STANDARD DRAWING LEGEND

FOR ENTIRE PLAN SET

LIMIT OF WORK —LOW—LOW—

LIMIT OF DISTURBANCE —LOD—LOD—

EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
	ONSITE PROPERTY LINE / R.O.W. LINE	
	NEIGHBORING PROPERTY LINE / INTERIOR PARCEL LINE	
	EASEMENT LINE	
	SETBACK LINE	
	CONCRETE CURB & GUTTER	CURB AND GUTTER; SPILL; TRANSITION; DEPRESSED CURB AND GUTTER
	UTILITY POLE WITH LIGHT	
	POLE LIGHT	
	TRAFFIC LIGHT	
	UTILITY POLE	
	TYPICAL LIGHT	
	ACORN LIGHT	
	TYPICAL SIGN	
	PARKING COUNTS	
170 / 169	CONTOUR LINE	190 / 187
TC 516.4 OR 516.4	SPOT ELEVATIONS	TC 516.00; TC 516.00 BC 515.55; MATCH EX 518.02 ±
SAN #	SANITARY LABEL	SAN #
X #	STORM LABEL	X #
SL	SANITARY SEWER LATERAL	SL
W	UNDERGROUND WATER LINE	W
E	UNDERGROUND ELECTRIC LINE	E
G	UNDERGROUND GAS LINE	G
OH	OVERHEAD WIRE	OH
T	UNDERGROUND TELEPHONE LINE	T
C	UNDERGROUND CABLE LINE	C
	STORM SEWER	
S	SANITARY SEWER MAIN	S
	HYDRANT	
S	SANITARY MANHOLE	S
D	STORM MANHOLE	D
WM	WATER METER	
WV	WATER VALVE	
	GAS VALVE	
	GAS METER	
	TYPICAL END SECTION	
	HEADWALL OR ENDWALL	
	GRATE INLET	
	CURB INLET	
	CLEAN OUT	
E	ELECTRIC MANHOLE	E
T	TELEPHONE MANHOLE	T
EB	ELECTRIC BOX	EB
EP	ELECTRIC PEDESTAL	EP
	MONITORING WELL	
	TEST PIT	
	BENCHMARK	
	BORING	

STANDARD ABBREVIATIONS

FOR ENTIRE PLAN SET

AC	ACRES
ADA	AMERICANS WITH DISABILITY ACT
ARCH	ARCHITECTURAL
BC	BOTTOM OF CURB
BF	BASEMENT FLOOR
BK	BLOCK
BL	BASELINE
BLDG	BUILDING
BM	BUILDING BENCHMARK
BRL	BUILDING RESTRICTION LINE
CF	CUBIC FEET
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CONN	CONNECTION
CONC	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARDS
DEC	DECORATIVE
DEP	DEPRESSED
DIP	DUCTILE IRON PIPE
DOM	DOMESTIC
ELEC	ELECTRIC
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ES	EDGE OF SHOULDER
EW	END WALL
EX	EXISTING
FES	FLARED END SECTION
FF	FINISHED FLOOR
FH	FIRE HYDRANT
FG	FINISHED GRADE
G	GRADE
GF	GARAGE FLOOR (AT DOOR)
GH	GRADE HIGHER SIDE OF WALL
GL	GRADE LOWER SIDE OF WALL
GRT	GRATE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
HOR	HORIZONTAL
HW	HEADWALL
INT	INTERSECTION
INV	INVERT
LF	LINEAR FOOT
LOC	LIMITS OF CLEARING
LOD	LIMITS OF DISTURBANCE
LOS	LINE OF SIGHT
LP	LOW POINT
L/S	LANDSCAPE
MAX	MAXIMUM
MIN	MINIMUM
MH	MANHOLE
MJ	MECHANICAL JOINT
OC	ON CENTER
PA	POINT OF ANALYSIS
PC	POINT CURVATURE
PCCR	POINT OF COMPOUND CURVATURE, CURB RETURN
PI	POINT OF INTERSECTION
POG	POINT OF GRADE
PROP	PROPOSED
PT	POINT OF TANGENCY
PTCR	POINT OF TANGENCY, CURB RETURN
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RET WALL	RETAINING WALL
R/W	RIGHT OF WAY
S	SLOPE
SAN	SANITARY SEWER
SF	SQUARE FEET
STA	STATION
STM	STORM
S/W	SIDEWALK
TBR	TO BE REMOVED
TBRL	TO BE RELOCATED
TC	TOP OF CURB
TELE	TELEPHONE
TPF	TREE PROTECTION FENCE
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
UP	UTILITY POLE
W	WIDE
W/L	WATER LINE
W/M	WATER METER
±	PLUS OR MINUS
°	DEGREE
Ø	DIAMETER
#	NUMBER

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

GENERAL NOTES:

1. EXISTING ZONING: BG - GENERAL BUSINESS DISTRICT
2. TOTAL SITE AREA: 75,624 S.F. OR 1.74 AC.
3. TOTAL DEVELOPED AREA: 75,624 S.F. OR 1.74 AC.
4. THE PROPERTIES SHOWN HERON ARE OWNED BY QH ELDERSBURG LLC, BY DEED DATED 8/20/2018, RECORDED AMONG THE LAND RECORDS OF CARROLL COUNTY IN LIBER 9101, FOLIO 292 AND BY BLEVINS HILL INC, BY DEED DATED 9/21/1987, RECORDED AMONG THE LAND RECORDS OF CARROLL COUNTY IN LIBER 1045, FOLIO 457.
5. TAX MAP / BLOCK / PARCEL: 73 / 11 / 406, 736 & 280
6. TOPOGRAPHY SHOWN HERON IS FIELD RUN, DATED 10/4/19, PREPARED BY BOHLER ENGINEERING VA LLC.
7. THE NEAREST WATER SUPPLY AVAILABLE FOR FIRE PROTECTION IS A WATER MAIN AND FIRE HYDRANT LOCATED ADJACENT TO THE SITE IN SYKESVILLE ROAD.
8. THE LOCATION OF 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.
9. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 THREE WORKING DAYS PRIOR TO BEGINNING ANY WORK IN THE VICINITY OF EXISTING UTILITIES.
10. THE CONTRACTOR SHALL NOTE THAT IN CASE OF A DISCREPANCY BETWEEN SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
11. ANY CHANGES TO THIS PLAN WILL REQUIRE AN AMENDED SITE DEVELOPMENT PLAN TO BE APPROVED BY THE CARROLL COUNTY PLANNING AND ZONING COMMISSION.
12. 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 BY THE DIRECTOR OF THE DEPARTMENT OF PLANNING.
13. EXISTING USE: RESTAURANT (COUNTY FILE NO. S-98-010)
14. PROPOSED USE: CONVENIENCE STORE WITH FUELING STATION AND CAR WASH
15. THE SITE DOES NOT CONTAIN ANY JURISDICTIONAL WETLANDS.
16. THE SITE IS LOCATED WITHIN A WELLHEAD PROTECTION AREA.
17. THE PROPERTY IS LOCATED IN OTHER AREAS ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER MAP ENTITLED "FIRM, FLOOD INSURANCE RATE MAP, CARROLL COUNTY, MARYLAND AND INCORPORATED AREAS, PANEL 314 OF 450", MAP NUMBER 24013C0314D, WITH A MAP EFFECTIVE DATE OF OCTOBER 2, 2015.
18. THERE ARE NO HISTORIC STRUCTURES ON-SITE.
19. THERE ARE NO RARE, THREATENED, OR ENDANGERED PLANTS OR ANIMAL SPECIES ON-SITE.
20. THE SITE IS LOCATED IN THE SOUTH BRANCH PATAPSCO RIVER WATERSHED.
21. PARKING:
    - 21.1. EXISTING PARKING SPACES (TO BE REMOVED): 75 SPACES, INCLUDING 4 ACCESSIBLE.
    - 21.2. REQUIRED: 1 SPACE PER 200 S.F. OF GROSS FLOOR AREA (4,536 S.F. / 200 S.F.) x 1 SPACE = 23 SPACES
    - 21.3. PROVIDED: 36 SPACES INCLUDING 2 ACCESSIBLE SPACES.
22. THERE ARE NO KNOWN STREAMS OR WATER COURSES ON OR IMMEDIATELY ADJACENT TO THE PROPERTY.
23. THERE ARE NO KNOWN WATER IMPOUNDMENTS LOCATED ON OR IMMEDIATELY ADJACENT TO THE PROPERTY.
24. THERE ARE NO KNOWN SENSITIVE AREAS LOCATED ON-SITE THAT REQUIRE PROTECTION.
25. CONVENIENCE STORE AND CAR WASH HOURS OF OPERATION: 24 HOURS A DAY, 7 DAYS A WEEK.
26. THE CAR WASH IS TO BE FULLY AUTOMATED.
27. TRIPS
    - 27.1. AVERAGE WEEKDAY - 2,766
    - 27.2. AVERAGE SATURDAY - 3,500
    - 27.3. WEEKDAY AM PEAK HOUR - 76
    - 27.3. WEEKDAY PM PEAK HOUR - 68
    - 27.4. MIDDAY SATURDAY PEAK HOUR - 67
28. A SIGHT DISTANCE VARIANCE WAS APPROVED BY CARROLL COUNTY DEPARTMENT OF PUBLIC WORKS ON 3/5/20 FOR THE MACBETH WAY ENTRANCE.
29. THE PROPERTY OWNED BY BLEVINS HILL INC, BY DEED DATED 9/21/1987, RECORDED AMONG THE LAND RECORDS OF CARROLL COUNTY IN LIBER 1045, FOLIO 457 IS TO BE CONVEYED WITH THE PROPERTY OWNED BY QH ELDERSBURG LLC, BY DEED DATED 8/20/2018, RECORDED AMONG THE LAND RECORDS OF CARROLL COUNTY IN LIBER 9101, FOLIO 292 AND THEN CONSOLIDATED.

CARROLL COUNTY PLANNING AND ZONING COMMISSION

APPROVED: _____ DATE _____

CARROLL COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING

APPROVED: _____ DATE _____

CARROLL COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES

APPROVED: _____ DATE _____

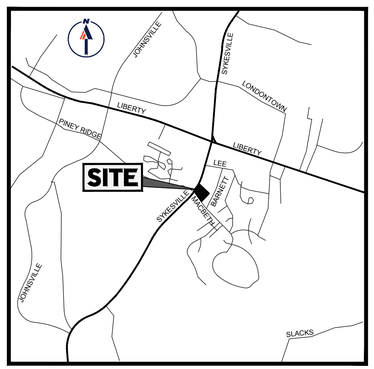
CARROLL COUNTY HEALTH DEPARTMENT

APPROVED: _____ DATE _____

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

LOCATION OF SITE

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY



LOCATION MAP
SCALE: 1"=2,000'

OWNERS

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

PREPARED BY

BOHLER

CONTACT: ERIC R. MCWILLIAMS, RLA

ISSUED FOR CONSTRUCTION

SIGNATURE DATE SIGNATURE DATE

SIGNATURE DATE

THIS DOCUMENT IS NOT ISSUED BY BOHLER ENGINEERING FOR CONSTRUCTION WITHOUT THREE (3) SIGNATURES

PROJECT #: MD192104

REVISION DATE: _____

SWM EASEMENT NOTE

A "STORMWATER MANAGEMENT EASEMENT AND MAINTENANCE AGREEMENT" IS TO BE GRANTED TO THE COUNTY COMMISSIONERS OF CARROLL COUNTY AS AN EASEMENT OF ACCESS TO THE COUNTY COMMISSIONERS OR AUTHORIZED REPRESENTATIVES BY A DEED INTENDED TO BE RECORDED SIMULTANEOUSLY HEREWITH.

SHA STANDARD DETAILS NOTE

THE FOLLOWING SHA STANDARDS ARE REQUIRED FOR THIS PROJECT:

MD-374.70 - PRECAST STANDARD TYPE S INLET DOUBLE GRATE TANDEM
MD-384.01 - 48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES

FOR ALL SHA STANDARDS REFERRED TO ON THE PLANS THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOK OF STANDARDS CAN BE ACCESSED AT:

http://apps.roads.maryland.gov/businesswithsha/bizstdsspecs/desmanualstdpub/publications online/ohd/bookstd/index.asp

SITE DEVELOPMENT INSPECTION SEQUENCE NOTE

1. CONTRACTOR SHALL NOTIFY THE CARROLL COUNTY BUREAU OF PERMITS AND INSPECTION AT 410-386-2674, AT LEAST ONE DAY PRIOR TO BEGINNING ANY WORK.
2. SITE COMPLIANCE INSPECTIONS ARE REQUIRED AT THE FOLLOWING STAGES DURING CONSTRUCTION:
   (a) PROPOSED STRUCTURES STAKED OUT IN PROPER LOCATIONS AS SHOWN ON THESE APPROVED PLANS.
   (b) PROPOSED FOUNDATIONS INSTALLED FOR ALL BUILDINGS SHOWN ON THESE APPROVED PLANS.
   (c) SUB-GRADES ESTABLISHED FOR ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING.
   (d) COMPLETION OF ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING.
   (e) COMPLETION OF ALL WORK SHOWN ON PLANS.

   IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CARROLL COUNTY BUREAU OF PERMITS AND INSPECTIONS AT 410-386-2674 UPON COMPLETION OF EACH PHASE OF CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY CARROLL COUNTY BUREAU OF RESOURCE MANAGEMENT, ENVIRONMENTAL INSPECTION SERVICES DIVISION AT 410-386-2210 PRIOR TO BEGINNING ANY WORK. ALL FOREST CONSERVATION PLAN DEVICES MUST BE IN PLACE PRIOR TO ANY CONSTRUCTION.
4. FINAL LANDSCAPE INSPECTION SHALL BE ARRANGED THROUGH BUREAU OF RESOURCE MANAGEMENT, ENVIRONMENTAL INSPECTION SERVICES DIVISION AT 410-386-2210 BY CONTRACTOR/DEVELOPER OR AGENT. WRITTEN APPROVAL FROM THE LANDSCAPE REVIEW SPECIALIST, BUREAU OF RESOURCE MANAGEMENT, MUST BE OBTAINED FOR ANY DEVIATIONS FROM THE LANDSCAPING OR FOREST CONSERVATION PLANS OR MODIFICATIONS IN THE PLANT MATERIAL.
5. THE CONTRACTOR SHALL NOT PROCEED TO THE NEXT PHASE OF CONSTRUCTION UNTIL GIVEN APPROVAL OF PRIOR PHASES.

PLAN REFERENCES AND CONTACTS

REFERENCES

- BOUNDARY & TOPOGRAPHIC SURVEY:
  ENTITLED: "ALTA/NSPS LAND TITLE SURVEY, 7-ELEVEN, INC., 6323 SYKESVILLE RD - MD RTE. 32, 5TH ELECTION DISTRICT, CARROLL COUNTY, MARYLAND
  BOHLER ENGINEERING VA, LLC.
  12825 WORLDGATE DRIVE
  HERNDON, VIRGINIA 20170
  DATED: 10/04/19, LAST REVISED 6/24/20
  JOB #: SD192104
  ELEVATIONS: NAVD 88
- GEOTECHNICAL INVESTIGATION REPORT:
  CDT BIO-SOIL SYSTEMS, INC.
  206 E. MOUNT HARMONY ROAD
  OWINGS, MD 20736
  DATED: 11/12/19
- ABBREVIATED FOREST STAND DELINEATION:
  PREPARED BY: ECO-SCIENCE PROFESSIONALS, INC.
  ENTITLED: "PROPOSED 7-ELEVEN ELDERSBURG; TAX MAP 73, GRID 7, PARCELS 738 AND 406; 6323 SYKESVILLE ROAD, ELDERSBURG; ABBREVIATED FOREST STAND DELINEATION"
  DATED: OCTOBER 22, 2019
- SHA ACCESS PERMIT PLANS:
  PREPARED BY: BOHLER ENGINEERING VA, LLC.
  ENTITLED: "MDOT SHA ACCESS PERMIT PLANS FOR NEW COASTAL DEVELOPMENT; 6323 SYKESVILLE ROAD (MD ROUTE 32), ELDERSBURG, MD 21784; CARROLL COUNTY"
  DATED: 6/1/20, LAST REVISED: 8/14/20
- ARCHITECTURAL PLANS:
  PREPARED BY: THE DIMENSION GROUP
  ENTITLED "7-ELEVEN: NEW C-STORE & CAR WASH: STORE NO. 41343; 6323 SYKESVILLE ROAD; ELDERSBURG, MD 21784"; JOB #: 2020216.41; DATED: 6/15/20, LAST REVISED 7/9/20

  ENTITLED "7-ELEVEN: NEW STORE WITH FUELING; STORE NO. 41343; 6323 SYKESVILLE ROAD; ELDERSBURG, MD 21784"; JOB #: C20-055; DATED: 6/9/20, LAST REVISED 7/7/20

GOVERNING AGENCIES

- CARROLL COUNTY DEPARTMENT OF LAND AND RESOURCE MANAGEMENT - BUREAU OF RESOURCE MANAGEMENT - GRADING AND SEDIMENT CONTROL
  225 NORTH CENTER STREET
  WESTMINSTER, MD 21157
  (410) 386-2215 (P)
  CONTACT: TIMOTHY R. HARE
- CARROLL COUNTY DEPARTMENT OF LAND AND RESOURCE MANAGEMENT - BUREAU OF RESOURCE MANAGEMENT - STORMWATER MANAGEMENT
  225 NORTH CENTER STREET
  WESTMINSTER, MD 21157
  (410) 386-2211 (P)
  CONTACT: MARTIN B. COVINGTON, III, P.E. CFM, D. WRE
- CARROLL COUNTY DEPARTMENT OF LAND AND RESOURCE MANAGEMENT - BUREAU OF RESOURCE MANAGEMENT - WATER RESOURCE MANAGEMENT
  225 NORTH CENTER STREET
  WESTMINSTER, MD 21157
  (410) 386-2210 (P)
  CONTACT: TRACY EBERHARD
- CARROLL COUNTY DEPARTMENT OF LAND AND RESOURCE MANAGEMENT - BUREAU OF RESOURCE MANAGEMENT - LANDSCAPE / FOREST CONSERVATION
  225 NORTH CENTER STREET
  WESTMINSTER, MD 21157
  (410) 386-2133 (P)
  CONTACT: JONATHAN BOWMAN
- CARROLL COUNTY DEVELOPMENT REVIEW - ENGINEERING REVIEW -
  225 NORTH CENTER STREET
  WESTMINSTER, MD 21157
  (410) 386-2668 (P)
  CONTACT: ANDREA BARKO
- CARROLL COUNTY DEVELOPMENT REVIEW -
  225 NORTH CENTER STREET
  WESTMINSTER, MD 21157
  (410) 386-2145 (P)
  CONTACT: CLAYTON R. BLACK
- CARROLL COUNTY BUREAU OF PERMITS AND INSPECTIONS
  225 NORTH CENTER STREET
  WESTMINSTER, MD 21157
  (410) 386-2674 (P)
  CONTACT: MICHAEL ZEPP
- CARROLL COUNTY OFFICE OF PUBLIC SAFETY SUPPORT SERVICES
  225 NORTH CENTER STREET
  WESTMINSTER, MD 21157
  (410) 386-2298 (P)
  CONTACT: SCOTT R. CAMPBELL
- CARROLL COUNTY BUREAU OF UTILITIES
  225 NORTH CENTER STREET
  WESTMINSTER, MD 21157
  (410) 386-2157 (P)
  CONTACT: ANDREW C. WATCHER
- CARROLL SOIL CONSERVATION DISTRICT
  698J CORPORATE CENTER COURT
  WESTMINSTER, MD 21157
  (410) 848-8200 (P)
  CONTACT: BRYAN H. SNYDER

UTILITIES

- ELECTRIC AND GAS
  BALTIMORE GAS & ELECTRIC
  7317 PARKWAY DRIVE SOUTH
  HANOVER, MD 21076
  PHONE: (410) 293-3147
- CABLE
  COMCAST
  10132 REISTERSTOWN ROAD, STE. 20
  OWINGS MILLS, MD 21117
  PHONE: (888) 266-2278
- TELEPHONE
  VERIZON
  99 SHAWAN ROAD
  COCKEYSVILLE, MD 21030
  PHONE: (410) 393-5793
- CARROLL COUNTY BUREAU OF UTILITIES
  225 NORTH CENTER STREET
  WESTMINSTER, MD 21157
  (410) 386-2157 (P)
  CONTACT: ANDREW C. WATCHER

ROW JURISDICTION

- MDOT SHA DISTRICT 7
  5111 BUCKEYSTOWN PIKE
  FREDERICK, MD 21704
  (301) 624-8225 (P)
  CONTACT: TERI SOOS

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, HOWEVER, BOHLER DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.

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OWNER / DEVELOPER CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL PROPOSED WORK SHOWN ON THESE CONSTRUCTION DRAWING(S) HAS BEEN REVIEWED BY ME/US AND THAT I/WE FULLY UNDERSTAND WHAT IS NECESSARY TO ACCOMPLISH THIS WORK AND THAT THE WORK WILL BE CONDUCTED IN STRICT ACCORDANCE WITH THESE PLANS. I/WE ALSO UNDERSTAND THAT ANY CHANGES TO THESE PLANS WILL REQUIRE AN AMENDED SITE PLAN TO BE REVIEWED BY THE CARROLL COUNTY PLANNING AND ZONING COMMISSION BEFORE ANY CHANGE IN THE WORK IS MADE.

OWNER/DEVELOPER SIGNATURE

PRINTED NAME DATE

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
PLANNING SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE BOHLER LOGO, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR LOANED WITHOUT WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES.
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

811 Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: MD192104
DRAWN BY: RMS
CHECKED BY: AGS
DATE: 6/12/20
CAD I.D.: SDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW C. STINE
STATE OF MARYLAND
11/3/20
PROFESSIONAL ENGINEER
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. 37887, EXPIRATION DATE: 7/1/21

SHEET TITLE:

COVER SHEET

SHEET NUMBER: 1 OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
H:\19\MD192104\DRAWING\PLAN SET\FINAL SITE PLANS\MD192104-SDP-2---LAYOUT 01 - COVER
RMS

GENERAL NOTES

(Rev. 1/2020)

1. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER ENGINEERING, VA LLC. (HEREIN "BOHLER") PRIOR TO THE DATE ON WHICH ENGINEER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY BOHLER , IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
2. THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS, THESE NOTES, AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE ENGINEER OF RECORD THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY.
4. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION IS TO BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE CONDITIONS OF APPROVAL TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
5. THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS/REPORTS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT, AND ALL PROVISIONS IN AND CONDITIONS OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME.
6. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS, WHERE APPLICABLE). THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND ENGINEER OF RECORD, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.
7. CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
8. THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY ENGINEER OF RECORD, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE RE-DONE OR REPAIRED DUE TO DIMENSIONS, MEASUREMENTS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING ENGINEER OF RECORD WRITTEN NOTIFICATION OF SAME AND (B) ENGINEER OF RECORD, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
9. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK. SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS. DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.
10. THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH, AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
11. WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN: (A) THE PLANS; AND (B) THE GEOTECHNICAL REPORT AND RECOMMENDATIONS, MUST TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK. IF A GEOTECHNICAL REPORT WAS NOT CREATED, THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT.
12. ENGINEER OF RECORD IS NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.
13. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES. ALL OF THIS WORK IS TO BE PERFORMED AT CONTRACTOR'S SOLE COST AND EXPENSE.
14. THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
15. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED MATERIAL, EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR.
16. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
17. THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE CONTRACTOR MUST, PROMPTLY, DOCUMENT ALL EXISTING DAMAGE AND NOTIFY, IN WRITING, THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
18. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL, LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME. THE ENGINEER OF RECORD AND BOHLER HAVE NOT BEEN RETAINED TO PERFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER OF RECORD'S AND BOHLER SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIME.
19. THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING, TO THE ENGINEER OF RECORD AND BOHLER , ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE, IT WILL BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS.
20. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE. IF THE CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, RULES, STATUTES, CODES AND THE LIKE, THE CONTRACTOR AND/OR OWNER AGREE TO AND MUST JOINTLY, INDEPENDENTLY, SEPARATELY, AND SEVERALLY INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT ENGINEER AND BOHLER SUFFER AND ANY AND ALL COSTS THAT ENGINEER AND BOHLER INCUR AS RELATED TO SAME.
21. ALL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (CGL) INCLUDING ALSO ALL UMBRELLA COVERAGES. ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER , AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSUREDS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE (DEFEND, IF APPLICABLE) AND HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED AND AGREED TO BY THE CONTRACTOR HEREIN. ALL CONTRACTORS MUST FURNISH BOHLER WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE COVERAGES PRIOR TO COMMENCING ANY WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND AFTER ALL PERMITS ARE ISSUED, WHICHEVER DATE IS LATER. IN ADDITION, ALL CONTRACTORS AGREE THAT THEY WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. THE CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.
22. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS IN SCOPE AND REVISIONS THAT RESULT FROM SAME. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
23. NEITHER THE PROFESSIONAL ACTIVITIES OF: BOHLER , NOR THE PRESENCE OF BOHLER AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE (HEREIN "BOHLER PARTIES"), RELIEVES OR WILL RELIEVE THE CONTRACTOR OF AND FROM ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE WITH ALL HEALTH AND SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER AND ITS EMPLOYEES, PERSONNEL, AGENTS, SUBCONTRACTORS AND SUBCONSULTANTS HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER (OR ANY RESPONSIBILITY FOR) ANY CONSTRUCTION, THE CONTRACTOR OR ITS EMPLOYEES RELATING TO THEIR WORK AND ANY AND ALL HEALTH AND SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR MUST INDEMNIFY, DEFEND, PROTECT AND HOLD HARMLESS BOHLER FOR AND FROM ANY LIABILITY TO BOHLER RESULTING FROM THE CONTRACTOR'S WORK, SERVICES AND/OR VIOLATIONS OF THIS NOTE, THESE NOTES OR ANY NOTES IN THE PLAN SET AND, FURTHER, THE CONTRACTOR MUST NAME BOHLER AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE.
24. WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER, BOHLER WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER WILL PERFORM ITS SHOP DRAWING REVIEW WITH REASONABLE PROMPTNESS, AS CONDITIONS PERMIT. ANY DOCUMENT, DOCUMENTING BOHLER'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE, MUST NOT INDICATE THAT BOHLER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST, IN WRITING, PROMPTLY AND IMMEDIATELY BRING ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS TO BOHLER'S ATTENTION. BOHLER IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
25. IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER OF RECORD AND/OR BOHLER FOR ALL DEVIATIONS WITHIN ENGINEER'S SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, MUST DEFEND, INDEMNIFY, PROTECT, AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME.
26. THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY.
27. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN; AND, FURTHER, THE ENGINEER OF RECORD AND/OR BOHLER ARE NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT ENGINEER OF RECORD AND/OR BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE.
28. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. ENGINEER OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.
30. THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD ENGINEER OF RECORD AND/OR BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF ALL SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE AND FURTHER, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SO.
32. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER OF RECORD, THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE ENGINEER OF RECORD'S KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY CIRCUMSTANCES.

SITE LAYOUT NOTES

(Rev. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND ANY STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES NECESSARY, AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE RIGHT OF WAY.
3. ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS AND THE LIKE.
4. THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE RELOCATION OF TRAFFIC SIGNS WITH THE ENTITY WITH JURISDICTION OVER THE PROJECT.
5. ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, EXCEPT WHEN DIMENSION IS TO A PROPERTY LINE, STAKE OUT OF LOCATIONS OF INLETS, LIGHT POLES, ETC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS, UNLESS NOTED CLEARLY OTHERWISE.

GRADING NOTES

(Rev.1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AS REFERENCED IN THIS PLAN SET. IF NO GEOTECHNICAL REPORT HAS BEEN REFERENCED, THE CONTRACTOR MUST HAVE A GEOTECHNICAL ENGINEER PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE JURISDICTION OVER THIS PROJECT.
3. THE CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. THE CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO THE CONTRACTOR COMMENCING ANY WORK.
4. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. SHOULD DISCREPANCIES BETWEEN THE PLANS AND INFORMATION OBTAINED THROUGH FIELD VERIFICATIONS BE IDENTIFIED OR EXIST, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING.
5. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ALL UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR MUST COMPACT ALL EXCAVATED OR FILLED AREAS IN STRICT ACCORDANCE WITH THE GEOTECHNICAL REPORT'S GUIDANCE. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED. THIS REPORT MUST VERIFY THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES WHICH ARE IN EFFECT AND WHICH ARE APPLICABLE TO THE PROJECT. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE MUST BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL, COMPACTED AS THE GEOTECHNICAL REPORT DIRECTS. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES. EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.
6. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED FINISHED GRADES WITH NO TRIPPING OR SAFETY HAZARD IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
7. IN THE EVENT OF A DISCREPANCY(IES) AND/OR A CONFLICT(S) BETWEEN PLANS, OR RELATIVE TO OTHER PLANS, THE GRADING PLAN TAKES PRECEDENCE AND CONTROLS. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCY(IES) AND/OR CONFLICT(S).
8. THE CONTRACTOR IS RESPONSIBLE TO IMPORT FILL OR EXPORT EXCESS MATERIAL AS NECESSARY TO CONFORM TO THE PROPOSED GRADING, AND TO BACKFILL EXCAVATIONS FOR THE INSTALLATION OF UNDERGROUND IMPROVEMENTS.

ACCESSIBILITY DESIGN GUIDELINES

(Rev. 1/2020)

1. ALL ACCESSIBLE (A.K.A. ADA) COMPONENTS AND ACCESSIBLE ROUTES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF: (A) THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 ET SEQ. AND 42 U.S.C. § 4151 ET SEQ.); AND (B) ANY APPLICABLE LOCAL AND STATE GUIDELINES, AND ANY AND ALL AMENDMENTS TO BOTH, WHICH ARE IN EFFECT WHEN THESE PLANS WERE COMPLETED.
2. THE CONTRACTOR MUST REVIEW ALL DOCUMENTS REFERENCED IN THESE NOTES FOR ACCURACY, COMPLIANCE AND CONSISTENCY WITH INDUSTRY GUIDELINES.
3. THE CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ACCESSIBLE (ADA) COMPONENTS AND ACCESSIBLE ROUTES FOR THE SITE. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACES, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, AND INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT, MUST COMPLY WITH THE ACCESSIBLE GUIDELINES AND REQUIREMENTS WHICH INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
   A. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SLOPES MUST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION.
   B. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE MUST PROVIDE A 36-INCHES MINIMUM WIDTH (48-INCHES PREFERRED), OR AS SPECIFIED BY THE GOVERNING AGENCY. UNOBSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS) MUST NOT REDUCE THIS MINIMUM WIDTH. THE SLOPE MUST NOT EXCEED 1:20 (5.0%) IN THE DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:50 (2.0%) IN CROSS SLOPE. WHERE ACCESSIBLE PATH OF TRAVEL IS GREATER THAN 1:20 (5.0%), AN ACCESSIBLE RAMP MUST BE PROVIDED. ALONG THE ACCESSIBLE PATH OF TRAVEL, OPENINGS MUST NOT EXCEED 1/2-INCH IN WIDTH. VERTICAL CHANGES OF UP TO 1/2-INCH ARE PERMITTED ONLY IF THEY INCLUDES A 1/4-INCH BEVEL AT A SLOPE NOT STEEPER THAN 1:2. NO VERTICAL CHANGES OVER 1/4-INCH ARE PERMITTED.
   C. ACCESSIBLE RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%) AND A RISE OF 30-INCHES. LEVEL LANDINGS MUST BE PROVIDED AT EACH END OF ACCESSIBLE RAMPS. LANDING MUST PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES, AND MUST NOT EXCEED 1:50 (2.0%) SLOPE IN ANY DIRECTION. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS MUST HAVE A CLEAR LANDING OF A MINIMUM OF 60-INCHES BY 60-INCHES. HAND RAILS ON BOTH SIDES OF THE RAMP MUST BE PROVIDED ON AN ACCESSIBLE RAMP WITH A RISE GREATER THAN 6-INCHES.
   D. ACCESSIBLE CURB RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%). WHERE FLARED SIDES ARE PROVIDED, THEY MUST NOT EXCEED 1:10 (10%) SLOPE. LEVEL LANDING MUST BE PROVIDED AT RAMPS TOP AT A MINIMUM OF 36-INCHES LONG (48-INCHES PREFERRED). IN ALTERATIONS, WHEN THERE IS NO LANDING AT THE TOP, FLARE SIDES SLOPES MUST NOT EXCEED A SLOPE OF 1:12 (8.3%).
   E. DOORWAY LANDINGS AREAS MUST BE PROVIDED ON THE EXTERIOR SIDE OF ANY DOOR LEADING TO AN ACCESSIBLE PATH OF TRAVEL. THIS LANDING MUST BE SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO FEWER THAN 60-INCHES (5 FEET) LONG, EXCEPT WHERE OTHERWISE CLEARLY PERMITTED BY ACCESSIBLE STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2009 AND OTHER REFERENCES INCORPORATED BY CODE).
   F. WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ACCESSIBLE COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, THE CONTRACTOR MUST VERIFY ALL EXISTING ELEVATIONS SHOWN ON THE PLAN. NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPES, IN RARE CIRCUMSTANCES. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR IN ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS BEFORE COMMENCING ANY WORK. CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ACCESSIBLE GUIDELINES.
   G. THE CONTRACTOR MUST VERIFY ALL OF THE SLOPES OF THE CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY NON-CONFORMANCE EXISTS OR IS OBSERVED OR DISCOVERED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, PRIOR TO POURING CONCRETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND/OR REPLACE NON-CONFORMING CONCRETE AND/OR PAVEMENT SURFACES.
4. IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION TO ENSURE SAME IS CONSISTENT WITH THE LOCAL BUILDING CODE PRIOR TO COMMENCING CONSTRUCTION.

DEMOLITION NOTES

(Rev. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
3. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY, THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS.
4. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN.
   A. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
   B. THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION REGARDING THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE USED MUST BE IN STRICT ACCORDANCE AND CONFORMANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC.
5. THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
6. ENGINEER OF RECORD AND/OR BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, COMPLYING WITH ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY ON THE SITE OR ADJACENT OR NEAR TO THE SAME.
7. THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY, WHICH MUST INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AND ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA.
8. PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS, ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT. ANY SUCH CONCERNS MUST BE CONVEYED TO THE ENGINEER OF RECORD AND/OR BOHLER , IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO, BY THE ENGINEER OF RECORD AND/OR BY BOHLER , IN WRITING. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.
9. THE CONTRACTOR MUST BECOME FAMILIAR WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AND/OR DISCONNECTION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED, REMOVED AND/OR ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
10. PRIOR TO COMMENCING ANY DEMOLITION, THE CONTRACTOR MUST:
    A. OBTAIN ALL REQUIRED PERMITS AND MAINTAIN THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND ALL PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK, AND DEMOLITION WORK.
    B. NOTIFY, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION JURISDICTION, AT LEAST 72 BUSINESS HOURS PRIOR TO THE COMMENCEMENT OF WORK.
    C. INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN SAID CONTROLS UNTIL SITE IS STABILIZED
    D. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT, IN ADVANCE OF ANY EXCAVATION.
    E. LOCATE AND PROTECT ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES.
    F. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION ACTIVITIES.
    G. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING THE METHODS AND MEANS TO CONSTRUCT SAME. THESE ARE NOT THE ENGINEER OF RECORD'S RESPONSIBILITY. IN THE EVENT OF ABANDONMENT, THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WITH IMMEDIATE WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.
    H. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS NECESSARY OR AS REQUIRED TO MINIMIZE THE IMPACT ON, OF AND TO THE AFFECTED PARTIES. WORK REQUIRED TO BE PERFORMED "OFF-PEAK" IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
    I. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, OR THE CONTRACT WITH THE OWNER/DEVELOPER, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK IN THE AREA OF DISCOVERY, AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER AND ENGINEER OF RECORD AND BOHLER , THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER AND COMPLIANT REMOVAL OF SAME.
11. THE CONTRACTOR MUST ENSURE THAT ANY EXISTING ASBESTOS-CONTAINING MATERIALS ENCOUNTERED ARE PROPERLY REMOVED FROM THE SUBJECT PREMISES AND ARE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, PRIOR TO THE COMMENCEMENT OF DEMOLITION ON SITE AND MUST PERFORM ALL AGENCY NOTIFICATIONS AS REQUIRED, AT THE CONTRACTOR'S SOLE EXPENSE.
12. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE, UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, OR PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
13. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE, WITHOUT SPECIFIC WRITTEN PERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.
14. THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT ALL NEW IMPROVEMENTS AND MUST BE PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE ARTICULATED IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES AND MUST BE PERFORMED SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT SUCH REPORTS AND RESULTS TO THE ENGINEER OF RECORD AND THE OWNER.
15. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FROM BOTH THE OWNER AND ALL APPLICABLE, NECESSARY AND REQUIRED GOVERNMENTAL AUTHORITIES. PRIOR TO COMMENCING ANY EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION ACTIVITIES, THE CONTRACTOR MUST ENSURE AND OVERSEE THE INSTALLATION OF ALL OF THE REQUIRED PERMIT AND EXPLOSIVE CONTROL MEASURES THAT THE FEDERAL, STATE, AND LOCAL GOVERNMENTS REQUIRE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CONDUCT AND PERFORM ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LIKE.
16. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR. AFTER THE DEMOLITION IS COMPLETE, THE CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS WHICH THE DEMOLITION OPERATIONS CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION AT CONTRACTOR'S SOLE COST.
17. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO, THE PUBLIC RIGHT-OF-WAY.
18. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDICATES THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
19. THE CONTRACTOR MUST EMPTY, CLEAN AND REMOVE FROM THE SITE ALL UNDERGROUND STORAGE TANKS, IF ENCOUNTERED, IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, PRIOR TO CONTINUING CONSTRUCTION IN THE AREA AROUND THE TANK WHICH EMPTYING, CLEANING AND REMOVAL ARE AT THE CONTRACTOR'S SOLE COST.

LIGHTING NOTES

(Rev. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE LIGHTING CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL AGENCY AND GOVERNMENTAL REGULATIONS.
3. THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER. ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
4. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
5. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RE-LAMPING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNER'S.
6. THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES. POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, MECHANICAL ENGINEER'S AND/OR LIGHTING CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE LIGHTING CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES.
7. THE CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURE(S) TO THE ENGINEER OF RECORD'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
8. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.

SOIL EROSION & SEDIMENT CONTROL PLAN NOTES

(Rev. 1/2019)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. OMITTED.
3. OMITTED.
4. OMITTED.
5. OMITTED.
6. OMITTED.
7. OMITTED.
8. OMITTED.
9. OMITTED.
10. OMITTED.
11. OMITTED.
12. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES, MEASURES AND STRUCTURES. ADDITIONAL FACILITIES, MEASURES AND STRUCTURES MUST BE INSTALLED WHERE NECESSARY TO COMPLY WITH ALL APPLICABLE CODES AND STANDARDS AND/OR TO PREVENT ANY, INCLUDING THE INCIDENTAL DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
13. THE CONTRACTOR MUST PROTECT ALL EXISTING TREES AND SHRUBS. THE CONTRACTOR MUST REFER TO THE LANDSCAPE AND/OR DEMOLITION PLAN(S) FOR TREE PROTECTION, FENCE LOCATIONS AND DETAILS.
14. THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL INFORMATION.
15. THE CONTRACTOR MUST CLEAN EXISTING AND PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPES ON OR OFF-SITE AS THE JURISDICTIONAL AGENCY REQUIRES, BOTH AT THE TIME OF SITE STABILIZATION AND AT END OF PROJECT.
16. SOIL EROSION CONTROL MEASURES MUST BE ADJUSTED OR RELOCATED BY THE CONTRACTOR AS IDENTIFIED DURING SITE OBSERVATION IN ORDER TO MAINTAIN THE COMPLETE EFFECTIVENESS OF ALL CONTROL MEASURES.
17. OMITTED.
18. EROSION CONTROL MEASURES MUST CONFORM TO THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL UNLESS OTHERWISE NOTED, OR AS UNLESS OTHERWISE CLEARLY AND SPECIFICALLY DIRECTED BY ENGINEER. INSTALLATION OF EROSION CONTROL, CLEARING, AND SITE WORK MUST BE PERFORMED EXACTLY AS INDICATED IN THE EROSION CONTROL CONSTRUCTION NOTES.
19. REFER TO THE APPROVED EROSION AND SEDIMENT CONTROL PLANS FOR THE DISTURBED LAND AREA OF THIS SITE.
20. REFER TO THE APPROVED EROSION AND SEDIMENT CONTROL PLANS FOR THE EROSION CONTROL MEASURES PROPOSED FOR THIS SITE.
21. INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS AND APPROVED DETAILS AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLANS.
22. CONTRACTOR MUST INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER EVERY RAIN EVENT. CONTRACTOR MUST IMMEDIATELY CLEAR AND REMOVE ANY SILT AS RECOMMENDED BY THE APPROVED DETAILS ON THE APPROVED EROSION AND SEDIMENT CONTROL PLANS OR AS OUTLINED IN THE SPECIFICATIONS LISTED IN NOTE #18.
23. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, CONTRACTOR MUST COMPLETE PERMANENT OR TEMPORARY STABILIZATION WITHIN: A) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1), AND B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING. WHEN AREAS ARE DISTURBED AFTER THE GROWING SEASON, CONTRACTOR MUST STABILIZE SAME WITH GEOTEXTILE FABRIC AND MAINTAIN SAME IN STRICT ACCORDANCE WITH BEST MANAGEMENT PRACTICES.
24. CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF REQUIRED BY THE ENGINEER OR THE LOCAL EROSION AND SEDIMENT CONTROL INSPECTOR, TO PREVENT THE INCIDENTAL AND ANY DISCHARGE OF SILT-LADEN RUNOFF FROM EXITING THE SITE.
25. THE CONTRACTOR MUST BE RESPONSIBLE FOR ALL INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES ON THE SITE UNTIL PERMANENT PAVING AND TURF/LANDSCAPING IS ESTABLISHED AND UPON APPROVAL OF THE LOCAL EROSION AND SEDIMENT CONTROL INSPECTOR. THE COSTS OF INSTALLING AND MAINTAINING THE EROSION CONTROL MEASURES MUST BE INCLUDED IN THE BID PRICE FOR THE SITE WORK AND THE CONTRACTOR IS RESPONSIBLE FOR ALL SUCH COSTS.
26. CONTRACTOR MUST CONTINUE TO MAINTAIN ALL EROSION CONTROL MEASURES UNTIL THE COMPLETION OF CONSTRUCTION AND THE ESTABLISHMENT OF VEGETATION AND UPON THE APPROVAL OF THE LOCAL EROSION AND SEDIMENT CONTROL INSPECTOR.
27. CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES, SILT AND DEBRIS AFTER ESTABLISHING PERMANENT VEGETATION COVER OR OTHER SPECIFIED METHOD OF STABILIZATION AND UPON THE APPROVAL OF THE LOCAL EROSION AND SEDIMENT CONTROL INSPECTOR.
28. WITHOUT WRITTEN APPROVAL OF THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) OR LOCAL SOIL CONSERVATION DISTRICT (SCD), UNSTABILIZED AREAS OF DISTURBANCE THROUGHOUT THE SITE MUST NOT BE MORE THAN AS APPROVED BY MDE OR THE LOCAL SCD AT ANY TIME. ADDITIONAL INSPECTION REQUIREMENTS AS STIPULATED BY THE JURISDICTIONAL AGENCY MUST BE ADOPTED AS REQUIRED FOR DISTURBANCE MORE THAN AS APPROVED BY MDE OR THE LOCAL SCD.

DRAINAGE AND UTILITY NOTES

(Rev.1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE, AND THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM THOSE LOCATIONS AND SERVICES WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCING ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM ALL SANITARY CONNECTION POINTS AND ALL OTHER UTILITY SERVICE CONNECTION POINTS IN THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, ERRORS AND OMISSIONS IN WRITING, TO THE ENGINEER OF RECORD.
3. THE CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL OF THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION, AT NO COST TO THE OWNER AND AT CONTRACTOR'S SOLE COST AND EXPENSE. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION.
4. THE CONTRACTOR MUST FIELD VERIFY THE PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES BY USING A TEST PIT TO CONFIRM EXACT DEPTH, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF SAME BASED UPON FINAL ARCHITECTURAL PLANS.
6. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS AND DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITY SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS OF THE APPLICABLE JURISDICTION AND REGULATORY AGENCIES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE DOCUMENTS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, AND PRIOR TO CONSTRUCTION, MUST RESOLVE SAME.
7. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND THE CONTRACTOR MUST COORDINATE SAME WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS AND SPECIFICATIONS AND CONSULTANT HAS NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL.
8. DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE, IN ANY RESPECT, FROM THE INFORMATION CONTAINED IN THESE PLANS. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE SITE PLAN, WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER IMMEDIATELY UPON THE COMPLETION OF WORK.
9. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SANITARY, WATER AND STORM SYSTEMS, ARE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND OR STATE DOT DETAILS AS APPLICABLE. THE CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME.
10. FINAL LOCATIONS OF PROPOSED UTILITY POLES, AND/ OR POLES TO BE RELOCATED ARE AT THE SOLE DISCRETION OF THE RESPECTIVE UTILITY COMPANY, REGARDLESS OF WHAT THIS PLAN DEPICTS.
11. OMITTED
12. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. THE CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT IF NECESSARY, PRIOR TO COMMENCING CONSTRUCTION.

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C/O GENROCK CAPITAL MGMT LLC
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DEVELOPER

NEW COASTAL DEVELOPMENT
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ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES
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REVISIONS

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1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
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PROJECT No.:	MD192104
DRAWN BY:	RMS
CHECKED BY:	AGS
DATE:	6/12/20
CAD I.D.:	SDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER

901 DULANEY VALLEY ROAD, SUITE 801
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ANDREW G. STINE

11/3/20

PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 37687
PROFESSIONAL CERTIFICATION
I, ANDREW G. STINE, 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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

GENERAL NOTES SHEET

SHEET NUMBER:

REVISION 2 - 10/15/20

Nov 03, 2020
H:\19\MD192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-SDP-2----->LAYOUT: 02 - NOTES
RS

REFER TO MDOT SHA ACCESS PERMIT PLANS PREPARED BY BOHLER FOR ALL WORK IN THE MD RTE. 32 R.O.W.

SURVEY REFERENCES:

1. SHEET 2 OF 6 OF WATER AND SEWER PLAN TITLED "ELDERSBURG ESTATES" BY VANMAR ASSOCIATES INC. DATED MARCH 1989.

SURVEY NOTES:

1. THE SUBJECT PARCELS ARE THE LANDS OF QH ELDERSBURG LLC AS RECORDED IN LIBER 9101 AT FOLIO 292 AND THE LANDS OF BLEVINS HILL, INC. AS RECORDED IN LIBER 1045 AT FOLIO 457, ALL AMONG THE LANDS RECORDS OF CARROLL COUNTY, MARYLAND SHOWN ON TAX MAP 73 AS PARCEL 736 AND 406 PER THE DEPARTMENT OF ASSESSMENTS.

2. PARCEL

	SQUARE FEET	ACRES
QH ELDERSBURG LLC	68,303	1.568
BLEVINS HILL INC	7,321	0.168
TOTAL	75,624	1.736

3. LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE, SOURCE INFORMATION FROM PLANS AND MARKINGS HAS BEEN COMBINED WITH OBSERVED EVIDENCE OF UTILITIES TO DEVELOP A VIEW OF THOSE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY AND RELIABLY DEPICTED. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION MAY BE NECESSARY.

4. THIS SURVEY WAS PERFORMED IN THE FIELD ON SEPTEMBER 20, 2019 UTILIZING THE REFERENCE DOCUMENTS AS LISTED HEREON AND DEPICTS BUILDINGS, STRUCTURES AND OTHER IMPROVEMENTS.

5. ELEVATIONS ARE BASED ON NAVD88 DATUM DETERMINED BY GPS OBSERVATIONS AND TIED IN TO THE CARROLL COUNTY, MARYLAND SURVEY CONTROL MONUMENT "HUT" WITH A PUBLISHED ELEVATION OF 601.99 FEET.

6. THE PROPERTY IS LOCATED IN OTHER AREAS ZONE X AREAS TO BE DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER MAP ENTITLED "FIRM, FLOOD INSURANCE RATE MAP, CARROLL COUNTY, MARYLAND AND INCORPORATED AREAS, PANEL 314 OF 450 MAP NUMBER 24013C0314D, WITH A MAP EFFECTIVE DATE OF OCTOBER 2, 2015.

7. ZONING: B-G

   BUILDING SETBACKS
   FRONT 40' MINIMUM
   SIDE 10' MINIMUM
   REAR N/A

   ALL ZONING INFORMATION WAS PROVIDED IN A EXECUTIVE SUMMARY PREPARED BY BOHLER ENGINEERING, DATED MAY 2019 AND MUST BE VERIFIED PRIOR TO USE OR RELIANCE UPON SAME, TO CONFIRM THE ZONING INFORMATION REPRESENTS AND DEPICTS THE THEN-CURRENT SITE-SPECIFIC INFORMATION." SHOULD THERE BE ANY CHANGE IN USE, SETBACK(S) AND/OR SET BACK REQUIREMENTS, ZONING CLASSIFICATION AND/OR ANY OTHER CHANGE OR VARIATION FROM THE CONDITIONS RECORDED HEREIN, THE CLIENT MUST VERIFY COMPLIANCE WITH THE USE, SET BACK, ZONING CLASSIFICATION AND/OR ORDINANCE, REGULATION OR LEGAL REQUIREMENT, PRIOR TO USING OR RELYING UPON THE FINDINGS RECORDED HEREIN, OR REFERENCING SAME AS RELATED TO THE PROPERTY, PROJECT AND/OR DEVELOPMENT.

8. PARKING: 71 STANDARD, 4 ADA 75 TOTAL SPACES

9. THE UNDERSIGNED WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS SURVEY AND THE SURVEYING WORK REFLECTED IN IT, ALL IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN "COMAR" SECTION 09.13.06.12.

10. BOHLER ENGINEERING WAS NOT MADE AWARE OF ANY WETLAND DELINEATION PERFORMED ON THE SUBJECT PROPERTIES AND THERE WERE NO WETLAND FLAGS OBSERVED AT THE TIME OF THE FIELD SURVEY. THERE WAS NOT A PHASE I REPORT PROVIDED.

11. THERE IS NO RECENT EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.

12. THERE ARE NOT ANY CHANGES IN STREET RIGHT OF WAY LINES EITHER COMPLETED OR PROPOSED, AND AVAILABLE FROM THE CONTROLLING JURISDICTION AND THERE IS NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.

13. WE ARE UNCERTAIN IF THE AREA WITHIN MACBETH WAY AND SOUTH OF THE QH ELDERSBURG LLC PROPERTY WAS DEDICATED. PLAT BOOK 36 PAGE 13 SHOWS THE LAND TO BE CONVEYED, HOWEVER, THERE WAS NOT A DEED WITHIN THE TITLE COMMITMENT THAT GRANTED THE LAND TO THE COUNTY. THE AREA WITHIN MACBETH WAY SOUTH OF THE BLEVINS HILL, INC. PROPERTY WAS GRANTED IN LIBER 1617 FOLIO 720.

HATCH LEGEND

EX. STEEP SLOPES (>25%)

SPECIFIC DEMOLITION NOTE

CONTRACTOR TO RELOCATE AND REESTABLISH EXISTING BENCHMARK LOCATED ONSITE PRIOR TO CONSTRUCTION.

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DEVELOPER

NEW COASTAL DEVELOPMENT
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SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

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LAND DEVELOPMENT CONSULTING
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE SCANNING, SCALING AND/OR DIGITIZING OF THIS PLAN IS PROHIBITED AND SHALL BE EXPRESSLY LIMITED TO AN EXACT DUPLICATE. WHICH IS TO BE USED FOR CONSTRUCTION PURPOSES AUTHORIZATION FROM BOHLER, ONLY APPROVED PRINTS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. © BOHLER, INC.

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CAD I.D.:	SPP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

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MD@BohlerEng.com

ANDREW G. STINE
No. 37687
PROFESSIONAL ENGINEER
11/3/20
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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

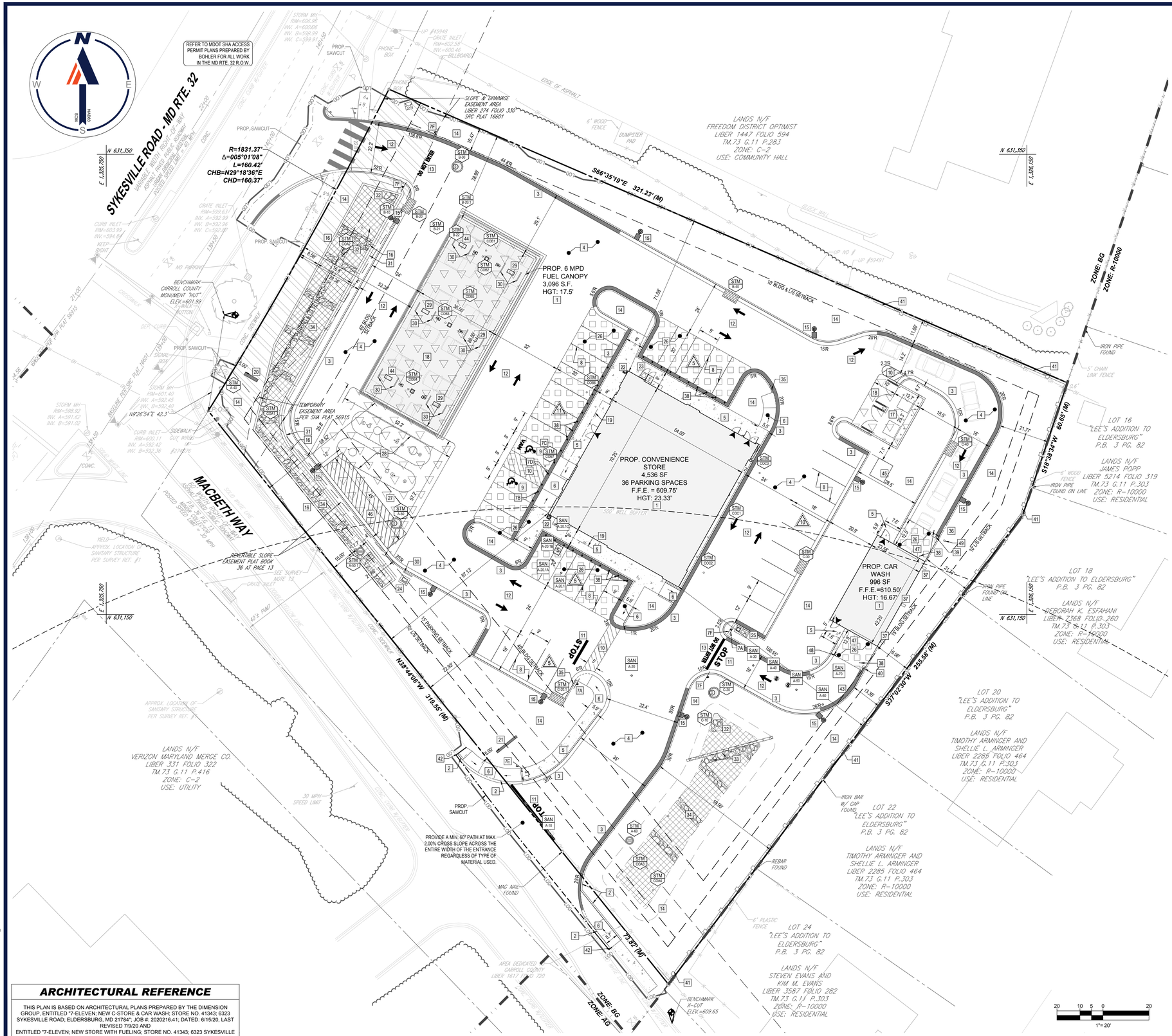
EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET NUMBER:

3
OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
C:\PROGRAMDATA\BOHLER\CSD2020\TEMP\ACPUBLISH_18368\MD192104-SPP-2---HAYDUY 03 - DEMO



NOTE

REFER TO THE COVER SHEET FOR SITE GENERAL NOTES.

SITE KEYNOTES

1. SITE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR THE EXACT DIMENSIONS OF THE BUILDING, FUEL CANOPY, AND CAR WASH AND THE LOCATION OF ALL DOORWAYS, UTILITIES, ETC.
2. CARROLL COUNTY STD CURB AND GUTTER (PLATE 3)
3. 6" CURB W/ 1.5' GUTTER
4. HEAVY DUTY ASPHALT PAVEMENT
5. CONC. SIDEWALK (WIDTH VARIES)
6. ADA COMPLIANT CURB RAMP
7. TRAFFIC SIGNAGE

   ALL SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) BY THE U.S. DEPARTMENT OF TRANSPORTATION.

   7A "STOP" SIGN (R1-1)

   7B ADA ACCESSIBLE PARKING SIGN - BOLLARD MOUNTED 84" ABOVE FINISHED GRADE

   7C ADA ACCESSIBLE PARKING SIGN (WITH VAN ACCESSIBLE SIGN) - BOLLARD MOUNTED 84" ABOVE FINISHED GRADE

   7D "NO PARKING IN ACCESS AISLE" SIGN - BOLLARD MOUNTED 84" ABOVE FINISHED GRADE

   7E RELOCATED "STOP" SIGN

   7F "DO NOT ENTER" SIGN (R5-1)

8. 4" STANDARD WHITE PARKING STALL STRIPING
9. PAINTED ADA PARKING SYMBOL
10. 4" WHITE STRIPING; 45° ANGLE, 4' O.C. PAVEMENT MARKING
11. WHITE PAINTED STOP BAR
12. DIRECTIONAL ARROW (FOR REFERENCE ONLY)
13. WHITE PAINTED "DO NOT ENTER" MARKING
14. LANDSCAPED AREA
15. SITE LIGHT, POLE AND BASE (REFER TO PHOTOMETRIC PLAN FOR SPECIFIC TYPE)
16. RETAINING WALL (REFER TO RETAINING WALL PLANS) W/ 4' TALL BLACK COATED VINYL CHAINLINK FENCE. SEPARATE BUILDING PERMIT REQUIRED.
17. TRASH ENCLOSURE (REFER TO ARCHITECTURAL PLANS)
18. HEAVY DUTY CONCRETE
19. BUILDING CANOPY (REFER TO ARCHITECTURAL PLANS)
20. 20' HIGH I.D. SIGN (REFER TO ARCHITECTURAL PLANS)
21. 12' HIGH I.D. SIGN (REFER TO ARCHITECTURAL PLANS)
22. TRASH CAN (REFER TO ARCHITECTURAL PLANS)
23. CO2 CABINET (REFER TO ARCHITECTURAL PLANS)
24. VENT STACK PAD (REFER TO ARCHITECTURAL PLANS)
25. AIR/VAC PAD (REFER TO ARCHITECTURAL PLANS)
26. STANDARD DUTY CONCRETE
27. FUEL TANK PAD (REFER TO ARCHITECTURAL PLANS)
28. UNDERGROUND FUEL TANK (REFER TO ARCHITECTURALS)
29. FUEL DISPENSER (REFER TO ARCHITECTURAL PLANS)
30. U-BOLLARD (REFER TO ARCHITECTURAL PLANS)
31. GUARD RAIL
32. RIP-RAP / GABION MATTRESS (REFER TO GRADING PLAN FOR SIZING)
33. STONE WINDOW / GABION WEIR (REFER TO STORMWATER NOTES AND DETAILS)
34. PRIVATE STORMWATER MANAGEMENT FACILITY (REFER TO STORMWATER MANAGEMENT PLAN)
35. 3' CURB TAPER
36. 3' CURB CUT W/ 3' CURB TAPERS
37. SPLASH BLOCK AT DOWNSPOUTS (REFER TO ARCHITECTURAL PLANS)
38. BOLLARDS (TYP.)
39. C-START MACHINE (REFER TO ARCHITECTURAL PLANS)
40. TIMER (REFER TO ARCHITECTURAL PLANS)
41. 6' BOARD-ON-BOARD GREY SIGHT-TIGHT FENCE
42. TIE PROP. CC CURB AND GUTTER TO EX. CURB AND CUTTER AT CONSTRUCTION JOINT
43. VARIABLE HEIGHT CURB AND GUTTER (REFER TO GRADING PLAN FOR HEIGHT)
44. FUEL DISPENSER W/ DIESEL (REFER TO ARCHITECTURAL PLANS)
45. TRANSFORMER (REFER TO APPROVED PLAN PREPARED BY UTILITY COMPANY)
46. LOADING SPACE (4" WHITE STRIPING; 45° ANGLE, 4' O.C. PAVEMENT MARKING)
47. ELECTROMELT SYSTEM (REFER TO ARCHITECTURAL PLANS)
48. TSS COUNT DOWN TIMER (REFER TO ARCHITECTURAL PLANS)
49. WINCON CONTROLLER (REFER TO ARCHITECTURAL PLANS)

HATCH LEGEND

- PROP. CONCRETE SIDEWALK
- PROP. HEAVY DUTY CONCRETE PAVEMENT
- PROP. STANDARD DUTY CONCRETE PAVEMENT
- SHA SLOPE & DRAINAGE EASEMENT AREA LIBER 274 FOLIO 330 SRC PLAT 16601
- HEAVY DUTY ASPHALT PAVEMENT
- SWM FACILITY
- STACKING SPACE

ARCHITECTURAL REFERENCE

THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY THE DIMENSION GROUP, ENTITLED "7-ELEVEN; NEW C-STORE & CAR WASH; STORE NO. 41343; 6323 SYKESVILLE ROAD; ELDERSBURG, MD 21784"; JOB #: 2020216.41; DATED: 6/15/20, LAST REVISED 7/9/20 AND
ENTITLED "7-ELEVEN; NEW STORE WITH FUELING; STORE NO. 41343; 6323 SYKESVILLE ROAD; ELDERSBURG, MD 21784"; JOB #: C20-055; DATED: 6/9/20, LAST REVISED 7/7/20

OWNER

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1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
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PROJECT No.: MD192104
DRAWN BY: RMS
CHECKED BY: AGS
DATE: 6/12/20
CAD I.D.: SPP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW G. STINE
PROFESSIONAL ENGINEER
11/3/20
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. 37887, EXPIRATION DATE: 7/1/21.

SHEET TITLE:

SITE PLAN

SHEET NUMBER: 4 OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
C:\PROGRAMDATA\BOHLER\RC\320200\TEMP\ACPUBLISH_18396\MD192104-SPP-2---LAYOUT 04 - SITE PLAN.DWG
RMS

ARCHITECTURAL REFERENCE

THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY THE DIMENSION GROUP, ENTITLED "7-ELEVEN; NEW C-STORE & CAR WASH; STORE NO. 41343; 6323 SYKESVILLE ROAD; ELDERSBURG, MD 21784"; JOB #: 2020216.41; DATED: 6/15/20, LAST REVISED 7/9/20 AND
ENTITLED "7-ELEVEN; NEW STORE WITH FUELING; STORE NO. 41343; 6323 SYKESVILLE ROAD; ELDERSBURG, MD 21784"; JOB #: C20-055; DATED: 6/9/20, LAST REVISED 7/7/20

Nov 03, 2020
C:\PROGRAMDATA\BOHLER\C3D2020\TEMP\ACPUBLISH_18396\MD192104-SPP-2---->LAYOUT: 05 - GRADING
RS

NOTES

1. SPOT ELEVATIONS NOTED AS ± HAVE BEEN INTERPOLATED FROM EXISTING TOPOGRAPHY. CONTRACTOR IS TO VERIFY THESE SPOT ELEVATIONS PRIOR TO CONSTRUCTION, AND TO NOTIFY BOHLER IN WRITING IF THE ACTUAL ELEVATIONS DIFFER.
2. REFER TO THE UTILITY PLAN FOR STORM DRAIN PIPE INFORMATION.

STORM STRUCTURE SCHEDULE

NAME	TYPE	RIM ELEV. (FT.)	INVERTS
A-40	EX. MANHOLE	601.40'	INV IN = 592.45' (EX. 30") INV IN = 594.41' (18") INV OUT = 592.40' (EX. 30")
A-50	PRECAST MANHOLE (SHA STD. MD384.01)	608.36'	INV IN = 598.81' (12") INV IN = 598.13' (15") INV OUT = 594.92' (18")
A-50.1	30" NYLOPLAST DRAIN BASIN W/ DOME GRATE	603.58'	INV IN = 598.92' (6") INV OUT = 598.92' (12")
A-60	30" NYLOPLAST DRAIN BASIN W/ DOME GRATE	605.43'	INV IN = 600.67' (6") INV OUT = 599.00' (15")
B-10	PIPE END IN RETAINING WALL (REFER TO RETAINING WALL PLANS)	-	INV IN = 602.25' (18")
B-20	DOUBLE TYPE S INLET (SHA STD. MD-374.70) W/ 2' SUMP	606.21'	INV IN = 604.21' (6") INV IN = 602.80' (12") INV IN = 602.50' (12") INV OUT = 602.25' (18")
B-20.1	12" TRENCH DRAIN	VARIES	INV OUT = 602.79' (12")
B-21	OIL/WATER SEPARATOR	606.92'	INV IN = 605.62' (6") INV OUT = 605.37' (6")
B-22	4" TRENCH DRAIN	VARIES	INV IN = 606.53' (4") INV IN = 606.53' (4") INV OUT = 605.66' (6")
B-30	PRECAST MANHOLE (SHA STD. MD-384.01)	607.26'	INV IN = 603.04' (12") INV OUT = 602.94' (12")
B-40	DOUBLE TYPE S INLET (SHA STD. MD-374.70)	607.42'	INV OUT = 603.70' (12")
C-10	ADS END SECTION	-	INV IN = 604.00' (18")
C-20	PRECAST MANHOLE (SHA STD. MD-384.01) W/ 2' SUMP	607.13'	INV IN = 604.10' (12") INV IN = 604.35' (12") INV OUT = 604.00' (18")
C-20.1	DOUBLE TYPE S INLET (SHA STD. MD-374.70)	607.52'	INV OUT = 604.45' (12")
C-30	DOUBLE TYPE S INLET (SHA STD. MD-374.70)	608.08'	INV IN = 605.32' (6") INV IN = 604.79' (12") INV OUT = 604.69' (12")
C-40	DOUBLE TYPE S INLET (SHA STD. MD-374.70)	608.75'	INV OUT = 605.23' (12")
COA1	CLEANOUT	602.25'	INV IN = 598.92' (6") INV OUT = 598.92' (6")
COA2	CLEANOUT	602.25'	INV OUT = 598.92' (6")
COA3	CLEANOUT	604.00'	INV IN = 600.67' (6") INV OUT = 600.67' (6")
COA4	CLEANOUT	604.00'	INV OUT = 600.67' (6")
COB1	CLEANOUT	607.44'	INV IN = 605.07' (6") INV OUT = 605.07' (6")
COB2	CLEANOUT	607.46'	INV IN = 605.10' (6") INV IN = 605.10' (6") INV IN = 605.10' (6") INV OUT = 605.10' (6")
COB3	CLEANOUT	607.68'	INV IN = 605.43' (6") INV IN = 605.43' (6") INV IN = 605.43' (6") INV OUT = 605.43' (6")
COB4	CLEANOUT	607.90'	INV IN = 605.76' (6") INV IN = 605.76' (6") INV OUT = 605.76' (6")
COB5	CLEANOUT	607.60'	INV IN = 605.32' (6") INV IN = 605.32' (6") INV OUT = 605.32' (6")
COB6	CLEANOUT	609.07'	INV IN = 606.01' (6") INV IN = 606.01' (6") INV OUT = 606.01' (6")
COB7	CLEANOUT	609.09'	INV IN = 606.38' (6") INV OUT = 606.38' (6")
COC1	CLEANOUT	609.06'	INV IN = 605.93' (6") INV IN = 605.68' (6") INV IN = 605.68' (6") INV OUT = 605.68' (6")
COC2	CLEANOUT	609.09'	INV IN = 605.93' (6") INV OUT = 605.93' (6")
COC3	CLEANOUT	609.10'	INV IN = 605.93' (6") INV OUT = 605.93' (6")

RIP-RAP SCHEDULE

SYM	DESCRIPTION	LENGTH	BOTTOM WIDTH	THICKNESS	D_{50}	D_{MAX}
RR1	GABION MATTRESS ON NONWOVEN GEOTEXTILE FILLED W/ 4"-7" STONES	5'	6'	12"	5.5"	7"
RR2	GABION MATTRESS ON NONWOVEN GEOTEXTILE FILLED W/ 4"-7" STONES	5'	6'	12"	5.5"	7"
RR3	GABION MATTRESS ON NONWOVEN GEOTEXTILE FILLED W/ 4"-7" STONES	3'	3'	12"	5.5"	7"

HATCH LEGEND

- PROP. CONCRETE SIDEWALK
- PROP. HEAVY DUTY CONCRETE PAVEMENT
- PROP. STANDARD DUTY CONCRETE PAVEMENT
- PROP. HEAVY DUTY ASPHALT PAVEMENT

GRADING KEYNOTES

1. LIMITS OF EXPOSED FOUNDATION
2. LIMITS OF BURIED FOUNDATION

20 10 5 0 20
1"= 20'

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER//
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
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DRAWN BY: RMS
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DATE: 6/12/20
CAD I.D.: SPP-2

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FOR
NEW COASTAL DEVELOPMENT

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6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
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MD@BohlerEng.com

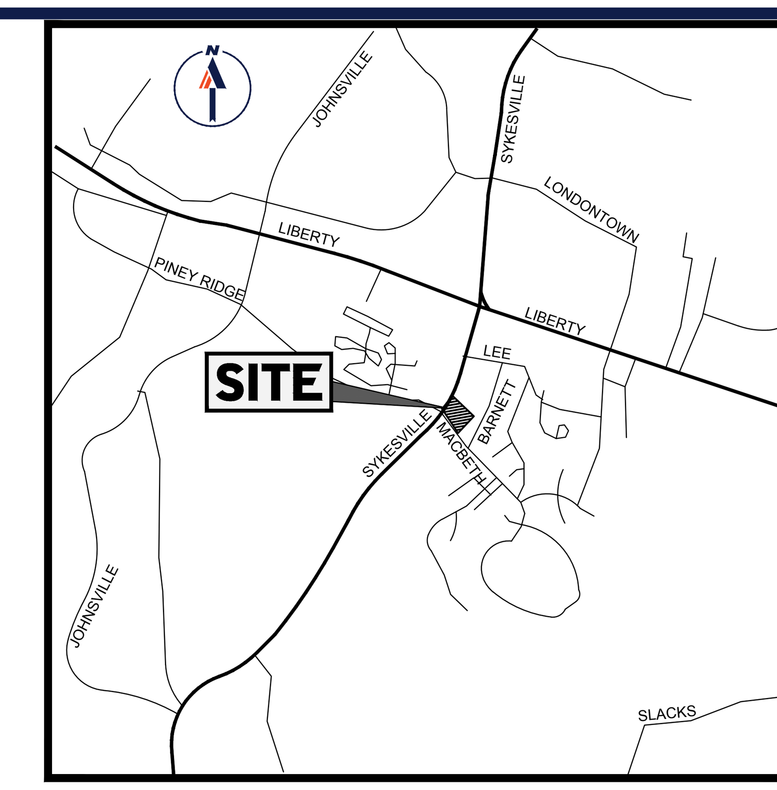
ANDREW G. STINE
11/3/20
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 37687
PROFESSIONAL CERTIFICATION
I, ANDREW G. STINE, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

GRADING PLAN

SHEET NUMBER:
5
OF 32

REVISION 2 - 10/15/20



LOCATION MAP

SCALE: 1"=2,000'

STORMWATER MANAGEMENT NOTES:

1. STORMWATER SITE AREA = 1.82 AC.
2. SITE DATA:

   EXISTING:
   - IMPERVIOUS AREA: 1.11 AC.
   - PERVIOUS AREA: 0.71 AC.
   - PERCENT IMPERVIOUS: 60.99%

   PROPOSED:
   - IMPERVIOUS AREA: 1.13 AC.
   - PERVIOUS AREA: 0.69 AC.
   - PERCENT IMPERVIOUS: 62.09%
3. THE SITE WILL BE REGULATED AS NEW DEVELOPMENT BECAUSE THE EXISTING INFILTRATION TRENCH AND SAND FILTERS THAT CURRENTLY MEET THE SITE'S STORMWATER MANAGEMENT QUALITY AND QUANTITY REQUIREMENTS WILL BE REMOVED.
4. ESD CALCULATIONS:

   REQUIRED:
   - ESDv = 8,866 CF
   - Pe = 2.20 INCHES

   PROVIDED:

   SUBMERGED GRAVEL WETLAND A:
   - ESDV = 4,710 CF
   - PE = 2.50 INCHES
   - IMP. AREA = 0.54 AC.

   SUBMERGED GRAVEL WETLAND B:
   - ESDV = 4,492 CF
   - PE = 2.50 INCHES
   - IMP. AREA = 0.48 AC.

   TOTAL:
   - ESDv = 9,202 CF
   - Pe = 2.28 INCHES
   - IMP. AREA = 1.02 AC.
5. PER THE ESD CALCULATIONS, ESDv REQUIREMENTS HAVE BEEN MET THROUGH THE TWO (2) SUBMERGED GRAVEL WETLAND FACILITIES.

HATCH LEGEND

EX. STEEP SLOPES (>25%)

SOILS INFORMATION

SYMBOL	NAME	SLOPE	HYDROLOGIC GROUP	K VALUE > 0.35
GfB	GLENELG-URBAN LAND COMPLEX	0% TO 8%	D	N/A

*ALL SOILS ONSITE AND IMMEDIATELY ADJACENT ARE OF THE ABOVE TYPE

SWM TABLE

	FACILITY A	FACILITY B
OWNERSHIP	PRIVATE	PRIVATE
MAINTENANCE RESPONSIBILITY	PROPERTY OWNER	PROPERTY OWNER
STRUCTURE CLASSIFICATION	ESD	ESD
DRAINAGE AREA	0.66 AC.	1.26 AC.
IMPERVIOUS AREA	0.54 AC.	0.48 AC.
HEIGHT OF EMBANKMENT	N/A	N/A
WIDTH OF EMBANKMENT	N/A	N/A
WATERSHED NAME & RECEIVING STREAM CLASSIFICATION	SOUTH BRANCH OF THE PATAPSCO RIVER, USE III WATERS	
SWM REQUIRED	4,710 CF	4,492 CF
COORDINATES	N 631,275 E 1,325,835	N 631,050 E 1,326,000

NOTE:

1. ALL EXISTING NATURAL RESOURCES ARE SHOWN PER AN ENVIRONMENTAL SITE DELINEATION COMPLETED IN ACCORDANCE WITH CHAPTER 3, ARTICLE IV OF THE CARROLL COUNTY CODE OF PUBLIC LAWS AND ORDINANCE, PREPARED BY ECOSCIENCE, DATED 10/22/19.
2. REFER TO THE GRADING PLAN FOR STORM DRAIN STRUCTURE AND REFER TO THE UTILITY PLAN FOR STORM DRAIN PIPE INFORMATION.

20 10 5 0 20
1"= 20'

OWNER

PARCELS 406 & 736
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C/O GENROCK CAPITAL MGMT LLC
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CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

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ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
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NEW COASTAL DEVELOPMENT

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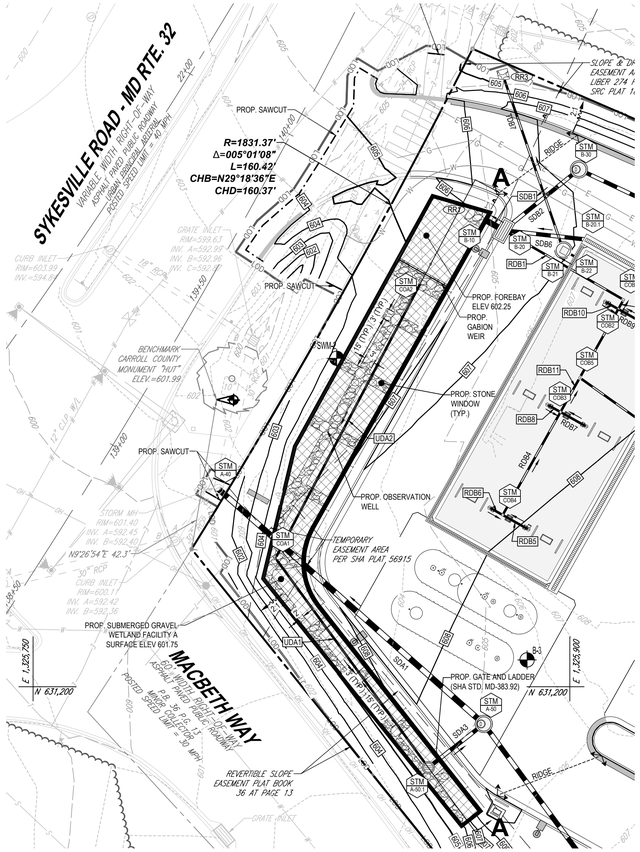
SHEET TITLE:

STORMWATER MANAGEMENT PLAN

SHEET NUMBER:
6
OF 32

REVISION 2 - 10/15/20

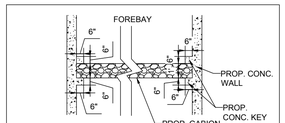


SUBMERGED GRAVEL WETLAND A PLAN

SCALE: 1"=20'

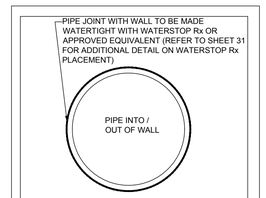
20 10 5 0 20

1"= 20'



GABION WEIR / WALL INTERFACE PLAN DETAIL

NOT TO SCALE

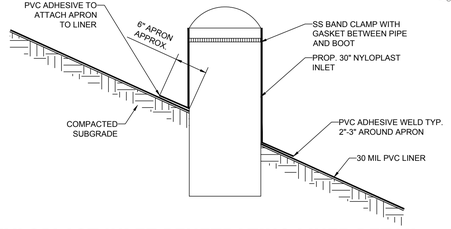


PIPE PENETRATING CONC. WALL DETAIL

NOT TO SCALE

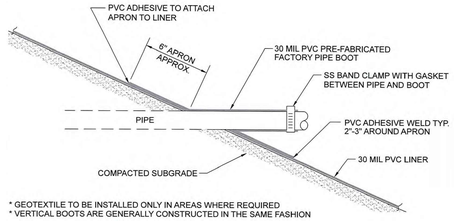
SUBMERGED GRAVEL WETLAND 'A' STRUCTURAL DESIGN NOTES

1. SCHEMATIC ONLY. STRUCTURAL DESIGN REQUIRED BY LICENSED STRUCTURAL ENGINEER. BOHLER DOES NOT IMPLY CERTIFICATION OF ANY STRUCTURAL DESIGN OF THIS DETAIL BY THE SIGNING OF THESE PLANS. BOHLER SHALL BE HELD HARMLESS IN THE EVENT OF STRUCTURAL FAILURE.
2. CONCRETE TANK MUST BE CAST-IN-PLACE CONCRETE.
3. STRUCTURAL ENGINEER MUST CERTIFY TANK IS DESIGNED TO BE FREE-STANDING AND DOES NOT INCLUDE EARTH FILL OUTSIDE OR MEDIA WITHIN FACILITY FOR STRUCTURAL SUPPORT.
4. ALL WALL TO PIPE JOINTS AND WALL TO WALL JOINTS MUST BE WATERTIGHT AND SEALED WITH WATERSTOP Rx OR APPROVED EQUIVALENT (REFER TO SHEETS 30-32 FOR DETAILS AND SPECIFICATIONS OF THE WATERTIGHT BOX).



NYLOPLAST INLET PENETRATING LINER DETAIL

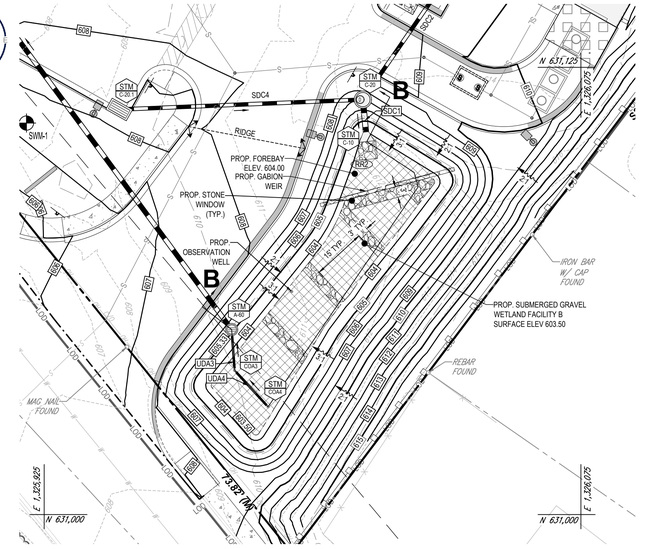
NOT TO SCALE



* GEOTEXTILE TO BE INSTALLED ONLY IN AREAS WHERE REQUIRED
* VERTICAL BOOTS ARE GENERALLY CONSTRUCTED IN THE SAME FASHION

PIPE PENETRATING LINER DETAIL

NOT TO SCALE

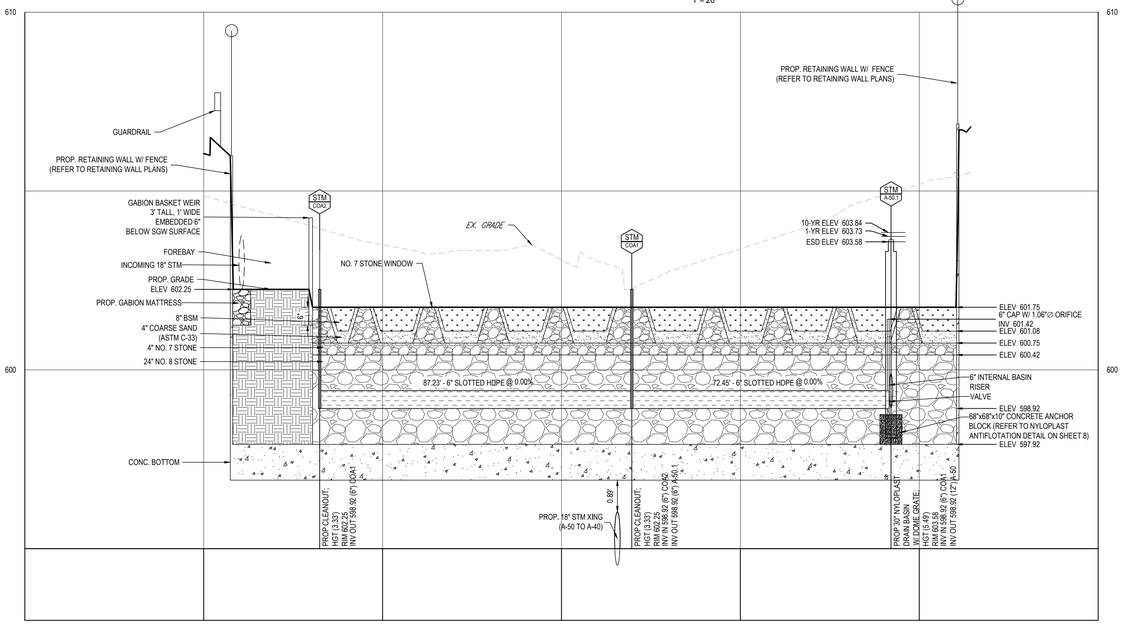


SUBMERGED GRAVEL WETLAND B PLAN

SCALE: 1"=20'

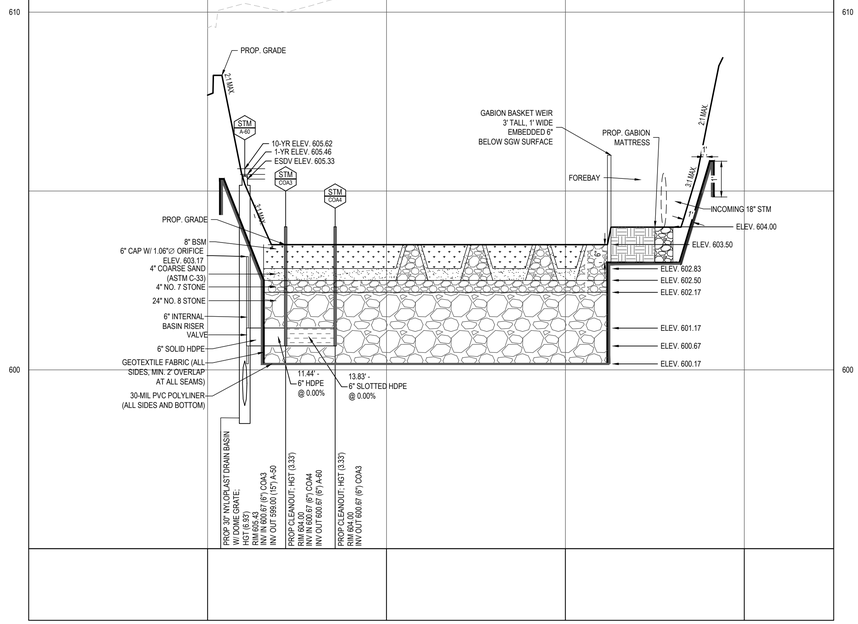
20 10 5 0 20

1"= 20'



SUBMERGED GRAVEL WETLAND A SECTION

SCALE: 1"= 20 ' HORIZONTAL
1"= 2 ' VERTICAL



SUBMERGED GRAVEL WETLAND B SECTION

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1"= 2 ' VERTICAL

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
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SITE INFORMATION

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TRANSPORTATION SERVICES

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CAD I.D.:	SWP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW G. STINE
STATE OF MARYLAND
11/3/20
PROFESSIONAL ENGINEER
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. 37887, EXPIRATION DATE: 7/1/21

SHEET TITLE:

STORMWATER MANAGEMENT NOTES AND DETAILS

SHEET NUMBER:

7
OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
H:\192104\24\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104 SWP-2 — LAYOUT 07 - SWM ND
AGS

INSPECTION CHART FOR SGW FACILITY A

STAGE	ENGINEER'S APPROVAL	
	INITIALS	DATE
1. CONSTRUCT STORMDRAIN SYSTEM FROM A-40 THROUGH A-50.		
2. CONSTRUCT CONCRETE BOX IN ACCORDANCE WITH THE CONCRETE BOX PLANS. OBTAIN APPROVAL OF CONCRETE BOX STRUCTURAL CHECKLIST ON RETAINING WALL SHEETS. INSTALL LADDER.		
3. CONSTRUCT STORMDRAIN SYSTEM FROM A-50 THROUGH A-50.1 AND B-10 THROUGH B-20. PIPES PENETRATING WALLS ARE MADE WATERTIGHT.		
4. DRAINAGE PATTERNS SHOWN ON THE STORMWATER MANAGEMENT DRAINAGE AREA MAP HAVE BEEN ACHIEVED. RIDGELINES HAVE BEEN FIELD VERIFIED.		
5. ALL BUILDINGS ARE CONSTRUCTED, ALL DRIVEWAYS AND PARKING LOTS PAVED, AND ALL OTHER DISTURBED AREAS SUPPORT A 2" STAND OF DENSE GRASS.		
6. ONCE ALL UPSTREAM DRAINAGE AREAS HAVE BEEN STABILIZED AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, CLEAN OUT ALL STORM DRAIN PIPES AND INSTALL #8 STONE AND 6" SLOTTED HDPE PIPE UNDER SUPERVISION OF GEOTECHNICAL ENGINEER.		
7. INSTALL NO. 7 STONE LAYER, GABION WEIR, COARSE SAND LAYER, AND STONE WINDOWS.		
8. INSTALL BSM AND PLANTS AS SHOWN ON THE LANDSCAPE PLAN.		
9. INSTALL OUTFALL PROTECTION AT PIPE END.		
10. INSTALL SAFETY FENCE AND GATES AS SHOWN ON THE CONCRETE BOX PLANS.		
11. SUBMIT AS-BUILT PAPER PRINTS TO CARROLL COUNTY BUREAU OF RESOURCE MANAGEMENT WITHIN 30 DAYS OF COMPLETION.		

NOTIFY BOHLER IN WRITING AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION
ENGINEER'S NAME: ANDREW G. STINE
PHONE: 410-821-7900.

INSPECTION CHART FOR SGW FACILITY B

STAGE	ENGINEER'S APPROVAL	
	INITIALS	DATE
1. CONSTRUCT STORMDRAIN SYSTEM FROM C-10 THROUGH C-20 AND A-50 THROUGH A-60.		
2. DRAINAGE PATTERNS SHOWN ON THE STORMWATER MANAGEMENT DRAINAGE AREA MAP HAVE BEEN ACHIEVED. RIDGELINES HAVE BEEN FIELD VERIFIED.		
3. ALL BUILDINGS ARE CONSTRUCTED, ALL DRIVEWAYS AND PARKING LOTS PAVED, AND ALL OTHER DISTURBED AREAS SUPPORT A 2" STAND OF DENSE GRASS.		
4. ONCE ALL UPSTREAM DRAINAGE AREAS HAVE BEEN STABILIZED AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, CLEAN OUT THE STORM DRAIN SYSTEM THAT DRAINS TO THE SGW AND INSTALL PVC POLYLINER, GEOTEXTILE FABRIC, #8 STONE AND 6" SLOTTED HDPE PIPE UNDER SUPERVISION OF GEOTECHNICAL ENGINEER.		
5. INSTALL NO. 7 STONE LAYER, COARSE SAND LAYER, AND STONE WINDOWS.		
6. INSTALL BSM AND PLANTS AS SHOWN ON THE LANDSCAPE PLAN.		
7. INSTALL OUTFALL PROTECTION AT PIPE END.		
8. SUBMIT AS-BUILT PAPER PRINTS TO CARROLL COUNTY BUREAU OF RESOURCE MANAGEMENT WITHIN 30 DAYS OF COMPLETION.		

NOTIFY BOHLER IN WRITING AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION
ENGINEER'S NAME: ANDREW G. STINE
PHONE: 410-821-7900.

LANDSCAPING *920*

(b) Composition. BSM shall be sampled and tested according to the requirements of MSMT 356 and conform to the following:

COMPOSITION- BIORETENTION SOIL MIX (BSM)						
TEST PROPERTY	TEST METHOD	TEST VALUE AND AMENDMENT				
Weeds	—	Free of seed and viable plant parts of species in 920.06.02(a)(b)(c) when inspected.				
Debris	—	920.01.05(a)(2)				
Textural Analysis	T 88	Particle		% Passing by Weight		
		Size	mm	Minimum	Maximum	
		Sand	2.0 – 0.050	55	85	
		Silt	0.050 – 0.002	–	20	
		Clay	less than 0.002	1	8	
Soil pH	D 4972	pH of 5.7 to 7.1.				
Organic Matter	T 194	Minimum 1.5 % by weight.				
Nutrient Analysis and Soluble Salts	Mehlich-3	Concentration				
		Element	Minimum		Maximum	
			ppm	FIV	ppm	FIV
		Calcium (Ca)	32	25	no limit	no limit
		Magnesium (Mg)	15	25	no limit	no limit
		Phosphorus (P)	18	25	92	100
		Potassium (K)	22	25	no limit	no limit
		Sulfur (SO_4)	25	n/a	no limit	no limit
	EC1:2 (V:V)	Soluble Salts	40	n/a	500	n/a
Harmful Materials	—	920.01.01(a).				

(c) Amendment or Failure. BSM that does not conform to composition requirements for pH or nutrient analysis shall be amended as specified by the NMP. BSM that exceeds maximum phosphorus concentration or fails other composition requirements will not be accepted, and shall not be delivered or used as BSM.

(d) Storage. 920.01.02(b). BSM shall be stored in a stockpile that is protected from weather under tarp or shed. BSM stored for 6 months or longer shall be resampled, retested, and reapproved before use.

(e) Approval. 920.01.02(c).

(f) Certification and Delivery. 920.01.02(d).

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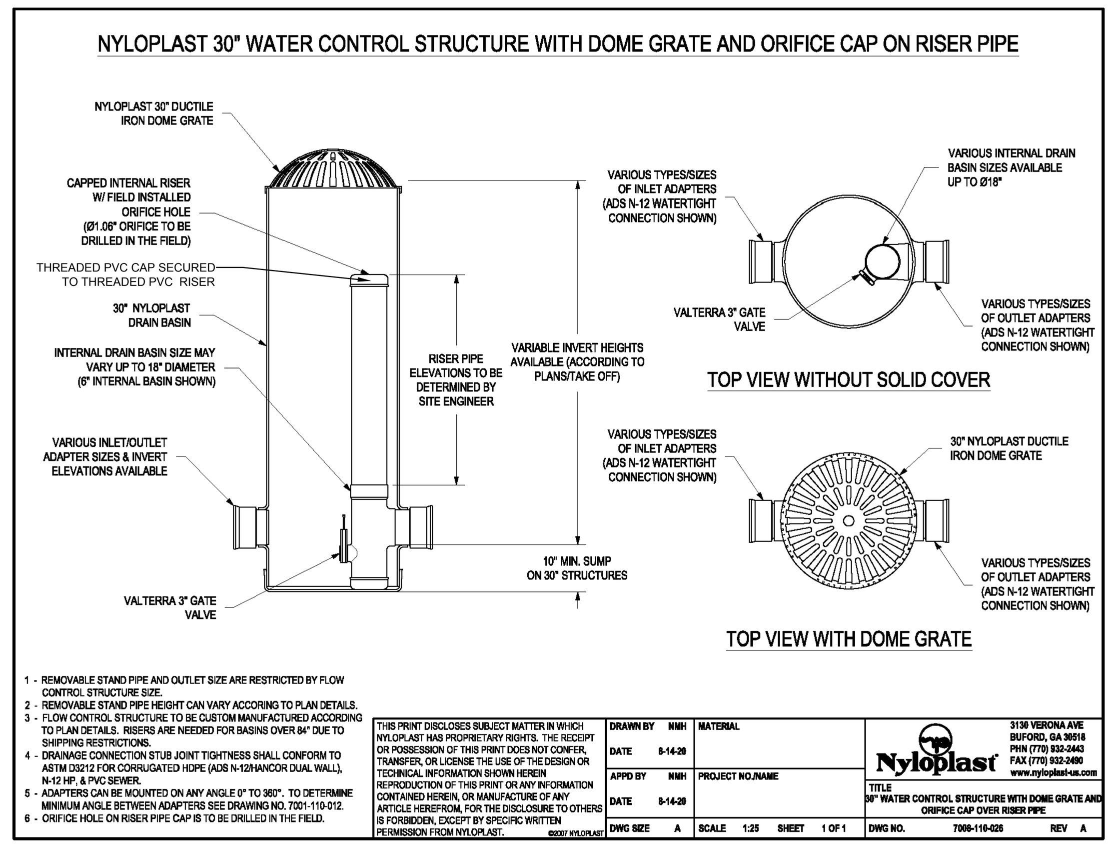
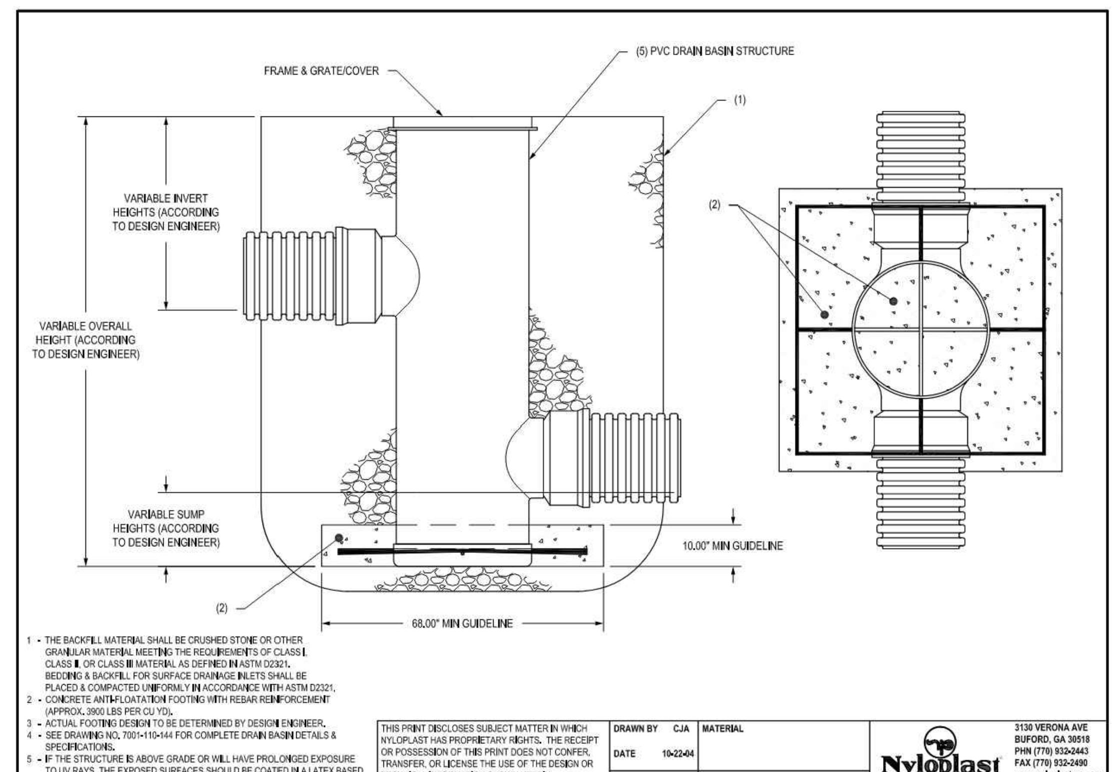
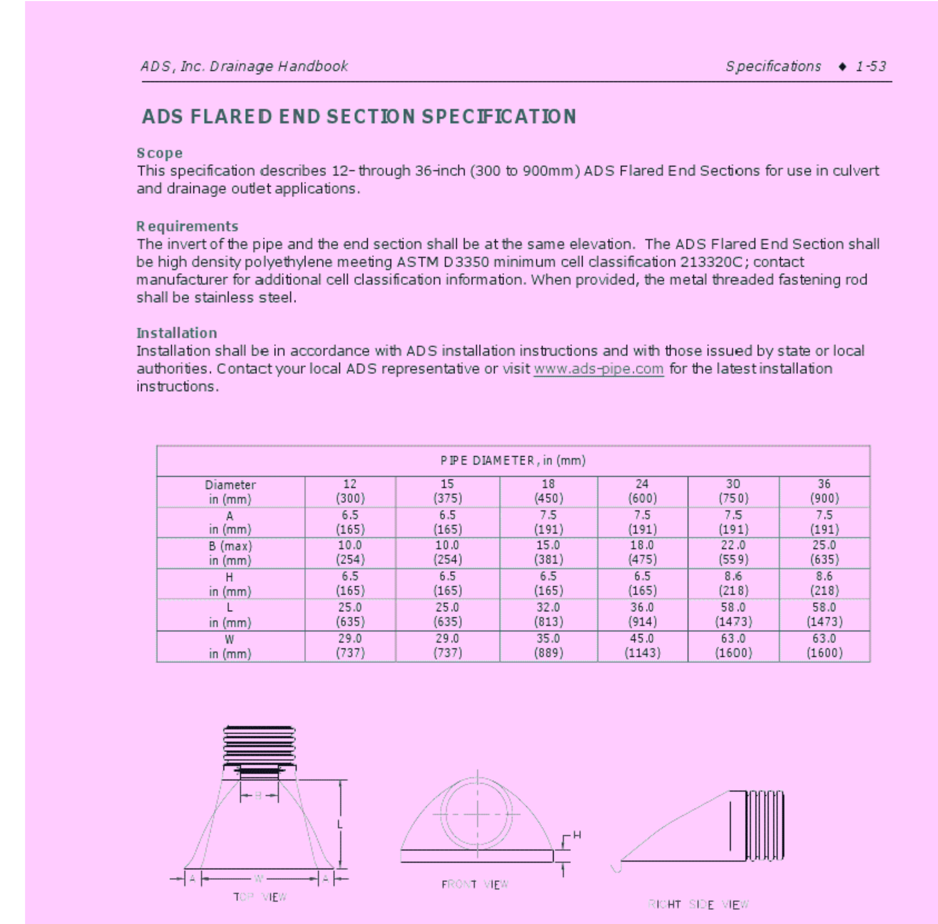
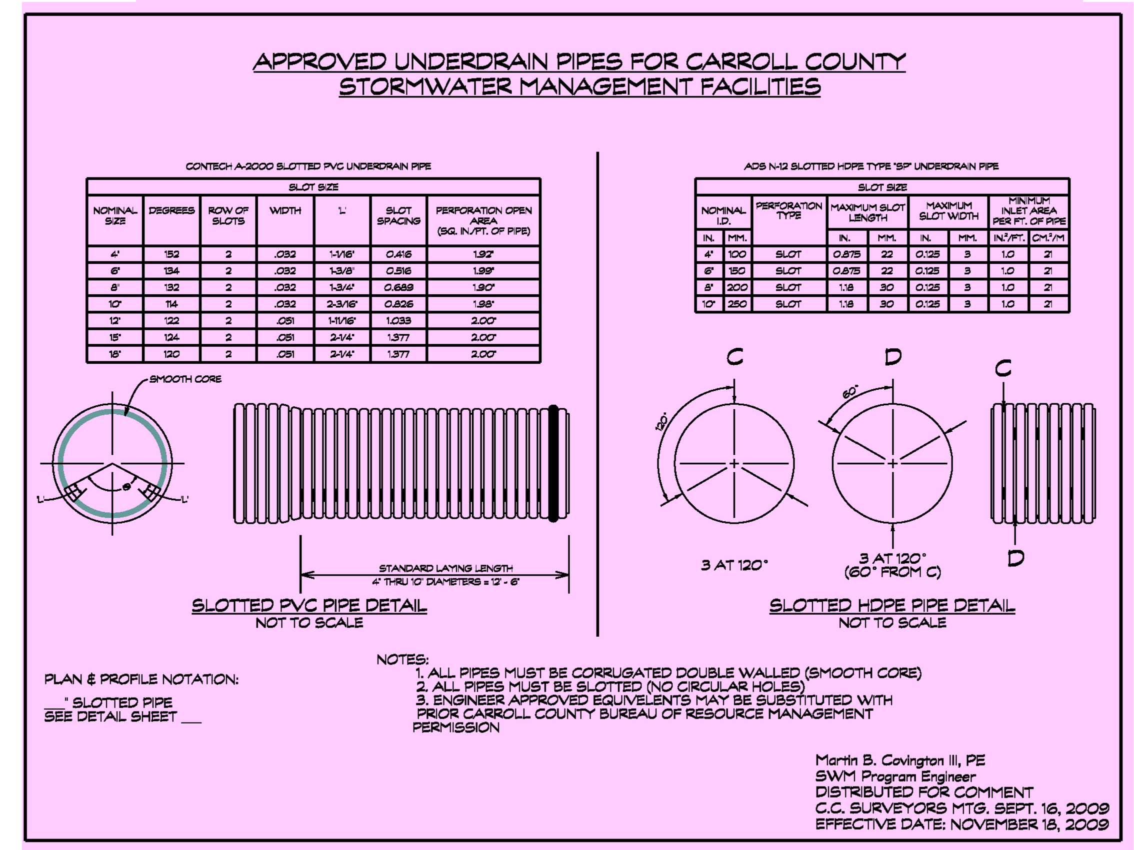
STORMWATER MAINTENANCE SCHEDULE
SUBMERGED GRAVEL WETLAND

Inspection Item	Inspection Requirements	Remedial Action
MONTHLY INSPECTION		
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 inlets and outlet.	Remove or cut back vegetation around inlet and outlet structures. Mow side slopes when grass exceeds 12 inches in height. Remove grass clippings. Re-seed or re-plant in accordance with approved landscaping plans.
Pea Gravel Chimney	Check pea gravel for sediment accumulation and evidence of erosion.	Stabilize or replace pea gravel according to plan specifications.
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 six inches of pea gravel in pea gravel chimney. Confirm adequate dewatering with follow up inspections. If the facility does not function as intended after the above action, the entire system including underdrain may need refurbishing.
Erosion	Check inlets, wetland, outlets, and side slopes for erosion, rills, gullies, and runoff channelization.	Re-grading may be required when concentrated flow causes rills or gullying through the facility. Grade, vegetate, and/or armor to provide stable conveyance in accordance with approved plans.
Sediment Accumulation	Check for accumulated sediment in forebay. Check for accumulated sediment in gravel chimneys and wetland area. Check for clogged openings	When sediment in forebay accumulates to 6 inches in depth, clean out sediment. When sediment in gravel chimney or wetland area accumulates to 1 inch in depth, remove sediment. Remove sediment from clogged openings. Discharge any sediment-laden water through a filter bag or other dewatering device. 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.	Prevent 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.

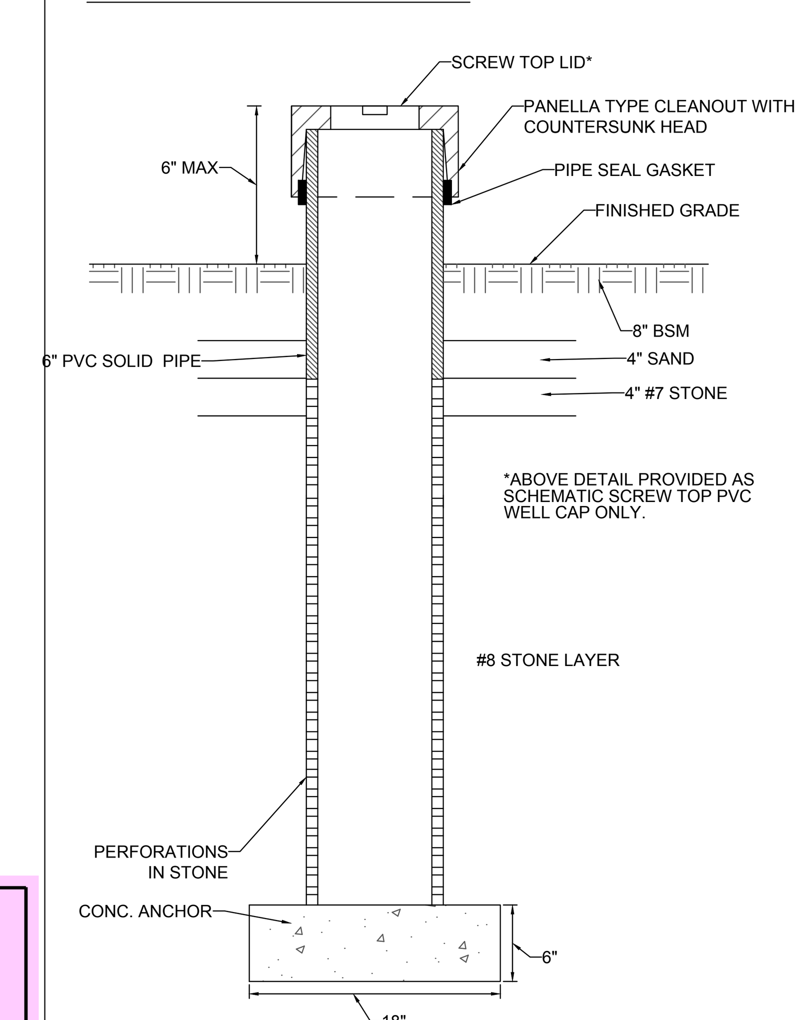








APPENDIX D.8 MISCELLANEOUS DETAILS FOR COMPLIANCE WITH PERFORMANCE CRITERIA



OBSERVATION WELL DETAIL

NOT TO SCALE

EACH OBSERVATION WELL/CLEANOUT MUST INCLUDE THE FOLLOWING:

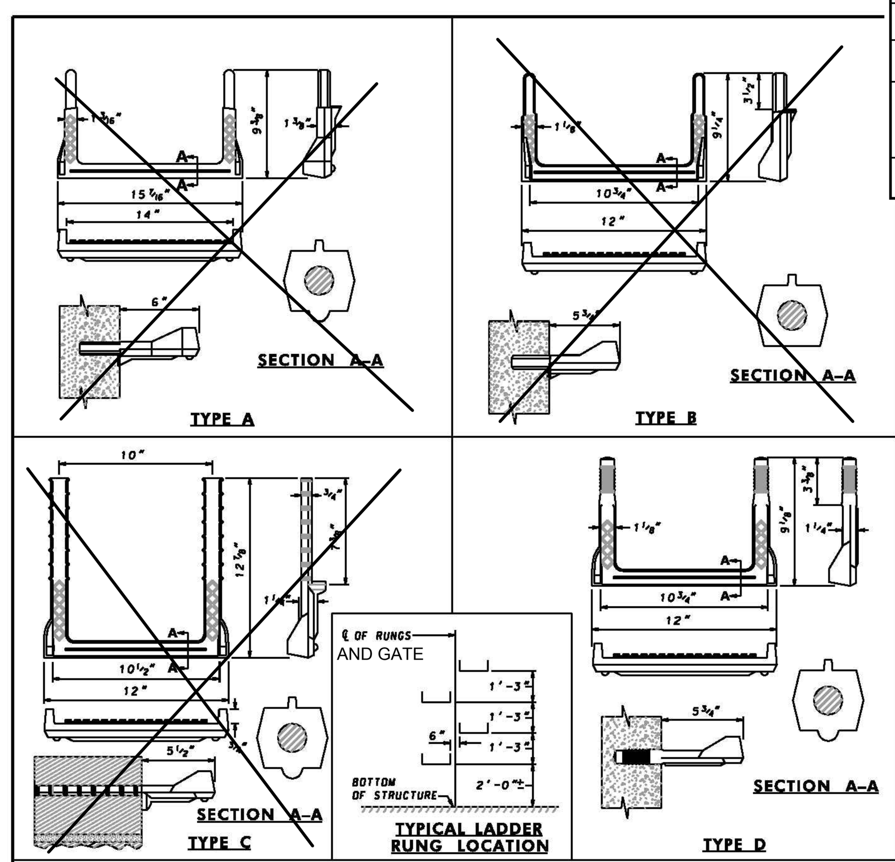
1. FOR AN UNDERGROUND FLUSH MOUNTED OBSERVATION WELL/CLEANOUT, PROVIDE A TUBE MADE OF NON-CORROSIVE MATERIAL, SCHEDULE 40 OR EQUAL, AT LEAST THREE FEET LONG WITH AN INSIDE DIAMETER OF AT LEAST 6 INCHES.

2. THE TUBE SHALL HAVE A FACTORY ATTACHED CAST IRON OR HIGH IMPACT PLASTIC COLLAR WITH RIBS TO PREVENT ROTATION WHEN REMOVING SCREW TOP LID. THE SCREW TOP SHALL BE CAST IRON OR HIGH IMPACT PLASTIC THAT WILL WITHSTAND ULTRA-VIOLET RAYS.

3. OBSERVATION WELL TO EXTEND 6" ABOVE THE TOP OF BSM. THE 6" PVC PIPE IS TO BE PERFORATED WITH 3/8" PERFORATIONS AT 6" ON CENTER, 4 PER ROW FOR THE ENTIRE DEPTH OF THE #7 STONE AND #8 STONE.

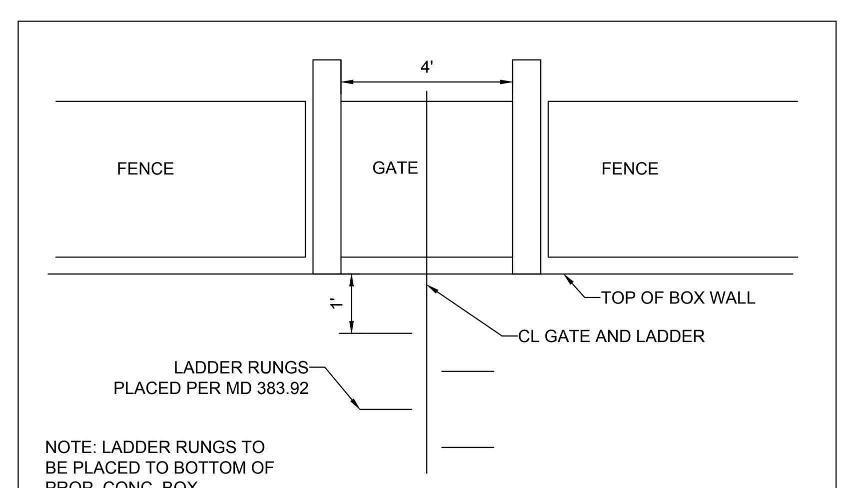
NOTE: WELL CAP MUST BE PERMANENTLY MARKED WITH AS-BUILT DEPTH TO INVERT.

D.8.5



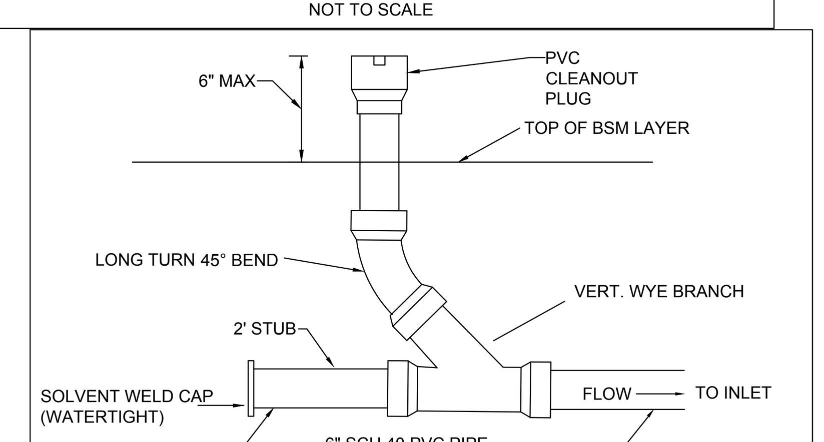
NOTES
1. ~~TYPES A & B ARE TO BE DRIVEN INTO RECEPTACLES THAT ARE CAST INTO THE WALL.~~
2. ~~TYPE C IS FOR BRICK AND BLOCK INSTALLATIONS.~~
3. TYPE D IS PRESS FITTED INTO PREFORMED CONCRETE HOLES.
4. LADDER RUNGS ARE TO BE USED IN INLETS, MANHOLES, AND JUNCTION BOXES OVER THREE FEET IN DEPTH OR AS DIRECTED BY THE ENGINEER. USED EITHER WITH BRICK OR CONCRETE CONSTRUCTION. (WHERE BRICK CONSTRUCTION IS EMPLOYED, THE MORTER JOINTS SHALL BE ADJUSTED TO ACCOMMODATE LADDER RUNGS.)
5. COPOLYMER POLYPROPYLENE ENCAPSULATED ½ IN. DIA. STEEL REINFORCEMENT BAR. STEEL SHALL CONFORM TO ASTM 615 GRADE 60. COPOLYMER POLYPROPYLENE SHALL BE CERTIFIED BY THE MANUFACTURER TO CONFORM TO ASTM D 4101 AND HAVE A MINIMUM EXPOSED SECTION THICKNESS OF ⅛ IN.
6. SECTION A-A SHOWS ½" DIA. STEEL REINFORCEMENT BAR.
7. INSTALLATION SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS.

SPECIFICATION	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
APPROVED	DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT	STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	COPOLYMER POLYPROPYLENE STEEL ENCAPSULATED LADDER RUNGS MISCELLANEOUS STRUCTURES
APPROVAL 2-3-87	APPROVAL 3-30-87	
REVISED 10-1-01	REVISED	STANDARD NO. MD 383.92



LADDER AND GATE PLACEMENT DETAIL

NOT TO SCALE



SUBMERGED GRAVEL WETLAND CLEANOUT DETAIL

NOT TO SCALE

STORMWATER MANAGEMENT MAINTENANCE AGREEMENT SCHEDULE

1. THE STORMWATER MANAGEMENT FACILITY/FACILITIES SHOWN ON THESE PLANS SHALL BE CONSTRUCTED AND MAINTAINED BY THE OWNER(S).

2. OWNER/HIS HEIRS OR ASSIGNS SHALL BE RESPONSIBLE FOR CONTINUING MAINTENANCE OF THE FACILITY/FACILITIES, WHICH SHALL INCLUDE SUCH ITEMS AS MOWING, CLEANING AND REMOVING SEDIMENT, TREES, SHRUBS AND DEBRIS. REQUIREMENTS AND SCHEDULES FOR SPECIFIC TYPES OF FACILITIES AND PRACTICES AS LISTED ON THE PLANS ARE HEREBY INCLUDED. THE TIME PERIOD FOR THIS CONTINUING MAINTENANCE SHALL BE ON "AS-NEEDED" BASIS BUT SHALL NOT BE DELAYED LONGER THAN THIRTY (30) DAYS.

3. OWNER, HIS HEIRS OR ASSIGNS SHALL BE RESPONSIBLE FOR ANY STRUCTURAL DAMAGES OR FAILURE WHICH MAY OCCUR AS A RESULT OF NEGLIGENCE, ACCIDENT OR MISUSE. IN THE EVENT OF STRUCTURAL DAMAGE, OWNER SHALL BE RESPONSIBLE TO MAKE THE NECESSARY REPAIRS AS QUICKLY AS POSSIBLE BUT IN ANY CASE WITHIN THIRTY (30) DAYS.

4. IF AFTER NOTICE BY THE COUNTY/TOWN/CITY TO CORRECT A VIOLATION REQUIRING MAINTENANCE WORK, SATISFACTORY CORRECTIONS ARE NOT MADE BY THE OWNER(S) WITHIN (30) DAYS THE COUNTY/TOWN/CITY MAY PERFORM ALL NECESSARY WORK TO PLACE THE FACILITY IN PROPER WORKING CONDITION. THE OWNERS OF THE FACILITY SHALL BE ASSESSED THE COST OF THE WORK AND ANY PENALTIES. THESE MONIES SHALL BE COLLECTED FROM A BOND, WHICH THE DEVELOPER IS REQUIRED TO POST WITH THE COUNTY/TOWN/CITY TO COVER SUCH EXPENSES UNTIL "COMPLETION OF THE FACILITY". "COMPLETION OF THE FACILITY" IS CONSTRUED TO MEAN THAT ALL CONTRIBUTORY DRAINAGE AREAS ARE PAVED OR SUPPORTING A 2" STAND OF DENSE GRASS AND THAT THE CARROLL COUNTY BUREAU OF RESOURCE MANAGEMENT HAS INSPECTED CONSTRUCTION AND A REGISTERED PROFESSIONAL ENGINEER HAS CERTIFIED THAT THE "AS-BUILT" PLANS MEET THE PLANS AND SPECIFICATIONS FOR CONSTRUCTION. AFTER "COMPLETION OF THE FACILITY" THE MONEYS MAY BE COLLECTED BY PLACING A LIEN ON THE PROPERTY, OR BY INCLUDING THE COSTS AND PENALTIES ON THE PROPERTY TAX BILL AND COLLECTING THEM AS ORDINARY TAXES BY THE COUNTY/TOWN/CITY.

5. OWNER(S) SHALL GRANT RIGHT OF ENTRY TO AUTHORIZED COUNTY/TOWN/CITY PERSONNEL FOR PURPOSES OF INSPECTION MONITORING AND/OR REPAIR. SITE VISITS FOR INSPECTION AND/OR MONITORING SHALL BE CONDUCTED ONLY DURING NORMAL COUNTY WORKING HOURS (8:00 A.M. TO 5:00 P.M. MONDAY – FRIDAY).

6. THIS AGREEMENT INCLUDING RIGHT-OF ENTRY FOR INSPECTION/MAINTENANCE AND REPAIR SHALL BE RECORDED IN THE LAND RECORDS OF THE COUNTY.

CONSTRUCTION SPECIFICATIONS FOR SUBMERGED GRAVEL WETLAND FACILITY

1. UNDERDRAIN INSTALLATION: GRAVEL FOR THE UNDERDRAIN SYSTEM SHOULD BE CLEAN, WASHED, AND FREE OF FINES. UNDERDRAIN PIPES SHOULD BE CHECKED TO ENSURE THAT BOTH THE MATERIAL AND PERFORATIONS MEET SPECIFICATIONS. THE UPSTREAM ENDS OF THE UNDERDRAIN PIPE SHOULD BE CAPPED PRIOR TO INSTALLATION.

2. FILTER MEDIA INSTALLATION: BSM MAY BE MIXED ON-SITE BEFORE PLACEMENT. HOWEVER, BSM SHOULD NOT BE PLACED UNDER SATURATED CONDITIONS. BSM SHOULD BE PLACED AND GRADED USING EXCAVATORS OR BACKHOES OPERATING ADJACENT TO THE PRACTICE AND BE PLACED IN HORIZONTAL LAYERS (12 INCHES PER LIFT MAXIMUM). PROPER COMPACTION OF THE BSM WILL OCCUR NATURALLY. SPRAYING OR SPRINKLING WATER ON EACH LIFT UNTIL SATURATED MAY QUICKEN SETTLING TIMES.

3. LANDSCAPE INSTALLATION: THE OPTIMUM PLANTING TIME IS DURING THE FALL. SPRING PLANTING IS ALSO ACCEPTABLE BUT MAY REQUIRE WATERING.

MATERIALS SPECIFICATIONS FOR SUBMERGED GRAVEL WETLANDS

MATERIAL	SPECIFICATIONS	SIZE	NOTES
PLANTINGS	SEE LANDSCAPE PLAN	N/A	PLANTINGS ARE SITE-SPECIFIC
BIORETENTION SOIL MIX	MDSHA SPECIFICATION 920	N/A	
WINDOW STONE	ASTM-D-448	WASHED NO. 7	
GEOTEXTILE	CLASS 'C - APPARENT OPENING SIZE (ASTM D-4571), GRAB TENSILE STRENGTH (ASTM D-4632), PUNCTURE RESISTANCE (ASTM D-4833)	N/A	SIDES ONLY, NOT ON BOTTOM UNLESS SPECIFIED ON PLANS
UNDERDRAIN AND RESERVOIR GRAVEL	AASHTO M-43	WASHED NO. 8	
UNDERDRAIN PIPING AND DRAWDOWN PIPE	SLOTTED PVC OR SLOTTED HDPE TYPE 'SP' PIPES SOLID SCHEDULE 40 PVC OR HDPE TYPE 'S'		REFER TO CARROLL COUNTY SWM SUPPLEMENT PG 87 ALL PIPES MUST BE DOUBLE WALLED (SMOOTH CORE) AND SLOTTED (NO CIRCULAR HOLES)
POURED IN PLACE CONCRETE (IF REQUIRED)	MSHA MIX NO. 3; f'c = 3500 psi @ 28 DAYS, NORMAL WEIGHT, AIR-ENTRAINED; REINFORCING TO MEET ASTM-615-60	N/A	ON-SITE TESTING OF POUR-IN-PLACE CONCRETE REQUIRED; 28 DAY STRENGTH AND SLUMP TEST; ALL CONCRETE DESIGN (CAST-IN-PLACE OR PRE-CAST) NOT USING PREVIOUSLY APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED AND APPROVED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND - DESIGN TO INCLUDE MEETING ACI CODE 350.R/89; VERTICAL LOADING [H-10 OR H-20]; ALLOWABLE HORIZONTAL LOADING (BASED ON SOIL PRESSURES); AND ANALYSIS OF POTENTIAL CRACKING
SAND	ASTM-C-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND.
GABION BASKET	MIN 11 GAUGE WIRE		
GABION STONES		4" TO 7" STONES	

ENGINEER'S DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN DESIGNED ACCORDING TO CHAPTER 151 OF THE CODE OF PUBLIC LOCAL LAWS AND ORDINANCES OF CARROLL COUNTY AND I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR, AS APPROPRIATE, UNDER THE LAWS OF THE STATE OF MARYLAND.

SIGNED ______________________ DATE ______________
LICENSE NO. ______________________ EXPIRATION DATE ______________

DEVELOPER'S CERTIFICATION

I HEREBY CERTIFY THAT ALL PROPOSED WORK SHOWN ON THESE CONSTRUCTION DRAWING(S) WILL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THESE PLANS. I ALSO UNDERSTAND THAT IT IS MY 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, AS APPROPRIATE, WITHIN THIRTY (30) DAYS OF COMPLETION OF WORK ON THE STORMWATER MANAGEMENT FACILITY/FACILITIES. I ALSO CERTIFY THAT THIS/THESE STORMWATER MANAGEMENT FACILITIES WILL BE INSPECTED DURING CONSTRUCTION BY A REGISTERED PROFESSIONAL ENGINEER OF PROFESSIONAL LAND SURVEYOR, AS APPROPRIATE, IN ACCORDANCE WITH SECTIONS § 151.095 AND § 151.096 OF THE CODE OF PUBLIC LOCAL LAWS AND ORDINANCES OF CARROLL COUNTY.

SIGNED ______________________ DATE ______________

ENGINEER'S AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY/FACILITIES SHOWN ON THIS/THESE PLAN(S) WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS. I ALSO CERTIFY THAT THIS/ THESE FACILITIES WERE INSPECTED IN ACCORDANCE WITH SECTIONS § 151.095 AND § 151.096 OF THE CODE OF PUBLIC LOCAL LAWS AND ORDINANCES OF CARROLL COUNTY AND I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR, AS APPROPRIATE, UNDER THE LAWS OF THE STATE OF MARYLAND.

SIGNED ______________________ DATE ______________
LICENSE NO. ______________________ EXPIRATION DATE ______________

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

811
Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	MD192104
DRAWN BY:	RMS
CHECKED BY:	AGS
DATE:	6/12/20
CAD I.D.:	SDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

— FOR —

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW G. STINE
11/3/20
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 37687
PROFESSIONAL CERTIFICATION
I, ANDREW G. STINE, 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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

STORMWATER MANAGEMENT NOTES AND DETAILS

SHEET NUMBER:

REVISION 2 - 10/15/20

Nov 03, 2020
H:\19\MD192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-SDP-2----->LAYOUT: 08 - SWM NOTES AND DETAILS
RS

PRE-DEVELOPMENT COVERAGE MAP

SCALE: 1"=40'

IMPERVIOUS AREA (RCN = 98):
SITE AREA = 48,350 S.F. OR 1.11 AC.
PROPERTY AREA = 47,102 S.F. OR 1.08 AC.

WOODS (RCN = 55):
SITE AREA = 4,280 S.F. OR 0.10 AC.
PROPERTY AREA = 4,280 S.F. OR 0.10 AC.

MEADOW (RCN = 58):
SITE AREA = 26,649 S.F. OR 0.61 AC.
PROPERTY AREA = 23,881 S.F. OR 0.55 AC.

SITE (RCN = 82):
TOTAL AREA = 79,279 S.F. OR 1.82 AC.

SOILS INFORMATION

SYMBOL	NAME	SLOPE	HYDROLOGIC GROUP	K VALUE > 0.35
GfB	GLENELG-URBAN LAND COMPLEX	0% TO 8%	D	N/A

*ALL SOILS ONSITE AND IMMEDIATELY ADJACENT ARE OF THE ABOVE TYPE

LEGEND

PROPERTY LINE = 75,624 S.F. OR 1.74 AC.

LOD — LIMIT OF DISTURBANCE = 78,850 S.F. OR 1.81 AC.

SITE AREA = 79,279 S.F. OR 1.82 AC.

POST-DEVELOPMENT COVERAGE MAP

SCALE: 1"=40'

IMPERVIOUS AREA (RCN = 98):
SITE AREA = 49,402 S.F. OR 1.13 AC.

GRASS (RCN = 61):
SITE AREA = 29,877 S.F. OR 0.69 AC.

SITE (RCN = 84):
TOTAL AREA = 79,279 S.F. OR 1.82 AC.

40 20 10 0 40
1"= 40'

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER
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2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

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PROJECT No.:	MD192104
DRAWN BY:	RMS
CHECKED BY:	AGS
DATE:	6/12/20
CAD I.D.:	HDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
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ANDREW G. STINE
11/3/20
PROFESSIONAL ENGINEER
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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

QUALITY COVERAGE MAPS

SHEET NUMBER:

9
OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
H:\DWG\192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-HDP-2---LAYOUT 09 - COVERAGE
MS

STORMWATER MANAGEMENT DRAINAGE AREA MAP

SCALE: 1"=40'

BMP DRAINAGE AREAS

A

SUBMERGED GRAVEL WETLAND A
IMPERVIOUS AREA: 0.54 AC.
PERVIOUS AREA: 0.12 AC.
TOTAL AREA: 0.66 AC.

B

SUBMERGED GRAVEL WETLAND B
IMPERVIOUS AREA: 0.48 AC.
PERVIOUS AREA: 0.78 AC.
TOTAL AREA: 1.26 AC.

STORMWATER MANAGEMENT NOTES:

1. SITE AREA = 1.82 AC.
2. SITE DATA:

   EXISTING:
   IMPERVIOUS AREA: 1.11 AC.
   PERVIOUS AREA: 0.71 AC.
   PERCENT IMPERVIOUS: 60.99%

   PROPOSED:
   IMPERVIOUS AREA: 1.13 AC.
   PERVIOUS AREA: 0.69 AC.
   PERCENT IMPERVIOUS: 62.09%
3. THE SITE WILL BE REGULATED AS NEW DEVELOPMENT BECAUSE THE EXISTING INFILTRATION TRENCH AND SAND FILTERS THAT CURRENTLY MEET THE SITE'S STORMWATER MANAGEMENT QUALITY AND QUANTITY REQUIREMENTS WILL BE REMOVED.
4. ESD CALCULATIONS:
   REQUIRED:
   ESDv = 8,866 CF
   Pe = 2.20 INCHES

   PROVIDED:
   SUBMERGED GRAVEL WETLAND A:
   ESDV = 4,587 CF
   PE = 2.43 INCHES
   IMP. AREA = 0.54 AC.
   SUBMERGED GRAVEL WETLAND B:
   ESDV = 4,492 CF
   PE = 2.50 INCHES
   IMP. AREA = 0.48 AC.

   TOTAL:
   ESDv = 9,079 CF
   Pe = 2.25 INCHES
   IMP. AREA = 1.02 AC.
5. PER THE ESD CALCULATIONS, ESDv REQUIREMENTS HAVE BEEN MET THROUGH THE TWO (2) SUBMERGED GRAVEL WETLAND FACILITIES.

STORM DRAIN DRAINAGE AREA MAP

SCALE: 1"=40'

STORM DRAIN DRAINAGE AREAS

DRAINAGE AREA	COVERAGE	ACREAGE
A-50.1	IMPERVIOUS	0.00
	OPEN SPACE	0.07
	TOTAL	0.07
A-60	IMPERVIOUS	0.00
	OPEN SPACE	0.27
	TOTAL	0.27
B-20	IMPERVIOUS	0.18
	OPEN SPACE	0.00
	TOTAL	0.18
B-20.1	IMPERVIOUS	0.16
	OPEN SPACE	0.00
	TOTAL	0.16
B-40	IMPERVIOUS	0.14
	OPEN SPACE	0.03
	TOTAL	0.17
C-20.1	IMPERVIOUS	0.19
	OPEN SPACE	0.04
	TOTAL	0.23
C-30	IMPERVIOUS	0.08
	OPEN SPACE	0.05
	TOTAL	0.13
C-40	IMPERVIOUS	0.07
	OPEN SPACE	0.46
	TOTAL	0.53
COB1	IMPERVIOUS	0.07
	OPEN SPACE	0.00
	TOTAL	0.07
COC1	IMPERVIOUS	0.10
	OPEN SPACE	0.00
	TOTAL	0.10

40 20 10 0 40
1"= 40'

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DEVELOPER

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22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
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PROJECT No.: MD192104
DRAWN BY: RMS
CHECKED BY: AGS
DATE: 6/12/20
CAD I.D.: HDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
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ANDREW G. STINE
11/3/20
PROFESSIONAL ENGINEER
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SHEET TITLE:

DRAINAGE AREA MAPS

SHEET NUMBER:

10
OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
I:\1 PROJECTS\192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-HDP-2---LAYOUT 10- DRAINAGE AREA MAPS.DWG
AGS

PRE-DEVELOPMENT DRAINAGE AREA MAP

SCALE: 1"=40'

PREVIOUSLY DEVELOPED (RCN = 67):
SITE AREA = 1.57 AC.

IMPERVIOUS AREA (RCN = 98):
SITE AREA = 0.06 AC.

MEADOW (RCN = 58):
SITE AREA = 0.19 AC.

SITE (RCN = 67):
TOTAL AREA = 1.82 AC.
Q2 = 1.34 CFS
Q10 = 3.83 CFS

SOILS INFORMATION

SYMBOL	NAME	SLOPE	HYDROLOGIC GROUP	K VALUE > 0.35
GfB	GLENELG-URBAN LAND COMPLEX	0% TO 8%	D	N/A

*ALL SOILS ONSITE AND IMMEDIATELY ADJACENT ARE OF THE ABOVE TYPE

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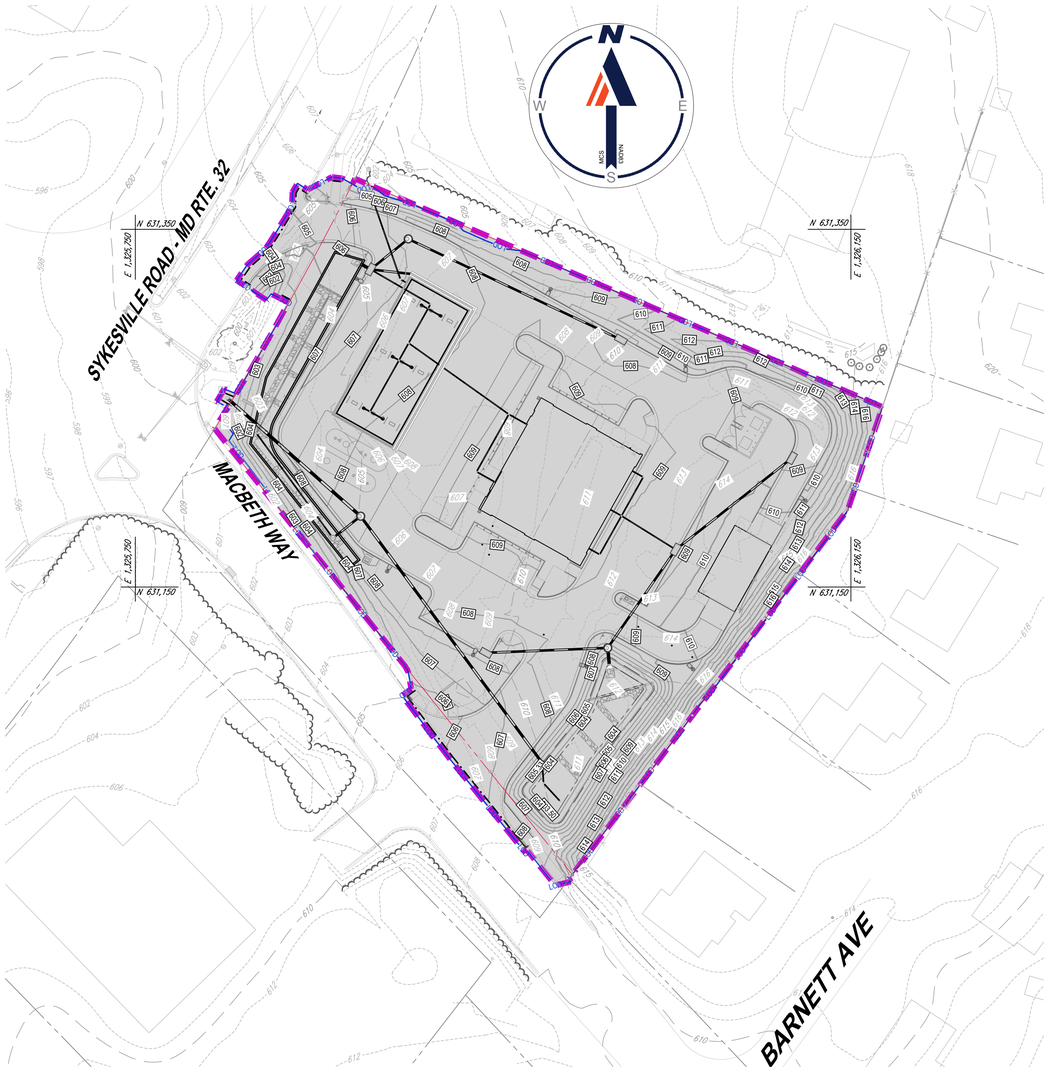

POST-DEVELOPMENT DRAINAGE AREA MAP

SCALE: 1"=40'

ESDv PROVIDED = 9,079 CF
REDUCED RCNS (RCN_2 = 55, RCN_{10} = 67):
Pe = 2.25 INCHES
TOTAL AREA = 1.82 AC.
Q2 = 0.14 CFS
Q10 = 3.83 CFS

40 20 10 0 40
1"= 40'

OWNER

PARCELS 406 & 736
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C/O GENROCK CAPITAL MGMT LLC
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FINAL SITE DEVELOPMENT PLANS

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ANDREW G. STINE
STATE OF MARYLAND
No. 37887
11/3/20
PROFESSIONAL ENGINEER
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. 37887, EXPIRATION DATE: 7/1/21

SHEET TITLE:

OUTFALL ANALYSIS

SHEET NUMBER:

11
OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
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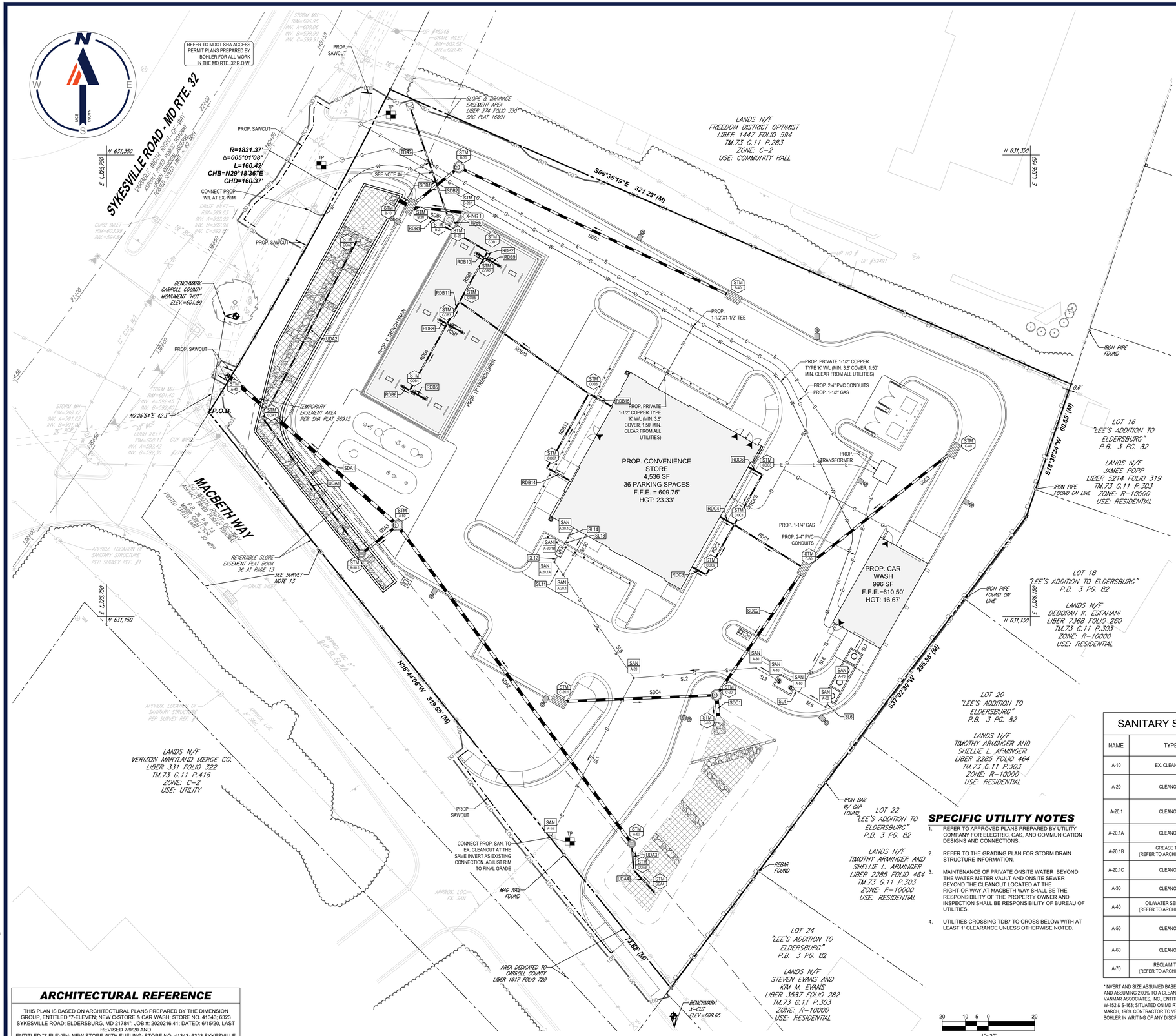
RMS



STORM SEWER PIPE SCHEDULE

FROM	TO	FROM INV	TO INV	PIPE LENGTH	SLOPE (%)	DIAMETER (IN.)	MATERIAL	NO.
B-20	COB1	604.21'	605.07'	38.71'	2.22%	6"	HDPE	RDB1
COB1	COB2	605.07'	605.10'	3.00'	1.00%	6"	HDPE	RDB2
COB2	COB5	605.10'	605.32'	22.00'	1.00%	6"	HDPE	RDB3
COB3	COB4	605.43'	605.76'	33.00'	1.00%	6"	HDPE	RDB4
COB4	RF-COB3	605.76'	606.00'	8.00'	3.00%	6"	HDPE	RDB5
COB4	RF-COB3	605.76'	605.80'	4.00'	1.00%	6"	HDPE	RDB6
COB3	RF-COB2	605.43'	605.80'	8.00'	4.62%	6"	HDPE	RDB7
COB3	RF-COB2	605.43'	605.60'	4.00'	4.25%	6"	HDPE	RDB8
COB2	RF-COB1	605.10'	605.60'	8.00'	6.25%	6"	HDPE	RDB9
COB2	RF-COB1	605.10'	605.30'	4.00'	5.00%	6"	HDPE	RDB10
COB5	COB3	605.32'	605.43'	11.00'	1.00%	6"	HDPE	RDB11
COB5	COB6	605.32'	606.01'	68.68'	1.00%	6"	HDPE	RDB12
COB6	COB7	606.01'	606.38'	36.83'	1.00%	6"	HDPE	RDB13
COB7	BLDG	606.38'	606.50'	11.71'	1.03%	6"	HDPE	RDB14
COB6	BLDG	606.01'	606.25'	11.71'	2.05%	6"	HDPE	RDB15
C-30	COC1	605.32'	605.68'	35.74'	1.01%	6"	HDPE	RDC1
COC1	COC2	605.68'	605.93'	24.83'	1.01%	6"	HDPE	RDC2
COC2	RF-COC2	605.93'	606.00'	7.00'	1.00%	6"	HDPE	RDC3
COC1	RF-COC1	605.93'	606.00'	6.99'	1.00%	6"	HDPE	RDC4
COC1	COC3	605.68'	605.93'	24.83'	1.01%	6"	HDPE	RDC5
COC3	RF-COC3	605.93'	606.00'	6.99'	1.00%	6"	HDPE	RDC6
A-40	A-50	594.41'	594.92'	99.11'	0.51%	18"	HDPE	SDA1
A-50	A-60	598.13'	599.00'	171.19'	0.51%	15"	HDPE	SDA2
A-50	A-60.1	598.81'	598.92'	19.73'	0.56%	12"	HDPE	SDA3
B-10	B-20	602.25'	602.25'	6.29'	0.00%	18"	HDPE	SDB1
B-20	B-30	602.80'	602.94'	27.06'	0.52%	12"	HDPE	SDB2
B-30	B-40	603.04'	603.70'	131.53'	0.50%	12"	HDPE	SDB3
B-20	B-20.1	602.50'	602.79'	23.04'	1.26%	12"	HDPE	SDB6
C-10	C-20	604.00'	604.00'	11.77'	0.00%	18"	HDPE	SDC1
C-20	C-30	604.35'	604.69'	66.82'	0.51%	12"	HDPE	SDC2
C-30	C-40	604.79'	605.23'	82.67'	0.53%	12"	HDPE	SDC3
C-20	C-20.1	604.10'	604.45'	68.15'	0.51%	12"	HDPE	SDC4
B-21	B-22	605.62'	605.66'	3.96'	1.01%	6"	DIP	TDB6
GABIONS	B-21	604.86'	605.37'	50.32'	1.01%	6"	DIP	TDB7
A-50.1	COA1	598.92'	598.92'	72.45'	0.00%	6"	SLOTTED HDPE	UDA1
COA1	COA2	598.92'	598.92'	87.23'	0.00%	6"	SLOTTED HDPE	UDA2
A-60	COA3	600.67'	600.67'	11.44'	0.00%	6"	HDPE	UDA3
COA3	COA4	600.67'	600.67'	13.83'	0.00%	6"	SLOTTED HDPE	UDA4

SANITARY PIPE SCHEDULE

FROM	TO	FROM INV	TO INV	PIPE LENGTH	SLOPE (%)	DIAMETER (IN.)	MATERIAL	NO	PRIVATE?
A-10	A-20	600.62'	602.21'	77.94'	2.04%	6"	SDR-35 PVC	SL1	YES
A-20	A-30	602.21'	602.74'	53.01'	1.00%	6"	SDR-35 PVC	SL2	YES
A-30	A-40	605.41'	605.61'	10.00'	2.00%	6"	SDR-35 PVC	SL3	YES
A-40	A-50	605.61'	605.65'	2.59'	1.55%	6"	SDR-35 PVC	SL4	YES
A-50	A-60	605.65'	606.24'	13.11'	4.50%	6"	SDR-35 PVC	SL5	YES
A-60	A-70	606.24'	606.30'	3.00'	2.00%	6"	SDR-35 PVC	SL6	YES
A-70	CAR WASH	606.38'	606.50'	5.85'	2.05%	6"	SDR-35 PVC	SL7	YES
A-50	CAR WASH	605.82'	606.50'	33.67'	2.02%	4"	SDR-35 PVC	SL8	YES
A-20	A-20.1	604.09'	605.18'	54.13'	2.01%	4"	SDR-35 PVC	SL9	YES
A-20.1	BLDG	605.18'	605.75'	19.93'	2.86%	4"	SDR-35 PVC	SL10	YES
A-20.1	A-20.1A	605.18'	605.32'	6.81'	2.06%	4"	SDR-35 PVC	SL11	YES
A-20.1A	A-20.1B	605.32'	605.38'	3.00'	2.00%	4"	SDR-35 PVC	SL12	YES
A-20.1B	A-20.1C	605.55'	605.65'	5.00'	2.00%	4"	SDR-35 PVC	SL13	YES
A-20.1C	BLDG	605.65'	605.75'	5.00'	2.00%	4"	SDR-35 PVC	SL14	YES

SANITARY STRUCTURE SCHEDULE

NAME	TYPE	RIM ELEV. (FT.)	INVERTS
A-10	EX. CLEANOUT	606.58'	INV IN = 600.62' (6") INV OUT = 600.62' *(± 4")*
A-20	CLEANOUT	608.06'	INV IN = 604.09' (4") INV IN = 602.21' (6") INV OUT = 602.21' (6")
A-20.1	CLEANOUT	608.85'	INV IN = 605.18' (4") INV IN = 605.18' (4") INV OUT = 605.18' (4")
A-20.1A	CLEANOUT	608.98'	INV IN = 605.32' (4") INV OUT = 605.32' (4")
A-20.1B	GREASE TRAP (REFER TO ARCHITECTURALS)	609.09'	INV IN = 605.55' (4") INV OUT = 605.38' (4")
A-20.1C	CLEANOUT	609.66'	INV IN = 605.65' (4") INV OUT = 605.65' (4")
A-30	CLEANOUT	609.04'	INV IN = 605.41' (6") INV OUT = 602.74' (6")
A-40	OIL/WATER SEPARATOR (REFER TO ARCHITECTURALS)	VARIES	INV IN = 605.61' (6") INV OUT = 605.61' (6")
A-50	CLEANOUT	609.74'	INV IN = 605.65' (6") INV IN = 605.82' (4") INV OUT = 605.65' (6")
A-60	CLEANOUT	609.95'	INV IN = 606.24' (6") INV OUT = 606.24' (6")
A-70	RECLAIM TANKS (REFER TO ARCHITECTURALS)	VARIES	INV IN = 606.38' (6") INV OUT = 606.30' (6")

SPECIFIC UTILITY NOTES

1. REFER TO APPROVED PLANS PREPARED BY UTILITY COMPANY FOR ELECTRIC, GAS, AND COMMUNICATION DESIGNS AND CONNECTIONS.
2. REFER TO THE GRADING PLAN FOR STORM DRAIN STRUCTURE INFORMATION.
3. MAINTENANCE OF PRIVATE ONSITE WATER BEYOND THE WATER METER VAULT AND ONSITE SEWER BEYOND THE CLEANOUT LOCATED AT THE RIGHT-OF-WAY AT MACBETH WAY SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND INSPECTION SHALL BE RESPONSIBILITY OF BUREAU OF UTILITIES.
4. UTILITIES CROSSING TDB7 TO CROSS BELOW WITH AT LEAST 1' CLEARANCE UNLESS OTHERWISE NOTED.

ARCHITECTURAL REFERENCE

THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY THE DIMENSION GROUP, ENTITLED "7-ELEVEN; NEW C-STORE & CAR WASH; STORE NO. 41343; 6323 SYKESVILLE ROAD; ELDERSBURG, MD 21784"; JOB #: 2020216.41; DATED: 6/15/20, LAST REVISED 7/9/20 AND
ENTITLED "7-ELEVEN; NEW STORE WITH FUELING; STORE NO. 41343; 6323 SYKESVILLE ROAD; ELDERSBURG, MD 21784"; JOB #: C20-055; DATED: 6/9/20, LAST REVISED 7/7/20

CROSSING DATA

XING-1
BTM STM 605.29
TOP STM 603.82
CLEAR 1.47'

TEST PIT NOTE

TP — CONTRACTOR TO TEST PIT FOR EXACT LOCATION OF EXISTING UTILITY OR 2' BELOW PROPOSED UTILITY AND SUBMIT ANY DISCREPANCIES TO BOHLER ENGINEERING VA, LLC. IN WRITING.

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DEVELOPER

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SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

*INVERT AND SIZE ASSUMED BASED ON INVERT OF MAIN SHOWN ON CARROLL COUNTY CONTRACT S-13-71 AND ASSUMING 2.00% TO A CLEANOUT SINCE REMOVED AND PIPE EXTENDED 2% AS SHOWN ON A PLAN BY VANMAR ASSOCIATES, INC., ENTITLED "WATER AND SEWER PLAN; ELDERSBURG ESTATES; SECTIONS 1 & 2; W-152 & S-163; SITUATED ON MD RTE 32; FIFTH ELECTION DISTRICT; CARROLL COUNTY, MARYLAND," DATED MARCH, 1989. CONTRACTOR TO VERIFY EXISTING SIZE AND INVERT PRIOR TO CONSTRUCTION AND NOTIFY BOHLER IN WRITING OF ANY DISCREPANCIES.

COUNTY FILE NO. S-19-0037

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PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
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TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
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ANDREW G. STINE — STATE OF MARYLAND — No. 37687 — PROFESSIONAL ENGINEER — 11/3/20
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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

UTILITY PLAN

SHEET NUMBER: 12 OF 32

REVISION 2 - 10/15/20

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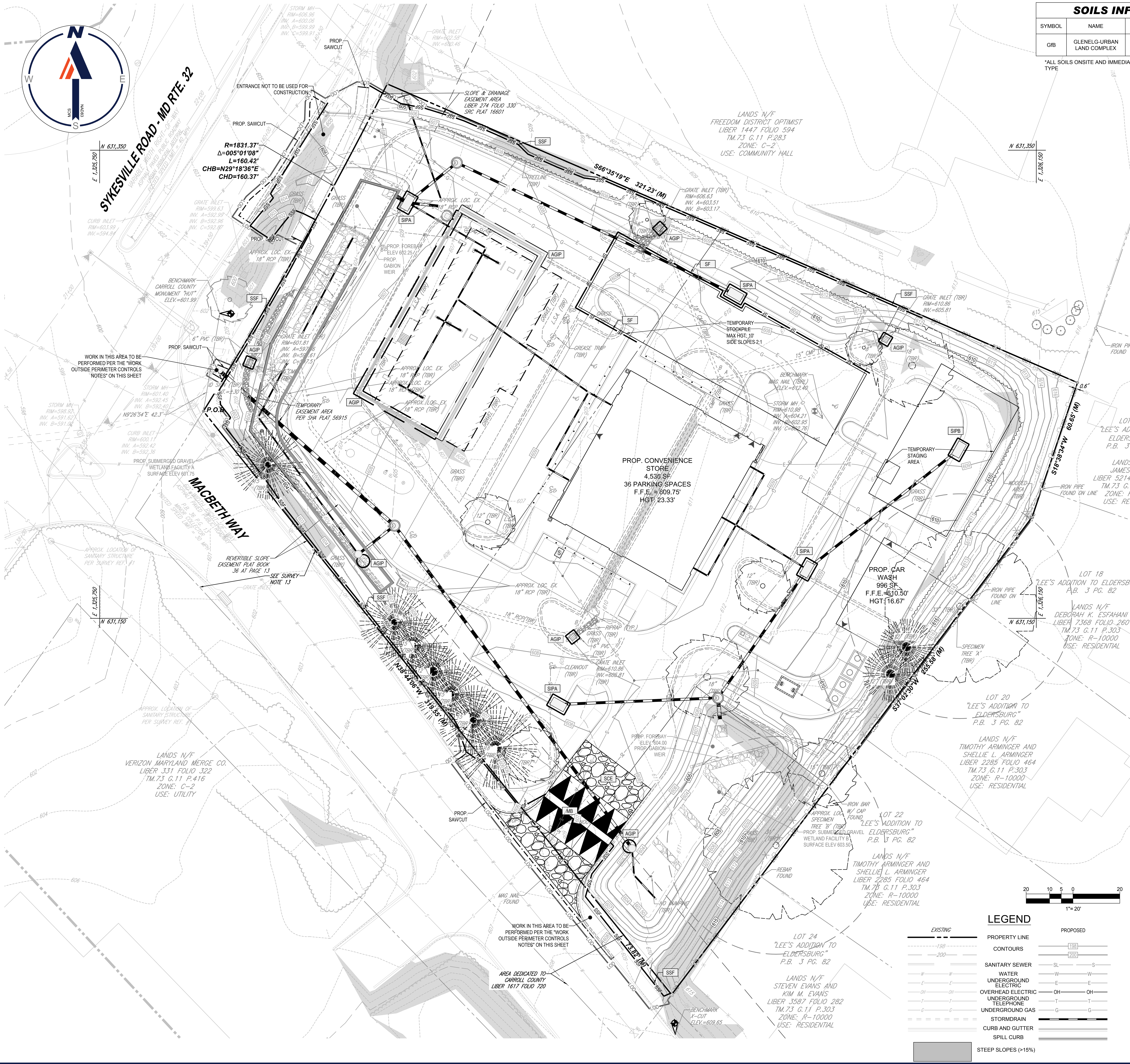
RS



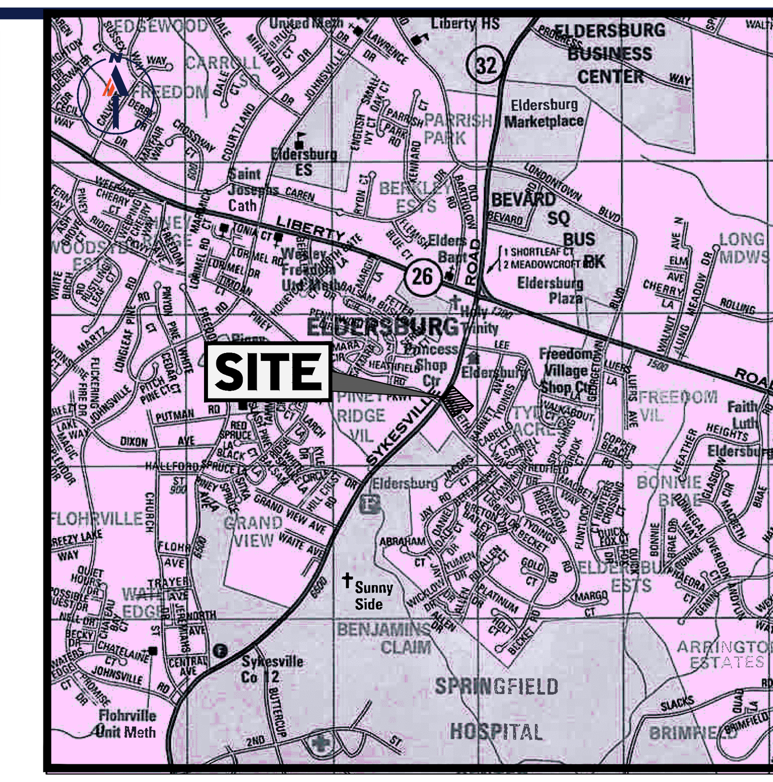
LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
198 / 200	CONTOURS	198 / 200
	SANITARY SEWER	SL / S
W	WATER	W
E	UNDERGROUND ELECTRIC	E
OH	OVERHEAD ELECTRIC	OH
T	UNDERGROUND TELEPHONE	T
G	UNDERGROUND GAS	G
	STORMDRAIN	
	CURB AND GUTTER	
	SPILL CURB	
	STEEP SLOPES (>15%)	

SOILS INFORMATION

SYMBOL	NAME	SLOPE	HYDROLOGIC GROUP	K VALUE > 0.35
GfB	GLENELG-URBAN LAND COMPLEX	0% TO 8%	D	N/A

*ALL SOILS ONSITE AND IMMEDIATELY ADJACENT ARE OF THE ABOVE TYPE



LOCATION MAP

SCALE: 1"=2,000'

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LEGEND

AT-GRADE INLET PROTECTION	AGIP
LIMIT OF DISTURBANCE	LOD
SUPER SILT FENCE	SSF
MOUNTABLE BERM	MB
SILT FENCE	SF
STABILIZED CONSTRUCTION ENTRANCE	SCE
STANDARD INLET PROTECTION	SIP

UTILITY NOTE

1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKED FILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
2. PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

MAINTENANCE NOTE

CONTRACTOR SHALL INSPECT AND MAINTAIN ALL SEDIMENT CONTROL MEASURES AND DEVICES AFTER EVERY STORM EVENT. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, THE REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION.

INLET PROTECTION NOTE

THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:

*1) ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.
2) INLETS ON PRIVATE OR PUBLIC PAVED ROAD OPEN TO THE PUBLIC.

ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PAGE E-23. THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.

*STORM DRAIN TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

WORK OUTSIDE PERIMETER CONTROLS NOTES

CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:
1. FOR AREAS TO BE PAVED, THE APPLICATION OF STONE BASE
2. FOR AREAS TO BE VEGETATIVELY STABILIZED
   a. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS OR SWALES
   b. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.

ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWN SLOPE SIDE.

WATERSHED

THE SITE IS LOCATED WITHIN THE SOUTH BRANCH OF THE PATAPSCO RIVER WATERSHED, WHICH IS NOT A TIER II WATERSHED.

QUANTITY TAKEOFF OF SEDIMENT CONTROL MEASURES

SILT FENCE:	200 L.F.
SUPER SILT FENCE:	700 L.F.
STABILIZED CONSTRUCTION ENTRANCE:	1 EA.
MOUNTABLE BERM:	1 EA.
AT GRADE INLET PROTECTION:	8 EA.
STANDARD INLET PROTECTION (TYPES A AND B):	5 EA.

EARTH WORK	
CUT:	4,500 C.Y.
FILL:	1,530 C.Y.
NET:	2,970 C.Y. (CUT)
LIMIT OF DISTURBANCE:	78,850 S.F. OR 1.81 AC.

SPOIL MATERIAL SHALL BE DISCARDED AT A SITE WITH AN ACTIVE GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN. BORROW MATERIAL SHALL BE OBTAINED FROM AN APPROVED SITE WITH AN ACTIVE GRADING PERMIT AND AN APPROVED SEDIMENT CONTROL PLAN.

EARTH QUANTITIES LISTED ABOVE ARE FOR SEDIMENT CONTROL USE ONLY. CONTRACTOR SHALL NOT RELY ON THESE FIGURES FOR ESTIMATING AND BONDING PURPOSES.

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DEVELOPER

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SITE INFORMATION

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EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
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COUNTY FILE NO. S-19-0037

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DATE:	6/12/20
CAD I.D.:	SPP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

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ANDREW G. STINE
11/3/20
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 37687
PROFESSIONAL CERTIFICATION
I, ANDREW G. STINE, 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. 37687, EXPIRATION DATE: 7/12/21

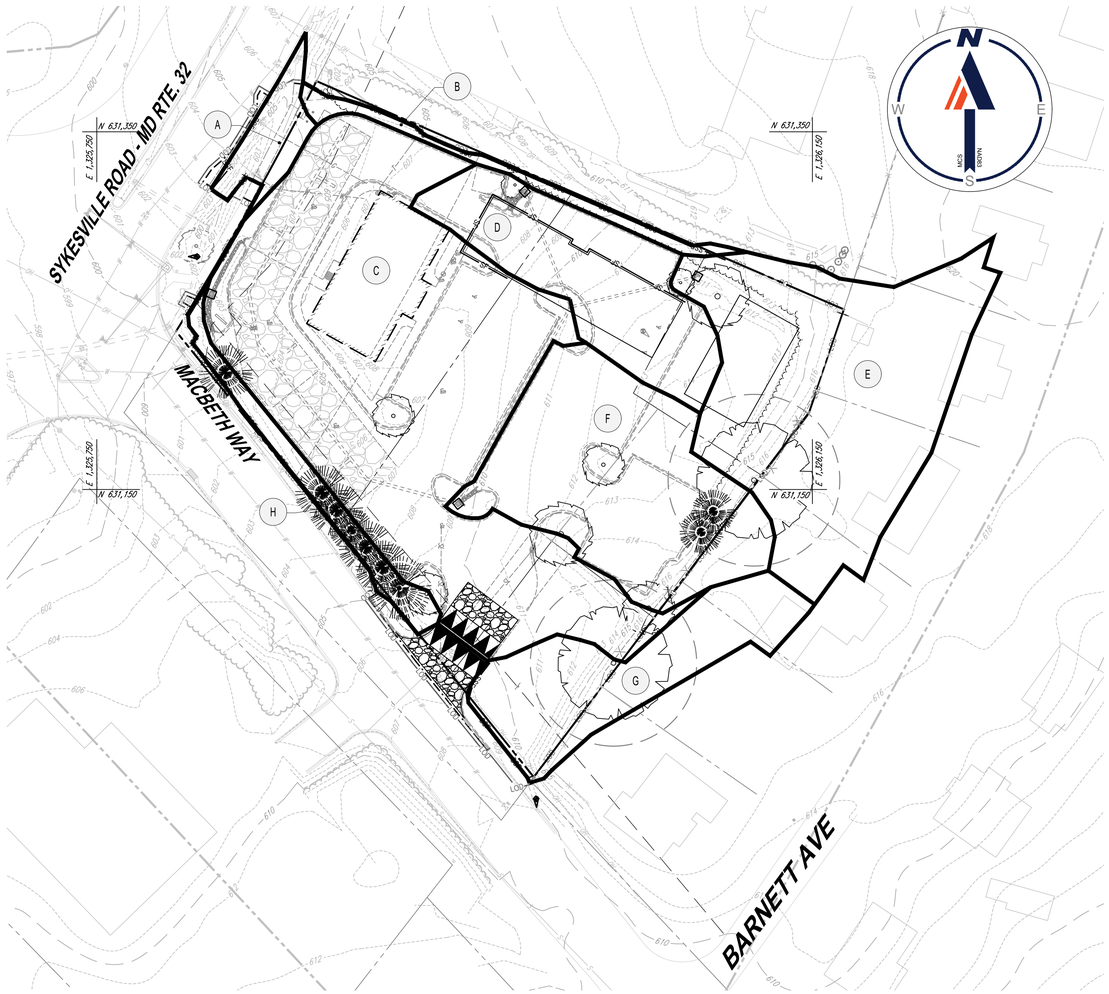
SHEET TITLE:

EROSION AND SEDIMENT CONTROL PLAN

SHEET NUMBER:

REVISION 2 - 10/15/20

Nov 03, 2020
C:\PROGRAMDATA\BOHLER\C3D2020\TEMP\ACPUBLISH_18396\MD192104-SPP-2---->LAYOUT: 13 - EROSION
RS



PHASE I EROSION AND SEDIMENT CONTROL DRAINAGE AREA MAP

SCALE: 1"=40'

40 20 10 0 40

1"= 40'

PHASE I DRAINAGE AREAS		
A	AREA TO SUPER SILT FENCE	0.05 AC.
B	AREA TO SUPER SILT FENCE	0.04 AC.
C	AREA TO AT GRADE INLET PROTECTION	0.84 AC.
D	AREA TO AT GRADE INLET PROTECTION	0.22 AC.
E	AREA TO AT GRADE INLET PROTECTION	0.48 AC.
F	AREA TO AT GRADE INLET PROTECTION	0.34 AC.
G	AREA TO SUPER SILT FENCE	0.19 AC.
H	AREA TO SUPER SILT FENCE	0.11 AC.

PHASE II EROSION AND SEDIMENT CONTROL DRAINAGE AREA MAP

SCALE: 1"=40'

40 20 10 0 40

1"= 40'

PHASE II DRAINAGE AREAS		
A	AREA TO SUPER SILT FENCE	0.06 AC.
B	AREA TO AT GRADE INLET PROTECTION	0.07 AC.
C	AREA TO STANDARD INLET PROTECTION - A	0.18 AC.
D	AREA TO AT GRADE INLET PROTECTION	0.07 AC.
E	AREA TO AT GRADE INLET PROTECTION	0.16 AC.
F	AREA TO STANDARD INLET PROTECTION - A	0.24 AC.
G	AREA TO STANDARD INLET PROTECTION - A	0.17 AC.
H	AREA TO STANDARD INLET PROTECTION - B	0.53 AC.
I	AREA TO AT GRADE INLET PROTECTION	0.27 AC.
J	AREA TO SUPER SILT FENCE	0.01 AC.
J	AREA TO STANDARD INLET PROTECTION - A	0.23 AC.
J	AREA TO SUPER SILT FENCE	0.18 AC.

OWNER

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PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

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ANDREW G. STINE
PROFESSIONAL ENGINEER
11/3/20

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SHEET TITLE:

EROSION AND SEDIMENT CONTROL DRAINAGE AREA MAPS

SHEET NUMBER:

14 OF 32

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RMS

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, TRANSPIRATION, PERCOLATION, AND GROUNDWATER RECHARGE. OVER TIME, VEGETATION WILL INCREASE ORGANIC MATTER CONTENT AND IMPROVE THE WATER HOLDING CAPACITY OF THE SOIL AND SUBSEQUENT PLANT GROWTH.
VEGETATION WILL HELP REDUCE THE MOVEMENT OF SEDIMENT, NUTRIENTS, AND OTHER 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, SEEDBED PREPARATION, SEEDING, MULCHING, AND VEGETATIVE ESTABLISHMENT.

ADEQUATE VEGETATIVE ESTABLISHMENT
INSPECT SEEDED AREAS FOR VEGETATIVE ESTABLISHMENT AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RESEEDINGS WITHIN THE PLANTING SEASON.
1. ADEQUATE VEGETATIVE STABILIZATION REQUIRES 95 PERCENT GROUNDCOVER.
2. IF AN AREA HAS LESS THAN 40 PERCENT GROUNDCOVER, RESTABILIZE FOLLOWING THE ORIGINAL RECOMMENDATIONS FOR LIME, FERTILIZER, SEEDBED PREPARATION, AND SEEDING.
3. IF AN AREA HAS BETWEEN 40 AND 94 PERCENT GROUNDCOVER, OVER-SEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY SPECIFIED.
4. MAINTENANCE FERTILIZER RATES FOR PERMANENT SEEDING ARE SHOWN IN TABLE B.6.

B-4-1 STANDARDS AND SPECIFICATIONS 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 SEEDBED AND APPLY SEED AND MULCH ON ALL CUT SLOPES AS THE WORK PROGRESSES.
2. CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.1):
   a. CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO CONVEY RUNOFF AROUND THE EXCAVATION.
   b. PERFORM PHASE 1 EXCAVATION, PREPARE SEEDBED, AND STABILIZE.
   c. PERFORM PHASE 2 EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PHASE 1 AREAS AS NECESSARY.
   d. PERFORM FINAL PHASE EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY.

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

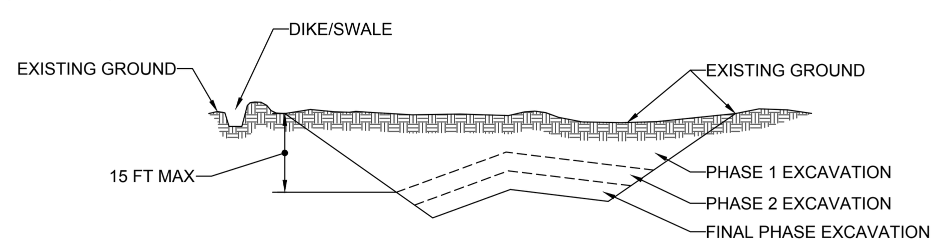

FIGURE B.1: INCREMENTAL STABILIZATION - CUT

B. INCREMENTAL STABILIZATION - FILL SLOPES
1. CONSTRUCT AND STABILIZE FILL SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL 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 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 SEEDBED, AND STABILIZE.
   d. PLACE PHASE 2 FILL, PREPARE SEEDBED, AND STABILIZE.
   e. PLACE FINAL PHASE FILL, PREPARE SEEDBED, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY.

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

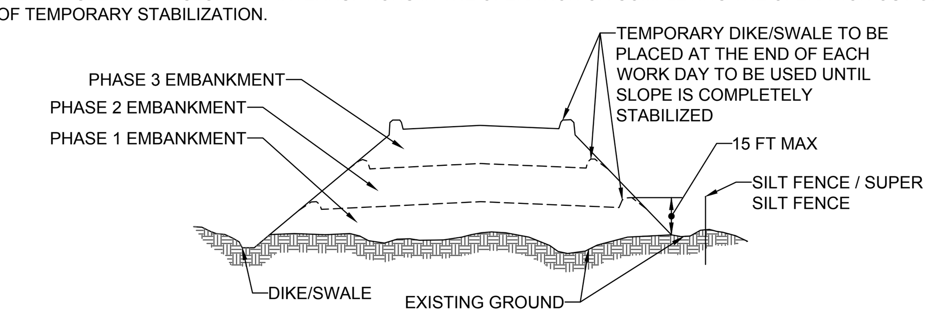

FIGURE B.2: INCREMENTAL STABILIZATION - FILL

B-4-2 STANDARDS AND SPECIFICATIONS FOR FOR SOIL PREPARATION, 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. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
   b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
   c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE 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 LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
   d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
   e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

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 CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1½ INCHES IN DIAMETER.
   b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
   c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL
6. TOPSOIL APPLICATION
   a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
   b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
   c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
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-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 RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
   b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.
   c. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
   d. SOD 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 CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
      i. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
      ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
   c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
      i. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
      ii. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
      iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
      iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING
1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
   a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
   b. WOOD CELLULOSE FIBER MULCH (WFCM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
      i. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
      ii. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
      iii. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
      iv. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
      v. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 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 DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
   c. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
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 CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
      iii. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER 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.

TEMPORARY SEEDING SUMMARY

HARDINESS ZONE (from Figure B.3): ZONE 6B SEED MIXTURE (from Table B.1)					FERTILIZER RATE (10-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS		
COOL SEASON GRASSES						
1	ANNUAL RYEGRASS	40	3/1 - 5/15 8/1 - 10/15	0.5"	436 LB/AC (10 LB/1000 SF)	2 TONS/AC (90 LB/1000 SF)
2	BARLEY	96	3/1 - 5/15 8/1 - 10/15	1"		
3	OATS	72	3/1 - 5/15 8/1 - 10/15	1"		
4	WHEAT	120	3/1 - 5/15 8/1 - 10/15	1"		
5	CEREAL RYE	112	3/1 - 5/15 8/1 - 11/15	1"		
WARM SEASON GRASSES						
6	FOXTAIL MILLET	30	5/16 - 7/31	0.5"	436 LB/AC (10 LB/1000 SF)	2 TONS/AC (90 LB/1000 SF)
7	PEARL MILLET	20	5/16 - 7/31	0.5"		

1. SEEDING RATES FOR THE 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. ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES.

SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, 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 VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IF IT MUST BE USED AS A NURSE CROP, SEED AT 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 ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

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 HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF 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-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION
TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE
TO USE LONG-LIVED 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 HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
   b. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA 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 ½ POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY .
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 PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
      i. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF 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 AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
      iv. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1½ TO 3 POUNDS PER 1000 SQUARE FEET.

      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 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)
      SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)
   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 SEEDBED. REMOVE STONES AND DEBRIS OVER 1½ INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.
   e. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (½ TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

PERMANENT SEEDING SUMMARY

HARDINESS ZONE (from Figure B.3): ZONE 6B SEED MIXTURE (from Table B.3)					FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	*SEEDING DATES	SEEDING DEPTHS	N	P2O5	K2O	
9	TALL FESCUE KENTUCKY BLUEGRASS PERENNIAL RYE GRASS	60 40 20	3/1 - 5/15 8/1 - 10/15	1/4" - 1/2"	45 LB/AC (1.0 LB/1000 SF)	90 LB/AC (2 LB/1000 SF)	90 LB/AC (2 LB/1000 SF)	2 TONS/AC (90 LB/1000 SF)
5	HARD FESCUE PERENNIAL RYE GRASS FLAT PEA	20 10 15	3/1 - 5/15 8/1 - 10/15	1/4" - 1/2"				
1	SWITCH GRASS CREEPING RED FESCUE PARTRIDGE PEA	10 15 4	3/1 - 6/15	1/4" - 1/2"				

NOTES:
1. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE. THESE DATES MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONES. WHEN SEEDING TOWARD THE END OF THE LISTED PLANTING DATES, OR WHEN CONDITIONS ARE EXPECTED TO BE LESS THAN OPTIMAL, SELECT AN APPROPRIATE NURSE CROP FROM TABLE B.1 TEMPORARY SEEDING FOR SITE STABILIZATION AND PLANT TOGETHER WITH THE PERMANENT SEEDING MIX.
2. WHEN PLANTED DURING THE GROWING SEASON, MOST OF THESE MATERIALS MUST BE PURCHASED AND KEPT IN A DORMANT CONDITION UNTIL PLANTING. BARE-ROOT GRASSES ARE THE EXCEPTION—THEY MAY BE SUPPLIED AS GROWING (NON-DORMANT) PLANTS.
♦ ADDITIONAL PLANTING DATES FOR THE LOWER COASTAL PLAIN, DEPENDENT ON ANNUAL RAINFALL AND TEMPERATURE TRENDS. RECOMMEND ADDING A NURSE CROP, AS NOTED ABOVE, IF PLANTING DURING THIS PERIOD.
♦♦WARM-SEASON GRASSES NEED A SOIL TEMPERATURE OF AT LEAST 50 DEGREES F IN ORDER TO GERMINATE. IF SOIL TEMPERATURES ARE COLDER THAN 50 DEGREES, OR MOISTURE IS NOT ADEQUATE, THE SEEDS WILL REMAIN DORMANT UNTIL CONDITIONS ARE FAVORABLE. IN GENERAL, PLANTING DURING THE LATTER PORTION OF THIS PERIOD ALLOWS MORE TIME FOR WEED EMERGENCE AND WEED CONTROL PRIOR TO PLANTING. WHEN SELECTING A PLANTING DATE, CONSIDER THE NEED FOR WEED CONTROL VS. THE LIKELIHOOD OF HAVING SUFFICIENT MOISTURE FOR LATER PLANTINGS, ESPECIALLY ON DROUGHTY SITES.
* ADDITIONAL PLANTING DATES DURING WHICH SUPPLEMENTAL WATERING MAY BE NEEDED TO ENSURE PLANT ESTABLISHMENT.
FREQUENT FREEZING AND THAWING OF WET SOILS MAY RESULT IN FROST-HEAVING OF MATERIALS PLANTED IN LATE FALL, IF PLANTS HAVE NOT SUFFICIENTLY ROOTED IN PLACE.
SOD USUALLY NEEDS 4 TO 6 WEEKS TO BECOME SUFFICIENTLY ROOTED. LARGE CONTAINERIZED AND BALLED-AND-BURLAPPED STOCK MAY BE PLANTED INTO THE WINTER MONTHS AS LONG AS THE GROUND IS NOT FROZEN AND SOIL MOISTURE IS ADEQUATE.
** FOR THE PERIOD 5/1 - 8/14 ADD EITHER FOXTAIL OR PEARL MILLET - 6 LBS/AC. TO MIX NO. 9, 2.25 LBS/AC. TO MIX NO. 5

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 ¾ INCH, PLUS OR MINUS ¼ INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
   c. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
   d. SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
   e. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.
2. SOD INSTALLATION
   a. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
   b. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
   c. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
   d. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.
3. SOD MAINTENANCE
   a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT WILTING.
   b. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
   c. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN ⅓ OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

B-4-6 STANDARDS AND SPECIFICATIONS FOR SOIL STABILIZATION MATTING

DEFINITION
MATERIAL USED TO TEMPORARILY OR PERMANENTLY STABILIZE CHANNELS OR STEEP SLOPES UNTIL GROUNDCOVER IS ESTABLISHED.

PURPOSE
TO PROTECT THE SOILS UNTIL VEGETATION IS ESTABLISHED.

CONDITIONS WHERE PRACTICE APPLIES
ON NEWLY SEEDED SURFACES TO PREVENT THE APPLIED SEED FROM WASHING OUT; IN CHANNELS AND ON STEEP SLOPES WHERE THE FLOW HAS EROSIVE VELOCITIES OR CONVEYS CLEAR WATER; ON TEMPORARY SWALES, EARTH DIKES, AND PERIMETER DIKE SWALES AS REQUIRED BY THE RESPECTIVE DESIGN STANDARD; AND, ON STREAM BANKS WHERE MOVING WATER IS LIKELY TO WASH OUT NEW VEGETATIVE PLANTINGS.

DESIGN CRITERIA
1. THE SOIL STABILIZATION MATTING THAT IS USED MUST WITHSTAND THE FLOW VELOCITIES AND SHEAR STRESSES DETERMINED FOR THE AREA, BASED ON THE 2-YEAR, 24-HOUR FREQUENCY STORM FOR TEMPORARY APPLICATIONS AND THE 10-YEAR, 24-HOUR FREQUENCY STORM FOR PERMANENT APPLICATIONS. DESIGNATE ON THE PLAN THE TYPE OF SOIL STABILIZATION MATTING USING THE STANDARD SYMBOL AND INCLUDE THE CALCULATED SHEAR STRESS FOR THE RESPECTIVE TREATMENT AREA.
2. MATTING IS REQUIRED ON PERMANENT CHANNELS WHERE THE RUNOFF VELOCITY EXCEEDS TWO AND HALF FEET PER SECOND (2.5 FPS) OR THE SHEAR STRESS EXCEEDS TWO POUNDS PER SQUARE FOOT (2 LBS/FT2). ON TEMPORARY CHANNELS DISCHARGING TO A SEDIMENT TRAPPING PRACTICE, PROVIDE MATTING WHERE THE RUNOFF VELOCITY EXCEEDS FOUR FEET PER SECOND (4 FPS).
3. TEMPORARY SOIL STABILIZATION MATTING IS MADE WITH DEGRADABLE (LASTS 6 MONTHS MINIMUM), NATURAL, OR MANMADE FIBERS OF UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND IS SMOLDER RESISTANT. THE MAXIMUM PERMISSIBLE VELOCITY FOR TEMPORARY MATTING IS 6 FEET PER SECOND.
4. PERMANENT SOIL STABILIZATION MATTING IS AN OPEN WEAVE, SYNTHETIC MATERIAL CONSISTING OF NONDEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION OF WEAVE THROUGHOUT. THE MAXIMUM PERMISSIBLE VELOCITY FOR PERMANENT MATTING IS 8.5 FEET PER SECOND.
5. CALCULATE CHANNEL VELOCITY AND SHEAR STRESS USING THE PROCEDURE OUTLINED ON PAGE B:36 OF THE MDE MANUAL.
6. USE TABLE B.7 ON PAGE B.37 OF THE MDE MANUAL TO ASSIST IN SELECTING THE APPROPRIATE SOIL STABILIZATION MATTING FOR SLOPE APPLICATIONS BASED ON THE SLOPE, THE SLOPE LENGTH, AND THE SOIL-ERODIBILITY K FACTOR.

MAINTENANCE
VEGETATION MUST BE ESTABLISHED AND MAINTAINED SO THAT THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

OWNER

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C/O GENROCK CAPITAL MGMT LLC
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RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
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DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
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SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

811
Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

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PROJECT No.:	MD192104
DRAWN BY:	RMS
CHECKED BY:	AGS
DATE:	6/12/20
CAD I.D.:	SDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
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TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
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TOWSON, MARYLAND 21204
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Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW G. STINE
11/3/20
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 37687
PROFESSIONAL CERTIFICATION
I, ANDREW G. STINE, 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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

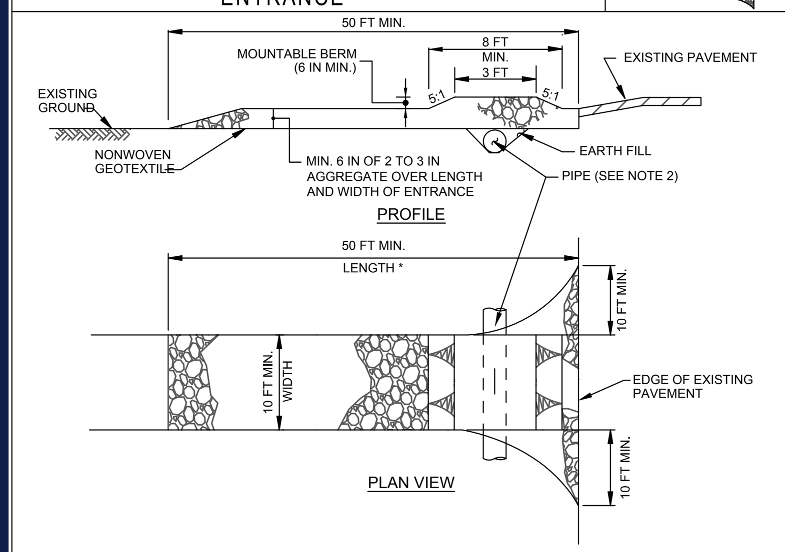
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

SHEET NUMBER:
15
OF 32

REVISION 2 - 10/15/20

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

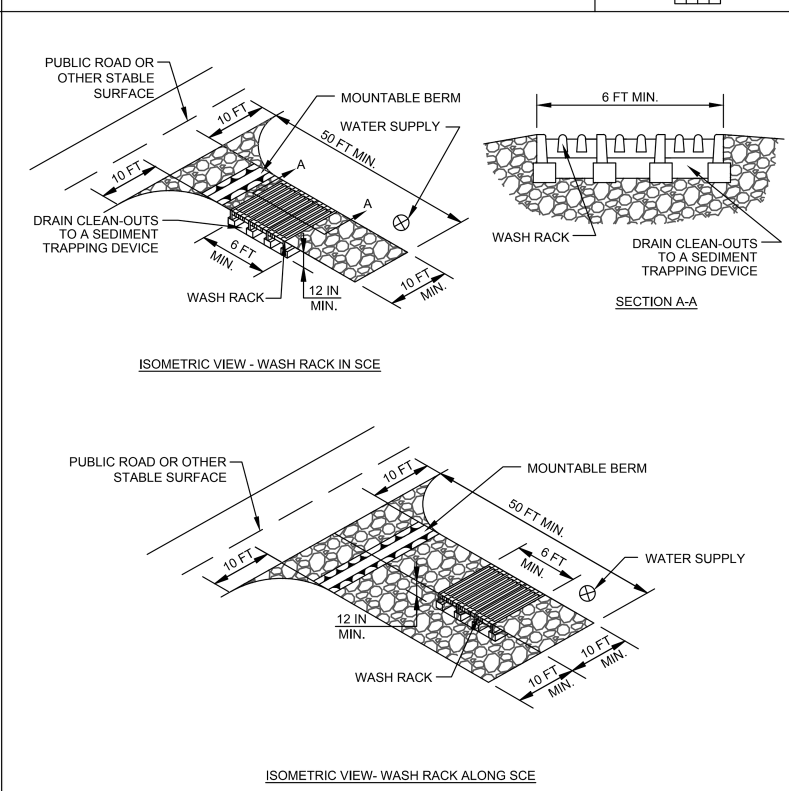
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-2 WASH RACK OPTION

STANDARD SYMBOL: WR



CONSTRUCTION SPECIFICATIONS

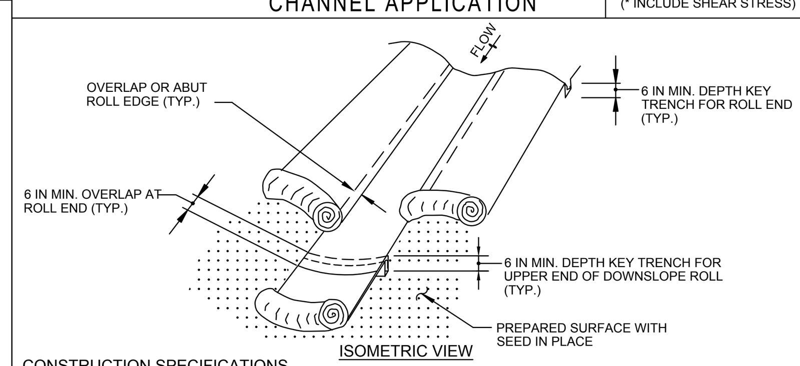
1. USE A WASH RACK DESIGNED AND CONSTRUCTED/MANUFACTURED FOR THE ANTICIPATED TRAFFIC LOADS. CONCRETE, STEEL, OR OTHER MATERIALS ARE ACCEPTABLE. PRE-FABRICATED UNITS SUCH AS CATTLE GUARDS ARE ACCEPTABLE. USE MINIMUM DIMENSION OF 6 FEET x 10 FEET. ORIENT DIRECTION OF RIBS AS SHOWN ON THE DETAIL.
2. INSTALL PRIOR TO, ALONG SIDE OF, OR AS PART OF THE SCE.
3. DIRECT WASH WATER TO AN APPROVED SEDIMENT TRAPPING DEVICE.
4. KEEP AREA UNDER WASH RACK FREE OF ACCUMULATED SEDIMENT. IF DAMAGED, REPAIR OR REPLACE WASH RACK.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-4-6-A TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL: TSSMC - * 2.25 lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

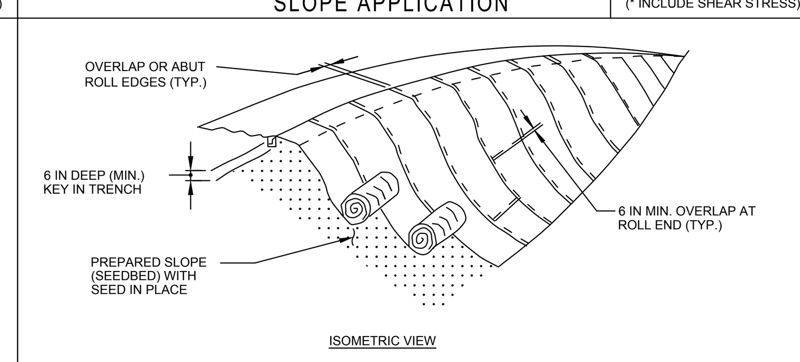
1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHLY AND FIRMLY ON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. KEY-IN UPSTREAM END OF EACH MAT ROLL BY DIGGING A 6 INCH (MINIMUM) TRENCH AT THE UPSTREAM END OF THE MATTING, PLACING THE ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END.
7. OVERLAP OR ABUT THE ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL: TSSMS - * 2.25 lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

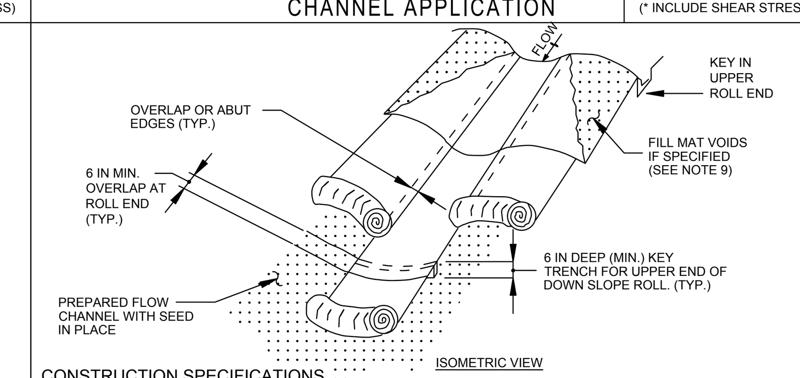
1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-4-6-C PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL: PSSMC - * 2.25 lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

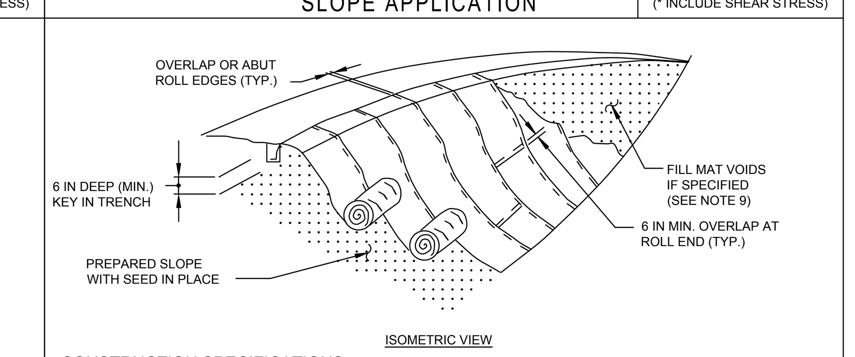
1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-4-6-D PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL: PSSMS - * 2.25 lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

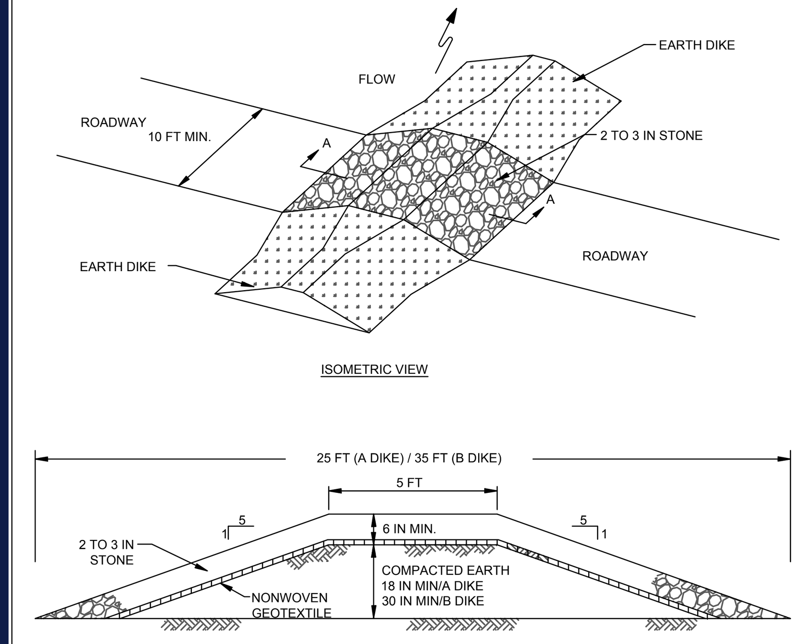
1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWN SLOPE. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL C-8 MOUNTABLE BERM

STANDARD SYMBOL: MB



CONSTRUCTION SPECIFICATIONS

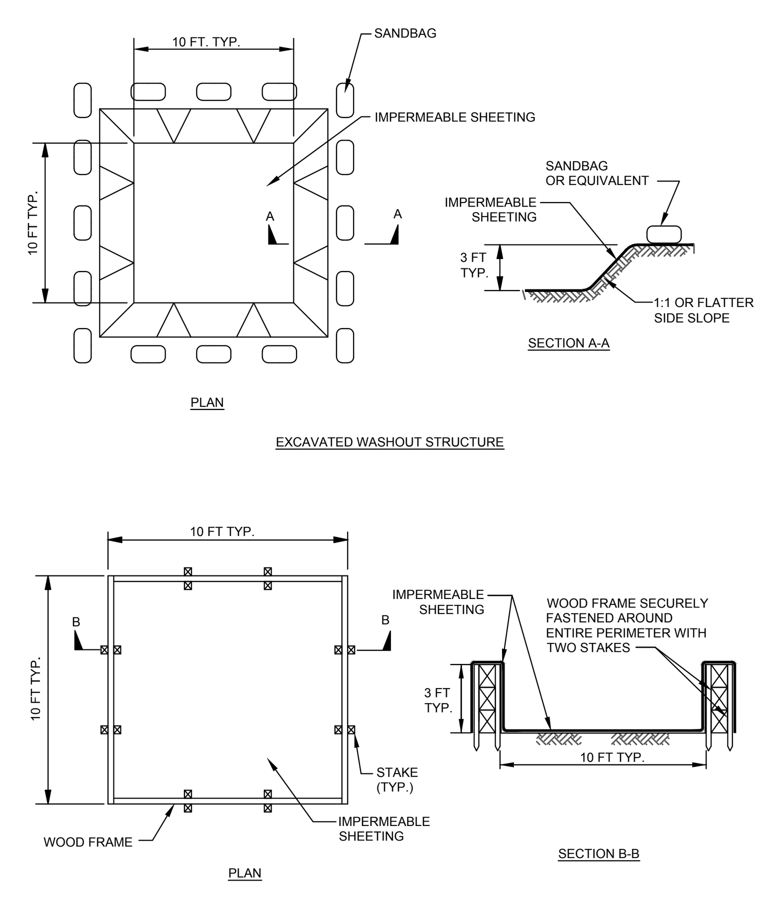
1. USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE.
2. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND PRIOR TO PLACING STONE.
3. PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE MOUNTABLE BERM.
4. MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL: CWS



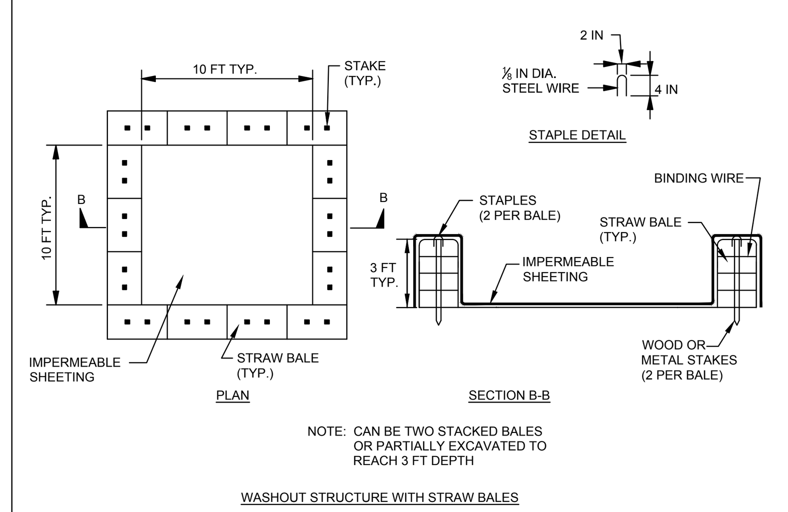
1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL H-6 ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL: CWS



CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

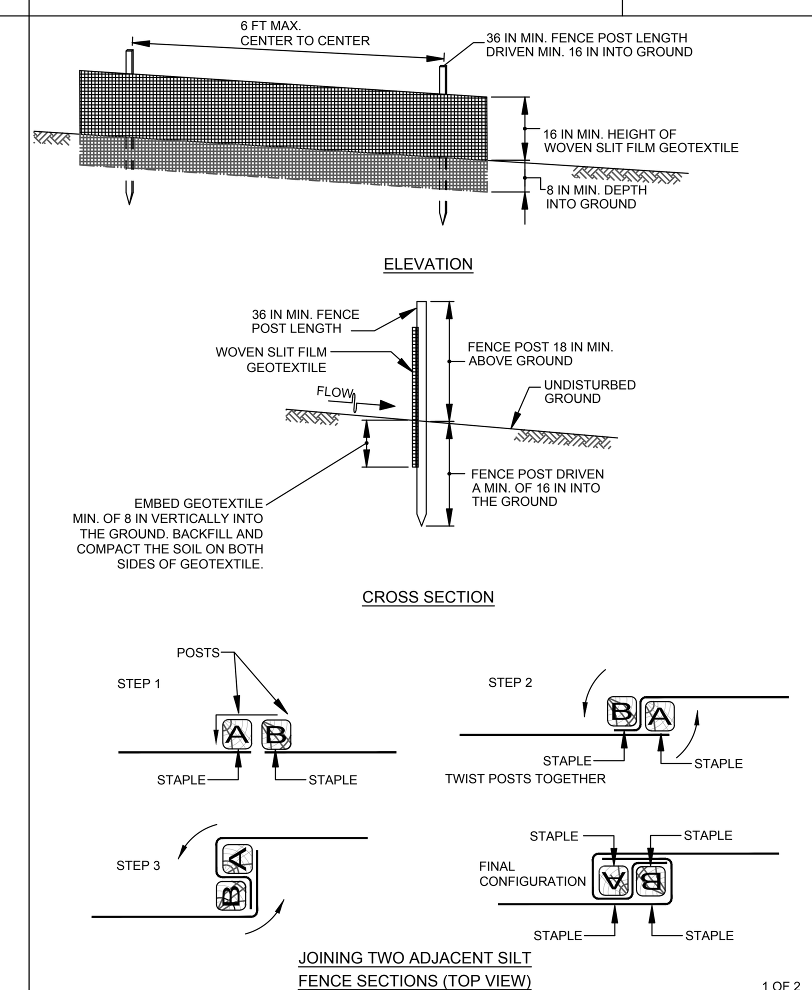
2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF

CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1¾ X 1¾ ± 1⁄16 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

2 OF 2

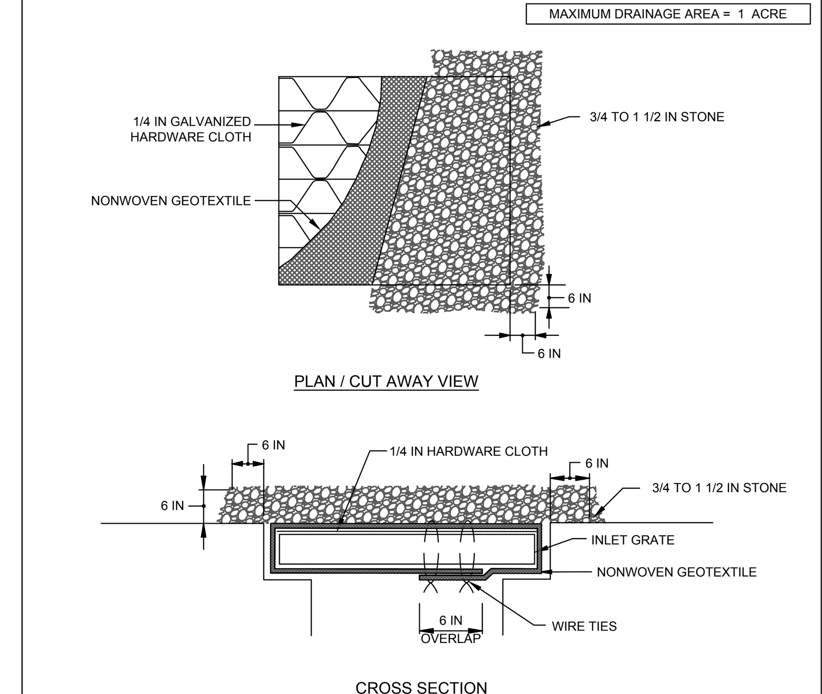
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-2 AT-GRADE INLET PROTECTION

STANDARD SYMBOL: AGIP

MAXIMUM DRAINAGE AREA = 1 ACRE

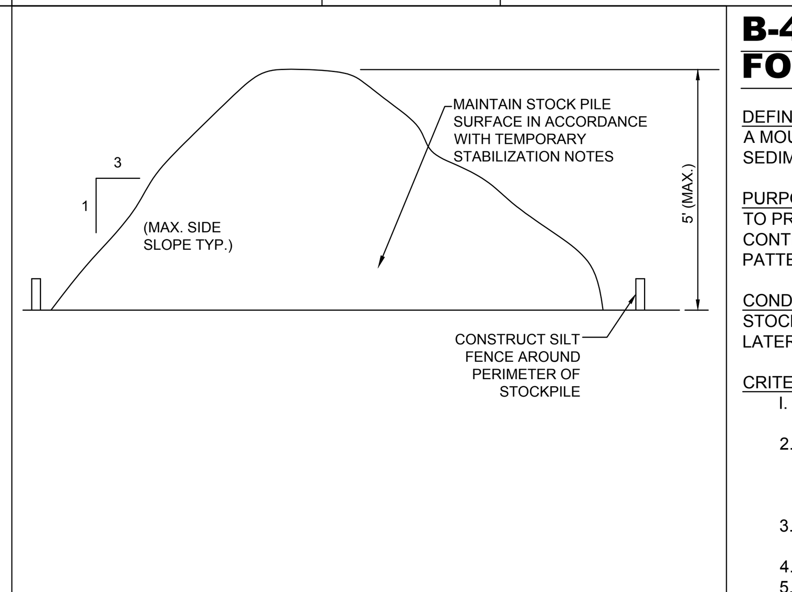


CONSTRUCTION SPECIFICATIONS

1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
3. PLACE CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
4. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



TEMPORARY STOCKPILE DETAIL

NOT TO SCALE

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

DEFINITION
A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

PURPOSE
TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE PATTERNS.

CONDITIONS WHERE PRACTICE APPLIES
STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR LATER USE.

CRITERIA:

I. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.
3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.
4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.
5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.
6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.
7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 317 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.
8. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHO11LD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.

MAINTENANCE
THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2: 1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF EROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEET FOR 2: 1 SLOPES, 30 FEET FOR 3:1 SLOPES, OR 40 FEET FOR 4: 1 SLOPES, BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3 LAND GRADING.

CARROLL COUNTY SEDIMENT CONTROL NOTES

1. THE CONTRACTOR/OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS. FURTHER NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE UNTIL ALL REQUIRED PERMITS HAVE BEEN OBTAINED.
2. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO GRADING OF THE SITE TO ENSURE COMPLIANCE WITH APPROVED PLANS. ANY WORK BEYOND THE LIMITS OF DISTURBANCE IS CONSIDERED TO BE A VIOLATION OF THIS PLAN.
3. ALL SEDIMENT CONTROL PRACTICES MUST BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY. UPON COMPLETION OF THE INSTALLATION OF PERIMETER SEDIMENT CONTROL PRACTICES THE SITE MUST BE INSPECTED BY THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR. NO ADDITIONAL CONSTRUCTION ACTIVITY WILL BE AUTHORIZED WITHOUT THE APPROVAL OF THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR.
4. ALL POINTS OF INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD INTO PUBLIC WAYS. DURING CONSTRUCTION, EVERY MEANS WILL BE TAKEN TO CONTROL SOIL EROSION AND SILTATION. IF NECESSARY A WASH RACK MAY NEED TO BE ESTABLISHED.
5. EARTH DIKES, SEDIMENT TRAPS, ETC. WILL BE LOCATED AS SHOWN ON THESE DRAWINGS. FIELD CHANGES AND MINOR ADJUSTMENTS ARE PERMISSIBLE AS LONG AS THE INSTALLATION FUNCTIONS AND CONFORMS TO SPECIFICATIONS. THE SITE INSPECTOR PRIOR TO INSTALLATION MUST APPROVE ALL SUCH CHANGES. MAJOR CHANGES TO THE APPROVED PLAN WILL REQUIRE RE-APPROVAL BY THE CARROLL SOIL CONSERVATION DISTRICT.
6. FOLLOWING INITIAL SOIL DISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
   a) THREE CALENDAR DAYS ON SLOPE GREATER THAN 3:1, ALL WATERWAYS AND TO THE SURFACE OF ALL PERIMETER CONTROLS.
   b) FIVE CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS OF THE PROJECT SITE.
7. SEDIMENT BASINS MUST BE BUILT TO DESIGN SPECIFICATIONS SHOWN ON THE PLAN. IF THE BASIN IS TO BE USED AS A FUTURE SWM FACILITY, THE BASIN WILL BE BUILT IN ACCORDANCE WITH THE LATEST MD-378 STANDARDS AND SPECIFICATIONS. SPECIFIED MATERIALS MUST BE USED. NO CHANGES OR MODIFICATIONS WILL BE MADE WITHOUT WRITTEN AUTHORIZATION OF THE CARROLL SOIL CONSERVATION DISTRICT.
8. TEMPORARY FENCING SHALL BE PLACED AROUND ALL SEDIMENT BASINS, TRAPS, AND PONDS DURING CONSTRUCTION AND SITE GRADING.
9. AT THE END OF EACH WORKING DAY ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT OPERATIONAL. A WEEKLY LOG WILL BE KEPT IN ACCORDANCE WITH NOI/NPDES REGULATIONS. A COPY OF THE APPROVED SEDIMENT CONTROL PLANS SHALL BE AVAILABLE AT THE SITE AT ALL TIMES.
10. CUT AND/OR FILL SHALL BE DONE IN CONFORMANCE WITH 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS FOR LAND GRADING.
11. SURFACE FLOWS OVER CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER REDIRECTING FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO SAFELY CONVEY WATER DOWN SLOPES WITHOUT CAUSING EROSION.
12. OFF-SITE WASTE OR BORROW AREAS SHALL HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO THE IMPORT OR EXPORT OF MATERIAL TO/FROM THE PROJECT SITE.
13. ALL MATERIAL ORIGINATING FROM THE DEVELOPMENT OF THE PROPERTY AND DEPOSITED ON THE PUBLIC RIGHT-OF-WAY SHALL BE IMMEDIATELY REMOVED.
14. STORM DRAIN INLETS AND OUTLETS SHALL BE PROTECTED PER 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.
15. TOPSOIL, LIMING, FERTILIZING, SEEDING, MULCHING, SOD, ETC. ARE ALL ESSENTIAL PARTS OF THE SEDIMENT CONTROL AND MUST BE COMPLETED ALONG WITH ALL OTHER PRACTICES.
16. TRAPS TO BE REMOVED SHALL BE DEWATERED AS PER THE 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.
17. PRIOR TO REMOVAL OF TRAPS OR CONVERSION OF SEDIMENT BASINS TO SWM FACILITIES, THE STORM DRAINS WILL BE FLUSHED
18. SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED UNTIL ALL DISTURBED AREAS FOR WHICH THE PRACTICES WERE INSTALLED HAVE BEEN STABILIZED. SEDIMENT CONTROL PRACTICES MAY BE REMOVED ONLY WITH THE AUTHORIZATION OF THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR. ALL DISTURBED AREAS RESULTING FROM THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE STABILIZED IMMEDIATELY. REMOVAL PRIOR TO INSPECTOR'S APPROVAL CONSTITUTES A VIOLATION.

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER //™

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

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ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

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PROJECT No.:	MD192104
DRAWN BY:	RMS
CHECKED BY:	AGS
DATE:	6/12/20
CAD I.D.:	SDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER //
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ANDREW G. STINE
11/3/20
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 37687
PROFESSIONAL CERTIFICATION
I, ANDREW G. STINE, 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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

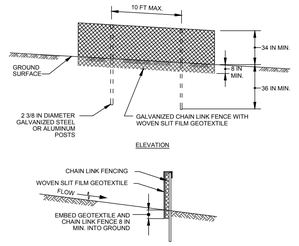
SHEET NUMBER:
16
OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
H:\19\MD192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-SDP-2---->LAYOUT: 16 - ES NOTES AND DETAILS (2)
RS

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF



ELEVATION

CROSS SECTION

CONSTRUCTION SPECIFICATIONS

1. INSTALL 2½ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

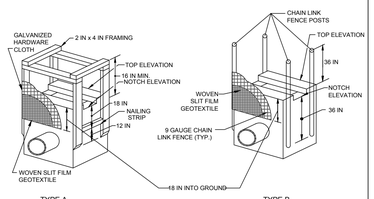
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

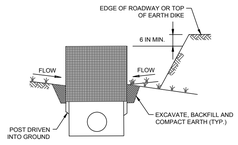
STANDARD SYMBOL: SIP

TYPE A MAXIMUM DRAINAGE AREA = 1/4 ACRE
TYPE B MAXIMUM DRAINAGE AREA = 1 ACRE



TYPE A TYPE B

ISOMETRIC VIEW



SECTION FOR TYPE A AND B

1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

CONSTRUCTION SPECIFICATIONS

1. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
3. FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2X4 FRAME AS SHOWN, STRETCH 1/2 INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FOLDED, THEN FASTENED TO THE POST.

   FOR TYPE B, USE 2 3/8 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
4. BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
5. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

H-1 STANDARDS AND SPECIFICATIONS

FOR

MATERIALS

Table H.1: Geotextile Fabrics

		WOVEN SLIT FILM GEOTEXTILE	WOVEN MONOFILAMENT GEOTEXTILE		NONWOVEN GEOTEXTILE	
		MINIMUM AVERAGE ROLL VALUE[1]				
PROPERTY	TEST METHOD	MD	CD	MD	CD	MD	CD
Grab Tensile Strength	ASTM D-4632	200 lb	200 lb	370 lb	250 lb	200 lb	200 lb
Grab Tensile Elongation	ASTM D-4632	15%	10%	15%	15%	50%	50%
Trapezoidal Tear Strength	ASTM D-4533	75 lb	75 lb	100 lb	60 lb	80 lb	80 lb
Puncture Strength	ASTM D-6241	450 lb		900 lb		450 lb	
Apparent Opening Size[2]	ASTM D-4751	U.S. Sieve 30 (0.59 mm)		U.S. Sieve 70 (0.21 mm)		U.S. Sieve 70 (0.21 mm)	
Permittivity	ASTM D-4491	0.05 sec^{-1}		0.28 sec^{-1}		1.1 sec^{-1}	
Ultraviolet Resistance Retained at 500 hours	ASTM D-4355	70% strength		70% strength		70% strength	

[1] All numeric values except apparent opening size (AOS) represent minimum average roll values (MARV). MARV is calculated as the typical minus two standard deviations. MD is machine direction; CD is cross direction.

[2] Values for AOS represent the average maximum opening.

Geotextiles must be evaluated by the National Transportation Product Evaluation Program (NTPEP) and conform to the values in Table H.1.

The geotextile must be inert to commonly encountered chemicals and hydrocarbons and must be rot and mildew resistant. The geotextile must be manufactured from fibers consisting of long chain synthetic polymers and composed of a minimum of 95 percent by weight of polyolefins or polyesters, and formed into a stable network so the filaments or yarns retain their dimensional stability relative to each other, including selvages.

When more than one section of geotextile is necessary, overlap the sections by at least one foot. The geotextile must be pulled taut over the applied surface. Equipment must not run over exposed fabric. When placing riprap on geotextile, do not exceed a one foot drop height.

SOIL CONSERVATION SERVICE

NATURAL RESOURCE CONSERVATION DISTRICT CERTIFICATION. THE DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE CARROLL SOIL CONSERVATION DISTRICT.

APPROVED _____ CARROLL S.C.D./DATE

ENGINEERING CERTIFICATION

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

ENGINEER SIGNATURE MARYLAND REGISTRATION NO.

PRINTED NAME DATE

OWNER/DEVELOPER CERTIFICATION

I CERTIFY THAT THIS PLAN OF SOIL EROSION & SEDIMENT CONTROL 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 THE CONSTRUCTION OF THIS PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SOIL EROSION AND SEDIMENT BEFORE BEGINNING PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE EVALUATION BY THE CARROLL SOIL CONSERVATION DISTRICT PERSONNEL AND COOPERATING AGENCIES.

OWNER/DEVELOPER SIGNATURE

PRINTED NAME DATE

DEVELOPER COMPANY NAME

DEVELOPER PHONE NUMBER

SEQUENCE OF CONSTRUCTION:

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 SAFETY FENCE AROUND SITE IF NECESSARY. RELOCATE BENCHMARK NOTED ON THE EXISTING CONDITIONS AND DEMOLITION PLAN.
3. CLEAR, GRUB AND REMOVE ANY NECESSARY EXISTING FEATURES INTERFERING WITH PERIMETER SEDIMENT AND EROSION CONTROL MEASURES AND DEVICES ONLY. INSTALL SILT FENCE AND SUPER SILT FENCE AS DIRECTED BY THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR AS SHOWN ON PLAN. SILT FENCE AND SUPER SILT FENCE SHALL BE INSPECTED & MAINTAINED EACH DAY AND AFTER EACH STORM EVENT. MAINTENANCE SHALL INCLUDE BUT NOT BE LIMITED TO REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION.
4. NOTIFY CARROLL COUNTY SEDIMENT CONTROL INSPECTOR (1-410-386-2210) UPON COMPLETION OF SAID INSTALLATION.
5. WITH THE APPROVAL OF CARROLL COUNTY SOIL CONSERVATION DISTRICT, BEGIN DEMOLITION OF BUILDING, CONCRETE CURB, PAVEMENT, AND OTHER ITEMS AS SHOWN ON THE EXISTING CONDITIONS AND DEMOLITION PLAN. DISPOSAL MATERIAL WILL EITHER NEED TO BE TAKEN TO A RUBBLE LANDFILL WITH AN ACTIVE GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN, OR AN EXISTING ASPHALT RECYCLING FACILITY SUBJECT TO THE SAME.
6. IMMEDIATELY AFTER DEMOLITION ACTIVITIES HAVE OCCURRED; BEGIN ROUGH GRADING THE SITE AND CONSTRUCTION OF SITE RETAINING WALLS FOLLOWING THE SPECIFIC INSPECTION CHART FOR SGW FACILITY "A" ON SHEET 30, COMPLETING ALL STEPS IN SEQUENTIAL ORDER.
7. BEGIN INSTALLATION OF STORM DRAIN STRUCTURES ALONG WITH ASSOCIATED STORM DRAIN PIPES. IMMEDIATELY INSTALL INLET PROTECTION ON PROPOSED INLETS. CONTRACTOR SHALL PERFORM SUFFICIENT GRADING SURROUNDING INLETS, TO ENSURE THAT IT IS CAPABLE OF FUNCTIONING AND CAPTURING ALL UPSLOPE FLOWS.
8. ONCE SUBGRADES ARE REACHED, BEGIN CONSTRUCTION OF BUILDINGS, CANOPY, AND UNDERGROUND FUEL STORAGE TANKS, BEGIN CONSTRUCTION OF REMAINING UNDERGROUND UTILITIES. GRADES AROUND THE BUILDINGS SHOULD BE DESIGNED SUCH THAT ALL RUNOFF WILL FLOW AROUND THE BUILDINGS.
9. COMPLETE FINE GRADING OF SITE. SITE SHALL BE BROUGHT TO GRADE AS SOON AS POSSIBLE AND STABILIZED WITH EITHER STONE SUBBASE OR PERMANENT SEED AND MULCH.
10. INSTALL ANY REMAINING STONE SUBBASE AND BEGIN CONSTRUCTION OF CONCRETE CURB AND GUTTER AND PAVING.
11. ALL BUILDINGS ARE CONSTRUCTED, ARE DRIVEWAYS AND PARKING LOTS PAVED, AND ALL OTHER DISTURBED AREAS SUPPORT A 2" STAND OF DENSE GRASS. UPON STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA WITH ESTABLISHED VEGETATION AND WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, INSTALL SUBMERGED GRAVEL WETLAND FACILITIES PER THE FACILITY INSPECTION CHARTS ON SHEET 8. FOR SGW "A", COMPLETE STEPS 6 THRU 10 IN SEQUENTIAL ORDER, CONCURRENT WITH THE PREVIOUS STEP. COMPLETE STEPS 4-7 FOR FACILITY "B" IN SEQUENTIAL ORDER AS NOTED IN THE INSPECTION CHART ON SHEET 8.
12. UPON STABILIZATION OF SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR , REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS. CONTACT THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR PRIOR TO REMOVING ANY SEDIMENT CONTROL MEASURES. APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR IS REQUIRED.

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

Know what's below. Call before you dig.
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It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: MD192104
DRAWN BY: RMS
CHECKED BY: AGS
DATE: 6/12/20
CAD I.D.: SDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW G. STINE
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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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

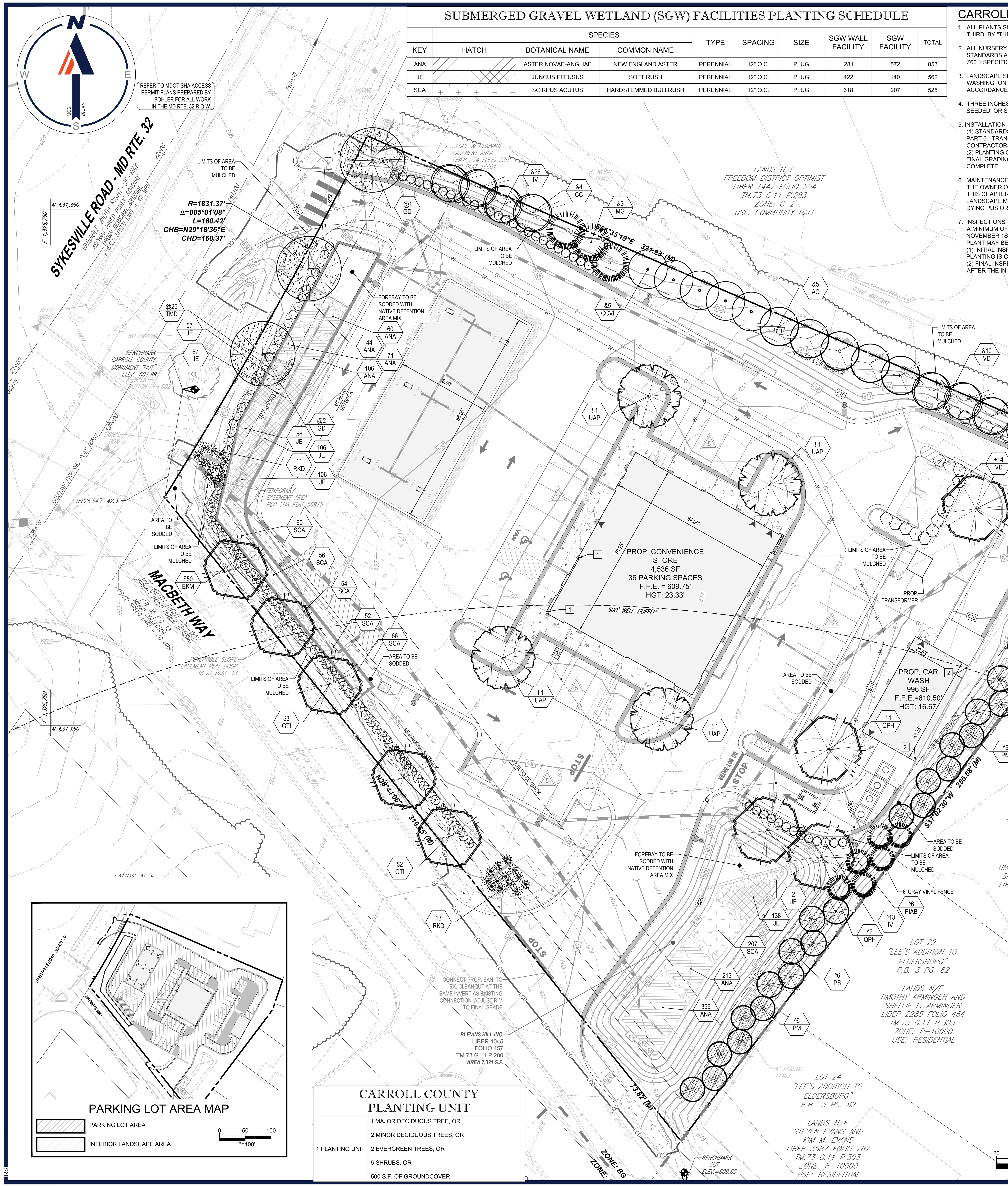
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

SHEET NUMBER:

17
OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
H:\19\MD\19210\4\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD19210104-SDP-2 — LAYOUT: 17 - ES NOTES AND DETAILS (3)
RMS



SUBMERGED GRAVEL WETLAND (SGW) FACILITIES PLANTING SCHEDULE

KEY	HATCH	BOTANICAL NAME	COMMON NAME	TYPE	SPACING	SIZE	SGW WALL FACILITY	SGW FACILITY	TOTAL
ANA		ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	PERENNIAL	12" O.C.	PLUG	281	572	853
JE		JUNCUS EFFUSUS	SOFT RUSH	PERENNIAL	12" O.C.	PLUG	422	140	562
SCA		SCIRPUS ACUTUS	HARDSTEMMED BULLRUSH	PERENNIAL	12" O.C.	PLUG	318	207	525

CARROLL COUNTY LANDSCAPE SPECIFICATIONS

1. ALL PLANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE LATEST EDITION OF HORTUS THIRD, BY "THE STAFF OF THE HORTORIUM."
2. ALL NURSERY STOCK SHALL CONFORM TO AMERICAN ASSOCIATION OF NURSERYMEN, INC., STANDARDS AS DESCRIBED IN AMERICAN STANDARD FOR NURSERY STOCK, CURRENT ANSI Z60.1 SPECIFICATIONS.
3. LANDSCAPE SPECIFICATION SHALL CONFORM TO LANDSCAPE GUIDELINES FOR MARYLAND, WASHINGTON D.C., AND VIRGINIA, LATEST EDITION. ALL NURSERY STOCK SHALL BE PLANTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE GUIDELINES.
4. THREE INCHES OF TOPSOIL IS REQUIRED ON ALL DISTURBED AREAS TO BE LANDSCAPED, SEEDED, OR SODDED.
5. INSTALLATION
(1) STANDARDS TO CONFORM TO THE MOST RECENT VERSION OF THE ANSI A300 STANDARDS PART 6 - TRANSPLANTING AND LANDSCAPE SPECIFICATIONS GUIDELINES OF THE LANDSCAPE CONTRACTORS ASSOCIATION, MARYLAND, DISTRICT OF COLUMBIA AND VIRGINIA.
(2) PLANTING ON INDIVIDUAL LOTS SHALL BE INSTALLED UPON FINAL GRADING INSPECTION. NO FINAL GRADING APPROVAL SHALL BE GIVEN ON THE BUILDING PERMIT UNTIL LANDSCAPING IS COMPLETE.
6. MAINTENANCE
THE OWNER OF ANY PROPERTY ON WHICH LANDSCAPING HAS BEEN INSTALLED PURSUANT TO THIS CHAPTER SHALL MAINTAIN THE LANDSCAPING IN GOOD CONDITION IN PERPETUITY. A LANDSCAPE MAINTENANCE AGREEMENT SHALL BE REQUIRED. FAILURE TO REPLACE DEAD OR DYING PUS OR THE REMOVAL OF ANY INSTALLED PUS IS A VIOLATION OF THIS CHAPTER.
7. INSPECTIONS
A MINIMUM OF 2 INSPECTIONS WILL BE REQUIRED. NO INSPECTIONS SHALL BE FINALIZED FROM NOVEMBER 1ST TO MARCH 1ST. TO BE CONSIDERED ACCEPTABLE, NO MORE THAN 1/3 OF A PLANT MAY BE DEAD.
(1) INITIAL INSPECTION: THIS INSPECTION SHALL BE PERFORMED BY THE COUNTY WHEN PLANTING IS COMPLETED TO VERIFY COMPLIANCE WITH THE APPROVED PLANTING PLAN.
(2) FINAL INSPECTION: THIS INSPECTION SHALL BE PERFORMED BY THE COUNTY 12 MONTHS AFTER THE INITIAL PLANTING.

CARROLL COUNTY COMPLIANCE CHART

SECTION	REQUIREMENTS	CALCULATIONS
II. NON-RESIDENTIAL (COMMERCIAL, INDUSTRIAL, INSTITUTIONAL AND GOVERNMENTAL)	B. PARKING LOTS 2. INTERIOR LANDSCAPING a. RESERVE MINIMUM 10% OF THE PARKING LOT AREA FOR INTERIOR LANDSCAPING. REQUIRED INTERIOR LANDSCAPING SHALL BE INSTALLED IN PENINSULAS, ISLANDS, OR PLANTING BREAKS TO SEPARATE: i. PARKING LOT ENTRANCES FROM ADJACENT PARKING SPACES. ii. INTERIOR ROADS WITH NO PUBLIC RIGHT-OF-WAY FROM PARKING BAYS. iii. CHANGES IN AISLE AND BAY ORIENTATION. iv. INTERIOR DRIVES FROM PARKING SPACES. v. PLANTINGS ARE TO BE AT ONE PU PER 12 PARKING SPACES.	PARKING LOT AREA: 39,937 S.F. REQUIRED: 10% OF PARKING LOT AREA FOR INTERIOR LANDSCAPING 39,937 x 0.10 = 3,994 S.F. PROPOSED: 4,247 S.F. OR 10.6% OF INTERIOR LANDSCAPING
		PARKING PROVIDED: 36 SPACES REQUIRED: 1 PU / 12 PARKING SPACES 36 / 12 = 3.0 PU PROPOSED: 6.0 PU "!" INDICATES PLANT MATERIAL UTILIZED TO FULFILL REQUIREMENT
	F. AUTOMOTIVE USES (FUEL STATIONS AND CAR WASHES) 1. ADJACENT TO PUBLIC RIGHTS OF WAY, SCREENING SHALL COMPLY WITH CLASS B REQUIREMENTS 2. ADJACENT TO COMMERCIAL ZONES OR USES, OR INSTITUTIONAL USES, A MINIMUM 10-FOOT WIDE CLASS A SCREEN IS REQUIRED. 3. ADJACENT TO RESIDENTIAL ZONES OR USES, A CLASS C SCREEN IS REQUIRED	SYKESVILLE ROAD (MD RTE 32): 160 L.F. - 25 L.F. (ENTRANCE) = 135' REQUIRED: CLASS B SCREEN (1 PU / 25 L.F.) 135 / 25 = 5.4 PU PROPOSED: 8.0 PU "@" INDICATES PLANT MATERIAL UTILIZED TO FULFILL REQUIREMENT
		MACBETH WAY: 320 L.F. - 40 L.F. (ENTRANCE) = 280 L.F. REQUIRED: CLASS B SCREEN (1 PU / 25 L.F.) 280 / 25 = 11.2 PU PROPOSED: 15.0 PU "$" INDICATES PLANT MATERIAL UTILIZED TO FULFILL REQUIREMENT
		EASTERN BOUNDARY: 316 L.F. REQUIRED: CLASS C SCREEN (1 PU / 15 L.F.) 316 / 15 = 21.1 PU PROPOSED: 24.6 PU + 6' BOARD ON BOARD FENCE "^" INDICATES PLANT MATERIAL UTILIZED TO FULFILL REQUIREMENT
		NORTHERN BOUNDARY: 321 L.F. REQUIRED: CLASS A SCREEN (1 PU / 20 L.F.) 321 / 20 = 16.1 PU PROPOSED: 16.2 PU "&" INDICATES PLANT MATERIAL UTILIZED TO FULFILL REQUIREMENT
III. OTHER	A. DUMPSTERS AND GROUND-MOUNTED HVAC 1. CLASS A SCREEN IS REQUIRED FOR DUMPSTERS AND GROUND-MOUNTED HVAC EQUIPMENT. THE LINEAR FEET OF SCREENING SHALL BE MEASURED ALONG THE PERIMETER. 5. WHEN USING A DUMPSTER ENCLOSURE A LOW GROWING SHRUB PLANTING SURROUNDING THE ENCLOSURE WILL BE REQUIRED	DUMPSTER ENCLOSURE: 51 L.F. REQUIRED: CLASS A SCREEN (1 PU / 20 L.F.) 51 / 20 = 2.6 PLANTING UNITS PROPOSED: 2.8 PU "+" INDICATES PLANT MATERIAL UTILIZED TO FULFILL REQUIREMENT

LANDSCAPE SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	CAL. / HT.	CONT.
SHADE TREES					
GD	3	GYMNOCLADUS DIOCUS	KENTUCKY COFFEETREE	2 1/2-3" CAL. / 12-14'	B+B
GTI	5	GLEDITSIA TRIACANTHOS INERMIS	THORNLESS HONEYLOCUST	2 1/2-3" CAL. / 12-14'	B+B
QPH	4	QUERCUS PHELLOS	WILLOW OAK	2 1/2-3" CAL. / 12-14'	B+B
UAP	4	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	2 1/2-3" CAL. / 12-14'	B+B
SUBTOTAL:	16				
ORNAMENTAL TREES					
AC	5	AMELANCHIER CANADENSIS	MULTI STEM SHADBLOW SERVICEBERRY	1-1 1/2" CAL. / 8-10'	B+B
CC	9	CERCIS CANADENSIS	EASTERN REDBUD	2-2 1/2" CAL. / 8-10'	B+B
CCVI	5	CRATAEGUS CRUS-GALLI VAR. INERMIS	THORNLESS COCKSPUR HAWTHORN	1-1 1/2" CAL. / 8-10'	B+B
SUBTOTAL:	19				
EVERGREEN TREES					
MG	3	METASEQUOIA GLYPTOSTROBOIDES	DAWN REDWOOD	6-8' HT.	B+B
PIAB	11	PICEA ABIES	NORWAY SPRUCE	6-7' HT.	B+B
PM	17	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	6-7' HT.	B+B
PS	12	PINUS STROBUS	EASTERN WHITE PINE	6-7' HT.	B+B
SUBTOTAL:	43				
DECIDUOUS SHRUBS					
IV	39	ITEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	24-30" HT. & SPREAD	#5 CAN
RKD	24	ROSA 'KNOCKOUT'	DOUBLE KNOCKOUT ROSE	18-24" HT. & SPREAD	#3 CAN
VD	24	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3-4' HT. & SPREAD	B+B
SUBTOTAL:	87				
EVERGREEN SHRUBS					
EKM	50	EUONYMUS KIAUTSCHOVICUS 'MANHATTAN'	MANHATTAN SPREADING EUONYMUS	24-30" HT. & SPREAD	#5 CAN
TMD	25	TAXUS X MEDIA 'DENSIFORMIS'	DENSIFORMIS YEW	24-30" HT. & SPREAD	B+B
SUBTOTAL:	75				

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

FOREST CONSERVATION PARCEL DATA

PARCEL	TAX MAP	GRID	FOREST CONSERVATION PROVIDED
73, 11, 406, 736	73	11	PREVIOUSLY PROVIDED
280	73	11	TO BE DETERMINED

CARROLL COUNTY PLANTING UNIT

1 PLANTING UNIT	1 MAJOR DECIDUOUS TREE, OR 2 MINOR DECIDUOUS TREES, OR 2 EVERGREEN TREES, OR 5 SHRUBS, OR 500 S.F. OF GROUNDCOVER

FINAL LANDSCAPE PLAN OWNER CERTIFICATION FORM

I CERTIFY THAT I HAVE REVIEWED THIS FINAL LANDSCAPE PLAN; THAT I HAVE READ AND UNDERSTAND THE REGULATIONS PRESENTED IN THE CARROLL COUNTY LANDSCAPE MANUAL; AND I AGREE TO COMPLY WITH THESE REGULATIONS AND ALL APPLICABLE POLICY, GUIDELINES, AND ORDINANCES. I AGREE TO CERTIFY THE IMPLEMENTATION OF THIS APPROVED FINAL LANDSCAPE PLAN NO LATER THAN ONE (1) YEAR FROM THE DATE OF APPROVAL OF THIS PLAN TO THE DEPARTMENT OF PLANNING, BUREAU OF RESOURCE MANAGEMENT, ROOM 209, 225 N. CENTER STREET, WESTMINSTER, MD 21157-5194.

APPLICANT SIGNATURE DATE PRINT NAME

ADDRESS (PRINT) STREET

CITY STATE ZIP

FILE #

FOREST CONSERVATION WORKSHEET:

FOREST THRESHOLDS: INDUSTRIAL/INSTITUTIONAL - 15% MINIMUM FOREST COVER
ALL OTHER ZONING 20% MINIMUM FOREST COVER

A. PROPOSED FOREST AREA REMOVED: 0 AC

REFORESTATION REQUIRED: 0 AC

REQUIRED REFORESTATION = ALL FOREST AREA REMOVED IS TO BE REFORESTED AT A RATIO OF ONE ACRE PLANTED FOR EVERY ACRE OR PORTION THEREOF REMOVED.

AFFORESTATION CALCULATION

B. TOTAL NET TRACT AREA (PARCEL # 280): 0.167 AC
C. THRESHOLD REQUIRED: (15%) 0.188 AC
D. EXISTING FOREST AREA: 0 AC
MINUS FOREST CLEARED: 0 AC
PLUS REFORESTATION: 0 AC
EQUALS FOREST CREDIT:= 0 AC
E. C MINUS D: 0.025 AC
(IF C MINUS D > 0, THIS IS REQUIRED OF AFFORESTATION. IF C MINUS D <0, NO AFFORESTATION IS REQUIRED)
F. OFFSITE FOREST BANK: TO BE DETERMINED

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. © BOHLER

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

811 Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: MD192104
DRAWN BY: RMS
CHECKED BY: AGS
DATE: 6/12/20
CAD I.D.: LSP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS
FOR
NEW COASTAL DEVELOPMENT
7-ELEVEN ELDERSBURG
6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

E.R. McWILLIAMS
11/03/2020
REGISTERED LANDSCAPE ARCHITECT
MARYLAND LICENSE No. 3697
PROFESSIONAL CERTIFICATION
I, ERIC R. McWILLIAMS, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3697, EXPIRATION DATE: 9/20/22

SHEET TITLE: **FINAL LANDSCAPE AND FOREST CONSERVATION PLAN**

SHEET NUMBER: 18 OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
H:\19\MD192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-LSP-2----->LAYOUT: 18 - FINAL LANDSCAPE AND FOREST CONSERVATION PLAN
RS

LANDSCAPE SPECIFICATIONS

1. SCOPE OF WORK:
THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS
A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.

B. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.

C. LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM SIX INCH (6") THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES.
1.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
1.2. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS.
1.3. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.

D. MULCH - THE MULCH AROUND THE PERIMETER OF THE BUILDING SHALL BE A 3" LAYER OF DOUBLE SHREDDED BLACK CEDAR MULCH ONLY. ALL OTHER AREAS SHALL BE MULCHED WITH A 3" LAYER OF DOUBLE SHREDDED DARK BROWN HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.

E. FERTILIZER
1.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
1.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

F. PLANT MATERIAL
1.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
1.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
1.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
1.4. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1¼", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED.PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
1.5. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
1.6. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
1.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
1.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.

B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS
A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.

B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE TRUNK. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.

C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

5. TREE PROTECTION
A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.

B. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.

C. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS
A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.

B. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.

C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
1.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
1.2. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
1.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADING
A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.

B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).

C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.

D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOILING
A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.

B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.

C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.

D. ALL PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA):
1.1. 20 POUNDS 'GROW POWER' OR APPROVED EQUAL
1.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP

E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

9. PLANTING
A. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.

B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.

C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.

D. ALL PLANTING CONTAINERS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.

E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.

F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
1.1. PLANTS: MARCH 15 TO DECEMBER 15
1.2. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1

G. PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.

H. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:

ACER RUBRUM	PLATANUS X ACERIFOLIA
BETULA VARIETIES	POPULOUS VARIETIES
CARPINUS VARIETIES	PRUNUS VARIETIES
CRATAEGUS VARIETIES	PYRUS VARIETIES
KOELREUTERIA	QUERCUS VARIETIES
LIQUIDAMBER STYRACIFLUA	TILIA TOMENTOSA
LIRIODENDRON TULIPIFERA	ZELKOVA VARIETIES

I. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
- 1 PART PEAT MOSS
- 1 PART COMPOSTED COW MANURE BY VOLUME
- 3 PARTS TOPSOIL BY VOLUME
- 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
  A) 2 TABLETS PER 1 GALLON PLANT
  B) 3 TABLETS PER 5 GALLON PLANT
  C) 4 TABLETS PER 15 GALLON PLANT
  D) LARGER PLANTS: 2 TABLETS PER ½" CALIPER OF TRUNK

J. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.

K. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.

L. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.

M. GROUND COVER AREAS SHALL RECEIVE A ¼" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.

N. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.

O. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.

P. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

10. TRANSPLANTING (WHEN REQUIRED)
A. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.

B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.

C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.

D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.

E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.

F. IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

11. WATERING
A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.

B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.

C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

12. GUARANTEE
A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.

C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.

D. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

13. CLEANUP
A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.

B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

SEEDING SPECIFICATIONS

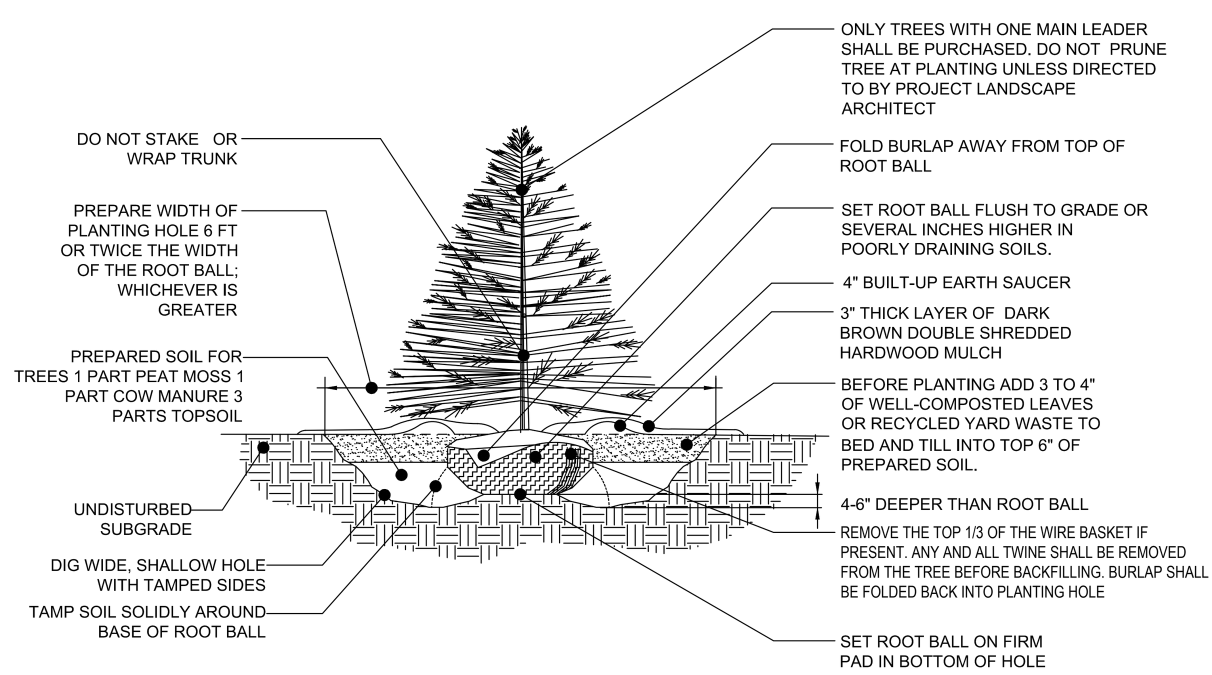
1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.

2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

3. SEEDING RATES:

PERENNIAL RYEGRASS	1/2 LB/1,000 SQ FT
KENTUCKY BLUEGRASS	1 LB/1,000 SQ FT
RED FESCUE	1 1/2 LBS/1,000 SQ FT
SPREADING FESCUE	1 1/2 LBS/1,000 SQ FT
FERTILIZER (20:10:10)	14 LBS/1,000 SQ FT
MULCH	90 LBS/1,000 SQ FT

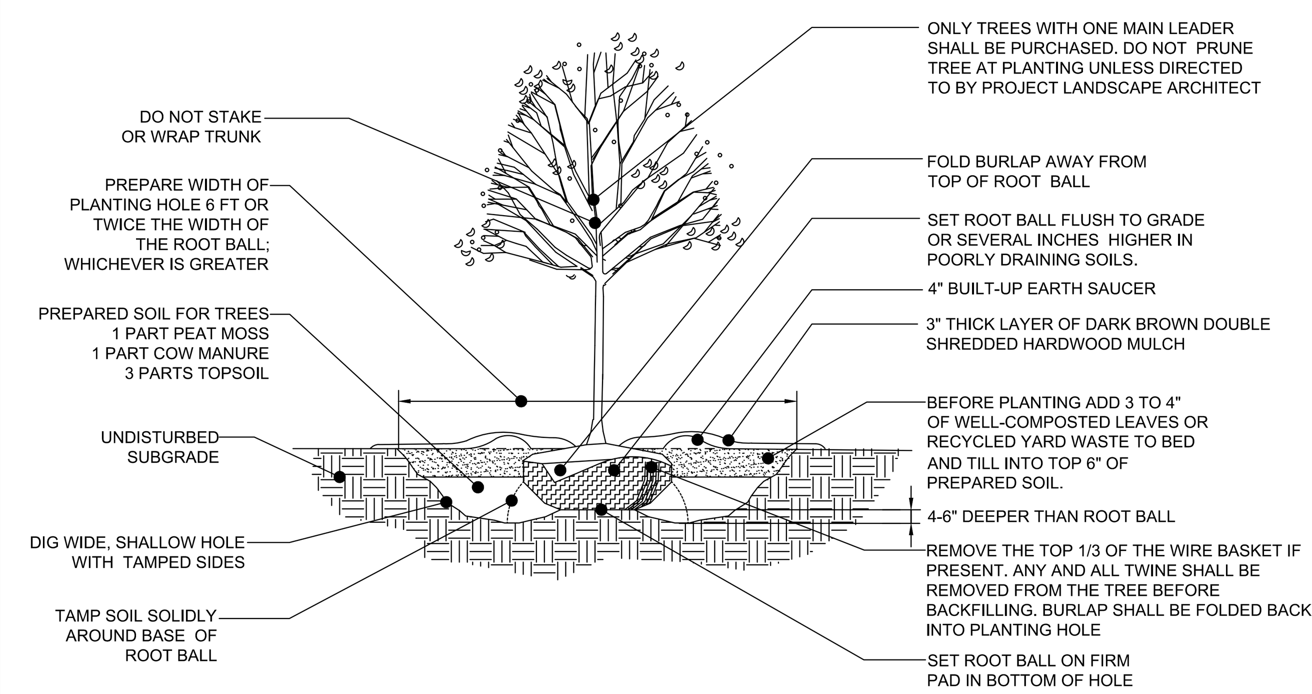
4. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

EVERGREEN TREE PLANTING DETAIL

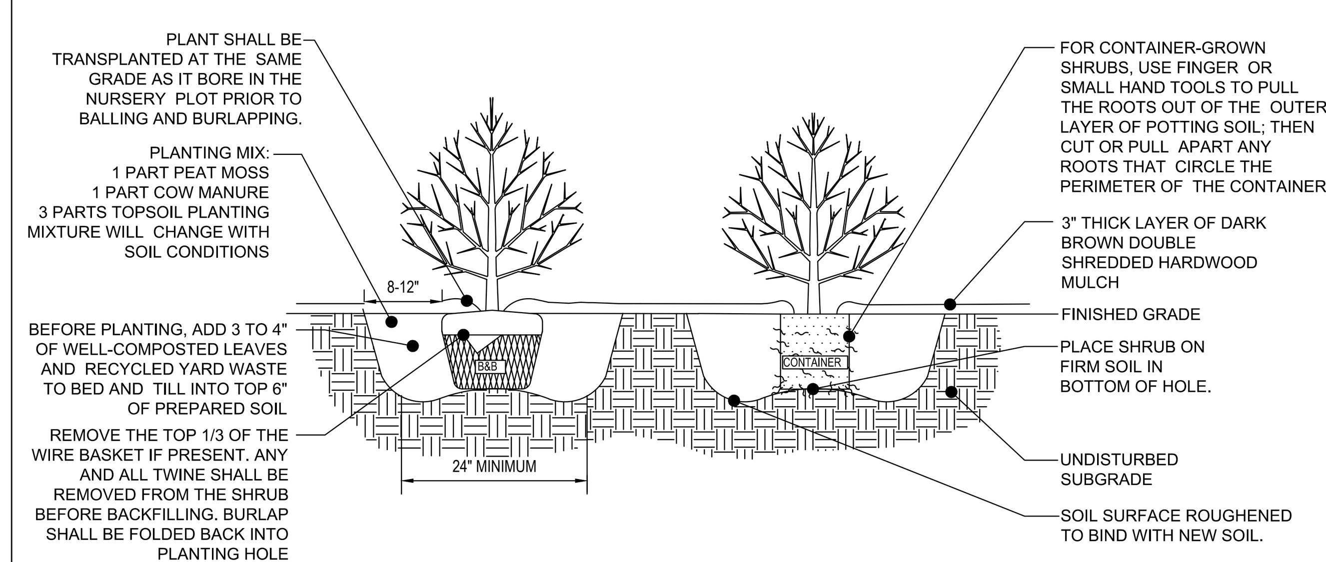
NOT TO SCALE



REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT.

DECIDUOUS TREE PLANTING DETAIL

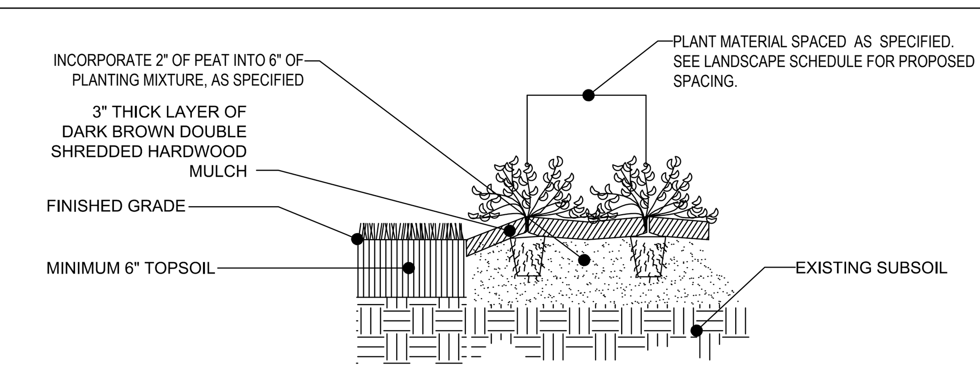
NOT TO SCALE



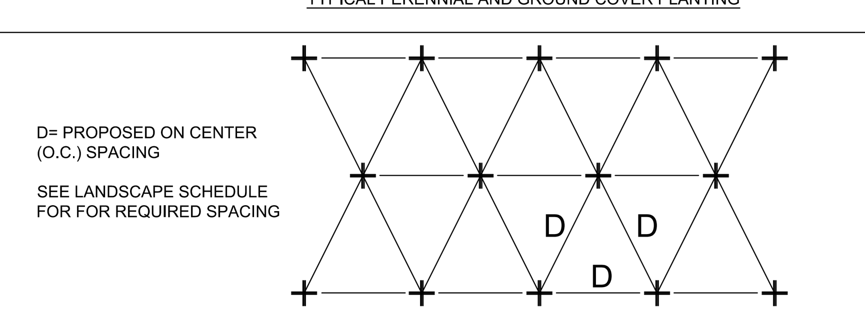
REFERENCE: ARCHITECTURAL GRAPHIC STANDARDS 1998 CUMULATIVE SUPPLEMENT

DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

NOT TO SCALE



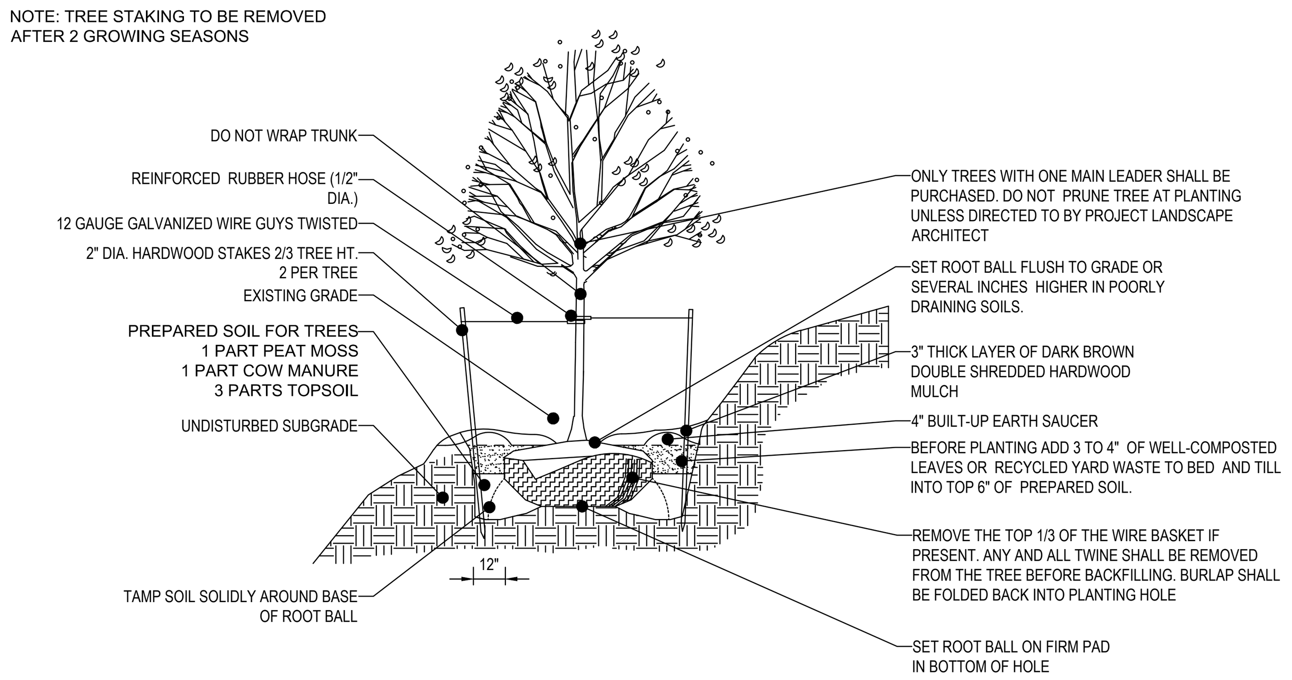
TYPICAL PERENNIAL AND GROUND COVER PLANTING



TYPICAL PERENNIAL AND GROUND COVER SPACING & LAYOUT

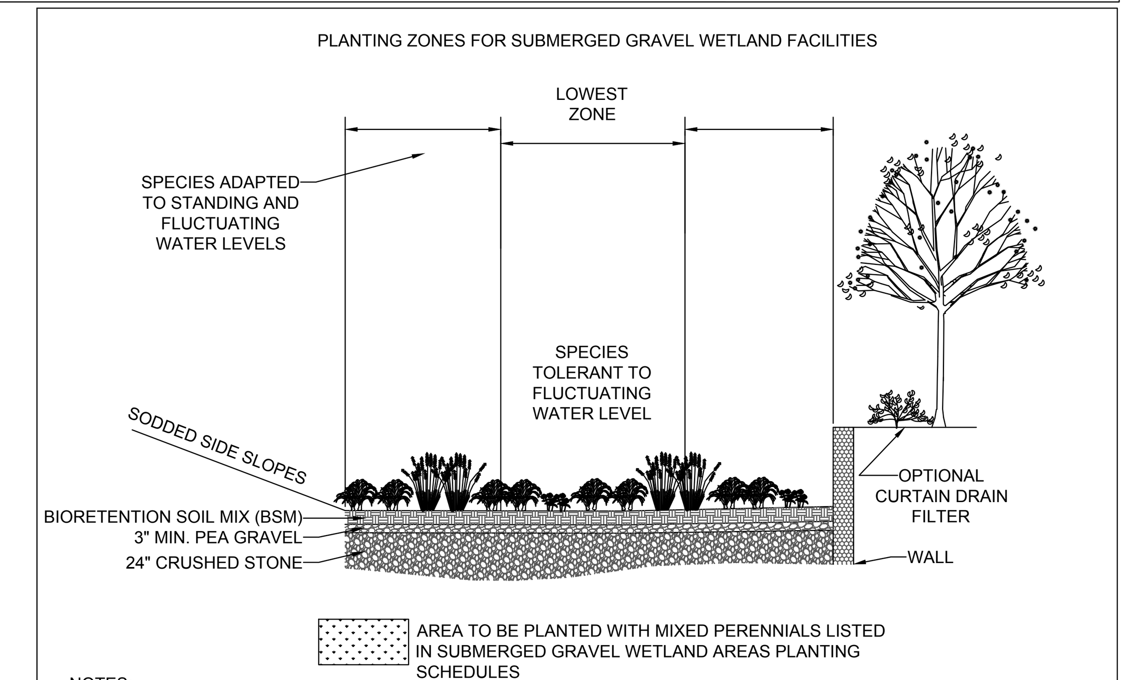
PERENNIAL/GROUND COVER PLANTING DETAIL

NOT TO SCALE



TREE PLANTING ON SLOPE DETAIL

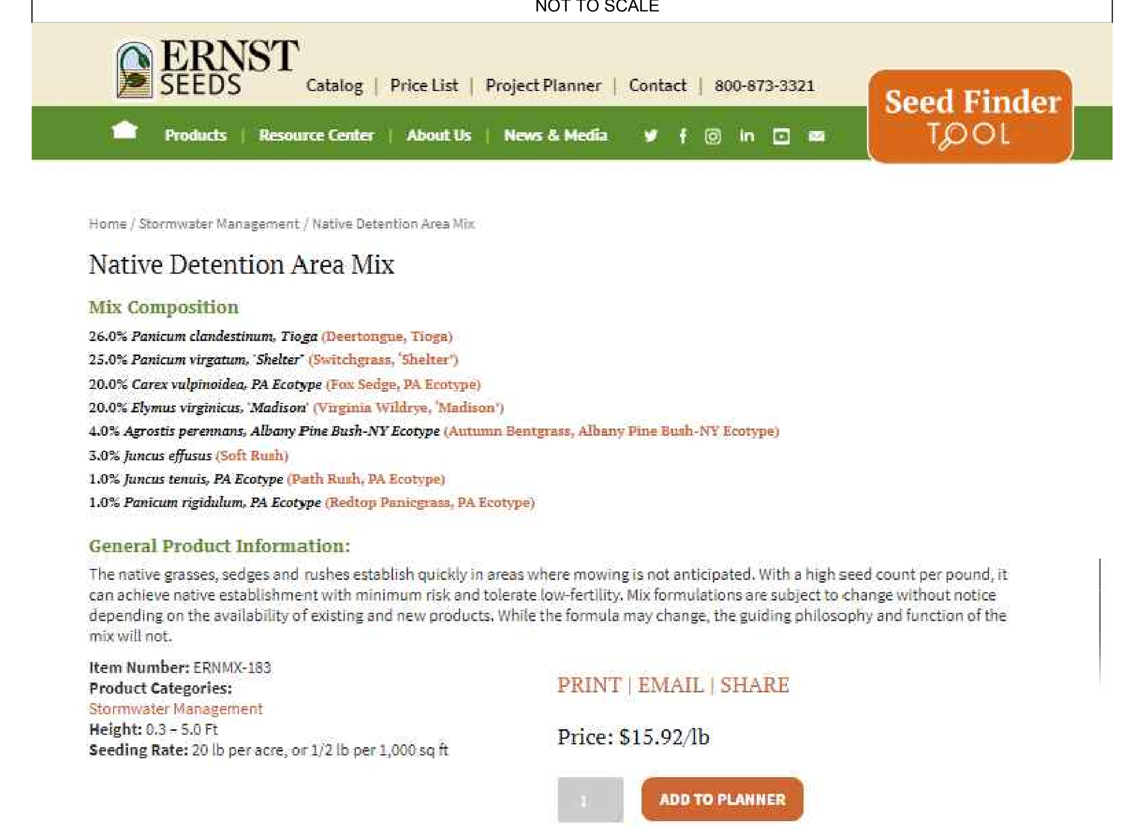
NOT TO SCALE



NOTES:
1. HERBACEOUS PERENNIALS TO BE PLANTED 18" O.C. IN GROUPS BETWEEN 15 TO 20 PLUGS
2. SHRUBS TO BE PLANTED 36" O.C. IN GROUPS BETWEEN 3 TO 7 CONTAINERS.
3. LANDSCAPE CONTRACTOR TO GROUP LIKE PLANTS TOGETHER IN EACH BED AS SHOWN IN PLANTING DISTRIBUTION PATTERN DETAIL.
4. ALL SUBMERGED GRAVEL WETLAND AREAS ARE TO BE FILLED WITH AN 8" LAYER OF BIORETENTION SOIL MIX (BSM).
5. PLACE THE BIORETENTION SOIL MIX (BSM) IN LOOSE LIFTS USING A CONVEYOR BELT. RAKE SOIL TO FINAL GRADE.

TYPICAL PLANTING FOR SUBMERGED GRAVEL WETLAND AREAS

NOT TO SCALE


ERNST SEEDS
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Seed Finder TOOL

Home / Stormwater Management / Native Detention Area Mix

Native Detention Area Mix

Mix Composition
26.0% *Panicum clandestinum, Tioga* (Deertongue, Tioga)
25.0% *Panicum virgatum, 'Shelter'* (Switchgrass, 'Shelter')
20.0% *Carex vulpinoidea, PA Ecotype* (Fox Sedge, PA Ecotype)
20.0% *Elymus virginicus, 'Madison'* (Virginia Wildrye, 'Madison')
4.0% *Agrostis perennans, Albany Pine Bush-NY Ecotype* (Autumn Bentgrass, Albany Pine Bush-NY Ecotype)
3.0% *Juncus effusus* (Soft Rush)
1.0% *Juncus tenuis, PA Ecotype* (Path Rush, PA Ecotype)
1.0% *Panicum rigidulum, PA Ecotype* (Redtop Panicgrass, PA Ecotype)

General Product Information:
The native grasses, sedges and rushes establish quickly in areas where mowing is not anticipated. With a high seed count per pound, it can achieve native establishment with minimum risk and tolerate low-fertility. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Item Number: ERNMX-183
Product Categories:
Stormwater Management
Height: 0.3 – 5.0 Ft
Seeding Rate: 20 lb per acre, or 1/2 lb per 1,000 sq ft

PRINT | EMAIL | SHARE
Price: $15.92/lb
1 ADD TO PLANNER

OWNER MAINTENANCE RESPONSIBILITIES

UPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, UPKEEP, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION, PLANTS, TREE, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS AND FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL.
- TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
- VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED SO THAT NO PORTION OF THE PLANT EXCEEDS 30 INCHES ABOVE GRADE (OF ALL PAVED, TRAVEL SURFACES) ALONG AND WITHIN THE SIGHT LINES OF PARKING LOTS AND INGRESS-EGRESS WAYS.
- FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATELY FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY OTHER HAZARDS.

THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER //
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

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PROJECT No.:	MD192104
DRAWN BY:	RMS
CHECKED BY:	AGS
DATE:	6/12/20
CAD I.D.:	LSP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

— FOR —

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER //
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

E.R. McWILLIAMS
11/03/2020
REGISTERED LANDSCAPE ARCHITECT
MARYLAND LICENSE No. 3697
PROFESSIONAL CERTIFICATION
I, ERIC R. McWILLIAMS, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3697, EXPIRATION DATE: 9/20/22

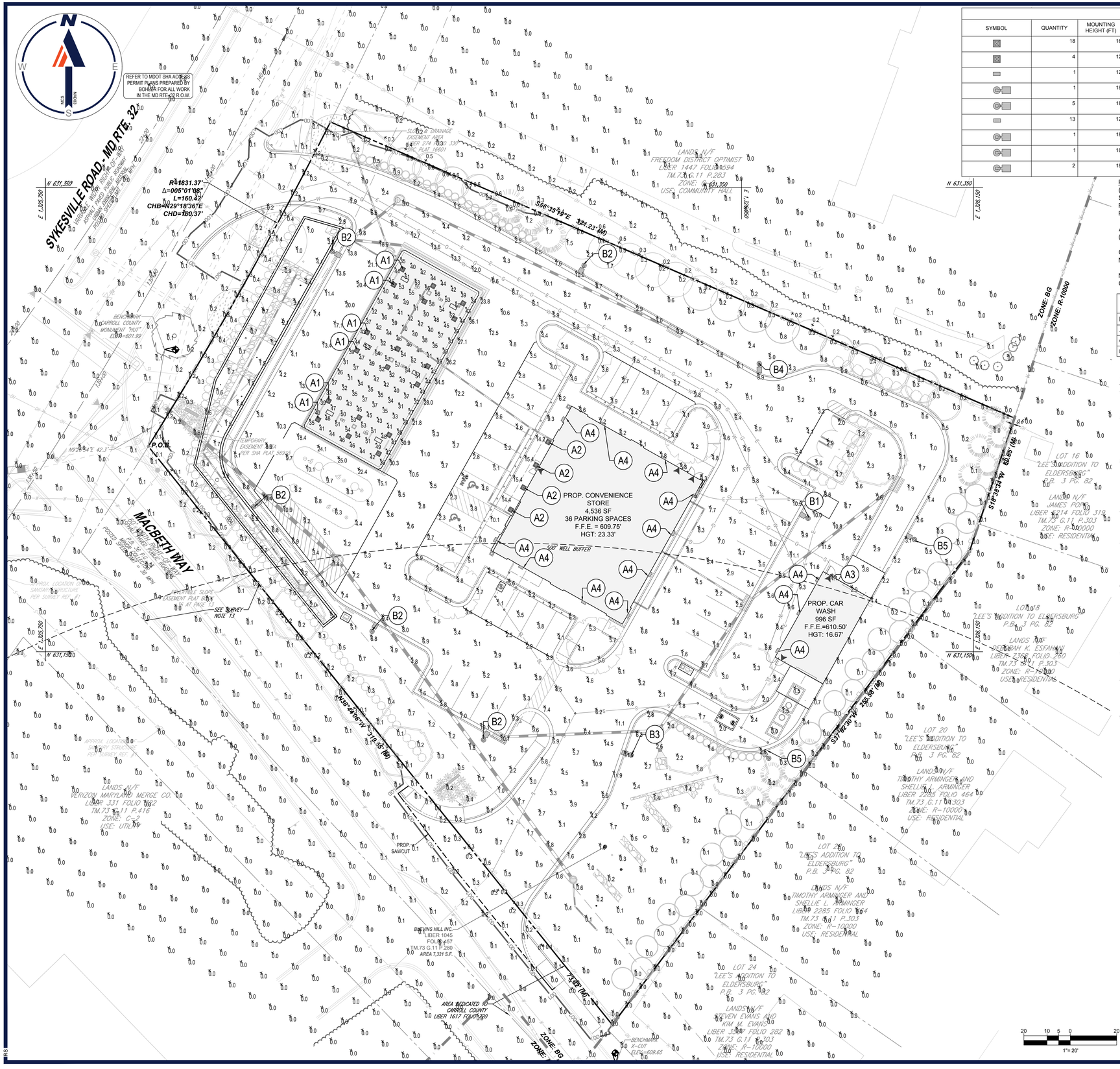
SHEET TITLE:

LANDSCAPE NOTES AND DETAILS

SHEET NUMBER:

REVISION 2 - 10/15/20

Nov 03, 2020
H:\19\MD192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-LSP-2----->LAYOUT: 19 - LANDSCAPE NOTES AND DETAILS
RS



LUMINAIRE SCHEDULE								
SYMBOL	QUANTITY	MOUNTING HEIGHT (FT)	LABEL	ARRANGEMENT	LMF	LUM. LUMENS	LUM. WATTS	PART NUMBER
	18	16	A1	SINGLE	1.0000	12860	96	CPY250-B-DM-F-B-UL-57K-WH-HZ
	4	12	A2	SINGLE	1.0000	4520	31	CPY250-B-DM-F-C-UL-57K-WH-HZ
	1	12	A3	SINGLE	1.0000	2490	19	XSPW-B-WM-4ME-2L-57K-UL-BZ
	1	18	B1	SINGLE	1.0000	23600	184	XSPLG-D-HT-4ME-24L-57K7-UL-BZ-N
	5	18	B2	SINGLE	1.0000	17400	184	XSPLG-D-HT-4ME-24L-57K7-UL-BZ-N w/XA-SP2BLS
	13	12	A4	WALL MOUNT	1.0000	4270	31	XSPW-B-WM-3ME-4L-57K-UL-BZ
	1	18	B3	SINGLE	1.0000	23600	184	XSPLG-D-HT-3ME-24L-57K7-UL-BZ-N
	1	18	B4	SINGLE	1.0000	11875	95	XSPMD-D-HT-3ME-12L-57K7-UL-BZ-N
	2	18	B5	SINGLE	1.0000	6250	69	XSPSM-D-HT-2ME-8L-57K7-UL-BZ-N w/XA-SP3BLS

POLE SCHEDULE

(10) SSS-4-11-17-CW-BS-OT-N-BZ (17' X 4" X 11GA STEEL SQUARE POLE)
POLES MOUNTED ON 1' CONCRETE BASE
PROPOSED POLES MEET 140 MPH SUSTAINED WINDS.

ADDITIONAL EQUIPMENT:
(10) PD-1H4BZ

CUSTOMER TO VERIFY TENON MOUNTING HARDWARE NEEDED TO MOUNT OVER PROVIDED POLES.

NOTE: CUSTOMER TO VERIFY ORDERING INFORMATION AND CATALOGUE NUMBER PRIOR TO PLACING ORDER.

BOM: COMPLETE PART DESCRIPTIONS
CPY250-B-DM-F-B-UL-WH-57K-HZ
CPY250-B-DM-F-C-UL-WH-57K-HZ
XSPLG-D-HT-3ME-24L-57K-UL-BZ-N
XSPLG-D-HT-4ME-24L-57K-UL-BZ-N
XSPMD-D-HT-3ME-12L-57K-UL-BZ-N
XSPSM-D-HT-2ME-8L-57K-UL-BZ-N
XSPW-B-WM-3ME-4L-57K-UL-BZ
XSPW-B-WM-4ME-2L-57K-UL-BZ
SSS-4-11-17-CW-BS-OT-N-BZ
PD-1H4BZ
XA-SP3BLS
XA-SP2BLS

CALCULATION SUMMARY (FOOTCALDLES CALCULATED USING PREDICTED LUMEN VALUES @ 5K HRS OF OPERATION)						
LABEL	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
ALL CALC. POINTS	FC	1.47	35.10	0.00	N/A	N/A
CANOPY	FC	43.20	58.00	26.00	1.66	2.23
PROPERTY LINE	FC	0.19	0.70	0.00	N/A	N/A

GENERAL LIGHTING NOTES

1. THIS PLAN IS TO BE UTILIZED FOR LIGHTING PURPOSES ONLY. REFER TO ELECTRICAL ENGINEERING PLANS FOR CIRCUITRY DESIGN AND SPECIFICATIONS.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER (BOHLER) FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE FIXTURE(S) IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.
3. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
4. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
5. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT NOT BE LIMITED TO, FREQUENT VISUAL INSPECTIONS, CLEANING OF LENSES, AND RELAMPING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD CAUSE THE LUMINARIES TO FUNCTION IMPROPERLY.
6. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, LAWS AND STATUTES.
7. CONTRACTOR MUST BRING TO THE DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
8. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE SITE PLAN, INCLUDING BUT NOT LIMITED TO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE LIKE.
9. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.

20 10 5 0 20
1"= 20'

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
LAND PLANNING SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
			RMS
1	8/14/20	REVISED PER COUNTY COMMENTS	AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

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PROJECT No.:	MD192104
DRAWN BY:	RMS
CHECKED BY:	AGS
DATE:	6/13/20
CAD I.D.:	LGP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

E.R. McWILLIAMS
11/03/2020
REGISTERED LANDSCAPE ARCHITECT
STATE OF MARYLAND, LICENSE NO. 3661
PROFESSIONAL CERTIFICATION
I, ERIC R. MCWILLIAMS, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3661, EXPIRATION DATE: 5/20/22

SHEET TITLE:

LIGHTING PLAN

SHEET NUMBER:

20 OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
H:\192104\DRAWING\PLAN SET\FINAL SITE PLANS\MD192104 LGP-2 — LAYOUT 20 - LIGHTING PLAN
RMS

CPY Series - Version B

CPY250® LED Canopy/Soffit Luminaire

Rev. Date: V16 03/02/2020

Product Description

The CPY250® LED Canopy/Soffit Luminaire has an extremely thin profile constructed of rugged cast aluminum. It can be surface mounted easily from below the canopy deck and can be pendant mounted. Direct imaging of the LEDs is eliminated with a highly efficient patterned flat or 0.91" (23mm) drop glass lens.

Applications: Petroleum canopies, CNG fueling stations, soffits

Performance Summary

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: Up to 20,080

Efficacy: Up to 151 LPW

CRI: Minimum 70 CRI

CCT: 3000K (+/- 300K), 4000K (+/- 300K), 5700K (+/- 500K)

Limited Warranty[1]: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

IP66 Rated (Direct Mount only)

Class I, Division 2 Hazardous Location for select models

[1] See http://creelighting.com/warranty for warranty terms

Accessories

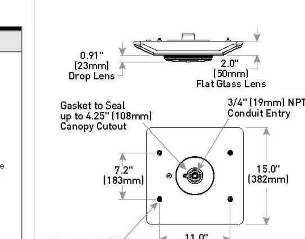
Field-Installed

Direct Mount Luminaires
Canopy Upgrade Kits (18 ga. steel, except where noted)
CPY-AP304* – for use with Cree Lighting CAN-304 luminaires, 16 ga. 5052 aluminum
XA-BXCCMW – for use with Jet-Philips, 21.60" (549mm) square, white
XA-BXCCNW – for use with Elsco Franciscan, 22.06" (560mm) square, white
XA-BXCCPW – for use with LSI Dakota or Masters, 22.50" (572mm) square, white
XA-BXCCQW – for use with Whiteway Riviera or Rig-A-Lite, 20.60" (523mm) square, white
XA-BXCCRW – for use with Elsco Merrit, 18.06" (459mm) square, white
XA-BXCCSW – for use with LSI Richmond or Whiteway Civic, 23.00" (584mm) L x 13.00" (330mm) W, white
Direct Mount Junction Box/Stem Kit
XA-BXCCJBOX – 6.0" (152mm) H x 3/4" (19mm) NPT Stem
- Watertight
- Rated for feed through 8 (4 in, 4 out) #12 AWC conductors
Direct Mount Beauty Plates
XA-BXCCBPW – 26.17" (665mm) Beauty Plate Only (18 ga. steel), white
XA-BXCCBPB12W – 26.17" (665mm) Beauty Plate (18 ga. steel) w/12" (305mm) Backer Plate (16 ga. steel), white
- For use in canopies where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 10.75" x 15" (183mm x 375mm)
XA-BXCCBPB16W – 26.17" (665mm) Beauty Plate (18 ga. steel) w/16" (406mm) Backer Plate (16 ga. steel), white
- For use in canopies where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 12" x 15" (305mm x 375mm)

Pendant Mount Luminaires
Pendant Mount Kits
XA-PS12KIT* – 5" (127mm) pendant
XA-PS18KIT* – 11" (279mm) pendant
XA-PS22KIT* – 15" (381mm) pendant
- Includes two conduit fittings and 3/4-14 NPT pipe threaded on two ends
Hand-Held Remote
XA-SENSREM
- For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

*Must specify color: BK (Black), BZ (Bronze), SV (Silver) or WH (White)

DM Mount



Weight
12.5 lbs. (5.7kg)

Ordering Information

Example: CPY250-B-DM-D-A-UL-SV

CPY250	B							
Product	**Version**	**Mounting**	**Optic**	**Lumen Package/ Input Power Designator**	**Voltage**	**Color Options**	**CCT**	**Options**
CPY250	B	DM Direct HC Hook & Cord PD Pendant	D 0.91" (23mm) Drop Lens F Flat Lens	A 60W 13L 91W B 96W C 31W E 145W F 85W	UL Universal 120-277V UH* Universal 347-480V - Available with B, E & F input power designators only - Must specify either 34 or 48 voltage with 13L, A and C 34* 347V - Available with 13L lumen package and A & C input power designators only 48* 480V - Available with 13L lumen package and A & C input power designators only	BK Black BZ Bronze SV Silver WH White	30K 3000K 40K 4000K 57K 5700K	DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed wattage of specified lumen package/ Input Power Designator HZ Class I, Div. 2 Hazardous Location Certification - Available with DM and PD mounts only - A & C input power designators are available for DM and PD mounts except PD mount with 34 & 48 voltages in Canada - Not available with K or PML options K NSF 2 Certification - Luminaires include NSF certification mark - Available with the DM mount only - Not available with the HZ or PML options PML Programmable Multi-Level - Available with UL voltage only - Refer to PML spec sheet for details

* 13L lumen package and A & C input power designators utilize a magnetic step-down transformer. For input power for 347 and 480V, refer to the Electrical Data table

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Canada: creelighting-canada.com T (800) 473-1234

CREE ÷ LIGHTING

CPY250® LED Canopy/Soffit Luminaire - Version B

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Easy mounting and servicing from below the deck
- Luminaire housing is constructed of rugged cast aluminum with integral heat sink specifically designed for LED
- Flat lens is 0.125" tempered Solite® glass
- Drop lens is 0.157" molded borosilicate glass
- Direct mount is suitable for use in single or double skin canopies with a minimum 4.0" (102mm) wide panels and a minimum 22 gauge, 0.030" (0.7mm) canopy thickness
- Direct mount luminaire mounts directly to the canopy deck with the drilling of a single 2" to 4" (51mm to 102mm) round hole, is secured in place with self-sealing screws that provide a weathertight seal and includes 3/4" (19mm) conduit entry for direct wire feed
- Hook and cord mount includes a 3' (0.91m) cord out of the luminaire and is intended to hang from the single hook
- Standard pendant mount includes a mounting bracket and a J-Box for customer wiring and is intended to be mounted by 3/4 IP pendant (by others)
- Hazardous location pendant mount has a threaded hub which accepts 3/4" NPT conduit (by others) and secures with a 1/4"-20 set screw
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available
- **Weight:** 12.5 lbs. (5.7kg)

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 6kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current

CONTROLS

- Continuous dimming to 10% with 0-10V DC control protocol
- **10V Source Current:** 0.15mA
- Use only lighting controls with neutral connection or controls intended for use with LED fixtures
- Reference LED Dimming spec sheet for additional dimming information

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations when ordered with DM and DM mount with HZ option. Covered ceiling required only when not used with cULus Listed, wet location junction box or XA-BXCCJBOX accessory
- Suitable for damp locations when ordered with HC and PD mounts. Designed for indoor use only
- Suitable for wet locations when ordered with PD mount and HZ option
- Enclosure rated IP66 per IEC 60529 when ordered with DM mount. Exceptions apply when HZ option is selected
- Consult factory for CE Certified products
- 6kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Class I, Division 2 Hazardous Location rated when ordered with the DM or PD mount and the HZ option. A & C input power designators are available for DM and PD mounts except PD mount with 34 & 48 voltages in Canada. Not available with K or PML options. Rated for Groups A, B, C & D. Bears a T3C (160°C) temperature classification within a 25°C ambient
- NSF Certified when ordered with DM mount and K option. Not available with HZ or PML options. Refer to http://info.nsf.org/Certified/Food/ for additional details
- DLC and DLC Premium qualified versions available. Please refer to https://www.designlights.org/search/ for most current information
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT and Flat Lens (F). Please refer to https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/ for most current information
- CA RESIDENTS WARNING: Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*

Lumen Package/ Input Power Designator	System Watts 120-277V	System Watts 347-480V; 347/480V	Total Current (A) 120V	208V	240V	277V	347V	480V
A	60	68	0.51	0.29	0.25	0.22	0.20	0.14
13L	91	102	0.79	0.45	0.39	0.34	0.30	0.21
B	96	96	0.82	0.47	0.40	0.35	0.28	0.20
C	31	33	0.26	0.15	0.13	0.11	0.10	0.07
E	145	145	1.22	0.70	0.61	0.53	0.42	0.30
F	85	85	0.72	0.41	0.36	0.31	0.24	0.18

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

CPY Series (Version B) Ambient Adjusted Lumen Maintenance[1]

Ambient	Lumen Package/ Input Power Designator	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Estimated[3] LMF	100K hr Estimated[3] LMF
5°C (41°F)	A/B/C/E/F	1.03	1.00	0.96	0.93	0.90
	13L	1.04	1.01	1.00	0.98	0.97
10°C (50°F)	A/B/C/E/F	1.02	0.99	0.95	0.92	0.89
	13L	1.03	1.00	0.99	0.97	0.96
15°C (59°F)	A/B/C/E/F	1.02	0.99	0.95	0.92	0.89
	13L	1.02	0.99	0.98	0.96	0.95
20°C (68°F)	A/B/C/E/F	1.01	0.98	0.95	0.91	0.88
	13L	1.01	0.98	0.97	0.95	0.94
25°C (77°F)	A/B/C/E/F	1.00	0.97	0.94	0.90	0.87
	13L	1.00	0.97	0.96	0.94	0.93
30°C (86°F)	A/B/C/E/F	0.99	0.96	0.93	0.90	0.87
	13L	0.99	0.96	0.95	0.93	0.92

[1] Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions.
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.
[3] Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

Operating Temperature Range

Lumen Package/ Input Power Designator	Direct Mount to Plywood	Direct Mount to Sheet Metal/ Suspended	Class 1, Division 2 Hazardous Location: Direct Mount to Plywood	Direct Mount to Sheet Metal/Suspended
A	-40°C to +40°C	-40°C to +45°C	-40°C to +25°C	
13L/B	-40°C to +35°C	-40°C to +40°C		
C	-40°C to +45°C	-40°C to +50°C		
E	-40°C to +35°C	-40°C to +40°C		
F	-40°C to +40°C	-40°C to +45°C		

WARNING: Exceeding maximum operating temperature may result in thermal foldback

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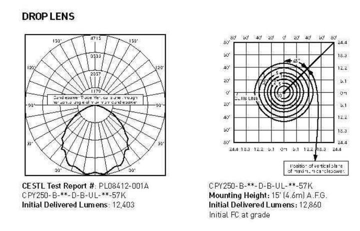
CREE ÷ LIGHTING

CPY250® LED Canopy/Soffit Luminaire - Version B

Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards.
To obtain an IES file specific to your project consult: http://creelighting.com/products/outdoor/canopy-and-soffit/cpy-series

DROP LENS



CESTL Test Report #: PL08412-001A
CPY250-B-**-D-B-UL-**-57K
Initial Delivered Lumens: 12,403

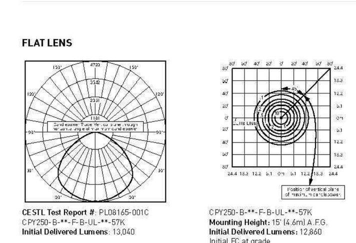
CPY250-B-**-D-B-UL-**-57K
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 12,860
Initial FC at grade

Drop Lens Distribution

Lumen Package/ Input Power Designator	3000K Initial Delivered Lumens*	3000K BUG Ratings** Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings** Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Ratings** Per TM-15-11
A	7,250	B3 U2 G1	7,600	B3 U2 G1	7,720	B3 U2 G1
13L	11,900	B3 U2 G1	12,800	B3 U2 G1	12,825	B3 U2 G1
B	11,850	B3 U2 G1	12,380	B3 U2 G1	12,860	B3 U2 G1
C	4,210	B2 U2 G1	4,420	B2 U2 G1	4,520	B2 U2 G1
E	19,100	B4 U3 G2	19,600	B4 U3 G2	20,080	B4 U3 G2
F	11,850	B3 U2 G1	12,380	B3 U2 G1	12,860	B3 U2 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf

FLAT LENS



CESTL Test Report #: PL08165-001C
CPY250-B-**-F-B-UL-**-57K
Initial Delivered Lumens: 13,040

CPY250-B-**-F-B-UL-**-57K
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 12,860
Initial FC at grade

Flat Lens Distribution

Lumen Package/ Input Power Designator	3000K Initial Delivered Lumens*	3000K BUG Ratings** Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings** Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Ratings** Per TM-15-11
A	7,250	B3 U0 G1	7,600	B3 U0 G1	7,720	B3 U0 G1
13L	11,900	B3 U0 G1	12,800	B3 U0 G1	12,825	B3 U0 G1
B	11,850	B3 U0 G1	12,380	B3 U0 G1	12,860	B3 U0 G1
C	4,210	B2 U0 G1	4,420	B2 U0 G1	4,520	B2 U0 G1
E	19,100	B4 U0 G1	19,600	B4 U0 G1	20,080	B4 U0 G1
F	11,850	B3 U0 G1	12,380	B3 U0 G1	12,860	B3 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf

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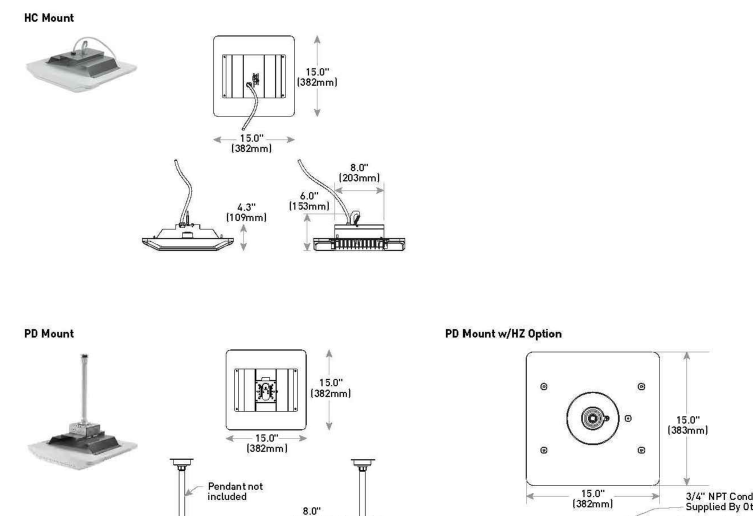
CREE ÷ LIGHTING

CPY250® LED Canopy/Soffit Luminaire - Version B

HC Mount

PD Mount

PD Mount w/HZ Option



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CREE ÷ LIGHTING

XSP Series

XSPMD LED Street/Area Luminaire – Medium

Rev. Date: V4 12/04/2019

Product Description

Designed from the ground up as a totally optimized LED street and area lighting system, the XSP Series delivers incredible efficiency without sacrificing application performance. Beyond substantial energy savings and reduced maintenance, Cree Lighting achieves greater optical control with our NanoOptic® Precision Delivery Grid™ optic when compared to traditional cobra head luminaires. The XSP Series is the better alternative for traditional street and area lighting with quick payback and improved performance.

Applications: Collector roads, major roads, parking lots, and general area spaces

Performance Summary

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: Up to 11,875

Efficacy: Up to 125 LPW

CRI: Minimum 70 CRI

CCT: 2700K, 3000K, 4000K, 5000K, 5700K

Limited Warranty[1]: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

[1] See http://creelighting.com/warranty for warranty terms

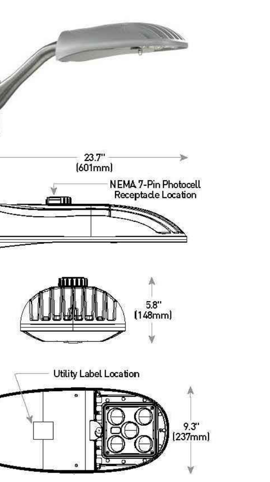
Accessories

Field-Installed

Backlight Control Shield XA-SP1BLS
- Provides 1 mounting height cutoff
- Polycarbonate construction
- Refer to initial delivered lumen tables for lumen output

Bird Spikes XSP-BRDGRDM

Shorting Cap XA-XSLSHRT



Weight
14.2 lbs. (6.4kg)

Ordering Information

Example: XSPMD-D-HT-2LG-12L-27K7-UL-SV-N

XSPMD	D	HT		12L				N	
Product	**Version**	**Mounting**	**Optic**	**Lumen Package****	**CCT/CRI**	**Voltage**	**Color Options**	**Utility Label/ Receptacle**	**Options**
XSPMD	D	HT Horizontal Tenon	Asymmetric 2LG* Type II Long 2ME* Type II Medium 3ME* Type III Medium 4ME* Type IV Medium Symmetric 5SH Type V Short	12L 12,000 Lumens	27K7 2700K, 70 CRI 30K7 3000K, 70 CRI 40K7 4000K, 70 CRI 50K7 5000K, 70 CRI 57K7 5700K, 70 CRI	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White	N Utility Label and NEMA® 7-Pin Photocell Receptacle - External wattage label per ANSI C136.15 - 7-pin receptacle per ANSI C136.41 - Receptacle leads are factory connected to the driver - Requires photocell or shorting cap (by others)	DLI DALI Compatible - Available with UL voltage only - Not available with Q or X options G Small Four Bolt Mounting - Mounts to 1.25" (32mm) IP, 1.66" (42mm) O.D. horizontal tenon J Large Four Bolt Mounting - Mounts to 2" (51mm) IP, 2.375" (60mm) O.D. horizontal tenon Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1 Field Adjustable Output - Must select Q9, Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range lumen adjustability - Includes wattage label for setting selected - Refer to page 8 for power and lumen values - Luminaire may also be dimmed through 7-Pin receptacle with use of dimming control by others X8/X7/X6/X5/X4/X3/X2/X1 Locked Lumen Output - Must select X8, X7, X6, X5, X4, X3, X2, or X1 - Lumen output is permanently locked to the setting selected - Includes wattage label for setting selected - Refer to page 8 for power and lumen values - Dimming is only available through 7-Pin receptacle with use of dimming control by others

* Available with Backlight Shield when ordered with field-installed accessory (see table above)
** Lumen Package codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values

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CREE ÷ LIGHTING

XSP Series

XSPW™ LED Wall Mount Luminaire featuring Cree TrueWhite® Technology

Rev. Date: VersionB V4 02/25/2020

Product Description

The XSPW™ LED wall mount luminaire has a slim, low profile design intended for outdoor wall mounted applications. The rugged lightweight aluminum housing and mounting box are designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes. The luminaire allows for through-wired or conduit entry from the top, bottom, sides and rear. The housing design is intended specifically for LED technology including a weathertight LED driver compartment and thermal management. Optic design features industry-leading NanoOptic® Precision Delivery Grid™ system in multiple distributions.

Applications: General area and security lighting

Performance Summary

NanoOptic® Precision Delivery Grid™ optic

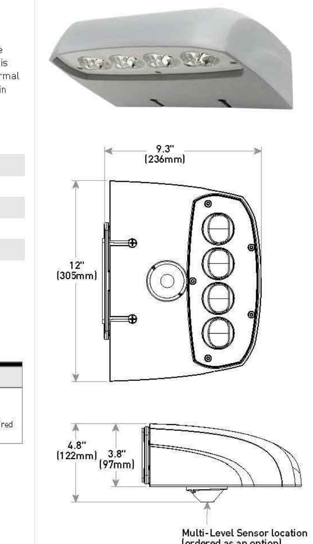
Assembled in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty[1]: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

[1] See http://creelighting.com/warranty for warranty terms



Accessories

Field-Installed

Beauty Plate
WM-PLT12** - 12" (305mm) Square
WM-PLT14** - 14" (356mm) Square
- Covers holes left by incumbent wall packs

Hand-Held Remote
XA-SENSREM
- For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

** Must specify color

Lumen Package	Weight
2L, 4L, 6L	11.0 lbs. (5.0kg)
8L	11.8 lbs. (5.4kg)

Ordering Information

Example: XSPW-B-WM-2ME-2L-30K-UL-BK

XSPW	B	WM						
Product	**Version**	**Mounting**	**Optic**	**Lumen Package***	**CCT**	**Voltage**	**Color Options**	**Options**
XSPW	B	WM Wall	2ME Type II Medium 3ME Type III Medium 4ME Type IV Medium	2L 2,490 lumens 4L 4,270 lumens 6L 6,100 lumens 8L 8,475 lumens	30K 3000K - 70 CRI 40K 4000K - 70 CRI 50K 5000K - 90 CRI 57K 5700K - 70 CRI	UL Universal 120-277V UH Universal 347-480V 34 347V - For use with P option only	BK Black BZ Bronze SV Silver WH White	ML Multi-Level - Refer to ML spec sheet for details - Available with UL voltage only P Button Photocell - Not available with ML or PML options - Available with UL and 34 voltages only PML Programmable Multi-Level - Refer to PML spec sheet for details - Available with UL voltage only

* Lumen Package selection codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE ÷ LIGHTING

XSPW™ LED Wall Mount Luminaire

Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire housing specifically designed for LED applications with advanced LED thermal management and driver
- Luminaire mounting box designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Exclusive Colorfast DeltaGuard® finish features an E-coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, black, white and bronze are available
- **Weight:** 2L, 4L, 6L - 11.0 lbs. (5.0kg); 8L - 11.8 lbs. (5.4kg)

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Controls by others
- **10V Source Current:** 0.15 mA
- Refer to Dimming spec sheet for details
- **Operating Temperature Range:** -40°C - +50°C (-40°F - +122°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Designed for downlight applications only
- Enclosure rated IP66 per IEC 60598
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT. Please refer to https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/ for most current information
- DLC and DLC Premium qualified versions available. Please refer to https://www.designlights.org/search/ for most current information
- CA RESIDENTS WARNING: Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*

Lumen Package	CCT/CRI	System Watts 120-480V	Efficacy	120V	208V	240V	277V	347V	480V
2L	30K/70 CRI	20	125	0.17	0.10	0.08	0.07	0.06	0.05
	40K/70 CRI	19	131	0.16	0.09	0.08	0.07	0.06	0.04
	50K/90 CRI	24	104	0.20	0.11	0.10	0.08	0.07	0.05
	57K/70 CRI	19	131	0.16	0.09	0.08	0.07	0.06	0.04
4L	30K/70 CRI	33	129	0.28	0.16	0.14	0.13	0.10	0.07
	40K/70 CRI	31	138	0.27	0.15	0.13	0.12	0.09	0.07
	50K/90 CRI	40	107	0.34	0.20	0.17	0.16	0.12	0.09
	57K/70 CRI	31	138	0.26	0.15	0.13	0.12	0.09	0.07
6L	30K/70 CRI	51	120	0.43	0.25	0.22	0.19	0.14	0.11
	40K/70 CRI	47	130	0.40	0.23	0.20	0.18	0.14	0.10
	50K/90 CRI	60	102	0.51	0.29	0.25	0.23	0.17	0.13
	57K/70 CRI	47	130	0.40	0.23	0.20	0.17	0.14	0.10
8L	30K/70 CRI	77	110	0.65	0.38	0.32	0.28	0.22	0.16
	40K/70 CRI	72	118	0.61	0.35	0.31	0.27	0.21	0.15
	50K/90 CRI	78	89	0.66	0.37	0.33	0.29	0.22	0.16
	57K/70 CRI	71	119	0.60	0.35	0.30	0.26	0.20	0.15

(Columns 120V–480V: Total Current (A).)

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

XSPW Series Ambient Adjusted Lumen Maintenance Factors[1]

Ambient	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Estimated[3] LMF	100K hr Estimated[3] LMF
5°C (41°F)	1.03	0.98	0.96	0.94	0.92
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.92
20°C (68°F)	1.01	0.96	0.95	0.93	0.91
25°C (77°F)	1.00	0.96	0.94	0.92	0.90
30°C (86°F)	0.99	0.95	0.93	0.91	0.89
35°C (95°F)	0.98	0.94	0.92	0.90	0.88
40°C (104°F)	0.97	0.93	0.91	0.89	0.87

[1] Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions.
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.
[3] Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

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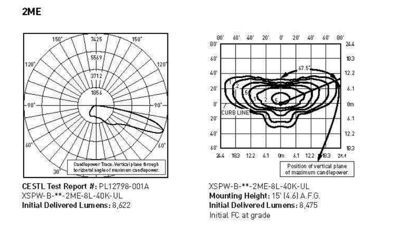
XSPW™ LED Wall Mount Luminaire

Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: http://creelighting.com/products/outdoor/wall-mount/xsp-series-wall

2ME



CESTL Test Report #: PL12798-001A
XSPW-B-**-2ME-8L-40K-UL
Initial Delivered Lumens: 8,622

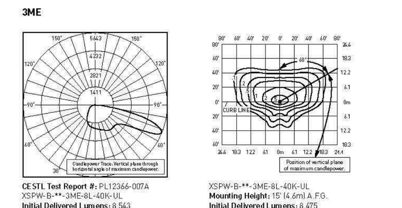
XSPW-B-**-2ME-8L-40K-UL
Mounting Height: 15' (4.6) A.F.G.
Initial Delivered Lumens: 8,475
Initial FC at grade

Type II Medium Distribution

Lumen Package	3000K Initial Delivered Lumens*	3000K BUG Ratings** Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings** Per TM-15-11	5000K Initial Delivered Lumens*	5000K BUG Ratings** Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B2 U0 G2	8,475	B2 U0 G2	6,925	B1 U0 G2	8,475	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf

3ME



CESTL Test Report #: PL12366-007A
XSPW-B-**-3ME-8L-40K-UL
Initial Delivered Lumens: 8,543

XSPW-B-**-3ME-8L-40K-UL
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 8,475
Initial FC at grade

Type III Medium Distribution

Lumen Package	3000K Initial Delivered Lumens*	3000K BUG Ratings** Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings** Per TM-15-11	5000K Initial Delivered Lumens*	5000K BUG Ratings** Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B2 U0 G2	8,475	B2 U0 G2	6,925	B1 U0 G2	8,475	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf

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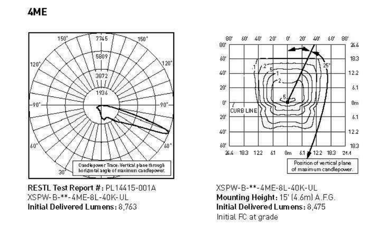
CREE ÷ LIGHTING

XSPW™ LED Wall Mount Luminaire

Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: http://creelighting.com/products/outdoor/wall-mount/xsp-series-wall

4ME



RESTL Test Report #: PL14415-001A
XSPW-B-**-4ME-8L-40K-UL
Initial Delivered Lumens: 8,763

XSPW-B-**-4ME-8L-40K-UL
Mounting Height: 15' (4.6m) A.F.G.
Initial Delivered Lumens: 8,475
Initial FC at grade

Type IV Medium Distribution

Lumen Package	3000K Initial Delivered Lumens*	3000K BUG Ratings** Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings** Per TM-15-11	5000K Initial Delivered Lumens*	5000K BUG Ratings** Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B1 U0 G2	8,475	B1 U0 G2	6,925	B1 U0 G2	8,475	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf

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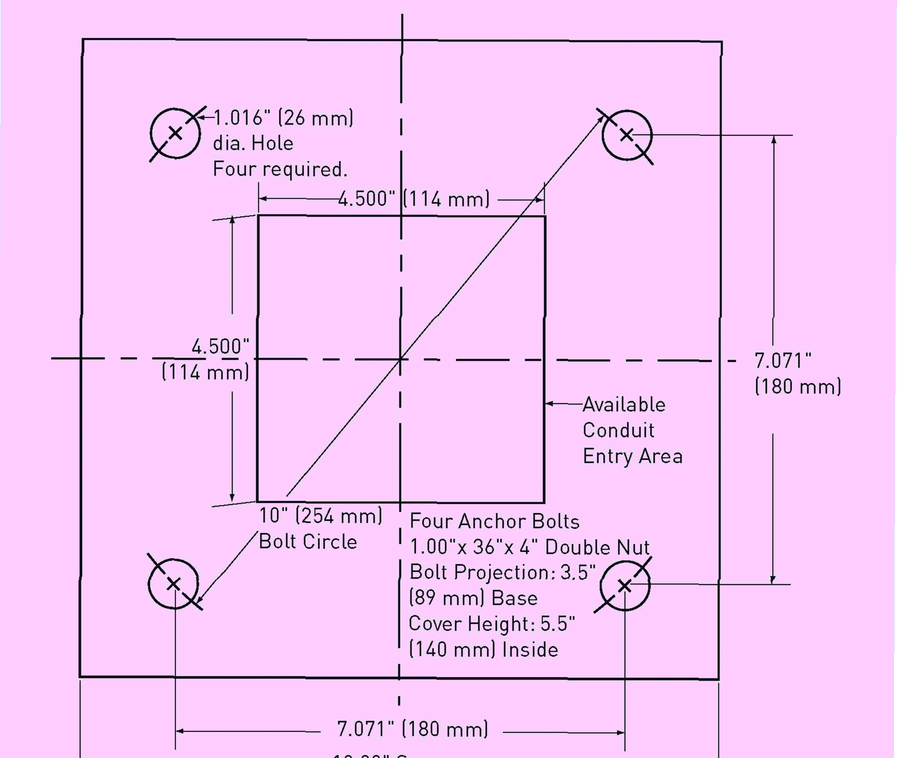
CREE ÷ LIGHTING

SSS Series
Square Straight Steel Pole
5" (127mm) Square Steel Pole Mounting Template

INSTALLATION INSTRUCTIONS
INSTRUCTIONS D'INSTALLATION

NOT TO SCALE



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1 of 1

LPN0544X0005A0_A

SSS Series

Crown-Weld® Straight Square Steel Poles

Rev. Date: V5 02/24/2020

Product Description

Cree Lighting's proprietary Crown-Weld® pole base crown weld configuration was designed to minimize stress in areas most vulnerable to failure, provide superior strength and higher wind load ratings, than poles of similar height and cross-section. Both premium pole design and extended life finish combine for a 7-year limited warranty for a reduced lifetime cost of ownership.

Non-tapered square steel poles are supplied with a painted galvanized steel 2-piece base cover, four partially galvanized anchor bolts, Masonite mounting template and pole cap (except open top mount). Steel pole base has slotted holes to accommodate installation. A standard 3" x 5" hand hole is located 14" above the bottom of pole base on 4-6" poles. 3" poles have a 2-5/8" x 4-1/2" hand hole located 14" above the bottom of the base plate. A 1/2" stainless-steel weld stud with grounding lug is located inside the pole, opposite the hand hole.

Cree Lighting poles are steel shot cleaned to remove any rust, mill scale, oxides, or other unwanted particles from the pole resulting in a surface preparation that exceeds the specifications published by the SSPC-SP10. Iron phosphate is then applied, creating an iron oxide base with a flat or amorphous metal phosphate topcoat. This coating significantly adds to the performance of the finished coating by improving bonding and minimizing the spread of oxidation if the coating is scratched, improving corrosion resistance. Polyester powder coating is applied to a 6-mil thickness.

CONSTRUCTION & MATERIALS

- Square, non tapered pole of structural steel tubing (ASTM A 500 Grade B) with a minimum yield strength of 50,000 p.s.i. (4-6" poles) or 46,000 p.s.i. (3" poles) welded to a formed carbon steel base plate (ASTM A-36 HRS) with a minimum yield strength of 36,000 p.s.i.
- Anchor bolts (F1554 Grade 55) are "L" bent bars having a minimum yield strength of 55,000 p.s.i. The bolts are at least partially galvanized per ASTM A153 specifications and furnished complete with two (2) hex nuts and 2 flat washers
- Base cover is 2 pc.16 ga. painted galvannealed steel which connects with two 410 stainless steel screws included
- Pole cap is painted PVC
- Optional GFI receptacle available. Refer to page 3 for details

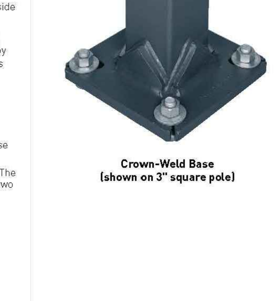
REGULATORY & VOLUNTARY QUALIFICATIONS

- National Electrical Code Requirements
- UL Listed in US for electrical ground bonding
- CSA Certified in Canada for ground bonding and structural strength
- RoHS Compliant (consult factory for details)

LIMITED WARRANTY[1]

- 7 years on pole and tenons/7 years on finish /1 year on GFI receptacle

[1] See http://creelighting.com/warranty for warranty terms



Crown-Weld Base (shown on 3" square pole)

Ordering Information

Fully assembled pole is composed of two components that must be ordered separately. If required, a GFI must also be requested at time of order.
Example: **Anchor Bolts:** SSS-4-AB-3/4-28 + **Pole:** SSS-4-7-25-CW-BS-1D-C-BZ + **Optional GFI:** SSS-GFI-STANDARD

Anchor Bolts (Pole must be ordered separately)

SSS-
SSS-3-AB-3/4-18 Anchor Bolts/Template, 3/4" Diameter, 3" Poles
SSS-4-AB-3/4-18 Anchor Bolts/Template, 3/4" Diameter, 4" Poles (10-12')
SSS-4-AB-3/4-28 Anchor Bolts/Template, 3/4" Diameter, 4" Poles (15'+)
SSS-5-AB-1-36 Anchor Bolts/Template, 1" Diameter, 5" Poles
SSS-6-AB-1-36 Anchor Bolts/Template, 1" Diameter, 6" Poles

Optional GFI (Pole and Anchor Bolts must be ordered separately)

SSS-GFI-STANDARD
- Located 28" above the base of the pole on same side as hand hole. Consult factory for placement in other locations
- Not available with 3" poles

Pole (Anchor bolts must be ordered separately)

SSS						CW	BS			
Design	**Cross Section**	**Material**	**Shaft Size**	**Wall Thickness (GA)**	**Mounting Height**	**Base Type**	**Base Casting/ Cover**	**Mounting Configuration**	**Fixture Mounting Pattern**	**Finish**
S Straight	S Square	S Steel	3 = 3" 4 = 4" 5 = 5" 6 = 6"	3" Poles 11 11 gauge (0.125") 4" Poles 11 11 gauge (0.125") 7 7 gauge (0.188") - Available only in 20', 22', 25' and 30' mounting heights 5" Poles 7 7 gauge (0.188") 6" Poles 7 7 gauge (0.188")	3" Poles 10 = 10' 15 = 15' 4" Poles 10 = 10' 12 = 12' 15 = 15' 17 = 17' 20 = 20' 22 = 22' 25 = 25' 27 = 27' 30 = 30' 5" Poles 15 = 15' 20 = 20' 22 = 22' 25 = 25' 30 = 30' 6" Poles 25 = 25' 30 = 30'	CW Crown Weld	BS Standard Metal	1D Drilled Single 2D90 Drilled 2@90deg 2D18 Drilled Twin@180deg 3D90 Drilled 3@90deg 4D90 Drilled 4@90deg OT* Open top to accept internal mount tenons or brackets	C Standard - Not available with OT mounting configuration - Not for use with THE EDGE® High Output luminaires N None - Required with OT mounting configuration - Not available with mounting configurations other than OT	BK Black BZ Bronze SV Silver WH White

*Order tenon separately. Refer to Bracket and Tenons spec sheet for additional information

CA RESIDENTS WARNING: Cancer and Reproductive Harm – www.p65warnings.ca.gov

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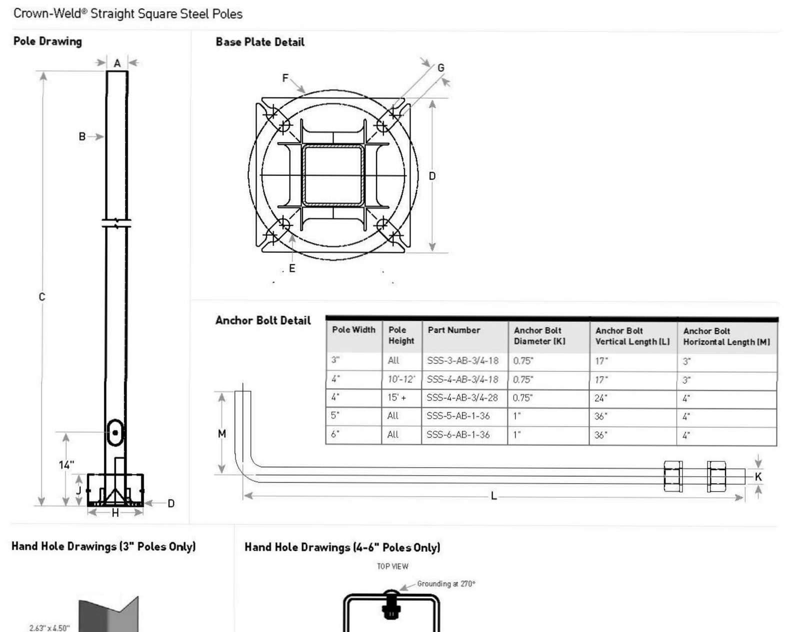
Crown-Weld® Straight Square Steel Poles

Pole Drawing

Base Plate Detail

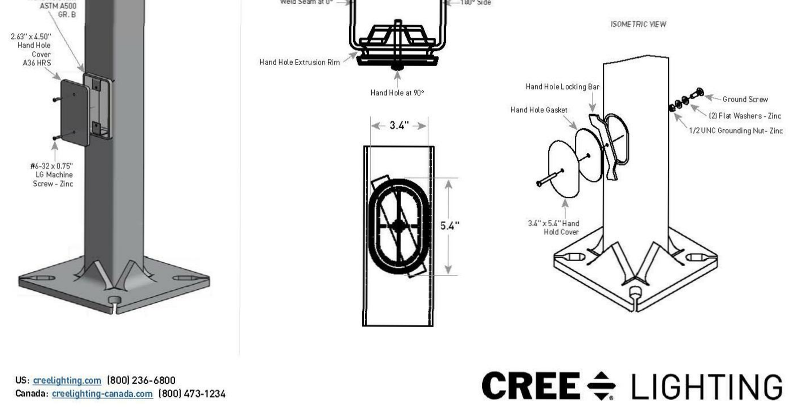


Anchor Bolt Detail

Pole Width	Pole Height	Part Number	Anchor Bolt Diameter (K)	Anchor Bolt Vertical Length (L)	Anchor Bolt Horizontal Length (M)
3"	All	SSS-3-AB-3/4-18	0.75"	17"	3"
4"	10'-12'	SSS-4-AB-3/4-18	0.75"	17"	3"
4"	15' +	SSS-4-AB-3/4-28	0.75"	24"	4"
5"	All	SSS-5-AB-1-36	1"	36"	4"
6"	All	SSS-6-AB-1-36	1"	36"	4"

Hand Hole Drawings (3" Poles Only)

Hand Hole Drawings (4-6" Poles Only)



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CREE ÷ LIGHTING

Crown-Weld® Straight Square Steel Poles

Fixture Mounting Drill Patterns

Optional GFI (shown on 4-6" pole)

CONSTRUCTION & MATERIALS

- Heavy-duty steel construction
- Lockable security cover
- Includes adapter plates and foam gasket
- 20A, 120V, 60Hz GFCI, and cover also included
- 3-1/4" internal depth
- Standard GFI is located 28" above the pole base on the same side as the hand hole. Consult factory for placement in other locations
- Weatherproof while in use
- Meets NEC Extra Duty requirements
- Receptacle and cover ship separately in hardware bag

Tenon EPA

Part Number	EPA
PB-1A*	None
PB-2A*	0.82
PB-3A*	1.52
PB-4A* (180)	2.22
PB-4A* (90)	1.11
PD Series Tenons	0.09
PW-1A3**	0.47
PW-2A3**	0.94
XA-TMDA8	0.07

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Canada: creelighting-canada.com (800) 473-1234

CREE ÷ LIGHTING

Crown-Weld® Straight Square Steel Poles

Dimensions, EPA & Weight

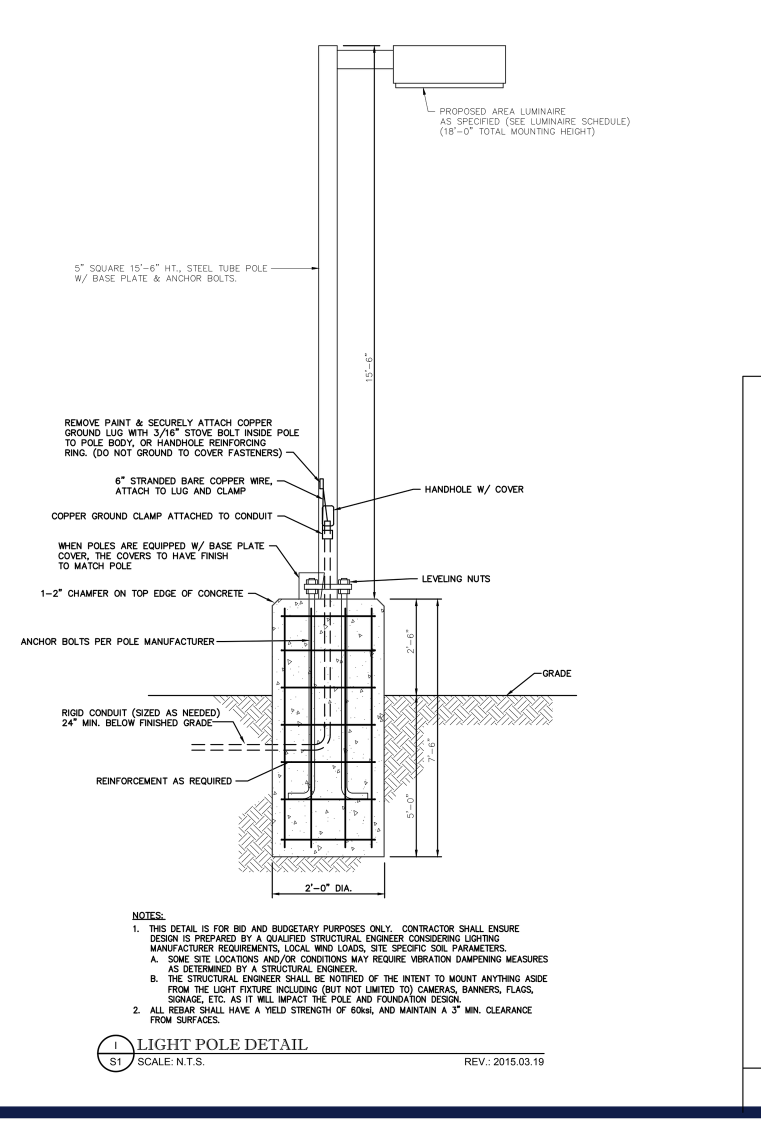
Product	Width (A) x Wall (B) x Height (C)	Base Plate (D) x Thickness	Bolt Circle Range Min (E) - Max (F)	Bolt Hole Size (G)	Base Cover (H) x Height (J)	EPA 70	EPA 80	EPA 90	EPA 100	EPA 110	EPA 120	EPA 130	EPA 140	Maximum Luminaire Weight	Approx. Shipping Weight
SSS-3-11-10-CW-BS	3" x 11ga. x 10'	10" Sq. x 0.50"	9.25"-11"	0.88"	10.44" SQ x 5.5"	31.4	23.6	18.2	14.3	11.5	9.3	7.0	6.3	250 lbs. (114kg)	58 lbs. (26kg)
SSS-3-11-15-CW-BS	3" x 11ga. x 15'	10" Sq. x 0.50"	9.25"-11"	0.88"	10.44" SQ x 5.5"	18.5	13.4	9.9	7.4	5.5	4.1	3.0	2.2	250 lbs. (114kg)	82 lbs. (37kg)
SSS-4-11-10-CW-BS	4" x 11ga. x 10'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	59.9	45.2	35.1	27.9	22.6	18.5	15.4	12.9	350 lbs. (159kg)	78 lbs. (35kg)
SSS-4-11-12-CW-BS	4" x 11ga. x 12'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	48.4	36.2	27.9	21.9	17.5	14.2	11.6	9.5	350 lbs. (159kg)	99 lbs. (45kg)
SSS-4-11-15-CW-BS	4" x 11ga. x 15'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	36.5	26.9	20.3	15.6	12.1	9.5	7.4	5.8	350 lbs. (159kg)	119 lbs. (54kg)
SSS-4-11-17-CW-BS	4" x 11ga. x 17'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	30.7	22.3	16.6	12.5	9.4	7.1	5.3	3.9	350 lbs. (159kg)	131 lbs. (59kg)
SSS-4-11-20-CW-BS	4" x 11ga. x 20'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	24.0	16.9	12.1	8.7	6.1	4.2	2.7	1.5	350 lbs. (159kg)	150 lbs. (68kg)
SSS-4-11-22-CW-BS	4" x 11ga. x 22'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	20.4	14.0	9.7	6.6	4.3	2.5	1.2	0.1	310 lbs. (141kg)	163 lbs. (74kg)
SSS-4-11-25-CW-BS	4" x 11ga. x 25'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	15.9	10.4	6.6	3.9	1.9	0.4	0.0	0.0	350 lbs. (159kg)	182 lbs. (83kg)
SSS-4-11-27-CW-BS*	4" x 11ga. x 27'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	22.0	14.9	10.0	6.6	4.0	2.0	0.0	0.0	280 lbs. (127kg)	232 lbs. (105kg)
SSS-4-11-30-CW-BS*	4" x 11ga. x 30'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	17.7	11.4	7.1	4.0	1.7	0.0	0.0	0.0	315 lbs. (143kg)	301 lbs. (137kg)
SSS-4-7-20-CW-BS	4" x 7ga. x 20'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	35.9	26.1	19.3	14.5	10.9	8.2	6.1	4.4	350 lbs. (159kg)	177 lbs. (80kg)
SSS-4-7-22-CW-BS	4" x 7ga. x 22'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	31.1	22.3	16.2	11.8	8.6	6.2	4.3	2.8	350 lbs. (159kg)	207 lbs. (94kg)
SSS-4-7-25-CW-BS	4" x 7ga. x 25'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	25.3	17.6	12.3	8.5	5.7	3.6	1.9	0.6	350 lbs. (159kg)	252 lbs. (114kg)
SSS-4-7-30-CW-BS	4" x 7ga. x 30'	10" Sq. x 0.75"	9.25"-11"	0.88"	10.44" SQ x 5.5"	19.5	12.5	7.8	4.4	1.9	0.0	0.0	0.0	340 lbs. (155kg)	337 lbs. (153kg)
SSS-5-7-15-CW-BS	5" x 7ga. x 15'	10" Sq. x 0.75"	9.75"-11.31"	1.25"	10.44" SQ x 5.5"	87.4	65.6	50.7	40.0	32.1	26.1	21.4	17.7	450 lbs. (204kg)	202 lbs. (92kg)
SSS-5-7-20-CW-BS	5" x 7ga. x 20'	10" Sq. x 0.75"	9.75"-11.31"	1.25"	10.44" SQ x 5.5"	60.6	44.6	33.7	25.8	20.0	15.6	12.2	9.5	450 lbs. (204kg)	261 lbs. (118kg)
SSS-5-7-22-CW-BS	5" x 7ga. x 22'	10" Sq. x 0.75"	9.75"-11.31"	1.25"	10.44" SQ x 5.5"	53.1	38.7	28.8	21.7	16.5	12.5	9.4	7.0	450 lbs. (204kg)	285 lbs. (129kg)
SSS-5-7-25-CW-BS	5" x 7ga. x 25'	10" Sq. x 0.75"	9.75"-11.31"	1.25"	10.44" SQ x 5.5"	43.9	31.4	22.8	16.6	12.1	8.7	6.0	3.8	450 lbs. (204kg)	320 lbs. (145kg)
SSS-5-7-30-CW-BS	5" x 7ga. x 30'	10" Sq. x 0.75"	9.75"-11.31"	1.25"	10.44" SQ x 5.5"	32.2	21.9	14.9	9.9	6.2	3.4	1.2	0.0	375 lbs. (170kg)	379 lbs. (172kg)
SSS-6-7-25-CW-BS	6" x 7ga. x 25'	12" Sq. x 1"	11.25"-12.75"	1.25"	12.44" SQ x 6.15"	67.5	49.0	36.3	27.2	20.5	15.4	11.4	8.3	525 lbs. (238kg)	396 lbs. (180kg)
SSS-6-7-30-CW-BS	6" x 7ga. x 30'	12" Sq. x 1"	11.25"-12.75"	1.25"	12.44" SQ x 6.15"	50.8	35.7	25.3	17.9	12.4	8.2	4.9	2.4	525 lbs. (238kg)	457 lbs. (207kg)

(EPA columns: Pole EPA Rating – Base Wind Velocity (MPH).)

NOTE: Hanging signs, banners and flags on poles changes the EPA rating and increases vibration. The EPA ratings data provided does not allow for this added stress which could result in pole or luminaire failure.
* Includes an internal 5/16" steel reinforced sleeve welded inside the bottom 24" of the pole as well as a reinforcement welded around the hand hole for added strength

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE ÷ LIGHTING



NOTES:
1. THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL ENSURE DESIGN IS PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND LOADS, SITE SPECIFIC SOIL PARAMETERS.
   A. SOME SITE LOCATIONS AND/OR CONDITIONS MAY REQUIRE VIBRATION DAMPENING MEASURES AS DETERMINED BY A STRUCTURAL ENGINEER.
   B. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF THE INTENT TO MOUNT ANYTHING ASIDE FROM THE LIGHT FIXTURE INCLUDING (BUT NOT LIMITED TO) CAMERAS, BANNERS, FLAGS, SIGNAGE, ETC. AS IT WILL IMPACT THE POLE AND FOUNDATION DESIGN.
2. ALL REBAR SHALL HAVE A YIELD STRENGTH OF 60ksi, AND MAINTAIN A 3" MIN. CLEARANCE FROM SURFACES.

1/S1 LIGHT POLE DETAIL
SCALE: N.T.S.
REV.: 2015.03.19

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER//

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

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PROJECT No.:	MD192104
DRAWN BY:	RMS
CHECKED BY:	AGS
DATE:	6/12/20
CAD I.D.:	LGP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER//

901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

E.R. McWILLIAMS
11/03/2020
REGISTERED LANDSCAPE ARCHITECT
MARYLAND LICENSE No. 3697
PROFESSIONAL CERTIFICATION
I, ERIC R. McWILLIAMS, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 3697, EXPIRATION DATE: 9/20/22

SHEET TITLE:

LIGHTING DETAILS

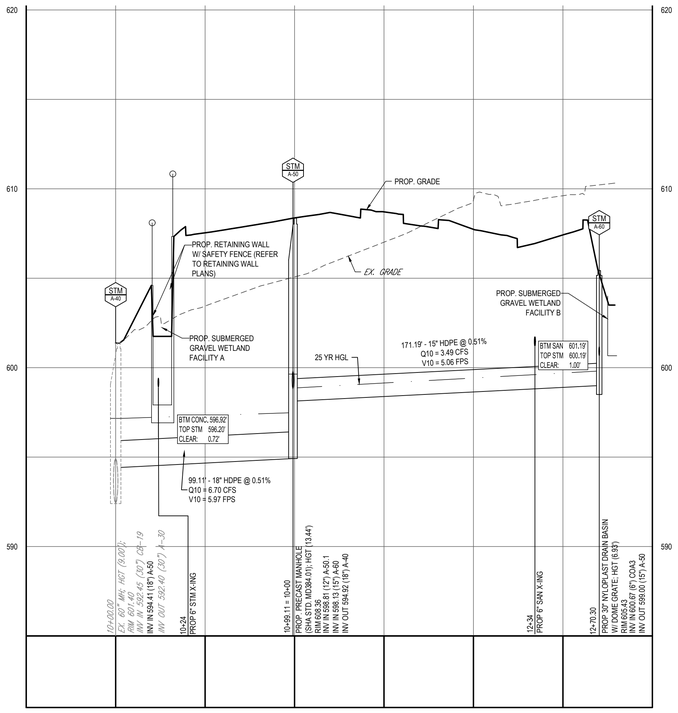
SHEET NUMBER:

21

OF 32

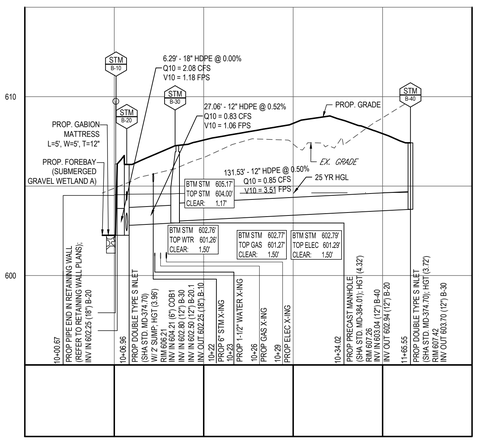
REVISION 2 - 10/15/20

Nov 03, 2020
H:\19\MD192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-LGP-2----->LAYOUT: 21 - LIGHTING DETAILS
RS



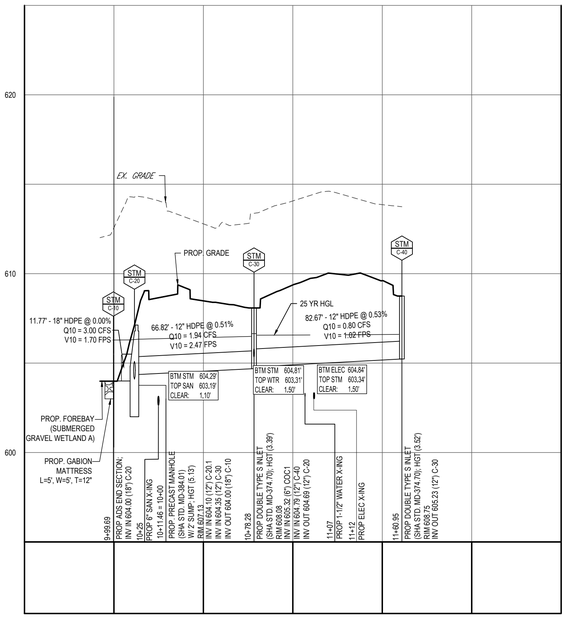
PROPOSED STORM PROFILE - A-40 TO A-60

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



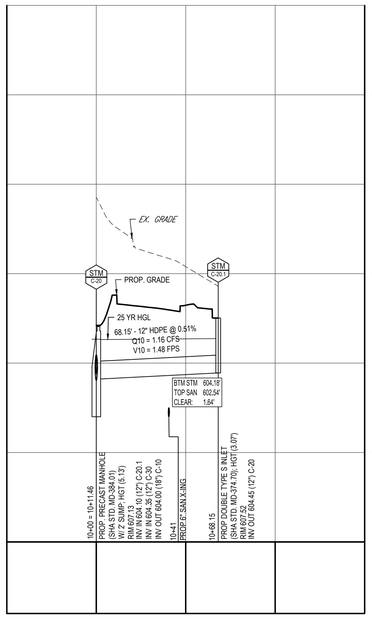
PROPOSED STORM PROFILE - B-10 TO B-40

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



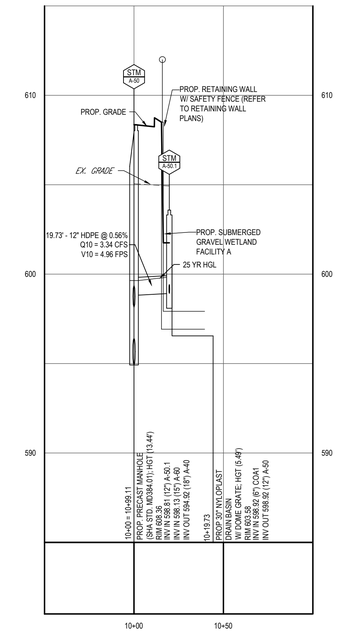
PROPOSED STORM PROFILE - C-10 TO C-40

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



PROPOSED STORM PROFILE - C-20 TO C-20.1

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



PROPOSED STORM PROFILE - A-50 TO A-50.1

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
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DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
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			RMS
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			AGS

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CAD I.D.:	PPD-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW G. STINE
STATE OF MARYLAND
11/3/20
PROFESSIONAL ENGINEER
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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

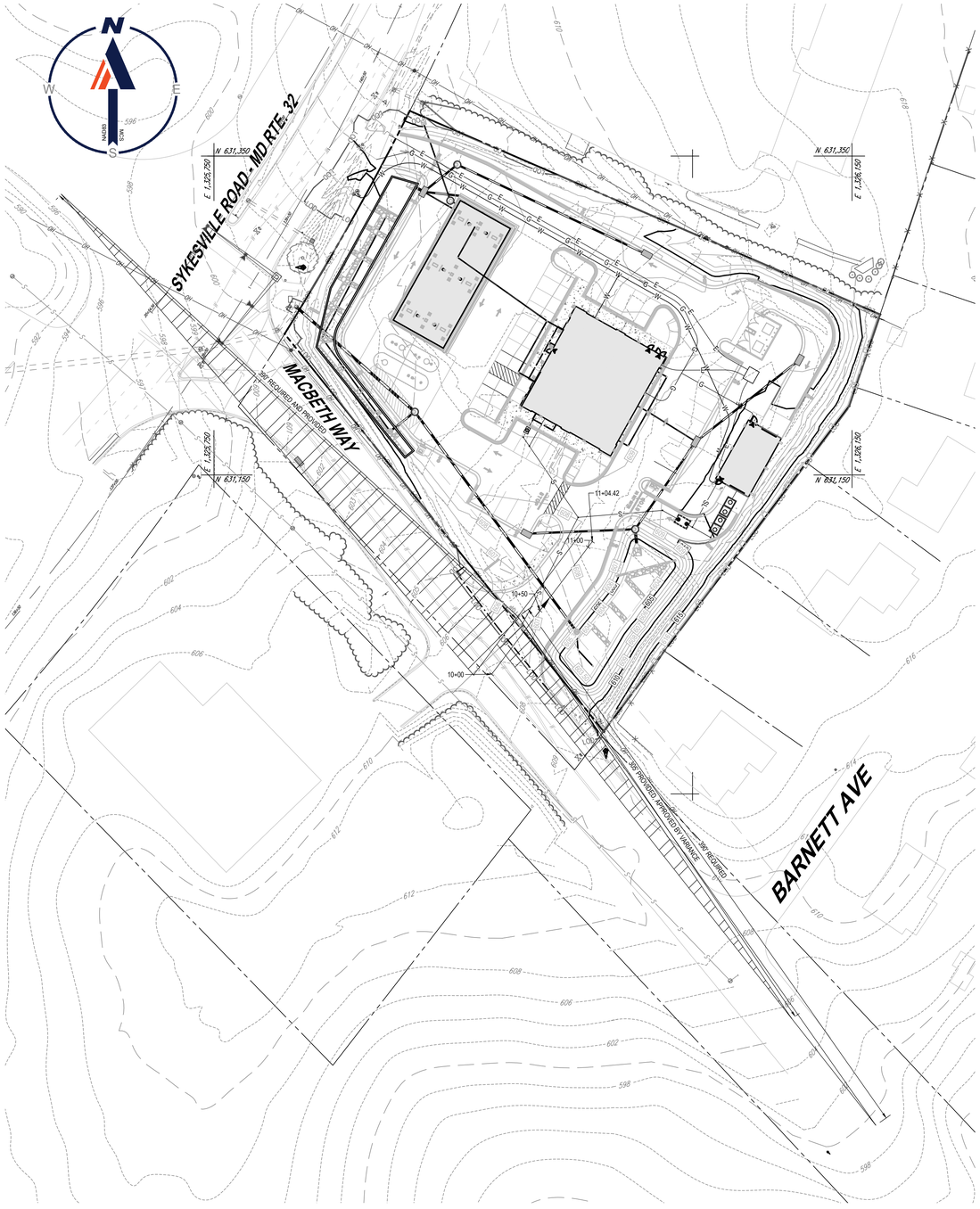
STORMDRAIN PROFILES

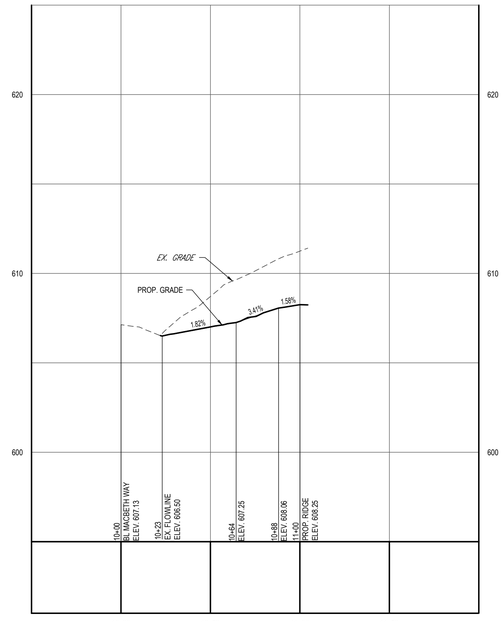
SHEET NUMBER:

22
OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
H:\DWG\192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-PPD-2---LAYOUT 22 - SD PROFS





MACBETH ENTRANCE PROFILE

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

CARROLL COUNTY TEMPORARY TRAFFIC CONTROL GENERAL NOTES

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING THE WORK ON OR ADJACENT TO A PUBLIC ROAD TO PROVIDE, INSTALL AND MAINTAIN APPROPRIATE TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MD MUTCD) FOR THE TRAVELING PUBLIC, PEDESTRIANS, BICYCLISTS, ROAD WORKERS, ETC. AT ALL TIMES.
2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS (DPW) CONSTRUCTION INSPECTION DIVISION AT 410-386-2157 THREE (3) WORKING DAYS IN ADVANCE OF ANY CONSTRUCTION ON OR ADJACENT TO A COUNTY ROAD, INCLUDING INSTALLATION OF TRAFFIC CONTROL DEVICES. IF DPW CONSTRUCTION INSPECTION DIVISION IS NOT NOTIFIED THEY CAN STOP ALL WORK UNTIL THEY ARE COMFORTABLE IT IS SAFE FOR THE CONTRACTOR TO PROCEED.
3. ALL STANDARD REGULATORY AND WARNING SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MD MUTCD, MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, THE NCHRP 350 AND APPROVED BY THE DPW CONSTRUCTION INSPECTION DIVISION.
4. THE CONTRACTOR SHALL FOLLOW THE LATEST STANDARDS IN ACCORDANCE WITH THE MDSHA BOOK OF STANDARD FOR HIGHWAYS INCIDENTAL STRUCTURES AND THE APPROVED MARYLAND STATE HIGHWAY ADMINISTRATION PRODUCTS LIST. THE STANDARDS CAN BE FOUND AT WWW.ROADS.MARYLAND.GOV / BOOK OF STANDARDS - FOR HIGHWAY AND INCIDENTAL STRUCTURES / CATEGORY 1 – PRELIMINARY.
5. WORK SHALL NOT BE PERFORMED UNTIL ALL APPLICABLE TRAFFIC CONTROL DEVICES ARE IN PLACE. TRAFFIC CONTROL DEVICES MUST BE IN PLACE ANY TIME WORK IN OR ADJACENT TO A PUBLIC ROAD IS IN PROGRESS.
6. TRAFFIC CONTROL DEVICES SHALL BE REMOVED WHEN WORK IS NOT IN PROGRESS. IF APPROVED BY THE DPW CONSTRUCTION INSPECTION DIVISION SIGNS MAY BE COVERED SO THAT THE MESSAGE IS NOT VISIBLE TO DRIVERS.
7. LOCATIONS OF DEVICES MAY BE MODIFIED AS DIRECTED BY THE DPW CONSTRUCTION INSPECTION DIVISION TO ACCOMMODATE FIELD CONDITIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES AND IMMEDIATELY REPLACE ANY WHICH ARE MISSING OR DETERMINED BY THE DPW CONSTRUCTION INSPECTION DIVISION TO BE UNSUITABLE FOR USE.
9. ALL SIGNS THAT ARE TO BE PART OF A WORK ZONE FOR MORE THAN THREE (3) DAYS SHALL BE PLACED ON POSTS.
10. COLLECTOR OR HIGHER CLASSIFICATION COUNTY ROADWAYS WORK HOURS ARE 9:00 AM AND 3:00 PM MONDAY THROUGH FRIDAY, UNLESS APPROVED OTHERWISE BY DPW.
11. ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHER ARRANGEMENTS ARE MADE.
12. CHANNELIZING DEVICES SHALL BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC. A FULL LENGTH TAPER SHALL ALWAYS BE PROVIDED IN ADVANCE OF CURVES.
13. IF FLAGGERS ARE NOT ABLE TO SEE EACH OTHER TWO-WAY RADIO COMMUNICATIONS SHALL BE USED.
14. WARNING SIGNS SHALL BE MOUNTED IN ACCORDANCE WITH SHA STANDARD NO. MD 104.01-17A THROUGH D OR AS DIRECTED BY DPW.
15. WHEN PAVEMENT DROP OFFS ARE PRESENT THE CONTRACTOR SHALL PLACE TEMPORARY TRAFFIC CONTROL DEVICES, INCLUDING SIGNS, CHANNELIZING DEVICES AND BARRIERS, AS WELL AS SLOPE FILLET WEDGES IN ACCORDANCE WITH SHA STANDARD NO. MD 104.06-15 THROUGH 104.06-19. THE ENGINEER MAY RECOMMEND ALTERNATIVE METHODS TO PROTECT THE PAVEMENT EDGE; CONSIDERING FACTORS SUCH AS PEDESTRIANS, BICYCLES, TRAFFIC VOLUMES, VEHICLE SPEEDS, SIZE OF THE WORK ZONE, DURATION OF WORK, ETC.
16. PORTABLE VARIABLE MESSAGE SIGNS MAY BE REQUIRED BY DPW CONSTRUCTION INSPECTION DIVISION'S DISCRETION.
17. ANY CORRECTIONS, MODIFICATIONS OR ADDITIONS TO THIS PLAN MUST BE APPROVED BY THE BUREAU OF DEVELOPMENT REVIEW, ENGINEERING REVIEW, THROUGH THE RED-LINE REVISION PROCESS.

CARROLL COUNTY CONSTRUCTION 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 (MDMUTCD) 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. ALL OF THE ABOVE NOTED PUBLICATIONS ARE INCLUDED BY REFERENCE AS PART OF THESE CONSTRUCTION PLANS.
2. THE CONTRACTOR SHALL NOTIFY THE CARROLL COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (410-386-2157) A MINIMUM OF THREE (3) WORKING DAYS BEFORE BEGINNING WORK.
3. CONTRACTOR SHALL FURNISH, PLACE AND MAINTAIN TRAFFIC CONTROL MEASURES AS SHOWN IN THESE PLANS AND AS SPECIFIED IN THE MDMUTCD. CONTRACTOR SHALL IMMEDIATELY REMOVE AND REPLACE DEVICES WHICH ARE DAMAGED, DO NOT FUNCTION PROPERLY, OR ARE DETERMINED BY CONSTRUCTION INSPECTOR TO BE UNSUITABLE FOR THEIR PURPOSE. TRAFFIC CONTROL DEVICES MAY BE REMOVED ONLY UPON APPROVAL OF CONSTRUCTION INSPECTOR.
4. LOCATIONS OF EXISTING UTILITIES ARE SHOWN ONLY AS NOTIFICATION TO CONTRACTOR OF THE PRESENCE OF UNDERGROUND UTILITIES. CARROLL COUNTY AND THE DESIGN ENGINEER DO NOT WARRANT OR GUARANTEE CORRECTNESS OR COMPLETENESS OF INFORMATION SHOWN. CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY AT 1-800-257-7777 FOR VERIFYING EXISTENCE AND LOCATION OF ALL UTILITIES PRIOR TO BEGINNING WORK. ANY DAMAGE TO EXISTING UTILITIES DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT CONTRACTOR'S EXPENSE.
5. DEVELOPER IS RESPONSIBLE IN ALL REGARDS FOR RELOCATION OF ANY EXISTING UTILITIES.
6. IN CASE OF DISCREPANCY BETWEEN SCALED AND FIGURED DIMENSIONS, FIGURED DIMENSIONS SHALL GOVERN.
7. IF FOR ANY REASON PROPOSED FACILITIES CANNOT BE CONSTRUCTED IN ACCORDANCE WITH APPROVED PLANS, CONTRACTOR MUST IMMEDIATELY INFORM CONSTRUCTION INSPECTOR OR CONSTRUCTION INSPECTION DIVISION (410-386-2157) AND SHALL NOT BEGIN OR CONTINUE WORK ON THOSE ITEMS. IF THE DEPARTMENT OF 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.
8. FAILURE TO MENTION SPECIFICALLY THE PROVISION OF ANY ITEM(S), OR PERFORMANCE OF ANY WORK OR PROCEDURE WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT, SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROVIDE SUCH ITEM(S) OR TO PERFORM SUCH WORK OR PROCEDURE.
9. CONSTRUCT EARTH FILLS FOR ROADS, EMBANKMENTS, AND STRUCTURES IN ACCORDANCE WITH SECTION 204 EMBANKMENT AND SUBGRADE OF THE MD SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS. COMPACT THE MATERIAL THAT IS 1 FOOT BELOW THE TOP OF SUBGRADE TO AT LEAST 92.0% OF MAXIMUM DRY DENSITY USING AASHTO T-180 METHOD. COMPACTION OF TOP ONE FOOT OF FILL SHALL NOT BE LESS THAN 97.0% OF MAXIMUM DRY DENSITY USING THE SAME METHOD.
10. DEVELOPER IS RESPONSIBLE FOR PROVIDING SOIL, BASE AGGREGATE AND HOT MIX ASPHALT COMPACTION TESTING. A CERTIFIED TECHNICIAN MUST BE ONSITE AT ALL TIMES DURING FILL OPERATIONS. COMPACTION TESTS MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MARYLAND. COPIES OF SOIL COMPACTION TEST RESULTS MUST BE PROVIDED TO, AND APPROVED BY, THE CONSTRUCTION INSPECTION DIVISION PRIOR TO PLACEMENT OF CURBS AND/OR BASE AGGREGATE. COPIES OF BASE AGGREGATE COMPACTION TEST RESULTS MUST BE PROVIDED TO, AND APPROVED BY, THE CONSTRUCTION INSPECTION DIVISION PRIOR TO PLACEMENT OF BASE HOT MIX ASPHALT.
11. INLET GRATES IN SUMPS SHALL BE CONSTRUCTED LEVEL AT ELEVATION GIVEN IN STRUCTURE SCHEDULE. INLETS ON GRADE SHALL BE ADJUSTED SO THAT SLOPE OF GRATE MATCHES FINISHED FLOW LINE OF CURB. TOP ELEVATION SHALL APPLY TO CENTERLINE OF GRATE AT FLOW LINE OF CURB. CROSS SLOPE OF THE GRATE SHALL MATCH THE ROAD CROSS SLOPE.
12. PIPE ELEVATIONS SHOWN ON STORM DRAIN PROFILES ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.
13. WHERE DITCH OR WATERWAY STABILIZATION MATTING OF ANY TYPE IS SPECIFIED, INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MATTING SHALL BE PLACED ON BOTTOM AND SIDE SLOPES TO PROVIDE EITHER 1.0' STABILIZED DEPTH, UNLESS OTHERWISE INDICATED ON PLANS.
14. ALL EXISTING PAVING DISTURBED BY UTILITY CUTS SHALL BE REPLACED IN ACCORDANCE WITH CARROLL COUNTY STANDARD PLATE 47, OPTION 1 OR OPTION 3 IN THE DESIGN MANUAL, VOLUME 1 OR AS NOTED IN THE UTILITY PERMIT.
15. ONCE BEGUN, ROAD CONSTRUCTION SHALL BE CONTINUED UNTIL FULL DEPTH OF AGGREGATE BASE AND PAVING AS SHOWN ON THE TYPICAL SECTION ARE PLACED, INCLUDING THE FINISHED SURFACE COURSE. AGGREGATE BASE COURSE AND HOT MIX ASPHALT BASE COURSE SHALL NOT REMAIN UNCOVERED FOR MORE THAN FIVE WORKING DAYS.
16. OFF-SITE BORROW MATERIAL TO BE IMPORTED FOR EMBANKMENT CONSTRUCTION AND SUPPORT OF PAVEMENT IS TO MEET THE MINIMUM SUBGRADE SOIL SPECIFICATIONS IN TABLE 3 OF THE DESIGN GUIDE FOR FLEXIBLE PAVEMENTS. CBR TESTING OF OFF-SITE BORROW MATERIAL SHALL BE COMPLETED AND THE TEST RESULTS SUBMITTED TO AND APPROVED BY THE BUREAU OF DEVELOPMENT REVIEW PRIOR TO DELIVERY OF THE MATERIAL. THE PAVING DESIGN SECTIONS SHOWN ON THE APPROVED PLANS SHALL BE REVIEWED AND EVALUATED USING THE CBR TESTING RESULTS OF THE BORROW MATERIAL. ANY CHANGES TO THE PAVEMENT DESIGN SECTIONS BASED ON THE CBR TEST RESULTS SHALL BE INCORPORATED THROUGH THE RED-LINE REVISION PROCESS.
17. THE DESIGN EQUIVALENT SINGLE AXLE LOADS (ESAL) AND THE DESIGN CBR VALUE SHALL BE NOTED ON THE CONSTRUCTION PLANS.
18. PERMANENT SIGNAGE AND STRIPING SHALL BE FURNISHED AND INSTALLED BY THE CARROLL COUNTY BUREAU OF ROADS OPERATIONS. CONTRACTOR SHALL NOTIFY THE BUREAU OF ROADS OPERATIONS AT 410-386-6717 A MINIMUM OF THREE (3) WEEKS PRIOR TO STARTING WORK AND THEN AGAIN 48 HOURS PRIOR TO COMPLETION OF WORK.
19. CONSTRUCTION VEHICLES, CONTRACTOR OR PRIVATE, OR CONSTRUCTION MATERIALS OR EQUIPMENT SHALL NOT BE PARKED, PLACED, OR STORED WITHIN ANY PUBLIC RIGHT-OF-WAY.

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
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PARCEL 280
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MANCHESTER, MD 21102-1436
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DEVELOPER

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22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

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CAD I.D.:	PPD-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW G. STINE
STATE OF MARYLAND
11/3/20
PROFESSIONAL ENGINEER
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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

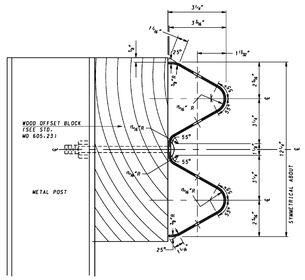
MACBETH WAY ENTRANCE DETAILS

SHEET NUMBER:

23
OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
11:15 M:\MD\192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-PPD-2 - LAYOUT 23 - MACBETH DETAILS
RS



W BEAM DETAIL
(MATERIALS TO BE STEEL)

NOTES

1. RAIL ELEMENTS ARE FURNISHED SHOP CURVED, CONCAVE OR CONVEX TO RADII BETWEEN 20 FT. & 150 FT.
2. BARRIER SECTIONS SHALL BE 12'-6" OR 25'-0" LENGTHS.
3. FOR COMPOSITE OFFSET BLOCKS SEE NOTE 5 ON MD 605.21

SPECIFICATION	CATEGORY CODE ITEMS
605	

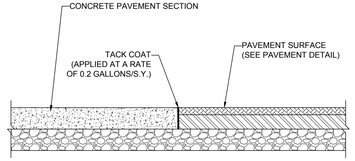
APPROVED _____ DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT

SHA	APPROVAL + SHA REVISIONS	APPROVAL + FEDERAL HIGHWAY ADMINISTRATION
State Highway Administration	APPROVAL 3-24-05	APPROVAL 3-6-09
	REVISED 4-17-06	REVISED 4-5-06
	REVISED	REVISED
	REVISED	REVISED

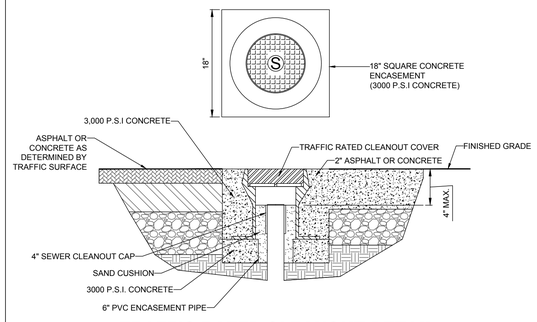
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

TRAFFIC BARRIER W BEAM
SINGLE FACE

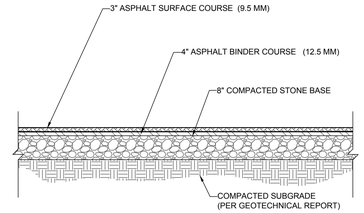
STANDARD NO. MD 605.22



CONCRETE-TO-ASPHALT DETAIL
NOT TO SCALE

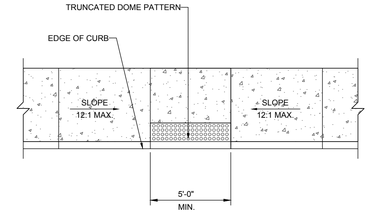


TRAFFIC RATED CLEANOUT DETAIL
NOT TO SCALE



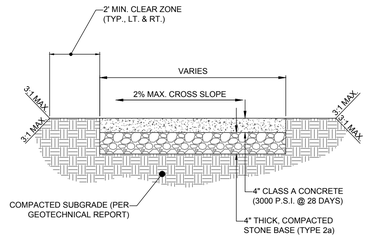
NOTE:
1. SECTION SHOWN IS BASED ON AN ANTICIPATED CBR OF 10 PER GEOTECHNICAL REPORT PREPARED BY CDT BIG-SOIL SYSTEMS, INC, ENTITLED "PRELIMINARY SUBSURFACE INVESTIGATION; 6323 SYKESVILLE ROAD; CARROLL COUNTY, MARYLAND", DATED 11/12/2019 (PROJECT #SP/TH/19-1). FINAL DESIGN TO BE PROVIDED BY GEOTECHNICAL ENGINEER ONCE FINAL CBR'S ARE AVAILABLE ON COMPACTED SUB-BASE.

HEAVY DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE



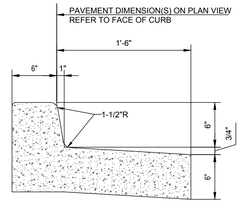
NOTE:
ADA ACCESSIBLE RAMP CONSTRUCTION SHALL CONFORM TO CURRENT ADA ACCESSIBLE GUIDELINES.

ADA ACCESSIBLE RAMP DETAIL
NOT TO SCALE

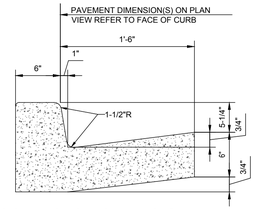


NOTE:
1. EXPANSION JOINTS 1/2" WIDE PREMOLDED BIT. MATERIAL SHALL BE INSTALLED AT 30' INTERVALS, CRACK CONTROL JOINTS TO BE SPACED AT INTERVALS EQUAL TO SIDEWALK WIDTH.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE



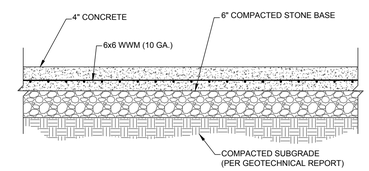
SPILL CURB & GUTTER



COLLECTOR CURB & GUTTER

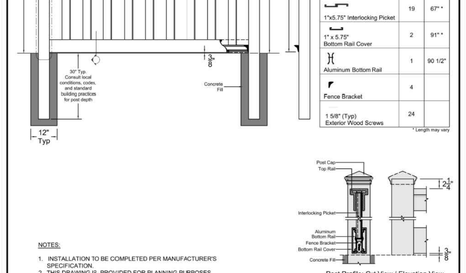
NOTES:
1. CONCRETE FOR CURBING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I. @ 28 DAYS.
2. CONSTRUCTION STAKING FOR CURB INSTALLATION SHALL BE REFERENCED (CUT OR FILL) TO THE TOP OF CURB.
3. AT CONTRACTOR'S OPTION, THE GUTTER THICKNESS MAY BE INCREASED AT THE EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER CONTIGUOUS WITH BOTTOM OF ASPHALT PAVEMENT.
4. CONTRACTION JOINTS SHALL BE PLACED @ 10'-0" O.C. TOOLED 1/4" (±1/16") WIDE, 1" DEEP. EXPANSION JOINTS SHALL BE PLACED @ 40'-0" INTERVALS, MAXIMUM, AND ALL P.C.'S.
5. GUTTER PAN SLOPE TO BE ADJUSTED WITHIN ACCESSIBLE PARKING SPACES TO MATCH SLOPE BETWEEN SPOT ELEVATIONS.

CONCRETE CURB & GUTTER DETAIL
NOT TO SCALE



NOTE:
1. SECTION SHOWN WAS PREPARED WITHOUT THE BENEFIT OF A GEOTECHNICAL REPORT. FINAL DESIGN TO BE PROVIDED BY GEOTECHNICAL ENGINEER ONCE FINAL CBR'S ARE AVAILABLE ON COMPACTED SUB-BASE.

STANDARD DUTY CONCRETE SECTION
NOT TO SCALE



COMPONENTS	QUANTITY	LENGTH
Post Cap: Pyramic, Flat, or Crown	1	
5" x 5" Post	1	108"*
4" x 4.9" Top Rail	1	91"*
1"x5.75" Interlocking Picket	19	67"*
1" x 5.75" Bottom Rail Cover	2	91"*
Aluminum Bottom Rail	1	90 1/2"
Fence Bracket	4	
1 5/8" (Typ) Exterior Wood Screws	24	

* Length may vary

NOTES:
1. INSTALLATION TO BE COMPLETED PER MANUFACTURER'S SPECIFICATION.
2. THIS DRAWING IS PROVIDED FOR PLANNING PURPOSES. REFER TO MANUFACTURER'S INSTALLATIONS FOR CONSTRUCTION DETAILS.
3. REFER TO MANUFACTURER'S WEBSITE FOR PRODUCT INFORMATION.
4. DRAWING NOT TO SCALE.

160 EXETER DR., WINCHESTER VA, 22603
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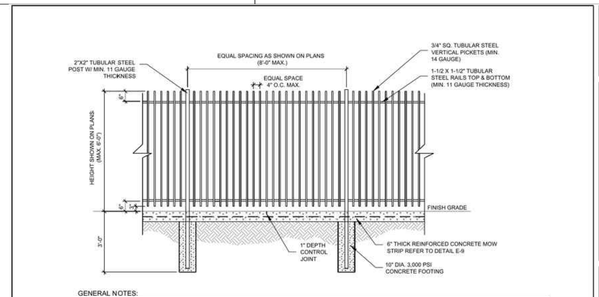
Publication date Jan 29, 2019



GENERAL NOTES:
1. ALL CONCRETE USED IN MOW STRIP SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3600 PSI @ 28 DAYS.
2. 1" DEPTH CONTROL JOINTS SHALL BE INSTALLED PERPENDICULARLY AT BETWEEN POSTS UNLESS NOTED OTHERWISE ALONG ENTIRE LENGTH OF MOW STRIP.
3. ALL TUBULAR STEEL POSTS, RAILS AND PICKETS SHALL BE FLUSH AND FREE OF ALL DENTS, SPURS, AND SHARP EDGES AND SHALL BE INSTALLED LEVEL, PLUMB, AND SQUARE.
4. PROVIDE CONTINUOUS WELDS ALONG ALL EDGES OF FENCE MEMBERS. GRIND SMOOTH ALL WELDS.
5. ALL METAL SURFACES SHALL BE PRIMED AND PAINTED WITH TWO COATS OF RUST-PROOF PAINT, COLOR TO BE FLAT BLACK OR AS SPECIFIED ON PLANS. CONTRACTOR TO SUBMIT SAMPLES AS REQUIRED.
6. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS BEFORE MANUFACTURING GATES AND FENCE.
7. ALL TUBULAR STEEL FENCE MEMBERS ARE TO BE IN ACCORDANCE WITH ASTM 513 HOT ROLLED STRUCTURAL STEEL 50,000 PSI TENSILE STRENGTH, 60,000 PSI YIELD STRENGTH.
8. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL FENCE COMPONENTS AND GATES. SHOP DRAWINGS SHALL INCLUDE ALL PRODUCT CUT SHEETS AS WELL AS INSTALLATION AND MANUFACTURING DETAILS. CONTRACTOR TO BE RESPONSIBLE FOR STRUCTURAL DESIGN OF GATES.

E-8 TUBULAR STEEL FENCE DETAILS
SCALE: N.T.S.

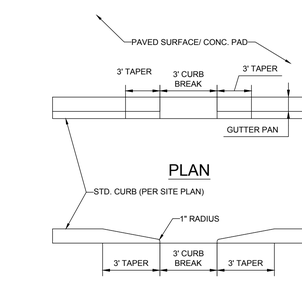
Department of Park and Recreation
City of Dallas Texas

Standard Construction Details
City of Dallas
Park and Recreation Department

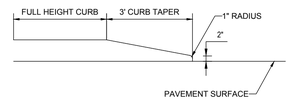
Typical Construction Details
HANDRAIL & FENCING DETAILS
TUBULAR STEEL FENCE DETAIL

issue date
revisions

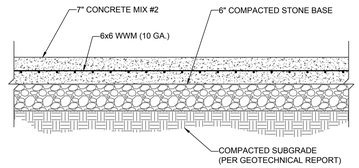
DETAIL E-8



CURB BREAK DETAIL
NOT TO SCALE



CURB TAPER DETAIL
NOT TO SCALE



NOTE:
1. SECTION SHOWN WAS PREPARED WITHOUT THE BENEFIT OF A GEOTECHNICAL REPORT. FINAL DESIGN TO BE PROVIDED BY GEOTECHNICAL ENGINEER ONCE FINAL CBR'S ARE AVAILABLE ON COMPACTED SUB-BASE.

HEAVY DUTY CONCRETE SECTION
NOT TO SCALE

OWNER
PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER
NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION
ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE SOLUTIONS
PERMITTING SERVICES
TRANSPORTATION SERVICES
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: MD192104
DRAWN BY: RMS
CHECKED BY: AGS
DATE: 6/12/20
CAD I.D.: SDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW G. STINE
PROFESSIONAL ENGINEER
No. 37687, LICENSE NO. 37687
STATE OF MARYLAND
11/3/20
ANDREW G. STINE, 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. 37687, EXPIRATION DATE: 7/1/21

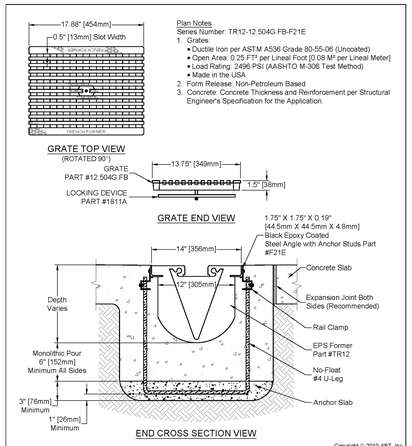
SHEET TITLE:

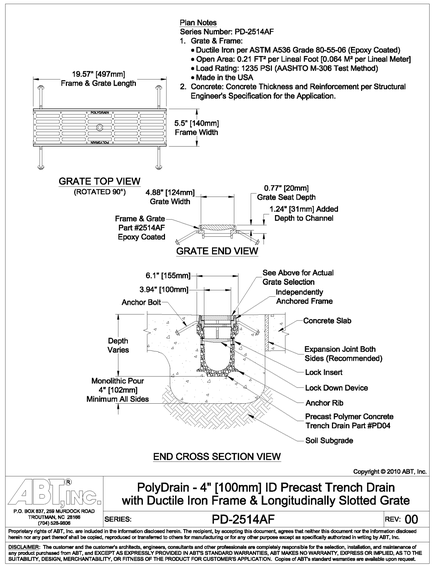
SITE DETAILS

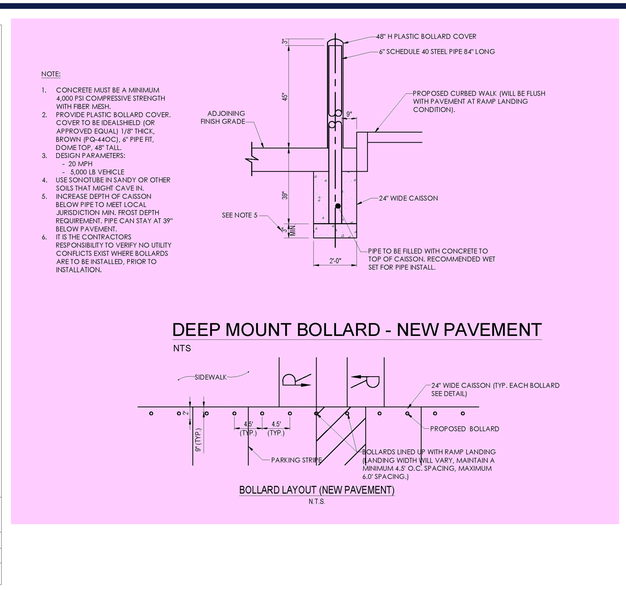
SHEET NUMBER:
24
OF 32

REVISION 2 - 10/15/20

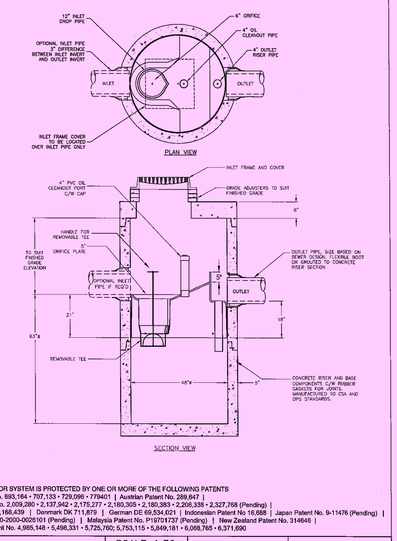
Nov 03, 2020
H:\192104\DRAWINGS\PLAN SET\FINAL SITE PLANS\MD192104-SDP-2---LAYOUT 24 - SITE DETAILS
RMS







DRAWING NOT TO BE USED FOR CONSTRUCTION



THE STORMCEPTOR SYSTEM IS PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENTS
Australia Patent No. 693,164 • 707,133 • 729,095 • 778401 | Austrian Patent No. 289,647 | Canadian Patent No. 2,009,280 • 2,137,942 • 2,175,277 • 2,180,305 • 2,180,383 • 2,206,338 • 2,327,768 (Pending) | China Patent No. 1,188,439 | Denmark DK 711,879 | German DE 69,534,021 | Indonesian Patent No. 18,688 | Japan Patent No. 9-11476 (Pending) | Korea Patent No. 10-2000-0026101 (Pending) | Malaysia Patent No. P19701737 (Pending) | New Zealand Patent No. 314648 | United States Patent No. 4,985,148 • 5,498,331 • 5,725,760; 5,753,115 • 5,849,181 • 6,088,765 • 6,371,690

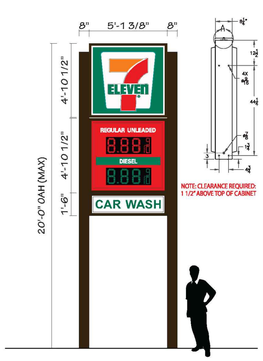
STORMCEPTOR EOS
MODEL EOS 4-175

SCALE 1:30
Stormceptor
FILE: EOS4-175.dwg
DRAWN BY: B.L.
DATE: 2 FEB 06
REV: Y M D DRN CHK DESCRIPTION
1 OF 1

SCALE: 1/4" = 1'-0"

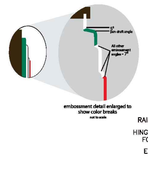
DF PYLON SIGN

P



- DOUBLE FACE INTERNALLY ILLUMINATED PYLON SIGNS.
- LED ILLUMINATION.
- 8" EXTRUDED ALUMINUM CABINET & RETAINERS PAINTED BRONZE.
- FORMED AND EMBOSSED POLYCARBONATE FACES
- TRAPLINE PROPORTIONAL TO LOGO FIELD.

3M 3630-26 | WHITE
3M 3630-33 | BRONZE
3M 3630-44



- DOUBLE FACE INTERNALLY ILLUMINATED SIGN CABINET.
- EXTRUDED ALUMINUM CABINET & RETAINERS PAINTED DURANODIC BRONZE.
- PAN FORMED CLEAR ACRYLIC FACE BACK SPRAYED PMS 485 RED.
- WHITE COPY.
- DIESEL BACKGROUND 3M 3630-26 GREEN
- WHITE LED ILLUMINATION
- DIGITAL PRICER -
  12" RED LED
  12" GREEN LED
- ELECTRICAL NOTES:
  TOTAL AMPS - 9.0
  TOTAL CIRCUITS - (1) 20 AMP REQUIRED
  VOLTS - 120

3M 3630-26
PMS 485
WHITE
BRONZE

PROPOSED: 57.7 SQ. FT.

Job Location: 1045775
6323 Sykesville Rd.,
Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
kelley.hutchby@cummingssigns.com
Page: 15 of 20

CAR WASH PANEL SIGNAGE

I1

I2

- ALUMINUM PANELS FOR CAR WASH ENTRY.
- ALUMINUM PANELS TO BE .080"THICK ALUMINUM. 3630-26 GREEN VINYL APPLIED TO FIRST SURFACE. WHITE COPY.
- ALL SIDES OF ALUMINUM PANEL TO BE BENT AT 2" AND ATTACHED TO FASCIA USING LAGS W/SHIELDS.

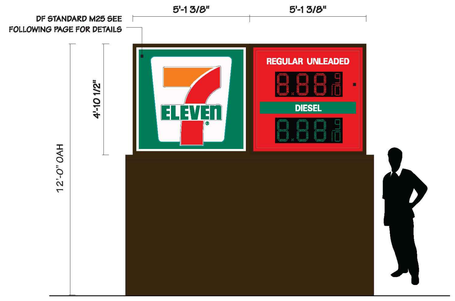
3630-26

Job Location: 1045775
6323 Sykesville Rd.,
Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
kelley.hutchby@cummingssigns.com
Page: 11 of 20

M



- DOUBLE FACE INTERNALLY ILLUMINATED PYLON SIGNS.
- LED ILLUMINATION.
- 8" EXTRUDED ALUMINUM CABINET & RETAINERS PAINTED BRONZE.
- FORMED AND EMBOSSED POLYCARBONATE FACES
- TRAPLINE PROPORTIONAL TO LOGO FIELD.

3M 3630-26 | WHITE
3M 3630-33 | BRONZE
3M 3630-44

- DOUBLE FACE INTERNALLY ILLUMINATED SIGN CABINET.
- EXTRUDED ALUMINUM CABINET & RETAINERS PAINTED DURANODIC BRONZE.
- PAN FORMED CLEAR ACRYLIC FACE BACK SPRAYED PMS 485 RED.
- WHITE COPY.
- DIESEL BACKGROUND 3M 3630-26 GREEN
- WHITE LED ILLUMINATION
- DIGITAL PRICER -
  12" RED LED
  12" GREEN LED
- ELECTRICAL NOTES:
  TOTAL AMPS - 9.0
  TOTAL CIRCUITS - (1) 20 AMP REQUIRED
  VOLTS - 120

3M 3630-26
PMS 485
WHITE
BRONZE

PROPOSED: 50 SQ. FT.

Job Location: 1045775
6323 Sykesville Rd.,
Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
kelley.hutchby@cummingssigns.com
Page: 16 of 20

CAR WASH CLEARANCE BAR

J

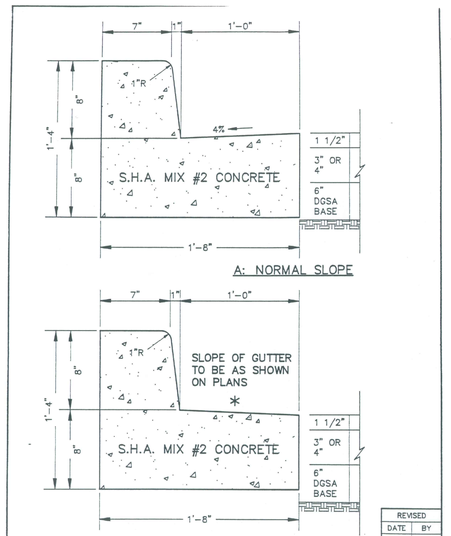
- 4" DIAMETER WHITE PVC PIPE TO HAVE 3M 7725-13 TOMATO RED OPAQUE VINYL. 3M 680-10 WHITE REFLECTIVE GRAPHICS APPLIED 1ST SURFACE.
- (2) WHITE PVC END CAPS TO BE ON BOTH SIDES OF PIPE.
- (2) EYEBOLTS, SETS OF 4'-0" CABLE WITH SETS OF HARDWARE (TOP & BOTTOM OF CABLE) FOR ATTACHMENT.

7725-13 TOMATO RED OPAQUE VINYL
3M 680-10 WHITE REFLECTIVE VINYL

Job Location: 1045775
6323 Sykesville Rd.,
Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
kelley.hutchby@cummingssigns.com
Page: 12 of 20



CARROLL COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
DIRECTOR
4-12-94
DATE

8" COMBINATION CURB AND GUTTER

PLATE 3

REVISED	
DATE	BY

OWNER

PARCELS 406 & 736
QH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

811 Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

NOT APPROVED FOR CONSTRUCTION

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PROJECT No.: MD192104
DRAWN BY: RMS
CHECKED BY: AGS
DATE: 6/12/20
CAD I.D.: SDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW G. STINE
PROFESSIONAL ENGINEER
11/3/20
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. 37687, EXPIRATION DATE: 7/12/21

SHEET TITLE:

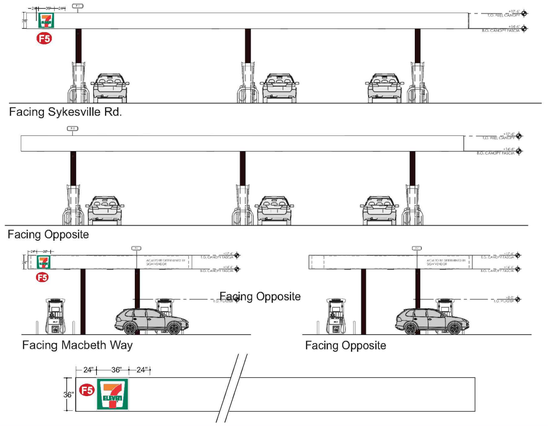
SITE DETAILS

SHEET NUMBER: 25 OF 32

REVISION 2 - 10/15/20

Nov 03, 2020
H:\19\MD192104\DRAWINGS\PLAN SETS\FINAL SITE PLANS\MD192104-SDP-2_-_LAYOUT 25 - SITE DETAILS (2)
RMS

LONG CANOPIES — ACM WITH TRI-STRIPES

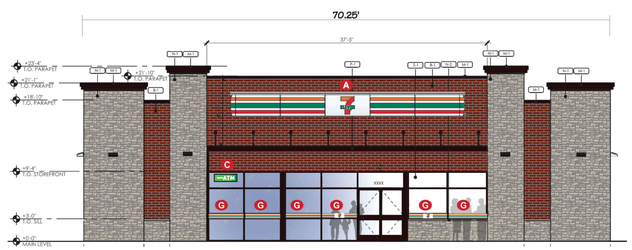


Job Location: 1045775 6323 Sykesville Rd., Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
keley.hutchby@cummingssigns.com
Page: 8 of 20

SCALE: 1/8" = 1'-0' — ELEVATION - WALL SIGNAGE



FRONT ENTRANCE

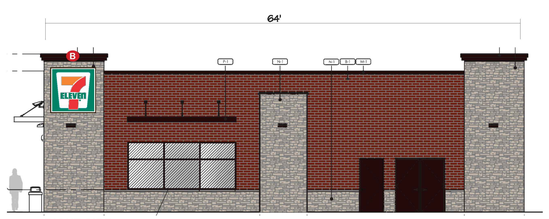
PROPOSED: 85.3 SQ. FT.

Job Location: 1045775 6323 Sykesville Rd., Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
keley.hutchby@cummingssigns.com
Page: 2 of 20

SCALE: 1/8" = 1'-0' — ELEVATION - WALL SIGNAGE



RIGHT SIDE

PROPOSED: 36 SQ. FT.

Job Location: 1045775 6323 Sykesville Rd., Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

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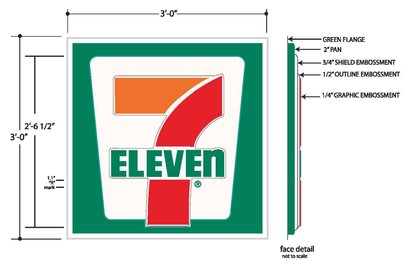
Page: 3 of 20

3 x 3 SF CANOPY SIGNS

F5



- SINGLE FACE INTERNALLY ILLUMINATED CANOPY SIGNS.
- LED ILLUMINATION.
- ALUMINUM CABINET PAINTED WHITE.
- 1" ALUMINUM RETAINERS PAINTED WHITE.
- FORMED ACRYLIC FACES WITH EMBOSSED GRAPHICS.

PMS 341C
PMS 485C
PMS 165C
WHITE

Display Square Footage (Cabinet): 9

Job Location: 1045775 6323 Sykesville Rd., Eldersburg, MD 21784
Date: June 9, 2019

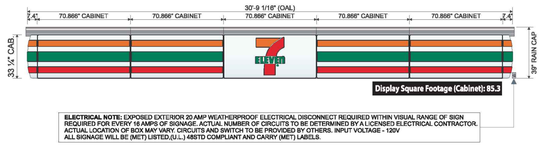
CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
keley.hutchby@cummingssigns.com
Page: 9 of 20

TATEYAMA - 3 x 31

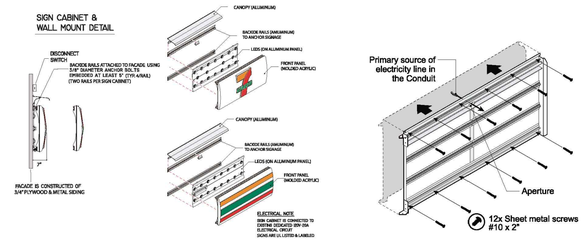
A

FASCIA SIGNAGE MANUFACTURED BY TATEYAMA. THIS ARTWORK NOT TO BE USED FOR PRODUCTION.



Display Square Footage (Cabinet): 85.3

ELECTRICAL NOTE: EXPOSED EXTERIOR 20 AMP WEATHERPROOF ELECTRICAL DISCONNECT REQUIRED WITHIN VISUAL RANGE OF SIGN REQUIRED FOR EVERY 16 AMPS OF SIGNAGE. ACTUAL NUMBER OF CIRCUITS TO BE DETERMINED BY A LICENSED ELECTRICAL CONTRACTOR. ACTUAL LOCATION OF BOX MAY VARY. CIRCUITS AND SWITCH TO BE PROVIDED BY OTHERS. INPUT VOLTAGE - 120V
ALL SIGNAGE WILL BE (MET) LISTED,(U.L.) 48STD COMPLIANT AND CARRY (MET) LABELS.



Job Location: 1045775 6323 Sykesville Rd., Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
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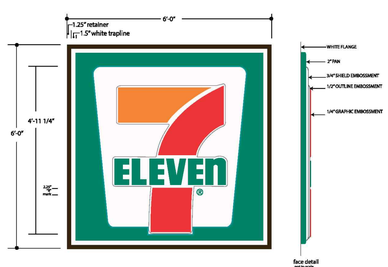
Page: 4 of 20

SF WALL SIGN

B



- SINGLE FACE INTERNALLY ILLUMINATED WALL SIGNS.
- LED ILLUMINATION.
- 5 1/2" EXTRUDED ALUMINUM CABINET & RETAINERS PAINTED BRONZE.
- FORMED POLYCARBONATE FACES WITH EMBOSSED GRAPHICS.
- TRAPLINE PROPORTIONAL TO LOGO FIELD.
- WALL SIGNS TO UTILIZE SAME TOOLING AS PYLON FAMILY.

3M 3630-26 — WHITE
3M 3630-33 — BRONZE
3M 3630-44

PROPOSED: 36 SQ. FT.

Job Location: 1045775 6323 Sykesville Rd., Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
keley.hutchby@cummingssigns.com
Page: 5 of 20

CAR WASH ELEVATION - CHANNEL LETTER SET

H

PROPOSED: 26 SQ. FT.

Job Location: 1045775 6323 Sykesville Rd., Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
keley.hutchby@cummingssigns.com
Page: 10 of 20

INTERIOR SINGLE FACE WINDOW SIGN

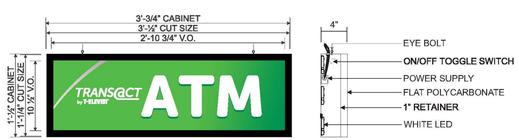
C

SPECIFICATIONS
SF INTERNALLY ILLUMINATED HANGING SIGN (INTERIOR)

CABINET:
EXTRUDED ALUMINUM PAINTED DURANODIC BRONZE BASE

FACE:
3/16" THICK FLAT WHITE POLYCARBONATE WITH 1ST SURFACE DIGITAL PRINT IMAGE.

ILLUMINATION:
GE WHITE LED



SHOWN FOR PERMITTING PURPOSES ONLY. SIGN PROVIDED BY FCTI.

Display Square Footage (Cabinet): 3.2

Job Location: 1045775 6323 Sykesville Rd., Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
keley.hutchby@cummingssigns.com
Page: 6 of 20

TYPICAL WINDOW VINYL LAYOUT

G

WINDOW VINYL GRAPHICS.
VINYL GRAPHICS TO BE APPLIED SECOND SURFACE ONTO DESIGNATED STORE WINDOWS.

NOTE: WINDOW GRAPHICS KITS TO BE PROVIDED AND INSTALLED BY OTHERS. NOT PART OF CUMMINGS RESOURCES SCOPE OF WORK.
NOTE : FOR FULL INSTALLATION INSTRUCTIONS, REFER TO 7-ELEVEN SIGNAGE MANUAL.

Job Location: 1045775 6323 Sykesville Rd., Eldersburg, MD 21784
Date: June 9, 2019

CUMMINGS

D-ORDER# 98424.03 TDP
Project Mgr.: Kelley Hutchby
keley.hutchby@cummingssigns.com
Page: 7 of 20

OWNER

PARCELS 406 & 736
OH ELDERSBURG LLC
C/O GENROCK CAPITAL MGMT LLC
P.O. BOX 58759
RALEIGH, NC 27658
CONTACT: JACOB T. BYRNE
PHONE: (410) 244-7651

PARCEL 280
BLEVINS HILL INC.
4175 HANOVER PIKE
MANCHESTER, MD 21102-1436
CONTACT: JIM PIET
PHONE: (410) 239-0355

DEVELOPER

NEW COASTAL DEVELOPMENT
22 SPINDRIFT WAY
ANNAPOLIS, MD 21403
CONTACT: TIM HOERNER
PHONE: (443) 458-8765

SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
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PERMITTING SERVICES
TRANSPORTATION SERVICES
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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/14/20	REVISED PER COUNTY COMMENTS	RMS / AGS
2	10/15/20	REVISED PER COUNTY COMMENTS	DSH / AGS

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PROJECT NO.: MD192104
DRAWN BY: RMS
CHECKED BY: AGS
DATE: 6/12/20
CAD I.D.: SDP-2

PROJECT:

FINAL SITE DEVELOPMENT PLANS

FOR

NEW COASTAL DEVELOPMENT

7-ELEVEN ELDERSBURG

6323 SYKESVILLE ROAD
ELDERSBURG, MD 21784
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736
5TH ELECTION DISTRICT
CARROLL COUNTY

BOHLER
901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

ANDREW G. STINE — PROFESSIONAL ENGINEER — 11/3/20

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. 31587, EXPIRATION DATE: 7/1/21

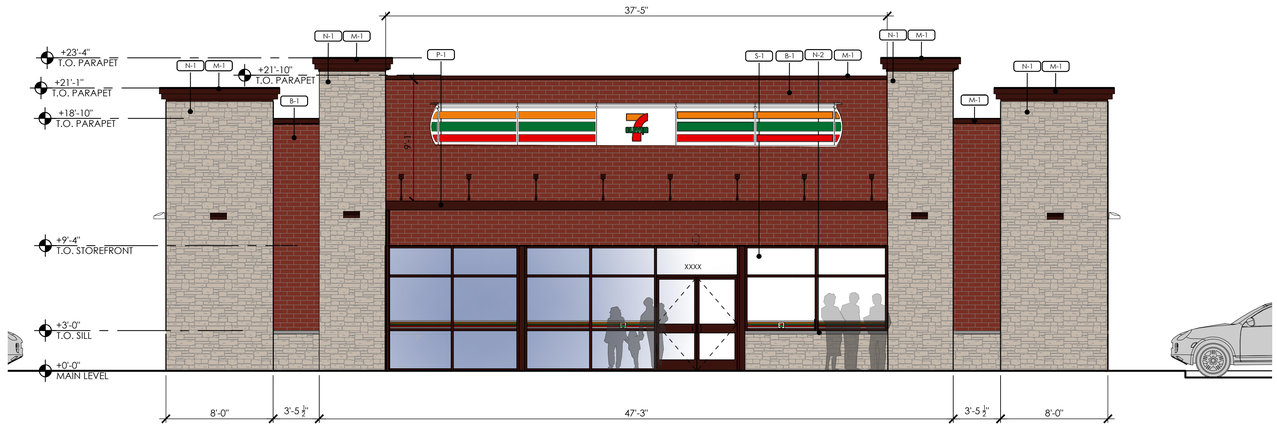
SHEET TITLE:

SITE DETAILS

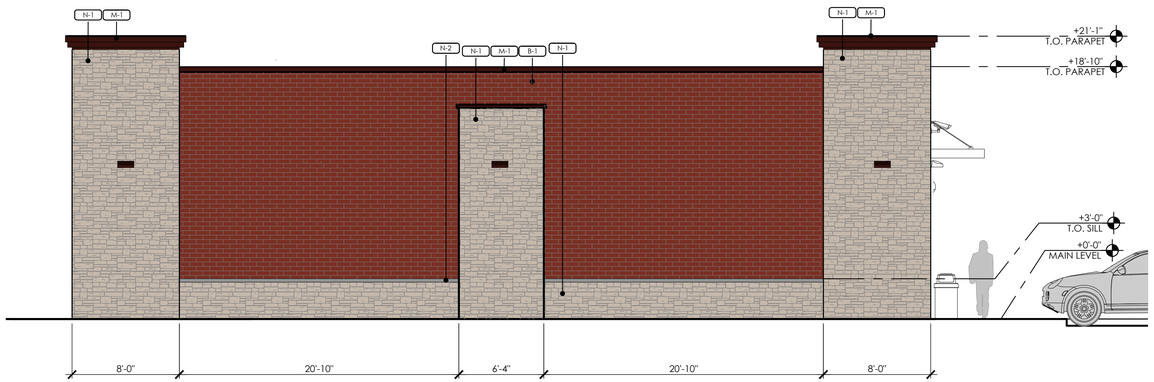
SHEET NUMBER: 26 OF 32

REVISION 2 - 10/15/20

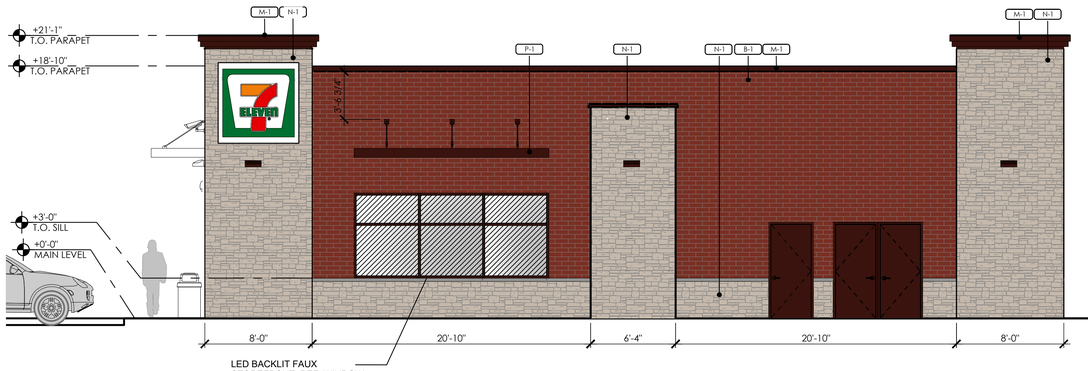
Nov 03, 2020
H:\192\MD192104\DRAWINGS\PLAN SET\FINAL SITE PLANS\MD192104-SDP-3----LAYOUT 26 - SITE DETAILS (3)
RS



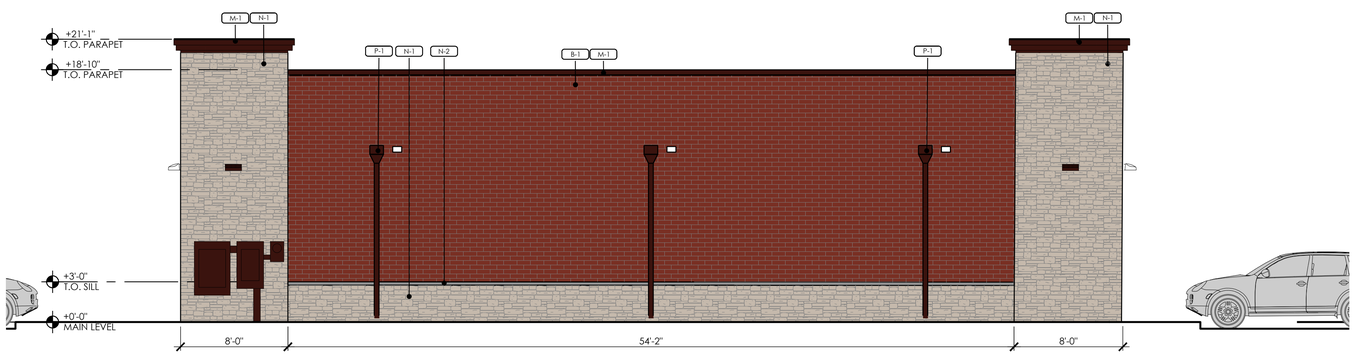
01 FRONT (WEST) ELEVATION
3/16" = 1'-0"



02 SIDE (NORTH) ELEVATION
3/16" = 1'-0"



03 SIDE (SOUTH) ELEVATION
3/16" = 1'-0"



04 REAR (EAST) ELEVATION
3/16" = 1'-0"

EXTERIOR FINISH SCHEDULE

NOTE: SEALANT COLORS: MATCH COLOR OF ADJACENT MATERIAL BEING SEALED - WHEN 2 OR MORE COLORS ARE ADJACENT, MATCH LIGHTER-COLORED MATERIAL.

FINISH	MATERIAL	PATTERN
M-1	24 GAUGE GALV. SHEET METAL COPING CAP, SLOPE ½" PER FOOT, PRE-FINISHED TO MATCH CANOPIES AND OTHER METAL WORKS (SW 7048 "URBANE BRONZE")- OR SIMILAR	
P-1	PREFINISHED SHEET METAL DOWNSPOUT SYSTEM AND PRE-FABRICATED AWNINGS TO MATCH CANOPIES AND OTHER METAL WORKS (SW 7048 "URBANE BRONZE")- OR SIMILAR	
N-1	NICHIHA PANEL SYSTEM WALL FINISH- LEDGESTONE- "BLUFF" OR SIMILAR	
N-2	PRE-CAST CONCRETE SILL	
S-1/S-2	KAWNEER, "DARK BRONZE" ALUMINUM STOREFRONT FRAME - 1" INSULATED CLEAR GLAZING BY OLDCASTLE OR EQUAL - OR SIMILAR	
B-1	NICHIHA PANEL SYSTEM WALL FINISH- ALEXANDIRA RED BUFF	

"PROFESSIONAL CERTIFICATION. I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19758, EXPIRATION DATE: 2021-01-08."

Rev. #	Date	Description

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING, TEXAS 75063

7-ELEVEN #1045775
6323 SYKESVILLE ROAD
SYKESVILLE, MD 21784

STAYTON WOOD, AIA
10755 SANDHILL ROAD, DALLAS, TEXAS 75238
TEL: 720-536-3180 FAX: 214-341-0960

Job#:	SEI-1045775
Scale:	AS NOTED
Date:	06.03.2020
Drawn By:	
Checked By:	

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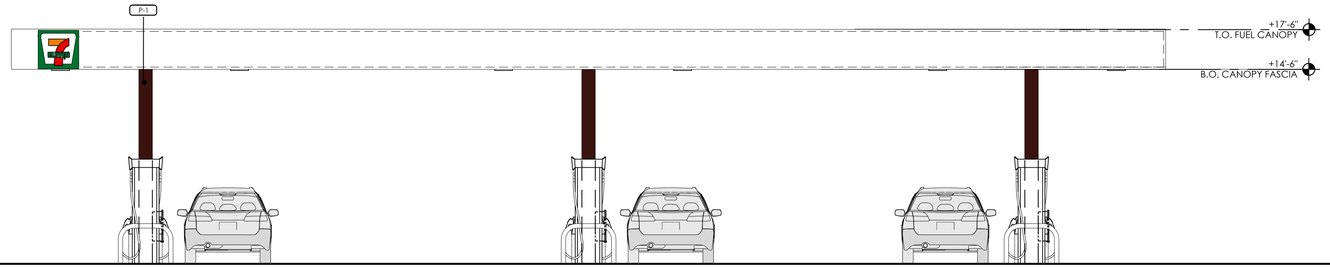
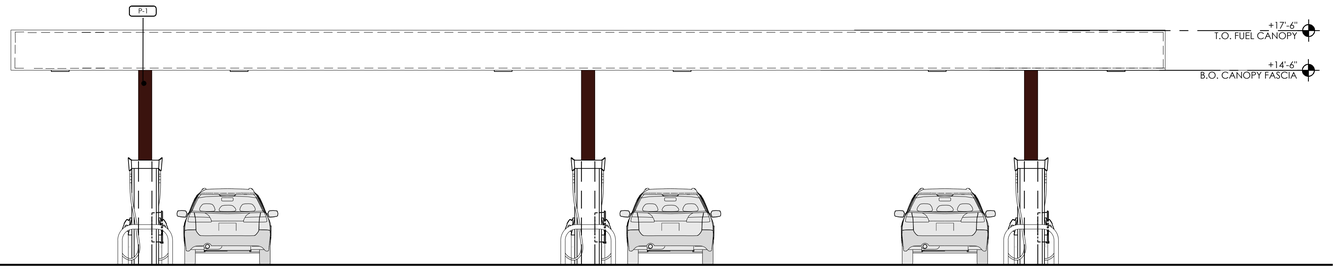
STATE OF MARYLAND
STAYTON A. WOOD
19758
REGISTERED
ARCHITECT

SHEET:
27 of 32

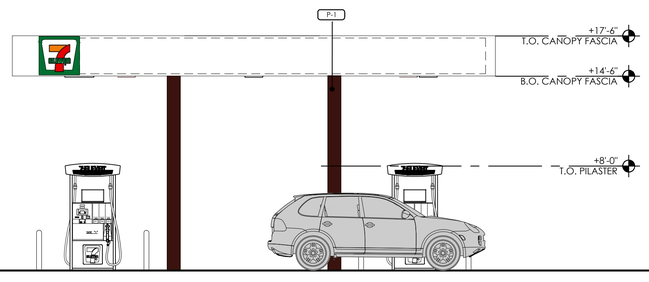
S-19-0037



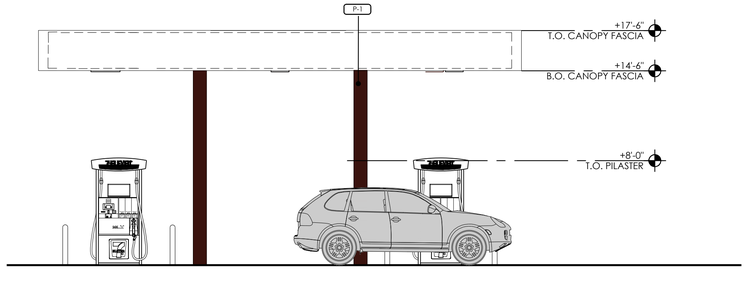
01 FRONT FUEL CANOPY (EAST) ELEVATION
3/16" = 1'-0"



02 FRONT FUEL CANOPY (WEST) ELEVATION
3/16" = 1'-0"



03 SIDE FUEL CANOPY (NORTH) ELEVATION
3/16" = 1'-0"

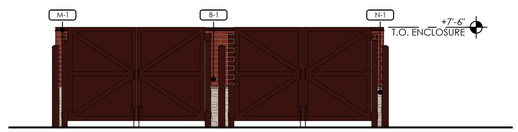


04 SIDE FUEL CANOPY (SOUTH) ELEVATION
3/16" = 1'-0"

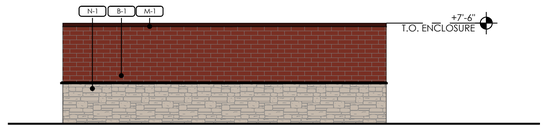
EXTERIOR FINISH SCHEDULE

NOTE: SEALANT COLORS: MATCH COLOR OF ADJACENT MATERIAL BEING SEALED - WHEN 2 OR MORE COLORS ARE ADJACENT, MATCH LIGHTER-COLORED MATERIAL.

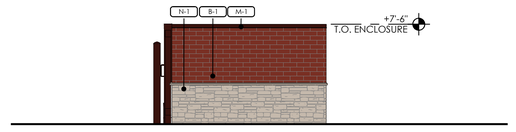
FINISH	MATERIAL	PATTERN
M-1	24 GAUGE GALV. SHEET METAL COPING CAP, SLOPE ½" PER FOOT, PRE-FINISHED TO MATCH CANOPIES AND OTHER METAL WORKS (SW 7048 "URBANE BRONZE")- OR SIMILAR	
P-1	PREFINISHED SHEET METAL DOWNSPOUT SYSTEM AND PRE-FABRICATED AWNINGS TO MATCH CANOPIES AND OTHER METAL WORKS (SW 7048 "URBANE BRONZE")- OR SIMILAR	
N-1	NICHIHA PANEL SYSTEM WALL FINISH- LEDGESTONE- "BLUFF" OR SIMILAR	
N-2	PRE-CAST CONCRETE SILL	
S-1/S-2	KAWNEER, "DARK BRONZE" ALUMINUM STOREFRONT FRAME - 1" INSULATED CLEAR GLAZING BY OLDCASTLE OR EQUAL - OR SIMILAR	
B-1	NICHIHA PANEL SYSTEM WALL FINISH- ALEXANDIRA RED BUFF	



05 FRONT TRASH ENCLOSURE ELEVATION
3/16" = 1'-0"



06 REAR TRASH ENCLOSURE ELEVATION
3/16" = 1'-0"



07 SIDE TRASH ENCLOSURE ELEVATION
3/16" = 1'-0"

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Rev. #	Date	Description

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7-ELEVEN #1045775
6323 SYKESVILLE ROAD
SYKESVILLE, MD 21784

STAYTON WOOD, AIA
10755 SANDHILL ROAD, DALLAS, TEXAS 75238
TEL: 720-536-3190 FAX: 214-341-9960

Job#:	SEI-1045775
Scale:	AS NOTED
Date:	06.03.2020
Drawn By:	
Checked By:	

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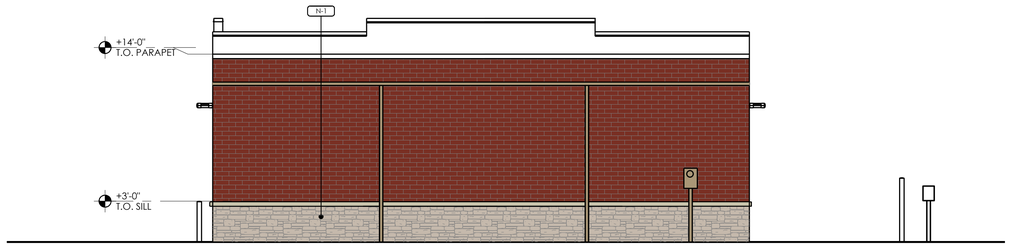
STATE OF MARYLAND
STAYTON J. WOOD
19758
ARCHITECT

SHEET:
28 of 32

S-19-0037

04 CAR WASH SIDE
3/16" = 1'-0"



03 CAR WASH SIDE
3/16" = 1'-0"

01 CAR WASH ENTRY
3/16" = 1'-0"

02 CAR WASH EXIT
3/16" = 1'-0"

EXTERIOR FINISH SCHEDULE

NOTE: SEALANT COLORS: MATCH COLOR OF ADJACENT MATERIAL BEING SEALED - WHEN 2 OR MORE COLORS ARE ADJACENT, MATCH LIGHTER-COLORED MATERIAL.

FINISH	MATERIAL	PATTERN
M-1	24 GAUGE GALV. SHEET METAL COPING CAP, SLOPE ½" PER FOOT, PRE-FINISHED TO MATCH CANOPIES AND OTHER METAL WORKS (SW 7048 "URBANE BRONZE")- OR SIMILAR	
P-1	PREFINISHED SHEET METAL DOWNSPOUT SYSTEM AND PRE-FABRICATED AWNINGS TO MATCH CANOPIES AND OTHER METAL WORKS (SW 7048 "URBANE BRONZE")- OR SIMILAR	
N-1	NICHIHA PANEL SYSTEM WALL FINISH- LEDGESTONE- "BLUFF" OR SIMILAR	
N-2	PRE-CAST CONCRETE SILL	
S-1/S-2	KAWNEER, "DARK BRONZE" ALUMINUM STOREFRONT FRAME - 1" INSULATED CLEAR GLAZING BY OLDCASTLE OR EQUAL - OR SIMILAR	
B-1	NICHIHA PANEL SYSTEM WALL FINISH- ALEXANDIRA RED BUFF	

"PROFESSIONAL CERTIFICATION. I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 19758, EXPIRATION DATE: 2021-01-08."

Rev. #	Date	Description

7-ELEVEN, INC.
3200 HACKBERRY ROAD, IRVING, TEXAS 75063

7-ELEVEN #1045775
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SYKESVILLE, MD 21784

STAYTON WOOD, AIA
10755 SANDHILL ROAD, DALLAS, TEXAS 75238
TEL: 720-536-3190 FAX: 214-341-5060

Job#: SEI-1045775
Scale: AS NOTED
Date: 06.03.2020
Drawn By:
Checked By:

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STATE OF MARYLAND
STAYTON A. WOOD
19758
ARCHITECT

SHEET:
29 of 32

S-19-0037

I. Overview

These structural drawings provide direction for the construction of one (1) submerged gravel wetland (SGW) of cast-in-place (c.i.p.) concrete construction for the above-noted project. Construction means and methods are not addressed. Refer to the project's Civil drawings for overall site layout information (including the location of the boxes and top-of-wall information). Refer to the project's Geotechnical report for earth-related information (including geotechnical requirements affecting the walls). If / where discrepancies of a Civil nature exist, the Civil drawings govern; if / where discrepancies of a Geotechnical nature exist, the Geotechnical report governs. If field conditions differ from the structural information provided, ECS must be contacted so that, if necessary, a revision of the wall design can be developed and issued.

The structures have been designed full to the top and free standing. The structures have been designed in accordance with the CDT Bio-Soil Systems, Inc. Geotechnical Report dated Nov. 12, 2019, the 2015 Maryland Building Performance Standards and the 2015 International Building Code (IBC), ACI 318 - Building Code Requirements for Structural Concrete and Commentary, ACI 350 - Requirements for Environmental Engineering Concrete Structures, and ASCE 7-10 - Minimum Design Loads for Buildings and Other Structures.

The design live loads are as follows:

Sidewalk = 100 psf
Guardrails = 6000 lb
Handrails = 50 plf/ 250 lbs
Drivelane = 250 psf

II. Material Specifications

Concrete:

1. Normal-weight, 4,500 psi compressive strength at 28 days w/4% to 6% entrained air content and a slump between 3" and 5". Calcium chloride admixtures are not permitted.
2. Concrete shall have a sand fine aggregate and normal weight coarse aggregate conforming to ASTM-C150.
3. Field-cured concrete shall attain a minimum strength of 75% of the specified 28 day compressive strength prior to any backfill placement.
4. Unless submitted and approved otherwise, ASTM C150, Type I/II cement shall be used.
5. Concrete shall be air-entrained as specified above and shall have a slump as specified above. The maximum batch-to-placement time for the wall concrete is 90 minutes. Concrete shall be placed with an ambient temperature range of 55 to 90 degrees Fahrenheit.
6. Vibrate concrete in accordance with ACI-309.
7. Materials used for forming shall be straight, smooth, and - where possible from a constructability standpoint - be continuous with the number of provided joints and seams minimized.
8. Provide vertical control joints along wall at 20 foot spacing (min.) per detail F/36, and construction joints as necessary per detail G/36.
9. Concrete to be natural concrete color (gray). (1)

Reinforcing Steel:

1. Reinforcing bars shall conform to ASTM-A615, Grade 60. Reinforcing bars shall not be tack welded, welded, heated, or thermally cut without prior approval by ECS.
2. Horizontal reinforcing shall be continuous around corners (or "bends") and shall be properly lap spliced as indicated on the drawings.
3. Detailing of concrete reinforcing bars and accessories shall conform to the recommendations of ACI 315, "Details and Detailing of Concrete Reinforcement" and ACI SP-66, "Detailing Manual". Placing of reinforcing bars shall conform to the recommendations of ACI 315R, "Manual of Engineering and Placing Drawings for Reinforced Concrete Structures" and CRSI, "Manual of Standard Practice".

Backfill:

1. Backfill shall not be placed until the field cured concrete has reached a minimum strength of 75% of the specified design compressive strength.
2. A minimum of 1.5 feet of soil shall be placed with compaction over the toe of the foundation prior to placement of the backfill.
3. Soil materials shall not be placed on frozen soils. All such soils shall be removed prior to fill placement.
4. Backfill and fill shall be placed in lifts not exceeding 8 inches in loose thickness and compacted to a minimum of 98% of the maximum dry density obtained in accordance with ASTM D-698, Standard Proctor Method.
5. Lightweight compaction equipment shall be used immediately adjacent to wall.
6. All fill operations shall be observed on a full-time basis by a qualified soil technician, working under the direction of a registered professional engineer, to confirm if the minimum compaction requirement is being met.
7. A minimum of 3 in-place density tests shall be typically performed per lift of fill placed, or as otherwise directed by the registered professional engineer.

III. Installation Specifications

Foundations:

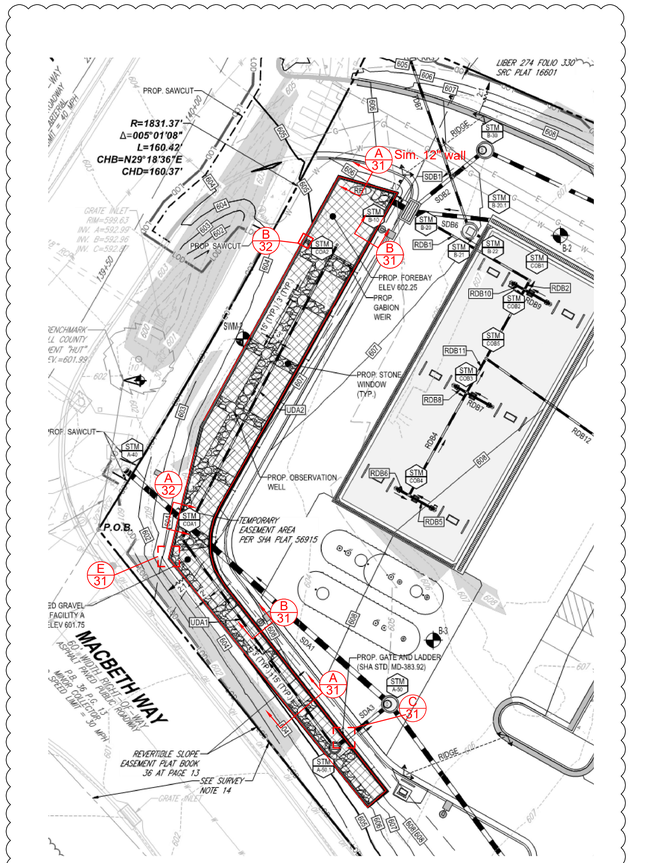
1. Soft, organic, or unsuitable soils shall be removed from the area of the retaining wall footing, plus 2 feet in front of the foundation.
2. Foundation soils shall be tested at 2 points (the third points) along the length of the box at each side of the footing width to document that the soils are capable of supporting a design bearing pressure of 2,500 psf for soil. Where soils are not capable of supporting the design bearing pressure, they shall be removed and be replaced with adequate backfill and fill placement per the geotechnical engineer of record's recommendation. Foundation testing shall be performed by a Maryland Geotechnical Engineer or his authorized representative.

FOUNDATION

Bearing Capacity:	2,500 psf
Soil Density:	120 pcf
Internal Friction Angle of Soil:	28°
Active Soil Pressure Coefficient:	0.36
Passive Soil Pressure Coefficient:	2.76

MINIMUM FACTORS OF SAFETY

F.S. against Sliding:	N/A (Structures are braced by tank slab)
F.S. against Overturning:	2.0



(1)

A/30 OVERALL SITE PLAN
NTS

(1)

INSPECTION CHART FOR SGW FACILITY "A"

Item No.	STAGE	ENGINEER'S APPROVAL	
		INITIALS	DATE
1.	FORMWORK - INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		
2.	REBAR - INSPECT REINFORCING STEEL FOR PROPER SIZE, SPACING, LAYOUT, AND COVER DEPTH PRIOR TO PLACING CONCRETE.		
3.	CONCRETE - INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUE. SAMPLE FRESH CONCRETE FPR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.		
4.	PIPES - PIPES THROUGH WALL TO BE INSPECTED FOR SHAPE, LOCATION AND DIMENSIONS.		
5.	WATERTIGHT JOINTS - JOINTS TO BE INSPECTED FOR CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS AND APPLICATION.		
6.	CERTIFYING ENGINEER'S NAME: CERTIFYING ENGINEER'S PHONE NUMBER:	M. ALEXIS HERR (ECS MID-ATLANTIC, LLC) 703-471-8400	

COMMONWEALTH OF VIRGINIA
M. ALEXIS HERR
Lic. No. 047866
10-13-2020
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DEVELOPER

NEW COASTAL DEVELOPMENT
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CONTACT: TIM HOERNER
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SITE INFORMATION

ELECTION DISTRICT: 5
EXISTING USE: RESTAURANT (COUNTY FILE # S-98-010)
PROPOSED USE: CONVENIENCE STORE W/ FUEL CANOPY AND CAR WASH
ZONE: BG - GENERAL BUSINESS
TAX MAP 73, GRID 11, PARCELS 280, 406 & 736

COUNTY FILE NO. S-19-0037

NEW COASTAL DEVELOPMENT
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ECS LLC MID-ATLANTIC

SUBMERGED GRAVEL WETLAND PLANS AND DETAILS

ECS REVISIONS

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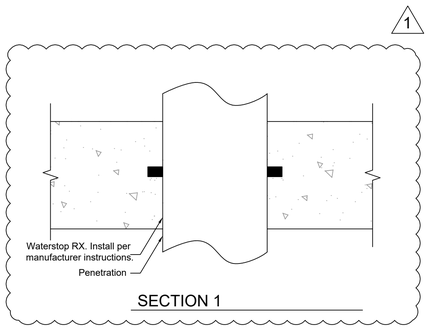
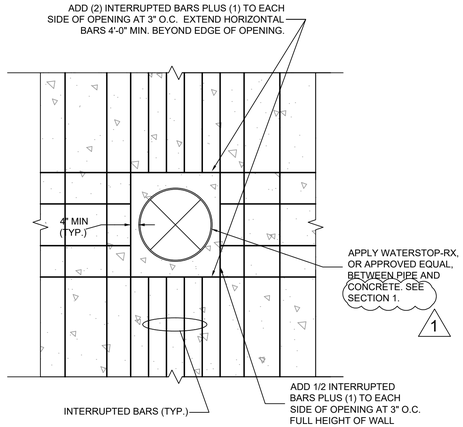
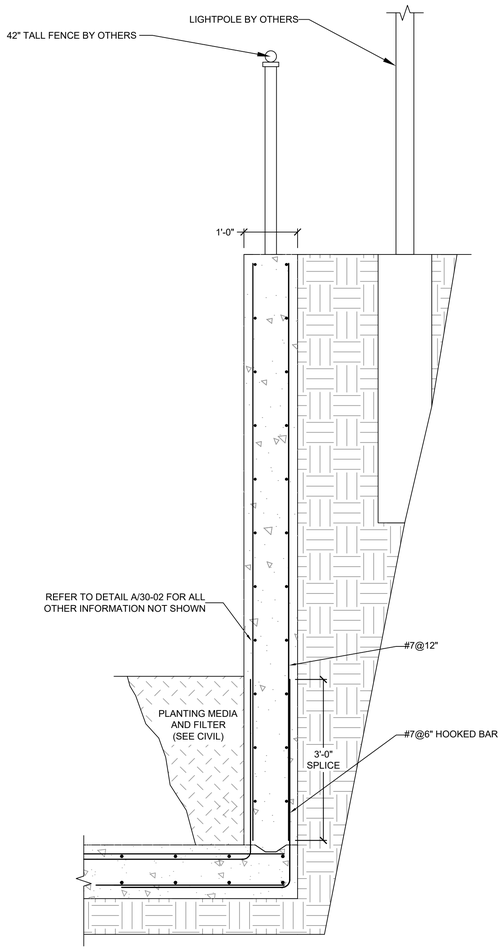
MAP	TAB

SCALE: AS NOTED
PROJECT NO.: 46:6420
SHEET: 30 OF 32
DATE: 9/2020



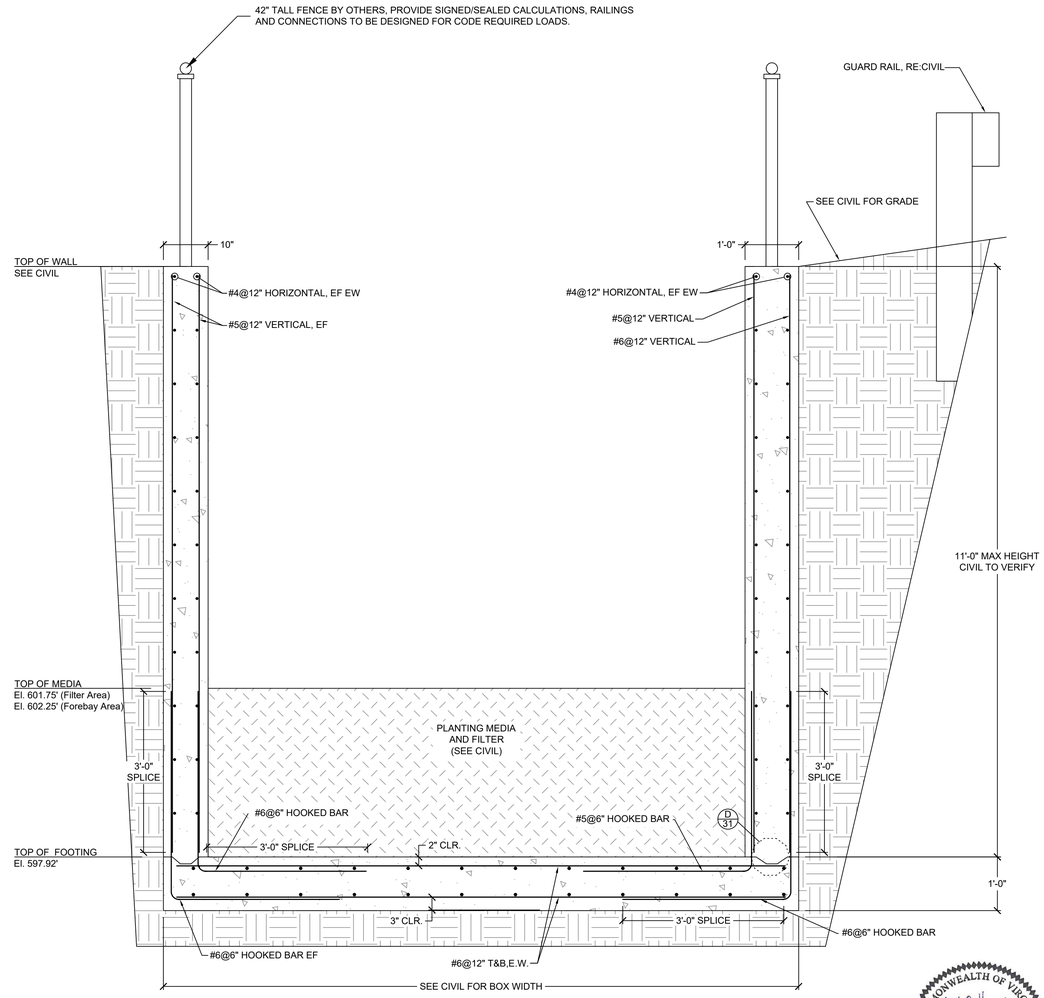


C 31 WALL PENETRATION DETAIL
3/4"=1'-0"

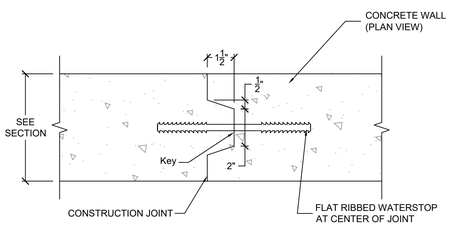


B 31 SGW "A" @ LIGHT POLE
3/4" = 1'-0"

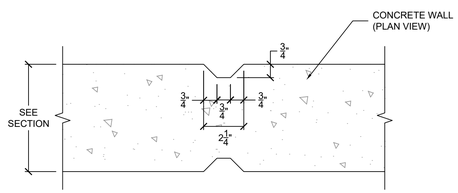
NOTE: THIS DETAIL TO BE USED FOR A 10 FOOT LENGTH CENTERED AT EACH LIGHT POLE



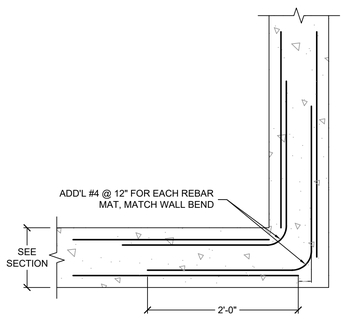
A 31 SUBMERGED GRAVEL WETLAND "A" SECTION
3/4" = 1'-0"



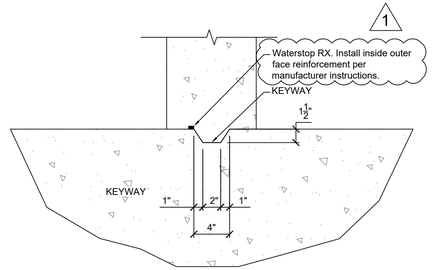
G 31 CONSTRUCTION JOINT DETAIL
3"=1'-0"



F 31 CONTROL JOINT DETAIL
3"=1'-0"



E 31 WALL BEND DETAIL
1"=1'-0"



D 31 KEYWAY DETAIL
1-1/2"=1'-0"

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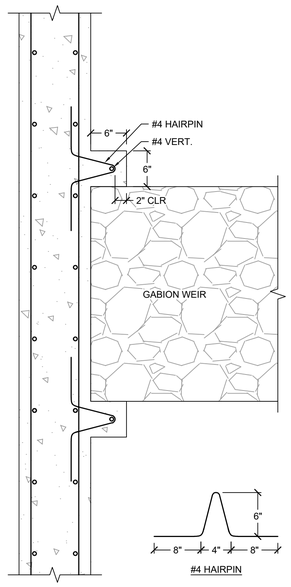
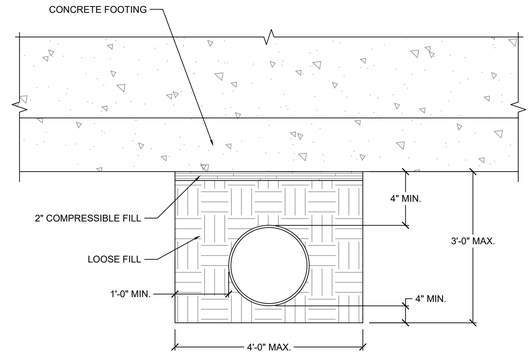


B/32 GABION WEIR / WALL INTERFACE DETAIL
1"=1'-0"



A/32 PIPE UNDER FOOTING DETAIL
3/4"=1'-0"

OWNER

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