

1. SITE DATA

1. EXISTING ZONING: COMMERCIAL, C-3

2. PREMISES ADDRESS: XXXX SYKESVILLE RD, ELDERSBURG, MD 21784

3. TOTAL AREA OF SITE / LIMIT OF CONSTRUCTION: 1.367 ACRES

4. TOTAL DISTURBED AREA: 59,578 S.F. / 1.367 AC. ±

5. THE PROPERTY SHOWN HEREON IS OWNED BY AJCET RESTORATION SERVICES BY DEED DATED 03/31/1988, RECORDED AMONG THE LAND RECORDS OF CARROLL COUNTY LIBER 1 0874, FOLIO 170.

6. TAX MAP: 73 BLOCK: 11 PARCEL: 613 PLAT REFERENCE: 23/20

7. TOPOGRAPHY SHOWN HEREON IS FIELD RUN, DATED 07/07/2025, AND PREPARED BY ADDOCK # ASSOCIATES, LLC.

8. SYKESVILLE ROAD - MD ROUTE 32 POSTED SPEED: 40 MPH
DESIGN SPEED: 50 MPH

9. PARKING TABULATIONS:

SELF STORAGE FACILITY (WITHOUT DRIVEWAY ACCESS)
1 SPACE FOR EVERY 10 STORAGE BAYS
PLUS 2 FOR EMPLOYEE PARKING AND 3
FOR CUSTOMER PARKING AT THE BUSINESS OFFICE.
634 / 10 = 70 + 2 + 3 = 75
* A PARKING VARIANCE (CASE #2A-2215 WAS GRANTED BY CARROLL COUNTY ON 7/23/2025)
REDUCING THE NUMBER OF REQUIRED SPACES TO 11.

HANDICAP PARKING:
1 PER 25 SPACES REQUIRED

PARKING PROVIDED:
12 SPACES (11 STANDARD, 1 HANDICAP)

10. DIMENSIONAL REQUIREMENTS:
MIN. LOT AREA: 12,000 SF
LOT WIDTH: 100 FT
MIN. FRONT SETBACK: 10 FT
MIN. SIDE SETBACK: 10 FT
REAR SETBACK: 15 FT

10. BOARD OF ZONING APPEALS CASE NUMBER

10.1 2A-2215: ADMINISTRATIVE ADJUSTMENT OF REQUIRED PARKING FROM 75 SPACES TO 11 SPACES,
GRANTED ON JULY 23, 2025.

11. LOCATION OF THE NEAREST WATER SUPPLY FOR WATER PROTECTION: 340' SOUTHEAST ON EAST SIDE OF ROUTE 32 AT BEVARD BLVD

12. THE LOCATION OF THE EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION, AND DEPTH OF ANY EXISTING UTILITIES AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK.

13. THE CONTRACTOR SHALL CALL "MISS UTILITY" AT 1-800-257-7777 THREE WORKING PRIOR TO BEGINNING ANY WORK IN THE VICINITY OF EXISTING UTILITIES.

14. 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.

15. 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 THIS TIME LIMIT IS ISSUED BUT THE DIRECTOR OF THE DEPARTMENT OF PLANNING.

GENERAL NOTES

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 PUBLIC WORKS.

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 (MMUTCD) 2009 EDITION OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION.

F. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, 1994 EDITION, PUBLISHED JOINTLY BY WATER RESOURCES ADMINISTRATION, SOIL CONSERVATION SERVICE AND STATE SOIL CONSERVATION COMMITTEE.

2. THE CONTRACTOR SHALL NOTIFY THE CARROLL COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (410-366-2157) 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 MMUTCD. 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. IF DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHOULD ENCOUNTER POSSIBLE CONFLICTS WITH UTILITIES, HE SHALL IMMEDIATELY NOTIFY THE TOWN MANAGER AND THE OWNER OF THE UTILITY AND TAKE ALL NECESSARY AND PROPER STEPS TO PROTECT THE CONTINUANCE OF SERVICE, EITHER ABOVE OR BELOW GROUND. HE SHALL HAVE SUCH UTILITY RESTORED TO CONDITION EQUAL TO THAT WHICH EXISTED PRIOR TO THE DAMAGE AT THEIR ENTIRE COST AND EXPENSE.

5. IF FOR ANY REASON PROPOSED FACILITIES CANNOT BE CONSTRUCTED IN ACCORDANCE WITH APPROVED PLANS, CONTRACTOR MUST IMMEDIATELY INFORM CONSTRUCTION INSPECTOR OR CONSTRUCTION INSPECTION DIVISION (410-366-2157) AND SHALL NOT BEGIN OR CONTINUE WORK ON THOSE ITEMS. IF THE DEPARTMENT OF PUBLIC WORKS 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.

6. 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.

7. CONSTRUCT EARTH FILLS FOR ROADS, EMBANKMENTS, AND STRUCTURES IN ACCORDANCE WITH SECTION 304 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.

8. DEVELOPER IS RESPONSIBLE FOR PROVIDING SOIL, BASE AGGREGATE AND HOT MIX ASPHALT COMPACTION TESTING. A CERTIFIED TECHNICIAN MUST BE ON-SITE 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.

9. 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.

10. PIPE ELEVATIONS SHOWN ON STORM DRAIN PROFILES ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.

11. 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.

12. 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.

13. 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.

14. 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.

15. THE DESIGN EQUIVALENT SINGLE AXLE LOADS (ESAL) AND THE DESIGN CBR VALUE SHALL BE NOTED ON THE CONSTRUCTION PLANS.

16. PERMANENT SIGNAGE AND STRIPING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR SHALL NOTIFY THE TOWN OF SYKESVILLE PUBLIC WORKS AT 410-366-2164 A MINIMUM OF THREE (3) WEEKS PRIOR TO STARTING WORK TO CONFIRM PROPOSED LOCATIONS AND THEN AGAIN 48 HOURS PRIOR TO COMPLETION OF WORK TO CONFIRM PROPER FURNISHINGS AND INSTALLATION.

17. CONSTRUCTION VEHICLES, CONTRACTOR OR PRIVATE, OR CONSTRUCTION MATERIALS OR EQUIPMENT SHALL NOT BE PARKED, PLACED, OR STORED WITHIN ANY PUBLIC RIGHT-OF-WAY.

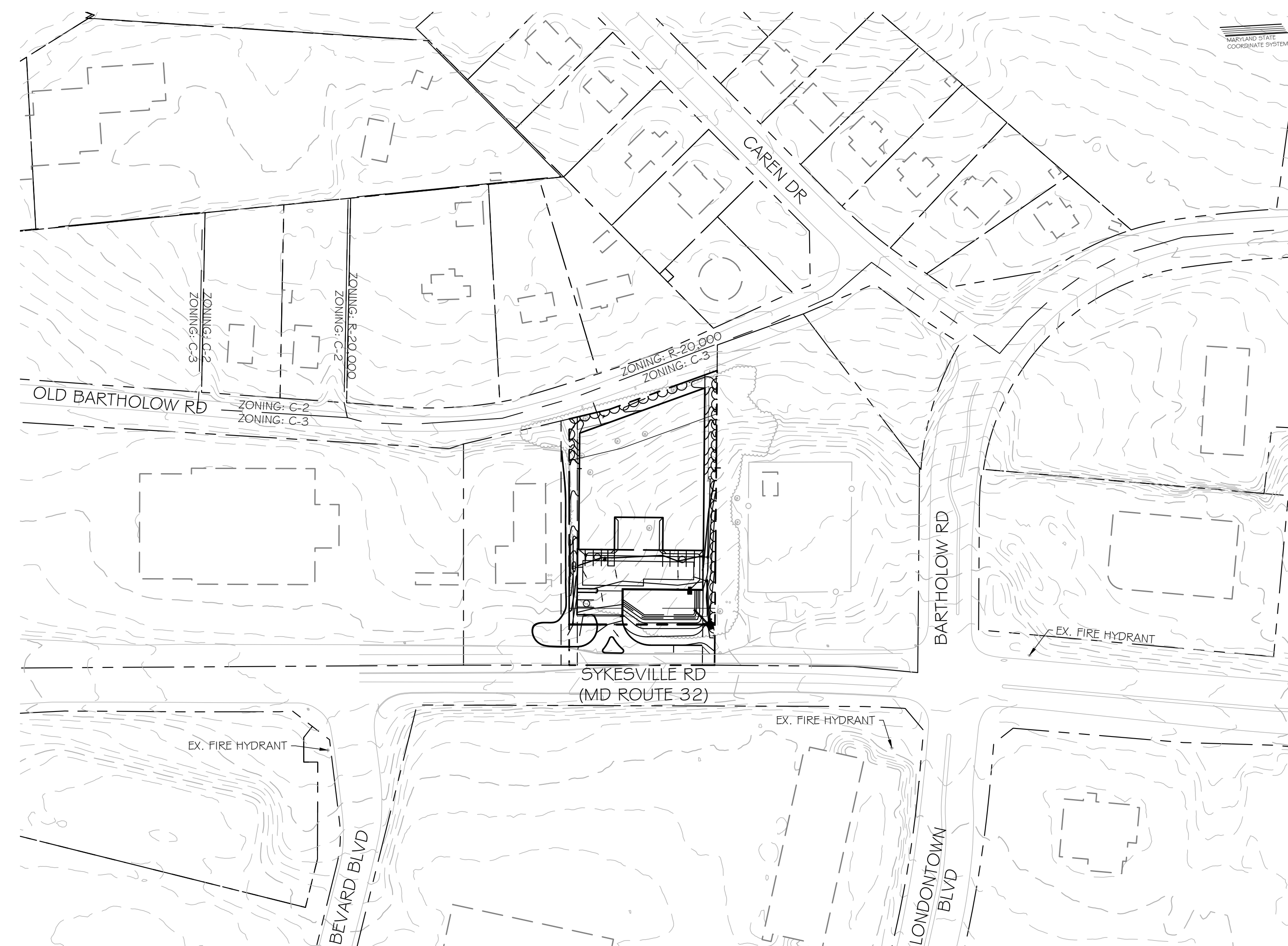
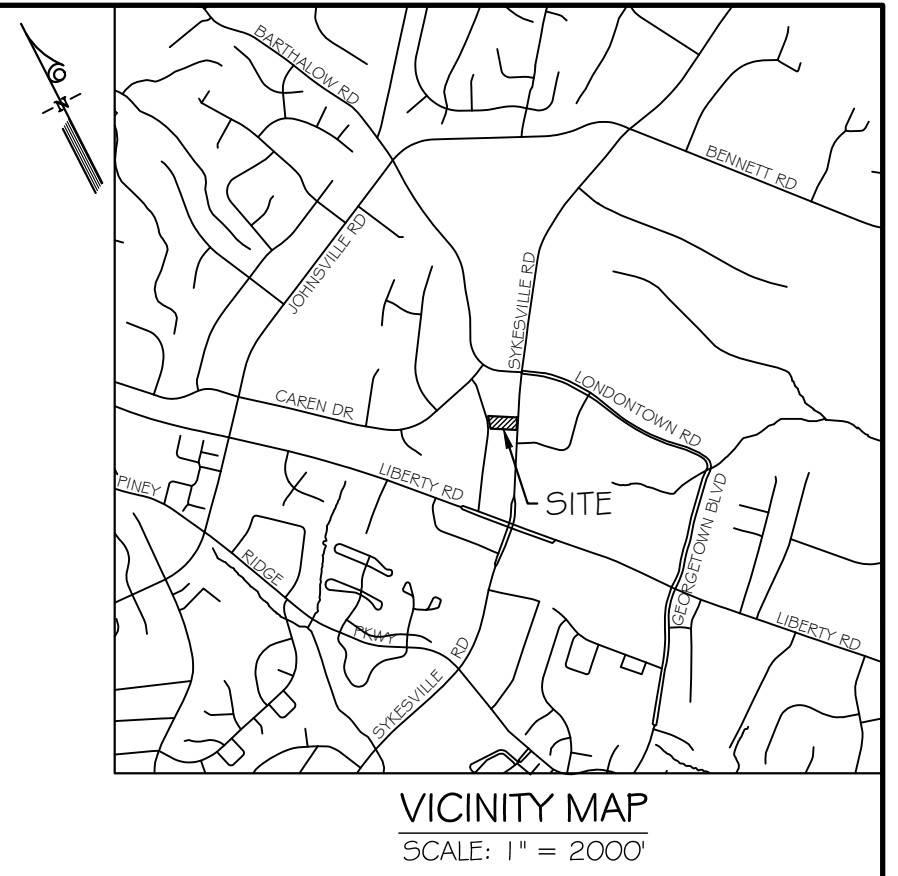
18. TIER II WATERS ARE ABSENT FROM THIS SITE.

ELDERSBURG CROSSROAD

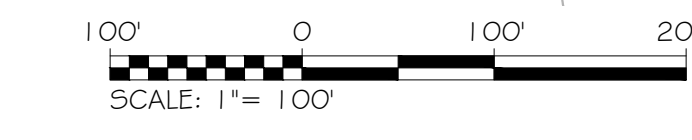
SELF STORAGE

XXXX SYKESVILLE RD, ELDERSBURG, MD 21784

TAX MAP - 73, GRID - 11, PARCEL - 613, LOT - TR CR



OVERALL PLAN
SCALE: 1" = 100'



DEVELOPER'S / LANDOWNER'S CERTIFICATION

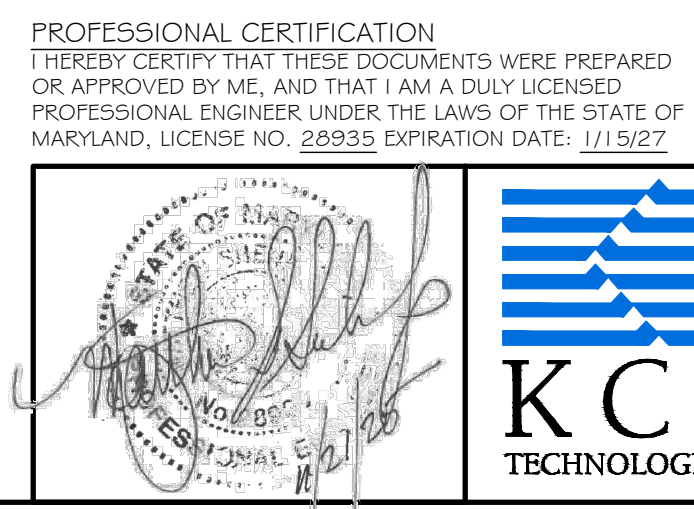
I/WE HEREBY CERTIFY THAT ALL PROPOSED WORK SHOWN ON THESE CONSTRUCTION DRAWINGS WILL BE CONDUCTED IN STRICT ACCORDANCE WITH THESE PLANS. I/WE ALSO UNDERSTAND THAT IT IS MY/OUR RESPONSIBILITY TO HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED, INCLUDING THE SUBMITTAL OF AS-BUILT PLANS CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR WITHIN 30 DAYS OF COMPLETION OF WORK ON THE STORMWATER MANAGEMENT FACILITY. I/WE ALSO CERTIFY THAT THESE STORMWATER MANAGEMENT FACILITIES WILL BE INSPECTED DURING CONSTRUCTION BY A REGISTERED PROFESSIONAL ENGINEER IN ACCORDANCE WITH PAGES 136-139 OF CHAPTER 136 OF THE WESTMINSTER CITY CODE.

Brady McDonald November 21, 2025
SIGNED DATE

ENGINEER'S DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN DESIGNED ACCORDING TO CHAPTER 136 OF THE WESTMINSTER CITY CODE, ENTITLED "STORMWATER MANAGEMENT"

SIGNED SEAL NO. DATE



ENGINEER

CERTIFY THAT THIS PLAN OF SEDIMENT CONTROL IS DESIGNED WITH MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND HAS BEEN DESIGNED TO THE STANDARDS AND SPECIFICATIONS ADOPTED BY THE CARROLL COUNTY SOIL CONSERVATION DISTRICT.

ENGINEER DATE

SOIL CONSERVATION DISTRICT

THE DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE SOIL CONSERVATION DISTRICT.

APPROVED: CARROLL S.C.D. DATE

CARROLL COUNTY HEALTH DEPARTMENT

APPROVED: DATE

COMMUNITY WATER AND / OR SEWERAGE SYSTEMS ARE IN CONFORMANCE WITH THE CARROLL COUNTY MASTER PLAN FOR WATER AND SEWER.

OWNER / DEVELOPER

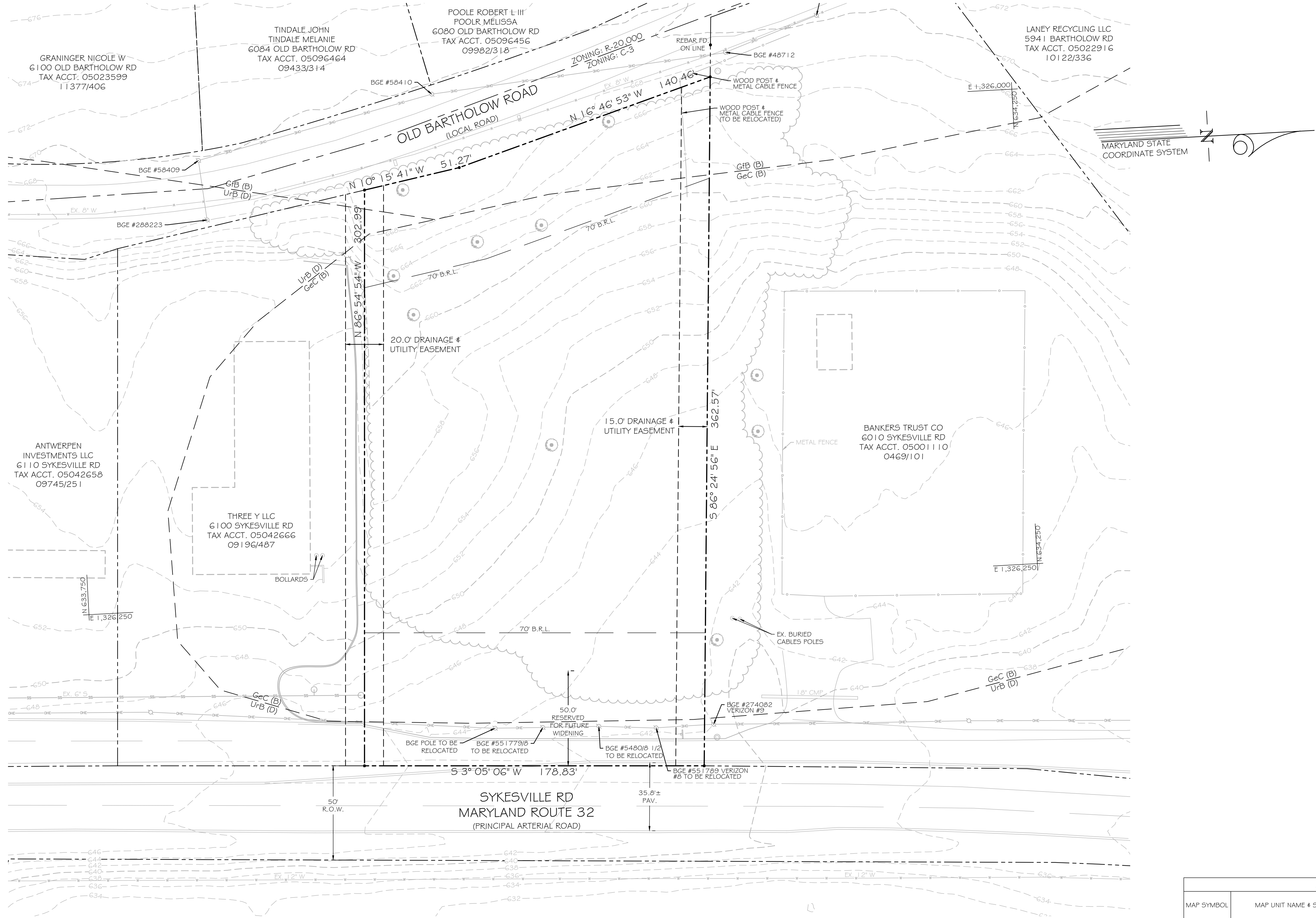
I CERTIFY THAT THIS PLAN WILL BE IMPLEMENTED TO THE FULLEST EXTENT, AND ALL STRUCTURES WILL BE INSTALLED TO THE DESIGN AND SPECIFICATIONS AS SPELLED OUT IN THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THIS PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE EVALUATION BY THE CARROLL SOIL CONSERVATION DISTRICT PERSONNEL AND COOPERATING AGENCIES.

Brady McDonald November 21, 2025
OWNER / DEVELOPER DATE

<p>OWNER</p> <p>AJCT RESTORATION SERVICES</p> <p>2206 SKYLARK DRIVE</p> <p>WESTMINSTER, MD 21157</p>	<p>DEVELOPER</p> <p>BARTHOLOW ROAD LLC</p> <p>C/O BAREFOOT LAND CO.</p> <p>4324 NW 10TH ST</p> <p>CAPE CORAL, FL 33993</p> <p>MASON NEWBERRY</p> <p>(404) 317 - 9063</p>	<p>ENGINEER</p> <p>KCI TECHNOLOGIES</p> <p>936 RIDGEBROOK ROAD</p> <p>SPARKS, MD 21152</p> <p>MATTHEW SICHEL</p> <p>(410) 316 - 7894</p>
<p>TITLE SHEET</p> <p>ELDERSBURG CROSSROADS</p> <p>SELF STORAGE</p> <p>XXXX SYKESVILLE RD,</p> <p>ELDERSBURG, MD 21784</p>		
<p>DRAWING NO.</p> <p>C-01</p>		
<p>SHEET 01 OF 17</p> <p>KCI JOB NUMBER</p> <p>00049505</p>		
<p>CARROLL COUNTY</p> <p>5TH ELECTION DISTRICT</p>		

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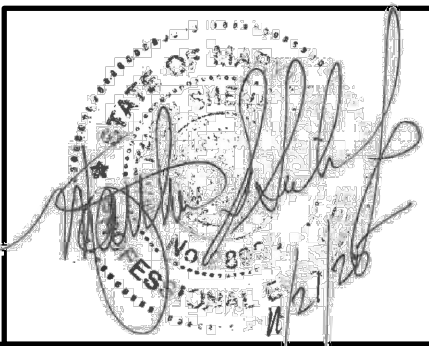


EXISTING CONDITIONS & DEMO PLAN
SCALE: 1"=30'

LEGEND

-----1.20-----	EX. MAJOR CONTOUR	-----	EX. BUILDING
-----1.22-----	EX. MINOR CONTOUR	-----	EX. POWER POLE
-----	RIGHT OF WAY	-----	EX. MANHOLE
-----	PROPERTY LINE	-----	EX. INLET
-----	EASEMENT LINE	-----	EX. FIRE HYDRANT
-----EX. 1.5\"D-----	EX. STORM DRAIN	-----	EX. SIGN
-----EX. 6\"S-----	EX. SANITARY SEWER	-----	EX. METAL FENCE
-----EX. 8\"W-----	EX. WATER	-----	EX. TREE
-----	EX. GAS	-----	EX. TREE TO BE REMOVED
-----	EX. OVERHEAD ELECTRIC	-----	SOIL LINE
-----	EX. CURB AND GUTTER	-----	EX. TREELINE

PROFESSIONAL CERTIFICATION
THEREBY 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. 28933 EXPIRATION DATE: 11/15/27



REVISIONS			
NO.	DATE	DESCRIPTION	BY

DATE	11/24/2025
SCALE	1" = 30'
DESIGNED BY	KCI
DRAWN BY	KCI

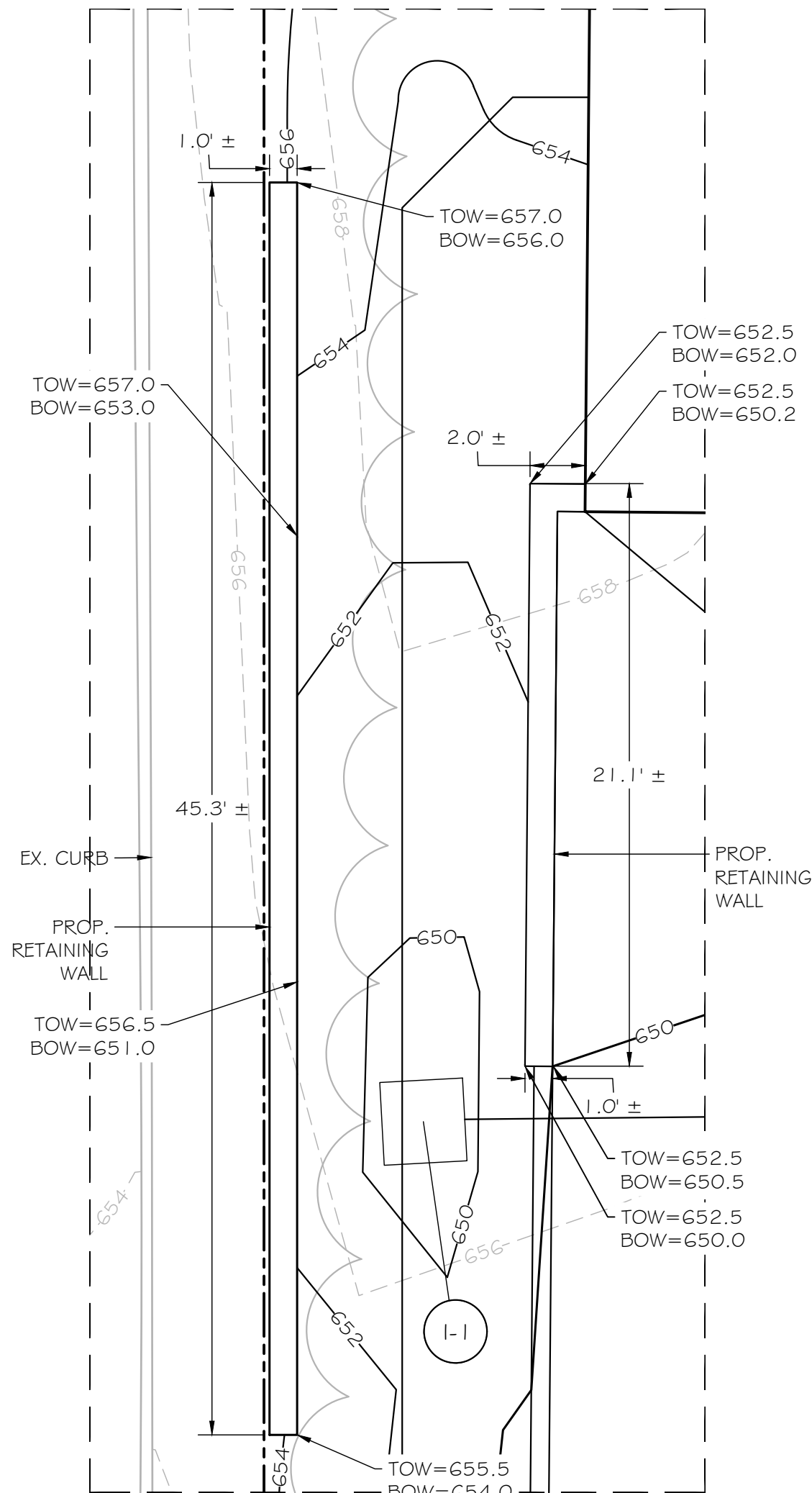
EXISTING CONDITIONS & DEMO PLAN ELDERSBURG CROSSROADS SELF STORAGE XXXX SYKESVILLE RD, ELDERSBURG, MD 21784		CARROLL COUNTY 5TH ELECTION DISTRICT
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DRAWING NO.	C-02
SHEET 02 OF 17	KCI JOB NUMBER: 00049505

SOILS TABLE				
MAP SYMBOL	MAP UNIT NAME & SERIES	MINIMUM K-FACTOR	HYDROLOGIC SOIL GROUP	DRAINAGE CLASS
GeB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	0.01 - 0.20	B	WELL DRAINED
GB	GLENELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	0.20 - 1.98	B	WELL DRAINED
UB	URBAN LAND UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES	0.00 - 0.20	C	MODERATELY WELL DRAINED

OWNER AJCET RESTORATION SERVICES 2206 SKYLARK DRIVE WESTMINSTER, MD 21157	DEVELOPER BARTHOLOW ROAD LLC, C/O BAREFOOT LAND CO. 4324 NW 10TH ST CAPE CORAL, FL 33993 MASON NEWBERRY (404) 317 - 9063	ENGINEER KCI TECHNOLOGIES 936 RIDGEBROOK ROAD SPARKS, MD 21152 MATTHEW SIEGEL (410) 316 - 7894
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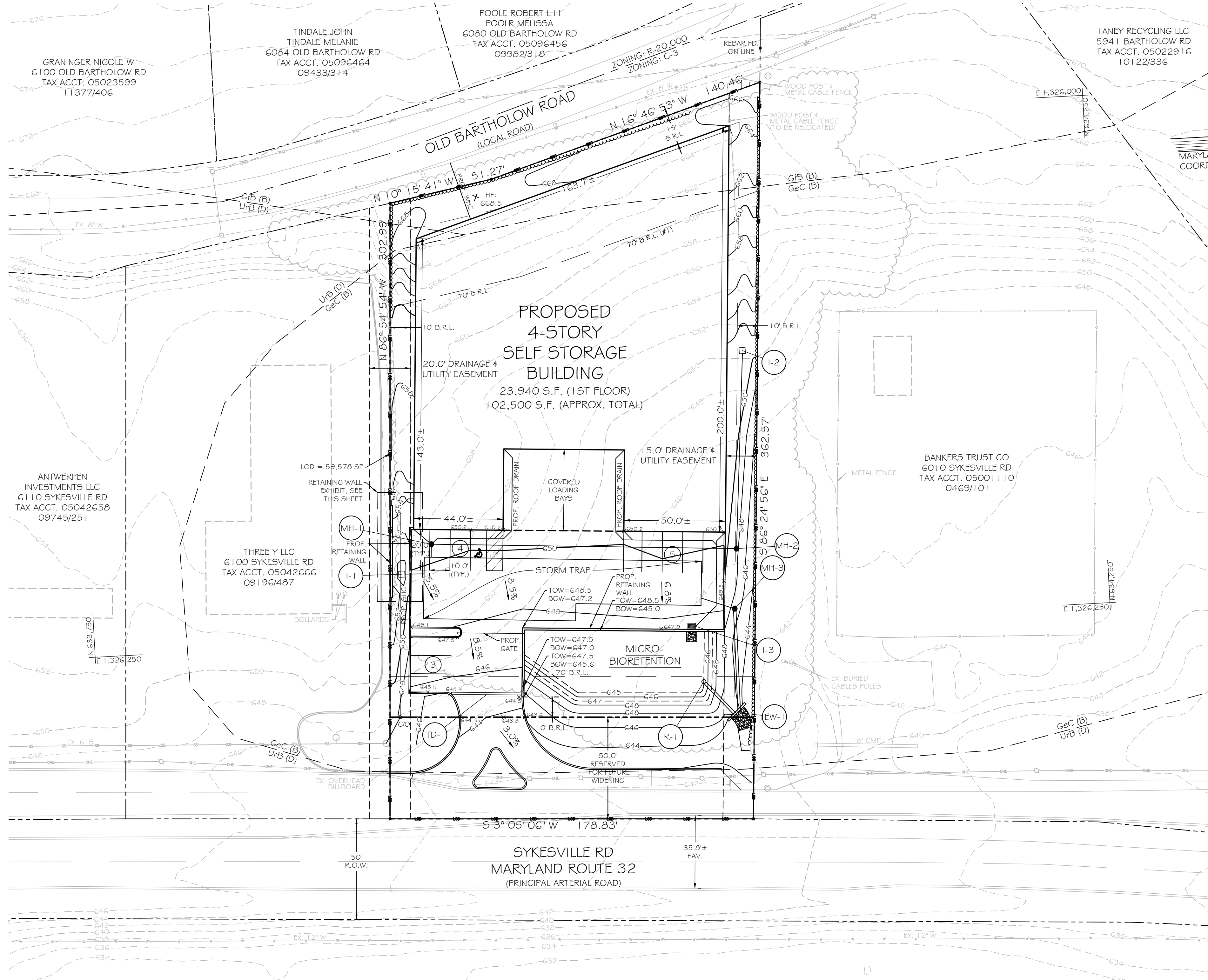
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RETAINING WALL EXHIBIT
SCALE: 1"=5'

LEGEND

---	EX. MAJOR CONTOUR	□	EX. INLET
---	EX. MINOR CONTOUR	□	EX. FIRE HYDRANT
---	RIGHT OF WAY	□	EX. SIGN
---	PROPERTY LINE	□	EX. TREE
---	EASEMENT LINE	□	EX. TREE TO BE REMOVED
---	EX. STORM DRAIN	□	EX. TREELINE
---	EX. SANITARY SEWER	□	LIMITS OF DISTURBANCE
---	EX. WATER	□	PROPOSED MAJOR CONTOUR
---	EX. GAS	□	PROPOSED MINOR CONTOUR
---	EX. OVERHEAD ELECTRIC	□	SOIL LINE
---	EX. CURB AND GUTTER	□	PROPOSED STORM DRAIN
---	EX. BUILDING	□	PROPOSED CURB & GUTTER
---	EX. POWER POLE	□	PROPOSED TREELINE
---	EX. MANHOLE	□	



SITE & GRADING PLAN
SCALE: 1"=30'

PARKING TABULATIONS:

SELF STORAGE FACILITY (WITHOUT DRIVEWAY ACCESS)
1 SPACE FOR EVERY 10 STORAGE BAYS
PLUS 2 FOR EMPLOYEE PARKING AND 3
FOR CUSTOMER PARKING AT THE BUSINESS OFFICE.
694 / 10 = 70 + 2 + 3 = 75
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BY CARROLL COUNTY ON 7/23/2025)
REDUCING THE NUMBER OF REQUIRED SPACES TO 11.

HANDICAP PARKING:
1 PER 25 SPACES REQUIRED

PARKING PROVIDED:
12 SPACES (11 STANDARD, 1 HANDICAP)

NOTES:

- THE 70' B.R.L. IS FROM AN OLD EXISTING RECORD PLAT. A PLAT OF REVISION WILL NEED TO BE PROCESSED AND RECORDED TO REFLECT CURRENT CARROLL COUNTY SETBACK REQUIREMENTS WHICH ARE ALSO INDICATED ON THIS PLAN AND IN SITE DATA #10 ON THE COVER SHEET.
- TRASH COLLECTION WILL BE INTERNAL TO THE PROPOSED BUILDING NO EXTERIOR DUMPSTER IS PROPOSED.

SOILS TABLE

MAP SYMBOL	MAP UNIT NAME & SERIES	MINIMUM K-FACTOR	HYDROLOGIC SOIL GROUP	DRAINAGE CLASS
GeB	GLENNELG LOAM, 3 TO 8 PERCENT SLOPES	0.01 - 0.20	B	WELL DRAINED
GB	GLENNELG-URBAN LAND COMPLEX, 0 TO 8 PERCENT SLOPES	0.20 - 1.98	B	WELL DRAINED
UB	URBAN LAND-UDORTHENTS COMPLEX, 0 TO 8 PERCENT SLOPES	0.00 - 0.20	D	WELL DRAINED

OWNER
AJCET RESTORATION
SERVICES
2206 SKYLARK DRIVE
WESTMINSTER, MD 21157

DEVELOPER
BARTHOLOW ROAD LLC
C/O BAREFOOT LAND CO.
4324 NW 10TH ST
CAPE CORAL, FL 33993
MASON NEWBERRY
(404) 317 - 9063

ENGINEER
KCI TECHNOLOGIES
936 RIDGEBROOK ROAD
SPARKS, MD 21152
MATTHEW SICHEL
(410) 316 - 7894

SITE & GRADING PLAN
ELDERSBURG CROSSROADS
SELF STORAGE
XXXX SYKESVILLE RD,
ELDERSBURG, MD 21784

DRAWING NO.

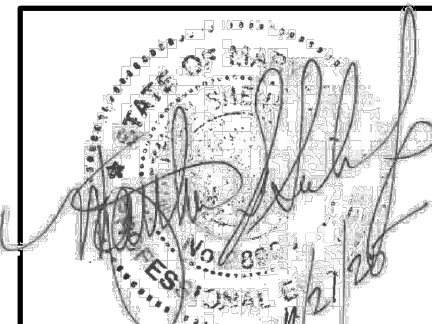
C-03

SHEET 03 OF 17
KCI JOB NUMBER
00049505

CARROLL COUNTY

5TH ELECTION DISTRICT

PROFESSIONAL CERTIFICATION
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OR APPROVED BY ME, AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF
MARYLAND, LICENSE NO. 28933 EXPIRATION DATE: 11/15/27

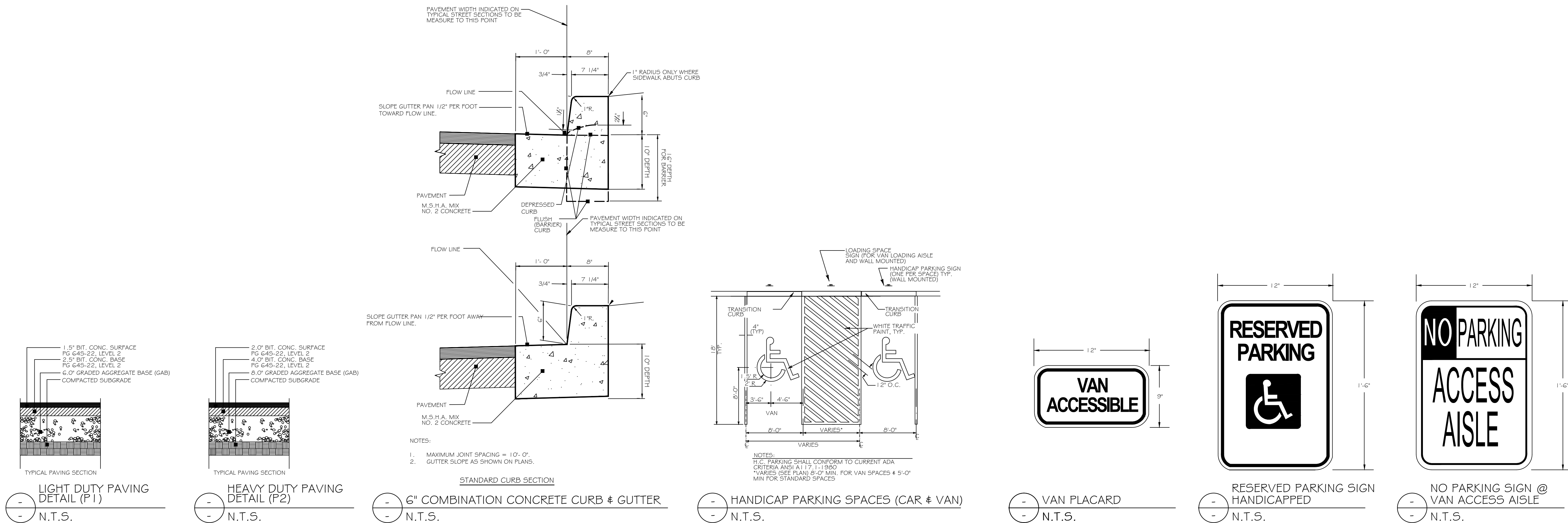


ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

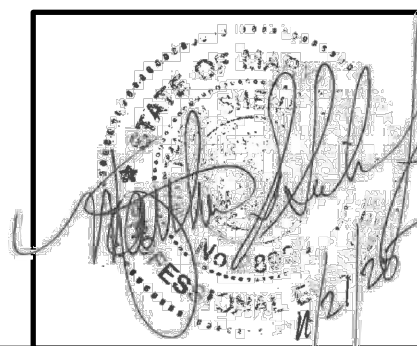
REVISIONS			
NO.	DATE	DESCRIPTION	BY

DATE
11/24/2025
SCALE
1" = 30'
DESIGNED BY
KCI
DRAWN BY
KCI

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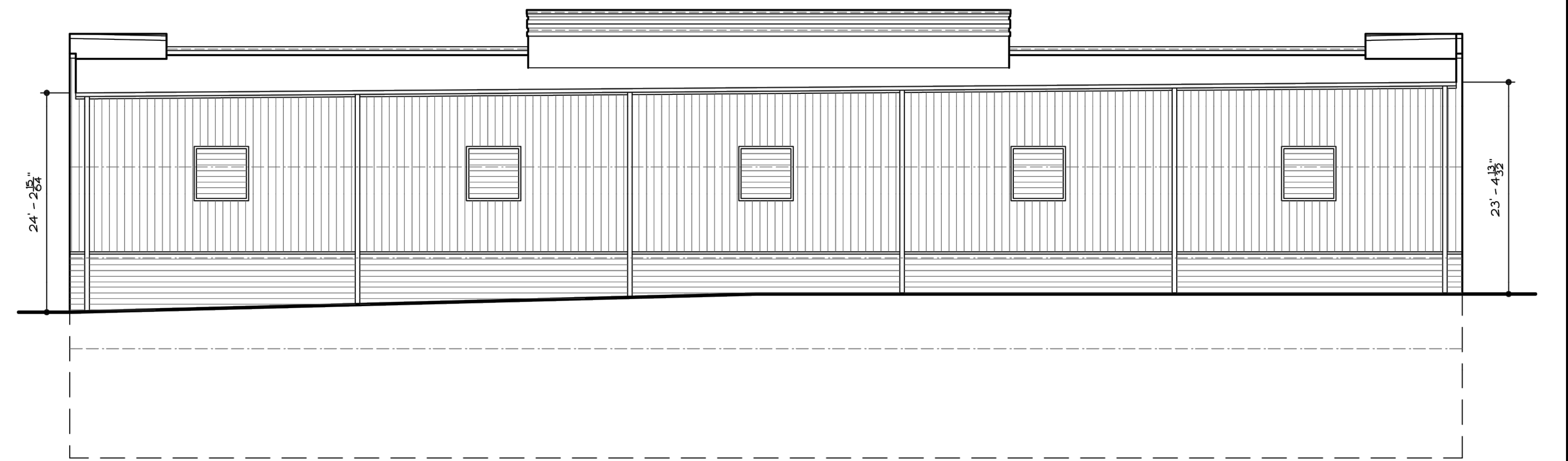
PROFESSIONAL CERTIFICATION
THEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED
OR APPROVED BY ME, AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF
MARYLAND, LICENSE NO. 28935 EXPIRATION DATE: 11/5/27



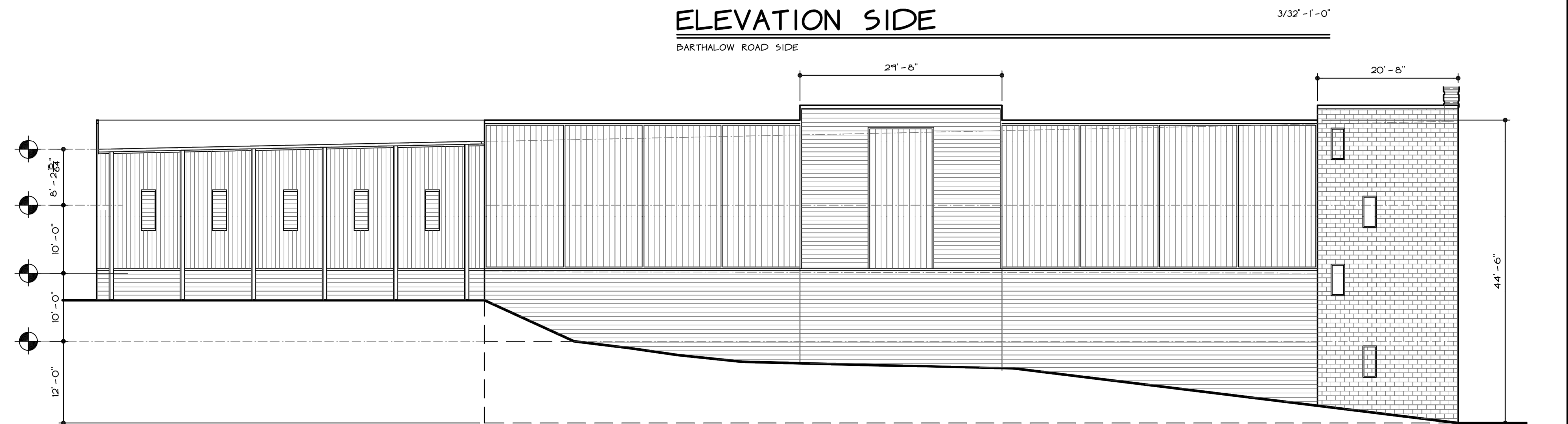
KCI TECHNOLOGIES
ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD
SPARKS, MARYLAND 21152
TELEPHONE: (410) 316-7800
FAX: (410) 316-7818

REVISIONS				DATE
NO.	DATE	DESCRIPTION	BY	11/24/2025

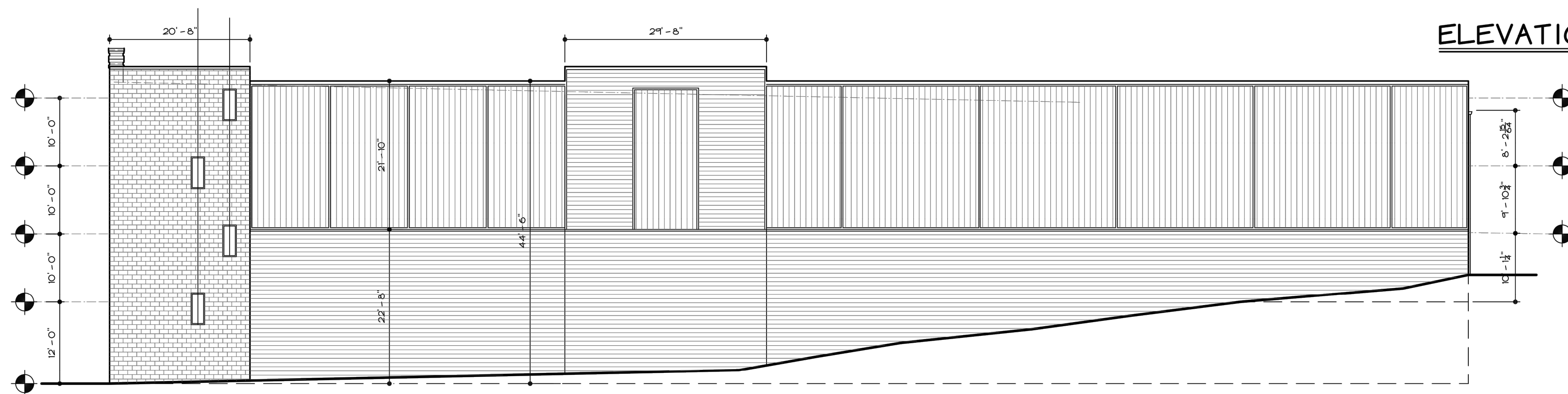
SITE DETAILS ELDERSBURG CROSSROADS SELF STORAGE XXXX SYKESVILLE RD, ELDERSBURG, MD 21784		DRAWING NO. C-04 SHEET 04 OF 17 KCI JOB NUMBER 00049505
CARROLL COUNTY	5TH ELECTION DISTRICT	



3/32" - 1 - 0"



3/32" - 1' - 0"



3/32" - 1 - 0"

3/32" - 1 - 0"

[illegible]

DATE	11/24/2025
SCALE	AS SHOWN
DESIGNED BY	KCI
DRAWN BY	KCI

ENGINEER
KCI TECHNOLOGIES
936 RIDGEBROOK ROAD
SPARKS, MD 21152
MATTHEW SICHEL
(410) 316 - 7894

C-05

1. CONTACT THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR (1-410-386-2210) 24 HOURS PRIOR TO DOING ANYTHING ON THE SITE TO SET UP A PRE-CONSTRUCTION MEETING AND TO MAKE SURE ALL LOCAL ORDINANCE ITEMS HAVE BEEN SATISFIED.
2. INSTALL STONE CONSTRUCTION ENTRANCE.
3. CLEAR AND GRUB FOR PERIMETER ESC MEASURES ONLY AND INSTALL SUPER SILT FENCE.
4. CONTINUE WITH REMAINING CONSTRUCTION.
5. WHEN ALL FINAL PAVING IS COMPLETE AND GRADING IS SEEDDED AND STABILIZED,
6. REMOVE PERIMETER ESC MEASURES, SEED AND STABILIZE DISTURBED AREA.
7. CONTACT THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR PRIOR TO REMOVING ANY SEDIMENT CONTROL MEASURES. APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR IS REQUIRED.

5. ALL EROSION SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION IN ASSOCIATION WITH THE NATURAL RESOURCES CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS (REFERENCED AS THE 2011 STANDARDS AND SPECS).
6. AREAS THAT HAVE BEEN CLEARED AND/OR GRADED, BUT WILL NOT BE CONSTRUCTED ON OR PERMANENTLY VEGETATED FOR MORE THAN 7 DAYS (3 DAYS FOR SEDIMENT CONTROL MEASURES AND FOR STEEP SLOPES) MUST BE STABILIZED WITH MULCH OR TEMPORARY STABILIZATION. ANY AREA THAT ARE IN TEMPORARY VEGETATION FOR OVER 6 MONTHS WILL NEED TO BE PERMANENTLY VEGETATED.
7. FOR SPECIFICATIONS ON PERMANENT OR TEMPORARY STABILIZATION, SEE B-4-4 AND B-4-5.
8. MULCHING ONLY IS RESTRICTED TO USE ON DISTURBED AREAS AS A TEMPORARY COVER WHERE VEGETATION IS NOT FEASIBLE OR WHERE SEEDING GERMINATION CANNOT BE COMPLETED BECAUSE OF WEATHER CONDITIONS. FOR SPECIFICATIONS SEE B-4-3, A.1.B.
9. FOR SPECIFICATIONS ON THE STABILIZATION OF CUT AND FILL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL, SEE INCREMENTAL STABILIZATION B-4-1.
10. THE EXISTING TOPSOIL FROM ON OR OFF SITE THAT IS USED MUST MEET THE MINIMUM SPECIFICATION IN B-4-2.
11. THE REQUIRED SEQUENCE OF CONSTRUCTION MUST BE FOLLOWED DURING SITE DEVELOPMENT. ANY CHANGES IN THE SEQUENCE OF CONSTRUCTION MUST BE APPROVED BY THE SOIL CONSERVATION DISTRICT.
12. ANY REVISIONS TO SEDIMENT CONTROL PLAN, NOT COVERED UNDER THE LIST OF PLAN MODIFICATIONS THAT CAN BE APPROVED BY THE SEDIMENT CONTROL INSPECTOR, NEED TO BE SUBMITTED TO THE SOIL CONSERVATION DISTRICT FOR APPROVAL.
13. NO PROPOSED SLOPE THAT IS REQUIRED TO BE SEEDED AND/OR MULCHED SHALL BE STEEPER THAN 2:1. SLOPES STEEPER THAN 2:1 SHALL REQUIRE A ENGINEERED DESIGNED FOR STABILIZATION.
14. ALL SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED ONCE A WEEK AND AFTER EACH RAINFALL AND WILL BE REPAIRED, AS NEEDED SO THAT THE STRUCTURE MEETS THE MINIMUM SPECIFICATIONS AS SHOWN IN THE 2011 STANDARDS AND SPECS.
15. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT AND EROSION CONTROL MEASURES UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED.
16. THE DISTRICT APPROVAL FOR THIS SEDIMENT CONTROL PLAN IS GOOD FOR 2 YEARS. AT THE END OF 2 YEARS, IF CONSTRUCTION OF THE PLAN HAS NOT STARTED, THE PLAN WILL NEED TO BE RESUBMITTED TO THE SOIL CONSERVATION DISTRICT FOR REVIEW AND RE-APPROVAL. ANY PLANS THAT ARE CURRENTLY UNDER CONSTRUCTION AFTER 2 YEARS MAY BE REQUIRED TO BE RESUBMITTED TO THE SOIL CONSERVATION DISTRICT BY THE SEDIMENT CONTROL INSPECTOR.



B-4 STANDARDS AND SPECIFICATIONS
FOR VEGETATIVE STABILIZATION

DEFINITION
USING VEGETATION AS COVER TO PROTECT EXPOSED SOIL FROM EROSION.
PURPOSE
TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL.
CONDITIONS WHERE PRACTICE APPLIES
ON ALL DISTURBED AREAS NOT STABILIZED BY OTHER METHODS. THIS SPECIFICATION IS DIVIDED INTO SECTIONS ON INCREMENTAL STABILIZATION;
SOIL PREPARATION, SOIL AMENDMENTS AND TOPSOILING; SEEDING AND MULCHING; TEMPORARY STABILIZATION; AND PERMANENT STABILIZATION.

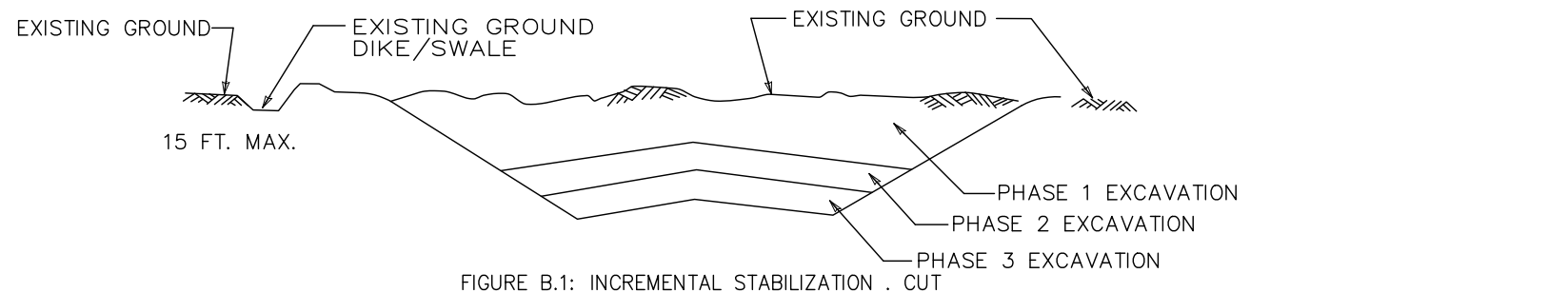
EFFECTS ON WATER QUALITY AND QUANTITY
STABILIZATION PRACTICES ARE USED TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL. WHEN SOIL IS STABILIZED WITH VEGETATION, THE SOIL IS LESS LIKELY TO ERODE AND MORE LIKELY TO ALLOW INFILTRATION OF RAINFALL, THEREBY REDUCING SEDIMENT LOADS AND RUNOFF TO DOWNSTREAM AREAS. PLANTING VEGETATION IN DISTURBED AREAS WILL HAVE AN EFFECT ON THE WATER BUDGET, ESPECIALLY ON VOLUMES AND RATES OF RUNOFF, INFILTRATION, EVAPORATION, TRANSPARATION, PERCOLATION, AND GROUNDWATER RECHARGE. OVER TIME, VEGETATION WILL INCREASE ORGANIC MATTER CONTENT AND IMPROVE THE WATER HOLDING CAPACITY OF THE SOIL AND SUBSEQUENT PLANT GROWTH. VEGETATION WILL HELP REDUCE THE MOVEMENT OF SEDIMENT, NUTRIENTS, AND OTHER CHEMICALS CARRIED BY RUNOFF TO RECEIVING WATERS. PLANTS WILL ALSO HELP PROTECT GROUNDWATER SUPPLIES BY ASSIMILATING THOSE SUBSTANCES PRESENT WITHIN THE ROOT ZONE. SEDIMENT CONTROL PRACTICES MUST REMAIN IN PLACE DURING GRADING, SEEDED 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 GROUND COVER.
2. IF AN AREA HAS LESS THAN 40 PERCENT GROUND COVER, REESTABLISH FOLLOWING THE ORIGINAL RECOMMENDATIONS FOR LIME, FERTILIZER, SEEDED PREPARATION, AND SEEDING.
3. IF AN AREA HAS 40% TO 94 PERCENT GROUND COVER, OVER-SEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY SPECIFIED.
4. MAINTENANCE FERTILIZER RATES FOR PERMANENT SEEDING ARE SHOWN IN TABLE B.6.

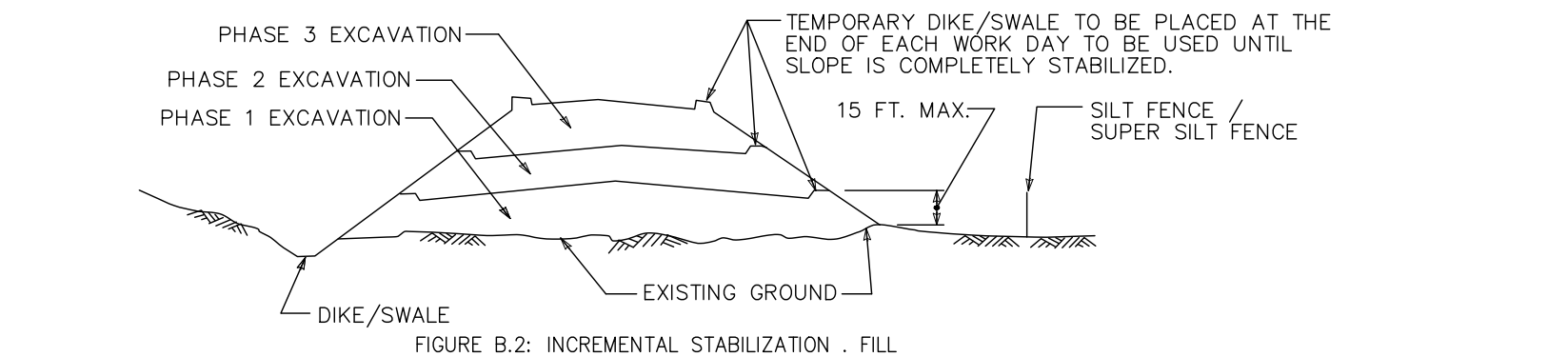
B-4-1 STANDARDS AND SPECIFICATIONS
FOR INCREMENTAL STABILIZATION

DEFINITION
ESTABLISHMENT OF VEGETATIVE COVER ON CUT AND FILL SLOPES.
PURPOSE
TO PROVIDE TIMELY VEGETATIVE COVER ON CUT AND FILL SLOPES AS WORK PROGRESSES.
CONDITIONS WHERE PRACTICE APPLIES
ANY CUT OR FILL SLOPE GREATER THAN 15 FEET IN HEIGHT. THIS PRACTICE ALSO APPLIES TO STOCKPILES.

CRITERIA
A. INCREMENTAL STABILIZATION – CUT SLOPES
1. EXCAVATE AND STABILIZE CUT SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDED BED 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.
b. PERFORM PHASE 1 EXCAVATION, PREPARE SEEDED, AND STABILIZE.
c. PERFORM PHASE 2 EXCAVATION, PREPARE SEEDED, AND STABILIZE. OVERSEED PHASE 1 AREAS AS NECESSARY.
d. PERFORM FINAL PHASE EXCAVATION, PREPARE SEEDED, 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.



B. INCREMENTAL STABILIZATION – FILL SLOPES
1. CONSTRUCT AND STABILIZE FILL SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDED BED AND APPLY SEED AND MULCH ON ALL FILL SLOPES AS THE WORK PROGRESSES.
2. STABILIZE SLOPES IMMEDIATELY WHEN THE VERTICAL HEIGHT OF A LIFT REACHES 15 FEET, OR WHEN THE GRADING OPERATION CEASES AS PRESCRIBED IN THE PLANS.
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 A SILT FENCE ON LOW SIDE OF FILL UNLESS OTHER METHODS SHOWN ON THE PLANS ADDRESS THIS AREA.
b. 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.
c. PLACE PHASE 1 FILL, PREPARE SEEDED, AND STABILIZE.
d. PLACE PHASE 2 FILL, PREPARE SEEDED, AND STABILIZE.
e. PLACE FINAL PHASE FILL, PREPARE SEEDED, 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.



DAILY STABILIZATION NOTE

CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE STABILIZED BY THE END OF EACH WORK DAY. STABILIZATION SHALL BE AS FOLLOWS: FOR SIDEWALK AREAS OR AREAS TO BE PAVED, THE APPLICATION OF STONE FOR AREAS TO BE VEGETATIVELY STABILIZED, PERMANENT SEED, EROSION CONTROL MATTING FOR SWALES AND PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.

B.3 PLANT HARDNESS ZONE

PLANT HARDNESS ZONE	6b
IF AREA TO BE VEGETATIVELY STABILIZED EXCEEDS 5 ACRES, THE FOLLOWING APPLIES: AT THE TIME OF FINAL GRADING SOILS TEST TO BE PERFORMED TO DETERMINE FERTILIZER AND LIME RATE	

B-4-2 STANDARDS AND SPECIFICATIONS
FOR
SOIL PREPERATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE
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. SEEDED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENEED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
b. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

2. 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 AND 7.0.
II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: 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.
B. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
C. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENEED 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 SEEDED PREPARATION. 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 FRAILABLE. SEEDED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

B. TOPSOILING
1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW 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 THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
C. THE ORIGINAL SOIL TO BE 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:

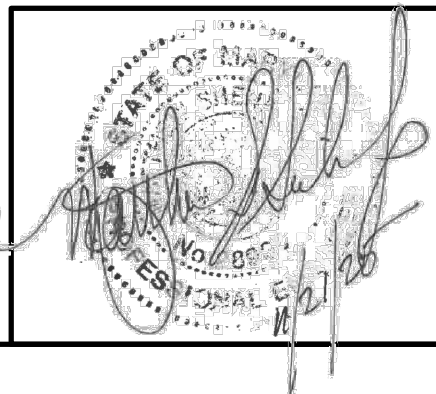
A. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CHINDERS, STONES, AND COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.
B. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, THE WOOD CELULULOSE FIBER MULCH (WCFM), OR OTHERS AS SPECIFIED ON THE PLANS.
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 SEEDED PREPARATION.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
2. 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.1 Temporary Seeding Rates, Depths, and Dates

PLANT SPECIES	SEEDING RATE LB/AQ/100 FT ²	SEEDING DEPTH (INCHES)	SEEDING RATE			
			5B AND 6A	6B	7A AND 7B	
COOL-SEASON GRASSES						
ANNUAL RYEGRASS (LOLIUM PERENNIS, SSP. MULTICOLOR)	40	1.0	0.5	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
BARLEY (HORDEUM VULGARE)	96	2.2	1.0	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
OATS (AVENA SATIVA)	72	1.7	1.0	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
WHEAT (TRITICUM AESTIVUM)	120	2.8	1.0	MAR 15 TO MAY 31; AUG 1 TO SEP 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30
CEREAL RYE (SECALE CEREALE)	112	2.8	1.0	MAR 15 TO MAY 31; AUG 1 TO OCT 31	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO DEC 15
WARM-SEASON GRASSES						
FOXTAIL MILLET (SETARIA ITALICA)	30	0.7	0.5	JUN 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14
PEARL MILLET (PENNISETUM GLAUCUM)	20	0.5	0.5	JUN 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 289935 EXPIRATION DATE: 11/15/27



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B-4-3 STANDARDS AND SPECIFICATIONS
FOR
SEEDING AND MULCHING

DEFINITION
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.
PURPOSE
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.

CRITERIA
A. SEEDING
1. SPECIFICATIONS
A. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO A PRE-SEEDING TEST 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 EACH DIRECTION. 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 IN CORRESPONDENCE WITH THE SEEDING RATE. APPLY 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 OR 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.
2. APPLICATION
A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
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 CULTPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
I. CULTPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDED MUST BE FIRM AFTER PLANTING.
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 NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE. TOTAL OF SOLUBLE NITROGEN: P205 (PHOSPHORUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
II. LIME USE: USE OF AROUND 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.
III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

MULCHING
1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
A. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW MUST BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND MUST BE MOIST, MOULDY, GAYED, OR OTHERWISE EXCESSIVELY DETERIORATED. ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
B. WOOD CELULULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELULULOSE 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 UNIFORMITY 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 CELULULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER, AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BUTTER-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 SEEDINGS.
IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC TO PLANTS.
V. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 2 TO 8.5, AND CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.
2. APPLICATION
A. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
B. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND A DEPTH THAT WILL PROTECT THE SEEDED AREAS. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
C. WOOD CELULULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE MULCH WITH WATER TO THIS RATE. OTHERS AS SPECIFIED ON THE PLANS. 50 POUNDS OF WOOD CELULULOSE FIBER PER 100 GALLONS OF WATER.
3. ANCHORING
A. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD.
I. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
II. WOOD CELULULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A MAXIMUM OF 50 POUNDS OF WOOD CELULULOSE FIBER PER 100 GALLONS OF WATER.
III. SYNTHETIC BINDERS SUCH AS ACRYLIC LAC (AGRO-TACK), DCA-70, PETROSEAL, TERRA TACK 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 AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
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.

B-4-4 STANDARDS AND SPECIFICATIONS
FOR TEMPORARY STABILIZATION

DEFINITION
TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.
PURPOSE
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.
CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

CRITERIA
1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-4.3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

B-4-4 STANDARDS AND SPECIFICATIONS
FOR TEMPORARY STABILIZATION CONTINUED

NOTES:
1. SEEDING RATES FOR WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED. ADJUSTMENT ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES.
SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDING, WHEN PLANTED ALONE. WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS AND WHEAT. FOR - SMALLER - SEEDED GRASSES (ANNUAL RYEGRASS, PEARL MILLET, FOXTAIL MILLET), DO NOT EXCEED MORE THAN 5% (BY WEIGHT) OF THE OVERALL PERMANENT SEEDING MIX. CEREAL RYE GENERALLY SHOULD NOT BE USED AS A NURSE CROP. UNLESS PLANTING WILL OCCUR IN THE VERY LATE FALL BEFORE THE SEEDING DATE FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS IF IT MUST BE USED AS NURSE CROP. SEED AS 1/3 OF THE RATE LISTED ABOVE. OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.

2. FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.
3. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENTS TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

B-4-5 STANDARDS AND SPECIFICATIONS
FOR PERMANENT STABILIZATION

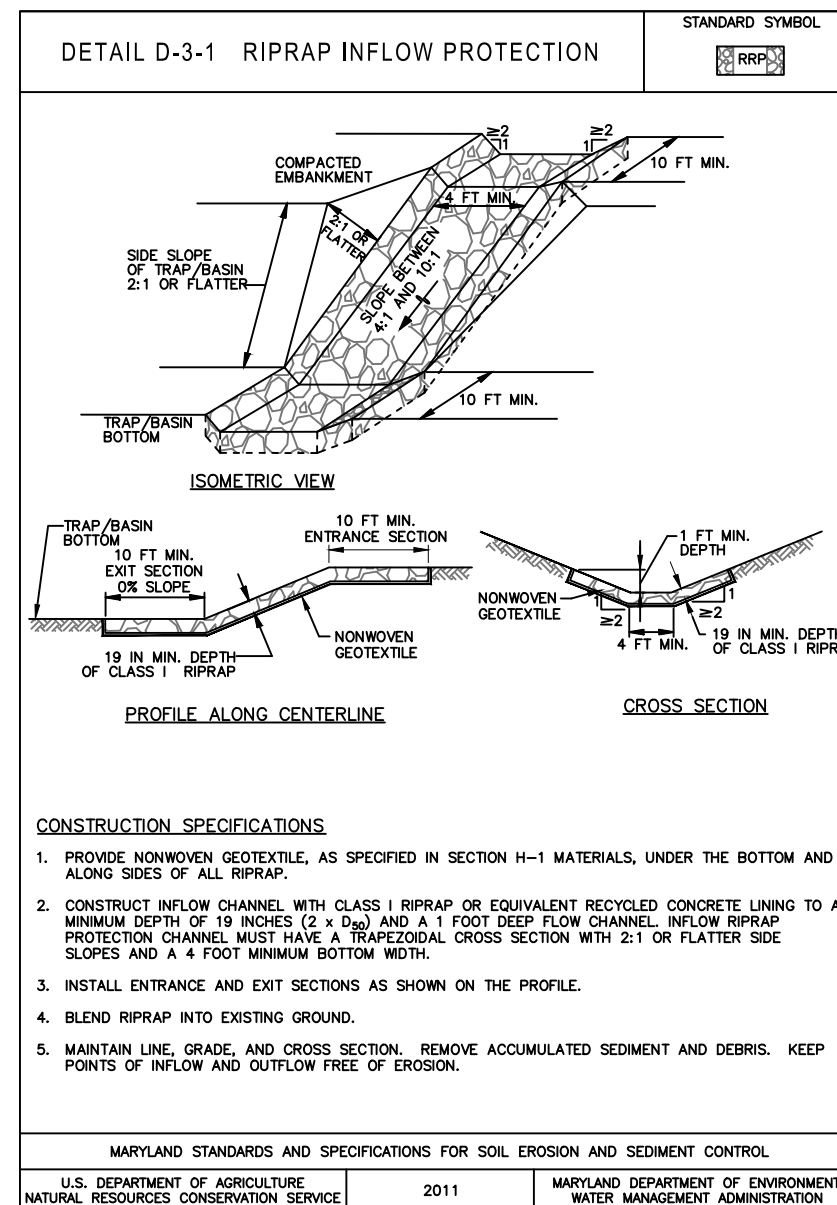
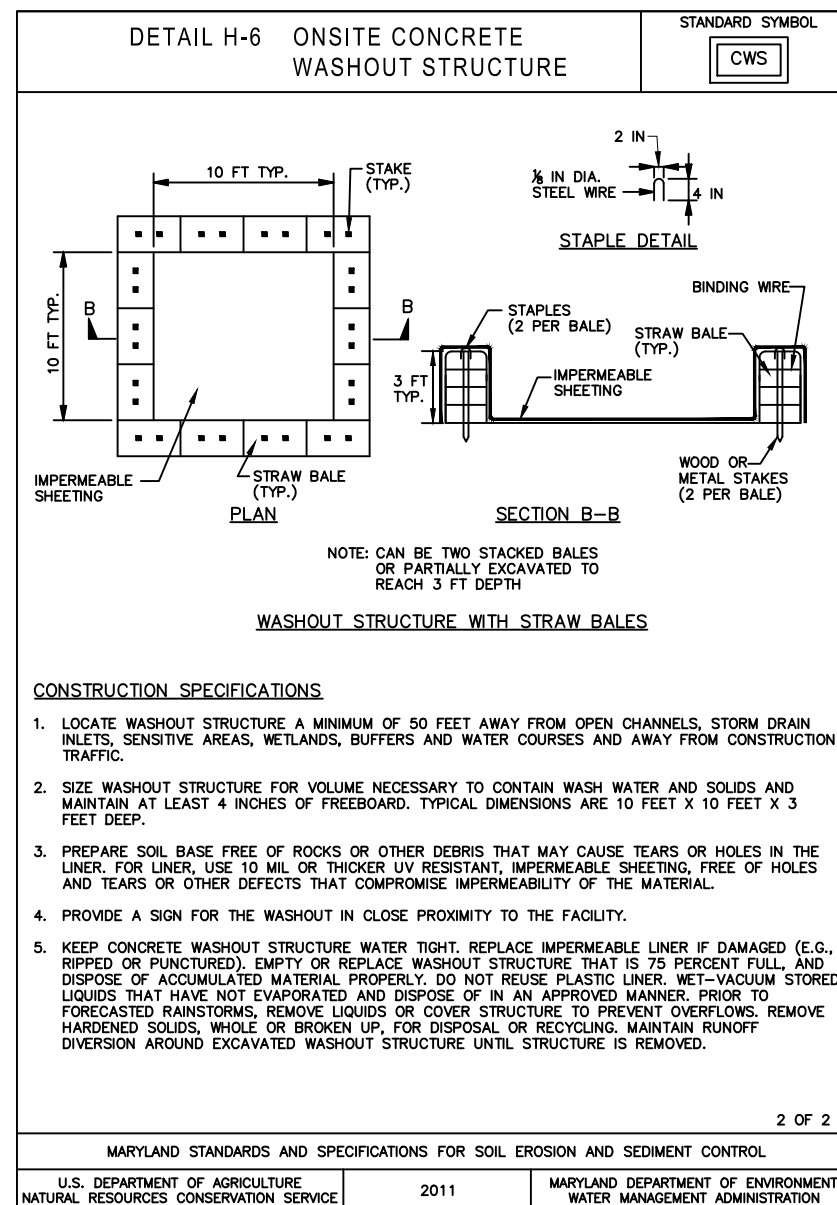
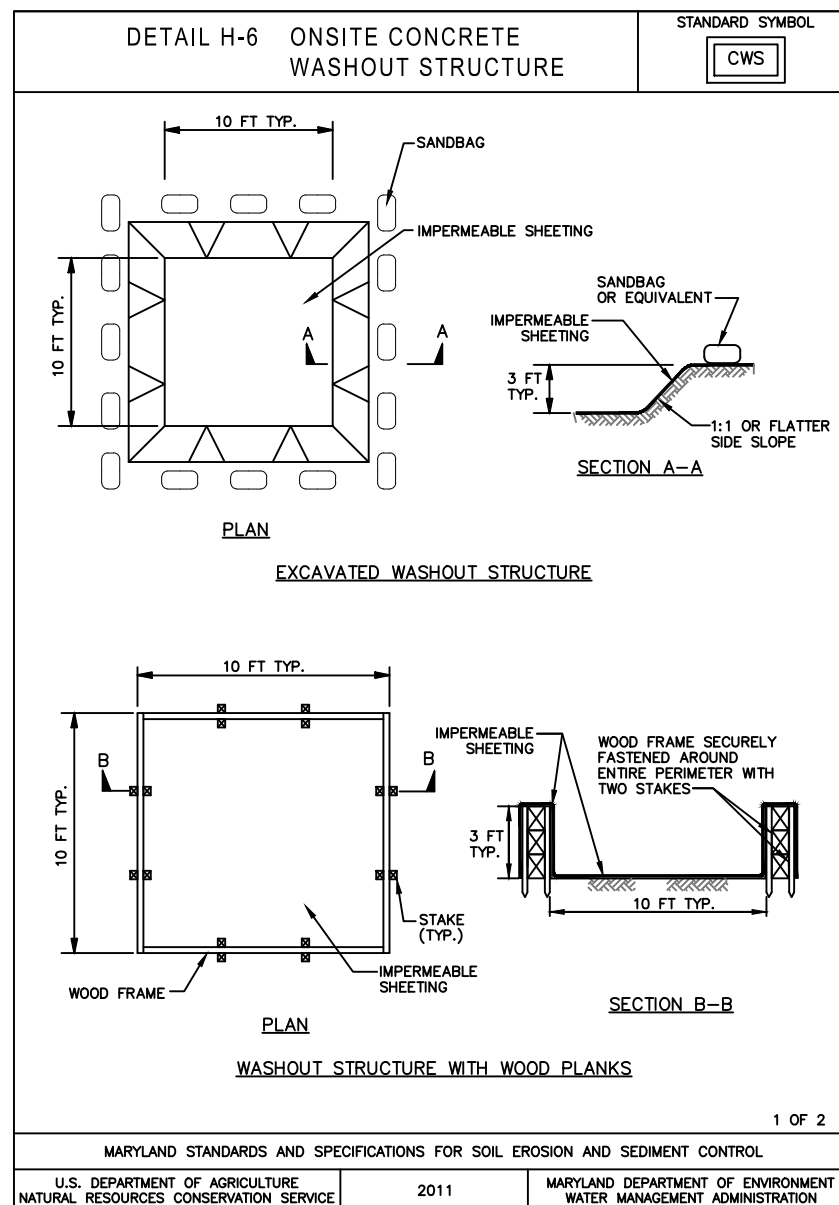
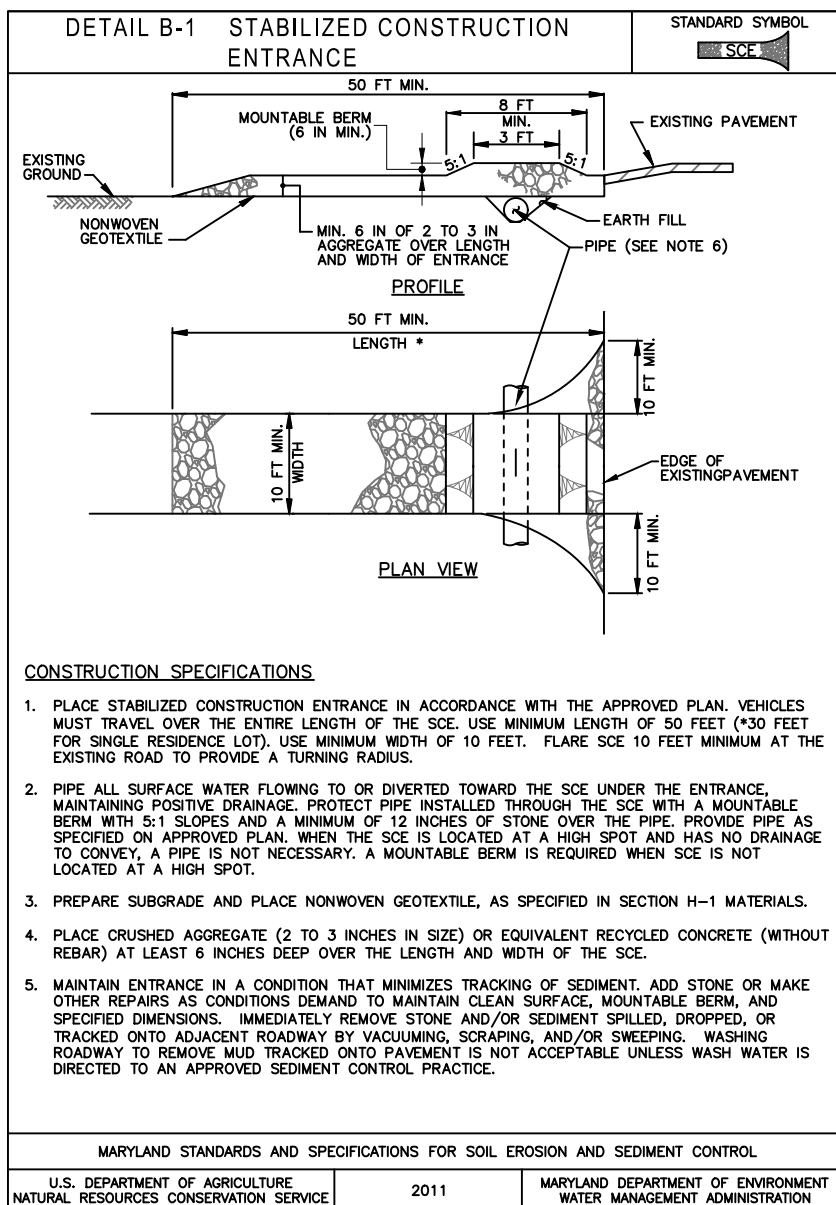
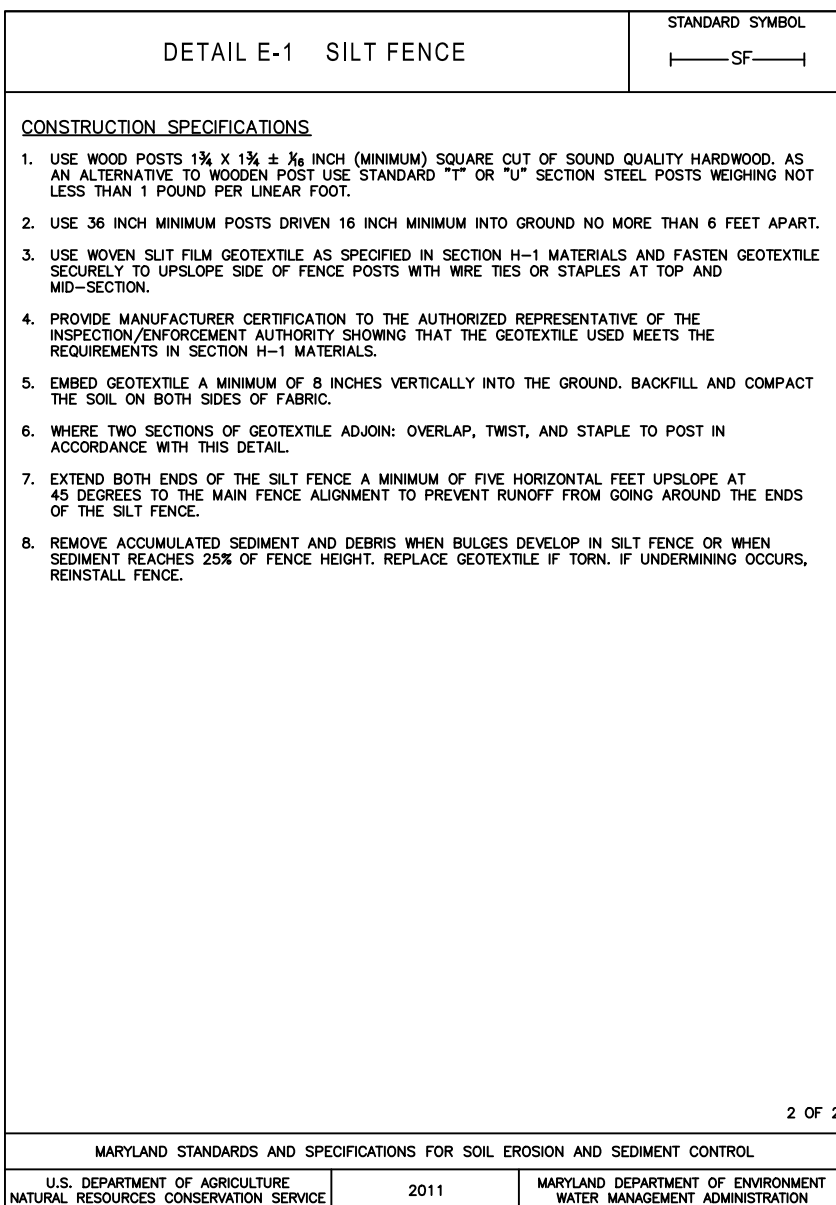
DEFINITION
TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.
PURPOSE
TO USE LONG-LEIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.
CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA
A. SEED MIXTURES
1. GENERAL USE
A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED 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 PLANTING.
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 1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
2. TURFGRASS MIXTURES
A. AREAS WHERE 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 PURPOSES. 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 RATES: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
II. KENTUCKY BLUEGRASS/PERENNIAL 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 UPLAND AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM SHADE. MIXTURE INCLUDES 50 PERCENT 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 MORE CULTIVARS MAY BE BLENDED.
IV. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MAINTAINED AREAS. 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.
NOTES:
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.
C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES
WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, 6A)
CENTRAL MD: MARCH 15 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 5B, 6B)
SOUTHERN MD: EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 6A, 6B)
D. 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 SEEDED, REMOVE STONES AND DEBRIS. OVERSEED SEEDED AREAS IMMEDIATELY. SEEDED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.
E. IF SOIL MOISTURE IS DEPENDENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH TO 1 INCH DEPTH 3 TO 4 DAYS FOLLOWING ON SOIL. IF OTHERWISE, 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 SOILS.

HARDNESS ZONE (from figure B.3):			6b			FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/1000)	SEEDING DEPTH (in)	SEEDING DATES	SEEDING DATES	N	P ₂ O ₅	K ₂ O	
1	KENTUCKY BLUEGRASS 100% TURF-TYPE TALL FESCUE 40% GRADE TALL FESCUE 30% PERENNIAL RYEGRASS 20%	350	3/15 - 5/15 8/15 - 11/15	1/4 - 1/2 in.	45 POUNDS PER ACRE (10.0 lb/1000 sq ft)	90 lb/1000 sq ft	90 lb/1000 sq ft	2 tons/acre (200 lb/1000 sq ft)	
2	KENTUCKY BLUEGRASS 100% TURF-TYPE TALL FESCUE 40% GRADE TALL FESCUE 30% PERENNIAL RYEGRASS 20%	250	3/15 - 5/15 8/15 - 11/15	1/4 - 1/2 in.	45 POUNDS PER ACRE (10.0 lb/1000 sq ft)	90 lb/1000 sq ft	90 lb/1000 sq ft	2 tons/acre (200 lb/1000 sq ft)	

B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

1. GENERAL SPECIFICATIONS
A. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
B. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4", PLUS OR MINUS 1/4" INCH. AT THE TIME OF CUTTING MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH.

[illegible]

DATE	11/24/2025
SCALE	AS SHOWN
DESIGNED BY	KCI
DRAWN BY	KCI

CARROLL COUNTY

5TH ELECTION DISTRICT

DRAWING NO.

C-08

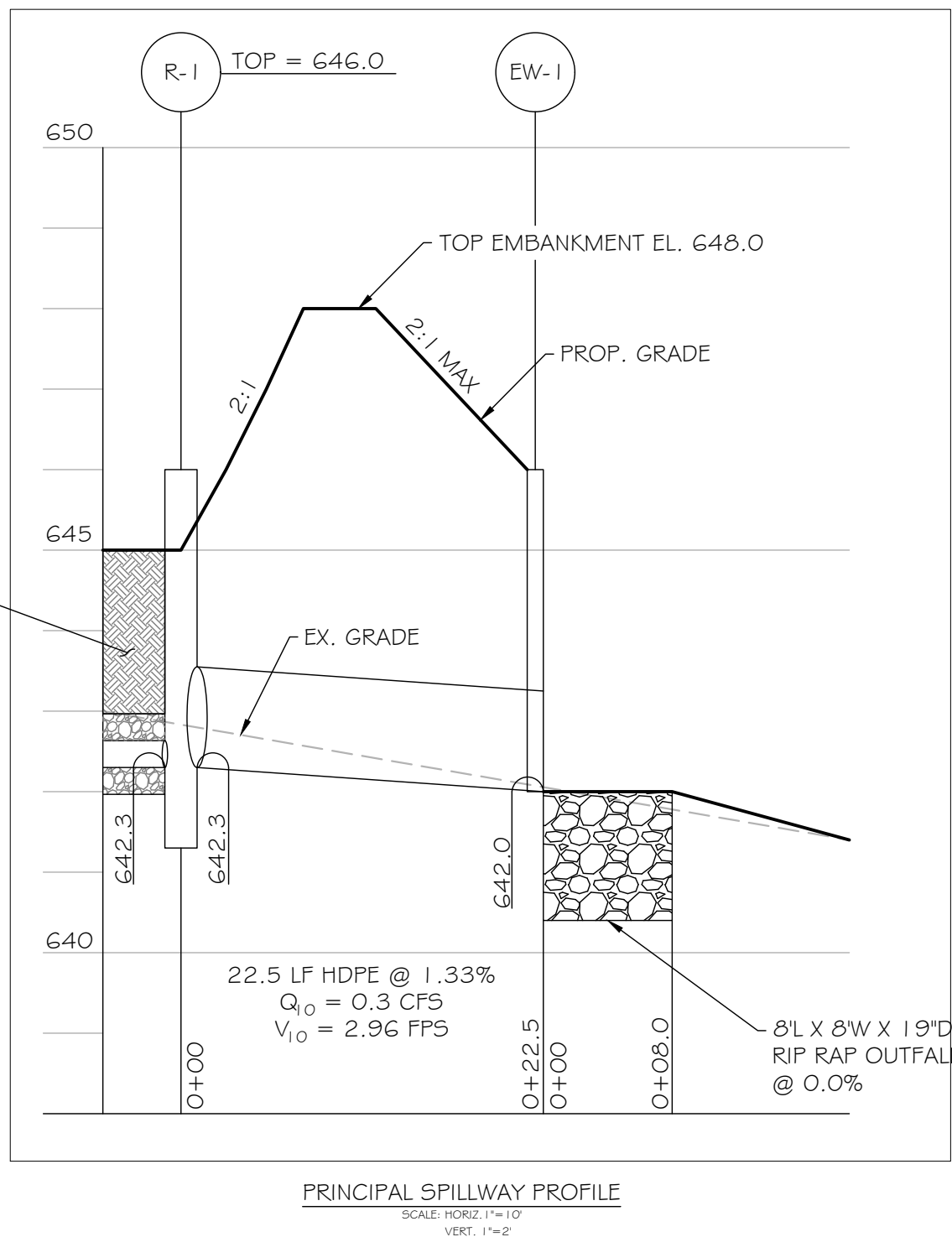
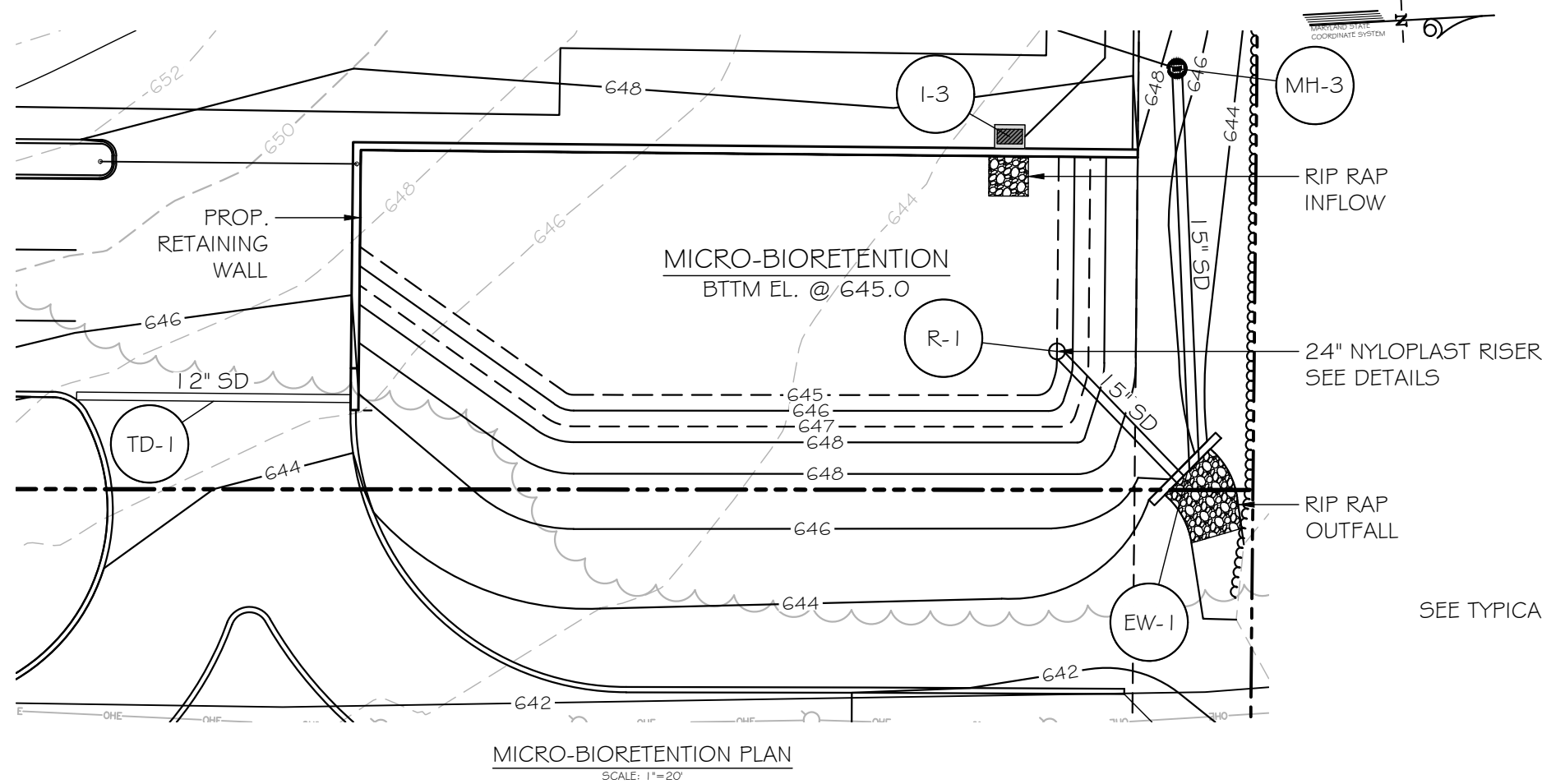
SHEET 08 OF 17

KCI JOB NUMBER

00049505

S-25-0026

PLOTTED: Monday, November 24, 2025 11:30:18 AM
FILE: \\A:\PROJECTS\2025\00049505\DRAWINGS\CONCEPT SITE PLAN\C-09_SWM - MICROBIO RETENTION



SEQUENCE OF CONSTRUCTION

1. CONTACT THE CERTIFYING PROFESSIONAL ENGINEER/PROFESSIONAL LAND SURVEYOR. ONCE THE CERTIFYING PROFESSIONAL HAS GIVEN HIS/ HER APPROVAL IN ACCORDANCE WITH INSPECTION CHART.
2. EXCAVATE TO SUBGRADE.
3. CONSTRUCTION OF EMBANKMENT.
4. INSTALL RISER & OUTFALL STRUCTURE. NOTE OUTFALL PIPE TO BE SINGLE LENGTH OF PIPE, WITH NO JOINTS.
5. INSTALL 30 MIL LINER PER MANUFACTURERS SPECIFICATIONS. INSTALL PIPE BOOTS & BATTENS WHERE APPLICABLE.
6. ONCE BUILDING CONSTRUCTION IS COMPLETE & D.A. TO SP. FACILITY IS PAVED OR SUPPORTING 2" OF GRASS & WITH APPROVAL OF CERTIFYING ENGINEER.
7. INSTALL 1 2" OF NO. 8 STONE & 4" SLOTTED UNDERDRAIN.
8. PLACE FILTER / PLANTING MEDIA (SEE SPECIFICATIONS THIS SHEET).
9. INSTALL LANDSCAPE SEED MIX AND STRAW MULCH IN ACCORDANCE WITH LANDSCAPE PLAN SHEET C-19.
10. SUBMIT AS-BUILT CERTIFICATION FOR BOND RELEASE.

LANDSCAPE NOTE

REFER TO LANDSCAPE PLAN, NOTES & DETAILS FOR BIO-RETENTION PLAN SELECTIONS. LANDSCAPING PLAN TO BE INCLUDED IN AS-BUILT SET. SEED MIX WILL REQUIRE THE USE OF STRAW MULCH.

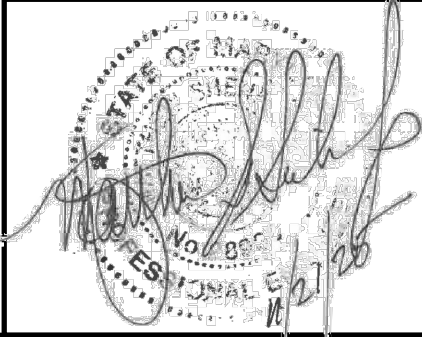
STORMWATER MAINTENANCE SCHEDULE MICRO-BIORETENTION

MONTHLY INSPECTION		
Inspection Item	Inspection Requirements	Remedial Action
Debris and Trash	Check for trash and debris in facility including inlets, outlets, conveyance systems, and area around facility.	Remove all trash and debris and dispose in an acceptable manner. Unclog all openings.
Plant Composition and Health	Compare plant composition with approved plans. Check for invasive species or weeds. Check for dead or dying vegetation.	Remove invasive species and weeds. Replace dead plants in accordance with approved landscaping plan.
Vegetative Cover	Check for channelizing, erosion, and bare spots. Check for vegetation blocking inlet and outlet.	Remove or cut back vegetation around inlet and outlet structures. Mow side slopes when grass exceeds 12 inches in height, but do not mow filter bed. Remove grass clippings. Re-seed or re-plant in accordance with approved landscaping plans.
Mulch Layer	Check mulch for adequate cover, sediment accumulation, or discoloration.	Replace and remove old mulch and excess sediment. Provide adequate mulch cover according to approved design.
SEASONAL INSPECTION AND AFTER A MAJOR STORM		
Inspection Item	Inspection Requirements	Remedial Action
Dewatering	Check ponding level. Surface storage must dewater within 48 hours of rainfall. Noticeable odors, stained water on the filter surface or at the outlet, or the presence of algae or aquatic vegetation are indicators of anaerobic conditions and inadequate dewatering of the facility.	Remove and replace top few inches of media. Confirm adequate dewatering with follow up inspections. If the facility does not function as intended after the above action, the entire system including the underdrain may need refurbishing.
Erosion	Check inlets, filter bed, outlets, and side slopes for erosion, rills, gullies, and runoff channelization.	Re-grading may be required when concentrated flow causes rills or gully through the facility. Grade, vegetate, and/or armor to provide stable conveyance in accordance with approved plans.
Sediment Accumulation	Check for accumulated sediment in conveyance systems and on filter bed. Check for clogged openings.	When sediment accumulates to 1 inch depth, remove sediment. Remove sediment from clogged openings. Dispose of all sediment in an acceptable location.
Blockages	Check overflow inlet (riser), piping, and underdrain for blockages. Check observation wells for water level.	Clear out any blockages.
ANNUAL INSPECTION		
Inspection Item	Inspection Requirements	Remedial Action
Maintenance Access	Check for accessibility to facility.	Remove excessive vegetative growth, erosion, and obstructions on access way.
Flow Conveyance System	Check overflow inlet, piping, and bypass for misalignments, breakage, and blockage.	Repair any broken or faulty piping. Clear out any blockages.
Structural Components	Check for evidence of structural deterioration, spalling, or cracking. Inlet and outlet structures as well as riprap outfalls must be in good condition.	Repair to good condition according to specifications on the approved plans.
Overall Function of Facility	Check that practice is functioning as designed.	Repair to good condition according to specifications on the approved plans.

ENGINEER'S AS-BUILT CERTIFICATION		
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS. I ALSO CERTIFY THAT THIS PLAN WAS INSPECTED IN ACCORDANCE WITH 136-22 AND 136-23 OF THE WESTMINSTER CITY CODE.		
SIGNED _____	SEAL NO. _____	DATE _____
DEVELOPER'S / LANDOWNER'S CERTIFICATION		
I HEREBY CERTIFY THAT ALL PROPOSED WORK SHOWN ON THESE CONSTRUCTION DRAWINGS WILL BE CONDUCTED IN STRICT ACCORDANCE WITH THESE PLANS. I AM ALSO UNDERSTANDING THAT IT IS MY OWN RESPONSIBILITY TO HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED, INCLUDING THE SUBMITTAL OF AS-BUILT PLANS CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR WITHIN 30 DAYS OF COMPLETION OF WORK ON THE STORMWATER MANAGEMENT FACILITY. I AM ALSO CERTIFY THAT THESE STORMWATER MANAGEMENT FACILITIES WILL BE INSPECTED DURING CONSTRUCTION BY A REGISTERED PROFESSIONAL ENGINEER IN ACCORDANCE WITH PAGES 136-139 OF CHAPTER 136 OF THE WESTMINSTER CITY CODE.		
SIGNED _____	DATE _____	
ENGINEER'S DESIGN CERTIFICATION		
I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN DESIGNED ACCORDING TO CHAPTER 136 OF THE WESTMINSTER CITY CODE, ENTITLED "STORMWATER MANAGEMENT"		
SIGNED _____	SEAL NO. _____	DATE _____

Carroll County Supplemental Materials Specifications for Bio-Swale, Bioretention, Micro-Bioretentation & Rain Gardens			
Material	Specification	Size	Notes
Plantings	See Landscape Plan	N/A	Plantings are site specific and per approved landscape plan
Mulch	Shredded Hardwood		Aged 6 months, minimum
Geotextile	Class "C" – Apparent opening size (ASTM-D-4751), Grab Tensile Strength (ASTM-D-4632), Puncture Resistance (ASTM-D-4833)	N/A	Sides only Not on bottom unless specified on the plans
Underdrain and Reservoir Gravel	AASHTO M-43 No. 8 Stone	¾" – 1½"	Stone must be clean and washed
Underdrain Piping	Slotted PVC or Slotted HDPE Type "SP" Pipes Solid: Scheduled 40 PVC or HDPE Type "S"	See Plan	Refer to the Carroll County SWM Supplement Pg. 87 All pipes must be double walled (smooth core) and slotted (no circular holes)
Sand	ASTM-C-33 (3 parts to 6 within Filter Media)	0.02" – 0.04"	Sand substitutions such as Diabase and Graystone #10 are not acceptable. No calcium carbonate or dolomitic sand substitutions are acceptable. No "rock-dust" can be used for sand. Manufactured sand from approved sources may be used for filters. Manufactured sand may not be used in dams.
Soil	Engineer approved loam with 20% or less clay (1 part to 6 within Filter Media)	N/A	
Wood Chips	Untreated "Green" (2 parts to 6 within Filter Media)	N/A	Untreated "green" wood chips
Filter/Planting Media	Comprised of 3 parts sand, 2 parts wood chips, 1 part soil	N/A	See individual material specifications

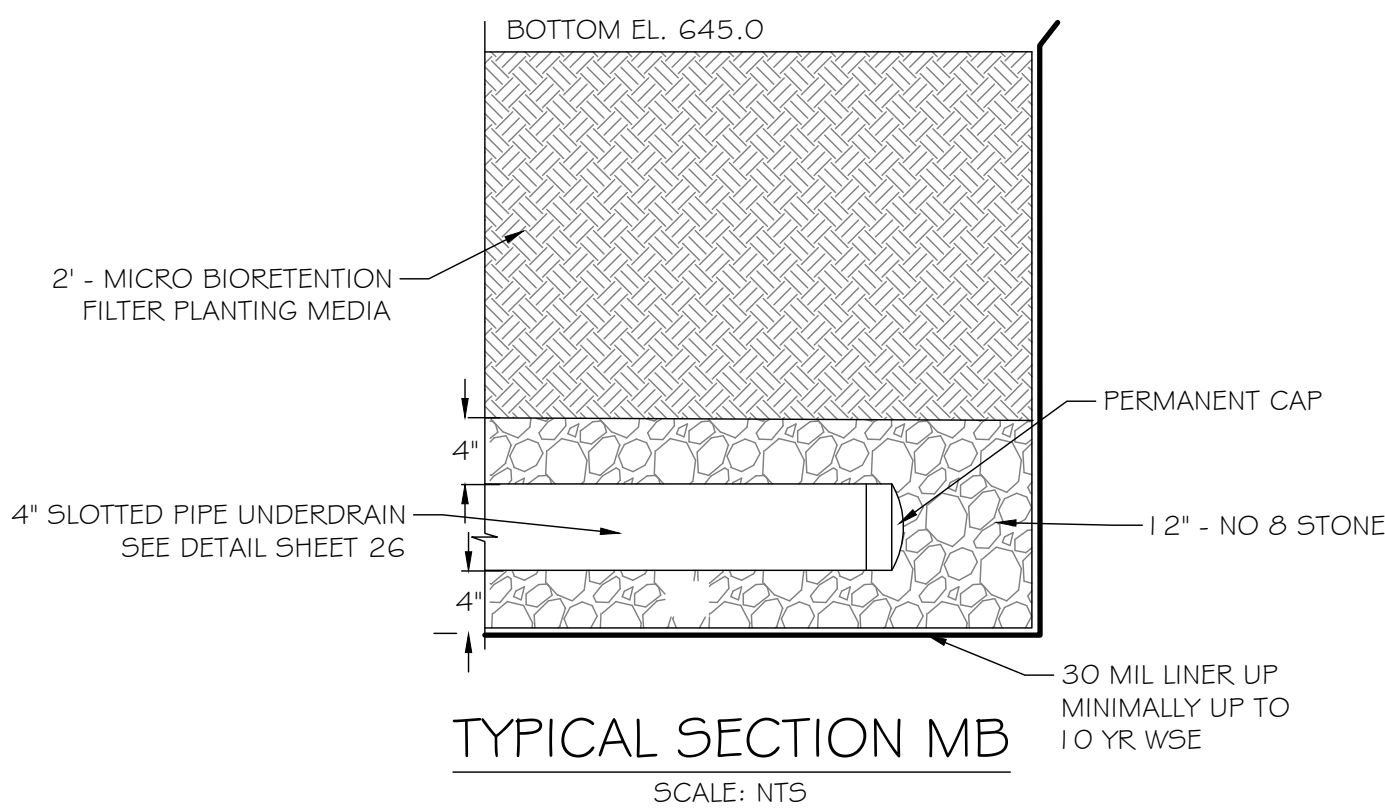
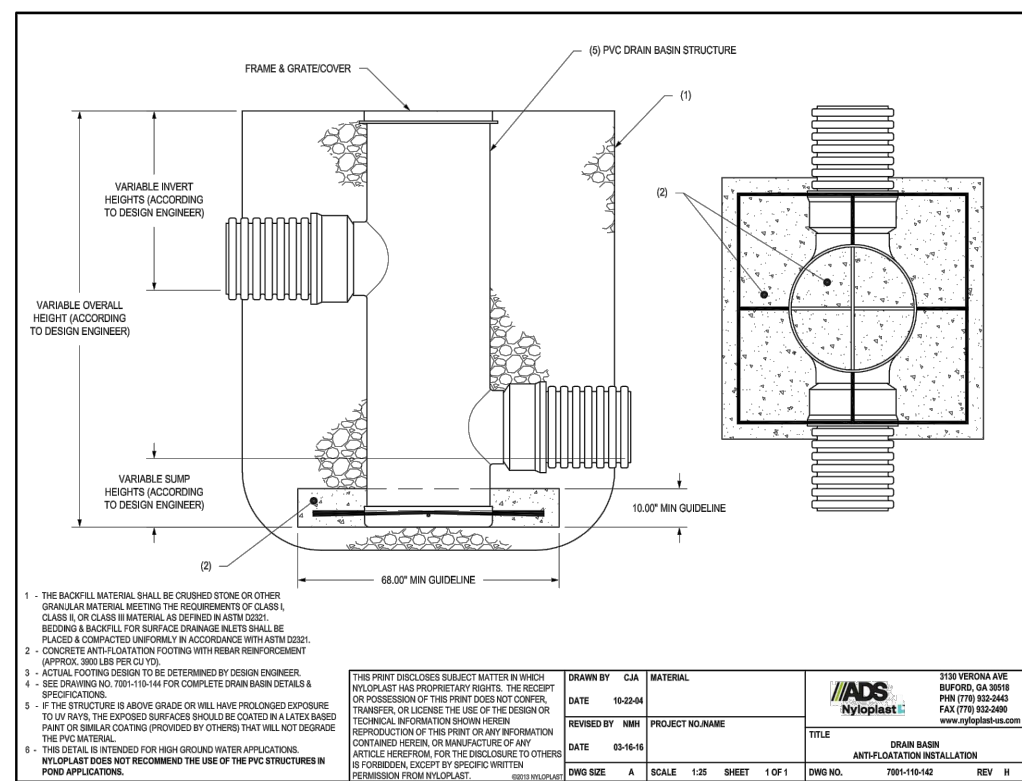
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 28933; EXPIRATION DATE: 11/15/27



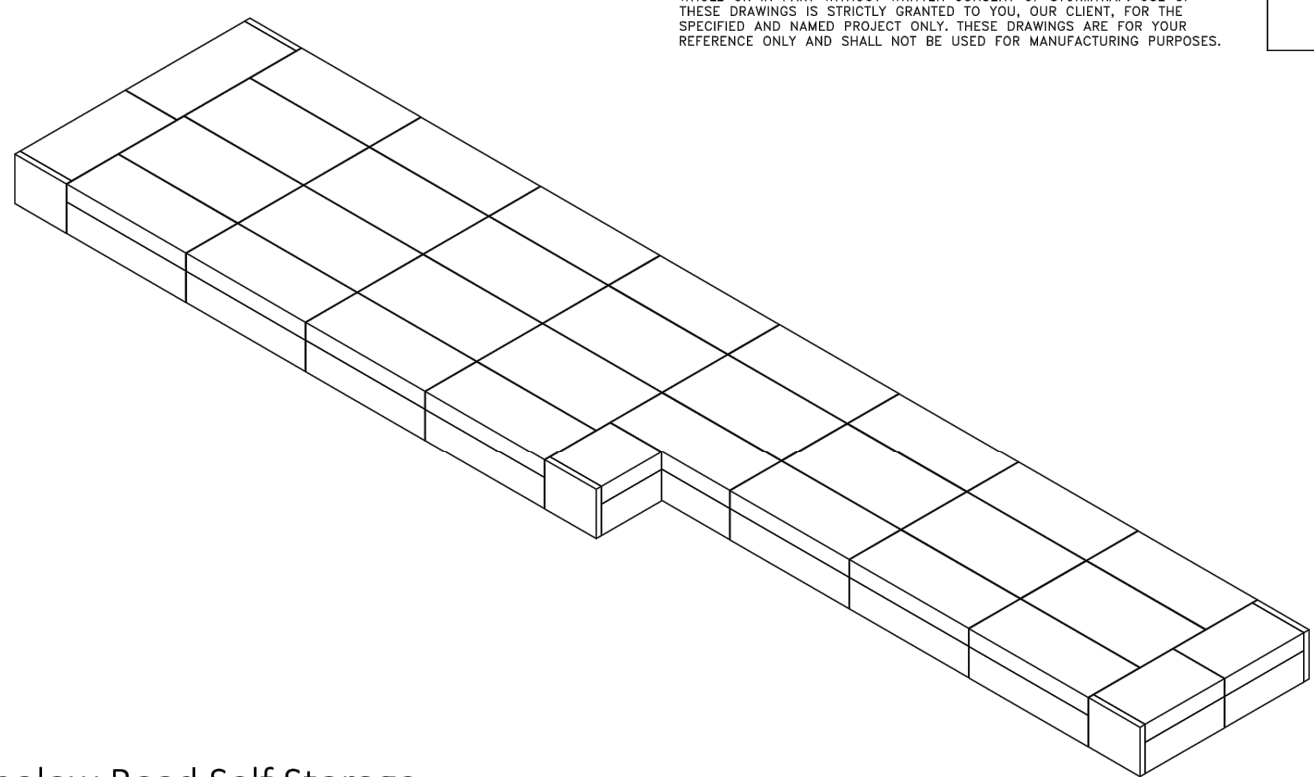
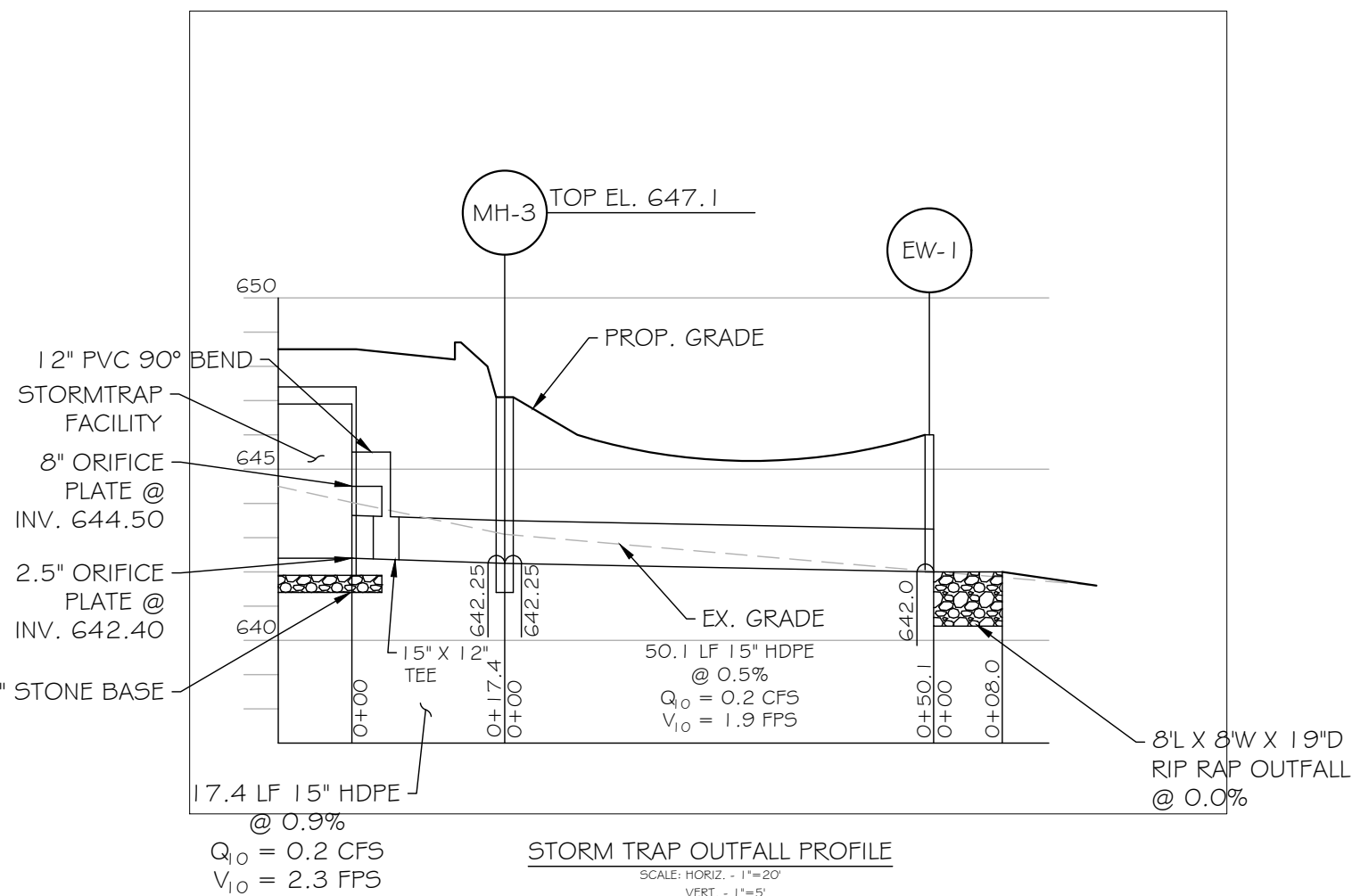
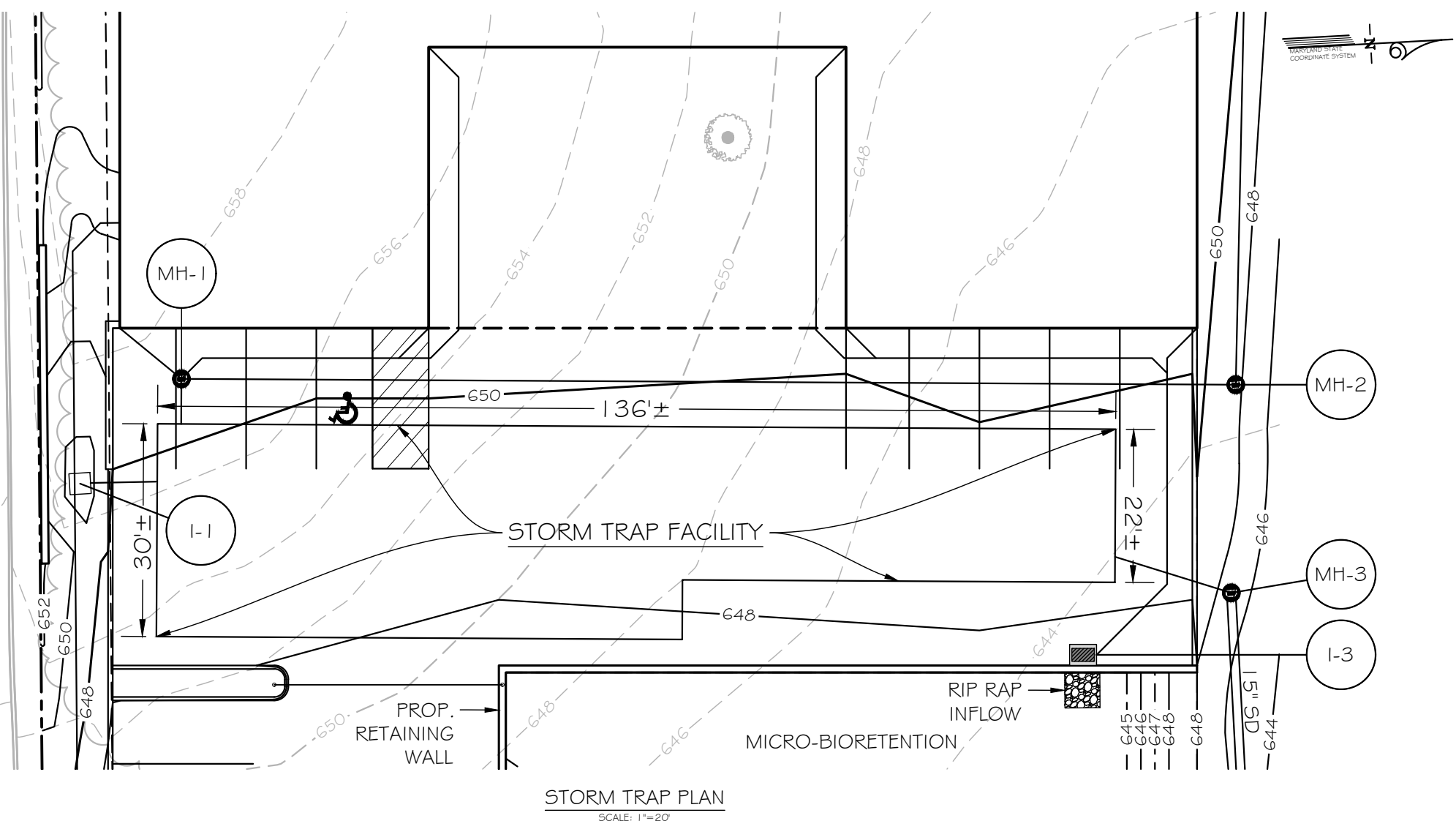
REVISIONS			
NO.	DATE	DESCRIPTION	BY



MICRO BIO-RETENTION INSTALLATION INSPECTION CHART			
STAGE *		INSPECTORS APPROVAL MB #1	
1.	EXCAVATION TO SUBGRADE	INITIALS	DATE
2.	CONSTRUCTION OF THE RISER STRUCTURE OUTFALL PIPE AND STABILIZATION OF OUTFALL		
3.	GRADE FACILITY TO TEMPORARY BOTTOM ELEVATION AS SHOWN ON ESC PLAN & INSTALL TEMPORARY STAND PIPE.		
4.	COMPLETION OF FINAL GRADING, PAVING, CONSTRUCTION OF STRUCTURE, AND ESTABLISHMENT OF 2' STAND OF DENSE GRASS.		
5.	INSTALL 30 MIL LINER PER MANUFACTURERS SPECIFICATIONS. INSTALL BOOTS & BATTENS WHERE APPLICABLE. SEE DETAILS SHEET C-28		
6.	PLACEMENT OF 4" UNDERDRAIN, #8 STONE.		
7.	PLACEMENT OF PLANTING MEDIA.		
8.	INSTALLATION OF MICRO-BIORETENTION LANDSCAPE PLANTINGS.		
9.	SUBMIT AS-BUILT PAPER PRINTS TO DORCHESTER COUNTY WITHIN 60 DAYS OF CONSTRUCTION COMPLETION.		
PLEASE NOTIFY CERTIFYING ENGINEER 48 HOURS PRIOR COMMENCING CONSTRUCTION ENGINEER'S NAME: KCI PHONE NUMBER : (410) 316 - 7898			
CONTRACTOR TO HIRE GEOTECHNICAL ENGINEER TO INSPECT INSTALLATION/CONSTRUCTION OF MB #1 GEOTECH TO BE APPROVED BY KCI.			
OWNER AJCET RESTORATION SERVICES 2206 SKYLARK DRIVE WESTMINSTER, MD 21157		DEVELOPER BARTHOLOW ROAD LLC. C/O BAREFOOT LAND CO. 4324 NW 10TH ST CAPE CORAL, FL 33993 MASON NEWBERRY (404) 317 - 9063	ENGINEER KCI TECHNOLOGIES 936 RIDGEBROOK ROAD SPARKS, MD 21152 MATTHEW SICHEL (410) 316 - 7894
SWM - ESD FACILITY MICRO-BIORETENTION ELDERSBURG CROSSROADS SELF STORAGE XXXX SYKESVILLE RD, ELDERSBURG, MD 21784		DRAWING NO. C-09 SHEET 09 OF 17 KCI JOB NUMBER 00049505	
CARROLL COUNTY		5TH ELECTION DISTRICT	



STORMWATER FACILITY DATA TABLE - MICRO-BIORETENTION AREA			
OWNED & MAINTAINED BY STRUCTURE CLASSIFICATION WATERSHED RECEIVING STREAM CLASSIFICATION USE 11 CONTRIBUTING AREA IMPERVIOUS AREA MAX. EMBANKMENT HEIGHT EMBANKMENT WIDTH CENTROID COORDINATES:	AJCET RESTORATION SERVICES NON MD-378 DAM WATERSHED #021309071046 LIBERTY RESEVOIR 1.37 ACRES 0.96 ACRES 1.5 N/A - EXCAVATED FACILITY N 634009.81 E 1326269.27		
UNIFORM STORMWATER SIZING CRITERIA: ESD VOLUME (ESD) OVERBANK FLOOD PROTECTION VOLUME(QP) EXTREME FLOOD VOLUME(QF)	REQUIRED 7,348 ---	PROVIDED 3,381 ---	---
NOT REQUIRED; NO IMMEDIATE FLOOD HAZARD			



Bartholow Road Self Storage
Sykesville, MD

SHEET INDEX	
PAGE	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	STORMTRAP DESIGN CRITERIA
4	STORMTRAP SYSTEM LAYOUT
5	STORMTRAP INSTALLATION SPECIFICATION
6	STORMTRAP BACKFILL SPECIFICATION
7	STORMTRAP ORIFICE PLATE SPECIFICATION
8	STORMTRAP TRASH RACK SPECIFICATION
9	STORMTRAP MODULE TYPES

STORMTRAP CONTACT INFORMATION	
STORMTRAP SUPPLIER:	STORMTRAP
CONTACT NAME:	JOHN WILSON
CELL PHONE:	(410) 316-7800
SALES EMAIL:	john@stormtrap.com

StormTrap
1387 MEDIAN PARKWAY
ROCKVILLE, MD 20850
PH: 301-581-6500 / FAX: 301-581-5507

ENGINEER INFORMATION:
KCI
Technologies -
Sparks, MD -
Corporate

PROJECT INFORMATION:
Bartholow Road
Self Storage
Sykesville, MD

CURRENT ISSUE DATE:
10/21/2025

ISSUED FOR:
PRELIMINARY

REV. DATE ISSUED FOR

SCALE:
N.T.S.

SHEET TITLE:
COVER SHEET

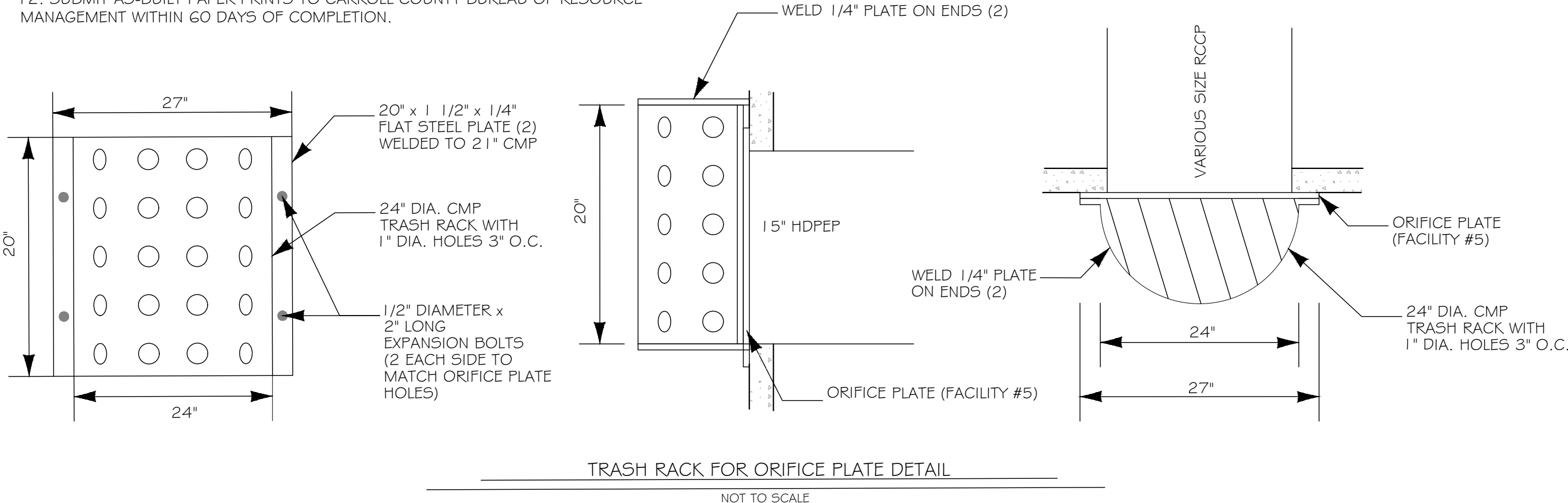
SHEET NUMBER:
0.0

STORM TRAP FACILITY INSPECTION SCHEDULE

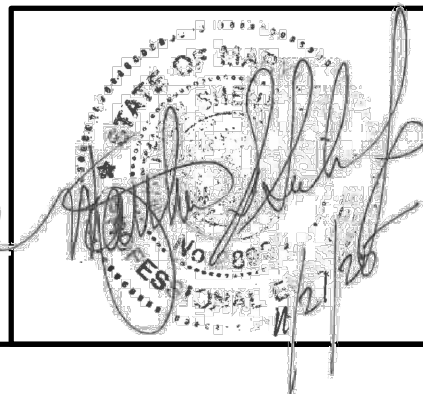
- PRIOR NOTIFICATION SHALL BE GIVEN TO THE CERTIFYING ENGINEER SO THAT INSPECTIONS MAY BE MADE AT THE FOLLOWING STAGES.
 - UPON COMPLETION OF EXCAVATION TO SUB FOUNDATION.
 - DURING SUB FOUNDATION INSTALLATION.
 - DURING PLACEMENT OF REINFORCING AND CONCRETE BEING POURED.
 - DURING INSTALLATION OF STORM TRAP MODULAR CONCRETE VAULT.
 - APPROVED WATERSTOP SYSTEM TO BE APPLIED TO ALL JOINTS.
 - DURING INSTALLATION OF ALL INCOMING & OUTGOING PIPES AND INSPECTION MANHOLES.
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
- A COPY OF ALL APPLICABLE MATERIAL SUPPLY TICKETS MUST BE GIVEN TO THE DESIGNATED / CERTIFYING ENGINEER FOR THE AS-BUILT.

SEQUENCE OF CONSTRUCTION

- CONTACT THE CERTIFYING PROFESSIONAL ENGINEER / PROFESSIONAL LAND SURVEYOR. ONCE THE CERTIFYING PROFESSIONAL HAS GIVEN HIS / HER APPROVAL IN ACCORDANCE WITH INSPECTION CHART.
- EXCAVATE TO SUB-GRADE.
- INSTALL FOUNDATION.
- PLACE STORM TRAP DOUBLE TRAP MODULES PER LAYOUT FOLLOWING SPECIFICATION IN SHEET 1.7. NOTE: WATER TIGHT SEALS.
- INSTALL ALL INCOMING AND OUTGOING PIPES.
- INSTALL ORIFICE PLATE PER DETAIL ON THIS SHEET.
- INSTALL TRASH RACK OVER ORIFICE.
- ITEM 2-5 TO BE COMPLETED PER MANUFACTURER'S SPECIFICATIONS AND DETAILS.
- REFER TO INSPECTION SCHEDULES FOR PERIODIC INSPECTIONS THAT ARE REQUIRED DURING CONSTRUCTION.
- BACKFILL STRUCTURE AREA ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND ALL CARROLL COUNTY STANDARDS AND SPECIFICATIONS.
- FINE GRADE AND INSTALL BASE PAVING AND FINAL PAVING.
- SUBMIT AS-BUILT PAPER PRINTS TO CARROLL COUNTY BUREAU OF RESOURCE MANAGEMENT WITHIN 60 DAYS OF COMPLETION.



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 28933 EXPIRATION DATE: 11/15/27



**ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS**
KCI TECHNOLOGIES
936 RIDGEBROOK ROAD
SPARKS, MARYLAND 21152
TELEPHONE: (410) 316-7800
FAX: (410) 316-7818

DEPARTMENT OF LAND AND RESOURCE MANAGEMENT
Bureau of Resource Management
225 North Center Street, Room 209, Westminster, MD 21157
TEL 410-386-2712 FAX 410-386-2724 TTY 800-735-2258

Stormwater Management Facility Operation & Maintenance Inspection Report for Underground SWM Facility

Owner Information	Facility Information
Name:	Address:
Address:	Location (i.e. parking lot):
Phone Number:	As-Built Number:
Email:	BMP ID:

☐ Check box if new owner

No entry is to be made into confined spaces without current OSHA training and certification.

Last Date of Rain: _____ (date)

Note: Inspection should not occur if it has rained in last 3 days

☐ Surface Inspection (1 time per year)
(All components inspected that can be observed from surface)

☐ Entry Inspection (1 time every 3 years)
(All facility components inspected)

Inspection/Maintenance	Date Maintained or Inspected
DO NOT enter the structure without proper OSHA training and equipment (Indicate not applicable if surface inspection)	
Visually inspect inlets/manholes/underground structures for standing water. Have pumped out if present.	
Visually inspect inlets/manholes/underground structures for presence of sediment/debris. Have material removed and legally disposed of if the structure is filled more than half. (Remove all obstructions to underground inspection)	
Visually inspect weir wall and low flow orifice for cracks, spalling, and clogging.	
Visually inspect trash rack for attachment and debris blockage.	
Visually inspect inlets/manholes/underground structures for integrity (Holes, corrosion, cracks, spalling, separation and missing parts). Repair/replace to good condition.	
Notes (Include description of repairs completed):	

Inspector's Signature: _____ Date: _____ OSHA Training Certificate No. (if applicable) _____

(OVER)

Specific Maintenance Inspection Schedule for Underground Facilities Carroll County, Maryland

- Minimum Annual Inspections & Maintenance** (to be included on plans)
- Remove standing water from inlets/manholes/underground structures.
 - Remove accumulated sediments and debris from inlets/manholes/underground structures.
 - Inspect inlets/manholes/weir walls, low flow orifice, and the underground structure for cracks, spalling and clogging. Remove clogs.
 - Inspect trash rack for attachment and blockages. Remove blockages.
 - Inspect inlets/manholes/weir walls and the underground structure for integrity (holes, corrosion, cracks, spalling, separations and missing parts (manhole lids, grates, plates, etc.). Repair/replace to good condition according to approved plans and specifications.
 - Document the above steps using the Carroll County Inspection Report form and required photographs. Owner is responsible for providing copies of this form documenting completed annual maintenance when required.

Annual/Triennial Underground Stormwater Management Facility Operation & Maintenance Inspection Form Instructions:

The top portion of the form is to be filled in with the relevant information. **One form per facility.**

Owner Information should be filled in with the contact information of the owner of the facility. If the owner is different than the one listed on the letter, please check the new owner box.

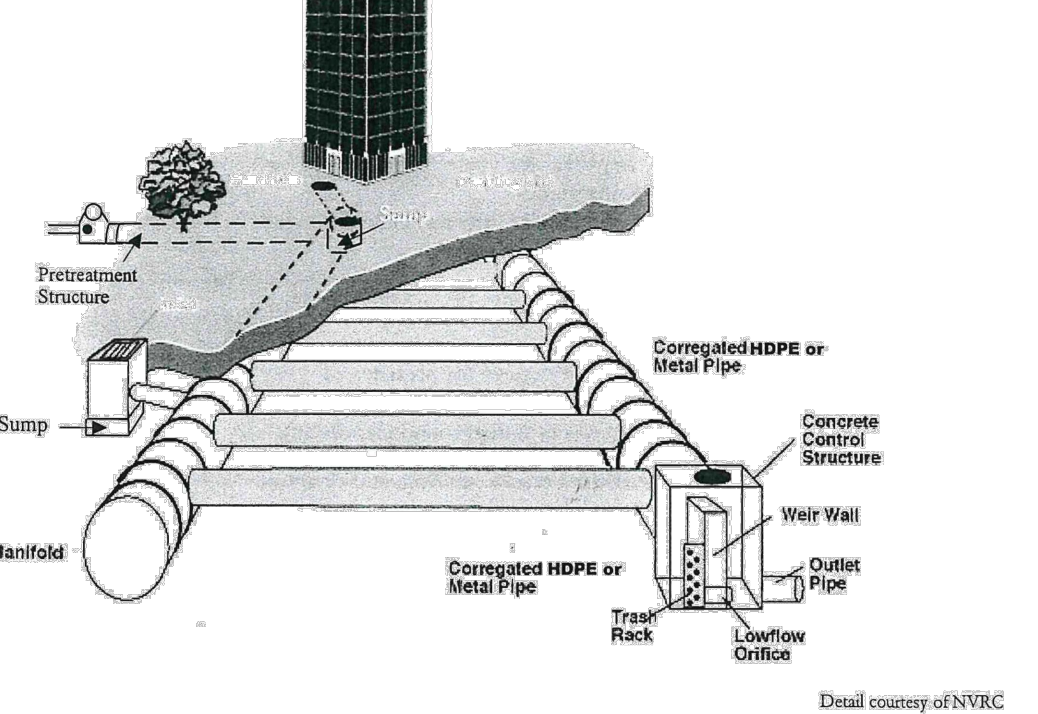
Facility Information as-built number and BMP ID can be obtained from the County letter.

Inspection Information should be completed by the individual completing the inspection.

The **Inspection Tasks** table needs to be completed by the person inspecting each component. Any maintenance completed should be described in the Notes section.

The **Triennial Entry Inspection** must be certified by a professional engineer or land surveyor licensed in the state of Maryland.

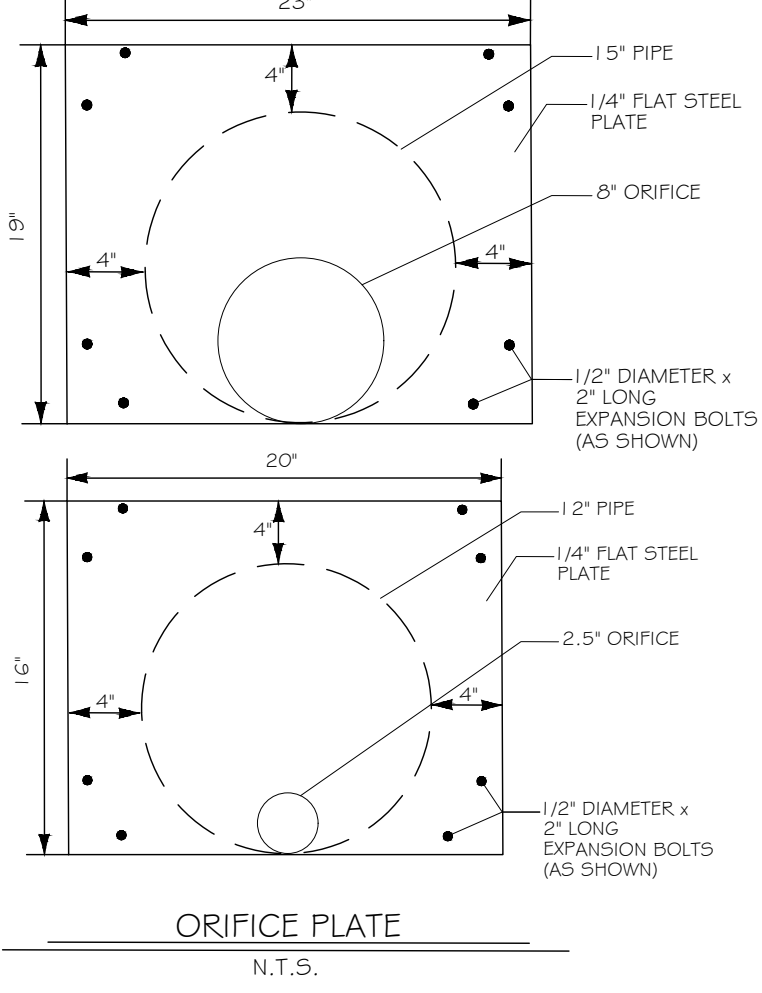
Underground Detention Components



Annual Inspection:
Photos. Attach date stamped photos of the facility to the inspection report. One photo should be an overall showing the location of the facility and one should be a close-up photo into the facility. Additional photos should depict the cleaned out inlets/manholes/pretreatment structure.

Triennial Inspection:
Photos. Attach date stamped photos of the facility to the inspection report. One overall photo, and then photos of the cleaned out inlets/manholes/pretreatment structure and interior photos of the underground facility showing condition of pipes, joints, inverts, weir walls, orifices, and trash racks.

R:\Martin\Updated Forms\SWM\Maintenance Inspection Form REVISED 3-22-2020.docx



STORM TRAP INSTALLATION INSPECTION CHART	
STAGE *	INSPECTOR'S APPROVAL
	INITIALS DATE
1. EXCAVATION TO SUBGRADE	
2. INSTALLATION OF FOUNDATION	
3. INSTALLATION OF STORM TRAP DOUBLE TRAP MODULES PER LAYOUT FOLLOWING INSTALLATION SPECIFICATIONS ON SHEET 1.7. APPROVED WATERSTOP SYSTEM TO BE APPLIED TO ALL JOINTS.	
4. INSTALLATION ALL INCOMING AND OUTGOING PIPES. APPROVED WATERSTOP SYSTEM TO BE APPLIED TO ALL JOINTS.	
5. INSTALL ORIFICE PLATES AS DETAILED ON THIS SHEET AND INSTALL TRASH RACKS.	
6. BACKFILL ACCORDING TO MANUFACTURER'S SPECIFICATIONS.	
7. FINE GRADE AND INSTALL BASE AND FINAL PAVING.	
8. SUBMIT AS-BUILT PAPER PRINTS TO CARROLL COUNTY BUREAU OF RESOURCE MANAGEMENT WITHIN 60 DAYS OF CONSTRUCTION COMPLETION.	
PLEASE NOTIFY CERTIFYING ENGINEER 48 HOURS PRIOR COMMENCING CONSTRUCTION ENGINEER'S NAME: KCI PHONE NUMBER : (410) 316 - 7898	

OWNER AJCET RESTORATION SERVICES 2206 SKYLARK DRIVE WESTMINSTER, MD 21157	DEVELOPER BARTHOLOW ROAD LLC. C/O BAREFOOT LAND CO. 4324 NW 10TH ST CAPE CORAL, FL 33993 MASON NEWBERRY (404) 317 - 9063	ENGINEER KCI TECHNOLOGIES 936 RIDGEBROOK ROAD SPARKS, MD 21152 MATTHEW SICHEL (410) 316 - 7894
--	---	--

SWM - ESD FACILITY STORM TRAP PLAN ELDERSBURG CROSSROADS SELF STORAGE XXXX SYKESVILLE RD, ELDERSBURG, MD 21784		DRAWING NO. C-10 SHEET 10 OF 17 KCI JOB NUMBER 00049505
CARROLL COUNTY		5TH ELECTION DISTRICT

- GENERAL NOTES:**
- STRUCTURE PROXIMITY LOADING DISCLAIMER:
STORMTRAP MODULES AND FOUNDATION ARE NOT DESIGNED TO ACCEPT ANY ADDITIONAL LOADING FROM ANY NEARBY STRUCTURES NEXT TO OR OVER THE TOP OF STORMTRAP. EXAMPLES OF NEARBY STRUCTURES MAY INCLUDE BUT ARE NOT LIMITED TO BUILDINGS, FOUNDATION ELEMENTS, RETAINING WALLS, LIGHT POLES, BOLLARDS, SIGNPOSTS, FENCES, ADDITIONALLY, STORMTRAP IS NOT RESPONSIBLE FOR INSTALLATION CONFLICTS ARISING FROM ANY OF THESE NEARBY STRUCTURES. IF ADDITIONAL LOADING CONSIDERATIONS ARE REQUIRED FOR STRUCTURAL DESIGN OF STORMTRAP, PLEASE CONTACT STORMTRAP IMMEDIATELY. FOR LIGHT POLES SHOWN OVER THE TOP OF THE SYSTEM, STORMTRAP WILL PROVIDE A 5'-0" LATERAL DISTANCE CAVITY AROUND THE LIGHT POLE TO ACCOMMODATE IT. THE EOR TO TAKE RESPONSIBILITY FOR ENSURING THE LIGHT POLE IS NOT INFLECTING ANY LOADING ON THE STORMTRAP MODULES AND FOUNDATION.
 - TREE LOADING DISCLAIMER:
THE NUMBER OF TREES OR WEIGHT OF TOTAL PLANT MATERIAL PRESENT ON TOP OF A SINGLE STORMTRAP MODULE SHALL NOT EXCEED 16,000 LBS. THE REQUIREMENTS LISTED HERE APPLY AT BOTH THE TIME OF INSTALLATION AND FOR THE LIFE OF THE TREES AND PLANTS IN QUESTION. THE EOR AND LANDSCAPE ARCHITECT ARE RESPONSIBLE FOR ENSURING THAT TREE AND OTHER PLANT ROOTS DO NOT INTERFERE WITH OR COMPROMISE THE FUNCTIONAL AND STRUCTURAL INTEGRITY OF STORMTRAP'S UNDERGROUND MODULES. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ROOT GROWTH INTO THE STORMTRAP SYSTEM FROM ADJACENT OR OVERHEAD TREES. FURTHERMORE, THE ROOTS OF THE TREES MUST BE CONFINED TO PREVENT FUTURE DAMAGE TO THE STORMTRAP SYSTEM. STORMTRAP ACCEPTS NO LIABILITY FOR DAMAGES CAUSED BY TREES OR OTHER VEGETATION PLACED AROUND OR ON TOP OF THE SYSTEM.
 - PRE-TREATMENT/SEDIMENT/FILTER CHAMBER DISCLAIMER:
FOR SYSTEMS CONTAINING PRE-TREATMENT, SEDIMENTATION AND/OR FILTER CHAMBERS, IF REQUIRED TO BE SEALED TO PREVENT SAND AND/OR PRE-TREATED WATER FROM MIGRATING INTO ADJOINING MODULES, IT IS THE SOLE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT THOSE MODULES ARE SEALED.
 - OUTLET CONTROL STRUCTURE DISCLAIMER (IF SHOWN ON THESE PLANS):
IF A WATERPROOF SOLUTION IS REQUIRED FOR AN OUTLET CONTROL STRUCTURE, ALL EXTERIOR JOINT JOINTS, INCLUDING JOINT BETWEEN TOP AND BASE MODULES, BETWEEN TOP AND BASE OF ADJOINING SYNGRASS WALLS, AND JOINTS BETWEEN MODULE AND ADJACENT END PANELS WILL BE THE SOLE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO PROVIDE AND INSTALL THE WATERPROOF APPLICATION PER THE EOR'S SPECIFICATION.

StormTrap
1387 MEDIAN PARKWAY
ROCKVILLE, MD 20850
PH: 301-581-6500 / FAX: 301-581-5507

ENGINEER INFORMATION:
KCI
Technologies -
Sparks, MD -
Corporate

PROJECT INFORMATION:
Bartholow Road
Self Storage
Sykesville, MD

CURRENT ISSUE DATE:
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ISSUED FOR:
PRELIMINARY

REV. DATE ISSUED FOR

SCALE:
N.T.S.

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
1.0

DEVELOPER'S / LANDOWNER'S CERTIFICATION

I HEREBY CERTIFY THAT ALL PROPOSED WORK SHOWN ON THESE CONSTRUCTION DRAWINGS WILL BE CONDUCTED IN STRICT ACCORDANCE WITH THESE PLANS. I HAVE ALSO UNDERSTOOD THAT IT IS MY OWN RESPONSIBILITY TO HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED, INCLUDING THE SUBMITTAL OF AS-BUILT PLANS CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR WITHIN 30 DAYS OF COMPLETION OF WORK ON THE STORMWATER MANAGEMENT FACILITY. I HAVE ALSO CERTIFIED THAT THESE STORMWATER MANAGEMENT FACILITIES WILL BE INSPECTED DURING CONSTRUCTION BY A REGISTERED PROFESSIONAL ENGINEER IN ACCORDANCE WITH PAGES 136-139 OF CHAPTER 136 OF THE WESTMINSTER CITY CODE.

SIGNED _____ DATE _____

ENGINEER'S AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS. I ALSO CERTIFY THAT THIS PLAN WAS INSPECTED IN ACCORDANCE WITH 136-22 AND 136-23 OF THE WESTMINSTER CITY CODE.

SIGNED _____ SEAL NO. _____ DATE _____

ENGINEER'S DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN DESIGNED ACCORDING TO CHAPTER 136 OF THE WESTMINSTER CITY CODE, ENTITLED "STORMWATER MANAGEMENT"

SIGNED _____ SEAL NO. _____ DATE _____

BILL OF MATERIALS			
QTY.	DWT TYPE	DESCRIPTION	TSP WEIGHT BASE WEIGHT
19	I	4"-6" DOUBLETAP	12877 0
12	II	6"-8" DOUBLETAP	14886
17	III	4"-6" DOUBLETAP	10746 0
17	IV	4"-6" DOUBLETAP	0
0	VII	4"-6" DOUBLETAP	0 0
0	VIII	4"-6" DOUBLETAP	0 13189
0	VIH	4"-6" DOUBLETAP	0 0
0	VIH	4"-6" DOUBLETAP	0 0
0	VIH	4"-6" DOUBLETAP	0 0
0	VIH	4"-6" DOUBLETAP	0 0
4	SPIV	4"-6" DOUBLETAP VARIES	VARIES
4	SPIV	4"-6" DOUBLETAP VARIES	VARIES
12	PANEL	4" THICK PANEL	0
14	PANEL	4" THICK PANEL	3643
17	PANEL	6" THICK PANEL	0
17	JUNT	WARRANTY PER ROLL	0
48	JUNT	WARRANTY PER ROLL	0
TOTAL PIECES = 65			
TOTAL POUNDS = 5			
HEAVIEST PICK WEIGHT = 14886			

DESIGN CRITERIA

ALLOWABLE MAX GRADE = 850.00'
 ALLOWABLE MIN GRADE = 849.00'
 INSIDE RADIUS ELEVATION = 848.50'
 SYSTEM INVERT = 842.40'

NOTES:

1. DIMENSIONING OF STORMTRAP SYSTEM SHOWN BELOW ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
2. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
3. SEE SHEET S-10 FOR INSTALLATION SPECIFICATIONS.
4. SP - INDICATES A MODULE WITH WOODOPTIONS.
5. P - INDICATES A MODULE WITH A PANEL ATTACHMENT.
6. CONTRACTORS RESPONSIBILITY TO ENSURE CONSISTENCY/ACCURACY TO FINAL ENGINEER OF RECORD PLAN SET.
7. IN ORDER FOR STORMTRAP TO GENERATE APPROVAL DRAWINGS, CIVIL ENGINEERING DRAWINGS MUST BE PROVIDED TO STORMTRAP AND SHALL INCLUDE ALL PIPE SIZES, PIPE MATERIAL, PIPE INVERT ELEVATIONS, ACCESS OPENING SIZE AND SHAPE. IN ADDITION, FINAL GRADING PLANS SHALL ALSO INCLUDE MINIMUM AND MAXIMUM GRADES OVER THE TOP OF THE STORMTRAP SYSTEM.

[illegible]

ACCESS OPENING SPECIFICATION

- A TYPICAL ACCESS OPENING FOR THE STORMTAP SYSTEM IS 2'-0" IN DIAMETER. ACCESS OPENINGS LARGER THAN 4'-0" IN DIAMETER NEED TO BE APPROVED BY STORMTAP. ALL OPENINGS MUST BE AT LEAST 2'-0" OF CLEARANCE FROM THE END OF THE STORMTAP MODULE UNLESS NOTED OTHERWISE. ALL OPENINGS MUST BE LOCATED ON HOLES LESS UNLESS OTHERWISE SPECIFIED. SEE SHEET 2.0 FOR SIZES AND LOCATIONS.
- UNLESS OTHERWISE SPECIFIED, STANDARD STEPS ARE PROVIDED INSIDE ANY MODULE WHERE DECKING IS NECESSARY. THE INSIDE STEP IN THE MODULE IS TO BE PLACED AT A DISTANCE OF 1'-0" FROM THE INSIDE EDGE OF THE STORMTAP MODULE. ALL INSIDE STEPS SHALL BE PLACED AT A DISTANCE BETWEEN 10" MIN AND 14" MAX BETWEEN THEM. STEPS MAY BE MOVED OR ALTERED TO AVOID OPENINGS OR OTHER IRREGULARITIES IN THE MODULE.
- STORMTAP LIFTING SHEETS MAY BE RELOCATED TO AVOID INTERFERENCE WITH ACCESS OPENINGS ON THE CENTER OF GRAVITY OF THE MODULE AS NEEDED.
- STORMTAP ACCESS OPENINGS MAY BE DELETED TO AVOID INTERFERENCE WITH INLET AND/OR OUTLET PIPE OPENINGS SO PLACEMENT OF STEPS IS ATTAINABLE.
- ACCESS OPENINGS SHOULD BE LOCATED IN ORDER TO MEET THE APPROPRIATE MINIMUM REINFORCEMENTS. STORMTAP RECOMMENDS AT LEAST TWO ACCESS OPENINGS PER SYSTEM FOR ACCESS AND REMOVAL.
- USE PRECAST ADJUSTING RINGS AS NEEDED TO MEET GRADE. STORMTAP RECOMMENDS FOR COVER OVER 2" TO USE PRECAST BARREL OR CONE SECTIONS. (PROVIDED BY OTHERS)

PIPE ACCESS SPECIFICATION

- MINIMUM EDGE DISTANCE FOR AN OPENING ON THE OUTSIDE WALL SHALL BE NO LESS THAN 1'-0".
- CONNECTING PIPES MAY BE INSTALLED WITH A 1'-0" CONCRETE COLLAR AND AN AGGREGATE CRADLE (AS REQUIRED) FOR AT LEAST ONE PIPE LENGTH (SEE PIPE CONNECTION DETAILS). A STRUCTURAL GRADE CONCRETE OR HIGH STRENGTH NON-SHRINK GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI MAY BE USED.
- THE ANNULAR SPACE BETWEEN THE PIPE AND THE HOLE SHALL BE FILLED WITH HIGH STRENGTH NON-SHRINK GROUT.

PIPE INSTALLATION INSTRUCTIONS

- CLEAN AND LIGHTLY LUBRICATE ALL OF THE PIPE TO BE INSERTED INTO STORMTAP.
- IF PIPE IS CUT, CARE SHOULD BE TAKEN TO ALLOW NO SHARP EDGES, BEVEL AND LUBRICATE LEAD END OF PIPE.
- ALIGN CENTER OF PIPE TO CORRECT ELEVATION AND INSERT INTO OPENING.

NOTE: ALL ANCILLARY PRODUCTS/SPECIFICATIONS RECOMMENDED AND SHOWN ON THIS SHEET INCLUDING BUT NOT LIMITED TO CONCRETE COLLARS, AGGREGATE CRADLES, GRADE JUMPS, RISER SECTIONS, ETC. ARE RECOMMENDATIONS ONLY AND SUBJECT TO CHANGE PER THE INSTALLING CONTRACTOR AND/OR PER LOCAL MUNICIPAL CODE REQUIREMENTS.

**NOTCHED PIPE CONNECTION DETAIL
WHEN PIPE INSERT IS AT
INVERT OF STORMTAP SYSTEM**

STEP DETAIL

RISER/STAIR DETAIL

LEGEND:

- WETS: 1591.00.02
- ASTM C-478
- ASTM C-415
- ASTM A-615
- ASTM A-101
- ASTM A-101

FRAME & COVER AS SPECIFIED BY OTHERS (SUPPLIED BY OTHERS)

PRECAST CONCRETE RING, BARREL OR CONE (NOT SHOWN AT INVERT) AS SPECIFIED BY OTHERS (SUPPLIED BY OTHERS)

NON-SHRINK GROUT

STORMTAP MODULE

1'-0" x 1'-0" CONCRETE COLLAR (AS REQUIRED)


INLET/OUTLET PIPE


AGGREGATE CRADLE (AS REQUIRED)

HIGH STRENGTH NON-SHRINK GROUT

STORMTAP MODULE BASE SEAL

IF A PIPE IS PROPOSED AT THE SYSTEM INVERT, THE PIPE SHOULD BE INSERTED INTO THE STORMTAP MODULE





KCI
TECHNOLOGIES

ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

936 RIDGEBROOK ROAD
SPARKS, MARYLAND 21152
TELEPHONE: (410) 316-7800
FAX: (410) 316-7818

REVISIONS				DATE
NO.	DATE	DESCRIPTION	BY	11/24/2025
				SCALE
				1" = 30'
				DESIGNED BY
				KCI
				DRAWN BY
				KCI

CARROLL COUNTY 5TH ELECTION DISTRICT






DEVELOPER
BARTHOLOW ROAD LLC.
C/O BAREFOOT LAND CO.
4324 NW 10TH ST
CAPE CORAL, FL 33993
MASON NEWBERRY
(404) 317 - 9063

DRAWING NO.
C-11
SHEET 11 OF 17
KCI JOB NUMBER
00049505

PLOTTED: Monday, November 24, 2025 11:31:02 AM
FILE: \\A:\PROJECTS\2025\00049505\DRAWINGS\CONCEPT SITE PLAN\C-12 SWM - EX. CON. MAP.DWG

- | 20' ----- EX. MAJOR CONTOUR
-----| 22' ----- EX. MINOR CONTOUR
----- RIGHT OF WAY
----- PROPERTY LINE
----- EASEMENT LINE
----- EX. 15" D
----- EX. 6" S
----- EX. 8" W
----- EX. STORM DRAIN
----- EX. SANITARY SEWER
----- EX. WATER
----- EX. GAS
----- EX. OVERHEAD ELECTRIC
----- EX. CURB AND GUTTER
----- EX. BUILDING
----- EX. POWER POLE
----- EX. MANHOLE
----- EX. INLET
----- EX. FIRE HYDRANT
----- EX. SIGN

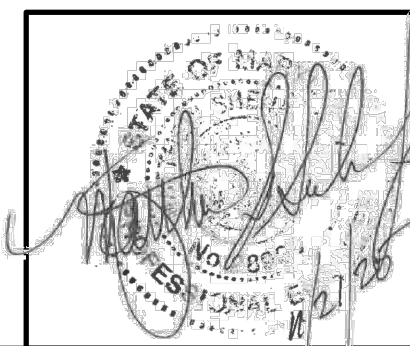
LEGEND

- ⊗ EX. TREE
⊗ EX. TREE TO BE REMOVED
⊗ EX. TREELINE
--- UrB(D)
--- GeC(B) --- SOIL LINE DELINEATION & HYDROLOGIC GROUP
 GRASS
 UNGRAZED MEADOWS
 WOODS
 IMPERVIOUS
--- D.A. BOUNDARY DESIGNATION
 D.A. DESIGNATION

EXISTING CONDITIONS DRAINAGE AREA MAP

SCALE: 1"=30'

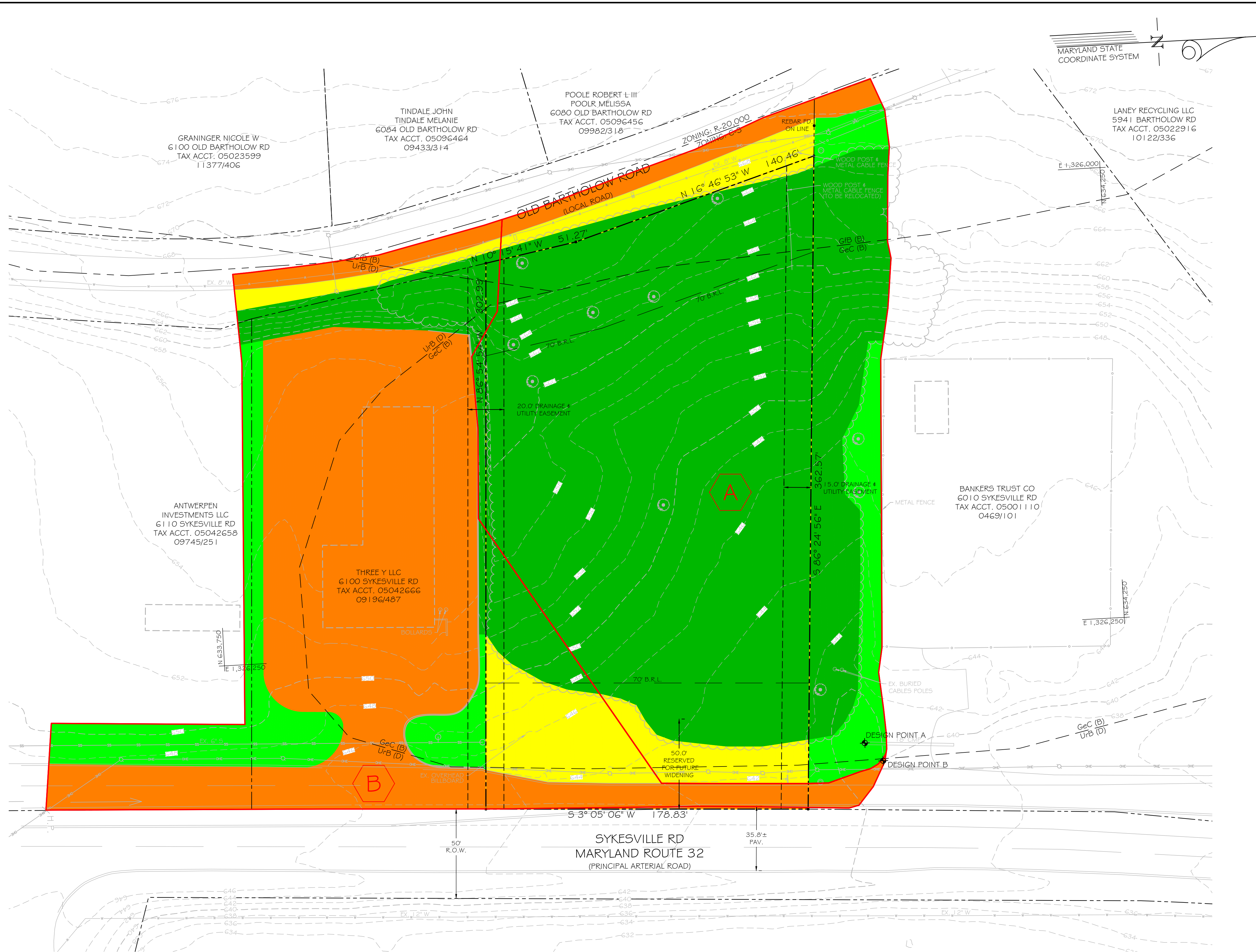
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED
OR APPROVED BY ME, AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF
MARYLAND, LICENSE NO. 28935 EXPIRATION DATE: 11/15/27



REVISIONS			
NO.	DATE	DESCRIPTION	BY

DATE	11/24/2025
SCALE	1" = 30'
DESIGNED BY	KCI
DRAWN BY	KCI

OWNER AJCET RESTORATION SERVICES 2206 SKYLARK DRIVE WESTMINSTER, MD 21157		DEVELOPER BARTHOLOW ROAD LLC, C/O BAREFOOT LAND CO. 4324 NW 10TH ST CAPE CORAL, FL 33993 MASON NEWBERRY (404) 317 - 9063		ENGINEER KCI TECHNOLOGIES 936 RIDGEBROOK ROAD SPARKS, MD 21152 MATTHEW SIEGEL (410) 316 - 7894			
SWM-EXISTING CONDITIONS MAP ELDERSBURG CROSSROADS SELF STORAGE XXXX SYKESVILLE RD, ELDERSBURG, MD 21784					DRAWING NO. C-12 SHEET 12 OF 17 KCI JOB NUMBER 00049505		
CARROLL COUNTY 5TH ELECTION DISTRICT							



DA = 1.62 AC
IMP = 0.05 AC

A

RCN = 57
TC = 0.1

DA = 1.30 AC
IMP = 0.84 AC

B

RCN = 88
TC = 0.1



VICINITY MAP
SCALE: 1" = 2000'



Project Name: Bartholow Rd Self Storage By: MLC Date: 10/6/2025
Project Number: 00049505 Chk: Date:

Bartholow Road Self Storage Stormwater Management Using Environmental Site Design (ESD)

Site Data:

L.O.D. / Site Area = 1.37 Ac.
Existing Impervious = 0.06 Ac.
Proposed Impervious = 0.96 Ac.

I% = 0.06 Ac / 1.37 Ac = 4% < 40%
Re-development does not apply, this site will be treated as New Development

Step 1: Determine ESD Implementation Goals (WQv, Rev & Cvp Total)

A. Determine Pre-Developed Conditions:

Determine Soil Conditions and RCN for "woods in good condition"

HSB	RCN	Area (Ac)	Percent
A	38	0.00	0.0%
B	55	1.27	92.7%
C	70	0.00	0%
D	77	0.10	7.3%

Total Area: 1.37

Determine composite RCN for "woods in good condition"

$$\text{RCN (woods)} = \frac{\text{RCN} \times \text{Area}}{\text{Total Area}}$$

RCN (woods) = 57

The target RCN for "woods in good condition" is 57

B. Determine Target PE Using Table 5.3

Determine Proposed Impervious (%) for site (0.96 / 1.37) x 100 = 70.07%

%IA 'B' soils = $\frac{\text{Proposed Impervious Area}}{\text{Drainage Area (SWM LOD)}}$

Proposed Impervious: 0.88 Ac

%IA 'B' soils = $\frac{0.88 \text{ Ac}}{1.27} \times 100 = 69\%$

Use 70% per Table 5.3

Determine PE from Table 5.3

PE = 2.20 will reduce the RCN to reflect * 1.6

%IA 'D' soils = $\frac{\text{Proposed Impervious Area}}{\text{Drainage Area (SWM LOD)}}$

Proposed Impervious: 0.08 Ac

%IA 'D' soils = $\frac{0.08 \text{ Ac}}{0.10} \times 100 = 80\%$

Use 80% per Table 5.3

Determine PE from Table 5.3

PE = 1.80 will reduce the RCN to reflect "woods in good condition"

PE for Site = (Area 'B' soils x PE 'B' soils) + (Area 'D' soils x PE 'D' soils) / Site Area (LOD)

PE for Site = $(1.27 \times 2.2) + (0.10 \times 1.8) / 1.37 = 2.17$

PE = 2.17 will reduce the RCN to reflect "woods in good condition"

C. Compute QE

QE = Runoff depth used to size ESD practice

PE = 2.17

QE = PE x Rv

Rv = 0.05 + (0.009 x % imp.) site

QE = 2.1708 x 0.681

Rv = 0.05 + (0.009 x 70.07

QE = 1.48 inches

Rv = 0.681

ESD targets for the Project are:

PE = 2.17 inches

QE = 1.48 inches

D. Compute Total ESDv Required

ESDv = $\frac{\text{PE} \times \text{Rv} \times \text{A}}{12}$

ESDv = $\frac{2.17 \times 0.681 \times 1.37}{12}$

ESDv = 0.169 Acre Feet or 7,348 Cubic Feet

PE = $\frac{\text{ESDv (total)} \times 12}{\text{Rv site} \times \text{DA site} \times 43,560}$

PE = $\frac{3,381 \times 12}{0.68 \times 1.37 \times 43,560} = 1.00$

Per Meeting with Carroll County a minimum of 1.0" or ESDv must be provided on site to meet Maximum Extent Possible requirements. For this site, 3381 cu.ft. of ESDv is provided. PE=1.0". The remaining 3,967 cu.ft. of treatment will be provided as WQ in an underground Sand Filter by Storm Trap.

LEGEND

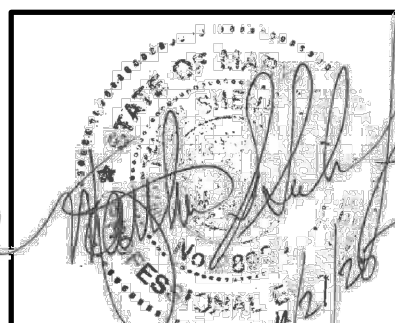
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- RIGHT OF WAY
- PROPERTY LINE
- EASEMENT LINE
- EX. STORM DRAIN
- EX. SANITARY SEWER
- EX. WATER
- EX. GAS
- EX. OVERHEAD ELECTRIC
- EX. CURB AND GUTTER
- EX. BUILDING
- EX. POWER POLE
- EX. MANHOLE
- EX. INLET
- EX. FIRE HYDRANT
- EX. SIGN

- EX. TREE
- EX. TREE TO BE REMOVED
- EX. TREELINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SOIL LINE DELINEATION & HYDROLOGIC GROUP
- PROPOSED STORM DRAIN
- PROPOSED CURB & GUTTER
- PROPOSED TREELINE
- PROPOSED PERVIOUS = 0.41 AC
- PROPOSED IMPERVIOUS = 0.96 AC
- ESD TRACT AREA

ESD TRACT DRAWING

SCALE: 1"=30'

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 28933, EXPIRATION DATE: 11/5/27



ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS
936 RIDGEBROOK ROAD
SPARKS, MARYLAND 21152
TELEPHONE: (410) 316-7800
FAX: (410) 316-7818

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DATE 11/24/2025
SCALE 1" = 30'
DESIGNED BY KCI
DRAWN BY KCI

OWNER
AJCET RESTORATION
SERVICES
2206 SKYLARK DRIVE
WESTMINSTER, MD 21157

DEVELOPER
BARTHOLOW ROAD LLC
C/O BAREFOOT LAND CO.
4324 NW 10TH ST
CAPE CORAL, FL 33993
MASON NEWBERRY
(404) 317 - 9063

ENGINEER
KCI TECHNOLOGIES
936 RIDGEBROOK ROAD
SPARKS, MD 21152
MATTHEW SIEGEL
(410) 316 - 7894

SWM-ESD TRACT DRAWING
ELDERSBURG CROSSROADS
SELF STORAGE
XXXX SYKESVILLE RD,
ELDERSBURG, MD 21784

CARROLL COUNTY

5TH ELECTION DISTRICT

DRAWING NO.

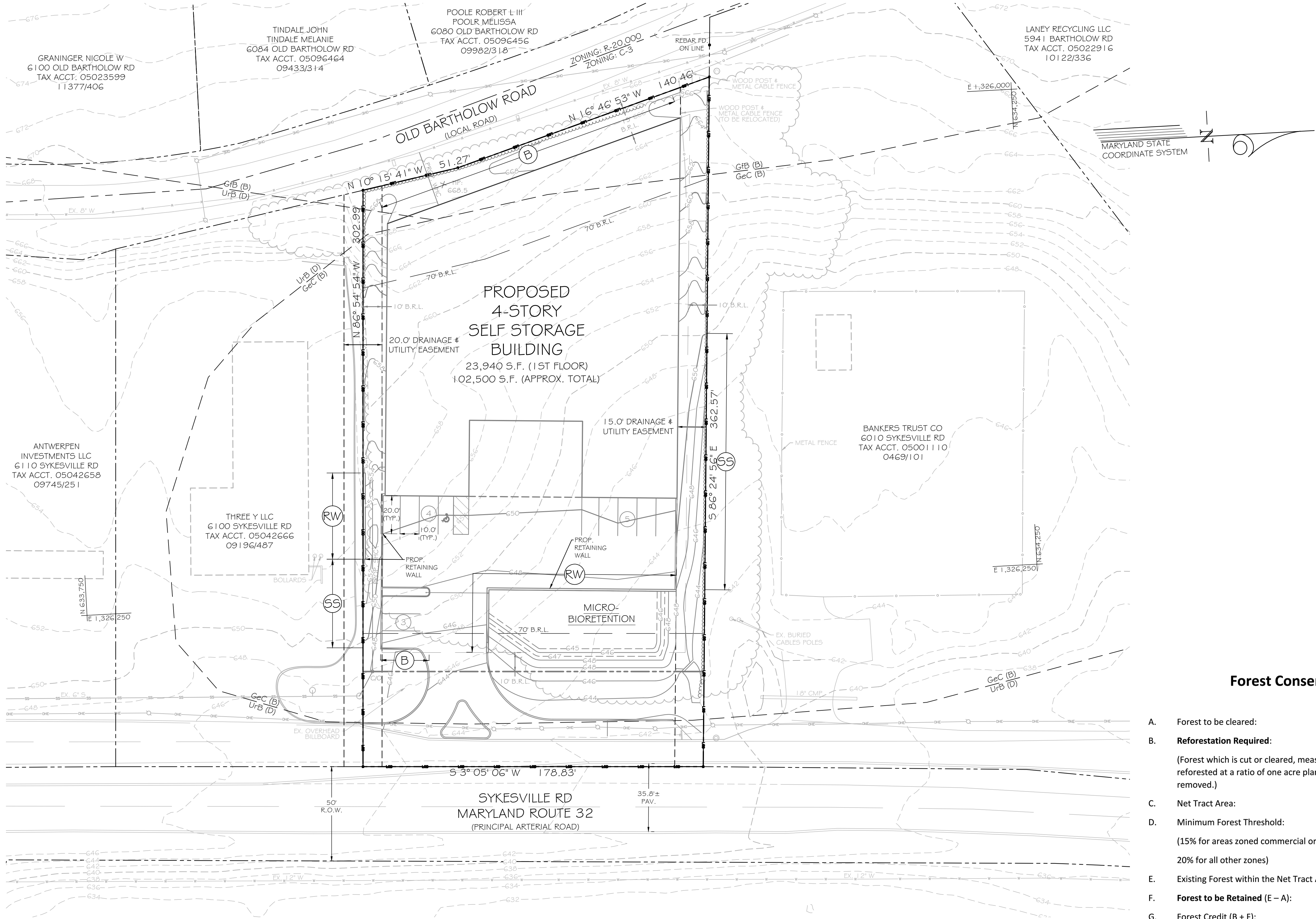
C-13

SHEET 13 OF 17
KCI JOB NUMBER
00049505

9-25-0026

PLOTTED: Monday, November 24, 2025 11:31:13 AM
FILE: \\A:\PROJECTS\2025\00049505\DRAWINGS\CONCEPT SITE PLAN\C-13_SWM - ESD TRACT.MXD

PLOTTED: Monday, November 24, 2025 11:31:38 AM
FILE: \\A:\PROJECTS\2025\0904\0505\DRAWINGS\CONCEPT SITE PLAN-C-15 LANDSCAPE PLAN.DWG



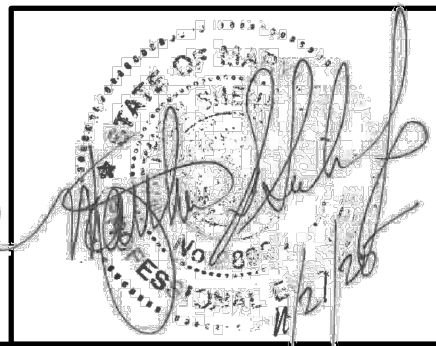
LANDSCAPE PLAN
SCALE: 1"=30'

LEGEND

- PROPOSED MAJOR TREE
- PROPOSED SHRUB
- BUFFER IDENTIFICATION

SCHEDULE A: LANDSCAPE CALCULATIONS						
CATEGORY	PARKING LOT REQUIREMENT	PARKING LOT REQUIREMENT	ISLAND REQUIREMENT	BUILDING ADJACENT TO ROAD - B BUFFER	RETAINING WALL - RW BUFFER	STEEP SLOPE AREA - SS BUFFER
DISTANCE/AREA, ETC.	12 SPACES	8915 S.F.	12 SPACES	190 L.F.	160 L.F.	2350 S.F.
TOTAL PLANTING UNITS(P.U.'S) REQUIRED	1 P.U. (1 P.U./12 SPACES)	892 S.F. (10% OF PARKING LOT)	1 ISLAND (1 ISLAND / 12 SPACES)	7.60 P.U. (1 P.U./25 LF)	6.5 P.U. (1 P.U./25 LF)	5.875 P.U. (1 P.U./AREA400)
TOTAL PLANTING UNITS (P.U.'S) PROVIDED	XX P.U.	XX P.U.	XX P.U.	XX P.U.	XX P.U.	XX P.U.
MAJOR (1 P.U.) SHRUBS (1/5 P.U.)	XX (XX.X P.U.) XX (XX.X P.U.)	XX (XX.X P.U.) XX (XX.X P.U.)	XX (XX.X P.U.) XX (XX.X P.U.)	XX (XX.X P.U.) XX (XX.X P.U.)	XX (XX.X P.U.) XX (XX.X P.U.)	XX (XX.X P.U.) XX (XX.X P.U.)
NOTE: SWM PLANTING UNITS TO BE PROVIDED IN THE FORM OF WATER QUALITY PLANTINGS WITHIN THE FACILITY.						

PROFESSIONAL CERTIFICATION
THEREBY 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. 28933 EXPIRATION DATE: 11/15/27




REVISIONS			
NO.	DATE	DESCRIPTION	BY

DATE 11/24/2025
SCALE 1" = 30'
DESIGNED BY KCI
DRAWN BY KCI

OWNER AJCET RESTORATION SERVICES 2206 SKYLARK DRIVE WESTMINSTER, MD 21157	DEVELOPER BARTHOLOW ROAD LLC. C/O BAREFOOT LAND CO. 4324 NW 10TH ST CAPE CORAL, FL 33993 MASON NEWBERRY (404) 317 - 9063	ENGINEER KCI TECHNOLOGIES 936 RIDGEBROOK ROAD SPARKS, MD 21152 MATTHEW SICHEL (410) 316 - 7894
LANDSCAPE PLAN ELDERSBURG CROSSROADS SELF STORAGE XXXX SYKESVILLE RD, ELDERSBURG, MD 21784		
DRAWING NO. C-15 SHEET 15 OF 17 KCI JOB NUMBER 00049505		
CARROLL COUNTY 5TH ELECTION DISTRICT		

Forest Conservation Worksheet

- A. Forest to be cleared: 1.20 AC.
- B. Reforestation Required: 1.20 AC.
- (Forest which is cut or cleared, measured to the nearest one-tenth acre, shall be reforested at a ratio of one acre planted or banked for every one acre of forest removed.)
- C. Net Tract Area: 1.37 AC.
- D. Minimum Forest Threshold: 0.21 AC.
- (15% for areas zoned commercial or industrial, or institutional development areas; 20% for all other zones)
- E. Existing Forest within the Net Tract Area: 1.20 AC.
- F. Forest to be Retained (E - A): 0 AC.
- G. Forest Credit (B + F): 0 AC.
- H. Afforestation Required (D - G): 0 AC.
- (Afforestation may be addressed by retaining in an easement forest that is within the net tract area, planting, or banking. If H < 0, no afforestation is required.)

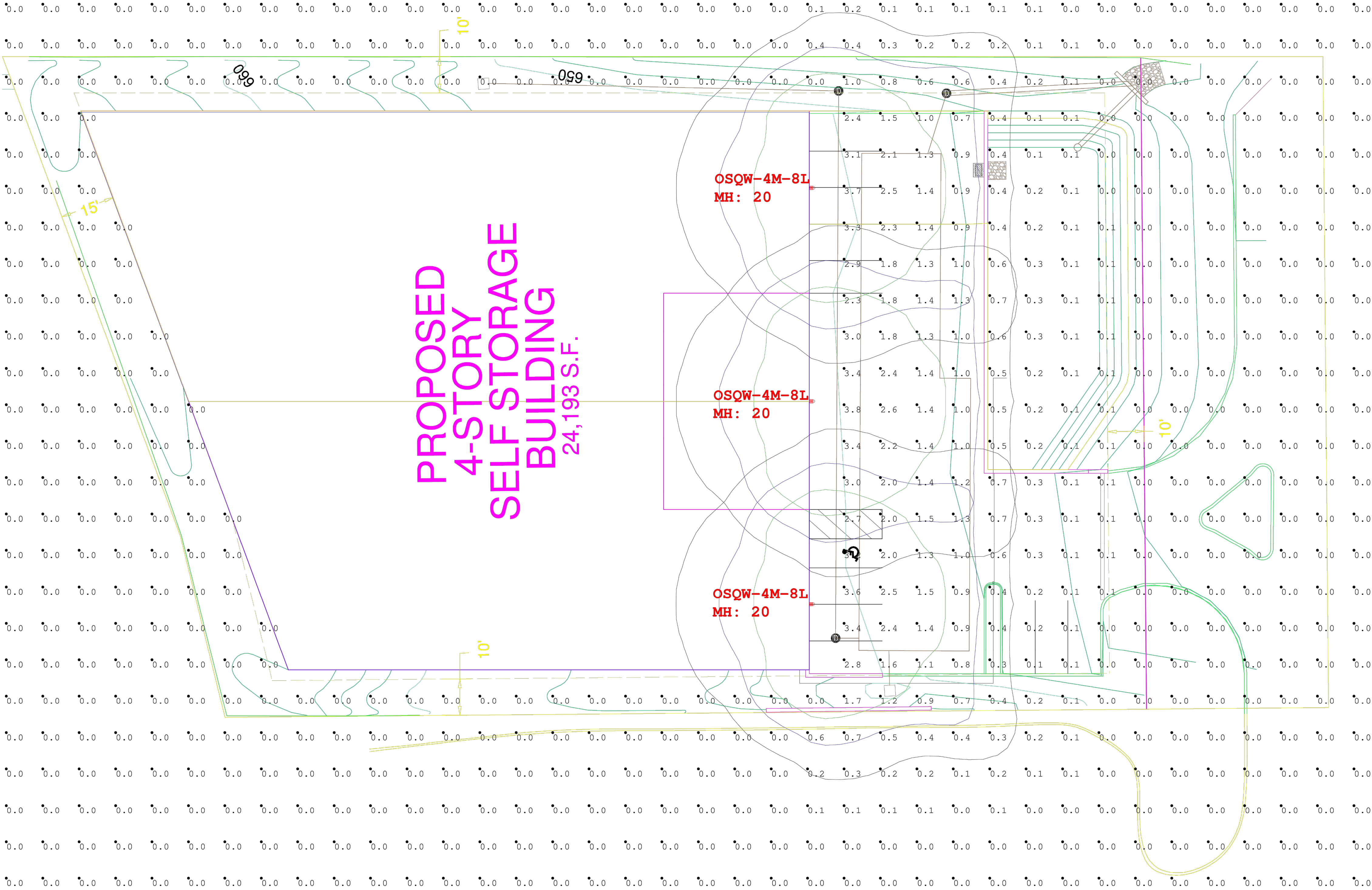
Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LMF	Lum. Lumens	Lum. Watts	Part Number
	3	OSQW-4M-8L	Single	1.000	8600	55	OSQW-C-8L-40K7-4M-UL-WM-__


Calculation Summary (Footcandles calculated using LMF: 1.00)						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
All Calc Points	Fc	0.23	3.8	0.0	N.A.	N.A.

Building Height: 4-Stories

Additional Equipment:

*** CUSTOMER TO VERIFY ORDERING INFORMATION AND CATALOGUE NUMBER PRIOR TO PLACING ORDER ***





9201 Washington Ave, Racine, WI 53406 - (800) 236-6800
https://www.creelighting.com - Email: applications@creelighting.com

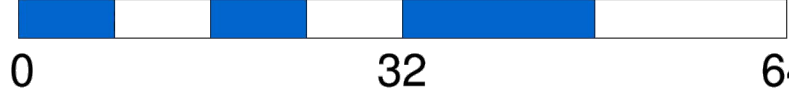
Project Name: Self Storage - 6050 block of Route 32 (Sykesville Road), Eldersburg, MD 21784 - EXT

RC: AE-00700475 || Footcandles calculated at grade || Filename: 251107SS1CJW.AGI

Layout By: Collin Witherow

Date: 11/7/2025

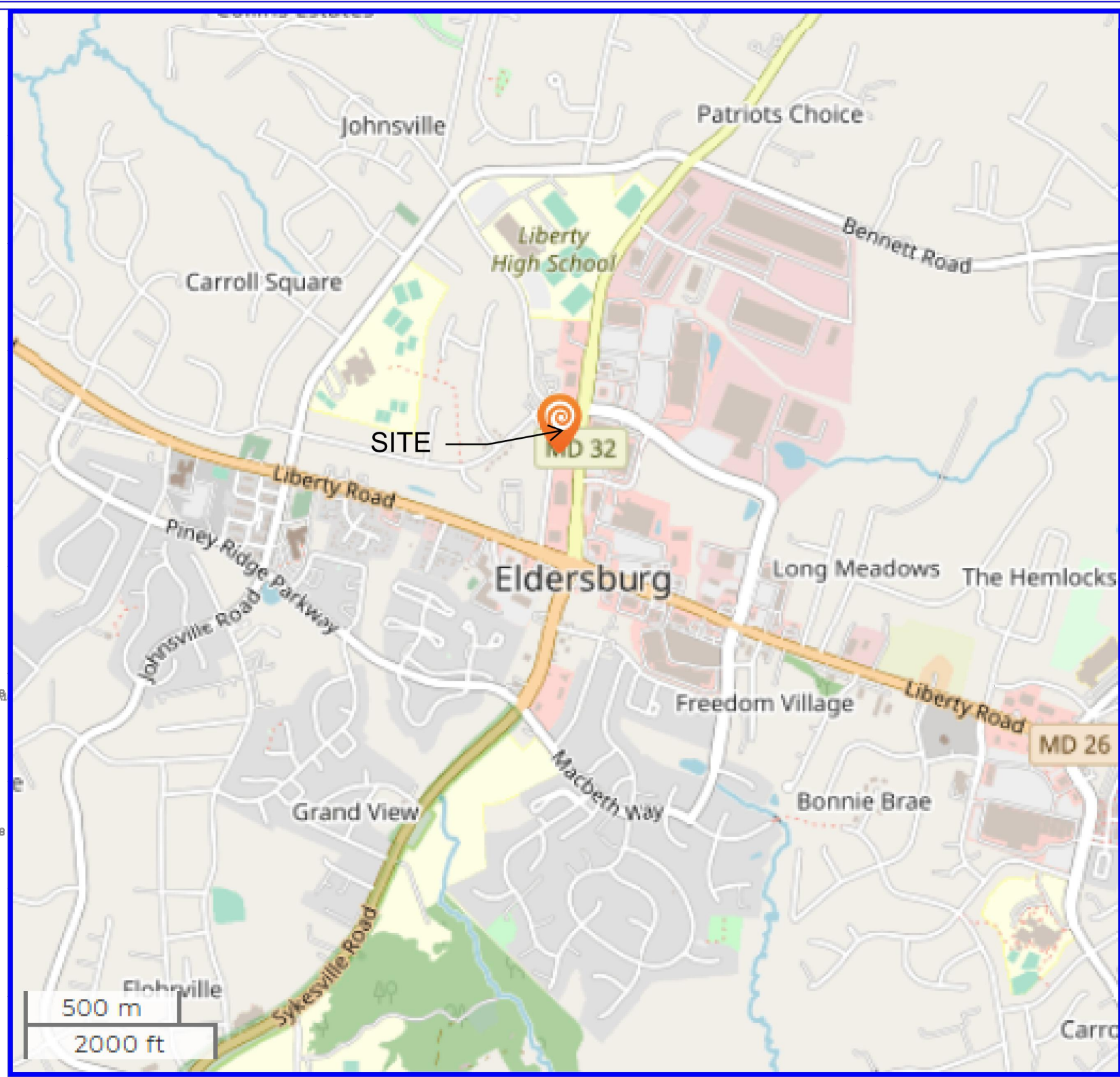
Scale 1" = 16'



Forest Stand Data

Key	Community Type	Acreage	Dominant Vegetation	General Condition	Priority Acreage
F-1	Maple	1.2+/-	Silver maple, red maple, Ailanthus, Amur honeysuckle, Oriental bittersweet, Japanese honeysuckle	Fair - significant invasive species in shrub and vine layer	0

See accompanying report for complete stand descriptions



SITE VICINITY MAP
SCALE AS SHOWN

GENERAL NOTES

1. THE +/- SETBACK ACCURACY IS 1 FOOT.
2. THIS PLAN OR PLAT IS NOT INTENDED TO SHOW ALL MATTERS RELATED TO THE PROPERTY SHOWN HEREON.
3. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
4. EASEMENTS SHOWN HEREON ARE FOR UTILITIES, SERVICES AND/OR PEDESTRIAN PASSAGE, UNLESS OTHERWISE NOTED.
5. THE HORIZONTAL DATUM IS BASED ON THE MARYLAND COORDINATES SYSTEM NAD 83/91. THE VERTICAL DATUM IS BASED ON MARYLAND COORDINATE SYSTEM NGVD'88, AS ESTABLISHED USING GPS TECHNOLOGY.

NOTES:

1. No wetlands, streams or their buffers are present on the site.
2. The site lies within the Use III-P watershed of Liberty Reservoir (02130907).
3. No FEMA mapped 100 year floodplain is present on the site.
4. The site is not mapped within any Sensitive Species Project Review areas per the MD Merlin Living Resources tab. A request has been sent to DNR for site specific review - results pending.
5. No rock outcrops were noted in the subject property.
6. The subject property does not occur in a Carbonate Rock Zone.
7. The subject property is not within a Wellhead Protection Area.
8. The subject property is not within of an Aquifer Protection Area.
9. The subject property is within a Surface Watershed Area but not within a Surface Water Management Zone.
10. No historic structures were observed present on the project site. The site is not listed on the Maryland Inventory of Historic Properties.
11. Site zoning - C3 - Commercial High Intensity

FOREST STAND DELINEATION PLAN

PROPOSED ELDERSBURG MINI STORAGE PROPERTY TRACT C-R

TAX MAP 37, GRID 11
5TH ELECTION DISTRICT

PARCEL 613
CARROLL COUNTY, MARYLAND

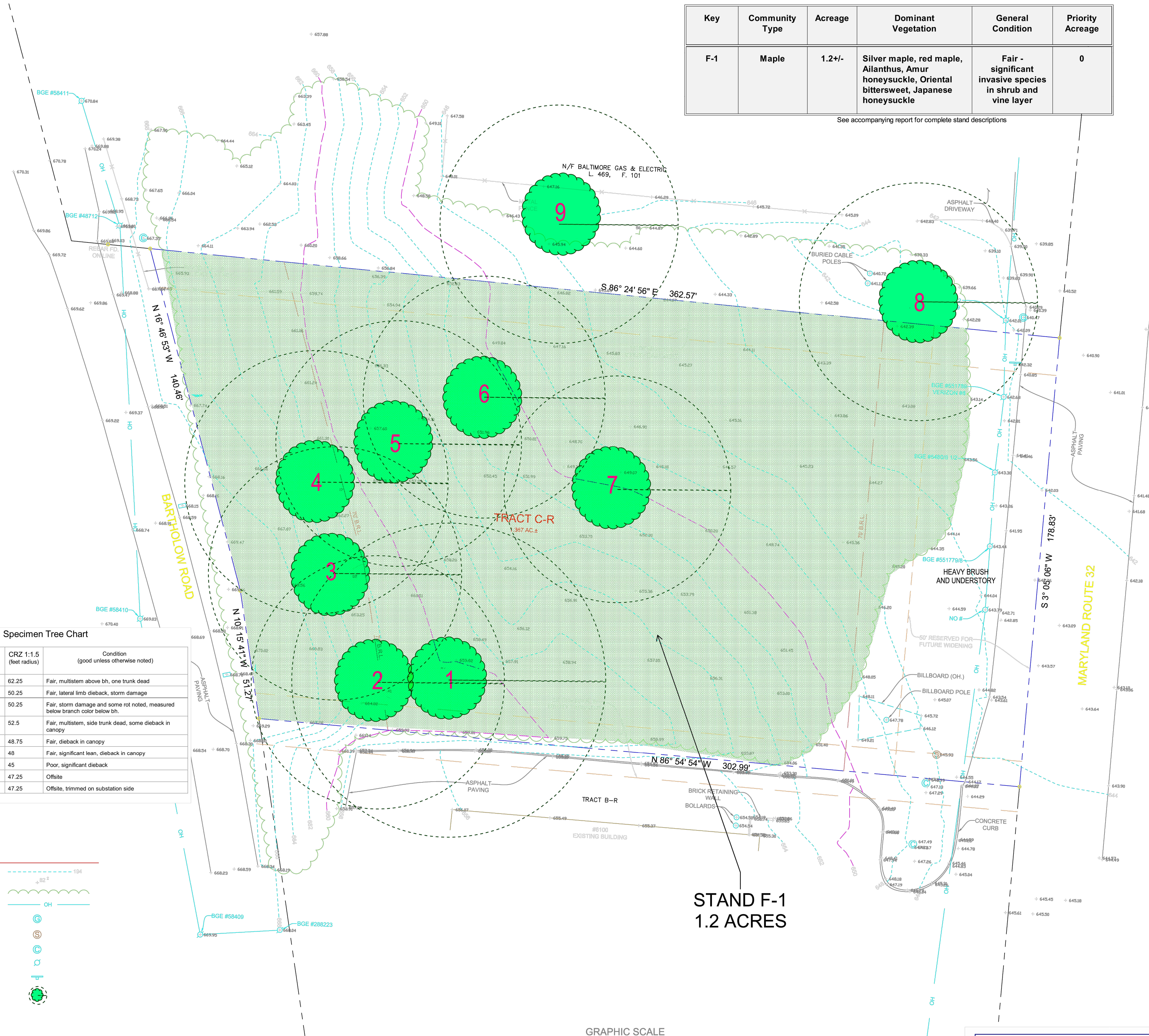
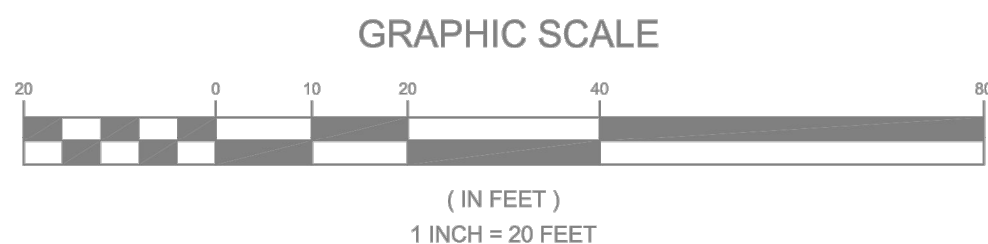
**Adcock &
Associates · LLC**

Engineers · Surveyors · Planners
5389 Enterprise Street Suites B-C
Sykesville, Maryland 21784
Phone: 443.325.7682
Email: mike@adcocksurveying.com

REF. NO.: L-28574, F. 1
DRAWN BY:
CHECKED BY:
SCALE: 1"=20'
DATE: 9/5/2025
PROJECT #:
SHEET # 17 of 17

**Eco-Science
Professionals, Inc.**
CONSULTING ECOLOGISTS
P.O. BOX 586 GLEN ARBO, MARYLAND 21757

PLAN PREPARED BY:
JOHN CANOLES
MD DNR PCA QUALIFIED PROFESSIONAL



Specimen Tree Chart

Key (X#)	Species	Size (in dbh)	CRZ 1:1.5 (feet radius)	Condition (good unless otherwise noted)
1	Silver maple	41.5	62.25	Fair, multistem above bh, one trunk dead
2	Silver maple	33.5	50.25	Fair, lateral limb dieback, storm damage
3	Silver maple	33.5	50.25	Fair, storm damage and some rot noted, measured below branch color below bh.
4	Silver maple	35	52.5	Fair, multistem, side trunk dead, some dieback in canopy
5	Silver maple	32.5	48.75	Fair, dieback in canopy
6	Silver maple	32	48	Fair, significant lean, dieback in canopy
7	Silver maple	30	45	Poor, significant dieback
8	Norway Spruce	31.5	47.25	Offsite
9	Pin oak	31.5	47.25	Offsite, trimmed on substation side

LEGEND

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING TREELINE
- OVERHEAD WIRES
- GAS VALVE
- SEWER MANHOLE
- CABLE BOX
- UTILITY POLE
- STREET SIGN
- SPECIMEN TREE/ CRZ