741 KLEES MILL RD WESTMINSTER, MD 21157

- TAX MAP: 73; PARCEL: 247 4. PROPERTY BOUNDARY AND EXISTING TOPOGRAPHY SHOWN PER FIELD SURVEY BY SAMS COMPANIES (FORMERLY MTPLS, INC.) DATED 11/2021.
- 5. LOCATION OF NEAREST WATER SUPPLY AVAILABLE FOR FIRE PROTECTION ARE EXISTING HYDRANTS LOCATED ON BENNETT ROAD, PROGRESS WAY, LONDONTOWN BLVD AND GEORGETOWN BLVD. ADDITIONAL HYDRANTS ARE PROPOSED ON SITE AS PART OF THIS SITE DEVELOPMENT PLAN TO ADDRESS FIRE PROTECTION REQUIREMENTS.
- 6. THE LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY AND WERE BASED ON ARCHIVAL DRAWINGS PROVIDED BY CARROLL COUNTY AND/OR THE STATE OF MARYLAND. CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION, AND DEPTH OF ANY EXISTING UTILITIES TO THEIR OWN SATISFACTION AND SHALL NOTIFY THE ENGINEER (CENTURY/KLEINFELDER) OF RECORD OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK. THE ENGINEER ASSUMES NO RESPONSIBILITY OR LIABILITY RESULTING FROM ANY
- 7. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 THREE (3) WORKING DAYS PRIOR TO BEGINNING ANY WORK IN THE VICINITY OF EXISTING UTILITIES, AND NOT COMMENCE WORK UNTIL ALL UTILITIES HAVE BEEN CLEARLY MARKED.
- 8. THE CONTRACTOR SHALL NOTE THAT IN CASE OF A DISCREPANCY BETWEEN THE SCALED AND FIGURED
- DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN. 9. ANY CHANGES TO THIS PLAN WILL REQUIRE AN AMENDED SITE DEVELOPMENT PLAN TO BE APPROVED BY THE CARROLL COUNTY PLANNING AND ZONING COMMISSION.
- 10. THIS SITE PLAN SHALL BECOME VOID EIGHTEEN MONTHS AFTER THE DATE OF APPROVAL IF NO BUILDING PERMIT OR ZONING CERTIFICATE HAS BEEN ISSUED FOR THIS PROJECT, UNLESS AN EXTENSION OF TIME LIMIT IS ISSUED BY THE DIRECTOR OF LAND AND RESOURCE MANAGEMENT.
- 11. NOTE: ALL PROPOSED SPOT ELEVATIONS ARE LOCATED AT BOTTOM OF CURB AND ALL DIMENSIONS ARE TO FACE OF CURB UNLESS LABELED OTHERWISE.
- 12. THE COORDINATES SHOWN HEREON ARE REFERRED TO THE SYSTEM OF COORDINATES ESTABLISHED IN THE MARYLAND COORDINATE SYSTEM - NAD 83 (2011) AND ARE BASED UPON THE FOLLOWING CONTROL STATIONS:

NORTH (SFT)	EAST (SFT)	ELEV
633722.46	1326946.06	615.1
633573.26	1328331.51	583.4
	633722.46	633722.46 1326946.06

- 13. THERE IS AN EXISTING REGULATED FLOODPLAIN AS WELL AS WETLANDS. STREAMS AND ASSOCIATED BUFFERS
- 14. THE SITE IS APPROXIMATELY 10,000' FROM THE NEAREST PRODUCTION WELL
- 15. NO CONSTRUCTION VEHICLES, CONTRACTOR OR PRIVATE, OR CONSTRUCTION MATERIALS OR
- EQUIPMENT MAY BE PARKED, PLACED OR STORED WITHIN ANY PUBLIC RIGHT OF WAY.
- 16. UNDERGROUND TANK NOTE: IF ANY UNDERGROUND TANKS ARE ENCOUNTERED ON SITE DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, CARROLL COUNTY BUREAU OF RESOURCE MANAGEMENT, OWNER, AND ENGINEER. THE CONTRACTOR SHALL REMOVE THE TANKS IN ACCORDANCE WITH MDE PROCEDURES ONCE APPROVAL HAS BEEN GRANTED.
- 17. ENTRANCE CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CARROLL COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION. CONTRACTOR IS RESPONSIBLE TO NOTIFY THAT OFFICE AT 410-386-2157 A MINIMUM OF THREE WORKING DAYS PRIOR TO BEGINNING WORK IN OR ALONG ANY PUBLIC ROAD.
- 18. CONTRACTOR SHALL NOTIFY CARROLL COUNTY BUREAU OF UTILITIES AT 410-386-2164 AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK ON PUBLIC WATER OR SEWER WITHIN COUNTY RIGHT-OF-WAY OR EASEMENTS
- 19. THE SITE IS LOCATED WITHIN A SURFACE WATER PROTECTION AND MANAGEMENT AREA. IF THE PROPOSED USE OF ANY BUILDING IS TO INCLUDE THE STORAGE OR USE OF REGULATED SUBSTANCES, THE REQUIREMENTS OF CHAPTER 154, WATER RESOURCE MANAGEMENT OF THE CARROLL COUNTY CODE OF PUBLIC LOCAL LAWS AND ORDINANCES MUST BE ADDRESSED.
- 20. BENNETT ROAD IMPROVEMENTS OVERLAP ON ELDERSBURG PRESERVE (P-23-0055) AND ELDERSBURG OVERLOOK (S-23-0027). WHICHEVER PROJECT COMES FIRST SHALL CONSTRUCT SAID BENNETT ROAD IMPROVEMENTS FULLY. A PUBLIC WORKS AGREEMENT WILL BE REQUIRED FOR THE CONSTRUCTION.
- 21. A GRADING PERMIT WILL BE REQUIRED FOR ALL DISTURBANCE GREATER THEN 5,000 SQ FT.
- 22. A NOI PERMIT THROUGH MDE WILL BE REQUIRED FOR ANY DISTURBANCE 1 ACRE OR GREATER.
- 23. NOTE: THE PROPOSED SANITARY SEWER SHOWN ON THESE PLANS OVERLAPS WITH SAME ON ELDERSBURG OVERLOOK (S-23-0027). WHICHEVER PROJECT PROCEEDS TO CONSTRUCTION FIRST SHALL CONSTRUCT THIS SANITARY SEWER. IN THE CASE OF ELDERSBURG PRESERVE FROM SMH-14 TO THE EXISTING SMH ON ELDERSBURG OVERLOOK. IN THE CASE OF ELDERSBURG OVERLOOK FROM SMH-9 TO THE EXISTING SMH.

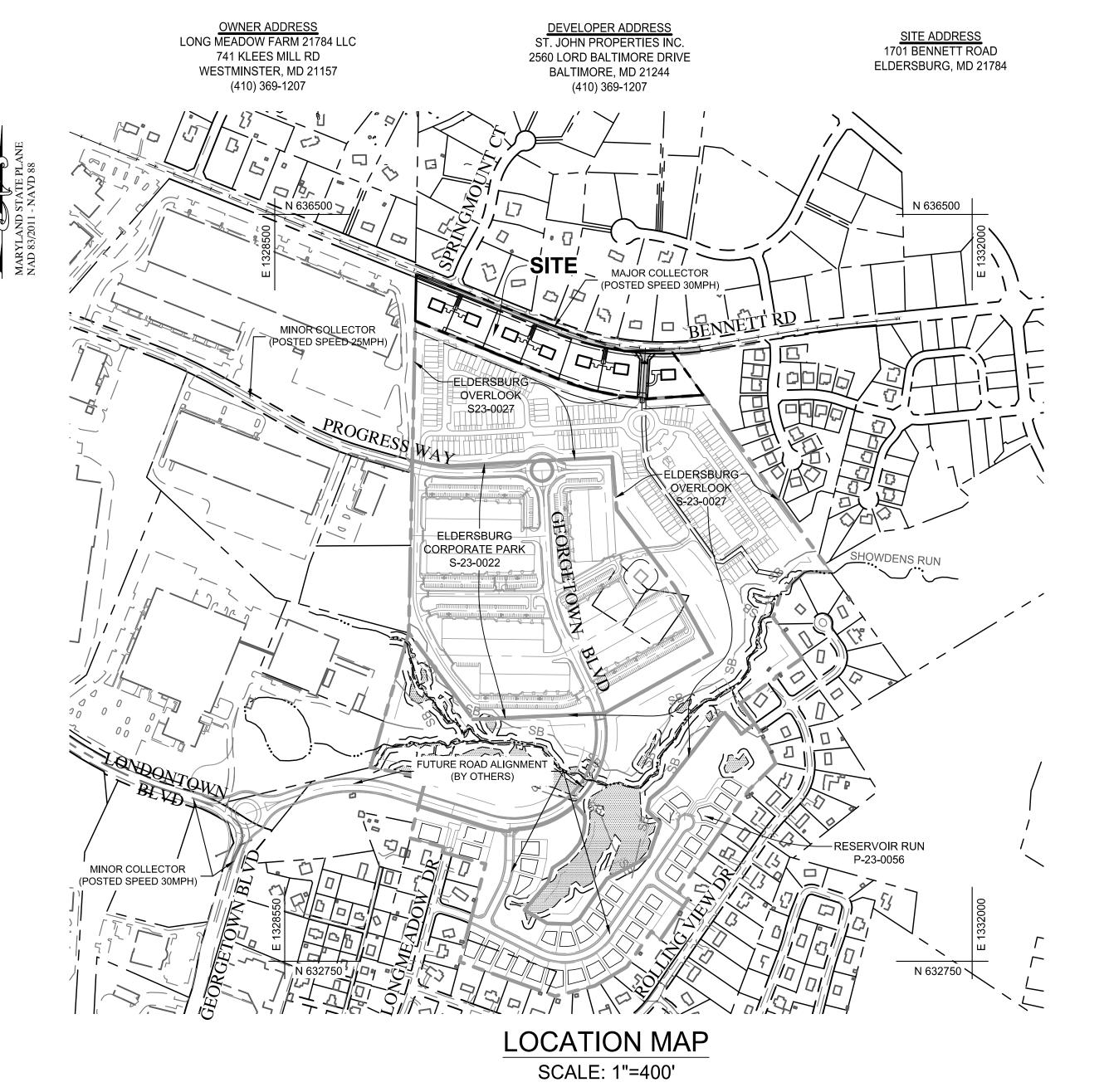
GLENELG LOAM GdB -GLENVILLE SILT LOAM MANOR LOAM MaC -MANOR LOAM

SOILS FROM CUSTOM SOIL REPORT FROM NRCS WEB SOIL MAPPING SERVICE DOWNLOADED AUGUST, 2022.

SOIL CLASSIFICATION MAP No 48 & 49

CONCEPT MAJOR SUBDIVISION PLANS FOR R-40,000 RESIDENTIAL ELDERSBURG PRESERVE

TAX MAP# 73, GRID# 6, PARCEL# 247 **ELECTION DISTRICT: 5** CARROLL COUNTY, MARYLAND



TRIP GENERATION:

7 SINGLE FAMILY UNIT

5 AM PEAK HOUR TRIPS

ITE TRIP GENERATION MANUAL (11TH EDITION) METHODOLOGY USED:

DATA TABULATION

1.	ZONING DISTRICT:	R-40,000
2.	NUMBER OF BUILDABLE LOTS:	7
3.	TOTAL AREA OF BUILDABLE LOTS:	6.70 AC.
4.	TOTAL AREA OF PROPOSED ROADS (PRIVATE):	0.28 AC.
5.	TOTAL AREA OF PARCELS:	0.70 AC.
	PARCEL A (BENNETT ROAD R/W):	0.70 AC.
7.	AREA OF SUBDIVISION:	7.68 AC.

LIST OF DRAWINGS

- 1 TITLE SHEET 2 - LEGEND & ABBREVIATIONS
- 3 EXISTING CONDITIONS PLAN
- 4 EXISTING CONDITIONS PLAN - SITE GRADING & UTILITY PLAN
- ENTRANCE PLAN 8 - ENTRANCE SIGHT DISTANCE PROFILE

- SITE GRADING & UTILITY PLAN

- 9 SIGHT DISTANCE PROFILE LOTS 1 & 2 10 - SIGHT DISTANCE PROFILE LOTS 3 & 4
- 11 SIGHT DISTANCE PROFILE LOTS 5 & 6
- 12 SITE DETAILS AND SECTIONS 13 - EROSION AND SEDIMENT CONTROL PLAN
- 14 EROSION AND SEDIMENT CONTROL PLAN 15 - EROSION AND SEDIMENT CONTROL DETAILS AND SPECIFICATIONS
- 16 EROSION AND SEDIMENT CONTROL DETAILS AND SPECIFICATIONS
- 17 EROSION AND SEDIMENT CONTROL DETAILS AND SPECIFICATIONS 18 - LANDSCAPE PLAN
- 19 LANDSCAPE DETAILS AND SPECIFICATIONS

WATER RESOURCE MANAGEMENT NOTES

THIS PROPERTY DOES NOT FALL WITHIN A TIER II WATERSHED. THE PROPERTY IS WITHIN A CLASS III WATERSHED, SURFACE WATER PROTECTION WATERSHED AND SURFACE WATER MANAGEMENT AREA.

STORMWATER MANAGEMENT NOTE

STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH THE CARROLL COUNTY POLICY FOR STORMWATER MANAGEMENT, AS SPECIFIED IN CHAPTER 151.015 THE CARROLL COUNTY CODE. THE STORMWATER FROM THIS SITE DRAINS INTO SNOWDENS RUN, A USE III STREAM. ACCORDINGLY, THE 100-YEAR STORM WILL BE MANAGED THROUGH A COMBINATION OF GRASS SWALES, SUBMERGED GRAVEL WETLANDS, MICRO-BIORETENTION FACILITIES AND QUANTITY PONDS. STORMWATER MANAGEMENT IS BEING PROVIDED BY ELDERSBURG OVERLOOK STORMWATER MANAGEMENT PLAN AND REPORT UNDER THE

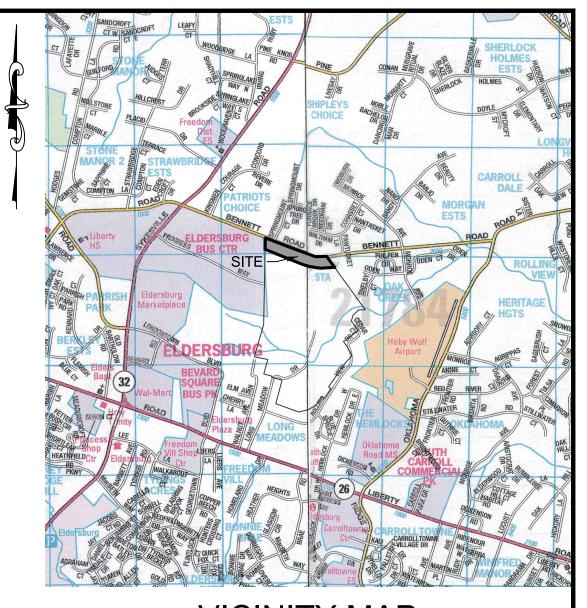
OWNER

LONG MEADOW FARM 21784 LLC ST. JOHN PROPERTIES, INC. 741 KLEES MILL RD WESTMINSTER. MD 21157 PHONE NO: 410-369-1207

2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 CONTACT: MATT TAYLOR

DEVELOPER

PHONE NO: 410-369-1207



VICINITY MAP

SCALE: 1"=2000'

SITE COMPLIANCE CHECKLIST

- 1. CONTRACTOR SHALL NOTIFY THE CARROLL COUNTY BUREAU OF PERMITS AND INSPECTIONS AT 410-386-2674, AT LEAST ONE (1) DAY PRIOR TO BEGINNING ANY
- DURING CONSTRUCTION
 - PROPOSED STRUCTURES STAKED OUT IN PROPER LOCATIONS AS SHOWN ON THESE APPROVED PLANS.
 - PROPOSED FOUNDATIONS INSTALLED FOR ALL BUILDINGS SHOWN ON
 - SUB-GRADES ESTABLISHED FOR ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING.
 - COMPLETION OF ALL DRIVES, PARKING LOTS, AND SURROUNDING
 - E. COMPLETION OF ALL WORK SHOWN ON PLAN.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CARROLL COUNTY BUREAU OF PERMITS AND INSPECTIONS AT 410-386-2674 UPON COMPLETION OF EACH PHASE OF CONSTRUCTION AS OUTLINED ABOVE.
- CONTRACTOR SHALL NOTIFY CARROLL COUNTY BUREAU OF RESOURCE IANAGEMENT, ENVIRONMENTAL INSPECTION SERVICES DIVISION AT 410-386-2210 PRIOR TO BEGINNING ANY WORK. ALL FOREST CONSERVATION PLAN DEVICES MUST
- BE IN PLACE PRIOR TO ANY CONSTRUCTION
- MUST BE OBTAINED FOR ANY DEVIATIONS FROM THE LANDSCAPING OR FOREST CONSERVATION PLANS OR MODIFICATIONS IN THE PLANT MATERIAL. THE CONTRACTOR SHALL NOT PROCEED TO THE NEXT PHASE OF CONSTRUCTION

DATA SOURCES

- 1. EXISTING TOPOGRAPHY AND STRUCTURES SHOWN HEREON OUTSIDE OF THE LIMITS OF FIELD RUN TOPOGRAPHY ARE FROM CARROLL COUNTY GIS.
- 2. EXISTING TOPOGRAPHY FROM FIELD RUN SURVEY BY MTPLS LAND SURVEYORS, LLC. DATED
- 3. BOUNDARY INFORMATION SHOWN HEREON IS FROM FIELD LOCATION PREFORMED BY MTPLS LAND SURVEYORS, LLC, NOVEMBER, 2021.
- 4. COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND
- STATE COORDINATE SYSTEM (NAD 83/2011, NAVD 88)
- 5. DOWNSTREAM CONDITIONS TAKEN FROM THE "OAK CREEK FLOODPLAIN STUDY" DATED SEPT 2009
- 6. ENVIRONMENTAL DELINEATION PREFORMED BY ECO SCIENCE PROFESSIONALS NOVEMBER 2021



10710 Gilroy Road, Hunt Valley, MD 21031 Phone: 443.589.2400 www.centuryeng.com

CONCEPT MAJOR SUBDIVISION PLAN FOR R-40,000 RESIDENTIAL

TITLE SHEET

ELDERSBURG PRESERVE

ELDERSBURG, MD TAX MAP 73 : GRID 6 : PARCEL 247 CARROLL COUNTY, MD **ELECTION DISTRICT 5**



PROFESSIONAL CERTIFICATION

WERE PREPARED OR APPROVED BY ME, AND THAT LAM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE

LICENSE NUMBER: 32574 EXPIRATION DATE: 1-16-2026

DATE: 5-1-24-2024 SCALE: AS SHOWN DRAWING: PROJECT NUMBER: 00211253.004

- 1. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITIONS OF THE FOLLOWING, INCLUDING ALL ADDENDA, SUPPLEMENTS OR UPDATES:
- A. DESIGN MANUAL VOLUME ONE ROADS AND STORM DRAINS, 1994 EDITION, OF THE CARROLL COUNTY DEPARTMENT OF
- B. DESIGN GUIDE FOR FLEXIBLE PAVEMENT, 2004, OF THE CARROLL COUNTY DEPARTMENT OF PUBLIC WORKS. C. BOOK OF STANDARDS, HIGHWAY AND INCIDENTAL STRUCTURES OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION.
- D. STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, 2008 EDITION, OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION.
- E. MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MDMUTCD) 2009 EDITION OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION.
- F. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, 2011 EDITION, PUBLISHED JOINTLY BY WATER RESOURCES ADMINISTRATION, SOIL CONSERVATION SERVICE AND STATE SOIL CONSERVATION COMMITTEE.
- ALL OF THE ABOVE NOTED PUBLICATIONS ARE INCLUDED BY REFERENCE AS PART OF THESE CONSTRUCTION PLANS.
- 2. THE CONTRACTOR SHALL NOTIFY THE CARROLL COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (410-386-2157) A MINIMUM OF THREE (3) WORKING DAYS BEFORE BEGINNING WORK.
- 3. CONTRACTOR SHALL FURNISH, PLACE AND MAINTAIN TRAFFIC CONTROL MEASURES AS SHOWN IN THESE PLANS AND AS SPECIFIED IN THE MDMUTCD. CONTRACTOR SHALL IMMEDIATELY REMOVE AND REPLACE DEVICES WHICH ARE DAMAGED, DO NOT FUNCTION PROPERLY, OR ARE DETERMINED BY CONSTRUCTION INSPECTOR TO BE UNSUITABLE FOR THEIR PURPOSE. TRAFFIC CONTROL DEVICES MAY BE REMOVED ONLY UPON APPROVAL OF CONSTRUCTION INSPECTOR.
- 4. LOCATIONS OF EXISTING UTILITIES ARE SHOWN ONLY AS NOTIFICATION TO CONTRACTOR OF THE PRESENCE OF UNDERGROUND UTILITIES. CARROLL COUNTY AND THE DESIGN ENGINEER DO NOT WARRANT OR GUARANTEE CORRECTNESS OR COMPLETENESS OF INFORMATION SHOWN. CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY AT 1-800-257-7777 FOR VERIFYING EXISTENCE AND LOCATION OF ALL UTILITIES PRIOR TO BEGINNING WORK. ANY DAMAGE TO EXISTING UTILITIES DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT CONTRACTOR'S EXPENSE.
- 5. DEVELOPER IS RESPONSIBLE IN ALL REGARDS FOR RELOCATION OF ANY EXISTING UTILITIES.
- 6. IN CASE OF DISCREPANCY BETWEEN SCALED AND FIGURED DIMENSIONS, FIGURED DIMENSIONS SHALL GOVERN.
- 7. IF FOR ANY REASON PROPOSED FACILITIES CANNOT BE CONSTRUCTED IN ACCORDANCE WITH APPROVED PLANS, CONTRACTOR MUST IMMEDIATELY INFORM CONSTRUCTION INSPECTOR OR CONSTRUCTION INSPECTION DIVISION (410-386-2157) AND SHALL NOT BEGIN OR CONTINUE WORK ON THOSE ITEMS. IF THE DEPARTMENT OF PUBLICWORKS DETERMINES PLAN REVISIONS ARE NECESSARY, NO WORK SHALL BE PERFORMED ON THE ITEM(S) IN QUESTION UNTIL REVISED PLANS ISSUED BY THE DESIGN ENGINEER ARE APPROVED AND ISSUED FOR CONSTRUCTION BY THE BUREAU OF DEVELOPMENT REVIEW.
- 8. FAILURE TO MENTION SPECIFICALLY THE PROVISION OF ANY ITEM(S), OR PERFORMANCE OF ANY WORK OR PROCEDURE WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT, SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROVIDE SUCH ITEM(S) OR TO PERFORM SUCH WORK OR PROCEDURE.
- 9. CONSTRUCT EARTH FILLS FOR ROADS, EMBANKMENTS, AND STRUCTURES IN ACCORDANCE WITH SECTION 204 EMBANKMENT AND SUBGRADE OF THE MD SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS. COMPACT THE MATERIAL THAT IS 1 FOOT BELOW THE TOP OF SUBGRADE TO AT LEAST 92.0% OF MAXIMUM DRY DENSITY USING AASHTO T-180 METHOD. COMPACTION OF TOP ONE FOOT OF FILL SHALL NOT BE LESS THAN 97.0% OF MAXIMUM DRY DENSITY USING THE SAME METHOD.
- 10. DEVELOPER IS RESPONSIBLE FOR PROVIDING SOIL, BASE AGGREGATE AND HOT MIX ASPHALT COMPACTION TESTING. A CERTIFIED TECHNICIAN MUST BE ONSITE AT ALL TIMES DURING FILL OPERATIONS. COMPACTION TESTS MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MARYLAND. COPIES OF SOIL COMPACTION TEST RESULTS MUST BE PROVIDED TO, AND APPROVED BY, THE CONSTRUCTION INSPECTION DIVISION PRIOR TO PLACEMENT OF CURBS AND/OR BASE AGGREGATE. COPIES OF BASE AGGREGATE COMPACTION TEST RESULTS MUST BE PROVIDED TO, AND APPROVED BY, THE CONSTRUCTION INSPECTION DIVISION PRIOR TO PLACEMENT OF BASE HOT MIX ASPHALT.
- 11. INLET GRATES IN SUMPS SHALL BE CONSTRUCTED LEVEL AT ELEVATION GIVEN IN STRUCTURE SCHEDULE. INLETS ON GRADE SHALL BE ADJUSTED SO THAT SLOPE OF GRATE MATCHES FINISHED FLOW LINE OF CURB. TOP ELEVATION SHALL APPLY TO CENTERLINE OF GRATE AT FLOW LINE OF CURB. CROSS SLOPE OF THE GRATE SHALL MATCH THE ROAD CROSS SLOPE.
- 12. PIPE ELEVATIONS SHOWN ON STORM DRAIN PROFILES ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.
- 13. WHERE DITCH OR WATERWAY STABILIZATION MATTING OF ANY TYPE IS SPECIFIED, INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MATTING SHALL BE PLACED ON BOTTOM AND SIDE SLOPES TO PROVIDE EITHER 1.0' STABILIZED DEPTH, UNLESS OTHERWISE INDICATED ON PLANS.
- 14. ALL EXISTING PAVING DISTURBED BY UTILITY CUTS SHALL BE REPLACED IN ACCORDANCE WITH CARROLL COUNTY STANDARD PLATE 47, OPTION 1 OR OPTION 3 IN THE DESIGN MANUAL, VOLUME 1 OR AS NOTED IN THE UTILITY PERMIT.
- 15. ONCE BEGUN, ROAD CONSTRUCTION SHALL BE CONTINUED UNTIL FULL DEPTH OF AGGREGATE BASE AND PAVING AS SHOWN ON THE TYPICAL SECTION ARE PLACED, INCLUDING THE FINISHED SURFACE COURSE. AGGREGATE BASE COURSE AND HOT MIX ASPHALT BASE COURSE SHALL NOT REMAIN UNCOVERED FOR MORE THAN FIVE WORKING DAYS.
- 16. OFF-SITE BORROW MATERIAL TO BE IMPORTED FOR EMBANKMENT CONSTRUCTION AND SUPPORT OF PAVEMENT IS TO MEET THE MINIMUM SUBGRADE SOIL SPECIFICATIONS IN TABLE 3 OF THE DESIGN GUIDE FOR FLEXIBLE PAVEMENTS. CBR TESTING OF OFF-SITE BORROW MATERIAL SHALL BE COMPLETED AND THE TEST RESULTS SUBMITTED TO AND APPROVED BY THE BUREAU OF DEVELOPMENT REVIEW PRIOR TO DELIVERY OF THE MATERIAL. THE PAVING DESIGN SECTIONS SHOWN ON THE APPROVED PLANS SHALL BE REVIEWED AND EVALUATED USING THE CBR TESTING RESULTS OF THE BORROW MATERIAL. ANY CHANGES TO THE PAVEMENT DESIGN SECTIONS BASED ON THE CBR TEST RESULTS SHALL BE INCORPORATED THROUGH THE RED-LINE REVISION PROCESS.
- 17. THE DESIGN EQUIVALENT SINGLE AXLE LOADS (ESAL) AND THE DESIGN CBR VALUE SHALL BE NOTED ON THE CONSTRUCTION PLANS.
- 18. PERMANENT SIGNAGE AND STRIPING SHALL BE FURNISHED AND INSTALLED BY THE CARROLL COUNTY BUREAU OF ROADS OPERATIONS. CONTRACTOR SHALL NOTIFY THE BUREAU OF ROADS OPERATIONS AT 410-386-6717 A MINIMUM OF THREE (3) WEEKS PRIOR TO STARTING WORK AND THEN AGAIN 48 HOURS PRIOR TO COMPLETION OF WORK.
- 19. CONSTRUCTION VEHICLES, CONTRACTOR OR PRIVATE, OR CONSTRUCTION MATERIALS OR EQUIPMENT SHALL NOT BE PARKED, PLACED, OR STORED WITHIN ANY PUBLIC RIGHT-OF-WAY.

ABBREVIATIONS

APPROX.	APPROXIMATELY
AVE	AVENUE
BGE	BALTIMORE GAS & ELECTRIC
C.O.	CLEANOUT
CAP	CONCRETE ARCH PIPE
cfs	CUBIC FEET PER SECOND
C.I.	CAST IRON
C.I. CL	CLEARANCE
CL	CLEAR
C.L.F.	CHAIN LINK FENCE
CL IV	CLASS IV
CMAP	CORRUGATED METAL ARCH PIPE
CMP	CORRUGATED METAL PIPE
CONC.	CONCRETE
C&P	CHESAPEAKE & POTOMAC
	CENTER LINE
D.	STORM DRAIN
D.C.	DETECTOR CHECK
D.I.	DUCTILE IRON
D.I.P./DIP	DUCTILE IRON PIPE
DEPT	DEPARTMENT
DWG	DRAWING
(E)	EAST
E.B.	EAST BOUND
ELEC	ELECTRIC
ELEV	ELEVATION
ESMT	EASEMENT
EX.	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FF/FFE	FINISHED FLOOR ELEVATION
F.H.	FIRE HYDRANT
fps	FEET PER SECOND
G.	GAS
G.W.	GUY WIRE
GALV.	GALVANIZED
HGL	HYDRAULIC GRADE LINE
H.B.	HAND BOX
HORIZ	HORIZONTAL
HWY	HIGHWAY
l.	INLET
INV.	INVERT
LN	LANE
LP	LOW PRESSURE
МН	MANHOLE
MIN.	MINIMUM
(N)	NORTH
N.B.	NORTH BOUND
N/A	NOT APPLICABLE
NAD	NORTH AMERICAN DATUM
NAVD	NORTH AMERICAN VERTICAL DATUM
OHE	OVERHEAD ELECTRIC
PKWY	PARKWAY
PR./PROP.	PROPOSED
PVC	POLYVINYL CHLORIDE
QTY.	QUANTITY
R/W	RIGHT-OF-WAY
RCCP	REINFORCED CIRCULAR CONCRETE PIPE
RET	RETAINING
REV	REVISION
RD	ROOFDRAIN
(S)	SOUTH
S./SAN.	SANITARY
S.B.	SOUTH BOUND
S.H.C	SANITARY HOUSE CONNECTION
S/W	SIDEWALK
SCH	SCHEDULE
SD.	STORM DRAIN
SQ.FT.	SQUARE FEET
ST.	STREET
STD.	STANDARD
TCB	TRAFFIC CONTROL BOX
TYP.	TYPICAL
U/G	UNDER GROUND
UK	UNKNOWN
VERT	VERTICAL
(W)	WEST
W.	WATER
W.B.	WEST BOUND
W/	WITH
WHC	WATER HOUSE CONNECTION
WM	WATER METER

SITE LEGEND

ZONE: I-1	ZONING LINE		
N 30°52'32' W - 100.00'	PROPERTY LINE WITH BEARING & DISTANCE		
	ADJOINER PROPERTY LINE		
	EXISTING EASEMENT LINE		
-300	EXISTING FIELD RUN MAJOR CONTOUR		
-299 — — — — — — — — — — — — — — — — — —	EXISTING FIELD RUN MINOR CONTOUR EXISTING GIS MAJOR CONTOUR		
-298 — — — — — —	EXISTING GIS MINOR CONTOUR		
13UC (A)			
45UB (C)	EXISTING SOILS LIMITS WITH HSG DESIGNATION		
Ex 15" SDSD(EXISTING STORM DRAIN LINE (LESS THAN 24") WITH MANHOLE		
Ex 30" SD	EXISTING STORM DRAIN LINE (24" AND GREATER)		
	EXISTING STORM DRAIN INLETS		
Ex 8" SS	EXISTING SANITARY SEWER LINE WITH MANHOLE		
Ex 8" W — — — — — — — — — — — — — — — — — —	EXISTING WATER LINE WITH VALVE		
Ex 8" GAS G ———————	EXISTING GAS LINE WITH VALVE		
UGE	EXISTING UNDERGROUND ELECTRIC LINES		
OHE	EXISTING OVERHEAD ELECTRIC LINES WITH POLE		
— X — X — X —	EXISTING CHAINLINK FENCE		
//////\ 	EXISTING WOOD FENCE EXISTING PAVEMENT EDGE		
	EXISTING CURB & GUTTER		
	EXISTING SIDEWALK		
· — — ;	EXISTING STRUCTURE		
l J			
/ Y Y Y Y Y Y Y Y	Existing Treeline		
//////	Existing Wood Fence		
<u>*</u>			
	Existing Non-tidal Wetlands		
	25' Non-tidal Wetlands Buffer		
—— SB ——— SB ———	Stream Buffer		
——— FP ———— FP ———	Flood Plain		
*	Existing Street Light	SEDIMENT CO	ONTROL
ф	Ex. Water Valve	-	
(WM)	Ex. Water Meter	LEGEN	<u>D</u>
sco	Existing Fire Hydrant Ex. Sanitary Cleanout		
- 0-	Ex. Sign		
	Limit of Field Run Topo	—— SF ——— SF ———	Silt Fence
290	Proposed Major Contour	— SSF — SSF —	Super Silt Fence
287	Proposed Minor Contour		Earth Dike Temporary Swale
		RPS	Removable Pumping Station
	Proposed Structure	⊠ ^{RPS}	
		LOD	Limit of Disturbance
	Proposed Pavement Edge	A RAN RAN RAN RAN	
	Proposed Curb & Gutter		Stabilized Construction Entrance (SCE)
	Proposed Sidewalk		
The Control of the second of t		γ	
PROP. 15" D.	Proposed Retaining Wall Proposed Storm Drain with Manhole	AGIP	At Grade Inlet Protection
	Proposed Storm Drain Inlets	_	Standard Inlet Protection
PROP. 8" S.	Proposed Sewer With Manhole	SIP	
PROP. 8" W.	Proposed Sewer With Manhole Proposed Water	COIP	Combination Inlet Protection
	Proposed Site Lighting (by others)	IB	Inlet Blocking
∑ !	Proposed Fire Hydrant Proposed Water Reducer		
7 *	Proposed Water Reducer Proposed Water Valve		
"	Proposed Sign		
	Proposed Paving		

NOTE ALL ITEMS SHOWN IN LEGEND MAY NOT BE PRESENT ON ALL SHEETS. ADDITIONAL SUPPLEMENTARY LEGENDS MAY APPEAR ON INDIVIDUAL PLANS AS IS NECESSARY.

DATE BY

P-23-0055

REVISIONS

OWNER LONG MEADOW FARM 21784 LLC ST. JOHN PROPERTIES, INC. 741 KLEES MILL RD WESTMINSTER, MD 21157

PHONE NO: 410-369-1207

Proposed Paving

DEVELOPER 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 **CONTACT: MATT TAYLOR** PHONE NO: 410-369-1207

DATA SOURCES

- 1. EXISTING TOPOGRAPHY AND STRUCTURES SHOWN HEREON OUTSIDE OF THE LIMITS OF FIELD RUN TOPOGRAPHY ARE FROM CARROLL COUNTY GIS.
- 2. EXISTING TOPOGRAPHY FROM FIELD RUN SURVEY BY MTPLS LAND SURVEYORS, LLC. DATED
- 3. BOUNDARY INFORMATION SHOWN HEREON IS FROM FIELD LOCATION PREFORMED BY MTPLS LAND SURVEYORS, LLC, NOVEMBER, 2021.
- 4. COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND
- STATE COORDINATE SYSTEM (NAD 83/2011, NAVD 88)
- 5. DOWNSTREAM CONDITIONS TAKEN FROM THE "OAK CREEK FLOODPLAIN STUDY" DATED SEPT 2009
- 6. ENVIRONMENTAL DELINEATION PREFORMED BY ECO SCIENCE PROFESSIONALS NOVEMBER 2021

A Kleinfelder Company 10710 Gilroy Road, Hunt Valley, MD 21031

Phone: 443.589.2400 www.centuryeng.com

CONCEPT MAJOR SUBDIVISION PLAN

FOR R-40,000 RESIDENTIAL

LEGEND AND ABBREVIATIONS

ELDERSBURG PRESERVE

ELDERSBURG, MD TAX MAP 73 : GRID 6 : PARCEL 247 **ELECTION DISTRICT 5**

DATE: 5-1-24-2024

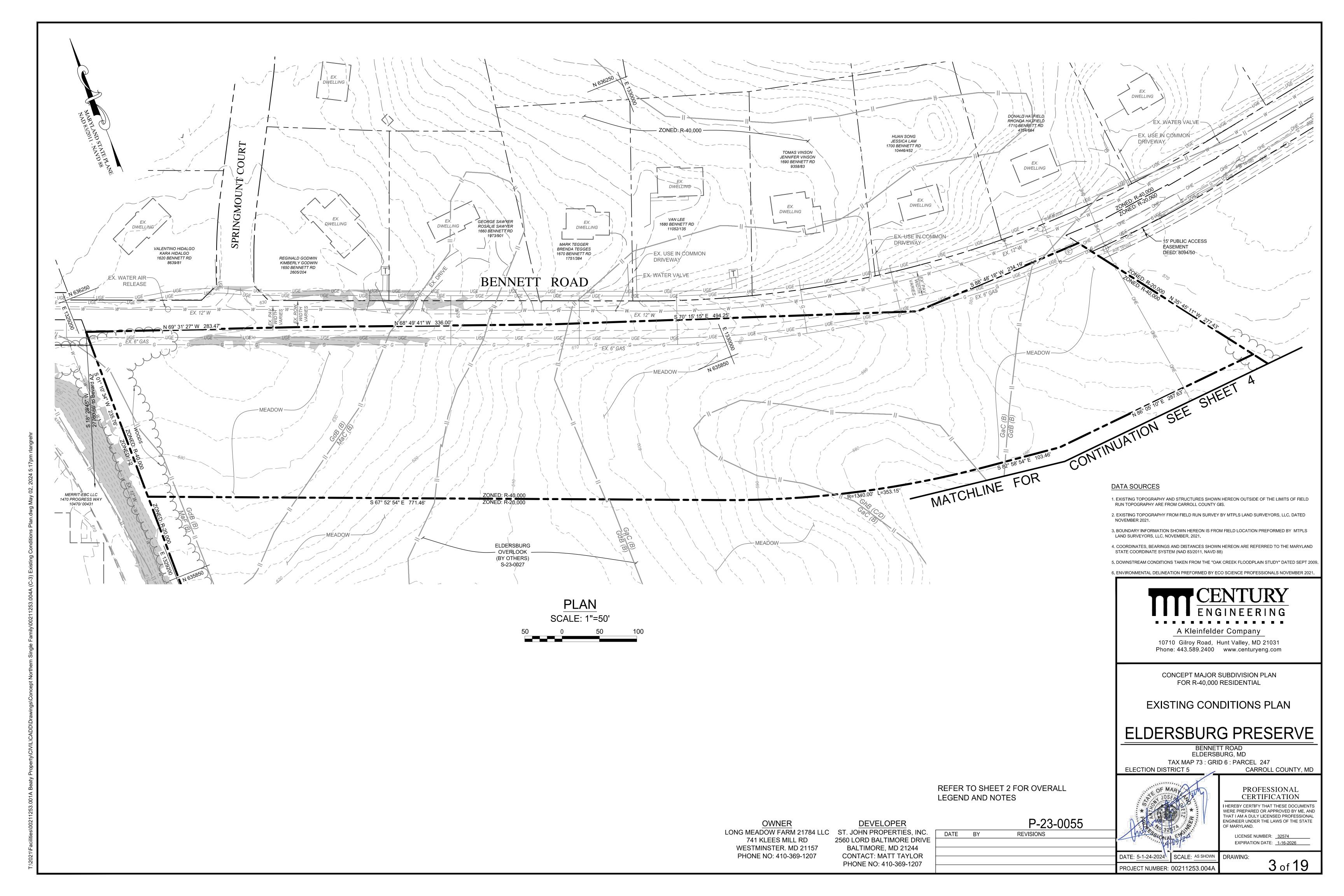
PROFESSIONAL CERTIFICATION

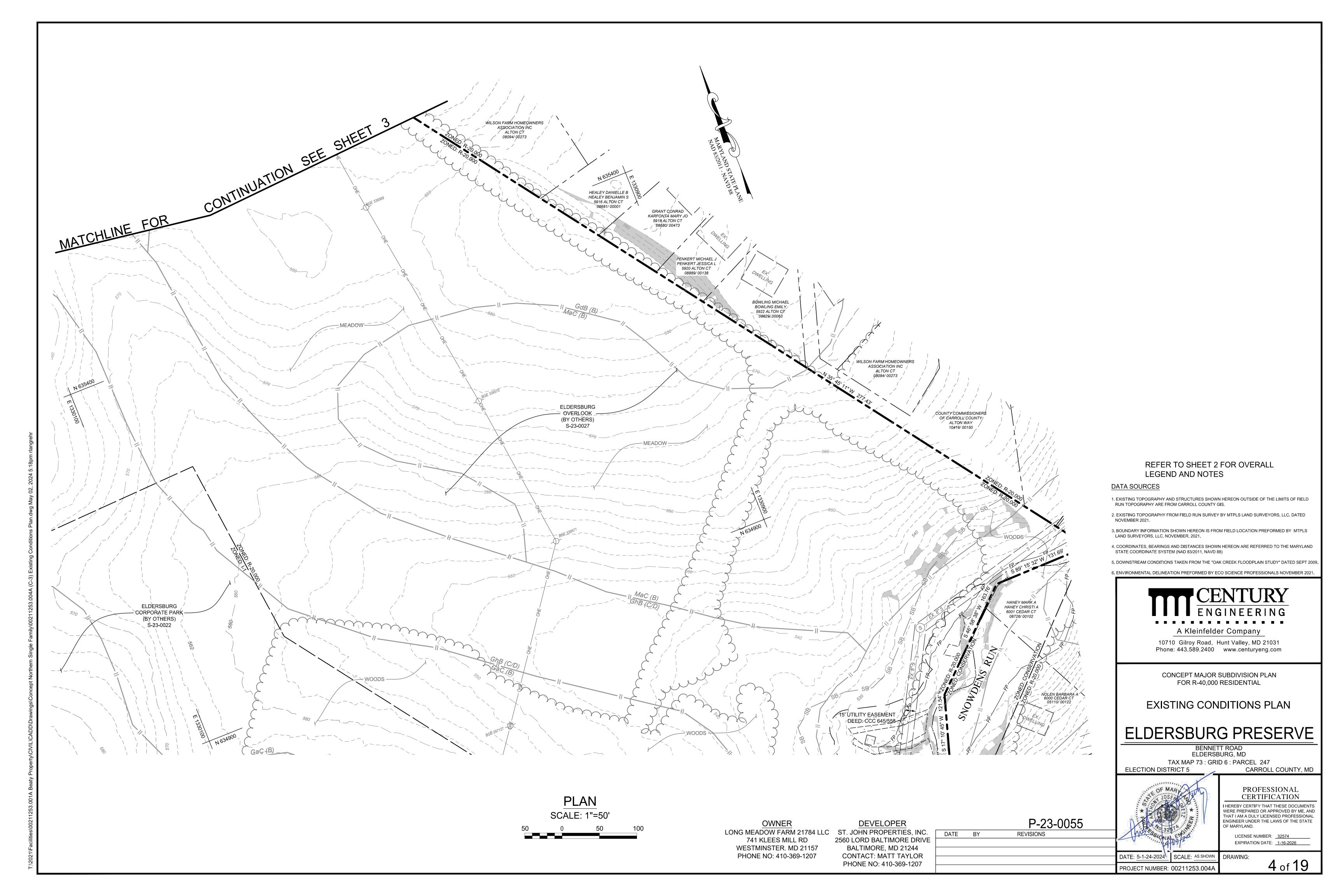
WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE

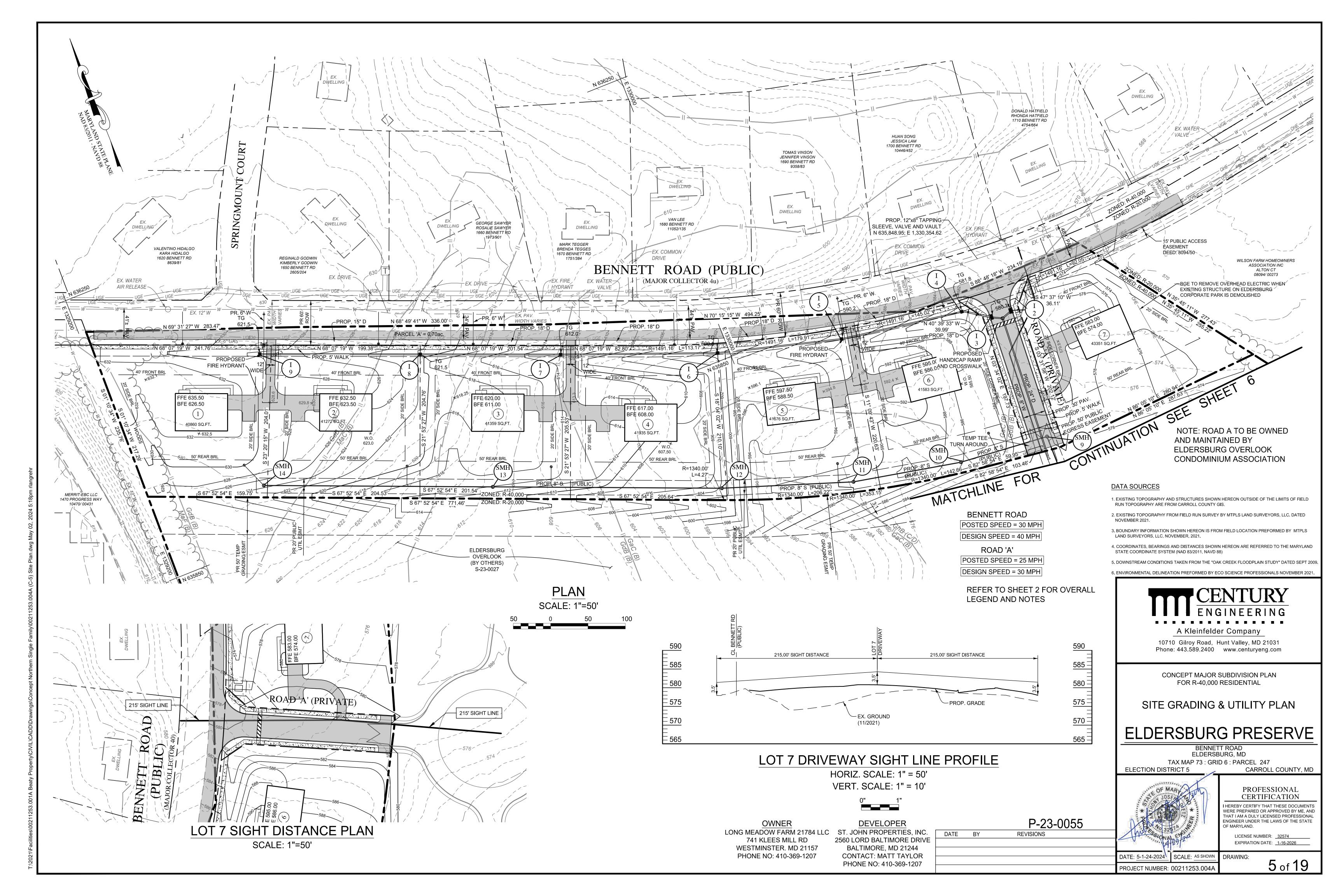
CARROLL COUNTY, MD

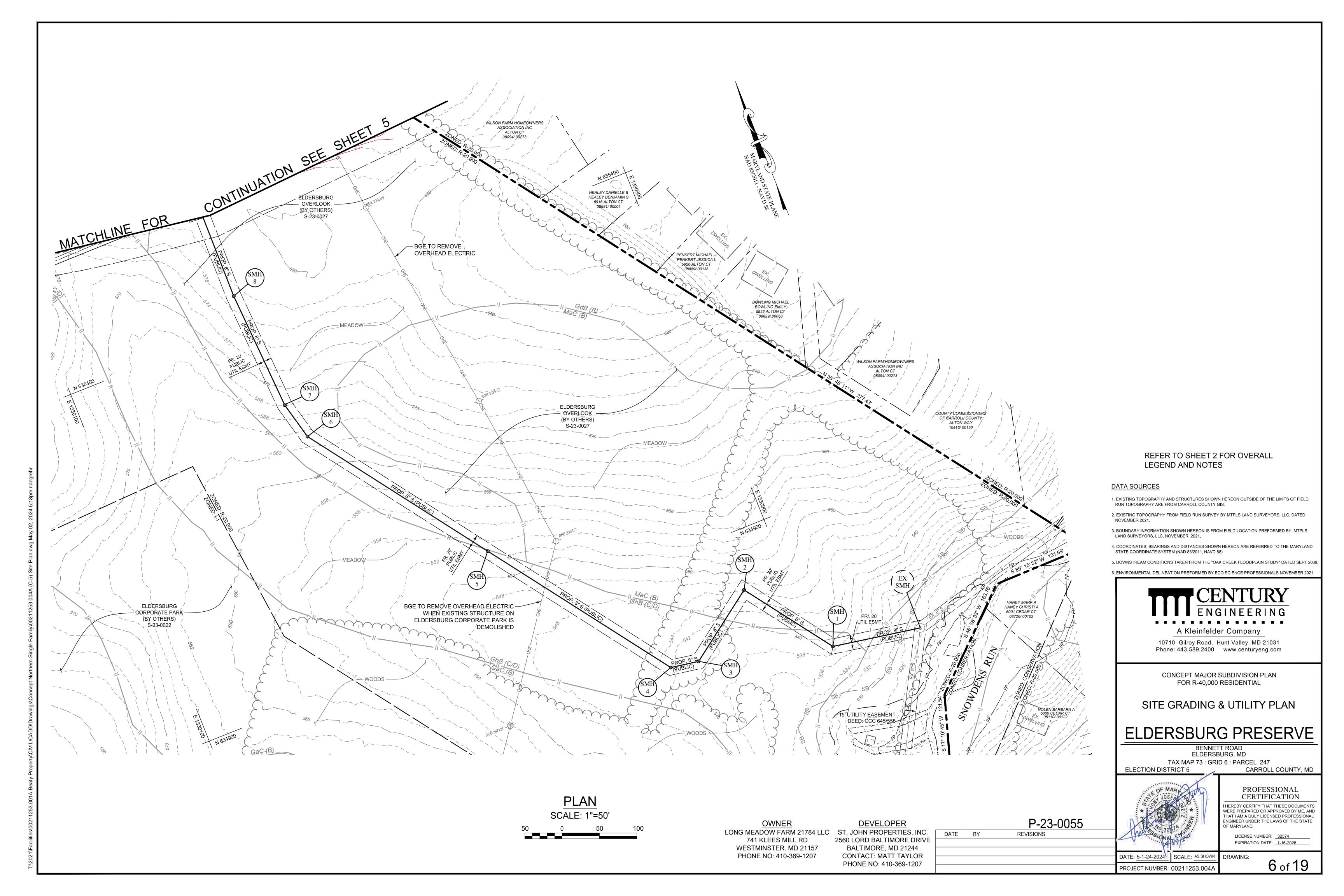
LICENSE NUMBER: 32574 EXPIRATION DATE: 1-16-2026

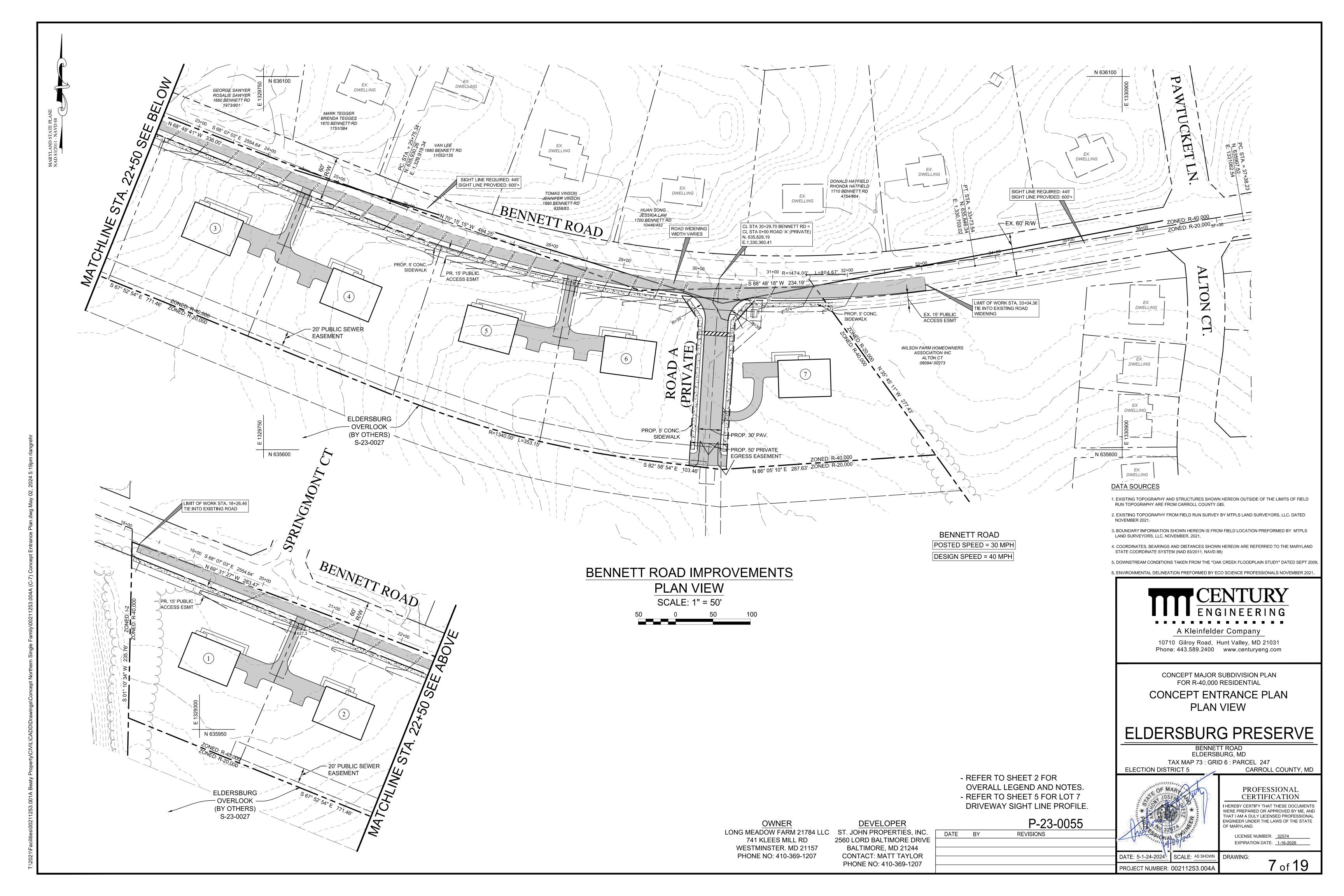
SCALE: AS SHOWN DRAWING: PROJECT NUMBER: 00211253.004A

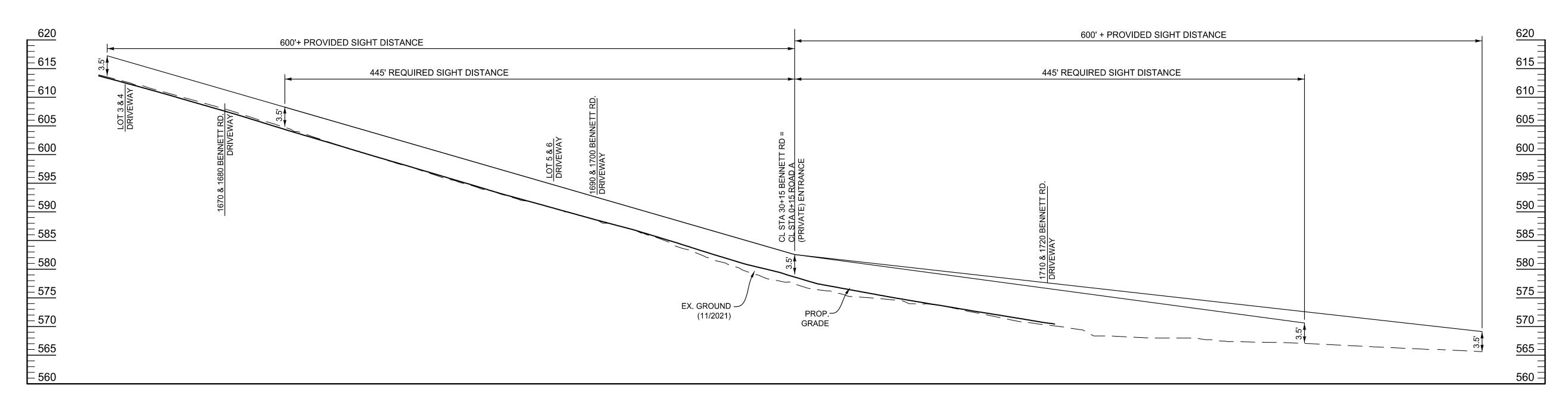








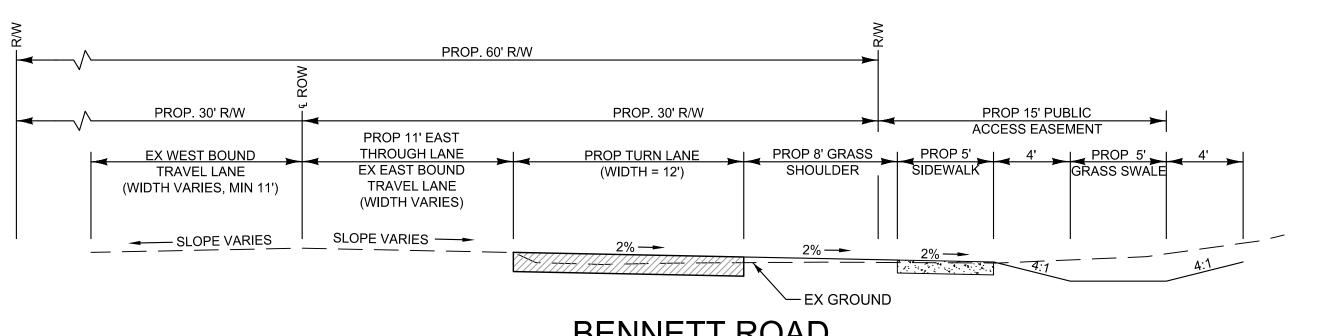




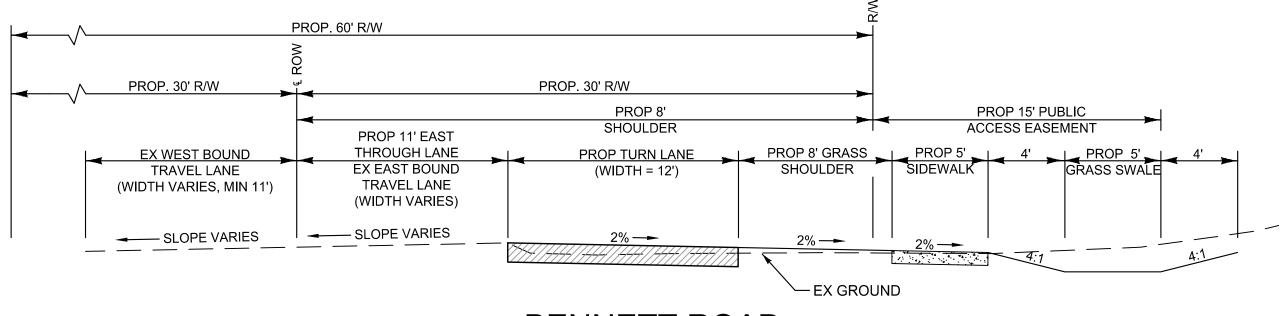
ROAD 'A' SIGHT LINE PROFILE

HORIZ. SCALE: 1" = 50' VERT. SCALE: 1" = 10'





BENNETT ROAD TYPICAL CROSS SECTION NOT TO SCALE



BENNETT ROAD TYPICAL CROSS SECTION FOR SUPER ELEVATION NOT TO SCALE

REFER TO SHEET 2 FOR OVERALL LEGEND AND NOTES

DATA SOURCES

- 1. EXISTING TOPOGRAPHY AND STRUCTURES SHOWN HEREON OUTSIDE OF THE LIMITS OF FIELD RUN TOPOGRAPHY ARE FROM CARROLL COUNTY GIS.
- 2. EXISTING TOPOGRAPHY FROM FIELD RUN SURVEY BY MTPLS LAND SURVEYORS, LLC. DATED NOVEMBER 2021.
- 3. BOUNDARY INFORMATION SHOWN HEREON IS FROM FIELD LOCATION PREFORMED BY MTPLS LAND SURVEYORS, LLC, NOVEMBER, 2021.
- 4. COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND
- STATE COORDINATE SYSTEM (NAD 83/2011, NAVD 88)
- 5. DOWNSTREAM CONDITIONS TAKEN FROM THE "OAK CREEK FLOODPLAIN STUDY" DATED SEPT 2009

6. ENVIRONMENTAL DELINEATION PREFORMED BY ECO SCIENCE PROFESSIONALS NOVEMBER 2021



10710 Gilroy Road, Hunt Valley, MD 21031 Phone: 443.589.2400 www.centuryeng.com

CONCEPT MAJOR SUBDIVISION PLAN FOR R-40,000 RESIDENTIAL

CONCEPT ENTRANCE PLAN PROFILE VIEW

ELDERSBURG PRESERVE

BENNETT ROAD ELDERSBURG, MD

TAX MAP 73 : GRID 6 : PARCEL 247 **ELECTION DISTRICT 5** CARROLL COUNTY, MD



PROFESSIONAL CERTIFICATION

WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE

LICENSE NUMBER: 32574 EXPIRATION DATE: 1-16-2026

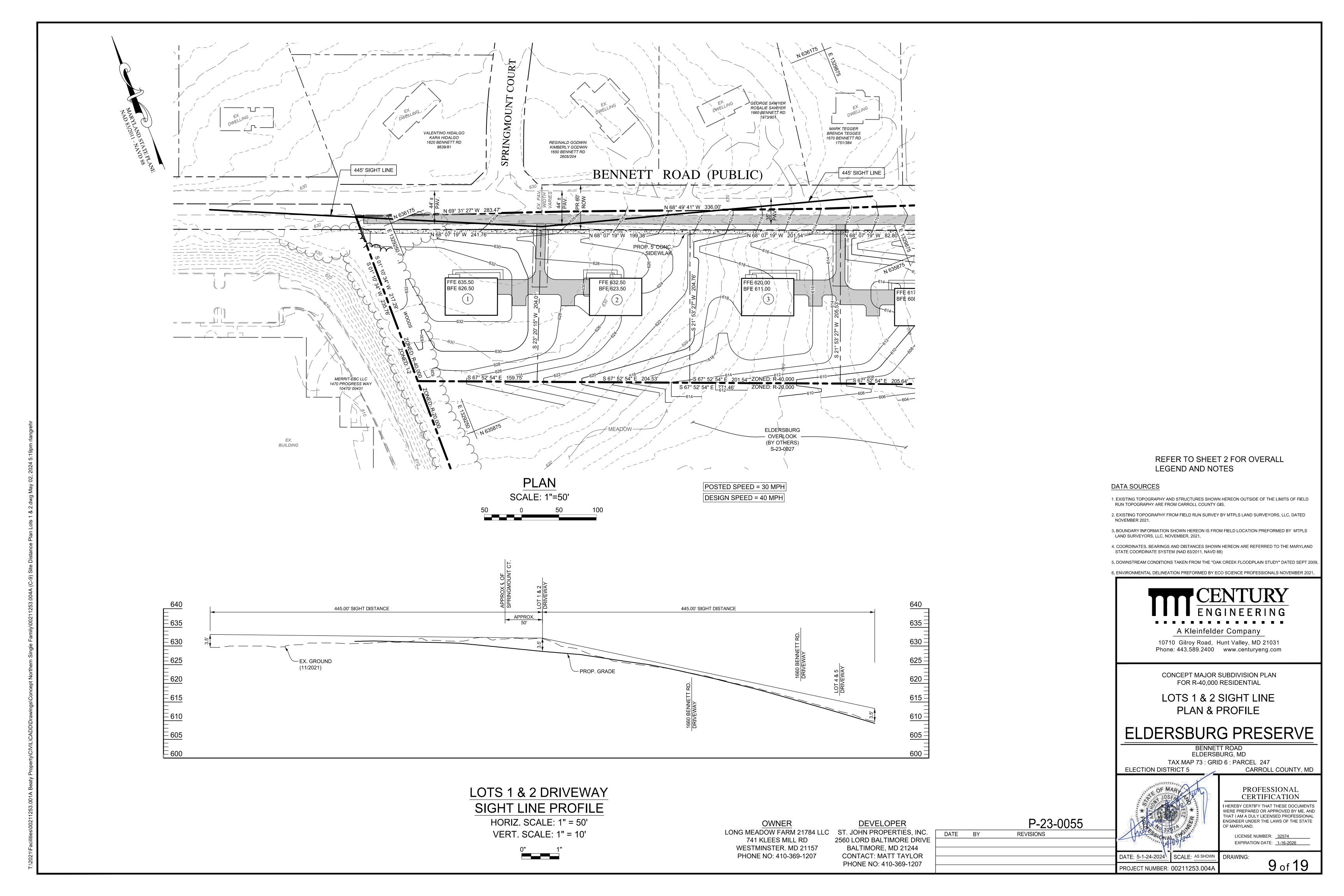
SCALE: AS SHOWN DRAWING:

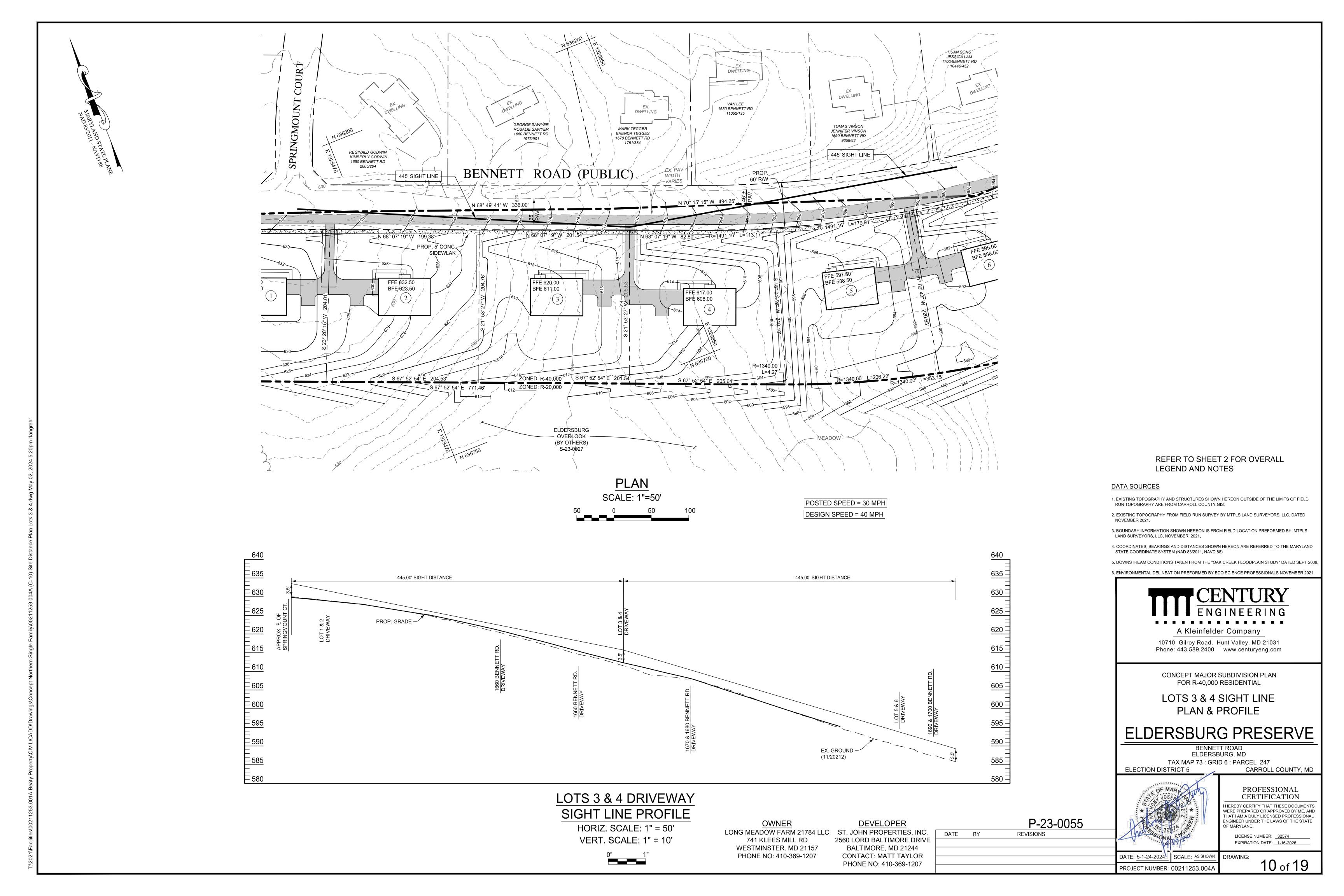
OWNER LONG MEADOW FARM 21784 LLC ST. JOHN PROPERTIES, INC. 741 KLEES MILL RD WESTMINSTER. MD 21157 PHONE NO: 410-369-1207

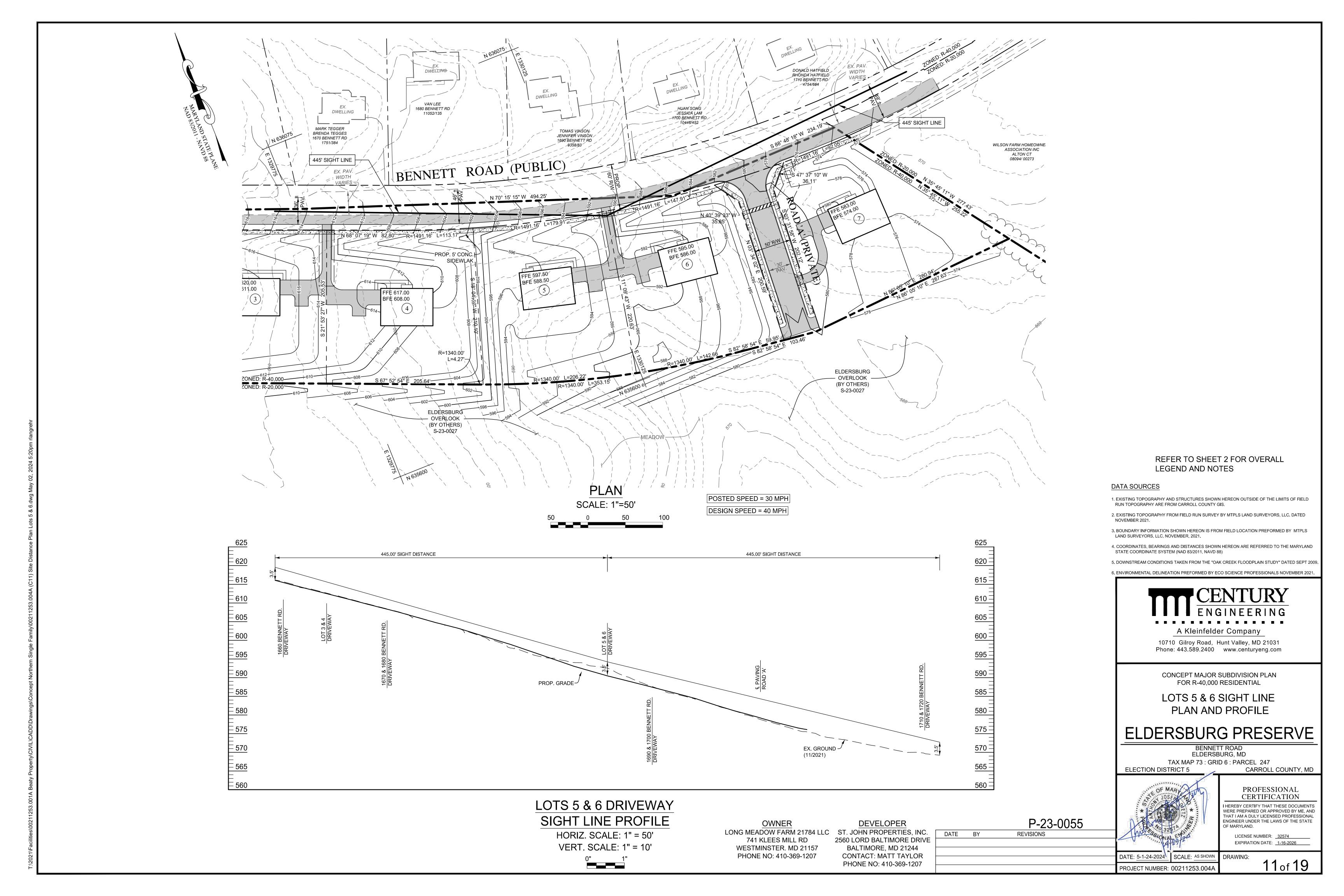
DEVELOPER 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 CONTACT: MATT TAYLOR PHONE NO: 410-369-1207

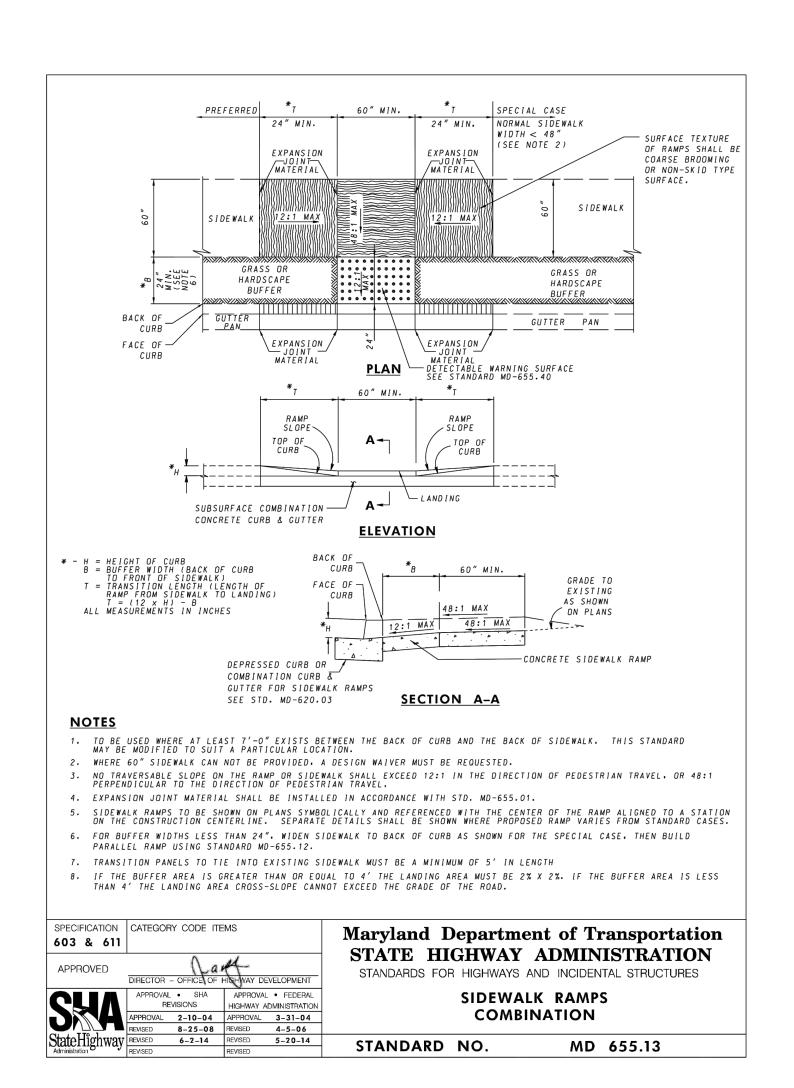
P-23-0055 DATE BY REVISIONS

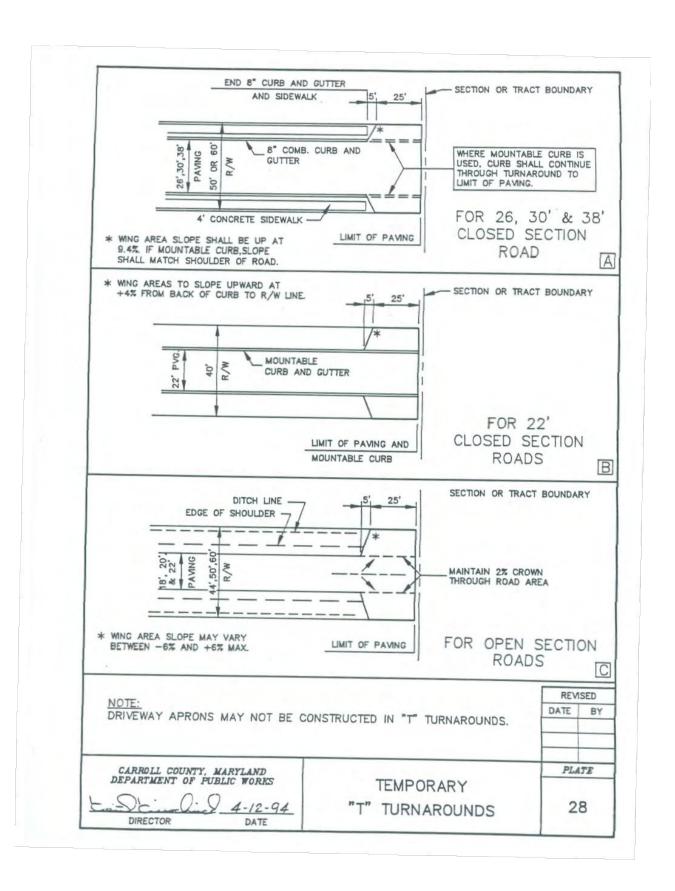
DATE: 5-1-24-2024 PROJECT NUMBER: 00211253.004A

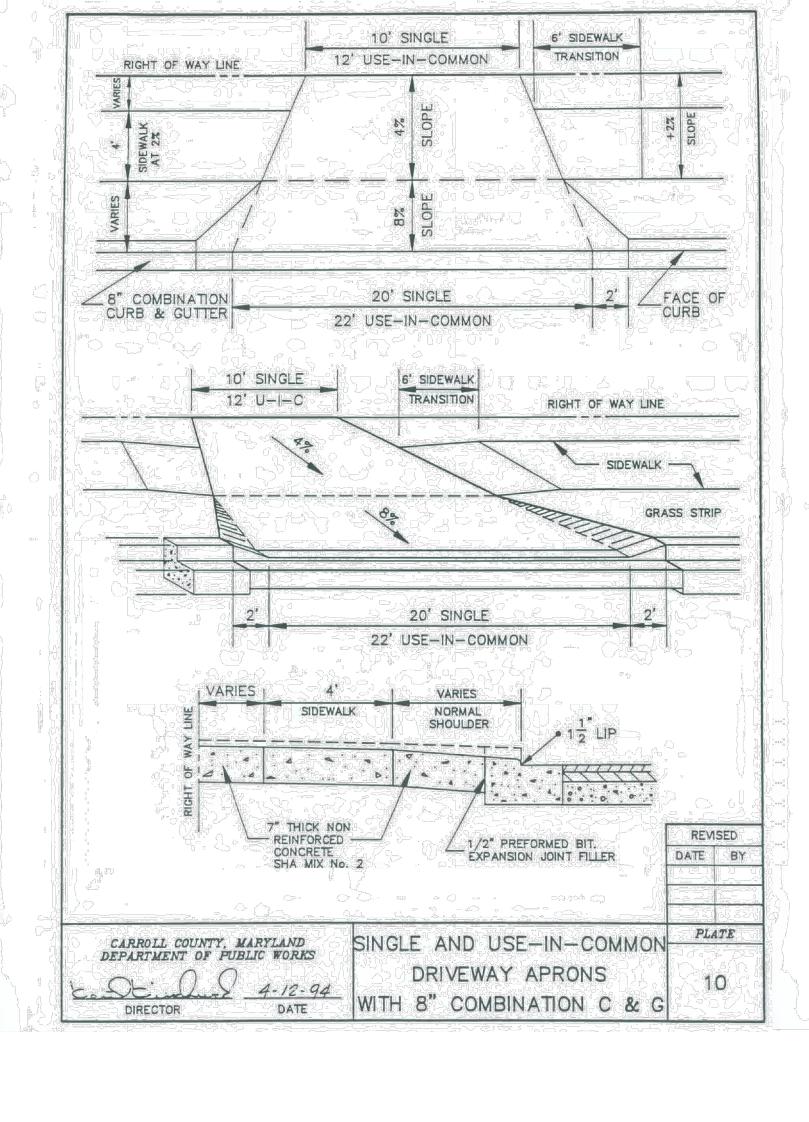


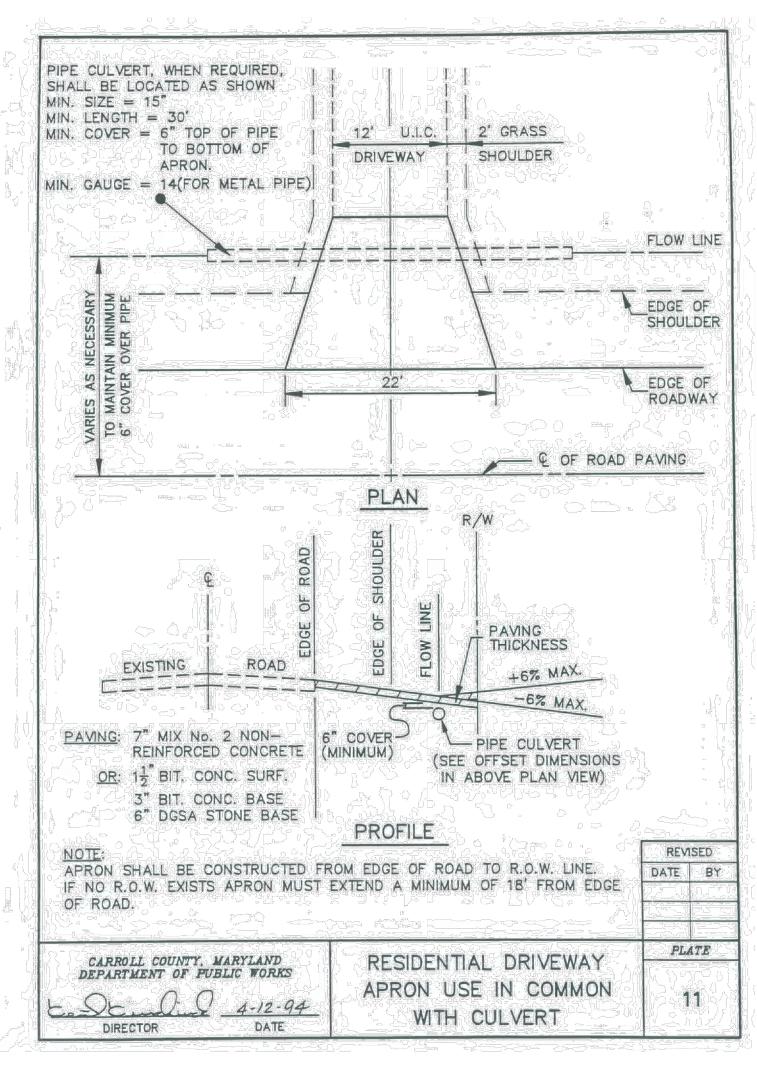










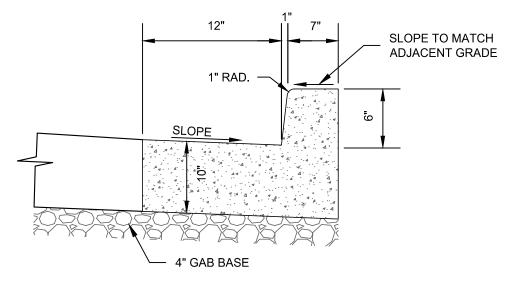


DATA SOURCES

RUN TOPOGRAPHY ARE FROM CARROLL COUNTY GIS.

STATE COORDINATE SYSTEM (NAD 83/2011, NAVD 88)

LAND SURVEYORS, LLC, NOVEMBER, 2021.

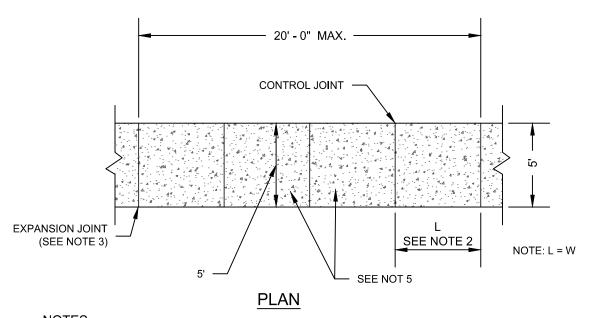


COMBINATION CONCRETE CURB AND GUTTER

1. REFER TO LOCAL SPECIFICATIONS FOR MATERIALS, METHODS OF CONSTRUCTION AND EXPANSION JOINT LOCATIONS.

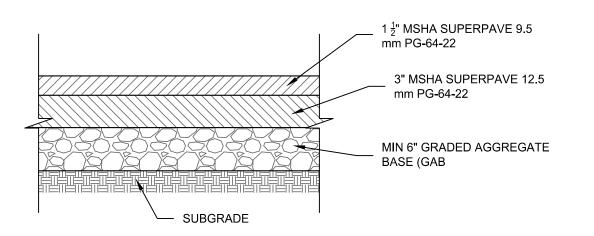
2. GUTTER PAN SLOPE AND DIRECTION EQUAL TO THAT OF ADJOINING PAVEMENT GRADE (4%

CONCRETE CURB & GUTTER DETAIL NOT TO SCALE



- ALL CONCRETE SHALL BE 6% AIR-ENTRAINED, 3000 P.S.I. SHA MIX. NO. 2, DEPTH SHALL BE 4".
- PROVIDE SCORED CONTROL JOINTS EVERY 4'-0" MIN. BOTH DIRECTIONS.
- PROVIDE 1/2" EXPANSION JOINT EVERY 20' O/C MAX. MARK EXPANSION/CONTRACTION JOINTS FOR SIDE-WALK WIDTHS 4'-0" TO 8'-0". IF "W" IS 8'-0" OR GREATER, ADD ADDITIONAL LONGITUDINAL EXPANSION JOINT AT CENTERLINE OF
- PROVIDE 1/2" EXPANSION JOINT SEALANT WHERE SIDEWALK ABUTS CURB OR OTHER RIGID STRUCTURE(S).
- ALL BROOM FINISH STROKES IN CONCRETE SIDEWALK TO BE PERPENDICULAR TO EDGES OF CONCRETE. DO NOT ALTERNATE PATTERN.

CONCRETE SIDEWALK DETAIL NOT TO SCALE



USE IN COMMON DRIVEWAY BITUMINOUS CONCRETE PAVING SECTION NOT TO SCALE



1. EXISTING TOPOGRAPHY AND STRUCTURES SHOWN HEREON OUTSIDE OF THE LIMITS OF FIELD

2. EXISTING TOPOGRAPHY FROM FIELD RUN SURVEY BY MTPLS LAND SURVEYORS, LLC. DATED

3. BOUNDARY INFORMATION SHOWN HEREON IS FROM FIELD LOCATION PREFORMED BY MTPLS

4. COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND

5. DOWNSTREAM CONDITIONS TAKEN FROM THE "OAK CREEK FLOODPLAIN STUDY" DATED SEPT 2009

10710 Gilroy Road, Hunt Valley, MD 21031 Phone: 443.589.2400 www.centuryeng.com

CONCEPT MAJOR SUBDIVISION PLAN FOR R-40,000 RESIDENTIAL

SITE DETAILS

ELDERSBURG PRESERVE

BENNETT ROAD ELDERSBURG, MD

TAX MAP 73 : GRID 6 : PARCEL 247 **ELECTION DISTRICT 5** CARROLL COUNTY, MD



PROFESSIONAL CERTIFICATION

WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE

LICENSE NUMBER: 32574 EXPIRATION DATE: 1-16-2026

SCALE: AS SHOWN DRAWING: PROJECT NUMBER: 00211253.004

OWNER LONG MEADOW FARM 21784 LLC ST. JOHN PROPERTIES, INC. 741 KLEES MILL RD WESTMINSTER. MD 21157

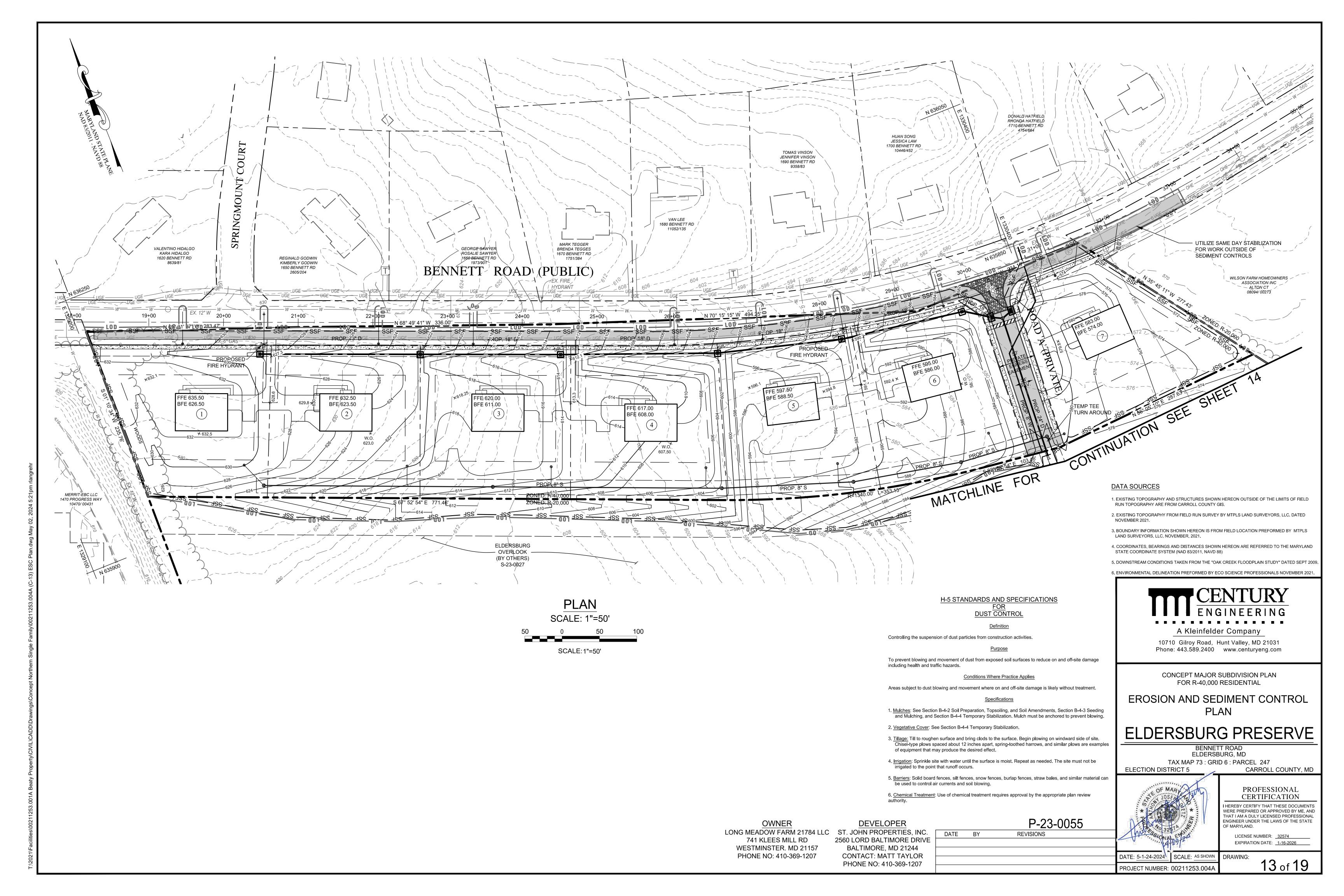
PHONE NO: 410-369-1207

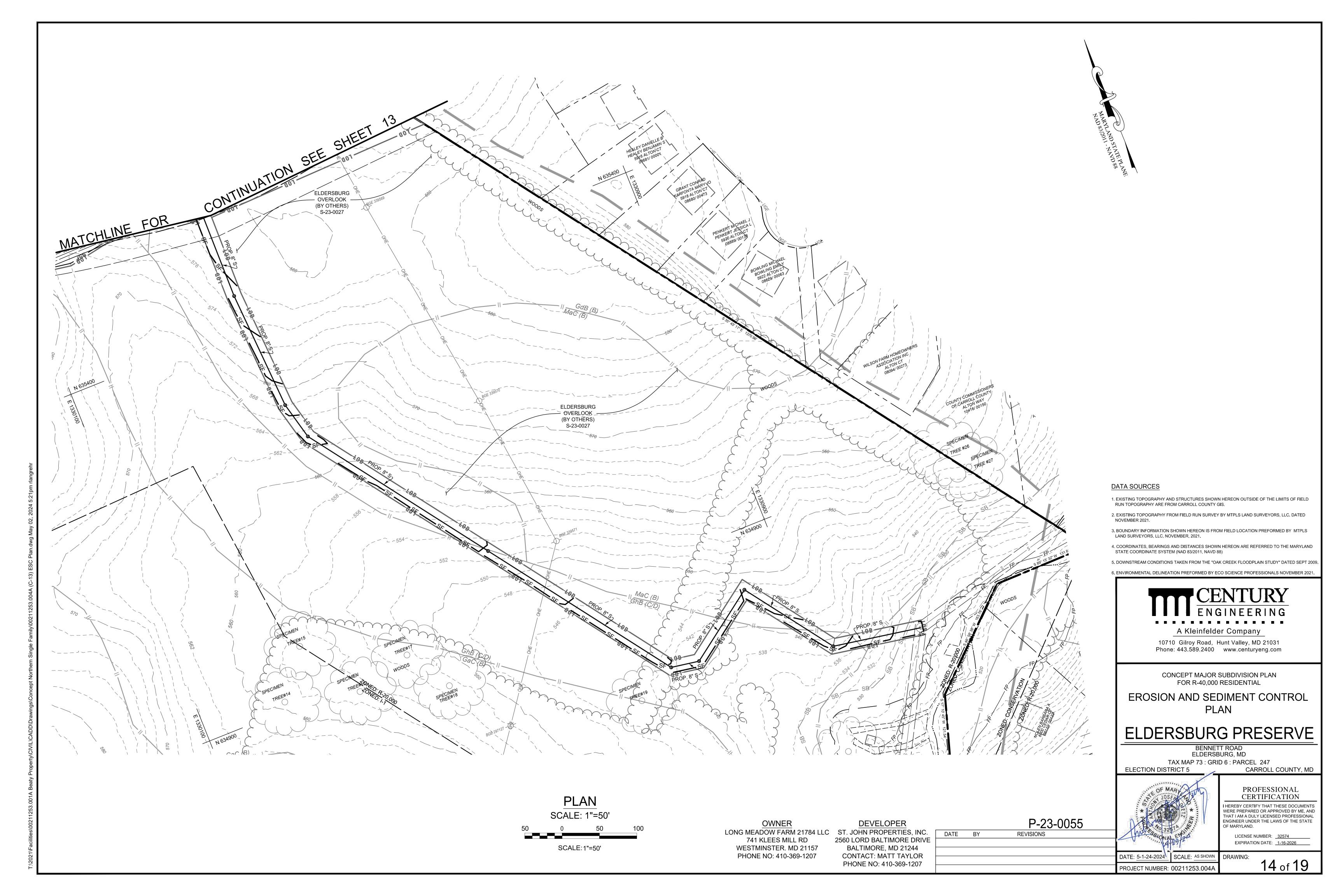
DEVELOPER 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 **CONTACT: MATT TAYLOR**

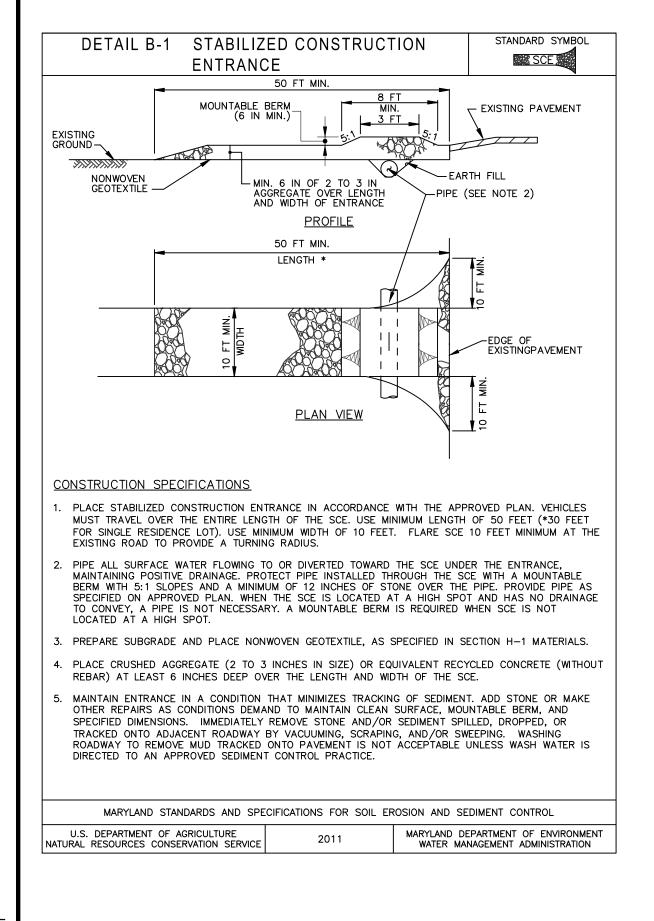
PHONE NO: 410-369-1207

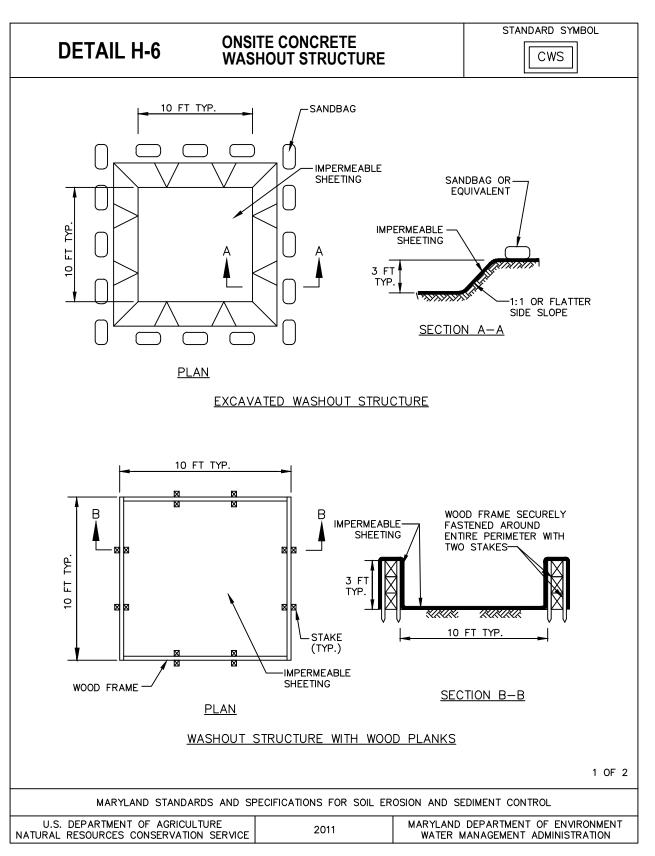
P-23-0055 REVISIONS

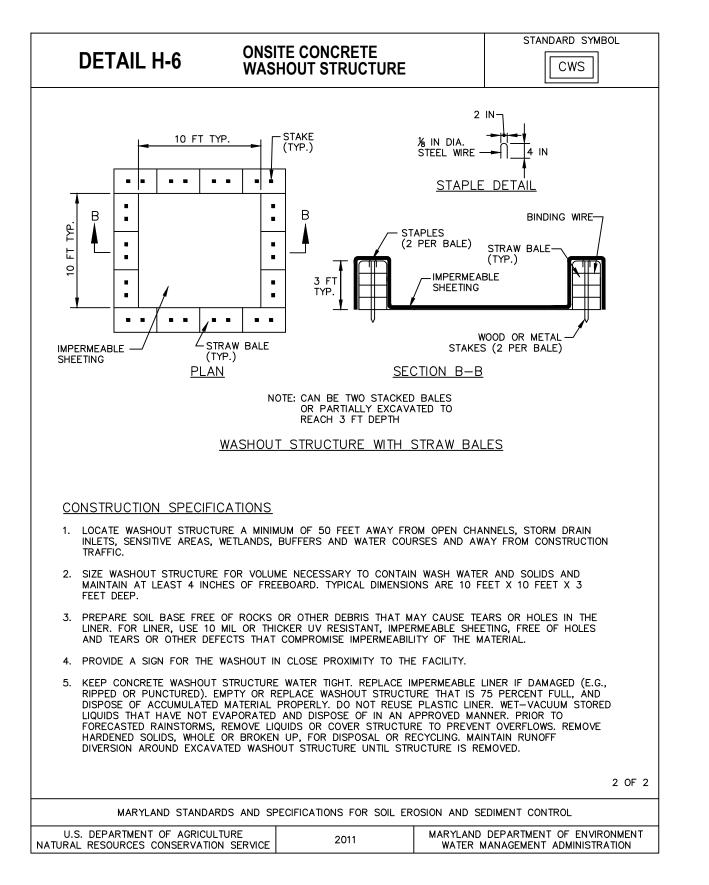
DATE: 5-1-24-2024

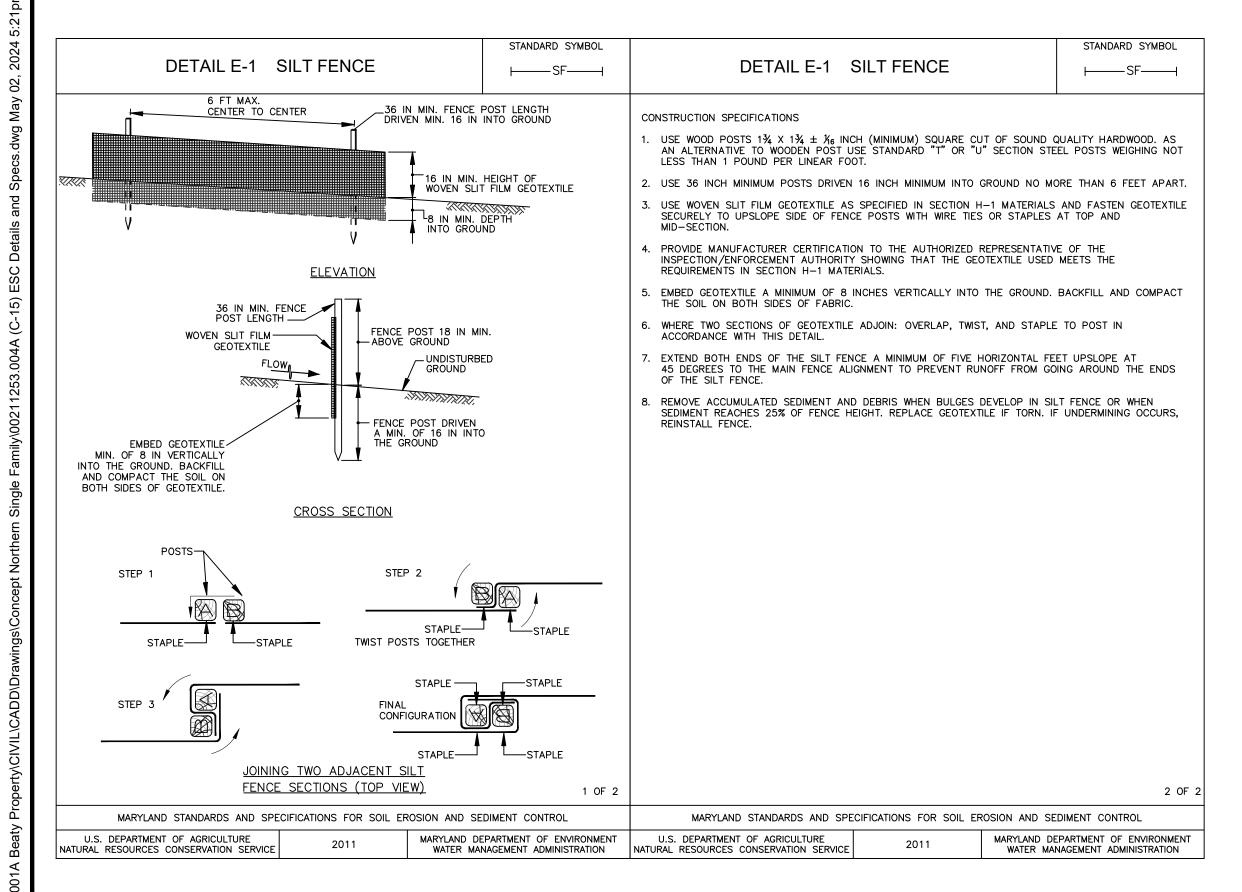


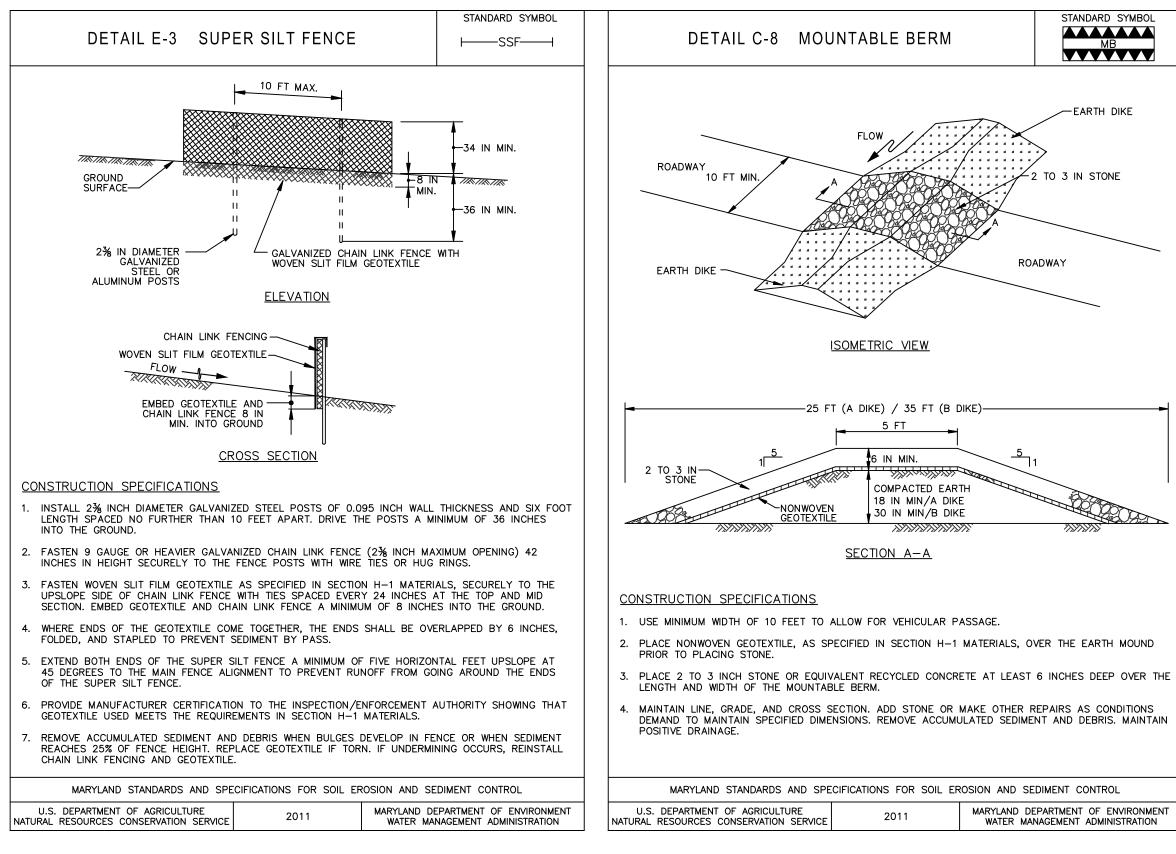






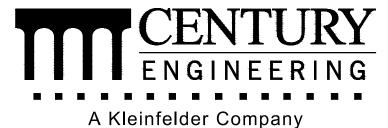






DATA SOURCES

- 1. EXISTING TOPOGRAPHY AND STRUCTURES SHOWN HEREON OUTSIDE OF THE LIMITS OF FIELD RUN TOPOGRAPHY ARE FROM CARROLL COUNTY GIS.
- 2. EXISTING TOPOGRAPHY FROM FIELD RUN SURVEY BY MTPLS LAND SURVEYORS, LLC. DATED NOVEMBER 2021.
- 3. BOUNDARY INFORMATION SHOWN HEREON IS FROM FIELD LOCATION PREFORMED BY MTPLS LAND SURVEYORS, LLC, NOVEMBER, 2021.
- 4. COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND
- STATE COORDINATE SYSTEM (NAD 83/2011, NAVD 88)
- 5. DOWNSTREAM CONDITIONS TAKEN FROM THE "OAK CREEK FLOODPLAIN STUDY" DATED SEPT 2009
- 6, ENVIRONMENTAL DELINEATION PREFORMED BY ECO SCIENCE PROFESSIONALS NOVEMBER 2021



10710 Gilroy Road, Hunt Valley, MD 21031 Phone: 443.589.2400 www.centuryeng.com

CONCEPT MAJOR SUBDIVISION PLAN FOR R-40,000 RESIDENTIAL

EROSION AND SEDIMENT CONTROL DETAILS AND SPECIFICATIONS

ELDERSBURG PRESERVE

BENNETT ROAD

ELDERSBURG, MD TAX MAP 73 : GRID 6 : PARCEL 247 **ELECTION DISTRICT 5** CARROLL COUNTY, MD

OF MARI

PROFESSIONAL CERTIFICATION

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 NUMBER: 32574 EXPIRATION DATE: 1-16-2026

SCALE: AS SHOWN DATE: 5-1-24-2024 PROJECT NUMBER: 00211253.004

DRAWING: 15 of 19

OWNER LONG MEADOW FARM 21784 LLC ST. JOHN PROPERTIES, INC. 741 KLEES MILL RD WESTMINSTER. MD 21157

PHONE NO: 410-369-1207

DEVELOPER 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 CONTACT: MATT TAYLOR PHONE NO: 410-369-1207

REVISIONS

To promote the establishment of vegetation on exposed soil.

CONDITIONS WHERE PRACTICE APPLIES On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization; soil preparation,

soil amendments and topsoiling; seeding and mulching; temporary stabilization; and permanent stabilization.

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

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

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

SEDIMENT CONTROL PRACTICES MUST REMAIN IN PLACE DURING GRADING, SEEDBED PREPARATION, SEEDING, MULCHING, AND VEGETATIVE ESTABLISHMENT.

ADEQUATE VEGETATIVE ESTABLISHMENT

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season. 1. Adequate vegetative stabilization requires 95 percent groundcover.

2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed

3. If an area has between 40° and 94 percent groundcover, over-seed and fertilize using half of the rates originally specified. 4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

B-4-1 STANDARDS AND SPECIFICATIONS

To provide timely vegetative cover on cut and fill slopes as work progresses.

Establishment of vegetative cover on cut and fill slopes.

CONDITIONS WHERE PRACTICE APPLIES Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

<u>CRITERIA</u>

A. Incremental Stabilization - Cut Slopes 1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all

cut slopes as the work progresses. 2. Construction sequence example (Refer to Figure B.1):

a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation. Perform Phase I excavation, prepare seedbed, and stabilize.

Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as necessary.

Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

NOTE: ONCE EXCAVATION HAS BEGUN, THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.

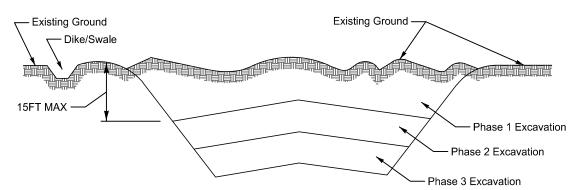


Figure B.1: Incremental Stabilization - Cut

B. Incremental Stabilization - Fill Slopes 1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all

2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet or when the grading operation ceases as prescribed in

3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it

down the slope in a non-erosive manner

4. Construction sequence example (Refer to Figure B.2): a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on

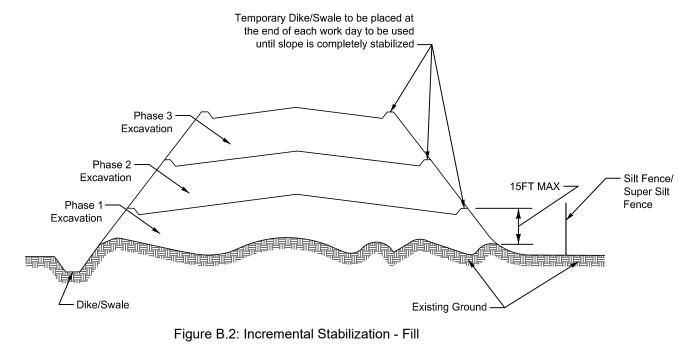
low side of fill unless other methods shown on the plans address this area b. At the end of the day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it

down the slope in a non-erosive manner c. Place Phase 1 fill, prepare seedbed, and stabilize

d. Place Phase 2 fill, prepare seedbed, and stabilize.

e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

NOTE: ONCE THE PLACEMENT OF FILL HAS BEGUN. THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.



B-4-2 STANDARDS AND SPECIFICATIONS

FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

The process of preparing the soils to sustain adequate vegetative stabilization.

To provide a suitable soil medium for vegetative growth.

CONDITIONS WHERE PRACTICE APPLIES Where vegetative stabilization is to be established.

CRITERIA

 A. Soil Preparation 1. Temporary Stabilization

a. Seed 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 soil is loosened, it must not be rolled or dragged smooth but left in roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.

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 means

Permanent Stabilization a. 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 to 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: if lovegrass 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.

Application of amendments or topsoil is required if on-site soils do not meet the above conditions. 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. d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn 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 seedbed 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. Seedbed loosening may be unnecessary on newly disturbed areas.

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 moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in 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:

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 material.

The original soil to be vegetated contains material toxic to plant growth. d. The soil is so acidic that treatment with limestone is not feasible.

4. Areas having slopes steeper than 2:1 require special consideration and design. 5. 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 cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½ inches in diameter.

b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison vy, 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.

6. Topsoil Application

a. Erosion and sediment control practices must be maintained when applying topsoil. b. 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 sodding or seeding can proceed with a minimum of additional soil preparation and tillage. 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.

c. 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 seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)

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 chemical analyses.

. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure 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 hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 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 (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

B-4-8 STANDARDS AND SPECIFICATIONS

STOCKPILE AREAS

<u>DEFINITION</u> A mound or pile of soil protected by appropriately designed erosion and sediment control measures

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage

CONDITIONS WHERE PRACTICE APPLIES Stockpile areas are utilized when it is necessary to salvage and store soil for later use

<u>CRITERIA</u>

A. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan. B. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than

2:1. Benching must be provided in accordance with Section B-3 Land Grading. C. Runoff from the stockpile area must drain to a suitable sediment control practice.

D. Access the stockpile area from the upgrade side.

E. Clear water runoff into the stockpile area must be minimized by use of a diversion fence such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.

F. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the

G. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization. H. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing

contaminated material must be covered with impermeable sheeting

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes or 40 feet for 4:1 slopes, benching must be provided in accordance with Section

Table B.6: Maintenance Fertilization for Permanent Seeding

Seeding Mixture	Type	lb/ac	lb/1000 sf	Time	Mowing
Tall fescue makes up 70 percent or more of cover.	10 - 10 -10 or 30 - 10 - 10	500 400	11.5 9.2	Yearly or as needed. Fall	Not closer than 3 inches, if occasional mowing is desired.
Birdsfoot Trefoil.	0 - 20 - 0	400	9.2	Spring, the year following establishment, and every 4 to 5 years, thereafter.	Mow no closer than 2 inches.
Fairly uniform stand of tall fescue or birdsfoot trefoil.	5 - 10 - 10	500	11.5	Fall, the year following establishment, and every 4 to 5 years, thereafter.	Not required, no closer than 4 inches in the fall after seed has matured.
Weeping lovegrass fairly uniform plant distribution.	5 - 10 - 10	500	11.5	Spring, the year following establishment, and every 3 to 4 years, thereafter.	Not required, not closer than 4 inches in fall after seed has matured.
Red & chewings fescue, Kentucky bluegrass, hard fescue mixtures.	20 - 10 - 10	250 100	5.8 2.3	September, 30 days later. December, May 20, June 30, if needed.	Mow no closer than 2 inches red fescue and Kentucky bluegrass, 3 inches for fescue

B-4 STANDARDS AND SPECIFICATIONS

To promote the establishment of vegetation on exposed soil

Using vegetation as cover to protect exposed soil from erosion

CONDITIONS WHERE PRACTICE APPLIES On all disturbed areas not stabilized by other methods. This specification is divided into sections

B-4-3 STANDARDS AND SPECIFICATIONS

SEEDING AND MULCHING

The application of seed and mulch to establish vegetative cover

To protect disturbed soils from erosion during and at the end of construction.

CONDITIONS WHERE PRACTICE APPLIES To the surface of all perimeter controls, slopes, and any disturbed area not under active grading

<u>CRITER**I**A</u>

Specifications

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 tags must be available

upon request to the inspector to verify type of seed and seeding rate.

b. Mulch alone 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. Sod and seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

a. Dry seeding: This includes use of conventional drop or broadcast spreaders.

iii. Mix seed and fertilizer on site and seed immediately and without interruption.

iv. When hydroseeding, do not incorporate into the soil.

i. 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. ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area

with a weighted roller to provide good seed to soil contact. b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil. i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least \mathcal{Y}_i inch of soil covering. Seedbed

must be firm after planting. ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer). i. If fertilizer is being applied at the time of seeding, the application rates should be exceed the following: nitrogen, 100 pounds per acre total soluble nitrogen; P_2O_5 (phosphorous), 200 pounds per acre; K_2O (potassium), 200 pounds per acre. ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

 Mulch Materials (in order of preference) a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonable bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland See Law and not musty, moldy, caked, decayed, or excessively dusty.

Note: Use only sterile straw mulch in areas where one species of grass is desired. b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous

physical state. i. WCFM 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 uniformly spread slurry. ii. WCFM, including dye, must contain no germination or growth inhibiting factors. iii. WCFM 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 homogenous slurry. the mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

iv. WCFM material must not contain elements or compounds at concentration levels that will by phyto-toxic. v WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, d approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

Apply mulch to all seeded areas immediately after seeding. 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 at a net dry weight of 100 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

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 drawn implement designed to punch and anchor mulch into the soil surface a minimum of

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. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier

2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely.

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

OWNER

741 KLEES MILL RD

WESTMINSTER. MD 21157

PHONE NO: 410-369-1207

LONG MEADOW FARM 21784 LLC ST. JOHN PROPERTIES, INC.

at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly

DATA SOURCES

1. EXISTING TOPOGRAPHY AND STRUCTURES SHOWN HEREON OUTSIDE OF THE LIMITS OF FIELD RUN TOPOGRAPHY ARE FROM CARROLL COUNTY GIS.

2. EXISTING TOPOGRAPHY FROM FIELD RUN SURVEY BY MTPLS LAND SURVEYORS, LLC. DATED NOVEMBER 2021.

3. BOUNDARY INFORMATION SHOWN HEREON IS FROM FIELD LOCATION PREFORMED BY MTPLS LAND SURVEYORS, LLC, NOVEMBER, 2021.

4. COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND STATE COORDINATE SYSTEM (NAD 83/2011, NAVD 88)

5, DOWNSTREAM CONDITIONS TAKEN FROM THE "OAK CREEK FLOODPLAIN STUDY" DATED SEPT 2009

6, ENVIRONMENTAL DELINEATION PREFORMED BY ECO SCIENCE PROFESSIONALS NOVEMBER 2021

A Kleinfelder Company

CONCEPT MAJOR SUBDIVISION PLAN FOR R-40,000 RESIDENTIAL

10710 Gilroy Road, Hunt Valley, MD 21031

Phone: 443.589.2400 www.centuryeng.com

EROSION AND SEDIMENT CONTROL DETAILS AND SPECIFICATIONS

ELDERSBURG PRESERVE

BENNETT ROAD ELDERSBURG, MD TAX MAP 73 : GRID 6 : PARCEL 247 **ELECTION DISTRICT 5**

SCALE: AS SHOWN



PROJECT NUMBER: 00211253.004

DATE: 5-1-24-2024

CERTIFICATION 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

PROFESSIONAL

CARROLL COUNTY, MD

LICENSE NUMBER: 32574 EXPIRATION DATE: 1-16-2026

DRAWING: 16 of 19

DATE BY

P-23-0055

REVISIONS

2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244

CONTACT: MATT TAYLOR PHONE NO: 410-369-1207

DEVELOPER

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

<u>CRITERIA</u>

- A. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If the Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan. B. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soils tests are not required for
- Temporary Seeding. C. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch along as prescribed in Section B-4-3.A.1.1b and maintain until the next seeding season.

Temporary Seeding Summary

	Hardiness Zone: Seed Mixture:	7A N/A			Fertilizer Rate	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-20-20)	Lime Nate
	Annual Ryegrass (Lolium perenne ssp. multiflorum)	40	Feb 15 to Apr 30; Aug 15 to Nov 30	0.5 in.		
N/A	Barley (Hordeum vulgare)	96	Feb 15 to Apr 30; Aug 15 to Nov 30	1.0 in.	436 lb/ac	2 tons/ac
IN/A	Foxtail Millet (Setaria italica)	30	May 1 to Aug 14	0.5 in.	(10 lb/1000sf)	(90 lb/1000 sf)
	Pearl Millet (Pennisetum glaucum)	20	May 1 to Aug 14	0.5 in.		

B-4-4 STANDARDS AND SPECIFICATIONS

To stabilize disturbed soils with permanent vegetation.

To use long-lived perennial grasses and legumes to establish permanent cover on disturbed soils..

CONDITIONS WHERE PRACTICE APPLIES Exposed soils where ground cover is needed for 6 months or more...

<u>CRITERIA</u>

A. Seed Mixtures General Use

- a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), 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 shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area
- c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
- d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ 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. Turfgrass Mixtures
- a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive 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 mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan: i. 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 total mixture by weight. ii. Kentucky Bluegrass/Perennial Rye: 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 Seeding Rate: 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: 5 to 8 pounds per 1000 square feet. One or
- 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 and Certified Fine Fescue 60 to 70 percent. Seeding Rate: 1½ to 3 pounds per 1000 square feet.

SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION. AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND".

CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.

3. Ideal Times of Seeding for Turf Grass Mixtures Western Maryland: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

<u>Central Maryland</u>: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardness Zones: 7a, 7b)

- 4. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.
- 5. If soil moisture is deficient, supply new seedings with adequate water for plant growth 1/2 to 1 inch ever 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Permanent Seeding Summary

	Hardiness Zone: Seed Mixture:	7A Cool-Season Gra	ass <u>M</u> ix			Fertilizer F (10-20-2		Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P ₂ O ₅	K₂O	Lime Nate
	Tall Fescue (Lolium arundinaceum)	60		$\frac{1}{4}$ to $\frac{1}{2}$ in.				
9	Kentucky Bluegrass (Poa pratensis)	40	Feb 15 to Apr 30; Aug 15 to Oct 31; Nov 1 to Nov 30	⅓ to ⅓ in.	45 lb/ac (1 lb/ 1000sf)	90 lb/ac (2 lb/ 1000sf)	90 lb/ac (2 lb/ 1000sf)	2 tons/ac (90 lb/ 1000 sf)
	Perennial Ryegrass (Lolium perenne)	20	1107 1 10 1107 00	1/4 to $1/2$ in.		.55001)] 31,

Permanent Seeding Summary

	Hardiness Zone: Seed Mixture:V	7A Varm-Season Gr	ass <u>M</u> ix			Fertilizer F (10-20-2		Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P ₂ O ₅	K ₂ O	Lime Nate
	Deertongue (Dichanthelium clandestinum)	15						
4	Creeping Red Fescue (Festuca rubra var. rubra)	20	Feb 15 to Apr 30; May 1 to May 20	1/4 to $1/2$ in.	45 lb/ac (1 lb/ 1000sf)	90 lb/ac (2 lb/ 1000sf)	90 lb/ac (2 lb/ 1000sf)	2 tons/ac (90 lb/ 1000 sf)
	Virginia Wild Rye (Elymus virginicus)	5						31)

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

- General Specifications a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and
- b. Sod must be machine cut at a uniform soil thickness of $\frac{3}{4}$ inches, plus or minus $\frac{3}{4}$ inch, at the time of cutting. Measurement
- for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when
- suspended vertically with a firm grasp on the upper 10 percent of the section. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival. e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be
- approved by an agronomist or soil scientist prior to its installation Sod Installation
- a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
- b. Lay the first row of sod in a straight line with subsequent rows place parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that
- all joints are butted tight in order to prevent voids which would cause air drying of the roots. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying
- sod are thoroughly wet. Complete the operation of laying, tamping and irrigating for any piece of sod within eight hours. 3. Sod Maintenance
- a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain

subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting. b. After the first week, sod watering is required as necessary to maintain adequate moisture content. c. Do not mow until the sod is firmly rooted. No more than $\frac{1}{3}$ of the grass leaf must be removed by the initial cutting or

B-4-8 STANDARDS AND SPECIFICATIONS

Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

- A. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan. B. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than
- 2:1. Benching must be provided in accordance with Section B-3 Land Grading. C. Runoff from the stockpile area must drain to a suitable sediment control practice.
- D. Access the stockpile area from the upgrade side.
- E. Clear water runoff into the stockpile area must be minimized by use of a diversion fence such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
- F. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the
- G. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization
- H. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

<u>MAINTENANCE</u>

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

Table B.6: Maintenance Fertilization for Permanent Seeding

Seeding Mixture	Туре	lb/ac	lb/1000 sf	Time	Mowing
Tall fescue makes up 70 percent or more of cover.	10 - 10 -10 or 30 - 10 - 10	500 400	11.5 9.2	Yearly or as needed, Fall	Not closer than 3 inches, if occasional mowing is desired
Birdsfoot Trefoil.	0 - 20 - 0	400	9.2	Spring, the year following establishment, and every 4 to 5 years, thereafter.	Mow no closer than 2 inches.
Fairly uniform stand of tall fescue or birdsfoot trefoil.	5 - 10 - 10	500	11.5	Fall, the year following establishment, and every 4 to 5 years, thereafter.	Not required, no closer than a inches in the fall after seed has matured.
Weeping lovegrass fairly uniform plant distribution.	5 - 10 - 10	500	11.5	Spring, the year following establishment, and every 3 to 4 years, thereafter.	Not required, not closer than 4 inches in fall after seed has matured.
Red & chewings fescue, Kentucky bluegrass, hard fescue mixtures.	20 - 10 - 10	250 100	5.8 2.3	September, 30 days later. December, May 20, June 30, if needed.	Mow no closer than 2 inches red fescue and Kentucky bluegrass, 3 inches for fescue

DATA SOURCES

- 1. EXISTING TOPOGRAPHY AND STRUCTURES SHOWN HEREON OUTSIDE OF THE LIMITS OF FIELD RUN TOPOGRAPHY ARE FROM CARROLL COUNTY GIS.
- 2. EXISTING TOPOGRAPHY FROM FIELD RUN SURVEY BY MTPLS LAND SURVEYORS, LLC. DATED NOVEMBER 2021.
- 3. BOUNDARY INFORMATION SHOWN HEREON IS FROM FIELD LOCATION PREFORMED BY MTPLS LAND SURVEYORS, LLC, NOVEMBER, 2021.
- 4. COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERRED TO THE MARYLAND STATE COORDINATE SYSTEM (NAD 83/2011, NAVD 88)
- 5. DOWNSTREAM CONDITIONS TAKEN FROM THE "OAK CREEK FLOODPLAIN STUDY" DATED SEPT 2009.
- 6, ENVIRONMENTAL DELINEATION PREFORMED BY ECO SCIENCE PROFESSIONALS NOVEMBER 2021.



A Kleinfelder Company

Phone: 443.589.2400 www.centuryeng.com

CONCEPT MAJOR SUBDIVISION PLAN FOR R-40,000 RESIDENTIAL

10710 Gilroy Road, Hunt Valley, MD 21031

EROSION AND SEDIMENT CONTROL

DETAILS AND SPECIFICATIONS

ELDERSBURG PRESERVE

BENNETT ROAD ELDERSBURG, MD TAX MAP 73 : GRID 6 : PARCEL 247

ELECTION DISTRICT 5

P-23-0055

REVISIONS

PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL

> LICENSE NUMBER: 32574 EXPIRATION DATE: 1-16-2026

DATE: 5-1-24-2024 SCALE: AS SHOWN DRAWING: PROJECT NUMBER: 00211253.004

17 of 19

CARROLL COUNTY, MD

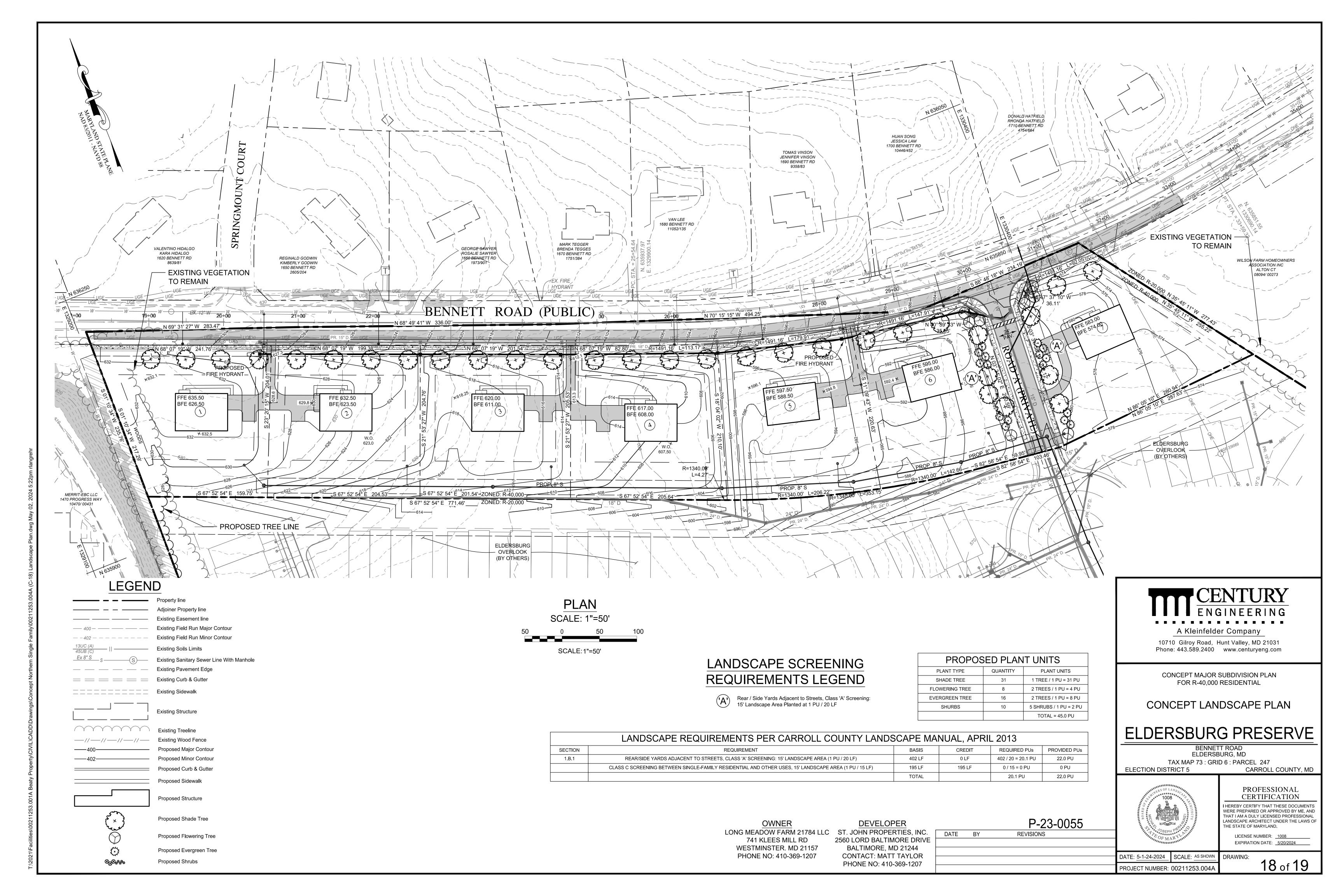
ENGINEER UNDER THE LAWS OF THE STATE

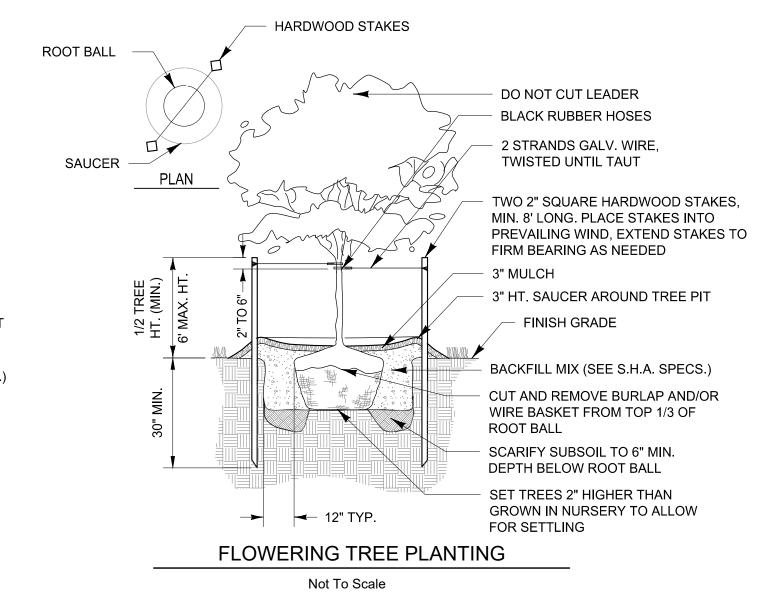
OWNER LONG MEADOW FARM 21784 LLC ST. JOHN PROPERTIES, INC. 741 KLEES MILL RD WESTMINSTER. MD 21157

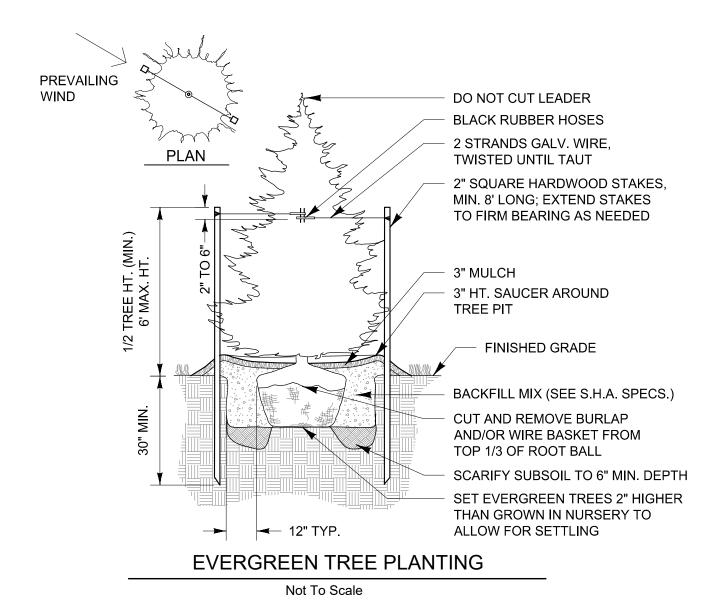
PHONE NO: 410-369-1207

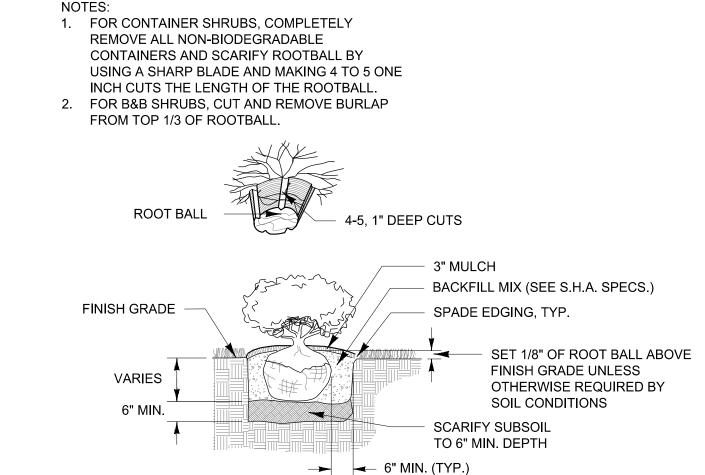
DEVELOPER 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 CONTACT: MATT TAYLOR PHONE NO: 410-369-1207

DATE BY









SHRUB PLANTING

Not To Scale

CARROLL COUNTY LANDSCAPE SPECIFICATIONS

- 1. All plants shall be identified in accordance with the latest Edition of Hortus Third, by "The Staff of the
- Hortorium".
- 2. All nursery stock shall conform to American Association of Nurserymen, Inc., standards as described in American Standard for Nursery Stock, current ANSI Z-60.1 specifications.
- 3. Landscape specifications shall conform to Landscape Contractors Association Specification Guidelines for Maryland, Washington, D.C., and Virginia, latest edition and Century Engineering, Inc. specifications. All nursery stock shall be planted in accordance with the procedures outlined in the guidelines.
- 4. Three (3) inches of topsoil on all disturbed areas to be landscaped, seeded or sodded is required. 5. A separate plan labeled "Landscape Plan" (may be combined with Forest Conservation Plan) is required. Landscape requirements may not be combined with the Forest Conservation Plan.

PLANTING NOTES

- 1. Plant material substitutions will not be accepted without approval of the Landscape Architect.
- All Shrubs and groundcover areas shall be planted in continuous prepared planting beds. 3. All shrub beds shall be mulched with hardwood mulch as detailed and specified except where noted on
- 4. Maintain positive drainage out of planting beds at a minimum of two percent slope.
- 5. Plant quantities are provided for the convenience of the contractor. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take
- 6. All areas within contract limits disturbed during or prior to construction not designated to receive plantings and mulch shall be fine graded and seeded in accordance with planting and construction.
- The contractor shall notify Miss Utility, (800-257-7777) a minimum of three working days prior to planting and construction.
- 8. Contractor shall test pit prior to plant installation.

IRRIGATION METHODS

- 1. The use and maintenance of drip irrigation bags or rings around the trunks of newly-planted trees. Hand watering, with water sources provided through either or both of the following methods:
- 2.1. Exterior faucets on a building, located so that the farthest planting can be reached by a length of hose (100 feet recommended).
- 2.2. A quick-coupling system, with connections located so that the farthest planting can be reached by a length of hose (100 feet recommended).
- 2.3. A water tank or truck. An automatic irrigation system with a moisture-sensing device and-or rain shut-off switch. If using an automatic irrigation system, the following requirements shall be met:
- 3.1. All irrigation systems shall be designed to minimize vandalism. 3.2. Sprinklers must not over-spray onto pavement. Sprinkler and spray heads are not permitted for
- planting areas less than eight (8) feet in width, to prevent overspray and run-off. Other irrigation methods shall be specified in such areas. 3.3. Place lawn areas in a separate irrigation zone from shrub and groundcover beds so that each planting type can receive adequate irrigation without over-watering areas with lower irrigation
- 3.4. Drip irrigation is recommended for shrub and groundcover beds. Drip irrigation shall be used in
- areas smaller than five (5) feet in any direction. 4. The use of rainwater harvesting techniques combined with the use of harvested rainwater for landscape irrigation is encouraged.

NON-INVASIVE NOTE

1. Non-invasive vegetation that is native or regionally appropriate for local growing conditions has been selected to promote biodiversity.

MINIMUM LANDSCAPE MAINTENANCE REQUIREMENTS

- 1. A two year plant replacement warranty and two years of maintenance are required by the County.
- 2. Lawn areas shall be mowed to a height of 2 to 3 inches and not allowed to reach a height of 4 inches before mowing.
- 3. All curbs and walks shall be edged as needed.
- 4. All lawn areas adjacent to building faces or structures shall be trimmed.
- 5. A slow release nitrogen balanced fertilizer with a 2-1-1 ratio shall be applied at a rate of 2 pounds of nitrogen per 1000 square feet in September, October, and February.
- Lime shall be applied at the rate determined by a soils report.
- 7. It is recommended that lawn areas be treated in mid-March to early April with pre-emergent herbicide
- (Betasan) or equal applied at the manufacturer's rate. A post-emergent herbicide (Trimec) or equal is recommended to be sprayed on lawn areas in the late
- spring or early fall. Follow manufacturer's rates and recommendations.
- 9. Insecticides and fungicides are recommended for insect and disease contol. 10. Reseed bare areas of lawn as necessary. Yearly aeration is recommended.
- 11. All trash, litter, and debris shall be removed from lawn areas, parking lots, and shrub beds as needed.
- 12. Mulch all shrub and groundcover beds yearly with 3 inches of shredded hardwood bark. 13. Permit shrubs and trees to grow and enlarge to their design size. Consult project Landscape Architect
- 14. Prune trees in accordance with Landscape Specification Guidelines for Baltimore-Washington
- Metropolitan Areas.
- 15. Maintenance of landscape areas includes, but is not limited to weeding, mulching, mowing, trimming, pruning, edging, cultivation, seeding, fertilization, watering, pest control, and any other maintenance necessary to ensure healthy, vigorous plant growth and well-kept property condition.
- 16. Landscaping elements such as walls and fences shall be constructed in a sound workmanlike manner with adequate support or footings and must be repaired or replaced as needed to preserve an attractive appearance and to function as intended.
- 17. Any dead plants or plants which fail to show healthy growth must be removed and replaced within 60 days of identification of deteriorated health or notification by the County. Replacement may be delayed until the next growing season only if the 60 day period occurs during a time of year not suitable for
- 18. All replacement plants must meet the size and other characteristics of newly planted material as required in the manual.
- 19. Trees and large shrubs must be adequately supported, when necessary to insure proper growth. Tree staking must be removed prior to final inspection, with the exception of plants replaced during the warranty period and not yet established.
- 20. It is desirable to avoid excessive use of fertilizers and pesticides to minimize impacts on water quality. It is recommended that fertilizer application be need-based rather than as an automatic component of maintenance schedules and when appropriate, slow-release or natural fertilizers be selected over
- highly-soluble chemical fertilizers. 21. The implementation of an Integrated Pest Management (IMP) program is recommended to prevent and treat pest problems.

FINAL LANDSCAPE PLAN OWNER CERTIFICATION FORM

I certify that I have reviewed this Final Landscape Plan; that I have read and understood the regulations presented int eh Carroll County Landscape Manual; and I agree to comply with these regulations and all applicable policy, guidelines and ordinances. I agree to certify the implementation of this approved Final Landscape Plan no later than one (1) year from the date of approval of this plan to the Department of Planning, Bureau of Resource Management, Room 209, 225 N. Center Street, Westminster, MD 21157-5194.

Applicant Signature	Date	Print Name
Address	Street	Phone No.
City	State	Zip

OWNER LONG MEADOW FARM 21784 LLC ST. JOHN PROPERTIES, INC. 741 KLEES MILL RD WESTMINSTER. MD 21157 PHONE NO: 410-369-1207

DEVELOPER 2560 LORD BALTIMORE DRIVE BALTIMORE, MD 21244 **CONTACT: MATT TAYLOR** PHONE NO: 410-369-1207

File#

P-23-0055 DATE BY REVISIONS

STANDARDS & SPECIFICATIONS FOR PLANTING

TIMETABLE FOR PLANTING

ALL B&B AND CONTAINER PLANTING SHALL BE DONE BETWEEN MARCH 25 AND APRIL 30, FOR SPRING PLANTING, AND BETWEEN OCTOBER 15 AND DECEMBER 1 FOR FALL PLANTING.

PLANT MATERIAL

SEE PLANT LIST FOR EACH PLANTING AREA.

PLANTING SITE PREPARATION

CONTRACTOR SHALL ERADICATE ALL INVASIVE PLANT MATERIAL WITHIN PLANTING AREAS PRIOR TO PLANTING. ONCE THE PLANTING AREA IS CLEAR OF INVASIVES, PREPARE A PLANTING PIT FOR EACH TREE AND SHRUB. THE AREA DISTURBED FOR THE PIT IS TO BE MULCHED WITH A SHREDDED HARDWOOD PRODUCT. SOIL TESTING IS RECOMMENDED FOR MACRONUTRIENT DEFICIENCIES AND pH LEVELS. PROPER SOIL AMENDMENTS SHOULD BE MADE IF DEEMED NECESSARY.

PLANT MATERIAL STORAGE

IT IS RECOMMENDED THAT PLANTING OCCUR WITHIN 24 HOURS OF DELIVERY TO THE SITE. PLANT MATERIALS LEFT UNPLANTED FOR MORE THAN 24 HOURS SHALL BE PROTECTED FROM DIRECT SUN AND WEATHER AND KEPT MOIST. PLANT MATERIAL SHOULD NOT BE LEFT UNPLANTED FOR MORE THAN TWO WEEKS.

PLANTING METHOD

SEE PLANTING DETAILS FOR EACH TYPE OF PLANT MATERIAL USED . ALL TREES SHALL BE INSTALLED WITH TREE SHELTERS.



10710 Gilroy Road, Hunt Valley, MD 21031 Phone: 443.589.2400 www.centuryeng.com

CONCEPT MAJOR SUBDIVISION PLAN FOR R-40,000 RESIDENTIAL

LANDSCAPE DETAILS & SPECIFICATIONS

ELDERSBURG PRESERVE BENNETT ROAD

ELDERSBURG, MD TAX MAP 73 : GRID 6 : PARCEL 247

ELECTION DISTRICT 5



DATE: 5-1-24-2024

PROFESSIONAL CERTIFICATION

CARROLL COUNTY, MD

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NUMBER: 1008 EXPIRATION DATE: <u>5/20/2024</u>

SCALE: AS SHOWN DRAWING: PROJECT NUMBER: 00211253.004A