALL SURFACES IN ACCORDANCE WITH THE APPROVED QUALITY CONTROL PLAN AND AS DIRECTED BY THE ENGINEER. PATCHING OF SURFACE VOIDS AND DEFECTS MAY BE PERFORMED THAT ARE NO MORE THAN 1/2" [13MM] DEEP AND CANNOT BE DETECTED VISUALLY FROM A DISTANCE OF 25' [7620MM] UNDER DIFFUSED LIGHTING.

13. GRAVIX UNITS MAY BE REJECTED FOR THE FOLLOWING:
    1. FRACTURES OR CRACKS PASSING THROUGH THE STEM OR FRONT FACE.
    2. 28–DAY CYLINDER COMPRESSION STRENGTH IS LESS THAN DESIGN CONCRETE STRENGTH REQUIREMENTS.
    3. HONEYCOMBED OR OPEN TEXTURE CONCRETE.
    4. DIMENSIONS NOT CONFORMING TO THE ALLOWABLE TOLERANCES AS SPECIFIED.
    5. DEFECTS THAT INDICATE PROPORTIONING, MIXING AND MOLDING NOT IN COMPLIANCE WITH THIS SPECIFICATION.
    6. DAMAGED EDGES WHICH WOULD PREVENT MAKING SATISFACTORY JOINT.
    7. COLOR VARIATION ON THE FRONT FACE OF THE UNIT.

14. PAINT REJECTED UNITS "REJECTED FOR DEPT. USE".

15. REINFORCING STEEL SHALL BE ASTM – A 615 GRADE 60 WHERE SPECIFIED FOR THE REINFORCING STEEL OF THE UNITS. THE MINIMUM CONCRETE COVER SHALL BE 1.5" [13MM] WITH EPOXY COATED REBAR AND 1.5" [38MM] WITH BLACK STEEL REBAR. UNLESS NOTED IN THE DESIGN LAYOUT.

16. PROVIDE CERTIFICATION AND FURNISH A COPY OF ALL TEST RESULTS PERFORMED WHICH ARE NECESSARY TO ASSURE COMPLIANCE WITH THE SPECIFICATIONS.

17. POLYVINYL CHLORIDE (PVC) PIPE: PVC PIPE FOR WEEPHOLES AS REQUIRED BY DESIGN.

18. A RECORD OF ALL REINFORCING STEEL MILL TEST CERTIFICATES MUST BE KEPT ON FILE FOR A MINIMUM OF 3 YEARS AND SHOULD BE COLLECTED UPON EVERY LOAD DELIVERED.

19. AN ACI FIELD TESTING TECHNICIAN MUST BE PRESENT DURING BATCHING IN ORDER TO PROPERLY PERFORM THE FOLLOWING TEST. ASTM C1064, ASTM C172, ASTM C143 (OR ASTM C1611, ASTM C138, ASTM C231, (OR ASTM C173), AND ASTM C31.

20. REINFORCING STEEL CAGE ASSEMBLY INSPECTION REPORTS, PER–POUR INSPECTION REPORTS, AND POST–POUR INSPECTION REPORTS MUST BE KEPT ON FILE FOR A MINIMUM OF THREE YEARS.

21. CEMENT MILL TEST CERTIFICATES MUST BE KEPT ON FILE FOR A MINIMUM OF 3 YEARS, AND SHOULD BE COLLECTED UPON EVERY LOAD DELIVERED.

22. ADMIXTURE DOSING EQUIPMENT AND WEIGHT BATCH SCALES FOR ALL CEMENTITIOUS AND AGGREGATE RAW MATERIALS MUST BE CALIBRATED ANNUALLY AND RECORDS OF THIS MUST BE KEPT ON FILE FOR A MINIMUM OF THREE TEARS.

23. FINE AGGREGATE GRADATIONS SHOULD BE OBTAINED EVERY 1,500 TONS DELIVERED (OR MONTHLY, WHICHEVER COMES FIRST).
    - COURSE AGGREGATE GRADATIONS SHOULD BE OBTAINED EVERY 2,000 TONS DELIVERED (OR MONTHLY, WHICHEVER COMES FIRST).
    - ASTM C143 (SLUMP) (OR ASTM C1611) SHOULD BE PERFORMED DAILY (OR EVERY 150 CUBIC YARDS BATCHED, WHICHEVER COMES FIRST)
    - ASTM C1064 (TEMPERATURE SHOULD BE PERFORMED DAILY (OR EVERY 150 CUBIC YARDS BATCHED, WHICHEVER COMES FIRST).
    - ASTM C138 (DENSITY) SHOULD BE PERFORMED AT A MINIMUM ONCE PER WEEK, BUT RECOMMENDED PRIOR TO EVERY AIR CONTENT (ASTM C231 OR ASTM C173) TEST.
    - ASTM C231 (AIR, PRESSURE) OR ASTM C173 (AIR, VOLUMETIC) SHOULD BE PERFORMED DAILY (OR EVERY 150 CUBIC YARDS BATCHED, WHICHEVER COMES FIRST).
    - COMPRESSIVE STRENGTH TESTS SHOULD BE PERFORMED WEEKLY (OR EVERY 150 CUBIC YARDS, WHICHEVERY COMES FIRST).
    - ALL OF THESE TEST REPORTS MUST BE KEPT ON FILE FOR A MINIMUM OF THREE YEARS.

24. THE TEMPERATURE OF FRESH MIXED CONCRETE SHOULD NOT BE LESS THAN 55 DEGREES FERINHEIGHT (12.8 DEGREES CELSIUS) AND SHOULD NOT BE GREATER THEN 90 DEGREES FERINHEIGHT (32.2 DEGREES CELSIUS) DURING THE BATCHING AND PLACING PROCESS.

25. THE MIX DESIGN WATER/CEMENT RATIO SHALL BE LESS THAN OR EQUAL TO .44

26. CONCRETE SHALL BE PLACED IN A MANNER THAT PREVENTS LOSS OF MOISTURE AND MINIMIZES WIND AND SUN EXPOSURE, EXTRA MEASURES MAY NEED TO BE TAKEN TO COVER THE FORMS AFTER PLACEMENT CONSOLIDATION IF SUCH ELEMENT EXPOSURES ARE PRESENT.

27. MINIMUM BEND RADIUS FOR REBAR ARE AS FOLLOWS:
    #4 ≥ 3"
    #5 ≥ 3.75"
    #6 ≥ 4.5"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

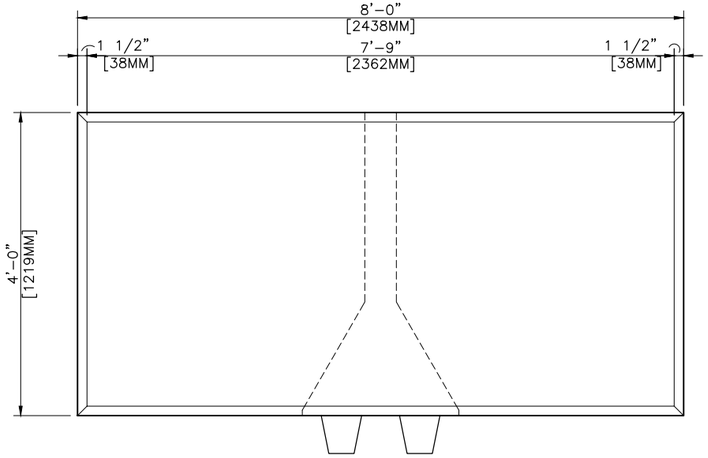
[PROJECT NAME]
[PROJECT LOCATION]

MANUFACTURE SPECIFICATIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

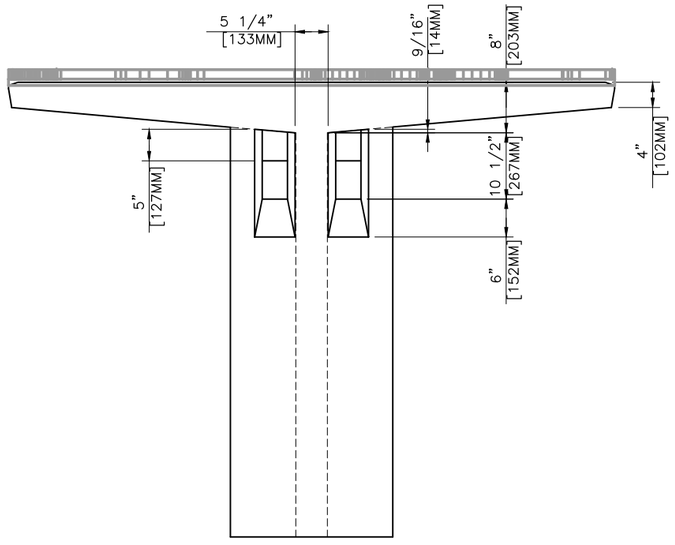
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
27 OF 97



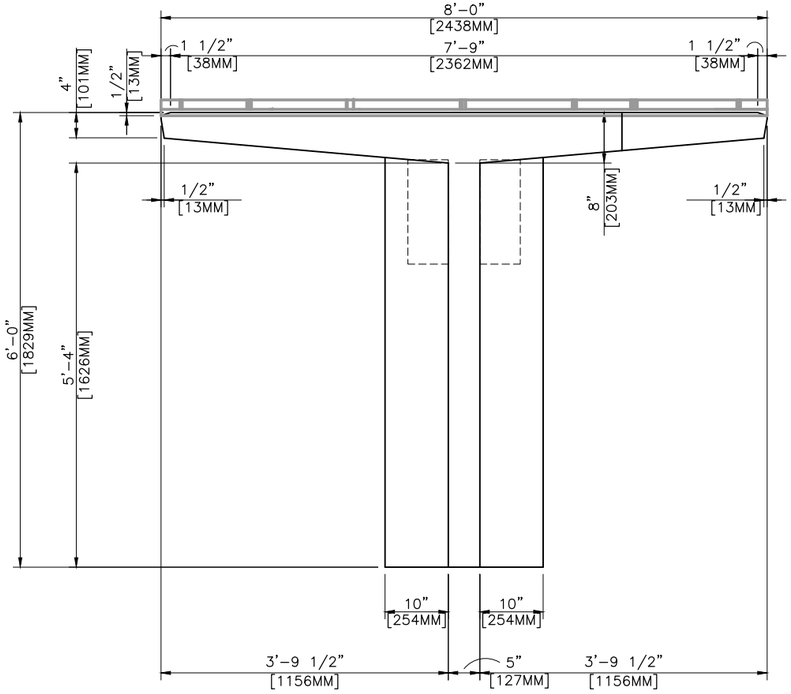
FRONT VIEW

SCALE: 1" = 1'-0"



BOTTOM VIEW

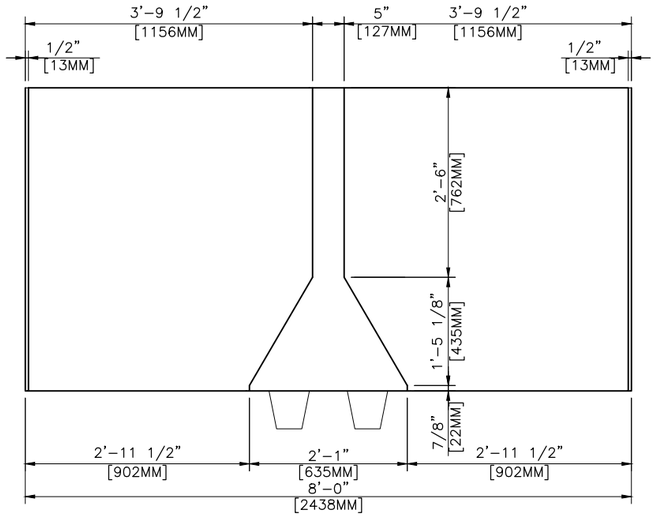
SCALE: 1" = 1'-0"



TOP VIEW

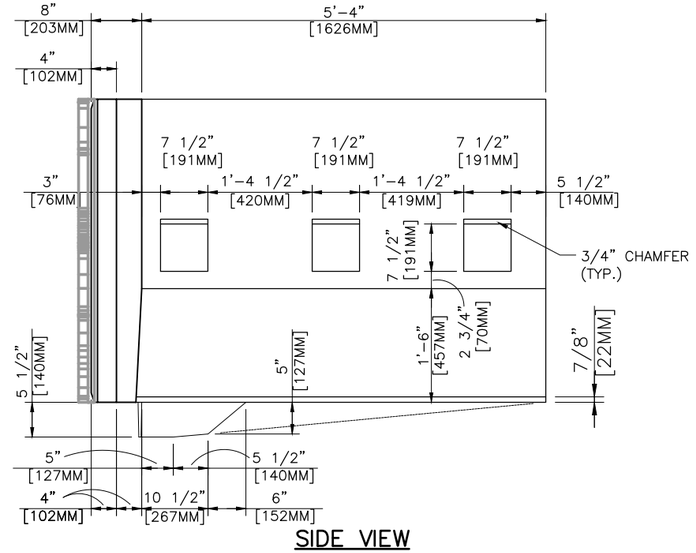
SCALE: 1" = 1'-0"

NOTE:
THE VIEWS ARE DRAWN FOR A 6 FT. STEM UNIT. ADJUST STEM IN 2 FT. INCREMENTS FOR 4, 8, 10, AND 12 FT. STEMS ACCORDINGLY.



REAR VIEW

SCALE: 1" = 1'-0"



SIDE VIEW

SCALE: 1" = 1'-0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

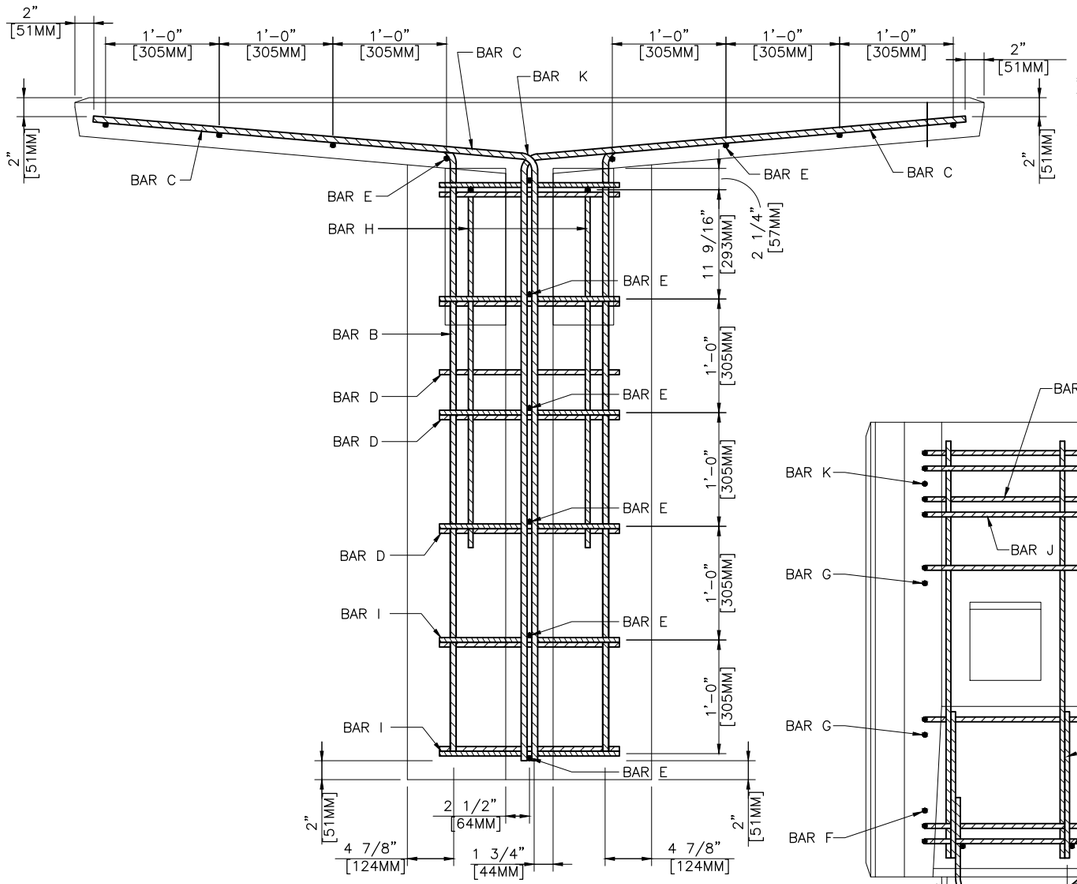
STANDARD UNIT
(2.5 TO 12 FT. STEM UNITS)

DIMENSIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

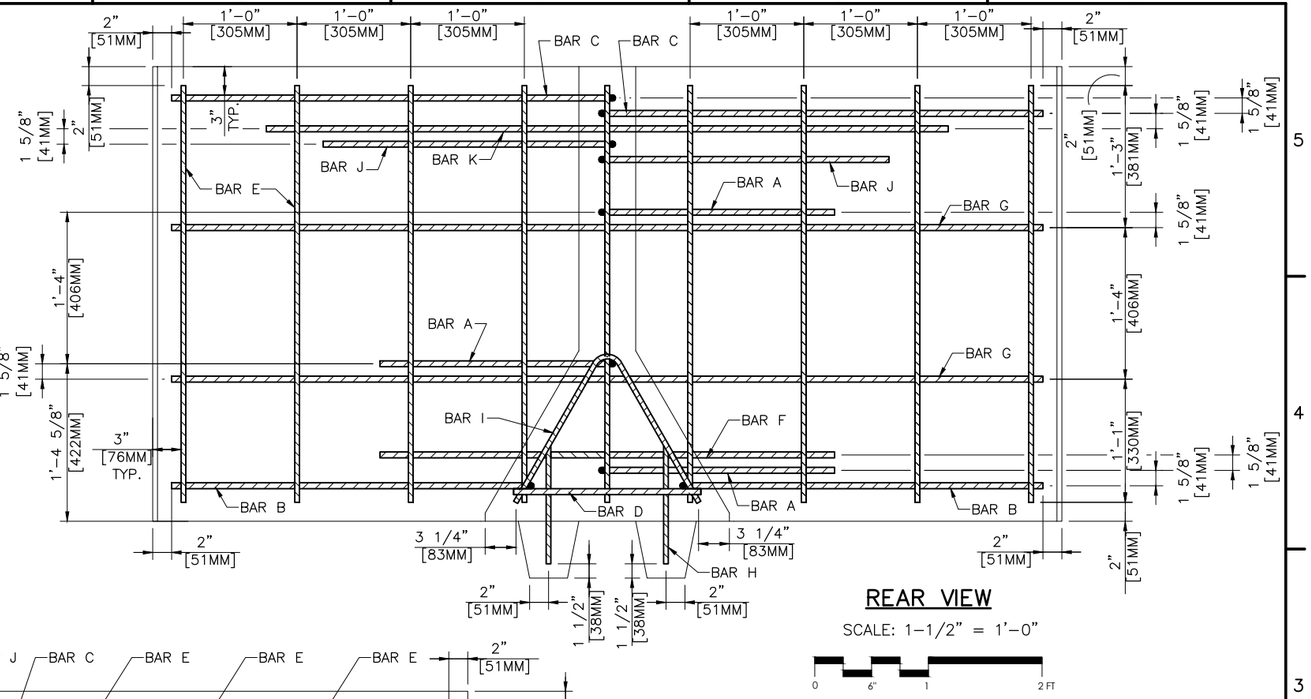
SHEET NUMBER
28 OF 97



TOP VIEW

SCALE: 1-1/2" = 1'-0"

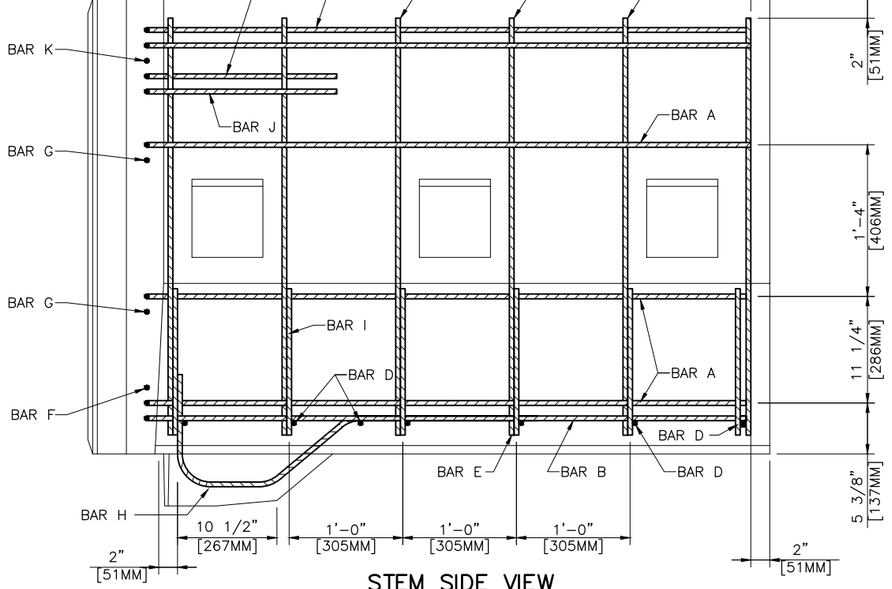
0 6" 1 2 FT



REAR VIEW

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT



STEM SIDE VIEW

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT

NOTES:

1. ALL REBAR SHOWN ARE #4 60 KSI.
2. THE VIEWS ARE DRAWN FOR A 6 FT STEM UNIT. ADJUST STEM IN 2 FT. INCREMENTS FOR 4, 8, 10, AND 12 FT. STEMS ACCORDINGLY.
3. THE TWO "B" BARS SHOULD BE 17" ON CENTER FOR REBAR LAYOUT.

REVISIONS

REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

STANDARD UNIT (2.5 TO 12 FT. STEM UNITS)

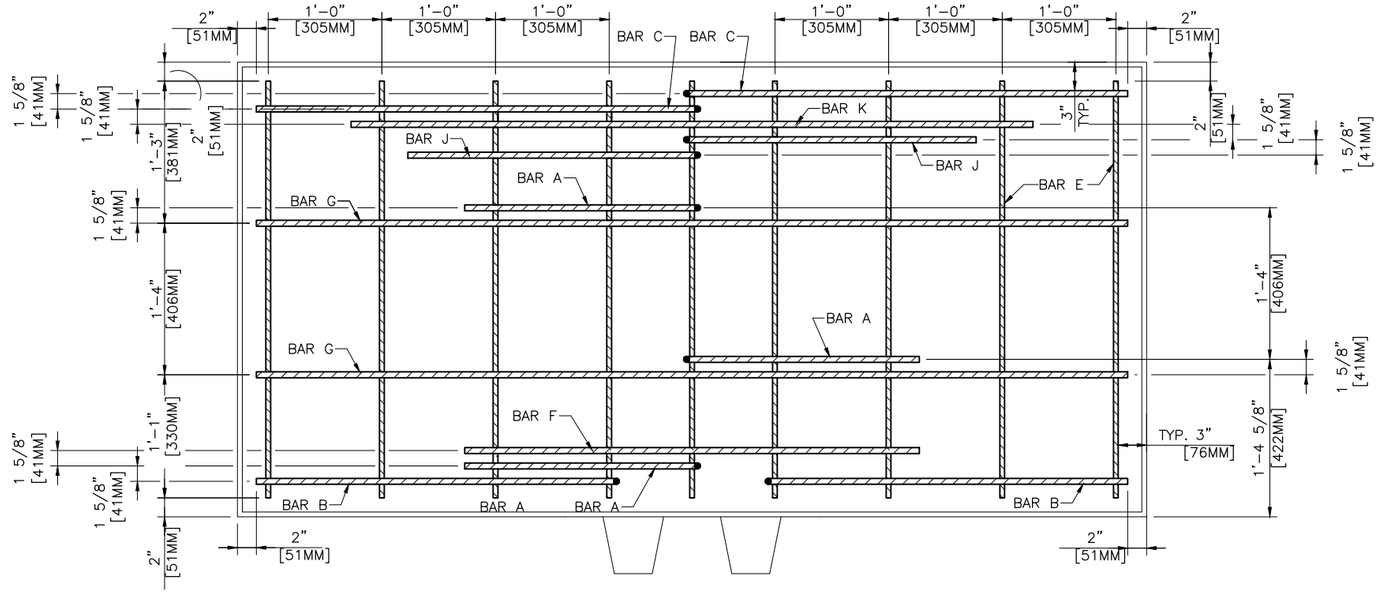
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 29 OF 97

6/6/2018 2:02 PM GRAVIX 6-6-2018.dwg



FRONT VIEW

SCALE: 1–1/2" = 1'–0"

0 6" 1 2 FT

NOTES:

1. ALL REBAR SHOWN ARE #4 60 KSI.
2. THE VIEWS ARE DRAWN FOR A 6 FT STEM UNIT. ADJUST STEM IN 2 FT. INCREMENTS FOR 4, 8, 10, AND 12 FT. STEMS ACCORDINGLY.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

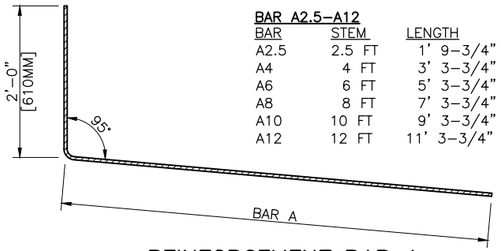
STANDARD UNIT (2.5 TO 12 FT. STEM UNITS)

REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 30 OF 97



BAR A2.5–A12

BAR	STEM	LENGTH
A2.5	2.5 FT	1' 9-3/4" [553MM]
A4	4 FT	3' 3-3/4" [1010MM]
A6	6 FT	5' 3-3/4" [1619MM]
A8	8 FT	7' 3-3/4" [2229MM]
A10	10 FT	9' 3-3/4" [2838MM]
A12	12 FT	11' 3-3/4" [3448MM]

REINFORCEMENT BAR A
3 REQUIRED

SCALE: 1" = 1'-0"

BAR B2.5–B12

BAR	STEM	LENGTH
B2.5	2.5 FT	1' 10-1/4" [575MM]
B4	4 FT	3' 4-1/4" [1022MM]
B6	6 FT	5' 4-1/4" [1632MM]
B8	8 FT	7' 4-1/4" [2241MM]
B10	10 FT	9' 4-1/4" [2851MM]
B12	12 FT	11' 4-1/4" [3461MM]

REINFORCEMENT BAR B
2 REQUIRED

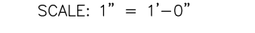
SCALE: 1" = 1'-0"

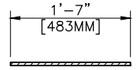
BAR C2.5–12

BAR	STEM	LENGTH
C2.5	2.5 FT	1' 9-3/4" [553MM]
C4	4 FT	3' 3-3/4" [1010MM]
C6	6 FT	5' 3-3/4" [1619MM]
C8	8 FT	7' 3-3/4" [2229MM]
C10	10 FT	9' 3-3/4" [2838MM]
C12	12 FT	11' 3-3/4" [3448MM]

REINFORCEMENT BAR C
2 REQUIRED

SCALE: 1" = 1'-0"

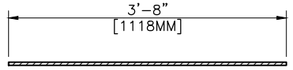




BAR D

STEM	
2.5 FT	4 REQUIRED
4 FT	5 REQUIRED
6 FT	7 REQUIRED
8 FT	9 REQUIRED
10 FT	11 REQUIRED
12 FT	13 REQUIRED

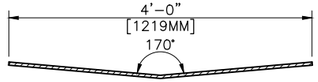
REINFORCEMENT BAR D
SCALE: 1" = 1'-0"



BAR E

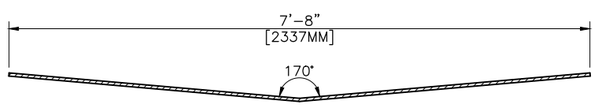
STEM	
2.5 FT	10 REQUIRED
4 FT	12 REQUIRED
6 FT	14 REQUIRED
8 FT	16 REQUIRED
10 FT	18 REQUIRED
12 FT	20 REQUIRED

REINFORCEMENT BAR E
SCALE: 1" = 1'-0"



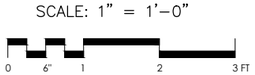
REINFORCEMENT BAR F
1 REQUIRED

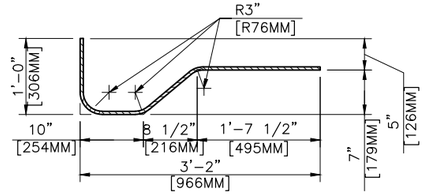
SCALE: 1" = 1'-0"



REINFORCEMENT BAR G
2 REQUIRED

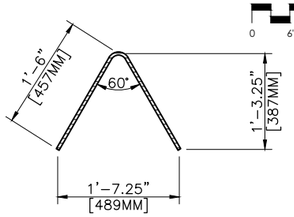
SCALE: 1" = 1'-0"





REINFORCEMENT BAR H
2 REQUIRED

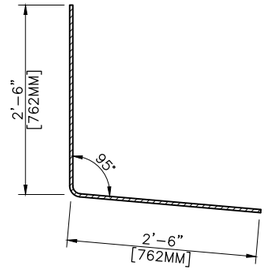
SCALE: 1" = 1'-0"



BAR I

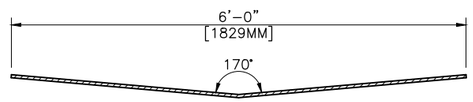
STEM	
2.5 FT	3 REQUIRED
4 FT	4 REQUIRED
6 FT	6 REQUIRED
8 FT	8 REQUIRED
10 FT	10 REQUIRED
12 FT	12 REQUIRED

REINFORCEMENT BAR I
SCALE: 1" = 1'-0"



REINFORCEMENT BAR J
2 REQUIRED

SCALE: 1" = 1'-0"



REINFORCEMENT BAR K
1 REQUIRED

SCALE: 1" = 1'-0"

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR TO BE 60 KSI #4

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

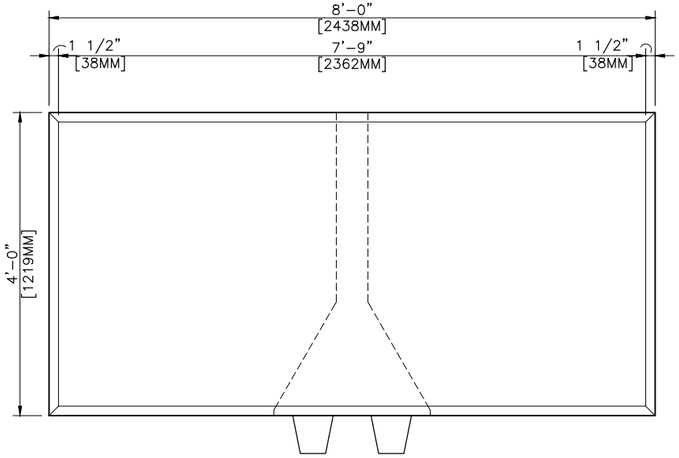
STANDARD UNIT
(2.5 TO 12 FT. STEM UNITS)

REBAR DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

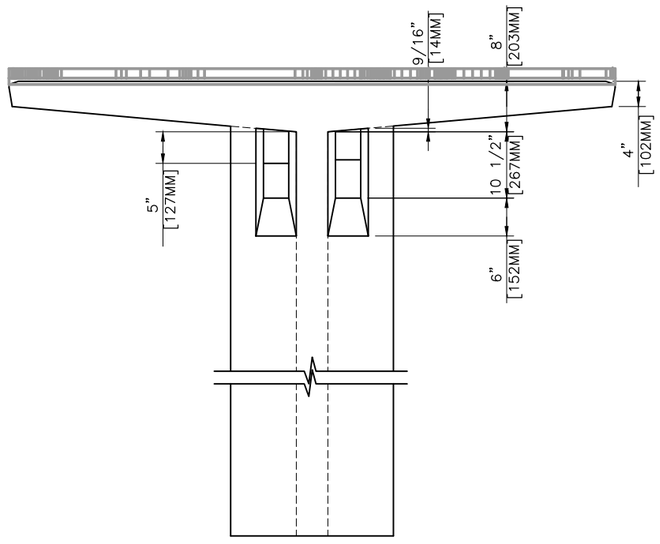
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
31 OF 97



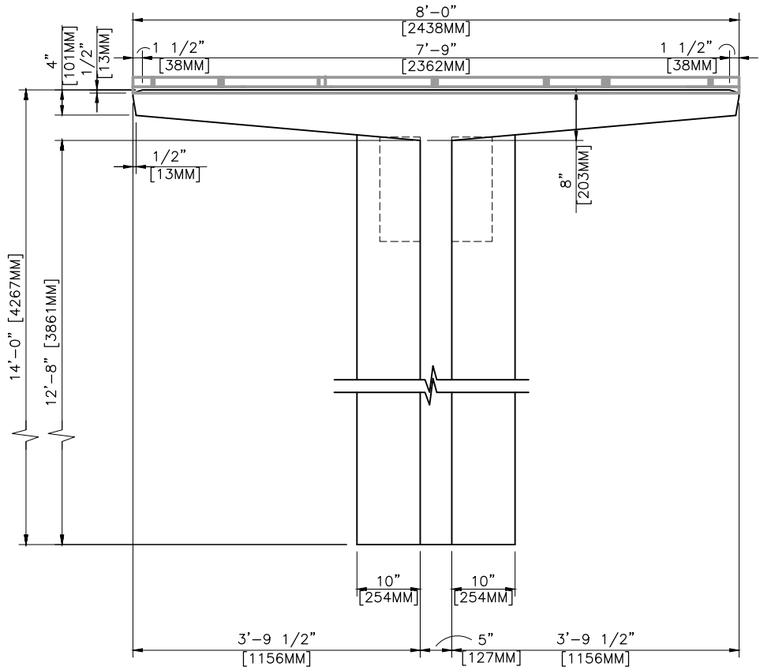
FRONT VIEW

SCALE: 1" = 1'–0"



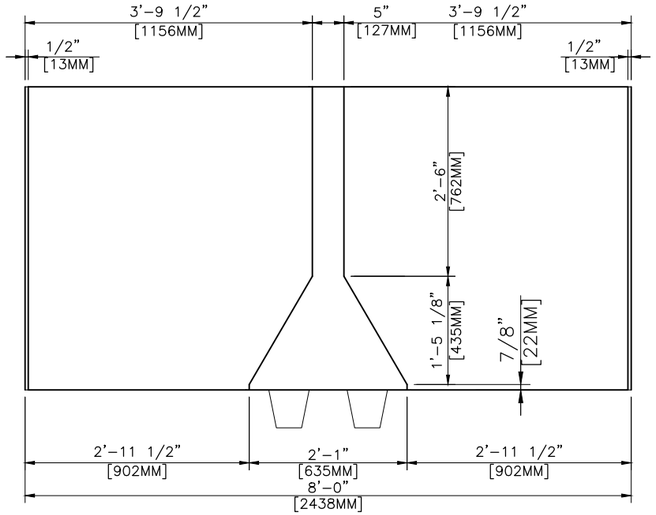
BOTTOM VIEW

SCALE: 1" = 1'–0"



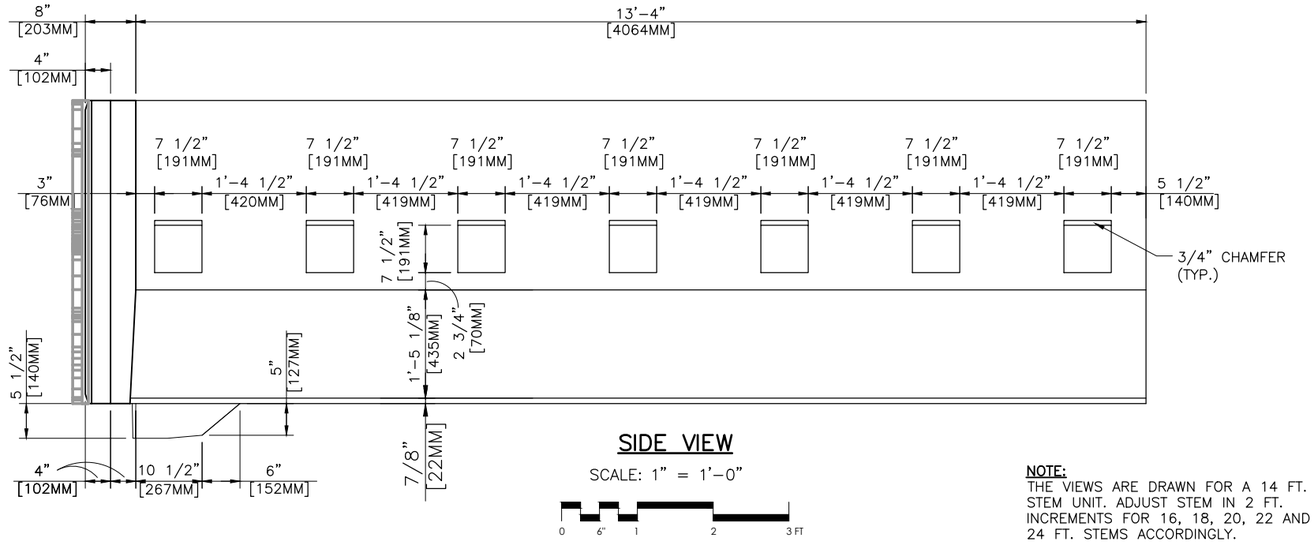
TOP VIEW

SCALE: 1" = 1'–0"



REAR VIEW

SCALE: 1" = 1'–0"



SIDE VIEW

SCALE: 1" = 1'–0"

NOTE:
THE VIEWS ARE DRAWN FOR A 14 FT. STEM UNIT. ADJUST STEM IN 2 FT. INCREMENTS FOR 16, 18, 20, 22 AND 24 FT. STEMS ACCORDINGLY.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

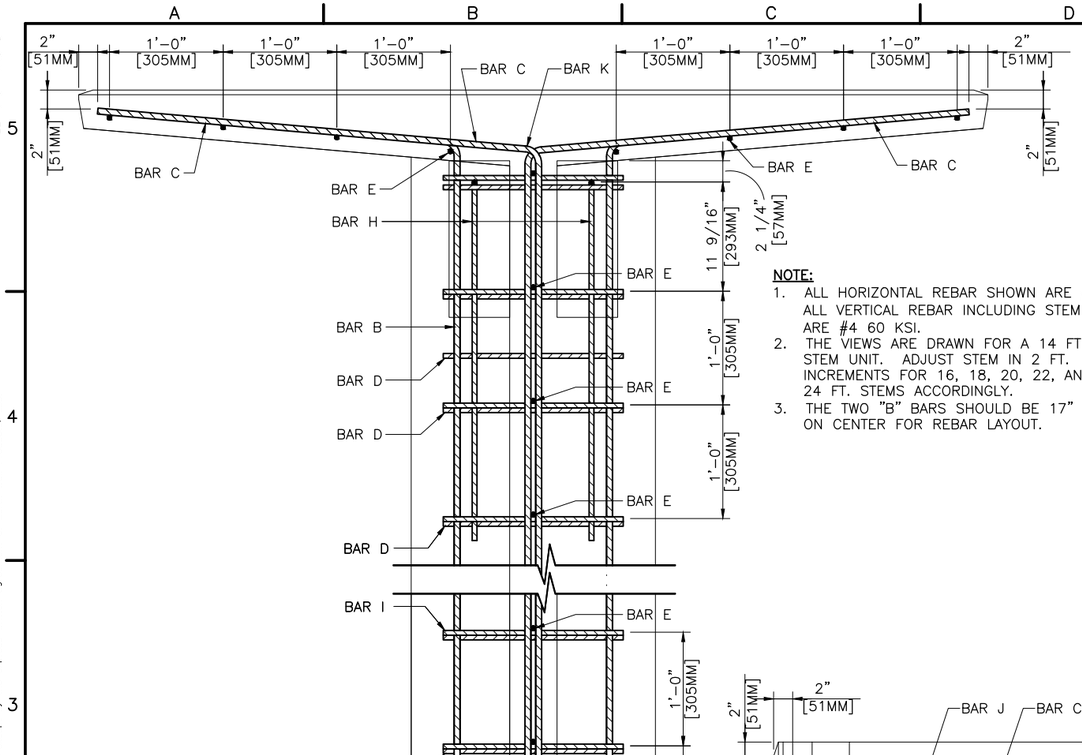
STANDARD UNIT
(14 TO 24 FT. STEM UNITS)

DIMENSIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

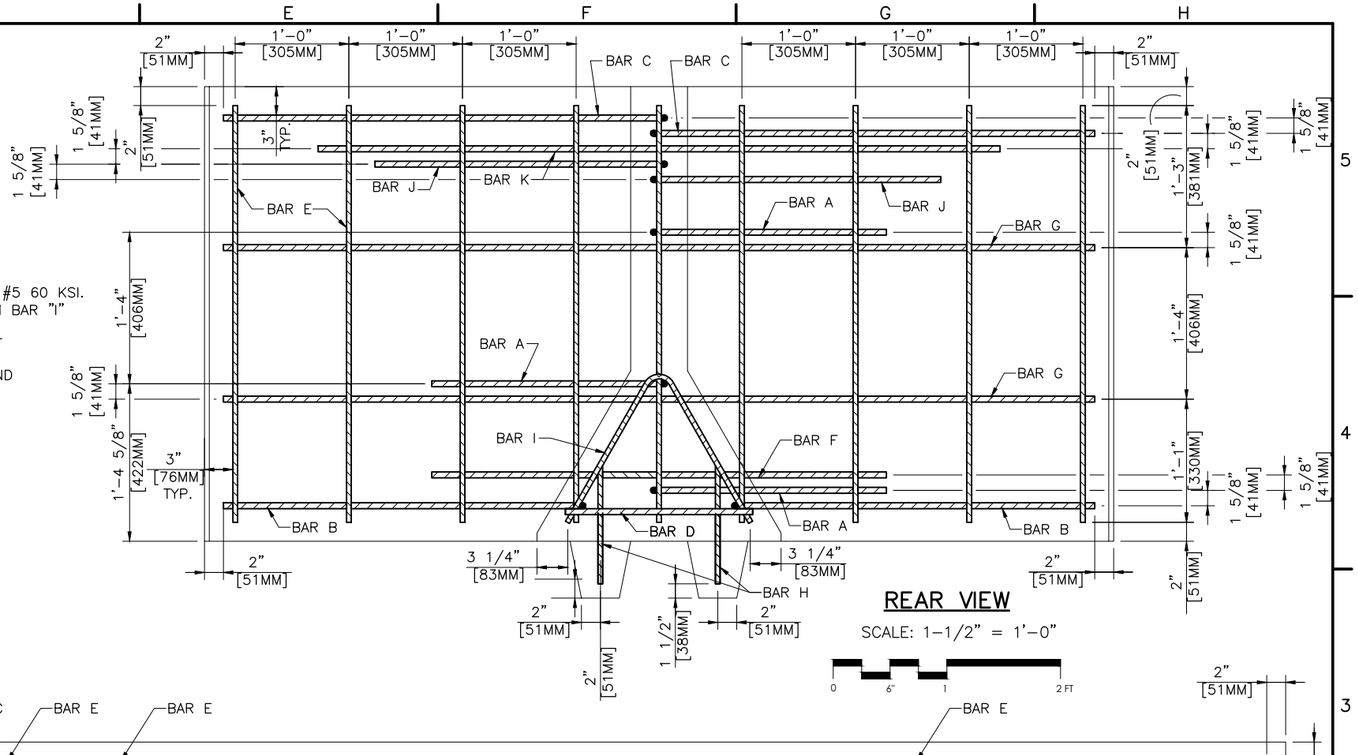
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
32 OF 97



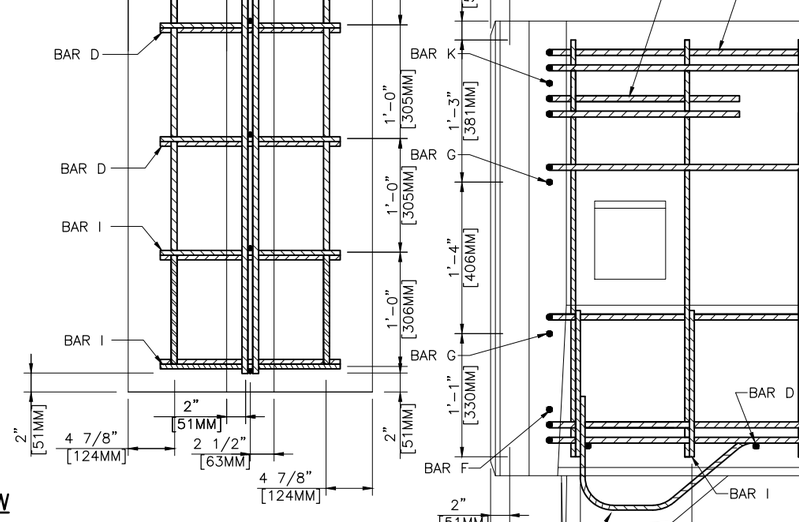
NOTE:

1. ALL HORIZONTAL REBAR SHOWN ARE #5 60 KSI. ALL VERTICAL REBAR INCLUDING STEM BAR "I" ARE #4 60 KSI.
2. THE VIEWS ARE DRAWN FOR A 14 FT STEM UNIT. ADJUST STEM IN 2 FT. INCREMENTS FOR 16, 18, 20, 22, AND 24 FT. STEMS ACCORDINGLY.
3. THE TWO "B" BARS SHOULD BE 17" ON CENTER FOR REBAR LAYOUT.



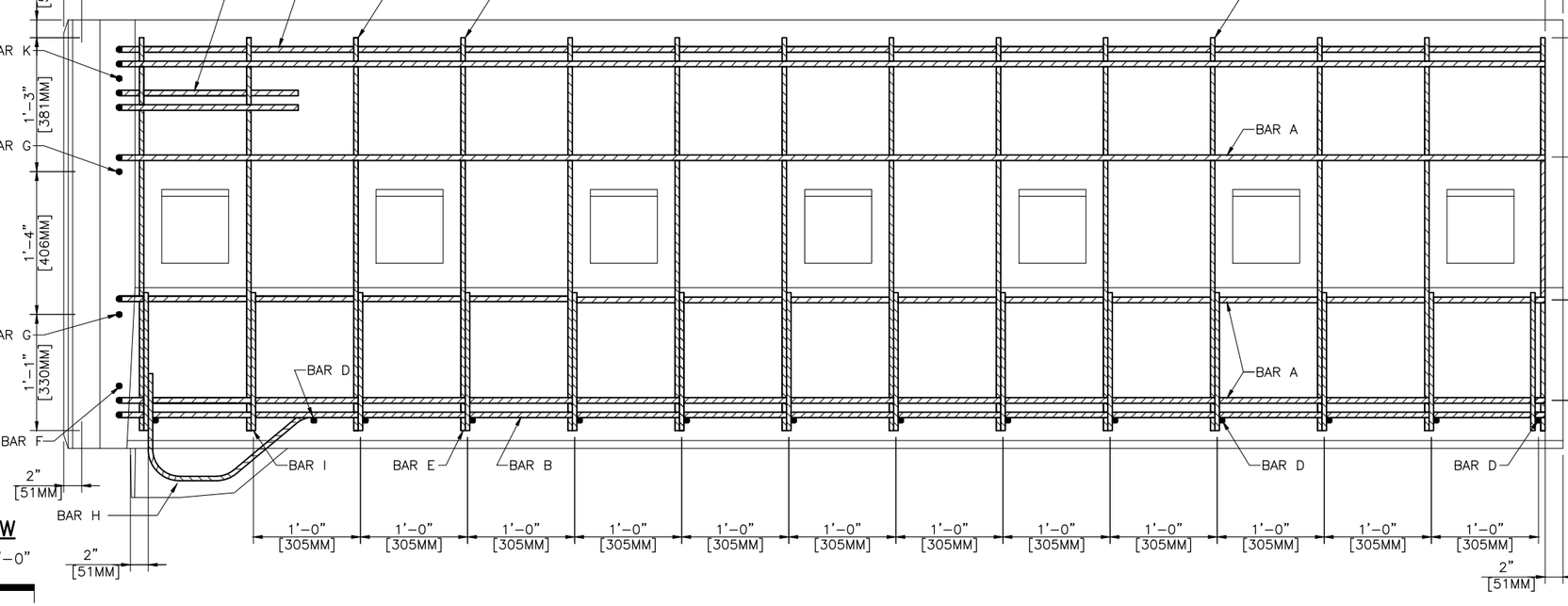
REAR VIEW

SCALE: 1-1/2" = 1'-0"



TOP VIEW

SCALE: 1-1/2" = 1'-0"



STEM SIDE VIEW

SCALE: 1-1/2" = 1'-0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX

DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

STANDARD UNIT
(14 TO 24 FT. STEM UNITS)

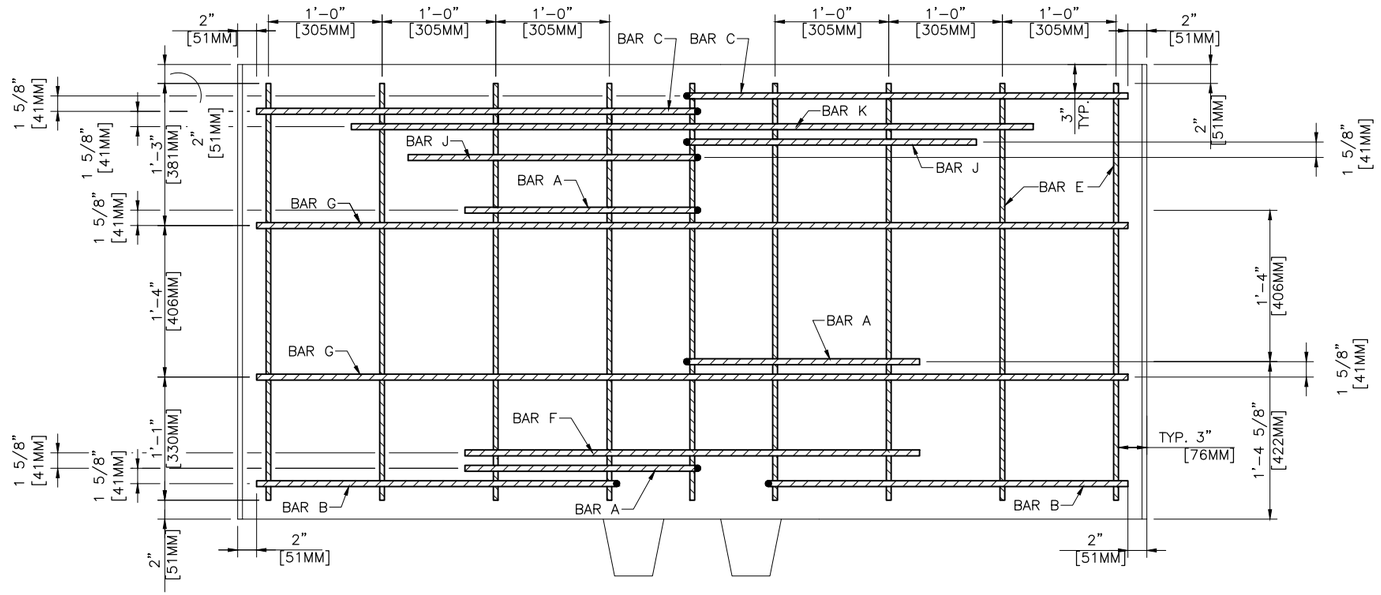
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
33 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:02 PM



FRONT VIEW

SCALE: 1–1/2" = 1'–0"

0 6" 1 2 FT

NOTE:

1. ALL HORIZONTAL REBAR SHOWN ARE #5 60 KSI. ALL VERTICAL REBAR INCLUDING STEM BAR "I" ARE #4 60 KSI.
2. THE VIEWS ARE DRAWN FOR A 14 FT STEM UNIT. ADJUST STEM IN 2 FT. INCREMENTS FOR 16, 18, 20, 22, AND 24 FT. STEMS ACCORDINGLY.
3. THE TWO "B" BARS SHOULD BE 17" ON CENTER FOR REBAR LAYOUT.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

STANDARD UNIT (14 TO 24 FT. STEM UNITS)

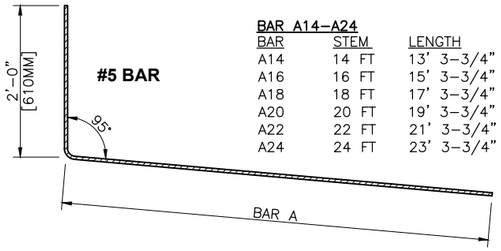
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
34 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:02 PM



BAR A14–A24

BAR	STEM	LENGTH
A14	14 FT	13' 3–3/4" [4058MM]
A16	16 FT	15' 3–3/4" [4667MM]
A18	18 FT	17' 3–3/4" [5277MM]
A20	20 FT	19' 3–3/4" [5886MM]
A22	22 FT	21' 3–3/4" [6496MM]
A24	24 FT	23' 3–3/4" [7105MM]

REINFORCEMENT BAR A
3 REQUIRED

SCALE: 1" = 1'–0"

BAR B14–B24

BAR	STEM	LENGTH
B14	14 FT	13' 4–1/4" [4070MM]
B16	16 FT	15' 4–1/4" [4680MM]
B18	18 FT	17' 4–1/4" [5290MM]
B20	20 FT	19' 4–1/4" [5899MM]
B22	22 FT	21' 4–1/4" [6509MM]
B24	24 FT	23' 4–1/4" [7118MM]

REINFORCEMENT BAR B
2 REQUIRED

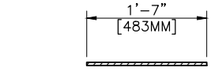
SCALE: 1" = 1'–0"

BAR C14–C24

BAR	STEM	LENGTH
C14	14 FT	13' 3–3/4" [4058MM]
C16	16 FT	15' 3–3/4" [4667MM]
C18	18 FT	17' 3–3/4" [5277MM]
C20	20 FT	19' 3–3/4" [5886MM]
C22	22 FT	21' 3–3/4" [6496MM]
C24	24 FT	23' 3–3/4" [7105MM]

REINFORCEMENT BAR C
2 REQUIRED

SCALE: 1" = 1'–0"

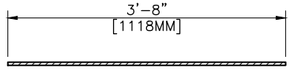


REINFORCEMENT BAR D

SCALE: 1" = 1'–0"

BAR D

STEM	
14 FT	15 REQUIRED
16 FT	17 REQUIRED
18 FT	19 REQUIRED
20 FT	21 REQUIRED
22 FT	23 REQUIRED
24 FT	25 REQUIRED

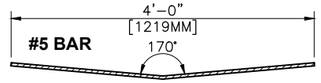


REINFORCEMENT BAR E

SCALE: 1" = 1'–0"

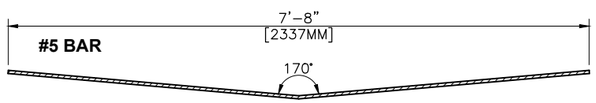
BAR E

STEM	
14 FT	22 REQUIRED
16 FT	24 REQUIRED
18 FT	26 REQUIRED
20 FT	28 REQUIRED
22 FT	30 REQUIRED
24 FT	32 REQUIRED



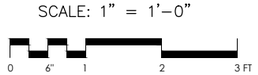
REINFORCEMENT BAR F
1 REQUIRED

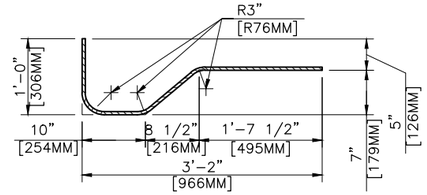
SCALE: 1" = 1'–0"



REINFORCEMENT BAR G
2 REQUIRED
+5 REQUIRED FOR BARRIER FACE

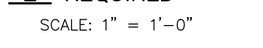
SCALE: 1" = 1'–0"

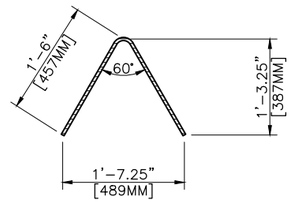




REINFORCEMENT BAR H
2 REQUIRED

SCALE: 1" = 1'–0"



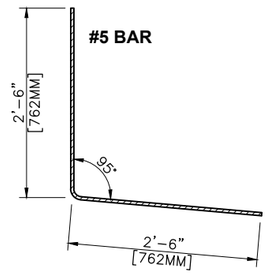


REINFORCEMENT BAR I

SCALE: 1" = 1'–0"

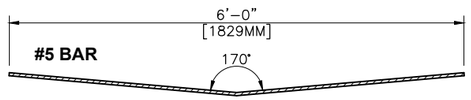
BAR I

STEM	
14 FT	14 REQUIRED
16 FT	16 REQUIRED
18 FT	18 REQUIRED
20 FT	20 REQUIRED
22 FT	22 REQUIRED
24 FT	24 REQUIRED



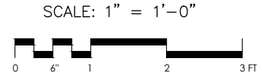
REINFORCEMENT BAR J
2 REQUIRED

SCALE: 1" = 1'–0"



REINFORCEMENT BAR K
1 REQUIRED

SCALE: 1" = 1'–0"



REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL HORIZONTAL REBAR SHOWN ARE #5 60 KSI.
ALL VERTICAL REBAR INCLUDING STEM BAR "E", "D", "I", & "H" ARE #4 60 KSI.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

STANDARD UNIT
(14 TO 24 FT. STEM UNITS)

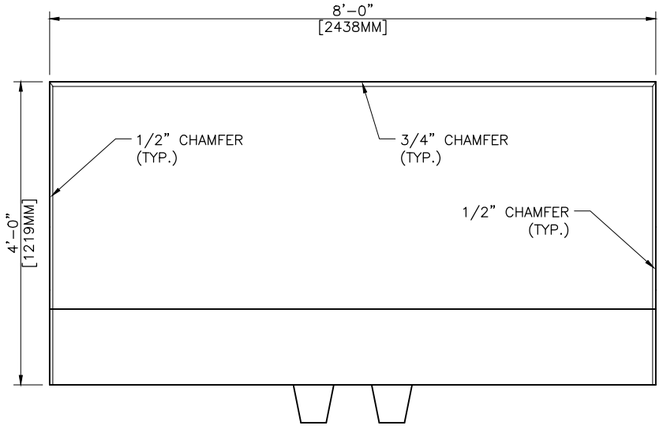
REBAR DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

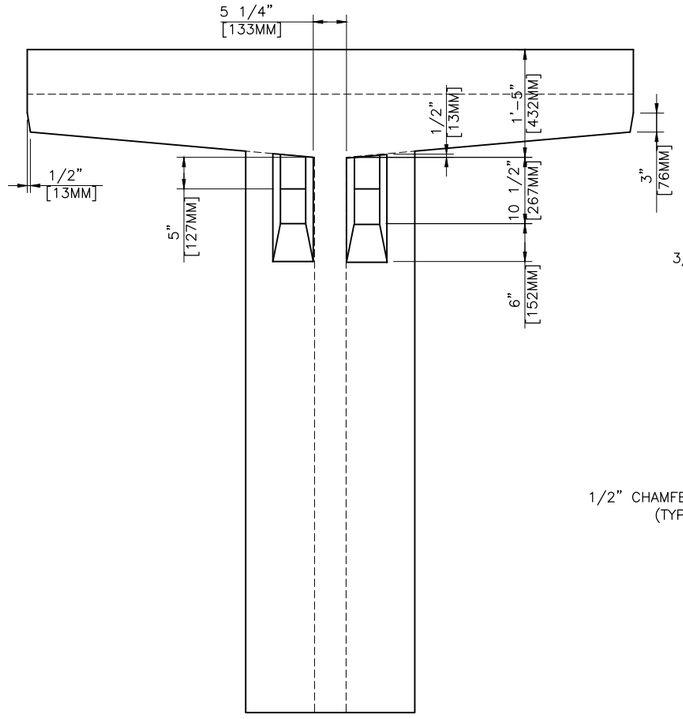
SHEET NUMBER
34 OF 97

6/6/2018 2:02 PM GRAVIX 6–6–2018.dwg



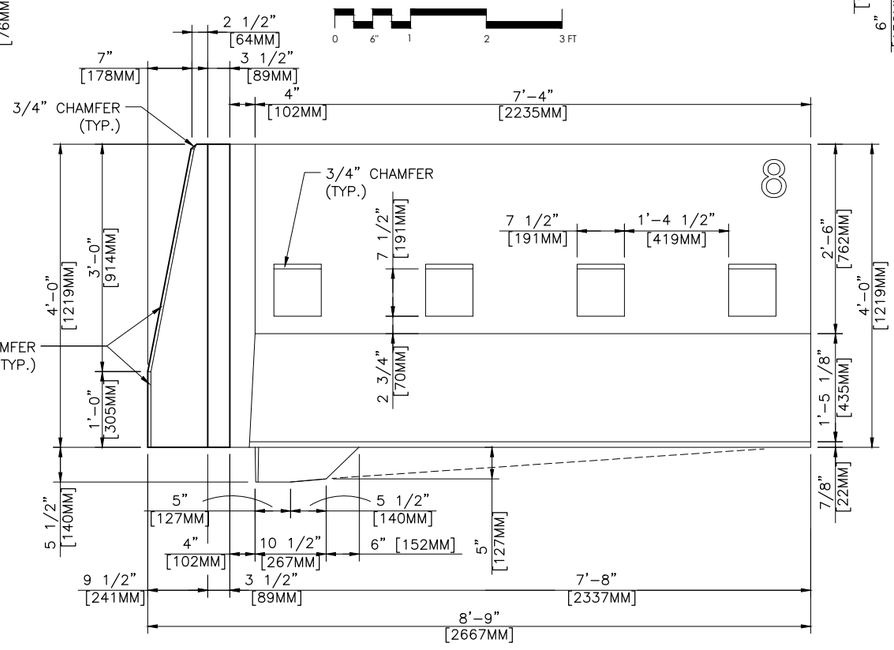
STANDARD UNIT
BARRIER FACE OPTION (FRONT VIEW)

SCALE: 1" = 1'–0"



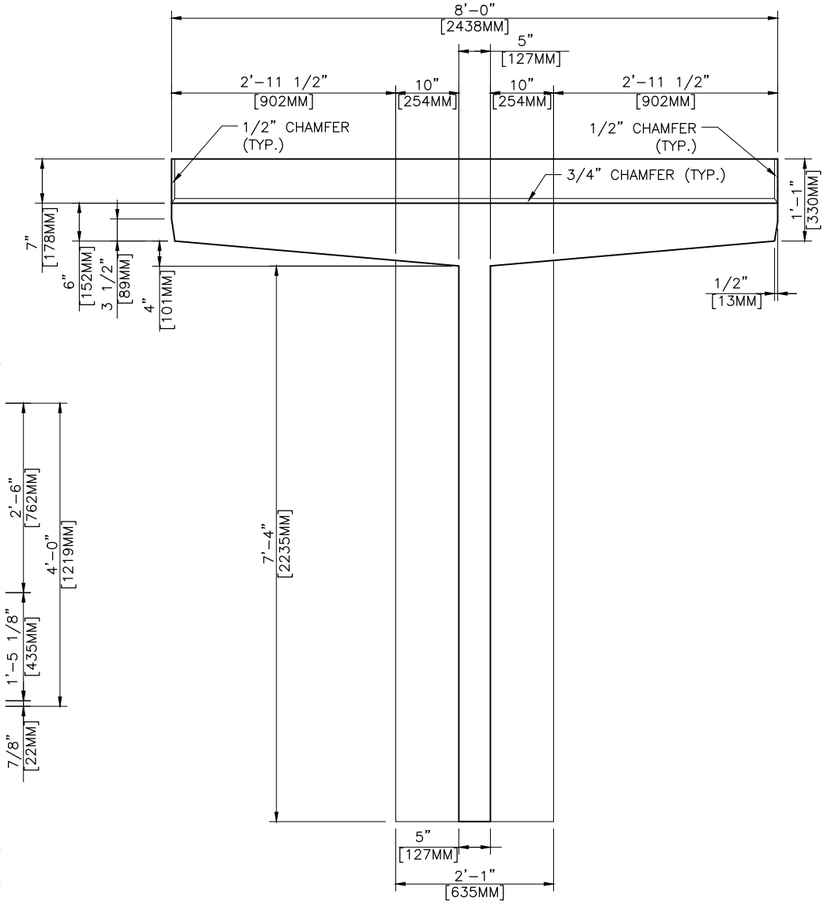
STANDARD UNIT
BARRIER FACE OPTION (BOTTOM VIEW)

SCALE: 1" = 1'–0"



STANDARD UNIT
BARRIER FACE OPTION (SIDE VIEW)

SCALE: 1" = 1'–0"



STANDARD UNIT
BARRIER FACE OPTION (TOP VIEW)

SCALE: 1" = 1'–0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

STANDARD UNIT
BARRIER FACE OPTION

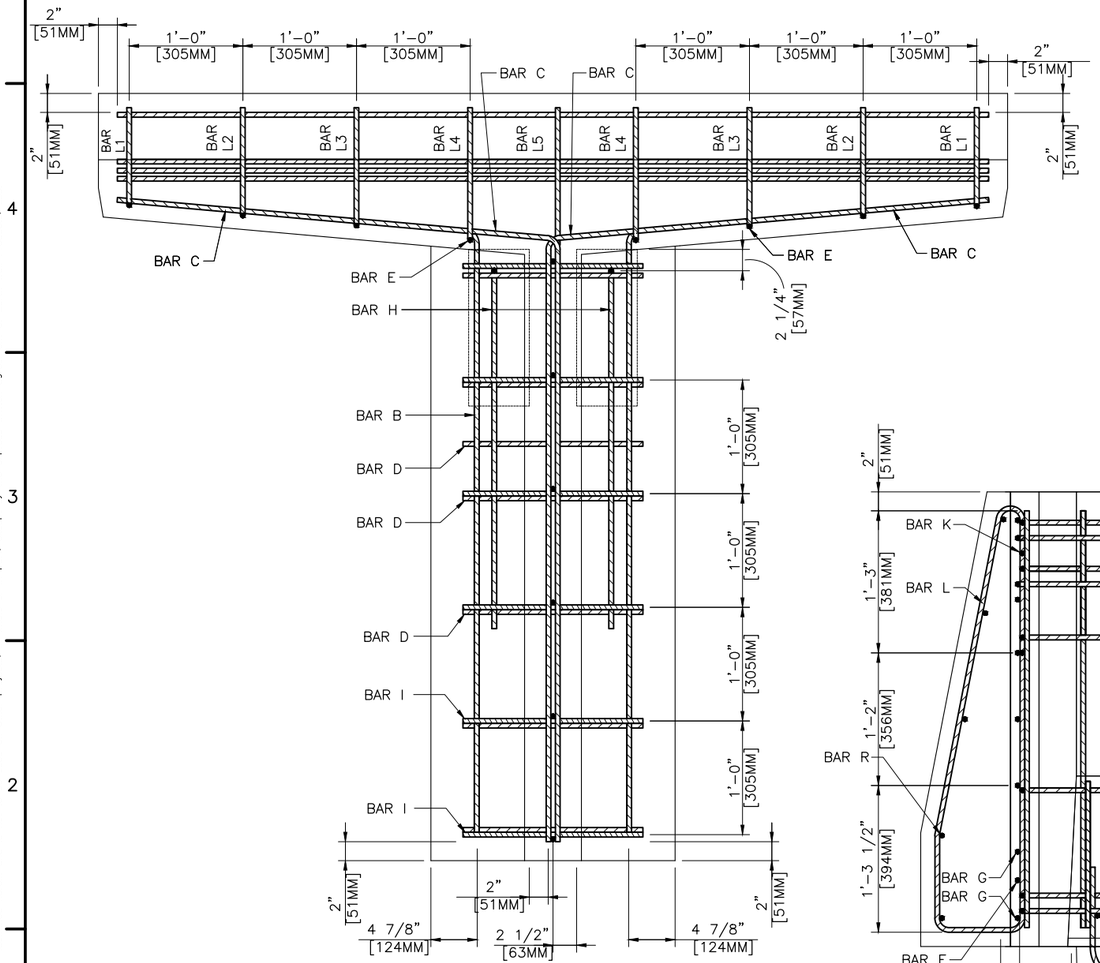
DIMENSIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

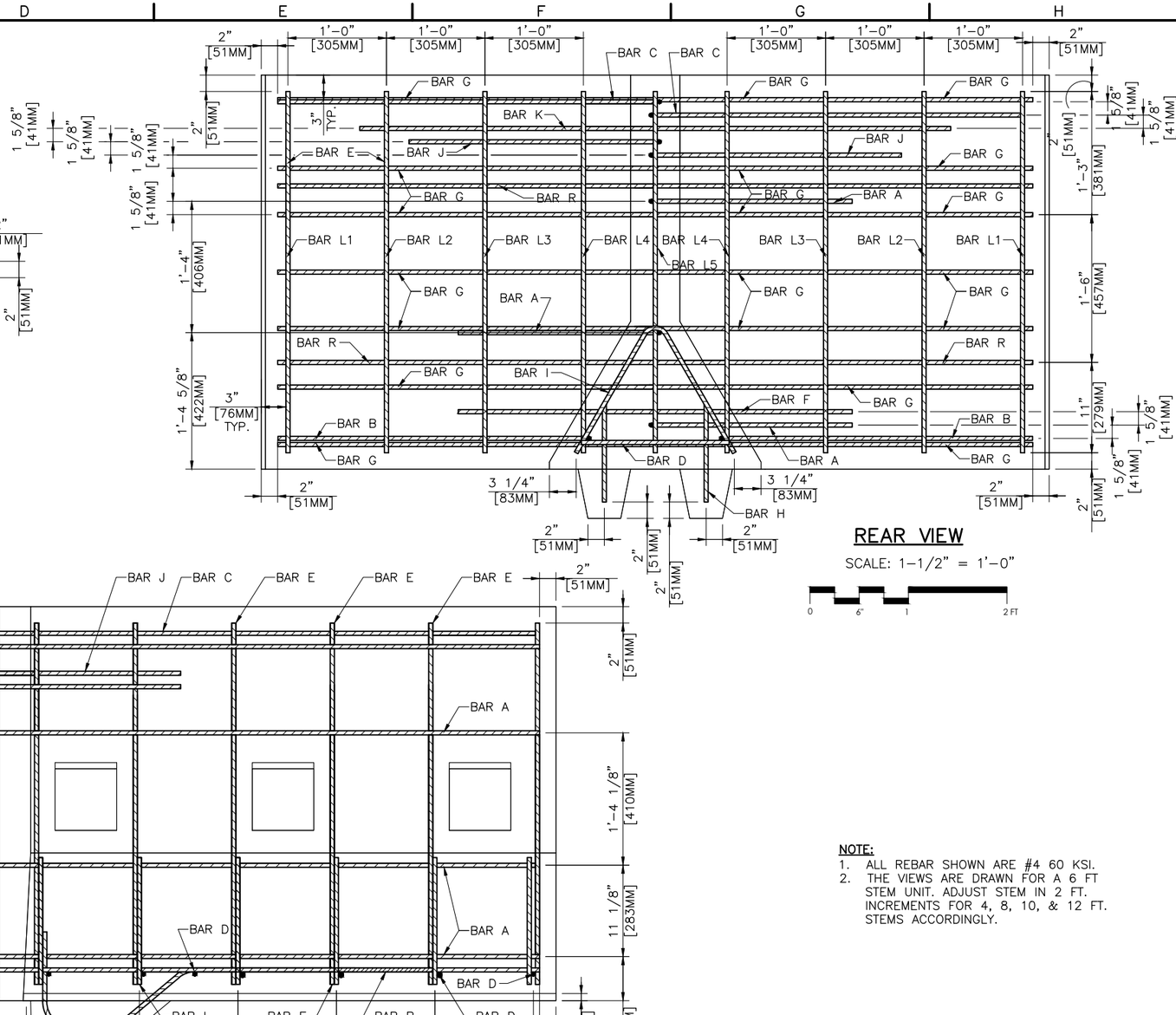
SHEET NUMBER
35 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:02 PM



TOP VIEW

SCALE: 1-1/2" = 1'-0"



REAR VIEW

SCALE: 1-1/2" = 1'-0"

SIDE VIEW

SCALE: 1-1/2" = 1'-0"

NOTE:
1. ALL REBAR SHOWN ARE #4 60 KSI.
2. THE VIEWS ARE DRAWN FOR A 6 FT STEM UNIT. ADJUST STEM IN 2 FT. INCREMENTS FOR 4, 8, 10, & 12 FT. STEMS ACCORDINGLY.

GRAVIX 6-6-2018.dwg

6/6/2018 2:03 PM

REVISIONS

REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

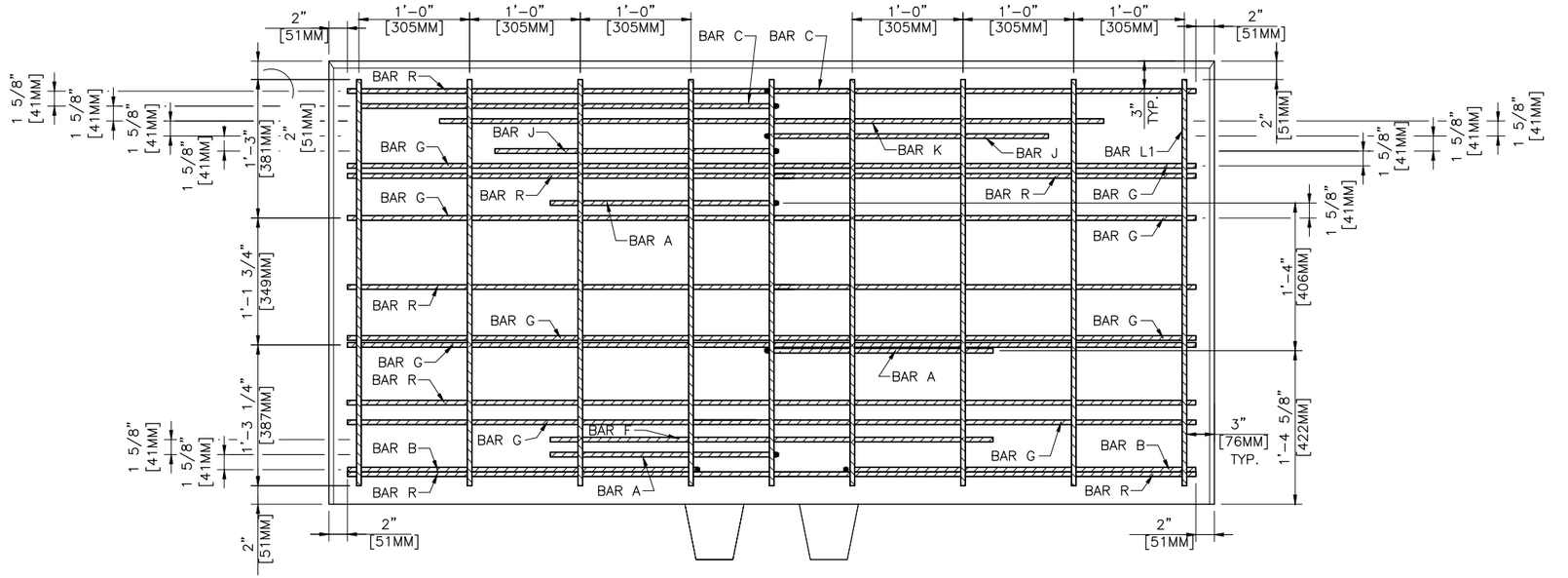
STANDARD UNIT BARRIER FACE OPTION

REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 36 OF 97



FRONT VIEW

SCALE: 1–1/2" = 1'–0"

0 6" 1 2 FT

NOTE:

1. ALL REBAR SHOWN ARE #4 60 KSI.
2. THE VIEWS ARE DRAWN FOR A 6 FT STEM UNIT. ADJUST STEM IN 2 FT. INCREMENTS FOR 4, 8, 10 AND 12 FT. STEMS ACCORDINGLY.
3. THE TWO "B" BARS SHOULD BE 17" ON CENTER FOR REBAR LAYOUT.

GRAVIX 6-6-2018.dwg

6/6/2018 2:03 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

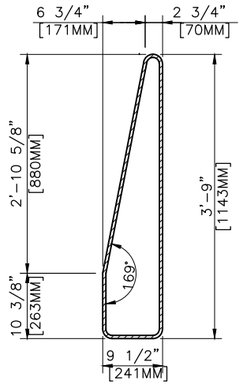
STANDARD UNIT BARRIER FACE OPTION

REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

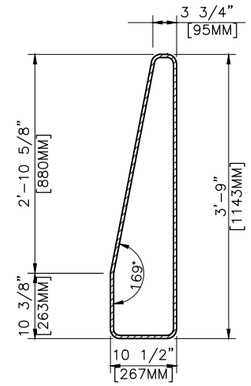
SHEET NUMBER
37 OF 97



REINFORCEMENT BAR L1

2 REQUIRED

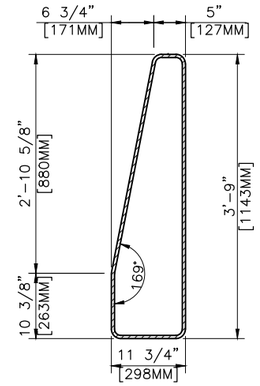
SCALE: 1" = 1'-0"



REINFORCEMENT BAR L2

2 REQUIRED

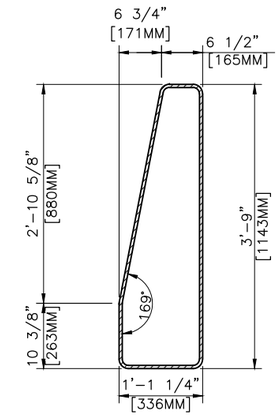
SCALE: 1" = 1'-0"



REINFORCEMENT BAR L3

2 REQUIRED

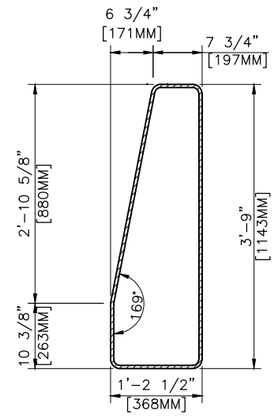
SCALE: 1" = 1'-0"



REINFORCEMENT BAR L4

2 REQUIRED

SCALE: 1" = 1'-0"



REINFORCEMENT BAR L5

1 REQUIRED

SCALE: 1" = 1'-0"

REINFORCEMENT BAR R

5 REQUIRED

SCALE: 1" = 1'-0"

NOTE:
5 ADDITIONAL "G" BARS REQUIRED FOR BARRIER FACE OPTION

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR TO BE 60 KSI #4

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

STANDARD UNIT BARRIER FACE OPTION

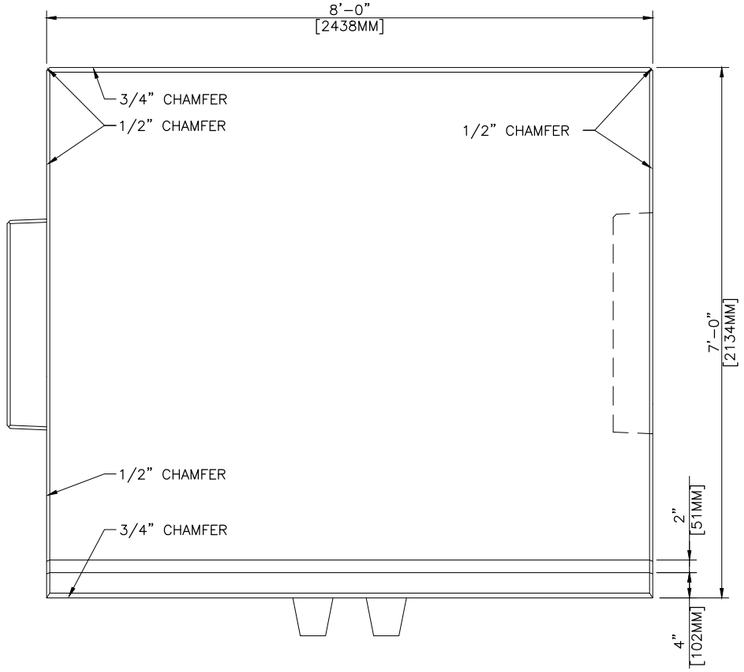
REBAR DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
38 OF 97

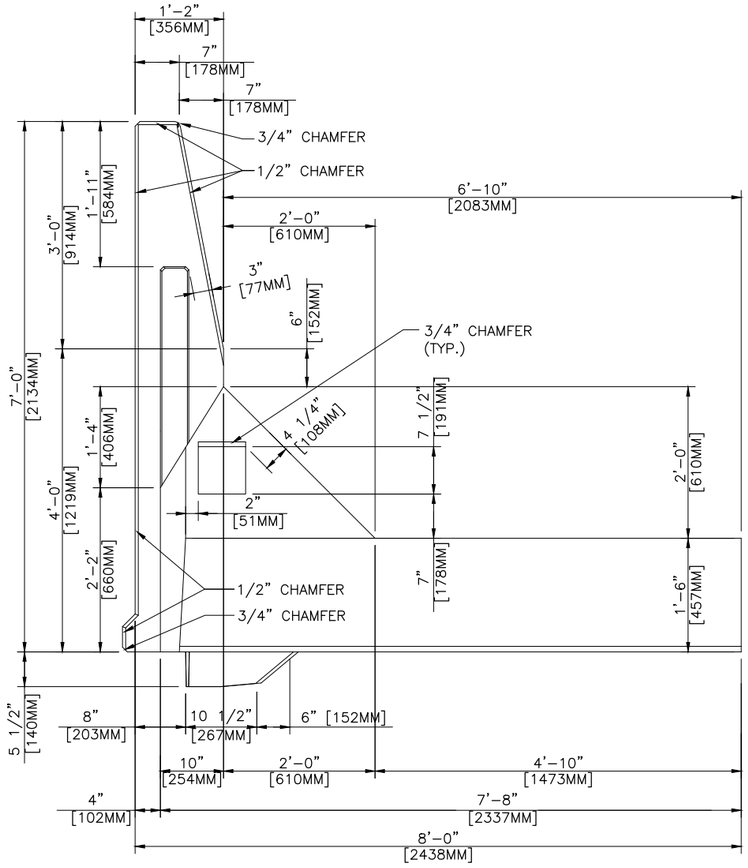
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



36" TRAFFIC BARRIER UNIT (FRONT VIEW)

SCALE: 1" = 1'–0"

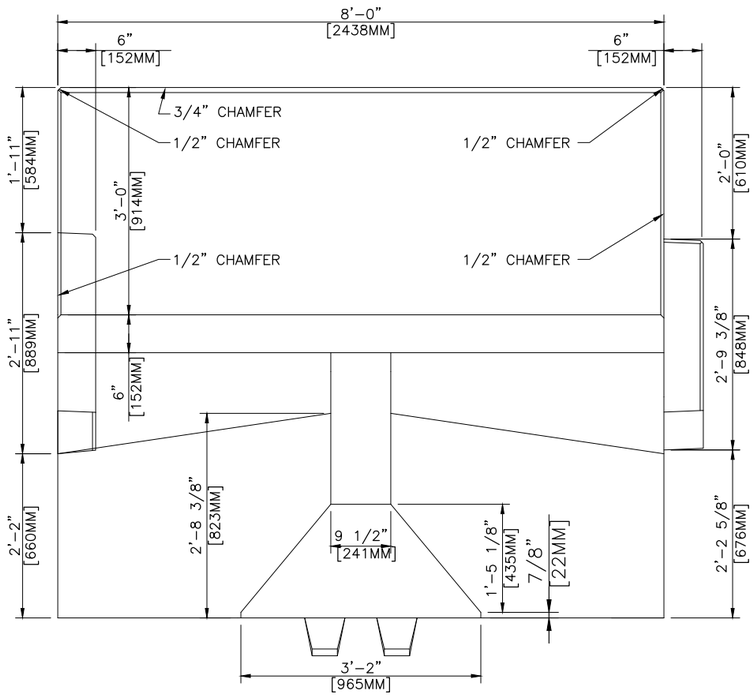
0 6" 1 2 3 FT



36" TRAFFIC BARRIER UNIT (SIDE VIEW)

SCALE: 1" = 1'–0"

0 6" 1 2 3 FT



36" TRAFFIC BARRIER UNIT (REAR VIEW)

SCALE: 1" = 1'–0"

0 6" 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

36" TRAFFIC BARRIER UNIT

DIMENSIONS

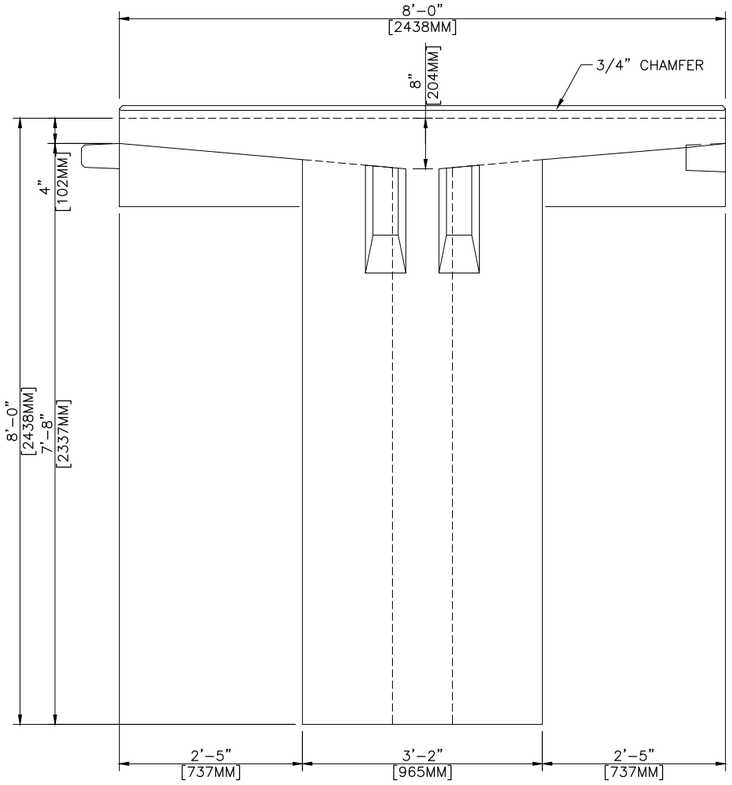
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
39 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:03 PM

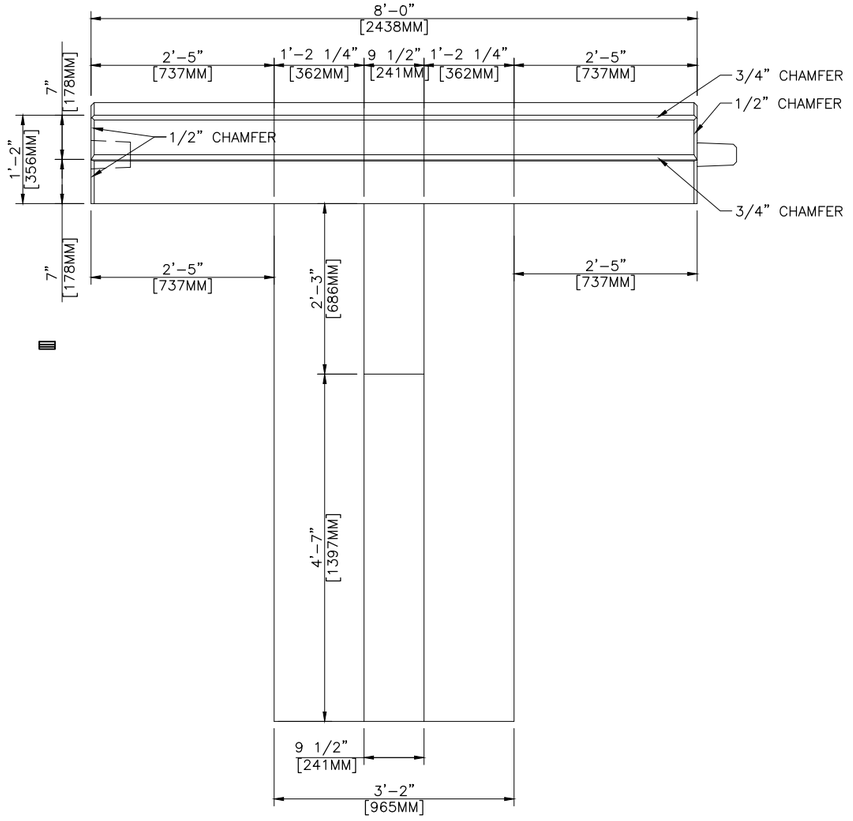
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



36" TRAFFIC BARRIER UNIT (BOTTOM VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT



36" TRAFFIC BARRIER UNIT (TOP VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

36" TRAFFIC BARRIER UNIT

DIMENSIONS

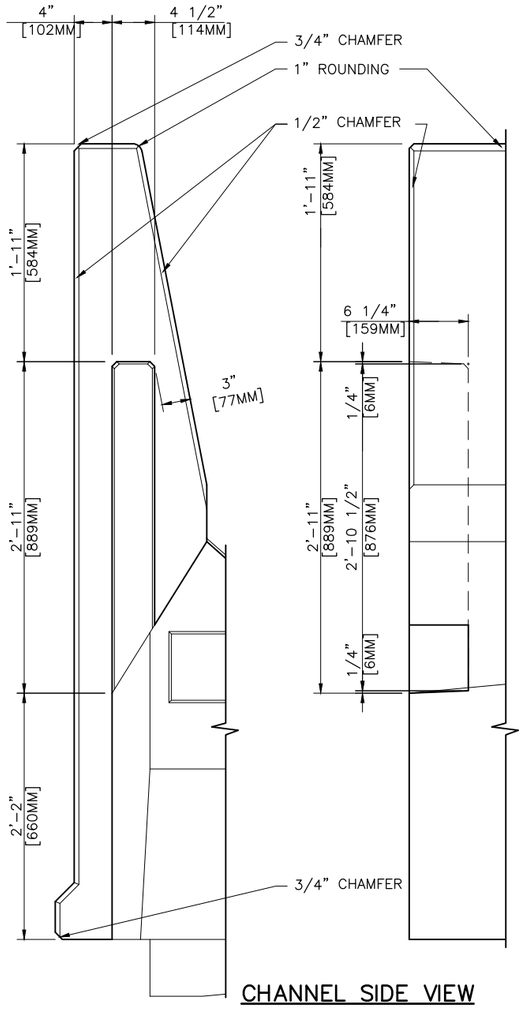
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
40 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:03 PM

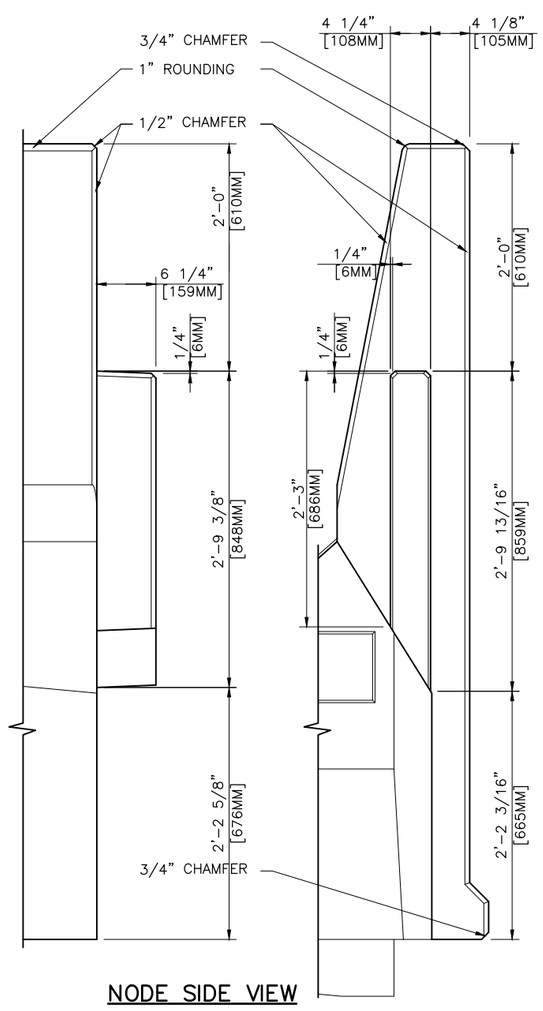
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



CHANNEL SIDE VIEW

SCALE: 1-1/2" = 1'-0"

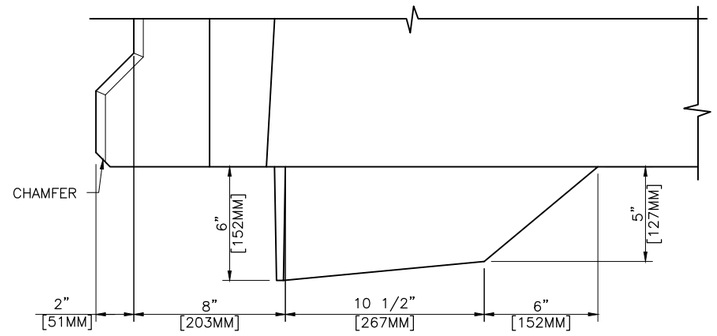
0 6" 1 2 FT



NODE SIDE VIEW

SCALE: 1-1/2" = 1'-0"

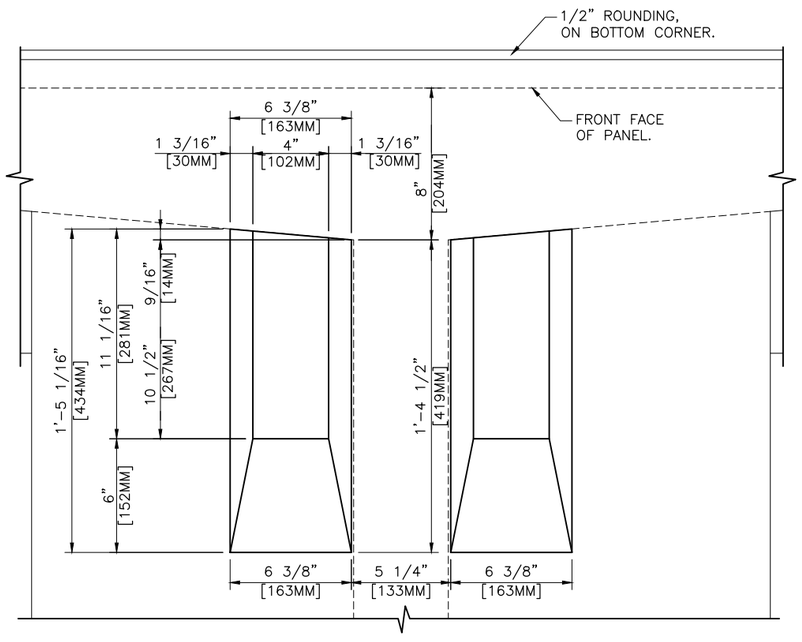
0 6" 1 2 FT



ENLARGED DETAIL (SIDE VIEW)

SCALE: 3" = 1'-0"

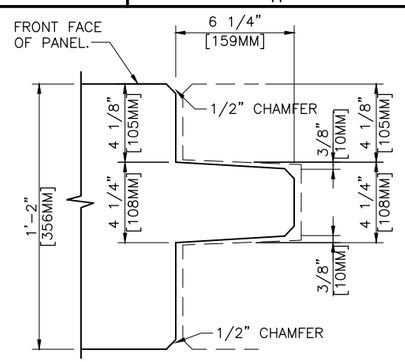
0 3 6 9 12 IN



ENLARGED DETAIL (BOTTOM VIEW)

SCALE: 3" = 1'-0"

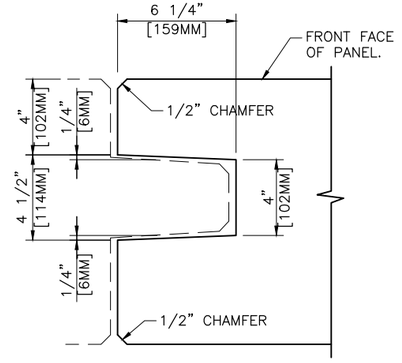
0 3 6 9 12 IN



ENLARGED NODE DETAIL

SCALE: 3" = 1'-0"

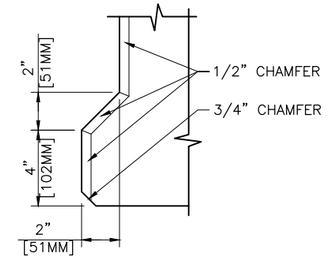
0 3 6 9 12 IN



ENLARGED CHANNEL DETAIL

SCALE: 3" = 1'-0"

0 3 6 9 12 IN



ENLARGED FRONT NOSING

SCALE: 3" = 1'-0"

0 3 6 9 12 IN

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

36" TRAFFIC BARRIER UNIT

DIMENSIONS

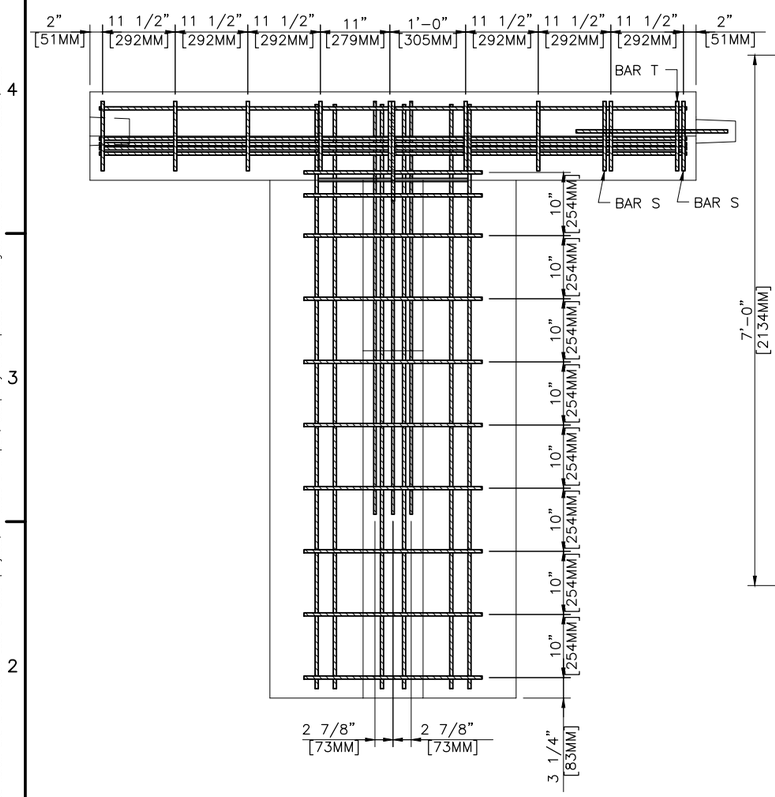
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
41 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:03 PM

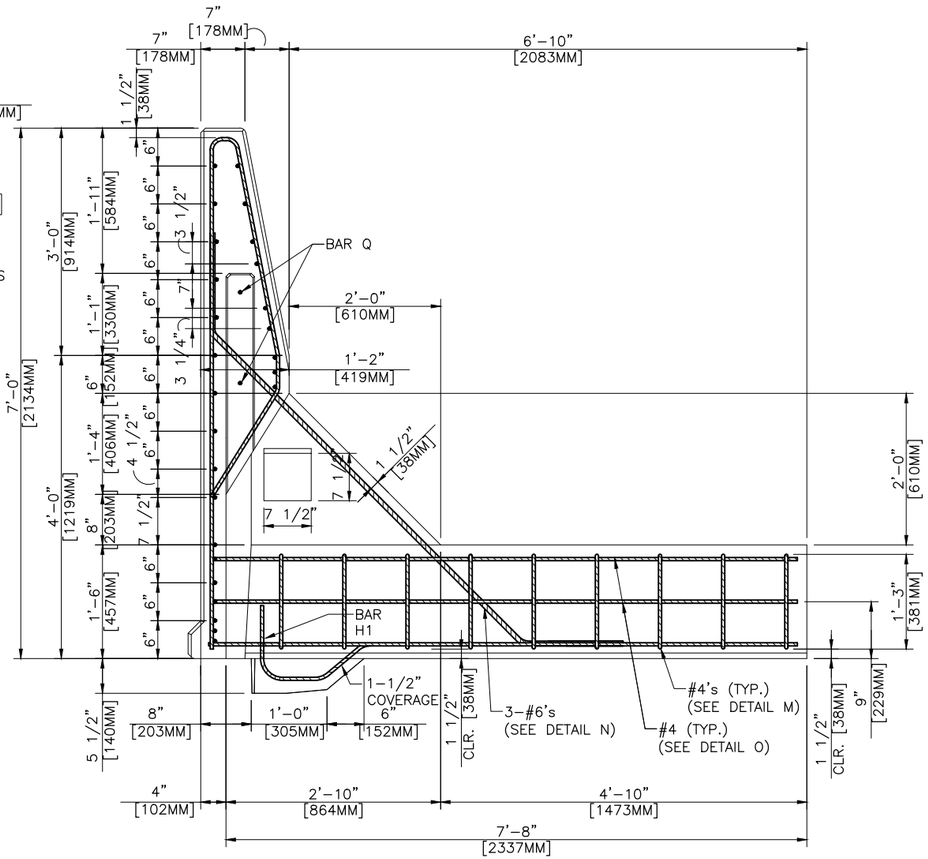
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



36" TRAFFIC BARRIER UNIT (TOP VIEW)

SCALE: 1" = 1'-0"

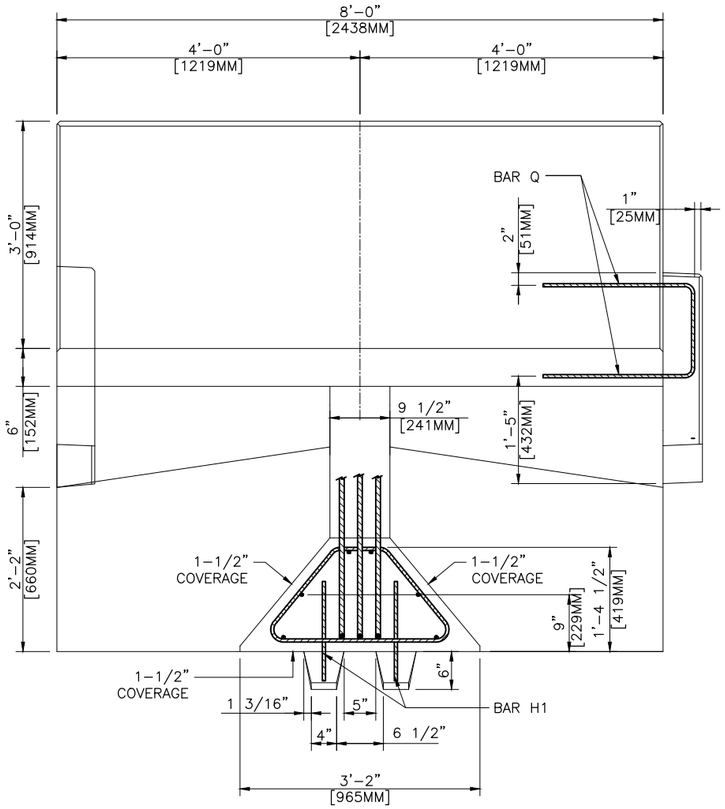
0 6" 1 2 3 FT



36" TRAFFIC BARRIER UNIT (SIDE VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT



36" TRAFFIC BARRIER UNIT (REAR VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

36" TRAFFIC BARRIER UNIT

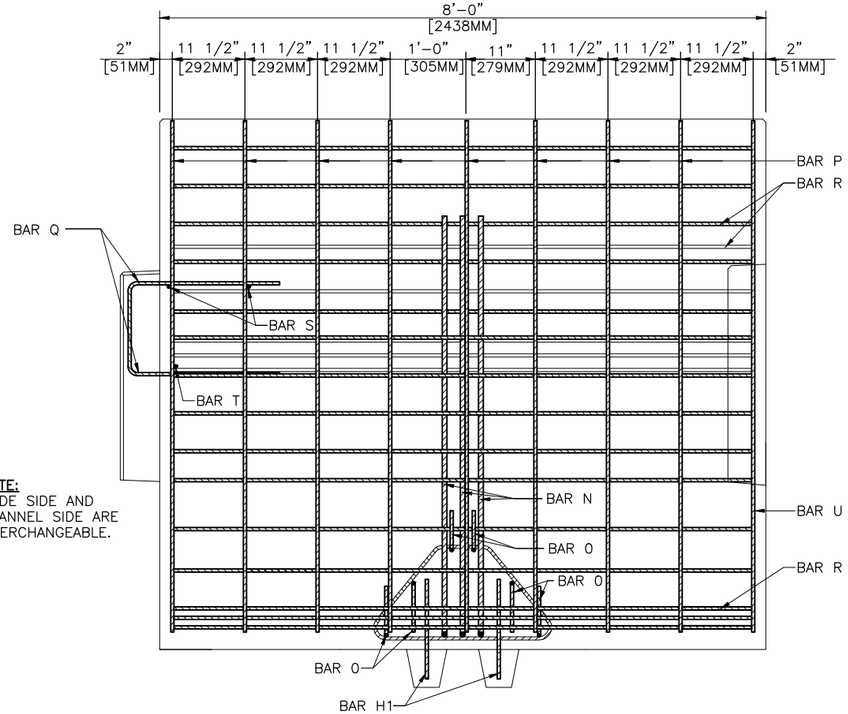
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 42 OF 97

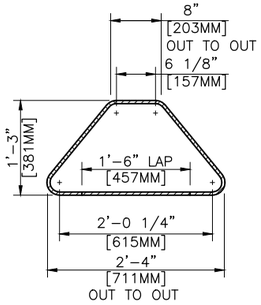
GRAVIX 6-6-2018.dwg
6/6/2018 2:03 PM



NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.

36" TRAFFIC BARRIER UNIT (FRONT VIEW)

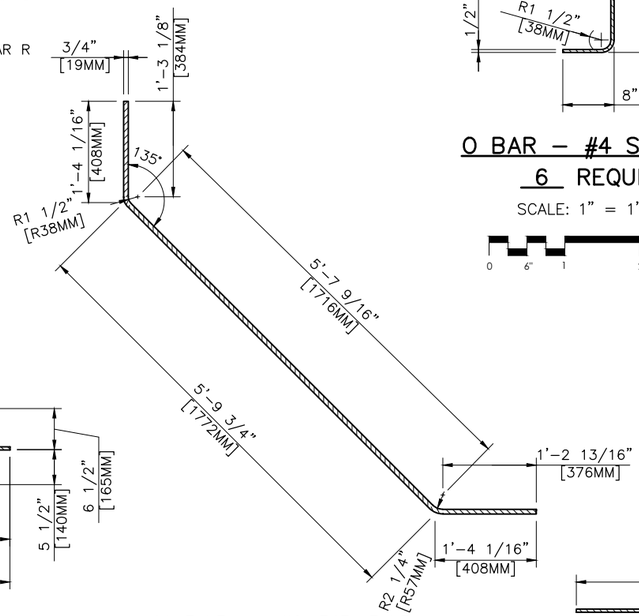
SCALE: 1" = 1'-0"



M BAR – #4 STIRRUP

9 REQUIRED

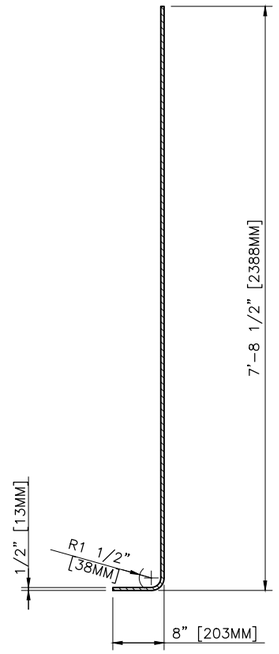
SCALE: 1" = 1'-0"



N BAR – #6 RIB BAR

3 REQUIRED

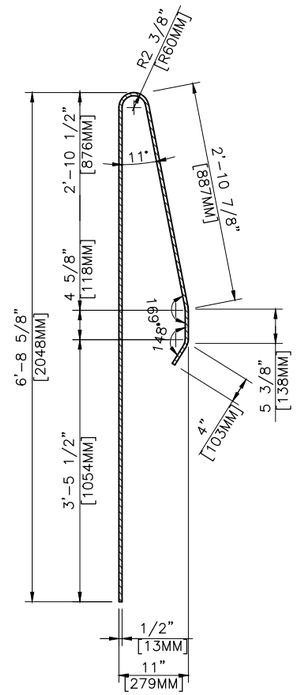
SCALE: 1" = 1'-0"



O BAR – #4 STEM BAR

6 REQUIRED

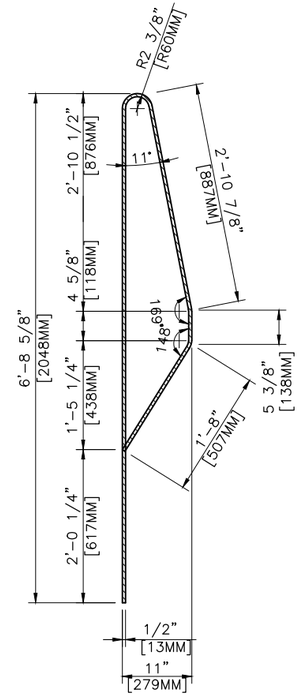
SCALE: 1" = 1'-0"



U BAR – #4 WALL BAR

1 REQUIRED

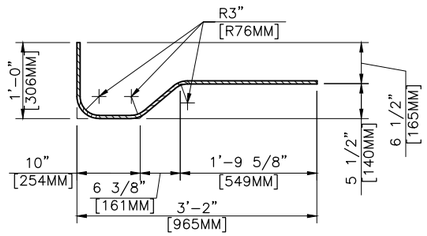
SCALE: 1" = 1'-0"



P BAR – #4 WALL BAR

8 REQUIRED

SCALE: 1" = 1'-0"



H1 BAR

2 REQUIRED

SCALE: 1" = 1'-0"

S BAR

2 REQUIRED

SCALE: 1" = 1'-0"

T BAR

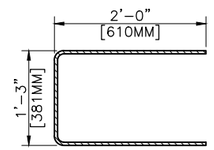
1 REQUIRED

SCALE: 1" = 1'-0"

R BAR – #4 BAR

24 REQUIRED

SCALE: 1" = 1'-0"



Q BAR – #4 NODE BAR

1 REQUIRED

SCALE: 1" = 1'-0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

36" TRAFFIC BARRIER UNIT

REBAR DETAILS

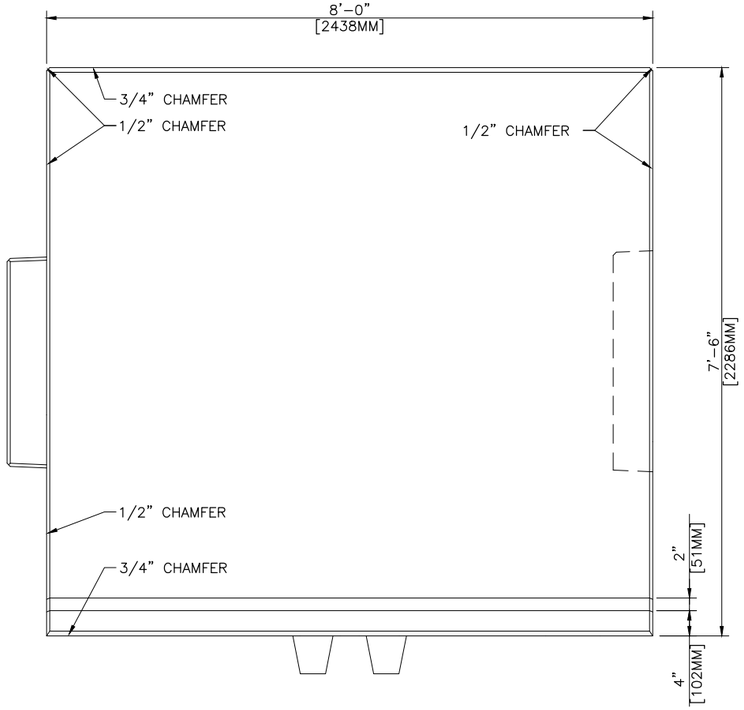
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
43 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:03 PM

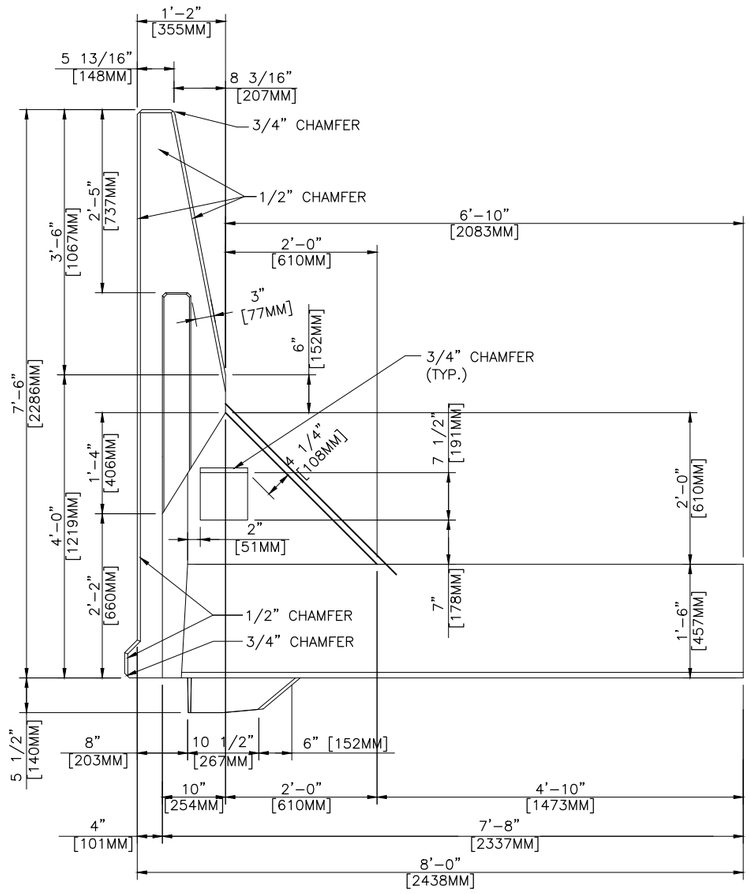
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



42" TRAFFIC BARRIER UNIT (FRONT VIEW)

SCALE: 1" = 1'-0"

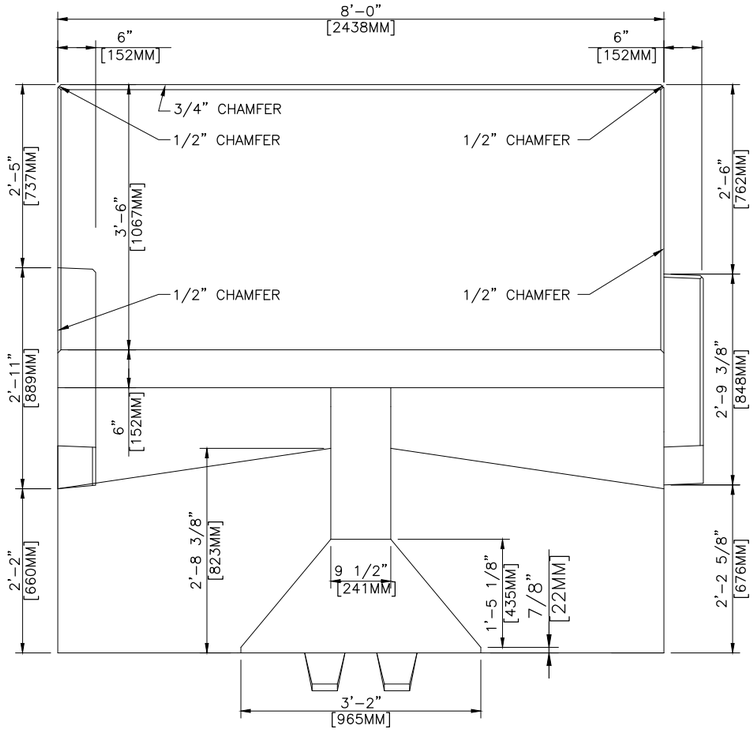
0 6" 1 2 3 FT



42" TRAFFIC BARRIER UNIT (SIDE VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT



42" TRAFFIC BARRIER UNIT (REAR VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

42" TRAFFIC BARRIER UNIT

DIMENSIONS

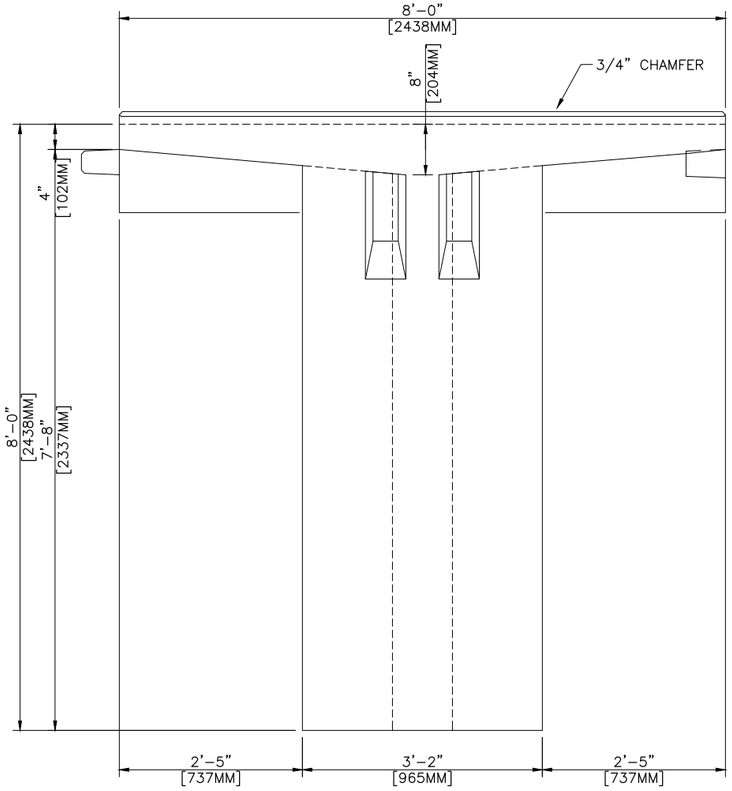
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
44 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:03 PM

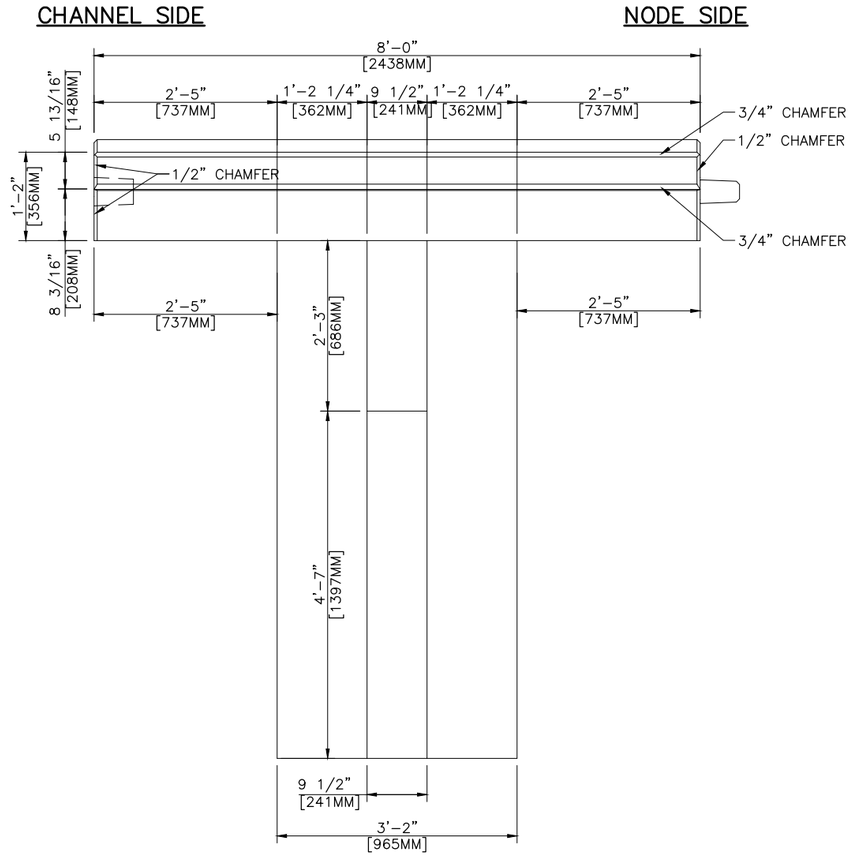
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



42" TRAFFIC BARRIER UNIT (BOTTOM VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT



42" TRAFFIC BARRIER UNIT (TOP VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

42" TRAFFIC BARRIER UNIT

DIMENSIONS

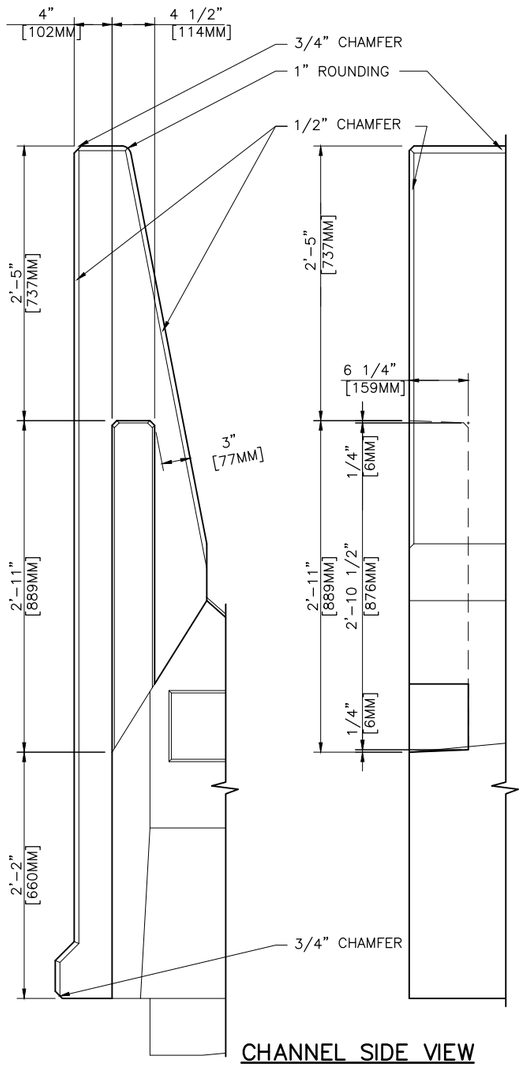
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
45 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:04 PM

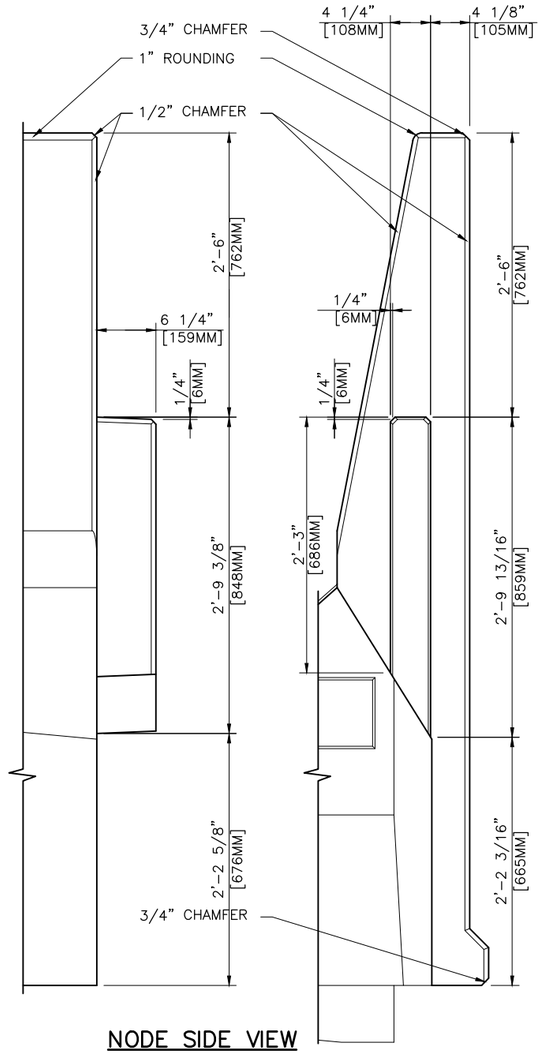
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



CHANNEL SIDE VIEW

SCALE: 1-1/2" = 1'-0"

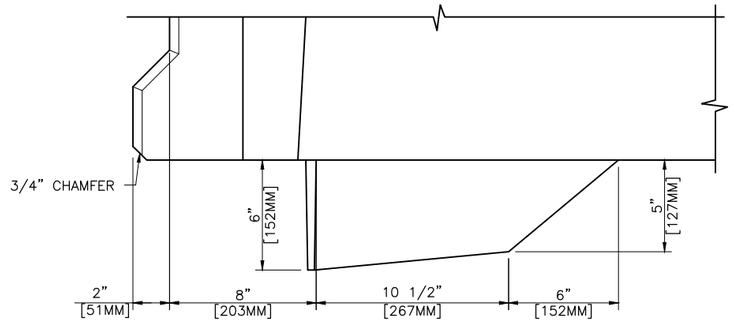
0 6" 1 2 FT



NODE SIDE VIEW

SCALE: 1-1/2" = 1'-0"

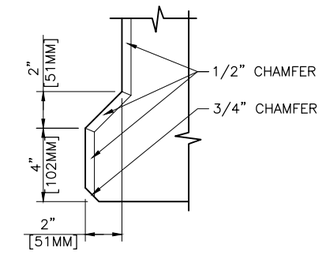
0 6" 1 2 FT



ENLARGED DETAIL (SIDE VIEW)

SCALE: 3" = 1'-0"

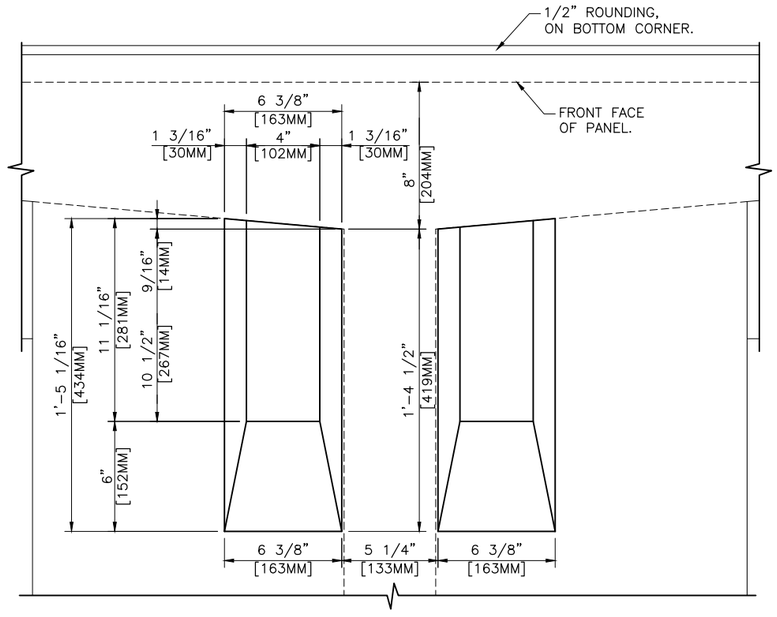
0 3 6 9 12 IN



ENLARGED FRONT NOSING

SCALE: 3" = 1'-0"

0 3 6 9 12 IN



ENLARGED DETAIL (BOTTOM VIEW)

SCALE: 3" = 1'-0"

0 3 6 9 12 IN

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

42" TRAFFIC BARRIER UNIT

DIMENSIONS

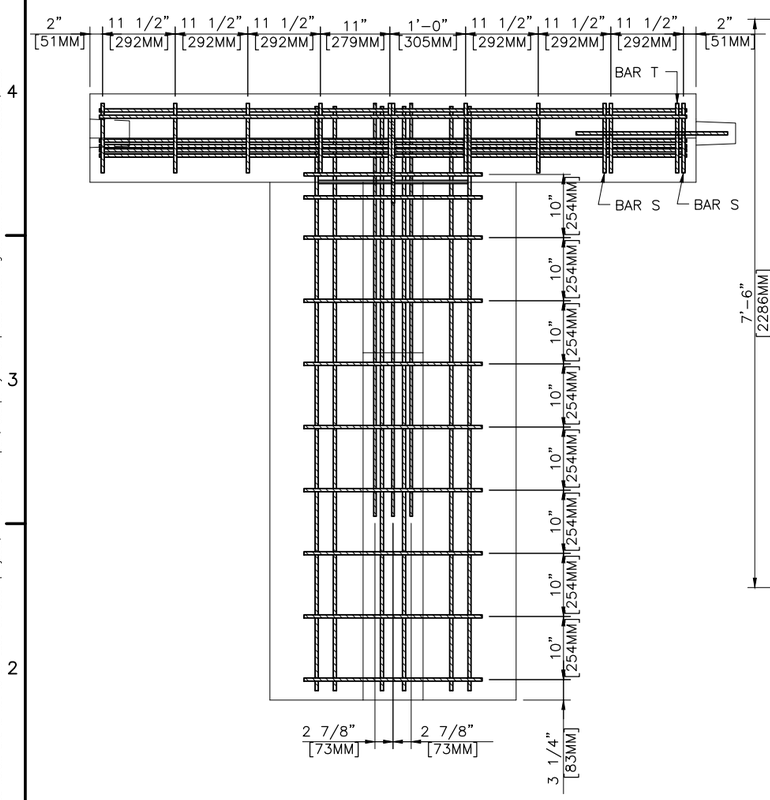
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
46 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:04 PM

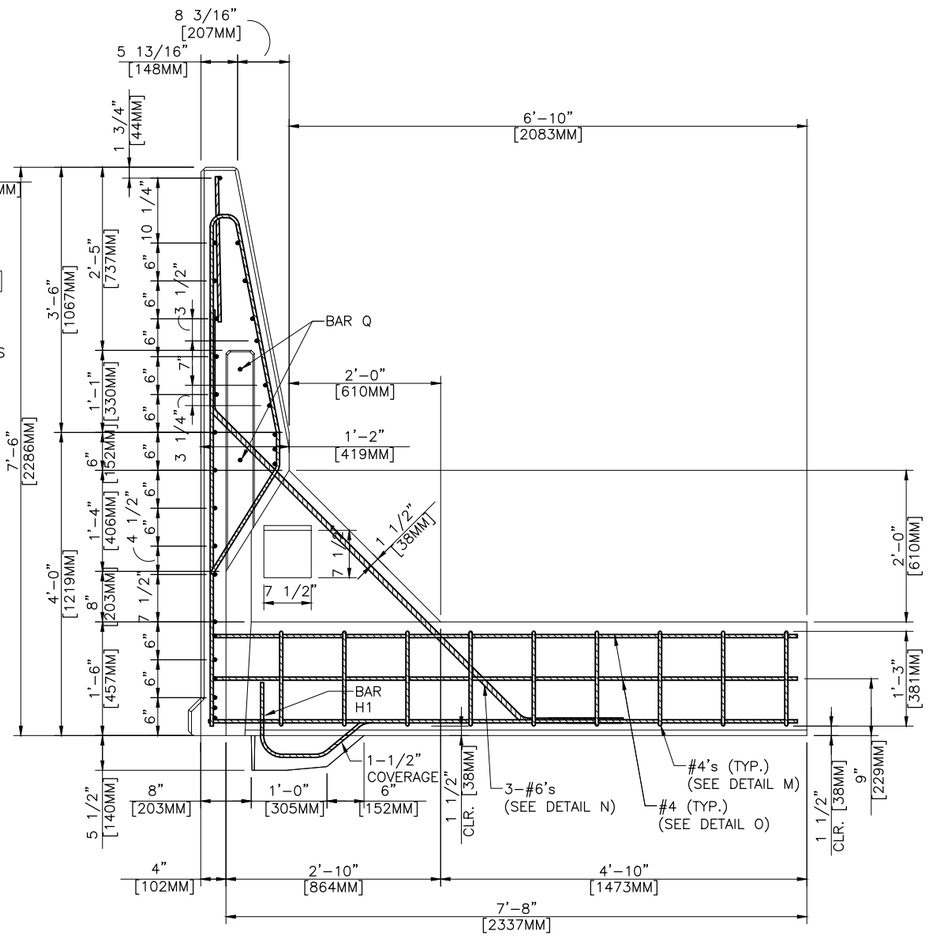
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



42" TRAFFIC BARRIER UNIT (TOP VIEW)

SCALE: 1" = 1'-0"

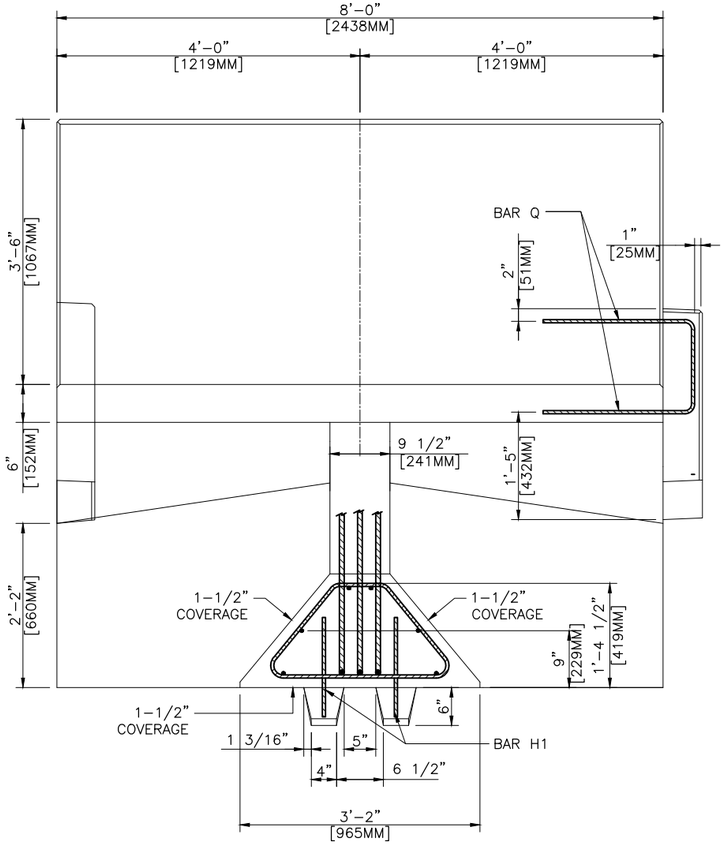
0 6" 1 2 3 FT



42" TRAFFIC BARRIER UNIT (SIDE VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT



42" TRAFFIC BARRIER UNIT (REAR VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

42" TRAFFIC BARRIER UNIT

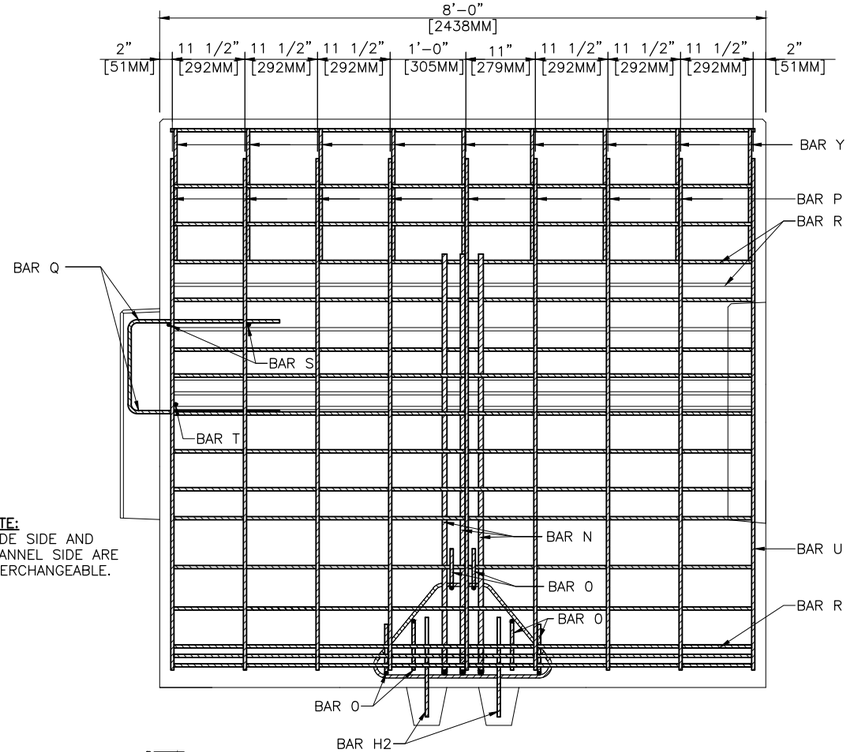
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 47 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:04 PM



NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.

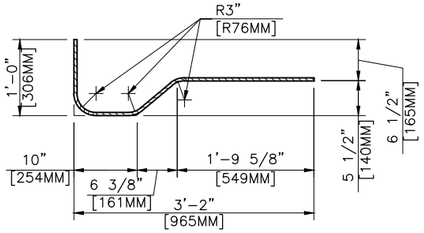
42" TRAFFIC BARRIER UNIT (FRONT VIEW)

SCALE: 1" = 1'-0"

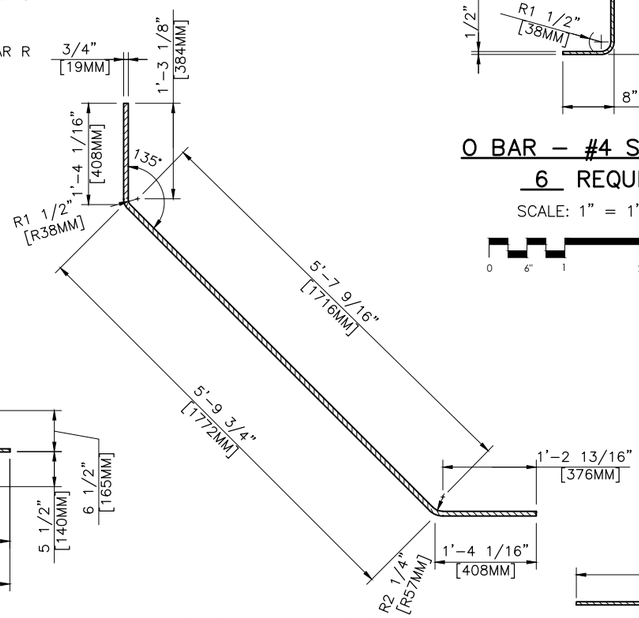
Y BAR
9 REQUIRED
SCALE: 1" = 1'-0"

S BAR
2 REQUIRED
SCALE: 1" = 1'-0"

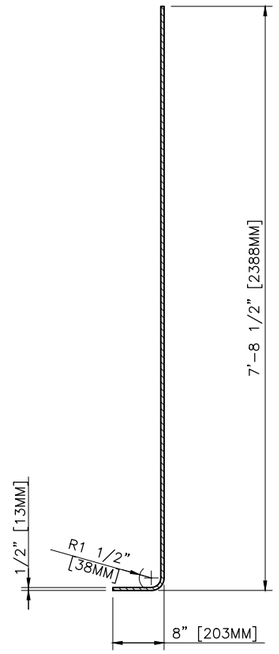
T BAR
1 REQUIRED
SCALE: 1" = 1'-0"



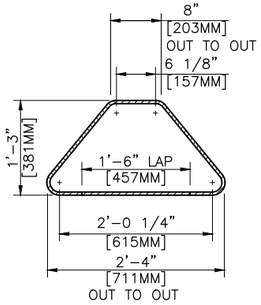
H1 BAR
2 REQUIRED
SCALE: 1" = 1'-0"



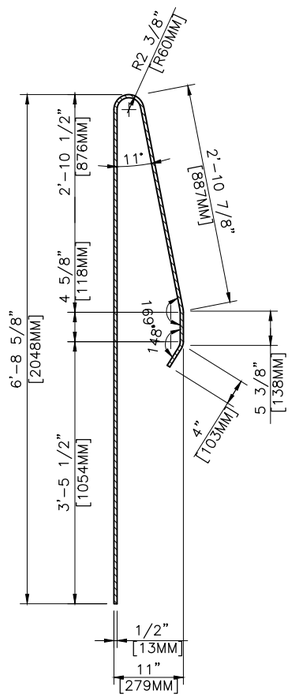
N BAR – #6 RIB BAR
3 REQUIRED
SCALE: 1" = 1'-0"



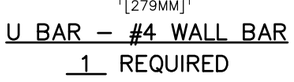
O BAR – #4 STEM BAR
6 REQUIRED
SCALE: 1" = 1'-0"

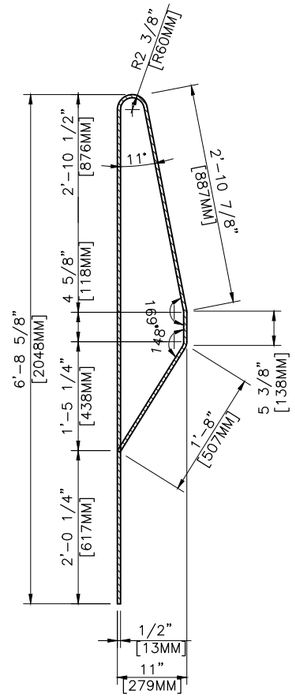


M BAR – #4 STIRRUP
9 REQUIRED
SCALE: 1" = 1'-0"

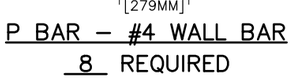


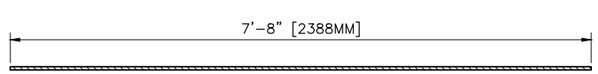
U BAR – #4 WALL BAR
1 REQUIRED
SCALE: 1" = 1'-0"



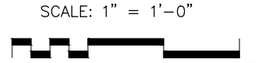


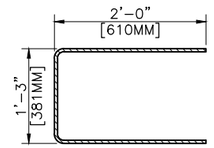
P BAR – #4 WALL BAR
8 REQUIRED
SCALE: 1" = 1'-0"



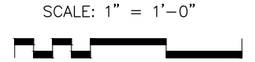


R BAR – #4 BAR
25 REQUIRED
SCALE: 1" = 1'-0"





Q BAR – #4 NODE BAR
1 REQUIRED
SCALE: 1" = 1'-0"



REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

42" TRAFFIC BARRIER UNIT

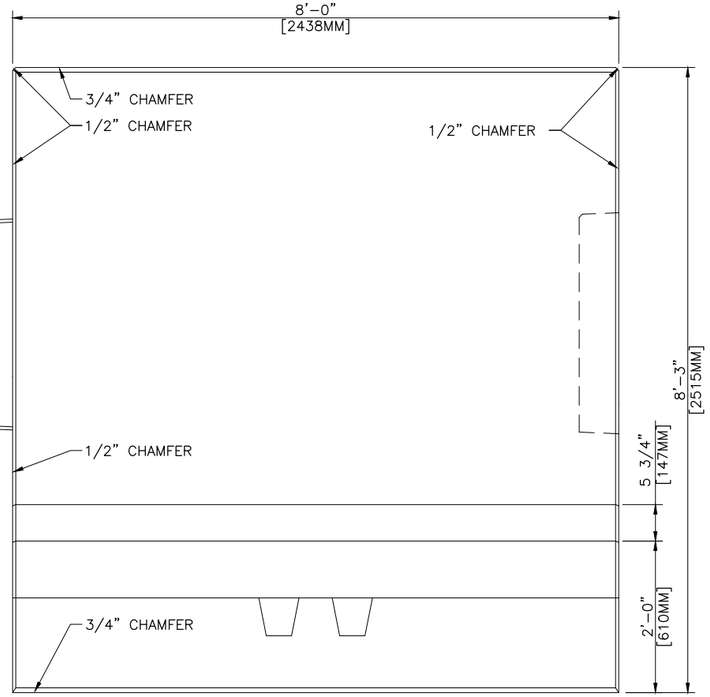
REBAR DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
48 OF 97

NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.

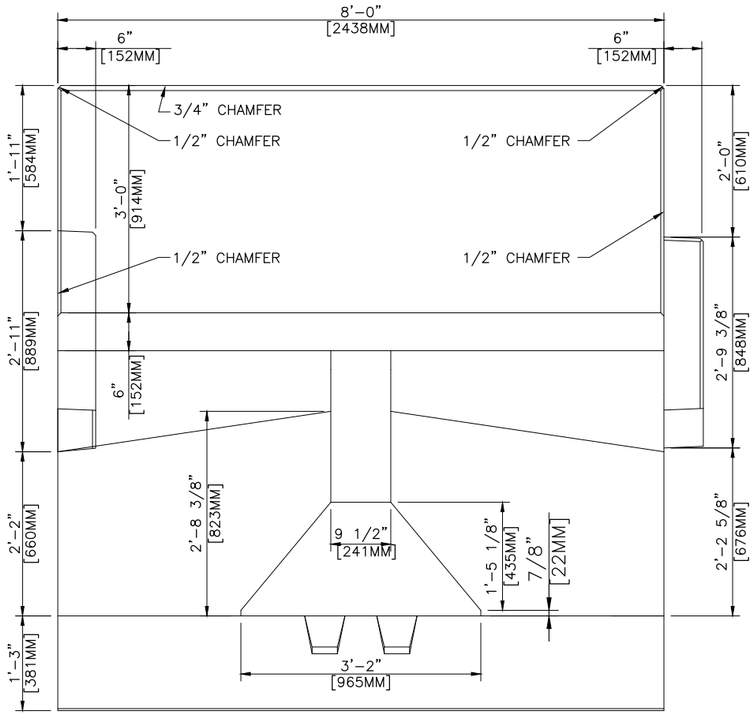


36" MSE TRAFFIC BARRIER UNIT (FRONT VIEW)

SCALE: 1" = 1'–0"

36" MSE TRAFFIC BARRIER UNIT (SIDE VIEW)

SCALE: 1" = 1'–0"



36" MSE TRAFFIC BARRIER UNIT (REAR VIEW)

SCALE: 1" = 1'–0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

36" MSE TRAFFIC BARRIER UNIT

DIMENSIONS

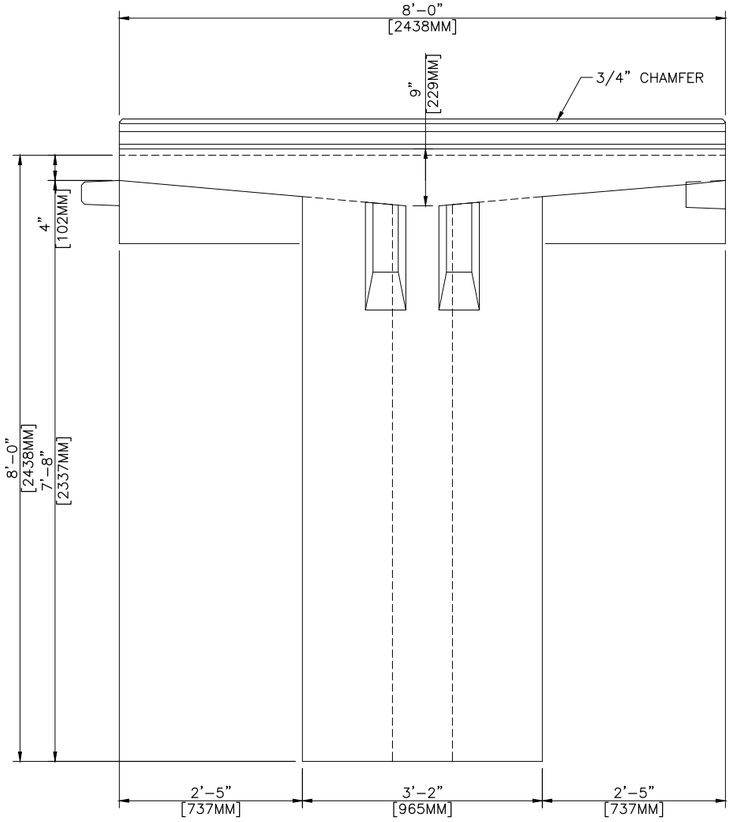
LINE IS 2 INCHES
AT FULL SIZE
(IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
49 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:04 PM

NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



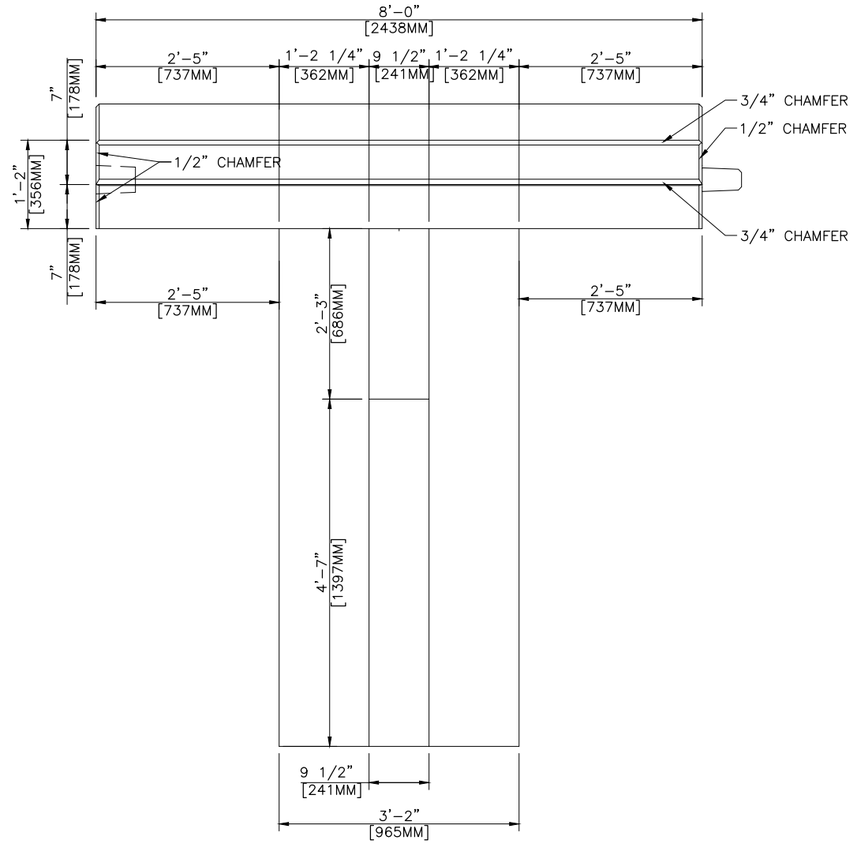
36" MSE TRAFFIC BARRIER UNIT (BOTTOM VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

CHANNEL SIDE

NODE SIDE



36" MSE TRAFFIC BARRIER UNIT (TOP VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

36" MSE TRAFFIC BARRIER UNIT

DIMENSIONS

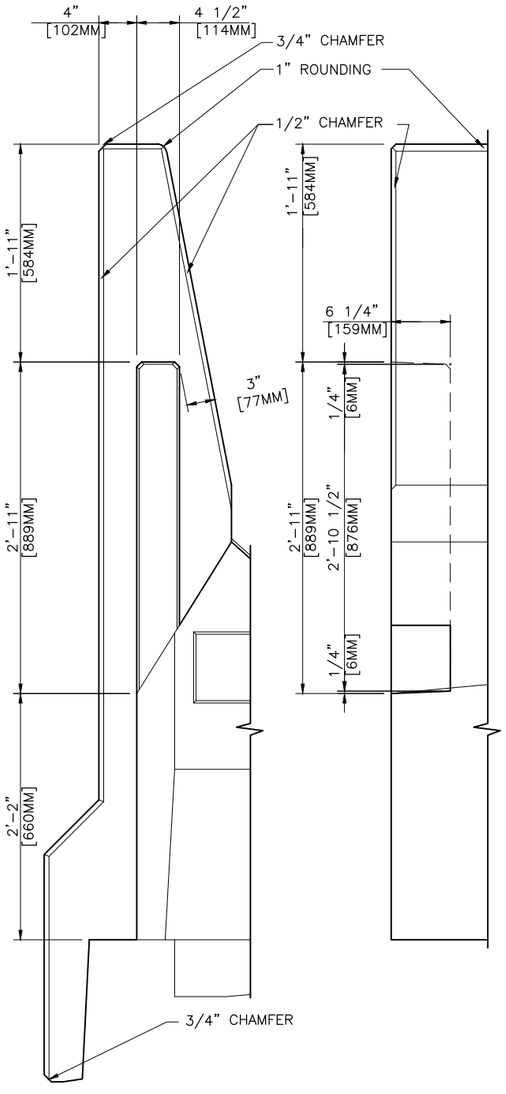
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
50 OF 97

6/6/2018 2:04 PM GRAVIX 6-6-2018.dwg

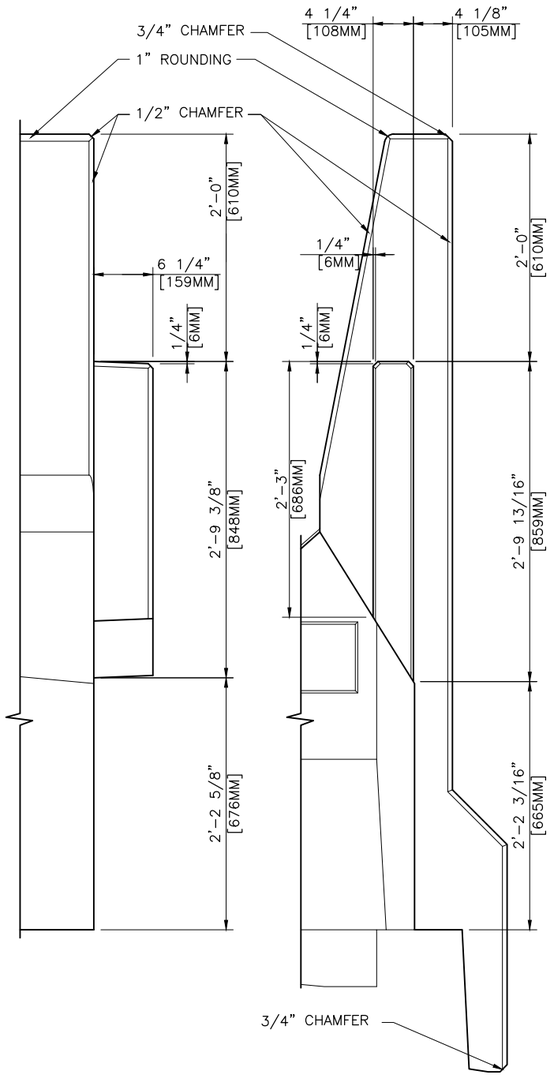
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



CHANNEL SIDE VIEW

SCALE: 1-1/2" = 1'-0"

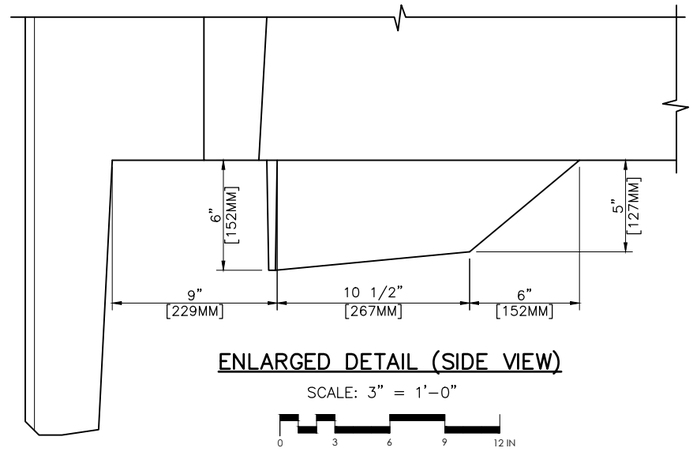
0 6" 1 2 FT



NODE SIDE VIEW

SCALE: 1-1/2" = 1'-0"

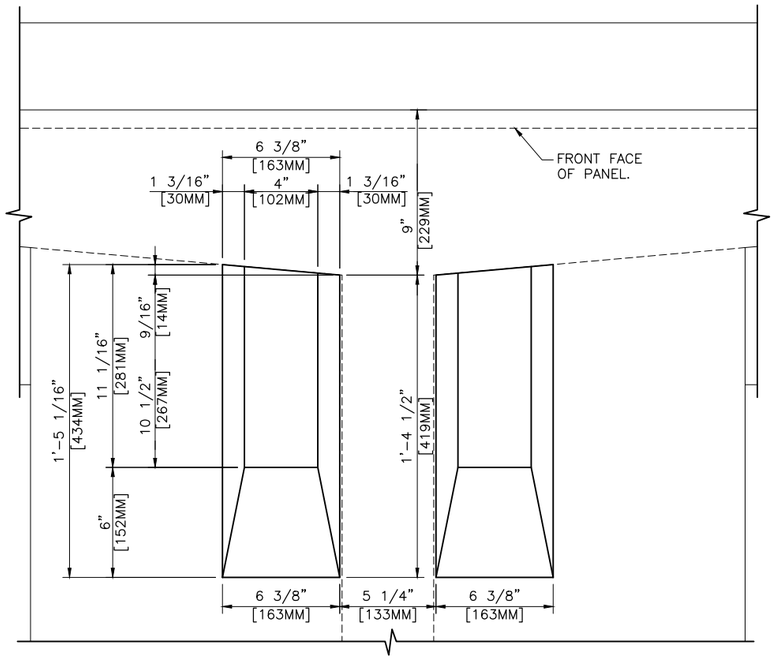
0 6" 1 2 FT



ENLARGED DETAIL (SIDE VIEW)

SCALE: 3" = 1'-0"

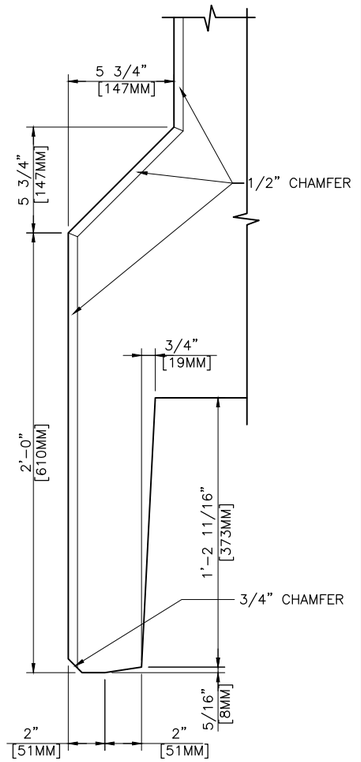
0 3 6 9 12 IN



ENLARGED DETAIL (BOTTOM VIEW)

SCALE: 3" = 1'-0"

0 3 6 9 12 IN



ENLARGED FRONT NOSING

SCALE: 3" = 1'-0"

0 3 6 9 12 IN

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

36" MSE TRAFFIC BARRIER UNIT

DIMENSIONS

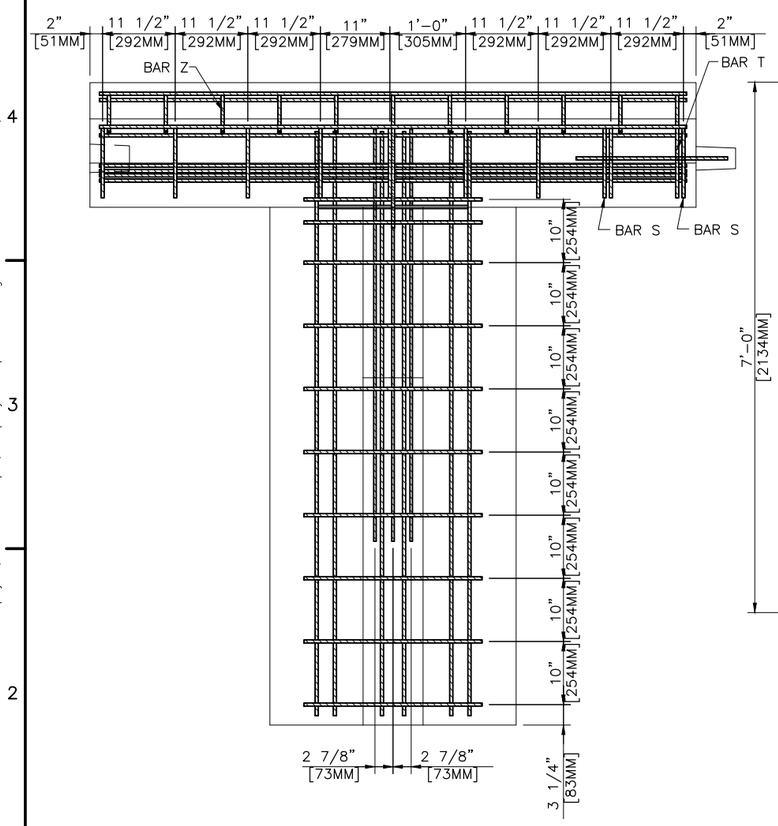
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 51 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:04 PM

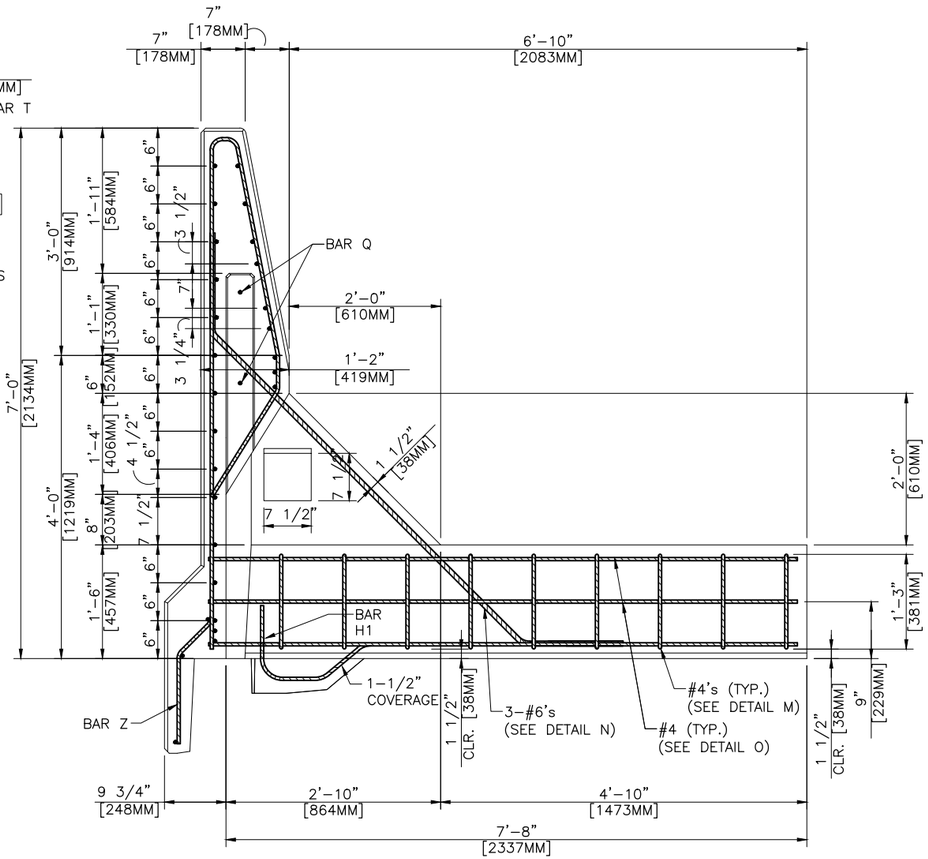
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



36" MSE TRAFFIC BARRIER UNIT (TOP VIEW)

SCALE: 1" = 1'-0"

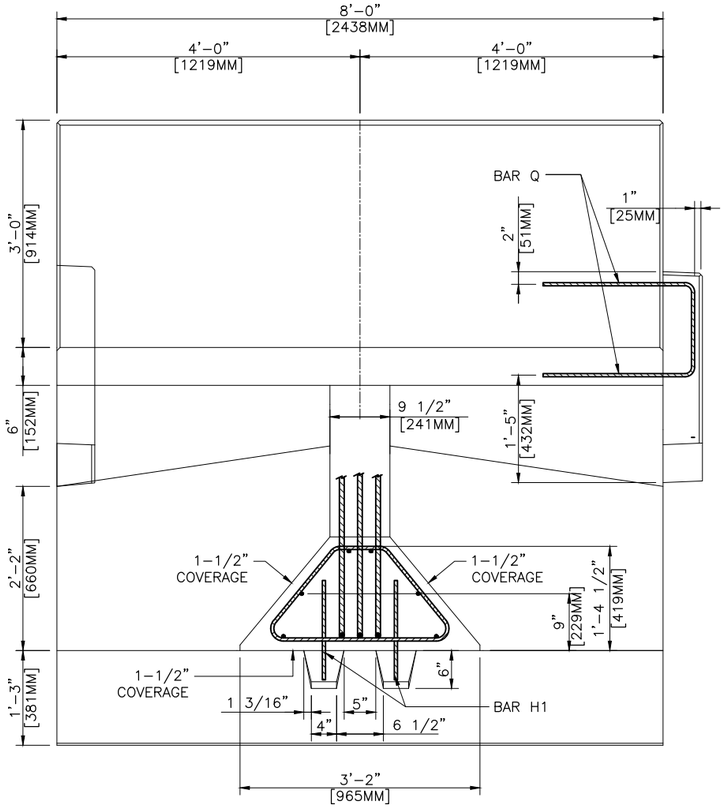
0 6" 1 2 3 FT



36" MSE TRAFFIC BARRIER UNIT (SIDE VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT



36" MSE TRAFFIC BARRIER UNIT (REAR VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

GRAVIX 6-6-2018.dwg

6/6/2018 2:04 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

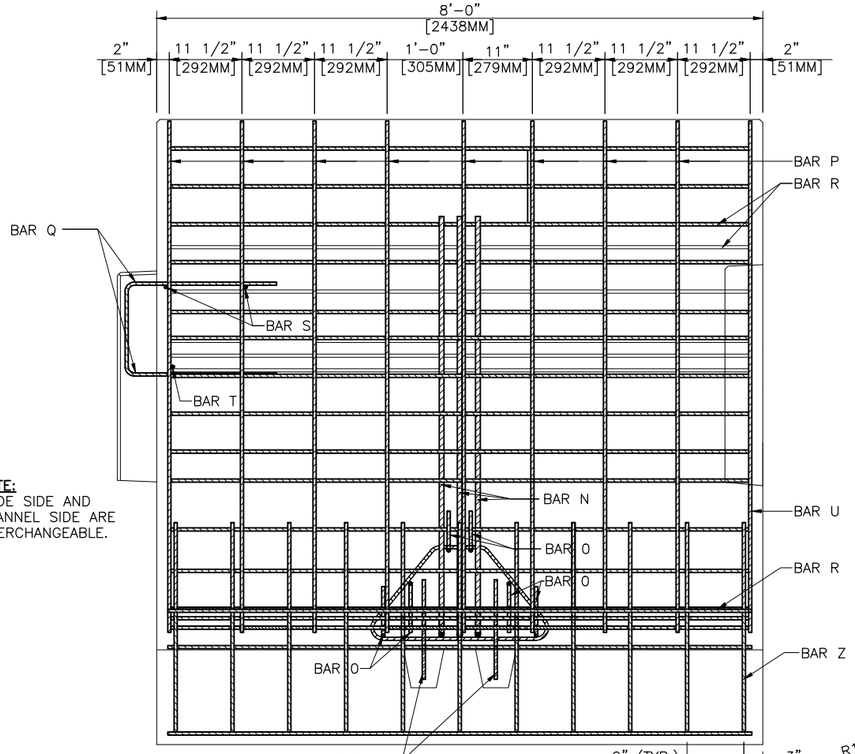
36" MSE TRAFFIC BARRIER UNIT

REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

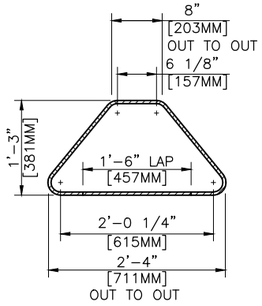
SHEET NUMBER
52 OF 97



NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.

36" MSE TRAFFIC BARRIER UNIT (FRONT VIEW)

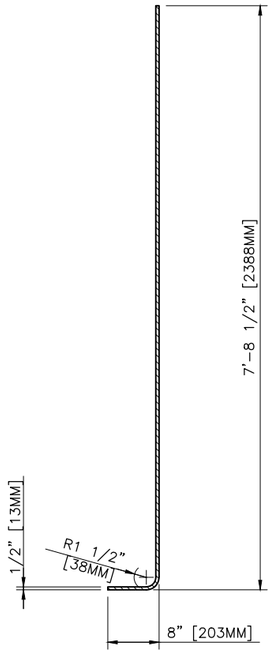
SCALE: 1" = 1'-0"



M BAR – #4 STIRRUP

9 REQUIRED

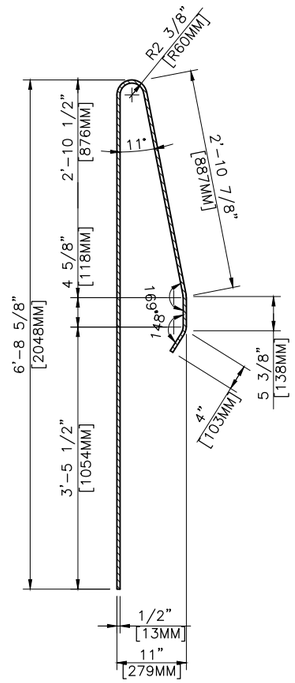
SCALE: 1" = 1'-0"



O BAR – #4 STEM BAR

6 REQUIRED

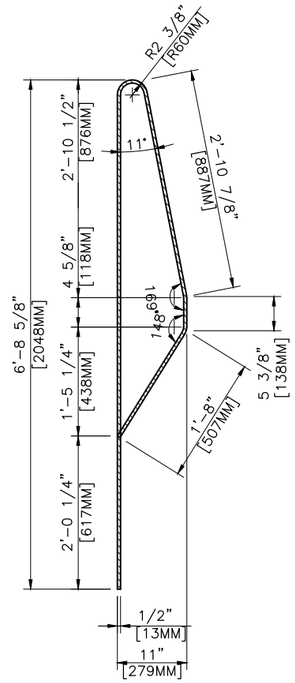
SCALE: 1" = 1'-0"



U BAR – #4 WALL BAR

1 REQUIRED

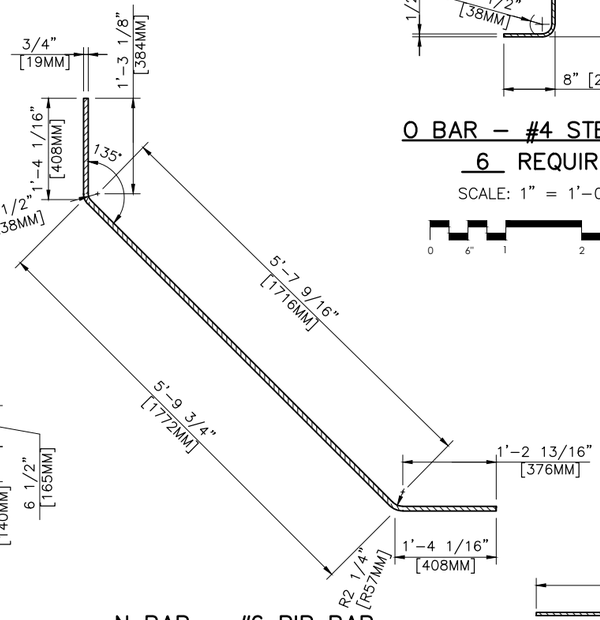
SCALE: 1" = 1'-0"



P BAR – #4 WALL BAR

8 REQUIRED

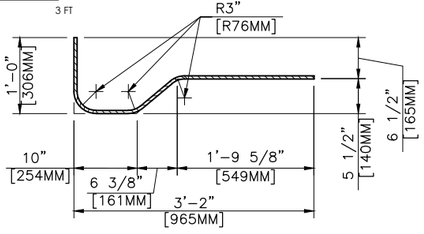
SCALE: 1" = 1'-0"



N BAR – #6 RIB BAR

3 REQUIRED

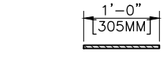
SCALE: 1" = 1'-0"



H1 BAR

2 REQUIRED

SCALE: 1" = 1'-0"



T BAR

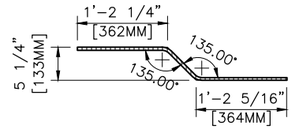
1 REQUIRED

SCALE: 1" = 1'-0"

S BAR

2 REQUIRED

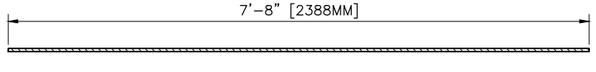
SCALE: 1" = 1'-0"



Z BAR – #4 NOSE BAR

11 REQUIRED

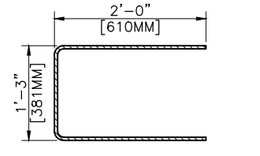
SCALE: 1" = 1'-0"



R BAR – #4 BAR

27 REQUIRED

SCALE: 1" = 1'-0"



Q BAR – #4 NODE BAR

1 REQUIRED

SCALE: 1" = 1'-0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

36" MSE TRAFFIC BARRIER UNIT

REBAR DETAILS

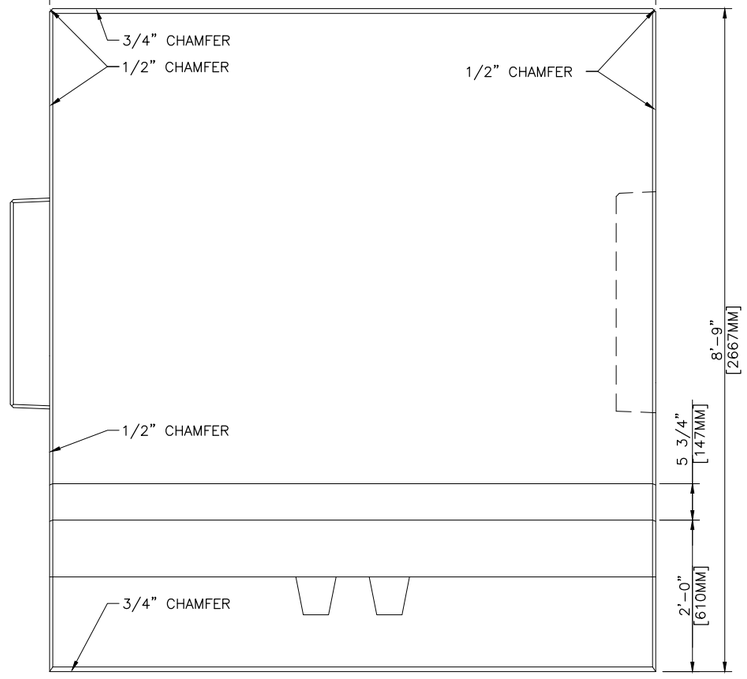
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
53 OF 97

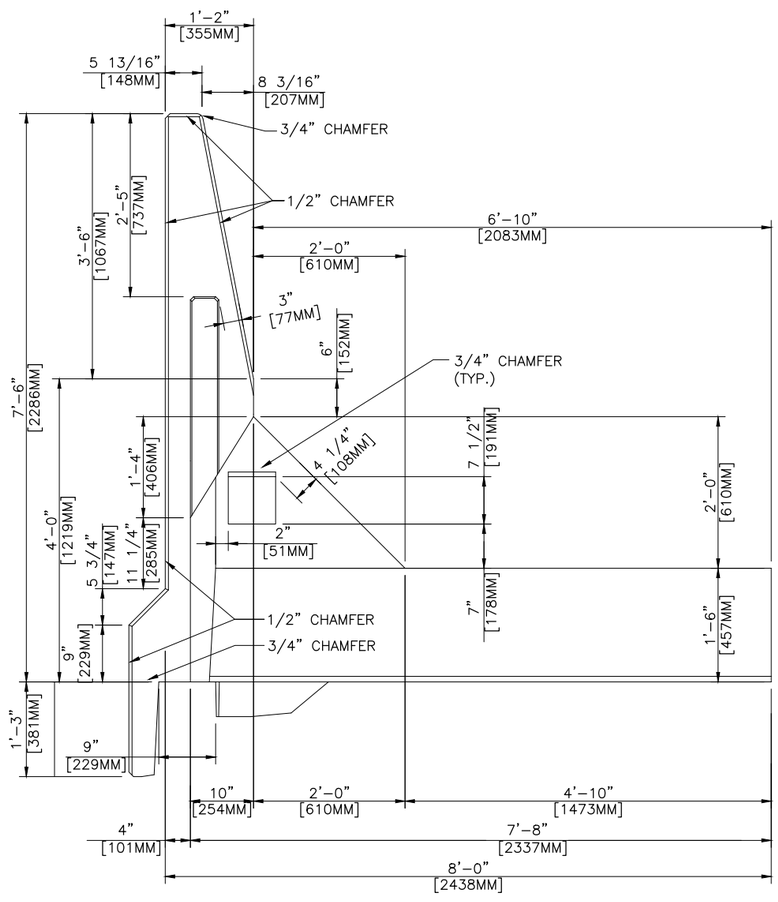
GRAVIX 6-6-2018.dwg
6/6/2018 2:04 PM

NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



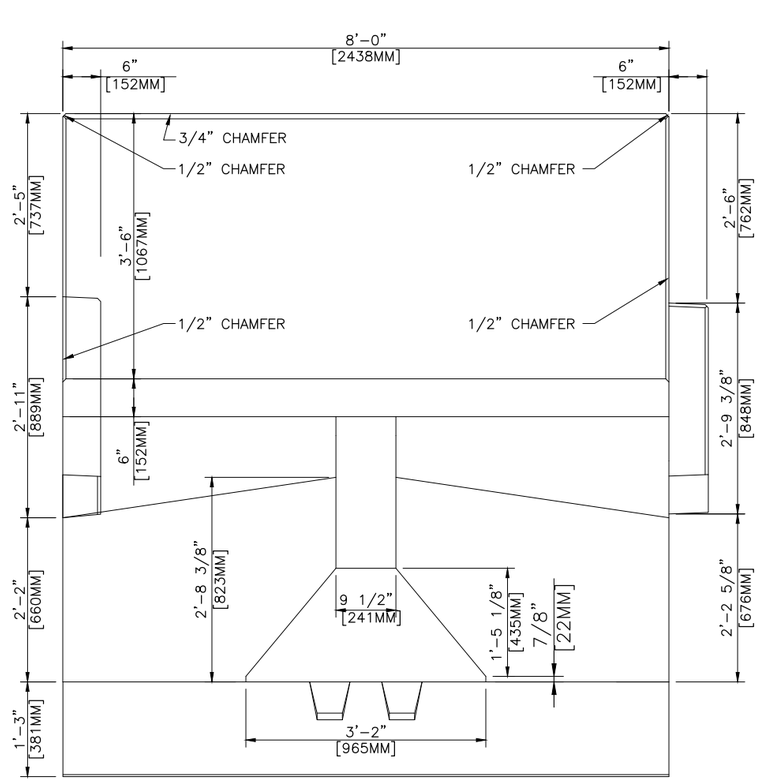
42" MSE TRAFFIC BARRIER UNIT (FRONT VIEW)

SCALE: 1" = 1'-0"



42" MSE TRAFFIC BARRIER UNIT (SIDE VIEW)

SCALE: 1" = 1'-0"



42" MSE TRAFFIC BARRIER UNIT (REAR VIEW)

SCALE: 1" = 1'-0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

42" MSE TRAFFIC BARRIER UNIT

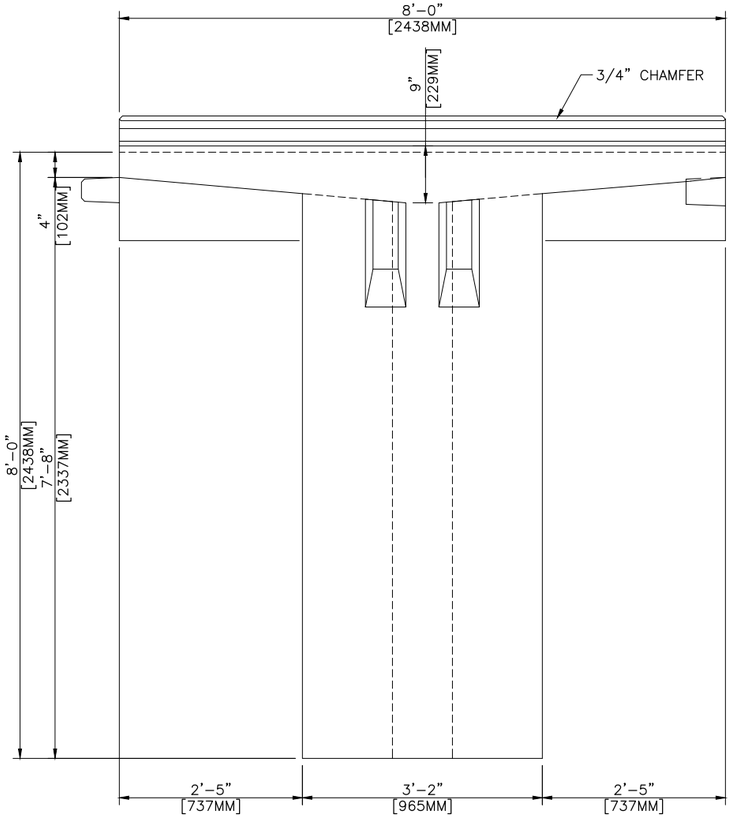
DIMENSIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
54 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:04 PM



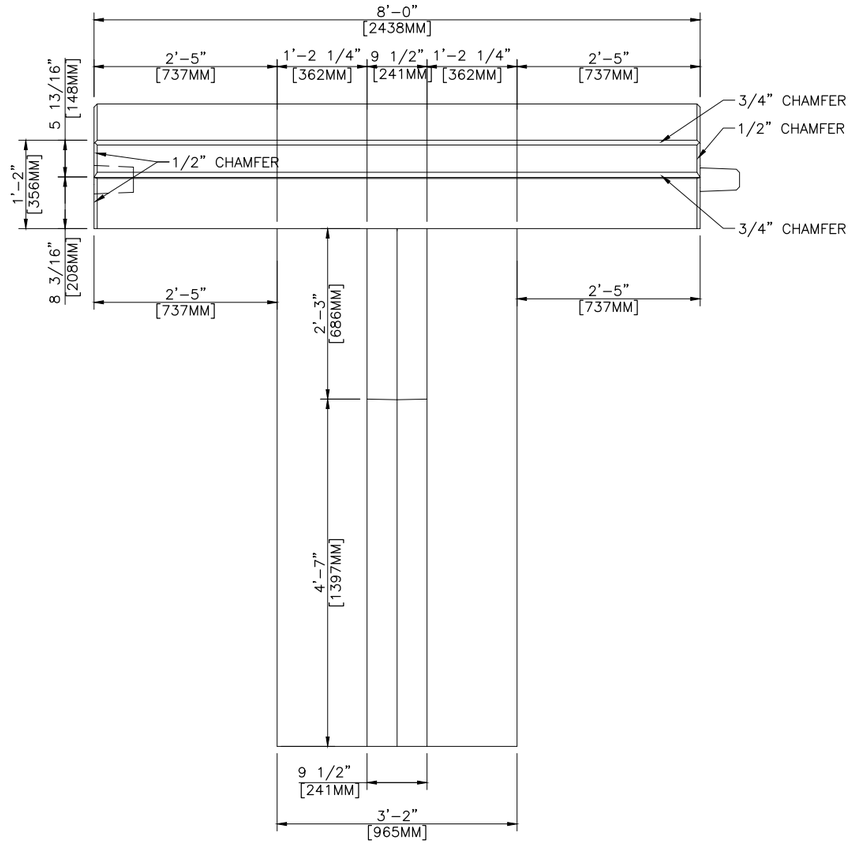
42" MSE TRAFFIC BARRIER UNIT (BOTTOM VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.

CHANNEL SIDE NODE SIDE



42" MSE TRAFFIC BARRIER UNIT (TOP VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

42" MSE TRAFFIC BARRIER UNIT

DIMENSIONS

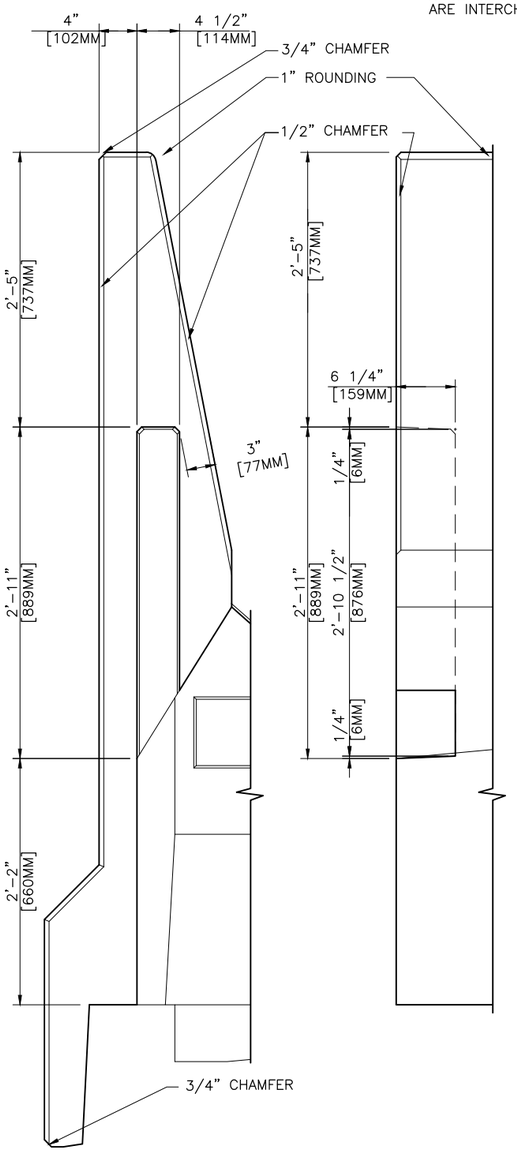
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
55 OF 97

6/6/2018 2:04 PM GRAVIX 6-6-2018.dwg

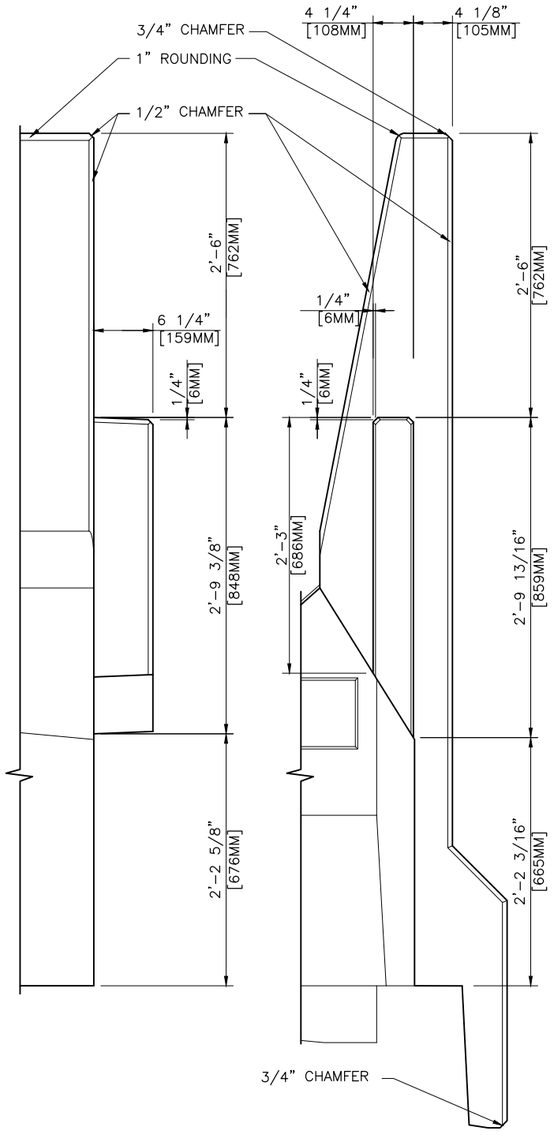
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



CHANNEL SIDE VIEW

SCALE: 1-1/2" = 1'-0"

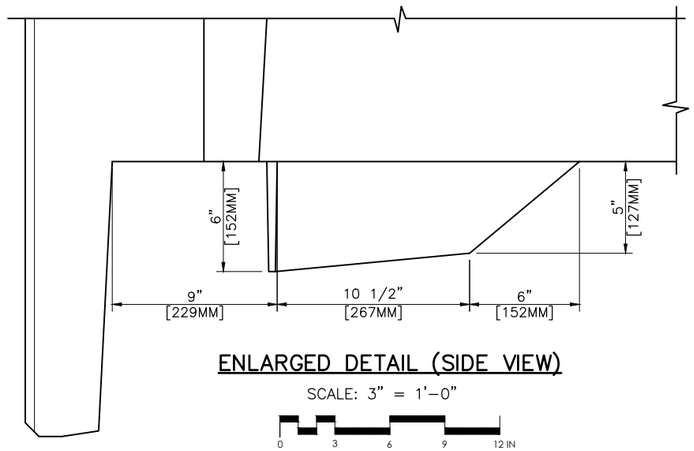
0 6" 1 2 FT



NODE SIDE VIEW

SCALE: 1-1/2" = 1'-0"

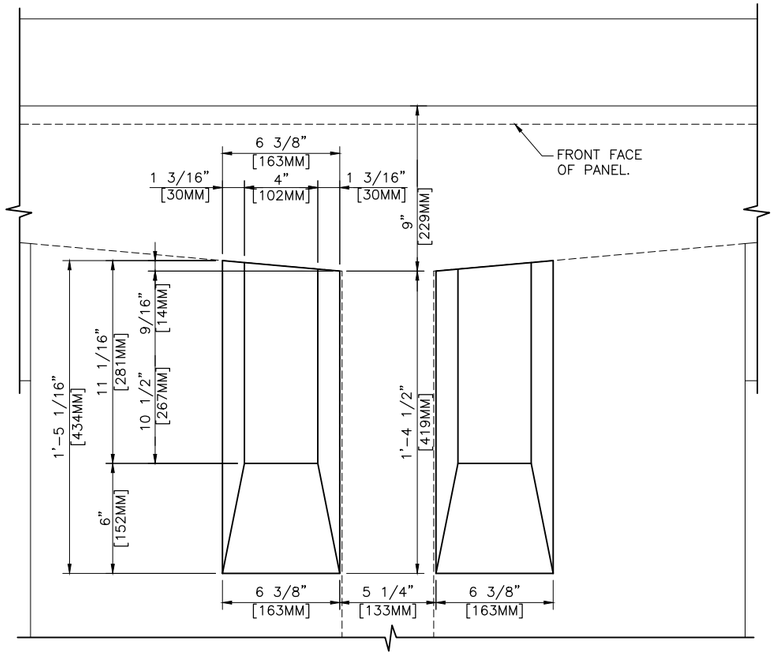
0 6" 1 2 FT



ENLARGED DETAIL (SIDE VIEW)

SCALE: 3" = 1'-0"

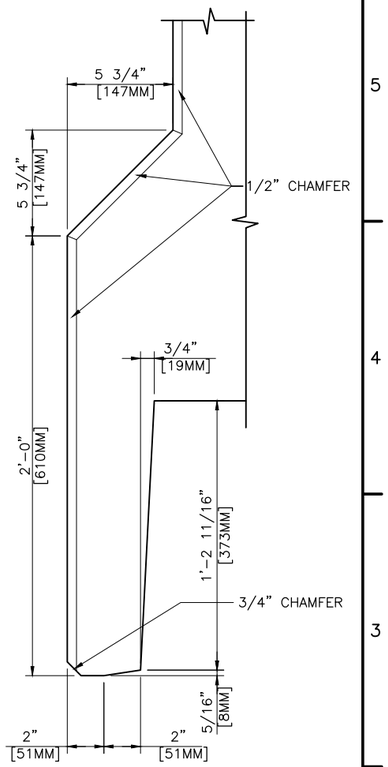
0 3 6 9 12 IN



ENLARGED DETAIL (BOTTOM VIEW)

SCALE: 3" = 1'-0"

0 3 6 9 12 IN



ENLARGED FRONT NOSING

SCALE: 3" = 1'-0"

0 3 6 9 12 IN

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

42" MSE TRAFFIC BARRIER UNIT

DIMENSIONS

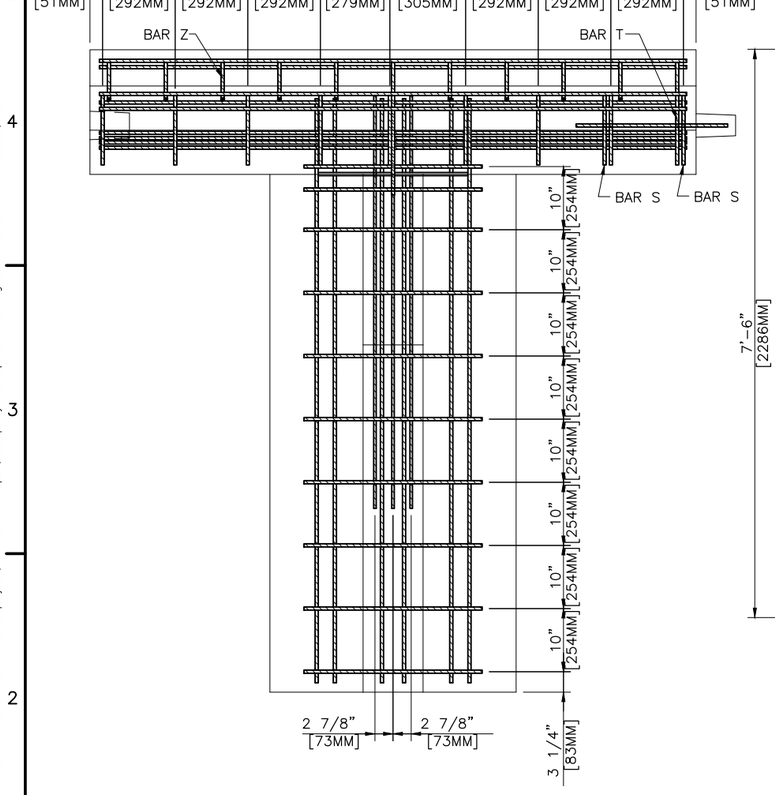
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
56 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:05 PM

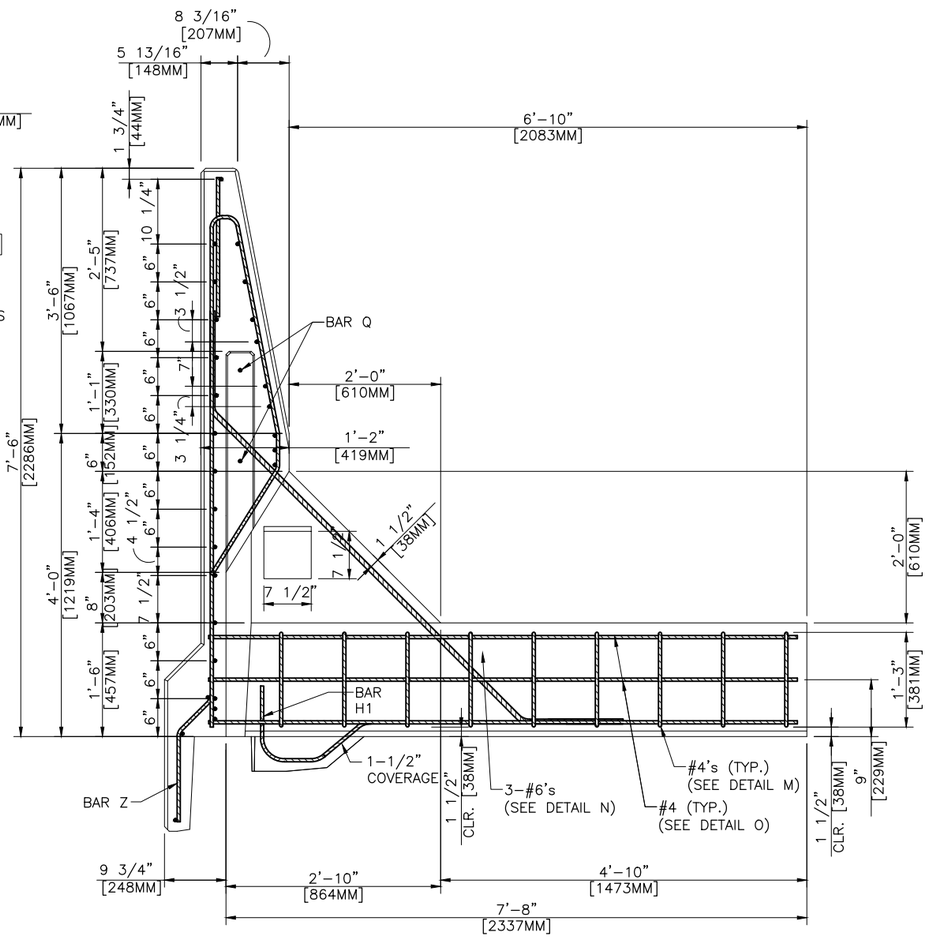
NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.



42" MSE TRAFFIC BARRIER UNIT (TOP VIEW)

SCALE: 1" = 1'-0"

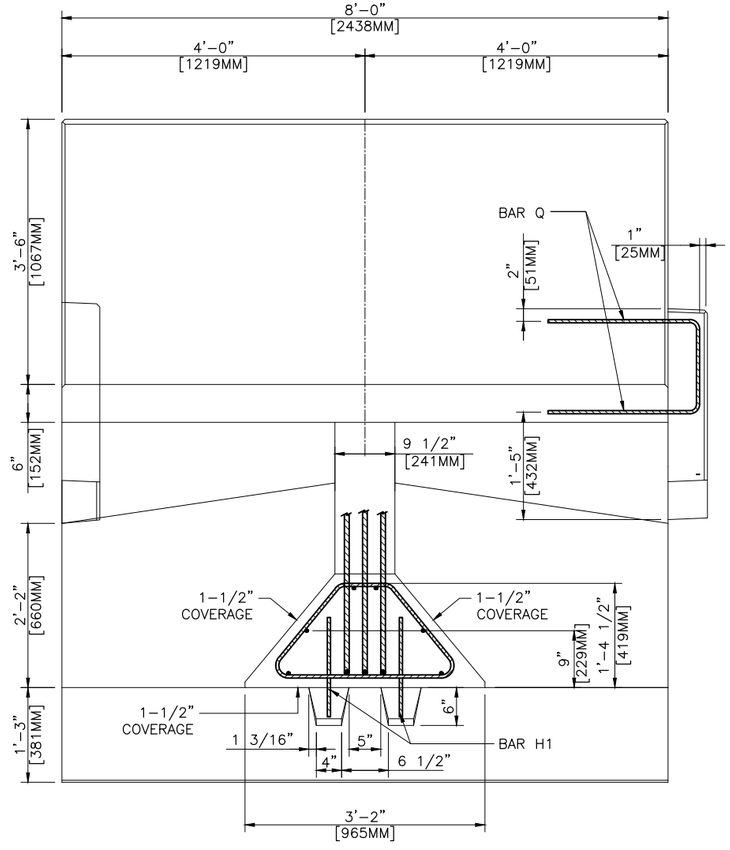
0 6" 1 2 3 FT



42" MSE TRAFFIC BARRIER UNIT (SIDE VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT



42" MSE TRAFFIC BARRIER UNIT (REAR VIEW)

SCALE: 1" = 1'-0"

0 6" 1 2 3 FT

GRAVIX 6-6-2018.dwg

6/6/2018 2:05 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

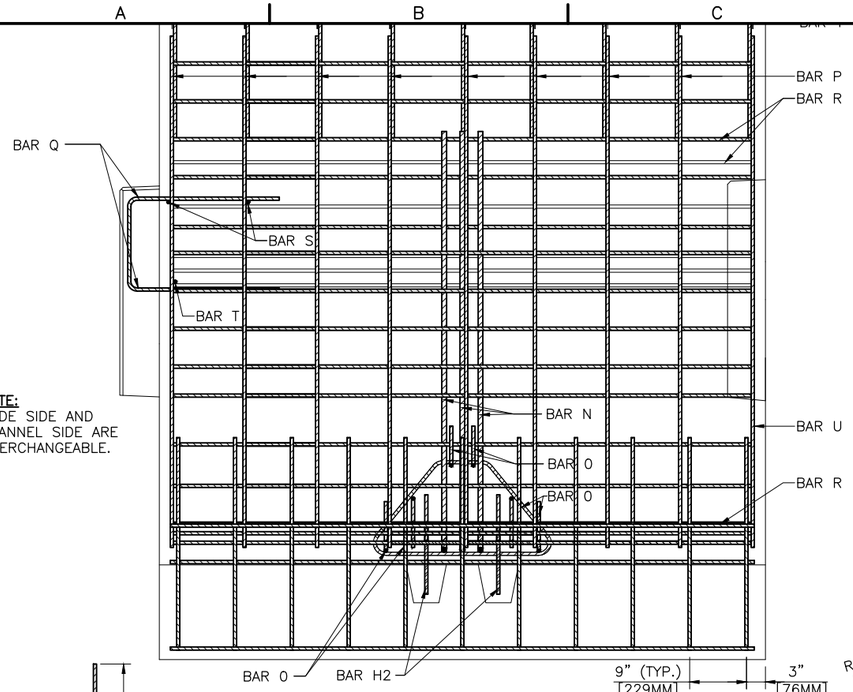
42" MSE TRAFFIC BARRIER UNIT

REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

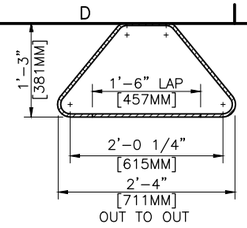
SHEET NUMBER
57 OF 97



NOTE:
NODE SIDE AND CHANNEL SIDE ARE INTERCHANGEABLE.

42" MSE TRAFFIC BARRIER UNIT (FRONT VIEW)

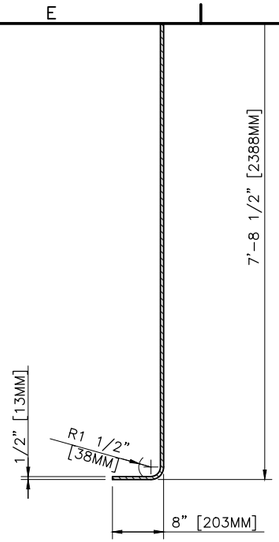
SCALE: 1" = 1'-0"



M BAR – #4 STIRRUP

9 REQUIRED

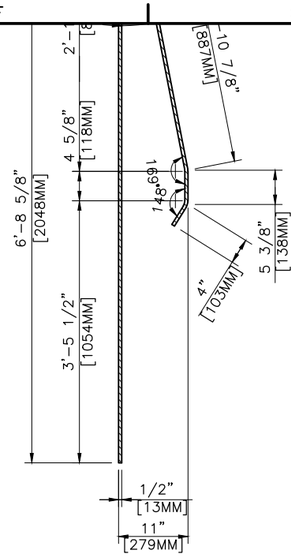
SCALE: 1" = 1'-0"



O BAR – #4 STEM BAR

6 REQUIRED

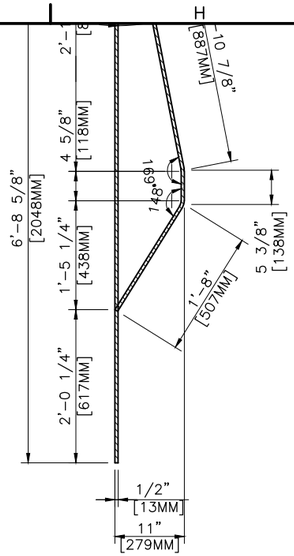
SCALE: 1" = 1'-0"



U BAR – #4 WALL BAR

1 REQUIRED

SCALE: 1" = 1'-0"



P BAR – #4 WALL BAR

8 REQUIRED

SCALE: 1" = 1'-0"

Y BAR

9 REQUIRED

SCALE: 1" = 1'-0"

S BAR

2 REQUIRED

SCALE: 1" = 1'-0"

T BAR

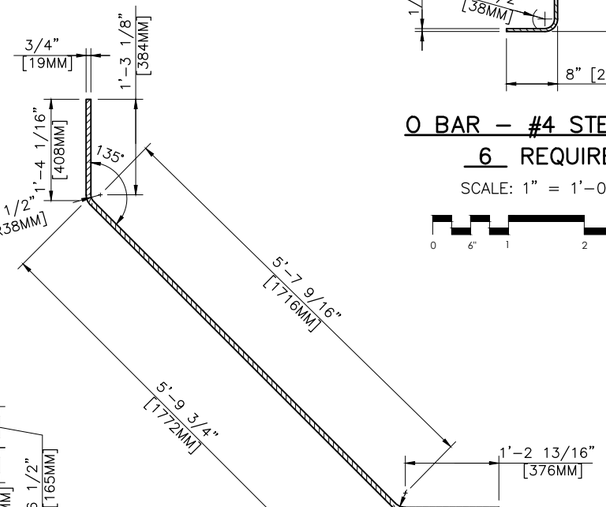
1 REQUIRED

SCALE: 1" = 1'-0"

H1 BAR

2 REQUIRED

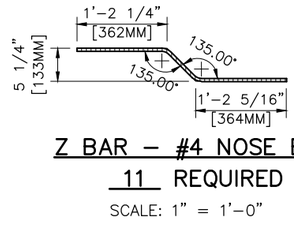
SCALE: 1" = 1'-0"



N BAR – #6 RIB BAR

3 REQUIRED

SCALE: 1" = 1'-0"



Z BAR – #4 NOSE BAR

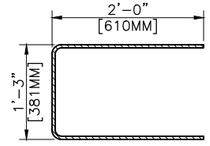
11 REQUIRED

SCALE: 1" = 1'-0"

R BAR – #4 BAR

28 REQUIRED

SCALE: 1" = 1'-0"



Q BAR – #4 NODE BAR

1 REQUIRED

SCALE: 1" = 1'-0"

GRAVIX 6-6-2018.dwg

6/6/2018 2:05 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

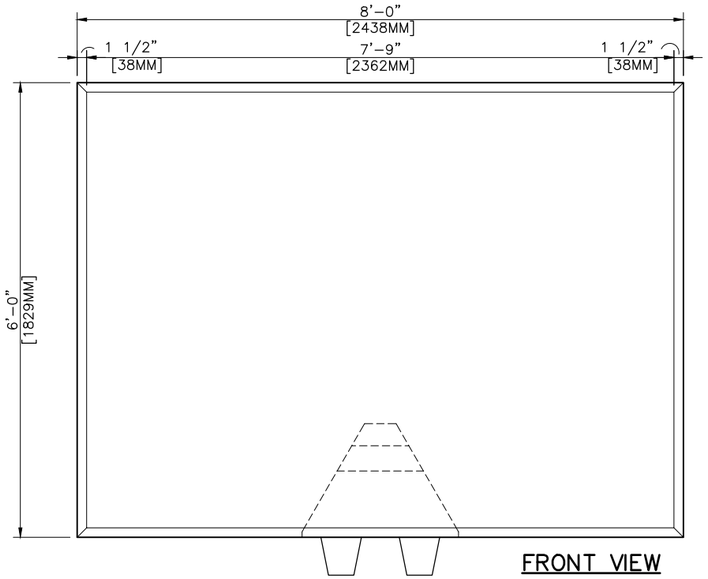
42" MSE TRAFFIC BARRIER UNIT

REBAR DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

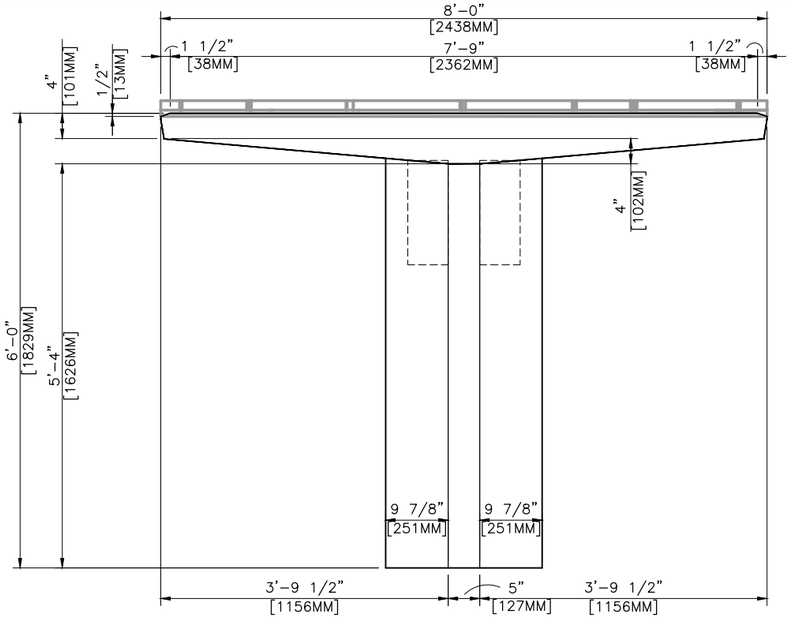
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
59 OF 97



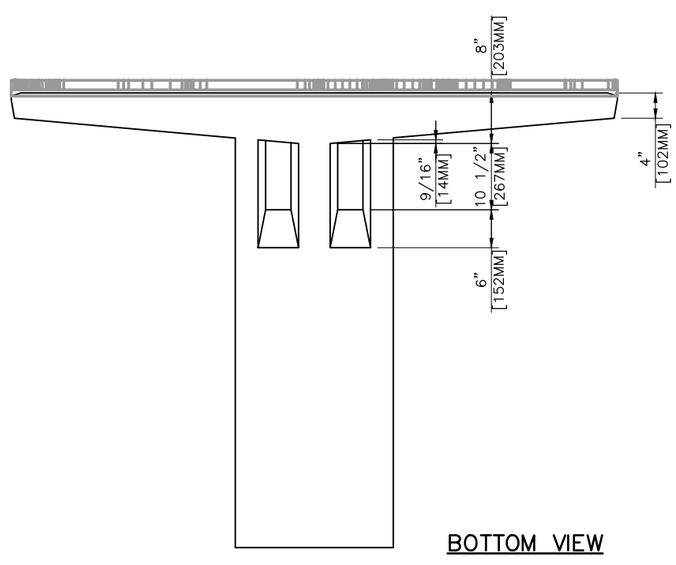
FRONT VIEW

SCALE: 1" = 1'-0"



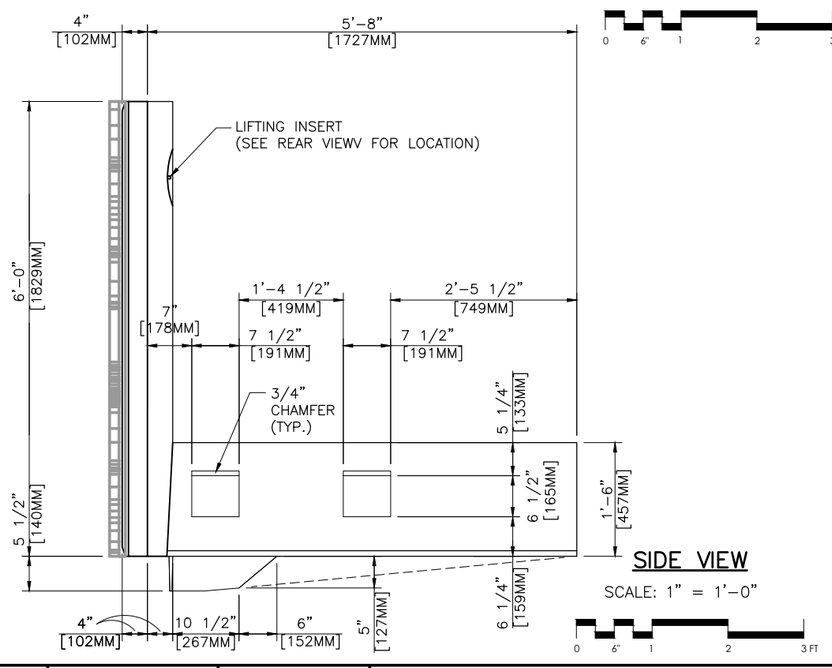
TOP VIEW

SCALE: 1" = 1'-0"



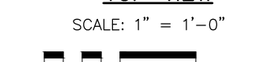
BOTTOM VIEW

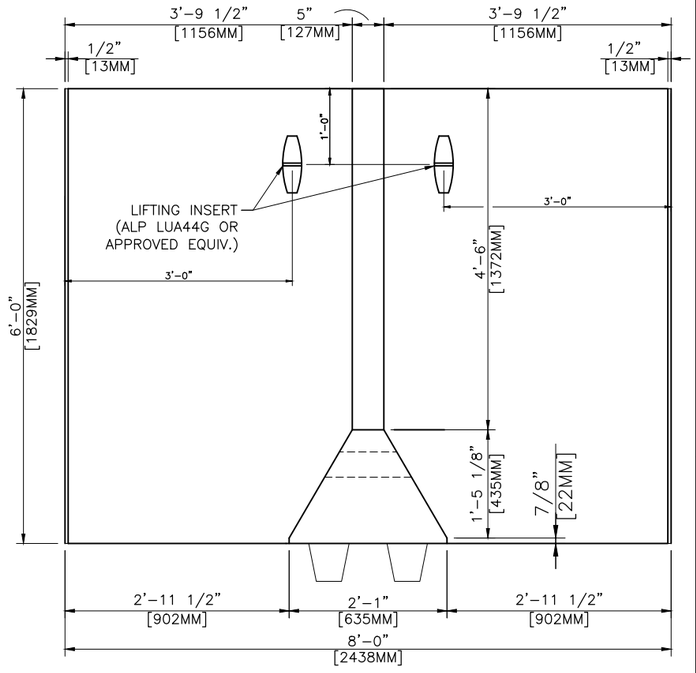
SCALE: 1" = 1'-0"



SIDE VIEW

SCALE: 1" = 1'-0"





REAR VIEW

SCALE: 1" = 1'-0"

NOTE:
TOP UNIT FACE HEIGHT DIMENSIONS OF FACE PANEL WILL VARY PER PARAPET SCHEDULE. SEE SHEET 7 OF 35.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

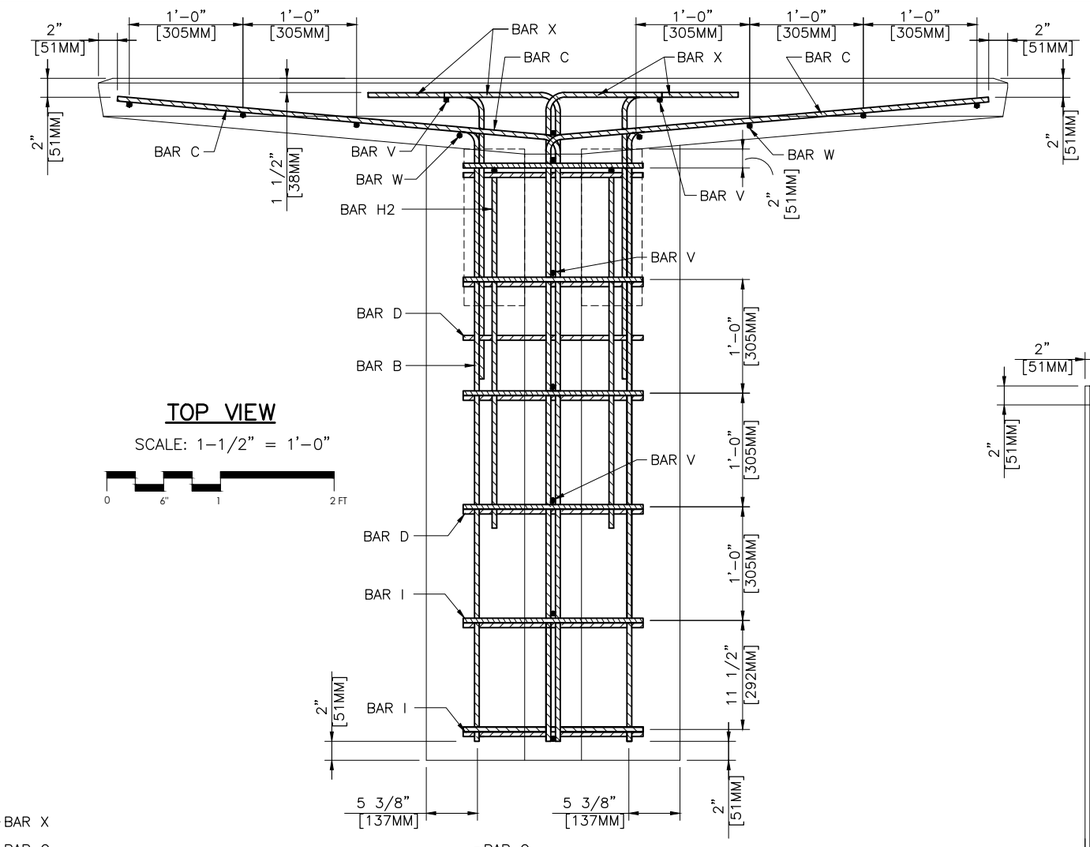
[PROJECT NAME]
[PROJECT LOCATION]

TOP UNIT DIMENSIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

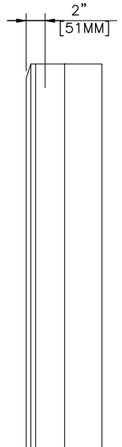
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

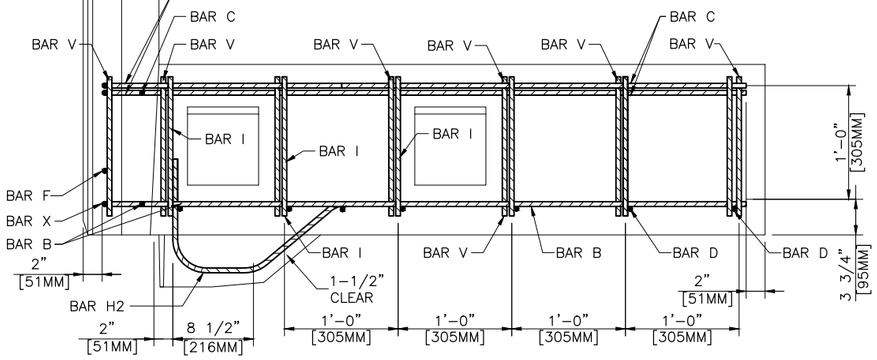
SHEET NUMBER
60 OF 97



TOP VIEW

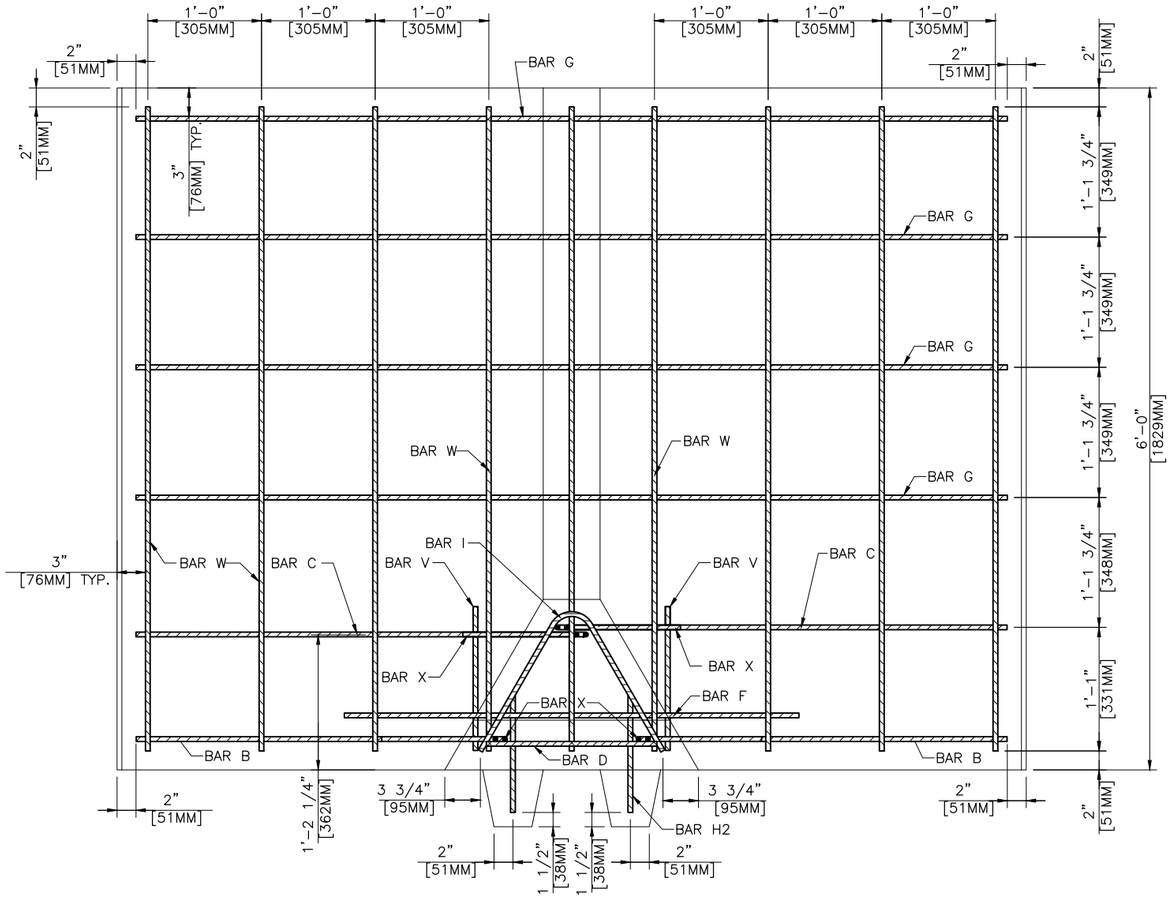
SCALE: 1-1/2" = 1'-0"





STEM SIDE VIEW

SCALE: 1-1/2" = 1'-0"



REAR VIEW

SCALE: 1-1/2" = 1'-0"

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR SHOWN TO BE 60 KSI #4.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

TOP UNIT

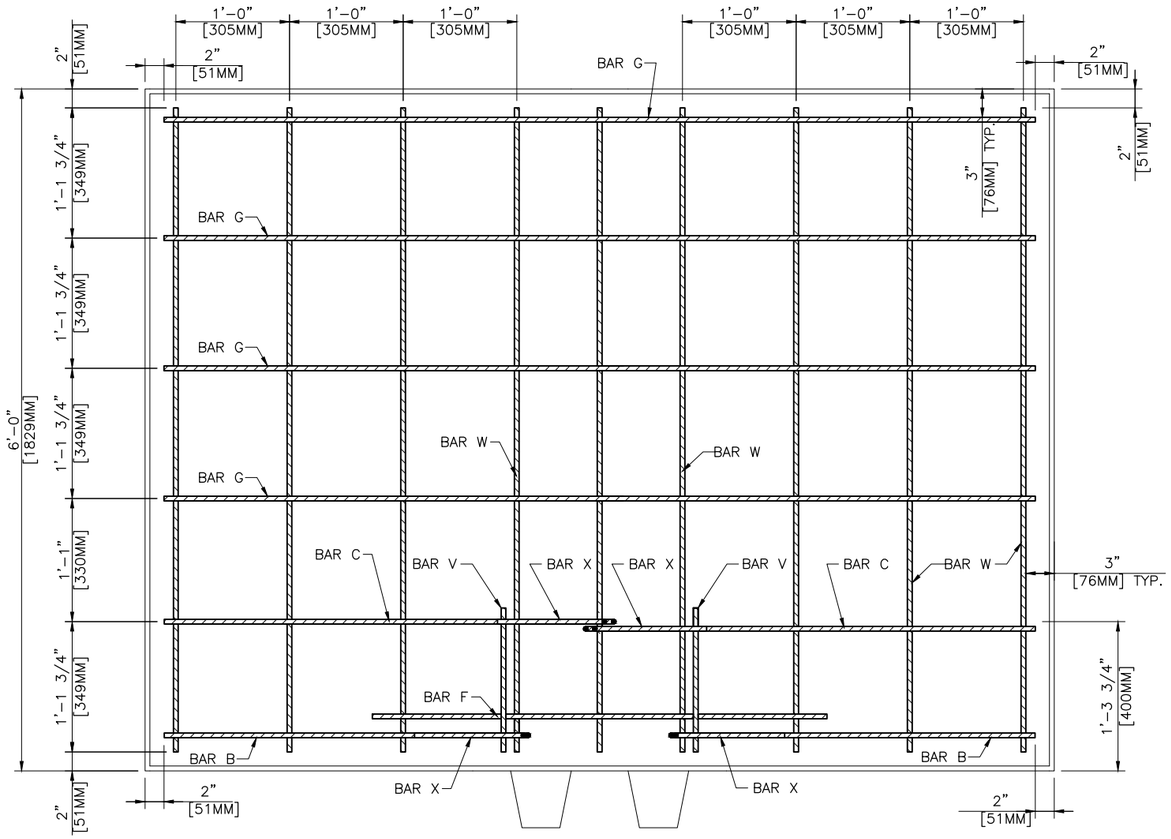
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 61 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:05 PM



FRONT VIEW

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR SHOWN TO BE 60 KSI #4.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

TOP UNIT

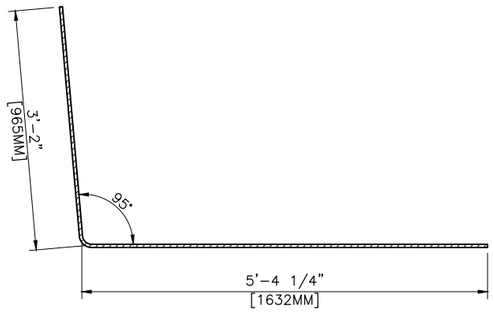
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

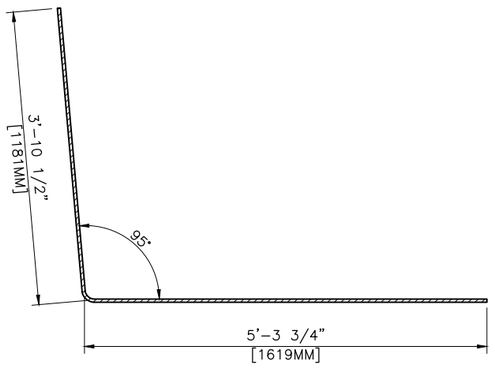
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
62 OF 97

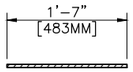
GRAVIX 6-6-2018.dwg
6/6/2018 2:05 PM



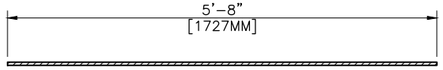
REINFORCEMENT BAR B
2 REQUIRED
SCALE: 1" = 1'-0"



REINFORCEMENT BAR C
2 REQUIRED
SCALE: 1" = 1'-0"

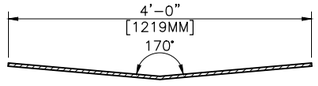


REINFORCEMENT BAR D
7 REQUIRED
SCALE: 1" = 1'-0"

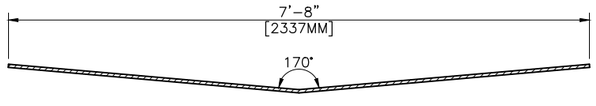


REINFORCEMENT BAR W
9 REQUIRED
SCALE: 1" = 1'-0"

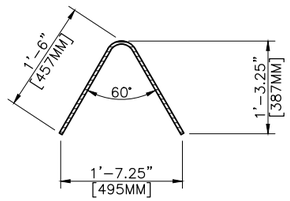
NOTE:
BAR E SHOULD NOT BE USED AND ONLY TWO G BARS ARE REQUIRED.



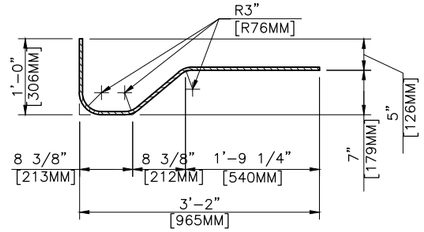
REINFORCEMENT BAR F
1 REQUIRED
SCALE: 1" = 1'-0"



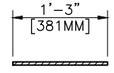
REINFORCEMENT BAR G
4 REQUIRED
SCALE: 1" = 1'-0"



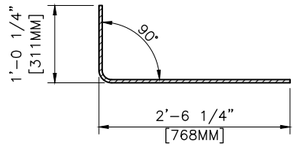
REINFORCEMENT BAR I
6 REQUIRED
SCALE: 1" = 1'-0"



REINFORCEMENT BAR H2
2 REQUIRED
SCALE: 1" = 1'-0"



REINFORCEMENT BAR V
8 REQUIRED
SCALE: 1" = 1'-0"



REINFORCEMENT BAR X
4 REQUIRED
SCALE: 1" = 1'-0"

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR TO BE 60 KSI #4

GRAVIX 6-6-2018.dwg
6/6/2018 2:05 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

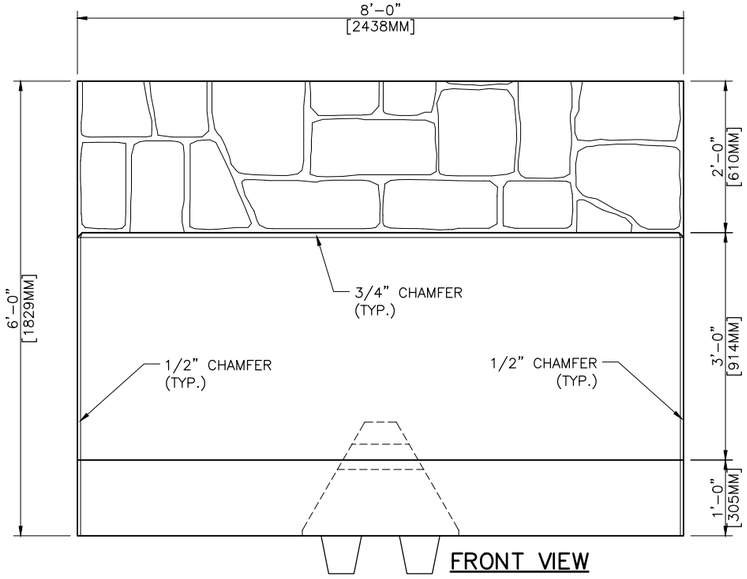
TOP UNIT

REBAR DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

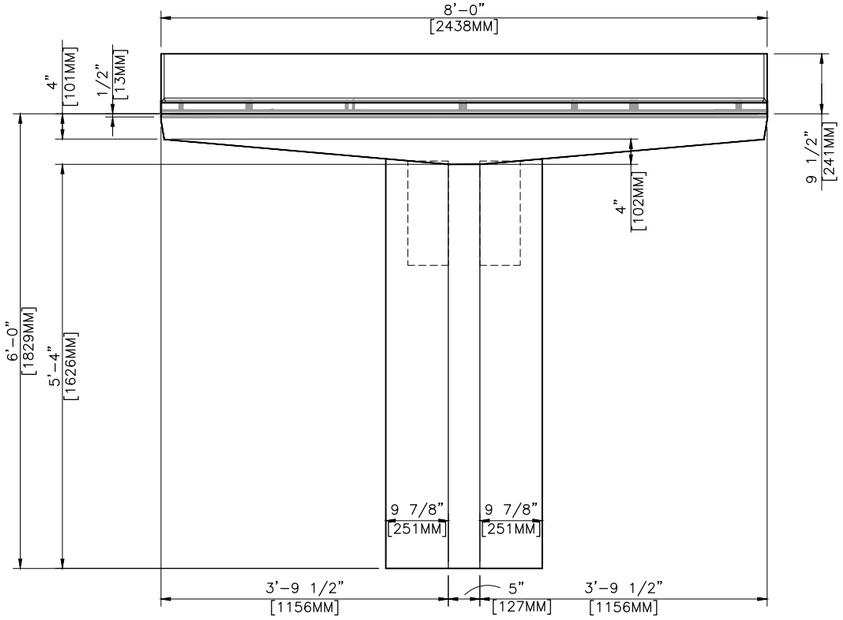
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
63 OF 97



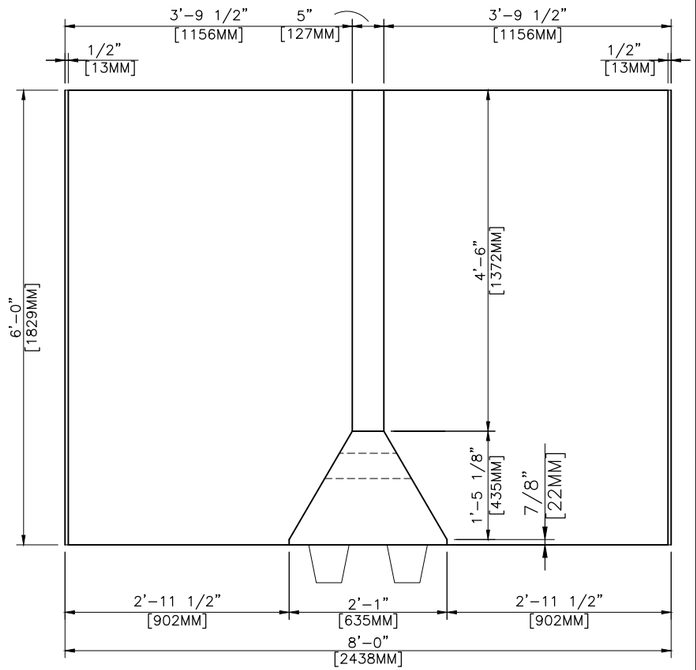
FRONT VIEW

SCALE: 1" = 1'-0"



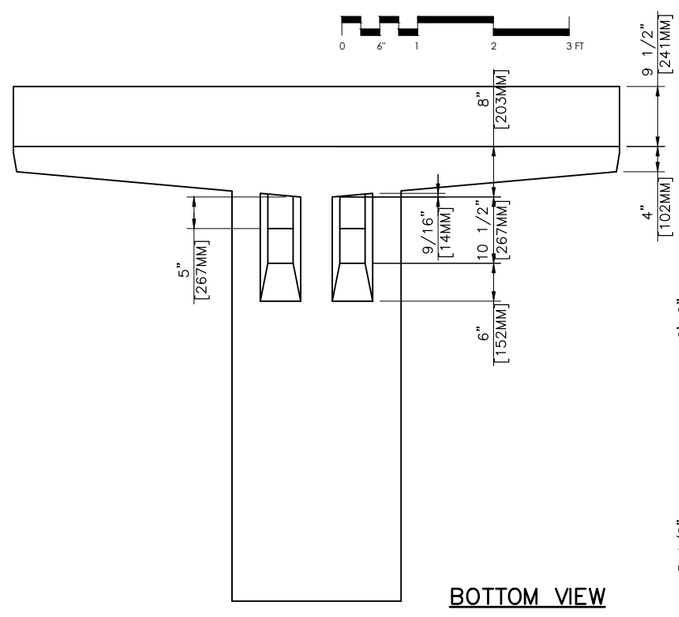
TOP VIEW

SCALE: 1" = 1'-0"



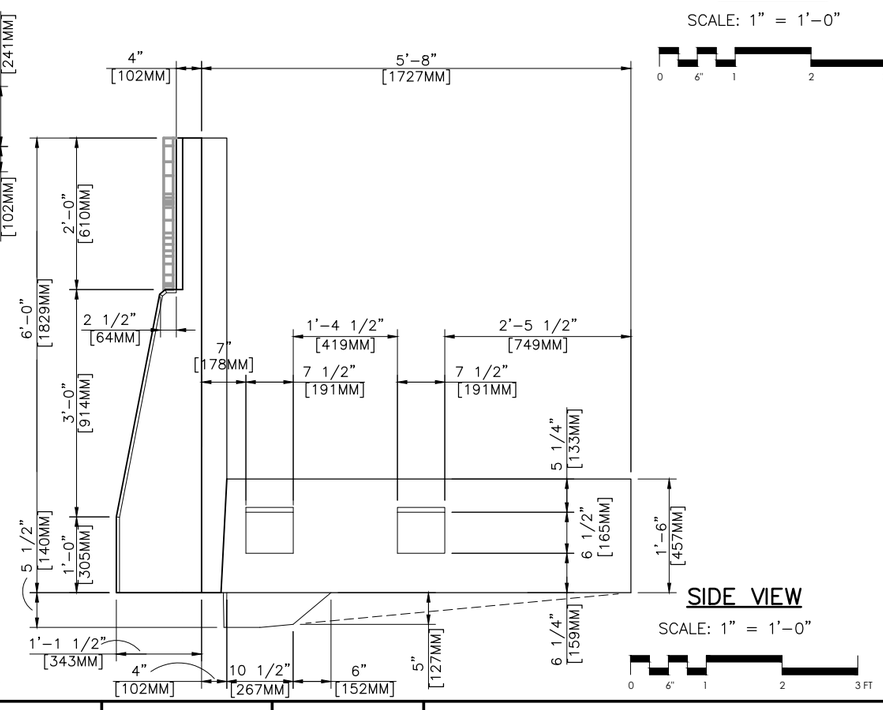
REAR VIEW

SCALE: 1" = 1'-0"



BOTTOM VIEW

SCALE: 1" = 1'-0"



SIDE VIEW

SCALE: 1" = 1'-0"

NOTE:
PARAPET FACE HEIGHT DIMENSIONS OF FACE PANEL WILL VARY PER PARAPET SCHEDULE. SEE SHEET 7 OF 35.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

TOP UNIT WITH BARRIER FACE

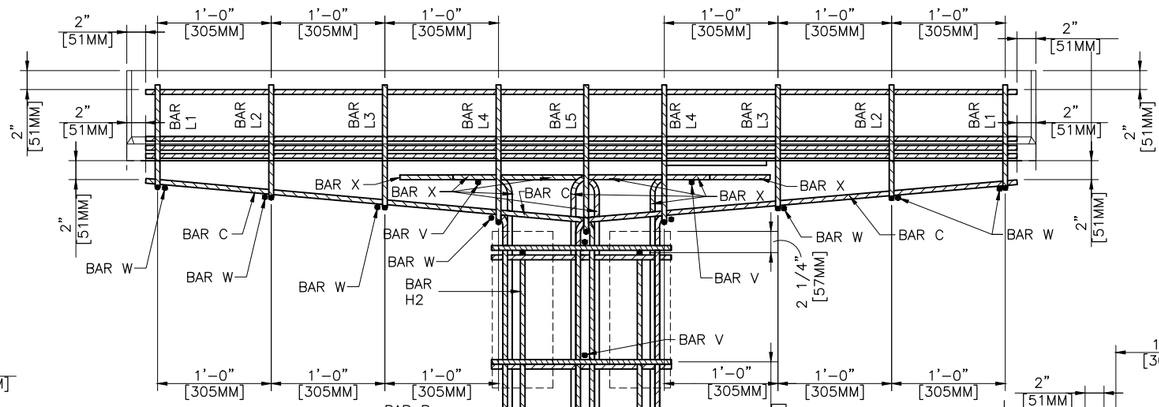
DIMENSIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

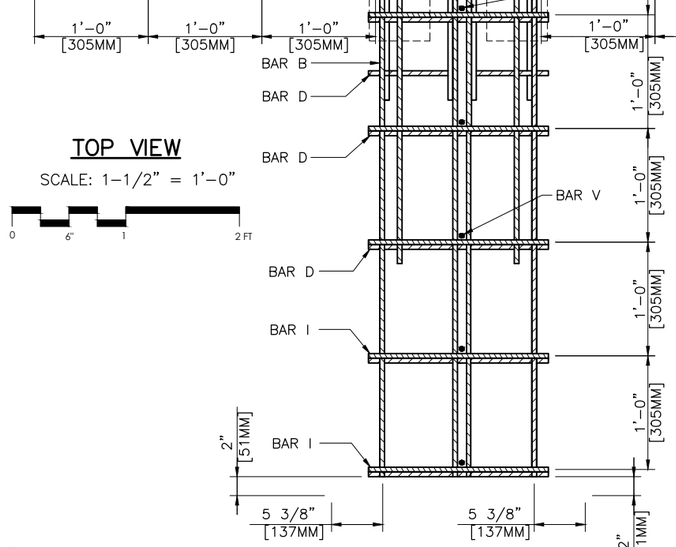
SHEET NUMBER
64 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:05 PM



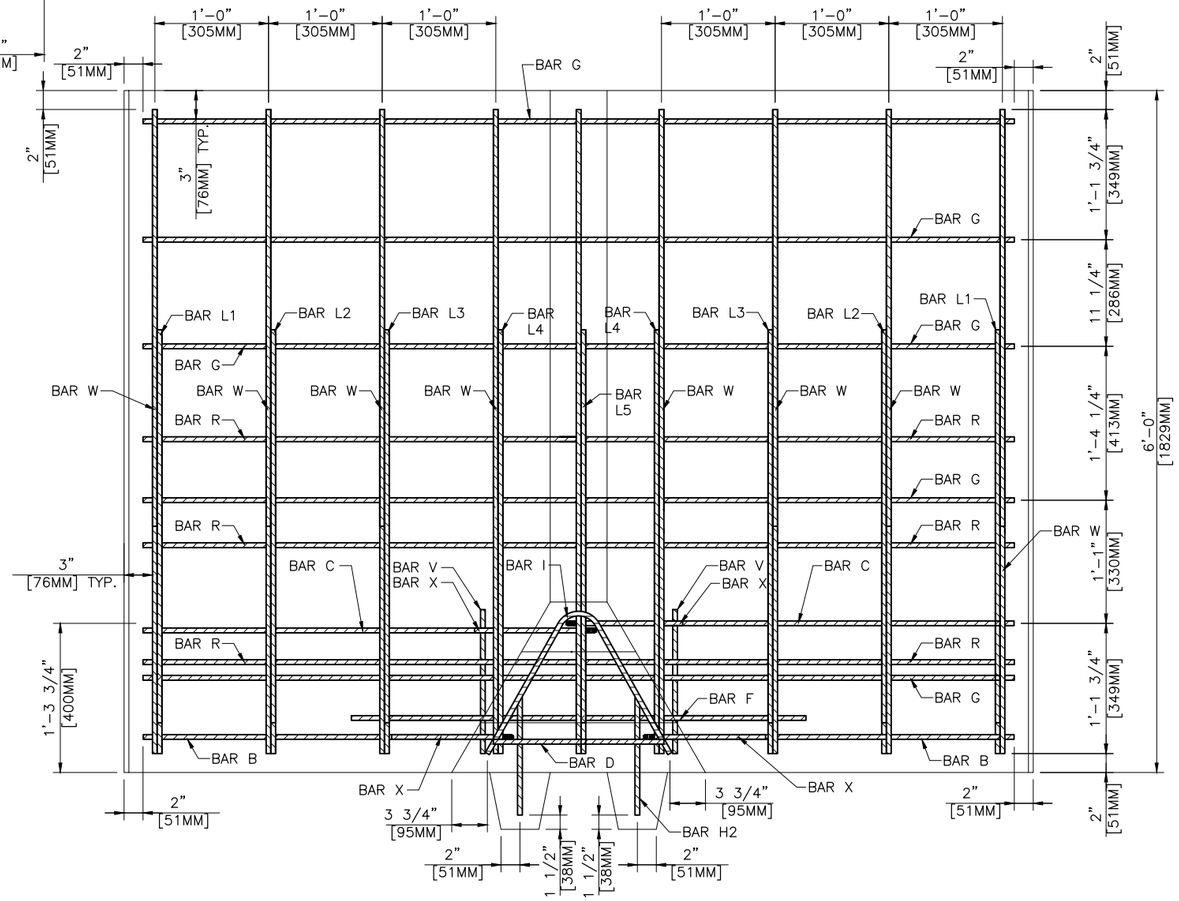
TOP VIEW

SCALE: 1-1/2" = 1'-0"



STEM SIDE VIEW

SCALE: 1-1/2" = 1'-0"



REAR VIEW

SCALE: 1-1/2" = 1'-0"

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR SHOWN TO BE 60 KSI #4.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

TOP UNIT WITH BARRIER FACE

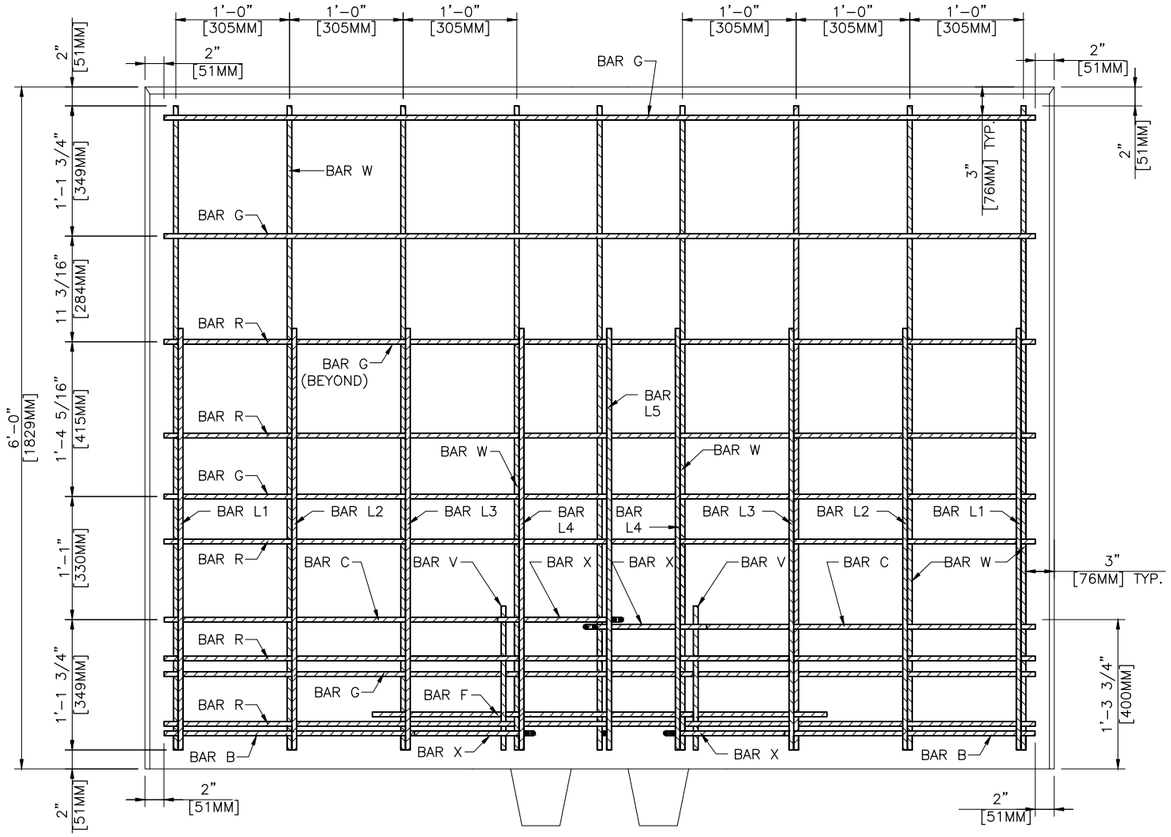
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
65 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:05 PM



FRONT VIEW

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR SHOWN TO BE 60 KSI #4.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

TOP UNIT WITH BARRIER FACE

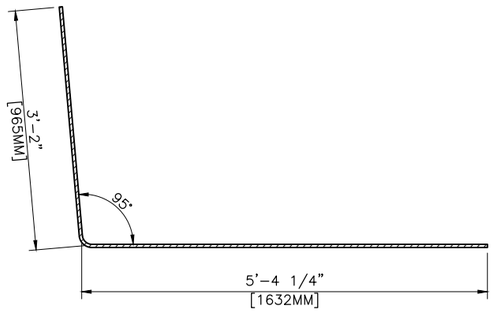
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

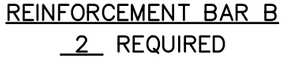
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

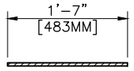
SHEET NUMBER
66 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:05 PM

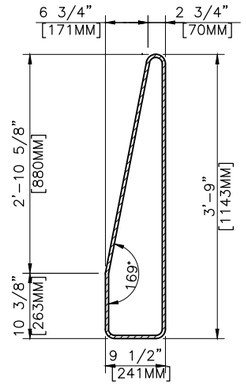


REINFORCEMENT BAR B
2 REQUIRED
SCALE: 1" = 1'-0"

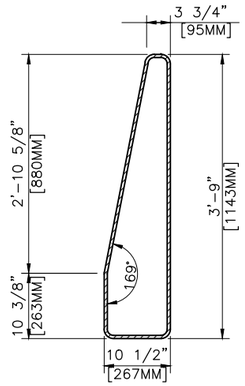




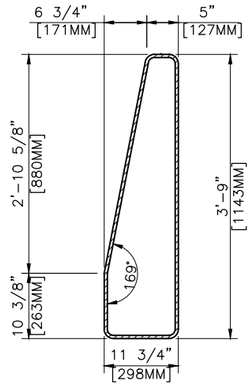
REINFORCEMENT BAR D
7 REQUIRED
SCALE: 1" = 1'-0"



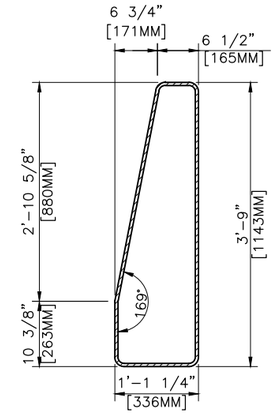
REINFORCEMENT BAR L1
2 REQUIRED
SCALE: 1" = 1'-0"



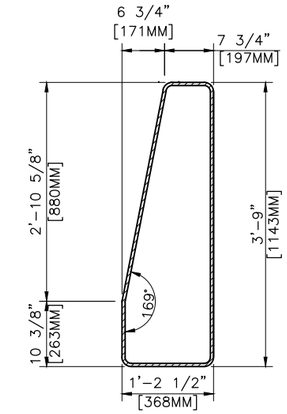
REINFORCEMENT BAR L2
2 REQUIRED
SCALE: 1" = 1'-0"



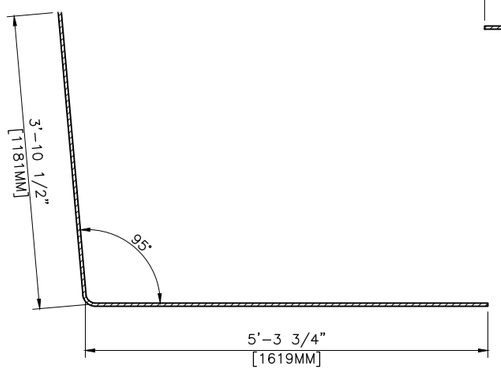
REINFORCEMENT BAR L3
2 REQUIRED
SCALE: 1" = 1'-0"



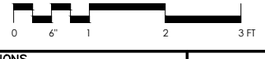
REINFORCEMENT BAR L4
2 REQUIRED
SCALE: 1" = 1'-0"



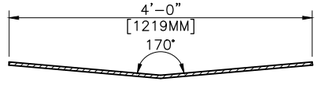
REINFORCEMENT BAR L5
1 REQUIRED
SCALE: 1" = 1'-0"



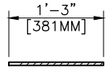
REINFORCEMENT BAR C
2 REQUIRED
SCALE: 1" = 1'-0"



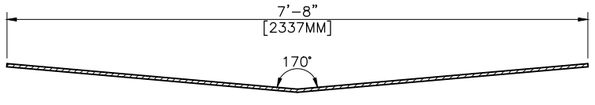
REINFORCEMENT BAR W
9 REQUIRED
SCALE: 1" = 1'-0"



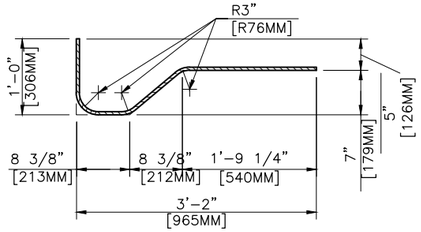
REINFORCEMENT BAR F
1 REQUIRED
SCALE: 1" = 1'-0"



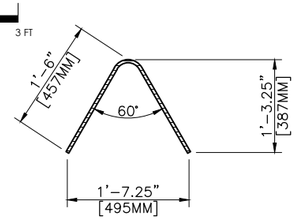
REINFORCEMENT BAR V
8 REQUIRED
SCALE: 1" = 1'-0"



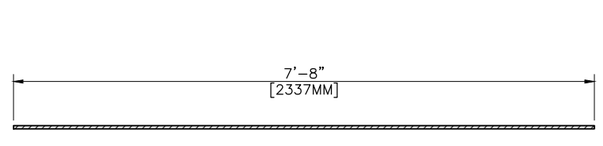
REINFORCEMENT BAR G
6 REQUIRED
SCALE: 1" = 1'-0"



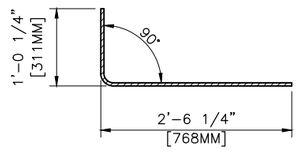
REINFORCEMENT BAR H2
2 REQUIRED
SCALE: 1" = 1'-0"



REINFORCEMENT BAR I
6 REQUIRED
SCALE: 1" = 1'-0"



REINFORCEMENT BAR R
5 REQUIRED
SCALE: 1" = 1'-0"



REINFORCEMENT BAR X
4 REQUIRED
SCALE: 1" = 1'-0"

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR TO BE 60 KSI #4

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

TOP UNIT WITH BARRIER FACE

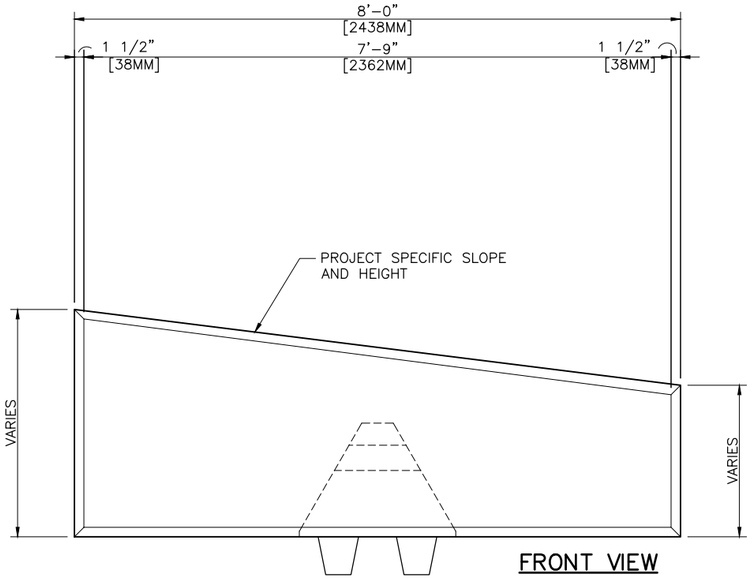
REBAR DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

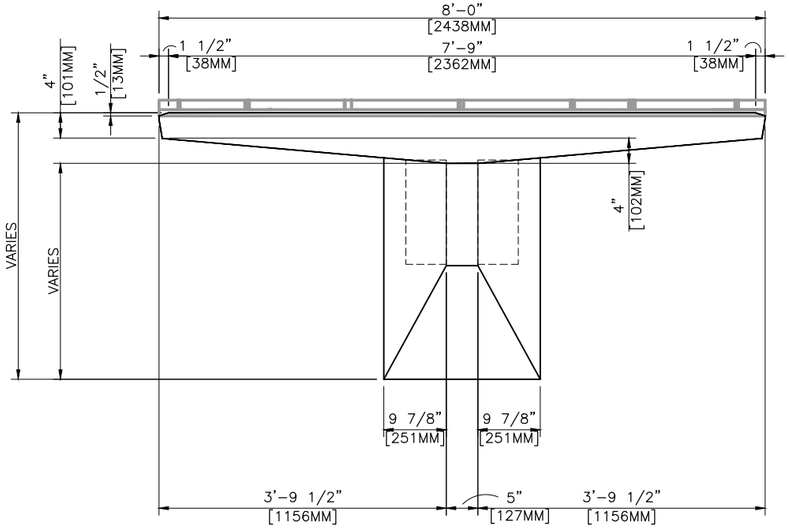
SHEET NUMBER
67 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:05 PM



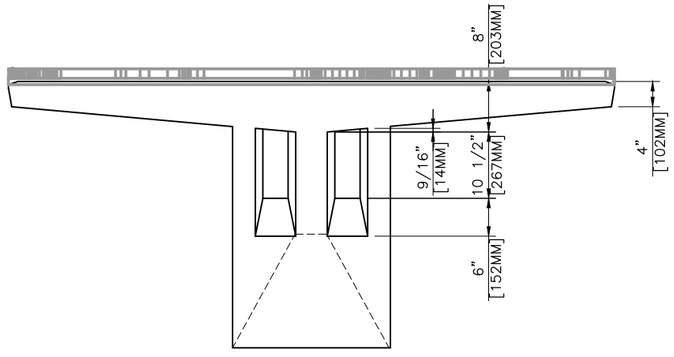
FRONT VIEW

SCALE: 1" = 1'-0"



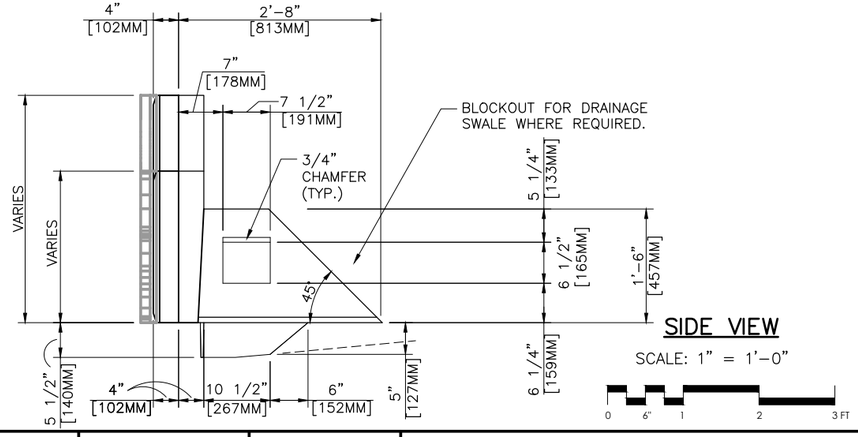
TOP VIEW

SCALE: 1" = 1'-0"



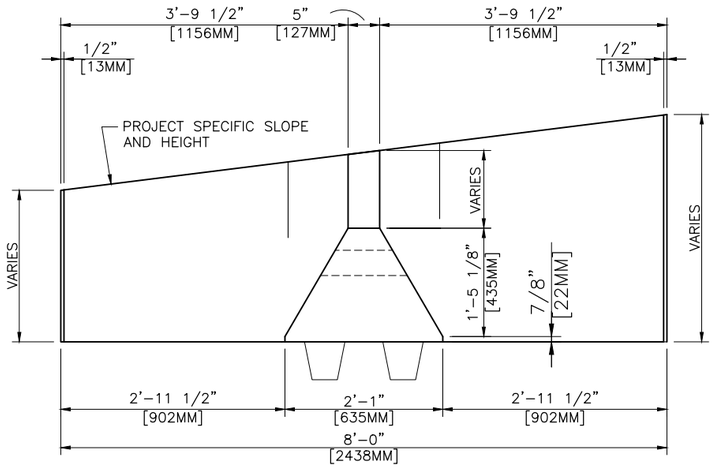
BOTTOM VIEW

SCALE: 1" = 1'-0"



SIDE VIEW

SCALE: 1" = 1'-0"



REAR VIEW

SCALE: 1" = 1'-0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX

DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

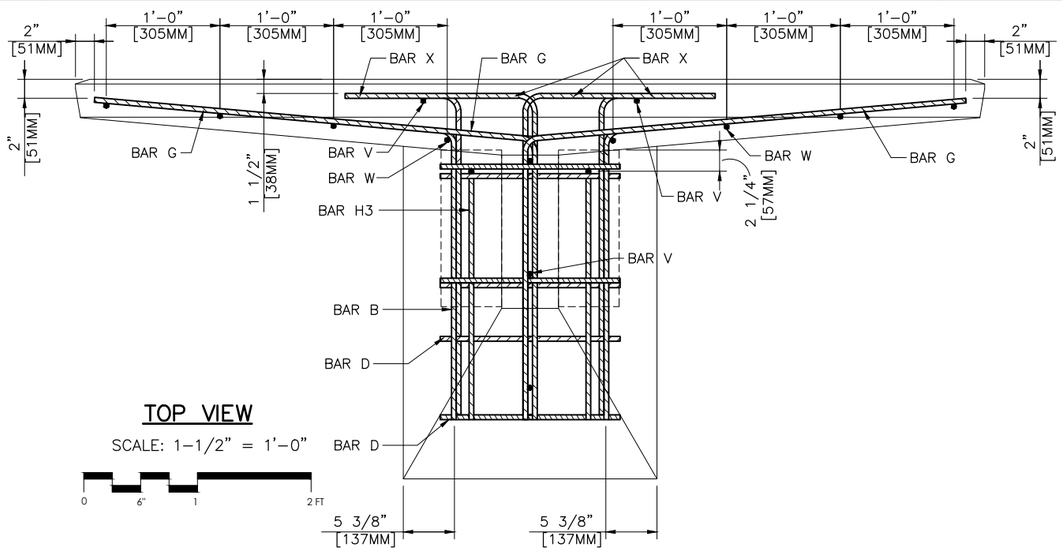
TOP UNIT LESS THEN 2' HEIGHT WITH DRAINAGE SWALE DIMENSIONS

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

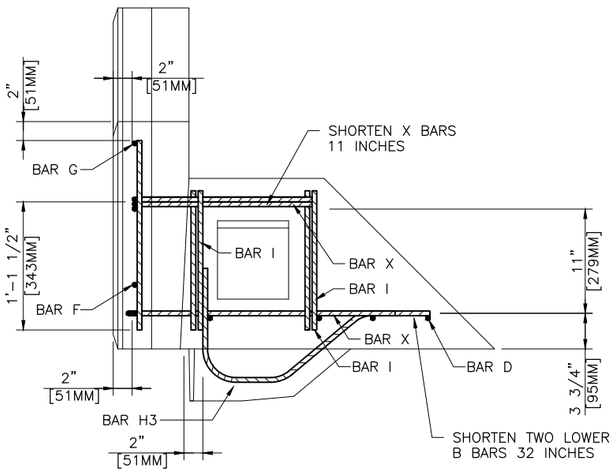
SHEET NUMBER
68 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:05 PM



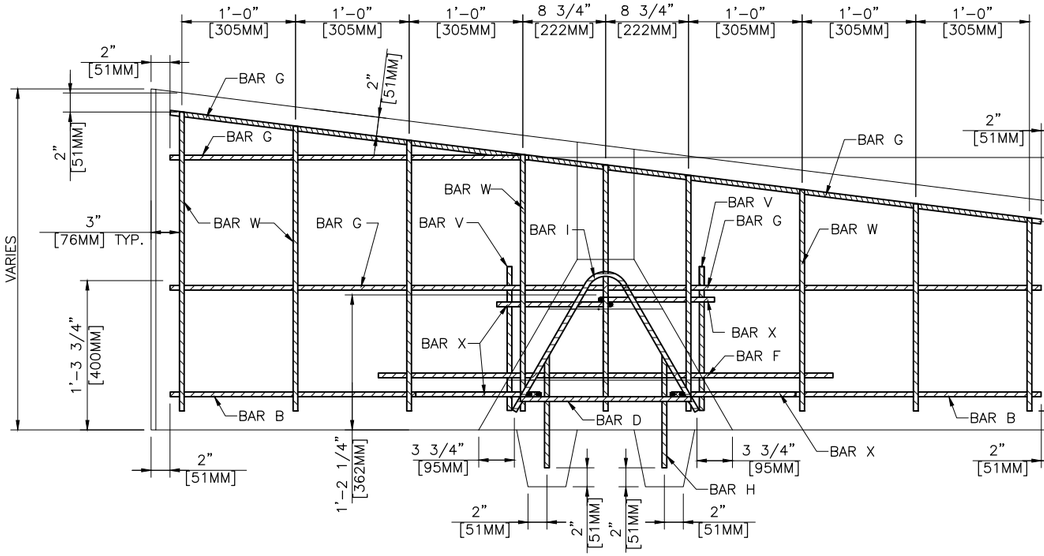
TOP VIEW

SCALE: 1-1/2" = 1'-0"



SIDE VIEW

SCALE: 1-1/2" = 1'-0"



REAR VIEW

SCALE: 1-1/2" = 1'-0"

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR SHOWN TO BE 60 KSI #4.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

TOP UNIT LESS THAN 2' HEIGHT WITH DRAINAGE SWALE REINFORCEMENT LAYOUT

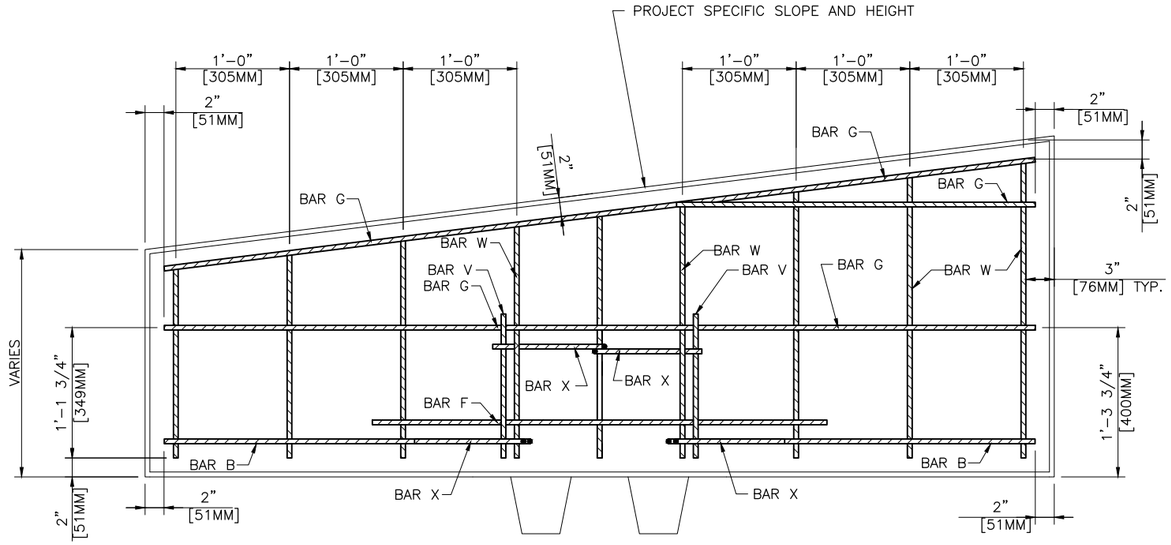
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
69 OF 97

6/6/2018 2:06 PM GRAVIX 6-6-2018.dwg

THIS SHEET PLOTS ON 22" x 34" ANSI D



FRONT VIEW

SCALE: 1–1/2" = 1'–0"

0 6" 1 2 FT

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR SHOWN TO BE 60 KSI #4.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

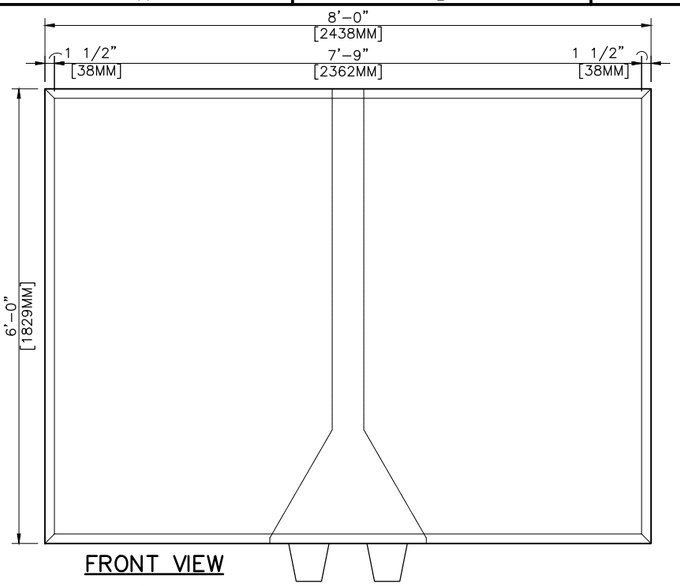
TOP UNIT LESS THAN 2' HEIGHT WITH DRAINAGE SWALE REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

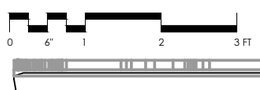
SHEET NUMBER
70 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:06 PM



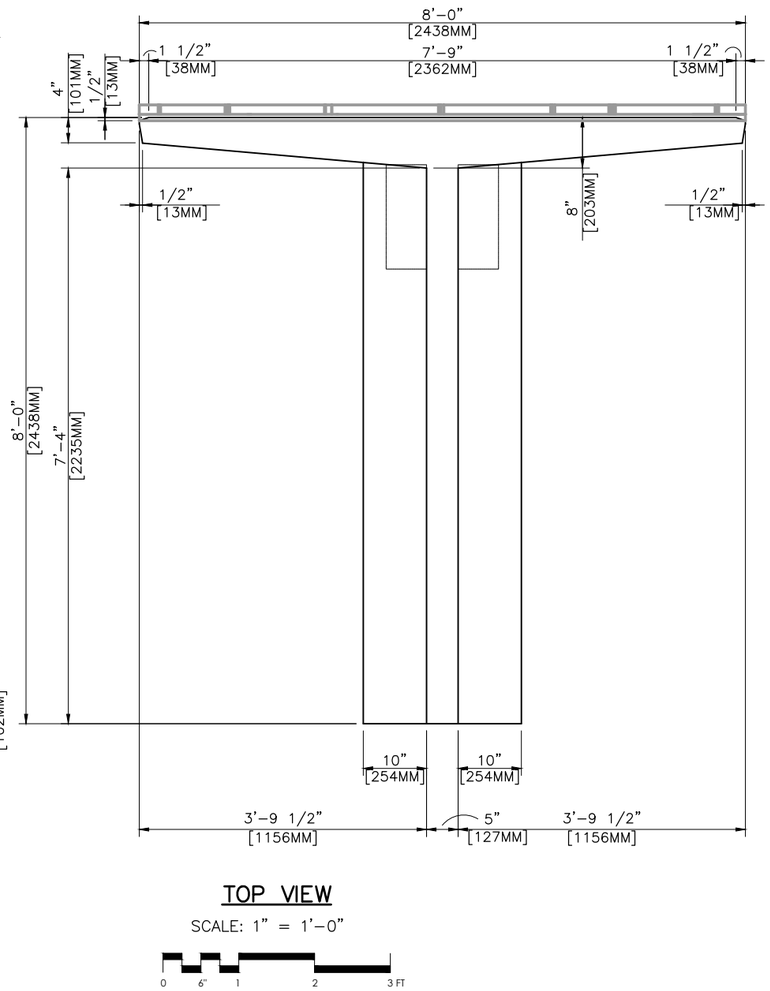
FRONT VIEW

SCALE: 1" = 1'-0"



BOTTOM VIEW

SCALE: 1" = 1'-0"

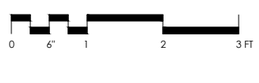


TOP VIEW

SCALE: 1" = 1'-0"

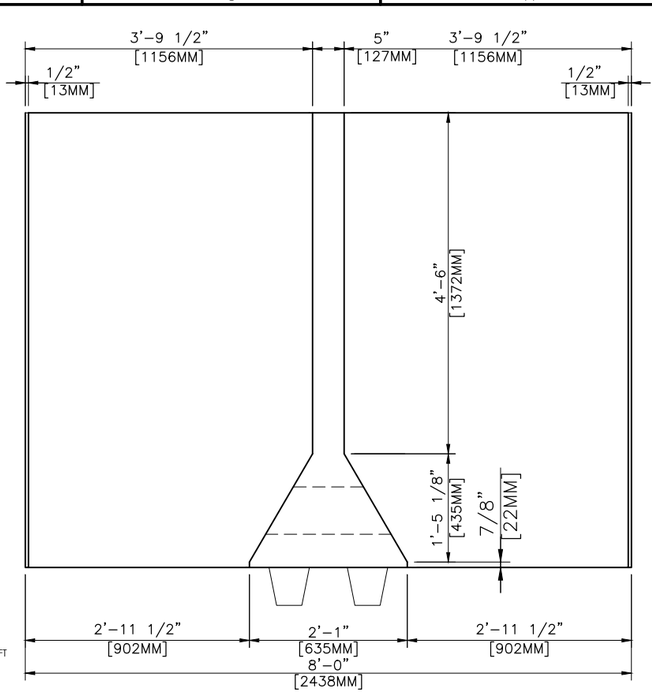
SIDE VIEW

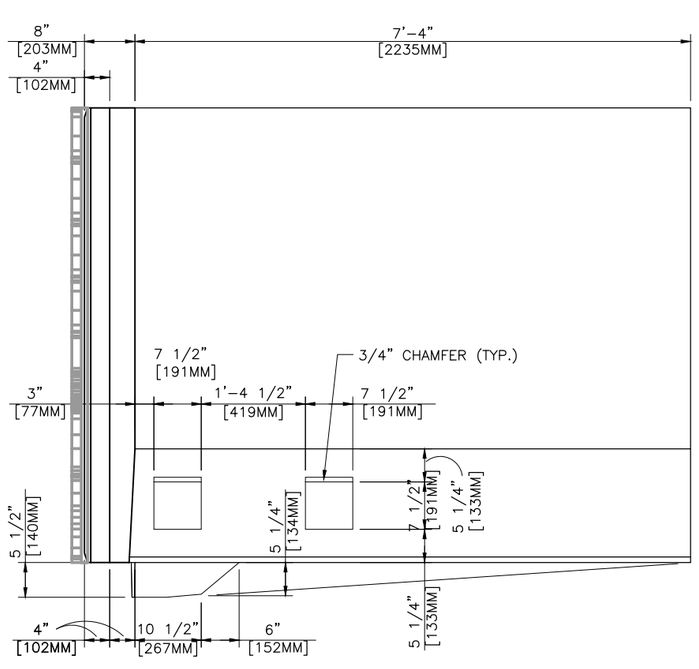
SCALE: 1" = 1'-0"



REAR VIEW

SCALE: 1" = 1'-0"





REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

LEVELING UNIT - 6 FT HEIGHT

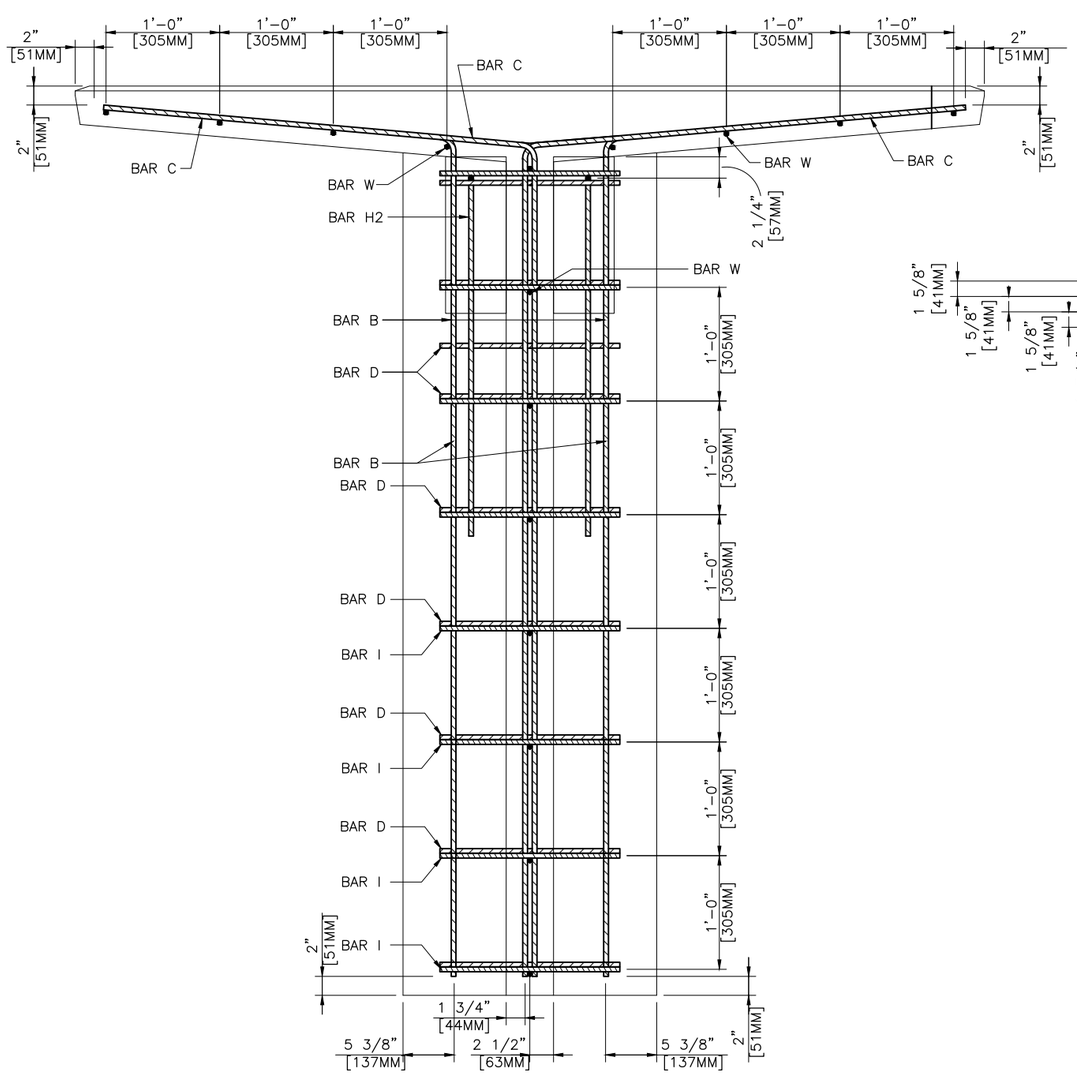
DIMENSIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
70 OF 97

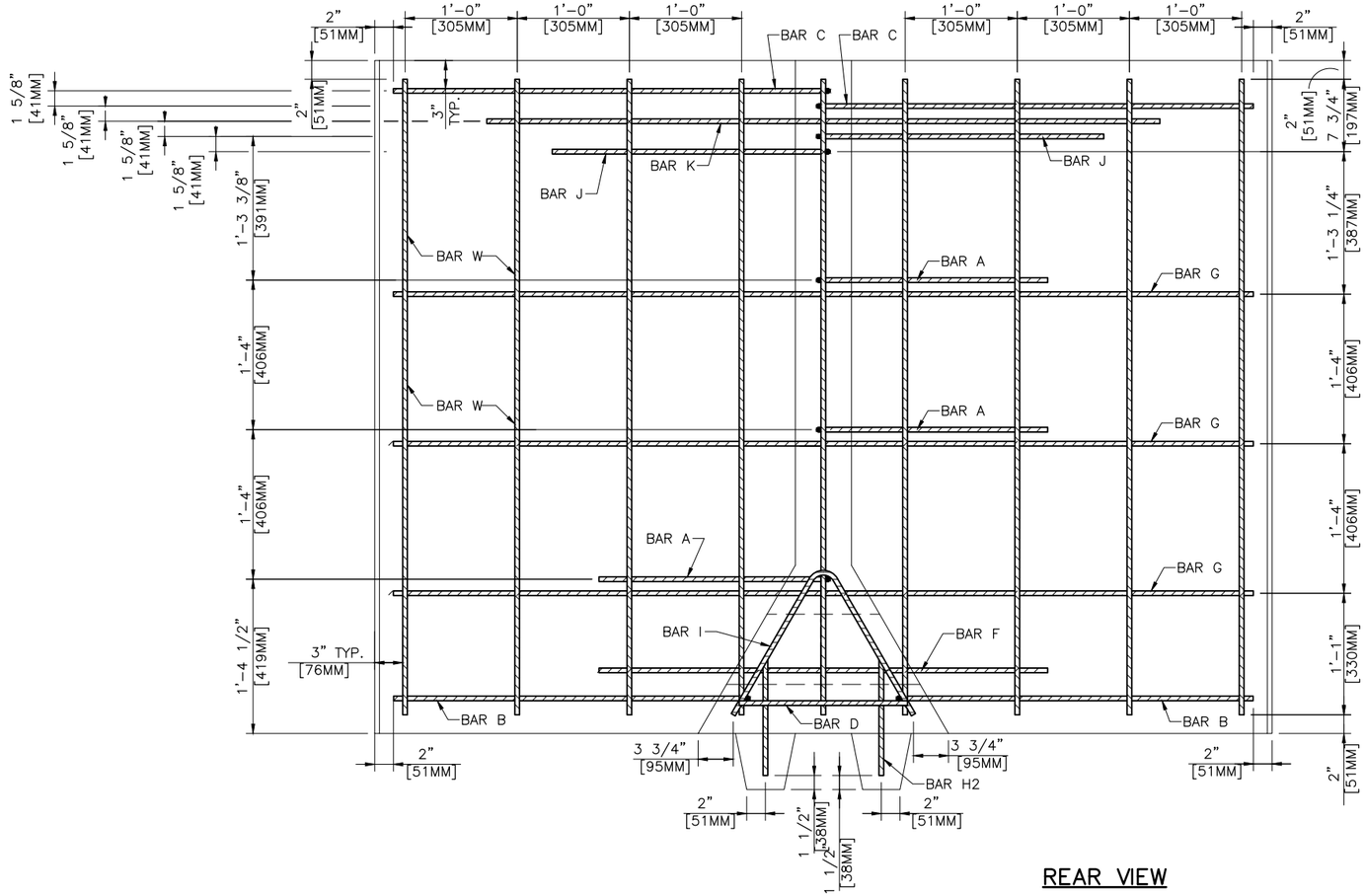
GRAVIX 6-6-2018.dwg
6/6/2018 2:06 PM



TOP VIEW

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT



REAR VIEW

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT

NOTE:

1. ALL REBAR SHOWN ARE #4 60 KSI.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

LEVELING UNIT - 6 FT HEIGHT

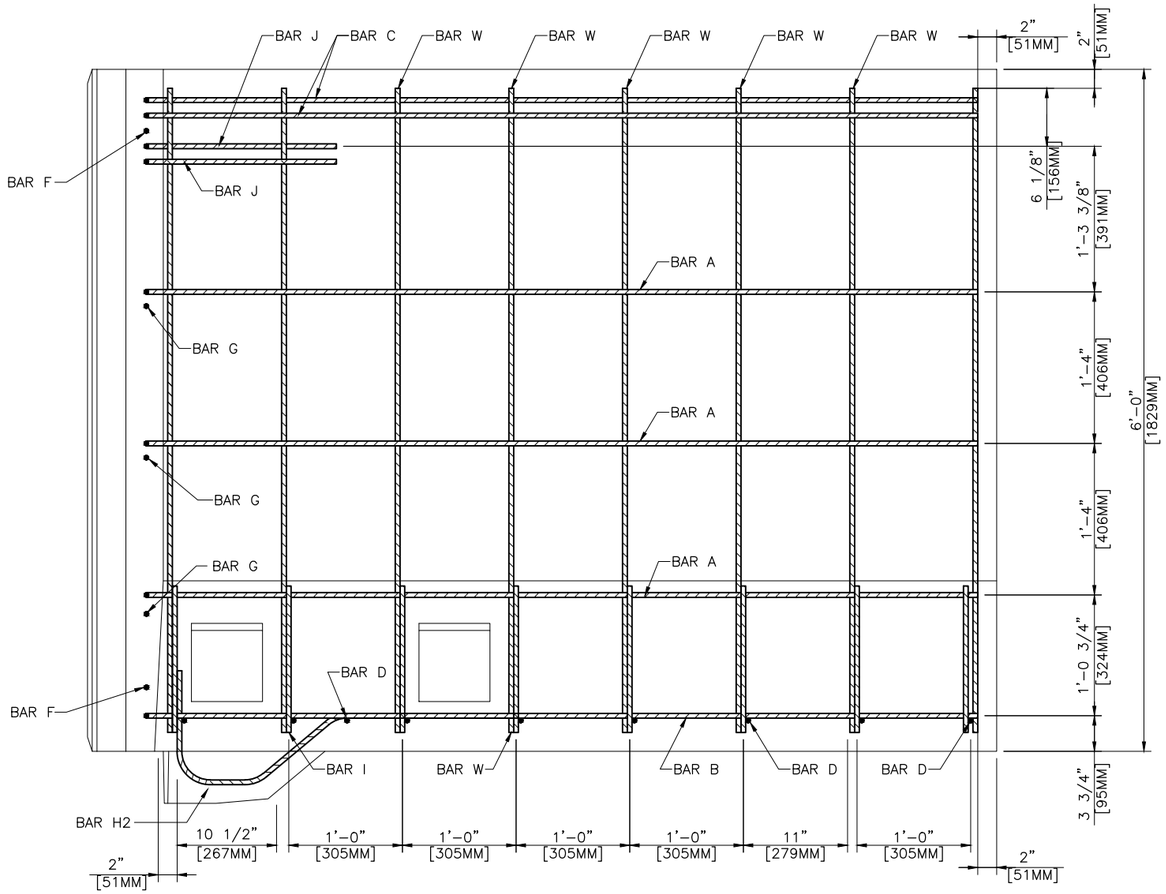
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 71 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:06 PM



SIDE VIEW

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT

NOTE:
1. ALL REBAR SHOWN ARE #4 60 KSI.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

LEVELING UNIT - 6 FT HEIGHT

REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

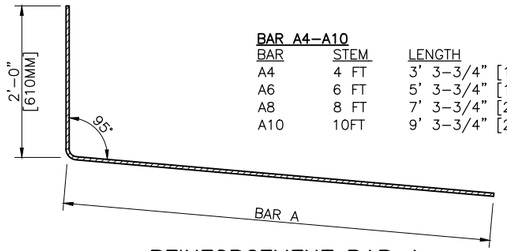
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
72 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:06 PM

GRAVIX 6-6-2018.dwg

6/6/2018 2:06 PM



BAR A4–A10

BAR	STEM	LENGTH
A4	4 FT	3' 3–3/4" [1010MM]
A6	6 FT	5' 3–3/4" [1619MM]
A8	8 FT	7' 3–3/4" [2229MM]
A10	10FT	9' 3–3/4" [2838MM]

REINFORCEMENT BAR A
3 REQUIRED

SCALE: 1" = 1'–0"

BAR B4–B10

BAR	STEM	LENGTH
B4	4 FT	3' 4–1/4" [1022MM]
B6	6 FT	5' 4–1/4" [1632MM]
B8	8 FT	7' 4–1/4" [2241MM]
B10	10FT	9' 4–1/4" [2851MM]

REINFORCEMENT BAR B
2 REQUIRED

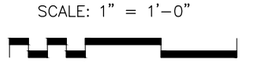
SCALE: 1" = 1'–0"

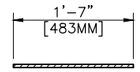
BAR C4–C10

BAR	STEM	LENGTH
C4	4 FT	3' 3–3/4" [1010MM]
C6	6 FT	5' 3–3/4" [1619MM]
C8	8 FT	7' 3–3/4" [2229MM]
C10	10FT	9' 3–3/4" [2838MM]

REINFORCEMENT BAR C
2 REQUIRED

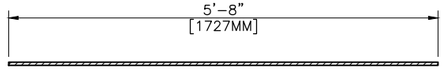
SCALE: 1" = 1'–0"





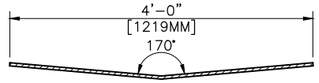
REINFORCEMENT BAR D
7 REQUIRED

SCALE: 1" = 1'–0"



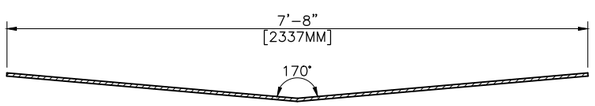
REINFORCEMENT BAR W
14 REQUIRED

SCALE: 1" = 1'–0"



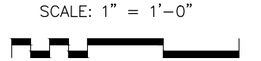
REINFORCEMENT BAR F
1 REQUIRED

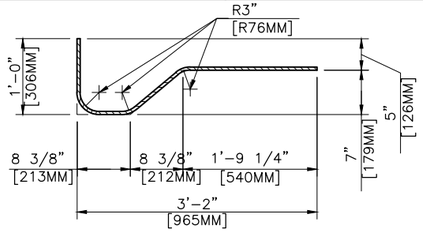
SCALE: 1" = 1'–0"



REINFORCEMENT BAR G
3 REQUIRED

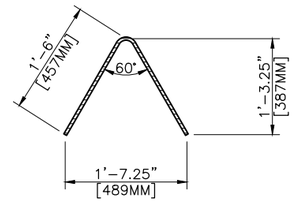
SCALE: 1" = 1'–0"





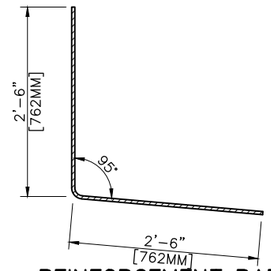
REINFORCEMENT BAR H2
2 REQUIRED

SCALE: 1" = 1'–0"



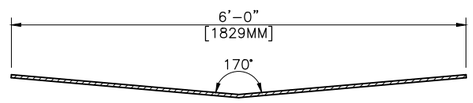
REINFORCEMENT BAR I
6 REQUIRED

SCALE: 1" = 1'–0"



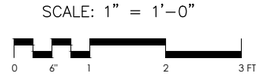
REINFORCEMENT BAR J
2 REQUIRED

SCALE: 1" = 1'–0"



REINFORCEMENT BAR K
1 REQUIRED

SCALE: 1" = 1'–0"



REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR TO BE 60 KSI #4

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

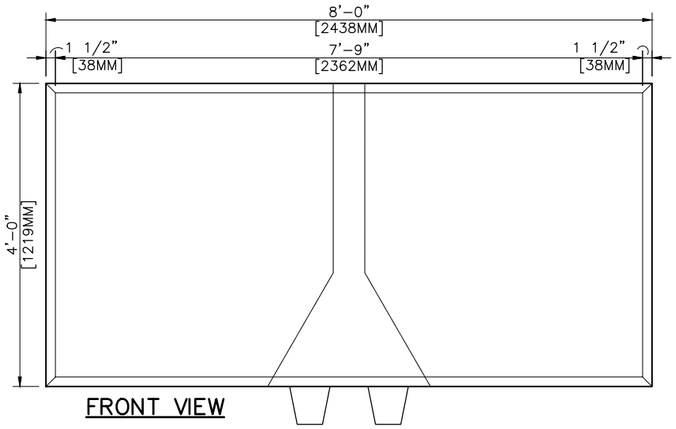
LEVELING UNIT - 6 FT HEIGHT

REBAR DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
73 OF 97

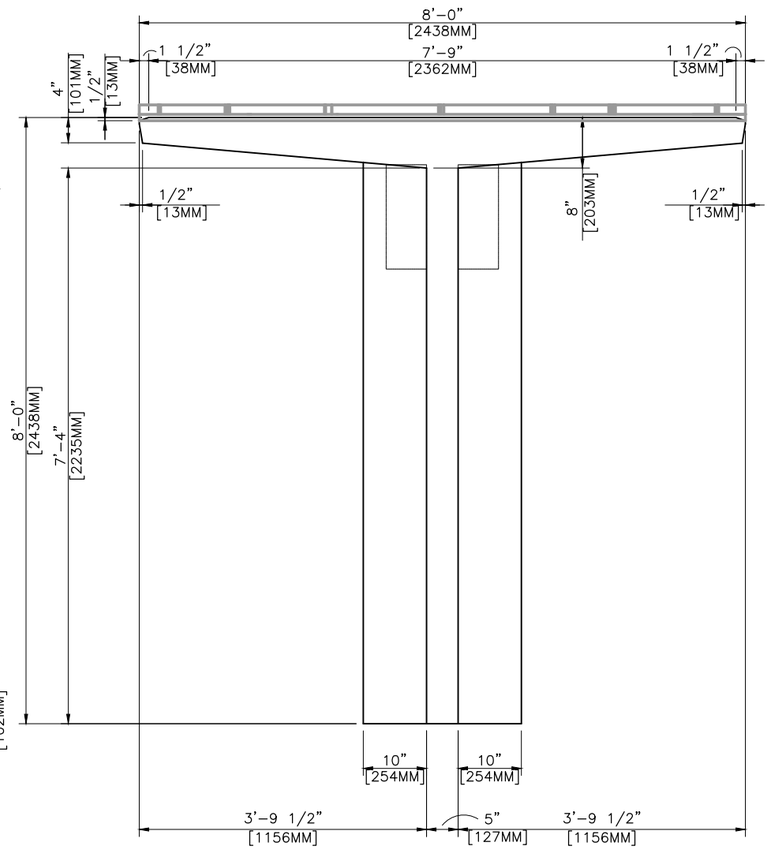


FRONT VIEW

SCALE: 1" = 1'-0"

BOTTOM VIEW

SCALE: 1" = 1'-0"



TOP VIEW

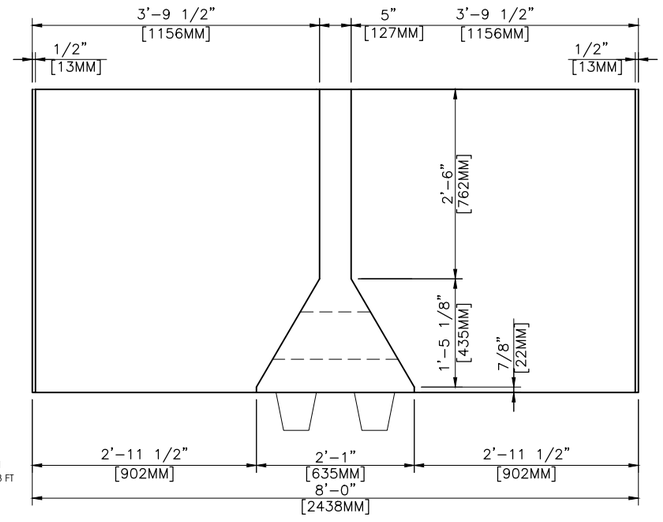
SCALE: 1" = 1'-0"

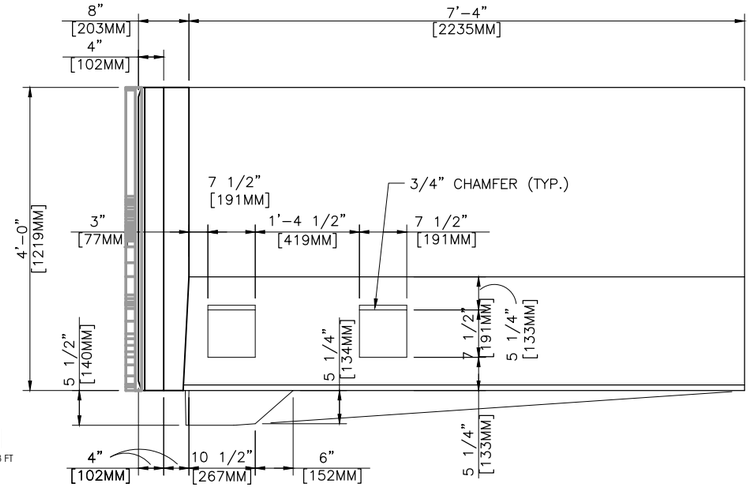
SIDE VIEW

SCALE: 1" = 1'-0"

REAR VIEW

SCALE: 1" = 1'-0"





REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

LEVELING UNIT - 4 FT HEIGHT

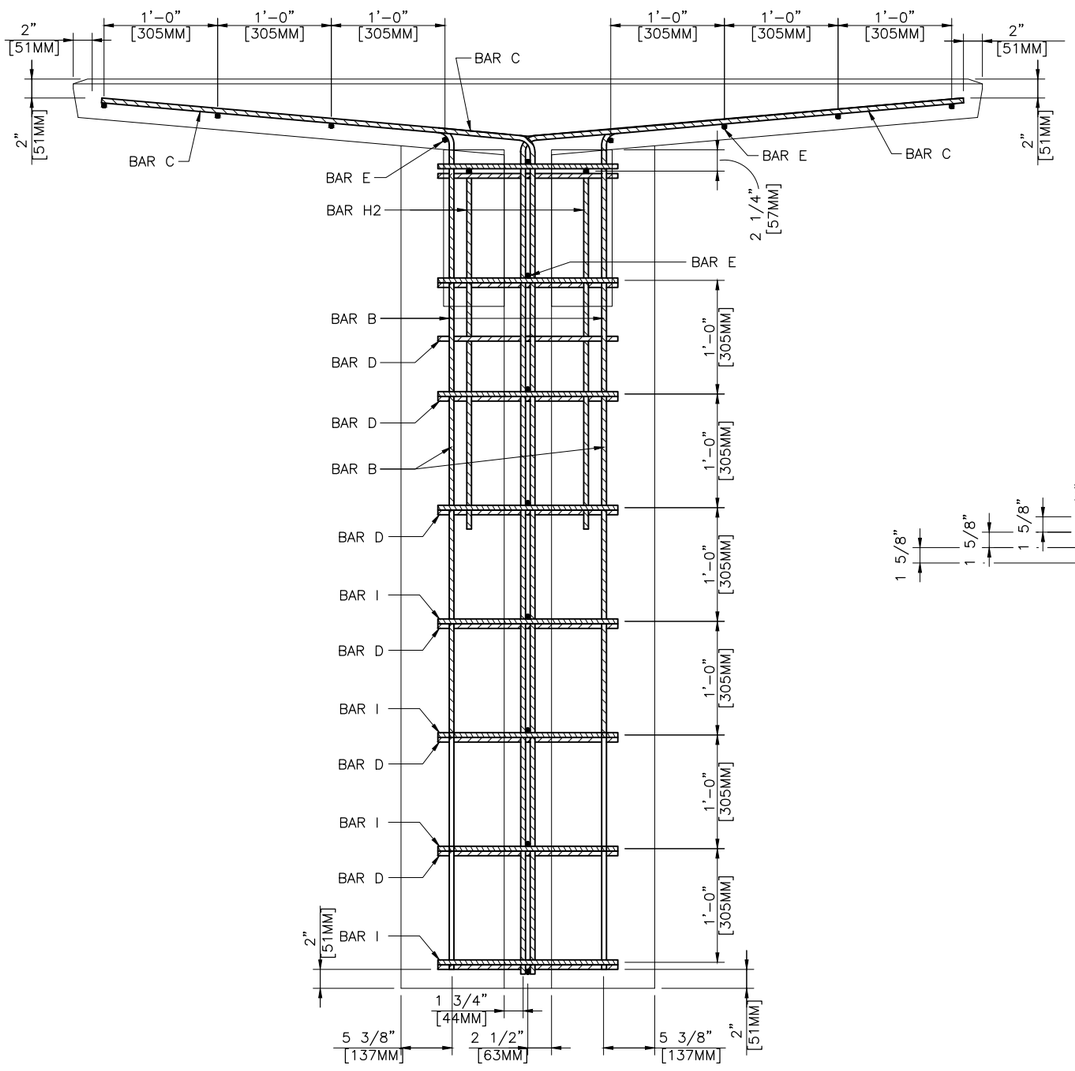
DIMENSIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
74 OF 97

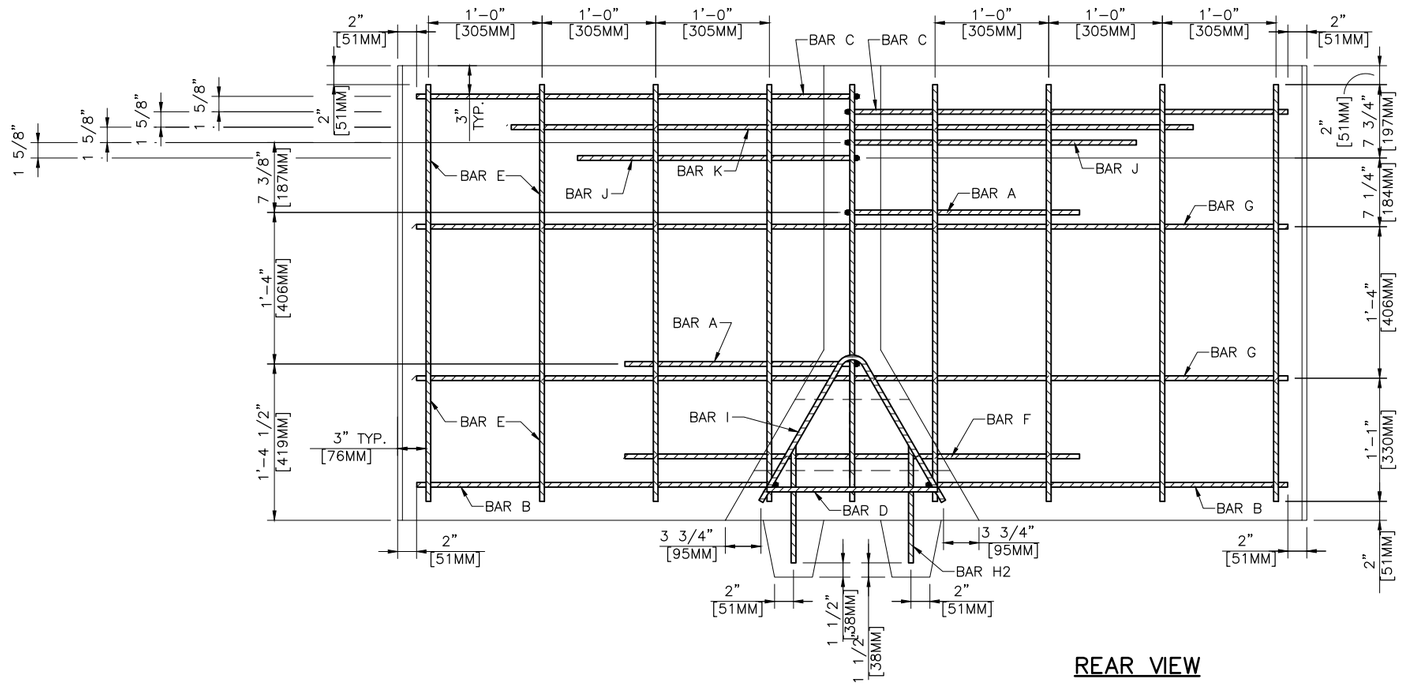
GRAVIX 6-6-2018.dwg
6/6/2018 2:06 PM



TOP VIEW

SCALE: 1–1/2" = 1'–0"

0 6" 1 2 FT



REAR VIEW

SCALE: 1–1/2" = 1'–0"

0 6" 1 2 FT

NOTE:

1. ALL REBAR SHOWN ARE #4 60 KSI.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

LEVELING UNIT - 4 FT HEIGHT

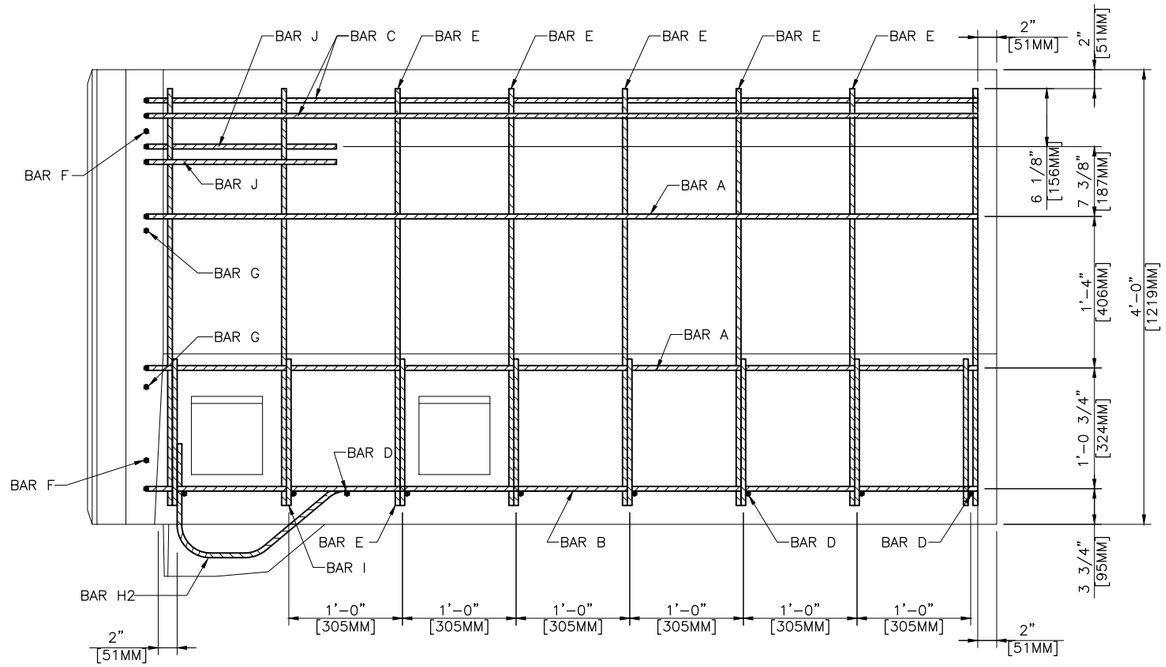
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 75 OF 97

GRAVIX 6–6–2018.dwg
6/6/2018 2:06 PM



SIDE VIEW

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT

NOTE:
1. ALL REBAR SHOWN ARE #4 60 KSI.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

LEVELING UNIT - 4 FT HEIGHT

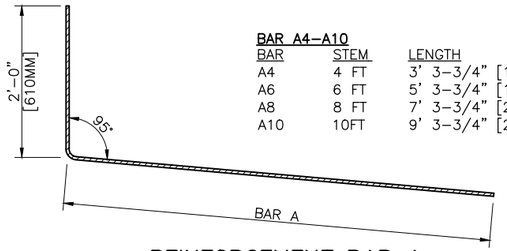
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
76 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:06 PM



BAR A4–A10

BAR	STEM	LENGTH
A4	4 FT	3' 3–3/4" [1010MM]
A6	6 FT	5' 3–3/4" [1619MM]
A8	8 FT	7' 3–3/4" [2229MM]
A10	10FT	9' 3–3/4" [2838MM]

REINFORCEMENT BAR A
2 REQUIRED

SCALE: 1" = 1'–0"

BAR B4–B10

BAR	STEM	LENGTH
B4	4 FT	3' 4–1/4" [1022MM]
B6	6 FT	5' 4–1/4" [1632MM]
B8	8 FT	7' 4–1/4" [2241MM]
B10	10FT	9' 4–1/4" [2851MM]

REINFORCEMENT BAR B
2 REQUIRED

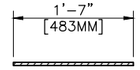
SCALE: 1" = 1'–0"

BAR C4–C10

BAR	STEM	LENGTH
C4	4 FT	3' 3–3/4" [1010MM]
C6	6 FT	5' 3–3/4" [1619MM]
C8	8 FT	7' 3–3/4" [2229MM]
C10	10FT	9' 3–3/4" [2838MM]

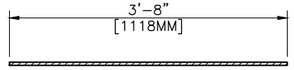
REINFORCEMENT BAR C
2 REQUIRED

SCALE: 1" = 1'–0"



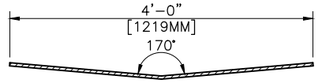
REINFORCEMENT BAR D
7 REQUIRED

SCALE: 1" = 1'–0"



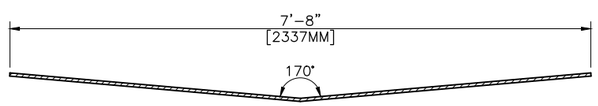
REINFORCEMENT BAR E
14 REQUIRED

SCALE: 1" = 1'–0"



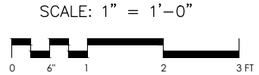
REINFORCEMENT BAR F
1 REQUIRED

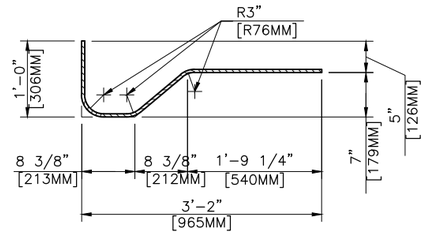
SCALE: 1" = 1'–0"



REINFORCEMENT BAR G
3 REQUIRED

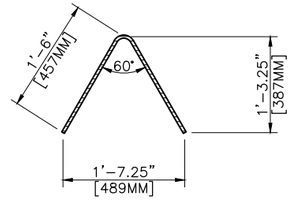
SCALE: 1" = 1'–0"





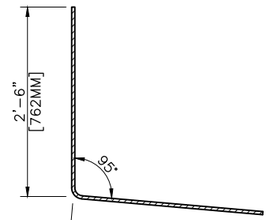
REINFORCEMENT BAR H2
2 REQUIRED

SCALE: 1" = 1'–0"



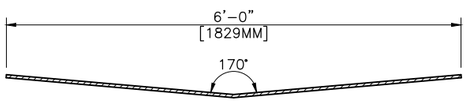
REINFORCEMENT BAR I
6 REQUIRED

SCALE: 1" = 1'–0"



REINFORCEMENT BAR J
2 REQUIRED

SCALE: 1" = 1'–0"



REINFORCEMENT BAR K
1 REQUIRED

SCALE: 1" = 1'–0"

REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR TO BE 60 KSI #4

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

LEVELING UNIT - 4 FT HEIGHT

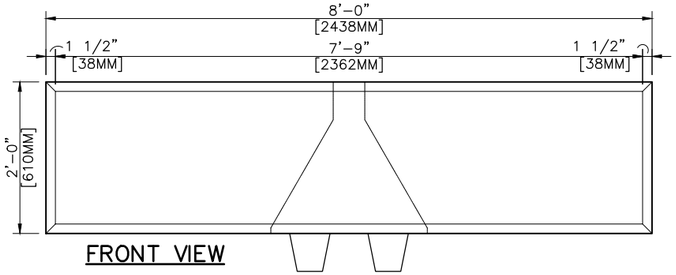
REBAR DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

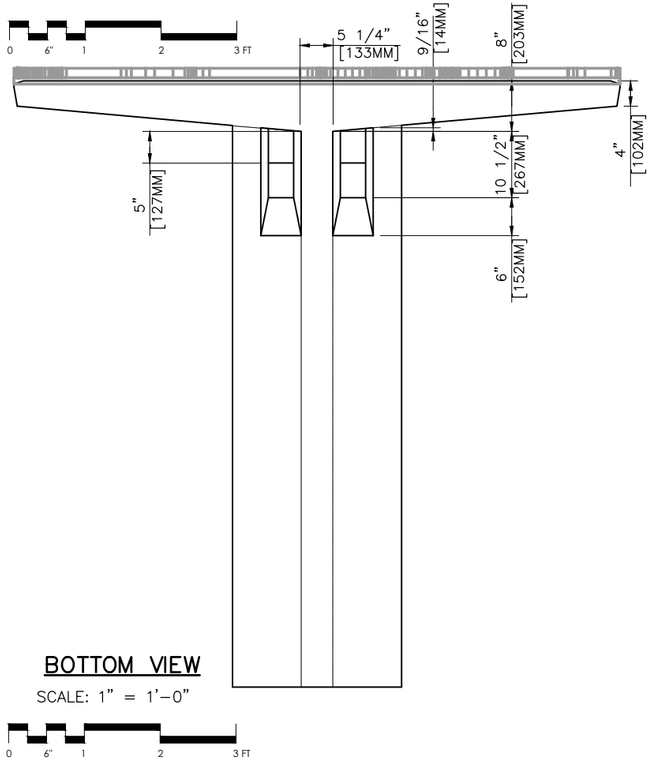
SHEET NUMBER
77 OF 97

GRAVIX 6–6–2018.dwg
6/6/2018 2:06 PM



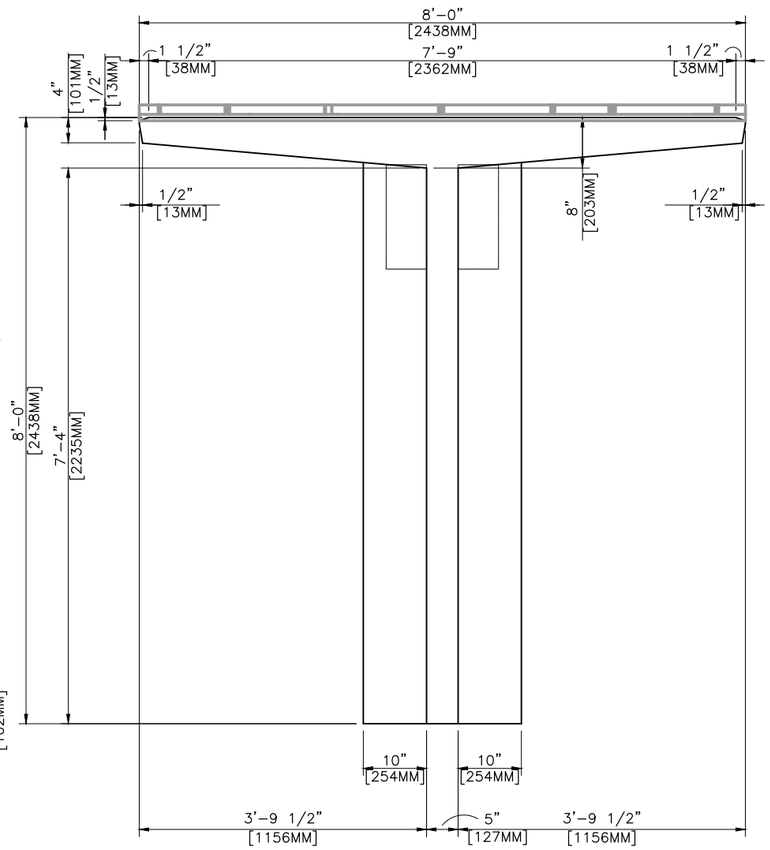
FRONT VIEW

SCALE: 1" = 1'-0"



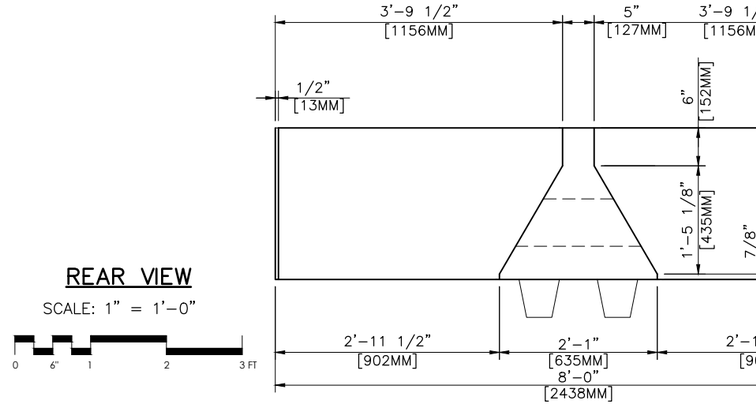
BOTTOM VIEW

SCALE: 1" = 1'-0"



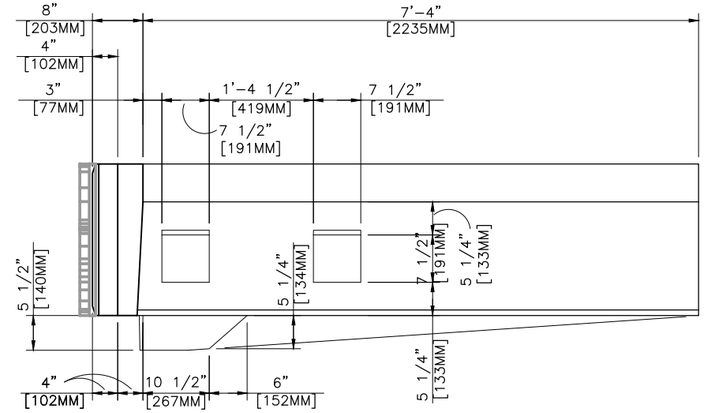
TOP VIEW

SCALE: 1" = 1'-0"



REAR VIEW

SCALE: 1" = 1'-0"



SIDE VIEW

SCALE: 1" = 1'-0"

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

LEVELING UNIT - 2 FT HEIGHT

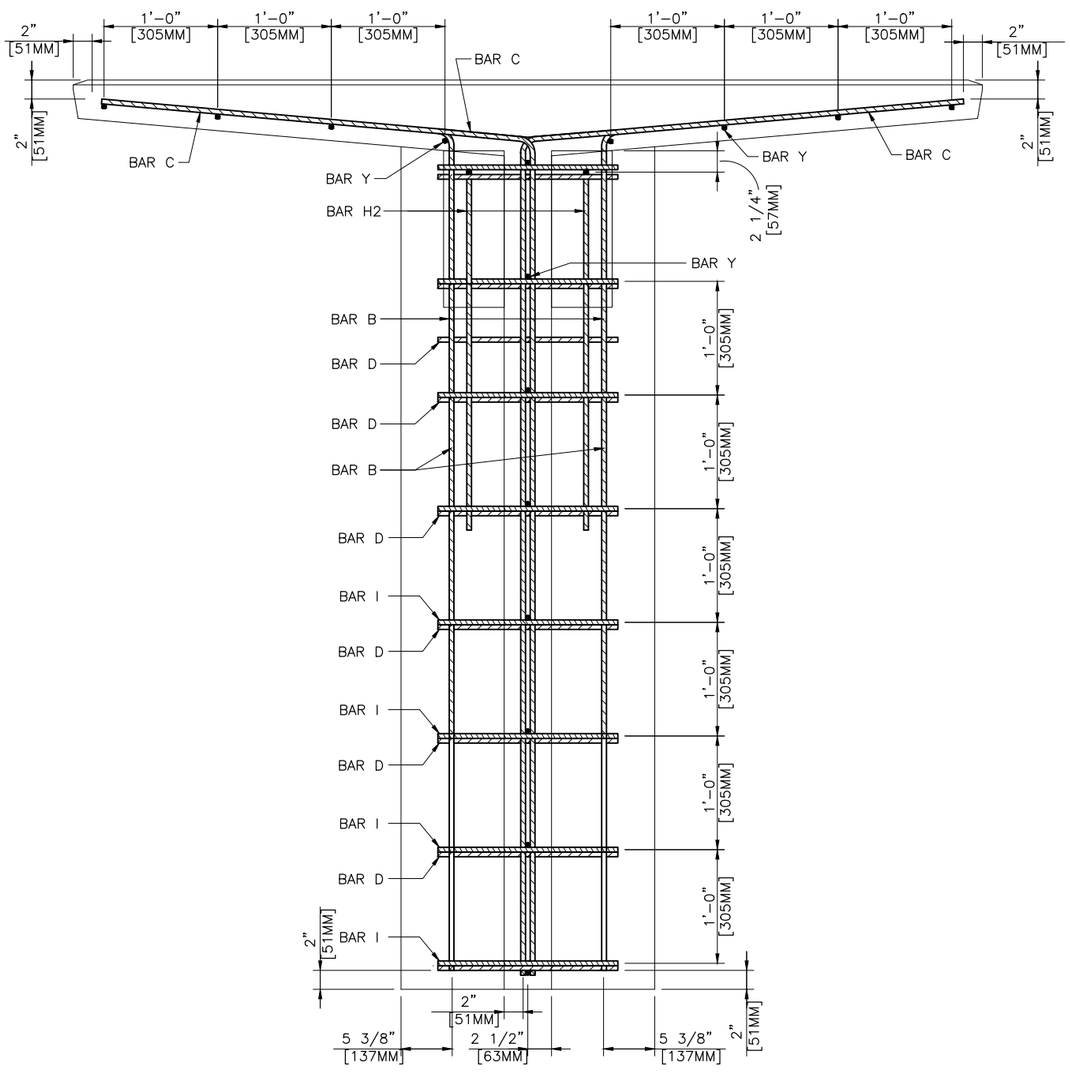
DIMENSIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER 78 OF 97

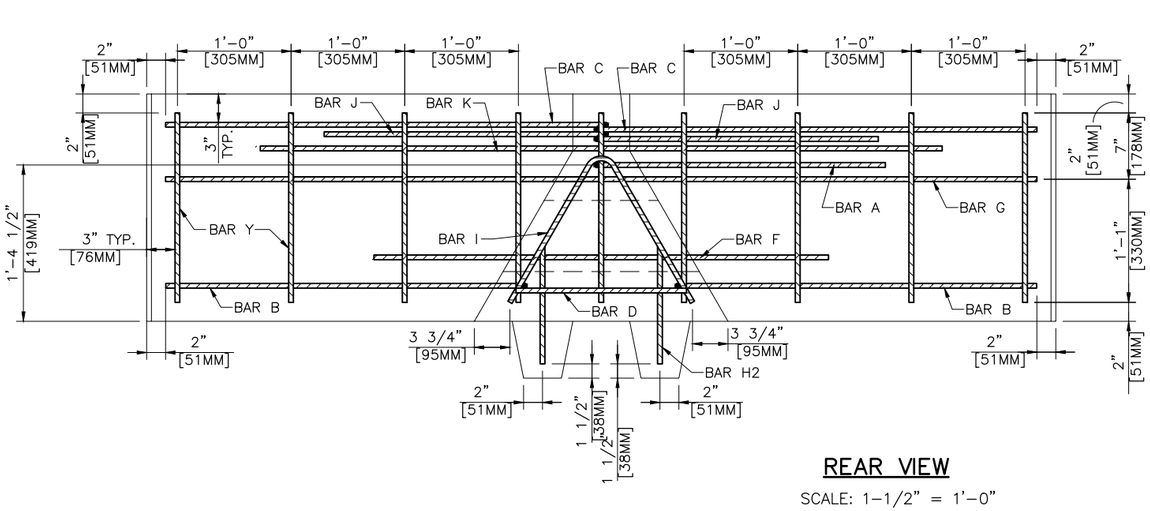
GRAVIX 6-6-2018.dwg
6/6/2018 2:06 PM



TOP VIEW

SCALE: 1–1/2" = 1'–0"

0 6" 1 2 FT



REAR VIEW

SCALE: 1–1/2" = 1'–0"

0 6" 1 2 FT

NOTE:

1. ALL REBAR SHOWN ARE #4 60 KSI.

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX

DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

LEVELING UNIT - 2 FT HEIGHT

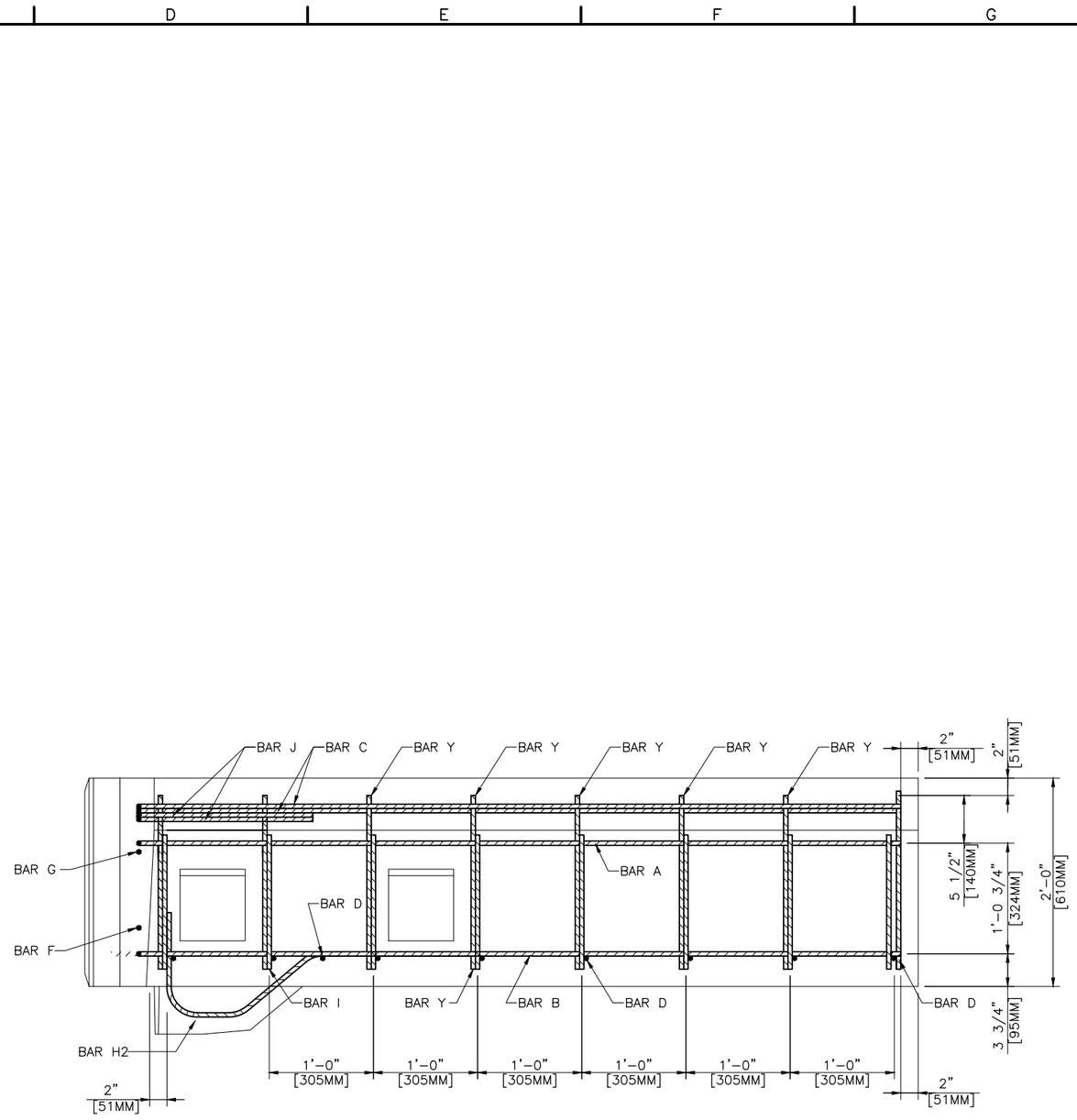
REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
79 OF 97

THIS SHEET PLOTS ON 22" x 34" ANSI D



SIDE VIEW

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT

NOTE:
1. ALL REBAR SHOWN ARE #4 60 KSI.

GRAVIX 6-6-2018.dwg

6/6/2018 2:07 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

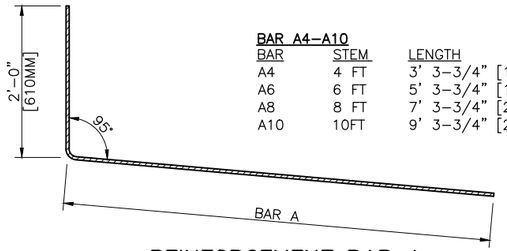
LEVELING UNIT - 2 FT HEIGHT

REINFORCEMENT LAYOUT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
80 OF 97

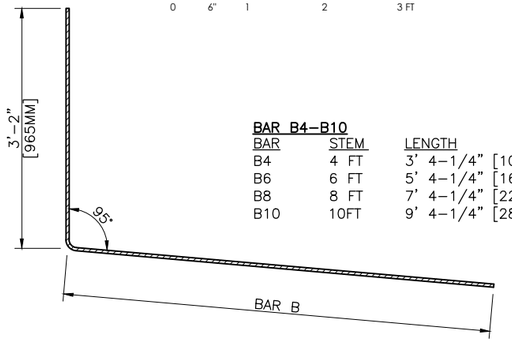


BAR A4–A10

BAR	STEM	LENGTH
A4	4 FT	3' 3–3/4" [1010MM]
A6	6 FT	5' 3–3/4" [1619MM]
A8	8 FT	7' 3–3/4" [2229MM]
A10	10FT	9' 3–3/4" [2838MM]

REINFORCEMENT BAR A
1 REQUIRED

SCALE: 1" = 1'–0"



BAR B4–B10

BAR	STEM	LENGTH
B4	4 FT	3' 4–1/4" [1022MM]
B6	6 FT	5' 4–1/4" [1632MM]
B8	8 FT	7' 4–1/4" [2241MM]
B10	10FT	9' 4–1/4" [2851MM]

REINFORCEMENT BAR B
2 REQUIRED

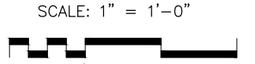
SCALE: 1" = 1'–0"

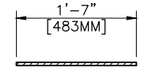
BAR C4–C10

BAR	STEM	LENGTH
C4	4 FT	3' 3–3/4" [1010MM]
C6	6 FT	5' 3–3/4" [1619MM]
C8	8 FT	7' 3–3/4" [2229MM]
C10	10FT	9' 3–3/4" [2838MM]

REINFORCEMENT BAR C
2 REQUIRED

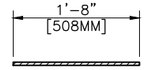
SCALE: 1" = 1'–0"





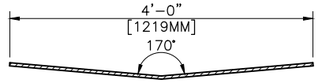
REINFORCEMENT BAR D
7 REQUIRED

SCALE: 1" = 1'–0"



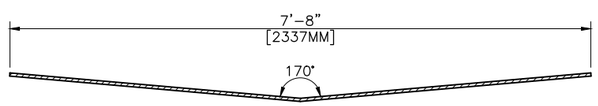
REINFORCEMENT BAR Y
14 REQUIRED

SCALE: 1" = 1'–0"



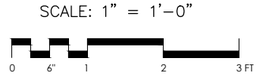
REINFORCEMENT BAR F
1 REQUIRED

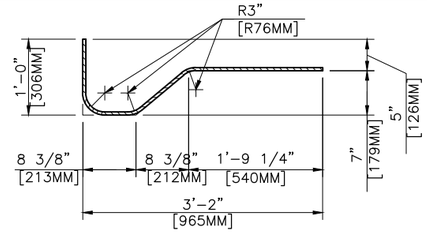
SCALE: 1" = 1'–0"



REINFORCEMENT BAR G
1 REQUIRED

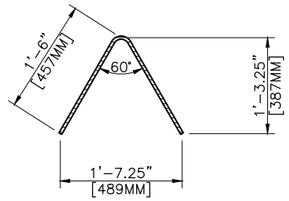
SCALE: 1" = 1'–0"





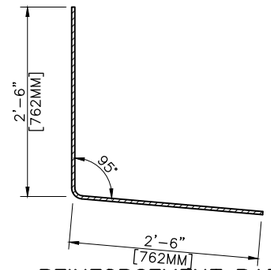
REINFORCEMENT BAR H2
2 REQUIRED

SCALE: 1" = 1'–0"



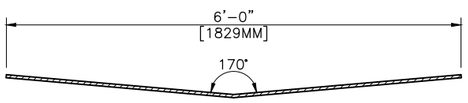
REINFORCEMENT BAR I
6 REQUIRED

SCALE: 1" = 1'–0"



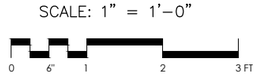
REINFORCEMENT BAR J
2 REQUIRED

SCALE: 1" = 1'–0"



REINFORCEMENT BAR K
1 REQUIRED

SCALE: 1" = 1'–0"



REINFORCEMENT NOTES:
MINIMUM CLEARANCE TO EDGE – 2"
ALL STEEL REBAR TO BE 60 KSI #4

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

LEVELING UNIT - 2 FT HEIGHT

REBAR DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

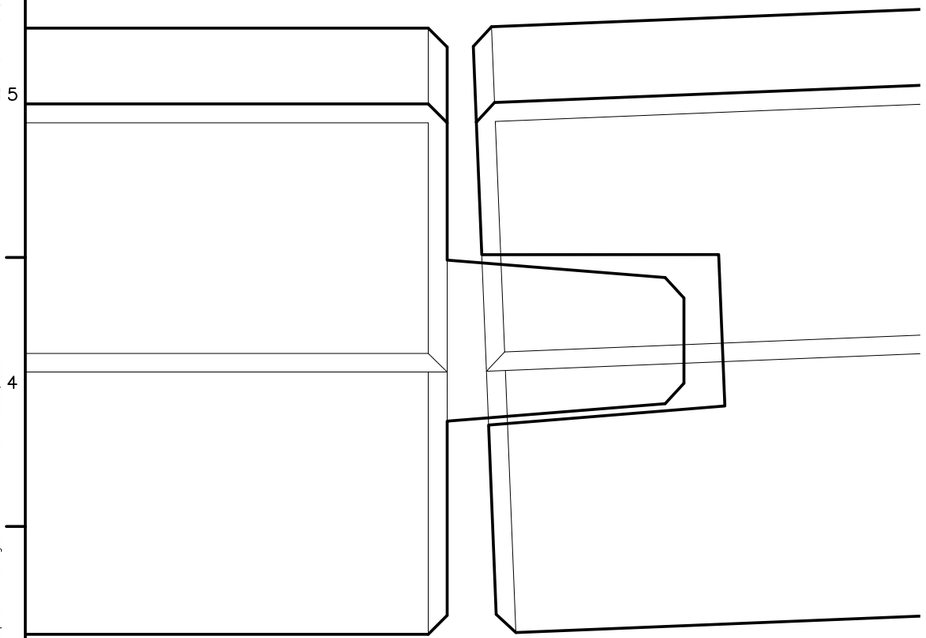
DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
81 OF 97

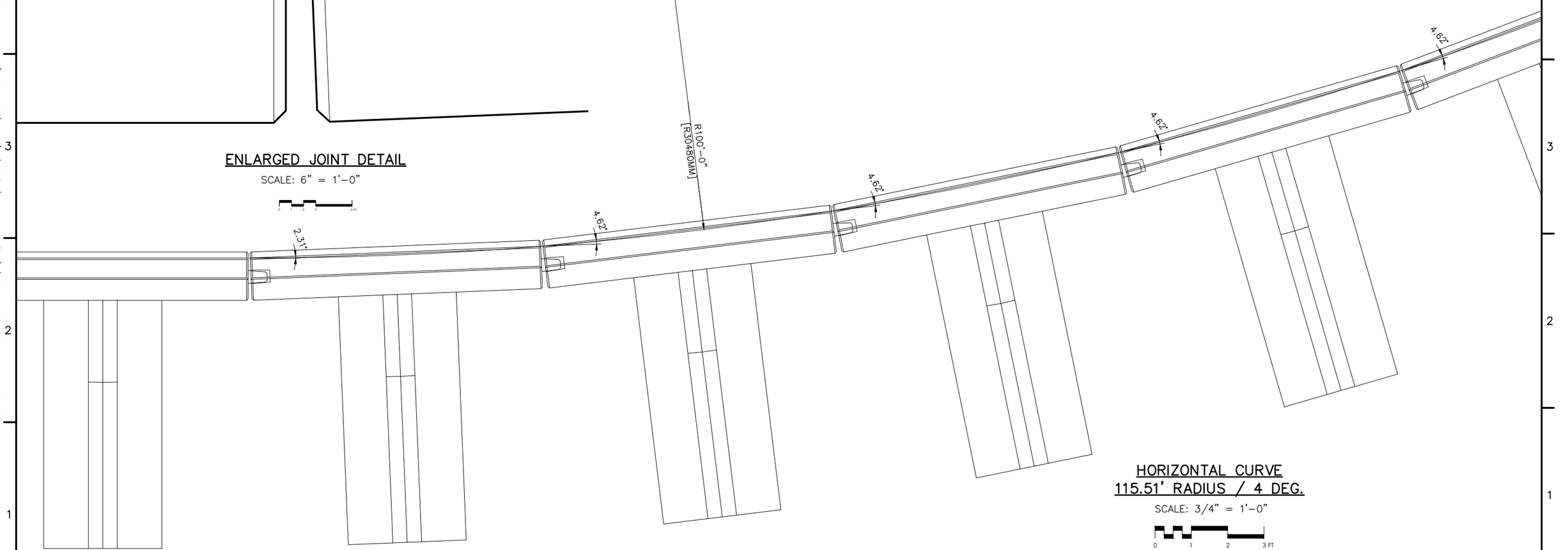
GRAVIX 6–6–2018.dwg
6/6/2018 2:07 PM

ENLARGED JOINT DETAIL

SCALE: 6" = 1'–0"



DEFLECTION	RADIUS
1 DEG.	461.95'
2 DEG.	230.98'
3 DEG	154.00'
4 DEG	115.51'
4.62 DEG	100.00'



HORIZONTAL CURVE
115.51' RADIUS / 4 DEG.

SCALE: 3/4" = 1'–0"

0 1 2 3 FT

GRAVIX 6-6-2018.dwg

6/6/2018 2:07 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

TRAFFIC BARRIER UNIT

IN HORIZONTAL RADIUS DETAIL

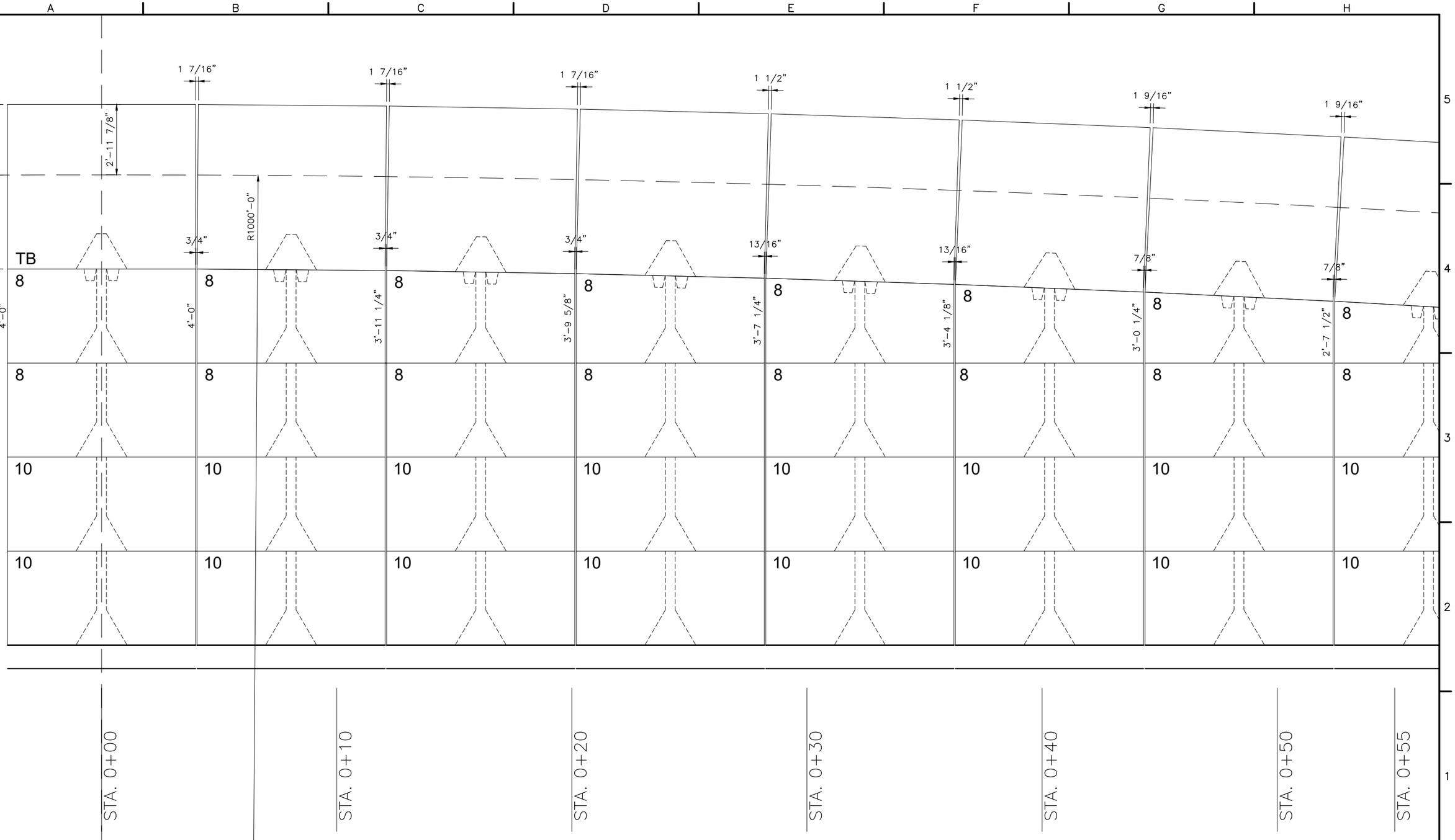
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
82 OF 97

GRAVIX 6-6-2018.dwg

6/6/2018 2:07 PM



REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

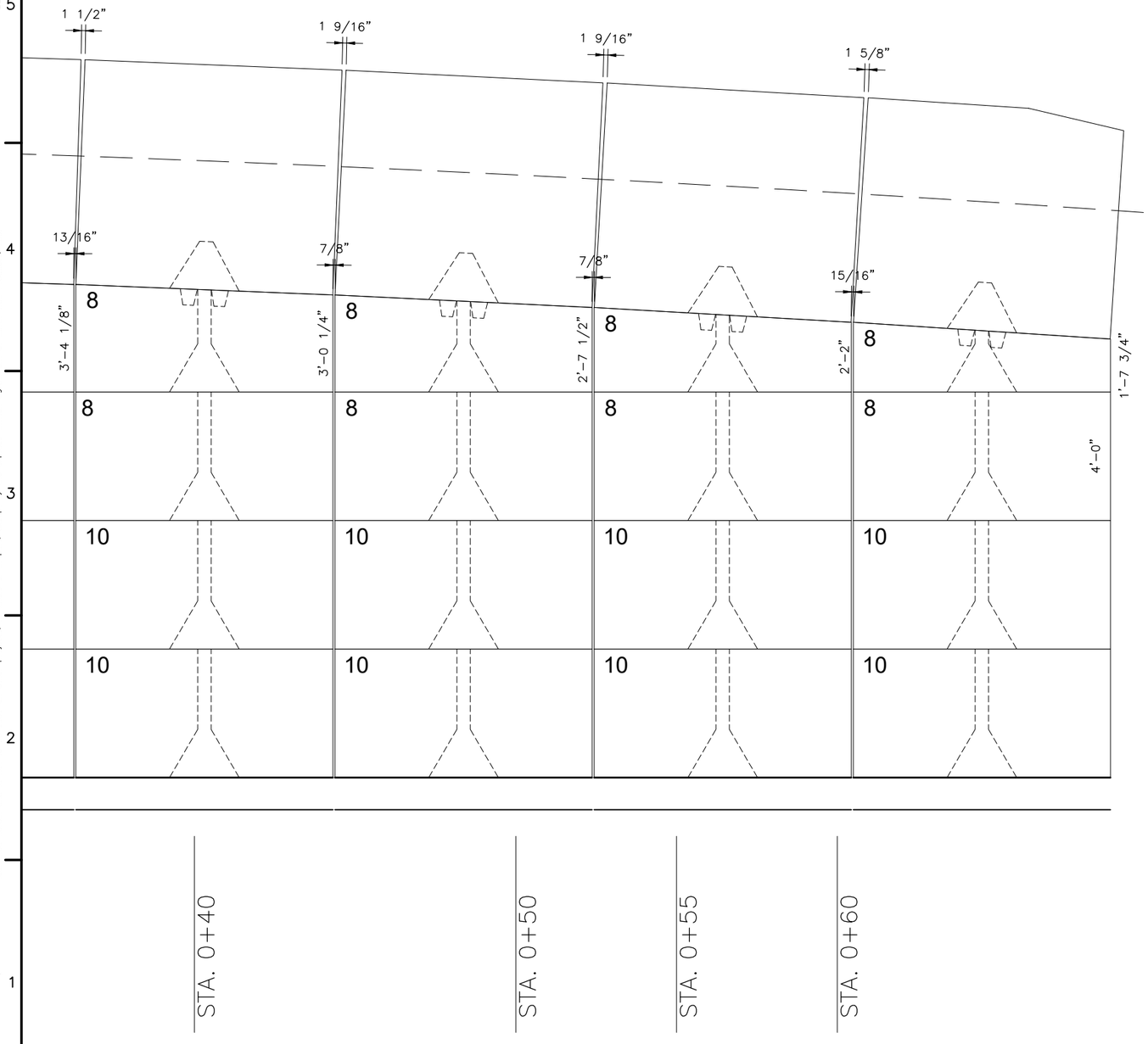
[PROJECT NAME]
[PROJECT LOCATION]

EXAMPLE CONCAVE VERTICAL CURVE LEVELING UNIT ADJUSTMENT FOR 1,000 FEET RADIUS

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
83 OF 97



REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

EXAMPLE CONCAVE VERTICAL CURVE LEVELING UNIT ADJUSTMENT FOR 1,000 FEET RADIUS (CONTINUED)

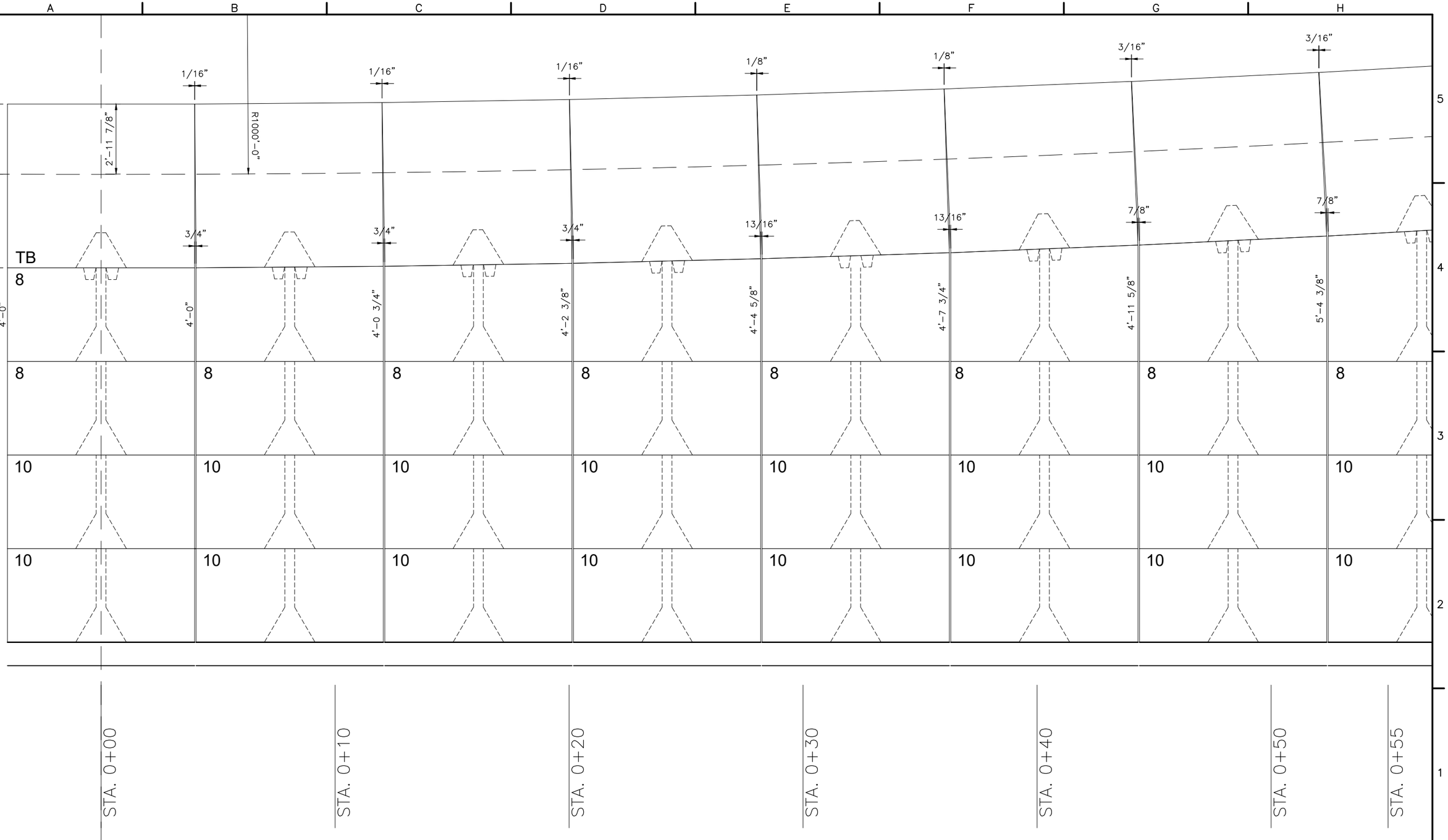
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
84 OF 97

GRAVIX 6-6-2018.dwg

6/6/2018 2:07 PM



REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

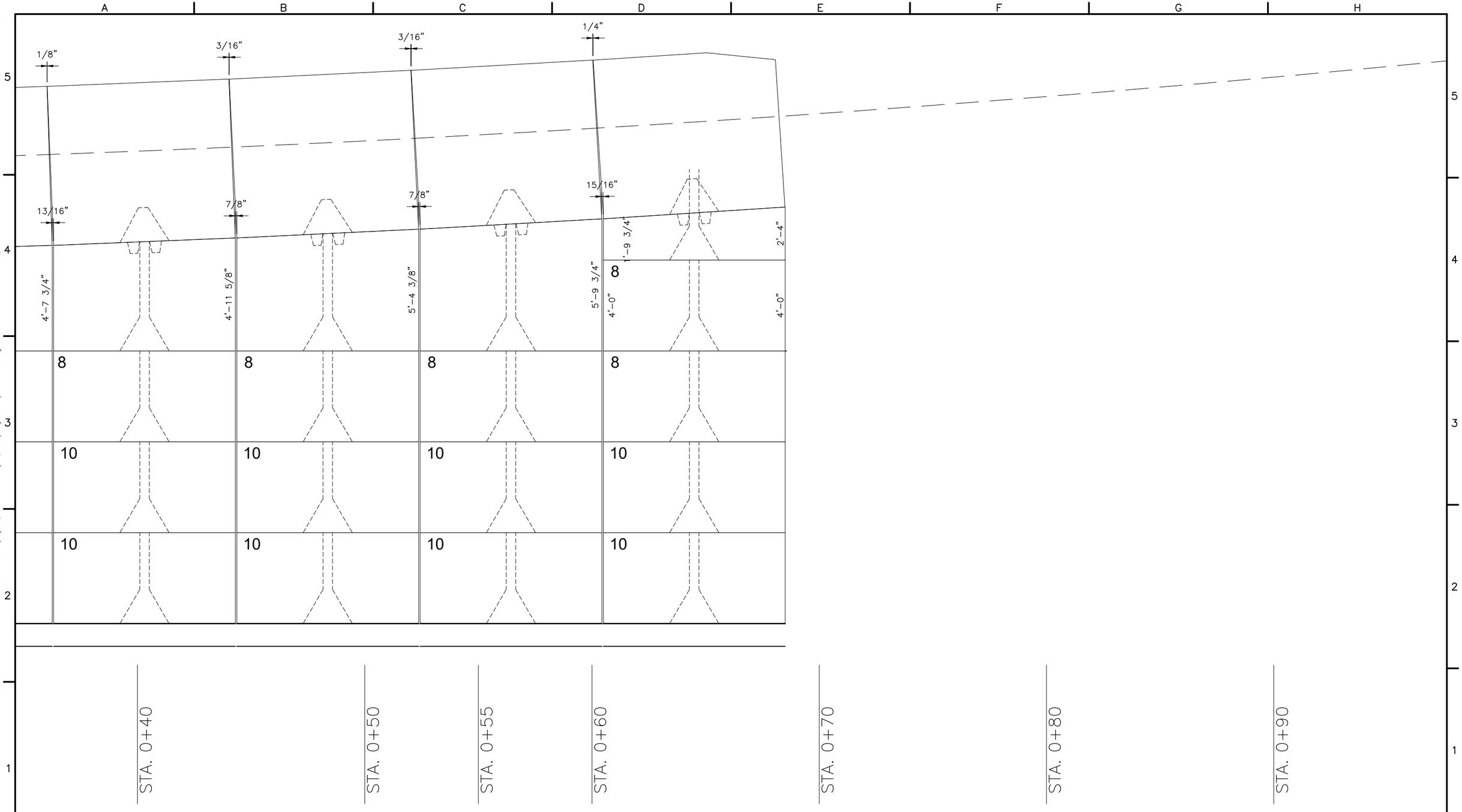
[PROJECT NAME]
[PROJECT LOCATION]

EXAMPLE CONVEX VERTICAL CURVE UNIT ADJUSTMENT FOR 1,000 FEET RADIUS

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
85 OF 97



REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

EXAMPLE CONVEX VERTICAL CURVE UNIT ADJUSTMENT FOR 1,000 FEET RADIUS (CONTINUED)

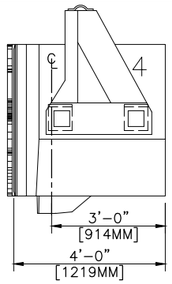
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

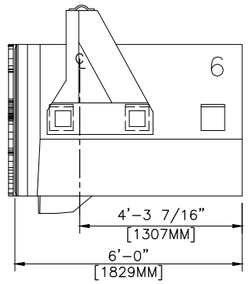
SHEET NUMBER
86 OF 97

GRAVIX STANDARD UNIT

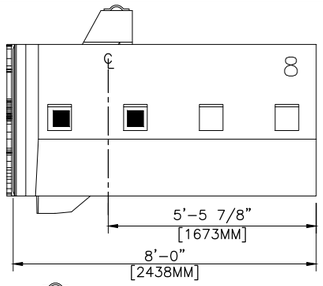
LENGTH 4'–0"
VOLUME 29.17 FT³
DENSITY 140 LBS/FT³
WEIGHT 4,084 LBS



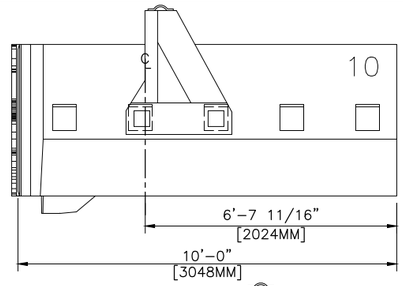
LENGTH 6'–0"
VOLUME 36.15 FT³
DENSITY 140 LBS/FT³
WEIGHT 5,061 LBS



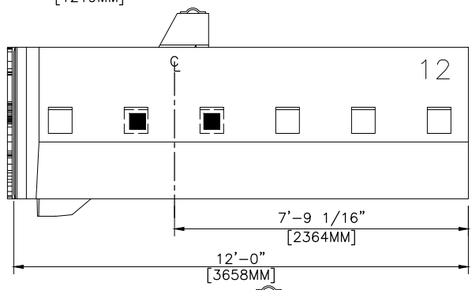
LENGTH 8'–0"
VOLUME 42.54 FT³
DENSITY 140 LBS/FT³
WEIGHT 5,956 LBS



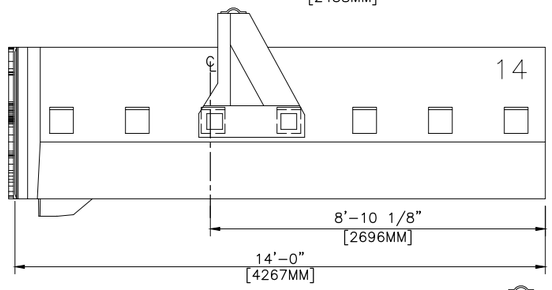
LENGTH 10'–0"
VOLUME 49.0 FT³
DENSITY 140 LBS/FT³
WEIGHT 6,860 LBS



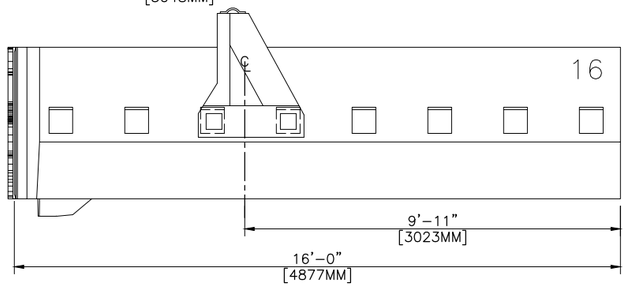
LENGTH 12'–0"
VOLUME 55.43 FT³
DENSITY 140 LBS/FT³
WEIGHT 7,761 LBS



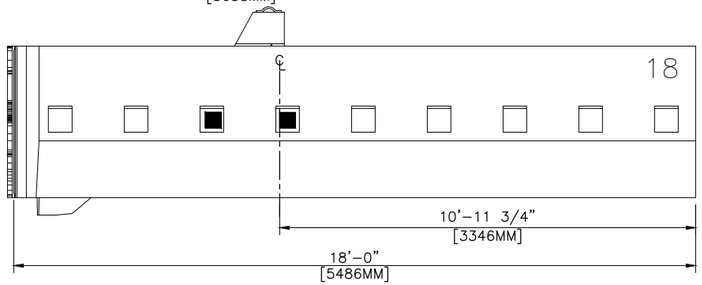
LENGTH 14'–0"
VOLUME 61.85 FT³
DENSITY 140 LBS/FT³
WEIGHT 8,659 LBS



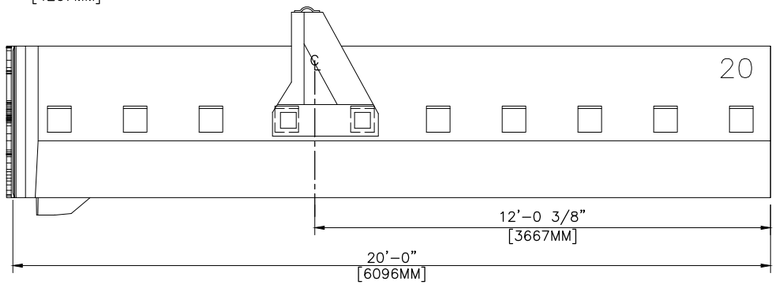
LENGTH 16'–0"
VOLUME 68.3 FT³
DENSITY 140 LBS/FT³
WEIGHT 9,562 LBS



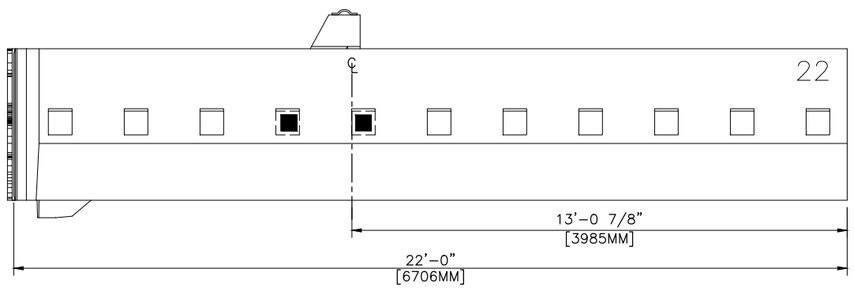
LENGTH 18'–0"
VOLUME 74.72 FT³
DENSITY 140 LBS/FT³
WEIGHT 10,461 LBS



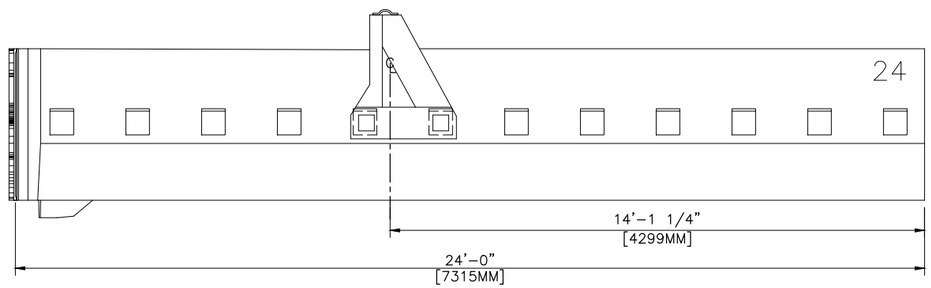
LENGTH 20'–0"
VOLUME 81.14 FT³
DENSITY 140 LBS/FT³
WEIGHT 11,360 LBS



LENGTH 22'–0"
VOLUME 87.56 FT³
DENSITY 140 LBS/FT³
WEIGHT 12,258 LBS



LENGTH 24'–0"
VOLUME 93.98 FT³
DENSITY 140 LBS/FT³
WEIGHT 13,157 LBS



REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

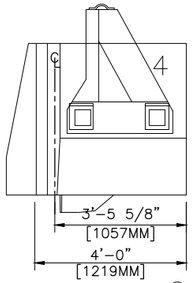
CONSTRUCTION LIFTING DEVICE

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)
DESIGNED TLR
DRAWN ERM
REVIEWED TLR
SHEET NUMBER 87 OF 97

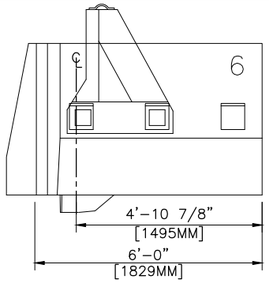
GRAVIX 6-6-2018.dwg
6/6/2018 2:07 PM

GRAVIX STANDARD UNIT - BARRIER FACE OPTION

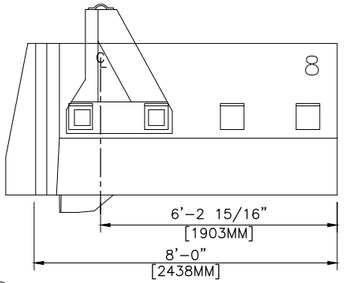
LENGTH 4'–0"
VOLUME 44.72 FT³
DENSITY 140 LBS/FT
WEIGHT 6,261 LBS



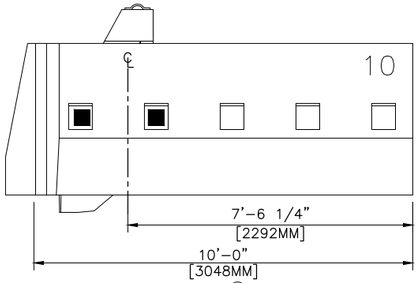
LENGTH 6'–0"
VOLUME 51.16 FT³
DENSITY 140 LBS/FT
WEIGHT 7163 LBS



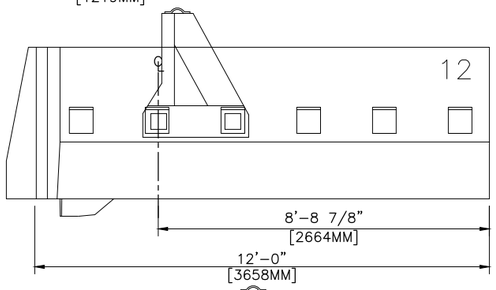
LENGTH 8'–0"
VOLUME 57.6 FT³
DENSITY 140 LBS/FT
WEIGHT 8,064 LBS



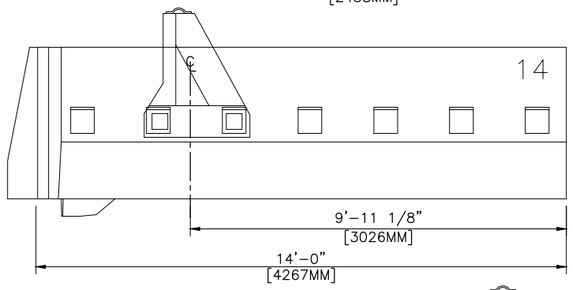
LENGTH 10'–0"
VOLUME 64.04 FT³
DENSITY 140 LBS/FT
WEIGHT 8,966 LBS



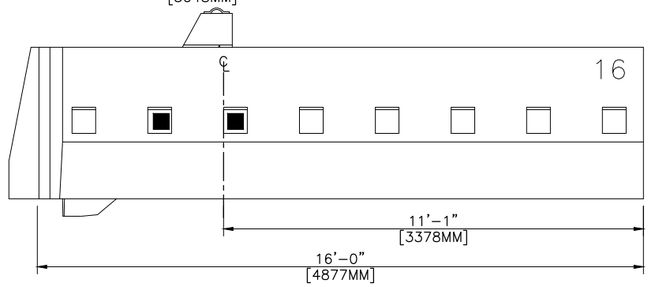
LENGTH 12'–0"
VOLUME 70.48 FT³
DENSITY 140 LBS/FT
WEIGHT 9,868 LBS



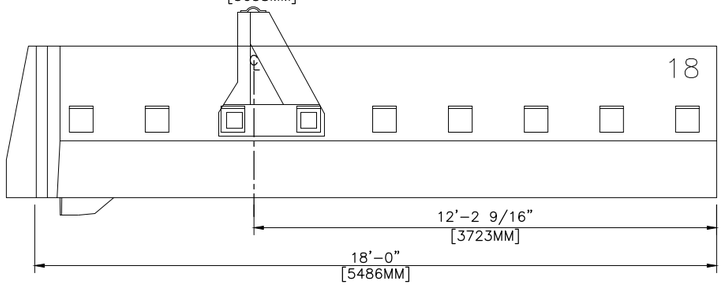
LENGTH 14'–0"
VOLUME 76.92 FT³
DENSITY 140 LBS/FT
WEIGHT 10,769 LBS



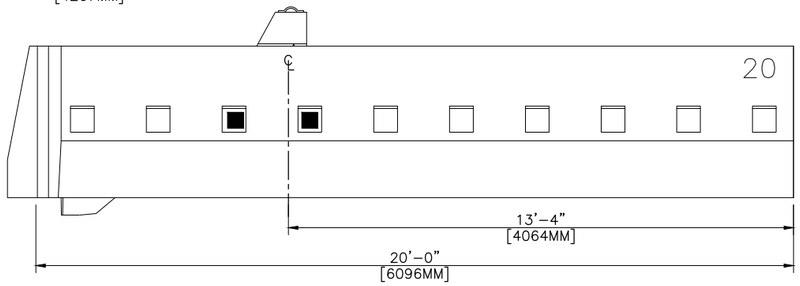
LENGTH 16'–0"
VOLUME 83.36 FT³
DENSITY 140 LBS/FT
WEIGHT 1,1671 LBS



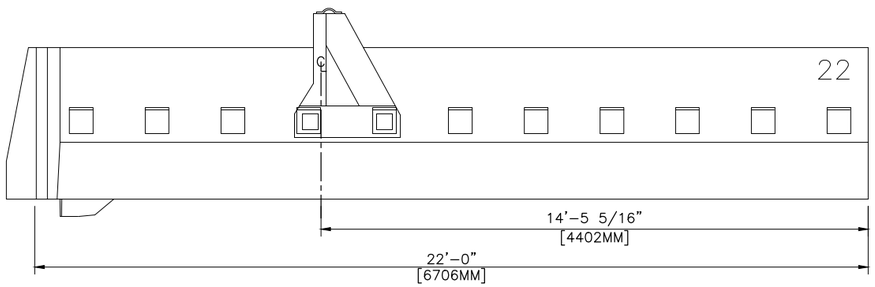
LENGTH 18'–0"
VOLUME 89.5 FT³
DENSITY 140 LBS/FT
WEIGHT 12,572 LBS



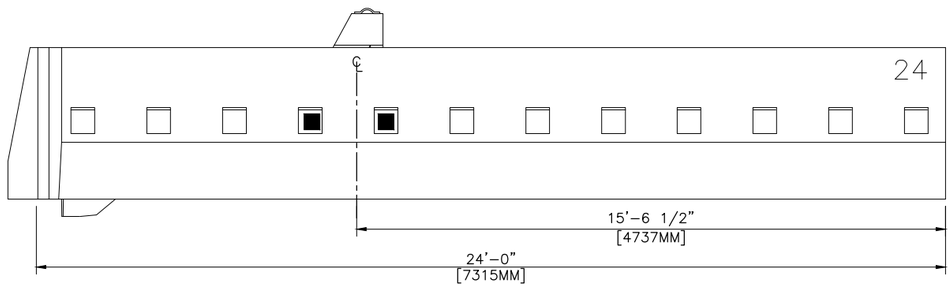
LENGTH 20'–0"
VOLUME 96.24 FT³
DENSITY 140 LBS/FT
WEIGHT 13,474 LBS



LENGTH 22'–0"
VOLUME 102.68 FT³
DENSITY 140 LBS/FT
WEIGHT 14,375 LBS



LENGTH 24'–0"
VOLUME 109.12 FT³
DENSITY 140 LBS/FT
WEIGHT 15,277 LBS



THIS SHEET PLOTS ON 22" x 34" ANSI D

GRAVIX 6-6-2018.dwg

6/6/2018 2:07 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

CONSTRUCTION LIFTING DEVICE (CONTINUED)

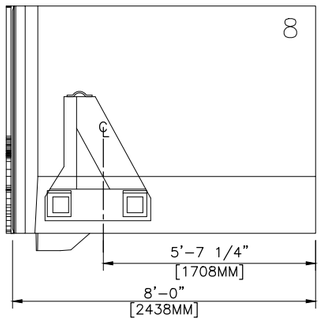
LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

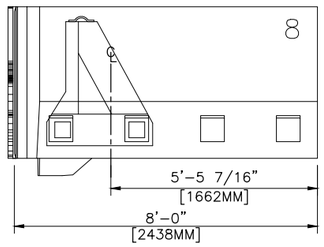
SHEET NUMBER
88 OF 97

GRAVIX LEVELING UNIT

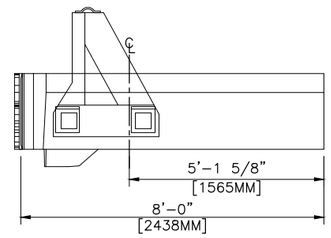
HEIGHT 6'–0"
LENGTH 8'–0"
VOLUME 58.60 FT³
DENSITY 140 LBS/FT
WEIGHT 8,204 LBS



HEIGHT 4'–0"
LENGTH 8'–0"
VOLUME 42.58 FT³
DENSITY 140 LBS/FT
WEIGHT 5,962 LBS

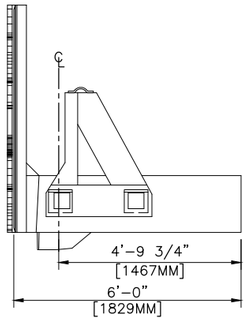


HEIGHT 2'–0"
LENGTH 8'–0"
VOLUME 25.87 FT³
DENSITY 140 LBS/FT
WEIGHT 3,621 LBS

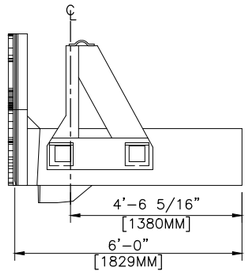


GRAVIX TOP UNIT

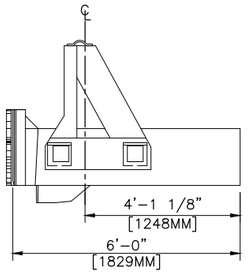
HEIGHT 6'–0"
LENGTH 6'–0"
VOLUME 32.07 FT³
DENSITY 140 LBS/FT
WEIGHT 4,490 LBS



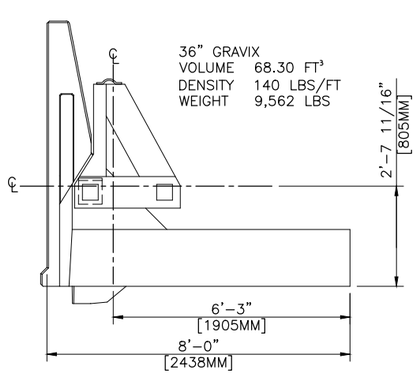
HEIGHT 4'–0"
LENGTH 6'–0"
VOLUME 25.99 FT³
DENSITY 140 LBS/FT
WEIGHT 3,639 LBS

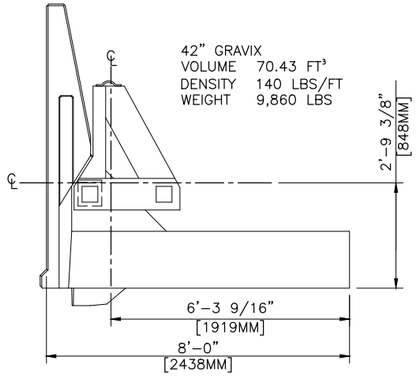


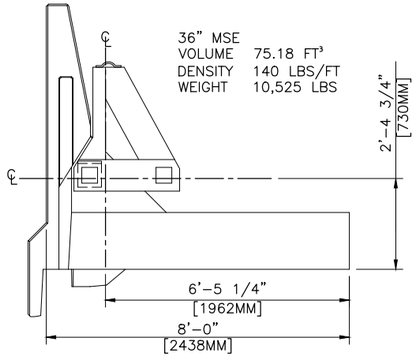
HEIGHT 2'–0"
LENGTH 6'–0"
VOLUME 19.43 FT³
DENSITY 140 LBS/FT
WEIGHT 2,720 LBS

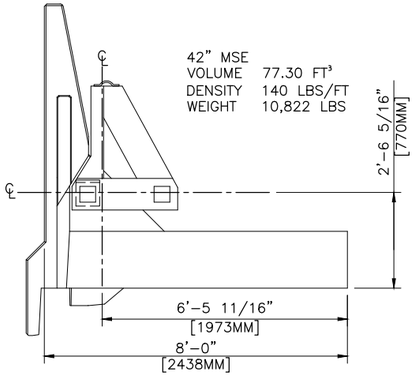


GRAVIX TRAFFIC BARRIER UNIT









REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

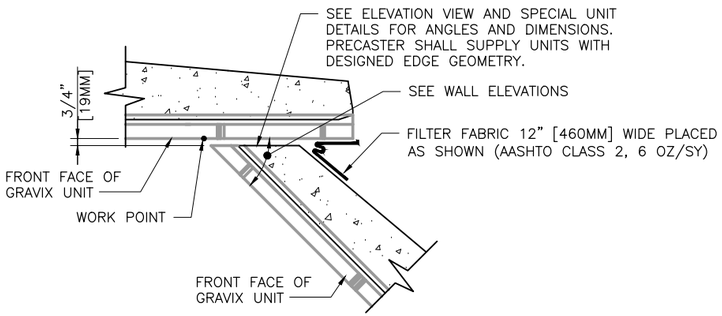
[PROJECT NAME]
[PROJECT LOCATION]

CONSTRUCTION LIFTING DEVICE (CONTINUED)

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

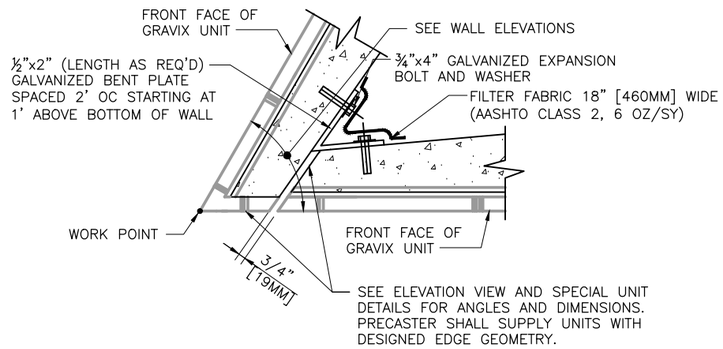
SHEET NUMBER
89 OF 97



OBTUSE INSIDE CORNER DETAIL

SCALE: 1-1/2" = 1'-0"

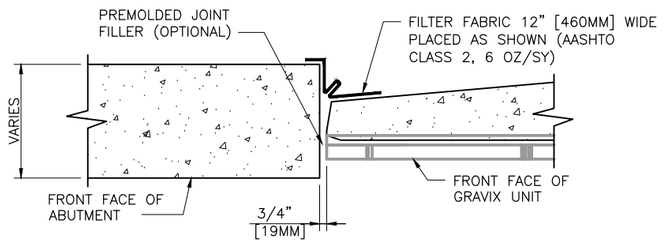
0 6" 1 2 FT



ACUTE OUTSIDE CORNER DETAIL

SCALE: 1-1/2" = 1'-0"

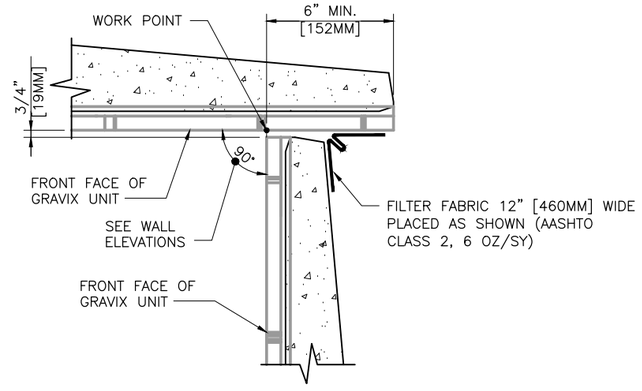
0 6" 1 2 FT



ABUTMENT DETAIL

SCALE: 1-1/2" = 1'-0"

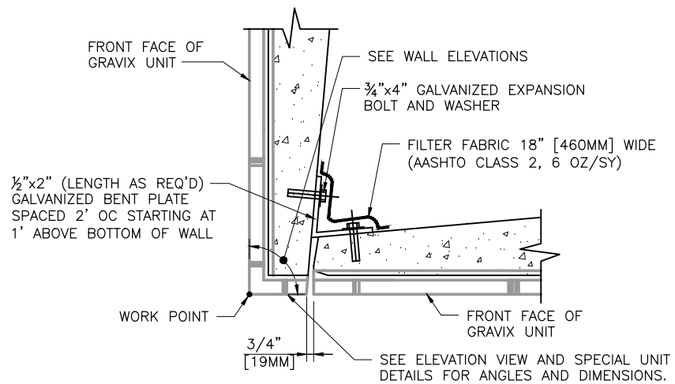
0 6" 1 2 FT



ORTHOGONAL INSIDE CORNER DETAIL

SCALE: 1-1/2" = 1'-0"

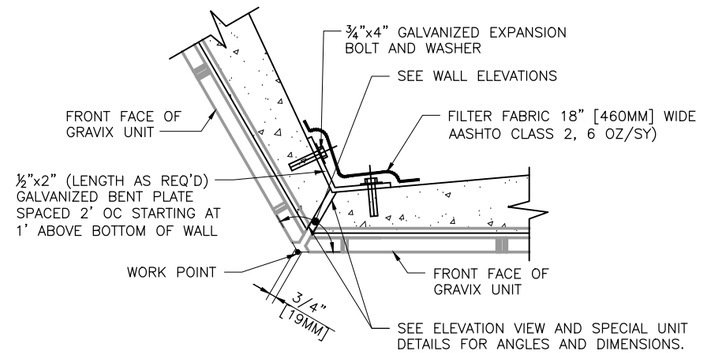
0 6" 1 2 FT



ORTHOGONAL OUTSIDE CORNER DETAIL

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT



OBTUSE OUTSIDE CORNER DETAIL

SCALE: 1-1/2" = 1'-0"

0 6" 1 2 FT

GRAVIX 6-6-2018.dwg

6/6/2018 2:07 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

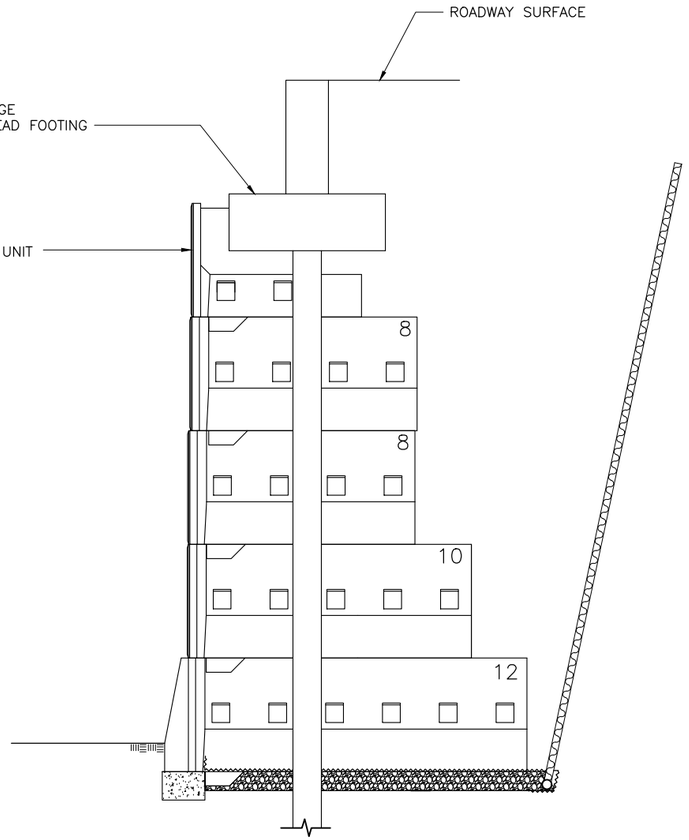
[PROJECT NAME]
[PROJECT LOCATION]

ADDITIONAL DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

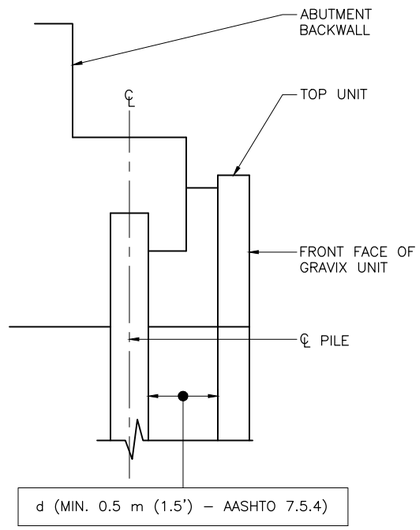
SHEET NUMBER
90 OF 97



ABUTMENT DETAIL

SCALE: 3/8" = 1'–0"

0 5 FT



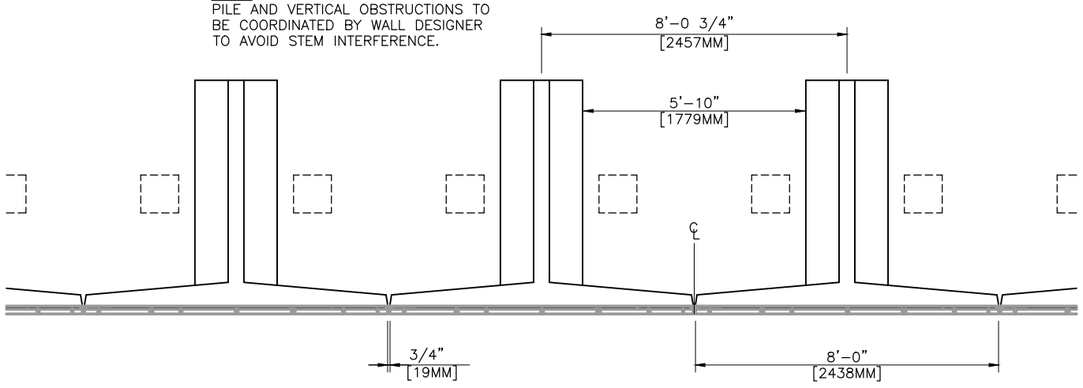
NOTE:
DISTANCE "d" DEPENDS ON PILE TYPE AND SIZE.

CLEARANCE OF PILES FROM GRAVIX UNITS IN PILES SUPPORTED ABUTMENT

SCALE: 1/2" = 1'–0"

0 3 6 9 12 IN

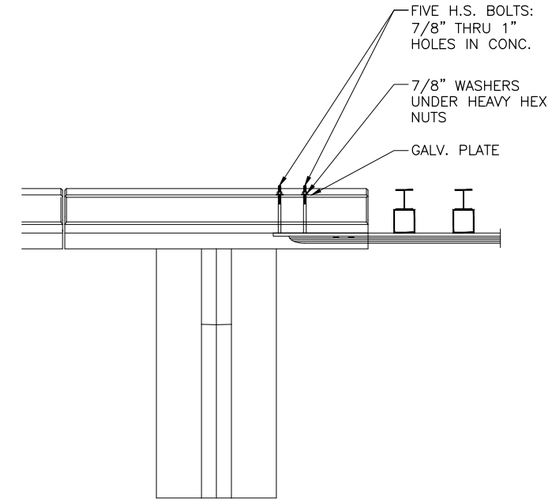
NOTE:
PILE AND VERTICAL OBSTRUCTIONS TO BE COORDINATED BY WALL DESIGNER TO AVOID STEM INTERFERENCE.



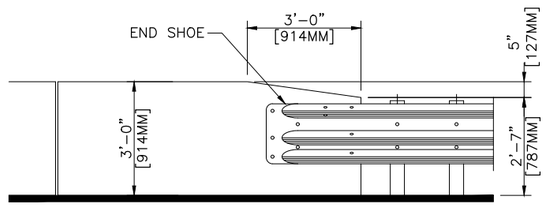
PILE/VERTICAL OBSTRUCTION DETAIL

SCALE: 1/2" = 1'–0"

0 3 6 9 12 IN



PLAN VIEW



ELEVATION VIEW

GUARDRAIL ATTACHMENT DETAIL

SCALE: 1/2" = 1'–0"

0 3 6 9 12 IN

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

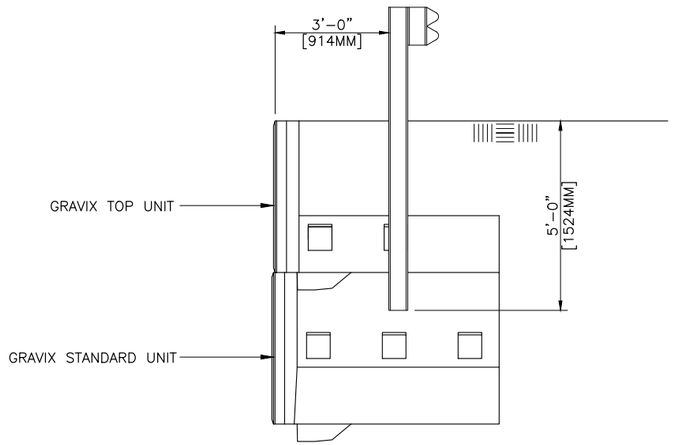
ADDITIONAL DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"–SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
92 OF 97

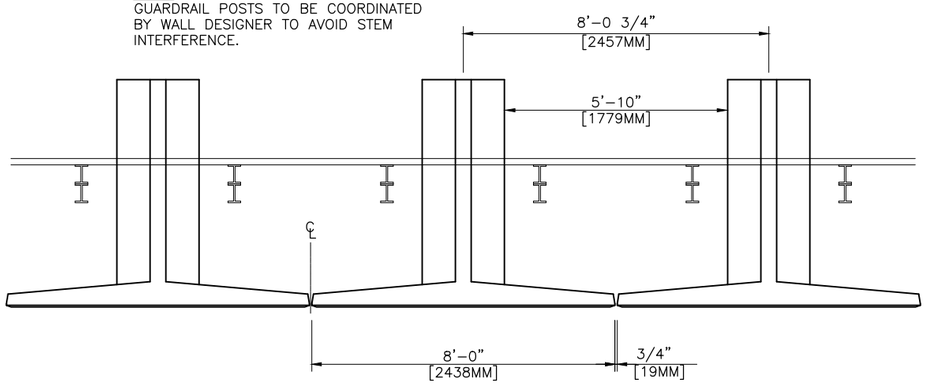
GRAVIX 6-6-2018.dwg
6/6/2018 2:07 PM



GUARDRAIL POST CROSS SECTION

SCALE: N.T.S.

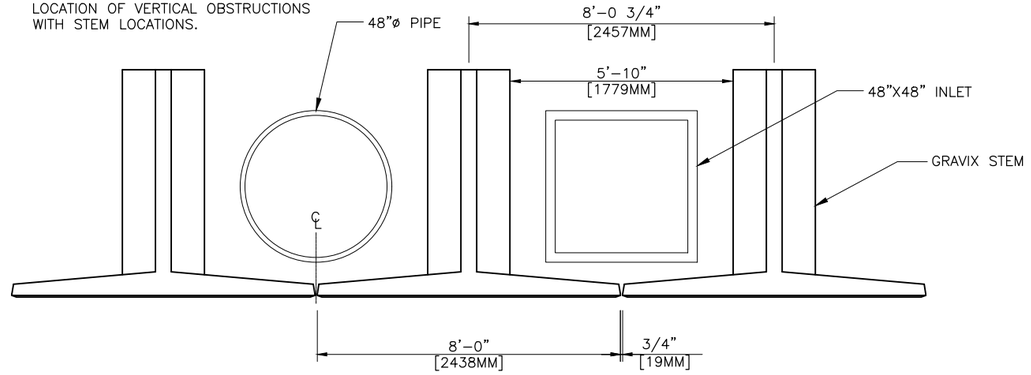
NOTE:
GUARDRAIL POSTS TO BE COORDINATED BY WALL DESIGNER TO AVOID STEM INTERFERENCE.



PLAN VIEW GUARDRAIL POST DETAIL

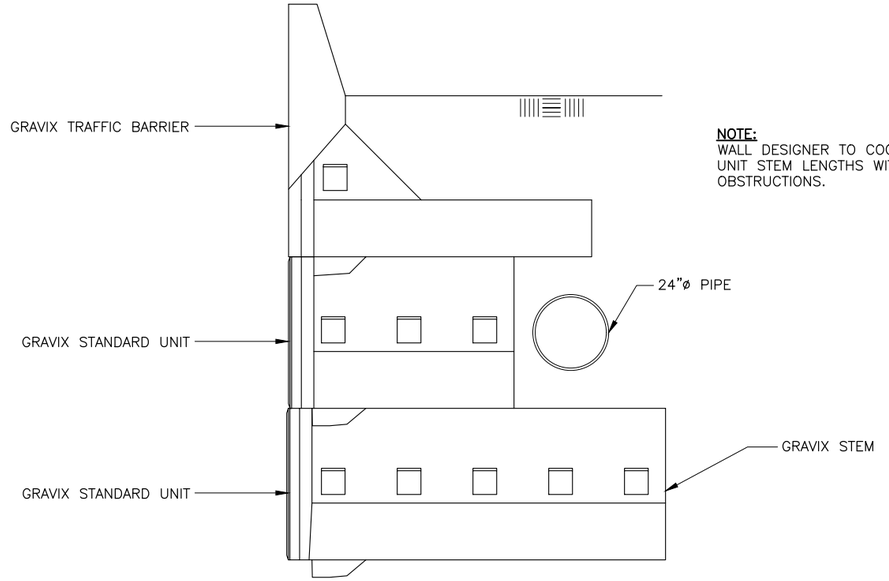
SCALE: N.T.S.

NOTE:
WALL DESIGNER TO COORDINATE LOCATION OF VERTICAL OBSTRUCTIONS WITH STEM LOCATIONS.



LARGE VERTICAL OBSTRUCTION DETAIL

SCALE: N.T.S.



NOTE:
WALL DESIGNER TO COORDINATE UNIT STEM LENGTHS WITH PIPE OBSTRUCTIONS.

HORIZONTAL/PARALLEL OBSTRUCTION DETAIL

SCALE: N.T.S.

GRAVIX 6-6-2018.dwg
6/6/2018 2:08 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

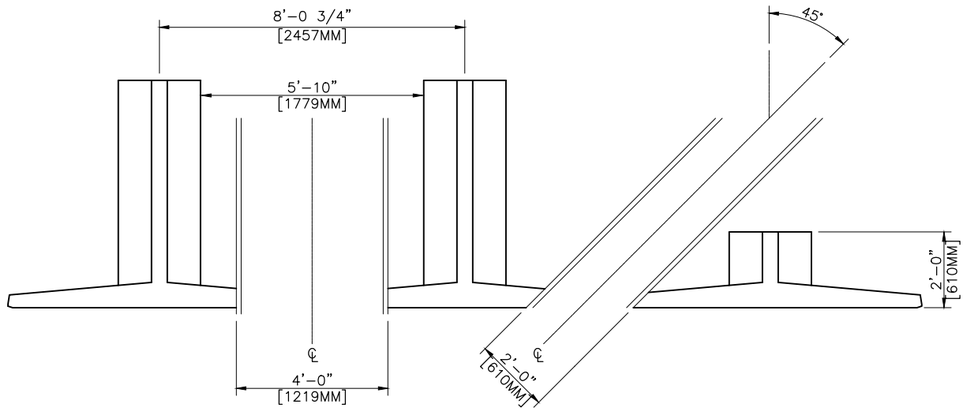
MISCELLANEOUS OBSTRUCTION DETAILS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
93 OF 97

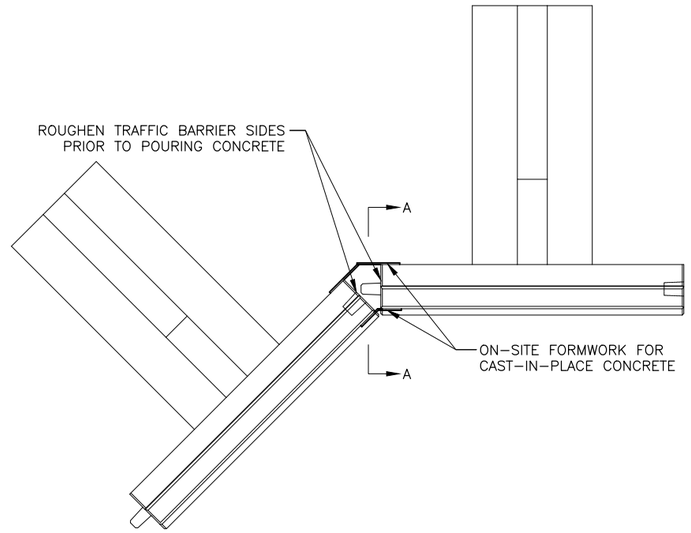
NOTE:
WALL DESIGNER TO COORDINATE AND DETAIL BLOCK OUTS REQUIRED AS WELL AS STEM LENGTH ADJUSTMENTS FOR HORIZONTAL OBSTRUCTIONS.



HORIZONTAL OBSTRUCTION PLAN VIEW

SCALE: 1/2" = 1'-0"

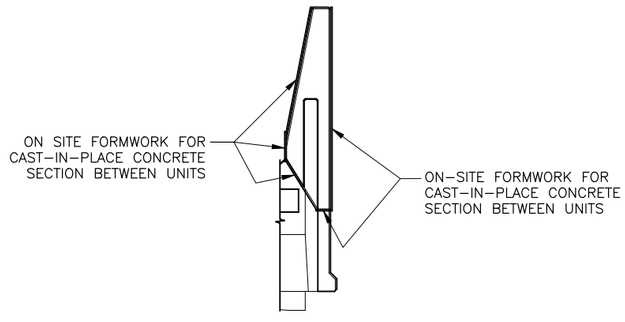
0 3 6 9 12 IN



45 DEG. TURN WITH TRAFFIC BARRIER PLAN VIEW

SCALE: 1/2" = 1'-0"

0 3 6 9 12 IN



45 DEG. TURN WITH TRAFFIC BARRIER SECTION A-A

SCALE: 1/2" = 1'-0"

0 3 6 9 12 IN

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

MISCELLANEOUS OBSTRUCTION DETAILS

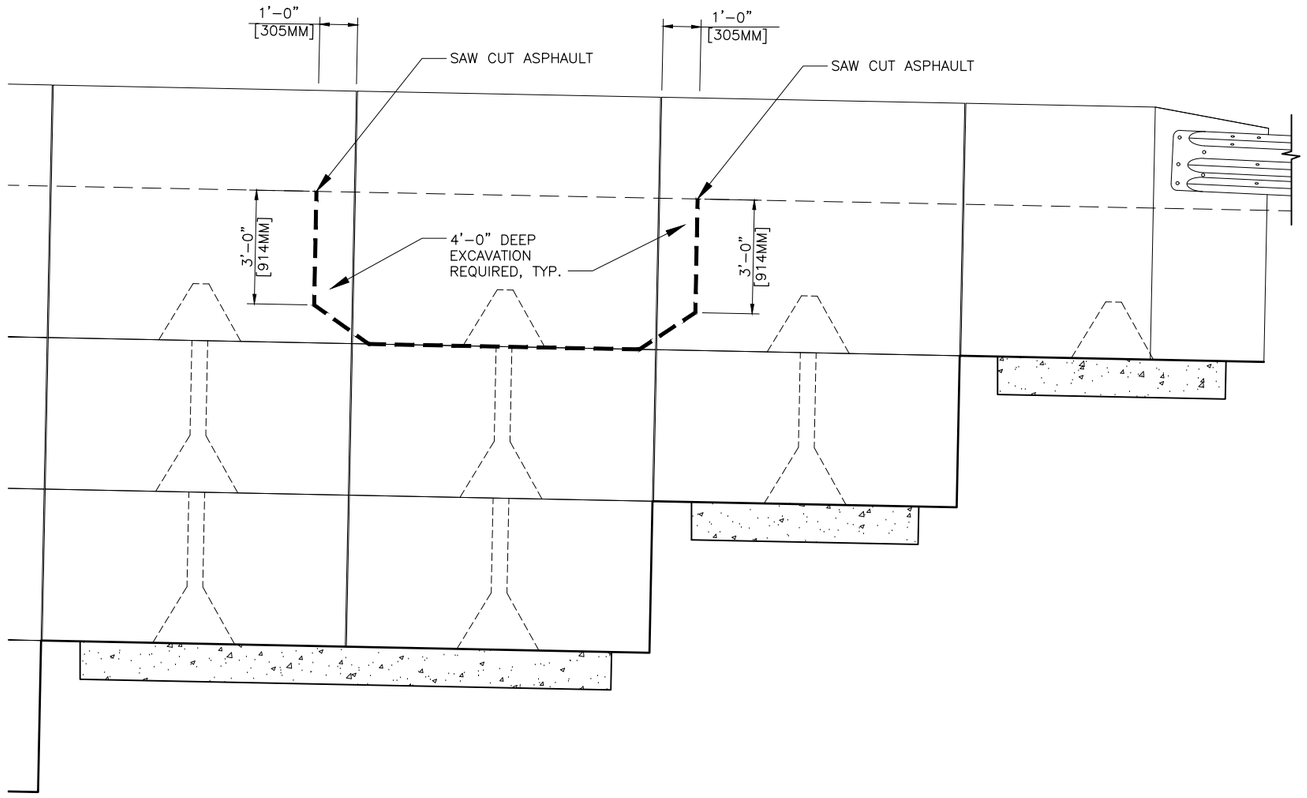
LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
94 OF 97

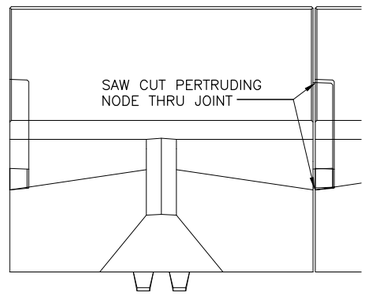
GRAVIX TRAFFIC BARRIER REPLACEMENT STEPS

1. SAW CUT ASPHALT 12" BEYOND OUTSIDE EDGE OF BOTH SIDES OF UNIT BACK 8.5 FEET FROM FRONT FACE. CUT ASPHALT 8.5 FEET FROM FRONT FACE PARALLEL BETWEEN PERPENDICULAR CUTS. REMOVE ASPHALT.
2. EXCAVATE TO EXPOSE TONGUE AND GROOVE AT JOINT AND TRIANGULAR STEM.
3. SAW CUT MALE PORTION THROUGH 3/4" JOINT.
4. REMOVE DAMAGED UNIT BY LIFTING VERTICALLY USING SQUARE LIFTING BLOCKOUT.
5. SAW CUT ADJACENT GROOVE IN UNIT TO EXTEND SLOT OR GROOVE VERTICALLY. REMOVE ALL CONCRETE TO ALLOW NEW TRAFFIC BARRIER UNIT MALE PIECE TO SLIDE VERTICALLY INTO PLACE.
6. SLIDE REPLACEMENT UNIT VERTICALLY INTO PLACE.
7. WELD PARTIAL REBAR PIECE ABOVE GROOVE IN PLACE.
8. FORM AND POUR CONCRETE 4,000 PSI ABOVE GROOVE. BLOCK OFF CONCRETE POUR WITH 1" BACKER ROD AS REQUIRED TO CONTAIN CONCRETE TO ORIGINAL GEOMETRY.
9. RECOMPACT STRUCTURAL FILL ABOVE TRIANGULAR STEM.
10. INSTALL PAVEMENT BASE AND REPAVE ASPHALT AS REQUIRED TO MATCH SURROUNDING PAVEMENT SECTION.



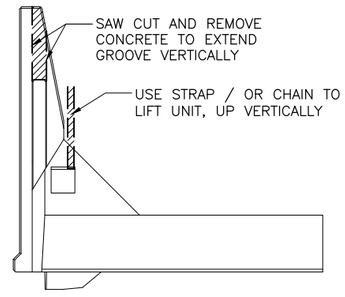
STEP #1 AND #2

SCALE: NOT TO SCALE



STEP #3

SCALE: NOT TO SCALE



STEP #4 & #5

SCALE: NOT TO SCALE

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14

GRAVIX

DOT Precast Wall System

GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

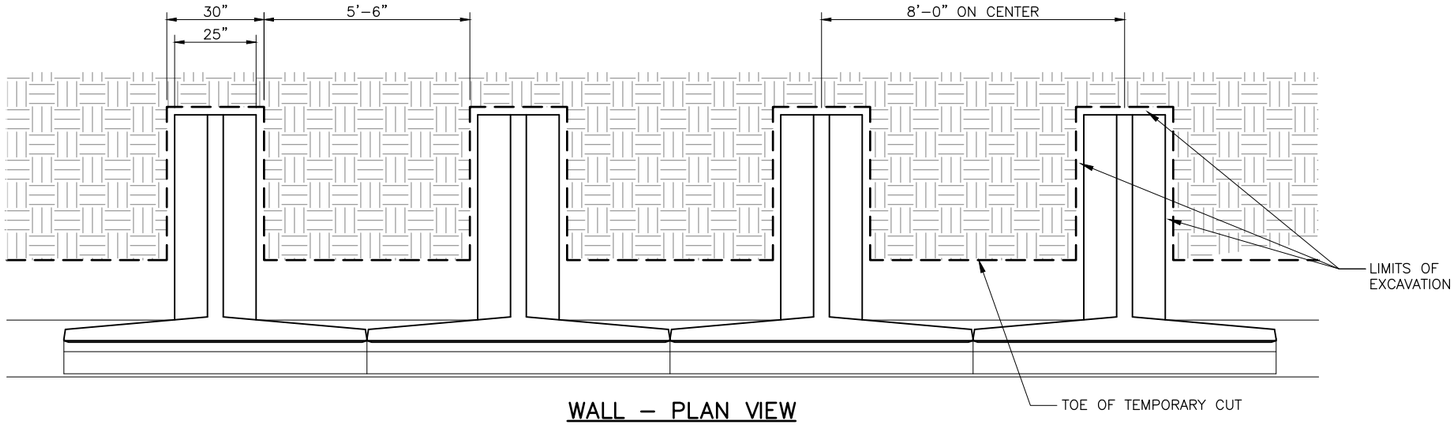
[PROJECT NAME]
[PROJECT LOCATION]

GRAVIX TRAFFIC BARRIER REPLACEMENT

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

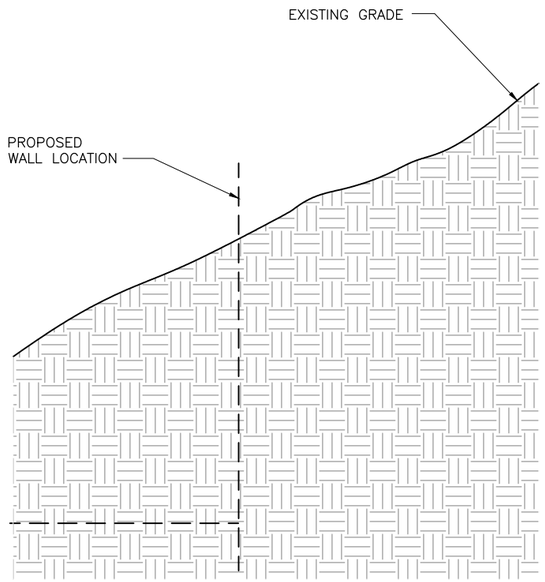
SHEET NUMBER
95 OF 97



WALL – PLAN VIEW

SCALE: 1/2" = 1'-0"

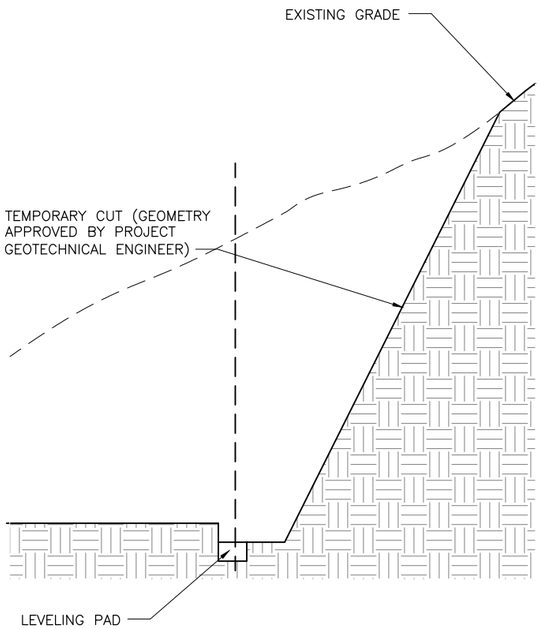
0 3 6 9 12 IN



SECTION – EXISTING CONDITIONS

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

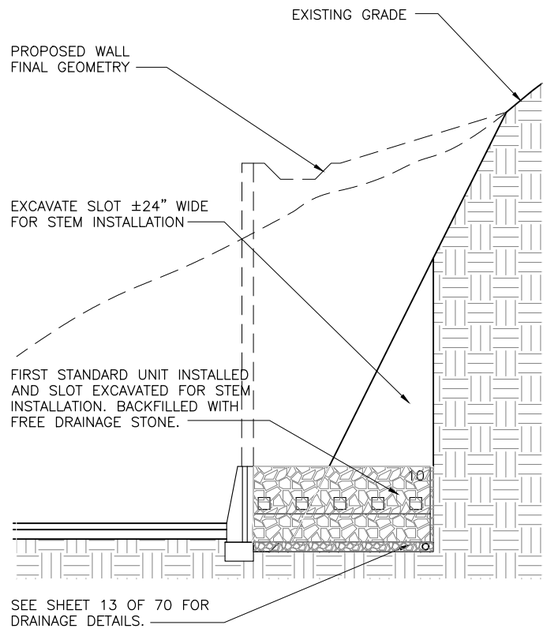
0 5 10 FT



SECTION – TEMPORARY CUT SLOPE

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

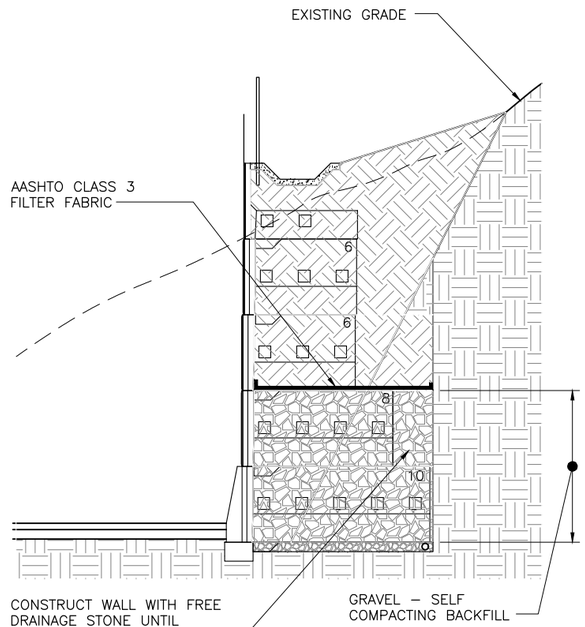
0 5 10 FT



SECTION – INITIAL WALL INSTALLATION

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

0 5 10 FT



SECTION – COMPLETED WALL

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

0 5 10 FT

GRAVIX 6-6-2018.dwg

6/6/2018 2:08 PM

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

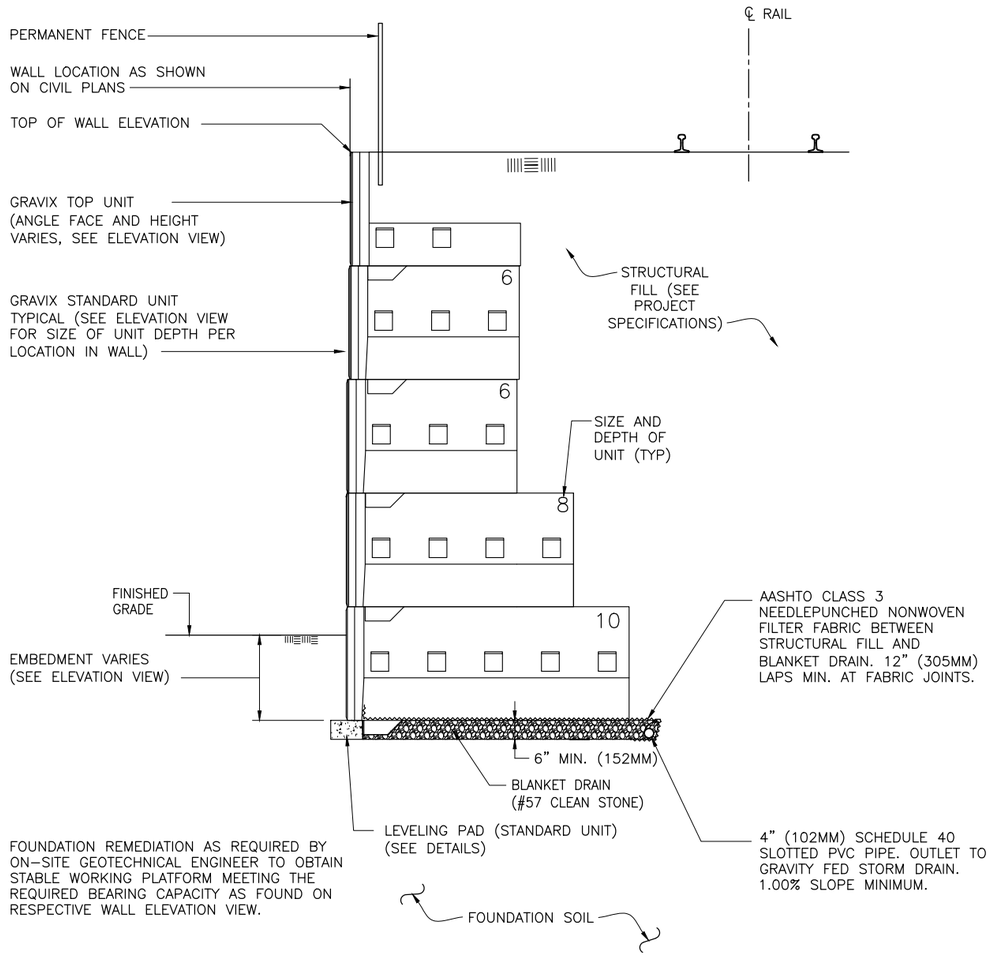
[PROJECT NAME]
[PROJECT LOCATION]

INSTALLATION INTO TEMPORARY CUT SLOPE

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

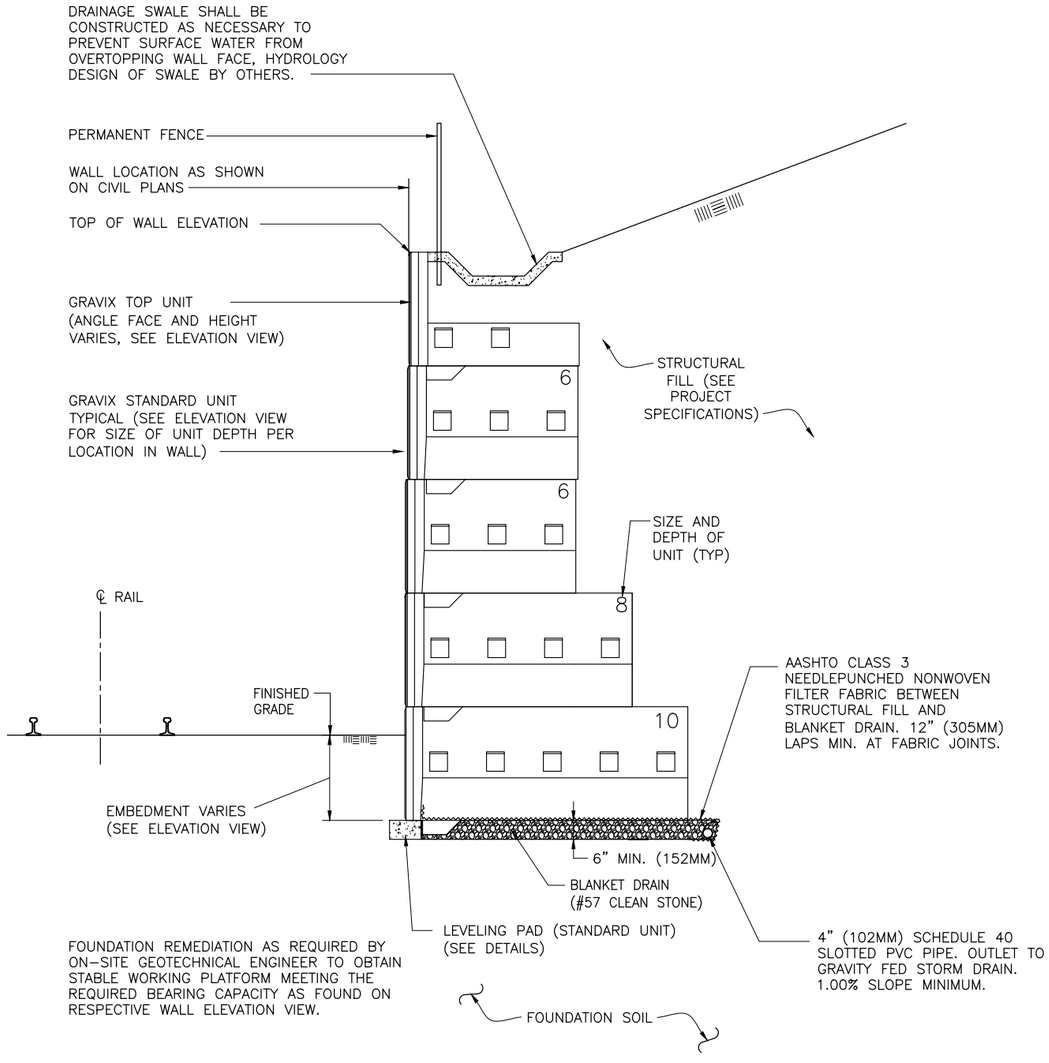
SHEET NUMBER
96 OF 97



TYPICAL CROSS SECTION – RAIL BEHIND WALL

SCALE: 3/8" = 1'-0"

0 5 FT



TYPICAL CROSS SECTION – RAIL IN FRONT OF WALL

SCALE: 3/8" = 1'-0"

0 5 FT

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	PRECASTER COMMENTS	TR	06/11/14
2	UPDATED DRAWINGS	TR	08/31/14
3	UPDATED SHEET 42	TR	03/22/16
4	UPDATED REBAR	TR	08/01/16
5	UPDATED SHEETS 4,12,69,70,71	ERM	08/10/16
5	ADDED AND UPDATED DRAWINGS	ERM	06/06/18

GRAVIX
DOT Precast Wall System
GRAVIX IS A LICENSED PRODUCT OF EARTH WALL PRODUCTS, LLC

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND / OR INSTRUCTIONS TO THE FABRICATOR, ERECTOR AND CONTRACTOR. CERTIFIED WITH RESPECT TO BEARING, SLIDING, INTERNAL STABILITY AND OVERTURNING OF THE GRAVIX STRUCTURE ONLY.

STATE OF [NAME]
DEPARTMENT OF TRANSPORTATION

[PROJECT NAME]
[PROJECT LOCATION]

TYPICAL CROSS SECTIONS RAILROAD APPLICATIONS

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2"-SCALE ACCORDINGLY)

DESIGNED TLR
DRAWN ERM
REVIEWED TLR

SHEET NUMBER
97 OF 97

GRAVIX 6-6-2018.dwg
6/6/2018 2:08 PM