

GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- FOR ALL MSHA STANDARDS REFERRED TO ON THE PLANS THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOK OF STANDARDS CAN BE ACCESSED AT: <https://apps.roads.maryland.gov/BusinessWithSHA/bizStdsSpecs/desManualStdPub/publicationsonline/chd/books/index.asp>. ALL ITEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE REFERENCED STANDARD AT THE TIME OF CONSTRUCTION. THE FOLLOWING STANDARDS (CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL) ARE REQUIRED FOR THIS PROJECT:
 - MD-374.06 - SINGLE WR INLET
 - MD-580.03 - NEW COMBINATION CURB AND GUTTER PLACEMENT ALONG EXISTING PAVEMENT
 - MD-620.02 - STANDARD TYPES A & B CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
 - MD.655.11 - SIDEWALK RAMPS PERPENDICULAR
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL DIMENSIONS ARE FROM BUILDING WALL OR FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING INFORMATION AND TOPOGRAPHY IS TAKEN FROM ALTA/NSPS LAND TITLE SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY MASER CONSULTING P.A. DATED 10/26/16.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 24B AND 24CA WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC, CONTRACT NUMBER 772-W-101-W.
- SEWER IS PUBLIC, CONTRACT NUMBER 130-S.
- STORMWATER CONTROL IS PROVIDED. THE POST-DEVELOPMENT RUNOFF WILL BE CONTROLLED WITH ONE MICRO-BIORETENTION AND ONE UNDERGROUND DETENTION SYSTEM. THE CURRENT PROPERTY OWNER, AND HIS SUCCESSORS WILL OWN AND BE RESPONSIBLE FOR MAINTENANCE OF THESE FACILITIES. ENVIRONMENTAL SITE DESIGN PER HOWARD COUNTY DESIGN MANUAL 2010 HAS BEEN PROVIDED ON SITE. STORMWATER FOR THE 24-HOUR 10-YEAR (8.51 INCH), 24-HOUR 10-YEAR (4.91 INCH), AND 3.5 HOUR 6.6 INCH STORM EVENT TO A STORMWATER MANAGEMENT FACILITY HAS BEEN PROVIDED FOR THE SITE IS LOCATED WITHIN THE PLUMTREE BRANCH WATERSHED.
- EXISTING UTILITIES ARE BASED ON:
 - PREVIOUSLY APPROVED ALTA/NSPS LAND TITLE SURVEY DATED 10/26/16 BY MASER CONSULTING P.A.
 - WATER: AS-BUILT #1 / 2015 AND PREVIOUSLY APPROVED PLANS TITLED U.S. 40 WATER SERVICE MAIN REPLACEMENT CAPITAL PROJECT NO. W-8311, CONTRACT NO. 44-4731, BY URS, LAST REVISED 02/03/2014.
 - SEWER: PREVIOUSLY APPROVED PLANS TITLED SEWER MAIN EXTENSIONS, CONTRACT 130-S, HOWARD COUNTY METROPOLITAN COMMISSION BY WHITMAN, REQUARDT & ASSOCIATES, DATED 2/28/07.
 - STORM/SEWER: APPROVED PLANS TITLED "STORM DRAINS PLAN & PROFILE NORTH CHATHAM ROAD" PREPARED BY MCA CONSULTING ENGINEERS (MATZ, CHILDS & ASSOCIATES, INC.) DATED JULY, 1972.
- THERE IS NO FLOODPLAIN ON THIS SITE.
- THERE ARE NO WETLANDS ON THIS SITE.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY TRAFFIC SOLUTIONS INC. DATED FEBRUARY 27, 2018.
- THE DAP MEETING FOR PLAN NO. 18-06 WAS HELD ON 04/11/18. THE FOLLOWING WERE THE RESULTING DPZ RECOMMENDATIONS:
 - THE APPLICANT MOVE THE CONVENIENCE STORE BUILDING CLOSER TO ROUTE 40 TO CREATE A BETTER PRESENCE AND TO PROVIDE A BETTER SIDEWALK LINKAGE THAT ALIGNS WITH THE SIDEWALK AT THE ADJACENT SHOPPING CENTER.
 - IF THE BUILDING REMAINS IN THE CURRENT ORIENTATION, THE APPLICANT ADD FENESTRATION, AWNINGS AND ARCHITECTURAL DETAILS ON THE SOUTH FACADE TO MAKE IT COMPARABLE TO THE PRIMARY FACADE.
 - THE APPLICANT INSTALL CROSS WALKS TO CONNECT SIDEWALKS ACROSS BOTH ACCESS DRIVES AND WRAP THE SIDEWALKS AT THE CORNER OF CHATHAM ROAD AND ROUTE 40 AROUND THE CORNER OF THE LANDSCAPED ISLANDS.
 - THE ACCOUNT IDENTIFIED FOR THE PROPERTY SHOWN HEREON IS 02-192891 AND IS ZONED "B-2-TNC" AS PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN. LANDSCAPING NOTE: THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL WITH 1 SHADE TREES, 5 ORNAMENTAL TREES, 5 EVERGREEN TREES, 86 SHRUBS, AND 200 FEET OF MASONRY WALL PROVIDED WITH LANDSCAPE SURETY IN THE AMOUNT OF \$10,750 WITH THE DPW DEVELOPER'S AGREEMENT.
 - FOREST CONSERVATION NOTE: THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS UNDER SECTION 16.1202.(B)(1)(iii).
 - AT THE TIME OF THIS SURVEY THERE WAS NO OBSERVABLE EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
 - AT THE TIME OF THIS SURVEY THERE WAS NO OBSERVABLE EVIDENCE OF WETLANDS AREAS, WETLANDS BUFFERS, STREAMS, STREAM BUFFERS, FLOODPLAIN, FORESTS AND STEEP SLOPE AS DELINEATED BY APPROPRIATE AUTHORITIES.
 - THE PROPERTY IN EXISTING CONDITIONS HAS NO DEFINED PARKING SPACES.
 - REFER TO THE VICINITY MAP FOR THE TWO (2) HOWARD COUNTY GEODETIC COORDINATES INCLUDING 24MB2 AND 24BF.
 - THE EXISTING PROPERTY COMPRISES OF A +/- 208 SF FUEL SALES KIOSK, MOTOR VEHICLE FUEL FACILITY (4 MPD'S) AND A +/- 1,135 SF CAR WASH. THESE STRUCTURES ARE TO BE DEMOLISHED WITH THE PROPOSED FUTURE DEVELOPMENT.
 - ON 12/31/2019, THE BOARD OF APPEALS APPROVED THE NON-CONFORMING USE PLAN (CASE NO. BA 18-003N&V) THE PURPOSE OF THE BOARD OF APPEALS APPROVAL WAS TO APPROVE THE ENLARGEMENT OF THE NON-CONFORMING USE AND FOR A VARIANCE TO ALLOW PARKING WITHIN THE NORTH SETBACK. CONDITIONS OF APPROVAL PER DOCUMENT TITLED HOWARD COUNTY FINAL ORDER BA-18-003 N&V DATED 12/31/2019:
 - THE PROPERTY MAY NOT BE USED FOR THE PARKING, STORAGE OR RENTING OF COMMERCIAL TRUCKS.
 - THE SIX-FOOT WALL TO BE CONSTRUCTED IN CONNECTION WITH SCREENING IS TO BE PROPERLY MAINTAINED BY THE OWNER AND/OR OPERATOR AND IS TO BE KEPT FREE OF GRAFFITI AND OTHER DEFACEMENT.
 - ANY RED-LINE SITE DEVELOPMENT PLAN REVISION SHALL CONTAIN A NOTE REFERENCING WHAT THIS DECISION AND ORDER APPROVED AND THE CONDITIONS STATED ABOVE.
 - PETITIONER SHALL OBTAIN ALL REQUIRED PERMITS.
 - PETITIONER SHALL COMPLY WITH ALL FEDERAL, STATE, AND COUNTY LAWS AND REGULATIONS.
 - THERE ARE NO EXISTING SPECIMEN TREES LOCATED ON-SITE.
 - ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH"), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
 - APPROVED SETBACK ALONG NORTHERN PROPERTY LINE PER APPROVAL BA-18-003 N&V.

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
1 OF 30	COVER SHEET
2 OF 30	EXISTING CONDITIONS AND DEMOLITION PLAN
3 OF 30	SITE DEVELOPMENT PLAN
4 OF 30	SIGHT DISTANCE EXHIBIT
5 OF 30	SITE DETAILS 1
6 OF 30	SITE DETAILS 2
7 OF 30	SITE DETAILS 3
8 OF 30	EROSION AND SEDIMENT CONTROL PLAN-INITIAL
9 OF 30	EROSION AND SEDIMENT CONTROL PLAN-INTERIM
10 OF 30	GRADING AND EROSION AND SEDIMENT CONTROL PLAN-FINAL
11 OF 30	DETAILED GRADING AND SEDIMENT CONTROL PLAN
12 OF 30	SEDIMENT CONTROL NOTES AND DETAILS 1
13 OF 30	SEDIMENT CONTROL NOTES AND DETAILS 2
14 OF 30	SEDIMENT CONTROL NOTES AND DETAILS 3
15 OF 30	STORM DRAIN DRAINAGE AREA MAPS
16 OF 30	STORM DRAIN PROFILES
17 OF 30	STORM DRAIN SCHEDULE AND DETAILS 1
18 OF 30	STORM DRAIN SCHEDULE AND DETAILS 2
19 OF 30	EXISTING DRAINAGE AREA MAP
20 OF 30	PROPOSED DRAINAGE AREA MAP
21 OF 30	ESD DRAINAGE AREA MAP
22 OF 30	ESD NOTES AND DETAILS
23 OF 30	UTILITY PLAN
24 OF 30	UTILITY PROFILES
25 OF 30	UTILITY DETAILS
26 OF 30	TEMPORARY TRAFFIC CONTROL PLAN
27 OF 30	ARCHITECTURAL ELEVATIONS
28 OF 30	LANDSCAPE PLAN
29 OF 30	LANDSCAPE NOTES & DETAILS
30 OF 30	LIGHTING PLAN (PROVIDED BY OTHERS)

SEDIMENT CONTROL

Owners/Developer Certification:
 "I/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, the Howard Soil Conservation District and/or MDE."
 Owner's/Developer's Signature: *Todd Magiera* Date: 3/29/20
 Printed Name & Title: *Todd Magiera, P.E.*

Design Certification:
 "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."
 Designer's Signature: *Todd Magiera* Date: 08/11/2020
 Printed Name: *TODD MAGIERA* MD Registration No. 48637
 (Title block, certification, seal, and signature shall appear close to each other.)

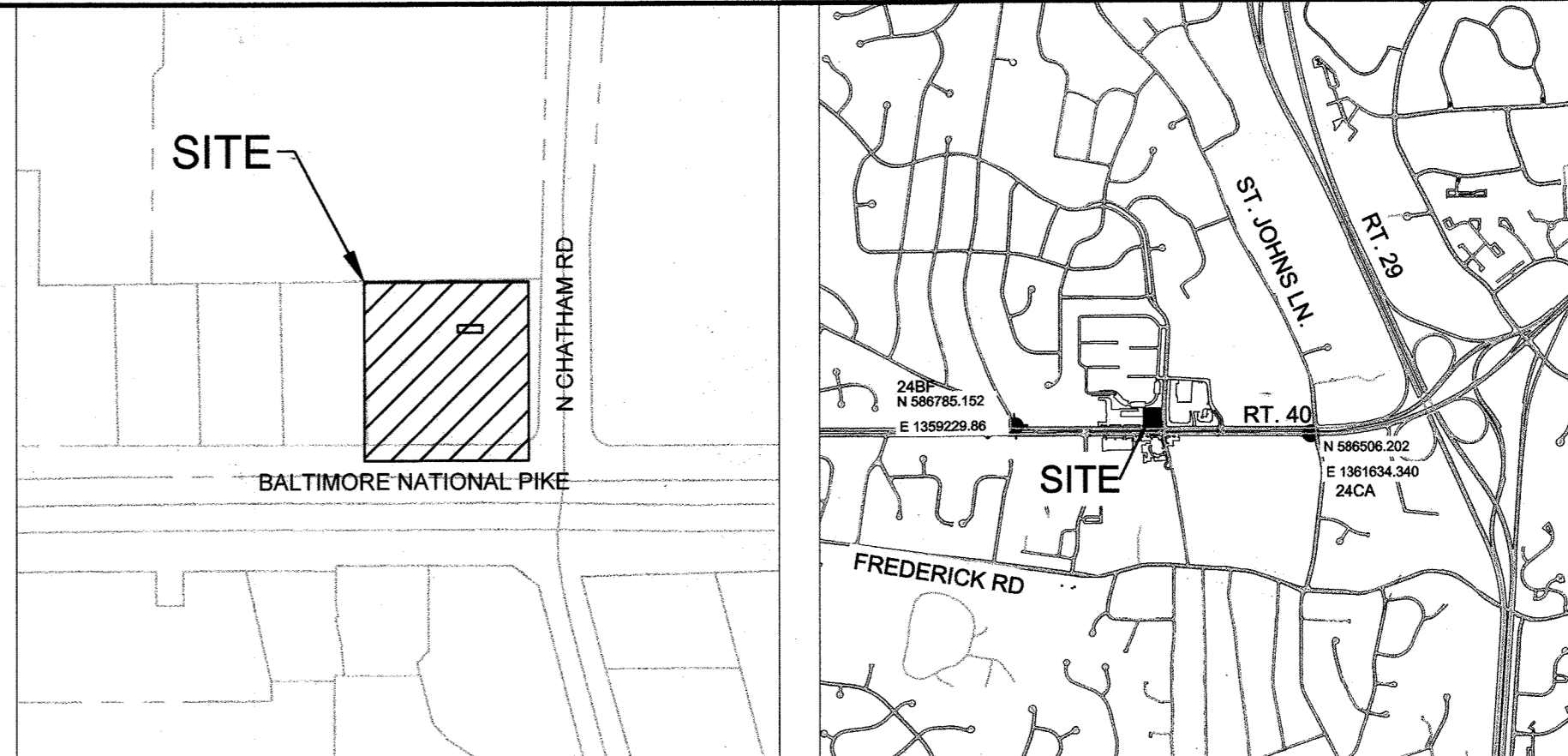
Professional Certification:
 "I hereby certify these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland."
 License No. 48637, Expiration Date: 04/12/21

Howard SCD Signature Block:
 This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
John P. Roshko Date: 11/17/2020
 Howard Soil Conservation District

SITE DEVELOPMENT PLAN FOR PMIG 1027, LLC

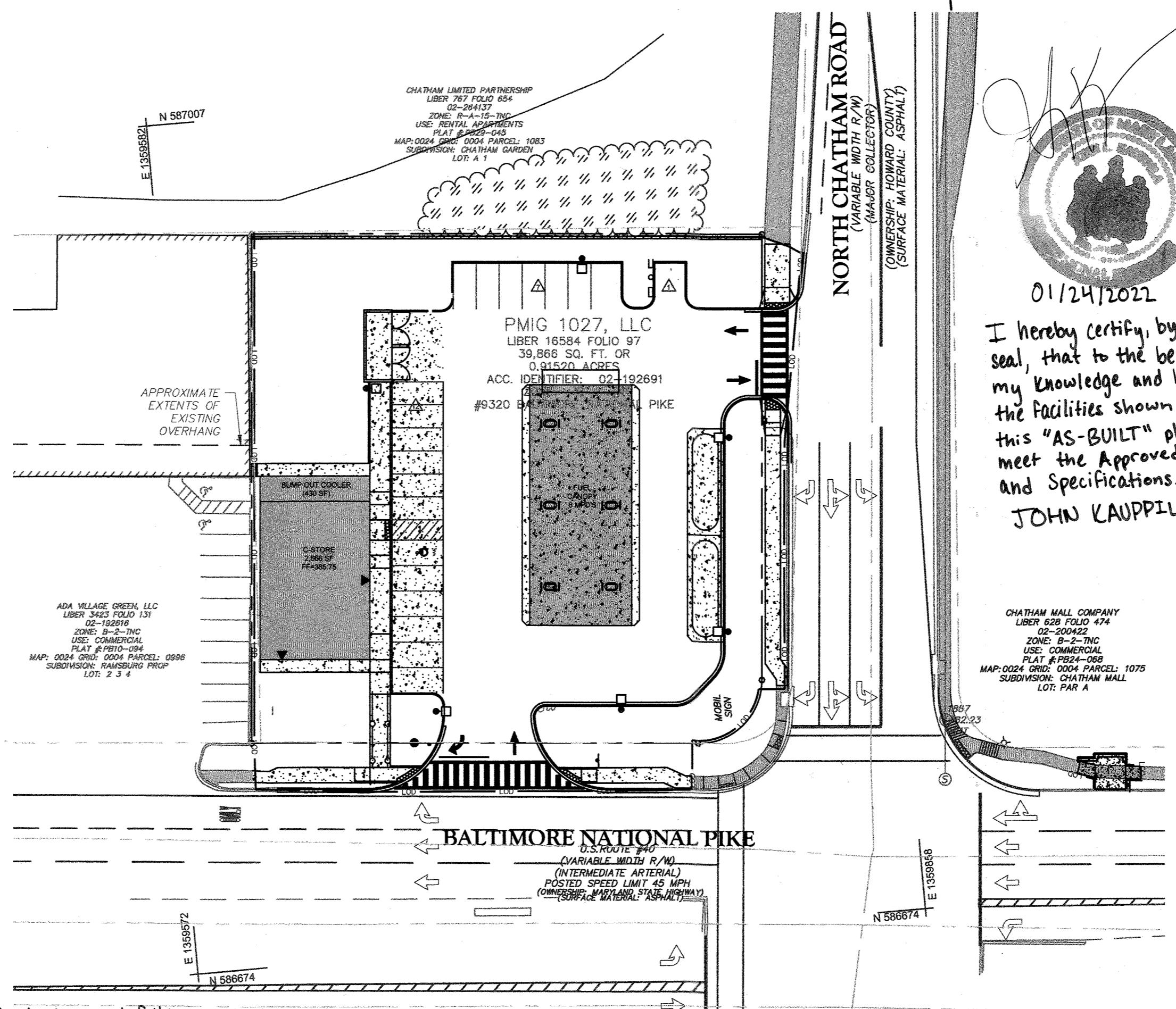
LIBER 16584 FOLIO 97 PLAT BOOK 10 PAGE 94

9320 BALTIMORE NATIONAL PIKE HOWARD COUNTY, MARYLAND 2ND ELECTION DISTRICT



VICINITY MAP SCALE: 1"=200' ADC MAP/GRID # 4815-G6

VICINITY MAP SCALE: 1"=2000' ADC MAP/GRID # 4815-G6



01/24/2022

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" plan meet the Approved Plans and Specifications.

JOHN KAUPPIA

LOCATION PLAN SCALE: 1"=40'

NOTE 29: Health Department approval of this plan does not ensure approval of building permit applications associated with this plan. Permit plans for certain facilities to be constructed within the limits described by this SDP will require review and approval by the Health Department. Such facilities may include, but are not limited to, those which sell prepared or packaged food.

SITE ANALYSIS DATA CHART	
TOTAL PROJECT AREA:	0.915 ACRES (39,866 S.F.)
LOD AREA:	1.04 ACRES
ZONING:	B-2-TNC (BUSINESS: GENERAL, TRADITIONAL NEIGHBORHOOD CENTER OVERLAY)
EXISTING USES:	MOTOR VEHICLE FUELING FACILITY (4 MPD'S); 208 S.F. FUEL SALES KIOSK; 1,135 S.F. CAR WASH
PROPOSED USES:	MOTOR VEHICLE FUELING FACILITY (6 MPD'S); 2,666 S.F. CONVENIENCE STORE
PROPOSED BUILDING AREA:	C-STORE: 2866 SF BUMP OUT COOLER: 430 SF FUEL CANOPY: 6 MPD'S
EXISTING PARKING:	0 SPACES
REQUIRED PARKING:	17 SPACES (CONVENIENCE STORE: 5 PS/1000 S.F. FLOOR AREA = 14; MOTOR VEHICLE FUELING FACILITY: ANY SIZE = 3)
PROPOSED PARKING:	20 SPACES (SURFACE MATERIAL: ASPHALT)
BUILDING COVERAGE:	3,096 SF
PROPOSED IMPERVIOUS AREA:	0.78 ACRES
WETLAND AREA:	0 ACRES
WETLAND BUFFER AREA:	0 ACRES
STREAM AREA:	0 ACRES
STREAM BUFFER AREA:	0 ACRES
FLOODPLAIN AREA:	0 ACRES
FOREST AREA:	0 ACRES
STEEP SLOPE AREA:	0 ACRES

- DPZ FILE REFERENCES:**
- HOWARD COUNTY SITE DEVELOPMENT PLAN (SDP) #71-051
 - HOWARD COUNTY SITE DEVELOPMENT PLAN (SDP) #74-068
 - HOWARD COUNTY SITE DEVELOPMENT PLAN (SDP) #75-060
 - HOWARD COUNTY SITE DEVELOPMENT PLAN (SDP) #93-111
 - PLAT BOOK: 10, PAGE 94
 - BOARD OF APPEALS CASE NO. BA 89-36C
 - BOARD OF APPEALS CASE NO. BA 86-29C
 - BOARD OF APPEALS CASE NO. 659-C
 - BOARD OF APPEALS CASE NO. BA-18-003N&V
 - HOWARD COUNTY ENVIRONMENTAL CONCEPT PLAN (ECP) #18-036

CIVIL ENGINEER/ LANDSCAPE ARCHITECT

KIMLEY-HORN
 ATTN: TODD MAGIERA, PE
 11400 COMMERCE PARK DR
 SUITE 400
 RESTON, VA 20191
 TEL: (703) 874-1311
 EMAIL: TODD.MAGIERA@KIMLEY-HORN.COM

PETITIONER/ PROPERTY OWNER ATTORNEY

PMIG 1027, LLC
 ATTN: GARY KILFEATHER
 2359 RESEARCH COURT
 WOODBRIDGE, VA 22192
 TEL: (703) 494-5800 EXT. 2050
 EMAIL: GKILFEATHER@PETROMG.COM

MCNAMEE HOSEA ATTORNEYS & ADVISORS
 ATTN: DANIEL LYNCH
 8411 IVY LANE
 SUITE 200
 GREENBELT, MD 20770
 TEL: (301) 441-2420

ADDRESS CHART				
LOT/PARCEL #	STREET ADDRESS			
PARCEL 996, LOT 1	9320 BALTIMORE NATIONAL PIKE, ELLICOTT CITY, MD 21042			
PERMIT INFORMATION CHART				
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	PARCEL 996, LOT 1	
RAMSBURG PROPERTY				
PLAT # OR L/F: 10 / 94	GRID # 4	ZONING B-2-TNC	TAX MAP NO. 24	ELECT DISTRICT 2
CENSUS TRACT 6022		SEWER CODE 130-S		

Kimley Horn

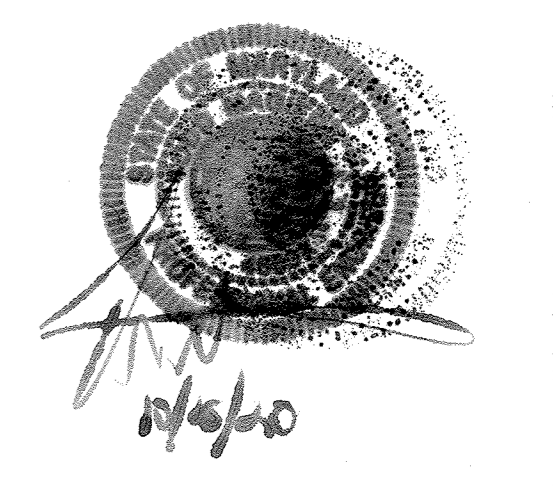
© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
 11400 COMMERCE PARK DR, SUITE 400
 RESTON, VA 20191
 CONTACT: TODD MAGIERA, P.E.
 PHONE: 703-874-1311
 WWW.KIMLEY-HORN.COM

NO.	REVISIONS	DATE	BY
1	REVISION 1: SWM UPDATES	10/20/20	JRW
2	REVISION 2: SWM UTILITY UPDATES	01/24/21	NGZ

9320 BALTIMORE NATIONAL PIKE
 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 24 PARCEL: 996, LOT 1
 GRID #4
 ZONING: B-2-TNC
 SECOND ELECTION DISTRICT
 ADC MAP/GRID # 4815-G6
 RECORDING REFERENCE SDP-20-018
 KHA PROJECT NO.: 114021001
 SCALE: AS SHOWN
 DATE: 08/11/2020
 DESIGNED BY: JRW
 DRAWN BY: JRW
 CHECKED BY: TM

ELLCOTT CITY (STATION MD-108)
 PREPARED FOR
PMIG 1027, LLC

SITE DEVELOPMENT PLAN



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. 48637/EXP. 04/12/21

COVER SHEET

SHEET NUMBER
1 OF 30

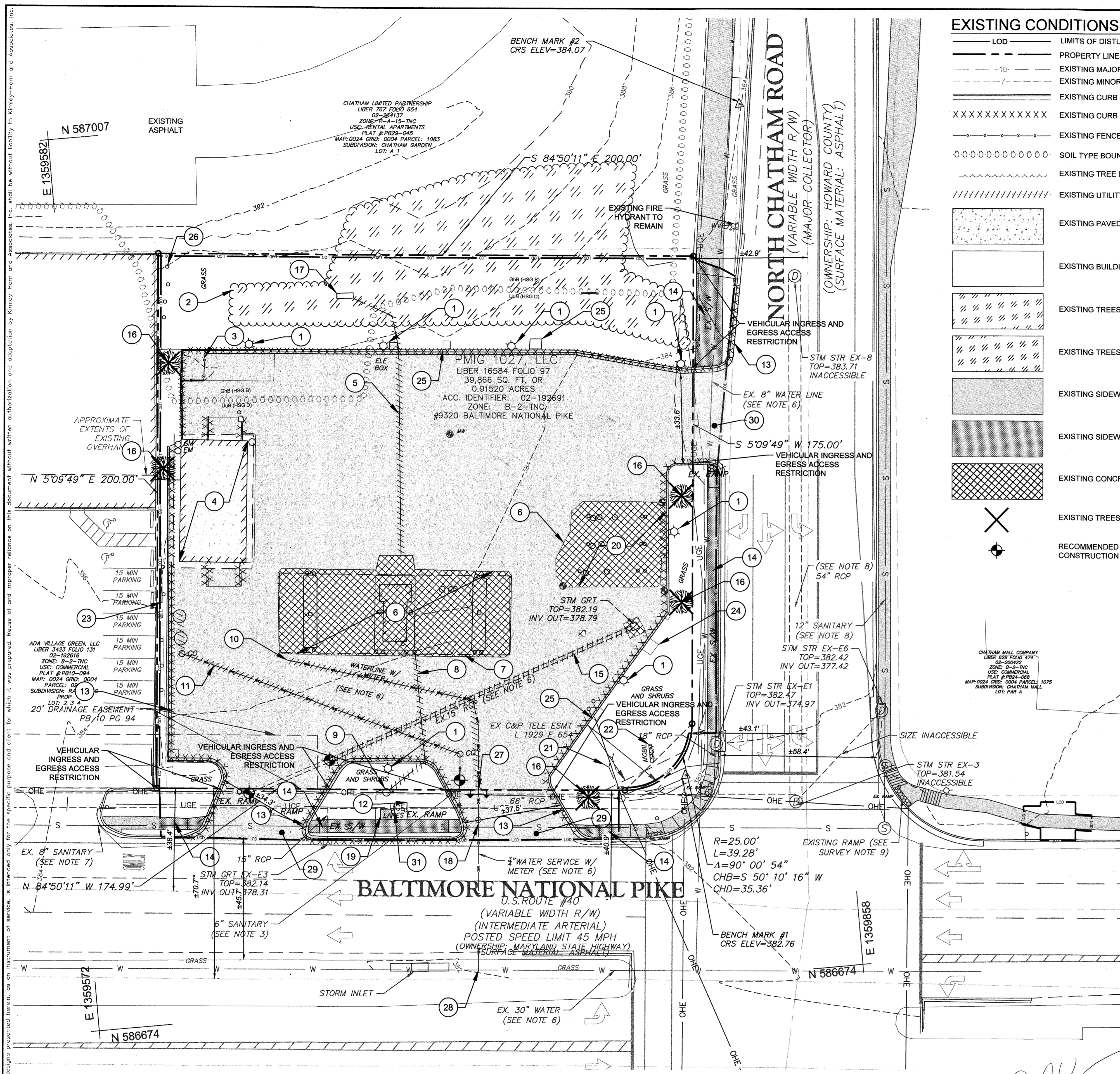
CALL 48 HOURS BEFORE YOU DIG
 IT'S THE LAW! DIAL 811
 Know what's below. Call before you dig.

APPROVED: *Todd Magiera* DATE: 11/17/2020
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT

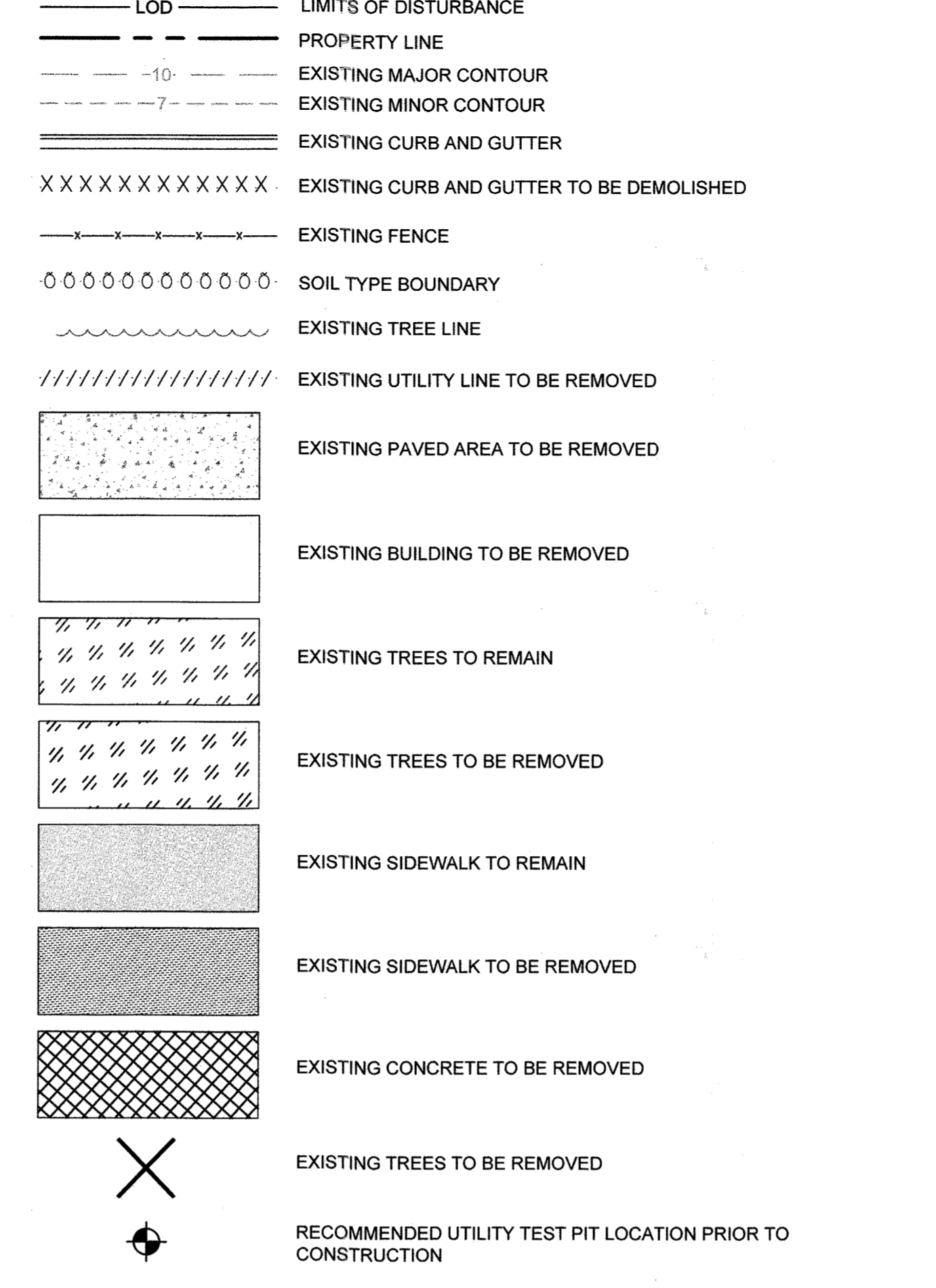
APPROVED: *John P. Roshko* DATE: 11-9-20
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: *John P. Roshko* DATE: 11/17/2020
 CHIEF, DIVISION OF LAND DEVELOPMENT

LEGEND							
EXISTING		PROPOSED		EXISTING		PROPOSED	
SPOT ELEVATION	x 15.70	FC: 15.70		FIRE HYDRANT	⊕	⊕	⊕
UNDERGROUND CABLE	—			WATER VALVE	⊕	⊕	⊕
UNDERGROUND ELECTRIC	—			POST INDICATOR VALVE	⊕	⊕	⊕
OVERHEAD LINES	—			WATER METER	⊕	⊕	⊕
LIGHT POLE	⊕			WATER VAULT	⊕	⊕	⊕
LIGHT POLE WITH MAST	⊕			UNDERGROUND WATER	—	—	—
POWER POLE	⊕			ASPHALT SURFACE	—	—	—
POWER POLE WITH LIGHT	⊕			CHAIN LINK FENCE	—	—	—
FIBER OPTIC HAND HOLE	⊕			LIMITS OF DISTURBANCE	—	—	—
FIBER OPTIC WITNESS POST	⊕			PROPOSED LOADING SPACE	—	—	—
GAS METER	⊕						
GAS VALVE	⊕						



EXISTING CONDITIONS AND DEMOLITION LEGEND



DEMOLITION PLAN KEYNOTES

- 1 EXISTING LIGHT POLES TO BE REMOVED
- 2 EXISTING VEGETATION TO BE REMOVED
- 3 EXISTING FENCE TO BE REMOVED
- 4 EXISTING BUILDING TO BE DEMOLISHED
- 5 EXISTING UNDERGROUND ELECTRIC LINE TO BE REMOVED
- 6 EXISTING CONCRETE PAD TO BE REMOVED
- 7 EXISTING CANOPY TO BE DEMOLISHED
- 8 EXISTING UNDERGROUND CABLE LINES TO BE REMOVED
- 9 EXISTING UTILITY POLE TO BE RELOCATED (TO BE COORDINATED WITH UTILITY COMPANY)
- 10 PORTION OF EXISTING WATER HOUSE CONNECTION TO BE REMOVED UP TO LIMITS OF EXISTING BUILDING
- 11 PORTION OF EXISTING SEWER HOUSE CONNECTION TO BE REMOVED UP TO LIMITS OF EXISTING BUILDING
- 12 EXISTING TURN LANE SIGN TO BE RELOCATED, SEE SHEET 3 OF
- 13 EXISTING CURB AND GUTTER TO BE REMOVED
- 14 EXISTING CONCRETE SIDEWALK TO BE REMOVED
- 15 PORTION OF EXISTING 15" STORM DRAIN TO BE REMOVED
- 16 EXISTING TREE TO BE REMOVED
- 17 EXISTING TRANSFORMER TO BE RELOCATED (FINAL LOCATION TO BE COORDINATED WITH UTILITY PROVIDER)
- 18 EXISTING METER TO BE REMOVED BY UTILITY COMPANY (TO BE COORDINATED WITH UTILITY COMPANY)
- 19 EXISTING US 40 WB BUS STOP TO BE RELOCATED, UNDER MDOT SHA ACCESS PERMIT #16APH0011XX. REFER TO SHEET 3 OF 30 FOR PROPOSED RELOCATION.
- 20 UNDERGROUND FUEL STORAGE TANKS TO BE RELOCATED.
- 21 EXISTING GUY WIRES TO REMAIN AND PROTECTED UNTIL GRADING HAS BEEN COMPLETED WITH COORDINATION OF UTILITY PROVIDER.
- 22 EXISTING POLE SIGN TO REMAIN
- 23 EXISTING PARKING SIGNS TO REMAIN
- 24 EXISTING AIR PUMP TO BE REMOVED
- 25 EXISTING VACUUM TO BE REMOVED
- 26 EXISTING BOLLARDS TO BE REMOVED
- 27 BEGIN PORTION OF EXISTING WHC TO BE ABANDONED IN PLACE
- 28 CONTRACTOR SHALL ABANDON THE EXISTING WHC AT MAIN BY REMOVING CORPORATION AND INSTALLING A CLAMP.
- 29 EXISTING RIGHT IN ENTRANCE TO BE REMOVED
- 30 EXISTING FULL ENTRANCE TO BE REMOVED
- 31 EXISTING BUS STOP SIGN TO BE RELOCATED

SOIL LEGEND

SOIL TYPE BOUNDARY	"K" VALUE	HYDROLOGIC SOIL GROUP
GhB	0.28	B
UuB	0.32	D

DEMOLITION NOTES

1. THIS DEMOLITION PLAN IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION AND FOR THE DEMOLITION, REMOVAL, OR RELOCATION OF ITEMS IN CONFLICT WITH THE PROPOSED CONSTRUCTION.
2. CONTRACTOR IS TO RESTORE ALL OFF-SITE DISTURBED AREAS TO EXISTING CONDITIONS AFTER CONSTRUCTION.
3. LOCATIONS OF EXISTING UTILITIES ARE FOR REFERENCE ONLY. CONTRACTOR IS TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK WITH REPRESENTATIVE UTILITY COMPANIES AND FOR THE IMPLEMENTATION OF REQUIRED UTILITY-RELATED WORK.
5. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY HAZARDOUS MATERIALS DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL DOCUMENT THE SAME TO THE OWNER'S REPRESENTATIVE AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
6. DISCONNECTION OF SERVICES AND SYSTEMS SUPPLYING UTILITIES TO BE ABANDONED OR DEMOLISHED SHALL BE COMPLETED PRIOR TO OTHER SITE DEMOLITION IN FULL COMPLIANCE WITH APPLICABLE CODES, REGULATIONS, AND THE REQUIREMENTS OF THE UTILITY HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE UTILITY, PAYMENT OF ASSOCIATED FEES AND PROCUREMENT OF ALL NECESSARY PERMITS.
7. PRIOR TO REMOVAL OF MATERIALS OVER EXISTING UTILITY SYSTEMS, THE CONTRACTOR SHALL DOCUMENT EXISTING CONDITIONS AND, IF DIFFERENT FROM CONDITIONS AS REPRESENTED ON THE PLANS, NOTIFY THE OWNER'S REPRESENTATIVE AND OBTAIN DIRECTIONS AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
8. THE CONTRACTOR SHALL PROTECT AND PREVENT DAMAGE TO EXISTING ON-SITE UTILITY DISTRIBUTION FACILITIES THAT ARE TO REMAIN. ACTIVE UTILITY DISTRIBUTION FACILITIES ENCOUNTERED DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES SHALL BE SHUT OFF AT THE SERVICE MAIN WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
9. DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY EXISTING UTILITIES AND/OR UTILITY SYSTEM STRUCTURES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL DOCUMENT THE SAME AND FORWARD THE INFORMATION TO THE RESIDENT ENGINEER / OWNER'S REPRESENTATIVE, AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.
10. FOR ALL UTILITIES TO BE RELOCATED, THE SERVICE SHALL NOT BE INTERRUPTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER.
11. CONTRACTOR IS RESPONSIBLE TO SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
12. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
13. APPLICANT SHALL ACCEPT RESPONSIBILITY FOR ALL AGREEMENTS, DOCUMENTS, DRAWINGS, PERMITS, DESIGN, CONSTRUCTION AND MAINTENANCE OF TRAFFIC (MOT), CONSISTENT WITH MDOT SHA REQUIREMENTS.
14. CONTRACTOR MUST COORDINATE WITH MDE PRIOR TO REMOVING OR INSTALLING FUEL TANKS.
15. INTERPOLATED FROM CENTERLINES FROM GIS

SURVEY NOTES

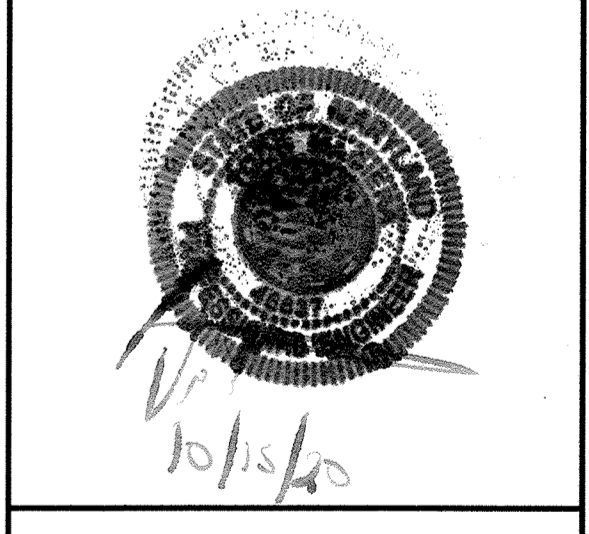
1. TITLE REPORT WAS FURNISHED BY CARDINAL TITLE PROPERTY; LOT 1 RAMSBURG PROPERTY PLAT #10/94 ABSTRACT THRU: 9/23/16.
2. THE PROPERTY SHOWN HEREON IS BASED ON AN ACTUAL FIELD RUN SURVEY MADE ON THE GROUND AND ON THE EXISTING LAND RECORDS OF HOWARD COUNTY, MARYLAND.
3. UNLESS OTHERWISE INDICATED, LOCATIONS OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE AND ARE BASED ON VISIBLE EVIDENCE AND UTILITY MAPS, IF PROVIDED.
4. EXISTING INFORMATION IS BASED ON PREVIOUSLY APPROVED ALTANSPS LAND TITLE SURVEY DATED 10/26/16 BY MASER CONSULTING P.A.
5. SURVEY WAS SUPPLEMENTED FOR OFF-SITE AREAS UTILIZING HOWARD COUNTY GIS DATA AND AERIAL IMAGERY.
6. PORTION OF EXISTING WATERLINE (WHC) LOCATION AND SIZING IS BASED ON INFORMATION OBTAINED FROM AS-BUILT #11/2015 AND PREVIOUSLY APPROVED PLANS TITLED U.S. 40 WATER SERVICE MAIN REPLACEMENT CAPITAL PROJECT NO. W-1011 CONTRACT NO. 44-4731, BY URS, LAST REVISED 02/03/2014.
7. PORTION OF EXISTING SANITARY (SHC) LOCATION AND SIZING IS BASED ON INFORMATION OBTAINED FROM PREVIOUSLY APPROVED PLANS TITLED SEWER MAIN EXTENSIONS, CONTRACT 130-S, HOWARD COUNTY METROPOLITAN COMMISSION BY WHITMAN, REARDT & ASSOCIATES, DATED 2/28/67.
8. APPROXIMATE LOCATION OF EXISTING STORM AND SANITARY ARE PER APPROVED PLANS TITLED "STORM DRAINS PLAN & PROFILE NORTH CHATHAM ROAD" PREPARED BY MCA CONSULTING ENGINEERS (MATZ, CHILDS & ASSOCIATES, INC.) DATED JULY, 1972.
9. THE SHOWN EXISTING RAMPS AND TRAFFIC LIGHT POLE AT THE NORTHEAST QUADRANT OF THE EXISTING INTERSECTION OF ROUTE 40 AND NORTH CHATHAM ROAD ARE BASED ON THE PLANS TITLED "US 40 (BALTIMORE NATIONAL PIKE) AT CHATHAM ROAD FOR MDOT SHA, CONTRACT NO. XX169518" PREPARED BY T3 DESIGN CORPORATION, DATED JANUARY 2019.

Kimley Horn
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 11400 COMMERCE PARK DR., SUITE 400
 RESTON, VA 20191
 CONTACT: TODD MAGIERA, P.E.
 PHONE: 703-674-1311
 WWW.KIMLEY-HORN.COM

NO.	REVISIONS	DATE	BY

9320 BALTIMORE NATIONAL PIKE
 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 24 PARCEL: 996, LOT 1
 GRID #4
 ZONING: B-2-TNC
 SECOND ELECTION DISTRICT
 ADC MAP/GRID #: 4815-G6
 RECORDING REFERENCE SDP-20-018
 KHA PROJECT NO.: 114021001
 SCALE: AS SHOWN
 DATE: 08/11/2020
 DESIGNED BY: JRW
 DRAWN BY: JRW
 CHECKED BY: TM

ELLCOTT CITY (STATION MD-108)
 PREPARED FOR
PMIG 1027, LLC
SITE DEVELOPMENT PLAN



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. 46637EXP-04/12/21

EXISTING CONDITIONS AND DEMOLITION PLAN
 SHEET NUMBER
2 OF 30
 SDP-20-018

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 11-9-20

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 11/18/20

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 11-18-20

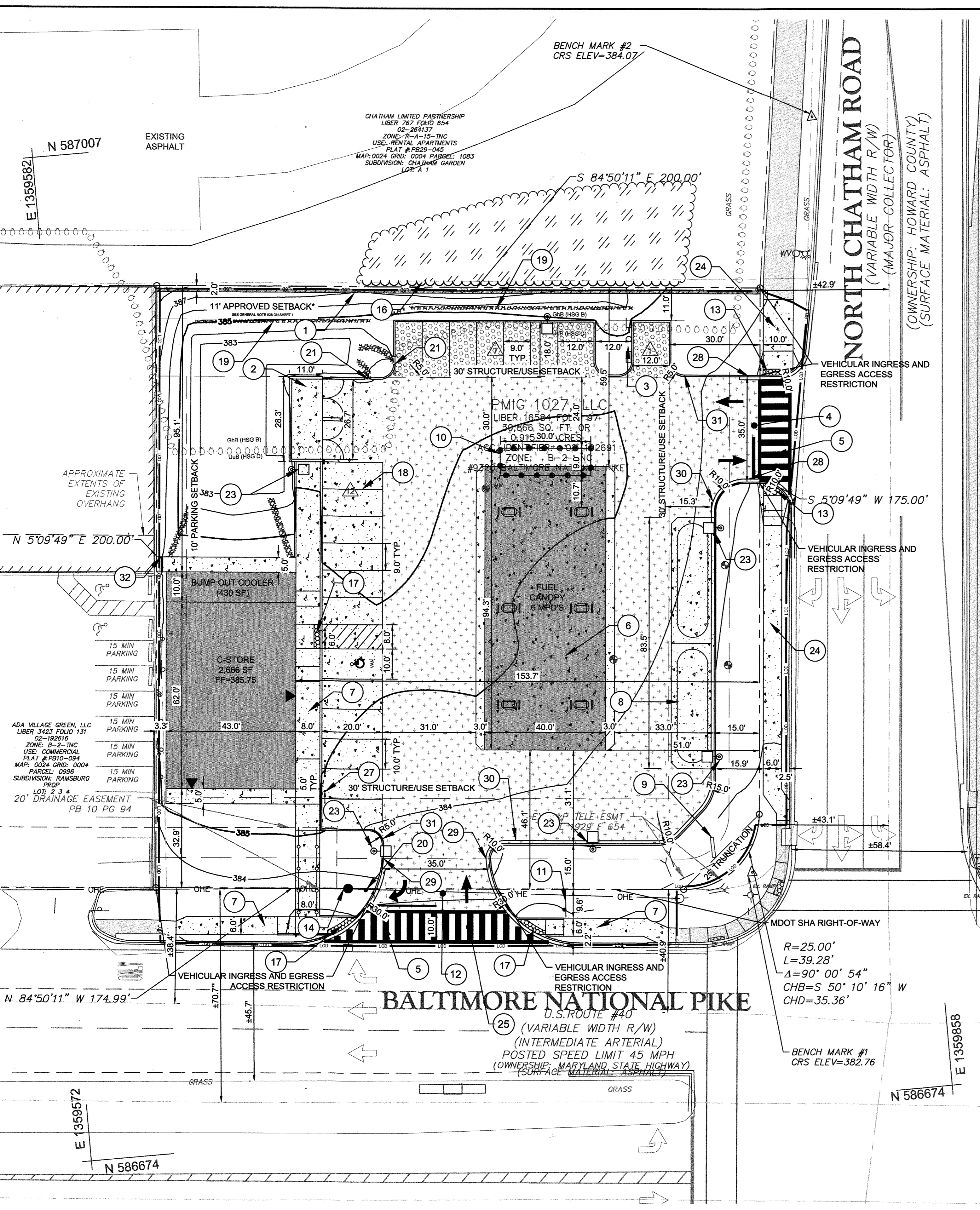
CALL 48 HOURS BEFORE YOU DIG
811
 IT'S THE LAW! DIAL 811
 Know what's below. Call before you dig.

No "AS-BUILT" information on this sheet.
JOHN KAUPILLA
 01/24/2022

GRAPHIC SCALE IN FEET
 SCALE: 1"=20'

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SITE PLAN LEGEND

- PROPERTY LINE
- LOD --- LIMITS OF DISTURBANCE
- 10 --- PROPOSED MAJOR CONTOUR
- 7 --- PROPOSED MINOR CONTOUR
- SETBACK
- PROPOSED CURB AND GUTTER
- PROPOSED CURB
- PROPOSED TREE LINE
- PROPOSED OVERHEAD ELECTRIC LINE
- ROADWAY CENTERLINE
- EXISTING CONCRETE SIDEWALK
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED STANDARD DUTY ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED 6' HIGH MASONRY WALL
- ▲ PARKING COUNT

SOIL LEGEND

SOIL TYPE BOUNDARY	"K" VALUE	HYDROLOGIC SOIL GROUP
GhB	0.28	B
UuB	0.32	D

SITE PLAN KEYNOTES

- 1 PROPOSED 6' HIGH MASONRY WALL (REFER TO ARCHITECTURAL PLANS FOR DETAIL 25 ON SHEET 7 OF 30)
- 2 PROPOSED SCREENED TRASH ENCLOSURE (REFER TO ARCHITECTURAL PLANS FOR DETAIL 26 ON SHEET 7 OF 30)
- 3 PROPOSED AIR/VACUUM (REFER TO DETAIL 23 ON SHEET 7 OF 30)
- 4 PROPOSED FULL ACCESS DRIVEWAY - SURFACE MATERIAL: ASPHALT (REFER TO DETAIL 21 ON SHEET 6 OF 30)
- 5 PROPOSED WHITE THERMOPLASTIC CROSS WALK (REFER TO DETAIL 12 ON SHEET 5 OF 30)
- 6 CONCRETE PAD UNDER CANOPY
- 7 PROPOSED CONCRETE SIDEWALK (REFER TO DETAIL 32 ON SHEET 7 OF 30)
- 8 PROPOSED UNDERGROUND FUEL STORAGE TANKS
- 9 EXISTING POLE SIGN
- 10 LOADING AREA FOR CONVENIENCE STORE
- 11 RELOCATED TURN LANE SIGN
- 12 PROPOSED RIGHT-IN/RIGHT-OUT DRIVEWAY - SURFACE MATERIAL: ASPHALT
- 13 PROPOSED HANDICAP RAMP (REFER TO DETAIL 14 ON SHEET 6 OF 30)
- 14 RELOCATED UTILITY POLE (TO BE COORDINATED WITH UTILITY COMPANY)
- 15 RELOCATED BUS STOP SIGN
- 16 PROPOSED TREE LINE
- 17 PROPOSED HANDICAP RAMP (REFER TO DETAIL 15 ON SHEET 6 OF 30)
- 18 PROPOSED PARKING LOT STRIPING
- 19 1' WIDE RIPRAP CHANNEL INFLOW (REFER TO DETAIL 1 ON SHEET 10 OF 30)
- 20 PROPOSED RIGHT TURN ONLY SIGN TO BE MOUNTED ON A 4" BY 4" WOOD POST (PER SHA STD. DETAIL NO. MD 812.01)
- 21 PROPOSED 2 FT CURB CUT W/ RIP-RAP
- 22 INTENTIONALLY LEFT BLANK
- 23 PROPOSED LIGHT POLES
- 24 PROPOSED CONCRETE SIDEWALK (REFER TO DETAIL 13 ON SHEET 5 OF 30)
- 25 PROVIDE 5' MINIMUM PEDESTRIAN PATHWAY WITH A 2% CROSS-SLOPE ACROSS THE ENTIRE ENTRANCE REGARDLESS OF TYPE OF MATERIAL USED.
- 26 12 INCH CURB REVEAL KNEE WALL
- 27 24 PROPOSED BOLLARDS (REFER TO DETAIL 27 ON SHEET 7 OF 30)
- 28 PROPOSED CURB AND GUTTER (REFER TO DETAIL 16 ON SHEET 6 OF 30)
- 29 PROPOSED CURB AND GUTTER (REFER TO DETAILS 17 AND 18 ON SHEET 6 OF 30)
- 30 PROPOSED CURB AND GUTTER (REFER TO DETAIL 22 ON SHEET 6 OF 30)
- 31 PROPOSED CURB (REFER TO DETAIL 19 ON SHEET 6 OF 30)
- 32 PROPOSED CONCRETE STEP TO TIE-IN TO EXISTING ADJACENT SIDEWALK

SITE PLAN NOTES

1. CONSTRUCTION OF THE RELOCATED BUS STOP SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF PROPOSED SITE IMPROVEMENTS.
2. FUEL TANKS MUST BE HELD WITHIN THE REQUIRED SETBACKS OF MONITORING WELLS.
3. REDUCED SETBACK ON THE NORTH PROPERTY LINE IS ALLOWED PER THE APPROVAL OF BA-18-003N&V.
4. ADA-COMPLIANT SIDEWALK BETWEEN THE PROPOSED IMPROVED BUS STOP AND SHA-INSTALLED CURB RAMP AT THE NORTHEAST QUAD OF THE US 40N CHATHAM WILL BE INSTALLED BY THE DEVELOPER.
5. *INTERPOLATED FROM CENTERLINES FROM GIS

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NO.	REVISIONS	DATE	BY

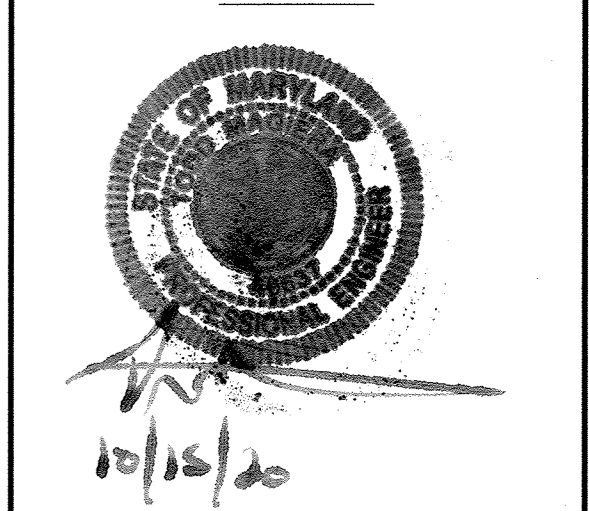
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 GRID #4
 ZONING: B-2-TNC
 SECOND ELECTION DISTRICT
 ADC MAP/GRID #: 4815-G6
 RECORDING REFERENCE SDP-20-018

KHA PROJECT NO.: 114021001
 SCALE: AS SHOWN
 DATE: 08/11/2020
 DESIGNED BY: JRW
 DRAWN BY: JRW
 CHECKED BY: TM

IMPROVEMENT DESCRIPTION:
 REDEVELOPMENT OF EXISTING GAS STATION TO PROPOSED 2,866 SF C-STORE, CANOPY, AND 6 MPD'S.

ELLCOTT CITY (STATION MD-108)
 PREPARED FOR
PMIG 1027, LLC

SITE DEVELOPMENT PLAN



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: 1016120 EXP:

No "AS-BUILT" Information on this sheet.
JOHN KAUPFLA



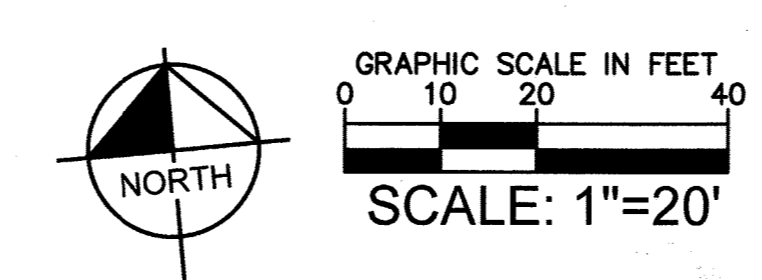
SITE DEVELOPMENT PLAN

SHEET NUMBER
3 OF 30

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE 1/19/20

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE 1/16/20



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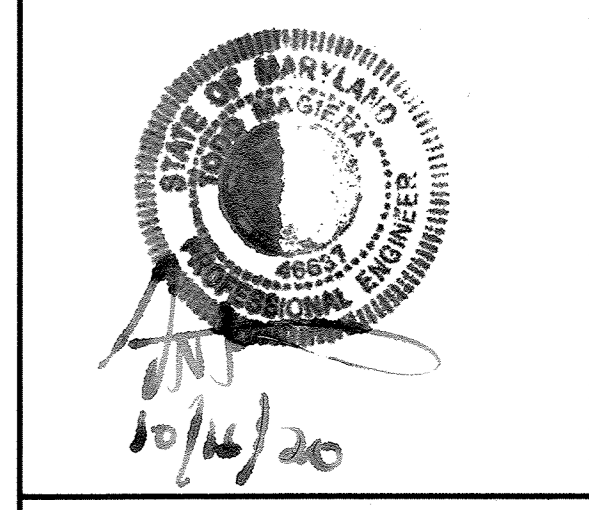
DIRECTOR
 DATE 1-18-20

No.	REVISIONS	DATE	BY

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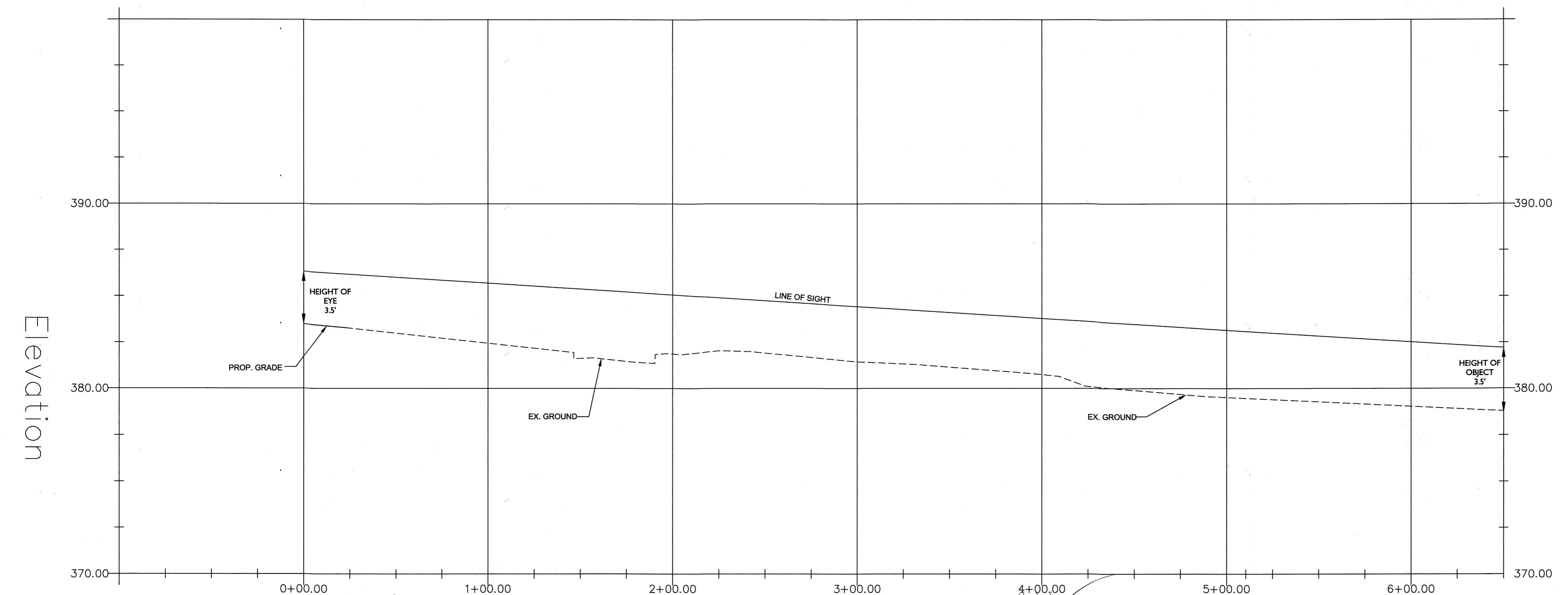
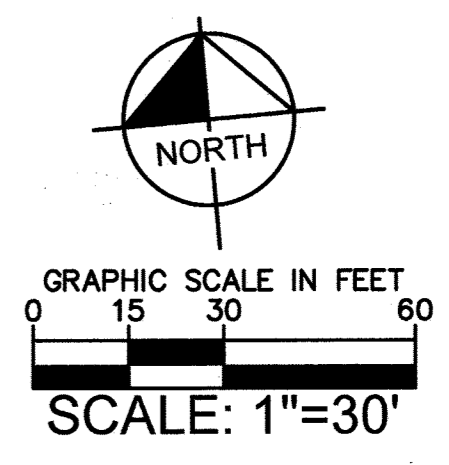
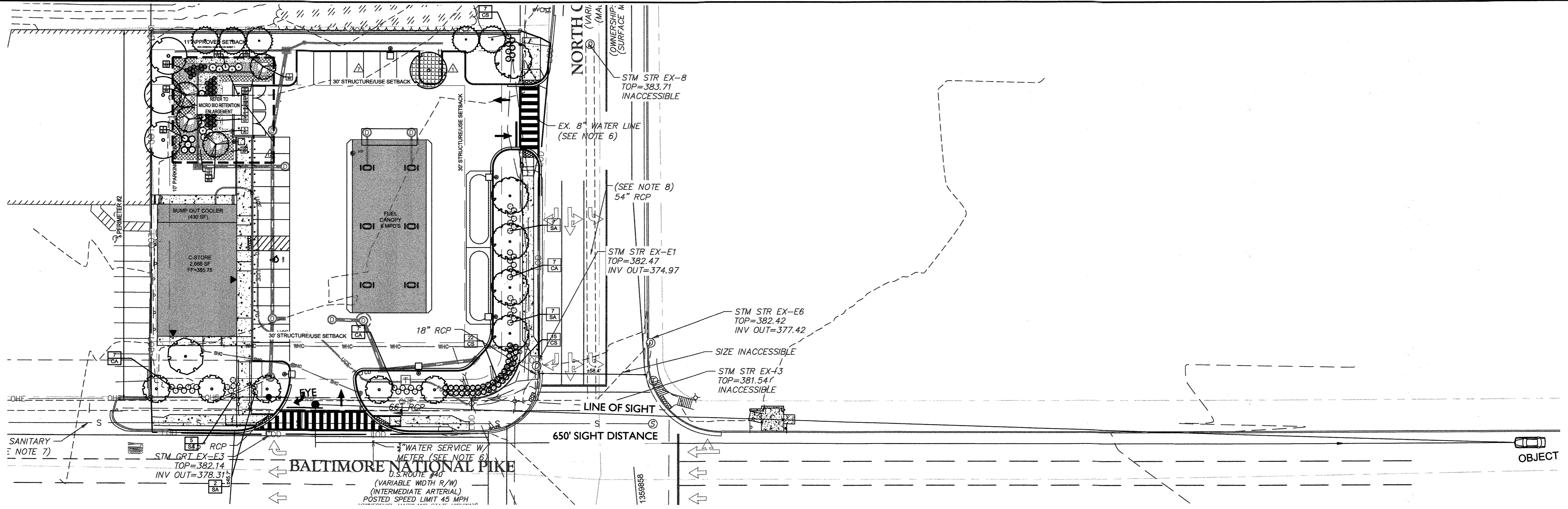
**ELLICOTT CITY
 (STATION
 MD-108)**
 PREPARED FOR
PMIG 1027, LLC

**SITE
 DEVELOPMENT
 PLAN**



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**SIGHT
 DISTANCE
 EXHIBIT**



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APPROVED: FOR PRIVATE WATER
 AND PRIVATE SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 11-9-20
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 11/18/20
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 11-18-20

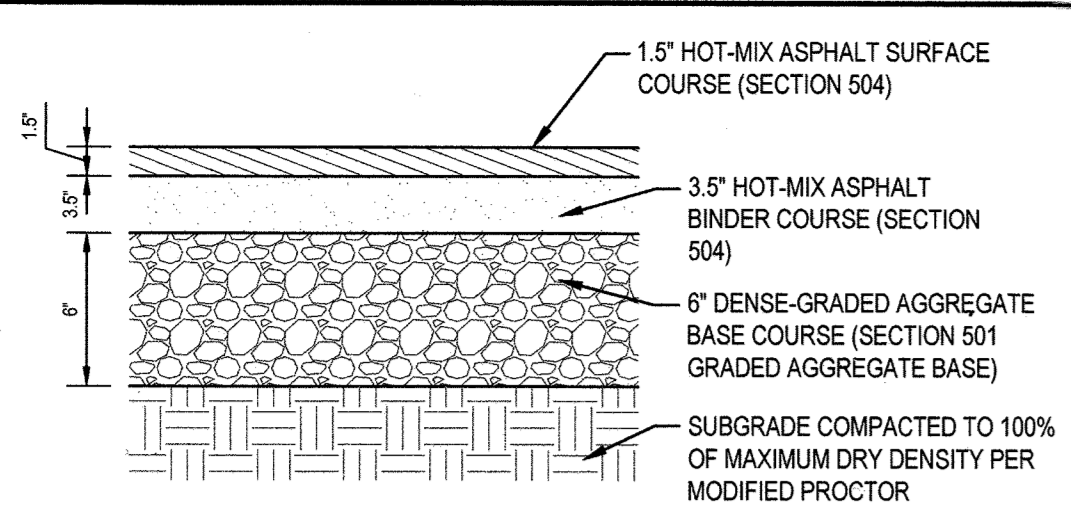
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JOHN KAUPPILA
 01/24/2022

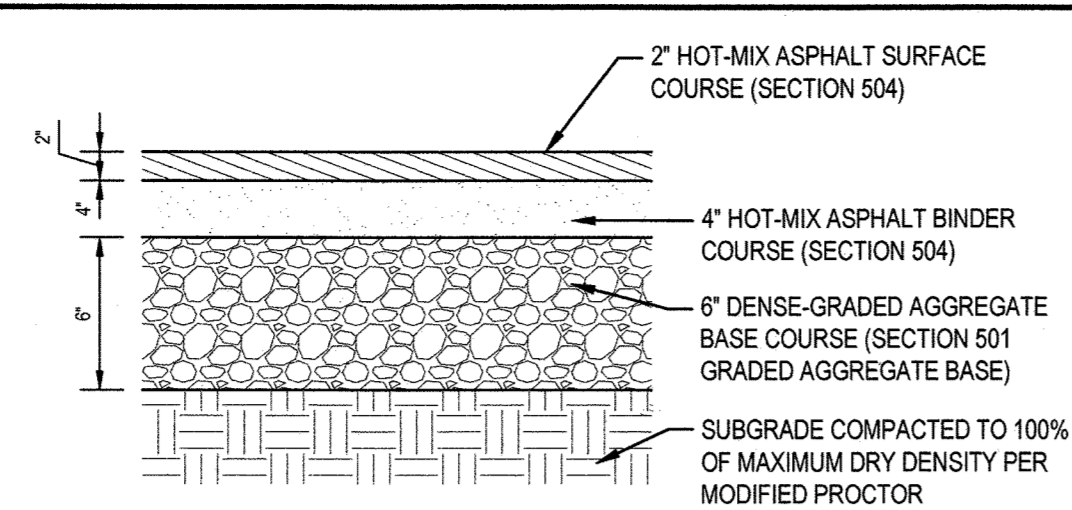
ADDRESS CHART				
LOT/PARCEL #	STREET ADDRESS			
PARCEL 996, LOT 1	9320 BALTIMORE NATIONAL PIKE, ELLICOTT CITY, MD 21042			
PERMIT INFORMATION CHART				
SUBDIVISION NAME RAMSBURG PROPERTY	SECTION/AREA	LOT/PARCEL NO. PARCEL 996, LOT 1		
PLAT # OR L/F: 10 / 84	GRID # # 4	ZONING B-2-TNC	TAX MAP NO. 24	ELECT DISTRICT 2
WATER CODE 772-W, 101-W	SEWER CODE 130-S			

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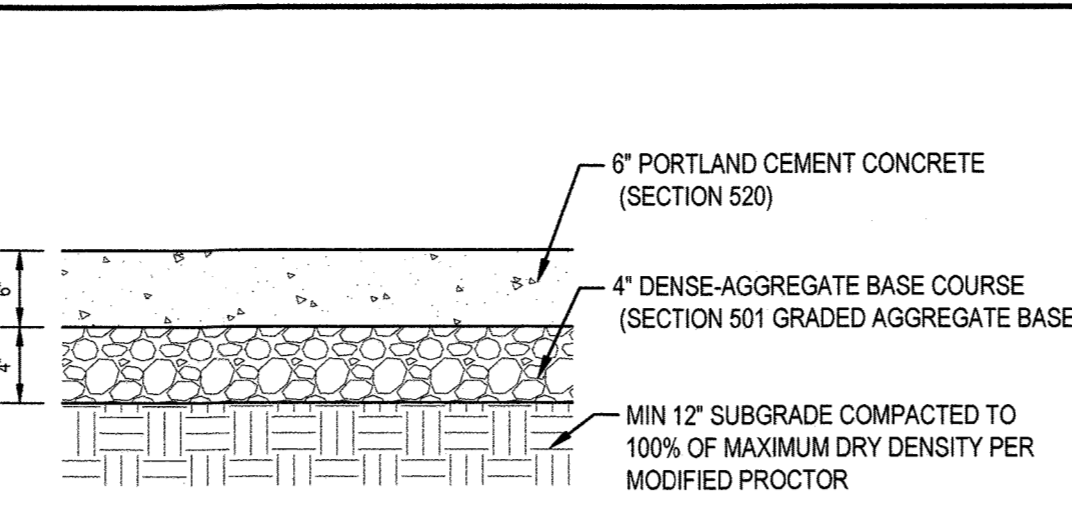
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NOTE:
 1) BASED ON 500,000 18-KIP EQUIVALENT SINGLE AXLE LOADS (ESALS) DURING A 20-YEAR DESIGN LIFE.
 2) PAVEMENT DESIGN PER GEOTECH REPORT PREPARED BY GILES ENGINEERING ASSOCIATES, INC. DATED NOVEMBER 14, 2019.



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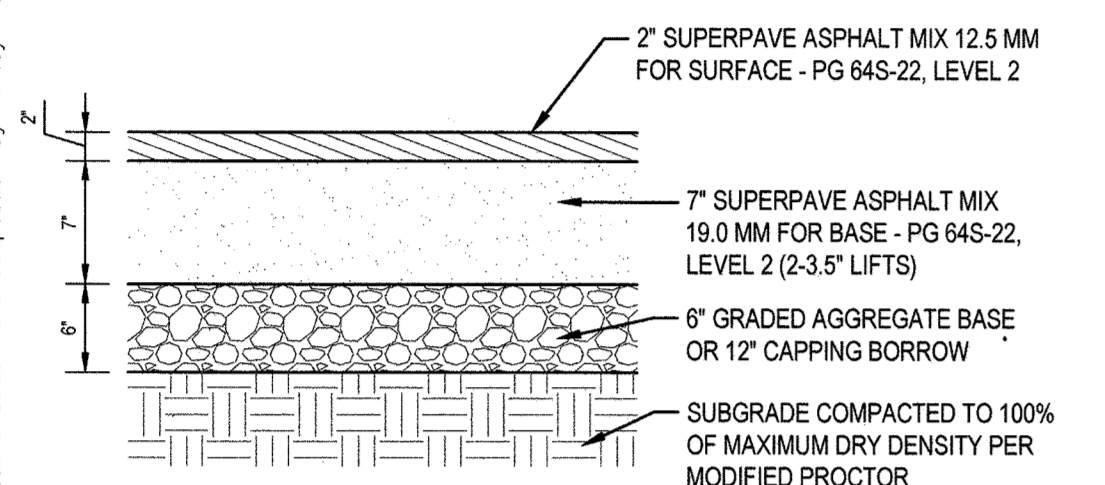


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1 STANDARD DUTY ASPHALT PAVEMENT SECTION
 NOT TO SCALE
 NOTE: WITHIN SITE ONLY

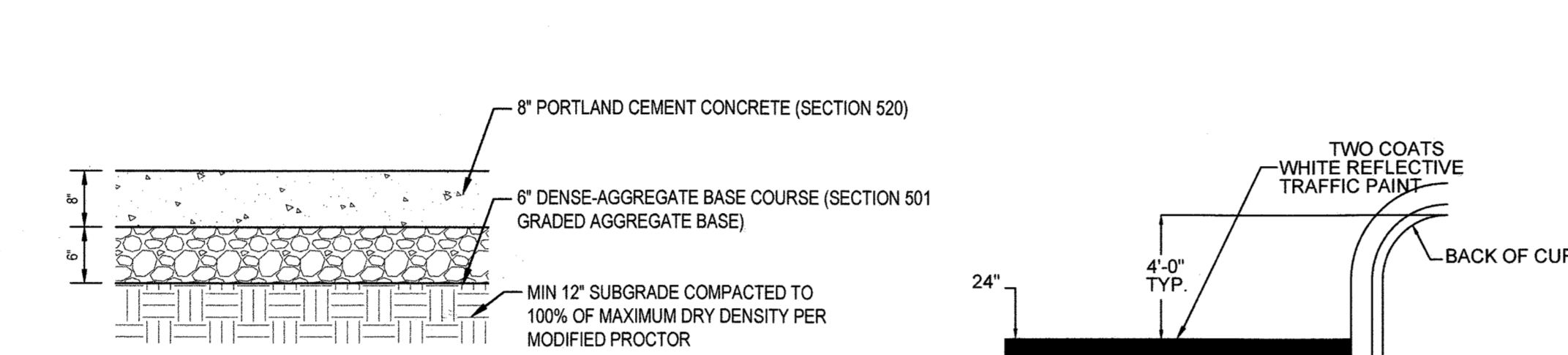
2 HEAVY DUTY ASPHALT PAVEMENT SECTION
 NOT TO SCALE
 NOTE: WITHIN SITE ONLY

3 LIGHT DUTY CONCRETE PAVEMENT SECTION
 NOT TO SCALE
 NOTE: WITHIN SITE ONLY



NOTE:
 1) ALL PAVEMENT WITHIN THE RIGHT OF WAY SHALL CONFORM WITH SHA STANDARDS.

5 MDOT SHA R/W PAVEMENT SECTION
 NOT TO SCALE

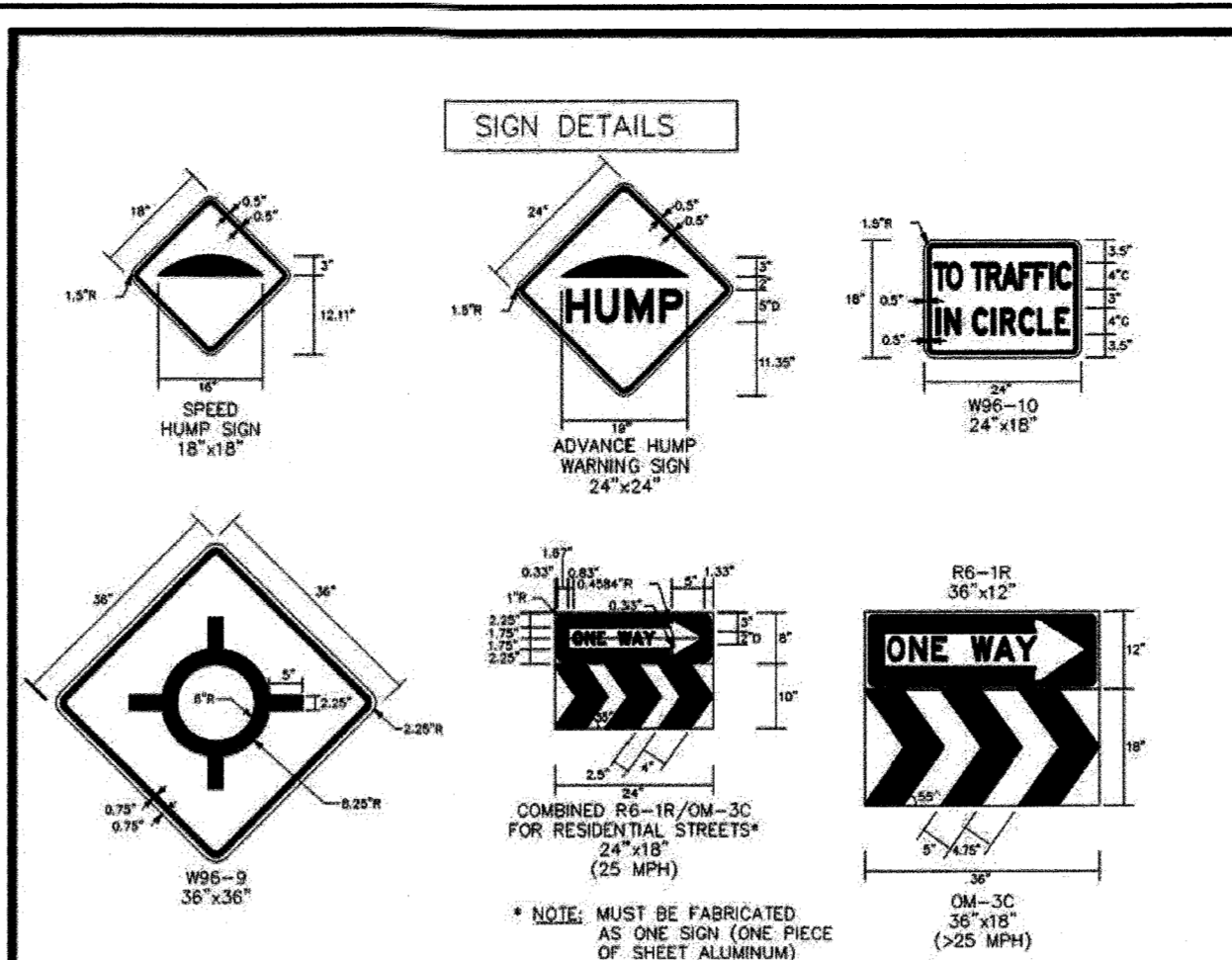


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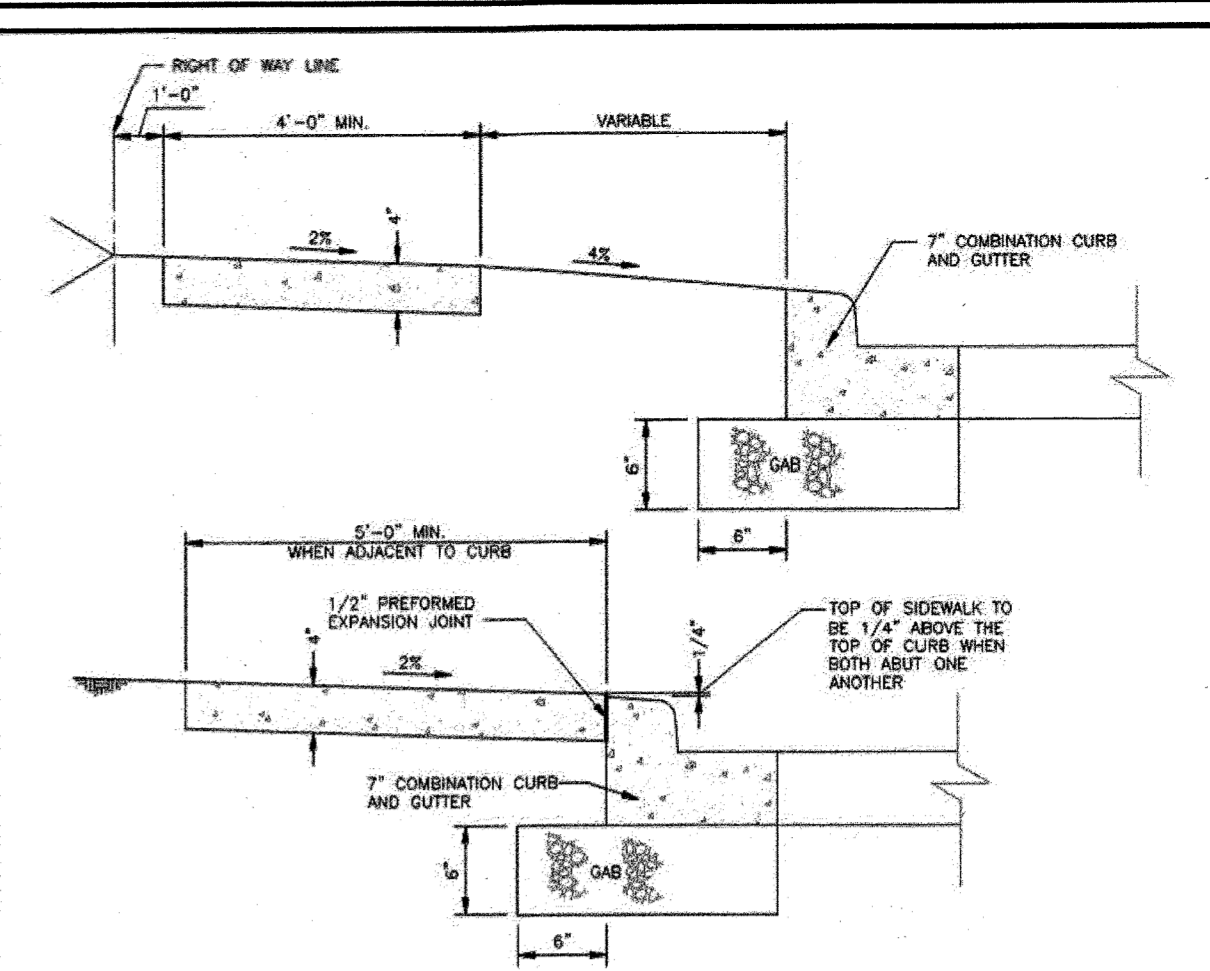
4 HEAVY DUTY CONCRETE PAVEMENT SECTION
 NOT TO SCALE
 NOTE: WITHIN SITE ONLY



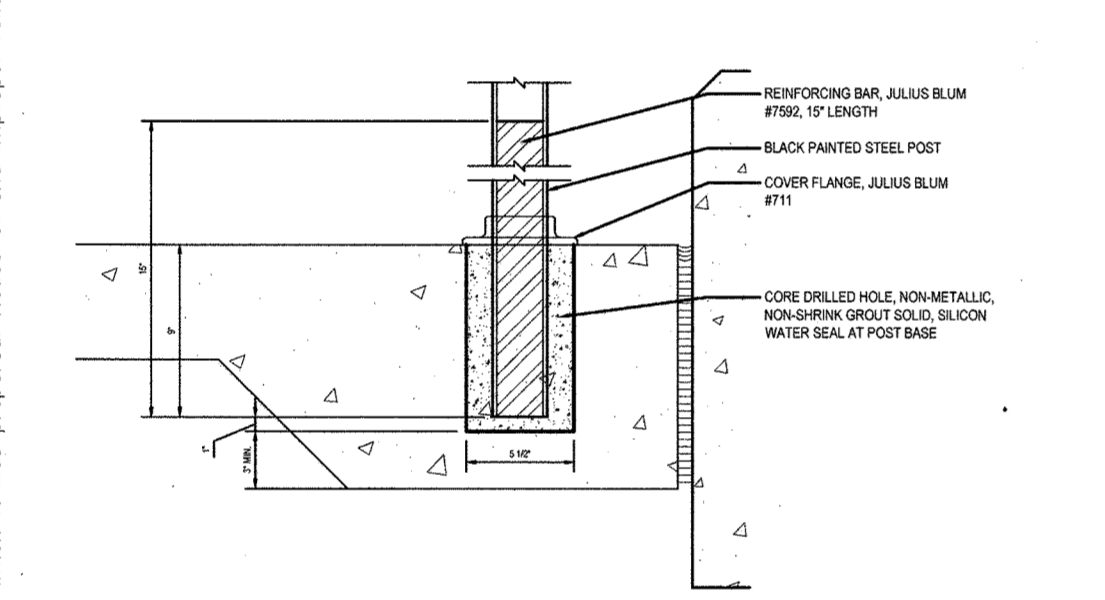
8 STOP BAR DETAIL
 NOT TO SCALE



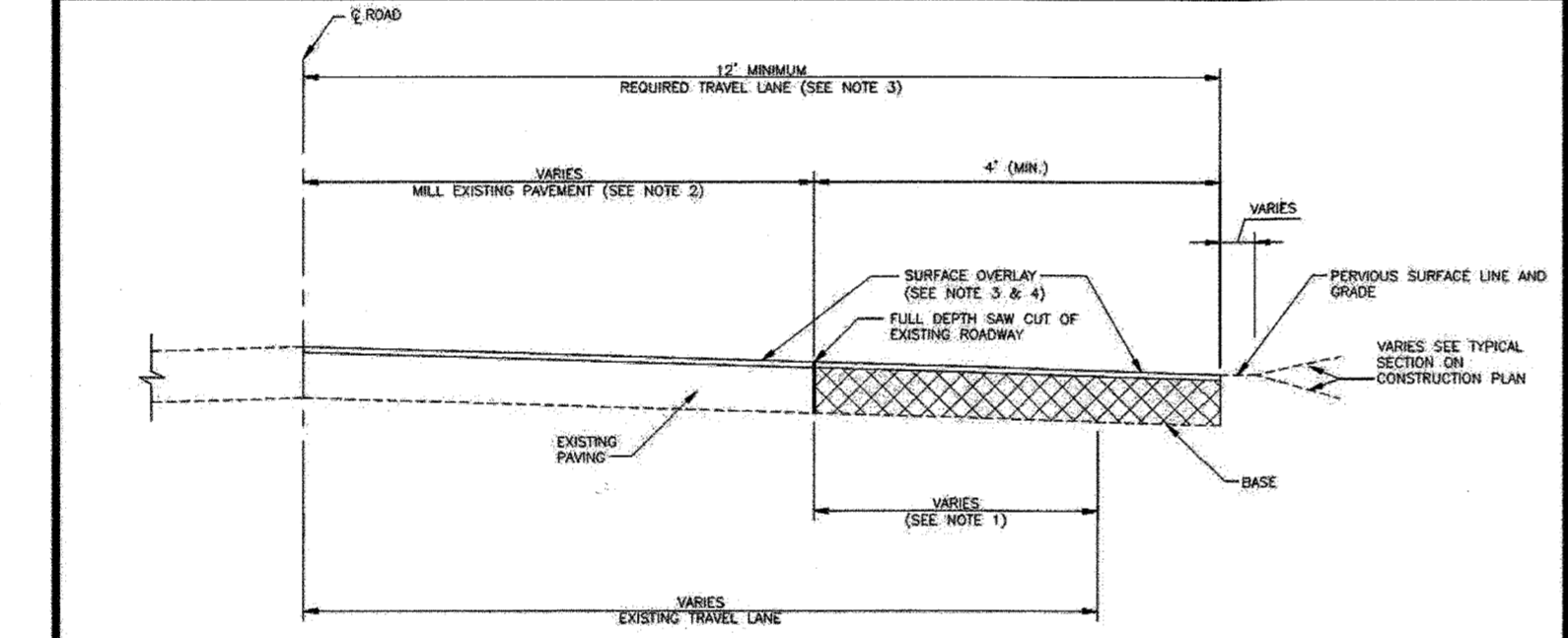
12 SIGNING & MARKING DETAILS - HOWARD COUNTY
 NOT TO SCALE



13 CONCRETE SIDEWALK - HOWARD COUNTY
 NOT TO SCALE



9 POST ATTACHMENT
 NOT TO SCALE



11 EXISTING ROADWAY WIDENING STRIP - HOWARD COUNTY
 NOT TO SCALE

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	PAVEMENT MATERIAL (INCHES)			
			MIN SUPERPAVE ASPHALT MIX WITH CURB	MIN SUPERPAVE ASPHALT MIX	MIN SUPERPAVE ASPHALT MIX	MIN SUPERPAVE ASPHALT MIX
P-1	PARKING BASE: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	3 TO <5	1.5	1.5	1.0	1.0
		5 TO <7	2.0	2.0	2.0	2.0
		7 TO <9	2.5	2.5	2.5	2.5
P-2	PARKING DRIVE ALLEYS: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	3 TO <5	1.5	1.5	1.5	1.5
		5 TO <7	2.0	2.0	2.0	2.0
		7 TO <9	2.5	2.5	2.5	2.5
P-3	PARKING DRIVE ALLEYS: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	3 TO <5	1.0	1.0	1.0	1.0
		5 TO <7	1.5	1.5	1.5	1.5
		7 TO <9	2.0	2.0	2.0	2.0
P-4	MINOR COLLECTORS: NON-RESIDENTIAL MAJOR COLLECTORS	3 TO <5	3.0	3.0	3.0	3.0
		5 TO <7	4.0	4.0	4.0	4.0
		7 TO <9	5.0	5.0	5.0	5.0

6 PAVEMENT SECTIONS P-1 TO P-4 - HOWARD COUNTY
 NOT TO SCALE

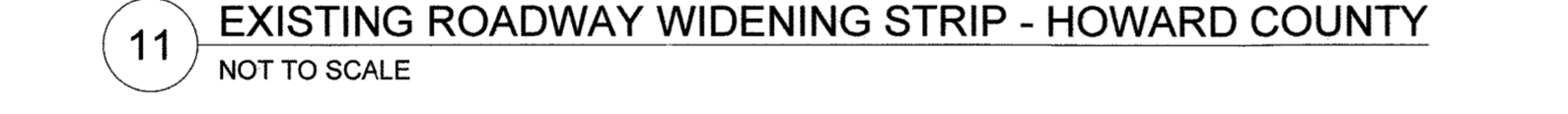
SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	PAVEMENT MATERIAL (INCHES)			
			MIN SUPERPAVE ASPHALT MIX WITH CURB	MIN SUPERPAVE ASPHALT MIX	MIN SUPERPAVE ASPHALT MIX	MIN SUPERPAVE ASPHALT MIX
P-5	MINOR ARTERIAL	3 TO <5	2.0	2.0	2.0	2.0
		5 TO <7	2.5	2.5	2.5	2.5
		7 TO <9	3.0	3.0	3.0	3.0
P-6	UNIMPROVED INTERMEDIATE ARTERIAL	3 TO <5	2.0	2.0	2.0	2.0
		5 TO <7	2.5	2.5	2.5	2.5
		7 TO <9	3.0	3.0	3.0	3.0
P-7	STABILIZED SHOULDER: MINOR ARTERIAL	3 TO <5	1.75	1.75	1.75	1.75
		5 TO <7	2.0	2.0	2.0	2.0
		7 TO <9	2.5	2.5	2.5	2.5
P-8	PAVED SHOULDER: UNIMPROVED INTERMEDIATE ARTERIAL	3 TO <5	3.0	3.0	3.0	3.0
		5 TO <7	4.0	4.0	4.0	4.0
		7 TO <9	5.0	5.0	5.0	5.0

7 PAVEMENT SECTIONS P-5 TO P-8 - HOWARD COUNTY
 NOT TO SCALE

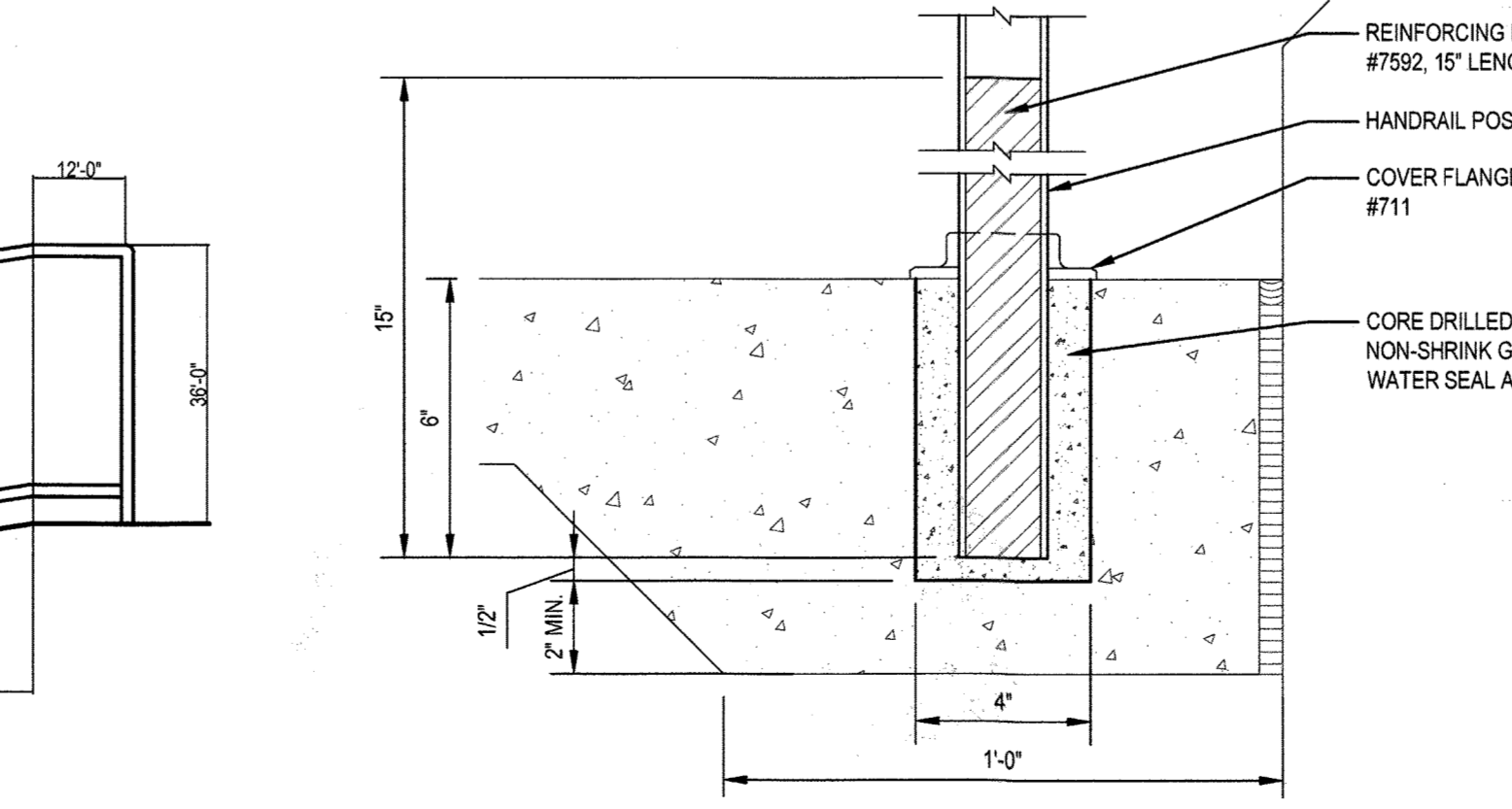
Sign Summary*

M.U.T.C.D. Number	Specification Width	Height	Desc.
R1-1	30"	30"	STOP
R7-8	12"	18"	RESERVED PARKING
R7-8B	12"	6"	

10 MUTCD SIGN SUMMARY
 NOT TO SCALE



14 RAMP HANDRAIL
 NOT TO SCALE



15 POST ATTACHMENT
 NOT TO SCALE

ALL SIGNAGE SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

APPROVED: *[Signature]* DATE: 11-18-20
 DIRECTOR
 FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 11-9-20

APPROVED: *[Signature]* DATE: 11/18/20
 CHIEF, DIVISION OF LAND DEVELOPMENT

CALL 48 HOURS BEFORE YOU DIG
 IT'S THE LAW DIAL 811
 Know what's below. Call before you dig.

*NOTE: CONTRACTOR TO PROVIDE LATEST STANDARDS AVAILABLE AT TIME OF CONSTRUCTION

Kimley-Horn

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 RESTON, VA 20191
 CONTACT: TODD MAGIERA, P.E.
 PHONE: 703-674-1311
 WWW.KIMLEY-HORN.COM

PMIG 1027, LLC
 2359 RESEARCH COURT
 WOODBRIDGE, VA 22192
 PHONE: 703-494-5800

NO.	REVISIONS	DATE	BY

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 HOWARD COUNTY, MARYLAND
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 GRID #4

ZONING: B-2-TNC
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SITE DEVELOPMENT PLAN

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: 48637EXP: 04/12/21

[Signature]
 JOHN KAUPPIA

01/21/2021

SITE DETAILS 1

SHEET NUMBER
5 OF 30
 SDP-20-018

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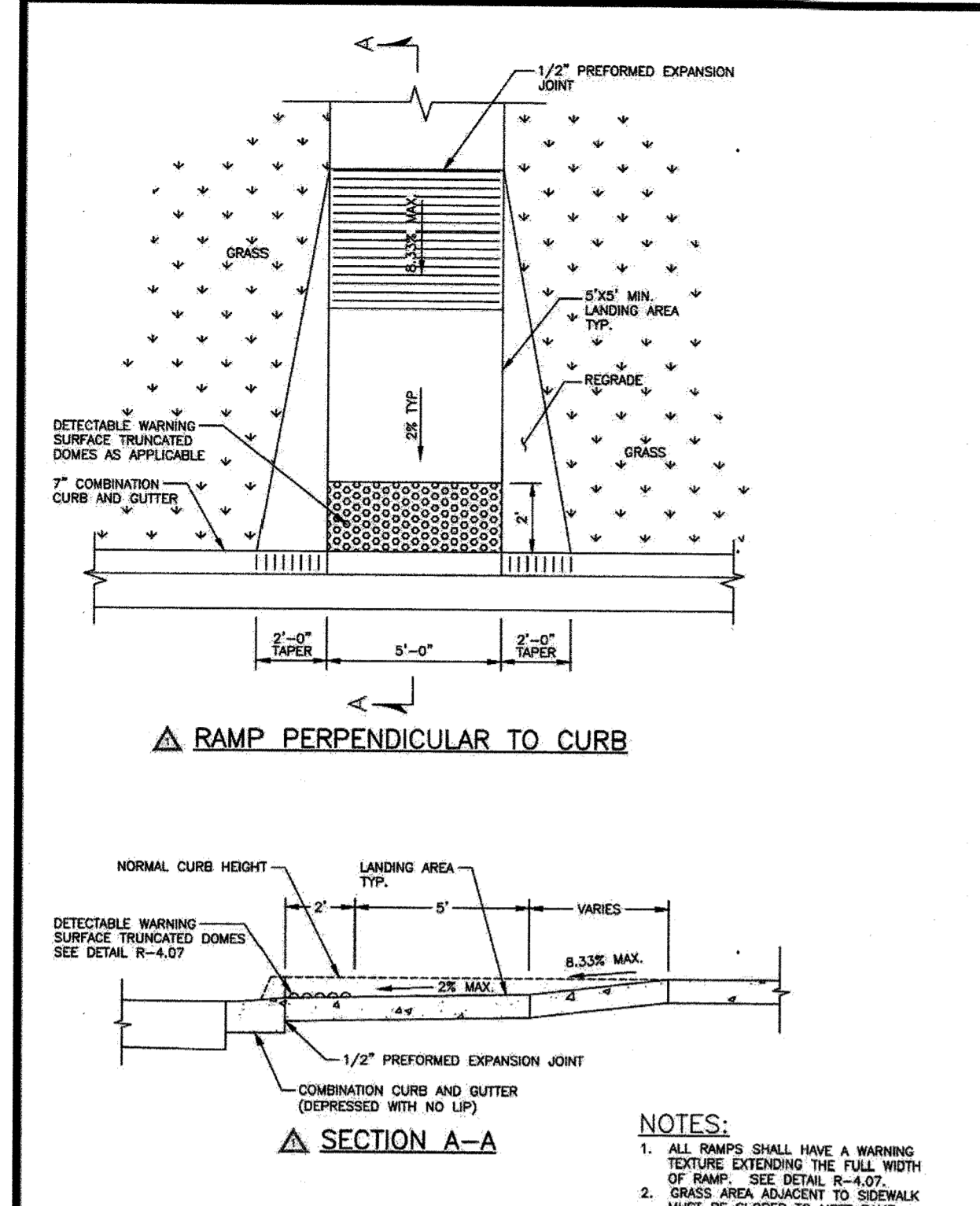


Table with 3 columns: Howard County, Maryland Department of Public Works; Sidewalk Ramp Layout & Grading Perpendicular to Curb; Detail R-4.05. Includes SHA logo and approval signatures.

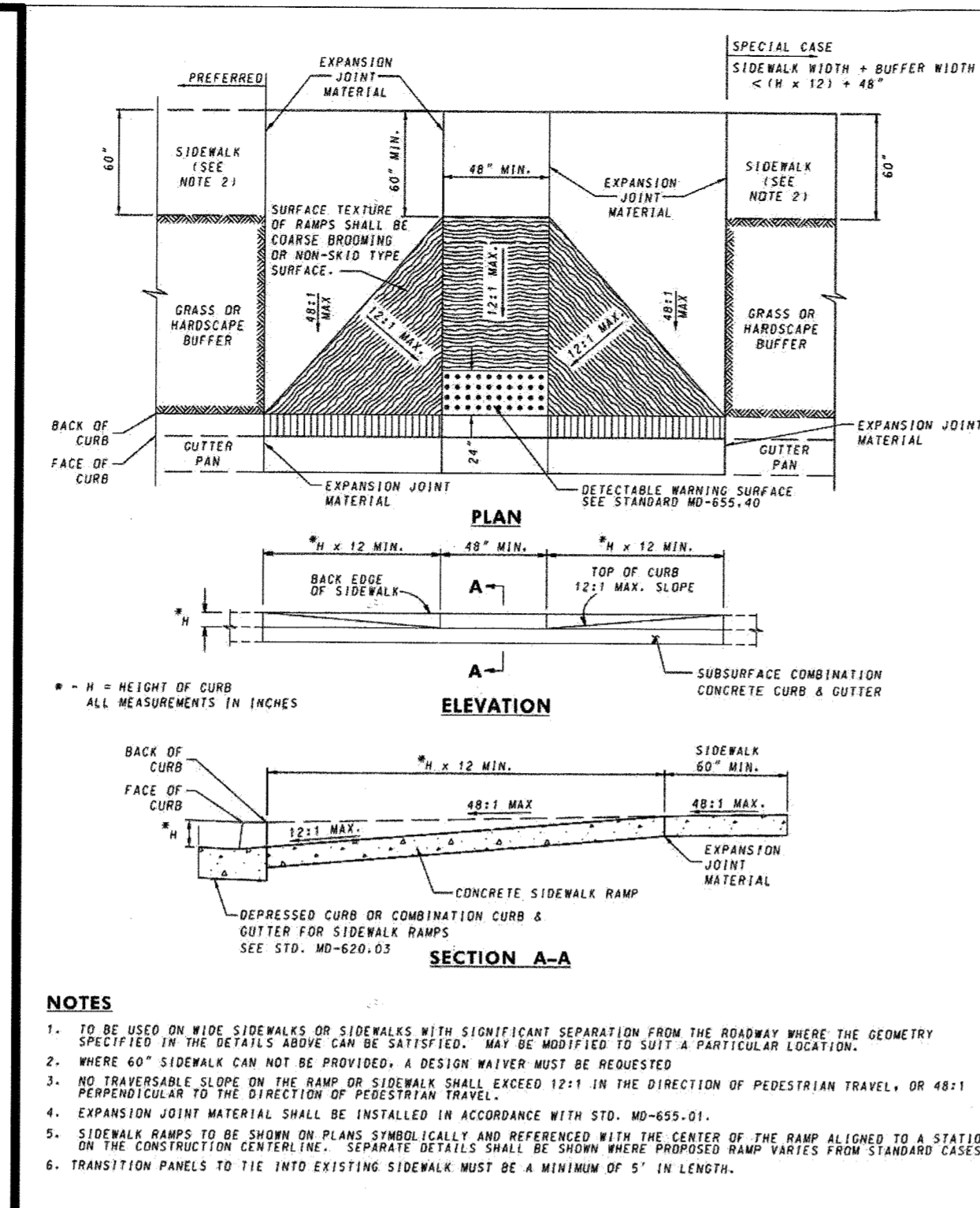


Table with 3 columns: Maryland Department of Transportation State Highway Administration; Sidewalk Ramps Perpendicular; Detail R-3.01. Includes SHA logo and approval signatures.

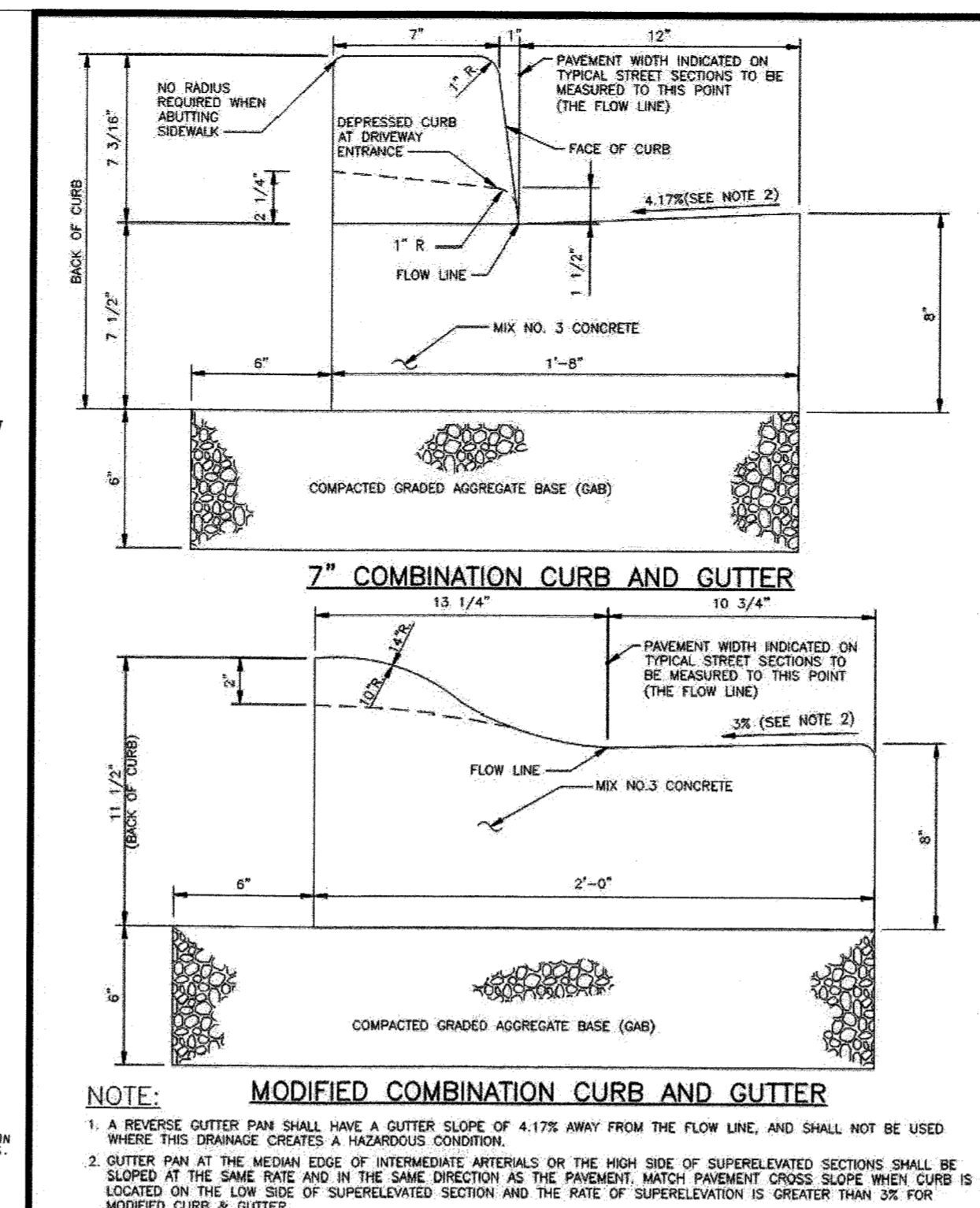


Table with 3 columns: Howard County, Maryland Department of Public Works; Curb and Gutter 7 inch & Modified; Detail R-3.01. Includes SHA logo and approval signatures.

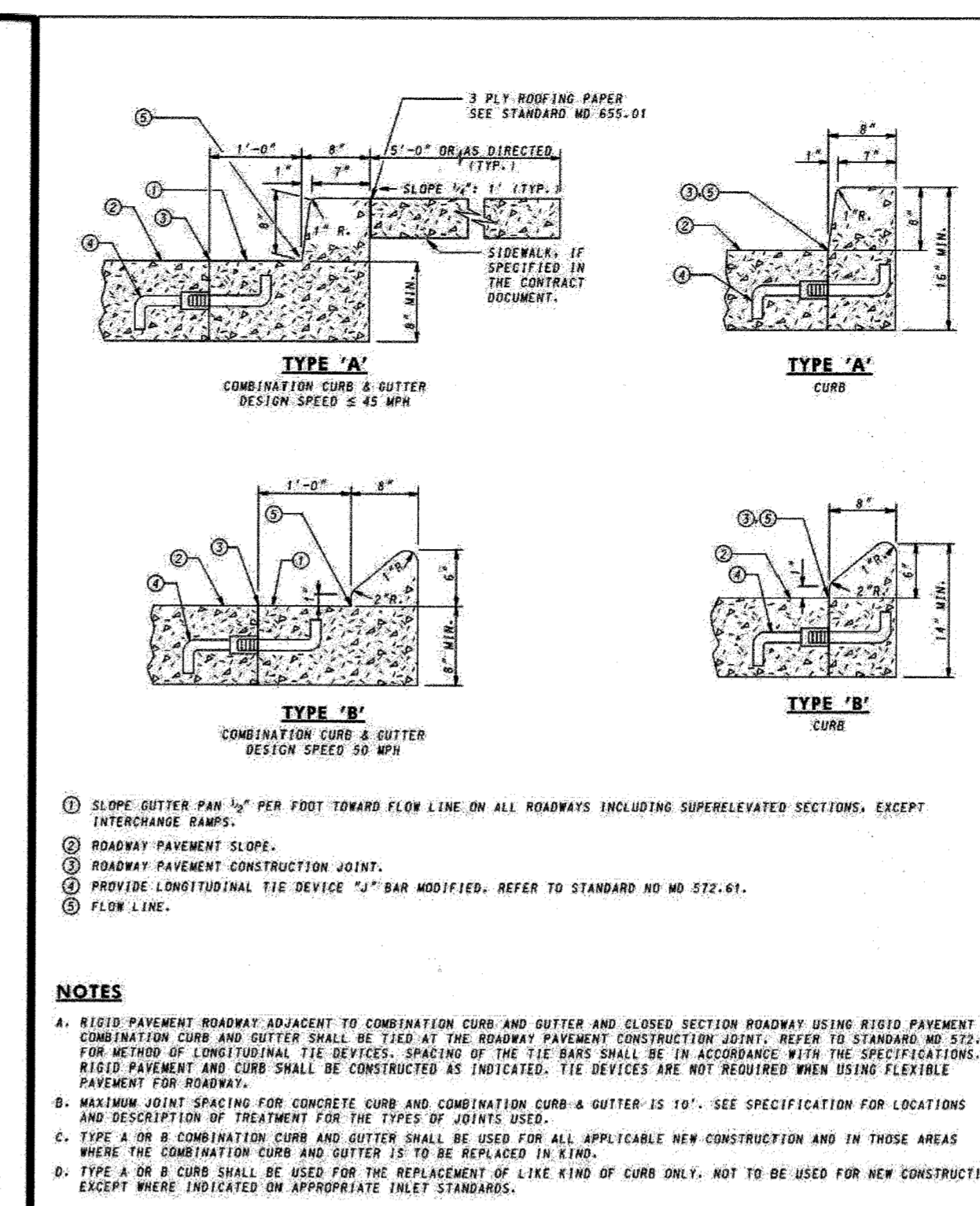


Table with 3 columns: Maryland Department of Transportation State Highway Administration; Standard Types A & B Concrete Curb and Combination Concrete Curb & Gutter; Detail R-6.07. Includes SHA logo and approval signatures.

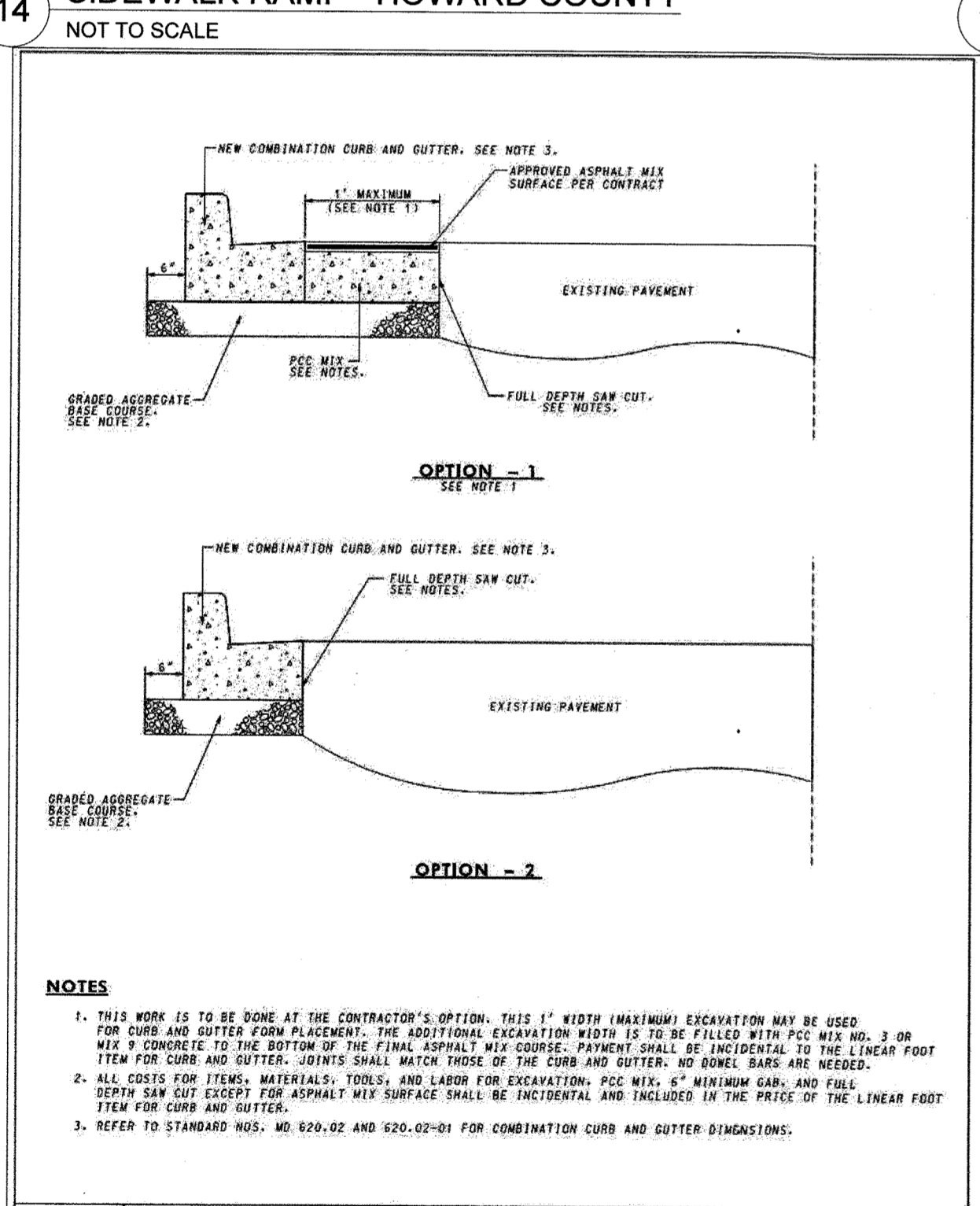


Table with 3 columns: Maryland Department of Transportation State Highway Administration; New Combination Curb and Gutter Placement Along Existing Pavement; Detail R-3.03. Includes SHA logo and approval signatures.

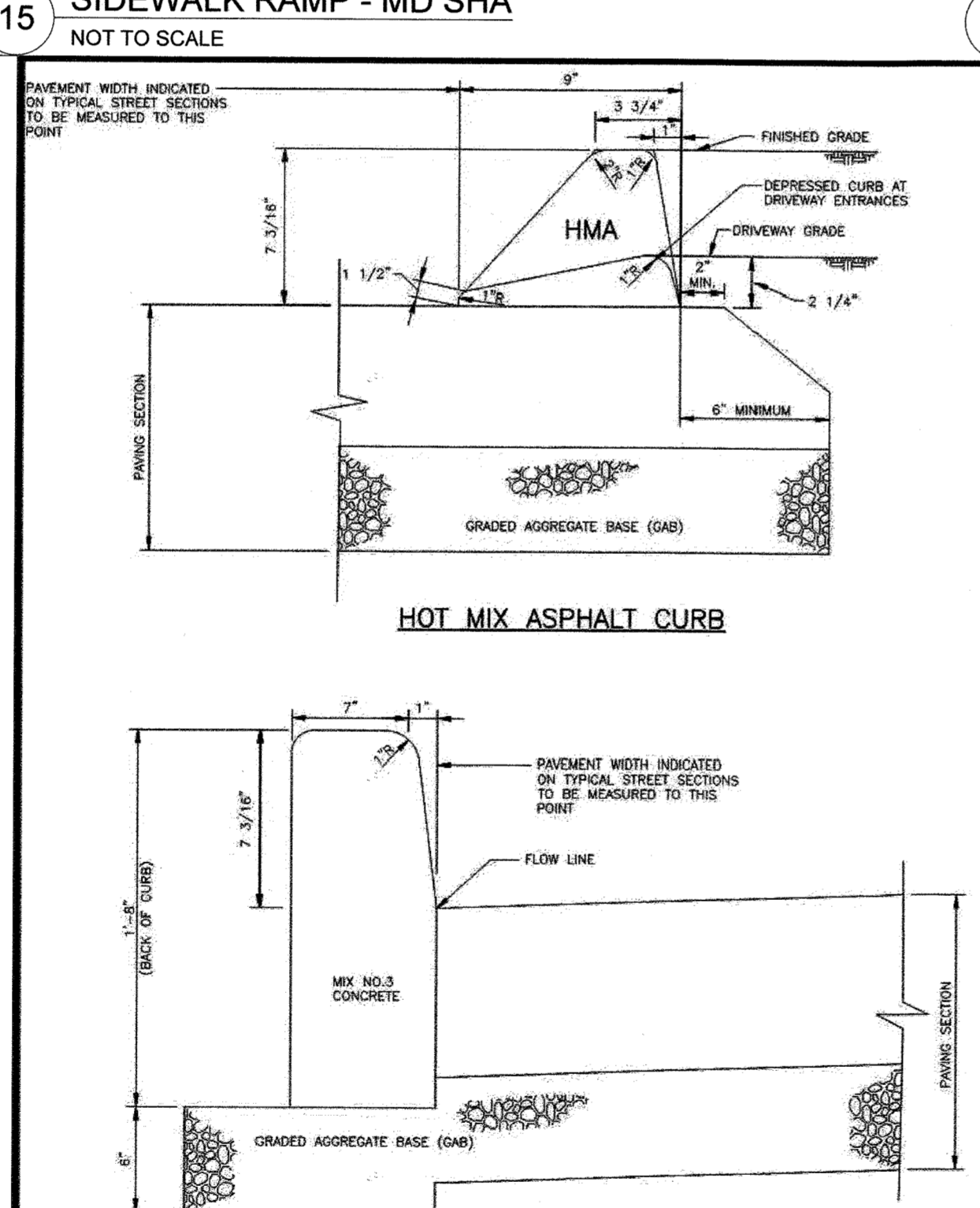


Table with 3 columns: Howard County, Maryland Department of Public Works; Curbs Hot Mix Asphalt & Concrete Barrier; Detail R-3.03. Includes SHA logo and approval signatures.

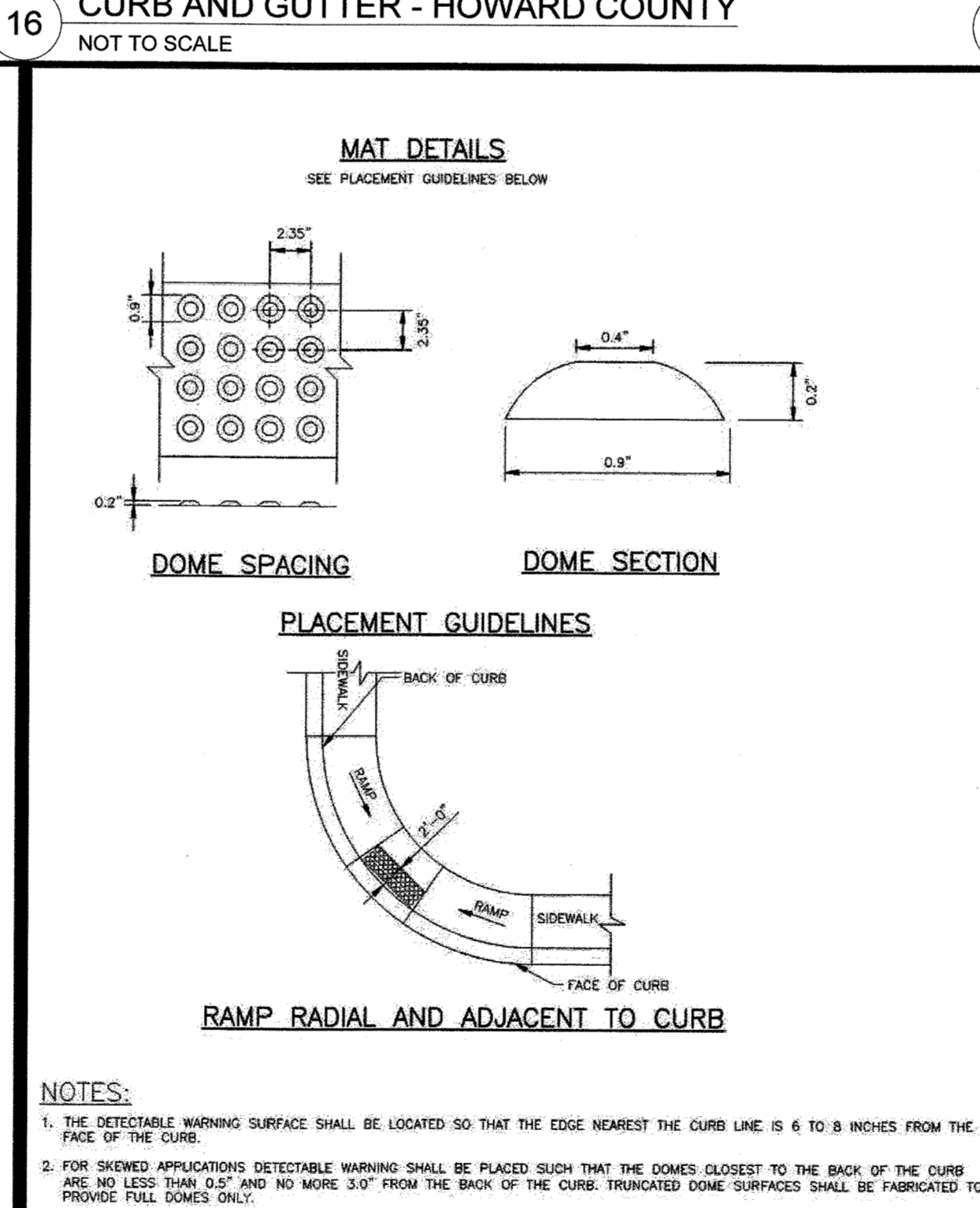


Table with 3 columns: Howard County, Maryland Department of Public Works; Sidewalk Ramp Detectable Warning Truncated Domes; Detail R-4.07. Includes SHA logo and approval signatures.

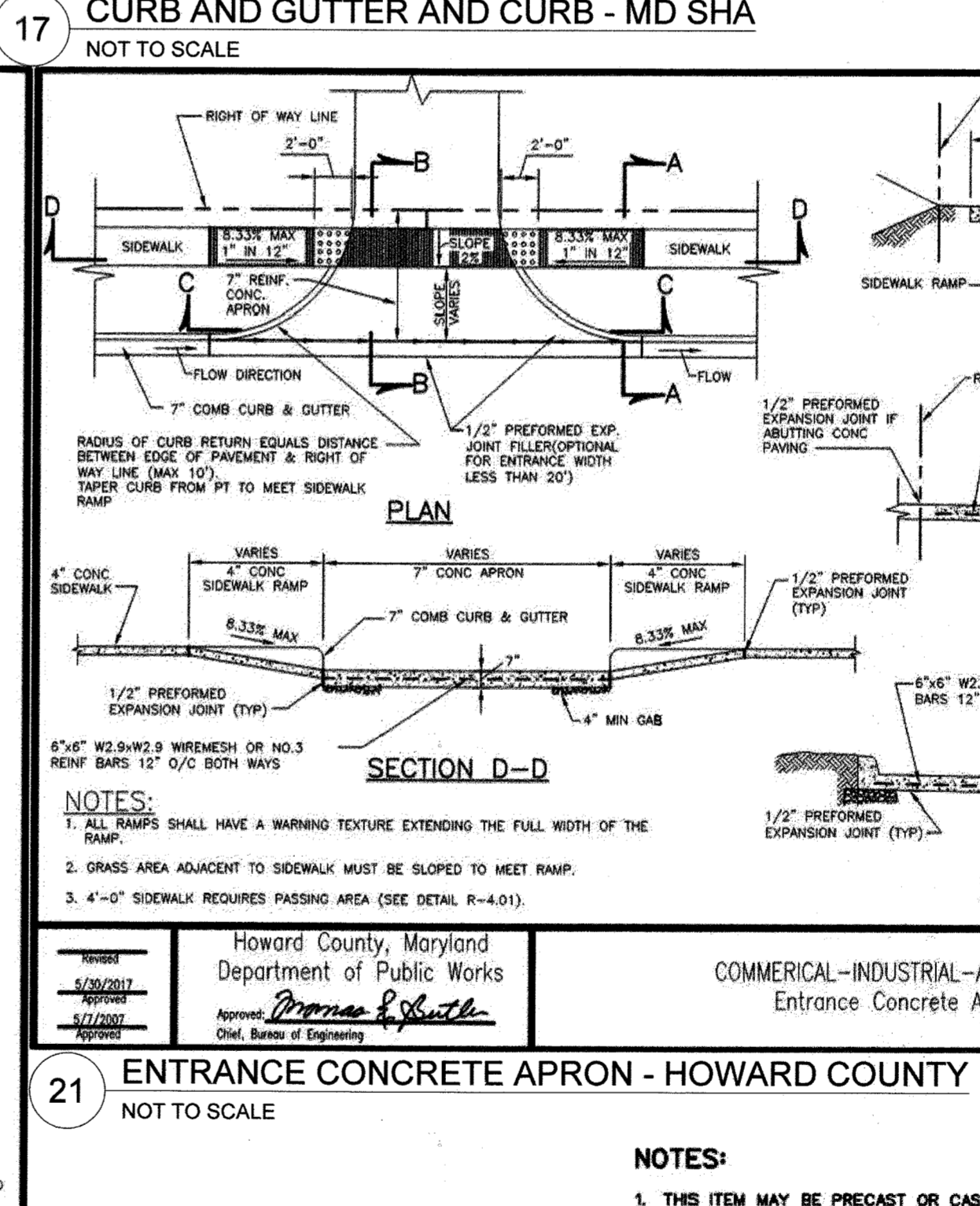


Table with 3 columns: Howard County, Maryland Department of Public Works; Commercial-Industrial-Apartment Entrance Concrete Apron; Detail R-6.07. Includes SHA logo and approval signatures.

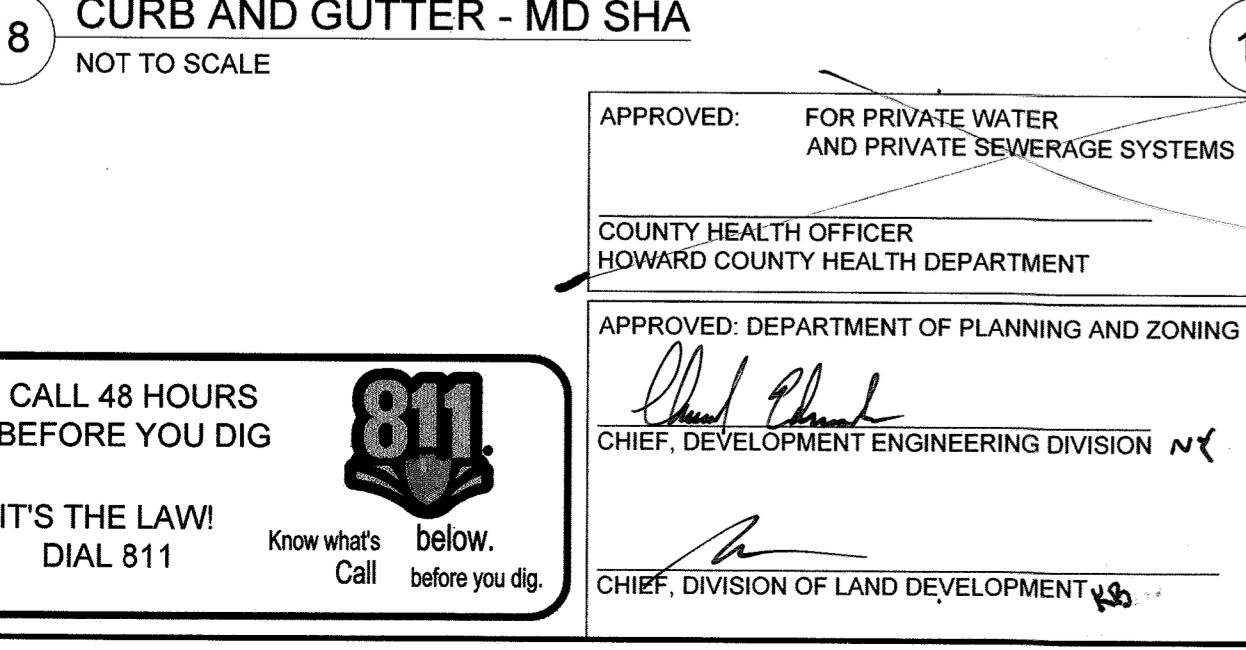


Table with 3 columns: Maryland Department of Transportation State Highway Administration; Curb and Gutter; Detail R-6.07. Includes SHA logo and approval signatures.

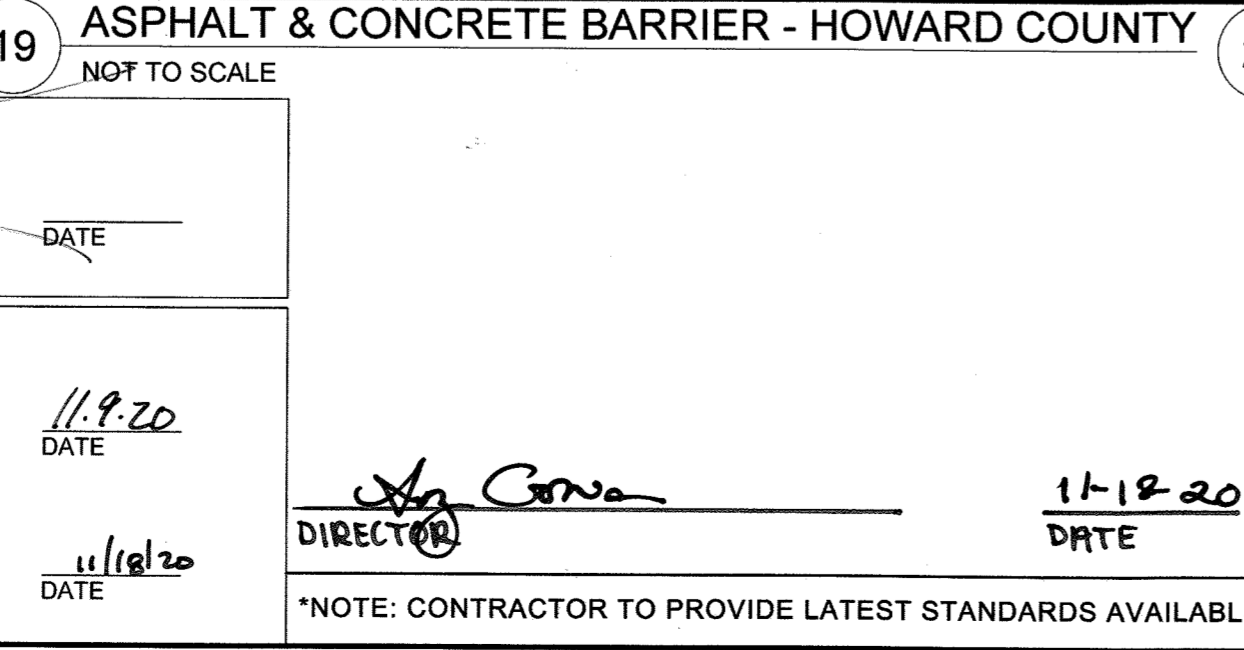


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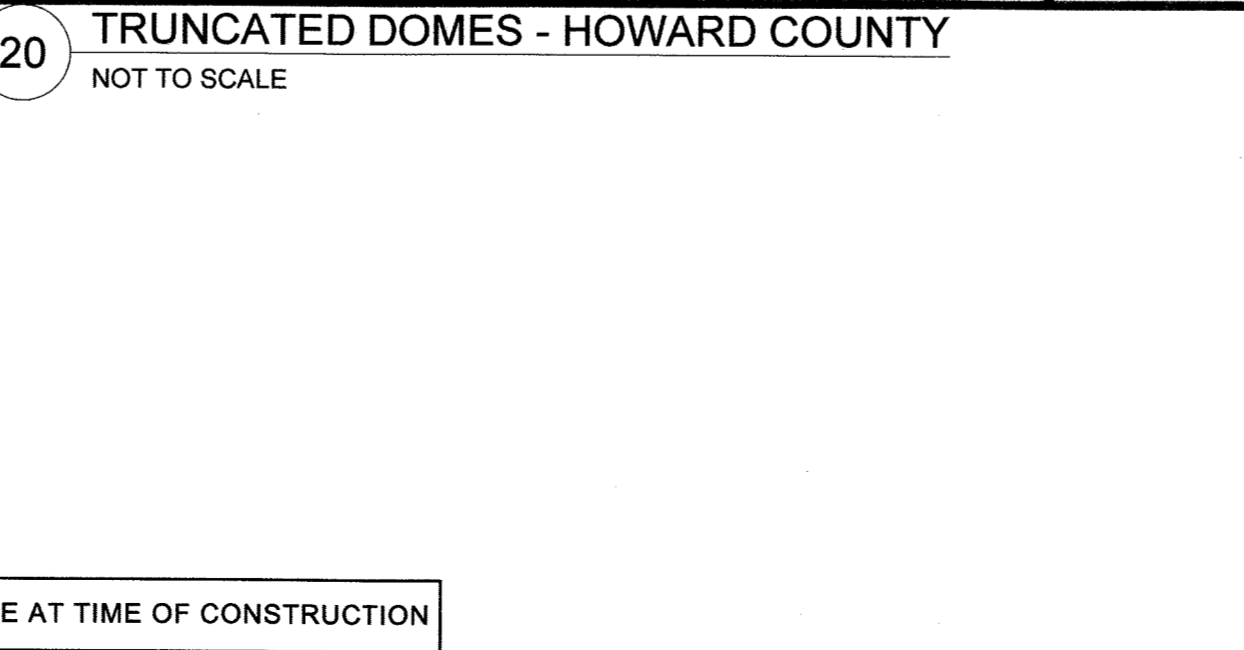
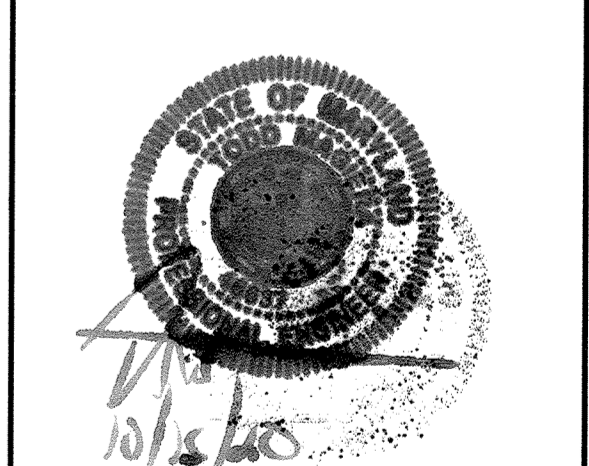


Table with 3 columns: Maryland Department of Transportation State Highway Administration; Curb and Gutter; Detail R-6.07. Includes SHA logo and approval signatures.

Table with 3 columns: PMIG 1027, LLC; 2359 RESEARCH COURT WOODBRIDGE, VA 22192; PHONE: 703-494-5800. Includes a grid and revision table.

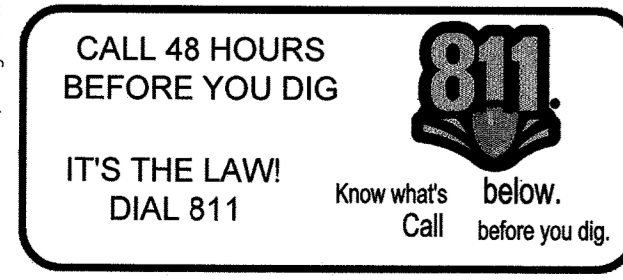
9320 BALTIMORE NATIONAL PIKE HOWARD COUNTY, MARYLAND TAX MAP NO. 24 PARCEL: 996, LOT 1 GRID #4 ZONING: B-2-TNC SECOND ELECTION DISTRICT ADC MAP/GRID # 4815-G6 RECORDING REFERENCE SDP-20-018 KHA PROJECT NO.: 114021001 SCALE: AS SHOWN DATE: 08/11/2020 DESIGNED BY: JRW DRAWN BY: JRW CHECKED BY: TM IMPROVEMENT DESCRIPTION: REDEVELOPMENT OF EXISTING GAS STATION TO PROPOSED 2,866 SF C-STORE, CANOPY, AND 6 MPDS.

ELLICOTT CITY (STATION MD-108) PREPARED FOR PMIG 1027, LLC SITE DEVELOPMENT PLAN



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. 48637 EXP. 04/12/21

No "AS-BUILT" information on this sheet. JOHN KAUPPILA 01/24/2022. SHEET NUMBER 6 OF 30 SDP-20-018



APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS. COUNTY HEALTH OFFICER HOWARD COUNTY HEALTH DEPARTMENT. APPROVED: DEPARTMENT OF PLANNING AND ZONING. CHIEF, DEVELOPMENT ENGINEERING DIVISION. DATE: 11/9/20. CHIEF, DIVISION OF LAND DEVELOPMENT. DATE: 11/18/20.

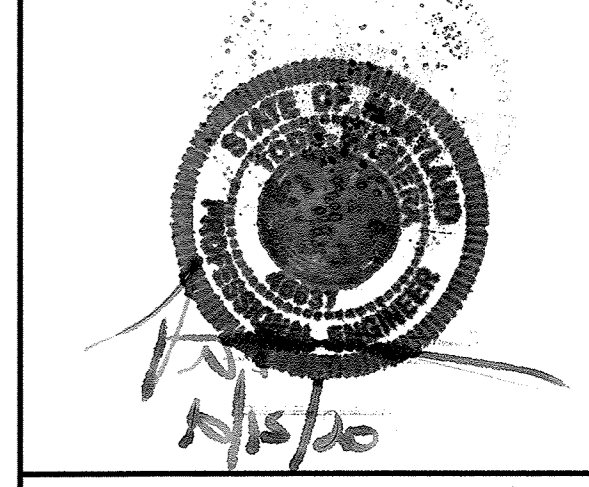
*NOTE: CONTRACTOR TO PROVIDE LATEST STANDARDS AVAILABLE AT TIME OF CONSTRUCTION. DATE: 11-18-20

No.	REVISIONS	DATE	BY

9320 BALTIMORE NATIONAL PIKE
 HOWARD COUNTY, MARYLAND
 TAX MAP NO: 24 PARCEL: 996, LOT 1
 GRID #4
 ZONING: B-2-TNC
 SECOND ELECTION DISTRICT
 ADC MAP/GRID #: 4815-G6
 RECORDING REFERENCE SDP-20-018
 KHA PROJECT NO.: 114021001
 SCALE: AS SHOWN
 DATE: 08/11/2020
 DESIGNED BY: JRW
 DRAWN BY: JRW
 CHECKED BY: TM
 IMPROVEMENT DESCRIPTION:
 DEVELOPMENT OF EXISTING GAS
 STATION TO PROPOSED 2,666 SF
 C-STORE, CANOPY, AND 6 MPD'S.

**ELLICOTT CITY
 (STATION
 MD-108)**
 PREPARED FOR
PMIG 1027, LLC

**SITE
 DEVELOPMENT
 PLAN**

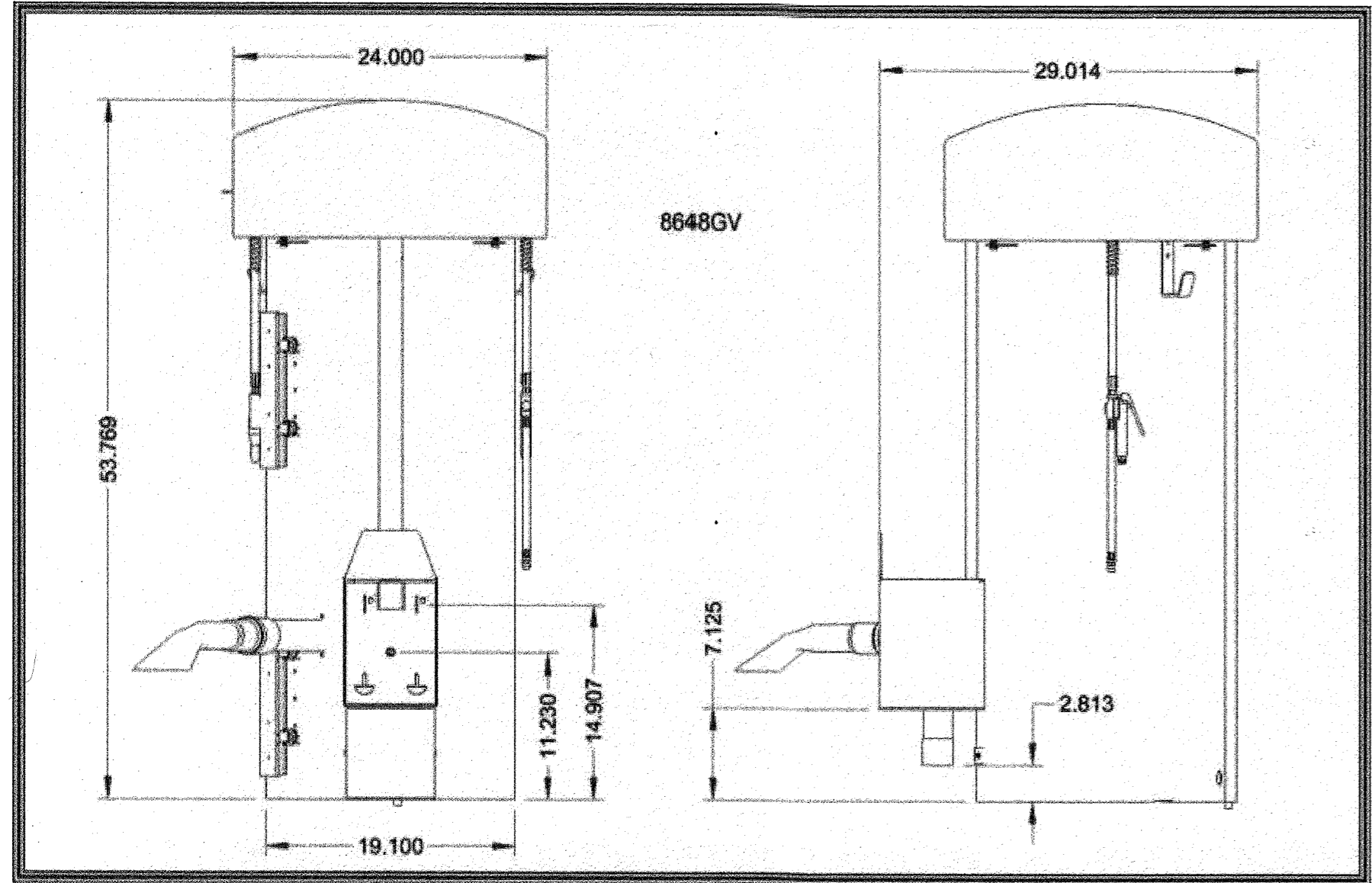


PROFESSIONAL CERTIFICATION. I HEREBY
 CERTIFY THAT THESE DOCUMENTS WERE
 PREPARED OR APPROVED BY ME, AND
 THAT I AM A DULY LICENSED
 PROFESSIONAL ENGINEER UNDER THE
 LAWS OF THE STATE OF MARYLAND.
 LICENSE NO: 46637/EXP: 04/12/21

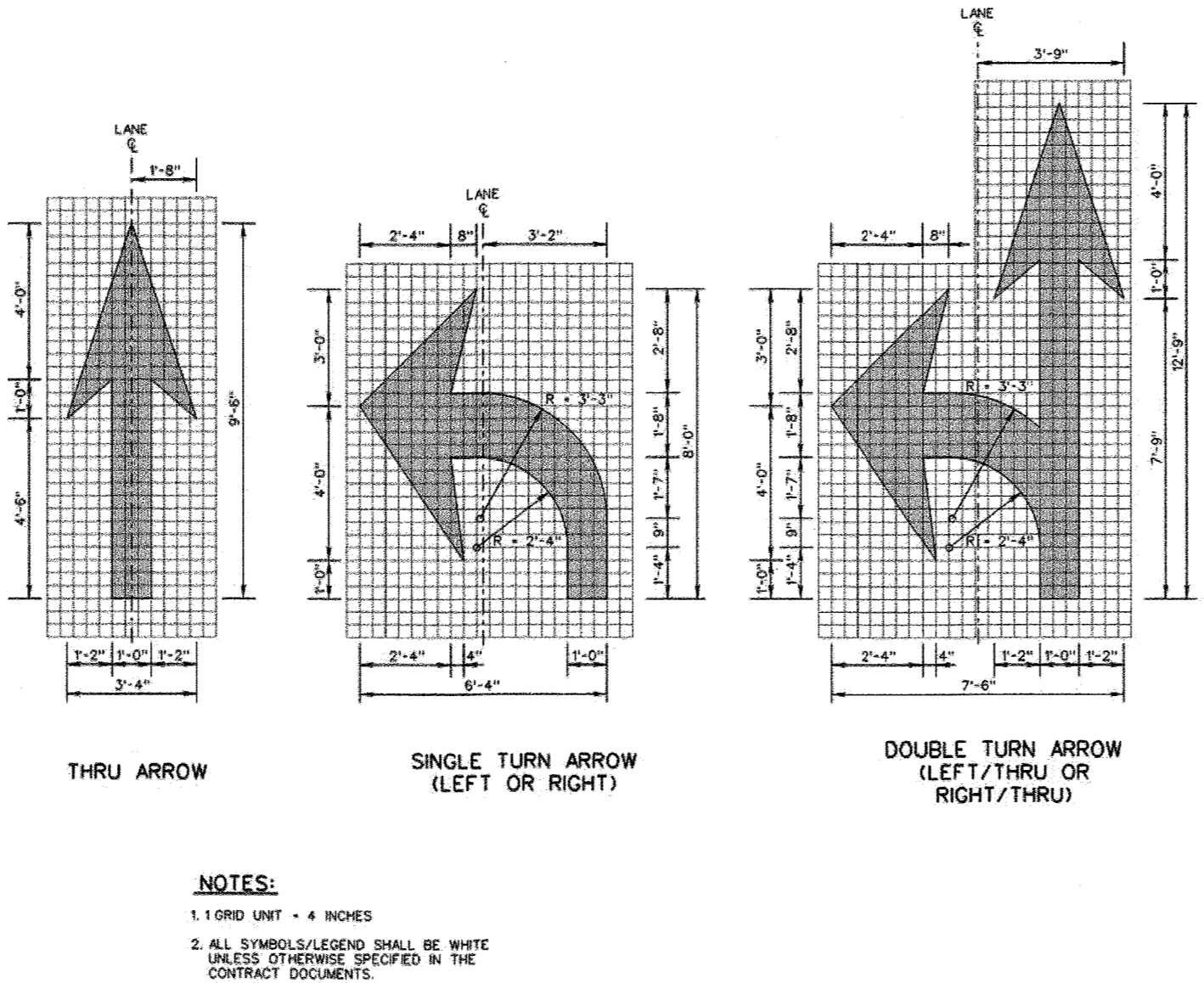
SITE DETAILS 3

SHEET NUMBER
7 OF 30

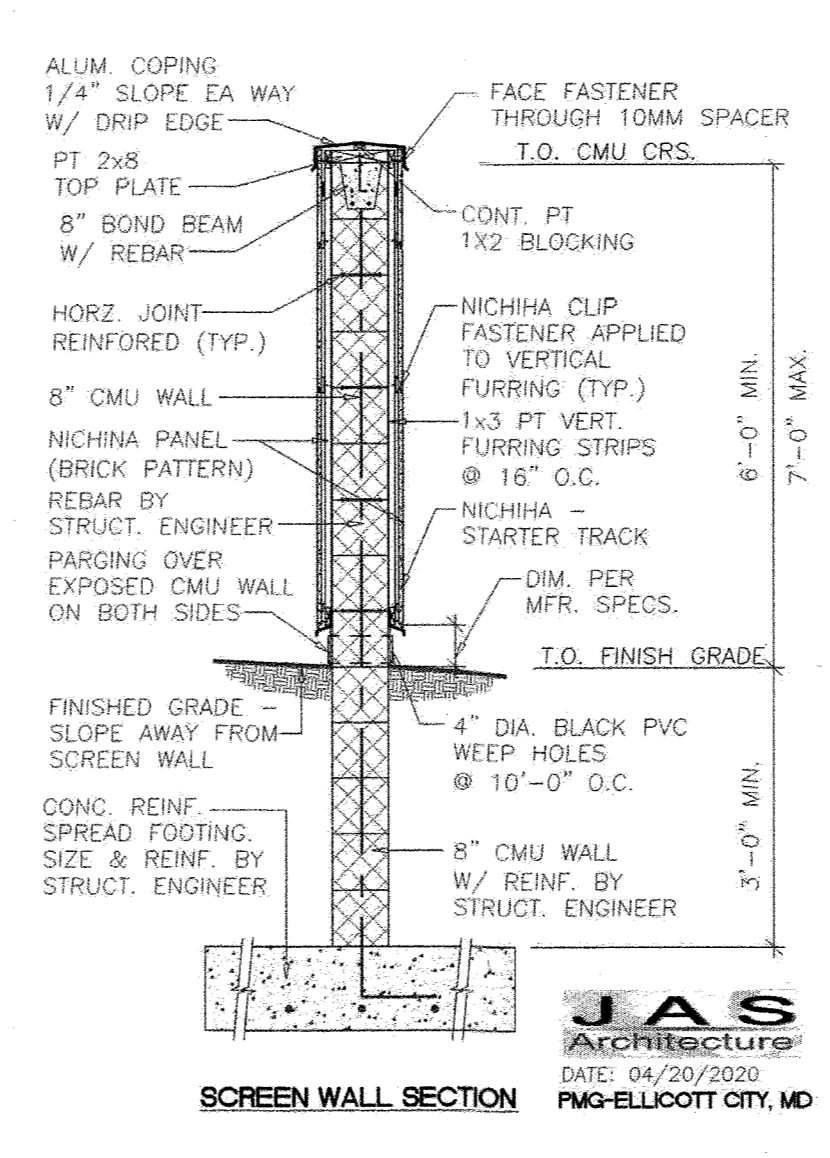
SDP-20-018



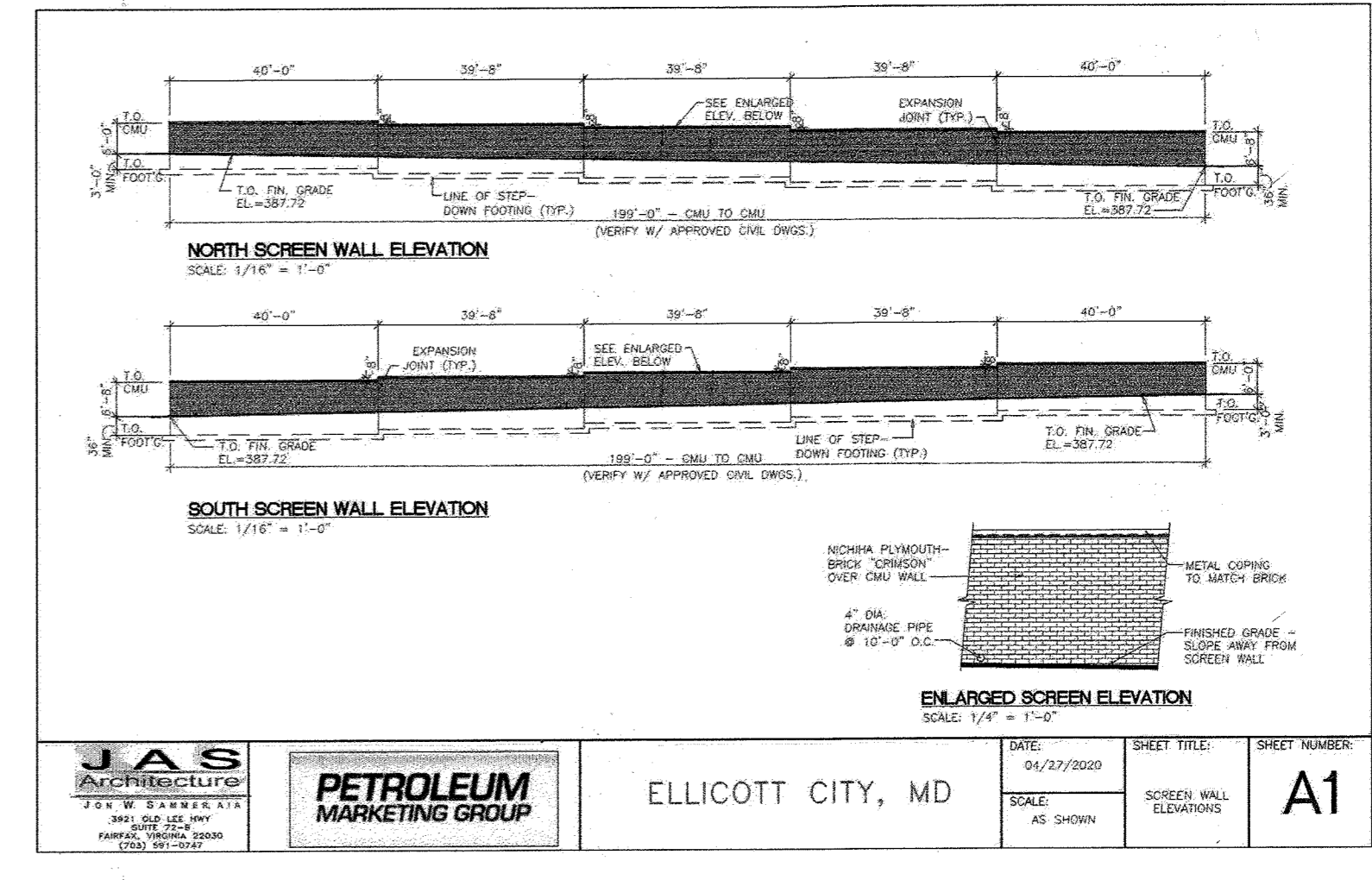
23 AIR VAC
 NOT TO SCALE



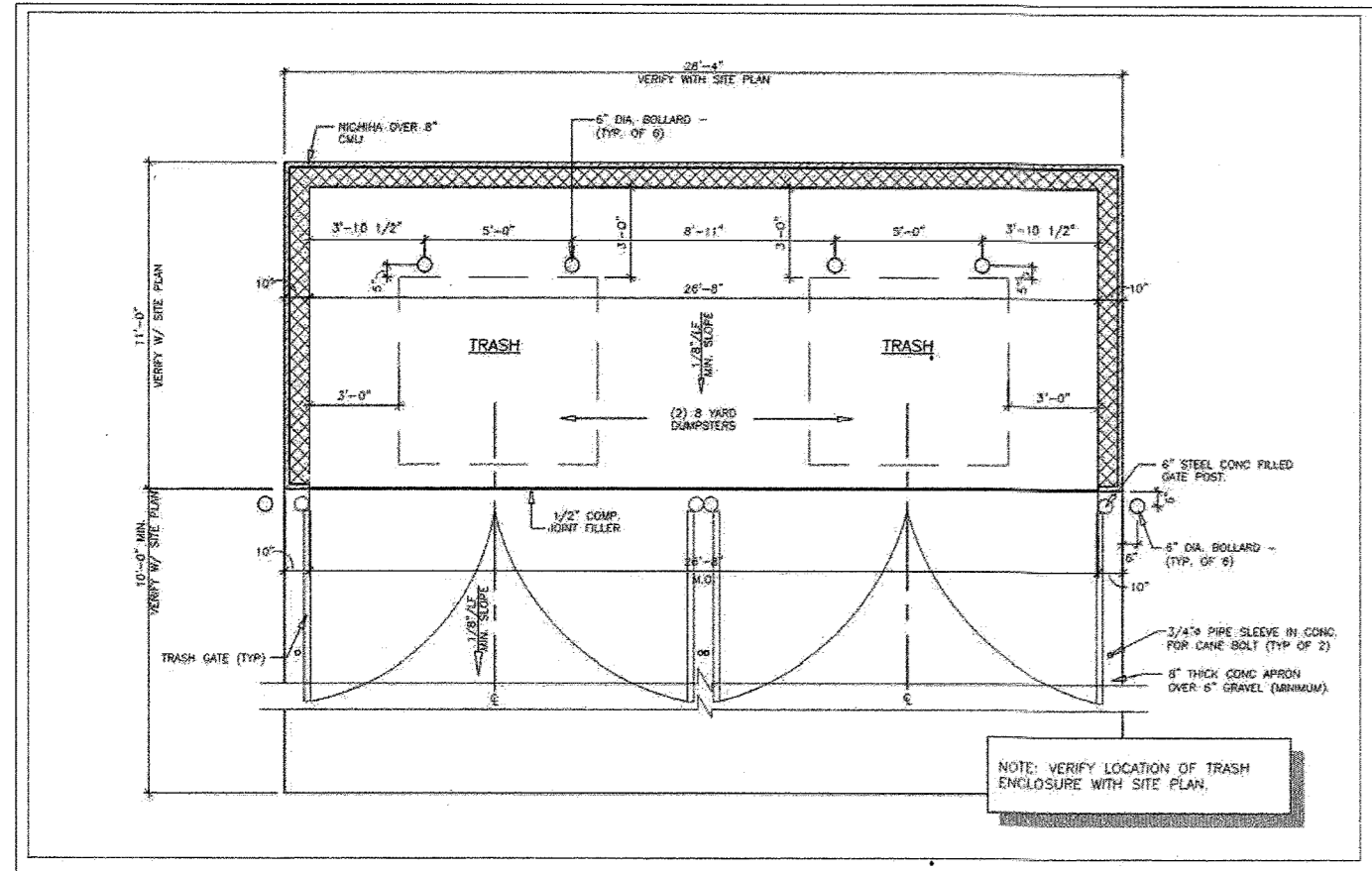
24 PAVEMENT MARKING - ARROWS
 NOT TO SCALE



25 MASONRY WALL
 NOT TO SCALE

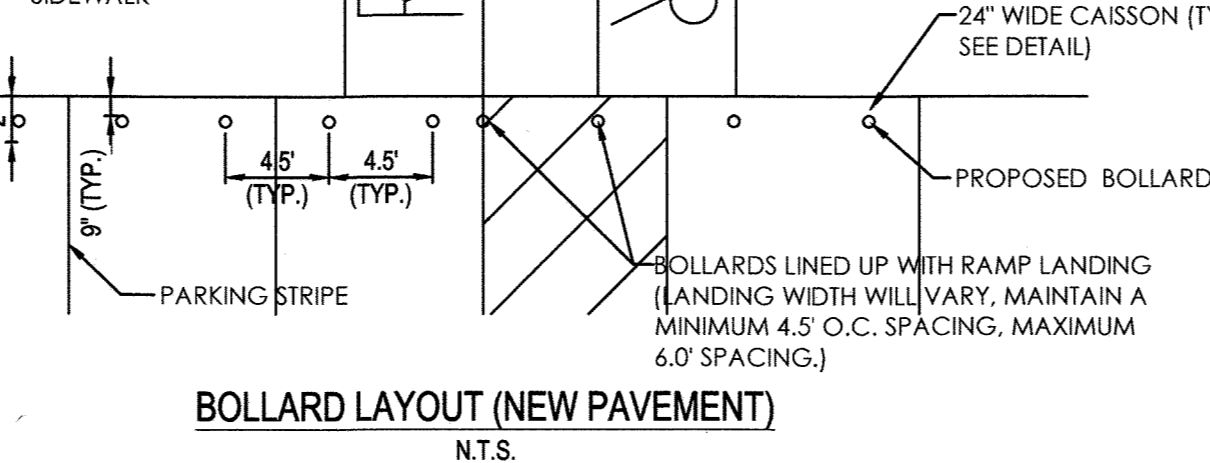
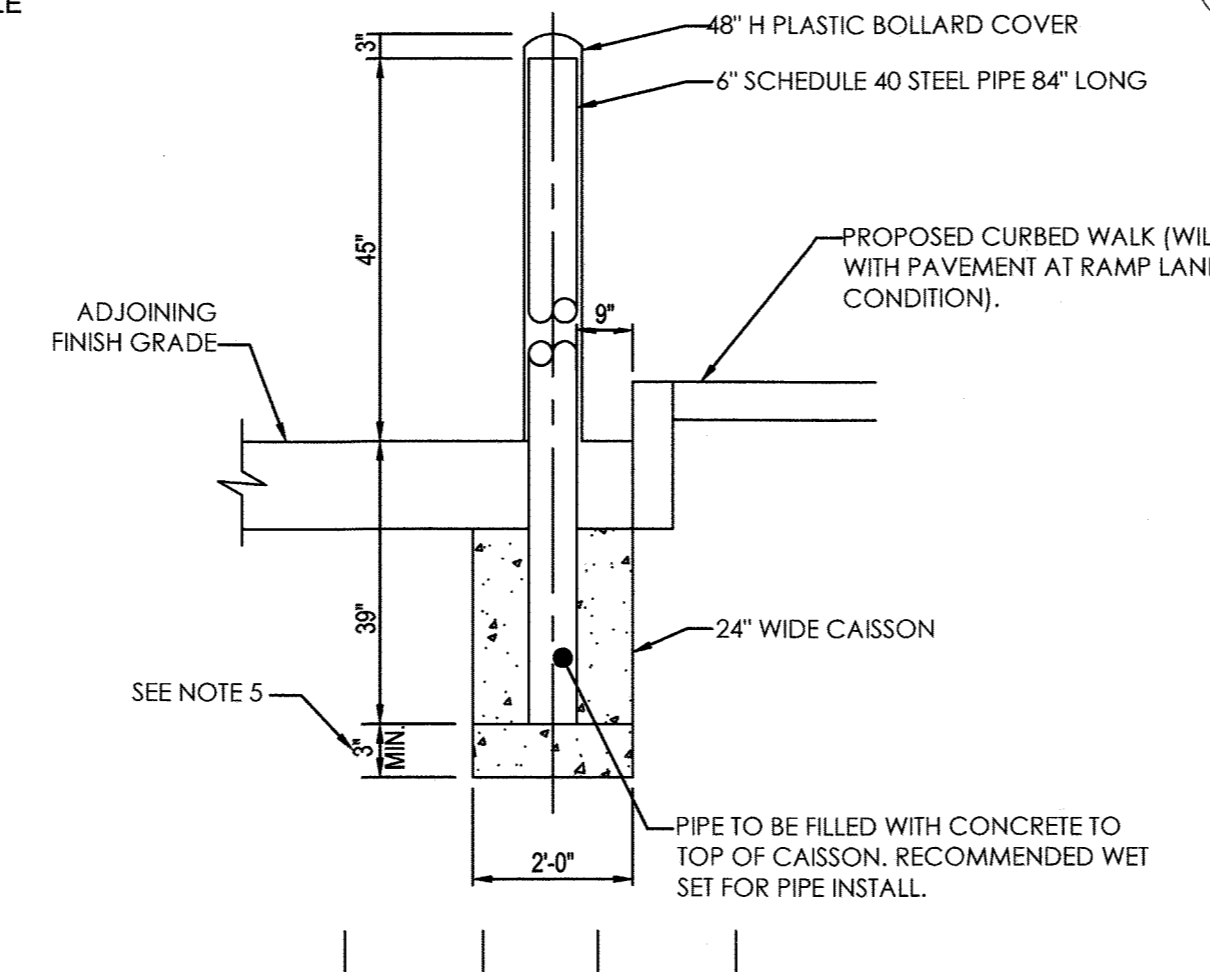


JAS Architecture
PETROLEUM MARKETING GROUP
 ELLICOTT CITY, MD
 DATE: 04/20/2020
 SHEET TITLE: SCREEN WALL ELEVATIONS
 SCALE: AS SHOWN
A1

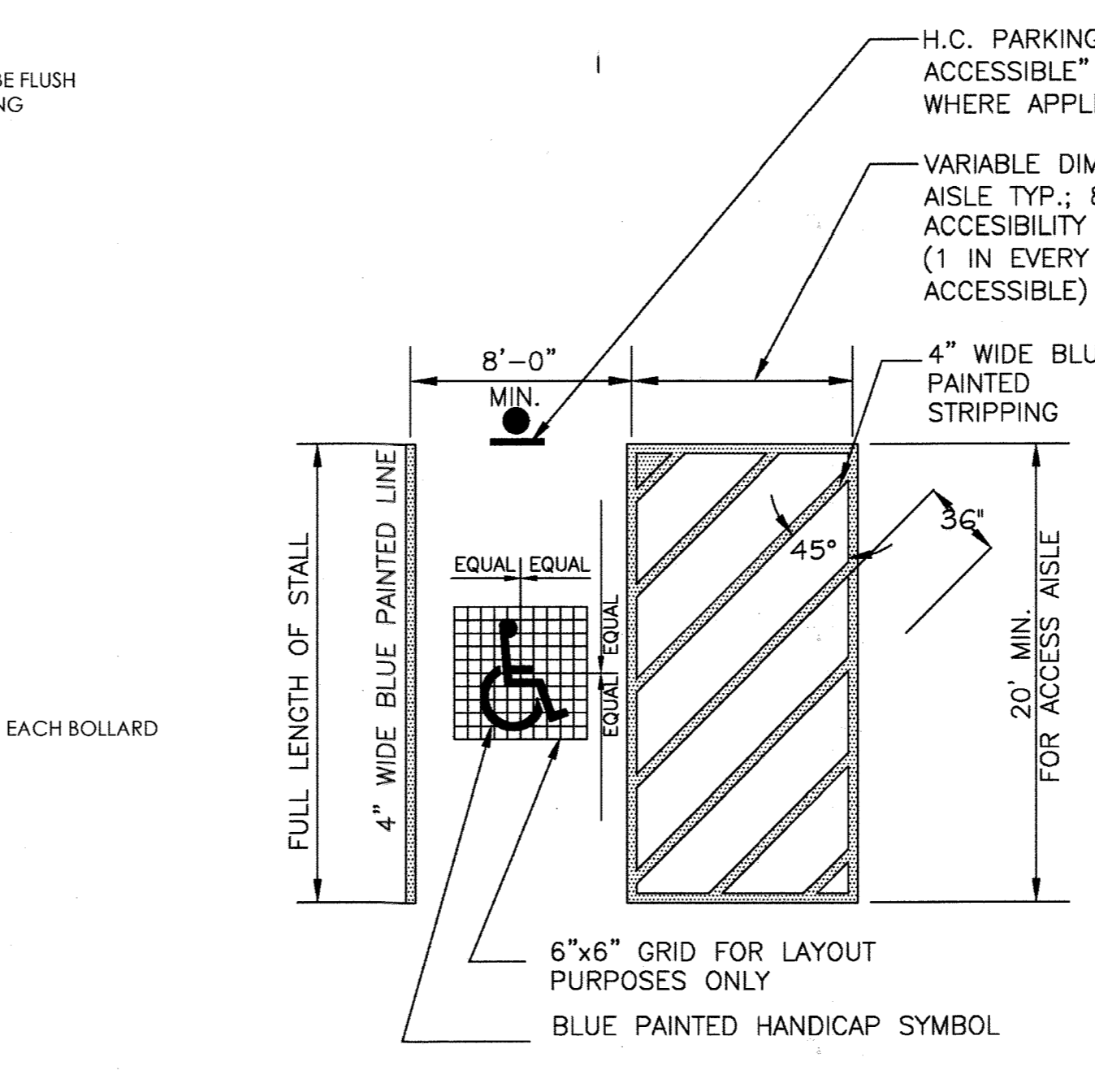


26 TRASH ENCLOSURE
 NOT TO SCALE

- NOTE:**
- CONCRETE MUST BE A MINIMUM 4,000 PSI COMPRESSIVE STRENGTH WITH FIBER MESH.
 - PROVIDE PLASTIC BOLLARD COVER, COVER TO BE IDEALSHIELD (OR APPROVED EQUAL) 1/8" THICK, BROWN (PQ 440C), 48" TALL, DOME TOP, 48" TALL.
 - DESIGN PARAMETERS:
 - 20 MPH
 - 5,000 LB VEHICLE
 - USE SONOTUBE IN SANDY OR OTHER SOILS THAT MIGHT CAVE IN.
 - INCREASE DEPTH OF CAISSON BELOW PIPE TO MEET LOCAL JURISDICTION MIN. FROST DEPTH REQUIREMENT. PIPE CAN STAY AT 39" BELOW PAVEMENT.
 - IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY NO UTILITY CONFLICTS EXIST WHERE BOLLARDS ARE TO BE INSTALLED. PRIOR TO INSTALLATION.

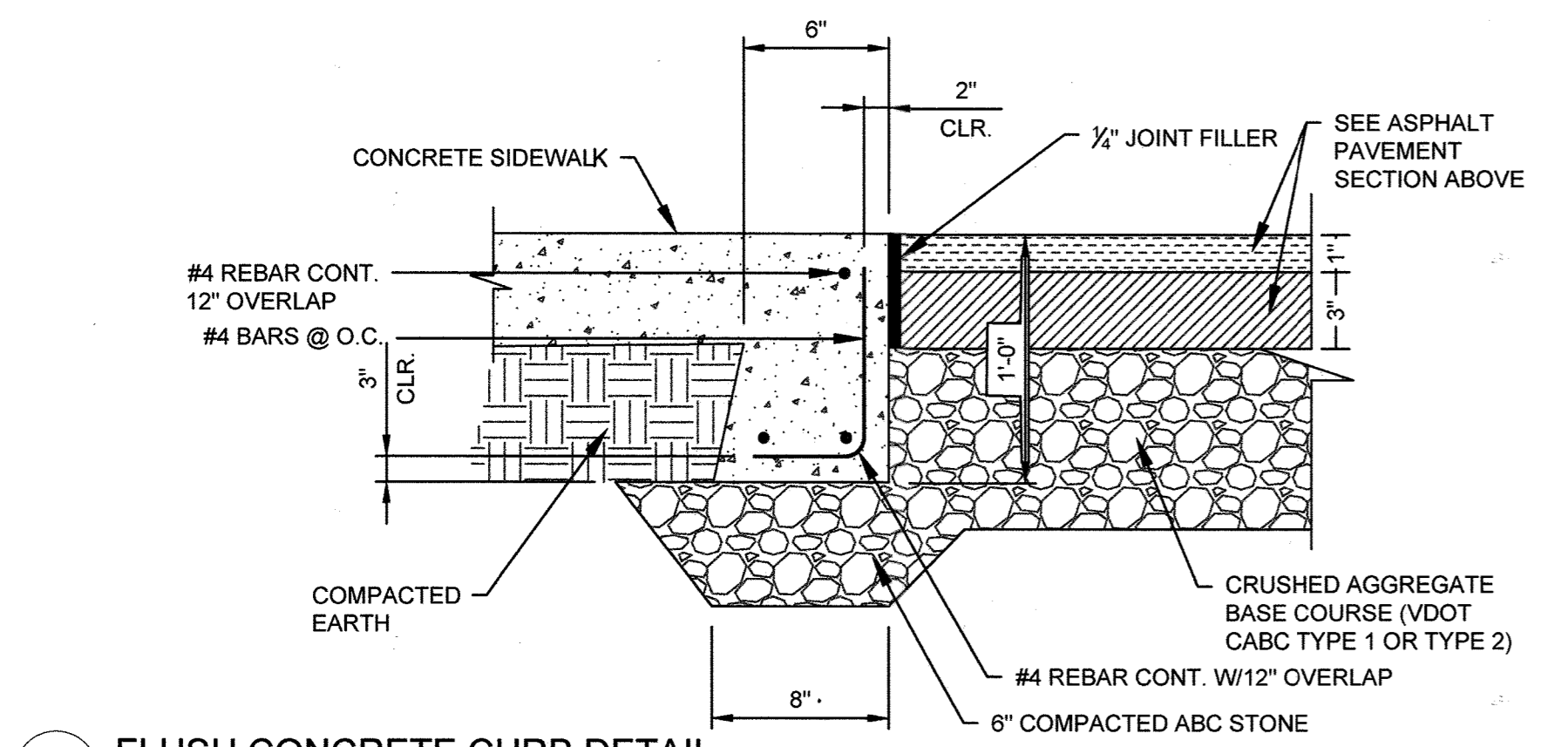


27 DEEP MOUNT BOLLARD - NEW PAVEMENT (MODIFIED)
 NOT TO SCALE

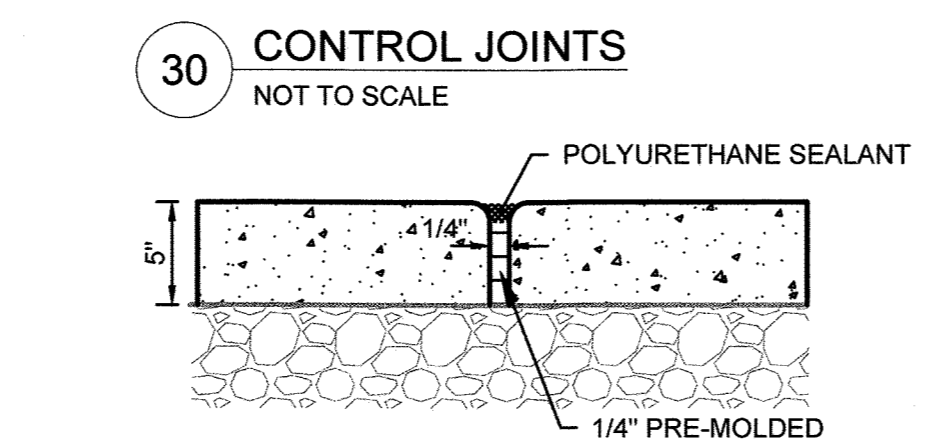
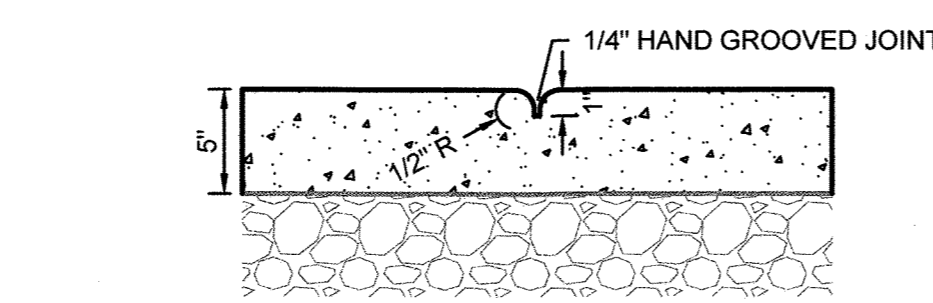


28 ADA PARKING SPACE AND STRIPING
 NOT TO SCALE

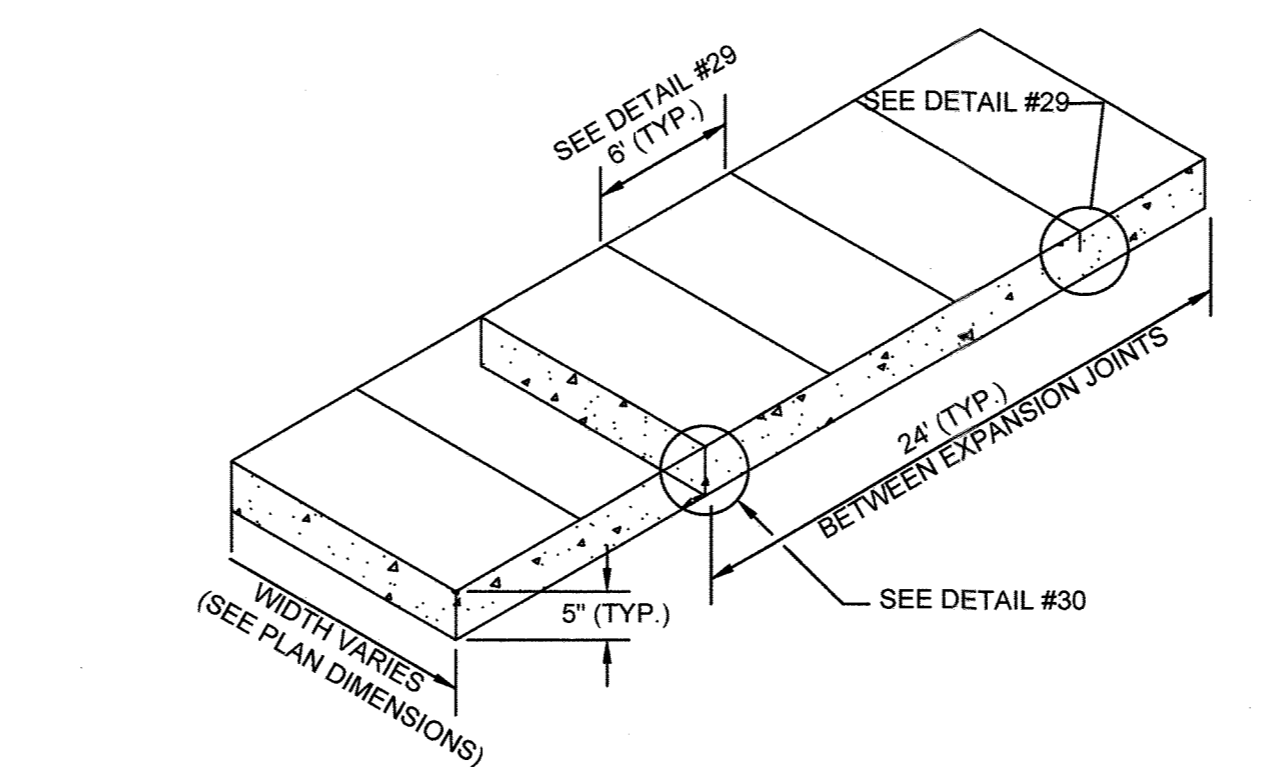
No "AS-BUILT" information on this sheet.
 JOHN KAUPILLA
 01/24/2022



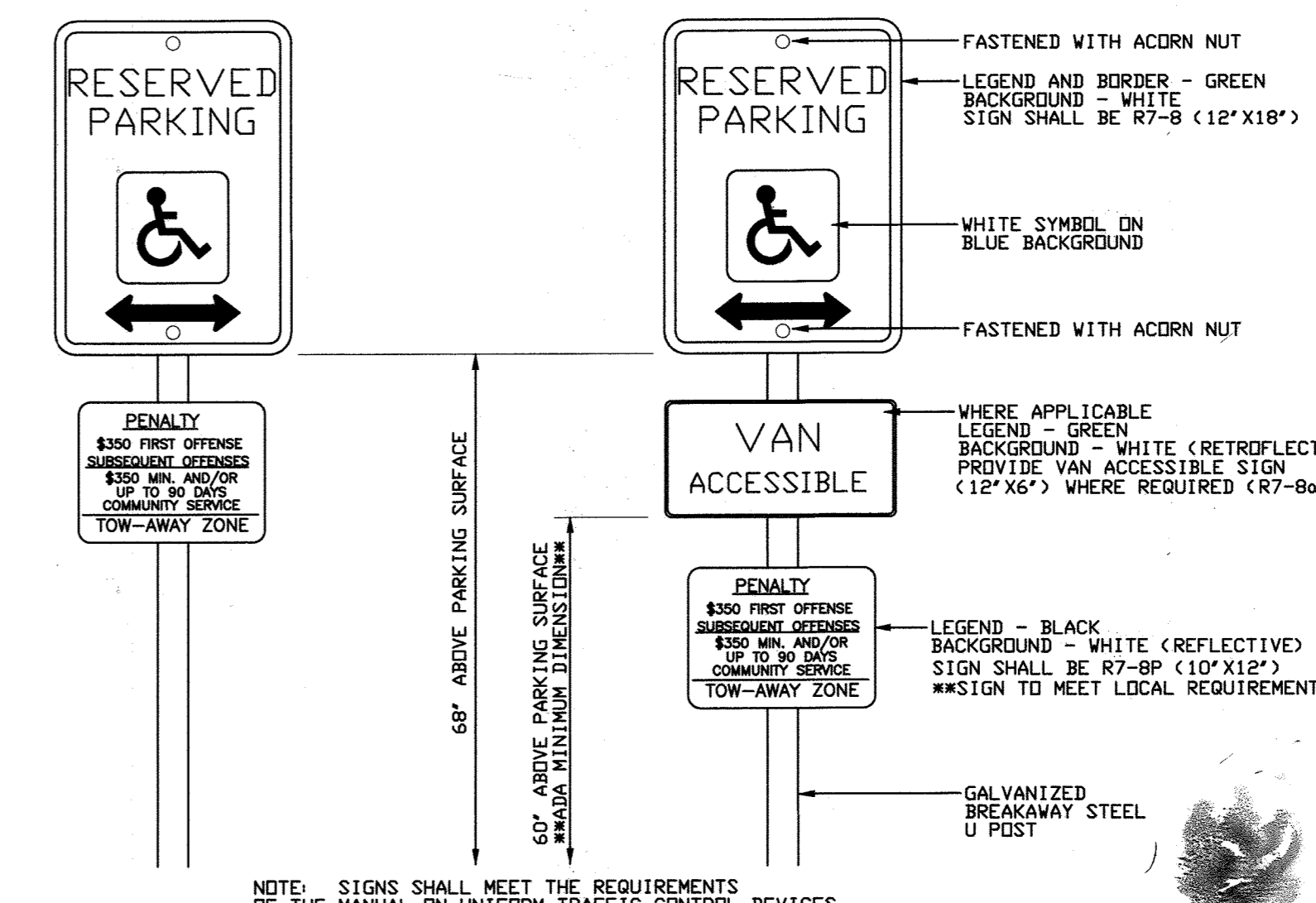
29 FLUSH CONCRETE CURB DETAIL
 NOT TO SCALE



31 EXPANSION JOINTS
 NOT TO SCALE



32 SIDEWALK DETAIL
 NOT TO SCALE



33 ADA PARKING SIGN
 NOT TO SCALE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 11/9/20
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DATE: 11/12/20
 CHIEF, DIVISION OF LAND DEVELOPMENT

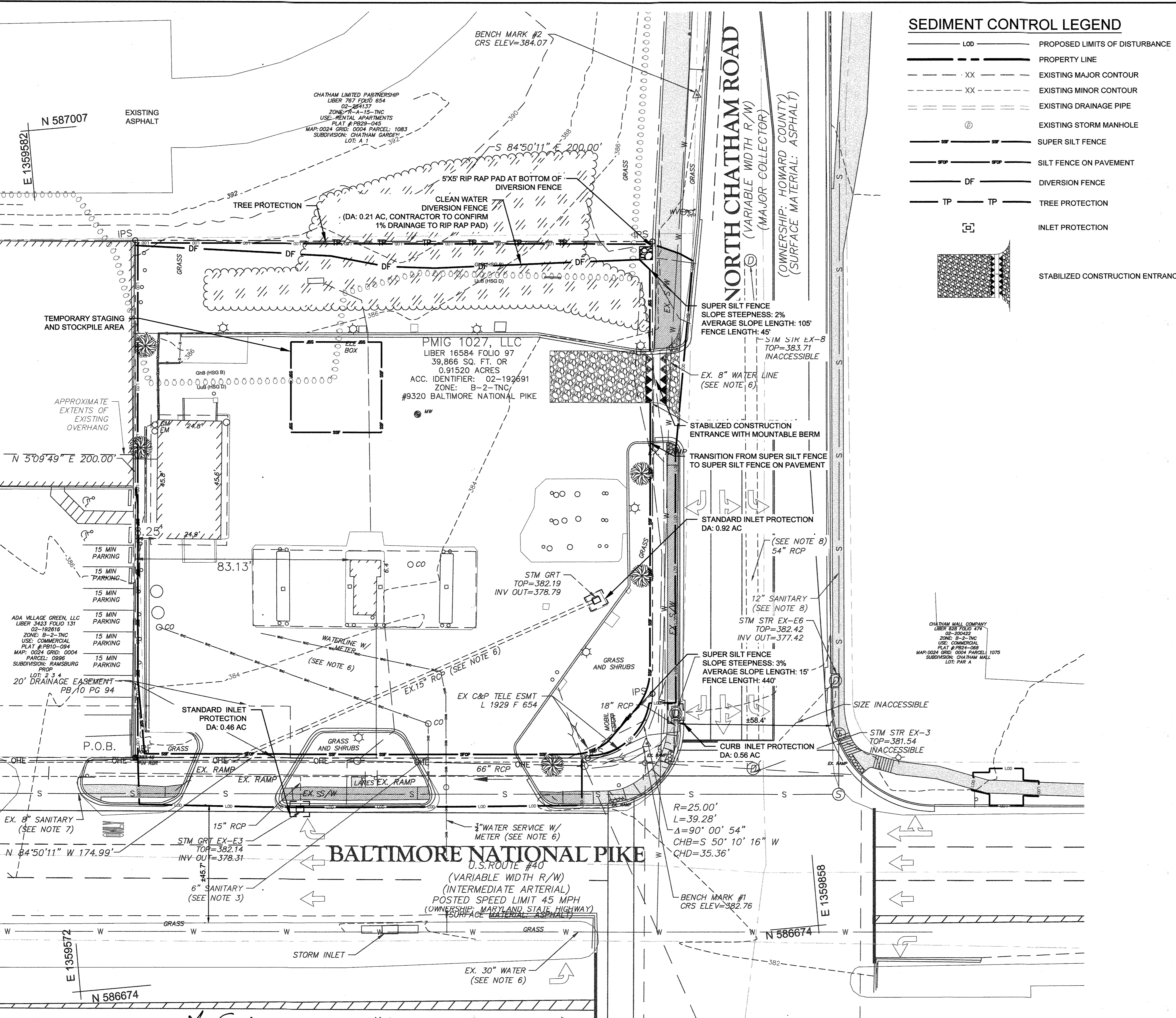
DATE: 11-18-20
 DIRECTOR

*NOTE: CONTRACTOR TO PROVIDE LATEST STANDARDS AVAILABLE AT TIME OF CONSTRUCTION

CALL 48 HOURS BEFORE YOU DIG
 IT'S THE LAW! DIAL 811
 Know what's below. Call before you dig.

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SEDIMENT CONTROL LEGEND

- LOD PROPOSED LIMITS OF DISTURBANCE
- PROPERTY LINE
- XX EXISTING MAJOR CONTOUR
- XX EXISTING MINOR CONTOUR
- EXISTING DRAINAGE PIPE
- EXISTING STORM MANHOLE
- SUPER SILT FENCE
- SILT FENCE ON PAVEMENT
- DF DIVERSION FENCE
- TP TP TREE PROTECTION
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE

SEQUENCE OF CONSTRUCTION-INITIAL PHASE

1. OBTAIN ALL NECESSARY PERMITS.
2. REQUEST A PRE-CONSTRUCTION MEETING WITH THE COUNTY INSPECTOR.
3. STAKE OUT LIMITS OF DISTURBANCE.
4. UPON WRITTEN APPROVAL FROM INSPECTOR INSTALL TREE PROTECTION, STABILIZED CONSTRUCTION ENTRANCE AND STOCKPILE AREA AND ASSOCIATED PERIMETER CONTROLS AS SHOWN ON PLAN. NO CLEARING OR GRADING IS TO BE DONE EXCEPT WHERE NECESSARY FOR THE INSTALLATION OF SEDIMENT CONTROLS.
5. CONTACT INSPECTOR FOR APPROVAL PRIOR TO INSTALLATION OF REMAINING SEDIMENT CONTROL MEASURES.
6. INSTALL REMAINING SEDIMENT CONTROLS AS SHOWN ON THE PLAN AND FINISH CLEARING AND GRUBBING. DEMOLISH AND REMOVE ALL ITEMS AS SHOWN ON THE DEMOLITION PLAN. Haul all debris to an approved site. STOCKPILE TOP SOIL ON SITE IN THE AREA INDICATION ON THE PLANS AS NEEDED.
7. CONTACT THE INSPECTOR FOR APPROVAL UPON COMPLETION OF STRIPPING THE STOCKPILE OF TOPSOIL, THE CONSTRUCTION OF TEMPORARY SEDIMENT AND EROSION CONTROL FACILITIES DISPOSAL OF ALL WASTE MATERIALS AND PREPARATION OF THE GROUNDS.
8. CONTINUE TO INTERIM STAGE.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN CONTINUOUS COMPLIANCE WITH THE LATEST VERSION OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
2. ALL UTILITIES, SUCH AS: STORM DRAIN, PUBLIC WATER, SANITARY SEWER, ELECTRIC POWER, TELEPHONE, CABLE AND GAS LINES, THAT ARE NOT IN PAVED AREAS AND ARE NOT UNDERGOING ACTIVE GRADING SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 3 DAYS OF INITIAL DISTURBANCE.
3. THE OWNER/DEVELOPER OR THEIR DESIGNATE IS RESPONSIBLE FOR CONDUCTING ROUTINE INSPECTIONS AND REQUIRED MAINTENANCE. THE SITE AND CONTROLS SHOULD BE INSPECTED WEEKLY AND THE NEXT DAY AFTER EACH RAIN EVENT. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN A SUITABLE AREA AND SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED.
4. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
 - a. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
 - b. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

** ANY PROJECT THAT HAS A STATE ISSUED N.O.I. PERMIT MUST DOCUMENT EACH INSPECTION AND MAINTAIN AN INSPECTION LOG (PLEASE SEE THE N.O.I. FOR DETAILS.)

SOIL LEGEND

SOIL TYPE BOUNDARY	"K" VALUE	HYDROLOGIC SOIL GROUP
GhB	0.28	B
UuB	0.32	D

SEDIMENT CONTROL

Owners/Developer Certification:
 "I/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, the Howard Soil Conservation District and/or MDE."

Owner's/Developer's Signature: *Armad Kowalski* Date: 3/30/20
 Printed Name & Title: *Armad Kowalski, Development Director*

Design Certification:
 "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."

Designer's Signature: *Todd Magiera* Date: 08/11/2020
 Printed Name: TODD MAGIERA MD Registration No. 46637
 P.E., R.L.S., or R.L.A. (circle one)

Professional Certification:
 "I hereby certify 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. 46637, Expiration Date: 04/12/21
 (Title block, certification, seal, and signature shall appear close to each other)

No "AS-BUILT" information on this sheet.
 JOHN LAUPPILA
 01/24/2022

© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
 11400 COMMERCE PARK DR, SUITE 400
 RESTON, VA 20191
 CONTACT: TODD MAGIERA, P.E.
 PHONE: 703-674-1311
 WWW.KIMLEY-HORN.COM

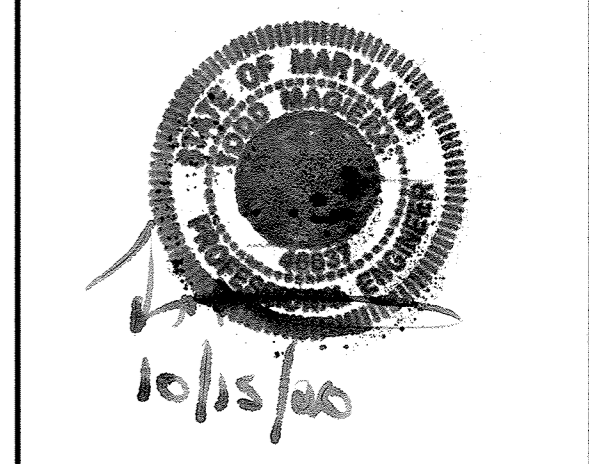
PMIG 1027, LLC
 2388 RESEARCH COURT
 WOODBRIDGE, VA 22192
 PHONE: 703-494-5800

NO.	REVISIONS	DATE	BY

9320 BALTIMORE NATIONAL PIKE
 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 24 PARCEL: 996, LOT 1
 GRID #4
 ZONING: B-2-TNC
 SECOND ELECTION DISTRICT
 ADC MAP/GRID #: 4815-06
 RECORDING REFERENCE SDP-20-018
 KHA PROJECT NO.: 114021001
 SCALE: AS SHOWN
 DATE: 08/11/2020
 DESIGNED BY: JRW
 DRAWN BY: JRW
 CHECKED BY: TM
 IMPROVEMENT DESCRIPTION:
 REDEVELOPMENT OF EXISTING GAS STATION TO PROPOSED 2,898 SF C-STORE, CANOPY, AND 6 MPD'S.

ELLCOTT CITY (STATION MD-108)
 PREPARED FOR
PMIG 1027, LLC

SITE DEVELOPMENT PLAN



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: 46637 EXP: 04/12/21

EROSION AND SEDIMENT CONTROL PLAN-INITIAL

SHEET NUMBER
8 OF 30

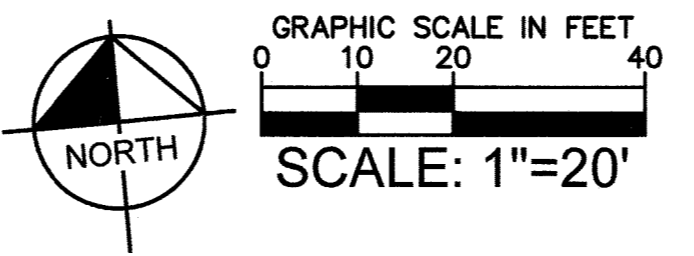
CALL 48 HOURS BEFORE YOU DIG
 IT'S THE LAW! DIAL 811
 Know what's below. Call before you dig.

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 11/9/20

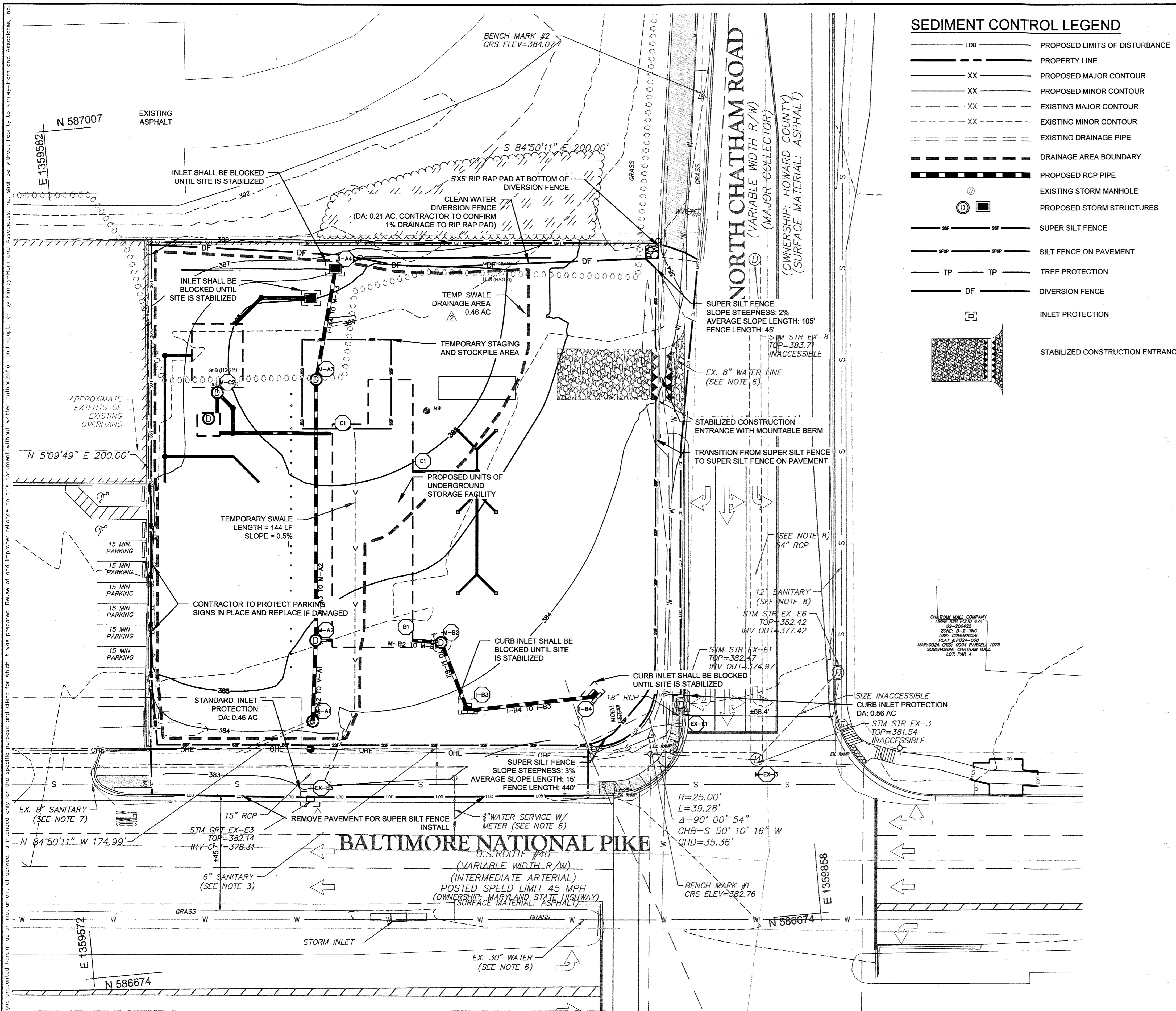
APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 11/18/20

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 11/18/20

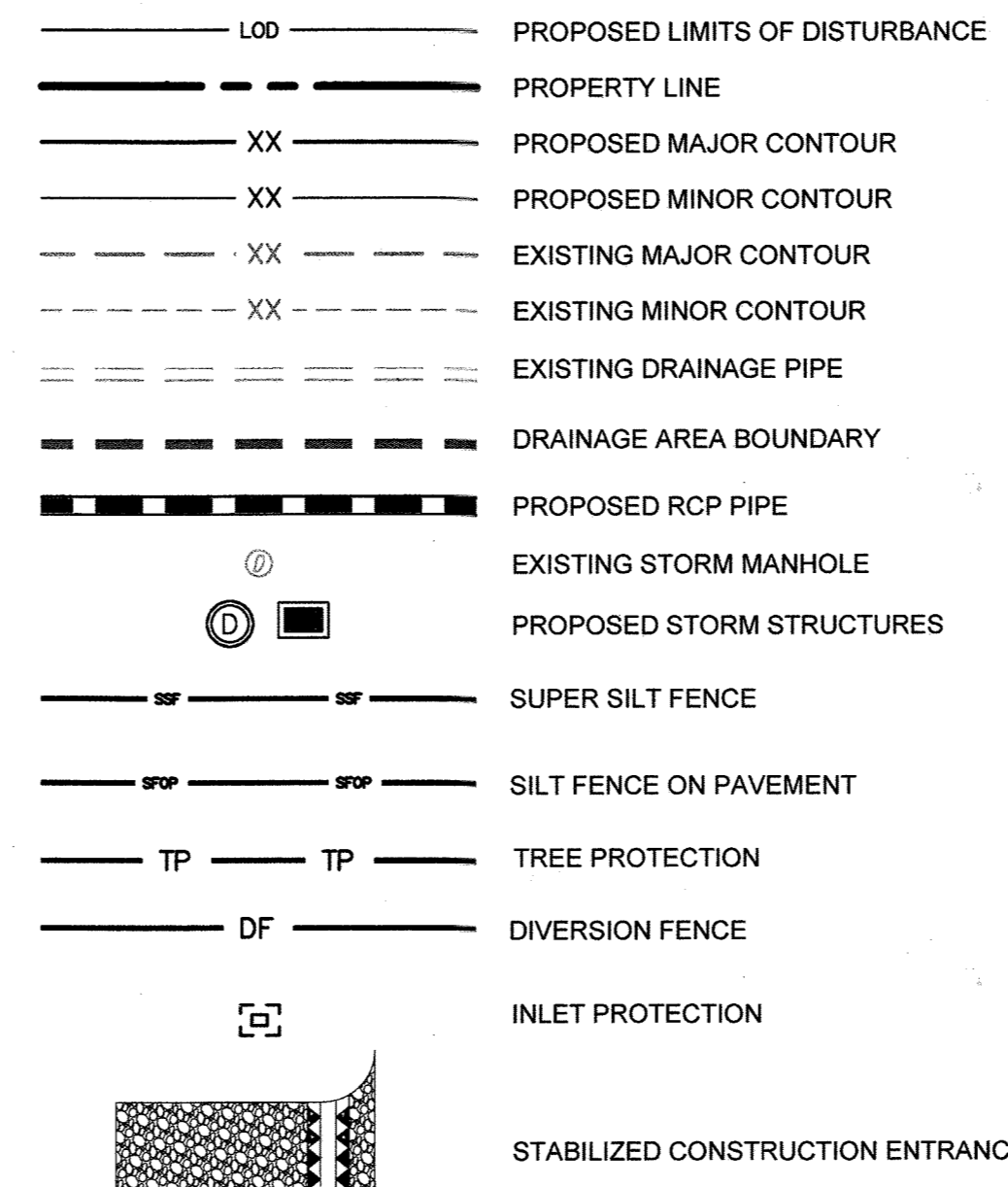
Howard SCD Signature Block:
 This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
John R. Robinson, Inc.
 Howard Soil Conservation District
 Date: 11/2/20



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SEDIMENT CONTROL LEGEND



SEQUENCE OF CONSTRUCTION-INTERIM PHASE

- INSPECT AND REPAIR EXISTING SEDIMENT CONTROL PRACTICES.
- ROUGH GRADE THE SITE AS SHOWN WITHIN THE LIMITS OF DISTURBANCE. HAUL ALL DEBRIS TO AN APPROVED SITE. MAINTAIN DRAINAGE DIVIDES DURING INTERIM GRADING. CONTACT INSPECTOR FOR APPROVAL UPON COMPLETION OF ROUGH GRADING, BUT PRIOR TO PLACING TOPSOIL, PERMANENT DRAINAGE OR OTHER SITE DEVELOPMENT IMPROVEMENTS AND GROUND COVERS.
- BEGIN UTILITY AND STORM DRAIN INSTALLATION. INSTALL SEDIMENT CONTROLS AS NEEDED TO PROTECT STORM DRAIN DURING INSTALLATION. BLOCK PROPOSED INLETS UNTIL SITE IS STABILIZED.
- CONSTRUCT PROPOSED FOUNDATION. BEGIN BUILDING CONSTRUCTION AND ASSOCIATED IMPROVEMENTS.
- PROCEED TO FINAL STAGE.

EROSION AND SEDIMENT CONTROL NOTES

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN CONTINUOUS COMPLIANCE WITH THE LATEST VERSION OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
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 - FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
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 - SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
- ** ANY PROJECT THAT HAS A STATE ISSUED N.O.I. PERMIT MUST DOCUMENT EACH INSPECTION AND MAINTAIN AN INSPECTION LOG (PLEASE SEE THE N.O.I. FOR DETAILS.)

SOIL LEGEND

SOIL TYPE BOUNDARY	"K" VALUE	HYDROLOGIC SOIL GROUP
GhB	0.28	B
UuB	0.32	D

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Owners/Developer Certification:

"I/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, the Howard Soil Conservation District and/or MDE."

Owner's/Developer's Signature: *Armand Kavianian* 3/30/20
 Printed Name & Title: Armand Kavianian, Development Director

Design Certification:

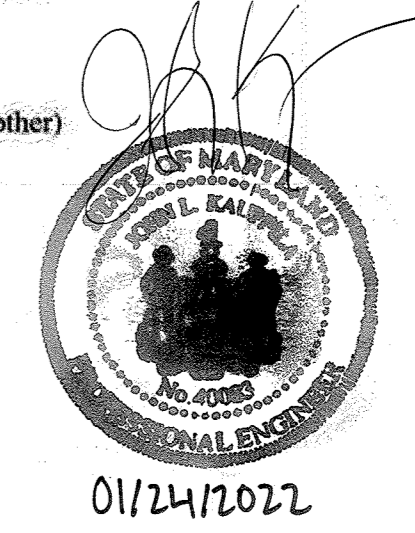
"I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements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

Designer's Signature: *Todd Magiera* 08/11/2020
 Printed Name: TODD MAGIERA MD Registration No. 46637
 P.E., R.L.S., or R.L.A. (circle one)

Professional Certification:

"I hereby certify 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. 46637, Expiration Date: 04/12/21
 (Title block, certification, seal, and signature shall appear close to each other)

No "AS-BUILT" information on this sheet.
 JOHN KAUPPILA



APPROVED: FOR PUBLIC OR PRIVATE [pick only one] WATER AND PUBLIC OR PRIVATE [pick only one] SEWERAGE SYSTEMS

County Health Officer: _____ Date: _____
 Howard County Health Department

APPROVED: DEPARTMENT OF PLANNING AND ZONING

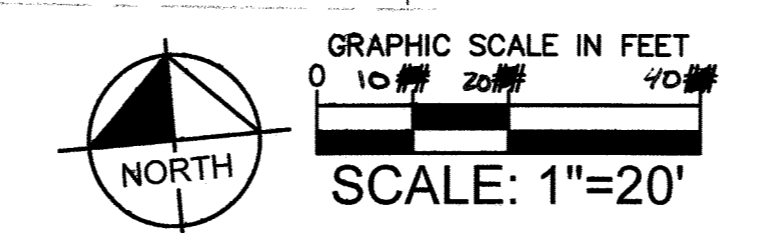
Chief, Development Engineering Division: *Allyson* 4/7/21
 Chief, Division of Land Development: _____ Date: 4/14/21
 Director: *Allyson* 4/19/21

CALL 48 HOURS BEFORE YOU DIG
 IT'S THE LAW! DIAL 811
 Know what's below. Call before you dig.

Howard SCD Signature Block:

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT

Allyson 03/29/21
 Howard SCD

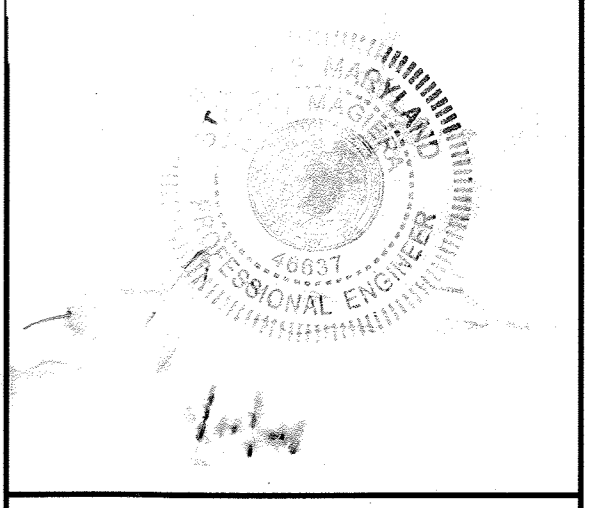


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 11400 COMMERCE PARK DR., SUITE 400
 RESTON, VA 20191
 CONTACT: TODD MAGIERA, P.E.
 PHONE: 703-674-1311
 WWW.KIMLEY-HORN.COM

NO.	REVISIONS	DATE	BY
2	REVISION 2: SWM & UTILITY UPDATES	02/02/21	JRW
1	REVISION 1: SWM UPDATES	10/30/20	JRW

9320 BALTIMORE NATIONAL PIKE
 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 24 PARCEL: 996, LOT 1
 GRID #4
 ZONING: B-2-TNC
 SECOND ELECTION DISTRICT
 ADC MAP/GRID #: 4815-G6
 RECORDING REFERENCE SDP-20-018
 KHA PROJECT NO.: 114021001
 SCALE: AS SHOWN
 DATE: 08/11/2020
 DESIGNED BY: JRW
 DRAWN BY: JRW
 CHECKED BY: TM
 IMPROVEMENT DESCRIPTION:
 REDEVELOPMENT OF EXISTING GAS STATION TO PROPOSED 2,666 SF C-STORE, CANOPY, AND 6 MPD'S.

ELLCOTT CITY (STATION MD-108)
 PREPARED FOR PMIG 1027, LLC
SITE DEVELOPMENT PLAN



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. 46637 EXP. 04/12/21

EROSION AND SEDIMENT CONTROL PLAN-INTERIM

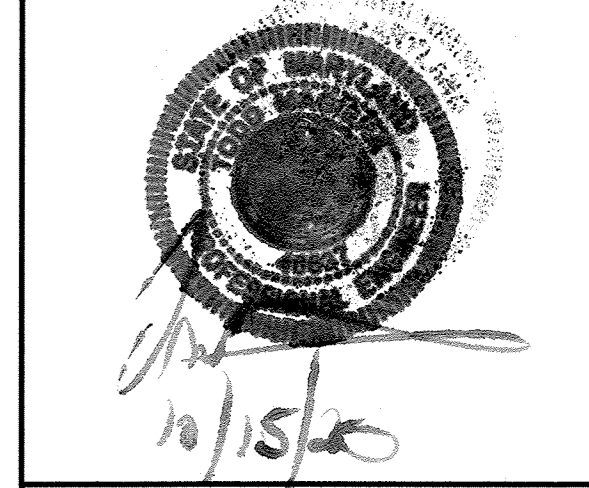
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

NO.	REVISIONS	DATE	BY

9320 BALTIMORE NATIONAL PIKE
HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL 996, LOT 1
GRID #4
ZONING: B-2-TNC
SECOND ELECTION DISTRICT
ADC MAP/GRID # 4815-G6
RECORDING REFERENCE SDP-20-018
KHA PROJECT NO.: 114021001
SCALE: AS SHOWN
DATE: 08/11/2020
DESIGNED BY: JRW
DRAWN BY: JRW
CHECKED BY: TM

**ELLCOTT CITY
(STATION
MD-108)**
PREPARED FOR
PMIG 1027, LLC

**SITE
DEVELOPMENT
PLAN**



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LICENSE NO. EXP:

**GRADING AND
EROSION AND
SEDIMENT
CONTROL
PLAN-FINAL**

SHEET NUMBER
10 OF 30

SDP-20-018

SEDIMENT CONTROL KEYNOTES

- STANDARD INLET PROTECTION (DA: 0.14 AC)
- STANDARD INLET PROTECTION (DA: 0.52 AC)
- CURB INLET PROTECTION (DA: 0.56 AC)
- CURB INLET PROTECTION (DA: 0.14 AC)
- TRANSITION FROM SUPER SILT FENCE TO SILT FENCE ON PAVEMENT
- STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM
- STANDARD INLET PROTECTION (DA: 0.47 AC)
- CURB INLET PROTECTION (DA: 0.11 AC)

GRADING LEGEND

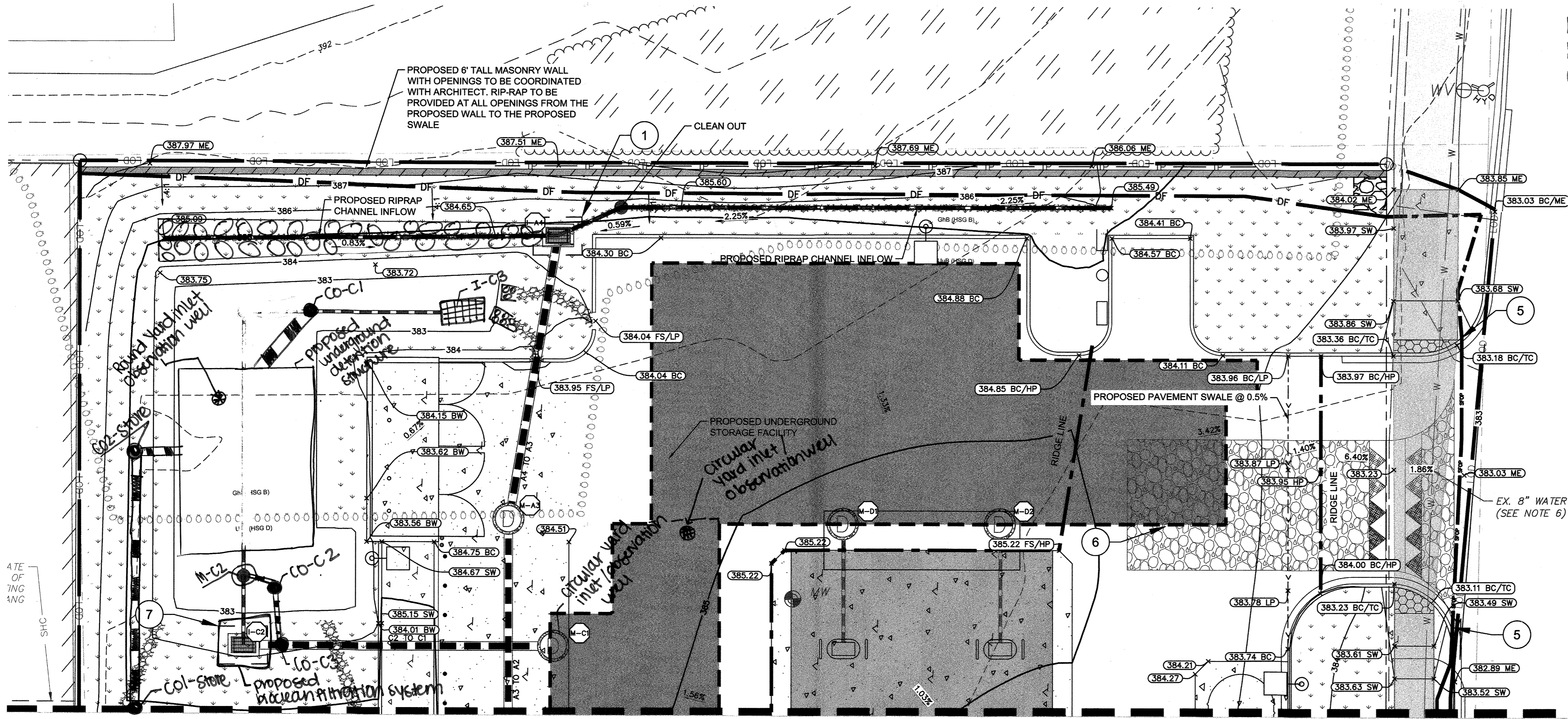
- LOO PROPOSED LIMITS OF DISTURBANCE
- XX PROPOSED MAJOR CONTOUR
- XX PROPOSED MINOR CONTOUR
- XX EXISTING MAJOR CONTOUR
- XX EXISTING MINOR CONTOUR
- X.XX PROPOSED SLOPE
- XXX.XX PROPOSED SPOT ELEVATION
- EXISTING DRAINAGE PIPE
- PROPOSED RCP PIPE
- PROPOSED ADA ROUTE
- PROPOSED UNDERGROUND STORAGE FACILITY (ADS STORMTECH SC-740 CHAMBER)
- EXISTING STORM MANHOLE
- PROPOSED STORM STRUCTURES
- SW SIDEWALK SPOT SHOT
- BC BOTTOM OF CURB SPOT SHOT
- TC TOP OF CURB SPOT SHOT
- ME MATCH EXISTING SPOT SHOT
- RIM RIM ELEVATION SPOT SHOT
- HP HIGH POINT SPOT SHOT
- LP LOW POINT SPOT SHOT

SEDIMENT CONTROL LEGEND

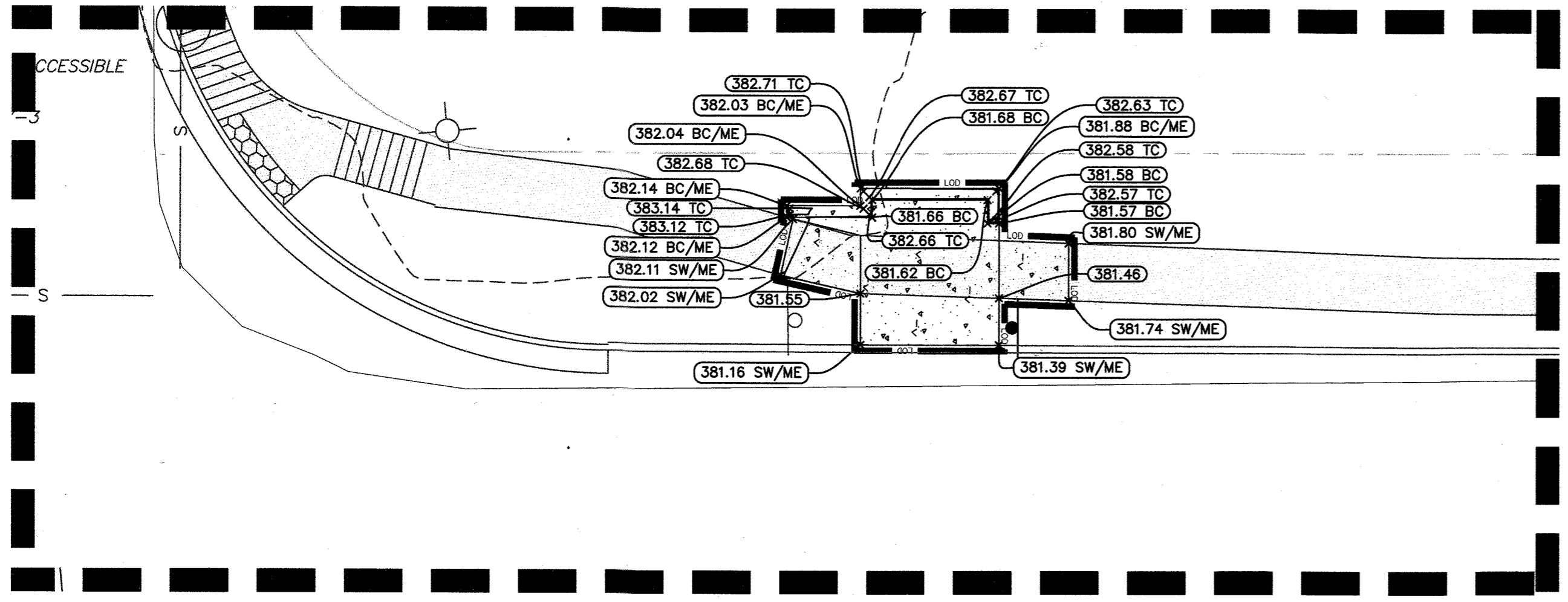
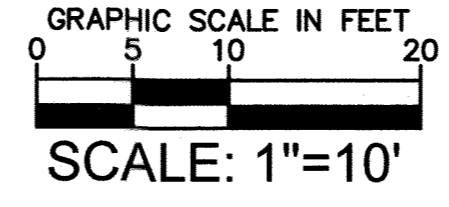
- SUPER SILT FENCE
- SILT FENCE ON PAVEMENT
- TREE PROTECTION
- TP TP
- DF DIVERSION FENCE
- RIDGE LINE
- SWALE LINE
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- PERMANENT SEEDING STABILIZATION

SOIL LEGEND

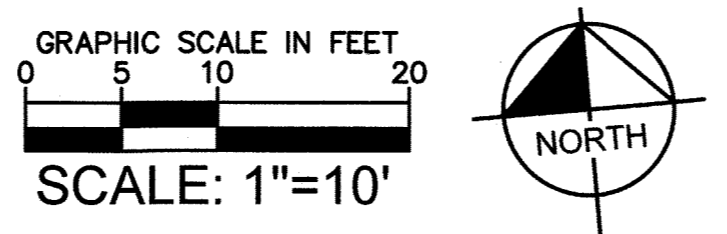
SOIL TYPE BOUNDARY	"K" VALUE	HYDROLOGIC SOIL GROUP
GhB	0.28	B
UuB	0.32	D



MATCHLINE A: SEE SHEET 10 OF 27



BUS RELOCATION GRADING ENLARGEMENT



Owners/Developer Certification:

"I/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, the Howard Soil Conservation District and/or MDE."

Owner's/ Developer's Signature: *Armed Kaurian*
Date: 3/30/20
Printed Name & Title: *Armed Kaurian, Development Director*

Design Certification:

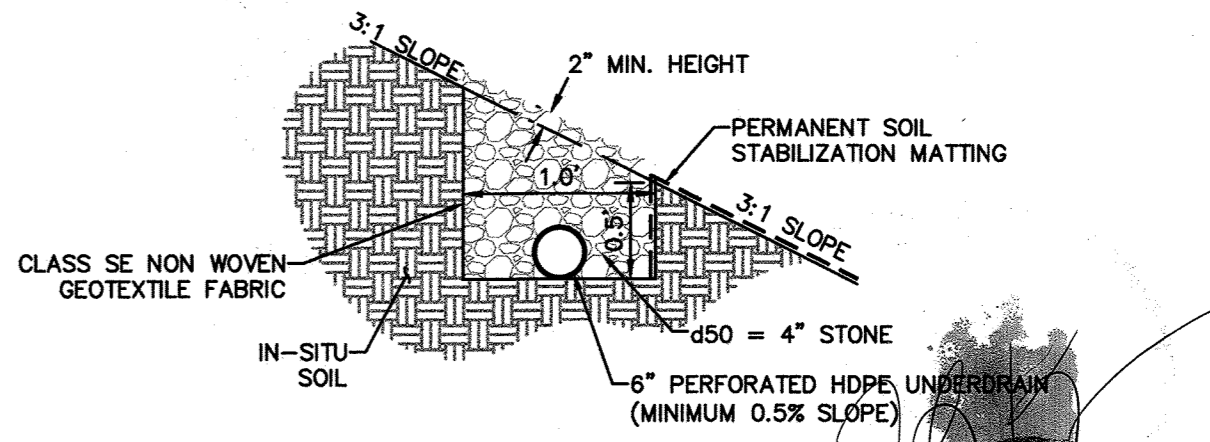
"I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements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

Designer's Signature: *Todd Magiera*
Date: 08/11/2020
Printed Name: TODD MAGIERA
MD Registration No. 46637
P.E., R.L.S., or R.L.A. (circle one)

Professional Certification:

"I hereby certify 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. 46637, Expiration Date: 04/12/21"

(Title block, certification, seal, and signature shall appear close to each other)



**1 RIPRAP CHANNEL INFLOW
NOT TO SCALE**

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan meet the Approved Plans and Specifications. JOHN KAUPILA
01/24/2022

APPROVED: *Stacy Gove* 11-13-20
DIRECTOR DATE
FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT DATE
APPROVED: *John Kaupila* 11-9-20
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
APPROVED: *John Kaupila* 11/13/20
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Howard SCD Signature Block:
This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
John L. Robertson 11/2/20
Howard Soil Conservation District DATE

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
Know what's below. Call before you dig.

MATCHLINE A: SEE SHEET 9 OF 27

Table with columns: No., REVISIONS, DATE, BY. Includes revision 1: SWM UPDATES 10/30/20 JRW and revision 2: SWM & UTILITY UPDATES 02/02/21 JRW.

9320 BALTIMORE NATIONAL PIKE HOWARD COUNTY, MARYLAND TAX MAP NO. 24 PARCEL: 996, LOT 1 GRID #4 ZONING: B-2-TNC SECOND ELECTION DISTRICT ADC MAP/GRID #: 4815-G6 RECORDING REFERENCE SDP-20-018 KHA PROJECT NO.: 114021001 SCALE: AS SHOWN DATE: 08/11/2020 DESIGNED BY: JRW DRAWN BY: JRW CHECKED BY: TM IMPROVEMENT DESCRIPTION: REDEVELOPMENT OF EXISTING GAS STATION TO PROPOSED 2,666 SF C-STORE, CANOPY, AND 6 MPD'S.

ELLCOTT CITY (STATION MD-108) PREPARED FOR PMIG 1027, LLC

SITE DEVELOPMENT PLAN



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. EXP.

DETAILED GRADING AND SEDIMENT CONTROL PLAN

GRADING NOTES

- 1. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY UNLESS OTHERWISE SPECIFIED.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
3. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT. DATUM NAD 83.
4. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
5. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
6. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE EPA OR APPLICABLE STATE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
7. PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
8. EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
9. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
10. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.
11. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
12. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
13. TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY MASER CONSULTING, P.A. DATED OCTOBER 28, 2016. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
14. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
15. CONTRACTOR TO MATCH EXISTING GRADE AT PROJECT PROPERTY LINES AND LIMITS OF DISTURBANCE.
16. CONTRACTOR TO DEFER TO MDOT SHA STANDARDS FOR SUBSURFACE PREPARATION IN PUBLIC STREETS, MEDIAN OPENINGS, AND TURN LANES.
17. NO GRADED SLOPE SHALL EXCEED 3H:1V.
18. ALL ORGANICS AND TOP SOIL SHALL BE REMOVED FROM THE ENTIRE FOOTPRINT.
19. SIDE WALK/SHOULDER GRADE AND CROSS SLOPE IS TO A MAXIMUM OF 1/4" PER LF (2% PER ADA).

SEQUENCE OF CONSTRUCTION-FINAL PHASE

- 1. INSPECT AND REPAIR EXISTING EROSION AND SEDIMENT CONTROL PRACTICES.
2. COMPLETE FINE GRADING, TEMPORARILY STABILIZE STORMWATER AREAS & PERMANENTLY ALL OTHER AREAS.
3. COMPLETE PAVING UP TO BASE COURSE, OMITTING FINAL WEARING COURSE.
4. UPON STABILIZATION OF ALL CONTRIBUTING DRAINAGE AREAS, INSTALL STORMWATER MANAGEMENT FACILITIES AND/OR PLANTINGS. (SEDIMENT IS TO BE PREVENTED FROM ENTERING SWM SYSTEMS DURING CONSTRUCTION. INFLOW PIPES TO BE CONNECTED UPON STABILIZATION OF ALL CONTRIBUTING DRAINAGE AREAS.) THE ENGINEER OF RECORD MUST CERTIFY SWM INSTALLATION.
5. UPON INSTALLATION OF ALL STORMWATER MANAGEMENT FACILITIES, PERMANENTLY STABILIZE ALL DISTURBED AREAS.
6. COMPLETE UTILITY INSTALLATION.
7. STABILIZE ANY AREAS DISTURBED DURING REMOVAL.
8. COMPLETE FINAL WEARING COURSE AND PAVING.
9. COMPLETE STRIPING AND SIGNAGE.
10. WITH INSPECTOR APPROVAL, REMOVE SEDIMENT AND EROSION CONTROL MEASURES AND PERMANENTLY STABILIZE.

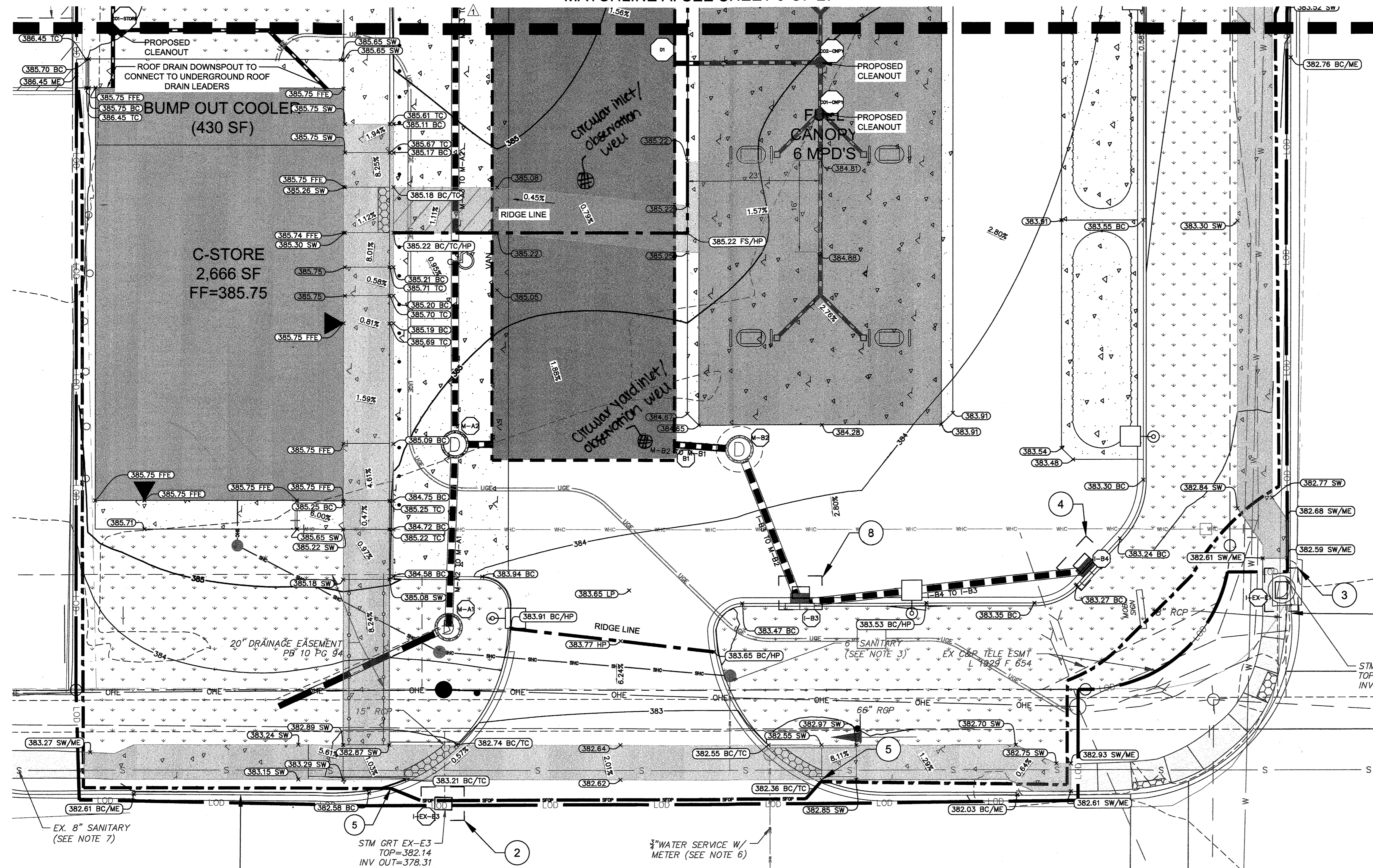
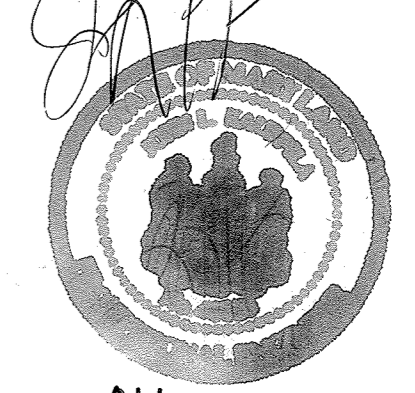
EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN CONTINUOUS COMPLIANCE WITH THE LATEST VERSION OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
2. ALL UTILITIES, SUCH AS: STORM DRAIN, PUBLIC WATER, SANITARY SEWER, ELECTRIC POWER, TELEPHONE, CABLE AND GAS LINES, THAT ARE NOT IN PAVED AREAS AND ARE NOT UNDERGOING ACTIVE GRADING SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 3 DAYS OF INITIAL DISTURBANCE.
3. THE OWNER/DEVELOPER OR THEIR DESIGNATE IS RESPONSIBLE FOR CONDUCTING ROUTINE INSPECTIONS AND REQUIRED MAINTENANCE. THE SITE AND CONTROLS SHOULD BE INSPECTED WEEKLY AND THE NEXT DAY AFTER EACH RAIN EVENT. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN A SUITABLE AREA AND SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED.
4. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
a. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
b. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

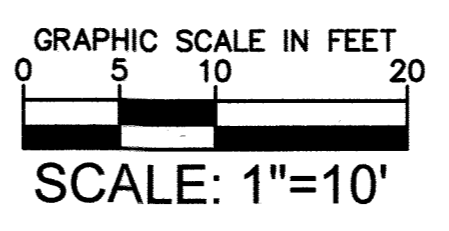
** ANY PROJECT THAT HAS A STATE ISSUED N.O.I. PERMIT MUST DOCUMENT EACH INSPECTION AND MAINTAIN AN INSPECTION LOG (PLEASE SEE THE N.O.I. FOR DETAILS.)

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan meet the Approved Plans and Specifications.

JOHN KAUPPILA



BALTIMORE NATIONAL PIKE U.S. ROUTE #40 (VARIABLE WIDTH R/W) (INTERMEDIATE ARTERIAL) POSTED SPEED LIMIT 45 MPH



APPROVED: FOR PUBLIC OR PRIVATE [pick only one] WATER AND PUBLIC OR PRIVATE [pick only one] SEWERAGE SYSTEMS. County Health Officer, Howard County Health Department. APPROVED: DEPARTMENT OF PLANNING AND ZONING. Chief, Development Engineering Division, Date: 4/7/21. Chief, Division of Land Development, Date: 4/14/21. Director, Date: 4/19/21.

SEEDMENT CONTROL. I hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including implementing 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 of erosion and sediment prior to beginning the project. I hereby agree to accept the periodic on-site inspections by Howard County, the Howard Soil Conservation District and/or MDE.

Design Certification: I hereby certify that this plan has been designed in accordance with current Maryland and applicable federal, state, regulations and standards, that it represents a practical and suitable plan based on my personal knowledge of the site, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 46637, Expiration Date: 04/12/21. Designated by: TODD MAGIERA, P.E. Date: 08/11/2020. MDE Registration No. 46637. P.E. License No. 46637, State of Maryland.

Professional Certification: I hereby certify 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. 46637, Expiration Date: 04/12/21. (This block, certification, seal, and signature shall appear clear to each other). Howard County Signature Block: This plan is approved for all erosion and sediment control by the Howard Soil Conservation District. Date: 03/24/21. Howard Soil Conservation District.

CALL 48 HOURS BEFORE YOU DIG 811 IT'S THE LAW! DIAL 811 Know what's below. Call before you dig.

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**HOWARD SOIL CONSERVATION DISTRICT (HSCD)
STANDARD SEDIMENT CONTROL NOTES**

- A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-315-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48-hour notice to CID must be given at the following stages:
 - Prior to the start of earth disturbance,
 - Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading.
 - Prior to the start of another phase of construction or opening of another grading unit,
 - Prior to the removal or modification of sediment control practices.

Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made. Other related state and federal permits shall be referenced, to ensure coordination and to avoid conflicts with this plan.
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3) calendar days to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, for topsoil (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. B-4-1) specifications shall be enforced in areas with >15° of cut and/or fill. Stockpiles (Sec. B-4-8) in excess of 20 ft. must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).
- All sediment control structures are to remain in place, and are to be maintained in operative condition until permission for their removal has been obtained from the CID.
- Site Analysis:

Total Area of Site:	0.915	Acres
Area Disturbed:	1.04	Acres
Area to be roofed or paved:	0.76	Acres
Area to be vegetatively stabilized:	0.29	Acres
Total Cut:	+/- 575	Cu. Yds.
Total Fill:	+/- 570	Cu. Yds.
Off-site waste/borrow area location:	TBD	
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly; and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:

B-4. STANDARDS AND SPECIFICATIONS

**FOR
VEGETATIVE STABILIZATION**

Using vegetation as cover to protect exposed soil from erosion.

Purpose

To promote the establishment of vegetation on exposed soil.

Conditions Where Practice Applies

On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization; and permanent stabilization.

Effects on Water Quality and Quantity

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

Adequate Vegetative Establishment

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

- Adequate vegetative stabilization requires 95 percent groundcover.
- If an area has less than 40 percent groundcover, reestablish following the original recommendations for lime, fertilizer, seedbed preparation, and seeding.
- If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates originally specified.
- Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

B.9

B. Incremental Stabilization - Fill Slopes

- Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses.
- Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading operation ceases as prescribed in the plans.
- At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
- Construction sequence example (Refer to Figure B.2):
 - Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area.
 - At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
 - Place Phase 1 fill, prepare seedbed, and stabilize.
 - Place Phase 2 fill, prepare seedbed, and stabilize.
 - Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

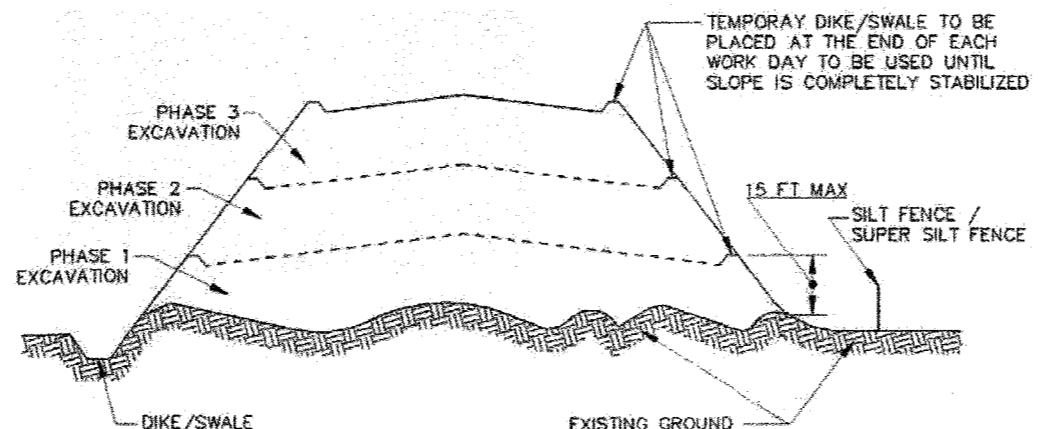


Figure B.2: Incremental Stabilization - Fill

B.11

Design Criteria

Table C.3: Temporary Swale Design Criteria

Drainage Area	Swale Design	
	Swale A	Swale B
(See Table C.4)	(See Table C.4)	(See Table C.5)
Slope of swale	(See Table C.4)	(See Table C.5)
Bottom Width of Flow Channel	4 foot minimum	6 foot minimum
Depth of Flow Channel	1 foot minimum	1 foot minimum
Side Slopes	2:1 or flatter	2:1 or flatter

- Determine the longitudinal slopes of temporary swale. Determine the drainage area to various design points along the proposed temporary swale alignments.
- Design points are located where changes in slopes and/or increases in drainage area may alter the type and stabilization of the temporary swale.
- Use Table C.4 or C.5 to select the appropriate temporary swale type (A or B) and flow channel stabilization (1, 2, or 3) for the temporary swale alignment between the design points. Flow channel stabilization (seed and mulch) is not allowed for diverting clear water.
- Review the slopes along the temporary swale alignment between the design points to ensure that the slope/drainage area relationship does not exceed the selected flow channel stabilization.
- Maintain positive drainage along the entire length of the temporary swale. Spot elevations must be provided for temporary swales having longitudinal slopes flatter than 1%.
- For drainage areas other than specified in Table C.4 or C.5, an engineering design is required.
- Show temporary swale type (A or B) and flow channel stabilization (1, 2, or 3) on the plans using the standard symbol and A-1 or B-3, etc. Temporary swale type and flow channel stabilization may vary along its length.
- Discharge velocities from a temporary swale must be non-erosive.
- Where a temporary swale is used to convey runoff from disturbed areas, the discharge must be to a sediment control practice suitable for concentrated flow. Silt fence and super silt fence are unacceptable for receiving discharges from temporary swale.
- Where a temporary swale is used to convey clear water runoff, the discharge must be to an undisturbed, stable area at a non-erosive velocity (4 fps), otherwise, provide outlet protection.
- When a temporary swale is used in conjunction with a sediment trapping device, sequence construction so that the temporary swale installation follows completion of the sediment trapping device(s).

Owners/Developer Certification:

"I/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, the Howard Soil Conservation District and/or MDE."

Owner's/Developer's Signature: *Armand Keenan, Development Director*
Date: 3/30/20

Design Certification:

"I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, and 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."

Designer's Signature: *Todd Magiera*
Date: 08/11/2020
Printed Name: TODD MAGIERA
MD Registration No. 46637
P.E. R.L.S., or R.L.A. (circle one)

Professional Certification:

"I hereby certify 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. 46637, Expiration Date: 04/12/21

(Title block, certification, seal, and signature shall appear close to each other)

Kimley»Horn

© 2020 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DR, SUITE 400
RESTON, VA 20191
CONTACT: TODD MAGIERA, P.E.
PHONE: 703-674-1311
WWW.KIMLEY-HORN.COM

PMIG 1027, LLC
2359 RESEARCH COURT
WOODBRIIDGE, VA 22192
PHONE: 703-494-5800

NO.	REVISIONS	DATE
1	REVISION 1: SWM UPDATES	10/30/20
2	REVISION 2: SWM & UTILITY UPDATES	02/02/21

9320 BALTIMORE NATIONAL PIKE
HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL: 996, LOT 1
GRID #4
ZONING: B-2-TNC
SECOND ELECTION DISTRICT
ADC MAP/GRID #: 4815-G6
RECORDING REFERENCE SDP-20-018

KHA PROJECT NO.: 114021001

SCALE: AS SHOWN

DATE: 08/11/2020

DESIGNED BY: JRW

DRAWN BY: JRW

CHECKED BY: TM

IMPROVEMENT DESCRIPTION:
REDEVELOPMENT OF EXISTING GAS STATION TO PROPOSED 2,895 SF C-STORE, CANOPY, AND 6 MPD'S.

**ELLCOTT CITY
(STATION MD-108)**
PREPARED FOR
PMIG 1027, LLC

SITE DEVELOPMENT PLAN



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. 46637 EXP. 04/12/21

SEDIMENT CONTROL NOTES AND DETAILS 1

SHEET NUMBER
12 OF 30
Revised Sheet
SDP-20-018

This document, together with the concepts and designs presented herein, is an instrument of service, an instrument of contract, and an instrument of agreement, and shall be held in full force and effect by the parties hereto. It is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
Know what's below. Call before you dig.

APPROVED: FOR PUBLIC OR PRIVATE (pick only one) WATER AND PUBLIC OR PRIVATE (pick only one) SEWERAGE SYSTEMS

County Health Officer: _____ Date: _____
Howard County Health Department

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: *Todd Magiera* Date: 4/7/21

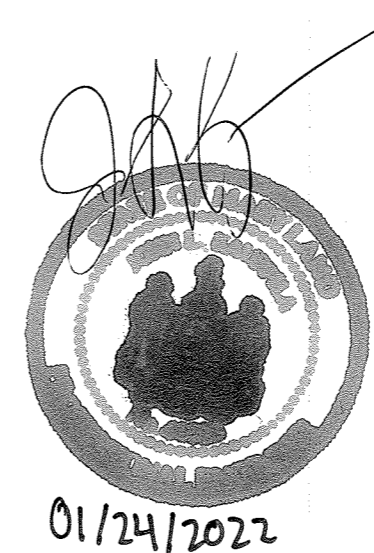
Chief, Division of Land Development: _____ Date: 4/19/21

Director: *John Kauppila* Date: 4/19/21

Howard SCD Signature Block:

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT

Alexander Bratchko 03/29/21
Howard SCD Date



No "AS-BUILT" information in this sheet.
JOHN KAUPPILA

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

DETAIL E-9-3 CURB INLET PROTECTION

CONSTRUCTION SPECIFICATIONS

- USE NOMINAL 2 INCH X 4 INCH LUMBER.
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
- ATTACH A CONTINUOUS PIECE OF 1/4 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.
- 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.
- 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.
- INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
- FORM THE HARDWARE CLOTH AND THE 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.
- AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
- 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.

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, E.27

DETAIL E-2 SILT FENCE ON PAVEMENT

CONSTRUCTION SPECIFICATIONS

- USE NOMINAL 2 INCH X 4 INCH LUMBER.
- USE WOVEN SILT FILM GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- 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.
- SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
- PROVIDE A TWO FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER GEOTEXTILE.
- KEEP SILT FENCE TAUT AND SECURELY FASTEN TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER 2x4.
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL, ATTACH LATHE.
- PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT-LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.
- SECURE BOARDS TO PAVEMENT WITH 400 5/8 INCH NAIL LENGTH NAILS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BUILDS 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.

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, E.5

DETAIL E-9-1 STANDARD INLET PROTECTION

CONSTRUCTION SPECIFICATIONS

- USE WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
- FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2x4 FRAME AS SHOWN. STRETCH 1/4 INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTEN TO THE POST.
- FOR TYPE B, USE 2 3/8 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH. DRIVE A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
- BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
- 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.

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, E.25

DETAIL E-9-1 STANDARD INLET PROTECTION

CONSTRUCTION SPECIFICATIONS

- USE WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
- FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2x4 FRAME AS SHOWN. STRETCH 1/4 INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTEN TO THE POST.
- FOR TYPE B, USE 2 3/8 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH. DRIVE A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
- BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
- 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.

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, E.25

DETAIL C-2 TEMPORARY SWALE

CONSTRUCTION SPECIFICATIONS

- REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF TEMPORARY SWALE.
- EXCAVATE OR SHAPE TEMPORARY SWALE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
- STABILIZE TEMPORARY SWALE WITHIN THREE DAYS OF INSTALLATION. STABILIZE SWALES USED FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
- CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
- PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP TEMPORARY SWALE AND POINT OF DISCHARGE FREE OF EROSION, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
- UPON REMOVAL OF TEMPORARY SWALE, GRADE AREA FLUSH WITH EXISTING GROUND, WITHIN 24 HOURS OF REMOVAL. STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

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, E.24

DETAIL C-8 MOUNTABLE BERM

CONSTRUCTION SPECIFICATIONS

- USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE.
- PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND PRIOR TO PLACING STONE.
- PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE MOUNTABLE BERM.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.

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, C.24

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

CONSTRUCTION SPECIFICATIONS

- 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 LOTS). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE TO 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE. MAINTAIN POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 2:1 SLOPES 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.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- 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.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, 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, B.2

DETAIL E-3 SUPER SILT FENCE

CONSTRUCTION SPECIFICATIONS

- INSTALL 2 3/8 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
- FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 3/8 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- STRETCH WOVEN SILT FILM 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 8 INCHES INTO THE GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- 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.
- PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BUILDS 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, E.7

PERMANENT TREE PROTECTION DETAIL (TREE WELL)

PERMANENT TREE PROTECTION DETAIL (GROUND LOWERING)

NOTE: (WHEN FINISHED GRADE IS GREATER THAN 8" BELOW EXISTING GRADE)
1. PRUNE BRANCHES OF TREE AS REQUIRED TO COMPENSATE FOR LOST ROOTS.
2. IF WORKER USED IN WALL CONSTRUCTION PROVIDE 1/2" MIN. HOLE 2'-0" O.C. BASE OF WALL.

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, E.7

DETAIL C-2 TEMPORARY SWALE

CONSTRUCTION SPECIFICATIONS

- REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF TEMPORARY SWALE.
- EXCAVATE OR SHAPE TEMPORARY SWALE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
- STABILIZE TEMPORARY SWALE WITHIN THREE DAYS OF INSTALLATION. STABILIZE SWALES USED FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
- CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
- PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP TEMPORARY SWALE AND POINT OF DISCHARGE FREE OF EROSION, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
- UPON REMOVAL OF TEMPORARY SWALE, GRADE AREA FLUSH WITH EXISTING GROUND, WITHIN 24 HOURS OF REMOVAL. STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

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, E.24

NO.	DATE	REVISIONS
1	10/30/20	JRW
2	02/07/21	JRW
3	10/30/20	JRW
4	10/30/20	JRW

9320 BALTIMORE NATIONAL PIKE
HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL 996, LOT 1
GRID #4
ZONING: B-2-TNC
SECOND ELECTION DISTRICT
ADC MAP/GRID #: 4815-G6
RECORDING REFERENCE SDP-20-018

KHA PROJECT NO.: 114021001
SCALE: AS SHOWN
DATE: 08/11/2020
DESIGNED BY: JRW
DRAWN BY: JRW
CHECKED BY: TM

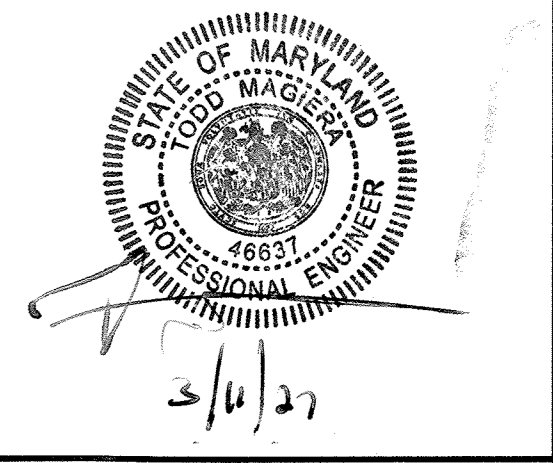
IMPROVEMENT DESCRIPTION:
REDEVELOPMENT OF EXISTING GAS
STATION TO PROPOSED 2,688 SF
C-STORE, CANOPY, AND 6 MPDS.

ELLICOTT CITY (STATION MD-108)
PREPARED FOR
PMIG 1027, LLC

SITE DEVELOPMENT PLAN

No "AS-BUILT" Information in this sheet.
JOHN KAUPPILA

[Signature]
01/24/2022



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. 46637 EXP. 04/12/21

SEDIMENT CONTROL NOTES AND DETAILS 3

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APPROVED: FOR PUBLIC OR PRIVATE [pick only one] WATER AND PUBLIC OR PRIVATE [pick only one] SEWERAGE SYSTEMS

County Health Officer
Howard County Health Department
Date: 3/30/20

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
Date: 4/7/21

Chief, Division of Land Development
Date: 4/19/21

Director

Owners/Developer Certification:

"I/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, the Howard Soil Conservation District and/or MDE."

Owner's/Developer's Signature: *Arnaud Kenyan*
Printed Name & Title: Arnaud Kenyan, Development Director

Design Certification:

"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."

Designer's Signature: *[Signature]*
TODD MAGIERA
Printed Name

Date: 08/11/2020
MD Registration No. 46637
P.E., R.L.S., or R.L.A. (circle one)

Professional Certification:

"I hereby certify 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. 46637, Expiration Date: 04/12/21"

(Title block, certification, seal, and signature shall appear close to each other)

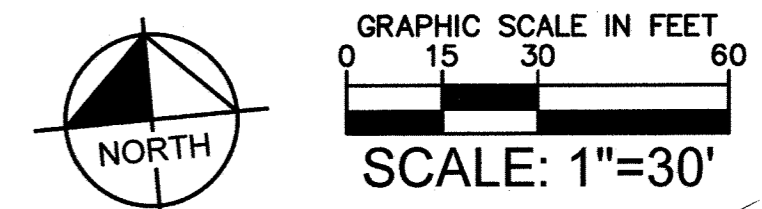
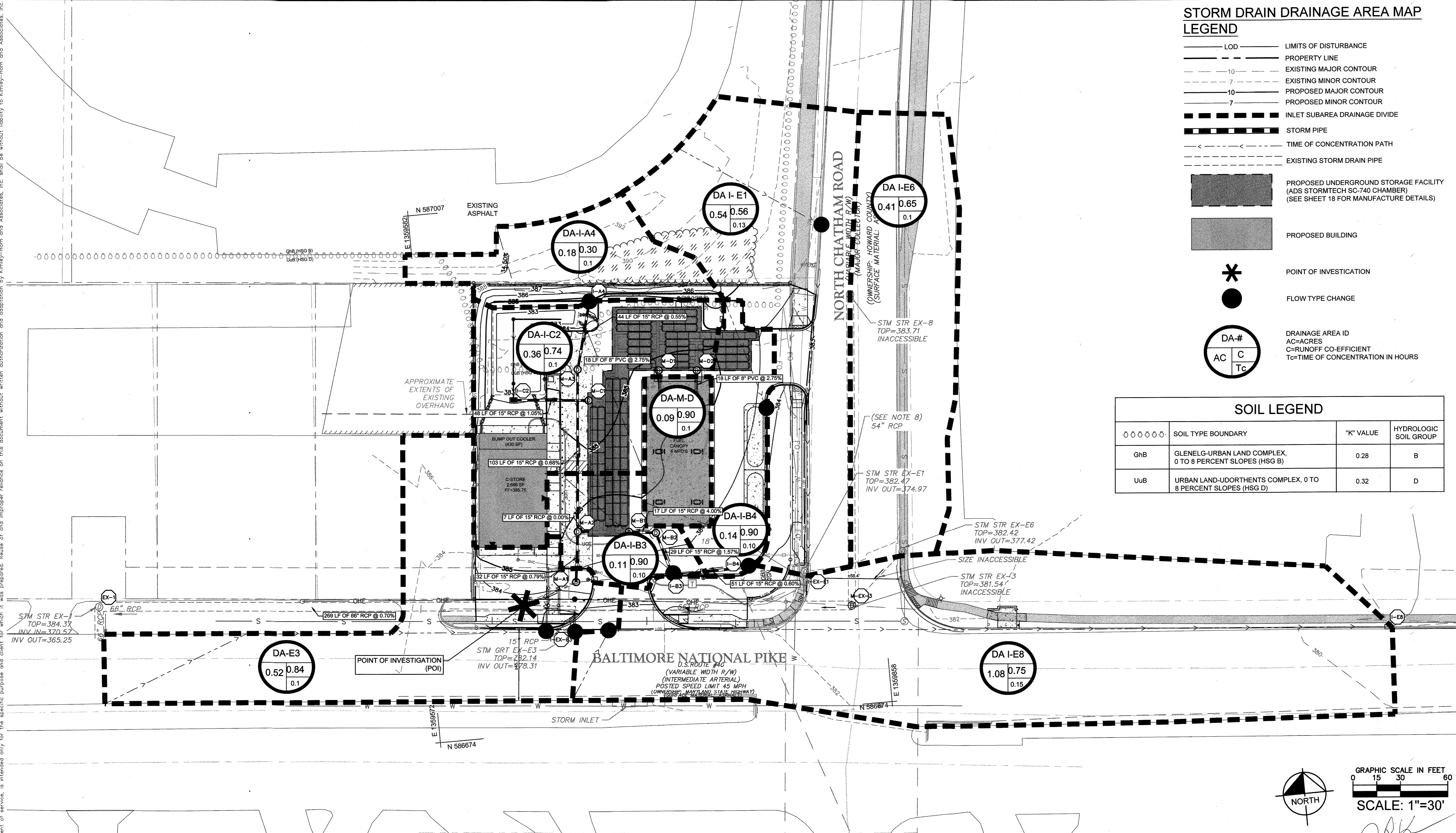
Howard SCD Signature Block:
Alexander Bratchis
Howard SCD
Date: 03/29/21

Plotted By: Graham, Joanna Sheet Set: PMG-Ellicott City-Entitlements Layout: C-40-STORM DRAIN DRAINAGE AREA MAPS October 14, 2020 10:11:02pm K:\BAL-CIV\114021-PMG\001-EllicottCity_9320BaltimoreNationalPike_CAD\PlanSheets\SDP\001-SDP.dwg
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STORM DRAIN DRAINAGE AREA MAP LEGEND

- LOD — LIMITS OF DISTURBANCE
- PROPERTY LINE
- - - EXISTING MAJOR CONTOUR
- - - EXISTING MINOR CONTOUR
- - - PROPOSED MAJOR CONTOUR
- - - PROPOSED MINOR CONTOUR
- INLET SUBAREA DRAINAGE DIVIDE
- STORM PIPE
- TIME OF CONCENTRATION PATH
- EXISTING STORM DRAIN PIPE
- PROPOSED UNDERGROUND STORAGE FACILITY (ADS STORMTECH SC-740 CHAMBER) (SEE SHEET 19 FOR MANUFACTURE DETAILS)
- PROPOSED BUILDING
- * POINT OF INVESTIGATION
- FLOW TYPE CHANGE
- DA-#
AC C
Tc

SOIL LEGEND			
SOIL TYPE BOUNDARY	"K" VALUE	HYDROLOGIC SOIL GROUP	
GhB	0.28	B	
UuB	0.32	D	



Kimley»Horn
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 11400 COMMERCE PARK DR, SUITE 400
 RESTON, VA 20191
 CONTACT: TODD MAGIERA, P.E.
 PHONE: 703-874-1311
 WWW.KIMLEY-HORN.COM

PMIG 1027, LLC
 2359 RESEARCH COURT
 WOODBRIDGE, VA 22192
 PHONE: 703-494-5800

NO.	REVISIONS	DATE	BY

9320 BALTIMORE NATIONAL PIKE
 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 24 PARCEL: 996, LOT 1
 GRID #4
 ZONING: B-2-TNC
 SECOND ELECTION DISTRICT
 ADC MAP/GRID #: 4815-G6
 RECORDING REFERENCE SDP-20-018
 KHA PROJECT NO.: 114021001
 SCALE: AS SHOWN
 DATE: 08/11/2020
 DESIGNED BY: JRW
 DRAWN BY: JRW
 CHECKED BY: TM
 IMPROVEMENT DESCRIPTION:
 REDEVELOPMENT OF EXISTING GAS
 STATION TO PROPOSED 2,666 SF
 C-STORE, CANOPY, AND 6 MPD'S.

**ELLCOTT CITY
(STATION MD-108)**
 PREPARED FOR
PMIG 1027, LLC

SITE DEVELOPMENT PLAN



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01/24/2022
 No "AS-BUILT" information in this sheet.
JOHN KAUPPILA

STORM DRAIN DRAINAGE AREA MAPS

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: _____
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 11-9-20
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 11-18-20

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SHEET NUMBER
15 OF 30

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NO.	REVISIONS	DATE
1	REVISION 1: SWM UPDATES	10/30/20
2	REVISION 2: SWM & UTILITY UPDATES	02/02/21

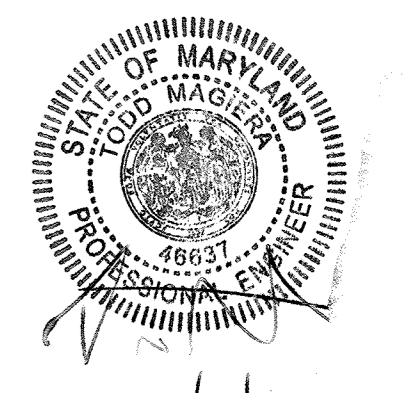
9320 BALTIMORE NATIONAL PIKE
 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 24 PARCEL 996, LOT 1
 GRID #
 ZONING: B-2-TNC
 SECOND ELECTION DISTRICT
 ADC MAP/GRID #: 4815-G6
 RECORDING REFERENCE SDP-20-018

KHA PROJECT NO.: 114021001
 SCALE: AS SHOWN
 DATE: 08/11/2020
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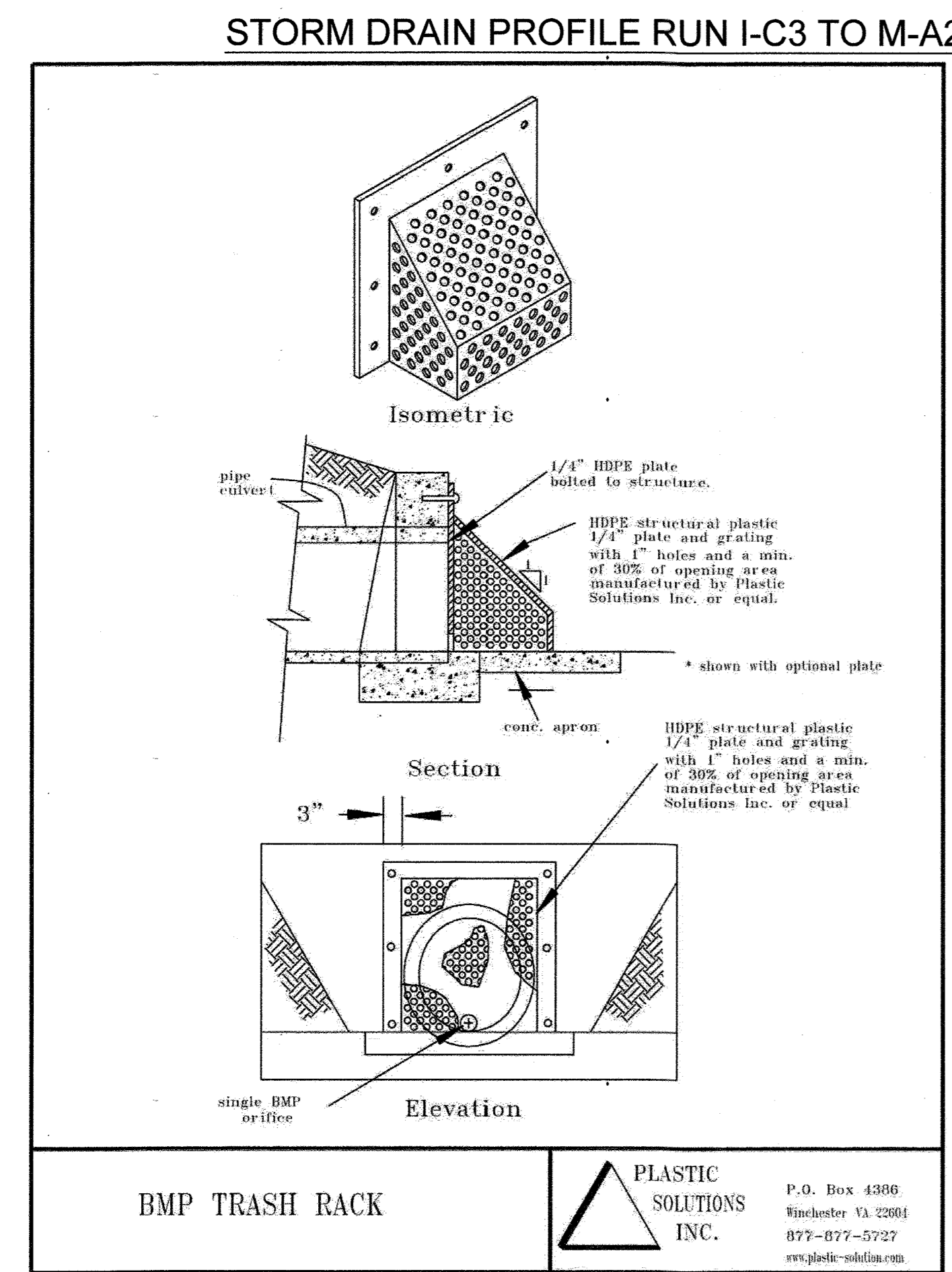
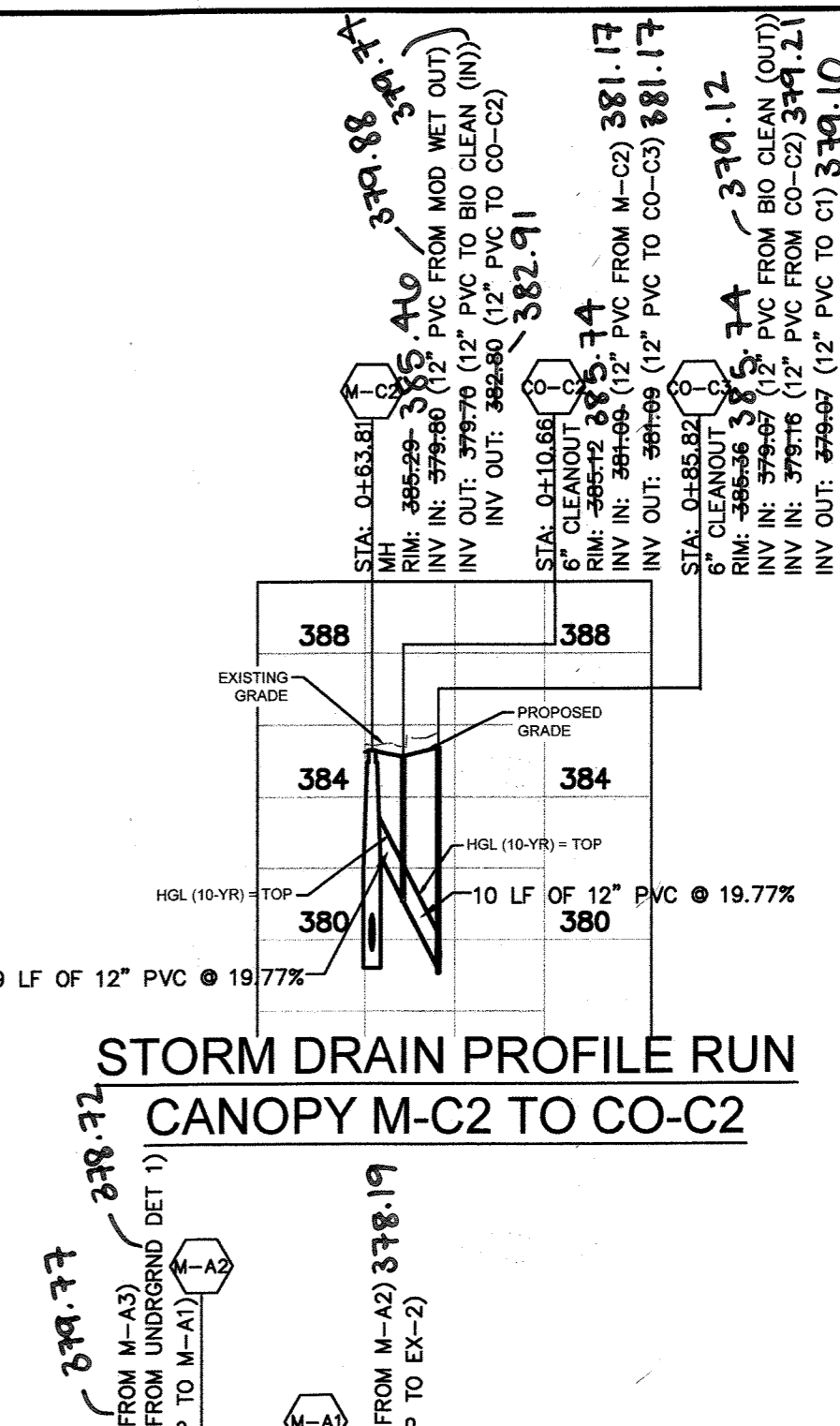
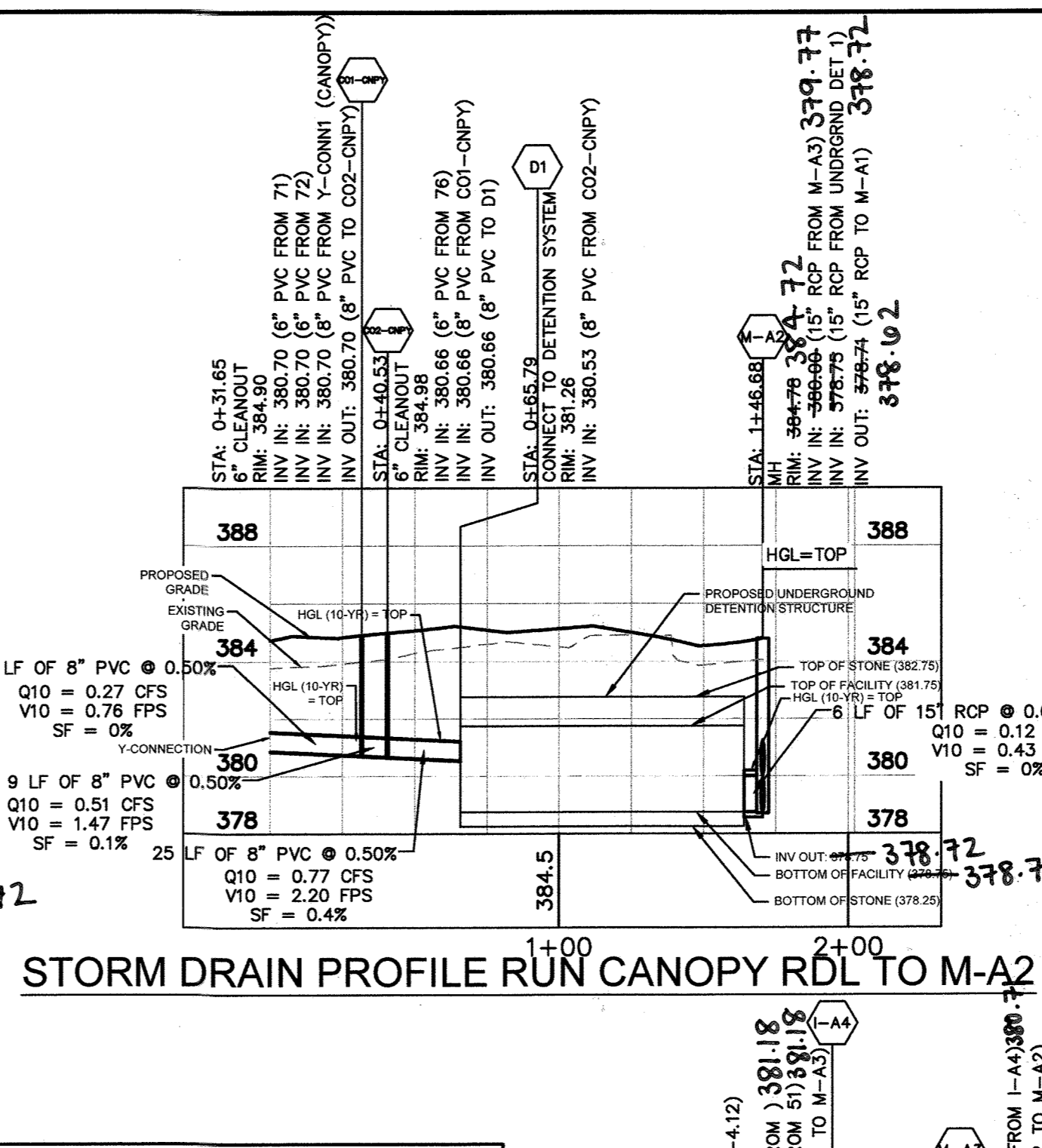
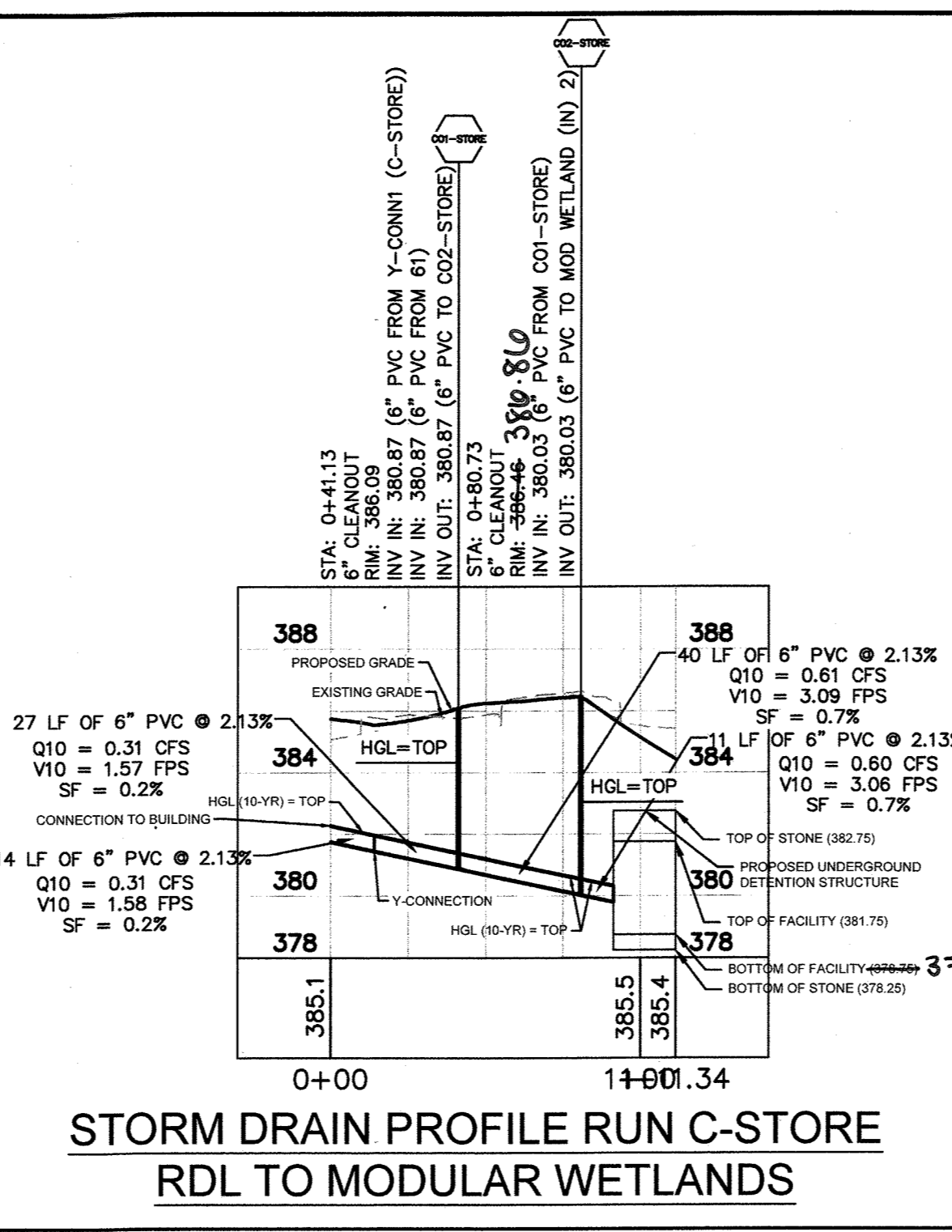
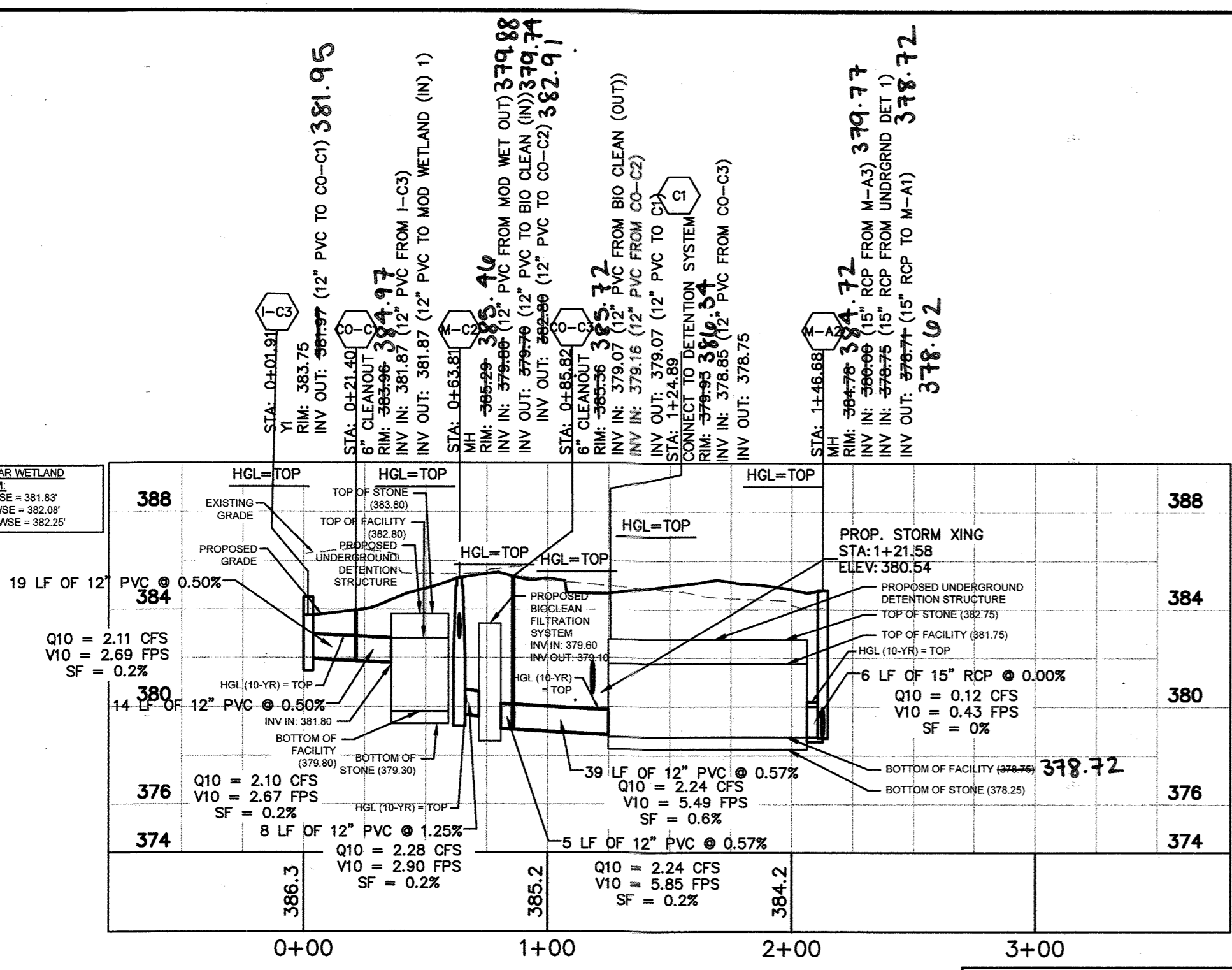
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**ELLCOTT CITY
 (STATION
 MD-108)**
 PREPARED FOR
 PMIG 1027, LLC

**SITE
 DEVELOPMENT
 PLAN**



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 LICENSE NO. EXP:



STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT:
B1	CONNECT TO DETENTION SYSTEM RIM: 380.27 INV IN: 378.75	FROM M-B2, 15" RCP INV IN: 378.75 @ 6.02%	
C1	CONNECT TO DETENTION SYSTEM RIM: 379.93 INV IN: 378.85	FROM CO-C3, 12" PVC INV IN: 378.85 @ 0.57%	
D1	CONNECT TO DETENTION SYSTEM RIM: 381.26 INV IN: 380.53	FROM CO2-CNPY, 8" PVC INV IN: 380.53 @ 0.50%	
I-A4	YARD INLET (HC DETAIL D-4.12) RIM: 384.45 INV IN: 381.15 INV OUT: 381.04	FROM 6" PVC INV IN: 381.15 @ 2.65% FROM 51, 6" PVC INV IN: 381.15 @ 3.00%	TO M-A3, 15" RCP INV OUT: 381.04 @ 0.55%
I-B3	TYPE A-5 INLET (HC DETAIL D-4.02) RIM: 383.42 INV IN: 380.08 INV OUT: 379.98	FROM I-B4, 15" RCP INV IN: 380.08 @ 0.60%	TO M-B2, 15" RCP INV OUT: 379.98 @ 1.57%
I-B4	TYPE A-5 INLET (HC DETAIL D-4.02) RIM: 383.24 INV OUT: 380.39		TO I-B3, 15" RCP INV OUT: 380.39 @ 0.60%
M-A1	MH (HC DETAIL G-5.11) RIM: 384.34 INV IN: 378.07 INV OUT: 377.97	FROM M-A2, 15" RCP INV IN: 378.07 @ 2.00%	TO EX-2, 12" RCP INV OUT: 377.97 @ 1.00%
M-A2	MH RIM: 384.78 INV IN: 380.00 INV IN: 378.75 INV OUT: 378.71	FROM M-A3, 15" RCP INV IN: 380.00 @ 0.68% FROM UNDERGRND DET 1, 15" RCP INV IN: 378.75 @ 0.00%	TO M-A1, 15" RCP INV OUT: 378.71 @ 2.00%
M-A3	MH (HC DETAIL G-5.11) RIM: 384.34 INV IN: 380.80 INV OUT: 380.70	FROM I-A4, 15" RCP INV IN: 380.80 @ 0.55%	TO M-A2, 15" RCP INV OUT: 380.70 @ 0.68%
M-B2	O/W/S - 450 GAL. RIM: 384.39 INV IN: 379.53 INV OUT: 379.43	FROM I-B3, 15" RCP INV IN: 379.53 @ 1.57%	TO B1, 15" RCP INV OUT: 379.43 @ 6.02%
M-C2	MH RIM: 385.29 INV IN: 379.80 INV OUT: 379.70 INV OUT: 382.80	FROM MOD WET OUT, 12" PVC INV IN: 379.80 @ 0.00%	TO BIO CLEAN (IN), 12" PVC INV OUT: 379.70 @ 1.25% TO CO-C2, 12" PVC INV OUT: 382.80 @ 19.77%

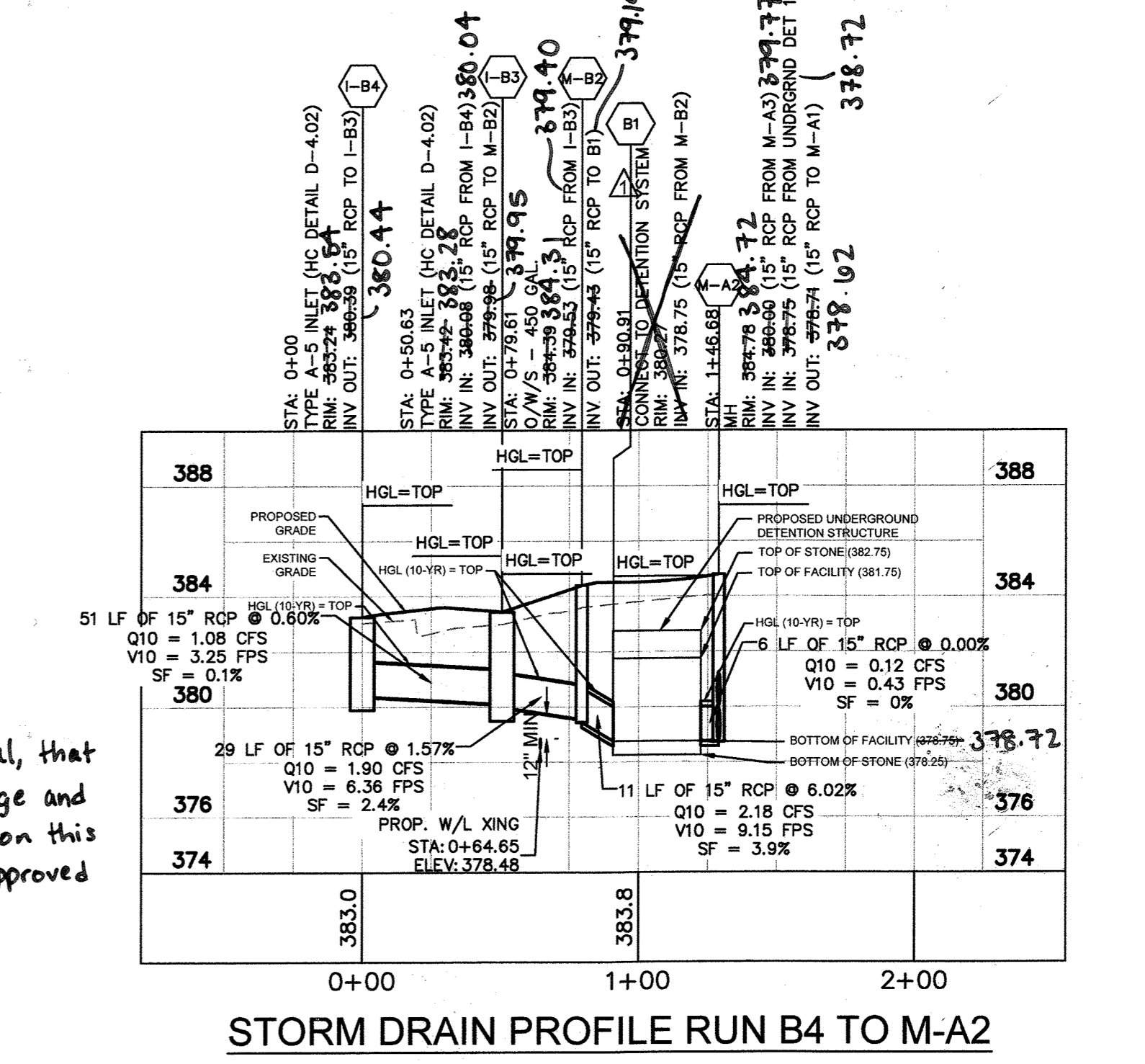
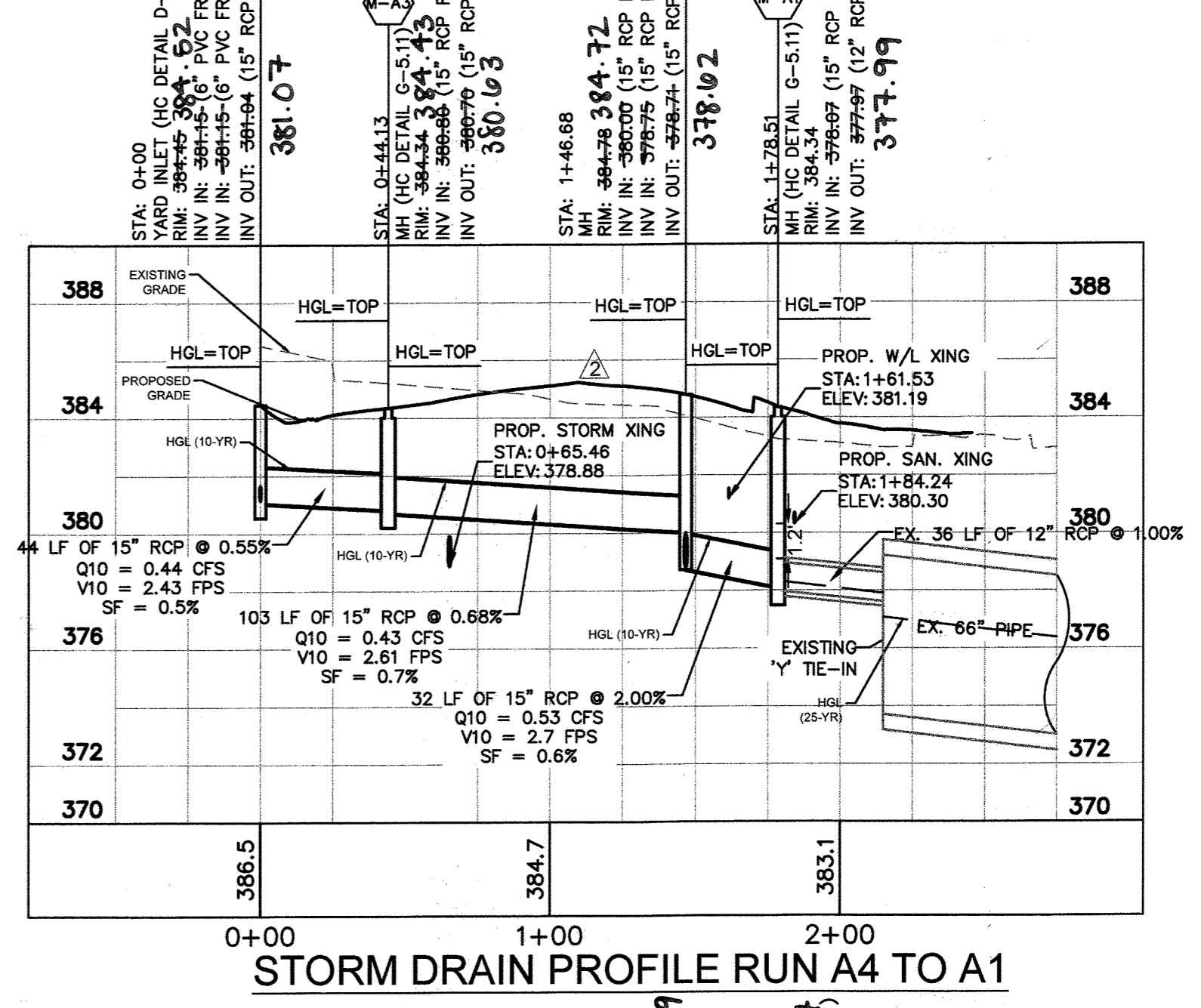
TOTAL OVERALL PIPE SCHEDULE		
SIZE (IN)	TOTAL LENGTH	MATERIAL
15	263 LF	RCP
8	85 LF	PVC
6	373 LF	PVC

Pipe Table				
Pipe Name	Size	Length	Slope	MATERIAL
I-C3 TO CO-C1	12.000	19.491	0.50%	PVC
CO1 (C-STORE) TO CO2 (C-STORE)	6.000	39.596	2.13%	PVC
Y-CONN1 (C-STORE) TO CO1 (C-STORE)	6.000	26.993	2.13%	PVC
RDL1 (C-STORE) TO Y-CONN1 (C-STORE)	6.000	14.142	2.13%	PVC
I-B4 TO I-B3	15.000	50.635	0.60%	RCP
M-A1 TO EX-2	12.000	36.322	1.00%	RCP
I-A4 TO M-A3	15.000	44.125	0.55%	RCP
M-A3 TO M-A2	15.000	102.550	0.68%	RCP
M-A2 TO M-A1	15.000	31.833	2.00%	RCP
M-B2 TO M-B1	15.000	11.297	6.02%	RCP
I-B3 TO M-B2	15.000	28.845	1.57%	RCP

01/24/2022

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this 'AS-BUILT' plan meet the Approved Plans and Specifications.

JOHN KAUPPIA



NOTE: REFER TO SHEET 18 FOR MANUFACTURE DETAILS OF THE PROPOSED MODULAR WETLAND SYSTEM, BIOCLEAN FILTRATION SYSTEM, AND UNDERGROUND STORMTANK DETENTION SYSTEM.

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APPROVED: FOR PUBLIC OR PRIVATE (pick only one) WATER AND PUBLIC OR PRIVATE (pick only one) SEWERAGE SYSTEMS

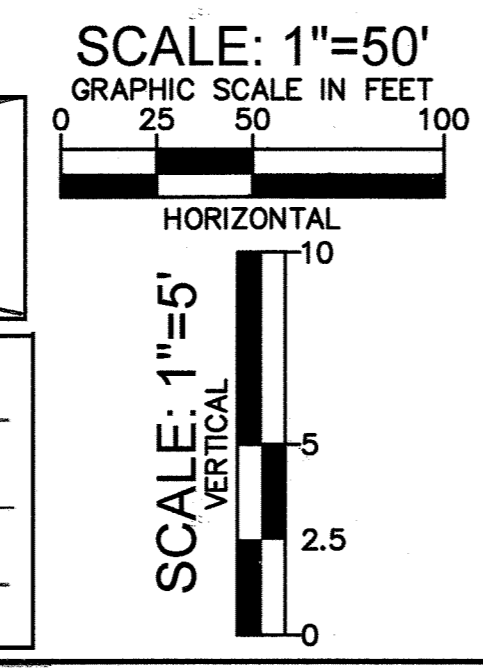
County Health Officer
 Date: _____
 Howard County Health Department

APPROVED: DEPARTMENT OF PLANNING AND ZONING

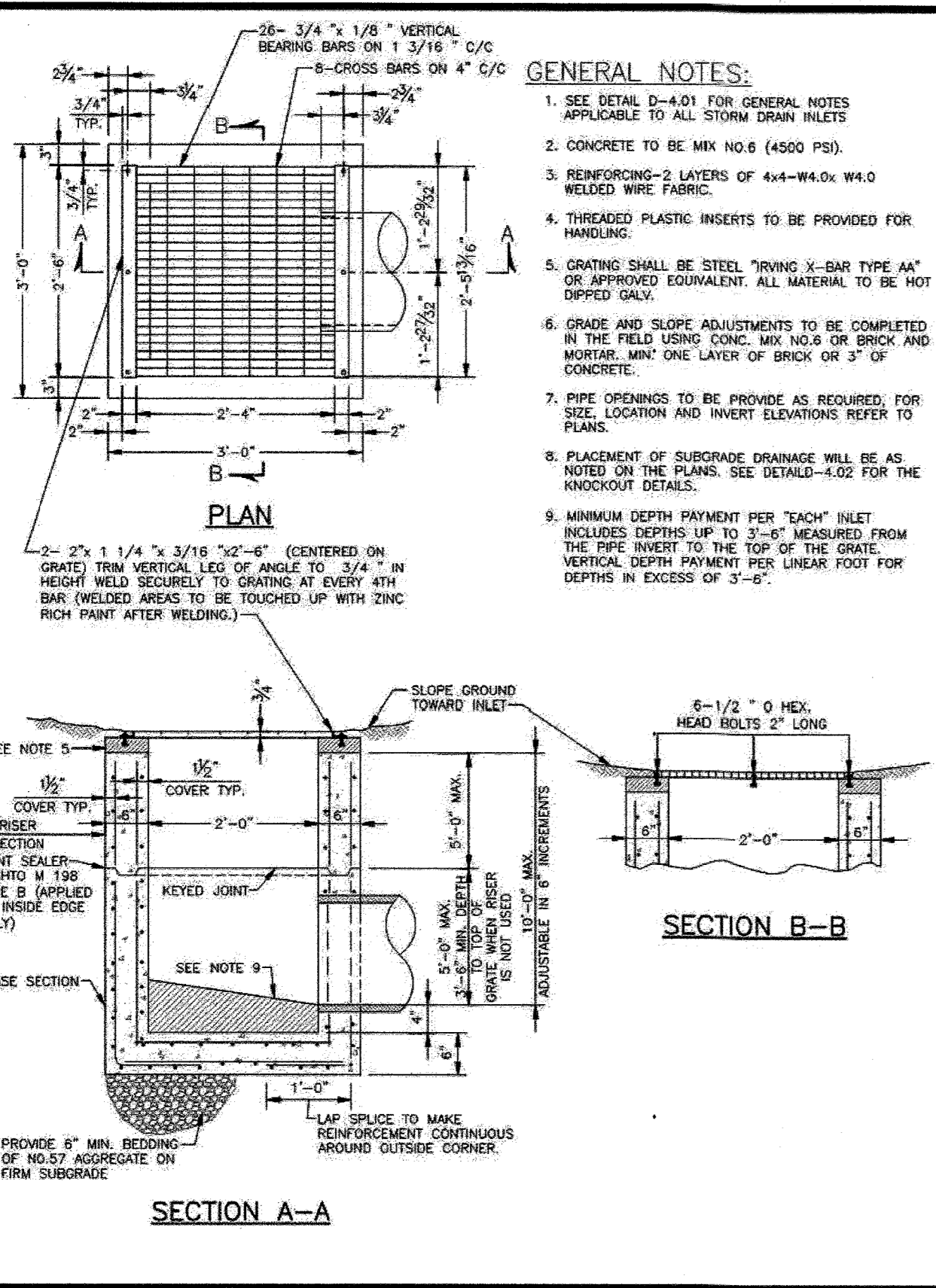
Chief, Development Engineering Division
 Date: 4.7.21

Chief, Division of Land Development
 Date: 4/19/21

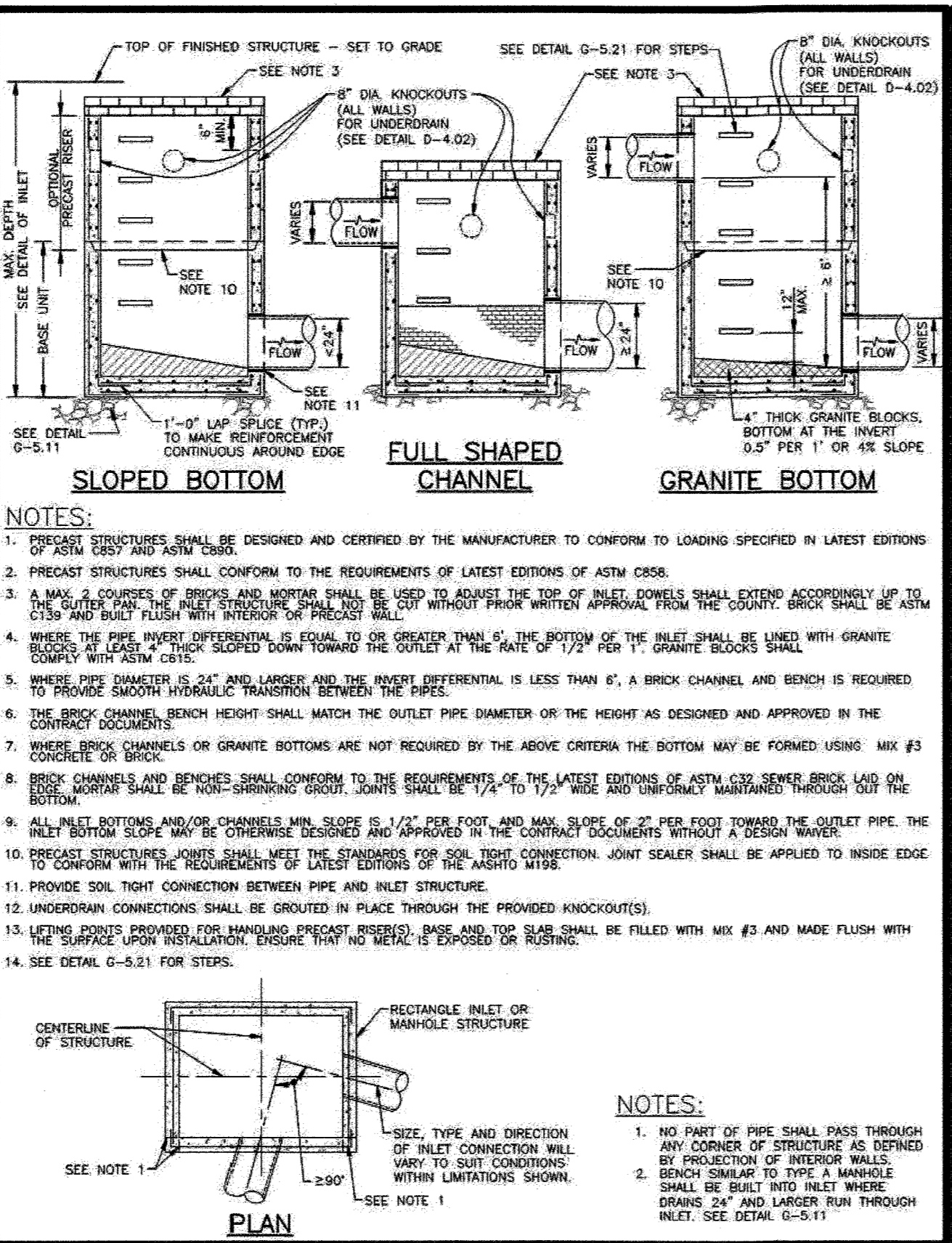
Director
 Date: 4/19/21



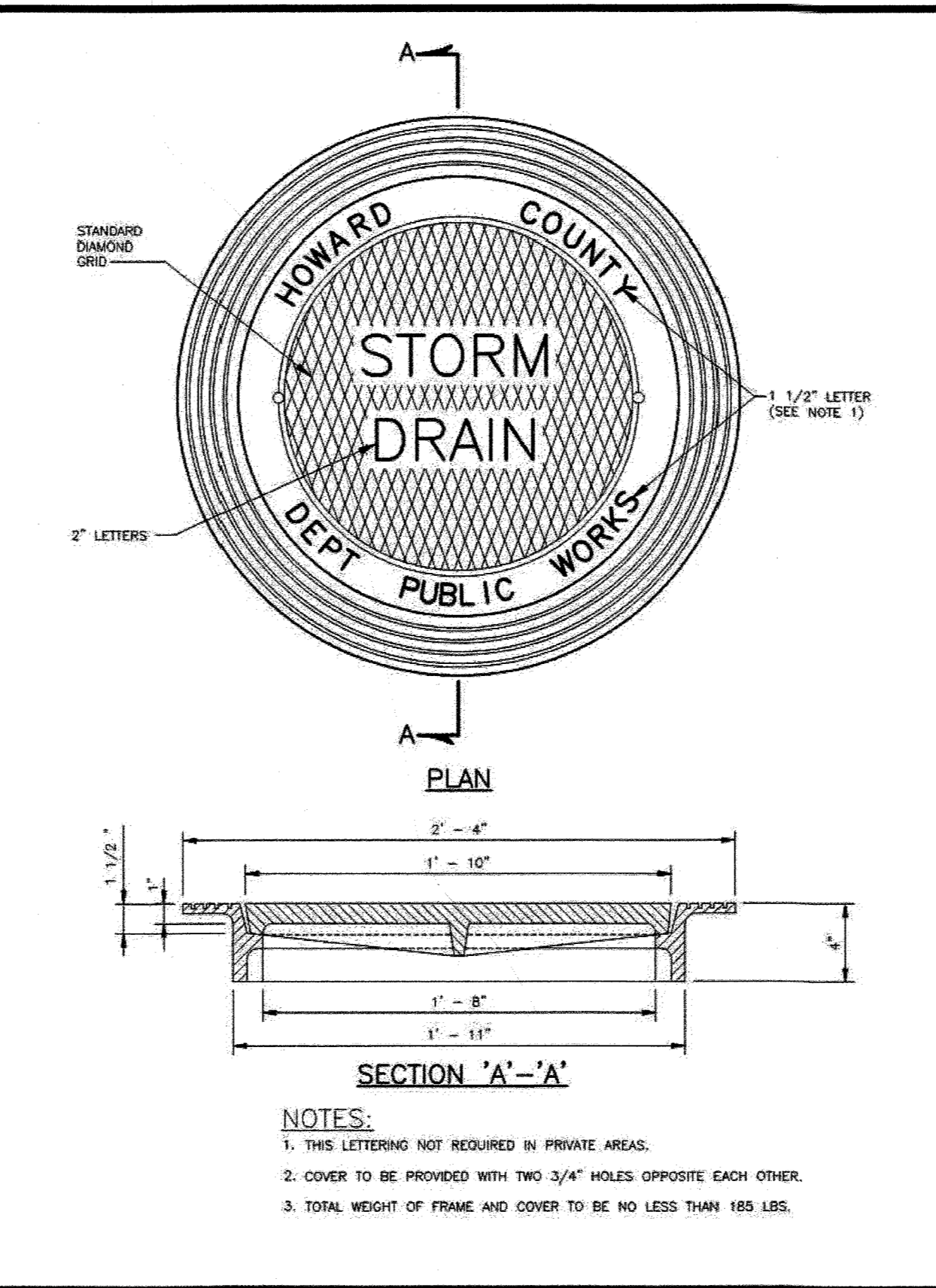
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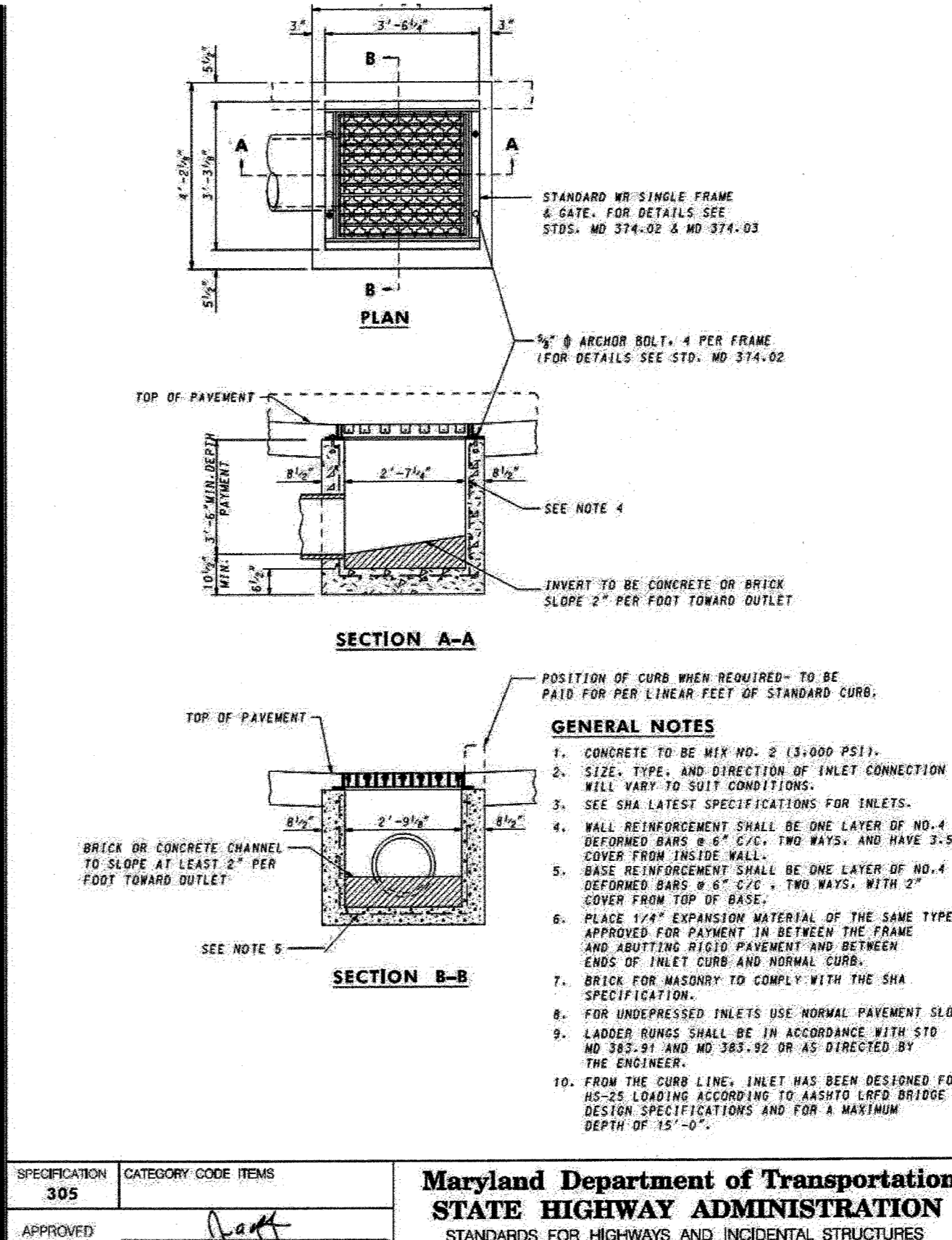
- GENERAL NOTES:**
- SEE DETAIL D-4.01 FOR GENERAL NOTES APPLICABLE TO ALL STORM DRAIN INLETS.
 - CONCRETE TO BE MK NO. 8 (4500 PSI).
 - REINFORCING-2 LAYERS OF 4x4-W8.0x W4.0 WELDED WIRE FABRIC.
 - THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
 - GRATING SHALL BE STEEL, TRIVING 2-BAR TYPE "A" OR APPROVED EQUIVALENT. ALL MATERIAL TO BE HOT DIPPED GALV.
 - GRADE AND SLOPE ADJUSTMENTS TO BE COMPLETED IN THE FIELD USING CONC. MIX NO. 8 OR BRICK AND MORTAR. MIN. ONE LAYER OF BRICK OR 3" OF CONCRETE.
 - PIPE CHANGES TO BE PROVIDED AS REQUIRED, FOR SLOPE, LOCATION AND INVERT ELEVATIONS REFER TO PLANS.
 - PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS NOTED ON THE PLANS. SEE DETAIL G-5.21 FOR THE KNOCKOUT DETAILS.
 - MINIMUM DEPTH PAYMENT PER EACH INLET INCLUDES DEPTHS UP TO 3'-0" MEASURED FROM THE PIPE INVERT TO THE TOP OF THE GRATE. VERTICAL DEPTH PAYMENT PER LINEAR FOOT FOR DEPTHS IN EXCESS OF 3'-0".



- NOTES:**
- PRECAST STRUCTURES SHALL BE DESIGNED AND CERTIFIED BY THE MANUFACTURER TO CONFORM TO LOADING SPECIFIED IN LATEST EDITIONS OF ASTM C897 AND ASTM C890.
 - PRECAST STRUCTURES SHALL CONFORM TO THE REQUIREMENTS OF LATEST EDITIONS OF ASTM C898.
 - MAX. 5' SPAN PER JOINT AND MORTAR SHALL BE USED TO ADJUST THE TOP OF INLET COVERS SHALL EXTEND ACCORDINGLY UP TO THE GUTTER AND THE INLET STRUCTURE SHALL NOT BE CUT WITHOUT PRIOR WRITTEN APPROVAL FROM THE COUNTY. BRICK SHALL BE ASTM C38 AND INLET FLUSH WITH INTERIOR PRECAST WALLS.
 - WHERE THE PIPE INVERT DIFFERENTIAL IS EQUAL TO OR GREATER THAN 6", THE BOTTOM OF THE INLET SHALL BE LINED WITH GRANITE TO PROVIDE SMOOTH HYDRAULIC TRANSITION BETWEEN THE PIPES.
 - WHERE PIPE DIAMETER IS 24" AND LARGER AND THE INVERT DIFFERENTIAL IS LESS THAN 6", A BRICK CHANNEL AND BENCH IS REQUIRED TO PROVIDE SMOOTH HYDRAULIC TRANSITION BETWEEN THE PIPES.
 - THE BRICK CHANNEL BENCH HEIGHT SHALL MATCH THE OUTLET PIPE DIAMETER OR THE HEIGHT AS DESIGNED AND APPROVED IN THE CONTRACT DOCUMENTS.
 - WHERE BRICK CHANNELS OR GRANITE BOTTOMS ARE NOT REQUIRED BY THE ABOVE CRITERIA THE BOTTOM MAY BE FORMED USING MIX #3 CONCRETE OR BRICK.
 - BRICK CHANNELS AND BENCHES SHALL CONFORM TO THE REQUIREMENTS OF LATEST EDITIONS OF ASTM C403 EXCEPT BRICK LAY ON BRICK MORTAR SHALL BE NON-SHRINK GROUT. JOINTS SHALL BE 1/2" TO 1/2" WIDE AND UNIFORMLY MAINTAINED THROUGHOUT THE BOTTOM.
 - ALL INLET BOTTOMS AND/OR CHANNELS MIN. SLOPE IS 1/2" PER FOOT AND MAX. SLOPE OF 2" PER FOOT TOWARD THE OUTLET PIPE. THE INLET BOTTOM SLOPE MAY BE OTHERWISE DESIGNED AND APPROVED IN THE CONTRACT DOCUMENTS WITHOUT A DESIGN NUMBER.
 - PRECAST STRUCTURES JOINTS SHALL MEET THE REQUIREMENTS FOR SOIL TIGHT CONNECTION JOINT SEALER SHALL BE APPLIED TO INSIDE EDGE TO CONFORM WITH THE REQUIREMENTS OF LATEST EDITIONS OF THE ASTM MISE.
 - PROVIDE SOIL TIGHT CONNECTION BETWEEN PIPE AND INLET STRUCTURE.
 - UNDERDRAIN CONNECTIONS SHALL BE GRAZED IN PLACE THROUGH THE PROVIDED KNOCKOUT(S).
 - LEADING POINTS PROVIDED FOR HANDLING PRECAST BASES, BASE AND TOP SLAB SHALL BE FILLED WITH MIX #3 AND MADE FLUSH WITH THE SURFACE UPON INSTALLATION. ENSURE THAT NO METAL IS EXPOSED OR RUSTING.
 - SEE DETAIL G-5.21 FOR STEPS.



- NOTES:**
- THIS LETTERING NOT REQUIRED IN PRIVATE AREAS.
 - COVER TO BE PROVIDED WITH TWO 3/4" HOLES OPPOSITE EACH OTHER.
 - TOTAL WEIGHT OF FRAME AND COVER TO BE NO LESS THAN 185 LBS.



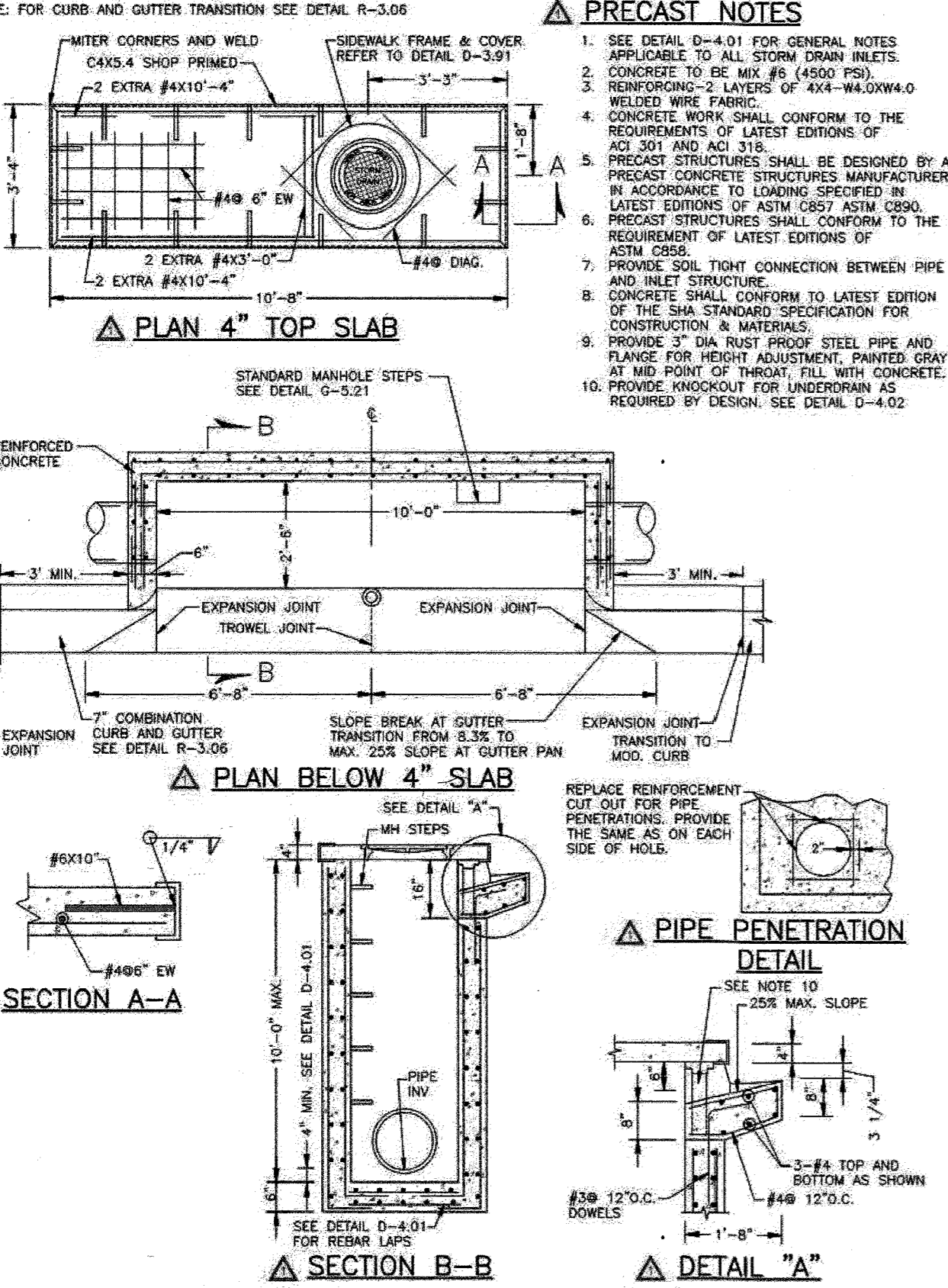
- GENERAL NOTES:**
- CONCRETE TO BE MIX NO. 2 (3,000 PSI).
 - SIZE, TYPE, AND DIRECTION OF INLET CONNECTION WILL VARY TO SUIT CONDITIONS.
 - SEE SNA LATEST SPECIFICATIONS FOR INLETS.
 - WALL REINFORCEMENT SHALL BE ONE LAYER OF NO. 4 DEFORMED BARS @ 8" C/C, TWO WAYS, AND HAVE 2-5" COVER FROM INSIDE WALL.
 - BASE REINFORCEMENT SHALL BE ONE LAYER OF NO. 4 DEFORMED BARS @ 8" C/C, TWO WAYS, WITH 2" COVER FROM TOP OF BASE.
 - PLACE 1/4" EXPANSION MATERIAL OF THE SAME TYPE APPROVED FOR PAYMENT IN BETWEEN THE FRAME AND ADJUTING RIGID PAVEMENT AND BETWEEN ENDS OF INLET CURB AND NORMAL CURB.
 - BRICK FOR MASONRY TO COMPLY WITH THE SNA SPECIFICATION.
 - FOR UNDESIGNED INLETS USE NORMAL PAVEMENT SLOPE.
 - LARGER RINGS SHALL BE IN ACCORDANCE WITH STD NO 383-91 AND MD 383-92 OR AS DIRECTED BY THE ENGINEER.
 - FROM THE CURB LINE, INLET HAS BEEN DESIGNED FOR HS-20 LOADING ACCORDING TO ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND FOR A MAXIMUM DEPTH OF 15'-0".

Howard County, Maryland Department of Public Works	Detail	D-4.12
YARD INLET Precast		

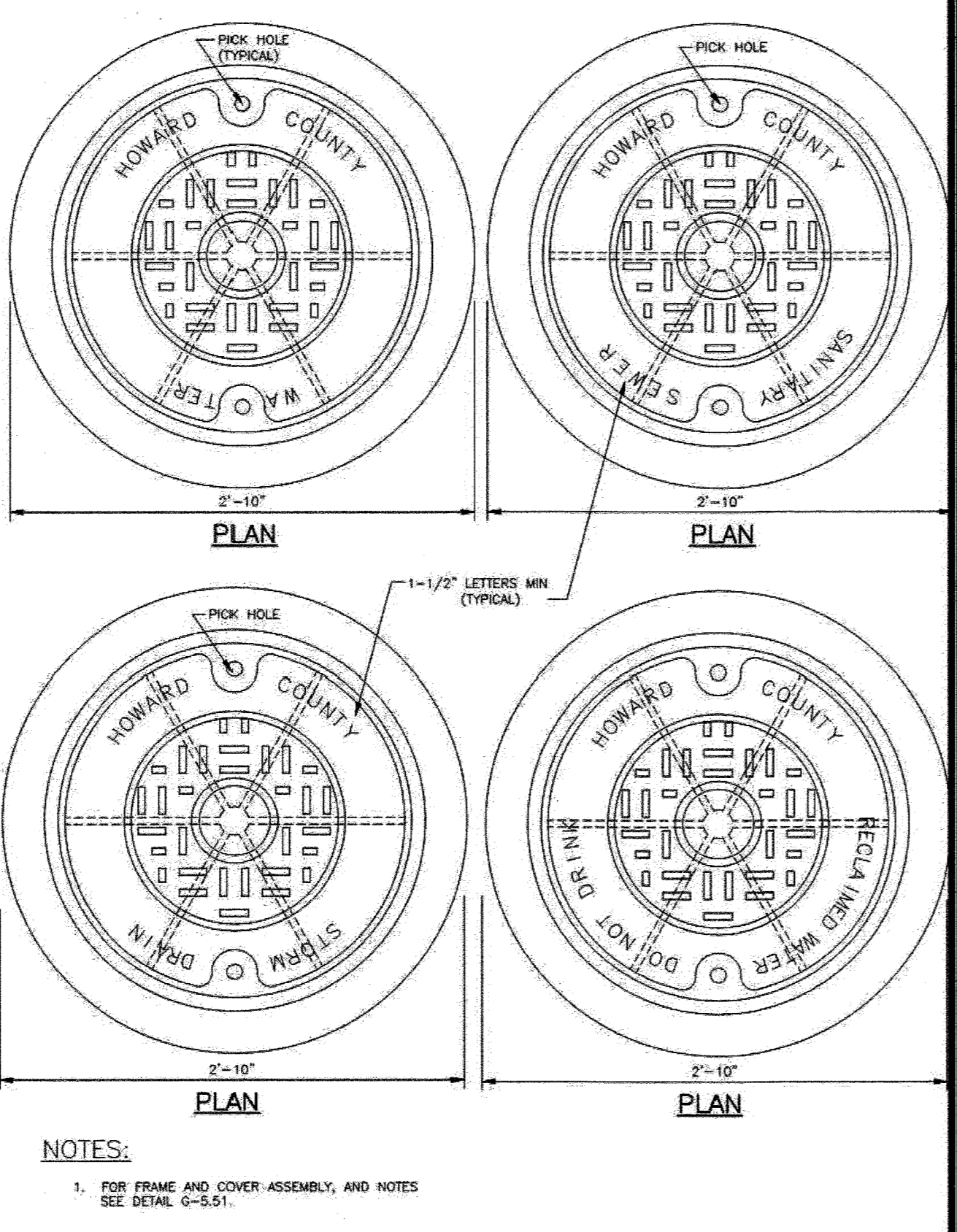
Howard County, Maryland Department of Public Works	Detail	D-4.01
STORM DRAIN INLET General Requirement		

Howard County, Maryland Department of Public Works	Detail	D-3.91
Sidewalk Frame & Cover		

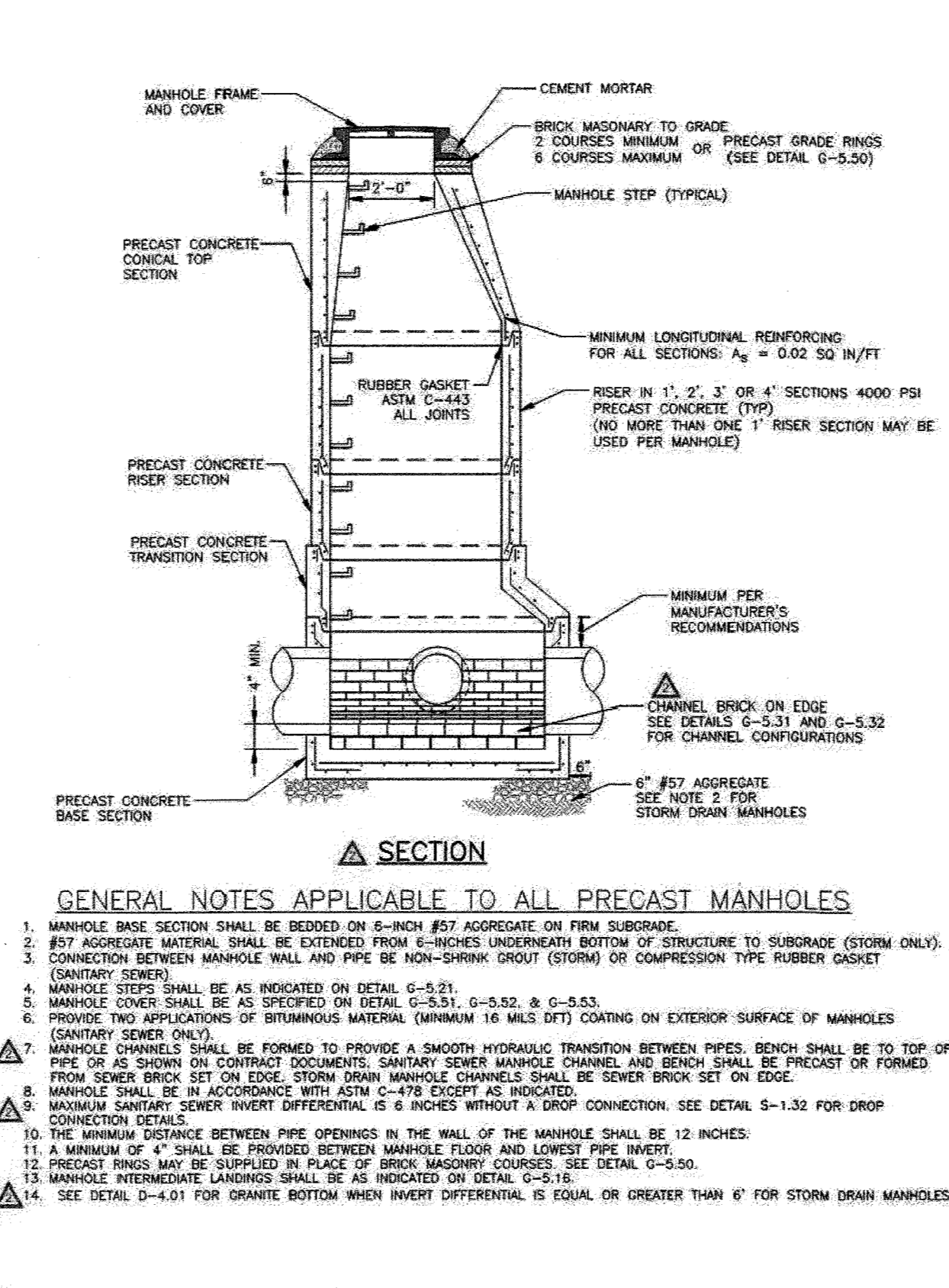
Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION	Standard No.	MD 374.06
SINGLE WR INLET		



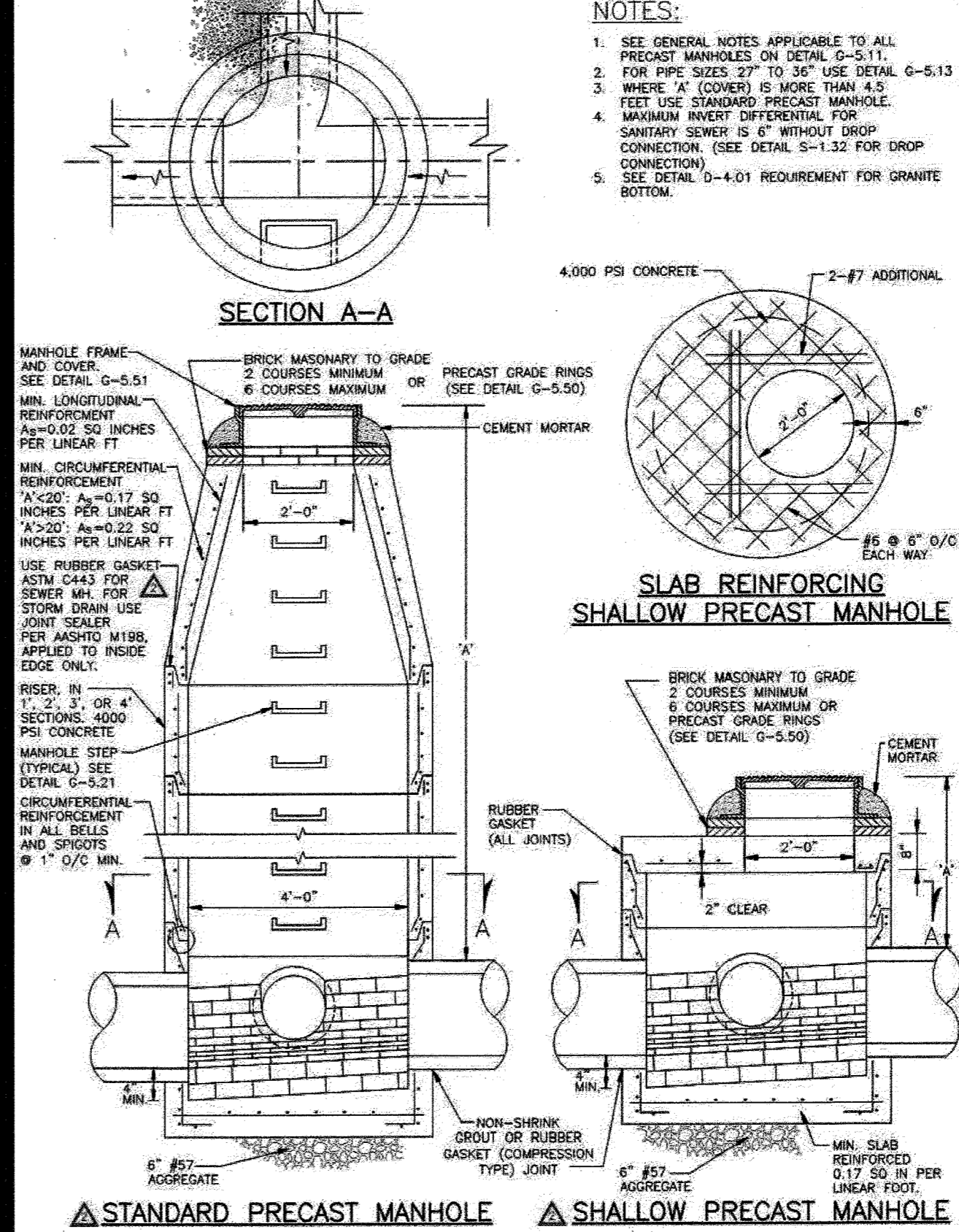
- PRECAST NOTES:**
- SEE DETAIL D-4.01 FOR GENERAL NOTES APPLICABLE TO ALL STORM DRAIN INLETS.
 - CONCRETE TO BE MIX #8 (4500 PSI).
 - REINFORCING-3 LAYERS OF 4x4-W8.0x W4.0 WELDED WIRE FABRIC.
 - CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF LATEST EDITIONS OF ACI 301 AND ACI 318.
 - PRECAST CONCRETE STRUCTURES MANUFACTURED IN ACCORDANCE TO LATEST EDITIONS OF ASTM C897 AND ASTM C890.
 - PRECAST STRUCTURES SHALL CONFORM TO THE REQUIREMENT OF LATEST EDITIONS OF ASTM C898.
 - PROVIDE SOIL TIGHT CONNECTION BETWEEN PIPE AND INLET STRUCTURE.
 - CONCRETE SHALL CONFORM TO LATEST EDITION OF THE SNA STANDARD SPECIFICATION FOR CONSTRUCTION & MATERIALS.
 - PROVIDE 3" DIA RUST PROOF STEEL PIPE AND FLANGE FOR HEIGHT ADJUSTMENT. PAINTED GRAY AT MID POINT OF THROAT. FILL WITH CONCRETE.
 - PROVIDE KNOCKOUT FOR UNDERDRAIN AS REQUIRED BY DESIGN. SEE DETAIL D-4.02.



- NOTES:**
- FOR FRAME AND COVER ASSEMBLY, AND NOTES SEE DETAIL G-5.51.



- GENERAL NOTES APPLICABLE TO ALL PRECAST MANHOLES:**
- MANHOLE BASE SECTION SHALL BE BEDDED ON 6-INCH #57 AGGREGATE ON FIRM SUBGRADE.
 - #57 AGGREGATE MATERIAL SHALL BE EXTENDED FROM 6-INCHES UNDERNEATH BOTTOM OF STRUCTURE TO SUBGRADE (STORM ONLY). (SANITARY SEWER).
 - CONNECTION BETWEEN MANHOLE WALL AND PIPE BE NON-SHRINK GROUT (STORM) OR COMPRESSION TYPE RUBBER GASKET (SANITARY SEWER ONLY).
 - MANHOLE STEPS SHALL BE AS INDICATED ON DETAIL G-5.21.
 - MANHOLE COVER SHALL BE AS SPECIFIED ON DETAIL G-5.51, G-5.52, & G-5.53.
 - PROVIDE TWO APPLICATIONS OF BITUMINOUS MATRIX (MINIMUM 16 MIL DFT) COATING ON EXTERIOR SURFACE OF MANHOLES (SANITARY SEWER ONLY).
 - MANHOLE CHANGES SHALL BE FORMED TO PROVIDE A SMOOTH HYDRAULIC TRANSITION BETWEEN PIPES. BENCH SHALL BE TO TOP OF PIPE OR AS SHOWN ON CONTRACT DOCUMENTS. SANITARY SEWER MANHOLE CHANNEL AND BENCH SHALL BE PRECAST OR FORMED FROM SEWER BRICK SET ON EDGE. STORM DRAIN MANHOLE CHANNELS SHALL BE SEWER BRICK SET ON EDGE.
 - MANHOLE SHALL BE IN ACCORDANCE WITH ASTM C-478 EXCEPT AS INDICATED.
 - MAXIMUM SANITARY SEWER INVERT DIFFERENTIAL IS 6 INCHES WITHOUT A DROP CONNECTION. SEE DETAIL S-1.32 FOR DROP CONNECTION DETAILS.
 - A MINIMUM OF 4" SHALL BE PROVIDED BETWEEN MANHOLE FLOOR AND LOWEST PIPE INVERT.
 - PRECAST RINGS MAY BE SUPPLIED IN PLACE OF BRICK MASONRY COURSES. SEE DETAIL G-5.50.
 - MANHOLE INTERMEDIATE LANDINGS SHALL BE AS INDICATED ON DETAIL G-5.51.
 - SEE DETAIL D-4.01 FOR GRANITE BOTTOM WHEN INVERT DIFFERENTIAL IS EQUAL TO OR GREATER THAN 6" FOR STORM DRAIN MANHOLES.



- NOTES:**
- SEE GENERAL NOTES APPLICABLE TO ALL PRECAST MANHOLES ON DETAIL G-5.11.
 - FOR PIPE SIZES 27" TO 36" USE DETAIL G-5.13.
 - WHERE 'A' (COVER) IS MORE THAN 4.5 FEET USE STANDARD PRECAST MANHOLE.
 - MAXIMUM INVERT DIFFERENTIAL FOR SANITARY SEWER IS 6" WITHOUT DROP CONNECTION. (SEE DETAIL S-1.32 FOR DROP CONNECTION).
 - SEE DETAIL D-4.01 REQUIREMENT FOR GRANITE BOTTOM.

Howard County, Maryland Department of Public Works	Detail	D-4.03
TYPE A-10 INLET 10' Depth		

Howard County, Maryland Department of Public Works	Detail	G-5.53
Manhole Cover Lettering		

Howard County, Maryland Department of Public Works	Detail	G-5.11
PRECAST MANHOLE Notes		

Howard County, Maryland Department of Public Works	Detail	G-5.12
PRECAST MANHOLE Standard and Shallow 4'-0" for 24" Pipe and smaller		

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11400 COMMERCE PARK DR, SUITE 400
RESTON, VA 20191
CONTACT: TODD MAGIERA, P.E.
PHONE: 703-674-1311
WWW.KIMLEY-HORN.COM

PMIG 1027, LLC
2359 RESEARCH COURT
WOODBIDGE, VA 22192
PHONE: 703-494-5800

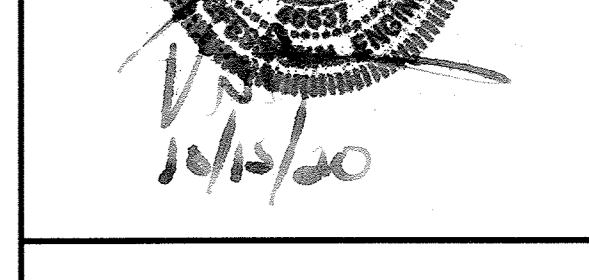
NO.	DATE	BY

9320 BALTIMORE NATIONAL PIKE
HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL: 996, LOT 1
GRID #4
ZONING: B-2-TNC
SECOND ELECTION DISTRICT
ADC MAP/GRID #: 4815-G6
RECORDING REFERENCE SDP-20-018
KHA PROJECT NO.: 114021001
SCALE: AS SHOWN
DATE: 08/11/2020
DESIGNED BY: JRW
DRAWN BY: JRW
CHECKED BY: TM

IMPROVEMENT DESCRIPTION:
REDEVELOPMENT OF EXISTING GAS
STATION TO PROPOSED 2,686 SF
C-CORSE, CANOPY, AND 6 MPDS.

**ELLCOTT CITY
(STATION
MD-108)**
PREPARED FOR
PMIG 1027, LLC

**SITE
DEVELOPMENT
PLAN**



PROFESSIONAL CERTIFICATION. I HEREBY
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THAT I AM A DULY LICENSED
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LAWS OF THE STATE OF MARYLAND.
LICENSE NO. EXP.

No "AS-BUILT" information
in this sheet.
JOHN KAPPILA



**STORM DRAIN
SCHEDULE AND
DETAILS 1**

SHEET NUMBER
17 OF 30

SDP-20-018

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APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

11.9.20
DATE

[Signature]
CHIEF, DIVISION OF LAND DEVELOPMENT

11.18.20
DATE

[Signature]
DIRECTOR

11.18.20
DATE

SC-740 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740. STORMTECH SC-740 CHAMBERS SHALL BE MANUFACTURED FROM REINFORCED POLYPROPYLENE COPOLYMER.

2. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F1918, STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS.

3. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM REINFORCED POLYPROPYLENE COPOLYMER.

4. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F1918, STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS.

5. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM REINFORCED POLYPROPYLENE COPOLYMER.

6. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM REINFORCED POLYPROPYLENE COPOLYMER.

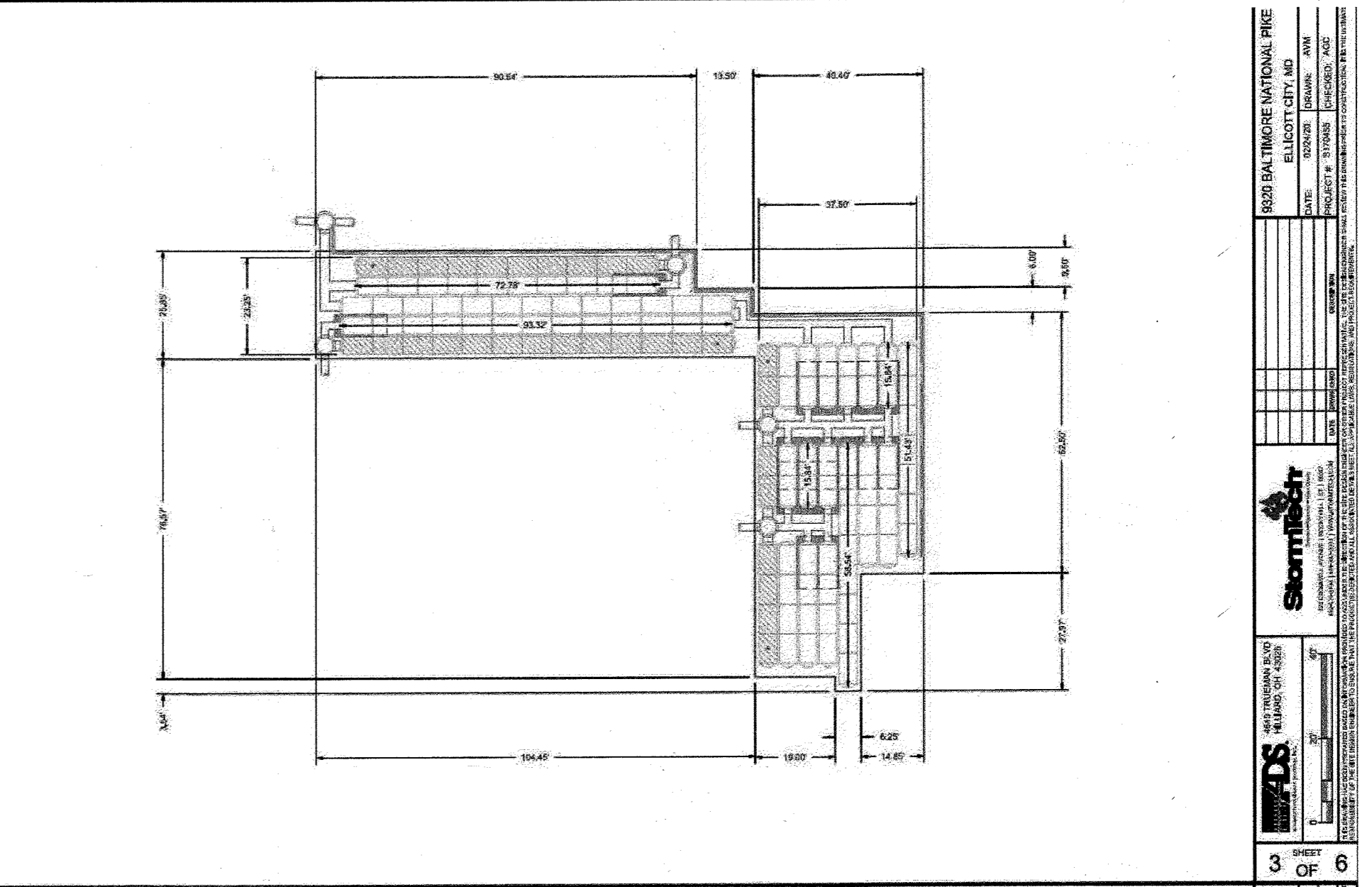
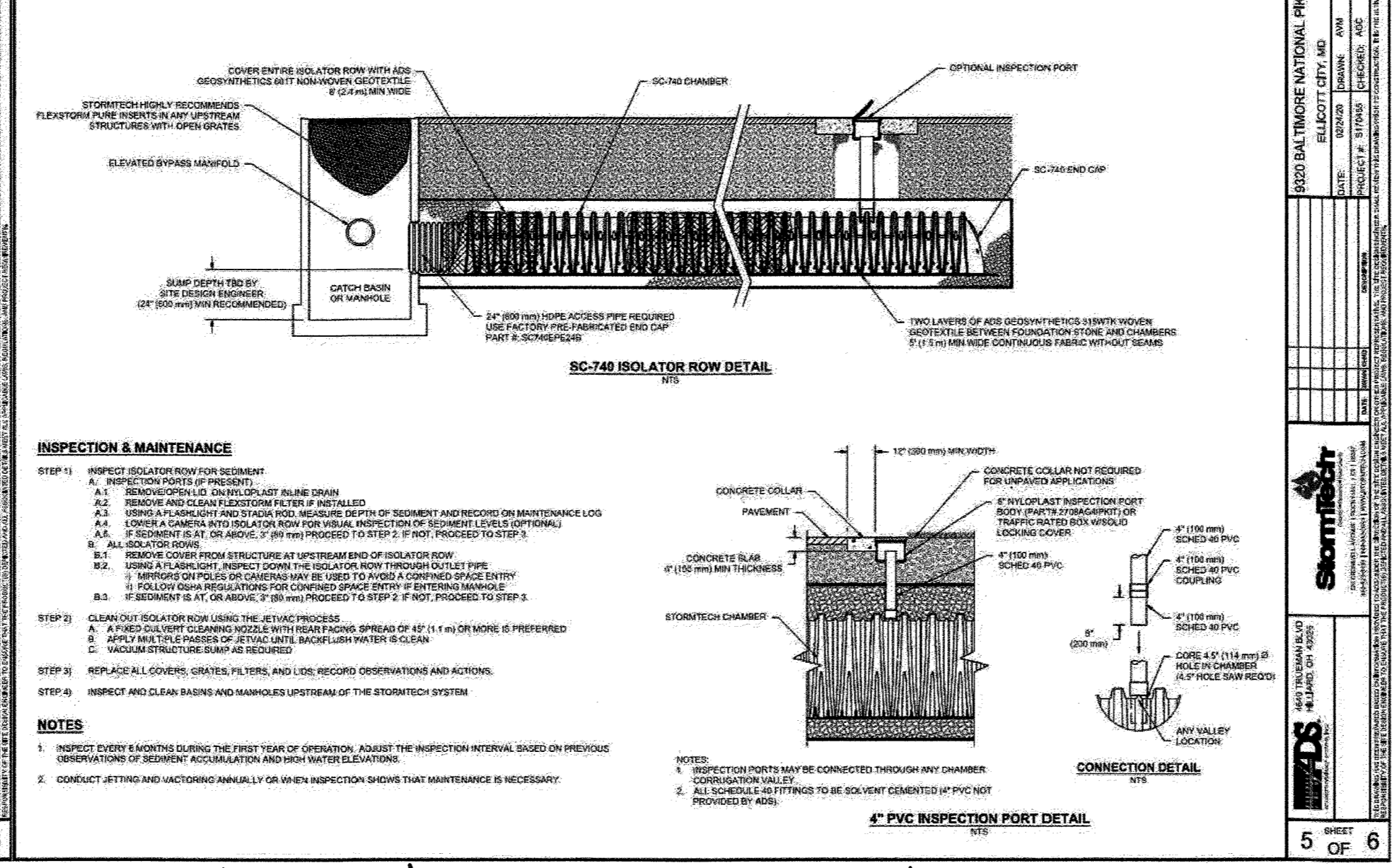
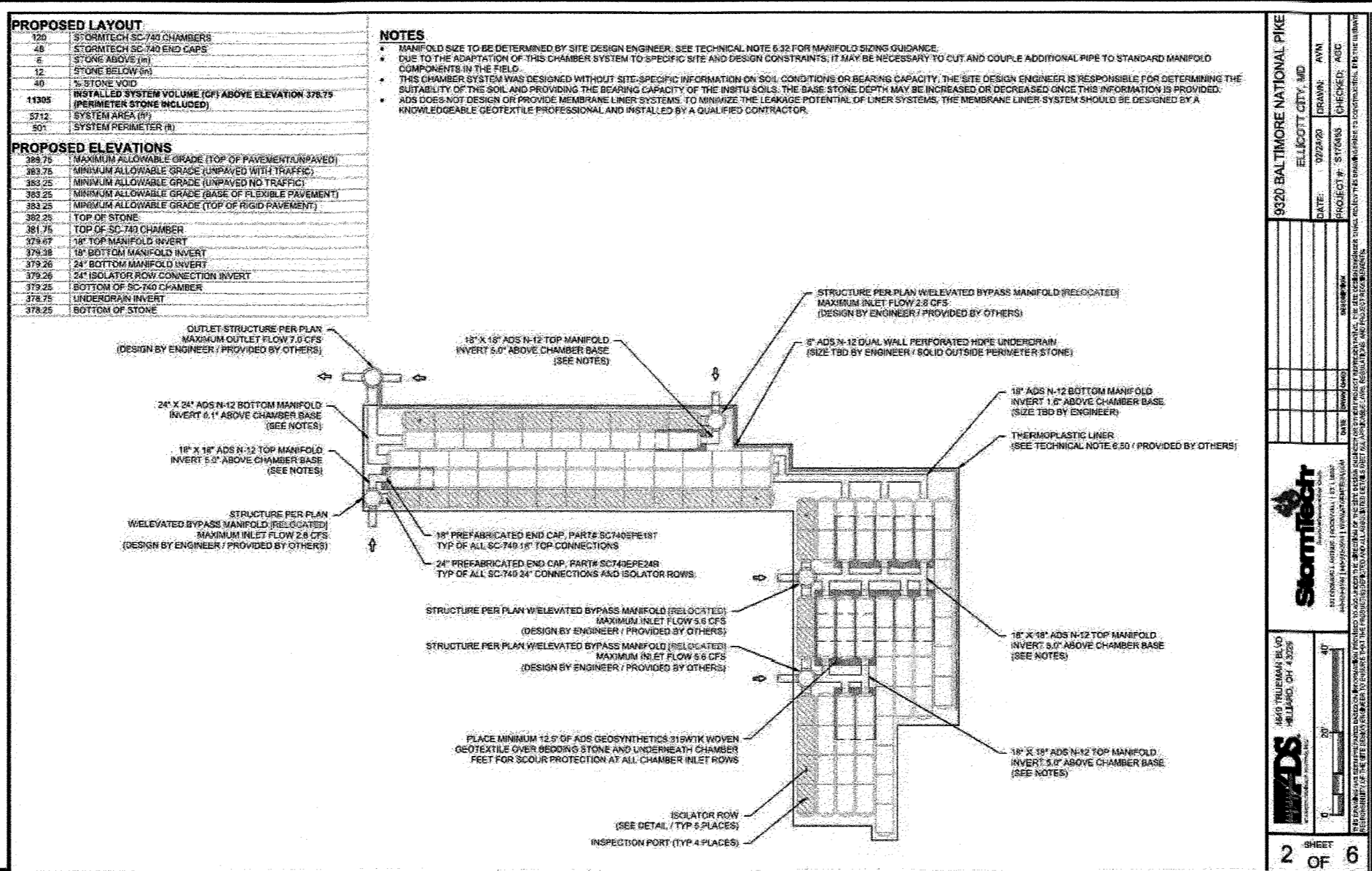
7. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM REINFORCED POLYPROPYLENE COPOLYMER.

8. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM REINFORCED POLYPROPYLENE COPOLYMER.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

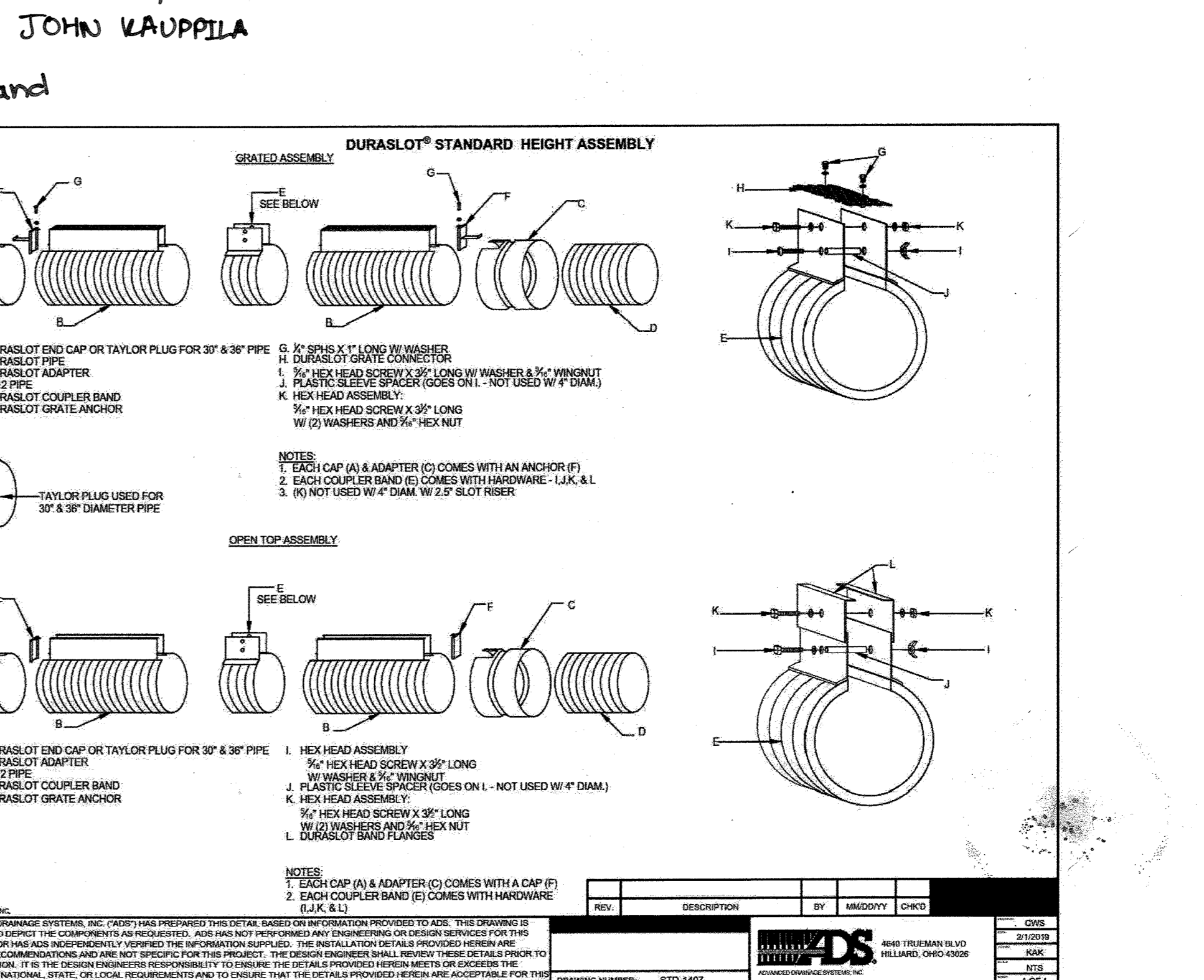
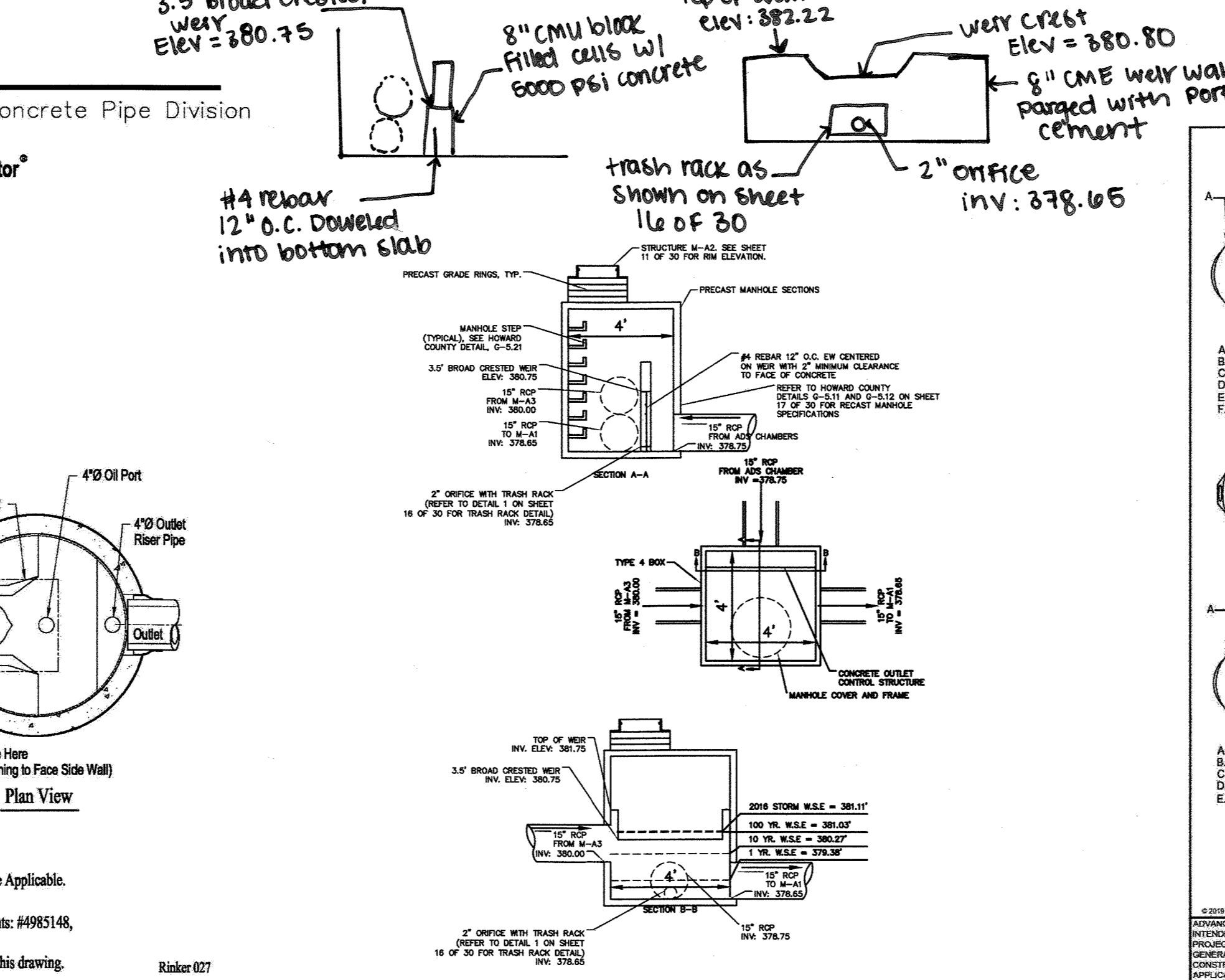
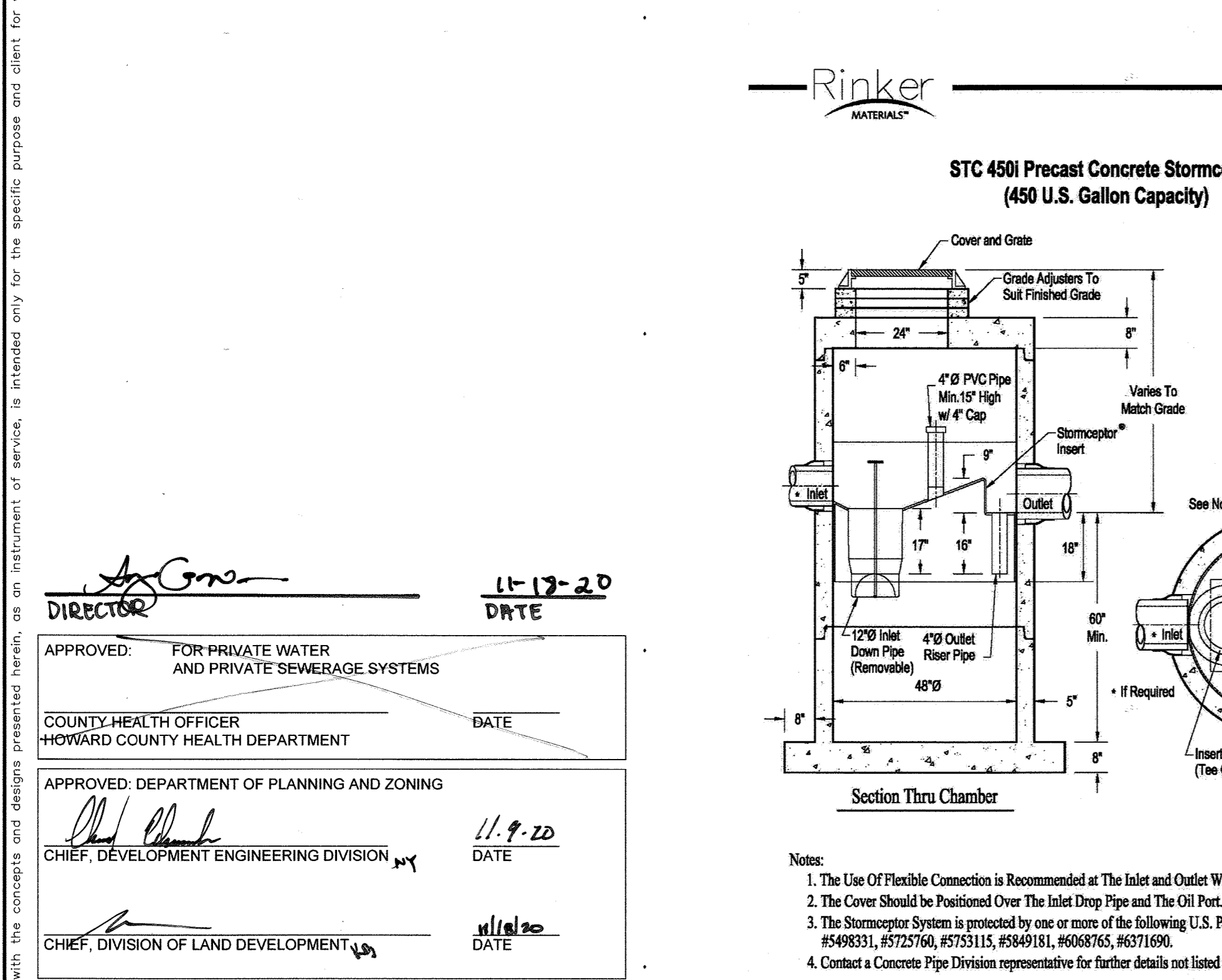
FILL MATERIAL LOCATION	DESCRIPTION	ASHTO MATERIAL CLASSIFICATION	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: MATERIAL FOR LAYER TO STARTS FROM THE TOP OF THE CHAMBER TO THE BOTTOM OF THE PERMANENT SUBGRADE (SEE NOTE 1). MATERIAL SHALL BE COMPACTED TO THE PROPOSED FINISH ELEVATION.	ASHTO M-100	PREPARED FOR SITE DESIGN ENGINEER'S PLAN AND SECTION INSTALLATIONS MAY HAVE STRONG MATERIALS, AND THESE MATERIALS REQUIRE.
C	FINAL FILL: FILL MATERIAL FOR LAYER TO STARTS FROM THE TOP OF THE CHAMBER TO THE BOTTOM OF THE PERMANENT SUBGRADE (SEE NOTE 1). MATERIAL SHALL BE COMPACTED TO THE PROPOSED FINISH ELEVATION.	ASHTO M-100	PREPARED FOR SITE DESIGN ENGINEER'S PLAN AND SECTION INSTALLATIONS MAY HAVE STRONG MATERIALS, AND THESE MATERIALS REQUIRE.
B	IMPROVEMENT FRAME: FILL UNDERNEATH THE CHAMBERS FROM THE FOUNDATION STONE TO LAYER TO THE LAYER ABOVE.	ASHTO M-100	NO COMPACTOR REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE FOUNDATION TO THE FOOTING OF THE CHAMBER.	ASHTO M-100	PLATE COMPACT ON SOIL TO ACHIEVE A PLAT SURFACE 1/2".

NOTE: THE LATTER AMENDMENT TO THE STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS (ASTM F1918) IS TO BE USED FOR THE DESIGN OF CHAMBERS. THE DESIGN OF CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM REINFORCED POLYPROPYLENE COPOLYMER.



I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan meet the Approved Plans and Specifications.

JOHN KAUPPIA



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1 SCALE: NTS

STORMCEPTOR DETAIL (M-B2)

2 SCALE: 1" = 4' V; 1" = 4' H

OUTLET CONTROL STRUCTURE (M-A2)

3 SCALE: NTS

TRENCH DRAIN DETAIL

Kimley-Horn logo and contact information: 2020 KIMLEY-HORN AND ASSOCIATES, INC., 11400 COMMERCE PARK DR, SUITE 400, RESTON, VA 20191.

9320 BALTIMORE NATIONAL PIKE, HOWARD COUNTY, MARYLAND, TAX MAP NO. 24 PARCEL: 996, LOT 1. ZONING: B-2 TNC. SECOND ELECTION DISTRICT ADC MAP/GRID # 4815-66. RECORDING REFERENCE SDP-20-018.

KHA PROJECT NO.: 114021001. SCALE: AS SHOWN. DATE: 08/11/2020. DESIGNED BY: JRW. DRAWN BY: JRW. CHECKED BY: TM.

IMPROVEMENT DESCRIPTION: DEVELOPMENT OF EXISTING GAS STATION TO PROPOSED 2,666 SF C-STORE, CANOPY, AND 6 MPDS.

ELLICOTT CITY (STATION MD-108) PREPARED FOR PMIG 1027, LLC

SITE DEVELOPMENT PLAN

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STORM DRAIN SCHEDULE AND DETAILS 2

SHEET NUMBER 18 OF 30

SDP-20-018

No.	REVISIONS	DATE	BY

9320 BALTIMORE NATIONAL PIKE
HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL 996, LOT 1
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SECOND ELECTION DISTRICT
ADD MAP/GRID #: 4815-G6
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**EXISTING
DRAINAGE AREA
MAP**

SHEET NUMBER
19 OF 30

SDP-20-018

**PRE-DEVELOPMENT DRAINAGE AREA
MAP LEGEND**

- LOD — LIMITS OF DISTURBANCE
- — — — — PROPERTY LINE
- 10- EXISTING MAJOR CONTOUR
- 7- EXISTING MINOR CONTOUR
- - - - - DRAINAGE AREA DIVIDE
- < - - - - TIME OF CONCENTRATION PATH
- * POINT OF INVESTIGATION
- FLOW TYPE CHANGE
- DA-# DRAINAGE AREA ID
AC=ACRES
RCN=RUNOFF CURVE NUMBER
Tc=TIME OF CONCENTRATION IN HOURS

Runoff Summary
Kimley»Horn Project: PMG-EC Date: 01/22/20 Initials: JRW

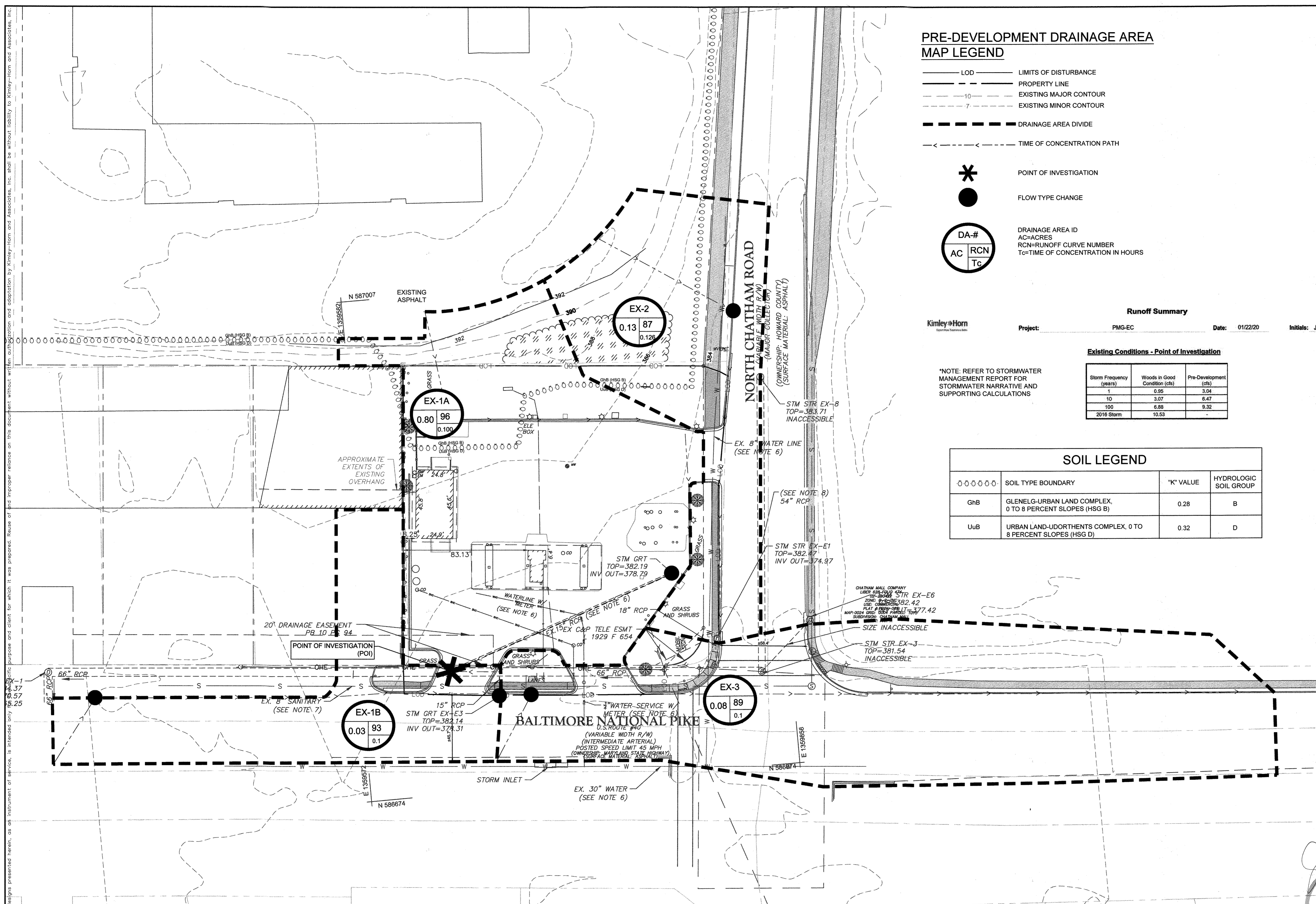
*NOTE: REFER TO STORMWATER
MANAGEMENT REPORT FOR
STORMWATER NARRATIVE AND
SUPPORTING CALCULATIONS

Existing Conditions - Point of Investigation

Storm Frequency (years)	Woods in Good Condition (cfs)	Pre-Development (cfs)
1	0.95	3.04
10	3.07	6.47
100	6.96	9.32
2016 Storm	10.53	-

SOIL LEGEND

SOIL TYPE BOUNDARY	"K" VALUE	HYDROLOGIC SOIL GROUP
GhB GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES (HSG B)	0.28	B
UuB URBAN LAND-UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES (HSG D)	0.32	D

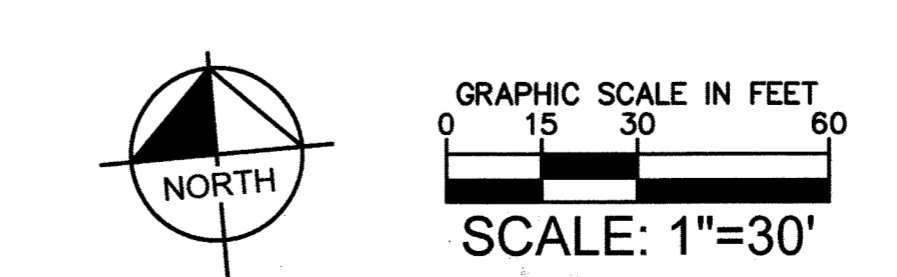


APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT
DATE: 11-9-20

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 11/18/20

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 11-18-20

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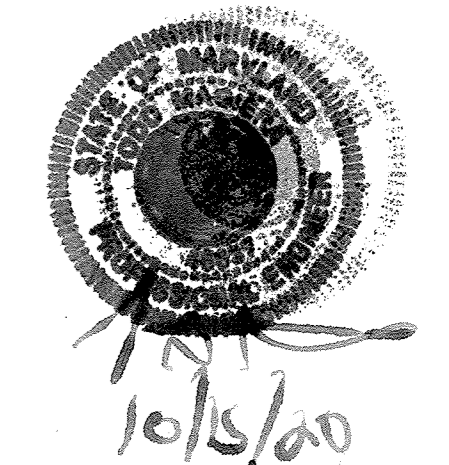
11/24/22
No "AS-BUILT"
Information in this
sheet.
JOHN KAUPPILA

NO.	DATE	BY	REVISIONS

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PMIG 1027, LLC

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**PROPOSED
DRAINAGE AREA
MAP**

SHEET NUMBER
20 OF 30

**POST-DEVELOPMENT DRAINAGE AREA
MAP LEGEND**

- LOD — LIMITS OF DISTURBANCE
- PROPERTY LINE
- - - 10 - - - EXISTING MAJOR CONTOUR
- - - 7 - - - EXISTING MINOR CONTOUR
- - - 10 - - - PROPOSED MAJOR CONTOUR
- - - 7 - - - PROPOSED MINOR CONTOUR
- - - INLET SUBAREA DRAINAGE DIVIDE
- STORM PIPE
- TIME OF CONCENTRATION PATH

PROPOSED UNDERGROUND STORAGE FACILITY
(ADS STORMTECH SC-740 CHAMBER)

PROPOSED BUILDING

- * POINT OF INVESTIGATION
- FLOW TYPE CHANGE

DA #
AC RCN
Tc

SOIL LEGEND			
SOIL TYPE BOUNDARY	"K" VALUE	HYDROLOGIC SOIL GROUP	
GhB	0.28	B	
UuB	0.32	D	

DRAINAGE AREA ID
AC=ACRES
RCN=RUNOFF CURVE NUMBER
Tc=TIME OF CONCENTRATION IN HOURS

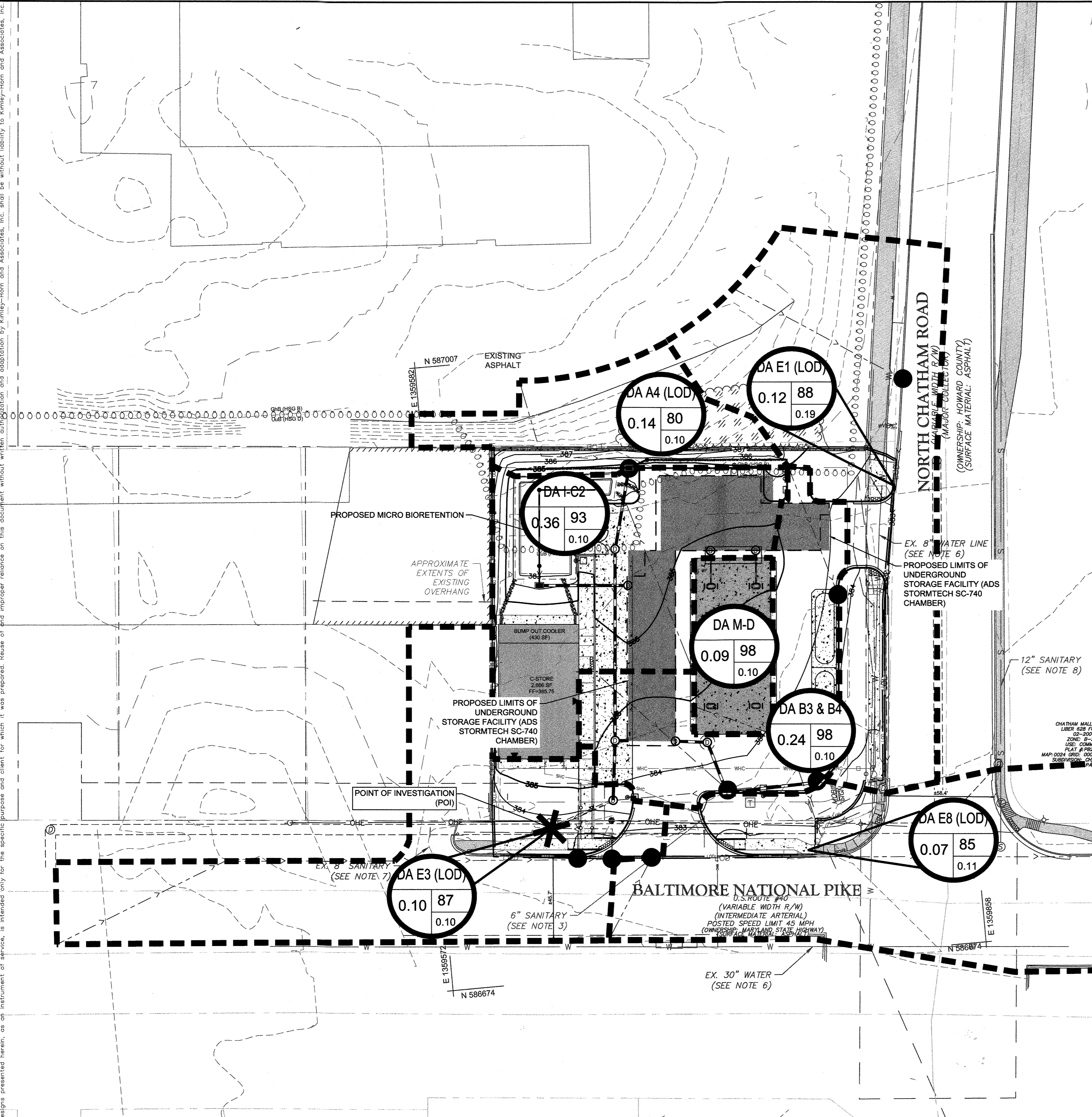
Runoff Summary

Project: PMG-EC Date: 01/22/20 Initials: JRW

Proposed Conditions - Point of Investigation

Storm Frequency (years)	Woods in Good Condition (cfs)	Pre-Development (cfs)	Post-Development (Detained) (cfs)	Post-Development (Undetained) (cfs)
1	0.95	3.04	0.92	2.62
10	3.07	6.47	2.23	6.19
100	6.28	9.26	4.52	9.09
2016 Storm	10.53	-	6.05	-

*NOTE: REFER TO STORMWATER
MANAGEMENT REPORT FOR
STORMWATER NARRATIVE AND
SUPPORTING CALCULATIONS



APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT
DATE: 11/20

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 11/18/20

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 11-18-20

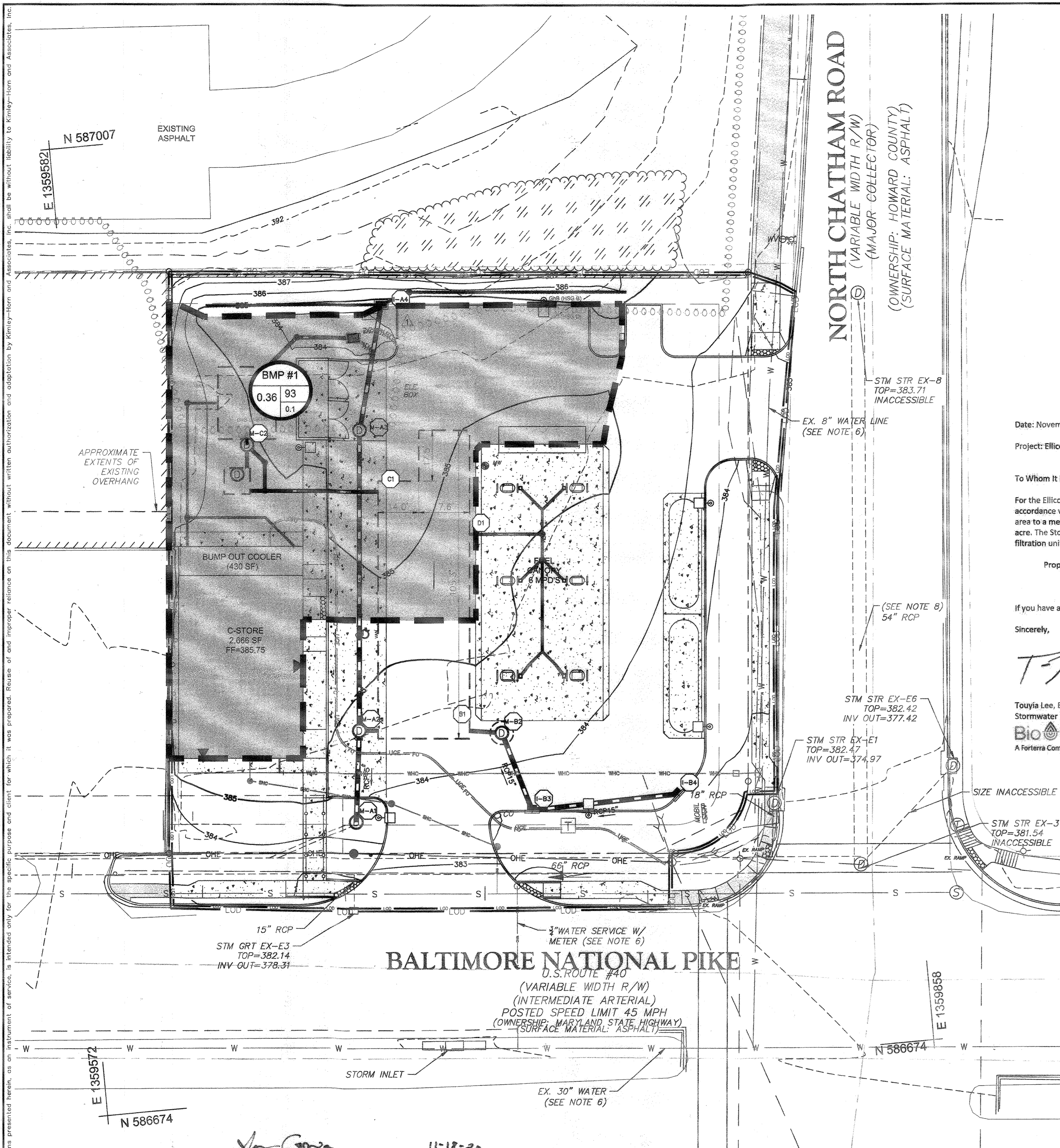
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GRAPHIC SCALE IN FEET
0 15 30 60
SCALE: 1"=30'

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JOHN KAUPILA



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ESD DRAINAGE AREA MAP LEGEND

- LOD
- LIMITS OF DISTURBANCE
- PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- STORM PIPE
- PROPOSED MICRO-BIO RETENTION
- ESD SUBAREA DRAINAGE DIVIDE
- DRAINAGE AREA ID
AC=ACRES
RCN=RUNOFF CURVE NUMBER
Tc=TIME OF CONCENTRATION IN HOURS



Date: November 18, 2020
 Project: Ellicott City (Station MD 108) - Howard County, MA

To Whom It May Concern,

For the Ellicott City project, Bio Clean has reviewed and sized the Modular Wetland System (MWS) in accordance with MDE's sizing criteria and that the unit is proportionally sized per 20,000 sf of drainage area to a media surface area of 91 sf. The total contributing drainage area to this MWS system is 0.36 acre. The StormTank Module 20 Series is designed to prestore 75% of the ESDv prior to the MWS filtration unit.

Proposed system:
 Modular Wetland System provides 74 sf of media surface area
 StormTank provides a total of 1224 cf of storage volume

If you have any questions, please feel free to contact us at your convenience.

Sincerely,

Touya Lee
 Touya Lee, EIT
 Stormwater Engineer
 Bio Clean
 A Forterra Company

SOIL LEGEND

SOIL TYPE BOUNDARY	"K" VALUE	HYDROLOGIC SOIL GROUP
GhB	0.28	B
UuB	0.32	D

Kimley-Horn
 Site Name: PMG Ellicott City
 Project #: 114021001
 County: Howard County

Per MDE SWM Design Manual
 Date: 08/11/2020
 By: JRW
 Checked: TJM

Site Drainage Area Data:

Item	Value	Unit
Project Site Area	0.92	acres
Project Area ROW	0.72	acres
Project Limit of Work Area, A	1.04	acres
Existing Impervious Area	0.73	acres
Proposed Impervious Area	0.72	acres
Existing % Impervious, I _e	79%	
Proposed % Impervious, I _p	70%	
Imp Area to Treat, A _t	0.36	acres

A_t = (50%)(Existing Impervious) + (100%)(Proposed Impervious-Existing Impervious)

Step 1. Determine Area Requiring Treatment
 Existing % Impervious, I_e = 79%
 Proposed % Impervious, I_p = 70%
 > 40%, therefore Redevelopment

Step 2. Determine Required Treatment Volume
 A. Determine Target P_e & ESDv Using Table 5.3 (MDE SWM Manual Section 5-page 5.21)
 Redevelopment:
 $I = 100%$
 $R_e = 0.05 + (0.009 * I)$
 $R_e = 0.950$
 $ESDv = [(P_e) (R_e) (A)] / 12$
 $P_e = 1.00$ inch. (Determine PE from Table 5.3)

Target ESDv = 0.028 ac-ft = 1224 cf

B. Determine SWM Treatment Provided

ESD Practice	Drainage Area (ac)	Imp. Area (ac)	Volume Treated (cf)
Micro-BioRetention	0.36	0.27	1983
Total	0.36	0.27	1983

Provided = 1983 cf, Required = 1224 cf

Confirm Stormwater Management Treatment:
 Target ESDv = 1224 cf
 Prov'd ESDv = 1983 cf OK

C. Calculate Recharge (Rev) Requirements
 $Rev = [(S) (R_e) (A)] / 12$
 $S = 0.13$ (D-Type Soils)
 Target Rev = 0.004 ac-ft = 159 cf
 Prov'd Rev = 0.007 ac-ft = 285 cf

D. Calculate Channel Protection (C_{ov}) Requirements: n/a
 E. Calculate Overbank Flood Protection (C_o) Requirements: n/a
 F. Calculate Extreme Flood Protection (C_{ext}) Requirements: n/a

Kimley-Horn
 Site Name: PMG Ellicott City
 Project #: 114021001
 County: Howard County

Date: 08/11/2020
 By: JRW
 Checked: TJM

ESD Treatment Summary

ESD ID	Type of Storm	Total Drainage Area (ac)	Imp. Area (ac)	Area Treated (ac)	Rev (cf)	ESDv (cf)	Cov	C _o	C _{ext}	Notes
MWR-1	Micro-Bio	0.36	0.27	0.27	1983	1224				1983
Total		0.36	0.27	0.27	1983	1224				1983

Notes and Equations:
 (1) A_t = Imp Area / Total DA
 (2) R_e = 0.05 + (0.009 * I)
 (3) Target ESDv = [(P_e) (R_e) (A)] / 12
 (4) Target Rev = [(S) (R_e) (A)] / 12
 (5) ESDv = [(P_e) (R_e) (A)] / 12
 (6) C_{ov} = ESDv / (Area Treated * 12)
 (7) C_o = Rev / (Imp Area * 12)
 (8) C_{ext} = ESDv / (Area Treated * 12)

APPROVED: [Signature] 11-18-20
 DIRECTOR DATE

FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE

APPROVED: [Signature] 11-9-20
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

APPROVED: [Signature] 11/18/20
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

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Kimley-Horn
 Site Name: PMG Ellicott City
 Project #: 114021001
 County: Howard County

Date: 08/11/2020
 By: JRW
 Checked: TJM

Stormwater Management - Environmental Site Design Summary

Total Drainage Area (sf)	Existing Impervious (sf)	Proposed Impervious (sf)	% Rev	Target P _e	Target RCN	ESD Req'd (Overall Site) (cf)	R _e Req'd (Overall Site) (cf)	Impervious Area Treated (sf)	ESD Prov'd (Individual) (cf)	R _e Prov'd (Individual) (cf)	Prov'd C _{ov}	C _{ov} Req'd
45307	32505	32364	71%	1.0	70	1224	159	11625	1583	285	70	N/A

NO AS-BUILT information in this sheet.
 John Kauppila

1/24/22

GRAPHIC SCALE IN FEET
 SCALE: 1"=20'

Kimley-Horn
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 11400 COMMERCE PARK DR, SUITE 400
 RESTON, VA 20191
 CONTACT: TODD MAGIERA, P.E.
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 WWW.KIMLEY-HORN.COM

PMIG 1027, LLC
 2359 RESEARCH COURT
 WOODBRIDGE, VA 22192
 PHONE: 703-494-5800

REV	DATE	BY
1	10/30/20	JRW

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 C-STORE, CANOPY, AND 6 MPD'S

ELLICOTT CITY (STATION MD-108)
 PREPARED FOR
 PMIG 1027, LLC

SITE DEVELOPMENT PLAN

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ESD DRAINAGE AREA MAP

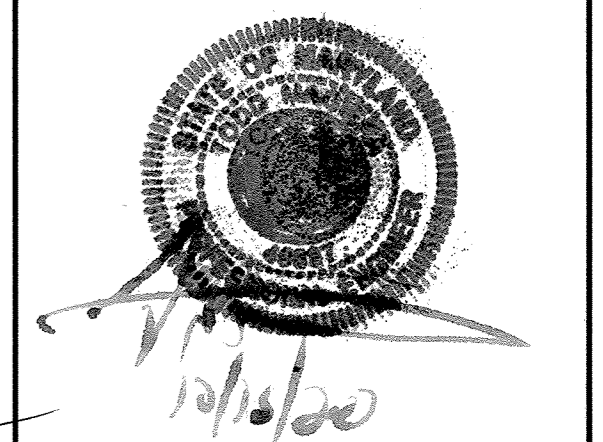
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**SITE
DEVELOPMENT
PLAN**



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. EXP.

**ESD NOTES AND
DETAILS**

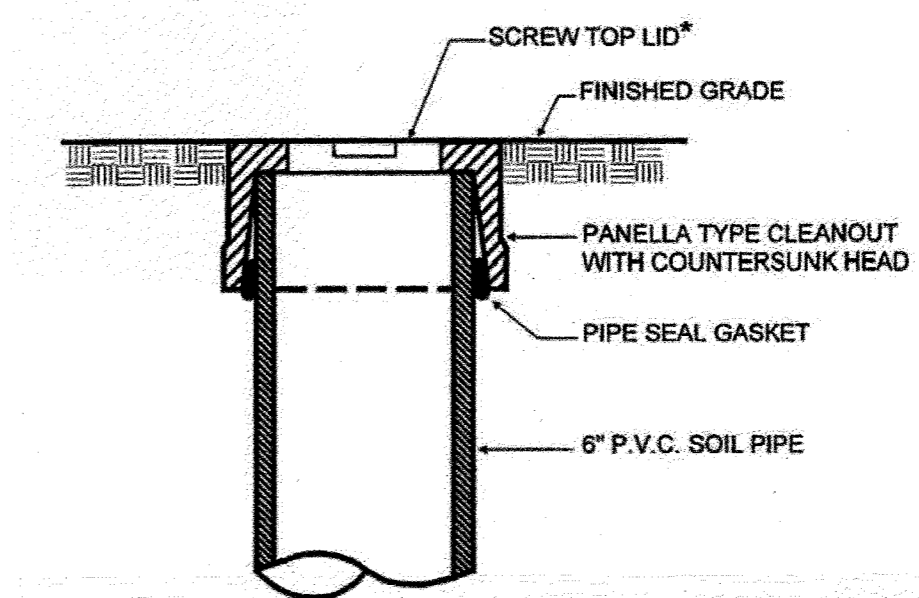
SHEET NUMBER
22 OF 30

SDP-20-018

Table B.4.1 Materials Specifications for Micro-Bioretenation, Rain Gardens, & Landscape Infiltration

Material	Specifications	Notes
Planting soil	See Appendix A, Table A.4	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D-2974)	
Mulch	Shredded hardwood	aged 6 months, minimum; no pine or wood chips
Per gravel diaphragm	per gravel: ASTM D-443	NO. 8 OR NO. 9 (1/8" TO 1/8")
Curtain drain	conventional stone: washed cobble	stone: 2" to 5"
Geotextile		PE Type 1 nonwoven
Gravel (underdrains and infiltration basins)	AASHTO M-43	NO. 57 OR NO. 6 (3/8" TO 3/4")
Underdrain piping	7.5in. Type PS 28 or AASHTO M-278	4" or 6" rigid schedule 40 PVC or HDPE
Preplaced concrete (if required)	MSHA Min. No. 3; f _c = 3500 psi @ 28 days, normal weight, air-entrained, conforming to meet ASTM A615-40	no-site testing of precast-in-place concrete required; 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved data or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting A.C.I. Code 190.8.9; vertical loading (H-10 or H-20); allowable horizontal loading (based on soil strength) and details of potential cracking
Sand	AASHTO M-6 or ASTM C-33	0.075" to 0.04"

Detail 4 Observation Well for Infiltration Practices



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

OBSERVATION WELL DETAIL

**STORMWATER MAINTENANCE SCHEDULE
ENVIRONMENTAL SENSITIVE DESIGN**

Micro-Bioretenation	Seasonally (and after a major storm)	Irrigate during prolonged dry periods.
	If specific plants are not surviving, replace with more appropriate species.	Remove any dead or dying vegetation and revegetate.
		Prune vegetation occasionally.
		Remove accumulated sediment from surface of filter bed when accumulation exceeds one inch.
		If water ponds for more than 48 hours, remove and replace the top few inches of filter media.
		Replace mulch annually where practice treats areas with high concentrations of heavy metals. Otherwise, replace top 2-3 inches as necessary.

AS-BUILT DATA FOR MICRO-BIO MBR 1 TO BE COMPLETED BY THE CERTIFYING ENGINEER

TYPE OF FACILITY: MICRO-BIO	DESIGN	AS-BUILT
FILTER BED DIMENSIONS	VARIABLES	
FILTER BED AREA (SF)	1187	
VOLUME PROVIDED (CF)	1583	
MULCH TOP ELEVATION	382.75	
PLANTING MEDIA / SOIL TOP ELEVATION	382.50	
PLANTING SOIL BOTTOM ELEVATION	380.50	
UNDERDRAIN INVERT	379.25	
BOTTOM OF GRAVEL ELEVATION	378.75	
TOP OBSERVATION WELL ELEVATION	383.75	
INLET TOP ELEVATION	383.75	
OVERFLOW WEIR ELEVATION	384.25	
TOP OF FACILITY	384.25	

AS-BUILT IS ACCURATE AND COMPLETE; DESIGN STORAGE VOLUME IS PROVIDED.

* REFER TO SHEET 28 OF 30 FOR THE PROPOSED MICRO-BIOTRETENTION PLANTINGS TABLE

THIS SHEET IS NOT NEEDED. KEEP THIS SHEET IN SET FOR SHEET NUMBER CROSS REFERENCE.

B.4.C Specifications for Micro-Bioretenation, Rain Gardens, Landscape Infiltration & Infiltration Basins

- ALL APPENDICES AND TABLES REFERENCED CAN BE FOUND IN THE LATEST EDITION OF THE MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I & II

The allowable materials to be used in these practices are detailed in Table B.4.1.

2. Filtering Media or Planting Soil

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretenation practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

- Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
- Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).
- Clay Content - Media shall have a clay content of less than 5%.
- pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

3. Compaction

It is very important to minimize compaction of both the base of bioretention practices and the required backfill. When possible, use excavation hoers to remove original soil. If practices are

excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to restructure the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

4. Plant Material

Recommended plant material for micro-bioretenation practices can be found in Appendix A, Section A.2.3.

5. Plant Installation

Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8" of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. Underdrains

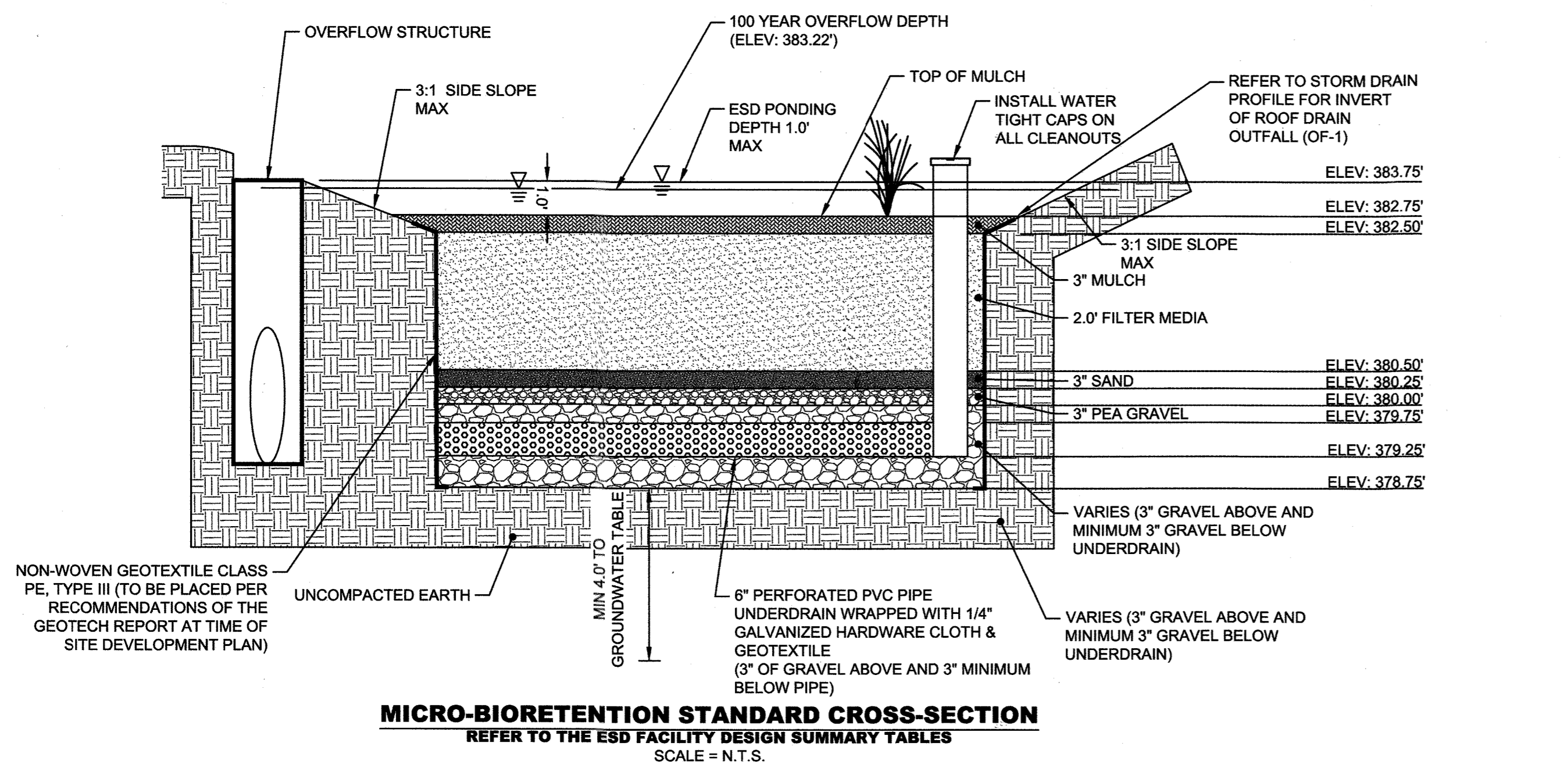
Underdrains should meet the following criteria:

- Pipe - Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTM F 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
- Perforations - If perforated pipe is used, perforations should be 3/8" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a 1/4" (No. 4 or 4s4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.
- The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.
- A 4" layer of pea gravel (3/8" to 3/4" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

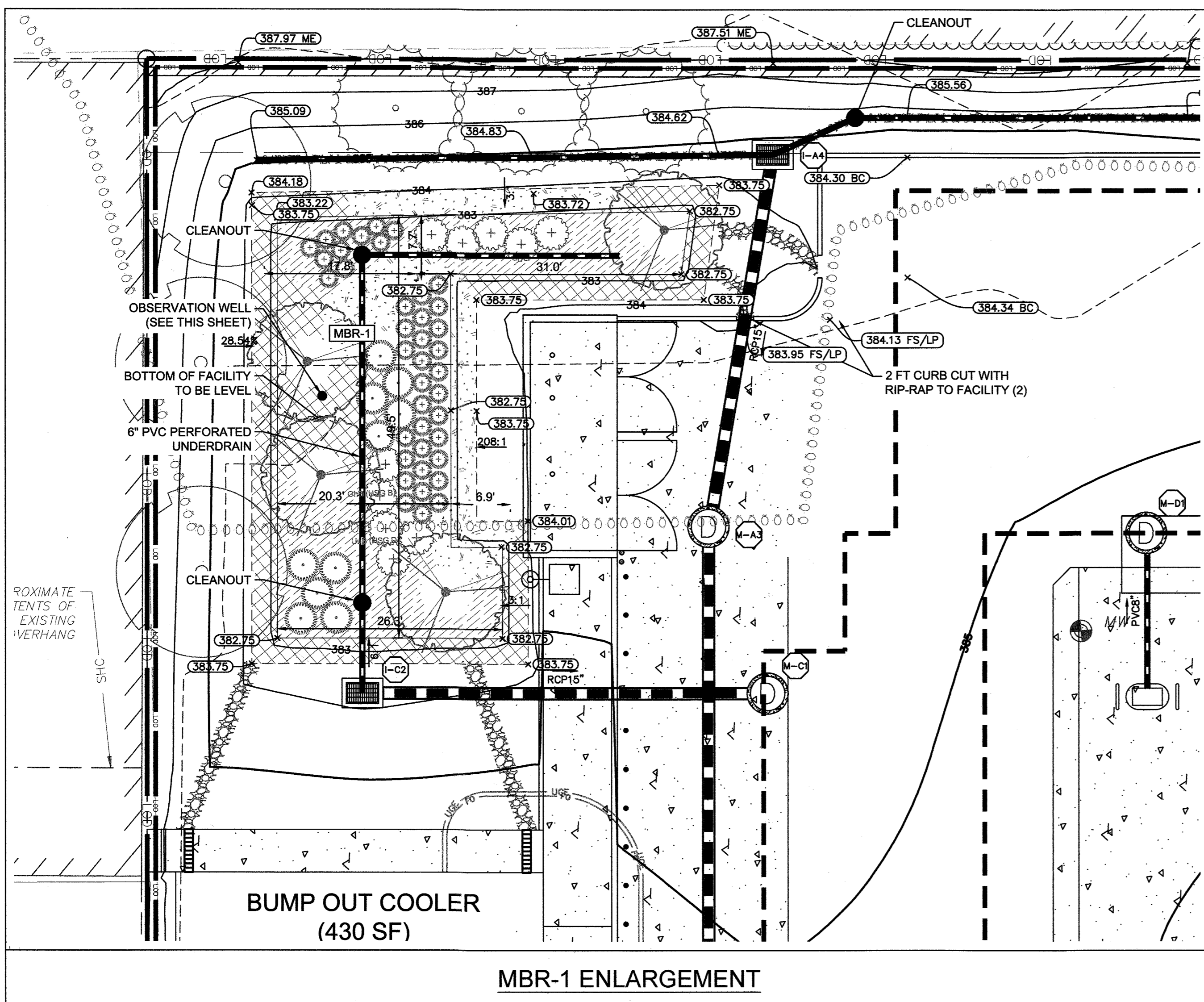
The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

7. Miscellaneous

These practices may not be constructed until all contributing drainage area has been stabilized



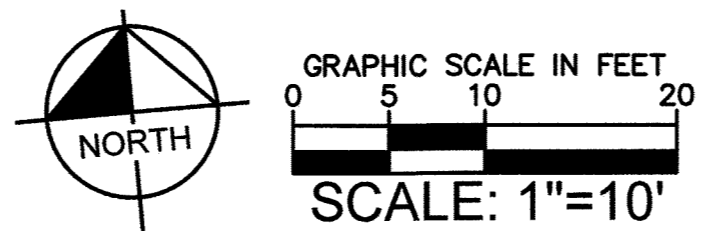
MICRO-BIOTRETENTION STANDARD CROSS-SECTION
REFER TO THE ESD FACILITY DESIGN SUMMARY TABLES
SCALE = N.T.S.



APPROVED: *[Signature]* 11-13-20
FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT
DATE

APPROVED: *[Signature]* 11-9-20
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE

APPROVED: *[Signature]* 11-12-20
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE



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Know what's below. Call before you dig.

NO.	DATE	BY	REVISIONS
2	02/02/21	JRW	REVISION 2: SWM & UTILITY UPDATES
1	10/30/20	JRW	REVISION 1: SWM UPDATES

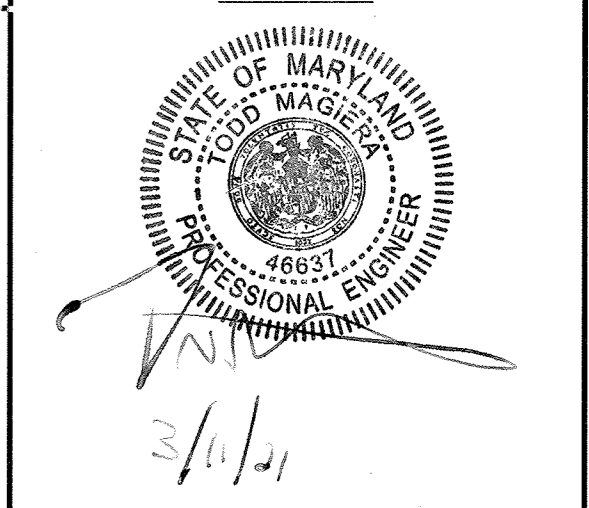
9320 BALTIMORE NATIONAL PIKE
HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL: 996, LOT 1
GRID #4
ZONING: B-2-TNC
SECOND ELECTION DISTRICT
ADC MAP/GRID #: 4815-G6
RECORDING REFERENCE SDP-20-018

KHA PROJECT NO.: 114021001
SCALE: AS SHOWN
DATE: 08/11/2020
DESIGNED BY: JRW
DRAWN BY: JRW
CHECKED BY: TM

IMPROVEMENT DESCRIPTION:
REDEVELOPMENT OF EXISTING GAS
STATION TO PROPOSED 2,666 SF
C-STORE, CANOPY, AND 6 MPD'S.

**ELLCOTT CITY
(STATION
MD-108)**
PREPARED FOR
PMIG 1027, LLC

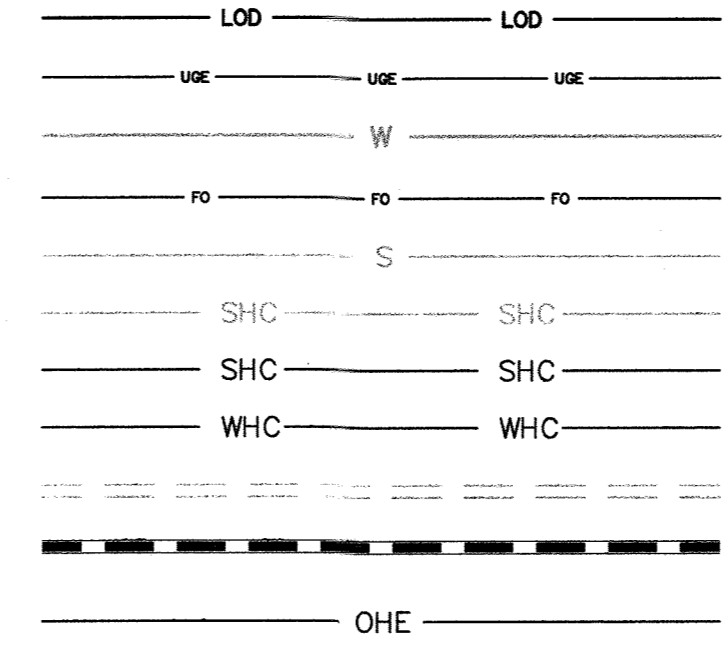
**SITE
DEVELOPMENT
PLAN**



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LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 46637 EXP. 04/12/21

UTILITY PLAN

UTILITY LEGEND



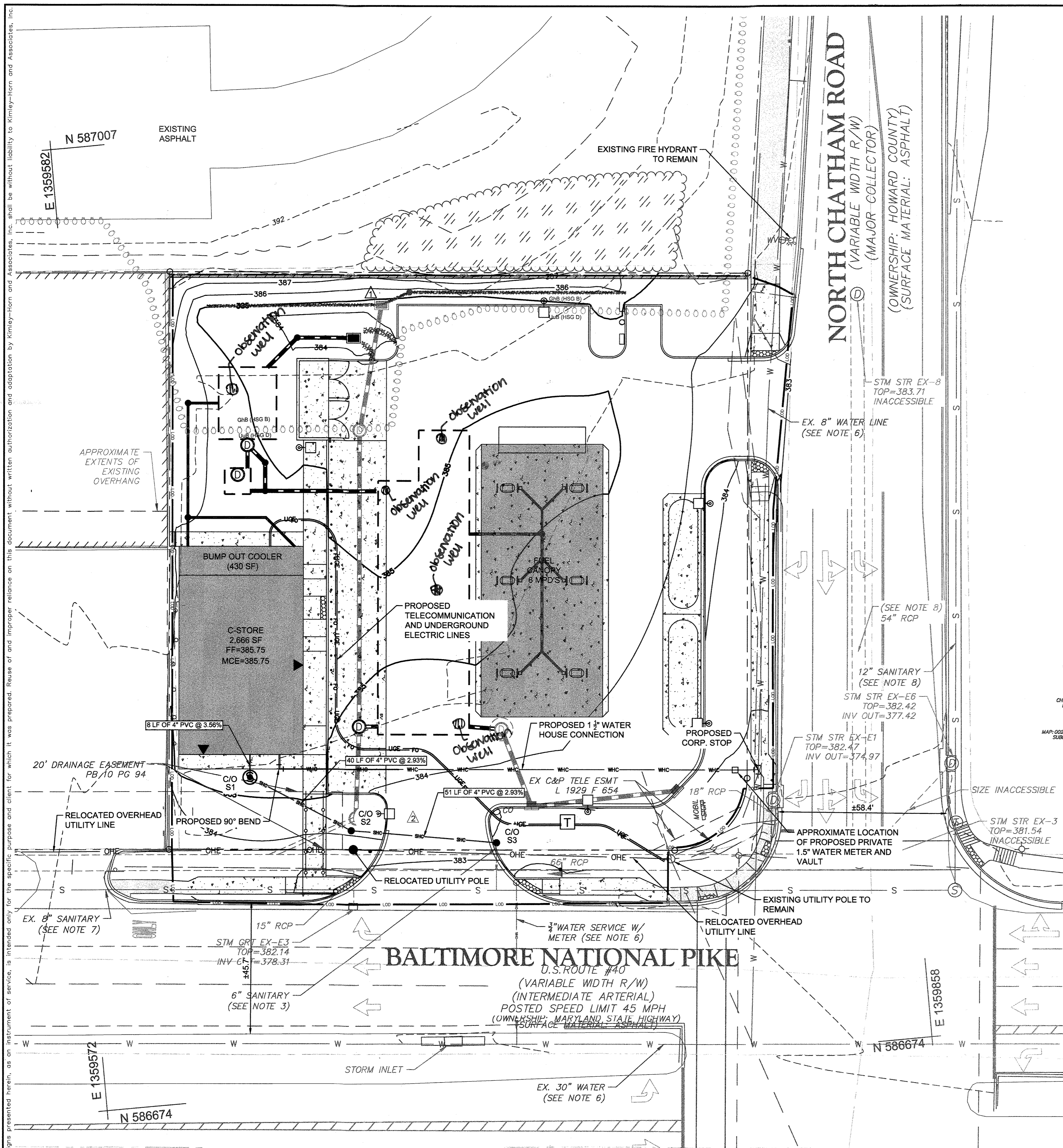
- LIMITS OF DISTURBANCE
- PROPOSED UNDERGROUND ELECTRIC LINE
- EXISTING UNDERGROUND WATER LINE
- PROPOSED UNDERGROUND TELECOMM. LINE
- EXISTING SANITARY SEWER LINE MAIN
- EXISTING SANITARY HOUSE CONNECTION
- PROPOSED SANITARY HOUSE CONNECTION
- PROPOSED WATER HOUSE CONNECTION
- EXISTING DRAINAGE PIPE
- PROPOSED DRAINAGE PIPE
- PROPOSED OVERHEAD ELECTRIC LINE
- EXISTING WATER VALVE, WATER METER, WATER MANHOLE, FIRE HYDRANT
- PROPOSED 90° & 22.5° WATER BENDS
- EXISTING UTILITY POLE
- EXISTING GUY WIRE
- EXISTING ELECTRIC METER, ELECTRIC BOX
- EXISTING TELEPHONE PEDESTAL
- EXISTING AREA LIGHTS
- EXISTING SIGN
- EXISTING STORM, SANITARY, TELEPHONE, ELECTRIC MANHOLES
- EXISTING CLEANOUT
- PROPOSED TWO-WAY WYE CLEANOUT
- PROPOSED TRANSFORMER (FINAL LOCATION TO BE COORDINATED WITH UTILITY COMPANY)
- PROPOSED UTILITY POLE

SOIL LEGEND

SOIL TYPE BOUNDARY	"K" VALUE	HYDROLOGIC SOIL GROUP
GhB	0.28	B
UuB	0.32	D

UTILITY NOTES:

- REFER TO SHEET 2 OF 30 FOR SURVEY NOTES.
- REFER TO ARCHITECTURAL PLANS FOR PROPOSED INTERNAL GREASE INTERCEPTOR LOCATION. GREASE INTERCEPTOR SHALL BE ISOLATED FROM FOOD PREPARATION AREAS AND MUST BE APPROVED BY HOWARD COUNTY HEALTH DEPARTMENT. IF APPROVAL FOR INTERNAL GREASE INTERCEPTOR IS NOT GRANTED BY HOWARD COUNTY HEALTH DEPARTMENT THEN AN EXTERNAL GREASE INTERCEPTOR SHALL BE REQUIRED.



SANITARY SEWER STRUCTURE TABLE:

STRUCTURE NO.	DESCRIPTION	INVERT ELEVATION	OUTLET ELEVATION
14	NULL STRUCTURE	RIM: 0.00	
S1	MH RIM: 385.48 INV IN: 381.47 INV OUT: 381.37	381.47	381.37
S2	6" CLEANOUT RIM: 384.10 INV IN: 380.21 INV OUT: 380.11	380.21	380.11

APPROVED: FOR PUBLIC OR PRIVATE [pick only one] WATER AND PUBLIC OR PRIVATE [pick only one] SEWERAGE SYSTEMS

County Health Officer
Howard County Health Department
Date: _____

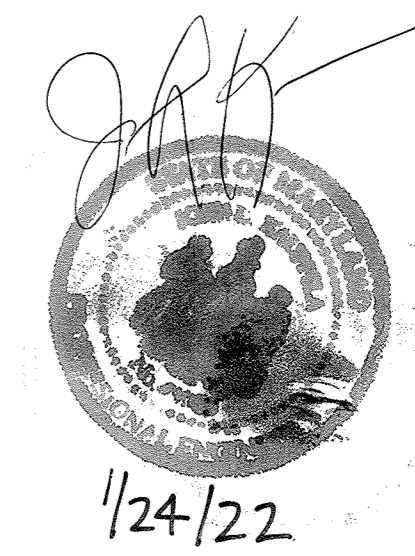
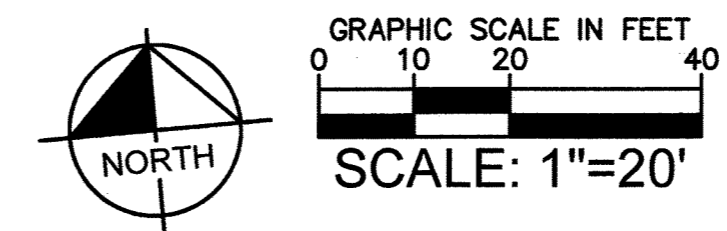
APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
Date: 4/7/21

Chief, Division of Land Development
Date: 4/12/21

Director
Date: 4/12/21

I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan meet the Approved Plans and Specifications.
JOHN WAUPPILA



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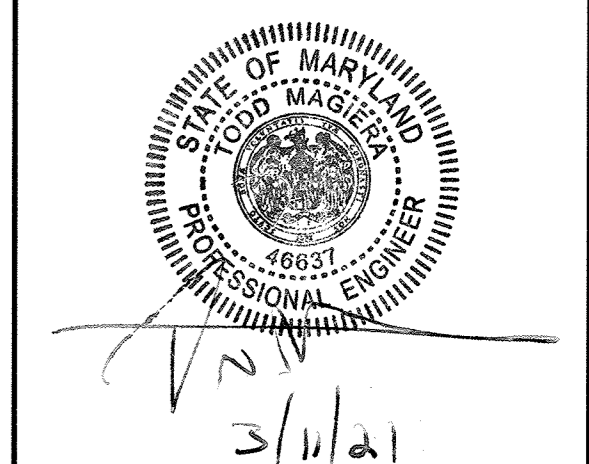
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No.	REVISIONS	DATE	BY
2	REVISION 2: SWM & UTILITY UPDATES	02/02/21	JRW
1	REVISION 1: SWM UPDATES	10/30/20	JRW

9320 BALTIMORE NATIONAL PIKE
 HOWARD COUNTY, MARYLAND
 TAX MAP NO: 24 PARCEL: 996, LOT 1
 GRID #4
 ZONING: B-2-TNC
 SECOND ELECTION DISTRICT
 ADC MAP/GRID #: 4815-G6
 RECORDING REFERENCE SDP-20-018
 KHA PROJECT NO.: 114021001
 SCALE: AS SHOWN
 DATE: 08/11/2020
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 IMPROVEMENT DESCRIPTION:
 REDEVELOPMENT OF EXISTING GAS
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**ELLCOTT CITY
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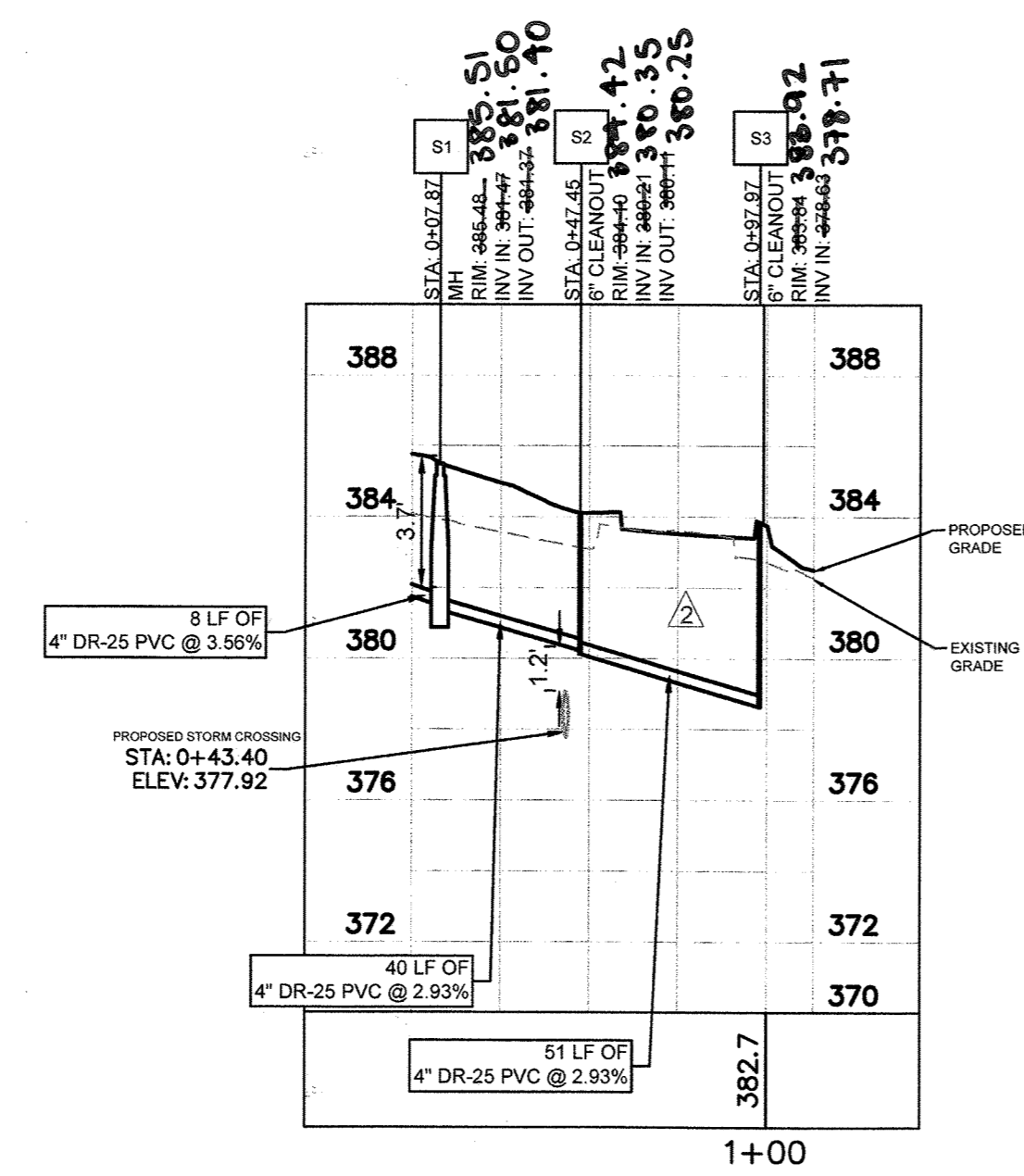
**SITE
 DEVELOPMENT
 PLAN**



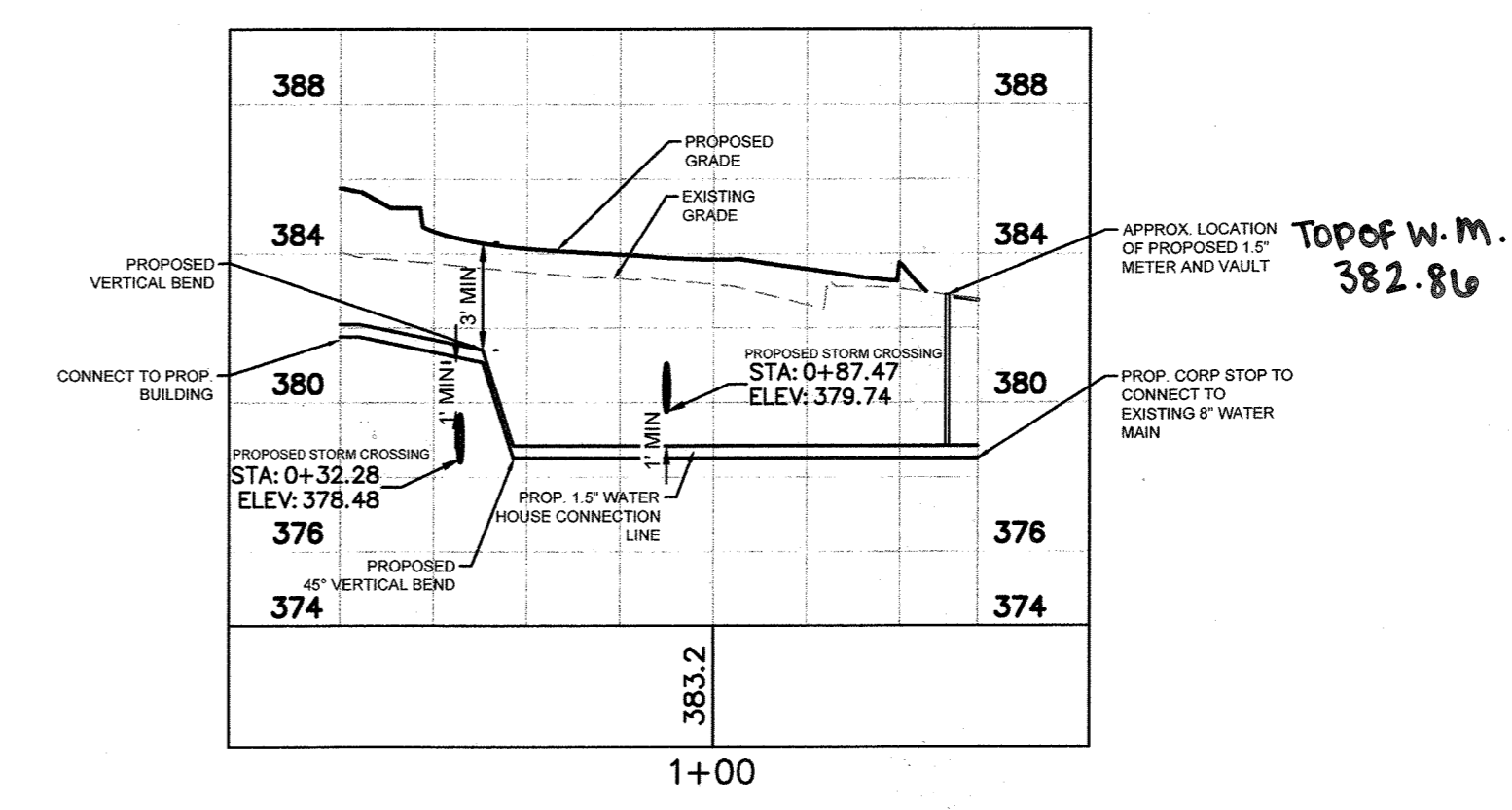
PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 46637 EXP. 04/12/21

UTILITY PROFILES

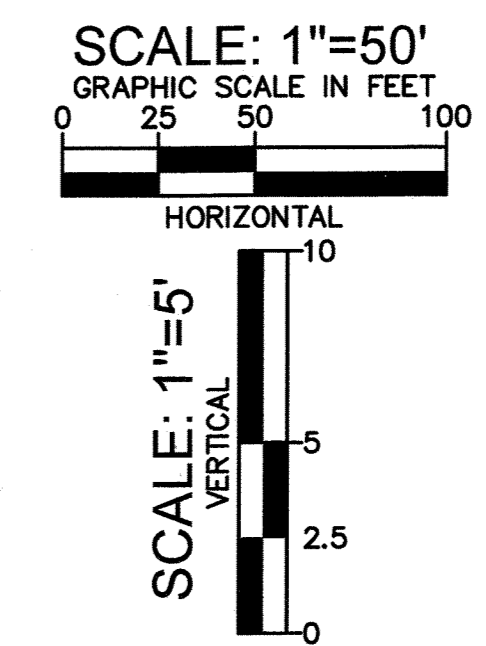
SHEET NUMBER
24 OF 30
 Revised Sheet



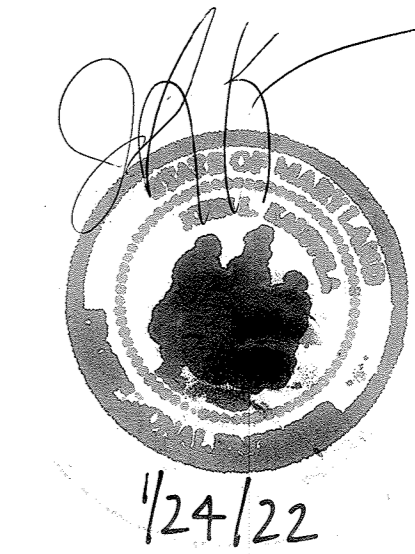
PROPOSED SANITARY HOUSE CONNECTION PROFILE



PROPOSED WATER HOUSE CONNECTION PROFILE



I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan meet the Approved Plans and Specifications.
 JOHN KAUPILLA



APPROVED: FOR PUBLIC OR PRIVATE (pick only one) WATER AND PUBLIC OR PRIVATE (pick only one) SEWERAGE SYSTEMS

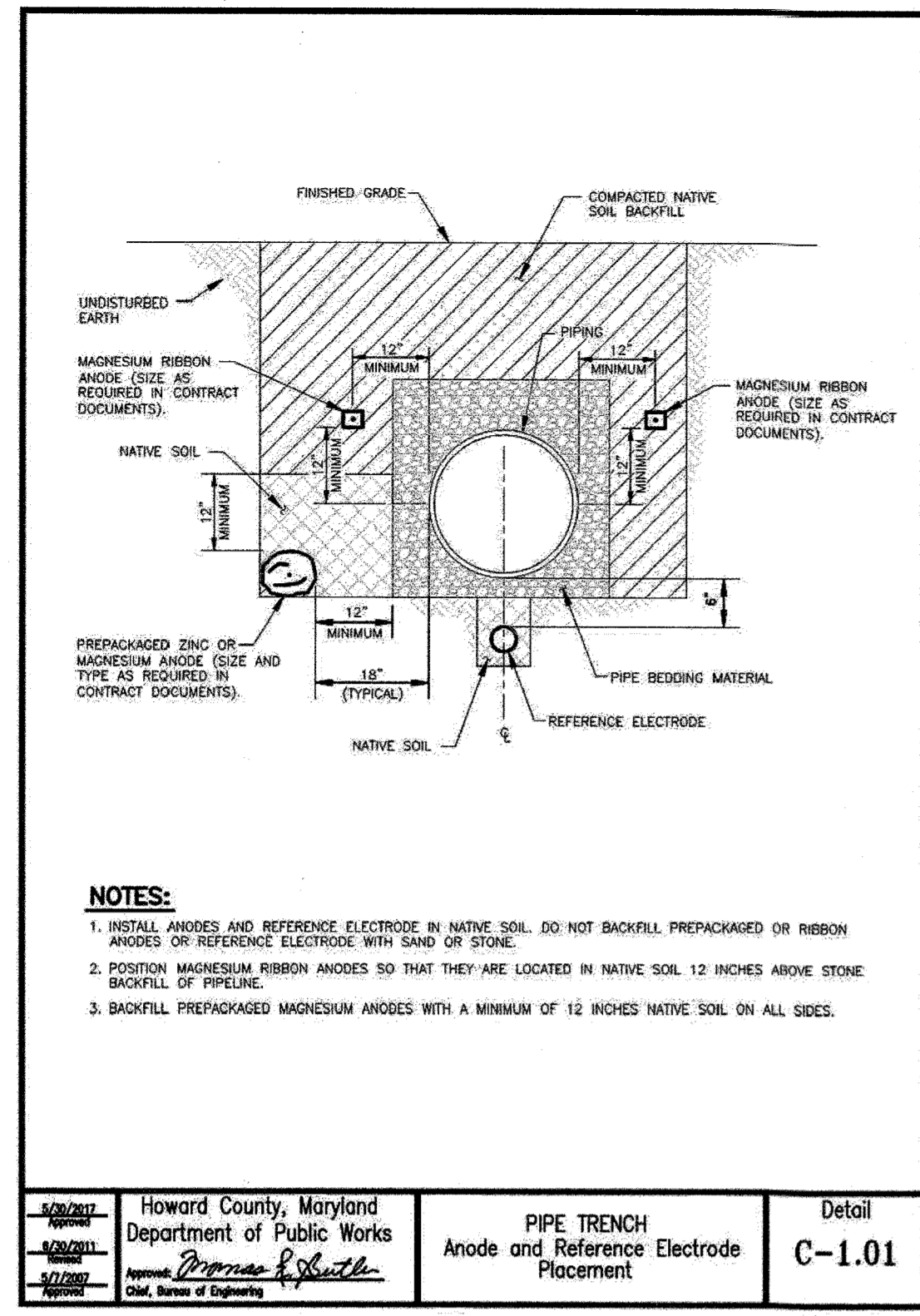
County Health Officer _____ Date _____
 Howard County Health Department

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division _____ Date 4/7/21
 Chief, Division of Land Development _____ Date 4/14/21
 Director _____ Date 4/19/21

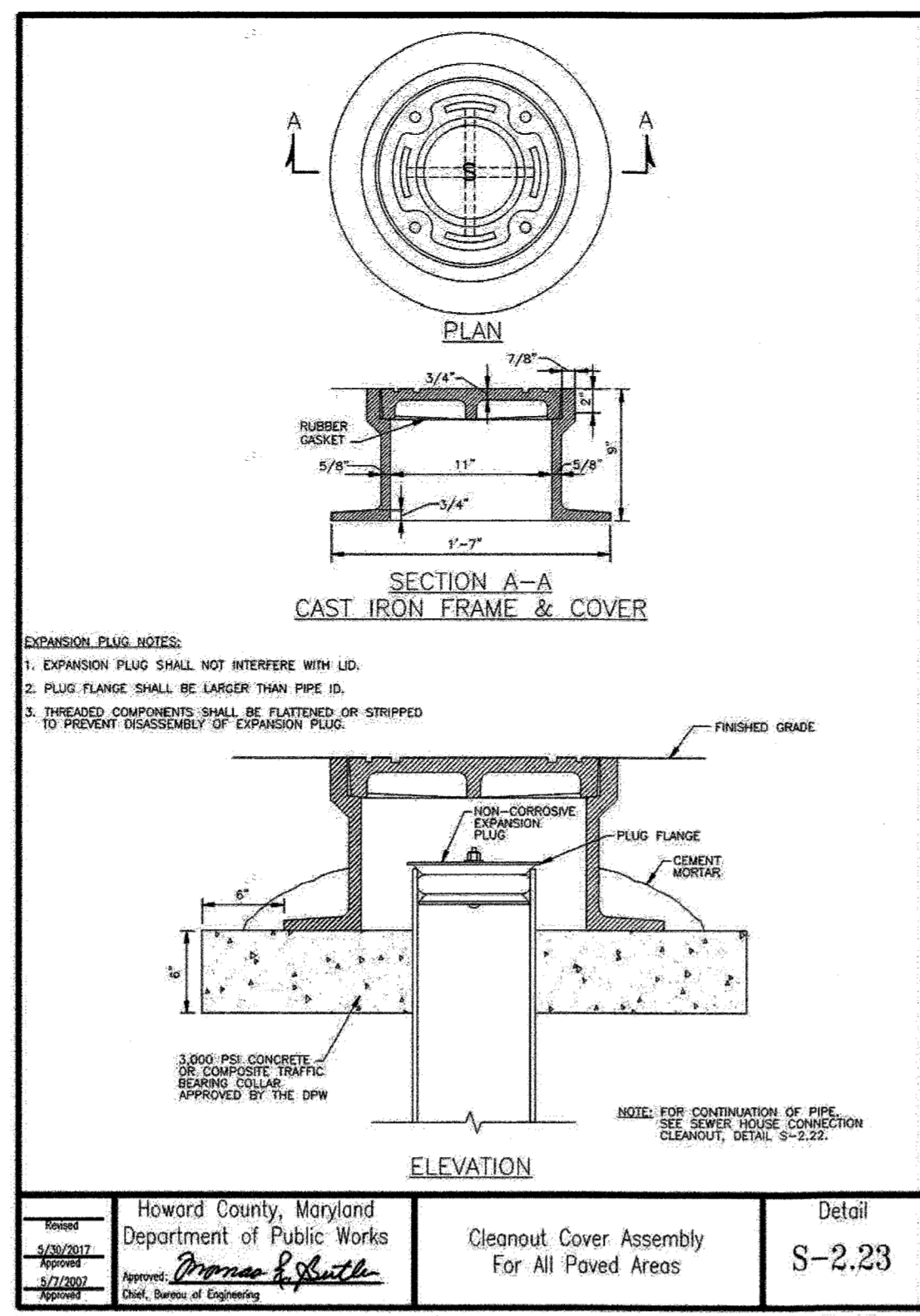
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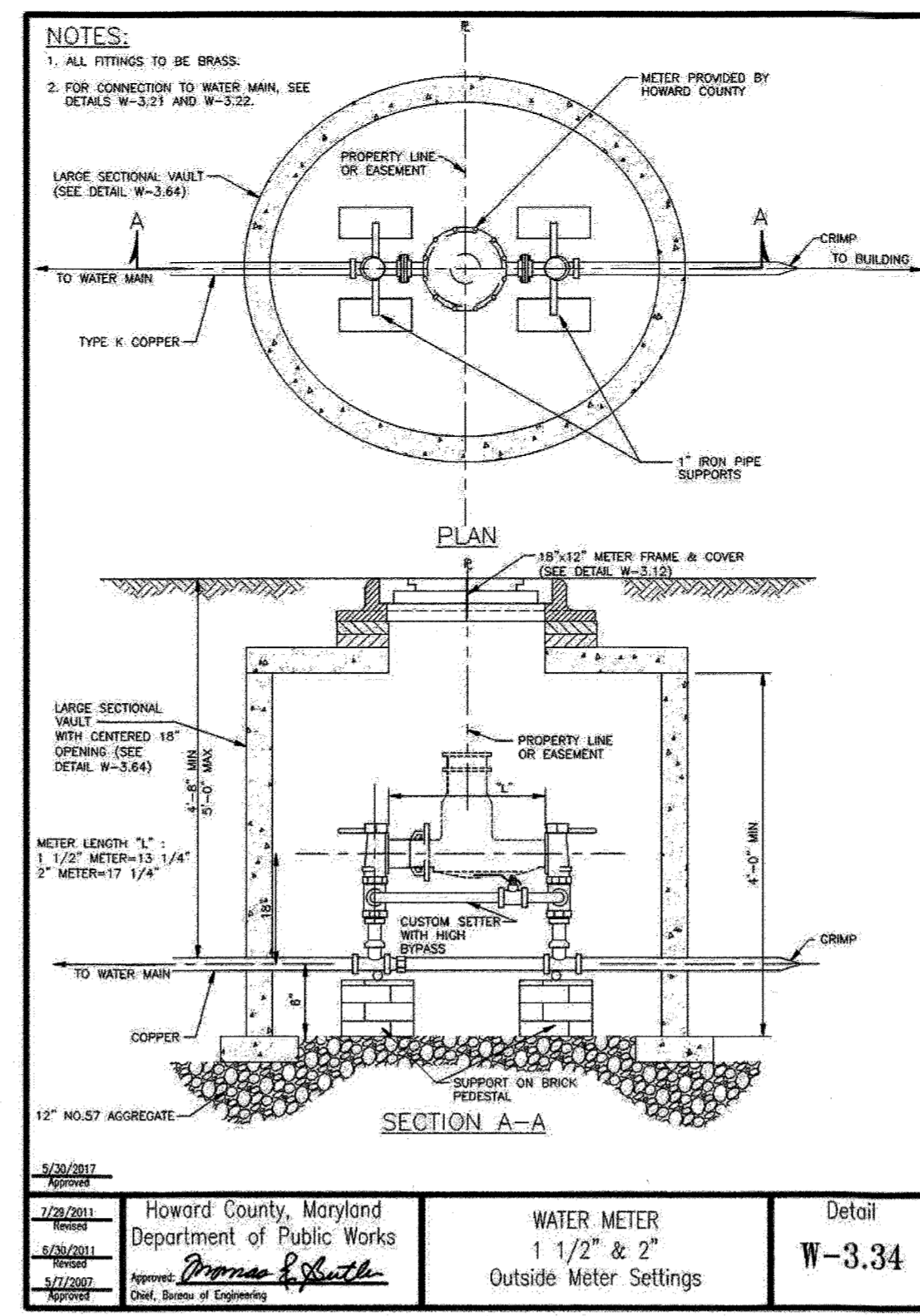
NOTES:
 1. INSTALL ANODES AND REFERENCE ELECTRODE IN NATIVE SOIL. DO NOT BACKFILL PREPACKAGED OR RIBBON ANODES OR REFERENCE ELECTRODE WITH SAND OR STONE.
 2. POSITION MAGNESIUM RIBBON ANODES SO THAT THEY ARE LOCATED IN NATIVE SOIL 12 INCHES ABOVE STONE BACKFILL OF PIPELINE.
 3. BACKFILL PREPACKAGED MAGNESIUM ANODES WITH A MINIMUM OF 12 INCHES NATIVE SOIL ON ALL SIDES.

DATE: 11/20/20	HOWARD COUNTY, MARYLAND Department of Public Works	PIPE TRENCH Anode and Reference Electrode Placement	Detail C-1.01
DESIGNED BY: <i>Pratt & Smith</i>	APPROVED BY: <i>Pratt & Smith</i> Chief, Bureau of Engineering		

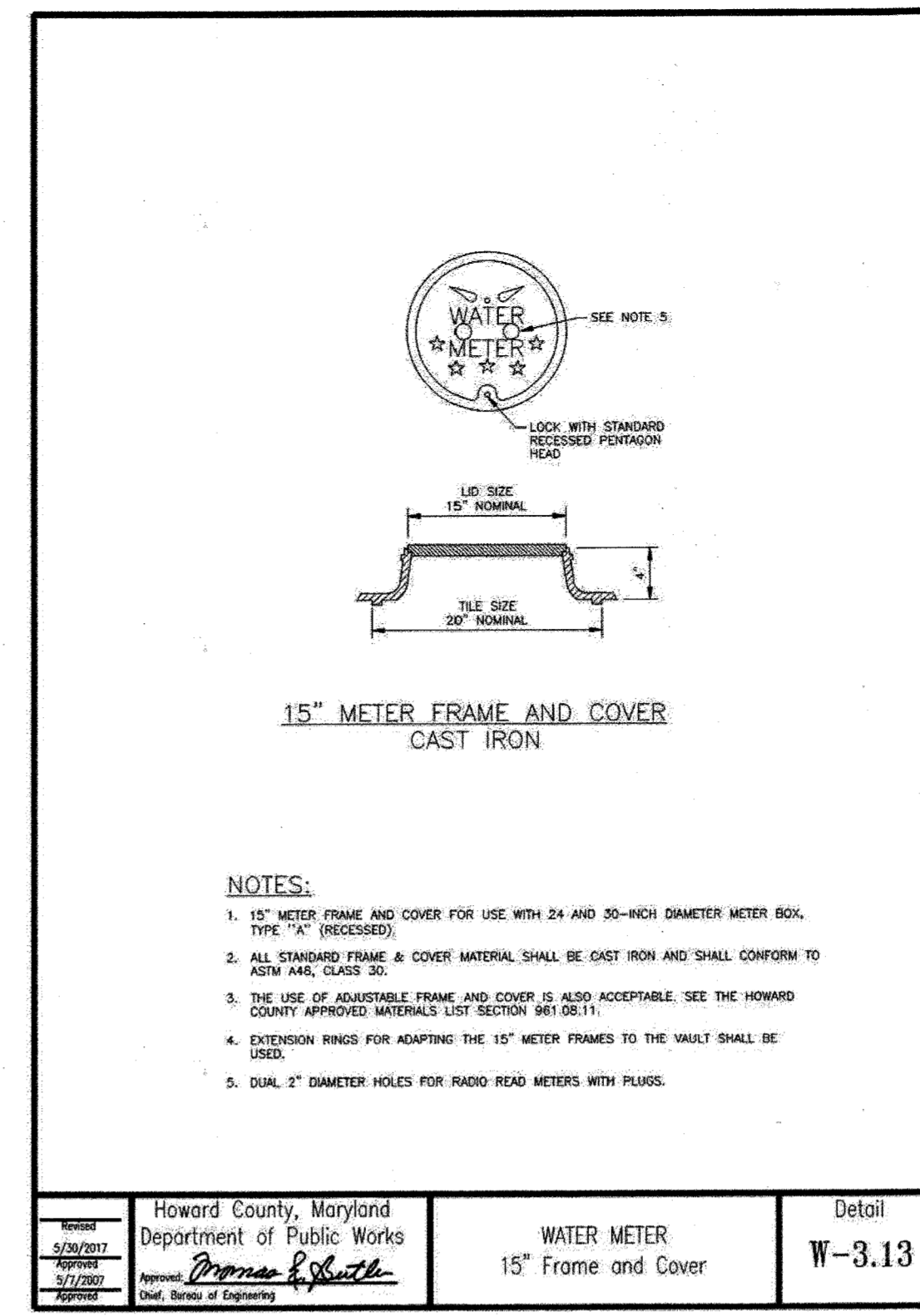


EXPANSION PLUG NOTES:
 1. EXPANSION PLUG SHALL NOT INTERFERE WITH LID.
 2. PLUG FLANGE SHALL BE LARGER THAN PIPE ID.
 3. THREADS COMPONENTS SHALL BE PLATED OR STIPPED TO PREVENT DISASSEMBLY OF EXPANSION PLUG.

DATE: 11/20/20	HOWARD COUNTY, MARYLAND Department of Public Works	Cleanout Cover Assembly For All Paved Areas	Detail S-2.23
DESIGNED BY: <i>Pratt & Smith</i>	APPROVED BY: <i>Pratt & Smith</i> Chief, Bureau of Engineering		

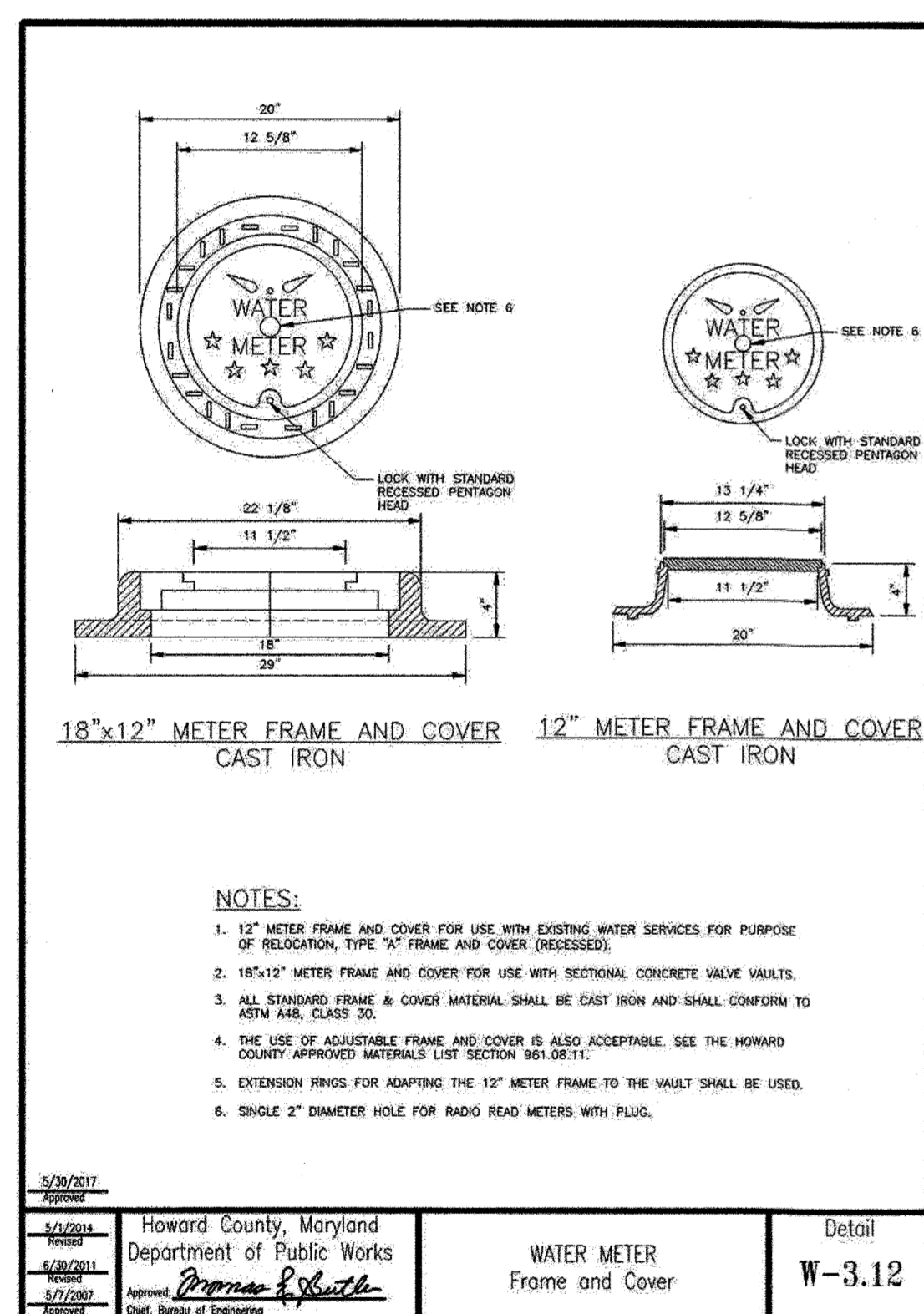


DATE: 11/20/20	HOWARD COUNTY, MARYLAND Department of Public Works	WATER METER 1 1/2" & 2" Outside Meter Settings	Detail W-3.34
DESIGNED BY: <i>Pratt & Smith</i>	APPROVED BY: <i>Pratt & Smith</i> Chief, Bureau of Engineering		



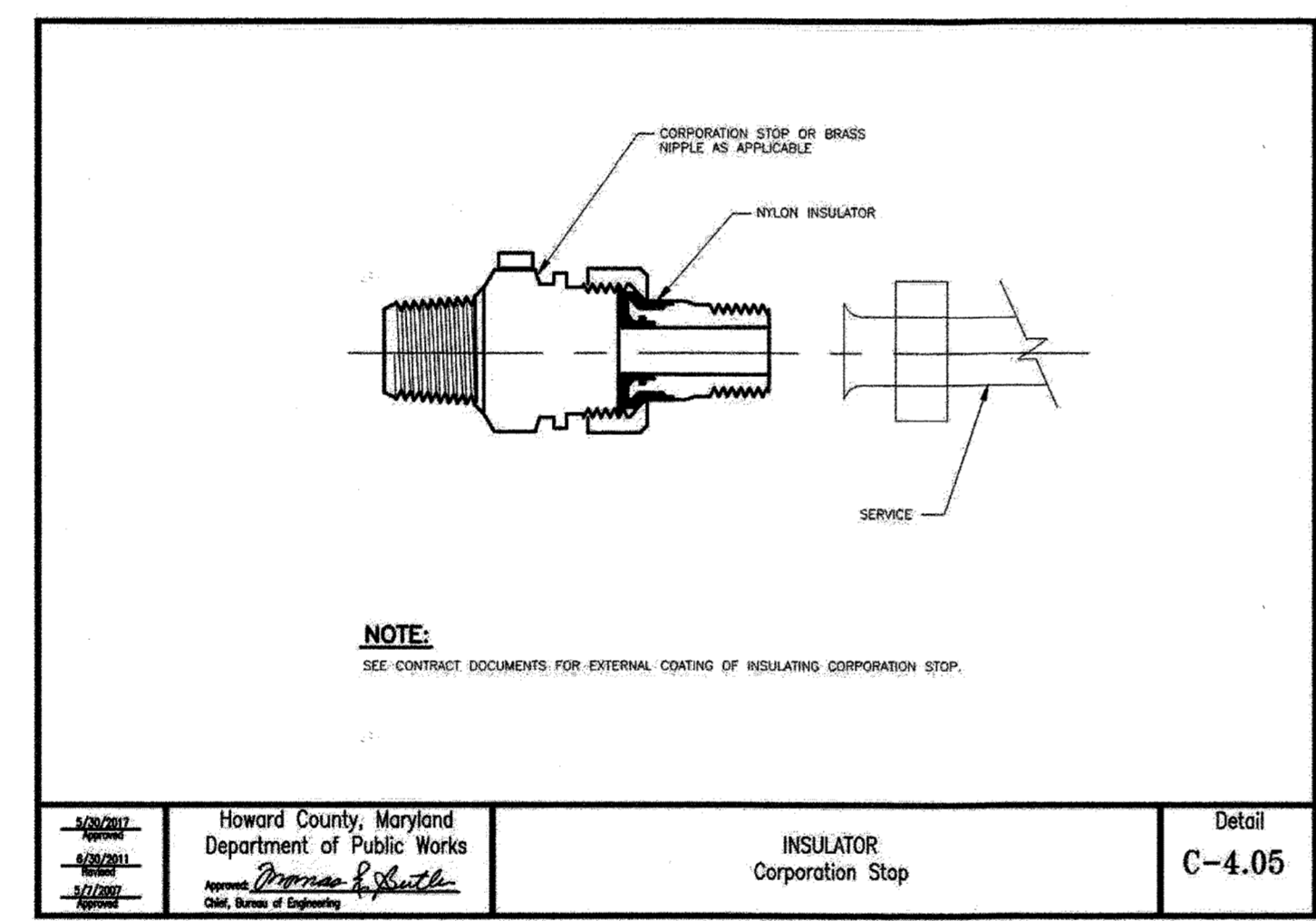
NOTES:
 1. 15" METER FRAME AND COVER FOR USE WITH 24 AND 30-INCH DIAMETER METER BOX. TYPE "A" (RECESSED).
 2. ALL STANDARD FRAME & COVER MATERIAL SHALL BE CAST IRON AND SHALL CONFORM TO ASTM A88, CLASS 30.
 3. THE USE OF ADJUSTABLE FRAME AND COVER IS ALSO ACCEPTABLE. SEE THE HOWARD COUNTY APPROVED MATERIALS LIST SECTION 981.02.11.
 4. EXTENSION RINGS FOR ADAPTING THE 15" METER FRAMES TO THE VAULT SHALL BE USED.
 5. DUAL 2" DIAMETER HOLES FOR RADIO READ METERS WITH PLUGS.

DATE: 11/20/20	HOWARD COUNTY, MARYLAND Department of Public Works	WATER METER 15" Frame and Cover	Detail W-3.13
DESIGNED BY: <i>Pratt & Smith</i>	APPROVED BY: <i>Pratt & Smith</i> Chief, Bureau of Engineering		

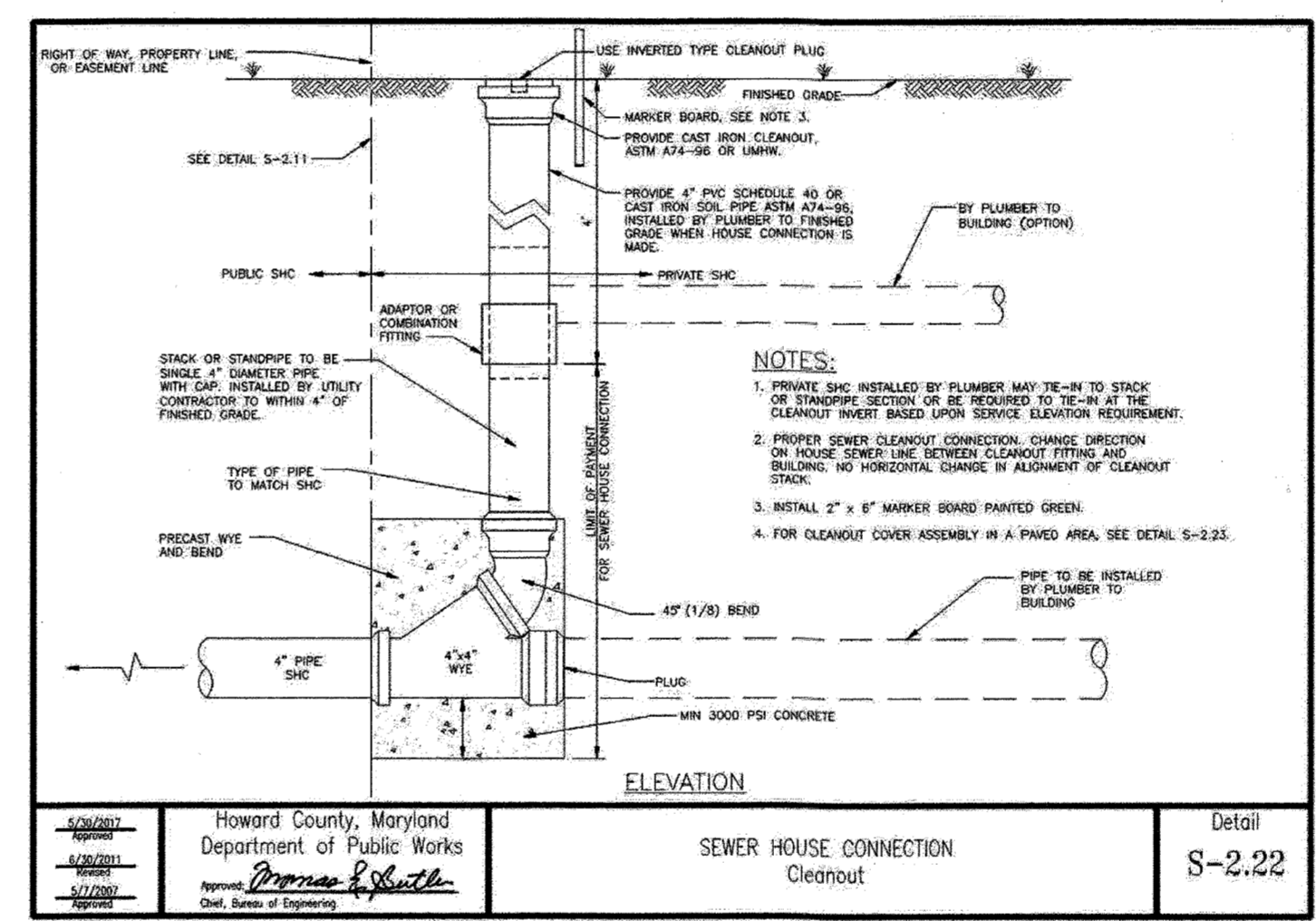


NOTES:
 1. 12" METER FRAME AND COVER FOR USE WITH EXISTING WATER SERVICES FOR PURPOSE OF RELOCATION, TYPE "A" FRAME AND COVER (RECESSED).
 2. 18"x12" METER FRAME AND COVER FOR USE WITH SECTIONAL CONCRETE VALVE VAULTS.
 3. ALL STANDARD FRAME & COVER MATERIAL SHALL BE CAST IRON AND SHALL CONFORM TO ASTM A88, CLASS 30.
 4. THE USE OF ADJUSTABLE FRAME AND COVER IS ALSO ACCEPTABLE. SEE THE HOWARD COUNTY APPROVED MATERIALS LIST SECTION 981.02.11.
 5. EXTENSION RINGS FOR ADAPTING THE 12" METER FRAME TO THE VAULT SHALL BE USED.
 6. SINGLE 2" DIAMETER HOLE FOR RADIO READ METERS WITH PLUG.

DATE: 11/20/20	HOWARD COUNTY, MARYLAND Department of Public Works	WATER METER Frame and Cover	Detail W-3.12
DESIGNED BY: <i>Pratt & Smith</i>	APPROVED BY: <i>Pratt & Smith</i> Chief, Bureau of Engineering		



DATE: 11/20/20	HOWARD COUNTY, MARYLAND Department of Public Works	INSULATOR Corporation Stop	Detail C-4.05
DESIGNED BY: <i>Pratt & Smith</i>	APPROVED BY: <i>Pratt & Smith</i> Chief, Bureau of Engineering		



NOTES:
 1. PRIVATE S/W INSTALLED BY PLUMBER MAY BE IN TO STACK OR STAIRWELL SECTION OR BE REQUIRED TO BE IN AT THE CLEANOUT FRONT BASED UPON SERVICE ELEVATION REQUIREMENT.
 2. PROPER SEWER CLEANOUT CONNECTION, CHANGE DIRECTION OR HOUSE SEWER LINE BETWEEN CLEANOUT FITTING AND BUILDING. NO HORIZONTAL CHANGE IN ALIGNMENT OF CLEANOUT STACK.
 3. INSTALL 2" x 8" WALKER BOARD PAINTED GREEN.
 4. FOR CLEANOUT COVER ASSEMBLY IN A PAVED AREA, SEE DETAIL S-2.22.

DATE: 11/20/20	HOWARD COUNTY, MARYLAND Department of Public Works	SEWER HOUSE CONNECTION Cleanout	Detail S-2.22
DESIGNED BY: <i>Pratt & Smith</i>	APPROVED BY: <i>Pratt & Smith</i> Chief, Bureau of Engineering		

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 11400 COMMERCE PARK DR., SUITE 400
 RESTON, VA 20191
 CONTACT: TODD MAGIERA, P.E.
 PHONE: 703-674-1311
 WWW.KIMLEY-HORN.COM

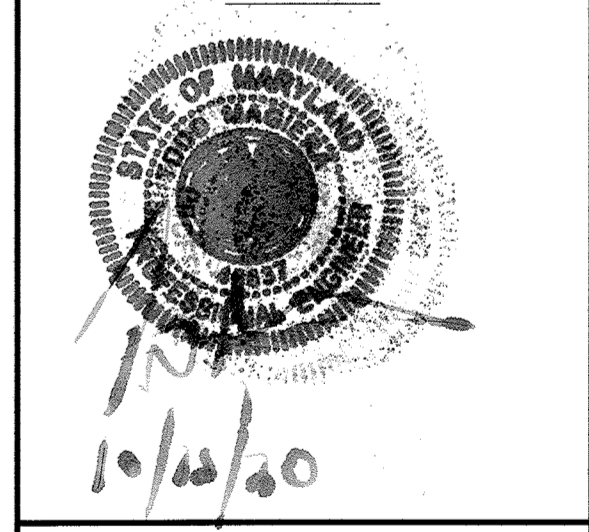
PMIG 1027, LLC
 2359 RESEARCH COURT
 WOODBRIDGE, VA 22192
 PHONE: 703-494-5800

No.	REVISIONS	DATE	BY

9320 BALTIMORE NATIONAL PIKE
 HOWARD COUNTY, MARYLAND
 TAX MAP NO. 24 PARCEL: 996, LOT 1
 GRID #4
 ZONING: B-2-TNC
 SECOND ELECTION DISTRICT
 ADC MAP/GRID #: 4815-G6
 RECORDING REFERENCE SDP-20-018
 KHA PROJECT NO.: 114021001
 SCALE: AS SHOWN
 DATE: 08/11/2020
 DESIGNED BY: JRW
 DRAWN BY: JRW
 CHECKED BY: TM
 IMPROVEMENT DESCRIPTION:
 REDEVELOPMENT OF EXISTING GAS
 STATION TO PROPOSED 2,866 SF
 C-STORE, CANOPY, AND 6 MPDS.

**ELLCOTT CITY
 (STATION
 MD-108)
 PREPARED FOR
 PMIG 1027, LLC**

**SITE
 DEVELOPMENT
 PLAN**



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: 46637EXP-04/12/21

UTILITY DETAILS

SHEET NUMBER
25 OF 30

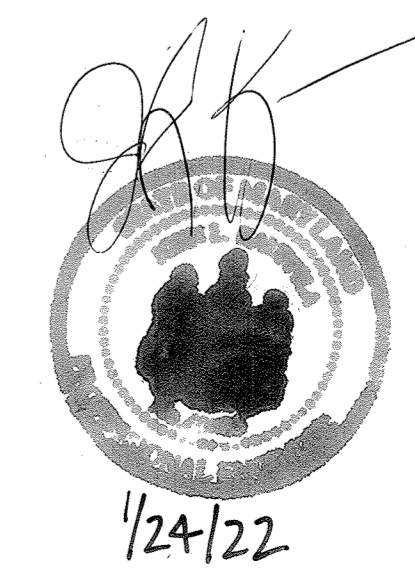
CALL 48 HOURS BEFORE YOU DIG
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APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER
 HOWARD COUNTY HEALTH DEPARTMENT
 DATE: 11-9-20

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 11/18/20

APPROVED: DIRECTOR
 DATE: 11-18-20

No "AS-BUILT" Information in this sheet.
 JOHN KAUPPILA



Plotted By: Dehann, Joanna Sheet Set: PMIG-114021-TEMP TRAFFIC CONTROL PLAN - October 14, 2020 10:20:45pm K:\BAL\GVA\114021-PMIG\001-EllicottCity-9320BaltimoreNationalPike\CAD\TempSheets\SHA_C700 - TEMPORARY TRAFFIC CONTROL PLAN.dwg
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NO.	REVISIONS	DATE	BY

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**ELLICOTT CITY
 (STATION
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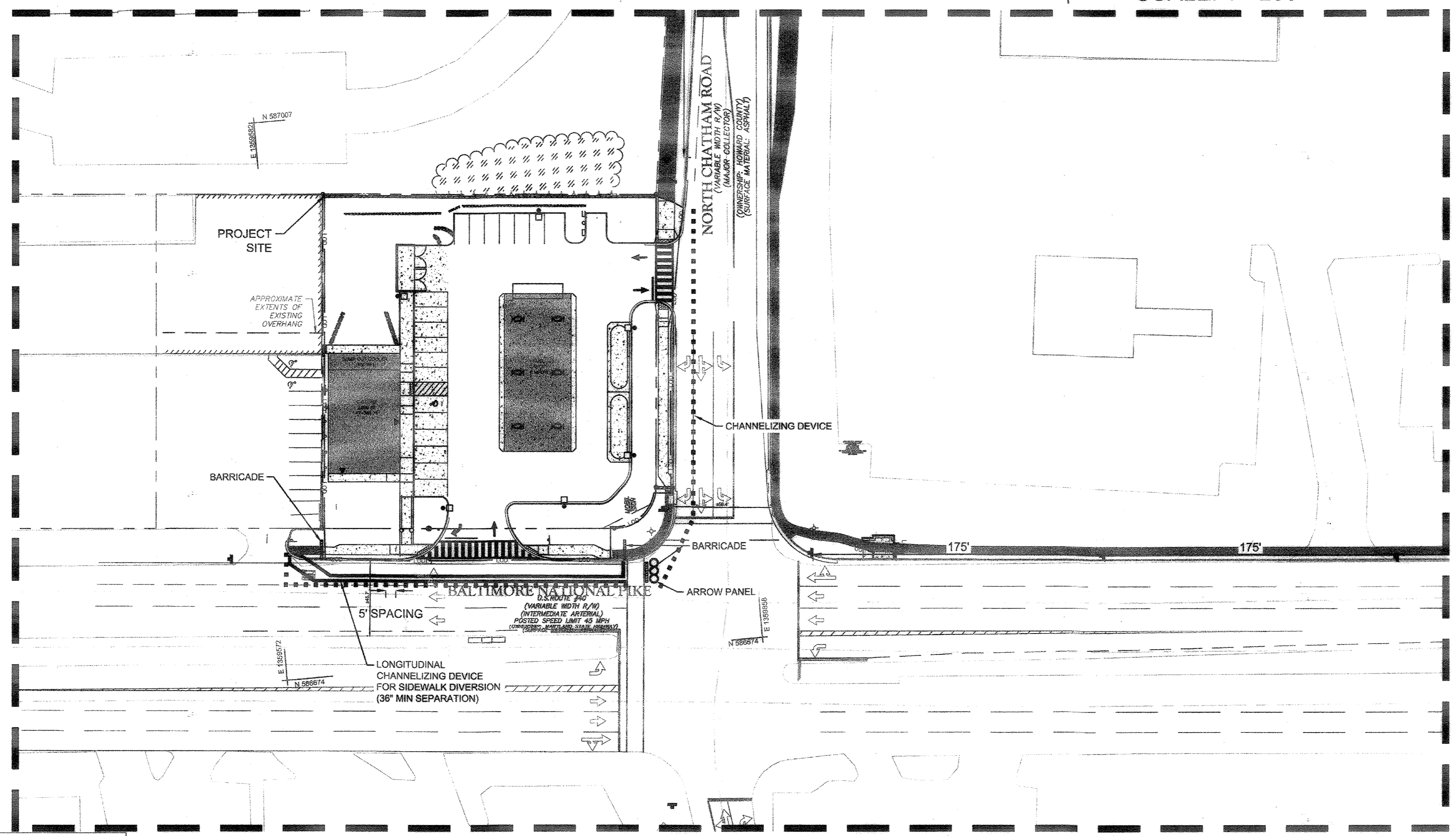
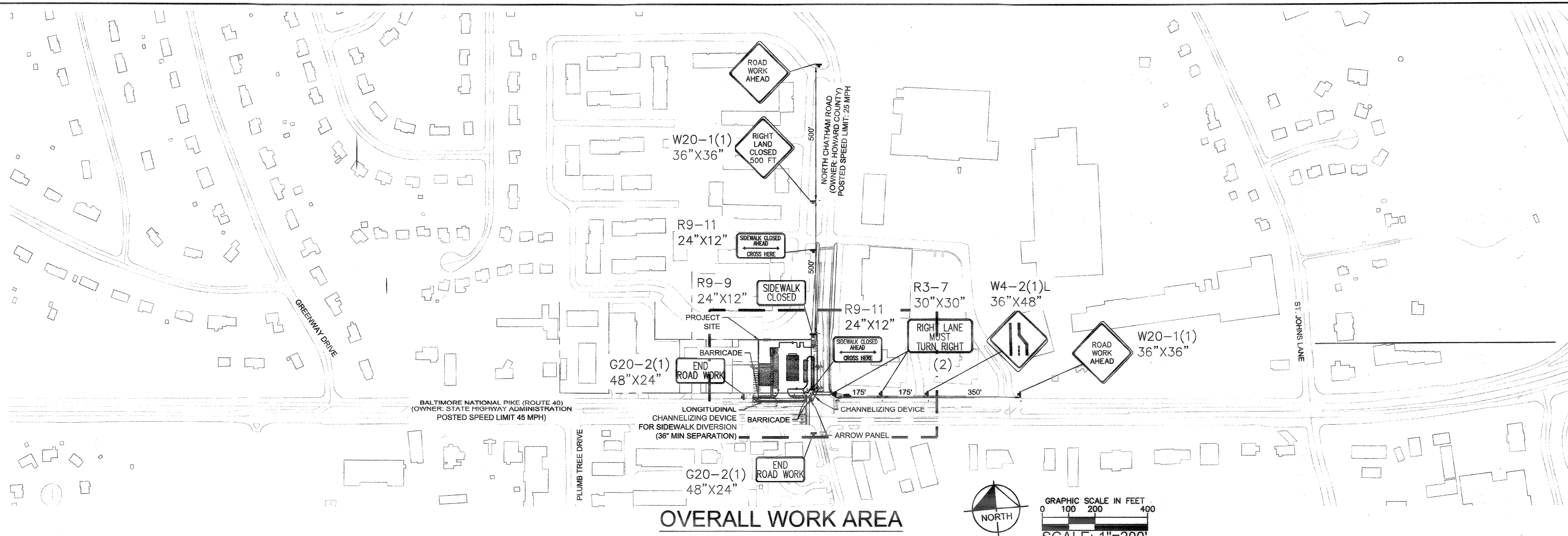
**SITE
 DEVELOPMENT
 PLAN**



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 LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 46637/EXP. 04/12/21

**TEMPORARY
 TRAFFIC CONTROL
 PLAN**

SHEET NUMBER
26 OF 30



- LEGEND**
- PROPERTY LINE
 - LIMITS OF DISTURBANCE
 - DRUMS
- SEQUENCE OF CONSTRUCTION**
- CONSTRUCTION OF THE RELOCATED OFF-SITE BUS STOP SHALL BE COMPLETED PRIOR TO INTERFERING WITH EXISTING BUS STOP AND PLACEMENT OF MUTCD DEVICES FOR REMAINING SITE WORK.
 - ONCE BUS STOP RELOCATION IS COMPLETE, PLACE ALL APPROPRIATE MUTCD APPROVED DEVICES AT LOCATIONS SPECIFIED IN MD-104.03-11 FOR WORK WITHIN THE DEDICATED WORK AREA.
 - BEGIN INSTALLATION OF DRUMS AS SPECIFIED ON THIS SHEET.
 - INSTALL TRAFFIC CONTROL DEVICES IN THE FOLLOWING ORDER: SIDEWALK CLOSURE (STAYS CLOSED UNTIL ALL CONSTRUCTION IS COMPLETE), WESTBOUND LANE CLOSURE, SOUTHBOUND LANE CLOSURE. UPON INSTALLATION OF ALL TRAFFIC CONTROL DEVICES, BEGIN WORK IN THE ROW.
 - UPON COMPLETION OF WORK WITHIN THE ROW AND WITHIN THE LANES DESIGNATED ON THIS SHEET, REMOVE ALL TRAFFIC CONTROL DEVICES.
- NOTES**
- WORK HOURS TO BE IN CONFORMANCE WITH MD 104.03.07 - NIGHTTIME WORK.
 - CONTRACTOR TO MAINTAIN ACCESS TO ALL DRIVEWAYS THROUGHOUT CONSTRUCTION.
 - CONTRACTOR TO SECURE TRENCH AREA WITH STEEL PLATES PER MD-104.01-85 DURING NON-CONSTRUCTION HOURS.

John Kauppila
 1/24/22
 NO AS-Built information
 in this sheet.
 John Kauppila

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS	DATE
COUNTY HEALTH OFFICER HOWARD COUNTY HEALTH DEPARTMENT	
APPROVED: DEPARTMENT OF PLANNING AND ZONING	DATE
<i>John Kauppila</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	11-9-20
<i>John Kauppila</i> CHIEF, DIVISION OF LAND DEVELOPMENT	11-19-20

DIRECTOR
John Kauppila
 DATE

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ADDRESS CHART		
LOT/PARCEL #	STREET ADDRESS	
PARCEL 996, LOT 1	9320 BALTIMORE NATIONAL PIKE, ELLICOTT CITY, MD 21042	
PERMIT INFORMATION CHART		
SUBDIVISION NAME RAMSBURG PROPERTY	SECTION/AREA	LOT/PARCEL NO. PARCEL 996, LOT 1
PLAT # OR L.F.: 10/94	GRID # 4 ZONING B-2-TNC	TAX MAP NO. 24 ELECT DISTRICT 2
WATER CODE 772-W, 101-W	SEWER CODE 130-S	CENSUS TRACT 6022

Plotted By: C:\Users\jganna\Desktop - Sheet Set: PMG-Ellicott City - Elevation.dwg, October 14, 2020, 10:21:14am, K:\BAL_CVA\114021-PMG\001-Ellicott City - Elevation.dwg, 9320BaltimoreNationalPike.CAD, P:\cadd\Architectural Elevations.dwg
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JON W. SAMMER
ARCHITECT, AIA
3925 OLD FURNACE RD.
FAIRFAX, VA 22031
TEL: 703-991-2727

PETROLEUM MARKETING GROUP

ELLICOTT CITY, MD

NO. AS SHOWN
PROJECT NO.

PROPOSED SIGNAGE CONDITIONS

NO. 1

A0.1

SIGNAGE CALCULATIONS:

- * 230 SF MAX. SIGNAGE ALLOWED ON THE BUILDING & LOT
- 72 SF BUILDING SIGNAGE (50 SF + 22 SF)
- 14 SF MONUMENT SIGN (39' X 48 5/8')
- 144 MAX SF SIGNAGE ALLOWED ON FUELING CANOPY (DIVIDED BY 3 = 48 SF PER SIGN > 25 SF ± 0k)
- * AS PROVIDED BY KIMLEY-HORN

SIGNAGE IS UNDER SEPARATE PERMIT. VERIFY QUANTITY AND LOCATION OF SIGNAGE ALLOWED

PMG | PROPOSED ELEVATIONS

ELLICOTT CITY, MD | 4-25-2018
REVISED 4-24-2020

NICHHA PLYMOUTH BRICK "CRIMSON"

NICHHA CANYON BRICK "SHALE BROWN"

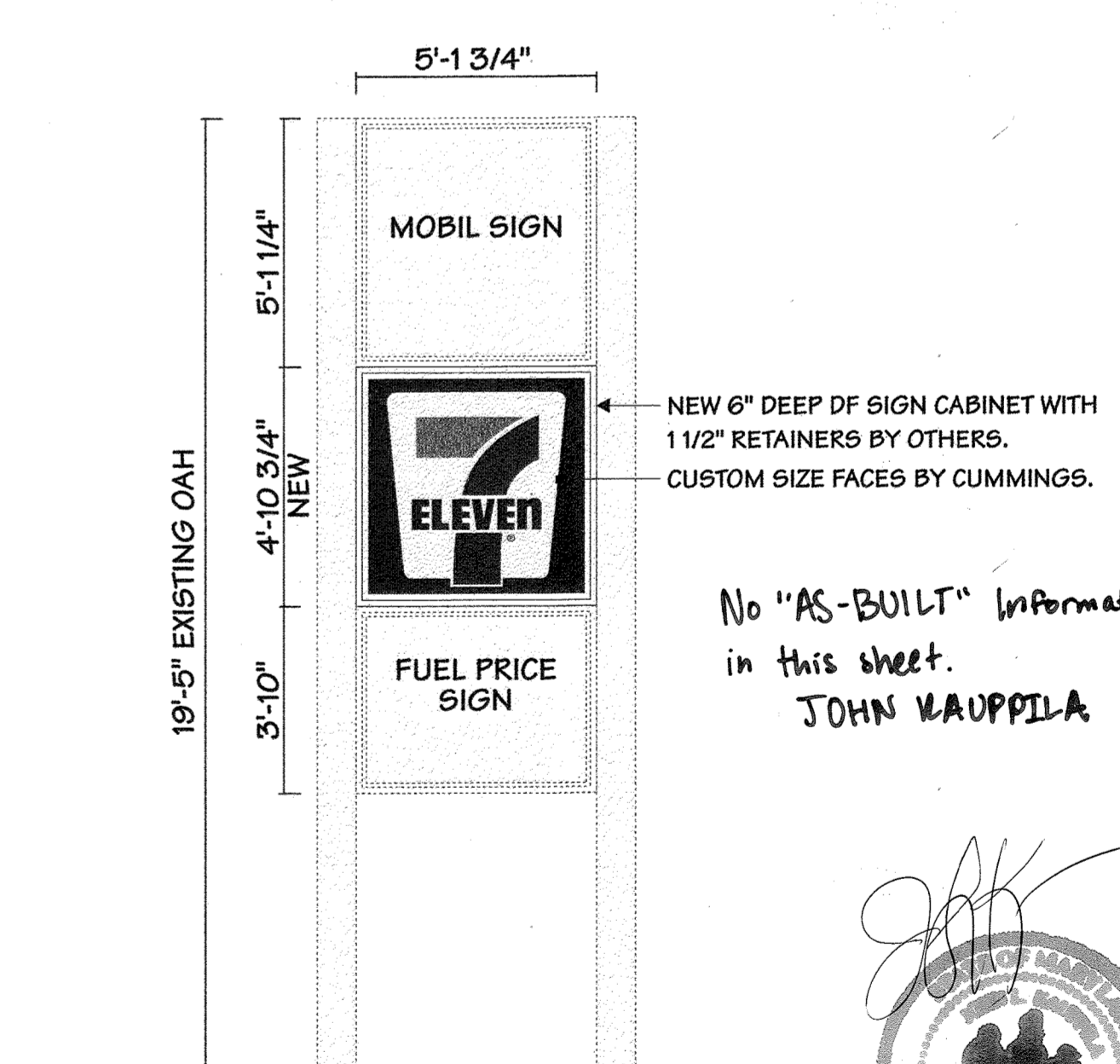
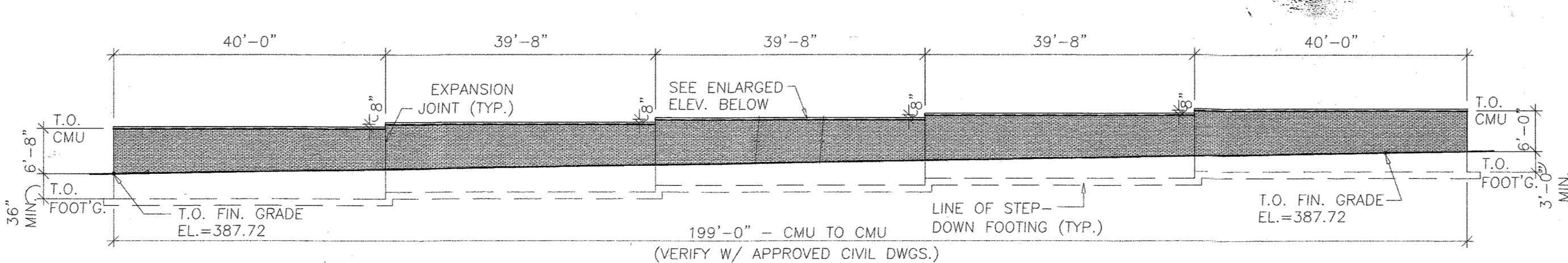
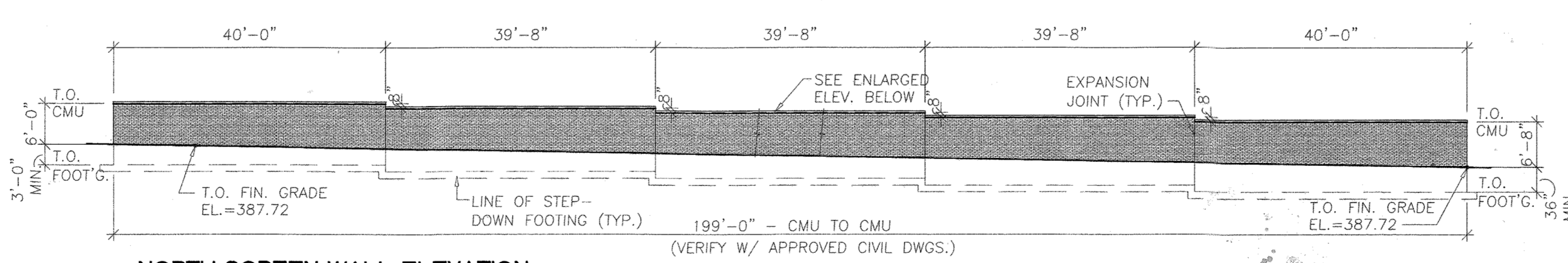
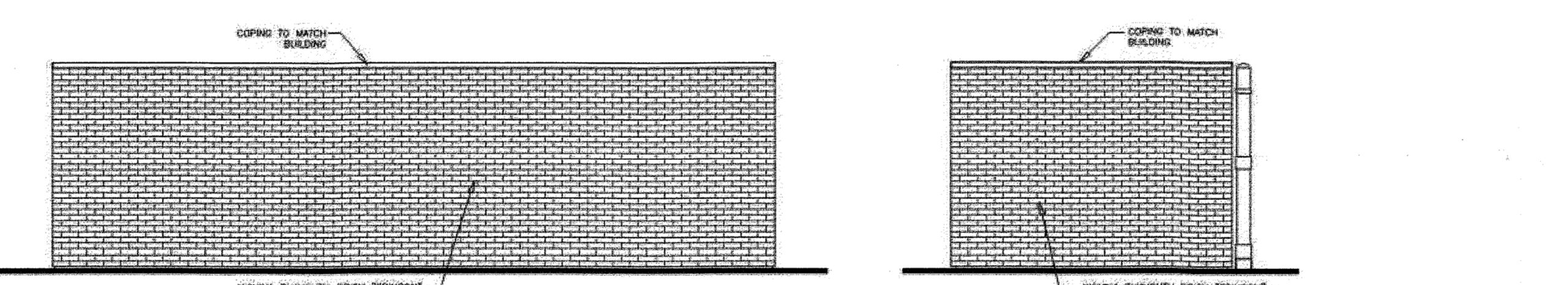
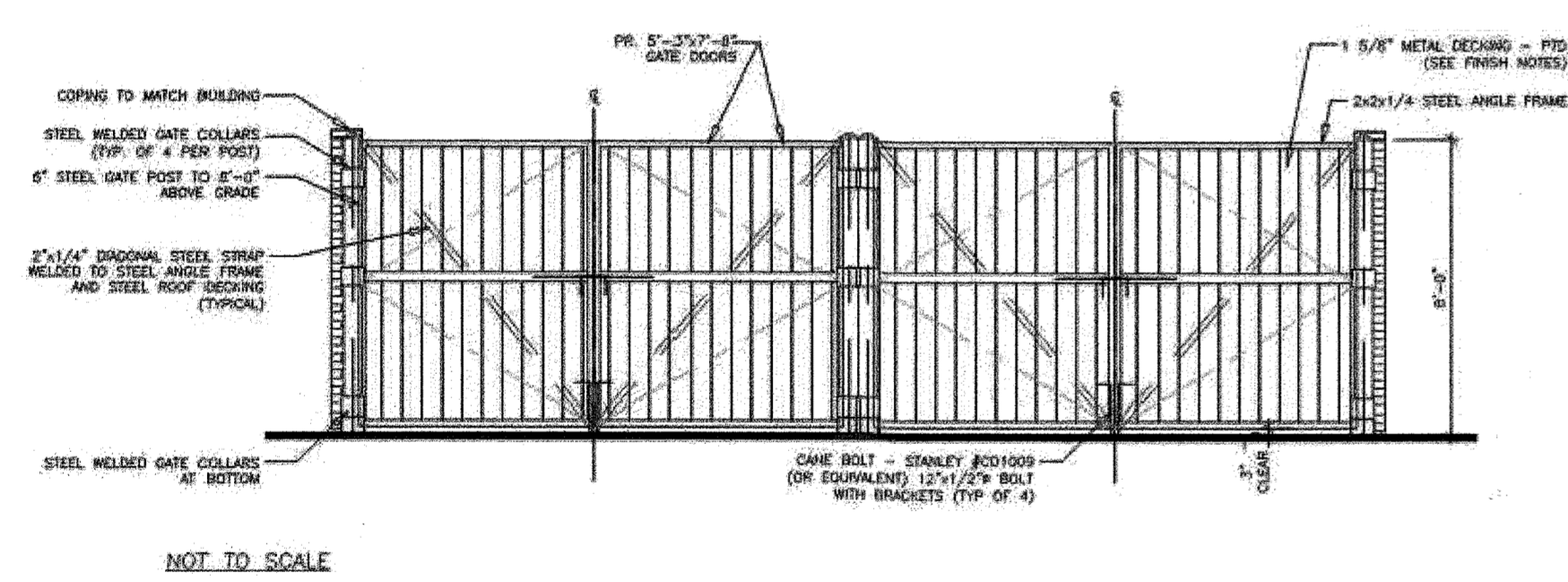
NICHHA LEDGESTONE KURASTONE "BLUFF" WITH PRE-CAST CONCRETE WATER TABLE ANY; COLOR: "WHEAT"

RAPES CANOPY COLOR: ANTIQUE BRONZE

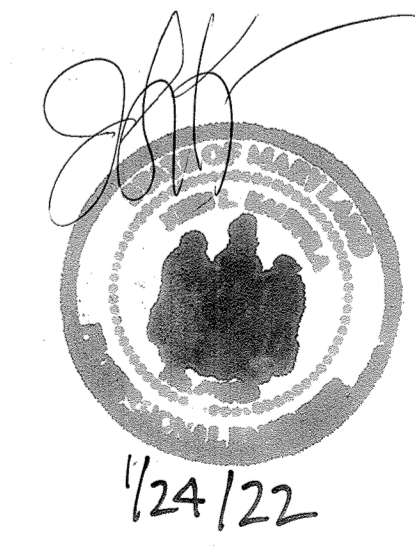
CORNICE: DRYVIT "COTTON SANDPEBLE". FINE FINISH

STOREFRONT: KAMNEER TRIFAB 451; COLOR: ANTIQUE BRONZE

JON W. SAMMER, AIA | FAIRFAX, VA



No "AS-BUILT" information in this sheet.
JOHN KAUPPILA



11-18-20
DATE

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

11-9-20
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

11/8/20
DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

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ZONING: B-2-TNC
SECOND ELECTION DISTRICT
ADC MAP/GRID #: 4815-G6
RECORDING REFERENCE SDP-20-018

KHA PROJECT NO.: 114021001
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DESIGNED BY: JRW
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IMPROVEMENT DESCRIPTION:
REDEVELOPMENT OF EXISTING GAS STATION TO PROPOSED 2,666 SF C-STORE, CANOPY, AND 6 MPD'S.

ELLICOTT CITY (STATION MD-108)
PREPARED FOR
PMG 1027, LLC

SITE DEVELOPMENT PLAN

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. 46637 EXP. 04/12/21

ARCHITECTURAL ELEVATIONS

SHEET NUMBER
27 OF 30

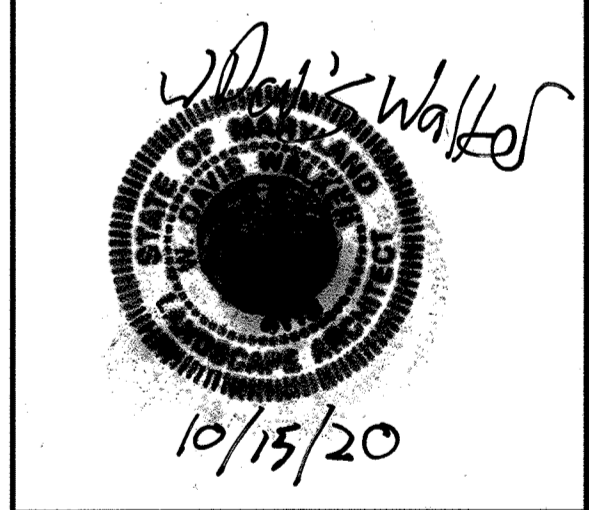
SDP-20-018

NO.	DATE	BY	REVISIONS

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**ELLCOTT CITY
(STATION MD-108)**
PREPARED FOR
PMIG 1027, LLC

**SITE
DEVELOPMENT
PLAN**



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LICENSE NO. 4118 EXP. 06/09/2021

**LANDSCAPE
PLAN**

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

Category	Perimeter #1	Perimeter #2
Landscape Type	C	A
Linear Feet of Roadway Frontage / Perimeter	200 LF	200 LF
Credit for Existing Vegetation (Yes, No, Linear Feet)	NO	NO
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	YES 200 LF	NO
Number of Plants Required:		4
Shade Trees		
Ornamental Trees		
Evergreen Trees		
Shrubs		
Number of Plants Provided:		4
Shade Trees		
Ornamental Trees		
Evergreen Trees	5	
Shrubs		

PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces	20
Number of Trees Required	1
Number of Trees Provided	
Canopy Trees	1
Ornamental Trees	0

STREET TREES - RT. 40

Linear Feet of Roadway Frontage	140
Number of Trees Required (1 per 40 LF)	4
Number of Trees Provided	
Canopy Trees	0
Ornamental Trees	5

STREET TREES - NORTH CHATHAM ROAD

Linear Feet of Roadway Frontage	140
Number of Trees Required (1 per 40 LF)	4
Number of Trees Provided	
Canopy Trees	5
Ornamental Trees	0

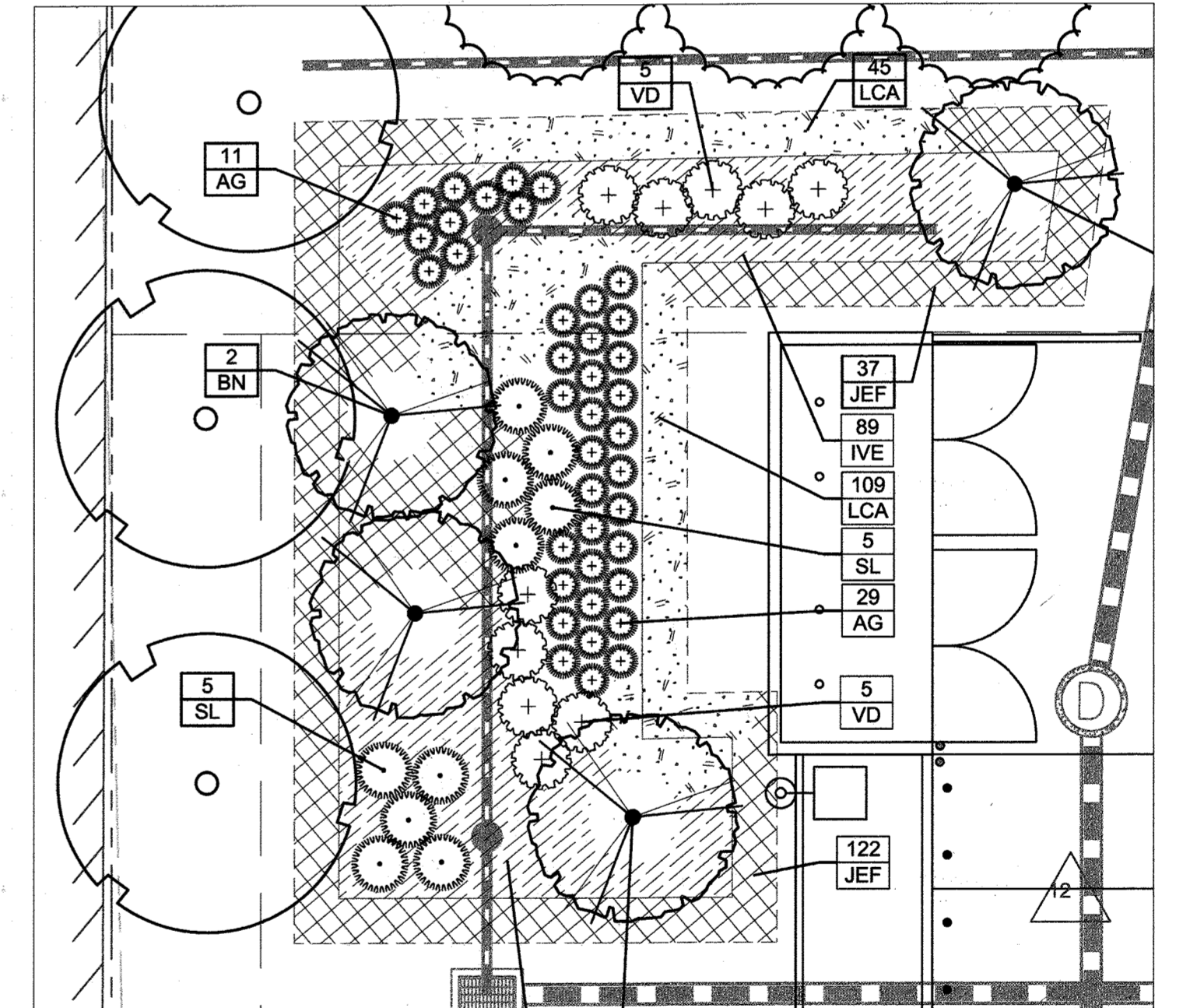
LANDSCAPE NOTES

A. AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY, UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.

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

PLANT SCHEDULE MBR-1

SHADE TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	HEIGHT
BN	4	Betula nigra 'Heritage'	Heritage River Birch	B & B		6' HT MIN.
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	
AG	40	Andropogon gerardii	Big Bluestem	2 gal		
SL	10	Spiraea latifolia	Meadow-Sweet Spiraea	Cont.	30" HT.	
VD	10	Viburnum dentatum 'Arrowwood'	Arrowwood Viburnum	Cont.	30" HT.	
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	
IVE	199	Iris versicolor	Blue Flag Iris	1 gal.	18" o.c.	
JEF	159	Juncus effusus	Soft Rush	1 gal.	24" o.c.	
LCA	154	Lobelia cardinalis	Cardinal Flower	1 gal.	18" o.c.	

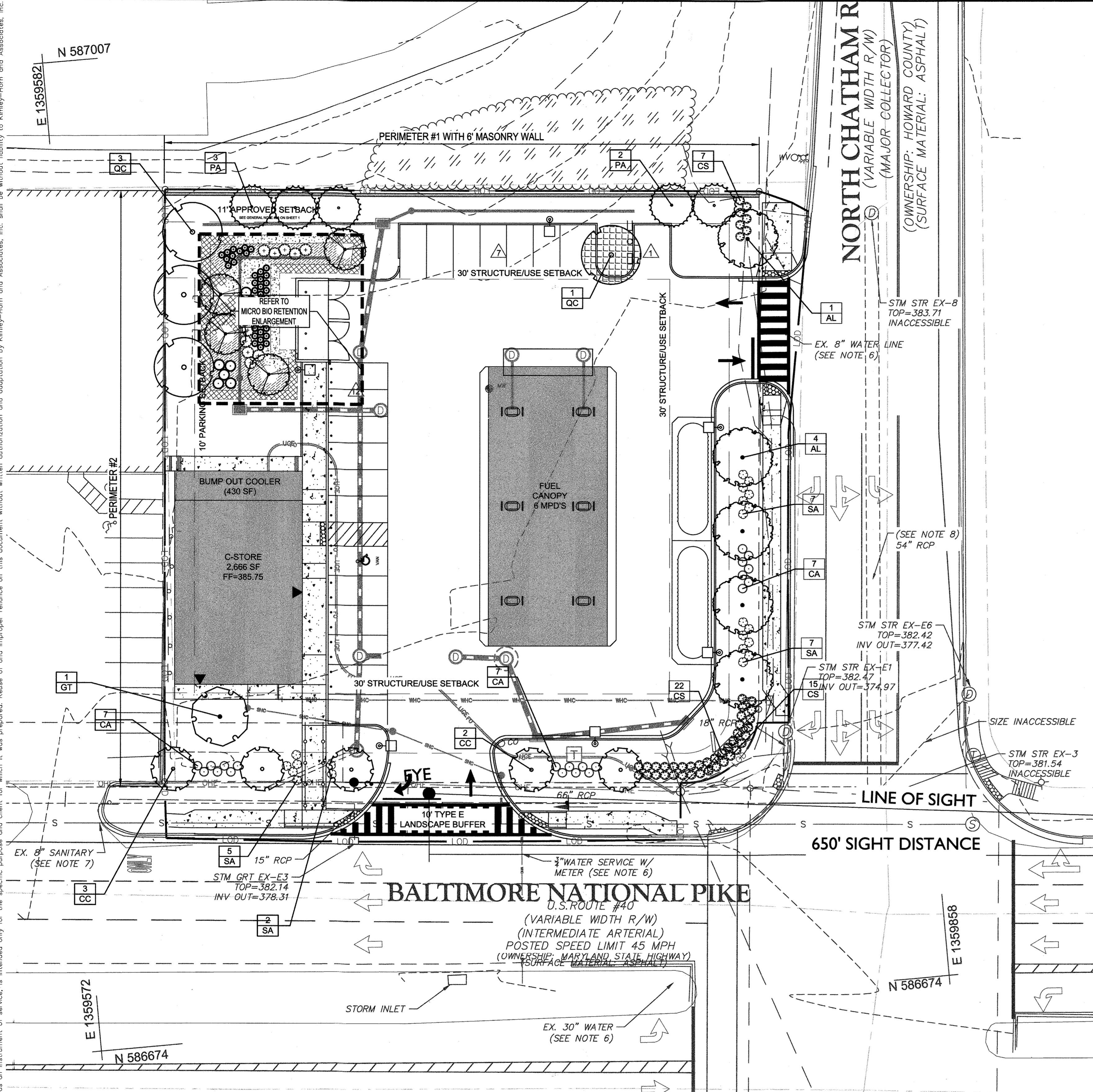
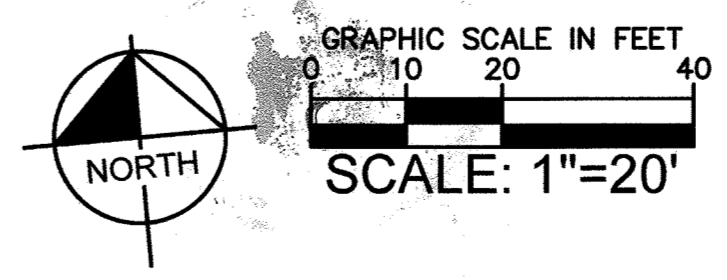
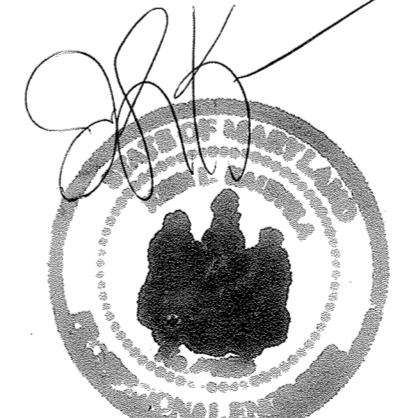


MICRO BIO RETENTION ENLARGEMENT
SCALE: 1" = 10'-0"

DEVELOPER'S / BUILDER'S CERTIFICATE
THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL WITH 5 SHADE TREES, 5 ORNAMENTAL TREES, 5 EVERGREEN TREES, 86 SHRUBS, AND 200 FEET OF MASONRY WALL PROVIDED WITH LANDSCAPE SURETY IN THE AMOUNT OF \$10,180 WITH THE DPW, DEVELOPER'S AGREEMENT.

DEVELOPER/BUILDER: _____ DATE: 3/30/20

No "AS-BUILT" Information in this sheet.
JOHN KAUPPILA



PLANT SCHEDULE - SITE

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	HEIGHT
PA	5	Picea abies	Norway Spruce	B & B		6' - 8' HT.
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	HEIGHT
CC	5	Cercis canadensis	Eastern Redbud Single-Trunk	B & B	1.5"-2" Cal.	
SHADE TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	HEIGHT
AL	5	Acer saccharum 'Legacy'	Legacy Sugar Maple	B & B	2.5" - 3" Cal	
GT	1	Gleditsia triacanthos 'Imperial'	Imperial Honeylocust	B & B	2.5" - 3" Cal	
QC	4	Quercus coccinea	Scarlet Oak	B & B	2.5" - 3" Cal	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SIZE	HEIGHT
CA	21	Clethra alnifolia	Summersweet Clethra	B & B	36" HT.	
CS	44	Cornus stolonifera 'Cardinal'	Cardinal Redtwig Dogwood	B & B	24" HT MIN.	
SA	21	Spiraea x bumalda 'Anthony Waterer'	Anthony Waterer Spiraea	B & B	36" HT.	

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT
DATE: _____

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 11-9-20

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 11/18/20

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DATE: 11-18-20
DIRECTOR

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GENERAL NOTES

- Plants shall be healthy, vigorous material, free of pests and diseases and are subject to approval/rejection of the Landscape Architect prior to, during and after installation.
- Contractor shall identify all materials at growing location prior to purchase and submit digital photographs, and source list to the Landscape Architect for approval at a minimum of six (6) calendar weeks prior to installation. Plants not approved shall be resourced and resubmitted.
- Planting beds and individual tree plantings shall be mulched continuously as specified.
- Prior to construction the contractor shall be responsible for locating underground utilities and execute work in a manner that avoids damage to utilities during the course of work. Contractor shall be responsible or remedy of any damage to utilities, structures, site appurtenances that occur as a result of landscape related work.
- Contractor is responsible for verifying quantities shown on documents. Field adjustments shall be approved by Landscape Architect prior to installation. Quantities indicated on drawings are for reference-it is the Contractor's responsibility to ensure full coverage of plants at the indicated spacing.
- Contractor is responsible for maintenance of all plantings including, but not limited to watering, mowing, edging, spraying, mulching, fertilizing, of plantings and turf areas for one (1) calendar year from date of certificate of occupancy. Contractor is responsible for warranty of all plant material for a period of one (1) calendar year from date of certificate of occupancy. Warranty replacement planting shall meet or exceed the original specification identified on drawings. Replacement planting shall extend the same warranty as originally installed materials. Plantings and grass areas shall be flourishing and fully thriving at end of warranty period.
- Plants identified for replacement by Owner, Landscape Architect shall be replaced immediately by the Contractor unless otherwise agreed upon. Plantings (trees, shrubs, groundcover) subject to replacement by warranty shall exhibit characteristics of 30% dead-per individual plant, non-contributing or disease compromised. Grass areas suitable for acceptance shall demonstrate 85% sustained/consistent and continuous, densely established coverage.
- Contractor shall perform a site review at end of warranty period and provide the Owner with written documentation of the site, including plant health, warranty replacement items, and conditions that may be influencing plant health. Contractor shall remove from plants and site, all staking and guying material at end of warranty period.
- Contractor shall comply with all local, state and federal requirements, codes and regulations related to the work undertaken.
- All material including planting operation appurtenances shall be of domestic origin manufacture and sourced within 100 miles of the project site.
- Contractor is responsible for coordination among trades operating on site. Coordination and if necessary resulting modifications to schedules are responsibility of the Contractor.
- At the time of plant installation, all shrubs and trees listed and approved on the Landscape Plan, shall comply with the proper height requirement in accordance with the Howard County Landscape Manual. In addition, no substitutions or relocations of the required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from the approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to the applicable plans.
- The owner, tenants and/or their agents shall be responsible for maintenance of the required landscaping including both plant materials and berms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.

PERFORMANCE SPECIFICATION

- I. PLANTS**
- A. General**
- Live healthy plants free of dead branches and parts
 - Free of disease, insect, injury and damage
 - Unbroken, intact, dense and solid rootballs and containers, without cracks, flat sides or previously repaired damage.
 - Free of girdling roots or rootbound/circling container conditions
 - Plants of consistent in growth habit and healthy character
 - Free of compromising growth conditions such as weak crotch connections, crossed branches, snags and scars
 - Point of origin growing location within 100 miles of project site
 - Graded, standards, caliper, sizes and stock consistent with *ANSI Z60.1, American Standard for Nursery Stock* most current edition
 - Species identified consistent with *Hortus Third: Concise Dictionary of Plants Cultivated in the United States and Canada*, most current edition and *Manual of Woody Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses*, most current edition
 - All disturbed areas shall be grass seed unless otherwise identified on landscape plans
- B. Trees:**
- Deciduous Single Trunk
 - Full, straight and upright with consistent symmetrical natural branching pattern throughout
 - Branching Height-seven (7) feet to lowest branch in two years unless otherwise required by local jurisdiction
 - Deciduous Multi-Trunk
 - Full and upright with straight consistent symmetrical natural branching pattern throughout
 - Canes evenly spaced and of similar growth habit
 - Free of suckers and extraneous branching
 - Evergreen Single-Trunk
 - Full and upright with continuous symmetrical dense natural habit
 - Clear branching height twelve (12) inches above top of rootball
 - Free of suckers and extraneous branching
 - Do not shear or otherwise prune to shape plantings
- C. Evergreen and Deciduous Shrubs**
- Full, dense and naturally symmetrical.
 - Consistent with container and/or balled and burlapped size
 - Free of suckers and extraneous branching
 - Do not shear or otherwise prune or shape plantings
- D. Evergreen and Deciduous Groundcover**
- Full and dense in pots or flats
- E. Perennials and Seasonal Color**
- Full and dense in pots or flats
- F. Turf Grass**
- 1. Subgrade**
- Soil Mix-10% Compost, 90% topsoil by volume
 - Preparation-loosen subgrade to a minimum depth of four (4) inches. Remove all non-natural materials including litter, stones, sticks and all items greater than 3/4 inch in any dimension
 - Preparation-spread soil mix at a depth of four (4) inches continuously to meet grade elevations shown on drawings. Allow for thickness of sod when applicable
- 2. Grass Sod**
- Install not longer than twenty-four (24) hours from harvest
 - Grass bed not less than two (2) inches in continuous thickness
 - 100% continuous live sod coverage after first growing season and at end of warranty period.
 - Of uniform non-varying density and continuous texture quality capable of growth and development immediately upon installation. Weed and noxious plant free

- Stagger installation rows and place aligned parallel to contours
 - Fill joints solidly with planting bed preparation soil
 - Provide anchor pins at twenty-four (24) inches on center for slopes greater than 4:1
- 3. Grass Seed**
- Mix approved by the Landscape Architect
 - Provide first and new of year seed crops in mix free of weed seeds and deleterious matter
 - Provide seed mix not greater than 15% annual or perennial rye
 - Coverage 85% continuous coverage live stand after first growing season and at end of warranty
 - Replacement or overseeding mixes consistent with original application/installation
 - Provide erosion blankets or other slope retention methods as noted on drawings

II. Materials and Appurtenances

- A. Testing**
- Materials testing information/certificates/dated labels shall be current to the project and performed/certified not greater than 120 calendar previous days from current date of submittal for review
- B. Top Soil**
- Neutral Ph balance 5.5 -7.5. Friable and containing 2.0-5.0% organic matter by dry weight. Continuously free of non-soil items such as stones, debris, sticks, trash, and deleterious matter greater than 3/4 inch in any direction. Clay content shall not exceed 25%. Gravel content shall not exceed 10%. Silt shall not exceed 25%
- C. Use of Existing Topsoil**
- Existing topsoil on-site may be repurposed with prior Owner approval. Contractor shall provide soil testing and additive program that demonstrates consistent performance and characteristics and composition as identified herein. Owner shall approve soil testing and soil amendment/additive methods and procedures
- D. Shredded Hardwood Mulch**
- 100% organic shredded first year hardwood free of deleterious matter, rock, gravel and weed seed. Neutral Ph balance 5.5-7.5
- E. Composted Pine Bark Fines**
- 100% organic ground pine bark with no particle dimension greater than 3/4-inch and no greater than 10% wood content
- F. Compost Ph**
- Balanced 5.0-8.5 mature, stable and weed free produced by natural aerobic decomposition. Free of visible contaminants and toxic substances. Not greater than 5% sand, silt, clay or rock by dry weight. Consistent with US-EPA CFR Title 40 Part 503 Standards for Class A biosolids
- G. Compost Testing**
- Prior to delivery on-site, the following items are required for approval by Owner: Feedstock percentage in final compost product; statement that the products meets federal, state and local health safety requirements
 - Provide copy of lab analysis less than 120 calendar days old verifying that the product meets described physical requirements, chemical contaminants; Ph; physical contaminants; biological contaminants (including a statement that fecal coliform and salmonella testing and results comply with requirements of the US Composting Council Seal of Testing approval programs

H. Planting Mix

- 85% topsoil and 15% Compost
- I. Fertilizer**
- Granular 10% nitrogen, 6% Phosphorous, 4% Potassium granular form with 50% Nitrogen in organic form. Product and Material Safety Data as approved by Owner
- J. Herbicide**
- Product and Material Safety Data as approved by Owner
- K. Water**
- Potable only unless otherwise approved by Owner
- L. Hardwood Stakes**
- 2 x 4 x 8 inch square of sound hardwood, painted flat black on all sides
- M. Tree Ties**
- Villa Non-Abrasive Rubber Tree Ties or approved equal
- N. Filter Fabric**
- Miraf 140-N or approved equal
- O. Steel Edging**
- 1/8-inch x 4-inch in full sections. Ryerson, Timec or approved equal with integral stakes. No open corners. Corners shall be formed and trued to compliant angle or welded closed
- P. River Stone**
- Locally sourced, river rounded, unfaceted river stone/cobbles.
 - Size shall not exceed 3 total inches in any dimension.
 - Color and texture approved by Owner
 - When placed in concrete or mortar setting bed, tamp to secure and brush clear joints.
 - Concrete or mortar as approved by owner.

III. Execution

- A. Site Conditions**
- Inspect site and notify Owner in writing of acceptance with indication that project conditions are acceptable are suitable to proceed with work. Notify Owner of any existing damage and/or other conflicting conditions.
 - Do not proceed with work until unsatisfactory conditions have been satisfactorily remedied. Notify Owner of acceptance prior to commencement of work.
 - Notify Owner in writing of any conditions that may preclude successful completion of work including items such as coordination with other trades, incomplete work, drainage, soil temperature and/or composition, access to storage/work areas, damage to conditions, etc.
 - Notify Owner in writing immediately of any items that may influence work schedule, timing of tasks, materials delivery and/or installation and warranty responsibilities.
 - Coordinate and cooperate with other trades working in and adjacent to work areas. Examine drawings of other trades which show development of the entire project and become familiar with the scope of required work by others.
- B. Planting Seasons**
- Recommended seasons are a general guide based on historical climatic data and typical performance of plantings, and which vary dependent on project-specific environmental conditions. Due to construction schedules, recommended planting seasons may/may not coincide with request(s) for certificate of occupancy for projects. Coordination of planting installation and seasons shall be reviewed with Owner on an individual project basis.
- Deciduous and Evergreen Trees**
 - Do not install/plant the following trees between September 15 and March 15
 - Oaks (Quercus Sp., Such as Q. rubra, Q. alba, Q. phellos, Q. coccinea)
 - Dogwood (Cornus Sp.)
 - Sweetgum (Liquidambar Sp.)
 - All Conifers and Evergreens except White Pine (Pinus strobus Sp.)
 - Deciduous and Evergreen Shrubs**
 - Install/plant between March 15 and June 15 and/or September 15 and November 30
 - Perennials**
 - Install/plant between March 15 and June 15 and/or September 15 and November 30
 - Spring Flowering Bulbs**

- Install/plant between September 15 and December 15
- 5. Seasonal Annuals**
- Install/plant in season per approved schedule
- 6. Turf Grass**
- Install/plant between March 15 and May 15 and/or September 15 and November 30
 - Do not install/plant seed or sod turf grass areas when ambient air temperature is below forty (40) degrees Fahrenheit, or forecast for a twelve (12) hour period after completion of work
- 7. No Plant Installation**
- Do not install plantings or turf grass between June 15 and September 15, without approval by Owner

C. Positioning & Location of Plantings

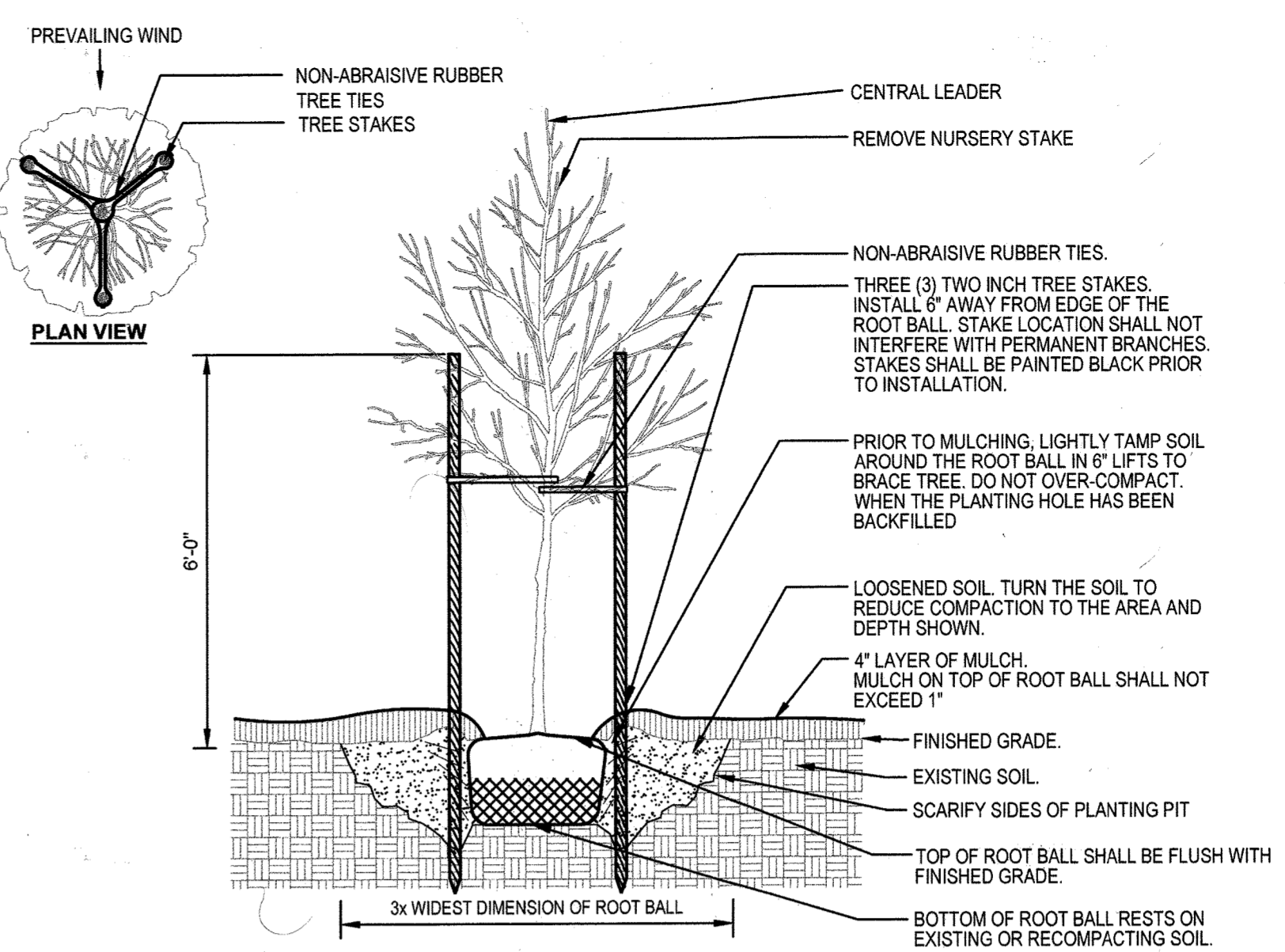
- Position plants to show the most-prominent and well-formed face to most-public view
- Field locate plants and location/spacing/dimension of planting beds on project site prior to beginning installation
- Verify location of individual plants and plant beds prior to beginning installation. Do not proceed without Owner approval

D. Implementation

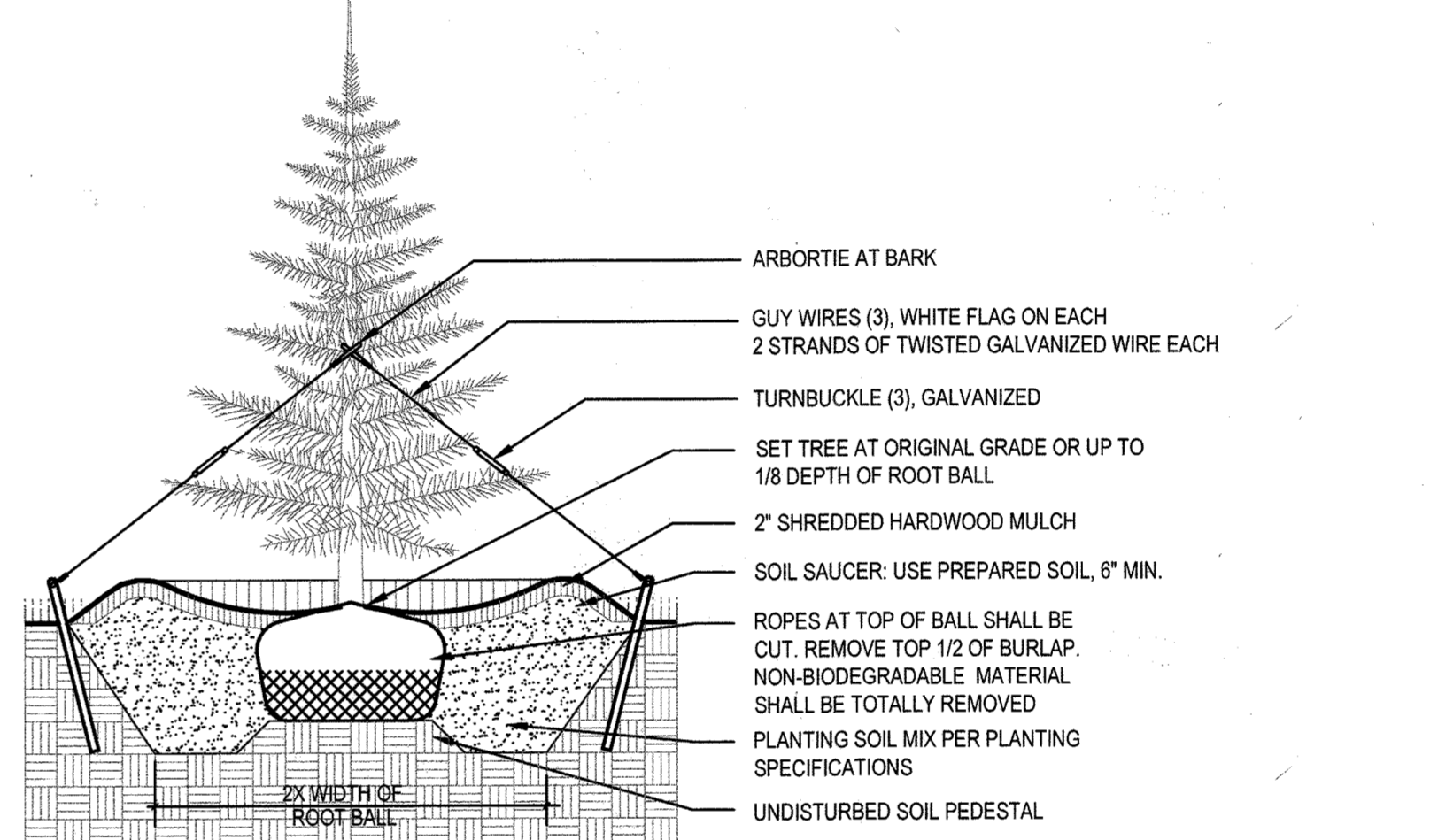
- Pursue work continuously without delay or interruption until completion unless notified otherwise by Owner
- Provide project submittals ahead of commencement of work. Landscape Architect requires a minimum of ten (10) working days from date of receipt for review of submittals and response to Owner and Contractor. Plan accordingly for procurement of materials
- Continuously update implementation schedule and notify Owner of progress. Delays related to material availability are not cause for non-completion of scheduled delivery of work
- Report delays due to weather or site conditions immediately upon finding. Provide recommendation for remedy of schedule delays. Do not work, place or modify frozen soil
- Report delays due to extraordinary natural or other conditions beyond control of Contractor

E. Clean Up

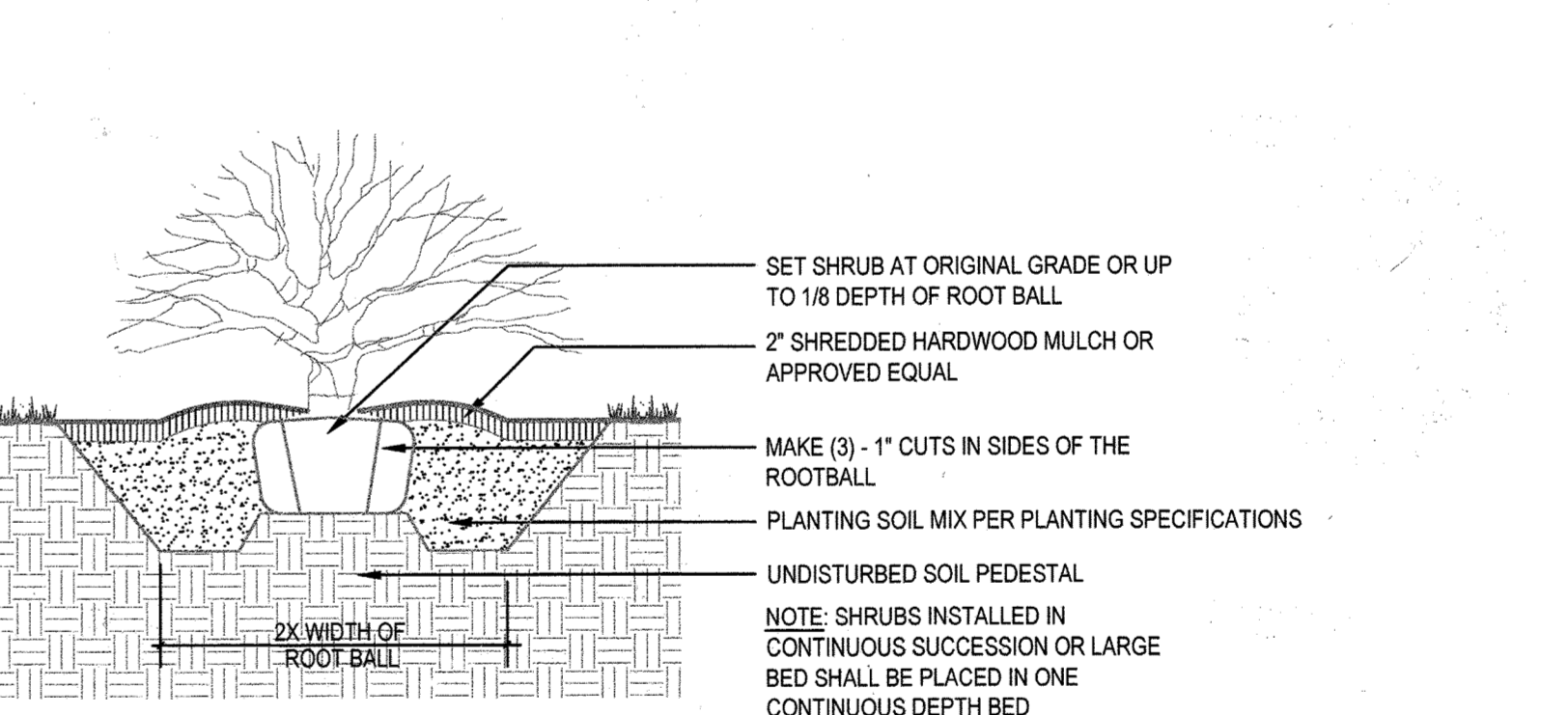
- Remove trash, debris and work materials from site prior to request for substantial completion. Thoroughly clean surfaces impacted by work including building, parking areas, roadways, sidewalks, signs, lights, site furnishings, etc.
- Repair any damage to existing conditions that occurred during execution of work.
- All clean-up and demobilization procedures shall be performed to satisfaction of the Owner and Landscape Architect



A DECIDUOUS TREE PLANTING
NOT TO SCALE



B EVERGREEN TREE PLANTING
NOT TO SCALE



C SHRUB PLANTING
NOT TO SCALE

DEVELOPER'S / BUILDER'S CERTIFICATE
THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL WITH 9 SHADE TREES, 5 ORNAMENTAL TREES, 5 EVERGREEN TREES, 86 SHRUBS, AND 200 FEET OF MASONRY WALL PROVIDED WITH LANDSCAPE SURETY IN THE AMOUNT OF \$10,180 WITH THE DPW, DEVELOPER'S AGREEMENT.

3/30/20
DATE

DEVELOPER/BUILDER

ADDRESS CHART			
LOT/PARCEL #	STREET ADDRESS		
PARCEL 996, LOT 1	9320 BALTIMORE NATIONAL PIKE, ELLICOTT CITY, MD 21042		
PERMIT INFORMATION CHART			
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.	PARCEL 996, LOT 1
RAMSBURG PROPERTY			
PLAT # OR L/F: 10 / 94	GRID # 4	ZONING B-2-TNC	TAX MAP NO. 24
		ELECT DISTRICT 2	CENSUS TRACT 8022
WATER CODE 772-W, 101-W	SEWER CODE 130-S		

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT

DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF-DEVELOPMENT ENGINEERING DIVISION 11-9-20 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 11-18-20 DATE

DIRECTOR

CALL 48 HOURS BEFORE YOU DIG

IT'S THE LAW! DIAL 811

Know what's below. Call before you dig.

No "AS-BUILT" Information in this sheet.

JOHN KAUPPILA



Kimley-Horn

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11400 COMMERCE PARK DR, SUITE 400
RESTON, VA 20191
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PHONE: 703-674-1311
WWW.KIMLEY-HORN.COM

PMIG 1027, LLC
2355 RESEARCH COURT
WOODBRIDGE, VA 22192
PHONE: 703-494-5800

NO.	REVISIONS	DATE	BY

9320 BALTIMORE NATIONAL PIKE
HOWARD COUNTY, MARYLAND
TAX MAP NO. 24 PARCEL: 996, LOT 1
GRID #4
ZONING: B-2-TNC
SECOND ELECTION DISTRICT
ADC MAP/GRID #: 4815-G6
RECORDING REFERENCE SDP-20-018

KHA PROJECT NO.: 114021001

SCALE: 08/31/2020

DATE: JRW

DESIGNED BY: JRW

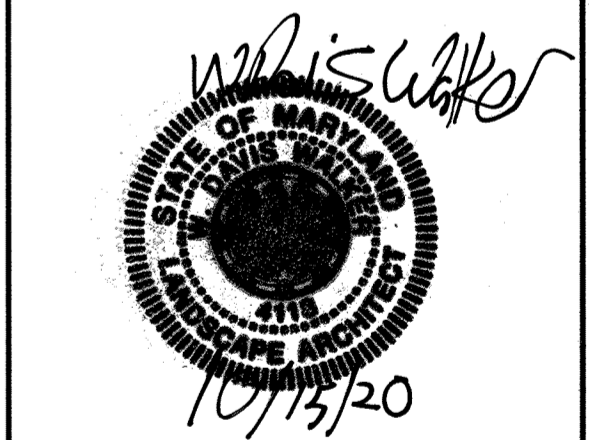
DRAWN BY: TM

CHECKED BY:

IMPROVEMENT DESCRIPTION:
REDEVELOPMENT OF EXISTING GAS STATION TO PROPOSED 2,666 SF C-STORE, CANOPY, AND 6 MPD'S.

ELLICOTT CITY (STATION MD-108)
PREPARED FOR
PMIG 1027, LLC

SITE DEVELOPMENT PLAN



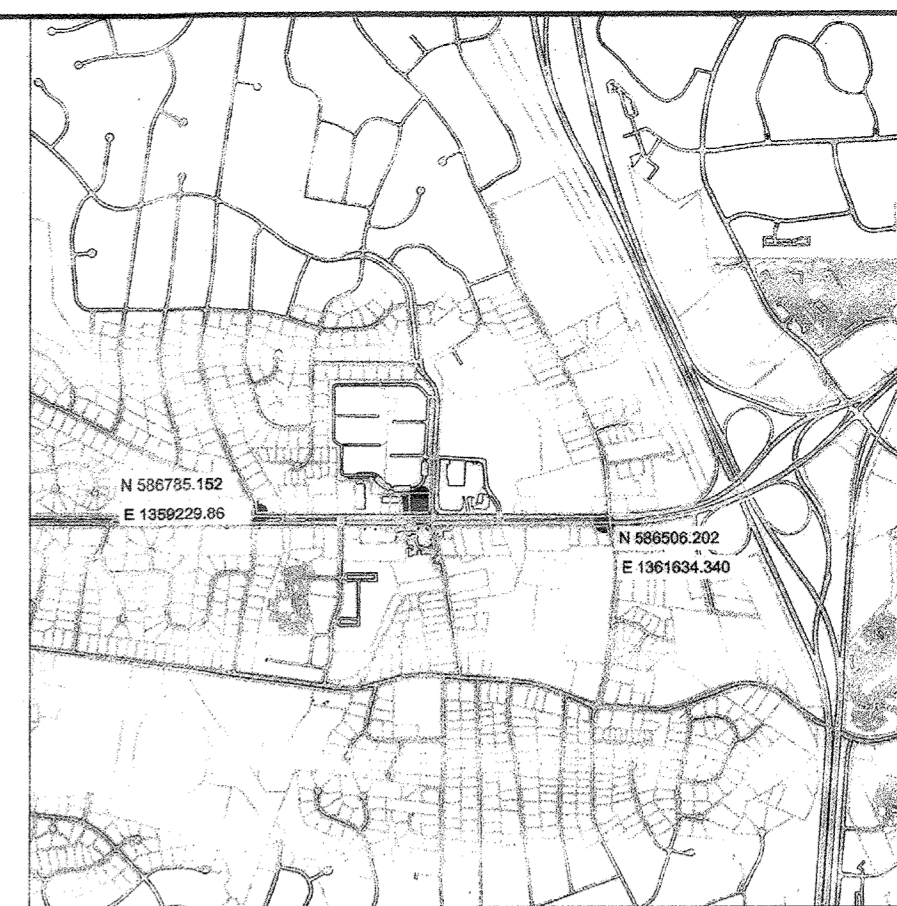
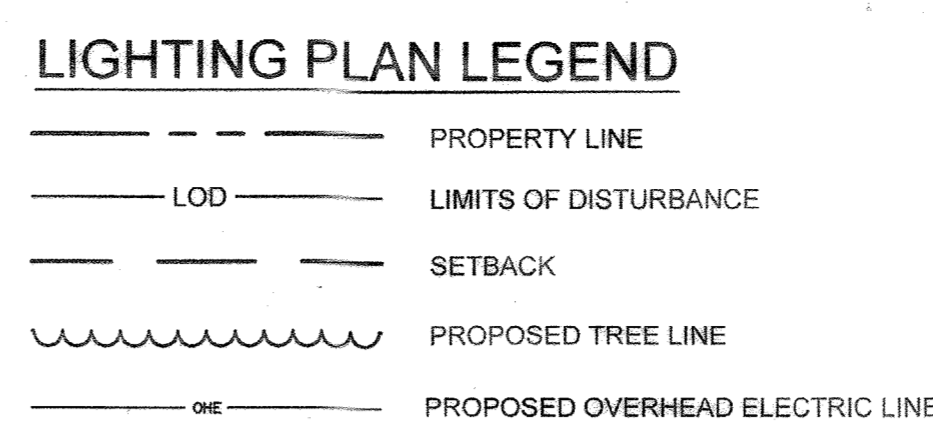
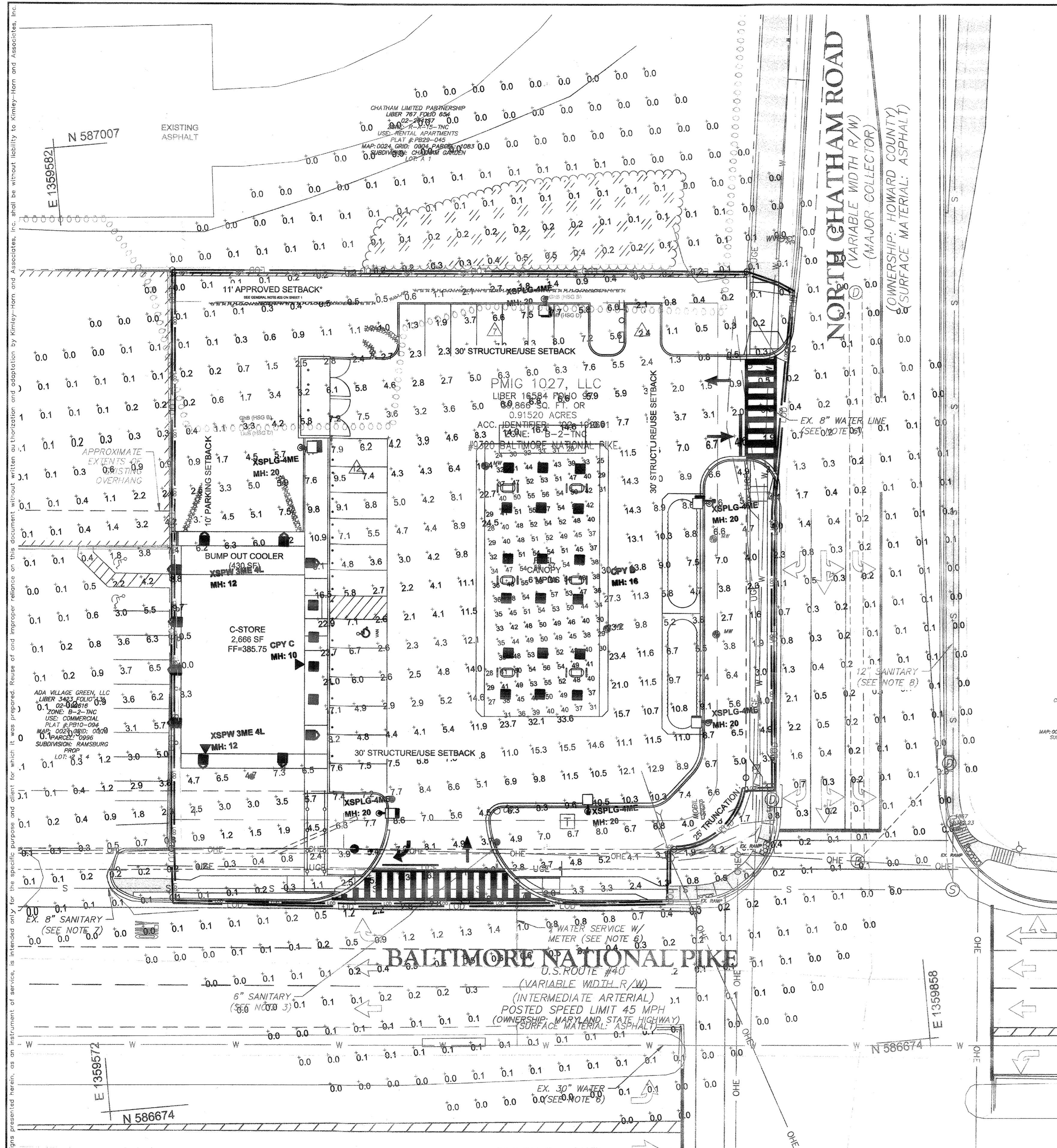
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO.4118 EXP:06/09/2021

LANDSCAPE NOTES & DETAILS

SHEET NUMBER
29 OF 30

SDP-20-018

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and approval by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



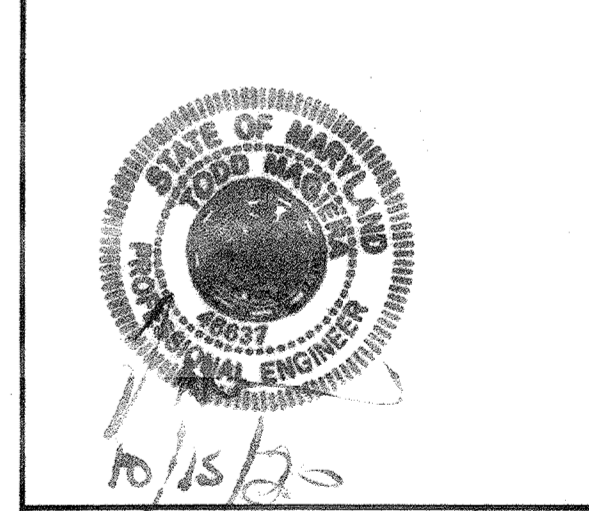
VICINITY MAP
SCALE: 1"=2000'
ADC MAP/GRID # 4815-G6

Kimley»Horn
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PHONE: 703-874-1311
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NO.	REVISIONS	DATE	BY

9320 BALTIMORE NATIONAL PIKE
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TAX MAP NO. 24 PARCEL: 996, LOT 1
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SECOND ELECTION DISTRICT
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RECORDING REFERENCE SDP-20-018
KHA PROJECT NO.: 114021001
SCALE: AS SHOWN
DATE: 08/11/2020
DESIGNED BY: JRW
DRAWN BY: JRW
CHECKED BY: TM

**ELLICOTT CITY
(STATION MD-108)**
PREPARED FOR
PMIG 1027, LLC
SITE DEVELOPMENT PLAN



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. 46637/EXP. 04/12/21

Luminaire Schedule

Symbol	Qty	Label	Arrangement	LMF	Lum. Lumens	Lum. Watts	Part Number
	18	CPY B	SINGLE	1.000	12860	96	CPY250-B-DM-F-B-UL-WH-57K-HZ
	4	CPY C	SINGLE	1.000	4520	31	CPY250-B-DM-F-C-UL-BZ-57K-HZ
	6	XSPLG-4ME	SINGLE	1.000	23800	184	XSPLG-D-HT-4ME-24L-57K7-UL-BZ-N
	10	XSPW-3ME-4L	WALL MOUNT	1.000	4270	31	XSPW-B-WM-3ME-4L-57K-UL-BZ

Calculation Summary (Footcandles calculated using initial lumen values @ 25°C)

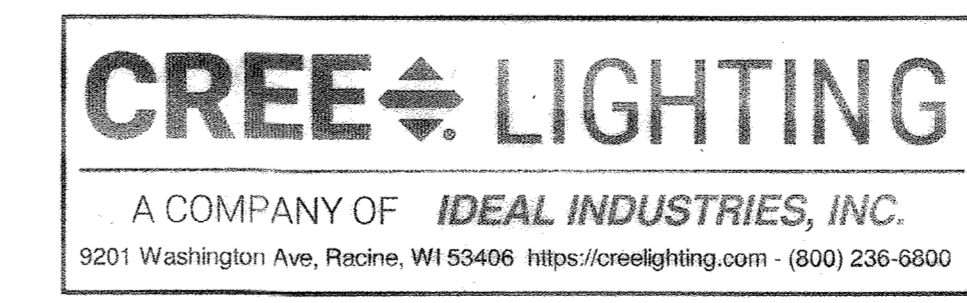
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
Calc_Pts	Fc	2.75	33.6	0.0	N.A.	N.A.
Gas Canopy	Fc	44.21	58	24	1.84	2.42
Site	Fc	7.26	23.7	1.0	7.26	23.70

Additional Equipment:
(6) PD-1H4BZ Single horizontal tenons
(6) SSS-4-11-17-CW-BS-OT-N-BZ 17' X 4" X 11ga Square steel poles (+3' afg base)

*** Proposed poles meet 140 mph wind zone requirements
*** CUSTOMER TO VERIFY ORDERING INFORMATION AND CATALOGUE NUMBER PRIOR TO PLACING ORDER ***

BOM: Complete Part Description

18	CPY250-B-DM-F-B-UL-WH-57K-HZ
4	CPY250-B-DM-F-C-UL-BZ-57K-HZ
6	XSPLG-D-HT-4ME-24L-57K7-UL-BZ-N
10	XSPW-B-WM-3ME-4L-57K-UL-BZ
6	PD-1H4BZ
6	SSS-4-11-17-CW-BS-OT-N-BZ



illumination results shown on this lighting design are based on project parameters provided to Cree Lighting used in conjunction with luminaire test procedures conducted under laboratory conditions. Actual project conditions differing from these design parameters may affect field results. The customer is responsible for verifying dimensional accuracy along with compliance with any applicable electrical, lighting or energy code.

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
COUNTY HEALTH OFFICER
HOWARD COUNTY HEALTH DEPARTMENT
DATE: 11/9/20

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 11/9/20

CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 11/19/20

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
Know what's below. Call before you dig.

1/24/22
NO AS-Built information in this sheet.
John Kauppila.

LIGHTING PLAN (PROVIDED BY OTHERS)
SHEET NUMBER
30 OF 30
SDP-20-018