HORIZONTAL AND VERTICAL SURVEY CONTROLS

THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD 83 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATION NO. 17FA N 594,948.393 E 1,364,626.834 ELEV. 476,712 . ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE

- DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATIONS OF THE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE

ATOT	900 050 440
AT&T	
BGE (CONTRACTOR SERVICES)	410-637-871
BGE (EMERGENCY)	410-685-0123
BUREAU OF UTILITIES	410-313-490
COLONIAL PIPELINE CO	410-795-139
MISS UTILITY	800-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-553
VERIZON	800-743-0033

- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED
- 10. THE CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION, PAYMENT FOR SUCH
- 11. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(A) OF THE HOWARD COUNTY CODE.

GENERAL SEWER NOTES:

- 1. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED
- 2. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED
- 3. FORCE MAINS SHALL BE D.I.P. ONLY

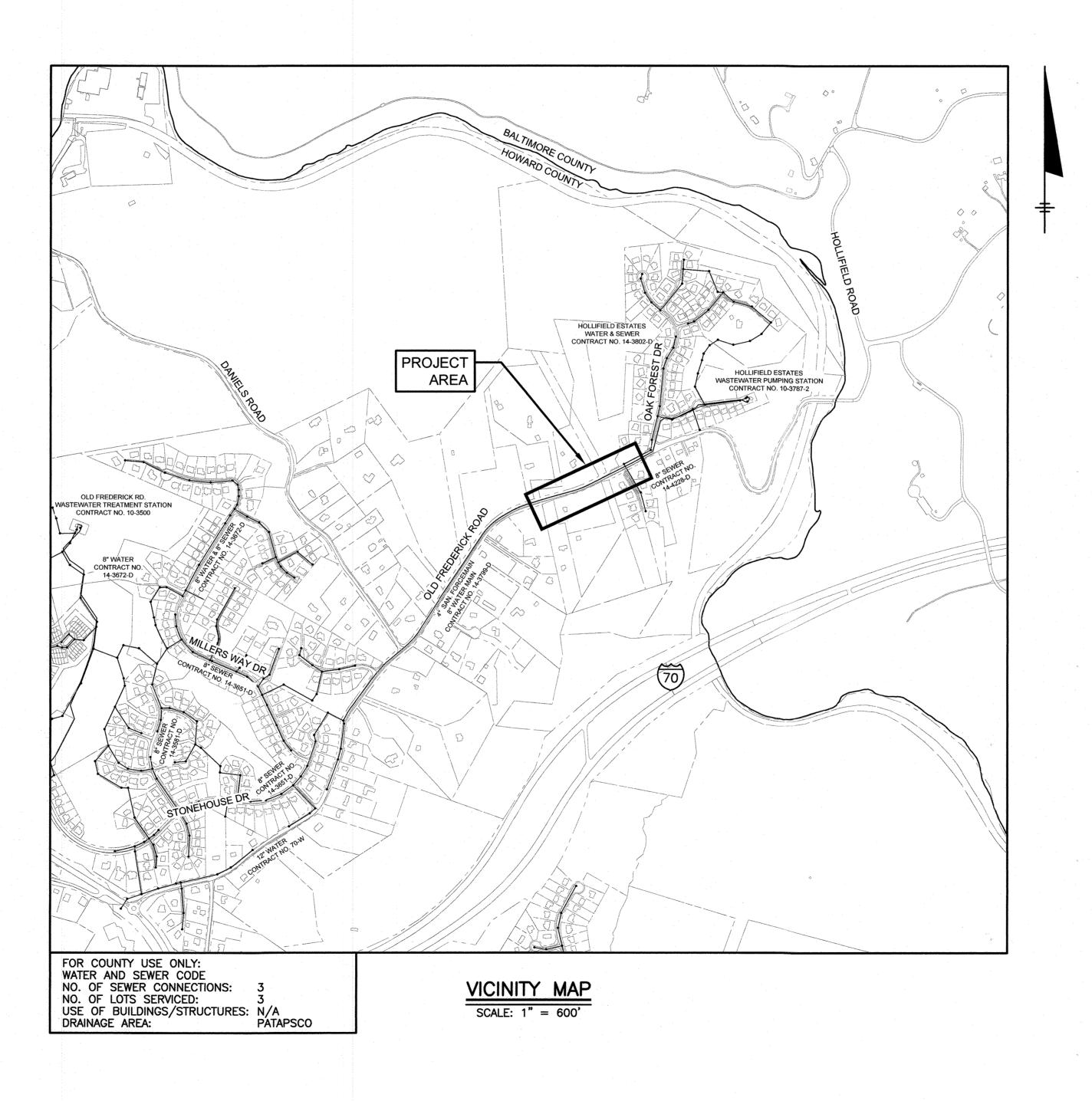
18" RCP STORM DRAIN

- 4. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY
- 5. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER
- WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 6. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED

QUANTITIES						
ITEM	BID AMOUNT	UNIT	AS-BUILT AMOUNT	MATERIAL	SUPPLIER	
8" DR-25 C900 PVC GRAVITY SEWER	562	LF	564	Pvc	JM MANUFACTURING	
4' STANDARD PRECAST CONCRETE MANHOLE (UP TO 6 VF DEEP)	5	EA	5	PRECAST CONCRETE	CONTRACTORS PRECAST	
4' STANDARD PRECAST CONCRETE MANHOLE (ADDITIONAL VF)	25	VF	25	PRECAST CONCRETE	CONTRACTORS PRECAST	
4" SDR 35 PVC SHC	60	LF	61	PVC	NATIONAL PIPE	
CLEANOUT ASSEMBLY	3	EA	3	PVC	HORNE CONCRETE	
PAVEMENT RESTORATION	-550-	TON	233.24	ASPHALT	_	
TYPE "B" EXTERNAL DROP CONNECTION	5	VF	5	-	-	
24"x 24" Concrete INLET	-	EA	١	PRECAST CONCRETE	_	

LF

CAPITAL PROJECT: S6699 CONTRACT NO.: 10-5150 HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS



	INDEX OF DRAWINGS
DRAWING NO.	TITLE
1	COVER
2	LEGEND, ABBREVIATIONS, GENERAL NOTES
3	OLD FREDERICK ROAD PROPOSED SEWER PLAN AND PROFILE
4	EROSION & SEDIMENT CONTROL PLAN
, 5	EROSION & SEDIMENT CONTROL NOTES AND DETAILS
6	MAINTENANCE OF TRAFFIC PLAN

PROVIDE FUTURE PUBLIC SEWER SERVICE TO #8369 AND #8379 OLD FREDERICK ROAD. THIS PROJECT IS IN RESPONSE TO REQUESTS RECEIVED BY THE COUNTY, FROM THE HOMEOWNERS OF THE AFOREMENTIONED PROPERTIES. INCLUDED WITH THIS PROJECT IS THE INSTALLATION OF NEW GRAVITY SEWER PIPING, MANHOLES, AND SEWER HOUSE CONNECTION

OWNERS / DEVELOPER CERTIFICATION: PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT 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. SANJAY KULKARNI, P.E.



RECORD DRAWINGS TO THE BEST OF OUR KNOWLEDGE. INFORMATION AND BELIEF, BASED ON INFORMATION PROVIDED BY OTHERS. THESE RECORD DRAWINGS SUBSTANTIALLY REPRESENT THE PROJECT AS CONSTRUCTED.

COVER

BLOCK NO.

O'BRIEN & GERE

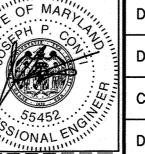


DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF, UTILITY DESIGN DIVISION SRK 11/13/8DATE CHIEF. BUREAU OF UTILITIES

OBRIENS GERE THESE DOCUMENTS WERE PREPARED OR SUITE 500 BOWIE, MD 20716 PHONE: 301-731-5622

RCP

CERTIFICATION: HEREBY CERTIFY THAT APPROVED BY ME, AND THAT I AM A DULY MARYLAND, LICENSE NO. 55452, EXPIRATION DATE



		 								
DSN.	BY.	JPC								COME
DOI1.	<u> </u>	01 0								COVER
DRN.	BY:	BNL								
CHK.	BY:	HAM								
			JPC	Δ	AS-BUILT	4/21				· · · · · · · · · · · · · · · · · · ·
DATE:		10/2020	BY	NO.	REVISION	DATE	600'	SCALE	MAP NO	18
										

OLD FREDERICK ROAD SEWER EXTENSION

CAPITAL PROJECT: S6699 CONTRACT NO.: 10-5150 ELECTION DISTRICT: 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN SHEET 1 OF 6

LEGEND

(PLAN AND PROFILE SHEETS)

	(I B WANTED I HOT IEE OFFEETO)		
	SIDEWALK	⊠	MAIL BOX
EP	PAVEMENT (EDGE)	0	VENT
	GRAVEL (EDGE)	0	STORM DRAIN MH
	CONCRETE (EDGE)		HEADWALL/ENDWALL
	BUILDING		DROP INLET GRATE
	CENTERLINE		DROP INLET ROAD
	SHA THRU HIGHWAY RIGHT-OF-WAY	0	SIGN
	PROPERTY LINE/RIGHT-OF-WAY	Ш	TELE. JUNC. BOX
	EASEMENT	Ø	UTILITY POLE
- Company	MAJOR CONTOURS	00	LIGHT POLE
· 	MINOR CONTOURS	☆	LAMP POST
	GUARDRAIL	^	GUY WIRE
	FENCE (WOOD)	. €	GROUND LIGHT
0 0 0	FENCE IRON, RAIL		ELECTRICAL TRANSFORMER
-××	FENCE(CHAINLINK)	(E)	ELECTRICAL MANHOLE
E E	UNDERGROUND ELECTRIC LINE		ELECTRICAL JUNCTION BOX
OE — OE —	OVERHEAD ELECTRIC LINE	_× 325.5	SPOT ELEVATION
	UNDERGROUND TELEPHONE LINE	CATV	CABLE BOX
C management C management	UNDERGROUND CABLE LINE	S	EXISTING SANITARY SEWER MANHOLE
F0 F0	UNDERGROUND FIBER OPTIC LINE	•.	PROPOSED SANITARY SEWER MANHOLE
OHU	OVERHEAD UTILITIES	000	CLEAN OUT
FM	EXISTING SANITARY FORCEMAIN	Þ	WATER VALVE
S	EXISTING SANITARY SEWER	()	WATER METER
	PROPOSED SANITARY SEWER	(A)	WATER MAIN VALVE VAULT
mandate, sequent supplied intelligence proprieds	STORM DRAIN	⊗IRR	IRRIGATION VALVE
	WATER MAIN	№	EXISTING FIRE HYDRANT
G G	GAS	H	GAS VENT PIPE
LOD	LIMITS OF DISTURBANCE	⊙	GAS VALVE
SF	SILT FENCE	GP	GAS PUMP
	WETLANDS BOUNDARY	0	GAS LINE MARKER
WB	WETLANDS BUFFER BOUNDARY	O IPF	IRON PIPE FOUND
	DITCH	RBC	REBAR AND CAP
	STREAM		TRAVERSE STATION
·······	WOODLINE	P	POINT OF CONNECTION
	BUSH	A CID	
00000	RIP-RAP DITCH	ー ¬ AGIP L 」	AT GRADE INLET PROTECTION
	MILL AND OVERLAY		
SB#	PODING LOCATION		DETAIL OR SECTION IDENTIFICATION
*	BORING LOCATION		
IP#	TEST PIT LOCATION		12 SHEET NO.
	BM #		
O REBAR	REBAR		A DETAIL IDENTIFICATION

SHEET THAT DETAIL IS TAKEN FROM

6 12 SHEET THAT DETAIL IS LOCATED

ABBREVIATIONS

	ADDDOV	ADDDOVIMATE
	APPROX.	APPROXIMATE
	ARV MH	AIR RELEASE MANHOLE
	BE	BURY ELEVATION
	BFV	BUTTERFLY VALVE
	BGE	BALTIMORE GAS & ELECTRIC
	BL	BURY LENGTH
	BLDG.	BUILDING
	BOT	BOTTOM
	C&G	CURB AND GUTTER
	CMP	CORRUGATED METAL PIPE
-	CONC.	CONCRETE
	CONSTR.	CONSTRUCTION
	CONTR.	CONTRACT
	CPLG.	COUPLING
	DEG.	DEGREE
	DET OR DTL.	DETAIL
	DIP	DUCTILE IRON PIPE
	DR	DRIVE
	E OR ELEC	ELECTRIC
	EA	EACH
	ELEV	ELEVATION
	ESMT	EASEMENT
	EX	EXISTING
	FH	FIRE HYDRANT
	FLG	FLANGE
	FMV	FLOW METER VAULT
	G	GAS
,	GCS	GEODETIC CONTROL SYSTEM
	GV	GATE VALVE
	HB	HORIZONTAL BEND
	100	
	HD	HIGH DEFLECTION
	HC	HOWARD COUNTY
	HCR	HORIZONTAL CURVE RADIUS
	HDP	HORIZONTAL DEFLECTION POINT
	HDPE	HIGH DENSITY POLYETHYLENE
	HMA	HOT MIX ASPHALT
	*	
	HORIZ	HORIZONTAL
	INV	INVERT
	JT	JOINT
	LF :	LINEAR FOOT
	LOD	LIMIT OF DISTURBANCE
	MAC	MACADAM
	MBR	MINIMUM BENDING RADIUS
	MD	MARYLAND
- ,		
	MH	MANHOLE
	MIN	MINIMUM
	MJ	MECHANICAL JOINT
	NIC	NOT IN CONTRACT
	NO	NUMBER
	PC	POINT OF CURVE
	PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
	PE	
		PLANE END
	PED	PEDESTAL
	PO	POST OFFICE OR PUSH ON
	PROP	PROPOSED
	PT	POINT OR POINT OF TANGENCY
	PVC	PVC PIPE OR POINT OF VERTICAL CURVATURE
	PVD	POINT OF VERTICAL DEFLECTION
	PVI	POINT OF VERTICAL INTERSECTION
	PVMT	PAVEMENT
,	PVT	POINT OF VERTICAL TANGENCY
	R/W	RIGHT OF WAY
	RAD OR R	RADIUS
	RCP	REINF. CONC. PIPE
	RD	ROAD
	REQD	REQUIRED
	RJ	RESTRAINED JOINT
	ROW	RIGHT-OF-WAY
	RSGV	RESILIENT SEAT GATE VALVE
	RSWV	RESILIENT WEDGE GATE VALVE
	S	SEWER
	SAN	SANITARY
	SB	SOIL BORING
	SD	STORM DRAIN
	SHA	STATE HIGHWAY ADMINISTRATION
	SHC	SEWER HOUSE CONNECTION
	SHT	SHEET
	S.S.	STAINLESS STEEL
	STA	STATION
	STD	STANDARD
	TB RENO	TO BE RENOVATED (FUTURE)
	TBR	TO BE REMOVED (FUTURE)
	TELE	TELEPHONE
	TEMP	TEMPORARY
	TP	TEST PIT
	TRANS	TRANSFORMER
	UNF	UTILITY NOT FOUND
	VB	VERTICAL BEND
	VCR	VERTICAL CURVE RADIUS
	VERT	VERTICAL
	W	WATER
	W/	WITH
	WHC	WATER HOUSE CONNECTION
	WM	WATER MAIN
4	W	WATER VALVE

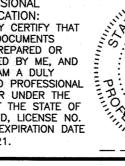


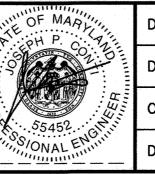
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF, UTILITY DESIGN DIVISION SRK 11/3/20 DATE CHIÉF, BUREAU OF UTILITIES

OBRIEN & GERE

4201 MITCHELLVILLE ROAD SUITE 500
BOWIE, MD 20716
PHONE: 301-731-5622

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. 55452, EXPIRATION DATE 12/23/21.





•	DATE:	10/2020	BY	NO.		REVISIO	A 1	DATE
		40 /0000	JPC .	Δ	AS-BUILT			4/21
TILLER THERMAN	CHK. BY:	HAM						
	DIMN. DI.	DINL	<u> </u>			 		
3	DRN. BY:	BNL						
	DON. DI.	UFC						
	DSN. BY:	JPC						

FLY STATION

ASPHALT PAVEMENT

LEGEND, ABBREVIATIONS, AND GENERAL NOTES

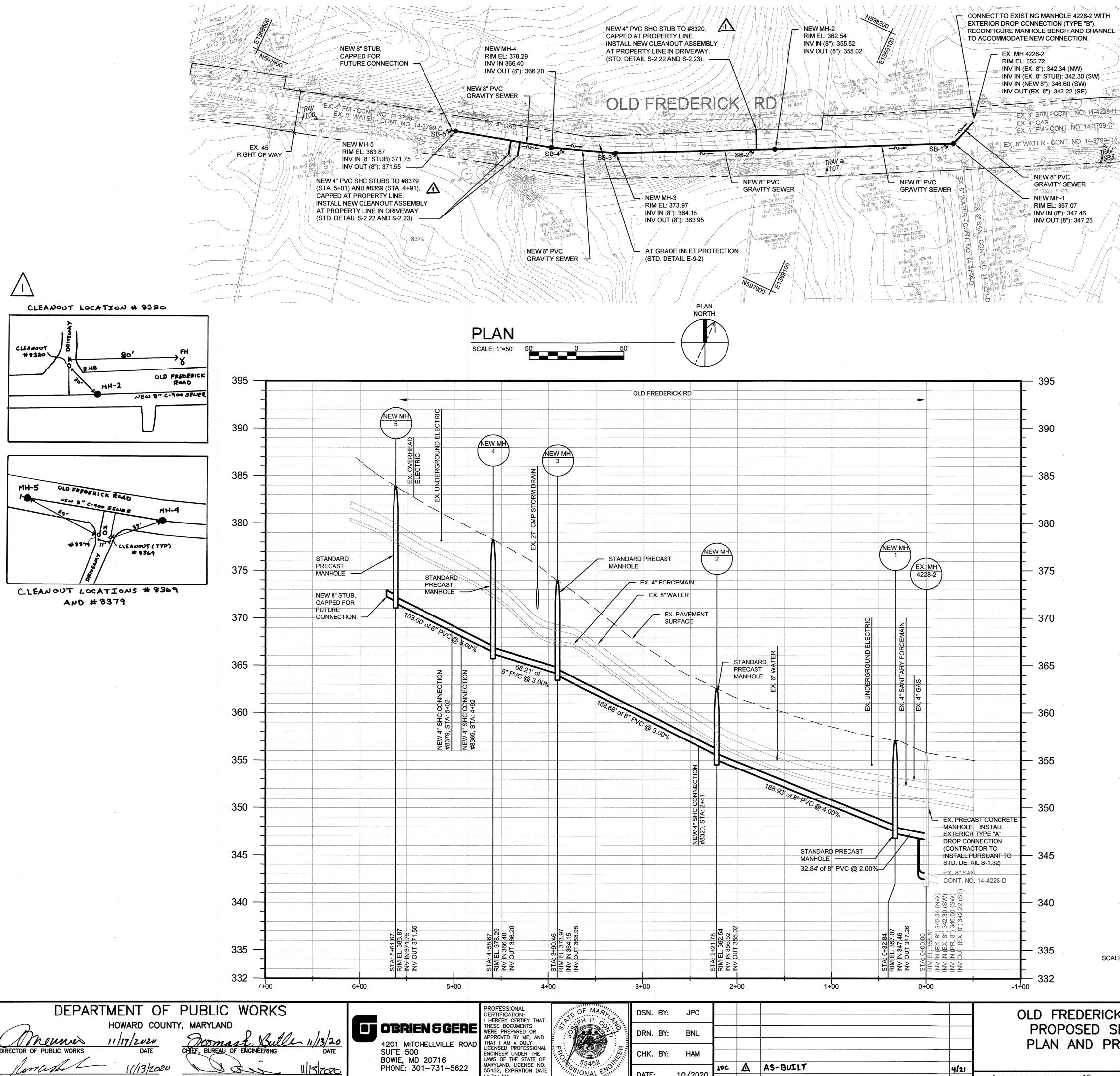
_ BLOCK NO. _

600' SCALE MAP NO. _____18

OLD FREDERICK ROAD SEWER EXTENSION

CAPITAL PROJECT: S6699 CONTRACT NO.: 10-5150 ELECTION DISTRICT: 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN SHEET 2 OF 6



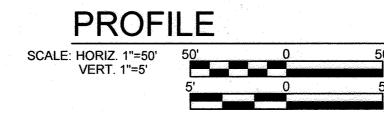
PLAN NOTES:

- 1. UNLESS OTHERWISE NOTED ON THESE PLANS, HORIZONTAL AND VERTICAL SEPARATIONS BETWEEN THE NEW GRAVITY SEWER AND THE EXISTING WATER MAIN SHALL CONFORM TO HOWARD COUNTY STANDARD DETAIL S-3.13. CROSSING OF EXISTING WATER MAINS SHALL HAVE A MINIMUM SEPARATION OF EIGHTEEN (18) INCHES. CROSSING OF ALL OTHER UTILITIES (I.E. STORM, GAS, FORCE MAINS) SHALL BE TWELVE (12) INCHES MINIMUM.
- 2. PIPE TRENCHING AND PAVEMENT REPLACEMENT SHALL BE PERFORMED IN ACCORDANCE HOWARD COUNTY STANDARDS, INCLUDING STANDARD DETAIL G-2.12, "PIPE TRENCH PLASTIC AND COPPER" AND STANDARD DETAIL G-4.01, "UTILITY TRENCH ROADWAY REPAVING", RESPECTIVELY.
- 3. DUE TO THE PROXIMITY OF THE EXISTING WATER MAIN TO THE NEW GRAVITY SEWER, ALL NEW GRAVITY SEWERS SHALL BE 8-INCH, DR-25 C-900 PVC PRESSURE PIPE.
- 4. ALL NEW MANHOLES SHALL BE FOUR (4) FOOT DIAMETER PRECAST CONCRETE MANHOLES.
- 5. NEW SEWER HOUSE CONNECTIONS (SHCS) SHALL BE INSTALLED FROM THE MAINLINE GRAVITY SEWER TO THE PROPERTY LINE WITH CLEANOUTS PLACED AT THE PROPERTY LINE ON THE HOMEOWNER'S SIDE OF THE LINE. NEW SHCS SHALL BE SDR 35 PVC
- 6. INSTALLATION OF THE NEW SEWER MAIN, MANHOLES, AND SHCS SHALL CONFORM TO SECTIONS "1009 SANITARY SEWER MAINS AND SEWER HOUSE CONNECTIONS" AND "1010 - SANITARY SEWER MANHOLES." TESTING OF THE NEW SEWER MAIN (C900 PVC PRESSURE PIPE) SHALL CONFORM TO COUNTY STANDARDS FOR PRESSURE PIPE TESTING.
- 7. UNLESS OTHERWISE SPECIFIED OR DETAILED IN THE CONTRACT DOCUMENTS, THE "HOWARD COUNTY DESIGN MANUAL, VOLUME IV", STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION) SHALL GOVERN FOR ALL CONSTRUCTION DETAILS, MATERIALS, AND CONSTRUCTION METHODOLOGIES FOR THIS PROJECT. THE CONTRACTOR IS ALSO REQUIRED TO MAINTAIN A COPY OF VOLUME IV ON THE JOB SITE.
- 8. DUE TO THE NATURE OF THE PROJECT LOCATION AND TOPOGRAPHY, THE POTENTIAL FOR SUBSURFACE ROCK EXISTS. BORINGS WERE DRILLED ALONG THE ALIGNMENT AT LOCATIONS IN CLOSE PROXIMITY TO THE PROPOSED MANHOLES. THE CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT PROVIDED AS PART OF THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE COUNTY IMMEDIATELY SHOULD BURIED ROCK BE ENCOUNTERED WITH EXCAVATION ACTIVITIES ASSOCIATED WITH THE PROJECT. ROCK REMOVAL IS NOT INCLUDED AS PART OF THIS CONTRACT AND THE CONTRACTOR WILL NOT BE REIMBURSED FOR ANY ROCK REMOVAL ASSOCIATED WITH EXCAVATION AND SEWER INSTALLATION ACTIVITIES PERFORMED IN ADVANCE OF NOTIFYING THE COUNTY TO NEGOTIATE A PRICE FOR ADDRESSING ROCK REMOVAL.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE TO TAKE ALL NECESSARY PRECAUTIONS TO LOCATE AND PROTECT EXISTING UTILITIES AND SERVICES (BURIED AND ABOVE-GROUND) AND MAINTAIN UNINTERRUPTED SERVICE THROUGHOUT PROJECT CONSTRUCTION. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE COUNTY AT THE
- 10. EXISTING STORM DRAINS/CULVERTS DISTURBED BY THE CONSTRUCTION SHALL BE REPLACED IN KIND AT THE SAME LINE AND GRADE AS THE EXISTING STORM DRAINS.
- 11. AS REQUIRED BY THE MARYLAND HIGH VOLTAGE LINE ACT, ANY CONSTRUCTION ACTIVITIES SCHEDULED TO BE PERFORMED WITHIN TEN (10) FEET OF OVERHEAD UTILITY LINES MUST BE COORDINATED WITH BGE AT LEAST FIVE (5) DAYS IN ADVANCE SO PROPER SAFETY MEASURES CAN BE IMPLEMENTED BY BGE TO MAKE THE AREA SAFE FOR THE WORK TO BE DONE.
- 12. TEMPORARY PAVING PATCH FOR UTILITY TRENCH REPAIR OF HOT MIX ASPHALT (HMA) PAVED ROADS AND DRIVEWAYS SHALI CONSIST OF 16-INCHES OF DAMPENED AND COMPACTED NO. 57 AGGREGATE SUB-BASE OVERLAYED WITH 2-INCHES OF HMA BASE COURSE PLACED FLUSH WITH THE ADJOINING PAVEMENT SURFACE. REFILL ALL DEPRESSIONS AND SETTLEMENT (AS THEY DEVELOP) WITH THE SPECIFIED MATERIALS. PRIOR TO RECOMPACT, AND TACK COAT THE REMAINING 12-INCH MINIMUM NO. 57 AGGREGATE SUB-BASE, AND REPAVE THE UTILITY TRENCH (AND WHERE REQUIRED, THE REMAINING PORTION OF THE TRAVEL LANE) ALL IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL G-4.01. THE HMA MATERIALS SHALL MEET THE TYPICAL SUPERPAVE MIX SPECIFIED IN HOWARD COUNTY STANDARD DETAIL R-2.01, PG 64-22S, LEVEL 1 (ESAL).
- 13. FINAL PAVEMENT REPAIR SHALL CONFORM TO COUNTY STANDARD DETAIL R-2.01, SECTION P-4.
- 14. THE CONTRACTOR SHALL PROVIDE SURVEY CONSTRUCTION STAKEOUT/MARK-OUT FOR ALL NECESSARY LINES, GRADES AND ELEVATIONS OF THE PROPOSED FACILITIES.
- 15. THE CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC MEASURES, AS SHOWN ON THE PLANS, TO MAINTAIN ONE-LANE OF ALTERNATING TRAFFIC FLOW AT ALL TIMES DURING CONSTRUCTION ACTIVITIES. DURING THE INITIAL STAKEOUT/MARK-OUT OF THE NEW SEWER ALIGNMENT, SHOULD IT BE DETERMINED THAT THE PROJECT (OR A PORTION OF THE PROJECT) CANNOT BE INSTALLED WITHOUT SHUTTING DOWN THE ENTIRE ROADWAY, THE CONTRACTOR SHALL NOTIFY THE COUNTY SO PROPER
- MEASURES CAN BE PLANNED TO PROVIDE TRAFFIC DETOURING TO FACILITATE PROJECT CONSTRUCTION. 16. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO WITHIN THE PUBLIC RIGHT-OF-WAY (ROW) LIMITS. THE PUBLIC ROW ALSO SHALL SERVE AS THE LIMITS OF DISTURBANCE FOR CONSTRUCTION ACTIVITIES ALONG THE LENGTH OF THE PROPOSED WORK ASSOCIATED WITH THIS PROJECT.
- 17. NO EXCAVATED MATERIAL SHALL BE STOCKPILED EXCEPT AT A SITE/LOCATION SECURED BY THE CONTRACTOR IN ADVANCE OF COMMENCING WITH CONSTRUCTION ACTIVITIES.
- 18. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DAILY REMOVAL OF DUST, MUD, AND DEBRIS ON THE ROADWAYS AS A RESULT OF PROJECT CONSTRUCTION.
- 19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING/REPLACING ANY EXISTING GUARDRAILS. GATES, FENCES, STEEL POSTS, PAVING, ROADSIDE LANDSCAPING, SIGNAGE, MAILBOXES, ETC. REMOVED DURING CONSTRUCTION.
- 20. ALL EXCAVATIONS MUST BE FILLED AND/OR PLATED AT THE END OF EACH WORKDAY

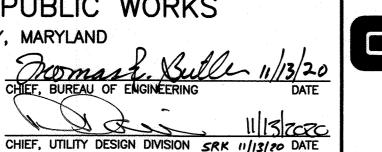
TRAVERSE CONTROL POINTS					
ID	NORTHING	EASTING	ELEV		
106	597860.99	1368586.63	395.55		
107	598055.35	1369110.61	358.75		
GB3	598187.46	1369355.92	352.41		

SOIL BORING SCHEDULE						
ÎD :	SURFACE ELEVATION	NORTHING	EASTING			
SB-1	357.14	598116.70	1369203.45			
SB-2	363.52	598023.63	1369019.79			
SB-3	374.06	597959.50	1368889.10			
SB-4	377.58	597940.09	1368837.23			
SB-5	384.28	597907.54	1368719.14			

MANHOLE	COORDINA	TE TABLE
ID	NORTHING	EASTING
NEW MH 1	598122.54	1369209.30
NEW MH 2	598036.95	1369040.79
NEW MH 3	597962.16	1368889.67
NEW MH 4	597938.86	1368825.56
NEW MH 5	597911.21	1368726.34



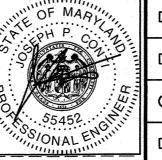




CHIÉF, BUREAU OF UTILITIES

BOWIE, MD 20716 PHONE: 301-731-5622

12/23/21.



JPC A AS-BUILT
BY NO. DATE: 10/2020 REVISION OLD FREDERICK ROAD PROPOSED SEWER PLAN AND PROFILE

BLOCK NO.

18

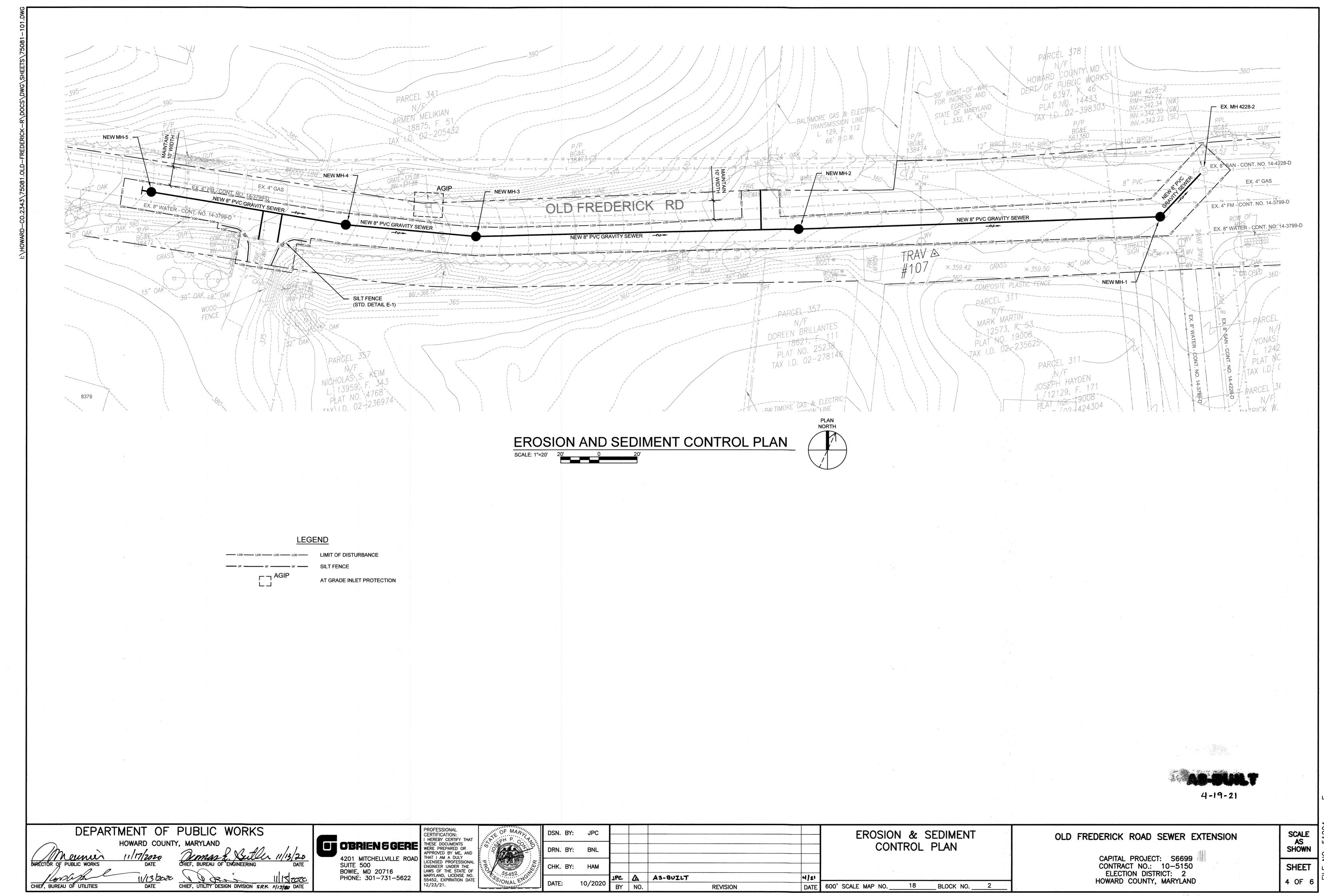
DATE 600' SCALE MAP NO.

OLD FREDERICK ROAD SEWER EXTENSION

CAPITAL PROJECT: S6699 CONTRACT NO.: 10-5150 ELECTION DISTRICT: 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN SHEET

3 OF 6



FILE NO. 51204- F

DETAIL E-1 SILT FENCE

STANDARD SYMBOL ⊢----SF------I

CONSTRUCTION SPECIFICATIONS

. USE WOOD POSTS 134 X 134 ± 1/6 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.

E.2

- 2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
- . USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
- 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.
- 5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
- . WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
- . EXTEND BOTH ENDS OF THE 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 SILT FENCE.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS,



CHIEF, UTILITY DESIGN DIVISION SRK 11/13/20 DATE

2 OF 2

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

11/17/2020

Menu

PIRECTOR OF PUBLIC WORKS

CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

13/2020

2011

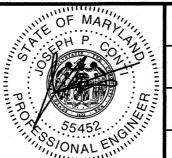
E.3

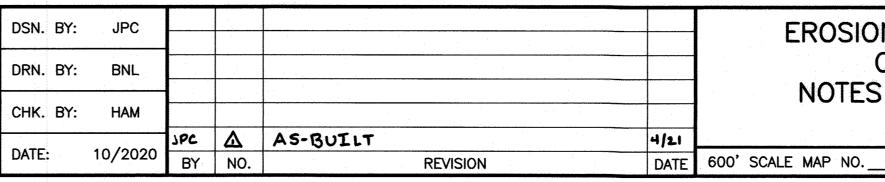
MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

OBRIENS GERE THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME. AND 4201 MITCHELLVILLE ROAD THAT I AM A DULY LICENSED PROFESSIONAL SUITE 500 ENGINEER UNDER THE LAWS OF THE STATE OF BOWIE, MD 20716 MARYLAND, LICENSE NO. PHONE: 301-731-5622 55452, EXPIRATION DATE 12/23/21.

CERTIFICATION:

HEREBY CERTIFY THAT





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), 410-313-1855 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,
- b. 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.

- 2. 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.
- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS 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.
- 4. 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.
- 5. 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:

STANDARD SYMBOL

AGIP

-34 TO 1½ IN STONE

NONWOVEN GEOTEXTILE

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

MAXIMUM DRAINAGE AREA = 1 ACRE

- 34 TO 1/2 IN STONE

DETAIL E-9-2 AT-GRADE INLET PROTECTION

PLAN / CUT AWAY VIEW

CROSS SECTION

2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE

3. PLACE CLEAN 34 TO 11/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.

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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

E.26

STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF

. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.

-- 1/4 IN HARDWARE CLOTH

NONWOVEN GEOTEXTILE

CONSTRUCTION SPECIFICATIONS

U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

WITH WIRE TIES AND SET GRATE BACK IN PLACE.

- TOTAL AREA OF SITE: 0.13 ACRES / 6,182 SF AREA DISTURBED: 0.13 ACRES / 6,182 SF AREA TO BE ROOFED OR PAVED: 0.13 ACRES / 6,182 SF, REPAVED AREA TO BE VEGETATIVELY STABILIZED: 0.00 ACRES
- TOTAL CUT: N/A CU. YDS.
- TOTAL FILL: N/A CU. YDS. OFFSITE WASTE/BORROW AREA LOCATION: TBD, IF NEEDED
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- 8. 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:
 - INSPECTION DATE
 - INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
 - NAME AND TITLE OF INSPECTOR
- WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION) • BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES
- EVIDENCE OF SEDIMENT DISCHARGES IDENTIFICATION OF PLAN DEFICIENCIES
- IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
- IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS
- COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS PHOTOGRAPHS
- MONITORING/SAMPLING
- MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
- OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH
- CONSTRUCTION ACTIVITIES (NPDES, MDE).
- 9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
- 10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES.
- 11. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD. NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
- 12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
- 13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
- 14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.
- 15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
 - USE I AND IP MARCH 1 JUNE 15
 - USE III AND IIIP OCTOBER 1 APRIL 30 • USE IV MARCH 1 - MAY 31
- 16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

EROSION & SEDIMENT

CONTROL

NOTES AND DETAILS

18

BLOCK NO.

4-19-21

OLD FREDERICK ROAD SEWER EXTENSION

CAPITAL PROJECT: S6699 CONTRACT NO.: 10-5150 ELECTION DISTRICT: 2 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

