

General Notes

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The Contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at 410-313-1680 at least five (5) working days prior to the start of work any excavation work being done.
- The Contractor shall test pit existing utilities at least five (5) days prior to the start of construction to verify their location and elevation. The Contractor shall notify the engineer immediately if the location is different than shown.
- The Contractor shall coordinate the location of all water, sewer and drain house connections with the mechanical drawings.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Maryland Manual of Uniform Traffic Control Devices (MUTCD).
- All paving markings shall be "Traffic white", unless otherwise noted.
- All plan dimensions are to face of curb unless otherwise noted.
- The existing topography is taken from field run survey with two foot contour intervals prepared by Shanhberger & Lane on January 24, 2005 and field verified by Daft McCune Walker, Inc in November 2010.
- The courses and coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County monument No's 47DA, 47EA, and 47G2 were used for this project.
- The Contractor shall maintain a minimum of a 2.0 foot protective cover over all utilities during construction.
- Refer to Architectural drawings for exact building dimensions.
- There is no floodplain, wetlands, streams, buffers or 25% steep slopes located within the subject parcel.
- Project background information:
Tax Map: 47
Zoning: PEC
Election District: 6
Subdivision Name: Revitz Property Parcel G-1
Lot/Parcel: 165
Total Parcel Area: 9.710 Acres
File Numbers: Plat #10604, 10605, F-07-055, 5-99-12, PB 339 and ZB 979M, PB-359, F-02-111, SP-01-12, F-02-131, F-07-55, F-08-93, F-08-207, SDP-10-096 and F-11-019.
- All outdoor lighting shall comply with the requirements of Zoning Section 134. All exterior light fixtures shall be oriented to direct light inward and downward on-site and away from all adjoining residential properties and public roads in accordance with Section 134 of the Howard County Zoning Regulations.
- Handicap parking details and signage shall be in accordance with ADAAG (Americans with Disabilities Act Accessibility Guidelines) and COMAR (Code of Maryland Regulations) Section 5.02.02.
- Any damage to the county owned right-of-way shall be corrected at the contractor's expense.
- All sidewalks shall be cross sloped at 1/4 inch per foot.
- Trench bedding for storm drainage structures shall be in accordance with Howard County Standard G2.01.
- All inlets shall be constructed in accordance with Howard County standards or MSHA standards as specified on the structure.
- All materials and construction shall be in strict accordance with the Howard County Design Manual, Volume IV.
- Building setback restrictions from property lines and right-of-way lines of any public road shall be in accordance with the PEC Zoning Regulations and Record Plat.
- All onsite driveways and parking areas to be privately maintained.
- All curb radii are to be 5 feet unless otherwise labeled and all curbs are to be 6 inches in height.
- All equipment and tools to be placed so as not to interfere with vehicular or pedestrian movement unless specified.
- The contractor shall be responsible for any damage to existing property which may occur as a result of negligence during the execution of work.
- All proposed handicap ramps shall be in accordance with current ADA standards.
- This property is located within the Metropolitan District.
- Electric, gas, cable, telephone and lighting lines are designed by others.
- This plan has been prepared in accordance with the provisions of section 16.124 of the Howard County Code and Landscape Manual. Landscaping shall be provided in accordance with the Landscape Plan and financial surty shall be paid with the DPW Developer's Agreement in the amount of \$14,310.00 for 35 shade trees and 127 shrubs.
- (From plat #15783) As a result of the Preliminary Equivalent Sketch Plan, SP-01-12, being submitted to the County for review prior to 11/15/01, on 04/14/01. This subdivision is subject to compliance with the fourth edition of the Subdivision and Land Development Regulations. In addition, because SP-01-12 did not obtain a signature approval prior to 11/01/01. This subdivision is subject to compliance with County Bill 50-2001, which amends the Zoning Regulations, and the amended Zoning Regulations which became effective on 01/08/02. This SDP is subject to the amended Fifth Edition of the Subdivision and Land Development Regulations and the development or construction on this property must comply with the setback and buffer regulations in effect at the time of submission of the SDP, waiver or grading and building permits.
- The Forest Conservation requirements for this development were previously addressed under DPZ File # F-02-111 with 26.42 acres of retention and 5.20 acres of reforestation planting provided as part of the Revitz Property Plan.
- An existing SWM pond, privately owned and maintained, designed and approved under F-02-111 meets the requirements for WQ and Cpy Management. Existing SWM pond is owned and maintained by the Emerson Community Association. Rev will be met as shown on the Stormwater Management plan with stone recharge trenches, which shall be owned and maintained by the owner.
- Stormwater management is provided in accordance with the 2000 Maryland Stormwater Design Manual. The criteria outlined in the MDE Guidelines to grant an administrative waiver. The existing pond located on parcel P was constructed prior to May 4, 2010. A grading permit shall be approved prior to May 4, 2013. This plan is also subject to the expiration of this waiver unless all stormwater practices are completed by May 4, 2017.
- The existing utilities shown within Sterling Drive are based on approved Water Drawings, Contract No. 24-4698-D and were field located by DMW, Inc on May 13, 2010.
- The open space requirements for this development were previously addressed under DPZ file no. F-02-111, Plat #15783 recorded on January 27, 2003. A total of 40.275 of open space is provided on Parcels J, O, P, Q, R, I, K, L, M and N. No open space exists on Parcel G-1.
- No cemeteries or historic structures exist within the boundaries of the site.
- The proposed building shall have an Automatic Fire Protection Sprinkler System (by others).
- Street light placement and the type of fixture and poles shall be in accordance with the Howard County Design Manual, Volume III (2006), section 5.5A. A minimum of 20' shall be maintained between any street light and any tree.
- All sign posts used for traffic control signs installed within the county right-of-way shall be mounted on a 2" galvanized steel, perforated, square tube post (1 1/2" gauge) installed into a 2-1/2" x 12" perforated, cube sleeve (12 gauge) 3' long. A galvanized steel pole cap shall be mounted on top of each post.
- Site deed reference : Deed 1147911 Plat no. 15787, 21277 & 21278.
- This site complies with the Howard County Green Building law set forth under Title 3, Subtitle 10 of the Howard County Code and section 3.100(b)(4) of the Code. Registration with the Green Building Council and the applicable LEED registration fee was paid on 12/12/2010. The LEED New Construction checklist was prepared, signed and dated by the project LEED accredited professional and was received by DPZ on January 4, 2011. The proposed building is tentatively certified by LEED with a Silver rating.
- The Traffic Study for this project was updated by Traffic Concepts, Inc. in January 2011.
- The proposed project is in compliance with the APFO Study for the Revitz property prepared by Wells & Associates and Approved Feb. 1, 2002.
- The subject property is zoned PEC per the Comprehensive Plan, Feb. 2, 2004. The plan is subject to the Comp Lite Zoning Regulation Amendments effective on July 28, 2006.
- No grading, removal of vegetative cover or trees, paving and new structures shall be permitted within the required wetlands, stream(s) or their buffers, forest conservation easement areas and 100 year floodplain.
- Trash collection, trash pick-up and recycling services will be provided for this building. At full occupancy, pick-up can occur daily.

48. A VARIANCE (RESOLUTION NO. 119-2011) PURSUANT TO SECTIONS 16.301 AND 16.300 (a) OF THE HOWARD COUNTY CODE WAS GRANTED ON JULY 28, 2011 FOR GOVERNMENT USES FROM THE STRUCTURE AND USE SETBACK FOR A FENCE.

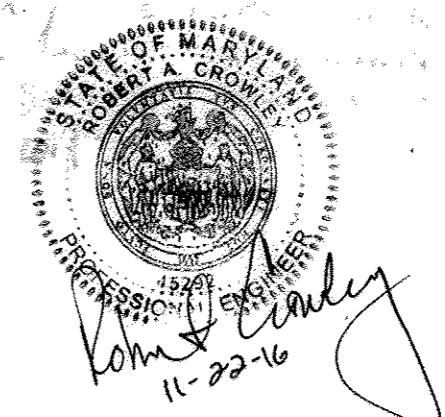
AS BUILT CERTIFICATION FOR PSWM
NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
ROBERT CROWLEY
45292

Site Development Plan

for Emerson Parcel G-1 (Revitz Property)

Howard County

Maryland



VICINITY MAP

Scale: 1"=2000'
HOWARD COUNTY ADC MAP NUMBER 5053, BLOCK H9

BENCHMARK

DESCRIPTION

COORDINATES IN MARYLAND NAD83(91) (HORIZONTAL) AND NGVD29 (VERTICAL) DATUMS.

47G2 NORTHING: 162440.1212 47E4 NORTHING: 163326.2295
EASTING: 411853.9279 EASTING: 413136.2550
ELEVATION: 364.210ft. ELEVATION: 338.909ft.

47DA NORTHING: 163191.9104
EASTING: 411286.5759
ELEVATION: 96.2879ft.

ADDRESS CHART

PARCEL NUMBERS	STREET ADDRESS
PARCEL G-1	9025 STERLING DRIVE

Sheet Index

SHEET	DESCRIPTION
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7	SITE DETAILS
8	SITE DETAILS
9	EROSION & SEDIMENT CONTROL PLAN
10	EROSION & SEDIMENT CONTROL DETAILS
11	EROSION & SEDIMENT CONTROL DETAILS
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13	STORM DRAIN DRAINAGE AREA & SOILS MAP
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30	MECHANICAL EQUIPMENT ENCLOSURE
31	SLAB AND FOUNDATION PLAN
32	STORMWATER MANAGEMENT DETAILS

Site Analysis Data Chart

- General Site Data
 - Present Zoning: PEC per the Comprehensive Plan, Feb. 2, 2004. The plan is subject to the Comp Lite Zoning Regulation amendments effective on July 28, 2006.
 - Applicable DPZ File References: Plat # 10604, 10605, F-07-055, ZB-979M, 5-99-12, F-01-25, SP-01-12, PB-339, PB-359, F-02-111, F-07-55, F-08-93, F-08-207, SDP-10-096, F-11-019, F-11-094.
 - Proposed Use: 5-Story commercial office building
 - Proposed Water: Public
 - Proposed Sewer: Public
 - Any other relevant information: N/A
 - Area of steep slopes: 0 Acres
 - Area of floodplain: 0 Acres
- Area Tabulation
 - Total Site Area: Existing - 9.71 Acres
 - Limit of Disturbed Area: 422,254 Sq. Ft. 9.67 Acres
 - Total Impervious Area: 268,350 Sq. Ft. 6.16 Acres
 - Building Coverage of Site: 0.70 Acres and 7.2% of Site Area
- Parking Space Data
 - Number of Parking Spaces Required by Zoning Regulations and Criteria: 153,454 SF Office @ 3.31/1000 = 507 spaces
 - Total Number of Parking Spaces Provided On-Site: 632
 - Total includes:
 - 503 Standard spaces (33 FEVILEY, 14 HIC, 255 Regular)
 - 508 Surface spaces (12 HIC, 36 Compact, 26 Regular)
 - 124 Deck spaces (2 HIC, 36 Compact, 26 Regular)
 - Total spaces = 632

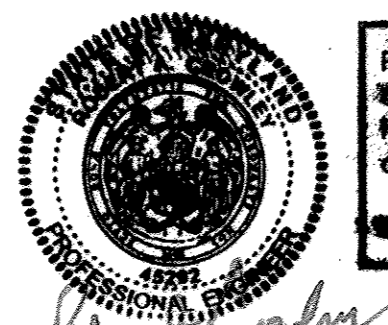
THERE IS NO AS BUILT INFORMATION SHOWN ON THIS SHEET AS BUILT NOT REQUIRED DuVal and Associates, P.A. By DOUGLAS W. DUVAL REG.# 10764



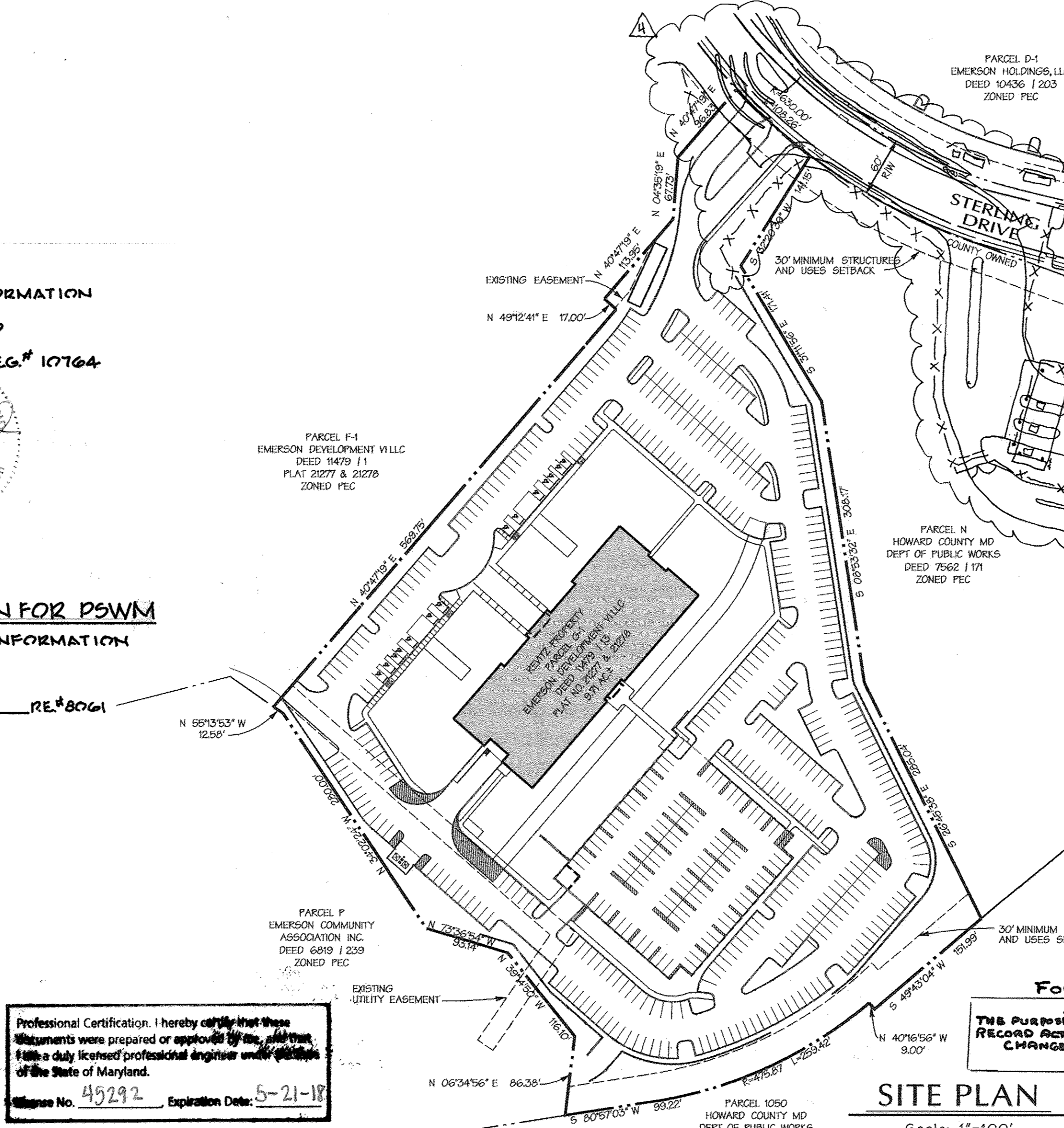
AS BUILT CERTIFICATION FOR PSWM
NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

SIGNED *Paul Hudson* RE#8061
PAUL L. HUDSON

THE PURPOSE OF REVISION #3 IS TO REVISE SITE ANALYSIS DATA CHART, NOTE #2, TOTAL IMPERVIOUS AREA, REVISED THE SHEET INDEX.



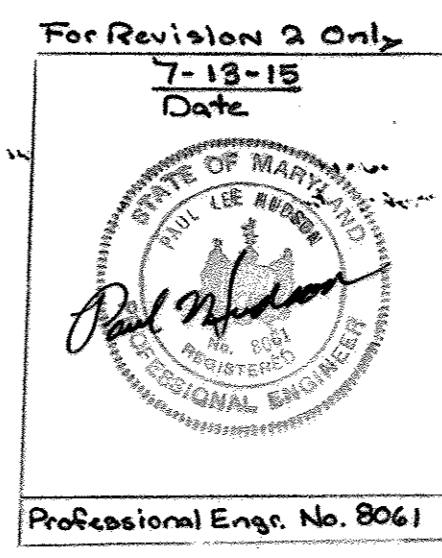
Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 45292, Expiration Date: 5-21-18



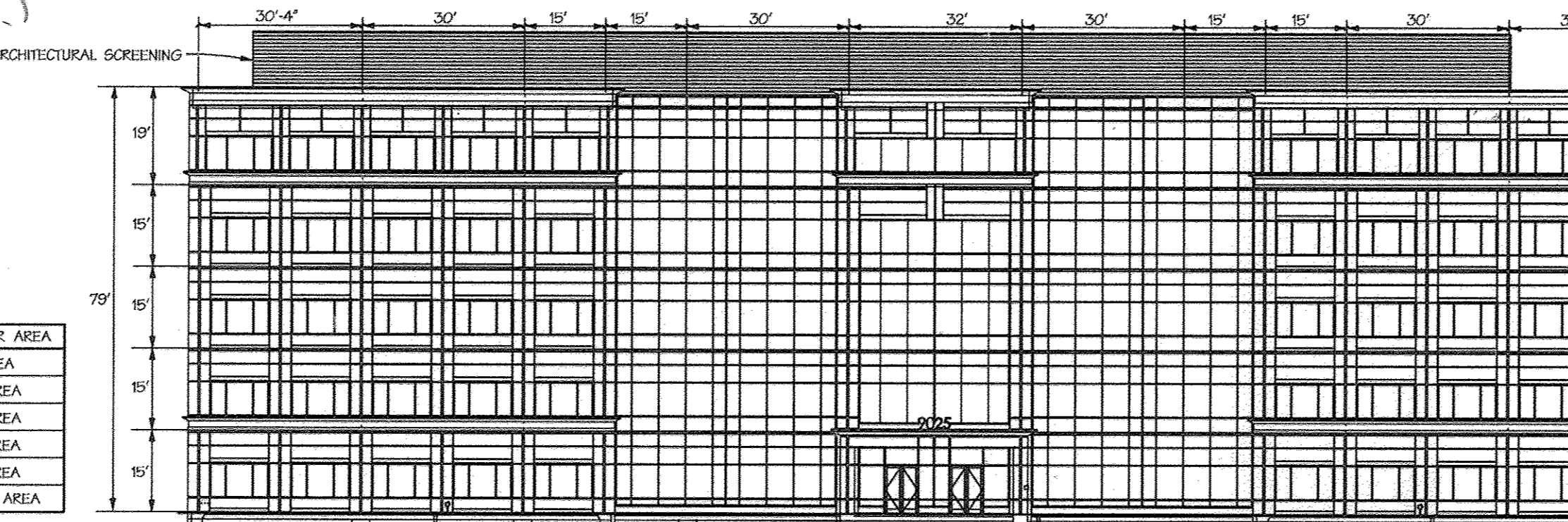
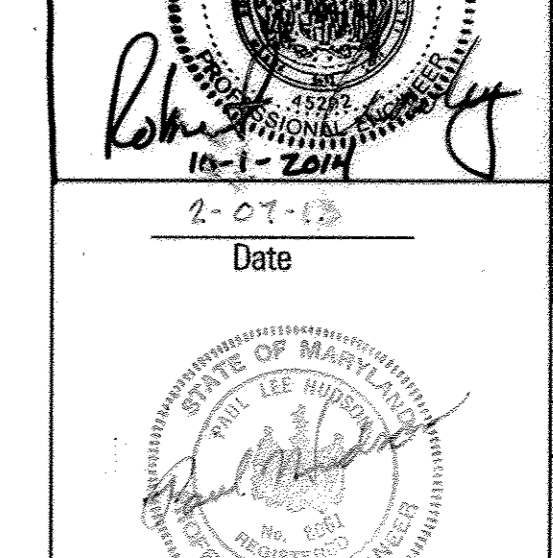
FOR REVISION #2
PURPOSE STATEMENT
THE PURPOSE OF THIS REVISION (REVISION #2) IS TO RECORD ACTUAL AS-BUILT SITE CONDITIONS DUE TO CHANGES MADE DURING CONSTRUCTION.

PROFESSIONAL CERTIFICATION FOR REV #1
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 45292, EXPIRATION DATE: 05/21/2016

THE PURPOSE OF REVISION #1 IS:
1. SHOW THE PROPOSED EMERSON CAMPUS SECURITY FENCE.
2. ADD ADDITIONAL DRAWING SHEETS ASSOCIATED WITH THE PROPOSED EMERSON CAMPUS SECURITY FENCE.



FOR REVISION #1
PROFESSIONAL CERTIFICATION FOR REV #1
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 8-26-15



BUILDING ELEVATION

Not to Scale
BUILDING FACADE TO BE CONCRETE/MASONRY AND GLASS

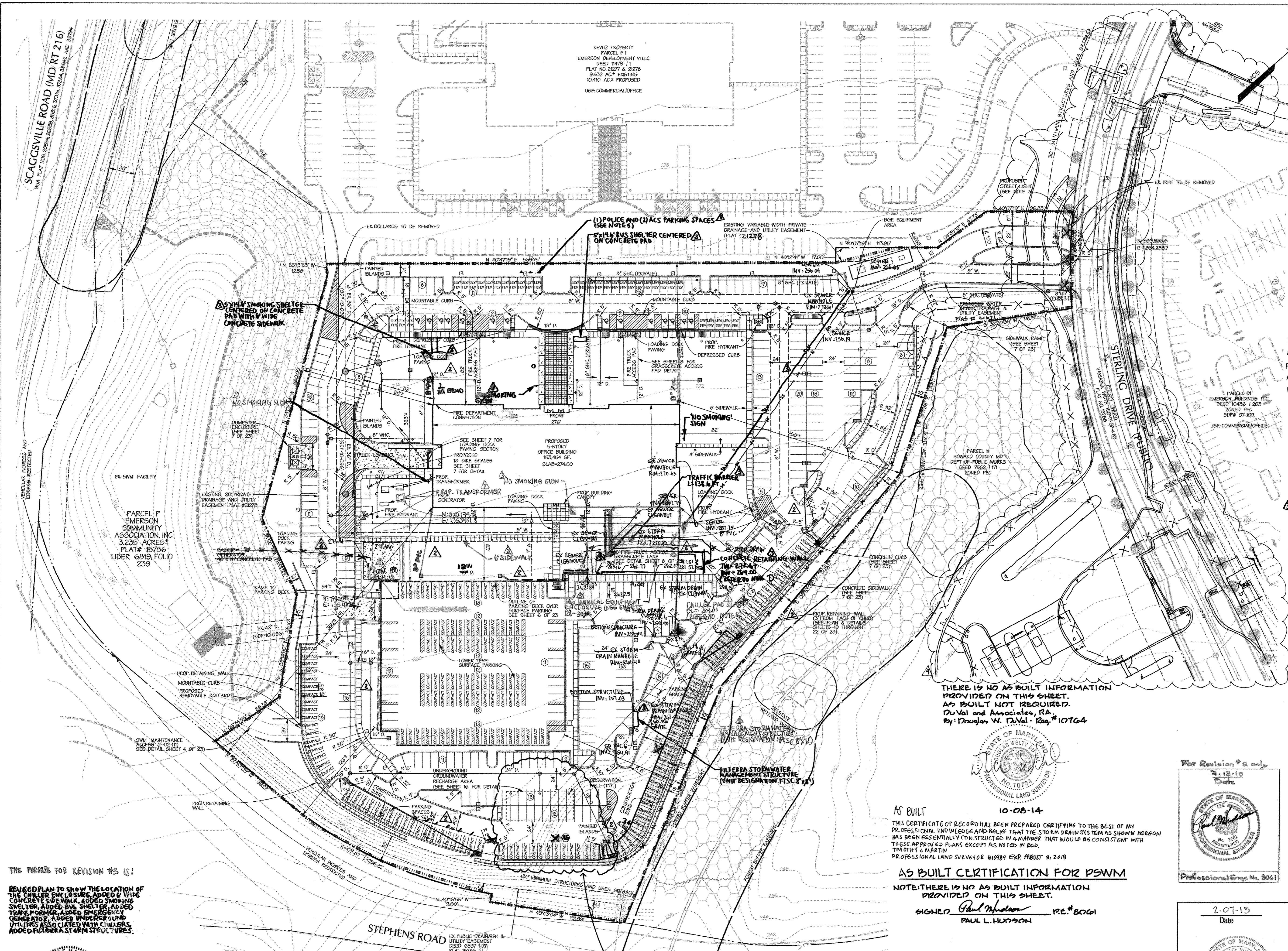
REVISION NO.	DATE	DESCRIPTION
7-9-15		DELETE SHEETS 19 TO 22, REDLINE REVISIONS, ADD NEW SHEETS 19 AND 20
9/22/16		EMERSON CAMPUS VCP
10/1/16		CAMPUS PERIMETER SECURITY FENCE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Keith Johnson 3/6/13
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE
✓ TM
Monika P. Leung 3/6/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE
DIRECTOR

EMERSON PARCEL G-1

L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONUX, MARYLAND 21093-8288
(443) 689-8000

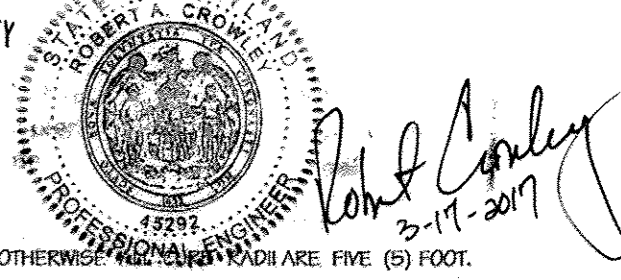
SUBDIVISION NAME		SECTION/AREA	LOT/PARCEL #	LOT G-1 PAR. 165
REVITZ PROPERTY	SECTION/AREA	LOT/PARCEL #	LOT G-1 PAR. 165	
PLAT # 10604, 10605	FILE NO. 20	SEWER CODE	606903	
TITLE				
COVER SHEET				
Des. By	THR/JDF	Scale	A5 SHOWN	Proj. No. 95054.30
Drn. By	J56	Date	2-07-13	
Chk. By	Approved	1 of 23		



LEGEND

- PROPERTY BOUNDARY
- EX. RIGHT OF WAY
- ADJACENT PROPERTY BOUNDARY
- EX. ROADS AND WALKS
- 280 EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- FCE FOREST CONSERVATION EASEMENT
- PROP. BUILDING
- PROP. CURB / EDGE OF PAVING
- PROP. DEPRESSED CURB
- PROP. REVERSE CURB
- PROP. GROUP LIGHT (BY OTHERS)
- PROP. SINGLE LIGHT (BY OTHERS)
- PROP. LIGHT (BY OTHERS)
- EX. STREET TREE TO BE REMOVED
- PAINTED ISLAND
- LIMIT OF DISTURBANCE

AS BUILT CERTIFICATION FOR PSWM: ~~None~~
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.
 ROBERT CROWLGM, 45292



- NOTES:**
- UNLESS LABELED OTHERWISE, ALL DIMENSIONS ARE IN FEET.
 - SEE ARCHITECTURAL PLANS FOR EXACT BUILDING AND PARKING DECK DIMENSIONS.
 - STREET LIGHT SHALL BE A 250 WATT HPS VAPOR COBRA FUTURE (CUTOFF) MOUNTED ON A 30" BRONZE FINERGLASS POLE USING A 12" ARM. STREET LIGHT SHALL BE INSTALLED BY GC&E AND PAID FOR BY THE DEVELOPER AS PART OF THE DEVELOPER'S AGREEMENT.
 - ALL PAINTED ISLANDS SHOWN ARE TO ALLOW FOR TRUCK MOVEMENT AROUND THE SITE AND TO ALLOW FOR DELIVERIES.
 - CONTRACTOR TO PROVIDE ONE (1) 12" X 12" POLICE PARKING ONLY AND TWO (2) 12" X 12" POLICE PARKING ONLY SIGNS IN ACCORDANCE WITH MUTCD STANDARDS FOR TEXT HEIGHT AND SPACING.
 - CHILLER PAD CONCRETE SLAB SHALL BE SET AT ELEVATION 284.00 AND SLOPED TO AREA DRAINS.
 - TOP OF CONCRETE RETAINING WALL SHALL BE SET AT ELEVATION 272.61 ACROSS THE SLOPE OF THE ENTIRE WALL. LIMIT OF DISTURBANCE = 1422.254 SF / 1.969 AC.

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 3/26/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 2/25/13
DIRECTOR, EMERSON CAMPUS VCP	DATE 3/7/13
7.102 REVISIONS: REMOVE RET. WALL, GUARD RAIL, FURNISH GRASS, ADD FOUND'TN DRAINS	
Date	No. Revision Description

EMERSON PARCEL G-1
 L.E.E.D. BUILDING
 5-STORY COMMERCIAL OFFICE BUILDING
 OWNER/DEVELOPER:
 EMERSON DEVELOPMENT VI LLC
 1 TEXAS STATION COURT, SUITE 200
 TIMONIUM, MARYLAND 21093-8288
 (443) 689-8000

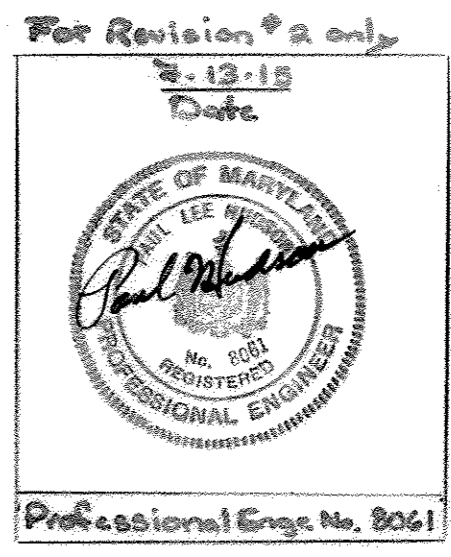
DMW DAFT M'CUNE WALKER			
200 EAST PENNSYLVANIA AVENUE, SUITE 200, BALTIMORE, MD 21202 P: 410.239.2222 F: 410.239.2223 WWW.DMW.COM			
A TEAM OF LAND PLANNERS, ENGINEERS, ARCHITECTS AND ENVIRONMENTAL SCIENTISTS			
SECTION NAME	SECTION/AREA	LOT/FACILITY #	
REVIZIT PROPERTY	SECTION 4/1A	PARCEL G-1 / PAR. 165	
PLAT # OR L.P. #	BLOCK #	DEED #	CONDE. TRACT #
21277 & 21278	20	PEC	6
WORK CODE	OWNER CODE	CONDE. TRACT #	
		606903	
TITLE			
SITE PLAN			
Des. By	THR/JDF	Scale	1"=50'
Proj. No.	95054.3	Date	2-07-13
Dim. By	JSS	Checked	Approved
Chk. By	Approved	2 of 28	

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED.
 Duval and Associates, P.A.
 By: Douglas W. Duval, Reg. # 10764



AS BUILT
 THIS CERTIFICATE OF RECORD HAS BEEN PREPARED CERTIFYING TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF THAT THE STORM DRAIN SYSTEM AS SHOWN HEREON HAS BEEN ESSENTIALLY CONSTRUCTED IN A MANNER THAT WOULD BE CONSISTENT WITH THESE APPROVED PLANS EXCEPT AS NOTED IN RED.
 TIMOTHY J. MARTIN
 PROFESSIONAL LAND SURVEYOR #10989 EXP. AUGUST 9, 2018

AS BUILT CERTIFICATION FOR PSWM
 NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
 SIGNED: Paul Hudson P.E. # 8761
 PAUL L. HUDSON



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 45292 Expiration Date: 02/21/2018



SEE SHEET 12 FOR PSWM ALIGNMENT LOCATION

THE PURPOSE OF REVISION #4 IS TO SHOW THE WORK ASSOCIATED WITH THE EMERSON CAMPUS VCP, SDP-10-005

PROFESSIONAL CERTIFICATION FOR REV #4
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 45292, EXPIRATION DATE: 05/21/2018



THE PURPOSE FOR REVISION #3 IS:
 REVISED PLAN TO SHOW THE LOCATION OF THE CHILLER ENCLOSURE, ADDED W/ W/ CONCRETE SIDEWALK, ADDED SMOKING SHELTER, ADDED BUS SHELTER, ADDED TRANSFORMER, ADDED EMERGENCY GENERATOR, ADDED UNDERGROUND UTILITIES ASSOCIATED WITH CHILLERS, ADDED FILTER STORM STRUCTURES.

THIS CERTIFICATE OF RECORD HAS BEEN PREPARED CERTAINLY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF THAT THE SEWER SYSTEM AS SHOWN HEREON HAS BEEN ESSENTIALLY CONSTRUCTED IN A MANNER THAT WOULD BE CONSISTENT WITH THESE APPROVED PLANS EXCEPT AS NOTED IN 266.

TIMOTHY J. MARTIN
PROFESSIONAL LAND SURVEYOR #14899
EXPIRATION DATE: AUGUST 3, 2018

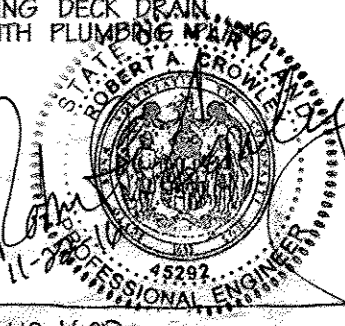
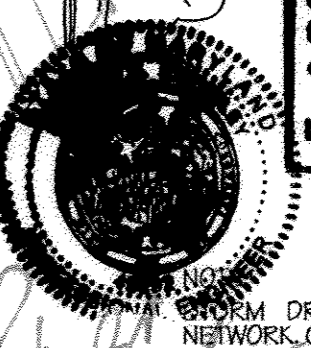
PARCEL P
EMERSON
COMMUNITY
ASSOCIATION, INC
3.235 ACRES±
PLAT# 15786
LIBER 6819, FOLIO
239

REVITZ PROPERTY
PARCEL F-1
EMERSON DEVELOPMENT VILLAGE
DEED 14479 J 1
PLAT NO. 21277 & 21278
9.532 AC± EXISTING
10.410 AC± PROPOSED

THE PURPOSE OF REVISION #3 IS TO SHOW THE WORK ASSOCIATED WITH THE EMERSON CAMPUS VCP.
SDP-11-005

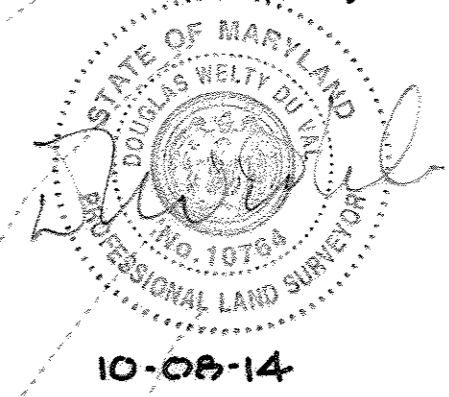
THE PURPOSE FOR REVISION #3 IS TO REVISED PLAN TO INCLUDE THE FOLLOWING: NEW CHILLER ENCLOSURE, ADDED UNDERGROUND UTILITIES INCLUDING CHILLED WATER SERVICE & RETURNING PIPING AND 1" MAKE UP WATER LINE, ADDED 6" SANITARY SEWER LINE, ADDED SMOKING SHELTER, ADDED BUS SHELTER, ADDED ELECTRICAL TRANSFORMER AND GENERATOR, ADDED UNDERGROUND ELECTRICAL LINES, ADDED TWO FILTERA STORAGE WATER MANAGEMENT STRUCTURES, ADDED AREA DRAIN AND ASSOCIATED STORM PIPING AT CHILLER ENCLOSURE.

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 45292 Expiration Date: 05/31/2018



THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED.
By: Douglas W. DuVal, Reg. # 10764

For Revision #2 Only
7-13-13
Date
Professional Eng. No. 8061



9-22-16	EMERSON CAMPUS VCP
APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	3/06/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION	2/25/13
DIRECTOR	3/3/12

7-10-15	REMOVE RETAINING WALL, FOUNDATION DRAINS
7-10-15	LOADING DOCK GRIDS, REVERSE GRADES DRAINS

EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

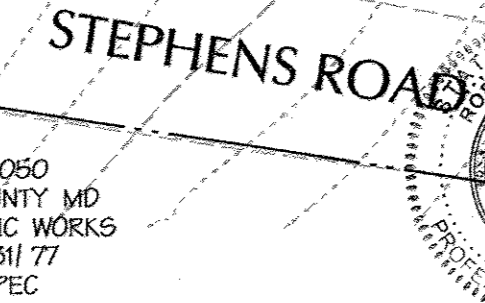
DMW
DAFT MICUNE WALKER
200 EAST PENNSYLVANIA AVENUE, SUITE 100
P.O. BOX 200, ANNAPOLIS, MD 21403
A TEAM OF LAND PLANNERS, LAND SURVEYORS, ENGINEERS, SURVEYORS & EIT/PROFESSIONALS

SUBDIVISION NAME	REVITZ PROPERTY	SECTION/AREA	PARCEL G-1 PAR. 165
PLAT NO. OF	21277 & 21278	BLK #	47
ZONE	22	BLK. DISTRICT	6
OWNER	EMERSON DEVELOPMENT VI LLC	CENSUS TRACT	606903
TITLE	GRADING & UTILITY PLAN		
Des. By	THR/JDF	Scale	1" = 40'
Drn. By	JSS	Date	2-07-13
Proj. No.	95054.3		
Chk. By	Approved	3 of 28	

ID	RIM	INVERT IN	INVERT OUT
AD 1	262.70	-	259.31
AD 2	262.70	-	259.60
AD 3	262.70	-	259.60
ESD 1	262.33	-	259.50
ESD 2	262.03	-	258.20

SHEET NOTES:
1. FOR RETAINING WALL DETAILS SEE SHEET 28.
2. FOR ACoustic BARRIER WALL DETAILS SEE SHEET 21.
3. CONNECT TO RETAINING WALL FOUNDATION DRAIN.
4. CHILLER SLAB SHALL BE SET AT ELEVATION 261.00 AND SLOPED TOWARDS THE AREA DRAINS.
5. TOP OF CONCRETE RETAINING WALL SHALL BE SET AT ELEVATION 272.61 ALONG THE ENTIRE LENGTH OF THE WALL.

AS BUILT CERTIFICATION FOR PSWM:
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE AS BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY. ROBERT CROWLEY, 45242



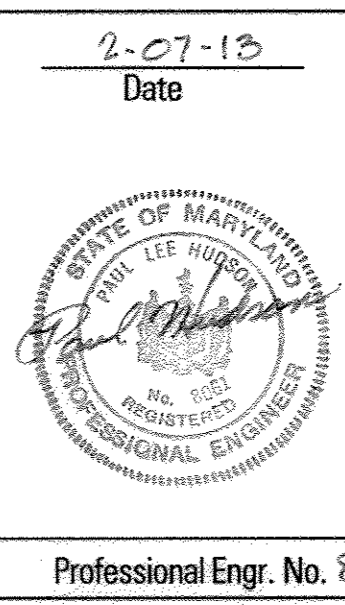
SEE SHEET 12 FOR PSWM ALIGNMENT LOCATION

AS BUILT CERTIFICATION FOR PSWM

NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
SIGNED: Paul L. Hudson RE: 8061
PAUL L. HUDSON

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 8061, Expiration Date: 8-26-13

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 8061, EXPIRATION DATE: 8-26-13



NOTE: CONTRACTOR TO SET FOUNDATION DRAIN PIPE AT INVERT ELEVATION 271.83, 6" ABOVE THE UNIFORM FOOTING ELEVATION AT LOCATIONS WHERE THE FOOTING IS DEPRESSED OR STEPPED DOWN, BRIDGE ACROSS AT DESIGNATED INVERT ELEVATION. FOR SECTION DETAIL OF FOUNDATION DRAIN SEE SHEET 5 & 23.
CLEANOUTS SHALL BE PROVIDED EVERY 75' ALONG FOUNDATION DRAIN AND OUTFALL PIPES AS WELL AS AT ALL HORIZONTAL ANGLE BREAKS.
6" FOUNDATION DRAIN TO BE CONTECH A-2000 SLOTTED PERFORATED RIGID PIPE OR APPROVED EQUAL.

NOTE: CONTRACTOR TO COORDINATE WITH STRUCTURAL ENGINEER FOR THE RETAINING WALL MODIFICATION AND PARTIAL REMOVAL BROUGHT ABOUT BY QUILTINI CHANGES.

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED.
By: Douglas W. DuVal, Reg. # 10764

SHEET NOTES:
1. FOR RETAINING WALL DETAILS SEE SHEET 28.
2. FOR ACoustic BARRIER WALL DETAILS SEE SHEET 21.
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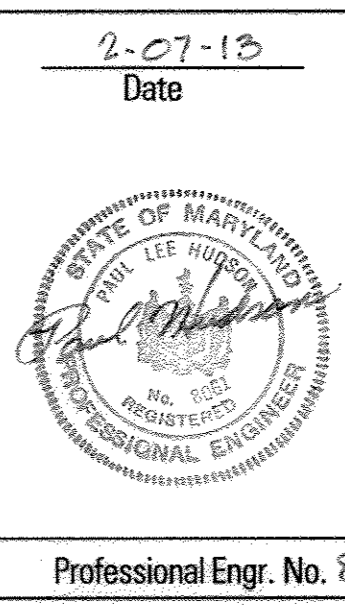
SEE SHEET 12 FOR PSWM ALIGNMENT LOCATION

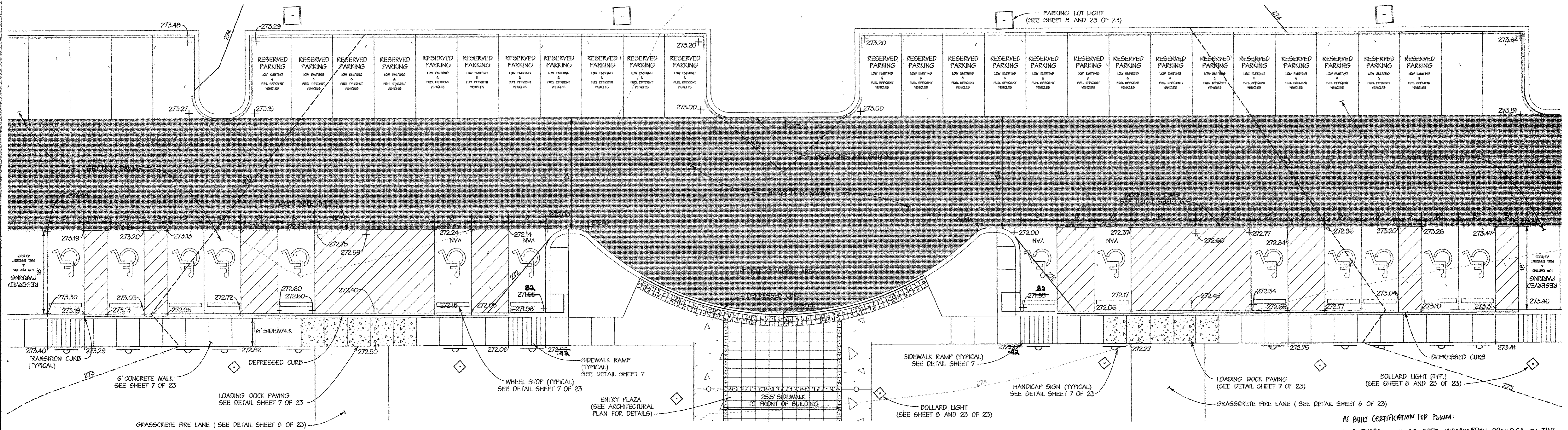
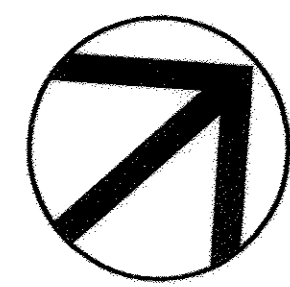
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PROPOSED HANDICAP PARKING AND ACCESS (FRONT)

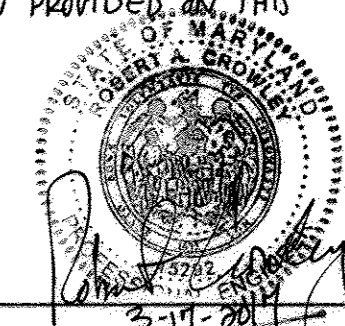
1"=10'

AS BUILT CERTIFICATION FOR PSWM

NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

SIGNED: *Paul L. Hudson* P.E. # 8061
PAUL L. HUDSON

AS BUILT CERTIFICATION FOR PSWM:
NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
ROBERT OWENLY
46292



THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED.
By: Douglas W. Duval - Reg. # 10764



10-08-14

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS

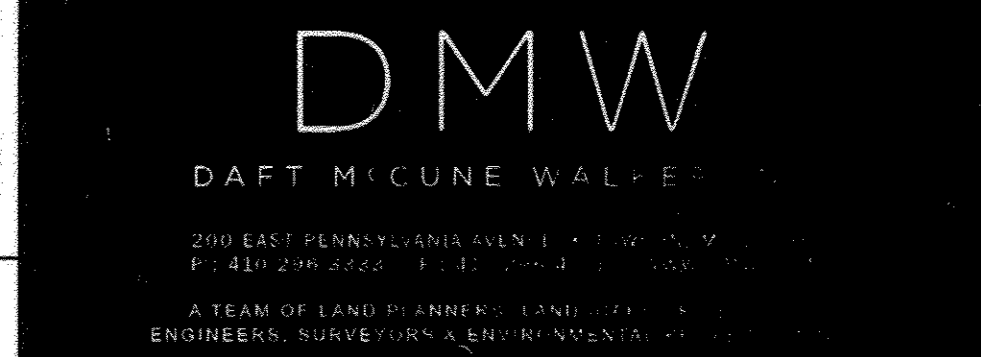
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	3/06/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION	2/25/13
DIRECTOR	3/7/13

7.10.15 **A** REMOVE RETAINING WALL, ELEVATIONS

Date	No.	Revision Description

EMERSON PARCEL G-1
L.E.E.D. BUILDING

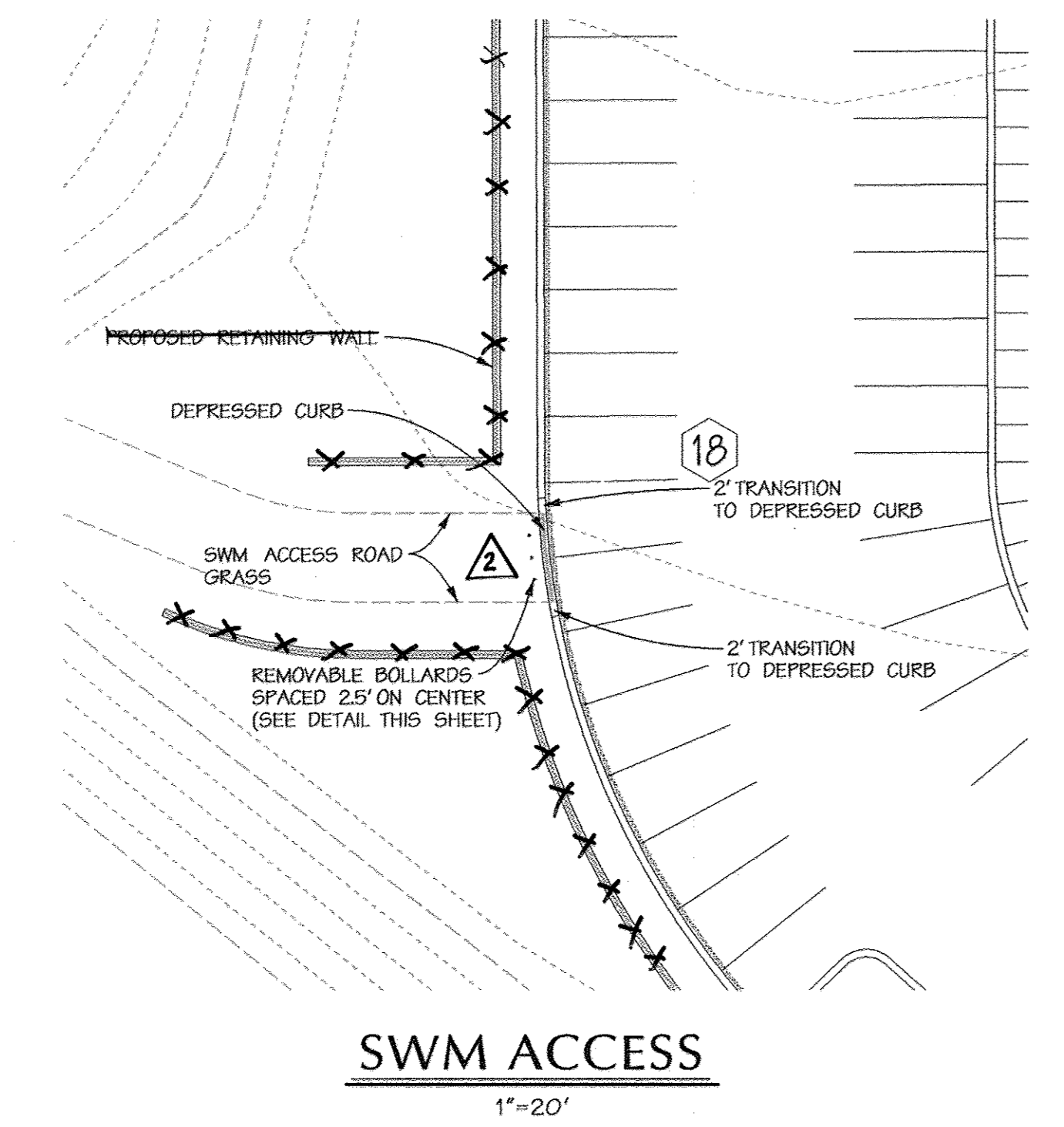
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000



SUBMISSION NAME	SECTION/AREA	LOT/PARCEL #
REVITZ PROPERTY		PARCEL G-1 PAR. 165
PLAT # OR UP (2027 & 2028)	BLOCK # (20)	TRACT # (6)
OWNER CODE	SEWER CODE	606803

SITE DETAILS

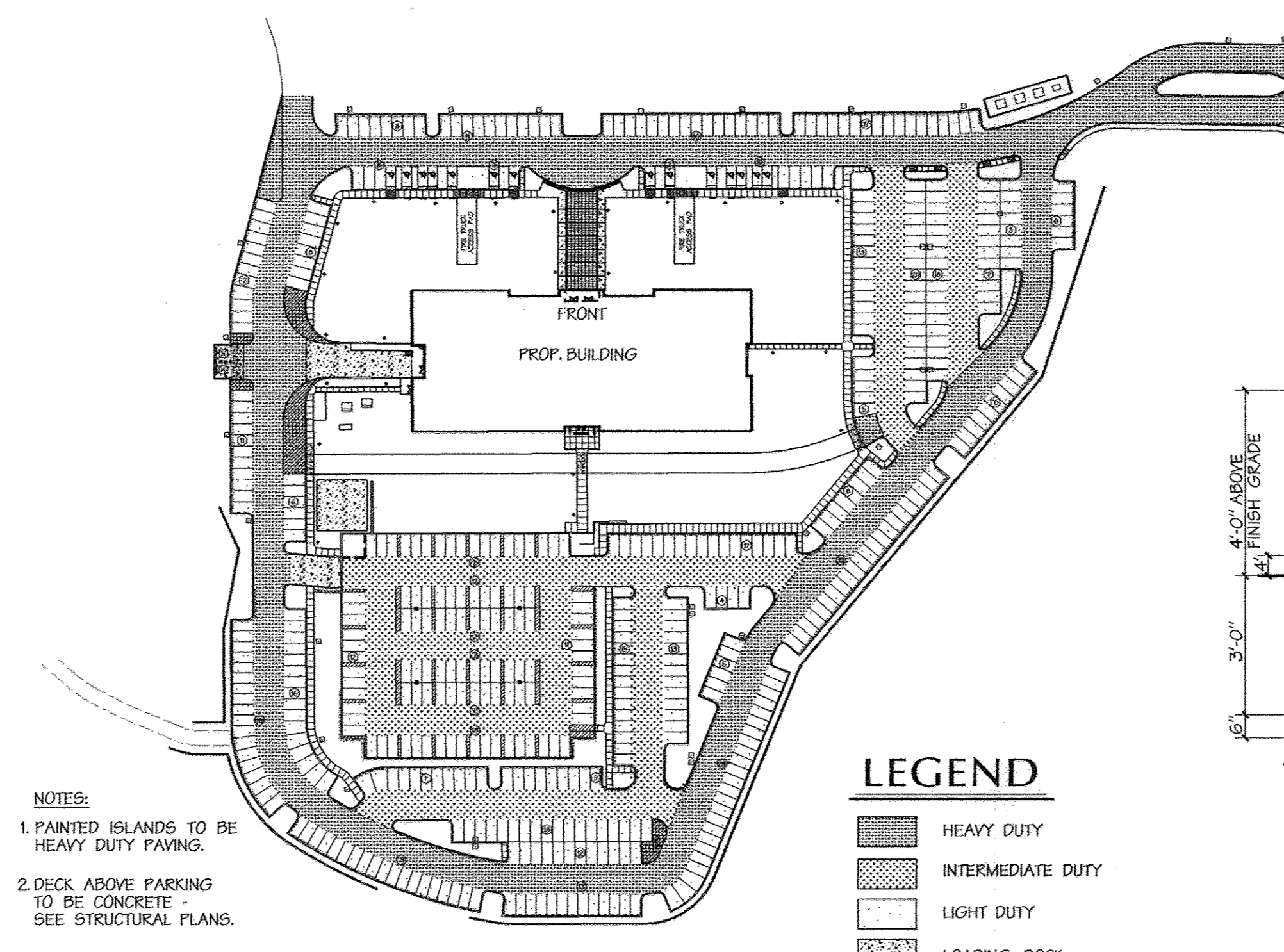
Des. By	THR/JDF	Scale	AS NOTED	Proj. No.	95054.3
Dm. By	JSS	Date	6-16-11		
Chk. By		Approved			



SWM ACCESS

1"=20'

- NOTES:
1. PAINTED ISLANDS TO BE HEAVY DUTY PAVING.
 2. DECK ABOVE PARKING TO BE CONCRETE - SEE STRUCTURAL PLANS.
 3. FOR PAVING SECTIONS SEE SHEET 7 OF 23



SITE PAVING DETAIL

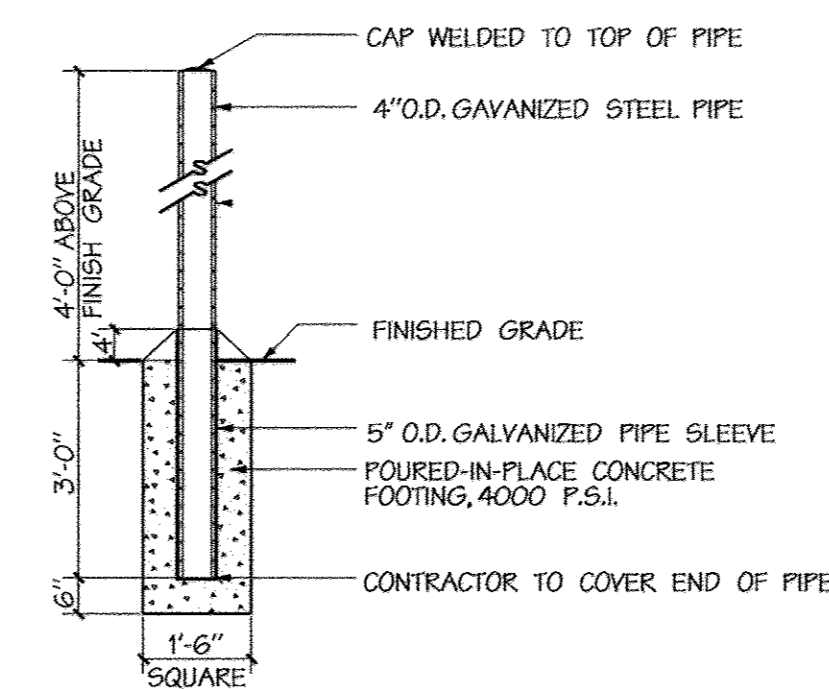
1"=100'

LEGEND

- HEAVY DUTY
- INTERMEDIATE DUTY
- LIGHT DUTY
- LOADING DOCK

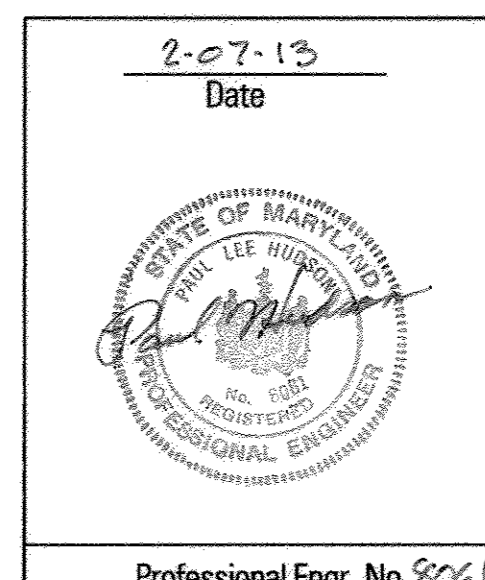
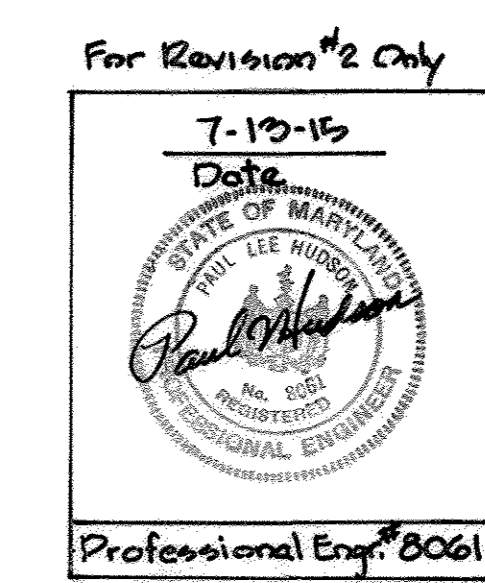
REMOVABLE BOLLARD

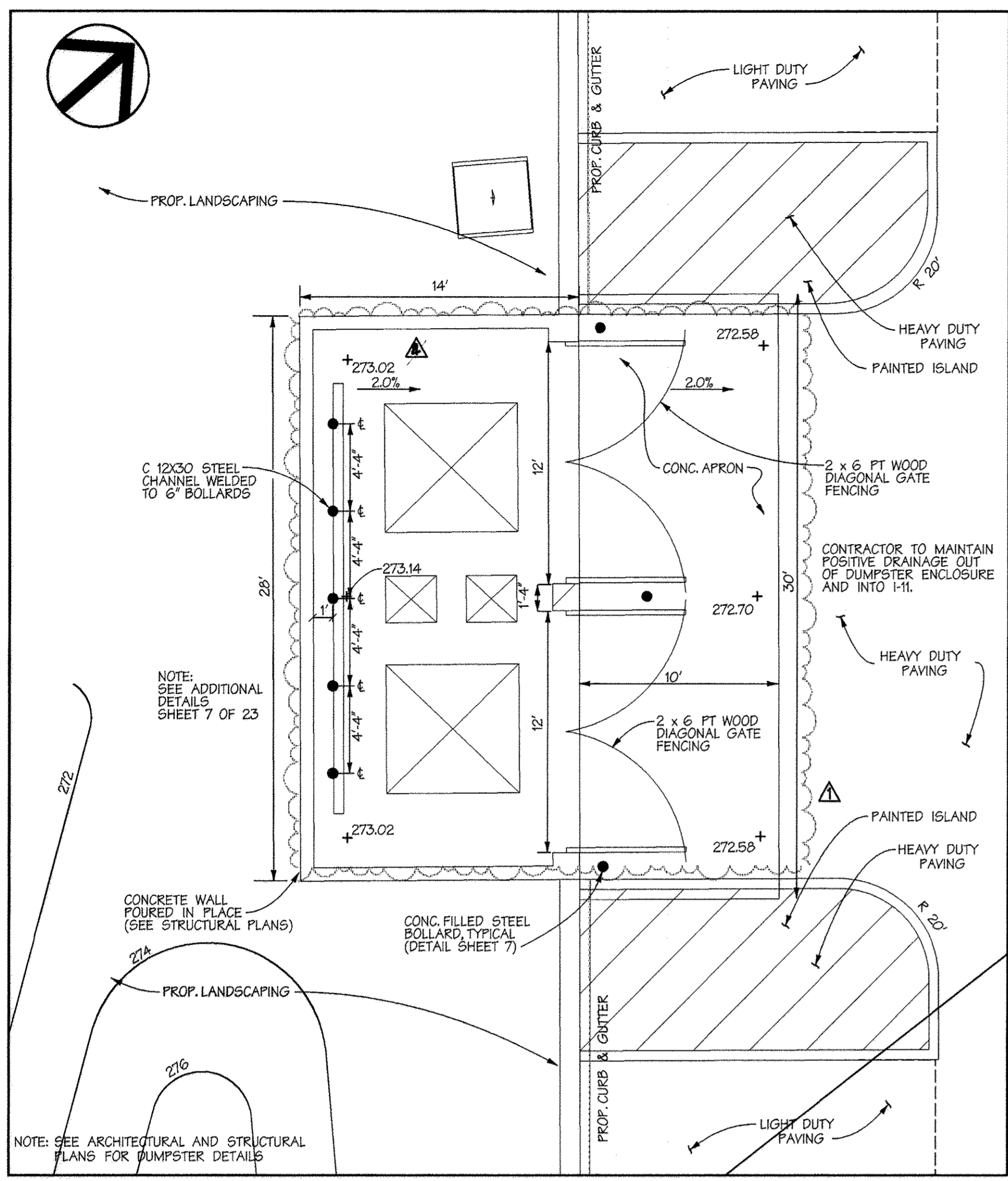
N.T.S.



Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 45292, Expiration Date: 05/21/2018

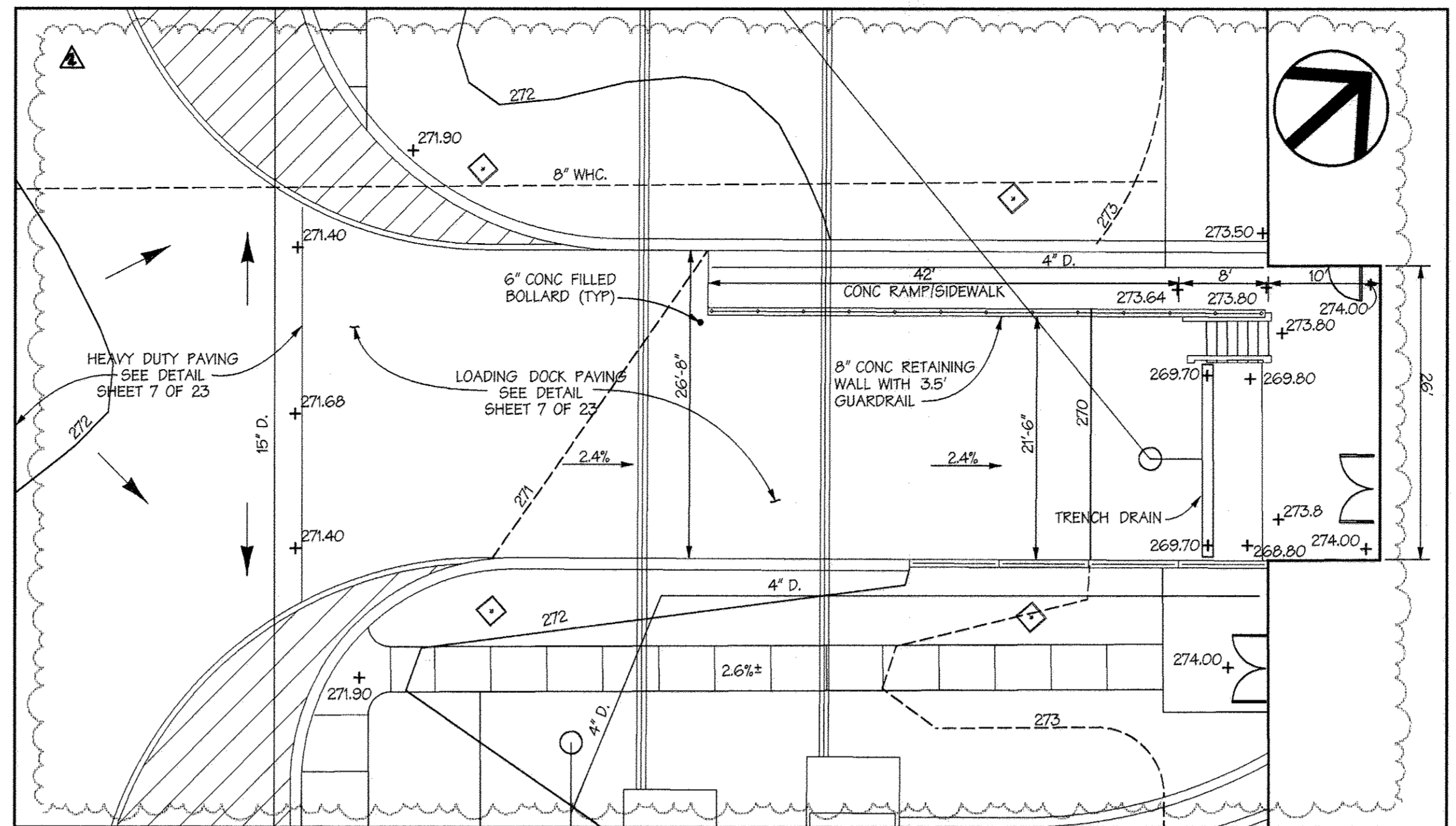
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 8061, EXPIRATION DATE: 8-26-18





DUMPSTER ENCLOSURE DETAIL

SCALE: 1"=5'



LOADING DOCK DETAIL

SCALE: 1"=10'

GENERAL NOTES: EMERSON 6 - REVISION 3

NOTES:

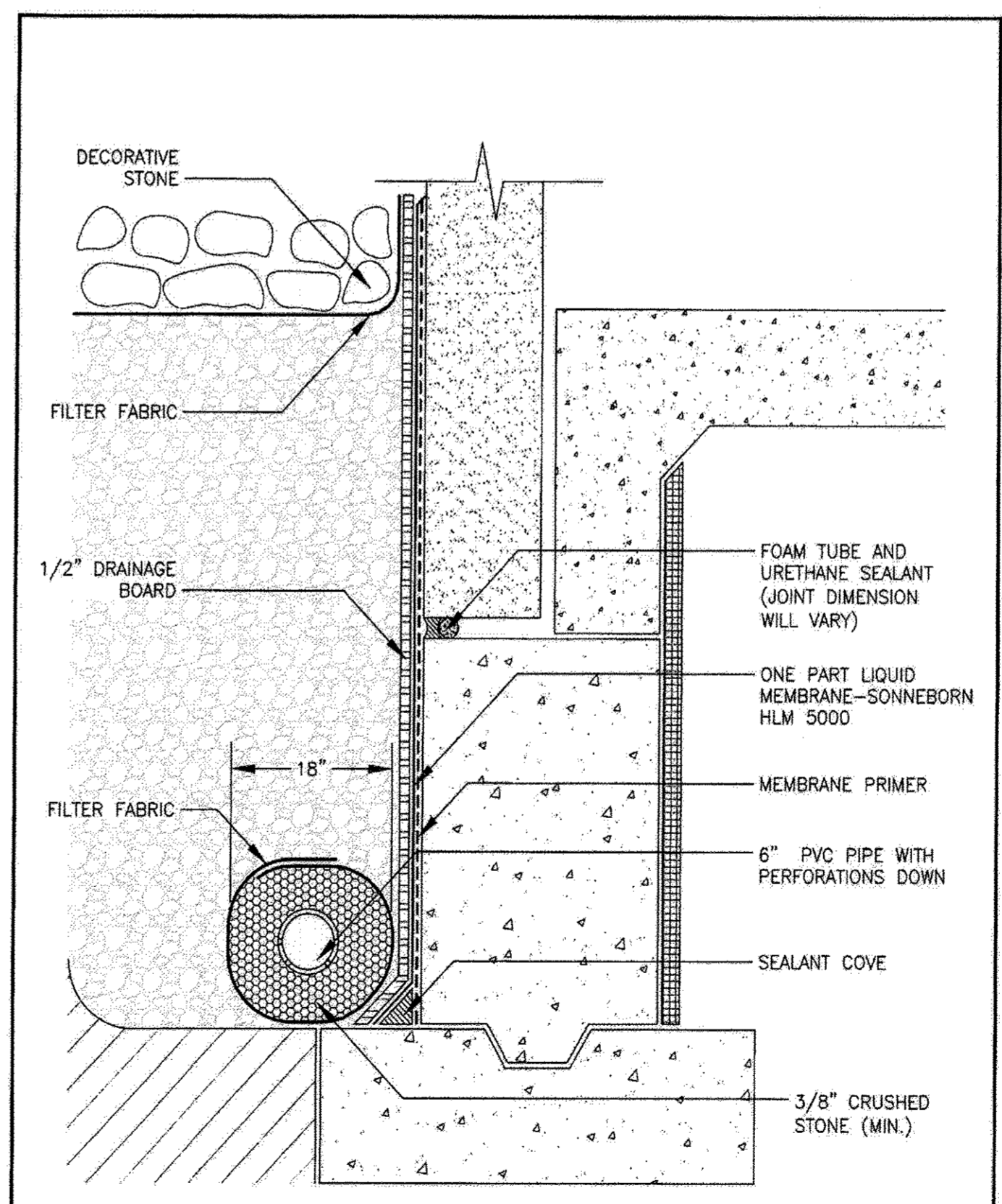
- CONTRACTOR TO VERIFY FIELD CONDITIONS AND DIMENSIONS.
- INVERT OF PERFORATED PIPE MAY VARY TO SUIT FLOW TO OUT FALL. SET LEVEL AT PREDETERMINED ELEVATION. INVERT TO BE MINIMUM 6" BELOW FINISHED SLAB HEIGHT.
- NEW WATERPROOFING AND DRAINAGE BOARD TO BE EXTENDED TO GRADE. TAPE OFF PRECAST PANELS AT GRADE IN ORDER TO CREATE UNIFORM TERMINATION FOR PRIMER AND LIQUID MEMBRANE.
- PRIMER TO BE SOLVENT DILUTED HLM 5000. APPLY TO CAST IN PLACE AND PRECAST CONCRETE. ALLOW TO DRY TACK FREE. COVER WITH MEMBRANE DURING THE NEXT WORK PERIOD. CONTAMINATED SURFACES TO BE REPRIMED.
- SEALANT COVE BEAD AT FOOTING AND SEALANT JOINT AT BOTTOM OF PRECAST TO BE URETHANE BASED AS APPROVED OR PROVIDED BY THE MEMBRANE MANUFACTURER. SURFACES OF PRECAST-TO-FOUNDATION JOINT TO BE GROUND AND PRIMED.
- REMOVE DIRT, DUST, MOISTURE AND OTHER MATERIALS FROM THE SURFACES OF THE CAST IN PLACE AND PRECAST CONCRETE THAT COULD COMPROMISE THE ADHESION OR PERFORMANCE OF THE NEW FLUID APPLIED MATERIAL.
- MIX LIQUID MEMBRANE THOROUGHLY PRIOR TO APPLICATION. STORE IN A HEATED AREA UNTIL THE TIME OF APPLICATION. APPLY AT THE SPECIFIED WET FILM THICKNESS SUCH THAT THE COMPLETED DRY FILM MEMBRANE IS A CONSTANT 60 MILS.
- ALLOW MEMBRANE TO CURE THOROUGHLY. CURE WILL BE AFFECTED BY TEMPERATURE AND HUMIDITY.
- APPLY DRAINAGE BOARD OVER COMPLETED MEMBRANE FROM FOOTING TO GRADE.
- INSTALL CONTECH A-2000 6" SLOTTED PERFORATED RIGID PIPE (OR APPROVED EQUAL), WITH PERFORATIONS DOWN. INSTALL STONE WRAP AND FILTER FABRIC AS SHOWN, OVERALL DIAMETER SHALL BE 18 INCHES. SET PIPE DEAD LEVEL AT PREDETERMINED ELEVATION. INSTALL CLEAN OUTS AT EACH CORNER.
- INSTALL COLUMN OF CRUSHED STONE OVER COMPLETED FOOTING DRAIN. GRADE LEVEL, APPLY FILTER FABRIC LAYER AND SALVAGED DECORATIVE STONE AND MOWER GUARDS.
- INSPECT EACH PRECAST AND PRECAST TO METAL FACADE JOINT. REMOVE DEFECTIVE AND DAMAGED MATERIAL. PREPARE APPLICATION SURFACES WITH GRINDER AND SOLVENT AS REQUIRED AND APPLY NEW ELASTOMER TO MATCH EXISTING. NOTE PRECAST TO PRECAST AND PRECAST TO CAST IN PLACE JOINTS THAT WILL BE BELOW GRADE ARE TO BE DETAILED WITH URETHANE SEALANT.
- CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDATIONS REGARDING THE IMPACT OF TEMPERATURE ON THE CURING PROCESS.
- AN ELASTOMER PROVIDED BY SONNEBORN IS TO BE USED AT RIGHT ANGLE, JOINTS, AND AROUND ANY PENETRATIONS PER THE MANUFACTURER'S REQUIREMENTS.
- MANUFACTURER LITERATURE AND STANDARD DETAILS ARE TO BE FOLLOWED AT WALL PENETRATIONS, I.E. ELASTOMERIC COVE BEAD, FOLLOWED BY LIQUID MEMBRANE.

CONSTRUCTING ENGINEERS

DRAWN BY: MTC
CHECKED BY: CCE
DATE: 11-25-13
PROJECT #: 13-201

EMERSON 6
LAUREL, MARYLAND

N-1R



FOUNDATION WATERPROOFING (REVISION 3)

SCALE: N.T.S.

CONSTRUCTING ENGINEERS

DRAWN BY: MTC
CHECKED BY: CCE
DATE: 11-25-13
JOB #: 13-201

EMERSON 6
LAUREL, MARYLAND

D-1R

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 45292, Expiration Date: 05/21/18

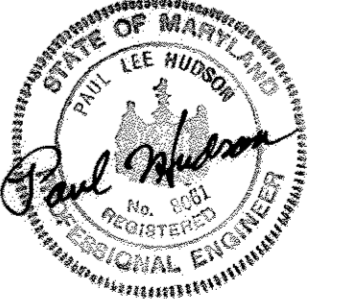
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 8061, EXPIRATION DATE: 8-26-15

PROFESSIONAL CERTIFICATION
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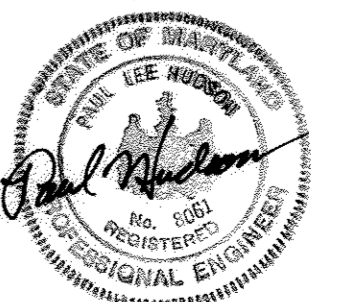
THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED. DeVal and Associates, P.A. By: Douglas W. DeVal - Reg. # 10764



For Revision #2 Only
Date: 7-13-15



Professional Engr. No. 8061
Date: 2-07-13



Professional Engr. No. 8061

AS BUILT CERTIFICATION FOR PSWM
THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
SIGNED: *Paul Hudson* RE: 8061
PAUL L. HUDSON

AS BUILT CERTIFICATION FOR PSWM:
NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
ROBERT CROWLEY
49292

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE: 11-23-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: 11-16-15
DIRECTOR	DATE: 11-23-15

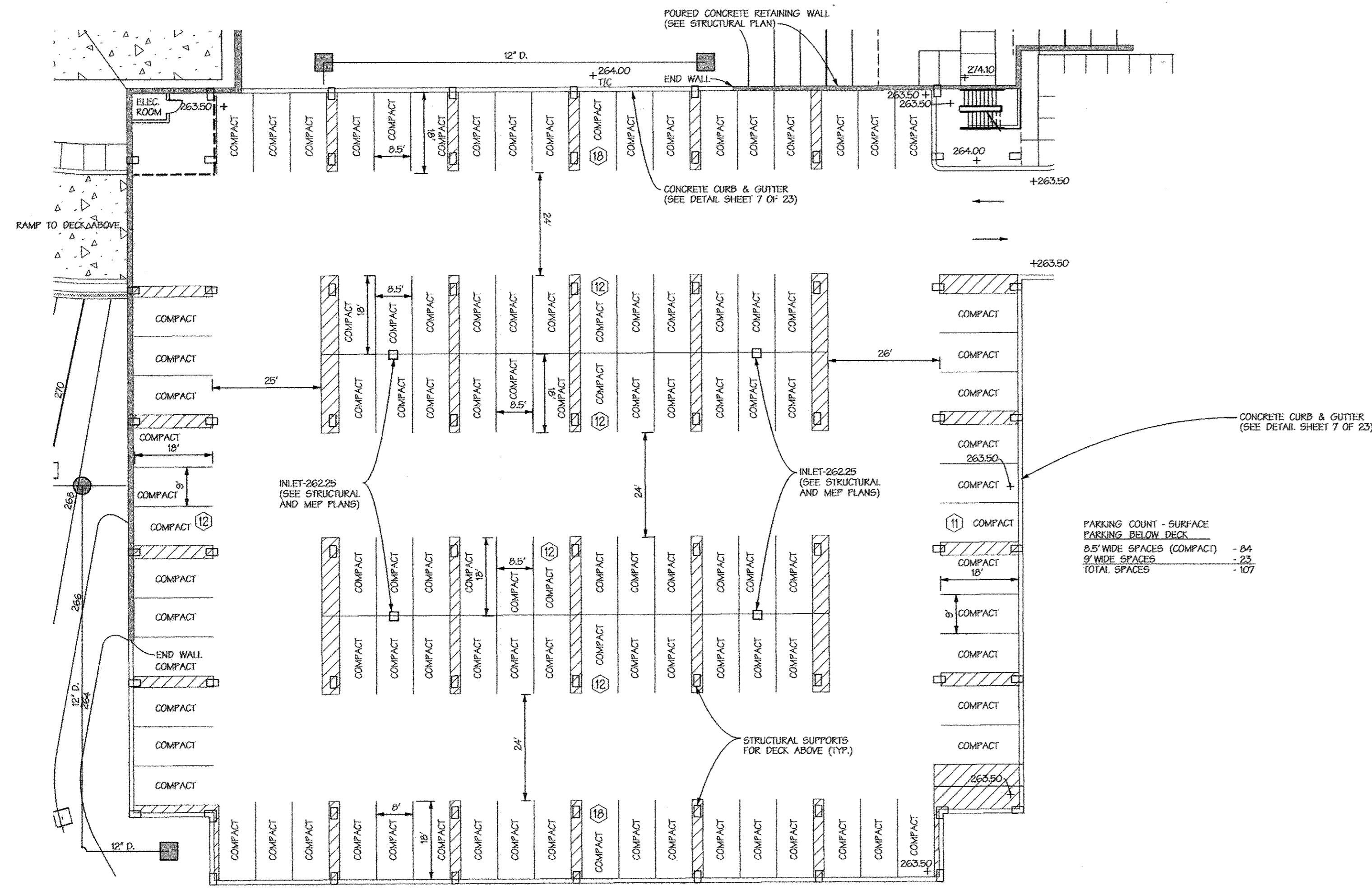
7-10-15	ALL LOADING DOCK GRADING; DUMPSTER GRADES REVISED
	ADD FOUNDATION DRAIN (REPLACEMENT SHEET)
Date	No. Revision Description

EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

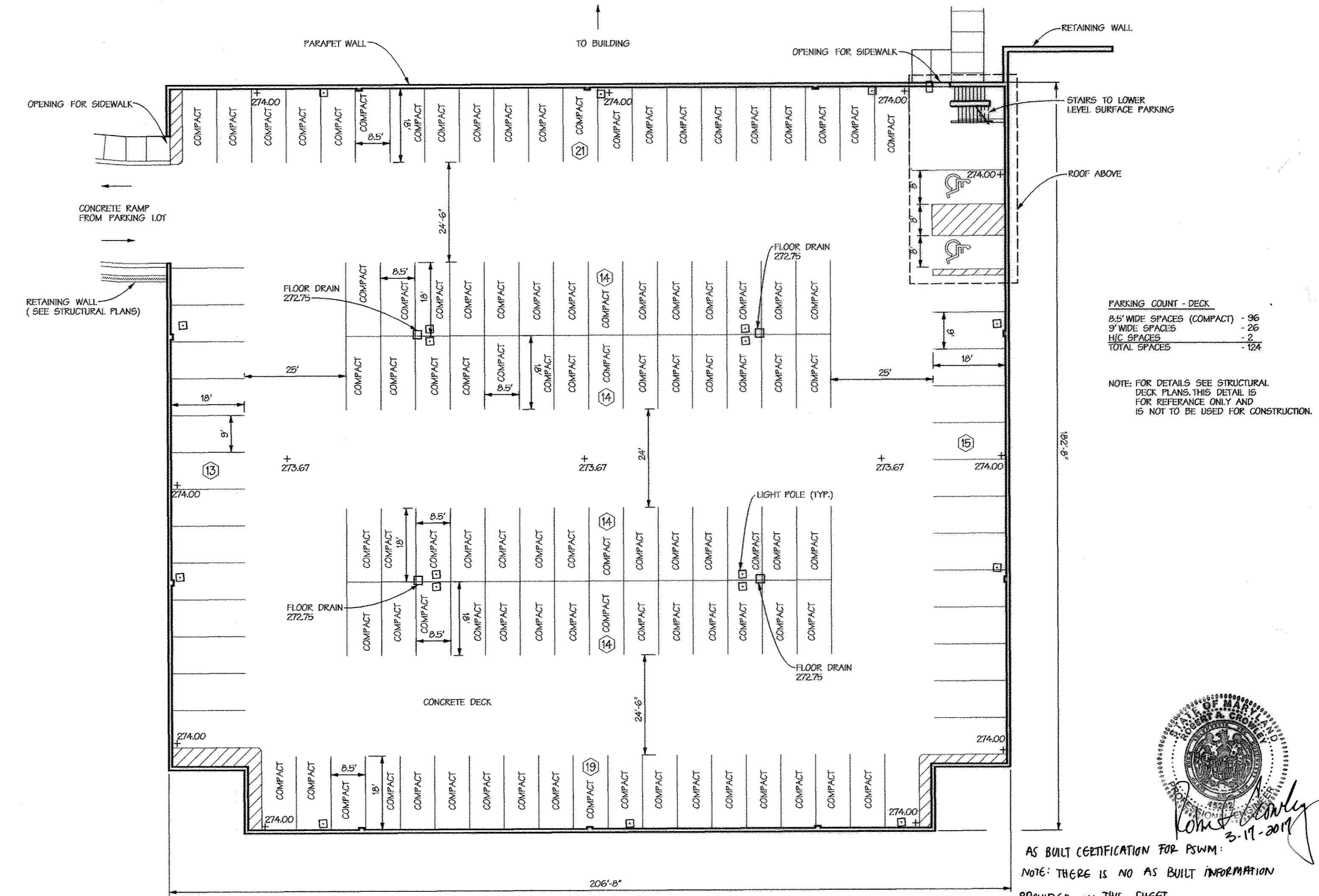
DMW
DAFT MCCUNE WALKER INC
200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286
P: 410 298 3333 F: 410 298 4703 WWW.DMW.COM
A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
REVITZ PROPERTY		PARCEL G-1 / PAR. 165
PLAT # OR L.P. BLOCK # ZONE	TAX/ZONE MAP	ELECT. DISTRICT
2127 & 2128 20 PEC	47	6
WORK CODE	OWNER CODE	OFFICE TRACT
		606903

TITLE		
SITE DETAILS		
Des. By	THR/JDF	Scale AS SHOWN
Dim. By	JSS	Date 6-16-11
Chk. By	Approved	Proj. No. 95054.3
		5 of 25



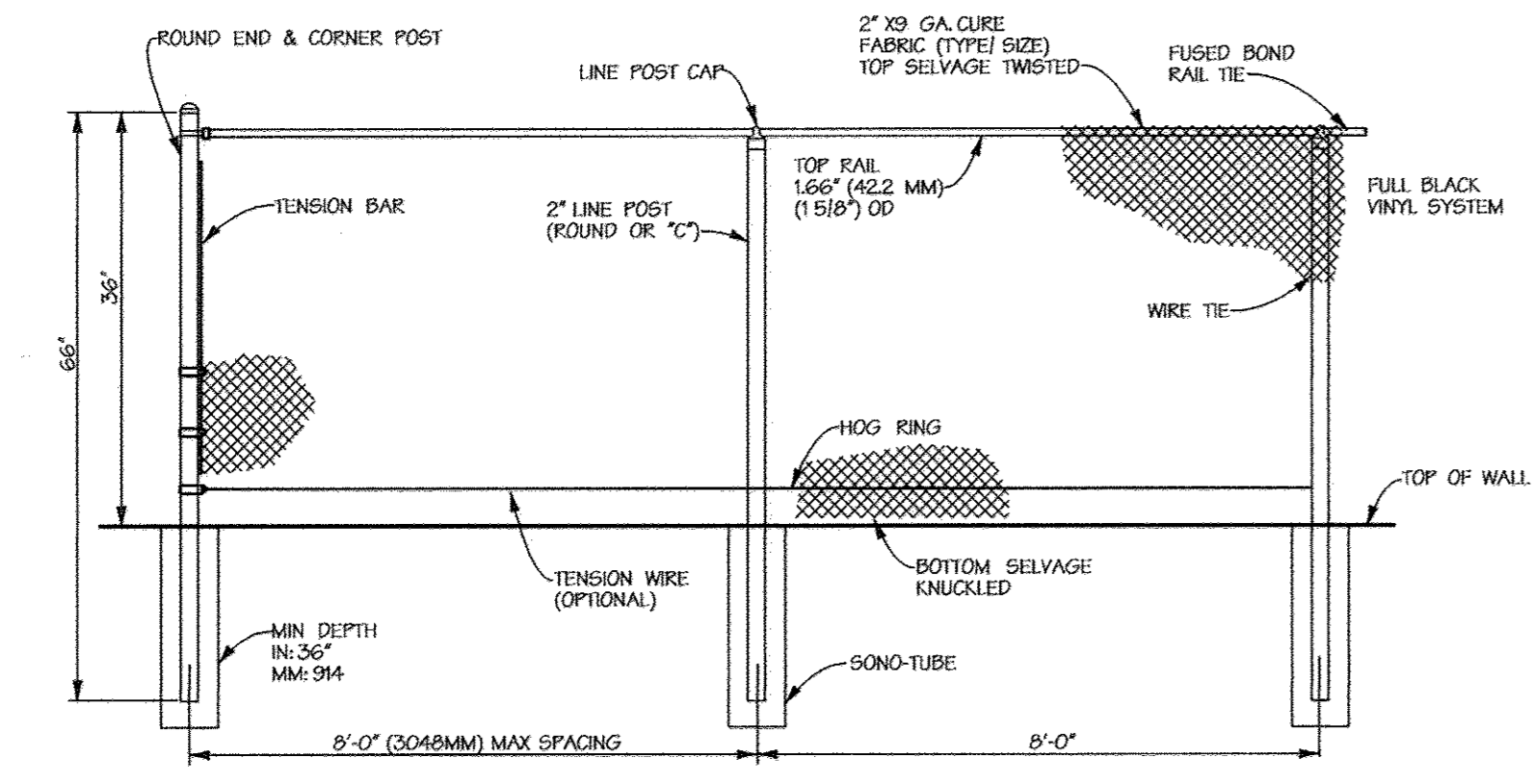
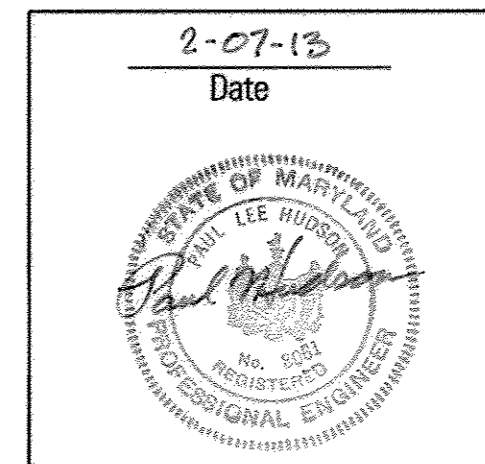
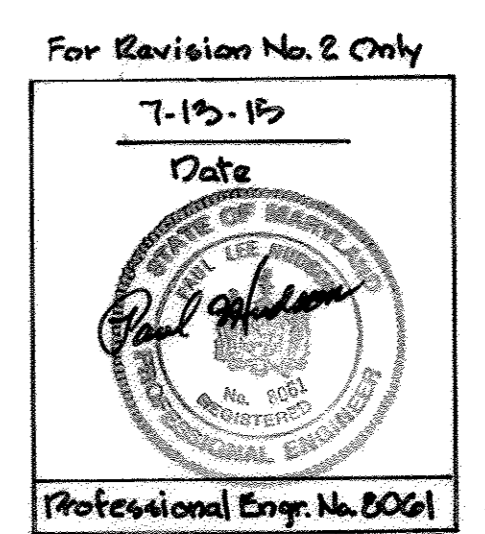
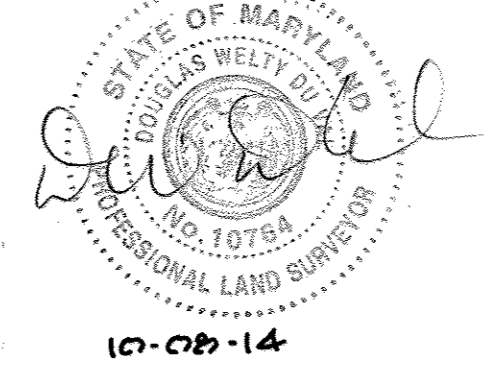
SURFACE PARKING BELOW DECK
1"=20'



UPPER PARKING DECK (ONE LEVEL)
1"=20'

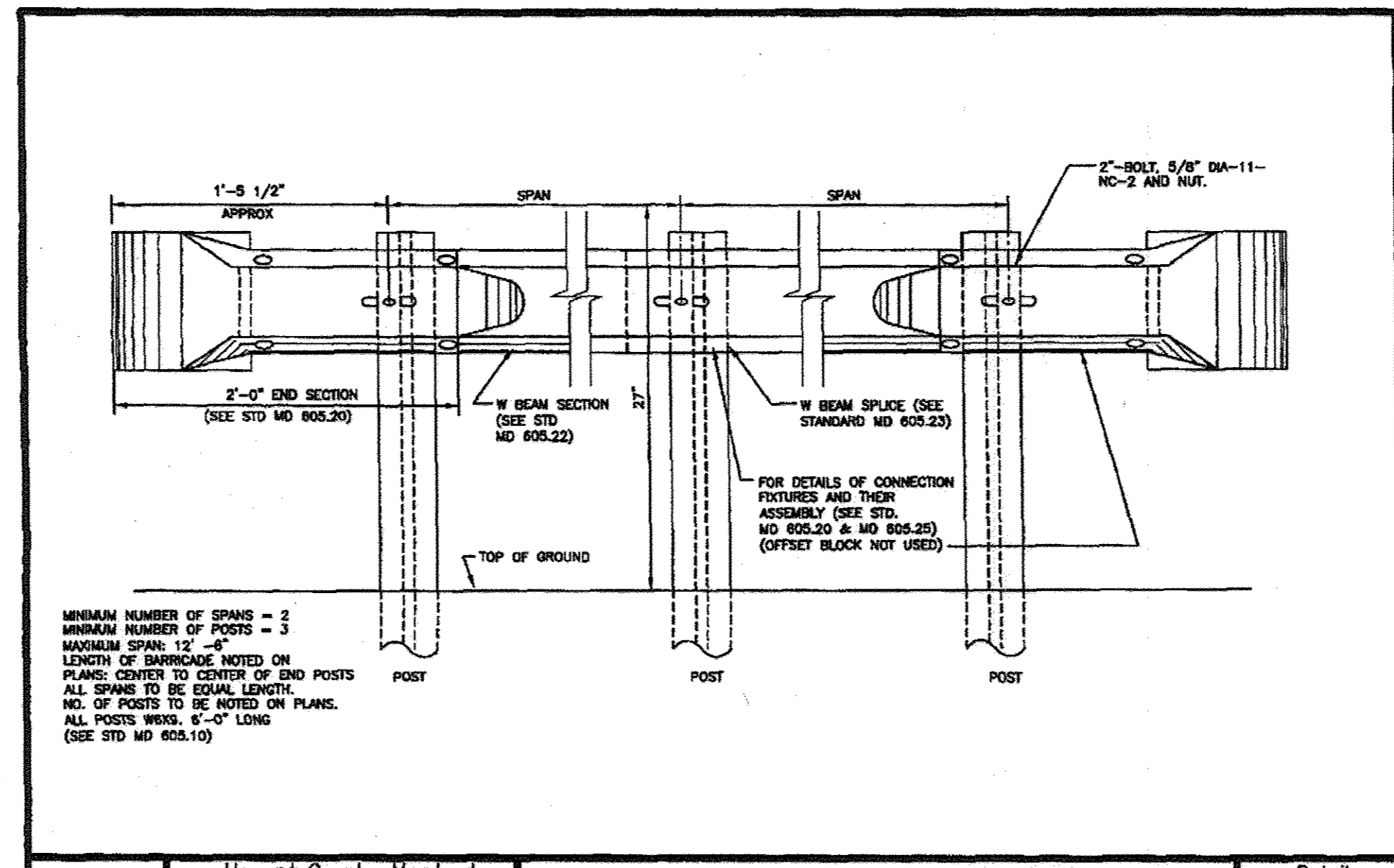
AS BUILT CERTIFICATION FOR PSWM
NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
SIGNED: *Paul Johnson* PE # 8061

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED.
DuVal and Associates, P.A.
By: Douglas W. DuVal, P.E., # 10764



NOTE:
1. METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
2. SPECIFICATIONS SHOWN CAN BE CHANGED BY THE MANUFACTURER ONLY.
3. FOOTING WIDTH TO BE (4)X POST WIDTH.

RETAINING WALL FENCE DETAIL
NTS



MINIMUM NUMBER OF SPANS = 3
MINIMUM NUMBER OF POSTS = 3
MAXIMUM SPAN: 12'-6"
LENGTH OF BARRICADE NOTED ON PLANS; CENTER TO CENTER OF END POSTS
ALL SPANS TO BE EQUAL LENGTH
NO. OF POSTS TO BE NOTED ON PLANS
ALL POSTS WERE 6'-0" LONG (SEE STD MD 605.10)

Howard County, Maryland Department of Public Works
BARRICADE ALONG RETAINING WALL
Detail R-5.11 (MODIFIED)

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
<i>Keith Schaefer</i> CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 3/02/13
<i>William D. ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 2/25/13
<i>Paul Johnson</i> DIRECTOR	DATE 3/7/13

Date	No.	Revision Description
------	-----	----------------------

EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

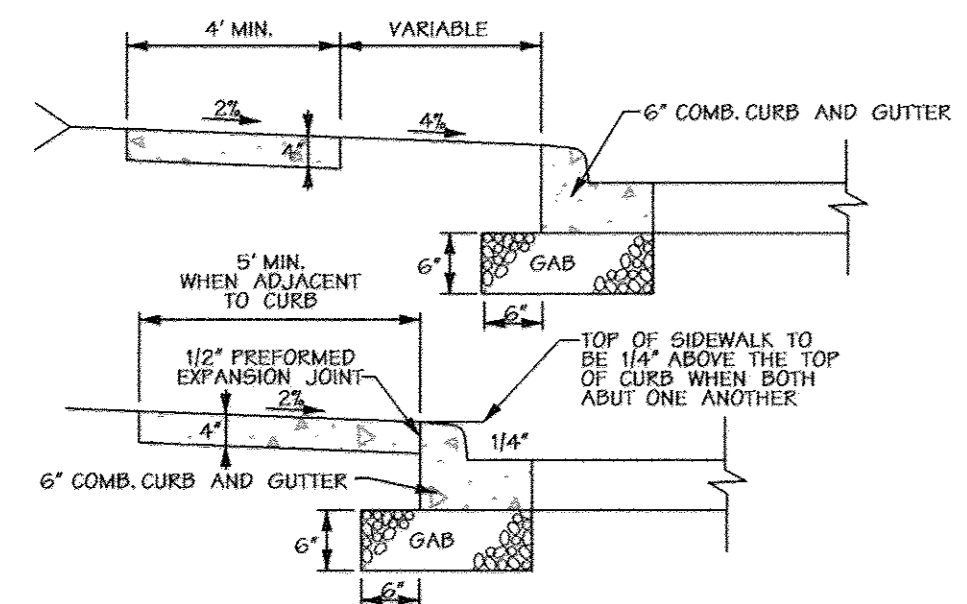


SUBDIVISION NAME REVITZ PROPERTY	SECTION/AREA BLOCK 22	LOT/PARCEL # PARCEL G-1 / PAR. 165
PLAT OR L.P. 2277 & 2278	ZONE PEC	DEED DISTRICT 6
WATER CODE	SEWER CODE	STRESS TOLERANCE 606903

TITLE		
SITE DETAILS		
Des. By THR/JDF	Scale 1"=20'	Proj. No. 95054.3
Dm. By JSS	Date 6-16-11	
Chk. By	Approved	6 of 25

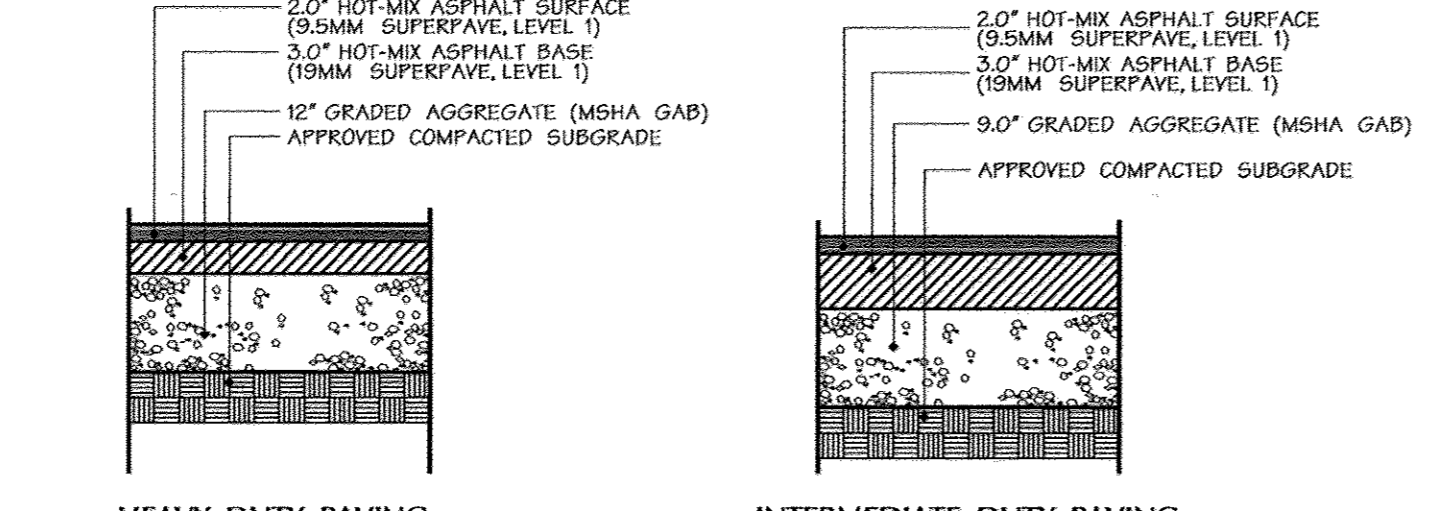
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LICENSE NO. 8061, EXPIRATION DATE: 8-26-15

Professional Engr. No. 8061

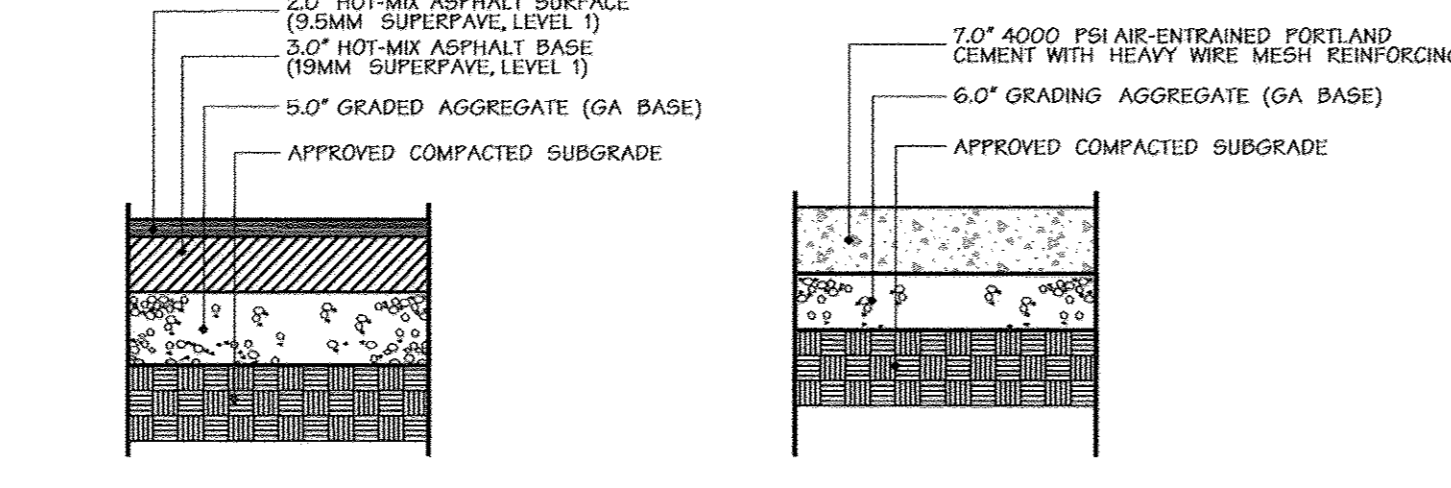


Concrete Sidewalk
Not to Scale

NOTES:
1. SIDEWALK TO BE SCRIBED IN 5'-0" MAXIMUM SQUARES.
2. EXPANSION JOINTS ACROSS SIDEWALK NOT TO BE MORE THAN 15' APART.
3. 1/2" PREFORMED EXPANSION JOINTS TO BE KEPT BELOW SURFACE OF SIDEWALK.
4. CONCRETE TO BE MIX NO.3.
5. WHEN SIDEWALK ABUTS CURB, SIDEWALK SHALL BE 1/4" ABOVE CURB WITH 1/2" PERFORMED EXPANSION JOINT BETWEEN SIDEWALK AND CURB.
6. ON LONGITUDINAL SIDEWALK GRADERS OF 2% OR GREATER, A CONCRETE HEADER 6" THICK AND 6" DEEP BETWEEN THE NORMAL 4" SIDEWALK THICKNESS SHALL BE CONSTRUCTED FOR THE FULL WIDTH OF THE SIDEWALK AT INTERVALS OF 40 FEET. THE HEADERS SHALL BE PLACED AT THE EXPANSION JOINT LOCATIONS AND SHALL BE MONOTIC WITH THE SIDEWALK.
7. 4' SIDEWALK REQUIRES A PASSING AREA (SEE HO.CO.SID.DETAIL R-4.01)
8. SEE SITE PLAN FOR PROPOSED SIDEWALK WIDTHS.



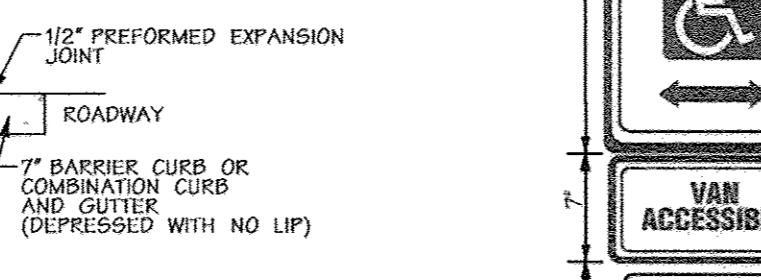
HEAVY DUTY PAVING
(FOR THE ENTRANCEWAYS AND TRAVEL LANES SUBJECT TO REGULAR HEAVY TRUCK TRAFFIC)



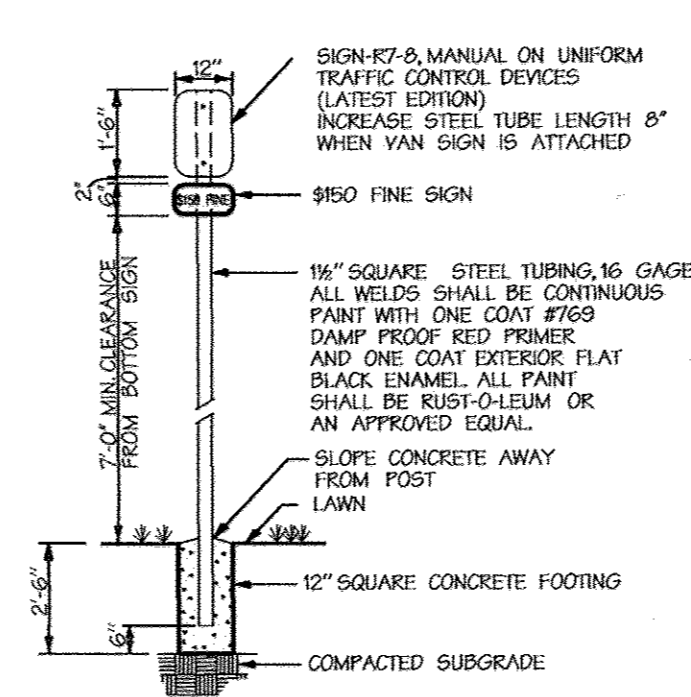
INTERMEDIATE DUTY PAVING
(DRIVE AISLES AND ENTRANCEWAYS SUBJECT TO PASSENGER VEHICLE TRAFFIC, PLUS OCCASIONAL BUS OR DELIVERY BOX TRUCK TRAFFIC)



LIGHT DUTY PAVING
(PARKING LOTS AREAS SUBJECT TO PASSENGER VEHICLE TRAFFIC ONLY)



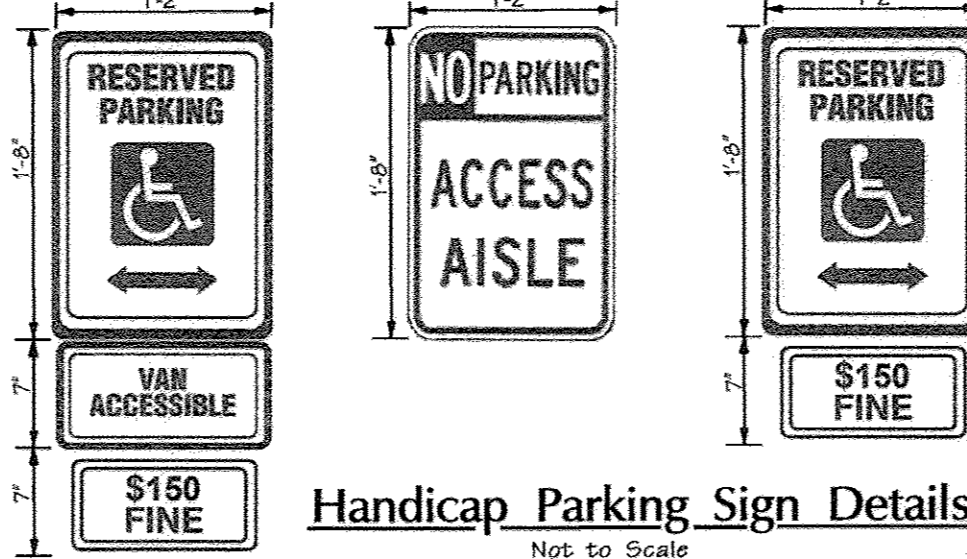
LOADING DOCK PAVING
(TRUCK LOADS UNKNOWN AT THIS TIME)



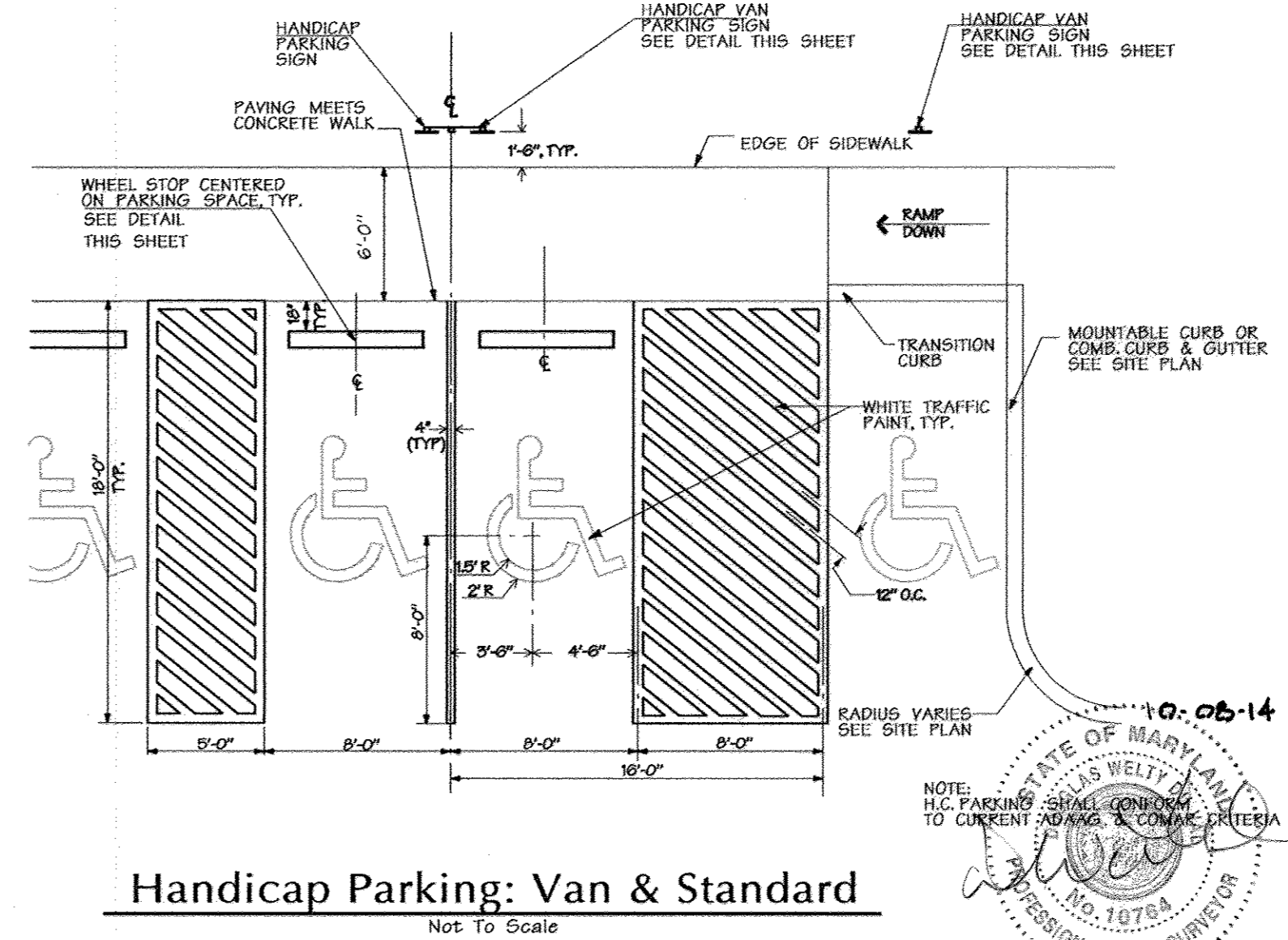
Handicap Parking Sign
Not to Scale

NOTES:
1. DISTANCE FROM GROUND TO BOTTOM OF SIGN SHALL BE 7'-0".
2. SEE HANDICAPPED PARKING SPACE DETAIL, THIS SHEET FOR LOCATION OF HANDICAPPED SIGN.
3. SIGNING SHALL CONFORM TO CURRENT ADAAG & COMAR CRITERIA.

SIGN COLORS:
LETTERS AND BORDER - GREEN
WHITE, H.C. SYMBOLS ON BLUE BACKGROUND
BACKGROUND - WHITE



Handicap Parking Sign Details
Not to Scale

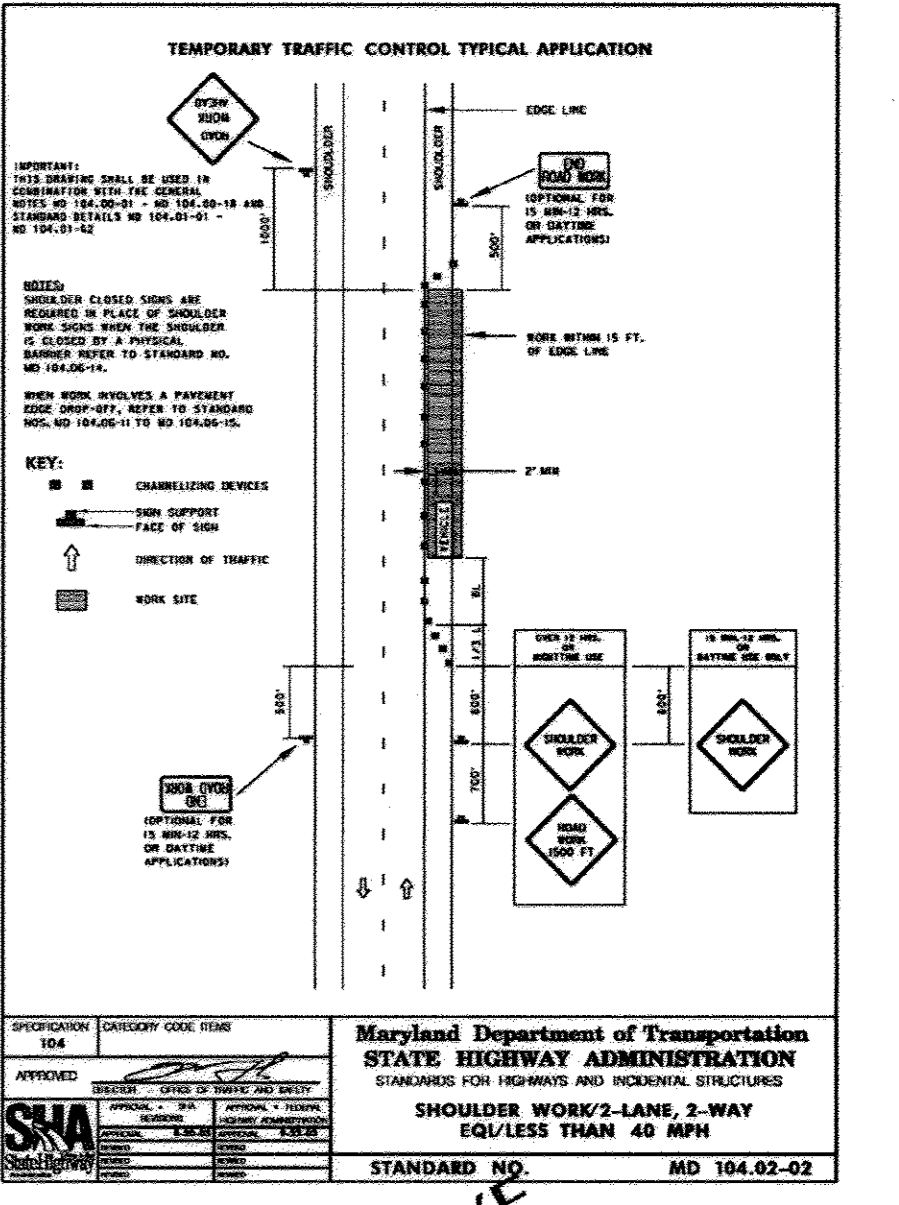


Handicap Parking: Van & Standard
Not to Scale

NOTES:
1. DISTANCE FROM GROUND TO BOTTOM OF SIGN SHALL BE 7'-0".
2. SEE HANDICAPPED PARKING SPACE DETAIL, THIS SHEET FOR LOCATION OF HANDICAPPED SIGN.
3. SIGNING SHALL CONFORM TO CURRENT ADAAG & COMAR CRITERIA.

SIGN COLORS:
LETTERS AND BORDER - GREEN
WHITE, H.C. SYMBOLS ON BLUE BACKGROUND
BACKGROUND - WHITE

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
AS BUILT NOT REQUIRED.
By: Douglas W. DuVal - Reg. # 127764

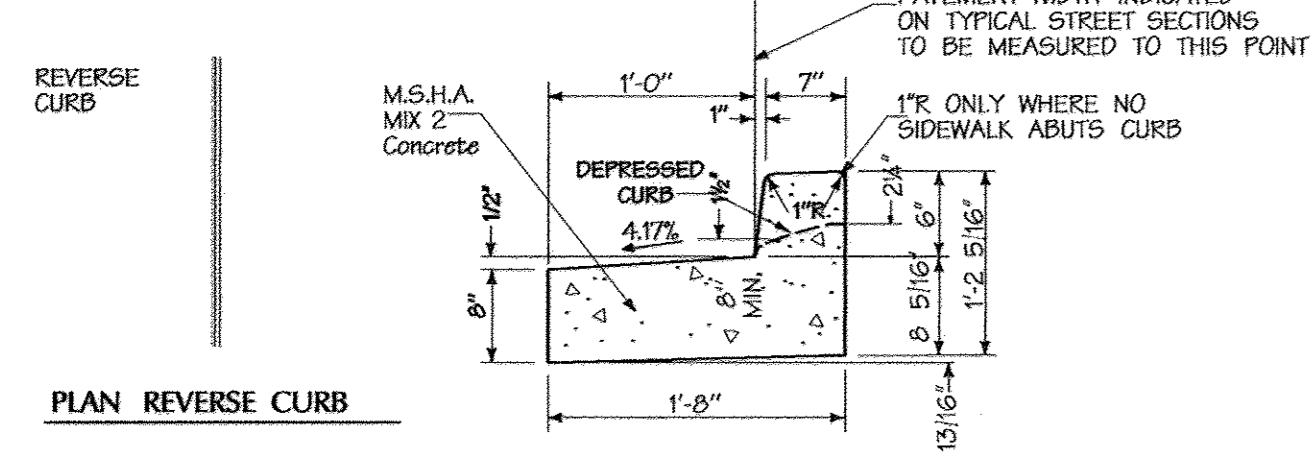


TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION

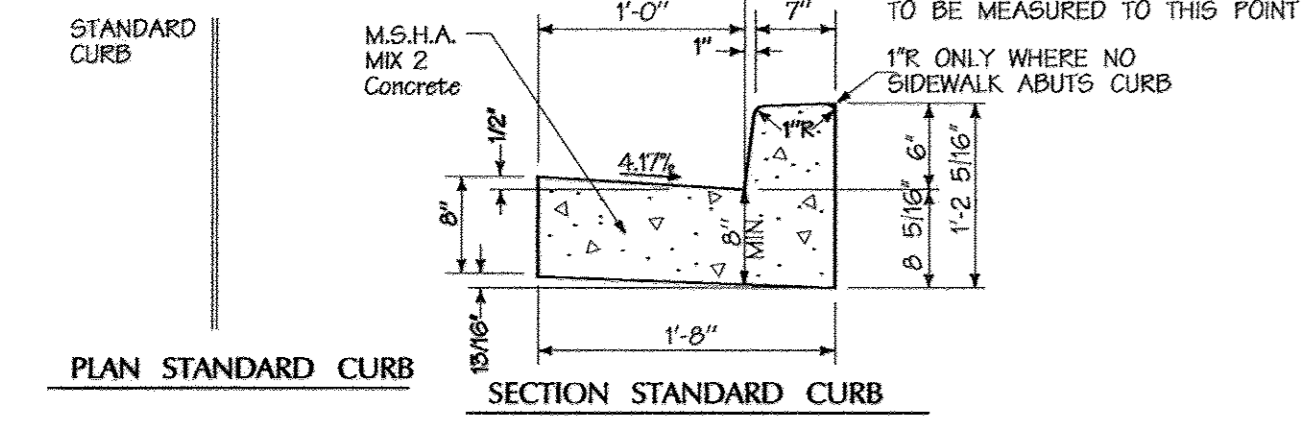
APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

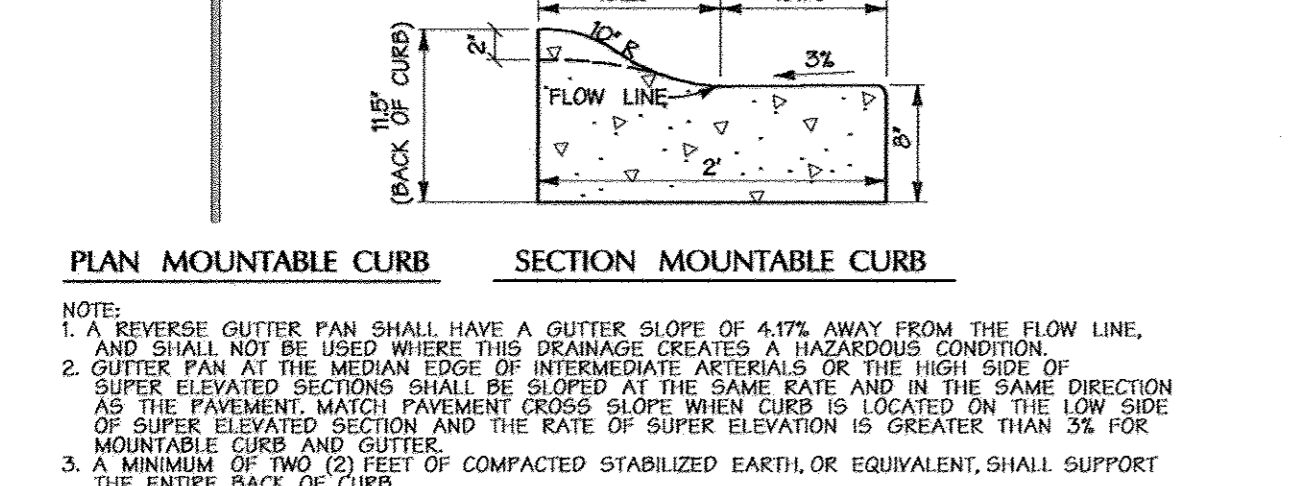
DATE



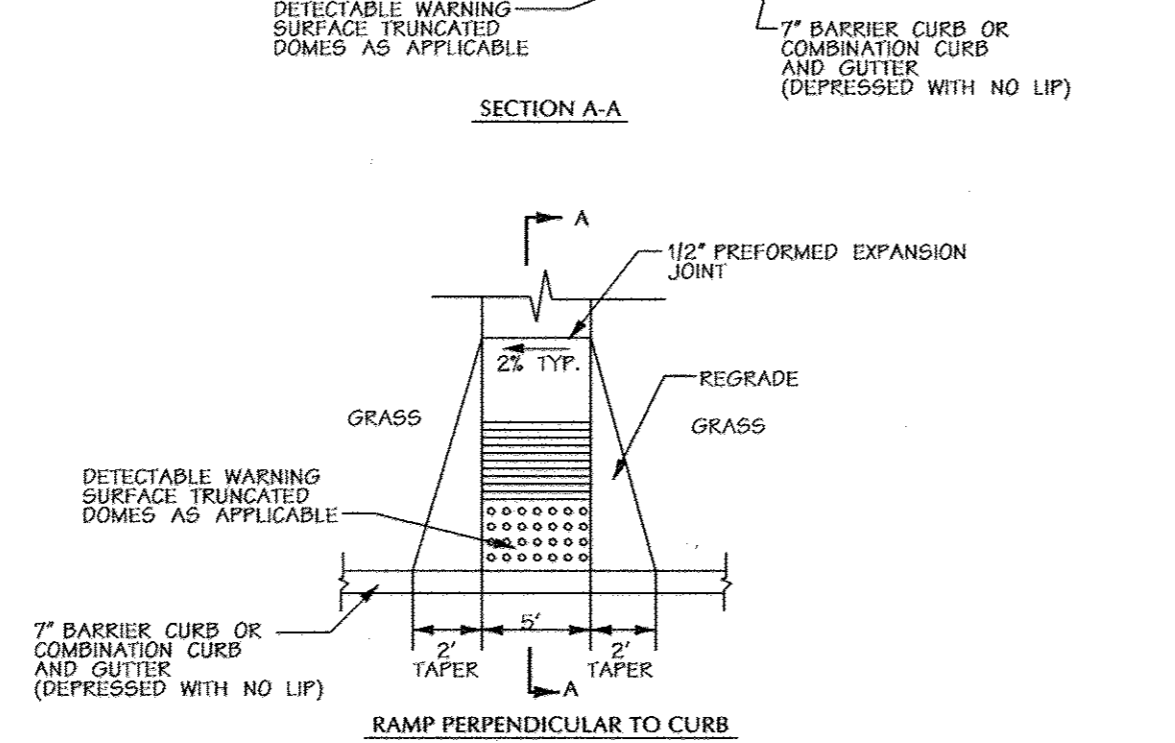
REVERSE CURB



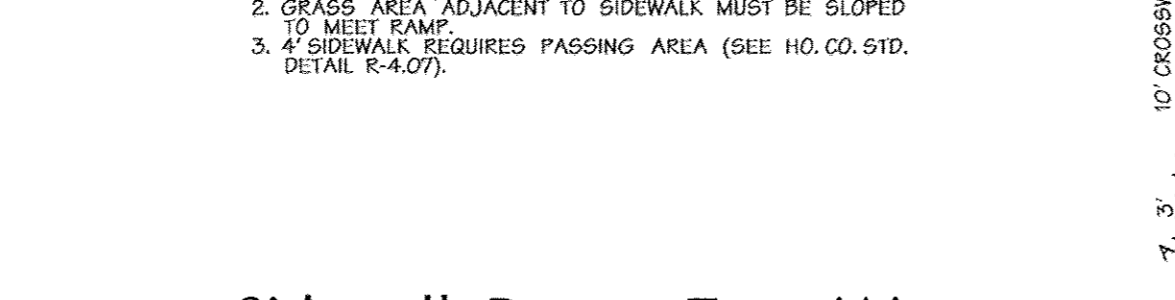
STANDARD CURB



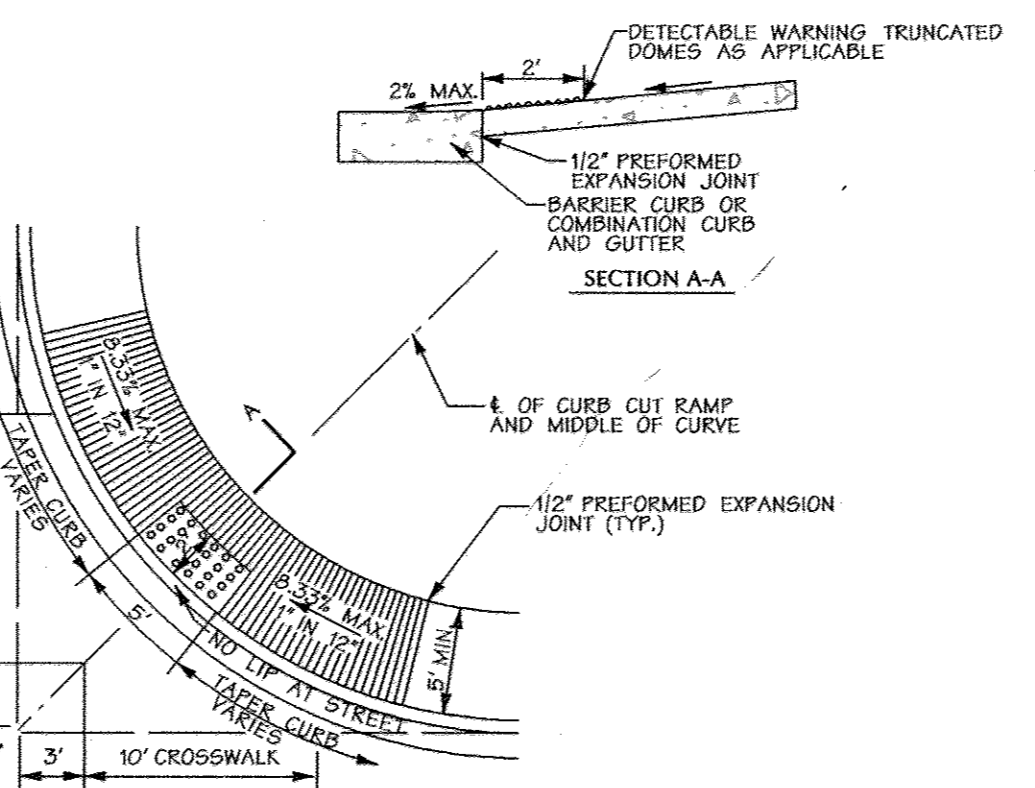
MOUNTABLE CURB



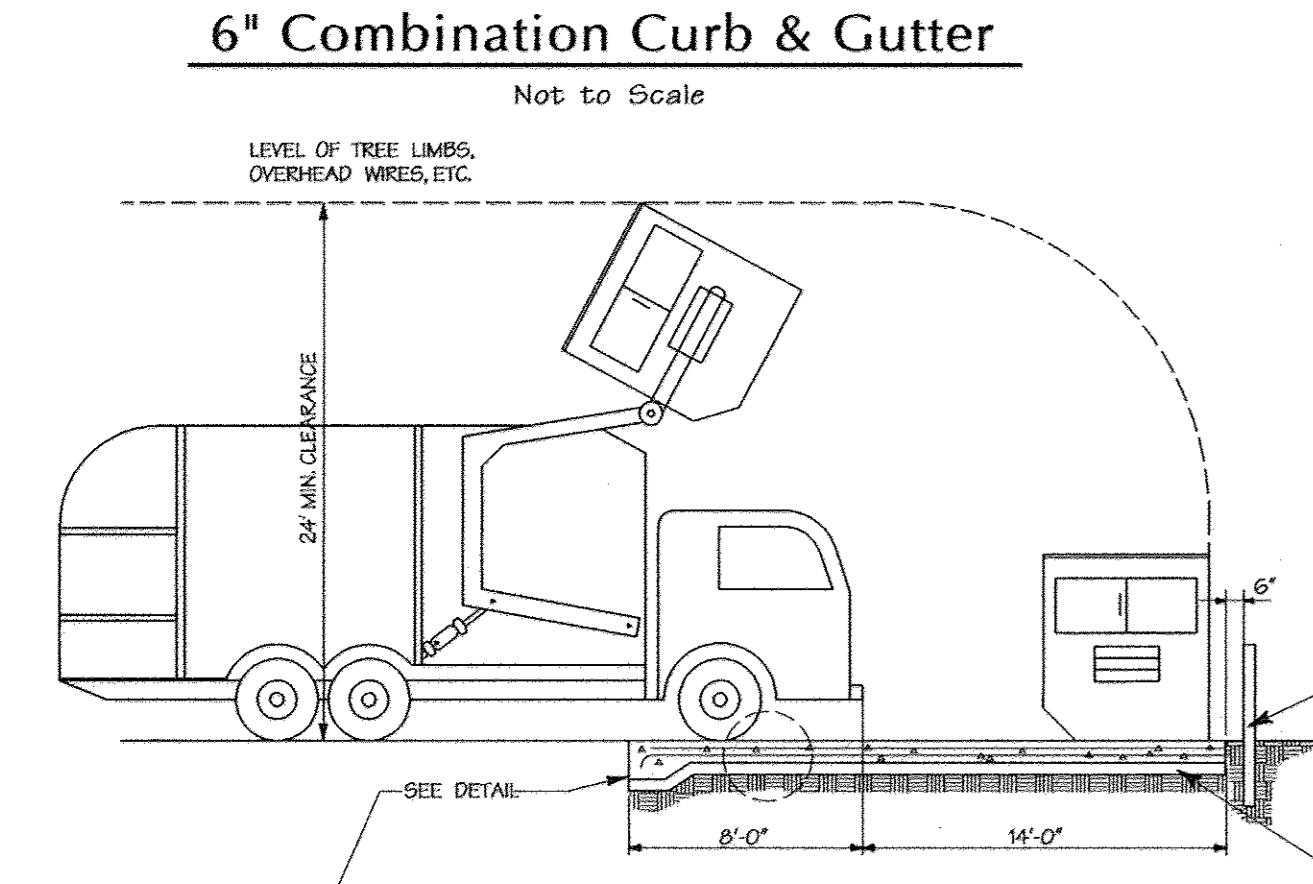
Paving Details
Not to Scale



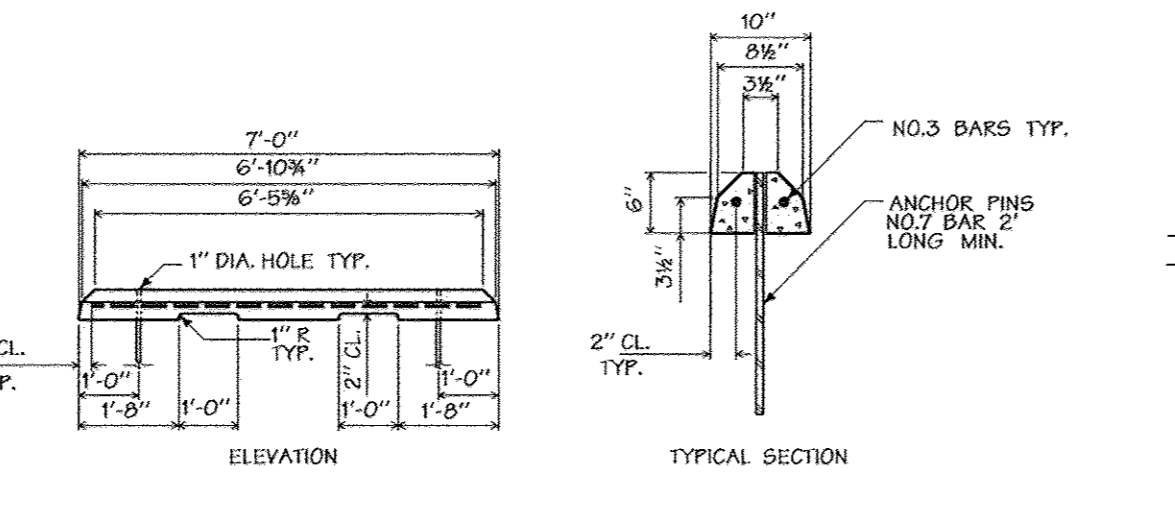
Sidewalk Ramp - Type 'A'
Not to Scale



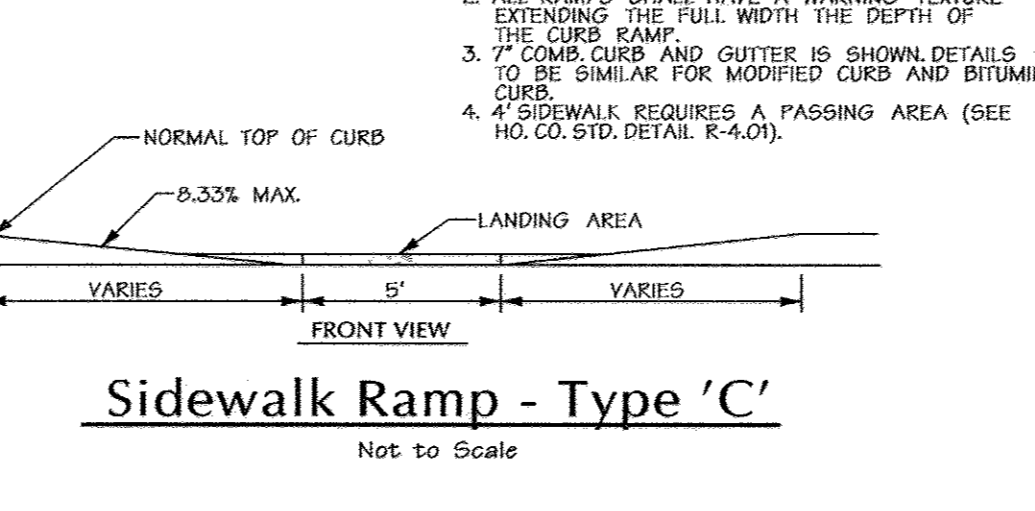
Sidewalk Ramp - Type 'C'
Not to Scale



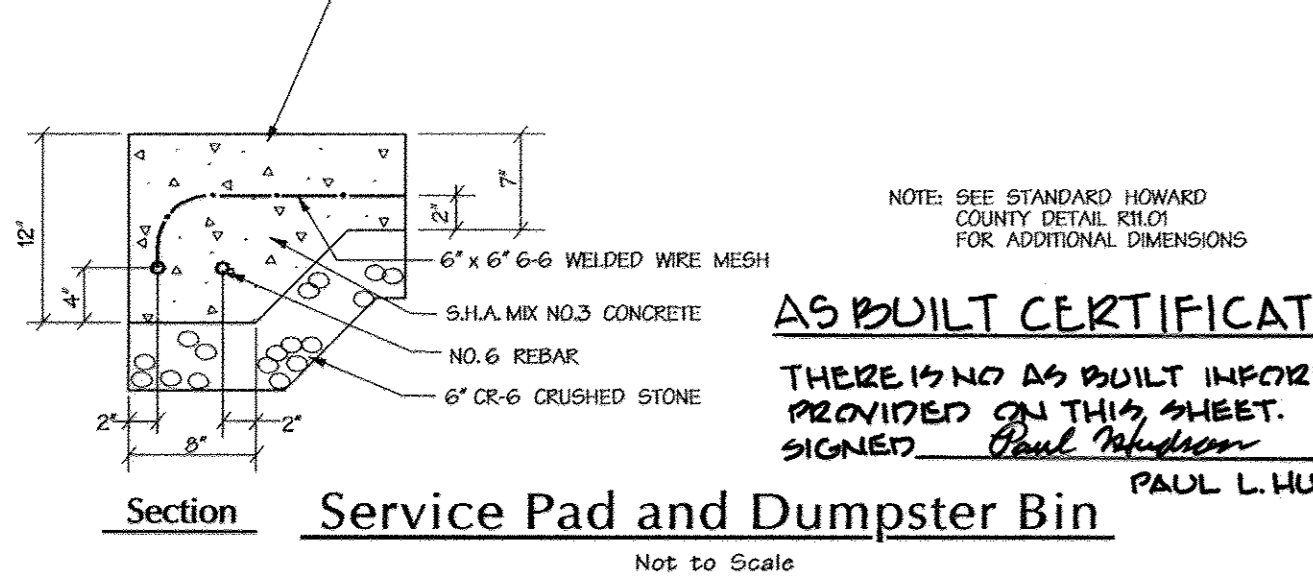
6" Combination Curb & Gutter
Not to Scale



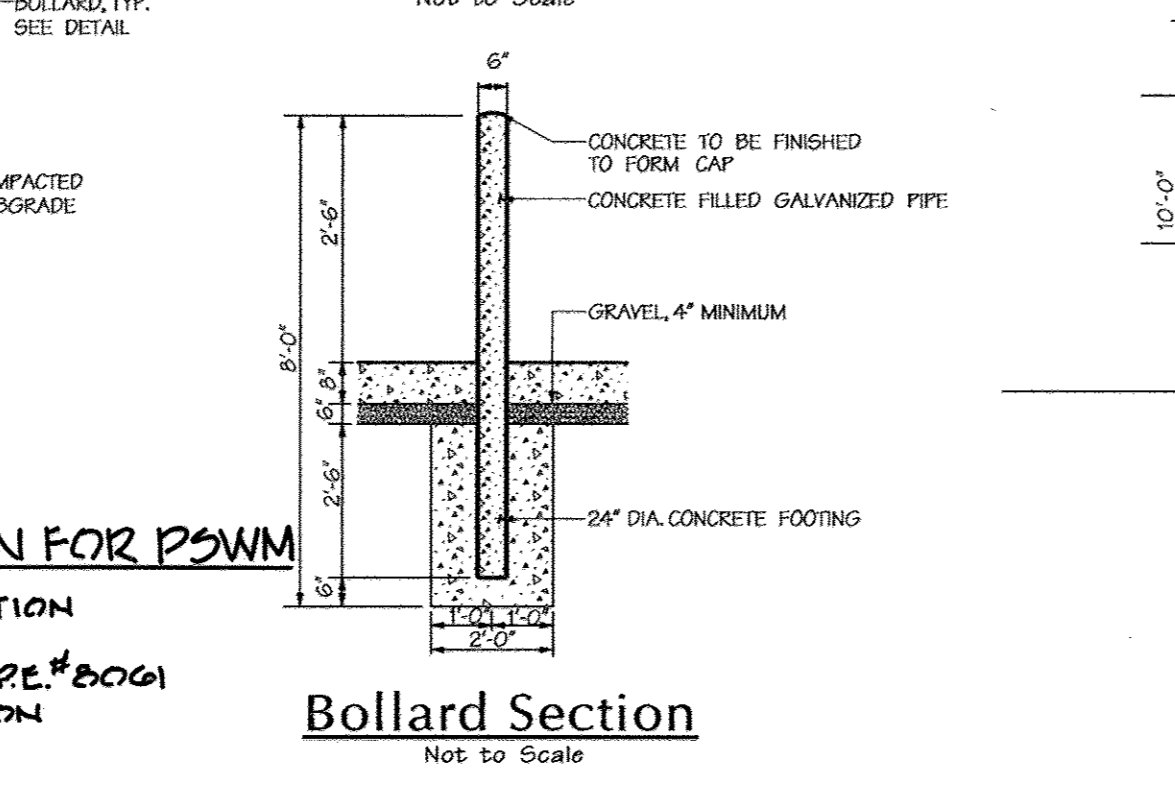
Concrete Cast Wheel Stop
Not to Scale



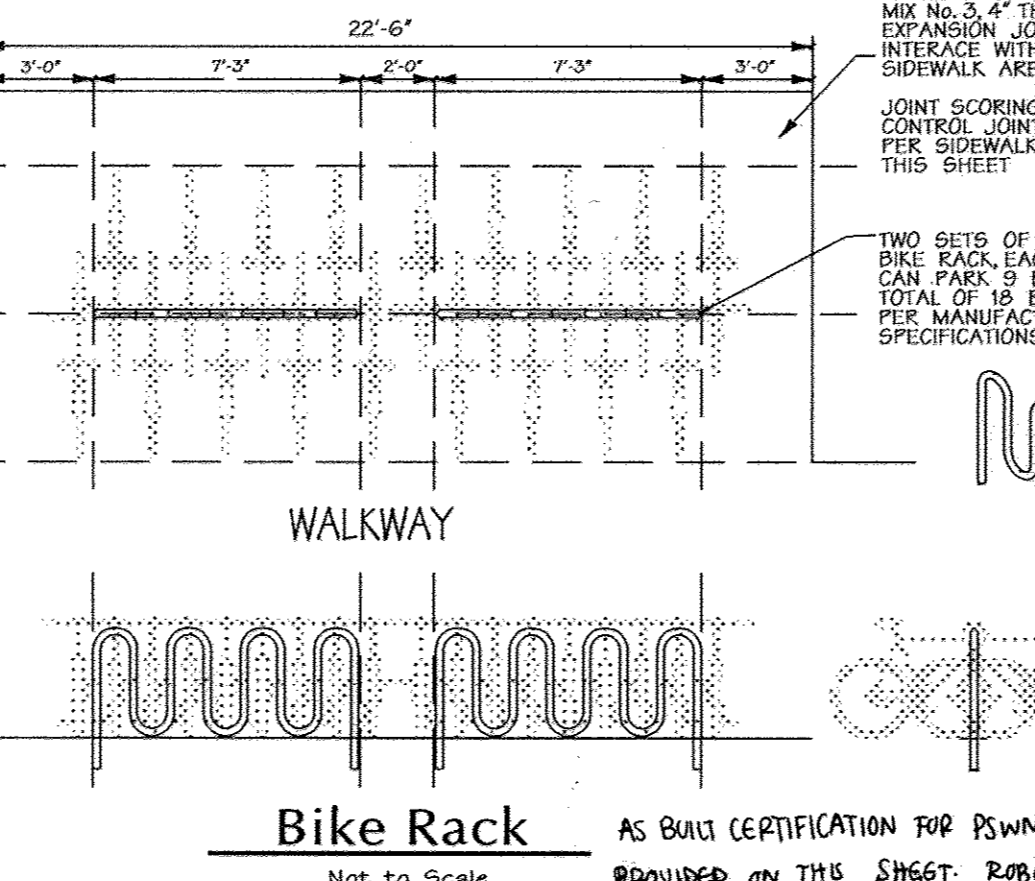
Bike Rack
Not to Scale



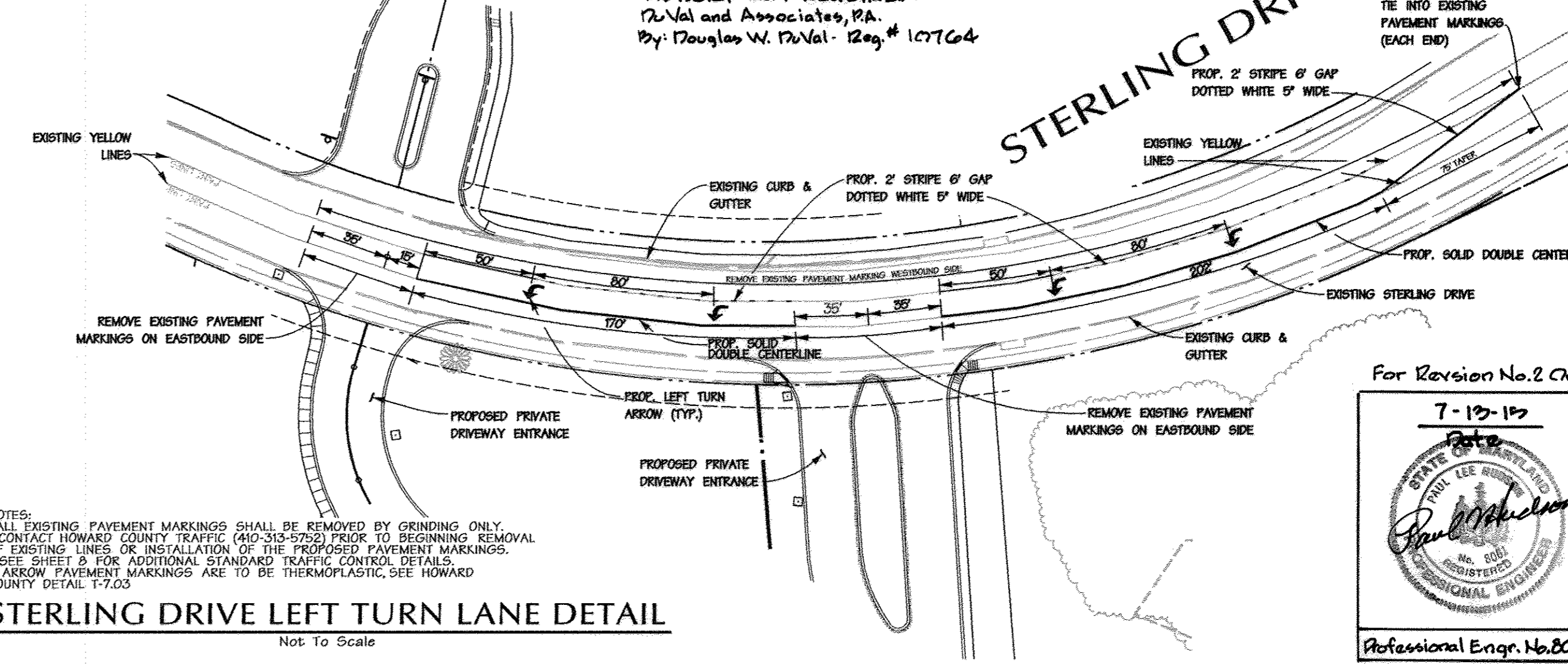
Service Pad and Dumpster Bin
Not to Scale



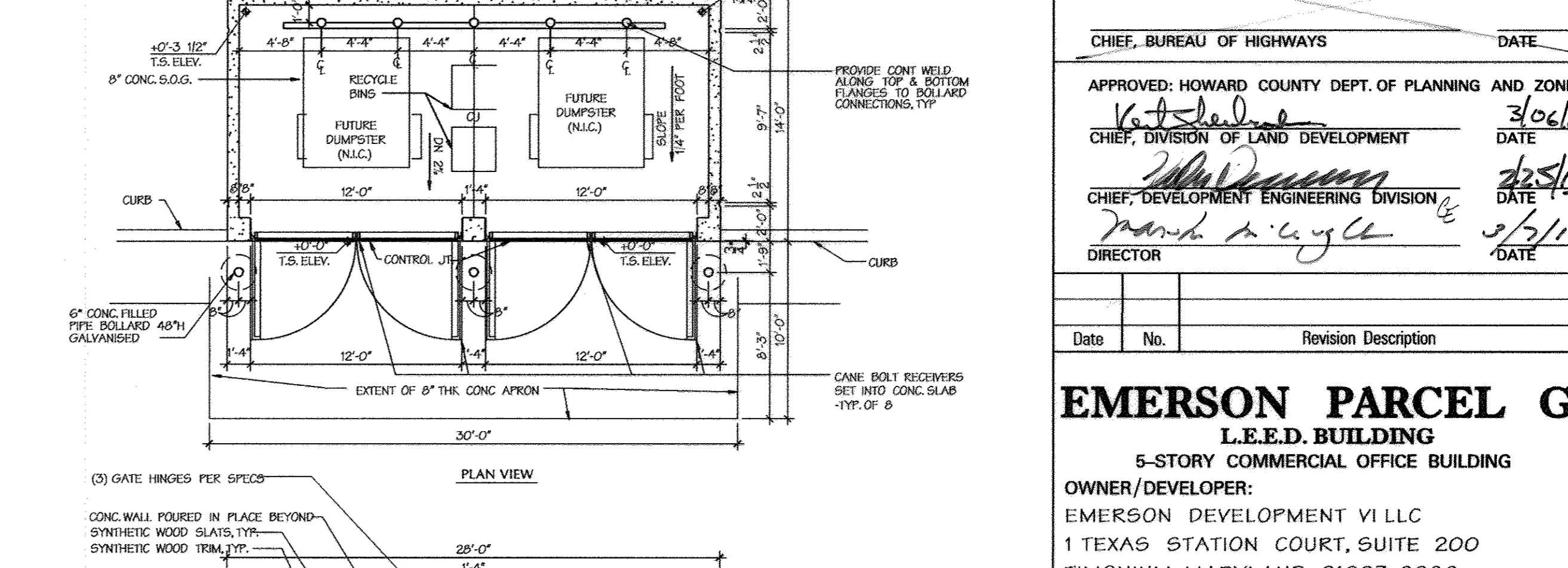
Bollard Section
Not to Scale



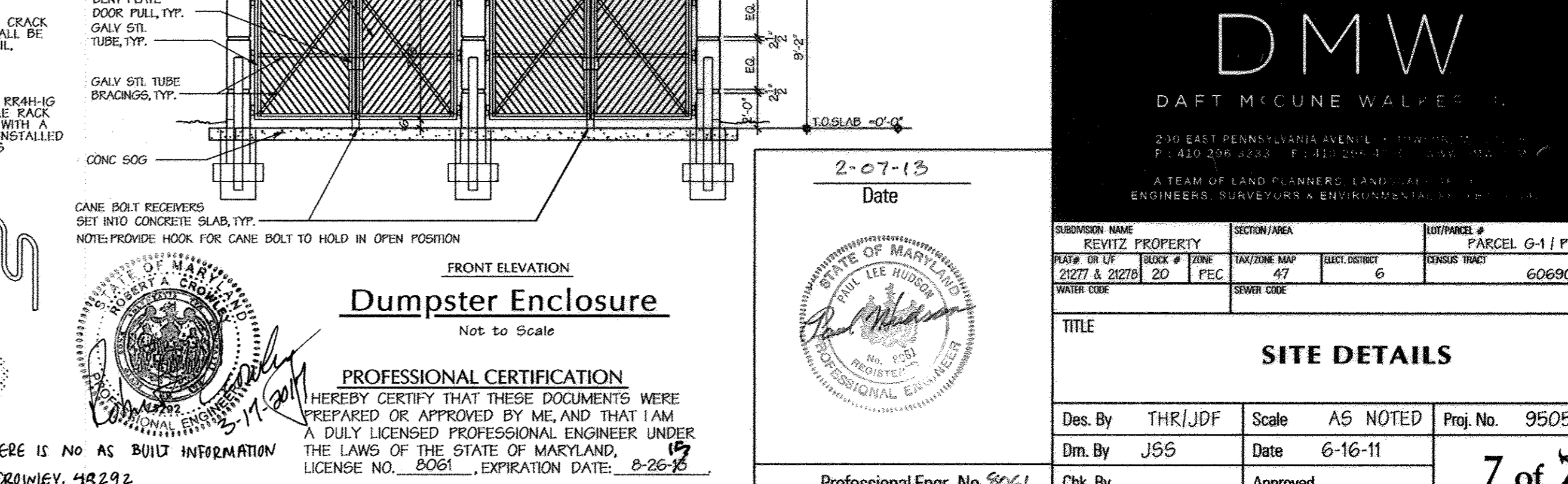
Dumpster Enclosure
Not to Scale



STERLING DRIVE LEFT TURN LANE DETAIL
Not to Scale

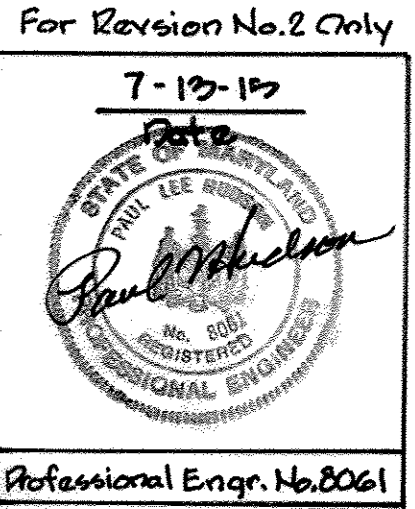


Dumpster Enclosure
Not to Scale



PROFESSIONAL CERTIFICATION
HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 8-26-15

Professional Engr. No. 8061



APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT

DATE 3/6/13

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS

DATE

Date	No.	Revision Description

EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING

OWNER/DEVELOPER:
EMERSON DEVELOPMENT V LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8238
(443) 689-8000

SITE DETAILS			
Des. By	THR/JDF	Scale	AS NOTED
Drn. By	JSS	Date	6-16-11
Chk. By	Approved	Proj. No.	95054.3
TITLE		PARCEL	606903

SDP-11-025

COOPER LIGHTING - LUMARK

MPTR-SL-350-MT-DP
EMERSON
S1

DESCRIPTION
The Lumark Tribute is the most versatile, functionally designed, universally adaptable outdoor luminaire available. The Tribute brings outstanding performance to walkways, parking lots, roadways, loading docks, building areas, and any specialty lighting application. U.S. Patent and CSA certified for wet locations.

SPECIFICATION FEATURES

Construction - Die cast aluminum housing and door frame. One-piece silicone gasket protects the optical chamber from performance degrading contaminants. One (1) stainless spring latch and two (2) stainless hinges allow toolless opening and removal of door frame.

Reflector - Choice of nine (9) high efficiency optical distributions, including five (5) segmented optical systems constructed of premium 90% reflective anodized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs or other means of attachment which may cause streaking in the light distribution. Optical modules are

field replaceable in 90" increments and offered standard with integral base lampholders for 150-400W incandescents or medium base lampholders for 100W and below.

Electrical - Ballast and related electrical components are hand mounted to the die-cast housing for optimal heat transfer and operating efficiency. Optional swing-down galvanized steel power tray with integral handle and quick disconnects allows easy way to be completely removed from housing providing ample room for future re-wiring and maintenance.

Mounting - Extented (E) aluminum arm features internal body guides for easy positioning of fixture during installation to pole or wall surface.

Standard single carton packaging of housing, square pole arm and round pole support allow for expedited product arrival to site. Optional internal mast arm mount accepts a 1 1/2" x 2 3/8" O.D. horizontal mast arm, while a bolt clamping mechanism secures fixture. Cast leveling guides provide a 4-6" vertical leveling adjustment.

Finish - Housing and arm finished in a 5 stage premium TGIC bronze polyester powder coat paint. Optional colors include black, grey, white, dark aluminum and graphite metallic. RAL and custom color matches available.

TR TRIBUTE
70 - 400W
High Pressure Sodium
Fits Street Mast Halls
Street Light

AREA LUMINAIRE

TECHNICAL DATA
U.S. Via Locations Listed
CSA Certified
EMSA Certified ID

ENERGY DATA
150W MPF (150 Watt)
200W MPF (200 Watt)
250W MPF (250 Watt)
300W MPF (300 Watt)
350W MPF (350 Watt)
400W MPF (400 Watt)
450W MPF (450 Watt)
500W MPF (500 Watt)
550W MPF (550 Watt)
600W MPF (600 Watt)
650W MPF (650 Watt)
700W MPF (700 Watt)
750W MPF (750 Watt)
800W MPF (800 Watt)
850W MPF (850 Watt)
900W MPF (900 Watt)
950W MPF (950 Watt)
1000W MPF (1000 Watt)

SHIPPING DATA
Approximate Net Weight:
31 lbs. (13.9 kg)

COOPER LIGHTING

COOPER LIGHTING

SSSSQUARE STRAIGHT STEEL
10' x 30'
Mounting Height
SQUARE STRAIGHT STEEL

DESCRIPTION
The SSS Square Straight Steel is a high quality, heavy duty, square steel luminaire. It is designed for use in industrial and commercial applications. The luminaire is made of square steel and is available in various sizes and mounting heights. It is a simple, functional design that is easy to install and maintain.

SPECIFICATION FEATURES

- ASTM Grade steel base plate with ASTM A888 base cover.
- Weld hole assembly 2" x 2" x 1/2" and 4" x 4" x 1/2" and 6" x 6" x 1/2" and 8" x 8" x 1/2" and 10" x 10" x 1/2" and 12" x 12" x 1/2" and 14" x 14" x 1/2" and 16" x 16" x 1/2" and 18" x 18" x 1/2" and 20" x 20" x 1/2" and 22" x 22" x 1/2" and 24" x 24" x 1/2" and 26" x 26" x 1/2" and 28" x 28" x 1/2" and 30" x 30" x 1/2" and 32" x 32" x 1/2" and 34" x 34" x 1/2" and 36" x 36" x 1/2" and 38" x 38" x 1/2" and 40" x 40" x 1/2" and 42" x 42" x 1/2" and 44" x 44" x 1/2" and 46" x 46" x 1/2" and 48" x 48" x 1/2" and 50" x 50" x 1/2" and 52" x 52" x 1/2" and 54" x 54" x 1/2" and 56" x 56" x 1/2" and 58" x 58" x 1/2" and 60" x 60" x 1/2" and 62" x 62" x 1/2" and 64" x 64" x 1/2" and 66" x 66" x 1/2" and 68" x 68" x 1/2" and 70" x 70" x 1/2" and 72" x 72" x 1/2" and 74" x 74" x 1/2" and 76" x 76" x 1/2" and 78" x 78" x 1/2" and 80" x 80" x 1/2" and 82" x 82" x 1/2" and 84" x 84" x 1/2" and 86" x 86" x 1/2" and 88" x 88" x 1/2" and 90" x 90" x 1/2" and 92" x 92" x 1/2" and 94" x 94" x 1/2" and 96" x 96" x 1/2" and 98" x 98" x 1/2" and 100" x 100" x 1/2" and 102" x 102" x 1/2" and 104" x 104" x 1/2" and 106" x 106" x 1/2" and 108" x 108" x 1/2" and 110" x 110" x 1/2" and 112" x 112" x 1/2" and 114" x 114" x 1/2" and 116" x 116" x 1/2" and 118" x 118" x 1/2" and 120" x 120" x 1/2" and 122" x 122" x 1/2" and 124" x 124" x 1/2" and 126" x 126" x 1/2" and 128" x 128" x 1/2" and 130" x 130" x 1/2" and 132" x 132" x 1/2" and 134" x 134" x 1/2" and 136" x 136" x 1/2" and 138" x 138" x 1/2" and 140" x 140" x 1/2" and 142" x 142" x 1/2" and 144" x 144" x 1/2" and 146" x 146" x 1/2" and 148" x 148" x 1/2" and 150" x 150" x 1/2" and 152" x 152" x 1/2" and 154" x 154" x 1/2" and 156" x 156" x 1/2" and 158" x 158" x 1/2" and 160" x 160" x 1/2" and 162" x 162" x 1/2" and 164" x 164" x 1/2" and 166" x 166" x 1/2" and 168" x 168" x 1/2" and 170" x 170" x 1/2" and 172" x 172" x 1/2" and 174" x 174" x 1/2" and 176" x 176" x 1/2" and 178" x 178" x 1/2" and 180" x 180" x 1/2" and 182" x 182" x 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270" x 270" x 1/2" and 272" x 272" x 1/2" and 274" x 274" x 1/2" and 276" x 276" x 1/2" and 278" x 278" x 1/2" and 280" x 280" x 1/2" and 282" x 282" x 1/2" and 284" x 284" x 1/2" and 286" x 286" x 1/2" and 288" x 288" x 1/2" and 290" x 290" x 1/2" and 292" x 292" x 1/2" and 294" x 294" x 1/2" and 296" x 296" x 1/2" and 298" x 298" x 1/2" and 300" x 300" x 1/2" and 302" x 302" x 1/2" and 304" x 304" x 1/2" and 306" x 306" x 1/2" and 308" x 308" x 1/2" and 310" x 310" x 1/2" and 312" x 312" x 1/2" and 314" x 314" x 1/2" and 316" x 316" x 1/2" and 318" x 318" x 1/2" and 320" x 320" x 1/2" and 322" x 322" x 1/2" and 324" x 324" x 1/2" and 326" x 326" x 1/2" and 328" x 328" x 1/2" and 330" x 330" x 1/2" and 332" x 332" x 1/2" and 334" x 334" x 1/2" and 336" x 336" x 1/2" and 338" x 338" x 1/2" and 340" x 340" x 1/2" and 342" x 342" x 1/2" and 344" x 344" x 1/2" and 346" x 346" x 1/2" and 348" x 348" x 1/2" and 350" x 350" x 1/2" and 352" x 352" x 1/2" and 354" x 354" x 1/2" and 356" x 356" x 1/2" and 358" x 358" x 1/2" and 360" x 360" x 1/2" and 362" x 362" x 1/2" and 364" x 364" x 1/2" and 366" x 366" x 1/2" and 368" x 368" x 1/2" and 370" x 370" x 1/2" and 372" x 372" x 1/2" and 374" x 374" x 1/2" and 376" x 376" x 1/2" and 378" x 378" x 1/2" and 380" x 380" x 1/2" and 382" x 382" x 1/2" and 384" x 384" x 1/2" and 386" x 386" x 1/2" and 388" x 388" x 1/2" and 390" x 390" x 1/2" and 392" x 392" x 1/2" and 394" x 394" x 1/2" and 396" x 396" x 1/2" and 398" x 398" x 1/2" and 400" x 400" x 1/2" and 402" x 402" x 1/2" and 404" x 404" x 1/2" and 406" x 406" x 1/2" and 408" x 408" x 1/2" and 410" x 410" x 1/2" and 412" x 412" x 1/2" and 414" x 414" x 1/2" and 416" x 416" x 1/2" and 418" x 418" x 1/2" and 420" x 420" x 1/2" and 422" x 422" x 1/2" and 424" x 424" x 1/2" and 426" x 426" x 1/2" and 428" x 428" x 1/2" and 430" x 430" x 1/2" and 432" x 432" x 1/2" and 434" x 434" x 1/2" and 436" x 436" x 1/2" and 438" x 438" x 1/2" and 440" x 440" x 1/2" and 442" x 442" x 1/2" and 444" x 444" x 1/2" and 446" x 446" x 1/2" and 448" x 448" x 1/2" and 450" x 450" x 1/2" and 452" x 452" x 1/2" and 454" x 454" x 1/2" and 456" x 456" x 1/2" and 458" x 458" x 1/2" and 460" x 460" x 1/2" and 462" x 462" x 1/2" and 464" x 464" x 1/2" and 466" x 466" x 1/2" and 468" x 468" x 1/2" and 470" x 470" x 1/2" and 472" x 472" x 1/2" and 474" x 474" x 1/2" and 476" x 476" x 1/2" and 478" x 478" x 1/2" and 480" x 480" x 1/2" and 482" x 482" x 1/2" and 484" x 484" x 1/2" and 486" x 486" x 1/2" and 488" x 488" x 1/2" and 490" x 490" x 1/2" and 492" x 492" x 1/2" and 494" x 494" x 1/2" and 496" x 496" x 1/2" and 498" x 498" x 1/2" and 500" x 500" x 1/2" and 502" x 502" x 1/2" and 504" x 504" x 1/2" and 506" x 506" x 1/2" and 508" x 508" x 1/2" and 510" x 510" x 1/2" and 512" x 512" x 1/2" and 514" x 514" x 1/2" and 516" x 516" x 1/2" and 518" x 518" x 1/2" and 520" x 520" x 1/2" and 522" x 522" x 1/2" and 524" x 524" x 1/2" and 526" x 526" x 1/2" and 528" x 528" x 1/2" and 530" x 530" x 1/2" and 532" x 532" x 1/2" and 534" x 534" x 1/2" and 536" x 536" x 1/2" and 538" x 538" x 1/2" and 540" x 540" x 1/2" and 542" x 542" x 1/2" and 544" x 544" x 1/2" and 546" x 546" x 1/2" and 548" x 548" x 1/2" and 550" x 550" x 1/2" and 552" x 552" x 1/2" and 554" x 554" x 1/2" and 556" x 556" x 1/2" and 558" x 558" x 1/2" and 560" x 560" x 1/2" and 562" x 562" x 1/2" and 564" x 564" x 1/2" and 566" x 566" x 1/2" and 568" x 568" x 1/2" and 570" x 570" x 1/2" and 572" x 572" x 1/2" and 574" x 574" x 1/2" and 576" x 576" x 1/2" and 578" x 578" x 1/2" and 580" x 580" x 1/2" and 582" x 582" x 1/2" and 584" x 584" x 1/2" and 586" x 586" x 1/2" and 588" x 588" x 1/2" and 590" x 590" x 1/2" and 592" x 592" x 1/2" and 594" x 594" x 1/2" and 596" x 596" x 1/2" and 598" x 598" x 1/2" and 600" x 600" x 1/2" and 602" x 602" x 1/2" and 604" x 604" x 1/2" and 606" x 606" x 1/2" and 608" x 608" x 1/2" and 610" x 610" x 1/2" and 612" x 612" x 1/2" and 614" x 614" x 1/2" and 616" x 616" x 1/2" and 618" x 618" x 1/2" and 620" x 620" x 1/2" and 622" x 622" x 1/2" and 624" x 624" x 1/2" and 626" x 626" x 1/2" and 628" x 628" x 1/2" and 630" x 630" x 1/2" and 632" x 632" x 1/2" and 634" x 634" x 1/2" and 636" x 636" x 1/2" and 638" x 638" x 1/2" and 640" x 640" x 1/2" and 642" x 642" x 1/2" and 644" x 644" x 1/2" and 646" x 646" x 1/2" and 648" x 648" x 1/2" and 650" x 650" x 1/2" and 652" x 652" x 1/2" and 654" x 654" x 1/2" and 656" x 656" x 1/2" and 658" x 658" x 1/2" and 660" x 660" x 1/2" and 662" x 662" x 1/2" and 664" x 664" x 1/2" and 666" x 666" x 1/2" and 668" x 668" x 1/2" and 670" x 670" x 1/2" and 672" x 672" x 1/2" and 674" x 674" x 1/2" and 676" x 676" x 1/2" and 678" x 678" x 1/2" and 680" x 680" x 1/2" and 682" x 682" x 1/2" and 684" x 684" x 1/2" and 686" x 686" x 1/2" and 688" x 688" x 1/2" and 690" x 690" x 1/2" and 692" x 692" x 1/2" and 694" x 694" x 1/2" and 696" x 696" x 1/2" and 698" x 698" x 1/2" and 700" x 700" x 1/2" and 702" x 702" x 1/2" and 704" x 704" x 1/2" and 706" x 706" x 1/2" and 708" x 708" x 1/2" and 710" x 710" x 1/2" and 712" x 712" x 1/2" and 714" x 714" x 1/2" and 716" x 716" x 1/2" and 718" x 718" x 1/2" and 720" x 720" x 1/2" and 722" x 722" x 1/2" and 724" x 724" x 1/2" and 726" x 726" x 1/2" and 728" x 728" x 1/2" and 730" x 730" x 1/2" and 732" x 732" x 1/2" and 734" x 734" x 1/2" and 736" x 736" x 1/2" and 738" x 738" x 1/2" and 740" x 740" x 1/2" and 742" x 742" x 1/2" and 744" x 744" x 1/2" and 746" x 746" x 1/2" and 748" x 748" x 1/2" and 750" x 750" x 1/2" and 752" x 752" x 1/2" and 754" x 754" x 1/2" and 756" x 756" x 1/2" and 758" x 758" x 1/2" and 760" x 760" x 1/2" and 762" x 762" x 1/2" and 764" x 764" x 1/2" and 766" x 766" x 1/2" and 768" x 768" x 1/2" and 770" x 770" x 1/2" and 772" x 772" x 1/2" and 774" x 774" x 1/2" and 776" x 776" x 1/2" and 778" x 778" x 1/2" and 780" x 780" x 1/2" and 782" x 782" x 1/2" and 784" x 784" x 1/2" and 786" x 786" x 1/2" and 788" x 788" x 1/2" and 790" x 790" x 1/2" and 792" x 792" x 1/2" and 794" x 794" x 1/2" and 796" x 796" x 1/2" and 798" x 798" x 1/2" and 800" x 800" x 1/2" and 802" x 802" x 1/2" and 804" x 804" x 1/2" and 806" x 806" x 1/2" and 808" x 808" x 1/2" and 810" x 810" x 1/2" and 812" x 812" x 1/2" and 814" x 814" x 1/2" and 816" x 816" x 1/2" and 818" x 818" x 1/2" and 820" x 820" x 1/2" and 822" x 822" x 1/2" and 824" x 824" x 1/2" and 826" x 826" x 1/2" and 828" x 828" x 1/2" and 830" x 830" x 1/2" and 832" x 832" x 1/2" and 834" x 834" x 1/2" and 836" x 836" x 1/2" and 838" x 838" x 1/2" and 840" x 840" x 1/2" and 842" x 842" x 1/2" and 844" x 844" x 1/2" and 846" x 846" x 1/2" and 848" x 848" x 1/2" and 850" x 850" x 1/2" and 852" x 852" x 1/2" and 854" x 854" x 1/2" and 856" x 856" x 1/2" and 858" x 858" x 1/2" and 860" x 860" x 1/2" and 862" x 862" x 1/2" and 864" x 864" x 1/2" and 866" x 866" x 1/2" and 868" x 868" x 1/2" and 870" x 870" x 1/2" and 872" x 872" x 1/2" and 874" x 874" x 1/2" and 876" x 876" x 1/2" and 878" x 878" 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966" x 966" x 1/2" and 968" x 968" x 1/2" and 970" x 970" x 1/2" and 972" x 972" x 1/2" and 974" x 974" x 1/2" and 976" x 976" x 1/2" and 978" x 978" x 1/2" and 980" x 980" x 1/2" and 982" x 982" x 1/2" and 984" x 984" x 1/2" and 986" x 986" x 1/2" and 988" x 988" x 1/2" and 990" x 990" x 1/2" and 992" x 992" x 1/2" and 994" x 994" x 1/2" and 996" x 996" x 1/2" and 998" x 998" x 1/2" and 1000" x 1000" x 1/2" and 1002" x 1002" x 1/2" and 1004" x 1004" x 1/2" and 1006" x 1006" x 1/2" and 1008" x 1008" x 1/2" and 1010" x 1010" x 1/2" and 1012" x 1012" x 1/2" and 1014" x 1014" x 1/2" and 1016" x 1016" x 1/2" and 1018" x 1018" x 1/2" and 1020" x 1020" x 1/2" and 1022" x 1022" x 1/2" and 1024" x 1024" x 1/2" and 1026" x 1026" x 1/2" and 1028" x 1028" x 1/2" and 1030" x 1030" x 1/2" and 1032" x 1032" x 1/2" and 1034" x 1034" x 1/2" and 1036" x 1036" x 1/2" and 1038" x 1038" x 1/2" and 1040" x 1040" x 1/2" and 1042" x 1042" x 1/2" and 1044" x 1044" x 1/2" and 1046" x 1046" x 1/2" and 1048" x 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LEGEND

- PROPERTY BOUNDARY
- EX. RIGHT OF WAY
- ADJACENT PROPERTY BOUNDARY
- EX. ROADS AND WALKS
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- FOREST CONSERVATION EASEMENT
- PROP. BUILDING
- PROP. CURB / EDGE OF PAVING
- PROP. DEPRESSED CURB
- PROP. GROUP LIGHT
- PROP. SINGLE LIGHT
- PROP. LIGHT
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE
- ORANGE CONSTRUCTION FENCE
- AT GRADE INLET PROTECTION
- CURB INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL MATTING
- EARTH DIKE
- RFS (REMOVABLE PUMPING STATION)

DEVELOPER'S CERTIFICATE

"I/we certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Signature of Developer: *James F. Knott, Jr.* Date: 4/26/11

Print Name: JAMES F. KNOTT, JR.

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer: *Paul Hudson* Date: 4-21-11

Print Name: PAUL HUDSON

LOD= 422,254 S.F. OR 9.69 Ac.±

This development plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

Signature: *John P. Robertson* Date: 4/27/11

Howard Soil Conservation District

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 3/26/13

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 2/25/13

DIRECTOR DATE: 3/10

9-12-16 A EMERSON CAMPUS VCP

3-28-13 A UPDATE SED. CONTROL NOTES

Date No. Revision Description

EMERSON PARCEL G-1

L.E.E.D. BUILDING

5-STORY COMMERCIAL OFFICE BUILDING

OWNER/DEVELOPER: EMERSON DEVELOPMENT VI LLC

1 TEXAS STATION COURT, SUITE 200

TIMONIUM, MARYLAND 21093-8288

(443) 689-8000

DMW

DAFT MCCUNE WALKER INC

200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286

P: 410 286 3333 F: 410 286 4705 WWW.DMW.COM

A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS

SUBDIVISION NAME: REVIZIT PROPERTY SECTION/AREA: PARCEL G-1 PAR. 165

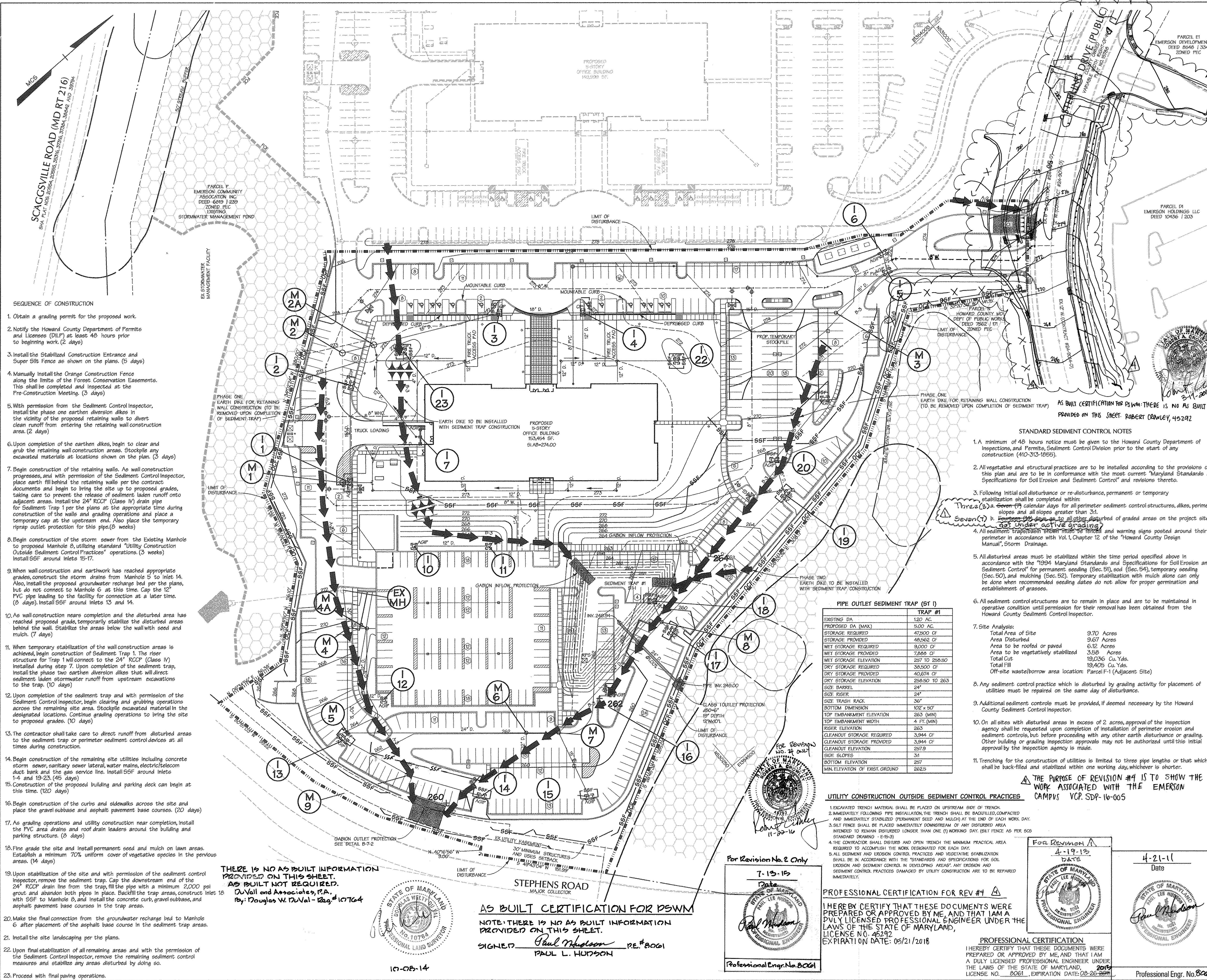
DATE: 2/27/11

EROSION & SEDIMENT CONTROL PLAN

Des. By: THR/JDF Scale: 1"=50' Proj. No. 95054.3

Drn. By: JSS Date: 4-11-11

Chk. By: Approved 9 of 23



PIPE OUTLET SEDIMENT TRAP (ST 1)

EXISTING DATA	TRAP #1
PROPOSED DA (MAX)	120 AC.
STORAGE REQUIRED	5,000 CF
STORAGE PROVIDED	49,562 CF
WET STORAGE REQUIRED	9,000 CF
WET STORAGE PROVIDED	7,888 CF
DRY STORAGE ELEVATION	257 TO 259.80
DRY STORAGE REQUIRED	39,500 CF
DRY STORAGE PROVIDED	40,674 CF
DRY STORAGE ELEVATION	258.50 TO 263
SIZE BARREL	24"
SIZE RISER	24"
SIZE TRASH RACK	36"
BOTTOM DIMENSION	102" x 50"
TOP EMBANKMENT ELEVATION	263 (MIN)
TOP EMBANKMENT WIDTH	4 FT (MIN)
RISER ELEVATION	263
CLEANOUT STORAGE REQUIRED	3,944 CF
CLEANOUT STORAGE PROVIDED	3,944 CF
CLEANOUT ELEVATION	257.9
SIDE SLOPES	3:1
BOTTOM ELEVATION	257
MIN. ELEVATION OF EXIST. GROUND	262.5

UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL PRACTICES

1. EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON UPSTREAM SIDE OF TRENCH.
2. IMMEDIATELY FOLLOWING PIPE INSTALLATION, THE TRENCH SHALL BE BACKFILLED, COMPACTED AND IMMEDIATELY STABILIZED (PERMANENT SEED AND MULCH) AT THE END OF EACH WORK DAY.
3. SILT FENCE SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED LONGER THAN ONE (1) WORKING DAY. (SILT FENCE AS PER 505 STANDARD DRAWING - E-15-3)
4. THE CONTRACTOR SHALL DISTURB AND OPEN TRENCH THE MINIMUM PRACTICAL AREA REQUIRED TO ACCOMPLISH THE WORK DESIGNATED FOR EACH DAY.
5. ALL SEDIMENT AND EROSION CONTROL PRACTICES AND VEGETATIVE STABILIZATION SHALL BE IN ACCORDANCE WITH THE "STANDARDS AND OPERATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS" ANY DESIGN AND SEDIMENT CONTROL PRACTICES DAMAGED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

PROFESSIONAL CERTIFICATION FOR REV #4

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 05/21/2018

Signature: *Paul Hudson* Date: 4-19-13

Professional Engr. No. 8061

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 08-26-2011

Signature: *Paul Hudson* Date: 4-21-11

Professional Engr. No. 8061

AS BUILT CERTIFICATION FOR PSWM

NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

SIGNED: *Paul Hudson* P.E. #8061

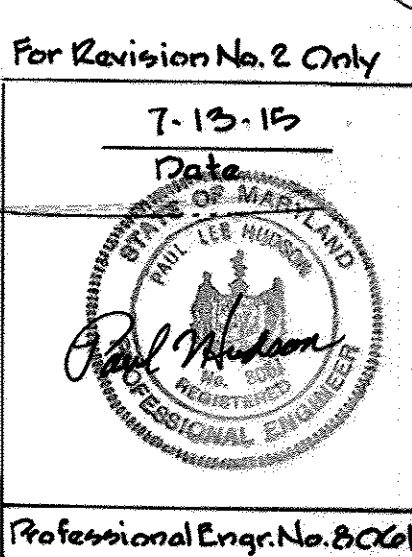
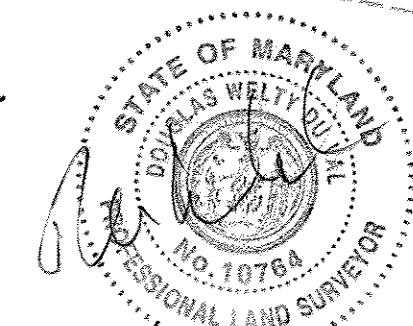
PAUL L. HUDSON

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

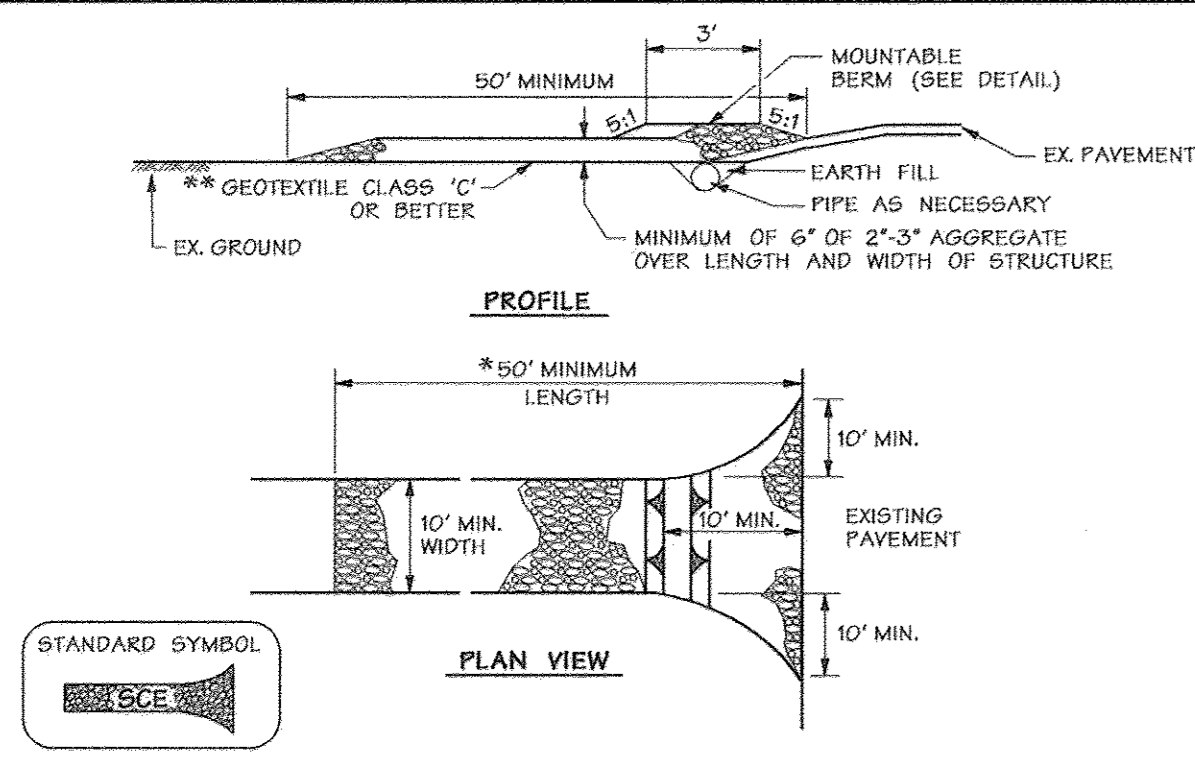
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DuVall and Associates, P.A.

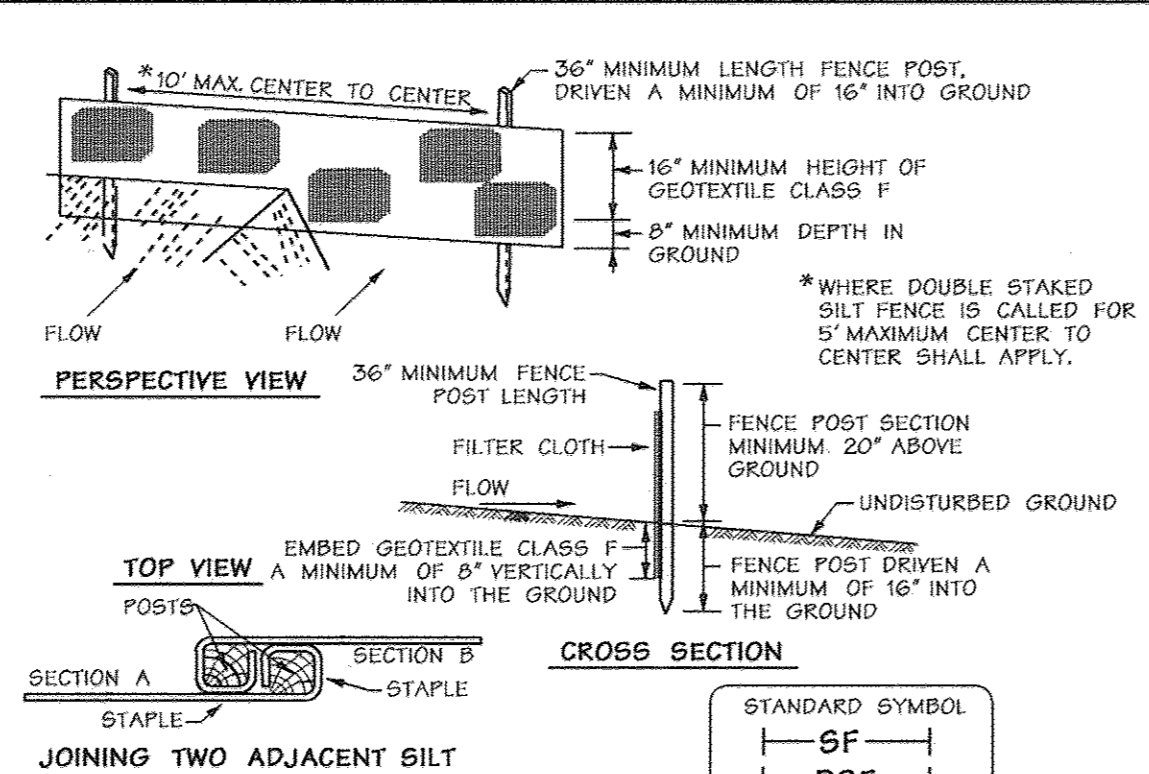
By: Douglas W. DuVal - Reg. #10764



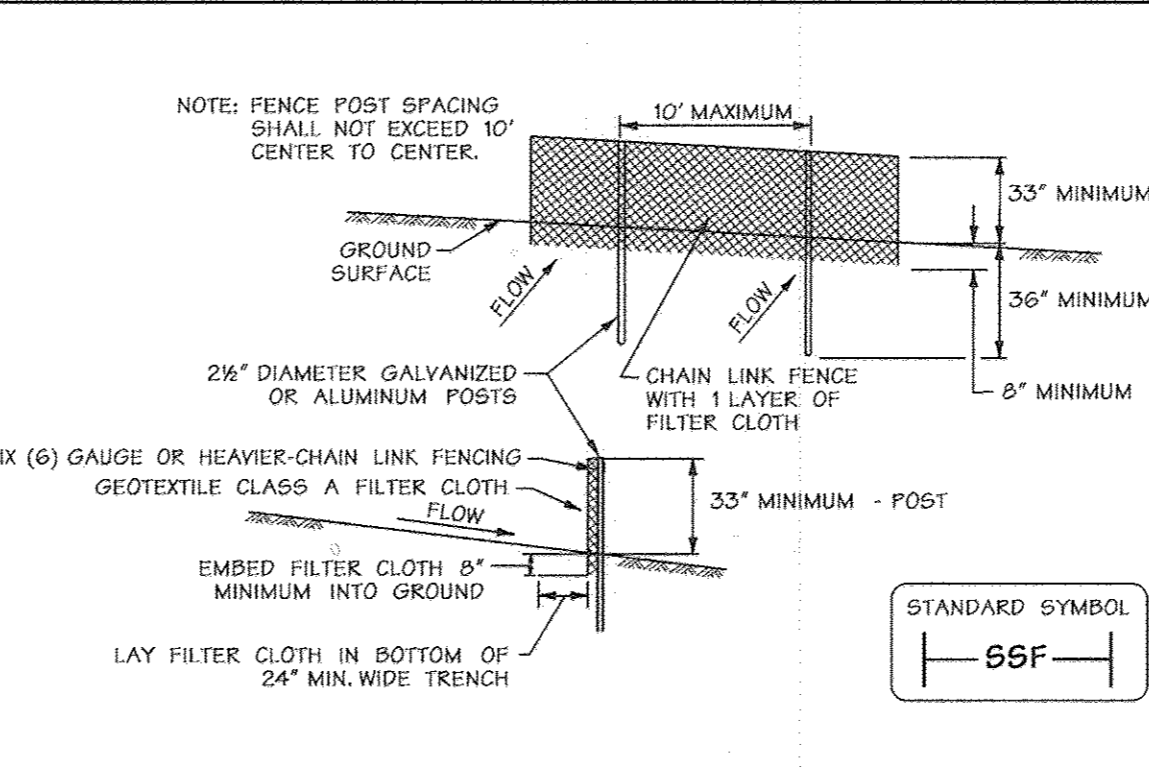
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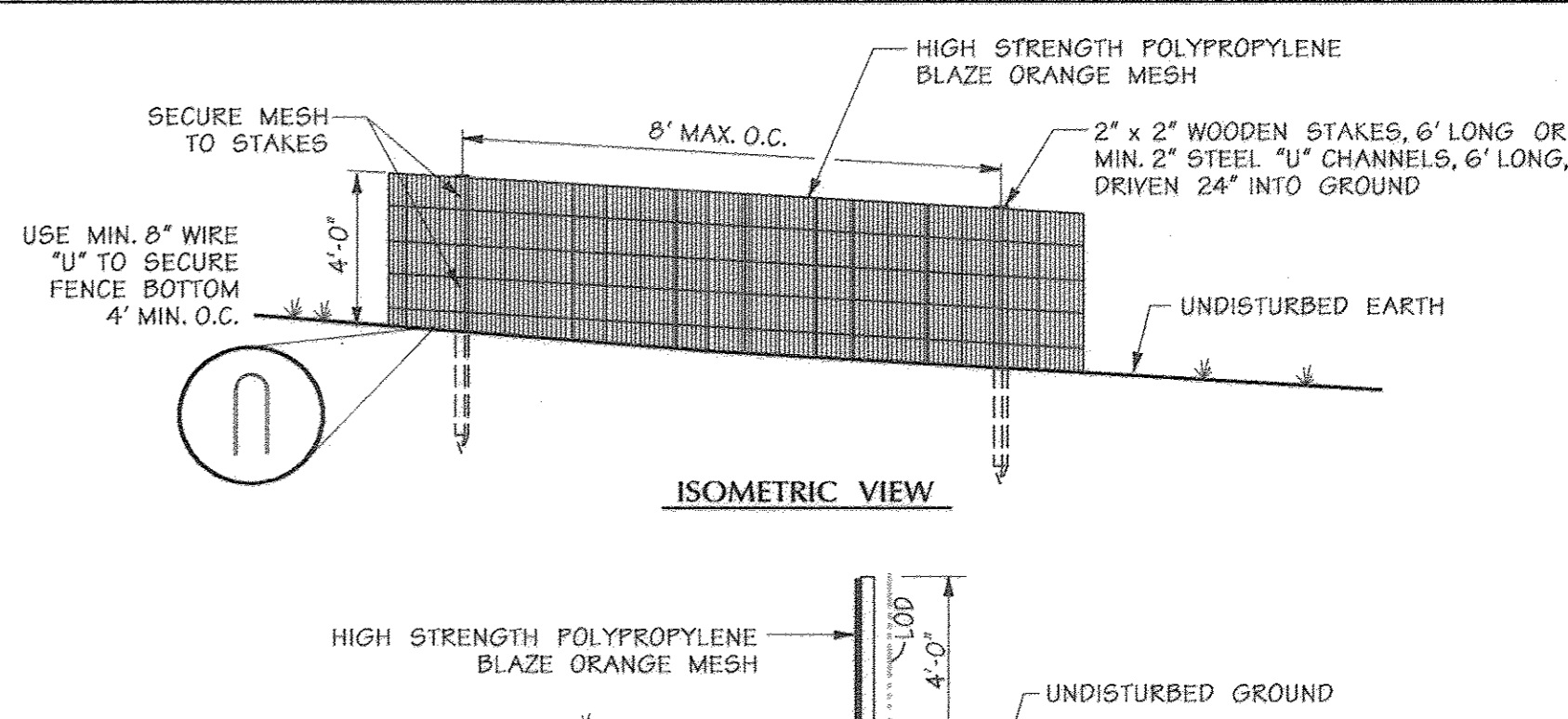
CONSTRUCTION SPECIFICATIONS
1. LENGTH - MINIMUM OF 50' (30' FOR SINGLE RESIDENCE LOT).
2. WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.



CONSTRUCTION SPECIFICATIONS
1. FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" x 1 1/2" SQUARE (MINIMUM) CUT OR 1 1/2" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD, STEEL POSTS WILL BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 100 POUND PER LINEAR FOOT.



CONSTRUCTION SPECIFICATIONS
1. FENCE SHALL BE 42 INCHES IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY (SHA) DETAILS FOR CHAIN LINK FENCING. THE SHA SPECIFICATIONS FOR A 6 FOOT FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6 FOOT LENGTH POSTS.



CONSTRUCTION SPECIFICATIONS
1. THIS DETAIL IS FOR ORANGE CONSTRUCTION FENCE DEVICE ONLY.
2. FOREST RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.

Stabilized Construction Entrance Not To Scale

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.
PURPOSE
To provide a suitable soil medium for vegetative growth, soils of concern have low moisture content, low nutrient levels, low PH, material toxic to plants, and/or unacceptable soil gradation.

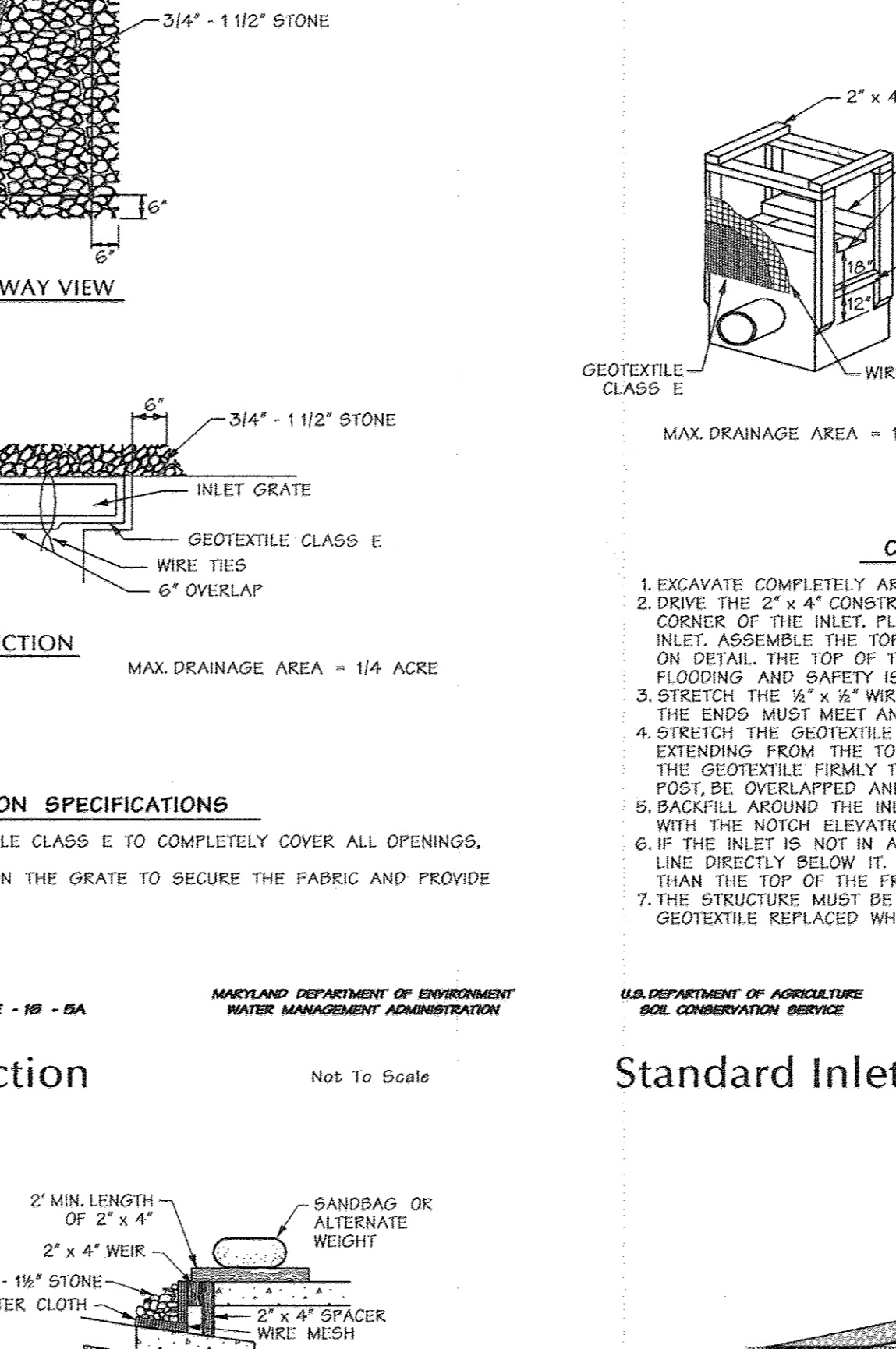
Silt Fence Not To Scale

PERMANENT / TEMPORARY SEEDING NOTES

Permanent Seeding Notes
Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long lived vegetative cover is needed.
Soil Amendments: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding if not previously loosened.

Super Silt Fence Not To Scale

PLAN/CUT AWAY VIEW



Orange Construction Fence Not To Scale

SILT FENCE DESIGN CRITERIA

Table with 3 columns: SLOPE STEEPNESS, (MAXIMUM) SLOPE LENGTH, (MAXIMUM) SILT FENCE LENGTH. Rows include various slope percentages and corresponding fence lengths.

Silt Fence Not To Scale

CONSTRUCTION SPECIFICATIONS

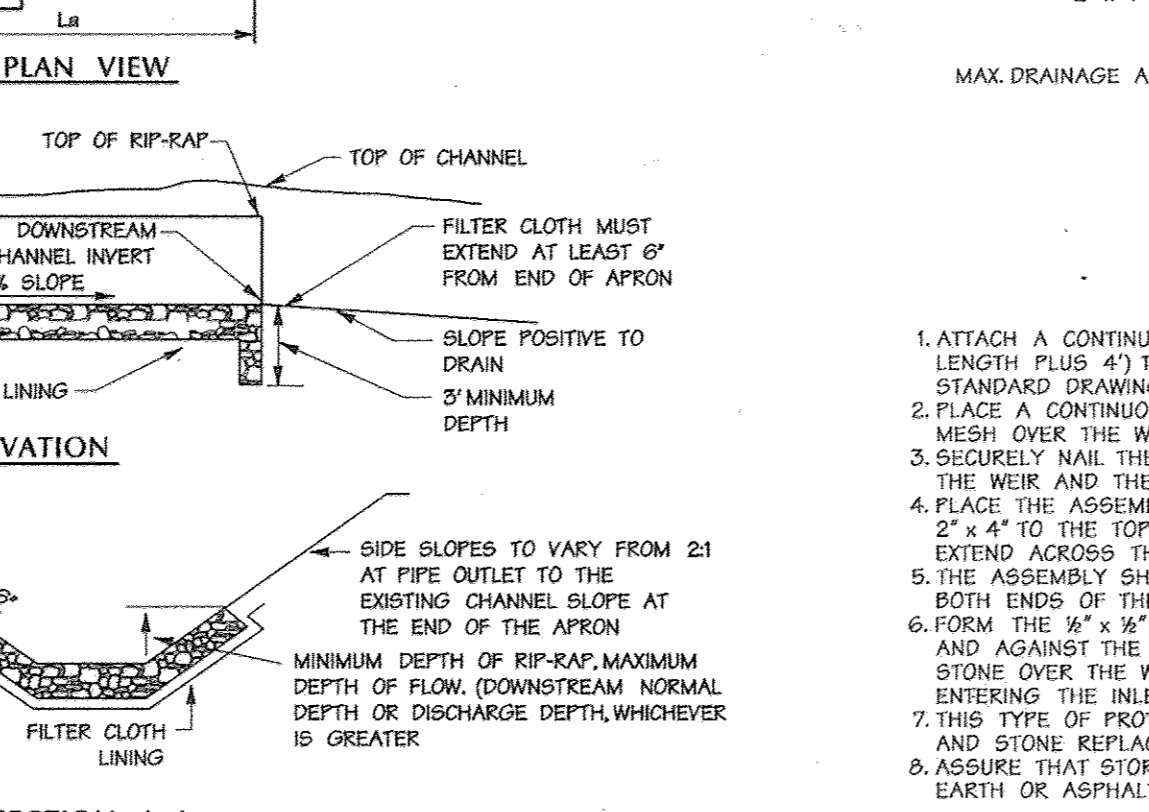
1. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18" BELOW THE NOTCH ELEVATION.
2. DRIVE THE 2" x 4" CONSTRUCTION GRADE LUMBER POSTS 1' INTO THE GROUND AT EACH CORNER OF THE INLET, PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET.

DUST CONTROL SPECIFICATIONS

Temporary Methods:
1. Mulches - see Standards for Vegetative Stabilization with Mulches only. Mulch should be crimped or tacked to prevent blowing.
2. Vegetative cover - see Standards for Temporary Vegetative Cover.

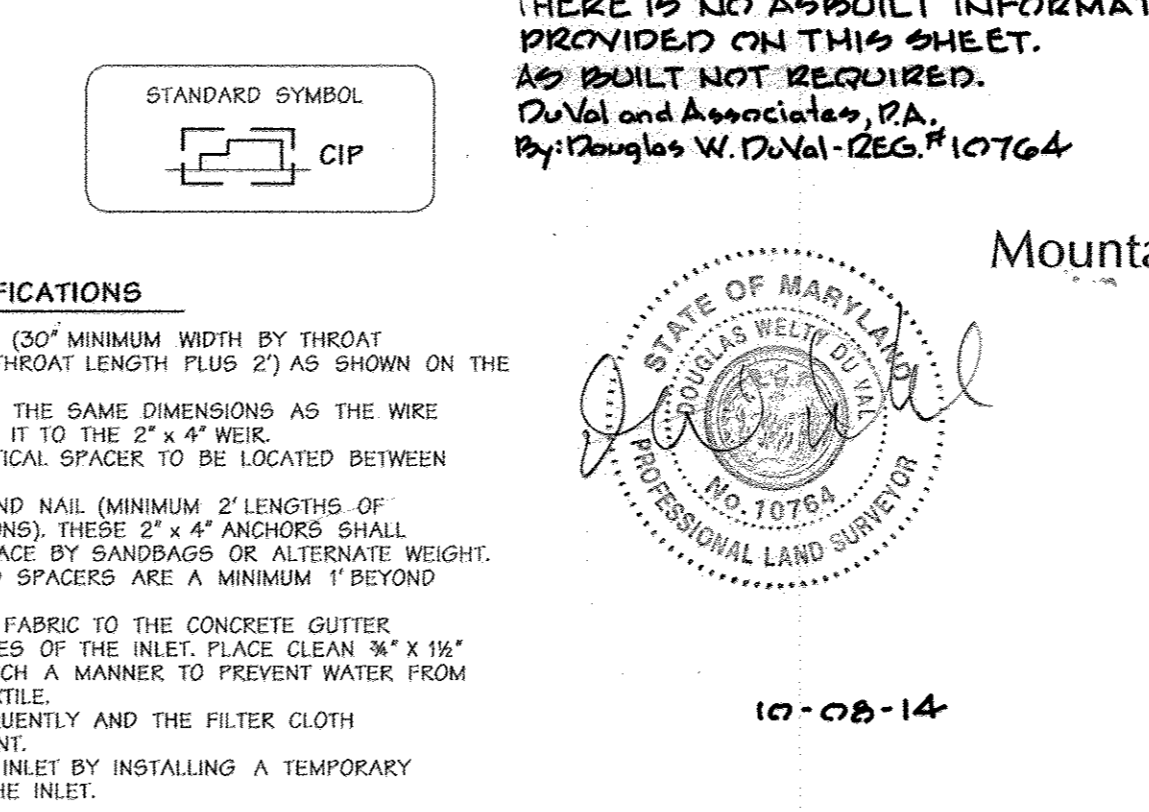
At Grade Inlet Protection Not To Scale

CONSTRUCTION SPECIFICATIONS



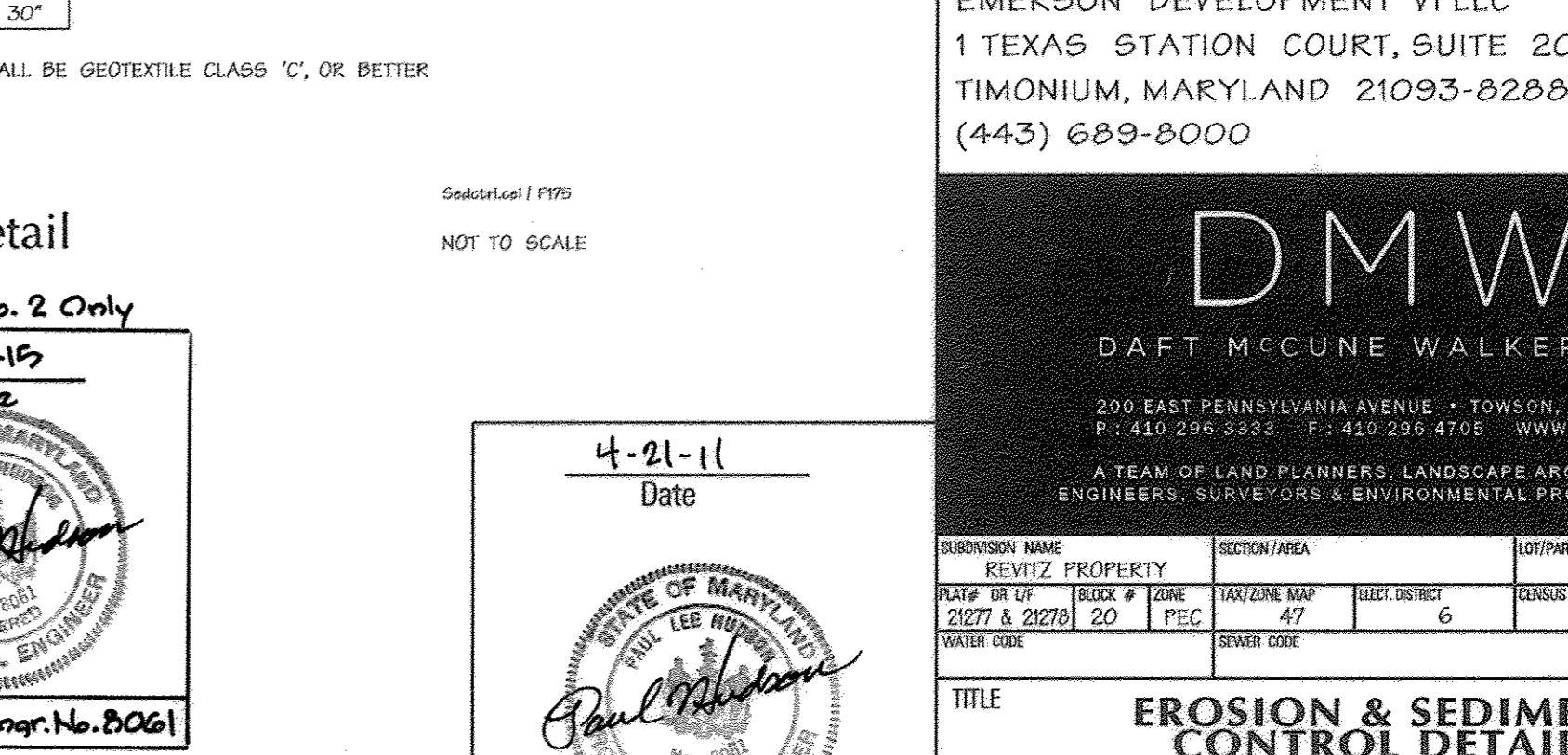
Standard Inlet Protection Not To Scale

CONSTRUCTION SPECIFICATIONS



Mountable Berm Detail Not To Scale

CONSTRUCTION SPECIFICATIONS

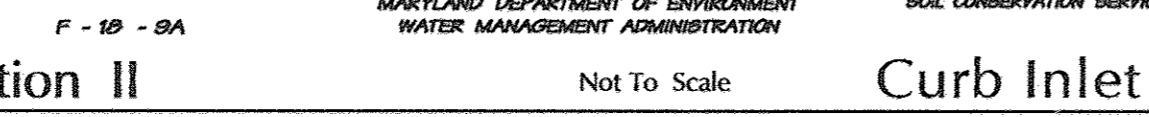


AS BUILT CERTIFICATION FOR PSWM

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
SIGNED: Paul Hudson PE# 8001

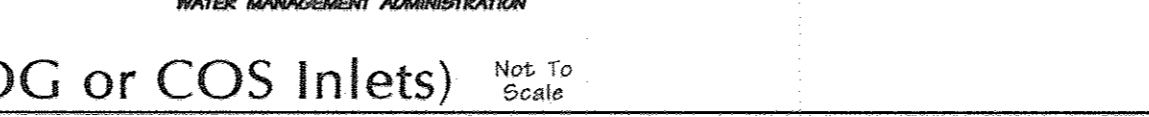
Rock Outlet Protection II Not To Scale

CONSTRUCTION SPECIFICATIONS



Curb Inlet Protection (COG or COS Inlets) Not To Scale

CONSTRUCTION SPECIFICATIONS

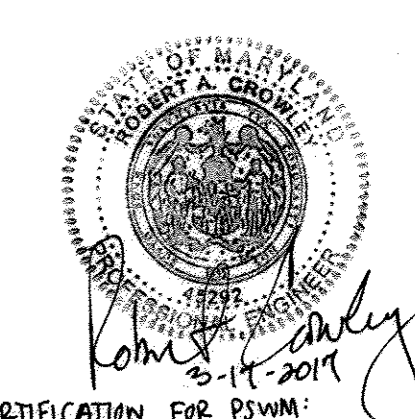


EMERSON PARCEL G-1 L.E.E.D. BUILDING

5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER: EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.



AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. ROBERT CROWLEY 4/26/11

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
Date: 4/26/11

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Date: 3/26/13

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Date: 5/7/10

Date No. Revision Description

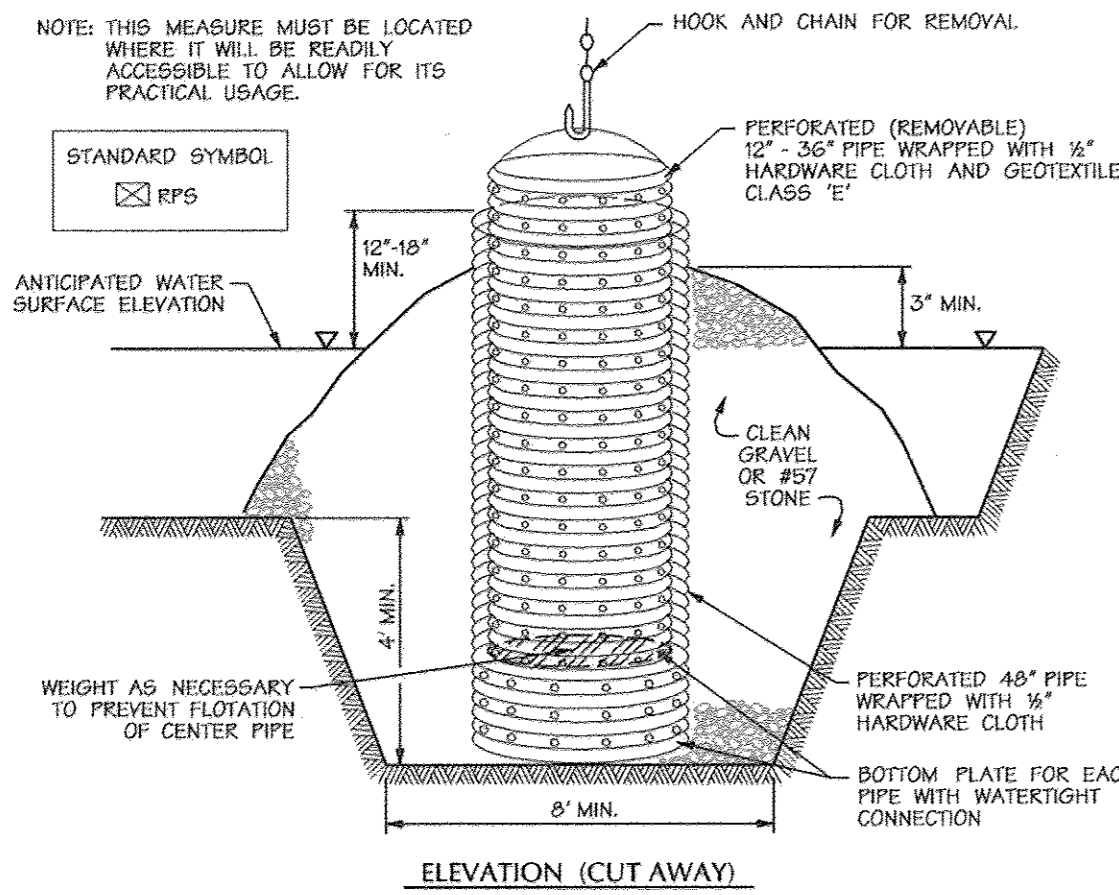
EMERSON PARCEL G-1 L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER: EMERSON DEVELOPMENT VI LLC

DMW DAFT MCCUNE WALKER INC
200 EAST PENNSYLVANIA AVENUE - TOWSON, MD 21286

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

Table with columns: SHEETNO. NAME, REVIZ. PROPERTY, SECTION AREA, SHEETNO., PARCEL, DATE, TIME, SCALE, SHEETNO., SHEETNO., SHEETNO., SHEETNO.

Table with columns: Des. By, Scale, Proj. No., Dm. By, Date, Chk. By, Approved, Proj. No.



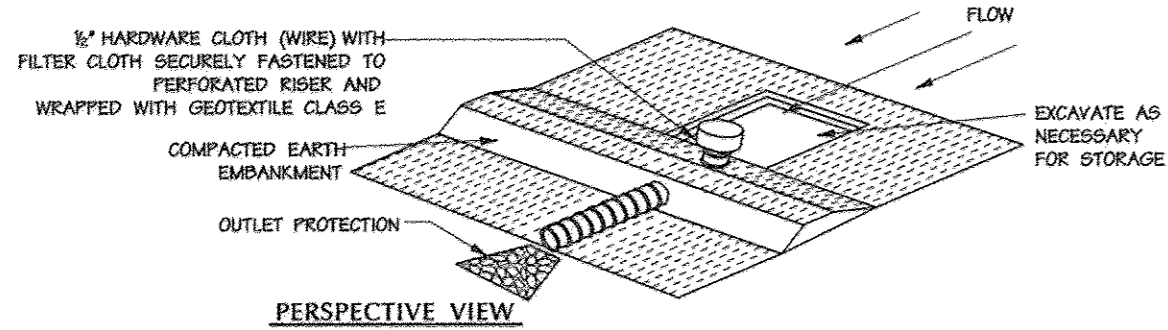
CONSTRUCTION SPECIFICATIONS

1. THE OUTER PIPE SHOULD BE 48\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Removable Pumping Station

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. RIP-RAP LINED INFLOW CHANNELS SHALL BE 1' IN DEPTH, HAVE A TRAPEZOIDAL CROSS SECTION WITH 2:1 OR FLATTER SIDE SLOPES AND 3\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

RipRap Inflow Protection

NOT TO SCALE

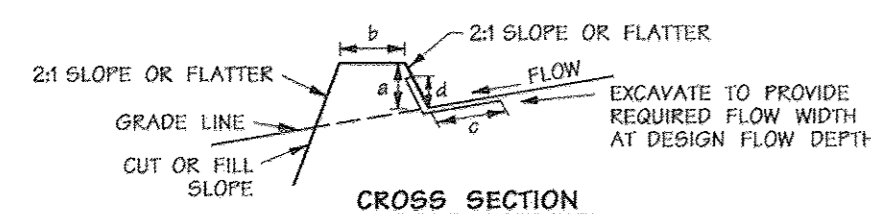
CONSTRUCTION SPECIFICATIONS

1. THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAILERING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. THE TOTAL TRAP VOLUME AS MEASURED FROM THE BOTTOM TO RISER CREST ELEVATION SHALL BE 3600 CUBIC FEET PER ACRE OF DRAINAGE AREA (SEE TABLE 9). THE TOP OF EMBANKMENT MUST BE 1' ABOVE THE RISER CREST ELEVATION.
4. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE WET STORAGE DEPTH OF THE TRAP (800 CF/AC). THE SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
5. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS MADE AS NECESSARY.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP.
7. THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
8. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
9. ALL PIPE CONNECTIONS SHALL BE WATER-TIGHT.
10. ABOVE THE WET STORAGE ELEVATION THE RISER SHALL BE PERFORATED WITH 1/2\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Pipe Outlet Sediment Trap - ST 1

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. SEED AND COVER WITH STRAW MULCH.
2. SEED AND COVER WITH EROSION CONTROL MATTING OR LIME WITH SOD.
3. 4\"/>

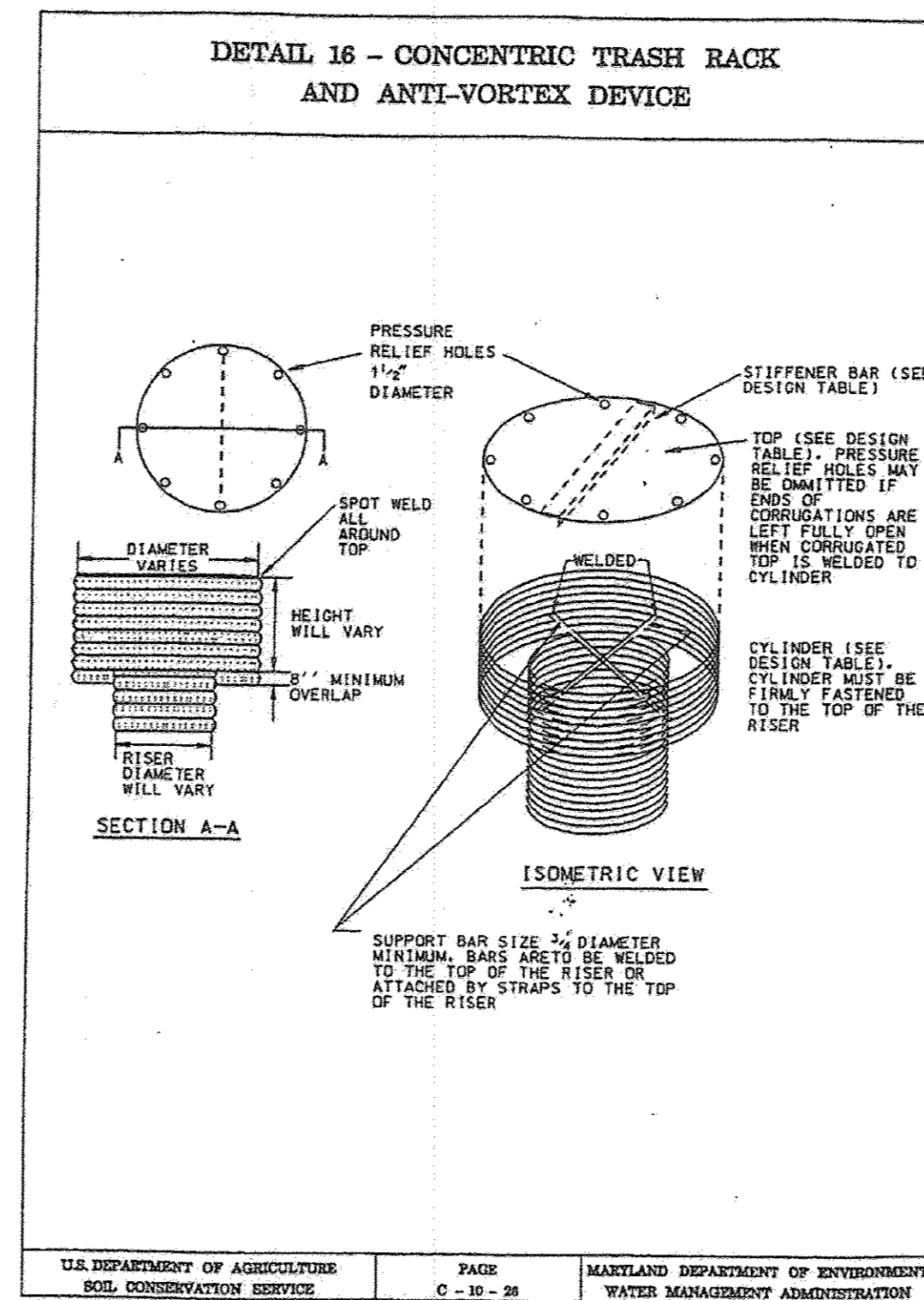
CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY EARTH DIKES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. SPOT ELEVATIONS MAY BE NECESSARY FOR GRADES LESS THAN 1%.
2. RUNOFF DIVERTED FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. RUNOFF DIVERTED FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED, STABILIZED AREA AT A NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIKE.
5. THE DIKE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPED NORMAL FLOW.
6. FILL SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DIKE.
8. INSPECTION AND MAINTENANCE MUST BE PROVIDED PERIODICALLY AND AFTER EACH RAIN EVENT.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

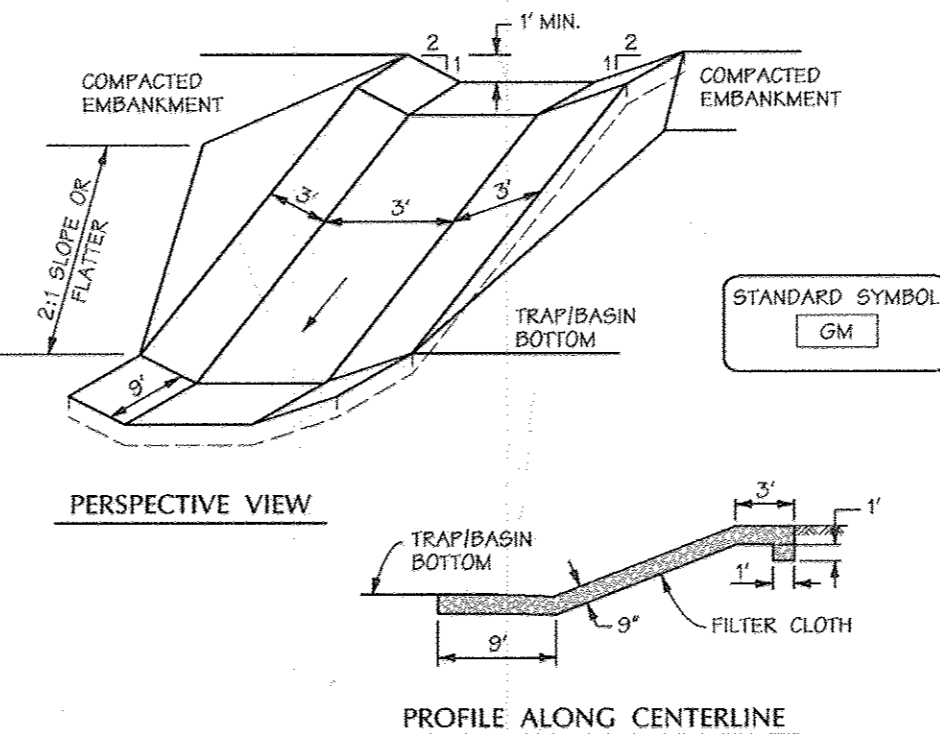
Earth Dike

NOT TO SCALE



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

1994



CONSTRUCTION SPECIFICATIONS

1. GABION INFLOW PROTECTION SHALL BE CONSTRUCTED OF 3' x 3' x 3' GABION BASKETS FORMING A TRAPEZOIDAL CROSS SECTION 1' DEEP, WITH 2:1 SIDE SLOPES, AND A 3\"/>

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Gabion Inflow Protection

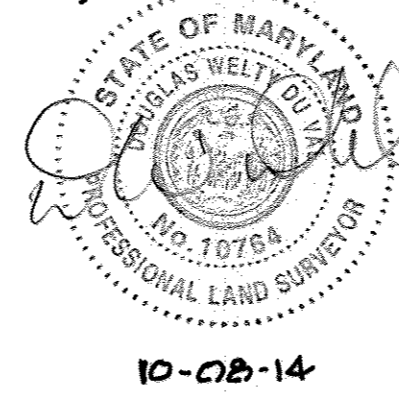
NOT TO SCALE

AS BUILT CERTIFICATION FOR PSWM

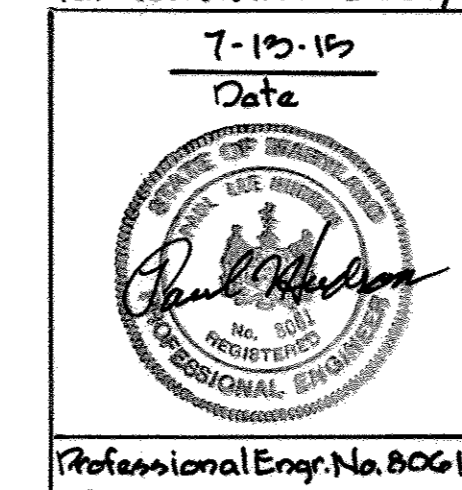
THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

SIGNED *Paul L. Hudson* RE.# 8061 PAUL L. HUDSON

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED. DuVal and Associates, P.A. By: Douglas W. DuVal REG.# 10764



For Revision No. 2 Only



PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, 2019 LICENSE NO. 8061, EXPIRATION DATE: 08-26-2021

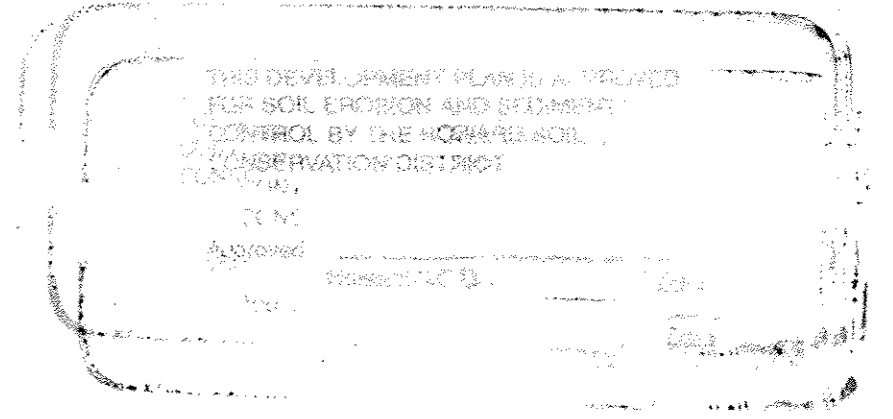
DETAIL 16 CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE (continued)

Riser Diam. In.	Trash Rack Cylinder Diam. In.	Trash Rack Thick. In.	Minimum Size Support Bar	Minimum Top Thickness	Stiffener
12	18	16	#6 Rebar	16 ga.	---
15	21	16	"	"	---
18	27	16	"	"	---
21	30	16	"	"	---
24	36	16	"	"	---
27	42	16	"	"	---
36	54	14	#8 Rebar	14 ga.	---
42	60	14	"	"	---
48	72	12	1-1/2" pipe or 1-1/2" x 1-1/2" angle	10 ga.	---
54	78	12	"	"	---
60	90	12	1-1/2" pipe or 1-1/2" x 1-1/2" angle	8 ga.	---
66	96	10	2" pipe or 2x2x1/4 angle	8 ga.	2x2x1/4 w/stiffener
72	102	10	"	"	2-1/2x1/4 angle
78	114	10	2-1/2" pipe or 2-1/2" x 2-1/2" angle	"	"
84	120	10	2-1/2" pipe or 2-1/2x2-1/2x1/4 angle	"	2-1/2x2-1/2x1/4 angle

Note: The above trash rack and anti-vortex device information is only for corrugated metal pipe. Concrete risers must meet the requirements of MD 376.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

AS BUILT CERTIFICATION FOR PSWM: 10/11/2019
THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
ROBERT CRAWLEY
45292



This development plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

John K. Brinton 4/26/11
Howard Soil Conservation District Date

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Wet S. L. L... 3/06/13
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

... 2/25/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Paul L. Hudson 3/11/11
DIRECTOR DATE

EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

DMW
DAFT MCCUNE WALKER INC.
200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286
P: 410 296 3333 F: 410 286 4705 WWW.DMW.COM

A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS

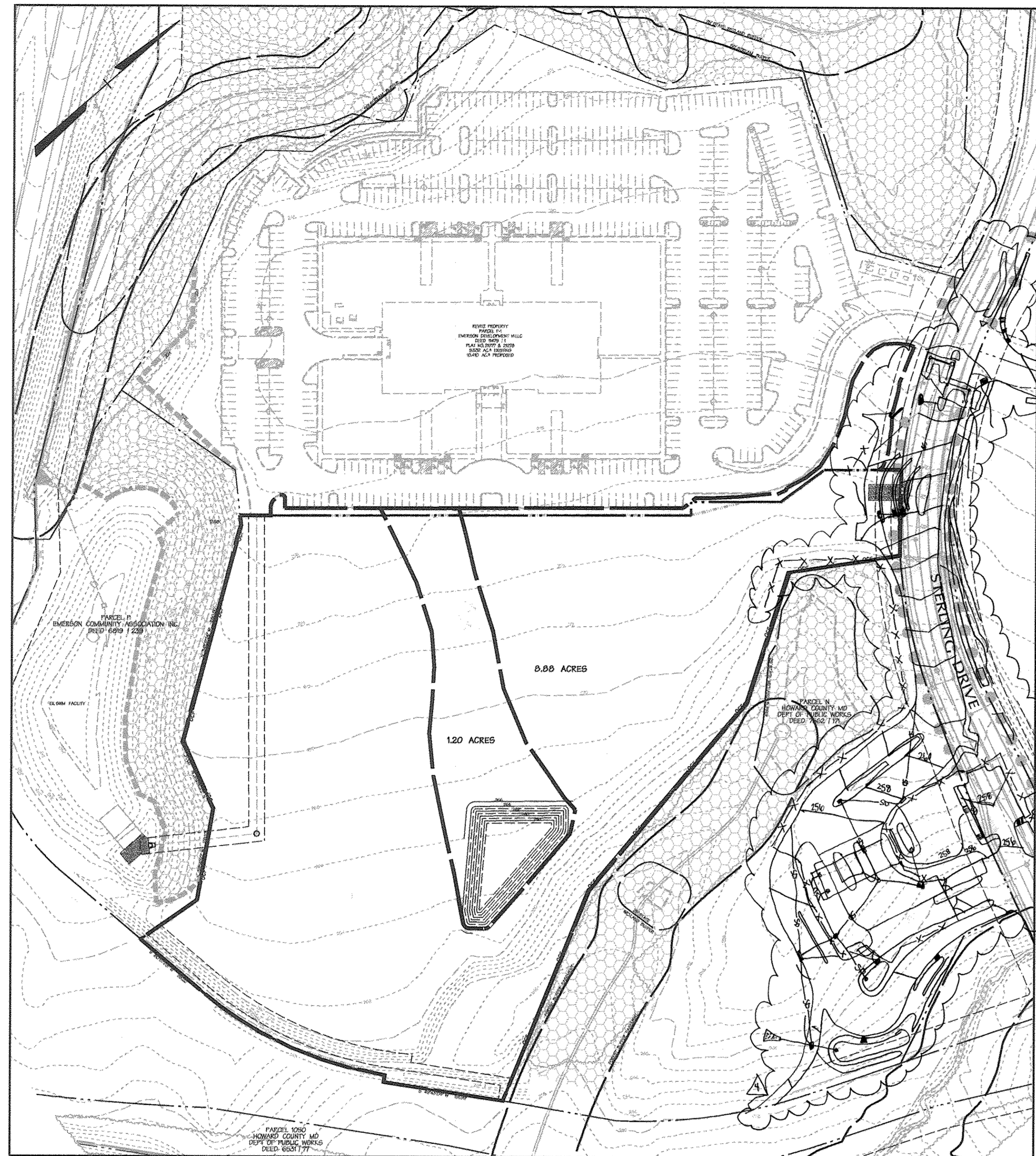
SUBDIVISION NAME: REVITZ PROPERTY SECTION/AREA: PARCEL G-1/FAR 165
REVISION NO.: 2019 2/27/19 20 PEC SHEET NO.: 47 ELECT. DISTRICT: 6 DESIGN TRACT: 6903
OWNER CODE: SHEET CODE:

TITLE: **EROSION & SEDIMENT CONTROL DETAILS**

Des. By: THR/JDF Scale: NT5 Proj. No.: 95054.3
Dm. By: JSS Date: 4-11-11
Chk. By: Approved 11 of 28

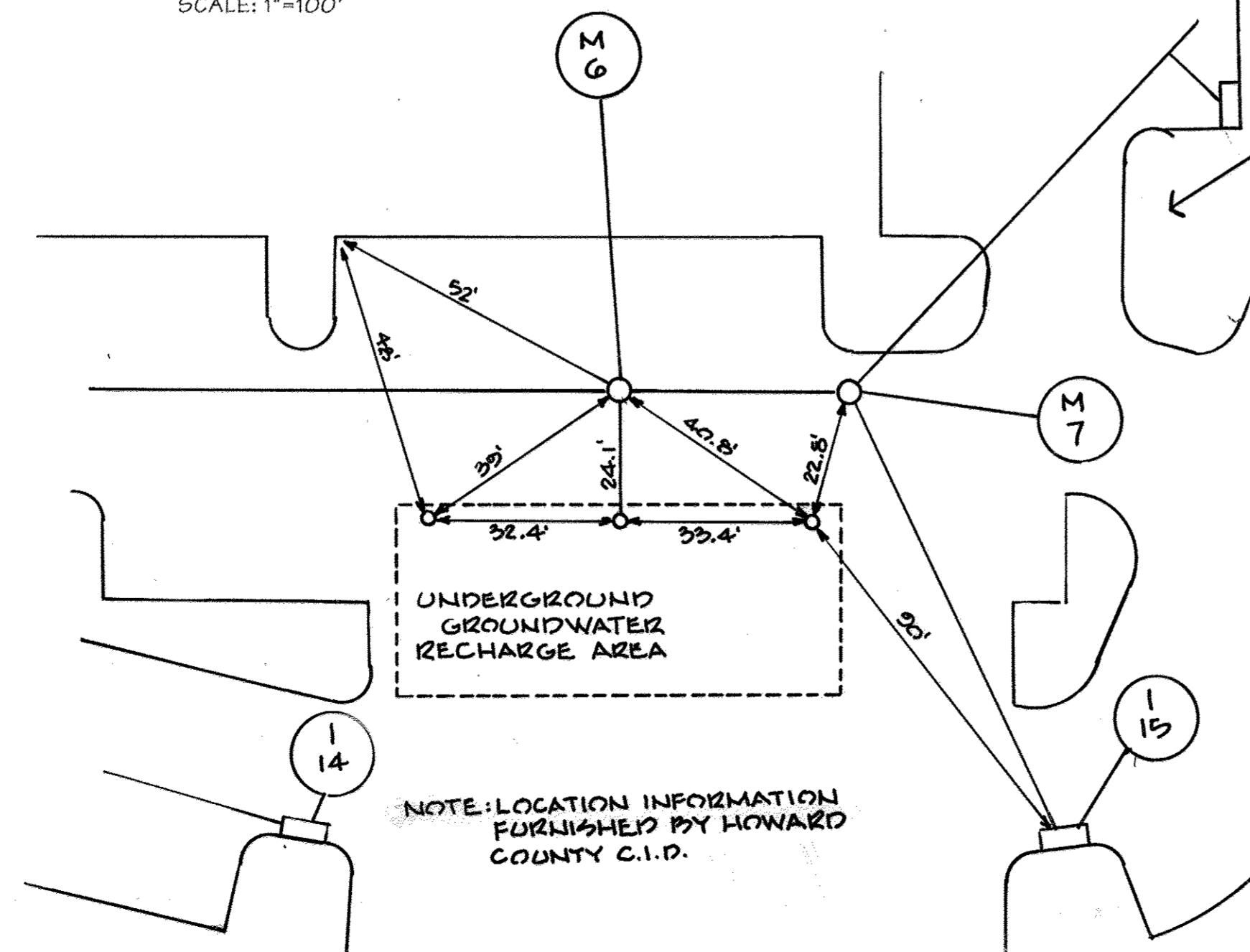
Professional Engr. No. 8061

180804-05054.3-ENGR-GDF 180804-05054.3-ENGR-MPW-421 18-08-02 2011

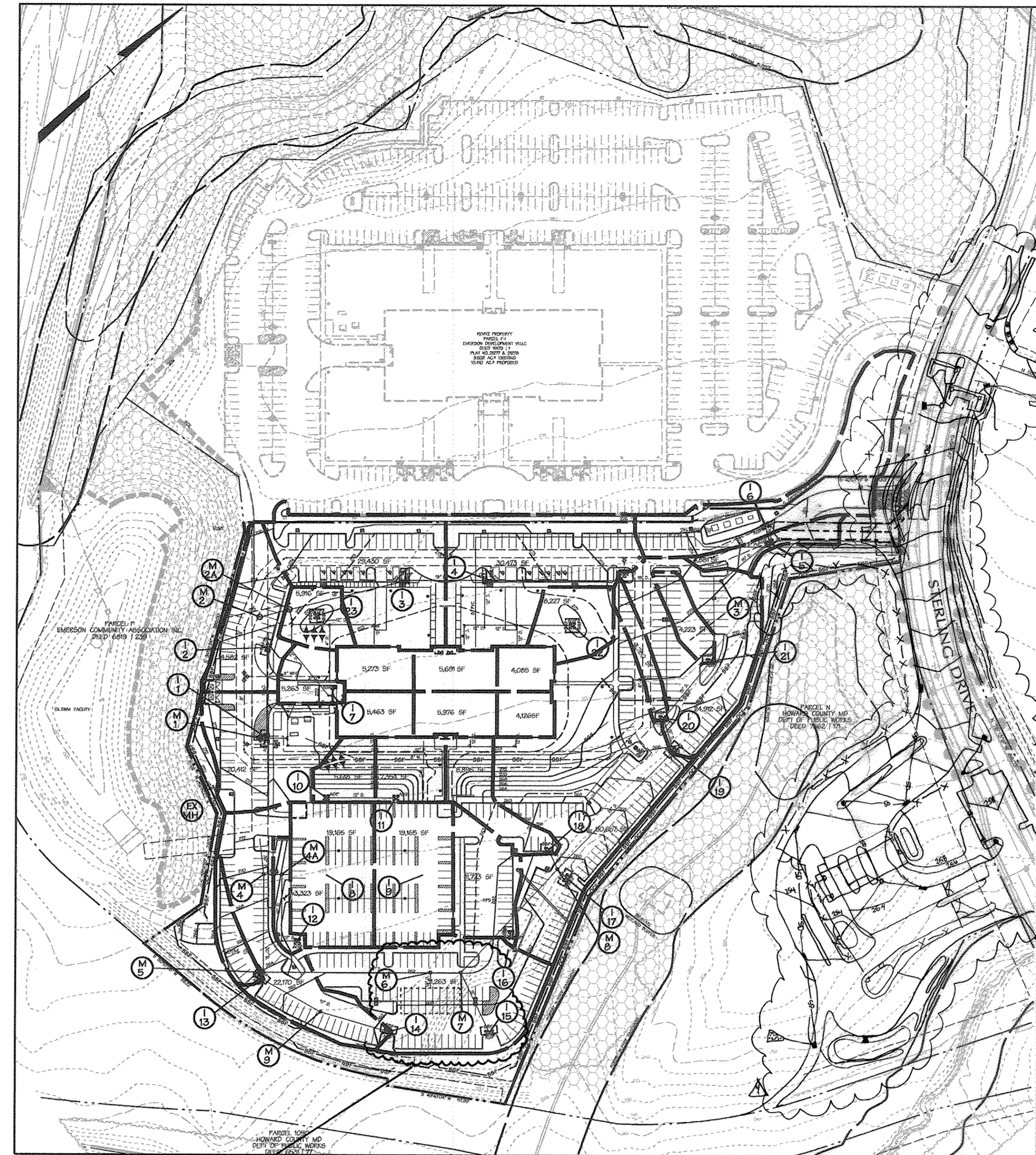


EXISTING DRAINAGE AREA MAP

SCALE: 1"=100'



NOTE: LOCATION INFORMATION FURNISHED BY HOWARD COUNTY C.I.P.



PROPOSED DRAINAGE AREA MAP

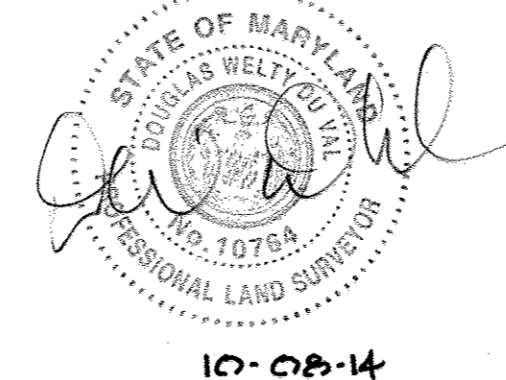
SCALE: 1"=100'

PROFESSIONAL CERTIFICATION FOR REV #4

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 45292
 EXPIRATION DATE: 05/21/2018

THE PURPOSE OF REVISION #4 IS TO SHOW THE WORK ASSOCIATED WITH THE EMERSON CAMPUS VCP. SDP-10-005

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED.
 DuVal and Associates, PA.
 By: Douglas W. DuVal, REG.#10764



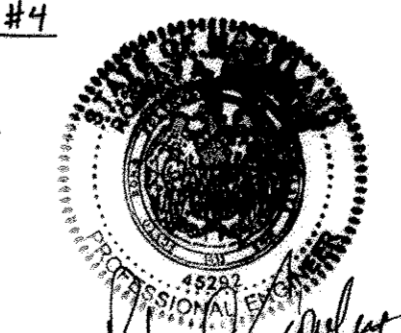
10-08-14

AS BUILT CERTIFICATION FOR PSWM

NOTE: THERE IS NO AS BUILT INFORMATION PRESENTED ON THIS SHEET.

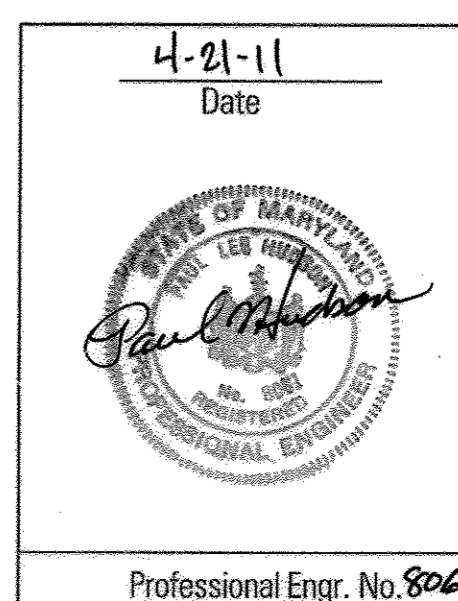
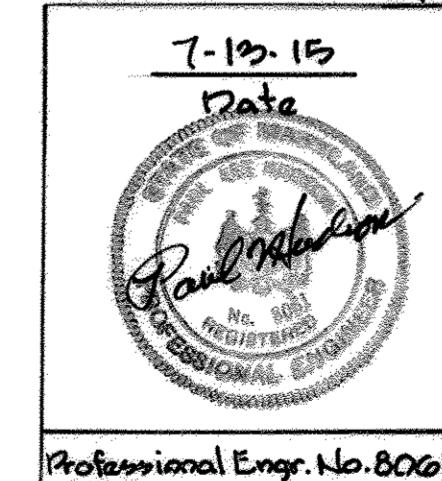
SIGNED *Paul L. Hudson* REG.# 8061
 PAUL L. HUDSON

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 8061, EXPIRATION DATE: 08-26-2011



11-22-16

For Revision No. 2 Only



AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
 ROBERT CROWLEY, 45292



2-11-2011

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Approved: *John P. Blanton*
 Howard S.C.D. 10/13/11

This development plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
 Howard Soil Conservation District Date

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
<i>Keith L. ...</i>	3/02/13
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>...</i>	2/25/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Paul L. Hudson</i>	2/7/13
DIRECTOR	DATE

9-22-16	A	EMERSON CAMPUS VCP
Date	No.	Revision Description

EMERSON PARCEL G-1
L.E.E.D. BUILDING
 5-STORY COMMERCIAL OFFICE BUILDING
 OWNER/DEVELOPER:
 EMERSON DEVELOPMENT VI LLC
 1 TEXAS STATION COURT, SUITE 200
 TIMONIUM, MARYLAND 21093-8288
 (443) 689-8000

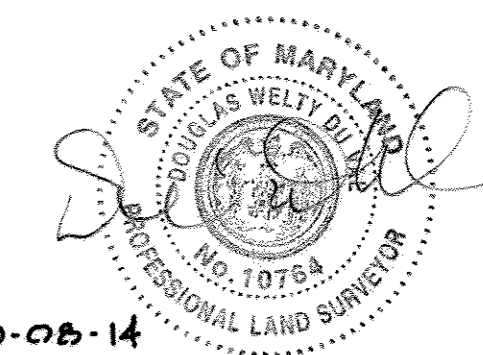
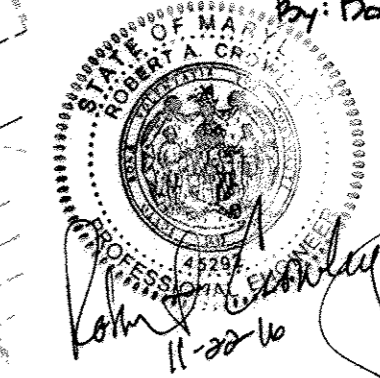
DMW
 DAFT MCCUNE WALKER INC.
 200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286
 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM
 A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS,
 ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS

DESIGNER NAME	SECTION / AREA	LAYOUT #
REVITZ PROPERTY		PARCEL G-1 PAR. 165
2277 & 2278	22 PEC	6
6803		
TITLE		
EROSION & SEDIMENT CONTROL DRAINAGE AREA MAP & DETAILS		
Des. By	THR/JDF	Scale 1"=100'
Dim. By	JSS	Date 4-11-11
Chk. By	Approved	Proj. No. 95054.3

LEGEND

- PLATTED PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- EX RIGHT OF WAY
- ADJACENT PROPERTY BOUNDARY
- EX ROADS AND WALKS
- EX MAJOR CONTOUR
- EX MINOR CONTOUR
- 280 --- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- PROP. GROUP LIGHT (BY OTHERS)
- PROP. SINGLE LIGHT (BY OTHERS)
- PROP. LIGHT (BY OTHERS)
- PROP. DRAINAGE DIVIDES
- SOIL LIMITS
- (A) --- DRAINAGE AREA LABEL
- 12" D. --- PROP. STORM DRAINS
- 6" S. --- PROP. SANITARY SEWER
- 8" W. --- PROP. WATER

AS BUILT NOT REQUIRED
THERE IS NO AS BUILT INFORMATION
PRESENTED ON THIS SHEET.
Duval and Associates, P.A.
By: Douglas W. Duval - REG 10764



PROFESSIONAL CERTIFICATION FOR REV#4

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 8061 EXPIRATION DATE: 05/21/2018

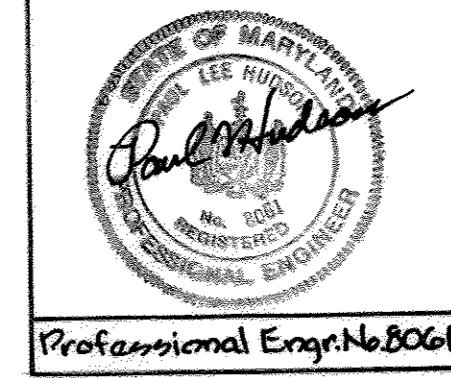
APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
<i>Katsel...</i>	DATE 3/06/13
CHIEF, DIVISION OF LAND DEVELOPMENT	
<i>M...</i>	DATE 2/25/13
CHIEF, DEVELOPMENT ENGINEERING DIVISION	
<i>Paul L. Hudson</i>	DATE 3/7/12
DIRECTOR	

AT THE PURPOSE OF REVISION 4 IS TO SHOW THE WORK ASSOCIATED WITH THE EMERSON CAMPUS VCP. SDP-11-005

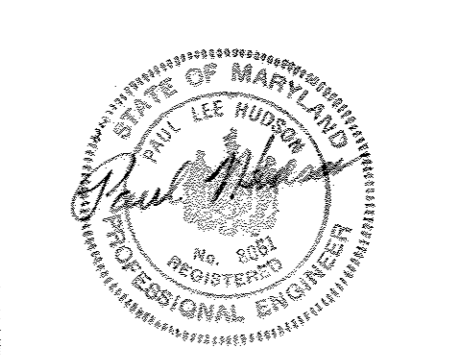
9/22/14	4	EMERSON CAMPUS VCP
Date	No.	Revision Description

EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VILLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

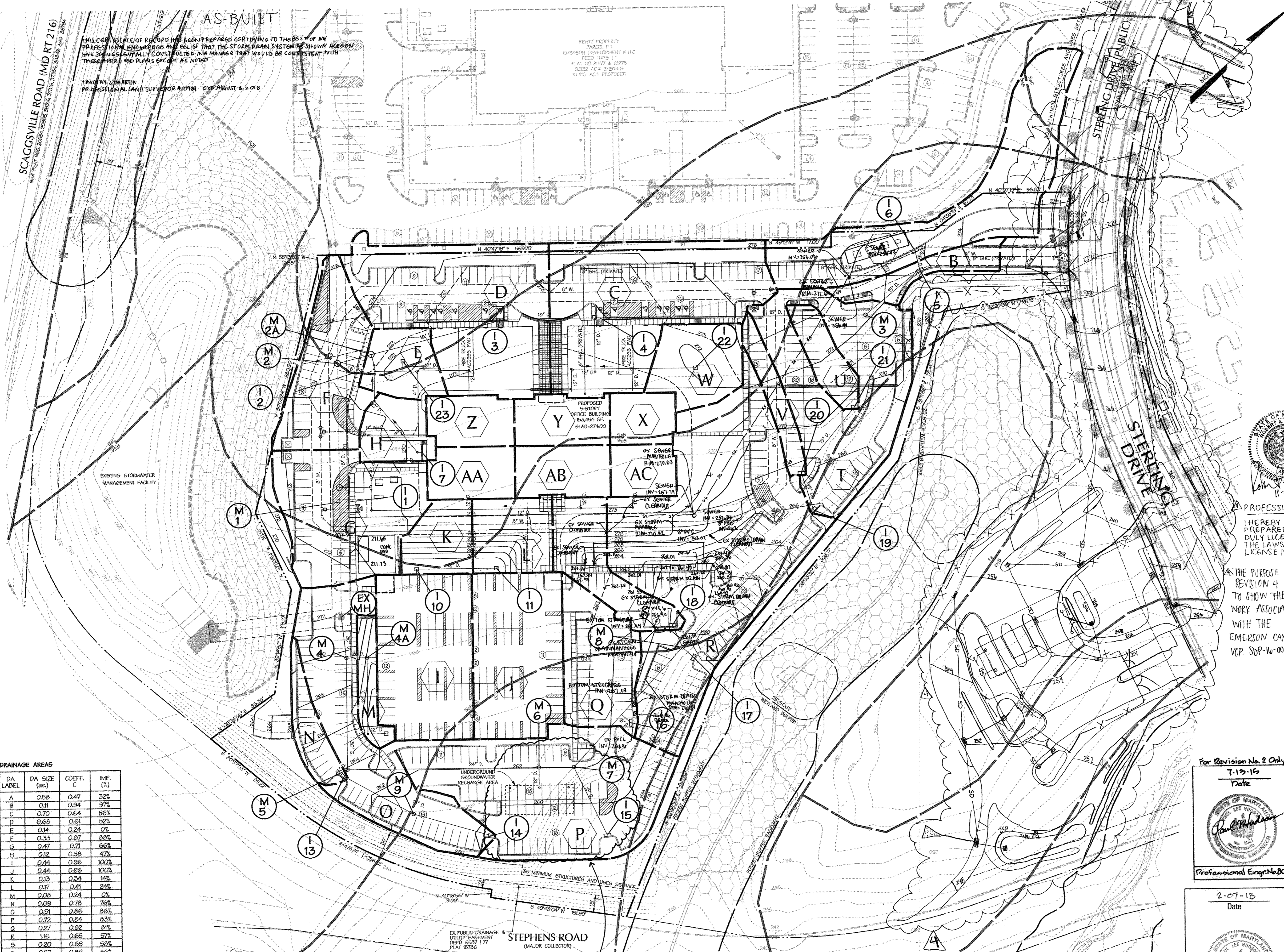
For Revision No. 2 Only
7-19-15
Date



2-07-13
Date



SUBDIVISION NAME		SECTION/PARCEL	LIT/PARCEL #
REVITZ PROPERTY		PARCEL G-1	PAR. 165
BLK/LOT #	BLK #	ZONE	SEWER TRACT
2277 & 2127	20	FEC	606903
VEHICLE CODE	SEWER CODE		
TITLE			
STORM DRAINAGE AREA & SOILS MAP			
Des. By	THR/JDF	Scale	1"=50'
Proj. No.	95054.3	Date	6-16-11
Chk. By	JSS	Approved	13 of 23



AS-BUILT
THIS CERTIFICATE OF RECORD HAS BEEN PREPARED CONTINUING TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF THAT THE STORM DRAIN SYSTEM AS SHOWN HEREON HAS BEEN ESSENTIALLY CONSTRUCTED IN A MANNER THAT WOULD BE CONSISTENT WITH THESE APPROVED PLANS EXCEPT AS NOTED.
TIMOTHY J. MARTIN
PROFESSIONAL LAND SURVEYOR #10189 EXP. AUGUST 9, 2018

REVITZ PROPERTY
PARCELS F-1,
EMERSON DEVELOPMENT VILLC
DEED 14019 14
PLAT NO. 21277 & 21278
3.532 AC. EXISTING
10.440 AC. PROPOSED

DRAINAGE AREAS

DA LABEL	DA SIZE (ac.)	COEFF. C	IMP. (%)
A	0.58	0.47	32%
B	0.11	0.94	97%
C	0.70	0.64	56%
D	0.68	0.61	52%
E	0.14	0.24	0%
F	0.33	0.87	88%
G	0.47	0.71	66%
H	0.12	0.58	47%
I	0.44	0.96	100%
J	0.44	0.96	100%
K	0.13	0.34	14%
L	0.17	0.41	24%
M	0.08	0.24	0%
N	0.09	0.78	76%
O	0.51	0.86	86%
P	0.72	0.84	83%
Q	0.27	0.82	81%
R	1.16	0.69	57%
S	0.20	0.69	58%
T	0.57	0.86	86%
U	0.10	0.93	96%
V	0.09	0.96	100%
W	0.19	0.24	0%
X	0.09	0.96	100%
Y	0.13	0.96	100%
Z	0.12	0.96	100%
AA	0.13	0.96	100%
AB	0.14	0.96	100%
AC	0.09	0.96	100%

SOILS CLASSIFICATION

Symbol	Soil Type	Slope	K-factor	Hydraulic Group	Comments
Fa	Fallington sandy loam	0-2%	.02	D	Hydric
GaB	Sassafras loam	2-5%	.37	B	
GaC	Sassafras loam	5-10%	.24	B	
GfB	Sassafras gravelly Sandy loam	2-5%	.24		
GfC	Sassafras gravelly Sandy loam	5-10%	.37		
UaF	Udorthente	0-65%			
WoB	Woodstown sandy loam	2-5%	.24	C	Hydric

SEE SHEET 12 FOR PSWM ALIGNMENT LOCATION.

AS BUILT CERTIFICATION FOR PSWM
THERE IS NO ASBUILT INFORMATION PRESENTED ON THIS SHEET.

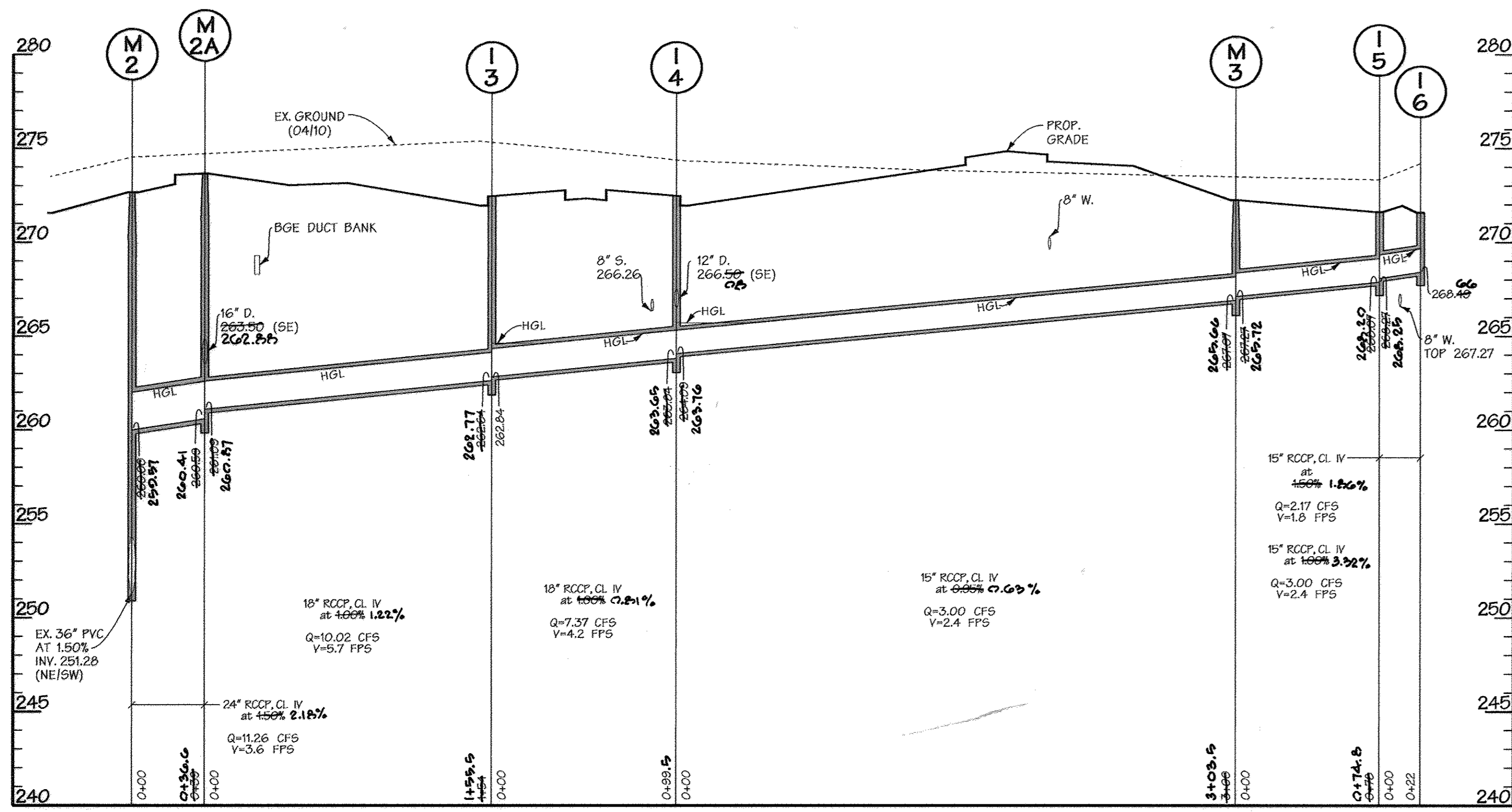
SIGNED: PAUL L. HUDSON
Professional Engr. No. 8061

AS BUILT CERTIFICATION FOR PSWM
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE AS BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.



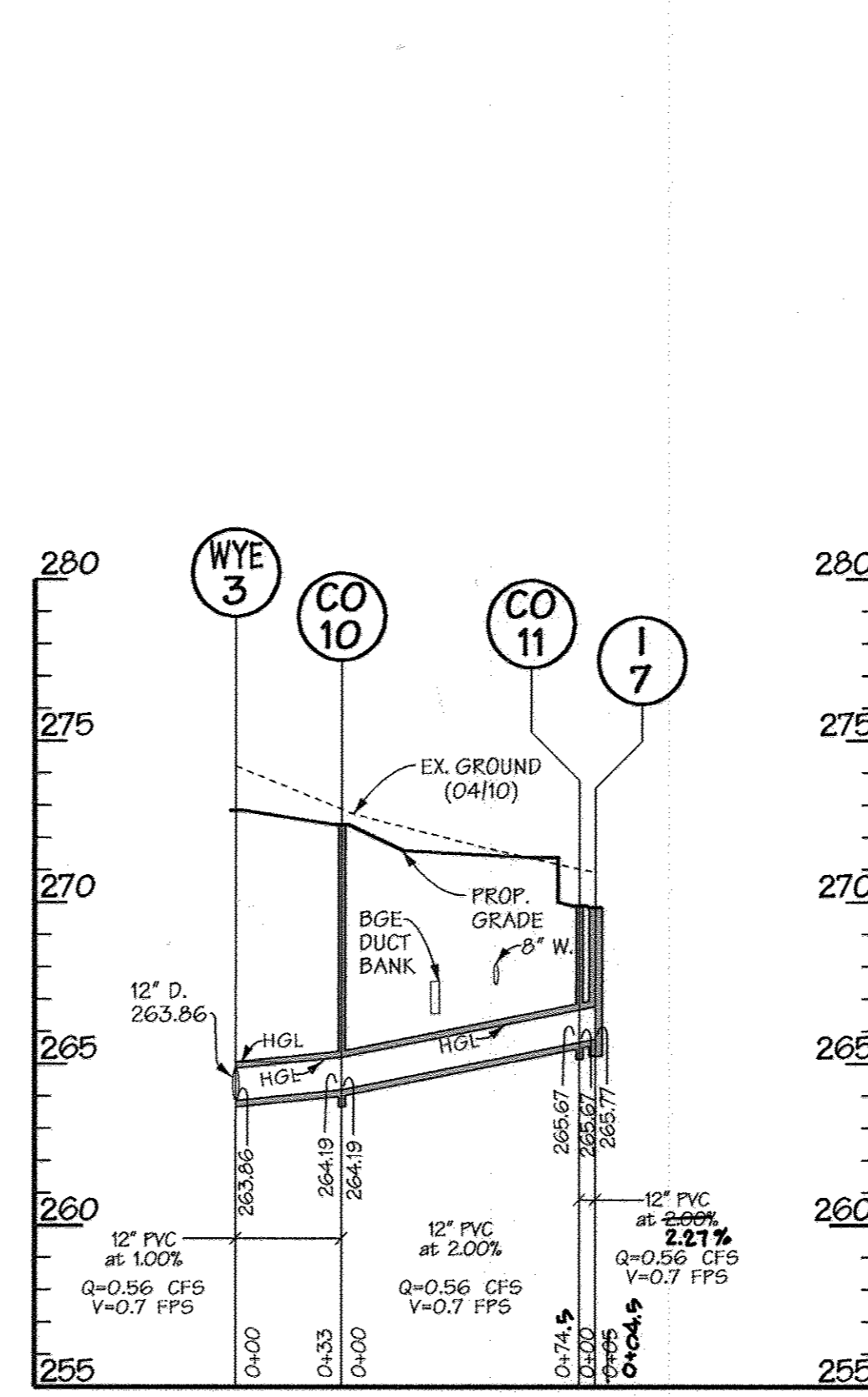
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 8061 EXPIRATION DATE: 05-26-18

Professional Engr. No. 8061



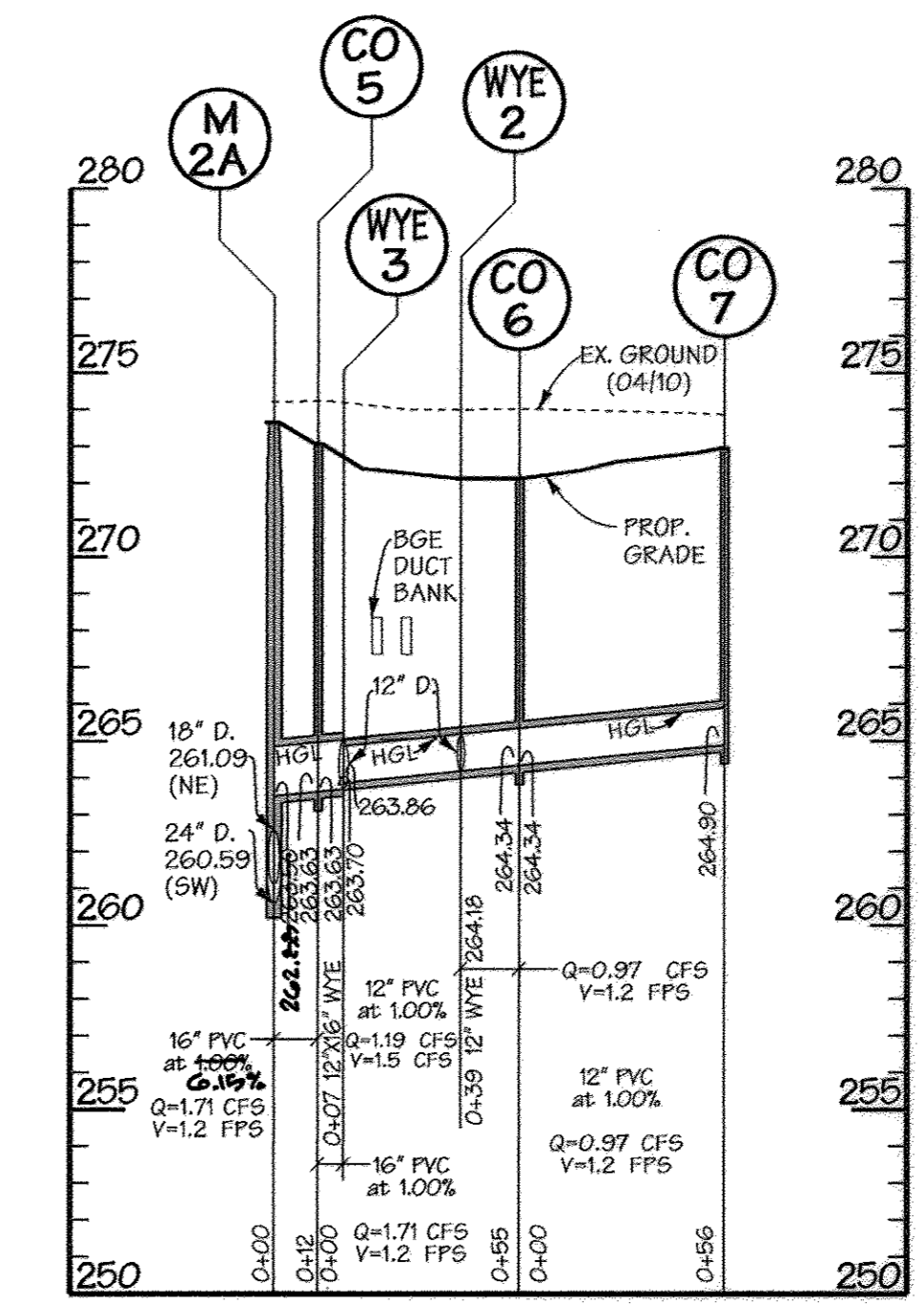
PROFILES

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VERT. 1"=5'



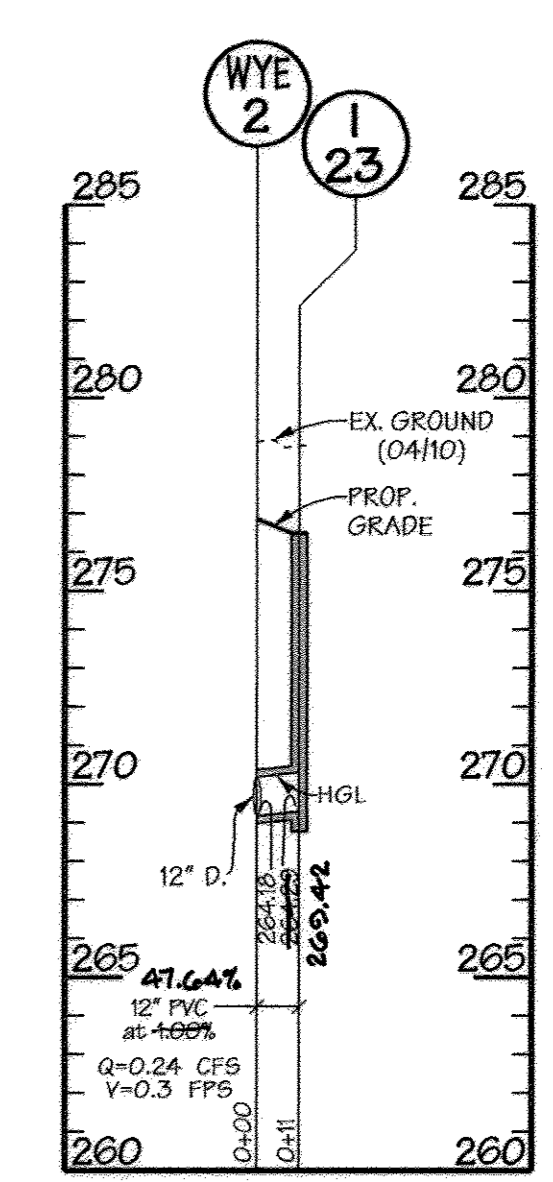
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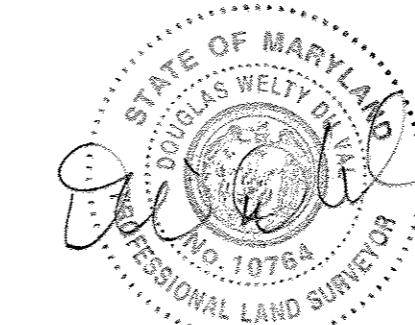
PROFILES

SCALE: HORIZ. 1"=50'
VERT. 1"=5'



PROFILES

SCALE: HORIZ. 1"=50'
VERT. 1"=5'



RED LINE AS BUILT
DeVal and Associates, P.A.
1720 YORK RD, SUITE 203
LITTLEVILLE, MD 21093
410-666-5467
410-583-4655

10-08-14

HGL NOTE: UNLESS OTHERWISE SPECIFIED, THE 10-YR. HGL IS EQUAL TO THE CROWN OF THE PIPE.

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT	3/26/13 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	4/25/13 DATE
DIRECTOR	3/7/18 DATE

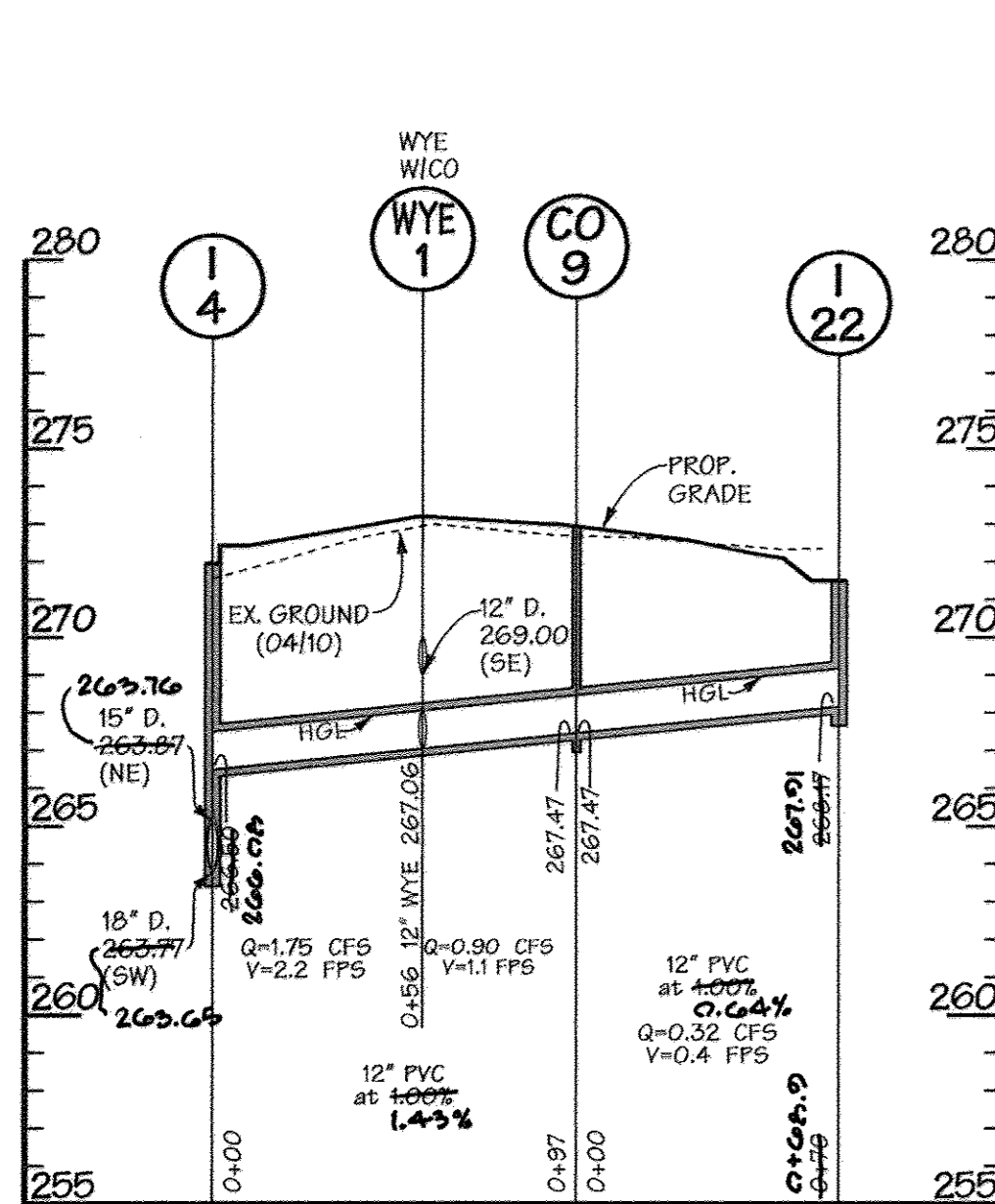
Date	No.	Revision Description

EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000



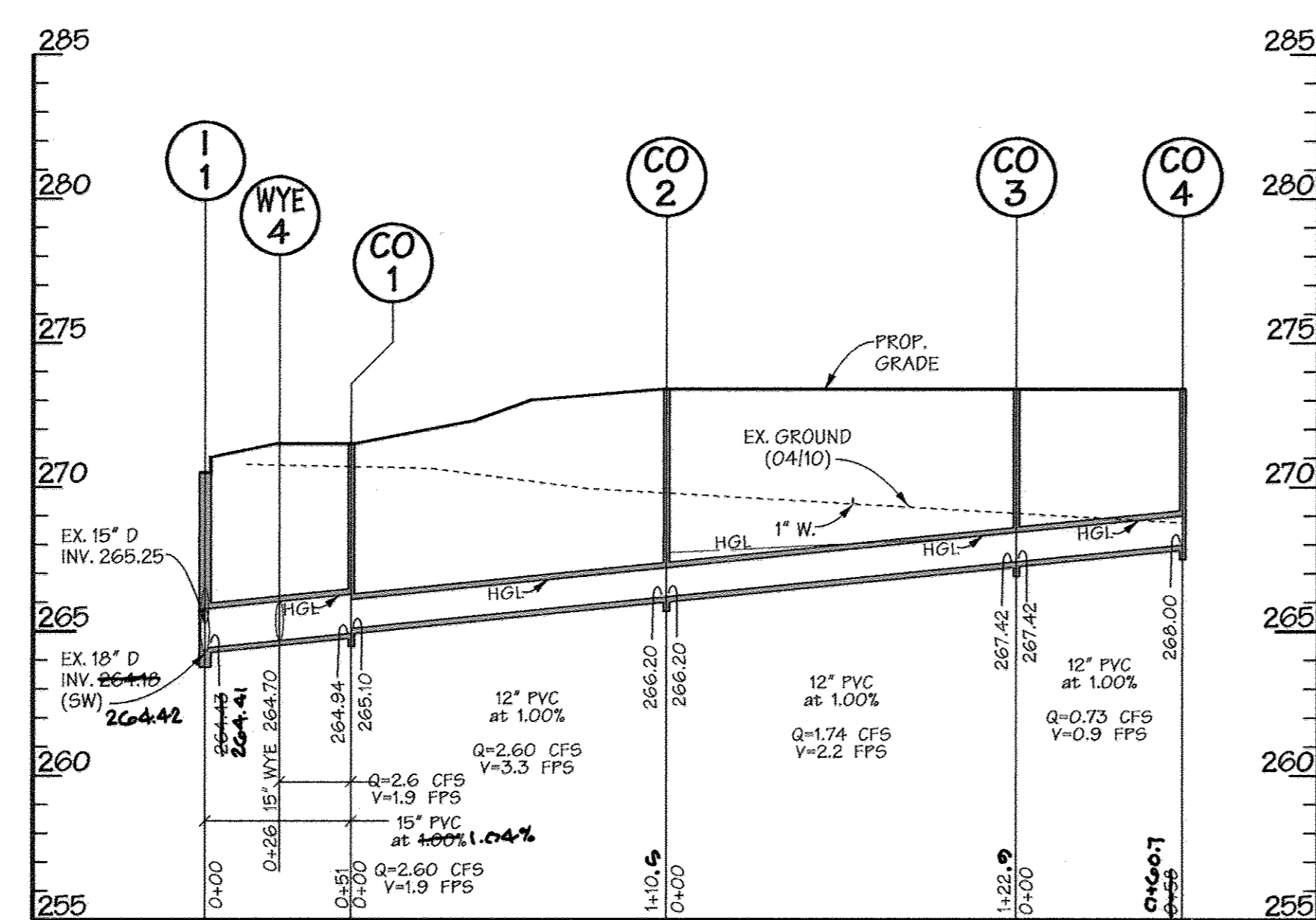
PROJECT NAME	SECTION/AREA	LOT/PARCEL #
REVITZ PROPERTY		PARCEL G-1 / PAR. 165
MAP OR L.P. 2227 & 2228	BLOCK # 20	FEET 47
OWNER	SECTION	TRACT
	6	606903

TITLE		
STORM DRAIN PROFILES		
Des. By	THR/JDF	Scale AS SHOWN
Drn. By	JSS	Date 2-07-13
Chk. By	Approved	Proj. No. 95054.3



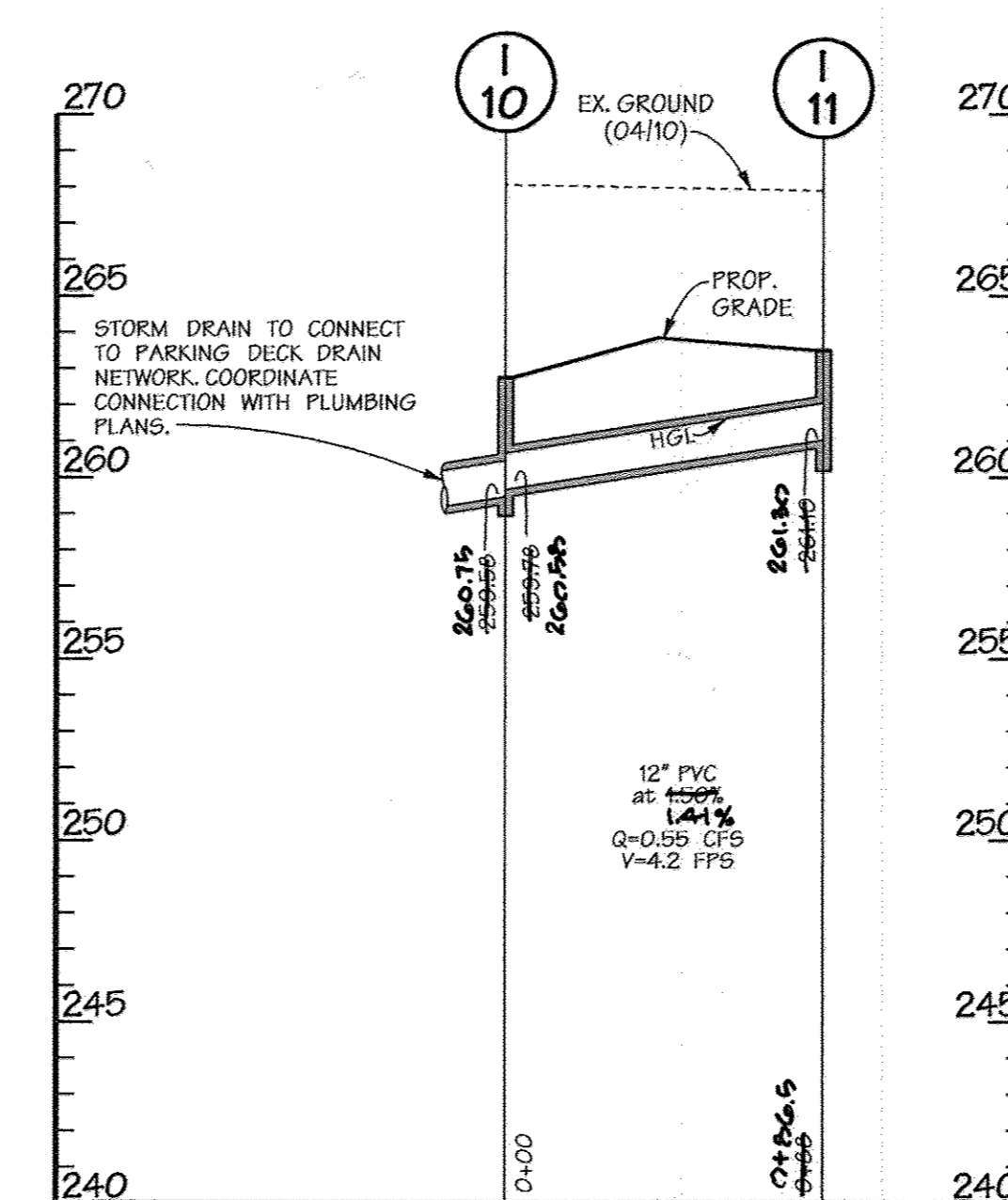
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VERT. 1"=5'



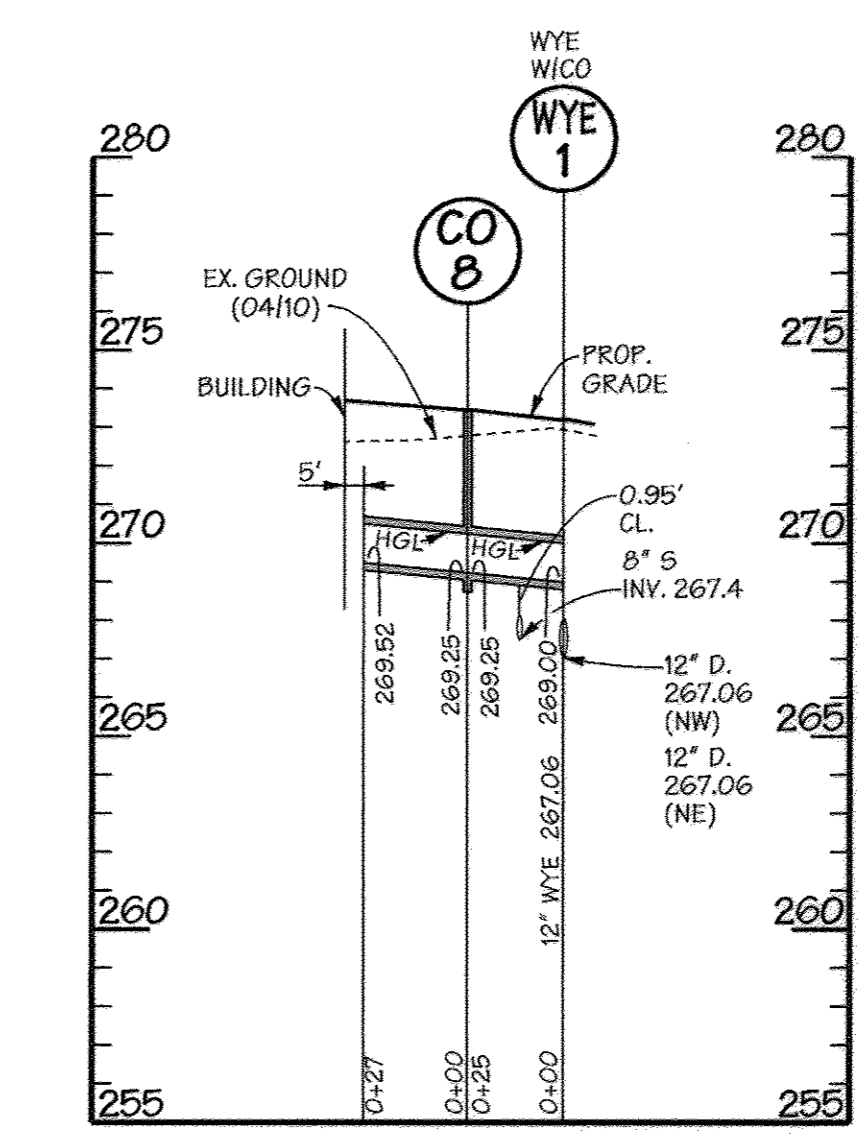
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PROFILES

SCALE: HORIZ. 1"=50' For Revision No. 2 Only
VERT. 1"=5'



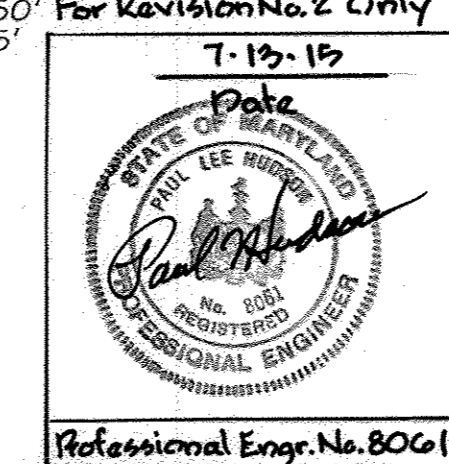
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AS BUILT CERTIFICATION FOR PSWM

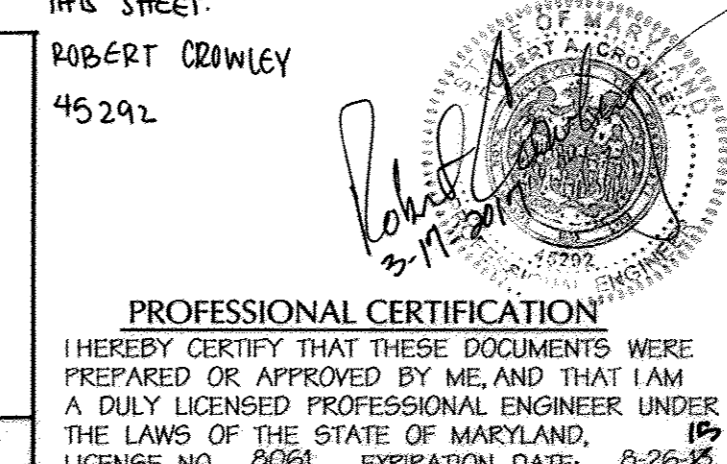
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN IS CONSTRUCTED AS SHOWN ON THE AS BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY

SIGNED: Paul L. Hudson RE: 8061
AS BUILT DATE: 10-08-14



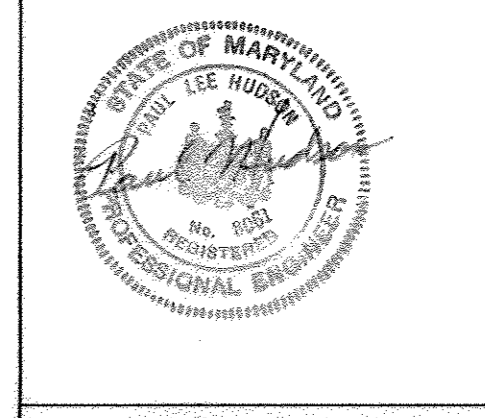
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ROBERT CROWLEY
45292

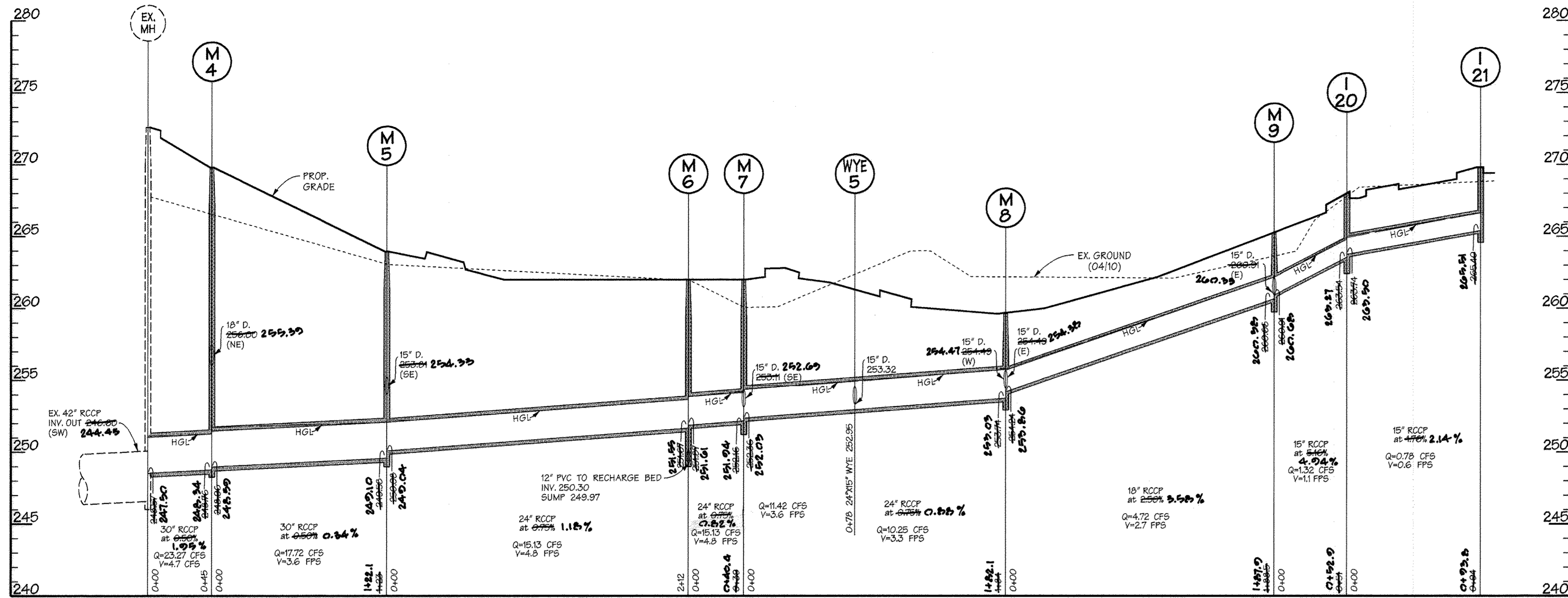


PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 8061, EXPIRATION DATE: 8-28-18

2-07-13
Date

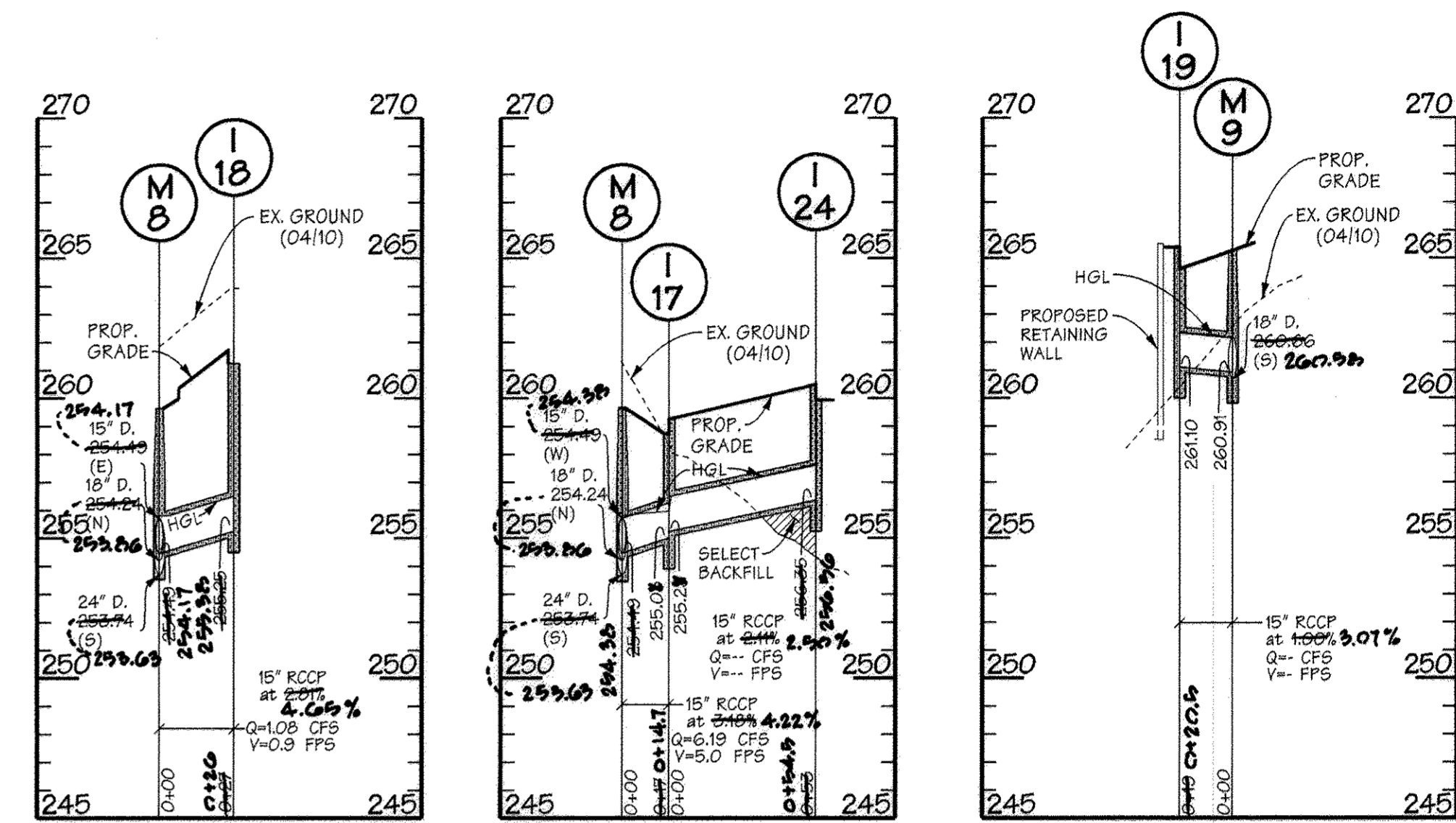


Professional Engr. No. 8061



PROFILES

SCALE: HORIZ. 1"=50'
VERT. 1"=5'



PROFILES

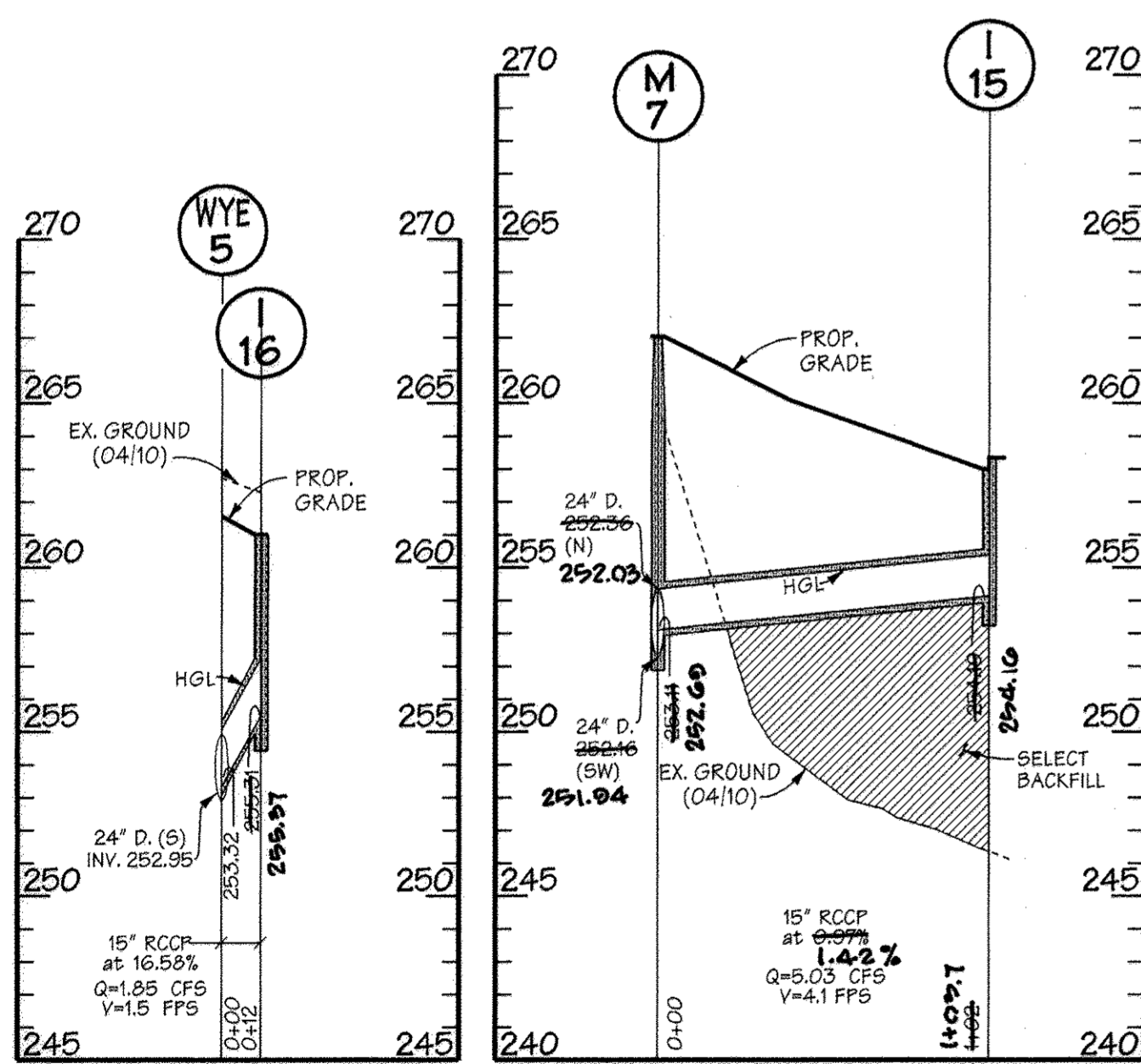
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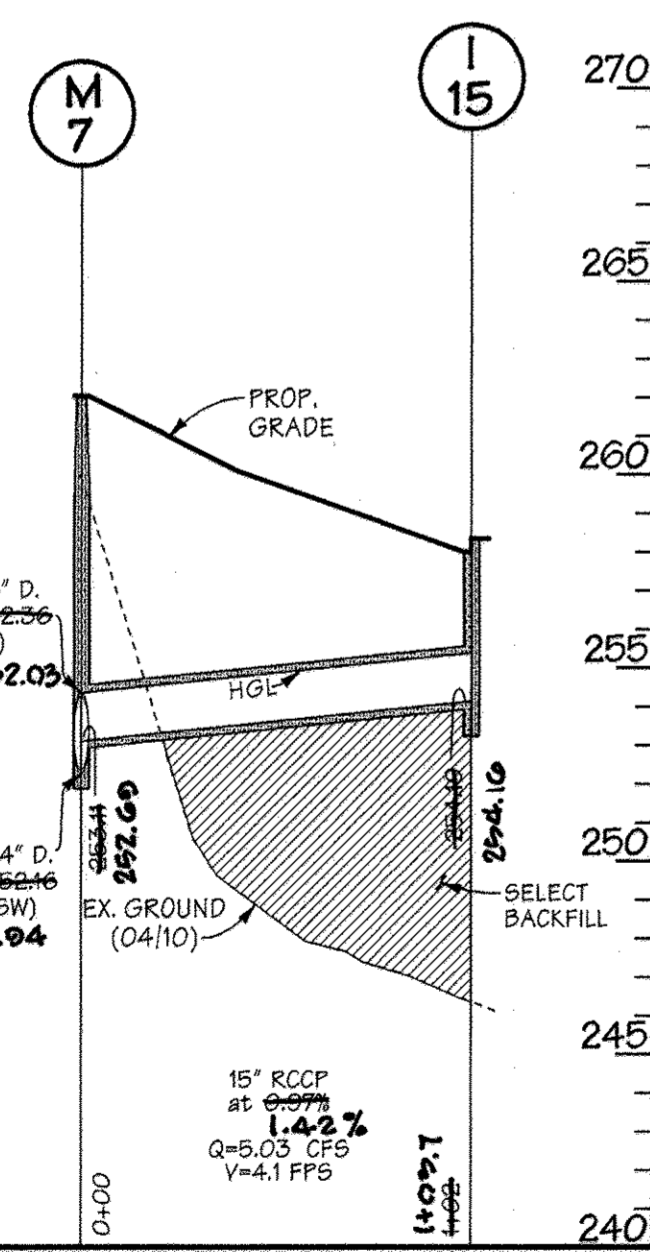
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VERT. 1"=5'



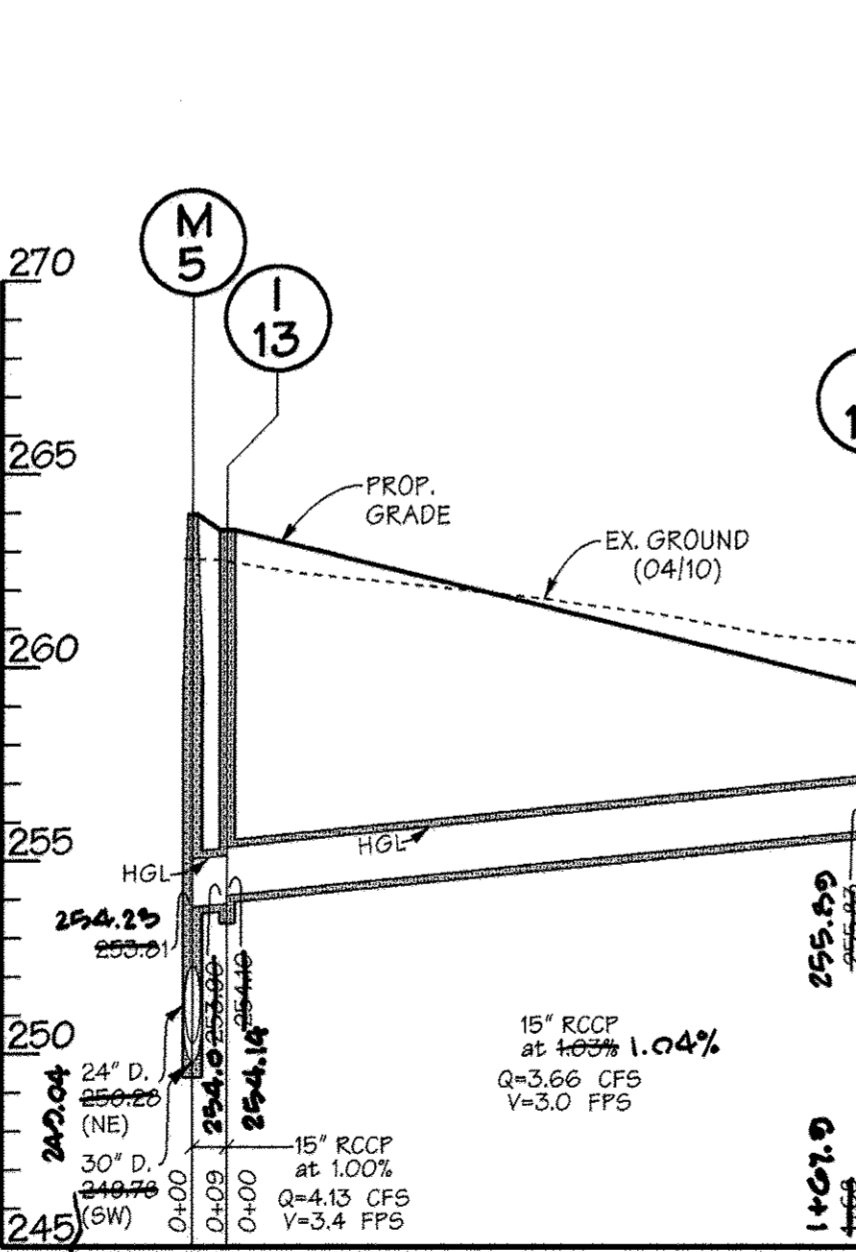
PROFILES

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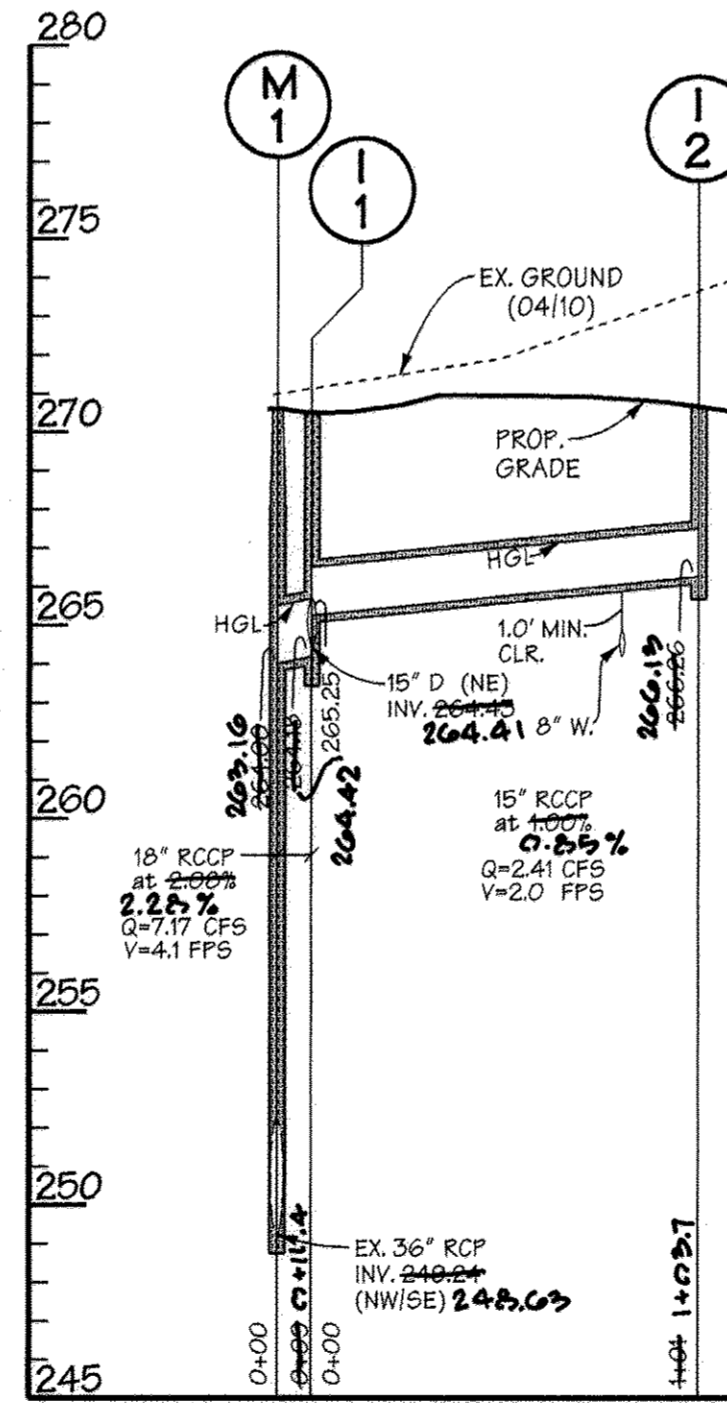
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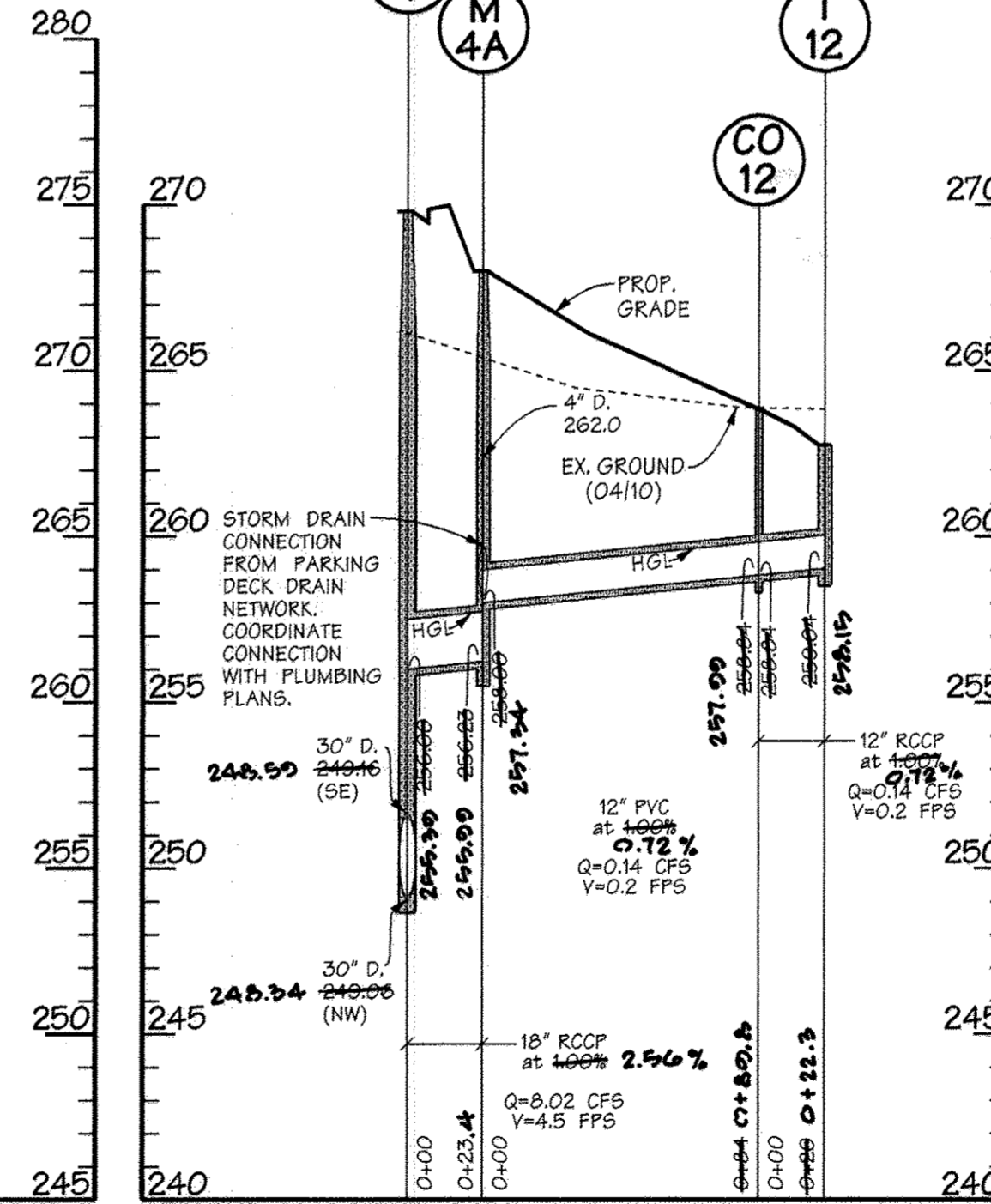
PROFILES

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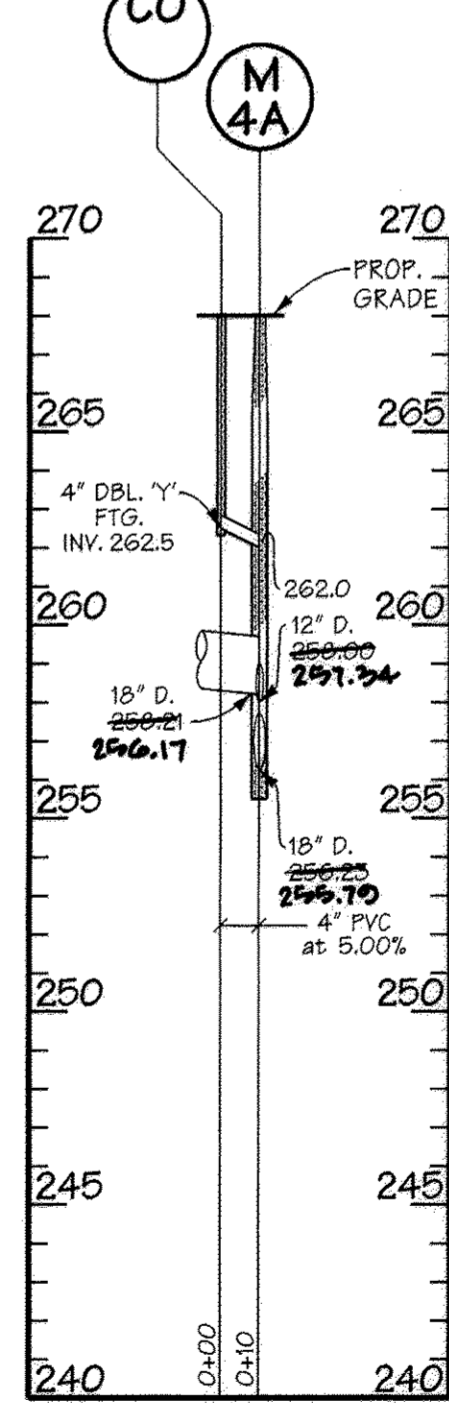
PROFILES

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PROFILES

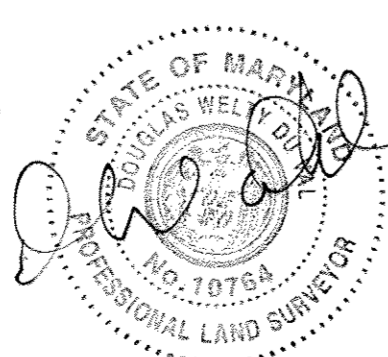
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PROFILES

SCALE: HORIZ. 1"=50'
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REDLINE AS BUILT
DuVal and Associates, PA.
1729 YORK ROAD, SUITE 205
LUTHERVILLE, MD 21093
410-660-5467
410-583-4688



10-08-14

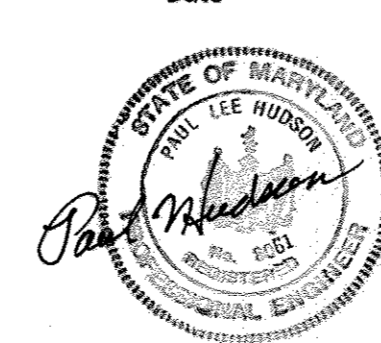
AS BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE AS BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.

SIGNED: *Paul Hudson* P.E. # 8061
PAUL L. HUDSON AS BUILT DATE: 10-08-14

FOR REVISION #2 ONLY

7-13-15
Date

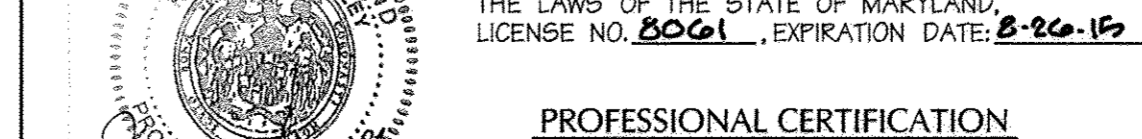


Professional Engr. No. 8061

AS BUILT CERTIFICATION FOR PSWM

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

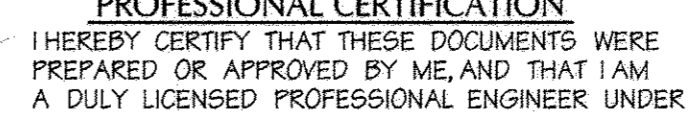
ROBERT CROWLEY
#46292



Professional Engr. No. 8061

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 8-26-13.



Professional Engr. No. 8061

HGL NOTE: UNLESS OTHERWISE SPECIFIED, THE 10-YR. HGL IS EQUAL TO THE CROWN OF THE PIPE.

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DIRECTOR	DATE
7-10-15	REVISE DRAINS (REPLACEMENT SHEET)
Date	No. Revision Description

EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

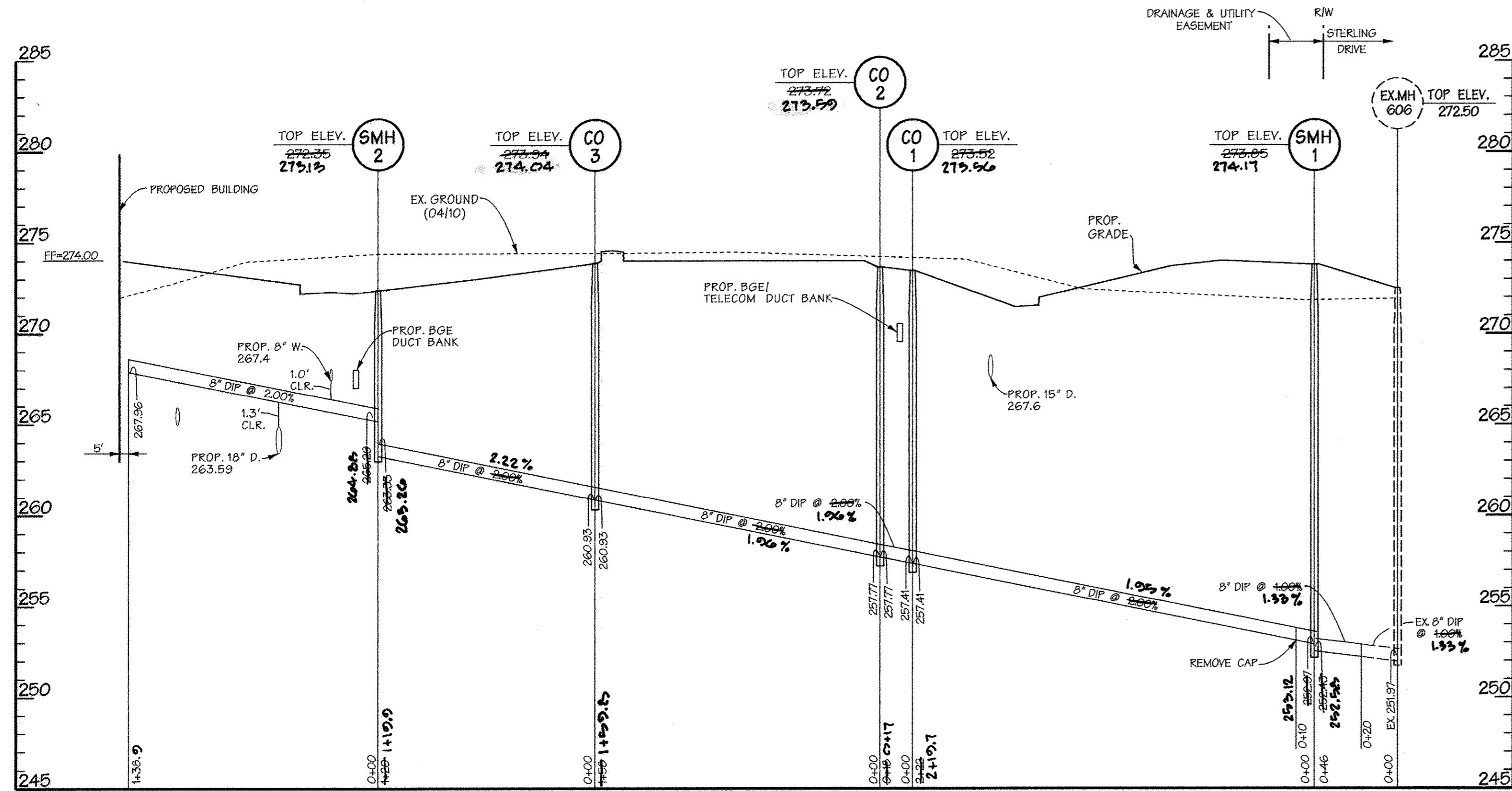


SECTION/AREA: PARCEL G-1 / PAR. 165
TAX/ZONE MAP: 2007/47
ELECT. DISTRICT: 6
GRID/TRACT: 606903

DESIGNED BY	THR/JDF	SCALE	AS SHOWN	PROJECT NO.	95054.3
DRAWN BY	JSS	DATE	2-07-13		
CHECKED BY		APPROVED			

STORM DRAIN PROFILES

15 of 25



SANITARY SEWER PROFILE

SCALE: HORIZ. 1"=50'

PIPE SCHEDULE

SIZE	TYPE	LENGTH
4"	PVC SCH 40	146 LF
12"	PVC SCH 40	810 LF
16"	PVC SCH 40	55 LF
15"	RCCP, CL IV	1044 LF
18"	RCCP, CL IV	474 LF
24"	RCCP, CL IV	474 LF
30"	RCCP, CL IV	168 LF

STORM INLET COORDINATES

Inlet #	NORTH	EAST
I-1	530127.97	135395.81
I-2	530203.78	135396.92
I-3	530395.90	135393.25
I-4	530469.38	135398.07
I-5	530769.64	1354182.60
I-6	530780.51	1354180.46
I-7	530225.05	135394.76
I-10	530135.09	135405.01
I-11	53021.71	135414.31
I-12	52989.48	1354189.98
I-13	52992.88	1354174.61
I-14	52960.21	1354332.51
I-15	53006.86	1354435.41
I-17	530306.90	1354331.78
I-18	530304.94	1354292.58
I-19	530495.32	1354320.34
I-20	530222.85	1354261.99
I-21	530515.31	1354246.67
I-22	530512.96	1354096.57
I-23	530275.68	1353875.76
I-24	530359.38	135441.58

STORM MANHOLE COORDINATES

MH #	NORTH	EAST
M-1	530127.97	135395.81
M-2	530203.78	135396.92
M-3	530395.90	135393.25
M-4	530469.38	135398.07
M-5	530769.64	1354182.60
M-6	530780.51	1354180.46
M-7	530225.05	135394.76
M-10	530135.09	135405.01
M-11	53021.71	135414.31
M-12	52989.48	1354189.98
M-13	52992.88	1354174.61
M-14	52960.21	1354332.51
M-15	53006.86	1354435.41
M-17	530306.90	1354331.78
M-18	530304.94	1354292.58
M-19	530495.32	1354320.34
M-20	530222.85	1354261.99
M-21	530515.31	1354246.67
M-22	530512.96	1354096.57
M-23	530275.68	1353875.76
M-24	530359.38	135441.58

STRUCTURE SCHEDULE

STRUCTURE #	TYPE	SIZE	INV. IN	INV. OUT	REMARKS
WYE-1	PVC 90° WYE	12"X12"	267.06	267.06	SCH. 40 PVC BY CHARLOTTE PIPE OR EQUAL
WYE-2	PVC 90° WYE	12"X12"	264.18	264.18	SCH. 40 PVC BY CHARLOTTE PIPE OR EQUAL
WYE-3	PVC 90° WYE	16"X12"	263.88	263.88	SCH. 40 PVC BY CHARLOTTE PIPE OR EQUAL
WYE-4	PVC 90° WYE	16"X16"	264.70	264.70	SCH. 40 PVC BY CHARLOTTE PIPE OR EQUAL
WYE-5	CONCRETE 90° WYE	24"X15"	253.38	252.83	RINKER MATERIALS REINFORCED CONCRETE WYE

INLET SCHEDULE

Inlet #	TYPE	INV. IN	INV. OUT	REMARKS	GRATE ELEV.
I-1	DBL 'S' COMB	265.25	264.18	SEE MD SHA STD. DETAIL 374.71	271.07
I-2	DBL 'S' COMB	N/A	268.39	SEE MD SHA STD. DETAIL 374.71	270.91
I-3	TYPE A-5	262.97	262.97	SEE H.C. DETAIL D-4.02	262.97
I-4	TYPE A-5	264.02	263.77	SEE H.C. DETAIL D-4.02	263.77
I-5	DBL 'S' COMB	267.79	267.69	SEE MD SHA STD. DETAIL 374.71	271.63
I-6	DBL 'S' COMB	N/A	268.12	SEE MD SHA STD. DETAIL 374.71	271.64
I-7	TRENCH DRAIN	N/A	265.77	ACO DRAIN-POWER SOCK/16 TOTTED DUCTILE IRON-CLASS F	265.77
I-10	YARD	259.68	259.58	ADS DRAINTECH 24" SQUARE BASIN W/ GRATE	262.52
I-11	YARD	N/A	261.00	ADS DRAINTECH 24" SQUARE BASIN W/ GRATE	263.00
I-12	YARD	N/A	259.04	ADS DRAINTECH 24" SQUARE BASIN W/ GRATE	263.00
I-13	DBL 'S' COMB	264.19	264.09	SEE MD SHA STD. DETAIL 374.71	263.86
I-14	DBL 'S' COMB	N/A	255.93	SEE MD SHA STD. DETAIL 374.71	263.66
I-15	DBL 'S' COMB	N/A	264.10	SEE MD SHA STD. DETAIL 374.71	267.85
I-16	DBL 'S' COMB	N/A	265.31	SEE MD SHA STD. DETAIL 374.71	268.91
I-17	DBL 'S' COMB	N/A	264.81	SEE MD SHA STD. DETAIL 374.71	268.79
I-18	DBL 'S' COMB	N/A	265.25	SEE MD SHA STD. DETAIL 374.71	261.47
I-19	DBL 'S' COMB	N/A	261.10	SEE MD SHA STD. DETAIL 374.71	264.92
I-20	DBL 'S' COMB	263.00	261.54	SEE MD SHA STD. DETAIL 374.71	261.59
I-21	DBL 'S' COMB	N/A	264.88	SEE MD SHA STD. DETAIL 374.71	269.65
I-22	YARD	N/A	268.11	ADS DRAINTECH 24" SQUARE BASIN W/ GRATE	270.06
I-23	YARD	N/A	264.29	ADS DRAINTECH 24" SQUARE BASIN W/ GRATE	271.18
I-24	DBL 'S' COMB	N/A	266.35	SEE MD SHA STD. DETAIL 374.71	269.12

MANHOLE SCHEDULE

MH	TYPE	INTERNAL DIAMETER	INV. IN	INV. OUT	RIM ELEV.	REMARKS
M-1	DOGHOUSE DROP MH	72"	264.00	249.01	270.66	SEE HOWARD CO. STD. DETAIL PLATE G-5.11 WITH G-5.13
M-2	DOGHOUSE DROP MH	72"	260.00	251.30	272.72	SEE HOWARD CO. STD. DETAIL PLATE G-5.11 WITH G-5.16
M-2A	STD. MANHOLE	48"	261.09	260.59	270.66	SEE HOWARD CO. STD. DETAIL PLATE G-5.11
M-3	STD. MANHOLE	48"	266.91	266.81	272.26	SEE HOWARD CO. STD. DETAIL PLATE G-5.11
M-4	DROP MANHOLE	60"	249.16	249.05	269.89	SEE HOWARD CO. STD. DETAIL PLATE G-5.11 WITH G-5.13
M-4A	STD. MANHOLE	48"	268.00	268.23	268.00	SEE HOWARD CO. STD. DETAIL PLATE G-5.11
M-5	STD. MANHOLE	60"	260.28	249.78	269.95	SEE HOWARD CO. STD. DETAIL PLATE G-5.11
M-6	FLOW SPLITTER MH	48"	261.97	251.87	262.00	SEE HOWARD CO. STD. DETAIL PLATE G-5.11
M-7	STD. MANHOLE	48"	262.36	252.26	262.00	SEE HOWARD CO. STD. DETAIL PLATE G-5.11
M-8	SHALLOW MANHOLE	60"	264.24	263.74	269.03	SEE HOWARD CO. STD. DETAIL PLATE G-5.12
M-9	SHALLOW MANHOLE	48"	260.91	260.86	268.46	SEE HOWARD CO. STD. DETAIL PLATE G-5.12
EX-1	STD. MANHOLE	84"	248.83	246.80	272.40	ADJUST TOP ELEVATION TO MATCH NEW GRADE

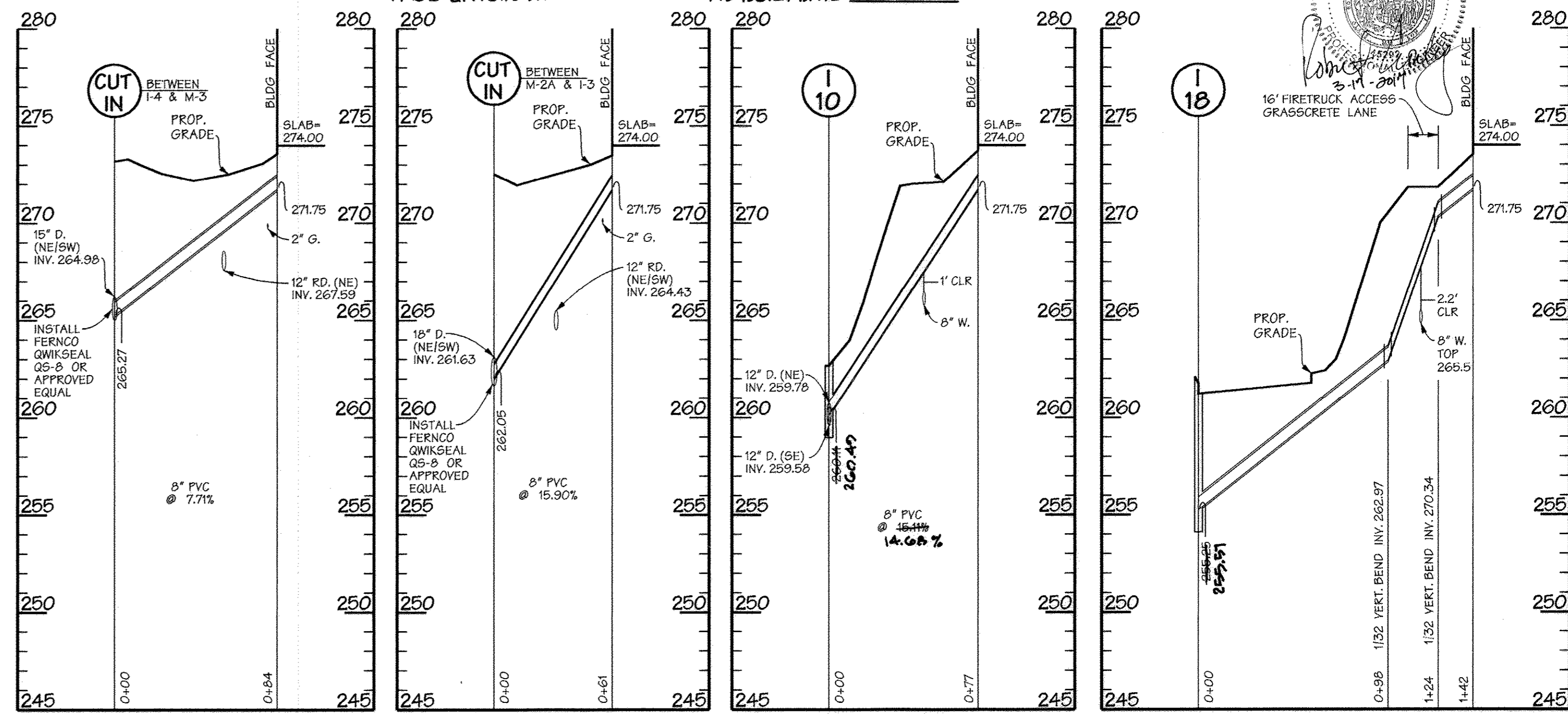
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PAUL L. HUDSON

P.E. #8061

AS BUILT DATE: 10-02-14



FOUNDATION DRAIN NORTH PROFILE

SCALE: HORIZ. 1"=50'

VERT. 1"=5'

FOUNDATION DRAIN WEST PROFILE

SCALE: HORIZ. 1"=50'

VERT. 1"=5'

FOUNDATION DRAIN SOUTH PROFILE

SCALE: HORIZ. 1"=50'

VERT. 1"=5'

FOUNDATION DRAIN EAST PROFILE

SCALE: HORIZ. 1"=50'

VERT. 1"=5'

NOTE: LOCATION DEPTH OF GAS AND ELECTRIC ARE ASSUMED TO HAVE 3' COVER.

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For Revision #2 Only

7-13-15

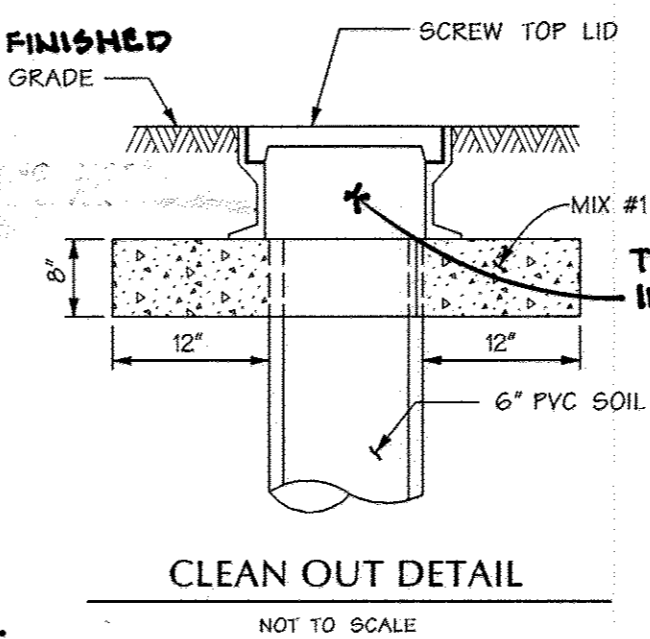
Date



Professional Engr. No. 8061

EACH CLEANOUT SHALL INCLUDE THE FOLLOWING:

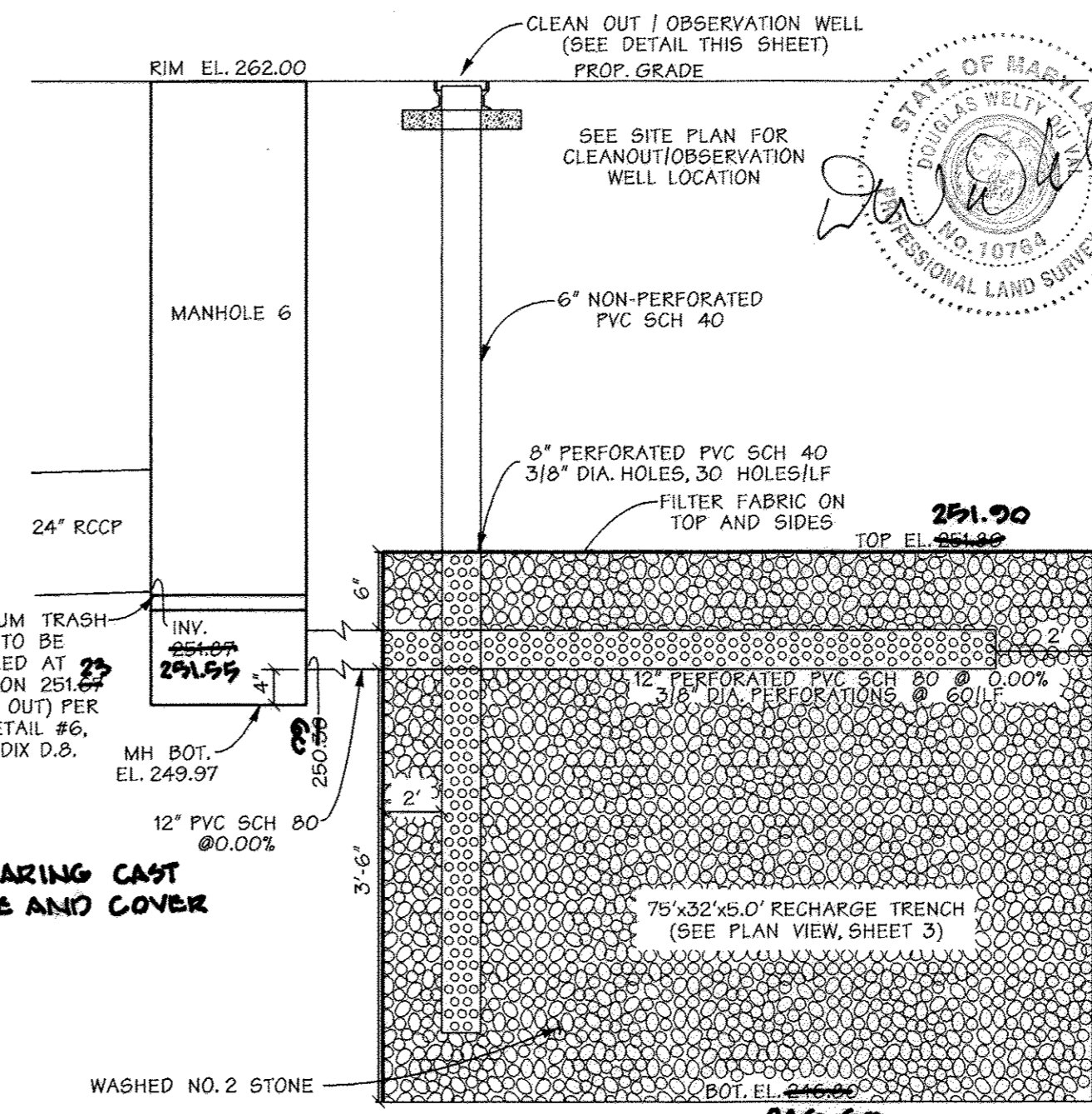
- FOR AN UNDERGROUND FLUSH MOUNTED CLEANOUT, PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST 3 FEET LONG WITH AN INSIDE DIAMETER OF AT LEAST 6 INCHES.
- THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP LID SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS.



CLEAN OUT DETAIL

NOT TO SCALE

SEE SHEET 12 FOR PSWM ALIGNMENT LOCATION



RECHARGE TRENCH DETAIL

NOT TO SCALE

OPERATION AND MAINTENANCE SCHEDULE FOR RECHARGE FACILITY

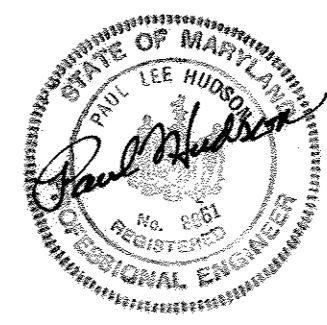
- RECHARGE FACILITY SHALL BE INSPECTED ANNUALLY AND BE REPAIRED OR CLEANED AS NEEDED.
- REMOVE SEDIMENT AND TRASH FROM SEDIMENT TRAPPING INLET AS NEEDED AND CLEAN OPENING AT INLET BOTTOM.
- INSPECT FACILITY EVERY OTHER MONTH AND AFTER LARGE STORM EVENTS TO OBSERVE WATER ELEVATIONS. IF STANDING WATER IS OBSERVED IN THE FACILITY RE-INSPECT AFTER 72 HOURS AND REPAIR AS NECESSARY.

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 8061, EXPIRATION DATE: 8-26-13

2-07-15

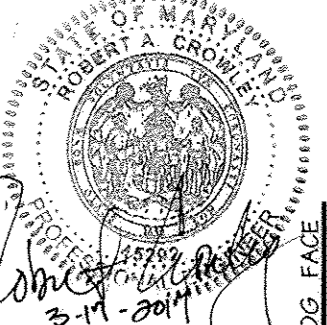
Date



Professional Engr. No. 8061

AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

ROBERT ORWLEY
45292



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APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	DATE
CHIEF, BUREAU OF HIGHWAYS	
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	11-23-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION	11/16/15
DIRECTOR	11-23-15

(REPLACEMENT SHEET)	
7-10-15	FOUNDATION DRAIN PROFILES REVISE SCHEDULES
Date	No. Revision Description

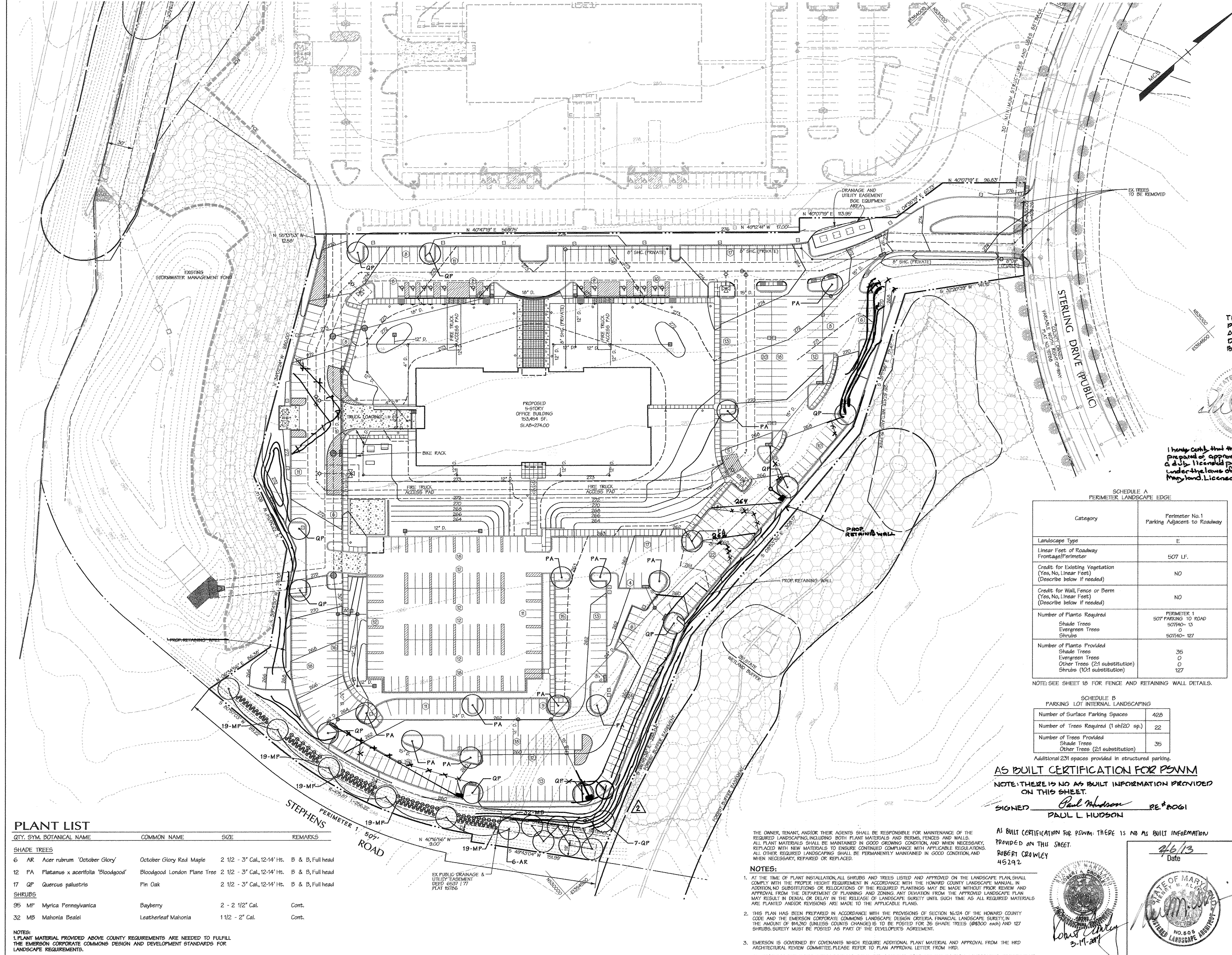
EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

DMW
DAFT MCCUNE WALKER INC
200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286
P: 410 296 1332 F: 410 296 4706 WWW.DMW.COM

SECTION NAME	SECTION AREA	SHEET NO.	TOTAL SHEETS
REVITZ PROPERTY		47	60
PARCEL #	PARCEL AREA	BLK	TRCT
2277 & 2127	2.0	6	606903

SANITARY SEWER PROFILE AND DETAILS

Des. By	THR/JDF	Scale	AS SHOWN	Proj. No.	95054.3
Drn. By	JSS	Date	6-16-11		
Chk. By		Approved			16 of 25



LEGEND

- PLATTED PROPERTY BOUNDARY
- PROPERTY BOUNDARY
- EX. RIGHT OF WAY
- ADJACENT PROPERTY BOUNDARY
- EX. ROADS AND WALKS
- 280 EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- FOREST CONSERVATION EASEMENT
- LIMIT OF DISTURBANCE
- PROP. BUILDING
- PROP. CURB / EDGE OF PAVING
- PROP. DEPRESSED CURB
- 280 PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- PROPOSED OVERSTORY SHADE TREE
- PROPOSED ORNAMENTAL TREE
- PROPOSED EVERGREEN TREE
- PROPOSED SHRUB

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED.
 DuVal and Associates, P.A.
 By: Douglas W. DuVal - Reg. #10764

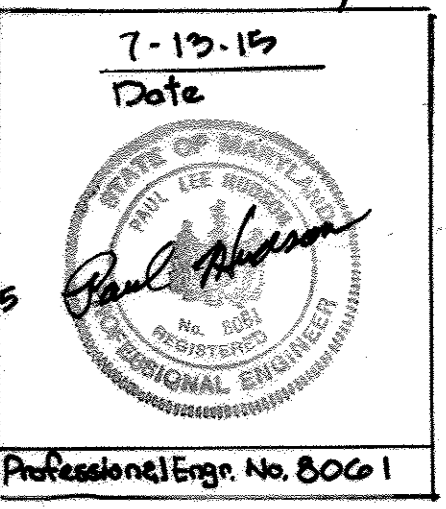


10-08-14

For Revision #2 Only

7-13-13
Date

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 8061 Exp. Date 8-24-15



SCHEDULE A PERIMETER LANDSCAPE EDGE

Category	Perimeter No. 1 Parking Adjacent to Roadway
Landscape Type	E
Linear Feet of Roadway Frontage/Perimeter	507 LF.
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	NO
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	NO
Number of Plants Required	PERIMETER 1 507 PARKING TO ROAD
Shade Trees	507/140 - 13
Evergreen Trees	0
Shrubs	507/140 - 127
Number of Plants Provided	
Shade Trees	35
Evergreen Trees	0
Other Trees (2:1 substitution)	0
Shrubs (10:1 substitution)	127

NOTE: SEE SHEET 18 FOR FENCE AND RETAINING WALL DETAILS.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

Number of Surface Parking Spaces	428
Number of Trees Required (1 sh/20 sp.)	22
Number of Trees Provided	
Shade Trees	0
Other Trees (2:1 substitution)	35

Additional 231 spaces provided in structured parking.

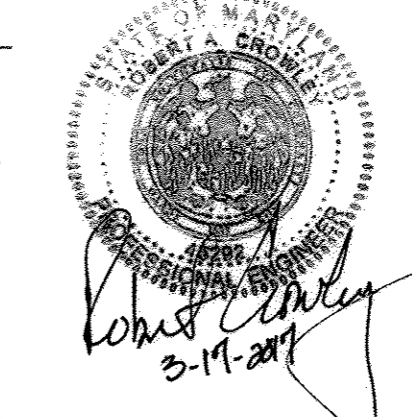
AS BUILT CERTIFICATION FOR PSWM

NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

SIGNED *Paul L. Hudson* PE #8061
 PAUL L. HUDSON

AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

SIGNED *Robert Crowley*
 ROBERT CROWLEY
 45292



PLANT LIST

QTY.	SYM.	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREES					
6	AR	Acer rubrum 'October Glory'	October Glory Red Maple	2 1/2 - 3" Cal., 12-14' Ht.	B & B, Full head
12	PA	Platanus x acerifolia 'Bloodgood'	Bloodgood London Plane Tree	2 1/2 - 3" Cal., 12-14' Ht.	B & B, Full head
17	QP	Quercus palustris	Pin Oak	2 1/2 - 3" Cal., 12-14' Ht.	B & B, Full head
SHRUBS					
95	MP	Myrica Pennsylvanica	Bayberry	2 - 2 1/2" Cal.	Cont.
32	MB	Mahonia Bealei	Leatherleaf Mahonia	1 1/2 - 2" Cal.	Cont.

NOTES:
 1. PLANT MATERIAL PROVIDED ABOVE COUNTY REQUIREMENTS ARE NEEDED TO FULFILL THE EMERSON CORPORATE COMMONS DESIGN AND DEVELOPMENT STANDARDS FOR LANDSCAPE REQUIREMENTS.

- THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.
- AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.
 - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16-126 OF THE HOWARD COUNTY CODE AND THE EMERSON CORPORATE COMMONS LANDSCAPE DESIGN CRITERIA. FINANCIAL LANDSCAPE SURETY IN THE AMOUNT OF \$4,300 (UNLESS COUNTS CHANGE) IS TO BE POSTED FOR 35 SHADE TREES (@\$300 each) AND 127 SHRUBS. SURETY MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT.
 - EMERSON IS GOVERNED BY COVENANTS WHICH REQUIRE ADDITIONAL PLANT MATERIAL AND APPROVAL FROM THE HRD ARCHITECTURAL REVIEW COMMITTEE. PLEASE REFER TO PLAN APPROVAL LETTER FROM HRD.
 - ALL PROPERTY PERIMETERS, EXCEPT STERLING DRIVE AND STEPHENS ROAD, ARE EXEMPT FROM LANDSCAPING REQUIREMENTS SINCE THIS PARCEL IS INTERNAL TO THE EMERSON (REVITZ PROPERTY) SUBDIVISION.

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Ketshin O...
 CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE 3/06/13

W...
 CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE 2/25/13

Frank D. G...
 DIRECTOR _____ DATE 3/7/13

7-10-15 **REVISE TREE LOCATION**

Date	No.	Revision Description

EMERSON PARCEL G-1
L.E.E.D. BUILDING
 5-STORY COMMERCIAL OFFICE BUILDING
 OWNER/DEVELOPER:
 EMERSON DEVELOPMENT VI LLC
 1 TEXAS STATION COURT, SUITE 200
 TIMONIUM, MARYLAND 21093-8288
 (443) 689-8000

DMW
 DAFT M'CUNE WALKER INC.
 200 EAST PENNSYLVANIA AVENUE, SUITE 400
 BALTIMORE, MARYLAND 21202
 A TEAM OF LAND PLANNERS, ARCHITECTS AND ENGINEERS WORKING TOGETHER TO ADVANCE YOUR PROJECTS

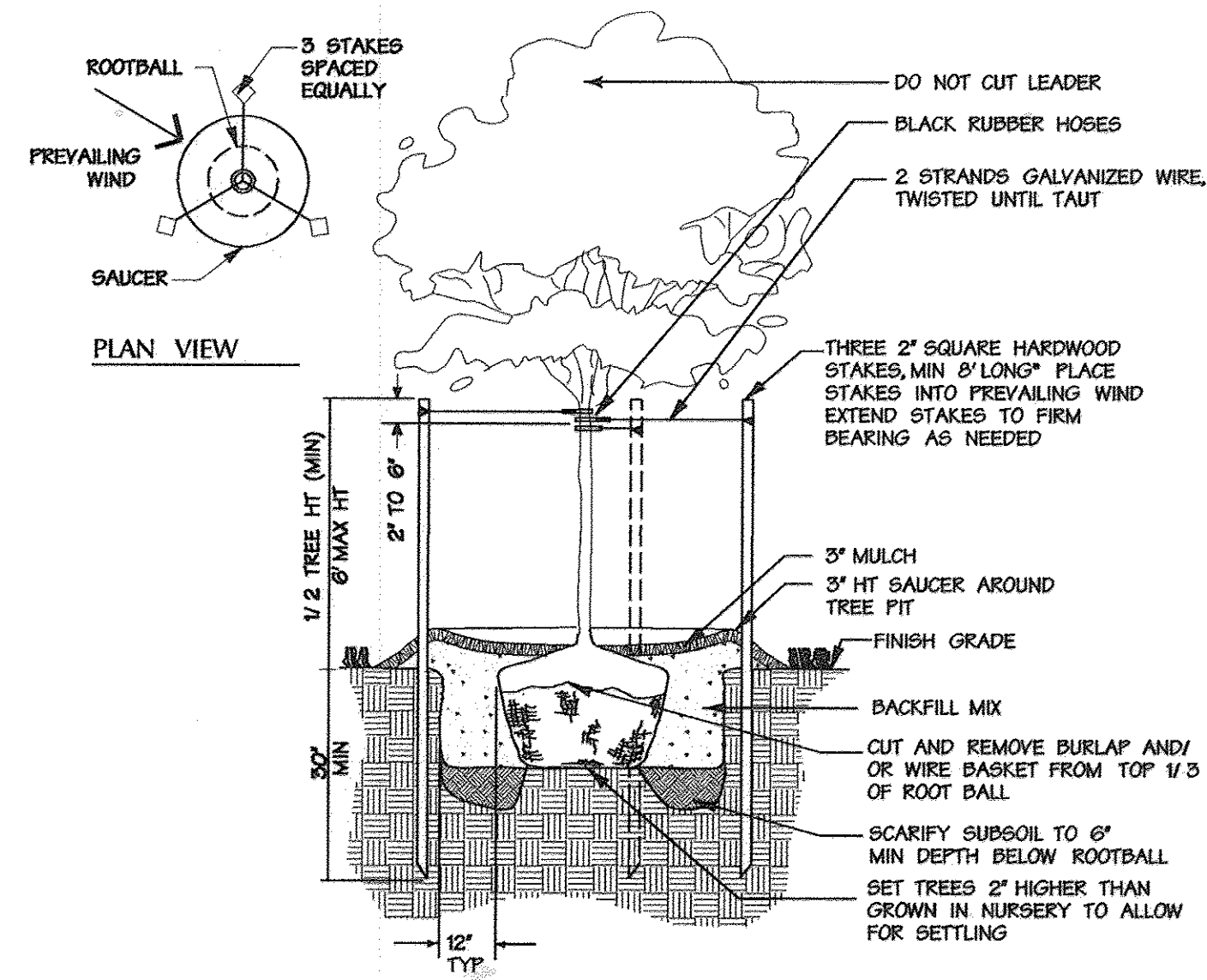
SUBDIVISION NAME	SECTION/AREA	SHEET NUMBER	TOTAL SHEETS
REVITZ PROPERTY		47	6
21277 & 21278	2D	47	6

DATE: 7/13/13
 DRAWN BY: JSS
 CHECKED BY: JSS
 SCALE: 1" = 50'
 PROJECT NO.: 95054.3

LANDSCAPE PLAN

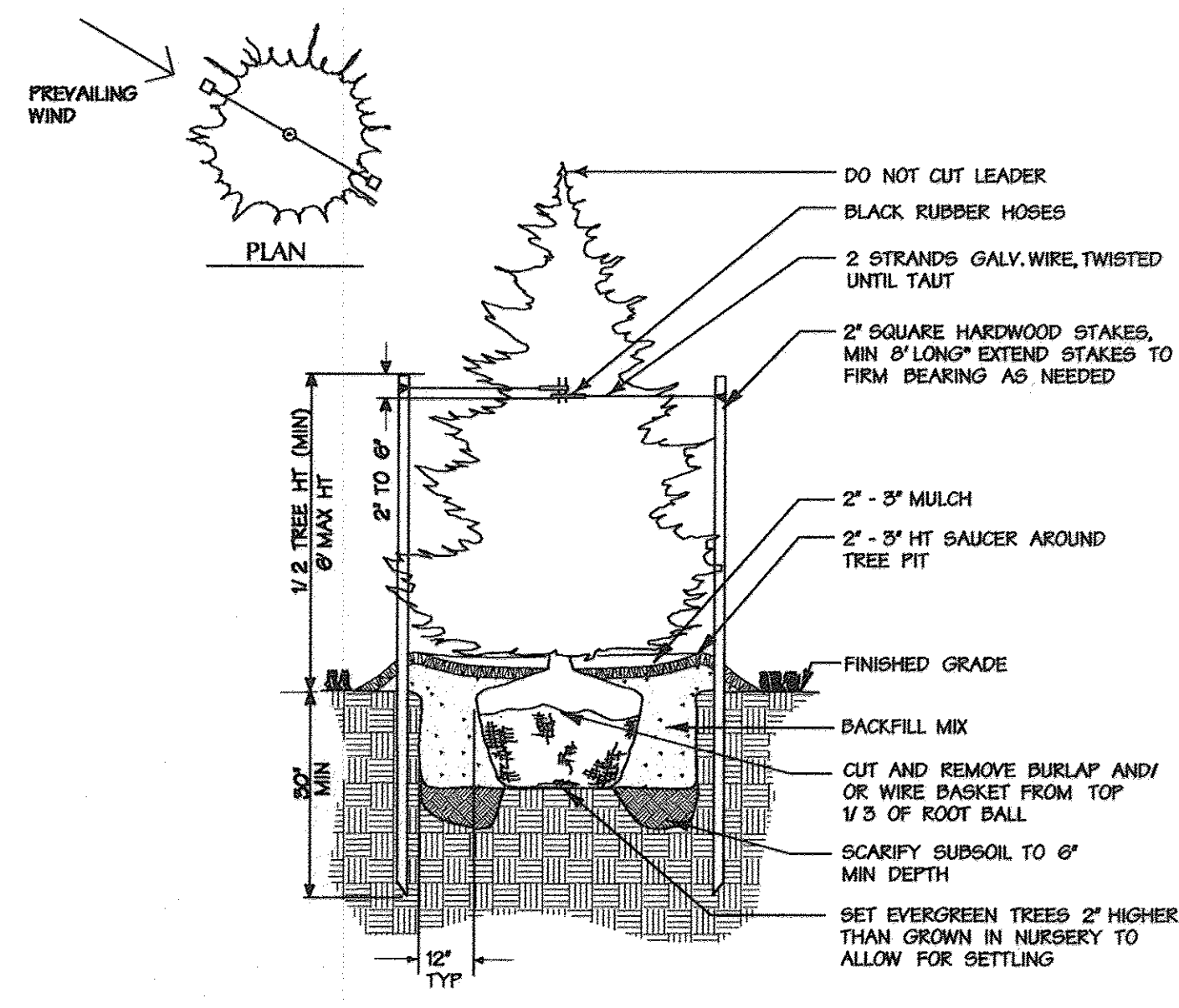
Des. By: THJ/JDF Scale: 1" = 50' Proj. No.: 95054.3
 Dwn. By: JSS Date: 6-16-11
 Chk. By: Approved

17 of 28



Deciduous Tree Planting Detail

Not to Scale



Evergreen Tree Planting Detail

Not to Scale

DEVELOPER'S / BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.

I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

NAME: James F. Hudson DATE: 2/9/13

"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL."

PROVIDE THE FOLLOWING NOTE ON THE LANDSCAPE PLAN:

THE OWNER, TENANT, AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

PLANTING SPECIFICATIONS

1. MAINTAIN POSITIVE DRAINAGE OUT OF PLANTING BEDS AT A MINIMUM 2% SLOPE. ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT OR OWNER.
2. THE CONTRACTOR SHALL NOTIFY MISS UTILITY (800-257-7777) A MINIMUM OF THREE WORKING DAYS PRIOR TO PLANTING AND CONSTRUCTION.
3. THE CONTRACTOR IS ADVISED OF THE EXISTENCE OF UNDERGROUND UTILITIES ON THE SITE. THEIR EXACT LOCATION SHALL BE VERIFIED IN THE FIELD WITH THE OWNER OR GENERAL CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY DIGGING OPERATIONS. IN THE EVENT THEY ARE UNCOVERED, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO UTILITIES AND SUCH DAMAGE SHALL NOT RESULT IN ANY ADDITIONAL EXPENSES TO THE OWNER.
4. IF UTILITY LINES ARE ENCOUNTERED IN EXCAVATION OF TREE PITS, OTHER LOCATIONS FOR TREES SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION. NO CHANGES OF LOCATION SHALL BE MADE WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT.
5. PLANT MATERIAL SUBSTITUTIONS WILL NOT BE ACCEPTED WITHOUT WRITTEN CONSENT OF THE OWNER OR LANDSCAPE ARCHITECT.
6. PLANT QUANTITIES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO THE COMMENCEMENT OF WORK. SOQ QUANTITY TAKE-OFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO BIDDING. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN SIZES AS SPECIFIED IN PLANT LIST.
7. PLANT MATERIAL SUBSTITUTIONS WILL NOT BE ACCEPTED WITHOUT WRITTEN CONSENT OF THE OWNER OR LANDSCAPE ARCHITECT.
8. ALL PLANTS (BAG OR CONTAINER) SHALL BE PROPERLY IDENTIFIED BY WEATHER-PROOF LABELS SECURELY ATTACHED THERETO BEFORE DELIVERY TO PROJECT SITE. LABELS SHALL IDENTIFY PLANTS BY NAME, SPECIES, AND SIZE. LABELS SHALL NOT BE REMOVED UNTIL THE FINAL INSPECTION BY THE LANDSCAPE ARCHITECT OR AGENT IN CHARGE.
9. ANY MATERIAL AND/OR WORK MAY BE REJECTED BY THE LANDSCAPE ARCHITECT IF IT DOES NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS. ALL REJECTED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
10. THE LANDSCAPE CONTRACTOR SHALL STAKE ALL MATERIAL LOCATED ON THE SITE FOR REVIEW AND POSSIBLE ADJUSTMENTS BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING. ALL LOCATIONS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT BEFORE EXCAVATION.
11. THE LANDSCAPE ARCHITECT OR OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL, WHICH, IN HIS OPINION, DOES NOT MEET THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
12. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR STABILITY AND CONDITIONS OF ALL TREES AND SHRUBS AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS.
13. ALL PROPOSED TREES TO BE INSTALLED EITHER ENTIRELY IN OR ENTIRELY OUT OF PLANTING BEDS. PLANTING BED LINES ARE NOT TO BE OBSTRUCTED. ALL SHRUBS AND GROUND COVER AREAS SHALL BE PLANTED IN CONTINUOUS PREPARED BED AND TOP DRESSED WITH 3-INCH SHREDDED HARDWOOD MULCH. MULCH SHALL HAVE BEEN SHREDDED WITHIN THE LAST SIX MONTHS.
14. ALL PLANTING BEDS ADJACENT TO LAWN, SOO, OR SEEDED AREAS SHALL BE GRADE EDGED.
15. ALL SOO SHALL BE OBTAINED FROM AREAS HAVING GROWING CONDITIONS FAMILIAR TO AREAS TO BE COVERED. AREAS TO BE SOOED SHALL BE RAKED OF STONES AND DEBRIS. DEBRIS AND STONES OVER 1 INCH IN DIAMETER SHALL BE REMOVED FROM THE SITE. ALL DAMAGED SOO WILL BE REJECTED. ALL SOO MUST BE PLACED WITH STAGGERED JOINTS, TIGHTLY BUTTED, WITH NO INEQUALITIES IN GRADE. PLACE ALL SOO IN ROWS AT RIGHT ANGLES TO SLOPES (WHERE APPLICABLE).
16. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL 90 DAYS AFTER FINAL ACCEPTANCE BY THE ARCHITECT OR OWNER. REPRESENTATIVE MAINTENANCE INCLUDES MOWING OF TURF, WATERING, PRUNING, WEEDING, FERTILIZING, MULCHING, REPLACEMENT OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL. THE CONTRACTOR MUST BE ABLE TO PROVIDE CONTINUED MAINTENANCE IF REQUESTED BY THE OWNER.
17. UPON COMPLETION OF ALL LANDSCAPING, AN ACCEPTANCE OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OR OWNER FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
18. THE LIFE AND ROBUST HEALTH OF ALL TREES, SHRUBS AND GROUND COVER SHALL BE GUARANTEED FOR 12 MONTHS FROM THE DATE OF ACCEPTANCE.
19. MAINTAIN POSITIVE DRAINAGE OUT OF PLANTING BEDS AT A MINIMUM 2% SLOPE. ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT OR OWNER.
20. THE CONTRACTOR SHALL INSURE THAT HIS WORK DOES NOT INTERRUPT ESTABLISHED OR PROJECTED DRAINAGE PATTERNS.
21. THE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS.
22. THE CONTRACTOR SHALL REVIEW ARCHITECTURAL/ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH GRADING AND SURFACE UTILITIES.
23. ALL EQUIPMENT AND TOOLS SHALL BE PLACED SO AS NOT TO INTERFERE OR HINDER THE PEDESTRIAN AND VEHICULAR TRAFFIC FLOW.
24. THE CONTRACTOR SHALL COORDINATE WITH LIGHTING AND IRRIGATION CONTRACTORS REGARDING TIMING OF INSTALLATION OF PLANT MATERIAL.
25. DURING PLANTING OPERATIONS, EXCESS WASTE MATERIALS SHALL BE PROMPTLY AND FREQUENTLY REMOVED FROM THE SITE.
26. THE CONTRACTOR SHALL DISPOSE OF STUMPS AND MAJOR ROOTS OF ALL PLANTS TO BE REMOVED. ANY DEPRESSIONS CAUSED BY REMOVAL OPERATIONS SHALL BE REFILLED WITH FERTILE, FRABLE SOIL PLACED AND COMPACTED SO AS TO REESTABLISH PROPER GRADE FOR NEW PLANTING AND/OR LAWN AREAS.
27. ALL AREAS WITHIN CONTRACT LIMITS DISTURBED DURING OR PRIOR TO CONSTRUCTION NOT DESIGNATED TO RECEIVE PLANTINGS AND MULCH SHALL BE FINE GRADED AND SEEDED IN ACCORDANCE WITH PLANTING AND CONSTRUCTION SPECIFICATIONS.
28. EVERY POSSIBLE SAFEGUARD SHALL BE TAKEN TO PROTECT BUILDING SURFACES, EQUIPMENT AND FURNISHING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSON OR PROPERTY WHICH MAY OCCUR AS A RESULT OF HIS NEGLIGENCE IN THE EXECUTION OF THE WORK.
29. THE CONTRACTOR IS RESPONSIBLE FOR TESTING PROJECT SOILS. THE CONTRACTOR IS TO PROVIDE A CERTIFIED SOILS REPORT TO THE OWNER. THE CONTRACTOR SHALL VERIFY THAT THE SOILS ON SITE ARE ACCEPTABLE FOR THE PROPER GROWTH OF THE PROPOSED PLANT MATERIAL. SHOULD THE CONTRACTOR FIND POOR SOIL CONDITIONS, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SOIL AMENDMENTS AS NECESSARY. THESE AMENDMENTS SHALL INCLUDE, BUT NOT BE LIMITED TO, FERTILIZERS, LIME, AND TOPSOIL. PROPER PLANTING SOILS MUST BE VERIFIED PRIOR TO PLANTING OF MATERIALS.
30. PLANTING MIX:
 - A) PLANTING MIX SHALL BE PREPARED AT APPROVED ON-SITE STAGING AREA USING APPROVED ON-SITE EXISTING SOIL. MIX MINIMUM QUANTITIES OF 20 CUBIC YARDS OR SUFFICIENT MIX FOR ENTIRE JOB IF LESS THAN 20 CUBIC YARDS IS REQUIRED.
 - B) THOROUGHLY MIXED IN THE FOLLOWING PROPORTIONS FOR TREE AND SHRUB PLANTING MIX:
 - 5 CY EXISTING SOIL
 - 2 CY SHARP SAND
 - 3 CY WOOD RESIDUALS
 - 4.5 LBS TREBLE SUPERPHOSPHATE
 - 5 LBS DOLOMITE LIMESTONE (ELIMINATE FOR ACID LOVING PLANTS)
 - C) FOR BED PLANTING, SHRUBS AND GROUNDCOVER SPACES 24 INCHES OR CLOSER, INCORPORATE THE FOLLOWING INGREDIENTS PER 20 SF AND INCORPORATE INTO TOP 8 INCHES OF EXISTING SOILS BY ROTOTILLING OR SIMILAR METHOD OF INCORPORATION:
 - 2 CY SHARP SAND
 - 3 CY ORGANIC MATERIAL
 - 4.5 LBS TREBLE SUPERPHOSPHATE
 - 5 LBS DOLOMITE LIMESTONE (ELIMINATE FOR ACID LOVING PLANTS)
31. PLANTS SHALL CONFORM TO CURRENT "AMERICAN STANDARDS FOR NURSERY STOCK" BY AMERICAN ASSOCIATION OF NURSERYMEN (AAN), PARTICULARLY WITH REGARD TO SIZE, GROWTH, SIZE OF BALL, AND DENSITY OF BRANCH STRUCTURE. PLANT MATERIAL SHALL BE TAGGED AT THE SOURCE BY THE LANDSCAPE ARCHITECT UNLESS THIS REQUIREMENT IS SPECIFICALLY WAIVED.
32. ALL PLANTING PROCEDURES SHALL CONFORM TO LANDSCAPE CONTRACTORS ASSOCIATION (LCA) SPECIFICATION GUIDELINES FOR BALTIMORE / WASHINGTON METROPOLITAN AREA (LATEST EDITION), LCA LANDSCAPE SPECIFICATION GUIDELINES (4TH ED.) SECTION 1.6, REPLACEMENT AND CONDITIONS, ITEM F. PLANT LOSSES DUE TO ABNORMAL WEATHER DOES NOT APPLY.
33. ALL PLANTING PROCEDURES SHALL CONFORM TO DAFT MCCUNE WALKER INC. SPECIFICATIONS.
34. PLANTING RECOMMENDATIONS DELINEATED IN DMW'S STANDARD SPECIFICATIONS AND PLANTING DETAILS, WHICH ARE INCLUDED OR REFERENCED IN THESE DRAWINGS, ARE INTENDED AS A GENERAL GUIDE. THESE RECOMMENDATIONS ARE NOT BASED UPON A COMPREHENSIVE SOIL TEST OR AN EVALUATION OF THE POST-CONSTRUCTION CONDITIONS IN WHICH THE LANDSCAPE CONTRACTOR WILL BE EXPECTED TO WORK.

IN ORDER FOR PLANT MATERIAL TO THRIVE, A SOIL TEST MAY BE NECESSARY. SOIL TESTING SHOULD ADDRESS MICRO- AND MACRO-NUTRIENT LEVELS, SOIL PH, AND A USDA SOIL TEXTURE CLASSIFICATION. FURTHER, UNDERLYING SOIL CONDITIONS IN AREAS THAT HAVE BEEN DISTURBED BY CONSTRUCTION MAY CONTAIN COMPRESSED AND POORLY DRAINED SOIL, AND THEY MAY LACK ORGANIC MATERIAL OR MICRO-ORGANISMS NECESSARY FOR SUCCESSFUL PLANT GROWTH.

IF THESE CONDITIONS APPEAR TO THE CONTRACTOR TO BE A LIMITATION TO PLANT GROWTH, THE CONTRACTOR IS ENCOURAGED TO MAKE RECOMMENDATIONS FOR A SOIL AMENDMENT PROGRAM SUBJECT TO THE APPROVAL OF THE OWNER AND THE LANDSCAPE ARCHITECT.

SUCCESS OF THE LANDSCAPE PLANTING WILL DEPEND UPON A COMBINATION OF NATURAL RAINFALL AND SUPPLEMENTAL IRRIGATION. IF SHOULD BE NOTED THAT IRRIGATION SHOULD BE APPLIED CAUTIOUSLY, AS NEW PLANTINGS ARE PARTICULARLY VULNERABLE TO OVER-WATERING. WATER CONDITIONS SHOULD BE MONITORED SIX INCHES BELOW THE SURFACE, AND POCKET PLANTED PLANT MATERIAL SHOULD BE CAREFULLY INVESTIGATED FOR ACCUMULATION OF WATER IN THE PLANTING PITS.

ANOTHER KEY INGREDIENT TO SUCCESSFUL PLANTING IS THE USE OF PLANT MATERIAL THAT HAS BEEN GROWN IN SIMILAR LIGHT AND WATER CONDITIONS TO THOSE PROPOSED. IN PARTICULAR, GROUNDCOVERS, ANNUALS, AND PERENNIALS - WHICH MAY HAVE BEEN GROWN UNDER PROTECTED SHADING OR COVER AND ARE THEN SUBJECTED TO FULL WEATHER CONDITIONS -- MAY NEED CONDITIONING PRIOR TO INSTALLATION.

AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

ROBERT CRAWLEY
45292

APPROVED-HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
DIRECTOR	DATE

Date	No.	Revision Description

EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING

OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

SUBDIVISION NAME				SECTION/AREA				LIT/PARCEL #									
REVISED PROPERTY				TAX/ZONE MAP				PARCEL G-1 / PAR. 166									
DATE OR LIT				BLOCK #				DISTRICT									
2/27 & 2/27/0				20				6									
OWNER CODE				SEWER CODE				606903									
TITLE																	
LANDSCAPE DETAILS																	
Des. By			THR/JDF			Scale			NTS			Proj. No.			95054.3		
Dm. By			J65			Date			6-16-11			18 of 28					
Chk. By			Approved														

AS BUILT CERTIFICATION FOR PSWM

NOTE: THERE IS NO AS BUILT INFORMATION PRESENTED ON THIS SHEET.

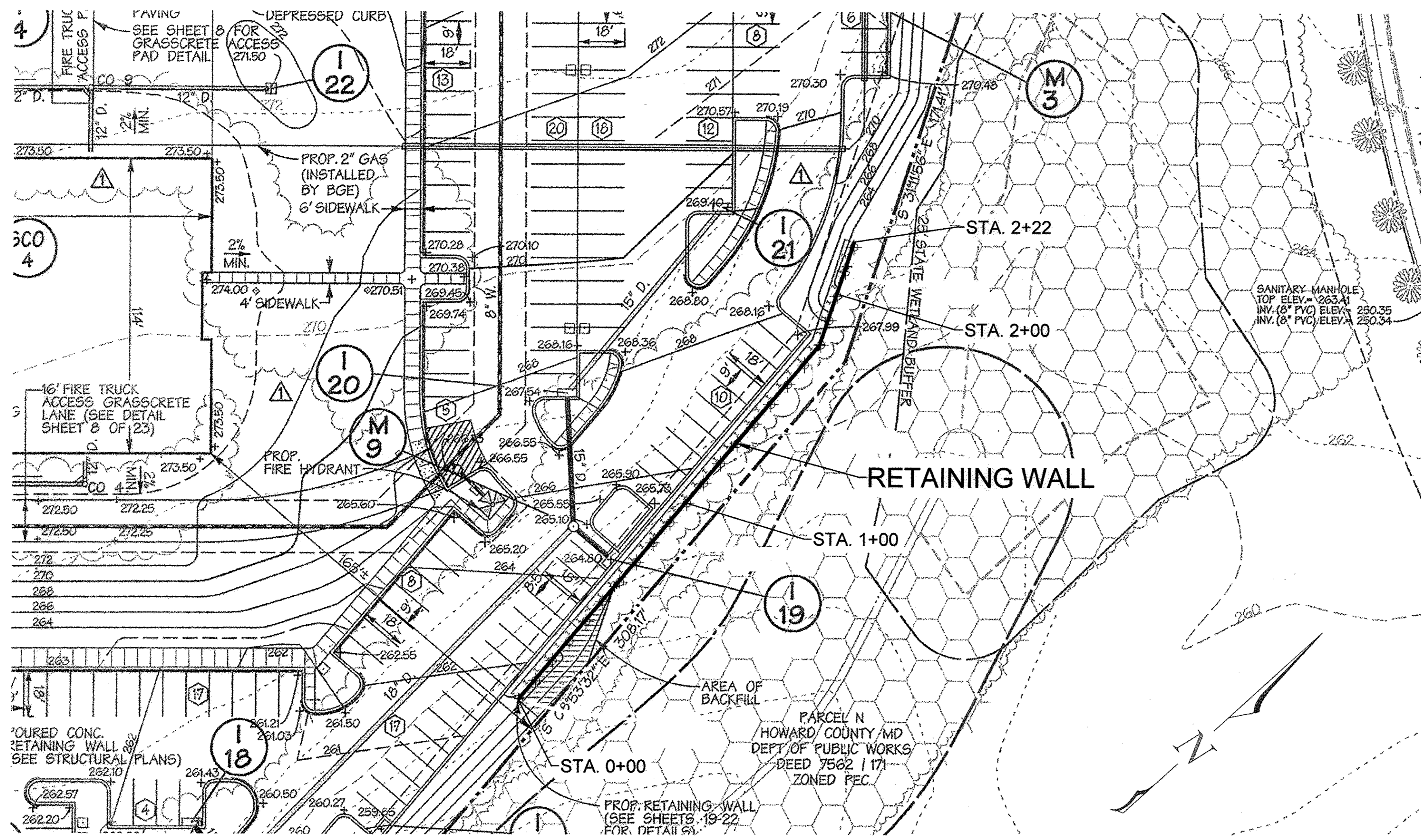
SIGNED: Paul L. Hudson RE.#8061
PAUL L. HUDSON

For Revision No. 2 Only

7-13-13
Professional Eng. No. 8061

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland License No. 8061 Exp. Date 8-20-15

4/6/13
Date
Landscape Arch. No. 505



WALL LOCATION PLAN
1" = 30'

SPECIFICATIONS

MODULAR CONCRETE BLOCK RETAINING WALL

PART 1: GENERAL

- 1.01 DESCRIPTION**
- A. WORK SHALL CONSIST OF FURNISHING AND CONSTRUCTION OF A MODULAR RETAINING WALL SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DESIGN, AND DIMENSIONS SHOWN ON THE PLANS.
 - B. WORK INCLUDES PREPARING FOUNDATION SOIL, FURNISHING AND INSTALLING LEVELING PAD, UNIT DRAINAGE FILL AND BACKFILL TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS.
 - C. WORK INCLUDES FURNISHING AND INSTALLING GEOGRID SOIL REINFORCEMENT OF THE TYPE, SIZE, LOCATION, AND LENGTHS DESIGNATED ON THE CONSTRUCTION DRAWINGS.

1.02 DELIVERY, STORAGE AND HANDLING

- A. CONTRACTOR SHALL CHECK ALL MATERIALS UPON DELIVERY TO ASSURE THAT THE PROPER TYPE, GRADE, COLOR, AND CERTIFICATION HAS BEEN RECEIVED.
- B. CONTRACTOR SHALL PROTECT ALL MATERIALS FROM DAMAGE DUE TO JOB SITE CONDITIONS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DAMAGED MATERIALS SHALL NOT BE INCORPORATED INTO THE WORK.

PART 2: PRODUCTS

2.01 MODULAR CONCRETE RETAINING WALL UNITS

- A. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING ARCHITECTURAL REQUIREMENTS:
FACE COLOR - CONCRETE GRAY - STANDARD MANUFACTURER'S COLOR MAY BE SPECIFIED BY THE OWNER.
FACE FINISH - SCULPTURED ROCK FACE IN ANGULAR TRI-PLANE OR FLAT CONFIGURATION. OTHER FACE FINISHES WILL NOT BE ALLOWED WITHOUT WRITTEN APPROVAL OF OWNER.
BOND CONFIGURATION - RUNNING VERTICALLY NOMINALLY LOCATED AT MIDPOINT BETWEEN ADJACENT UNITS. IN BOTH STRAIGHT AND CURVED ALIGNMENTS. EXPOSED SURFACES OF UNITS SHALL BE FREE OF CHIPS, CRACKS OR OTHER IMPERFECTIONS WHEN VIEWED FROM A DISTANCE OF 10 FEET UNDER DIFFUSED LIGHTING.

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

- C. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING STRUCTURAL AND GEOMETRIC REQUIREMENTS MEASURED IN ACCORDANCE WITH APPROPRIATE REFERENCES:

COMPRESSIVE STRENGTH = 3000 PSI MINIMUM.
ABSORPTION = 8% MAXIMUM (6% IN NORTHERN STATES) FOR STANDARD WEIGHT AGGREGATES.
DIMENSIONAL TOLERANCES = ±1/8" FROM NOMINAL UNIT DIMENSIONS NOT INCLUDING ROUGH SPLIT FACE, ±1/16" UNIT HEIGHT - TOP AND BOTTOM PLANES, UNIT SIZE - 8" (H) X 18" (W) X 12" (D) MINIMUM.

UNIT WEIGHT - 75 LBS/UNIT MINIMUM FOR STANDARD WEIGHT AGGREGATES;
INTER-UNIT SHEAR STRENGTH - 1000 PLF MINIMUM AT 2 PSI NORMAL PRESSURE; AT 2 PSI NORMAL FORCE.
GEOGRID/UNIT PEAK CONNECTION STRENGTH - 1000 PLF MINIMUM

- D. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING CONSTRUCTABILITY REQUIREMENTS: (IF APPLICABLE)
VERTICAL SETBACK = 1/8" PER COURSE (NEAR VERTICAL) OR 1" PER COURSE PER THE DESIGN;
ALIGNMENT AND GRID POSITIONING MECHANISM - FIBERGLASS PINS, TWO PER UNIT MINIMUM;
MAXIMUM HORIZONTAL GAP BETWEEN ERECTED UNITS SHALL BE - 1/2" INCH.

2.02 SHEAR CONNECTORS (IF APPLICABLE)
A. SHEAR CONNECTORS SHALL BE 1/2" INCH DIAMETER THERMOSET ISOPHTHALIC POLYESTER RESIN-PROTRUDED FIBERGLASS REINFORCEMENT RODS OR EQUIVALENT TO PROVIDE CONNECTION BETWEEN VERTICALLY AND HORIZONTALLY ADJACENT UNITS. STRENGTH OF SHEAR CONNECTORS BETWEEN VERTICAL ADJACENT UNITS SHALL BE APPLICABLE OVER A DESIGN TEMPERATURE OF DEGREES F TO +100 DEGREES F. B. SHEAR CONNECTORS SHALL BE CAPABLE OF HOLDING THE GEOGRID IN THE PROPER DESIGN POSITION DURING GRID PRE-TENSIONING AND BACKFILLING.

2.03 BASE LEVELING PAD MATERIAL
A. MATERIAL SHALL CONSIST OF A COMPACTED #57 CRUSHED STONE BASE AS SHOWN ON THE CONSTRUCTION DRAWINGS.

2.04 UNIT DRAINAGE FILL
A. UNIT DRAINAGE FILL SHALL CONSIST OF #57 CRUSHED STONE

2.05 REINFORCED BACKFILL
A. REINFORCED BACKFILL SHALL TYPE SM, BE FREE OF DEBRIS AND MEET THE FOLLOWING GRADATION TESTED IN ACCORDANCE WITH ASTM D-422 AND MEET OTHER PROPERTIES SHOWN ON THE PLAN:

SIEVE SIZE	PERCENT PASSING
2 INCH	100-75
3/4 INCH	100-75
NO. 40	0-60
NO. 200	0-40

PLASTICITY INDEX (PI) <10 AND LIQUID LIMIT <40 PER ASTM D-4318.

B. MATERIAL CAN BE SITE EXCAVATED UNITS WHERE THE ABOVE REQUIREMENTS CAN BE MET. UNSUITABLE SOILS FOR BACKFILL (HIGH PLASTIC CLAYS OR ORGANIC SOILS) SHALL NOT BE USED IN THE REINFORCED SOIL MASS.

2.06 GEOGRID SOIL REINFORCEMENT
A. GEOSYNTHETIC REINFORCEMENT SHALL CONSIST OF GEOGRIDS MANUFACTURED SPECIFICALLY FOR SOIL

REINFORCEMENT APPLICATIONS AND SHALL BE MANUFACTURED FROM HIGH TENACITY POLYESTER YARN.

2.07 DRAINAGE PIPE
A. THE DRAINAGE PIPE SHALL BE PERFORATED CORRUGATED HDPE PIPE MANUFACTURED IN ACCORDANCE WITH ASTM D-1248.

PART 3 EXECUTION

3.01 EXCAVATION
A. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. OWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR INSPECTING AND APPROVING THE EXCAVATION PRIOR TO PLACEMENT OF LEVELING MATERIAL OR FILL SOILS.

3.02 BASE LEVELING PAD
A. LEVELING PAD MATERIAL SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. TO A MINIMUM THICKNESS OF 6 INCHES AND EXTEND LATERALLY A MINIMUM OF 6" IN FRONT AND BEHIND THE MODULAR WALL UNIT.

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

3.03 MODULAR UNIT INSTALLATION

- A. FIRST COURSE OF UNITS SHALL BE PLACED ON THE LEVELING PAD AT THE APPROPRIATE LINE AND GRADE. ALIGNMENT AND LEVEL SHALL BE CHECKED IN ALL DIRECTIONS AND INSURE THAT ALL UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERLY SEATED.
- B. PLACE THE FRONT OF UNITS SIDE-BY-SIDE. DO NOT LEAVE GAPS BETWEEN ADJACENT UNITS. LAYOUT OF CORNERS AND CURVES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- C. INSTALL SHEAR/CONNECTING DEVICES PER MANUFACTURER'S RECOMMENDATIONS.
- D. PLACE AND COMPACT DRAINAGE FILL WITHIN AND BEHIND WALL UNITS. PLACE AND COMPACT BACKFILL SOIL BEHIND DRAINAGE FILL. FOLLOW WALL ERECTION AND DRAINAGE FILL CLOSELY WITH STRUCTURE BACKFILL.
- E. MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS, PRIOR TO UNIT DRAINAGE FILL AND BACKFILL PLACEMENT AND COMPACTION, SHALL NOT EXCEED THREE COURSES.

3.04 STRUCTURAL GEOGRID INSTALLATION

- A. GEOGRID SHALL BE ORIENTED WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL ALIGNMENT.
- B. GEOGRID REINFORCEMENT SHALL BE PLACED AT THE STRENGTHS, LENGTHS, AND ELEVATIONS SHOWN ON THE CONSTRUCTION DESIGN DRAWINGS OR AS DIRECTED BY THE ENGINEER.
- C. THE GEOGRID SHALL BE LAID HORIZONTALLY ON COMPACTED BACKFILL AND ATTACHED TO THE MODULAR WALL UNITS. PLACE THE NEXT COURSE OF MODULAR CONCRETE UNITS OVER THE GEOGRID. THE GEOGRID SHALL BE PLACED TIGHTLY AND ANCHORED PRIOR TO BACKFILL PLACEMENT ON THE GEOGRID.

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

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

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

C. REINFORCED BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698. THE MOISTURE CONTENT OF THE BACKFILL MATERIAL PRIOR TO AND DURING COMPACTION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT EACH LAYER AND SHALL BE + 3% TO - 3% OF OPTIMUM.

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

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

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

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

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

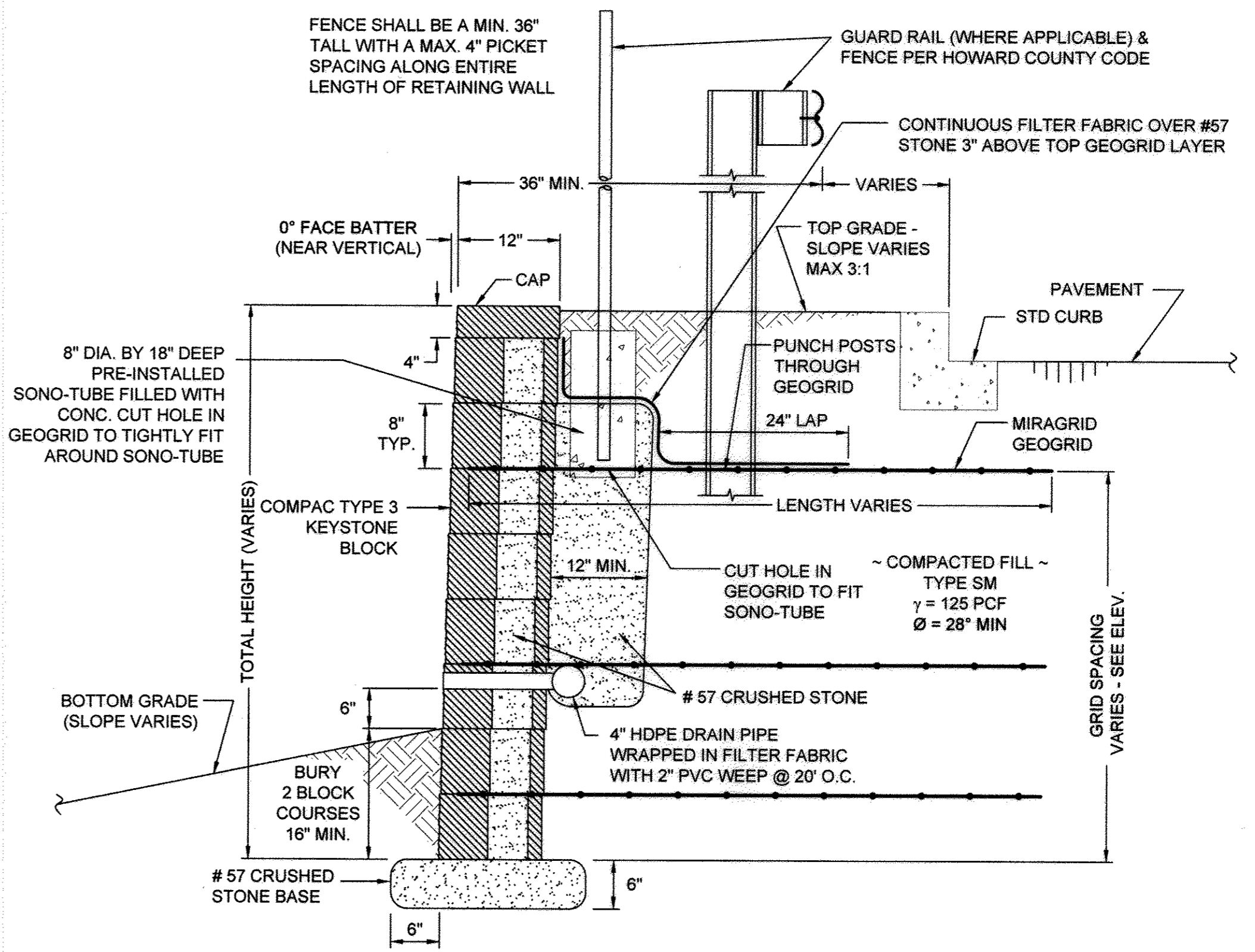
3.07 FIELD QUALITY CONTROL

- A. THE OWNER SHALL ENGAGE INSPECTION AND TESTING SERVICES, INCLUDING INDEPENDENT LABORATORIES, TO PROVIDE QUALITY ASSURANCE AND TESTING SERVICES DURING CONSTRUCTION.
- B. AS A MINIMUM, QUALITY ASSURANCE TESTING SHOULD INCLUDE FOUNDATION SOIL INSPECTION, SOIL AND BACKFILL TESTING, VERIFICATION OF DESIGN PARAMETERS, AND OBSERVATION OF CONSTRUCTION FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS.

THERE IS NO AS BUILT INFORMATION PRESENTED ON THIS SHEET. AS BUILT NOT REQUIRED. DuVal and Associates, P.A. By: Douglas W. Duval - REG.#10764



AS BUILT CERTIFICATION FOR PSWM
NOTE: THERE IS NO AS BUILT INFORMATION PRESENTED ON THIS SHEET.
SIGNED: Paul L. Hudson RE.#8061
PAUL L. HUDSON



TYPICAL WALL SECTION
N.T.S.

NOTES:

1. No trees shall be planted within 10 feet of the top of the retaining wall.
2. Retaining walls shall only be constructed under the observation of a registered professional engineer and a (NICET, WACEL, or equiv.) certified soils technician.
3. One soil boring shall be required every one hundred feet along the entire length of the wall. Copies of all boring reports shall be provided to the Howard County Inspector Prior to the start of construction.
4. The required bearing pressure beneath the wall system shall be verified in the field by a certified soils technician. Testing documentation must be provided to the Howard County Inspector prior to start of construction. The required bearing test shall be the Dynamic Cone Penetrometer test ASTM STP-399.
5. The suitability of fill material shall be confirmed by the on-site soils technician. Each 8" lift must be compacted to a minimum 95% standard proctor density and the testing report shall be made available to the Howard County Inspector upon completion of construction.
6. Walls shall not be constructed on uncertified fill materials.
7. Walls shall not be constructed within a Howard Co. right-of-way or easement.

AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. #0621 CROWLEY, 19292

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 11-23-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 11-16-15
DIRECTOR	DATE 11-23-15

9/22/14	4	EMERSON CAMPUS VCP
2		REPLACEMENT SHEET
Date	No.	Revision Description

EMERSON PARCEL G-1
L.E.E.D. BUILDING
5-STORY COMMERCIAL OFFICE BUILDING
OWNER/DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

HILLIS-CARNES
ENGINEERING ASSOCIATES
10975 Guilford Road, Suite A Annapolis Junction, Maryland
(410) 880-4788 WWW.HCEA.COM Fax: (410) 880-4098

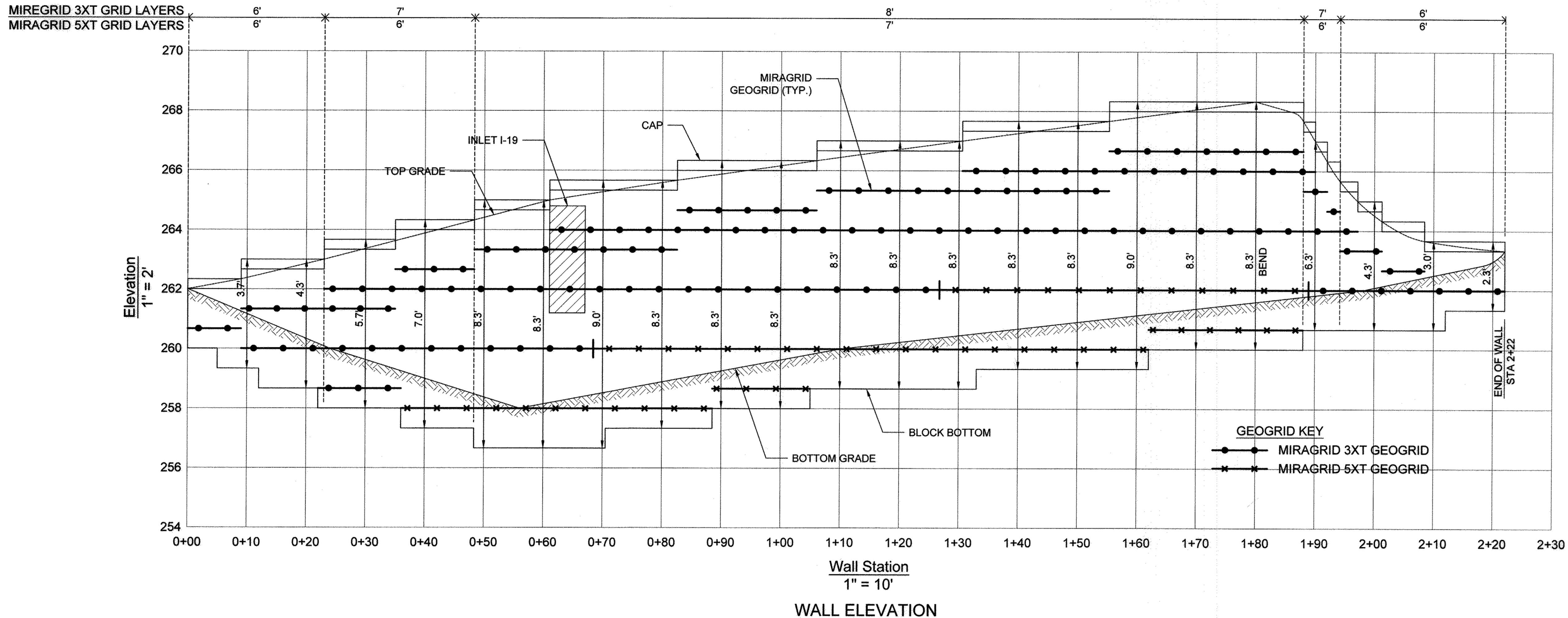
SUBVISION NAME	SECTION/AREA	LOT/PARCEL #
REVITZ PROPERTY		LOT G-1 / PAR. 165
PLAT # OF BLOCK # ZONE	TAX/ZONE MAP ELEC. DISTRICT	GENUS TRACT
2177 & 2128 20 PFC	47 6	606903
WATER CODE	SEWER CODE	

TITLE
RETAINING WALL PLAN & CONSTRUCTION DETAILS

Des. By	HM	Scale	AS SHOWN	HCEA No.	11011-H
Drn. By	HM	Date	11-26-13		
Chk. By	RWS				

NOTE:
 INSTALL INLET I-19 AND ASSOCIATED PIPE DURING WALL
 CONSTRUCTION. BACKFILL AROUND ENTIRE OUTSIDE PERIMETER
 OF INLET STRUCTURE FULL HEIGHT WITH A 2 FT. THICK WRAP OF
 COMPACTED SOIL CEMENT CONSISTING OF A RATIO OF 180 LBS.
 PORTLAND CEMENT THOROUGHLY MIXED WITH 1 CU. YD. OF TYPE
 SM SOIL AT 3% OVER OPTIMUM MOISTURE. TRIM FULL LENGTH
 GEOGRIDS AT FACE OF INLET STRUCTURE AND EMBED IN SOIL
 CEMENT. PLACE SOIL-CEMENT WITHIN 1 HOUR AFTER MIXING.

NOTE:
 SLOPE TOP GEOGRID DOWN AS NEEDED TO
 AVOID CONFLICT WITH CURB AND PAVEMENT.



AS BUILT CERTIFICATION FOR PSWM! THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
 ROBERT CROWLEY
 46292

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 11-23-15
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 11-16-15
DIRECTOR	DATE 11-23-15

2	REPLACEMENT SHEET
Date No.	Revision Description

EMERSON PARCEL G-1
 L.E.E.D. BUILDING
 5-STORY COMMERCIAL OFFICE BUILDING
 OWNER/DEVELOPER:
 EMERSON DEVELOPMENT VI LLC
 1 TEXAS STATION COURT, SUITE 200
 TIMONIUM, MARYLAND 21093-8288
 (443) 689-8000

HILLIS-CARNES
ENGINEERING ASSOCIATES
 10975 Guilford Road, Suite A Annapolis Junction, Maryland
 (410) 880-4788 WWW.HCEA.COM Fax: (410) 880-4098

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
REVITZ PROPERTY		LOT G-1 / PAR. 165
PLAN OR LOT BLOCK # ZONE	TAX/ZONE MAP ELEC. DISTRICT	CENSUS TRACT
2077 & 2178 20 PEC	47 6	606903
WATER CODE	SEWER CODE	

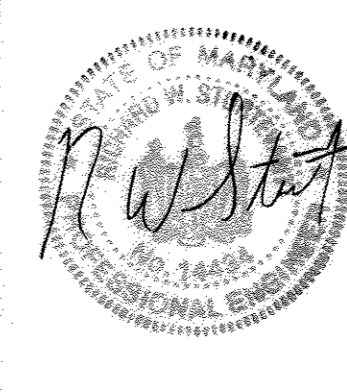
TITLE				
RETAINING WALL ELEVATION				
Des. By	HM	Scale	AS SHOWN	HCEA No. 11011-H
Drn. By	HM	Date	11-26-13	202 of 25
Chk. By	RWS			

THERE IS NO AS BUILT INFORMATION PRESENTED ON THIS SHEET.
 AS BUILT NOT REQUIRED.
 DuVal and Associates, P.A.
 By: Douglas W. Duval - REG #10764



AS BUILT CERTIFICATION FOR PSWM
 NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
 SIGNED: Paul L. Hudson RE #BOG1
 PAUL L. HUDSON

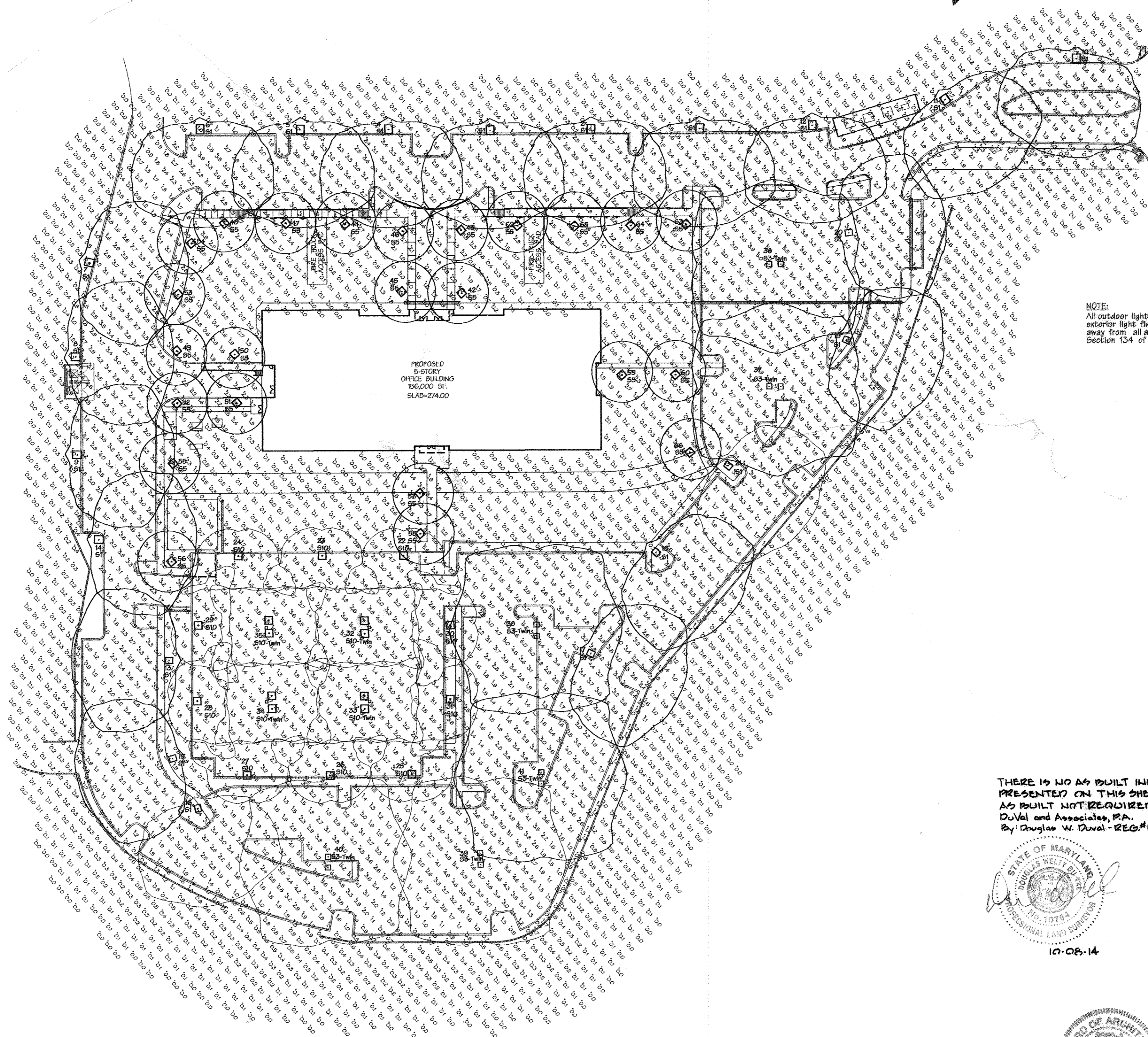
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 14432
 EXPIRATION DATE: 08/31/17



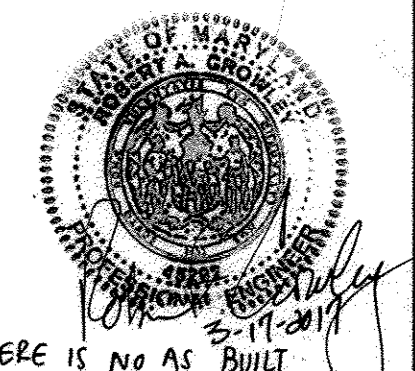
Luminaire	Label	X	Y	Z	Orient	File
1	S1	1364049	530635	30	323.13	0
2	S1	1363987	530269	30	323.13	0
3	S1	1363934	530509	30	322.125	0
4	S1	1363879	530443	30	322.125	0
5	S1	1363832	530389	30	322.125	0
6	S1	1363776	530327	30	322.125	0
7	S1	1363651	530189	30	26.87	0
8	S1	1363591	530130	30	53.746	0
9	S1	1363531	530079	30	47.864	0
10	S1	1364204	530903	30	310.314	0
11	S1	1364159	530801	30	354.369	0
12	S1	1364103	530706	30	322.125	0
13	S1	1364046	530626	30	228.991	0
14	S1	1363976	530547	30	46	0
15	S1	1364148	532876	30	243.436	0
16	S1	1364192	529866	30	333.436	0
17	S1	1364308	530289	30	23.199	0
18	S1	1364280	530363	30	6.34	0
19	S1	1364253	530613	30	26.565	0
20	S1	1364188	530671	30	16.31	0
21	S1	1364266	530713	30	10.408	0
22	S10	1364146	530227	15	318.366	0
23	S10	1364102	530177	15	318.366	0
24	S10	1364058	530125	15	318.366	0
25	S10	1364287	530114	15	140.826	0
26	S10	1364244	530063	15	140.826	0
27	S10	1364200	530012	15	140.826	0
28	S10	1364154	530019	15	30.306	0
29	S10	1364079	530061	15	50.906	0
30	S10	1364216	530219	15	233.616	0
31	S10	1364261	530180	15	227.726	0
32	S10-Twin	1364171	530164	15	320.194	0
33	S10-Twin	1364216	530124	15	320.194	0
34	S10-Twin	1364167	530067	15	320.194	0
35	S10-Twin	1364119	530013	15	320.194	0
36	S3-Twin	1364169	530608	30	104.47	0
37	S3-Twin	1364244	530543	30	104.621	0
38	S3-Twin	1364263	530289	30	15.945	0
39	S3-Twin	1364375	530111	30	12.996	0
40	S3-Twin	1364283	530016	30	198.435	0
41	S3-Twin	1364256	530183	30	15.066	0
42	S5	1364076	530389	12	0	0
43	S5	1363977	530432	12	0	0
44	S5	1363913	530367	12	0	0
45	S5	1363897	530367	12	0	0
46	S5	1363849	530398	12	0	0
47	S5	1363681	530330	12	0	0
48	S5	1363647	530283	12	0	0
49	S5	1363603	530193	12	0	0
50	S5	1363336	530227	12	0	0
51	S5	1363966	530204	12	0	0
52	S5	1363833	530168	12	0	0
53	S5	1363666	530224	12	0	0
54	S5	1363641	530289	12	0	0
55	S5	1363586	530161	12	0	0
56	S5	1364029	530078	12	0	0
57	S5	1364122	530271	12	0	0
58	S5	1364146	530250	12	0	0
59	S5	1364192	530418	12	0	0
60	S5	1364180	530491	12	0	0
61	S5	1364180	530491	12	0	0
62	S5	1364004	530473	12	0	0
63	S5	1364094	530578	12	0	0
64	S5	1364065	530543	12	0	0
65	S5	1364035	530508	12	0	0
66	S5	1364236	530489	12	0	0

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LUF	Description
S1	21	S1	SINGLE	33000	0.800	MPTK-350-MP-35-SL COOPER TRIBUTE SINGLE WITH SPILL LIGHT CONTROL
S3-Twin	6	S3-Twin	GROUP	N.A.	0.800	(2) MPTK-350-MP-MT-45 COOPER TRIBUTE TWIN ASSEMBLY
S5	25	S5	SINGLE	6700	0.850	SAC-R5-11/7076
S10	10	S10	SINGLE	14000	0.800	MPTK-36-150
S10-Twin	4	S10-Twin	GROUP	N.A.	0.800	(2) MPTK-36-150

Label	Calc Type	Units	Avg	Max	Min	Avg/Min	Max/Min
Foot	illumiance	Fc	3.77	10.1	0.9	3.82	11.22
Site Lighting	illumiance	Fc	2.14	10.9	0.0	N.A.	N.A.
Spill Light	illumiance	Fc	0.34	3.0	0.0	N.A.	N.A.



NOTE:
All outdoor lighting shall comply with the requirements of Zoning Section 134. All exterior light fixtures shall be oriented to direct light inward and downward on-site and away from all adjoining residential properties and public roads in accordance with Section 134 of the Howard County Zoning Regulations.

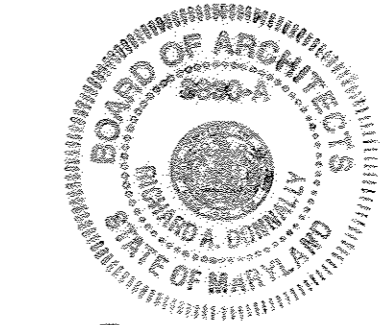


AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
ROBERT CROWLEY
45242

THERE IS NO AS BUILT INFORMATION PRESENTED ON THIS SHEET. AS BUILT NOT REQUIRED.
DuVal and Associates, P.A.
By: Douglas W. DuVal - REG.#10764



10-06-14

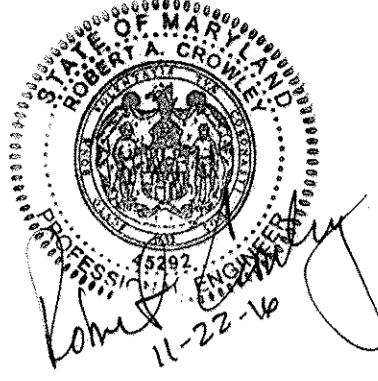


AS BUILT CERTIFICATION FOR PSWM
NOTE: THERE IS NO AS BUILT INFORMATION PRESENTED ON THIS SHEET.
SIGNED: Paul L. Hudson PE# 8061

APPROVED: HOWARD COUNTY DEPT. OF PUBLIC WORKS	
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	
Val Salas CHIEF, DIVISION OF LAND DEVELOPMENT	3/06/13 DATE
Michael Hudson CHIEF, DEVELOPMENT ENGINEERING DIVISION	2/25/13 DATE
Frank M. Wyle DIRECTOR	2/1/13 DATE
Date	No. Revision Description
EMERSON PARCEL G-1	
L.E.E.D. BUILDING	
5-STORY COMMERCIAL OFFICE BUILDING	
OWNER/DEVELOPER: EMERSON DEVELOPMENT VI LLC 1 TEXAS STATION COURT, SUITE 200 TIMONIUM, MARYLAND 21093-8288 (443) 689-8000	
SECTION NAME REVITZ PROPERTY	SECTION/AREA PARCEL G-1 / P.A.R. 106
PLAN OR L.P. 1/22/7 & 2/2/7	BLOCK # 20
TAX/ZONE MAP 47	FEET DISTRICT 6
DATE CODE	OWNER TRACT 606903
TITLE SITE LIGHTING PLAN	
Des. By	Scale 1"=50'
Dm. By	Date 6-16-11
Chk. By	Approved
Proj. No. 95054.3 23 of 23	

UNCLASSIFIED//FOR OFFICIAL USE ONLY

PROFESSIONAL CERTIFICATION FOR REV#4
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 45292 EXPIRATION DATE: 05/21/2016
 THE PURPOSE OF REVISION #4 IS TO SHOW THE WORK ASSOCIATED WITH THE EMERSON CAMPUS VCP, SDP-16-005



	COORDINATE ID	NORTHING	EASTING	FEET OFFSET FROM PROPERTY LINE
8' HIGH IMPASSE NON-RATED ORNAMENTAL FENCE	1	532233.7	1353530.0	9.3
	2	532207.6	1353557.9	7.5
	3	532254.3	1353623.0	32.3
	4	532253.0	1353648.8	37.7
	5	532232.6	1353672.5	35.5
	6	532150.6	1353690.4	37.6
	7	532074.1	1353729.9	25.6
	8	531998.0	1353749.7	30.5
	9	531857.1	1353847.0	43.8
8' HIGH CHAIN LINK FENCE WITH 1' DOUBLE OUTRIGGER	10	531845.2	1353912.5	39.6
	11	531802.7	1353938.5	45.9
	12	531778.8	1353969.5	44.9
	13	531751.5	1354006.8	68.9
	14	531747.9	1354009.1	69.3
	15	531733.7	1354018.0	6.9
	16	531703.5	1354268.8	6.2
	17	531681.1	1354261.0	28.8
	18	531559.4	1354378.6	134.9
8' HIGH IMPASSE K12 RATED ORNAMENTAL FENCE	19	531557.3	1354413.3	132.7
	20	531610.8	1354459.0	73.8
	21	531594.4	1354480.8	0.3
	22	531612.3	1354683.4	44.4
	23	531600.0	1354722.0	51.8
	24	531686.8	1354994.2	6.0
	25	531678.9	1354996.7	14.2
	26	531689.1	1355028.8	14.2
	27	531696.4	1355015.5	14.2
	28	531704.0	1355075.4	14.2
	29	531625.6	1355097.0	14.4

	COORDINATE ID	NORTHING	EASTING	FEET OFFSET FROM PROPERTY LINE
8' HIGH CHAIN LINK FENCE WITH 1' DOUBLE OUTRIGGER	29	531625.6	1355097.0	14.4
	30	531487.3	1355058.4	2.5
	31	531466.2	1355003.9	2.5
	32	531375.2	1354908.7	2.5
	33	531266.0	1354845.0	0.0
	34	531075.5	1354783.8	0.0
	35	531063.8	1354780.1	0.0
	36	531045.8	1354774.3	6.0
	37	531033.3	1354827.1	6.0
8' HIGH IMPASSE NON-RATED ORNAMENTAL FENCE	38	530846.1	1354723.0	50.0
	39	530837.3	1354691.9	33.0
	40	530891.5	1354495.6	34.4
	41	530953.0	1354360.7	26.5
	42	530874.1	1354291.6	14.5
	43	530959.6	1354206.6	13.4
	44	530900.0	1354263.2	12.8
	45	530886.4	1354277.9	10.0
	46	530854.5	1354274.0	7.5
8' HIGH IMPASSE NON-RATED ORNAMENTAL FENCE	47	530802.1	1354227.0	20.0
	48	530771.7	1354223.7	12.3
	49	530720.0	1354255.0	2.0
	50	530615.3	1354318.4	2.0
	51	530308.5	1354367.5	2.0
	52	530158.1	1354404.4	4.7
	53	530119.6	1354450.4	13.0
	54	530090.6	1354444.4	31.4
	55	530001.4	1354372.7	40.2
8' HIGH IMPASSE NON-RATED ORNAMENTAL FENCE	56	529952.2	1354311.7	29.6
	57	529912.6	1354238.4	28.6
	58	529892.6	1354166.4	31.3
	59	529903.4	1354111.0	51.6
	60	529912.9	1354100.1	46.3
	61	529920.8	1354091.1	36.4
	62	530016.4	1353981.6	0.0
	63	530042.7	1353942.5	14.2
	64	530141.4	1353828.3	2.2
8' HIGH CHAIN LINK FENCE WITH 1' DOUBLE OUTRIGGER	65	530275.8	1353737.0	1.9
	66	530286.0	1353726.9	4.4
	67	531084.8	1353977.6	3.7
	68	531089.6	1353984.8	0.0
	69	531092.0	1353988.4	0.0
	70	531164.5	1354095.9	0.9
	71	531443.9	1353905.8	0.9
	72	531440.2	1353802.7	0.0
	73	531508.5	1353124.3	0.0
8' HIGH CHAIN LINK FENCE WITH 1' DOUBLE OUTRIGGER	74	531518.5	1353126.4	10.2
	75	531540.6	1353131.8	7.0
	76	531605.3	1353145.4	6.4
	77	532012.6	1353378.9	5.7
	78	532035.8	1353407.9	10.0
	79	532070.3	1353434.3	4.4
	80	532140.6	1353488.1	4.7
	81	532155.9	1353492.3	1.1
	82	532160.1	1353493.5	2.7
8' HIGH IMPASSE NON-RATED ORNAMENTAL FENCE	83	532181.5	1353499.4	7.9
	84	532187.4	1353492.6	8.5

US Army Corps of Engineers
 Baltimore District
 REAL PROPERTY SERVICES
 FIELD OFFICE
 ANNAPOLIS JUNCTION, MARYLAND
JACOBS
 1100 N. GLEBE RD., ARLINGTON, VA, 22201

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Rev.	Description	Date	Drawn	Appr.
1	NEW SHEET ADDED FOR REVISION #1			

AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
 ROBERT CROWLEY
 45292
 Date: SEPTEMBER 19, 2014
 Project No. 31435
 Drawn by: M. WERBER
 RSED Project Manager: AMY YALE
 Submitted by: NATHAN JAMES
 PROJECT MANAGER

AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
 ROBERT CROWLEY
 45292

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
 Chief, Division of Land Development
 Chief, Development Engineering Division
 Director

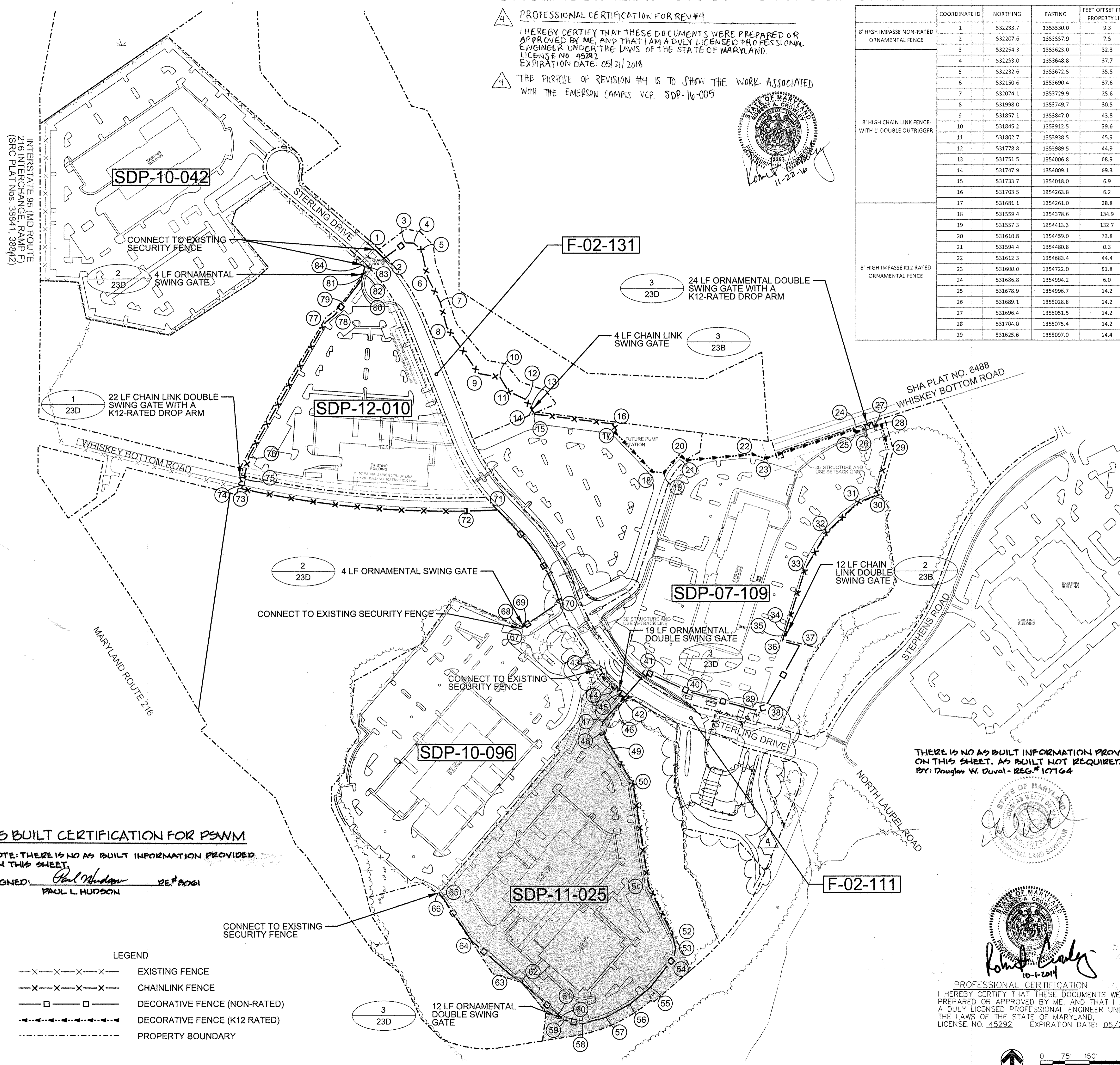
Date	No.	Revision Description
9/22/14	4	EMERSON CAMPUS VCP

**EMERSON PARCEL G-1
 REVITZ PROPERTY**
 5-STORY COMMERCIAL OFFICE BUILDING
 OWNER DEVELOPER:
 EMERSON DEVELOPMENT VI LLC
 1 TEXAS STATION COURT, SUITE 200
 TIMONIUM, MARYLAND 21093-8288
 (443) 689-8000

Subdivision Name	Section Area	Lot Parcel #
REVITZ PROPERTY	LOT G-1	PAR. 165

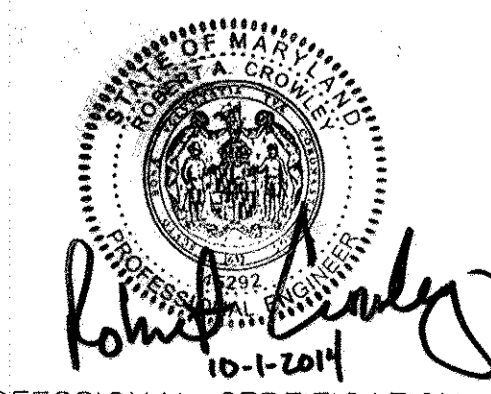
Des. By	Scale	Proj. No.
Drn. By	1"=150'	95054.3
Chk. By	Date 09-12-14	

EMERSON - CAMPUS FENCE
 FENCE LAYOUT PLAN
 ROOM(S) OR FLOOR
 LAUREL, MD
 Drawing No. 2223A
 Sheet of 100
 SDP-II-025



AS BUILT CERTIFICATION FOR PSWM
 NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET
 SIGNED: Paul L. Hudson
 RE: 20061

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED.
 BY: Douglas W. Duval - REG.# 10764



UNCLASSIFIED//FOR OFFICIAL USE ONLY

END & CORNER POST TOP OPTIONS

STANDARD	FLAT

GATE POST

GATE LEAF WIDTH	GATE POST (OD)	FABRIC HEIGHT	"A" DIAM	"B" DEPTH	"C" POST EMBED.
3' TO 6'	2.875"	3' TO 5'	12"	38"	36"
		6' TO 9'	14"	42"	40"
		10' TO 12'	16"	46"	44"
7' TO 12'	4.000"	3' TO 5'	14"	38"	36"
		6' TO 9'	16"	42"	40"
		10' TO 12'	18"	46"	44"

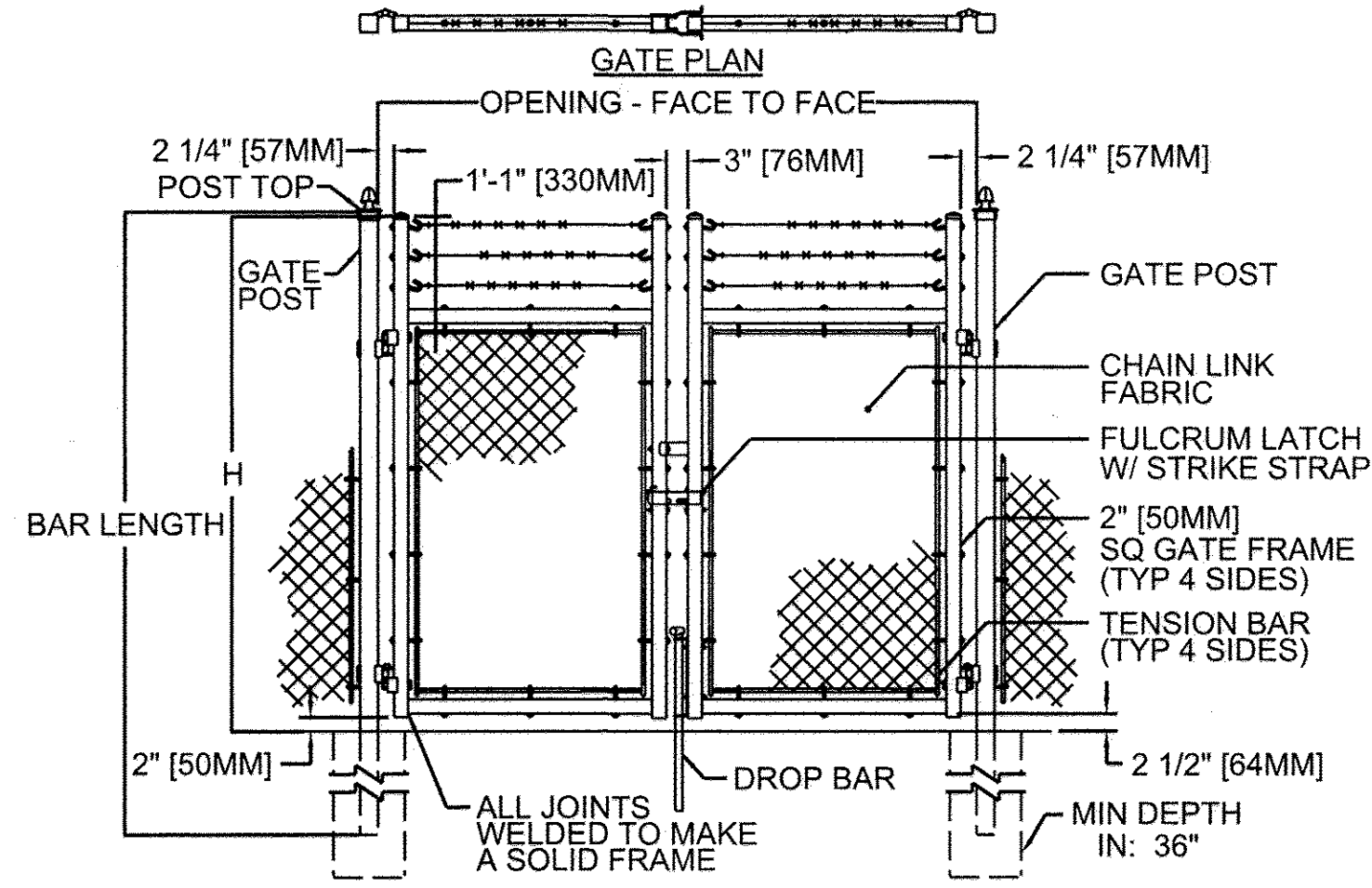
NOM HEIGHT (H)

8'-0" [2438MM]

OPENING (F/F)

24' [7315MM]

- NOTES:
1. METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
 2. SPECIFICATIONS SHOWN CAN BE CHANGED BY MASTER HALCO ONLY.
 3. FOOTING WIDTH TO BE (4)X POST WIDTH.
 4. GATES MAY BE MANUALLY OR ELECTRICALLY OPERATED. HARDWARE WILL VARY FOR ELECTRICALLY OPERATED GATES.



END & CORNER POST TOP OPTIONS

STANDARD	FLAT

GATE POST

GATE LEAF WIDTH	GATE POST (OD)	FABRIC HEIGHT	"A" DIAM	"B" DEPTH	"C" POST EMBED.
3' TO 6'	2.875"	3' TO 5'	12"	38"	36"
		6' TO 9'	14"	42"	40"
		10' TO 12'	16"	46"	44"

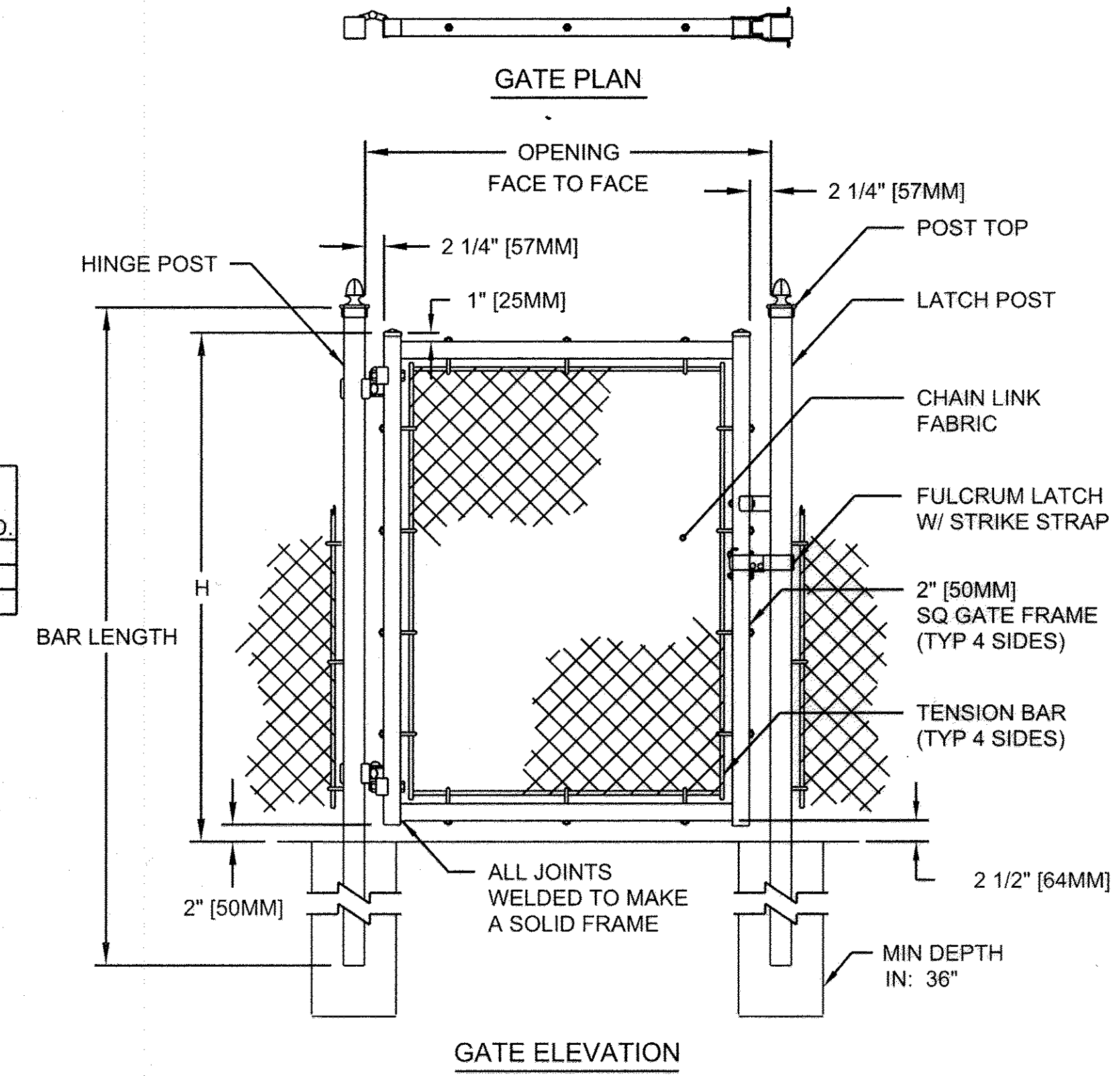
NOM HEIGHT (H)

8'-0" [2438MM]

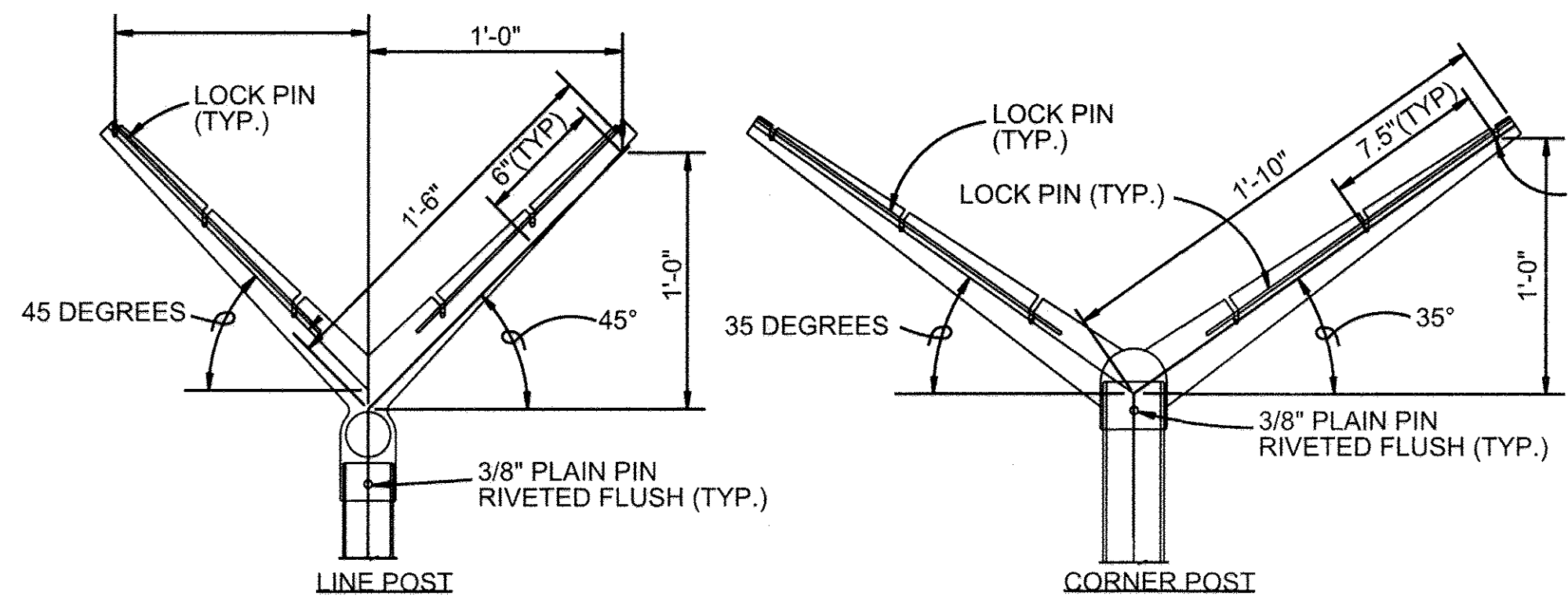
OPENING (F/F)

4'-0" [1219MM]

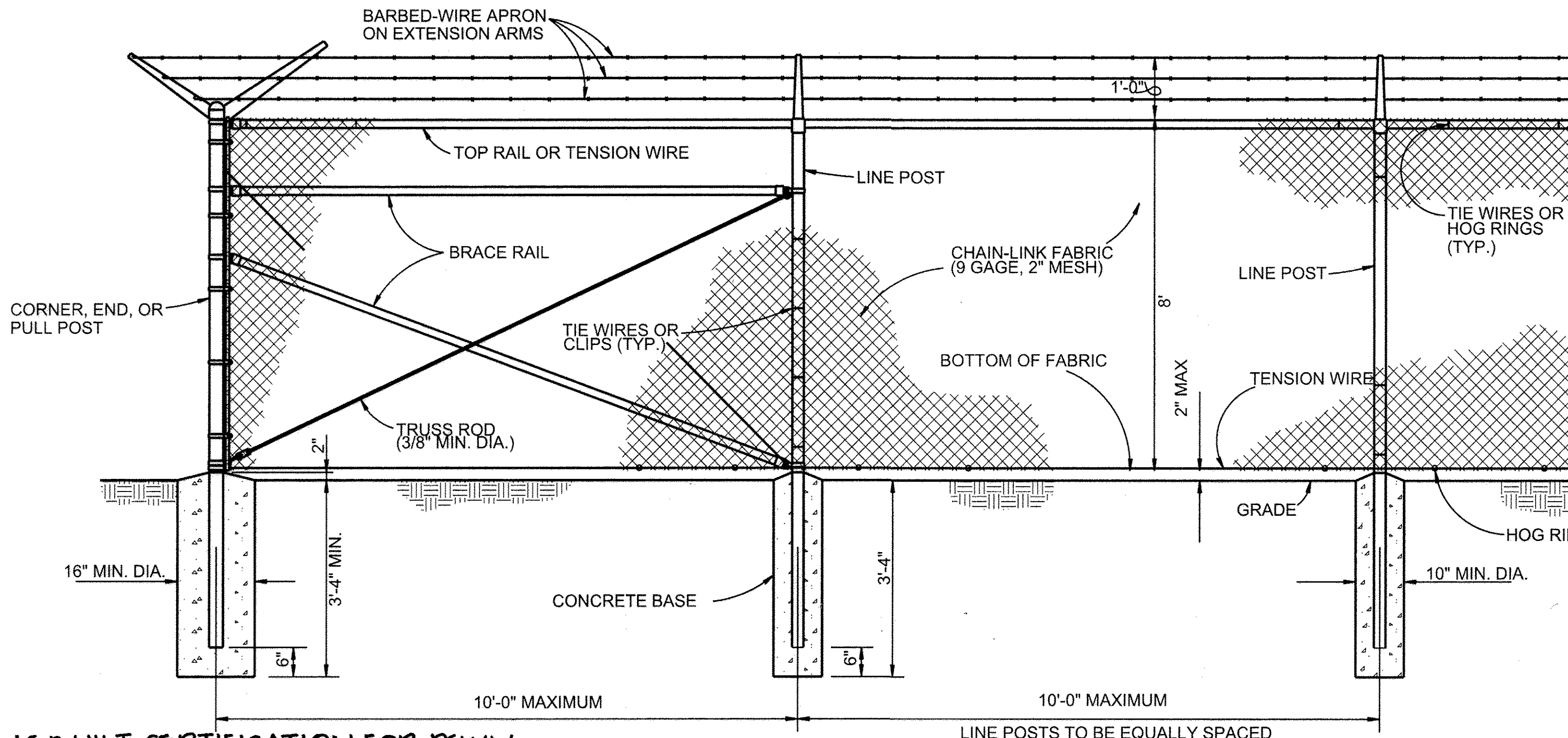
- NOTES:
1. METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
 2. SPECIFICATIONS SHOWN CAN BE CHANGED BY MASTER-HALCO ONLY.
 3. FOOTING WIDTH TO BE (4)X POST WIDTH.
 4. GATES MAY BE MANUALLY OR ELECTRICALLY OPERATED. HARDWARE WILL VARY FOR ELECTRICALLY OPERATED GATES.



2 SINGLE-LEAF DOUBLE SWING GATE
SCALE: NONE



3 SINGLE SWING GATE
SCALE: NONE



AS BUILT CERTIFICATION FOR PSWM

NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.

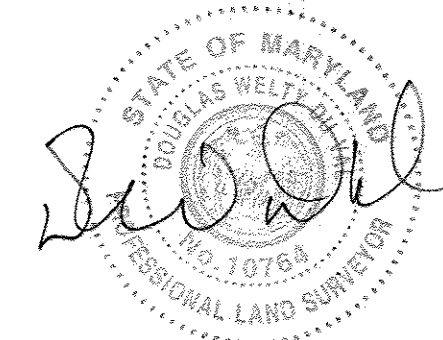
SIGNED: *Paul L. Hudson* P.E. #2061
PAUL L. HUDSON

1 CHAIN LINK SECURITY FENCE
SCALE: NONE

STEEL POST SCHEDULE

USE AND SECTION	MINIMUM OUTSIDE DIMENSIONS (NOMINAL)
FABRIC WIDTH 84" TO 96"	
CORNER, END & PULL POSTS	
TUBULAR - ROUND	2.875" O.D.
LINE POSTS	
TUBULAR - ROUND	2.375" O.D.
TOP, BOTTOM & BRACE RAILS	
TUBULAR - ROUND	1.66" O.D.

THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. AS BUILT NOT REQUIRED. DuVal and Associates, P.A. By: Douglas W. DuVal-REG.#10764



AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET. ROBERT CROWLEY, 45292



APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Chief, Division of Land Development	DATE: 10/15/14
Chief, Development Engineering Division	DATE: 10-10-14
Director	DATE: 10/27/14

EMERSON PARCEL G-1 REVITZ PROPERTY
5-STORY COMMERCIAL OFFICE BUILDING
OWNER DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

REVITZ PROPERTY	SECTION AREA	LOT PARCEL #
PLAT # 01/15/03	TAX ZONE WARELECT. DISTRICT	LOT G-1 / PAR. 165
WATER CODE 20	SEWER CODE 47	CENSUS TRACT 605903

TITLE: FENCE LAYOUT PLAN

Des. By	Scale 1"=150'	Proj. No. 95054.3
Drn. By	Date 09-12-14	
Chk. By	Approved	

US Army Corps of Engineers
Baltimore District

REAL PROPERTY SERVICES
FIELD OFFICE
ANNAPOLIS JUNCTION, MARYLAND

JACOBS
1100 N. GLEBE RD., ARLINGTON, VA, 22201

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Rev.	Date	Description
1	10/17/14	NEW SHEET ADDED FOR RESUBMITAL

Designed by: M. WEBBER
Drawn by: M. WEBBER
Submitted by: AMY YALE
Checked by: NATHAN JAMES
Project Manager

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Chief, Division of Land Development
Chief, Development Engineering Division
Director

EMERSON - CAMPUS FENCE
SITING DETAILS
ROOM(S) OR FLOOR
LAUREL, MD

Drawing No.
Sheet Reference No. 23B
Sheet of 25

SDP-11-025

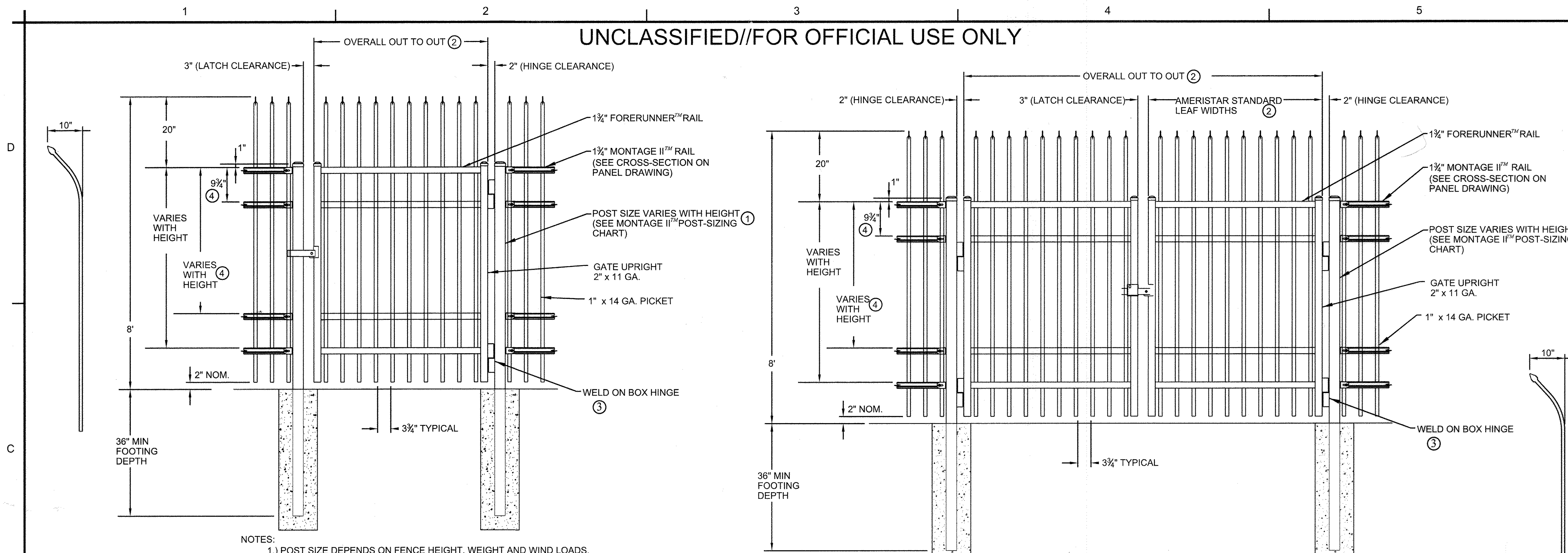
THE INFORMATION PROVIDED HEREIN IS THE PROPERTY OF THE U.S. ARMY CORPS OF ENGINEERS. IT IS TO BE USED FOR THE PURPOSES STATED IN THE ACCOMPANYING DOCUMENT. THE DISTRIBUTION OF THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS RESTRICTED TO THE PERSONNEL OF THE U.S. ARMY CORPS OF ENGINEERS AND TO SUCH OTHER PERSONNEL AS ARE AUTHORIZED BY THE U.S. ARMY CORPS OF ENGINEERS. IT IS STRICTLY PROHIBITED TO REPRODUCE OR DISSEMINATE THIS INFORMATION IN ANY MANNER WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE U.S. ARMY CORPS OF ENGINEERS. VIOLATION OF THIS PROHIBITION WILL BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW.

1	NEW SHEET ADDED FOR REVISION #1	REVISION #1	DATE
2			
3			
4			
5			

DESIGNED BY	M. WARDER	DATE	SEPTEMBER 19, 2014
CHECKED BY	M. WARDER	PROJECT NO.	31435
ISSUED BY	AMY YALE	FILE NAME	AS SHOWN
SUBMITTED BY		PER SCALE	
PROJECT MANAGER			

EMERSON - CAMPUS FENCE	LAUREL, MD
SITE DETAILS	
ROOM(S) OR FLOOR	

Drawing No.	
Sheet Reference No.	25-280
Sheet	of 45



- NOTES:
- 1.) POST SIZE DEPENDS ON FENCE HEIGHT, WEIGHT AND WIND LOADS. SEE MONTAGE II SPECIFICATIONS FOR POST SIZING CHART.
 - 2.) SEE AMERISTAR GATE TABLE FOR STANDARD OUT TO OUTS. CUSTOM GATE OPENINGS AVAILABLE FOR SPECIAL OUT TO OUT/LEAF WIDTHS.
 - 3.) ADDITIONAL STYLES OF GATE HARDWARE ARE AVAILABLE ON REQUEST. THIS COULD CHANGE THE LATCH & HINGE CLEARANCE.
 - 4.) THIRD & FORTH RAIL OPTIONAL.

- NOTES:
- 1.) POST SIZE DEPENDS ON FENCE HEIGHT, WEIGHT AND WIND LOADS. SEE MONTAGE II SPECIFICATIONS FOR POST SIZING CHART.
 - 2.) SEE AMERISTAR GATE TABLE FOR STANDARD OUT TO OUTS. CUSTOM GATE OPENINGS AVAILABLE FOR SPECIAL OUT TO OUT/LEAF WIDTHS.
 - 3.) ADDITIONAL STYLES OF GATE HARDWARE ARE AVAILABLE ON REQUEST. THIS COULD CHANGE THE LATCH AND HINGE CLEARANCE.
 - 4.) THIRD AND FOURTH RAIL OPTIONAL.
 - 5.) CONTRACTOR SHALL SAND DOWN END OF SCREWS ON HASPS AS NEEDED TO WELD HASP TO GATE.

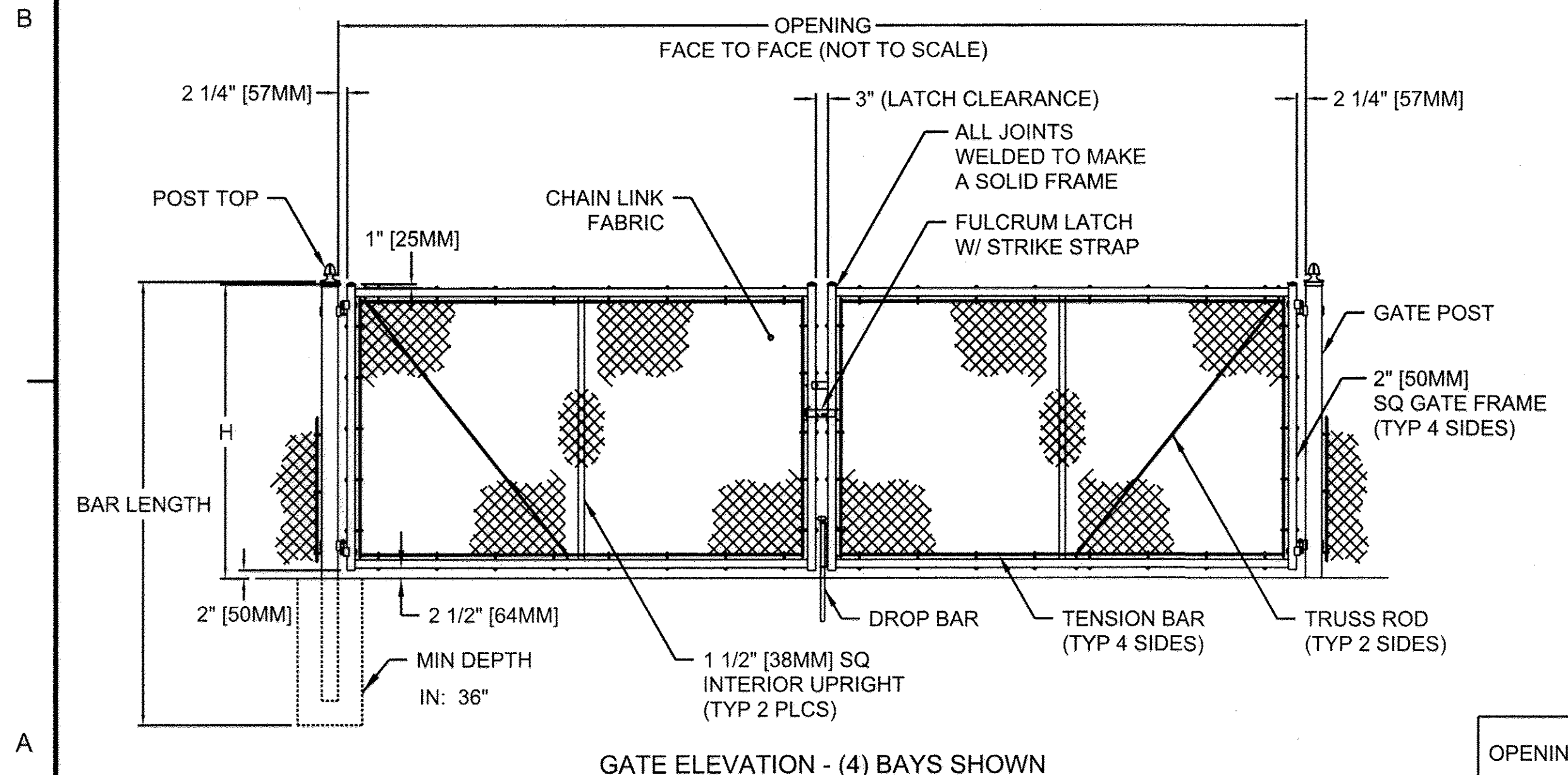
2 AMERISTAR MONTAGE II ORNAMENTAL INVINCIBLE SINGLE SWING GATE

SCALE: NONE
DETAIL IS BASE DESIGN. CONCRATOR MAY USE EQUIVALENT PRODUCT THAT MEETS PROJECT REQUIREMENTS AND SPECIFICATIONS AND AS APPROVED BY THE COR.



3 AMERISTAR MONTAGE II ORNAMENTAL INVINCIBLE DOUBLE SWING GATE

SCALE: NONE
DETAIL IS BASE DESIGN. CONCRATOR MAY USE EQUIVALENT PRODUCT THAT MEETS PROJECT REQUIREMENTS AND SPECIFICATIONS AND AS APPROVED BY THE COR.



- NOTES:
1. METRIC DIMENSIONS ARE NOMINAL EQUIVALENTS TO U.S. DIMENSIONS.
 2. SPECIFICATIONS SHOWN CAN BE CHANGED BY MASTER-HALCO ONLY.
 3. FOOTING WIDTH TO BE (4)x POST WIDTH.
 4. GATES MAY BE MANUALLY OR ELECTRICALLY OPERATED. HARDWARE WILL VARY FOR ELECTRICALLY OPERATED GATES.

NOM HEIGHT (H)	8'-0" [2438MM]
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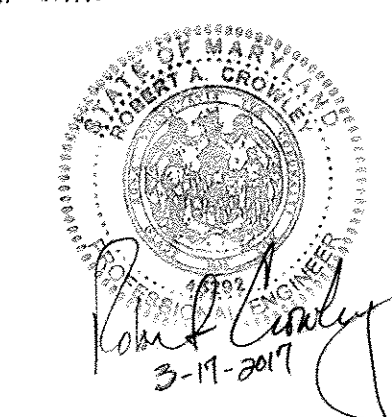
BAYS	OPENING (F/F)
4	20'-0" [6096MM]
4	22'-0" [6706MM]
4	24'-0" [7315MM]

END & CORNER POST TOP OPTIONS	
STANDARD	FLAT

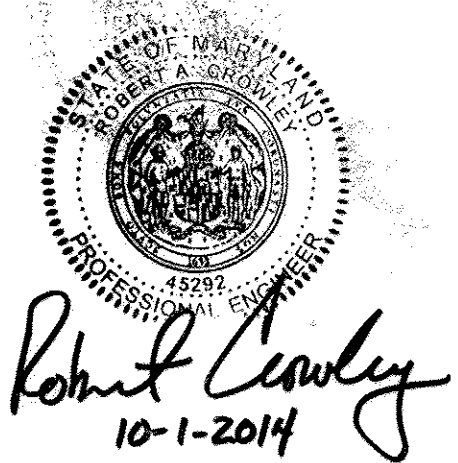
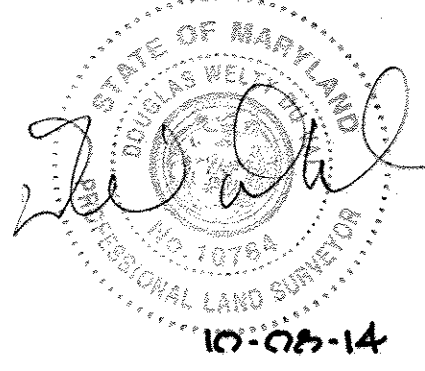
OPENING	GATE POST (OD)	FABRIC HEIGHT	"A" DIAM	"B" DEPTH	"C" POST EMBED.
14' TO 24'	4"	3' TO 5'	12"	38"	36"
		6' TO 9'	14"	42"	40"
		10' TO 12'	16"	46"	44"

AS BUILT CERTIFICATION FOR PSWM
NOTE: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
SIGNED: *Paul L. Hudson* RE: 2004
PAUL L. HUDSON

AS BUILT CERTIFICATION FOR PSWM:
THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
ROBERT CROWLEY
45292



THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
AS BUILT NOT REQUIRED.
DuVal and Associates, P.A.
By: Douglas W. DuVal - REG.# 10764



APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING	DATE	10/15/14
<i>Robert Crowley</i> CHIEF, DIVISION OF LAND DEVELOPMENT	DATE	10-10-14
<i>Paul L. Hudson</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE	10/15/14
<i>Robert Crowley</i> DIRECTOR	DATE	10/15/14

EMERSON PARCEL G-1
REVITZ PROPERTY
5-STORY COMMERCIAL OFFICE BUILDING
OWNER DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

REVITZ PROPERTY	SECTION AREA	LOT / PARCEL #
20 PEC	47	G-1 / PAR. 165
WATER CODE	SEWER CODE	CENSUS TRACT
		606903

TITLE: **FENCE LAYOUT PLAN**

Des. By	Scale 1" = 150'	Proj. No. 95054.3
Drn. By	Date 09-12-14	
Chk. By	Approved	

1 DOUBLE-LEAF DOUBLE SWING GATE

SCALE: NONE

AS-BUILT

THIS CERTIFICATE OF RECORD HAS BEEN PREPARED DEFINING TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF THAT THE SEWER SYSTEM SHOWN HEREON HAS BEEN ESSENTIALLY CONSTRUCTED IN A MANNER THAT WOULD BE CONSISTENT WITH THESE APPROVED PLANS EXCEPT AS NOTED IN RED.

TIMOTHY J. M. TUN
PROFESSIONAL LAND SURVEYOR #110989
EXPIRATION DATE: AUGUST 3, 2018

US Army Corps of Engineers
Baltimore District

REAL PROPERTY SERVICES
FIELD OFFICE
ANNAPOLIS JUNCTION, MARYLAND

JACOBS
1100N GLEBE RD., ARLINGTON, VA 22201



AS BUILT CERTIFICATION FOR PSWM:
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE AS BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SNM FACILITY.
ROBERT CROWLEY
46292

THE PURPOSE OF REDLINE REVISION #3 IS TO ADD NEW SHEET TO SDP DOCUMENTS.



ENGINEER'S SEAL BOX FOR REDLINE REVISION #3 ONLY

JACOBS

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 45292 EXPIRATION DATE: 05/21/2018

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Kurt Schuler
CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 7-21-16

Chad Schuler
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 7-19-16

William J. Griffin
DIRECTOR DATE: 7-25-16

Date	No.	Revision Description

**EMERSON PARCEL G-1
REVITZ PROPERTY**

5-STORY COMMERCIAL OFFICE BUILDING
OWNER DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

REVITZ PROPERTY	SECTION AREA	LOT PARCEL # / PAR. 165
PLAT # 0917	BLOCK # 20	TAX ZONE, MARSHLET DISTRICT 6
WATER CODE 20	SEWER CODE 47	CENSUS TRACT 606903

Des. By	AEW	Scale	AS SHOWN	Proj. No.	95054.3
Dwn. By	AEW	Date	06-16-2016		
Chk. By	RAC	Approved			

Rev.	Date	Description	Mark	Appr.

Designed by:	M. WEBBER	Checked by:	R. CROWLEY
Date:	MAY 2, 2016	Project No.:	31435
Drawn by:	M. WEBBER	ASCO Project Manager:	SANDRA TUCKER
File name:		Plot date:	1-40
Plot scale:		Project Manager:	NATHAN JAMES

EMERSON 6 - TENANT IMPROVEMENT

UTILITY PROFILES

ROOM(S) OR FLOOR

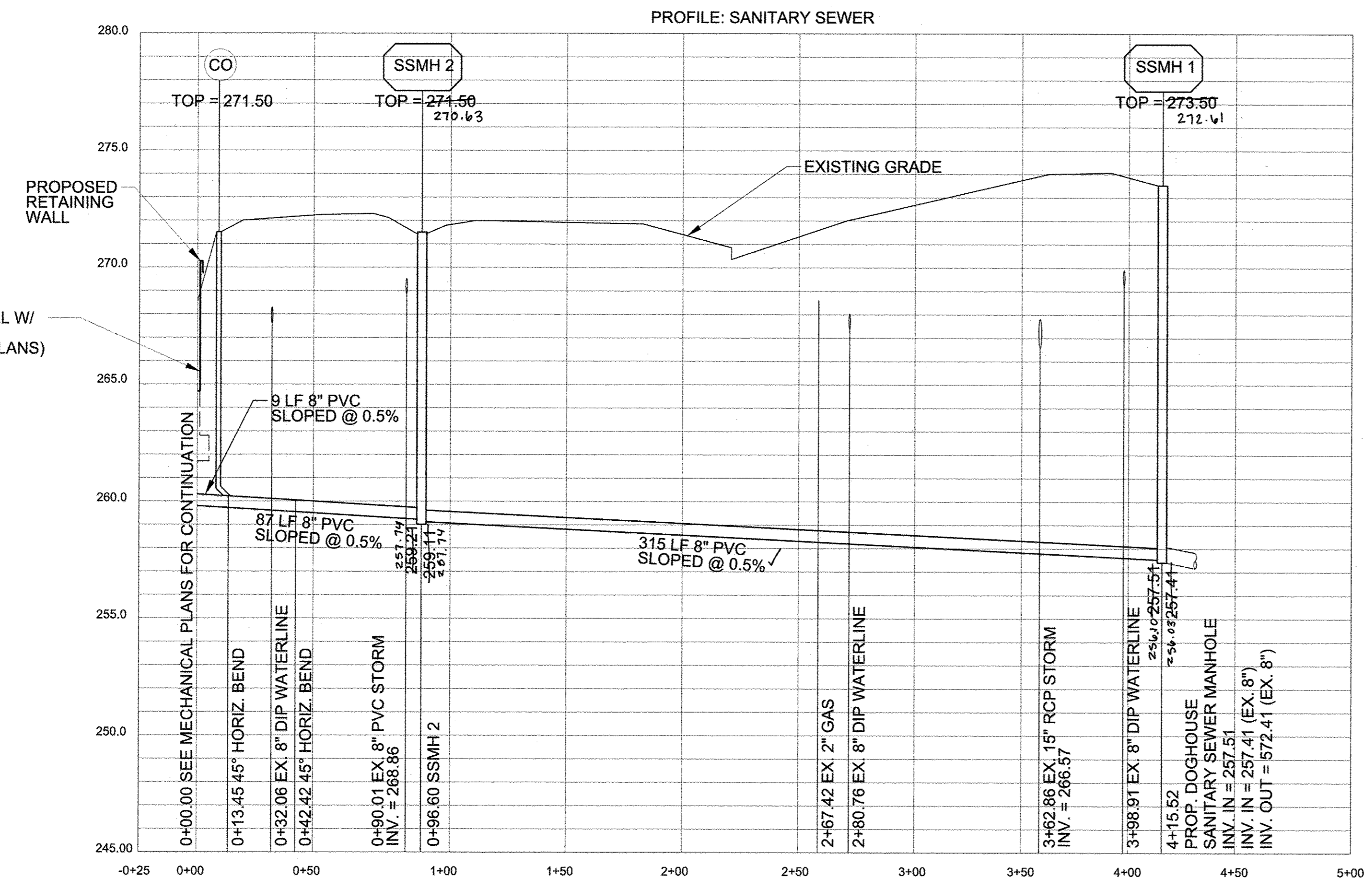
LAUREL, MD

Drawing No.

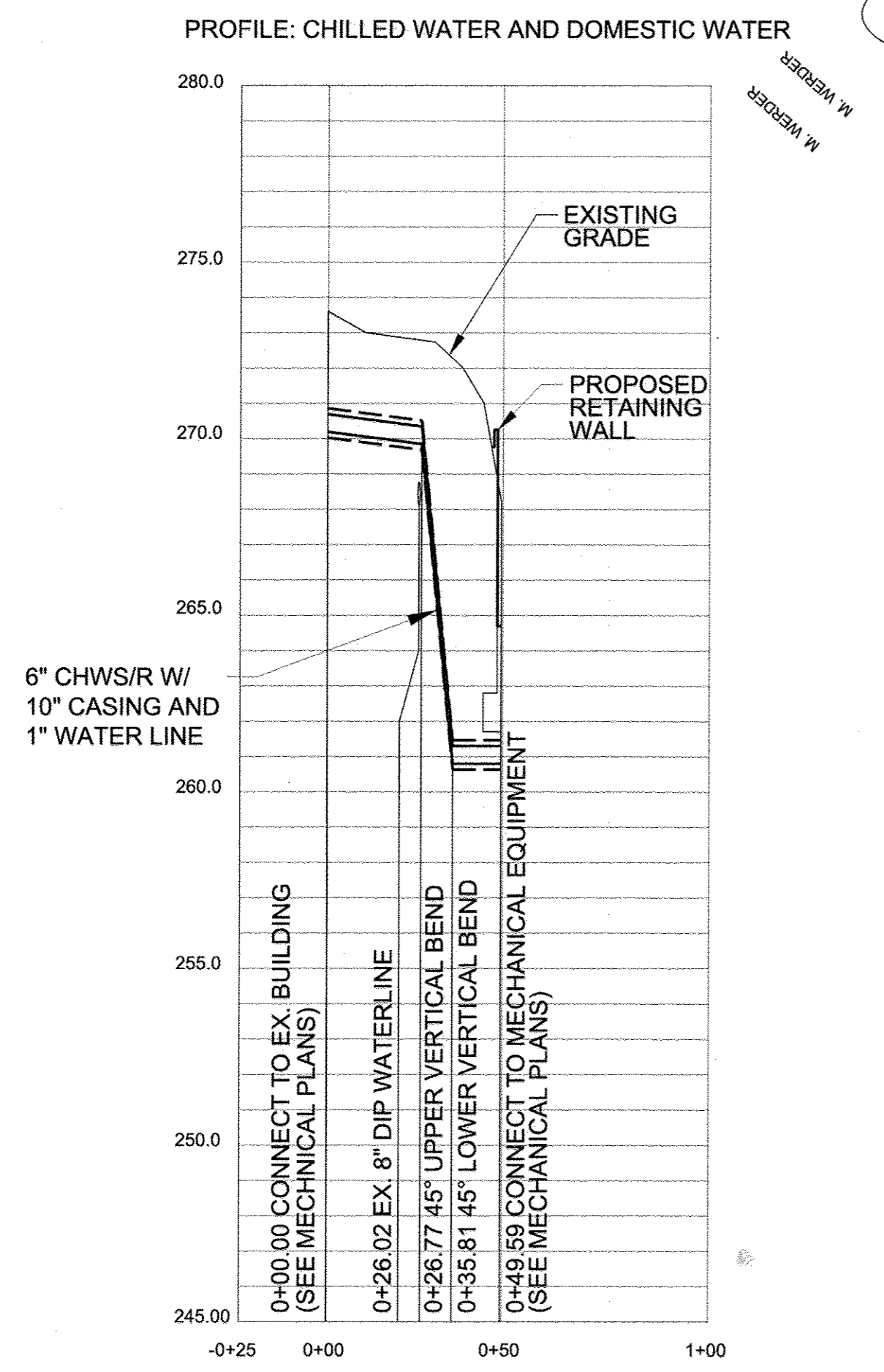
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26

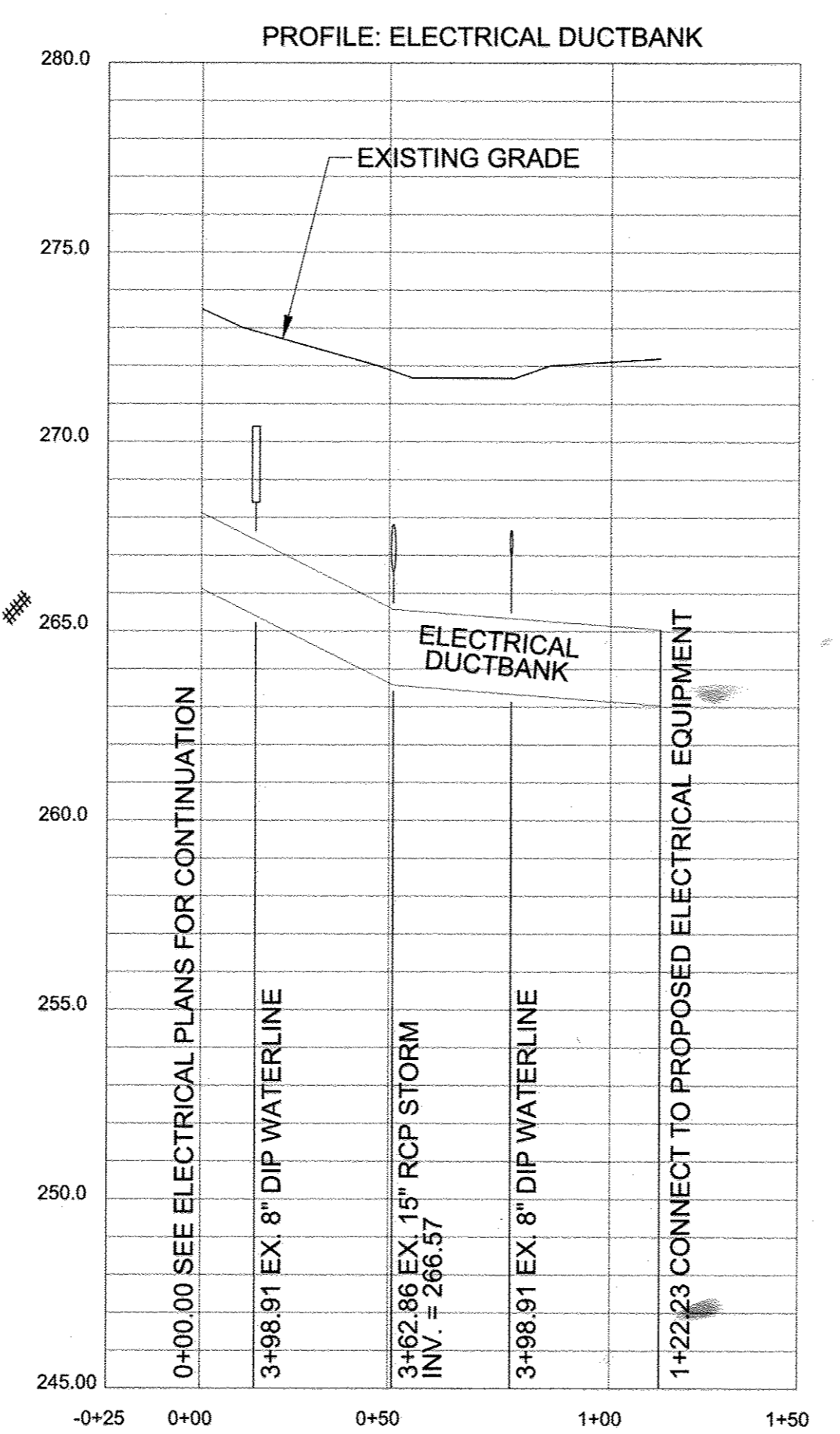
Sheet 26 of 31



1 SANITARY SEWER PROFILE
SCALE: NONE



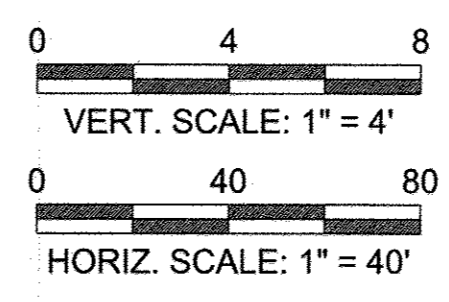
3 CHILLED WATER SERVICE/RETURN AND DOMESTIC WATER PROFILE
SCALE: NONE

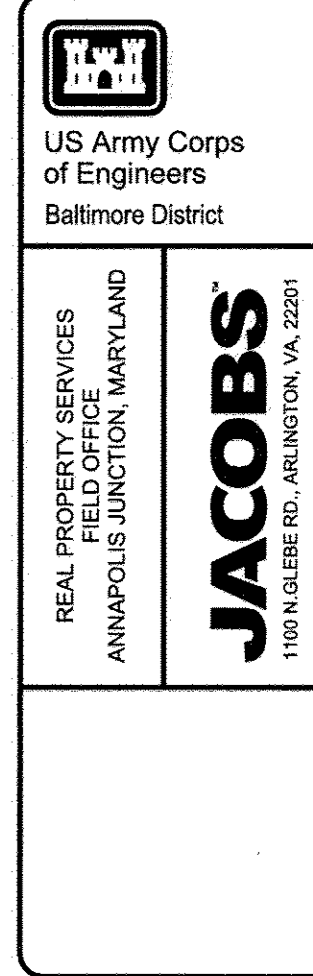


4 ELECTRICAL DUCTBANK PROFILE
SCALE: NONE

- GENERAL UTILITY NOTES:
- FOR DETAILS NOT SHOWN ON THE DRAWING, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES.
 - THE CONTRACTOR SHALL NOTIFY ALL UTILITIES AND AGENCIES AND MISS UTILITY AT LEAST TWO (2) WORKING DAYS BEFORE STARTING WORK SHOWN ON THE PLANS.
 - EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - EXCAVATIONS MUST BE SUPPORTED FOR THE PROTECTION OF WORKERS. THE CONSTRUCTION WORK AREA AND ADJACENT PROPERTY. REFER TO TEMPORARY EXCAVATIONS SUPPORT SYSTEMS UNDER SECTION 1000.03.03 OF THE STANDARD SPECIFICATIONS.
 - EXCAVATIONS MUST BE KEPT WELL DRAINED AT ALL TIMES. DEWATERING, DRAINAGE, AND PUMPING IS REQUIRED DURING CONSTRUCTION. REFER TO DEWATERING, DRAINAGE AND PUMPING UNDER SECTION 1000.03.03 OF THE STANDARD SPECIFICATIONS. PUMPS MUST BE THE PROPER TYPE AND CAPACITY TO MAINTAIN A DRY WORK AREA.
 - THE USE OF STEEL PLATES TO PROTECT THE TRENCH AND ROADWAY SHALL BE AS SPECIFIED UNDER SECTION 1000.03.05, SECTION 104 AND STANDARD DETAIL PLATE G-4.02 OF THE STANDARD SPECIFICATIONS.
 - TEMPORARY REPAIR OF ROADWAY OPENINGS SHALL BE AS SPECIFIED UNDER SECTION 1000.03.08 AND STANDARD DETAIL PLATE G-4.01 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE SPECIFIED BY PERMIT FROM THE AUTHORITY HAVING JURISDICTION.

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 45292 EXPIRATION DATE: 05/21/2016





REAL PROPERTY SERVICES
FIELD OFFICE
ANNAPOLIS JUNCTION, MARYLAND
JACOBS
1100 N. GLEBE RD., ARLINGTON, VA 22201

Rev.	Date	Description
1	05/2016	100% BACKCHECK

Rev.	Date	Description
1	MAY 6, 2016	PROJECT NO. 31435
1		FILE NAME: SANDRA TUCKER
1		FILE NO. 7-25-16

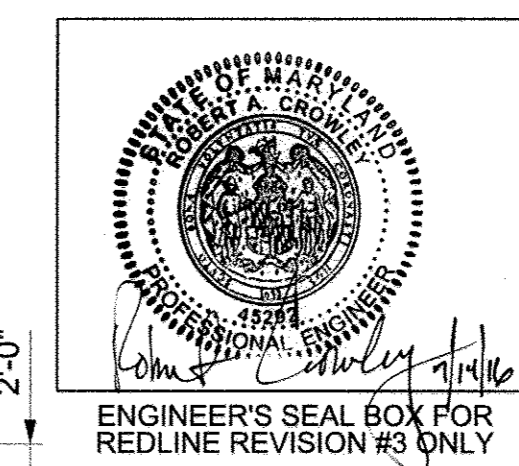
EMERSON 6 - TENANT IMPROVEMENT
ROOM(S) OR FLOOR
LAUREL, MD

Drawing No.
Sheet Reference No.
27
Sheet 27 of 31

KEYED NOTES

- ① W8 X 18 COLUMN (PT-10), TYP.
- ② 16 GA GALV BEAM 'Z' CLIP (PT-10), TYP.
- ③ 16 GA GALV BEAM BACK 'Z' CLIP (PT-10), TYP.
- ④ NOT USED.
- ⑤ NOT USED.
- ⑥ FIELD WELD TYP ALL Z'S TO COLUMNS
- ⑦ ACUSTIC BARRIER/ABSORPTION WALL PANEL (BASIS OF DESIGN - VIBRO-ACUSTICS, PT-10)
- ⑧ NOT USED.
- ⑨ NOT USED.
- ⑩ EMBEDDED BASE PLATE
- ⑪ NOT USED.
- ⑫ NOT USED.
- ⑬ NOT USED.
- ⑭ CONC. WALL SEE STRUCTURAL DRAWINGS (TDPC-1)
- ⑮ CONC. WALL BEYOND (TDPC-1)
- ⑯ 2 1/2" X 3/4" DEEP REVEAL, TYP.
- ⑰ REVEAL BEYOND
- ⑱ SLOPE TO DRAIN 1/2" PER FOOT, TYP.
- ⑲ CONT. CHAMFER
- ⑳ FINISHED GRADE - SEE CIVIL
- ㉑ MATCH CONCRETE REVEALS TO ADJACENT EXISTING CONCRETE PARKING GARAGE REVEALS, TYP.
- ㉒ (2) 3'-0" X 8'-0" MATCHING DOORS BY WALL PANEL MANUFACTURER. DOOR CLOSERS MOUNTED ON INTERIOR.
- ㉓ EXISTING CONCRETE PARKING GARAGE.
- ㉔ CROSS BRACING, SEE STRUCTURAL.
- ㉕ ACUSTIC LOUVERS, TYPE L2.
- ㉖ HORIZONTAL PANEL SUPPORT, PT-10.
- ㉗ W8 X 18 (PARTIAL) COLUMN WELDED TO EMBEDDED STEEL PLATE TYP., PT-10. SEE STRUCTURAL.

THE PURPOSE OF REDLINE REVISION #3 IS TO ADD NEW PLAN SHEET TO SDP SET.



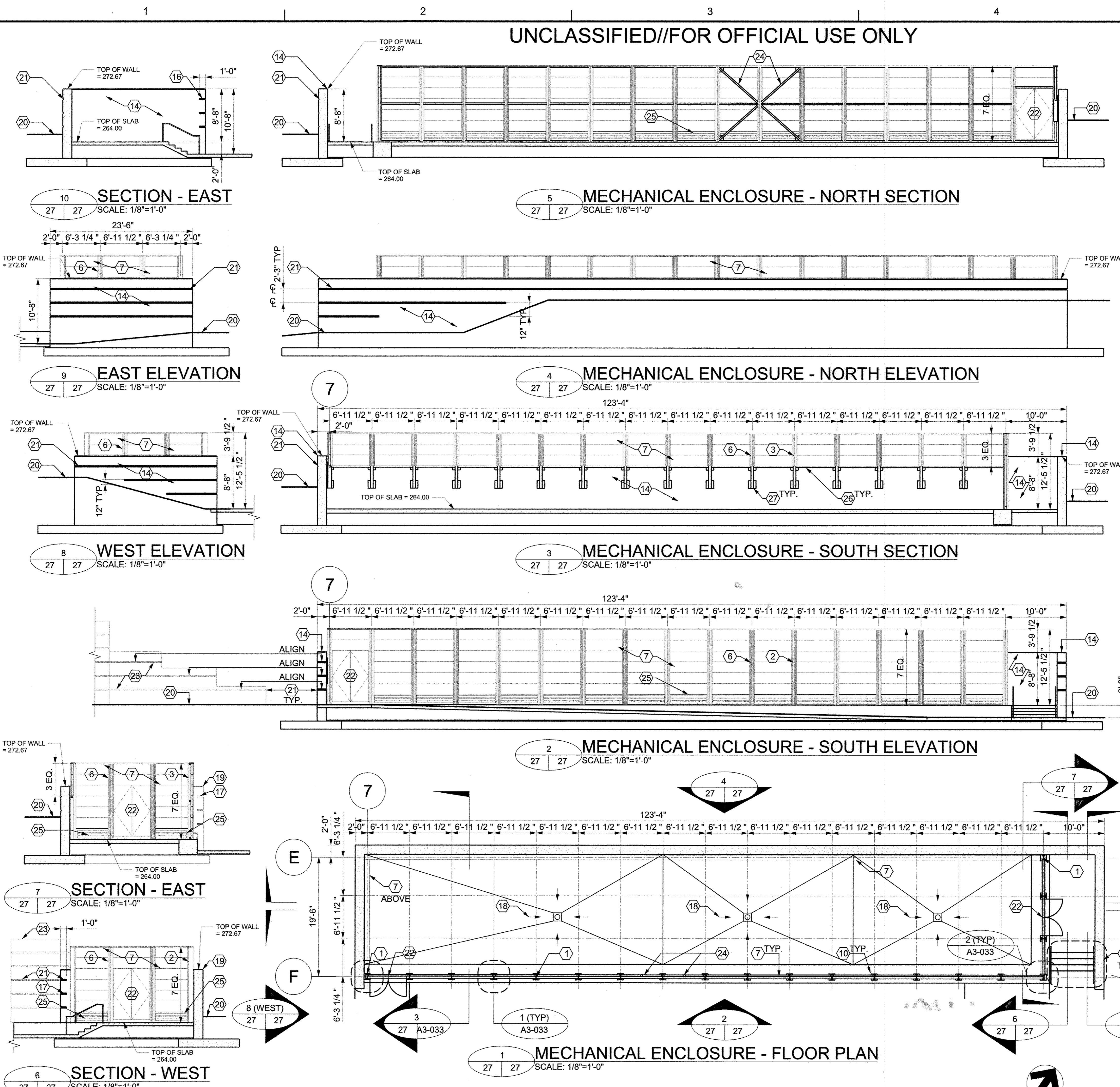
AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
ROBERT CROWLEY, 45292

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
CHIEF DIVISION OF LAND DEVELOPMENT
DATE: 7-21-16
CHIEF DIVISION OF ENGINEERING DIVISION
DIRECTOR: NATHAN JAMES
DATE: 7-25-16

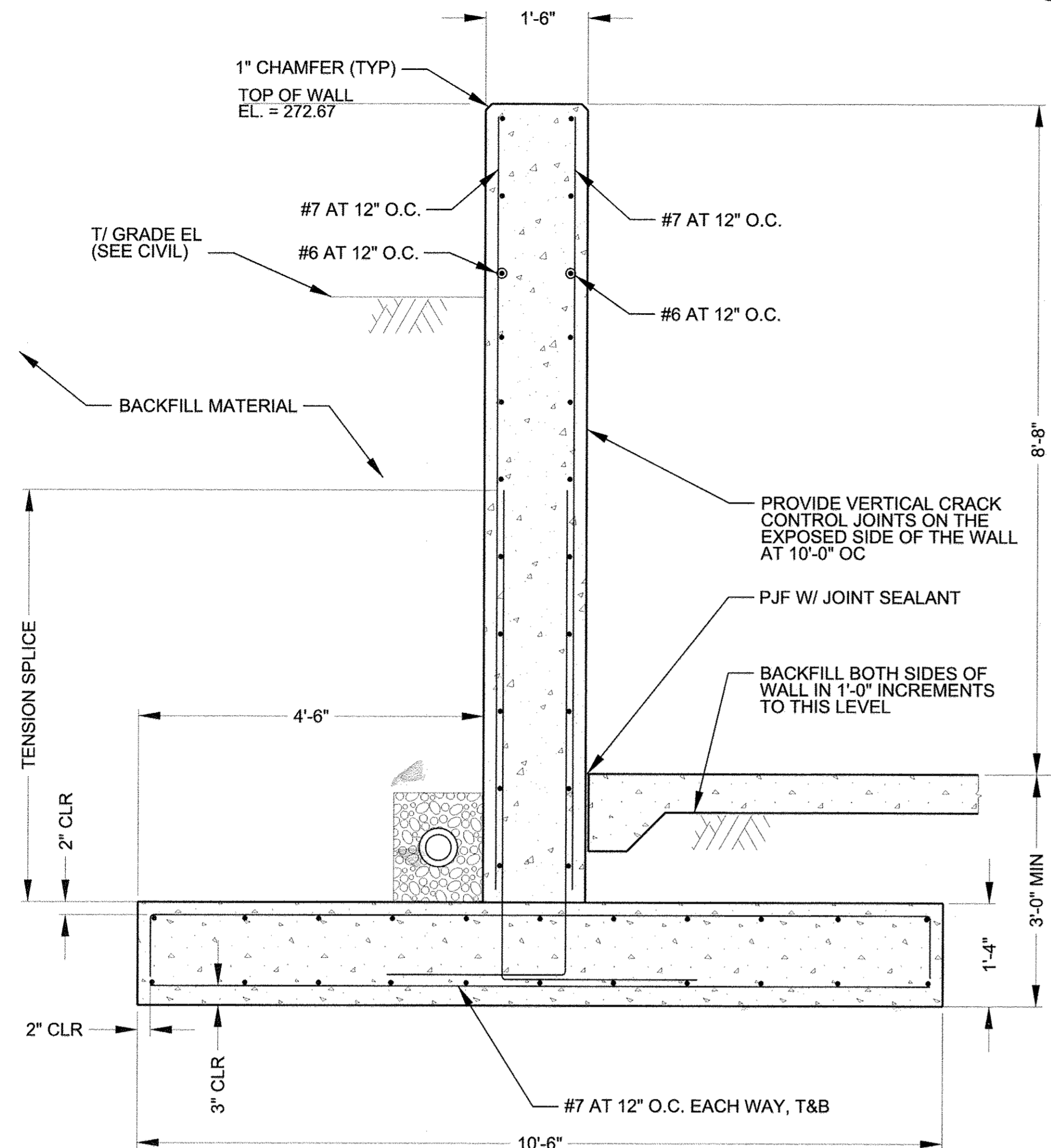
EMERSON PARCEL G-1
REVITZ PROPERTY
5-STORY COMMERCIAL OFFICE BUILDING
OWNER DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

REVITZ PROPERTY	SECTION AREA	LOT 6-1 / PAR. 1B5
20	47	606903

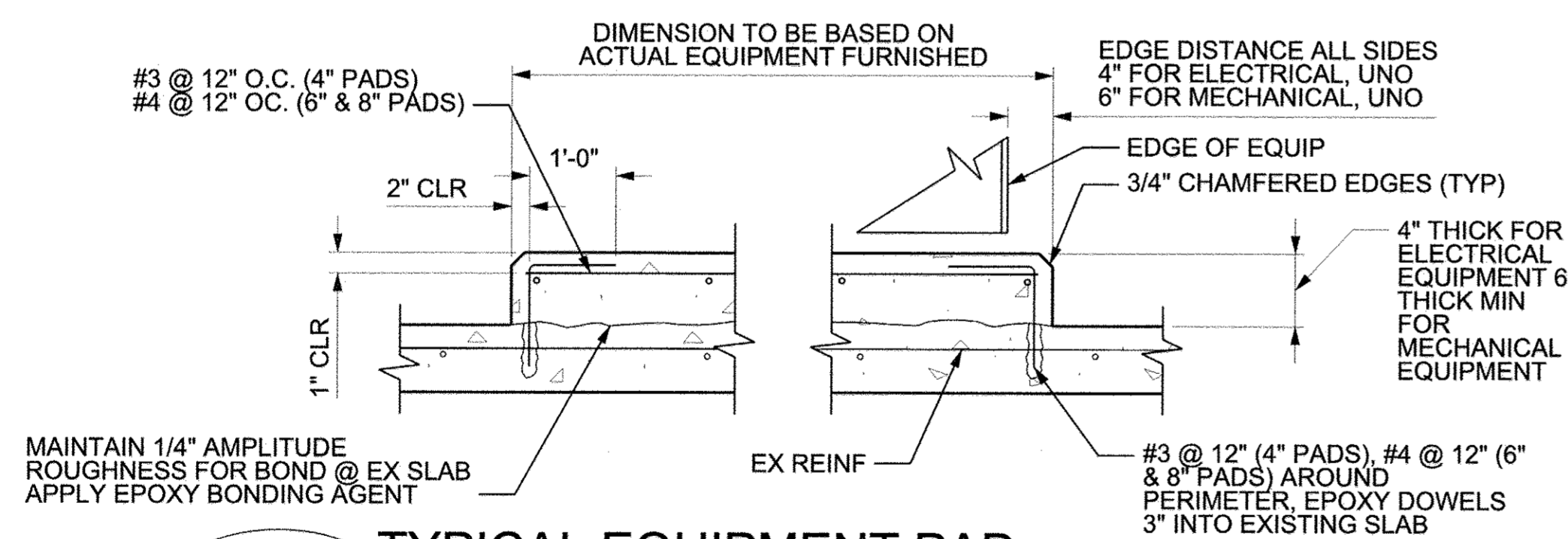
Des. By: AEW
Dwn. By: AEW
Chk. By: RAC
Scale AS SHOWN
Date 07-14-2016
Proj. No. 95054.3
Approved



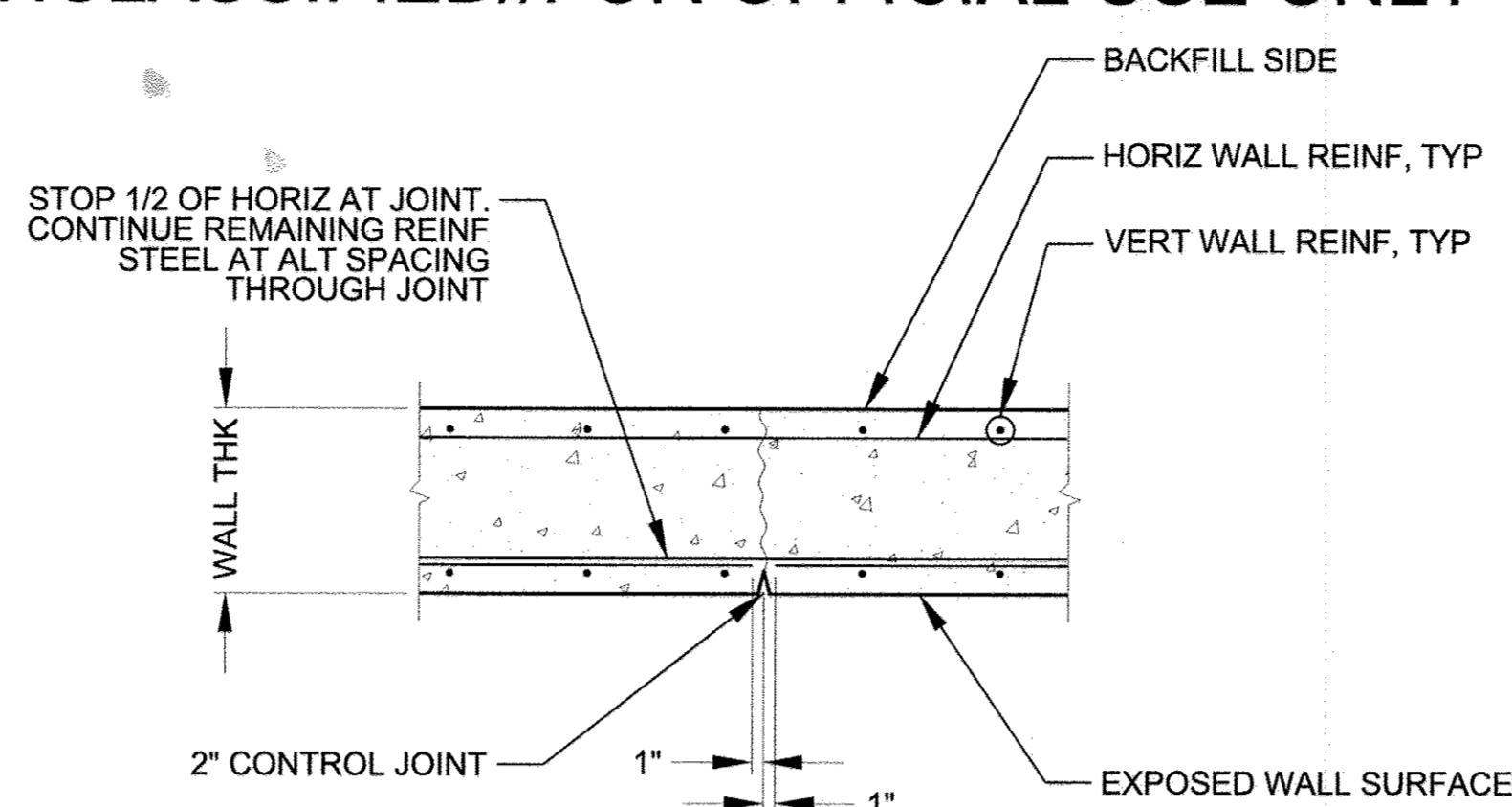
D
C
B
A



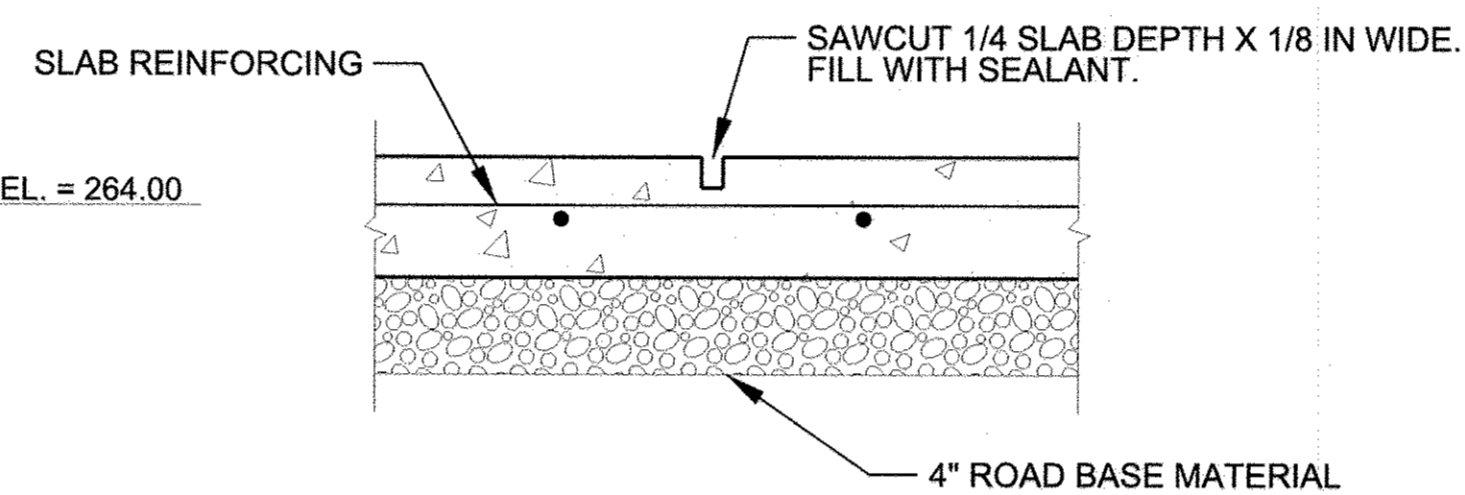
4 RETAINING WALL SECTION
SCALE: 3/4"=1'-0"



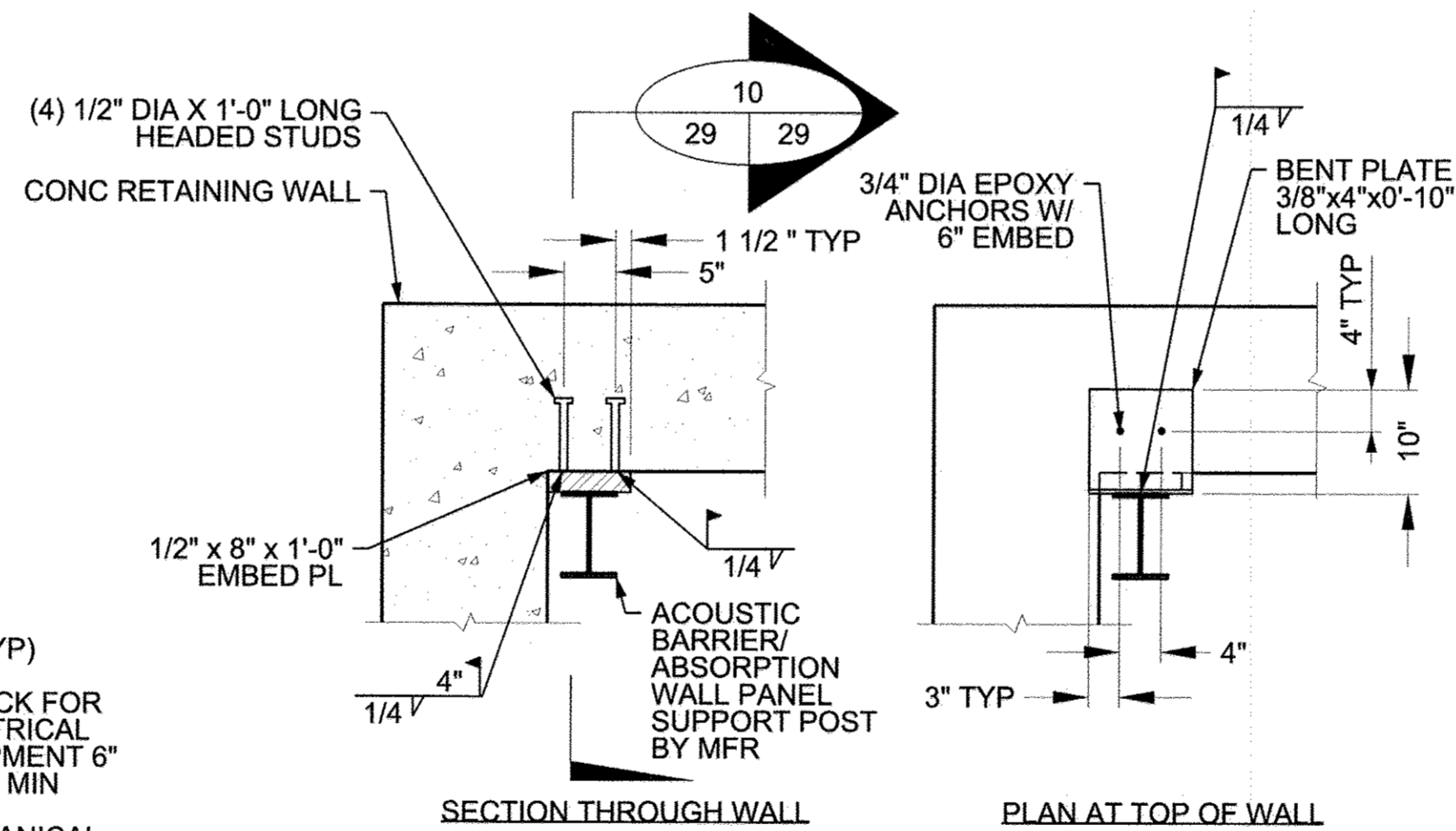
9 TYPICAL EQUIPMENT PAD
SCALE: 1 1/2"=1'-0"



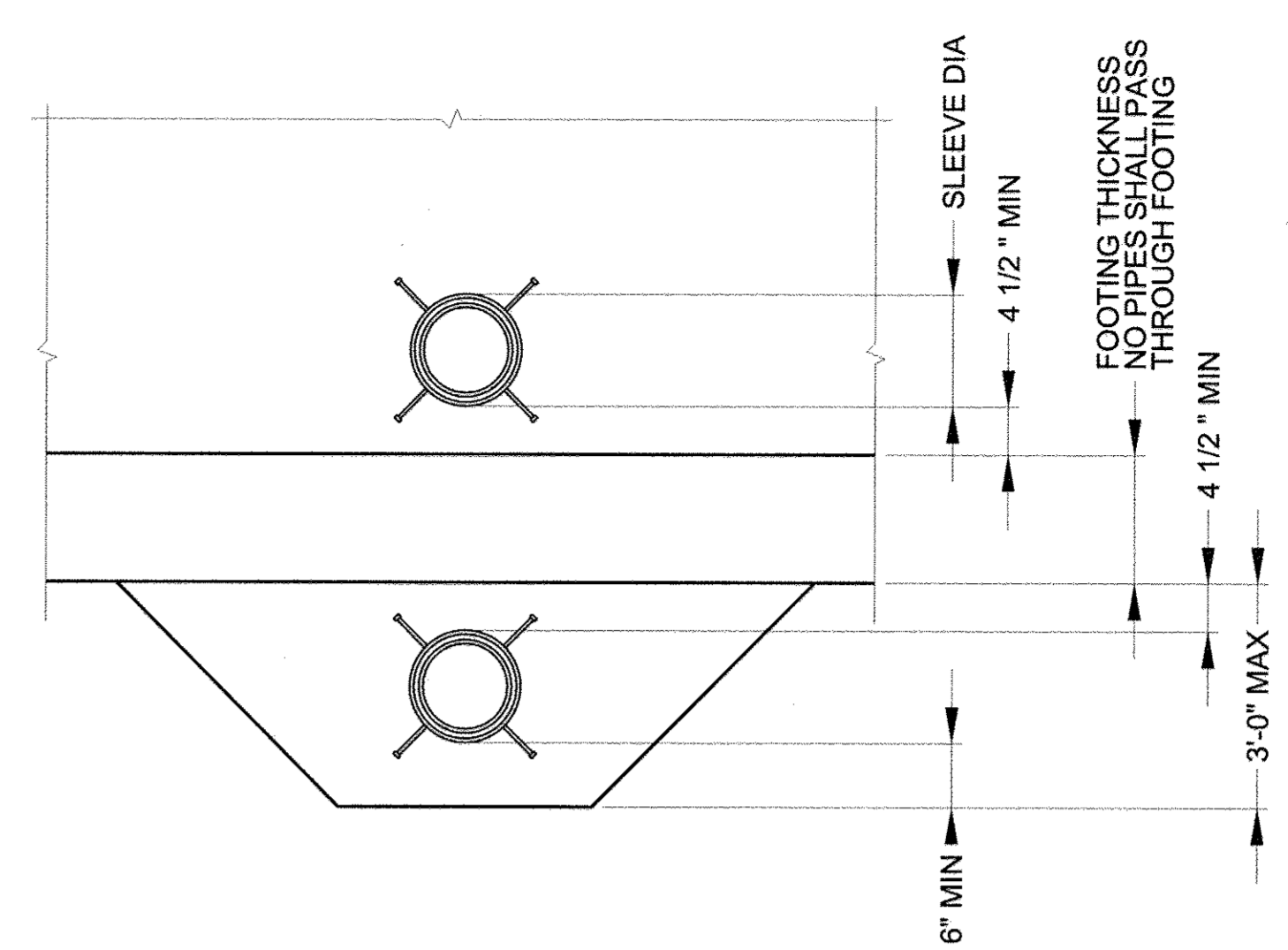
5 WALL CONTROL JOINT DETAIL
SCALE: 3/4"=1'-0"



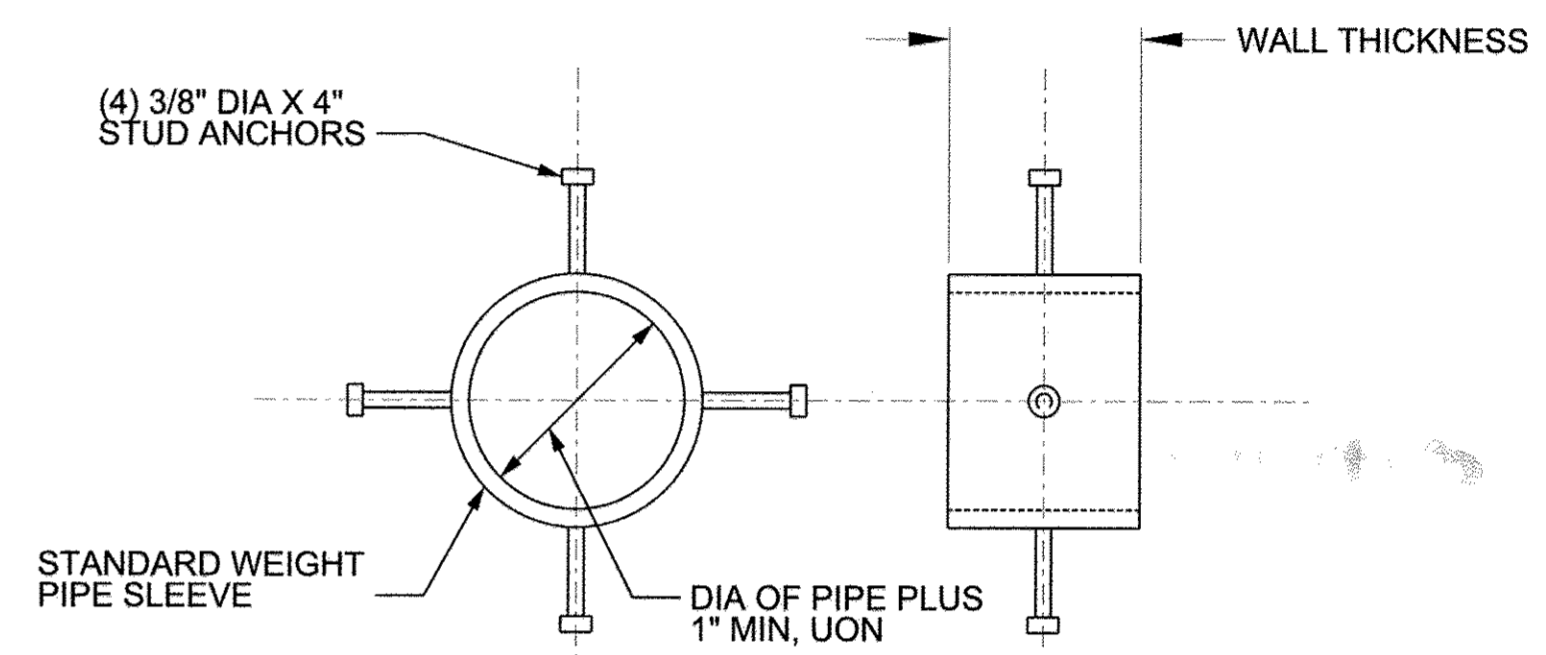
6 SLAB-ON-GROUND CONTRACTION JOINT
SCALE: NTS



10 EMBED PLATE AT CORNER COL
SCALE: 3/4"=1'-0"



7 PIPE THROUGH FOUNDATION
SCALE: 3/4"=1'-0"



8 PIPE SLEEVE
SCALE: 1 1/2"=1'-0"

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Walt Sealman 7-21-16
CHIEF, DIVISION OF LAND DEVELOPMENT
Paul Chubb 7-19-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION
Valerie J. J. J. 7-25-16
DIRECTOR

Date No. Revision Description

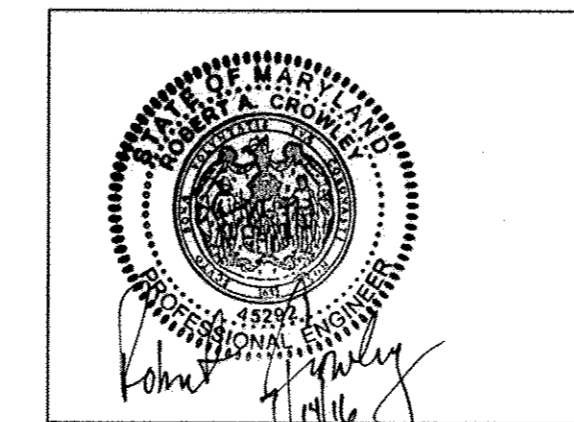
EMERSON PARCEL G-1 REVITZ PROPERTY

5-STORY COMMERCIAL OFFICE BUILDING
OWNER DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

REVTZ PROPERTY	SECTION AREA	LOT/PARCEL #
PLAT# OR L.P.	TAX ZONE	LOT G-1 / PAR. 165
BLOCK# ZONE	MAR. ELECT. DISTRICT	CENSUS TRACT
20 PEC	47	6
WATER CODE	SEWER CODE	

TITLE	STRUCTURAL SECTIONS AND DETAILS
Des. By AEW	Scale AS SHOWN
Drn. By AEW	Date 06-16-2016
Proj. No.	Approved
Chk. By RAC	

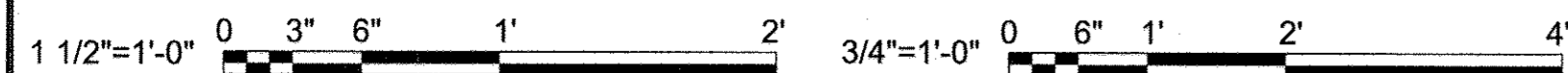
THE PURPOSE OF REDLINE REVISION #3 IS TO ADD NEW PLAN SHEET TO SDP-11-025.
AS BUILT CERTIFICATION FOR PSWM: THERE IS NO
ROBERT CRAWLEY, 45292



ENGINEER'S SEAL BOX FOR REDLINE REVISION #3 ONLY

JACOBS

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 45292. EXPIRATION DATE: 05/21/2018.



US Army Corps of Engineers
Baltimore District

REAL PROPERTY SERVICES
ANNAPOLIS JUNCTION, MARYLAND
JACOBS
1100 N. GLEBE RD., ARLINGTON, VA 22201

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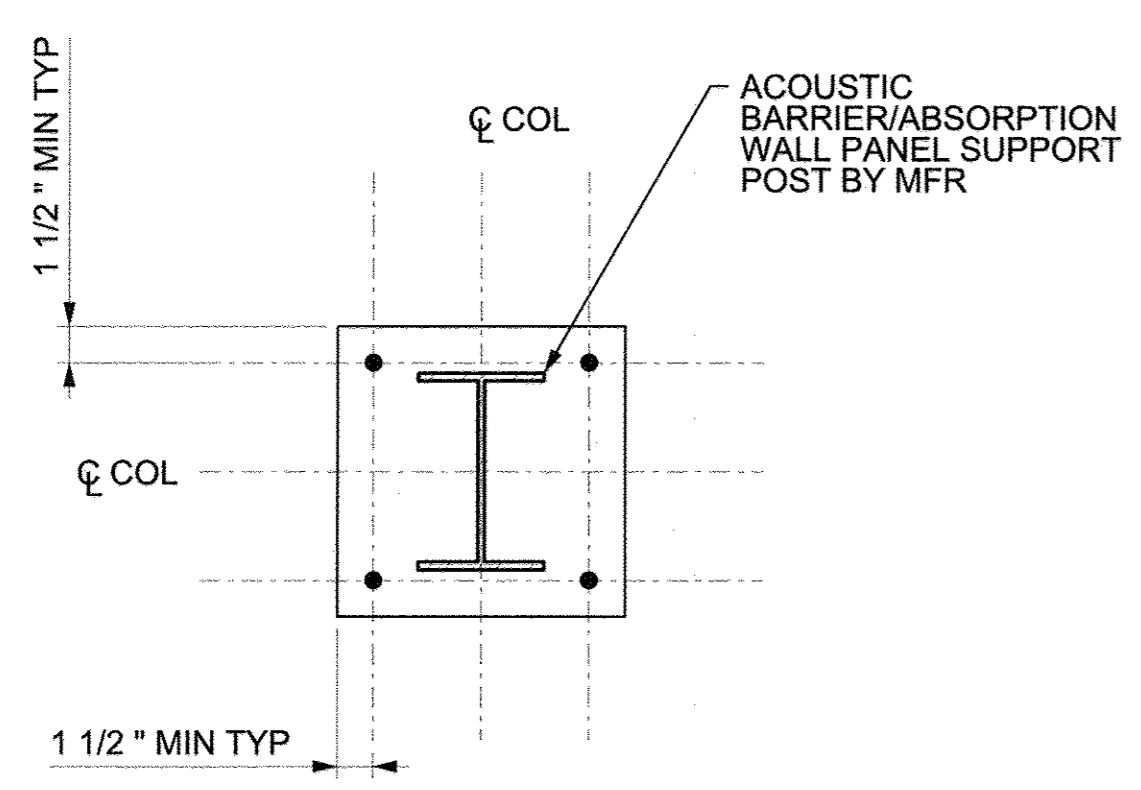
Mark	Description	Date
	100% BACKCHECK	5/5/2016

Rev.	Date	Description
	MAY 5, 2016	31435
	7-19-16	7-25-16

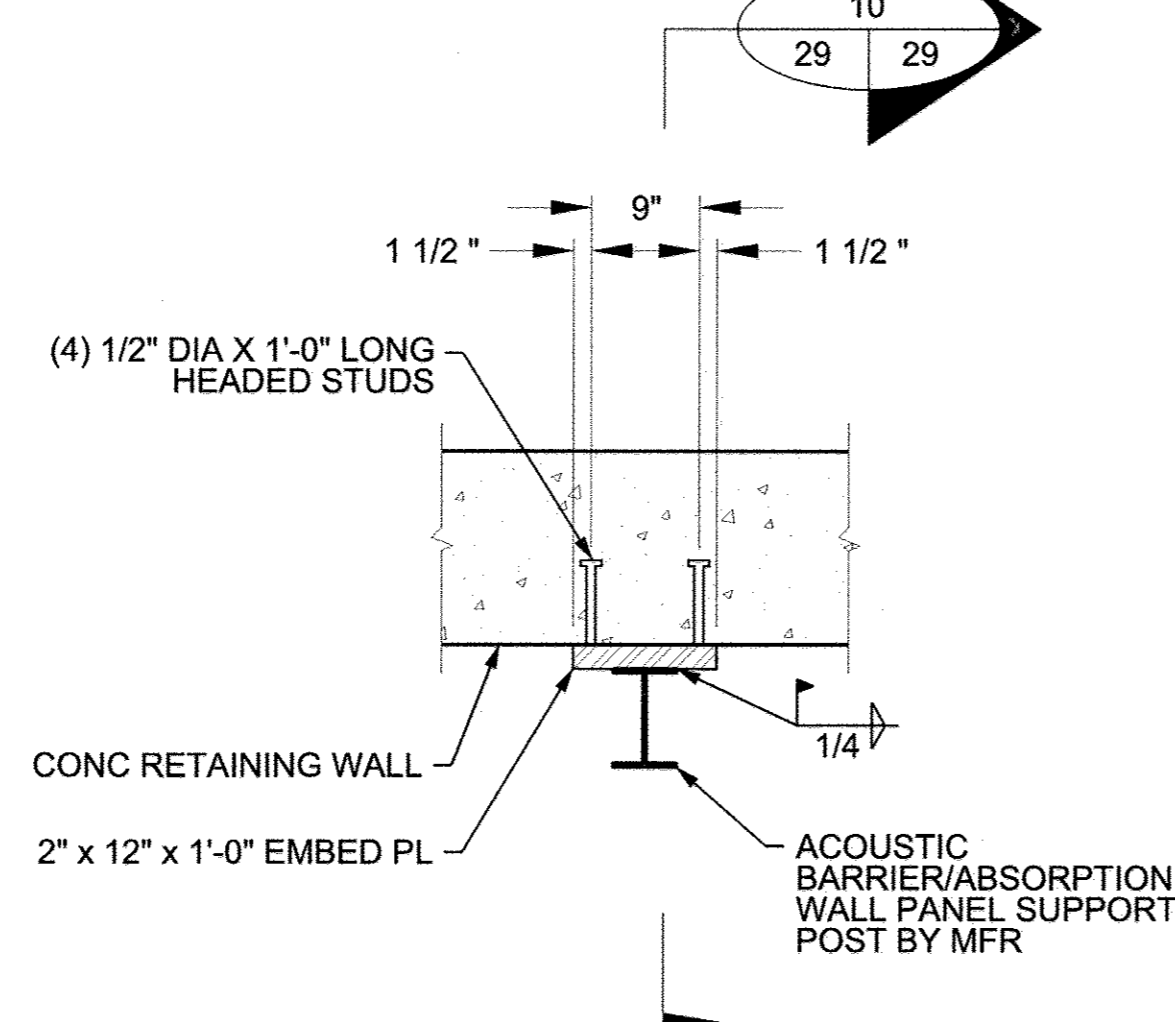
EMERSON 6 - TENANT IMPROVEMENT
STRUCTURAL SECTIONS AND DETAILS
ROOM(S) OR FLOOR
LAUREL, MD

Drawing No.
Sheet Reference No.
28
Sheet 28 of 31

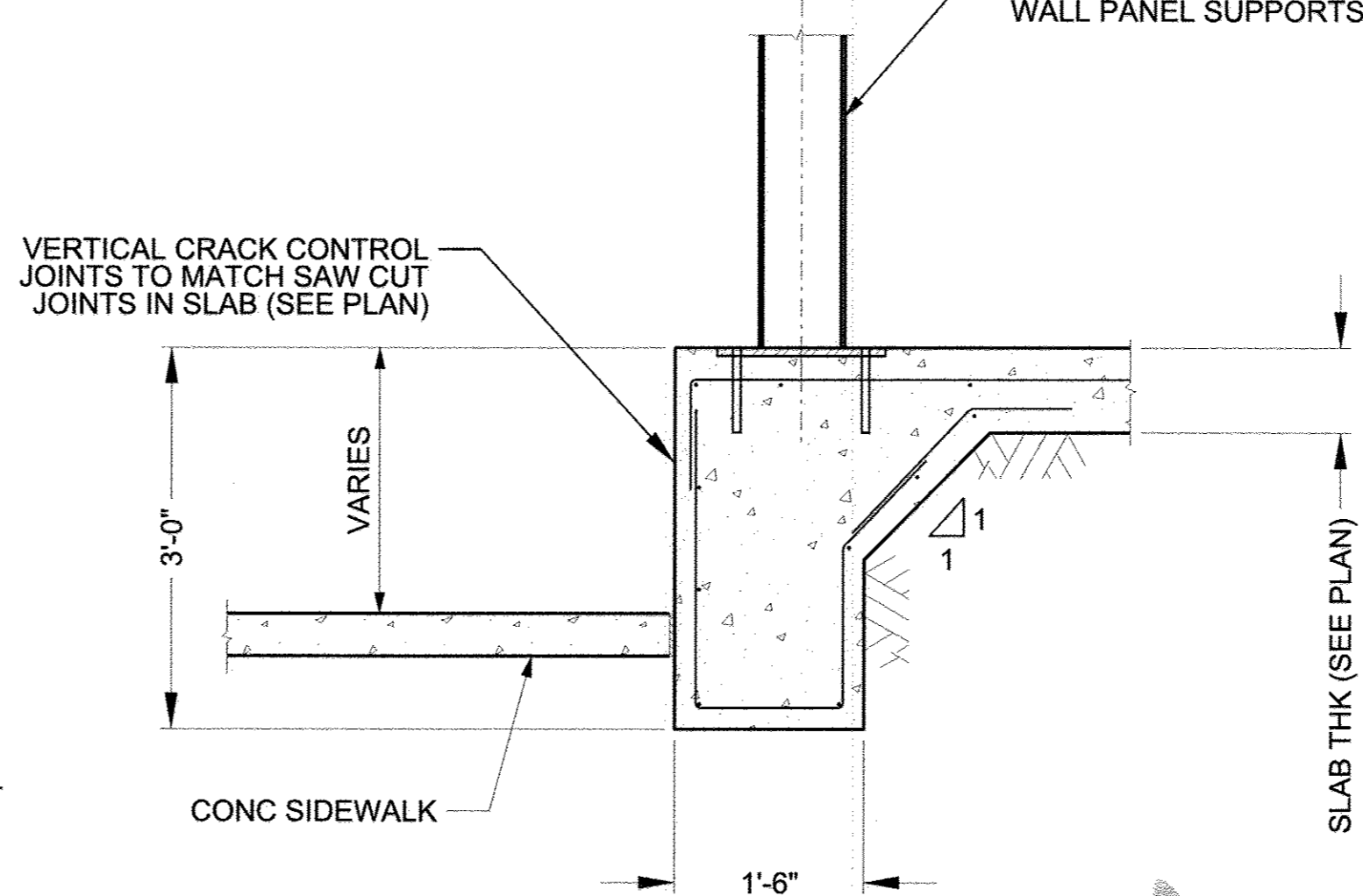
SDP-11-025



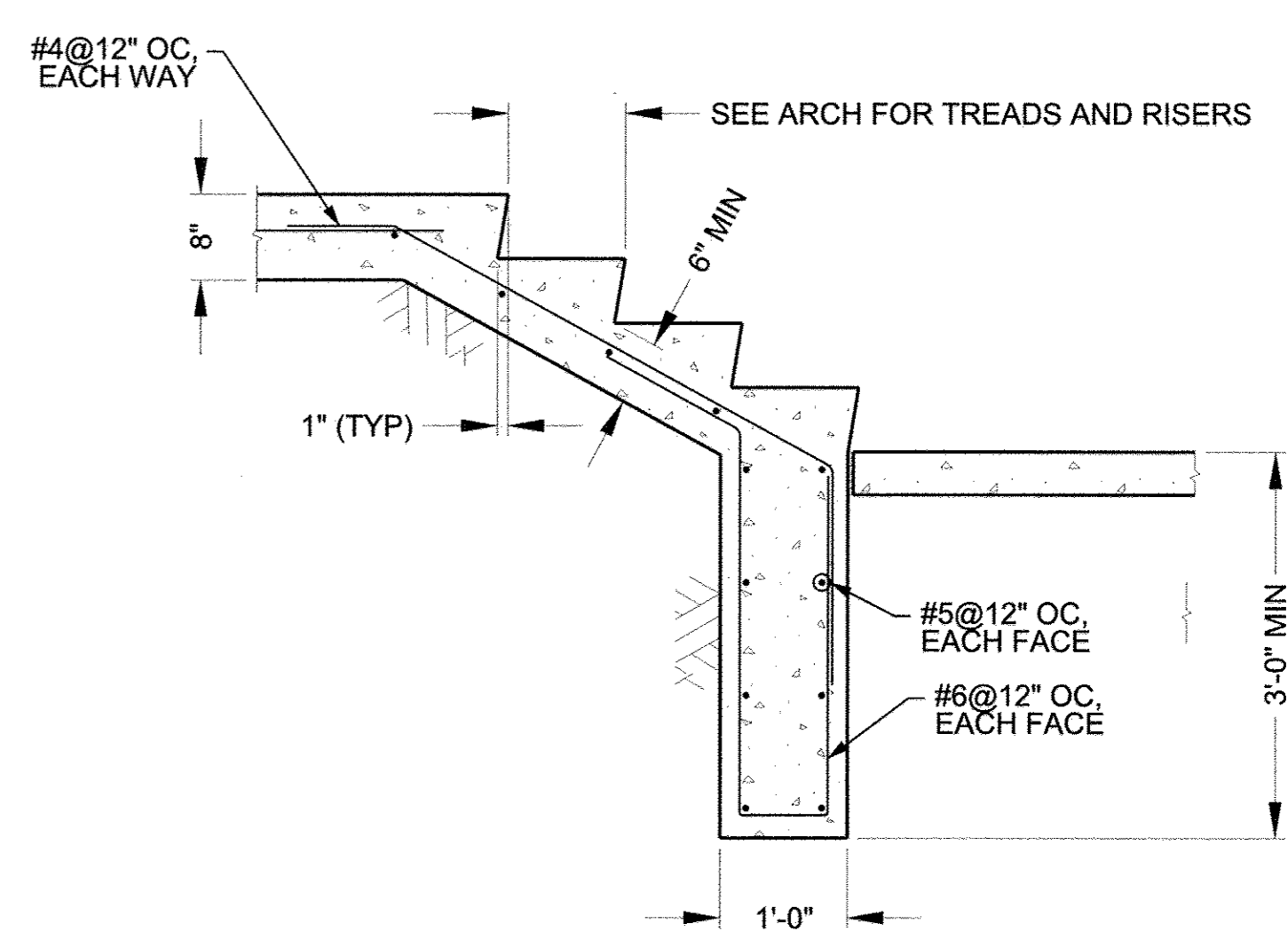
1 BASE PLATE DETAIL
SCALE: 1 1/2"=1'-0"



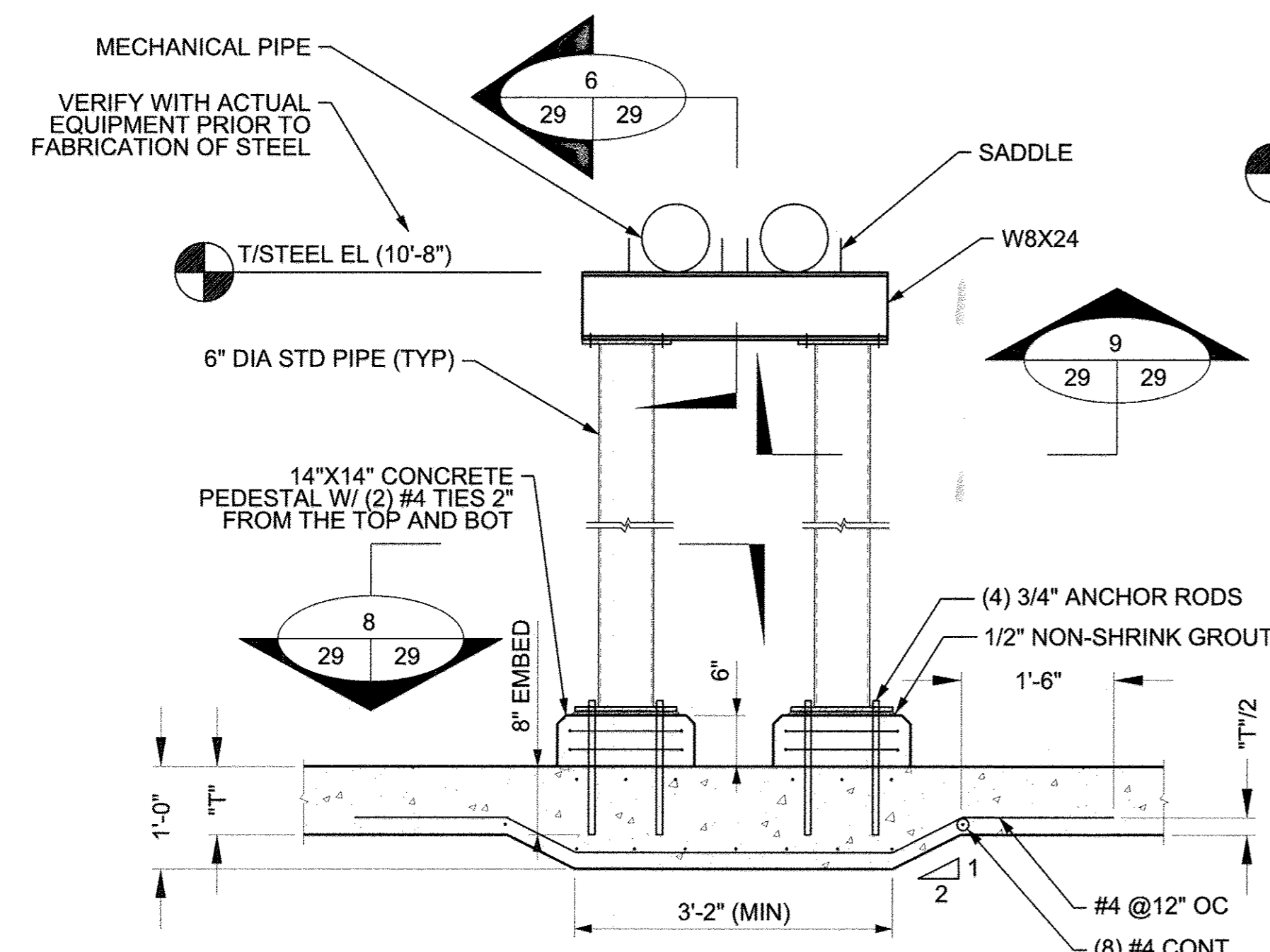
2 EMBEDMENT PLATE
SCALE: 3/4"=1'-0"



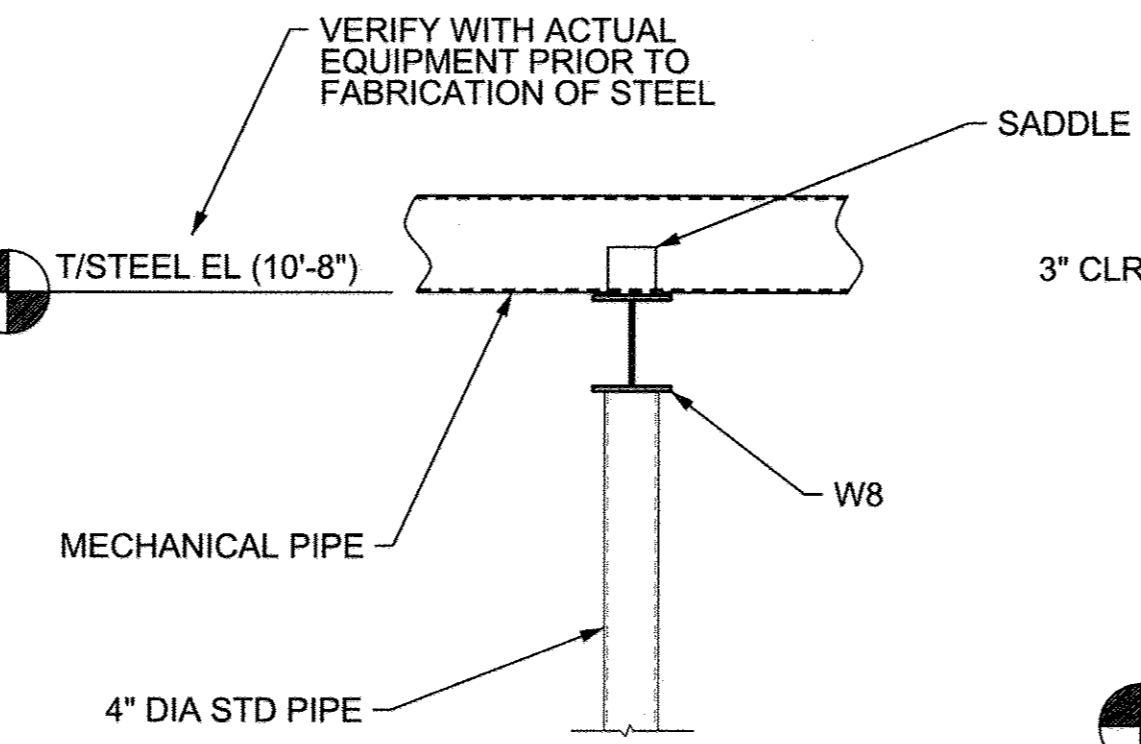
3 THICKENED SLAB
SCALE: 3/4"=1'-0"



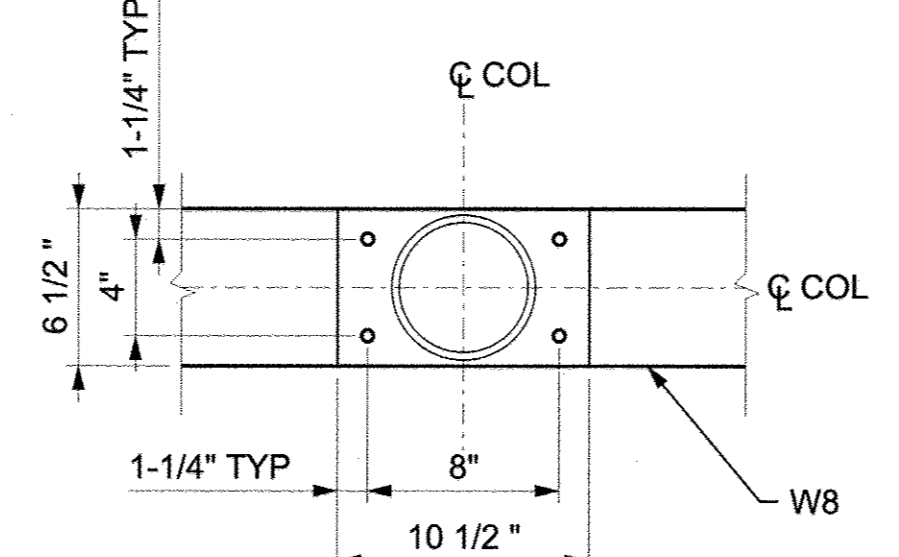
4 STAIRS AT CHILLER ENCLOSURE
SCALE: 3/4"=1'-0"



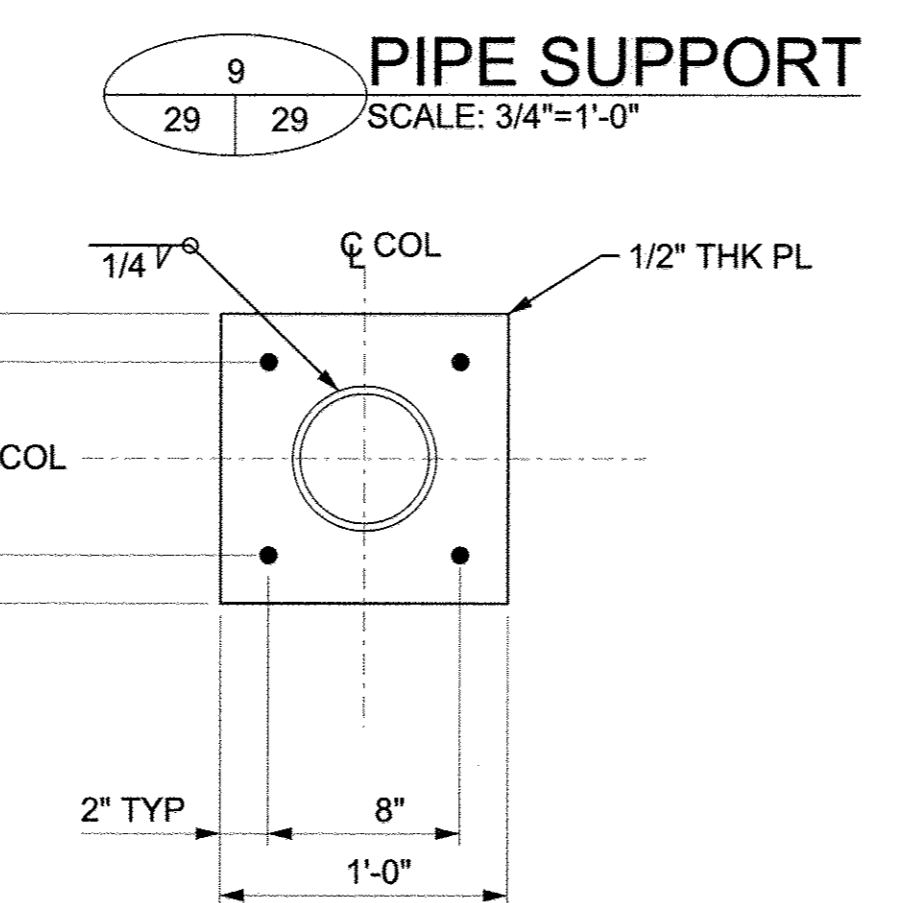
5 PIPE SUPPORT
SCALE: 3/4"=1'-0"



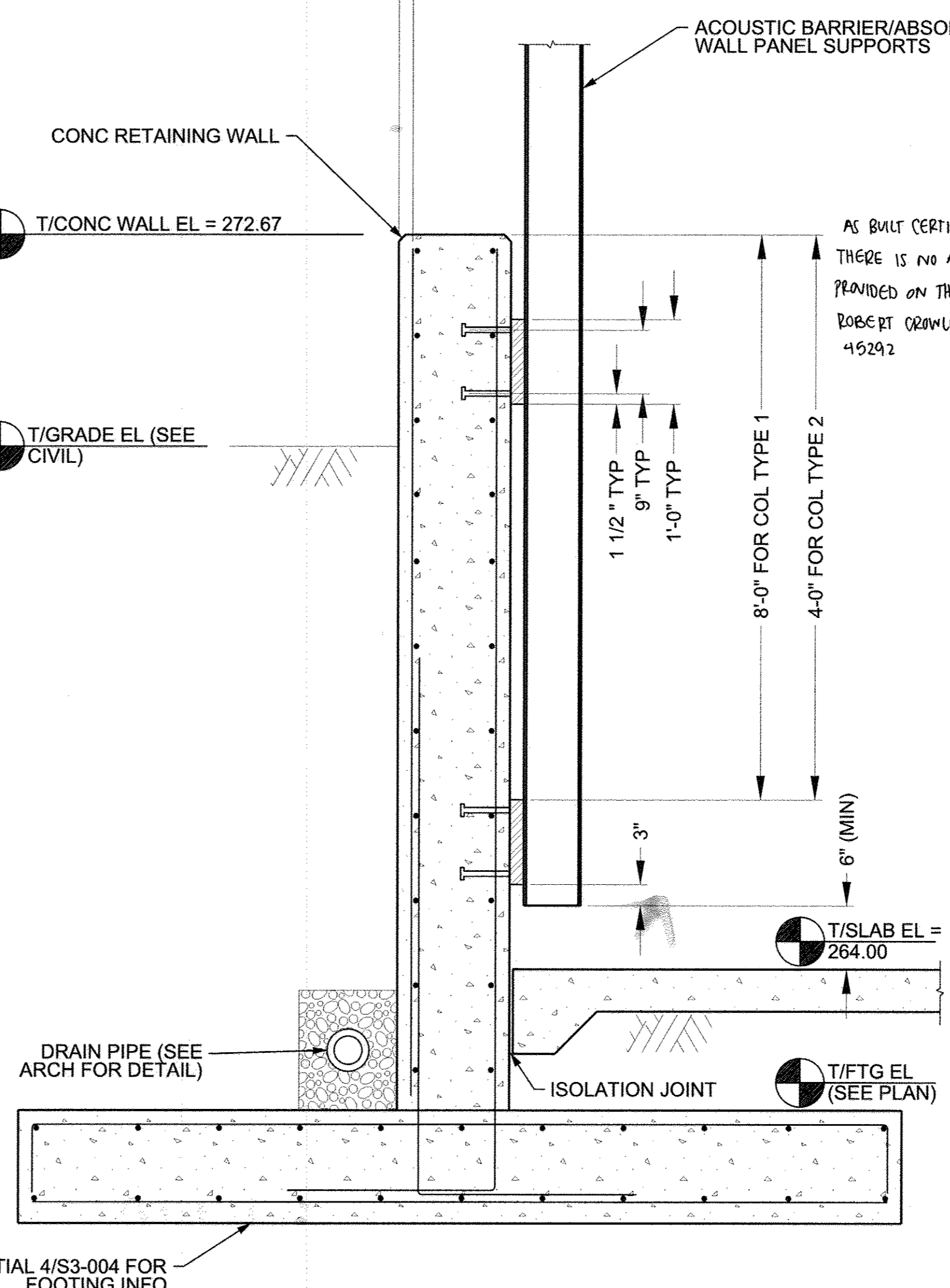
6 PIPE SUPPORT
SCALE: 3/4"=1'-0"



7 STEPPED FOOTING
SCALE: 3/4"=1'-0"



8 PIPE SUPPORT BASE PLATE
SCALE: 3/4"=1'-0"



10 STEEL COL CONN TO RETAINING WALL
SCALE: 3/4"=1'-0"

JACOBS

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 45292 EXPIRATION DATE: 05/21/2018

AS BUILT CERTIFICATION FOR PSWM: THERE IS NO AS BUILT INFORMATION PROVIDED ON THIS SHEET.
ROBERT DRAWLEY 45292

THE PURPOSE OF REDLINE REVISION #3 IS TO ADD A NEW PLAN SHEET TO SDP-11-025.

ENGINEER'S SEAL BOX FOR REDLINE REVISION #3 ONLY

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

DIRECTOR

Date No. Revision Description

EMERSON PARCEL G-1 REVITZ PROPERTY

5-STORY COMMERCIAL OFFICE BUILDING
OWNER DEVELOPER:
EMERSON DEVELOPMENT VI LLC
1 TEXAS STATION COURT, SUITE 200
TIMONIUM, MARYLAND 21093-8288
(443) 689-8000

REVI/ PROPERTY	SECTION AREA	LOT PARCEL #
PLAT# 09/1	TAX ZONE	LOT G-1 / PAR. 165
BLOCK# 20	MAR/ECT. DISTRICT	CELESTOS TRACT
PEC 47	SEWER CODE	6
WATER CODE		

TITLE: STRUCTURAL SECTIONS AND DETAILS

Des. By AEW Scale AS SHOWN Proj. No.
Dm. By AEW Date 06-16-2016
Chk. By RAC Approved

US Army Corps of Engineers
Baltimore District

REAL PROPERTY SERVICES
FIELD OFFICE
ANNAPOLIS JUNCTION, MARYLAND

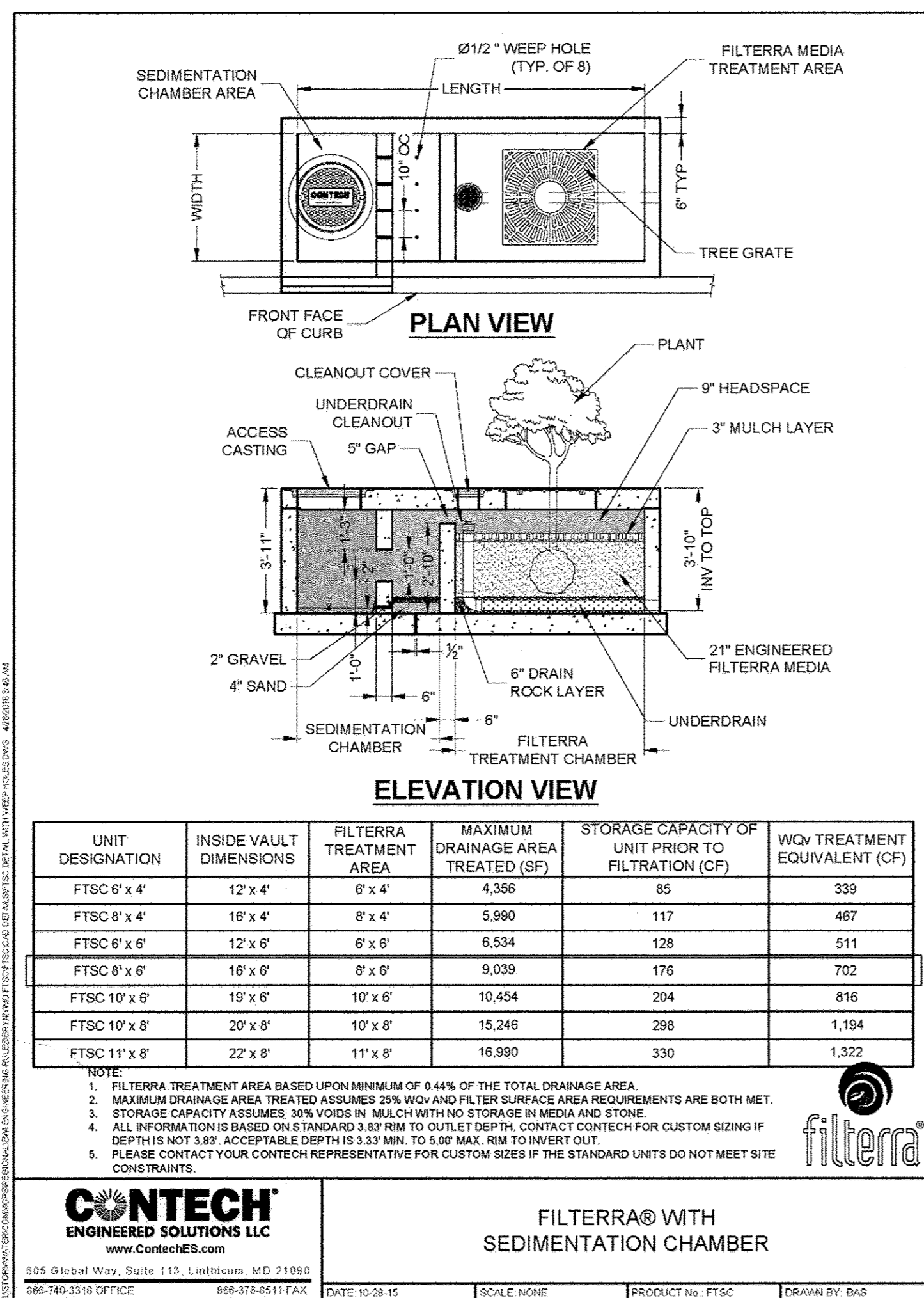
JACOBS
1100 N. GLEBE RD., ARLINGTON, VA 22201

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Mark	Description	Date	Appr.
		5/17/2016	

EMERSON 6 - TENANT IMPROVEMENT
STRUCTURAL SECTIONS AND DETAILS
ROOM(S) OR FLOOR LAUREL, MD

Drawing No. 29
Sheet Reference No. 29
Sheet 29 of 31
SDP-11-025



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Unit Designation	Inside Vault Dimensions	Inside Vault Width (ft)	Inside Vault Length (ft)	Rim to Inv. Out (ft)	Filter Media Surface Area Length (ft)	Sedimentation Chamber Length (ft)	Filter Media Surface Area (sf)	Headspace Depth (ft)	Headspace Volume (cf)	Chamber Volume 1 (cf)	Chamber Volume 2 (cf)	Chamber Volume 3 (cf)	Storage Capacity of Unit Prior to Filtration (cf)	WQv Treatment Equivalent (cf)	Underdrain Pipe Diameter (in)
FTSC 6' x 4'	12x4	4	12	3.83	6	5.5	24	0.75	18.83	45.45	1.00	19.48	85	339	4
FTSC 8' x 4'	16x4	4	16	3.83	8	7.5	32	0.75	24.83	71.43	1.00	19.48	117	467	4
FTSC 6' x 6'	12x6	6	12	3.83	6	5.5	36	0.75	28.25	68.18	2.00	29.22	128	511	4
FTSC 8' x 6'	16x6	6	16	3.83	8	7.5	48	0.75	37.25	107.14	2.00	29.22	176	702	4
FTSC 10' x 6'	19x6	6	19	3.83	10	8.5	60	0.75	46.25	126.62	2.00	29.22	204	816	6
FTSC 10' x 8'	20x8	8	20	3.83	10	9.5	80	0.75	61.67	194.80	3.00	38.96	298	1,194	6
FTSC 11' x 8'	22x8	8	22	3.83	11	10.5	88	0.75	67.67	220.77	3.00	38.96	330	1,322	6

1. Contech Filterra Sedimentation Chamber model designation, which is based on the filter media length and width.
 2. Overall internal vault dimensions.
 3. Internal vault width.
 4. Internal vault length.
 5. Rim to invert out depth.
 6. Length of chamber with filter media (see detail).
 7. Length of sedimentation chamber (see detail).
 8. Filter media surface area = inside vault width (3) x filter media surface area length (6).
 9. Headspace depth = Rim to inv. out (5) - 8" top slab - 21" media - 3" mulch - 5" underdrain stone to pipe invert.*
 10. Headspace volume = headspace depth (9) x filter media surface area (8) + (6" x 5" x inside vault width (3)) to account for volume in gap above weir wall.
 11. Chamber volume 1 = (sedimentation chamber length (7) - 1.5' for chamber 2 - 6" for weir wall) x inside vault width (3) x (rim to invert out (5) + 1" to get to vault invert - 8" top slab).
 12. Chamber volume 2 = 6" wall width x 1' opening in wall x (inside vault width (3) - 2').
 13. Chamber volume 3 = 1.5' x (rim to invert out (5) + 1" to get to vault invert - 8" top slab) x inside vault width (3).
 14. Storage Capacity of Unit Prior to Filtration = headspace volume (10) + chamber volume 1 (12) + chamber volume 2 (13) + chamber volume 3 (14).
 15. = WQv Treatment Equivalent = Storage Capacity of Unit Prior to Filtration x 4. **
 16. Diameter of Underdrain pipe
- Notes:
 *Calculations shown are for standard depth of 3.83' rim to invert out. For shallow units (3.33' - 3.83') the decrease in depth will be removed from the filter media and the headspace will remain 9". For deep units (3.83' - 5.00') the depth will be added to the headspace and the media depth will remain 21".
 ** The Treatment Volume for which the Storage Capacity of the Filterra Unit (14) is 25%.

SWMDA ID	ESD TYPE	UNIT TYPE	OVERALL DIMENSION (FT X FT)	STRUCTURE TOP ELEV (FT)	STRUCTURE DEPTH (FT)	INVERT OUT ELEV (FT)	CHAMBER HEIGHT (FT)	TOP CHAMBER WEIR ELEV (FT)	SEDIMENT OPENING (FT)	OPENING BOTTOM ELEV (FT)	OPENING TOP ELEV (FT)	PLANTING
ESD-1	FTSC	8' X 6'	17' X 7'	261.40 262.33	3.83	258.50	3.25	261.33	1.00	259.50	260.50	HERITAGE RIVER BIRCH (BETULA NIGRA 'HERITAGE')
ESD-2	FTSC	8' X 6'	17' X 7'	261.01 262.03	3.83	258.20	3.25	261.03	1.00	259.20	260.20	HERITAGE RIVER BIRCH (BETULA NIGRA 'HERITAGE')

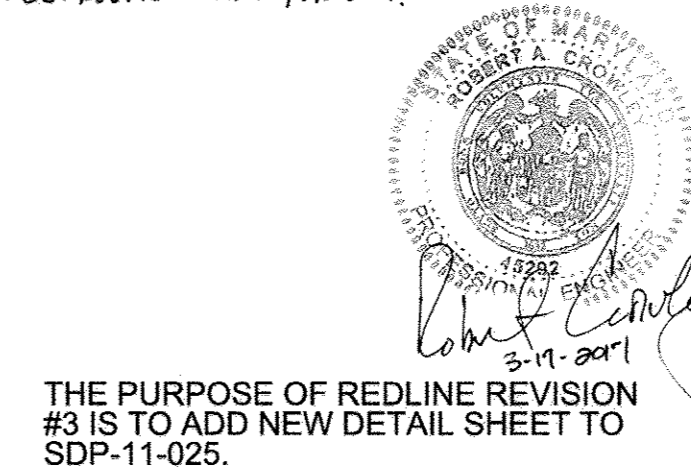
NOTE: TREES SHALL BE SINGLE STEM SPECIMEN, MINIMUM CALIPER OF 3 INCHES.

1. FILTERRA INLET STRUCTURE INSPECTION SCHEDULE:
MINIMUM 2 TIMES PER YEAR WITHIN EVERY 6 MONTHS
2. PERFORM INSPECTION/MAINTENANCE OF THE FILTERRA SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS. THE GENERAL INSPECTION PROCEDURE SHALL BE AS FOLLOWS:
 - A. INSPECT THE FILTERRA STRUCTURE & SURROUNDING AREA.
 - B. INSPECT FOR STANDING WATER, DAMAGE TO BOX STRUCTURE, DAMAGE TO GRATE, AND ENSURE THE BYPASS IS CLEAR. RECORD INSPECTION FINDINGS AND MAKE REPAIRS AS REQUIRED.
 - C. REMOVE THE TREE GRATE AND EROSION CONTROL STONES. DIG OUT SILT (IF ANY), MULCH, AND ANY TRASH/FOREIGN ITEMS.
 - D. AFTER REMOVAL OF ALL FOREIGN DEBRIS, MEASURE THE DISTANCE FROM TOP OF FILTER MEDIA SOIL TO THE TOP OF SLAB. IF THE DISTANCE EXCEEDS 12-INCHES, ADD ADDITIONAL FILTER MEDIA TO RECHARGE TO A DEPTH OF 9-INCHES.
 - E. ADD DOUBLE SHREDDED MULCH EVENLY ACROSS THE ENTIRE UNIT TO A DEPTH OF 3-INCHES (SEE FILTERRA MULCH SPECIFICATIONS). CORRECTLY REPOSITION EROSION CONTROL STONES IN ORIGINAL LOCATION AND SET FILTERRA GRATES IN PLACE.
 - F. EXAMINE THE PLANTS HEALTH. PRUNE OR REPLACE AS NECESSARY BASED ON MANUFACTURER'S RECOMMENDATIONS.
 - G. CLEAN AREA AROUND FILTERRA INLET.
 - H. RECORD INSPECTION/MAINTENANCE DATA. KEEP RECORDS ON SITE AND READILY ACCESSIBLE.

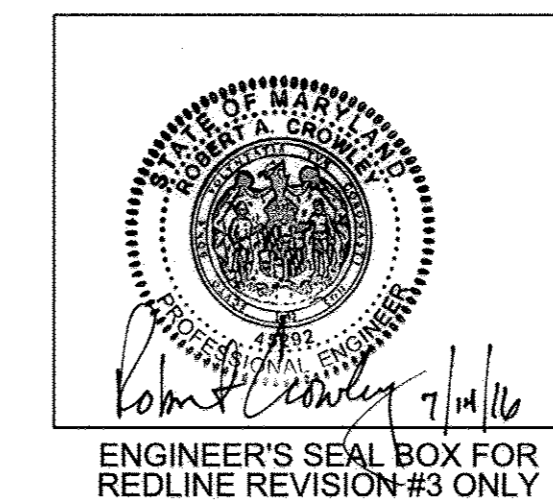
AS-BUILT
 THIS CERTIFICATE OF RECORD HAS BEEN PREPARED CERTIFYING TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF THAT THE SEWER SYSTEM AS SHOWN HEREON HAS BEEN ESSENTIALLY CONSTRUCTED IN A MANNER THAT WOULD BE CONSISTENT WITH THESE APPROVED PLANS EXCEPT AS NOTED IN DEP.

TIMOTHY J. MARTIN
 PROFESSIONAL LAND SURVEYOR #10099
 EXPIRATION DATE: AUGUST 3, 2018

AS BUILT CERTIFICATION FOR PSWM:
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE AS BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY.
 ROBERT CROWLEY
 #5292.



THE PURPOSE OF REDLINE REVISION #3 IS TO ADD NEW DETAIL SHEET TO SDP-11-025.



ENGINEER'S SEAL BOX FOR REDLINE REVISION #3 ONLY

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DIRECTOR

5-STORY COMMERCIAL OFFICE BUILDING
 OWNER DEVELOPER:
 EMERSON DEVELOPMENT VI LLC
 1 TEXAS STATION COURT, SUITE 200
 TIMONIUM, MARYLAND 21093-8288
 (443) 689-8000

REVITZ PROPERTY SECTION AREA LOT PARCEL #
 PLAT# 0917 BLOCK# 0306 TAX ZONE MARELECT. DISTRICT 6 SENSUS TRACT
 WATER CODE 20 SEWER CODE 47

TITLE
 Des. By AEW Scale AS SHOWN Proj. No.
 Drn. By AEW Date 06-16-2016
 Chk. By RAC Approved

CONTECH ENGINEERED SOLUTIONS
 Filterra® Standard Plan Notes

Construction & Installation

- A. Each unit shall be constructed at the locations and elevations according to the sizes shown on the approved drawings. Any modifications to the elevation or location shall be at the direction of and approved by the Engineer.
- B. If the Filterra® is stored before installation, the top slab must be placed on the box using the 2x4 wood provided, to prevent any contamination from the site. All internal fittings supplied (if any), must be left in place as per the delivery.
- C. The unit shall be placed on a compacted sub-grade with a minimum 6-inch gravel base matching the final grade of the curb line in the area of the unit. The unit is to be placed such that the unit and top slab match the grade of the curb in the area of the unit. Compact undisturbed sub-grade materials to 95% of maximum density at +1-2% of optimum moisture. Unsuitable material below sub-grade shall be replaced to the site engineer's approval.
- D. Outlet connections shall be aligned and sealed to meet the approved drawings with modifications necessary to meet site conditions and local regulations.
- E. Once the unit is set, the internal wooden forms and protective mesh cover must be left intact. Remove only the temporary wooden shipping blocks between the box and top slab. The top lid should be sealed onto the box section before backfilling, using a nonshrink grout, butyl rubber or similar waterproof seal. The boards on top of the lid and boards sealed in the unit's throat must NOT be removed. The Supplier will remove these sections at the time of activation. Backfilling should be performed in a careful manner, bringing the appropriate fill material up in 6" lifts on all sides. Precast sections shall be set in a manner that will result in a watertight joint. In all instances, installation of Filterra® unit shall conform to ASTM specification C891 "Standard Practice for Installation of Underground Precast Utility Structures", unless directed otherwise in contract documents.
- F. Curb and gutter construction (where present) shall ensure that the flow-line of the Filterra® units is at a greater elevation than the flow-line of the bypass structure or relief (drop inlet, curb cut or similar). Failure to comply with this guideline may cause failure and/or damage to the Filterra® environmental device.
- G. Each Filterra® unit must receive adequate irrigation to ensure survival of the living system during periods of drier weather. This may be achieved through a piped system, gutter flow or through the tree grate.

1 **FILTERRA STORMWATER MANAGEMENT STRUCTURE**
 SCALE: NTS

US Army Corps of Engineers
 Baltimore District

REAL PROPERTY SERVICES
 FIELD OFFICE
 ANNAPOLIS JUNCTION, MARYLAND

JACOBS
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DATE: MAY 17, 2016
 PROJECT NO.: 31435
 DESIGNED BY: R. CROWLEY
 CHECKED BY: A. WILLIAMSON
 DRAWN BY: R. CROWLEY
 PROJECT MANAGER: SANDRA TUCKER
 SUBMITTED BY: NATHAN JAMES
 PROJECT MANAGER

EMERSON 6 - TENANT IMPROVEMENT
 STORMWATER MANAGEMENT DETAILS
 ROOM(S) OR FLOOR: LAUREL, MD

Drawing No.
31
 Sheet 31 of 31