

**GENERAL NOTES**

- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:
  - MESS UTILITY: \_\_\_\_\_
  - VERIZON TELEPHONE COMPANY: \_\_\_\_\_
  - HOWARD COUNTY BUREAU OF UTILITIES: \_\_\_\_\_
  - AT&T CABLE LOCATION DIVISION: \_\_\_\_\_
  - B.O.B.E. CO. CONTRACTOR SERVICES: \_\_\_\_\_
  - B.O.B.E. CO. UNDERGROUND DAMAGE CONTROL: \_\_\_\_\_
  - STATE HIGHWAY ADMINISTRATION: \_\_\_\_\_
- THIS FINAL PLAN IS SUBJECT TO THE FOLLOWING DPZ FILES:
  - CONT # 71-W, CONT # 412-S, ECP-19-017, WP-19-119
  - 410-805-4620
  - 410-787-4620
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY CONDUCTED BY ROBERT H. VOGEL ENGINEERING INC. DATED AUGUST 2018 AND ENGINEERING DRAWINGS OF RECORD OFFSITE TOPOGRAPHY AND HOWARD COUNTY GIS.
- THE PROJECT BOUNDARY IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC. ON OR ABOUT SEPTEMBER, 2018.
- THE CONTRACTOR SHALL NOTIFY "MESS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- TO THE BEST OF THE OWNER'S KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETERIES LOCATED ON THE SUBJECT PROPERTY. THERE IS A HISTORIC DWELLING (CIRCA 1955) LOCATED ON PROPOSED LOT 4 WHICH IS TO REMAIN.
- STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF MICRO-SCALE PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA, MICRO-SCALE PRACTICES INCLUDE SWIPEDS AND MICRO-BIORETENTION AREAS. THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED. MAINTENANCE INCLUDES OUTLET STRUCTURES AND PIPES, MULCH, WEEDING, PLANTINGS, PERFORATED UNDERDRAINS, FEEDER PIPES, AND ROUTINE SOIL REPLACEMENT.
- THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
  - WATER FOR THIS PROJECT SHALL BE PRIVATE WATER HOUSE CONNECTION TO CONTRACT NO. 71-W, COMPLETED UNDER THE HOWARD COUNTY AND PROCESS UNDER THE PROVISIONS OF SECTION 16.1222 OF THE HOWARD COUNTY CODE. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE HOWARD COUNTY VOLUME 1 AND IV DETAILS.
  - SEWER FOR THIS PROJECT SHALL BE FROM SERVICE CONNECTIONS TO CONTRACT NO. 411-S & 412-S.
  - WATER AND SEWER SERVICE WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 16.1222 OF THE HOWARD COUNTY CODE. ALLOCATIONS WILL BE GRANTED AT TIME OF ISSUANCE OF BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, DEVELOPMENT OR CONSTRUCTION OF THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, ALTERNATIVE COMPLIANCE PETITION, OR BUILDING AND GRADING PERMITS.
- THE SUBJECT PROPERTY IS ZONED R-20 IN ACCORDANCE WITH THE 10/6/13 ZONING REGULATIONS, AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003.
- THIS SITE IS NOT LOCATED IN A HISTORIC DISTRICT.
- EXISTING UTILITIES ARE BASED ON ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER EXTENSION PLANS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 1704 AND 1708 WERE USED FOR THIS PROJECT.
- NO STEEP SLOPES OVER 20,000 SF CONTIGUOUS ARE LOCATED ONSITE.
- A FLOODPLAIN IS NOT IDENTIFIED FOR THIS SITE.
- SEDMIMENT AND EROSION CONTROL WILL BE PROVIDED FOR THIS SITE.
- WETLANDS AND STREAMS SHOWN HEREON ARE BASED ON THE DELINEATION BY ECO-SCIENCE PROFESSIONALS, INC. C/O DR. MR. JOHN CANOLES, DATED JULY 2018.
  - THE PROPOSED USE-IN-COMMON DRIVEWAY STREAM CROSSING WILL REQUIRE 401 AND 404 PERMITS.
  - CONSTRUCTION OF THE STREAM CROSSING IS NOT PROPOSED AS PART OF THIS PLAN, THEREFORE THE ENVIRONMENTAL PERMITS ARE NOT REQUIRED FOR THIS PLAN.
  - THE DESIGN OF THE STREAM CROSSING SHALL BE DETAILED ON THE FUTURE SITE DEVELOPMENT PLAN.
  - THE REQUIRED PERMIT DOCUMENTATION SHALL BE SUBMITTED WITH THE FUTURE SITE DEVELOPMENT PLAN.
- FOREST STAND DELINEATION PLAN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O DR. MR. JOHN CANOLES, ON SEPTEMBER 2018, MR. CANOLES NOTED 7 SPECIMEN TREES ON THE PROJECT SITE. THERE ARE ZERO SPECIMEN TREE TO BE REMOVED WITH THIS PLAN PROPOSAL.
- A TOTAL OF 3 NEW RESIDENTIAL UNITS IS PROPOSED UNDER THIS PLAN, 4 LOTS, 2 OPEN SPACE LOTS, AND 1 NON-BUILDABLE BULK PARCEL. ON NOVEMBER 28, 2018, THE DIRECTOR OF THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING CONSIDERED THE STREAM CROSSING FOR THIS SUBDIVISION AS A NECESSARY OR ESSENTIAL DISTURBANCE IN ACCORDANCE WITH SECTION 16.116(c)(1) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS BASED ON THE JUSTIFICATION SUBMITTED.
  - REQUIRED PERMITS TO CROSS THE STREAM AND WETLANDS SHALL BE OBTAINED UNDER THE FUTURE SITE DEVELOPMENT PLAN
- A NOISE STUDY IS NOT REQUIRED.
- IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME 3, CHAPTER 4 - SECTION 4.7(B)(5), A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION MANUAL.
  - 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.
  - TOTAL FOREST CONSERVATION OBLIGATION OF THIS PROJECT TO BE FULFILLED BY 0.76 ACRES OF ONSITE AFFORESTATION PLANTING. A FINANCIAL SURETY FOR THE REQUIRED AFFORESTATION = \$17,424 (0.8 AC @ \$34,848 SF @ \$0.50/SF) SHALL BE PROVIDED AS PART OF THE DPZ DEVELOPER'S AGREEMENT.
- A LANDSCAPE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF \$ 8,550.00 (\$300 PER SHADE TREE) FOR THE REQUIRED 28 SHADE TREES AND 5 SHRUBS (TRUNK DIA) SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT.
- UTILIZE HOWARD COUNTY STANDARD DETAIL NO. R-6.00 FOR THE USE-IN-COMMON DRIVEWAY ENTRANCE AT BETHANY LANE. DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
  - A) WIDTH - 12 FEET (16 FEET STRONG MORE THAN ONE RESIDENCE)
  - B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1 1/2" MIN)
  - C) GEOMETRY - MAXIMUM 10% GRADE, MAXIMUM 10% CHANGE AND MINIMUM OF 45-FOOT TURNING RADII.
  - D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 TONS (105 KIPS)
  - E) DRAINAGE ELEMENTS-CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
  - F) STRUCTURE CLEARANCES-MINIMUM 12 FEET.
  - G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
- THE EXISTING DWELLING ON LOT 4 IS TO REMAIN. THE EXISTING OUT BUILDING ON LOT 4 IS TO BE REMOVED. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATION REQUIREMENTS.
- BETHANY LANE IS CLASSIFIED AS A MINOR ARTERIAL ROAD - 80' R/W.
  - A USE IN COMMON DRIVEWAY IS PROPOSED FOR ACCESS TO THE PROPOSED LOTS FROM BETHANY LANE.
  - A SHARED DRIVEWAY ACCESS AND MAINTENANCE OBLIGATION AGREEMENT FOR THE SHARED DRIVEWAY WHICH SERVES LOTS 1-4, OPEN SPACE LOTS 5 & 6 SHALL BE RECORDED SIMULTANEOUSLY WITH THE RECORDATION OF THE F-19-017 PLAT.
  - FLAG AND PRESTEL LOTS, RESIDUE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE FOR LOTS 1 - 4 ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PRESTEL AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PRESTEL TOWN DRIVEWAY.
  - CERTIFIED TEST PITS HAVE BEEN PROVIDED. OPEN TEST PITS WERE OBSERVED BY THE DEVELOPERS AGENT, FEBRUARY 2017.
  - IN ACCORDANCE WITH SECTION 16.121(b)(2) OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THE OPEN SPACE REQUIREMENTS FOR THIS R-20 PROJECT IS 6% OF GROSS AREA (5.27 AC. GROSS AREA X 6% = 0.32 AC.).
  - MIHU'S ARE REQUIRED FOR THIS PROJECT.
  - IN ACCORDANCE WITH SECTION 108.0.E OF THE 10/06/13 COMPREHENSIVE ZONING REGULATIONS, THIS SUBDIVISION IS SUBJECT TO MODERATE INCOME HOUSING UNITS. THE MIHU OBLIGATION FOR THIS DEVELOPMENT WILL BE PROVIDED BY A PAYMENT OF FEE-IN-LIEU TO THE HOWARD COUNTY HOUSING DEPARTMENT FOR EACH UNIT OR PORTION OF THE UNITS REQUIRED BY THE DEVELOPMENT.
  - THIS DEVELOPMENT IS TO BE IN ACCORDANCE WITH SECTION 16.127 RESIDENTIAL INFILL DEVELOPMENT OF SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
  - DECLARATION OF COVENANTS FOR LOTS 1-4 SHALL BE RECORDED WITH THE DEVELOPERS AGREEMENT AND SIMULTANEOUSLY WITH THE F-19-017 PLAT FOR THE PRIVATE STORMWATER DEVICES LOCATED ON THIS LOT.
  - A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE AT THE DEVELOPERS/OWNERS EXPENSE. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-313-5752 FOR DETAILS AND COST ESTIMATES. THE R-1-1 (STOP) SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
  - TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT. 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.
  - THIS PROJECT IS SUBJECT TO WP-19-119. ON JUNE 29, 2019 THE DIRECTOR OF PLANNING AND ZONING APPROVED THE REQUEST FOR ALTERNATIVE COMPLIANCE OF SECTION 16.134(c)(1), ON WHICH STATES THAT IN RESIDENTIAL SUBDIVISIONS AND SITE DEVELOPMENTS THE DEVELOPER SHALL CONSTRUCT SIDEWALKS ON BOTH SIDES OF ALL STREETS IN THE PROJECT AND ALONG THE PROJECT FRONTAGE. APPROVAL IS SUBJECT TO THE FOLLOWING CONDITION:
    - BUILD A 14' CLOSED SECTION NORTHBOUND LANE ALONG THE PROPERTY FRONTAGE OF BETHANY LANE AND TO PROVIDE ADEQUATE STORM CONVEYANCE OFF BETHANY LANE THROUGH THE SUBJECT PROPERTY.
  - THIS PROJECT IS SUBJECT TO A DESIGN MANUAL WAIVER. ON JULY 17, 2019, THE CHIEF OF THE DEVELOPMENT ENGINEERING DIVISION (DEED) REQUESTED TO ALLOW A FEE IN LIEU FOR SIDEWALKS AND CURB & GUTTER AS CURB & GUTTER, ROAD WIDENING AND STORM DRAIN PIPE IN THE PUBLIC STREET MUST BE CONSTRUCTED TO CONVEY THE RUNOFF.

**NOTES:**

- ALL WATER CONNECTIONS SHALL BE 1-1/2" WITH 1" OUTSIDE METER SETTINGS, UNLESS OTHERWISE NOTED. REFER TO HOWARD COUNTY DETAILS W-3.28 OUTSIDE METER SETTINGS.

# FINAL SUPPLEMENTAL PLAN SCHNEIDER SUBDIVISION

## LOTS 1 - 4, OPEN SPACE LOTS 5 - 7 AND NON-BUILDABLE BULK PARCEL A 3071 BETHANY LANE - ELLICOTT CITY, MD. 21042 HOWARD COUNTY, MD

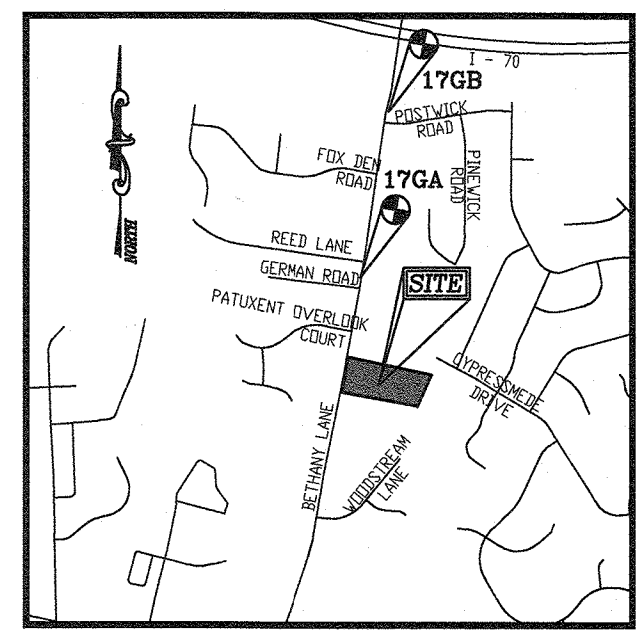
NOTE:  
- HOUSES MAY NOT BE BUILT USING THIS PLAN.

**BENCHMARKS**

COORDINATES BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 17GA, 17GB.

HOWARD COUNTY BENCHMARK

17GA	N 591048.516	E 1352732.111	ELEV. 432.027
17GB	N 592656.774	E 1353019.981	ELEV. 441.515



**VICINITY MAP**  
SCALE: 1"=2000'  
ADC MAP 20 GRID B6

**SHEET INDEX**

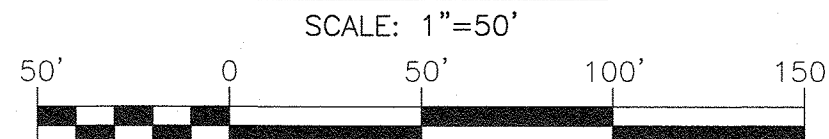
DESCRIPTION	SHEET NO.
COVER SHEET AND LAYOUT PLAN	1 OF 6
SITE DETAILS	2 OF 6
GRADING, SOIL EROSION & SEDIMENT CONTROL PLAN AND SOILS MAP	3 OF 6
LANDSCAPE PLAN	4 OF 6
STORMWATER MANAGEMENT PLAN AND DETAILS	5 OF 6
FOREST CONSERVATION PLAN	6 OF 6

**LEGEND:**

	PROPERTY LINE		EXISTING FIRE HYDRANT
	RIGHT-OF-WAY LINE		EXISTING WATER LINE
	ADJACENT PROPERTY LINE		EXISTING TREELINE
	EXISTING CURB AND GUTTER		EXISTING TREES
	EXISTING EDGE OF PAVING		EXISTING WETLANDS
	EXISTING WETLANDS		EXISTING WETLAND BUFFER
	EXISTING STREAM BUFFER		EXISTING STREAM
	PROPOSED WETLANDS		PROPOSED TREELINE
	EXISTING FLOODPLAIN		PRIVATE USE-IN-COMMON ACCESS EASEMENT
	EXISTING UTILITY POLE		PRIVATE SEWER & UTILITY EASEMENT
	EXISTING LIGHT POLE		VARIABLE WIDTH PUBLIC WATER & UTILITY EASEMENT
	EXISTING MAILBOX		PRIVATE WATER & UTILITY EASEMENT
	EXISTING SIGN		EX. SEWER RIGHT OF WAY
	EXISTING SANITARY MANHOLE		EX. COLONIAL PIPELINE EASEMENT
	EXISTING SANITARY LINE		TRAFFIC CONTROL SIGN
	EXISTING CLEANOUT		



**LAYOUT PLAN**



**SITE DATA**

DEED REFERENCE: PARCEL 136: L1006 F.197  
ELECTION DISTRICT: 2ND  
LOCATION: 3071 BETHANY LANE  
EXISTING ZONING: R-20

GROSS AREA:	5.51 AC
AREA OF 100 YEAR FLOODPLAIN:	0.42 AC
AREA OF STEEP SLOPES (25% GREATER):	0.30 AC
AREA OF WETLANDS & BUFFERS:	1.35 AC
NET AREA (GROSS-STEEP SLOPES & FLOODPLAIN):	4.79 AC
BASE DENSITY:	

2 LOTS PER NET ACRE :  
NUMBER OF PROPOSED RESIDENTIAL LOTS: 4 LOTS  
AREA OF PROPOSED RESIDENTIAL LOTS (SFD): 3.0085 AC  
AREA OF ROAD RIGHT OF WAY: 0.2349 AC  
OPEN SPACE REQUIRED: 6% OF GROSS AREA = 0.3306 AC  
TOTAL AREA OF OPEN SPACE PROPOSED: 2.2607 AC +/-

LIMIT OF DISTURBANCE:  
EXISTING USE OF SITE: RESIDENTIAL, SFD  
PROPOSED USE OF SITE: SINGLE FAMILY DETACHED  
PUBLIC

PROPOSED WATER SYSTEM:  
PROPOSED SEWER SYSTEM: PUBLIC  
MINIMUM LOT AREA: 20,000 SF

**MINIMUM LOT SIZE CHART**

LOT	GROSS AREA	PIPESTEM AREA	NET AREA	MIN. LOT SIZE
1	23,775 SF	0 SF	23,775 SF	20,000 SF
2	44,879 SF	6,633 SF	38,246 SF	20,000 SF
3	38,348 SF	5,746 SF	32,602 SF	20,000 SF
4	24,032 SF	0 SF	24,032 SF	20,000 SF

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9-12-19  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 11-08-19  
CHIEF, DIVISION OF LAND DEVELOPMENT

**OWNER**  
JAMES SCHNEIDER  
3071 BETHANY LANE  
ELLICOTT CITY, MD 21042  
(240) 375-1052

**DEVELOPER**  
BURKARD HOMES  
5850 WATERLOO ROAD, #140  
COLUMBIA, MD 21045  
(240) 375-1052

FINAL SUPPLEMENTAL PLAN  
COVER SHEET & LAYOUT PLAN  
**SCHNEIDER SUBDIVISION**  
LOTS 1 - 4, OPEN SPACE LOTS 5 - 7 AND NON-BUILDABLE BULK PARCEL A  
A SUBDIVISION OF TAX MAP 17 - PARCEL 136

TAX MAP: 17 PARCEL 136  
2ND ELECTION DISTRICT

ZONING: R-20  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
3300 N. RIDGE ROAD, SUITE 110  
ELLICOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

**PROFESSIONAL CERTIFICATE**

DESIGN BY: RHV/EDS  
DRAWN BY: MDL/EDS  
CHECKED BY: RHV  
DATE: AUGUST 2019  
SCALE: AS SHOWN  
W.O. NO.: 41899

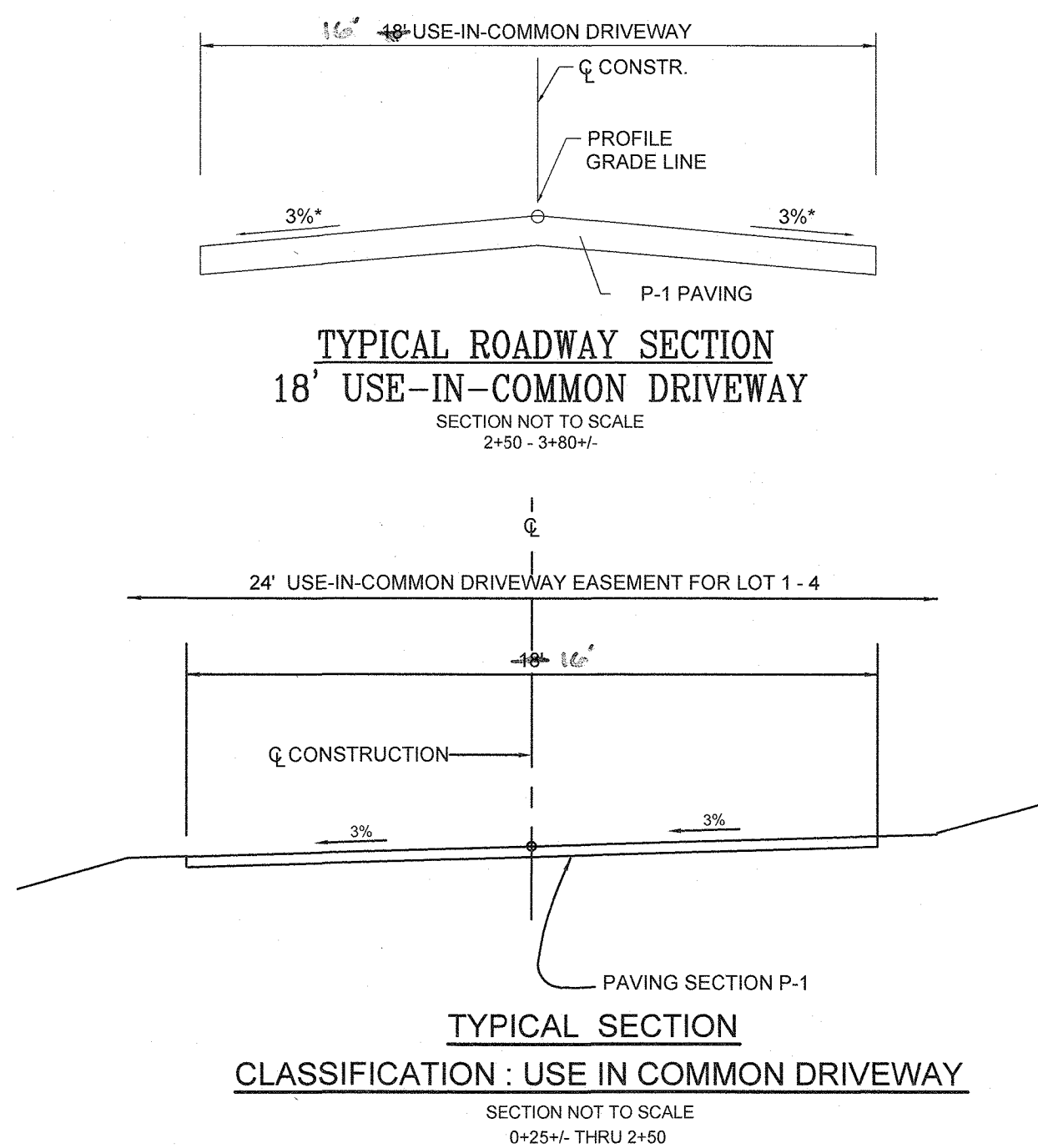
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2020

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
ROBERT H. VOGEL, PE No.16193

MODERATE INCOME HOUSING UNITS (MIHU) ALLOCATION EXEMPTIONS TRACKING	
TOTAL NUMBER OF LOTS/UNITS PROPOSED	4
NUMBER OF MIHU REQUIRED	3
NUMBER OF MIHU PROVIDED ONSITE (EXEMPT FROM APTD ALLOCATIONS)	0
NUMBER OF APTD ALLOCATIONS REQUIRED (REMAINING LOTS/UNITS)	3
MIHU FEE-IN-LIEU (INDICATE LOT/UNIT NUMBERS)	1

1 OF 6





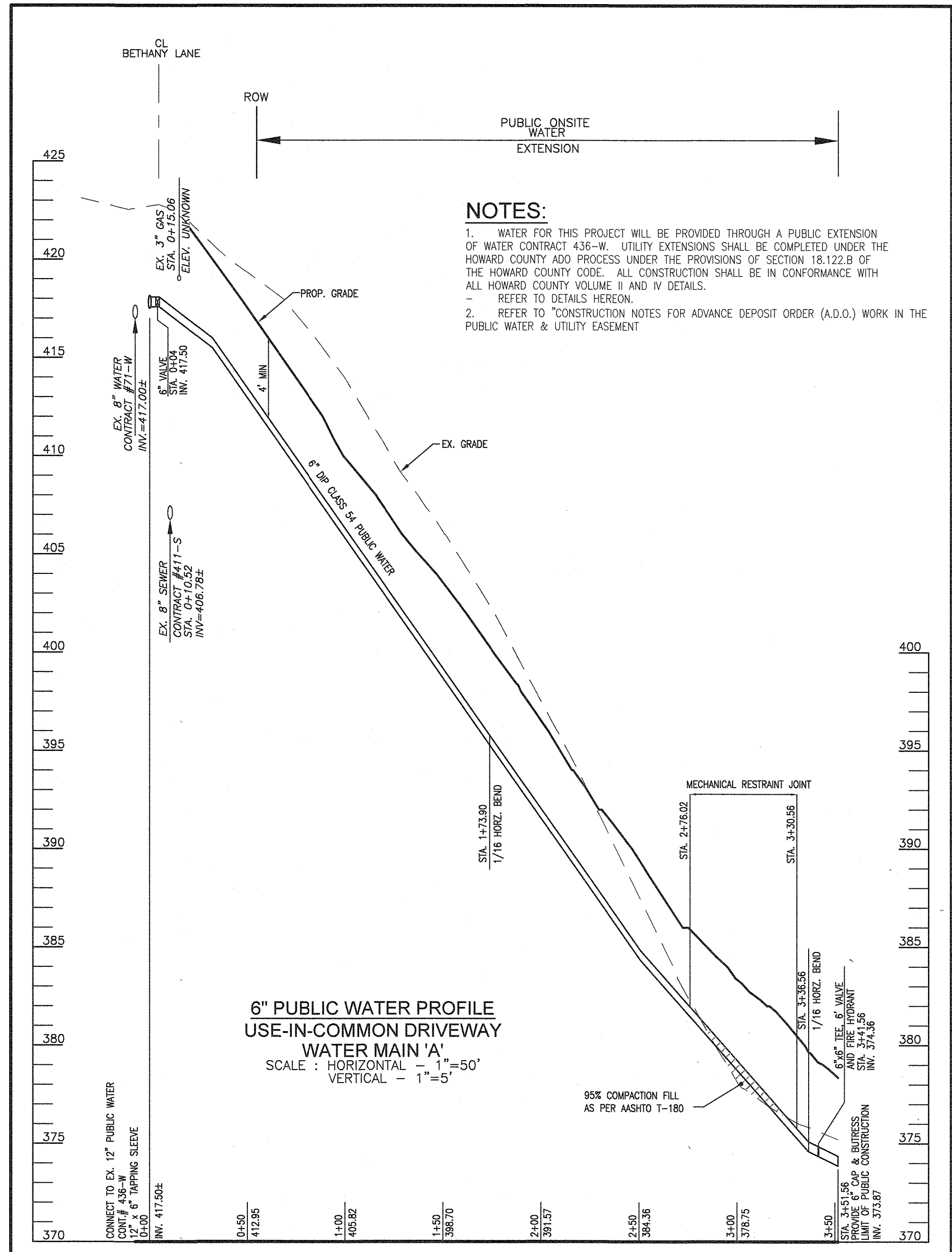
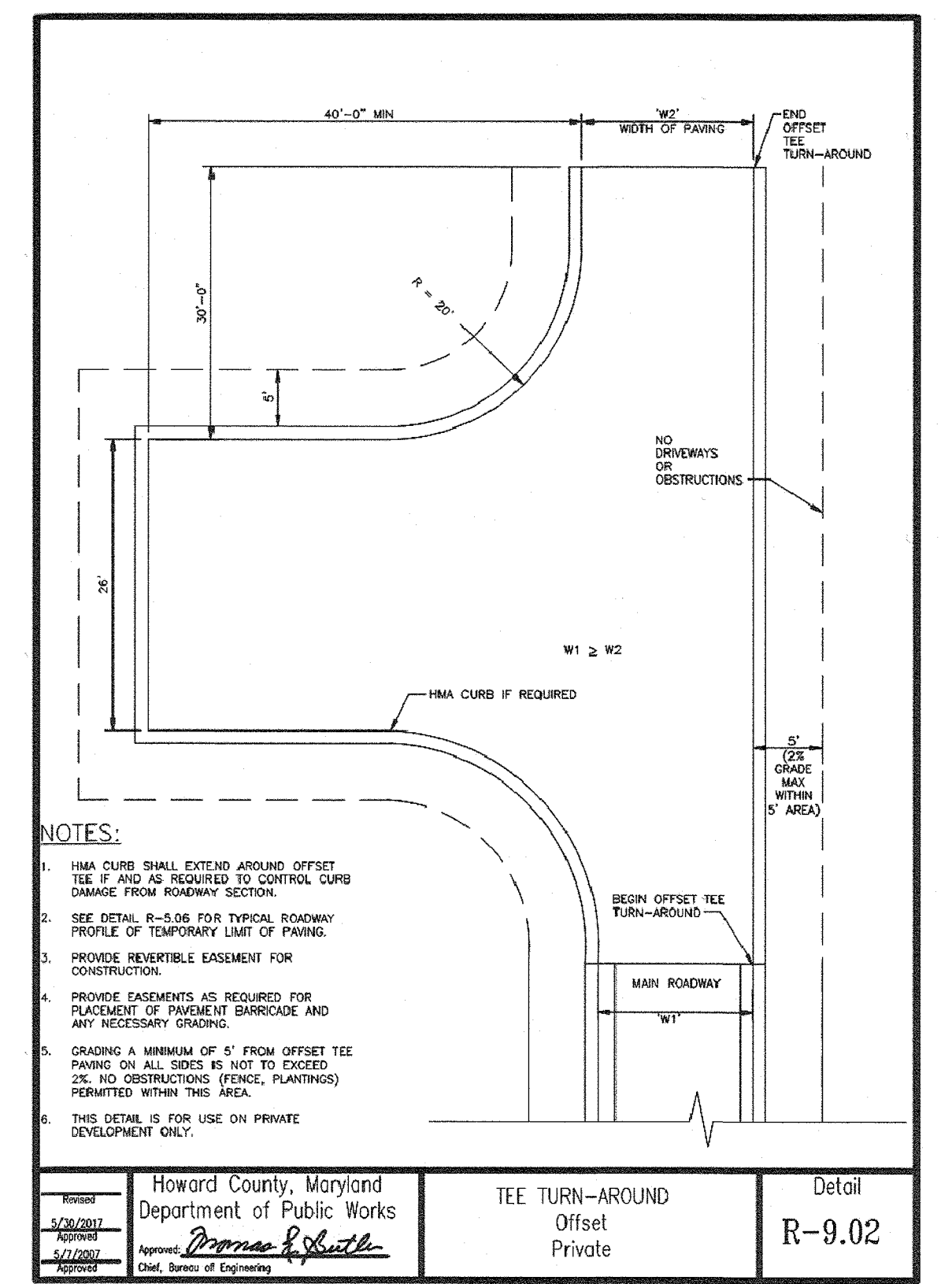
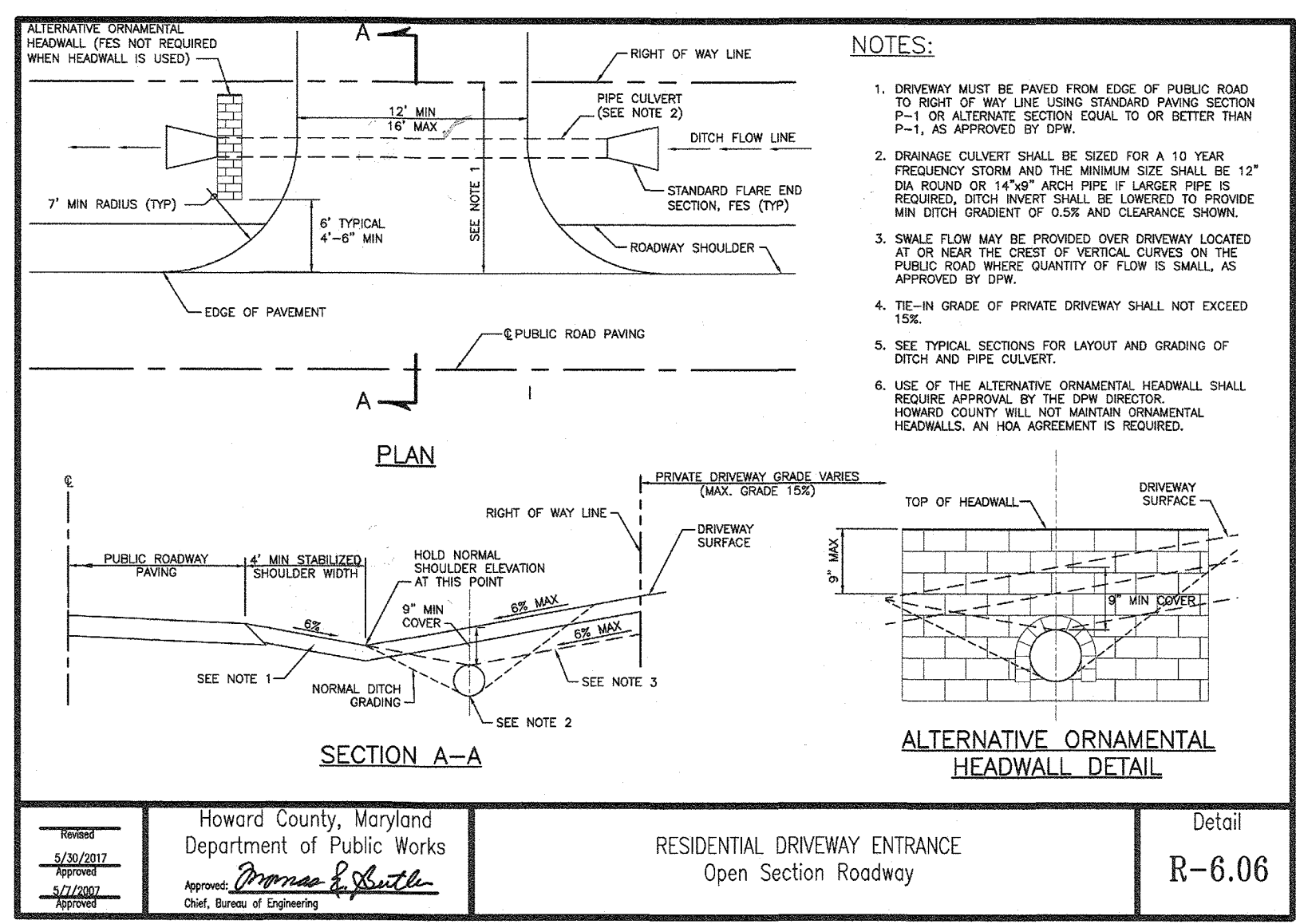
SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	3 TO <5	5 TO <7	7	3 TO <5	5 TO <7	7
P-1	PARKING DRIVE, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 12 HEAVY TRUCKS PER DAY	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-225, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
P-2	LOCAL ROADS, ACCESS STREET, CUL-DE-SAC, RESIDENTIAL	SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5 MM PG 64-225, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
P-3	MINOR COLLECTORS, NON-RESIDENTIAL MAJOR COLLECTORS	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-225, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
P-4	MINOR COLLECTORS, NON-RESIDENTIAL MAJOR COLLECTORS	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-225, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5

**NOTES:**  
1. HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.  
2. SUPERPAVE ASPHALT MIX LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 1.80 M INCHES (4.67 CM) TO 4.50 M INCHES (11.43 CM) FOR SURFACE (1.50 M INCHES (3.81 CM) TO 3.00 M INCHES (7.62 CM) FOR INTERMEDIATE LAYERS.  
3. GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 4" MAX. COMPACTED THICKNESS LAYERS.  
4. THE INTERMEDIATE SURFACE COURSE SHALL BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.  
5. IN LIEU OF PLACING THE INTERMEDIATE SURFACE LAYERS FOR COMMERCIAL/INDUSTRIAL ENTRANCE APPROX WITHIN THE COUNTY RIGHT-OF-WAY WHERE ADJUTARY LANES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE COURSE.  
6. THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

Howard County, Maryland  
Department of Public Works  
Approved: *Prerna S. Gupta*  
Chief, Bureau of Engineering

PAVING SECTIONS  
P-1 to P-4

Detail  
R-2.01



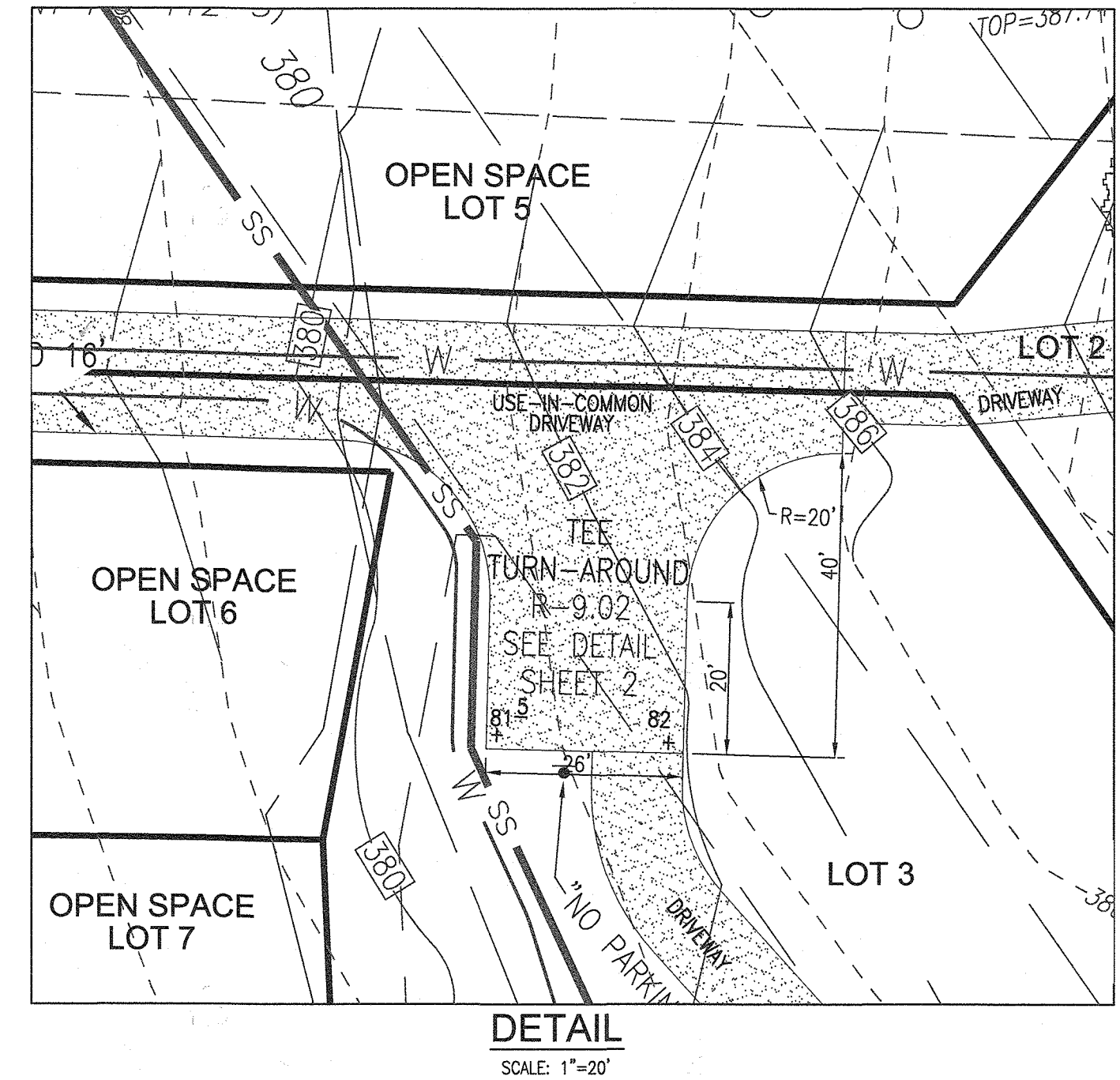
CONSTRUCTION NOTES FOR ADVANCE DEPOSIT ORDER (A.D.O.)  
WORK IN THE PUBLIC WATER & UTILITY EASEMENT

**PART I GENERAL CONSTRUCTION NOTES**

- FOR DETAILS NOT SHOWN ON THE DRAWING, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- THE A.D.O. CONSTRUCTION WORK MUST BE PERFORMED UNDER THE CONTINUOUS INSPECTION OF THE HOWARD COUNTY BUREAU OF UTILITIES. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF UTILITIES (MR. HARRY ZELLMER AT 410-313-4942 OR MR. DON CAMPBELL AT 410-313-1438) AT LEAST FIVE (5) DAYS PRIOR TO THE START OF ANY CONSTRUCTION FOR THIS A.D.O.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITIES AND AGENCIES AND MISS UTILITY AT LEAST TWO (2) WORKING DAYS BEFORE STARTING WORK SHOWN ON THE PLANS.
- EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY BUREAU OF HIGHWAYS, 410-313-7450, AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER OR SEWER MAINS OR SERVICE CONNECTIONS.
- WORK PERFORMED WITHIN MARYLAND STATE HIGHWAY ADMINISTRATION (MSHA) RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE MSHA PERMIT ISSUED FOR THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE MARYLAND STATE HIGHWAY ADMINISTRATION, 410-313-5533, AT LEAST FIVE (5) WORKING DAYS BEFORE EXCAVATING WITHIN THE MARYLAND STATE HIGHWAY RIGHT-OF-WAY FOR LAYING WATER OR SEWER MAINS OR SERVICE CONNECTIONS.
- EXCAVATIONS MUST BE SUPPORTED FOR THE PROTECTION OF WORKERS, THE CONSTRUCTION WORK AREA AND ADJACENT PROPERTY. REFER TO TEMPORARY EXCAVATION SUPPORT SYSTEMS UNDER SECTION 1000.03.03 OF THE STANDARD SPECIFICATIONS.
- EXCAVATIONS MUST BE KEPT WELL DRAINED AT ALL TIMES. DEWATERING, DRAINAGE AND PUMPING IS REQUIRED DURING CONSTRUCTION. REFER TO DEWATERING, DRAINAGE AND PUMPING UNDER SECTION 1000.03.03 OF THE STANDARD SPECIFICATIONS. PUMPS MUST BE THE PROPER TYPE AND CAPACITY TO MAINTAIN A DRY WORK AREA.
- THE USE OF STEEL PLATES TO PROTECT THE TRENCH AND ROADWAY SHALL BE AS SPECIFIED UNDER SECTION 1000.03.05, SECTION 104 AND STANDARD DETAIL PLATE G-4.02 OF THE STANDARD SPECIFICATIONS.
- TEMPORARY AND PERMANENT REPAIR OF ROADWAY OPENINGS SHALL BE AS SPECIFIED UNDER SECTION 1000.03.08 AND STANDARD DETAIL PLATE G-4.01 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE SPECIFIED BY PERMIT FROM THE AUTHORITY HAVING JURISDICTION. TEMPORARY PAVING SHALL CONSIST OF NOT LESS THAN 12 (TWELVE) INCHES OF CRUSHED STONE AND 2 (TWO) INCHES OF BITUMINOUS COLD PATCH MATERIAL.

**PART II WATER CONSTRUCTION NOTES**

- ALL WATER MAINS SHALL BE D.I.P., CLASS 54 MINIMUM, OR AWWA C900/C905 P.V.C. PIPE, CLASS DR18 MINIMUM.
- TOPS OF ALL WATER PIPES SHALL HAVE NOT LESS THAN 40" OF COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE PLANS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTIONS 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF UTILITIES AT LEAST 48 HOURS IN ADVANCE OF SCHEDULED SHUTDOWNS OF THE EXISTING WATER MAIN. SHUTDOWNS OF THE EXISTING WATER MAIN FOR NEW CONNECTIONS AND REMOVAL OF EXISTING SERVICE CONNECTIONS SHALL BE AS SPECIFIED UNDER SECTION 1002.06 - CONNECTIONS OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- WATER SERVICE CONNECTIONS SHALL BE AS SPECIFIED UNDER SECTION 1004-WATER HOUSE SERVICE AND APPURTENANCES OF THE STANDARD SPECIFICATIONS AND STANDARD DETAIL PLATE, THE MINIMUM SIZE OF A SINGLE RESIDENTIAL WHC FOR NEW RESIDENTIAL CONSTRUCTION IS 1-1/2 INCH DIAMETER WITH 1-INCH METER. INSTALLATION OF THE WATER METER IS NOT PART OF THE A.D.O. CONSTRUCTION WORK. WATER SERVICE CONNECTIONS INCLUDE PRESSURE AND LEAK TESTING, DISINFECTION AND BACTERIOLOGICAL TESTING.
- [FOR COMMERCIAL METERS] THE NEW WATER METER ASSEMBLY SHALL BE THE (TYPE) PER HOWARD COUNTY DETAIL PLATE W-3.24. INSTALLATION OF THE WATER METER IS NOT PART OF THE A.D.O. CONSTRUCTION WORK.
- IF THE EXISTING WATER METER WILL BE MOVED TO THE NEW METER CONNECTION INSIDE THE BUILDING, THE CONTRACTOR SHALL CONTACT THE METER DIVISION OF THE BUREAU OF UTILITIES AT 410-313-4948 TO SCHEDULE RELOCATION OF THE METER SETTING.
- THE ABANDONMENT OF EXISTING WATER SERVICE CONNECTIONS SHALL BE AS SPECIFIED UNDER SECTION 1015.03 OF THE STANDARD SPECIFICATIONS. REMOVAL OF THE EXISTING CORPORATION STOP OR TAPPING SADDLE REQUIRES A SCHEDULED SHUTDOWN OF THE WATER MAIN. THE EXISTING CORPORATION STOP SHALL BE REMOVED FROM THE WATER MAIN AND THE PIPE REPAIRED WITH A COUNTY APPROVED STAINLESS STEEL FULL CIRCLE REPAIR CLAMP SUCH AS FORD METER FS2, MUELLER 550 OR ROMAC SS2 SERIES.
- TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL WATER MAINS IN ACCORDANCE WITH DETAIL PLATE G-8.21 OF THE STANDARD SPECIFICATIONS.
- PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS. THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL.
- TEES, CROSSES, BENDS GREATER THAN 5 DEGREES, AND SIMILAR FITTINGS FOR USE WITH C-900 PVC WATER PIPE SHALL BE DUCTILE IRON CONFORMING TO AWWA C153.
- ALL CHANGES IN HORIZONTAL OR VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH HIGH-DEFLECTION COUPLINGS, 5 DEGREE SWEEPS OR STANDARD BENDS. NO BENDING OF PIPE OR DEFLECTION OF PVC PIPE JOINTS IS PERMITTED.
- SEVENTEEN (17) POUND SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND DETAILS. MAGNESIUM ANODES SHALL BE INSTALLED ON ALL IRON VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSES. ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC WATER MAINS.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Ch. P. ...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 9.3.19

*W. J. ...*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 11.8.19

**OWNER**  
JAMES SCHNEIDER  
3071 BETHANY LANE  
ELLCOTT CITY, MD 21042  
(240) 375-1052

**DEVELOPER**  
BURKARD HOMES  
5850 WATERLOO ROAD, #140  
COLUMBIA, MD 21045  
(240) 375-1052

NO. \_\_\_\_\_ REVISION \_\_\_\_\_ DATE \_\_\_\_\_

**FINAL SUPPLEMENTAL PLAN**  
**SITE DETAILS**

**SCHNEIDER SUBDIVISION**  
LOTS 1 - 4, OPEN SPACE LOTS 5 - 7 AND NON-BUILDABLE BULK PARCEL A  
A SUBDIVISION OF TAX MAP 17 - PARCEL 136

TAX MAP: 17 PARCEL 136  
2ND ELECTION DISTRICT

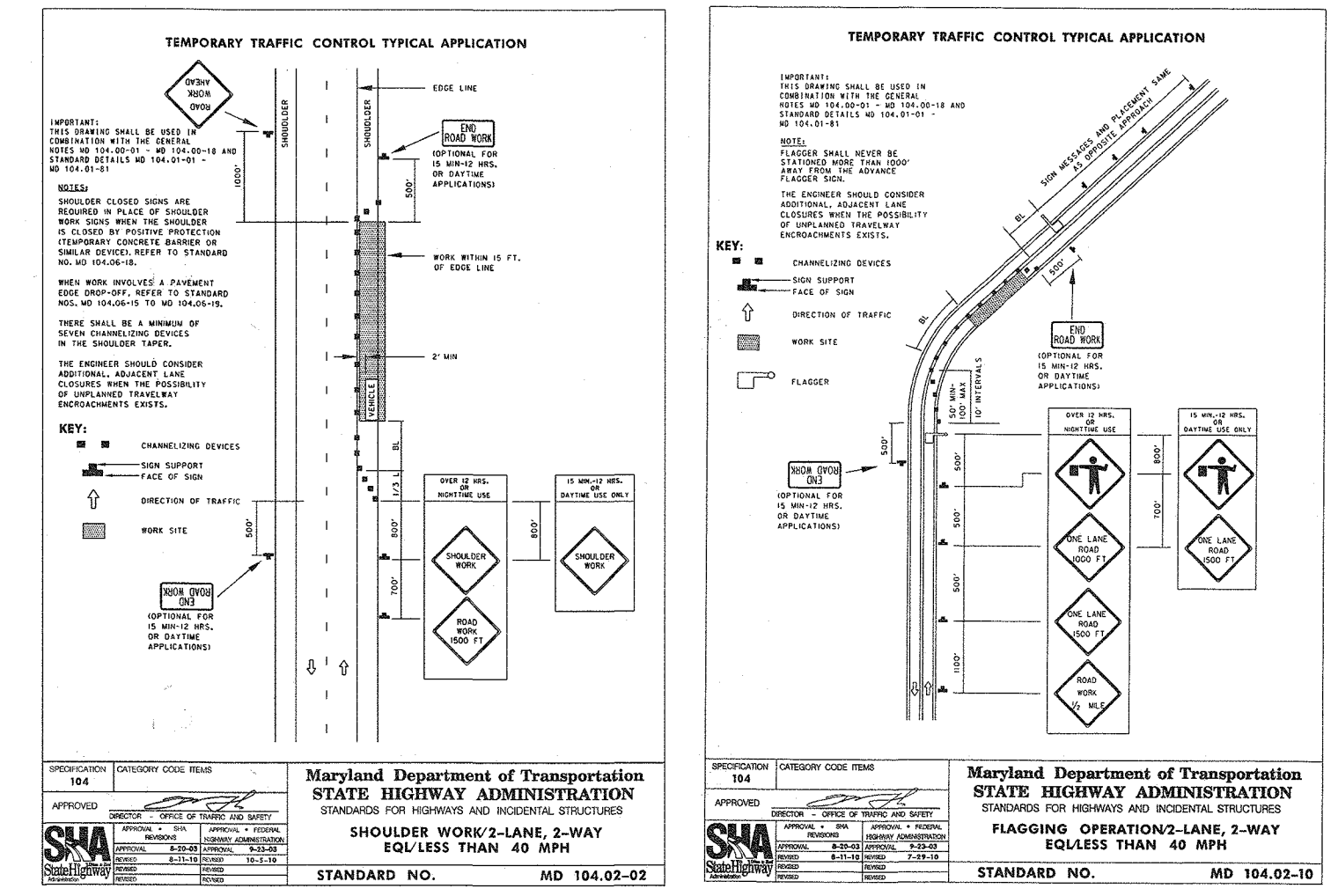
ZONING: R-20  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
3800 N. RIDGE ROAD, SUITE 110  
ELLCOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

**PROFESSIONAL CERTIFICATE**  
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. 16193, EXPIRATION DATE: 09-27-2023.

DESIGN BY: RHV/EDS  
DRAWN BY: MDL/EDS  
CHECKED BY: RHV  
DATE: AUGUST 2019  
SCALE: AS SHOWN  
W.O. NO.: 41899

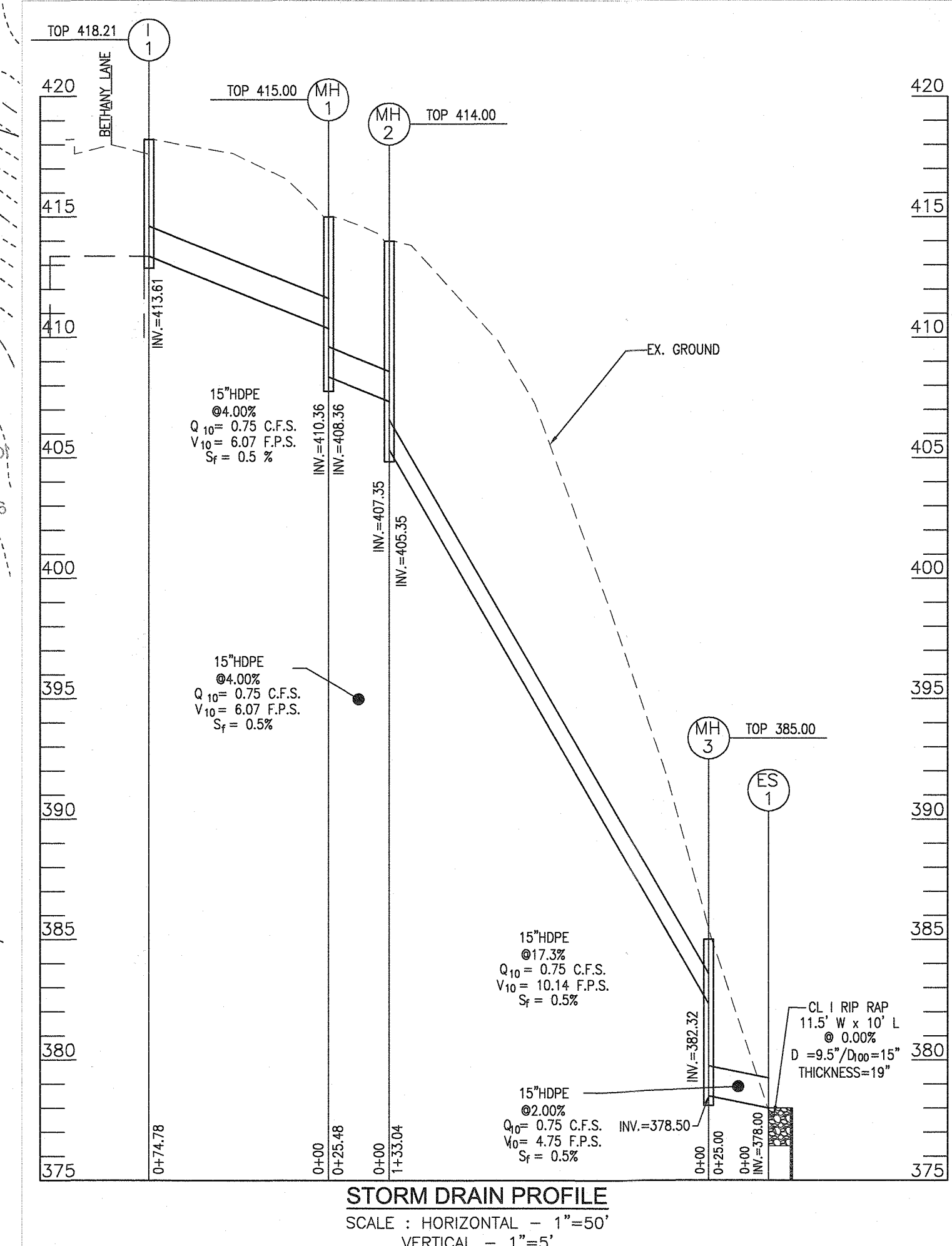
2 SHEET OF 6



**BETHANY LANE**  
TYPICAL WORK ZONE  
TRAFFIC CONTROL DETAILS

ALL WORK WITHIN THE BETHANY LANE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE STANDARD MARYLAND STATE HIGHWAY ADMINISTRATION DETAILS: MD 104.02-02 & MD 104.02-10 OR AS DIRECTED BY THE HOWARD COUNTY - TRAFFIC ENGINEERING DIVISION.

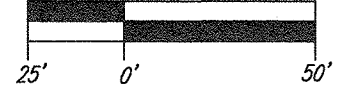




- LEGEND:**
- PROPERTY LINE
  - RIGHT-OF-WAY LINE
  - ADJACENT PROPERTY LINE
  - EXISTING CURB AND GUTTER
  - EXISTING EDGE OF PAVING
  - EXISTING WETLANDS
  - EXISTING WETLAND BUFFER
  - EXISTING STREAM BUFFER
  - EXISTING STREAM
  - EXISTING HOWARD COUNTY FLOODPLAIN
  - EXISTING UTILITY POLE
  - EXISTING LIGHT POLE
  - EXISTING MAILBOX
  - EXISTING SIGN
  - EXISTING SANITARY MANHOLE
  - EXISTING SANITARY LINE
  - EXISTING CLEANOUT
  - EXISTING FIRE HYDRANT
  - EXISTING WATER LINE
  - EXISTING TREELINE
  - EXISTING TREES
  - EXISTING WOOD FENCE
  - EXISTING METAL FENCE
  - PROPOSED 2' CONTOUR
  - PROPOSED 10' CONTOUR
  - PROPOSED WATER HOUSE CONNECTION
  - PROPOSED SEWER HOUSE CONNECTION
  - PROP. PRIVATE USE-IN-COMMON ACCESS EASEMENT
  - PROP. PRIVATE SEWER & UTILITY EASEMENT
  - MICRO-BIORETENTION
  - LIMIT OF DISTURBANCE
  - STABILIZED CONSTRUCTION ENTRANCE
  - SUPER SILT FENCE
  - SLOPES 15% TO 24.9%
  - SLOPES 25% AND GREATER
  - EX. SUPER RIGHT OF WAY CONT. 412-S
  - EX. COLONIAL PIPELINE EASEMENT L1008 F.317
  - VARIABLE WIDTH PUBLIC WATER & UTILITY EASEMENT
  - PRIVATE WATER & UTILITY EASEMENT

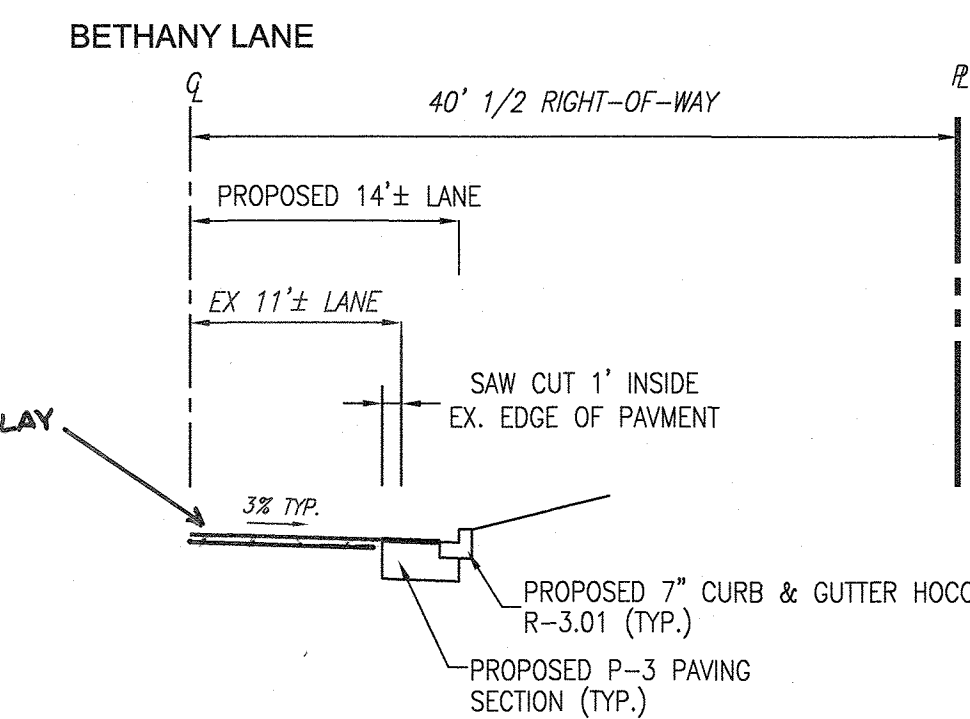
**GRADING, SOIL EROSION & SEDIMENT CONTROL PLAN AND SOILS MAP**

SCALE: 1" = 50'



**NOTE:**  
 - SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.  
 - SUPER SILT FENCE SHALL BE CURLED UPHILL NO MORE THAN 35 FEET APART.  
 - DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

**NOTE:**  
 EITHER PERMANENT OR TEMPORARY STABILIZATION IS TO BE APPLIED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF DAYS/DATES IN THE STANDARD SEDIMENT CONTROL NOTES AND/OR SEEDING SPECIFICATIONS.



**TYPICAL ROAD IMPROVEMENTS ALONG BETHANY LANE**  
 SCALE: 1" = 10'

MAPPED SOILS TYPES - HOWARD COUNTY, MARYLAND (MD027)

SMBL	NAME / DESCRIPTION	GROUP	HYDRC	Kw RANGE	PRIME FARM AND	<1% SLOPE W/ EROSION POTENTIAL
SMB	CLAYE-SHALE-SILT LOAM, 0 TO 8 PERCENT SLOPES	C	YES	10-37.0/32	NO	NO
MBC	MINOR LOAM, 8 TO 15 PERCENT SLOPES	B	NO	0-24	YES*	NO
MdB	MINOR LOAM, 15 TO 25 PERCENT SLOPES	B	NO	0-24	NO	YES

\*FARMLAND OF STATEWIDE IMPORTANCE

**NOTE:**  
 TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY  
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9.13.19  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 11.03.19  
 CHIEF, DIVISION OF LAND DEVELOPMENT

**OWNER**  
 JAMES SCHNEIDER  
 3071 BETHANY LANE  
 ELLICOTT CITY, MD 21042  
 (240) 375-1052

**DEVELOPER**  
 BURKARD HOMES  
 5850 WATERLOO ROAD, #140  
 COLUMBIA, MD 21045  
 (240) 375-1052

NO. \_\_\_\_\_ REVISION \_\_\_\_\_ DATE \_\_\_\_\_

FINAL SUPPLEMENTAL PLAN  
 GRADING, SOIL EROSION & SEDIMENT CONTROL  
 PLAN AND SOILS MAP  
**SCHNEIDER SUBDIVISION**  
 LOTS 1 - 4, OPEN SPACE LOTS 5 - 7 AND NON-BUILDABLE BULK PARCEL A  
 A SUBDIVISION OF TAX MAP 17 - PARCEL 136

TAX MAP: 17 PARCEL 136 ZONING: R-20  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
 ENGINEERS • SURVEYORS • PLANNERS  
 3300 N. RIDGE ROAD, SUITE 110 TEL: 410.461.7666  
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RHV/EDS  
 DRAWN BY: MDL/EDS  
 CHECKED BY: RHV  
 DATE: AUGUST 2019  
 SCALE: AS SHOWN  
 W.O. NO.: 41899

PROFESSIONAL CERTIFICATE  
 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. 16193 EXPIRATION DATE: 07-27-2020

ROBERT H. VOGEL, PE No.16193

3 OF 6

**NOTE:**  
 - HOUSES MAY NOT BE BUILT USING THIS PLAN.  
 - THE HOWARD SCD STANDARD SEDIMENT CONTROL PLAN MAY NOT BE USED TO OBTAIN PERMITS FOR THIS PROJECT.





PERIMETER LANDSCAPE SCHEDULE - REQUIRED PLANTING					
SYM	KEY	QUAN	BOTANICAL NAME	SIZE	CAT
SHADE					
HL	14		GLEDTISIA TRIACANTHOS INERMIS 'IMPERIAL' / IMPERIAL THORNLESS HONEY LOCUST	2 1/2"-3" CAL.	B & B
SO	14		QUERCUS COCCINEA / SCARLET OAK	2 1/2"-3" CAL.	B & B

TRASH PAD LANDSCAPING				
SYMBOL	QTY.	DESCRIPTION	SIZE	REMARKS
(Symbol)	5	TAXUS CUSPIDATA 'NANA' DWARF JAPANESE YEW	18"-24" SPREAD	B & B

**LANDSCAPE SCHEDULE NOTE:**  
 ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT AM SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH H&D PLANTING SPECIFICATIONS.  
 CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. FINAL LOCATION OF PLANT MATERIAL MAY NEED TO VARY TO MEET FINAL FIELD CONDITIONS. TREES SHALL NOT BE PLANTED IN THE BOTTOM OF DRAINAGE SWALES.  
 CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

**LANDSCAPE NOTES**  
 1. AT THE TIME OF PLANT INSTALLATION, ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.  
 2. THE OWNER, TENANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.  
 3. SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPING CREDIT IS GIVEN, DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPECIES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD, AND GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM OF 3 INCHES IN CALIPER AND INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.  
 4. PLANTINGS SHOWN HEREON ARE THE RESPONSIBILITY OF THE DEVELOPER TO INSTALL DURING THE CONSTRUCTION OF THE SITE DEVELOPMENT PLAN.

CATEGORY	PERIMETER LANDSCAPE EDGE				TOTAL	
	ADJACENT TO ROADS	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO PERIMETER PROPERTIES		
PERIMETER/FRONTAGE DESIGNATION	NONE	2	3	4		
LANDSCAPE TYPE		A	A	A		
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	255'	790'	338'	810'		
CREDIT FOR EXISTING VEGETATION (YES, NO LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	YES	294 LF	
CREDIT FOR WALL, FENCE OR BERM (YES, NO LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO		
NUMBER OF PLANTS REQUIRED						
SHADE TREES	1:60	13	1:60	6	1:60	9
EVERGREEN TREES	-	-	-	-	-	-
SHRUBS	-	-	-	-	-	-
NUMBER OF PLANTS PROVIDED						
SHADE TREES	-	13	6	9	28	
EVERGREEN TREES	-	-	-	-	-	-
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-	-	-
SHRUBS (10:1 SUBSTITUTION)	-	-	-	-	-	-
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED						

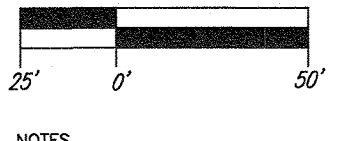
**GENERAL NOTE:**  
 1. LANDSCAPING FOR LOTS 1-4 IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. A FINANCIAL SURETY IN THE AMOUNT OF \$ 8,550.00 FOR THE REQUIRED 28 SHADE TREES AND 5 SHRUBS (TRASH PAD) SHALL BE POSTED WITH THE DEVELOPER AGREEMENT.

**LEGEND:**

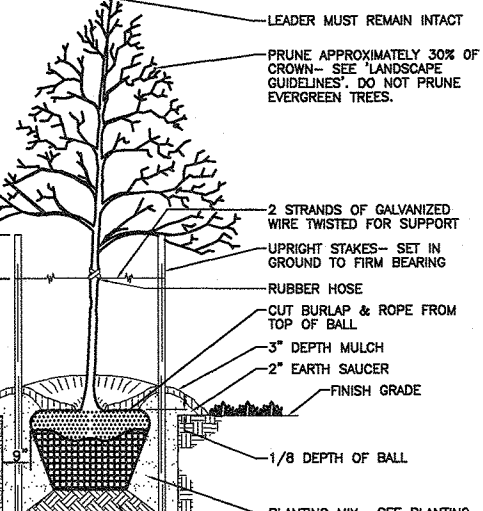
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING CURB AND GUTTER
- EXISTING EDGE OF PAVING
- EXISTING WETLANDS
- EXISTING WETLAND BUFFER
- EXISTING STREAM BUFFER
- EXISTING STREAM
- EXISTING HOWARD COUNTY FLOODPLAIN
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEAFOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING TREE LINE
- EXISTING TREES
- EXISTING WOOD FENCE
- EXISTING METAL FENCE
- PROPOSED 2' CONTOUR
- PROPOSED 10' CONTOUR
- PROPOSED WATER HOUSE CONNECTION
- PROPOSED SEWER HOUSE CONNECTION
- PRIVATE USE-IN-COMMON ACCESS EASEMENT
- PRIVATE SEWER & UTILITY EASEMENT
- MICRO-BIOTRETATION
- VARIABLE WIDTH PUBLIC WATER & UTILITY EASEMENT
- PRIVATE WATER & UTILITY EASEMENT
- EX. SEWER RIGHT OF WAY
- EX. COLONIAL PIPELINE EASEMENT L1008 F.317

**LANDSCAPE PLAN**

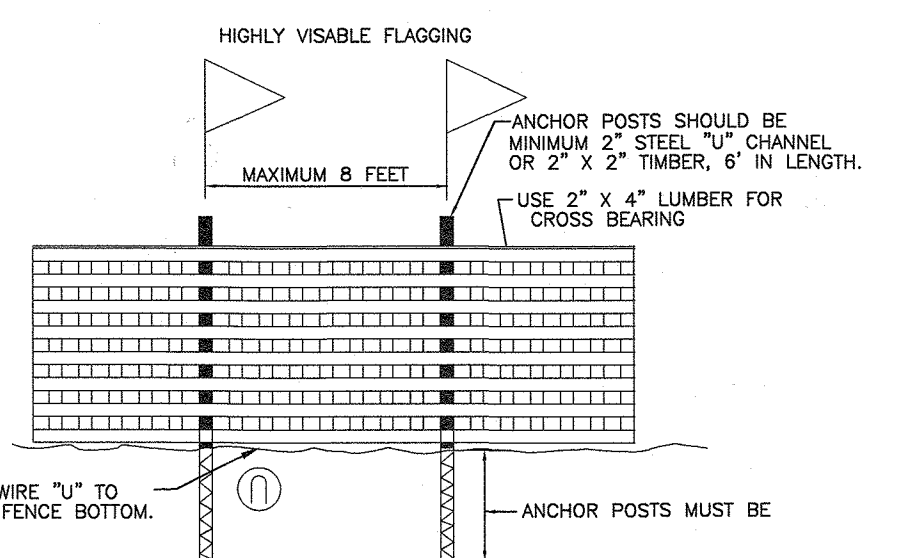
SCALE: 1" = 50'



- NOTES:**
- SEE "LANDSCAPE SPECIFICATION" FOR PLANTING AND MAINTENANCE REQUIREMENTS.
  - SEE "LANDSCAPE SCHEDULE" FOR PLANTING QUANTITIES.
  - PLACE UTILITY MARKERS PARALLEL TO WALKS & BUILDINGS.
  - KEEP MAINT 1" FROM TRUNK.
  - PLACE ARCHITECTURAL PLANS FOR ADDITIONAL PLANTING. MINIMUM REQUIREMENTS: 1" MINIMUM PROTECTION.
  - TREES ARE NOT TO BE PLANTED OVER PRIVATE SEWER EASEMENT.



**TREE PLANTING AND STAKING**  
 DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE



**BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL**

DPZ'S POLICIES GOVERNING THE PLACEMENT OF LANDSCAPING AND STREET TREES IN PROXIMITY TO BGE'S POWER LINES OR TRANSMISSION RIGHT-OF-WAY ARE BASED ON BGE'S PUBLISHED "PLANTING ZONE CONCEPT" WHICH STIPULATES THE MAXIMUM ALLOWABLE SIZE OF PLANT MATERIALS FOR THREE DEFINED ZONES. AS THE DISTANCE FROM BGE EQUIPMENT INCREASES, SO DOES THE SIZE OF THE ALLOWABLE PLANT MATERIALS. THESE THREE ZONES ARE DEFINED AS FOLLOWS:

DISTANCE FROM THE BGE POWER LINE OR TRANSMISSION RIGHT-OF-WAY	MAXIMUM HEIGHT OF VEGETATION
UP TO 20 FEET	25 FEET
BETWEEN 20 FEET AND 45 FEET	40 FEET
BEYOND 45 FEET	ABOVE 40 FEET

**B & E NOTES:**  
 1. BGE RESERVES THE RIGHT TO TRIM, TOP OR CUT DOWN ANY TREE IN PROXIMITY TO THE LINE THAT IS THE SPHERE OF BGE SHALL BE DEEMED A HAZARD TO THE SAFE AND RELIABLE DELIVERY OF ELECTRICITY.  
 2. THE DEPARTMENT OF PLANNING AND ZONING MAY AUTHORIZE THE TRIMMING OR REMOVAL OF TREES OR VEGETATION IMMEDIATELY ADJACENT TO THE BGE W/Y OR PARALLEL IF BGE DETERMINES THE TREES ARE COMPROMISING THE SAFETY OF A TRANSMISSION LINE LOCATED WITHIN THEIR UTILITY W/Y OR EASEMENT. IF BGE WANTS TO TRIM OR REMOVE TREES WITHIN A FOREST CONSERVATION EASEMENT, A LETTER SPECIFYING THE LOCATION AND SCOPE OF WORK NEEDS TO BE SENT TO DPZ AT LEAST 30 DAYS IN ADVANCE OF UNDERTAKING THE WORK. DPZ UNDERSTANDING CONSULTATION ENGINEER'S NEED TO PROTECT ITS TRANSMISSION LINES AND WILL NOT UNREASONABLE WITHHOLD PERMISSION.  
 3. CALL WIS UTILITY TO MARK UP THE LOCATION OF EXISTING GAS LINE BEFORE PLANTING STREET TREES ALONG HANOVER ROAD & PLANT STREET TREES 10' AWAY FROM EXISTING GASLINE AS REQUIRED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 9-13-19

**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN HAS BEEN DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

*[Signature]*  
 SIGNATURE OF DEVELOPER  
 DATE: 8/27/19

**OWNER**  
 JAMES SCHNEIDER  
 3071 BETHANY LANE  
 ELLICOTT CITY, MD 21042  
 (240) 375-1052

**DEVELOPER**  
 BURKARD HOMES  
 5850 WATERLOO ROAD, #140  
 COLUMBIA, MD 21045  
 (240) 375-1052

**FINAL SUPPLEMENTAL PLAN  
 LANDSCAPE PLAN**

**SCHNEIDER SUBDIVISION**  
 LOTS 1 - 4, OPEN SPACE LOTS 5 - 7 AND NON-BUILDABLE BULK PARCEL A  
 A SUBDIVISION OF TAX MAP 17 - PARCEL 136

TAX MAP: 17 PARCEL 136  
 2ND ELECTION DISTRICT

ZONING: R-20  
 HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERS - SURVEYORS - PLANNERS**  
 3300 N. RIDGE ROAD, SUITE 110  
 ELLICOTT CITY, MD 21043  
 TEL: 410.461.7666  
 FAX: 410.461.8961

**PROFESSIONAL CERTIFICATE**

DESIGN BY: RHV/EDS.  
 DRAWN BY: MDL/EDS.  
 CHECKED BY: RHV.  
 DATE: AUGUST 2019  
 SCALE: AS SHOWN  
 W.O. NO.: 41899

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. 16193 EXPIRATION DATE: 09-27-2020

ROBERT H. VOGEL, PE No.16193

4 SHEET OF 6



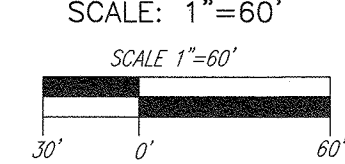






**VICINITY MAP**  
SCALE: 1"=1,000'  
ADC MAP COORDINATE: PAGE: 20, B-6

**FOREST CONSERVATION PLAN**  
SCALE: 1"=60'



SPECIMEN TREE CHART				
TREE	SPECIES	SIZE (IN. DBH)	CRZ (FT. RADIUS)	COMMENTS
ST-1	ORNAMENTAL CYPRESS	36	54	GOOD CONDITION - TO REMAIN
ST-2	BLACK WALNUT	55.5	83.25	GOOD CONDITION - TO REMAIN
ST-3	BLACK WALNUT	36.5	54.75	GOOD CONDITION - TO REMAIN
ST-4	BLACK CHERRY	40	60	FAIR CONDITION, LIMITED CROWN - TO REMAIN
ST-5	WILLOW OAK	37	55.5	POOR CONDITION, SPLIT TRUNK - TO REMAIN
ST-6	WHITE OAK	37	55.5	GOOD CONDITION - TO REMAIN
ST-7	WHITE OAK	37	55.5	FAIR CONDITION, WRAPPED IN WIRE - TO REMAIN

- FOREST CONSERVATION EASEMENT AFFORESTATION
- EXISTING FOREST CONSERVATION EASEMENT

**HOWARD COUNTY  
FOREST CONSERVATION WORKSHEET**

ZONED R-20  
NET TRACT AREA:  
A. TOTAL TRACT AREA 5.5 AC.  
B. AREA WITHIN 100 YEAR FLOODPLAIN 0.4 AC.  
C. AREA TO REMAIN IN AG. PRODUCTION 0.0 AC.  
D. NET TRACT AREA 5.1 AC.

LAND USE CATEGORY  
INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY. ZONED R-ED-MXD-3

ARA	MDR	IDA	HDR	MPD	CIA
0	0	0	1	0	0

E. AFFOREST THRESHOLD 15% X 5.1 = 0.8 AC  
F. CONSERVATION THRESHOLD 20% X 5.1 = 1.0 AC

EXISTING FOREST COVER:  
G. EXISTING FOREST COVER = 0.0 AC  
H. AREA OF FOREST ABOVE CONSERVATION THRESHOLD = 0.0 AC  
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD = 0.0 AC

BREAK EVEN POINT:  
(2 X 1) + F = BREAK EVEN POINT (0 AC)

J. BREAK EVEN POINT / FOREST RET. ABOVE THRESHOLD W/ NO MIT. = 0.0 AC  
K. FOREST CLEARING PERMITTED WITHOUT MITIGATION = 0.0 AC

PROPOSED FOREST CLEARING:  
L. TOTAL AREA OF FOREST TO BE CLEARED = 0.0 AC  
M. TOTAL AREA OF FOREST TO BE RETAINED = 0.0 AC

PLANTING REQUIREMENTS:  
N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD (L X 25) = 0.0 AC  
P. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD = 0.0 AC  
Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD (M-F) = 0.0 AC  
R. TOTAL REFORESTATION REQUIRED (N+P-Q) = 0.0 AC  
S. TOTAL AFFORESTATION REQUIRED = 0.0 AC  
T. TOTAL PLANTING REQUIREMENT (REFORESTATION AND AFFORESTATION) = 0.8 AC

**GENERAL NOTES**

WATERSHED NAME: LITTLE PATUXENT RIVER 02-13-11

A. GROSS SITE AREA: 5.51 AC.  
B. NET SITE AREA: 4.79 AC.  
C. AREA OF 100-YEAR FLOODPLAIN: 0.42 AC.  
D. AREA OF WETLANDS AND BUFFERS: 1.35 AC.  
E. AREA OF > 25% STEEP SLOPES: 0.30 AC.  
F. EXISTING FOREST WITHIN NET AREA: 0.00 AC.  
G. ZONED: R-20  
H. EXISTING USE: RESIDENTIAL  
I. PROPOSED USE: RESIDENTIAL

**OWNER**  
JAMES SCHNEIDER  
3071 BETHANY LANE  
ELLCOTT CITY, MD 21042  
(240) 375-1052

**DEVELOPER**  
BURKARD HOMES  
5850 WATERLOO ROAD, #140  
COLUMBIA, MD 21045  
(240) 375-1052

NO.	REVISION	DATE

FINAL SUPPLEMENTAL PLAN  
FOREST CONSERVATION PLAN  
**SCHNEIDER SUBDIVISION**  
LOTS 1 - 4, OPEN SPACE LOTS 5 - 7 AND NON-BUILDABLE BULK PARCEL A  
A SUBDIVISION OF TAX MAP 17 - PARCEL 136

TAX MAP: 17 PARCEL 136  
2ND ELECTION DISTRICT

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
3300 N. RIDGE ROAD, SUITE 110  
ELLCOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV/EDS  
DRAWN BY: MDL/EDS  
CHECKED BY: RHV  
DATE: AUGUST 2019  
SCALE: AS SHOWN  
W.O. NO.: 41899

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. 16193 EXPIRATION DATE: 09-27-2020

6 SHEET OF 6

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 8-13-19  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 11-03-19  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**Eco-Science Professionals, Inc.**  
Consulting Ecologists  
E.O. Box 5986 Glen Arm, Maryland 21037 Telephone (410) 832-2483 Fax (410) 832-2488

MD DNR Qualified Professional  
USACOR Wetland Delineator  
Certification # WDCP93MD06100402

*[Signature]*  
John P. Canoles

- NO RARE, THREATENED OR ENDANGERED SPECIES OR THEIR APPROPRIATE HABITATS WERE OBSERVED ON THE PROPERTY DURING FIELD REVIEW BY ECO-SCIENCE PROFESSIONALS, INC.
- SURROUNDING LAND USE IS HIGH DENSITY RESIDENTIAL DEVELOPMENT.
- THROUGH THE REAR OF THE PROPERTY IS SURROUNDED BY AN OAK/POPLAR FOREST, NO FOREST RESOURCES ARE PRESENT ON THE SITE. TREE AND SHRUB ENCRoACHMENT ALONG THE PERIMETER OF THE SITE IS NOT SUFFICIENT TO BE CONSIDERED FOREST ON THE PROPERTY.
- THE WETLANDS AND STREAMS ON THE SUBJECT PROPERTY ARE PART OF THE USE IV WATERSHED OF THE LITTLE PATUXENT RIVER (02-13-11). THE WETLANDS WILL REQUIRE 25' BUFFERS, THE STREAM WILL REQUIRE 100 FOOT BUFFERS.
- THERE ARE NO KNOWN HISTORIC STRUCTURES OR CEMETERIES ON THE PROPERTY.
- THE SITE CONTAINS 0.42 ACRES OF 100 YEAR FLOODPLAIN.
- THERE ARE 7 SPECIMEN TREES ON THE PROPERTY. THERE ARE NO KNOWN TREES THAT ARE STATE CHAMPION TREES AND/OR TREES 75% OF THE SIZE OF THE STATE CHAMPION TREE ON THE PROPERTY.
- NETLAND AND STREAM LIMITS WERE FIELD DELINEATED IN JULY 2018.

FOREST STAND DELINEATION PLAN PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, ON SEPTEMBER 2018. MR. CANOLES NOTED 7 SPECIMEN TREES ON THE PROJECT SITE. THERE ARE ZERO SPECIMEN TREE TO BE REMOVED WITH THIS PLAN PROPOSAL.

THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND SECTION 16.1200 OF THE HOWARD COUNTY FOREST CONSERVATION MANUAL.

FOREST CONSERVATION OBLIGATION TO BE FULFILLED BY THE 0.8 AC. OF AFFORESTATION PLANTING. FINANCIAL SURETY FOR THE REQUIRED AFFORESTATION = \$14,424 (0.8 AC @ \$3,604 SF @ \$0.50/SF) SHALL BE PROVIDED AS PART OF THE DPW DEVELOPER AGREEMENT WITH THIS PLAN.