MILLVILLE BY THE SEA
VILLAGE 5
ENGINEERING PLANS
MILLVILLE, DELAWARE

- PREPARED BY -

LAND TECH
LAND PLANNING, LLC
32895 SOUTH COASTAL HIGHWAY; SUITE 202
BETHANY BEACH, DELAWARE 19930
PHONE: (302) 539-2366

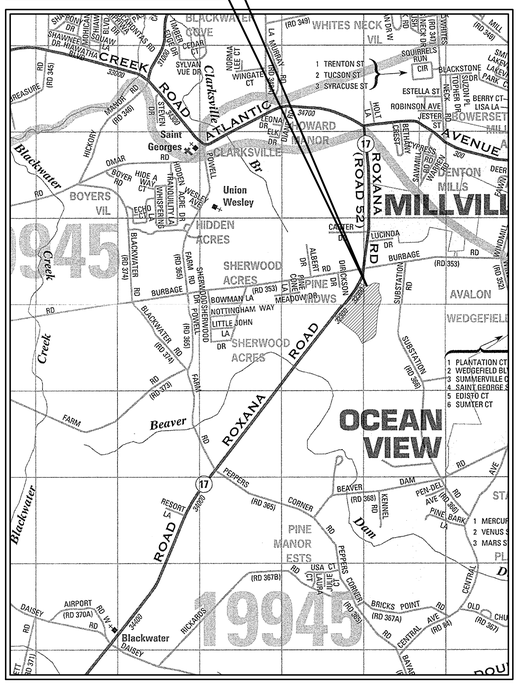
GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHY WAS PERFORMED BY STEPHENS ENVIRONMENTAL CONSULTING, INC. FEBRUARY 2005. FIELD VERIFICATION WAS PERFORMED BY MCCRONE, INC. JUNE 2005. BOUNDARY VERIFICATION WAS PERFORMED BY CIVIL ENGINEERING ASSOCIATES JULY 2012.
2. ALL SIDE LOT LINES ARE RESERVED FROM THE CENTERLINE A SEVEN (7) FOOT WIDE DRAINAGE AND/OR UTILITY EASEMENT, EXCEPT AT INTERIOR TOWNHOME LOTS. A TEN (10) FOOT WIDE DRAINAGE AND/OR UTILITY EASEMENT IS RESERVED ON EACH LOT ALONG THE FRONT AND REAR PROPERTY LINES.
3. EXISTING UTILITIES ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THROUGH TEST PITTING, THE LOCATIONS, SIZE, AND INVERT ELEVATIONS OF ALL UNDERGROUND UTILITIES AS REQUIRED TO GIVE TIMELY ADVANCE NOTICE TO ENGINEERS OF ANY CONFLICT BETWEEN EXISTING AND NEW WORK.
4. THE CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-282-8555) AND SUSSEX COUNTY 48 HOURS PRIOR TO EXCAVATION TO HAVE UNDERGROUND UTILITIES MARKED. THE CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS PRIOR TO ANY EXCAVATION.
5. THE CONTRACTOR SHALL REPAIR OR REPLACE IN KIND ANY EXISTING FEATURES DAMAGED OR DESTROYED DURING CONSTRUCTION.
6. ALL BACKFILLED AND DISTURBED AREAS TO BE SEEDED AND MULCHED WITH 4" OF TOPSOIL TO BE PLACED IN FILL AREAS.
7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY STAKE OUT OF LINE AND GRADE.
8. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT, LATEST EDITION, AND ALL RULES AND REGULATIONS THERETO.
9. THE CONTRACTOR SHALL KEEP EXISTING UTILITIES IN OPERATION DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL PERMITS SECURED, WHICH TAKE PRECEDENCE OVER SPECIFICATIONS.
11. THE CONTRACTOR SHALL EXERCISE EXTREME CARE AND CAUTION AND TAKE MEASURES NECESSARY TO PROTECT TREES DURING CONSTRUCTION ACTIVITY.
12. THE CONTRACTOR IS RESPONSIBLE FOR SECURING AND PROTECTING UTILITY POLES BEFORE AND DURING CONSTRUCTION ACTIVITIES.
13. ANY DISTURBED AREAS OUTSIDE THE RIGHT-OF-WAY SHALL BE RESTORED TO THEIR ORIGINAL CONDITION IMMEDIATELY.

SITE NOTES

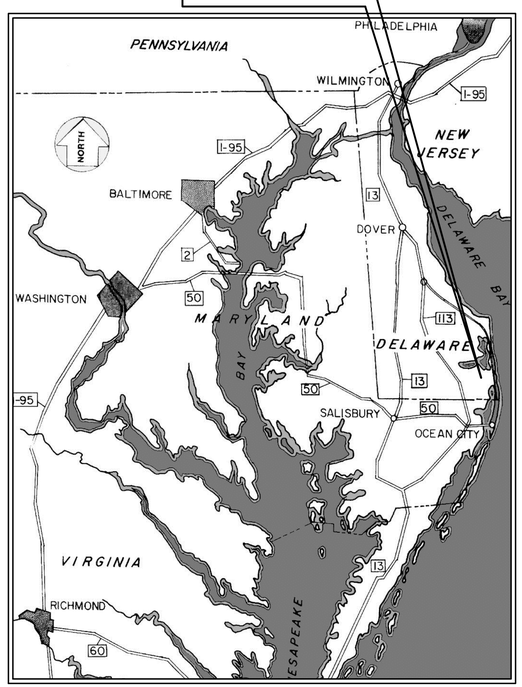
1. SITE IS TAX MAP 134-15.00 PARCEL 120.01
2. ZONING IS MASTER PLANNED COMMUNITY (MPC).
3. SITE AREA IS ±19.55 ACRES.
4. THE MAXIMUM NUMBER OF DWELLING UNITS SHALL NOT EXCEED 156 (8/AC).
5. THE INTERIOR STREET DESIGN SHALL INCLUDE STREET LIGHTING AND SIDEWALKS.
6. ALL SIGNALS, ENTRANCES, INTERSECTIONS, ROADWAY AND IMPROVEMENTS, AND MULTI-MODAL FACILITIES SHALL BE CONSTRUCTED AS REQUIRED BY DELDOT.
7. THE DEVELOPMENT SHALL BE SERVED BY A CENTRAL WATER SYSTEM PROVIDING ADEQUATE DRINKING WATER AND FIRE PROTECTION AS REQUIRED BY APPLICABLE REGULATIONS. ALL WATER WORK IS TO BE CONSTRUCTED IN ACCORDANCE TO TIDEWATER UTILITIES STANDARDS AND SPECIFICATIONS.
8. STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STATE AND COUNTY REQUIREMENTS. IF IT IS DETERMINED THAT ADDITIONAL AREAS ARE REQUIRED FOR STORMWATER MANAGEMENT, PARKING, OR OTHER USE, THE ADDITIONAL AREA SHALL BE TAKEN FROM LOT AREAS, NOT DESIGNATED WETLANDS OR OPEN SPACE AREAS.
9. DESIGNATED WETLANDS SHALL NOT BE INCLUDED IN ANY INDIVIDUAL LOTS. DESIGNATED WETLANDS SHALL BE MAINTAINED AS NON-DISTURBANCE AREAS.
10. NO SITE PREPARATION, SITE DISTURBANCE, SITE EXCAVATION OR OTHER SITE CONSTRUCTION SHALL BE COMMENCED UNTIL ALL PERMITS REQUIRED BY ALL OTHER LAWS, ORDINANCES, RULES AND REGULATIONS HAVE BEEN ISSUED AND THE APPROVED FINAL SITE PLAN IS RECORDED, EXCEPT SUCH SITE WORK FOR WHICH A PERMIT HAS BEEN ISSUED BY THE SUSSEX CONSERVATION DISTRICT.
11. THE APPLICANT SHALL SUBMIT ROAD NAMES AND A PLAN FOR ADDRESSING OF STREETS TO THE COUNTY'S MAPPING AND ADDRESSING DEPARTMENT FOR REVIEW AND APPROVAL.
12. SUBDIVISION STREETS CONSTRUCTED ARE PRIVATE AS SHOWN ON THIS PLAN AND ARE TO BE MAINTAINED BY THE DEVELOPER, PROPERTY OWNERS OR BOTH. THE STATE OF DELAWARE ASSUMES NO RESPONSIBILITIES FOR THE FUTURE MAINTENANCE OF THESE STREETS.
13. ACCESS TO ALL LOTS IS TO BE FROM SUBDIVISION STREETS.
14. MAINTENANCE OF THE STREETS WITHIN THE SUBDIVISION WILL BE THE RESPONSIBILITY OF THE DEVELOPER, THE HOME OWNERS ASSOCIATION WITHIN THE SUBDIVISION, OR BOTH. WHEN ALL LOTS ARE PURCHASED THE HOME OWNERS ASSOCIATION WILL BE SOLELY RESPONSIBLE FOR THE MAINTENANCE OF THE INTERIOR STREETS. NEITHER THE STATE OF DELAWARE NOR THE TOWN OF MILLVILLE ASSUME ANY RESPONSIBILITY FOR FUTURE MAINTENANCE OF THE STREETS.
15. MAINTENANCE OF THE STORMWATER MANAGEMENT AREAS WILL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION AND/OR THE OWNER DEVELOPER.
16. LOTS TO BE SERVED WITH WATER BY TIDEWATER UTILITIES, INC.
17. LOTS TO BE SERVED WITH SEWER BY NORTH MILLVILLE EXPANSION OF THE BETHANY BEACH SANITARY SEWER DISTRICT, SUSSEX COUNTY, DELAWARE.
18. THE SUBDIVISION LIES ENTIRELY WITHIN FLOOD ZONE 'X', AREAS OF MINIMAL FLOODING PER FEMA MAP# 10005C0495K, DATED MARCH 16, 2015.
19. BUILDING CONSTRUCTION TO BE SINGLE FAMILY RESIDENCES (TYPE 5 CONSTRUCTION) AND TOWNHOMES / CONDOMINIUMS.
20. OPEN SPACE AREAS AND COMMON AREAS WILL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION OR THEIR ASSIGNS UPON COMPLETION OF THE PROJECT.
21. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS.
22. PRIVATE RIGHT-OF-WAY SHALL BE AN EASEMENT FOR PUBLIC/PRIVATE UTILITY SERVICES AND INGRESS/EGRESS FOR HOMEOWNERS, PUBLIC AGENCIES PROVIDING SERVICES TO HOMEOWNERS, AND THE DEVELOPER AND ITS AGENTS UNTIL THE RIGHT-OF-WAY IS TURNED OVER TO THE HOME OWNERS ASSOCIATION.
23. SUBDIVISION OF FUTURE PHASES INTO SEPARATE PARCELS DEFERRED UNTIL RECORDATION OF PLANS FOR EACH FUTURE PHASE.

PROJECT AREA



LOCATION MAP
SCALE: 1" = 2000'

MILLVILLE



VICINITY MAP
SCALE: 1" = 20 MILES

LIST OF DRAWINGS

G1.0	COVER SHEET
G1.2	SEDIMENT AND STORMWATER MANAGEMENT COVER SHEET
G1.4	OVERALL CONSTRUCTION PHASING PLAN
C1.0	PRE-CONSTRUCTION STORMWATER MANAGEMENT KEY SHEET
C1.0A	PRE-CONSTRUCTION STORMWATER MANAGEMENT PLAN
C1.0B	PRE-CONSTRUCTION STORMWATER MANAGEMENT PLAN
C1.0C	PRE-CONSTRUCTION STORMWATER MANAGEMENT PLAN
C1.1	CONSTRUCTION STORMWATER MANAGEMENT KEY SHEET
C1.1A	CONSTRUCTION STORMWATER MANAGEMENT PLAN
C1.1B	CONSTRUCTION STORMWATER MANAGEMENT PLAN
C1.2	CONSTRUCTION NOTES AND DETAILS
C1.3-C1.8	CONSTRUCTION DETAILS
C2.0	POST-CONSTRUCTION STORMWATER MANAGEMENT KEY SHEET
C2.1	POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN
C2.1A	POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN
G1.1	SANITARY SEWER COVER SHEET
G1.3	SANITARY SEWER PHASING PLAN
C3.0	SANITARY SEWER PLAN KEY SHEET
C3.1-C3.2	SANITARY SEWER PLAN
C4.1-C4.2	SANITARY SEWER PROFILES
C5.1-C5.2	SANITARY SEWER DETAILS
C8.0	ROAD PLAN KEY SHEET
C8.1-C8.2	ROAD PLAN
C8.3-C8.5	ROAD PROFILES
C8.6	GEOMETRY AND SIGNAGE PLAN
C8.7-C8.8	INTERSECTION GRADING PLAN
C9.1-C9.2	SITE DETAILS
C10.0	STORM DRAIN KEY SHEET
C10.1-C10.3	STORM DRAIN PLAN
C10.4-C10.6	STORM DRAIN PROFILES
C11.1-C11.3	STORM DRAIN DETAILS
G1.5	TUI COVER SHEET
C12.0	WATER DISTRIBUTION KEY SHEET
C12.1-C12.2	WATER DISTRIBUTION PLAN
C12.3-C12.4	WATER DISTRIBUTION PROFILES
C13.1	WATER DISTRIBUTION DETAILS
BK-1	BULK GRADING PLAN KEY SHEET
BK-2 - BK-3	BULK GRADING PLAN
F1	FIRE MARSHAL PLAN COVER SHEET
F2	FIRE MARSHAL PLAN KEY SHEET
F3-F4	FIRE MARSHAL PLAN
F5-F6	FIRE MARSHAL DETAILS
FSP1.0	COVER SHEET
FSP2.0	EXISTING CONDITIONS
FSP3.0	KEY SHEET
FSP3.1-FSP3.2	FINAL SITE PLAN
FSP4.0	LANDSCAPE PLAN
FSP5.1-FSP5.2	FINAL RECORD PLAN
FSP5.3	LINE AND CURVE TABLES
FSP6.0	PROPOSED SITE PLAN RENDERING

PROJECT CONTACT INFORMATION	
OWNER/ DEVELOPER	
NAME	A SF MBTS LLC
ADDRESS	3565 PIEDMONT RD NE
	BUILDING ONE, SUITE 200
	ATLANTA, GA 30305
CONTACT	ROD HART
PHONE	443-418-6658
EMAIL	ROCHART88@GMAIL.COM
CIVIL ENGINEER	
NAME	CIVIL ENGINEERING ASSOCIATES
ADDRESS	55 W. MAIN STREET
	MIDDLETOWN, DE 19709
CONTACT	RONALD H. SUTTON, P.E.
PHONE	302-376-8833
EMAIL	RON@CEA-DE.COM

ZONING DATA	
SITE ADDRESS	APPROX. 150 FT SOUTH OF INTERSECTION OF ROXANA RD AND ENDLESS SUMMER DR
TAX MAP	134-15.00-120.01
DEED BOOK	D.B. 5320, P. 273
PLOT BOOK	N/A
CURRENT ZONING	MPC
PROPOSED ZONING	MPC
CURRENT USE	VACANT LAND
PROPOSED USE	RESIDENTIAL
SITE AREA DATA	
EXISTING SITE AREA	± 19.55 ACRES
PROPOSED SITE AREA	± 19.57 ACRES
EXISTING WOODED AREA	N/A
WOODS TO REMAIN	N/A
OPEN SPACE REQUIRED	N/A
OPEN SPACE PROVIDED	± 2.86 ACRES
LOT AREA	± 12.43 ACRES
ROW AREA	± 4.27 ACRES
EXISTING WETLAND AREA	N/A
WETLAND AREA TO REMAIN	N/A
UNIT COUNTS	
TOTAL	77
SINGLE FAMILY	49
DUPLEX	28
GROSS DENSITY	3.93 UNITS/ACRE
NET DENSITY	5.03 UNITS/ACRE
PARKING REQUIRED	231 SPACES
PARKING PROVIDED	239 SPACES
MINIMUM SINGLE FAMILY SETBACKS	
FRONT	20'
REAR	10' ADJACENT TO OPEN SPACE 20' WHEN BACK TO BACK
SEPARATION	14' (MINIMUM 7' SIDEYARD)
SIDE YARD AT CORNER LOT	10'
LOT DEPTH	100'
MINIMUM DUPLEX SETBACKS	
FRONT	20'
REAR	10' ADJACENT TO OPEN SPACE 20' WHEN BACK TO BACK
SEPARATION	20' (MINIMUM 10' SIDEYARD)
SIDE YARD AT CORNER LOT	10'
LOT DEPTH	100'
SITE GENERAL INFORMATION	
FLOOD ZONE/ FEMA MAP #	10005C0495K, DATED MARCH 16, 2015, ZONE X
SEWER PROVIDER	SUSSEX COUNTY, NORTH MILLVILLE EXPANSION OF BETHANY BEACH SANITARY SEWER DISTRICT
WATER PROVIDER	TIDEWATER UTILITIES, INC.
ELECTRIC PROVIDER	DELAWARE ELECTRIC
AMENITY	USE OF ORIGINAL MILLVILLE BY THE SEA AMENITIES INCLUDING: POOL, CLUBHOUSE, ACTIVE AND PASSIVE OPEN SPACE

OWNER'S CERTIFICATION:
I HEREBY CERTIFY THAT I AM AN OWNER OF THE PROPERTY DESCRIBED AN SHOWN ON THIS PLAN AND THAT THE PLAN WAS MADE AT MY DIRECTION. THE UNDERSIGNED, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN AND THAT THE SUSSEX CONSERVATION DISTRICT OR THEIR DESIGNATED AGENT SHALL HAVE RIGHT TO CONDUCT ON-SITE INSPECTIONS.

OWNER'S SIGNATURE — DATE
ASF MBTS LLC

ENGINEER'S CERTIFICATION:
"I HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HERE HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEVE REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE."

ENGINEER'S SIGNATURE — DATE

TOWN OF MILLVILLE

EILEEN SCERRA — DATE

NO.	REVISIONS	DATE

CIVIL ENGINEERING ASSOCIATES, LLC
● ENGINEERING ● SURVEYING ● CONSTRUCTION SERVICES
55 W. MAIN STREET
MIDDLETOWN, DE 19709
(302) 376-8833

CENTURY ENGINEERING

GMB
GEORGE, MILES & BUHR, LLC
ARCHITECTS & ENGINEERS
SALISBURY • BALTIMORE • SEAFORD
206 WEST MAIN STREET
SALISBURY, MARYLAND 21801
410-742-3115, FAX 410-548-5790
www.gmbnet.com

MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 -
COVER SHEET

SCALE	: AS SHOWN
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
G1.0

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PLOT CODE
PEN1-RED 200 INCHES/ 5 (40mm)
PEN2-YELLOW 200 INCHES/ 5 (40mm)
PEN3-GREEN 200 INCHES/ 5 (40mm)
PEN4-BLUE 200 INCHES/ 5 (40mm)
PEN5-MAGENTA 200 INCHES/ 5 (40mm)
PEN7-WHITE 200 INCHES/ 5 (40mm)

C:\Projects\2021\210001 Millville by the Sea\Drawings\Working Set\Village 5\Engineering Plans\G1.0 Cover Sheet.dwg, 10/16/2025, Christopher J. Pfeifer

MILLVILLE BY THE SEA
VILLAGE 5
SEDIMENT AND STORMWATER MANAGEMENT
MILLVILLE, DELAWARE
BALTIMORE HUNDRED, SUSSEX COUNTY
LITTLE ASSAWOMAN BAY WATERSHED
134-15.00-120.01

GMB File No. 210001-J

JUN 2025

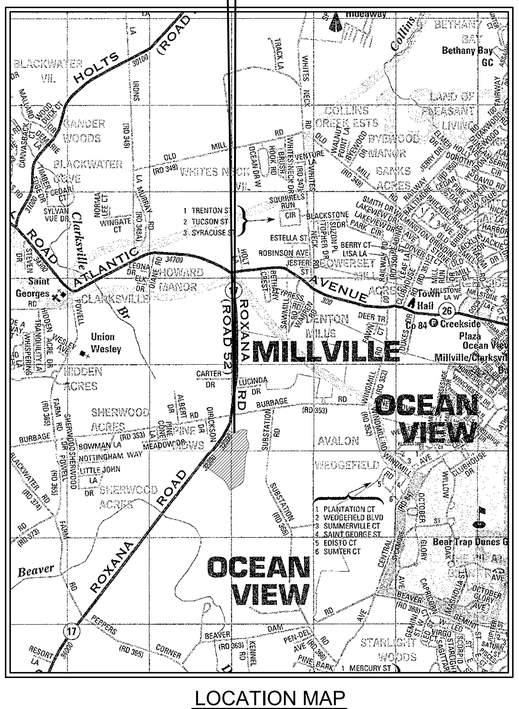
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14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL GRADES PRIOR TO INITIATING CONSTRUCTION OPERATIONS.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND ENSURING THAT ALL SEDIMENT CONTROL DEVICES ARE IN PROPER OPERATING CONDITION.

SEDIMENT AND STORMWATER CONSTRUCTION NOTES

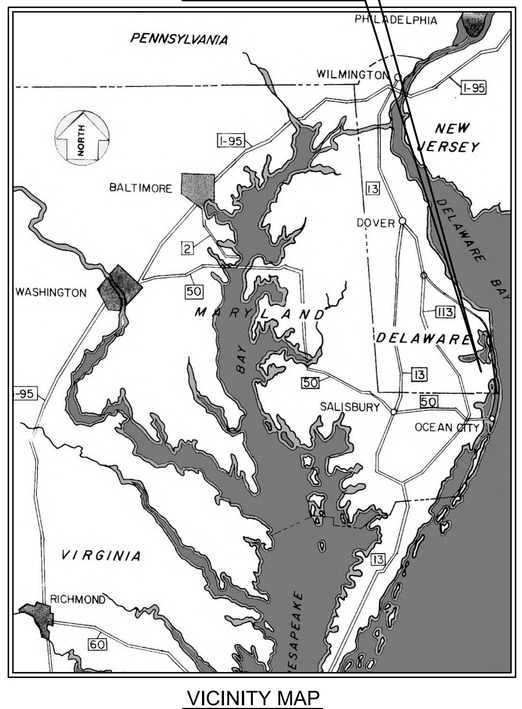
1. THE SUSSEX CONSERVATION DISTRICT SEDIMENT AND STORMWATER PROGRAM SHALL BE NOTIFIED IN WRITING FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. REVIEW AND OR APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.
3. IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY THE DNREC OR THE DELEGATED AGENCY.
4. FOLLOWING SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED FOR ALL PERIMETER SEDIMENT CONTROLS, SOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE WITHIN 14 CALENDAR DAYS UNLESS MORE RESTRICTIVE FEDERAL REQUIREMENTS APPLY.
5. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
6. AT ANY TIME A DEWATERING OPERATION IS USED, IT SHALL BE PREVIOUSLY APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER FOR A NON-EROSIVE POINT OF DISCHARGE, AND A DEWATERING PERMIT SHALL BE APPROVED BY THE DNREC WELL PERMITTING BRANCH.
7. APPROVED PLANS REMAIN VALID FOR 5 YEARS FROM THE DATE OF APPROVAL.
8. POST CONSTRUCTION VERIFICATION DOCUMENTS SHALL BE SUBMITTED TO THE SUSSEX CONSERVATION DISTRICT SEDIMENT AND STORMWATER PROGRAM WITHIN 60-DAYS OF STORMWATER MANAGEMENT FACILITY COMPLETION.
9. APPROVAL OF A SEDIMENT AND STORMWATER MANAGEMENT PLAN DOES NOT GRANT OR IMPLY A RIGHT TO DISCHARGE STORMWATER RUNOFF. THE OWNER/DEVELOPER IS RESPONSIBLE FOR ACQUIRING ANY AND ALL AGREEMENTS, EASEMENTS, ETC. NECESSARY TO COMPLY WITH STATE DRAINAGE AND OTHER APPLICABLE LAWS.
10. THE NOTICE OF INTENT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER NPDES GENERAL PERMIT FOR THIS PROJECT IS #7518. THE PERMITTEE OF RECORD SHALL NOT BE RELIEVED OF THEIR RESPONSIBILITIES UNTIL A NOTICE OF TERMINATION HAS BEEN PROCESSED BY DNREC.
11. THE OWNER SHALL BE FAMILIAR WITH AND COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION GENERAL PERMIT.
13. THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHALL BE CHECKED DAILY AND ADJUSTED AND/OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
14. BEFORE ANY EARTHWORK OR EXCAVATION TAKES PLACE, THE CONTRACTOR SHALL CALL MISS UTILITY AT 811 OR 1.800.282.8555 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO HAVE ALL EXISTING UTILITIES MARKED ONSITE.
15. BEST AVAILABLE TECHNOLOGY (BAT) SHALL BE EMPLOYED TO MANAGE TURBID DISCHARGES IN ACCORDANCE WITH REQUIREMENTS OF 7 DEL.C.CH.60 AND THE CURRENT DELAWARE CONSTRUCTION GENERAL PERMIT (CGP).
16. DOCUMENTATION OF SOIL TESTING AND MATERIALS USED FOR TEMPORARY OR PERMANENT STABILIZATION INCLUDING BUT NOT LIMITED TO SOIL TEST RESULTS, SEED TAGS, SOIL AMENDMENT TAGS, ETC. SHALL BE PROVIDED TO THE DEPARTMENT OR DELEGATED AGENCY TO VERIFY THAT THE PERMANENT OR TEMPORARY STABILIZATION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED PLAN.
17. THE DEPARTMENT OR DELEGATED AGENCY MAY REQUIRE ADDITIONAL SOIL TESTING AND REAPPLICATION OF PERMANENT OR TEMPORARY STABILIZATION IN ACCORDANCE WITH SPECIFICATIONS PROVIDED IN THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK, OR ALTERNATIVE MEASURES THAT PROVIDE FUNCTIONAL EQUIVALENCY.

PROJECT AREA



LOCATION MAP
SCALE: 1" = 2000'

MILLVILLE



VICINITY MAP
SCALE: 1" = 20 MILES

LIST OF DRAWINGS

G1.2	SEDIMENT AND STORMWATER MANAGEMENT COVER SHEET
G1.4	OVERALL CONSTRUCTION PHASING PLAN
C1.0	PRE-CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN KEY SHEET
C1.0A	PRE-CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN
C1.0B	PRE-CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN
C1.1	CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN KEY SHEET
C1.1A	CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN
C1.1B	CONSTRUCTION SITE STORMWATER MANAGEMENT PLAN
C1.2	SITE CONSTRUCTION NOTES AND DETAILS
C1.3	SITE CONSTRUCTION DETAILS
C1.4	SITE CONSTRUCTION DETAILS
C1.5	SITE CONSTRUCTION DETAILS
C1.6	SITE CONSTRUCTION DETAILS
C1.7	SITE CONSTRUCTION DETAILS
C1.8	SITE CONSTRUCTION DETAILS
C2.0	POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN KEY SHEET
C2.1	POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN
C2.2	POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

SITE DATA:

OWNER/DEVELOPER
ASF MBTS LLC
3565 PIEDMONT RD NE
BUILDING ONE, SUITE 200
ATLANTA, GA 30305
CONTACT: ROD HART (443)-418-6658
RODHART68@GMAIL.COM

CIVIL ENGINEER
GEORGE, MILES & BUHR, LLC.
206 W. MAIN STREET
SALISBURY, MD 21801
PHONE: 410.742.3115
CONTACT: CHRISTOPHER J. PFEIFER, P.E.

ZONING DATA	
SITE ADDRESS	APPROX. 150 FT SOUTH OF INTERSECTION OF ROXANA RD AND ENDLESS SUMMER DR
TAX MAP	134-15.00-120.01
DEED BOOK	D.B. 5320, P. 273
PLOT BOOK	N/A
CURRENT ZONING	MPC
PROPOSED ZONING	MPC
CURRENT USE	VACANT LAND
PROPOSED USE	RESIDENTIAL
SITE AREA DATA	
EXISTING SITE AREA	± 19.55 ACRES
PROPOSED SITE AREA	± 19.57 ACRES
EXISTING WOODED AREA	N/A
WOODS TO REMAIN	N/A
OPEN SPACE REQUIRED	N/A
OPEN SPACE PROVIDED	± 2.86 ACRES
LOT AREA	± 12.43 ACRES
ROW AREA	± 4.27 ACRES
EXISTING WETLAND AREA	N/A
WETLAND AREA TO REMAIN	N/A
UNIT COUNTS	
TOTAL	77
SINGLE FAMILY	49
DUPLEX	28
GROSS DENSITY	3.93 UNITS/ACRE
NET DENSITY	5.03 UNITS/ACRE
PARKING REQUIRED	231 SPACES
PARKING PROVIDED	235 SPACES
MINIMUM SINGLE FAMILY SETBACKS	
FRONT	20'
REAR	10' ADJACENT TO OPEN SPACE 20' WHEN BACK TO BACK
SEPARATION	14' (MINIMUM 7' SIDEYARD)
SIDE YARD AT CORNER LOT	10'
LOT DEPTH	100'
MINIMUM DUPLEX SETBACKS	
FRONT	20'
REAR	10' ADJACENT TO OPEN SPACE 20' WHEN BACK TO BACK
SEPARATION	20' (MINIMUM 10' SIDEYARD)
SIDE YARD AT CORNER LOT	10'
LOT DEPTH	100'
SITE GENERAL INFORMATION	
FLOOD ZONE FEMA MAP #	10005C0495K, DATED MARCH 16, 2015, ZONE X
SEWER PROVIDER	SUSSEX COUNTY, NORTH MILLVILLE EXPANSION OF BETHANY BEACH SANITARY SEWER DISTRICT
WATER PROVIDER	TIDEWATER UTILITIES, INC.
ELECTRIC PROVIDER	DELAWARE ELECTRIC
AMENITY	USE OF ORIGINAL MILLVILLE BY THE SEA AMENITIES INCLUDING: POOL, CLUBHOUSE, ACTIVE AND PASSIVE OPEN SPACE

PROPOSED LIMIT OF DISTURBANCE: ±21.77 ACRES
PROPOSED DISCHARGE LOCATION: SWM POND – EXISTING DRAINAGE POND
PROPOSED TOTAL LIMIT OF DISTURBANCE PER DISCHARGE LOCATION: ±22 ACRES

LEGEND

EXISTING		PROPOSED
PROPERTY LINE/RIGHT OF WAY	30	CONTOUR
TAX DITCH RIGHT OF WAY		EXISTING DITCH TO BE FILLED
FLOOD PLAN		PAVEMENT
CONTOUR		TREE CLEARING
EXISTING WETLANDS	LOD	LIMITS OF DISTURBANCE
WOODS LINE	RSF	REINFORCED SILT FENCE
STORM DRAIN	SF	SILT FENCE
SEWER	IP-1	INLET PROTECTION TYPE I
FORCEMAIN	IP-2	INLET PROTECTION TYPE II
WATER	CD	COFFER DAM
CURBING & EDGE OF PAVEMENT	CW	CONCRETE WASHOUT
FENCE LINE	MSA	MAINTENANCE SET ASIDE AREA
SOIL LINE		STORM DRAIN
		CURB & GUTTER
		STABILIZED CONSTRUCTION ENTRANCE
		SOIL STOCKPILE
		TAX DITCH MAINTENANCE AREA
	TCE	TEMPORARY CONSTRUCTION EASEMENT

WETLAND CERTIFICATION
"I JIM MCCULLEY, SPWS, STATE THAT THE BOUNDARIES OF WATERS OF THE UNITED STATES INCLUDING WETLANDS SUBJECT TO THE CORPS OF ENGINEERS REGULATORY PROGRAM DELINEATED UPON THIS PLAN HAVE BEEN DETERMINED USING MY PROFESSIONAL JUDGEMENT IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, AND ITS SUPPLEMENTAL GUIDANCE INCLUDING THE ATLANTIC AND GULF COAST REGIONAL SUPPLEMENT (VERSION 2.0) AND THE 2020 NAVIGABLE WATERS PROTECTION RULE. THIS DELINEATION HAS NOT BEEN CONDUCTED FOR USDA PROGRAM OR AGRICULTURAL PURPOSES.

ON AUGUST 30, 2018 U.S. ARMY CORPS OF ENGINEERS ISSUED AND APPROVED JURISDICTIONAL DETERMINATION OR AJD (CENAP-OP-R-2007-383)

JIM MCCULLEY
SENIOR PROFESSIONAL WETLAND SCIENTIST 000471
SOCIETY OF WETLAND SCIENTISTS

12/5/2025
DATE

OWNER'S CERTIFICATION:
I, THE UNDERSIGNED, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHOULD BE DONE PURSUANT TO THE APPROVED PLAN AND THAT RESPONSIBLE PERSONNEL (I.E., BLUE CARD HOLDER) INVOLVED IN THE LAND DISTURBANCE WILL HAVE A CERTIFICATION OF TRAINING PRIOR TO INITIATION OF THE PROJECT, AT A DNREC SPONSORED OR APPROVED TRAINING COURSE FOR THE CONTROL OF EROSION AND SEDIMENT DURING CONSTRUCTION. IN ADDITION, I GRANT THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR THE RELEVANT DELEGATED AGENCY THE RIGHT TO CONDUCT ONSITE REVIEWS, AND I UNDERSTAND MY RESPONSIBILITIES UNDER THE NPDES CONSTRUCTION GENERAL PERMIT, AS REFERENCED ON THIS COVER SHEET.

12/5/2025
ROD HART — DATE
ASF MBTS LLC

ENGINEER'S CERTIFICATION:
"I, CHRISTOPHER J. PFEIFER, P.E., HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HERE HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEVE REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE."

12/5/2025
ENGINEER'S SIGNATURE — DATE

SCD DETAILED PLAN APPROVAL
SEDIMENT CONTROL & STORMWATER MANAGEMENT

REVIEWED BY: Jim Elliott DATE:
APPROVED BY: Jessica Watson DATE: 12/19/25
APPROVAL EXPIRATION DATE: 12/19/30

APPROVED:

SUSSEX COUNTY ENGINEER — DATE
AGREEMENT # XXX-X

CIVIL ENGINEERING ASSOCIATES, LLC
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(302) 376-8833

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410-742-3115, FAX 410-548-5790
www.gmbnet.com

MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER — LICENSE — No. 20501 — DELAWARE — PROFESSIONAL ENGINEER
12/5/2025

VILLAGE 5 - SEDIMENT AND STORMWATER MANAGEMENT COVER SHEET

SCALE	: AS SHOWN
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

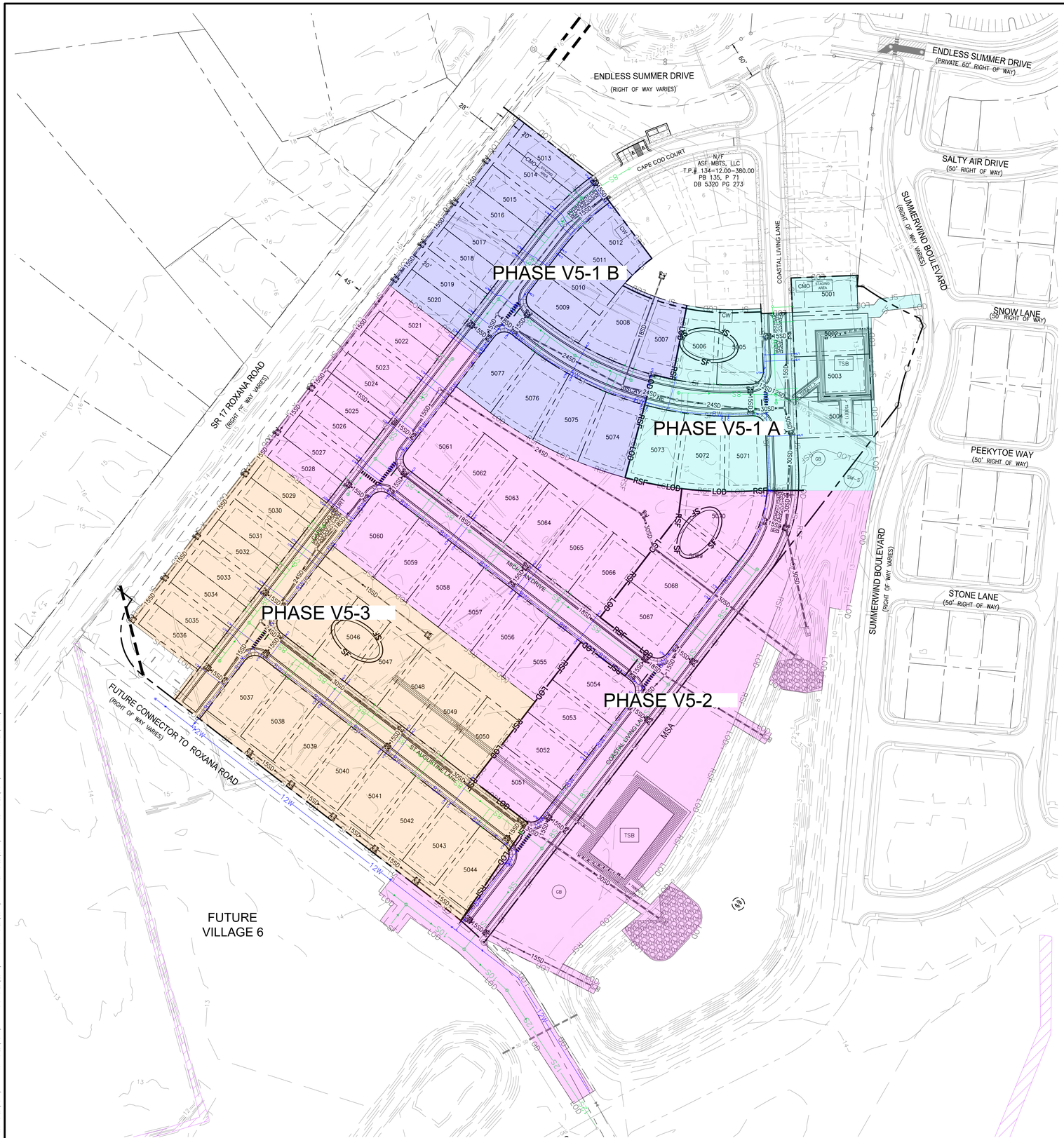
SHEET NO. G1.2

NO.	REVISIONS	DATE

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PLOT CODE
PENV-WHITE 539 INCHES (1.0mm)
PENV-MINTGRN 227 INCHES (1.0mm)
PENV-BLUE 2020 INCHES (1.0mm)
PENV-GREEN 2014 INCHES (1.0mm)
PENV-YELLOW 2070 INCHES (1.0mm)
PENV-RED 207 INCHES (1.0mm)
PENV-BLACK 2061 INCHES (1.0mm)

G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Set\Village 5\Engineering Plans\G1.2 Sediment and Stormwater Management Cover Sheet.dwg, 12/5/2025, 10:58:08 AM, DJW



SITE INFORMATION

PHASE	LOD
PHASE V5-1 A:	±2.48 ACRES
PHASE V5-1 B:	±3.37 ACRES
PHASE V5-2:	±10.82 ACRES
PHASE V5-3:	±5.26 ACRES

0 40 80 160 240

SCALE: 1" = 80'

PLOT CODE
PEN1-RED 206 INCHES (.14mm)
PEN2-YELLOW 207 INCHES (.14mm)
PEN3-GREEN 208 INCHES (.25mm)
PEN4-CYAN 214 INCHES (.53mm)
PEN5-BLUE 207 INCHES (.53mm)
PEN6-MAGENTA 207 INCHES (.53mm)
PEN7-WHITE 139 INCHES (1.00mm)

G:\Projects\2021\21000\ Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\G1.4 Overall Construction Phasing Plan.dwg, 12/3/2025, Jonathon R. Saltsman

DATE
REVISIONS
NO.

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PREFER
LICENSE
No. 20507
DELAWARE
PROFESSIONAL ENGINEER

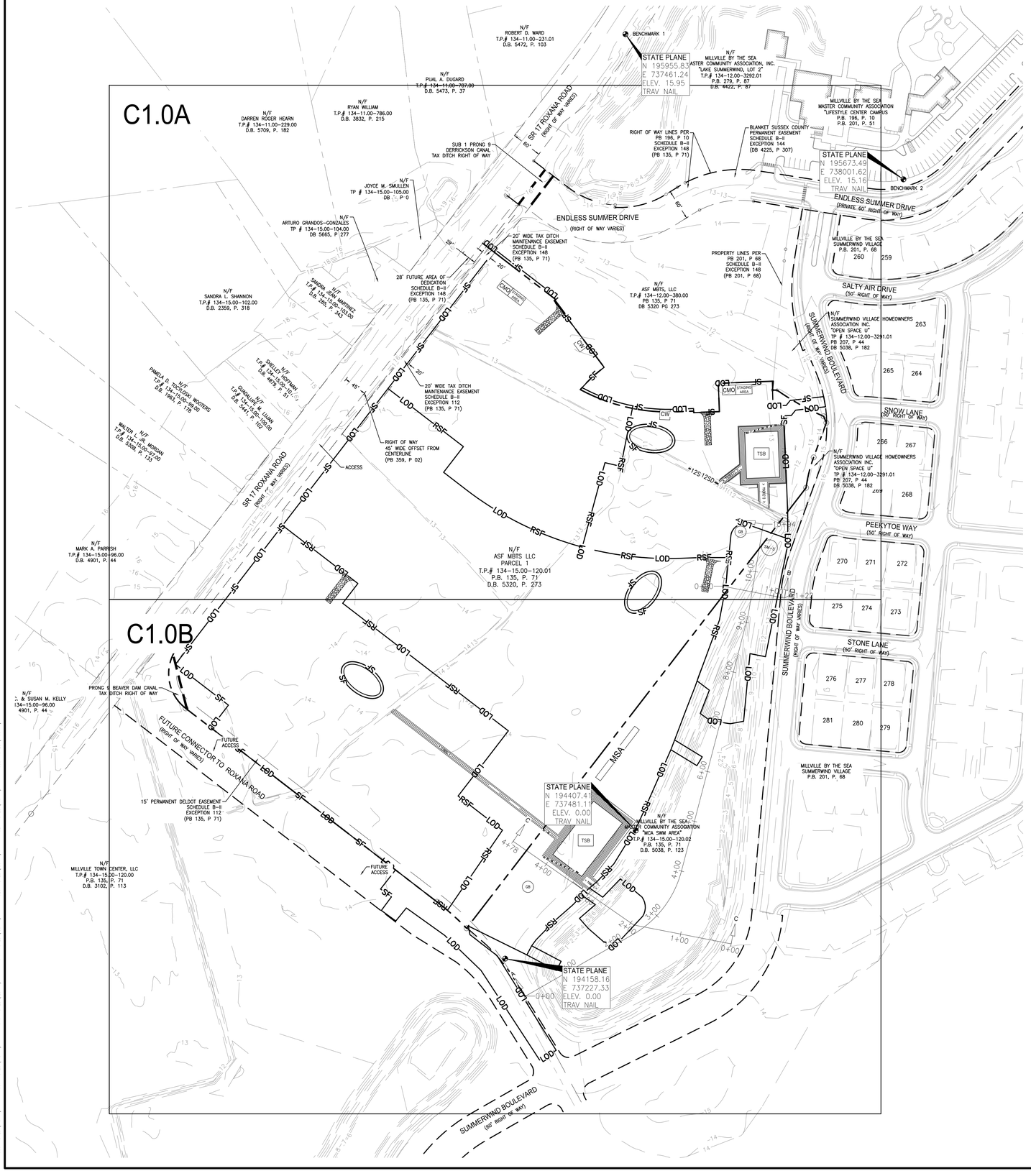
12/5/2025

VILLAGE 5 - OVERALL CONSTRUCTION PHASING PLAN

SCALE	: 1" = 80'
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
G1.4

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LEGEND

EXISTING		PROPOSED	
PROPERTY LINE/RIGHT OF WAY		CONTOUR	30
TAX DITCH RIGHT OF WAY		EXISTING DITCH TO BE FILLED	
FLOOD PLAN		PAVEMENT	
CONTOUR	30	TREE CLEARING	
EXISTING WETLANDS		LIMITS OF DISTURBANCE	LOD
WOODS LINE		REINFORCED SILT FENCE	RSF
STORM DRAIN		SILT FENCE	SF
SEWER	SS	INLET PROTECTION TYPE I	IPB-1
FORCEMAIN	FM	INLET PROTECTION TYPE II	IPB-2
WATER	W	COFFER DAM	CD
CURBING & EDGE OF PAVEMENT		CONCRETE WASHOUT	CW
FENCE LINE	X X	MAINTENANCE SET ASIDE AREA	MSA
SOIL LINE		STORM DRAIN	
		CURB & GUTTER	
		STABILIZED CONSTRUCTION ENTRANCE	
		SOIL STOCKPILE	
		TAX DITCH MAINTENANCE AREA	

CONSTRUCTION NOTES:

1. LIMIT OF PROPOSED SILT FENCE INSTALLATION (TYPICAL). SEE DETAIL ON SHEET C1.3.
2. LIMIT OF PROPOSED REINFORCED SILT FENCE (TYPICAL). SEE DETAIL ON SHEET C1.3.
3. SOIL STOCKPILE LOCATION. STABILIZE IF STOCKPILE IS TO REMAIN ONSITE. SEE DETAIL ON C1.3.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCE. SEE DETAIL SHEET C1.3.
5. FACILITY MAINTENANCE SET ASIDE AREA. SEE SIZING SHEET C1.2.
6. RIPRAP OUTLET SEDIMENT TRAP. SEE SIZING CHART ON SHEET C1.2. SEE DETAILS ON SHEETS C1.7.
7. INSTALL CONCRETE WASHOUT. SEE DETAIL ON SHEET C1.4.
8. GEOTEXTILE DEWATERING BAG TO BE LOCATED IN UNDISTURBED LOCATION, SEE DETAIL SHEET C1.5. DURING EXCAVATION OF THE SUMP PIT CONTRACTOR SHALL COORDINATE WITH THE SCD INSPECTOR AND A THIRD PARTY FLOCCULATION SPECIALIST TO PERFORM TURBIDITY TESTING. THE RESULTS OF THIS TESTING MAY REQUIRE CHANGES TO THE DEWATERING PRACTICE INCLUDING THE TYPE OF GEOTEXTILE DEWATERING BAG REQUIRED OR THE USE OF CHEMICAL FLOCCULANT.
9. SUMP PIT FOR DEWATERING. SEE DETAIL ON SHEET C1.8.
10. TEMPORARY SWALE. SEE DETAILS ON SHEET C1.7.
11. INSTALL CONCRETE MIXING OPERATION LOCATION. FINAL LOCATION TO BE COORDINATED WITH THE SCD INSPECTOR AND ENGINEER DURING THE PRE-CONSTRUCTION MEETING. SEE DETAIL ON SHEET C1.4.
12. INSTALL STAGING AREA. DUMPSTERS ARE TO BE PLACED IN THIS AREA DURING CONSTRUCTION. FINAL LOCATION TO BE COORDINATED WITH THE SCD INSPECTOR AND ENGINEER DURING THE PRE-CONSTRUCTION MEETING.
13. INSTALL TEMPORARY 24" CULVERT.

SITE INFORMATION:

TOTAL ACREAGE = ±27.58 ACRES

DISTURBED ACREAGE = ±22 ACRES

NO WETLANDS DELINEATION

FLOOD ZONE = ZONE X

0 50 100 200 300

SCALE: 1" = 100'

PLOT CODE
PEN1-RED 006 INCHES (.15mm)
PEN2-YELLOW 007 INCHES (.18mm)
PEN3-GREEN 010 INCHES (.25mm)
PEN4-CYAN 014 INCHES (.35mm)
PEN5-BLUE 020 INCHES (.50mm)
PEN6-MAGENTA 027 INCHES (.70mm)
PEN7-WHITE 039 INCHES (1.00mm)

G:\Projects\2021\21000\ Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C1.0 Pre - Construction Key Sheet.dwg, 10/16/2025, Christopher J. Pfeifer

DATE
REVISIONS
NO.

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER LICENSE No. 20581 DELAWARE PROFESSIONAL ENGINEER

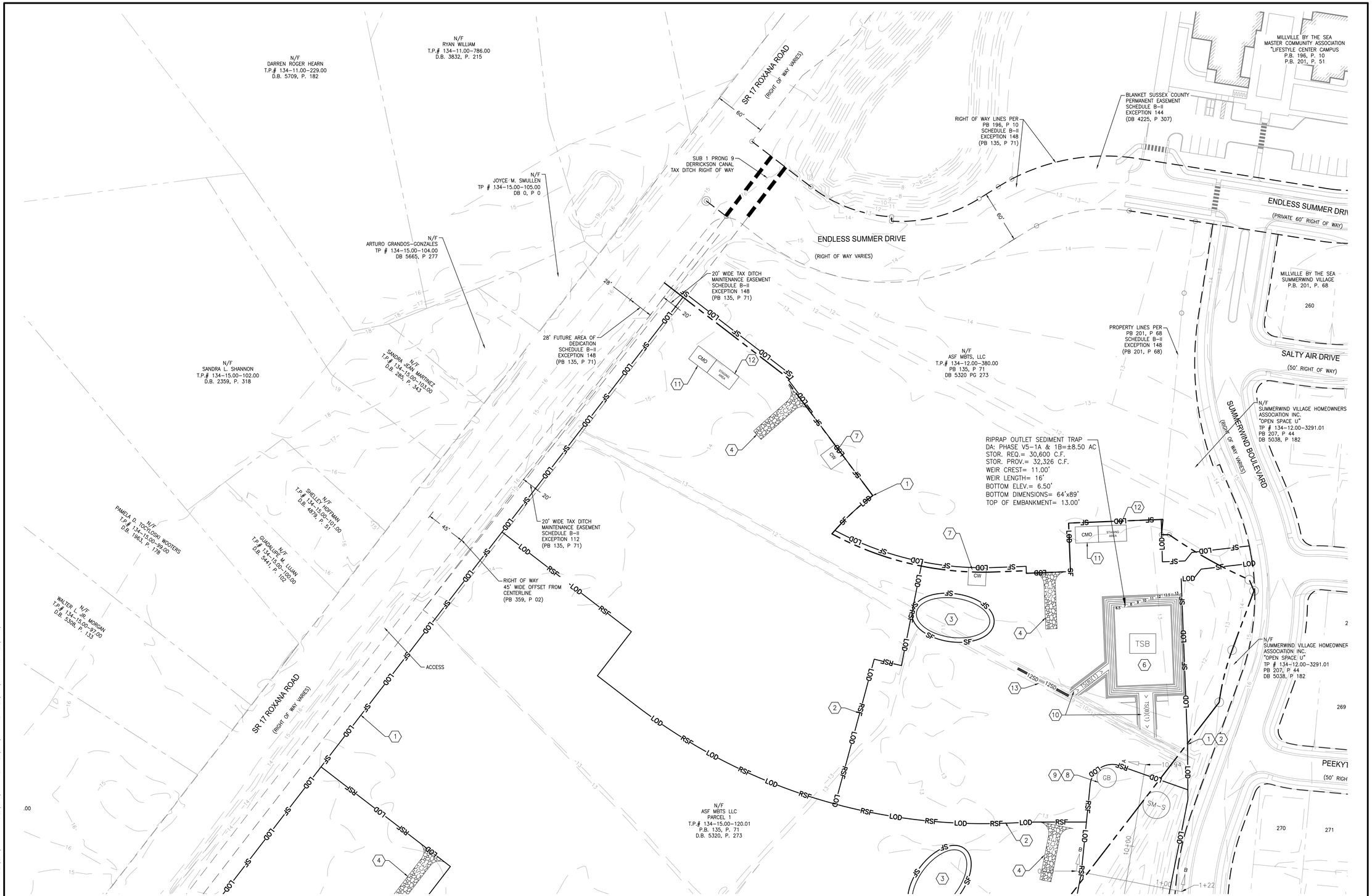
12/5/2025

VILLAGE 5 - PRE - CONSTRUCTION STORMWATER MANAGEMENT KEY SHEET

SCALE	: 1" = 100'
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C1.0

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CONSTRUCTION NOTES:

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2. LIMIT OF PROPOSED REINFORCED SILT FENCE (TYPICAL). SEE DETAIL ON SHEET C1.3.
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13. INSTALL TEMPORARY 24" CULVERT.

PLOT CODE
PEN1-RED 200 INCHES (.13mm)
PEN2-YELLOW 200 INCHES (.13mm)
PEN3-GREEN 200 INCHES (.13mm)
PEN4-CYAN 200 INCHES (.13mm)
PEN5-BLUE 200 INCHES (.13mm)
PEN6-MAGENTA 200 INCHES (.13mm)
PEN7-WHITE 200 INCHES (.13mm)

C:\Projects\2001\2001001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\V5-1A Pre - Construction Stormwater Management Plan.dwg, 10/16/2025, Christopher J. Pfeffer

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEFFER
LICENSE
No. 20507
DELAWARE
PROFESSIONAL ENGINEER
12/5/2025

VILLAGE 5 - PRE - CONSTRUCTION STORMWATER MANAGEMENT PLAN

SCALE : 1" = 50'	SHEET NO.
DESIGN BY : DJW	C1.0A
DRAWN BY : CEM	
CHECKED BY :	
FILE # : 200001-J	
DATE : JUN 2025	

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SEE SHEET C1.0A FOR CONTINUATION

PRONG 9 BEAVER DAM CANAL
TAX DITCH RIGHT OF WAY

FUTURE CONNECTOR TO ROXANA ROAD
(RIGHT OF WAY VARIES)

FUTURE ACCESS

15' PERMANENT DELDOT EASEMENT
SCHEDULE B-II
EXCEPTION 112
(PB 135, P 71)

RIPRAP OUTLET SEDIMENT TRAP
DA: PHASE V5-2=13.45 AC
STOR. REQ.= 48,420 C.F.
STOR. PROV.= 49,547 C.F.
WEIR CREST= 11.0'
WEIR LENGTH= 16'
BOTTOM ELEV.= 6.5'
BOTTOM DIMENSIONS= 70'x130'
TOP OF EMBANKMENT= 14.0'

TSB

MSA

N/F
MILLVILLE BY THE SEA
MASTER COMMUNITY ASSOCIATION
"MCA SWM AREA"
T.P.# 134-15.00-120.02
P.B. 135, P. 71
D.B. 5038, P. 123

SUMMERWIND BOULEVARD
(RIGHT OF WAY VARIES)

STONE LANE
(50' RIGHT OF WAY)

275 274 276 277 281 280

MILLVILLE BY THE SEA
SUMMERWIND VILLAGE
P.B. 201, P. 68

ENTER, LLC
)-120.00
, 71
, 113

CONSTRUCTION NOTES:

1. LIMIT OF PROPOSED SILT FENCE INSTALLATION (TYPICAL). SEE DETAIL ON SHEET C1.3.
2. LIMIT OF PROPOSED REINFORCED SILT FENCE (TYPICAL). SEE DETAIL ON SHEET C1.3.
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5. FACILITY MAINTENANCE SET ASIDE AREA. SEE SIZING SHEET C1.2.
6. RIPRAP OUTLET SEDIMENT TRAP. SEE SIZING CHART ON SHEET C1.2. SEE DETAILS ON SHEETS C1.7.
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9. SUMP PIT FOR DEWATERING. SEE DETAIL ON SHEET C1.8.
10. TEMPORARY SWALE. SEE DETAILS ON SHEET C1.7.

0 25 50 100 150
SCALE: 1" = 50'

C:\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C1.0B Pre - Construction Stormwater Management Plan.dwg, 10/16/2025, Christopher J. Pfeifer

PLOT CODE
PEN1-RED 009 INCHES (.18mm)
PEN2-YELLOW 007 INCHES (.13mm)
PEN3-GREEN 011 INCHES (.20mm)
PEN4-CYAN 014 INCHES (.25mm)
PEN5-BLUE 020 INCHES (.53mm)
PEN6-MAGENTA 027 INCHES (.69mm)
PEN7-WHITE 039 INCHES (1.00mm)

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REVISIONS
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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

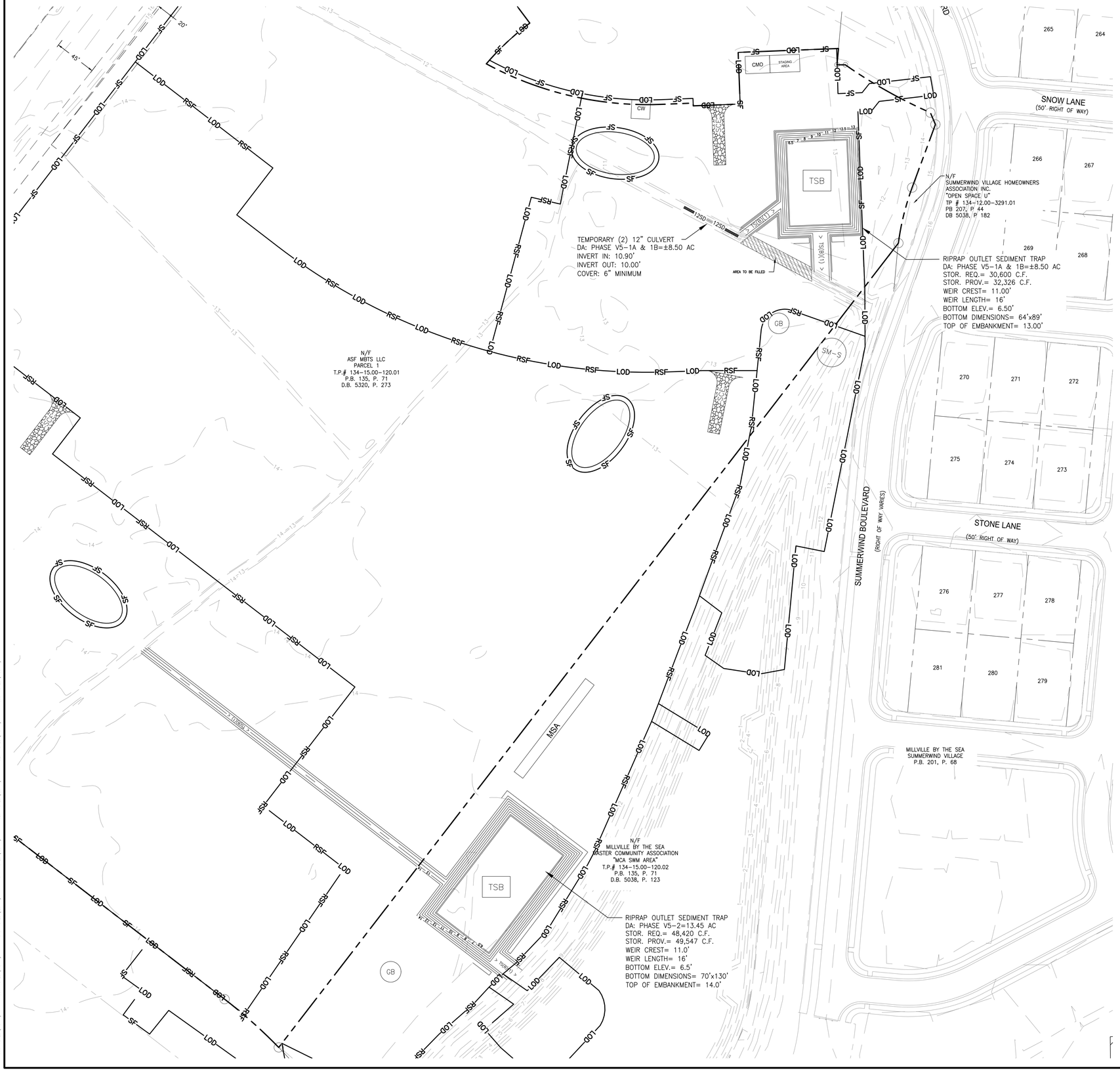
CHRISTOPHER J PFEIFER
LICENSE
No. 20587
DELAWARE
PROFESSIONAL ENGINEER
12/5/2025

VILLAGE 5 - PRE - CONSTRUCTION STORMWATER MANAGEMENT PLAN

SCALE	: 1" = 50'
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C1.0B

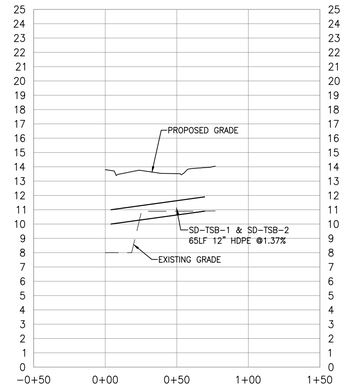
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TEMPORARY SEDIMENT BASIN EXHIBIT

	Elevation	Area	Storage	Culumative Storage
V5-1	6.50 FT	5,696 SF	0 CF	0 CF
	7.00 FT	6,006 SF	2,926 CF	2,926 CF
	8.00 FT	6,650 SF	6,328 CF	9,254 CF
	9.00 FT	7,326 SF	6,988 CF	16,242 CF
	10.00 FT	8,034 SF	7,680 CF	23,922 CF
	11.00 FT	8,774 SF	8,404 CF	32,326 CF
	12.00 FT	9,546 SF	9,160 CF	41,486 CF
	12.50 FT	9,944 SF	4,873 CF	46,358 CF

	Elevation	Area	Storage	Culumative Storage
V5-2	6.50 FT	9,100 SF	0 CF	0 CF
	7.00 FT	9,504 SF	4,651 CF	4,651 CF
	8.00 FT	10,336 SF	9,920 CF	14,571 CF
	9.00 FT	11,200 SF	10,768 CF	25,339 CF
	10.00 FT	12,096 SF	11,648 CF	36,987 CF
	11.00 FT	13,024 SF	12,560 CF	49,547 CF
	12.00 FT	13,984 SF	13,504 CF	63,051 CF
	13.00 FT	14,976 SF	14,480 CF	77,531 CF



PROFILE OF V5 TEMPORARY CULVERT (2)
VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

0 20 40 80 120
SCALE: 1" = 40'

DATE
REVISIONS
NO.

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CHRISTOPHER J. PEEPER LICENSE No. 20507 DELAWARE PROFESSIONAL ENGINEER

12/5/2025

VILLAGE 5 - PRE-CONSTRUCTION STORMWATER MANAGEMENT PLAN

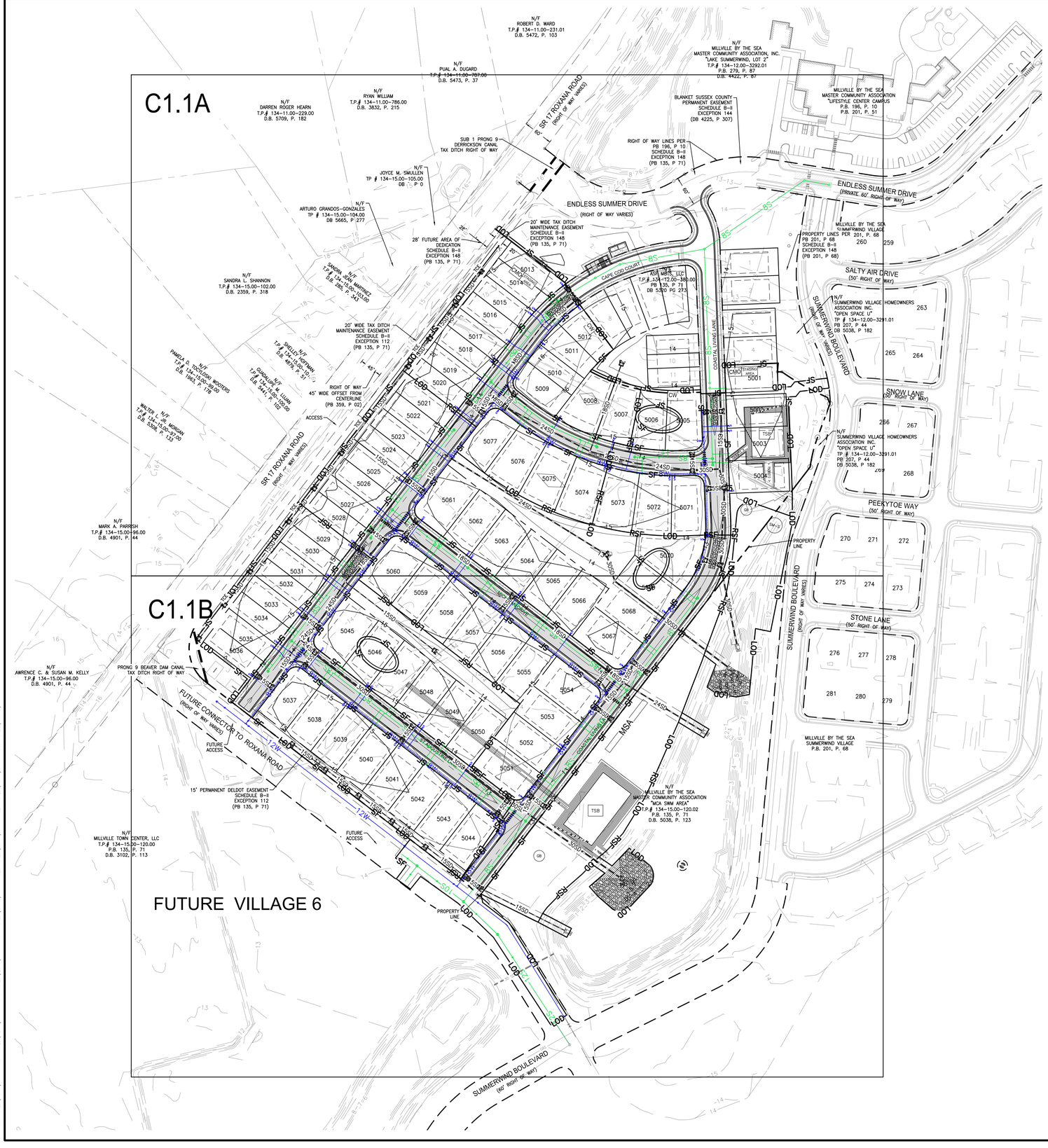
SCALE	: 1" = 50'
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C1.0C

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PLOT CODE
PEN1-RED 200 INCHES (5.0mm)
PEN2-YELLOW 207 INCHES (5.3mm)
PEN3-GREEN 203 INCHES (5.2mm)
PEN4-BLUE 200 INCHES (5.0mm)
PEN5-MAGENTA 207 INCHES (5.3mm)
PEN6-WHITE 139 INCHES (3.5mm)

O:\Projects\2021\J-200001 Millville by the Sea\Drawings\Working Set\Village 5\Engineering Plans\C1.0C Pre-Construction Stormwater Management Plan.dwg, 10/16/2025, Christopher Peeper



LEGEND

EXISTING	PROPOSED
PROPERTY LINE/RIGHT OF WAY	CONTOUR
TAX DITCH RIGHT OF WAY	EXISTING DITCH TO BE FILLED
FLOOD PLAN	PAVEMENT
CONTOUR	TREE CLEARING
EXISTING WETLANDS	LIMITS OF DISTURBANCE
WOODS LINE	REINFORCED SILT FENCE
STORM DRAIN	SILT FENCE
SEWER	INLET PROTECTION TYPE I
FORCEMAIN	INLET PROTECTION TYPE II
WATER	COFFER DAM
CURBING & EDGE OF PAVEMENT	CONCRETE WASHOUT
FENCE LINE	MAINTENANCE SET ASIDE AREA
SOIL LINE	STORM DRAIN
	CURB & GUTTER
	STABILIZED CONSTRUCTION ENTRANCE
	SOIL STOCKPILE
	TAX DITCH MAINTENANCE AREA
	TEMPORARY CONSTRUCTION EASEMENT

CONSTRUCTION NOTES:

1. LIMIT OF PROPOSED SILT FENCE (TYPICAL). SEE DETAIL ON SHEET C1.3.
2. LIMIT OF PROPOSED REINFORCED SILT FENCE (TYPICAL). SEE DETAIL ON SHEET C1.3.
3. SOIL STOCKPILE LOCATION. STABILIZE IF STOCKPILE IS TO REMAIN ONSITE. SEE DETAIL ON C1.3.
4. STABILIZED CONSTRUCTION ENTRANCE. SEE DETAIL SHEET C1.3.
5. FACILITY MAINTENANCE SET ASIDE AREA. SEE SHEET C1.2 FOR SIZING CHART.
6. RIPRAP OUTLET SEDIMENT TRAP. SEE SIZING CHART ON SHEET C1.2. SEE DETAILS ON SHEETS C1.7. REFER TO SHEETS C1.5 FOR SKIMMER DEWATERING DEVICE INSTALLATION.
7. CONCRETE WASHOUT LOCATION. SEE DETAIL ON SHEET C1.4.
8. GEOTEXTILE DEWATERING BAG TO BE LOCATED IN UNDISTURBED LOCATION, SEE DETAIL SHEET C1.5. DURING EXCAVATION OF THE SUMP PIT CONTRACTOR SHALL COORDINATE WITH THE SCD INSPECTOR AND A THIRD PARTY FLOCCULATION SPECIALIST TO PERFORM TURBIDITY TESTING. THE RESULTS OF THIS TESTING MAY REQUIRE CHANGES TO THE DEWATERING PRACTICE INCLUDING THE TYPE OF GEOTEXTILE DEWATERING BAG REQUIRED OR THE USE OF CHEMICAL FLOCCULANT.
9. INSTALL TYPE I INLET PROTECTION (TYPICAL). SEE DETAIL ON SHEET C1.4.
10. INSTALL TYPE II INLET PROTECTION (TYPICAL). SEE DETAIL ON SHEET C1.4.
11. RIPRAP OUTLET PROTECTION. INSTALL PER DNREC DESIGN MANUAL. SEE SIZING SCHEDULE ON SHEET C1.2. SEE DETAIL ON SHEET C1.6.
12. STABILIZATON MATTING – SLOPE. SEE DETAIL ON SHEET C1.5
13. RIPRAP FOREBAY PROTECTION. INSTALLED OVER 600X MIRAFI FILTER CLOTH OR APPROVED EQUAL. INSTALL PER DNREC DETAIL AND SPECIFICATIONS. SEE DETAIL ON SHEET C1.6.
14. SUMP PIT FOR DEWATERING. SEE DETAIL ON SHEET C1.8.

0 50 100 200 300
SCALE: 1" = 100'

DATE
REVISIONS
NO.

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PREFER LICENSE No. 20501 DELAWARE PROFESSIONAL ENGINEER
12/5/2025

VILLAGE 5 - CONSTRUCTION STORMWATER MANAGEMENT KEY SHEET

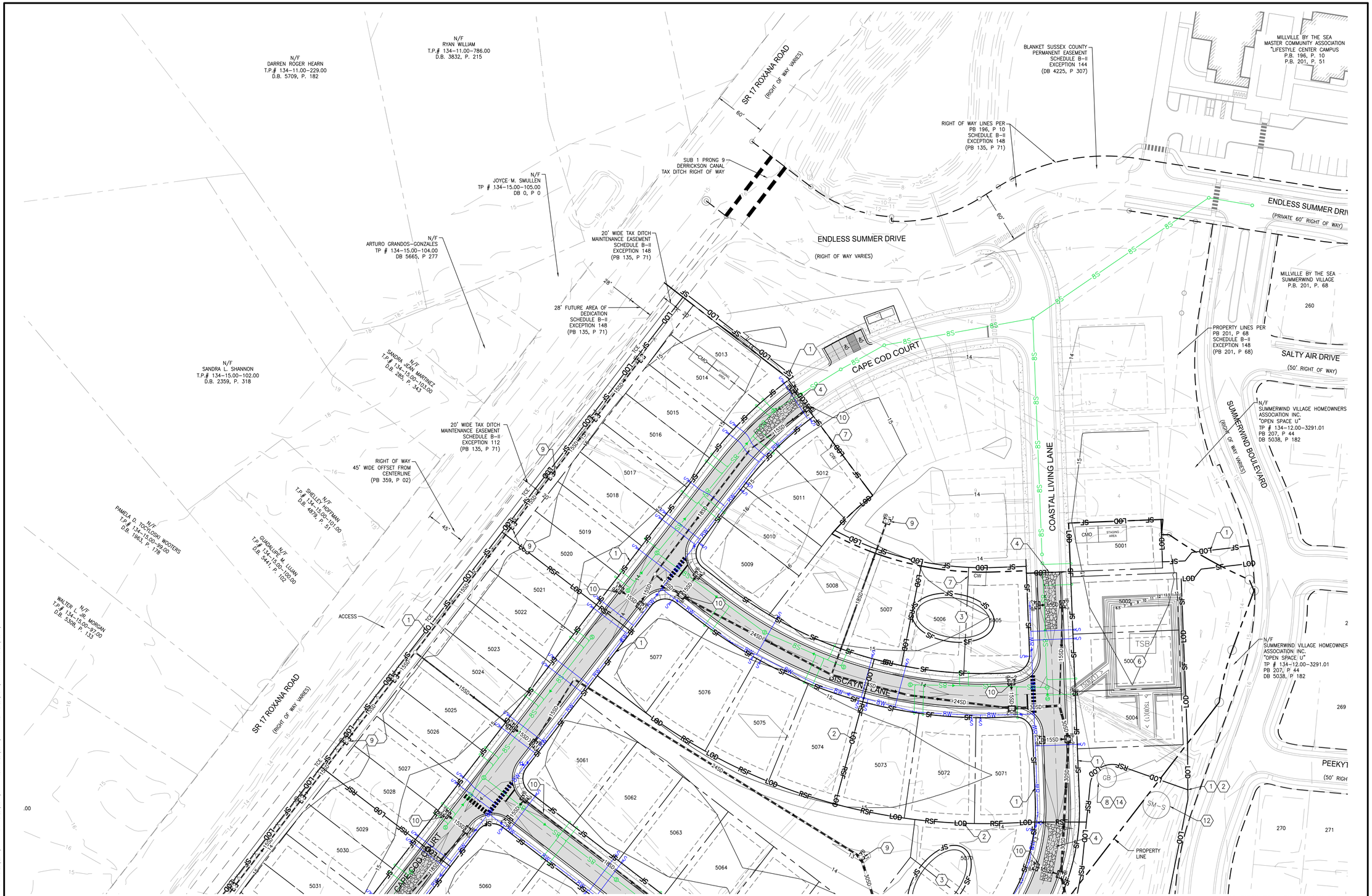
SCALE	: 1" = 100'
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C1.1

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PLOT CODE
PEN1-RED 008 INCHES (.20mm)
PEN2-YELLOW 007 INCHES (.18mm)
PEN3-GREEN 010 INCHES (.25mm)
PEN4-CYAN 014 INCHES (.35mm)
PEN5-BLUE 020 INCHES (.50mm)
PEN6-MAGENTA 031 INCHES (.80mm)
PEN7-WHITE 039 INCHES (1.00mm)

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CONSTRUCTION NOTES:

1. LIMIT OF PROPOSED SILT FENCE (TYPICAL). SEE DETAIL ON SHEET C1.3.
2. LIMIT OF PROPOSED REINFORCED SILT FENCE (TYPICAL). SEE DETAIL ON SHEET C1.3.
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14. SUMP PIT FOR DEWATERING. SEE DETAIL ON SHEET C1.8.

PLOT CODE
PEN1-RED 206 INCHES (15mm)
PEN2-YELLOW 207 INCHES (15mm)
PEN3-GREEN 213 INCHES (25mm)
PEN4-CYAN 214 INCHES (15mm)
PEN5-BLUE 201 INCHES (50mm)
PEN6-MAGENTA 207 INCHES (15mm)
PEN7-WHITE 139 INCHES (100mm)

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NO.	REVISIONS	DATE

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PEIFFER
LICENSE
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PROFESSIONAL ENGINEER
12/5/2025

VILLAGE 5 - CONSTRUCTION STORMWATER MANAGEMENT PLAN

SCALE	: 1" = 50'
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C1.1A

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SEE SHEET C1.4 FOR CONTINUATION

FUTURE VILLAGE 6

MICHIGAN DRIVE

ST AUGUSTINE LANE

COASTAL LIVING LANE

SUMMERWIND BOULEVARD (RIGHT OF WAY VARIES)

STONE LANE (50' RIGHT OF WAY)

FUTURE CONNECTOR TO ROXANA ROAD (RIGHT OF WAY VARIES)

PRONG 9 BEAVER DAM CANAL TAX DITCH RIGHT OF WAY

15' PERMANENT DELDOT EASEMENT SCHEDULE B-II EXCEPTION 112 (PB 135, P 71)

FUTURE ACCESS

PROPERTY LINE

MSA

TSB

N/F
MILLVILLE BY THE SEA
MASTER COMMUNITY ASSOCIATION
"MCA SWM AREA"
T.P.# 134-15.00-120.02
P.B. 135, P. 71
D.B. 5038, P. 123

MILLVILLE BY THE SEA
SUMMERWIND VILLAGE
P.B. 201, P. 68

ENTER, LLC
0-120.00
, 71
, 113

CONSTRUCTION NOTES:

1. LIMIT OF PROPOSED SILT FENCE (TYPICAL). SEE DETAIL ON SHEET C1.3.
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6. RIPRAP OUTLET SEDIMENT TRAP. SEE SIZING CHART ON SHEET C1.2. SEE DETAILS ON SHEETS C1.7. REFER TO SHEETS C1.5 FOR SKIMMER DEWATERING DEVICE INSTALLATION.
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14. SUMP PIT FOR DEWATERING. SEE DETAIL ON SHEET C1.8.

SCALE: 1" = 50'

PLOT CODE
PEN1-RED 006 INCHES (150mm)
PEN2-YELLOW 007 INCHES (180mm)
PEN3-GREEN 010 INCHES (250mm)
PEN4-CYAN 014 INCHES (350mm)
PEN5-BLUE 020 INCHES (500mm)
PEN6-MAGENTA 027 INCHES (700mm)
PEN7-WHITE 039 INCHES (1000mm)

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12/5/2025

VILLAGE 5 - CONSTRUCTION STORMWATER MANAGEMENT PLAN

SCALE	: 1" = 50'
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DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C1.1B

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SEQUENCE OF CONSTRUCTION

GENERAL NOTES

1. NOTIFY THE SUSSEX CONSERVATION DISTRICT IN WRITING AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. LOG INTO "SCD'S CONTRACTOR PORTAL" AT HTTPS://SUSSEX.ASSET-TRACKER.NET/HOME/WELCOME TO ACCESS THE BMP'S CONSTRUCTION CHECKLIST. PLEASE SCAN THE QR CODE THAT CAN BE FOUND ON THIS SHEET TO ACCESS SUSSEX CONSERVATION DISTRICTS 'HOW TO GUIDE' AND A LINK TO THE "CONTRACTOR'S PORTAL".
3. PRIOR TO ANY CLEARING, INSTALLATION OF SEDIMENT CONTROL MEASURES OR GRADING, A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED AND CONDUCTED WITH THE AGENCY CONSTRUCTION SITE REVIEWER. THE LANDOWNER/DEVELOPER, CONTRACTOR, AND A THIRD PARTY CERTIFIED CONSTRUCTION REVIEWER ARE REQUIRED TO BE IN ATTENDANCE AT THE PRE-CONSTRUCTION MEETING; THE DESIGNER IS RECOMMENDED TO ATTEND.

PERIMETER CONTROLS

4. SURVEY AND STAKE OUT PERIMETER CONTROLS, AS SHOWN ON APPROVED PLANS.
5. INSTALL PERIMETER CONTROLS, AS SHOWN IN THE PLANS.
6. ALL PERIMETER CONTROLS ARE TO BE REVIEWED BY THE AGENCY CONSTRUCTION SITE REVIEWER AND APPROVED PRIOR TO PROCEEDING WITH FURTHER SITE DISTURBANCE OR CONSTRUCTION.
7. THE CONTRACTOR SHOULD AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHOULD BE CHECKED DAILY AND ADJUSTED AND/OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENTATION ON THE SITE. ACCUMULATED SEDIMENT SHOULD BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR REPAIR MEASURES IN TIME OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
8. NOTIFY THE PERSON RESPONSIBLE FOR STORMWATER SYSTEM CONSTRUCTION REVIEW AT LEAST 3 DAYS PRIOR TO THE START OF THE STORMWATER SYSTEM CONSTRUCTION; STORMWATER FACILITIES MUST BE REVIEWED THROUGHOUT THEIR CONSTRUCTION.

VILLAGE 5: PHASE IA: ±2.48 ACRES

9. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
10. INSTALL RIPRAP OUTLET SEDIMENT TRAP. PHASE 1A SEDIMENT TRAP IS TO BE USED FOR PHASES 1A & 1B. SEE DETAILS ON SHEETS C1.0A & C1.0C.
11. INSTALL 24" TEMPORARY CULVERT UNDER PHASE I CONSTRUCTION ENTRANCE TRAFFIC TO ENSURE SURFACE FLOW IS DIRECTED TO THE TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION. SEE DETAILS ON SHEETS C1.0A & C1.0C.
12. CLEAR AND GRUB AREA. STOCKPILE TOPSOIL AT DESIGNATED AREAS INSTALL SILT FENCE AROUND THE STOCKPILE PERIMETER.
13. FINE GRADE AREAS DESIGNATED FOR PAVING, ROADS, SIDEWALKS, BUILDINGS, ETC. GRADE AND STABILIZE REMAINDER OF DISTURBED AREA AND STABILIZE WITH SEED, MULCH, AND FERTILIZERS.
14. INSTALL CURB, ROAD BASE COURSE AND BASE COAT.
15. ANY CONCENTRATED POINTS OF DISCHARGE FOR THIS SITE SHALL BE SUBJECT TO PERIODIC MONITORING FOR TURBIDITY. AN INITIAL READING SHALL BE TAKEN PRIOR TO INITIAL SITE DISCHARGE, AND TURBIDITY READINGS TAKEN PERIODICALLY. FLOCCULANT TREATMENT (DE-ESC-3.1.8) MAY BE REQUIRED IF TURBID DISCHARGE EXCEEDS CURRENT UPSTREAM NTU LEVELS AS DEEMED REASONABLE BY THE SCD TO MEET D.S.S.R. (1.1.2,1.10 & 4.3) TO THE MAXIMUM EXTENT PRACTICABLE. ANY TREATMENT SHALL BE DEVISED AND LOCATED AS DETERMINED BY THE ENGINEER. THE TREATMENT METHODOLOGY AND LOCATION SHALL CONSIDER THE SOILS, SITE LAYOUT AND ANTICIPATED DISCHARGE RATES. SITE RUNOFF, AND POTENTIALLY CONSTRUCTION ACTIVITIES, WILL NOT BE ABLE TO CONTINUE UNTIL A TURBIDITY CONTROL PLAN IS DEVISED, IMPLEMENTED AND TESTED TO BE DEEMED EFFECTIVE.

VILLAGE 5: PHASE 1B: ±6.02 ACRES

16. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
17. PHASE 1A RIPRAP OUTLET SEDIMENT TRAP TO BE USED FOR PHASES 1A & 1B.
18. CLEAR AND GRUB AREA. STOCKPILE TOPSOIL AT DESIGNATED AREAS. INSTALL SILT FENCE AROUND THE STOCKPILE LOCATION.
19. POND FOREBAY CONSTRUCTION:
    - 19.1. NOTIFY THE PERSON RESPONSIBLE FOR STORMWATER SYSTEM CONSTRUCTION REVIEW AT LEAST THREE (3) DAYS PRIOR TO THE START OF STORMWATER SYSTEM CONSTRUCTION. STORMWATER FACILITIES MUST BE REVIEWED THROUGHOUT THEIR CONSTRUCTION. LOG BMP CHECKLIST COMPLETION ON CONTRACTOR'S PORTAL. SEE THIS SHEET FOR QR CODE FOR LINK TO PORTAL.
    - 19.2. EXCAVATE/ GRADE UNTIL THE APPROPRIATE ELEVATION AND DESIRED CONTOURS ARE ACHIEVED FOR THE BOTTOM AND SIDE SLOPE.
    - 19.3. INSTALL STORM DRAINS. ENSURE ALL CONNECTIONS BETWEEN PIPES AND STRUCTURES ARE WATERTIGHT.
    - 19.4. POND BANKS SHALL BE STABILIZED IMMEDIATELY WITH BIODEGRADABLE EROSION CONTROL MATTING OR SOD IF PONDS ARE EXCAVATED DURING THE WINTER MONTHS. USE BIONET S150BN PER THE DNREC CHECKLIST. AS SHOWN ON SHEET C1.5. SEE SHEET C1.7 FOR ADDITIONAL SODDING DETAILS.
    - 19.5. FINALIZE ALL GRADING AND EXCAVATION INCLUDING ANY FOREBAYS. REMOVE ACCUMULATED SEDIMENT FROM POND. INSTALL RIPRAP AT ALL PIPE OUTFALL LOCATIONS PER PLAN. STABILIZE POND BANKS WITH APPROVED SEED MIXTURES AND PLANT WET POND BENCHES AND VEGETATED PERIMETER. PLANTING SCHEDULE CAN BE FOUND ON THIS SHEET.
    - 19.6. PRIOR TO INITIATION OF BUILDING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL STORM DRAIN INLETS ARE SATISFACTORILY PROTECTED. SUPER SILT FENCE SHALL BE PLACED ALONG ALL AREAS TO BE DISTURBED THAT DRAIN TOWARDS ANY WETLANDS/BODY OF WATER. HOMEBUILDERS MUST FOLLOW SINGLE FAMILY LOT EROSION AND SEDIMENT CONTROL. THIS STEP SHOULD NOT COMMENCE WITHOUT WRITTEN APPROVAL FROM AGENCY SITE REVIEWER.
20. FINE GRADE AREAS DESIGNATED FOR PAVING, ROADS, SIDEWALKS, BUILDINGS, ETC. GRADE AND STABILIZE REMAINDER OF DISTURBED AREA AND STABILIZE WITH SEED, MULCH, AND FERTILIZERS.
21. INSTALL CURB, ROAD BASE COURSE AND BASE COAT.
22. REMOVE ACCUMULATED SEDIMENT FROM TEMPORARY SEDIMENT TRAPS/BASINS. DO NOT DISCHARGE SEDIMENT LADEN WATER TO TIDAL CREEK. DISPOSE OF SEDIMENT IN AN APPROVED LOCATION. TEMPORARY SEDIMENT BASINS ARE TO BE FILLED IN AFTER REMOVING SEDIMENT PER WRITTEN APPROVAL FROM THE SCD INSPECTOR.
23. REMOVE TEMPORARY CULVERT ONCE ALL RELATED CONSTRUCTION ACTIVITY HAS FINISHED.
24. ANY CONCENTRATED POINTS OF DISCHARGE FOR THIS SITE SHALL BE SUBJECT TO PERIODIC MONITORING FOR TURBIDITY. AN INITIAL READING SHALL BE TAKEN PRIOR TO INITIAL SITE DISCHARGE, AND TURBIDITY READINGS TAKEN PERIODICALLY. FLOCCULANT TREATMENT (DE-ESC-3.1.8) MAY BE REQUIRED IF TURBID DISCHARGE EXCEEDS CURRENT UPSTREAM NTU LEVELS AS DEEMED REASONABLE BY THE SCD TO MEET D.S.S.R. (1.1.2,1.10 & 4.3) TO THE MAXIMUM EXTENT PRACTICABLE. ANY TREATMENT SHALL BE DEVISED AND LOCATED AS DETERMINED BY THE ENGINEER. THE TREATMENT METHODOLOGY AND LOCATION SHALL CONSIDER THE SOILS, SITE LAYOUT AND ANTICIPATED DISCHARGE RATES. SITE RUNOFF, AND POTENTIALLY CONSTRUCTION ACTIVITIES, WILL NOT BE ABLE TO CONTINUE UNTIL A TURBIDITY CONTROL PLAN IS DEVISED, IMPLEMENTED AND TESTED TO BE DEEMED EFFECTIVE.

VILLAGE 5: PHASE II: ±13.45 ACRES

25. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
26. INSTALL RIPRAP OUTLET SEDIMENT TRAP.
27. CLEAR AND GRUB AREA. STOCKPILE TOPSOIL AT DESIGNATED AREAS INSTALL SILT FENCE AROUND THE STOCKPILE PERIMETER.
28. FINE GRADE AREAS DESIGNATED FOR PAVING, ROADS, SIDEWALKS, BUILDINGS, ETC. GRADE AND STABILIZE REMAINDER OF DISTURBED AREA AND STABILIZE WITH SEED, MULCH, AND FERTILIZERS.
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31. ANY CONCENTRATED POINTS OF DISCHARGE FOR THIS SITE SHALL BE SUBJECT TO PERIODIC MONITORING FOR TURBIDITY. AN INITIAL READING SHALL BE TAKEN PRIOR TO INITIAL SITE DISCHARGE, AND TURBIDITY READINGS TAKEN PERIODICALLY. FLOCCULANT TREATMENT (DE-ESC-3.1.8) MAY BE REQUIRED IF TURBID DISCHARGE EXCEEDS CURRENT UPSTREAM NTU LEVELS AS DEEMED REASONABLE BY THE SCD TO MEET D.S.S.R. (1.1.2,1.10 & 4.3) TO THE MAXIMUM EXTENT PRACTICABLE. ANY TREATMENT SHALL BE DEVISED AND LOCATED AS DETERMINED BY THE ENGINEER. THE TREATMENT METHODOLOGY AND LOCATION SHALL CONSIDER THE SOILS, SITE LAYOUT AND ANTICIPATED DISCHARGE RATES. SITE RUNOFF, AND POTENTIALLY CONSTRUCTION ACTIVITIES, WILL NOT BE ABLE TO CONTINUE UNTIL A TURBIDITY CONTROL PLAN IS DEVISED, IMPLEMENTED AND TESTED TO BE DEEMED EFFECTIVE.
32. BEFORE PROJECT COMPLETION, THE OWNER SHALL SUBMIT A CONSTRUCTION CHECKLIST AND FINAL POST CONSTRUCTION SWM OPERATION & MAINTENANCE PLAN FOR THE ENTIRE SWM SYSTEM PER BMP STANDARDS AND SPECIFICATIONS, SECTIONS 1.9. FACILITY BANKS SHALL BE STABILIZED IMMEDIATELY WITH BIODEGRADABLE EROSION CONTROL MATTING OR SOD IF PONDS ARE EXCAVATED DURING THE WINTER MONTHS. USE BIONET S150BN OR APPROVED EQUAL PER THE DNREC CHECKLIST.

GENERAL/FINAL STABILIZATION

33. STABILIZE ALL DISTURBED AREAS ADJACENT TO THE SWM FACILITY.
34. REMOVE SEDIMENT CONTROLS UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR.
35. THE TERMINATION OF THE CONSTRUCTION GENERAL PERMIT WILL REQUIRE SUBMISSION AND ACCEPTANCE OF THE POST CONSTRUCTION VERIFICATION DOCUMENTS, INCLUDING FINAL STABILIZATION THROUGHOUT THE SITE, ALL ELEMENTS OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN IMPLEMENTED, AND ACCEPTANCE OF THE FINAL OPERATION AND MAINTENANCE PLAN.

PERMANENT SEEDING NOTES

SEEDBED PREPARATION:

LOOSEN UPPER 4 INCHES OF SOIL BY DISCING, RAKING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS:
APPLY 1-2 TONS PER ACRE (46-92 LBS/1000 SQ. FT.) OF DOLOMITIC LIMESTONE AND 600 LBS PER ACRE (14 LBS/1000 SQ. FT.) OF 10-10-10 FERTILIZER.

SEEDING:
FOR PERIODS OF SEPTEMBER 1 THROUGH NOVEMBER 15 AND MARCH 1 THROUGH MAY SEED WITH 210-230 LBS PER ACRE (5 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR PERIODS OF NOVEMBER 15 THROUGH FEBRUARY, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING.

MULCHING:
APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LB/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATIONS USING A SYNTHETIC BINDER SUCH AS ACRYLIC DLR (AGRI-TAC) DCA-70. PETROSET OR TERRA TACK AT RATES RECOMMENDED BY THE MANUFACTURER.

MAINTENANCE:
INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS, AND RESEEDINGS.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION:

LOOSEN UPPER 4 INCHES OF SOIL BY DISCING, RAKING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS:
APPLY 1-2 TONS PER ACRE (46-92 LBS/1000 SQ. FT.) OF DOLOMITIC LIMESTONE AND 600 LBS PER ACRE (14 LBS/1000 SQ. FT.) OF 10-10-10 FERTILIZER.

SEEDING:
FOR PERIODS OF SEPTEMBER 1 THROUGH NOVEMBER 15 AND MARCH 1 THROUGH MAY SEED WITH 40 LBS/ACRE OF PERENNIAL RYE (1.0 LBS/1000 SQ. FT.). PERIODS OF NOVEMBER 15 THROUGH FEBRUARY, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING.

MULCHING:
APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LB/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATIONS USING A SYNTHETIC BINDER SUCH AS ACRYLIC DLR (AGRI-TAC) DCA-70. PETROSET OR TERRA TACK AT RATES RECOMMENDED BY THE MANUFACTURER.

PLANT SCHEDULE:

DESCRIPTION		COMMON NAME	BOTANICAL NAME	SIZE
SAFETY BENCH AND SHALLOW AREA		SEED	ERNST CONSERVATION SEED WETLAND MIX: ERNMX-131	15 LBS./AC.
POND SIDES AND TOP OF ENBANKMENT		SEED CENTER	ERNST CONSERVATION SEED WET MEADOW MIX: ERNMX-122	15 LBS./AC.

RipRap Sizing Summary

Location/Facility	Description	Pipe Name	ID	Pipe Size	Type	D50	R No.	Apron			Blanket Thickness
								Length	Width Flared	Width at Pipe/ Weir	
				(IN)		(IN)		(FT)	(FT)	(FT)	(IN)
SWM-POND-1	RUN B OUTFALL	SD-B-10	A	30	ROP-1	6	4	12	7.3	7.5	18
SWM-POND-1	RUN C OUTFALL	SD-C-10	C	24	ROP-1	6	4	10	6	6	18
SWM-POND-1	RUN D OUTFALL	SD-D-8	D	30	ROP-1	6	4	12	7.3	7.5	18
SWM-POND-1	RUN E OUTFALL	SD-E-1	E	15	ROP-1	6	4	6	3.65	3.75	18
SWM-POND-1	RUN F OUTFALL	SD-F-1	B	30	ROP-1	6	4	12	7.3	7.5	18

Forebay Summary

	Contributing RPv Runoff	Required Forebay Volume	Provided Forebay Volume
V5 Run B/F	1.271 AF	5,536 CF	9,124 CF
V5 Run C	0.112 AF	Not Required	Not Required
V5 Run D	0.577 AF	2,513 CF	2,762 CF
V5 Run E	0.081 AF	Not Required	Not Required

Temporary Sediment Basin Summary

TSB Facility	Maximum Disturbed Area	Required Storage*	Provided Storage	Weir Crest Elevation	Permanent Pool	Top of Bank Elevation
Phase V5-2	13.45 AC	48,420 CF	49,547 CF	11.00'	10.00'	14.00'
Phase V5-1A	2.48 AC	8,928 CF	32,326 CF	11.00'	10.00'	13.00'
Phase V5-1B	6.02 AC	21,672 CF				
Phase V5-1 Total	8.50 AC	30,600 CF	32,326 CF	11.00'	10.00'	13.00'
AP-1 Total	21.95 AC	79,020 CF	81,873 CF			
Site Total	21.95 AC	79,020 CF	81,873 CF			

Notes: *Maximum Disturbed Area x 3600

Maintenance Set Aside Sizing Summary

	REQUIRED FOREBAY VOLUME (CF)	REQUIRED MSA VOLUME (CF)	MSA LENGTH (FT)	MSA WIDTH (FT)	MSA DEPTH (FT)	PROVIDED MSA VOLUME (CF)
SWM-POND-1	8,050	4,025	205	20	1	4,100

Sussex conservation district

"Contractor's Portal"

Please scan the QR Code below to access Sussex Conservation Districts 'How to Guide' and a link to the "Contractor's Portal"

PLOT CODE
PEN1-RED 006 INCHES (.15mm)
PEN2-YELLOW 007 INCHES (.18mm)
PEN3-GREEN 010 INCHES (.25mm)
PEN4-CYAN 014 INCHES (.35mm)
PEN5-BLUE 021 INCHES (.53mm)
PEN6-MAGENTA 027 INCHES (.69mm)
PEN7-WHITE 039 INCHES (1.00mm)

G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C1.2 Construction Notes and Details.dwg, 10/16/2025, Christopher J. Pfeifer

DATE
REVISIONS
NO.

CIVIL ENGINEERING ASSOCIATES, LLC
●ENGINEERING ●SURVEYING ●CONSTRUCTION SERVICES
55 W. MAIN STREET
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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER LICENSE No. 20597 DELAWARE PROFESSIONAL ENGINEER
12/5/2025

VILLAGE 5 - CONSTRUCTION NOTES AND DETAILS

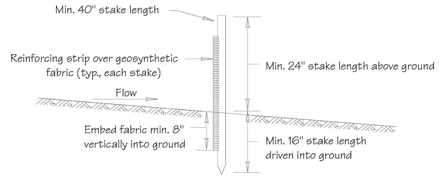
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CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C1.2

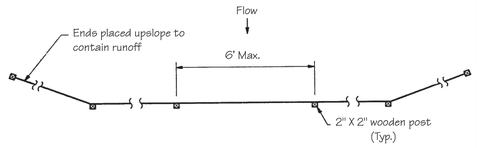
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Standard Detail & Specifications

Silt Fence



Section



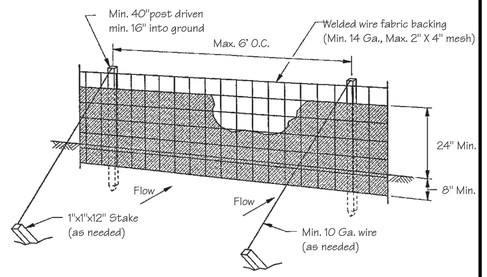
DATA
Max. controlled slope

Plan

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SF	DE-ESC-3.1.2.1 Sheet 1 of 2 Effective July 2023

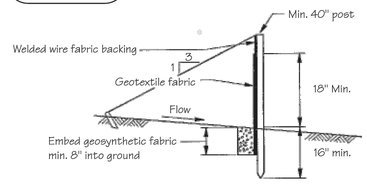
Standard Detail & Specifications

Reinforced Silt Fence



Perspective

DATA
Max. controlled slope



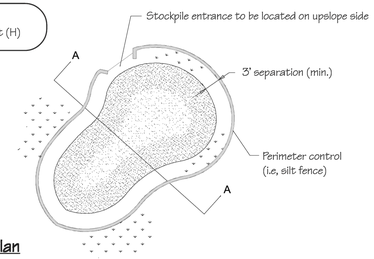
Cross-section

Source:	Symbol:	Detail No.
Adapted from Transco, Inc.	RSF	DE-ESC-3.1.2.2 Sheet 1 of 2 Effective July 2023

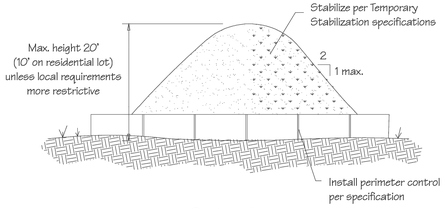
Standard Detail & Specifications

Soil Stockpile

DATA
Max. height (H)



Plan

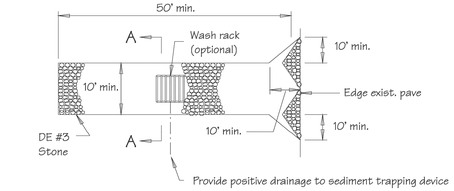


Section A-A

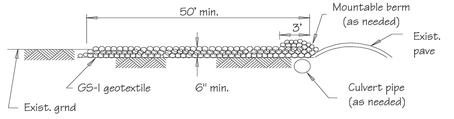
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Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	SP	DE-ESC-3.7.3 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

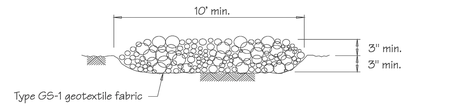
Stabilized Construction Entrance



Plan



Profile



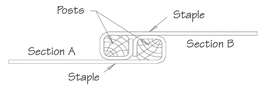
Section A-A (Std.)

Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	SCE	DE-ESC-3.4.7 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Silt Fence

Construction Detail



Method for joining continuous sections

Top

Construction Notes:

1. Geosynthetic fabric to be fastened securely to fence posts with wire ties or staples.
2. When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
3. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

Materials:

1. Stakes: Steel (either T or U) or 2" x 2" hardwood
2. Geosynthetic Fabric: Type GD-I
3. Reinforcing strip: Wooden lath or plastic strip

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SF	DE-ESC-3.1.2.1 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Reinforced Silt Fence

Construction Notes:

1. Welded wire fabric to be fastened securely to the fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24 inches at top and mid-section.
3. When two sections of fabric adjoin each other, they shall be overlapped by six inches and folded.
4. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

Materials:

1. Posts: Steel either T or U or 2" x 2" hardwood
2. Geotextile Fabric: Type GD-I
3. Backing: Woven welded wire, 14 Ga., 2" X 4" mesh opening

Source:	Symbol:	Detail No.
Adapted from Transco, Inc.	RSF	DE-ESC-3.1.2.2 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Soil Stockpile

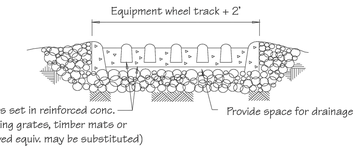
Construction Notes:

1. Locate stockpiles so that they are 50 feet from any storm drain inlet, open channel, wetland or waterbody. Redirect any concentrated flow around the stockpile using an approved erosion and sediment control measure.
2. Secure the perimeter of the stockpile with an approved erosion and sediment control perimeter device.
3. If stockpile is to remain inactive for more than 14 calendar days, the stockpile must be vegetated. Follow the temporary vegetation specifications. The vegetation chosen shall last the duration of the stockpile; the stockpile shall be restabilized if the temporary vegetation dies or erosion results.

Source:	Symbol:	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	SP	DE-ESC-3.7.3 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Stabilized Construction Entrance



Section A-A (Opt.)

Construction Notes:

1. Stone size - Use DE #3 stone.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than size (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Geotextile - Type GS-I; placed over the entire area prior to placing of stone.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Vehicle wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Inspection - Periodic inspection and needed maintenance shall be provided after each rain.

Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	SCE	DE-ESC-3.4.7 Sheet 2 of 2 Effective July 2023

PLOT CODE
PEN1-RED 256 INCHES (10mm)
PEN2-YELLOW 207 INCHES (8mm)
PEN3-GREEN 010 INCHES (2mm)
PEN4-CYAN 014 INCHES (3mm)
PEN5-BLUE 031 INCHES (8mm)
PEN6-MAGENTA 027 INCHES (7mm)
PEN7-WHITE 039 INCHES (10mm)

C:\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C1.3 CONSTRUCTION DETAILS.dwg, 10/16/2025, Christopher J. Pfeifer

DATE
REVISIONS
NO.

CIVIL ENGINEERING ASSOCIATES, LLC
● ENGINEERING ● SURVEYING ● CONSTRUCTION SERVICES
55 W. MAIN STREET
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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER LICENSE No. 20597 DELAWARE PROFESSIONAL ENGINEER
12/5/2025

VILLAGE 5 - CONSTRUCTION DETAILS

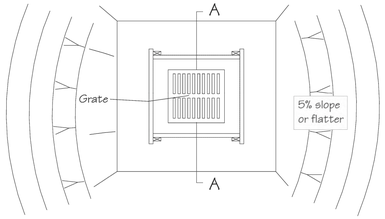
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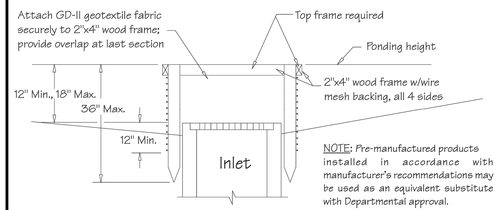
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Standard Detail & Specifications

Inlet Protection - Type 1



Plan



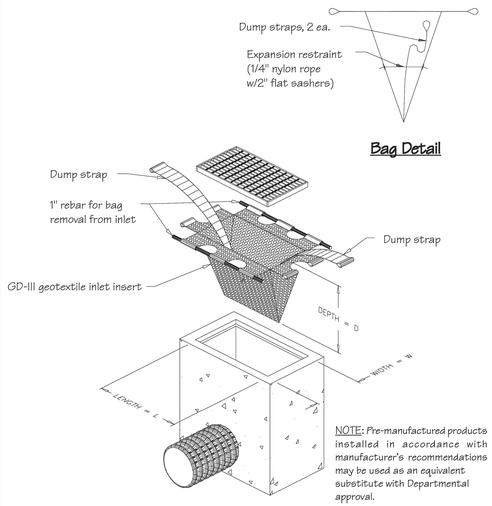
NOTE: Pre-manufactured products installed in accordance with manufacturer's recommendations may be used as an equivalent substitute with Departmental approval.

Section A-A

Source:	Symbol:	Detail No.
Adapted from Erosion Draw Manual J. McCullah & Assoc.	IP-1	DE-ESC-3.1.5.1 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Inlet Protection - Type 2



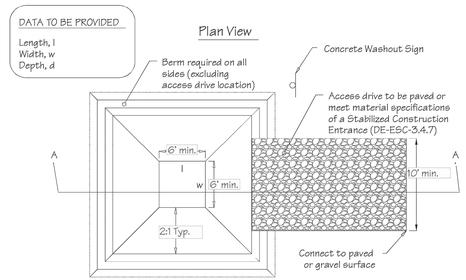
NOTE: Pre-manufactured products installed in accordance with manufacturer's recommendations may be used as an equivalent substitute with Departmental approval.

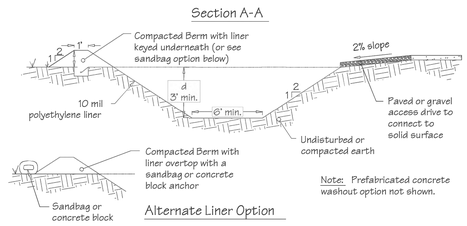
Perspective

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	IP-2	DE-ESC-3.1.5.2 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Concrete Washout



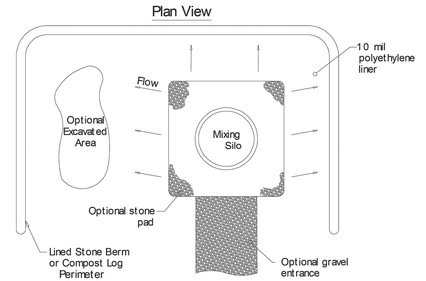


Note: Prefabricated concrete washout option not shown.

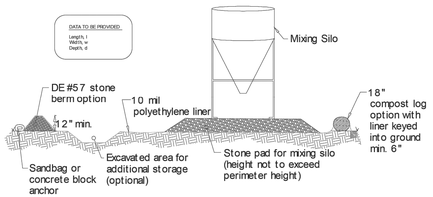
Source:	Symbol:	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	CW	DE-ESC-3.6.2 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Concrete Mixing Operation



NOTE: Berm required on all sides (excluding access drive location)



Section View

Source:	Symbol:	Detail No.
Adapted from MN/DOT Concrete Manual, Chap. 4	CMO	DE-ESC-3.6.3 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Inlet Protection - Type 1

Construction Notes:

1. Excavate completely around inlet to a depth of 18" below grate elevation.
2. Drive 2" x 4" post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2" x 4" frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
4. Stretch geotextile fabric tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet grate elevation. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
5. Backfill around inlet in compacted 6" layers until at least 12" of geotextile fabric is buried.
6. If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (weir).
7. This structure must be inspected frequently and the filter fabric replaced when clogged.

Materials:

1. Wooden frame is to be constructed of 2" x 4" construction grade lumber.
2. Wire mesh must be of sufficient strength to support filter fabric with water fully impounded against it.
3. Geotextile fabric: Type GD-II

Source:	Symbol:	Detail No.
Adapted. from Erosion Draw Manual J. McCullah & Assoc.	IP-1	DE-ESC-3.1.5.1 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Inlet Protection - Type 2

Notes:

1. This practice shall only be used in situations in which Inlet Protection - Type 1 cannot be used due to site constraints. These include, but are not limited to partially completed parking areas, streets, roads, etc.
2. It may be necessary to transition from Type 1 to Type 2 Inlet Protection as construction proceeds.
3. For areas where there is a concern for oil run-off or spills, insert shall meet one of the above specifications with an oil-absorbant pillow or shall be made completely from an oil-absorbant material with a woven pillow.

Materials:

The geotextile inlet insert shall meet or exceed the specifications of Type GD-III geotextile in accordance with Appendix A-3 of the Delaware Erosion & Sediment Control Handbook.

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	IP-2	DE-ESC-3.1.5.2 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Concrete Washout

Construction Notes:

1. Locate washout area a minimum of 50 feet from open channels, stormdrain inlets, wetlands or waterbodies.
2. Locate washout area so that it is accessible to concrete equipment (service with a minimum 10 foot wide gravel accessway), but so it is not in a highly active construction area causing accidental damage.
3. Minimum dimensions for prefabricated units are 4 feet by 4 feet by 1 foot deep with a minimum 4mil polyethylene plastic liner. Minimum dimensions for constructed concrete washout areas are 6 feet by 6 feet by 3 feet deep, with a minimum 10mil polyethylene liner, 2:1 side slopes, and a 1 foot high by 1 foot wide compacted fill berm.
4. The liner must be free of tears or holes and placed over smooth surfaces to prevent puncturing. For excavated washouts, anchor the liner underneath the berm or overtop with sandbags or concrete blocks to hold in place.
5. Provide a sign designating the washout area, and for large construction sites, provide signs throughout directing traffic to its location.
6. Allow washed out concrete mixture to harden through evaporation of the wastewater. Once the facility has reached 75 percent of its capacity, remove the hardened concrete by reusing the broken aggregate onsite, recycling, or disposing of offsite. The hardened material can be buried on site with minimum of 1 foot of clean, compacted fill.
7. Apply a new liner before reusing the station for additional washouts after maintenance has occurred.

Source:	Symbol:	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	CW	DE-ESC-3.6.2 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Concrete Mixing Operation

Construction Notes:

1. Locate concrete mixing and containment area a minimum of 50 feet from open channels, stormdrain inlets, wetlands or waterbodies.
2. Locate concrete mixing and containment area so that it is accessible to telescopic lifts (service with a minimum 10 foot wide gravel or paved accessway), but so it is not in a highly active construction area causing accidental damage.
3. Minimum volume for installed containment areas are 3.5 cubic feet per cubic foot of mixing capacity. The installed containment area must encompass the storage silo and mixing unit, and be surround on three sides minimum by a 12" high stone berm (DE #57) or 18" compost log
4. The 10-mil poly liner must be free of tears or holes and placed over smooth surfaces to prevent puncturing. The liner shall cover the perimeter control and be secured on the backside using cement or sandbags, or keyed into the ground a minimum of 6".
5. Allow cementitious waste to harden through evaporation of the wastewater. Once the facility has reached 75 percent of its capacity, remove the hardened concrete by reusing the broken aggregate onsite, recycling, or disposing of offsite. The hardened material can be buried on site with minimum of 1 foot of clean, compacted fill.
6. Apply a new liner before reusing the station for additional mixing after maintenance has occurred.

Source:	Symbol:	Detail No.
Adapted from MN/DOT Concrete Manual, Chap. 4	CMO	DE-ESC-3.6.3 Sheet 2 of 2 Effective July 2023

PEN1-RED 200 INCHES (15mm)
PEN2-YELLOW 007 INCHES (15mm)
PEN3-GREEN 010 INCHES (25mm)
PEN4-CYAN 014 INCHES (35mm)
PEN5-BLUE 020 INCHES (50mm)
PEN6-MAGENTA 031 INCHES (75mm)
PEN7-WHITE 039 INCHES (100mm)
PLOT CODE

C:\Projects\2021\210001 Millville by the Sea\Drawings\Working Set\Village 5\Engineering Plans\C1.4 Construction Details.dwg, 10/16/2025, Christopher J. Pfeifer

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER LICENSE No. 20507 DELAWARE PROFESSIONAL ENGINEER
12/5/2025

VILLAGE 5 - CONSTRUCTION DETAILS

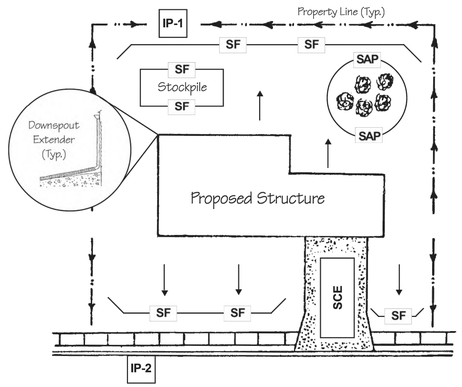
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DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C1.4

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Standard Detail & Specifications

ESC for Minor Development



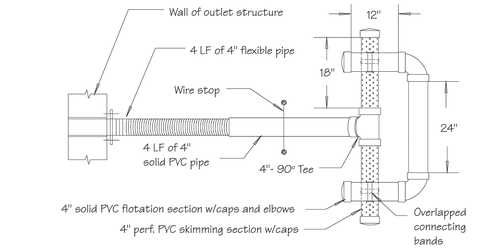
LEGEND

Flow		Inlet protection - Type 1	IP-1
Silt Fence	SF		
Sensitive Area Protection	SAP		
Stabilized Construction Entrance	SCE	Inlet Protection - Type 2	IP-2

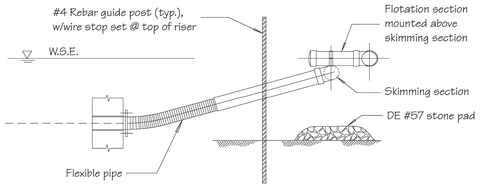
Source:	Symbol:	Detail No.
Adapted from IN DNR, "Erosion Control for the Home Builder"		DE-ESC-3.7.1 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Skimmer Dewatering Device



Plan

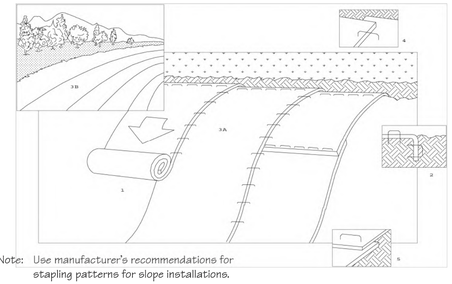


Profile thru ℄ of Pipe

Source:	Symbol:	Detail No.
Adapted from drawing by Vandemark & Lynch, Inc.	SDD	DE-ESC-3.2.3.1 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Stabilization Matting - Slope



Note: Use manufacturer's recommendations for stapling patterns for slope installations.

Perspective

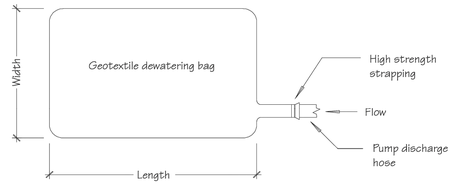
Construction Notes:

1. Prepare soil before installing matting, including application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the mat in a 6" deep X 6" wide trench. Backfill and compact trench after stapling.
3. Roll the mats (A) down or (B) horizontally across the slope.
4. The edges of parrallel mats must be stapled with approx. 2" overlap.
5. When mats must be spliced down the slope, place mats end over end (shingle style) with approx. 4" overlap. Staple through overlapped area, approx. 12" apart.

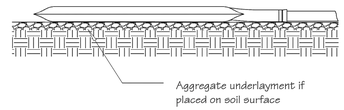
Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	SM-S	DE-ESC-3.4.6.1 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Geotextile Dewatering Bag



Plan



Profile

NOTE: *Pre-manufactured products installed in accordance with manufacturer's recommendations may be used as an equivalent substitute with Departmental approval.*

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	GB	DE-ESC-3.2.1.2 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

ESC for Minor Development

Construction Notes:

1. Evaluate the Site.
   a. Identify Vegetation To Be Saved
   b. Protect Trees and Sensitive Areas
2. Install Perimeter Erosion And Sediment Controls.
   a. Protect down-slope areas with vegetative filter strips.
   b. Protect down-slope areas with silt fence.
   c. Restrict all lot access to stabilized construction entrance to prevent vehicles from tracking mud onto roadways.
   d. Install inlet protection on nearby storm drain inlets.
3. Prepare the Site for Construction.
4. Salvage and Stockpile the Topsoil/Subsoil
5. Build the Structure(s) and Install the Utilities.
6. Install Downspout Extenders
7. Maintain the Control Practices.
   a. Maintain all erosion and sediment control practices until construction is completed and the lot is stabilized.
   b. Inspect the control practices a minimum of twice a week and after each storm event, making any needed repairs immediately.
8. Revegetate the Building Site.
   a. Redistribute the stockpiled subsoil and topsoil.
   b. Seed or sod bare areas.
   c. Mulch newly seeded areas.
9. Remove Remaining Temporary Control Measures.

Source:	Symbol:	Detail No.
Adapted from IN DNR, "Erosion Control for the Home Builder"		DE-ESC-3.7.1 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Skimmer Dewatering Device

Construction Notes:

1. Pipe flotation section shall be solvent welded to ensure an airtight assembly. Contractor to conduct a test to check for leaks prior to installation.
2. Skimmer section shall have (12) rows of 1/2" dia. holes, 1-1/4" on center. If additional filtration is necessary, the filtering media shall consist of a Type GD-II geotextile fabric wrapped around the perforated portion of the skimmer and attached with plastic snap ties, bands, etc.
3. Flexible pipe shall be inserted into solid pipe and fastened with (2) #8 wood screws.
4. At a minimum, the structure shall be inspected after each rain and repairs made as needed. If vandalism is a problem, more frequent inspection may be necessary.
5. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
6. The structure shall only be removed when the contributing drainage area has been properly stabilized.

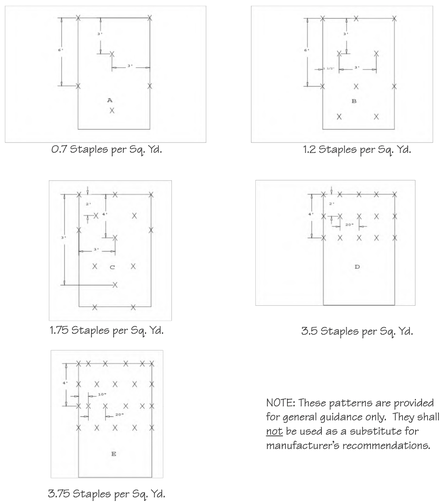
Materials:

1. Solid pipe - 4" Sched. 40 PVC
2. Perforated pipe - 4" Sched. 40 PVC
3. 90° Tee (1 ea.) - 4" Sched. 40 PVC
4. 90° Elbow (2 ea.) - 4" Sched. 40 PVC
5. Cap (4 ea.) - 4" Sched. 40 PVC, solid
6. Flexible pipe - 4" corrugated plastic tubing (non-perforated)

Source:	Symbol:	Detail No.
Delaware ESC Handbook	SDD	DE-ESC-3.2.3.1 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Stabilization Matting - Slope



NOTE: *These patterns are provided for general guidance only. They shall not be used as a substitute for manufacturer's recommendations.*

Stapling Patterns

Source:	Symbol:	Detail No.
Adapted from North American Green, Inc.	SM-S	DE-ESC-3.4.6.1 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Geotextile Dewatering Bag

Construction Notes:

1. The dewatering bag should be placed so the incoming water flows into and through the bag, and then flow off the site without creating more erosion. The neck should be tied off tightly to stop the water from flowing out of the bag without going through the walls. The dewatering bag should be placed on a gravel bed to allow water to flow in all directions.
2. The dewatering bag is considered full and should be disposed when it is impractical for the bag to filter the sediment out at a reasonable flow rate. At this point, it should be replaced with a new bag.
3. Disposal may be accomplished as directed by the construction reviewer. If the site allows, the bag may be buried on site and seeded, visible fabric removed and seeded or removed from site to a proper disposal area.

Materials:

1. The geotextile fabric shall be a Type GD-IV.
2. The dewatering bag shall be sewn with a double needle machine using high strength thread. All structural seams will be sewn with high strength, double stitched "J" type. Seam strength test will have the following minimum average roll values:

Type	TEST METHOD	TEST RESULT
Heavy duty	ASTM D-4884	100 lb / in

3. The dewatering bag shall have an opening large enough to accommodate a four (4) inch discharge hose with attached strap to tie off the hose to prevent the pumped water from escaping from the bag without being filtered.

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	GB	DE-ESC-3.2.1.2 Sheet 2 of 2 Effective July 2023

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TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER LICENSE No. 20587 DELAWARE PROFESSIONAL ENGINEER

12/5/2025

VILLAGE 5 - CONSTRUCTION DETAILS

SCALE	: NO SCALE
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

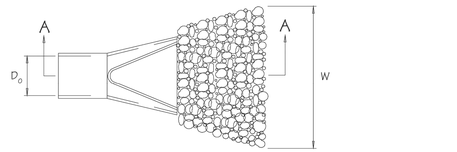
SHEET NO. C1.5

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C:\Projects\2021\210001 Millville by the Sea\Drawings\Working Set\Village 5\Engineering Plans\C1.5 Construction Details.dwg, 10/16/2025, Christopher J. Pfeifer
PEN1-WHITE 039 INCHES (1.00mm)
PEN2-MAGENTA 027 INCHES (.70mm)
PEN3-BLUE 020 INCHES (.50mm)
PLOT CODE PEN4-CYAN 014 INCHES (.35mm)
PEN5-GREEN 010 INCHES (.25mm)
PEN6-YELLOW 007 INCHES (.18mm)
PEN7-RED 004 INCHES (.10mm)

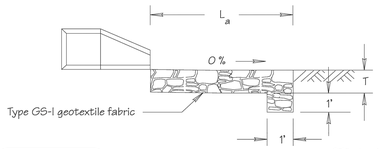
Standard Detail & Specifications

Riprap Outlet Protection - 1



Plan

NOTE: Depress centerline of apron slightly to prevent edge-cutting



NOTE: Key into exist. gnd

Section A-A

DATA

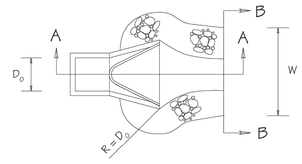
Pipe diameter (D_o)
Apron length (L_a)
Apron width (W)
Riprap size (R No.)
Riprap thickness (T)

$T_w < 0.5\ D_o$

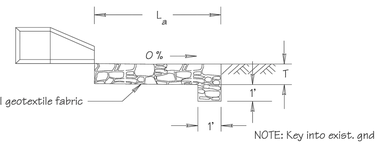
Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	ROP-1	**DE-ESC-3.3.10.1** Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Riprap Outlet Protection - 2

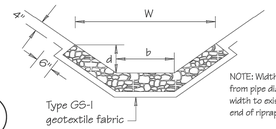


Plan



NOTE: Key into exist. gnd

Section A-A



NOTE: Width of bottom (b) to vary from pipe diameter or end section width to existing channel bottom at end of riprap apron.

$T_w \geq 0.5\ D_o$

Section B-B

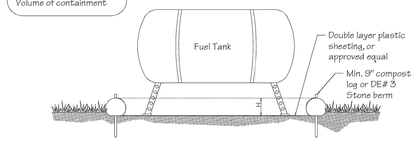
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Adapted from MD E&S Manual	ROP-2	**DE-ESC-3.3.10.2** Sheet 1 of 2 Effective July 2023

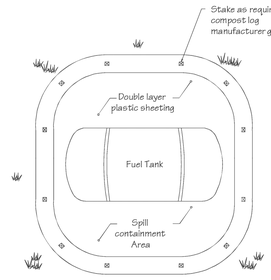
Standard Detail & Specifications

Fueling & Spill Control

DATA TO BE PROVIDED

Volume of Potential Pollution
Height of containment
Area of containment
Volume of containment





NOTE: Double-walled tanks with proper labeling meet EPA requirements for secondary containment.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		**DE-ESC-3.6.4** Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Dust Control

Temporary Methods:

1. Mulches - See **DE-ESC-3.4.5**, Standard Detail and Specifications for Mulching.
2. Vegetative cover - See **DE-ESC-3.4.3**, Std. Detail and Specifications for Vegetative Stabilization.
3. Adhesives - Use on mineral soils only (not effective on muck soils). Keep traffic off these areas. The following table may be used for general guidance.

Type of Emulsion	Water Dilution	Type of Nozzle	Apply Gal/Ac.
Latex emulsion	12.5:1	Fine spray	235
Resin-in-water emulsion	4.1	Fine spray	300
Acrylic emulsion (non-traffic)	7:1	Coarse spray	450
Acrylic emulsion (traffic)	3.5:1	Coarse spray	350

4. Tillage - For emergency temporary treatment, scarify the soil surface to prevent or reduce the amount of blowing dust until a more appropriate solution can be implemented. Begin the tillage operation on the windward side of the site using a chisel-type plow for best results.
5. Sprinkling - Sprinkle site with water until the surface is moist . Repeat as needed.
6. Calcium Chloride - Apply as flakes or granular material with a spreader at a rate that will keep the soil surface moist. Re-apply as necessary.
7. Barriers - Place barriers such as solid board fences, snow fences, hay bales, etc. at right angles to the prevailing air currents at intervals of approx. 10X their height.

Permanent Methods:

1. Vegetative cover - See **DE-ESC-3.4.3**, Std. Detail and Specifications for Vegetative Stabilization.
2. Stone - Apply layer of crushed stone or coarse gravel to protect soil surface.

Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook		**DE-ESC-3.4.8** Sheet 1 of 1 Effective July 2023

Standard Detail & Specifications

Riprap Outlet Protection - 1

Construction Notes:

1. The subgrade for the riprap shall be prepared to the required lines and grades as shown on the plan. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The riprap shall conform to the grading limits as shown on the plan.
3. Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged area. All connecting joints should overlap a minimum of 1 ft. If the damage is extensive, replace the entire filter cloth.
4. Stone for the riprap or gabion outlets may be placed by equipment. Riprap shall be placed in a manner to prevent damage to the filter cloth. Hand placement will be required to the extent necessary to prevent damage to the conduits, structures, etc.

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	ROP-1	**DE-ESC-3.3.10.1** Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Riprap Outlet Protection - 2

DATA

Pipe diameter (D_o)
Apron length (L_a)
Apron width (W)
Bottom width (b)
Riprap depth (d)
Riprap size (R No.)
Riprap thickness (T)

Construction Notes:

1. The subgrade for the riprap shall be prepared to the required lines and grades as shown on the plan. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The riprap shall conform to the grading limits as shown on the plan.
3. Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged area. All connecting joints should overlap a minimum of 1 ft. If the damage is extensive, replace the entire filter cloth.
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Source:	Symbol:	Detail No.
Adapted from MD E&S Manual	ROP-2	**DE-ESC-3.3.10.2** Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Fueling & Spill Control

Pollution Prevention – Fueling & Spill Control

1. Fueling should only take place in signed designated areas, away from downstream drainage facilities and watercourses.
2. Fueling must be with nozzles equipped with automatic shut-off to control drips. Do not top off.
3. Protect the areas where equipment or vehicles are being repaired, maintained, fueled or parked from storm water run-on and runoff.
4. Use barriers such as berms to prevent storm water run-on and runoff, and to contain spills.
5. Place a “Fueling Area” sign next to each fueling area.
6. Store hazardous materials such as fuel, solvents, oil and chemicals in secondary containment.
7. Inspect vehicles and equipment for leaks on each day of use. Repair fluid and oil leaks immediately.
8. Absorbent spill clean-up materials and spill kits must be available in fueling areas and on fuel trucks.
9. If fueling is to take place at night, make sure the fueling area is sufficiently illuminated.
10. Properly dispose of used oil, fluids, lubricants and spill clean-up materials.

CLEAN UP SPILLS

1. If it is safe to do so, immediately contain and clean up any chemical and/or hazardous material spills.
2. Properly dispose of used oil, fluids, lubricants and spill clean-up materials.
3. Do not bury spills or wash them down with water.

LEAKS AND DRIPS

1. Use drip pans or absorbent pads at all times. Place under and around leaky equipment.
2. Do not allow oil, grease, fuel or chemicals to drip onto the ground.
3. Have spill kits and clean up material on-site.
4. Repair leaky equipment promptly or remove problem vehicles and equipment from the site. Clean up contaminated soil immediately.
5. Store contaminated waste in sealed containers constructed of suitable material. Label these containers properly.
6. Clean up all spills and leaks. Promptly dispose of waste and spent clean up materials.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		**DE-ESC-3.6.4** Sheet 2 of 2 Effective July 2023

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J PFEIFER LICENSE No. 20597 DELAWARE PROFESSIONAL ENGINEER

12/5/2025

VILLAGE 5 - CONSTRUCTION DETAILS

SCALE	: NO SCALE
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

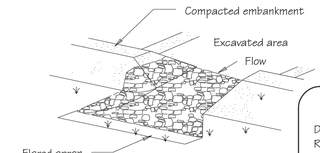
SHEET NO.
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PLOT CODE
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PEN2-YELLOW 207 INCHES (5.4mm)
PEN3-GREEN 078 INCHES (2.0mm)
PEN4-CYAN 014 INCHES (0.4mm)
PEN5-BLUE 020 INCHES (0.5mm)
PEN6-MAGENTA 037 INCHES (1.0mm)
PEN7-WHITE 039 INCHES (1.0mm)

Standard Detail & Specifications

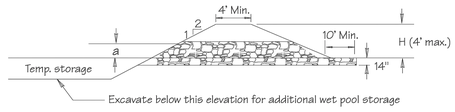
Riprap Outlet Sediment Trap



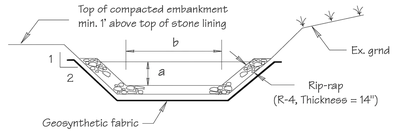
Perspective

DATA

Drainage area (D.A.)
Required storage (V_s)
Design dimensions (L x W x D)
Embankment height (H)
Channel depth (a)
Weir length (b)



Profile thru Outlet

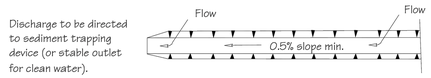


Cross-section of Outlet

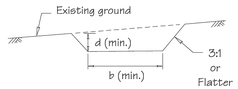
Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	RST	DE-ESC-3.1.3.3 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Temporary Swale



Plan



	Type A (< 5 ac.)	Type B (5-10 ac.)
b - BOTTOM WIDTH	4'	6'
d - FLOW DEPTH	1'	1'

Typical Section

FLOW CHANNEL STABILIZATION CHART

Stabilization Method	Channel Grade	Type A	Type B
1	0.5-3.0%	Seed with stab. blanket	Seed with stab. blanket
2	3.1-5.0%	Seed with stab. blanket	Seed using stab. blanket; sod; DE #2 stone
3	5.1-8.0%	Seed with stab. blanket; sod; DE #2 stone	Lined R-4 riprap
4	8.1-20%	Lined R-4 riprap	Engineering design

a. Stone to be DE #2 inch stone in a layer at least 3 inches in thickness and underlain with GS-I geotextile.
b. Riprap to be R-4 in a layer at least 8 inches thickness and and underlain with GS-I geotextile.

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	—TS- (A/B)(1-4)→	DE-ESC-3.3.1 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Vegetative Stabilization

DELAWARE EROSION & SEDIMENT CONTROL HANDBOOK

TEMPORARY SEEDING BY RATES, DEPTHS AND DATES

Mix #	Species[6]	Seeding Rate		Optimum Seeding Dates [1] O = Optimum Planting Period; A = Acceptable Planting Period							Planting Depth[3]
				Coastal Plain			Piedmont			All	
	Certified Seed	lb/Ac[5]	lb/1000 sq.ft.	2/1-4/30	[2] 5/1-8/14	8/15-10/31	3/1-4/30	[2] 5/1-7/31	8/1-10/31	10/31-2/1	
1	Barley	125	4	O	A	O	O	A	O		1-2 inches 2-3" sandy soils
2	Oats	125	4	O	A	A	O	A	A		1-2 inches 2-3" sandy soils
3	Rye	125	4	O	A	O	O	A	O	A	1-2 inches 2-3" sandy soils
4	Perennial Ryegrass	125	4	O	A	O	O	A	O		0.5 inches 1-2" sandy soils
5	Annual Ryegrass	125	4	O	A	O	O	A	O	A	0.5 inches 1-2" sandy soils
6	Winter Wheat	125	4	O	A	O	O	A	O	A	1-2 inches 2-3" sandy soils
7	Foxtail Millet	30 PLS	0.7		O			O			0.5 inches 1-2" sandy soils
8	Pearl Millet	20 PLS	0.5		O			O			0.5 inches 1-2" sandy soils

1. Winter seeding requires 3 tons per acre of straw mulch for proper stabilization.
2. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3. Applicable on slopes 3:1 or less.
4. Fifty pounds per acre of Annual Lespedeza may be added to 1/2 the seeding rate of any of the above species.
5. Use varieties currently recommended for Delaware. Contact a County Extension Office for information.
6. Warm season grasses such as Millet or Weeping Lovegrass may be used between 5/1 and 9/1 if desired. Seed at 3-5 lbs. per acre. Good on low fertility and acid areas. Seed after frost through summer at a depth of 0.5".

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 1 of 4

Standard Detail & Specifications

Riprap Outlet Sediment Trap

Construction Notes:

1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be four (4) feet, measured at centerline of the embankment.
3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
4. Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
5. Storage area provided shall be figured by computing the volume available behind the outlet channel up to the elevation of the crest of the outlet weir channel.
6. Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
7. Stone used in the outlet shall be R-4 riprap with a thickness of 14".
8. **An approved dewatering device shall be considered an integral part of the trap. Dewatering operations shall be conducted in accordance with any and all regulatory requirements.**
9. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
10. The structure shall be inspected after each rain and repaired as needed.
11. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized. Disturbed areas shall be stabilized in accordance with the Standards and Specifications for vegetative Stabilization contained in this Handbook.
12. The structure shall be removed and the area stabilized when the contributing drainage area has been properly stabilized.

MAXIMUM DRAINAGE AREA: 15 ACRES

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	RST	DE-ESC-3.1.3.3 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Temporary Swale

Construction Notes:

1. All temporary swales shall have uninterrupted positive grade to an outlet with a minimum of erosion.
2. Diverted runoff from a disturbed area shall be conveyed to a sediment trapping device.
3. Diverted runoff from an undisturbed area shall outlet directly into an undisturbed stabilized area at a non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.
5. The swale shall be excavated or shaped to line, grade, and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fills shall be compacted by earth moving equipment.
7. All earth removed and not needed on construction shall be placed so that it will not interfere with the functioning of the swale.
8. Inspection and required maintenance shall be provided after each rain event.

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	—TS- (A/B)(1-4)→	DE-ESC-3.3.1 Sheet 2 of 2 Effective July 2023

ADDITIONAL STANDARD AND SPECIFICATIONS FOR SODDING

Definition: The establishment of grass to provide permanent stabilization on disturbed areas using sod.

Purpose: To provide immediate vegetative cover in order to stabilize soil on disturbed areas.

Conditions Where Practice Applies
Disturbed areas that require immediate and permanent vegetative cover, areas where sodding is the preferred means of grass establishment or areas where prompt use and aesthetics are important.

Special Conditions

1. Turfgrass sod shall be certified for use in the State of Delaware. It should be at least 1 year old, but no more than 3 years old.
2. Sod shall be machine cut at a uniform soil thickness of ¾ inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness shall exclude top growth and thatch.
3. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when lifted from one end. All sod shall be uniform; broken, torn or uneven sections will not be acceptable.
4. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
5. Sod should be harvested, delivered and installed within a period of 36 hours. Sod not transplanted within this period shall be inspected and approved prior to its installation.
6. The preferred planting period for sod is early fall (September) followed by the period between February 15 and April 30. Sod can be laid between May 1 and August 30 with frequent supplemental watering. When planted after October 1, frost-heaving can be a problem if sufficient rooting has not taken place.

Specifications

1. Surface Preparation
   a. Before laying sod, the surface shall be uniformly graded and cleared of all roots, brush, trash, and debris. Stones and clods larger than 2 inches shall also be removed.
   b. Surfaces that have become hard packed shall be scarified prior to laying sod.
2. Soil Amendments
   a. Lime - Apply liming materials based on the recommendations of a soil test in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply dolomitic limestone at the rate of 1 to 2 tons per acre. Apply limestone uniformly and incorporate into the top 4 to 6 inches of soil. For additional information, see **Section 3.4.3.1, Additional Standards and Specifications for Soil Testing**.
   b. Fertilizer - Apply fertilizer based on the recommendations of a soil test in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply 10-10-10 at the rate of 600 pounds per acre. Apply fertilizer uniformly and incorporate into the top 4 to 6 inches of soils. For additional information, see **Section 3.4.3.1, Additional Standards and Specifications for Soil Testing**.
3. Sod Installation
   a. During periods of excessively high temperature, the soil shall be lightly irrigated immediately prior to laying the sod.
   b. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered in a brick-like pattern. Insure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause drying of the roots.
   c. The sod industry generally recommends that on sloping areas where erosion might be a problem, sod should be laid with the long edges parallel to the contour, with staggered joints and secured with pegs or staples. However, on long slope lengths, this could make the installation prone to slump failure. A well pegged vertical installation may be preferable under these conditions with prior approval. If possible, divert runoff away from the slope until root establishment.
   d. As sodding is completed in any one section, the entire area shall be rolled or tamped to insure solid contact of roots with the soil surface. Sod shall be watered immediately after rolling or tamping until the underside of the new sod and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.
4. Sod Maintenance
   a. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4 inches.
   b. After the first week, sod shall be watered as necessary to maintain adequate moisture and insure establishment. Never allow sod to dry out completely.
   c. The first mowing should not be attempted until sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2 and 3 inches unless otherwise specified.
   d. Maintenance of established sod includes fertilization in spring and fall based on soil test recommendations in accordance with an approved nutrient management plan. Lime according to soil test recommendations at least once every five years. For additional information, see **Section 3.4.3.1, Additional Standards and Specifications for Soil Testing**.

DATE
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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PEIFER LICENSE No. 20597 DELAWARE PROFESSIONAL ENGINEER
12/5/2025

VILLAGE 5 - CONSTRUCTION DETAILS

SCALE	: NO SCALE
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

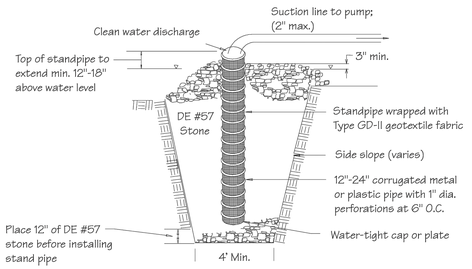
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I:\Projects\2021\210001 Millville by the Sea\Drawings\Working Set\Village 5\Engineering Plans\C1.7 Constructions Details.dwg, 10/16/2025, Christopher J. Peifer
PLOT CODE
PEN1-RED 200 INCHES / (1mm)
PEN1-YELLOW 007 INCHES / (1mm)
PEN1-GREEN 070 INCHES / (1mm)
PEN1-CYAN 014 INCHES / (1mm)
PEN1-BLUE 020 INCHES / (1mm)
PEN1-MAGENTA 027 INCHES / (1mm)
PEN1-WHITE 039 INCHES / (1mm)

Standard Detail & Specifications

Pumping Pit - Type 1



Section

Construction Notes:

1. Pit dimensions are variable.
2. The standpipe should be constructed by perforating a 12" to 24" diameter corrugated or PVC pipe. The perforations shall be 1/2" X 6" slits or 1" diameter holes 6" on center.
3. A base of DE #57 aggregate should be placed in the pit to a depth of 12". After installing the standpipe, the pit surrounding the standpipe should then be backfilled with DE #57 aggregate.
4. The standpipe should extend 12" to 18" above the lip of the pit or riser crest elevation (basin dewatering).

NOTE: If discharge will be pumped directly to a storm drainage system, the standpipe must be wrapped with Type GD-II geotextile fabric before installation. If desired, 1/ 2" hardware cloth may be placed around the standpipe, prior to attaching the geotextile fabric. This will increase the rate of water seepage into the pipe.

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	PP-1	**DE-ESC-3.2.2.1** Sheet 1 of 1 Effective July 2023

Standard Detail & Specifications

Flocculation

Design Considerations

The design and operation of a flocculation system should take into consideration the factors that determine optimum, cost-effective performance, while ensuring non-toxic discharges.

1. Product Evaluation

a. Treatment chemicals must be approved by EPA for potable water use.
b. Petroleum-based polymers are prohibited.
c. The approval of a treatment chemical shall be conditional, subject to monitoring of treated stormwater at the subject construction site.
d. Authorization to use a chemical in the field does not relieve the applicant from responsibility for meeting all discharge and receiving water criteria applicable to a site.

2. Planning Considerations

a. Flocculation systems should be designed as a part of the overall Sediment and Stormwater Management plan whenever problem soils are anticipated. Chemical treatment may be used to correct problem sites in some circumstances with formal written approval.
b. The right chemical must be used at the right dosage. A dosage that is either too low or too high will not produce the best results. There is an optimum dosage rate that must be determined based on the soil type.
c. Flocculants are most effective when applied to the soil surface in anticipation of a runoff event. They may also be installed in the form of "floc blocks" in conveyance system upstream from a sediment trapping practice. If applied directly to a pool of sediment-laden runoff, the coagulant must be mixed rapidly into the water to insure proper dispersion.
d. A flocculation step is important to increase the rate of settling, produce the lowest turbidity, and keep the dosage rate as low as possible.
e. Too little energy input into the water during the flocculation phase results in flocs that are too small and/or insufficiently dense. Too much energy can rapidly destroy floc as it is formed.
f. Since the volume of the basin is a determinant in the amount of energy per unit volume, the size of the energy input system could be too small relative to the size of the basin.
g. Care must be taken in the design of the withdrawal system to minimize outflow velocities and to prevent floc discharge. The discharge should be directed through a physical filter such as a vegetated swale that would catch any unintended floc discharge.

3. Flocculation Materials

a. A variety of flocculent materials are available. Since trace amounts of flocculent will undoubtedly be discharged, the product used should be non-toxic and safe for both human and aquatic life and should not create Biochemical Oxygen Demand (BOD) problems in the downstream discharge waters.

Source:	Symbol:	Detail No.
Adapted from USDOT/FHWA TD-09-001		**DE-ESC-3.1.8** Sheet 1 of 3 Effective July 2023

Standard Detail & Specifications

Flocculation

b. One flocculent that has been commonly used for stormwater applications is Polyacrylamide (PAM). Two versions of PAM are available, cationic and anionic. Only anionic PAM should be used, as cationic PAM is considered highly toxic. Anionic PAM has been used for many years in the water and wastewater industry and is considered safe for humans and aquatic life when used at the recommended rates.
c. Chitosan is another flocculent that is derived from the exoskeletons of crustaceans. It is generally considered safe for use in stormwater and water bodies.
d. Selection of an appropriate flocculent is highly dependent on the soil particle type and concentration. Analysis of a sample of the contaminated water is usually required to select the proper product and application rate. Manufacturers of these products will normally assist in this process.

4. Flocculation System Design

a. Flocculation procedures shall be designed in accordance with the manufacturer's recommendations. Ponds or portable tanks are typically used for treatment. Flow-through systems with no means to trap or filter the flocculant are not permitted.
b. A typical flocculation system may contain various components, including but not limited to a stormwater conveyance system, a storage pond, filter, pumps, a chemical feed system, treatment cells, and interconnecting piping.
c. It is recommended that storage ponds or other holding areas have a capacity of 1.5 times the volume to be treated. Bypass should be provided around the system to accommodate extreme storm events.
d. Primary settling should be encouraged in the storage pond. A forebay is helpful.
e. Treatment cell sizing should consider the discharge flow rate and the desired drawdown time.
f. Discharge rates off site must meet all applicable requirements.

5. Monitoring

a. Operational monitoring should include pH, conductivity (as a surrogate for alkalinity), turbidity and temperature of untreated stormwater. Other important quantities include total volume treated, amount of polymer used for treatment and settling time.
b. Discharge monitoring should include pH, turbidity and toxicity of treated stormwater, as well as discharge rates.
c. Any other monitoring necessary to meet federal, state and local water quality standards.

6. Education

a. Each contractor who intends to use chemical treatment should be extensively trained by experienced personnel.
b. If a different contractor is used for chemical stormwater treatment than the general construction site contractor, regular coordination meetings should be held between all responsible parties.

Source:	Symbol:	Detail No.
Adapted from USDOT/FHWA TD-09-001		**DE-ESC-3.1.8** Sheet 2 of 3 Effective July 2023

Standard Detail & Specifications

Flocculation

7. Maintenance:

Pretreatment and treatment ponds and cells should be cleaned out periodically, and sediment or floc properly disposed of. Pumps and feed systems must be maintained in good working order. Conveyance systems need to be inspected and maintained in order to function as designed. Check discharge points to ensure that no erosion is occurring from the release of treated runoff.

8. Limitations:

If approval of the chemical treatment system is not received during the application phase of the project, an addendum will be necessary and may result in project delays. Extensive monitoring may be necessary to ensure not only that turbidity reduction goals are being met, but that toxicity of the treated discharge is not an issue. The space necessary for pumps, treatment cells and chemical feed systems can be a problem on smaller sites.

Source:	Symbol:	Detail No.
Adapted from USDOT/FHWA TD-09-001		**DE-ESC-3.1.8** Sheet 3 of 3 Effective July 2023

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PLOT CODE
PEN1-RED 006 INCHES (.15mm)
PEN2-YELLOW 007 INCHES (.18mm)
PEN3-GREEN 010 INCHES (.25mm)
PEN4-CYAN 014 INCHES (.35mm)
PEN5-BLUE 020 INCHES (.50mm)
PEN6-MAGENTA 031 INCHES (.80mm)
PEN7-WHITE 039 INCHES (1.00mm)

NO.	REVISIONS	DATE

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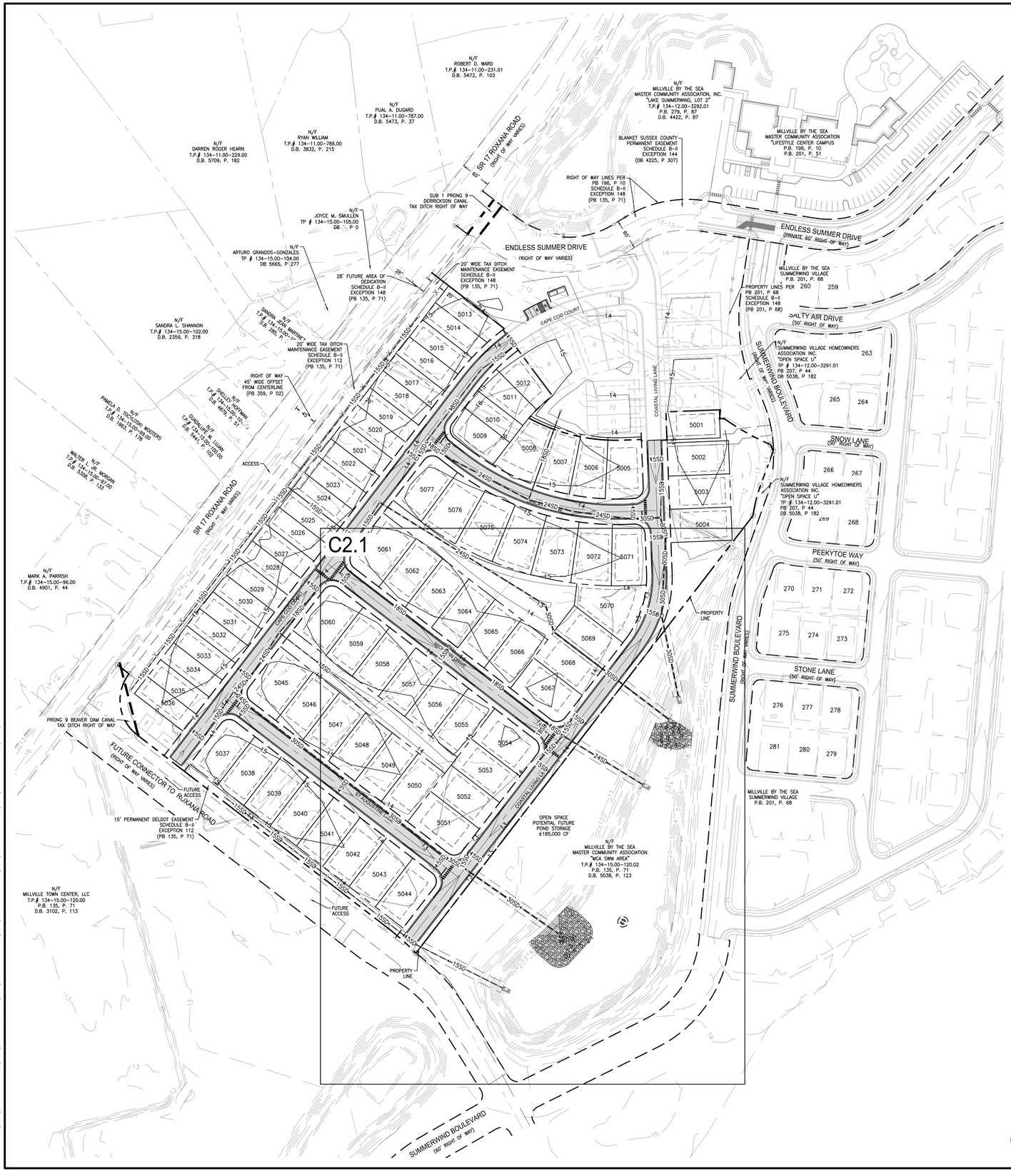
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VILLAGE 5 - CONSTRUCTION DETAILS

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NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

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12/5/2025

VILLAGE 5 - POST - CONSTRUCTION STORMWATER MANAGEMENT KEY SHEET

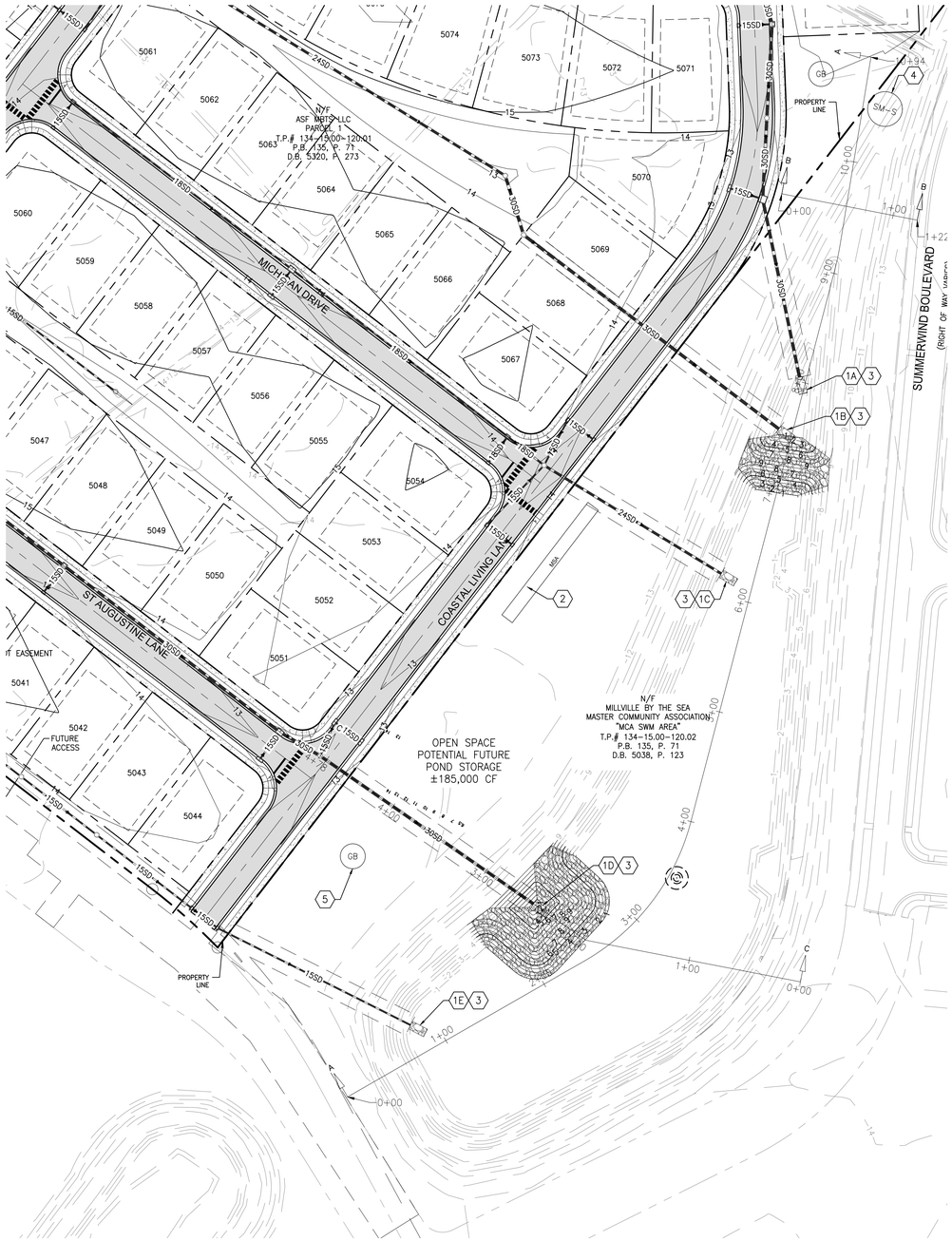
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FILE #	: 200001-J
DATE	: JUN 2025

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PLOT CODE
PEN1-RED 709 INCHES (10mm)
PEN2-YELLOW 207 INCHES (3.5mm)
PEN3-GREEN 201 INCHES (3.5mm)
PEN4-CYAN 214 INCHES (3.5mm)
PEN5-BLUE 207 INCHES (3.5mm)
PEN6-MAGENTA 207 INCHES (3.5mm)
PEN7-WHITE 709 INCHES (10mm)

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STORMWATER MANAGEMENT FACILITY: SWM EXTENSION

0 30 60 120 180

SCALE: 1" = 60'

GENERAL NOTES:

POND AND OUTFALL PREVIOUSLY INSTALLED, FOREBAY GRADING HAS BEEN ADDED PER THE NEW INLET LOCATIONS.

CONSTRUCTION NOTES

1. RIPRAP OUTLET PROTECTION. INSTALLED OVER 600X MIRAFI FILTER CLOTH OR APPROVED EQUAL. INSTALL PER DNREC DETAIL AND SPECIFICATIONS. SEE RIPRAP SIZING CHART ON SHEET C1.2. SEE DETAIL SHEET C1.6
2. STORMWATER MANAGEMENT FACILITY MAINTENANCE SET ASIDE AREA. SEE SHEET C1.2 FOR SIZING CHART.
3. STORM NETWORK DISCHARGE LOCATION TO EXISTING POND.
4. STABILIZATION MATTING – SLOPE. SEE DETAIL ON SHEET C1.5.
5. GEOTEXTILE DEWATERING BAG TO BE LOCATED IN UNDISTURBED LOCATION, SEE DETAIL SHEET C1.5. DURING EXCAVATION OF THE SUMP PIT CONTRACTOR SHALL COORDINATE WITH THE SCD INSPECTOR AND A THIRD PARTY FLOCCULATION SPECIALIST TO PERFORM TURBIDITY TESTING. THE RESULTS OF THIS TESTING MAY REQUIRE CHANGES TO THE DEWATERING PRACTICE INCLUDING THE TYPE OF GEOTEXTILE DEWATERING BAG REQUIRED OR THE USE OF CHEMICAL FLOCCULANT.

OPERATIONS AND MAINTENANCE: SWM

1. THE HOME OWNERS ASSOCIATION WILL BE RESPONSIBLE FOR OPERATING AND MAINTAINING ALL POST-CONSTRUCTION STORMWATER MANAGEMENT FACILITIES.
2. THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR THE RELEVANT DELEGATED AGENCY RESERVES THE RIGHT TO ENTER PRIVATE PROPERTY FOR PURPOSES OF PERIODIC SITE REVIEWS.
3. THE DNREC SEDIMENT AND STORMWATER PROGRAM [OR THE RELEVANT DELEGATED AGENCY] SHALL BE NOTIFIED WITHIN 30 BUSINESS DAYS IF THE PROPERTY OWNERSHIP IS TRANSFERRED TO A NEW PERSON OR ENTITY.
4. THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR THE RELEVANT DELEGATED AGENCY MAY SEEK ENFORCEMENT ACTION AGAINST ANY OWNER DEEMED NEGLIGENT IN FULFILLING THE OPERATION AND MAINTENANCE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
5. THE DNREC SEDIMENT AND STORMWATER PROGRAM [OR, THE RELEVANT DELEGATED AGENCY SHALL BE CONTACTED IF A CONCERN ARISES REGARDING STORMWATER MANAGEMENT FACILITY, BEFORE ANY NON-ROUTINE MAINTENANCE, OR IF MODIFICATIONS TO THE FACILITY ARE DESIRED.
6. ANY DESIGN MODIFICATIONS MADE TO THE STORMWATER SYSTEM SHALL REQUIRE THE CREATION OF A NEW POST CONSTRUCTION STORMWATER MANAGEMENT PLAN AND/OR OPERATIONS AND MAINTENANCE PLAN, WITH APPROVAL OF THE PLAN(S) BY THE DNREC SEDIMENT AND STORMWATER PROGRAM OR THE RELEVANT DELEGATED AGENCY.
7. FOR ALL STORMWATER EASEMENT AREAS (I.E., ACCESS, MAINTENANCE, OR OFFSITE) AND THE MINIMUM 10-FOOT WIDE ACCESSWAYS TO ALL STORMWATER FACILITIES AND THEIR STRUCTURAL COMPONENTS, REGULAR MOWING SHALL BE PERFORMED TO KEEP THE GRASS 6" OR LESS; NO TREES OR SHRUBS SHALL BE PLANTED, AND ANY FOUND GROWING SHALL BE REMOVED; AND NO PERMANENT STRUCTURES, SUCH AS FENCES OR SHEDS, SHALL BE LOCATED WITHIN THE EASEMENT OR ACCESSWAY.
8. TREES SHALL NOT BE PLANTED, AND SHALL BE REMOVED IF FOUND GROWING, ON AND WITHIN 15 FEET OF ALL POND EMBANKMENTS, ON POND SLOPES OR SAFETY BENCHES, AND WITHIN 10 FEET OF STRUCTURAL COMPONENTS, SUCH AS PIPE INLETS.
9. WHEN THE FACILITY IS EXCAVATED TO REMOVE ACCUMULATED SEDIMENT, THE DISPOSAL AREA SHALL BE PERMANENTLY STABILIZED SO THAT IT DOES NOT RECREATE AN EROSION PROBLEM. ANY MATERIAL TAKEN OFF-SITE SHALL STILL BE UTILIZED OR DISPOSED OF IN AN APPROVED DNREC MANNER.
10. BEFORE ANY EARTHWORK OR EXCAVATION TAKES PLACE, THE CONTRACTOR SHALL CALL MISS UTILITY AT 811 OR 1.800.282.8555 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO HAVE ALL EXISTING UTILITIES MARKED ONSITE.

Table 13.4. Typical Wet Pond Maintenance Items and Frequency

Frequency	Maintenance Items
During establishment, as needed (first year)	• Inspect the site after storm event that exceeds 0.5 inches of rainfall. • Stabilize any bare or eroding areas in the contributing drainage area including the Wet Pond perimeter area • Water trees and shrubs planted in the Wet Pond vegetated perimeter area during the first growing season. In general, water every 3 days for first month, and then weekly during the remainder of the first growing season (April - October), depending on rainfall.
Quarterly or after major storms (>1 inch of rainfall)	• Remove debris and blockages • Repair undercut, eroded, and bare soil areas
Twice a year	• Mowing of the Wet Pond vegetated perimeter area and embankment
Annually	• Shoreline cleanup to remove trash, debris and floatables • A full maintenance review • Open up the riser to access and test the valves • Repair broken mechanical components, if needed
One time –during the second year following construction	• Wet Pond vegetated perimeter and aquatic bench reinforcement plantings
Every 5 to 7 years	• Forebay sediment removal
From 5 to 25 years	• Repair pipes, the riser and spillway, as needed • Remove sediment from Wet Pond area outside of forebays

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

CIVIL ENGINEERING ASSOCIATES, LLC
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(302) 376-8833

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J PFEIFER LICENSE No. 20507 DELAWARE PROFESSIONAL ENGINEER
2
12/5/2025

VILLAGE 5 - POST - CONSTRUCTION STORMWATER MANAGEMENT PLAN

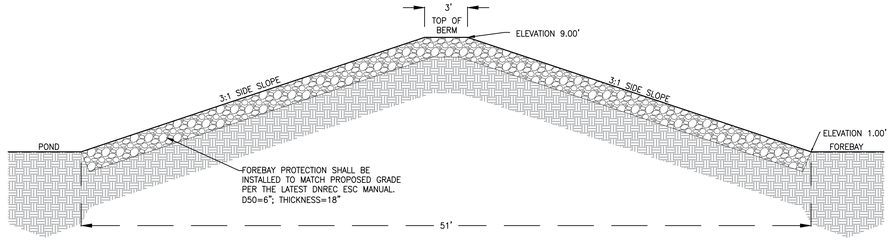
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DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C2.1

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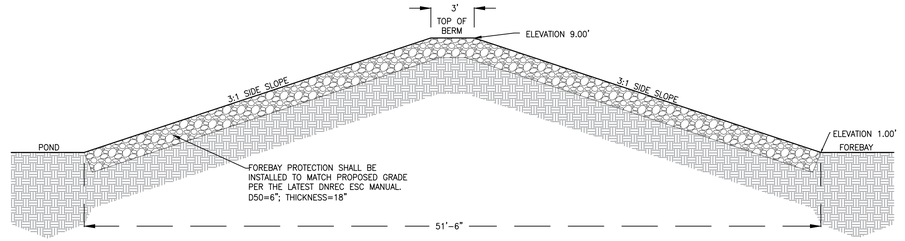
PLOT CODE
PEN1-RED 008 INCHES (.13mm)
PEN2-YELLOW 007 INCHES (.10mm)
PEN3-GREEN 010 INCHES (.25mm)
PEN4-CYAN 014 INCHES (.35mm)
PEN5-BLUE 020 INCHES (.50mm)
PEN6-MAGENTA 027 INCHES (.70mm)
PEN7-WHITE 039 INCHES (1.00mm)

D:\Projects\200\1\J\200001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C2.1 Post - Construction Stormwater Management Plan.dwg, 10/16/2025, Christopher A. Pfeifer



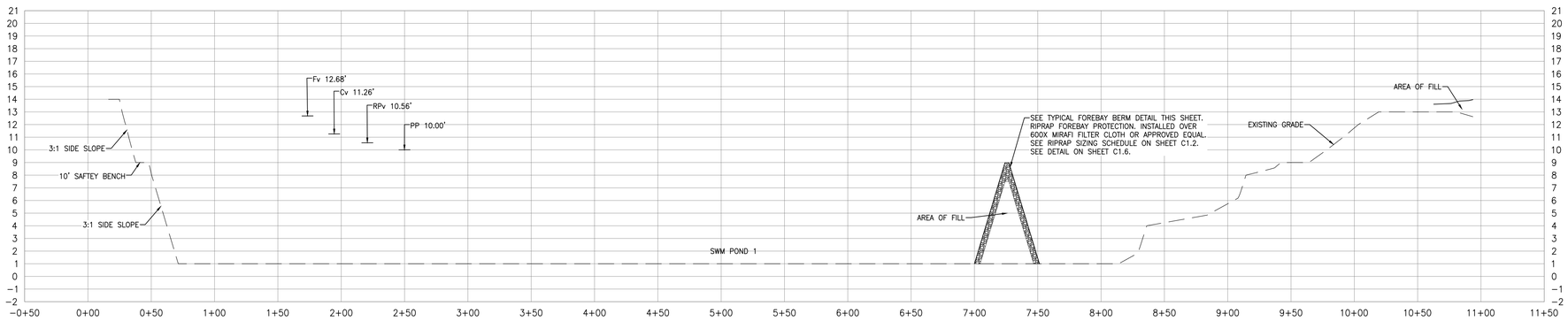
A-A FOREBAY BERM DETAIL

SCALE: 1" = 5'



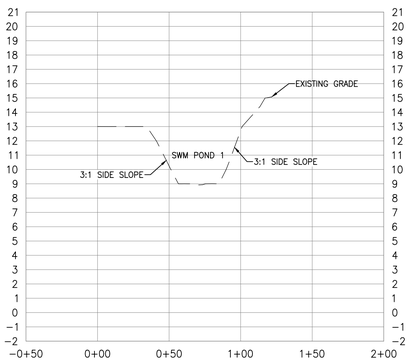
C-C FOREBAY BERM DETAIL

SCALE: 1" = 5'



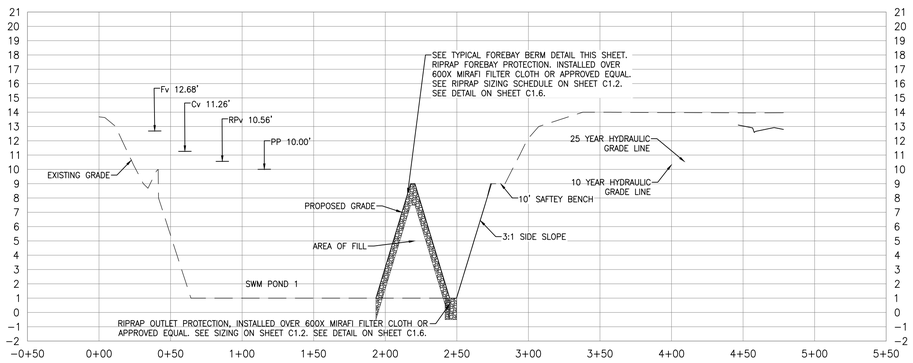
PROFILE OF MBTS V5 SWM POND 1 A-A

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF MBTS V5 SWM POND 1 B-B

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF MBTS V5 SWM POND 1 C-C

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

PLOT CODE
PEN1-WHITE 039 INCHES (1.00mm)
PEN2-MAGENTA 007 INCHES (0.18mm)
PEN3-BLUE 007 INCHES (0.18mm)
PEN4-CYAN 014 INCHES (0.35mm)
PEN5-GREEN 010 INCHES (0.25mm)
PEN6-YELLOW 007 INCHES (0.18mm)
PEN7-RED 028 INCHES (0.70mm)

G:\Projects\2001\2001001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C2.1A Post-Construction Stormwater Management Profile.dwg, 10/16/2025, Christopher A. Pfeiffer

DATE
REVISIONS
NO.

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFFER
LICENSE
No. 20587
DELAWARE
PROFESSIONAL ENGINEER
12/5/2025

VILLAGE 5 - POST-CONSTRUCTION STORMWATER MANAGEMENT PROFILE

SCALE : AS SHOWN	SHEET NO.
DESIGN BY : DJW	C2.1A
DRAWN BY : CEM	
CHECKED BY :	
FILE # : 200001-J	
DATE : JUN 2025	

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MILLVILLE BY THE SEA
VILLAGE 5
SANITARY SEWER PLANS
MILLVILLE, DELAWARE
GMB File No. 210001-J

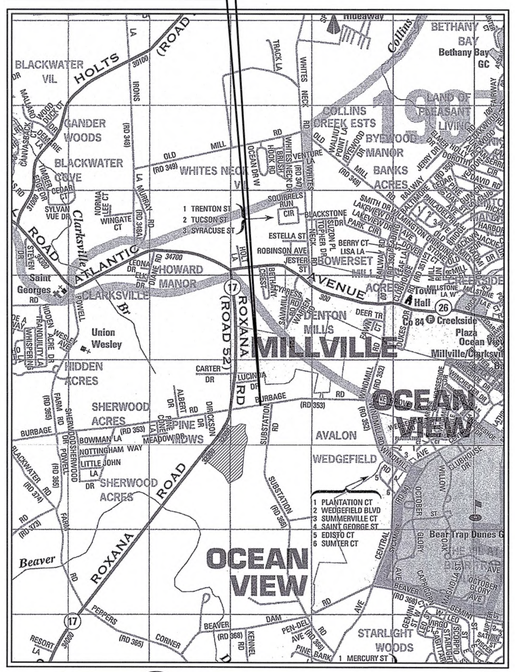
GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHY WAS PERFORMED BY STEPHENS ENVIRONMENTAL CONSULTING, INC. FEBRUARY 2005. FIELD VERIFICATION WAS PERFORMED BY MCCRONE, INC. JUNE 2005. BOUNDARY VERIFICATION WAS PERFORMED BY CIVIL ENGINEERING ASSOCIATES JULY 2012.
2. ALL SIDE LOT LINES ARE RESERVED FROM THE CENTERLINE A SEVEN (7) FOOT WIDE DRAINAGE AND/OR UTILITY EASEMENT, EXCEPT AT INTERIOR TOWNHOME LOTS. A TEN (10) FOOT WIDE DRAINAGE AND/OR UTILITY EASEMENT IS RESERVED ON EACH LOT ALONG THE FRONT AND REAR PROPERTY LINES.
3. EXISTING UTILITIES ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THROUGH TEST PITTING, THE LOCATIONS, SIZE, AND INVERT ELEVATIONS OF ALL UNDERGROUND UTILITIES AS REQUIRED TO GIVE TIMELY ADVANCE NOTICE TO ENGINEERS OF ANY CONFLICT BETWEEN EXISTING AND NEW WORK.
4. THE CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-282-8555) AND SUSSEX COUNTY 48 HOURS PRIOR TO EXCAVATION TO HAVE UNDERGROUND UTILITIES MARKED. THE CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS PRIOR TO ANY EXCAVATION.
5. THE CONTRACTOR SHALL REPAIR OR REPLACE IN KIND ANY EXISTING FEATURES DAMAGED OR DESTROYED DURING CONSTRUCTION.
6. ALL BACKFILLED AND DISTURBED AREAS TO BE SEEDED AND MULCHED WITH 4" OF TOPSOIL TO BE PLACED IN FILL AREAS.
7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY STAKE OUT OF LINE AND GRADE.
8. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT, LATEST EDITION, AND ALL RULES AND REGULATIONS THERETO.
9. THE CONTRACTOR SHALL KEEP EXISTING UTILITIES IN OPERATION DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL PERMITS SECURED, WHICH TAKE PRECEDENCE OVER SPECIFICATIONS.
11. THE CONTRACTOR SHALL EXERCISE EXTREME CARE AND CAUTION AND TAKE MEASURES NECESSARY TO PROTECT TREES DURING CONSTRUCTION ACTIVITY.
12. THE CONTRACTOR IS RESPONSIBLE FOR SECURING AND PROTECTING UTILITY POLES BEFORE AND DURING CONSTRUCTION ACTIVITIES.
13. ANY DISTURBED AREAS OUTSIDE THE RIGHT-OF-WAY SHALL BE RESTORED TO THEIR ORIGINAL CONDITION IMMEDIATELY.

SITE NOTES

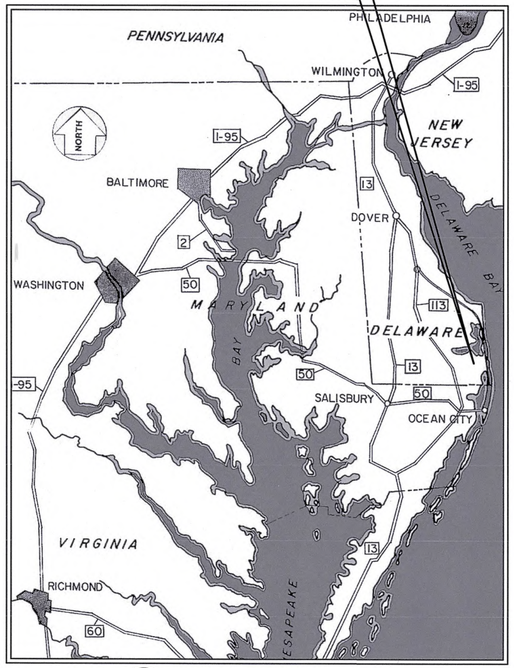
1. SITE IS TAX MAP 134-15.00 PARCEL 120.01
2. ZONING IS MASTER PLANNED COMMUNITY (MPC).
3. SITE AREA IS 19.55 ACRES.
4. THE MAXIMUM NUMBER OF DWELLING UNITS SHALL NOT EXCEED 156 (8/AC).
5. THE INTERIOR STREET DESIGN SHALL INCLUDE STREET LIGHTING AND SIDEWALKS.
6. ALL SIGNALS, ENTRANCES, INTERSECTIONS, ROADWAY AND IMPROVEMENTS, AND MULTI-MODAL FACILITIES SHALL BE CONSTRUCTED AS REQUIRED BY DELDOT.
7. THE DEVELOPMENT SHALL BE SERVED BY A CENTRAL WATER SYSTEM PROVIDING ADEQUATE DRINKING WATER AND FIRE PROTECTION AS REQUIRED BY APPLICABLE REGULATIONS. ALL WATER WORK IS TO BE CONSTRUCTED IN ACCORDANCE TO TIDEWATER UTILITIES STANDARDS AND SPECIFICATIONS.
8. STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STATE AND COUNTY REQUIREMENTS. IF IT IS DETERMINED THAT ADDITIONAL AREAS ARE REQUIRED FOR STORMWATER MANAGEMENT, PARKING, OR OTHER USE, THE ADDITIONAL AREA SHALL BE TAKEN FROM LOT AREAS, NOT DESIGNATED WETLANDS OR OPEN SPACE AREAS.
9. DESIGNATED WETLANDS SHALL NOT BE INCLUDED IN ANY INDIVIDUAL LOTS. DESIGNATED WETLANDS SHALL BE MAINTAINED AS NOT-DISTURBANCE AREAS.
10. NO SITE PREPARATION, SITE DISTURBANCE, SITE EXCAVATION OR OTHER SITE CONSTRUCTION SHALL BE COMMENCED UNTIL ALL PERMITS REQUIRED BY ALL OTHER LAWS, ORDINANCES, RULES AND REGULATIONS HAVE BEEN ISSUED AND THE APPROVED FINAL SITE PLAN IS RECORDED, EXCEPT SUCH SITE WORK FOR WHICH A PERMIT HAS BEEN ISSUED BY THE SUSSEX CONSERVATION DISTRICT.
11. THE APPLICANT SHALL SUBMIT ROAD NAMES AND A PLAN FOR ADDRESSING OF STREETS TO THE COUNTY'S MAPPING AND ADDRESSING DEPARTMENT FOR REVIEW AND APPROVAL.
12. SUBDIVISION STREETS CONSTRUCTED ARE PRIVATE AS SHOWN ON THIS PLAN AND ARE TO BE MAINTAINED BY THE DEVELOPER, PROPERTY OWNERS OR BOTH. THE STATE OF DELAWARE ASSUMES NO RESPONSIBILITIES FOR THE FUTURE MAINTENANCE OF THESE STREETS.
13. ACCESS TO ALL LOTS IS TO BE FROM SUBDIVISION STREETS.
14. MAINTENANCE OF THE STREETS WITHIN THE SUBDIVISION WILL BE THE RESPONSIBILITY OF THE DEVELOPER, THE HOME OWNERS ASSOCIATION WITHIN THE SUBDIVISION, OR BOTH. WHEN ALL LOTS ARE PURCHASED THE HOME OWNERS ASSOCIATION WILL BE SOLELY RESPONSIBLE FOR THE MAINTENANCE OF THE INTERIOR STREETS. NEITHER THE STATE OF DELAWARE NOR THE TOWN OF MILLVILLE ASSUME ANY RESPONSIBILITY FOR FUTURE MAINTENANCE OF THE STREETS.
15. MAINTENANCE OF THE STORMWATER MANAGEMENT AREAS WILL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION AND/OR THE OWNER DEVELOPER.
16. LOTS TO BE SERVED WITH WATER BY TIDEWATER UTILITIES, INC.
17. LOTS TO BE SERVED WITH SEWER BY NORTH MILLVILLE EXPANSION OF THE BETHANY BEACH SANITARY SEWER DISTRICT, SUSSEX COUNTY, DELAWARE.
18. THE SUBDIVISION LIES ENTIRELY WITHIN FLOOD ZONE 'X', AREAS OF MINIMAL FLOODING PER FEMA MAP# 10005C0495K, DATED MARCH 16, 2015.
19. BUILDING CONSTRUCTION TO BE SINGLE FAMILY RESIDENCES (TYPE 5 CONSTRUCTION) AND TOWNHOMES / CONDOMINIUMS.
20. OPEN SPACE AREAS AND COMMON AREAS WILL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION OR THEIR ASSIGNS UPON COMPLETION OF THE PROJECT.
21. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS.
22. PRIVATE RIGHT-OF-WAY SHALL BE AN EASEMENT FOR PUBLIC/PRIVATE UTILITY SERVICES AND INGRESS/EGRESS FOR HOMEOWNERS, PUBLIC AGENCIES PROVIDING SERVICES TO HOMEOWNERS, AND THE DEVELOPER AND ITS AGENTS UNTIL THE RIGHT-OF-WAY IS TURNED OVER TO THE HOME OWNERS ASSOCIATION.
23. SUBDIVISION OF FUTURE PHASES INTO SEPARATE PARCELS DEFERRED UNTIL RECORDATION OF PLANS FOR EACH FUTURE PHASE.

PROJECT AREA



LOCATION MAP
SCALE: 1" = 2000'

MILLVILLE



VICINITY MAP
SCALE: 1" = 20 MILES

LIST OF DRAWINGS

G1.1	SCED COVER SHEET
G1.3	SANITARY SEWER PHASING PLAN
C3.0	SANITARY SEWER KEY SHEET
C3.1	SANITARY SEWER PLAN
C3.2	SANITARY SEWER PLAN
C4.1	SANITARY SEWER PROFILES
C4.2	SANITARY SEWER PROFILES
C5.1	SANITARY SEWER DETAILS
C5.2	SANITARY SEWER DETAILS

CONTACT INFO

OWNER
ASF MBTS LLC
3565 PIEDMONT RD NE
BUILDING ONE, SUITE 200
ATLANTA, GA 30305
CONTACT: ROD HART (443)-418-6658
RODHART68@GMAIL.COM

DEVELOPER
DR HORTON
671 SOUTH CARTER ROAD SUITE 6
SMYRNA, DELAWARE 19977
CONTACT: JAY HEILMAN

CIVIL ENGINEER
GEORGE, MILES, & BUHR, LLC
208 WEST MAIN ST
SALISBURY, MD 21801
PHONE: 410-742-3115
CONTACT: CHRISTOPHER J. PFEIFER, P.E.

ZONING DATA	
SITE ADDRESS	APPROX. 150 FT SOUTH OF INTERSECTION OF ROXANA RD AND ENDLESS SUMMER DR
TAX MAP	134-15.00-120.01
DEED BOOK	D.B. 5320, P. 273
PLOT BOOK	N/A
CURRENT ZONING	MPC
PROPOSED ZONING	MPC
CURRENT USE	VACANT LAND
PROPOSED USE	RESIDENTIAL
SITE AREA DATA	
EXISTING SITE AREA	± 19.55 ACRES
PROPOSED SITE AREA	± 19.57 ACRES
EXISTING WOODED AREA	N/A
WOODS TO REMAIN	N/A
OPEN SPACE REQUIRED	N/A
OPEN SPACE PROVIDED	± 2.86 ACRES
LOT AREA	± 12.43 ACRES
ROW AREA	± 4.27 ACRES
EXISTING WETLAND AREA	N/A
WETLAND AREA TO REMAIN	N/A
UNIT COUNTS	
TOTAL	177
SINGLE FAMILY	49
DUPLEX	28
GROSS DENSITY	3.93 UNITS/ACRE
NET DENSITY	5.03 UNITS/ACRE
PARKING REQUIRED	231 SPACES
PARKING PROVIDED	235 SPACES
MINIMUM SINGLE FAMILY SETBACKS	
FRONT	20'
REAR	10' ADJACENT TO OPEN SPACE 20' WHEN BACK TO BACK
SEPARATION	14' (MINIMUM 7' SIDEYARD)
SIDE YARD AT CORNER LOT	10'
LOT DEPTH	100'
MINIMUM DUPLEX SETBACKS	
FRONT	20'
REAR	10' ADJACENT TO OPEN SPACE 20' WHEN BACK TO BACK
SEPARATION	20' (MINIMUM 10' SIDEYARD)
SIDE YARD AT CORNER LOT	10'
LOT DEPTH	100'
SITE GENERAL INFORMATION	
FLOOD ZONE FEMA MAP#	10005C0495K, DATED MARCH 16, 2015, ZONE X
SEWER PROVIDER	SUSSEX COUNTY, NORTH MILLVILLE EXPANSION OF BETHANY BEACH SANITARY SEWER DISTRICT
WATER PROVIDER	TIDEWATER UTILITIES, INC.
ELECTRIC PROVIDER	DELAWARE ELECTRIC
AMENITY	USE OF ORIGINAL MILLVILLE BY THE SEA AMENITIES INCLUDING: POOL, CLUBHOUSE, ACTIVE AND PASSIVE OPEN SPACE

OWNER'S CERTIFICATION:
I HEREBY CERTIFY THAT I AM AN OWNER OF THE PROPERTY DESCRIBED AN SHOWN ON THIS PLAN AND THAT THE PLAN WAS MADE AT MY DIRECTION. THE UNDERSIGNED, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN AND THAT THE SUSSEX CONSERVATION DISTRICT OR THEIR DESIGNATED AGENT SHALL HAVE RIGHT TO CONDUCT ON-SITE INSPECTIONS.

OWNER'S SIGNATURE — DATE 11/21/2025
ASF MBTS LLC

WETLAND CERTIFICATION
"I JIM McCULLEY, SPWS, STATE THAT THE BOUNDARIES OF WATERS OF THE UNITED STATES INCLUDING WETLANDS SUBJECT TO THE CORPS OF ENGINEERS REGULATORY PROGRAM DELINEATED UPON THIS PLAN HAVE BEEN DETERMINED USING MY PROFESSIONAL JUDGEMENT IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, AND ITS SUPPLEMENTAL GUIDANCE INCLUDING THE ATLANTIC AND GULF COAST REGIONAL SUPPLEMENT (VERSION 2.0) AND THE 2020 NAVIGABLE WATERS PROTECTION RULE. THIS DELINEATION HAS NOT BEEN CONDUCTED FOR USDA PROGRAM OR AGRICULTURAL PURPOSES.

ON AUGUST 30, 2018 U.S. ARMY CORPS OF ENGINEERS ISSUED AND APPROVED JURISDICTIONAL DETERMINATION OR AJD (CENAP-OP-R-2007-383).

JIM McCULLEY — DATE 11/21/2025
SENIOR PROFESSIONAL WETLAND SCIENTIST 000471
SOCIETY OF WETLAND SCIENTISTS

ENGINEER'S CERTIFICATION:
"I CHRISTOPHER J. PFEIFER, P.E. HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HERE HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEVE REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE."

ENGINEER'S SIGNATURE — DATE 11/21/2025

APPROVED:

SUSSEX COUNTY ENGINEER — DATE 12/17/25
AGREEMENT # 1177-1

NO.	REVISIONS	DATE

CIVIL ENGINEERING ASSOCIATES, LLC
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(302) 376-8833

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J PFEIFER LICENSE NO. 20582 DELAWARE PROFESSIONAL ENGINEER
11/21/2025

VILLAGE 5 - SCED COVER SHEET

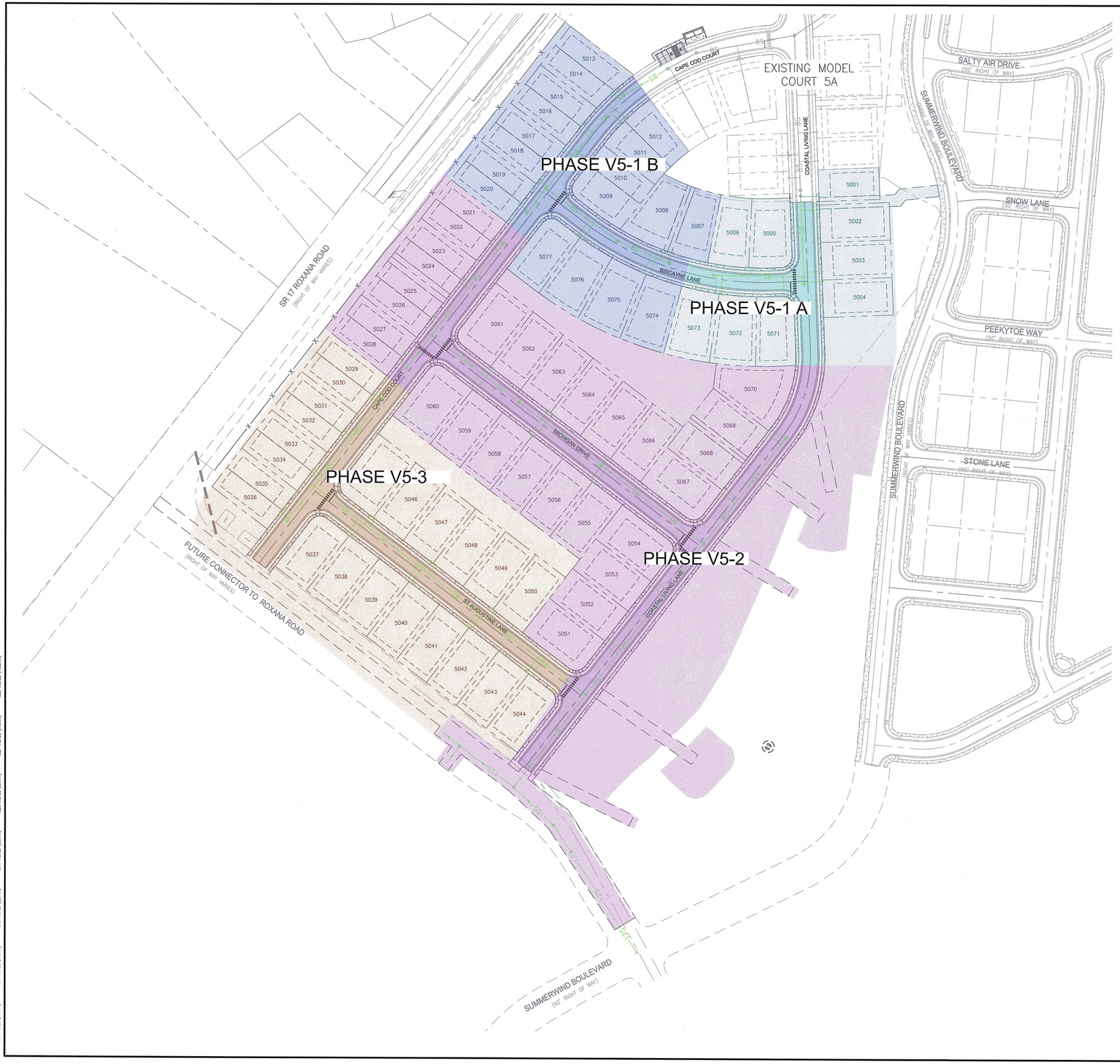
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DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. G1.1

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PLOT CODE
PEN-WHITE 009 INCHES (.150mm)
PEN-MAGENTA 007 INCHES (.125mm)
PEN-BLUE 020 INCHES (.500mm)
PEN-CYAN 014 INCHES (.350mm)
PEN-GREEN 010 INCHES (.250mm)
PEN-YELLOW 007 INCHES (.125mm)
PEN-RED 008 INCHES (.175mm)

G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\G1.1 SCED Cover Sheet.dwg, 11/21/2025, Fredy D. Hernandez-Mejia



GENERAL NOTES

1. PORTIONS OF PHASES WILL OVERLAP PARTIAL OR TEMPORARY IMPROVEMENTS ARE MADE FOR CONNECTION PURPOSES AND FINAL BUILD OUT IS IN A FUTURE PHASE.
2. CONTRACTOR/OWNER/DEVELOPER SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ISSUES WITH THE PHASING PLAN ARE FOUND IN THE FIELD.
3. VARIATIONS FROM THE PHASING PLAN SHALL BE COORDINATED WITH THE ENGINEER AND ALL IMPACTED AGENCIES.
4. NO MORE THAN 20 ACRES SHALL BE DISTURBED AT ANY TIME.
5. MATERIAL EXCAVATED FROM STORMWATER PONDS MAY BE STOCKPILED WITHIN FUTURE PHASES FOR FILL IN THOSE PHASES, NO MORE THAN 20 ACRES MAY BE DISTURBED AT ANY TIME.
6. THE SUSSEX COUNTY ENGINEERING DEPARTMENT AGREEMENT # IS 1177-1.

LEGEND

PHASE V5-1 A
9 SINGLE FAMILY LOTS (5001-5006, 5071-5073)
COASTAL LIVING LANE STA. 4+13 TO STA. 6+96
BISCAYNE LANE STA. 0+00 TO STA. 2+10
TOTAL ROAD FRONTAGE: ±493 LF
TOTAL AREA: ±2.48 AC

PHASE V5-1 B
6 SINGLE FAMILY LOTS (5007, 5008, 5074-5077)
12 DUPLEX LOTS (5009-5020)
CAPE COD COURT STA. 2+89 TO STA. 6+16
BISCAYNE LANE STA. 2+10 TO STA. 4+88

TOTAL ROAD FRONTAGE: ±605 LF
TOTAL AREA: ±3.36 AC

PHASE V5-2
20 SINGLE FAMILY LOTS (5051-5070)
8 DUPLEX LOTS (5021-5028)
COASTAL LIVING LANE STA. 6+98 TO STA. 15+55
CAPE COD COURT STA. 6+16 TO STA. 9+52
MICHIGAN DRIVE STA. 0+00 TO STA. 5+77

TOTAL ROAD FRONTAGE: ±1,770 LF
TOTAL AREA: ±10.82 AC

PHASE V5-3
14 SINGLE FAMILY LOTS (5037-5050)
8 DUPLEX LOTS (5029-5036)
ST. AUGUSTINE LANE STA. 0+00 TO STA. 5+77
CAPE COD COURT STA. 9+52 TO STA. 13+44

TOTAL ROAD FRONTAGE: ±969 LF
TOTAL AREA: ±8.33 AC

0 40 80 160 240
SCALE: 1" = 80'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER LICENSE No. 20597 DELAWARE PROFESSIONAL ENGINEER
11/21/2025

VILLAGE 5 - SANITARY SEWER PHASING PLAN

SCALE	: 1" = 80'
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
G1.3

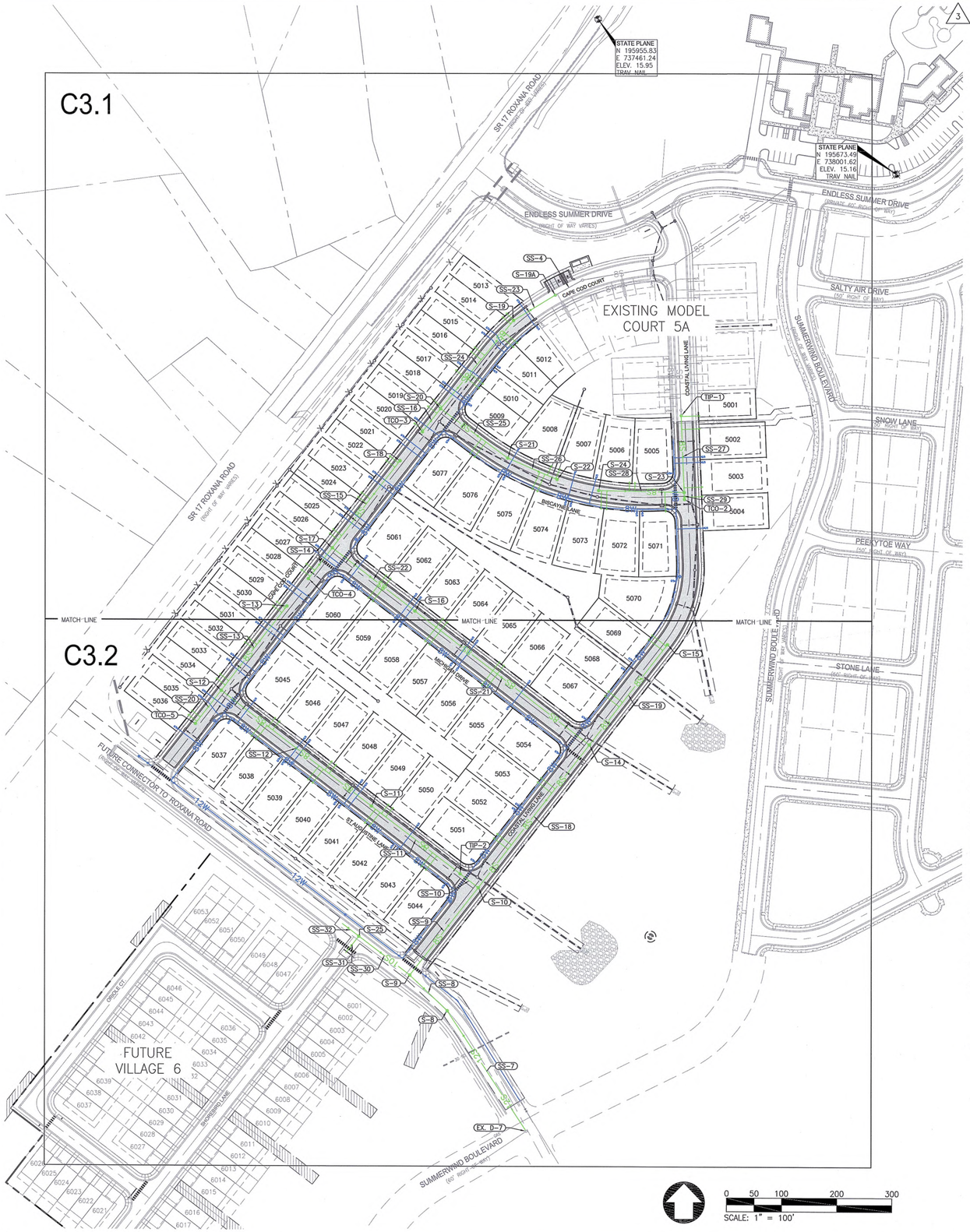
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PLOT CODE
PEN-RED .006 INCHES (.15mm)
PEN-YELLOW .007 INCHES (.18mm)
PEN-GREEN .010 INCHES (.25mm)
PEN-CYAN .014 INCHES (.35mm)
PEN-BLUE .020 INCHES (.50mm)
PEN-MAGENTA .027 INCHES (.70mm)
PEN-WHITE .039 INCHES (1.00mm)

G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\G1.3 Sanitary Sewer Phasing Plan.dwg, 11/21/2025, Fredy D. Hernandez-Mejia

C3.1

C3.2



VILLAGE 5 SEWER NETWORK STRUCTURE SCHEDULE

STRUCTURE	STRUCTURE TYPE	RIM ELEVATION	NORTHING	EASTING	CONNECTED PIPES	DEPTH
EX. D-7	48 INCH PRECAST	13.88'	193920.90	737332.46	EX. INV. IN = 3.60 SS-7 INV. IN = 3.60	10.28'
S-8	48 INCH PRECAST	13.71'	194140.93	737188.75	SS-8 INV. IN = 4.25 SS-7 INV. OUT = 4.05	9.66'
S-9	48 INCH PRECAST	13.55'	194206.40	737120.71	SS-30 INV. IN = 4.51 SS-9 INV. IN = 4.63 SS-8 INV. OUT = 4.46	9.09'
S-10	48 INCH PRECAST	12.86'	194367.26	737244.65	SS-10 INV. IN = 5.74 SS-18 INV. IN = 5.74 SS-9 INV. OUT = 5.69	7.18'
S-11	48 INCH PRECAST	13.78'	194515.65	737050.50	SS-12 INV. IN = 6.47 SS-11 INV. OUT = 6.42	7.36'
S-12	48 INCH PRECAST	14.09'	194727.05	736777.66	SS-13 INV. IN = 7.49 SS-20 INV. IN = 7.49 SS-12 INV. OUT = 7.44	6.65'
S-13	48 INCH PRECAST	14.18'	194881.55	736896.69	SS-13 INV. OUT = 9.14	5.03'
S-14	48 INCH PRECAST	14.06'	194628.67	737446.06	SS-19 INV. IN = 6.71 SS-21 INV. IN = 6.71 SS-18 INV. OUT = 6.66	7.40'
S-15	48 INCH PRECAST	12.97'	194812.29	737587.52	SS-19 INV. OUT = 7.98	4.99'
S-16	48 INCH PRECAST	14.29'	194872.80	737129.19	SS-22 INV. IN = 7.88 SS-21 INV. OUT = 7.83	6.46'
S-17	48 INCH PRECAST	14.09'	194988.47	736979.06	SS-14 INV. IN = 8.46 SS-15 INV. IN = 8.46 SS-22 INV. OUT = 8.41	5.68'
S-18	48 INCH PRECAST	14.19'	195147.71	737101.75	SS-15 INV. OUT = 9.26	4.92'
S-19	48 INCH PRECAST	13.99'	195404.35	737307.79	SS-24 INV. IN = 9.31 SS-23 INV. OUT = 9.26	4.73'
S-19A	48 INCH PRECAST	14.29'	195451.07	737383.50	SS-23 INV. IN = 9.01 SS-4 INV. OUT = 8.86	5.33'
S-20	48 INCH PRECAST	14.18'	195243.12	737175.26	SS-16 INV. IN = 9.94 SS-25 INV. IN = 9.94 SS-24 INV. OUT = 9.89	4.28'
S-21	48 INCH PRECAST	14.57'	195153.06	737297.23	SS-26 INV. IN = 10.41 SS-25 INV. OUT = 10.36	4.21'
S-22	48 INCH PRECAST	14.49'	195113.76	737386.85	SS-26 INV. OUT = 10.68	3.81'
S-23	48 INCH PRECAST	13.64'	195090.59	737617.46	SS-28 INV. IN = 9.40 SS-29 INV. IN = 9.40 SS-27 INV. OUT = 9.35	4.29'
S-24	48 INCH PRECAST	14.12'	195093.68	737462.32	SS-28 INV. OUT = 10.02	4.10'
S-25	48 INCH PRECAST	14.00'	194277.80	737028.03	SS-31 INV. IN = 4.98 SS-32 INV. IN = 4.81 SS-30 INV. OUT = 4.76	9.24'
TCO-2	8 INCH TERMINAL CLEANOUT	13.58'	195077.78	737617.96	SS-29 INV. OUT = 9.52	4.05'
TCO-3	8 INCH TERMINAL CLEANOUT	13.91'	195200.46	737142.39	SS-16 INV. OUT = 10.09	3.84'
TCO-4	8 INCH TERMINAL CLEANOUT	13.86'	194931.95	736935.52	SS-14 INV. OUT = 8.82	5.04'
TCO-5	8 INCH TERMINAL CLEANOUT	13.71'	194666.22	736730.79	SS-20 INV. OUT = 8.25	5.45'
TIP-1	8 INCH TEE INSPECTION PORT	14.35'	195231.35	737611.98	STUB B INV. IN = 8.95 SS-6 INV. OUT = 8.95	5.40'
TIP-2	8 INCH TEE INSPECTION PORT	12.81'	194392.51	737211.62	SS-11 INV. IN = 5.85 SS-10 INV. OUT = 5.85	6.96'

DESIGN CALCULATIONS

TOTAL EDU'S:	77
AVERAGE DAILY FLOW:	19,250 GPD (15 GPM)
SLIDING SCALE PEAK FACTOR:	2.43
8 INCH SEWER CAPACITY @ 0.28%:	487 EDU'S
GROSS ACREAGE:	
GROSS DENSITY =	3.93 UNITS/ACRE
RESIDENTIAL UNITS:	
DUPLEX HOMES	28 UNITS
SINGLE FAMILY HOMES	49 UNITS

NOTE: NOTE: CALCULATIONS BASED ON INFORMATION PROVIDED IN SUSSEX COUNTY ORDINANCE NO. 2577, CHAPTER 110-78. DATED: JULY 1, 2018.

NUMBER OF LATERALS

SEWER 77 (6" LATERAL)

LEGEND

EXISTING

- PROPERTY LINE/RIGHT OF WAY
- 30 CONTOUR
- EASEMENT
- PAVED ROAD
- 8S SANITARY SEWER, MANHOLE AND CLEANOUT
- 8FM SANITARY SEWER FORCE MAIN
- 15SW STORM DRAIN, INLET AND MANHOLE
- 8W WATER MAIN, VALVE AND HYDRANT

PROPOSED

- 10 CONTOUR
- 26.84 SPOT ELEVATION
- CONCRETE
- S 8S SANITARY SEWER, MANHOLE AND CLEANOUT
- 15SW STORM DRAIN, INLET AND MANHOLE
- CURB & GUTTER
- 10W WATER MAIN, VALVE AND METER

GENERAL NOTES

1. TIE-IN CONNECTIONS TO EXISTING GRAVITY SEWER ALONG SUMMER WIND BOULEVARD DETERMINED FROM SEWER AS-BUILTS.
2. A BLANKET EASEMENT OVER ALL DEVELOPMENT ROADS TO BE DEDICATED TO SUSSEX COUNTY.
3. BOUNDARY AND TOPOGRAPHY WAS PERFORMED BY STEPHENS ENVIRONMENTAL CONSULTING, INC. FEBRUARY 2005. FIELD VERIFICATION WAS PERFORMED BY MCCRONE, INC. JUNE 2005. BOUNDARY VERIFICATION WAS PERFORMED BY CIVIL ENGINEERING ASSOCIATES JULY 2012. TOPOGRAPHY UPDATED BY CEA DECEMBER 2020.
4. LOTS TO BE SERVED WITH SEWER BY NORTH MILLVILLE EXPANSION OF THE BETHANY BEACH SANITARY SEWER DISTRICT, SUSSEX COUNTY, DELAWARE.
5. ALL SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC), SDR-35 FOR PIPE DEPTH LESS THAN 12' AND SDR-26 FOR DEPTH GREATER THAN 12'. ALL FITTINGS SHALL BE SDR-26.
6. ALL REGULAR MANHOLES TO BE A MINIMUM 4' INSIDE DIAMETER. ALL DROP MANHOLES ARE TO BE A MINIMUM 5' INSIDE DIAMETER.
7. STANDARD RESIDENTIAL 6" LATERAL UNLESS OTHERWISE NOTED.
8. SANITARY SEWER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH SUSSEX COUNTY ENGINEERING DEPARTMENTS, STANDARDS AND SPECIFICATIONS AND DETAILS.
9. ALL SANITARY SEWER MATERIALS AND APPURTENANCES SHALL MEET OR EXCEED THOSE REQUIRED BY SUSSEX COUNTY ENGINEERING DEPARTMENT STANDARDS AND SPECIFICATIONS AND DETAILS.
10. SANITARY SEWER LATERAL SHALL BE 6" SDR-35 PVC. SEWER LATERAL SHALL INCLUDE A 6" CLEANOUT, WYE, AND CAP JUST INSIDE THE RIGHT-OF-WAY LINE OR UTILITY EASEMENT.
11. THE SEWER LATERAL SHALL HAVE A MINIMUM COVER OF 3.0 FEET FROM PROPOSED GRADE, AS MEASURED FROM THE TOP OF PIPE.
12. ALL TESTING AND INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE SUSSEX COUNTY ENGINEERING DEPARTMENT STANDARDS AND SPECIFICATIONS.
13. ALL PIPE SHALL HAVE DETECTOR TAPE AS REQUIRED BY THE SUSSEX COUNTY ENGINEERING DEPARTMENT AND STANDARDS AND SPECIFICATIONS.
14. MAINTAIN MINIMUM 18" VERTICAL SEPARATION BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER AT CROSSING. AT CROSSINGS ONE FULL LENGTH OF SEWER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER AS POSSIBLE. WHEN IT IS IMPOSSIBLE TO MAINTAIN THE MINIMUM SEPARATION, FOLLOW THE RECOMMENDED STANDARDS FOR WATER WORKS, 2007 EDITION, SECTION 8.8.4 EXCEPTION. THE DHSS OFFICE OF DRINKING WATER MUST SPECIFICALLY APPROVE ANY VARIANCE.
15. STORM DRAIN LOCATIONS ARE APPROXIMATE, REFER TO ROAD CONSTRUCTION PLANS FOR EXACT LOCATIONS.

3 Village 5 Sewer Network PIPE SCHEDULE

PIPE NAME	SIZE	LENGTH	SLOPE	MATERIAL	DS STRUCTURE	DS INVERT	US STRUCTURE	US INVERT
Ex.	12"	53'	0.19%	PVC SDR 35	EX. D-7	3.60'		3.70'
SS-7	12"	263'	0.17%	PVC SDR 35	EX. D-7	3.60'	S-8	4.05'
SS-8	10"	94'	0.22%	PVC SDR 35	S-8	4.25'	S-9	4.46'
SS-9	8"	203'	0.52%	PVC SDR 35	S-9	4.63'	S-10	5.69'
SS-10	8"	42'	0.28%	PVC SDR 35	S-10	5.74'	TIP-2	5.85'
SS-11	8"	203'	0.28%	PVC SDR 35	TIP-2	5.85'	S-11	6.42'
SS-12	8"	345'	0.28%	PVC SDR 35	S-11	6.47'	S-12	7.44'
SS-13	8"	195'	0.85%	PVC SDR 35	S-12	7.49'	S-13	9.14'
SS-14	8"	71'	0.50%	PVC SDR 35	S-17	8.46'	TCO-4	8.82'
SS-15	8"	201'	0.40%	PVC SDR 35	S-17	8.46'	S-18	9.26'
SS-16	8"	54'	0.28%	DIP PROTECTO 401 EPOXY COATED	S-20	9.94'	TCO-3	10.09'
SS-18	8"	330'	0.28%	SDR 35	S-10	5.74'	S-14	6.66'
SS-19	8"	232'	0.55%	PVC SDR 35	S-14	6.71'	S-15	7.98'
SS-20	8"	77'	1.00%	PVC SDR 35	S-12	7.49'	TCO-5	8.25'
SS-21	8"	400'	0.28%	PVC SDR 35	S-14	6.71'	S-16	7.83'
SS-22	8"	190'	0.28%	PVC SDR 35	S-16	7.88'	S-17	8.41'
SS-23	8"	89'	0.28%	PVC SDR 35	S-19A	9.01'	S-19	9.26'
SS-24	8"	209'	0.28%	PVC SDR 35	S-19	9.31'	S-20	9.89'
SS-25	8"	152'	0.28%	PVC SDR 35	S-20	9.94'	S-21	10.36'
SS-26	8"	98'	0.28%	DIP PROTECTO 401 EPOXY COATED	S-21	10.41'	S-22	10.68'
SS-27	8"	131'	0.28%	PVC SDR 35	STUB	8.98'	S-23	9.35'
SS-28	8"	155'	0.40%	PVC SDR 35	S-23	9.40'	S-24	10.02'
SS-29	8"	13'	1.00%	PVC SDR 35	S-23	9.40'	TCO-2	9.52'
SS-30	10"	117'	0.22%	PVC SDR 35	S-9	4.51'	S-25	4.76'
SS-31	8"	39'	0.28%	PVC SDR 35	S-25	4.98'	STUB	5.09'
SS-32	10"	38'	0.22%	PVC SDR 35	S-25	4.81'	STUB	4.89'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

CIVIL ENGINEERING ASSOCIATES, LLC
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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEFFER LICENSE No. 20597 DELAWARE PROFESSIONAL ENGINEER
2 11/21/2025

VILLAGE 5 - SANITARY SEWER KEY SHEET

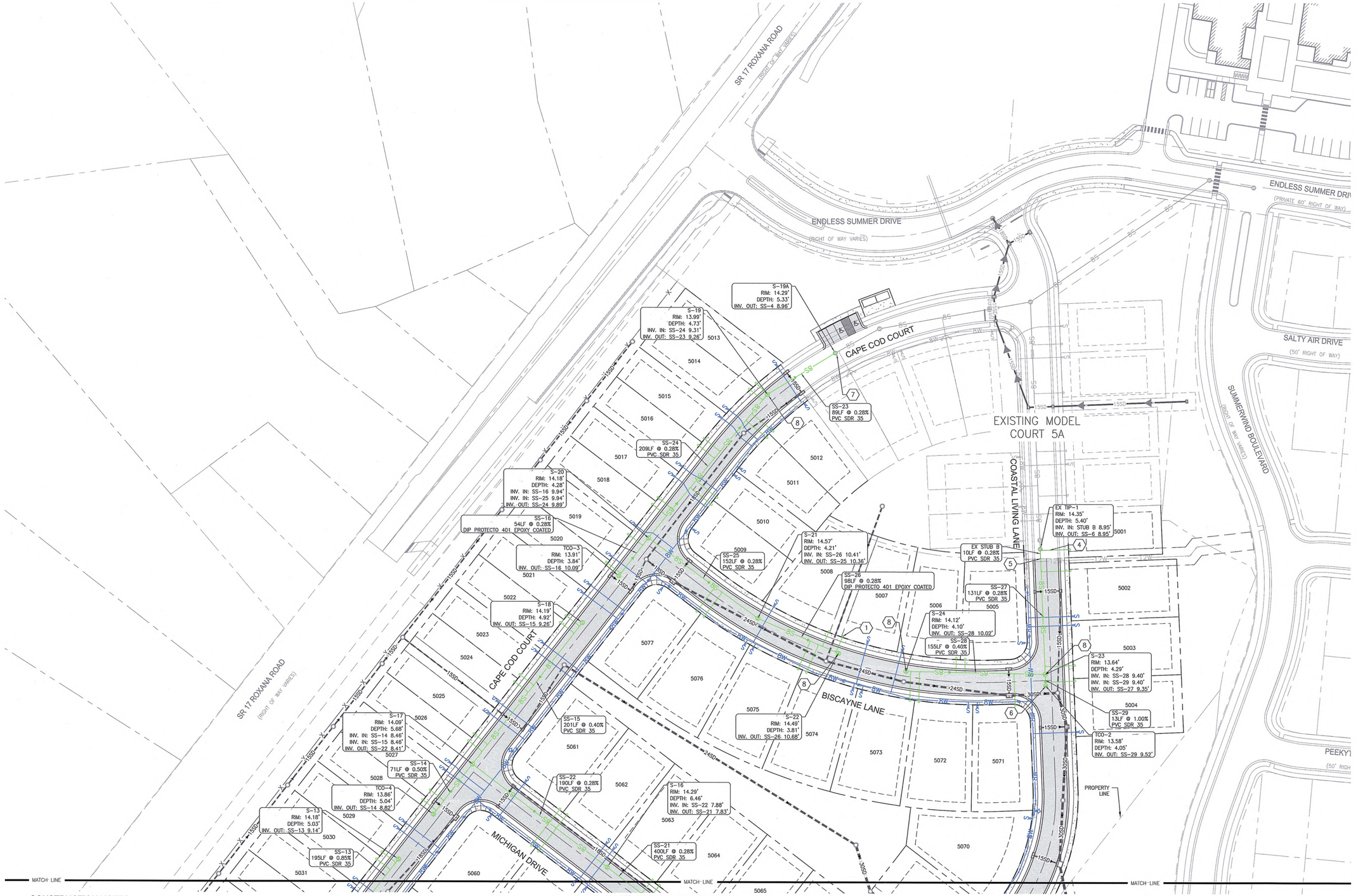
SCALE	: 1" = 100'
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C3.0

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PLOT CODE PEN COLOR
PEN1-RED .006 INCHES (.15mm)
PEN2-YELLOW .007 INCHES (.18mm)
PEN3-GREEN .010 INCHES (.25mm)
PEN4-BLUE .005 INCHES (.13mm)
PEN5-MAGENTA .007 INCHES (.20mm)
PEN6-WHITE .028 INCHES (.71mm)



CONSTRUCTION NOTES:

1. INSTALL 6" SEWER LATERAL (TYPICAL). SEE DETAIL ON SHEET C5.1
3. INSTALL 4' PRECAST CONCRETE MANHOLE (TYP.) SEE DETAIL ON SHEET C5.1.
4. EXISTING SEWER LATERAL INSTALLED VERTICALLY TO BE USED AS SEWER LATERAL FOR LOT 5001. ROTATE LATERAL HORIZONTALLY TO SERVE LOT 5001.
5. REMOVE CAP FROM EXISTING MODEL COURT 5A SEWER AND CONNECT TO EXISTING STUB B AT ELEVATION SHOWN. CONTRACTOR TO FIELD VERIFY EXISTING INVERTS PRIOR TO CONNECTIONS.
6. INSTALL TERMINAL CLEANOUT. SEE DETAIL ON SHEET C5.2.
7. REMOVE EXISTING TCO-1 AND INSTALL 4' PRECAST CONCRETE MANHOLE (TYP.) SEE DETAIL ON SHEET C5.1.
8. INSTALL 4' SHALLOW PRECAST MANHOLE. SEE DETAIL ON SHEET C5.2.

0 25 50 100 150
SCALE: 1" = 50'

NO.	REVISIONS	DATE
1	REVISED DUAL WYE TO SINGLE LATERALS	03/24/25
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PREFER LICENSE NO. 20577 DELAWARE PROFESSIONAL ENGINEER
1 2 3 11/21/2025

VILLAGE 5 - SANITARY SEWER PLAN

SCALE	: 1" = 50'
DESIGN BY	: DLB
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CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C3.1

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PLOT CODE
PDN-WHITE .008 INCHES (.20mm)
PDN-YELLOW .007 INCHES (.18mm)
PDN-GREEN .010 INCHES (.25mm)
PDN-BLUE .009 INCHES (.23mm)
PDN-MAGENTA .011 INCHES (.28mm)
PDN-RED .008 INCHES (.20mm)
PDN-WHITE .008 INCHES (.20mm)

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SEE SHEET C3.1 FOR CONTINUATION
(INV. OUT: SS-21 7.83')

MATCH LINE

MATCH LINE

MATCH LINE

CAPE COD COURT

MICHIGAN DRIVE

ST AUGUSTINE LANE

COASTAL LIVING LANE

FUTURE CONNECTOR TO ROXANA ROAD
(RIGHT OF WAY VARIES)

SUMMERWIND BOULEVARD
(RIGHT OF WAY VARIES)

STONE LANE
(50' RIGHT OF WAY)

ORIOLE CT.

SHOREBIRD LANE

FUTURE
VILLAGE 6

PROPERTY LINE

PROPERTY LINE

ENTER, LLC
3-120.00
', 71
', 113

MILLVILLE BY THE SEA
SUMMERWIND VILLAGE
P.B. 201, P. 68

N/F
MILLVILLE BY THE SEA
MASTER COMMUNITY ASSOCIATION
"MCA SWM AREA"
T.P.# 134-15.00-120.02
P.B. 135, P. 71
D.B. 5038, P. 123

S-12
RIM: 14.09'
DEPTH: 6.65'
INV. IN: SS-13 7.49'
INV. IN: SS-20 7.49'
INV. OUT: SS-12 7.44'

SS-13
195LF @ 0.85%
8" SDR 35

SS-20
77LF @ 1.00%
8" SDR 35

TOO-5
RIM: 13.71'
DEPTH: 5.45'
INV. OUT: SS-20 8.25'

SS-12
345LF @ 0.28%
8" SDR 35

S-11
RIM: 13.78'
DEPTH: 7.36'
INV. IN: SS-12 6.47'
INV. OUT: SS-11 6.42'

SS-11
203LF @ 0.28%
8" SDR 35

TIP-2
RIM: 12.81'
DEPTH: 6.96'
INV. IN: SS-11 5.85'
INV. OUT: SS-10 5.85'

STUB SS-32
38LF @ 0.22%
10" SDR 35

SS-10
42LF @ 0.28%
8" SDR 35

S-25
RIM: 14.00'
DEPTH: 9.24'
INV. IN: SS-31 4.98'
INV. IN: SS-32 4.81'
INV. OUT: SS-30 4.76'

S-10
RIM: 12.86'
DEPTH: 7.18'
INV. IN: SS-10 5.74'
INV. IN: SS-18 5.74'
INV. OUT: SS-9 5.69'

SS-9
203LF @ 0.52%
8" SDR 35

STUB SS-31
39LF @ 0.28%
8" SDR 35

SS-30
117LF @ 0.22%
10" SDR 35

S-9
RIM: 13.55'
DEPTH: 9.09'
INV. IN: SS-30 4.51'
INV. IN: SS-9 4.63'
INV. OUT: SS-8 4.46'

SS-8
94LF @ 0.22%
10" SDR 35

S-8
RIM: 13.71'
DEPTH: 9.66'
INV. IN: SS-8 4.25'
INV. OUT: SS-7 4.05'

SS-7
263LF @ 0.17%
12" SDR 35

EX. D-7
RIM: 13.88'
DEPTH: 10.28'
INV. IN: EX. 3.60'
INV. IN: SS-7 3.60'

SS-21
400LF @ 0.28%
8" SDR 35

S-15
RIM: 12.97'
DEPTH: 4.99'
INV. OUT: SS-19 7.98'

SS-19
232LF @ 0.55%
8" SDR 35

S-14
RIM: 14.06'
DEPTH: 7.40'
INV. IN: SS-19 6.71'
INV. IN: SS-21 6.71'
INV. OUT: SS-18 6.66'

SS-18
330LF @ 0.28%
8" SDR 35

CONSTRUCTION NOTES:

1. INSTALL 6" SEWER LATERAL (TYPICAL). SEE DETAIL ON SHEET C5.1
3. INSTALL 4' PRECAST CONCRETE MANHOLE (TYP.) SEE DETAIL ON SHEET C5.1.
7. INSTALL TEE-INSPECTION PORT AT PHASE LINE FOR PHASE V5-2 CONSTRUCTION. REMOVE TIP-2 FOR PHASE 2 CONSTRUCTION. SEE DETAIL ON SHEET C5.2.
9. USE EXISTING STUB WITH ASSUMED 0.17% SLOPE PER SUSSEX COUNTY ENGINEERING DEPARTMENT TO CONNECT DIRECTLY TO SS-7 ALONG SUMMERWIND BOULEVARD. IF EXISTING STUB IS NOT LAID AT 0.17%, CONTRACTOR TO REMOVE STUB AND INSTALL SS-7 DIRECTLY TO EX.D-7 AT EXISTING INVERT.
10. STUB FOR CONNECTION TO FUTURE VILLAGE 6.

0 25 50 100 150
SCALE: 1" = 50'

NO.	REVISIONS	DATE
1	REVISED DUAL WYE TO SINGLE LATERALS	03/24/25
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER
LICENSE
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DELAWARE
PROFESSIONAL ENGINEER

1 2 3 11/21/2025

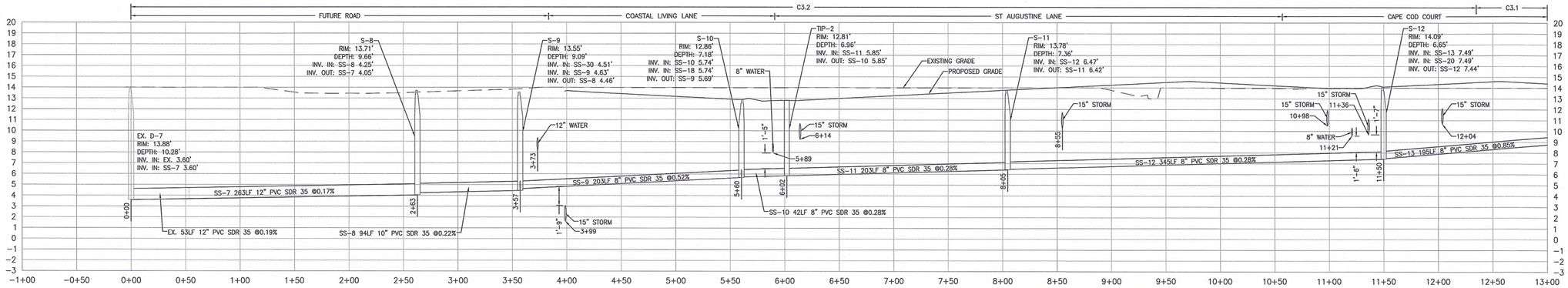
VILLAGE 5 - SANITARY SEWER PLAN

SCALE	: 1" = 50'
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C3.2

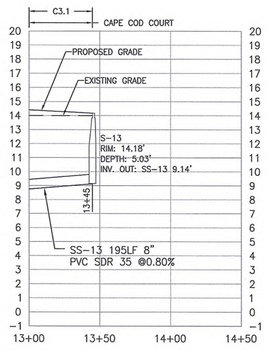
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PLOT CODE
P36+-BWEE .033 INCHES (1.00mm)
P28+-MAGENTA .027 INCHES (.70mm)
P20+-BLUE .020 INCHES (.50mm)
P14+-CYAN .014 INCHES (.35mm)
P10+-GREEN .010 INCHES (.25mm)
P07+-YELLOW .007 INCHES (.18mm)
P01-RED .005 INCHES (.13mm)



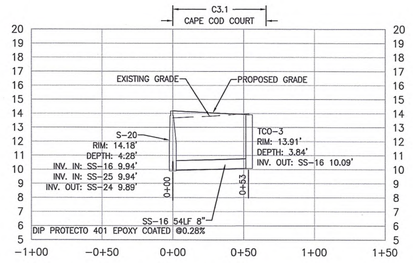
PROFILE OF VILLAGE 5 EX. D-7 TO S-13

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



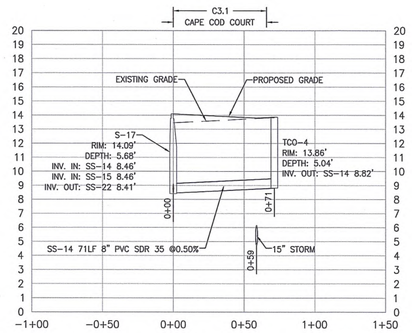
PROFILE OF VILLAGE 5 EX. D-7 TO S-13 CONT'D

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



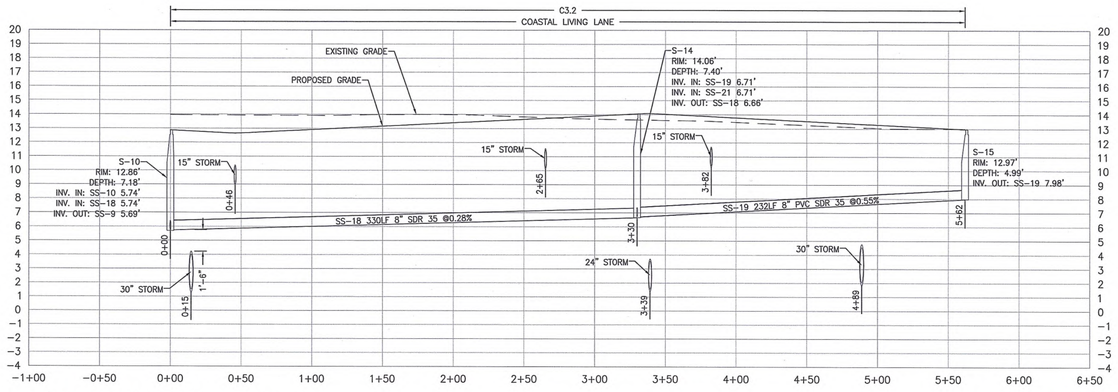
PROFILE OF S-20 TO TCO-3

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



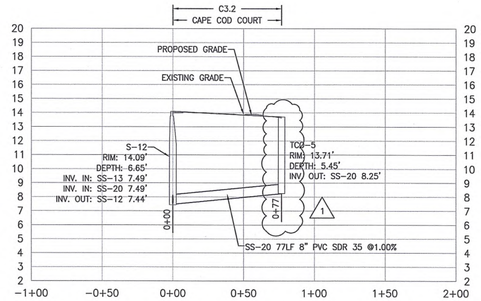
PROFILE OF S-17 TO TCO-4

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF VILLAGE 5 S-10 TO S-15

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF VILLAGE 5 S-12 TO TCO-5

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

NO.	REVISIONS	DATE
1	REVISED DUAL WYE TO SINGLE LATERALS	03/24/25
3	REVISED TO NEW PHASING	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

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3 11/21/2025

VILLAGE 5 - SANITARY SEWER PROFILES

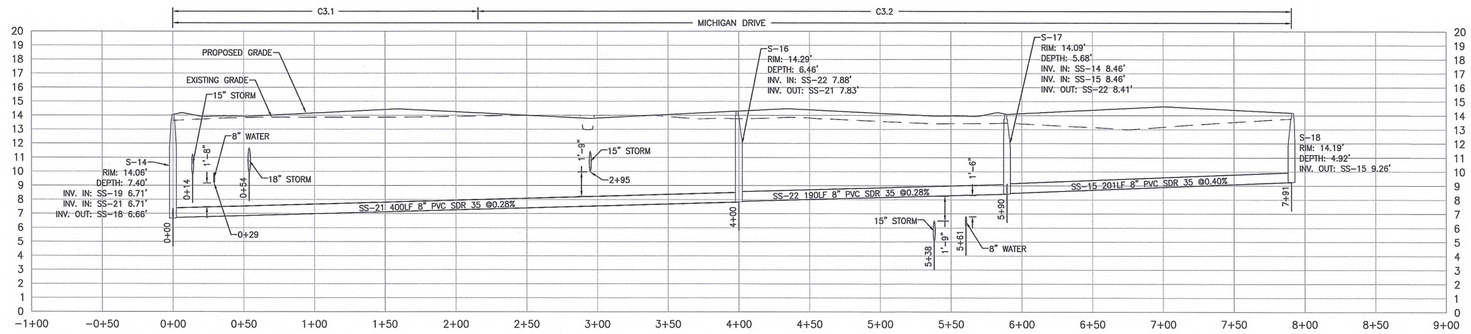
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DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C4.1

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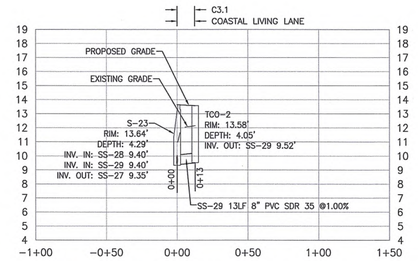
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PEN2-YELLOW .007 INCHES (.18mm)
PEN3-GREEN .010 INCHES (.25mm)
PEN4-CYAN .014 INCHES (.35mm)
PEN5-BLUE .020 INCHES (.50mm)
PEN6-MAGENTA .027 INCHES (.70mm)
PEN7-WHITE .039 INCHES (1.00mm)

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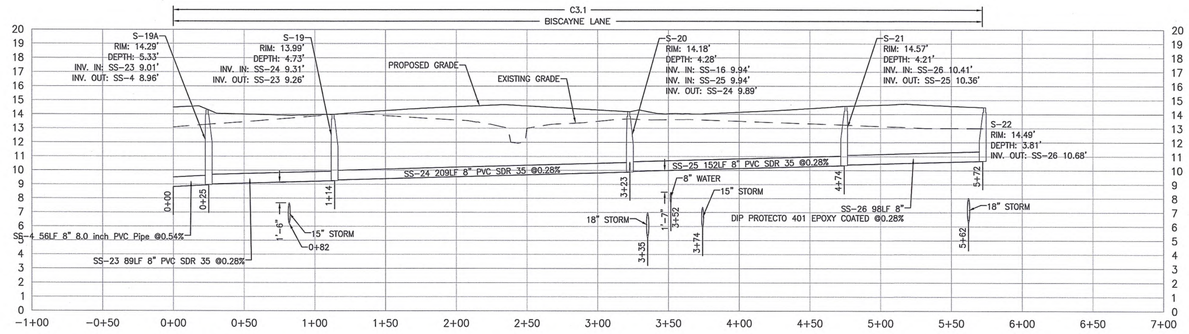
PROFILE OF VILLAGE 5 S-14 TO S-18

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



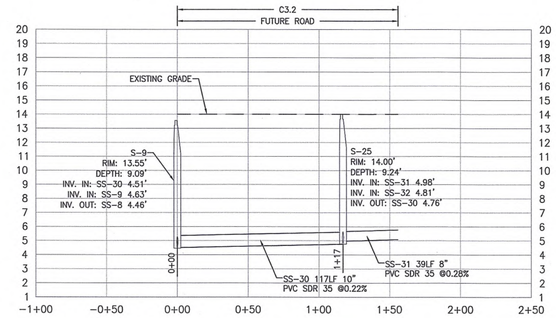
PROFILE OF VILLAGE 5 S-23 TO TCO-2

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



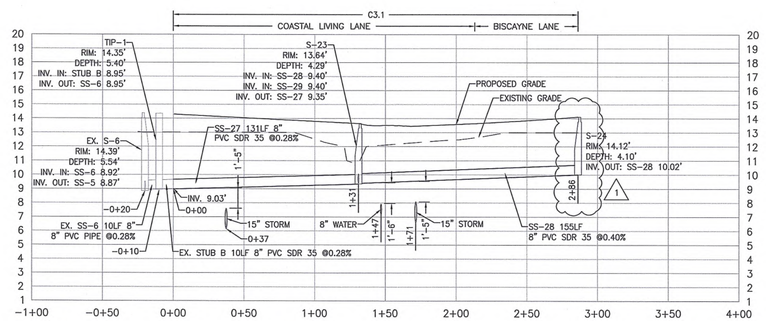
PROFILE OF EX TCO-1 TO S-22

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



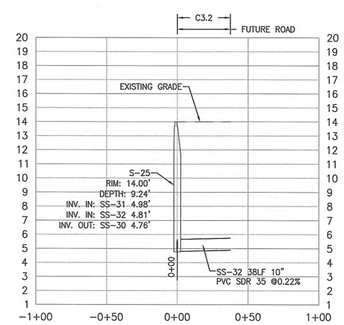
PROFILE OF VILLAGE 5 S-9 TO STUB

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF VILLAGE 5 EX S-6 TO S-24

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF VILLAGE 5 S-25 TO STUB

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

NO.	REVISIONS	DATE
1	REVISED DUAL WYE TO SINGLE LATERALS	03/24/25
3	REVISED TO NEW PHASING	09/24/25

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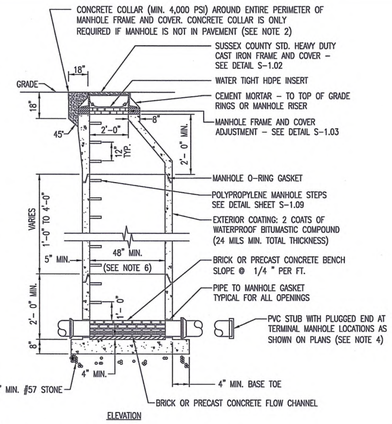
VILLAGE 5 - SANITARY SEWER PROFILES

SCALE	: AS SHOWN
DESIGN BY	: DLB
DRAWN BY	: CEM
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FILE #	: 200001-J
DATE	: JUN 2025

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C4.2

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PEN6-MAGENTA .007 INCHES (.17mm)
PEN5-BLUE .020 INCHES (.50mm)
PEN4-CYAN .014 INCHES (.35mm)
PEN3-GREEN .010 INCHES (.25mm)
PEN2-YELLOW .007 INCHES (.18mm)
PEN1-RED .006 INCHES (.15mm)

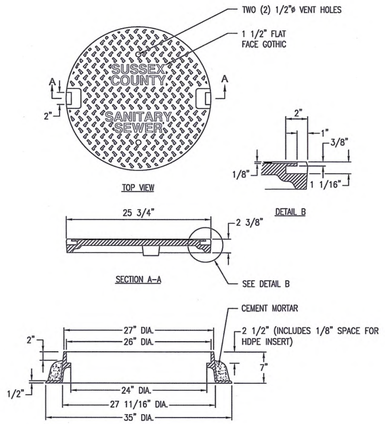


ELEVATION

NOTES:

1. PRECAST MANHOLE SHALL MEET THE REQUIREMENTS OF ASTM C-478 WITH MINIMUM 4,000 PSI CONCRETE STRENGTH AND TYPE I/II PORTLAND CEMENT. REINFORCING SHALL MEET THE REQUIREMENTS OF ASTM A-185 AND A-615 (REINFORCEMENT NOT SHOWN).
2. FOR MANHOLES LOCATED IN DELDOT ROADWAYS, THE FRAME MANHOLE STACK TRANSITION SHALL BE ORIENTED SUCH THAT FRAME AND COVER IS LOCATED OUTSIDE OF THE WHEEL PATH WHENEVER POSSIBLE. PROVIDE INDIVIDUAL CUT SHEETS FOR ALL MANHOLES INSTALLED WITHIN DELDOT ROADWAYS. DELDOT WILL REQUIRE A CONCRETE COLLAR ON STATE MAINTAINED ROADWAYS – REFER TO CURRENT DELDOT REQUIREMENTS.
3. CONCRETE COLLAR DIMENSIONS ALSO APPLY FOR TERMINAL CLEANOUTS WHEN TERMINAL CLEANOUTS ARE NOT IN PAVED ROADWAYS. ALL CONCRETE SHALL BE POURED AGAINST UNDISTURBED EARTH.
4. COUNTY INSPECTOR WILL DETERMINE STUB LENGTH BASED ON FIELD CONDITIONS.
5. CEMENT MORTAR SHALL BE APPLIED AT ALL JOINTS WITHIN MANHOLE.
6. SEE PLANS & SPECIFICATIONS FOR REQUIREMENTS FOR MANHOLES GREATER THAN 48" IN DIAMETER.

SUSSEX COUNTY ENGINEERING DEPARTMENT	PRECAST CONCRETE MANHOLE	DETAIL S-1.01
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021

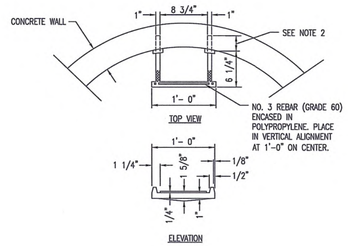


FRAME SECTION

NOTES:

1. SEWER MANHOLE COVERS INSTALLED IN PEDESTRIAN WALKWAY MUST BE ADA COMPLIANT.
2. MANHOLE FRAME AND COVER MUST BE PRODUCED AND FINISHED IN THE UNITED STATES.

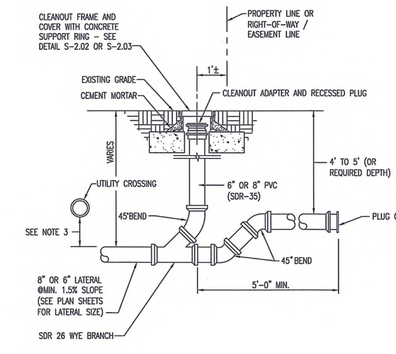
SUSSEX COUNTY ENGINEERING DEPARTMENT	MANHOLE FRAME AND COVER	DETAIL S-1.02
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 5/31/2022



NOTES:

1. STEPS SHALL BE ORIENTED OVER BENCH AND NOT FLOW CHANNEL. BOTTOM STEP SHALL BE 12" MAX. FROM TOP OF BENCH.
2. EMBEDMENT LENGTH OF REBAR SHALL BE SUITABLE FOR 5" MIN. WALL THICKNESS.

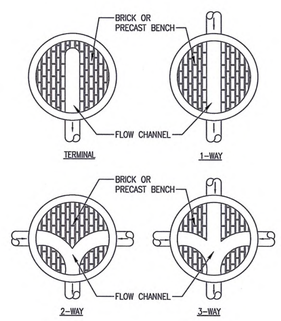
SUSSEX COUNTY ENGINEERING DEPARTMENT	MANHOLE STEP	DETAIL S-1.09
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



NOTES:

1. DEEP LATERAL CLEANOUT DETAIL APPLIES TO BOTH 6" AND 8" LATERALS.
2. A MINIMUM OF 3" CLEARANCE SHALL BE PROVIDED BETWEEN CLEANOUT COVER AND CLEANOUT TOP.
3. MINIMUM CLEARANCE IS 18" TO WATER MAIN, AND 12" TO ALL OTHER UTILITIES.

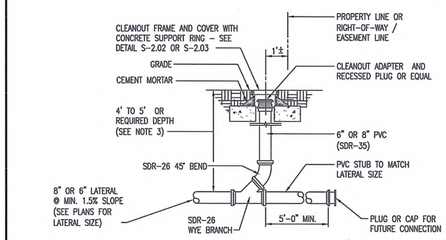
SUSSEX COUNTY ENGINEERING DEPARTMENT	DEEP SEWER LATERAL CLEANOUT	DETAIL S-2.04
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



NOTES:

1. PRECAST CONCRETE CHANNELS MAY BE PROVIDED AS AN ALTERNATIVE TO BRICK FLOW CHANNEL AND BENCH.
2. BENCH SHALL BE PROVIDED UP TO PIPE CROWN.

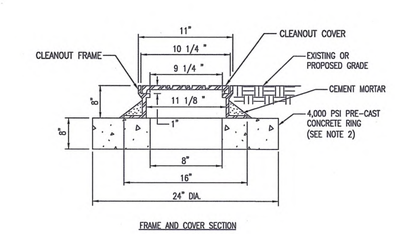
SUSSEX COUNTY ENGINEERING DEPARTMENT	MANHOLE FLOW CHANNEL	DETAIL S-1.10
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



NOTES:

1. CLEANOUT SHALL NOT TO BE LOCATED WITHIN LIMITS OF DITCH, SWALE, ETC.
2. MAINTAIN 10' MIN. SEPARATION BETWEEN SEWER AND WATER LINES.
3. MINIMUM DEPTH OF SEWER LATERAL AT ANY POINT INCLUDING UNDER DITCHES, SWALES, ETC. SHALL BE 30 INCHES. NOMINAL DEPTH SHALL BE AS NOTED ABOVE.
4. SIZE OF PVC LATERAL STUB TO MATCH LATERAL SIZE.
5. PROVIDE BETWEEN 3" AND 6" OF CLEARANCE BETWEEN CLEANOUT COVER AND CLEANOUT TOP.
6. ALL CLEANOUT DEPTHS LABELED AS CRITICAL DEPTH LATERALS SHALL BE INSTALLED PER CONFIGURATION ON DETAIL S-2.05.
7. METALLIC DETECTABLE REINFORCED UNDERGROUND MARKING TAPE TO BE PLACED WITHIN ENTIRE LIMITS OF SEWER LATERAL TRENCH – REFER TO DETAIL S-3.01 FOR CONFIGURATION.

SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER LATERAL CLEANOUT	DETAIL S-2.01
APPROVED: SUSSEX COUNTY ENGINEER		LAST REVISED: 10/11/2023

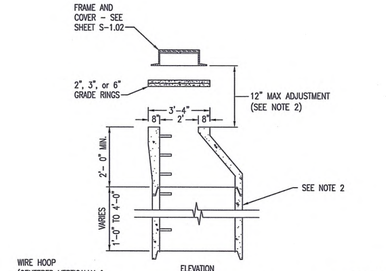


FRAME AND COVER SECTION

NOTES:

1. FRAME AND COVER ASSEMBLY SHALL BE CENTERED OVER CLEANOUT RISER.
2. HDPE COMPOSITE SUPPORT RING BASE MAY BE SUBSTITUTED FOR CONCRETE RING IN NON-TRAFFIC AREA. HDPE SUPPORT RING IS NOT PERMITTED IN TRAFFIC BEARING AREA.
3. CLEANOUT FRAME AND COVER SHALL BE INSTALLED BY UTILITY CONTRACTOR PRIOR TO SUBSTANTIAL COMPLETION INSPECTION FOR DEVELOPMENT PROJECTS.
4. MATERIAL FOR FRAME AND COVER SHALL BE HEAVY DUTY GRAY IRON CL35B MEETING THE REQUIREMENTS OF ASTM A48.
5. CLEANOUT COVER SHALL HAVE A RAISED DIAMOND PATTERN WITH A 2" MIN. RAISED "S" IMPRINTED IN SHARP FACE GOTHIC AT CENTER OF COVER. A SINGLE 1" MIN. WIDE PICKHOLE SHALL BE PROVIDED AT EDGE.
6. SEWER CLEANOUT COVERS LOCATED WITHIN A PEDESTRIAN WALKWAY MUST BE ADA COMPLIANT.
7. REFER TO CURRENT DELDOT REQUIREMENTS FOR INSTALLATIONS WITHIN DELDOT RIGHT-OF-WAY.

SUSSEX COUNTY ENGINEERING DEPARTMENT	6" SEWER LATERAL CLEANOUT FRAME AND COVER	DETAIL S-2.02
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 5/31/2022



NOTES:

1. PRECAST MANHOLE SHALL MEET THE REQUIREMENTS OF ASTM C-478 WITH MINIMUM 4,000 PSI CONCRETE STRENGTH AND TYPE I/II PORTLAND CEMENT.
2. IF ADJUSTMENT HEIGHT EXCEEDS 12", A ONE (1) FOOT RISER INSTALLED BELOW CONE SECTION WILL BE REQUIRED. A MAXIMUM OF THREE (3) GRADE RINGS WILL BE ALLOWED.
3. ALTERNATE MATERIAL GRADE RINGS MAY BE USED FOR MANHOLES LOCATED OUTSIDE OF ROADWAY LIMITS, SUBJECT TO COUNTY APPROVAL.
4. BRICK ADJUSTMENT COURSES PERMITTED, SUBJECT TO DIMENSION REQUIREMENTS NOTED ABOVE.
5. CONCRETE RING SHALL HAVE A DESIGN STRENGTH OF 5000 PSI IN 28 DAYS – DESIGN SHALL MEET REQUIREMENTS OF ASTM C-478

SUSSEX COUNTY ENGINEERING DEPARTMENT	MANHOLE FRAME AND COVER ADJUSTMENT	DETAIL S-1.03
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021

NO.	REVISIONS	DATE
3	REVISED TO NEW PHASING	09/24/25

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CHRISTOPHER J. PFEIFER LICENSE No. 20597 DELAWARE PROFESSIONAL ENGINEER
3
11/21/2025

VILLAGE 5 - SANITARY SEWER DETAILS

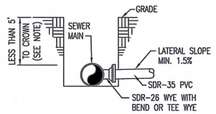
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DATE	: JUN 2025

SHEET NO. C5.1

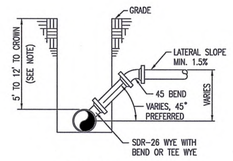
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PLOT CODE
PEN1-WHITE .039 INCHES (1.00mm)
PEN4-MAGENTA .027 INCHES (.70mm)
PEN5-BLUE .020 INCHES (.50mm)
PEN6-GREEN .014 INCHES (.35mm)
PEN2-YELLOW .010 INCHES (.25mm)
PEN3-RED .007 INCHES (.18mm)
PEN7-GREY .006 INCHES (.15mm)

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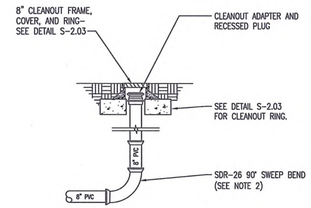
SHALLOW CONFIGURATION



DEEP CONFIGURATION

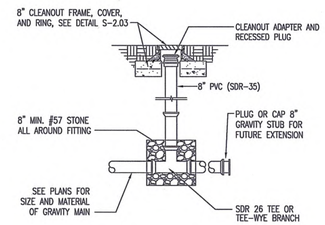
NOTE:
LATERALS SHOWN ON THE PLANS AS CRITICAL DEPTH LATERALS WILL BE INSTALLED IN THE SAME FASHION AS SHALLOW LATERALS REGARDLESS OF THE TRENCH DEPTH. FOR MAINS GREATER THAN 12' TO CROWN SEE RISER DETAIL S-2.06.

SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER LATERAL CONNECTIONS	DETAIL S-2.05
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 10/5/2022



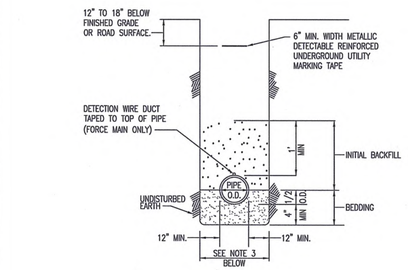
NOTES:
1. PROVIDE BETWEEN 3" AND 6" OF CLEARANCE BETWEEN CLEANOUT COVER AND CLEANOUT TOP.
2. STONE BEDDING SHALL BE PLACED AROUND 90° BEND PER DETAIL S-2.09 FOR ALL DEPTHS.
3. SEE DETAIL S-1.01 FOR CONCRETE COLLAR REQUIREMENTS.

SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER TERMINAL CLEANOUT	DETAIL S-2.07
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



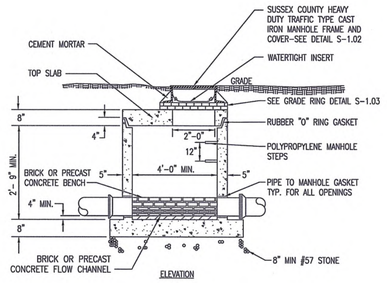
NOTES:
1. PROVIDE BETWEEN 3" AND 6" OF CLEARANCE BETWEEN CLEANOUT COVER AND CLEANOUT TOP.
2. ALL INVERTS OF TEE-WYE CONNECTIONS SHALL BE FIELD SURVEYED FOR FINAL AS-BUILTS.
3. TEE INSPECTION PORT SHALL BE REMOVED AT THE TIME OF EXTENSION OF GRAVITY SEWER SYSTEM.

SUSSEX COUNTY ENGINEERING DEPARTMENT	TEE INSPECTION PORT FOR FUTURE SEWER EXTENSIONS	DETAIL S-2.09
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



NOTES:
1. THIS DETAIL APPLIES TO BOTH GRAVITY AND FORCE MAIN SEWER INSTALLATIONS.
2. #57 STONE IS REQUIRED FOR BEDDING MATERIAL AND INITIAL BACKFILL TO 12" ABOVE THE PIPE CROWN FOR ALL SEWER INSTALLATIONS 12' DEEP AND GREATER. FOR INSTALLATIONS LESS THAN 12' DEEP, INITIAL BACKFILL MATERIAL REQUIREMENTS MAY BE MODIFIED BASED ON FIELD CONDITIONS, AS APPROVED BY THE COUNTY. ABOVE INITIAL BACKFILL, MATERIAL MEETING THE REQUIREMENTS OF TYPE F BORROW PER DELDOT'S SPECIFICATIONS SHALL BE USED.
3. FOR INSTALLATION WITHIN LIMITS OF DELDOT ROADWAY AND/OR RIGHT-OF-WAY, TRENCH CONFIGURATIONS AND BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH CURRENT DELDOT REQUIREMENTS.

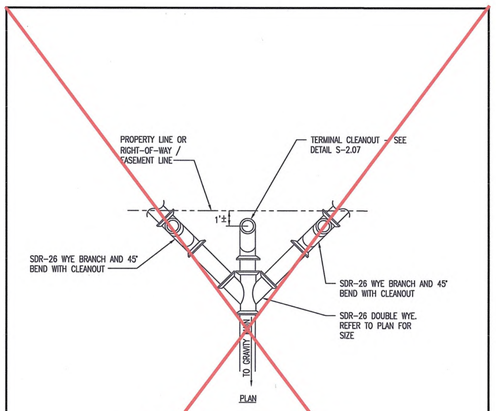
SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER TRENCH	DETAIL S-3.01
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



ELEVATION

NOTE:
SEE DETAIL S-1.01 FOR ADDITIONAL MANHOLE DETAILS.

SUSSEX COUNTY ENGINEERING DEPARTMENT	48" DIAMETER SHALLOW PRECAST MANHOLE	DETAIL S-1.05
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



PLAN

NOTES:
1. REFER TO APPROPRIATE SEWER CLEANOUT DETAILS FOR STANDARD CONFIGURATIONS.
2. REFER TO PLAN FOR LATERAL AND CLEANOUT SIZE.

SUSSEX COUNTY ENGINEERING DEPARTMENT	DUAL WYE SEWER CLEANOUT	DETAIL S-2.08
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021

1

NO.	REVISIONS	DATE
1	REVISED DUAL WYE TO SINGLE LATERALS	03/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J PFEIFER LICENSE No. 20507 DELAWARE PROFESSIONAL ENGINEER
11/21/2025

VILLAGE 5 - SANITARY SEWER DETAILS

SCALE	: AS SHOWN
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C5.2

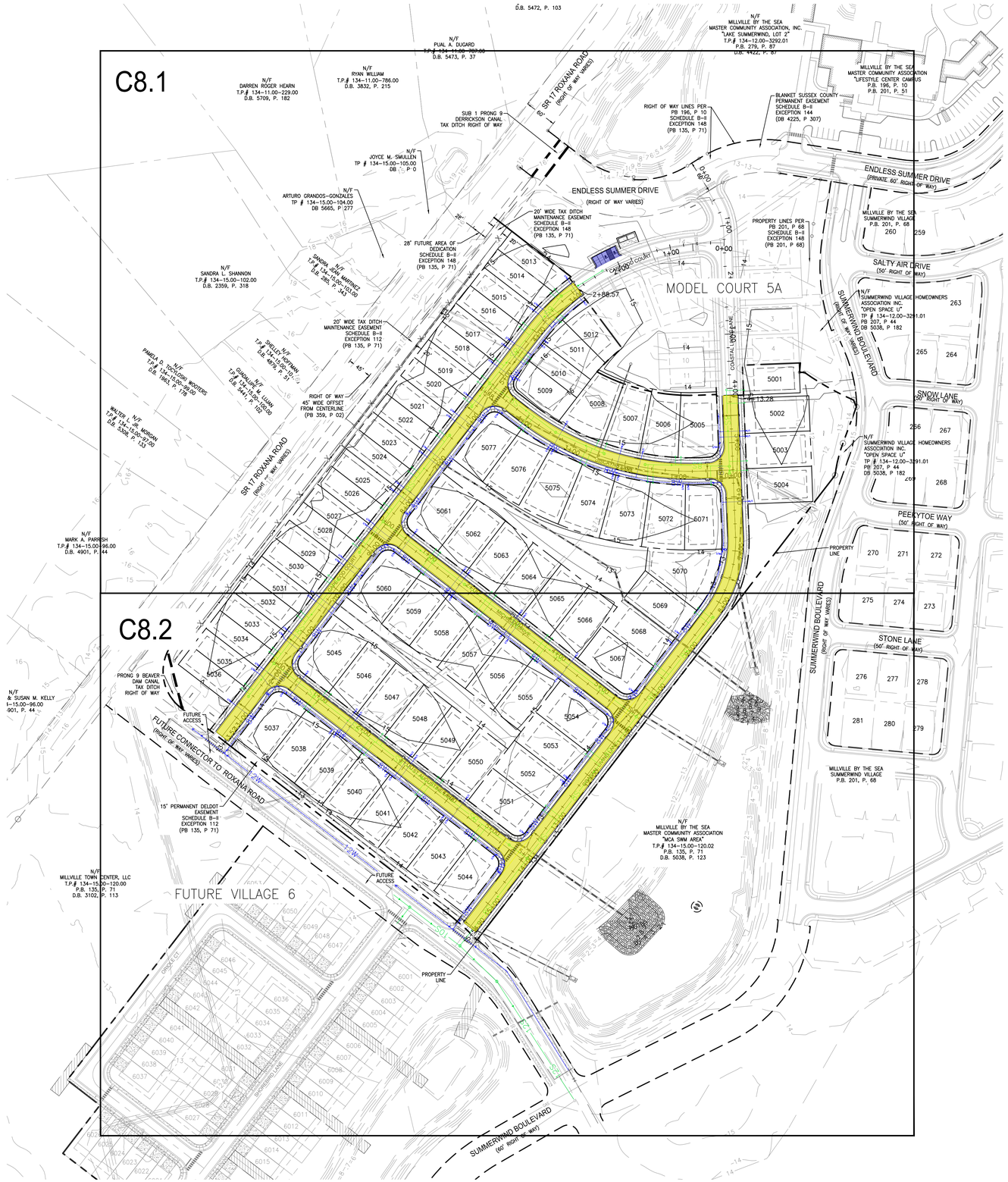
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PLOT CODE
PEN1-RED .008 INCHES (.19mm)
PEN2-YELLOW .027 INCHES (.69mm)
PEN3-GREEN .010 INCHES (.25mm)
PEN4-CYAN .014 INCHES (.35mm)
PEN5-BLUE .020 INCHES (.50mm)
PEN6-MAGENTA .027 INCHES (.70mm)
PEN7-WHITE .039 INCHES (1.00mm)

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C8.1

C8.2



ADT 1-500

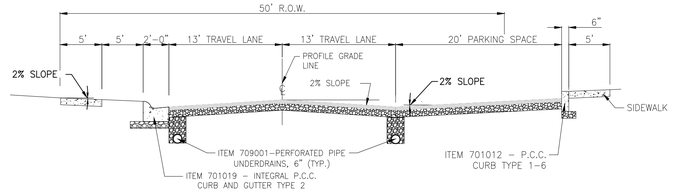
ADT 501-1000

ADT 1001-2000

ADT 2001-3000

0 50 100 200 300

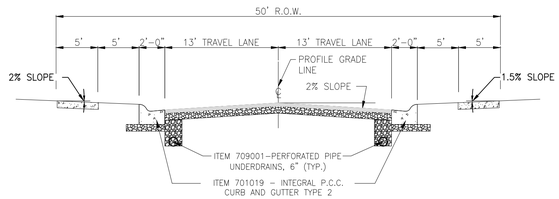
SCALE: 1" = 100'



TYPICAL SUBDIVISION ROAD CROSS SECTION W/ PARKING

NO SCALE

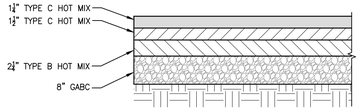
NOTES:
1. 1.5% CROSS SLOPE PREFERRED. 2% MAXIMUM CROSS SLOPE. SIDEWALK TO BE MINIMUM 4" P.C.C. OVER 4" GABC.
2. UNDERDRAINS SHALL BE INSTALL A MINIMUM OF 150 FEET IN EACH DIRECTION OF ALL SUMP LOCATIONS.
3. A 6:1 MAX. SLOPE IS REQUIRED FOR 2'-0" ON BOTH SIDES OF SIDEWALK.



TYPICAL SUBDIVISION ROAD CROSS SECTION

NO SCALE

NOTES:
1. 1.5% CROSS SLOPE PREFERRED. 2% MAXIMUM CROSS SLOPE. SIDEWALK TO BE MINIMUM 4" P.C.C. OVER 4" GABC.
2. UNDERDRAINS SHALL BE INSTALL A MINIMUM OF 150 FEET IN EACH DIRECTION OF ALL SUMP LOCATIONS.
3. A 6:1 MAX. SLOPE IS REQUIRED FOR 2'-0" ON BOTH SIDES OF SIDEWALK.

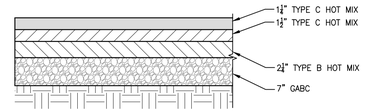


FULL DEPTH PAVEMENT DETAIL (ADT 501-1000)

NO SCALE

PAVEMENT SECTION STRUCTURAL NUMBER

SECTION THICKNESS	STRUCTURAL NUMBER
1½" TYPE C	.5
1½" TYPE C	.6
2½" TYPE B	.9
8" GABC	1.12
TOTAL	3.12



FULL DEPTH PAVEMENT DETAIL (ADT 1-500)

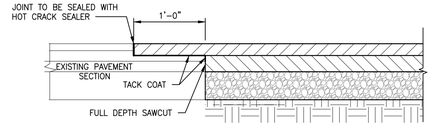
NO SCALE

PAVEMENT SECTION STRUCTURAL NUMBER

SECTION THICKNESS	STRUCTURAL NUMBER
1½" TYPE C	.5
1½" TYPE C	.6
2½" TYPE B	.9
7" GABC	.98
TOTAL	2.98

ROTOMILL TO 2" BELOW FINISH GRADE AND REPLACE WITH BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 64-22

JOINT TO BE SEALED WITH HOT CRACK SEALER



PAVEMENT TIE-IN DETAIL

NO SCALE

LEGEND

EXISTING

- PROPERTY LINE/RIGHT OF WAY
- CONTOUR
- EASEMENT
- PAVED ROAD
- SANITARY SEWER, MANHOLE AND CLEANOUT
- SANITARY SEWER FORCE MAIN
- STORM DRAIN, INLET AND MANHOLE
- WATER MAIN, VALVE AND HYDRANT

PROPOSED

- CONTOUR
- SPOT ELEVATION
- CONCRETE
- SANITARY SEWER, MANHOLE AND CLEANOUT
- STORM DRAIN, INLET AND MANHOLE
- CURB & GUTTER
- WATER MAIN, VALVE AND METER

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

2

VILLAGE 5 - ROAD PLAN KEY SHEET

SCALE	: 1" = 100'
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C8.0

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PLOT CODE
PEN1-RED 206 INCHES/S (5mm)
PEN2-YELLOW 207 INCHES/S (5mm)
PEN3-GREEN 208 INCHES/S (5mm)
PEN4-CYAN 209 INCHES/S (5mm)
PEN5-BLUE 210 INCHES/S (5mm)
PEN6-MAGENTA 211 INCHES/S (5mm)
PEN7-WHITE 212 INCHES/S (5mm)

G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C8.0 Road Plan Key Sheet.dwg, 2/18/2026, DJ L. White

N/F
DARREN ROGER HEARN
T.P.# 134-11.00-229.00
D.B. 5709, P. 182

N/F
RYAN WILLIAM
T.P.# 134-11.00-786.00
D.B. 3832, P. 215

SR 17 ROXANA ROAD
(RIGHT OF WAY VARIES)
80'

BLANKET SUSSEX COUNTY
PERMANENT EASEMENT
SCHEDULE B-II
EXCEPTION 144
(DB 4225, P 307)

MILLVILLE BY THE SEA
MASTER COMMUNITY ASSOCIATION
"LIFESTYLE CENTER CAMPUS
P.B. 196, P. 10
P.B. 201, P. 51

RIGHT OF WAY LINES PER
PB 196, P 10
SCHEDULE B-II
EXCEPTION 148
(PB 135, P 71)

SUB 1 PRONG 9
DERRICKSON CANAL
TAX DITCH RIGHT OF WAY

N/F
JOYCE M. SMULLEN
TP # 134-15.00-105.00
DB 0, P 0

ENDLESS SUMMER DRIVE
(RIGHT OF WAY VARIES)

ENDLESS SUMMER DRIVE
(PRIVATE 60' RIGHT OF WAY)

20' WIDE TAX DITCH
MAINTENANCE EASEMENT
SCHEDULE B-II
EXCEPTION 148
(PB 135, P 71)

N/F
ARTURO GRANDOS-GONZALES
TP # 134-15.00-104.00
DB 5665, P 277

28' FUTURE AREA OF
DEDICATION
SCHEDULE B-II
EXCEPTION 148
(PB 135, P 71)

MILLVILLE BY THE SEA
SUMMERWIND VILLAGE
P.B. 201, P. 68

PROPERTY LINES PER
PB 201, P. 68
SCHEDULE B-II
EXCEPTION 148
(PB 201, P. 68)

SALTY AIR DRIVE
(50' RIGHT OF WAY)

N/F
SANDRA L. SHANNON
T.P.# 134-15.00-102.00
D.B. 2359, P. 318

N/F
SANDRA JEAN MARTINEZ
T.P.# 134-15.00-103.00
D.B. 2885, P. 343

CAPE COD COURT

20' WIDE TAX DITCH
MAINTENANCE EASEMENT
SCHEDULE B-II
EXCEPTION 112
(PB 135, P 71)

RIGHT OF WAY
45' WIDE OFFSET FROM
CENTERLINE
(PB 359, P 02)

N/F
SHIELA L. HOFFMAN
T.P.# 134-15.00-101.00
D.B. 4678, P. 37

N/F
PAMELA D. TOCZYLOSKI WOOTERS
T.P.# 134-15.00-99.00
D.B. 1963, P. 178

N/F
GUADALUPE M. LUJAN
T.P.# 134-15.00-100.00
D.B. 5441, P. 109

N/F
WALTER L. JR. MORGAN
T.P.# 134-15.00-97.00
D.B. 5308, P. 133

COASTAL LIVING LANE

SUMMERWIND BOULEVARD
(RIGHT OF WAY VARIES)

N/F
SUMMERWIND VILLAGE HOMEOWNERS
ASSOCIATION INC.
"OPEN SPACE U"
TP # 134-12.00-3291.01
PB 207, P 44
DB 5038, P 182

SR 17 ROXANA ROAD
(RIGHT OF WAY VARIES)

BISCAYNE LANE

MICHIGAN DRIVE

PEEKYT
(50' RIGH

PROPERTY
LINE

ACCESS

SEE SHEET C8.2 FOR CONTINUATION

CONSTRUCTION NOTES

1. INSTALL 5' WIDE SIDEWALK. SEE DETAIL ON SHEET C9.1.
2. INSTALL INTEGRAL P.C.C CURB & GUTTER TYPE 2. SEE DETAIL ON SHEET C9.1.
3. INSTALL FIRE HYDRANT. SEE DETAIL ON SHEET C13.1.
4. INSTALL HANDICAP RAMP. SEE DETAIL ON SHEET C9.1.
5. SEE SHEET C8.3 FOR CAPE COD COURT AND COASTAL LIVING LANE PROFILES.
6. SEE SHEET C8.4 FOR BISCAYNE LANE AND MICHIGAN DRIVE PROFILES.
7. CROSSWALK (TYP).
8. PROPOSED PRIVACY FENCE. SEE SHEET C9.2 FOR CONCEPTUAL DESIGN. CONTRACTOR TO COORDINATE FINAL PRODUCT WITH THE TOWN OF MILLVILLE PRIOR TO CONSTRUCTION.
9. PROPOSED MAIL KIOSK. SEE SHEET C9.2 FOR CONCEPTUAL DESIGN. CONTRACTOR TO COORDINATE FINAL PRODUCT WITH THE TOWN OF MILLVILLE PRIOR TO CONSTRUCTION.
10. PROPOSED PERGOLA. SEE SHEET C9.2 FOR CONCEPTUAL DESIGN. CONTRACTOR TO COORDINATE FINAL PRODUCT WITH THE TOWN OF MILLVILLE PRIOR TO CONSTRUCTION.
11. SAW CUT AND REMOVE EXISITNG SIDEWALK AND CURBING AT THE LIMITS OF THE PROPOSED CURB AND PARKING.
12. TRANSITION FROM PCC BURB AND GUTTER TYPE 2 TO PCC CURB TYPE 1-6
13. PCC CURB TYPE 1-6. SEE DETAIL ON SHEET C9.1.
14. TIE IN PAVEMENT TO EXISITNG LINE AND GRADE. SEE PAVEMENT TIE IN DETIAL ON SHEET C9.1.

0 25 50 100 150
SCALE: 1" = 50'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

△2

VILLAGE 5 - ROAD PLAN

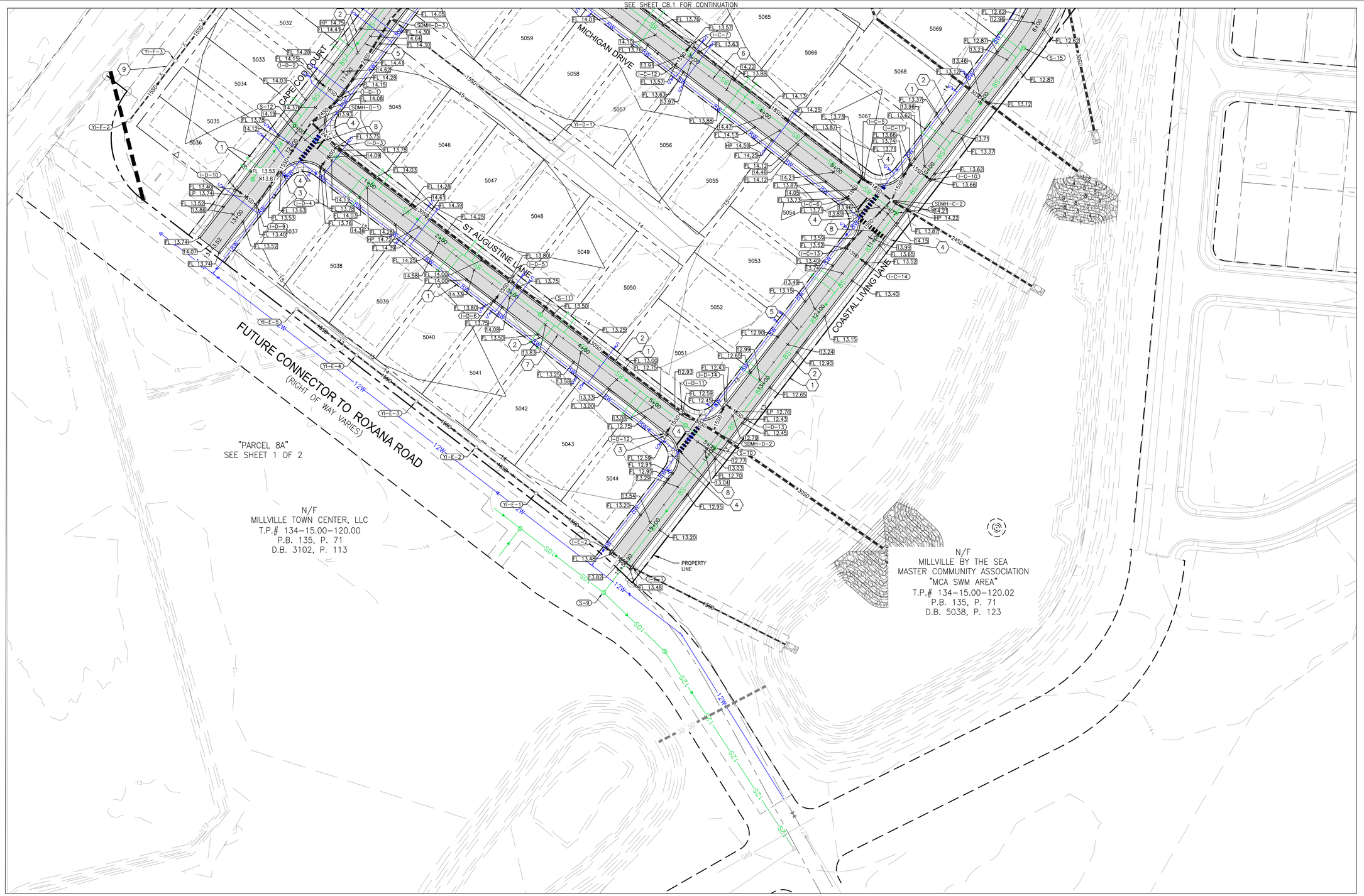
SCALE	: 1" = 50'
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C8.1

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PLOT CODE
PEN1-WHITE 039 INCHES (1.00mm)
PEN2-MAGENTA 027 INCHES (.70mm)
PEN3-BLUE 001 INCHES (.03mm)
PEN4-CYAN 014 INCHES (.35mm)
PEN5-GREEN 010 INCHES (.25mm)
PEN6-YELLOW 007 INCHES (.18mm)
PEN7-RED 006 INCHES (.15mm)

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CONSTRUCTION NOTES

1. INSTALL 5' WIDE SIDEWALK. SEE DETAIL ON SHEET C9.1.
2. INSTALL INTEGRAL P.C.C CURB & GUTTER TYPE 2. SEE DETAIL ON SHEET C9.1.
3. INSTALL FIRE HYDRANT. SEE DETAIL ON SHEET C13.1.
4. INSTALL HANDICAP RAMP. SEE DETAIL ON SHEET C9.1.
5. SEE SHEET C8.3 FOR CAPE COD COURT AND COASTAL LIVING LANE PROFILES.
6. SEE SHEET C8.4 FOR BISCAYNE LANE AND MICHIGAN DRIVE PROFILES.
7. SEE SHEET C8.5 FOR ST AUGUSTINE LANE PROFILE.
8. CROSSWALK (TYP).
9. PROPOSED PRIVACY FENCE. SEE SHEET C9.3 FOR CONCEPTUAL DESIGN. CONTRACTOR TO COORDINATE FINAL PRODUCT WITH THE TOWN OF MILLVILLE PRIOR TO CONSTRUCTION.

0 25 50 100 150
SCALE: 1" = 50'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

2

VILLAGE 5 - ROAD PLAN

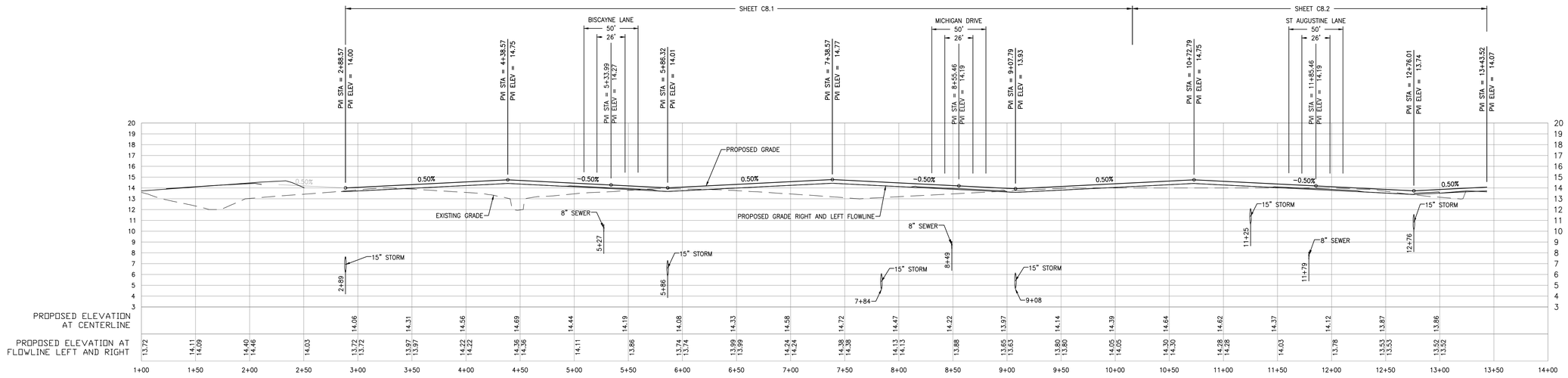
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DRAWN BY	: CEM
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FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C8.2

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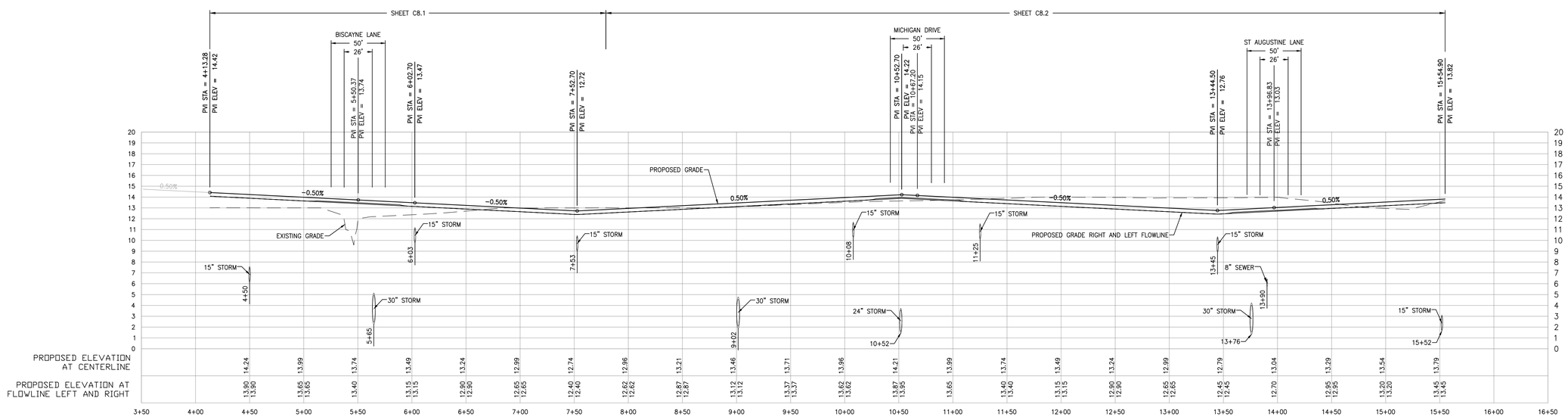
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PEN2-YELLOW .007 INCHES (.18mm)
PEN3-GREEN .007 INCHES (.18mm)
PEN4-CYAN .014 INCHES (.35mm)
PEN5-BLUE .020 INCHES (.50mm)
PEN6-MAGENTA .007 INCHES (.18mm)
PEN7-WHITE .039 INCHES (1.00mm)

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PROFILE OF VILLAGE 5 CAPE COD COURT

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF VILLAGE 5 COASTAL LIVING LANE

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

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PLOT CODE
PEN1-RED 206 INCHES (.15mm)
PEN2-YELLOW 207 INCHES (.1mm)
PEN3-GREEN 213 INCHES (.25mm)
PEN4-CYAN 214 INCHES (.15mm)
PEN5-BLUE 221 INCHES (.50mm)
PEN6-MAGENTA 227 INCHES (.70mm)
PEN7-WHITE 239 INCHES (1.00mm)

DATE
REVISIONS
NO.

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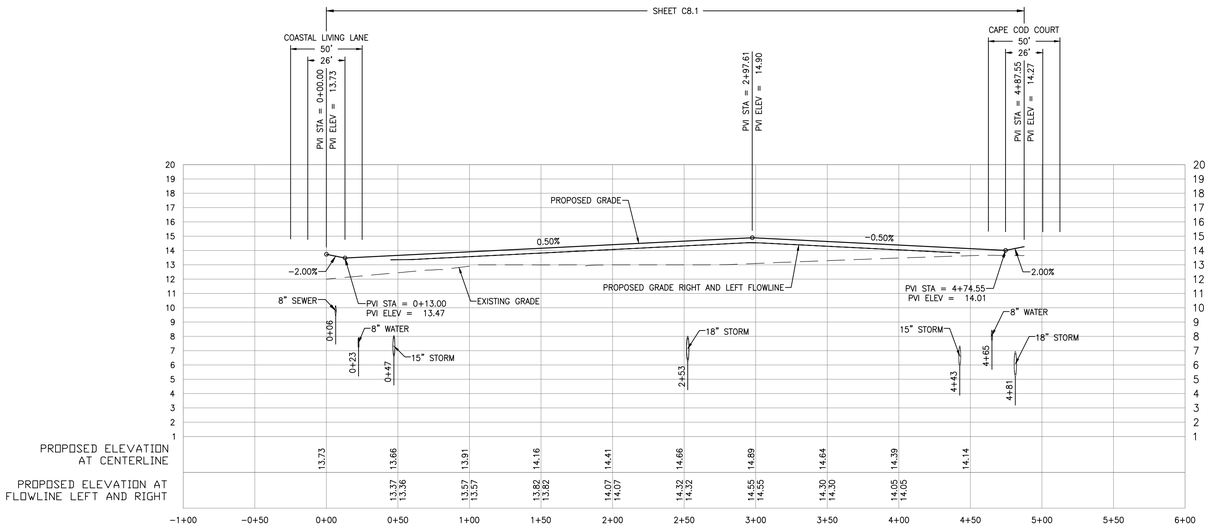
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VILLAGE 5 -
ROAD PROFILES

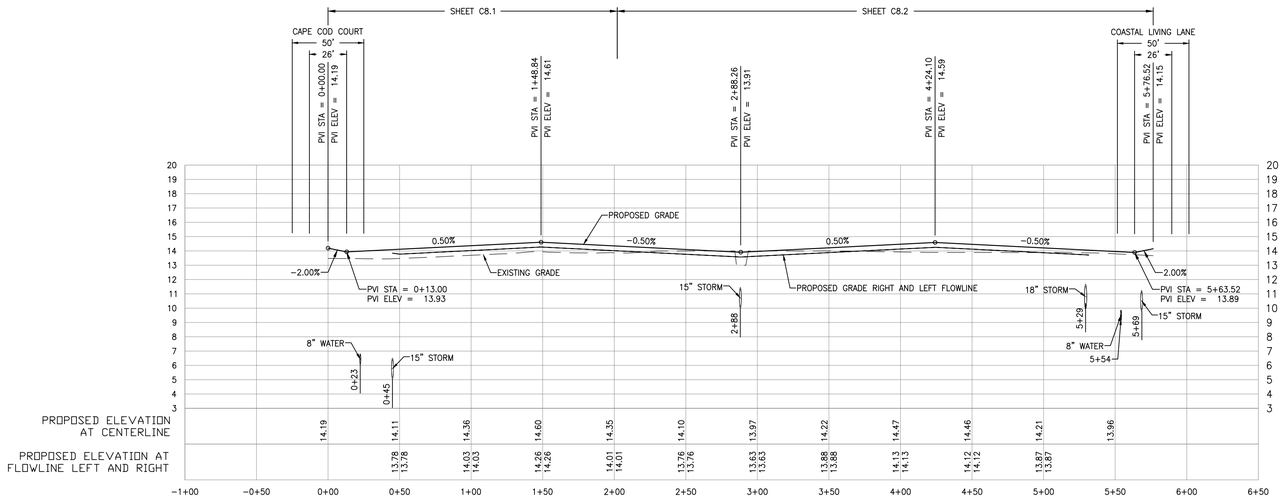
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DESIGN BY : DLB	C8.3
DRAWN BY : CEM	
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FILE # : 200001-J	
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PROFILE OF VILLAGE 5 BISCAYNE LANE

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF VILLAGE 5 MICHIGAN DRIVE

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

PLOT CODE
PEN1-RED 206 INCHES (.15mm)
PEN2-YELLOW 207 INCHES (.15mm)
PEN3-GREEN 213 INCHES (.25mm)
PEN4-CYAN 214 INCHES (.35mm)
PEN5-BLUE 221 INCHES (.50mm)
PEN6-MAGENTA 227 INCHES (.70mm)
PEN7-WHITE 139 INCHES (1.00mm)

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NO.	REVISIONS	DATE

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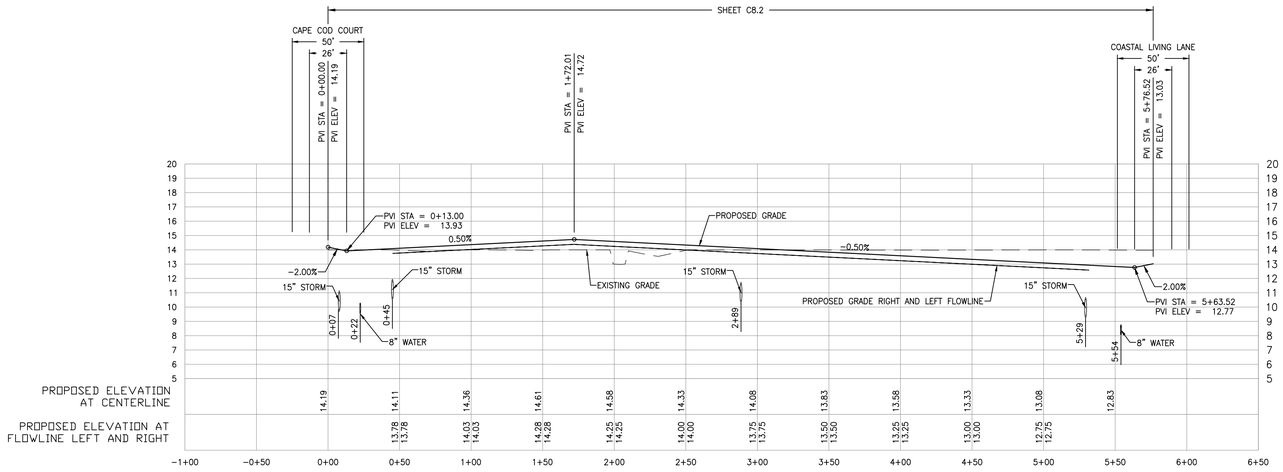
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VILLAGE 5 -
ROAD PROFILES

SCALE : AS SHOWN	SHEET NO.
DESIGN BY : DLB	C8.4
DRAWN BY : CEM	
CHECKED BY :	
FILE # : 200001-J	
DATE : JUN 2025	

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PROFILE OF VILLAGE 5 ST AUGUSTINE LANE

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

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PLOT CODE

PEN1-RED	PEN2-YELLOW	PEN3-GREEN	PEN4-CYAN	PEN5-BLUE	PEN6-MAGENTA	PEN7-WHITE
.006 INCHES (.15mm)	.007 INCHES (.18mm)	.010 INCHES (.25mm)	.014 INCHES (.35mm)	.020 INCHES (.50mm)	.027 INCHES (.69mm)	.039 INCHES (1.00mm)

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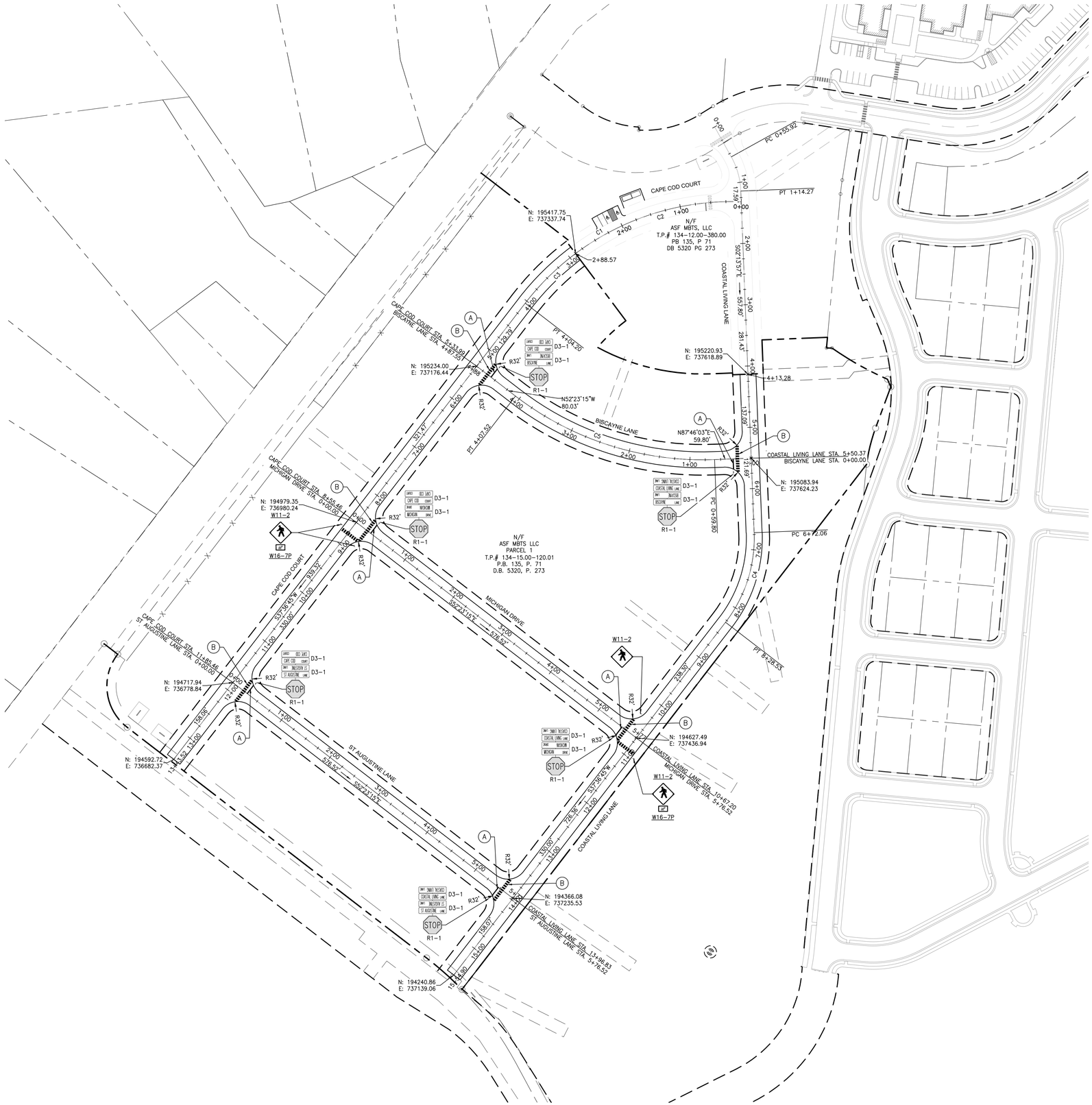
MILLVILLE BY THE SEA
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VILLAGE 5 -
ROAD PROFILES

SCALE : AS SHOWN	SHEET NO.
DESIGN BY : DLB	C8.5
DRAWN BY : CEM	
CHECKED BY :	
FILE # : 200001-J	
DATE : JUN 2025	

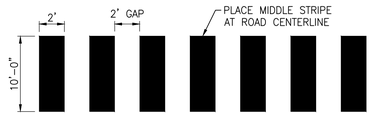
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NO.	REVISIONS	DATE



SIGNING AND STRIPING GENERAL NOTES

1. INSTALL FINAL PERMANENT PAVEMENT MARKINGS, EPOXY RESIN PAINT FOR LONG LINE STRIPING AND THERMO FOR SHORT LINE STRIPING (I.E. SYMBOLS/LEGENDS), IN ACCORDANCE WITH DELDOT STANDARD CONSTRUCTION DETAILS.
2. INSTALL ALL SIGNS ON BREAKAWAY POSTS IN ACCORDANCE WITH DELDOT STANDARD CONSTRUCTION DETAIL T-15.
3. THE DEVELOPER, LOCAL AGENCY, AND/OR PRIVATE OWNER SHALL ENSURE THAT THE TRAFFIC CONTROL DEVICES ON THE NON-STATE-MAINTAINED ROADWAYS OPEN TO PUBLIC TRAVEL ARE IN COMPLIANCE WITH THE DELAWARE MUTCD.
4. PAVEMENT MARKING AND STRIPING SHALL BE INSTALLED AFTER THE FINAL SURFACE COURSE OF PAVEMENT HAS BEEN APPLIED.



NOTE:
CROSSWALK STRIPING SHALL BE 2'-0" WIDE SOLID WHITE THERMO STRIPES WITH 2'-0" GAPS.

TYPICAL CROSSWALK STRIPING DETAIL

NO SCALE

PAVEMENT MARKINGS LEGEND	
SYMBOL	DESCRIPTION
A	16" SOLID WHITE STOP BAR
B	10' CROSSWALK (24" WHITE, 4' ON CENTER)

CURVE TABLE							
CURVE #	LENGTH	RADIUS	DELTA	CHORD DIRECTION	CHORD	BEGINNING COORDINATE	ENDING COORDINATE
C1	404.20'	425.00'	54.49	S64°51'31"W	389.14'	N 195502.14,E 737607.92	N 195336.81,E 737255.65
C2	288.57'	425.00'	38.90	S72°39'12"W	283.06'	N 195502.14,E 737607.92	N 195417.75,E 737337.74
C3	115.63'	425.00'	15.59	S45°24'25"W	115.28'	N 195417.75,E 737337.74	N 195336.81,E 737255.65
C4	156.47'	225.00'	39.85	S17°41'24"W	153.34'	N 194962.34,E 737628.97	N 194816.26,E 737582.38
C5	347.71'	500.00'	39.85	N72°18'36"W	340.75'	N 195081.62,E 737564.47	N 195185.16,E 737239.84

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 - GEOMETRY AND SIGNAGE PLAN

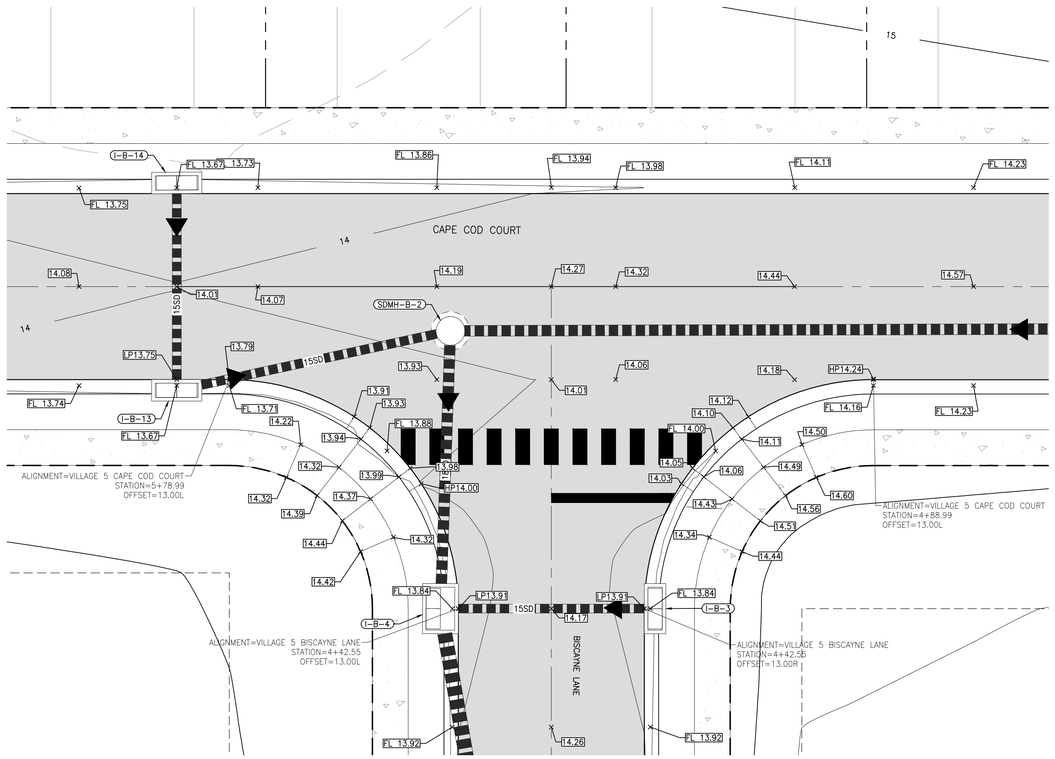
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CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C8.6

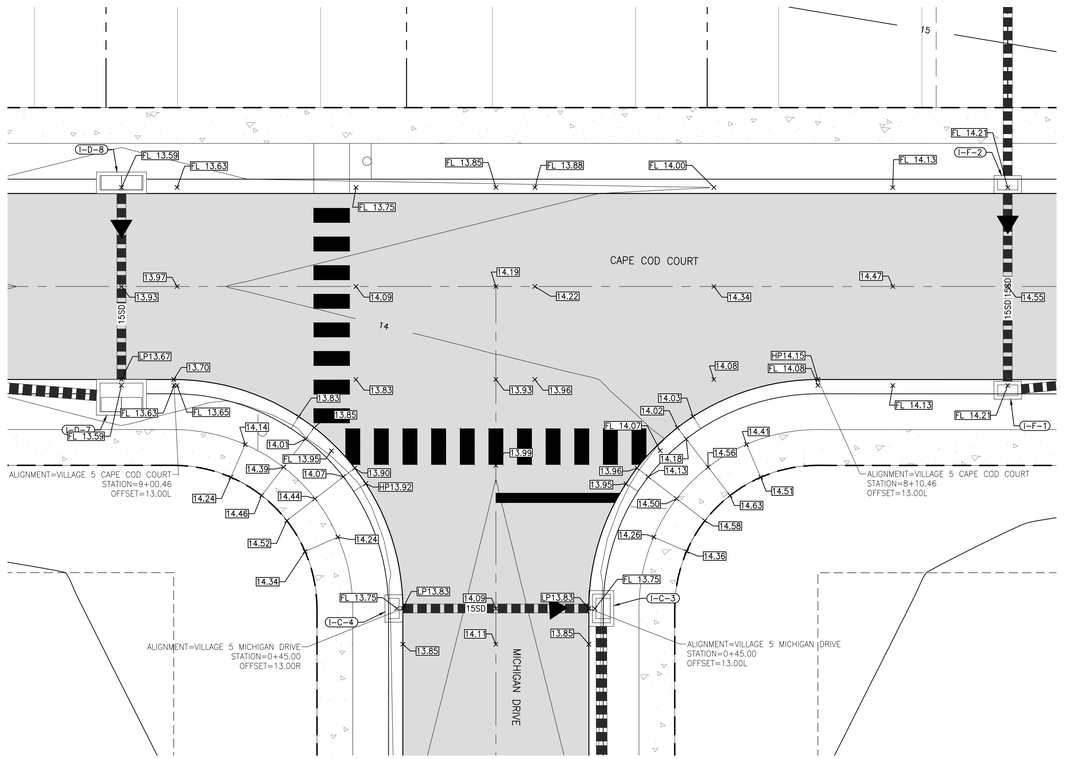
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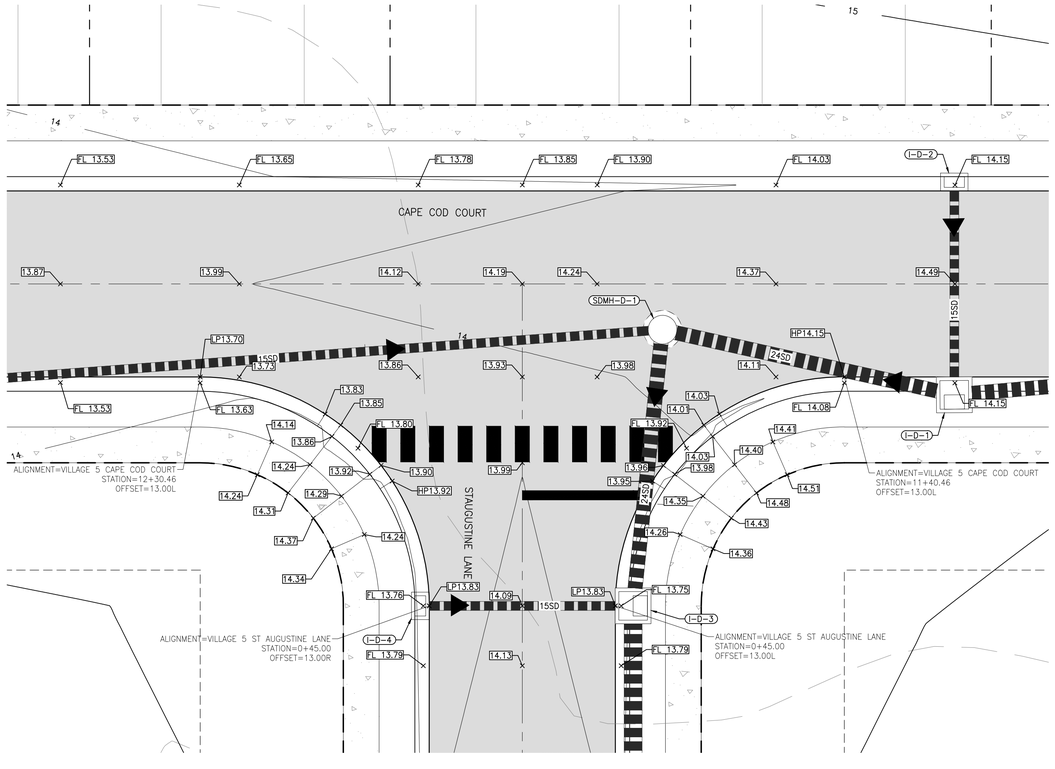
PLOT CODE
PEN1-WHITE 255 INCHES (100mm)
PEN2-MAGENTA 127 INCHES (50mm)
PEN3-BLUE 203 INCHES (80mm)
PEN4-CYAN 241 INCHES (95mm)
PEN5-GREEN 203 INCHES (80mm)
PEN6-YELLOW 203 INCHES (80mm)
PEN7-RED 206 INCHES (81mm)



INTERSECTION OF CAPE COD COURT AND BISCAYNE LANE



INTERSECTION OF CAPE COD COURT AND MICHIGAN DRIVE



INTERSECTION OF CAPE COD COURT AND STAUGUSTINE LANE

0 5 10 20 30
SCALE: 1" = 10'

PLOT CODE
PEN1-RED 205 INCHES (.13mm)
PEN2-YELLOW 207 INCHES (.13mm)
PEN3-GREEN 210 INCHES (.13mm)
PEN4-CYAN 214 INCHES (.13mm)
PEN5-BLUE 220 INCHES (.13mm)
PEN6-MAGENTA 227 INCHES (.13mm)
PEN7-WHITE 239 INCHES (.13mm)

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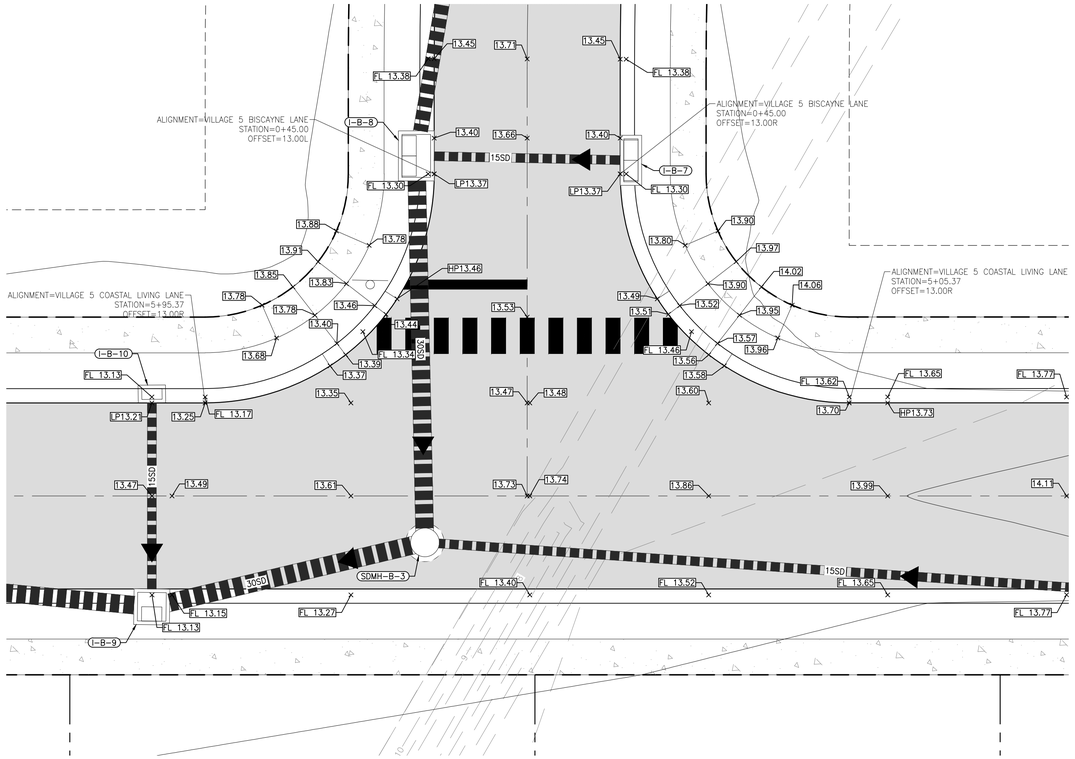
MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 - INTERSECTION GRADING PLAN

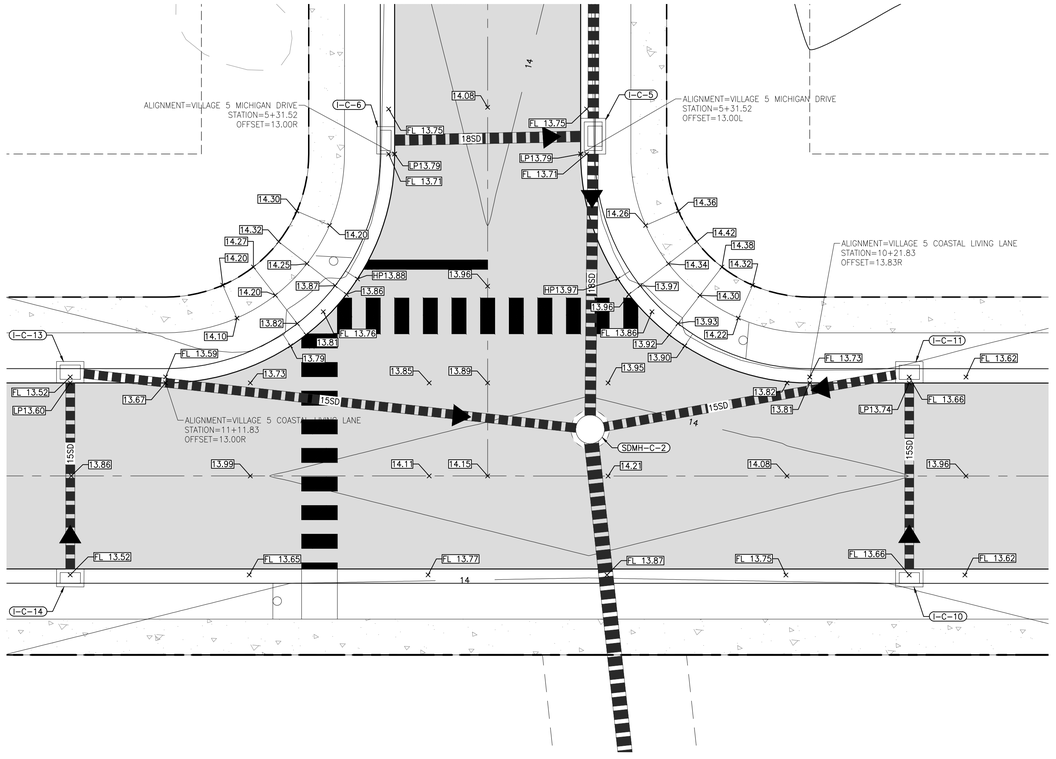
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FILE #	: 200001-J
DATE	: JUN 2025

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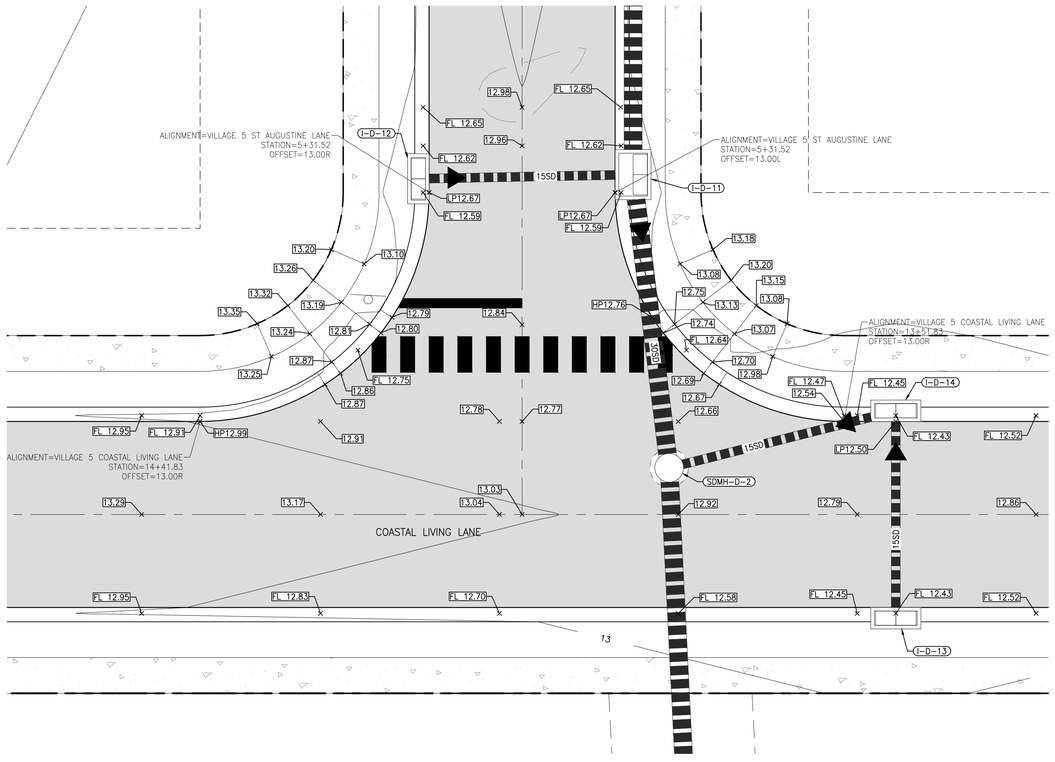
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INTERSECTION OF COASTAL LIVING LANE AND BISCAYNE LANE



INTERSECTION OF COASTAL LIVING LANE AND MICHIGAN DRIVE



INTERSECTION OF COASTAL LIVING LANE AND ST AUGUSTINE LANE

PLOT CODE
PEN1-WHITE 339 INCHES (100mm)
PEN4-MAGENTA 227 INCHES (100mm)
PEN5-BLUE 220 INCHES (100mm)
PEN6-CYAN 214 INCHES (100mm)
PEN3-GREEN 201 INCHES (100mm)
PEN2-YELLOW 207 INCHES (100mm)
PEN1-RED 206 INCHES (100mm)

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0 5 10 20 30
SCALE: 1" = 10'

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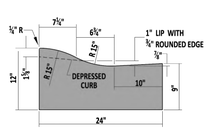
MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 - INTERSECTION GRADING PLAN

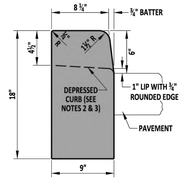
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CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

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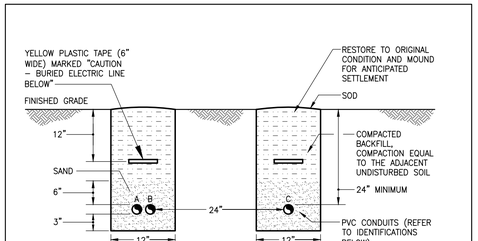
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INTEGRAL PCC CURB AND GUTTER
TYPE 2
NOT TO SCALE



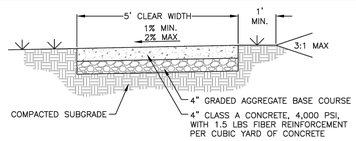
PCC CURB
TYPE 1-6
NOT TO SCALE



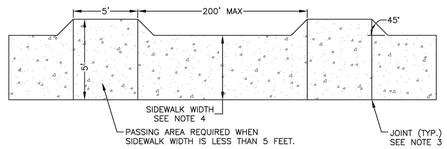
ELECTRICAL & COMMUNICATIONS TRENCH DETAIL

NOT TO SCALE

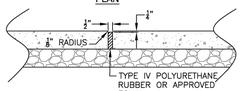
CONDUIT IDENTIFICATIONS:
A) 4" – ELECTRICAL
B) 4" – CABLE
C) 4" – TELEPHONE



SECTION



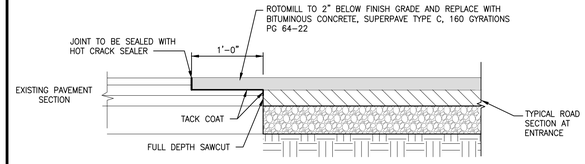
PLAN



EXPANSION JOINT

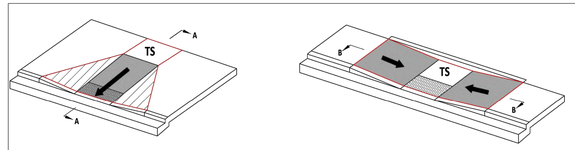
NOTES
1. CONCRETE SIDEWALKS SHALL BE CONTINUOUS AND SHALL NOT BREAK OR STOP AT PROPERTY ACCESS POINTS.
2. STANDARD SIDEWALK WIDTH IS 5 FEET. IN AREAS WHERE A 5–FOOT SIDEWALK CANNOT BE ACCOMMODATED DUE TO SITE CONSTRAINTS, THE WIDTH MAY BE REDUCED TO 4 FEET WITH PASSING AREAS INCORPORATED AT 200' MAXIMUM INTERVALS PER THE ABOVE DETAIL.
3. JOINTS SHALL BE INCORPORATED ACROSS FULL WIDTH OF A CONTIGUOUS RUN OF CONCRETE SIDEWALK AS FOLLOWS:
   – CONSTRUCTION JOINTS BY SAW OR TOOL CUTTING AT 5–FOOT INTERVALS AT A DEPTH OF 1–INCH AND A MAXIMUM WIDTH OF ONE–HALF INCH
   – EXPANSION JOINTS PER THE ABOVE DETAIL AT 20–FOOT MAXIMUM INTERVALS
4. WHITE CURING COMPOUND SHALL BE APPLIED TO CONCRETE SIDEWALK INCLUDING EXPOSED EDGES PER DELDOT SPECIFICATIONS IMMEDIATELY FOLLOWING SURFACE TEXTURING.
5. WHEN CONCRETE SIDEWALK IS SITUATED ALONG THE BACKSIDE OF CONCRETE CURBING, TYPE IV POLYURETHANE RUBBER EXPANSION POINT SHALL BE INSTALLED BETWEEN SIDEWALK AND CURBING.
6. FOR SIDEWALKS ADJACENT TO OR AT ENTRANCES OF BUILDINGS, REFER TO THE LATEST VERSION OF THE AMERICANS WITH DISABILITIES ACCESSIBILITY GUIDELINES.
7. FOR SIDEWALKS WITHIN OR ADJACENT TO CURB RAMPS, REFER TO THE LATEST VERSION OF DELDOT'S PEDESTRIAN ACCESSIBILITY STANDARDS AND/OR STANDARD CONSTRUCTION DETAILS.

SUSSEX COUNTY ENGINEERING DEPARTMENT	CONCRETE SIDEWALK	DETAIL M-1
APPROVED: SUSSEX COUNTY ENGINEER		LAST REVISED: 6/30/2022



PAVEMENT TIE-IN DETAIL

NO SCALE

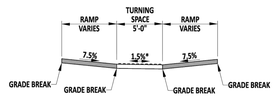


PERPENDICULAR CURB RAMP
SEE SHEET 2 AND 3 FOR LAYOUT ALTERNATIVES

SECTION A-A

SECTION B-B
*SEE NOTE 3

PARALLEL CURB RAMP
SEE SHEET 4 FOR LAYOUT ALTERNATIVES



REQUIRED ELEMENT DIMENSIONS AND CRITERIA (APPLIES TO ALL SHEETS OF STANDARD C-2)				
PEDESTRIAN CONNECTION ELEMENT	CRITERIA	LIMITS FOR DESIGN AND LAYOUT	LIMITS FOR WORK ACCEPTANCE	RELATED NOTES
RAMP	WIDTH	5'-0" MIN.	5'-0" MIN.	SEE NOTE 6
	RUNNING SLOPE	7.5%	8.3% MAX.	SEE NOTE 1
	CROSS SLOPE	1.5%	2.0% MAX.	SEE NOTE 3
	SLOPE OF FLARED SIDE	9.5%	10.0% MAX.	SEE NOTE 10
TURNING SPACE	DIMENSION	5'-0" X 5'-0" MIN.	5'-0" X 5'-0" MIN.	SEE NOTE 6
	RUNNING SLOPE	1.5%	2.0% MAX.	
	CROSS SLOPE	1.5%	2.0% MAX.	SEE NOTE 3
BLENDED TRANSITION	RUNNING SLOPE	4.5%	5.0 MAX.	
	CROSS SLOPE	1.5%	2.0% MAX.	SEE NOTE 3
TRIANGULAR AREA	RUNNING SLOPE	1.5%	5.0% MAX.	
	CROSS SLOPE	1.5%	2.0% MAX.	SEE NOTE 3
CLEAR SPACE	DIMENSION	4'-0" X 4'-0"	4'-0" X 4'-0"	SEE NOTE 12

* CROSS SLOPE IS MEASURED PERPENDICULAR TO THE PRIMARY DIRECTION OF PEDESTRIAN TRAVEL.
** RUNNING SLOPE IS MEASURED PARALLEL TO THE PRIMARY DIRECTION OF PEDESTRIAN TRAVEL.
*** ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE.

GENERAL PEDESTRIAN CONNECTION NOTES:

1). TO AVOID CHASING GRADE INDEFINITELY ON STEEP ROADWAYS, RAMP LENGTH IS NOT REQUIRED TO EXCEED 15'-0" REGARDLESS OF THE RESULTING RAMP RUNNING SLOPE.
2). ALL JOINTS AND GRADE BREAKS ARE TO BE CONSTRUCTED FLUSH.
3). TO CREATE A FLUSH TRANSITION TO THE STREET, THE CROSS SLOPE OF THE INDICATED ELEMENTS MAY EXCEED THE REQUIRED 2.0% MAXIMUM CROSS SLOPE. THE ELEMENT PERMITTED TO EXCEED THE 2.0% MAXIMUM VARIES BY PEDESTRIAN CONNECTION TYPE. SEE THE CURRENT PEDESTRIAN ACCESSIBILITY STANDARDS MANUAL FOR ADDITIONAL INFORMATION ABOUT WHICH ELEMENTS MAY BE PERMITTED TO EXCEED THE 2.0% MAXIMUM. IN ALL CASES, THE CROSS SLOPE OF THE ELEMENT PERMITTED TO EXCEED THE 2.0% MAXIMUM IS NOT TO EXCEED THE SLOPE OF THE ADJACENT ROADWAY.
4). GRADE BREAKS AT THE TOP AND BOTTOM OF A RAMP, BLENDED TRANSITION, AND TURNING SPACE SHALL BE PERPENDICULAR TO THE RUNNING SLOPE. GRADE BREAKS SHALL NOT BE LOCATED WITHIN THE RAMP, BLENDED TRANSITION, TURNING SPACE, OR DETECTABLE WARNING SURFACE.
5). WHEN ADJACENT TO GRASS, A 6:1 GRADE IS REQUIRED FOR A MINIMUM OF 2'-0" ADJACENT TO THE PEDESTRIAN CONNECTION IN ACCORDANCE WITH M-3, SHEET 1. ALTERNATIVELY, A CURB AT THE BACK OF THE PEDESTRIAN PATH MAY BE INSTALLED AT DEPRESSED TURNING SPACES OR RAMP SEGMENTS IN LIEU OF PROVIDING A 6:1 GRADE.
6). SEE PLANS FOR WIDTH. PEDESTRIAN CONNECTIONS THAT SERVE SHARED USE PATHS ARE TO PROVIDE A RAMP WIDTH AND TURNING SPACE WIDTH THE SAME WIDTH AS THE APPROACH SHARED USE PATH.
7). PROVIDE A TURNING SPACE AT LOCATIONS WHERE THE PRIMARY DIRECTION OF TRAVEL IS REQUIRED TO CHANGE IN ORDER TO ACCESS THE PEDESTRIAN CONNECTION IN ACCORDANCE WITH THESE SHEETS.
8). IN ALTERATIONS, WHERE THE PEDESTRIAN CONNECTION WILL TIE INTO AN EXISTING CROSS SLOPE THAT EXCEEDS 2.0%, PLACE A MINIMUM 5'-0" LONG TRANSITION SLAB IN THE DIRECTION OF PEDESTRIAN TRAVEL TO CONNECT THE NEW PEDESTRIAN CONNECTION TO THE EXISTING PEDESTRIAN PATH. THE TRANSITION SLAB SHALL NOT OVERLAP ANY OTHER REQUIRED PEDESTRIAN CONNECTION ELEMENT. THE CROSS SLOPE TRANSITION SHALL BE SPREAD EVENLY OVER THE SLAB TO MINIMIZE THE DEGREE OF WARPING. THE RATE OF CROSS SLOPE CHANGE IN THE TRANSITION AREA SHALL NOT EXCEED 3% PER LINEAR FOOT.
9). REFER TO THE DE MUTCD FOR DETAILS REGARDING THE LOCATION OF PEDESTRIAN PUSH BUTTONS.
10). PROVIDE FLARED SIDES ON PERPENDICULAR CURB RAMPS AND BLENDED TRANSITIONS WHERE THE RAMP OR BLENDED TRANSITION EDGE ABUTS A WALKABLE SURFACE. UNLESS APPROVED OTHERWISE BY THE ENGINEER, PROVIDE JOINTS BETWEEN THE FLARED SIDE AND THE ABUTTING WALKABLE SURFACE AND RAMPED SEGMENT. FLARED SIDES MAY BE SUBSTITUTED WITH APPROVAL OF THE ENGINEER WITH VERTICAL RETURNED CURBS OR A 4:1 CURB TAPER WITH ASSOCIATED GRADING ALONG THE RAMP WHERE THE RAMP ABUTS A NON-WALKABLE SURFACE, OR WHERE THE ADJACENT RAMP SURFACE IS BLOCKED TO PEDESTRIAN TRAFFIC. THE RETURNED CURB MUST NOT AFFECT THE CLEAR WIDTH OF THE PEDESTRIAN ACCESS ROUTE AND SHALL BE FLUSH WITH THE PEDESTRIAN PATH AT TERMINATION.
11). LAYOUT JOINTS AND EXPANSION MATERIAL IN ACCORDANCE WITH M-3, SHEET 1 OF 1.
12). ALIGN THE PEDESTRIAN CONNECTION AND THE CROSSWALK SO THAT A 4'-0" X 4'-0" CLEAR SPACE AREA LOCATED BELOW THE BOTTOM GRADE BREAK OF CURB RAMPS AND BLENDED TRANSITIONS IS CONTAINED WHOLLY WITHIN THE CROSSWALK. ONLY DIAGONAL CURB RAMPS REQUIRE THAT THE CLEAR SPACE BE LOCATED OUTSIDE OF THE PARALLEL VEHICLE TRAVEL LANE AND THAT A SEGMENT OF CURB 2'-0" LONG MINIMUM BE LOCATED ON EACH SIDE OF THE DIAGANOL CURB RAMP'S FLARED SIDES AND BE WITHIN THE MARKED CROSSING.
13). WHERE PEDESTRIAN CONNECTIONS ARE LOCATED ON A RADII, THE REQUIRED DIMENSIONS ARE MEASURED PERPENDICULAR TO THE PEDESTRIAN CONNECTION ELEMENT AND NOT ALONG THE CURVE. SEE THE CURRENT DELDOT PAS MANUAL FOR ADDITIONAL INFORMATION.
14). PEDESTRIAN CONNECTIONS
A) PERPENDICULAR CURB RAMPS HAVE A RAMPED SECTION THAT CUTS THROUGH THE CURB AT AN ANGLE.
B) PARALLEL CURB RAMPS HAVE A RUNNING SLOPE THAT IS IN-LINE WITH THE DIRECTION OF SIDEWALK TRAVEL AND LOWERS THE SIDEWALK TO A TURNING SPACE WHERE A TURN IS MADE TO ENTER THE CROSSWALK.
C) COMBINATION PEDESTRIAN CONNECTIONS UTILIZE A PARALLEL CURB RAMP TO LOWER THE PEDESTRIAN PATH TO A MID TURNING SPACE AND THEN A SHORT PERPENDICULAR CURB RAMP TO CONNECT THE TURNING SPACE TO THE CROSSWALK.
D) PERPENDICULAR AND PARALLEL RAMP CONFIGURATIONS ARE PREFERRED TO DEPRESSED CORNERS. DEPRESSED CORNERS SHOULD ONLY BE USED WHERE SITE CONDITIONS MAKE THEM A MORE APPROPRIATE OPTION, OR WHERE PERPENDICULAR OR PARALLEL RAMPS CANNOT BE INSTALLED DUE TO A PHYSICAL SITE CONSTRAINT.
E) A SINGLE CURB RAMP THAT SERVES TWO SEPARATE CROSSWALKS IS CONSIDERED A SHARED CURB RAMP.

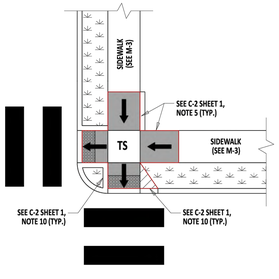
LEGEND

TS	TURNING SPACE		TRIANGULAR AREA
	RAMP		DETECTABLE WARNING SURFACE
	BLENDED TRANSITION		FLARED SIDE
	CROSSWALK STRIPING		LIMIT OF 6" MIN. SIDEWALK OVER 6" GABC
	BUFFER OR OTHER NON-WALKABLE SURFACE		

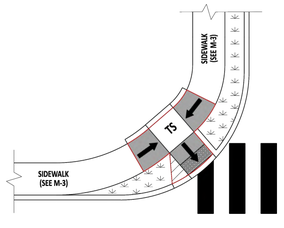
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DelDOT	Andrew Shatt 12/22/2023 ENGINEERING SUPPORT DATE	PEDESTRIAN CONNECTIONS, GENERAL NOTES				REVIEWED	22 December 2023 DEPUTY DIRECTOR - DESIGN DATE
	RECOMMENDED	STANDARD NO.	C-2 (2024)	SHT. 1	OF 8	APPROVED	01/11/2024 CHIEF ENGINEER DATE

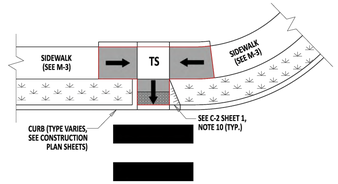
22-DEC-2023



DUAL STREET CROSSINGS WITH SHARED TURNING SPACE



COMBINATION CURB RAMP ON CURVE



COMBINATION CURB RAMP ON TANGENT

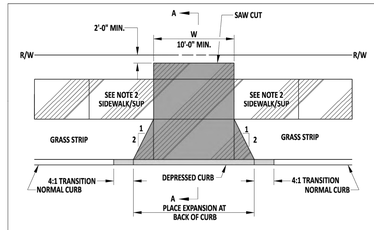
NOTES:
1). SEE DETAIL C-2, SHEET 1 FOR GENERAL PEDESTRIAN CONNECTION NOTES AND ELEMENT REQUIREMENTS.
2). APPLICATIONS SHOWN AS DUAL APPROACHES CAN ALSO SUPPORT A SINGLE PEDESTRIAN PATH APPROACH AS WELL.
3). SEE DETAIL C-2, SHEETS 3 AND 4 FOR DWS PLACEMENT.

PEDESTRIAN CONNECTION, TYPE 3: COMBINATION CURB RAMPS
SINGLE AND DUAL APPROACH LAYOUT ALTERNATIVES

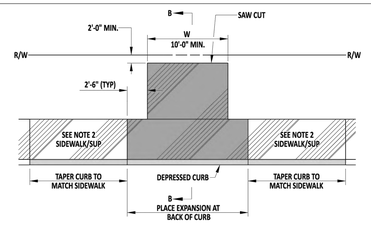
SCALE : NTS

DelDOT	Andrew Shatt 12/22/2023 ENGINEERING SUPPORT DATE	PEDESTRIAN CONNECTION, TYPE 3				REVIEWED	22 December 2023 DEPUTY DIRECTOR - DESIGN DATE
	RECOMMENDED	STANDARD NO.	C-2 (2024)	SHT. 5	OF 8	APPROVED	01/11/2024 CHIEF ENGINEER DATE

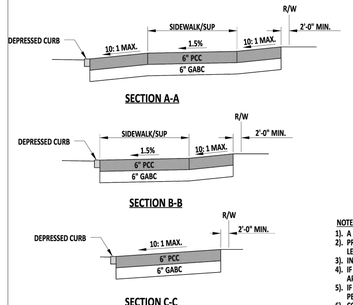
22-DEC-2023



ENTRANCE WITH SIDEWALK/SUP AND GRASS STRIP



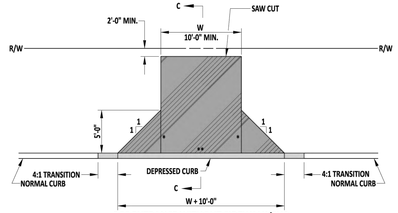
ENTRANCE WITH SIDEWALK/SUP AND NO GRASS STRIP



SECTION A-A

SECTION B-B

SECTION C-C



PCC ENTRANCE WITHOUT SIDEWALK/SUP

NOTES:
1). A MAXIMUM SIDEWALK/SUP RUNNING SLOPE OF 4.5% IS PREFERRED WITH ALLOWANCE TO FOLLOW THE ADJACENT ROAD GRADES.
2). PROVIDE A SIDEWALK/SUP RUNNING SLOPE OF 4.5% LEADING TO THE DRIVEWAY APRON. THE LENGTH OF THE SLOPED SEGMENT LEADING TO THE DRIVEWAY APRON MAY BE LIMITED TO 15'-0" WHEN A 4.5% RUNNING SLOPE CREATES A GRADE CHASING SCENARIO.
3). INSTALL CURB TYPE SHOWN IN PLANS. DO NOT INSTALL CURB IF NONE IS SHOWN.
4). IF A SIDEWALK/SUP IS PROPOSED ACROSS AN ENTRANCE, EXTEND THE PEDESTRIAN FACILITY THROUGH THE ENTRANCE MEETING ALL APPLICABLE PEDESTRIAN ACCESSABILITY STANDARDS, AND PROVIDING A MATERIAL CROSS SECTION EQUAL TO THAT OF THE ENTRANCE.
5). IF A HOT-MIX PEDESTRIAN FACILITY IS PROPOSED, TERMINATE THE HOT-MIX AT THE LIMITS OF THE ENTRANCE AND CONSTRUCT A PCC PEDESTRIAN FACILITY ACROSS THE ENTRANCE.
6). CONSTRUCT PCC JOINTS IN ACCORDANCE WITH SECTION 701 AND SECTION 705 OF THE STANDARD SPECIFICATIONS.

- SIDEWALK/SUP
- 6" PCC SIDEWALK / ENTRANCE

SCALE : NTS

DelDOT	Andrew Shatt 10/15/2024 ENGINEERING SUPPORT DATE	PCC ENTRANCES WITHOUT PEDESTRIAN CONNECTIONS				REVIEWED	23 October 2024 DEPUTY DIRECTOR - DESIGN DATE
	RECOMMENDED	STANDARD NO.	C-3 (2025)	SHT. 1	OF 2	APPROVED	10/25/2024 CHIEF ENGINEER DATE

24-SEP-2024

NO.	REVISIONS	DATE

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 - SITE DETAILS

SCALE	: NO SCALE
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001–J
DATE	: JUN 2025

SHEET NO. C9.1

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G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Set\Village 5\Engineering Plans\C9.1 Site Details.dwg, 2/18/2026, Dj L. White
PLOT CODE
PEN1-WHITE 039 INCHES (1.00mm)
PEN6-MAGENTA 027 INCHES (.70mm)
PEN5-BLUE 020 INCHES (.50mm)
PEN3-CYAN 014 INCHES (.35mm)
PEN2-GREEN 010 INCHES (.25mm)
PEN4-YELLOW 007 INCHES (.18mm)
PEN7-RED 005 INCHES (.13mm)



SWING OVERLOOKING OPEN SPACE



SWING OVERLOOKING OPEN SPACE



BENCH OVERLOOKING OPEN SPACE



BENCH OVERLOOKING POND

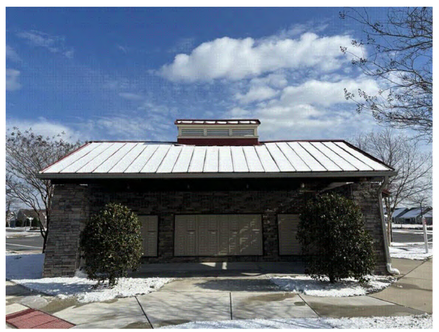


PICNIC AREAS AND FIRE PIT OVERLOOKING OPEN SPACE

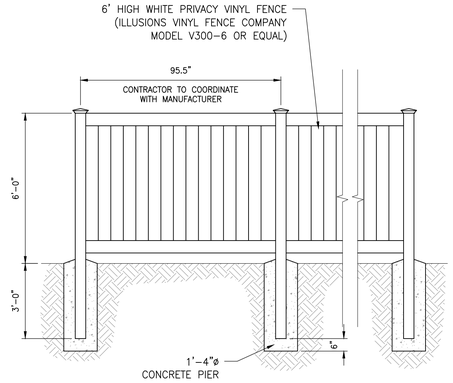
NOTE:
THE PHOTO EXAMPLES OF BENCHES AND PICNIC AREAS ARE NOT TO BE USED AS FINAL PRODUCT. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE TOWN FOR FINAL APPROVAL OF AMENITY'S



PERGOLA WITH PAVER BASE



MAIL KIOSK STATION



6' HIGH VINYL FENCE DETAIL
NO SCALE

DATE
REVISIONS
NO.

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 -
SITE DETAILS

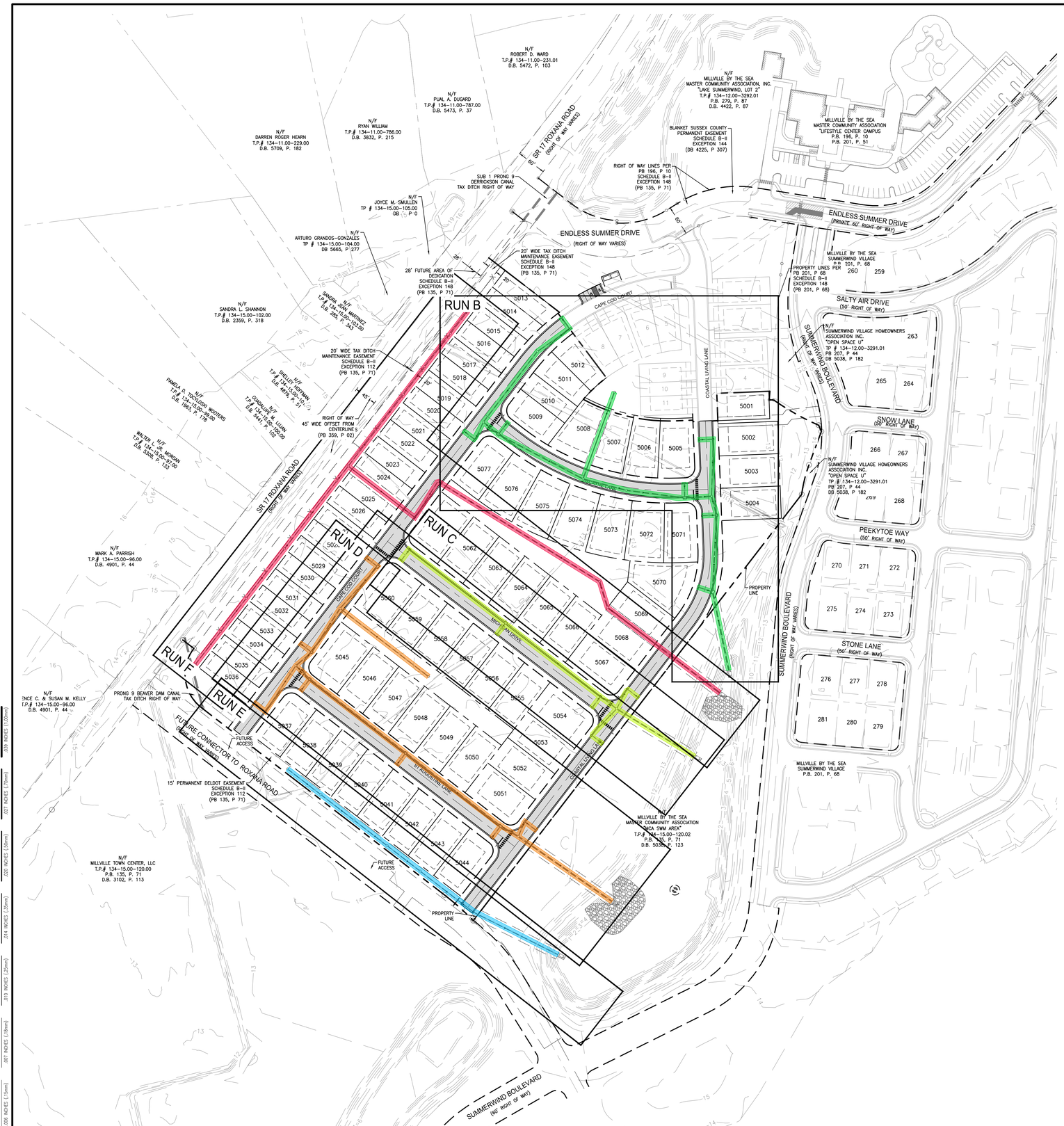
SCALE	: NO SCALE
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C9.2

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PLOT CODE
PEN1-RED 209 INCHES (10mm)
PEN2-YELLOW 207 INCHES (10mm)
PEN3-GREEN 201 INCHES (20mm)
PEN4-CYAN 214 INCHES (15mm)
PEN5-BLUE 207 INCHES (15mm)
PEN6-MAGENTA 207 INCHES (10mm)
PEN7-WHITE 209 INCHES (100mm)



LEGEND

EXISTING		PROPOSED	
PROPERTY LINE/RIGHT OF WAY		9 / 10	CONTOUR
30	CONTOUR	26.84	SPOT ELEVATION
	EASEMENT		CONCRETE
	PAVED ROAD	8S	SANITARY SEWER, MANHOLE AND CLEANOUT
8S	SANITARY SEWER, MANHOLE AND CLEANOUT	15SW	STORM DRAIN, INLET AND MANHOLE
8FM	SANITARY SEWER FORCE MAIN		CURB & GUTTER
15SW	STORM DRAIN, INLET AND MANHOLE	10W	WATER MAIN, VALVE AND METER
8W	WATER MAIN, VALVE AND HYDRANT		

STORM DRAIN REFERENCE INDEX

RUN	PLAN SHEET	PROFILE SHEET
A	PREVIOUSLY CONSTRUCTED AS PART OF MBTS MODEL PARK 5A	PREVIOUSLY CONSTRUCTED AS PART OF MBTS MODEL PARK 5A
B	C10.1	C10.4
C	C10.1	C10.4, C10.5
D	C10.2	C10.5, C10.6
E	C10.2	C10.6
F	C10.3	C10.6

0 50 100 200 300
SCALE: 1" = 100'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

2

VILLAGE 5 - STORM DRAIN KEY SHEET

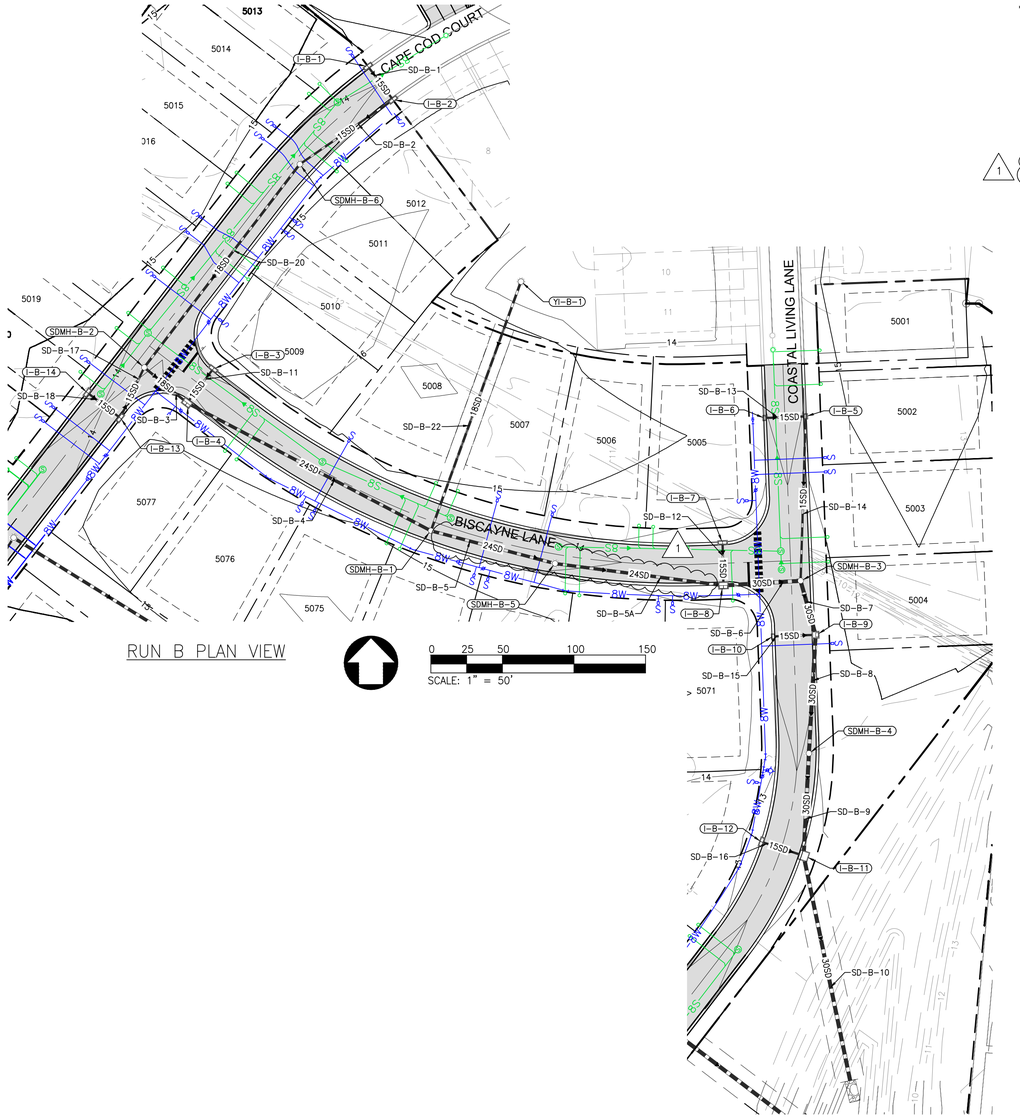
SCALE	: 1" = 100'
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C10.0

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PLOT CODE
PEN1-RED 206 INCHES (5mm)
PEN2-YELLOW 207 INCHES (5mm)
PEN3-GREEN 270 INCHES (5mm)
PEN4-CYAN 244 INCHES (5mm)
PEN5-BLUE 203 INCHES (5mm)
PEN6-MAGENTA 207 INCHES (5mm)
PEN7-WHITE 339 INCHES (5mm)

G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C10.0 Storm Drain Key Sheet.dwg, 2/18/2026, DJ L White



RUN B PLAN VIEW

VILLAGE 5 STORM- RUN B STRUCTURE SCHEDULE

STRUCTURE	STRUCTURE TYPE (WIDTH) X (LENGTH)	RIM ELEVATION	NORTHING	EASTING	CONNECTED PIPES	DEPTH	TOP UNIT	GRATE
I-B-1 *	24 X 72 INCH RECTANGULAR STRUCTURE	13.66'	195429.34	737329.04	SD-B-1 INV. OUT = 6.35	7.32'	TYPE D	TYPE 1
I-B-2 *	24 X 72 INCH RECTANGULAR STRUCTURE	13.66'	195406.06	737346.51	SD-B-1 INV. IN = 6.25 SD-B-2 INV. OUT = 6.19	7.47'	TYPE D	TYPE 1
I-B-3 *	24 X 72 INCH RECTANGULAR STRUCTURE	13.84'	195218.02	737220.93	SD-B-11 INV. OUT = 6.03	7.80'	TYPE D	TYPE 1
I-B-4 *	48 X 72 INCH RECTANGULAR STRUCTURE	13.84'	195194.26	737202.63	SD-B-11 INV. IN = 5.95 SD-B-3 INV. IN = 5.09 SD-B-4 INV. OUT = 4.48	9.36'	TYPE D	TYPE 1
I-B-5	24 X 34 INCH RECTANGULAR STRUCTURE	13.90'	195184.81	737634.80	SD-B-13 INV. IN = 6.18 SD-B-14 INV. OUT = 6.05	7.85'	TYPE D	TYPE 1
I-B-6	18 X 34 INCH RECTANGULAR STRUCTURE	13.90'	195183.69	737606.08	SD-B-13 INV. OUT = 6.28	7.62'	TYPE D	TYPE 1
I-B-7 *	24 X 72 INCH RECTANGULAR STRUCTURE	13.31'	195096.60	737576.79	SD-B-12 INV. OUT = 6.74	6.56'	TYPE D	TYPE 1
I-B-8	48 X 72 INCH RECTANGULAR STRUCTURE	13.31'	195066.61	737577.34	SD-B-12 INV. IN = 6.65 SD-B-5A INV. IN = 3.09 SD-B-6 INV. OUT = 2.60	10.71'	TYPE D	TYPE 1
I-B-9	48 X 48 INCH RECTANGULAR STRUCTURE	13.13'	195032.13	737641.76	SD-B-7 INV. IN = 2.23 SD-B-15 INV. IN = 9.79 SD-B-8 INV. OUT = 2.17	10.96'	TYPE D	TYPE 1
I-B-10	18 X 34 INCH RECTANGULAR STRUCTURE	13.13'	195030.99	737612.04	SD-B-15 INV. OUT = 9.88	3.25'	TYPE D	TYPE 1
I-B-11*	72 X 72 INCH RECTANGULAR STRUCTURE	12.39'	194877.72	737633.41	SD-B-9 INV. IN = 1.61 SD-B-16 INV. IN = 9.03 SD-B-10 INV. OUT = 1.54	10.85'	TYPE D	TYPE 1
I-B-12*	24 X 72 INCH RECTANGULAR STRUCTURE	12.39'	194887.46	737603.99	SD-B-16 INV. OUT = 9.14	3.25'	TYPE D	TYPE 1
I-B-13*	24 X 72 INCH RECTANGULAR STRUCTURE	13.67'	195183.68	737155.97	SD-B-18 INV. IN = 5.92 SD-B-17 INV. OUT = 5.86	7.81'	TYPE D	TYPE 1
I-B-14*	24 X 72 INCH RECTANGULAR STRUCTURE	13.67'	195201.38	737133.00	SD-B-18 INV. OUT = 6.00	7.68'	TYPE D	TYPE 1
SDMH-B-1	60 INCH PRECAST STRUCTURE	14.54'	195104.83	737373.00	SD-B-4 INV. IN = 3.90 SD-B-22 INV. IN = 6.37 SD-B-5 INV. OUT = 3.84	10.70'	TYPE D	TYPE 1
SDMH-B-2	72 INCH PRECAST STRUCTURE	14.08'	195219.05	737172.73	SD-B-20 INV. IN = 5.28 SD-B-17 INV. IN = 5.73 SD-B-3 INV. OUT = 5.22	8.86'	TYPE D	TYPE 1
SDMH-B-3	72 INCH PRECAST STRUCTURE	13.53'	195069.91	737631.28	SD-B-6 INV. IN = 2.42 SD-B-14 INV. IN = 5.67 SD-B-7 INV. OUT = 2.36	11.18'	TYPE D	TYPE 1
SDMH-B-4	48 INCH PRECAST STRUCTURE	12.90'	194949.29	737637.06	SD-B-8 INV. IN = 1.90 SD-B-9 INV. OUT = 1.84	11.06'	TYPE D	TYPE 1
SDMH-B-5	48 INCH PRECAST STRUCTURE	14.10'	195081.97	737459.69	SD-B-5 INV. IN = 3.54 SD-B-5A INV. OUT = 3.48	10.62'	TYPE D	TYPE 1
SDMH-B-6	48 INCH PRECAST STRUCTURE	14.32'	195360.99	737281.36	SD-B-2 INV. IN = 5.93 SD-B-20 INV. OUT = 5.87	8.45'	TYPE D	TYPE 1
YI-B-1	15 IN INLINE DRAIN	12.98'	195278.97	737435.87	SD-B-22 INV. OUT = 6.98	6.00'	TYPE D	TYPE 1

* DOUBLE GRATE INLET

VILLAGE 5 STORM- RUN B PIPE SCHEDULE

PIPE NAME	SIZE	LENGTH	SLOPE	MATERIAL	US STRUCTURE	US INVERT	DS STRUCTURE	DS INVERT
SD-B-1	15"	29.1'	0.33%	HDPE	I-B-1	6.35'	I-B-2	6.25'
SD-B-2	15"	79.2'	0.33%	HDPE	I-B-2	6.19'	SDMH-B-6	5.93'
SD-B-3	18"	38.8'	0.33%	HDPE	SDMH-B-2	5.22'	I-B-4	5.09'
SD-B-4	24"	192.4'	0.30%	HDPE	I-B-4	4.48'	SDMH-B-1	3.90'
SD-B-5	24"	89.7'	0.33%	HDPE	SDMH-B-1	3.84'	SDMH-B-5	3.54'
SD-B-5A	24"	118.6'	0.33%	HDPE	SDMH-B-5	3.48'	I-B-8	3.09'
SD-B-6	30"	54.0'	0.33%	HDPE	I-B-8	2.60'	SDMH-B-3	2.42'
SD-B-7	30"	39.2'	0.33%	HDPE	SDMH-B-3	2.36'	I-B-9	2.23'
SD-B-8	30"	83.0'	0.33%	HDPE	I-B-9	2.17'	SDMH-B-4	1.90'
SD-B-9	30"	71.7'	0.32%	HDPE	SDMH-B-4	1.84'	I-B-11	1.61'
SD-B-10	30"	160.4'	0.34%	HDPE	I-B-11	1.54'		1.00'
SD-B-11	15"	30.0'	0.29%	HDPE	I-B-3	6.03'	I-B-4	5.95'
SD-B-12	15"	30.0'	0.31%	HDPE	I-B-7	6.74'	I-B-8	6.65'
SD-B-13	15"	28.7'	0.32%	HDPE	I-B-6	6.28'	I-B-5	6.18'
SD-B-14	15"	115.0'	0.33%	HDPE	I-B-5	6.05'	SDMH-B-3	5.67'
SD-B-15	15"	29.7'	0.32%	HDPE	I-B-10	9.88'	I-B-9	9.79'
SD-B-16	15"	31.0'	0.33%	HDPE	I-B-12	9.14'	I-B-11	9.03'
SD-B-17	15"	39.1'	0.33%	HDPE	I-B-13	5.86'	SDMH-B-2	5.73'
SD-B-18	15"	29.0'	0.29%	HDPE	I-B-14	6.00'	I-B-13	5.92'
SD-B-20	18"	178.7'	0.33%	HDPE	SDMH-B-6	5.87'	SDMH-B-2	5.28'
SD-B-22	18"	185.1'	0.33%	HDPE	YI-B-1	6.98'	SDMH-B-1	6.37'

RUN C PLAN VIEW

VILLAGE 5 STORM- RUN C STRUCTURE SCHEDULE

STRUCTURE	STRUCTURE TYPE (WIDTH) X (LENGTH)	RIM ELEVATION	NORTHING	EASTING	CONNECTED PIPES	DEPTH	TOP UNIT	GRATE
I-C-3	30 X 48 INCH RECTANGULAR STRUCTURE	13.75'	194963.56	737024.88	SD-C-12 INV. IN = 5.10 SD-C-4 INV. OUT = 4.09	9.66'	TYPE D	TYPE 1
I-C-4	18 X 34 INCH RECTANGULAR STRUCTURE	13.75'	194940.60	737007.19	SD-C-12 INV. OUT = 5.20	8.55'	TYPE D	TYPE 1
I-C-5	30 X 48 INCH RECTANGULAR STRUCTURE	13.73'	194668.15	737408.32	SD-C-5 INV. IN = 2.55 SD-C-14 INV. IN = 10.00 SD-C-6 INV. OUT = 2.49	11.24'	TYPE D	TYPE 1
I-C-6	18 X 34 INCH RECTANGULAR STRUCTURE	13.72'	194644.83	737391.09	SD-C-14 INV. OUT = 10.10	3.62'	TYPE D	TYPE 1
I-C-7	48 X 72 INCH RECTANGULAR STRUCTURE	13.57'	194815.81	737217.90	SD-C-4 INV. IN = 3.39 SD-C-13 INV. IN = 10.04 SD-C-5 INV. OUT = 3.33	10.24'	TYPE D	TYPE 1
I-C-10	18 X 34 INCH RECTANGULAR STRUCTURE	13.66'	194665.46	737484.18	SD-C-8 INV. OUT = 10.38	3.28'	TYPE D	TYPE 1
I-C-11	24 X 34 INCH RECTANGULAR STRUCTURE	13.66'	194683.00	737461.41	SD-C-8 INV. IN = 10.28 SD-C-7 INV. OUT = 10.22	3.44'	TYPE D	TYPE 1
I-C-12	24 X 72 INCH RECTANGULAR STRUCTURE	13.57'	194792.05	737199.59	SD-C-13 INV. OUT = 10.14	3.44'	TYPE D	TYPE 1
I-C-13	24 X 34 INCH RECTANGULAR STRUCTURE	13.52'	194590.14	737389.86	SD-C-16 INV. IN = 10.14 SD-C-15 INV. OUT = 10.08	3.44'	TYPE D	TYPE 1
I-C-14	18 X 34 INCH RECTANGULAR STRUCTURE	13.52'	194572.60	737412.63	SD-C-16 INV. OUT = 10.24	3.29'	TYPE D	TYPE 1
SDMH-C-2	60 INCH PRECAST STRUCTURE	14.09'	194642.80	737440.53	SD-C-6 INV. IN = 2.34 SD-C-15 INV. IN = 9.84 SD-C-7 INV. IN = 10.07 SD-C-10 INV. OUT = 1.60	12.49'	TYPE D	TYPE 1

* DOUBLE INLET

VILLAGE 5 STORM- RUN C PIPE SCHEDULE

PIPE NAME	SIZE	LENGTH	SLOPE	MATERIAL	US STRUCTURE	US INVERT	DS STRUCTURE	DS INVERT
SD-C-4	18"	243.1'	0.29%	HDPE	I-C-3	4.09'	I-C-7	3.39'
SD-C-5	18"	241.0'	0.32%	HDPE	I-C-7	3.33'	I-C-5	2.55'
SD-C-6	18"	41.0'	0.36%	HDPE	I-C-5	2.49'	SDMH-C-2	2.34'
SD-C-7	15"	45.3'	0.33%	HDPE	I-C-11	10.22'	SDMH-C-2	10.07'
SD-C-8	15"	28.7'	0.33%	HDPE	I-C-10	10.38'	I-C-11	10.28'
SD-C-10	24"	183.2'	0.33%	HDPE	SDMH-C-2	1.60'		1.00'
SD-C-12	15"	29.0'	0.33%	HDPE	I-C-4	5.20'	I-C-3	5.10'
SD-C-13	15"	30.0'	0.31%	HDPE	I-C-12	10.14'	I-C-7	10.04'
SD-C-14	18"	29.0'	0.33%	HDPE	I-C-6	10.10'	I-C-5	10.00'
SD-C-15	15"	73.1'	0.33%	HDPE	I-C-13	10.08'	SDMH-C-2	9.84'
SD-C-16	15"	28.7'	0.33%	HDPE	I-C-14	10.24'	I-C-13	10.14'

NO.	REVISIONS	DATE
1	REVISED DUAL WYE TO SINGLE OUTFALLS	03/24/25
2	REVISED NUMBER OF LOTS	09/24/25

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TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 - STORM DRAIN PLAN

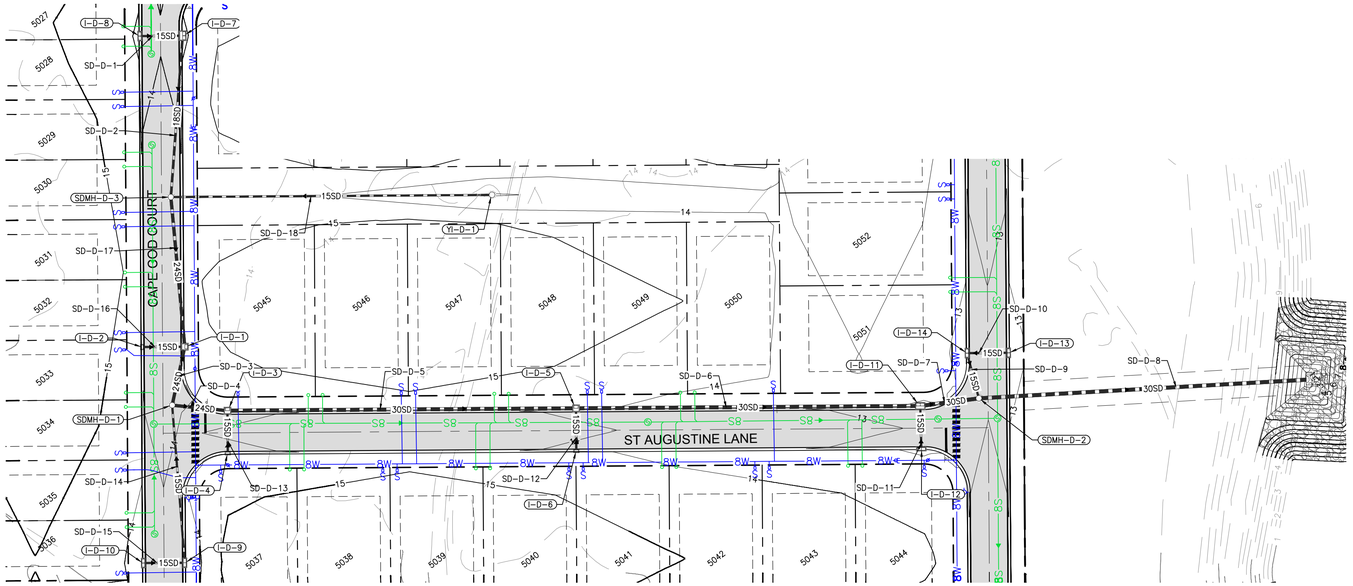
SCALE	1" = 50'
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C10.1

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PLOT CODE
PEN1-WHITE 339 INCHES 1 (100mm)
PEN2-MAGENTA 227 INCHES 1 (75mm)
PEN3-BLUE 201 INCHES 1 (50mm)
PEN4-CYAN 214 INCHES 1 (75mm)
PEN5-GREEN 213 INCHES 1 (50mm)
PEN6-YELLOW 207 INCHES 1 (50mm)
PEN7-RED 206 INCHES 1 (75mm)

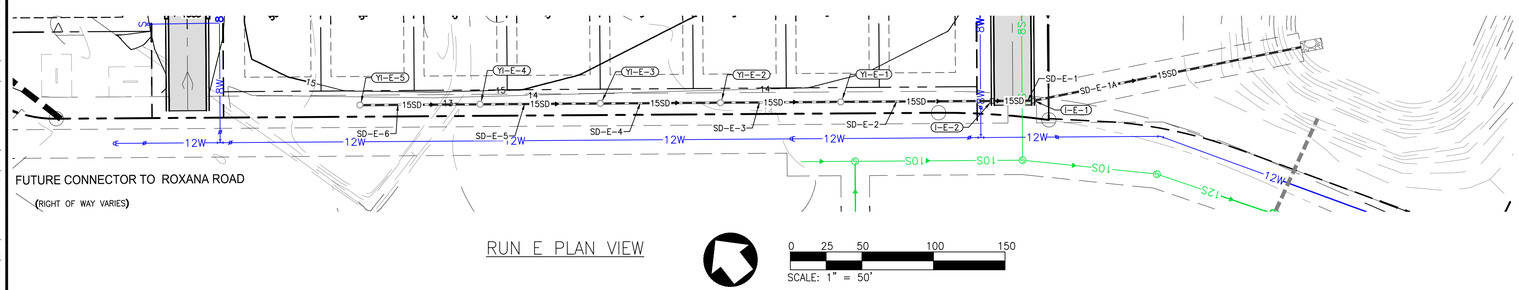
G:\Projects\2021\21001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C10.1 Storm Drain Plan.dwg, 2/18/2026, DJ L. White



RUN D PLAN VIEW

0 25 50 100 150

SCALE: 1" = 50'



RUN E PLAN VIEW

0 25 50 100 150

SCALE: 1" = 50'

VILLAGE 5 STORM- RUN D STRUCTURE SCHEDULE

STRUCTURE	STRUCTURE TYPE (WIDTH) X (LENGTH)	RIM ELEVATION	NORTHING	EASTING	CONNECTED PIPES	DEPTH	TOP UNIT	GRATE
I-D-1	48 X 48 INCH RECTANGULAR STRUCTURE	14.15'	194756.30	736827.96	SD-D-17 INV. IN = 3.91 SD-D-16 INV. IN = 10.70 SD-D-3 INV. OUT = 3.85	10.31'	TYPE D	TYPE 1
I-D-2	18 X 34 INCH RECTANGULAR STRUCTURE	14.15'	194774.46	736804.40	SD-D-16 INV. OUT = 10.79	3.36'	TYPE D	TYPE 1
I-D-3	48 X 48 INCH RECTANGULAR STRUCTURE	13.75'	194702.75	736823.94	SD-D-4 INV. IN = 3.49 SD-D-13 INV. IN = 10.56 SD-D-5 INV. OUT = 3.43	10.32'	TYPE D	TYPE 1
I-D-4	18 X 34 INCH RECTANGULAR STRUCTURE	13.76'	194679.19	736805.79	SD-D-13 INV. OUT = 10.65	3.11'	TYPE D	TYPE 1
I-D-5	48 X 48 INCH RECTANGULAR STRUCTURE	13.80'	194554.11	737016.86	SD-D-5 INV. IN = 2.65 SD-D-12 INV. IN = 10.34 SD-D-6 INV. OUT = 2.58	11.22'	TYPE D	TYPE 1
I-D-6	18 X 34 INCH RECTANGULAR STRUCTURE	13.80'	194530.55	736998.71	SD-D-12 INV. OUT = 10.43	3.37'	TYPE D	TYPE 1
I-D-7 *	48 X 72 INCH RECTANGULAR STRUCTURE	13.59'	194928.45	736960.59	SD-D-1 INV. IN = 4.75 SD-D-2 INV. OUT = 4.69	8.90'	TYPE D	TYPE 1
I-D-8 *	24 X 72 INCH RECTANGULAR STRUCTURE	13.59'	194946.76	736936.83	SD-D-1 INV. OUT = 4.84	8.75'	TYPE D	TYPE 1
I-D-9 *	24 X 72 INCH RECTANGULAR STRUCTURE	13.40'	194637.34	736735.04	SD-D-15 INV. IN = 10.16 SD-D-14 INV. OUT = 10.10	3.30'	TYPE D	TYPE 1
I-D-10 *	24 X 72 INCH RECTANGULAR STRUCTURE	13.40'	194655.04	736712.07	SD-D-15 INV. OUT = 10.25	3.15'	TYPE D	TYPE 1
I-D-11 *	48 X 72 INCH RECTANGULAR STRUCTURE	12.60'	194407.35	737207.37	SD-D-6 INV. IN = 1.82 SD-D-11 INV. IN = 9.28 SD-D-7 INV. OUT = 1.77	10.83'	TYPE D	TYPE 1
I-D-12 *	24 X 72 INCH RECTANGULAR STRUCTURE	12.60'	194383.23	737189.52	SD-D-11 INV. OUT = 9.37	3.23'	TYPE D	TYPE 1
I-D-13 *	24 X 72 INCH RECTANGULAR STRUCTURE	12.43'	194398.60	737278.89	SD-D-10 INV. OUT = 9.04	3.39'	TYPE D	TYPE 1
I-D-14 *	24 X 72 INCH RECTANGULAR STRUCTURE	12.43'	194416.29	737255.92	SD-D-10 INV. IN = 8.94 SD-D-9 INV. OUT = 8.88	3.55'	TYPE D	TYPE 1
SDMH-D-1	72 INCH PRECAST STRUCTURE	14.16'	194729.55	736795.86	SD-D-3 INV. IN = 3.71 SD-D-14 INV. IN = 9.74 SD-D-4 INV. OUT = 3.62	10.54'	TYPE D	TYPE 1
SDMH-D-2	60 INCH PRECAST STRUCTURE	12.79'	194386.33	737242.91	SD-D-7 INV. IN = 1.63 SD-D-9 INV. IN = 8.77 SD-D-8 INV. OUT = 1.54	11.25'	TYPE D	TYPE 1
SDMH-D-3	48 INCH PRECAST STRUCTURE	14.36'	194844.72	736884.69	SD-D-2 INV. IN = 4.32 SD-D-18 INV. IN = 6.91 SD-D-17 INV. OUT = 4.26	10.10'	TYPE D	TYPE 1
YI-D-1	15 IN INLINE DRAIN	12.91'	194707.82	737062.33	SD-D-18 INV. OUT = 7.65	5.25'	TYPE D	TYPE 1

* DOUBLE GRATE INLET

VILLAGE 5 STORM- RUN D PIPE SCHEDULE

PIPE NAME	SIZE	LENGTH	SLOPE	MATERIAL	US STRUCTURE	US INVERT	DS STRUCTURE	DS INVERT
SD-D-1	15"	30.0'	0.29%	HDPE	I-D-8	4.84'	I-D-7	4.75'
SD-D-2	18"	113.0'	0.33%	HDPE	I-D-7	4.69'	SDMH-D-3	4.32'
SD-D-3	24"	41.8'	0.33%	HDPE	I-D-1	3.85'	SDMH-D-1	3.71'
SD-D-4	24"	38.8'	0.33%	HDPE	SDMH-D-1	3.62'	I-D-3	3.49'
SD-D-5	30"	243.5'	0.32%	HDPE	I-D-3	3.43'	I-D-5	2.65'
SD-D-6	30"	240.5'	0.32%	HDPE	I-D-5	2.58'	I-D-11	1.82'
SD-D-7	30"	41.3'	0.33%	HDPE	I-D-11	1.77'	SDMH-D-2	1.63'
SD-D-8	30"	229.1'	0.24%	HDPE	SDMH-D-2	1.54'		1.00'
SD-D-9	15"	32.7'	0.33%	HDPE	I-D-14	8.88'	SDMH-D-2	8.77'
SD-D-10	15"	29.0'	0.32%	HDPE	I-D-13	9.04'	I-D-14	8.94'
SD-D-11	15"	30.0'	0.31%	HDPE	I-D-12	9.37'	I-D-11	9.28'
SD-D-12	15"	29.7'	0.32%	HDPE	I-D-6	10.43'	I-D-5	10.34'
SD-D-13	15"	29.7'	0.32%	HDPE	I-D-4	10.65'	I-D-3	10.56'
SD-D-14	15"	110.5'	0.33%	HDPE	I-D-9	10.10'	SDMH-D-1	9.74'
SD-D-15	15"	29.0'	0.30%	HDPE	I-D-10	10.25'	I-D-9	10.16'
SD-D-16	15"	29.7'	0.32%	HDPE	I-D-2	10.79'	I-D-1	10.70'
SD-D-17	24"	105.1'	0.33%	HDPE	SDMH-D-3	4.26'	I-D-1	3.91'
SD-D-18	15"	224.3'	0.33%	HDPE	YI-D-1	7.65'	SDMH-D-3	6.91'

VILLAGE 5 STORM- RUN E STRUCTURE SCHEDULE

STRUCTURE	STRUCTURE TYPE (WIDTH) X (LENGTH)	RIM ELEVATION	NORTHING	EASTING	CONNECTED PIPES	DEPTH	TOP UNIT	GRATE
I-E-1	24 X 34 INCH RECTANGULAR STRUCTURE	13.46'	194234.39	737152.37	SD-E-1 INV. IN = 1.70 SD-E-1A INV. OUT = 1.64	11.82'	TYPE D	TYPE 1
I-E-2	24 X 34 INCH RECTANGULAR STRUCTURE	13.46'	194252.08	737129.41	SD-E-2 INV. IN = 6.22 SD-E-1 INV. OUT = 1.80	11.67'	TYPE D	TYPE 1
YI-E-1	15 IN INLINE DRAIN	14.00'	194316.69	737045.67	SD-E-3 INV. IN = 6.63 SD-E-2 INV. OUT = 6.57	7.43'	TYPE D	TYPE 1
YI-E-2	15 IN INLINE DRAIN	14.00'	194367.96	736979.13	SD-E-4 INV. IN = 6.97 SD-E-3 INV. OUT = 6.91	7.09'	TYPE D	TYPE 1
YI-E-3	15 IN INLINE DRAIN	13.77'	194419.22	736912.59	SD-E-5 INV. IN = 7.31 SD-E-4 INV. OUT = 7.25	6.53'	TYPE D	TYPE 1
YI-E-4	15 IN INLINE DRAIN	13.22'	194470.49	736846.05	SD-E-6 INV. IN = 7.65 SD-E-5 INV. OUT = 7.59	5.64'	TYPE D	TYPE 1
YI-E-5	15 IN INLINE DRAIN	14.00'	194521.76	736779.50	SD-E-6 INV. OUT = 7.93	6.07'	TYPE D	TYPE 1

VILLAGE 5 STORM- RUN E PIPE SCHEDULE

PIPE NAME	SIZE	LENGTH	SLOPE	MATERIAL	US STRUCTURE	US INVERT	DS STRUCTURE	DS INVERT
SD-E-1	15"	29.0'	0.33%	HDPE	I-E-2	1.80'	I-E-1	1.70'
SD-E-1A	15"	190.6'	0.33%	HDPE	I-E-1	1.64'		1.01'
SD-E-2	15"	105.8'	0.33%	HDPE	YI-E-1	6.57'	I-E-2	6.22'
SD-E-3	15"	84.0'	0.33%	HDPE	YI-E-2	6.91'	YI-E-1	6.63'
SD-E-4	15"	84.0'	0.33%	HDPE	YI-E-3	7.25'	YI-E-2	6.97'
SD-E-5	15"	84.0'	0.33%	HDPE	YI-E-4	7.59'	YI-E-3	7.31'
SD-E-6	15"	84.0'	0.33%	HDPE	YI-E-5	7.93'	YI-E-4	7.65'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

2

VILLAGE 5 - STORM DRAIN PLAN

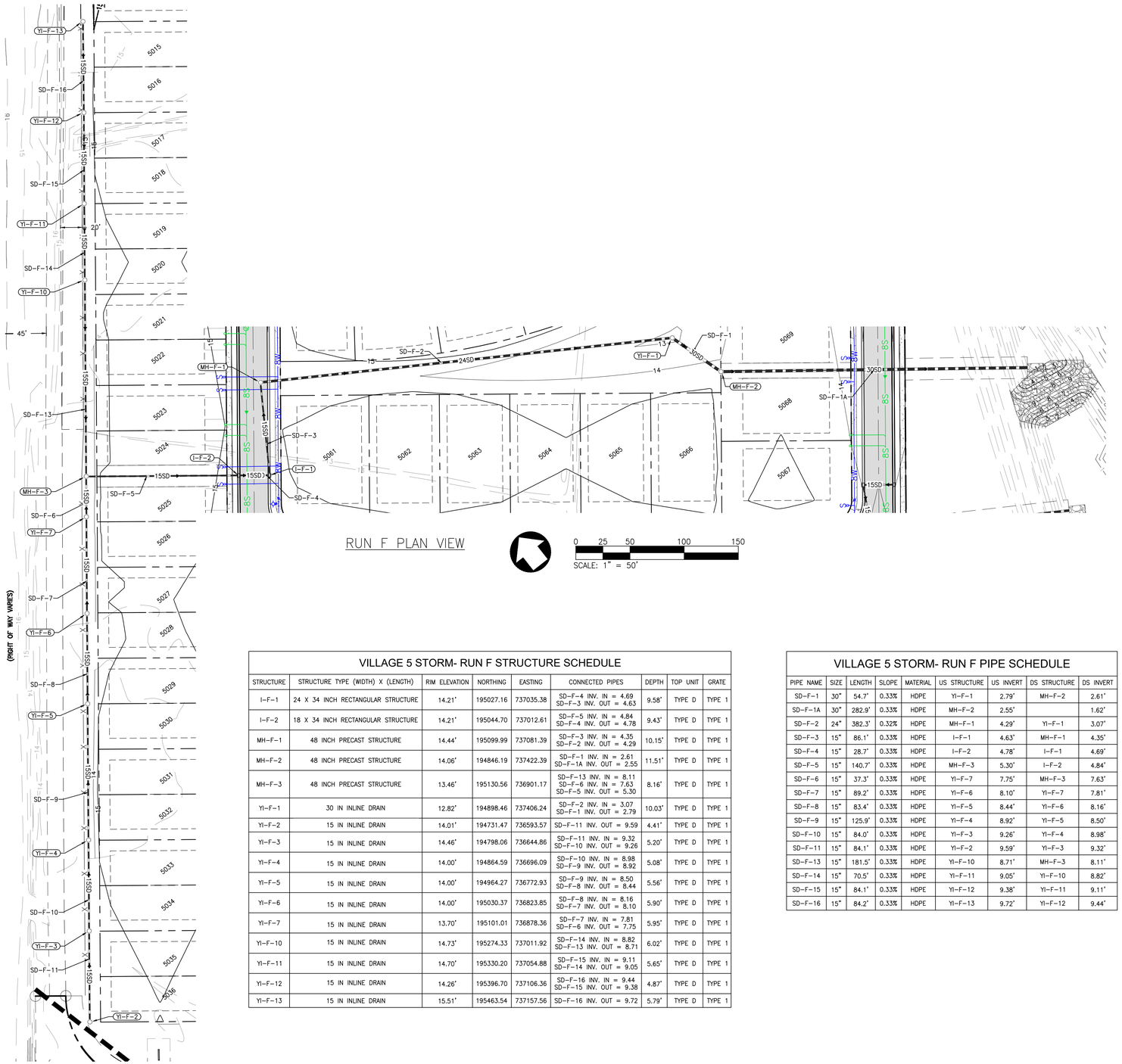
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DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C10.2

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PLOT CODE
PEN1-WHITE 039 INCHES 1 (100mm)
PEN2-MAGENTA 027 INCHES 1 (75mm)
PEN3-BLUE 020 INCHES 1 (50mm)
PEN4-CYAN 014 INCHES 1 (35mm)
PEN5-GREEN 010 INCHES 1 (25mm)
PEN6-YELLOW 007 INCHES 1 (18mm)
PEN7-RED 006 INCHES 1 (15mm)

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RUN F PLAN VIEW

0 25 50 100 150

SCALE: 1" = 50'

VILLAGE 5 STORM- RUN F STRUCTURE SCHEDULE

STRUCTURE	STRUCTURE TYPE (WIDTH) X (LENGTH)	RIM ELEVATION	NORTHING	EASTING	CONNECTED PIPES	DEPTH	TOP UNIT	GRATE
I-F-1	24 X 34 INCH RECTANGULAR STRUCTURE	14.21'	195027.16	737035.38	SD-F-4 INV. IN = 4.69 SD-F-3 INV. OUT = 4.63	9.58'	TYPE D	TYPE 1
I-F-2	18 X 34 INCH RECTANGULAR STRUCTURE	14.21'	195044.70	737012.61	SD-F-5 INV. IN = 4.84 SD-F-4 INV. OUT = 4.78	9.43'	TYPE D	TYPE 1
MH-F-1	48 INCH PRECAST STRUCTURE	14.44'	195099.99	737081.39	SD-F-3 INV. IN = 4.35 SD-F-2 INV. OUT = 4.29	10.15'	TYPE D	TYPE 1
MH-F-2	48 INCH PRECAST STRUCTURE	14.06'	194846.19	737422.39	SD-F-1 INV. IN = 2.61 SD-F-1A INV. OUT = 2.55	11.51'	TYPE D	TYPE 1
MH-F-3	48 INCH PRECAST STRUCTURE	13.46'	195130.56	736901.17	SD-F-13 INV. IN = 8.11 SD-F-6 INV. IN = 7.63 SD-F-5 INV. OUT = 5.30	8.16'	TYPE D	TYPE 1
YI-F-1	30 IN INLINE DRAIN	12.82'	194898.46	737406.24	SD-F-2 INV. IN = 3.07 SD-F-1 INV. OUT = 2.79	10.03'	TYPE D	TYPE 1
YI-F-2	15 IN INLINE DRAIN	14.01'	194731.47	736593.57	SD-F-11 INV. OUT = 9.59	4.41'	TYPE D	TYPE 1
YI-F-3	15 IN INLINE DRAIN	14.46'	194798.06	736644.86	SD-F-11 INV. IN = 9.32 SD-F-10 INV. OUT = 9.26	5.20'	TYPE D	TYPE 1
YI-F-4	15 IN INLINE DRAIN	14.00'	194864.59	736696.09	SD-F-10 INV. IN = 8.98 SD-F-9 INV. OUT = 8.92	5.08'	TYPE D	TYPE 1
YI-F-5	15 IN INLINE DRAIN	14.00'	194964.27	736772.93	SD-F-9 INV. IN = 8.50 SD-F-8 INV. OUT = 8.44	5.56'	TYPE D	TYPE 1
YI-F-6	15 IN INLINE DRAIN	14.00'	195030.37	736823.85	SD-F-8 INV. IN = 8.16 SD-F-7 INV. OUT = 8.10	5.90'	TYPE D	TYPE 1
YI-F-7	15 IN INLINE DRAIN	13.70'	195101.01	736878.36	SD-F-7 INV. IN = 7.81 SD-F-6 INV. OUT = 7.75	5.95'	TYPE D	TYPE 1
YI-F-10	15 IN INLINE DRAIN	14.73'	195274.33	737011.92	SD-F-14 INV. IN = 8.82 SD-F-13 INV. OUT = 8.71	6.02'	TYPE D	TYPE 1
YI-F-11	15 IN INLINE DRAIN	14.70'	195330.20	737054.88	SD-F-15 INV. IN = 9.11 SD-F-14 INV. OUT = 9.05	5.65'	TYPE D	TYPE 1
YI-F-12	15 IN INLINE DRAIN	14.26'	195396.70	737106.36	SD-F-16 INV. IN = 9.44 SD-F-15 INV. OUT = 9.38	4.87'	TYPE D	TYPE 1
YI-F-13	15 IN INLINE DRAIN	15.51'	195463.54	737157.56	SD-F-16 INV. OUT = 9.72	5.79'	TYPE D	TYPE 1

VILLAGE 5 STORM- RUN F PIPE SCHEDULE

PIPE NAME	SIZE	LENGTH	SLOPE	MATERIAL	US STRUCTURE	US INVERT	DS STRUCTURE	DS INVERT
SD-F-1	30"	54.7'	0.33%	HDPE	YI-F-1	2.79'	MH-F-2	2.61'
SD-F-1A	30"	282.9'	0.33%	HDPE	MH-F-2	2.55'		1.62'
SD-F-2	24"	382.3'	0.32%	HDPE	MH-F-1	4.29'	YI-F-1	3.07'
SD-F-3	15"	86.1'	0.33%	HDPE	I-F-1	4.63'	MH-F-1	4.35'
SD-F-4	15"	28.7'	0.33%	HDPE	I-F-2	4.78'	I-F-1	4.69'
SD-F-5	15"	140.7'	0.33%	HDPE	MH-F-3	5.30'	I-F-2	4.84'
SD-F-6	15"	37.3'	0.33%	HDPE	YI-F-7	7.75'	MH-F-3	7.63'
SD-F-7	15"	89.2'	0.33%	HDPE	YI-F-6	8.10'	YI-F-7	7.81'
SD-F-8	15"	83.4'	0.33%	HDPE	YI-F-5	8.44'	YI-F-6	8.16'
SD-F-9	15"	125.9'	0.33%	HDPE	YI-F-4	8.92'	YI-F-5	8.50'
SD-F-10	15"	84.0'	0.33%	HDPE	YI-F-3	9.26'	YI-F-4	8.98'
SD-F-11	15"	84.1'	0.33%	HDPE	YI-F-2	9.59'	YI-F-3	9.32'
SD-F-13	15"	181.5'	0.33%	HDPE	YI-F-10	8.71'	MH-F-3	8.11'
SD-F-14	15"	70.5'	0.33%	HDPE	YI-F-11	9.05'	YI-F-10	8.82'
SD-F-15	15"	84.1'	0.33%	HDPE	YI-F-12	9.38'	YI-F-11	9.11'
SD-F-16	15"	84.2'	0.33%	HDPE	YI-F-13	9.72'	YI-F-12	9.44'

PLOT CODE
PEN1-RED .006 INCHES (.15mm)
PEN2-YELLOW .007 INCHES (.18mm)
PEN3-GREEN .010 INCHES (.25mm)
PEN4-BLUE .020 INCHES (.50mm)
PEN5-MAGENTA .027 INCHES (.70mm)
PEN6-WHITE .039 INCHES (1.00mm)

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NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

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TOWN OF MILLVILLE, DELAWARE

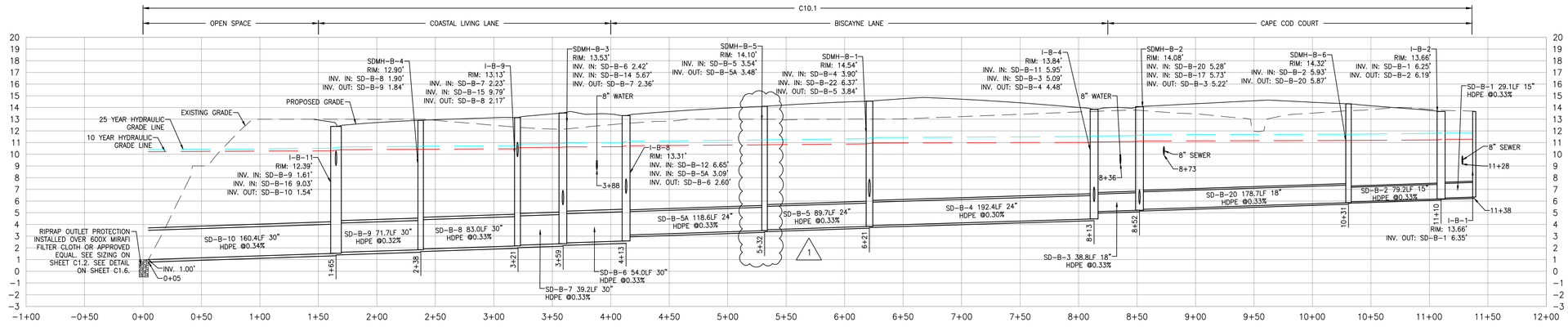
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VILLAGE 5 - STORM DRAIN PLAN

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DESIGN BY : DJW
DRAWN BY : CEM
CHECKED BY :
FILE # : 200001-J
DATE : JUN 2025

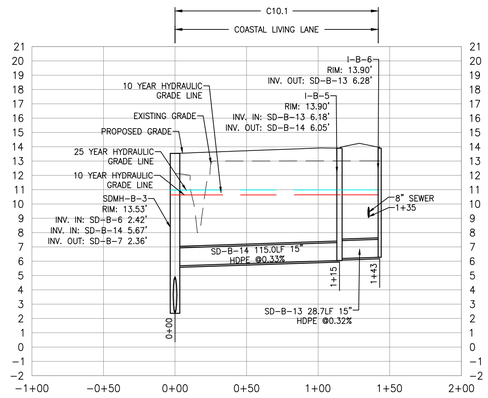
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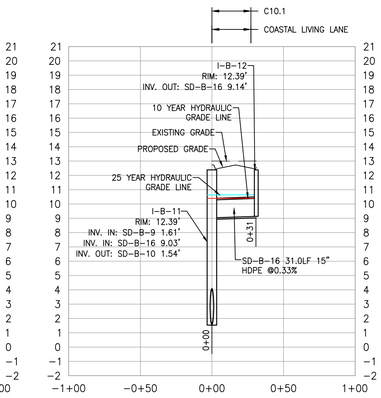
PROFILE OF MBTS V5 EX-SWM TO I-B-1

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



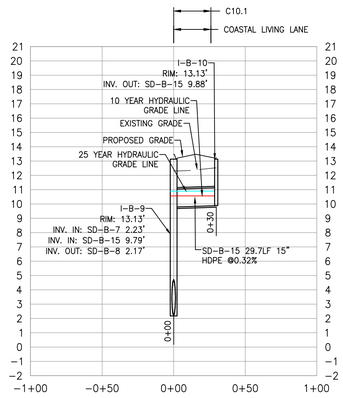
PROFILE OF MBTS V5 SDMH-B-3 TO I-B-6

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



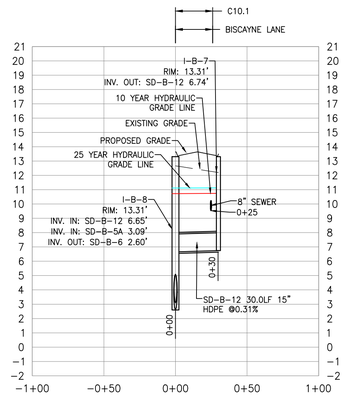
PROFILE OF MBTS V5 I-B-11 TO I-B-12

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



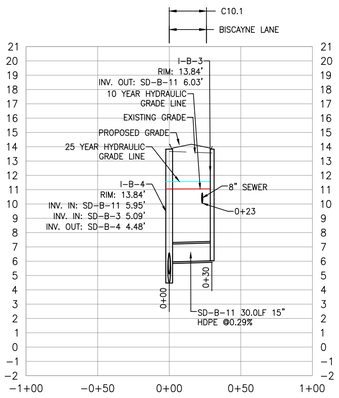
PROFILE OF MBTS V5 I-B-9 TO I-B-10

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



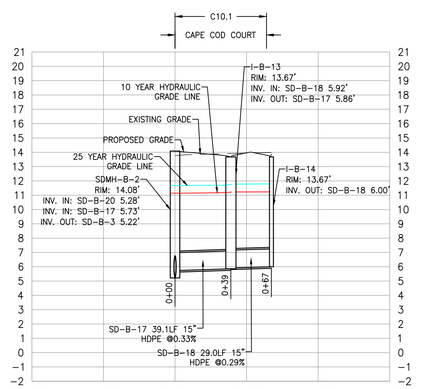
PROFILE OF MBTS V5 I-B-8 TO I-B-7

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



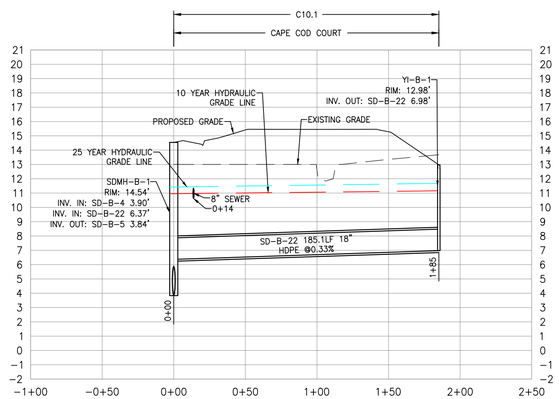
PROFILE OF MBTS V5 I-B-4 TO I-B-3

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



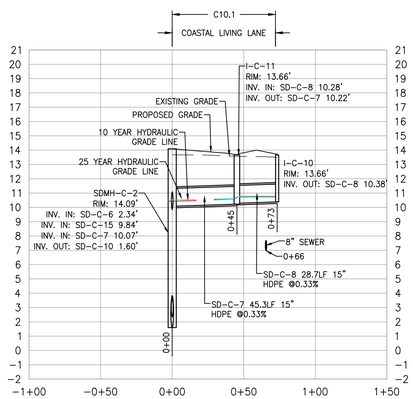
PROFILE OF MBTS V5 SDMH-B-2 TO I-B-14

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



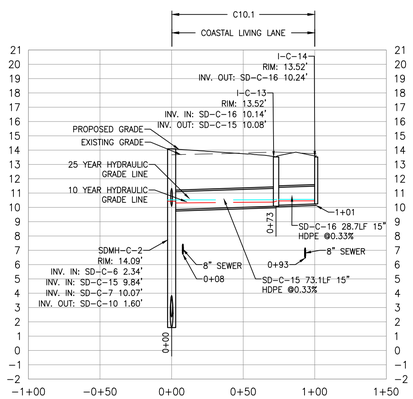
PROFILE OF MBTS V5 SDMH-B-1 TO YI-B-1

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF MBTS V5 SDMH-C-2 TO I-C-10

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF MBTS V5 SDMH-C-2 TO I-C-14

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

NO.	REVISIONS	DATE
1	REVISED DUAL WYE TO SINGLE LATERALS	03/24/25

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VILLAGE 5 - STORM DRAIN PROFILES

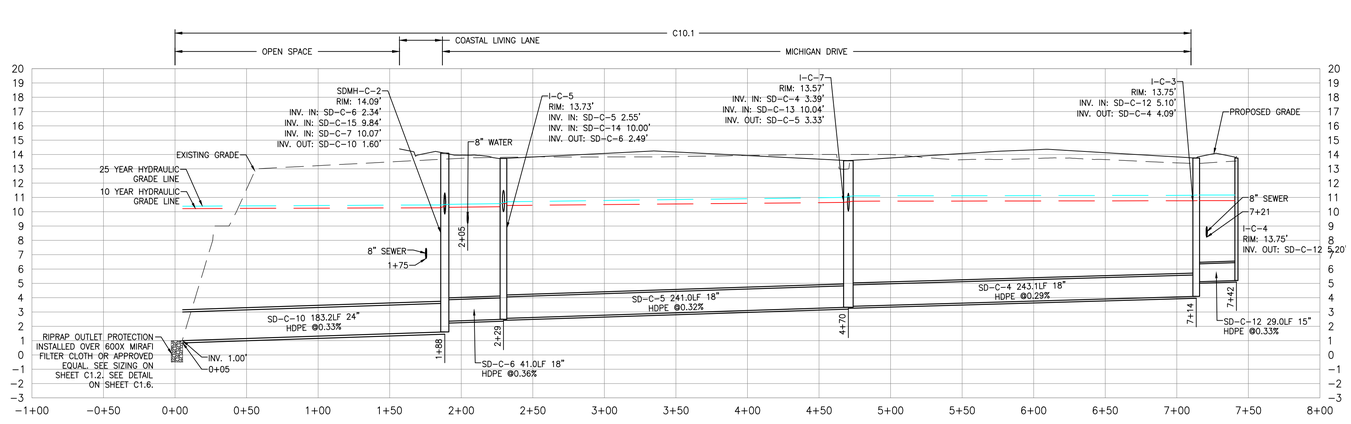
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DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C10.4

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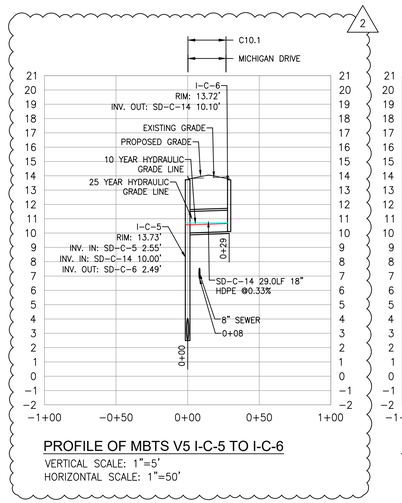
PLOT CODE
PEN1-WHITE 039 INCHES (1.00mm)
PEN4-MAGENTA 031 INCHES (0.80mm)
PEN5-BLUE 020 INCHES (0.50mm)
PEN6-CYAN 014 INCHES (0.35mm)
PEN3-GREEN 010 INCHES (0.25mm)
PEN2-YELLOW 007 INCHES (0.18mm)
PEN1-RED 005 INCHES (0.13mm)

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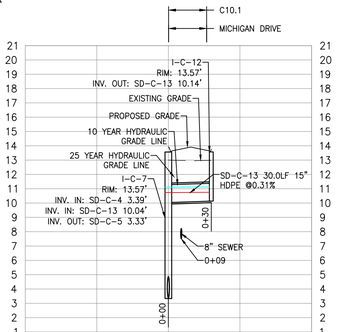
PROFILE OF MBTS V5 EX-SWM TO I-C-4

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



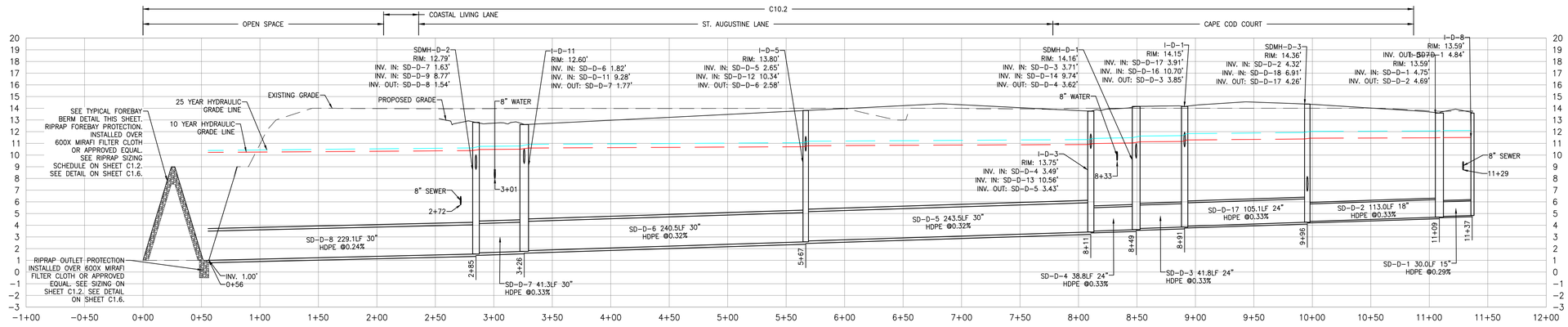
PROFILE OF MBTS V5 I-C-5 TO I-C-6

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



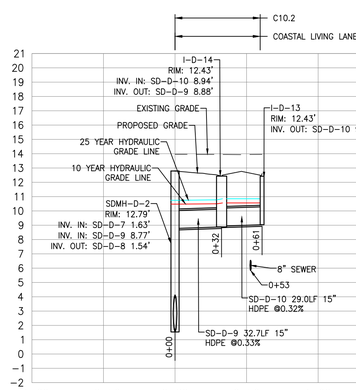
PROFILE OF MBTS V5 I-C-7 TO I-C-12

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



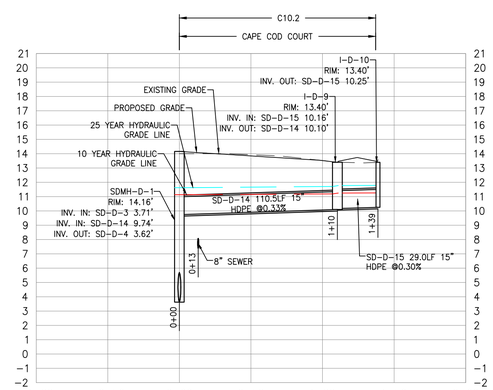
PROFILE OF MBTS V5 EX-SWM TO I-D-8

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



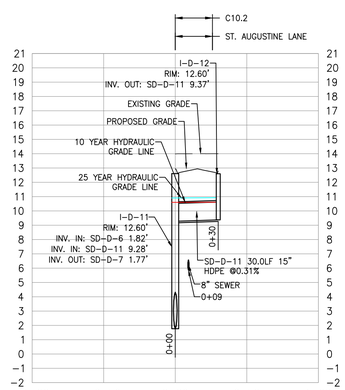
PROFILE OF MBTS V5 SDMH-D-2 TO I-D-13

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



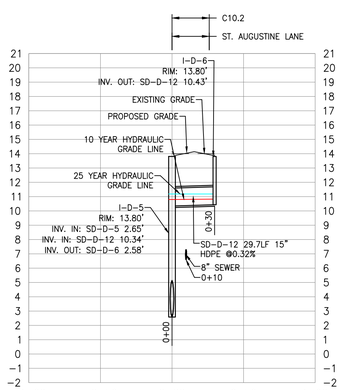
PROFILE OF MBTS V5 SDMH-D-1 TO I-D-10

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



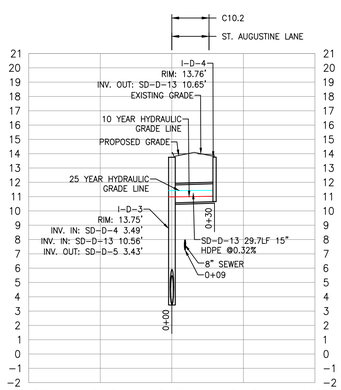
PROFILE OF MBTS V5 I-D-11 TO I-D-12

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF MBTS V5 I-D-5 TO I-D-6

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF MBTS V5 I-D-3 TO I-D-4

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

NO.	REVISIONS	DATE
2	REVISED 15" PIPE TO 18" PIPE	04/30/25

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VILLAGE 5 - STORM DRAIN PROFILES

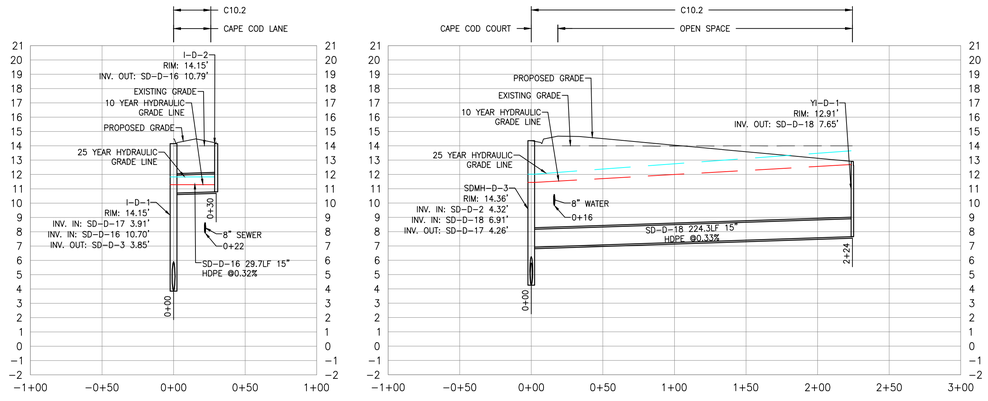
SCALE	: AS SHOWN
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C10.5

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PLOT CODE
PEN1-RED 007 INCHES (1.0mm)
PEN2-YELLOW 007 INCHES (1.0mm)
PEN3-GREEN 007 INCHES (1.0mm)
PEN4-CYAN 014 INCHES (2.0mm)
PEN5-BLUE 020 INCHES (3.0mm)
PEN6-MAGENTA 021 INCHES (3.0mm)
PEN7-WHITE 039 INCHES (5.0mm)

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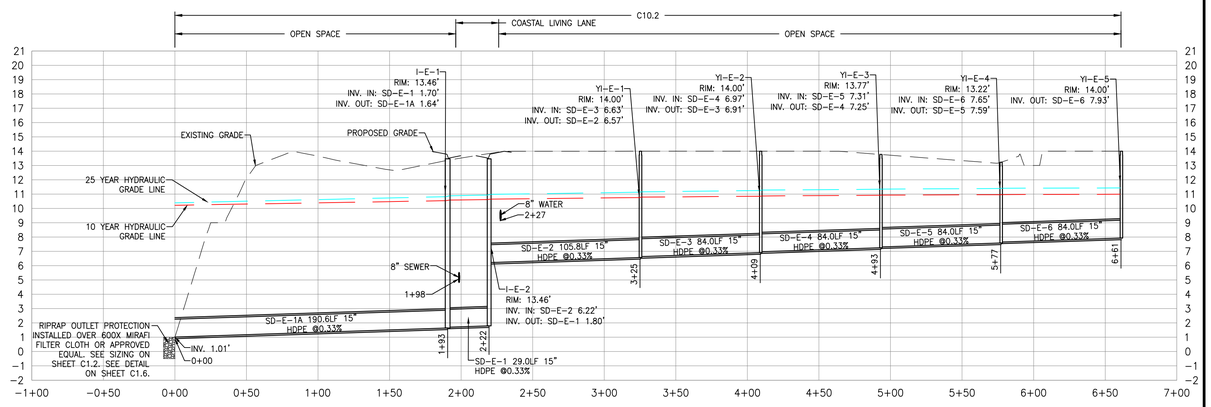


PROFILE OF MBTS V5 I-D-1 TO I-D-2

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

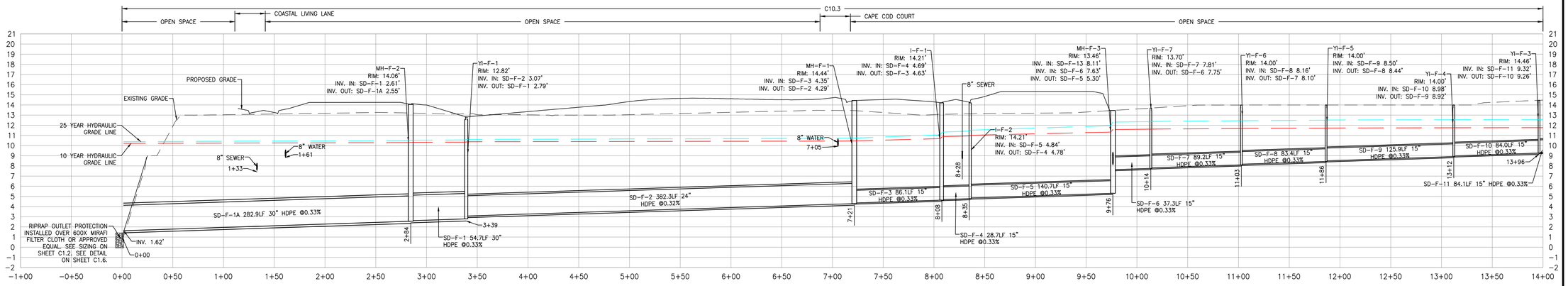
PROFILE OF MBTS V5 SDMH-D-3 TO YI-D-1

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



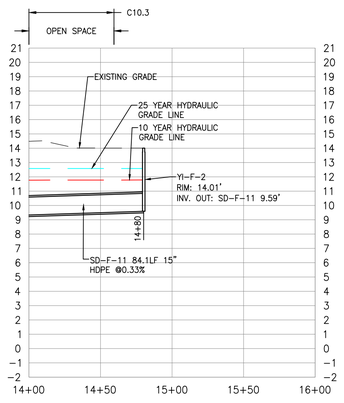
PROFILE OF MBTS V5 EX-SWM TO YI-E-5

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



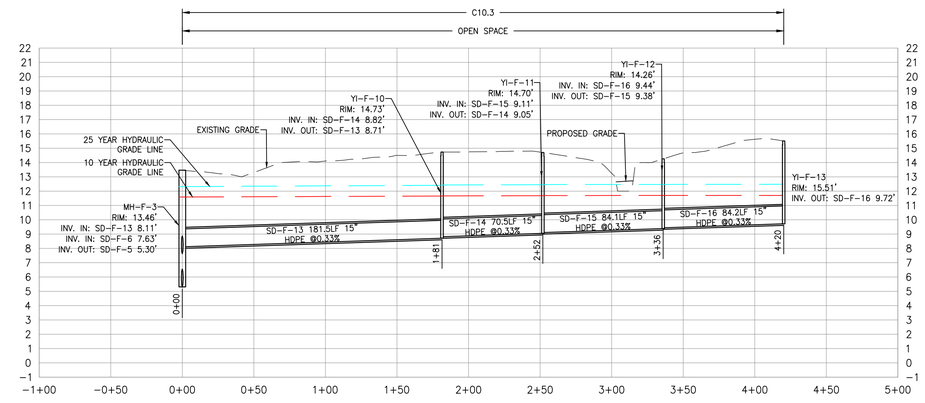
PROFILE OF MBTS V5 EX-SWM TO YI-F-2

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF MBTS V5 EX-SWM TO YI-F-2 (CONT.)

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF MBTS V5 YI-F-8 TO YI-F-13

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

PLOT CODE
PEN1-WHITE 339 INCHES (100mm)
PEN4-MAGENTA 227 INCHES (15mm)
PEN5-BLUE 205 INCHES (35mm)
PEN6-CYAN 214 INCHES (15mm)
PEN3-GREEN 270 INCHES (25mm)
PEN2-YELLOW 207 INCHES (15mm)
PEN1-RED 206 INCHES (15mm)

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DATE
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NO.

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VILLAGE 5 - STORM DRAIN PROFILES

SCALE : AS SHOWN	SHEET NO.
DESIGN BY : DJW	C10.6
DRAWN BY : CEM	
CHECKED BY :	
FILE # : 200001-J	
DATE : JUN 2025	

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SCALE : NTS

INLET BOX SIZE L	INLET BOX SIZE W	COVER SLAB SIZE (L X W)	DRAINAGE INLET TOP UNIT	INLET TOP UNIT REBAR LENGTH	INLET TOP UNIT LIMIT OF PAYMENT	INLET TOP UNIT BAR BENDING DIAGRAM	FRAME & GRATE (SEE DETAIL D-5, SHEET 2) SEE NOTE 6	MAXIMUM PIPE SIZE (SEE NOTE 1) L	MAXIMUM PIPE SIZE (SEE NOTE 1) W	MAXIMUM HEIGHT (INVERT TO TOP OF GRATE)
17⅝"	11⅝"	NO COVER SLAB	TYPE 5 (FRAME & GRATE COMBO)	N/A	N/A	N/A	TYPE 5 (FRAME & GRATE COMBO)	N/A	N/A	4'-0"
24"	24"	NO COVER SLAB	TYPE 6 (FRAME & GRATE COMBO)	N/A	N/A	N/A	TYPE 6 (FRAME & GRATE COMBO)	15"	15"	4'-0"
34"	18"	NO COVER SLAB (D-5, SHEET 7)	TYPES A, C, D, & E (D-5, SHEET 7)	79"	82"	S504 (D-5, SHEET 7)	TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME	24"	N/A	4'-0"
34"	24"	NO COVER SLAB (D-5, SHEET 6)	TYPES A, B, C, D, E, & S (SEE NOTE 3)	79"	82"	S501 (SEE NOTE 4)	TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME	24"	15"	4'-0"
48"	30"	60" x 42" (D-5, SHEET 4)	TYPES A, B, C, D, E & S (SEE NOTE 4)	93"	96"	S501 (SEE NOTE 4)	TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME	36"	21"	11'-4"
48"	48"	60" x 60" (D-5, SHEET 4)	TYPES A, B, C, D, E & S (SEE NOTE 4)	93"	96"	S501 (SEE NOTE 4)	TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME	36"	36"	11'-4"
66"	30"	78" x 42" (D-4, SHEET 4)	TYPES A, B, C, D, E & S (SEE NOTE 4)	111"	114"	S501 (SEE NOTE 4)	TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME	48"	21"	11'-4"
66"	48"	78" x 60" (D-5, SHEET 4)	TYPES A, B, C, D, E & S (SEE NOTE 4)	111"	114"	S501 (SEE NOTE 4)	TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME	48"	36"	11'-4"
66"	66"	78" x 78" (D-5, SHEET 4)	TYPES A, B, C, D, E & S (SEE NOTE 4)	111"	114"	S501 (SEE NOTE 4)	TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME	48"	48"	11'-4"
72"	24"	84" x 36" (D-5, SHEET 5)	TYPES A, B, C, D, E & S (SEE NOTE 4)	117"	120"	S501 (SEE NOTE 4)	TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME	54"	15"	4'-0"
72"	48"	84" x 60" (D-5, SHEET 5)	TYPES A, B, C, D, E & S (SEE NOTE 4)	117"	120"	S501 (SEE NOTE 4)	TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME	54"	36"	11'-4"
72"	72"	84" x 84" (D-5, SHEET 5)	TYPES A, B, C, D, E & S (SEE NOTE 4)	117"	120"	S501 (SEE NOTE 4)	TYPES 1 THRU 4 AND 7 GRATE STANDARD DRAINAGE INLET FRAME	54"	54"	11'-4"

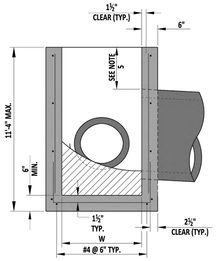
NOTES :

1). MAXIMUM PIPE SIZES ARE CALCULATED USING REINFORCED CONCRETE PIPE PERPENDICULAR TO THE BOX WALL. FOR OTHER PIPE SIZES, TYPES AND SKEW ANGLES OTHER THAN PERPENDICULAR, SEE CHART ON DELDOT DESIGN RESOURCE CENTER. THESE PIPE SIZES ARE NOT APPLICABLE FOR DOGHOUSE BOX INLET SHOWN ON DETAIL D-5, SHEET 9.
2). SEE D-4 OR APPROPRIATE DETAIL SHEET FOR ADDITIONAL NOTES.
3). FOR A 34" X 24" DRAINAGE INLET, SEE DETAIL D-5, SHEET 6 FOR INLET TOP UNIT TYPES A, B, C, D, & E. FOR INLET TOP UNIT TYPE S, SEE DETAIL D-5, SHEET 8.
4). FOR MORE INFORMATION ON DRAINAGE INLET TOP UNIT TYPES A, B, C, D, & E SEE DETAIL D-5, SHEET 3 AND FOR DRAINAGE INLET TOP UNIT, TYPE S, SEE DETAIL D-5, SHEET 8.
5). ONLY USE THE TYPE 7 DRAINAGE INLET GRATE WHEN SPECIFIED ON THE PLANS OR WITH APPROVAL OF THE ENGINEER.

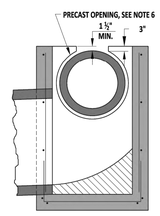
DelDOT							
Andrew Shatt, ENGINEERING SUPPORT, 10/15/2024 DATE	DRAINAGE INLET REFERENCE SHEET				REVIEWED	DEPUTY DIRECTOR - DESIGN	23 October 2024 DATE
RECOMMENDED	STANDARD NO. D-R (2025)	SHT. 1	OF 1		APPROVED	CHIEF ENGINEER	10/25/2024 DATE

24-SEP-2024

SCALE : NTS



SECTION A-A

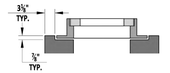


OPTIONAL PIPE OPENING DETAIL
SEE NOTE 5

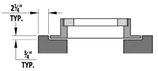
INLET BOX SCHEDULE L	W	FABRICATION TOLERANCE	
17⅝"	11⅝"	+1"	*
24"	24"	+1"	*
34"	18"	-1"	**
34"	24"	-1"	
48"	30"	+6"	
48"	48"	+6"	
66"	30"	+6"	
66"	48"	+6"	
66"	66"	+6"	
72"	24"	-1"	
72"	48"	-1"	
72"	72"	-1"	

* - THESE SIZES ARE TO BE USED FOR LAWN INLETS AND ARE NOT INTENDED TO BE USED IN THE TRAVELWAY. THE MAX DEPTH FOR THESE INLETS IS 4'. SEE NOTE 7 FOR REINFORCEMENT.
** - MAX DEPTH IS 4' FOR THIS DRAINAGE INLET.

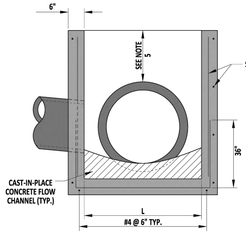
WALL REINFORCEMENT SCHEDULE INTERIOR WALL DIMENSION	AREA OF HORIZONTAL REINFORCEMENT PER FOOT	AREA OF VERTICAL REINFORCEMENT PER FOOT
	IN²	IN²
LESS THAN 4'	0.132	0.132
≥ 4'	0.163	0.132
≥ 4.5'	0.198	0.132
≥ 5'	0.239	0.132
≥ 5.5'	0.284	0.132



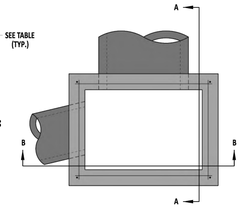
24" X 24" LAWN INLET BOX DETAIL



17 5/8" X 11 5/8" LAWN INLET BOX DETAIL



SECTION B-B



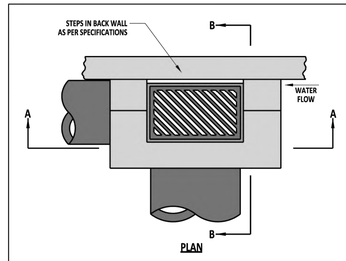
TOP VIEW

NOTES:

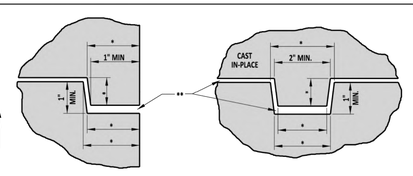
1). PROVIDE AND INSTALL INLET BOXES IN ACCORDANCE WITH SECTION 602 .
2). DO NOT INSTALL PIPES THROUGH ANY CORNER OF THE INLET BOX.
3). RISER SECTIONS MAY BE USED FOR DEEP INLET BOXES.
4). PIPES MAY BE INSTALLED NEAR OR THROUGH JOINTS FOR RISER SECTIONS.
5). WHEN THE COVER ABOVE THE PIPE IS LESS THAN 4" TO THE COVER SLAB OR TOP UNIT OPENING, THE PORTION OF BOX WALL ABOVE THE PIPE MAY BE REMOVED AS SHOWN IN THE OPTIONAL PIPE OPENING DETAIL. FORM AND FILL THE AREA ABOVE THE PIPE WITH HIGH-STRENGTH, NON-SHRINK GROUT MIXED WITH COARSE AGGREGATE IN A 1:1 RATIO BY WEIGHT.
6). WHEN INLET BOX IS PRECAST, PROVIDE A PIPE OPENING DIAMETER BETWEEN 3" AND 4" LARGER THAN OUTSIDE DIAMETER OF PIPE.
7). USE 4" X 4", W4 X W4 WELDED WIRE AS REINFORCEMENT FOR LAWN INLET BOXES.

DelDOT							
Andrew Shatt, ENGINEERING SUPPORT, 12/22/2023 DATE	INLET BOX				REVIEWED	DEPUTY DIRECTOR - DESIGN	22 December 2023 DATE
RECOMMENDED	STANDARD NO. D-4 (2024)	SHT. 1	OF 1		APPROVED	CHIEF ENGINEER	01/11/2024 DATE

22-DEC-2023

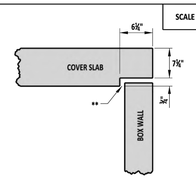


PLAN



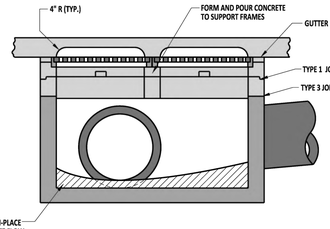
TYPE 1 JOINT DETAIL

TYPE 2 JOINT DETAIL

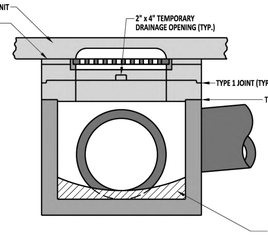


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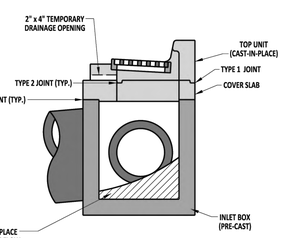
* DIMENSIONS WILL VARY
** JOINT SEALANT AS PER SPECIFICATIONS ONLY BETWEEN 2 PRECAST UNITS



DOUBLE INLET SECTION



SECTION A-A



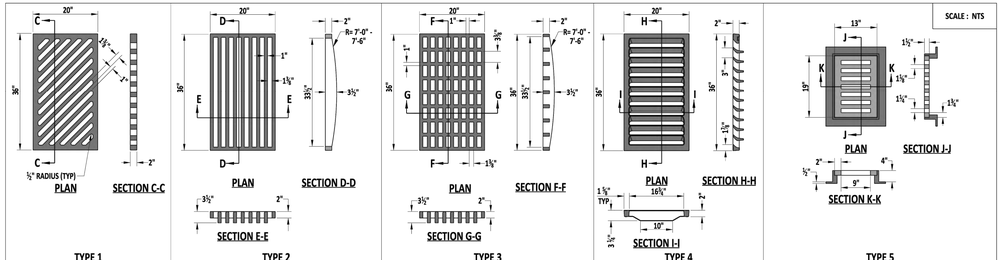
SECTION B-B

NOTE: THIS DETAIL USES A 48" x 30" DRAINAGE INLET FOR ILLUSTRATIVE PURPOSES.

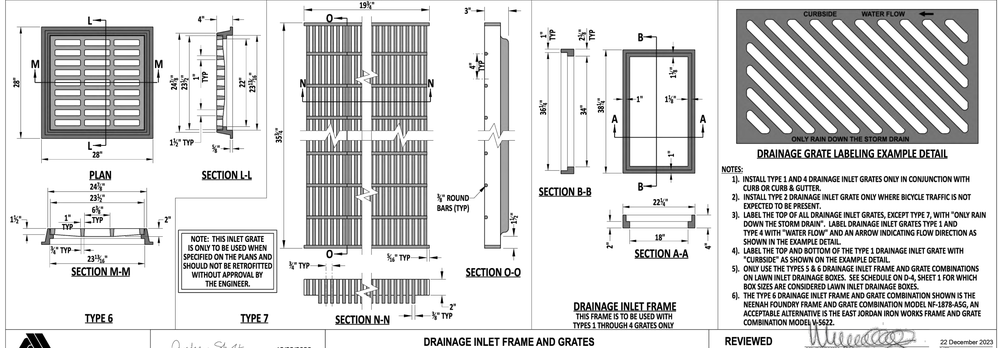
DelDOT							
09/01/2020 DATE	DRAINAGE INLET ASSEMBLY				REVIEWED	DEPUTY DIRECTOR - DESIGN	09/01/2020 DATE
RECOMMENDED	STANDARD NO. D-5 (2020)	SHT. 1	OF 9		APPROVED	CHIEF ENGINEER	09/01/2020 DATE

08/20/2020

SCALE : NTS



TYPE 1 TYPE 2 TYPE 3 TYPE 4 TYPE 5



TYPE 6 TYPE 7

NOTE: THIS INLET GRATE IS ONLY TO BE USED WHEN SPECIFIED ON THE PLANS AND SHOULD NOT BE RETROFITTED WITHOUT APPROVAL BY THE ENGINEER.

DRAINAGE INLET FRAME
THIS FRAME IS TO BE USED WITH TYPES 1 THROUGH 4 GRATES ONLY

DRAINAGE GRATE LABELING EXAMPLE DETAIL

NOTES:
1). INSTALL TYPE 1 AND 4 DRAINAGE INLET GRATES ONLY IN CONJUNCTION WITH CURB OR CURB & GUTTER.
2). INSTALL TYPE 2 DRAINAGE INLET GRATE ONLY WHERE BICYCLE TRAFFIC IS NOT EXPECTED TO BE PRESENT.
3). LABEL THE TOP OF ALL DRAINAGE INLET GRATES, EXCEPT TYPE 7, WITH "ONLY RAIN DOWN THE STORM DRAIN". LABEL DRAINAGE INLET GRATES TYPE 1 AND TYPE 4 WITH "WATER FLOW" AND AN ARROW INDICATING FLOW DIRECTION AS SHOWN IN THE EXAMPLE DETAIL.
4). LABEL THE TOP AND BOTTOM OF THE TYPE 1 DRAINAGE INLET GRATE WITH "CURBSIDE" AS SHOWN ON THE EXAMPLE DETAIL.
5). ONLY USE THE TYPES 5 & 6 DRAINAGE INLET FRAME AND GRATE COMBINATIONS ON LAWN INLET DRAINAGE BOXES. SEE SCHEDULE ON D-4, SHEET 1 FOR WHICH BOX SIZES ARE CONSIDERED LAWN INLET DRAINAGE BOXES.
6). THE TYPE 6 DRAINAGE INLET FRAME AND GRATE COMBINATION SHOWN IS THE NEENAH FOUNDRY FRAME AND GRATE COMBINATION MODEL NF-1878-A5G, AN ACCEPTABLE ALTERNATIVE IS THE EAST JORDAN IRON WORKS FRAME AND GRATE COMBINATION MODEL V-5622.

DelDOT							
Andrew Shatt, ENGINEERING SUPPORT, 12/22/2023 DATE	DRAINAGE INLET FRAME AND GRATES				REVIEWED	DEPUTY DIRECTOR - DESIGN	22 December 2023 DATE
RECOMMENDED	STANDARD NO. D-5 (2024)	SHT. 2	OF 9		APPROVED	CHIEF ENGINEER	01/11/2024 DATE

22-DEC-2023

DATE	REVISIONS	NO.

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 - STORM DRAIN DETAILS

SCALE	: AS SHOWN
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

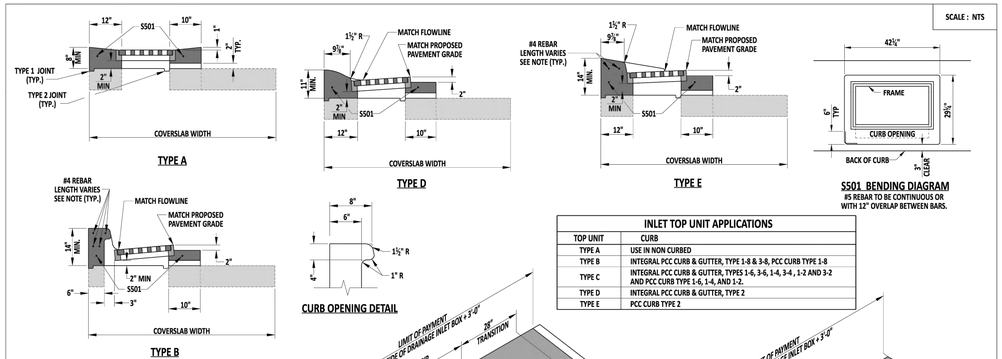
SHEET NO. C11.1

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PLOT CODE
PEN1-RED 005 INCHES (0.13mm)
PEN2-YELLOW 007 INCHES (0.18mm)
PEN3-GREEN 010 INCHES (0.25mm)
PEN4-CYAN 014 INCHES (0.35mm)
PEN5-MAGENTA 020 INCHES (0.50mm)
PEN6-WHITE 028 INCHES (0.70mm)

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SCALE : NTS



INLET TOP UNIT APPLICATIONS	
TOP UNIT	CURB
TYPE A	USE IN NON CURBED
TYPE B	INTEGRAL PCC CURB & GUTTER, TYPE 1-8 & 3-8, PCC CURB TYPE 1-8
TYPE C	INTEGRAL PCC CURB & GUTTER, TYPES 1-6, 3-6, 1-4, 3-4 , 1-2 AND 3-2 AND PCC CURB TYPE 1-6, 1-4, AND 1-2.
TYPE D	INTEGRAL PCC CURB & GUTTER, TYPE 2
TYPE E	PCC CURB TYPE 2

* - THIS DIMENSION VARIES BASED ON THE HEIGHT OF THE CURB AND GUTTER OR CURB USED:
- INTEGRAL PCC CURB AND GUTTER, TYPES 1-6 AND 3-6 & CURB, TYPE 1-6 - 12" MIN.
- INTEGRAL PCC CURB AND GUTTER, TYPES 1-4 AND 3-4 & CURB, TYPE 1-4 - 10" MIN.
- INTEGRAL PCC CURB AND GUTTER, TYPES 1-2 AND 3-2 & CURB, TYPE 1-2 - 8" MIN.

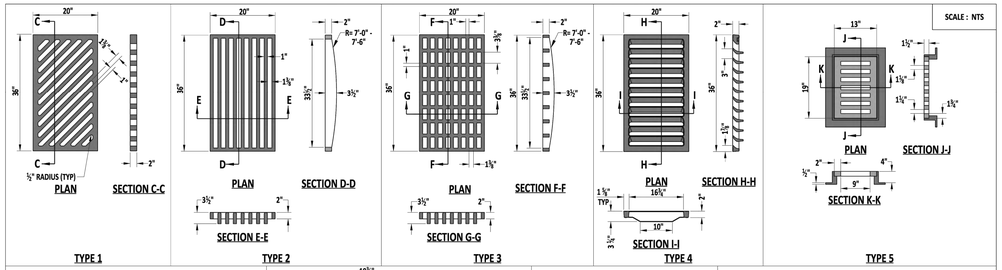
NOTE: LENGTH OF #4 REBAR SHALL BE THE OUTSIDE OF THE DRAINAGE INLET BOX PLUS 2'-9".

TYPE E TOP UNITS ARE INTENDED TO LIMIT INTRUSION INTO BIKE AND TRAVEL LANES. WHERE SUFFICIENT SHOULDER EXISTS, THE GRATE IS TO BE INSTALLED IN LINE WITH THE CURB FACE.

DelDOT						
Andrew Shatt 12/22/2023 ENGINEERING SUPPORT DATE	DRAINAGE INLET TOP UNITS				REVIEWED	22 December 2023 DEPUTY DIRECTOR - DESIGN DATE
RECOMMENDED	STANDARD NO. D-5 (2024)	SHT. 3	OF 9		APPROVED	01/11/2024 CHIEF ENGINEER DATE

22-DEC-2023

SCALE : NTS

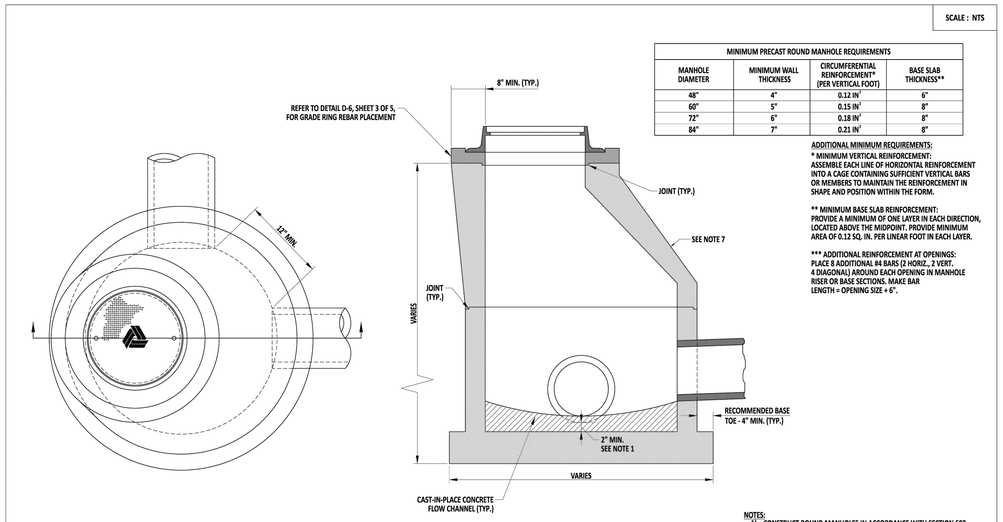


NOTES:
1). INSTALL TYPE 1 AND 4 DRAINAGE INLET GRATES ONLY IN CONJUNCTION WITH CURB OR CURB & GUTTER.
2). INSTALL TYPE 2 DRAINAGE INLET GRATE ONLY WHERE BICYCLE TRAFFIC IS NOT EXPECTED TO BE PRESENT.
3). LABEL THE TOP OF ALL DRAINAGE INLET GRATES, EXCEPT TYPE 7, WITH "ONLY RAIN DOWN THE STORM DRAIN". LABEL DRAINAGE INLET GRATES TYPE 1 AND TYPE 4 WITH "WATER FLOW" AND AN ARROW INDICATING FLOW DIRECTION AS SHOWN IN THE EXAMPLE DETAIL.
4). LABEL THE TOP AND BOTTOM OF THE TYPE 1 DRAINAGE INLET GRATE WITH "CURBSIDE" AS SHOWN ON THE EXAMPLE DETAIL.
5). ONLY USE THE TYPES 5 & 6 DRAINAGE INLET FRAME AND GRATE COMBINATIONS ON LAWN INLET DRAINAGE BOXES. SEE SCHEDULE ON D-4, SHEET 1 FOR WHICH BOX SIZES ARE CONSIDERED LAWN INLET DRAINAGE BOXES.
6). THE TYPE 6 DRAINAGE INLET FRAME AND GRATE COMBINATION SHOWN IS THE NEENAH FOUNDRY FRAME AND GRATE COMBINATION MODEL NF-1878-A5G, AN ACCEPTABLE ALTERNATIVE IS THE EAST JORDAN IRON WORKS FRAME AND GRATE COMBINATION MODEL V-5622.

DelDOT						
Andrew Shatt 12/22/2023 ENGINEERING SUPPORT DATE	DRAINAGE INLET FRAME AND GRATES				REVIEWED	22 December 2023 DEPUTY DIRECTOR - DESIGN DATE
RECOMMENDED	STANDARD NO. D-5 (2024)	SHT. 2	OF 9		APPROVED	01/11/2024 CHIEF ENGINEER DATE

22-DEC-2023

SCALE : NTS



MINIMUM PRECAST ROUND MANHOLE REQUIREMENTS			
MANHOLE DIAMETER	MINIMUM WALL THICKNESS	CIRCUMFERENTIAL REINFORCEMENT* (PER VERTICAL FOOT)	BASE SLAB THICKNESS**
48"	4"	0.12 IN^2	6"
60"	5"	0.15 IN^2	8"
72"	6"	0.18 IN^2	8"
84"	7"	0.21 IN^2	8"

ADDITIONAL MINIMUM REQUIREMENTS:
* MINIMUM VERTICAL REINFORCEMENT: ASSEMBLE EACH LINE OF HORIZONTAL REINFORCEMENT INTO A CAGE CONTAINING SUFFICIENT VERTICAL BARS OR MEMBERS TO MAINTAIN THE REINFORCEMENT IN SHAPE AND POSITION WITHIN THE FORM.

** MINIMUM BASE SLAB REINFORCEMENT: PROVIDE A MINIMUM OF ONE LAYER IN EACH DIRECTION, LOCATED ABOVE THE MIDPOINT. PROVIDE MINIMUM AREA OF 0.12 SQ. IN. PER LINEAR FOOT IN EACH LAYER.

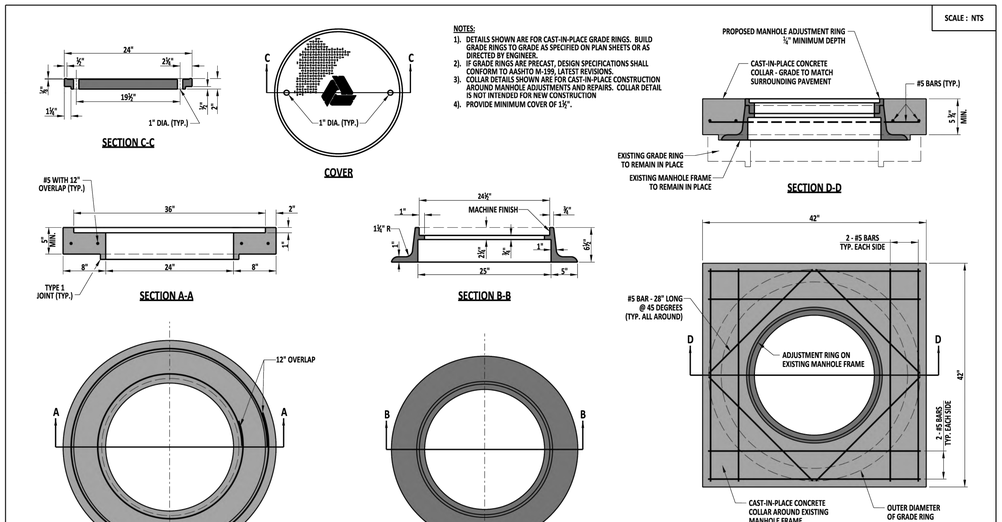
*** ADDITIONAL REINFORCEMENT AT OPENINGS: PLACE 8 ADDITIONAL #4 BARS (2 HORIZ., 2 VERT. 4 DIAGONAL) AROUND EACH OPENING IN MANHOLE RISER OR BASE SECTIONS. MAKE BAR LENGTH = OPENING SIZE + 6".

NOTES:
1). CONSTRUCT ROUND MANHOLES IN ACCORDANCE WITH SECTION 602.
2). STRUCTURE BASE TOE IS RECOMMENDED TO COUNTERACT BUOYANCY.
3). PROVIDE A MINIMUM COVER OF 1½" FOR ALL REINFORCEMENT.
4). SEE D-6, SHEET 3 OF 5, FOR GRADE RING DETAILS.
5). SEE D-6, SHEET 5 OF 5, FOR ROUND COVER SLAB DETAILS.
6). FABRICATOR IS RESPONSIBLE FOR LIFTING, HANDLING AND TRANSPORTATION STRESSES.
7). DO NOT INSTALL PIPES IN THE CONICAL SECTION OF THE MANHOLE ASSEMBLY

DelDOT						
Andrew Shatt 10/15/2024 ENGINEERING SUPPORT DATE	ROUND MANHOLE ASSEMBLY				REVIEWED	23 October 2024 DEPUTY DIRECTOR - DESIGN DATE
RECOMMENDED	STANDARD NO. D-6 (2025)	SHT. 2	OF 5		APPROVED	10/25/2024 CHIEF ENGINEER DATE

24-SEP-2024

SCALE : NTS



NOTES:
1). DETAILS SHOWN ARE FOR CAST-IN-PLACE GRADE RINGS. BUILD GRADE RINGS TO GRADE AS SPECIFIED ON PLAN SHEETS OR AS DIRECTED BY ENGINEER.
2). IF GRADE RINGS ARE PRECAST, DESIGN SPECIFICATIONS SHALL CONFORM TO AASHTO M-199, LATEST REVISIONS.
3). COLLAR DETAILS SHOWN ARE FOR CAST-IN-PLACE CONSTRUCTION AROUND MANHOLE ADJUSTMENTS AND REPAIRS. COLLAR DETAIL IS NOT INTENDED FOR NEW CONSTRUCTION
4). PROVIDE MINIMUM COVER OF 1½".

NOTES:
1). USE TOP UNIT WHERE BITUMINOUS PAVEMENT IS NOT AVAILABLE.
2). WHERE COLLAR EXTENDS BEYOND GRADE RING, PREPARE ADEQUATE SUB-BASE.

DelDOT						
09/01/2020 ENGINEERING SUPPORT DATE	MANHOLE GRADE RING, TOP UNIT, FRAME AND COVER				REVIEWED	09/01/2020 DEPUTY DIRECTOR - DESIGN DATE
RECOMMENDED	STANDARD NO. D-6 (2020)	SHT. 3	OF 5		APPROVED	09/01/2020 CHIEF ENGINEER DATE

08/20/2020

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NO.	REVISIONS	DATE

MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 - STORM DRAIN DETAILS

SCALE	: AS SHOWN
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

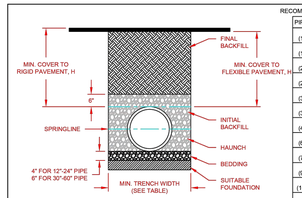
SHEET NO.
C11.2

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PLOT CODE
PEN1-WHITE 259 INCHES (10mm)
PEN2-MAGENTA 207 INCHES (10mm)
PEN3-BLUE 1003 INCHES (50mm)
PEN4-CYAN 214 INCHES (10mm)
PEN5-GREEN 1078 INCHES (50mm)
PEN6-YELLOW 207 INCHES (10mm)
PEN7-RED 266 INCHES (10mm)

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4" (100mm)	21" (533mm)
6" (150mm)	23" (584mm)
8" (200mm)	26" (660mm)
10" (250mm)	28" (711mm)
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm), 6" (150mm) FOR 30"-60" (750mm-1500mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. FOR TRAFFIC APPLICATIONS WITH LESS THAN FOUR FEET OF COVER, EMBEDMENT OF THE PIPE SHALL BE USING ONLY A CLASS I OR CLASS II BACKFILL.

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS*

PIPE DIAM.	SURFACE LIVE LOADING CONDITION H-25	HEAVY CONSTRUCTION (75T AXLE LAOD)*
12" - 48" (300mm - 1200mm)	12" (305mm)	48" (1219mm)
60" (1500mm)	24" (610mm)	60" (1524mm)

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER
**SEE BACKFILL REQUIREMENTS IN NOTE 6.

MAXIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

PIPE DIAM.	CLASS I COMPACTED	CLASS I DUMPED	CLASS II 95%	CLASS II 90%	CLASS III 95%
4" (100mm)	37 (11.3m)	18 (5.5m)	25 (7.6m)	18 (5.5m)	18 (5.5m)
6" (150mm)	44 (13.4m)	20 (6.1m)	29 (8.8m)	20 (6.1m)	21 (6.4m)
8" (200mm)	32 (9.8m)	15 (4.6m)	22 (6.7m)	15 (4.6m)	16 (4.9m)
10" (250mm)	38 (11.6m)	18 (5.5m)	26 (7.9m)	18 (5.5m)	18 (5.5m)
12" (300mm)	35 (10.7m)	17 (5.2m)	24 (7.3m)	17 (5.2m)	17 (5.2m)
15" (375mm)	38 (11.6m)	17 (5.2m)	25 (7.6m)	17 (5.2m)	18 (5.5m)
18" (450mm)	36 (11.0m)	17 (5.2m)	24 (7.3m)	17 (5.2m)	17 (5.2m)
24" (600mm)	28 (8.5m)	13 (4.0m)	20 (6.1m)	13 (4.0m)	14 (4.3m)
30" (750mm)	28 (8.5m)	13 (4.0m)	20 (6.1m)	13 (4.0m)	14 (4.3m)
36" (900mm)	26 (7.9m)	12 (3.7m)	18 (5.5m)	13 (4.0m)	13 (4.0m)
42" (1050mm)	23 (7.0m)	11 (3.4m)	16 (4.9m)	11 (3.4m)	11 (3.4m)
48" (1200mm)	25 (7.6m)	11 (3.4m)	17 (5.2m)	11 (3.4m)	12 (3.7m)
60" (1500mm)	25 (7.6m)	11 (3.4m)	17 (5.2m)	11 (3.4m)	12 (3.7m)

FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE;
UNIT WEIGHT OF SOIL (γs) = 120 PCF

REV	DESCRIPTION	BY	MM/DD/YY	CHK'D
	COVER HEIGHTS TO MATCH TN 2.01	ASC	09/26/17	CMT

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TRENCH INSTALLATION DETAIL (N=12 PER ASSTM)

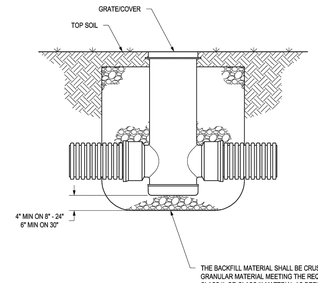
DRAWING NUMBER: STD-101

ADS — 4640 TRUEMAN BLVD HILLIARD, OHIO 43026 — ADVANCED DRAINAGE SYSTEMS, INC.

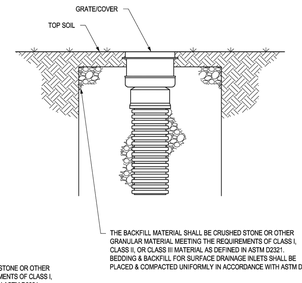
DWN: 12/29/16 — DES: — SCALE: NTS — SHEET: 1 OF 1

NON TRAFFIC INSTALLATION

DRAIN BASIN



INLINE DRAIN



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DATE	9-30-09
REVISED BY	MMH
DATE	03-11-16
DWG SIZE	A
MATERIAL	
PROJECT NO./NAME	
SCALE	1:25
SHEET	1 OF 1

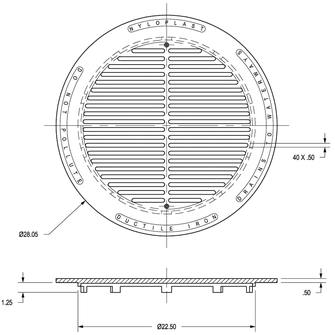
Nyloplast — 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com

TITLE: DRAIN BASIN & INLINE DRAIN NON TRAFFIC INSTALLATION

DWG NO. 7001-110-111 REV E

2401DI

APPROX. DRAIN AREA = 164.94 SQ IN
APPROX. WEIGHT = 67.50 LBS



DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
GRATE HAS LIGHT DUTY RATING
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
SIZE OF OPENING MEETS REQUIREMENTS OF AMERICAN DISABILITY ACT AS STATED IN FEDERAL REGISTER PART III, DEPARTMENT OF JUSTICE, 28 CFR PART 36.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST. 6327.1 NYLOPLAST

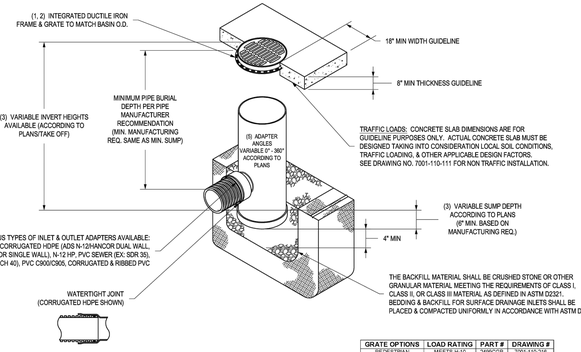
DRAWN BY	CJA
DATE	7-6-01
REVISED BY	JJC
DATE	2-22-11
DWG SIZE	A
MATERIAL	
PROJECT NO./NAME	
SCALE	1:8
SHEET	1 OF 1

Nyloplast — 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com

TITLE: 24 IN DROP IN

DWG NO. 7001-110-075 REV D

NYLOPLAST 24" DRAIN BASIN: 2824AG _ _X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	2499CGP	7001-110-216
STANDARD	MEETS H-20	2499CGS	7001-110-217
SOLID COVER	MEETS H-20	2499CGC	7001-110-218
DOME	N/A	2499CGD	7001-110-219
DROP IN GRATE	LIGHT DUTY	2407GT	7001-110-075

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST. 6327.3 NYLOPLAST

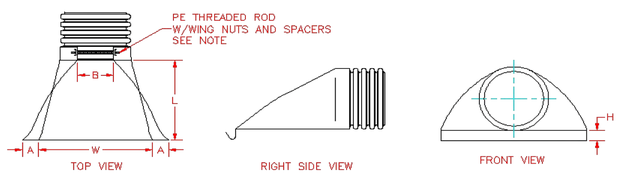
DRAWN BY	EBC
DATE	04-03-06
REVISED BY	NMH
DATE	03-14-16
DWG SIZE	A
MATERIAL	
PROJECT NO./NAME	
SCALE	1:40
SHEET	1 OF 1

Nyloplast — 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com

TITLE: 24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-192 REV E

FLARED END SECTIONS



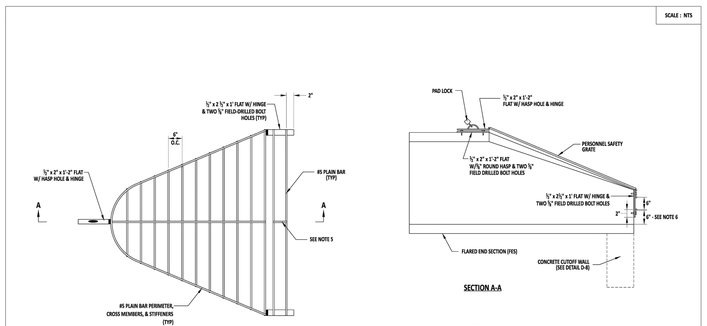
PART #	PIPE SIZE	A	B(MAX)	H	L	W
1015NP	10 in (250 mm)	3.8 in (95 mm)	10.0 in (254 mm)	6.5 in (165 mm)	28.0 in (711 mm)	34.5 in (876 mm)
1215NP	12 & 15 (300 & 375mm)	6.5 in (165 mm)	10.0 in (254 mm)	6.5 in (165 mm)	25.0 in (635 mm)	29.0 in (737 mm)
1810NP	18 in (450 mm)	7.5 in (191 mm)	15.0 in (381 mm)	6.5 in (165 mm)	32.0 in (813 mm)	35.0 in (889 mm)
2410NP	24 in (600 mm)	7.5 in (191 mm)	18.0 in (457 mm)	6.5 in (165 mm)	36.0 in (914 mm)	45.0 in (1143 mm)
3015NP	30 in (750 mm)	7.5 in (191 mm)	12.0 in (305 mm)	8.6 in (218 mm)	58.0 in (1473 mm)	63.0 in (1600 mm)
3615NP	36 in (900 mm)	7.5 in (191 mm)	25.0 in (635 mm)	8.6 in (218 mm)	58.0 in (1473 mm)	63.0 in (1600 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

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ADS Advanced Drainage Systems, Inc.

DRAWING #:	6070	
DRAWN BY:	JCB	01.17.07
APPROVED BY:	JCB	06.28.07
REVISIONS:	TJR	6/7/2016



NOTES:
1). INSTALL PERSONNEL SAFETY GRATES (PSG) ON THE INLETS OF STORM WATER PIPES 12" OR LARGER IN DIAMETER THAT ARE NOT STRAIGHT FROM THE INLET TO THE OUTFALL.
2). IF A TRAVERSABLE GRATE OR AN INTERNAL ENERGY DISSIPATER IS INSTALLED ON THE OUTLET OF A STORM WATER PIPE 12" OR LARGER IN DIAMETER, A PSG MUST BE INSTALLED ON THE INLET.
3). FIT THE GRATE TO THE OUTSIDE PERIMETER OF THE FLARED END SECTION (FES) ± 2".
4). DRILL ALL BOLT HOLES IN THE FIELD.
5). INSTALL A STIFFENER WHERE TWO OR MORE BARS ARE USED.
6). PLACE BOTTOM BAR 6" ABOVE INVERT OF FES.
7). ATTACH ALL HARDWARE IN CONCRETE USING APPROVED TAMPER PROOF ANCHORS.

DelDOT — RECOMMENDED — 10/15/2024 — STANDARD NO. D-3 (2025) — PERSONNEL SAFETY GRATE FOR PIPE INLET — SHT. 2 OF 2 — REVIEWED — 23 October 2024 — APPROVED — 10/25/2024

DelDOT — RECOMMENDED — 05/01/2020 — STANDARD NO. D-5 (2020) — DOUBLE INLET COVER SLAB — SHT. 5 OF 9 — REVIEWED — 05/01/2020 — APPROVED — 06/05/2020

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SALISBURY, MARYLAND 21801
410-742-3115, FAX 410-548-5790
www.gmbnet.com

MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 - STORM DRAIN DETAILS

SCALE	: AS SHOWN
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C11.3

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PLOT CODE
PEN1-RED .007 INCHES (.18mm) 008 INCHES (.20mm)
PEN2-YELLOW .007 INCHES (.18mm) 010 INCHES (.25mm)
PEN3-GREEN .010 INCHES (.25mm) 014 INCHES (.35mm)
PEN4-BLUE .020 INCHES (.50mm) 028 INCHES (.70mm)
PEN5-MAGENTA .031 INCHES (.80mm) 039 INCHES (1.00mm)
PEN6-WHITE

G:\Projects\2021\21001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C11.3 Storm Drain Details.dwg, 2/19/2026, DJ L White

MILLVILLE BY THE SEA
VILLAGE 5
WATER DISTRIBUTION PLANS
MILLVILLE, DELAWARE
GMB File No. 210001-J

GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHY WAS PERFORMED BY STEPHENS ENVIRONMENTAL CONSULTING, INC. FEBRUARY 2005. FIELD VERIFICATION WAS PERFORMED BY MCCRONE, INC. JUNE 2005. BOUNDARY VERIFICATION WAS PERFORMED BY CIVIL ENGINEERING ASSOCIATES JULY 2012.
2. ALL SIDE LOT LINES ARE RESERVED FROM THE CENTERLINE A SEVEN (7) FOOT WIDE DRAINAGE AND/OR UTILITY EASEMENT, EXCEPT AT INTERIOR TOWNHOME LOTS. A TEN (10) FOOT WIDE DRAINAGE AND/OR UTILITY EASEMENT IS RESERVED ON EACH LOT ALONG THE FRONT AND REAR PROPERTY LINES.
3. EXISTING UTILITIES ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THROUGH TEST PITTING, THE LOCATIONS, SIZE, AND INVERT ELEVATIONS OF ALL UNDERGROUND UTILITIES AS REQUIRED TO GIVE TIMELY ADVANCE NOTICE TO ENGINEERS OF ANY CONFLICT BETWEEN EXISTING AND NEW WORK.
4. THE CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-282-8555) AND SUSSEX COUNTY 48 HOURS PRIOR TO EXCAVATION TO HAVE UNDERGROUND UTILITIES MARKED. THE CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS PRIOR TO ANY EXCAVATION.
5. THE CONTRACTOR SHALL REPAIR OR REPLACE IN KIND ANY EXISTING FEATURES DAMAGED OR DESTROYED DURING CONSTRUCTION.
6. ALL BACKFILLED AND DISTURBED AREAS TO BE SEEDED AND MULCHED WITH 4" OF TOPSOIL TO BE PLACED IN FILL AREAS.
7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY STAKE OUT OF LINE AND GRADE.
8. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT, LATEST EDITION, AND ALL RULES AND REGULATIONS THERETO.
9. THE CONTRACTOR SHALL KEEP EXISTING UTILITIES IN OPERATION DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL PERMITS SECURED, WHICH TAKE PRECEDENCE OVER SPECIFICATIONS.
11. THE CONTRACTOR SHALL EXERCISE EXTREME CARE AND CAUTION AND TAKE MEASURES NECESSARY TO PROTECT TREES DURING CONSTRUCTION ACTIVITY.
12. THE CONTRACTOR IS RESPONSIBLE FOR SECURING AND PROTECTING UTILITY POLES BEFORE AND DURING CONSTRUCTION ACTIVITIES.
13. ANY DISTURBED AREAS OUTSIDE THE RIGHT-OF-WAY SHALL BE RESTORED TO THEIR ORIGINAL CONDITION IMMEDIATELY.

SITE NOTES

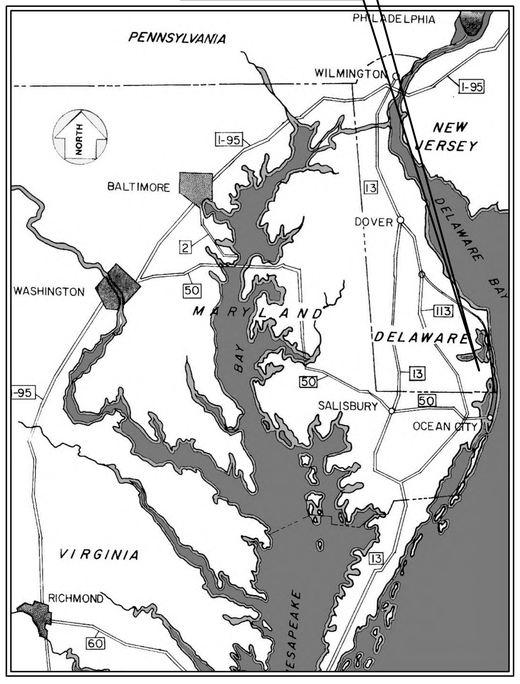
1. SITE IS TAX MAP 134-15.00 PARCEL 120.01
2. ZONING IS MASTER PLANNED COMMUNITY (MPC).
3. SITE AREA IS 19.55 ACRES.
4. THE MAXIMUM NUMBER OF DWELLING UNITS SHALL NOT EXCEED 156 (8/AC).
5. THE INTERIOR STREET DESIGN SHALL INCLUDE STREET LIGHTING AND SIDEWALKS.
6. ALL SIGNALS, ENTRANCES, INTERSECTIONS, ROADWAY AND IMPROVEMENTS, AND MULTI-MODAL FACILITIES SHALL BE CONSTRUCTED AS REQUIRED BY DELDOT.
7. THE DEVELOPMENT SHALL BE SERVED BY A CENTRAL WATER SYSTEM PROVIDING ADEQUATE DRINKING WATER AND FIRE PROTECTION AS REQUIRED BY APPLICABLE REGULATIONS. ALL WATER WORK IS TO BE CONSTRUCTED IN ACCORDANCE TO TIDEWATER UTILITIES STANDARDS AND SPECIFICATIONS.
8. STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STATE AND COUNTY REQUIREMENTS. IF IT IS DETERMINED THAT ADDITIONAL AREAS ARE REQUIRED FOR STORMWATER MANAGEMENT, PARKING, OR OTHER USE, THE ADDITIONAL AREA SHALL BE TAKEN FROM LOT AREAS, NOT DESIGNATED WETLANDS OR OPEN SPACE AREAS.
9. DESIGNATED WETLANDS SHALL NOT BE INCLUDED IN ANY INDIVIDUAL LOTS. DESIGNATED WETLANDS SHALL BE MAINTAINED AS NOT-DISTURBANCE AREAS.
10. NO SITE PREPARATION, SITE DISTURBANCE, SITE EXCAVATION OR OTHER SITE CONSTRUCTION SHALL BE COMMENCED UNTIL ALL PERMITS REQUIRED BY ALL OTHER LAWS, ORDINANCES, RULES AND REGULATIONS HAVE BEEN ISSUED AND THE APPROVED FINAL SITE PLAN IS RECORDED, EXCEPT SUCH SITE WORK FOR WHICH A PERMIT HAS BEEN ISSUED BY THE SUSSEX CONSERVATION DISTRICT.
11. THE APPLICANT SHALL SUBMIT ROAD NAMES AND A PLAN FOR ADDRESSING OF STREETS TO THE COUNTY'S MAPPING AND ADDRESSING DEPARTMENT FOR REVIEW AND APPROVAL.
12. SUBDIVISION STREETS CONSTRUCTED ARE PRIVATE AS SHOWN ON THIS PLAN AND ARE TO BE MAINTAINED BY THE DEVELOPER, PROPERTY OWNERS OR BOTH. THE STATE OF DELAWARE ASSUMES NO RESPONSIBILITIES FOR THE FUTURE MAINTENANCE OF THESE STREETS.
13. ACCESS TO ALL LOTS IS TO BE FROM SUBDIVISION STREETS.
14. MAINTENANCE OF THE STREETS WITHIN THE SUBDIVISION WILL BE THE RESPONSIBILITY OF THE DEVELOPER, THE HOME OWNERS ASSOCIATION WITHIN THE SUBDIVISION, OR BOTH. WHEN ALL LOTS ARE PURCHASED THE HOME OWNERS ASSOCIATION WILL BE SOLELY RESPONSIBLE FOR THE MAINTENANCE OF THE INTERIOR STREETS. NEITHER THE STATE OF DELAWARE NOR THE TOWN OF MILLVILLE ASSUME ANY RESPONSIBILITY FOR FUTURE MAINTENANCE OF THE STREETS.
15. MAINTENANCE OF THE STORMWATER MANAGEMENT AREAS WILL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION AND/OR THE OWNER DEVELOPER.
16. LOTS TO BE SERVED WITH WATER BY TIDEWATER UTILITIES, INC.
17. LOTS TO BE SERVED WITH SEWER BY NORTH MILLVILLE EXPANSION OF THE BETHANY BEACH SANITARY SEWER DISTRICT, SUSSEX COUNTY, DELAWARE.
18. THE SUBDIVISION LIES ENTIRELY WITHIN FLOOD ZONE 'X', AREAS OF MINIMAL FLOODING PER FEMA MAP# 10005C0495K, DATED MARCH 16, 2015.
19. BUILDING CONSTRUCTION TO BE SINGLE FAMILY RESIDENCES (TYPE 5 CONSTRUCTION) AND TOWNHOMES / CONDOMINIUMS.
20. OPEN SPACE AREAS AND COMMON AREAS WILL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION OR THEIR ASSIGNS UPON COMPLETION OF THE PROJECT.
21. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS.
22. PRIVATE RIGHT-OF-WAY SHALL BE AN EASEMENT FOR PUBLIC/PRIVATE UTILITY SERVICES AND INGRESS/EGRESS FOR HOMEOWNERS, PUBLIC AGENCIES PROVIDING SERVICES TO HOMEOWNERS, AND THE DEVELOPER AND ITS AGENTS UNTIL THE RIGHT-OF-WAY IS TURNED OVER TO THE HOME OWNERS ASSOCIATION.
23. SUBDIVISION OF FUTURE PHASES INTO SEPARATE PARCELS DEFERRED UNTIL RECORDATION OF PLANS FOR EACH FUTURE PHASE.

PROJECT AREA



LOCATION MAP
SCALE: 1" = 2000'

MILLVILLE



VICINITY MAP
SCALE: 1" = 20 MILES

LIST OF DRAWINGS

G1.5	TUI COVER SHEET
C12.0	WATER DISTRIBUTION KEY SHEET
C12.1	WATER DISTRIBUTION PLAN
C12.2	WATER DISTRIBUTION PLAN
C12.3	WATER DISTRIBUTION PROFILES
C12.4	WATER DISTRIBUTION PROFILES
C13.1	WATER DISTRIBUTION DETAILS

CONTACT INFO

OWNER
FORESTAR
671 SOUTH CARTER ROAD,
SUITE 6
SMYRNA, DE 19977
CONTACT: JOSHUA MASTRANGELO (302)-484-8324
JOSHUAMASTRANGELO@FORESTAR.COM

CIVIL ENGINEER
GEORGE, MILES, & BUHR, LLC
206 WEST MAIN ST
SALISBURY, MD 21801
PHONE: 410-742-3115
CONTACT: CHRISTOPHER J. PFEIFER, P.E.

ZONING DATA	
SITE ADDRESS	APPROX. 150 FT SOUTH OF INTERSECTION OF ROXANA RD AND ENDLESS SUMMER DR
TAX MAP	134-15.00-120.01
DEED BOOK	D.B. 5320, P. 273
PLOT BOOK	N/A
CURRENT ZONING	MPC
PROPOSED ZONING	MPC
CURRENT USE	VACANT LAND
PROPOSED USE	RESIDENTIAL
SITE AREA DATA	
EXISTING SITE AREA	± 19.55 ACRES
PROPOSED SITE AREA	± 19.57 ACRES
EXISTING WOODED AREA	N/A
WOODS TO REMAIN	N/A
OPEN SPACE REQUIRED	N/A
OPEN SPACE PROVIDED	± 2.86 ACRES
LOT AREA	± 12.43 ACRES
ROW AREA	± 4.27 ACRES
EXISTING WETLAND AREA	N/A
WETLAND AREA TO REMAIN	N/A
UNIT COUNTS	
TOTAL	77
SINGLE FAMILY	49
DUPLEX	28
GROSS DENSITY	3.93 UNITS/ACRE
NET DENSITY	5.03 UNITS/ACRE
PARKING REQUIRED	231 SPACES
PARKING PROVIDED	235 SPACES
MINIMUM SINGLE FAMILY SETBACKS	
FRONT	20'
REAR	10' ADJACENT TO OPEN SPACE 20' WHEN BACK TO BACK
SEPARATION	14' (MINIMUM 7' SIDEYARD)
SIDE YARD AT CORNER LOT	10'
LOT DEPTH	100'
MINIMUM DUPLEX SETBACKS	
FRONT	20'
REAR	10' ADJACENT TO OPEN SPACE 20' WHEN BACK TO BACK
SEPARATION	20' (MINIMUM 10' SIDEYARD)
SIDE YARD AT CORNER LOT	10'
LOT DEPTH	100'
SITE GENERAL INFORMATION	
FLOOD ZONE FEMA MAP #	10005C0495K, DATED MARCH 16, 2015, ZONE X
SEWER PROVIDER	SUSSEX COUNTY, NORTH MILLVILLE EXPANSION OF BETHANY BEACH SANITARY SEWER DISTRICT
WATER PROVIDER	TIDEWATER UTILITIES, INC.
ELECTRIC PROVIDER	DELAWARE ELECTRIC
AMENITY	USE OF ORIGINAL MILLVILLE BY THE SEA AMENITIES INCLUDING: POOL, CLUBHOUSE, ACTIVE AND PASSIVE OPEN SPACE

OWNER'S CERTIFICATION:
I HEREBY CERTIFY THAT I AM AN OWNER OF THE PROPERTY DESCRIBED AN SHOWN ON THIS PLAN AND THAT THE PLAN WAS MADE AT MY DIRECTION. THE UNDERSIGNED, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN AND THAT THE SUSSEX CONSERVATION DISTRICT OR THEIR DESIGNATED AGENT SHALL HAVE RIGHT TO CONDUCT ON-SITE INSPECTIONS.

OWNER'S SIGNATURE — DATE
FORESTAR

ENGINEER'S CERTIFICATION:
"I CHRISTOPHER J. PFEIFER, P.E. HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HERE HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEVE REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE."

2/18/2026
ENGINEER'S SIGNATURE — DATE

PLOT CODE
PEN1-RED 206 INCHES 1 (1mm)
PEN2-YELLOW 207 INCHES 1 (1mm)
PEN3-GREEN 210 INCHES 1 (1mm)
PEN4-CYAN 214 INCHES 1 (1mm)
PEN5-BLUE 201 INCHES 1 (1mm)
PEN6-MAGENTA 207 INCHES 1 (1mm)
PEN7-WHITE 339 INCHES 1 (1mm)

G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Set\Village 5\Engineering Plans\G1.5 TUI Cover Sheet.dwg, 2/18/2026, DJ L White

DATE | REVISIONS | NO.

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55 W. MAIN STREET
MIDDLETOWN, DE 19709
(302) 376-8833

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www.gmbnet.com

MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

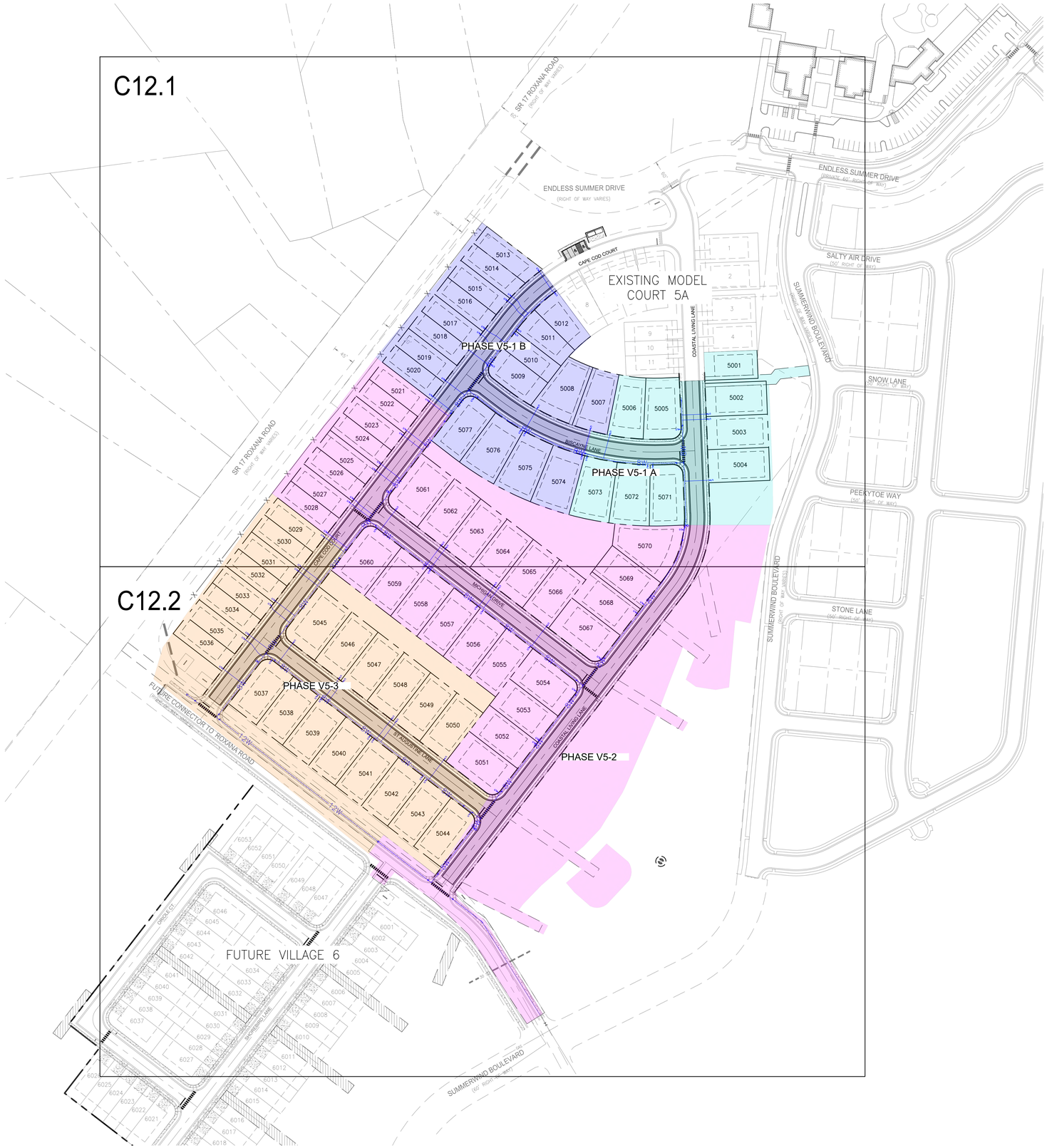
CHRISTOPHER J. PFEIFER, LICENSE No. 20507, DELAWARE, PROFESSIONAL ENGINEER
2/18/2026

VILLAGE 5 -
TUI COVER SHEET

SCALE	: AS SHOWN
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
G1.5

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GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHY WAS PERFORMED BY STEPHENS ENVIRONMENTAL CONSULTING, INC. FEBRUARY 2005. FIELD VERIFICATION WAS PERFORMED BY MCCRONE, INC. JUNE 2005. BOUNDARY VERIFICATION WAS PERFORMED BY CIVIL ENGINEERING ASSOCIATES JULY 2012.
2. EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS, INCLUDING TELEPHONE, ELECTRIC, CABLE TV, GAS, TRAFFIC SIGNAL, WATER, SEWER, FORCE MAINS, AND STORM DRAINAGE ARE BASED UPON THE BEST AVAILABLE INFORMATION AND ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. NO GUARANTEE IS MADE OR IMPLIED REGARDING THE ACCURACY OR COMPLETENESS THEREOF. CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF THE LOCATION, DEPTH, SIZE, AND MATERIAL OF ALL UNDERGROUND UTILITIES TO HIS OWN SATISFACTION BEFORE BEGINNING ANY EXCAVATION OR PIPE LAYING. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION. IF THE CONTRACTOR RELIES ON SAID INFORMATION, HE DOES SO AT HIS OWN RISK. THE GIVING OF THE INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS TO SUPPORT AND PROTECT ALL SHOWN OR NOT SHOWN EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITIES BE DAMAGED BY THE CONTRACTOR, THEN THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL MAKE HIS OWN INVESTIGATION AND TEST PIT EXISTING UTILITIES AS REQUIRED.
3. CONTRACTOR SHALL NOTIFY "MISS UTILITY" (1-800-282-8555 IN DE) & (1-800-441-8355 OUTSIDE OF DE) AT LEAST 48 HOURS PRIOR TO EXCAVATION TO HAVE EXISTING UNDERGROUND UTILITIES LOCATED AND MARKED.
4. CONTRACTOR SHALL COMPLY WITH DELAWARE DIVISIONS OF HIGHWAY PERMITS, POLICIES, SPECIFICATIONS, AND STANDARDS AND COORDINATE ACTIVITIES WITH DELDOT TRAFFIC SECTION PRIOR TO COMMENCEMENT OF WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC IN DELDOT RIGHT-OF-WAY AREAS IN ACCORDANCE WITH DELDOT REQUIREMENTS. ANY PAVEMENT MARKINGS OR PAINTED LINES DISTURBED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AFTER COMPLETION OF PAVEMENT RESTORATION.
6. CONTRACTOR SHALL DETERMINE THE LOCATION OF RIGHT-OF-WAY LINES AND PROPERTY LINES TO HIS OWN SATISFACTION. ALL PROPOSED WORK IS TO BE CONSTRUCTED WITHIN THE STREET RIGHT-OF-WAY OR EASEMENT AREAS PROVIDED. ANY DISTURBED AREAS BEYOND THE RIGHT-OF-WAY OR EASEMENT LINES SHALL BE RESTORED IMMEDIATELY TO THEIR ORIGINAL CONDITION.
7. CONTRACTOR SHALL PROVIDE ALL STAKEOUT SURVEY NECESSARY FOR INSTALLATION OF UTILITY WORK AND APPURTENANCES, AND DETERMINATION OF RIGHT-OF-WAY.
8. ALL WATER WORK IS TO BE CONSTRUCTED IN ACCORDANCE TO TIDEWATER UTILITIES STANDARDS AND SPECIFICATIONS.
9. ALL WATER MAIN VALVE CLOSURES AND CUT-INS SHALL BE COORDINATED WITH TIDEWATER UTILITIES. UTILITY COMPANY OFFICIALS WILL CARRY OUT ALL NECESSARY VALVE CLOSURES. CONTRACTOR SHALL COORDINATE ISOLATION OF EXISTING WATER MAINS WITH UTILITY COMPANY AND NOTIFY RESIDENTS AT LEAST 48 HOURS PRIOR TO CUT-IN.
10. PRIOR TO ISOLATION AND CUT-IN PROCEDURES, CONTRACTOR SHALL EXCAVATE, LOCATE, AND OBSERVE FUNCTION OF ALL EXISTING VALVES TO ASSIST IN THE SYSTEM ISOLATION. UTILIZE VALVES, IF OPERABLE, FOR TEMPORARY ISOLATION.
11. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING TWO WEEKS PRIOR THE START OF CONSTRUCTION AND SHALL APPRAISE AND COORDINATE DURING ALL PHASES OF CONSTRUCTION:
    - DELDOT – SUSSEX COUNTY DISTRICT
    - SUSSEX COUNTY ENGINEERING
    - TIDEWATER UTILITIES
    - DELAWARE ELECTRIC
    - GEORGE, MILES, & BUHR, LLC
12. ALL WATER MAIN PIPE, 6" AND ABOVE, SHALL BE C-909 CL235 PVC EXCEPT FOR DIRECTIONAL BORE PIPING WHICH SHALL BE DR-25 PVC PIPE. DR-25 PVC PIPE SHALL BE USED UNDER DITCHES AS SPECIFIED IN THE PLANS.
13. MAINTAIN A MINIMUM OF 4'-0" COVER OVER NEW WATER MAIN UNLESS NOTED OR SHOWN OTHERWISE.
14. MAINTAIN A MINIMUM OF 10'-0" HORIZONTAL SEPARATION BETWEEN WATER AND SEWER MAINS.
15. MAINTAIN MINIMUM 18" VERTICAL SEPARATION BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER AT CROSSING. AT CROSSINGS ONE FULL LENGTH OF SEWER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER AS POSSIBLE. WHEN IT IS IMPOSSIBLE TO MAINTAIN THE MINIMUM SEPARATION, FOLLOW THE RECOMMENDED STANDARDS FOR WATER WORKS, 2007 EDITION, SECTION 8.8.4 EXCEPTION. THE DHSS OFFICE OF DRINKING WATER MUST SPECIFICALLY APPROVE ANY VARIANCE.
16. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION FOR THE TIE-IN TO TIDEWATER UTILITIES WATER MAIN ON ENDLESS SUMMER DRIVE AND SUBSTATION ROAD.

LEGEND

PHASE V5-1 A
9 SINGLE FAMILY LOTS (5001-5006, 5071-5073)
COASTAL LIVING LANE STA. 4+13 TO STA. 6+96
BISCAYNE LANE STA. 0+00 TO STA. 2+11
TOTAL ROAD FRONTAGE: ±494 LF
TOTAL AREA: ±2.47 AC

PHASE V5-1 B
6 SINGLE FAMILY LOTS (5007, 5008, 5074-5077)
12 DUPLEX LOTS (5009-5020,)
COASTAL LIVING LANE STA. 6+96 TO STA. 15+55
ST. AUGUSTINE LANE STA. 5+42 TO STA. 5+77
MICHIGAN DRIVE STA. 5+20 TO STA. 5+77
TOTAL ROAD FRONTAGE: ±951 LF
TOTAL AREA: ±6.02 AC

PHASE V5-2
20 SINGLE FAMILY LOTS (5051-5070)
8 DUPLEX LOTS (5021-5028)
COASTAL LIVING LANE STA. 2+11 TO STA. 4+88
ST. AUGUSTINE LANE STA. 0+00 TO STA. 5+20
MICHIGAN DRIVE STA. 0+00 TO STA. 5+42
CAPE COD COURT STA. 2+89 TO STA. 13+44

TOTAL ROAD FRONTAGE: ±2,637 LF
TOTAL AREA: ±13.94 AC

PHASE V5-3
14 SINGLE FAMILY LOTS (5037-5050)
8 DUPLEX LOTS (5029-5036)
COASTAL LIVING LANE STA. 2+11 TO STA. 4+88
ST. AUGUSTINE LANE STA. 0+00 TO STA. 5+20
MICHIGAN DRIVE STA. 0+00 TO STA. 5+42
CAPE COD COURT STA. 2+89 TO STA. 13+44

TOTAL ROAD FRONTAGE: ±2,637 LF
TOTAL AREA: ±13.94 AC

LEGEND

EXISTING
- PROPERTY LINE/RIGHT OF WAY
- CONTOUR
- EASEMENT
- PAVED ROAD
- SANITARY SEWER, MANHOLE AND CLEANOUT
- SANITARY SEWER FORCE MAIN
- STORM DRAIN, INLET AND MANHOLE
- WATER MAIN, VALVE AND HYDRANT

PROPOSED
- CONTOUR
- SPOT ELEVATION
- CONCRETE
- SANITARY SEWER, MANHOLE AND CLEANOUT
- STORM DRAIN, INLET AND MANHOLE
- CURB & GUTTER
- WATER MAIN, VALVE AND METER

0 50 100 200 300
SCALE: 1" = 100'

PLOT CODE
PEN1-RED 036 INCHES/S (14mm)
PEN2-YELLOW 007 INCHES/S (14mm)
PEN3-GREEN 015 INCHES/S (14mm)
PEN4-CYAN 014 INCHES/S (14mm)
PEN5-BLUE 007 INCHES/S (14mm)
PEN6-MAGENTA 007 INCHES/S (14mm)
PEN7-WHITE 039 INCHES/S (100mm)

G:\Projects\2021\21000\ Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C12.0 Water Distribution Plan Key Sheet.dwg, 2/18/2026, DJ L. White

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

CIVIL ENGINEERING ASSOCIATES, LLC
● ENGINEERING ● SURVEYING ● CONSTRUCTION SERVICES
55 W. MAIN STREET
MIDDLETOWN, DE 19709
(302) 376-8833

CENTURY ENGINEERING

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

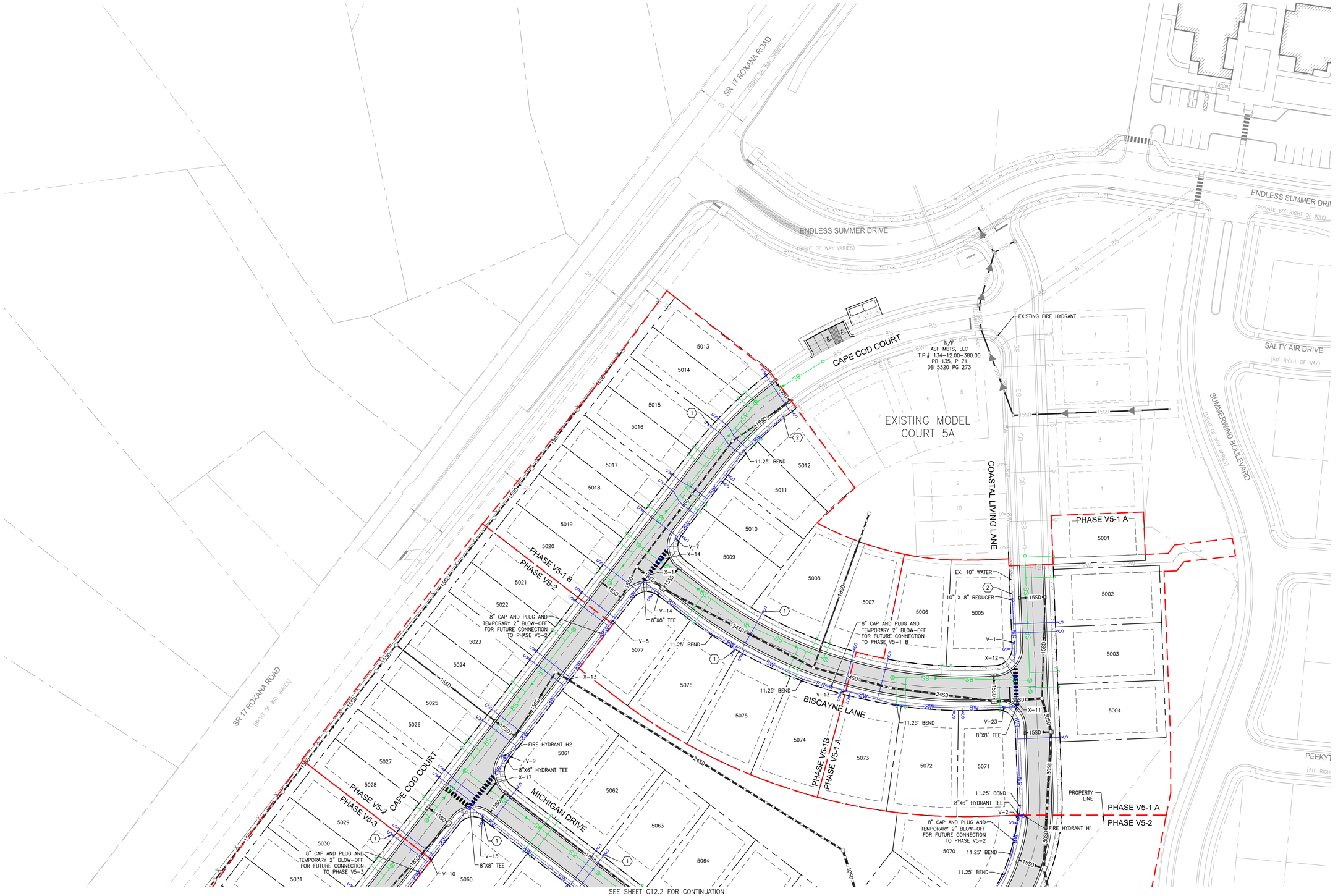
CHRISTOPHER J PFEIFER LICENSE No. 20507 DELAWARE PROFESSIONAL ENGINEER
2/18/2026

VILLAGE 5 - WATER DISTRIBUTION PLAN KEY SHEET

SCALE	: 1" = 100'
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. C12.0

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CONSTRUCTION NOTES

1. INSTALL 1" WATER SERVICE LINE TO METER PIT FOR 5/8" RESIDENTIAL METER, (TYPICAL).
2. REMOVE CAP AND CONNECT TO EXISTING WATER SERVICE. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH BEFORE TIE-IN.

0 25 50 100 150
SCALE: 1" = 50'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PEETER
LICENSE
No. 20507
DELAWARE
PROFESSIONAL ENGINEER
2/18/2026

VILLAGE 5 - WATER DISTRIBUTION PLAN

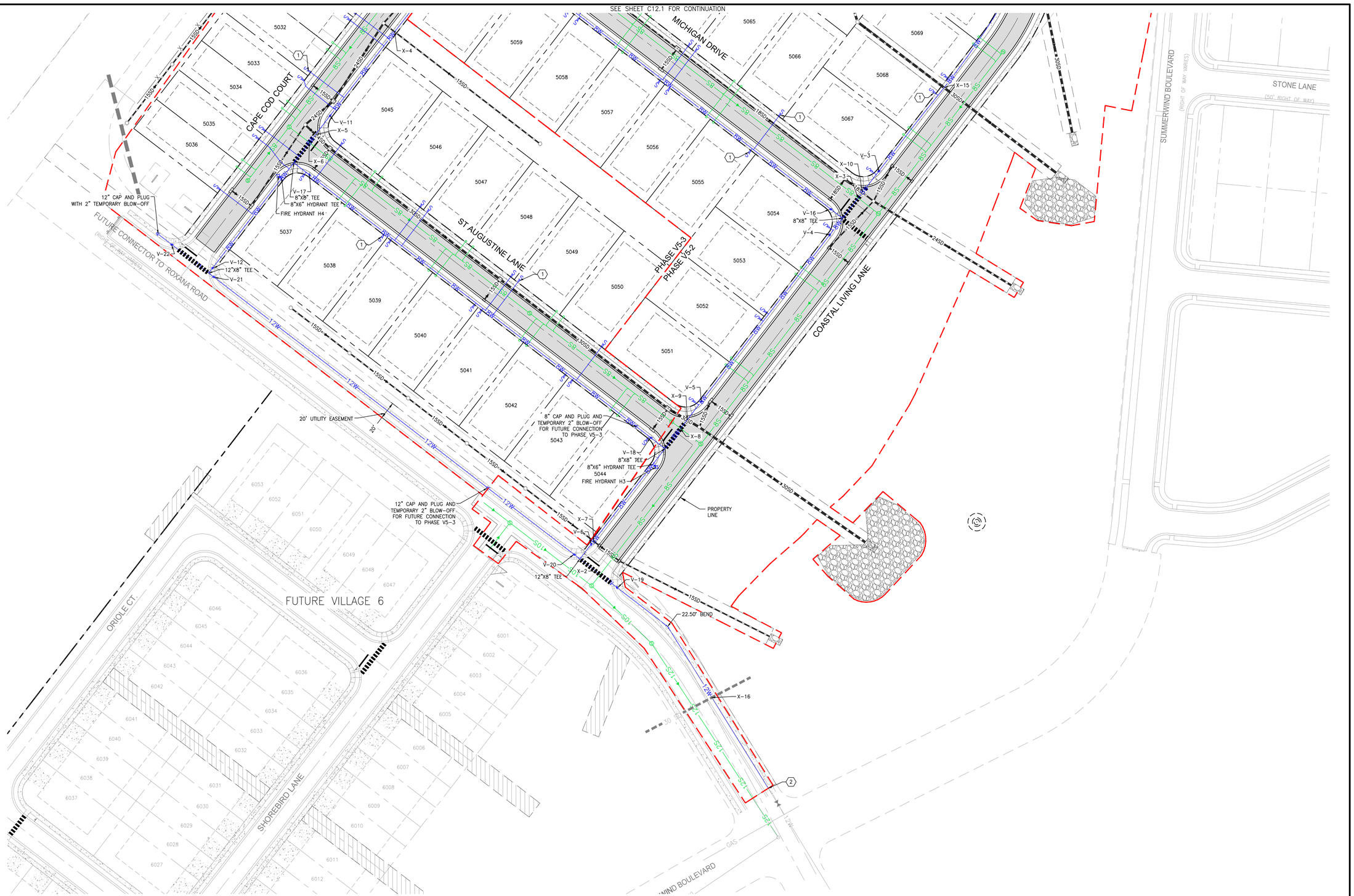
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DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C12.1

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PLOT CODE
PEN1-RED 200 INCHES (.125mm)
PEN2-YELLOW 207 INCHES (.125mm)
PEN3-GREEN 207 INCHES (.125mm)
PEN4-CYAN 214 INCHES (.125mm)
PEN5-BLUE 220 INCHES (.125mm)
PEN6-MAGENTA 227 INCHES (.125mm)
PEN7-WHITE 239 INCHES (.125mm)

I:\G\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C12.1 Water Distribution Plan.dwg, 2/18/2026, Dil L. White



CONSTRUCTION NOTES

1. INSTALL 1" WATER SERVICE LINE TO METER PIT FOR 5/8" RESIDENTIAL METER, (TYPICAL).
2. CONNECT TO EXISTING WATER MAIN 12" WATER MAIN STUB. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING WATER LINE BEFORE TIE-IN.

0 25 50 100 150
SCALE: 1" = 50'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

CEA
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TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PREFER LICENSE No. 20581 DELAWARE PROFESSIONAL ENGINEER
2/18/2026

VILLAGE 5 - WATER DISTRIBUTION PLAN

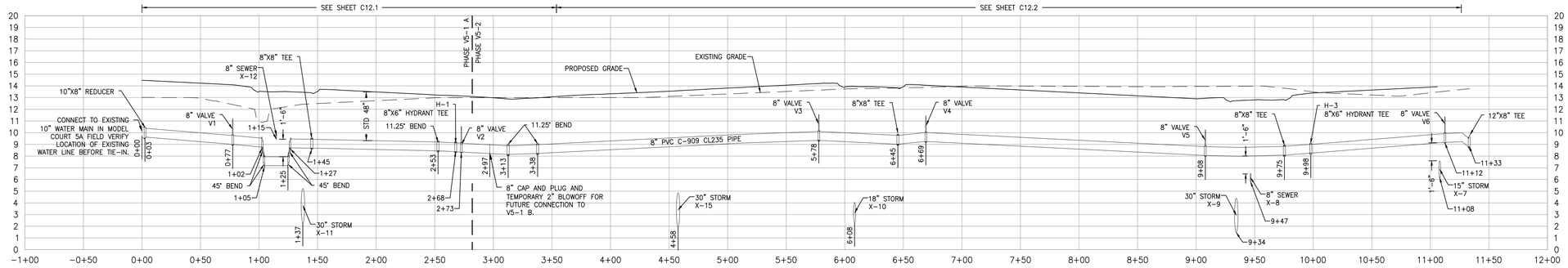
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CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

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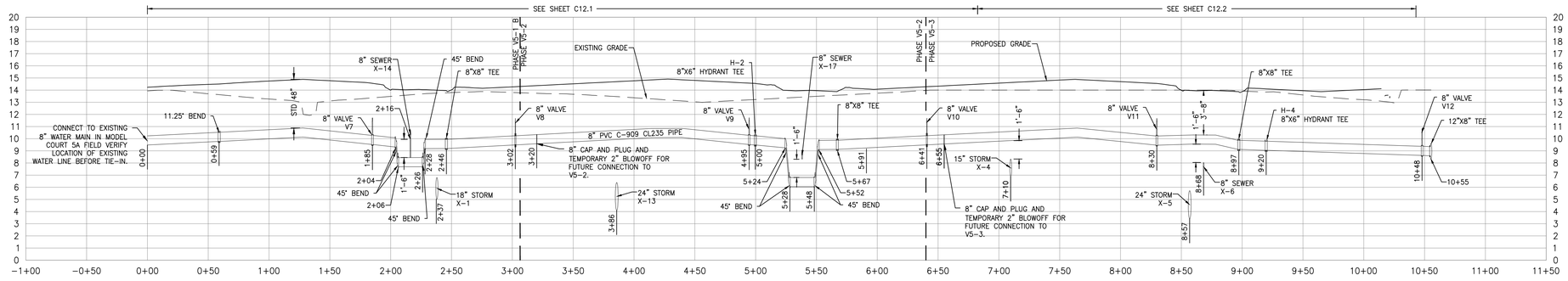
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PEN3-GREEN 208 INCHES (.25mm)
PEN4-CYAN 214 INCHES (.53mm)
PEN5-BLUE 207 INCHES (.53mm)
PEN6-MAGENTA 207 INCHES (1.06mm)
PEN7-WHITE 209 INCHES (1.06mm)

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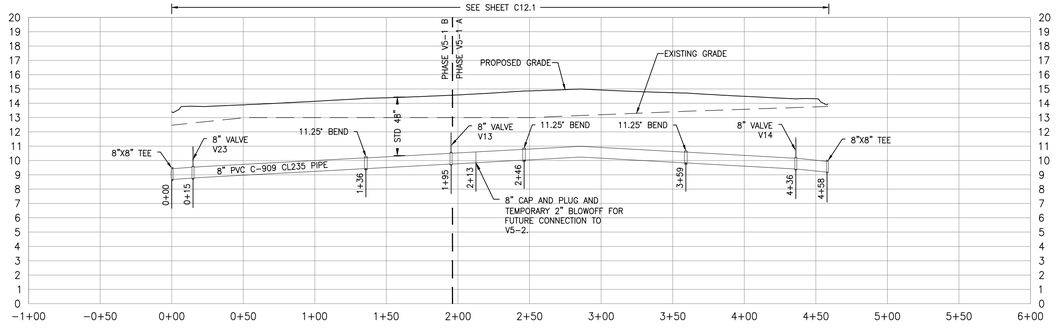
PROFILE OF VILLAGE 5 WATER COASTAL LIVING LANE

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF VILLAGE 5 WATER CAPE COD COURT

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF VILLAGE 5 WATER BISCAYNE LANE

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

NO.	REVISIONS	DATE
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CHRISTOPHER J. PFEIFER LICENSE No. 20597 DELAWARE PROFESSIONAL ENGINEER

2 3 2/18/2026

VILLAGE 5 - WATER DISTRIBUTION PROFILES

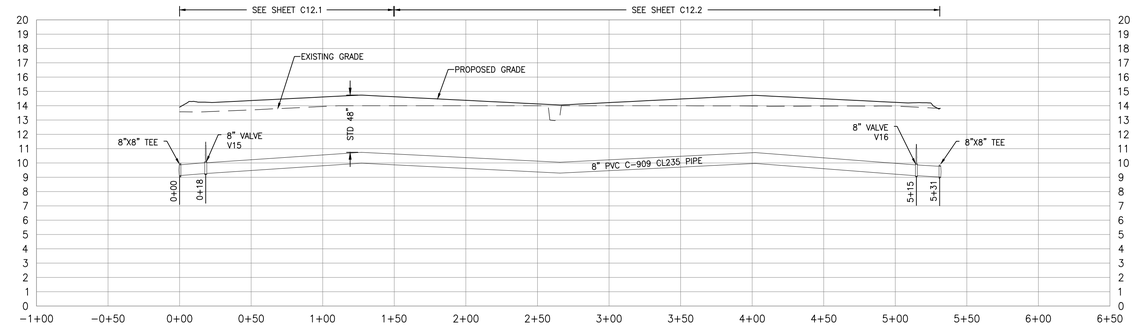
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FILE #	: 200001-J
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C12.3

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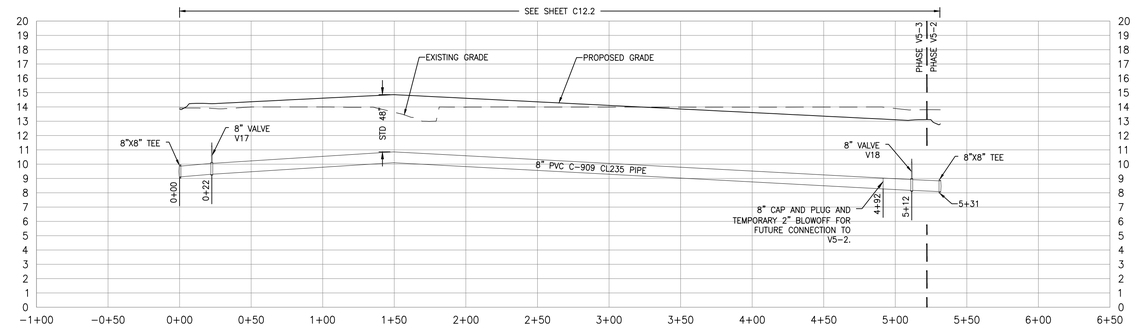
PLOT CODE
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PEN2-YELLOW 207 INCHES (1.0mm)
PEN3-GREEN 211 INCHES (2.0mm)
PEN4-CYAN 214 INCHES (2.0mm)
PEN5-BLUE 207 INCHES (1.5mm)
PEN6-MAGENTA 207 INCHES (1.0mm)
PEN7-WHITE 209 INCHES (1.0mm)

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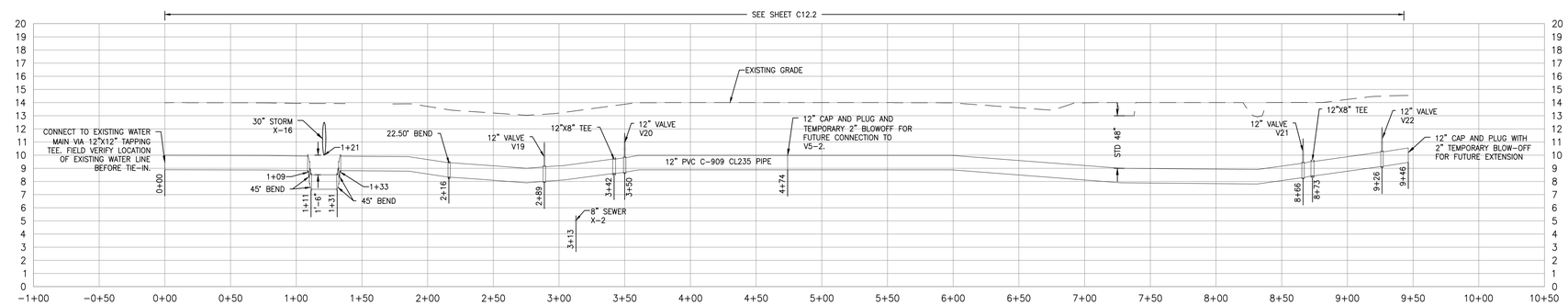
PROFILE OF VILLAGE 5 WATER MICHIGAN DRIVE

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF VILLAGE 5 WATER ST AUGUSTINE LANE

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'



PROFILE OF VILLAGE 5 WATER FUTURE CONNECTOR ROAD

VERTICAL SCALE: 1"=5'
HORIZONTAL SCALE: 1"=50'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

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TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER LICENSE NO. 20597 DELAWARE PROFESSIONAL ENGINEER
2/18/2026

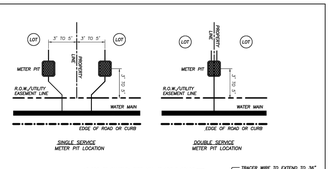
VILLAGE 5 - WATER DISTRIBUTION PROFILES

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DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C12.4

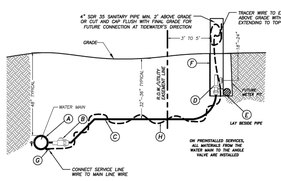
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PLOT CODE
PEN1-RED 006 INCHES (.15mm)
PEN2-YELLOW 007 INCHES (.18mm)
PEN3-GREEN 010 INCHES (.25mm)
PEN4-CYAN 014 INCHES (.35mm)
PEN5-BLUE 020 INCHES (.50mm)
PEN6-MAGENTA 028 INCHES (.70mm)
PEN7-WHITE 039 INCHES (1.00mm)



SINGLE SERVICE METER PIT LOCATION

DOUBLE SERVICE METER PIT LOCATION



TYPICAL PROFILE METER PIT LOCATION

DESIGNATION	DESCRIPTION	MANUFACTURER	SERVICE TYPE	MODEL NUMBER	CONNECTION
A	SERVICE SADDLE	FORD	SINGLE/DOUBLE	FS000-XXX-CC4	CB00 PVC X CC
B	CORPORATION STOP	FORD	SINGLE/DOUBLE	F-1000-4-G-NL	CC X COPPER
C	FC TUBING, SDR-9, 1" CTS		SINGLE/DOUBLE		
D1	ANGLE METER KEY VALVE, 5/8" MN	FORD	SINGLE	KV43-341W-NL	1" QUICK X 5/8" MN
D2	KEY VALVE BRANCH ASSEMBLY, 5/8" MN	FORD	DOUBLE	LV43-4-KW-NL	1" QUICK X 5/8" MN
E	4" SDR 35 SANITARY PIPE		SINGLE		
G	MANUFACTURED SERVICE CONNECTOR	COPPERHEAD	SINGLE/DOUBLE	5/8MD-01	TRACER WIRE
H**	TRACER WIRE, 12AWG SUPERFLEX CCS	COPPERHEAD	SINGLE/DOUBLE	12308-SF-XX	

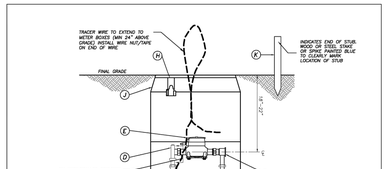
**WITH TRACER WIRE TO SERVICE LINES EVERY 5 FEET

TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
PRE-INSTALL SERVICE PROFILE AND LOCATION DETAIL
TUI-2

NO.	DATE	DESCRIPTION	BY	CHK
1	5.17.24	ADDED NOTE #1	SAH	BLC
2	9.19.24	CHANGED LETTERS TO SP	SAH	BLC
3	1.21.24	ADDED TRACER WIRE IN INTERNAL CONTROL	SAH	BLC

DATE: 3/1/2024 DRAWN BY: SAH 2 OF 25
ROAD: N.T.S.



DESIGNATION	DESCRIPTION	MANUFACTURER	SERVICE TYPE	MODEL NUMBER	CONNECTION
A	SERVICE SADDLE	FORD	SINGLE/DOUBLE	FS000-XXX-CC4	CB00 PVC X CC
B	CORPORATION STOP	FORD	SINGLE/DOUBLE	F-1000-4-G-NL	CC X COPPER
C	FC TUBING, SDR-9, 1" CTS		SINGLE/DOUBLE		
D1	ANGLE METER KEY VALVE, 5/8" MN	FORD	SINGLE	KV43-341W-NL	1" QUICK X 5/8" MN
D2	KEY VALVE BRANCH ASSEMBLY, 5/8" MN	FORD	DOUBLE	LV43-4-KW-NL	1" QUICK X CC, 5/8" MN
D3	ANGLE METER KEY VALVE, 1" MN	FORD	SINGLE	KV43-444W-NL	CC'QCTS X 1" MN
E	METER, 1"	NEPTUNE	SINGLE/DOUBLE	T-10	5/8" METER, MN
F	METER, 5/8"	NEPTUNE	SINGLE/DOUBLE	T-10	1"
F1	ANGLE CHECKBOND DUAL CHECK VALVE, 1" MN	FORD	SINGLE	HA43H-344-NL	1" MN X 3/4" FIP
F2	ANGLE CHECKBOND DUAL CHECK VALVE 5/8" MN	FORD	SINGLE/DOUBLE	HA43H-313-NL	5/8" MN X 3/4" FIP
G	STUB PIPING, 1" WITH MIP ADAPTER	FORD	SINGLE/DOUBLE	PVC SCH80, 42	MIP X SLIP
H	TRANSMITTER W/BRACKET	IPERIA	SINGLE/DOUBLE	100W	
I	JUMBO METER BOX	HIGHLINE	SINGLE/DOUBLE	190108	
J	JUMBO METER BOX EXTENSION	HIGHLINE	SINGLE/DOUBLE	190110	
K	GROUND MARKER		SINGLE/DOUBLE		
L	MANLINE TO SERVICE CONNECTOR	COPPERHEAD	SINGLE/DOUBLE	5/8MD-01	TRACER WIRE
M*	TRACER WIRE, 12AWG SUPERFLEX CCS	COPPERHEAD	SINGLE/DOUBLE	12308-SF-XX	

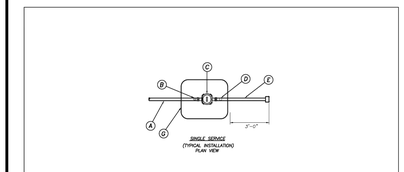
*WITH TRACER WIRE TO SERVICE LINES EVERY 5 FEET

TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
METER PIT DETAIL PROFILE
TUI-3

NO.	DATE	DESCRIPTION	BY	CHK
1	7.31.24	CHANGED 1.5 IN ADDED M	SAH	BLC

DATE: 3/1/2024 DRAWN BY: SAH 3 OF 25
ROAD: N.T.S.



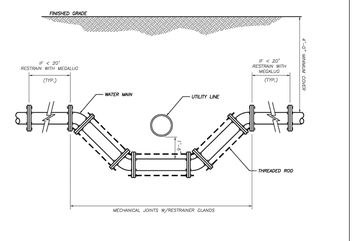
Designation	Description	Manufacturer	Service Type	Model Number	Connection
A	Fit Tubing, SDR- 9, 1" CTS		Single / Double		
B1	Angle Meter Key Valve, 5/8" MN	Ford	Single	KV43-341W-NL	1" QUICK x 5/8" MN
B2	Key Valve Branch Assembly, 5/8" MN	Ford	Double	LV43-415W-NL	1" QUICK x (2) 5/8" MN
B3	Angle Meter Key Valve, 1" MN	Ford	Single	KV43-444W-NL	1" QUICK x 1" MN
C	Meter, 1"	Neptune	Single / Double	T-10	1" Meter, MN
C	Meter, 5/8"	Neptune	Single / Double	T-10	5/8" Meter, MN
D	Angle Cascading Dual Check Valve, 1" MN	Ford	Single	HA43A-344-NL	1" MN x 1" FIP
D	Angle Cascading Dual Check Valve, 5/8" MN	Ford	Single	HA43J-313-NL	5/8" MN x 3/4" FIP
E	Stub Piping, 1"		Single / Double	PVC Sched. 40	MIP x Slip
F	Standard Meter Box		Double		
G	Jumbo Meter Box		Double		

TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
METER PIT DETAIL PLAN
TUI-4

NO.	DATE	DESCRIPTION	BY	CHK

DATE: 3/1/2024 DRAWN BY: SAH 4 OF 25
ROAD: N.T.S.

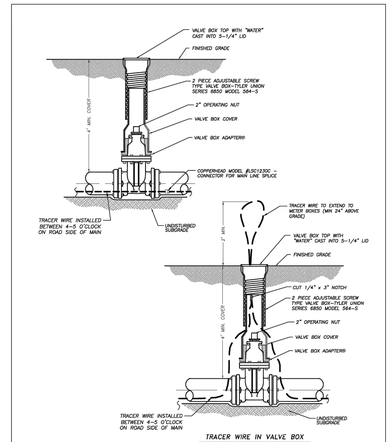


TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
WATER MAIN CROSSING UTILITY DETAIL
TUI-10

NO.	DATE	DESCRIPTION	BY	CHK

DATE: 3/1/2024 DRAWN BY: SAH 10 OF 25
ROAD: N.T.S.



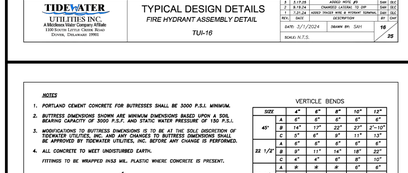
TRACER WIRE IN VALVE BOX

TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
VALVE BOX DETAIL
TUI-15

NO.	DATE	DESCRIPTION	BY	CHK
1	7.31.2024	CHANGED TRACER WIRE REQUIREMENTS	SAH	BLC

DATE: 3/1/2024 DRAWN BY: SAH 15 OF 25
ROAD: N.T.S.



NOTES
1. THE CONCRETE THRUST BLOCK IS TO BE EXTENDED VERTICALLY UNTIL IT COMES IN CONTACT WITH UNDISTURBED SOIL IN THE TRENCH.
2. ALL WILEY/DARLAN VALVE ON FIRE LINE HYDRANT MUST BE LOCATED AT LEAST 3' FROM THE FACE OF THE CONCRETE THRUST BLOCK TO MAINTAIN FREE DRAINAGE.
3. ALL FIRE HYDRANTS TO BE 5 ½ AMERICAN DARLING B-62-B-5, 25" GROUNDLINE TO NOZZLE (STATION UPPER BARREL). SEE SPECIFICATION FOR NOZZLE AND OPENING INFORMATION.
4. APPLY TRACER WIRE EVERY 5 FEET ALONG WATER MAIN LINE.
5. HYDRANT SHALL MEET ALL SPECIFICATIONS OF THE LOCAL FIRE DISTRICT IN WHICH THE HYDRANT IS LOCATED.

SECTION A–A

TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
FIRE HYDRANT ASSEMBLY DETAIL
TUI-16

NO.	DATE	DESCRIPTION	BY	CHK
1	5.17.24	ADDED NOTE #5	SAH	BLC
2	9.19.24	CHANGED LETTERS TO SP	SAH	BLC
3	1.21.24	ADDED TRACER WIRE IN INTERNAL CONTROL	SAH	BLC

DATE: 3/1/2024 DRAWN BY: SAH 16 OF 25
ROAD: N.T.S.



DESIGNATION	DESCRIPTION	MANUFACTURER	MODEL NUMBER	SIZE
A	SADDLE	FORD	FS000-XXX-NP2	2" x 4"
B	BRASS NIPPLE			2" x 4"
C	CURB STOP	FORD	B11-777	2"
D	90° ELBOW		BRASS	2"
E	PIPE		PVC SCH80, BE	2"
F	FEMALE ADAPTER		PVC SCH80, BE	2"
G *	DMJ PLUG		PVC SCH80, BE*	2"
H	CURB BOX CAST IRON SCREW TYPE	TYLER UNION	6SID	
I				
J	CEMENT BRICK			
K	JUMBO METER BOX	HIGHLINE	190108	
L	BRASS NIPPLE			2" x 6"
M	MALE ADAPTER		PVC SCH80, BE	2"
N	CORP STOP	FORD	FB1000-7	2"
P**	TRACER WIRE, 12AWG SUPERFLEX CCS	COPPERHEAD	12308-SF-XX	

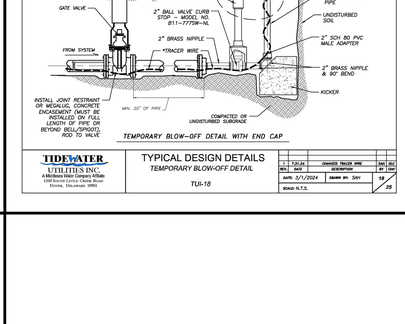
* INSTALL FINGER TIGHT ONLY
** AFFIX TRACER WIRE TO MAINS EVERY 5 FEET

TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
PERMANENT BLOW OFF DETAIL
TUI-17

NO.	DATE	DESCRIPTION	BY	CHK
1	7.31.24	CHANGED 1.5IN ADDED P & S	SAH	BLC

DATE: 3/1/2024 DRAWN BY: SAH 17 OF 25
ROAD: N.T.S.



TEMPORARY BLOW-OFF DETAIL WITH SADDLE

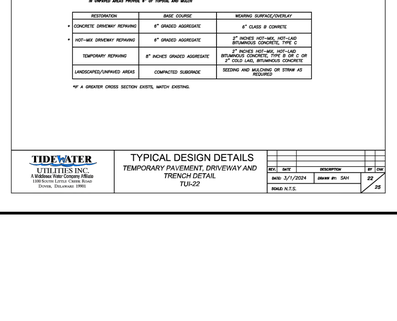
TEMPORARY BLOW-OFF DETAIL WITH END CAP

TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
TEMPORARY BLOW-OFF DETAIL
TUI-18

NO.	DATE	DESCRIPTION	BY	CHK
1	7.31.24	CHANGED TRACER WIRE	SAH	BLC

DATE: 3/1/2024 DRAWN BY: SAH 18 OF 25
ROAD: N.T.S.



NOTE:
IN UNPAVED AREAS PROVIDE 6" OF TOPSOIL AND MULCH

RESTORATION	BASE COURSE	WEARING SURFACE/OVERLAY
CONCRETE DRIVEWAY REPAIRING	6" GRADED AGGREGATE	6" CLASS B CONCRETE
HOT-MIX DRIVEWAY REPAIRING	6" GRADED AGGREGATE	2" INCHES HOT-MIX, HOT-LAID BITUMINOUS CONCRETE, TYPE C
TEMPORARY REPAIRING	6" INCHES GRADED AGGREGATE	2" INCHES HOT-MIX, HOT-LAID BITUMINOUS CONCRETE, TYPE S OR C OR 2" COLD LAYD, BITUMINOUS CONCRETE
LANDSCAPED/UNPAVED AREAS	COMPACTED SUBGRADE	SEEDING AND MULCHING OR SYMW AS REQUIRED

*IF A GREATER CROSS SECTION EXISTS, MATCH EXISTING.

TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

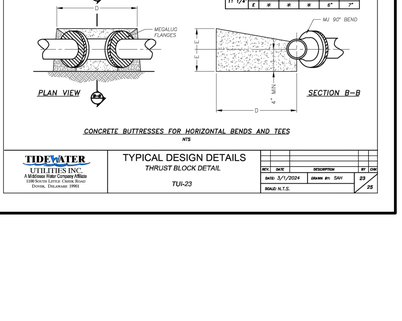
TYPICAL DESIGN DETAILS
TEMPORARY PAVEMENT, DRIVEWAY AND TRENCH DETAIL
TUI-22

NO.	DATE	DESCRIPTION	BY	CHK

DATE: 3/1/2024 DRAWN BY: SAH 22 OF 25
ROAD: N.T.S.

NOTES
1. PORTLAND CEMENT CONCRETE FOR BUTTRESSES SHALL BE 3000 P.S.I. MINIMUM.
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM DIMENSIONS BASED UPON A SOIL BEARING CAPACITY OF 3000 P.S.F. AND STATIC WATER PRESSURE OF 150 P.S.I.
3. MODIFICATIONS TO BUTTRESS DIMENSIONS IS TO BE AT THE SOLE DISCRETION OF TIDEWATER UTILITIES, INC. AND ANY CHANGES TO BUTTRES DIMENSIONS SHALL BE APPROVED BY TIDEWATER UTILITIES, INC. BEFORE ANY CHANGE IS PERFORMED.
4. ALL CONCRETE TO MEET UNDISTURBED EARTH.
5. FITTINGS TO BE WRAPPED IN 3 MIL. PLASTIC WHERE CONCRETE IS PRESENT.

SIZE	4"	6"	8"	10"	12"
J	4"	6"	8"	11"	13"
K	8"	12"	13"	16"	19"
L	8"	8"	8"	10"	12"



SIZE		4"	6"	8"	10"	12"
90°	B	1'-8"	2'-0"	2'-3"	2'-6"	2'-9"
	E	5"	7"	9"	11" 1/2"	1'-2"
45°	B	1'-0"	1'-3"	1'-10"	2'-4"	2'-9"
	E	4"	5"	6"	10"	12"
22 1/2°	B	9"	11"	1'-2"	1'-5"	1'-10"
	E	4"	4"	5"	7"	9"
11 1/4°	B	9"	9"	9"	1'-0"	1'-2"
	E	4"	4"	4"	5"	7"

CONCRETE BUTTRESSES FOR HORIZONTAL BENDS AND TEES
NTS

TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
THRUST BLOCK DETAIL
TUI-23

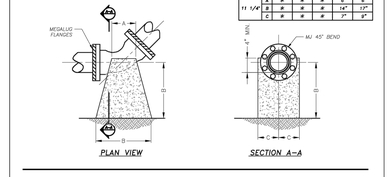
NO.	DATE	DESCRIPTION	BY	CHK

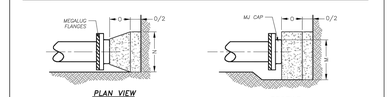
DATE: 3/1/2024 DRAWN BY: SAH 23 OF 25
ROAD: N.T.S.

NOTES
1. PORTLAND CEMENT CONCRETE FOR BUTTRESSES SHALL BE 3000 P.S.I. MINIMUM.
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM DIMENSIONS BASED UPON A SOIL BEARING CAPACITY OF 3000 P.S.F. AND STATIC WATER PRESSURE OF 150 P.S.I.
3. MODIFICATIONS TO BUTTRESS DIMENSIONS IS TO BE AT THE SOLE DISCRETION OF TIDEWATER UTILITIES, INC. AND ANY CHANGES TO BUTTRES DIMENSIONS SHALL BE APPROVED BY TIDEWATER UTILITIES, INC. BEFORE ANY CHANGE IS PERFORMED.
4. ALL CONCRETE TO MEET UNDISTURBED EARTH.
5. FITTINGS TO BE WRAPPED IN 3 MIL. PLASTIC WHERE CONCRETE IS PRESENT.

VERTICLE BENDS

SIZE		4"	6"	8"	10"	12"
45°	A	6"	8"	8"	8"	8"
	B	14"	17"	22"	27"	2'-10"
	C	5"	6"	8"	11"	13"
22 1/2°	A	8"	8"	8"	8"	8"
	B	8"	11"	14"	18"	23"
	C	4"	4"	6"	8"	10"
11 1/4°	A	R	R	R	8"	8"
	B	R	R	R	14"	17"
	C	R	R	R	7"	9"





PLUGS

NOTE: CARPET CONCRETE TO SOLID GROUND	SIZE	4"	6"	8"	10"	12"
	W	10"	13"	18"	16"	21"
	H	10"	13"	2'-2"	2'-8"	3'-2"
	D	5"	7"	9"	11"	13"

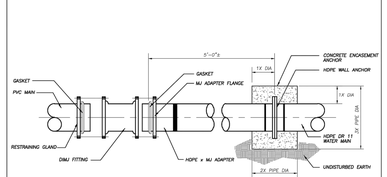
CONCRETE BUTTRESSES FOR VERTICAL BENDS AND PLUGS
NTS

TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
THRUST BLOCK DETAIL
TUI-24

NO.	DATE	DESCRIPTION	BY	CHK

DATE: 3/1/2024 DRAWN BY: SAH 24 OF 25
ROAD: N.T.S.



TIDEWATER UTILITIES INC. A Middlesex Water Company Affiliate 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

TYPICAL DESIGN DETAILS
HDPE THRUST BLOCK DETAILS
TUI-25

NO.	DATE	DESCRIPTION	BY	CHK

DATE: 3/1/2024 DRAWN BY: SAH 25 OF 25
ROAD: N.T.S.

NO.	REVISIONS	DATE

CEA
CIVIL ENGINEERING ASSOCIATES, LLC
●ENGINEERING ●SURVEYING ●CONSTRUCTION SERVICES
55 W. MAIN STREET
MIDDLETOWN, DE 19709
(302) 376-8833

CENTURY ENGINEERING

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ARCHITECTS & ENGINEERS
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206 WEST MAIN STREET
SALISBURY, MARYLAND 21801
410-742-3115, FAX 410-548-5790
www.gmbnet.com

MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER LICENSE No. 20597 DELAWARE PROFESSIONAL ENGINEER
2/18/2026

VILLAGE 5 - WATER DISTRIBUTION DETAILS

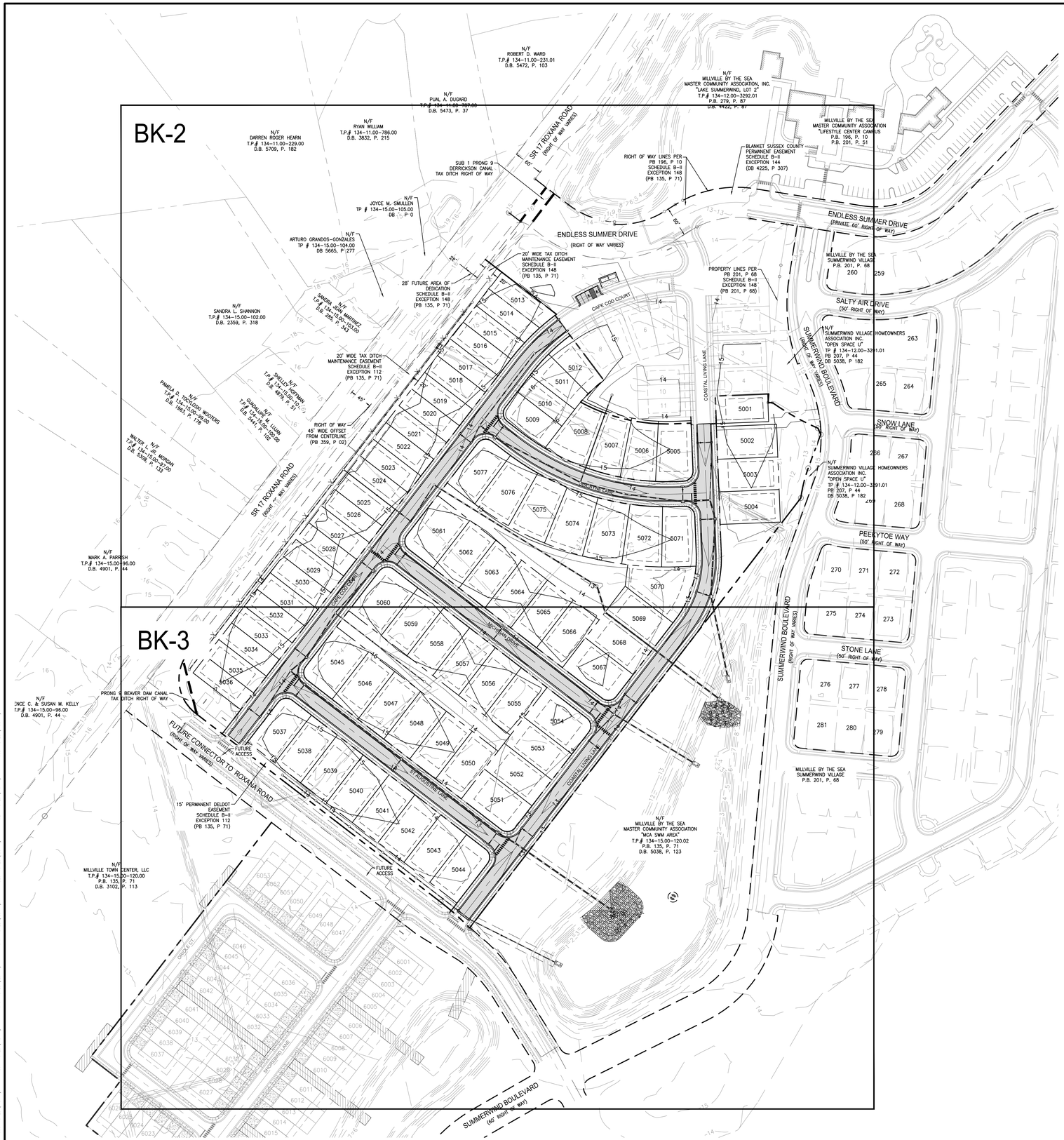
SCALE	: NO SCALE
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
C13.1

©COPYRIGHT 2026

PLOT CODE
PEN1-WHITE 009 INCHES (.229mm)
PEN2-MAGENTA 027 INCHES (.686mm)
PEN3-BLUE 020 INCHES (.508mm)
PEN4-CYAN 014 INCHES (.356mm)
PEN5-GREEN 010 INCHES (.254mm)
PEN6-YELLOW 007 INCHES (.178mm)
PEN7-RED 006 INCHES (.152mm)

G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\C13.1 Water Distribution Details.dwg, 2/18/2026, DJ L. White



PLOT CODE
PEN1-RED 709 INCHES (100mm)
PEN2-YELLOW 207 INCHES (30mm)
PEN3-GREEN 313 INCHES (50mm)
PEN4-CYAN 274 INCHES (50mm)
PEN5-BLUE 207 INCHES (30mm)
PEN6-MAGENTA 207 INCHES (100mm)
PEN7-WHITE 709 INCHES (100mm)

G:\Projects\2021\V210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\BK-1 Bulk Grading Plan Key Sheet.dwg, 2/18/2026, DJ L White

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

CIVIL ENGINEERING ASSOCIATES, LLC
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55 W. MAIN STREET
MIDDLETOWN, DE 19709
(302) 376-8833

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206 WEST MAIN STREET
SALISBURY, MARYLAND 21801
410-742-3115, FAX 410-548-5790
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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

2

VILLAGE 5 - BULK GRADING PLAN KEY SHEET

SCALE	: 1" = 100'
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
BK-1

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N/F
DARREN ROGER HEARN
T.P.# 134-11.00-229.00
D.B. 5709, P. 182

N/F
RYAN WILLIAM
T.P.# 134-11.00-786.00
D.B. 3832, P. 215

SR 17 ROXANA ROAD
(RIGHT OF WAY VARIES)
80'

BLANKET SUSSEX COUNTY
PERMANENT EASEMENT
SCHEDULE B-II
EXCEPTION 144
(DB 4225, P 307)

MILLVILLE BY THE SEA
MASTER COMMUNITY ASSOCIATION
"LIFESTYLE CENTER CAMPUS
P.B. 196, P. 10
P.B. 201, P. 51

RIGHT OF WAY LINES PER
PB 196, P 10
SCHEDULE B-II
EXCEPTION 148
(PB 135, P 71)

SUB 1 PRONG 9
DERRICKSON CANAL
TAX DITCH RIGHT OF WAY

N/F
JOYCE M. SMULLEN
TP # 134-15.00-105.00
DB 0, P 0

ENDLESS SUMMER DRIVE
(RIGHT OF WAY VARIES)

ENDLESS SUMMER DRIV
(PRIVATE 60' RIGHT OF WAY)

20' WIDE TAX DITCH
MAINTENANCE EASEMENT
SCHEDULE B-II
EXCEPTION 148
(PB 135, P 71)

N/F
ARTURO GRANDOS-GONZALES
TP # 134-15.00-104.00
DB 5665, P 277

28' FUTURE AREA OF
DEDICATION
SCHEDULE B-II
EXCEPTION 148
(PB 135, P 71)

MILLVILLE BY THE SEA
SUMMERWIND VILLAGE
P.B. 201, P. 68

260

PROPERTY LINES PER
PB 201, P 68
SCHEDULE B-II
EXCEPTION 148
(PB 201, P 68)

SALTY AIR DRIVE
(50' RIGHT OF WAY)

CAPE COD COURT

N/F
SANDRA L. SHANNON
T.P.# 134-15.00-102.00
D.B. 2359, P. 318

N/F
SANDRA JEAN MARTINEZ
T.P.# 134-15.00-103.00
D.B. 2885, P. 343

20' WIDE TAX DITCH
MAINTENANCE EASEMENT
SCHEDULE B-II
EXCEPTION 112
(PB 135, P 71)

RIGHT OF WAY
45' WIDE OFFSET FROM
CENTERLINE
(PB 359, P 02)

N/F
SHELLY L. HOFFMAN
T.P.# 134-15.00-101.00
D.B. 4878, P. 37

N/F
PAMELA D. TOCZYLOSKI WOOTERS
T.P.# 134-15.00-99.00
D.B. 1963, P. 178

N/F
GUADALUPE M. LUJAN
T.P.# 134-15.00-100.00
D.B. 5441, P. 102

N/F
WALTER L. JR. MORGAN
T.P.# 134-15.00-97.00
D.B. 5308, P. 133

SR 17 ROXANA ROAD
(RIGHT OF WAY VARIES)

CAPE COD COURT

BISCAYNE LANE

COASTAL LIVING LANE

SUMMERWIND BOULEVARD
(RIGHT OF WAY VARIES)

N/F
SUMMERWIND VILLAGE HOMEOWNERS
ASSOCIATION INC.
"OPEN SPACE U"
TP # 134-12.00-3291.01
PB 207, P 44
DB 5038, P 182

N/F
SUMMERWIND VILLAGE HOMEOWNER
ASSOCIATION INC.
"OPEN SPACE U"
TP # 134-12.00-3291.01
PB 207, P 44
DB 5038, P 182

PEEKY
(50' RIGH

SEE SHEET BK-3 FOR CONTINUATION

0 25 50 100 150
SCALE: 1" = 50'

PLOT CODE
PEN1-RED 206 INCHES 1 (1mm)
PEN2-YELLOW 207 INCHES 1 (1mm)
PEN3-GREEN 213 INCHES 1 (2mm)
PEN4-CYAN 214 INCHES 1 (3mm)
PEN5-BLUE 221 INCHES 1 (3mm)
PEN6-MAGENTA 227 INCHES 1 (4mm)
PEN7-WHITE 239 INCHES 1 (10mm)

G:\Projects\2021\21100101 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\BK-2 Bulk Grading Plan.dwg, 2/18/2026, Di L. White

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

CIVIL ENGINEERING ASSOCIATES, LLC
• ENGINEERING • SURVEYING • CONSTRUCTION SERVICES
55 W. MAIN STREET
MIDDLETOWN, DE 19709
(302) 376-8833

CENTURY ENGINEERING

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

2

VILLAGE 5 -
BULK GRADING
PLAN

SCALE	: 1" = 50'
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
BK-2

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SEE SHEET BK-2 FOR CONTINUATION

CAPE COD COURT

FUTURE CONNECTOR TO ROXANA ROAD
(RIGHT OF WAY VARIES)

MICHIGAN DRIVE

ST AUGUSTINE LANE

COASTAL LIVING LANE

SUMMERWIND BOULEVARD
(RIGHT OF WAY VARIES)

STONE LANE
(50' RIGHT OF WAY)

ORIOLE CT.

SHOREBIRD LANE

MILLVILLE BY THE SEA
SUMMERWIND VILLAGE
P.B. 201, P. 68

N/F
MILLVILLE BY THE SEA
MASTER COMMUNITY ASSOCIATION
"MCA SWM AREA"
T.P.# 134-15.00-120.02
P.B. 135, P. 71
D.B. 5038, P. 123

ENTER, LLC
0-120.00
, 71
. 113

0 25 50 100 150
SCALE: 1" = 50'

PLOT CODE
PEN1-RED 036 INCHES (.14mm)
PEN2-YELLOW 007 INCHES (.18mm)
PEN3-GREEN 010 INCHES (.25mm)
PEN4-CYAN 014 INCHES (.35mm)
PEN5-BLUE 020 INCHES (.50mm)
PEN6-MAGENTA 027 INCHES (.69mm)
PEN7-WHITE 039 INCHES (1.00mm)

G:\Projects\2021\V21001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\BK-3 Bulk Grading Plan.dwg, 2/19/2026, by L. White

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25

CIVIL ENGINEERING ASSOCIATES, LLC
• ENGINEERING • SURVEYING • CONSTRUCTION SERVICES
55 W. MAIN STREET
MIDDLETOWN, DE 19709
(302) 376-8833

CENTURY ENGINEERING

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206 WEST MAIN STREET
SALISBURY, MARYLAND 21801
410-742-3115, FAX 410-548-5790
www.gmbnet.com

MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

2

VILLAGE 5 - BULK GRADING PLAN

SCALE	: 1" = 50'
DESIGN BY	: DLB
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
BK-3

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MILLVILLE BY THE SEA
VILLAGE 5
FIRE PROTECTION PLANS
MILLVILLE, DELAWARE
GMB File No. 210001-J

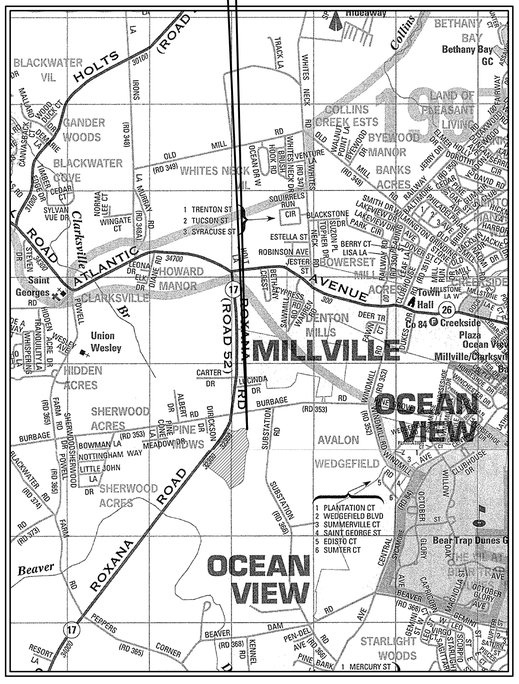
GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHY WAS PERFORMED BY STEPHENS ENVIRONMENTAL CONSULTING, INC. FEBRUARY 2005. FIELD VERIFICATION WAS PERFORMED BY MCCRONE, INC. JUNE 2005. BOUNDARY VERIFICATION WAS PERFORMED BY CIVIL ENGINEERING ASSOCIATES JULY 2012.
2. ALL SIDE LOT LINES ARE RESERVED FROM THE CENTERLINE A SEVEN (7) FOOT WIDE DRAINAGE AND/OR UTILITY EASEMENT, EXCEPT AT INTERIOR TOWNHOME LOTS. A TEN (10) FOOT WIDE DRAINAGE AND/OR UTILITY EASEMENT IS RESERVED ON EACH LOT ALONG THE FRONT AND REAR PROPERTY LINES.
3. EXISTING UTILITIES ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THROUGH TEST PITTING, THE LOCATIONS, SIZE, AND INVERT ELEVATIONS OF ALL UNDERGROUND UTILITIES AS REQUIRED TO GIVE TIMELY ADVANCE NOTICE TO ENGINEERS OF ANY CONFLICT BETWEEN EXISTING AND NEW WORK.
4. THE CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-282-8555) AND SUSSEX COUNTY 48 HOURS PRIOR TO EXCAVATION TO HAVE UNDERGROUND UTILITIES MARKED. THE CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS PRIOR TO ANY EXCAVATION.
5. THE CONTRACTOR SHALL REPAIR OR REPLACE IN KIND ANY EXISTING FEATURES DAMAGED OR DESTROYED DURING CONSTRUCTION.
6. ALL BACKFILLED AND DISTURBED AREAS TO BE SEEDED AND MULCHED WITH 4" OF TOPSOIL TO BE PLACED IN FILL AREAS.
7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY STAKE OUT OF LINE AND GRADE.
8. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT, LATEST EDITION, AND ALL RULES AND REGULATIONS THERETO.
9. THE CONTRACTOR SHALL KEEP EXISTING UTILITIES IN OPERATION DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL PERMITS SECURED, WHICH TAKE PRECEDENCE OVER SPECIFICATIONS.
11. THE CONTRACTOR SHALL EXERCISE EXTREME CARE AND CAUTION AND TAKE MEASURES NECESSARY TO PROTECT TREES DURING CONSTRUCTION ACTIVITY.
12. THE CONTRACTOR IS RESPONSIBLE FOR SECURING AND PROTECTING UTILITY POLES BEFORE AND DURING CONSTRUCTION ACTIVITIES.
13. ANY DISTURBED AREAS OUTSIDE THE RIGHT-OF-WAY SHALL BE RESTORED TO THEIR ORIGINAL CONDITION IMMEDIATELY.

SITE NOTES

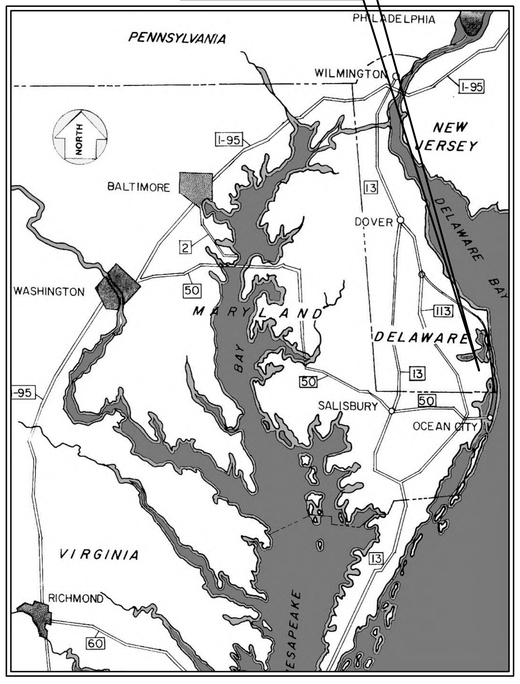
1. SITE IS TAX MAP 134-15.00 PARCEL 120.01
2. ZONING IS MASTER PLANNED COMMUNITY (MPC).
3. SITE AREA IS ±19.59 ACRES.
4. THE MAXIMUM NUMBER OF DWELLING UNITS SHALL NOT EXCEED 156 (8/AC).
5. THE INTERIOR STREET DESIGN SHALL INCLUDE STREET LIGHTING AND SIDEWALKS.
6. ALL SIGNALS, ENTRANCES, INTERSECTIONS, ROADWAY AND IMPROVEMENTS, AND MULTI-MODAL FACILITIES SHALL BE CONSTRUCTED AS REQUIRED BY DELDOT.
7. THE DEVELOPMENT SHALL BE SERVED BY A CENTRAL WATER SYSTEM PROVIDING ADEQUATE DRINKING WATER AND FIRE PROTECTION AS REQUIRED BY APPLICABLE REGULATIONS. ALL WATER WORK IS TO BE CONSTRUCTED IN ACCORDANCE TO TIDEWATER UTILITIES STANDARDS AND SPECIFICATIONS.
8. STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STATE AND COUNTY REQUIREMENTS. IF IT IS DETERMINED THAT ADDITIONAL AREAS ARE REQUIRED FOR STORMWATER MANAGEMENT, PARKING, OR OTHER USE, THE ADDITIONAL AREA SHALL BE TAKEN FROM LOT AREAS, NOT DESIGNATED WETLANDS OR OPEN SPACE AREAS.
9. DESIGNATED WETLANDS SHALL NOT BE INCLUDED IN ANY INDIVIDUAL LOTS. DESIGNATED WETLANDS SHALL BE MAINTAINED AS NOT-DISTURBANCE AREAS.
10. NO SITE PREPARATION, SITE DISTURBANCE, SITE EXCAVATION OR OTHER SITE CONSTRUCTION SHALL BE COMMENCED UNTIL ALL PERMITS REQUIRED BY ALL OTHER LAWS, ORDINANCES, RULES AND REGULATIONS HAVE BEEN ISSUED AND THE APPROVED FINAL SITE PLAN IS RECORDED, EXCEPT SUCH SITE WORK FOR WHICH A PERMIT HAS BEEN ISSUED BY THE SUSSEX CONSERVATION DISTRICT.
11. THE APPLICANT SHALL SUBMIT ROAD NAMES AND A PLAN FOR ADDRESSING OF STREETS TO THE COUNTY'S MAPPING AND ADDRESSING DEPARTMENT FOR REVIEW AND APPROVAL.
12. SUBDIVISION STREETS CONSTRUCTED ARE PRIVATE AS SHOWN ON THIS PLAN AND ARE TO BE MAINTAINED BY THE DEVELOPER, PROPERTY OWNERS OR BOTH. THE STATE OF DELAWARE ASSUMES NO RESPONSIBILITIES FOR THE FUTURE MAINTENANCE OF THESE STREETS.
13. ACCESS TO ALL LOTS IS TO BE FROM SUBDIVISION STREETS.
14. MAINTENANCE OF THE STREETS WITHIN THE SUBDIVISION WILL BE THE RESPONSIBILITY OF THE DEVELOPER, THE HOME OWNERS ASSOCIATION WITHIN THE SUBDIVISION, OR BOTH. WHEN ALL LOTS ARE PURCHASED THE HOME OWNERS ASSOCIATION WILL BE SOLELY RESPONSIBLE FOR THE MAINTENANCE OF THE INTERIOR STREETS. NEITHER THE STATE OF DELAWARE NOR THE TOWN OF MILLVILLE ASSUME ANY RESPONSIBILITY FOR FUTURE MAINTENANCE OF THE STREETS.
15. MAINTENANCE OF THE STORMWATER MANAGEMENT AREAS WILL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION AND/OR THE OWNER DEVELOPER.
16. LOTS TO BE SERVED WITH WATER BY TIDEWATER UTILITIES, INC.
17. LOTS TO BE SERVED WITH SEWER BY NORTH MILLVILLE EXPANSION OF THE BETHANY BEACH SANITARY SEWER DISTRICT, SUSSEX COUNTY, DELAWARE.
18. THE SUBDIVISION LIES ENTIRELY WITHIN FLOOD ZONE 'X', AREAS OF MINIMAL FLOODING PER FEMA MAP# 10005C0495K, DATED MARCH 16, 2015.
19. BUILDING CONSTRUCTION TO BE SINGLE FAMILY RESIDENCES (TYPE 5 CONSTRUCTION) AND TOWNHOMES / CONDOMINIUMS.
20. OPEN SPACE AREAS AND COMMON AREAS WILL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION OR THEIR ASSIGNS UPON COMPLETION OF THE PROJECT.
21. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS.
22. PRIVATE RIGHT-OF-WAY SHALL BE AN EASEMENT FOR PUBLIC/PRIVATE UTILITY SERVICES AND INGRESS/EGRESS FOR HOMEOWNERS, PUBLIC AGENCIES PROVIDING SERVICES TO HOMEOWNERS, AND THE DEVELOPER AND ITS AGENTS UNTIL THE RIGHT-OF-WAY IS TURNED OVER TO THE HOME OWNERS ASSOCIATION.
23. SUBDIVISION OF FUTURE PHASES INTO SEPARATE PARCELS DEFERRED UNTIL RECORDATION OF PLANS FOR EACH FUTURE PHASE.

PROJECT AREA



LOCATION MAP
SCALE: 1" = 2000'

MILLVILLE



VICINITY MAP
SCALE: 1" = 20 MILES

LIST OF DRAWINGS

F1	FIRE MARSHAL PLAN COVER SHEET
F2	FIRE MARSHAL PLAN KEY SHEET
F3	FIRE MARSHAL SITE PLAN
F4	FIRE MARSHAL SITE PLAN
F5	FIRE MARSHAL DETAIL SHEET
F6	FIRE MARSHAL DETAIL SHEET

SITE DATA:

OWNER/DEVELOPER
ASF MBTS LLC
3565 PIEDMONT RD NE
BUILDING ONE, SUITE 200
ATLANTA, GA 30305
CONTACT: ROD HART (443)-418-6658
RODHART68@GMAIL.COM

LAND PLANNER
LAND TECH LAND PLANNING, LLC
TAGGART PROFESSIONAL CENTER
32895 SOUTH COASTAL HWY; SUITE 202
BETHANY BEACH, DE
PHONE: 302.539.2366
CONTACT: JEFF CLARK, RLA

CIVIL ENGINEER
GEORGE, MILES, & BUHR, LLC
206 WEST MAIN ST
SALISBURY, MD 21801
PHONE: 410-742-3115
CONTACT: STEPHEN L. MARSH, P.E.

TAX MAP DISTRICT 134, MAP 15.00 PARCEL 120.01
PART OF MBTS SUMMERWIND VILLAGE OPEN SPACE 'U'
DEED BOOK 5320 PAGE 273
SITE AREA - GROSS AREA: ±17.67 ACRES (VILLAGE 5)
TOWN/HUNDRED/COUNTY: TOWN OF MILLVILLE, BALTIMORE HUNDRED, SUSSEX COUNTY

ZONING DATA
PRESENT ZONING MPC
PROPOSED ZONING MPC
PRESENT USE VACANT LAND
PROPOSED USE RESIDENTIAL

SINGLE FAMILY SETBACKS
FRONT 20'
REAR 10' ADJACENT TO OPEN SPACE 20' WHEN BACK TO BACK
SEPARATION 14' (MINIMUM 7' SIDEYARD)
SIDE YARD AT CORNER LOT 10'
LOT DEPTH 100'

DUPLEX SETBACK
FRONT 20'
REAR 10' ADJACENT TO OPEN SPACE 20' WHEN BACK TO BACK
SEPARATION 20' (MINIMUM 10' SIDEYARD)
SIDE YARD AT CORNER LOT 10'
LOT DEPTH 100'

UNIT COUNTS - TOTAL COUNT 77
SINGLE FAMILY 49
DUPLEX HOME 28

REQUIRED PARKING: 231 (3.0 PER UNIT)
PARKING PROVIDED: 235 SPACES (INCLUDES PARALLEL ON STREET)

GROSS DENSITY 3.93 UNITS/ACRE (VILLAGE 5)

AMENITIES
USE OF ORIGINAL MILLVILLE BY THE SEA AMENITIES, INCLUDING:
POOL, CLUBHOUSE, ACTIVE AND PASSIVE OPEN SPACE

FLOOD ZONE FEMA MAP# 10005C0495K, DATED MARCH 16, 2015, ZONE X

WATER PROVIDER - TIDEWATER UTILITIES, INC.

SEWER PROVIDER - SUSSEX COUNTY, NORTH MILLVILLE EXPANSION OF THE BETHANY BEACH SANITARY SEWER DISTRICT.

OPEN SPACE PROVIDED: 2.86 ACRES = 6.83% GROSS AREA

OWNER'S CERTIFICATION:
I HEREBY CERTIFY THAT I AM AN OWNER OF THE PROPERTY DESCRIBED AN SHOWN ON THIS PLAN AND THAT THE PLAN WAS MADE AT MY DIRECTION. THE UNDERSIGNED, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN AND THAT THE SUSSEX CONSERVATION DISTRICT OR THEIR DESIGNATED AGENT SHALL HAVE RIGHT TO CONDUCT ON-SITE INSPECTIONS.

OWNER'S SIGNATURE DATE
ASF MBTS LLC

ENGINEER'S CERTIFICATION:
"I STEPHEN L. MARSH, P.E. HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HERE HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEVE REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE."

2/18/2026
ENGINEER'S SIGNATURE DATE

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

CIVIL ENGINEERING ASSOCIATES, LLC
● ENGINEERING ● SURVEYING ● CONSTRUCTION SERVICES
55 W. MAIN STREET
MIDDLETOWN, DE 19709
(302) 376-8833

CENTURY ENGINEERING

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GEORGE, MILES & BUHR, LLC
ARCHITECTS & ENGINEERS
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206 WEST MAIN STREET
SALISBURY, MARYLAND 21801
410-742-3115, FAX 410-548-5790
www.gmbnet.com

MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PFEIFER LICENSE No. 20567 DELAWARE PROFESSIONAL ENGINEER
2 3 2/18/2026

VILLAGE 5 - FIRE MARSHAL PLAN COVER SHEET

SCALE	AS SHOWN
DESIGN BY	DJW
DRAWN BY	CEM
CHECKED BY	
FILE #	200001-J
DATE	JUN 2025

SHEET NO.
F1

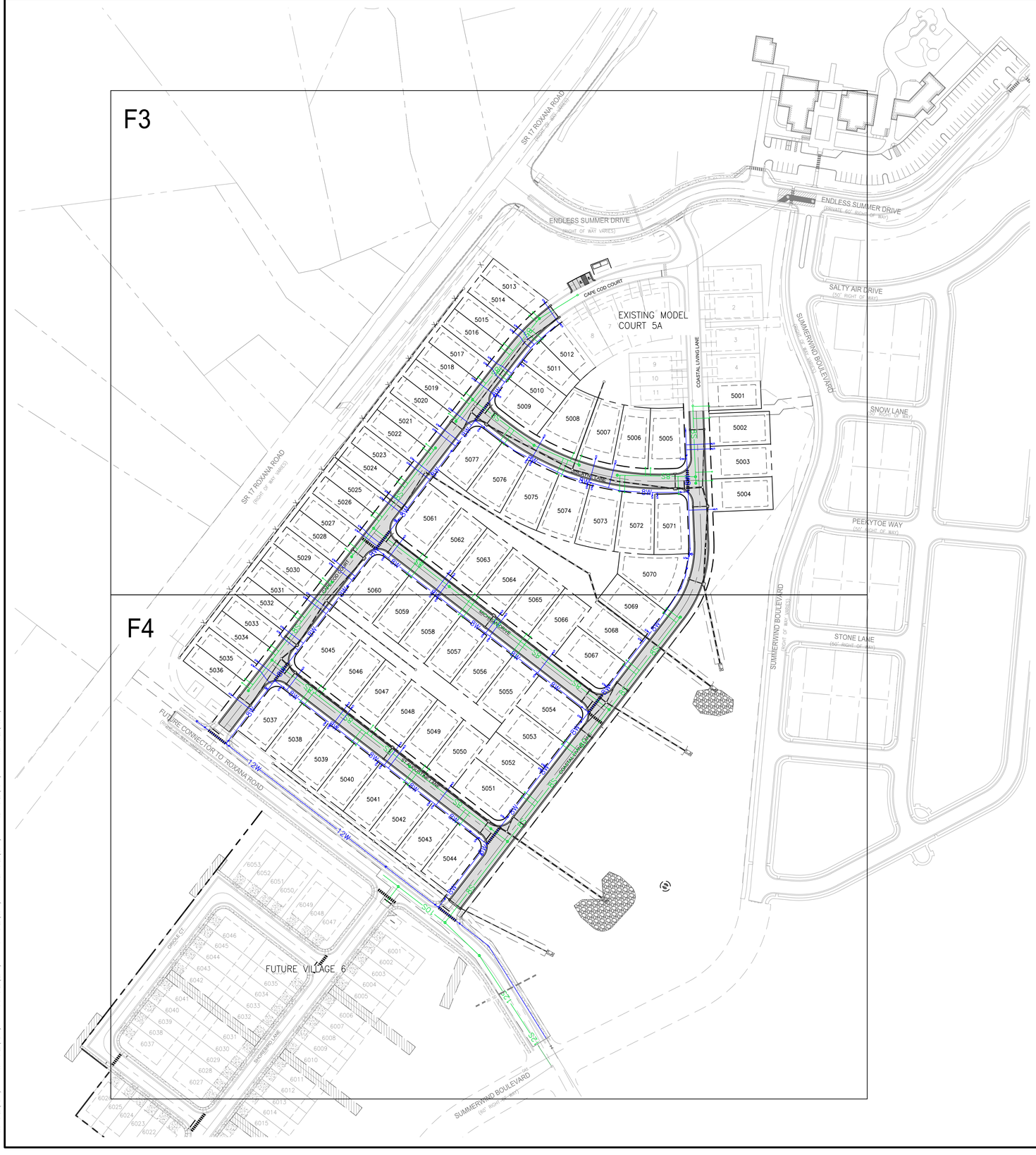
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PLOT CODE
PEN1-RED 206 INCHES (1.0mm)
PEN2-YELLOW 207 INCHES (.8mm)
PEN3-GREEN 210 INCHES (.5mm)
PEN4-CYAN 214 INCHES (.3mm)
PEN5-BLUE 207 INCHES (.5mm)
PEN6-MAGENTA 207 INCHES (.5mm)
PEN7-WHITE 209 INCHES (1.0mm)

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F3

F4



LEGEND

EXISTING

- PROPERTY LINE/RIGHT OF WAY
- CONTOUR
- EASEMENT
- PAVED ROAD
- SANITARY SEWER, MANHOLE AND CLEANOUT
- SANITARY SEWER FORCE MAIN
- STORM DRAIN, INLET AND MANHOLE
- WATER MAIN, VALVE AND HYDRANT

PROPOSED

- CONTOUR
- SPOT ELEVATION
- CONCRETE
- SANITARY SEWER, MANHOLE AND CLEANOUT
- STORM DRAIN, INLET AND MANHOLE
- CURB & GUTTER
- WATER MAIN, VALVE AND METER

0 50 100 200 300

SCALE: 1" = 100'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J PFEIFER
LICENSE
No. 20597
DELAWARE
PROFESSIONAL ENGINEER
2 3
2/18/2026

VILLAGE 5 - FIRE MARSHAL PLAN KEY SHEET

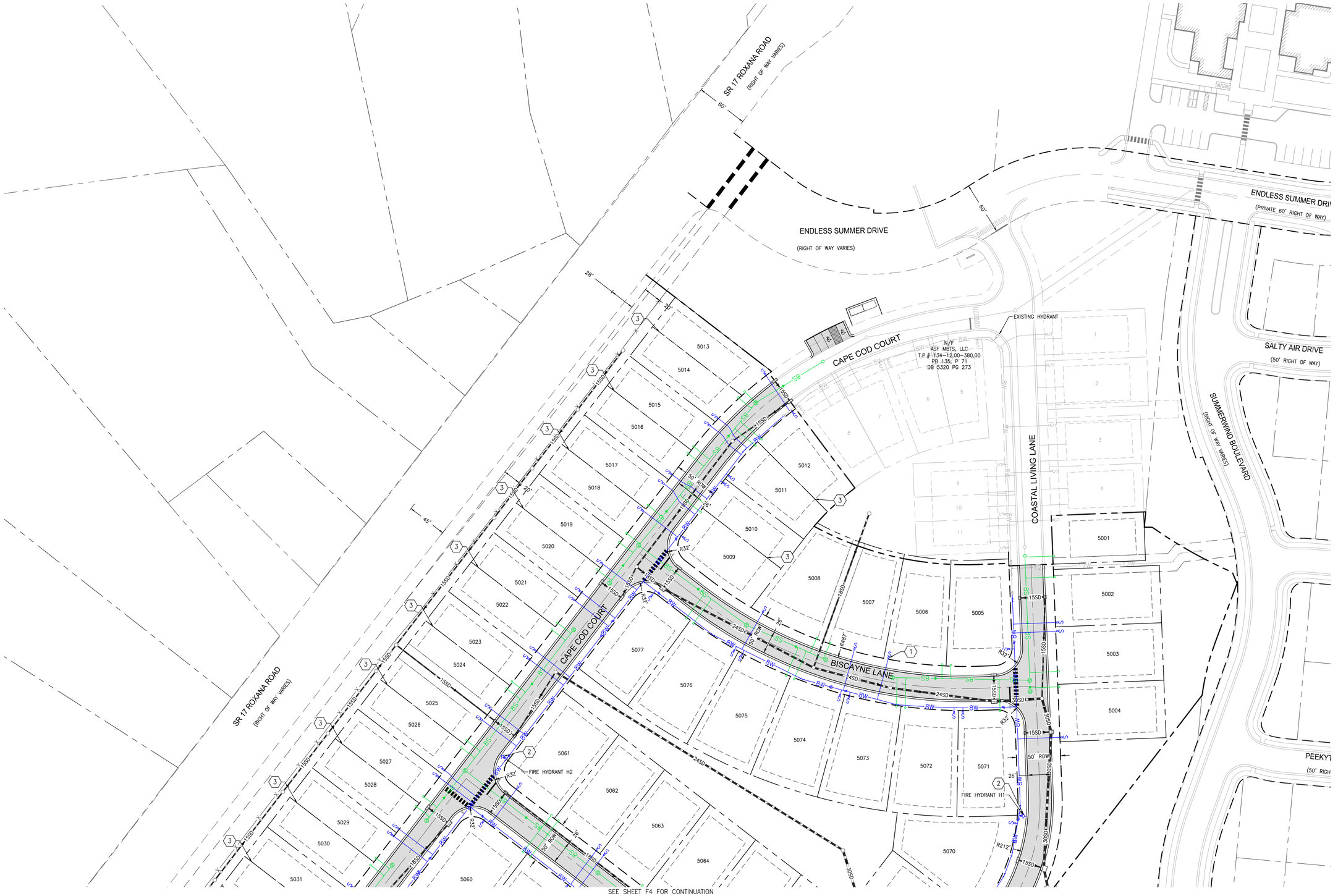
SCALE	: 1" = 100'
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
F2

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PLOT CODE
PEN1-RED 308 INCHES (1.0mm)
PEN2-YELLOW 207 INCHES (1.0mm)
PEN3-GREEN 203 INCHES (2.0mm)
PEN4-CYAN 014 INCHES (2.0mm)
PEN5-BLUE 020 INCHES (1.0mm)
PEN6-MAGENTA 207 INCHES (1.0mm)
PEN7-WHITE 039 INCHES (1.0mm)

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CONSTRUCTION NOTES

1. WATER SERVICE TAP AND METER (TYPICAL).
2. INSTALL FIRE HYDRANT (TYPICAL). FIRE HYDRANT MUST BE INSTALLED WITHIN 7 FEET OF FACE OF CURB.
3. SEPARATED BY 2-HOUR RATED FIRE WALL (TYPICAL). SEE DETAILS ON SHEETS F3 AND F4.

0 25 50 100 150
SCALE: 1" = 50'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

CIVIL ENGINEERING ASSOCIATES, LLC
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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J PFEIFER LICENSE No. 20591 DELAWARE PROFESSIONAL ENGINEER
2/18/2026

VILLAGE 5 - FIRE MARSHAL PLAN

SCALE	: 1" = 50'
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. F3

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PLOT CODE
PEN1-WHITE 159 INCHES (13.0mm)
PEN2-MAGENTA 207 INCHES (13.0mm)
PEN3-BLUE 203 INCHES (13.0mm)
PEN4-CYAN 214 INCHES (13.0mm)
PEN5-GREEN 201 INCHES (13.0mm)
PEN6-YELLOW 207 INCHES (13.0mm)
PEN7-RED 205 INCHES (13.0mm)

SEE SHEET F3 FOR CONTINUATION

MICHIGAN DRIVE
50' ROW
SUMMERWIND BOULEVARD
(RIGHT OF WAY VARIES)
STONE LANE
(50' RIGHT OF WAY)
FUTURE CONNECTOR TO ROXANA ROAD
(RIGHT OF WAY VARIES)
ST AUGUSTINE LANE
50' ROW
COASTAL LIVING LANE
50' ROW
ORIOLE CT.
SHOREBIRD LANE
FIRE HYDRANT H4
FIRE HYDRANT H3

5032 5033 5034 5035 5036 5037 5038 5039 5040 5041 5042 5043 5044 5045 5046 5047 5048 5049 5050 5051 5052 5053 5054 5055 5056 5057 5058 5059 5065 5066 5067 5068 5069

6053 6052 6051 6050 6049 6048 6047 6046 6045 6044 6043 6042 6041 6040 6039 6038 6037 6036 6035 6034 6033 6032 6031 6030 6029 6028 6027 6012 6011 6010 6009 6008 6007 6006 6005 6004 6003 6002 6001

275 274 276 277 281 280

MILLVILLE BY THE SEA
SUMMERWIND VILLAGE
P.B. 201, P. 68

N/F
MILLVILLE BY THE SEA
MASTER COMMUNITY ASSOCIATION
"MCA SWM AREA"
T.P.# 134-15.00-120.02
P.B. 135, P. 71
D.B. 5038, P. 123

ENTER, LLC
)-120.00
', 71
', 113

CONSTRUCTION NOTES

1. WATER SERVICE TAP AND METER (TYPICAL).
2. INSTALL FIRE HYDRANT (TYPICAL). FIRE HYDRANT MUST BE INSTALLED WITHIN 7 FEET OF FACE OF CURB.
3. SEPARATED BY 2-HOUR RATED FIRE WALL (TYPICAL). SEE DETAILS ON SHEETS F3 AND F4.

0 25 50 100 150
SCALE: 1" = 50'

NO.	REVISIONS	DATE
2	REVISED NUMBER OF LOTS	09/24/25
3	REVISED TO NEW PHASING	09/24/25

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PREFER
LICENSE
No. 20501
DELAWARE
PROFESSIONAL ENGINEER
2 3
2/18/2026

VILLAGE 5 - FIRE MARSHAL PLAN

SCALE	: 1" = 50'
DESIGN BY	: DJW
DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO. F4

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PLOT CODE
PEN1-RED 709 INCHES (100mm)
PEN2-YELLOW 207 INCHES (30mm)
PEN3-GREEN 201 INCHES (20mm)
PEN4-CYAN 014 INCHES (50mm)
PEN5-BLUE 201 INCHES (50mm)
PEN6-MAGENTA 207 INCHES (30mm)
PEN7-WHITE 709 INCHES (100mm)

USG Area Separation Fire Wall/Party Wall Systems

Features

These systems may be used in buildings up to four stories high (44') and with all common floor-ceiling heights found in multi-family housing. Both cavity and solid types are suitable for exterior walls with appropriate weather-resistant cladding when building offsets are desired.
Fire Resistance: Both types of Separation Walls offer 2 hr. and 3 hr. fire ratings.
Sound Isolation: STC ratings up to 60 with the solid system and 57 with the cavity system are available.
Lightweight: These drywall assemblies weigh at least 50% less than masonry walls, allowing rapid installation.
Space-Saving: Use of these assemblies gains valuable floor space. Thickness is 3-1/2" to 4" for Cavity Type Walls, compared to 8" to 12" for a masonry wall without interior finish.
Weather Resistance: Moisture-resistant components permit temporary exposure to inclement weather during construction.
Code Compliance: In compliance with fire resistance requirements under evaluation reports of BOCA Report No. 89-13 and SBCCI PST ES Report No. 9834.

Limitations

Non-load-bearing; max. frame spacing: 24"; not to be used for shear walls; max. wall height: 44'.

Test Data—Solid Walls

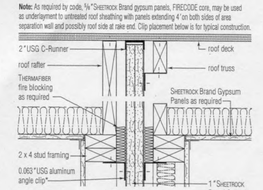
	Fire-rated Construction			Acoustical Performance		
	Fire Rating	Detail & Physical Data	Description & Test No.	STC	Description & Test No.	System Reference
	2 hr.*	3½"	Solid Area Separation Wall—two 1" SHEETROCK Brand Gypsum Liner Panels set bwtw USG H-Studs 24" o.c.—min. 3/4" air space both sides separating liner panels from adjacent framing—**UL Des U336**	N/A		A
	2 hr.*	11½"	Solid Area Separation Wall—two 1" SHEETROCK Brand Gypsum Liner panels set in USG H-Studs 24" o.c. 2 x 4 wd studs 16" o.c. each side on 2 x 4 plates min. 3/4" from liner panels—optional 1/2" SHEETROCK Brand Gypsum Panels—**UL Des U336**	46 54 58 57 60 45 54 57	**TL-88-353** Based on 2" THERMAFIBER on one side—**TL-88-348** Based on 2 x 4s and 2" SAFB on both sides—**TL-88-347** Based on 2 x 4s and 3" SAFB on one side —**TL-88-351** Based on 2 x 4s and 2" SAFB both sides —**TL-88-350** Based on 2 x 3s, 5/8" gypsum panels, no SAFB—**BBN-730104** Based on 2 x 3s, 5/8" gypsum panels, 2" SAFB one side —**BBN-730103** Based on 2 x 3s, 5/8" gypsum panels, 2" SAFB both sides —**BBN-730102**	B
	3 hr.*	14"	Solid Area Separation Wall—two 1" SHEETROCK Brand Gypsum Liner Panels set in USG H-Studs 24" o.c.—2" THERMAFIBER SAFB both sides—5/8in appl horiz with joints ittag and staple-att to liner panels—**WW-495-0393/0394**	N/A		C

*These systems do not provide a fire rating for adjacent wood-stud wall construction.

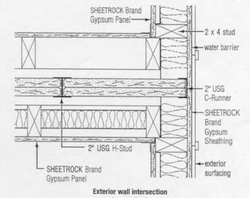
USG Area Separation Fire Wall/Party Wall Systems

Solid System

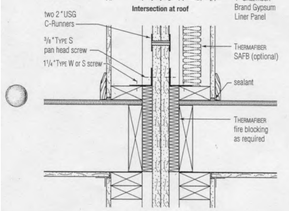
Note: As required by code, ⅝" SHEETROCK Brand gypsum panels, FIRECODE core, may be used as underlayment to untreated roof sheathing with panels extending 4' on both sides of area separation wall and possibly roof side at rake end. Clip placement below is for typical construction.



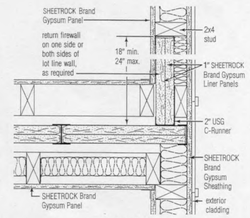
Intersection at roof



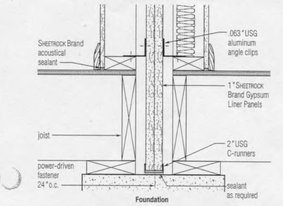
Exterior wall intersection (as required)



Intermediate floor



Exterior wall intersection (as required)

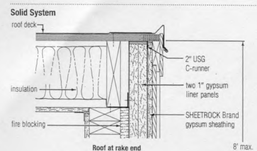


Foundation

*Note: See illustration on p. 8 for clip spacing requirements.

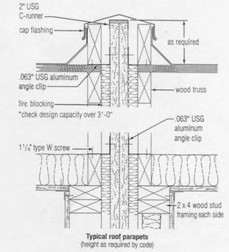
USG Area Separation Fire Wall/Party Wall Systems

Solid System

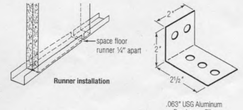


Roof at rake end

Intermediate floor pitched or flat roof

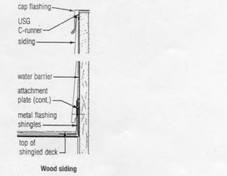


Typical roof parapets (height as required by code)



Runner installation

.063" USG Aluminum Breakaway Clip

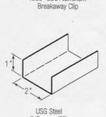


Wood siding

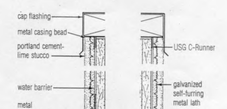


USG Steel H-Stud (HS)

Steel components (solid wall)



USG Steel C-Runner (CR)

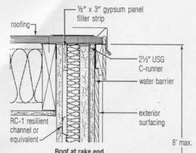


Stucco

Stucco

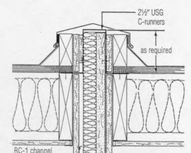
USG Area Separation Fire Wall/Party Wall Systems

Cavity System

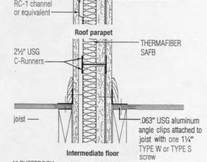


Roof at rake end

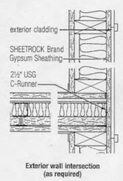
Roof offset



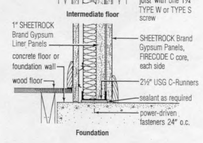
Roof parapet



Intermediate floor

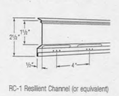


Exterior wall intersection (as required)



Foundation

Steel Components (cavity wall)



RC-1 Resilient Channel (or equivalent)



USG Steel C-H Stud (CH)



USG Steel C-Runner (CR)



.063" USG Aluminum Angle Clip

G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\F5 Fire Marshal Details.dwg, 2/19/2026, Du L White
PLOT CODE
PEN1-RED 005 INCHES (.13mm)
PEN2-YELLOW 007 INCHES (.18mm)
PEN3-GREEN 010 INCHES (.25mm)
PEN4-CYAN 014 INCHES (.35mm)
PEN5-BLUE 020 INCHES (.50mm)
PEN6-MAGENTA 027 INCHES (.70mm)
PEN7-WHITE 039 INCHES (1.00mm)

DATE
REVISIONS
NO.

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● ENGINEERING ● SURVEYING ● CONSTRUCTION SERVICES
55 W. MAIN STREET
MIDDLETOWN, DE 19709
(302) 376-8833

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MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

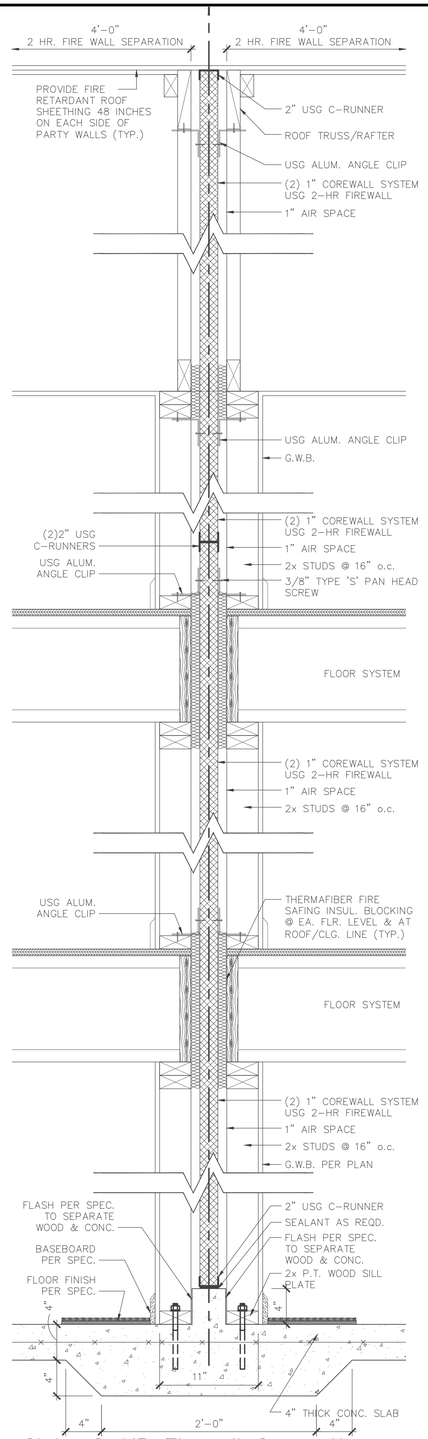
CHRISTOPHER J. PEIFFER LICENSE No. 20532 DELAWARE PROFESSIONAL ENGINEER
2/18/2026

VILLAGE 5 - FIRE MARSHAL DETAILS

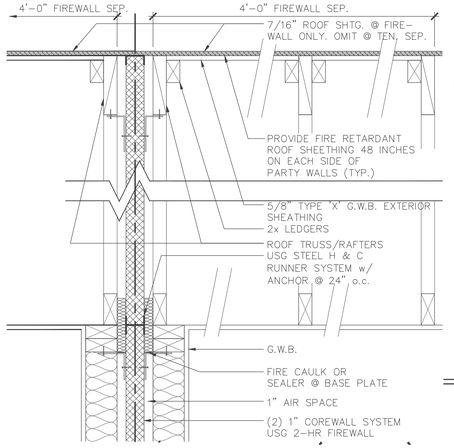
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DRAWN BY	: CEM
CHECKED BY	:
FILE #	: 200001-J
DATE	: JUN 2025

SHEET NO.
F5

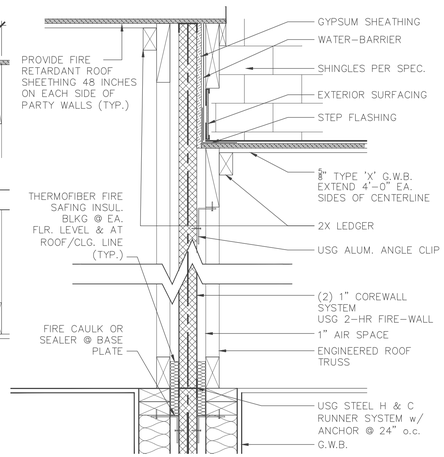
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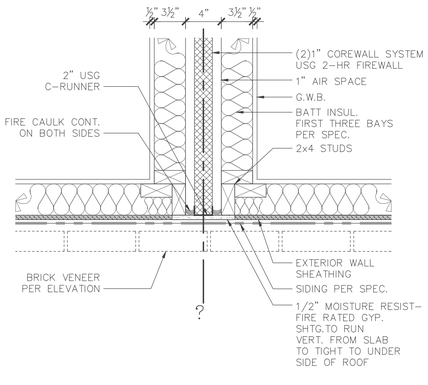
SLAB: 2 HR FIREWALL SEPARATION
NO SCALE



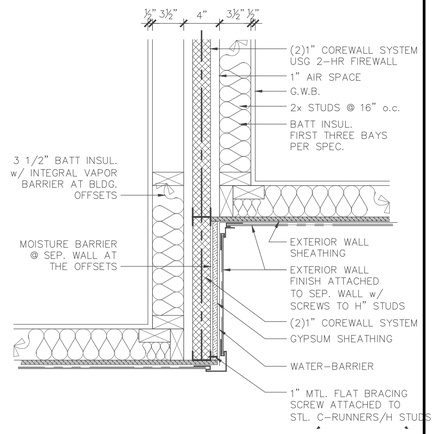
FIREWALL SEPARATION DETAIL (ULU336)
NO SCALE UNDER ROOF SHEATHING



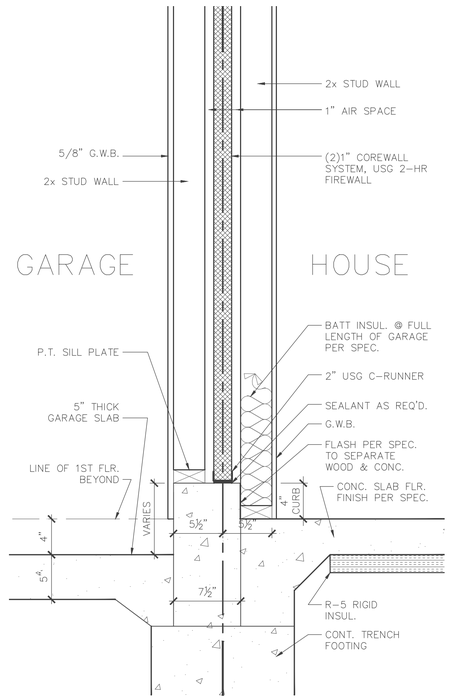
FIREWALL SEPARATION DETAIL (ULU336)
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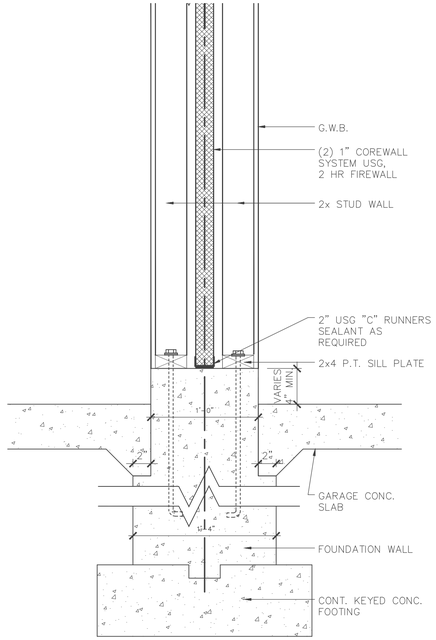
FIREWALL SEPARATION DETAIL (ULU336)
NO SCALE VERTICAL OFFSET



FIREWALL SEPARATION AT OFFSET (ULU336)
NO SCALE



FIREWALL BETWEEN GARAGE & HOUSE
NO SCALE S.O.G. COND (ULU336)



FIREWALL DETAIL BETWEEN GARAGES
NO SCALE S.O.G. COND (ULU336)

PLOT CODE
PEN1-RED 206 INCHES (.15mm)
PEN2-YELLOW 207 INCHES (.18mm)
PEN3-GREEN 208 INCHES (.25mm)
PEN4-CYAN 209 INCHES (.30mm)
PEN5-BLUE 210 INCHES (.40mm)
PEN6-MAGENTA 211 INCHES (.50mm)
PEN7-WHITE 212 INCHES (.60mm)

G:\Projects\2021\210001 Millville by the Sea\Drawings\Working Sets\Village 5\Engineering Plans\V6 Fire Marshal Details.dwg, 2/18/2026, DJ L. White

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REVISIONS
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55 W. MAIN STREET
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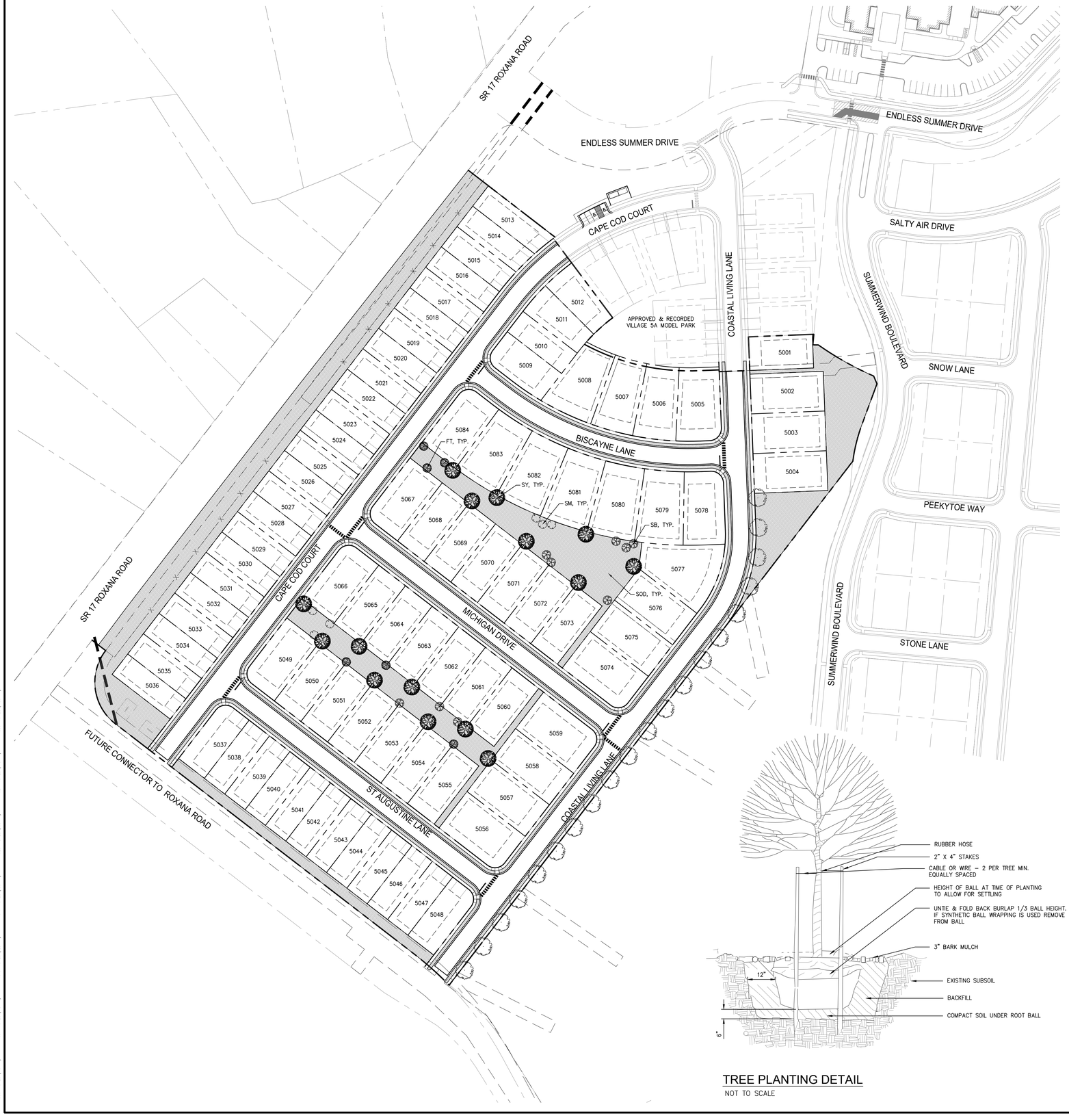
MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

CHRISTOPHER J. PEIFER, LICENSE No. 20587, DELAWARE PROFESSIONAL ENGINEER
2/18/2026

VILLAGE 5 - FIRE MARSHAL DETAILS

SCALE : NO SCALE	SHEET NO.
DESIGN BY : DJW	F6
DRAWN BY : CEM	
CHECKED BY :	
FILE # : 200001-J	
DATE : JUN 2025	

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TREE PLANTING DETAIL

NOT TO SCALE

century root barrier

CENTURY PRODUCTS
1144 N. GROVE ST.
ANAHEIM, CA 92806
TOLL FREE: 1-800-480-8084
PHONE: (714) 632-7083
FAX: (714) 632-5470
www.centuryrootbarrier.com

THE CENTURY CR - SERIES ROOT BARRIER MOLDED ROLLS ARE MANUFACTURED IN 20' SEGMENTS WITH INTEGRATED FLARED ROOT DEFLECTING RIBS THAT INCLUDE A FLEXIBLE TOP SAFETY EDGE FOR PEDESTRIAN SAFETY. THE BARRIER IS CUT TO SPECIFIED LENGTHS AND INSTALED IN A LINEAR APPLICATION DIRECTLY ALONG THE HARDSCAPE OR CUT TO THE LENGTH NEEDED, FOR TREE WELL APPLICATIONS. THE ENDS ARE CONNECTED USING THE SELF-CONNECTING MOLDED RIB. USE STAPLES, SPECIAL 2 SIDED TAPE OR FRICTION FIT TO SECURE CONNECTION.

1. SPECIFICATIONS
   A. THE ROOT BARRIER SHALL BE CR - SERIES MANUFACTURED BY CENTURY PRODUCTS, 1144 N. GROVE STREET, ANAHEIM, CA 92806, (714) 632-7083 OR APPROVED EQUIVALENT.
   B. THE BARRIERS ARE BLACK, MOLDED ROOT BARRIER ROLLS MANUFACTURED FROM 50% RECYCLED POLYETHYLENE PLASTIC WITH ULTRAVIOLET INHIBITORS. AVAILABLE IN .040 - .060 THICKNESS.
   C. BARRIER AVAILABLE IN 20' UP TO 100' LENGTHS AND VARIOUS DEPTHS AS SPECIFIED. EACH ROLL SHALL HAVE FLARED INTERGRATED ROOT DEFLECTING RIBS PROTRUDING 1/2" - 3/4" FROM WALL AND PLACED 6" - 8" APART. A ROOT IMPERVIOUS MOLDED SELF-CONNECTING END PROVIDES EASY ASSEMBLY USING STAPLES, SPECIAL 2 CENTURY SEALANT TAPE, OR EQUAL FRICTION FIT.
2. INSTALLATION
   A. CUT DESIRED LENGTH OF MOLDED ROLL MATERIAL AND INSTALL DIRECTLY ALONGSIDE HARDSCAPES FOR LINEAR PLANTING,OR INSTALL CONTINOUS PIECE CONTOURING THE TREE WELL/PLANTER. CONNECT THE ENDS TO THE MOLDED CONNECTION USING STAPLES, SPECIAL 2 SIDED TAPE OR FRICTION FIT .
   B. FLARED ROOT DEFLECTING RIBS ARE ALWAYS FACING THE ROOT BALL.
   C. ALWAYS INSTALL THE BARRIERS 1"- 2" ABOVE THE GRADE TO PREVENT ROOT PENETRATION ABOVE THE BARRIER.
   D. PREPARE YOUR INSTALLATION AS SHOWN IN ILLUSTRATIONS. (ASSEMBLE BARRIER AS SHOWN IN FIG. 1).
   E. RECOMMENDED FOR LINEAR OR TREE WELL PLANTING APPLICATIONS. FOR DRAINAGE BACKFILL WITH NATIVE SOIL OR (IF NECCESSARY) WHILE COMPACT SOIL CONDITIONS EXIST, USE GRAVEL OR CRUSHED ROCK. AVOID BACKFILL LESS THAN 3/4" AND GREATER THAN 1 1/2". FINISH TO GRADE. DO NOT DISTORT BARRIER DURING INSTALLATION.

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THESE DRAWINGS ARE NOT FOR CONSTRUCTION PURPOSES AND ARE FOR INFORMATION PURPOSES ONLY. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. TOLERANCES MAY VARY IN ORDER TO MAINTAIN THE INTEGRITY OF POST-CONSUMER MATERIALS, AND ASSURE THE MATERIAL STRUCTURE. WE MAKE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIM THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 005-010.

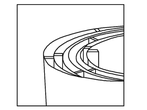
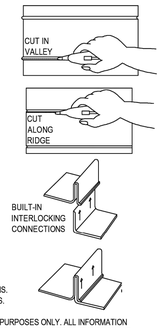


FIGURE 1



CR - SERIES
ROOT BARRIER MOLDED ROLLS - INSTALLATION DETAIL

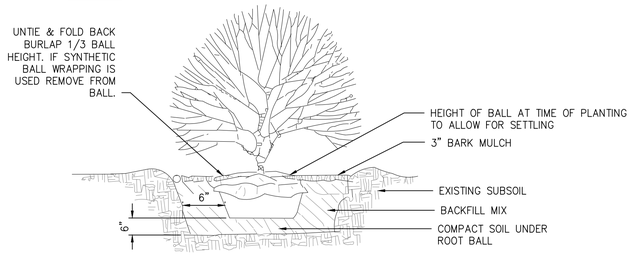
005-010 REVISION DATE 11/26/2014

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PLANTING LEGEND:

SYM.	QTY.	COMMON NAME	BOTANICAL NAME	SIZE	SPACING	NOTES
WO	20	WILLOW OAK	QUERCUS PHELLOS	3" CALIPER	AS SHOWN	DOMINANT LEADER
SY	15	SYCAMORE	PLATANUS OCCIDENTAILS	3" CALIPER	AS SHOWN	DOMINANT LEADER
SB	09	SERVICEBERRY	AMELANCHIER CANADENSIS	8–10' HT.	AS SHOWN	MULTI TRUNK
SM	06	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA	8–10' HT.	AS SHOWN	MULTI TRUNK
FT	06	FRINGETREE	CHIONANTHUS VIRGINICA	8–10' HT.	AS SHOWN	MULTI TRUNK

165,770 SF SOD — TURF TYPE TALL FESCUE



SHRUB PLANTING DETAIL

NOT TO SCALE

LANDSCAPE ARCHITECT'S CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF DELAWARE.

LANDSCAPE ARCHITECT DATE

0 40 80 160 240
SCALE: 1" = 80'

DATE
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• ENGINEERING • SURVEYING • CONSTRUCTION SERVICES
55 W. MAIN STREET
MIDDLETOWN, DE 19709
(302) 376-8833

CENTURY ENGINEERING

- PREPARED BY -

LAND TECH
LAND PLANNING, LLC
32895 SOUTH COASTAL HIGHWAY; SUITE 202
BETHANY BEACH, DELAWARE 19930
PHONE: (302) 539-2366

GMB
GEORGE, MILES & BUHR, LLC
ARCHITECTS & ENGINEERS
SALISBURY • BALTIMORE • SEAFORD
206 WEST MAIN STREET
SALISBURY, MARYLAND 21801
410-742-3115, FAX 410-548-5790
www.gmbnet.com

MILLVILLE BY THE SEA
TOWN OF MILLVILLE, DELAWARE

VILLAGE 5 LANDSCAPE PLAN

SCALE	: 1" = 80'
DESIGN BY	: DJW
DRAWN BY	: FHM
CHECKED BY	:
FILE #	: 210001-J
DATE	: NOV 2024

SHEET NO.
FSP4.0

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PEN1-WHITE 039 INCHES (1.00mm)
PEN4-MAGENTA 031 INCHES (1.00mm)
PEN5-BLUE 020 INCHES (1.00mm)
PLOT CODE PEN4-CYAN 014 INCHES (1.00mm)
PEN3-GREEN 051 INCHES (1.00mm)
PEN2-YELLOW 007 INCHES (1.00mm)
PEN1-RED 008 INCHES (1.00mm)

G:\Projects\2021\210001 millville by the sea\Drawings\working sets\Village 5\site plan\FSP4.0 Landscape plan.dwg, 7/30/2025, Carsten M. Stevenson