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# SUPPLEMENTAL PLAN

# LUTFI PROPERTY

## LOT 1 & NON-BUILDABLE BULK PARCEL 'A'

### ZONING: R-12

### TAX MAP No. 35    GRID No. 13

### PARCEL No. 56

APPROVED: DEPARTMENT OF PUBLIC WORKS	<i>[Signature]</i>	01/26/2021
CHIEF, BUREAU OF HIGHWAYS	MJK	DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING	<i>[Signature]</i>	2/10/22
CHIEF, DIVISION OF LAND DEVELOPMENT		DATE
APPROVED: DEPARTMENT OF ENGINEERING	<i>[Signature]</i>	1/31/22
CHIEF, DEVELOPMENT ENGINEERING DIVISION		DATE
REVISIONS		
NO.	DESCRIPTION	DATE

MODERATE INCOME HOUSING CHART (MIHU) APPLICATION EXEMPTION	
TRACKING	
TOTAL NUMBER OF LOTS/UNITS PROPOSED	1 PROPOSED (4 FUTURE)
NUMBER OF MIHU REQUIRED	1
NUMBER OF MIHU PROVIDED ON-SITE (EXEMPT FROM AFPO ALLOCATIONS)	0
NUMBER OF AFPO ALLOCATIONS REQUIRED (REMAINING LOTS/UNITS)	5
MIHU FEE-IN-LIEU (INDICATE LOT/UNIT NUMBERS)	LOT 1

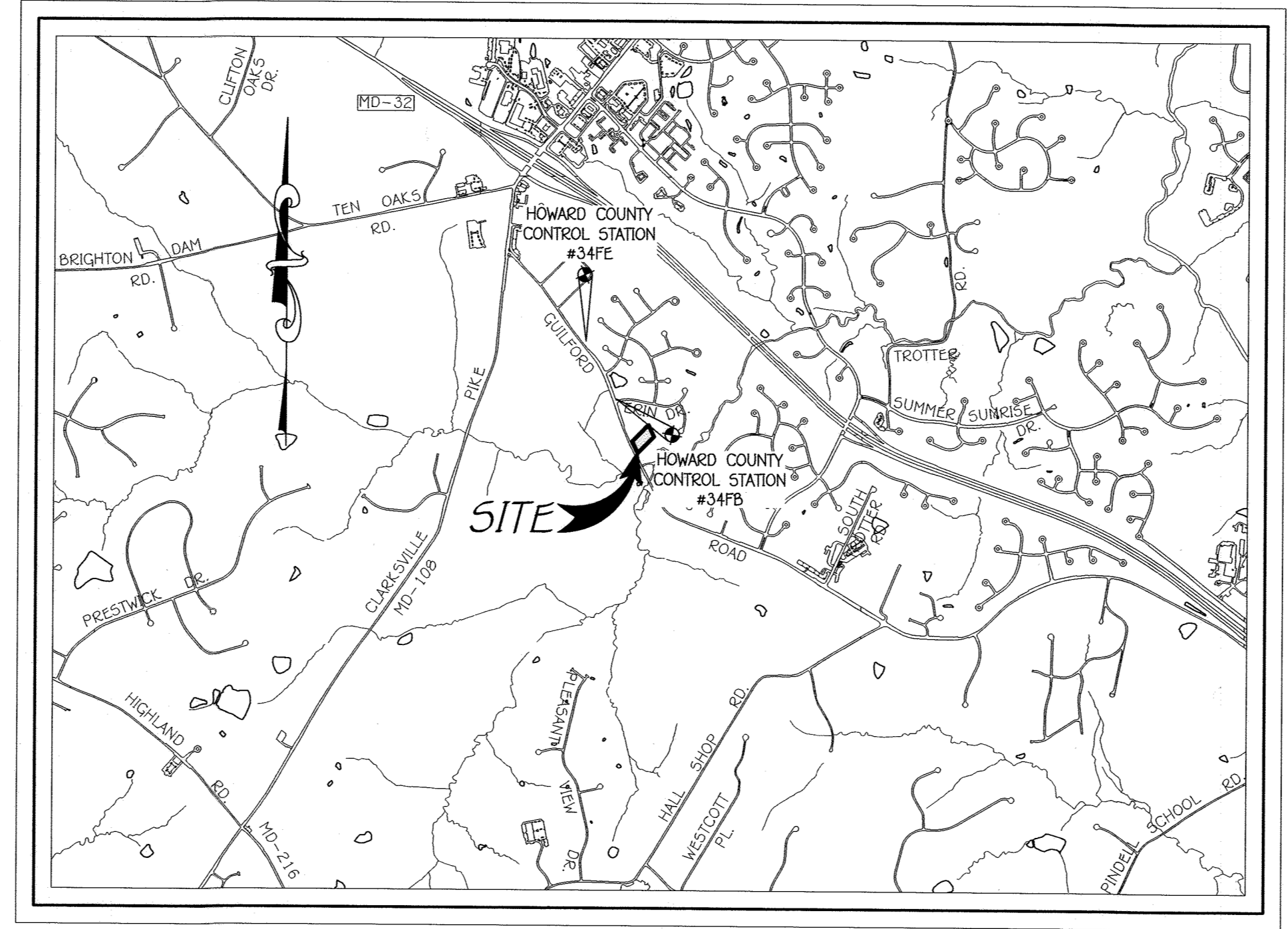
*M.I.H.U. Note: Please Note That Lot 1 In This Subdivision Is Subject To Section 13.602(c)(1) Of The Howard County Subdivision And Land Development Regulations For The Moderate Income Housing Unit (MIHU.) Fee-In-Lieu Requirement That Is To Be Calculated And Paid To The Department Of Inspections, Licenses And Permits At The Time Of Building Issuance By The Permit Applicant.*

COORDINATE TABLE		
POINT	NORTH	EAST
1	556,949.16	1,330,739.85
2	556,695.53	1,330,485.71
3	556,730.55	1,330,467.95
4	556,873.30	1,330,398.65
5	557,034.93	1,330,558.62
6	557,130.13	1,330,652.83

MINIMUM LOT SIZE CHART			
LOT No.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
1	13,275 Sq.Ft.	1,212 Sq.Ft.	12,055 Sq.Ft.

ROADWAY INFORMATION CHART				
ROAD NAME	CLASSIFICATION	DESIGN SPEED	EASEMENT WIDTH	PAVING SECTION
DRIVEWAY	PRIVATE USE-IN-COMMON DRIVEWAY	15 M.P.H.	24'	F-2

STREET ADDRESS CHART	
LOT No.	STREET ADDRESS
1	6301 QUILFORD ROAD



VICINITY MAP  
SCALE: 1" = 2000'

## FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**GENERAL NOTES CONTINUED:**

- THE DEVELOPER IS RESPONSIBLE FOR A FEE-IN-LIEU PAYMENT FOR PUBLIC SIDEWALK ALONG QUILFORD ROAD WITH THIS F-PLAN. THE FEE-IN-LIEU PAYMENT IN THE AMOUNT OF \$ 1,115.00 HAS BEEN PAID AS PART OF DEVELOPER'S AGREEMENT. THE FEE-IN-LIEU PAYMENT WILL BE CREDITED TO CAPITAL PROJECT No. E-5061.
- THIS PLAN IS SUBJECT TO WAIVER PETITION WP-19-092 FOR AN ALTERNATIVE COMPLIANCE OF SECTION 16.1205(a)(10), WHICH IDENTIFIES SPECIMEN TREES AS A FOREST RETENTION PRIORITY. THIS WAIVER HAS BEEN APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING ON MAY 29, 2019 SUBJECT TO THE FOLLOWING CONDITIONS:
  - THE REMOVAL OF THE SILVER MAPLE SPECIMEN TREES #2 AND #3 MUST BE MITIGATED WITH A 2:1 REPLACEMENT OF A NATIVE SPECIES MEASURING AT LEAST 2" - 3" CALIPER AT THE TIME OF PLANTING (4 TOTAL TREES). IF POSSIBLE, THEY SHOULD BE REPLACED WITH A RED MAPLE OR OTHER SPECIES OF MAPLE. (SILVER MAPLES ARE PROHIBITED)
  - THIS ALTERNATIVE COMPLIANCE DOES NOT PERMIT REMOVAL OF ANY OTHER SPECIMEN TREES. ADDITIONAL APPROVAL WILL BE REQUIRED IF ADDITIONAL SPECIMEN TREES ON-SITE ARE REMOVED DURING THE DEVELOPMENT OF THIS PROPERTY.
  - THE REVISED PLANS FOR SP-18-002 MUST BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING WITHIN 30-DAYS OF THE ORIGINAL MAY 16, 2019 DEADLINE (ON OR BEFORE JUNE 16, 2019).
  - IN ACCORDANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.144(a)(1)(ii) STATES THAT IF THE DEPARTMENT OF PLANNING AND ZONING OR THE REVIEW COMMITTEE INDICATES THAT ADDITIONAL INFORMATION IS NEEDED IN ORDER TO DECIDE WHETHER TO APPROVE THE PRELIMINARY PLAN, THE DEVELOPER SHALL PROVIDE THE INFORMATION WITHIN 45 DAYS OF RECEIVING SUCH INDICATION.
- THIS PLAN IS SUBJECT TO DESIGN MANUAL WAIVER FOR AN ALTERNATIVE TEE-TURN AROUND OF HOWARD COUNTY DESIGN MANUAL IV, STANDARD DETAIL 4-3.05 TO ALLOW FOR A NON-STANDARD TEE-TURN AROUND AT THE END OF THE USE-IN-COMMON DRIVEWAY. THIS APPROVAL LETTER IS DATED MAY 30, 2019.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE LATEST EDITION OF THE HANDBOOK OF UNIFORM TRAFFIC CONTROL DEVICES. ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- THIS PLAN IS SUBJECT TO WAIVER PETITION WP-22-003, ON AUGUST 30, 2021 AND PURSUANT TO SECTION 16.104, THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING, CONSIDERED YOUR APPLICATION AND PROVIDES THE FOLLOWING DETERMINATIONS:
  - Denial for your request for alternative compliance with respect to Section 16.132(a)(3)(b).1 of the Subdivision and Land Development Regulations for road construction.
  - Alternative compliance action is not required to collect a fee in lieu for sidewalks according to Section 16.134(a)(1)(ii). The applicant is advised to request and process the request to pay a fee for sidewalk construction through DED who will coordinate with DPW.
  - Street lighting is not required under Section 16.135. A separate approval through the alternative compliance process is not necessary for this action.

STORMWATER MANAGEMENT INFORMATION						
Lot/Parcel No.	Facility Name & Number	Practice Type (Quantity)	Public	Private	HOA Maintained	Misc.
Lot 1	DRY WELL #1	M-5 - (1)	--	X	X	Standard Dry Well
#6301 QUILFORD ROAD	ESD #2	M-6 - (1)	--	X	X	Micro Bio-Retention

STORMWATER MANAGEMENT INFORMATION						
Lot/Parcel No.	Facility Name & Number	Practice Type (Quantity)	Public	Private	HOA Maintained	Misc.
Non-Buildable Bulk Parcel 'A'	ESD #1	F-6 - (1)	--	X	X	Bio-Retention

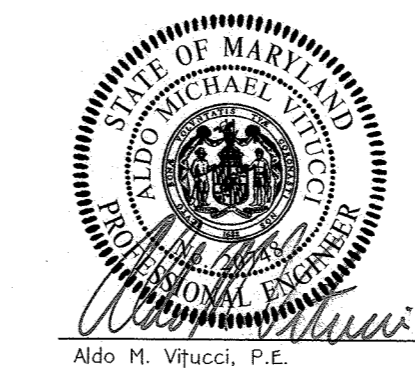
STORMWATER MANAGEMENT PRACTICES				
LOT/PARCEL No.	MICRO BIO-RETENTION F-6 (NUMBER)	BIO-RETENTION F-6 (NUMBER)	DRY WELLS M-5 (NUMBER)	
Lot 1 #6301 QUILFORD ROAD	YES - (1)	NO	YES - (1)	
Non-Buildable Bulk Parcel 'A'	NO	YES - (1)	NO	

**GENERAL NOTES**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST (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. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY FISHER, COLLINS & CARTER, INC. DATED JULY 17, 2017.
- THE COORDINATES ARE BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 34-FB AND NO. 34-FE.
  - HOWARD COUNTY MONUMENT NO. 34-FB - N 557,439.9130 E 1,330,191.3224 ELEV. (NAVD88) = 406.148
  - HOWARD COUNTY MONUMENT NO. 34-FE - N 556,339.6095 E 1,329,709.0245 ELEV. (NAVD88) = 431.118
- PROPOSED WATER IS PUBLIC (CONTRACT NUMBER 34-5076-D)
- PROPOSED SEWER IS PUBLIC (CONTRACT NUMBER 34-5076-D)
- STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH THE NEW MDE, CHAPTER 5 REGULATIONS AND THE NEW HOWARD COUNTY SWM MANUAL ADOPED ON OR AROUND MAY 4, 2010. RECHARGE VOLUME WILL BE PROVIDED THROUGH THE USE OF A STONE RESERVOIR. WATER QUALITY AND CHANNEL PROTECTION VOLUME WILL NOT BE NEEDED FOR THIS PROJECT. OVBANK FLOOD PROTECTION VOLUME AND EXTREME FLOOD VOLUMES ARE NOT REQUIRED FOR THIS SITE. THE STORMWATER MANAGEMENT FACILITY WILL BE PRIVATELY OWNED BY H.O.A. AND JOINTLY MAINTAINED BY H.O.A. AND HOWARD COUNTY. A MAINTENANCE AGREEMENT WILL BE PART OF THE FINAL DEVELOPER AGREEMENT.
- EXISTING UTILITIES ARE BASED ON CONT. NO. 34-4918-D (8'5" & 44-3299-D (12" W))
- FLOODPLAIN INFORMATION IS BASED ON FEMA FLOOD MAPS DATED 10/16/12. IT DOES NOT APPEAR THAT THERE IS A FLOODPLAIN ON THIS PROPERTY.
- THE FOREST STAND DELINEATION AND WETLAND DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED MARCH, 2017. THERE ARE NO WETLANDS ON-SITE.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP DATED MAY 2016 AND APPROVED ON DECEMBER 26, 2018.
- NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
- THE GEO-TECH REPORT FOR THIS PROJECT WAS PREPARED BY HILLIS-CARNESE, ENGINEERING ASSOCIATE, INC. DATED SEPTEMBER 13, 2018.
- BACKGROUND INFORMATION:
  - SUBDIVISION NAME: LUTFI PROPERTY
  - TAX MAP NO. 35
  - PARCELS NO. 56
  - ZONING R-12
  - ELECTION DISTRICT: FIFTH
  - TOTAL AREA OF TRACT = 1.56 ACRES
  - NUMBER OF PROPOSED LOTS: 1
  - NUMBER OF NON-BUILDABLE BULK PARCELS: 1
  - AREA OF BUILDABLE LOTS = 0.31 ACRES
  - AREA OF NON-BUILDABLE BULK PARCEL: 1.18 ACRES
  - AREA OF ROADWAY TO BE DEDICATED: 0.07 ACRES
  - PREVIOUS FILE NUMBERS: SP-17-038 (FORMERLY SUNDSTROM PROPERTY), WP-18-080, WP-19-092, SP-18-002, WP-22-003
  - AREA OF 25% AND GREATER SLOPES = 0.05 ACRES
  - NET AREA OF TRACT = 1.01 AC
- THIS SUBDIVISION PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE 2004 ZONING REGULATIONS PER COUNCIL BILL NO. 45-2003 AND THE ZONING REGULATIONS AS AMENDED BY COUNCIL BILL NO. 75-2003 AND THE COMP LITE ZONING REGULATION AMENDMENTS EFFECTIVE 7/28/06. DEVELOPMENT OR CONSTRUCTION ON THESE LOTS OR PARCELS MUST COMPLY WITH SETBACKS AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF A BUILDING OR GRADING PERMIT APPLICATION.
- SUBJECT PROPERTY IS ZONED R-12 PER THE COMPREHENSIVE ZONING PLAN.
  - AREA OF OPEN SPACE REQUIRED = 1.56 X 8% = 0.125 ACRES
  - AREA OF OPEN SPACE PROVIDED = 0.00 ACRES. A FEE-IN-LIEU PAYMENT OF \$6000.00 (4 LOTS X \$1,500.00) IS PROPOSED TO BE PAID WITH THE FINAL PLAN SUBMISSION.
- ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T-180.
- EXISTING STRUCTURES LOCATED ON SITE ARE TO BE RAZED AS SHOWN ON THIS PLAN PRIOR TO PLAT RECORDATION.
- BOUNDARY OUTLINE BASED ON A FIELD RUN SURVEY PERFORMED BY FISHER, COLLINS AND CARTER, INC. DATED JULY 17, 2017.
- THERE IS ONE AREA OF STEEP SLOPES LOCATED ON THIS PROPERTY AS DEFINED BY THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, SECTION 16.116.b. (0.18 AC.).
- THE FOREST CONSERVATION ACT REQUIREMENTS FOR THIS SUBDIVISION WILL BE MET THROUGH A FEE-IN-LIEU PAYMENT OF 16,335.00 (0.30 AC. X \$4350.00) FOR THE REQUIRED 0.30 ACRES OF AFFORESTATION OBLIGATION. "No Clearing, Grading or Construction is Permitted Within The Forest Conservation Easement + However, Forest Management Practices As Defined In The Deed Of Forest Conservation Easement Are Allowed."
- THIS PROPERTY IS LOCATED WITH THE METROPOLITAN DISTRICT.
  - FOR FLAG OR PILESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PILESTEM AND THE ROAD R/W LINE AND NOT THE PILESTEM LOT DRIVEWAY.
- NO CEMETERIES OR HISTORIC STRUCTURES EXIST WITHIN THIS SUBDIVISION.
- THE LANDSCAPE SURETY IN THE AMOUNT OF \$7,800 FOR THE REQUIRED 21 Shade Trees, 9 Evergreen Trees & 5 Shrubs PER SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL HAVE BEEN POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION. (DEVELOPER IS PROVIDING 21 SHADE TREES, 16 EVERGREEN TREES & 5 SHRUBS) ADDITIONAL LANDSCAPING AND SURETY WILL BE REQUIRED WITH THE RESUBDIVISION OF NON-BUILDABLE BULK PARCEL 'A'.
  - SIGN POSTS: ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT OF WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3" LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
  - DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE FIGHT AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS:
    - WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE)
    - SURFACE - SIX (6") INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.
    - GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45 TURNING RADIUS.
    - STRUCTURES (CULVERTS/BRIDGES) CAPABLE OF SUPPORTING 25 GROSS TONS (HEAVY LOADS)
    - DRAINAGE ELEMENTS CAPABLE OF PASSING 100-YEAR FLOOD WITH NO MORE THAN 1-FOOT DEPTH OVER THE DRIVEWAY SURFACE.
    - STRUCTURE CLEARANCES - MINIMUM 12-FEET.
    - MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
  - NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE WETLANDS, STREAM OR THEIR REQUIRED BUFFERS.
  - FOR THE USE IN COMMON DRIVEWAY FOR LOT 1 AND FUTURE LOTS 2-5, A PRIVATE RANGE ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPER'S/OWNER'S EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATE.
  - SOILS INFORMATION TAKEN FROM SOIL SURVEY MAP NO. 23, HOWARD COUNTY, MARYLAND.
  - THIS PLAN IS SUBJECT TO WAIVER PETITION WP-18-080 FOR AN ALTERNATIVE COMPLIANCE OF SECTION 16.1205(a)(10), WHICH IDENTIFIES SPECIMEN TREES AS A FOREST RETENTION PRIORITY. THIS WAIVER HAS BEEN APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING ON APRIL 12, 2018 SUBJECT TO THE FOLLOWING CONDITIONS:
    - THE REMOVAL OF SPECIMEN TREE #1 MUST BE MITIGATED WITH A 3:1 REPLACEMENT OF A NATIVE SPECIES MEASURING AT LEAST 2" CALIPER AT PLANTING. IF POSSIBLE, IT SHOULD BE REPLACED WITH A SPECIES OF MAPLE. SILVER MAPLES ARE PROHIBITED FOR PLANT USE PER A POLICY MEMO DATED JULY 1, 2010.
    - THE REMOVAL OF SPECIMEN TREE #5 MUST BE MITIGATED WITH A 2:1 REPLACEMENT OF A NATIVE SPECIES MEASURING AT LEAST 1 1/2" TO 2" CALIPER AT PLANTING. IF POSSIBLE, IT SHOULD BE REPLACED WITH A RED OAK OR OTHER SPECIES OF OAK.
    - THIS ALTERNATIVE COMPLIANCE DOES NOT PERMIT REMOVAL OF ANY OTHER SPECIMEN TREES. ADDITIONAL APPROVAL WILL BE REQUIRED IF ADDITIONAL SPECIMEN TREES ON-SITE ARE REMOVED DURING THE DEVELOPMENT OF THIS PROPERTY.
    - PROVIDE A DETAILED NOTE ON ALL SUBSEQUENT PLANS DETAILING THIS ALTERNATIVE COMPLIANCE REQUEST, INCLUDING SECTIONS, DATE AND CONDITIONS OF APPROVAL.
- LOT 1 AND FUTURE LOTS 2-5 ARE SUBJECT TO SECTION 109.0.E OF THE ZONING REGULATIONS. AT LEAST 10% OF THE DWELLING UNITS SHALL BE MODERATE INCOME HOUSING UNITS (MIHU) OR AN ALTERNATIVE COMPLIANCE WILL BE PROVIDED. THE DEVELOPER SHALL EXECUTE AN M.I.H.U. AGREEMENT WITH THE DEPARTMENT OF HOUSING TO INDICATE HOW THE M.I.H.U. REQUIREMENT WILL BE MET. THE M.I.H.U. AGREEMENT AND COVENANTS WILL BE RECORDED SIMULTANEOUSLY WITH THE RECORD PLAT IN THE OFFICE OF HOWARD COUNTY, MARYLAND. THIS DEVELOPMENT WILL MEET M.I.H.U. ALTERNATIVE COMPLIANCE BY A PAYMENT OF A FEE-IN-LIEU TO THE DEPARTMENT OF HOUSING FOR EACH REQUIRED UNIT.
  - MODERATE INCOME HOUSING UNIT (M.I.H.U.) TABULATION:
    - M.I.H.U. REQUIRED = (5 LOTS X 10%) = 1 M.I.H.U.
    - M.I.H.U. PROVIDED = DEVELOPER WILL PURSUE ALTERNATIVE COMPLIANCE BY PAYING A FEE-IN-LIEU TO THE HOWARD COUNTY HOUSING DEPARTMENT FOR THE UNITS REQUIRED BY THE DEVELOPMENT.
    - AN EXECUTED M.I.H.U. AGREEMENT WITH THE HOWARD COUNTY HOUSING DEPARTMENT HAS BEEN COMPLETED AND WILL BE RECORDED AND WILL BE RECORDED SIMULTANEOUSLY WITH THE RECORD PLAT.

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SERVICE OFFICE: PARK - 10272 BALTIMORE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
(410) 461-2899

**Owner & Developer**  
Date  
Mr. Lutfi On  
8434 HIGH GIDGE ROAD  
ELICOTT CITY, MARYLAND 21043  
410-531-3300



1/22/21  
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. 22748, Expiration Date 2-22-23.

**TITLE SHEET**  
**LUTFI PROPERTY**  
**LOT 1 & NON-BUILDABLE BULK PARCEL 'A'**  
(FORMALLY KNOWN AS SUNDSTROM FAMILY PROPERTY)

Zoned: R-12  
Tax Map No.: 35    Grid No.: 13    Parcel No.: 56  
Fifth Election District    Howard County, Maryland  
Scale: As Shown  
Date: November 22, 2021  
Sheet 1 Of 11

**SOILS LEGEND**

SOIL	NAME	Kw	CLASS
GbB	Gladstone loam, 3 to 8 percent slopes	0.20	B
GbC	Gladstone loam, 8 to 15 percent slopes	0.20	B
GmB	Glenville silt loam, 3 to 8 percent slopes	0.37	C
MaD	Manor loam, 15 to 25 percent slopes	0.24	B

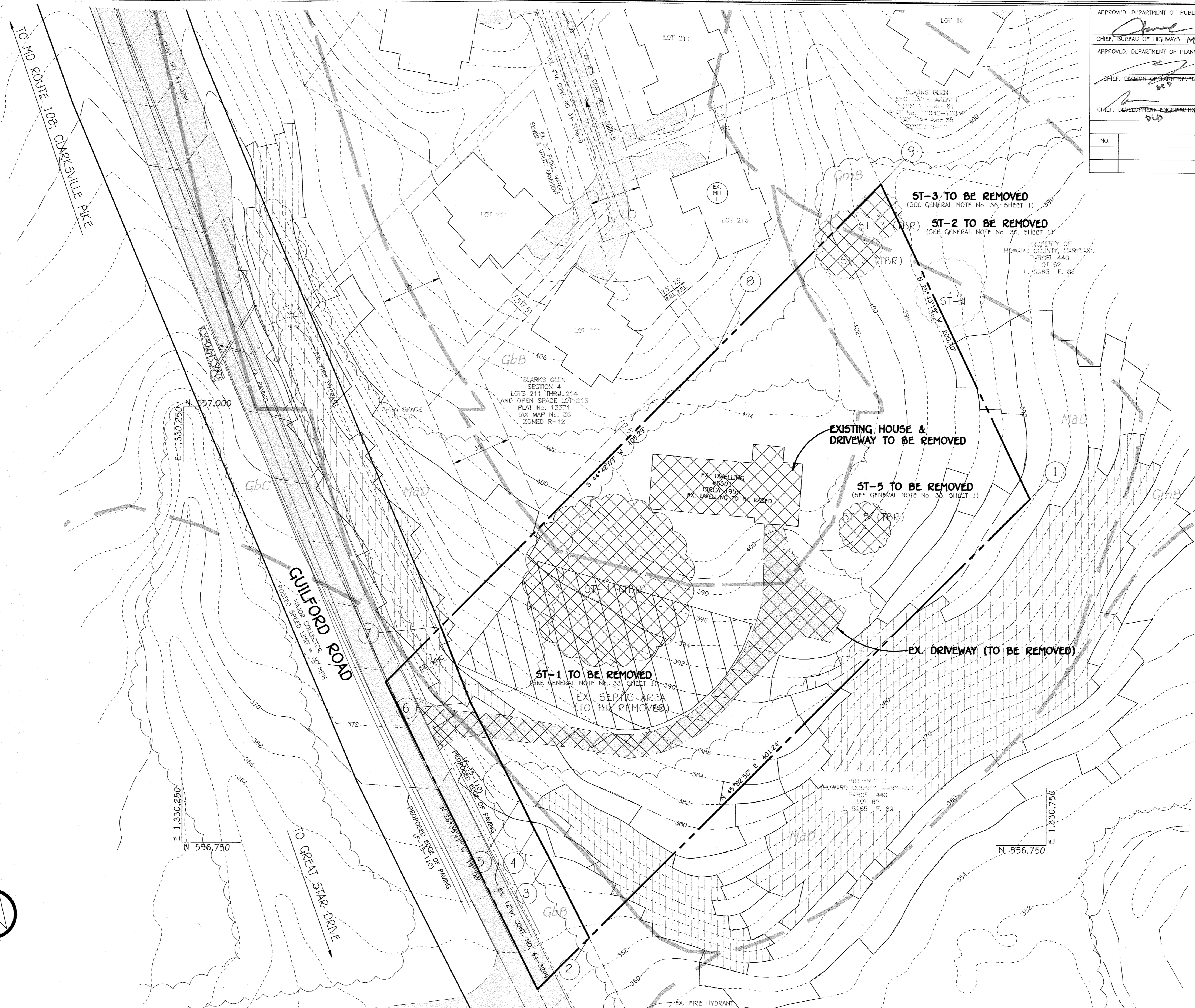
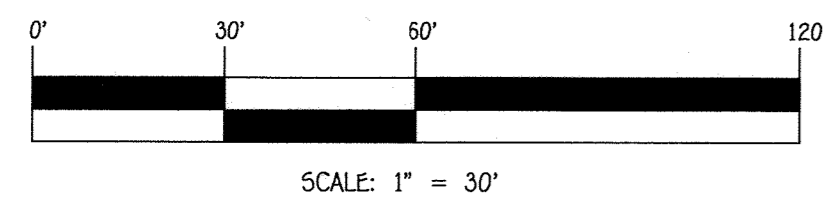
- NOTES:
- Hydric soils and/or contains hydric inclusions
  - May contain hydric inclusions
  - Generally only within 100-year floodplain areas

**LEGEND**

SYMBOL	DESCRIPTION
-192-	EXISTING CONTOUR 2' INTERVAL
-490-	EXISTING CONTOUR 10' INTERVAL
////	SLOPES (25% AND GREATER)
---	SOILS LIMIT
XXXX	TO BE RAZED/REMOVED
~~~~	SLOPES (15% TO 24.9%)
~~~~~	EXISTING TREELINE



**EXISTING HOUSE PHOTO**  
NOT TO SCALE



APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS MK 01/26/2022 DATE  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT 1/22/22 DATE  
 CHIEF, DEVELOPMENT-ENGINEERING DIVISION OF LAND DEVELOPMENT 2/10/22 DATE

NO.	REVISIONS	DESCRIPTION	DATE



**Owner & Developer**  
 Mr. Lutfi On  
 8434 HIGH RIDGE ROAD  
 ELLICOTT CITY, MARYLAND 21043  
 410-531-3300

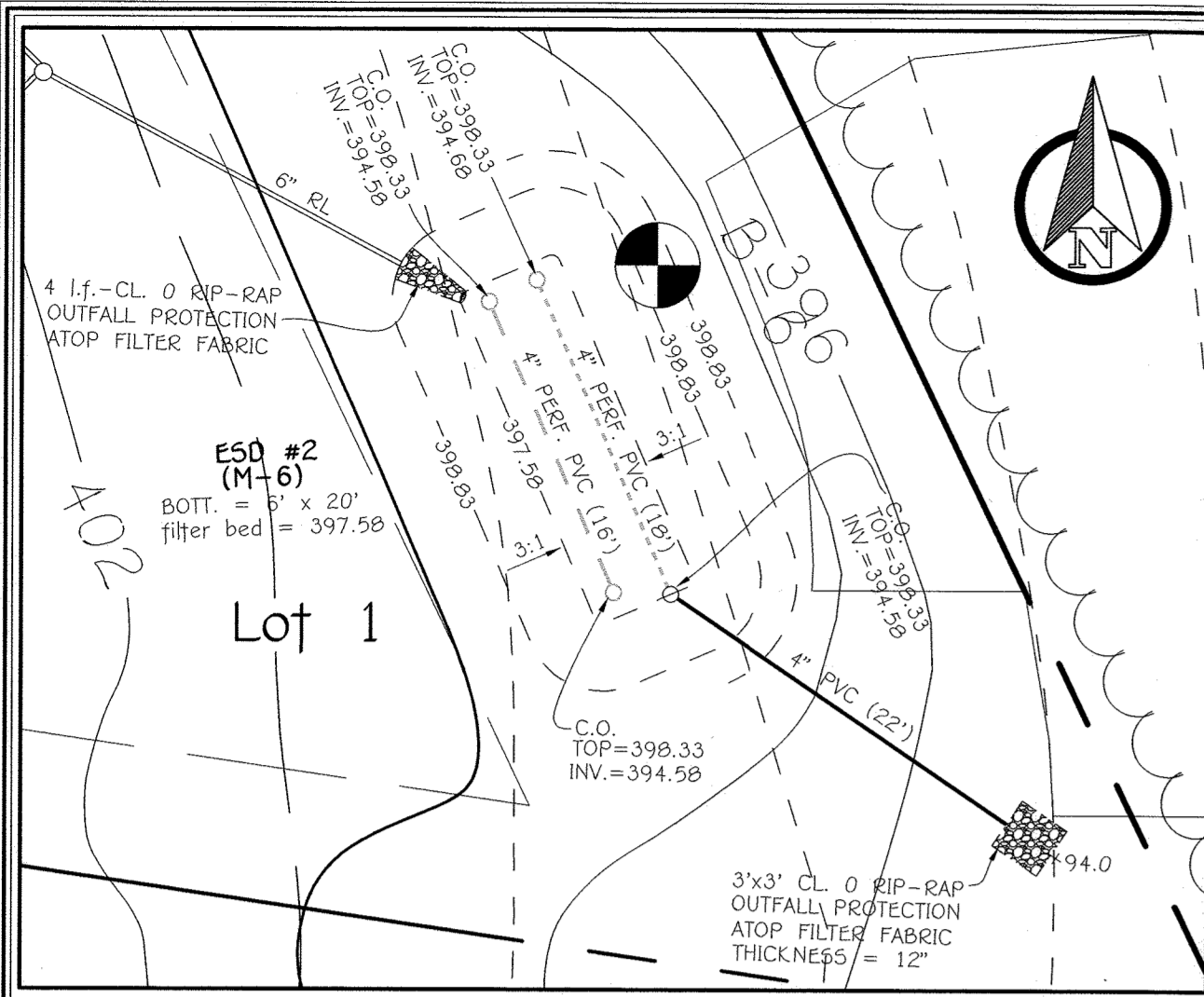
11/22/21  
 Date

\*Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly Licensed Professional Engineer under the laws of the State of Maryland, License No. 20748, Expiration Date 2-22-23.\*

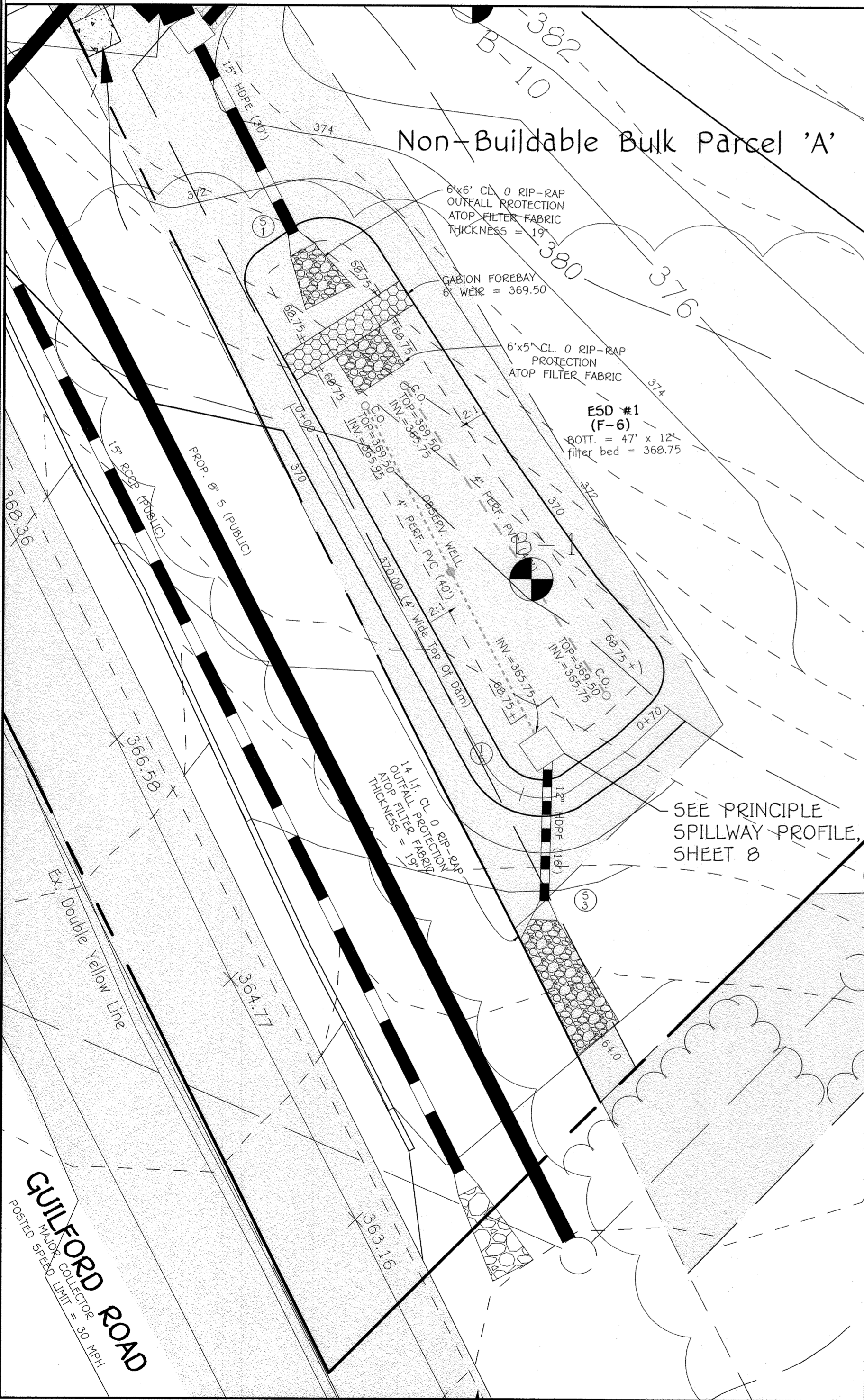
**DEMOLITION PLAN**  
**LUTFI PROPERTY**  
**LOT 1 & NON-BUILDABLE BULK PARCEL 'A'**  
 (FORMALLY KNOWN AS SUNDSTROM FAMILY PROPERTY)

Zoned: R-12  
 Tax Map No: 35 Grid No: 13 Parcel No: 56  
 Fifth Election District: Howard County, Maryland  
 Scale: As Shown  
 Date: November 22, 2021  
 Sheet 2 of 11

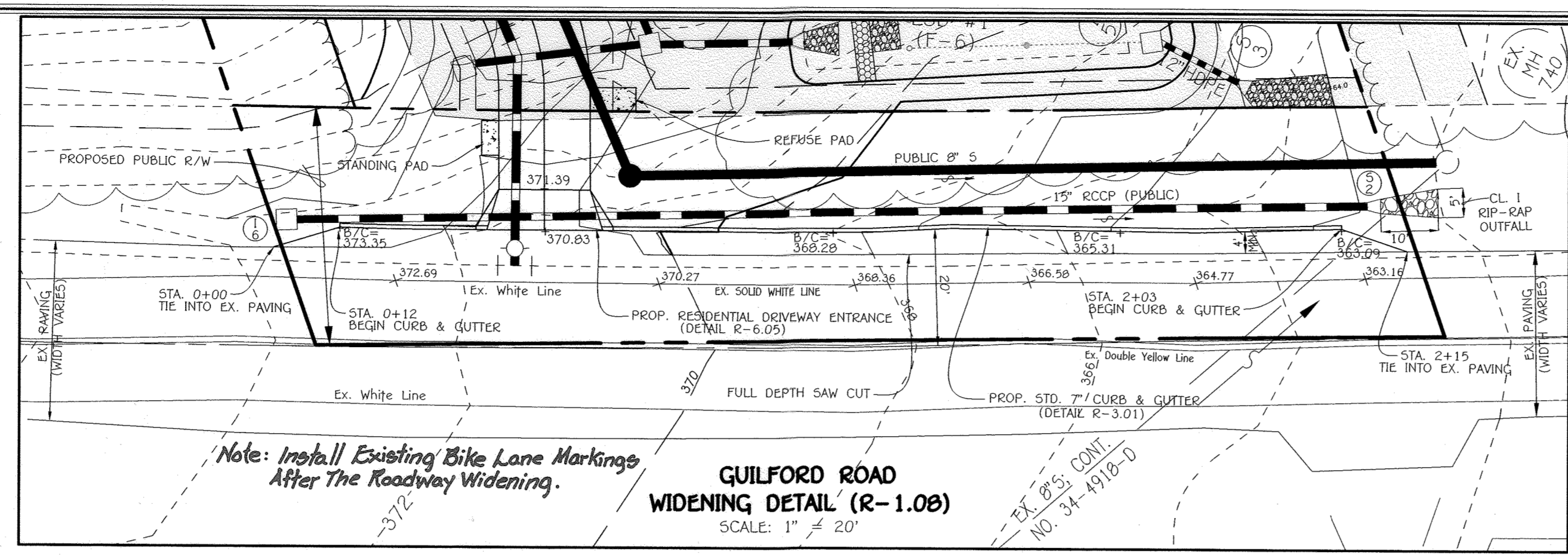
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ESD No. 2 (M-6) ENLARGEMENT DETAIL  
SCALE: 1" = 10"

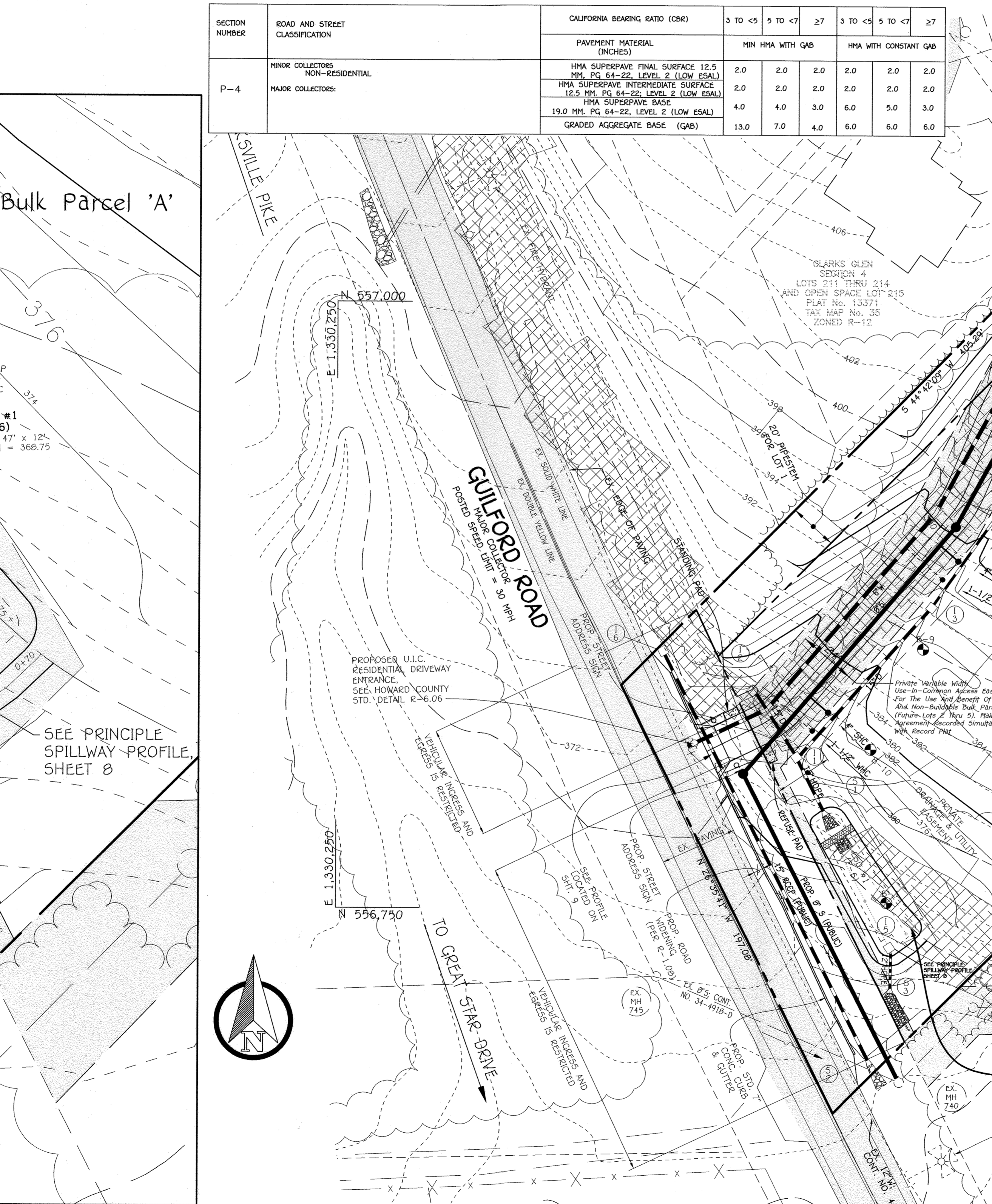


ESD No. 1 (F-6) ENLARGEMENT DETAIL  
SCALE: 1" = 10"

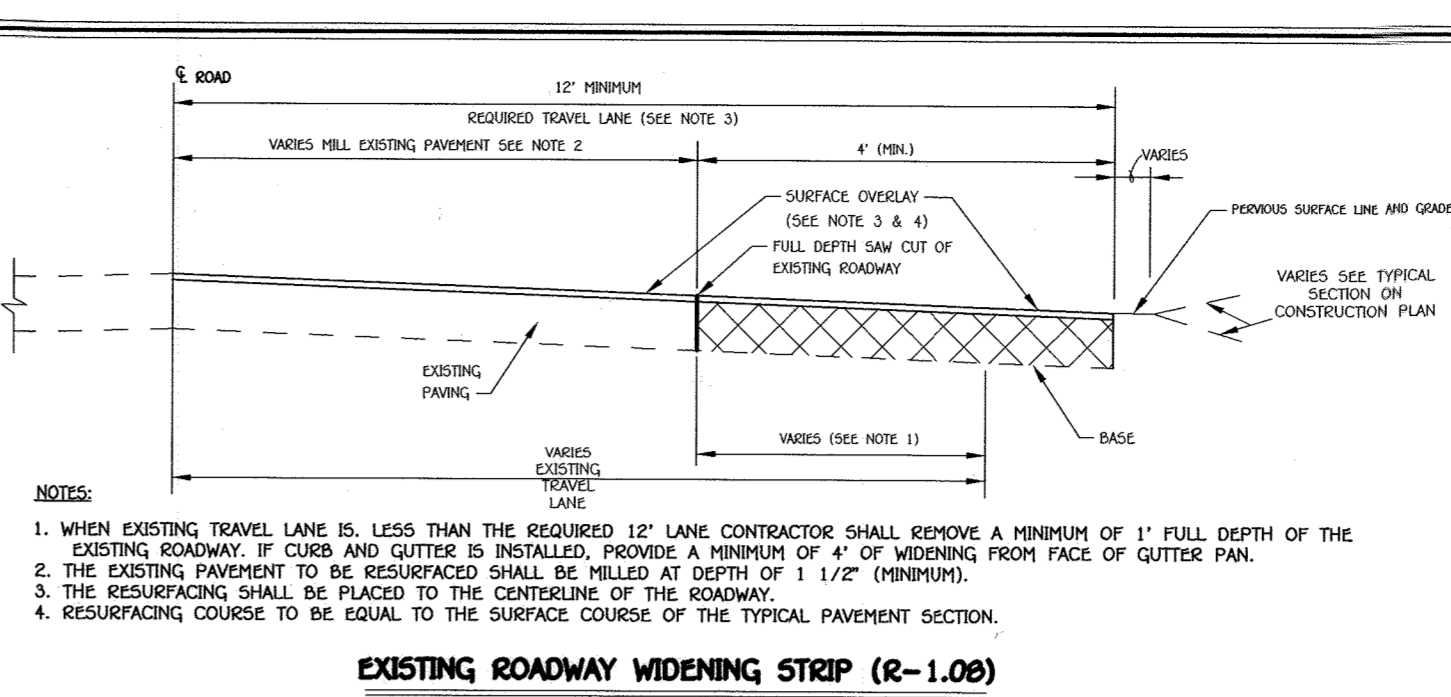


GUILFORD ROAD WIDENING DETAIL (R-1.08)  
SCALE: 1" = 20"

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	MIN HMA WITH GAB			HMA WITH CONSTANT GAB		
			3 TO <5	5 TO <7	27	3 TO <5	5 TO <7	27
P-4	MINOR COLLECTORS NON-RESIDENTIAL MAJOR COLLECTORS:	HMA SUPERPAVE FINAL SURFACE 12.5 MM, PG 64-22, LEVEL 2 (LOW ESAL)	2.0	2.0	2.0	2.0	2.0	2.0
		HMA SUPERPAVE INTERMEDIATE SURFACE 12.5 MM, PG 64-22, LEVEL 2 (LOW ESAL)	2.0	2.0	2.0	2.0	2.0	2.0
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 2 (LOW ESAL)	4.0	4.0	3.0	6.0	5.0	3.0
		GRADED AGGREGATE BASE (GAB)	13.0	7.0	4.0	6.0	6.0	6.0



SCALE: 1" = 30"

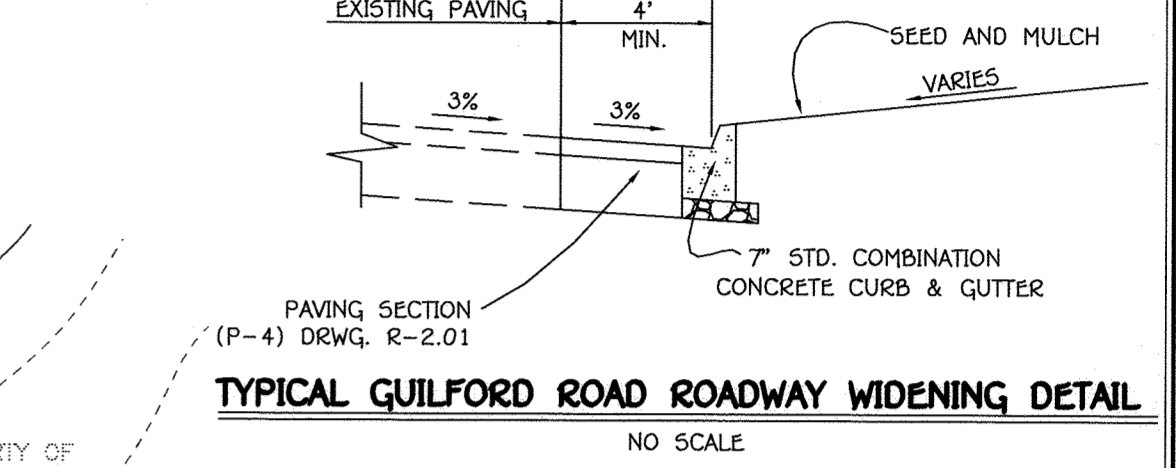


EXISTING ROADWAY WIDENING STRIP (R-1.08)  
NO SCALE

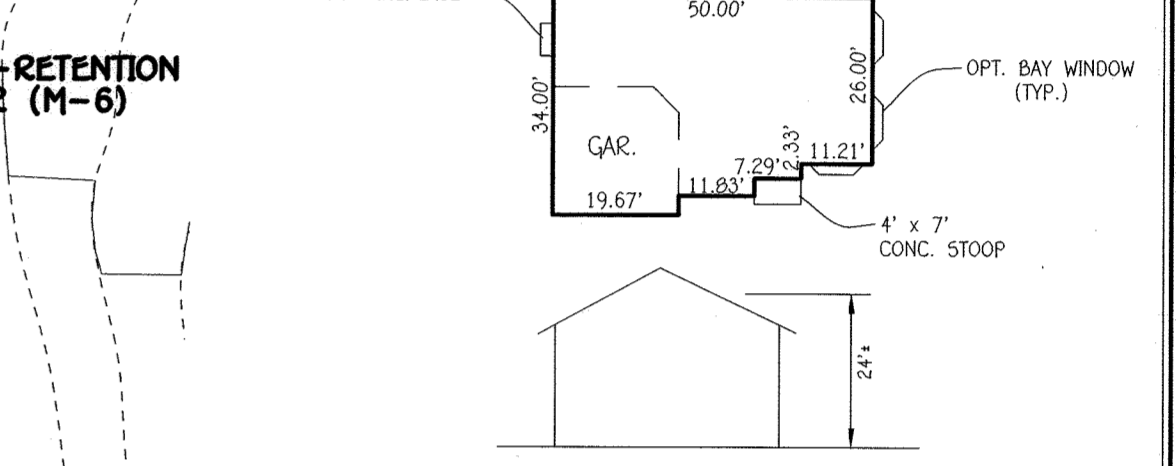
- NOTES:
1. WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE, CONTRACTOR SHALL REMOVE A MINIMUM OF 1' FULL DEPTH OF THE EXISTING ROADWAY. IF CURBS AND GUTTER IS INSTALLED, PROVIDE A MINIMUM OF 4" OF WIDENING FROM FACE OF GUTTER PAN.
  2. THE EXISTING PAVEMENT TO BE RESURFACED SHALL BE WELDED AT DEPTH OF 1 1/2" (MINIMUM).
  3. THE RESURFACING SHALL BE PLACED TO THE CENTERLINE OF THE ROADWAY.
  4. RESURFACING COURSE TO BE EQUAL TO THE SURFACE COURSE OF THE TYPICAL PAVEMENT SECTION.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS MK 01/26/2022 DATE  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT 2/10/22 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 1/9/22 DATE

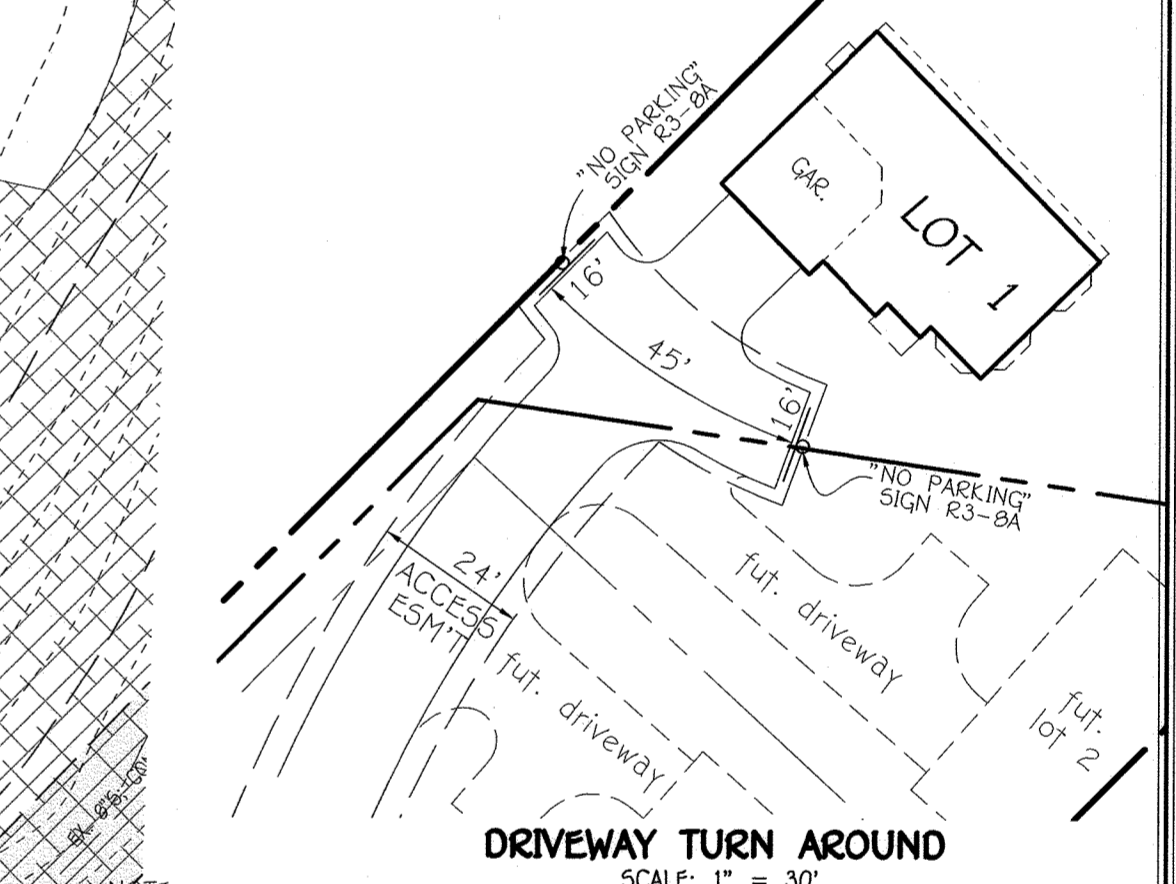
NO.	DESCRIPTION	DATE



TYPICAL GUILFORD ROAD ROADWAY WIDENING DETAIL  
NO SCALE



TSC SANFORD 13  
SCALE: 1" = 30"



DRIVEWAY TURN AROUND  
SCALE: 1" = 30"

- NOTE:
1. THIS PLAN IS SUBJECT TO DESIGN MANUAL WAIVER FOR THE ALTERNATE T-TURN AROUND THAT WAS APPROVED ON MAY 30, 2019. SEE GENERAL NOTE NUMBER 37.
  2. THIS PLAN INDICATES AN ADDRESS SIGN AT THE ENTRANCE WAY TO THE SUBDIVISION. A MORE DETAILED SIGN WITH THE FIRE AND RESCUE SERVICES WILL BE SHOWN ON THE FINAL PLAN.

SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
+	SPOT ELEVATION
SF	SILT FENCE
SSF	SUPER SILT FENCE
---	DRAINAGE LIMITS
---	SOILS LIMIT
L.O.D.	LIMIT OF DISTURBANCE
---	PROPOSED STREET TREE
---	RECREATIONAL OPEN SPACE
---	SLOPES (24.9% AND GREATER)
---	SLOPES (15% TO 24.9%)
---	EXISTING TREELINE
---	PROPOSED TREELINE
WB	WETLANDS BUFFER
WL	WETLANDS LIMITS
FP	FLOODPLAIN LIMITS

**SUPPLEMENTAL PLAN**  
**LUTFI PROPERTY**  
**LOT 1 & NON-BUILDABLE BULK PARCEL 'A'**  
 (FORMALLY KNOWN AS SUNDBROM FAMILY PROPERTY)

Owner & Developer: Mr. Lutfi On, 8434 HIGH RIDGE ROAD, ELLICOTT CITY, MARYLAND 21043, 410-531-3300

Professional Engineer: Aldo M. Vitucci, P.E., 11/22/21

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. 20748, Expiration Date 2-22-23.

Legend, Scale, and other details as shown in the plan.

I:\2021\1059\Engineering\Drawings\LOT 1 & PARCEL 'A' sheet 3 Site plan.dwg, 1/17/2022 8:29:53 AM, Downloads\11500 (temporary).pc3, 11

**SOILS LEGEND**

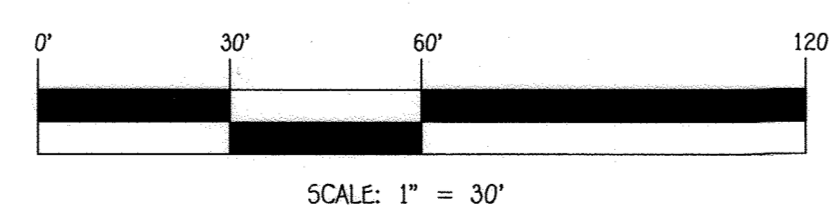
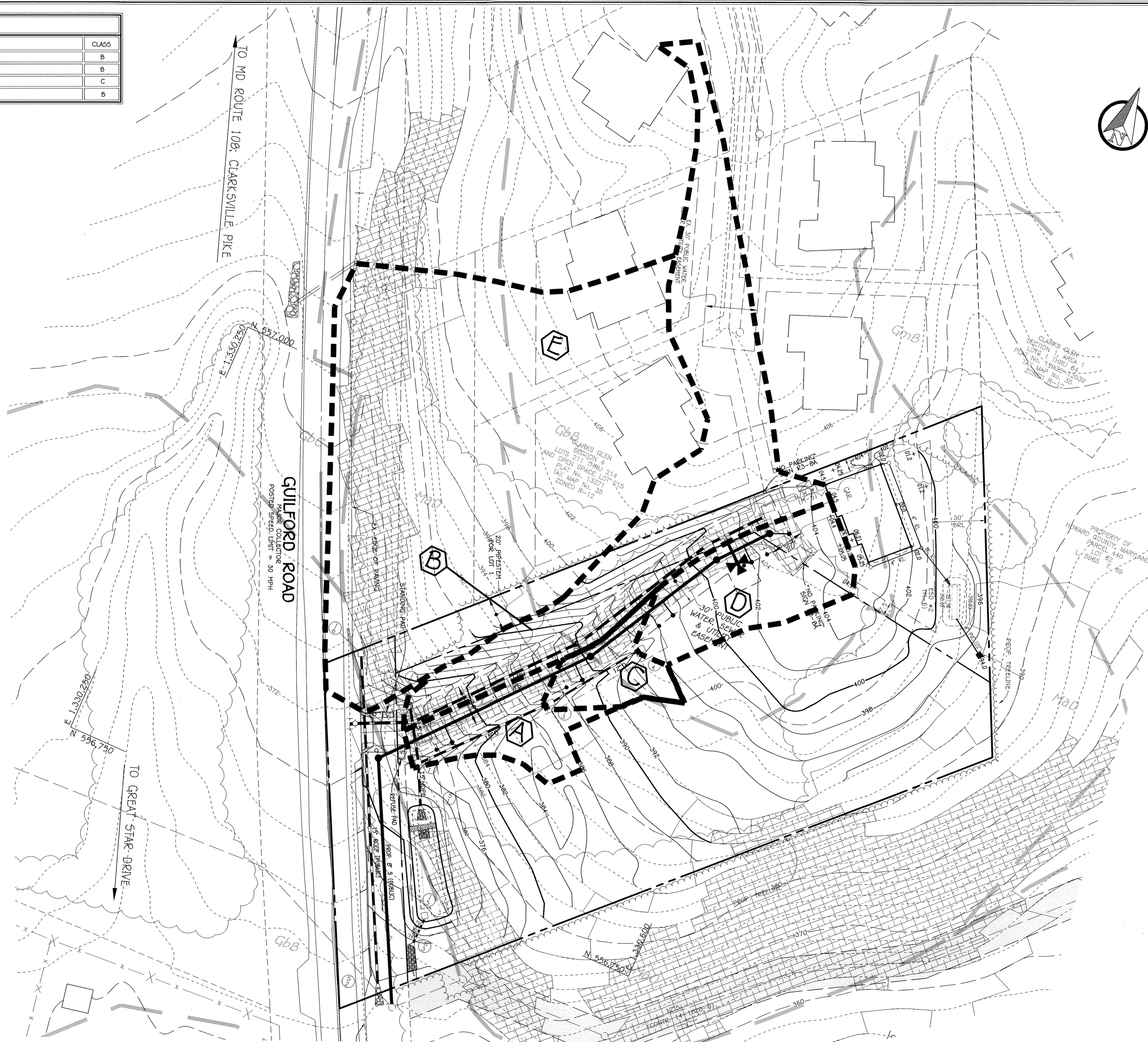
SOIL	NAME	CLASS
GbB	Gladstone loam, 3 to 8 percent slopes	B
GbC	Gladstone loam, 8 to 15 percent slopes	B
GmB	Glenville silt loam, 3 to 8 percent slopes	C
MaD	Manor loam, 15 to 25 percent slopes	B

NOTES:  
 \* Hydric soils and/or contains hydric inclusions  
 \*\* May contain hydric inclusions  
 † Generally only within 100-year floodplain areas

APPROVED: DEPARTMENT OF PUBLIC WORKS	01/26/2022	
CHIEF, BUREAU OF HIGHWAYS MK	DATE	
APPROVED: DEPARTMENT OF PLANNING AND ZONING	2/10/22	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE	
APPROVED: DEPARTMENT OF ENGINEERING	1/20/22	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE	
REVISIONS		
NO.	DESCRIPTION	DATE

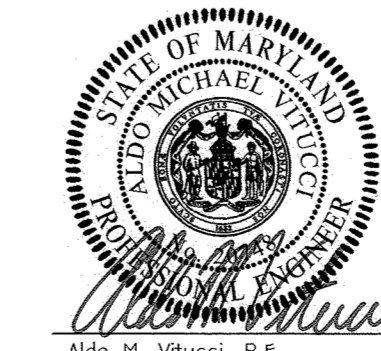
DRAINAGE AREA DATA					
STRUCTURE NO.	DRAINAGE AREA	AREA	% ZONED	% IMP.	
I-1	A	0.09 AC.	0.56	R-12	44%
I-2	B	0.38 AC.	0.43	R-12	26%
I-3	C	0.05 AC.	0.43	R-12	26%
I-4	D	0.14 AC.	0.50	R-12	36%
DRAINAGE CURVE	E	0.91 AC.	0.38	R-12	19%

LEGEND	
SYMBOL	DESCRIPTION
---492---	EXISTING CONTOUR 2" INTERVAL
---490---	EXISTING CONTOUR 10" INTERVAL
---492---	PROPOSED CONTOUR 2" INTERVAL
---490---	PROPOSED CONTOUR 10" INTERVAL
+499.50	SPOT ELEVATION
SF	SILT FENCE
SSF	SUPER SILT FENCE
---	DRAINAGE LIMITS
---	SOILS LIMIT
L.O.D.	LIMIT OF DISTURBANCE
---	PROPOSED STREET TREE
---	RECREATIONAL OPEN SPACE
---	SLOPES (24.9% AND GREATER)
---	SLOPES (15% TO 24.9%)
---	EXISTING TREELINE
---	PROPOSED TREELINE
WB	WETLANDS BUFFER
WL	WETLANDS LIMITS
FP	FLOODPLAIN LIMITS



**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK • 10272 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 461-2895

**Owner & Developer**  
 Mr. Lutfi On  
 8434 HIGH RIDGE ROAD  
 ELLICOTT CITY, MARYLAND 21043  
 410-531-3300



Date: 11/22/21  
 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. 20748, Expiration Date 2-22-23.

**DRAINAGE AREA MAP**  
**LUTFI PROPERTY**  
**LOT 1 & NON-BUILDABLE BULK PARCEL 'A'**  
 (FORMALLY KNOWN AS SUNDRSTROM FAMILY PROPERTY)  
 Zoned: R-12  
 Tax Map No.: 35 Grid No.: 13 Parcel No.: 56  
 Fifth Election District Howard County, Maryland  
 Scale: As Shown  
 Date: November 22, 2021  
 Sheet 4 of 11

**SOILS LEGEND**

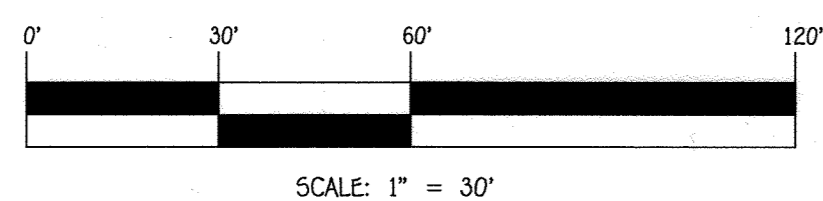
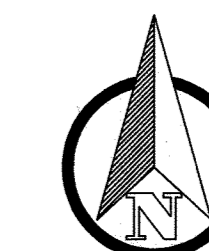
SOIL	NAME	Kw	CLASS
QbB	Gladstone loam, 3 to 8 percent slopes	0.20	B
QbC	Gladstone loam, 8 to 15 percent slopes	0.20	B
GmB	Glenville silt loam, 3 to 8 percent slopes	0.37	C
MbD	Manor loam, 15 to 25 percent slopes	0.24	B

NOTES:  
 \* Hydric soils and/or contains hydric inclusions  
 \*\* May contain hydric inclusions  
 † Generally only within 100-year floodplain areas

**LEGEND**

SYMBOL	DESCRIPTION
---492---	EXISTING CONTOUR 2' INTERVAL
---490---	EXISTING CONTOUR 10' INTERVAL
---492---	PROPOSED CONTOUR 2' INTERVAL
---490---	PROPOSED CONTOUR 10' INTERVAL
+499.50	SPOT ELEVATION
-5F	SILT FENCE
-55F	SUPER SILT FENCE
---	DRAINAGE LIMITS
---	SOILS LIMIT
---	L.O.D. LIMIT OF DISTURBANCE
---	PROPOSED STREET TREE
---	RECREATIONAL OPEN SPACE
---	SLOPES (24.9% AND GREATER)
---	SLOPES (15% TO 24.9%)
---	EXISTING TREELINE
---	PROPOSED TREELINE
WB	WETLANDS BUFFER
WL	WETLANDS LIMITS
FP	FLOODPLAIN LIMITS
---	SOIL STABILIZATION MATTING

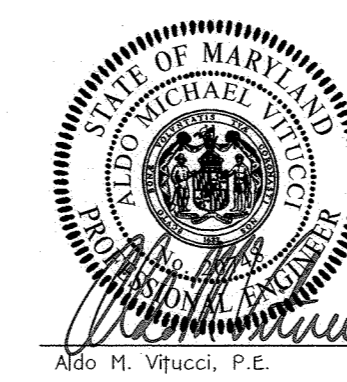
APPROVED: DEPARTMENT OF PUBLIC WORKS		
Chief, Bureau of Highways	<i>Clavel</i>	01/26/2022
Chief, Department of Planning and Zoning		
Chief, Division of Land Development		
Chief, Development Engineering Division		
REVISIONS		
NO.	DESCRIPTION	DATE



DRAINAGE AREA	AREA AC. +/-	ESD#	TYPE	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REMARKS
				Pe	Pe	ESDv	ESDv	REV	REV	
A	1.018	1	F-6	1.00	1.62	157	1,164	41	84	BIO-RETENTION
B	0.073	2	M-6	1.00	1.50	157	157	41	84	MICRO BIO-RETENTION
C	0.009	3	M-5	1.00	1.00	157	128	41	84	DRYWELL

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLSWORTH CITY, MARYLAND 21042  
 (410) 461-2000

**Owner & Developer**  
 Mr. Lutfi On  
 8434 HIGH RIDGE ROAD  
 ELLICOTT CITY, MARYLAND 21043  
 410-531-3300



Date: 11/22/21

"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. 20748, Expiration Date 2-22-23."

**SWM DRAINAGE AREA MAP**  
**LUTFI PROPERTY**  
**LOT 1 & NON-BUILDABLE BULK PARCEL 'A'**  
 (FORMALLY KNOWN AS SUNDSTROM FAMILY PROPERTY)  
 Zoned: R-12  
 Tax Map No: 35 Grid No: 13 Parcel No: 56  
 Fifth Election District Howard County, Maryland  
 Scale: As Shown  
 Date: November 22, 2021  
 Sheet 5 of 11



**SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)**

- A. Soil Preparation**
1. Temporary Stabilization
    - a. Seeded preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
    - b. Apply fertilizer and lime as prescribed on the plans.
    - c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable equipment.
    - d. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
      - i. Soil pH between 6.0 and 7.0.
      - ii. Soluble salts less than 500 parts per million (ppm).
      - iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is loesslike soil will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
      - iv. Soil contains 1.5 percent minimum organic matter by weight.
      - v. Soil contains sufficient pore space to permit adequate root penetration.
    - e. Application of amendments or topsoil is required for on-site soils do not meet the above conditions.
    - f. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
    - g. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
  2. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Stake down areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seeded preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seeded loosening may be unnecessary in newly disturbed areas.

- B. Topsoiling**
1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low nutrients, low nutrient levels, low pH materials, low organic matter, and/or low water holding capacity.
  2. Topsoil salvaged from an existing site may be used provided it meets the minimums as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the soil survey published by USDA-NRCS.
  3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
    - a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
    - b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
    - c. The original soil to be treated contains material toxic to plant growth.
    - d. The soil is so acidic that vegetation with limestone is not feasible.
    - e. Areas having slopes steeper than 2:1 require special consideration and design.
  4. Topsoil specifications: Soil to be used as topsoil must meet the following criteria:
    - a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of clumps, stones, sticks, twigs, fragments, gravel, rocks, trash, or other materials larger than 1 1/2 inches in diameter.
    - b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, net seed, poison ivy, thistle, or others as specified.
    - c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
    - d. Topsoil Application
    - e. Erosion and sediment control practices must be maintained when applying topsoil.
    - f. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that seeding or sodding can proceed with a minimum of additional soil preparation and filling. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
    - g. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

- C. Soil Amendments (Fertilizer and Lime Specifications)**
1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for fertilizer analyses.
  2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Mixtures may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
  3. Lime materials must be ground limestone (hydrated or burnt lime) may be substituted (except when hydroxydes) which contains at least 90 percent total oxide (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 90 percent will pass through a #100 mesh sieve and 90 to 100 percent will pass through a #20 mesh sieve.
  4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
  5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (1000-4000 pounds per 1000 square feet) prior to the placement of topsoil.

**TEMPORARY SEEDING NOTES (B-4-4)**

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose: To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies: Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

Criteria: 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.

2. For sites having soil tests performed, use the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.

3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch as prescribed in Section B-4-4.3.A.1.1 and maintain until the next seeding season.

**Temporary Seeding Summary**

Hardness Zone (from Figure B.3):	_____	_____	Fertilizer Rate (10-20-20)	Lime Rate			
Seed Mixture (from Table B.3):	_____	_____	_____	_____			
Species	Application Rate (lb./ac)	Seeding Dates	Seeding Depth				
B	TALL FESCUE	100	Mar. -1-May 15 Aug. -1-Oct. 15	1/4"-1/2" in.	45 lb./ac (10 lb./1000 sq ft)	90 lb./ac (20 lb./1000 sq ft)	2 tons/ac (500 lb./1000 sq ft)

**STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA (B-4-8)**

Hardness Zone (from Figure B.3):	_____	_____	Fertilizer Rate (10-20-20)	Lime Rate			
Seed Mixture (from Table B.3):	_____	_____	_____	_____			
Species	Application Rate (lb./ac)	Seeding Dates	Seeding Depth				
B	TALL FESCUE	100	Mar. -1-May 15 Aug. -1-Oct. 15	1/4"-1/2" in.	45 lb./ac (10 lb./1000 sq ft)	90 lb./ac (20 lb./1000 sq ft)	2 tons/ac (500 lb./1000 sq ft)

**TEMPORARY SEEDING NOTES (B-4-4)**

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose: To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies: Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

Criteria: 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.

2. For sites having soil tests performed, use the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.

3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch as prescribed in Section B-4-4.3.A.1.1 and maintain until the next seeding season.

**Temporary Seeding Summary**

Hardness Zone (from Figure B.3):	_____	_____	Fertilizer Rate (10-20-20)	Lime Rate			
Seed Mixture (from Table B.3):	_____	_____	_____	_____			
Species	Application Rate (lb./ac)	Seeding Dates	Seeding Depth				
B	TALL FESCUE	100	Mar. -1-May 15 Aug. -1-Oct. 15	1/4"-1/2" in.	45 lb./ac (10 lb./1000 sq ft)	90 lb./ac (20 lb./1000 sq ft)	2 tons/ac (500 lb./1000 sq ft)

**STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA (B-4-8)**

Hardness Zone (from Figure B.3):	_____	_____	Fertilizer Rate (10-20-20)	Lime Rate			
Seed Mixture (from Table B.3):	_____	_____	_____	_____			
Species	Application Rate (lb./ac)	Seeding Dates	Seeding Depth				
B	TALL FESCUE	100	Mar. -1-May 15 Aug. -1-Oct. 15	1/4"-1/2" in.	45 lb./ac (10 lb./1000 sq ft)	90 lb./ac (20 lb./1000 sq ft)	2 tons/ac (500 lb./1000 sq ft)

**STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA (B-4-8)**

Hardness Zone (from Figure B.3):	_____	_____	Fertilizer Rate (10-20-20)	Lime Rate			
Seed Mixture (from Table B.3):	_____	_____	_____	_____			
Species	Application Rate (lb./ac)	Seeding Dates	Seeding Depth				
B	TALL FESCUE	100	Mar. -1-May 15 Aug. -1-Oct. 15	1/4"-1/2" in.	45 lb./ac (10 lb./1000 sq ft)	90 lb./ac (20 lb./1000 sq ft)	2 tons/ac (500 lb./1000 sq ft)

**STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA (B-4-8)**

Hardness Zone (from Figure B.3):	_____	_____	Fertilizer Rate (10-20-20)	Lime Rate			
Seed Mixture (from Table B.3):	_____	_____	_____	_____			
Species	Application Rate (lb./ac)	Seeding Dates	Seeding Depth				
B	TALL FESCUE	100	Mar. -1-May 15 Aug. -1-Oct. 15	1/4"-1/2" in.	45 lb./ac (10 lb./1000 sq ft)	90 lb./ac (20 lb./1000 sq ft)	2 tons/ac (500 lb./1000 sq ft)

**PERMANENT SEEDING NOTES (B-4-5)**

- A. Seed Mixtures**
1. General Use
    - a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixtures, application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
    - b. Additional planting specifications for exceptional sites such as shrublands, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be included in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
    - c. For sites having disturbed areas over 5 acres, use and show the rates recommended by the soil testing agency. For areas receiving low maintenance, apply seed from fertilizer (45-0-0) at 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
  2. Turfgrass Mixtures
    - a. Areas where turfgrasses may be desired include lawns, parks, playgrounds, and commercial sites which will require a medium to high level of maintenance.
    - b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixtures, application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
    - 1. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management, irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky Bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
    - ii. Kentucky Bluegrass/Perennial Ryegrass: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Cultivars: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky Bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
    - iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 1.5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
    - iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes Certified Kentucky Bluegrass Cultivars 30 to 40 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent, Seeding Rate: 1.2 to 3 pounds per 1000 square feet.
  3. Seeded Turfgrass varieties from those listed in the most current publication of Maryland Publication, Agronomy Home #77, "Turfgrass Culture Recommendations for Maryland".

- B. Topsoiling**
1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low nutrients, low nutrient levels, low pH materials, low organic matter, and/or low water holding capacity.
  2. Topsoil salvaged from an existing site may be used provided it meets the minimums as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the soil survey published by USDA-NRCS.
  3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
    - a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
    - b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
    - c. The original soil to be treated contains material toxic to plant growth.
    - d. The soil is so acidic that vegetation with limestone is not feasible.
    - e. Areas having slopes steeper than 2:1 require special consideration and design.
  4. Topsoil specifications: Soil to be used as topsoil must meet the following criteria:
    - a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of clumps, stones, sticks, twigs, fragments, gravel, rocks, trash, or other materials larger than 1 1/2 inches in diameter.
    - b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, net seed, poison ivy, thistle, or others as specified.
    - c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
    - d. Topsoil Application
    - e. Erosion and sediment control practices must be maintained when applying topsoil.
    - f. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that seeding or sodding can proceed with a minimum of additional soil preparation and filling. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
    - g. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

**STANDARD STABILIZATION NOTE**

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.

**STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA (B-4-8)**

Hardness Zone (from Figure B.3):	_____	_____	Fertilizer Rate (10-20-20)	Lime Rate			
Seed Mixture (from Table B.3):	_____	_____	_____	_____			
Species	Application Rate (lb./ac)	Seeding Dates	Seeding Depth				
B	TALL FESCUE	100	Mar. -1-May 15 Aug. -1-Oct. 15	1/4"-1/2" in.	45 lb./ac (10 lb./1000 sq ft)	90 lb./ac (20 lb./1000 sq ft)	2 tons/ac (500 lb./1000 sq ft)

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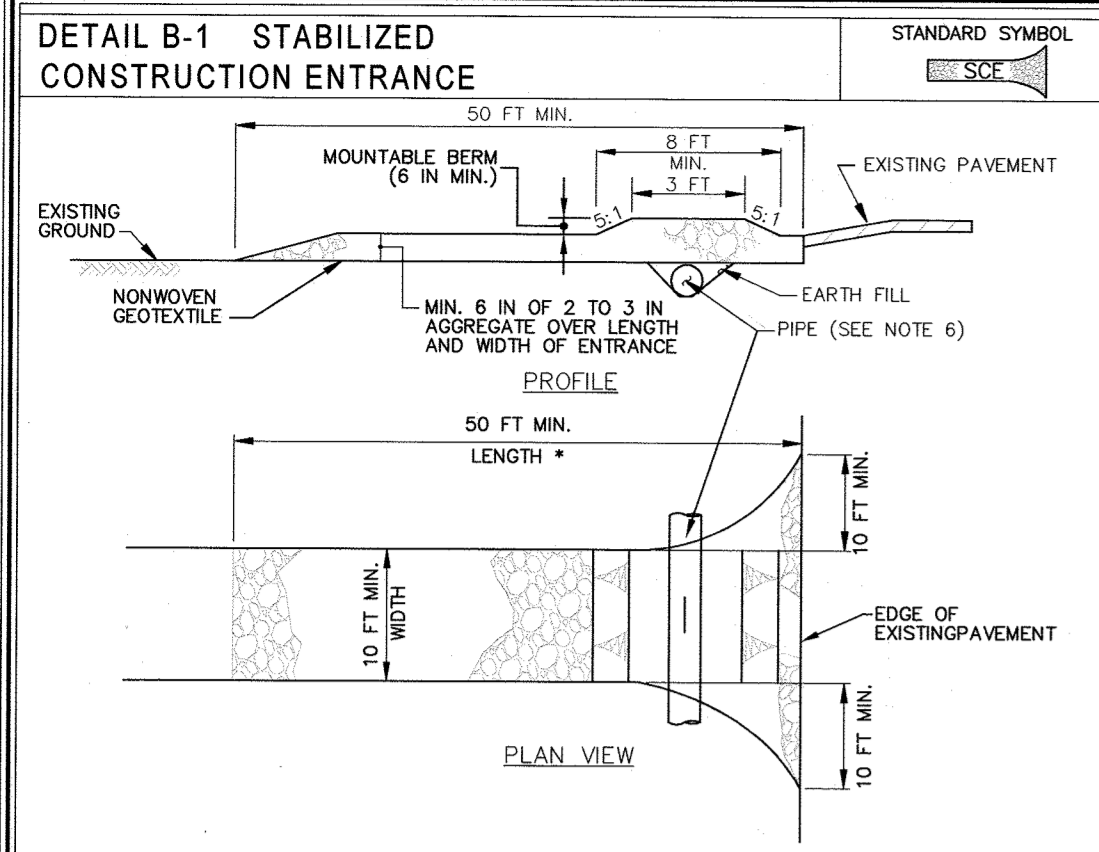
**STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA (B-4-8)**

Hardness Zone (from Figure B.3):	_____	_____	Fertilizer Rate (10-20-20)	Lime Rate			
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**STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING (B-4-3)**

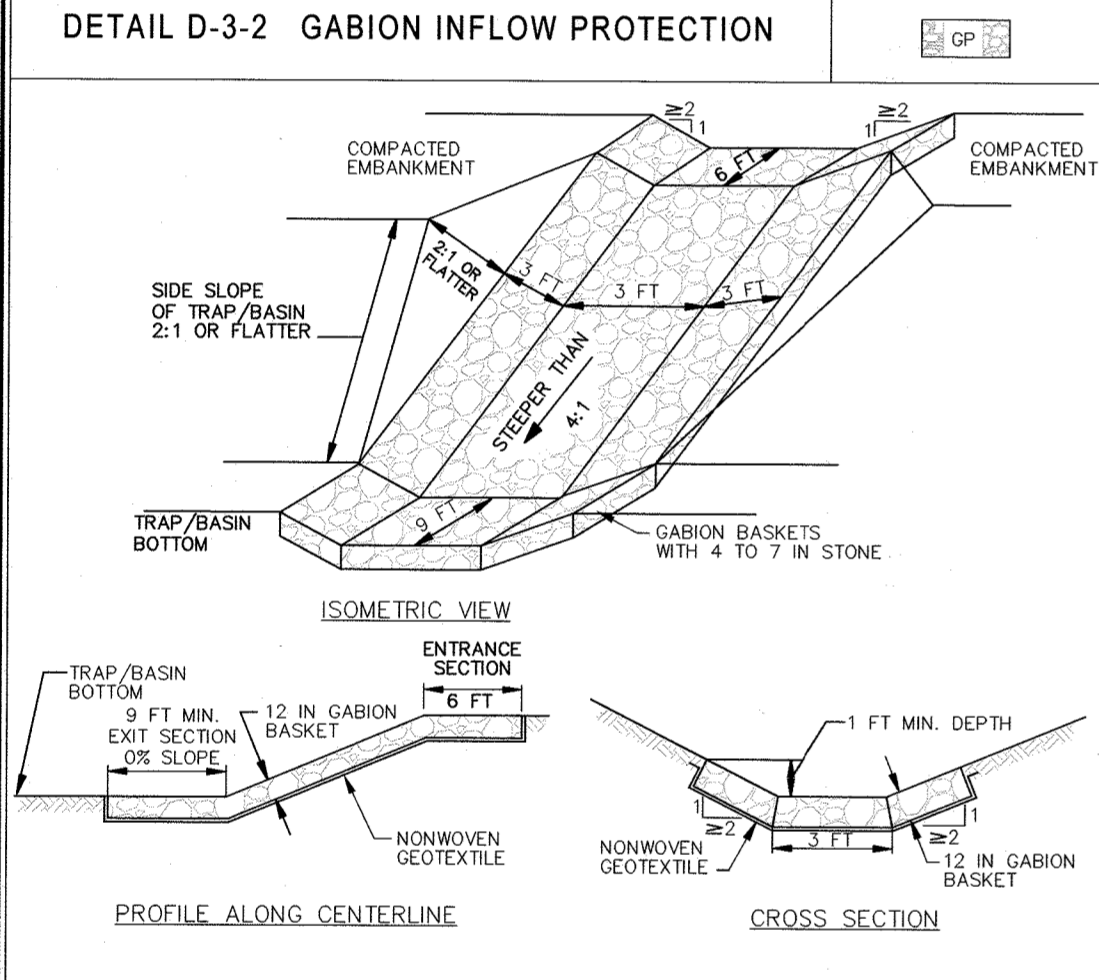
- A. Seeding**
1. Specifications
    - a. All seed must meet the requirement of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed lots must be available upon request to the inspector to verify type of seed and seeding rate.
    - b. Mulch mixes may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
    - c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
    - d. Soil or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weedcontrol until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
  2. Application
    - a. Drying Seeding: This includes use of conventional drag or broadcast spreaders.
    - b. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.
    - c. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seed into the subsoil as possible until seed is in contact with soil.
    - d. Drill or Outdragger Seeding: Mechanized seeders that apply and cover seed with soil.
    - e. Outdragger seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seeded must be firm after planting.
    - f. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
    - g. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).
    - h. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: 100 pounds per acre total of soluble nitrogen, P 0 (phosphorus), 200 pounds per acre; K<sub>2</sub>O (potassium), 200 pounds per acre.
    - i. Lime: Use only ground agricultural limestone (up to 3 tons per acre) may be applied by hydroseeding. Do not use other types of lime. Do not use hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
    - j. Mix seed and fertilizer on site and seed immediately and without interruption.
    - k. When hydroseeding do not incorporate seed into the soil.

- B. Mulching**
1. Mulch Materials (in order of preference)
    - a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds, and must be clean, dry, and free of soil. Straw is to be mostly round, curled, decayed, or excessively dirty. Note: Use only sterile straw mulch in areas where one species of grass is desired.
    - b. Wood Cellulose Fiber Mulch (WCM) consisting of specially prepared wood cellulose processed into uniform fibrous physical state.
    - c. WCM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformity spread slurry.
    - d. WCM, including dye, must contain no germination or growth inhibiting factors.
    - e. WCM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover on application, having moisture absorption and retention properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
    - f. WCM material must not contain elements or compounds of concentration levels that will be injurious to the plant.
    - g. WCM material must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.0 percent maximum and water holding capacity of 90 percent minimum.
  2. Application
    - a. Apply mulch to all seeded areas immediately after seeding.
    - b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
    - c. Wood cellulose fiber used as mulch must be applied to a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to obtain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
    - d. Synthetic binders such as Acrylic DLR (Agra-Tack), DCA-70, Petrolon, Terra Ton II, Terra Tack 40 or other approved equal may be used. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
    - e. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4-15 feet wide and 300 to 3,000 feet long.
  3. Anchoring
    - a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
      - i. A mulch anchoring tool is a tractor draw implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
      - ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre with wood cellulose fiber with water of a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
      - iii. Synthetic binders such as Acrylic DLR (Agra



- 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 SIDE 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 5:1 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 AND DEBRIS, AND 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	
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MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

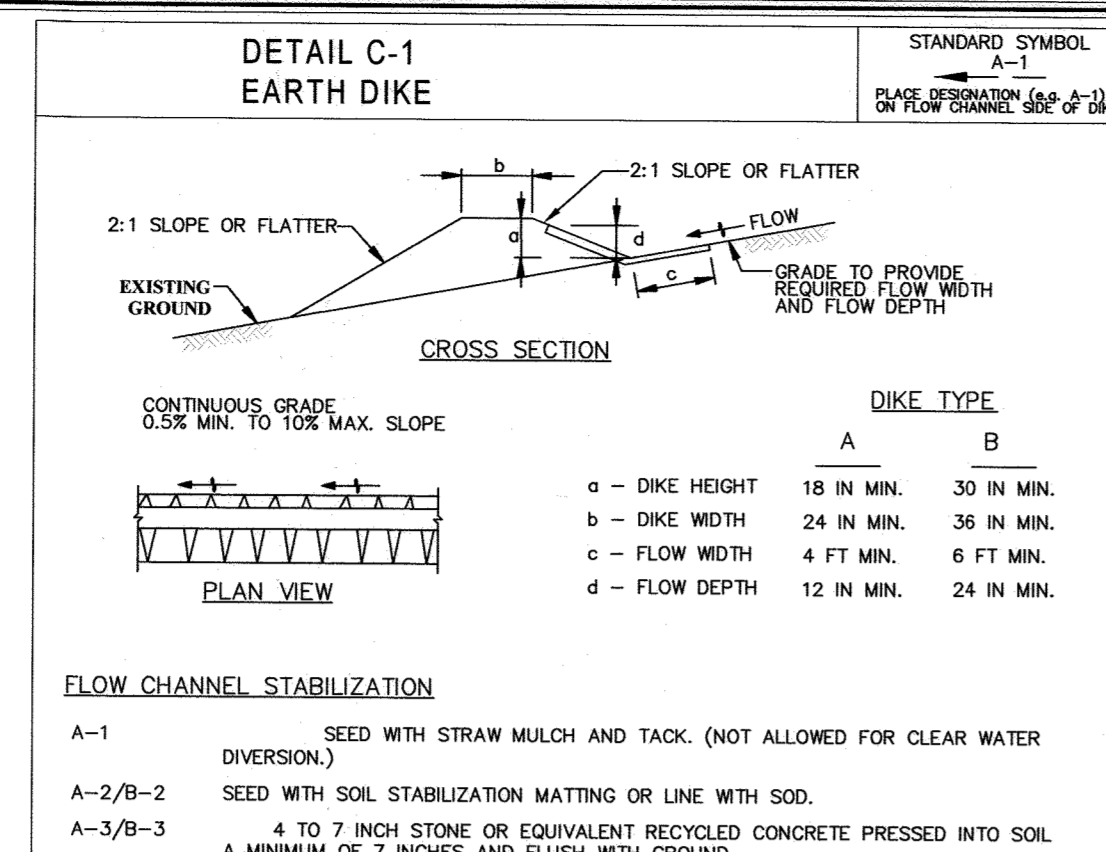


- CONSTRUCTION SPECIFICATIONS**
- PROVIDE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND ALONG SIDES OF ALL GABION BASKETS.
  - USE BASKETS MADE OF MINIMUM 11 GAUGE WIRE.
  - CONSTRUCT GABION INFLOW PROTECTION BY ARRANGING 9 X 3 X 1 FOOT GABION BASKETS TO FORM A TRIANGULAR BASKET WITH A 3 FOOT BOTTOM WIDTH. PROVIDE MINIMUM DEPTH, 3 FOOT SIDE WALLS, AND 2:1 OR FLATTER SIDE SLOPES. FILL GABION BASKETS WITH 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE WITHOUT REBAR OR WIRE MESH.
  - INSTALL ENTRANCE AND EXIT SECTIONS AS SHOWN ON THE PROFILE.
  - INSTALL GABIONS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
  - BLEND GABIONS INTO EXISTING GROUND.
  - MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. KEEP POINTS OF INFLOW AND OUTFLOW FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	
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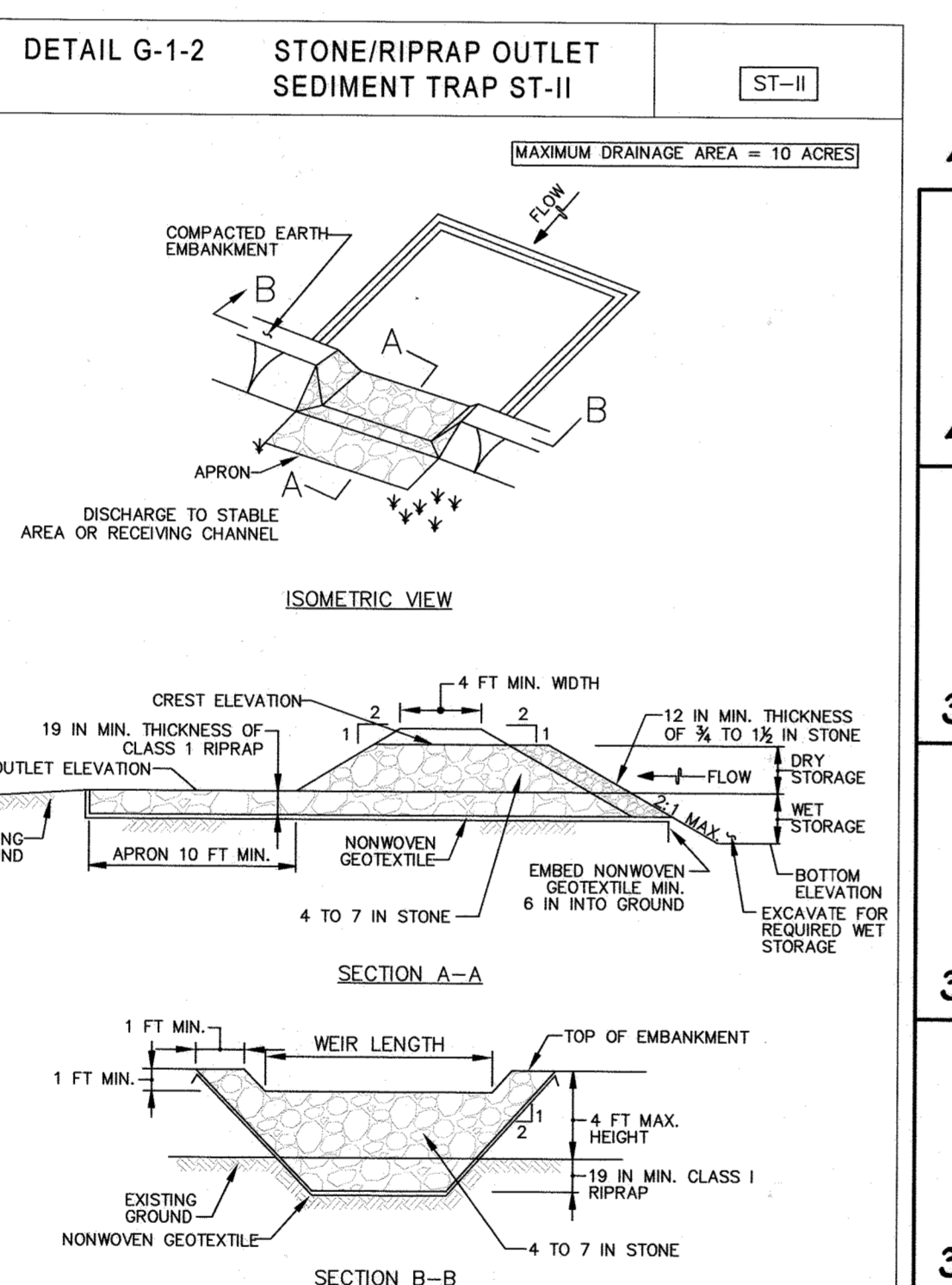
STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. 1	ACRES
DRAINAGE AREA - INITIAL	0.75
DRAINAGE AREA - INTERIM	0.78
DRAINAGE AREA - FINAL	0.78
TOTAL STORAGE REQUIRED	2,808
TOTAL STORAGE PROVIDED	3,174
WET STORAGE REQUIRED	1,404
WET STORAGE PROVIDED	1,652
DRY STORAGE REQUIRED	1,404
DRY STORAGE PROVIDED	1,522
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	367.50
TRAP BOTTOM ELEVATION	366.00
TRAP BOTTOM DIMENSIONS	22' X 40'
WEIR LENGTH	6'
WEIR CREST (DRY STORAGE) ELEVATION	369.00
CLEANOUT ELEVATION	366.60
TOP OF EMBANKMENT ELEVATION	370.00
SIDE SLOPE	2:1
EMBANKMENT TOP WIDTH	4'
OUTLET PROTECTION - LENGTH	20'
OUTLET PROTECTION - DEPTH	19

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALDWIN NATIONAL PARK  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461 - 2895



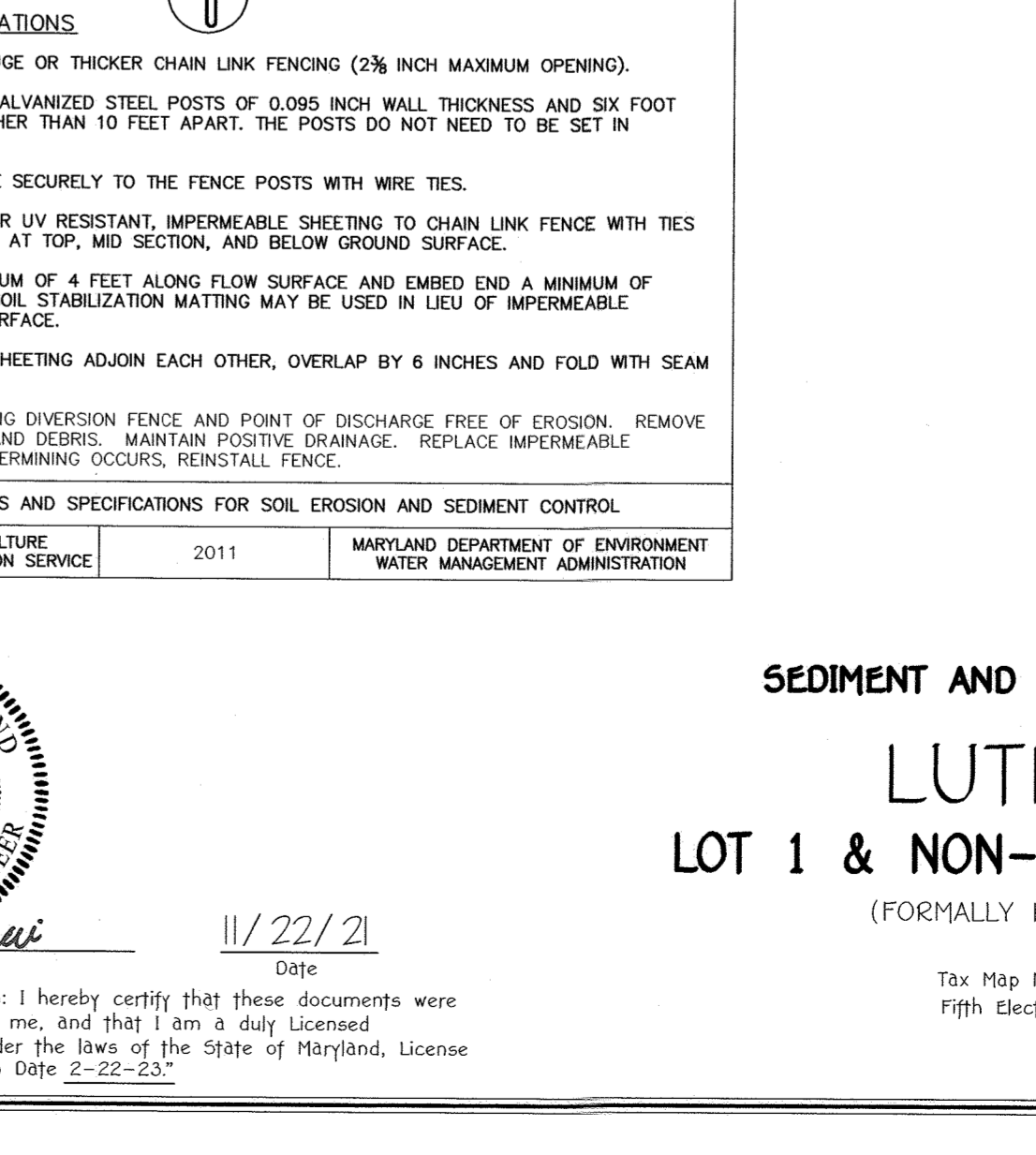
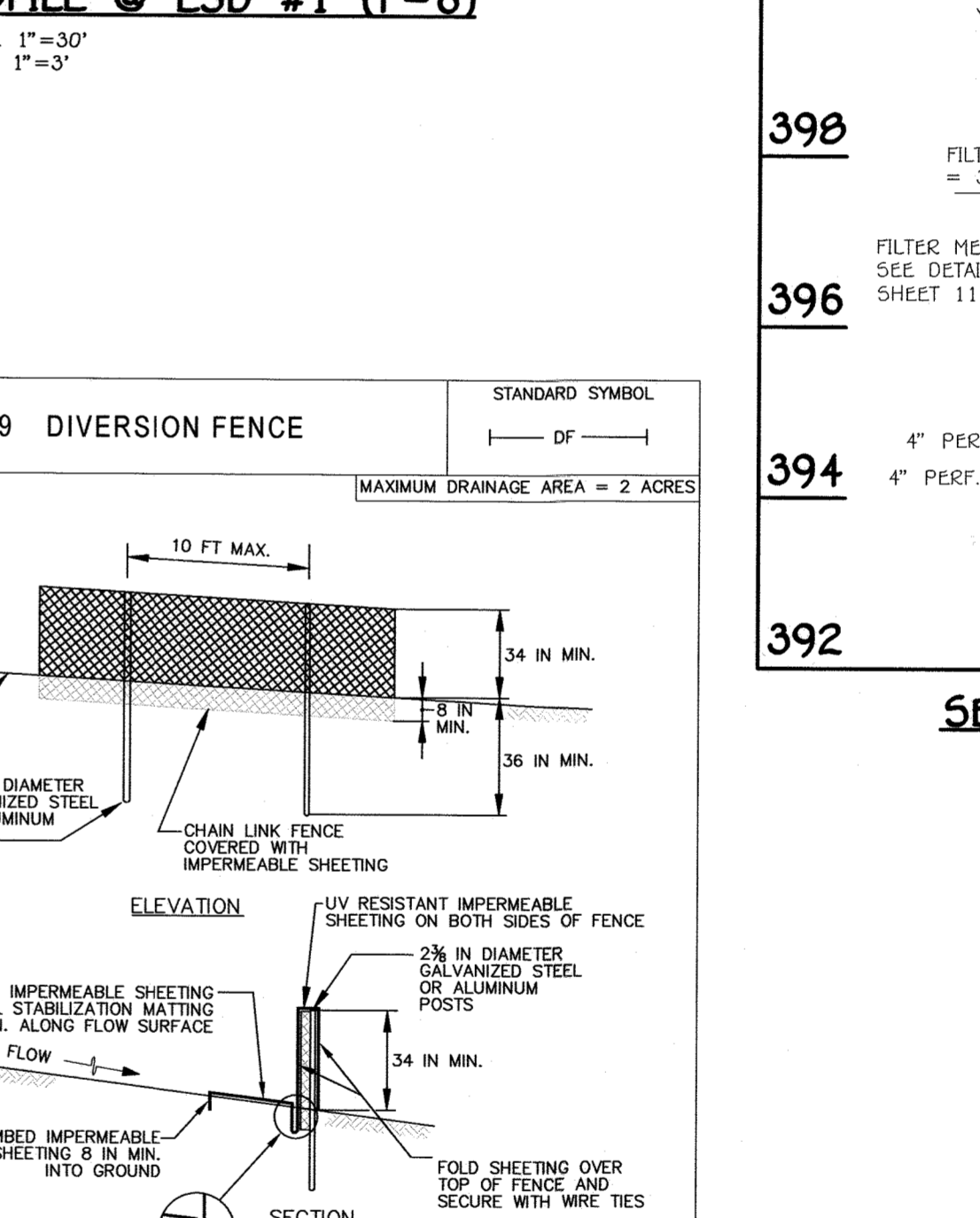
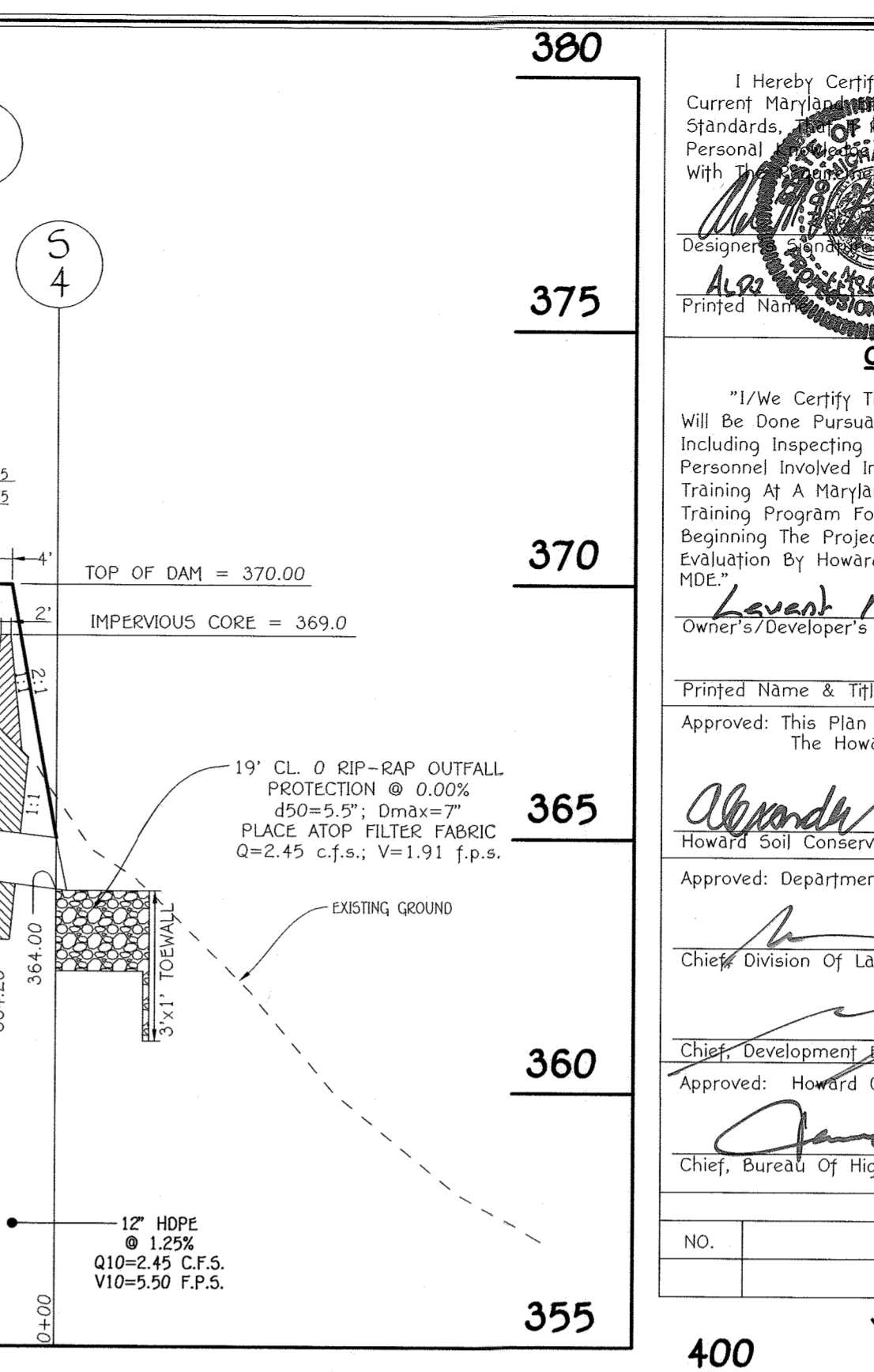
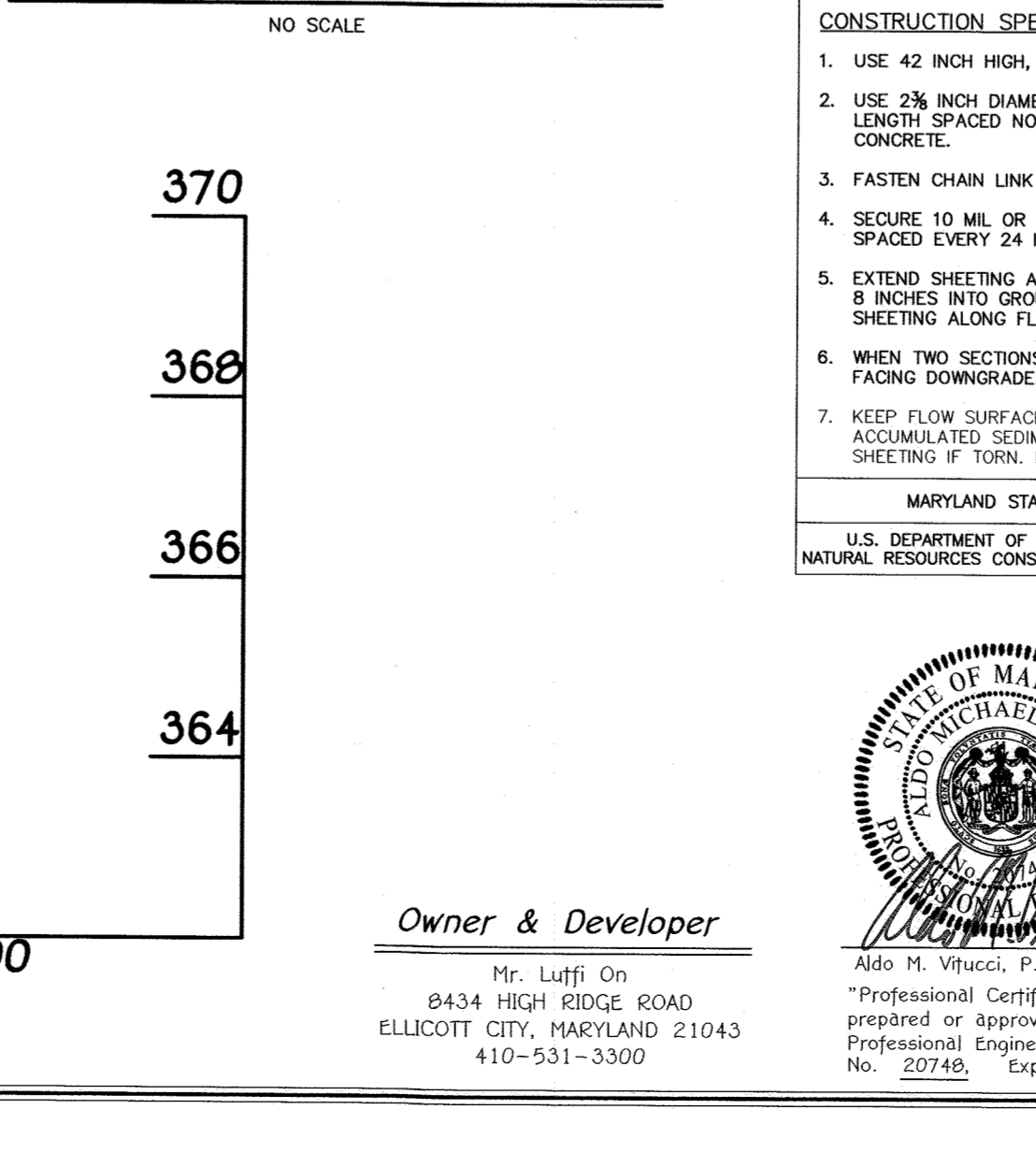
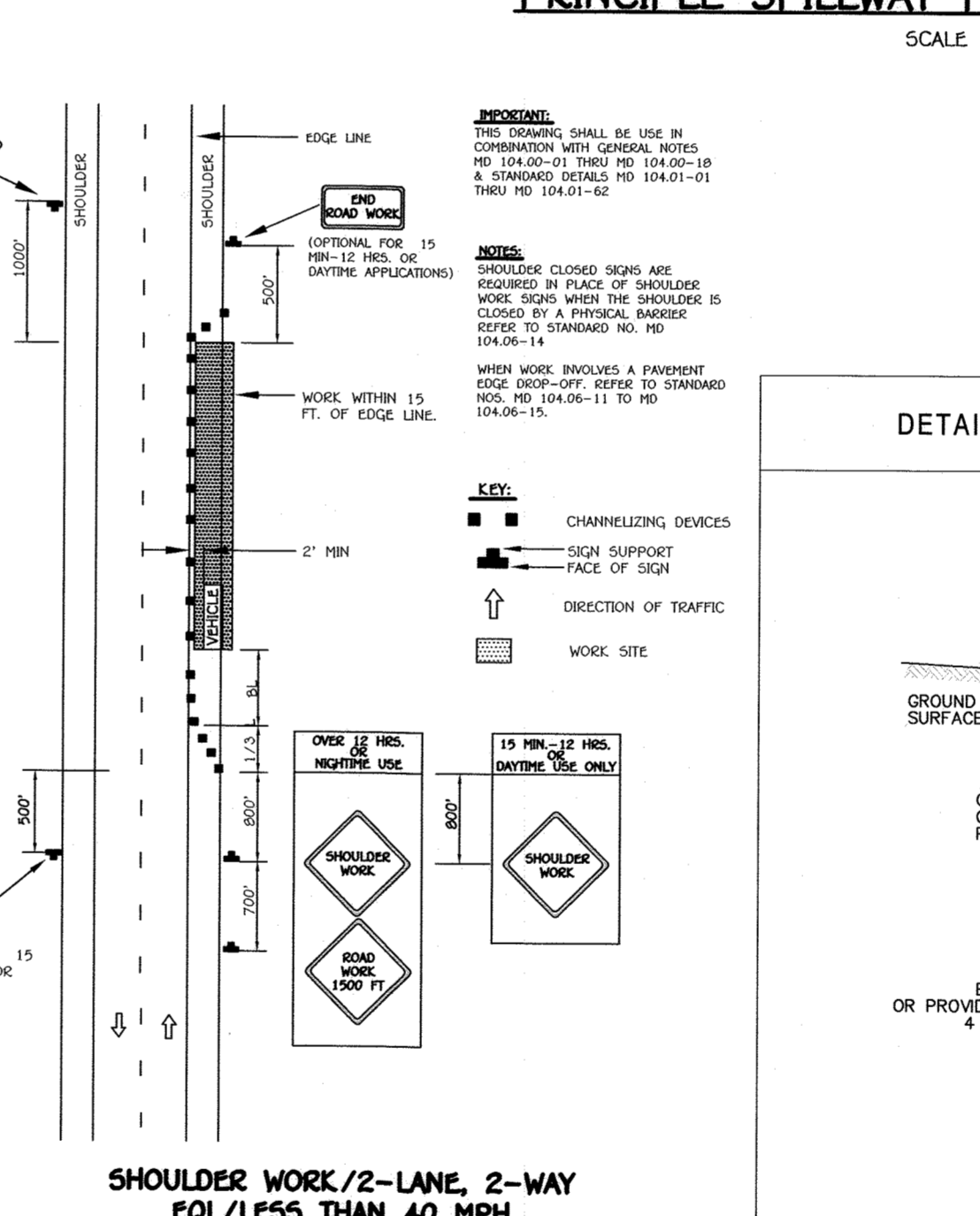
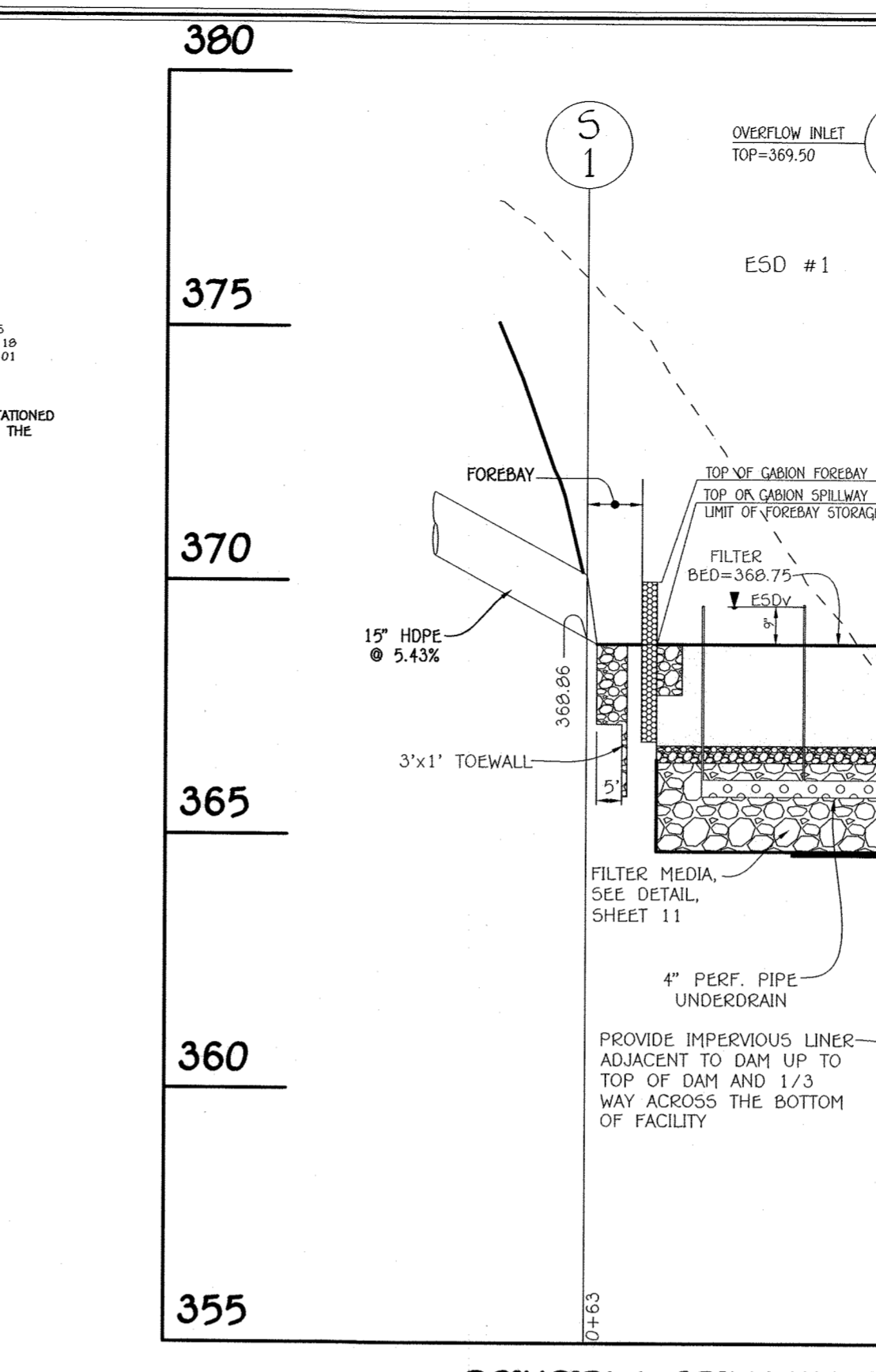
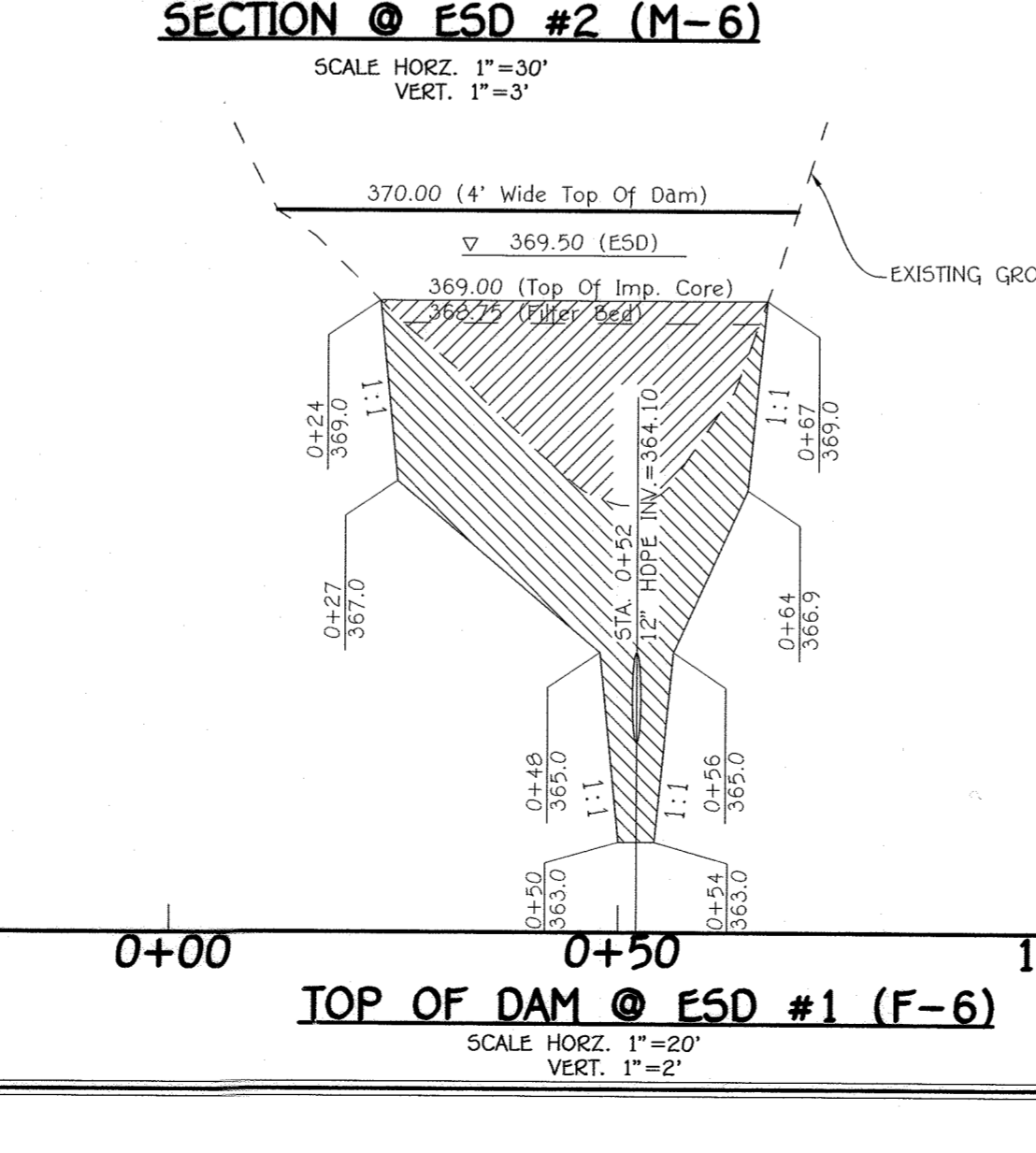
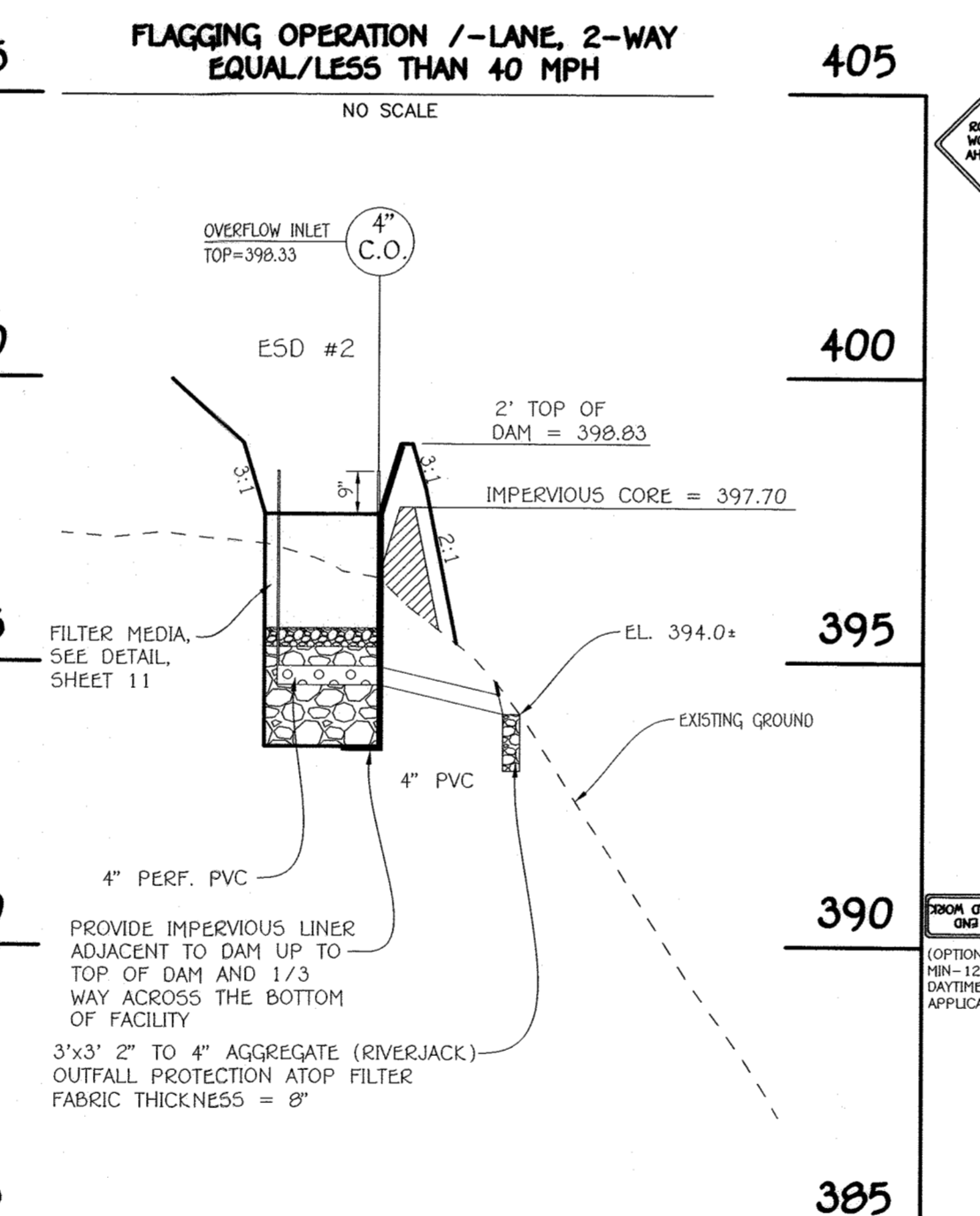
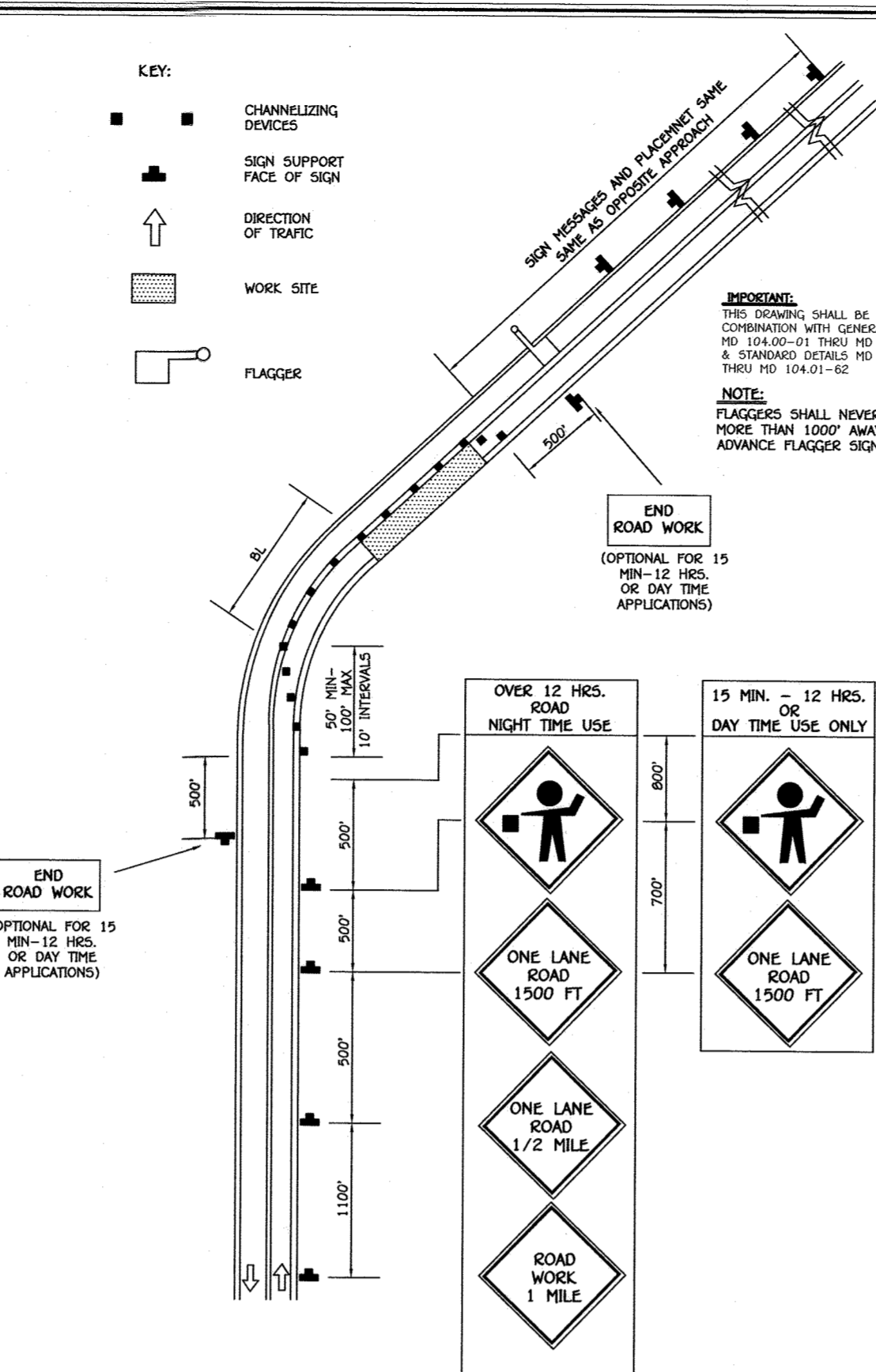
- CONSTRUCTION SPECIFICATIONS**
- REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDIKE.
  - EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
  - COMPACT FILL.
  - 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.
  - STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION. STABILIZE FLOW CHANNEL FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
  - MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP EARTH DIKE 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 EARTH DIKE, 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	
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- CONSTRUCTION SPECIFICATIONS**
- CONSTRUCT TRAP IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED.
  - CLEAR, GRUB, AND STRIP ANY VEGETATION AND ROOT MAT FROM THE AREA UNDER THE EMBANKMENT AND TRAP BOTTOM.
  - USE FILL MATERIAL FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL FOR THE EMBANKMENT.
  - CONSTRUCT TOP OF EMBANKMENT 1 FOOT MINIMUM ABOVE WEIR CREST. COMPACT THE EMBANKMENT BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
  - MAKE ALL CUT AND FILL SLOPES 2:1 OR FLATTER.
  - PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE BOTTOM AND SIDES OF OUTLET AND APRON PRIOR TO PLACEMENT OF RIPRAP. OVERLAP SECTIONS OF GEOTEXTILE AT LEAST 1 FOOT WITH THE SECTION NEARER TO THE TRAP PLACED ON TOP. EMBED GEOTEXTILE AT LEAST 6 INCHES INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
  - USE CLEAN 4 TO 7 INCH RIPRAP TO CONSTRUCT THE WEIR. USE CLASS 1 RIPRAP FOR THE APRON. USE OF RECYCLED CONCRETE EQUIVALENT IS ACCEPTABLE.
  - PLACE 1 FOOT OF CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE ON THE UPSTREAM FACE OF THE WEIR.
  - CONSTRUCT AND MAINTAIN THE OUTLET ACCORDING TO APPROVED PLAN, AND IN SUCH A MANNER THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
  - STABILIZE THE EMBANKMENT AND INTERIOR SLOPES WITH SEED AND MULCH. STABILIZE POINTS OF CONCENTRATED INFLOW AS SHOWN ON APPROVED PLAN.
  - REMOVE SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION (SIDE OF NET STORAGE DEPTH). DEPOSIT REMOVED SEDIMENT IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. KEEP POINTS OF INFLOW AND OUTFLOW AS WELL AS INTERIOR OF THE TRAP FREE FROM EROSION, AND REMOVE ACCUMULATED DEBRIS. MAINTAIN EMBANKMENTS TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. REMOVE ANY TREES, BRUSH, OR OTHER WOODY VEGETATION GROWING ON EMBANKMENT OR NEAR PRINCIPAL SPILLWAY. MAINTAIN LINE, GRADE, AND CROSS SECTION.
  - WHEN DEWATERING TRAP, PASS REMOVED WATER THROUGH AN APPROVED SEDIMENT CONTROL PRACTICE.
  - UPON REMOVAL, GRADE AND STABILIZE THE AREA OCCUPIED BY TRAP.

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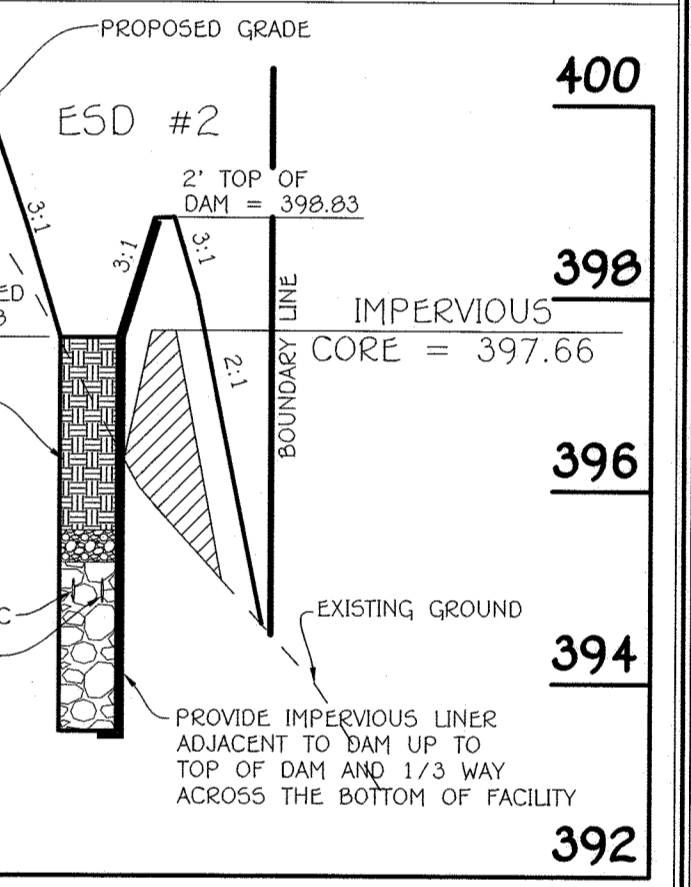
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	
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MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

**DESIGN CERTIFICATION**  
 I hereby certify that this Plan has been designed in accordance with Current Maryland Erosion and Sediment Control Laws, Regulations and Standards. A Practical and Workable Plan Based on My Personal Knowledge of the Site, and That It was Prepared in Accordance with the Professional Engineer's Seal and Signature.  
 Design Date: 11/22/21  
 Printed Name: Aldo M. Vitucci, P.E.  
 Professional Engineer's Seal: [Seal]  
 P.E. Registration No. 30748  
 P.E. R.L.S., or R.L.A. (circle one)

**OWNER/DEVELOPER CERTIFICATION**  
 I/We 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 from 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/Developer's Signature: Levent Muslu  
 Date: 11-29-21

Printed Name & Title: [Blank]  
 Approved: This Plan is Approved For Soil Erosion And Sediment Control By The Howard Soil Conservation District.  
 Approved: Department of Planning And Zoning  
 Chief, Division Of Land Development: [Signature]  
 Date: 11/22/21  
 Chief, Development Engineering Division: [Signature]  
 Date: 11/22/21  
 Approved: Howard County Department of Public Works  
 Chief, Bureau Of Highways: MK  
 Date: 01/26/2022

REVISIONS	
NO.	DESCRIPTION



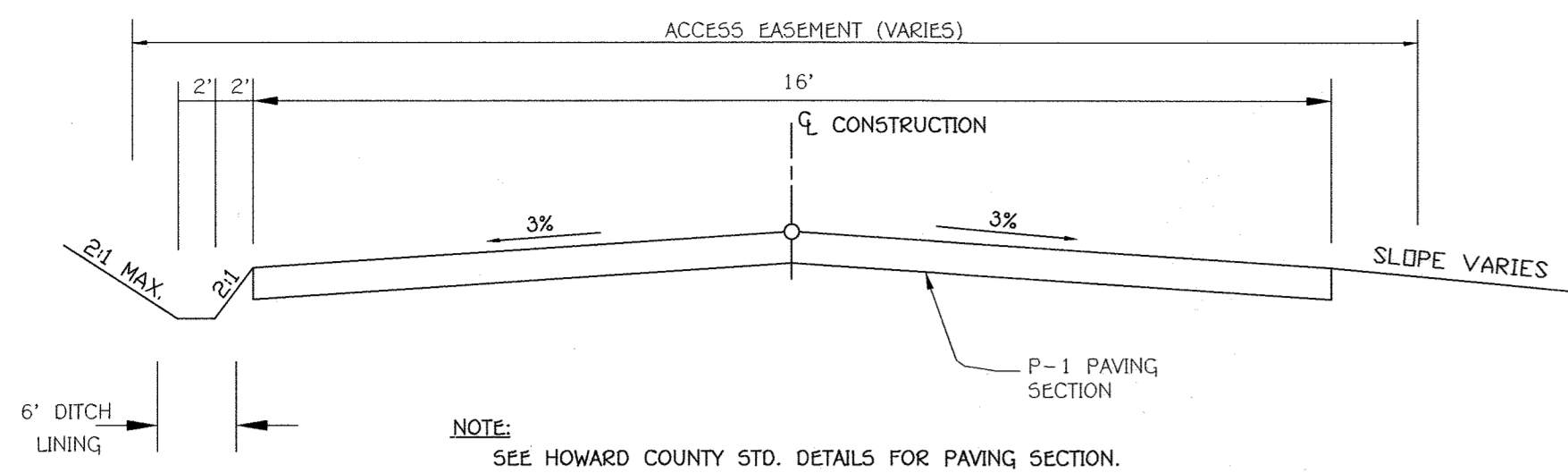
**SECTION @ ESD #2 (M-6)**  
 SCALE: HORIZ. 1"=20'  
 VERT. 1"=2'



**SEDIMENT AND EROSION CONTROL NOTES, DETAILS & S.W.M. PROPERTIES**  
**LUTFI PROPERTY**  
 LOT 1 & NON-BUILDABLE BULK PARCEL 'A'  
 (FORMALLY KNOWN AS SUNDBROM FAMILY PROPERTY)

Owner & Developer: Mr. Lutfi On  
 8434 HIGH RIDGE ROAD  
 ELLICOTT CITY, MARYLAND 21043  
 410-531-3300  
 Date: 11/22/21  
 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. 20748, Expiration Date 2-22-23.  
 Zoned: R-12  
 Tax Map No.: 35  
 Grid No.: 13  
 Parcel No.: 56  
 Fifth Election District: Howard County, Maryland  
 Scale: As Shown  
 Date: November 22, 2021  
 Sheet 0f 11





TYPICAL ROADWAY SECTION  
NO SCALE

ROADWAY INFORMATION CHART

ROAD NAME	CLASSIFICATION	DESIGN SPEED	ZONING	STATION LIMITS	PAVING SECTION
PRIVATE DRIVEWAY	USE-IN-COMMON DRIVEWAY	15 M.P.H.	R-12	0+00 TO 3+25	P-1

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)						
		3 TO <5	5 TO <7	>7	3 TO <5	5 TO <7	>7	
P-1	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE ASLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	PAVEMENT MATERIAL (INCHES)		MIN HMA WITH GAB		HMA WITH CONSTANT GAB		
		HMA SUPERPAVE FINAL SURFACE 9.5 MM. PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE N/A	N/A	N/A	N/A	N/A	N/A	N/A
		HMA SUPERPAVE BASE 19.0 MM. PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	3.5	3.0	2.5
		GRADED AGGREGATE BASE (GAB)	8.5	7.0	5.0	4.0	4.0	4.0

PRIVATE STRUCTURE SCHEDULE

STRUCTURE NO.	TOP ELEVATION	INV.IN	INV.OUT	ROAD NAME	ROAD STA.	OFFSET	TYPE	REMARKS
I-1	+373.46	370.63 (15")	370.38 (15")	N 556,812.62 E 1,330,440.24			'D' INLET	D-4.10
I-2	+373.53	---	370.80 (15")	N 556,914.19 E 1,330,490.49			'D' INLET	D-4.10
I-3	+385.06	383.95 (12")	383.70 (15")	N 556,874.69 E 1,330,496.06			'D' INLET	D-4.10
I-4	+393.26	---	385.25 (12")	N 556,923.69 E 1,330,530.94			'D' INLET	D-4.10
I-5	369.50	365.75 (4")	365.00 (12")	N 556,735.40 E 1,330,480.87			'S' INLET	D-4.24
5-1	370.11	368.86 (15")	---	N 556,818.26 E 1,330,437.04			15" HDPE END SECTION	ADS OR EQUAL
5-3	365.13	364.13 (12")	---	N 556,717.96 E 1,330,486.21			12" HDPE END SECTION	ADS OR EQUAL

PUBLIC STRUCTURE SCHEDULE

STRUCTURE NO.	TOP ELEVATION	INV.IN	INV.OUT	ROAD NAME	ROAD STA.	OFFSET	TYPE	REMARKS
I-6	373.00	---	364.92 (15")	N 556,828.85 E 1,330,399.72			OPEN END GRATE	D-4.36
5-2	363.35	362.10 (15")	---	N 556,818.26 E 1,330,437.04			15" CONC. END SECTION	D-5.51

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, BUREAU OF HIGHWAYS MK  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

01/26/2022  
 DATE  
 DATE  
 DATE

REVISIONS

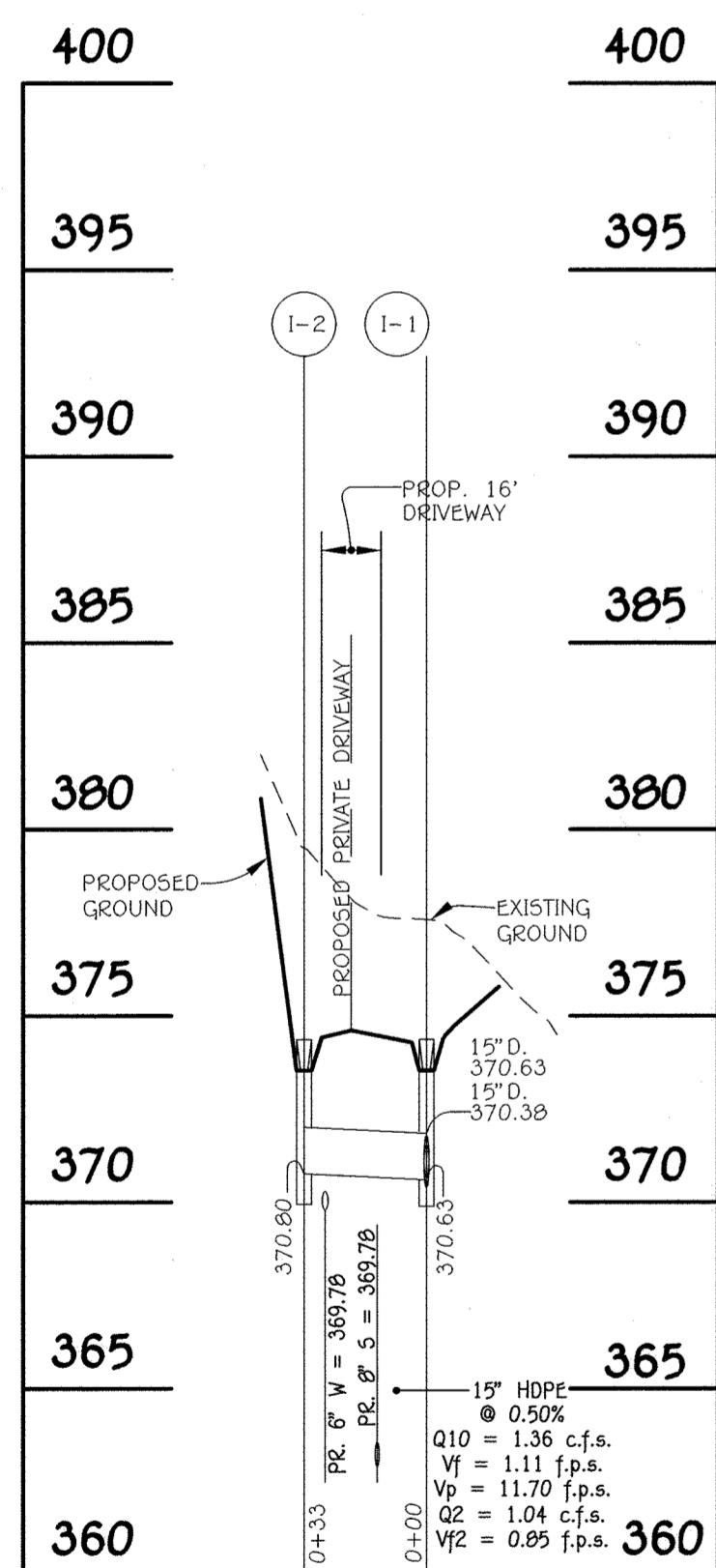
NO.	DESCRIPTION	DATE

PRIVATE PIPE SCHEDULE

SIZE	CLASS	LENGTH
12"	HDPE	57'
15"	HDPE	139'
4" SOLID	PVC SCH.40	22'
4" PERF.	PVC SCH.40	114'

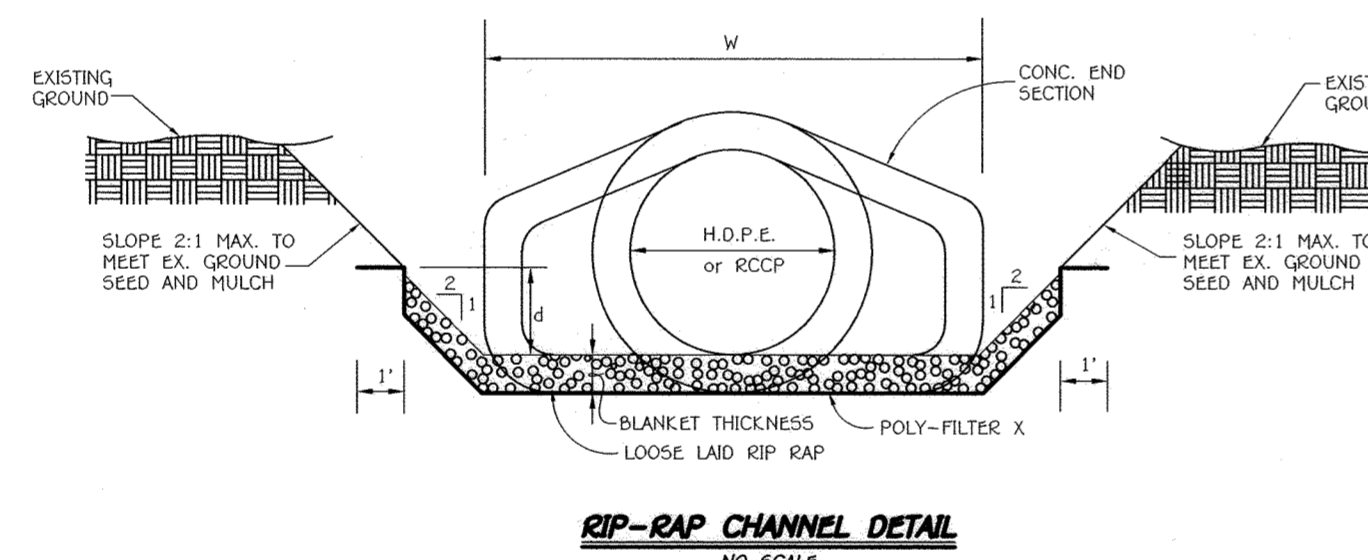
PUBLIC PIPE SCHEDULE

SIZE	CLASS	LENGTH
15"	RCCP, CL. IV	188'



(PRIVATE) PROFILE

SCALE: HOR. : 1" = 50'  
 VER. : 1" = 5'



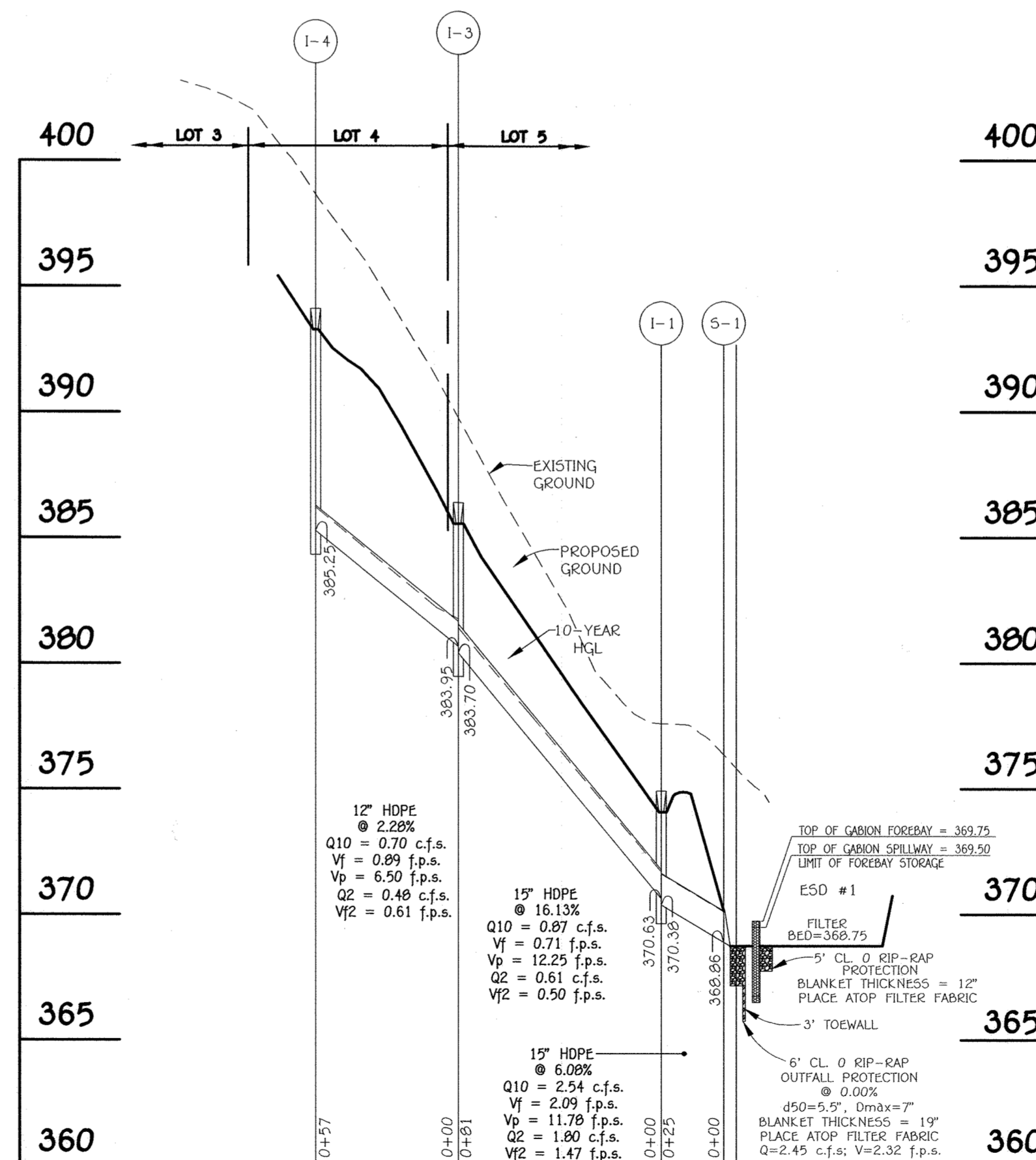
RIP-RAP CHANNEL DETAIL  
NO SCALE

RIP-RAP CHANNEL DESIGN DATA

STRUCTURE	AREA	WETTED PERIMETER	R	R 2/3	S	S 1/2	W	d	n	V (f.p.s.)	Q (c.f.s.)	RP-RAP SIZE D <sub>50</sub> D <sub>max</sub>	BLANKET THICKNESS	PUBLIC OR PRIVATE
5-1	1.80	4.74	0.38	0.52	0.005	0.0707	29"	0.52	0.04	1.36	2.45	5.5" 7"	19"	PRIVATE
5-2	3.28	6.52	0.50	0.63	0.005	0.0707	42"	0.68	0.04	1.65	5.40	9.5" 15"	19"	PUBLIC
5-3	3.28	6.52	0.50	0.63	0.005	0.0707	42"	0.68	0.04	1.65	5.40	9.5" 15"	19"	PRIVATE
5-4	2.30	5.22	0.44	0.58	0.005	0.0707	29"	0.63	0.04	1.52	3.50	5.5" 7"	19"	PRIVATE

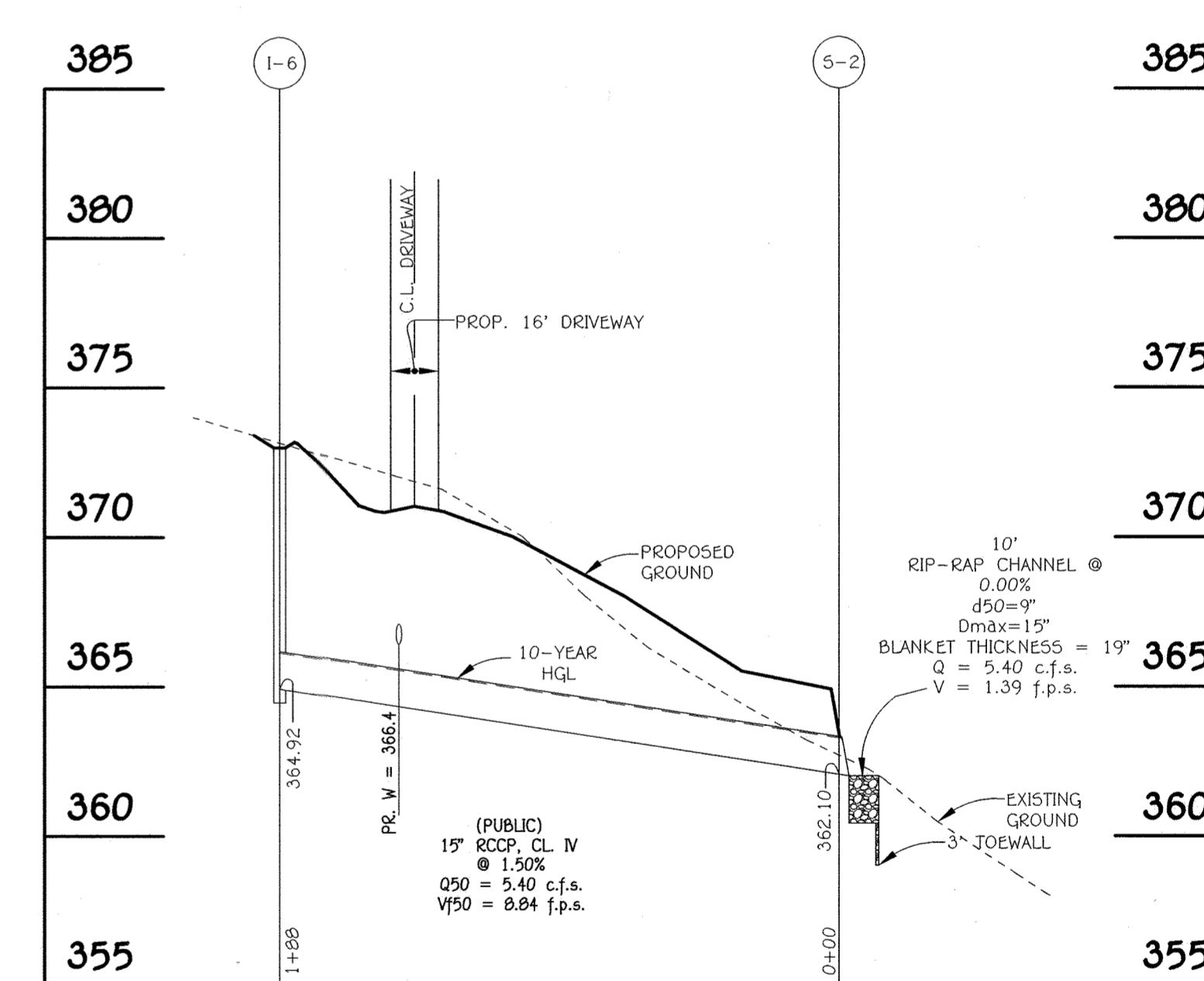
CONSTRUCTION SPECIFICATIONS FOR RIP-RAP OUTFALLS

- The subgrade for the filter, riprap or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
- Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.
- Stone for the riprap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for riprap or gabion outlets shall be delivered and placed in a manner that will insure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.



(PRIVATE) PROFILE

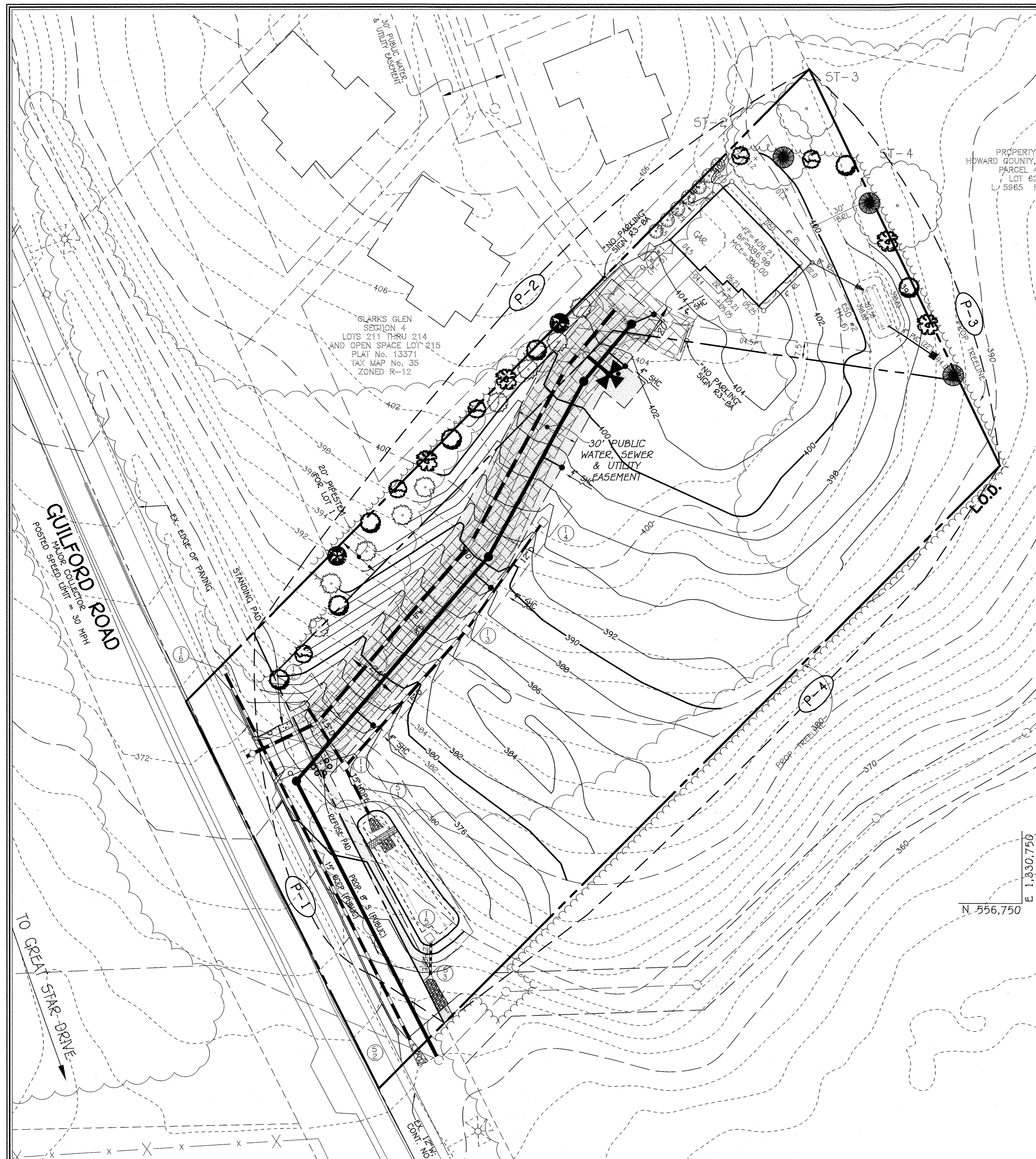
SCALE: HOR. : 1" = 50'  
 VER. : 1" = 5'



(PUBLIC) PROFILE

SCALE: HOR. : 1" = 50'  
 VER. : 1" = 5'





STORMWATER MANAGEMENT PLANT LIST					
QTY.	KEY	BOTANICAL NAME COMMON NAME	SIZE	CONT.	REMARKS
30	anb	Aster novo-belgii	#1	Cont.	18" O.C.
125	osl	New York Aster	#1	Cont.	18" O.C.
15	ith	Aster laevis Smooth Aster	24"-30" ht.	Cont.	36" O.C.
75	itv	Itea virginica 'Little Henry' Sweetspire	24"-30" ht.	Cont.	36" O.C.

PRIVATE REFUSE PAD LANDSCAPING	
4' x 8' PAD NUMBER:	PAD NO. 1
NUMBER OF TREES REQUIRED:	---
SHADE TREES	---
EVERGREEN TREES	---
SHRUBS	5
NUMBER OF TREES REQUIRED:	---
SHADE TREES	---
EVERGREEN TREES	---
SHRUBS - (AZALEA 'BLAAW'S PINK' / BLAAW'S PINK, AZALEA PLANTED 18" x 24" APART)	5

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 DATE: 01/26/2022  
 CHIEF, BUREAU OF HIGHWAYS: MK  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 DATE: 1/23/22  
 CHIEF, DIVISION OF LAND DEVELOPMENT: [Signature]  
 APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 DATE: 1/23/22  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: [Signature]  
 REVISIONS: [Table with NO., DESCRIPTION, DATE]

SCHEDULE A PERIMETER LANDSCAPE EDGE										
PERIMETER	CATEGORY (PROPERTIES/ ROADWAYS)	LANDSCAPE TYPE	LINEAR FEET OF OF ROADWAY FRONTAGE PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES SHRUBS			
P-1	ADJACENT TO ROADWAY	B	198.35'	NO	NO	4 5 -	4 5 -			
P-2	ADJACENT TO PERIMETER	B	360.24'	NO	NO	8 9 -	8 9 -			
P-3	ADJACENT TO PERIMETER	A	200.70'	NO	NO	4 4 -	4 4 -			
P-4	ADJACENT TO PERIMETER	A	359.00'	NO	NO	6 -	6 -			
						TOTAL	31 14			

\* DENOTES ADDITIONAL SHADE TREES TO REPLACE THE SPECIMEN TREES PER GENERAL NOTE NO. 33 AND 36. (QTY. = 9)  
 NOTE: PERIMETERS P-2 AND P-3 WILL BE PLANTED/BONDED W/ THIS F-PLAN. P-1 & P-4 WILL BE PLANTED/BONDED W/ A FUTURE PLAN THAT SUBDIVIDES  
 NON-BUILDABLE BULK PARCEL 'A'.

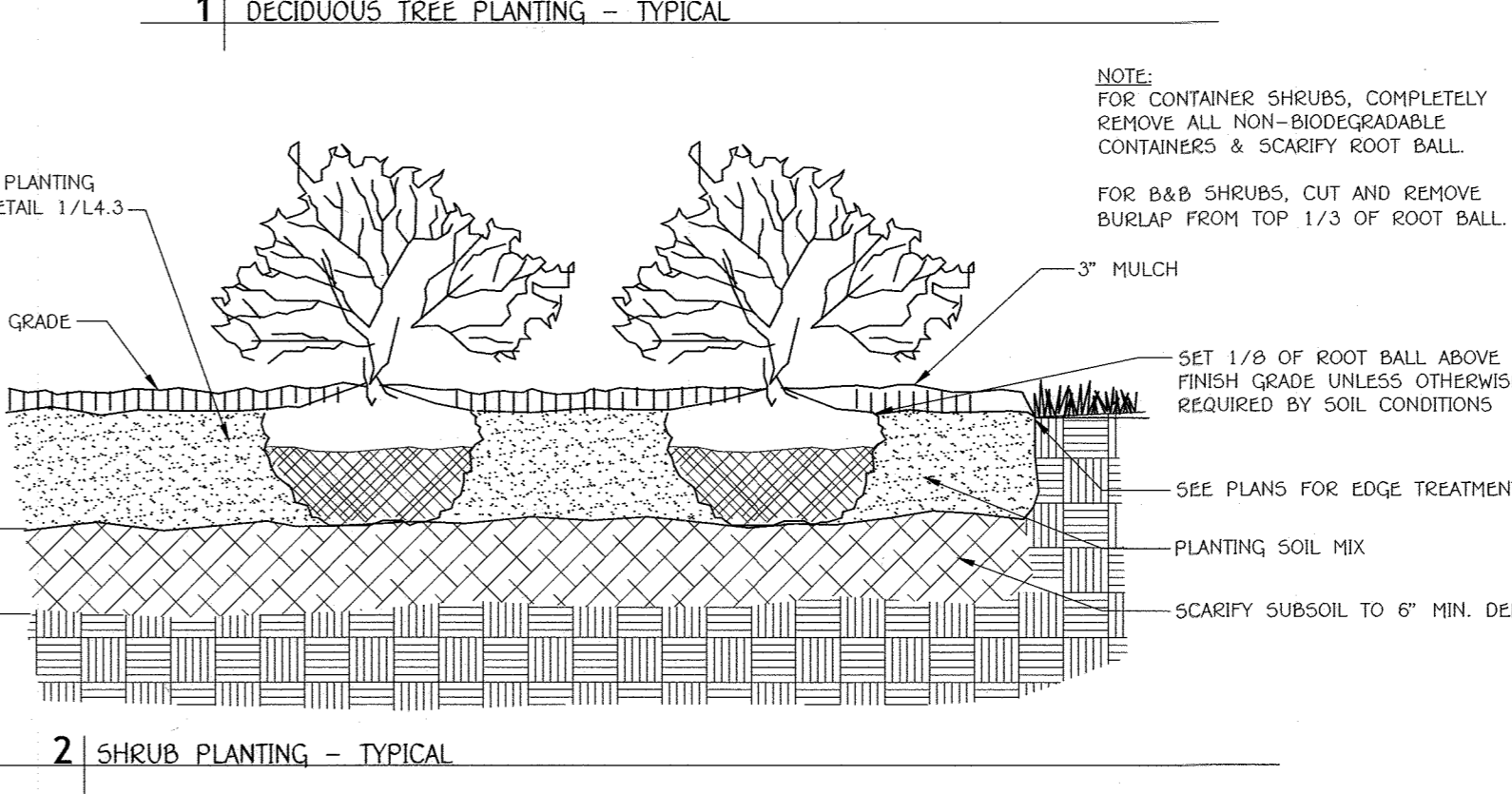
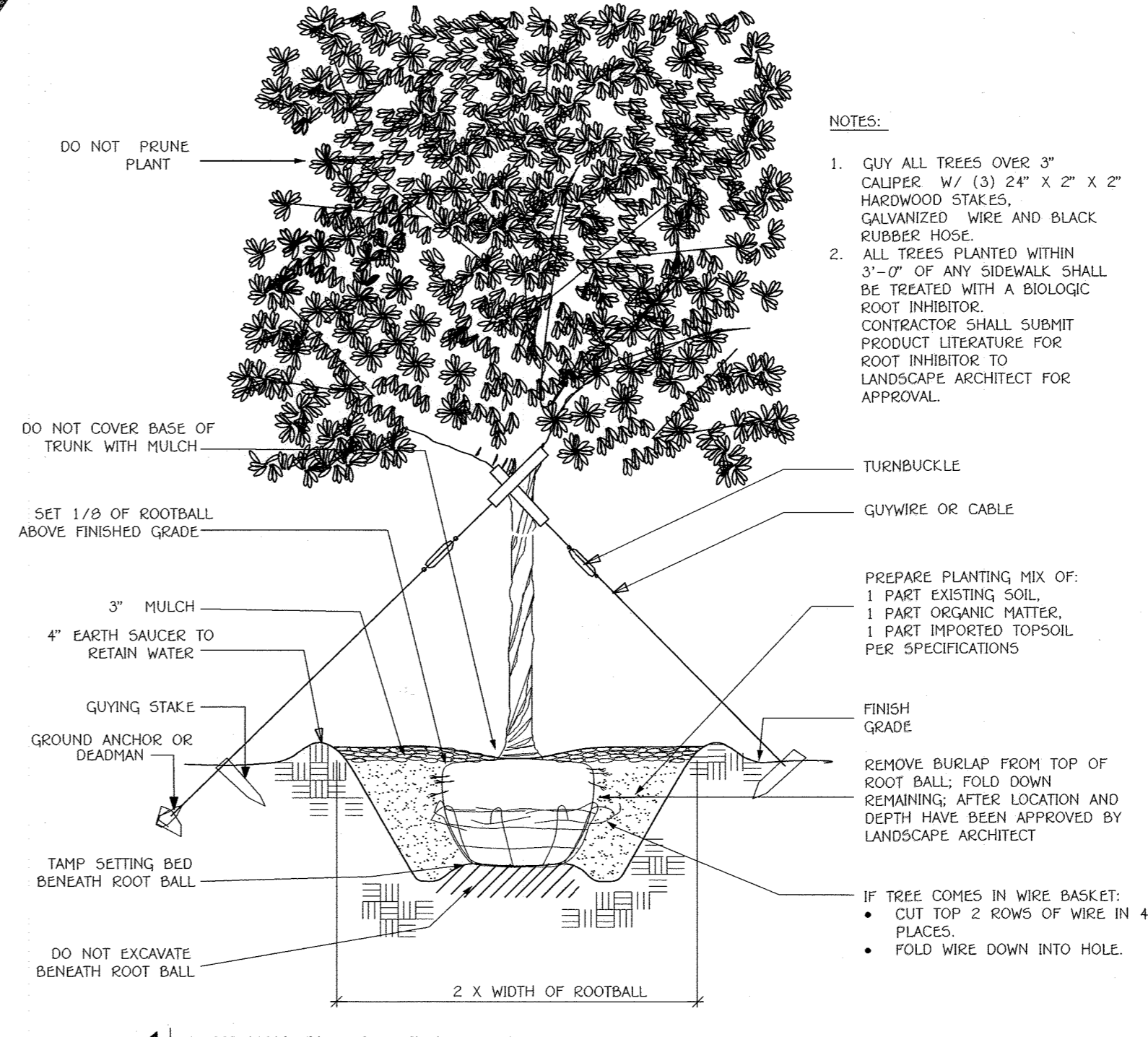
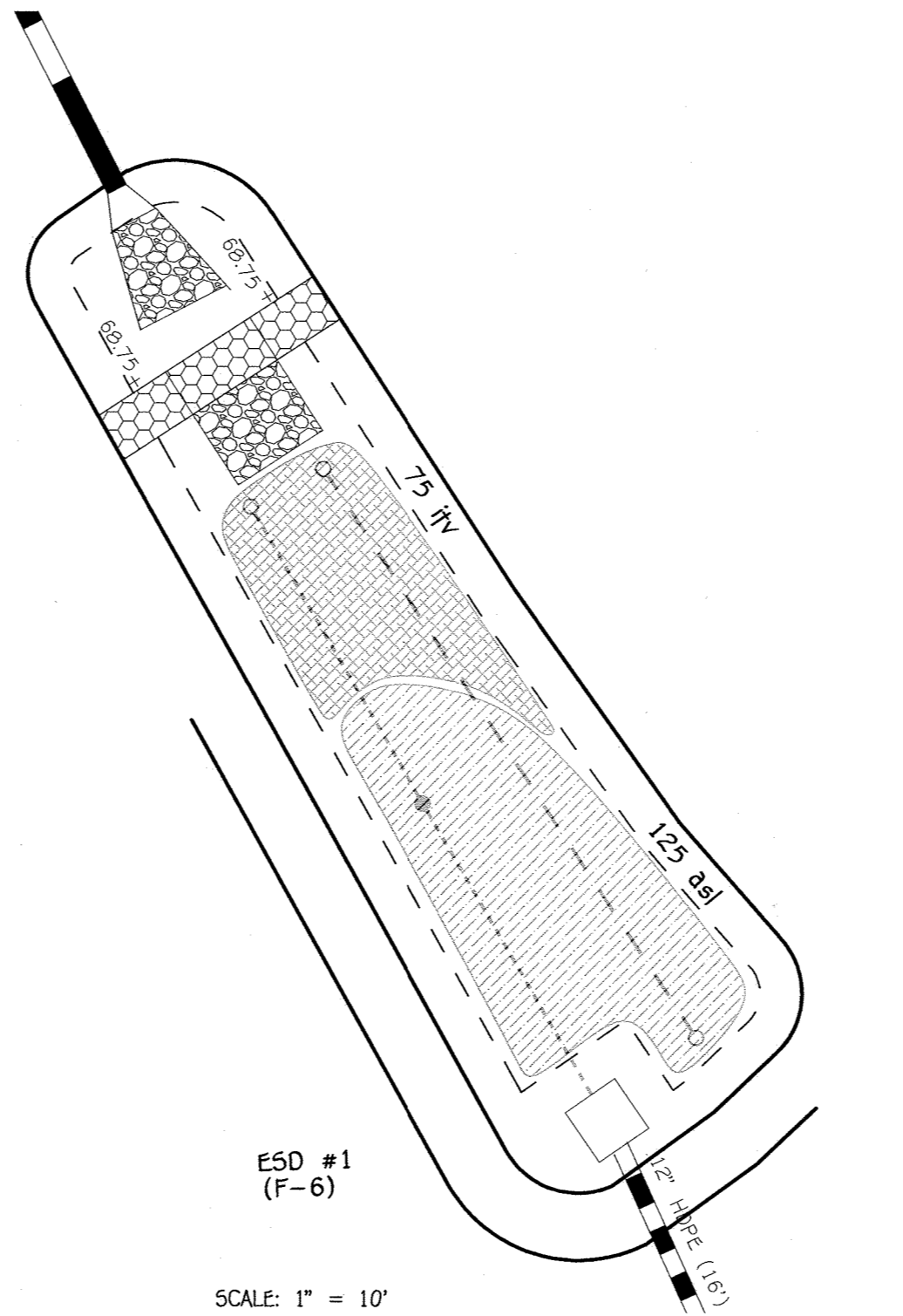
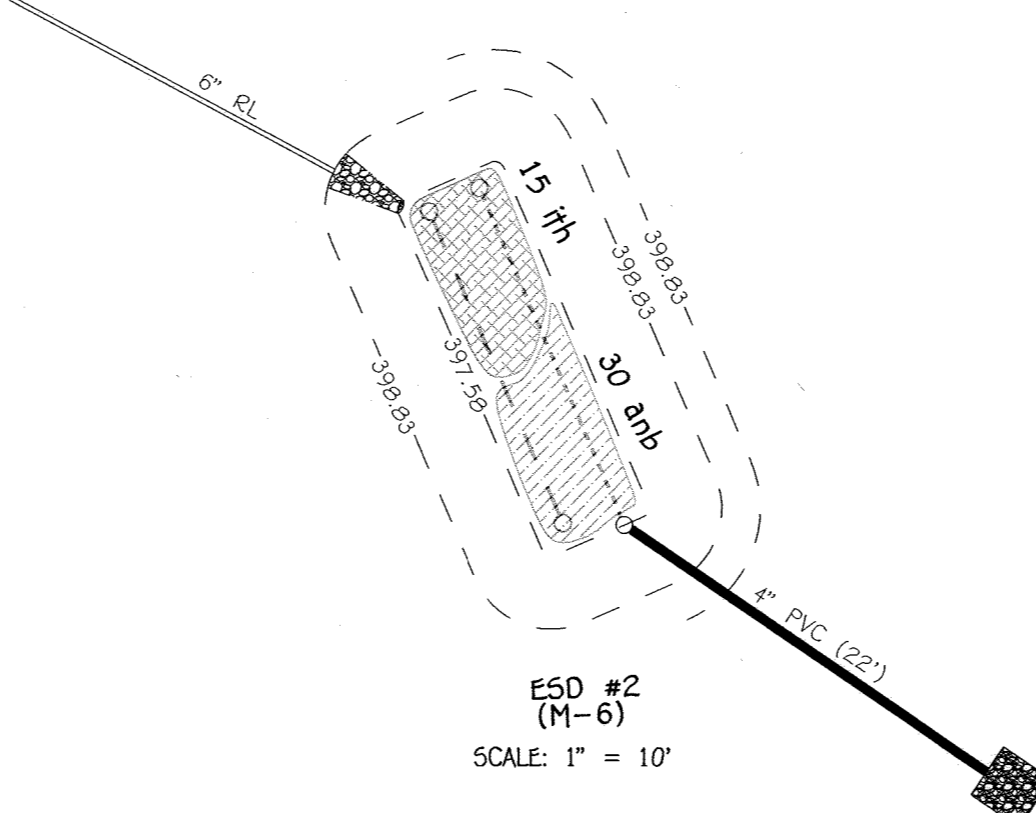
NOTE: THE LANDSCAPE SURETY IN THE AMOUNT OF \$7,800 FOR THE REQUIRED 21 Shade Trees, 9 Evergreen  
 Trees & 5 Shrubs) PER SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL HAVE BEEN  
 POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS SUBDIVISION. (DEVELOPER IS PROVIDING 21 SHADE  
 TREES, 16 EVERGREEN TREES & 5 SHRUBS) ADDITIONAL LANDSCAPING AND SURETY WILL BE REQUIRED WITH  
 THE RESUBDIVISION OF NON-BUILDABLE BULK PARCEL 'A'.

PLANT LIST (THIS PLAN)			
SYMBOL	QTY.	BOTANICAL AND COMMON NAME	SIZE
☉	7	JUNIPERUS VIRGINIANA 'TAYLOR' TAYLOR JUNIPER TREE EVERGREEN TYPE	2 1/2"-3" CAL.
☉	9	ABIES FRASERI FRASER FIR EVERGREEN TYPE	2 1/2"-3" CAL.
☉	7	ACER RUBRUM 'OCTOBER GLODY' RED MAPLE (ST-2 & ST-3 REQUIREMENT INCLUDED)	2 1/2"-3" CAL.
☉	5	PRUNUS SARGENTII SARGENT CHERRY	2 1/2"-3" CAL.
☉	4	CARPINUS BETULUS EUROPEAN HORNBEAM	2 1/2"-3" CAL.
☉	2	QUERCUS RUBRA NORTHERN RED OAK (ST-5 REQUIREMENT)	1 1/2"-2" CAL.
☉	3	ACER RUBRUM SUNSET RED SUNSET RED MAPLE (ST-1 REQUIREMENT)	2" MIN. CAL.
☉	5	TAXUS CUSPIDATA 'NANA' DWARF JAPANESE YEW	18"-24" Spread

- THE REMOVAL OF SPECIMEN TREE #1 MUST BE MITIGATED WITH A 3:1 REPLACEMENT OF A NATIVE SPECIES MEASURING AT LEAST 2" CALIPER AT PLANTING. IF POSSIBLE, IT SHOULD BE REPLACED WITH A SPECIES OF MAPLE.
- THE REMOVAL OF SPECIMEN TREE #5 MUST BE MITIGATED WITH A 2:1 REPLACEMENT OF A NATIVE SPECIES MEASURING AT LEAST 1 1/2" TO 2" CALIPER AT PLANTING. IF POSSIBLE, IT SHOULD BE REPLACED WITH A RED OAK OR OTHER SPECIES OF OAK.
- THE REMOVAL OF SPECIMEN TREES #2 AND #3 MUST BE MITIGATED WITH A 2:1 REPLACEMENT OF A NATIVE SPECIES MEASURING AT LEAST 2 1/2"-3" CALIPER AT THE TIME OF PLANTING. IF POSSIBLE, THEY SHOULD BE REPLACED WITH A RED MAPLE SPECIES OF MAPLE.

**PLANTING SPECIFICATIONS**

- CLEAR & GRUB ALL PLANTING AREAS AS INDICATED ON THE DRAWINGS.
- PROVIDE PROTECTION FOR TREES, SHRUBS, AND PERENNIALS/GROUND COVERS THAT ARE TO BE PRESERVED.
- CONTRACTOR SHALL VERIFY THE CORRECT LOCATION OF ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO INSTALLATION OF ANY PLANT MATERIALS.
- ALL PLANTING SHALL BE DONE AS PER PLANTING DETAILS AND SPECIFICATIONS.
- NO CHANGES SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER OR LANDSCAPE ARCHITECT.
- PRIOR TO CONSTRUCTION OF PLANTING BEDS, THE CONTRACTOR SHALL STAKE OUT PLANTING BED LINES IN THE FIELD FOR REVIEW BY THE LANDSCAPE ARCHITECT. LANDSCAPE ARCHITECT SHALL MAKE ADJUSTMENTS IN THE FIELD AS NECESSARY. ALL FINAL PLANTING BED LOCATIONS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT. FOR LAYOUT REVIEW, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT A MINIMUM OF THREE DAYS IN ADVANCE.
- INSTALL ALL REQUIRED PLANTING AND LAWN SOILS AS PER DETAILS AND SPECIFICATIONS, AND ALL SHRUBS, GROUND COVERS, AND PERENNIALS SHALL BE PLANTED IN PLANTING BEDS PREPARED AS REQUIRED BY THE DETAILS AND SPECIFICATIONS.
- MAINTAIN POSITIVE DRAINAGE OUT OF PLANTING BEDS AT A MINIMUM 2% SLOPE AND MAINTAIN POSITIVE DRAINAGE OF ALL LAWN AREAS, UNLESS OTHERWISE NOTED ON DRAWINGS. ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT OR OWNER.
- ALL PLANT BEDS SHALL BE CONTAINED WITH A SPADED EDGE UNLESS OTHERWISE NOTED ON DRAWINGS.
- IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE DRAWINGS AND QUANTITIES SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE DRAWINGS SHALL APPLY. REPORT DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO BIDDING.
- ALL PLANTS SHALL CONFORM TO THE SIZES GIVEN IN THE PLANT LIST AND SHALL BE NURSERY GROWN IN ACCORDANCE WITH THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION.
- PLANTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS. PRIOR TO PLANTING, THE CONTRACTOR SHALL STAKE OUT THE LOCATIONS OF ALL PLANTS IN THE FIELD FOR REVIEW BY THE LANDSCAPE ARCHITECT. LANDSCAPE ARCHITECT SHALL MAKE ADJUSTMENTS IN THE FIELD AS NECESSARY. ALL FINAL PLANTING LOCATIONS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT. FOR LAYOUT REVIEW, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT A MINIMUM OF THREE DAYS IN ADVANCE.
- ALL DISTURBED AREAS SHALL BE FINE GRADED AND SEEDED OR SOODED; SEE PLAN FOR LOCATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND MAINTAINING ALL PLANTS DURING THE WARRANTY PERIOD; REFER TO SPECIFICATIONS.



SPECIMEN TREE CHART				
NO.	DBH	COMMON NAME	SCIENTIFIC NAME	CONDITION
ST-1	57"	SILVER MAPLE	ACER SACCHARINUM	GOOD
ST-2	47.5"	SILVER MAPLE	ACER SACCHARINUM	POOR CONDITION, NOTABLE ROT
ST-3	32"	RED MAPLE	ACER RUBRUM	POOR CONDITION, NOTABLE ROT
ST-4	49"	TULIP POPLAR	LIRIODENDRON TULIPIFERA	GOOD CONDITION-OFFSITE
ST-5	35.5"	RED OAK	QUERCUS RUBRA	POOR CONDITION, NOTABLE ROT IN CANOPY

ST-1, ST-2, ST-3 & ST-5 ARE TO BE REMOVED

**LANDSCAPE DEVELOPER'S CERTIFICATE**  
 I/We certify that the landscaping shown on this plan will be done according to the plan, section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.  
 Owner & Developer: Mr. Lutfi On, 8434 HIGH RIDGE ROAD, ELLICOTT CITY, MARYLAND 21043, 410-531-3300  
 Date: 11-29-21  
 Name: Levent Muslu

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 1000 NATIONAL SQUARE OFFICE PARK - 10025 BALTIMORE NATIONAL FIVE  
 ELLICOTT CITY, MARYLAND 21042  
 (410) 461 - 1295



Date: 11/22/21  
 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. 20746, Expiration Date 2-22-23.

**LANDSCAPE PLANTING PLAN**  
**LUTFI PROPERTY**  
**LOT 1 & NON-BUILDABLE BULK PARCEL 'A'**  
 (FORMALLY KNOWN AS SUNDBROM FAMILY PROPERTY)  
 Zoned: R-12  
 Tax Map No.: 35 Grid No.: 13 Parcel No.: 56  
 Fifth Election District: Howard County, Maryland  
 Scale: As Shown  
 Date: November 22, 2021  
 Sheet 10 Of 11

