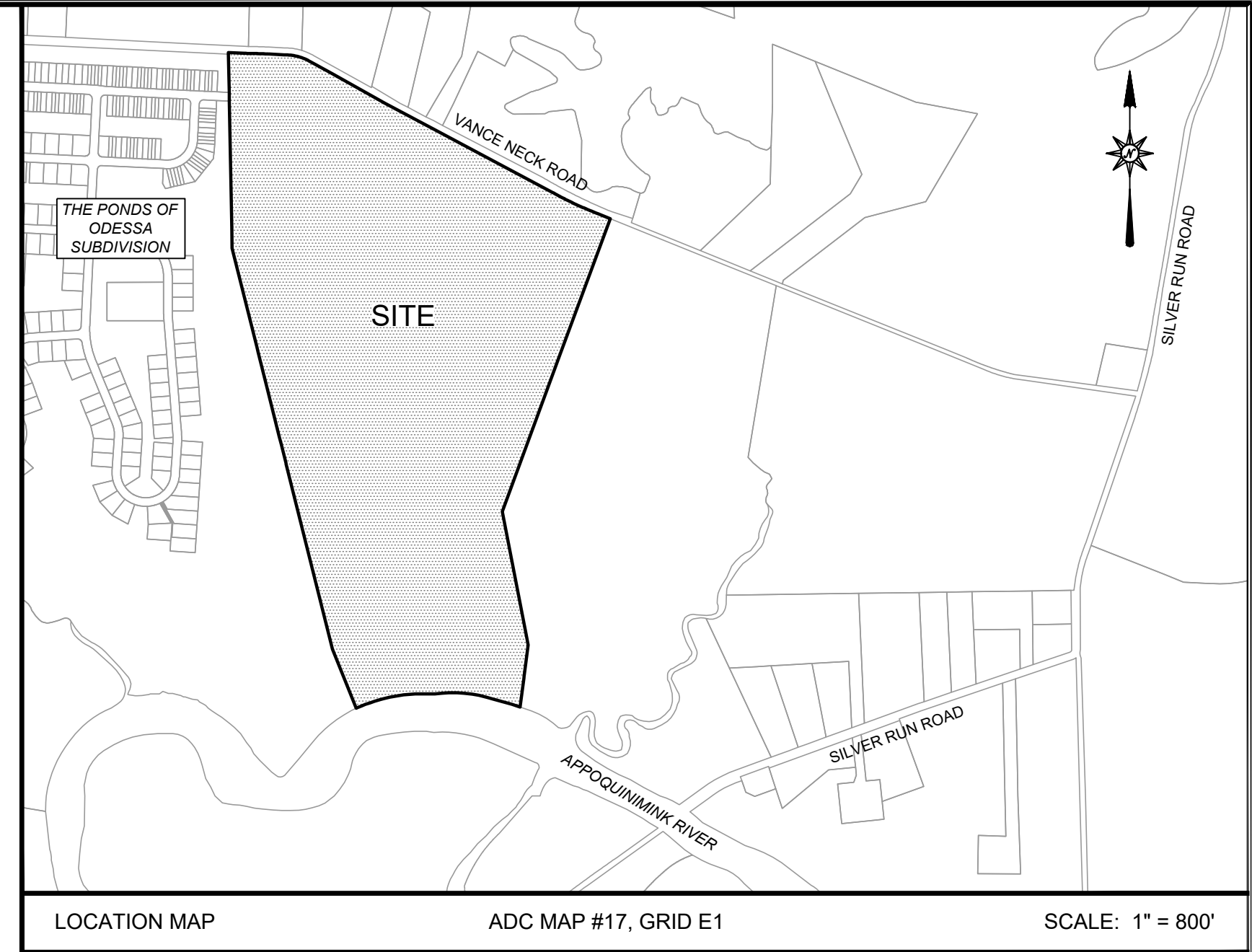
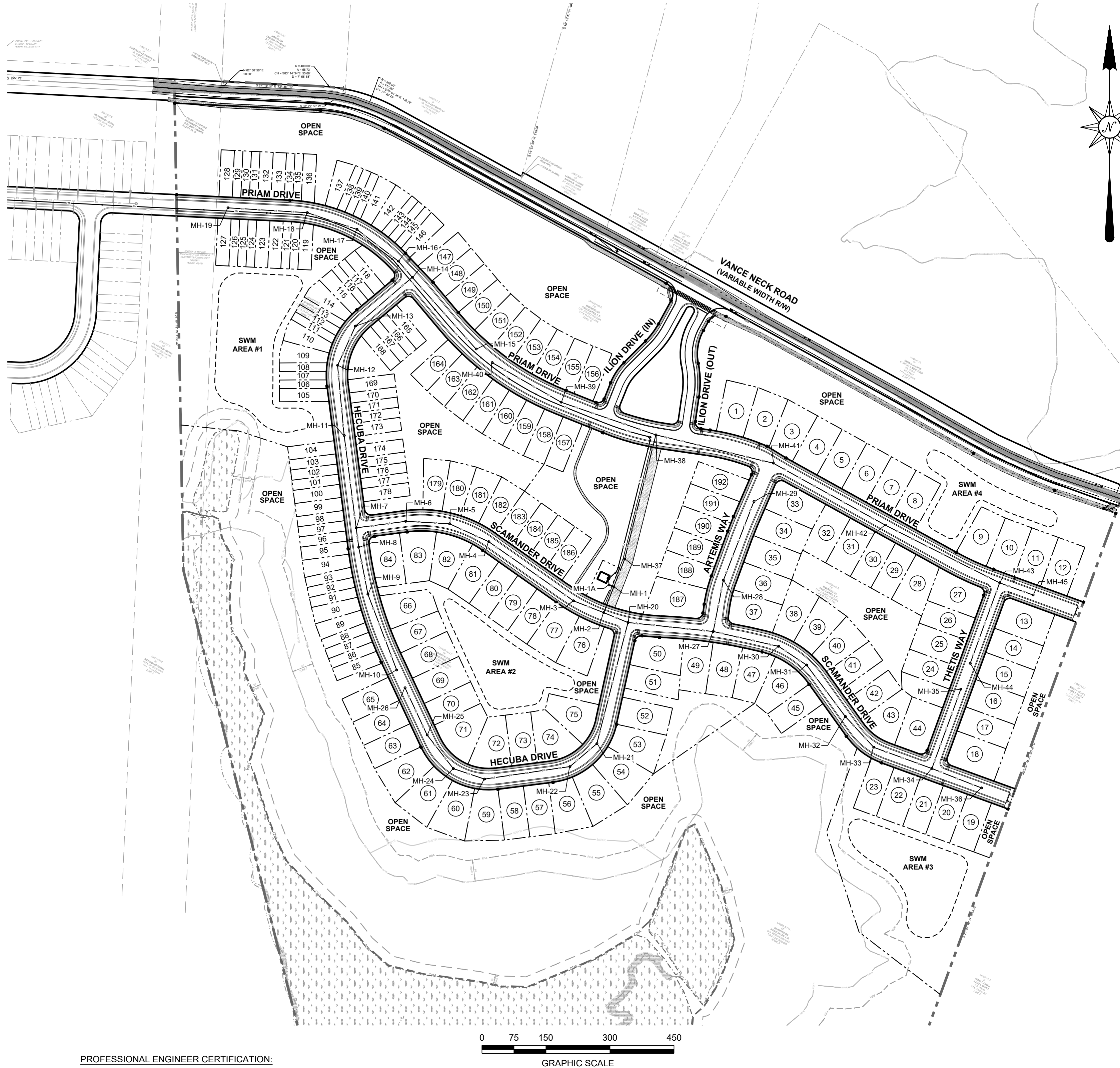


PROPOSED	LEGEND	EXISTING
	BOUNDARY	
	CENTERLINE	
	RIGHT OF WAY	
	EASEMENT	
	LIMITS OF DISTURBANCE	
	TURF TRAIL	
	SIDEWALK	
	CURB	
	LOT NUMBER	
	LOT LINES	
	SANITARY SEWER LINE	
	SANITARY FORCE MAIN	
	SANITARY SEWER CLEAN OUT	
	SANITARY MANHOLE	
	STORM SEWER PIPE	
	CATCH BASIN	
	STORM SEWER MANHOLE	
	WATER LINE	
	FIRE HYDRANT	
	WATER VALVE	
	TREES / TREE LINE	
	WETLANDS LINE	
	WETLANDS HATCH	
	CRITICAL NATURAL AREA	
	RIPARIAN BUFFER AREA	
	100YR FLOODPLAIN	
	500YR FLOODPLAIN	

SANITARY SEWER CONSTRUCTION PLANS
FOR
SILVER VIEW FARM
ST. GEORGES HUNDRED - NEW CASTLE COUNTY DELAWARE
N.C.C. D.L.U. APPLICATION #2022-0500



SANITARY SEWER REFERENCE TABLE				
STREET NAME	TOTAL NUMBER OF MANHOLES	NOMINAL DIAMETER OF SANITARY SEWER PIPE (INCHES)	TOTAL LINEAR FEET OF GRAVITY SANITARY SEWER PIPE	
			PVC SDR-26	PVC C-900
PRIAM DRIVE	13	8	1,810.33'	282.67'
HECUBA DRIVE	13	8	1,884.42'	
SCAMANDER DRIVE	13	8	1,656.20'	
ARTEMIS WAY	2	8	320.00'	
THETIS WAY	2	8	399.07'	
OFF-STREET	3	8	161.00'	300.00'
TOTALS	46	-	6,231.02'	582.67'

- NOTES:
- ALL SANITARY SEWER PIPES 15' DEEP OR LESS AND SERVICE LATERALS SHALL BE SDR-26 PVC MATERIAL.
 - ALL SANITARY SEWER PIPES MORE THAN 15' DEEP, BUT LESS THAN 20' DEEP, SHALL BE C-900 PVC MATERIAL. NCC REQUIRES CCTV OF THE LINES AFTER CONSTRUCTION.
 - ANY PORTION OF A GRAVITY SANITARY SEWER LATERAL LOCATED WITHIN A PUBLIC RIGHT-OF-WAY MUST BE 6" DIAMETER SDR-26 AND HAVE A MINIMUM SLOPE OF 2.0%.

PLAN PURPOSE NOTE	SANITARY FORCE MAIN NOTE
THE PURPOSE OF THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS IS TO PROVIDE SANITARY SEWER SERVICE TO THE SILVER VIEW FARM SUBDIVISION.	FOR FORCE MAIN PLAN AND PROFILE, SEE PUMP STATION AND FORCE MAIN PLANS FOR SILVER VIEW FARM.

INDEX OF SHEETS	
SHEET 1	TITLE SHEET
SHEET 2	NOTES & LEGEND
SHEET 3	OVERALL INDEX AND PHASING PLAN
SHEETS 4 - 11	SANITARY SEWER PLANS AND PROFILES
SHEETS 12 - 13	SANITARY SEWER DETAILS
SHEET 14	LATERAL TABLES

FOR USE BY DEPARTMENT OF PUBLIC WORKS

APPROVED FOR
SEWER CONSTRUCTION
NCC DEPT. of PUBLIC WORKS

H.Ryan: *Harry Ryan* Date: 12/12/2025

TITLE SHEET
SANITARY SEWER PLAN
APPLICATION NO. 2022-0500
FOR

SILVER VIEW FARM
SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE

OWNER'S CERTIFICATION:
FOR TAX PARCEL NO.
13-019-00-005

WE, THE UNDERSIGNED, HEREBY CERTIFY THAT RIVERFIELDS ASSOCIATES LP, IS THE CURRENT LEGAL OWNER OF THE PROPERTY TO BE SEWERED AND THAT THE SANITARY SEWER WILL BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS, CODES, STANDARDS, GUIDELINES, LAWS AND POLICIES, INCLUDING BUT NOT LIMITED TO CHAPTER 38 OF THE NEW CASTLE COUNTY CODE, THE DEPARTMENT OF PUBLIC WORKS POLICIES #6 AND #7, THE NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION AND AMENDMENTS AND THE RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES.

Joanne V. Deamer 10/6/2025
BY: RIVERFIELDS MANAGEMENT, LLC, ITS GENERAL PARTNER
BY: JOANNE V. DEAMER, MANAGING MEMBER

Nancy Y. Young 10/6/2025
BY: RIVERFIELDS MANAGEMENT, LLC, ITS GENERAL PARTNER
BY: NANCY Y. YOUNG, MANAGING MEMBER

PROFESSIONAL ENGINEER CERTIFICATION:

I, JOHN MASCARI, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF DELAWARE WITH A BACKGROUND IN CIVIL ENGINEERING AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, I CERTIFY THAT ALL OF THE INFORMATION ON THESE SANITARY SEWER DRAWINGS IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY ACCEPTED SURVEYING AND ENGINEERING STANDARDS AND PRACTICES AND BY THE NEW CASTLE COUNTY UNIFIED DEVELOPMENT CODE. ADDITIONALLY, THE SANITARY SEWER DESIGN HAS BEEN PREPARED IN ACCORDANCE WITH AND COMPLIES WITH ALL APPLICABLE REGULATIONS, CODES, STANDARDS, GUIDELINES, LAWS AND POLICIES, INCLUDING BUT NOT LIMITED TO CHAPTER 38 OF THE NEW CASTLE COUNTY CODE, THE DEPARTMENT OF PUBLIC WORKS POLICIES #6 AND #7, THE NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION AND AMENDMENTS AND THE RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES.

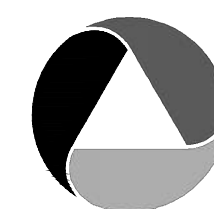
John M. Mascari 11/12/2025
JOHN M. MASCARI, P.E.
LICENSE NO. 9186



MISS UTILITY DELAWARE CALL 811
PROTECT YOURSELF, GIVE THREE
WORKING DAYS NOTICE

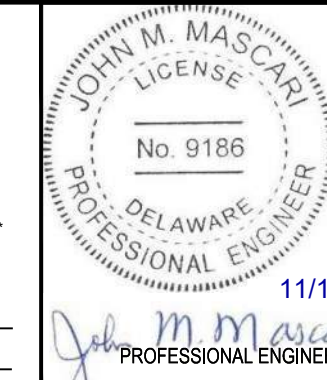
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5	11-12-2025	ASSET ID MH-1 PER NCC COMMENT

PREPARED FOR:
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434



ATWELL
866.850.4200 www.atwell-group.com
17 POLLY DRUMMOND CENTER, SUITE 201
NEWARK, DE 19711
302.369.2900
** KARNIS AND ASSOCIATES IS NOW OPERATING AS ATWELL, LLC **

DRAWN BY: JCG DATE: 11-27-2024
CHECKED BY: JMM SCALE: 1" = 150'



11/12/2025

NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

DRAWING NO. 2144.02 - B01
SHEET NO. 1 OF 14

SITE DATA:

1.

APPLICATION NUMBER:

2022-0500
2.

TAX PARCEL NUMBERS SUBJECT OF THIS APPLICATION:

13-019.00-005
3.

EXISTING ZONING:

S - OPEN SPACED PLANNED
4.

DATUM:
HORIZONTAL:
VERTICAL:
BENCHMARK:
FOUND CONCRETE MONUMENT (V&L), LOCATED NORTHWEST PROPERTY CORNER ALONG VANCE NECK ROAD RIGHT OF WAY, AS SHOWN ON PLAN. ELEVATION= 29.19.

DELAWARE STATE PLANE (NAD83)
NAV88
5.

TOPOGRAPHY: THE TOPOGRAPHY DEPICTED ON THESE PLANS WAS DERIVED FROM AN AERIAL LIDAR SURVEY, PERFORMED BY KARINS AND ASSOCIATES ON 11-26-2023, COMBINED WITH SUBSEQUENT GROUND RUN SURVEY COMPLETED 03-06-2024.
6.

DWELLING UNITS SERVICED:

192 SINGLE FAMILY
7.

WATER SUPPLY:
WATER SUPPLY IS SUBJECT TO THE APPROVAL OF THE DELAWARE STATE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL AND THE DELAWARE DIVISION OF PUBLIC HEALTH.

ARTESIAN WATER COMPANY
8.

SANITARY SEWER:
SEWAGE IS SUBJECT TO THE APPROVAL OF THE NEW CASTLE COUNTY DEPARTMENT OF PUBLIC WORKS. AT THE TIME OF APPROVAL OF THIS PLAN, SEWER CAPACITY EXISTED TO ACCOMMODATE THE ANTICIPATED FLOWS GENERATED BY THIS ADDITIONAL DEVELOPMENT. NEW CASTLE COUNTY HAS COMMITTED TO PROVIDE SEWER IN ACCORDANCE WITH THE LAND DEVELOPMENT IMPROVEMENT AGREEMENT FOR THIS DEVELOPMENT. THE OWNER OF THIS PROPERTY, HIS SUCCESSOR OR ASSIGNS, SHALL BE RESPONSIBLE FOR EXTENDING SEWER SERVICE TO EACH LOT OR BUILDING SHOWN ON OR CREATED BY THIS PLAN.

NEW CASTLE COUNTY
9.

PROPOSED SEWER FLOWS:
SINGLE FAMILY DETACHED LOTS:
SINGLE FAMILY ATTACHED LOTS:
TOTAL:
PEAK FLOW: 4 X 52,500 GPD = 210,000 GPD/1,440 = 145.8 GPM

90 LOTS X 300 GPD =
102 LOTS X 250 GPD =
52,500 GPD

27,000 GPD
25,500 GPD
52,500 GPD

GENERAL NOTES:

1.

A CONSTRUCTION PERMIT ISSUED BY THE STATE OF DELAWARE, DEPARTMENT OF TRANSPORTATION (DELDOT) IS REQUIRED BEFORE ANY WORK IS PERFORMED WITHIN A DELDOT RIGHT-OF-WAY. ALL WORK PERFORMED WITHIN DELDOT RIGHT-OF-WAY OR PROPERTY OWNED BY THE STATE OF DELAWARE SHALL BE PERFORMED IN ACCORDANCE WITH THE MOST RECENT DELDOT STANDARD SPECIFICATIONS AND UTILITY MANUAL.
2.

AS STATED IN THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION (DELDOT) UTILITIES MANUAL REGULATIONS, WHERE SANITARY SEWER INSTALLATION IS PROPOSED WITHIN THE EXTENTS OF RIGHT-OF-WAY(S) DESIGNATED FOR DEDICATION TO THE STATE OF DELAWARE THE OWNER OR DEVELOPER IS RESPONSIBLE TO OBTAIN THE APPROPRIATE DELDOT UTILITY INSTALLATION PERMIT PRIOR TO INSTALLING THE SANITARY SEWER.
3.

AS STATED IN THE STATE OF DELAWARE, DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT CONTROL REGULATIONS GOVERNING THE CONTROL OF WATER POLLUTION, THE OWNER / DEVELOPER IS RESPONSIBLE TO OBTAIN A WASTEWATER FACILITIES CONSTRUCTION PERMIT FROM THE DNREC DIVISION OF WATER FOR PROJECTS ANTICIPATED TO GENERATE SEWAGE FLOWS MORE THAN 2,000 GALLONS PER DAY. THE DEPARTMENT WILL PROVIDE AN APPROVAL LETTER TO THE PERMITTEE FOR APPLICATION PURPOSES.
4.

SANITARY SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION, SPECIAL PROVISIONS, SUPPLEMENTAL SPECIFICATIONS, STANDARD DETAILS, AND THE RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES OR STRICTER STANDARDS IDENTIFIED BY THE ENGINEER.
5.

CONSTRUCTION SHALL NOT DEVIATE FROM THE PLANS AND SPECIFICATIONS APPROVED BY NEW CASTLE COUNTY WITHOUT WRITTEN PERMISSION FROM NEW CASTLE COUNTY'S DEPARTMENT OF PUBLIC WORKS.
6.

DURING CONSTRUCTION, THE CONTRACTOR MUST HAVE IN THEIR POSSESSION ON SITE, A SET OF CONSTRUCTION PLANS BEARING NEW CASTLE COUNTY'S STAMP OF APPROVAL.
7.

UPON CONNECTING TO AN EXISTING SANITARY SEWER LATERAL, STUB, GRAVITY OR PRESSURIZED, THE INSTALLER SHALL BE RESPONSIBLE TO CLEAN, REPAIR AS NECESSARY AND VERIFY THAT SEWER FLOWS FROM THE NEW CONNECTION ARE ABLE TO PASS UNIMPEDED INTO THE NEW CASTLE COUNTY SYSTEM.
8.

A PRECONSTRUCTION MEETING MUST BE CONDUCTED BEFORE INSTALLATION OF SANITARY SEWER COLLECTOR PIPES OR A CONNECTION TO A SEWER COLLECTOR PIPE IS MADE. THE OWNER/DEVELOPER IS RESPONSIBLE FOR SCHEDULING THE MEETING. AT A MINIMUM THE SEWER INSTALLER, THE OWNER/DEVELOPER'S REPRESENTATIVE AND A REPRESENTATIVE OF THE GENERAL CONTRACTOR OR BUILDING SHALL ATTEND THE MEETING. CONTACT THE NEW CASTLE COUNTY DEPARTMENT OF PUBLIC WORKS AT 302-395-5740 TO INITIATE SCHEDULING.
9.

THE OWNER / DEVELOPER IS RESPONSIBLE FOR CONTACTING THE NEW CASTLE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGNATED INSPECTOR AND ARRANGING FOR INSPECTION OF ITEMS IDENTIFIED AT THE PRECONSTRUCTION MEETING. FOR ITEMS THAT ARE BURIED AND INACCESSIBLE FOR VERIFICATION BY A SURVEYOR FOR "AS-BUILT" VERIFICATION, PHOTO DOCUMENTATION SHALL BE PROVIDED TO THE INSPECTOR. AT A MINIMUM THE FOLLOWING MANDATORY INSPECTIONS ARE REQUIRED:
a. FOR PIPES EIGHT (8) INCHES IN DIAMETER OR LARGER, A LOW-PRESSURE AIR TEST SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 32.01 OF THE NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION.
b. AT THE NCC DPW INSPECTOR'S DISCRETION VISUAL INSPECTION OF THE PIPE BY CCTV PACP INSPECTION METHOD ACCORDING TO NEW CASTLE COUNTY REQUIREMENTS MAY BE REQUIRED TO VERIFY THAT THE PIPE INSTALLATION IS FREE OF DEFECTS. THE CCTV DOCUMENTATION SHALL BE PROVIDED TO THE INSPECTOR FOR NCC DPW RECORDS.
c. FOR PIPES SIX (6) INCHES IN DIAMETER (SEWER CONNECTION LATERALS), AN INSTALLATION INSPECTION IS REQUIRED FROM THE POINT OF CONNECTION TO A SEWER COLLECTOR PIPE OR AN EXISTING LATERAL TO THE EDGE OF PUBLIC RIGHT-OF-WAY OR EASEMENT.
10.

FINAL ACCEPTANCE INSPECTION:
a. ALL MANHOLES MUST BE BROUGHT TO GRADE AND HAVE CONCRETE COLLARS INSTALLED.
b. CHANNELS MUST BE COMPLETED IN ALL MANHOLES.
c. ANY INSIDE DROP PIPE AND APPURTENANCES INSTALLED.
d. ALL MANHOLES AND SEWER PIPES MUST BE CLEANED AND FLUSHED.
e. FOR MANHOLES LOCATED OUTSIDE OF A PUBLIC RIGHT-OF-WAY IN COMMUNITY OPEN SPACE WHERE A TURF TRAIL IS PROPOSED IT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NCC DETAIL SS-MISC-2.
f. FOR MANHOLES LOCATED WITHIN A PROPOSED ROADWAY, STABILIZED ROADWAY ACCESS IS CONSTRUCTED FOR THE PURPOSE OF MAINTAINING THE CONSTRUCTED SANITARY SEWER SYSTEM UNTIL FINAL PAVING IS COMPLETED.
g. MANHOLE COVERS ON PRIVATELY OWNED AND MAINTAINED SEWER SYSTEMS SHALL NOT BE LABELED "NEW CASTLE COUNTY."
11.

THE OWNER / DEVELOPER SHALL BE RESPONSIBLE FOR OBTAINING APPROVAL AND ACCEPTANCE OF THE SANITARY SEWER SYSTEM BY NEW CASTLE COUNTY UPON COMPLETION OF CONSTRUCTION. AS-BUILT PLANS SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR OR PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF DELAWARE MUST BE SUBMITTED TO NEW CASTLE COUNTY BEFORE ACCEPTANCE. NCC DPW POLICY SS-8 PROVIDES STANDARDS FOR AS-BUILT PLAN PREPARATION AND SUBMISSION.
12.

THE OWNER / DEVELOPER SHALL NOT PLACE, PLANT, PUT OR SET ANY STRUCTURE WITHIN THE SANITARY SEWER EASEMENT.
13.

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK AND THE NEW CASTLE COUNTY DRAINAGE CODE, AS AMENDED.
- EXISTING UNDERGROUND UTILITIES COORDINATION NOTES
1.

THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER OR THE ARCHITECT/ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION SHOWN. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED THAT THE LOCATIONS, SIZE AND TYPE OF MATERIALS OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED DURING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH UTILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OWNER OF HIS OPERATIONAL PLANS. IN THE EVENT OF AN UNEXPECTED UTILITY INTERFERENCE DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER. ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE.

2.

PRIOR TO PERFORMING ANY EXCAVATION GREATER THAN 6 INCHES, THE CONTRACTOR SHALL COORDINATE WITH NCC DEPARTMENT OF PUBLIC WORKS AND ALL PRIVATE UTILITY COMPANIES TO DETERMINE THE LOCATION OF UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL ORGANIZATIONS THAT CONTROL EXISTING UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA OR WOULD BE AFFECTED BY CONSTRUCTION WORK AROUND THE EXISTING UTILITIES.

3.

THE CONTRACTOR SHALL NOT START EXCAVATION UNTIL ALL UTILITY LINE LOCATIONS HAVE BEEN STAKED OR OTHERWISE CLEARLY MARKED AND DOCUMENTATION FURNISHED TO THE OWNER. ALL MARKINGS SHALL BE CONSIDERED APPROXIMATE, AND UTILITIES OTHER THAN THOSE SHOWN SHALL BE CONSIDERED TO EXIST.

4.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEFINITE LOCATION OF EACH UTILITY WITHIN THE WORK AREA. CARE SHOULD BE EXERCISED DURING EXCAVATION WORK TO AVOID DAMAGING OR DISRUPTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING (AT CONTRACTOR'S EXPENSE) DAMAGE TO ANY UTILITY CAUSED BY THE CONTRACTOR'S WORK.

5.

WHERE EXISTING UNDERGROUND UTILITIES OR OTHER CONSTRUCTION ARE EXPECTED TO BE IN PROXIMITY TO PROPOSED CONSTRUCTION, OR WHEN APPROACHING EXISTING UTILITIES OR STRUCTURES FOR CONNECTIONS, THE CONTRACTOR SHALL DIG TEST PITS TO DETERMINE THE EXACT LOCATION AND INVERTS OF THE EXISTING UTILITY TO ALLOW FOR POSSIBLE CHANGES TO THE PROPOSED UTILITY IN LINE AND/OR GRADE. THE CONTRACTOR SHALL ALSO DIG TEST PITS IN THE LOCATION OF THE PROPOSED CONNECTIONS TO EXISTING UTILITIES AND SHALL MAKE ALL MEASUREMENTS NECESSARY TO ENSURE PROPER CONNECTION. ANY NECESSARY CHANGES IN LINE OR GRADE OF WORK CAUSED BY FAILURE TO TAKE SUCH PRECAUTIONS SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

6.

WHEN IT IS NECESSARY TO EXCAVATE NEAR OR INTERFERE WITH ANY SEWER LINE, WATER SERVICES, DRAIN PIPE, CATCH BASIN, CULVERT, OR OTHER STRUCTURES, THE CONTRACTOR SHALL MAINTAIN THE SAME IN WORKING ORDER AND SHALL REPAIR AND MAKE GOOD ANY DAMAGE DONE DURING THE PROGRESS OF THE WORK.

7.

WHERE EXISTING UTILITIES CROSS THE TRENCH EXCAVATION, THEY SHALL BE ADEQUATELY SUPPORTED AND PROTECTED FROM DAMAGE DUE TO CONSTRUCTION. ALL METHODS FOR SUPPORTING AND MAINTAINING THESE UTILITIES SHALL BE SUBJECT TO REVIEW BY OWNER. CARE SHALL BE TAKEN TO ENSURE THAT THE EXISTING UTILITY GRADES AND ALIGNMENT ARE MAINTAINED AND THE PIPE JOINTS ARE NOT DISTURBED. BACKFILL SHALL BE CAREFULLY PLACED AND TAMPED TO PREVENT DAMAGE OR FUTURE SETTLEMENT. ANY DAMAGE OR MISALIGNMENT OF THE UTILITIES DUE TO CONSTRUCTION OR SETTLEMENT SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

8.

ANY UNPROTECTED CABLE (DIRECT BURIED) ENCOUNTERED THAT IS VERIFIED AS NOT ABANDONED IN PLACE SHALL BE PROTECTED. THE UTILITY OWNER MAY DIRECT THE CABLE BE PLACED IN SPLIT DUCT OF APPROPRIATE SIZE AND CONCRETE ENCASED THROUGH THE AREA OF CONSTRUCTION. CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO AVOID HAVING TO CUT AND SPLICE DIRECT BURIED CABLE. THE CONTRACTOR SHALL NOTE SPLIT DUCT PORTIONS ON AS-BUILTS.

9.

ALL EXCESS EXCAVATED MATERIALS SHALL BE DISPOSED OF OFF COUNTY/STATE PROPERTY, EXCEPT FOR CONTAMINATED SOILS OR LIQUIDS. ALL CONTAMINATED SOILS AND LIQUIDS SHALL BE TRANSPORTED TO AN APPROVED RECEIVING SITE AS DIRECTED BY THE ENGINEER, FOR FINAL DISPOSITION.

10.

INTERRUPTION OF EXISTING UTILITIES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR AT THE DIRECTION OF THE UTILITY OWNER/S.

SUPPLEMENTAL NOTES

1.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF DAMAGED OR DESTROYED LANDSCAPING.

2.

SEPARATION FROM WATER MAINS TO BE PROVIDED PER THE TEN STATE STANDARDS.
HORIZONTAL = 10' MINIMUM
VERTICAL = 18" MINIMUM (CLEAR)

3.

ALL MANHOLES SHALL BE PRECAST, TYPE A-2 OR A-3, WITH A-LOK PIPE TO MANHOLE GASKET.

4.

MANHOLES IN PAVED AREAS SHALL BE EQUIPPED WITH A HEAVY TRAFFIC MANHOLE FRAME AND COVER.

5.

THE OWNER(S) OF THIS PROPERTY, VIA THE RECORD PLAN, HEREBY GRANT(S) AND CONVEY(S) TO NEW CASTLE COUNTY A SANITARY SEWER EASEMENT(S) THAT PERPETUALLY CONVEY(S) THE RIGHT AND PRIVILEGE TO LAY, MAINTAIN, REPAIR, OPERATE, RELAY, AND REMOVE AT ANY TIME ITS PIPES AND APPURTENANCES, INCLUDING MANHOLES, LAMPHOLES AND CLEANOUTS, FOR THE SANITARY SEWER SYSTEM HEREBY MENTIONED, WITH THE RIGHT OF INGRESS AND EGRESS TO AND FROM THE SAME, ON, OVER AND THROUGH A STRIP OF LAND, DESIGNATED PUBLIC, DEPICTED ON THIS SANITARY SEWER CONSTRUCTION PLAN, THE GRANTOR(S) THE HEIRS, EXECUTORS, ADMINISTRATORS, GRANTEES AND ASSIGNS OF THIS PROPERTY, COVENANT(S) AND AGREES(S) THAT HE/SHE/IT/HEY SHALL NOT PLANT, ERRECT, OR CONSTRUCT ANY MANNER OF TREE, SHRUB, BUSH, FENCE, STRUCTURE OR OTHER MAN-MADE IMPROVEMENT, EXCLUDING PAVING, WITHIN THE PERPETUAL EASEMENT DEPICTED ON THIS PLAN.

6.

NEW CASTLE COUNTY HAS THE RIGHT OF ACCESS TO THE SITE FOR THE PURPOSES OF OPERATING, MAINTAINING AND REPAIRING THE SANITARY SEWER LINES CONTAINED WITHIN THE SEWER EASEMENTS SHOWN ON THIS PLAN.

7.

TOP OF MANHOLE ELEVATIONS ARE AT TOP OF MANHOLE FRAME AND COVER.

8.

ANY SHEETING, SHORING, OR SIMILAR TRENCH BRACING THAT MAY BE NECESSARY FOR THE CONSTRUCTION OF THIS CONTRACT, SHALL BE INCIDENTAL TO THE COST OF THE LINEAR FOOTAGE OF SANITARY SEWER.

9.

IF, IN THE OPINION OF THE ENGINEER OR INSPECTOR, IT BECOMES NECESSARY TO REMOVE ANY UNACCEPTABLE FOUNDATION MATERIAL IN ORDER TO PLACE STONE BEDDING FOR PIPES OR MANHOLES, THE COST OF THAT UNCLASSIFIED EXCAVATION SHALL BE INCIDENTAL TO THE COST OF THE CUBIC YARDAGE OF STONE BEDDING.

10.

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION SHALL BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT.

11.

THE BIDDER IS REQUIRED TO EXAMINE CAREFULLY THE SITE OF THE WORK, THE PROPOSAL, PLANS, SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS FOR THE WORK CONTEMPLATED AND IT WILL BE ASSUMED THAT HE HAD FAMILIARIZED AND SATISFIED HIMSELF TO THE CHARACTER, QUALITY AND QUANTITIES OF WORK TO BE PERFORMED AND MATERIALS TO BE FURNISHED, AND AS TO THE REQUIREMENTS OF THESE SPECIFICATIONS, PLANS AND OTHER CONTRACT DOCUMENTS, AND HE MUST BE PREPARED TO EXECUTE A FINISHED JOB IN EVERY PARTICULAR WITHOUT ANY EXTRA CHARGE WHATSOEVER, EXCEPT AS MAY BE SPECIFICALLY PROVIDED FOR ELSEWHERE IN THESE CONTRACT DOCUMENTS.

12.

ALL EXCAVATION SHALL BE UNCLASSIFIED.

13.

ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER AND THE COST SHALL BE INCIDENTAL TO THE COST PER LINEAR FEET FOR OF THE SANITARY SEWER.

14.

EXISTING UTILITIES INFORMATION IS SHOWN IN ACCORDANCE WITH AVAILABLE INFORMATION AND IS DEEMED TO REPRESENT QUALITY LEVEL C INFORMATION IN ACCORDANCE WITH A.S.C.E. STANDARD 38-02. COMPLETENESS OR CORRECTNESS THEREOF IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANIES INVOLVED IN ORDER TO SECURE THE MOST ACCURATE INFORMATION AVAILABLE AS TO UTILITY LOCATION AND ELEVATION. NO CONSTRUCTION AROUND OR ADJACENT TO UTILITIES SHALL BEGIN WITHOUT NOTIFYING THEIR OWNERS AT LEAST 48 HOURS IN ADVANCE. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE AND ANY DAMAGE DONE TO THEM DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT CONTRACTOR'S EXPENSE. TO LOCATE EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MISS UTILITY OF DELMARVA (TELEPHONE 800-282-8555).

NOTES
SANITARY SEWER PLAN
APPLICATION NO. 2022-0500
FOR

SILVER VIEW FARM

SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE

MISS UTILITY DELAWARE CALL 811
PROTECT YOURSELF, GIVE THREE
WORKING DAYS NOTICE

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PREPARED FOR:
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434

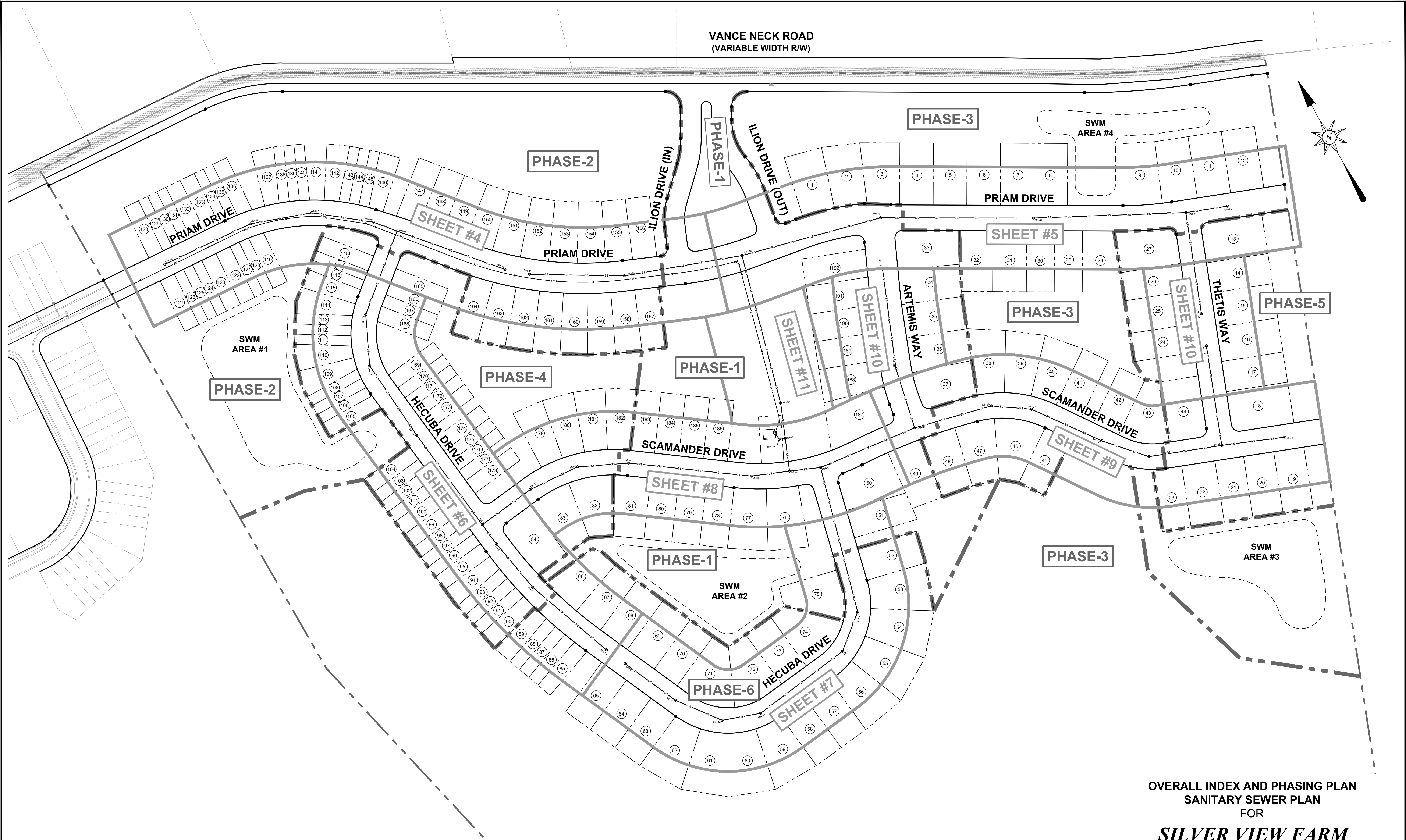
ATWELL
866.850.4200 www.atwell-group.com
17 POLLY DRUMMOND CENTER, SUITE 201
NEWARK, DE 19711
302.369.2900
** KARINS AND ASSOCIATES IS NOW OPERATING AS ATWELL, LLC **

DRAWN BY JCG DATE 11-27-2024
CHECKED BY JMM SCALE

10/06/2025
J. M. Mason
PROFESSIONAL ENGINEER

NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

DRAWING NO.	SHEET NO.
2144.02 - B02	2 OF 14



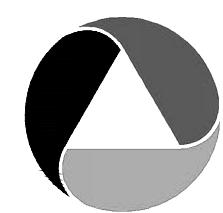
OVERALL INDEX AND PHASING PLAN
SANITARY SEWER PLAN
FOR
SILVER VIEW FARM

SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE



REVISIONS		
NO.	DATE	DESCRIPTION
1	4-2-2025	REVISED PER NCC 2-19-2025 COMMENTS
2	5-29-2025	ADDED ASSET ID'S PER NCC COMMENTS
3	7-8-2025	REVISED PER PUMP STATION DESIGN
4	9-29-2025	PER NCC COMMENTS DATED 08-01-2025

PREPARED FOR:
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434



ATWELL
866.850.4200 www.atwell-group.com
17 POLLY DRUMMOND CENTER, SUITE 201
NEWARK, DE 19711
302.369.2900
** KARINS AND ASSOCIATES IS NOW OPERATING AS ATWELL, LLC **

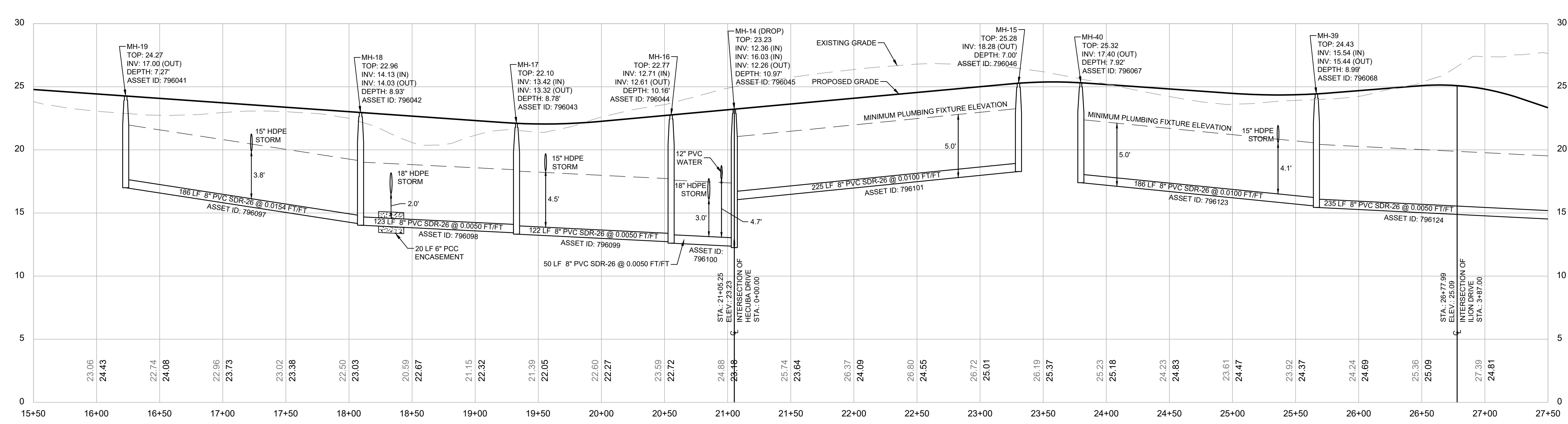
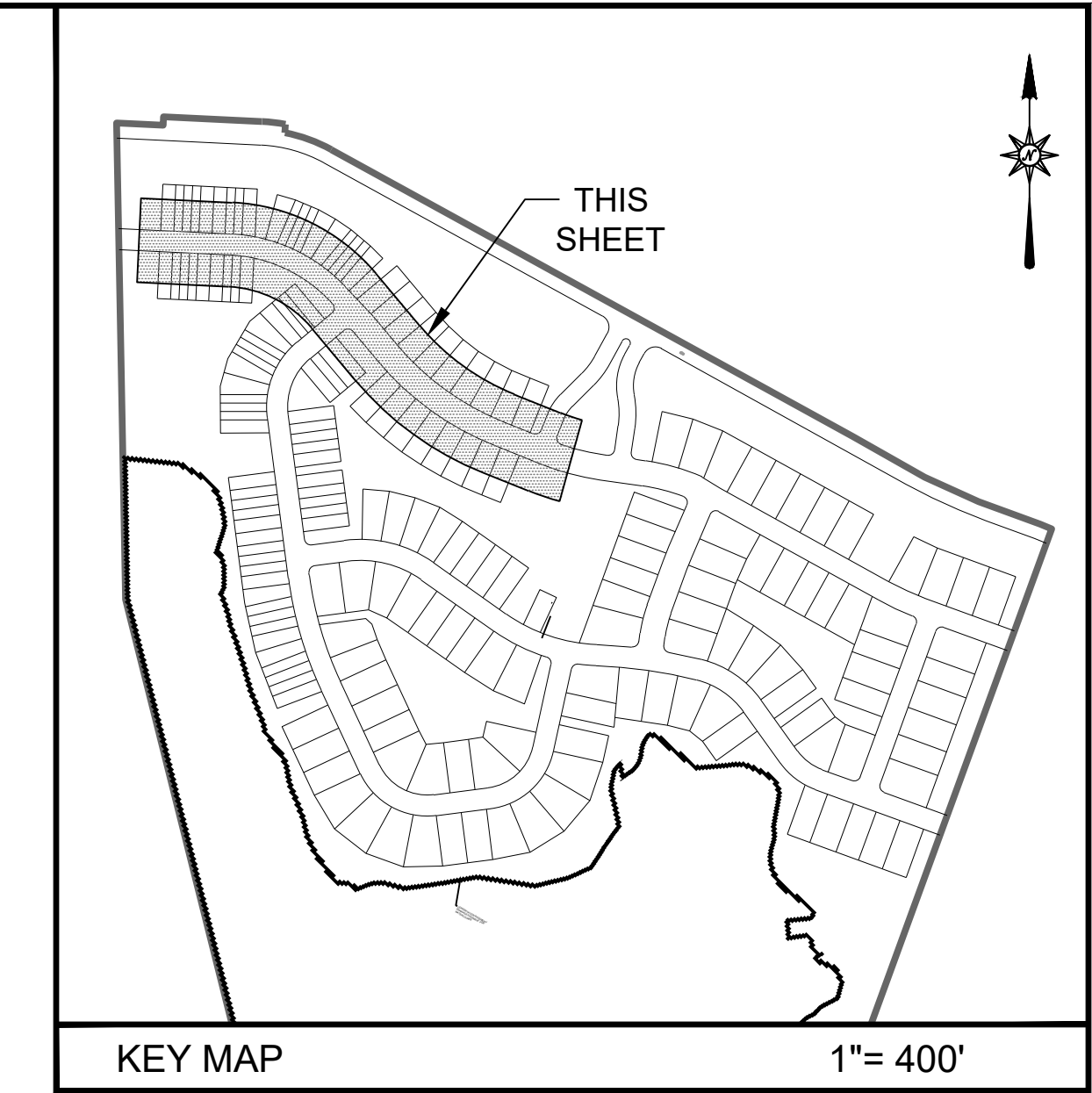
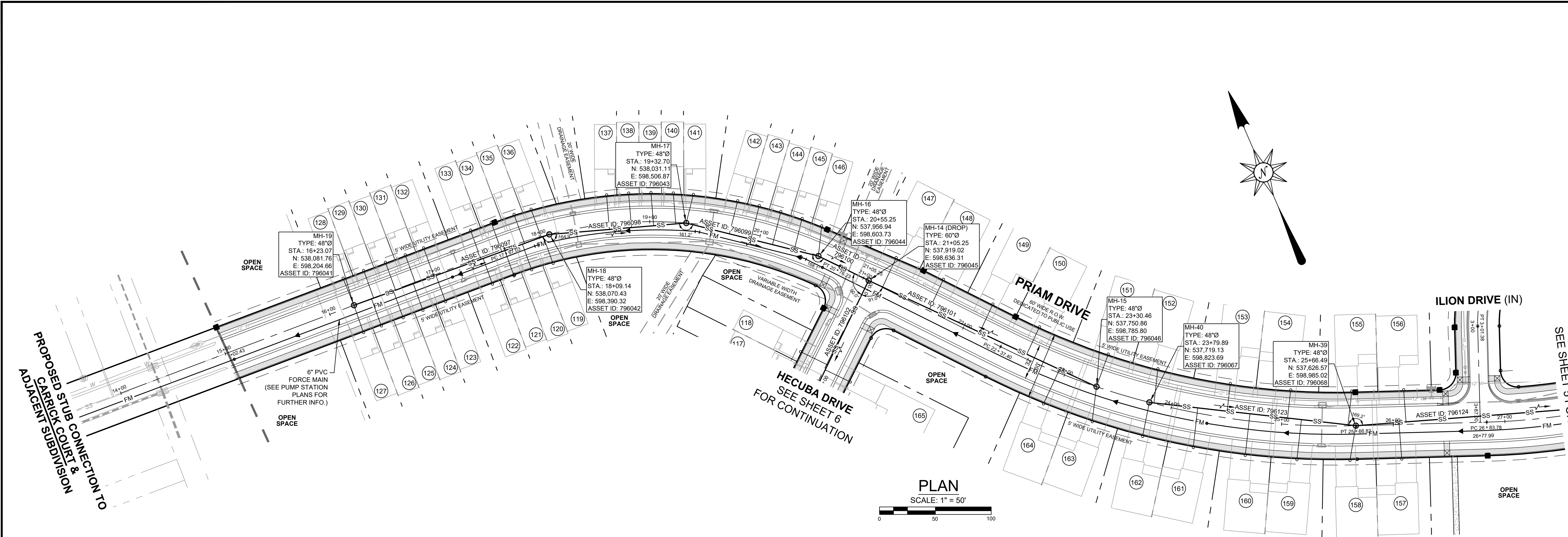
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CHECKED BY: JMM SCALE: 1" = 80'



10/06/2025
John M. Mascari
PROFESSIONAL ENGINEER

NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

DRAWING NO.	SHEET NO.
2144.02 - B03	3 OF 14



- NOTES:
- FOR LATERAL INFORMATION, SEE LATERAL TABLES, SHEET 13.
 - STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-STREET MANHOLES.
 - LATERAL NUMBERS CORRESPOND TO THE LOT IT SERVES.
 - PIPE LENGTHS ARE MEASURED FROM CENTER OF MANHOLE TO CENTER OF MANHOLE.

REVISIONS		
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3	7-8-2025	REVISED PER PUMP STATION DESIGN
4	9-29-2025	PER NCC COMMENTS DATED 08-01-2025

PREPARED FOR:
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434

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17 POLLY DRUMMOND CENTER, SUITE 201
NEWARK, DE 19711
302.369.2900
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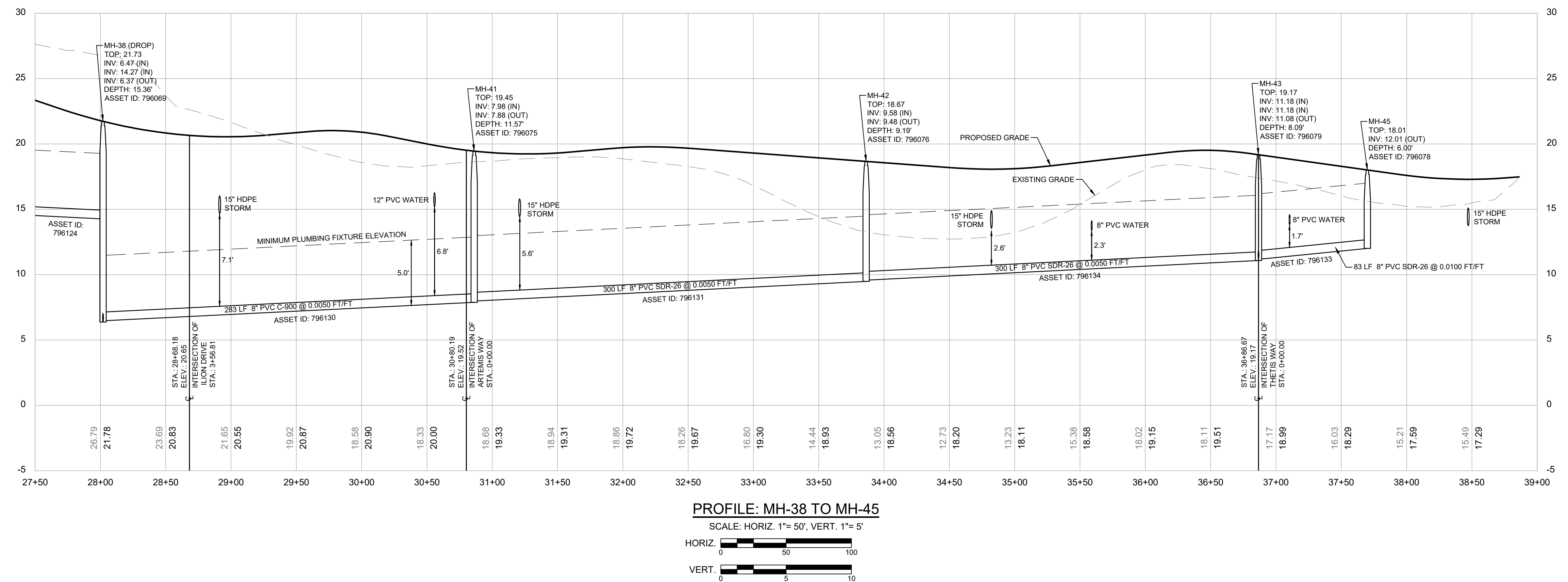
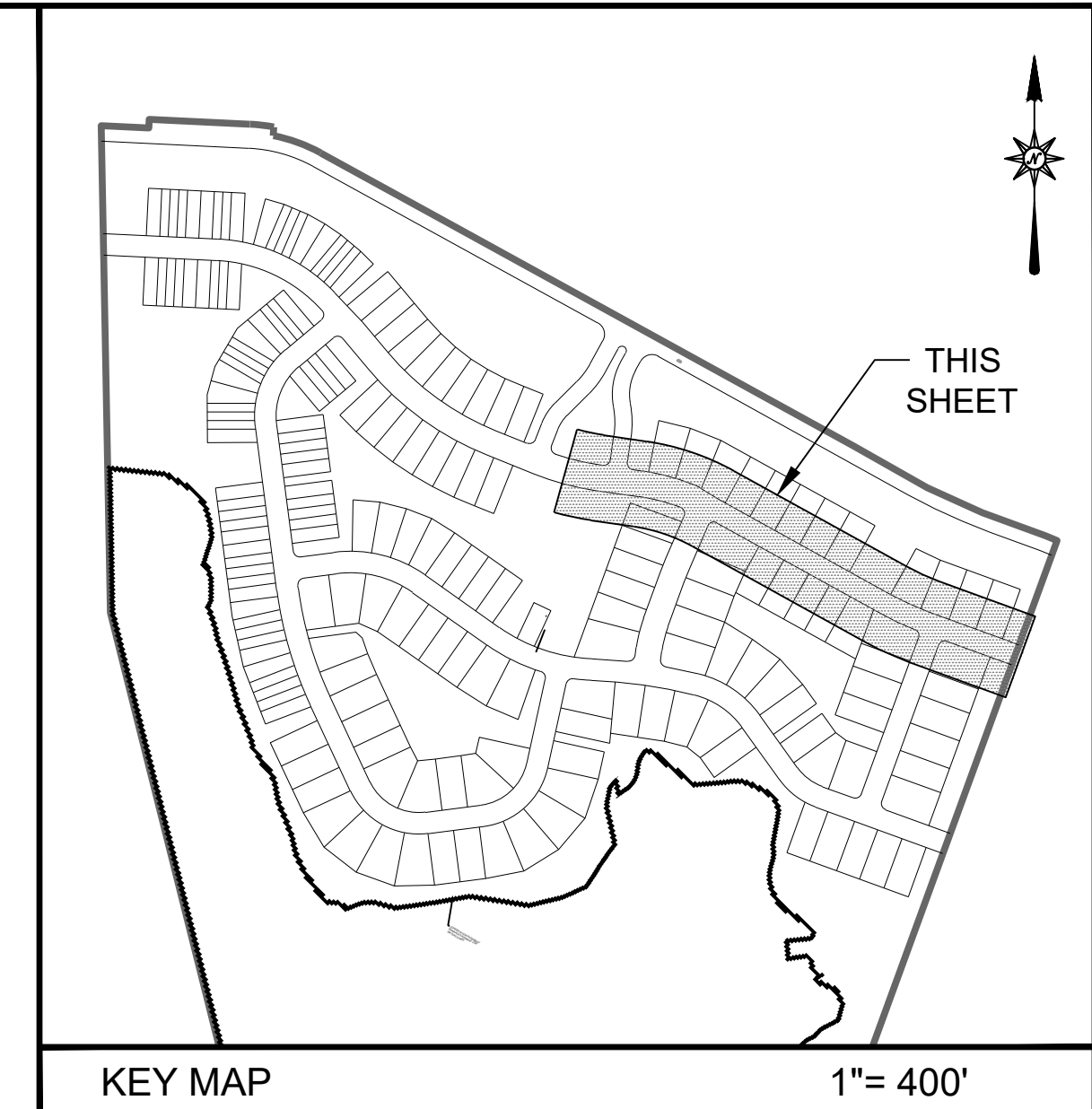
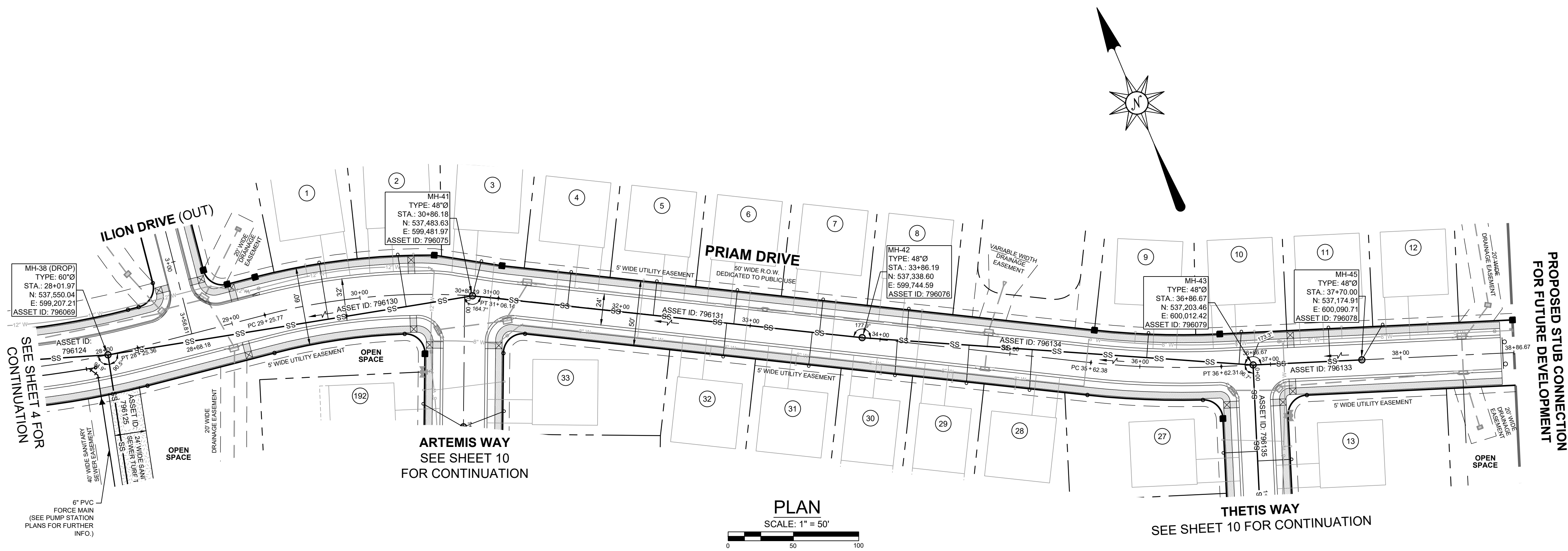
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CHECKED BY: JMM SCALE: AS SHOWN

JOHN M. MASCIANO
LICENSE
No. 9186
DELAWARE
PROFESSIONAL ENGINEER
10/06/2025

SANITARY SEWER PLAN AND PROFILE
MH-19 TO MH-39
FOR
SILVER VIEW FARM
SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE

NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

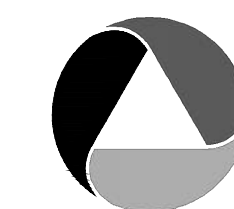
DRAWING NO.	SHEET NO.
2144.02 - B04	4 OF 14



- NOTES:
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PREPARED FOR:
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434



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DRAWN BY: JCG
CHECKED BY: JMM
DATE: 11-27-2024
SCALE: AS SHOWN

SANITARY SEWER PLAN AND PROFILE
MH-38 TO MH-45
FOR

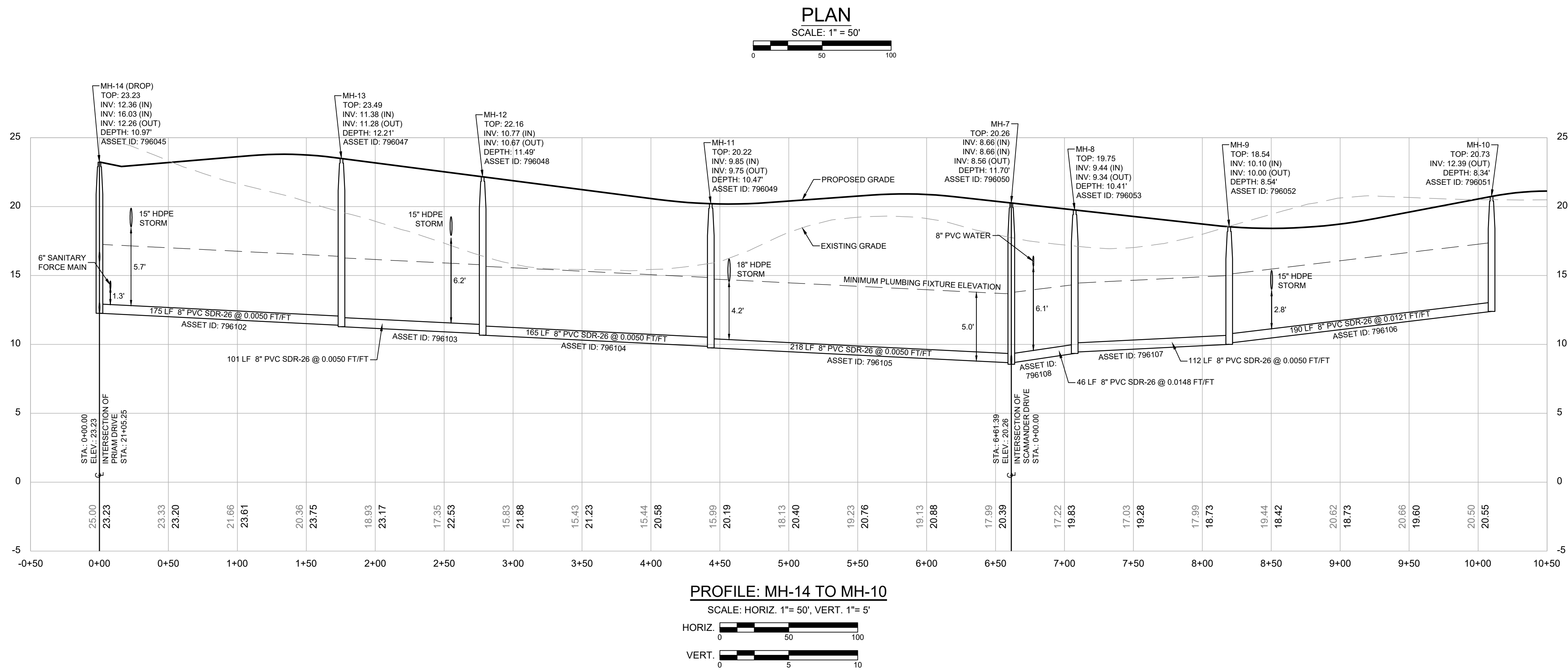
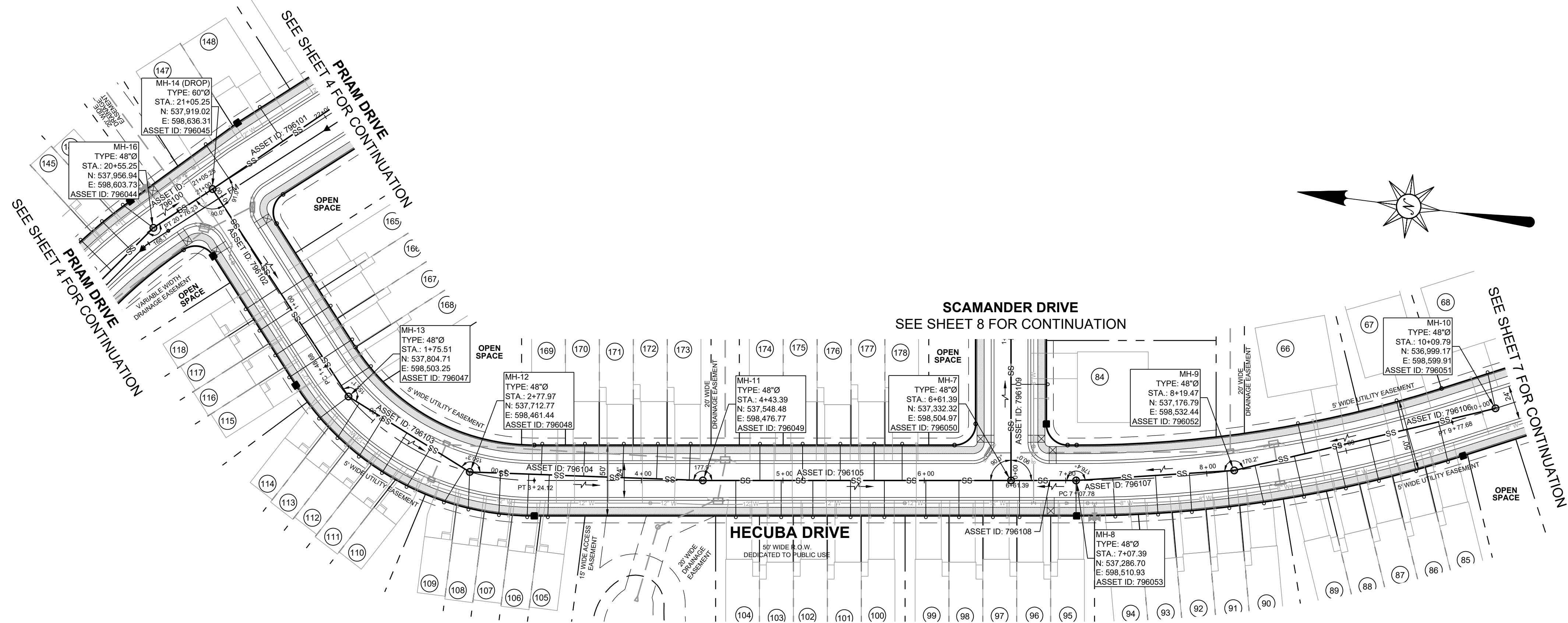
SILVER VIEW FARM

SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE



NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

DRAWING NO. 2144.02 - B05
SHEET NO. 5 OF 14

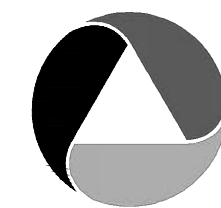


NOTES:

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PREPARED FOR:
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434



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NEWARK, DE 19711
302.369.2900

** KARINS AND ASSOCIATES IS NOW OPERATING AS ATWELL, LLC **

DRAWN BY: JCG
CHECKED BY: JMM
DATE: 11-27-2024
SCALE: AS SHOWN

SANITARY SEWER PLAN AND PROFILE
MH-14 TO MH-10
FOR

SILVER VIEW FARM

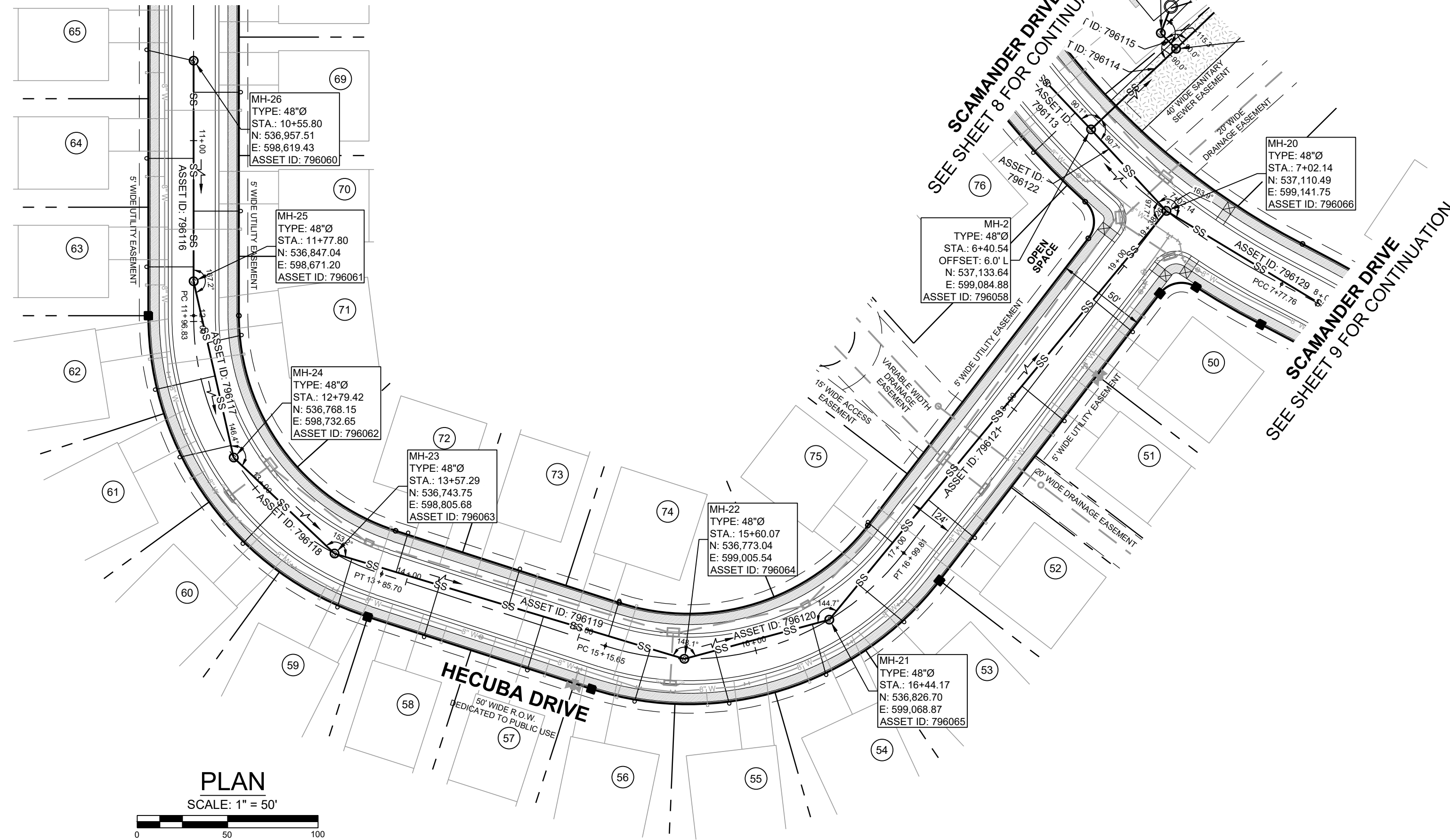
SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE



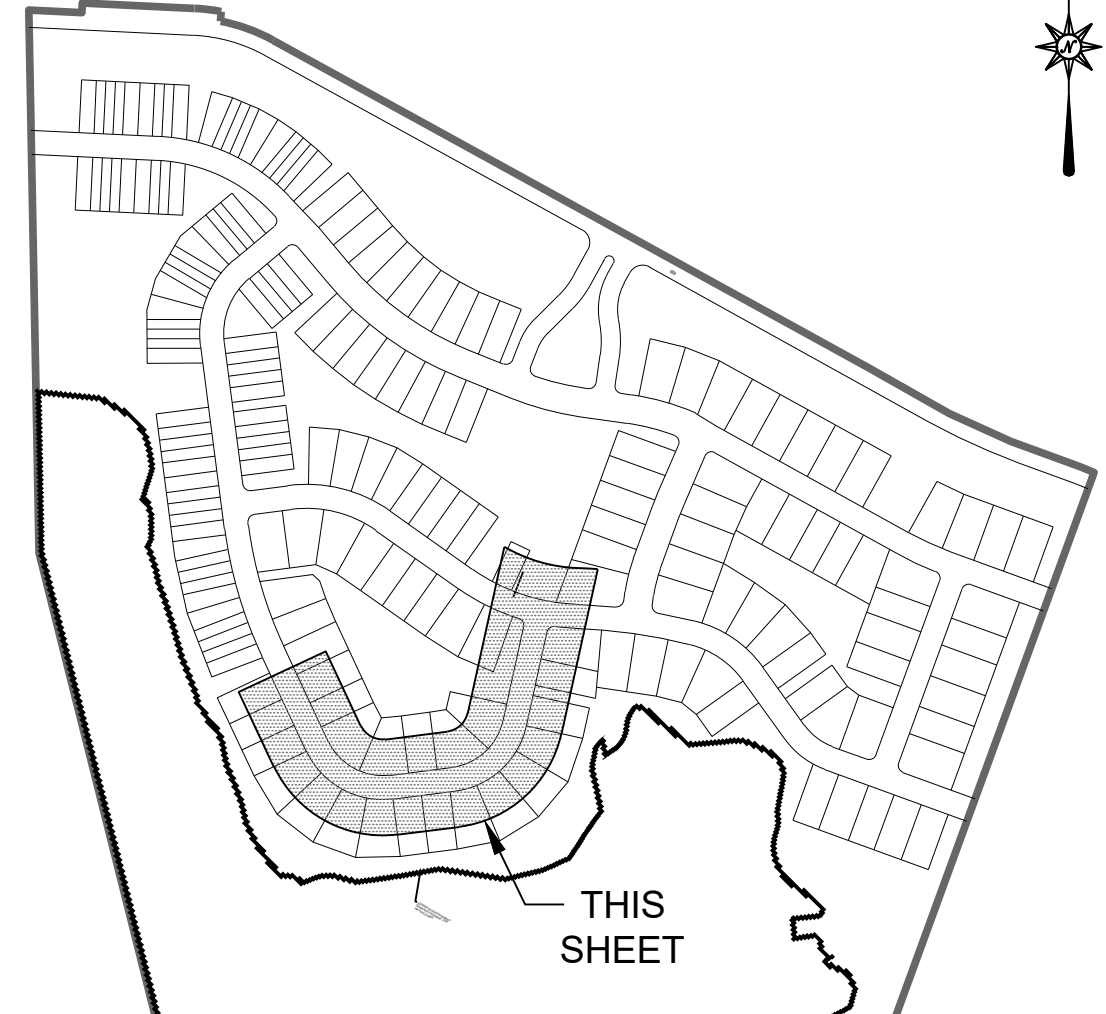
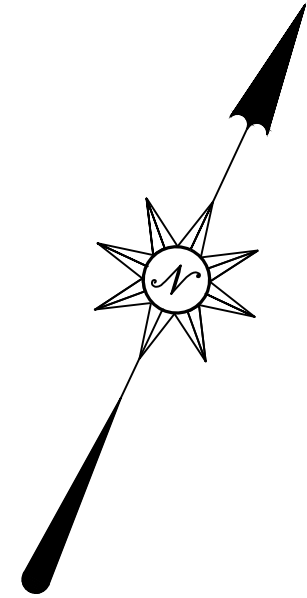
NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

DRAWING NO. 2144.02 - B06
SHEET NO. 6 OF 14

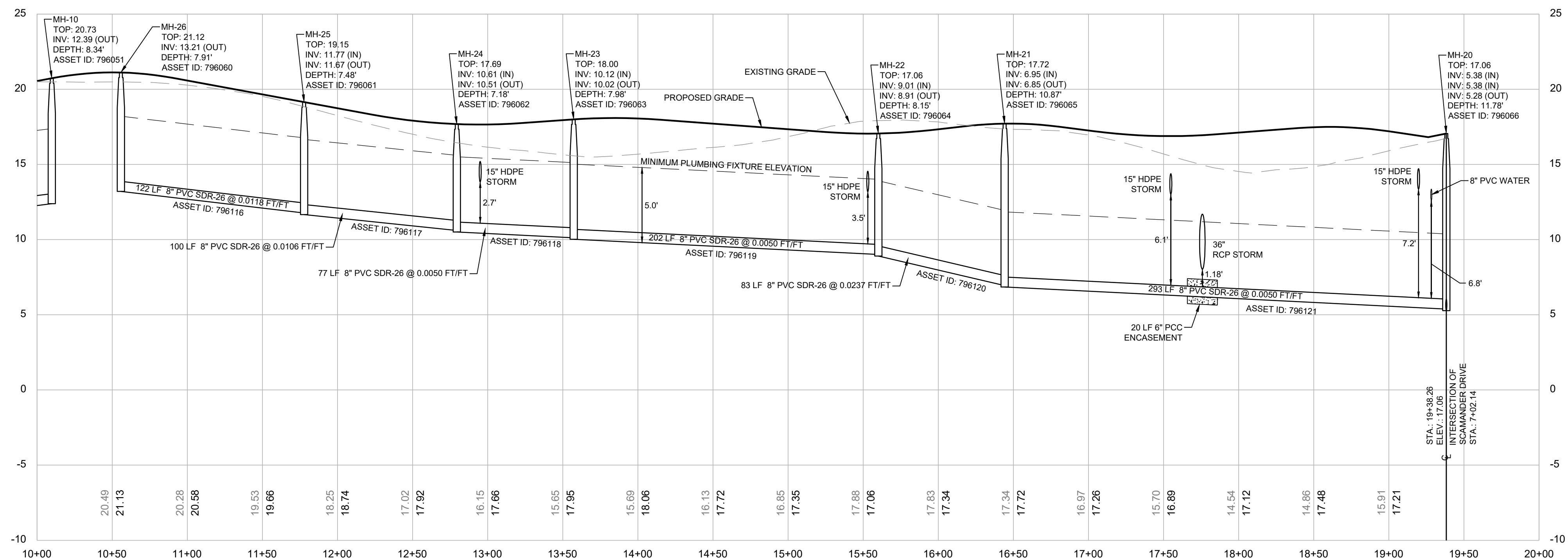
SEE SHEET 6 FOR CONTINUATION



PLAN
SCALE: 1" = 50'

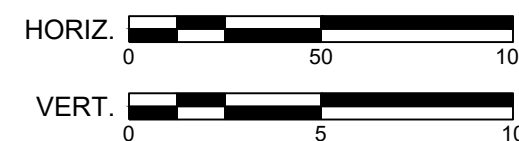


KEY MAP
1" = 400'



PROFILE: MH-26 TO MH-20

SCALE: HORIZ. 1" = 50', VERT. 1" = 5'



NOTES:

- FOR LATERAL INFORMATION, SEE LATERAL TABLES, SHEET 13.
- STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-STREET MANHOLES.
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4	9-29-2025	PER NCC COMMENTS DATED 08-01-2025

PREPARED FOR:
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434

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17 POLLY DRUMMOND CENTER, SUITE 201
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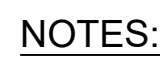
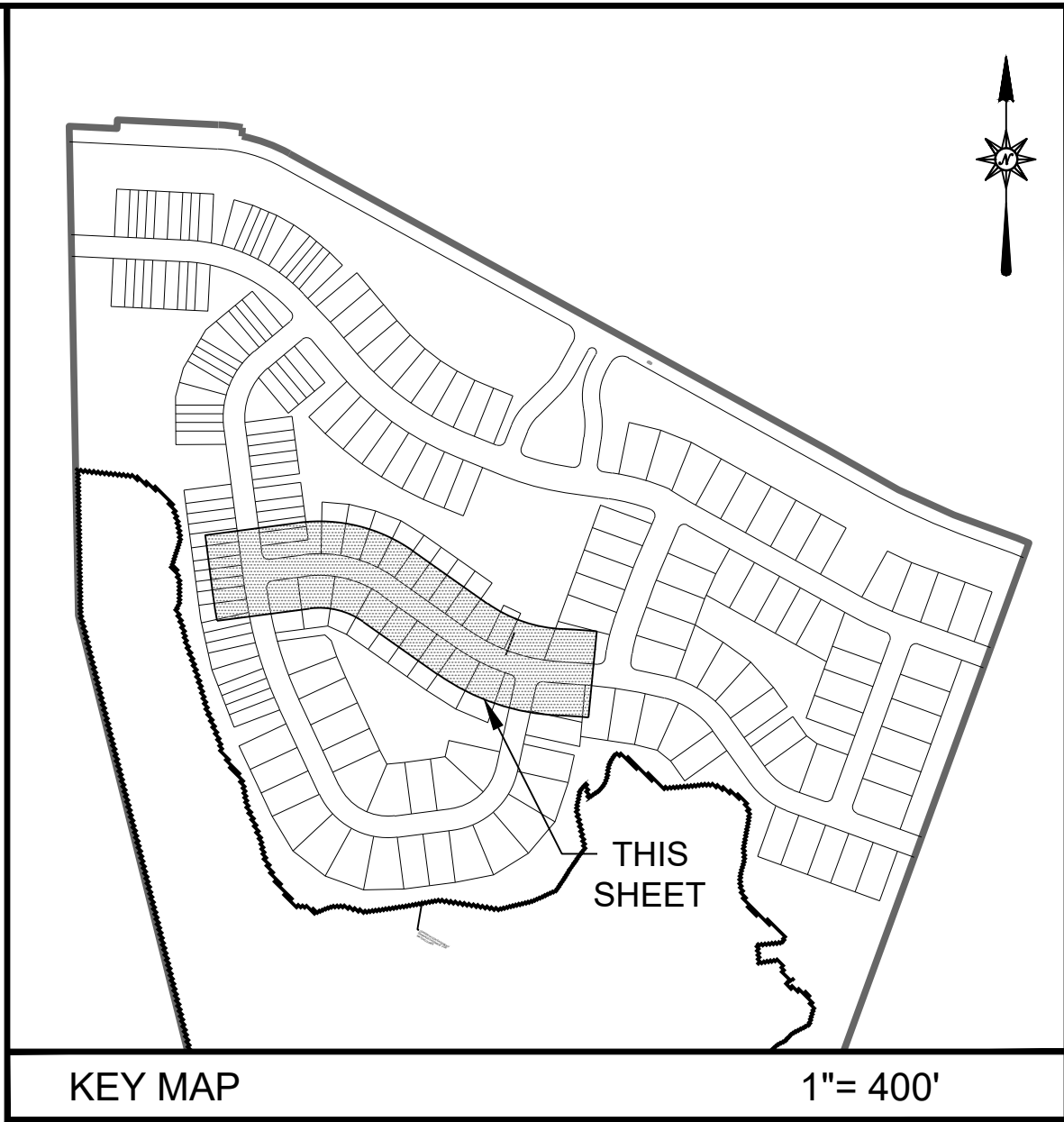
DRAWN BY: JCG DATE: 11-27-2024
CHECKED BY: JMM SCALE: AS SHOWN

JOHN M. MASCHAY
LICENSE
No. 9186
DELAWARE
PROFESSIONAL ENGINEER
10/06/2025

SANITARY SEWER PLAN AND PROFILE
MH-26 TO MH-20
FOR
SILVER VIEW FARM
SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE

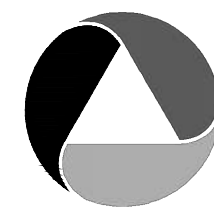
NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

DRAWING NO. 2144.02 - B07
SHEET NO. 7 OF 14



- [illegible]

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BOCA RATON, FL 33434



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** KARINS AND ASSOCIATES IS NOW OPERATING AS ATWELL, LLC *



10/06/202
John M. Mascari
PROFESSIONAL ENGINEER

NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

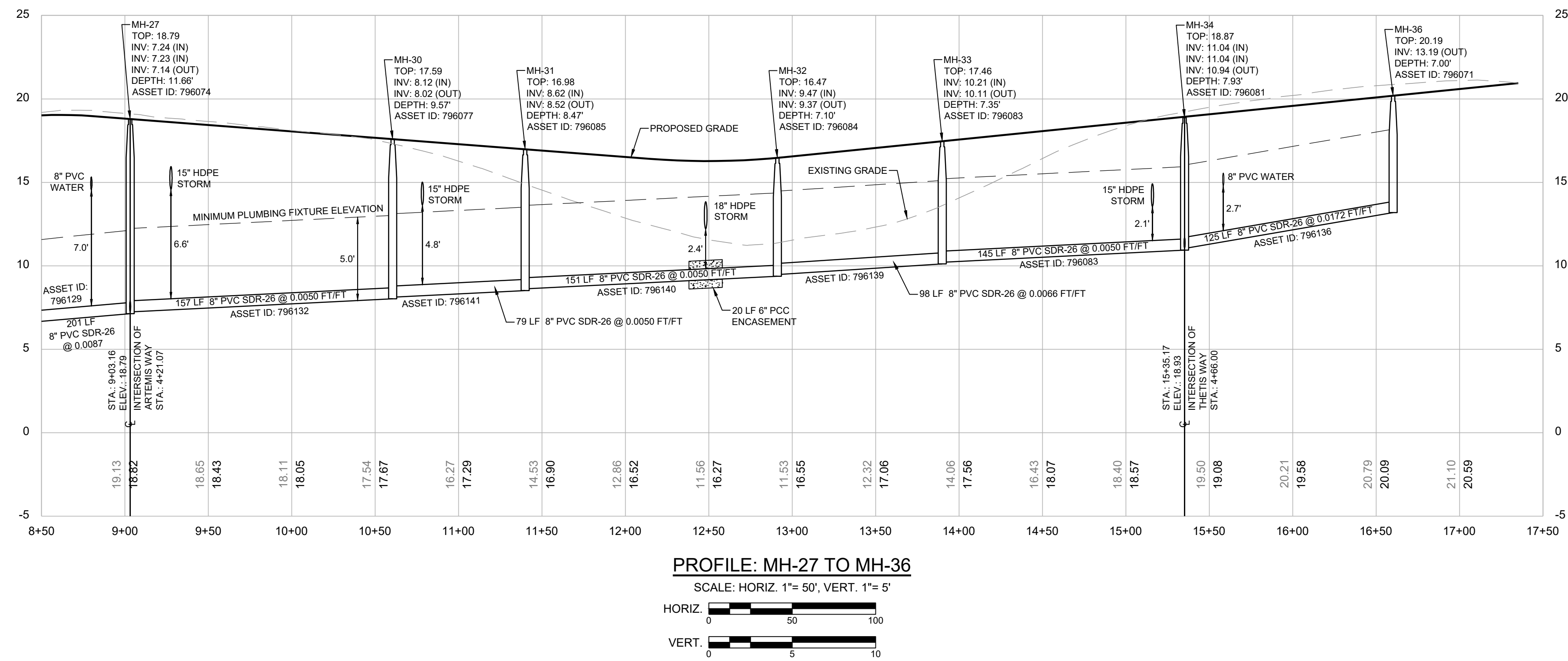
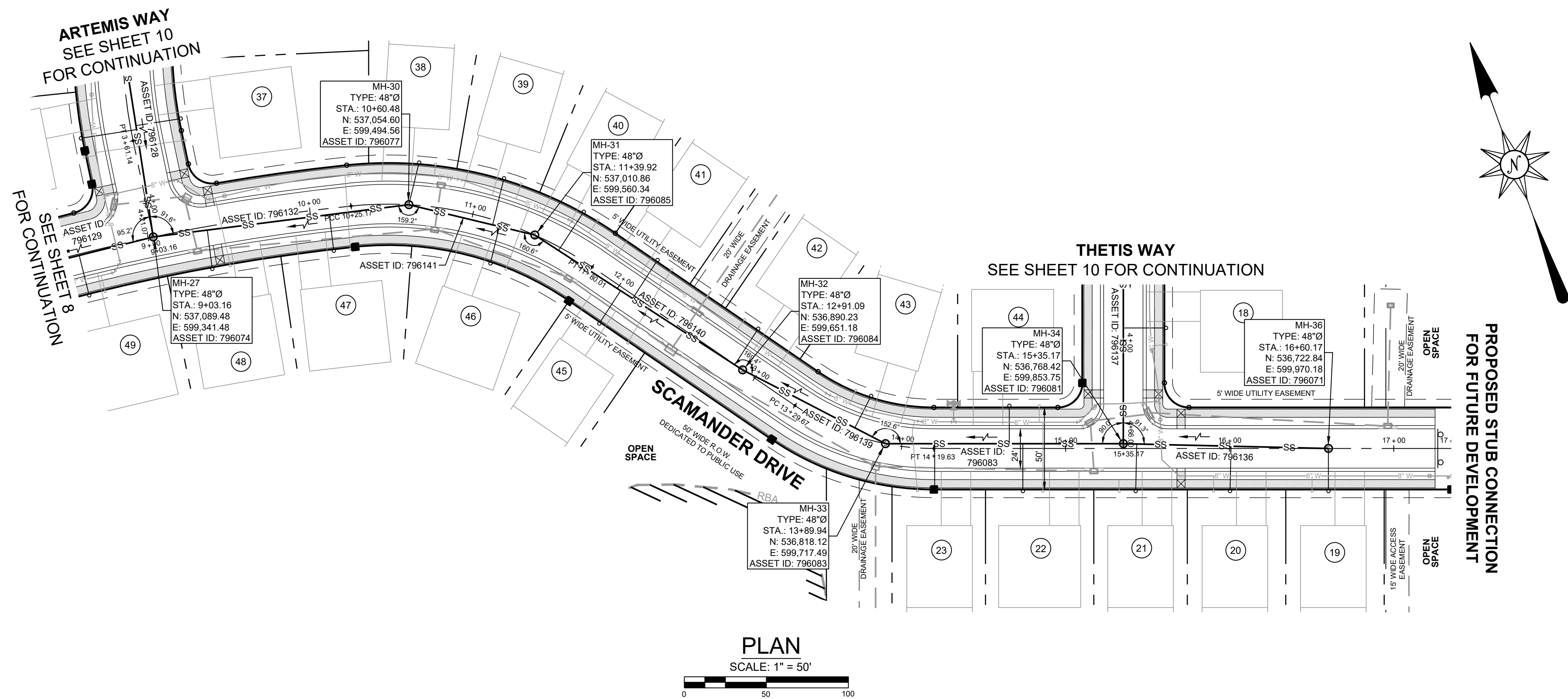
SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE

DRAWING NO

2144.02 - B08

SHEET NO.

8 OF 14

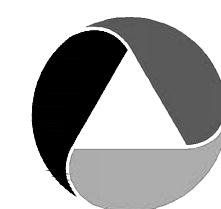


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PREPARED FOR:
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434



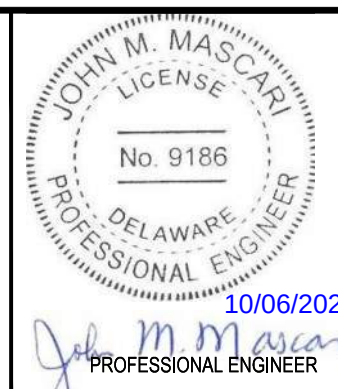
ATWELL
866.850.4200 www.atwell-group.com
17 POLLY DRUMMOND CENTER, SUITE 201
NEWARK, DE 19711
302.369.2900
** KARINS AND ASSOCIATES IS NOW OPERATING AS ATWELL, LLC **

DRAWN BY JCG DATE 11-27-2024
CHECKED BY JMM SCALE AS SHOWN

SANITARY SEWER PLAN AND PROFILE
MH-27 TO MH-36
FOR

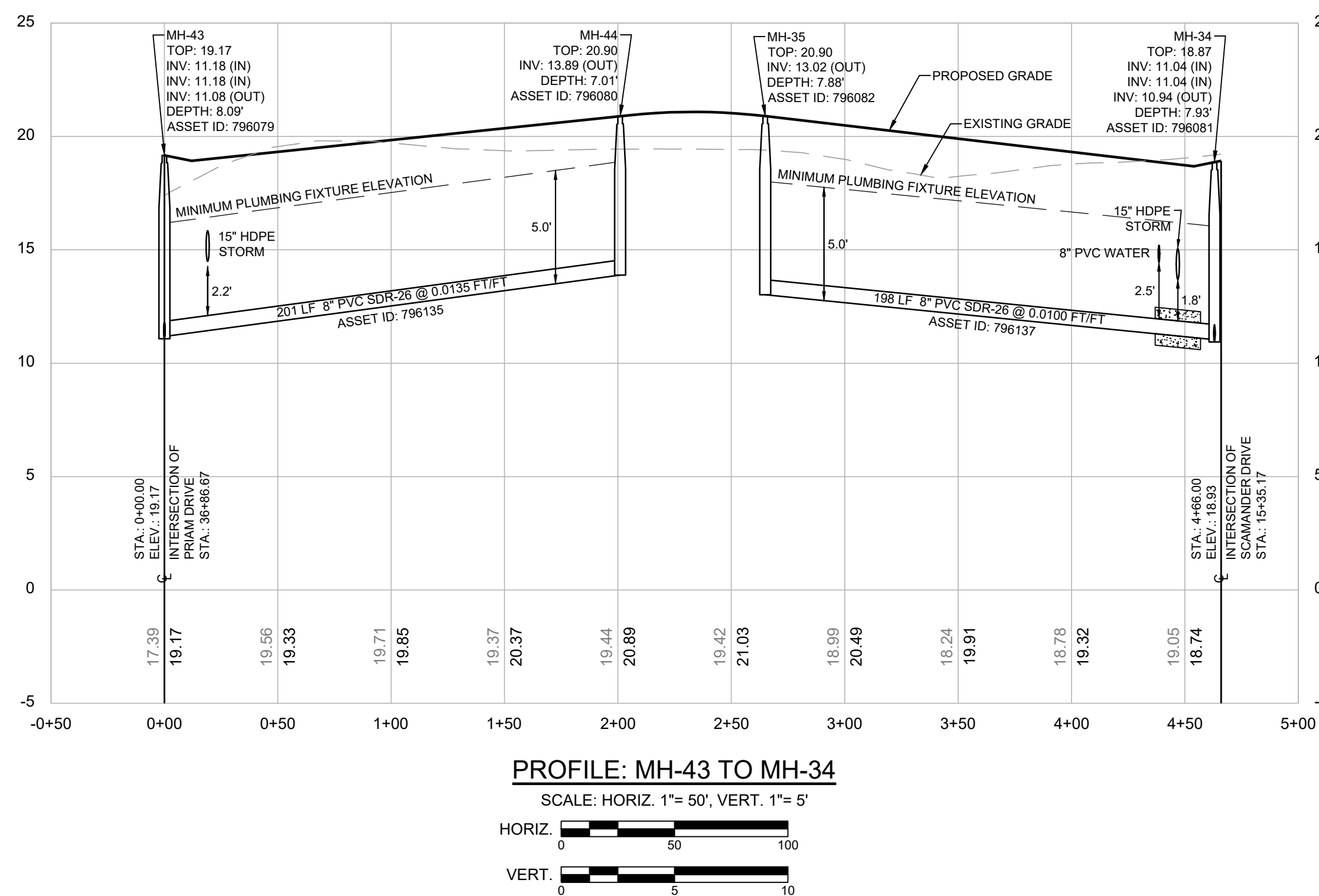
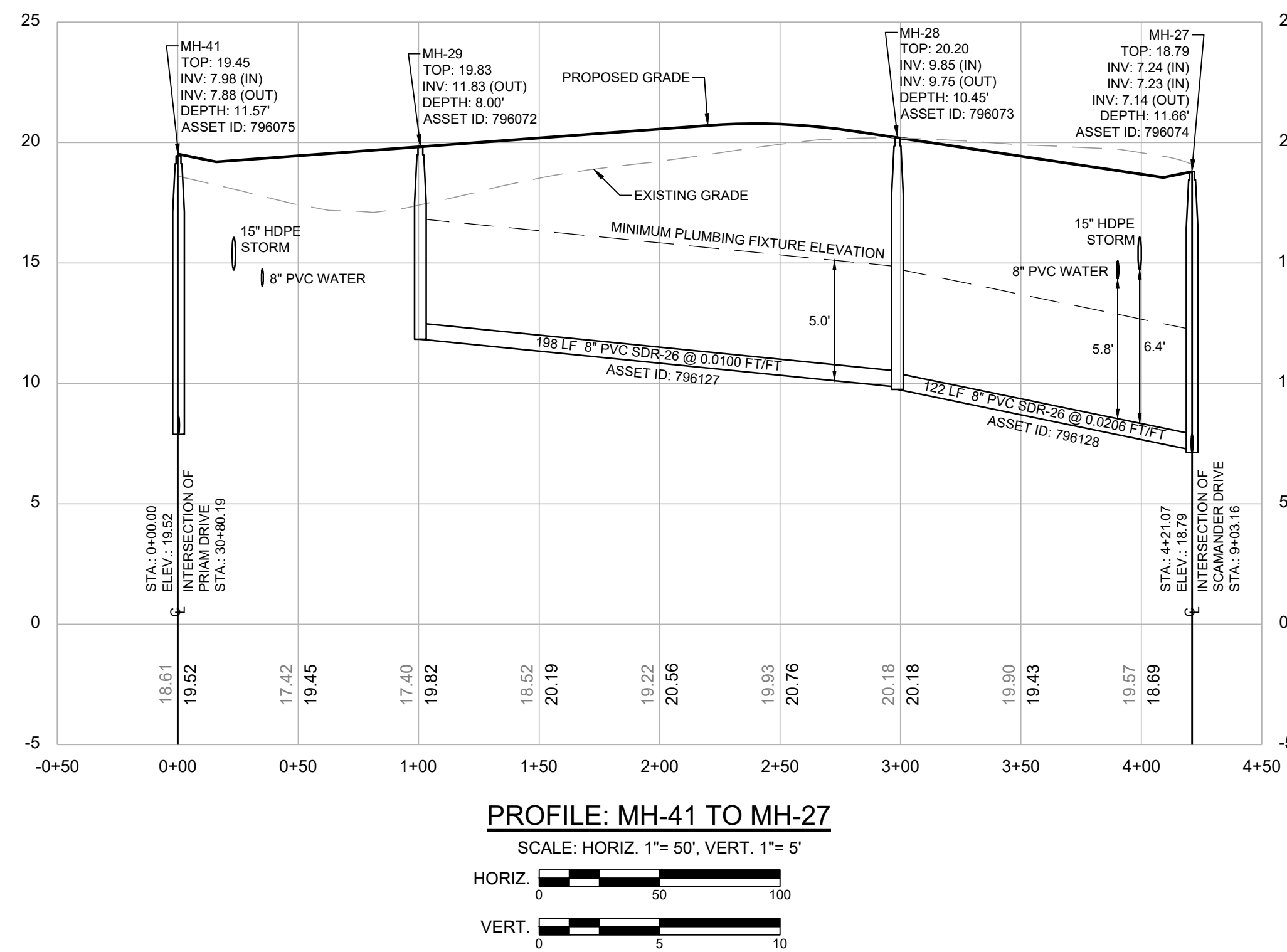
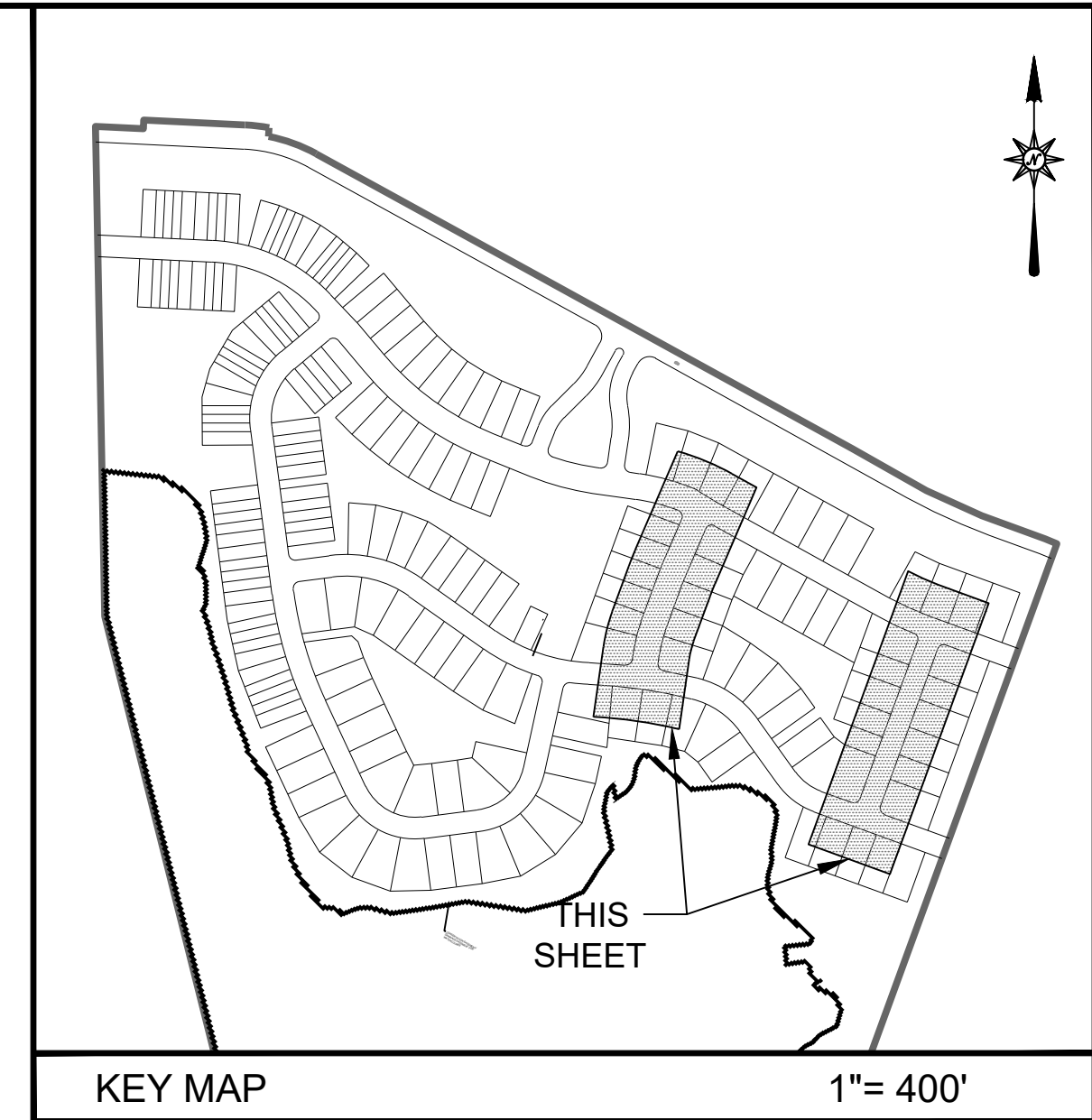
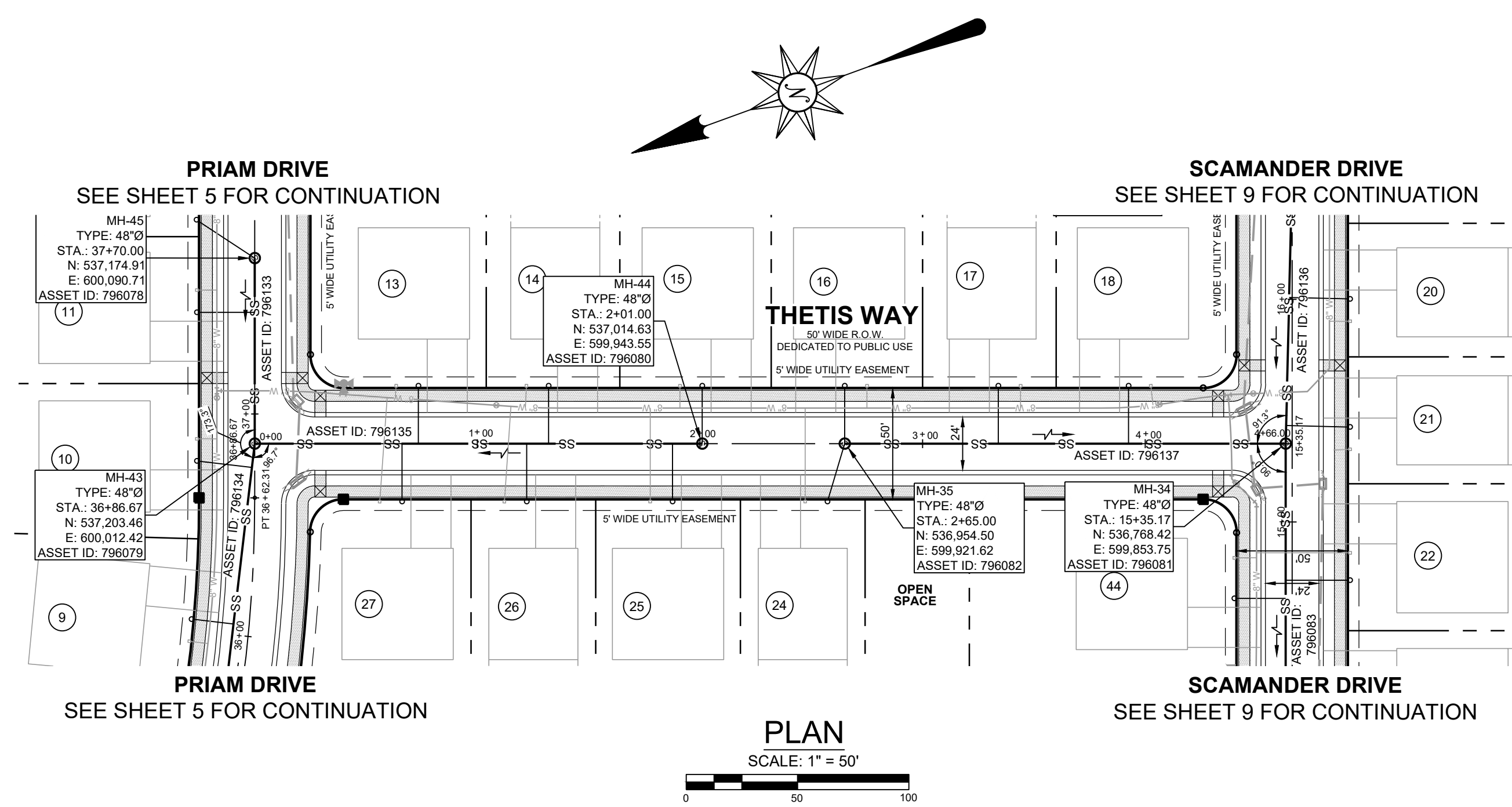
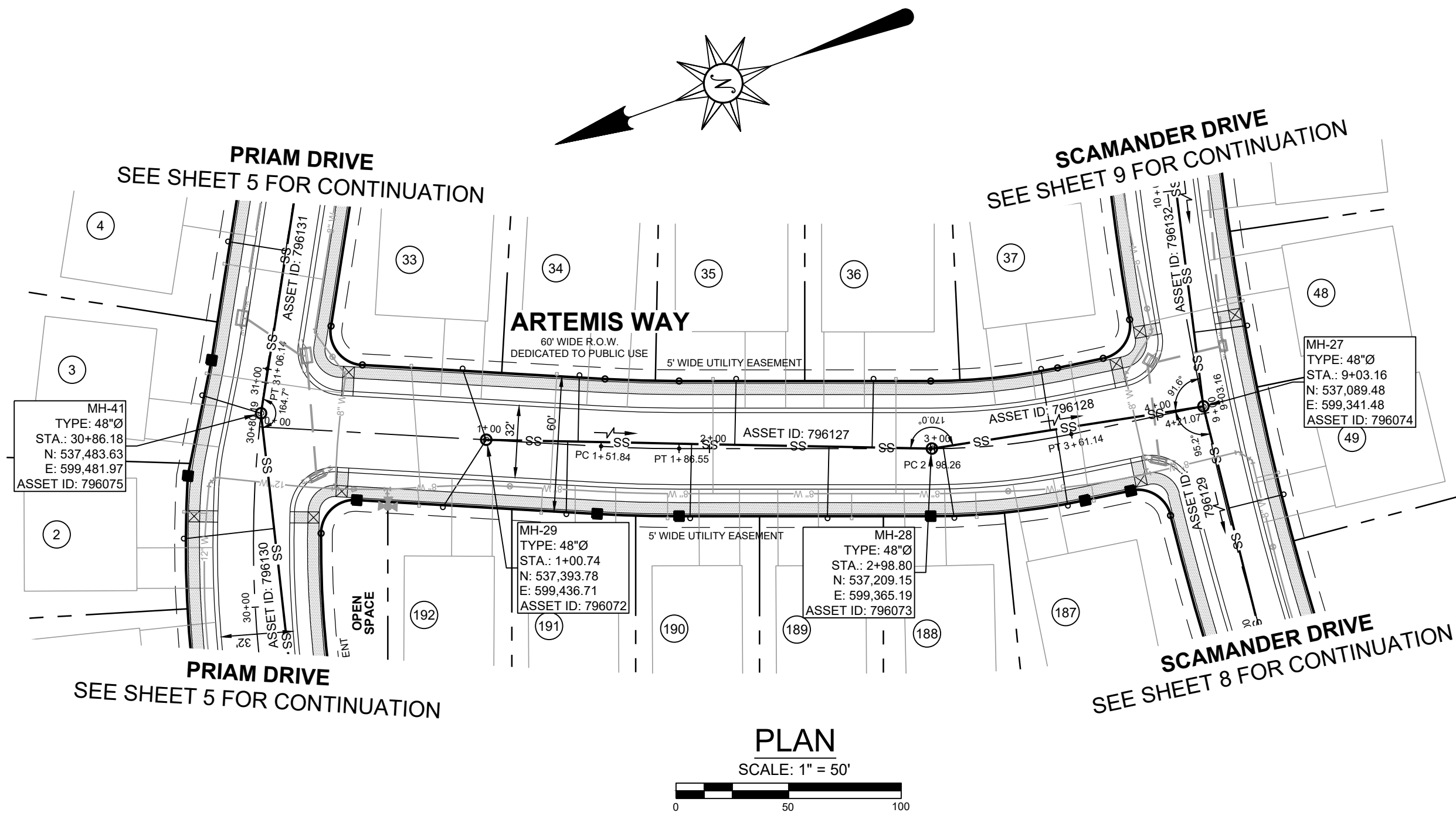
SILVER VIEW FARM

SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE



NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

DRAWING NO. 2144.02 - B09 SHEET NO. 9 OF 14

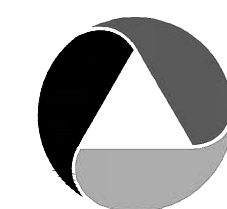


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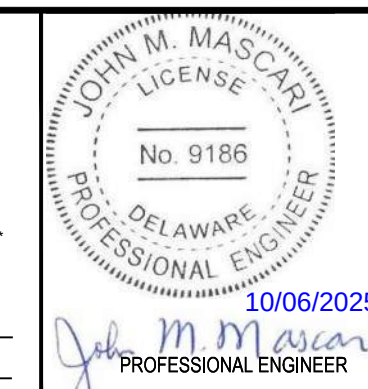
PREPARED FOR:
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434



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866.850.4200 www.atwell-group.com
17 POLLY DRUMMOND CENTER, SUITE 201
NEWARK, DE 19711
302.369.2900
** KARNIS AND ASSOCIATES IS NOW OPERATING AS ATWELL, LLC **

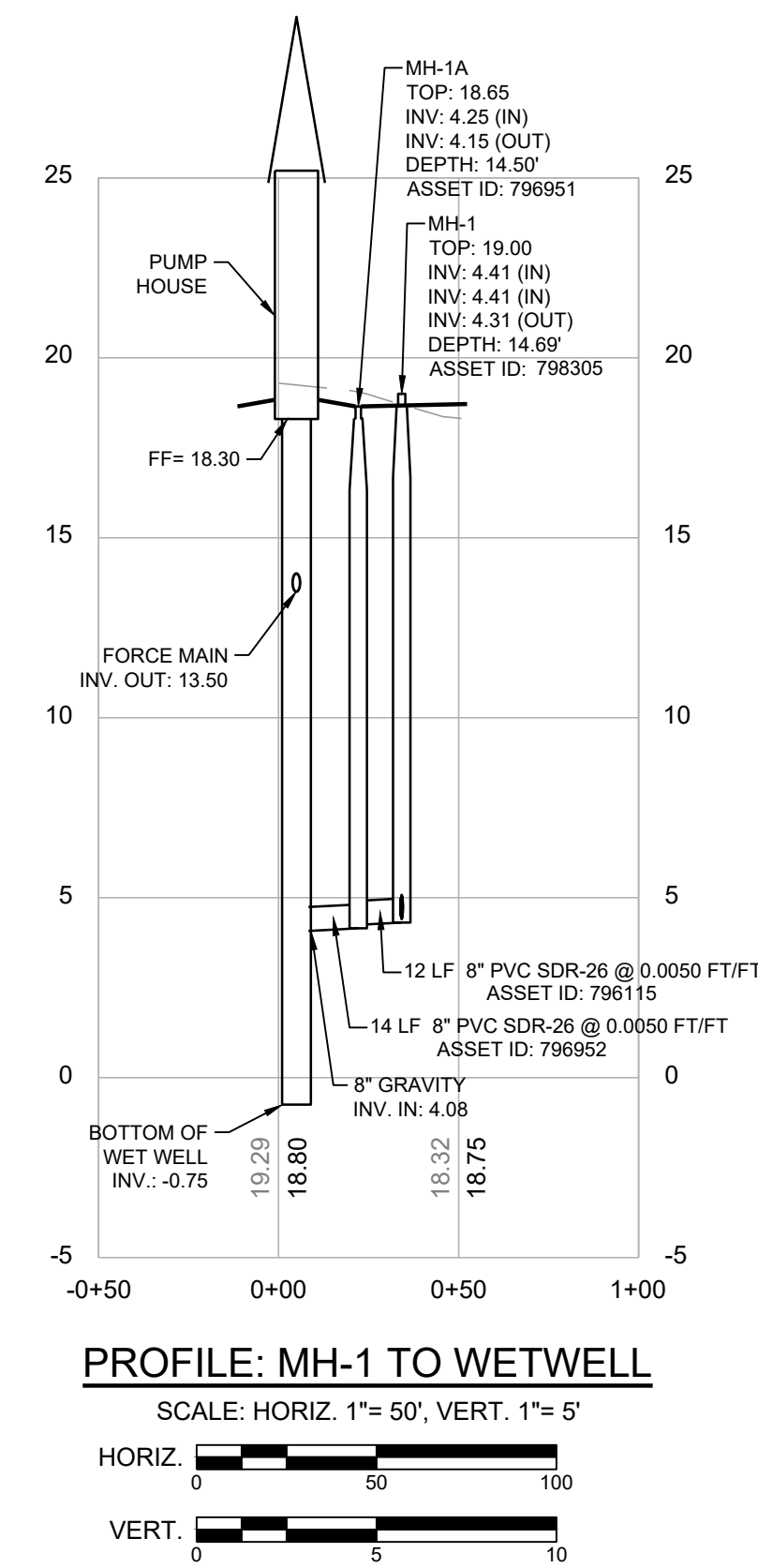
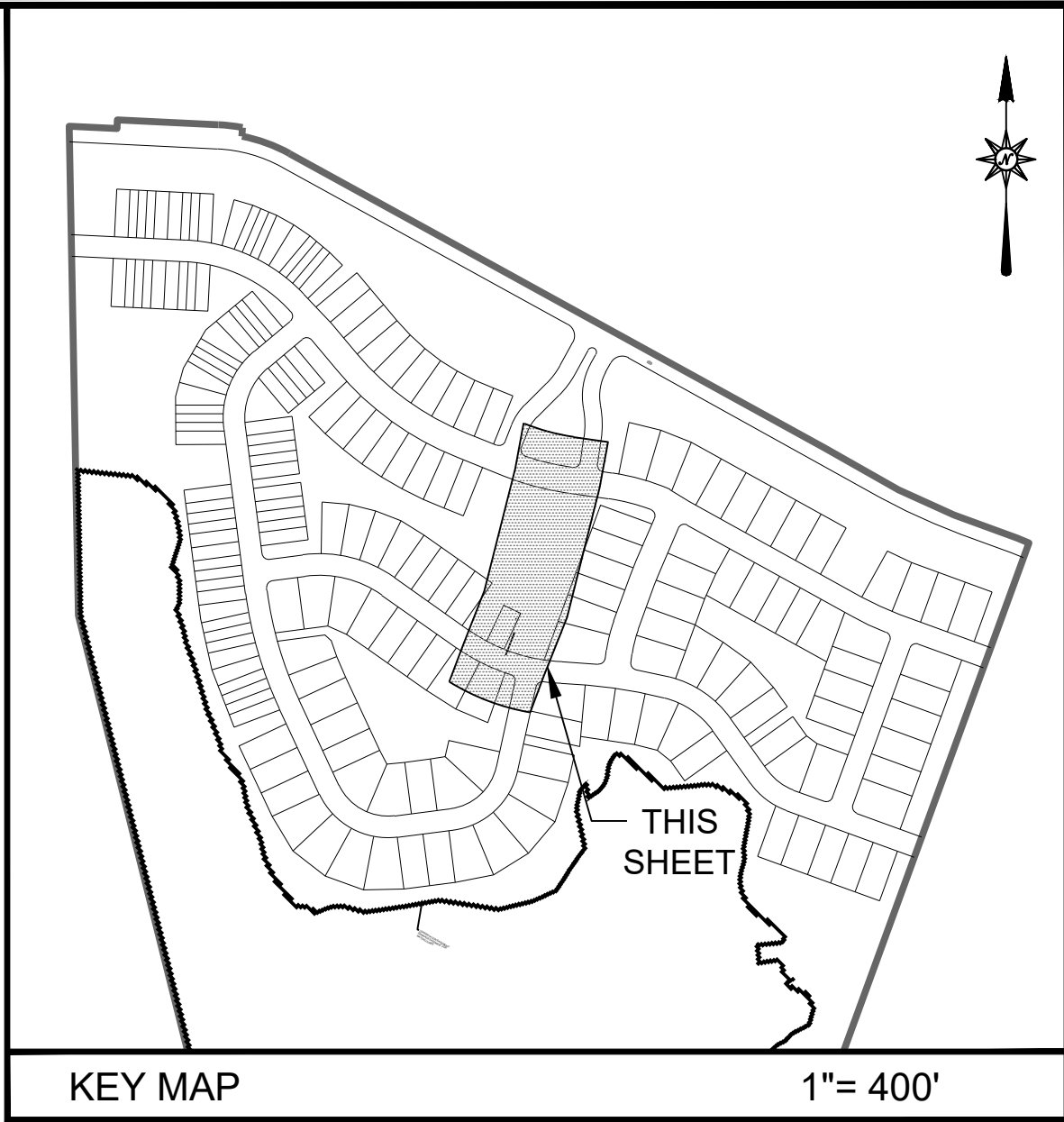
DRAWN BY: JCG
CHECKED BY: JMM
DATE: 11-27-2024
SCALE: AS SHOWN

SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE



NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

DRAWING NO. 2144.02 - B10
SHEET NO. 10 OF 14



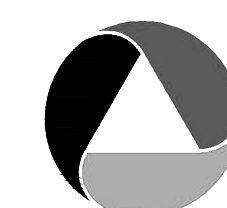
SILVER VIEW FARM

NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

DRAWING NO.	SHEET NO.
02 - B11	11 OF 14

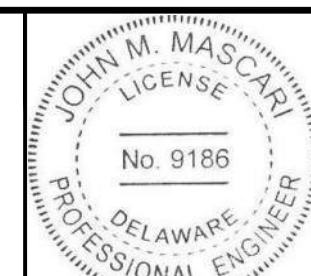
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|-----------|------------|------------------------------------|
| NO. | DATE | DESCRIPTION |
| 1 | 4-2-2025 | REVISED PER NCC 2-19-2025 COMMENTS |
| 2 | 5-29-2025 | ADDED ASSET ID'S PER NCC COMMENTS |
| 3 | 7-8-2025 | REVISED PER PUMP STATION DESIGN |
| 4 | 9-29-2025 | PER NCC COMMENTS DATED 08-01-2025 |
| 5 | 11-12-2025 | ASSET ID MH-1 PER NCC COMMENT |
| | | |
| | | |
| | | |

PREPARED FOR:
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434



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302.369.2900

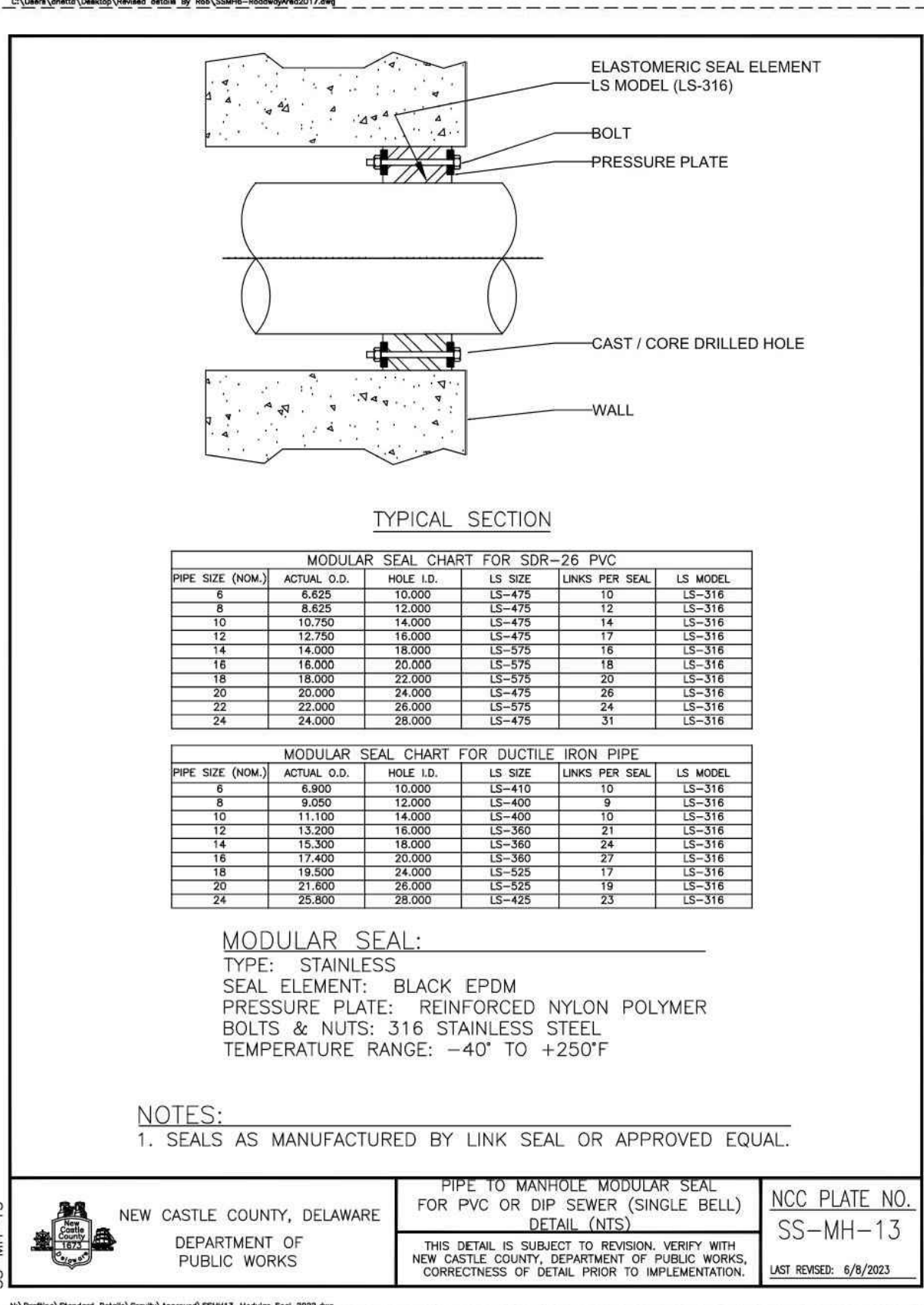
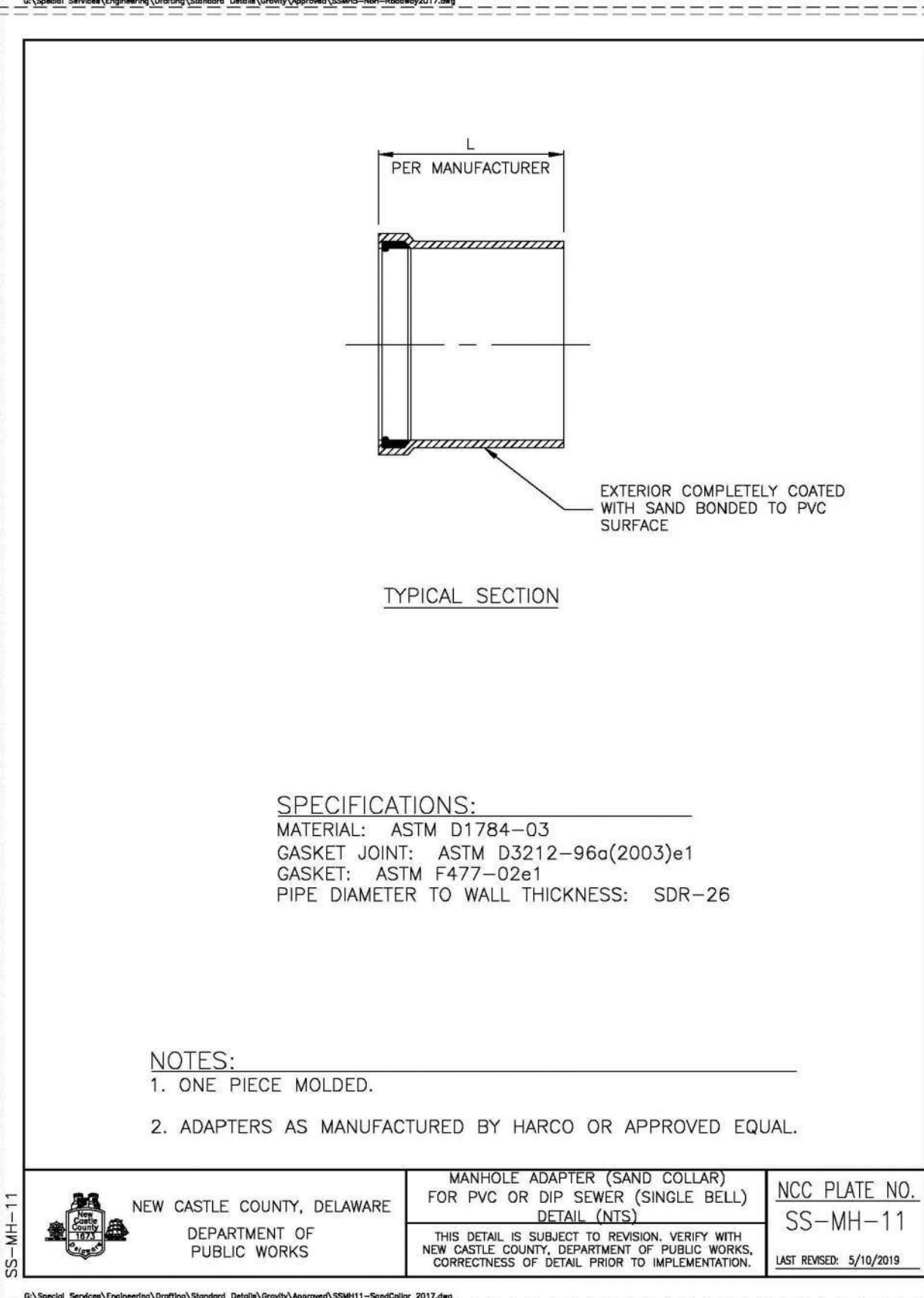
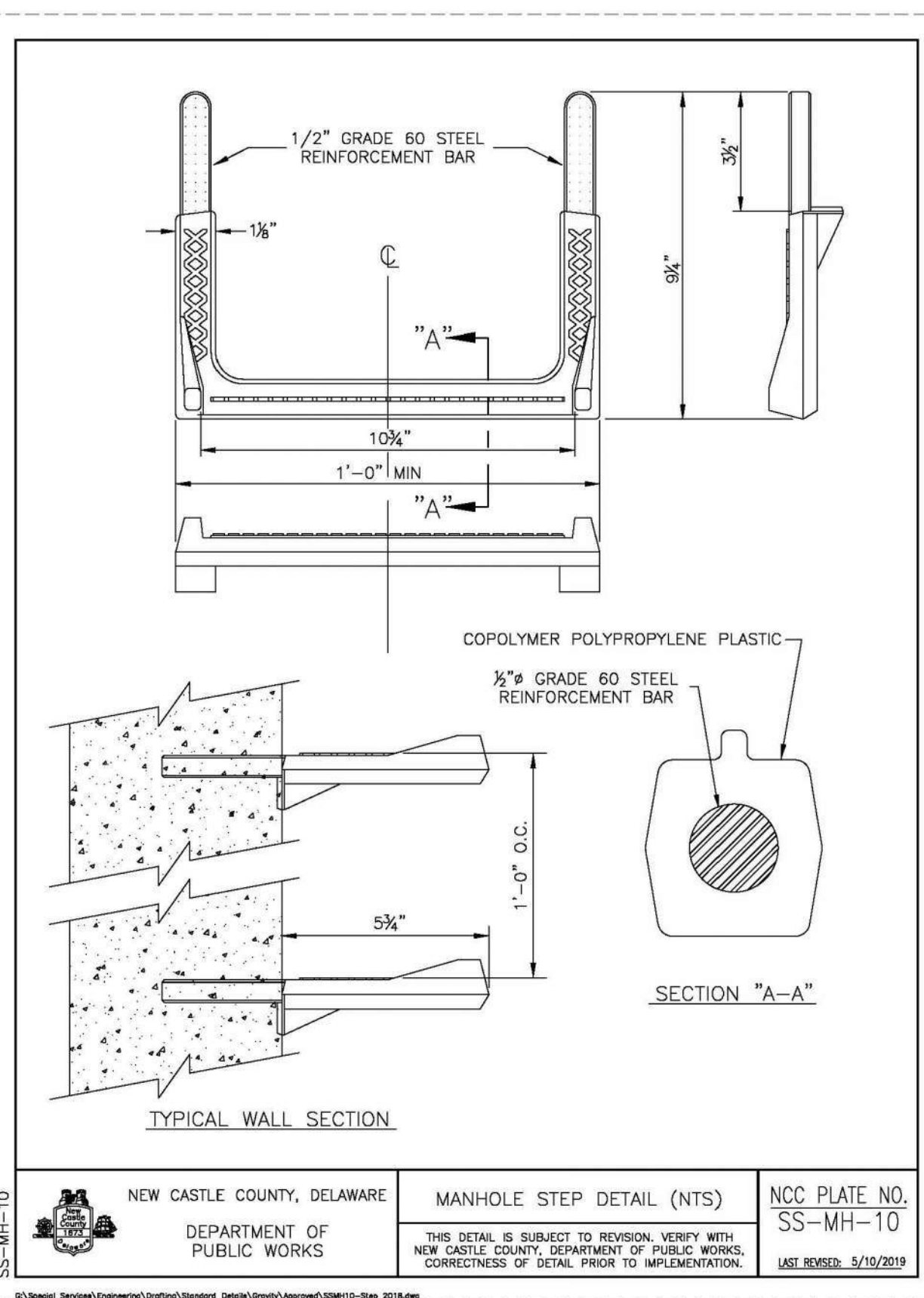
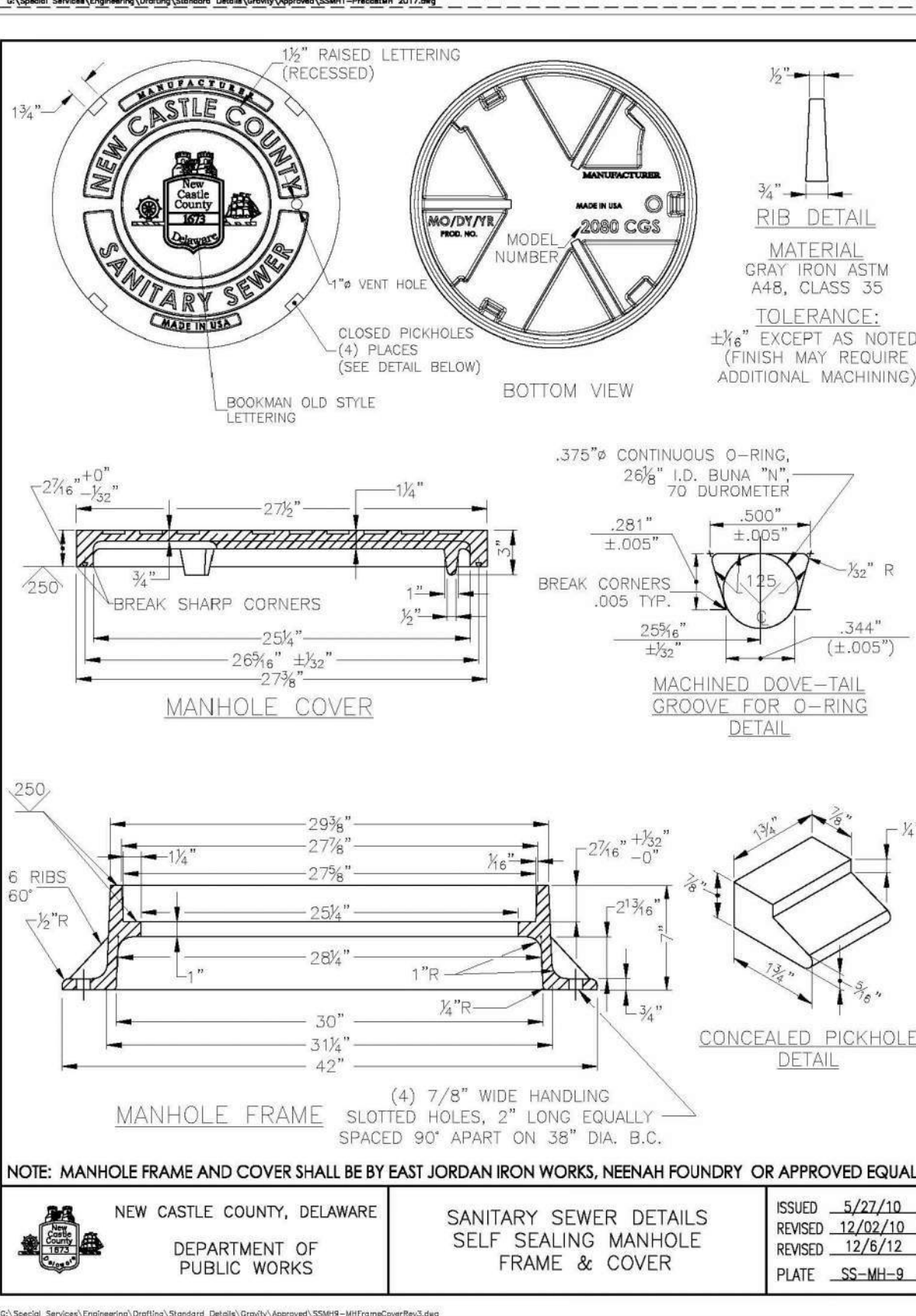
302.369.2900
** KARIHS AND ASSOCIATES IS NOW OPERATING AS ATWELL, LLC **



11/12/2025

PROFESSIONAL ENGINEER

DRAWN BY JCG DATE 11-27-2024
CHECKED BY JMM SCALE AS SHOWN





ROADWAY TABLE	DIMS	HOT-MIX	PCC
BASE COURSE WIDTH	X	12"	24"
WEAR COURSE WIDTH	Y	6'-0"	8'-0"



NOTES:

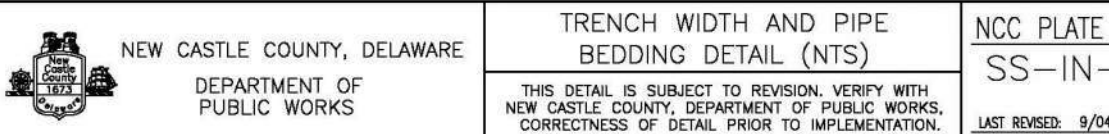
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|--|--|-----------------------------------|
|  <p>NEW CASTLE COUNTY, DELAWARE</p> <p>DEPARTMENT OF
PUBLIC WORKS</p> | <p>RESTORATION & TRENCH BACKFILL
NON-PAVED AREA DETAIL (NTS)</p> | <p>NCC PLATE NO.
SS-IN-1A</p> |
| | <p>THIS DETAIL IS SUBJECT TO REVISION. VERIFY WITH
NEW CASTLE COUNTY, DEPARTMENT OF PUBLIC WORKS,
CORRECTNESS OF DETAIL PRIOR TO IMPLEMENTATION.</p> | <p>LAST REVISED: 5/10/2019</p> |



NOTES:

- 4) FOR NEW CASTLE COUNTY CAPITAL IMPROVEMENT PROJECTS,
SEE TABLE FOR TRENCH PAYMENT WIDTH.

PIPE DIAMETER	TRENCH PAYMENT WIDTH
6"	36"
8"	36"
10"	36"
12"	36"
15" AND 16"	36"
18"	42"
20" AND 21"	42"
24"	48"
27"	60"
30"	60"



NOTE: MINOR 1/4" OR APPROVED EQUAL MAY BE REQUIRED OVER UNCLUSTABLE MATERIAL AS DIRECTED BY THE ENGINEER.

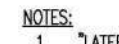


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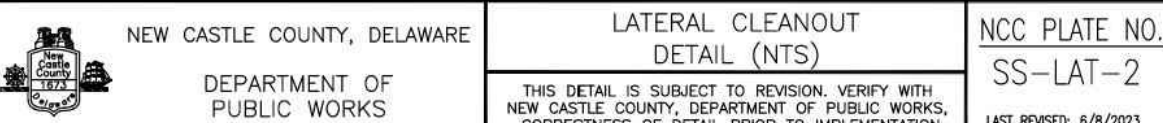


2. WHEN CROSSING UTILITY IS A WATER MAIN, SEE NCC PLATE NO. SS-MISC-4.

3. CONCRETE ENCASEMENT SHALL SPAN A MINIMUM DISTANCE OF 10' TO EITHER SIDE OF CROSSING UTILITY.
4. ALL CONCRETE SHALL BE 4,000 P.S.I. MINIMUM.
5. THE VERTICAL SEPARATION SHALL NOT BE LESS THAN 6".



- | | | |
|---|---|---|
|  <p>NEW CASTLE COUNTY, DELAWARE</p> <p>DEPARTMENT OF
PUBLIC WORKS</p> | <p>LATERAL TAP IN R.O.W
DETAIL (NTS)</p> | <p><u>NCC PLATE NO.</u>
SS-LAT-1</p> |
| | <p>THIS DETAIL IS SUBJECT TO REVISION. VERIFY WITH
NEW CASTLE COUNTY, DEPARTMENT OF PUBLIC WORKS,
1000 MARKET STREET, 3RD FLOOR, NEW CASTLE, DE 19720</p> | <p>LAST REVISED: 5/10/2019</p> |



U.S.		CORRECTNESS OF DETAIL PRIOR TO IMPLEMENTATION.	DATE REVISION: 09/24/2020
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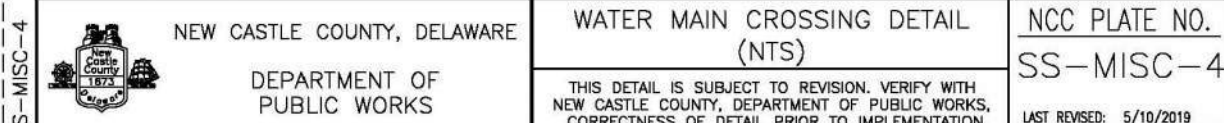
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NOTES:

WHERE THE VERTICAL SEPARATION BETWEEN A WATER MAIN AND SEWER (WHETHER WATER MAIN IS LOCATED ABOVE OR BELOW THE SEWER) IS 18" OR LESS:

- 1) SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE AND BE PRESSURE TESTED AT 150 p.s.i. TO ASSURE WATER TIGHTNESS, PRIOR TO BACKFILLING.
- 2) EITHER THE WATER MAIN OR SEWER MAY BE ENCASED IN A WATERTIGHT CARRIER PIPE WHICH EXTENDS BEYOND THE JOINTS OF THE MAIN OR SEWER. WHEN ENCASED, THE JOINTS OF THE WATER MAIN, THE CARRIER PIPE SHALL BE OF MATERIALS APPROVED BY NEW CASTLE COUNTY FOR USE IN WATER MAIN CONSTRUCTION.
- 3) THE JOINTS IN THE SEWER PIPELINE SHALL BE ARRANGED SUCH THAT THEY WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN CROSSING.
- 4) WHEN THE WATER MAIN CROSSES BELOW THE SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO MAINTAIN LINE AND GRADE.



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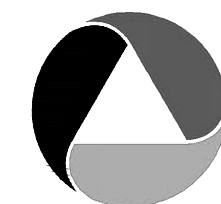
NOTE:
 LATERALS GREATER THAN 15' SHALL BE C900 PVC PIPE THAT IS MANUFACTURED TO
 ASTM 3034 AND 3139 FROM THE CONNECTION TO THE COLLECTOR PIPE UP TO AN
 ADAPTOR FITTING (PVC DR18) UPSTREAM OF THE 45-DEGREE ELBOW.

SITUATE IN: ST. GEORGES HUNDRED, NEW CASTLE COUNTY, DELAWARE

REVISIONS		
NO.	DATE	DESCRIPTION
1	4-2-2025	REVISED PER NCC 2-19-2025 COMMENTS
2	5-29-2025	ADDED ASSET ID'S PER NCC COMMENTS
3	7-8-2025	REVISED PER PUMP STATION DESIGN
4	9-29-2025	PER NCC COMMENTS DATED 08-01-2025

PREPARED FOR:

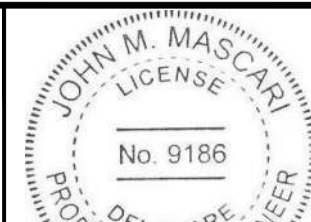
SVF ASSOCIATES, LLC
19653 ISLAND COURT
BOCA RATON, FL 33434



ATWELL

866.850.4200 www.atwell-group.com

302.369.2900
**** KARIUS AND ASSOCIATES IS NOW OPERATING AS ATWELL, LLC ****



10/06/2025
PROFESSIONAL ENGINEER

NEW CASTLE COUNTY DELAWARE
DEPARTMENT OF PUBLIC WORKS

DRAWING NO.

2144.02 - B13

SHEET NO. _____

13 OF 14

LOT	INVERT AT MAIN	MIN. PLUMBING ELEV.	CLEANOUT ELEV.	ELEV. OF LOWEST SEWERED FLOOR**	SEWERED BASEMENT	UPSTREAM RIM ELEV. AND MH#	BACKWATER VALVE	DOWNSTREAM MH#	LATERAL STATION FROM DOWNSTREAM MH
1	7.32	12.32	14.64	14.67	Y	19.45 MH-41	Y *	MH-38	1+71
2	7.62	12.62	13.92	13.87	Y	19.45 MH-41	Y *	MH-38	2+31
3	7.88	12.88	13.00	21.77	N	19.45 MH-41	N	MH-38	2+83
4	8.35	13.35	12.90	21.67	N	18.67 MH-42	N	MH-41	0+73
5	8.68	13.68	13.29	21.87	N	18.67 MH-42	N	MH-41	1+39
6	8.99	13.99	12.91	21.67	N	18.67 MH-42	N	MH-41	2+01
7	9.32	14.32	9.84	21.67	N	18.67 MH-42	N	MH-41	2+67
8	9.75	14.75	10.24	21.17	N	19.17 MH-43	N	MH-42	0+34
9	10.67	15.67	11.05	21.47	N	19.17 MH-43	N	MH-42	2+18
10	11.03	16.03	11.55	21.57	N	19.17 MH-43	N	MH-42	2+89
11	12.01	17.01	12.53	21.17	N	18.01 MH-45	N	MH-43	0+83
12	12.43	17.43	13.05	21.27	N	18.01 MH-45	N	MH-43	1+25
13	12.17	17.17	12.69	22.57	N	20.89 MH-44	N	MH-43	0+74
14	12.96	17.96	13.48	23.17	N	20.89 MH-44	N	MH-43	1+32
15	13.89	18.89	14.41	23.77	N	20.89 MH-44	N	MH-43	2+01
16	13.02	18.02	13.54	23.87	N	20.89 MH-35	N	MH-34	1+98
17	12.33	17.33	12.85	23.37	N	20.89 MH-35	N	MH-34	1+29
18	11.74	16.74	12.26	22.97	N	20.89 MH-35	N	MH-34	0+71
19	13.19	18.19	13.71	23.47	N	20.19 MH-36	N	MH-34	1+25
20	12.17	17.17	12.72	22.67	N	20.19 MH-36	N	MH-34	0+66
21	11.18	16.18	11.75	22.27	N	20.19 MH-36	N	MH-34	0+08
22	10.63	15.63	11.21	21.87	N	18.87 MH-34	N	MH-33	0+84
23	10.36	15.36	10.94	21.17	N	18.87 MH-34	N	MH-33	0+30
24	13.02	18.02	13.56	23.57	N	20.89 MH-35	N	MH-34	1+98
25	13.71	18.71	14.23	23.37	N	20.89 MH-44	N	MH-43	1+88
26	12.83	17.83	13.35	22.77	N	20.89 MH-44	N	MH-43	1+22
27	12.07	17.07	12.59	22.17	N	20.89 MH-44	N	MH-43	0+66
28	10.23	15.23	10.85	20.97	N	19.17 MH-43	N	MH-42	1+31
29	9.99	14.99	10.57	20.77	N	19.17 MH-43	N	MH-42	0+82
30	9.72	14.72	10.26	21.07	N	19.17 MH-43	N	MH-42	0+27
31	9.29	14.29	9.81	21.57	N	18.67 MH-42	N	MH-41	2+62
32	8.96	13.96	12.95	22.07	N	18.67 MH-42	N	MH-41	1+96
33	11.83	16.83	12.50	22.17	N	19.83 MH-29	N	MH-28	1+98
34	11.42	16.42	12.01	22.57	N	19.83 MH-29	N	MH-28	1+57
35	10.73	15.73	11.31	22.77	N	19.83 MH-29	N	MH-28	0+88
36	10.12	15.12	14.17	22.77	N	19.83 MH-29	N	MH-28	0+27
37	8.65	13.65	12.88	22.47	N	20.20 MH-28	N	MH-27	0+69
38	8.02	13.02	8.55	21.37	N	17.59 MH-30	N	MH-27	1+57
39	8.38	13.38	8.97	20.87	N	16.98 MH-31	N	MH-30	0+53
40	8.70	13.70	9.26	20.57	N	16.47 MH-32	N	MH-31	0+17
41	8.97	13.97	9.53	20.07	N	16.47 MH-32	N	MH-31	0+71
42	9.34	14.34	9.86	20.07	N	16.47 MH-32	N	MH-31	1+45
43	9.98	14.98	10.41	20.97	N	17.46 MH-33	N	MH-32	0+77
44	10.59	15.59	11.05	21.57	N	18.87 MH-34	N	MH-33	0+76
45	8.93	13.93	9.40	19.67	N	16.47 MH-32	N	MH-31	0+62
46	8.40	13.40	8.87	20.67	N	16.98 MH-31	N	MH-30	0+57
47	7.78	12.78	11.33	21.07	N	17.59 MH-30	N	MH-27	1+08
48	7.40	12.40	11.97	12.87	Y	17.59 MH-30	Y *	MH-27	0+33
49	6.73	11.73	12.52	13.07	Y	18.79 MH-27	Y *	MH-20	1+54
50	5.70	10.70	10.98	12.17	Y	17.72 MH-21	Y *	MH-20	0+64
51	6.01	11.01	10.74	11.67	Y	17.72 MH-21	Y *	MH-20	1+25
52	6.42	11.42	10.50	11.67	Y	17.72 MH-21	Y *	MH-20	2+07
53	6.72	11.72	11.15	11.87	Y	17.72 MH-21	Y *	MH-20	2+68
54	7.18	12.18	11.22	20.87	N	17.06 MH-22	N	MH-21	0+10
55	8.50	13.50	9.10	20.47	N	17.06 MH-22	N	MH-21	0+65
56	9.11	14.11	9.72	20.47	N	18.00 MH-23	N	MH-22	0+20
57	9.42	14.42	10.04	20.87	N	18.00 MH-23	N	MH-22	0+81
58	9.72	14.72	10.31	21.37	N	18.00 MH-23	N	MH-22	1+41
59	9.97	14.97	10.53	21.37	N	18.00 MH-23	N	MH-22	1+92
60	10.33	15.33	10.95	20.87	N	17.69 MH-24	N	MH-23	0+41
61	10.68	15.68	11.26	20.87	N	19.15 MH-25	N	MH-24	0+07
62	11.10	16.10	11.78	21.57	N	19.15 MH-25	N	MH-24	0+46
63	11.86	16.86	12.38	22.37	N	21.12 MH-26	N	MH-25	0+08
64	12.57	17.57	13.09	23.17	N	21.12 MH-26	N	MH-25	0+68
65	13.21	18.21	13.74	23.47	N	21.12 MH-26	N	MH-25	1+22
66	10.72	15.72	11.16	21.47	N	20.73 MH-10	N	MH-9	0+52
67	11.58	16.58	12.02	22.17	N	20.73 MH-10	N	MH-9	1+23
68	12.39	17.39	12.91	23.07	N	20.73 MH-10	N	MH-9	1+90
69	13.00	18.00	13.52	23.07	N	21.12 MH-26	N	MH-25	1+05
70	12.23	17.23	12.75	22.67	N	21.12 MH-26	N	MH-25	0+39
71	11.30	16.30	11.68	22.07	N	19.15 MH-25	N	MH-24	0+65
72	9.84	14.84	10.29	21.47	N	18.00 MH-23	N	MH-22	1+66
73	9.52	14.52	9.95	21.47	N	18.00 MH-23	N	MH-22	1+01
74	9.23	14.23	9.63	21.07	N	18.00 MH-23	N	MH-22	0+44
75	6.57	11.57	10.44	12.17	Y	17.72 MH-21	Y *	MH-20	2+38
76	5.03	10.03	10.97	12.17	Y	18.03 MH-3	Y *	MH-2	0+13
77	5.35	10.35	11.55	12.57	Y	18.03 MH-3	Y *	MH-2	0+76
78	5.73	10.73	12.05	12.67	Y	20.22 MH-4	Y *	MH-3	0+55
79	6.00	11.00	12.55	13.07	Y	20.22 MH-4	Y *	MH-3	1+10
80	6.28	11.28	13.05	13.07	Y	20.22 MH-4	Y *	MH-3	1+65
81	6.52	11.52	13.49	13.57	Y	20.22 MH-4	Y *	MH-3	2+15
82	7.07	12.07	14.12	14.47	Y	21.13 MH-5	Y *	MH-4	0+61
83	7.75	12.75	14.31	14.47	Y	20.75 MH-6	Y *	MH-5	0+76
84	8.22	13.22	13.93	14.17	Y	20.26 MH-7	Y *	MH-6	0+49
85	11.89	16.89	12.47	21.87	N	20.73 MH-10	N	MH-9	1+49
86	11.61	16.61	12.21	21.87	N	20.73 MH-10	N	MH-9	1+25
87	11.28	16.28	11.90	21.87	N	20.73 MH-10	N	MH-9	0+98
88	10.99	15.99	11.60	21.87	N	20.73 MH-10	N	MH-9	0+74
89	10.63	15.63	11.22	21.87	N	20.73 MH-10	N	MH-9	0+44
90	10.28	15.28	10.83	21.57	N	20.73 MH-10	N	MH-9	0+15
91	9.97	14.97	10.50	21.57	N	18.54 MH-9	N	MH-8	1+07
92	9.84	14.84	10.39	21.57	N	18.54 MH-9	N	MH-8	0+80
93	9.72	14.72	10.28	21.57	N	18.54 MH-9	N	MH-8	0+56
94	9.57	14.57	10.12	21.57	N	18.54 MH-9	N	MH-8	0+26
95	9.34	14.34	13.27	22.87	N	19.75 MH-8	N	MH-7	0+46
96	8.75	13.75	13.71	13.87	Y	19.75 MH-8	Y *	MH-7	0+06
97	8.72	13.72	13.92	13.87	Y	20.22 MH-11	Y *	MH-7	0+13
98	8.84	13.84	14.19	13.87	Y	20.22 MH-11	Y *	MH-7	0+37
99	8.96	13.96	14.39	22.87	N	20.22 MH-11	N	MH-7	0+60
100	9.11	14.11	14.41	22.87	N	20.22 MH-11	N	MH-7	0+90

LOT	INVERT AT MAIN	MIN. PLUMBING ELEV.	CLEANOUT ELEV.	ELEV. OF LOWEST SEWERED FLOOR**	SEWERED BASEMENT	UPSTREAM RIM ELEV. AND MH#	BACKWATER VALVE	DOWNSTREAM MH#	LATERAL STATION FROM DOWNSTREAM MH
101	9.23	14.23	14.26	22.87	N	20.22 MH-11	N	MH-7	1+14
102	9.36	14.36	14.07	22.87	N	20.22 MH-11	N	MH-7	1+40
103	9.47	14.47	13.91	22.87	N	20.22 MH-11	N	MH-7	1+63
104	9.63	14.63	13.73	22.87	N	20.22 MH-11	N	MH-7	1+95
105	10.39	15.39	14.95	24.37	N	22.16 MH-12	N	MH-11	1+09
106	10.46	15.46	15.14	24.37	N	22.16 MH-12	N	MH-11	1+23
107	10.56	15.56	15.40	24.37	N	22.16 MH-12	N	MH-11	1+43
108	10.67	15.67	15.69	24.37	N	22.16 MH-12	N	MH-11	1+65
109	10.80	15.80	15.75	24.37	N	23.49 MH-13	N	MH-12	0+04
110	10.94	15.94	16.10	16.57	Y	23.49 MH-13	Y *	MH-12	0+32
111	11.04	16.04	16.37	16.57	Y	23.49 MH-13	Y *	MH-12	0+52
112	11.14	16.14	16.65	16.57	Y	23.49 MH-13	Y *	MH-12	0+72
113	11.24	16.24	16.91	16.57	Y	23.49 MH-13	Y *	MH-12	0+92
114	11.28	16.28	17.01	16.57	Y	23.49 MH-13	Y *	MH-12	1+01
115	11.55	16.55	17.29	16.67	Y	23.23 MH-14	Y *	MH-13	0+34
116	11.65	16.65	17.29	16.67	Y	23.23 MH-14	Y *	MH-13	0+53
117	11.75	16.75	17.15	25.67	N	23.23 MH-14	N	MH-13	0+74
118	11.84	16.84	17.00	25.67	N	23.23 MH-14	N	MH-13	0+92
119	14.22	19.22	14.73	26.07	N	24.27 MH-19	N	MH-18	0+06
120	14.53	19.53	15.02	26.07	N	24.27 MH-19	N	MH-18	0+26
121	14.79	19.79	15.27	26.07	N	24.27 MH-19	N	MH-18	0+42
122	15.11	20.11	15.59	26.07	N	24.27 MH-19	N	MH-18	0+63
123	15.80	20.80	16.30	27.37	N	24.27 MH-19	N	MH-18	1+08
124	16.13	21.13	16.64	27.37	N	24.27 MH-19	N	MH-18	1+29
125	16.42	21.42	16.93	27.37	N	24.27 MH-19	N	MH-18	1+48
126	16.74	21.74	17.26	27.37	N	24.27 MH-19	N	MH-18	1+69
127	17.00	22.00	17.52	27.37	N	24.27 MH-19	N	MH-18	1+86
128	17.00	22.00	17.52	26.97	N	24.27 MH-19	N	MH-18	1+86
129	16.71	21.71	17.24	26.97	N	24.27 MH-19	N	MH-18	1+67
130	16.39	21.39	16.92	26.97	N	24.27 MH-19	N	MH-18	1+46