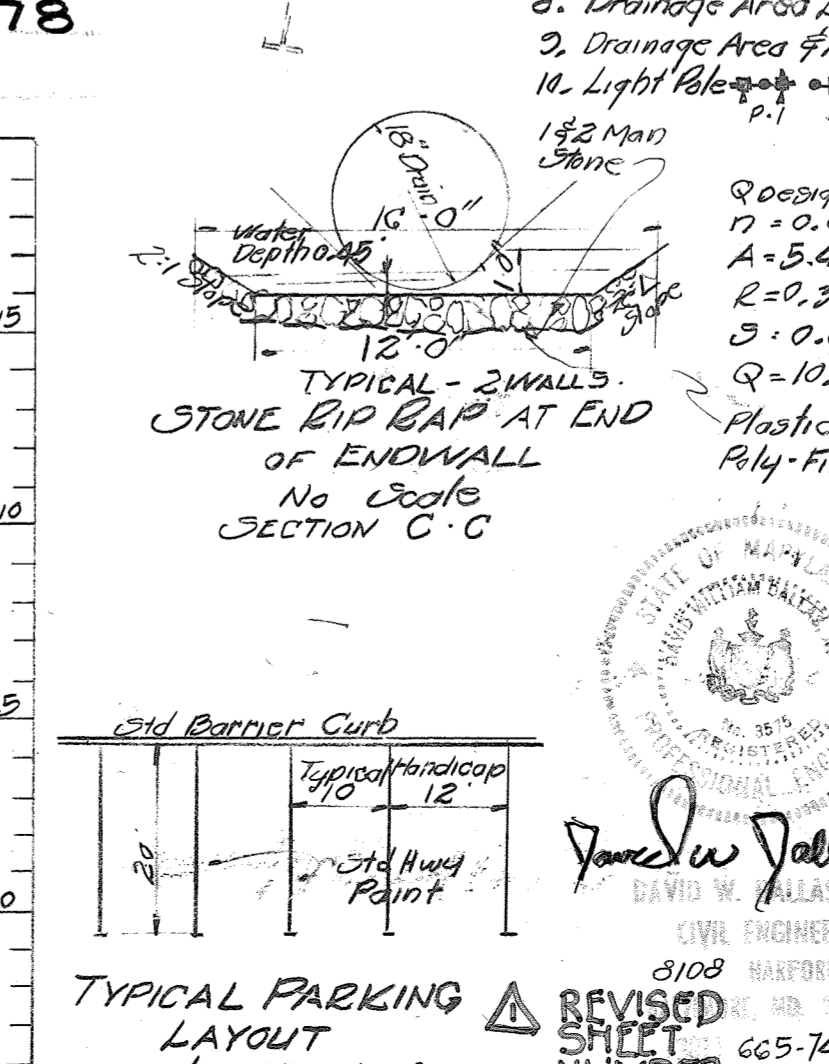
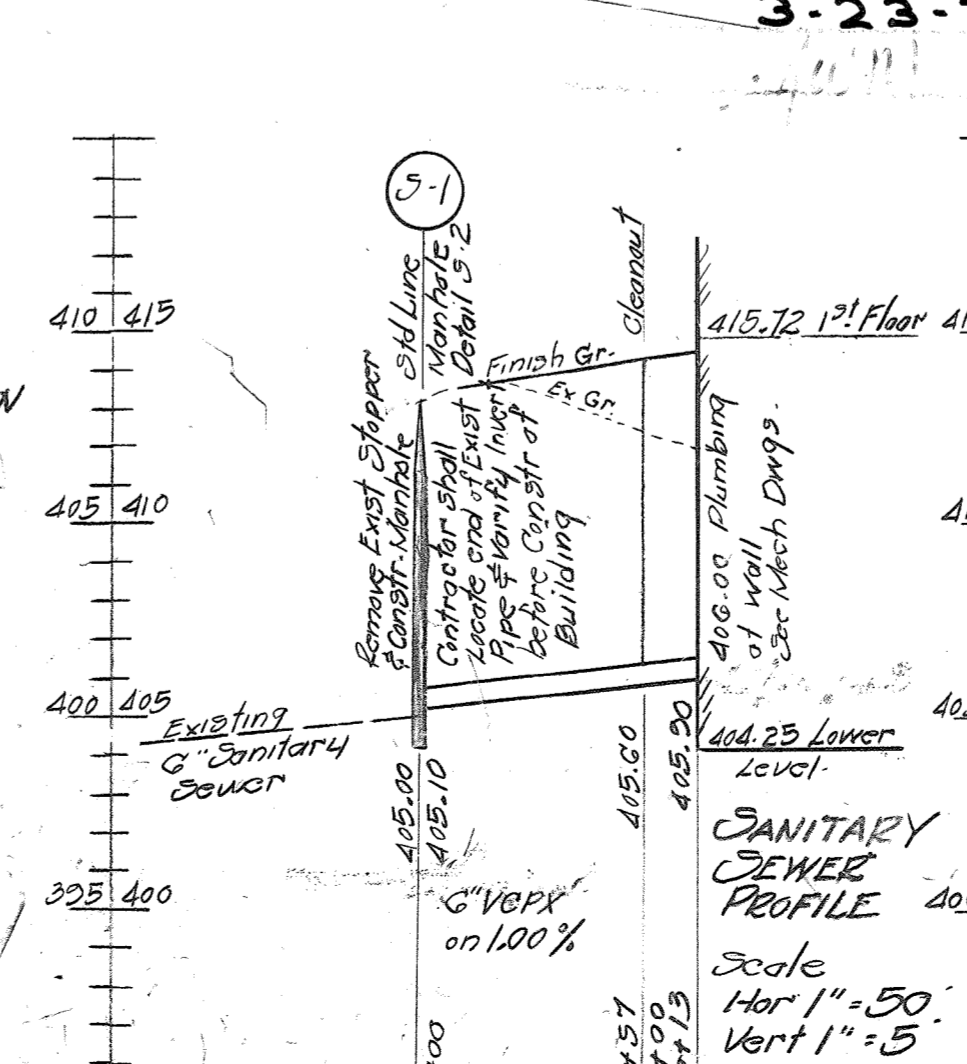
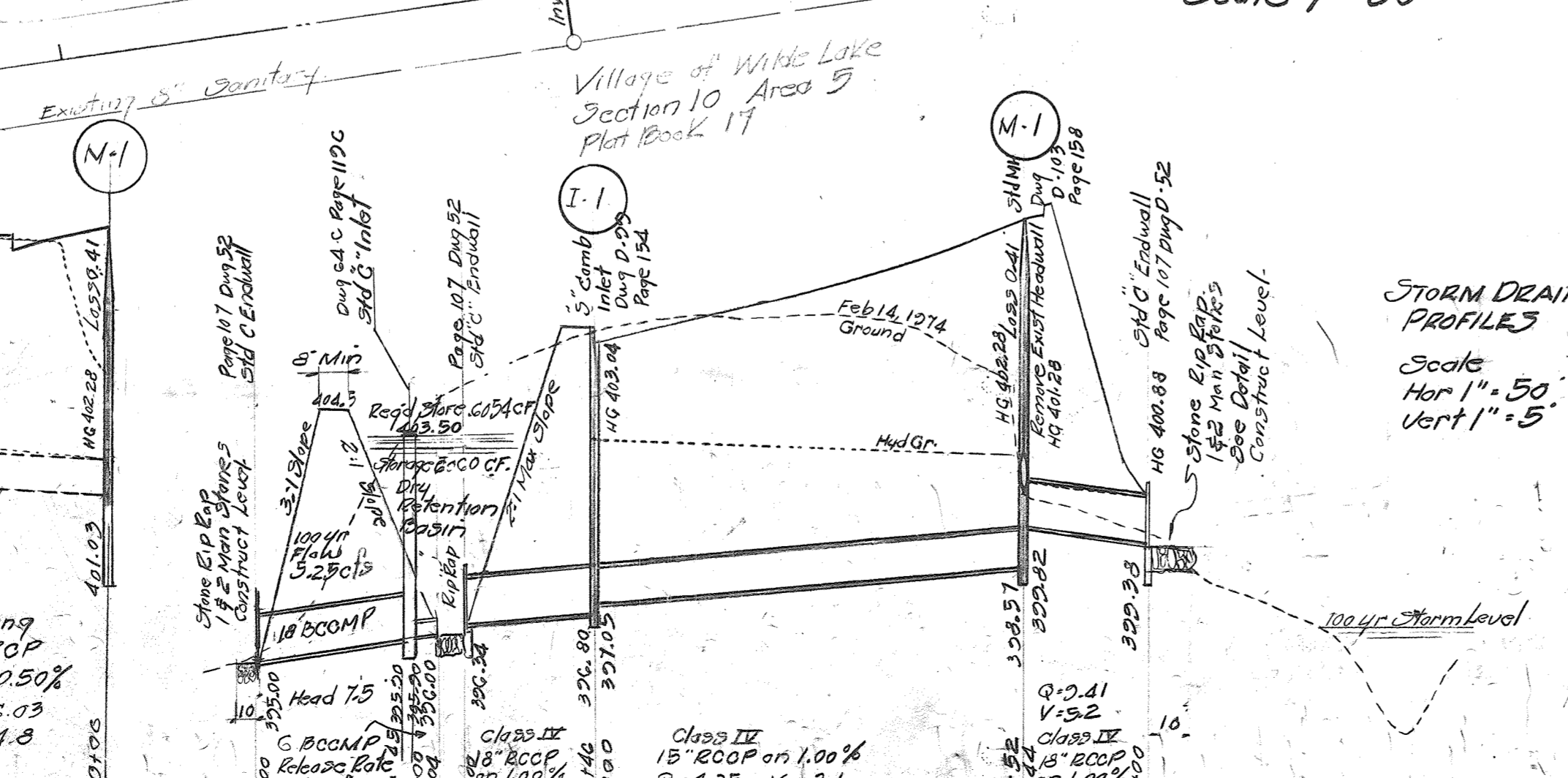
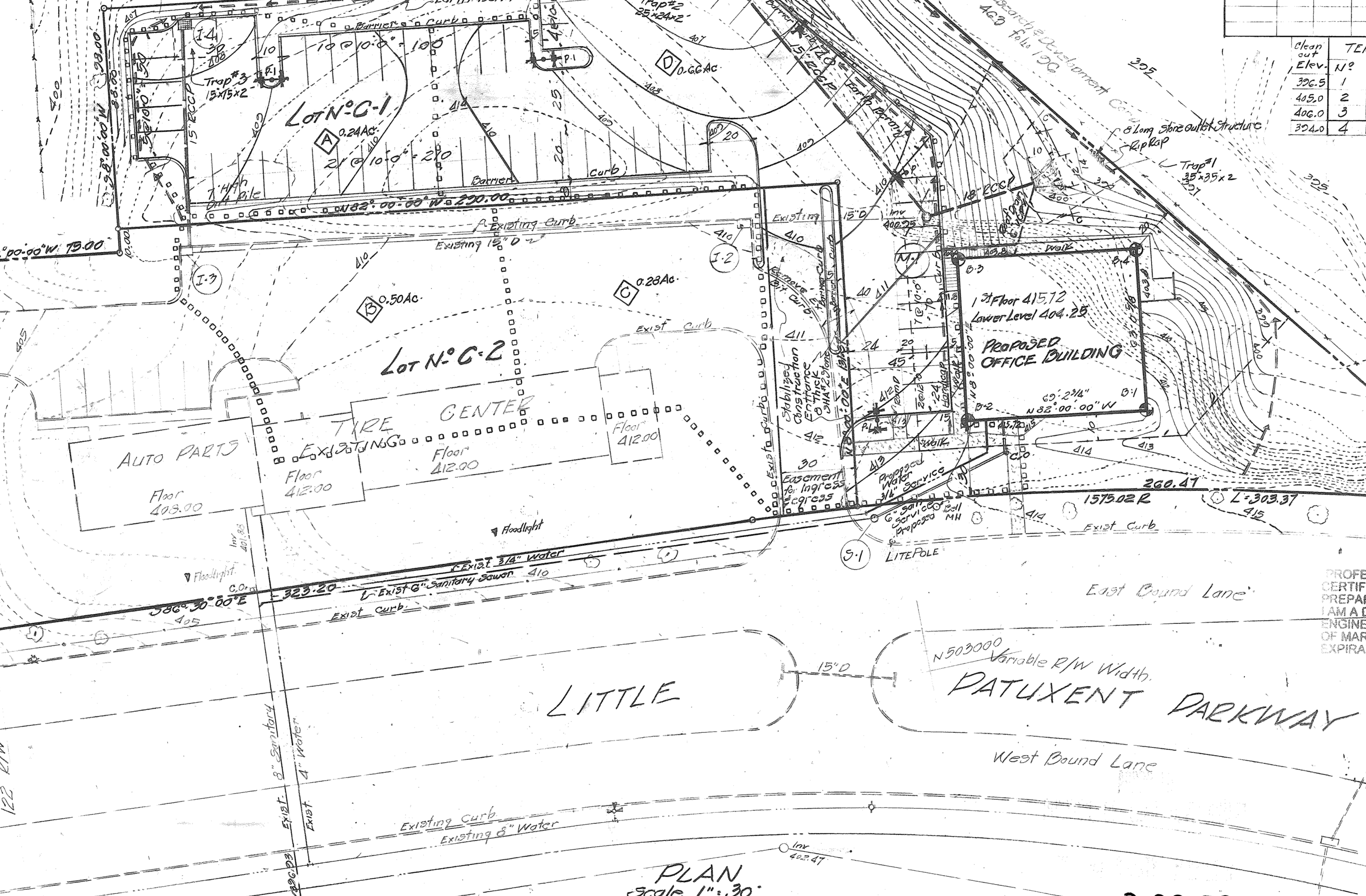
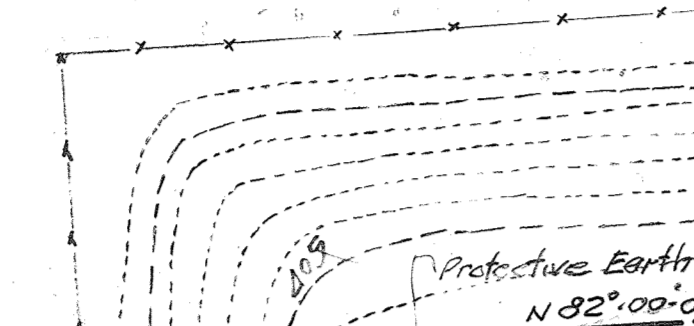
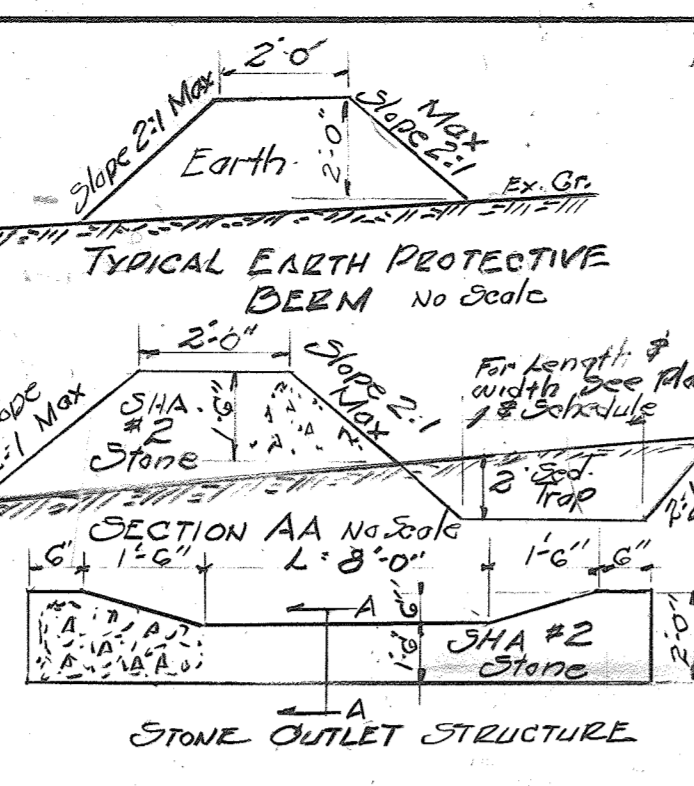
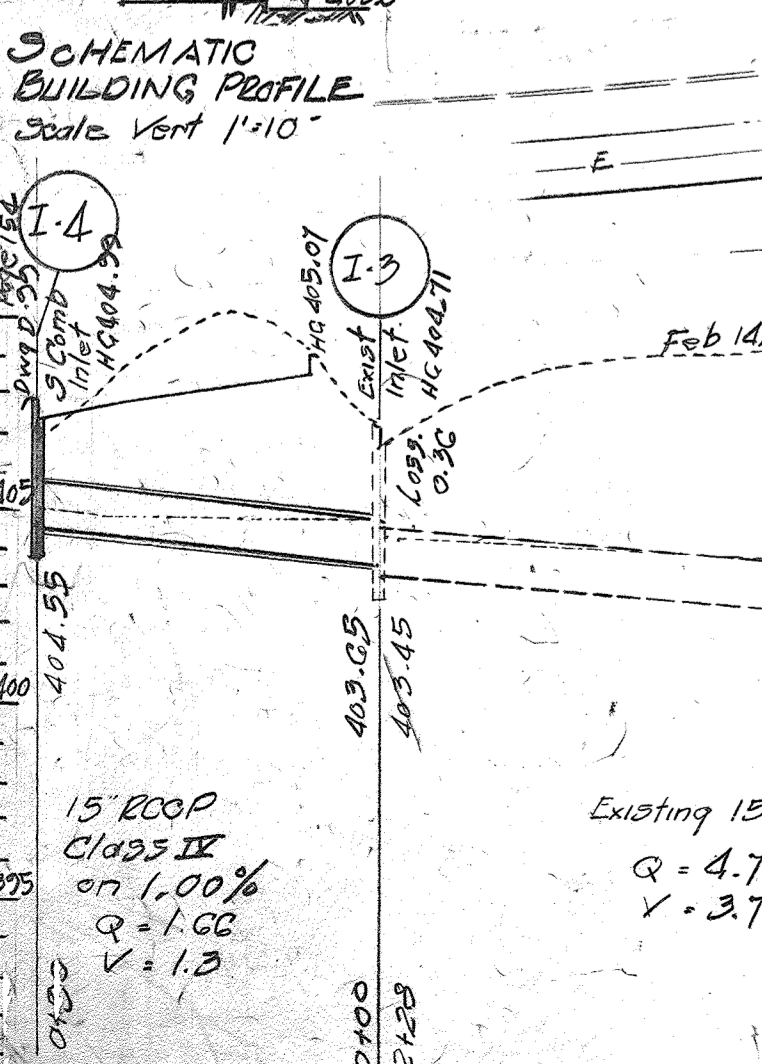


- ### SEDIMENT CONTROL NOTES & SCHEDULE
1. The contractor shall notify the Howard County Soil Conservation District at least 24 Hrs prior to beginning any construction shown on this DWG. (Telephone 463-3180).
 2. Protective Sediment Control measures must be installed prior to grading operations.
 3. Contractor shall install Storm Drain System, stabilize outlet with 12" man Stone paving, Stone Baffle & form temporary Sediment Traps at Inlet I-1 & I-4, & outlet from disturbed areas to Sediment Traps.
 4. Place protective Berms to direct all surface flows from disturbed areas to Sediment Traps.
 5. Construct cut & fill slopes and stabilize by bedding as soon as completed.
 6. Sediment Control measures shown on plan are not to be removed except with permission of the Soil Conservation District.
 7. All areas disturbed by grading or contractors operations, not being paved shall be topsoiled, seeded and mulched immediately following earthwork operations in accordance with the following:
 - a. Place 3" compacted layer of topsoil to finish grade.
 - b. Spread pulverized dolomitic limestone at the rate of 1 Ton/Acre.
 - c. Spread 10-10-10 Commercial grade fertilizer at rate of 1000#/Ac and immediately disk into topsoil to 3" depth.
 - d. Place certified seed in straight rows with subsequent rows parallel & tightly wedged against each other. On slopes lay with the long edge parallel to the contour & with staggered joints. Secure by tamping & pegging or other approved method.
 - e. As bedding is completed in one section, the area shall be rolled or tamped to insure solid contact of roots with soil surface. Water immediately after rolling until the underside of raw seed pad & soil surface below are thoroughly wet. Water daily for first week & then as necessary.

- ### STORM WATER MANAGEMENT
1. Total Area of Site 1.401 Ac
 2. Reg'd 1st Year Detention Volume 6054 cu ft
 3. Actual Detention Volume 6060 cu ft
 4. Reg'd Max. Release Rate 0.55 cfs
 5. Actual Release Rate 0.45 cfs

- ### TEMPORARY SEDIMENT TRAP
- No Scale
Use of I-1 & I-4



STORM DRAIN STRUCTURE SCHEDULE

Type	Inv. In	Inv. Out	Perfor. Dia	Page No.	Remarks	Number
5 Comb	327.05	326.30	40x5.00	D-25	154	I-1
5 Comb	404.55	407.50	D-25	154		I-4
5th MH	401.03	328.57	410.70	D-103	158	M-1

TEMP SEDIMENT TRAP SCHEDULE

Trap No.	Area	Trap Size	Trap Storage	Trap Size	Trap Length
1	1.32	33.4	2.00	15x15x2	36.0
2	0.66	44.2	4.4A	25x24x2	16.7
3	0.24	16.1	16.7	15x15x2	16.7
4	0.68	5.4	6.0	2x2x2	4.0

SEE SHEETS C1.00 - C10.00 FOR REVISIONS TO SDR# 78-083

Limit of Compacted Fill & Special Site Preparation See Specifications

THIS SHEET IS FOR INFORMATION PURPOSES 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, LICENSE NO. 310289, EXPIRATION DATE: 11-21-16

- ### LEGEND
1. Existing Contour
 2. Proposed Contour
 3. Existing Conc Curb
 4. Proposed Storm Drain
 5. Proposed Sanitary Sewer
 6. Protective Earth Berm
 7. Proposed Barrier Curb
 8. Drainage Area Limits
 9. Drainage Area & Acres
 10. Light Pole

- ### GENERAL NOTES
1. Parcel C Shown on Subdivision Plot of Parcel C, Town Center Section C Area 2 Lots C1-C2 Plot Book 26 1810 47
 2. State Tax Map 1970-1971 Page 35 Parcel 275
 3. Gross Acreage of Parcel C-1 1.401 Acres
 4. Zoned: Employment Center-Commercial-Town Center; FDP 84-A; See R.D. Code 107
 5. Use: Office Building
 6. Total Number of Lots - One
 7. Parking Spaces Shown: 65 Spaces
 8. 13,170 Total Sq Ft of Office Use on Site 34330 SF
 9. Any damage to County Right of Way or existing paving shall be corrected at the developer's expense.
 10. All material and construction methods shall be in accordance with Howard County Road Construction Code.
 11. Site Analysis:
 - 1.401 Ac Total Area of Site
 - 1.40 Ac Disturbed
 - 0.73 Ac Roofed & Paved
 - 0.67 Ac Area Revegetated
 - 0.00 Ac Area Not Disturbed
 12. Lighting shall be 150 Watt Sodium High Pressure on 20' High Poles. Pole Cat No 72 1831-208 3Z McGraw-Edison or Equal. All lighting shall be directed away from public Right of Ways.
 - 1-1 Double Light
 - 2-1 Single Light

1 certify that this plan for Erosion and Sediment Control represents a 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

Approved: *J. Dallas* 5-14-74
Signature of Engineer Date

1 certify that all development and/or construction will be done according to this plan of development and plan for Erosion and Sediment Control, and I also authorize periodic on site inspection by the Howard Soil Conservation District or their authorized Agents as are deemed necessary. Deviations from this plan will not be made unless authorized by the Howard Soil Conservation District.

Reviewed for: *Howard* S.C.D. Name
and meets Technical Requirements. 4/14/77 Date
Walter Smith Signature
U.S. Soil Conservation District

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District

APPROVED: *Richard Ziehm* 4/14/78
Howard Soil Conservation District Date

APPROVED: For Public Water and Public Sewerage Systems
Howard County Health Department.

APPROVED: *Jayman Payne* 4-26-78
County Health Officer Date

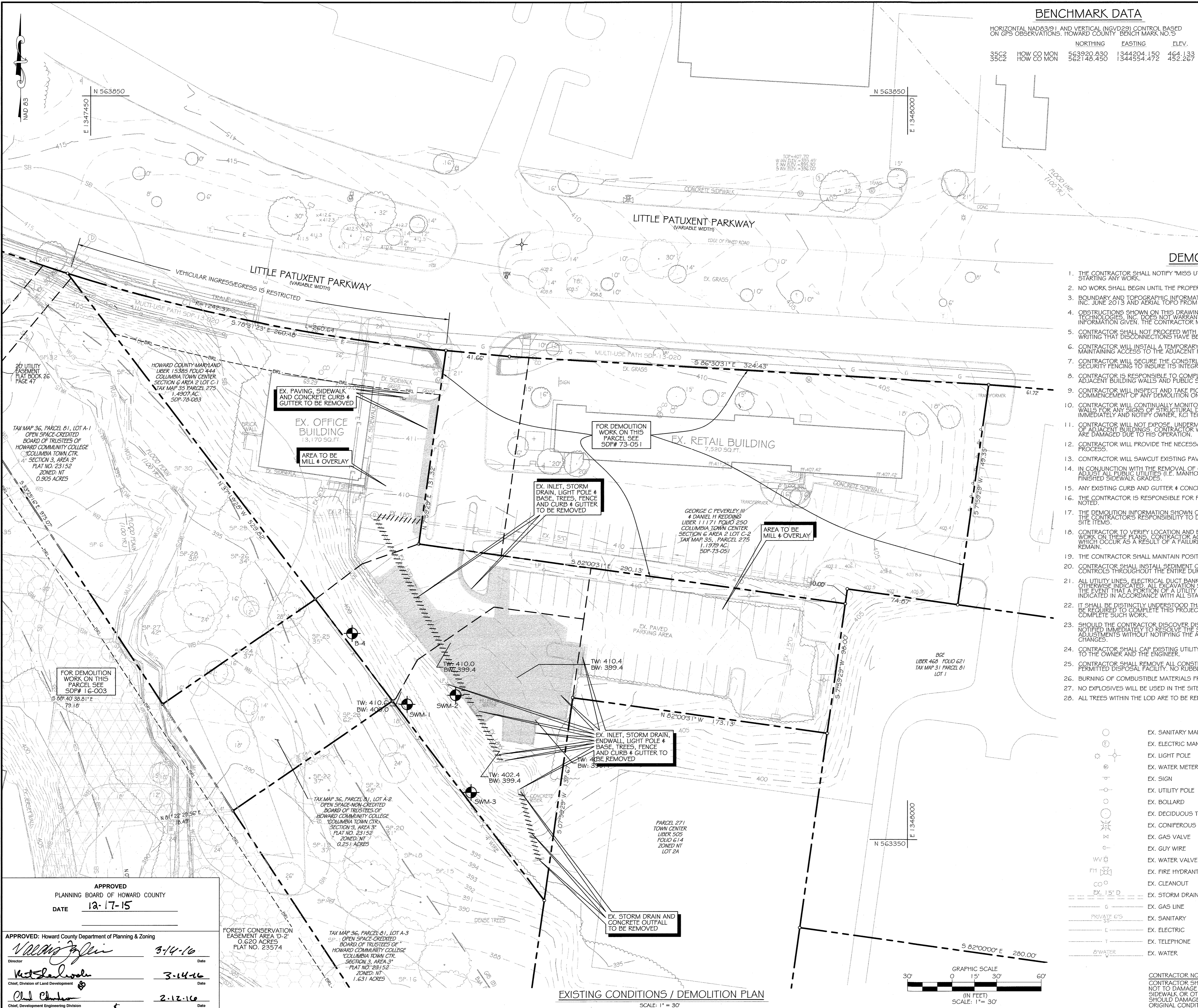
APPROVED: Howard County Office of Planning and Zoning
Doreen Kamm 4-27-78
Planning Director Date

APPROVED: For Public Water, Public Sewerage, and Storm Drainage Systems and Roads.
Howard County Department of Public Works
Richard Freudenberg 4-19-78
Director Date

APPROVED: *Jayman Payne* 4-27-78
County Health Officer Date

APPROVED: *Jayman Payne* 4-27-78
County Health Officer Date

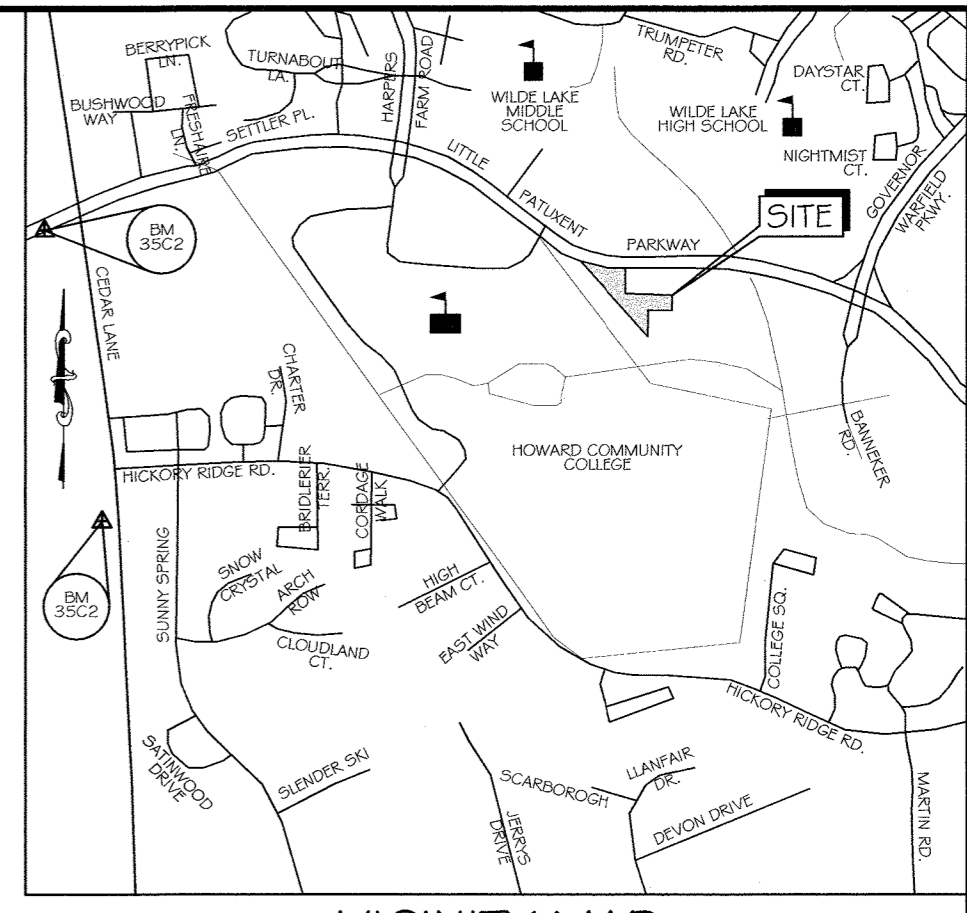
GREMPER REALTY INC. OFFICE BLDG
LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND
5th Election District
Scale 1"=30'
Redevelopment Parcel C C1.00 July 14, 1974
Town Center Section C Area 2
Lot C-1 Plot Book 26-47
Revised Aug 31, 1977
Revised 10/1978
OWNER: Grempel Realty
400 East Joppa Road
Towson Md 21284
Phone 252-6400



BENCHMARK DATA

HORIZONTAL (NAD83) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS, HOWARD COUNTY BENCHMARK NO. 5

	NORTHING	EASTING	ELEV.
35C2 HOW CO MON	563920.830	1344204.150	464.133
35C2 HOW CO MON	562148.450	1344554.472	452.267



VICINITY MAP
SCALE 1" = 1000'
ADC MAP: 15 GRID: DG

DEMOLITION NOTES

1. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" (800-257-7777) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK.
2. NO WORK SHALL BEGIN UNTIL THE PROPER PERMITS HAVE BEEN RELEASED BY HOWARD COUNTY.
3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS BASED UPON A SURVEY CONDUCTED BY KCI TECHNOLOGIES, INC. JUNE 2013 AND AERIAL TOPO FROM VIRGINIA RESOURCE MAPPING APRIL 27, 2009.
4. OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT GUARANTEE THE CORRECTNESS OF THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.
5. CONTRACTOR SHALL NOT PROCEED WITH ANY DEMOLITION WORK UNTIL ALL UTILITY COMPANIES HAVE VERIFIED IN WRITING THAT DISCONNECTIONS HAVE BEEN COMPLETED.
6. CONTRACTOR WILL INSTALL A TEMPORARY CONSTRUCTION FENCE AROUND THE CONSTRUCTION AREA WHILE MAINTAINING ACCESS TO THE ADJACENT PUBLIC SIDEWALKS.
7. CONTRACTOR WILL SECURE THE CONSTRUCTION AREA AT THE END OF EACH WORKING DAY AND WILL INSPECT THE SECURITY FENCING TO INSURE ITS INTEGRITY.
8. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH MSHA AND OSHA REGULATIONS AS THEY PERTAIN TO EXISTING ADJACENT BUILDING WALLS AND PUBLIC SIDEWALKS AND PROVIDING "SAFE" PASSAGE TO THEM.
9. CONTRACTOR WILL INSPECT AND TAKE PICTURES OF ADJACENT BUILDING WALLS AND RETAINING WALLS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION ON THE SITE. EXISTING WALL CRACKS (IF ANY) WILL BE NOTED.
10. CONTRACTOR WILL CONTINUALLY MONITOR THE WALLS OF THE ADJACENT BUILDINGS AND RETAINING WALLS FOR ANY SIGNS OF STRUCTURAL DISTRESS. IF ANY DISTRESS IS NOTED, CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY OWNER, KCI TECHNOLOGIES, INC. AND DESMAN ASSOCIATES.
11. CONTRACTOR WILL NOT EXPOSE, UNDERMINE, OR IMPACT THE ZONE OF INFLUENCE FOR FOOTINGS AND FOUNDATIONS OF ADJACENT BUILDINGS. CONTRACTOR WILL BE RESPONSIBLE FOR THE COST TO REPAIR ADJACENT BUILDINGS THAT ARE DAMAGED DUE TO HIS OPERATION.
12. CONTRACTOR WILL PROVIDE THE NECESSARY MEANS TO CONTROL DUST AND AIR QUALITY DURING THE DEMOLITION PROCESS.
13. CONTRACTOR WILL SAWCUT EXISTING PAVING TO MINIMIZE DAMAGE TO EXISTING PAVING REMAINING.
14. IN CONJUNCTION WITH THE REMOVAL OF CONCRETE APRONS AND WALKS, THE CONTRACTOR IS RESPONSIBLE TO ADJUST ALL PUBLIC UTILITIES (I.E. MANHOLE FRAMES & COVERS, ELECTRIC HAND BOXES, VALVE COVERS) TO BE FINISHED SIDEWALK GRADES.
15. ANY EXISTING CURB AND GUTTER & CONCRETE SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT.
16. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK SHOWN ON THESE DRAWINGS UNLESS OTHERWISE NOTED.
17. THE DEMOLITION INFORMATION SHOWN ON THIS DRAWING IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LIMITS OF DEMOLITION AND REMOVAL OF AFFECTED SITE ITEMS.
18. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN HEREON BEFORE STARTING ANY WORK ON THESE PLANS. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR THE COST OF ANY AND ALL DAMAGES WHICH OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES TO REMAIN.
19. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.
20. CONTRACTOR SHALL INSTALL SEDIMENT CONTROLS PRIOR TO BEGINNING ANY WORK AND MAINTAIN SEDIMENT CONTROLS THROUGHOUT THE ENTIRE DURATION OF DEMOLITION AND CONSTRUCTION ACTIVITIES.
21. ALL UTILITY LINES, ELECTRICAL DUCT BANKS, STRUCTURES, ETC. ARE TO BE REMOVED IN THEIR ENTIRETY UNLESS OTHERWISE INDICATED. ALL EXCAVATION SHALL BE BACKFILLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IN THE EVENT THAT A PORTION OF A UTILITY IS TO BE REMOVED THE CONTRACTOR SHALL TERMINATE & CAP TO THE LIMITS INDICATED IN ACCORDANCE WITH ALL STATE & LOCAL REQUIREMENTS AND THE PROJECT REQUIREMENTS.
22. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
23. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE A/E IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE A/E, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
24. CONTRACTOR SHALL CAP EXISTING UTILITY CONNECTIONS AND PROVIDE THEIR HORIZONTAL AND VERTICAL LOCATIONS TO THE OWNER AND THE ENGINEER.
25. CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS FROM THE SITE AND DISPOSE OF IT AT AN APPROVED, PERMITTED DISPOSAL FACILITY. NO RUBBLE IS TO BE LEFT ON SITE.
26. BURNING OF COMBUSTIBLE MATERIALS FROM DEMOLISHED STRUCTURES WILL NOT BE PERMITTED.
27. NO EXPLOSIVES WILL BE USED IN THE SITE DEMOLITION.
28. ALL TREES WITHIN THE LOD ARE TO BE REMOVED UNLESS OTHERWISE NOTED.

LEGEND

	EX. SANITARY MANHOLE		APPROXIMATE LIMITS OF ENVIRONMENTAL BUFFER AREA
	EX. ELECTRIC MANHOLE		APPROXIMATE LIMITS OF FOREST CONSERVATION EASEMENT
	EX. LIGHT POLE		APPROXIMATE LIMITS OF NON-TIDAL WETLAND
	EX. WATER METER		APPROXIMATE LIMITS OF MILL AND OVERLAY
	EX. SIGN		25' WETLAND BUFFER
	EX. UTILITY POLE		75' STREAM BUFFER
	EX. DECIDUOUS TREE		WATERS OF THE U.S.
	EX. CONIFEROUS TREE		SOILS LINES
	EX. GAS VALVE		SOIL BORINGS
	EX. GUY WIRE		PROPERTY LINE
	EX. WATER VALVE		REMOVE EX. VEGETATION
	EX. CLEANOUT		REMOVE EX. UTILITY
	EX. FIRE HYDRANT		
	EX. STORM DRAIN		
	EX. GAS LINE		
	EX. SANITARY		
	EX. ELECTRIC		
	EX. TELEPHONE		
	EX. WATER		

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

Prepared For and Owner:
Howard County Maryland
3430 Court House Drive
Ellicott City, Maryland 21043
ATTN: Mr. James J. Irvin
410-313-4401

DESMAN ASSOCIATES

KCI TECHNOLOGIES
ENGINEERING
PLANNING
CONSTRUCTION
CONTRACT MANAGEMENT

**LITTLE PATUXENT PARKWAY
GREMPLE REALTY INC. OFFICE BUILDING
COLUMBIA, MD**
PARCEL: 275, TAX MAP: 35, GRID: 6
PLAT: PLAT BOOK 26, FOLIO 47
ELECTION DISTRICT: 5, ZONING: NT

PROFESSIONAL CERTIFICATION.
I HEREBY CERTIFY THAT THE 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. 31089, EXPIRATION DATE: 11/21/16



NO.	DESCRIPTION	DATE
	DRAWING TITLE:	
	EXISTING CONDITIONS / DEMOLITION PLAN	
	DRAWING NO.	
	C2.00	
	SHEET: 3 OF 27	
	SCALE: 1" = 30'	
	DATE: JANUARY 15, 2016	
	PROJECT NO: 27146550	
DES.	DRWN.	CK'D.
R.L.B.	C.T.B.	R.L.B.

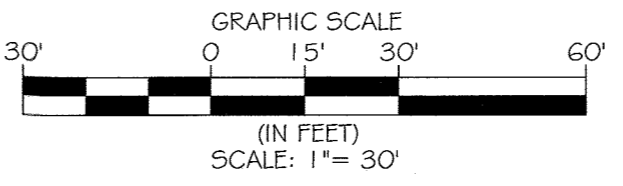
APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: 12-17-15

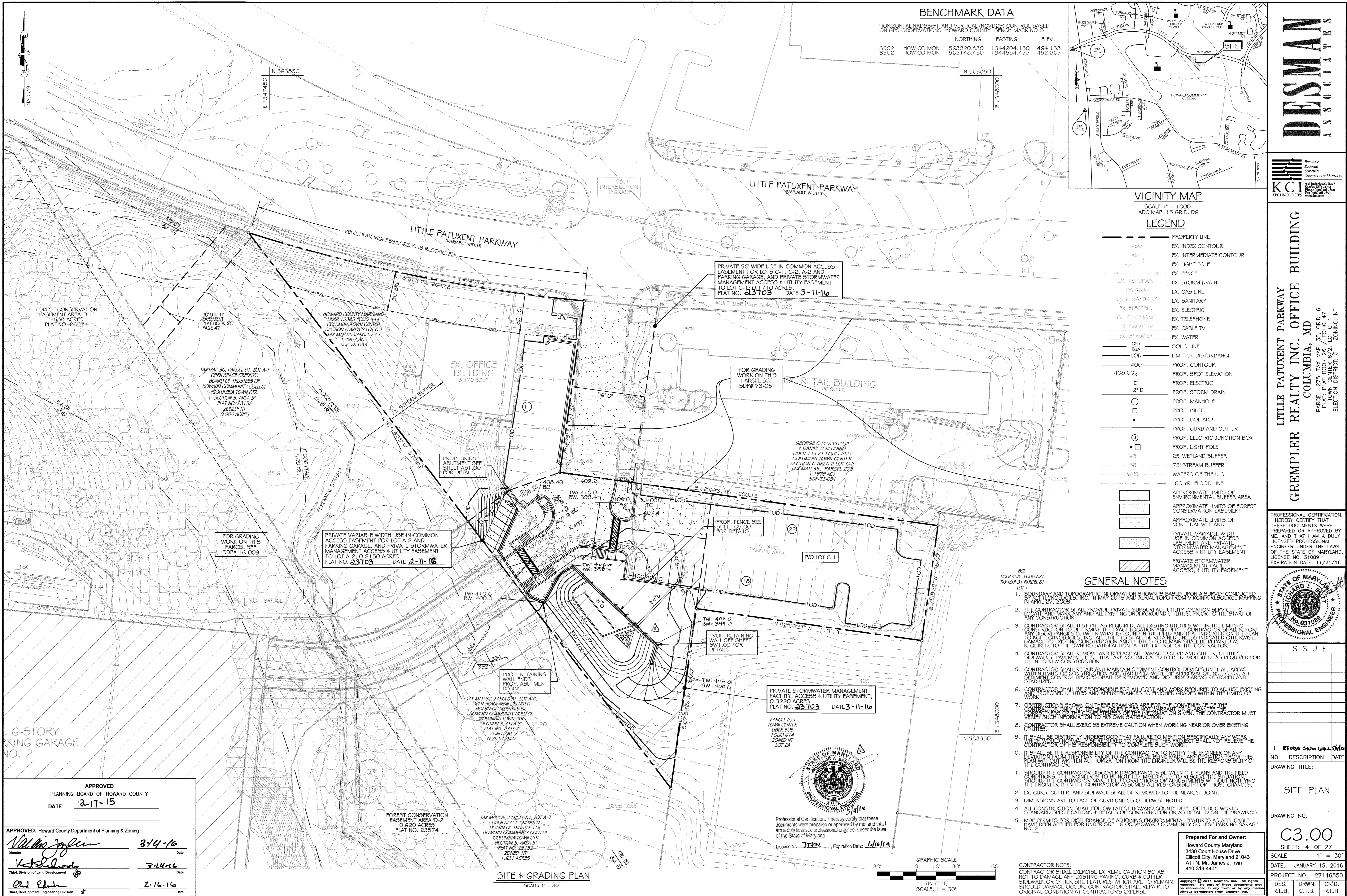
APPROVED: Howard County Department of Planning & Zoning
3-14-16
3-14-16
2-12-16

FOREST CONSERVATION EASEMENT AREA D-2
0.620 ACRES
PLAT NO. 23574

TAX MAP 36, PARCEL 81, LOT A-3
OPEN SPACE-CREDITED
BOARD OF TRUSTEES OF
HOWARD COMMUNITY COLLEGE
COLUMBIA TOWN CTR.
SECTION 3, AREA 3
PLAT NO. 23152
ZONED: NT
1.631 ACRES

EXISTING CONDITIONS / DEMOLITION PLAN
SCALE: 1" = 30'

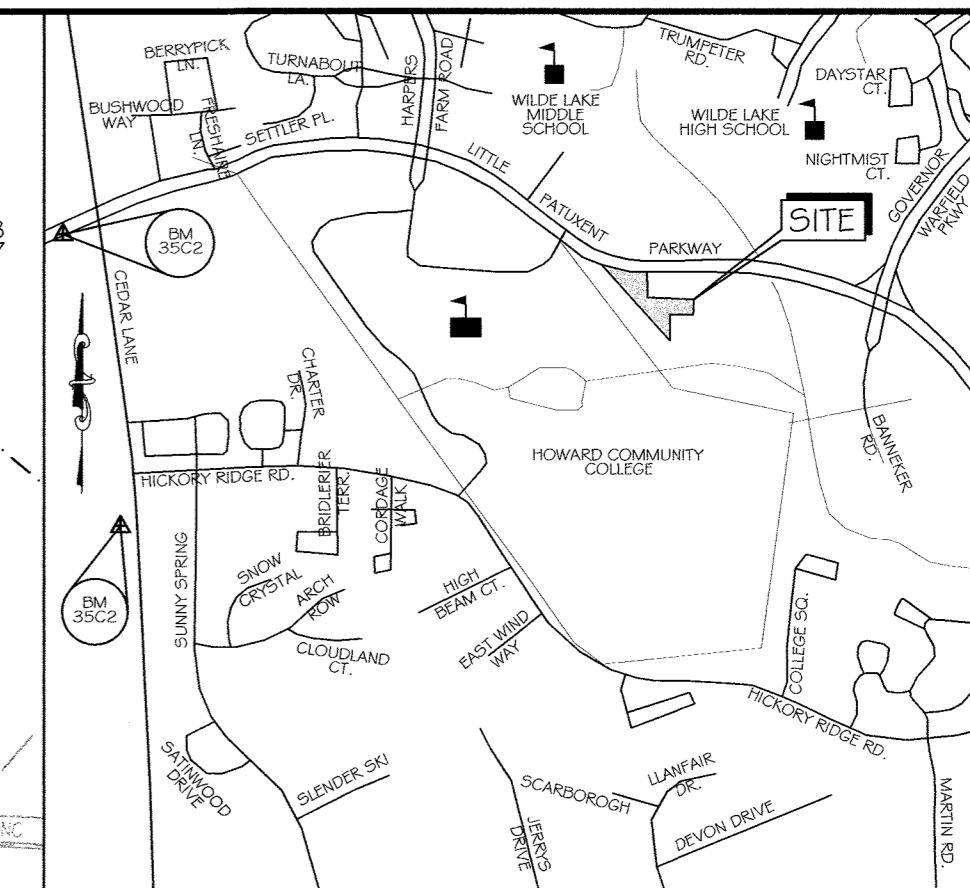




BENCHMARK DATA

HORIZONTAL NAD83(91) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO. 5

	NORTHING	EASTING	ELEV.
35C2	563920.830	1344204.150	464.133
35C2	562148.450	1344554.472	452.267



VICINITY MAP

SCALE 1" = 1000'
ADC MAP: 15 GRID: DG

LEGEND

---	PROPERTY LINE
---	EX. INDEX CONTOUR
---	EX. INTERMEDIATE CONTOUR
---	EX. LIGHT POLE
---	EX. FENCE
---	EX. STORM DRAIN
---	EX. GAS
---	EX. GAS LINE
---	EX. SANITARY
---	EX. ELECTRIC
---	EX. ELECTRIC
---	EX. TELEPHONE
---	EX. CABLE TV
---	EX. WATER
---	EX. WATER
---	SOILS LINE
---	LIMIT OF DISTURBANCE
---	PROP. CONTOUR
---	PROP. SPOT ELEVATION
---	PROP. ELECTRIC
---	PROP. STORM DRAIN
---	PROP. MANHOLE
---	PROP. INLET
---	PROP. BOLLARD
---	PROP. CURB AND GUTTER
---	PROP. ELECTRIC JUNCTION BOX
---	PROP. LIGHT POLE
---	25' WETLAND BUFFER
---	75' STREAM BUFFER
---	WATERS OF THE U.S.
---	100 YR. FLOOD LINE
---	APPROXIMATE LIMITS OF ENVIRONMENTAL BUFFER AREA
---	APPROXIMATE LIMITS OF FOREST CONSERVATION EASEMENT
---	APPROXIMATE LIMITS OF NON-TIDAL WETLAND
---	PRIVATE VARIABLE WIDTH USE-IN-COMMON ACCESS EASEMENT AND PRIVATE STORMWATER MANAGEMENT ACCESS, # UTILITY EASEMENT
---	PRIVATE STORMWATER MANAGEMENT FACILITY ACCESS, # UTILITY EASEMENT

GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS BASED UPON A SURVEY CONDUCTED BY BGE LIBER 460 FOLIO 621 TAX MAP 31 PARCEL 81 LOT 1 IN APRIL 2009. S.S. INC. IN MAY 2015 AND AERIAL TOPO FROM VIRGINIA RESOURCE MAPPER IN APRIL 2009.
- THE CONTRACTOR SHALL PROVIDE PRIVATE SUBSURFACE UTILITY LOCATION SERVICE TO LOCATE ALL UTILITIES, ANY AND ALL EXISTING UNDERGROUND UTILITIES, PRIOR TO THE START OF ANY CONSTRUCTION.
- CONTRACTOR SHALL TEST PIT, AS REQUIRED, ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION TO DETERMINE THE EXACT LOCATION AND DEPTH. CONTRACTOR SHALL REPORT TO ALL UTILITIES INC. ALL UTILITIES SHALL BE RETAINED UNLESS INDICATED OTHERWISE. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND SHALL BE RESPONSIBLE FOR THE OWNERS SATISFACTION, AT THE EXPENSE OF THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE AND REPLACE ALL DAMAGED CURB AND GUTTER, UTILITIES, SIDEWALKS, DRIVEWAYS, AND OTHER FEATURES THAT ARE NOT INDICATED TO BE DEMOLISHED, AS REQUIRED FOR TIE-IN TO NEW CONSTRUCTION.
- CONTRACTOR SHALL REPAIR AND MAINTAIN SEDIMENT CONTROL DEVICES UNTIL ALL AREAS WITHIN LIMITS OF CONSTRUCTION ARE STABILIZED WITH THE APPROVAL OF INSPECTOR. ALL SEDIMENT CONTROL DEVICES SHALL BE REMOVED AND DISTURBED AREAS RESTORED AND STABILIZED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST AND WORK REQUIRED TO ADJUST EXISTING UTILITIES AND APPEARANCES TO FINISH AND GRABES WITHIN THE LIMITS OF WORK.
- OBSTRUCTIONS SHOWN ON THESE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. CONTRACTOR SHALL VERIFY THE ACCURACY OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL INFORMATION TO HIS OWN SATISFACTION.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING NEAR OR OVER EXISTING UTILITIES.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK SHALL NOT BE CONSIDERED AS A WAIVER OF THE CONTRACTOR'S RESPONSIBILITY TO COMPLETE SUCH WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS BETWEEN THE PLANS AND THE FIELD CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED TO THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED TO THE ENGINEER.
- SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND THE FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED TO THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED TO THE ENGINEER.
- EX. CURB, GUTTER, AND SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT.
- DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION SHALL FOLLOW LATEST HOWARD COUNTY DEPT. OF PUBLIC WORKS STANDARD SPECIFICATIONS & DETAILS OF CONSTRUCTION OR AS DETAILED ON THE DRAWINGS.
- MDE PERMITS FOR DISTURBANCE OF ADJOINING ENVIRONMENTAL FEATURES AS APPLICABLE SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.

DESMAN ASSOCIATES

KCI TECHNOLOGIES

**LITTLE PATUXENT PARKWAY
GREMLER REALTY INC. OFFICE BUILDING
COLUMBIA, MD**

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. 31089, EXPIRATION DATE: 11/21/16



NO.	DESCRIPTION	DATE
1	REVISION	

SITE PLAN

DRAWING NO.

C3.00

SHEET: 4 OF 27

SCALE: 1" = 30'

DATE: JANUARY 15, 2016

PROJECT NO.: 27146550

DES. DRWN. CK'D.
R.L.B. C.T.B. R.L.B.

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: 12-17-15

APPROVED: Howard County Department of Planning & Zoning

Director: *Valerie J. Griffin* 3/14/16
Date: 3/14/16

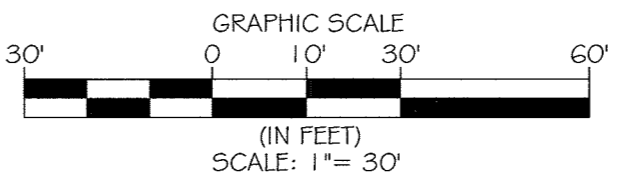
Chief, Division of Land Development: *Kate S. Edwards* 3-14-16
Date: 3-14-16

Chief, Development Engineering Division: *Chris P. Edwards* 2-16-16
Date: 2-16-16

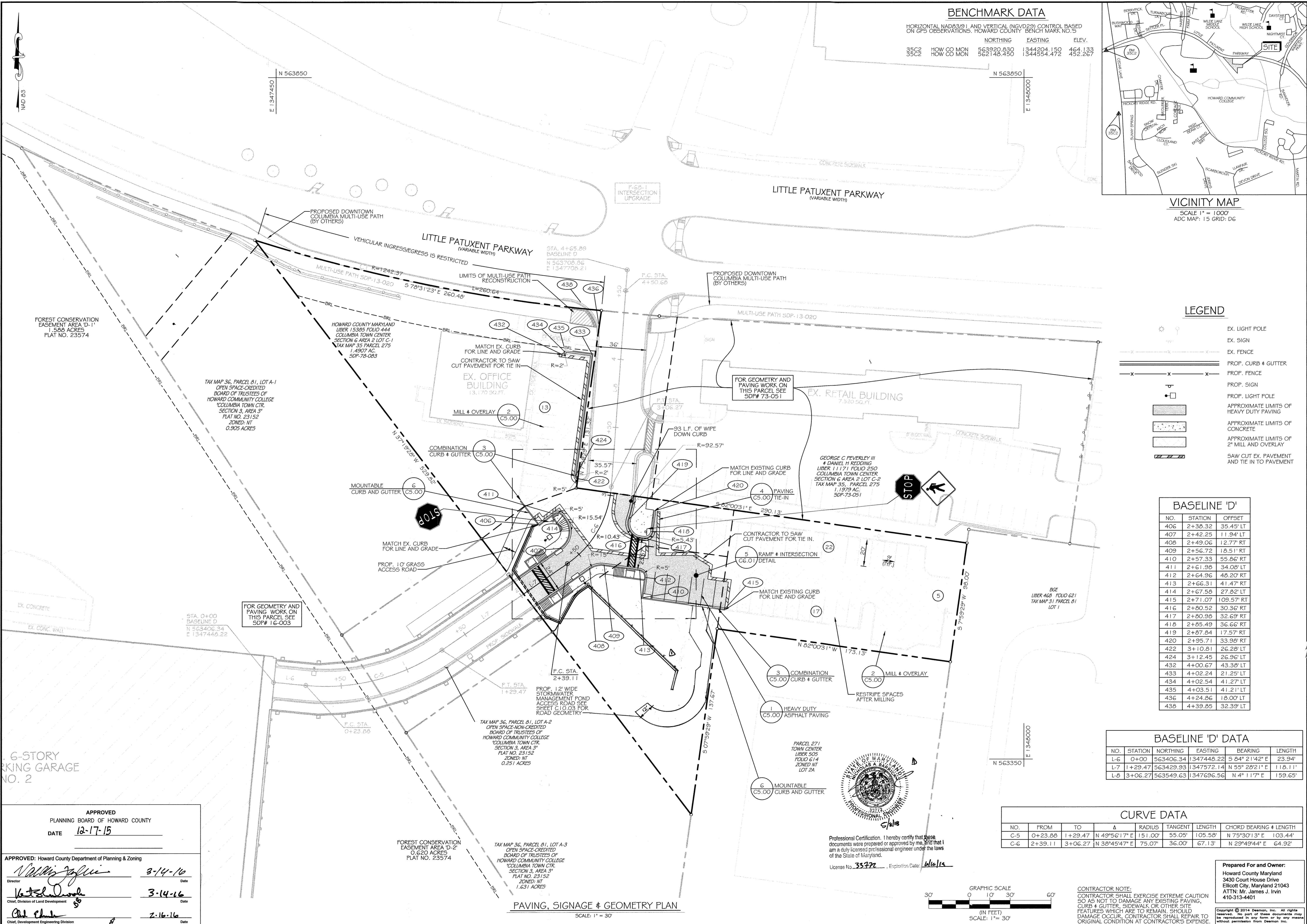


Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 31089, Expiration Date: 11/21/16



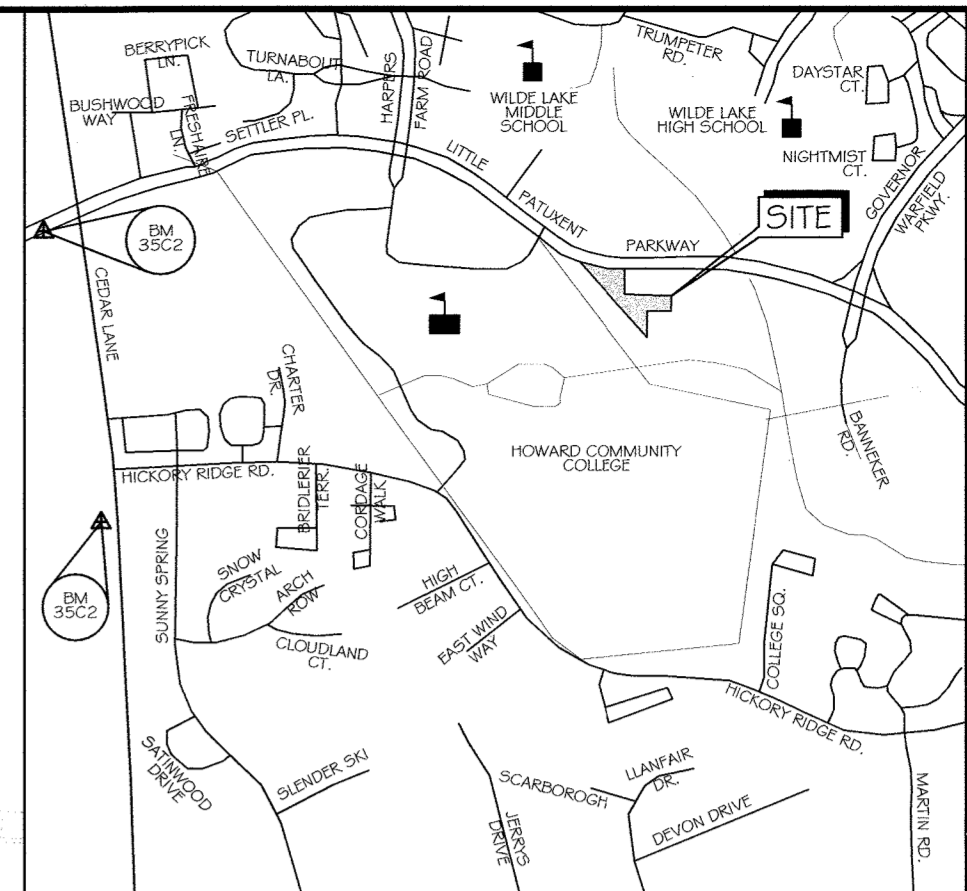
SITE & GRADING PLAN
SCALE: 1" = 30'



BENCHMARK DATA

HORIZONTAL (NAD83) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS, HOWARD COUNTY BENCHMARK NO. 5

		NORTHING	EASTING	ELEV.
35C2	HOW CO MON	563920.830	1344204.150	454.133
35C2	HOW CO MON	562748.450	1344554.472	452.267



VICINITY MAP
SCALE 1" = 1000'
ADC MAP: 15 GRID: D6

LEGEND

- EX. LIGHT POLE
- EX. SIGN
- EX. FENCE
- PROP. CURB & GUTTER
- PROP. FENCE
- PROP. SIGN
- PROP. LIGHT POLE
- APPROXIMATE LIMITS OF HEAVY DUTY PAVING
- APPROXIMATE LIMITS OF CONCRETE
- APPROXIMATE LIMITS OF 2" MILL AND OVERLAY
- SAW CUT EX. PAVEMENT AND TIE IN TO PAVEMENT

BASELINE 'D'

NO.	STATION	OFFSET
406	2+30.32	35.45' LT
407	2+42.25	11.94' LT
408	2+49.06	12.77' RT
409	2+56.72	18.51' RT
410	2+57.33	55.86' RT
411	2+61.98	34.08' RT
412	2+64.96	48.20' RT
413	2+66.31	41.47' RT
414	2+67.58	27.82' LT
415	2+71.07	109.57' RT
416	2+80.52	30.36' RT
417	2+80.96	32.69' RT
418	2+85.49	36.66' RT
419	2+87.84	17.57' RT
420	2+95.71	33.98' RT
422	3+10.81	26.28' LT
424	3+12.45	26.96' LT
432	4+00.67	43.38' LT
433	4+02.24	21.25' LT
434	4+02.54	41.27' LT
435	4+03.51	41.21' LT
436	4+24.86	18.00' LT
438	4+39.85	32.39' LT

BASELINE 'D' DATA

NO.	STATION	NORTHING	EASTING	BEARING	LENGTH
L-6	0+00	563406.34	1347448.22	S 84° 21' 42" E	23.94'
L-7	1+29.47	563429.93	1347572.14	N 55° 28' 21" E	118.11'
L-8	3+06.27	563549.63	1347636.56	N 4° 11' 7" E	159.65'

CURVE DATA

NO.	FROM	TO	Δ	RADIUS	TANGENT	LENGTH	CHORD BEARING & LENGTH
C-5	0+23.88	1+29.47	N 49° 56' 17" E	151.00'	55.05'	105.58'	N 75° 30' 13" E 103.44'
C-6	2+39.11	3+06.27	N 38° 45' 47" E	75.07'	36.00'	67.13'	N 29° 49' 44" E 64.92'

DESMAN ASSOCIATES

KCI TECHNOLOGIES
ENGINEER
PLANNER
SCIENTIST
CONSTRUCTION MANAGER

LITTLE PATUXENT PARKWAY
GREMPLE REALTY INC. OFFICE BUILDING
COLUMBIA, MD
PARCEL: 275, TAX MAP: 35, GRID: 6
PLAT: PLAT BOOK 26, 22, LOT 47
ELECTION DISTRICT: 5, ZONING: NT

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. 31089, EXPIRATION DATE: 11/21/16



NO.	DESCRIPTION	DATE
1	REVISION	

DRAWING TITLE:

PAVING, SIGNAGE & GEOMETRY PLAN

DRAWING NO.

C4.00
SHEET: 5 OF 27

SCALE: 1" = 30'
DATE: JANUARY 15, 2016
PROJECT NO: 27146550

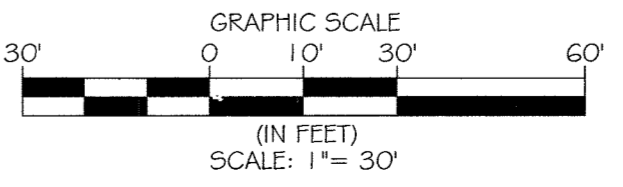
DES. DRWN. CK'D.
R.L.B. C.T.B. R.L.B.

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: 12-17-15

APPROVED: Howard County Department of Planning & Zoning
Director: *N. J. Jaffee* 3-14-16
Chief, Division of Land Development: *K. J. Jaffee* 3-14-16
Chief, Development Engineering Division: *A. J. Jaffee* 2-16-16



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. 35372, Expiration Date: 6/16/15

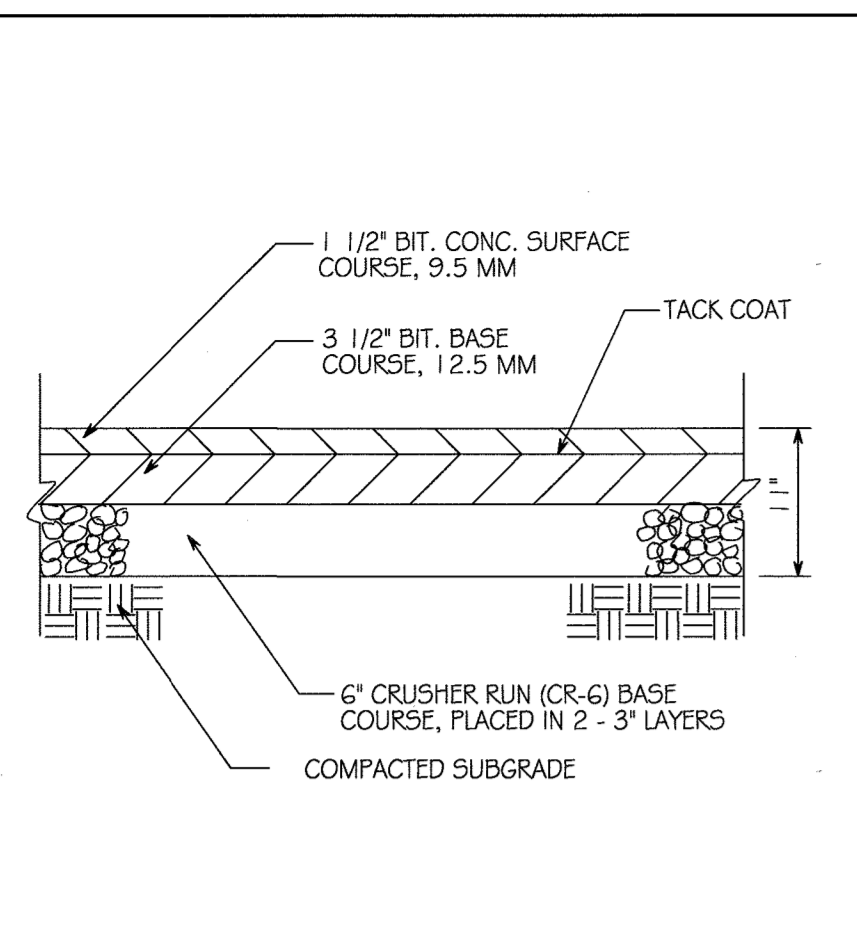


CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

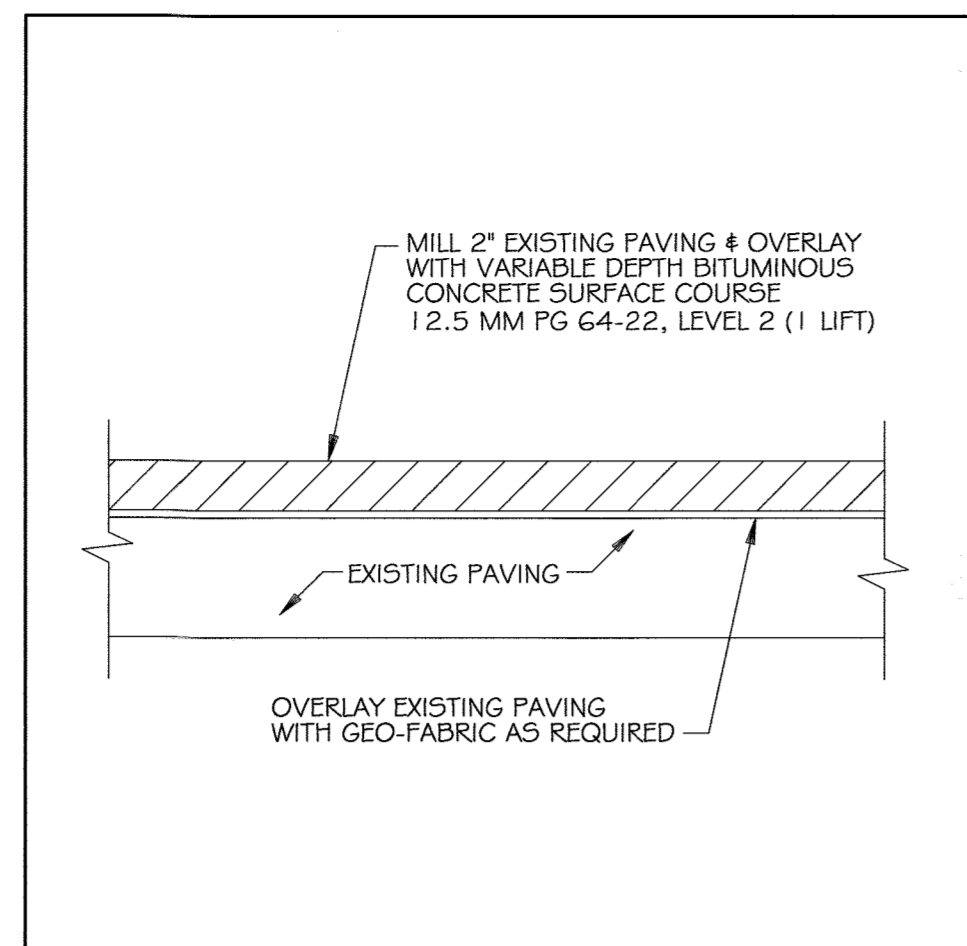
Prepared For and Owned by:
Howard County Maryland
3430 Court House Drive
Ellicott City, Maryland 21043
ATTN: Mr. James J. Irvin
410-313-4401

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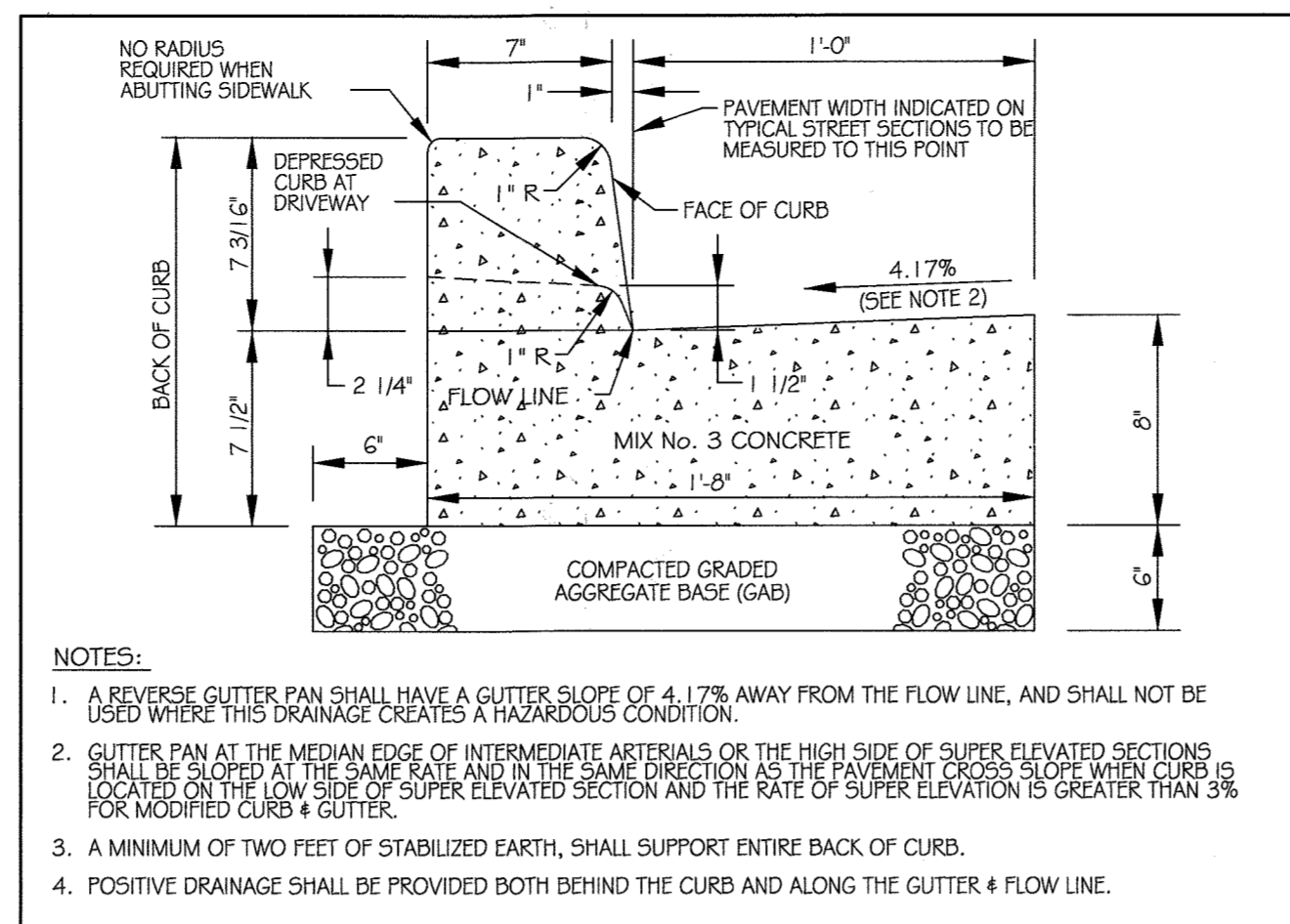
PAVING, SIGNAGE & GEOMETRY PLAN
SCALE: 1" = 30'



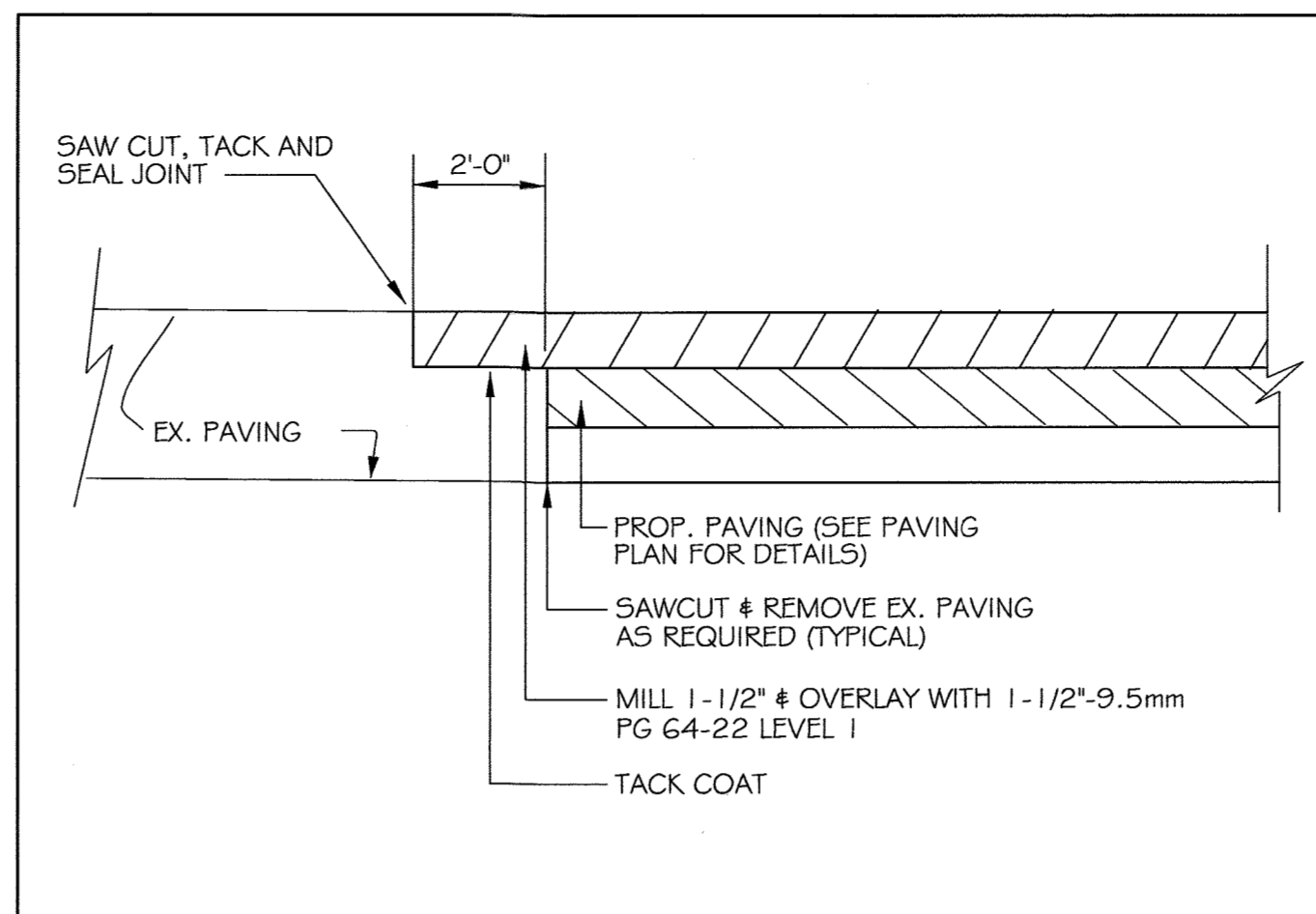
① HEAVY DUTY ASPHALT PAVING DETAIL SCALE: N.T.S.



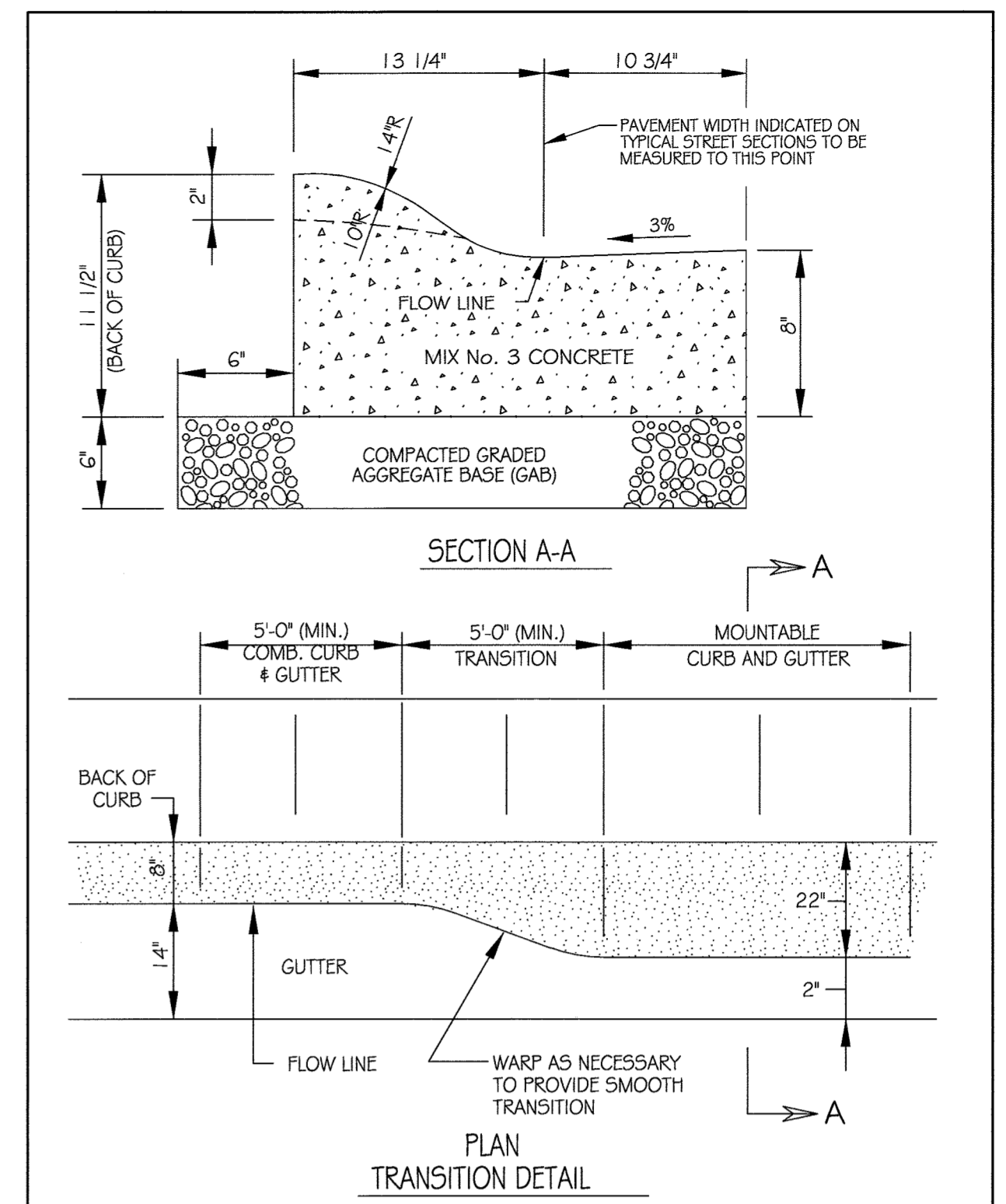
② MILL & OVERLAY SCALE: N.T.S.



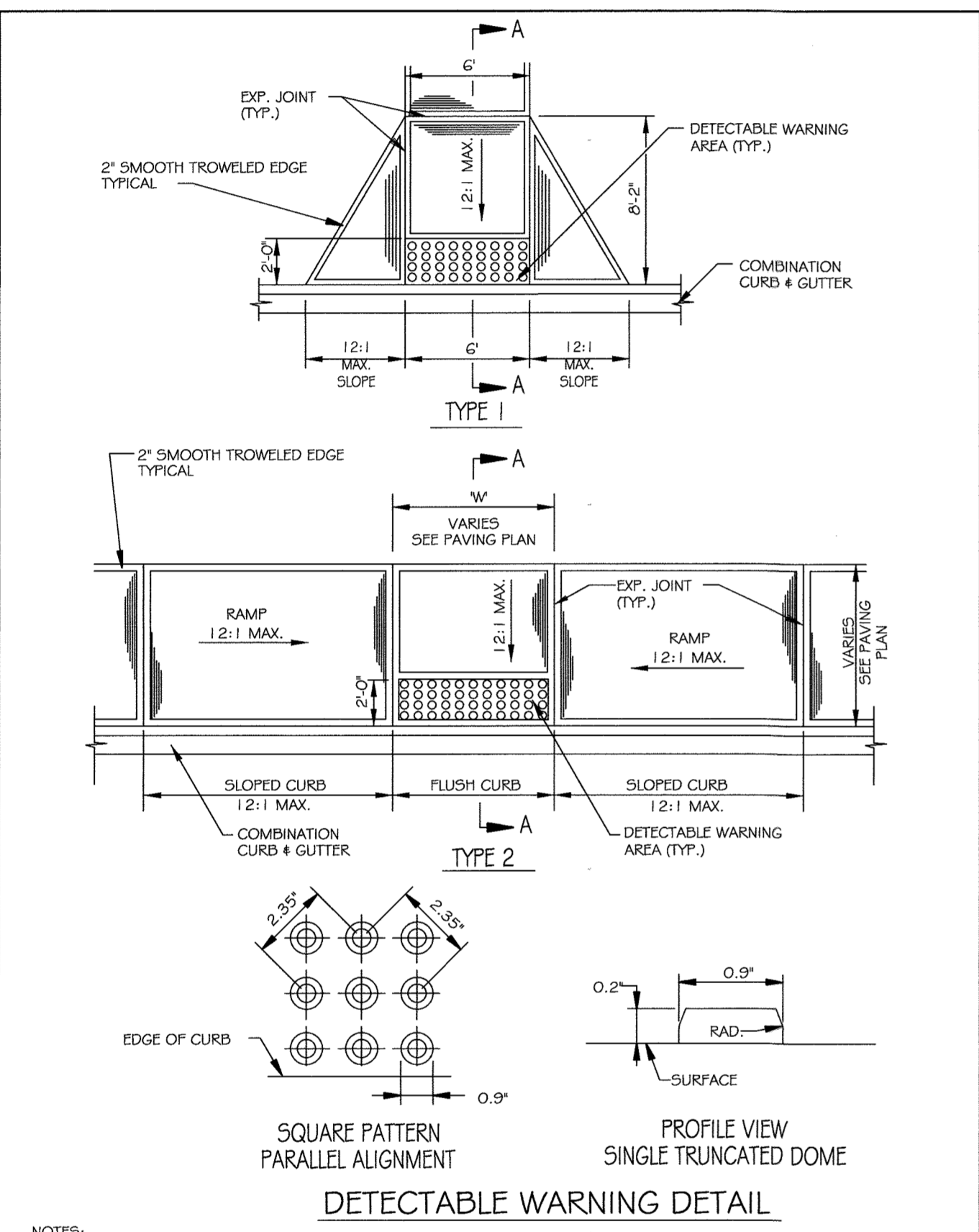
③ COMBINATION CURB AND GUTTER SCALE: N.T.S.



④ PAVING TIE-IN DETAIL SCALE: N.T.S.

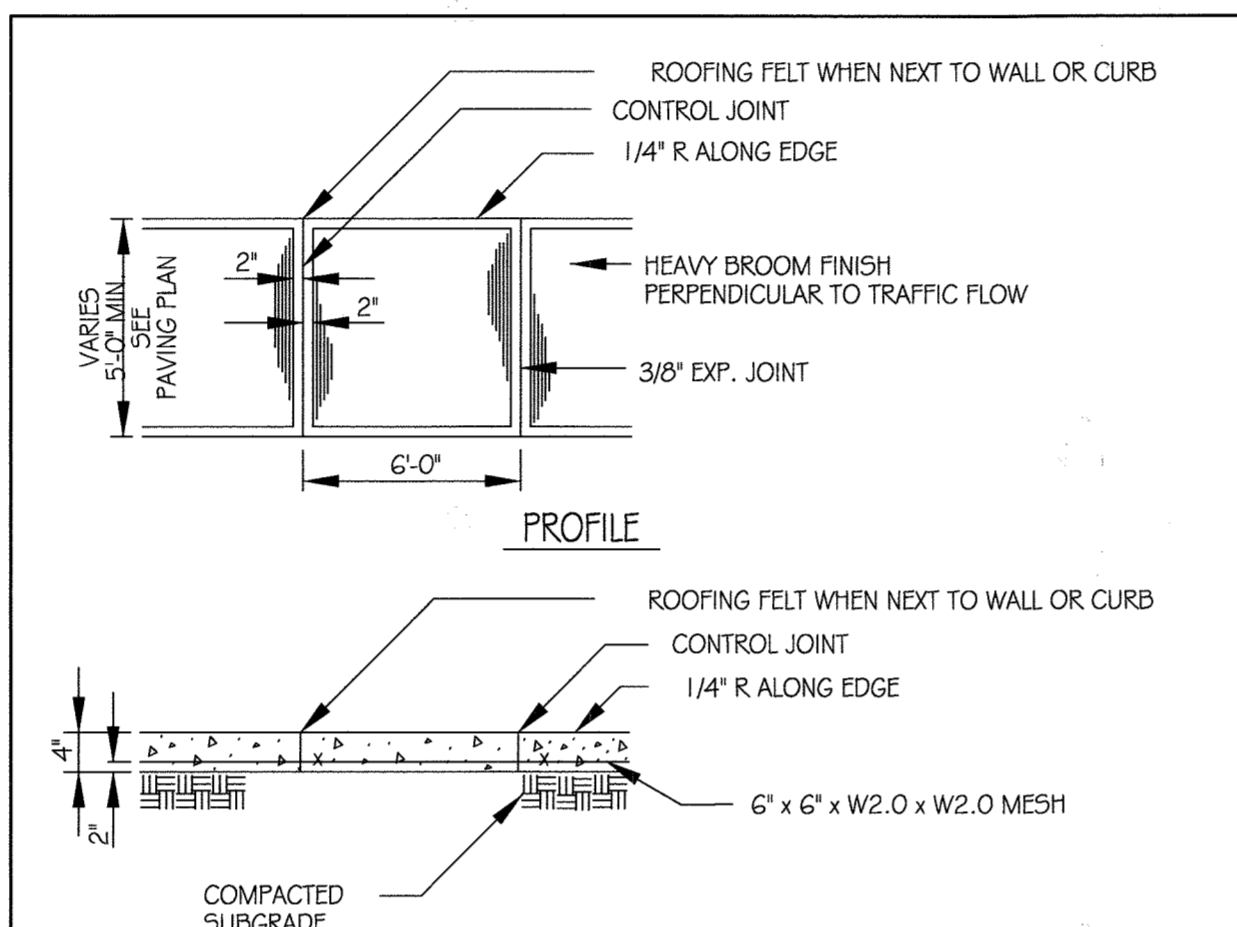


⑤ MOUNTABLE CURB AND GUTTER SCALE: N.T.S.



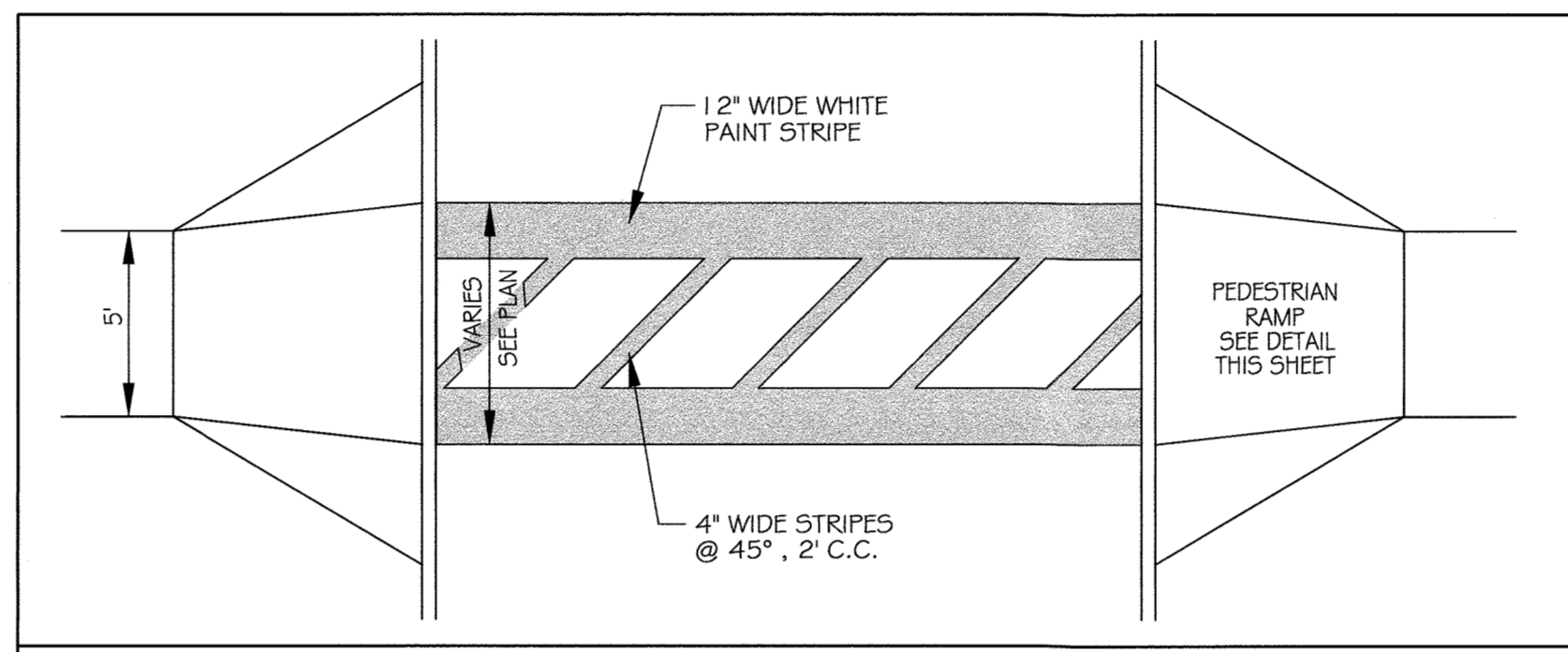
- NOTES:
1. SURFACE TEXTURE OF RAMPS SHALL BE COARSE BROOMING OR NON SKID SURFACE.
 2. DETECTABLE WARNINGS SHALL BE SQUARE PATTERN, PARALLEL ALIGNMENT.
 3. SEE DEPRESSIONED CURB AND GUTTER AT PEDESTRIAN RAMP DETAIL 9 FOR SECTION A-A.
 4. SEE PAVING PLAN, SHEET C4.00, FOR TYPE 1 RAMP TAPERED CURB LENGTHS.
 5. A DETECTABLE WARNING IS A STANDARDIZED SURFACE FEATURE BUILT IN OR APPLIED TO WALKING SURFACES (OR OTHER ELEMENTS) TO WARN VISUALLY IMPAIRED PEOPLE OF HAZARDS ON A CIRCULATION PATH.
 6. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH NOMINAL DIMENSIONS AS SHOWN AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-DARK OR DARK-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE INTEGRAL WITH THE WALKING SURFACE.
 7. DETECTABLE WARNING AREAS SHALL EXTEND 24\"/>
 - 8. DETECTABLE WARNINGS MAY BE APPLIED USING BRICK OR BLOCK PAVERS OR EXTRUDED TINTED CONCRETE.
 - 9. PAVERS MAY BE PLAYED AS REQUIRED TO MATCH A CURVED CURB RADIUS.
 - 10. COMMERCIAL PRODUCTS MAY VARY IN SPACING, DIMENSION AND CONFIGURATION OF DOMES. CERTIFICATION OF COMPLIANCE WITH CURRENT A.D.A.A.G. (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINE REQUIREMENTS) SHALL BE REQUIRED OF ALL PRODUCTS BEFORE INSTALLATION.
 - 11. MANUFACTURED PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

⑥ PEDESTRIAN RAMPS SCALE: N.T.S.

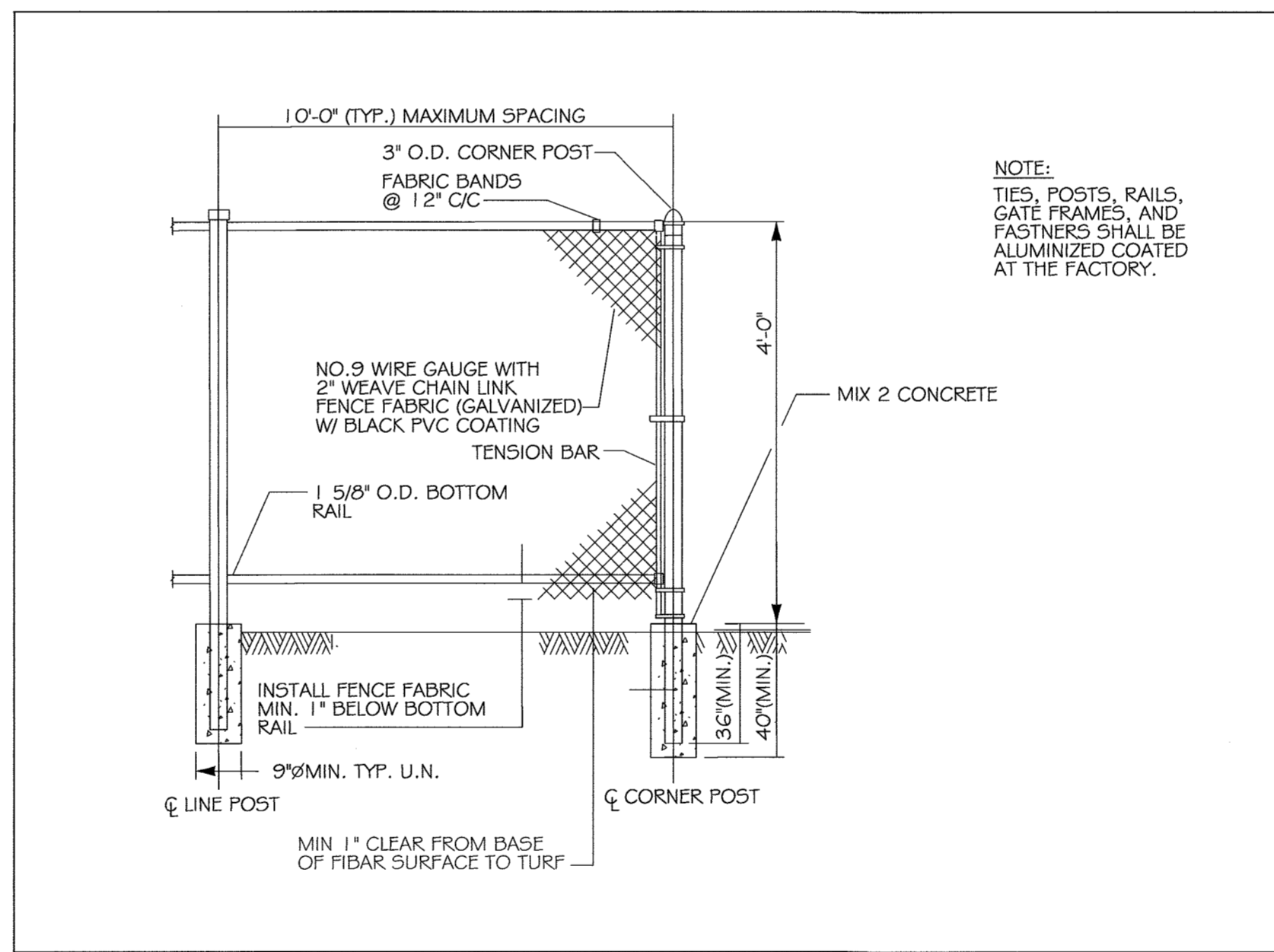


- NOTE: PROVIDE 2% CROSS-SLOPE FOR POSITIVE DRAINAGE AS REQUIRED
1. PROVIDE EXPANSION JOINTS 20' C.C. MAX. AND SCORE JOINTS 5' C.C. (UNLESS OTHERWISE NOTED). EXPANSION JOINTS SHALL BE ZIP STRIP CONTROL JOINTS MANUFACTURED BY SUPERIOR FEATHERWEIGHT TOOLS (OR APPROVED EQUIVALENT) WITH 1/2\"/>
 - 2. WHEN SIDEWALK ABUTS CURB, SIDEWALK SHALL BE 1/4\"/>

⑦ CONCRETE SIDEWALK SCALE: N.T.S.



⑧ CROSSWALK PAINT STRIPING SCALE: N.T.S.



⑨ 4' HIGH CHAIN LINK FENCE SCALE: N.T.S.

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 12-15-17

APPROVED: Howard County Department of Planning & Zoning
Director: [Signature] 3-14-16
Chief, Division of Land Development: [Signature] 3-14-16
Chief, Development Engineering Division: [Signature] 2-16-16

Prepared For and Owner:
Howard County Maryland
3430 Court House Drive
Ellicott City, Maryland 21043
ATTN: Mr. James J. Irvin
410-313-4401

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ISSUE		

NO. DESCRIPTION DATE
DRAWING TITLE:

SITE DETAILS

DRAWING NO.

C5.00 SHEET: 6 OF 27

SCALE: N.T.S.

DATE: JANUARY 15, 2016

PROJECT NO: 27146550

DES. DRWN. CK'D.
R.L.B. C.T.B. R.L.B.

NO.	DESCRIPTION	DATE

DRAWING TITLE:

SITE DETAILS

DRAWING NO.

C5.01

SHEET: 7 OF 27

SCALE: AS SHOWN

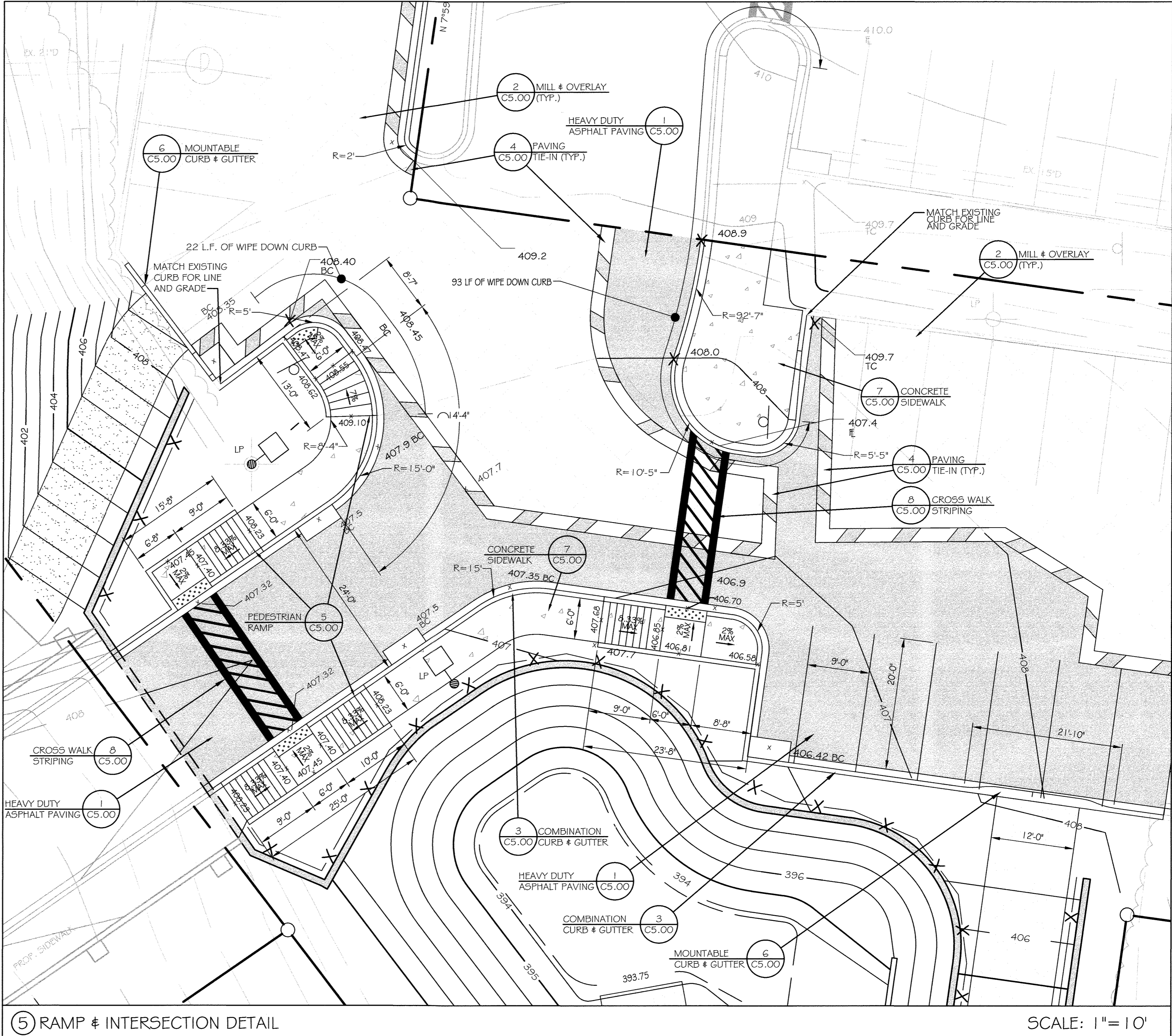
DATE: JANUARY 15, 2016

PROJECT NO: 27146550

DES. DRWN. CK'D.
 R.L.B. C.T.B. R.L.B.

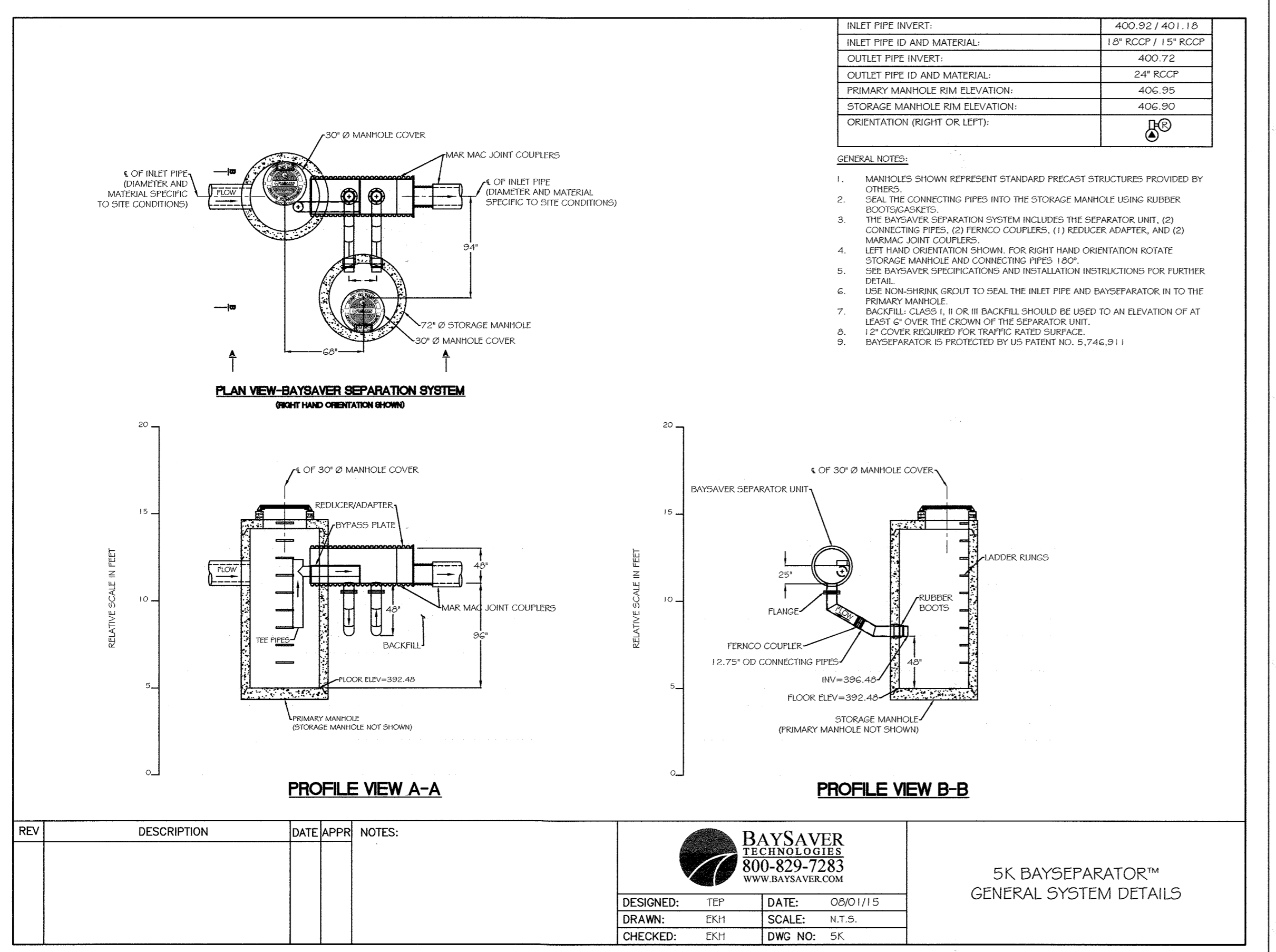
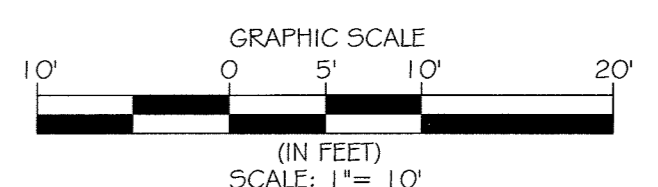
Prepared For and Owner:
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 3430 Court House Drive
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 ATTN: Mr. James J. Irvin
 410-313-4401

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LEGEND

- EX. LIGHT POLE
- EX. SIGN
- EX. FENCE
- PROP. CURB & GUTTER
- PROP. FENCE
- PROP. SIGN
- PROP. LIGHT POLE
- APPROXIMATE LIMITS OF HEAVY DUTY PAVING
- APPROXIMATE LIMITS OF CONCRETE
- APPROXIMATE LIMITS OF GRASS ACCESS ROADS
- APPROXIMATE LIMITS OF 2" MILL AND OVERLAY
- SAW CUT EX. PAVEMENT AND TIE-IN TO PAVEMENT



OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED BAYSAYER WATER QUALITY DEVICE

- A. THE BAYSAYER WATER QUALITY STRUCTURE SHALL BE PERIODICALLY INSPECTED AND CLEANED TO MAINTAIN OPERATION AND FUNCTION. THE OWNER SHALL INSPECT THE BAYSAYER UNIT YEARLY AT A MINIMUM, UTILIZING THE BAYSAYER INSPECTION/MONITORING FORM. INSPECTIONS SHALL BE DONE BY USING A GRADE STICK OR SIMILAR DEVICE. WHEN THE SEDIMENT DEPTHS EXCEED 2 FEET, THE UNIT MUST BE CLEANED.
- B. THE BAYSAYER WATER QUALITY STRUCTURE SHALL BE CHECKED AND CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES.
- C. THE MAINTENANCE OF THE BAYSAYER UNIT SHALL BE DONE USING A VACUUM TRUCK WHICH WILL REMOVE THE WATER, SEDIMENT, DEBRIS, FLOATING HYDROCARBONS AND OTHER MATERIAL IN THE UNIT. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.
- D. THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX MONTHS. IF OBSTRUCTIONS ARE FOUND THE OWNER SHALL HAVE THEM REMOVED. STRUCTURAL PARTS OF THE BAYSAYER UNIT SHALL BE REPAIRED AS NEEDED.
- E. THE OWNER SHALL RETAIN AND MAKE THE BAYSAYER INSPECTION/MONITORING FORMS AVAILABLE THE HOWARD COUNTY OFFICIALS UPON THEIR REQUEST.

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE: 12-17-15

APPROVED: Howard County Department of Planning & Zoning

Natalie J. J... 3-14-16
 Director Date

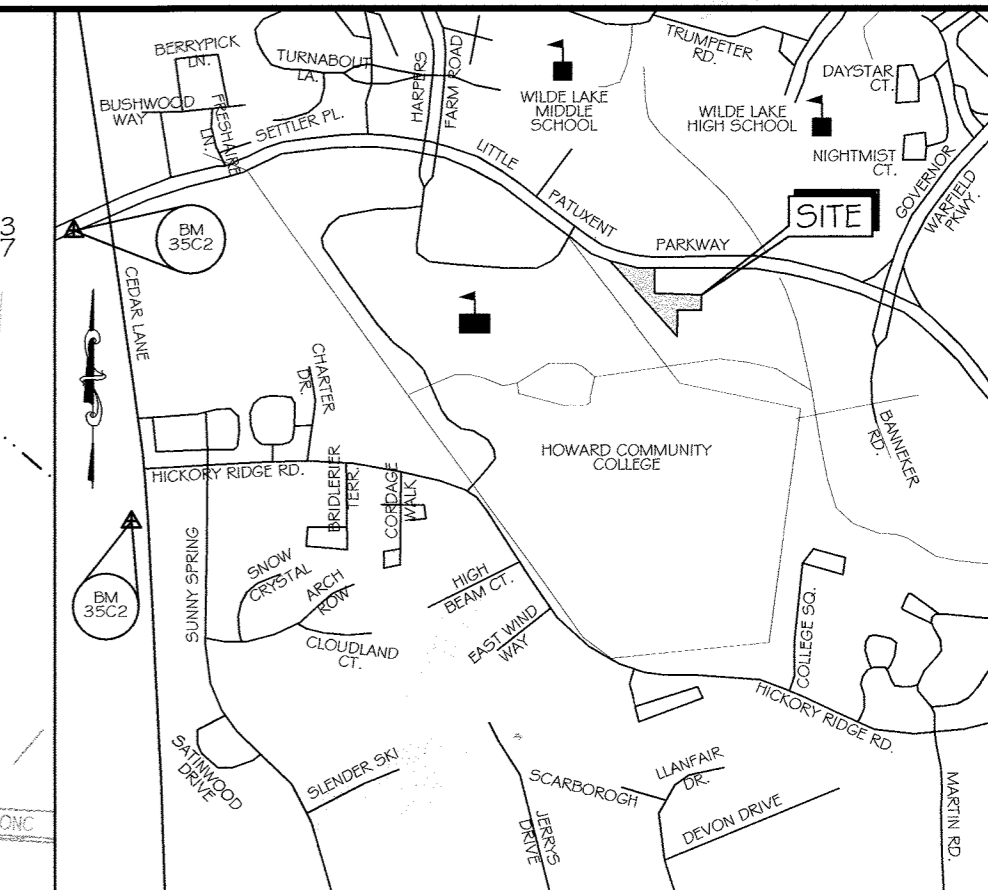
K... 3-14-16
 Chief, Division of Land Development Date

... 2-16-16
 Chief, Development Engineering Division Date

BENCHMARK DATA

HORIZONTAL MAD 83.1 AND VERTICAL (NGVD 29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCHMARK NO. 3

		NORTHING	EASTING	ELEV.
35C2	HOW CO MON	563920.630	1344304.150	464.133
35C2	HOW CO MON	562148.450	1344554.472	452.287



VICINITY MAP
SCALE 1" = 1000
ADC MAP: 15 GRID: DG

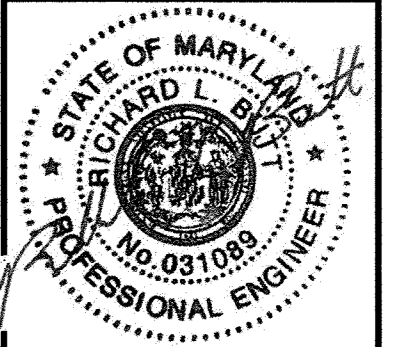
LEGEND

---	PROPERTY LINE
-450-	EX. INDEX CONTOUR
-451-	EX. INTERMEDIATE CONTOUR
○	EX. LIGHT POLE
— —	EX. FENCE
EX. 15" DRAIN	EX. STORM DRAIN
EX. GAS	EX. GAS LINE
EX. 6" SANITARY	EX. SANITARY
EX. ELECTRIC	EX. ELECTRIC
EX. TELEPHONE	EX. TELEPHONE
EX. CABLE TV	EX. CABLE TV
EX. 8" WATER	EX. WATER
---	SOILS LINE
B ₈ A	LOD
---	LIMIT OF DISTURBANCE
400	PROP. CONTOUR
408.00x	PROP. SPOT ELEVATION
— —	PROP. ELECTRIC
— —	PROP. GAS
— —	PROP. STORM DRAIN
○	PROP. MANHOLE
□	PROP. INLET

UTILITY NOTES

- CONSTRUCTION OF THE PROPOSED UTILITIES WILL BE IN ACCORDANCE WITH THE HOWARD COUNTY PLUMBING CODE, BY A QUALIFIED CONTRACTOR.
- NO WORK IS TO COMMENCE UNTIL ALL PERMITS HAVE BEEN OBTAINED.
- EXISTING CURB AND GUTTER AND CONCRETE SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT. NO PATCHING SHALL BE PERMITTED.
- ALL NON-PAVED DISTURBED AREAS WILL BE STABILIZED WITH 4" TOPSOIL, SEED AND MULCH UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION SHALL FOLLOW LATEST HOWARD COUNTY DEPT. OF PUBLIC WORKS STANDARD SPECIFICATIONS AND DETAILS OF CONSTRUCTION OR AS DETAILED ON THE DRAWINGS.
- GRAVEL CRADLE IS REQUIRED UNDER ALL PIPE.
- ALL BACKFILL SHALL BE MECHANICALLY TAMPED.
- THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK SHOWN ON THESE DRAWINGS UNLESS OTHERWISE NOTED.
- ALL CHANNELS IN MANHOLES MUST BE CONSTRUCTED TO CONFORM AS CLOSE AS POSSIBLE TO THE STANDARD CHANNELS CALLED FOR IN THE PROFILES.
- FOR UTILITY WORK OUTSIDE THE LOD SHOWN ON THIS PLAN, CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE) THE TRENCH.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.
- SEE SHEET C5.00 FOR WATER & STORM DRAIN PROFILES AND SCHEDULES.
- CONTRACTOR TO COORDINATE WITH VERIZON FOR THE REMOVAL AND/OR RELOCATION OF EXISTING TELEPHONE LINE.
- ROADWAY LIGHTS MUST REMAIN IN SERVICE DURING THE DURATION OF THE PROJECT.
- SEE ELEC. PLANS FOR NOTES & DETAILS.

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. 31089 EXPIRATION DATE: 11/21/16



ISSUE

NO.	DESCRIPTION	DATE
1	REVISION	1/15/16

DRAWING TITLE:

UTILITY PLAN

DRAWING NO.

C6.00
SHEET: 8 OF 27

SCALE: 1" = 30'

DATE: JANUARY 15, 2016

PROJECT NO: 27146550

DES. DRWN. CK'D.
R.L.B. C.T.B. R.L.B.

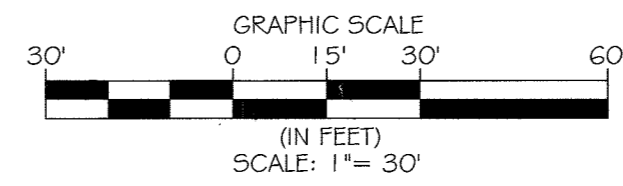
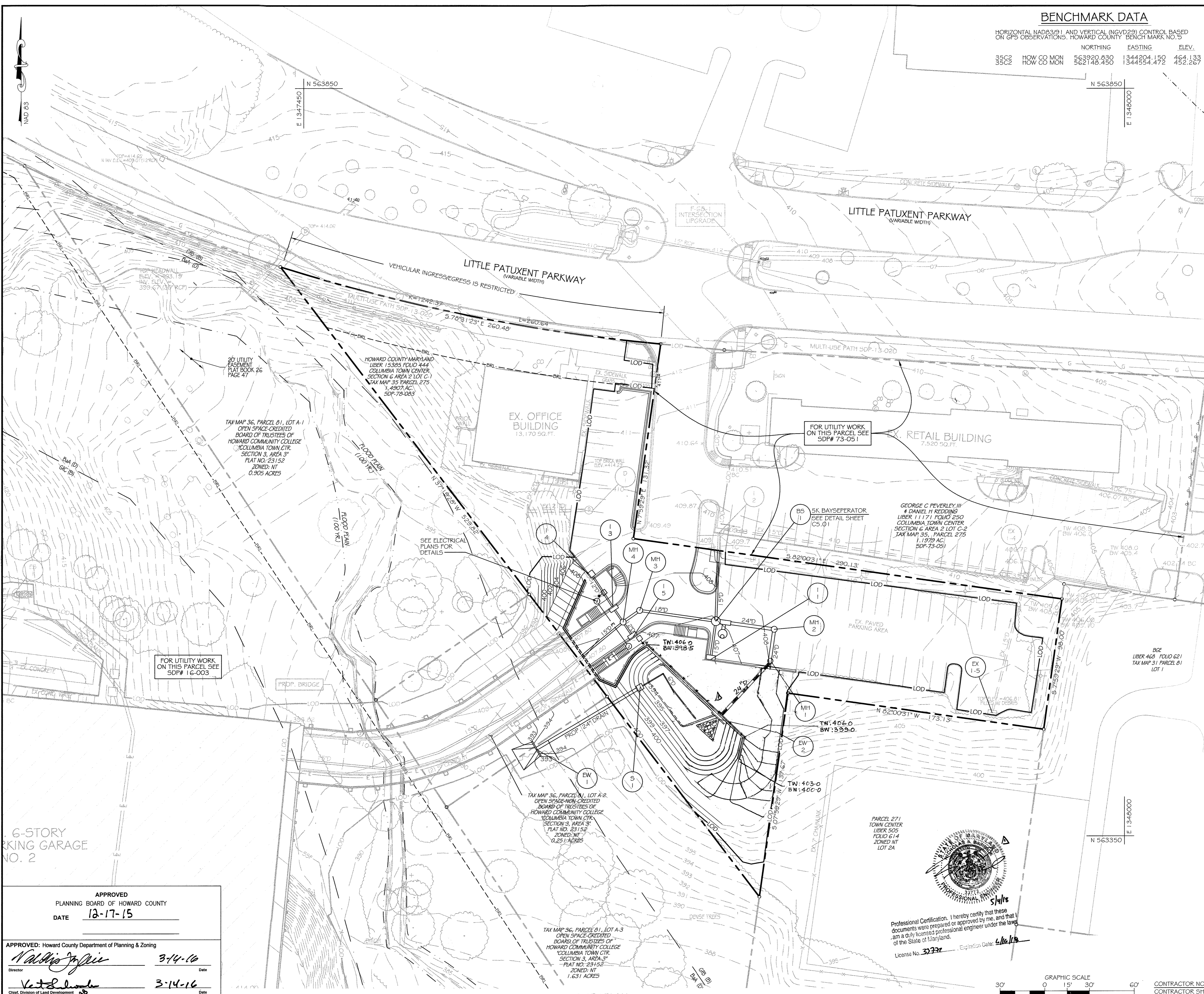
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3430 Court House Drive
Elliott City, Maryland 21043
ATTN: Mr. James J. Irwin
410-313-4401

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DES MAN ASSOCIATES



**LITTLE PATUXENT PARKWAY
GREMPER REALTY INC. OFFICE BUILDING
COLUMBIA, MD**
PARCEL: 275, TAX MAP: 35, GRID: 6
PLAT: PLAT BOOK 26 / FOLIO 47
ELECTORAL DISTRICT: 9 ZONING: NT



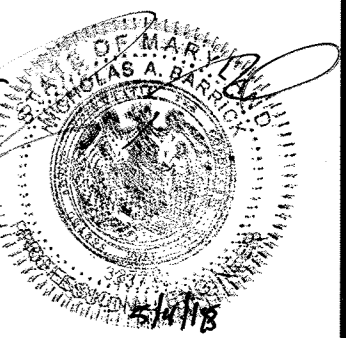
CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: **12-17-15**

APPROVED: Howard County Department of Planning & Zoning

<i>Walter J. Jones</i>	3-14-16
Director	Date
<i>V. J. Schaefer</i>	3-14-16
Chief, Division of Land Development	Date
<i>Paul E. Smith</i>	2-16-16
Chief, Development Engineering Division	Date

UTILITY PLAN
SCALE: 1" = 30'



NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE

DRAWING TITLE:

UTILITY PROFILES

DRAWING NO.

C7.00
SHEET: 9 OF 27

SCALE: 1" = 30'

DATE: MAY 4, 2018

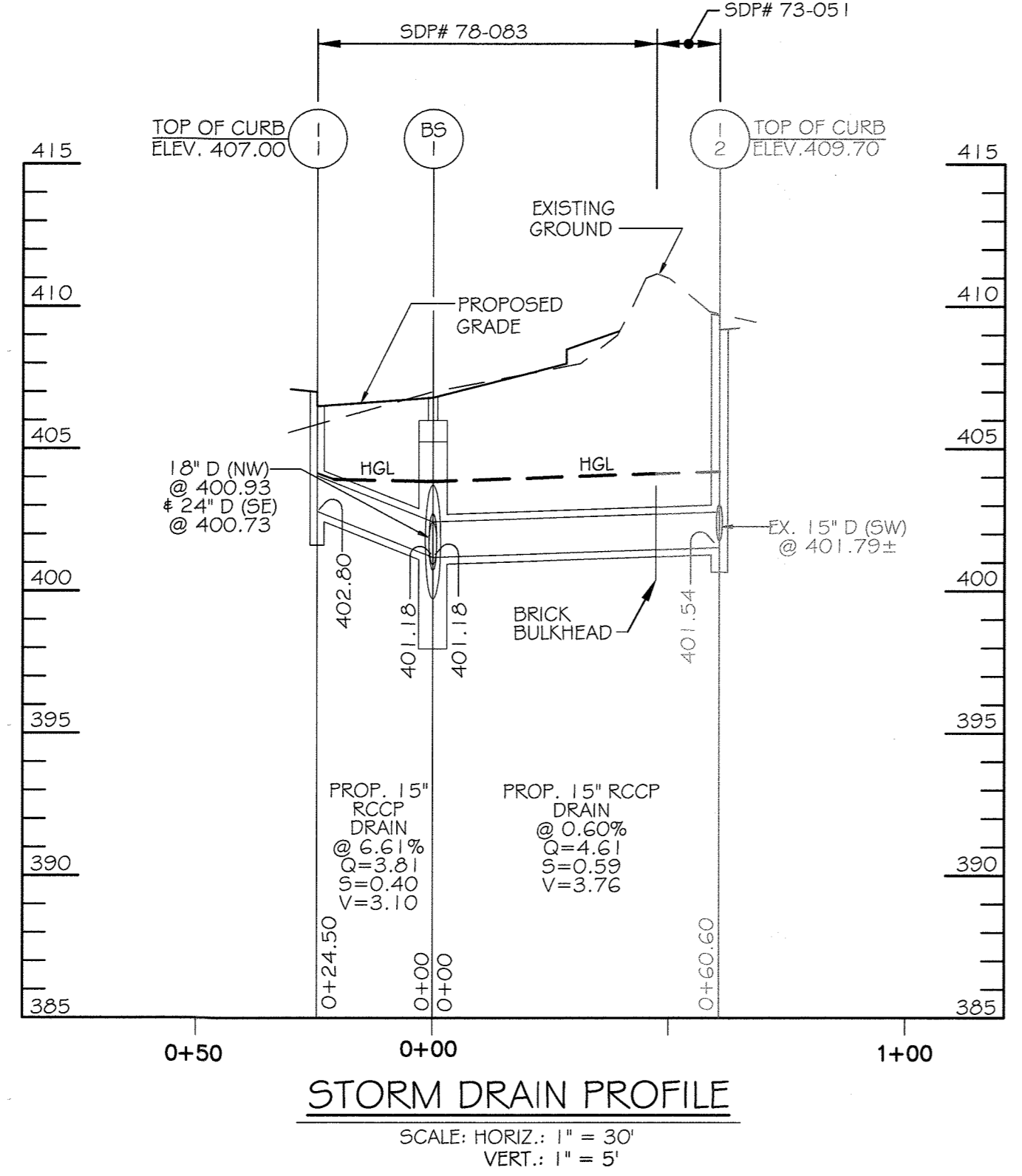
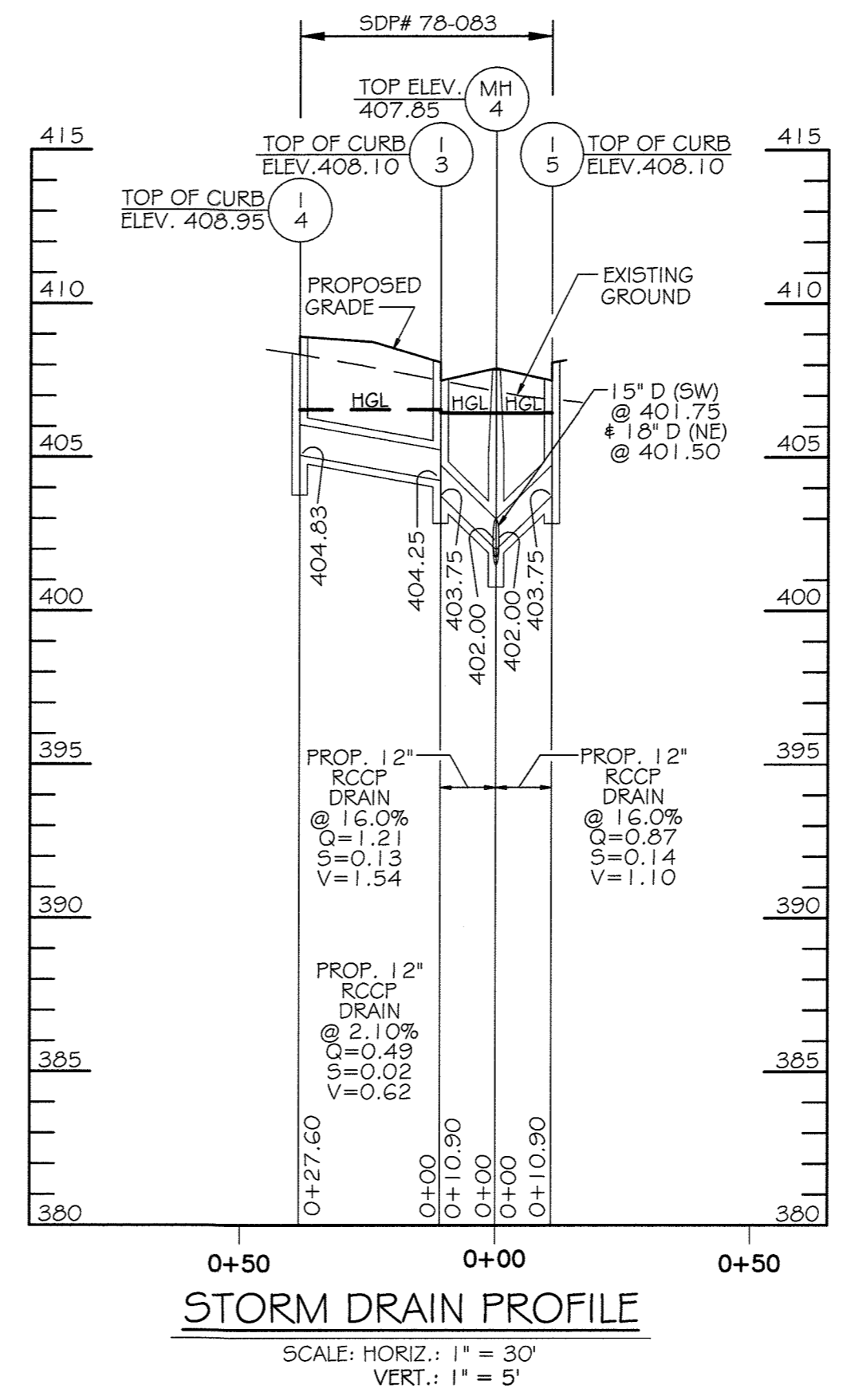
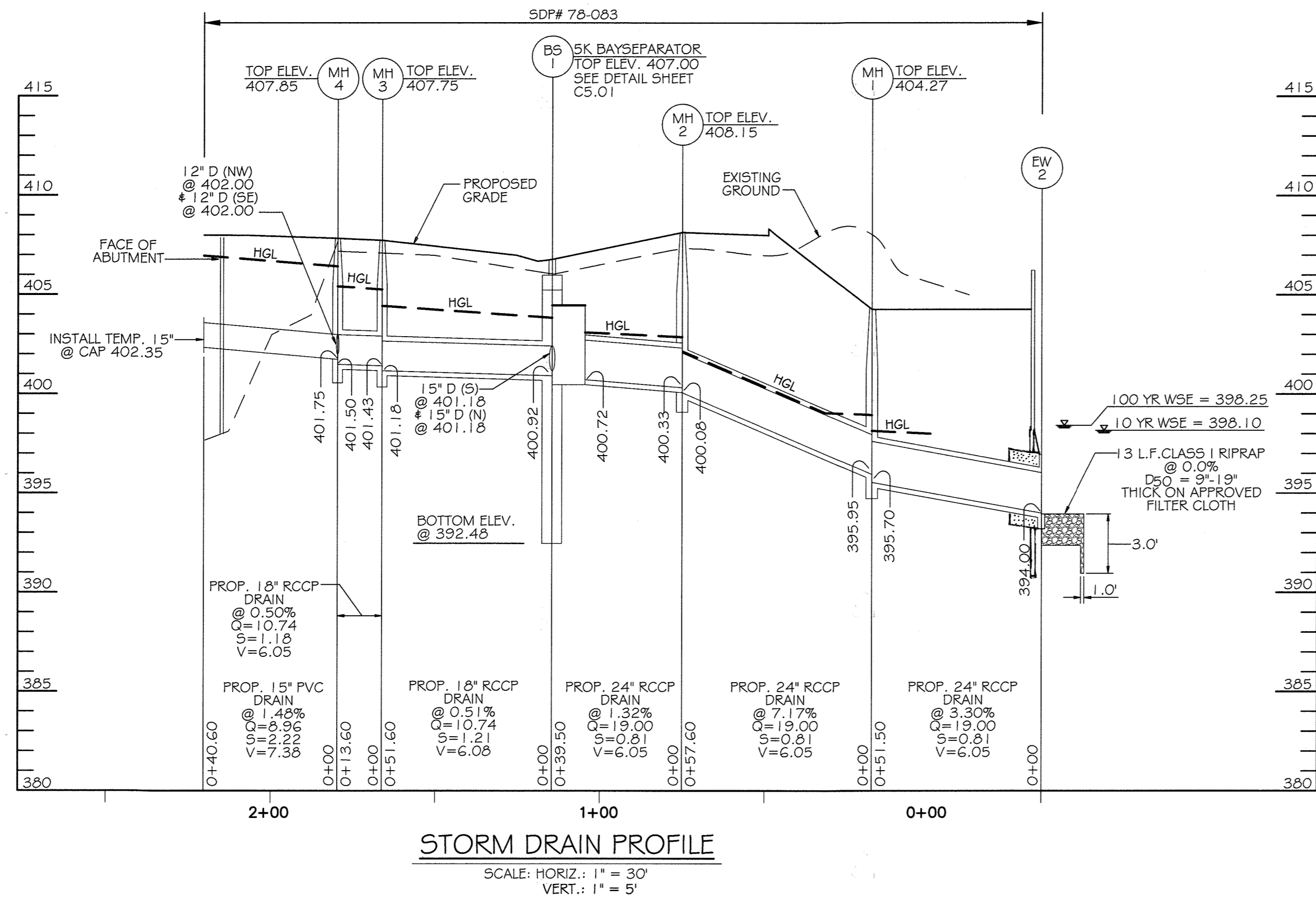
PROJECT NO.: 27146550

DES. DRWN. CK'D.
R.L.B. C.T.B. R.L.B.

Prepared For and Owner:
Howard County Maryland
3430 Court House Drive
Ellicott City, Maryland 21043
ATTN: Mr. James J. Irvin
410-313-4401

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION
SO AS NOT TO DAMAGE ANY EXISTING PAVING,
CURB & GUTTER, SIDEWALK OR OTHER SITE
FEATURES WHICH ARE TO REMAIN. SHOULD
DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO
ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

PURPOSE NOTE:
REVISED RETAINING WALL
LOCATION TO AVOID BURIED
ELECTRICAL LINE.



STORMWATER FACILITY PIPE SCHEDULE

SIZE	MATERIAL	LENGTH
6"	PVC	57 L.F.
24"	RCCP CL IV (ASTM C-631)	82 L.F.

STORM DRAIN PIPE SCHEDULE

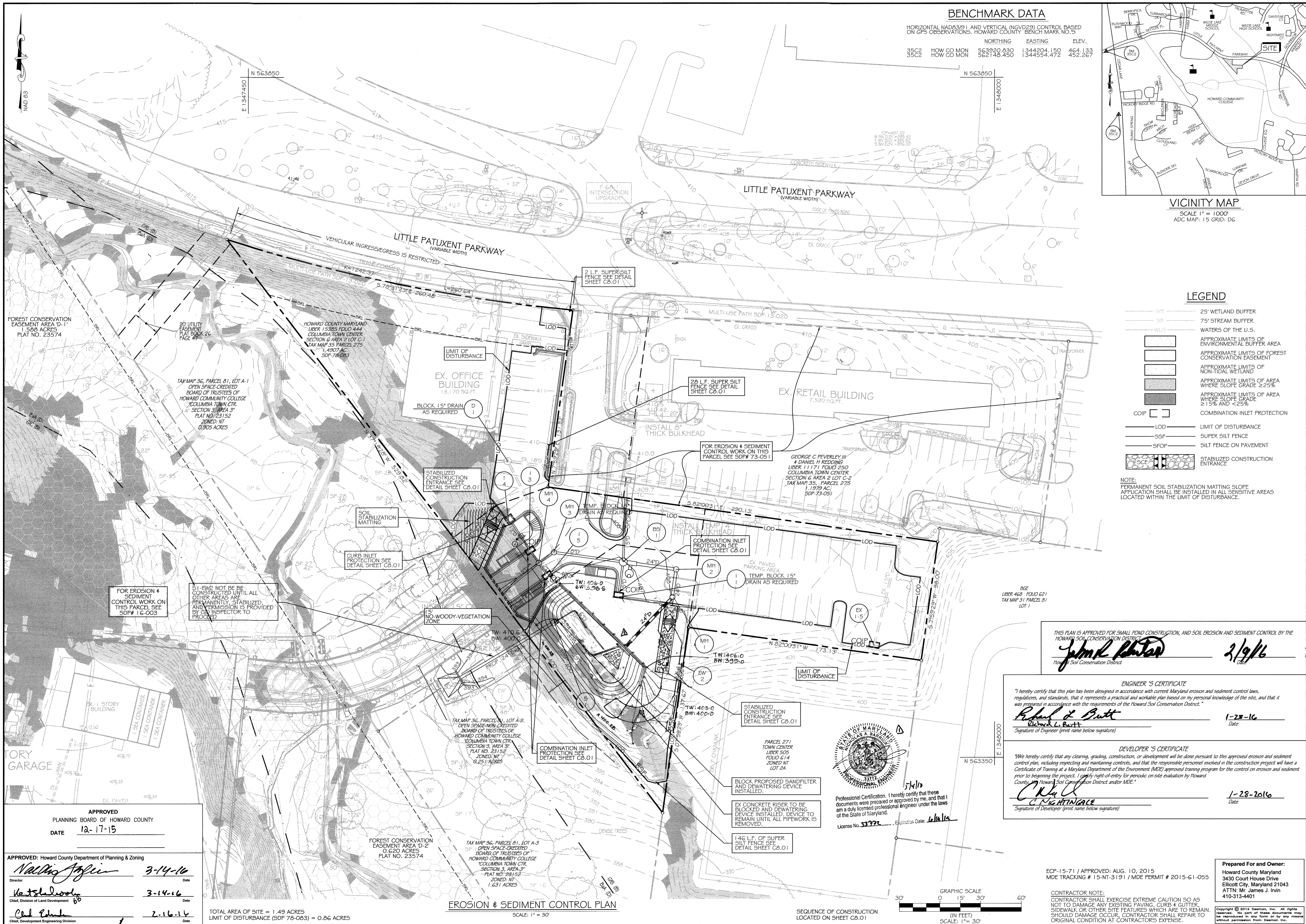
SIZE	MATERIAL	LENGTH
15"	PVC (SDR-35)	41 L.F.
12"	RCCP CL IV	50 L.F.
15"	RCCP CL IV	75 L.F.
18"	RCCP CL IV	66 L.F.
24"	RCCP CL IV	149 L.F.

STORM DRAIN STRUCTURE SCHEDULE

NO.	TYPE	SIZE IN.	ELEV. IN.	SIZE OUT	ELEV. OUT	TOP ELEV.	REFERENCES / HOWARD COUNTY STD. DETAIL	NORTHING	EASTING
MH-1	48" STD. PRECAST MANHOLE	24"	395.95	24"	395.70	404.27	G-5.12	N 563,431.11	E 1,347,757.40
MH-2	48" STD. PRECAST MANHOLE	24"	400.33	24"	400.08	408.15	G-5.12	N 563,488.17	E 1,347,765.41
MH-3	48" STD. PRECAST MANHOLE	18"	401.43	18"	401.18	407.75	G-5.12	N 563,500.83	E 1,347,675.19
MH-4	48" STD. PRECAST MANHOLE	12"/12"/15"	402.0/402.0/401.75	18"	401.50	407.85	G-5.12	N 563,493.10	E 1,347,664.05
I-1	DBL. WR PRECAST INLET	-	-	15"	402.80	406.92 TC	D-4.35	N 563,467.91	E 1,347,722.68
I-3	DBL. WR PRECAST INLET	12"	404.25	12"	403.75	408.10 TC	D-4.35	N 563,503.00	E 1,347,657.18
I-4	TYPE 'S' COMB. INLET	-	-	12"	404.83	408.95 TC	D-4.32	N 563,524.46	E 1,347,641.72
I-5	DBL. WR PRECAST INLET	-	-	12"	403.75	408.10 TC	D-4.35	N 563,483.11	E 1,347,670.66
EW-1	TYPE 'C' ENDWALL	24"	-	-	393.95	-	D-5.21	N 563,408.22	E 1,347,605.60
EW-2	TYPE 'C' ENDWALL	24"	-	-	391.50	-	D-5.21	N 563,429.52	E 1,347,727.57
BS-1	BAYSAVER SWM STRUCTURE	15"/15"/18"	401.18/401.18/400.92	24"	400.72	407.00	SEE DETAIL SHEET C-5.01	N 563,493.66	E 1,347,726.30
S-1	CONCRETE RISER	6"	392.00	24"	392.00	397.50	SEE DETAIL SHEET C-10.05	N 563,449.38	E 1,347,675.37

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: 12/17/15

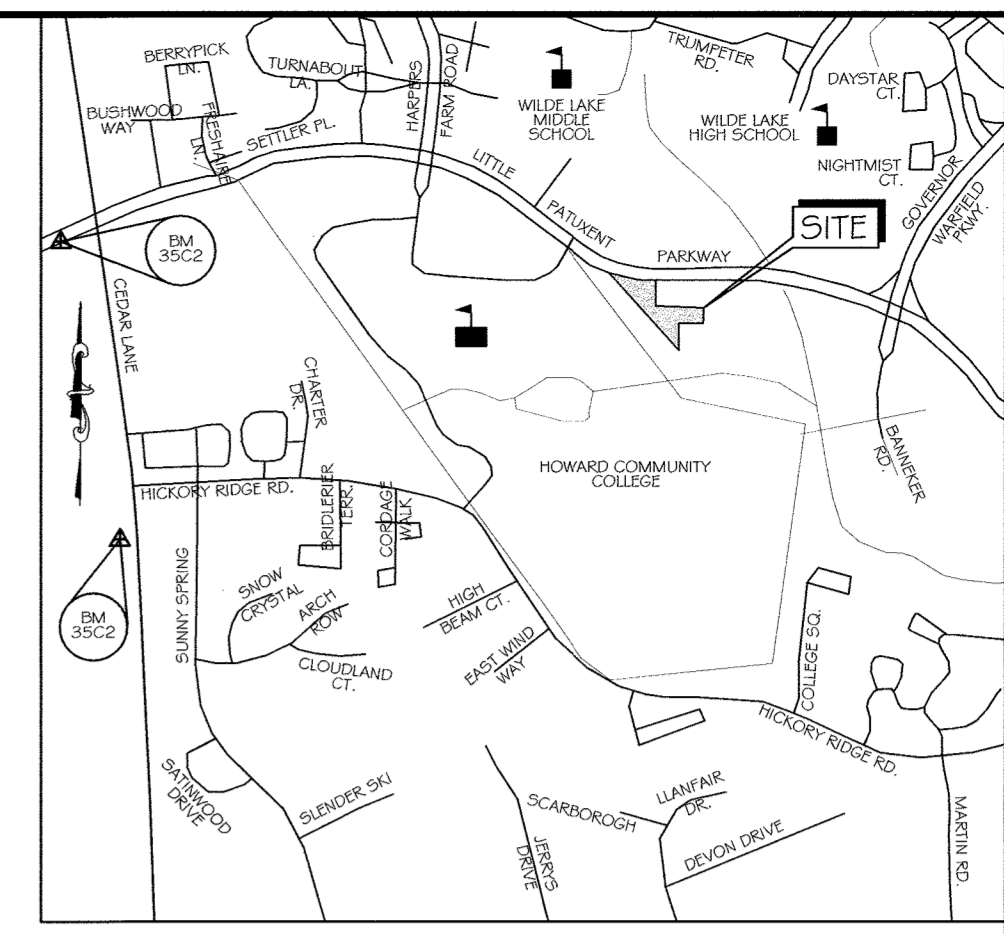
APPROVED: Howard County Department of Planning & Zoning
[Signature] 8-18-18
[Signature] 7-11-18
[Signature] 7-10-18



BENCHMARK DATA

HORIZONTAL NAD83(01) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO. 5

	NORTHING	EASTING	ELEV.
35C2 HOW CO MON	563920.630	1344204.150	464.133
35C2 HOW CO MON	562148.450	1344554.472	452.267



VICINITY MAP
SCALE 1" = 1000'
ADC MAP: 15 GRID: D6

LEGEND

- WB 25' WETLAND BUFFER
- SB 75' STREAM BUFFER
- WB/SB APPROXIMATE LIMITS OF ENVIRONMENTAL BUFFER AREA
- WB/SB APPROXIMATE LIMITS OF FOREST CONSERVATION EASEMENT
- WB/SB APPROXIMATE LIMITS OF NON-TIDAL WETLAND
- WB/SB APPROXIMATE LIMITS OF AREA WHERE SLOPE GRADE ≥ 25%
- WB/SB APPROXIMATE LIMITS OF AREA WHERE SLOPE GRADE ≥ 15% AND < 25%
- COIP COMBINATION INLET PROTECTION
- LOD LIMIT OF DISTURBANCE
- SSF SUPER SILT FENCE
- SFOP SILT FENCE ON PAVEMENT
- SCSCE STABILIZED CONSTRUCTION ENTRANCE

NOTE: PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION SHALL BE INSTALLED IN ALL SENSITIVE AREAS LOCATED WITHIN THE LIMIT OF DISTURBANCE.

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John K. Hunter 2/9/16
Howard Soil Conservation District

ENGINEER'S CERTIFICATE

I hereby certify that the plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Richard L. Butt 1-28-16
Richard L. Butt
Signature of Engineer (print name below signature)

DEVELOPER'S CERTIFICATE

We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County Howard Soil Conservation District and/or MDE.

C. M. H. H. 1-28-2016
C. M. H. H.
Signature of Developer (print name below signature)



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. 33773, Expiration Date: 12/31/16

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. 33773, Expiration Date: 12/31/16

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 12-17-15

APPROVED: Howard County Department of Planning & Zoning

Nadine Joffe 3-14-16
Director

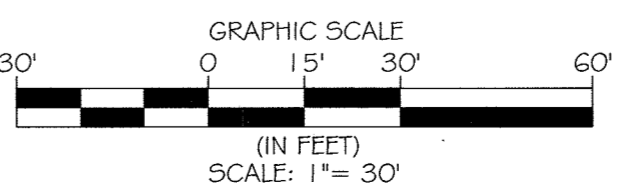
W. J. DeWolfe 3-14-16
Chief, Division of Land Development

Chad E. Smith 2-16-14
Chief, Development Engineering Division

TOTAL AREA OF SITE = 1.49 ACRES
LIMIT OF DISTURBANCE (SDP 78-083) = 0.86 ACRES

EROSION & SEDIMENT CONTROL PLAN
SCALE: 1" = 30'

SEQUENCE OF CONSTRUCTION LOCATED ON SHEET C8.01



ECP-15-71 / APPROVED: AUG. 10, 2015
MDE TRACKING # 15-NT-3191 / MDE PERMIT # 2015-61-055

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

Prepared For and Owner:
Howard County Maryland
3430 Court House Drive
Ellicott City, Maryland 21043
ATTN: Mr. James J. Irvin
410-313-4401

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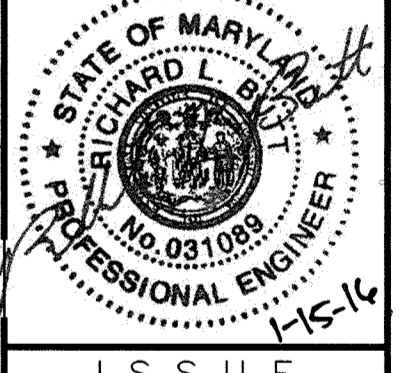
DESMAN ASSOCIATES

KCI TECHNOLOGIES
Engineers
Planners
Surveyors
Construction Managers

**LITTLE PATUXENT PARKWAY
GREMLER REALTY INC. OFFICE BUILDING**
COLUMBIA, MD

PARCEL: 275, TAX MAP: 35, GRID: 6
PLAT: PLAT BOOK 26 / FOLIO 47
TOWN CENTER 6/2, LOT 10, ZONING: NT
ELECTION DISTRICT: 5

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. 31089, EXPIRATION DATE: 11/21/16



ISSUE

NO.	DESCRIPTION	DATE
1	Revised Scale Labels	5/16

DRAWING TITLE:
EROSION AND SEDIMENT CONTROL PLAN

DRAWING NO.
C8.00

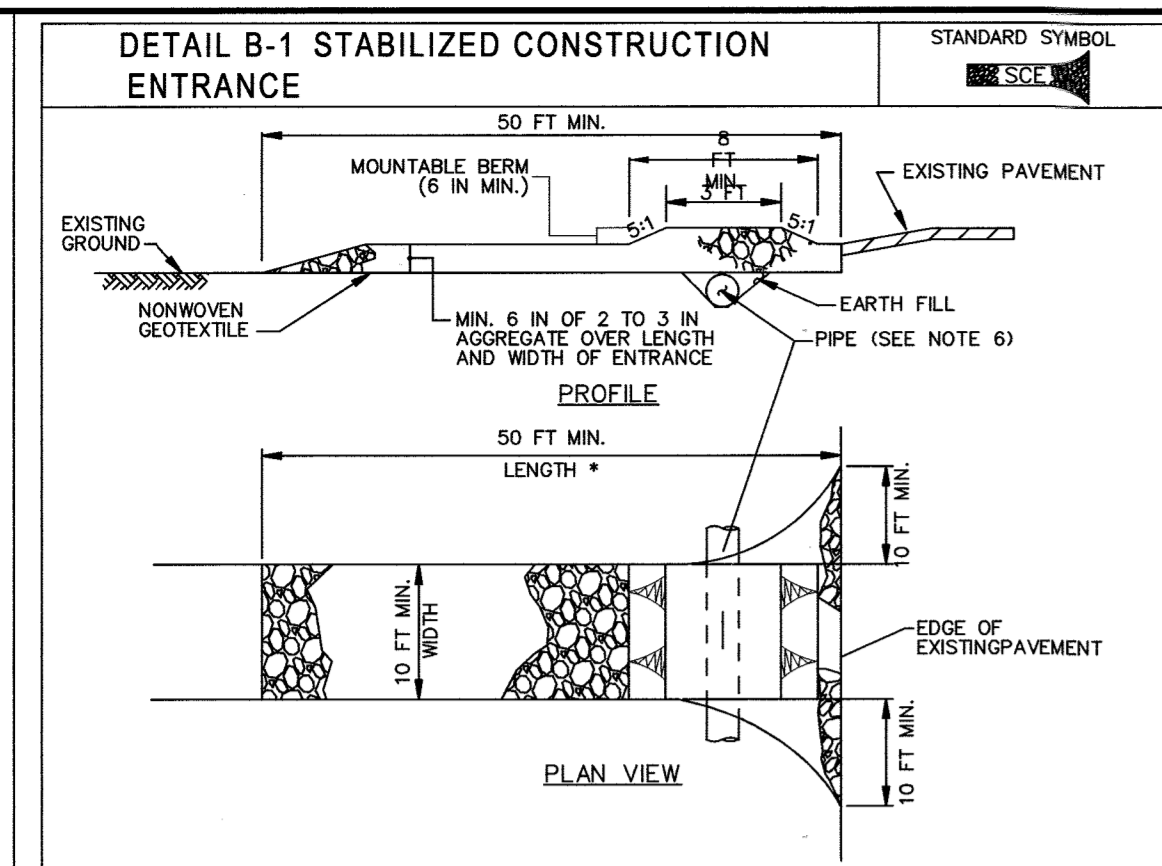
SHEET: 10 OF 27

SCALE: 1" = 30'

DATE: DECEMBER 18, 2015

PROJECT NO.: 27146550

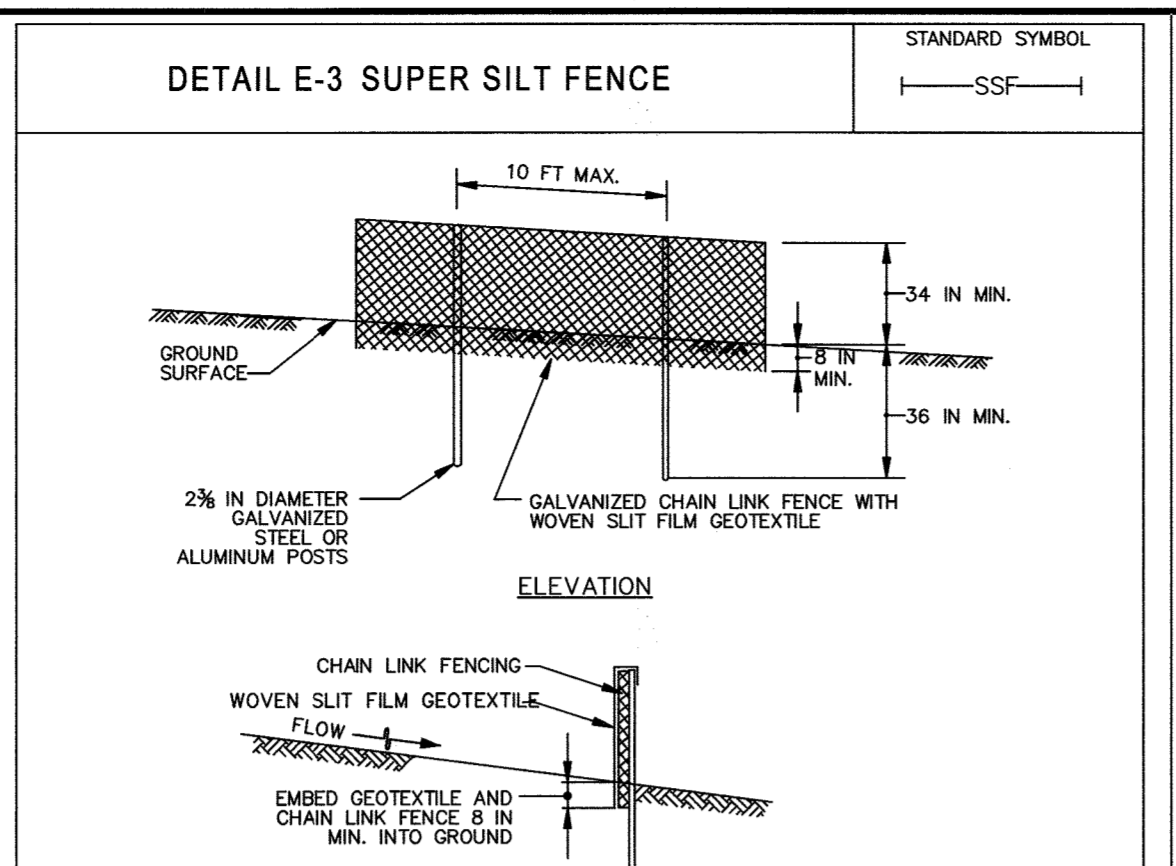
DES. DRWN. CK'D.
R.L.B. C.T.B. R.L.B.



CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE TO 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5/8" SLIPS AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONED DEMAND TO MAINTAIN CLEAN SURFACE. MOUNTABLE BERM, AND SPECIFIED DIMENSIONS, IMMEDIATELY REMOVE STONE AND/OR GRASS, DISPERSE OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

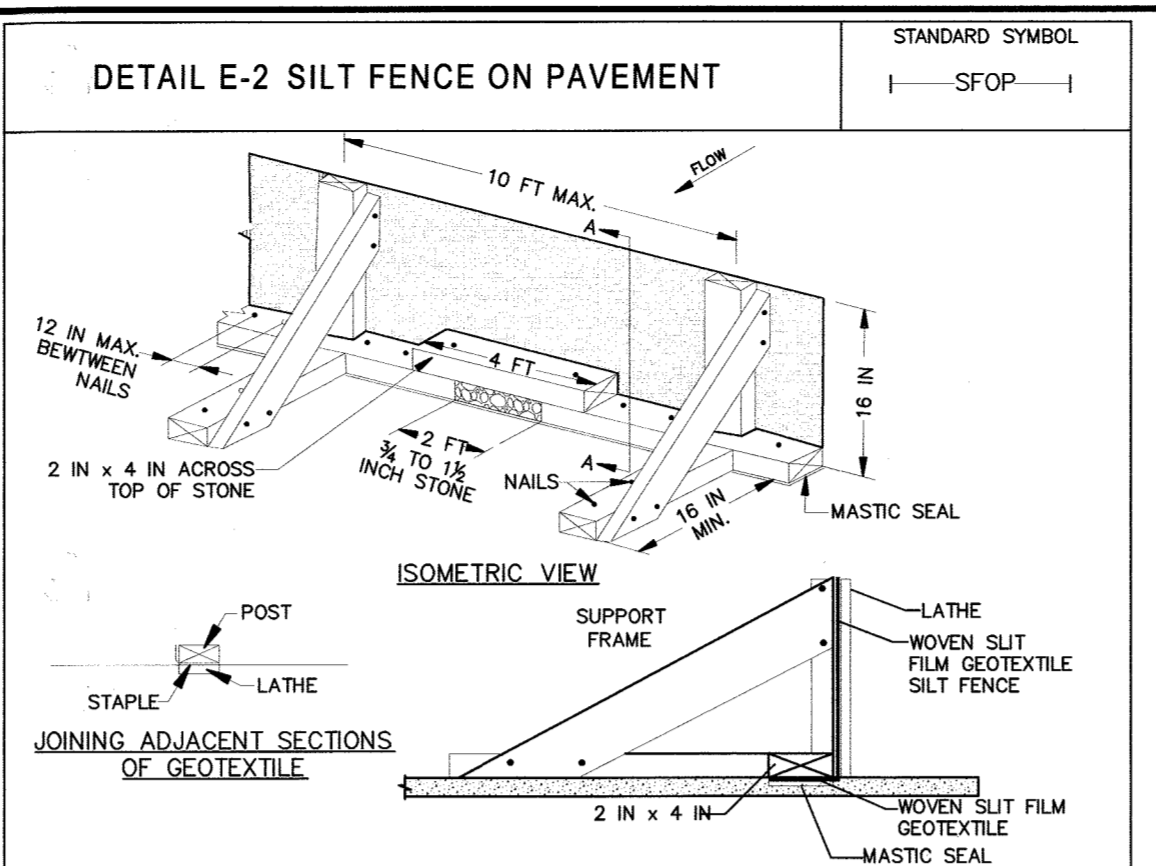
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011
MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	



CONSTRUCTION SPECIFICATIONS

1. INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.085 INCH WALL THICKNESS AND 50 FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (3/8 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SILT FENCE GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 6 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

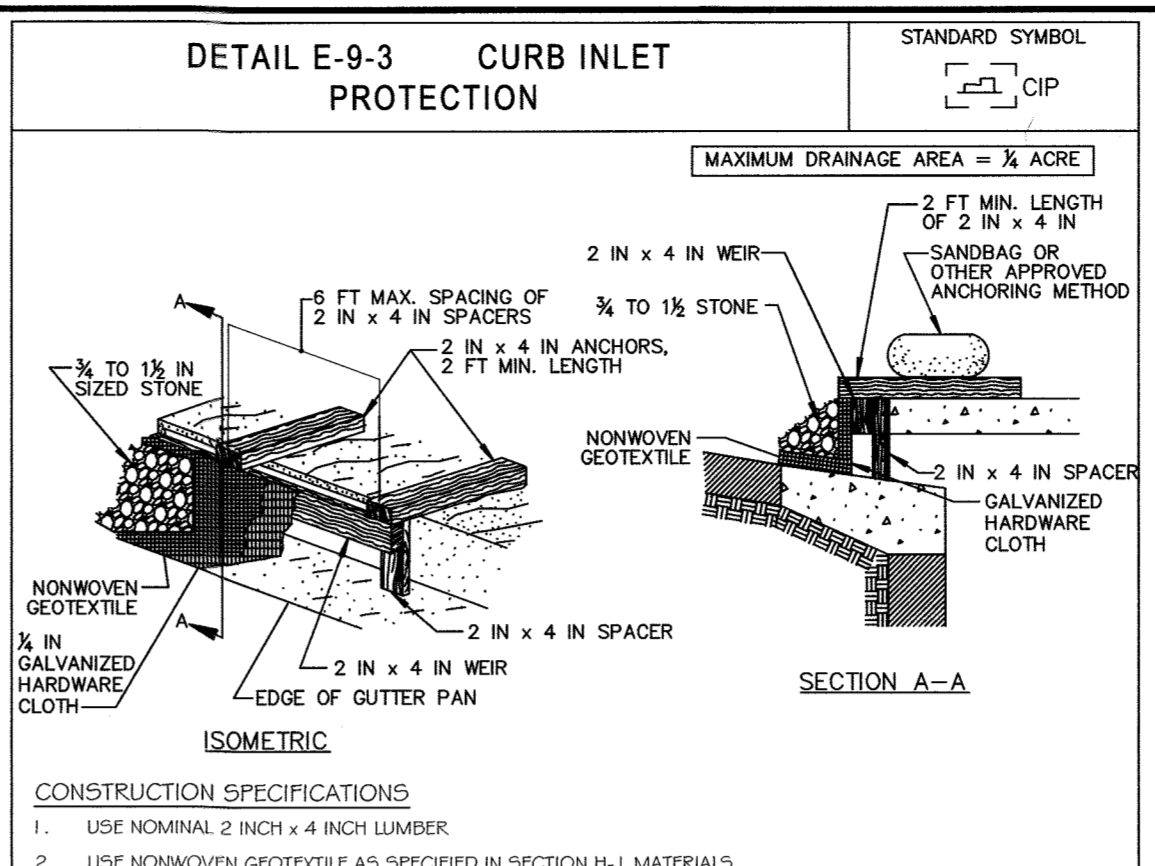
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CONSTRUCTION SPECIFICATIONS

1. USE NOMINAL 2 INCH X 4 INCH LUMBER.
2. USE WOVEN SILT FENCE GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
3. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
4. SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
5. PROVIDE A TWO FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER GEOTEXTILE.
6. KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2x4.
7. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN, OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL ATTACH LATHE.
8. PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT-LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
9. SECURE BORDERS TO PAVEMENT WITH 400 5 INCH MINIMUM LENGTH NAILS.
10. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

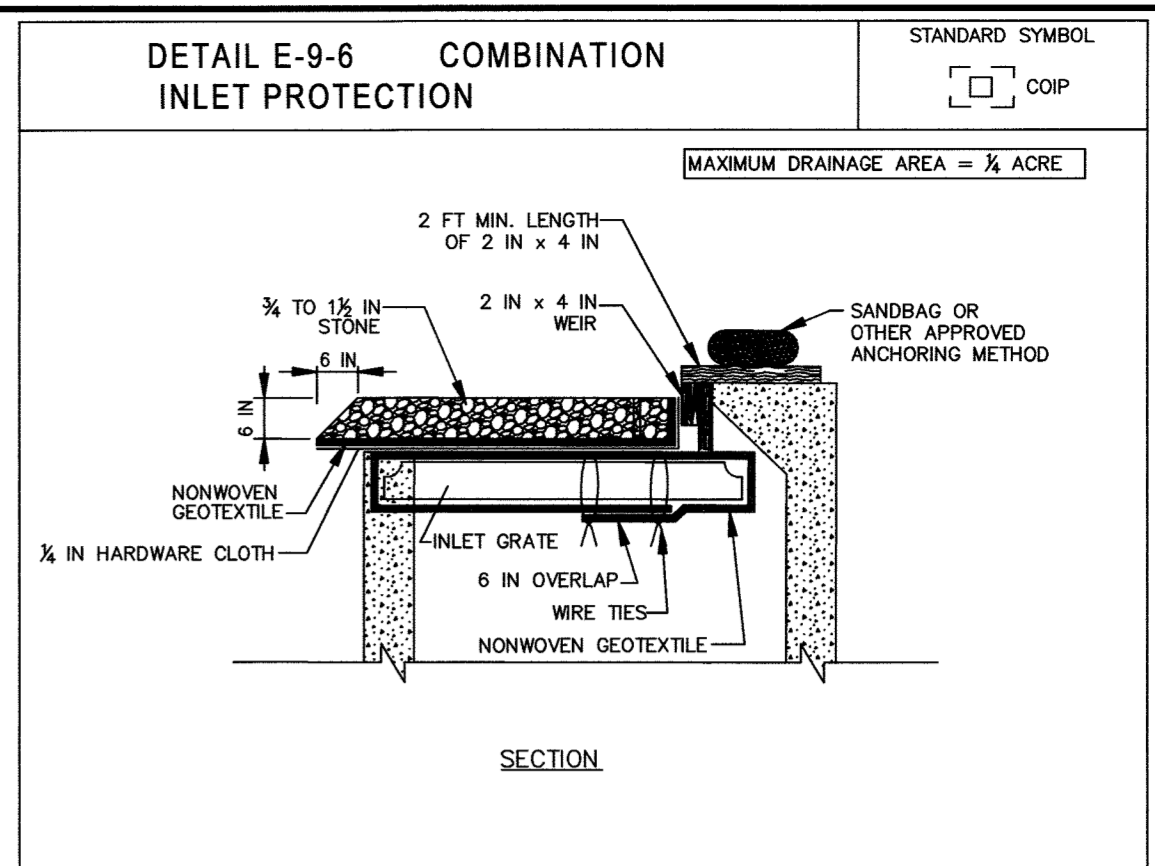
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CONSTRUCTION SPECIFICATIONS

1. USE NOMINAL 2 INCH X 4 INCH LUMBER.
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
3. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
4. ATTACH A CONTINUOUS PIECE OF 1/2 INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE.
5. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR.
6. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
7. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
8. FORM THE HARDWARE CLOTH AND GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
9. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
10. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

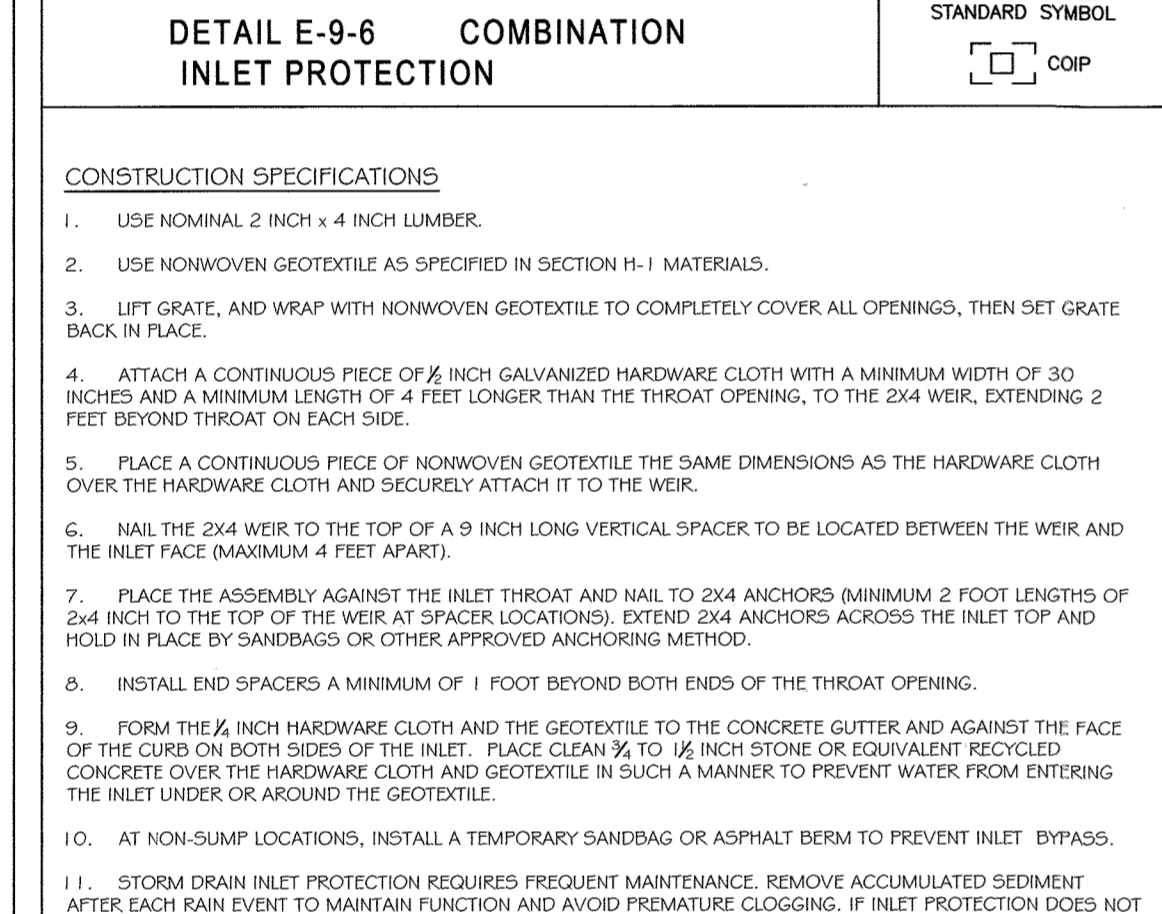
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CONSTRUCTION SPECIFICATIONS

1. USE NOMINAL 2 INCH X 4 INCH LUMBER.
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
3. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
4. ATTACH A CONTINUOUS PIECE OF 1/2 INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE.
5. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR.
6. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
7. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
8. FORM THE HARDWARE CLOTH AND GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
9. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
10. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

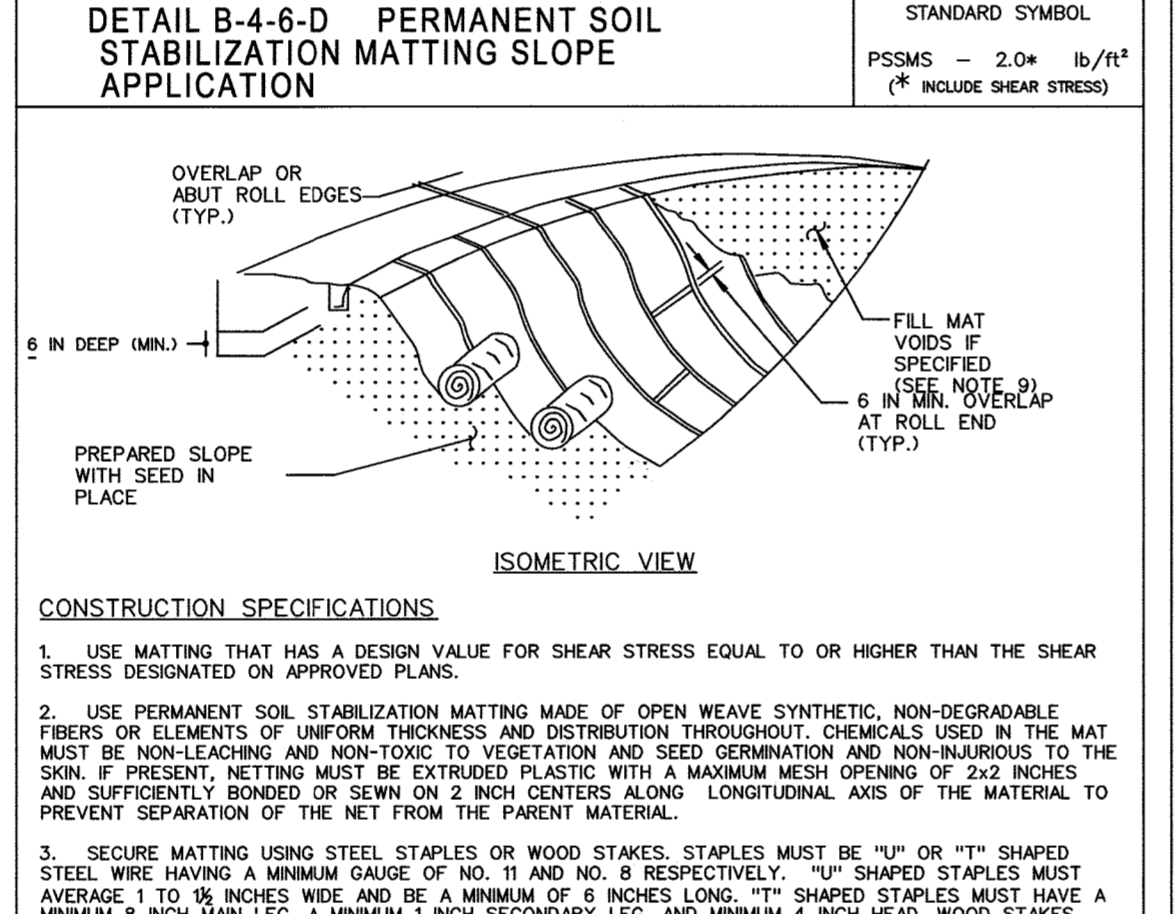
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CONSTRUCTION SPECIFICATIONS

1. USE NOMINAL 2 INCH X 4 INCH LUMBER.
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
3. LIFT GRATE, AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS, THEN SET GRATE BACK IN PLACE.
4. ATTACH A CONTINUOUS PIECE OF 1/2 INCH GALVANIZED HARDWARE CLOTH WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING 2 FEET BEYOND THROAT ON EACH SIDE.
5. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH IT TO THE WEIR.
6. NAIL THE 2x4 WEIR TO THE TOP OF A 9 INCH LONG VERTICAL SPACER TO BE LOCATED BETWEEN THE WEIR AND THE INLET FACE (MAXIMUM 4 FEET APART).
7. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FOOT LENGTHS OF 2x4 INCH TO THE TOP OF THE WEIR AT SPACER LOCATIONS). EXTEND 2x4 ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
8. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND BOTH ENDS OF THE THROAT OPENING.
9. FORM THE 1/2 INCH HARDWARE CLOTH AND GEOTEXTILE TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE OVER THE HARDWARE CLOTH AND GEOTEXTILE IN SUCH A MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE.
10. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
11. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

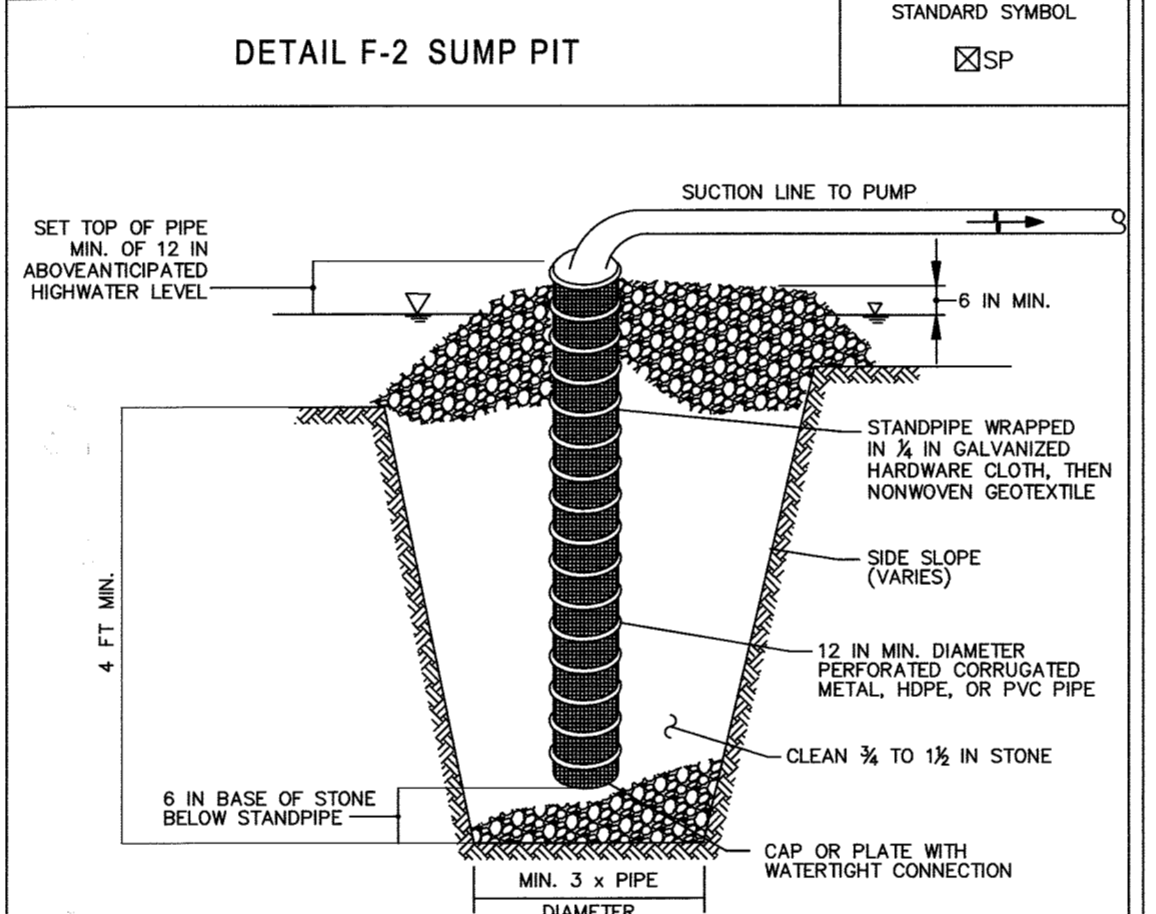
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CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-HARMFUL TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 9 RESPECTIVELY. "U" SHAPED STAPLES MUST HAVE AVERAGE 1 TO 1 1/2 INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1 1/2 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDING PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS. UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWN SLOPE. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

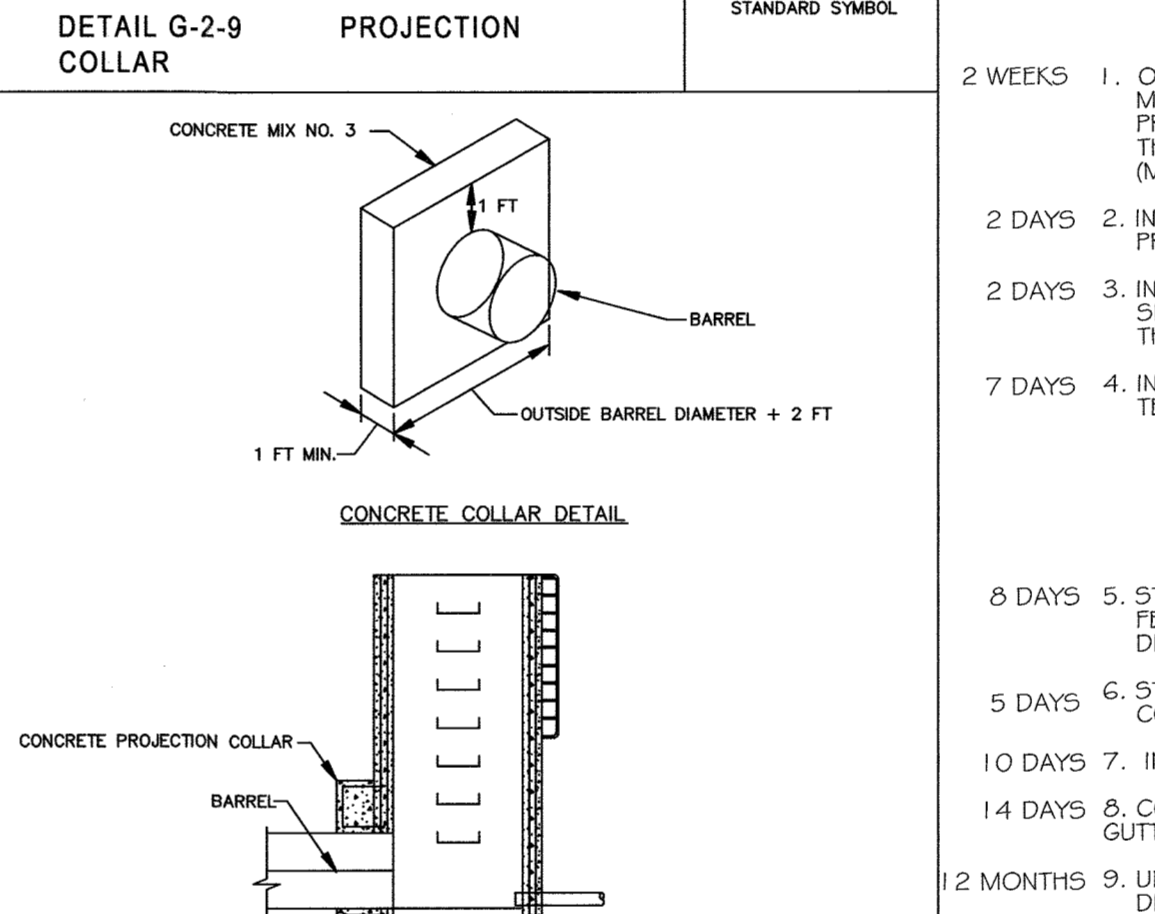
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CONSTRUCTION SPECIFICATIONS

1. USE 12 INCH OR LARGER DIAMETER CORRUGATED METAL, HDPE, OR PVC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER. BOTTOM OF PIPE MUST BE CAPPED WITH WATERTIGHT SEAL.
2. WRAP PIPE WITH 1/2 INCH GALVANIZED HARDWARE CLOTH AND WRAP NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE HARDWARE CLOTH.
3. EXCAVATE PIT TO THREE TIMES THE PIPE DIAMETER AND FOUR FEET IN DEPTH. PLACE 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE, 6 INCHES IN DEPTH PRIOR TO PIPE PLACEMENT.
4. SET TOP OF PIPE MINIMUM 12 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
5. BACKFILL PIT AROUND THE PIPE WITH 3/4 TO 1 1/2 INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE. EXTEND STONE A MINIMUM OF 6 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
6. DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
7. A SUMP PIT REQUIRES FREQUENT MAINTENANCE. IF SYSTEM CLOGS, REMOVE PERFORATED PIPE AND REPLACE GEOTEXTILE AND STONE. KEEP POINT OF DISCHARGE FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011
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CONSTRUCTION SPECIFICATIONS

1. CAST 1 FOOT THICK CONCRETE COLLAR TO OUTLET STRUCTURE WITH FOUR #4 U-SHAPED REBARS.
2. MAXIMUM BARREL STUB IS 2'-0".

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011
MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

SEQUENCE OF CONSTRUCTION

2 WEEKS 1. OBTAIN GRADING PERMIT. CONTACT THE HOWARD COUNTY CID INSPECTOR AT 410-313-2433 A MINIMUM OF 2 WEEKS PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING. THE CONTRACTOR IS TO SUBMIT A SCHEDULE OF WORK ACTIVITIES TO THE DEPARTMENT OF PUBLIC WORKS PRIOR TO INITIATION OF ANY GRADING ACTIVITIES. (MDE 15 NT-319/2015 61 055)

2 DAYS 2. INSTALL STABILIZED CONSTRUCTION ENTRANCES AT LOCATIONS SHOWN AND INSTALL INLET PROTECTION WHERE SPECIFIED FOR INLET EX I-5. BLOCK 1 1/2" PIPE AT DIVERSION MANHOLE D-1.

2 DAYS 3. INSTALL THE PERIMETER SEDIMENT CONTROL DEVICES SUPER SILT FENCE AT LOCATIONS SHOWN ON SHEET C8.00. MAKE SURE ALL NECESSARY SEDIMENT CONTROLS ARE IN PLACE PRIOR TO STRIPPING THE TOPSOIL.

7 DAYS 4. INSTALL STORM DRAIN FROM EW-2 THROUGH I-4 PROVIDE INLET PROTECTION, TEMP. BULKHEADS, TEMP. CAP AND TEMP. OUTFLOW BLOCKING AT I-1 AND MH-3 AS SHOWN ON PLAN.

NOTES:
A. SURFACE SAND FILTER FACILITY #2 SHALL NOT BE INSTALLED UNTIL ALL OF THE UPSTREAM DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED.
B. PERMISSION MUST BE OBTAIN FROM HOWARD COUNTY CID INSPECTOR PRIOR TO STRIPPING TOPSOIL.

8 DAYS 5. STRIP THE TOPSOIL, REMOVE EXISTING PAVING, CURB & GUTTER AND OTHER EXISTING SURFACE FEATURES NEEDED TO INSTALL PROPOSED PARKING LOT AS SPECIFIED ON SHEET C8.00 OR AS DIRECTED BY OWNER.

10 DAYS 6. STRIP THE REMAINING TOPSOIL AND ROUGH GRADE SITE AS SHOWN ON EROSION & SEDIMENT CONTROL PLAN (C8.00) TO BRING SITE TO SUBGRADE WITHIN LIMITS OF DISTURBANCE.

14 DAYS 7. INSTALL CURB AND GUTTER, SIDEWALKS AND BASE COURSE FOR PAVED AREAS.

10 DAYS 8. CONCURRENTLY BEGIN EXISTING PARKING LOT RESURFACING AND CURB REPAIR OR NEW CURB AND GUTTER INSTALLATION.

12 MONTHS 9. UPON COMPLETION OF PARKING LOT INSTALLATION AND REPAIRS PERMANENTLY STABILIZE ALL DISTURBED AREAS WITH SEED & MULCH.

2 DAYS 10. INSTALL ANY REMAINING CURB AND GUTTER AND SURFACE COURSE FOR PAVED AREAS

10 DAYS 11. INSTALL SAND SURFACE FACILITIES AND STABILIZE ALL DISTURBED AREAS AS NECESSARY.

10 DAYS 12. INSTALL SITE LANDSCAPING, REMOVE ANY REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED & MULCH.

NOTE:
OUTFALL PIPE FROM SURFACE SAND FILTER FACILITY #2 SHOWN ON SHEET C8.00 (SDP 16-003) SHALL BE INSTALLED PRIOR TO REMOVING TEMP. BULKHEAD, CAP & OUTFLOW BLOCKING ON SHEET C8.00 (SDP 78-83).

14 DAYS 13. UPON APPROVAL FROM THE HOWARD COUNTY CID INSPECTOR, REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES, REPAIR CURB & GUTTER AND PAVING AS REQUIRED AFTER REMOVAL OF SEDIMENT CONTROL DEVICES. PROVIDE COPY OF RECD LETTER OF APPROVAL FOR POND AS-BUILT TO INSPECTOR. ANY AND ALL REMOVAL OF THESE DEVICES MUST HAVE PRIOR APPROVAL FROM THE CID INSPECTOR.

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

Jan R. Roberts 2/19/16
Howard Soil Conservation District

ENGINEER'S CERTIFICATE

"I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Richard L. Butt 1-28-16
Signature of Engineer (print name below signature)

DEVELOPER'S CERTIFICATE

"We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including respecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training as a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify that entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."

Richard L. Butt 1-28-2016
Signature of Developer (print name below signature)

Prepared For and Owner:
Howard County Maryland
3430 Court House Drive
Ellicott City, Maryland 21043
ATTN: Mr. James J. Irvin
410-313-4401

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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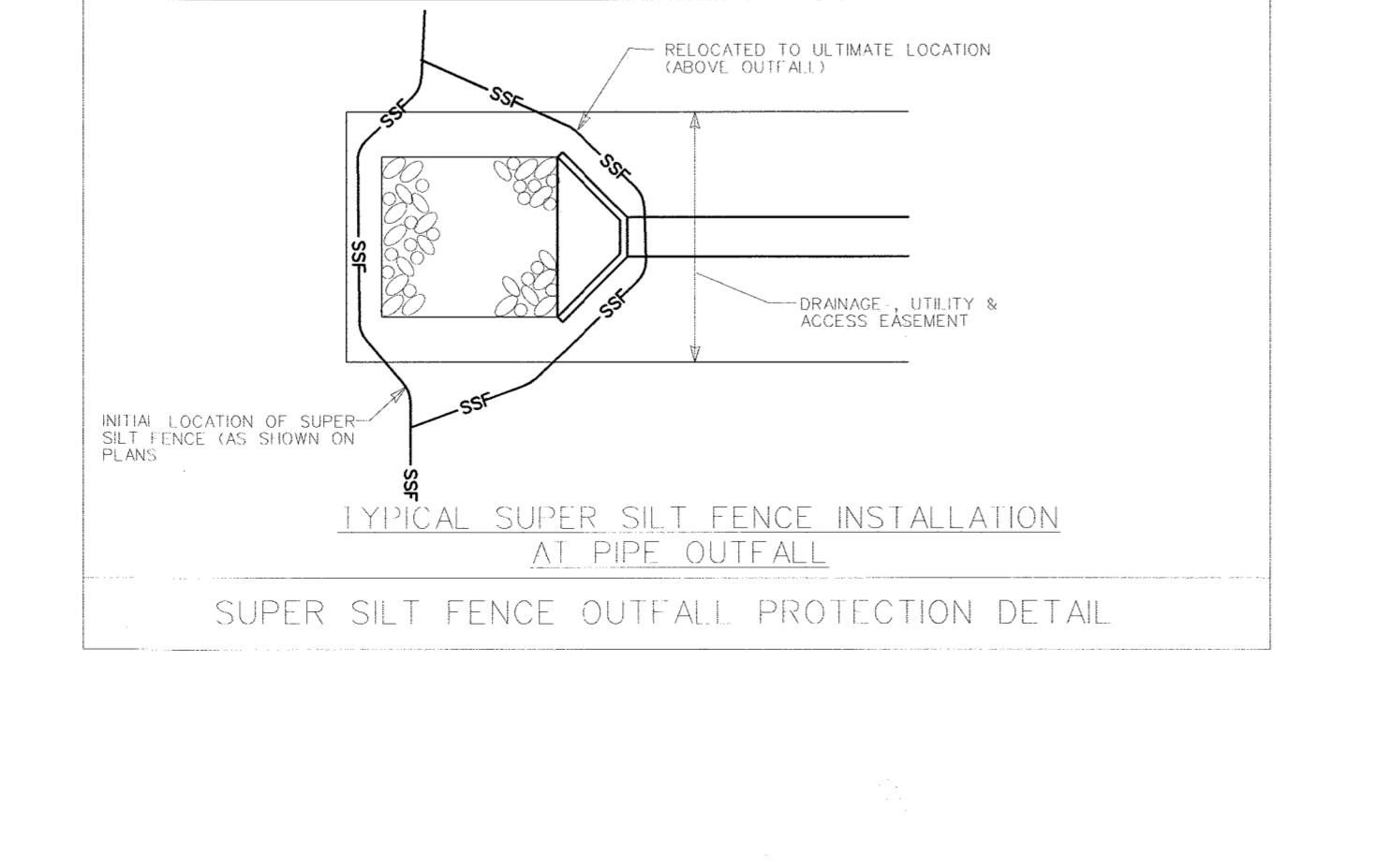
APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 12-17-15

APPROVED: Howard County Department of Planning & Zoning

Walter J. Jolly 3-14-16
Director

Kate Schuler 3-14-16
Chief, Division of Land Development

Chad E. Smith 2-16-16
Chief, Development Engineering Division



CONSTRUCTION SPECIFICATIONS

1. INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.085 INCH WALL THICKNESS AND 50 FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (3/8 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SILT FENCE GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 6 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011
MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

DESMAN ASSOCIATES

PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

198 Ralston Road
Suite 401
Columbia, MD 21046
410-735-1100
www.desman.com

KCI TECHNOLOGIES

**LITTLE PATUXENT PARKWAY
GREMPER REALTY INC. OFFICE BUILDING
COLUMBIA, MD**

PARCEL: 275. TAX MAP: 35. GRID: 6
PLANNING BOARD: 2/6
ELECTION DISTRICT: 5. ZONING: NT

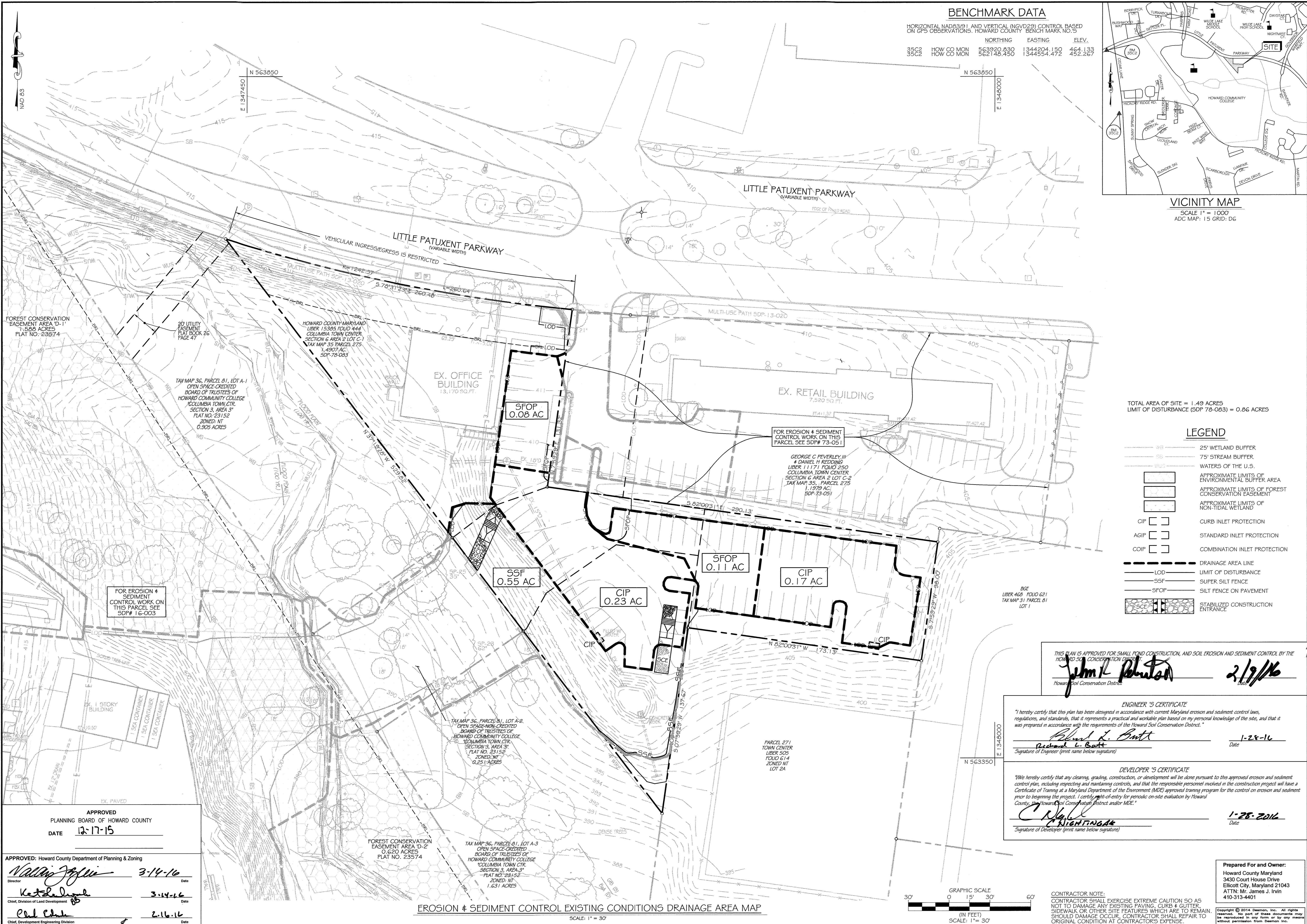
PROFESSIONAL CERTIFICATION.
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 31089 EXPIRATION DATE: 11/21/16

PROFESSIONAL ENGINEER

ISSUE

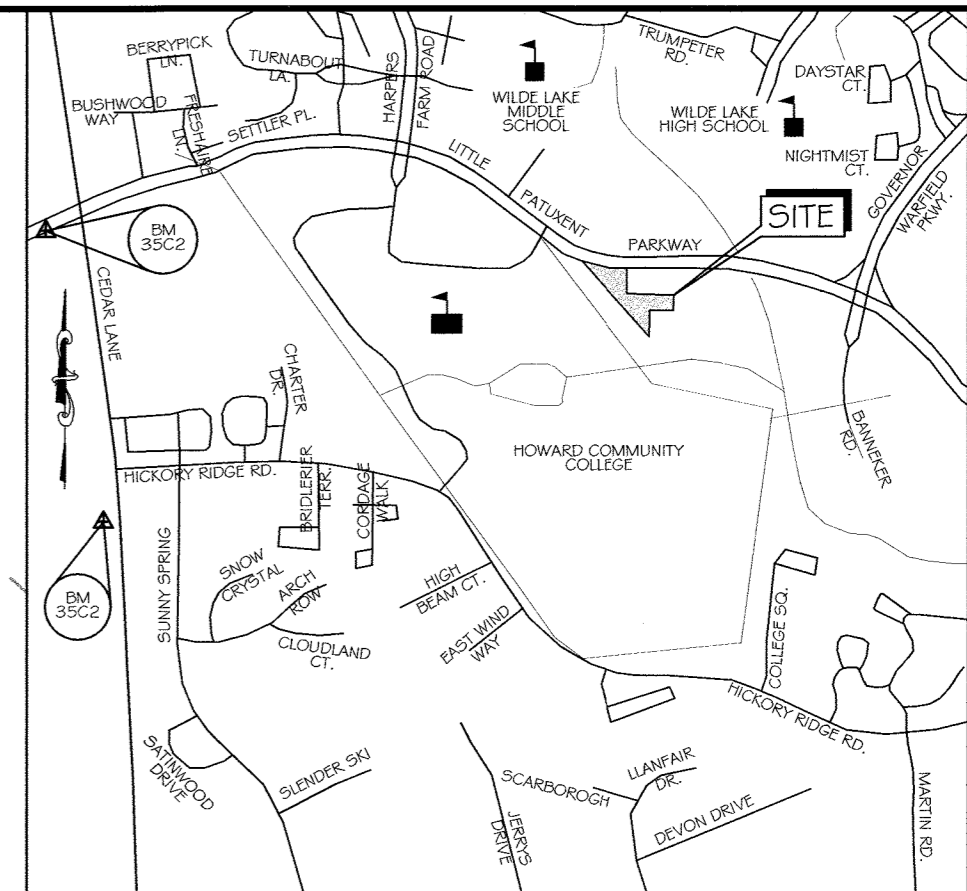
NO.	DESCRIPTION	DATE
	DRAWING TITLE:	
	EROSION & SEDIMENT CONTROL DETAILS	
	DRAWING NO.	
	C8.01	
	SHEET: 11 OF 27	
	SCALE: N.T.S.	
	DATE: JANUARY 15, 2016	
	PROJECT NO: 27146550	
	DES. DRWN. CK'D.	
	R.L.B. R.L.B.	

SDP 78-83



BENCHMARK DATA
 HORIZONTAL (NAD83) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS, HOWARD COUNTY BENCH MARK NO. 3

	NORTHING	EASTING	ELEV.
35C2 HOW CO MON	563920.630	1344204.150	464.133
35C2 HOW CO MON	562748.450	1344554.472	452.267



VICINITY MAP
 SCALE 1" = 1000'
 ADC MAP: 15 GRID: D6

TOTAL AREA OF SITE = 1.49 ACRES
 LIMIT OF DISTURBANCE (SDP 78-083) = 0.86 ACRES

- LEGEND**
- WB 25' WETLAND BUFFER
 - SB 75' STREAM BUFFER
 - WUS WATERS OF THE U.S.
 - APPROXIMATE LIMITS OF ENVIRONMENTAL BUFFER AREA
 - APPROXIMATE LIMITS OF FOREST CONSERVATION EASEMENT
 - APPROXIMATE LIMITS OF NON-TIDAL WETLAND
 - CIP CURB INLET PROTECTION
 - AGIP STANDARD INLET PROTECTION
 - COIP COMBINATION INLET PROTECTION
 - DA LINE DRAINAGE AREA LINE
 - LOD LIMIT OF DISTURBANCE
 - SSF SUPER SILT FENCE
 - SFOP SILT FENCE ON PAVEMENT
 - SCENT STABILIZED CONSTRUCTION ENTRANCE

THIS PLAN IS APPROVED FOR SMALL POND CONSTRUCTION, AND SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT

John R. Reuter 2/19/16
 Howard County Conservation District

ENGINEER'S CERTIFICATE
 "I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Richard L. Butt 1-28-16
 Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE
 "We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify my site of entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."

Richard L. Butt 1-28-2016
 Signature of Developer (print name below signature) Date

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE 12-17-15

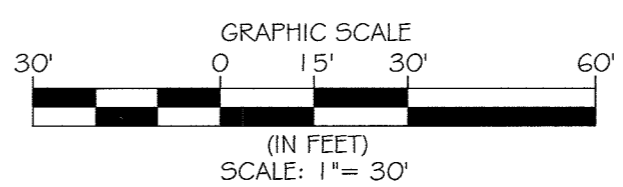
APPROVED: Howard County Department of Planning & Zoning

Walter Joffe 3-14-16
 Director Date

Kate Delaney 3-14-16
 Chief, Division of Land Development Date

Paul E. Egan 2-16-16
 Chief, Development Engineering Division Date

EROSION & SEDIMENT CONTROL EXISTING CONDITIONS DRAINAGE AREA MAP
 SCALE: 1" = 30'



CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

Prepared For and Owner:
 Howard County Maryland
 3430 Court House Drive
 Ellicott City, Maryland 21043
 ATTN: Mr. James J. Irvin
 410-313-4401

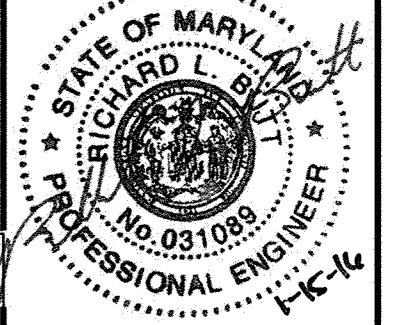
DESIGN ASSOCIATES

KCI TECHNOLOGIES
 PLANNERS
 ARCHITECTS
 CONSTRUCTION MANAGERS

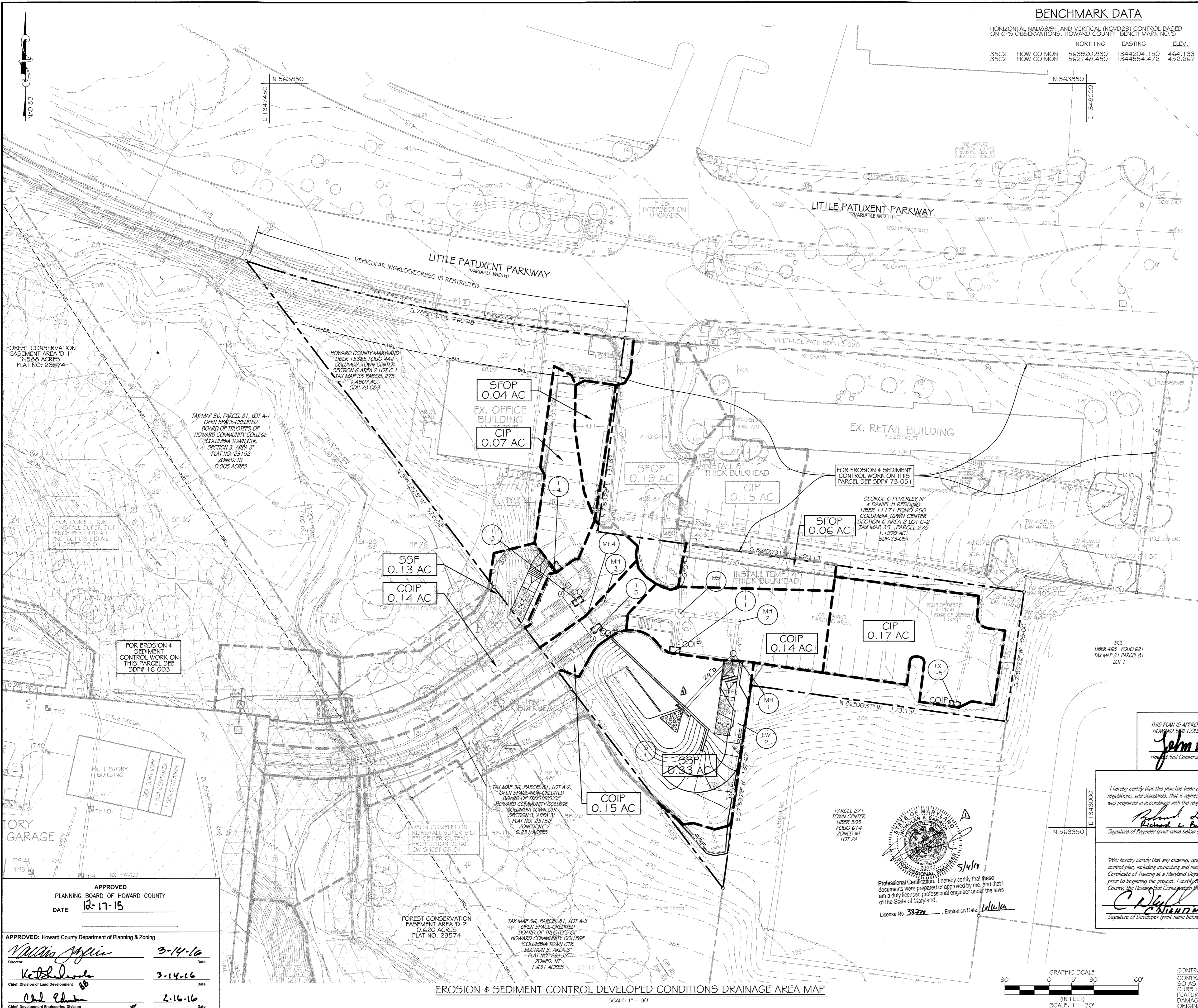
**LITTLE PATUXENT PARKWAY
 GREMPLE REALTY INC. OFFICE BUILDING
 COLUMBIA, MD**

PARCEL: 275, TAX MAP: 35, GRID: 6
 PLAT: PLAT BOOK 26 / FOLIO 47
 ELECTION DISTRICT: 9 ZONING: NT

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. 31089, EXPIRATION DATE: 11/21/16



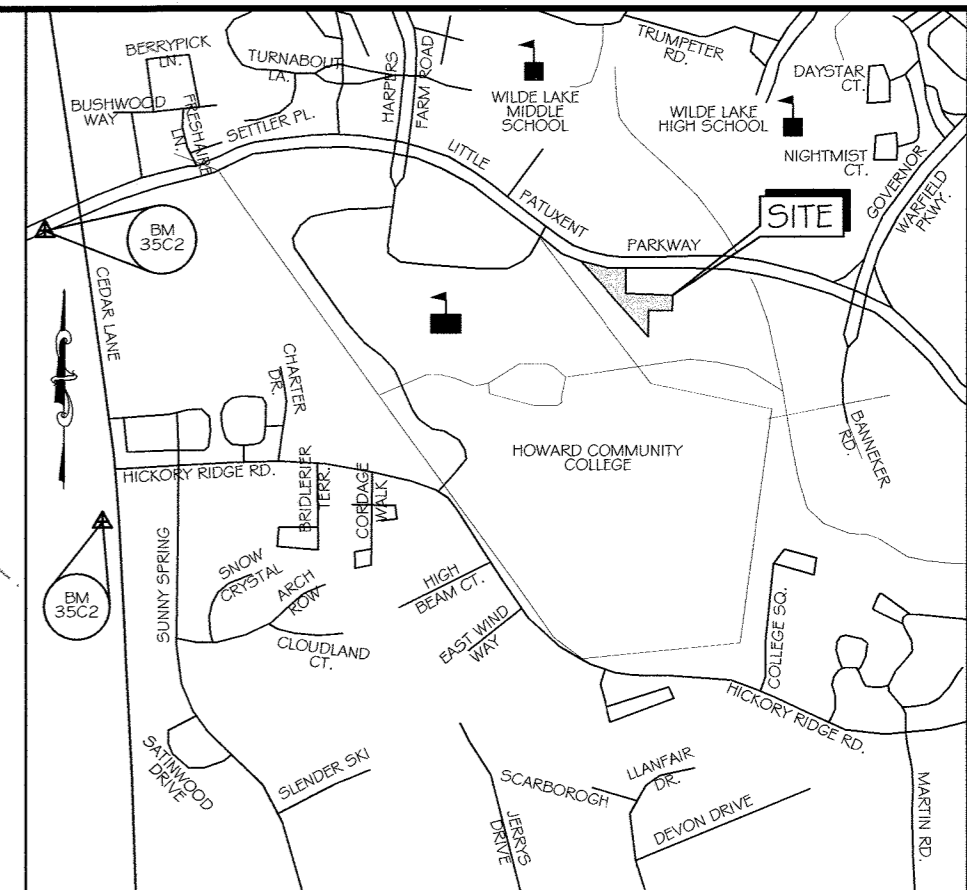
ISSUE	
NO.	DESCRIPTION DATE
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DRAWING NO. C8.04	
SHEET: 14 OF 27	
SCALE: 1" = 30'	
DATE: JANUARY 15, 2016	
PROJECT NO: 27146550	
DES. R.L.B.	DRWN. CK'D. R.L.B.



BENCHMARK DATA

HORIZONTAL (NAD83) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS, HOWARD COUNTY BENCHMARK NO. 3

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VICINITY MAP
SCALE 1" = 1000'
ADC MAP: 15 GRID: DG

TOTAL AREA OF SITE = 1.49 ACRES
LIMIT OF DISTURBANCE (SDP 78-083) = 0.86 ACRES

LEGEND

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- 75' STREAM BUFFER
- WUS
- APPROXIMATE LIMITS OF ENVIRONMENTAL BUFFER AREA
- APPROXIMATE LIMITS OF FOREST CONSERVATION EASEMENT
- APPROXIMATE LIMITS OF NON-TIDAL WETLAND
- CIP
- AGIP
- COIP
- LOD
- CD
- SSF
- SFOP
- STABILIZED CONSTRUCTION ENTRANCE

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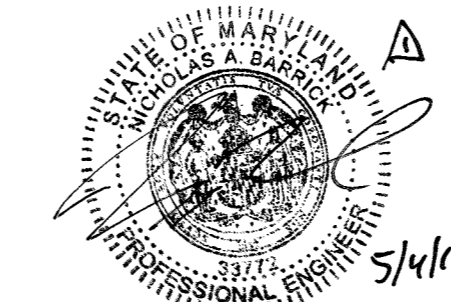
Jerm L. Roberts 2/9/16
Howard Soil Conservation District

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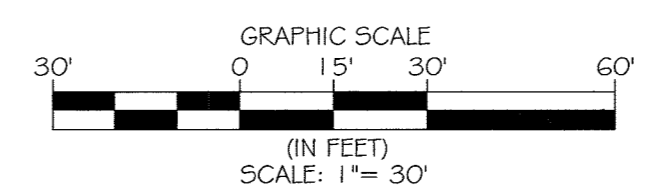
Richard S. Smith 1-28-16
Signature of Engineer (print name below signature) Date

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C. Ward 1-29-2016
Signature of Developer (print name below signature) Date



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. 3377, Expiration Date: 1/1/16



EROSION & SEDIMENT CONTROL DEVELOPED CONDITIONS DRAINAGE AREA MAP
SCALE: 1" = 30'

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: 12-17-15

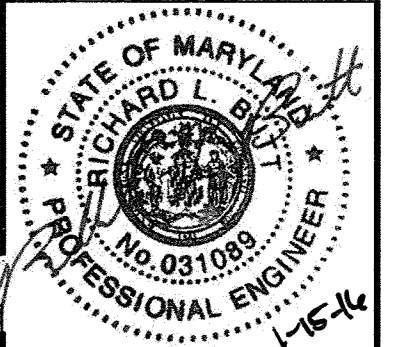
APPROVED: Howard County Department of Planning & Zoning
Director: *Valerie Griffin* 3-14-16
Chief, Division of Land Development: *Kathleen* 3-14-16
Chief, Development Engineering Division: *Chad* 2-16-16

DESMAN ASSOCIATES



**LITTLE PATUXENT PARKWAY
GREPLER REALTY INC. OFFICE BUILDING
COLUMBIA, MD**
PARCEL: 275, TAX MAP: 35, GRID: 6
PLAT: PLAT BOOK 26 / FOLIO 47
ELECTION DISTRICT: 5, ZONING: NT

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. 31089, EXPIRATION DATE: 11/21/16



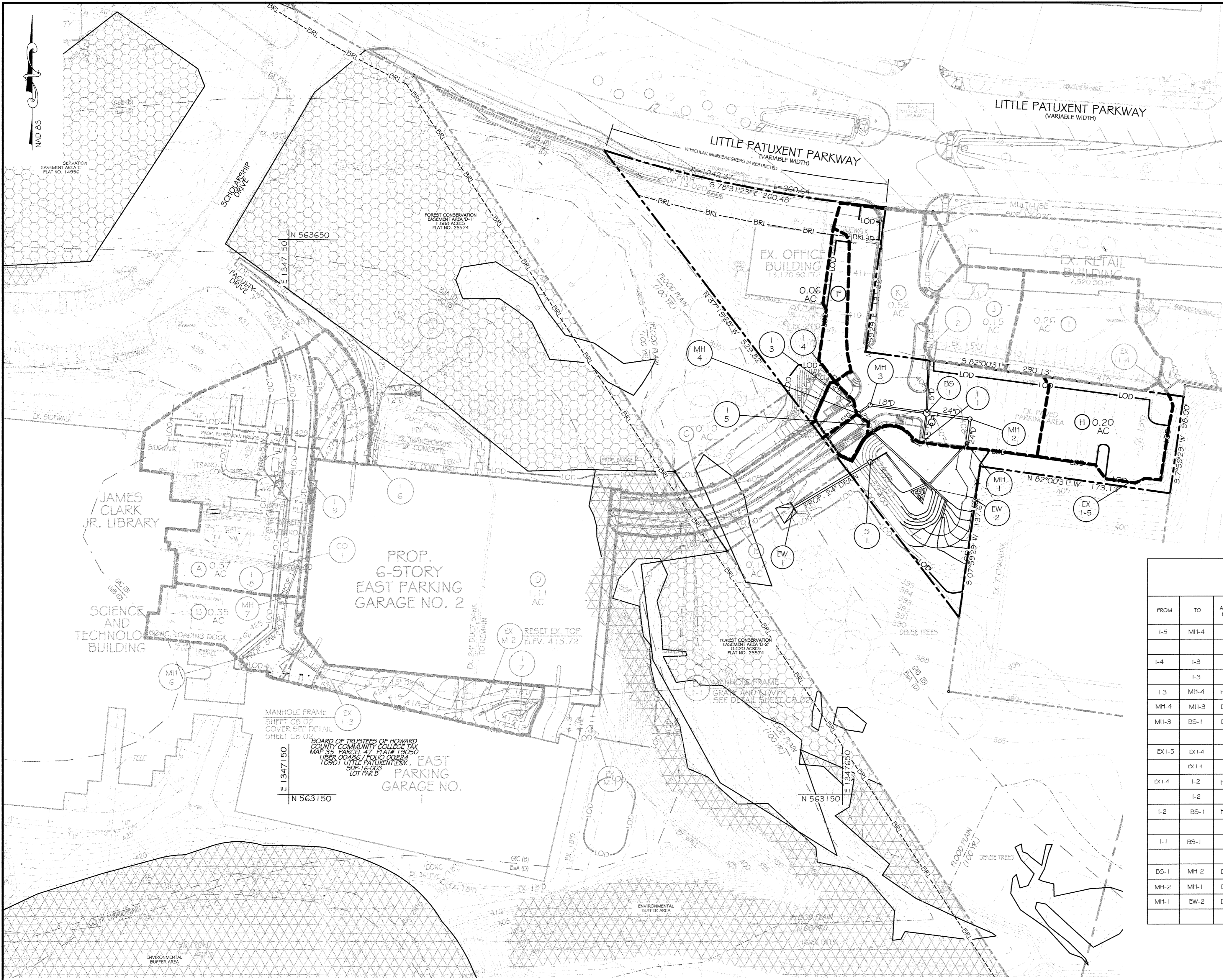
NO.	REVISION	DATE
1	REVIS	3/14/16

ISSUE

C8.05
SHEET: 15 OF 27
SCALE: 1" = 30'
DATE: JANUARY 15, 2016
PROJECT NO: 27146550
DES. DRWN. CK'D.
R.L.B. R.L.B.

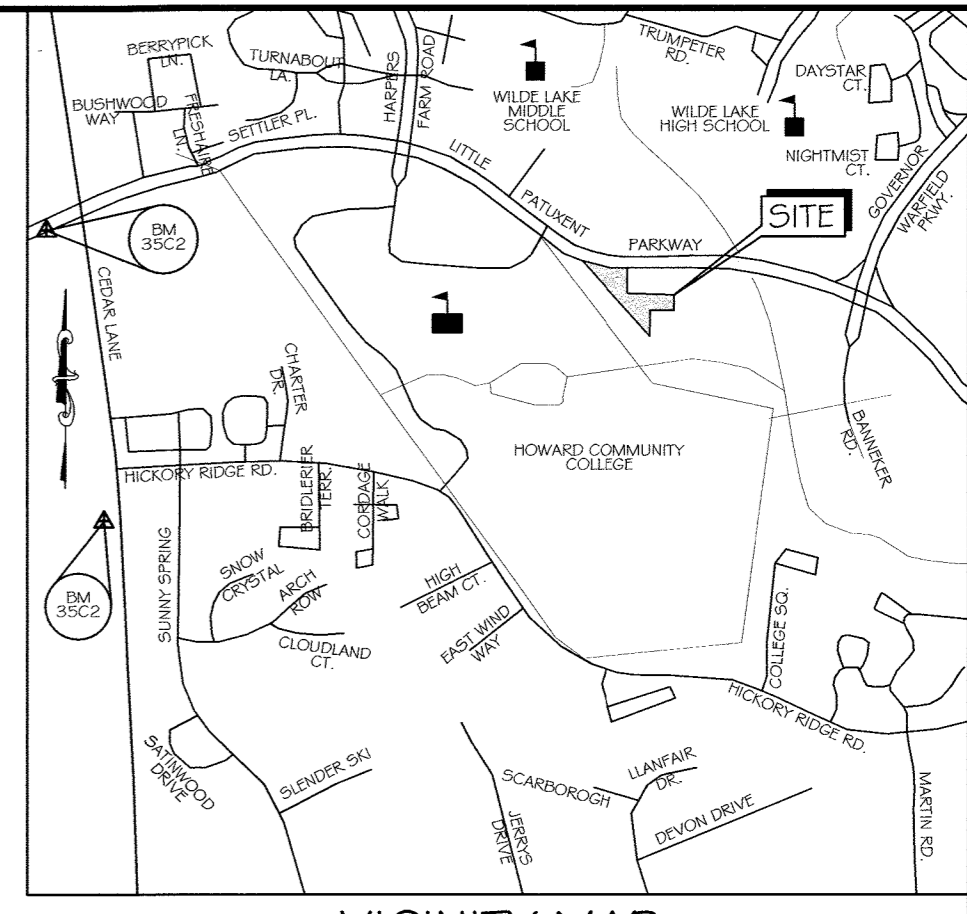
Prepared For and Owner:
Howard County Maryland
3430 Court House Drive
Ellicott City, Maryland 21043
ATTN: Mr. James J. Irvin
410-313-4401

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BENCHMARK DATA
 HORIZONTAL (NAD83) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS, HOWARD COUNTY BENCHMARK NO. 3

	NORTHING	EASTING	ELEV.	
35C2	HOW CO MON	563920.830	1344204.150	464.133
35C2	HOW CO MON	562148.450	1344554.472	452.267



VICINITY MAP
 SCALE 1" = 1000'
 ADC MAP: 15 GRID: DG

LEGEND

- SOILS LINE
- DRAINAGE AREA LINE
- PROP. CONTOUR
- PROP. STORM DRAIN
- PROP. INLET
- PROP. MANHOLE
- DRAINAGE AREA

SOILS TABLE

SOIL UNIT	SOIL UNIT NAME	HYDROLOGIC SOIL GROUP
UuB (D)	Urban land-Udorthents complex, 0 to 8 percent slopes	D
GmB (C)	Glenville Silt Loam, 3 to 8 percent slopes	C
GbB (B)	Glandstone Loam, 3 to 8 percent slopes	B
BaA (D)	Bale Silt Loam, 0 to 3 percent slopes	D

STORM DRAIN DESIGN DATA
 1.0 YEAR STORM

FROM	TO	AREA NO.	AREA (ACRES)	TOTAL AREA (ACRES)	TOTAL COEFF. C	GA	SUM CA	TC (MIN.)	RAINFALL INTENSITY (DHS)	Q (CFS)	SIZE (IN.)	TYPE	N	S _o SLOPE (%)	L LENGTH (FT.)	V _o VOLUME (FT. ³ /SEC.)	TIME IN PIPE (MIN.)	REMARKS
I-5	MH-4	E	0.12	0.85	0.10	5.00	8.50	0.87	12"	RCP	0.014	0.07%	10.8'	1.70	0.1			
I-4	I-3	F	0.06	0.85	0.06	5.00	9.76	0.50	12"	RCP	0.014	0.02%	38.7'	0.62	0.9			SUMP 25 YR
I-3	I-3	G	0.10	0.85	0.09	5.00	8.50	0.72	12"	RCP	0.014	0.13%	10.8'	1.50	0.1			
I-3	MH-4	F+G	0.16	0.85	0.15	5.90	8.05	1.21	12"	RCP	0.014	0.13%	10.8'	1.50	0.1			
MH-4	MH-3	D-G	1.39	1.31	5.60	8.20	10.74	18"	RCP	0.014	1.18%	13.6'	6.05	0.0				
MH-3	B5-1	D-G	1.39	1.31	5.60	8.20	10.74	18"	RCP	0.014	1.18%	51.6'	6.05	0.1				
EX-15	EX-14	H	0.20	0.85	0.17	5.00	9.76	0.50	15"	RCP	0.014	0.08%	95.0'	1.33	1.2			SUMP 25 YR
EX-14	I-2	HH	0.46	0.85	0.22	6.20	8.10	3.65	EX 15"	RCP	0.014	0.37%	208.0'	3.00	0.6			SUMP 25 YR
I-2	I-2	J	0.15	0.85	0.13	5.00	9.76	0.50	15"	RCP	0.014	0.60%	60.6'	3.70	0.3			SUMP 25 YR
I-2	B5-1	HJ	0.61	0.60	6.80	7.68	4.61	15"	RCP	0.014	0.60%	60.6'	3.70	0.3			SUMP 25 YR	
I-1	B5-1	K	0.52	0.75	0.39	5.00	9.76	0.50	15"	RCP	0.014	0.40%	24.5'	3.05	0.1			SUMP 25 YR
B5-1	MH-2	D-K	2.37	2.36	5.90	8.05	19.00	24"	RCP	0.014	0.80%	39.5'	6.00	0.1				
MH-2	MH-1	D-K	2.37	2.36	6.00	8.00	19.00	24"	RCP	0.014	0.80%	57.6'	6.00	0.2				
MH-1	EW-2	D-K	2.37	2.36	6.20	7.92	19.00	24"	RCP	0.014	0.80%	16.7'	6.00	0.2				

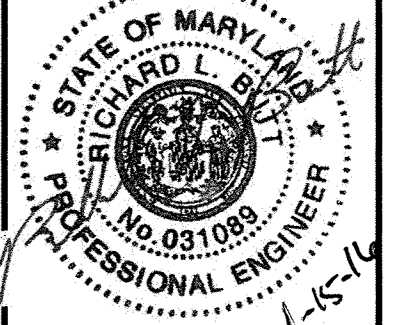
STORM DRAIN DRAINAGE AREA MAP
 SCALE: 1" = 50'

DES MAN ASSOCIATES

KCI TECHNOLOGIES

**LITTLE PATUXENT PARKWAY
 GREMPER REALTY INC. OFFICE BUILDING
 COLUMBIA, MD**
 PARCEL: 275, TAX MAP: 35, GRID: 6
 PLAT: PLAT BOOK 26 / FOLIO 47
 ELECTION DISTRICT: 9Z, ZONING: NT

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. 31089 EXPIRATION DATE: 11/21/16



ISSUE

NO.	DESCRIPTION	DATE
1	Revised Storm Drain Map	5/16

DRAWING TITLE:
STORM DRAIN DRAINAGE AREA MAP

DRAWING NO.
C9.00

SHEET: 16 OF 27

SCALE: 1" = 50'
 DATE: JANUARY 15, 2016
 PROJECT NO: 27146550

DES. DRWN. CK'D.
 R.L.B. C.T.B. R.L.B.

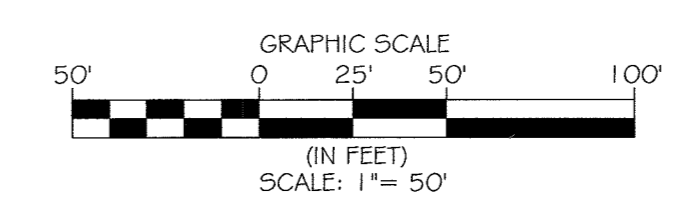
APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE: 12-17-15

APPROVED: Howard County Department of Planning & Zoning
 Director: *[Signature]* 3-14-16
 Chief, Division of Land Development: *[Signature]* 3-14-16
 Chief, Development Engineering Division: *[Signature]* 2-16-16



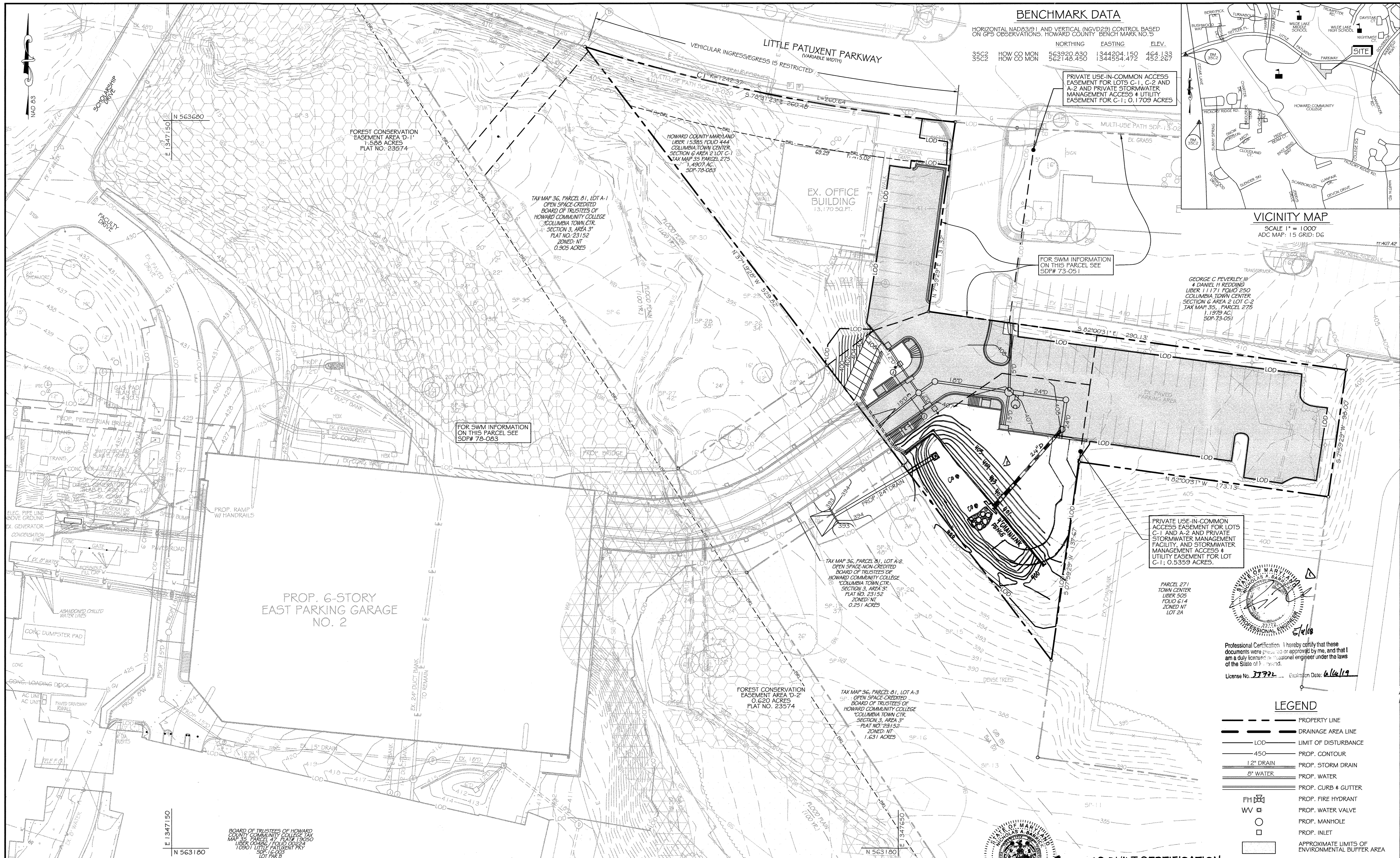
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No: 23772, Expiration Date: 6/6/19

Prepared For and Owned by:
 Howard County Maryland
 3430 Court House Drive
 Ellicott City, Maryland 21043
 ATTN: Mr. James J. Irvin
 410-313-4401



CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

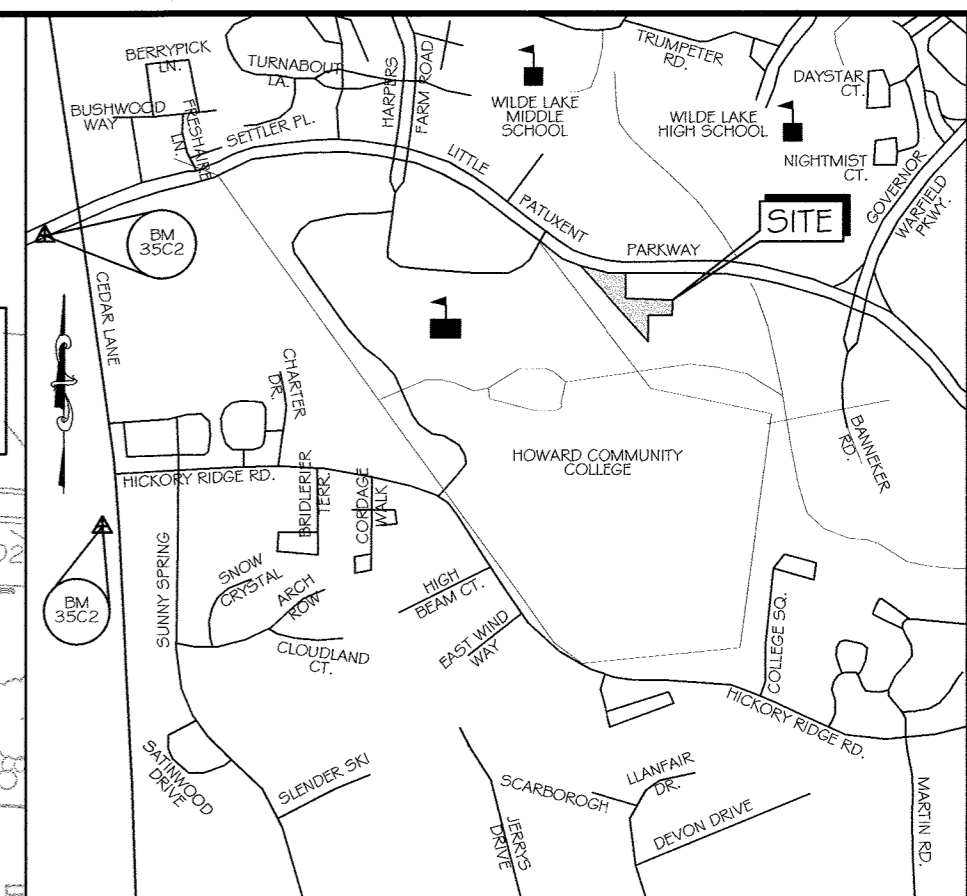
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BENCHMARK DATA

HORIZONTAL (NAD83) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS, HOWARD COUNTY BENCHMARK NO. 3

	NORTHING	EASTING	ELEV.
35C2	563920.830	1344204.150	464.133
35C2	562148.450	1344554.472	452.287



VICINITY MAP
SCALE: 1" = 1000'
ADC MAP: 15 GRID: DG

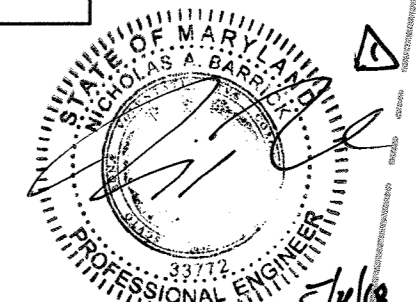
PRIVATE USE-IN-COMMON ACCESS EASEMENT FOR LOTS C-1, C-2 AND A-2 AND PRIVATE STORMWATER MANAGEMENT ACCESS & UTILITY EASEMENT FOR C-1; 0.1709 ACRES

FOR SWM INFORMATION ON THIS PARCEL SEE SDF# 73-051

GEORGE C PEVERLEY III & DANIEL H REDDING LIBER 11171 FOLIO 250 COLUMBIA TOWN CENTER SECTION 6 AREA 2 LOT C-2 TAX MAP 35, PARCEL 275 1.1979 AC SDF# 73-051

PRIVATE USE-IN-COMMON ACCESS EASEMENT FOR LOTS C-1 AND A-2 AND PRIVATE STORMWATER MANAGEMENT FACILITY, AND STORMWATER MANAGEMENT ACCESS & UTILITY EASEMENT FOR LOT C-1; 0.5359 ACRES.

PARCEL 271 TOWN CENTER LIBER 505 FOLIO 614 ZONED MT LOT 2A



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. 37322 Expiration Date: 6/6/19

LEGEND

- PROPERTY LINE
- DRAINAGE AREA LINE
- LOD LIMIT OF DISTURBANCE
- 450 PROP. CONTOUR
- 12" DRAIN PROP. STORM DRAIN
- 8" WATER PROP. WATER
- PROP. CURB & GUTTER
- PROP. FIRE HYDRANT
- PROP. WATER VALVE
- PROP. MANHOLE
- PROP. INLET
- APPROXIMATE LIMITS OF ENVIRONMENTAL BUFFER AREA
- APPROXIMATE LIMITS OF FOREST CONSERVATION EASEMENT
- APPROXIMATE LIMITS OF NON-TIDAL WETLAND
- APPROXIMATE LIMITS OF IMPERVIOUS AREA



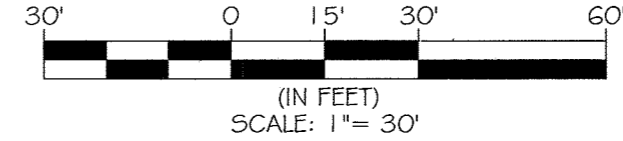
Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License No. 37322 Expiration Date: 6/6/19

AS-BUILT CERTIFICATION

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.

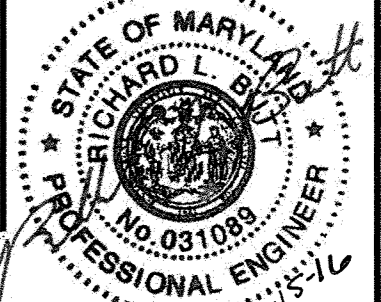
NAME: [Signature] PE# 37322 DATE: 6/6/19

CONTRACTOR NOTE: CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.



Prepared For and Owner:
Howard County Maryland
3430 Court House Drive
Ellicott City, Maryland 21043
ATTN: Mr. James J. Irvin
410-313-4401

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. 31089 EXPIRATION DATE: 11/21/16



NO.	DESCRIPTION	DATE
1	Revised SWM	6/6/19

DRAWING TITLE:
DEVELOPED CONDITIONS IMPERVIOUS AREA MAP

DRAWING NO.: **C10.01**
SHEET: 18 OF 27
SCALE: 1" = 30'
DATE: JANUARY 15, 2016
PROJECT NO.: 27146550

DES. C.T.B. CK'D. R.L.B. R.L.B.

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: 13-17-15

APPROVED: Howard County Department of Planning & Zoning
Director: [Signature] 3-14-16
Chief, Division of Land Development: [Signature] 3-14-16
Chief, Development Engineering Division: [Signature] 2-16-16

BOARD OF TRUSTEES OF HOWARD COUNTY COMMUNITY COLLEGE TAX MAP 36, PARCEL 81, LOT A-2 SDF# 73-051

EX. EAST PARKING GARAGE NO. 1

DEVELOPED CONDITIONS IMPERVIOUS AREA MAP
SCALE: 1" = 30'

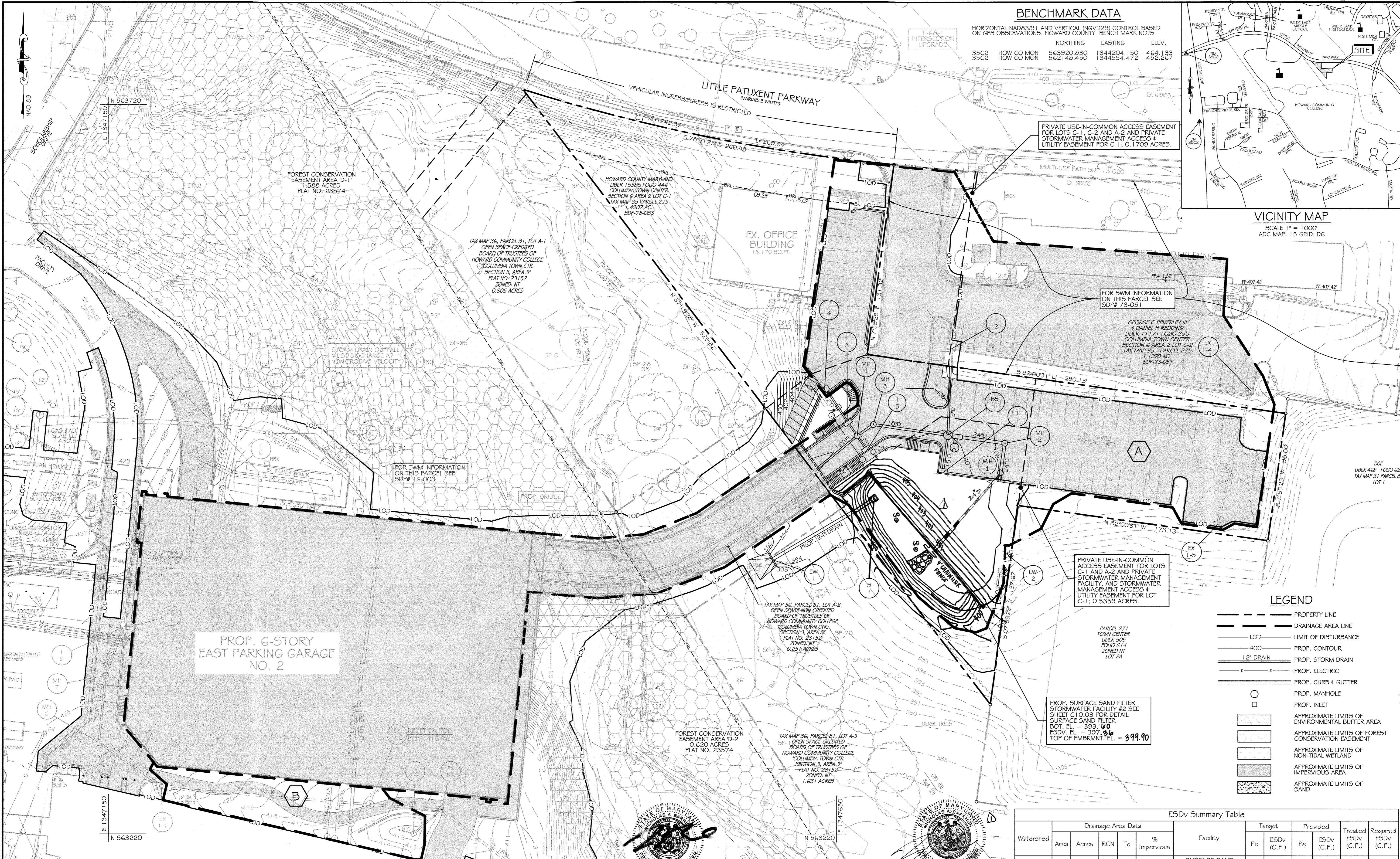
L.O.D. IMPERVIOUSNESS SUMMARY

TOTAL AREA INSIDE THE L.O.D. (SDF 78-083) = 37,554 S.F. (0.86 ACRES)
TOTAL IMPERVIOUS AREA INSIDE THE L.O.D. (SDF 78-083) = 24,625 S.F. (0.57 AC.)
TOTAL PERVIOUS AREA INSIDE THE L.O.D. (SDF 78-083) = 12,929 S.F. (0.29 ACRES)

DESMAN ASSOCIATES



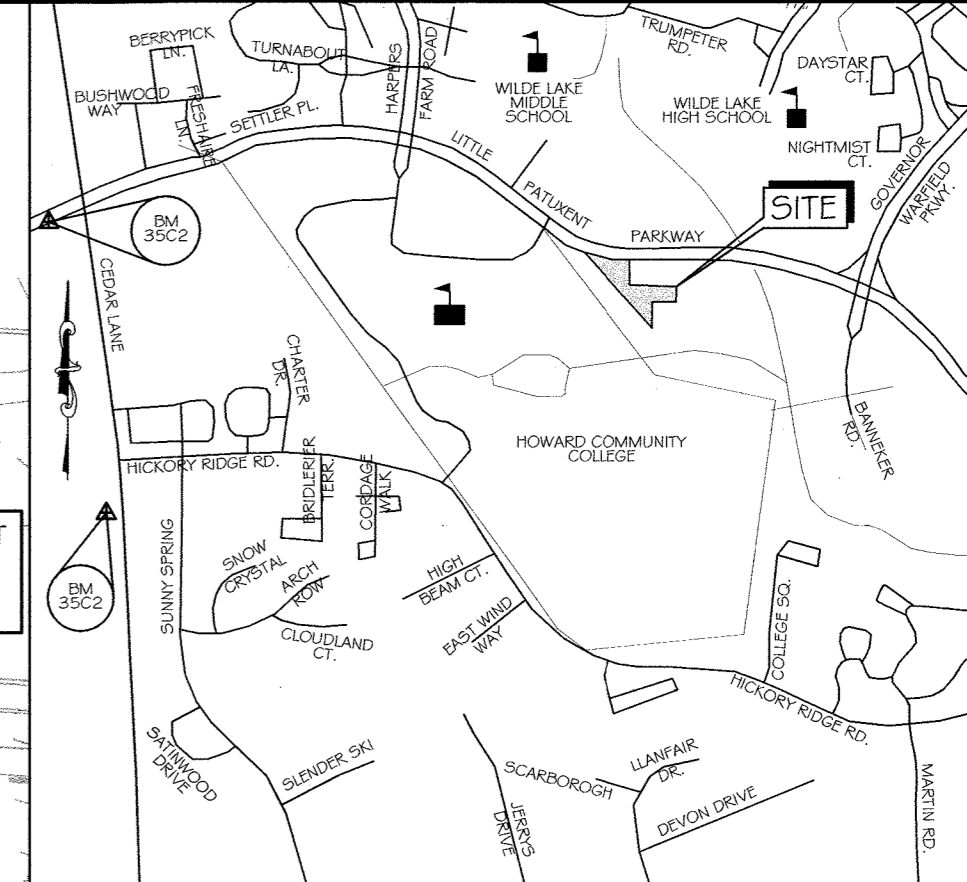
**LITTLE PATUXENT PARKWAY
GREMPLE REALTY INC. OFFICE BUILDING**
COLUMBIA, MD
PARCEL: 275, TAX MAP: 35, GRID: 6
PLAT: PLAT BOOK 26 / FOLIO 47
ELECTION DISTRICT: 5 ZONING: NT



BENCHMARK DATA

HORIZONTAL (NAD83) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO. 5

	NORTHING	EASTING	ELEV.	
35C2	HOW CO MON	563920.430	1344304.150	464.133
35C2	HOW CO MON	562148.450	1344554.472	452.267



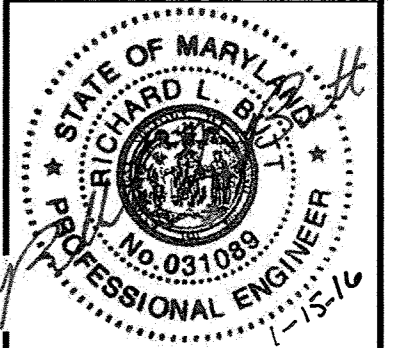
DESMAN ASSOCIATES

KCI TECHNOLOGIES

**LITTLE PATUXENT PARKWAY
GREMPLE REALTY INC. OFFICE BUILDING
COLUMBIA, MD**

PARCEL: 275, TAX MAP: 35, GRID: 6
 PLAT: PLAT BOOK 26 / FOLIO 47
 TOWN CENTER: 6/2, LOT: 1
 ELECTION DISTRICT: 9 ZONING: NT

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. 31089, EXPIRATION DATE: 11/21/16



ISSUE

NO.	REVISION	DATE
1	Issue	3/14/16

ENVIRONMENTAL SITE DESIGN PLAN

DRAWING NO. **C10.02**

SHEET: 19 OF 27

SCALE: 1" = 30'

DATE: JANUARY 15, 2016

PROJECT NO: 27146550

DES. R.L.B.	DRWN. C.T.B.	CK'D. R.L.B.
-------------	--------------	--------------

LEGEND

- PROPERTY LINE
- DRAINAGE AREA LINE
- LOD — LIMIT OF DISTURBANCE
- 400 — PROP. CONTOUR
- 12" DRAIN — PROP. STORM DRAIN
- PROP. ELECTRIC
- PROP. CURB & GUTTER
- — PROP. MANHOLE
- — PROP. INLET
- — APPROXIMATE LIMITS OF ENVIRONMENTAL BUFFER AREA
- — APPROXIMATE LIMITS OF FOREST CONSERVATION EASEMENT
- — APPROXIMATE LIMITS OF NON-TIDAL WETLAND
- — APPROXIMATE LIMITS OF IMPERVIOUS AREA
- — APPROXIMATE LIMITS OF SAND

ESDv Summary Table

Watershed	Drainage Area Data				Facility	ESDv Summary				
	Area	Acres	RCN	Tc		Pe	ESDv (C.F.)	Pe	Treated ESDv (C.F.)	Required ESDv (C.F.)
Little Patuxent	A	2.80			SURFACE SAND FILTER		0.99	8,367	11,156	
	B	0.18			MICRO-BIORETENTION		0.63	127	169	
SITE										10,877
Total ESDv =								8,494	11,325	10,877

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE: 12-17-15

APPROVED: Howard County Department of Planning & Zoning

Walter J. Quinn 3-14-16
 Director

Walter J. Quinn 3-14-16
 Chief, Division of Land Development

Carl E. Smith 2-16-16
 Chief, Development Engineering Division

PROP. MICR-BIORETENTION M-6 STORMWATER FACILITY #1 SEE SHEET C1.04 FOR DETAIL BOT, EL. = 411.50 ESDV, EL. = 412.10

EX. EAST PARKING GARAGE NO. 1

ENVIRONMENTAL SITE DESIGN PLAN
 SCALE: 1" = 30'

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLAN AND COMPLIED WITH THE APPROVED PLAN 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. 33372, Expiration Date: 6/16/16

Walter J. Quinn
 NAME: Walter J. Quinn, PE# 33372, DATE: 3/14/16

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. 31089, Expiration Date: 11/21/16

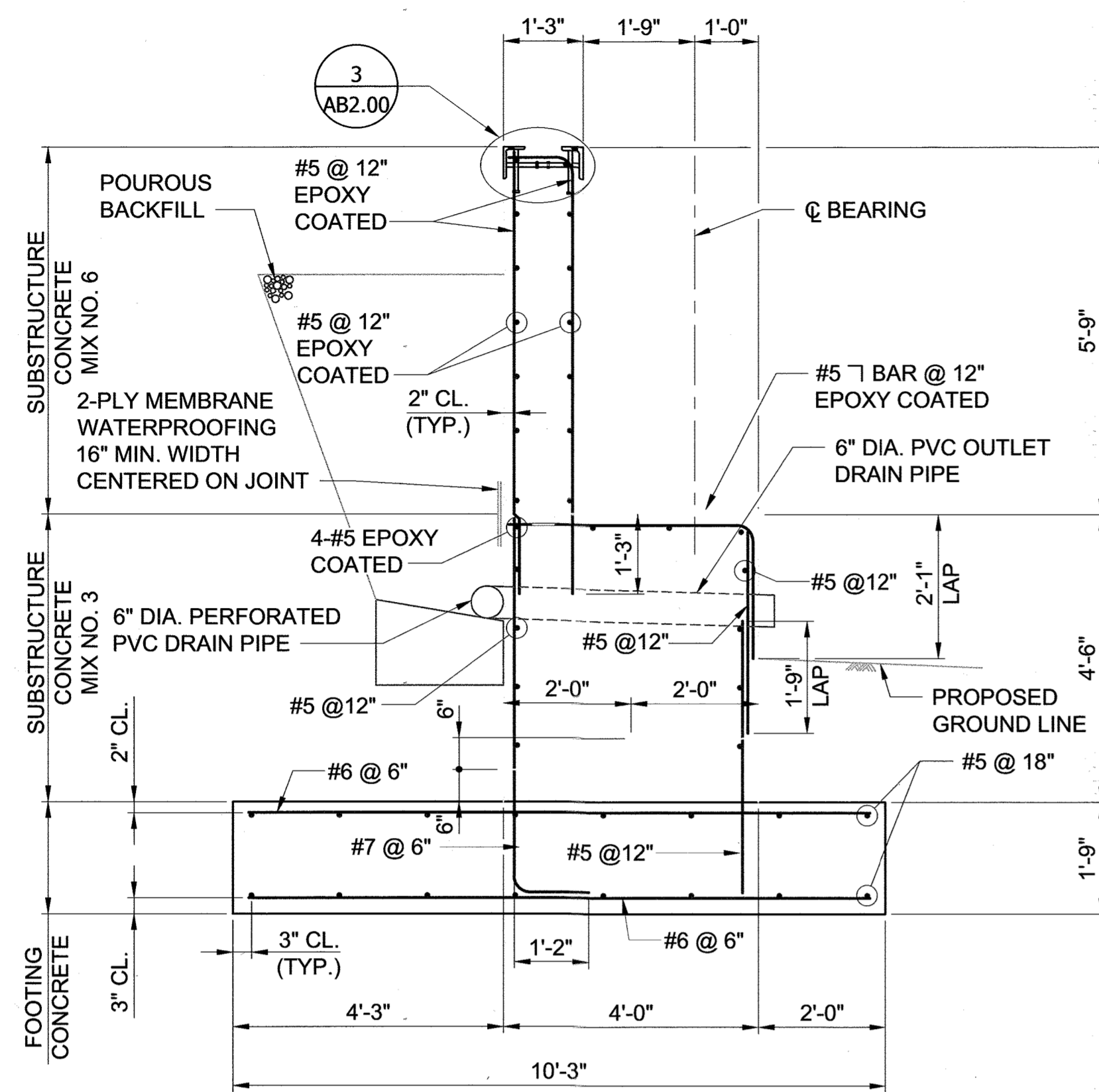
Walter J. Quinn

Prepared For and Owner:
 Howard County Maryland
 3430 Court House Drive
 Ellicott City, Maryland 21043
 ATTN: Mr. James J. Irvin
 410-313-4401

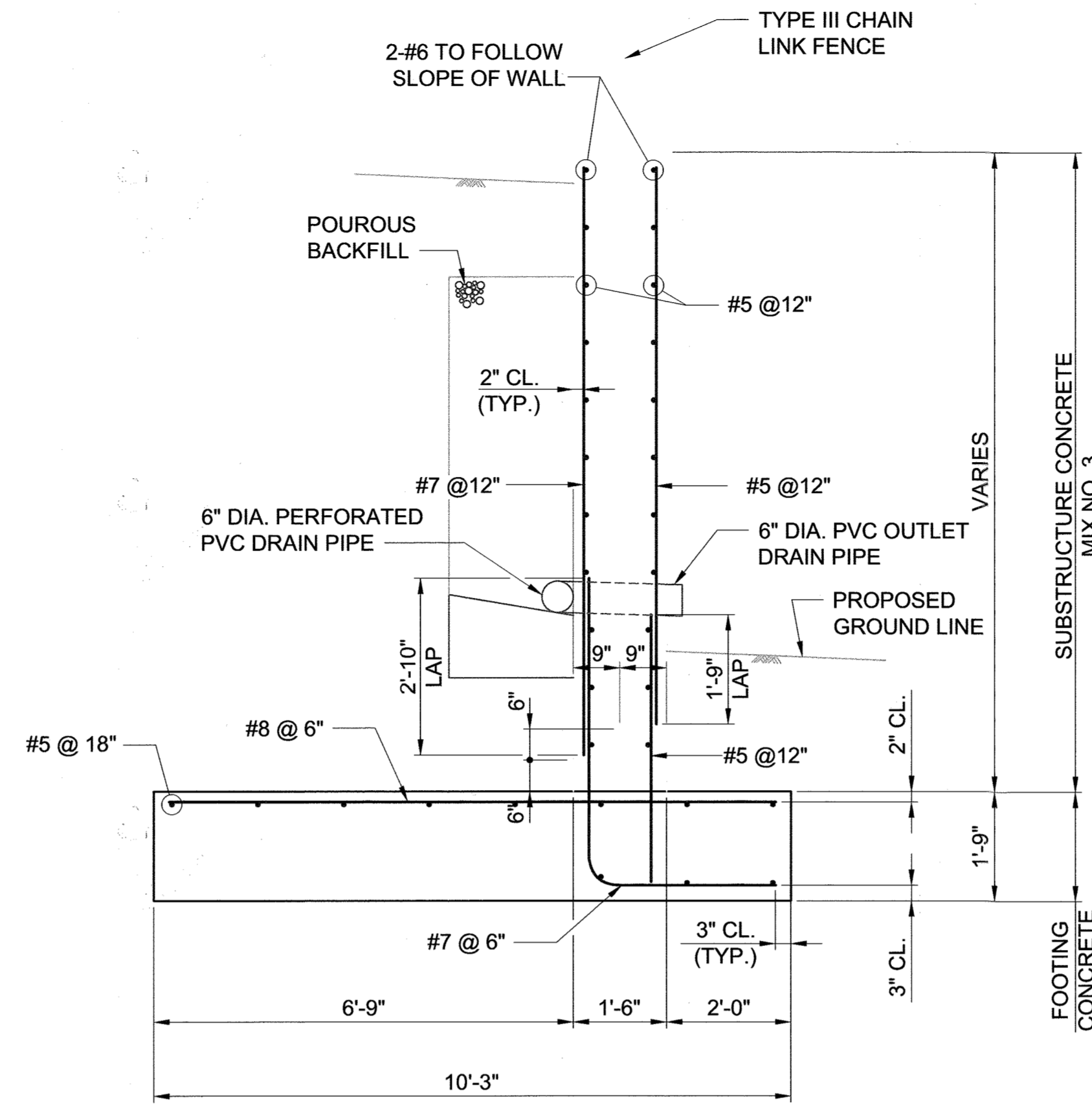
CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

GRAPHIC SCALE
 0 15' 30' 60'
 (IN FEET)
 SCALE: 1" = 30'

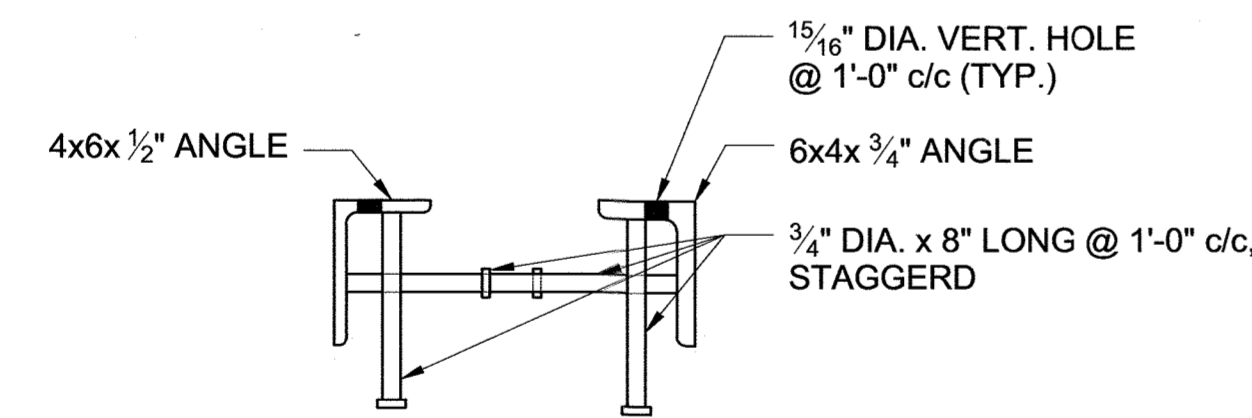
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1 ABUTMENT SECTION
 AB1.00 SCALE: 1/2" = 1'-0"



2 WINGWALL SECTION
 AB1.00 SCALE: 1/2" = 1'-0"



3 DETAIL
 AB2.00 SCALE: 1 1/2" = 1'-0"

APPROVED
 PLANNING BOARD OF HOWARD COUNTY
 DATE 12-17-15

APPROVED: Howard County Department of Planning & Zoning
 Director: *[Signature]* 3-14-16
 Chief, Division of Land Development: *[Signature]* 3-14-16
 Chief, Development Engineering Division: *[Signature]* 2-16-16

CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

Prepared For and Owner:
 Howard Community College
 10901 Little Patuxent Parkway
 Columbia, Maryland 21044
 ATTN: Mr. Chuck Nightingale
 410-772-4296

DESMAN ASSOCIATES



LITTLE PATUXENT PARKWAY
 GREMPLER RELITY INC. OFFICE BUILDING
 COLUMBIA, MD
 PARCEL: 275, TAX MAP: 35, GRID: 6, LOT C-1
 PLAT: 78-47-15-016683
 ELECTION DISTRICT: 5 ZONING: NT
 LIBER 15385 / FOLIO 00444

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. 15554 EXPIRATION DATE: 10/06/17

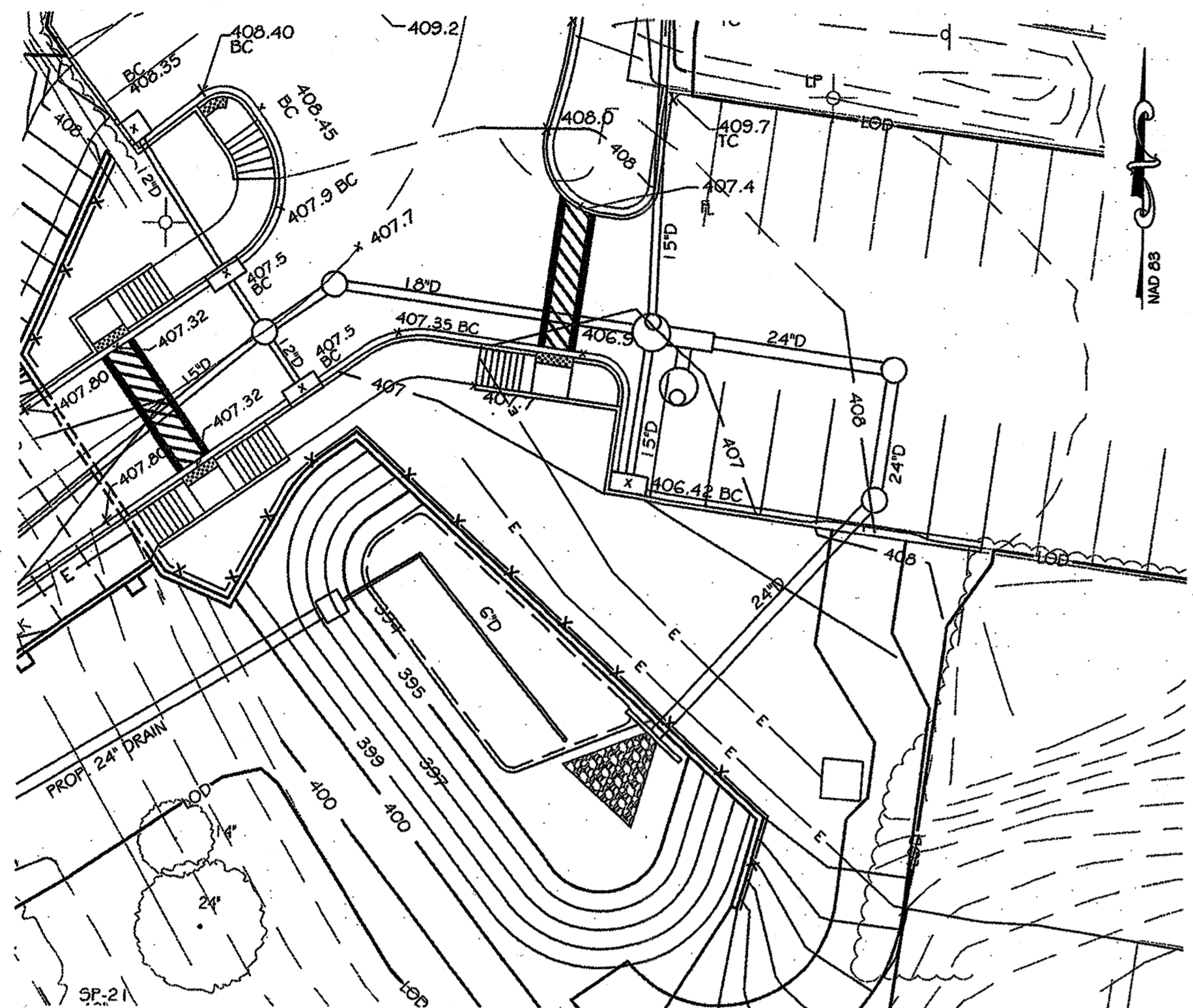


NO.	DESCRIPTION	DATE

DRAWING TITLE:
 BRIDGE EAST ABUTMENT SECTION

DRAWING NO.
 AB2.00

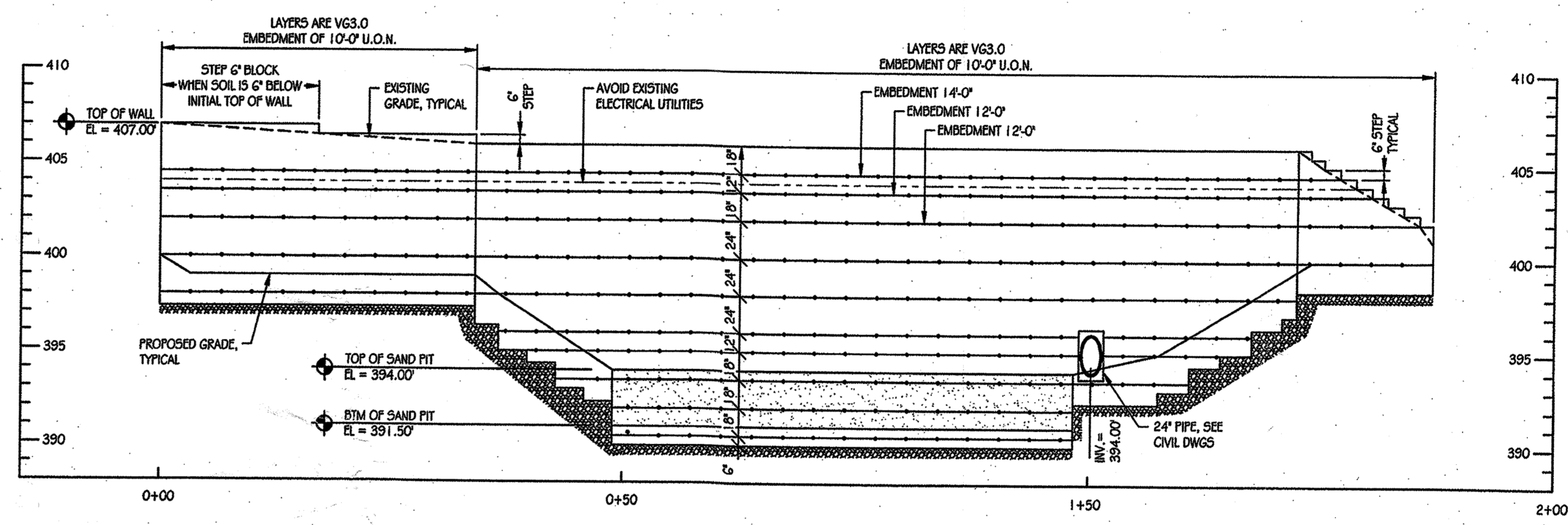
Sheet: 25 of 27
 SCALE: AS SHOWN
 DATE: JANUARY 15, 2016
 PROJECT NO: 27146550
 DES. DRWN. CK'D.
 H.M.K. J.L.S. R.D.L.



STORMWATER MANAGEMENT FACILITY #2 PLAN
SCALE: 1" = 20'

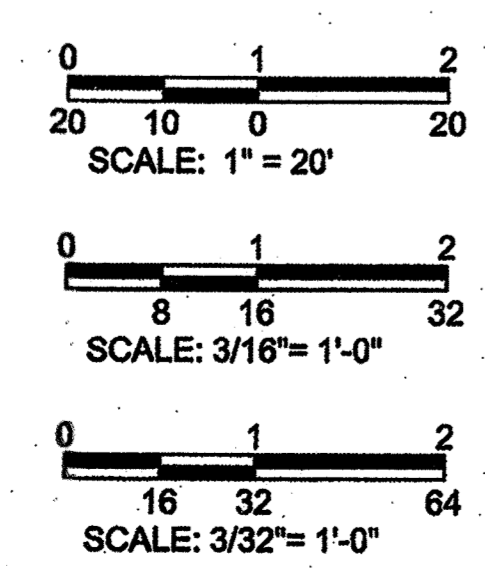
PLAN NOTES:

1. REFER TO CIVIL DRAWING C3.00 FOR FINAL GRADING AND LOCATION OF UTILITIES.
2. PROVIDE SEGMENTED RETAINING WALL CONSISTING OF 'VERSA-LOK' STANDARD UNITS AND ACCESSORIES. SOIL SHALL BE REINFORCED USING 'VERSAGRID 3.0' GEOSYNTHETIC FIBER OR APPROVED EQUAL. REFER TO PROFILE AND SECTIONS FOR GEO-SYNTHETIC FIBER LAYOUT.
3. REFER TO DETAILS AND NOTES, SHEET SW1.01, FOR FURTHER INFORMATION.



WALL PROFILE - SWM FACILITY #2

SCALE:
1"=31'6" VERTICAL
1"=332' HORIZONTAL



APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE: 12/17/15

APPROVED: Howard County Department of Planning & Zoning

Walter J. J... 7-18-18
Director

Kurt L. D... 7-11-18
Chief, Division of Land Development K&Z, Sec. 706

Chad E. ... 7-10-18
Chief, Development Engineering Division

PURPOSE NOTE:
REVISED RETAINING WALL LOCATION TO AVOID BURIED ELECTRICAL LINE.

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURBS & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

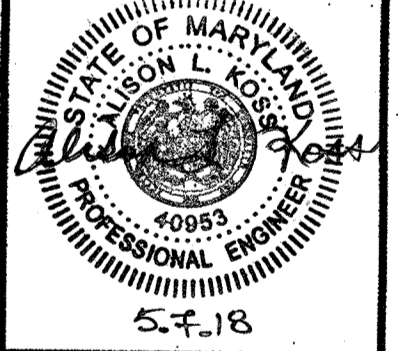
Prepared For and Owner:
Howard County Maryland
3430 Court House Drive
Ellicott City, Maryland 21043
ATTN: Mr. James J. Irvin
410-313-4401

DESMAN ASSOCIATES



LITTLE PATUXENT PARKWAY
GREMPLER REALTY INC. OFFICE BUILDING
COLUMBIA, MD
PARCEL: 075, TAX MAP: 350, GRID: 6
PLAT: PLAT BOOK 272, LOT C-1
TOWN CENTER 6/22, LOT C-1
ELECTION DISTRICT: 5 ZONING: NT

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. 14953
EXPIRATION DATE: 7-21-2019



ISSUE		
NO.	DESCRIPTION	DATE

DRAWING TITLE:
SEGMENTAL WALL PLANS & PROFILES

DRAWING NO.: SW1.00
SHEET: 26 OF 27
SCALE: 1" = 20'
DATE: DECEMBER 18, 2015
PROJECT NO.: 27146560

DES.	DRWN.	CK'D.
R.L.B.	C.T.B.	R.L.B.

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PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 40953
 EXPIRATION DATE: 7-21-2019



ISSUE

NO.	DESCRIPTION	DATE

NO. DESCRIPTION DATE

DRAWING TITLE:
SEGMENTAL WALL NOTES & DETAILS

DRAWING NO.

SW1.01
 SHEET: 27 OF 27

SCALE: AS SHOWN
 DATE: JUNE 26, 2015

PROJECT NO: 27146550

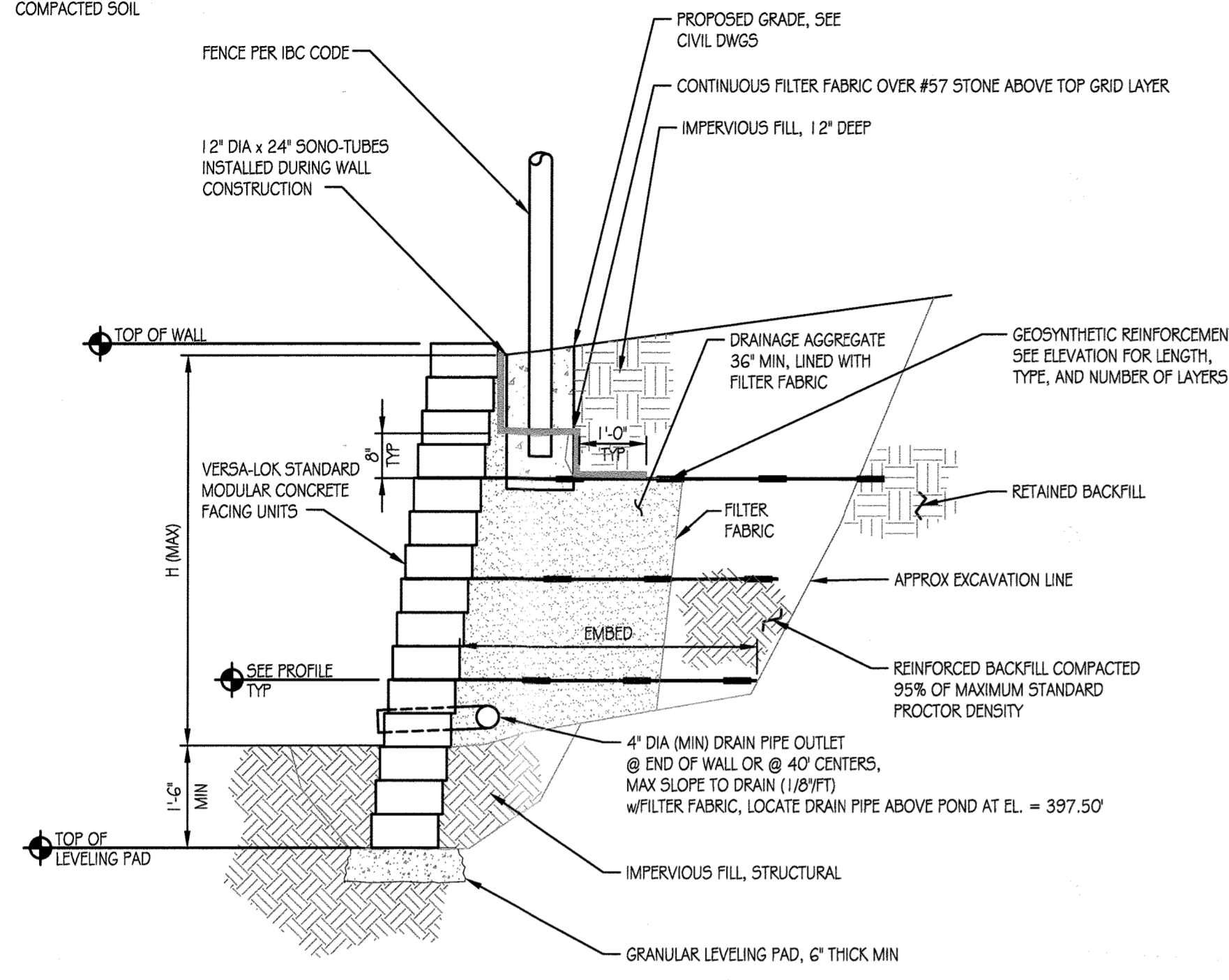
DES. DRWN. CK'D.
 R.L.B. C.T.B. R.L.B.

STRUCTURAL NOTES:

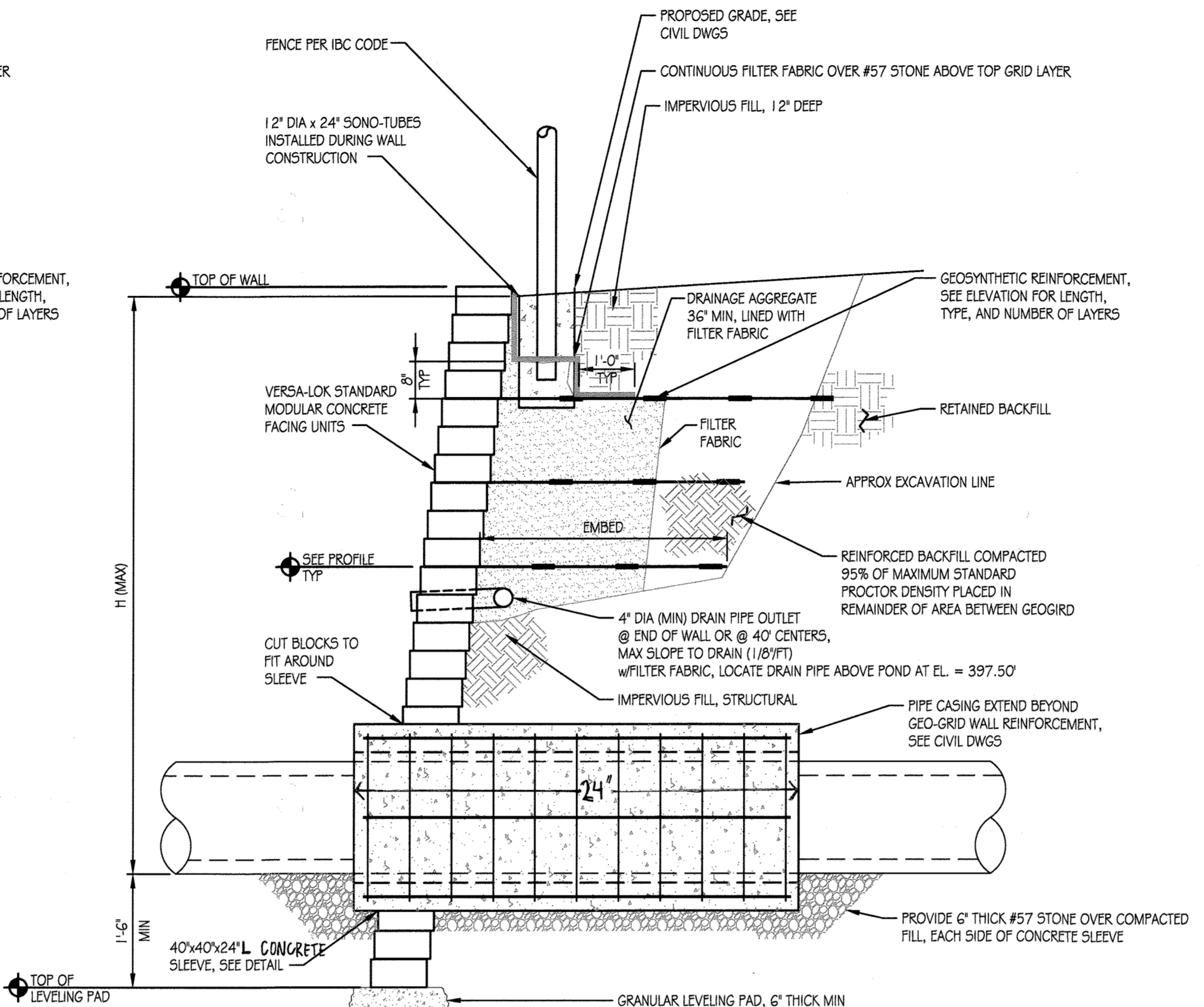
1. BUILDING CODES
 - A. THE 2012 INTERNATIONAL BUILDING CODE (IBC) AND ALL SUBSEQUENT SUPPLEMENTS
 - B. GOVERNING LOCAL BUILDING CODE
2. DESIGN LOADS
 - A. THE STRUCTURE IS DESIGNED FOR THE FOLLOWING SURCHARGE LOADS:

LIVE LOAD	250 PSF
TRAFFIC LOADING	250 PSF
 - B. THE CONTRACTOR SHALL NOT STORE ANY CONSTRUCTION MATERIALS OR UNDERTAKE ANY CONSTRUCTION OPERATION WHICH WILL EXCEED THE DESIGN LIVE LOADINGS NOTED.
3. SEGMENTAL RETAINING WALLS
 - A. REFER TO "SEGMENTAL RETAINING WALL UNITS" SECTION FOR APPLICABLE CODES AND STANDARDS.
 - B. ASSUMED PARAMETERS FOR DESIGN ARE AS FOLLOWS:
 1. ASSUMED NET ALLOWABLE BEARING CAPACITY = 2000 PSF
 2. EQUIVALENT FLUID LATERAL EARTH PRESSURE = 45 PCF
 - C. CONTRACTOR TO SUPPLY OR VERIFY BACKFILL MATERIALS WITH THE FOLLOWING CHARACTERISTICS:
 1. DRY SOIL DENSITY: 120 PCF
 2. INTERNAL FRICTION ANGLE: 28 DEGREES
 3. COHESION (C): 0
 4. ACTIVE PRESSURE CONSTANT (Ka): 0.36
 - D. ALL RETAINING WALLS ARE DESIGNED USING THE FOLLOWING FACTORS OF SAFETY:
 1. SLIDING = 1.5
 2. OVERTURNING = 2.0
 - E. THE ALLOWABLE SOIL BEARING PRESSURE SHALL BE FIELD VERIFIED BY A REGISTERED GEOTECHNICAL ENGINEER AND APPROVED PRIOR TO PLACING FOUNDATIONS. SHOULD THE ACTUAL SOIL BEARING PRESSURE BE LESS THAN 2000 PSF, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.
4. SEGMENTAL RETAINING WALL (SRW) UNITS:
 - A. CODES AND STANDARDS:
 1. NOMA "SEGMENTED RETAINING WALL DESIGN MANUAL"
 - B. SUBMITTALS:
 1. MATERIAL CERTIFICATES FOR SRW UNITS AND GEOSYNTHETIC REINFORCEMENT, UNLESS BASIS OF DESIGN MANUFACTURER IS UTILIZED.
 2. ADDITIONAL SAMPLE SUBMITTALS MAY BE REQUIRED BY ARCHITECT/OWNER. REFER TO ARCHITECTURAL DRAWINGS.
 - C. MATERIALS:
 1. SRW UNITS SHALL BE VERSA-LOK STANDARD UNITS OR APPROVED EQUAL, CONSISTING OF MACHINE-FORMED, PORTLAND CEMENT CONCRETE BLOCKS (ASTM C 1372).
 2. NORMAL WEIGHT SRW UNITS: ASTM C 140 USING CONCRETE MEETING 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
 3. GEOSYNTHETIC REINFORCEMENT SHALL BE VERSA-LOK VERSA-GRID VG3.0
 4. LEVELING PAD: COMPACTED SAND, GRAVEL, OR COMBINATION THEREOF (USCS SOIL TYPES GF, GW, SP, AND SW), OR CONCRETE.
 - D. INSTALLATION:
 1. FOLLOW APPLICABLE PROVISIONS OF MANUFACTURERS INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS.
 2. EXCAVATION:
 - a. STRIP VEGETATION AND ORGANIC SOIL FROM WALL AND GEOSYNTHETIC ALIGNMENT.
 - b. CONTRACTOR SHALL TAKE PRECAUTIONS TO MINIMIZE OVER-EXCAVATION. OVER-EXCAVATION SHALL BE FILLED WITH COMPACTED BACKFILL MATERIAL AND CONTRACTORS EXPENSE.
 - c. LEVELING PAD SHALL BE COMPACTED TO FORM A SMOOTH, LEVEL BEARING SURFACE.
 3. ALL SRW UNITS TO BE INSTALLED WITH A MINIMUM EMBEDMENT AS INDICATED. COMPACT FILL IN FRONT OF EMBEDDED UNITS AT THE SAME TIME AS FILL BEHIND UNITS.
 4. FOLLOW MANUFACTURERS INSTRUCTIONS FOR UNIT INSTALLATION.
 5. ALL GEOSYNTHETIC REINFORCEMENT SHALL BE PLACED WITH THE STRONGEST DIRECTION PERPENDICULAR TO THE WALL. FOLLOW MANUFACTURERS WRITTEN INSTRUCTIONS AND SPECIFICATIONS.
 6. SRW CAPS SHALL BE PROPERLY ALIGNED AND GLUED TO UNDERLYING UNITS WITH CONCRETE ADHESIVE OR APPROVED EQUAL. CAPS SHALL OVERHANG THE TOP COURSE BY 3/4 TO 1 INCH, MAX.
 - E. MISCELLANEOUS
 - A. THE CONTRACTOR SHALL LOCATE ALL UTILITIES IN THE AREA OF CONSTRUCTION AND PREVENT DAMAGE TO THEM. SHOULD DAMAGE OCCUR TO ANY UTILITIES, THE CONTRACTOR IS REQUIRED TO REPAIR THE DAMAGE TO THE SATISFACTION OF THE OWNER AT HIS OWN EXPENSE.
 - B. THE CONTRACTOR SHALL REVIEW THE ARCHITECTURAL, CIVIL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION AND DIMENSION OF CHASES, INSERTS, OPENINGS, SLEEVES, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS WHICH IMPACT THE STRUCTURAL COMPONENTS.
 - C. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS BEFORE PROCEEDING WITH CONSTRUCTION.
 - D. SCALES SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DIMENSIONAL INFORMATION SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.

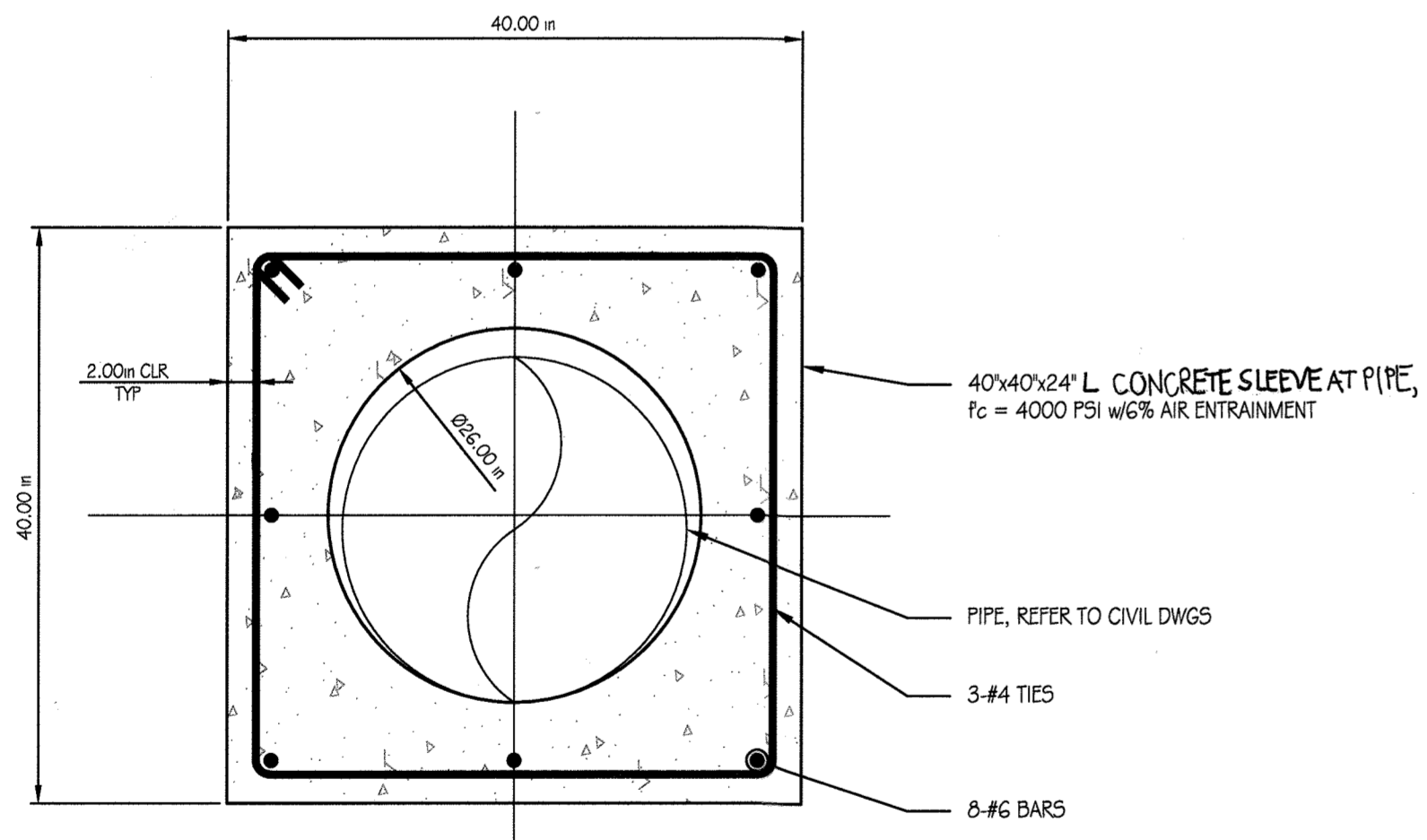
NOTE:
 AT TOP OF 1'-6" COMPACTED SOIL THERE WILL BE SAND FILTER 2'-6" ABOVE COMPACTED SOIL



1 SECTION AT RETAINING WALL
 SCALE: 1/2"=1'-0"



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



A CONCRETE SLEEVE DETAIL
 SCALE: 1"=1'-0"

APPROVED: Howard County Department of Planning & Zoning
 Director: *[Signature]* 7-18-18
 Chief, Division of Land Development: *[Signature]* 7-11-18
 Chief, Development Engineering Division: *[Signature]* 7-10-18

PURPOSE NOTE:
 REVISED RETAINING WALL LOCATION TO AVOID BURIED ELECTRICAL LINE.

CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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