

GENERAL NOTES:

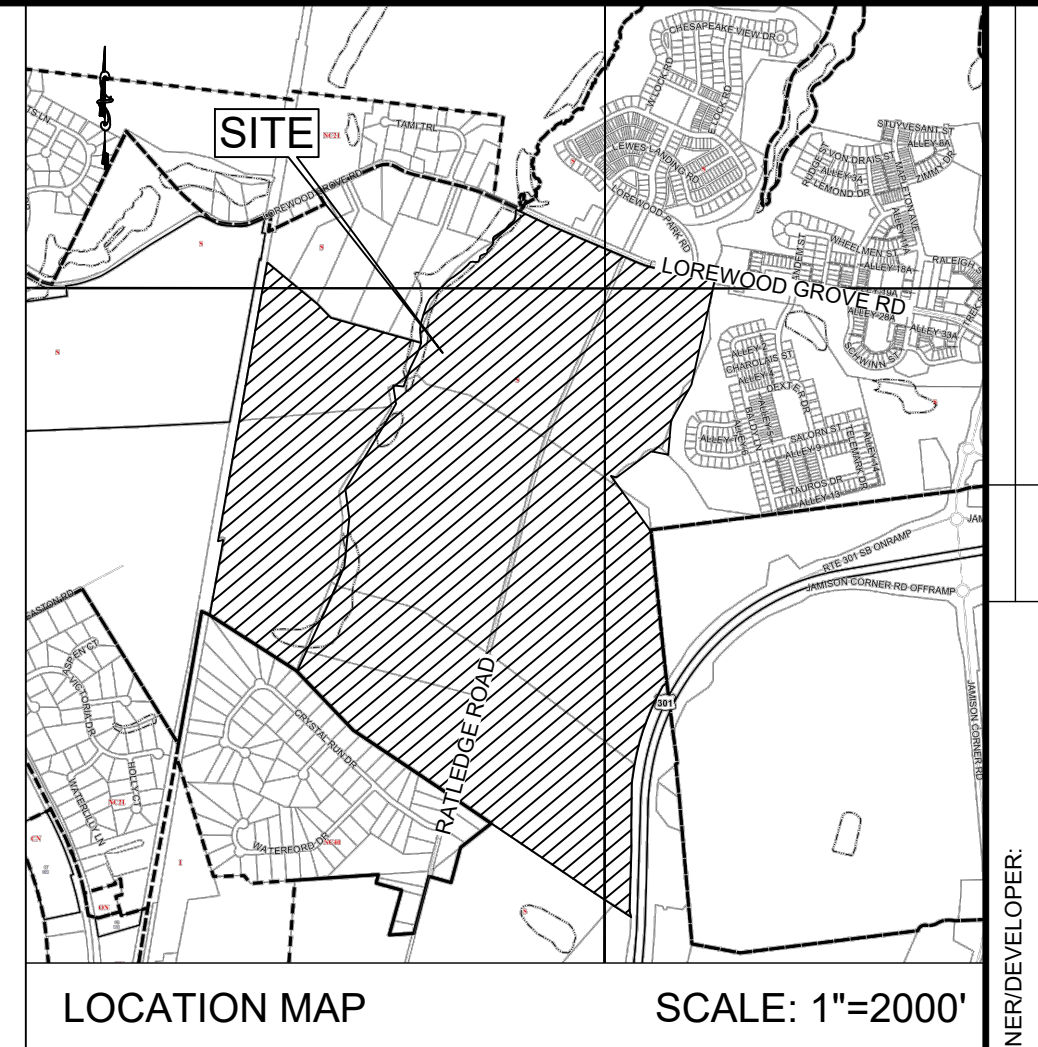
- 1. SANITARY SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION, SPECIAL PROVISIONS, SUPPLEMENTAL SPECIFICATIONS, STANDARD DETAILS, AND THE RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES OR STRICTER STANDARDS IDENTIFIED BY THE ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN 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.
3. DURING CONSTRUCTION, THE CONTRACTOR MUST HAVE IN HIS POSSESSION ON SITE, A SET OF CONSTRUCTION PLANS BEARING NEW CASTLE COUNTY'S STAMP OF APPROVAL.
4. THE CONTRACTOR SHALL NOT PLACE, PLANT, PUT OR SET ANY STRUCTURE WITHIN THE SANITARY SEWER EASEMENT.
5. 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'S 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.
6. SANITARY SEWER IS TO BE PUBLICLY OWNED AND MAINTAINED.
7. CONSTRUCTION SHALL NOT DEVIATE FROM THE PLANS AND SPECIFICATIONS APPROVED BY NEW CASTLE COUNTY WITHOUT WRITTEN PERMISSION FROM NEW CASTLE COUNTY'S DEPARTMENT OF SPECIAL SERVICES.
8. 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.
9. TYPICAL SEQUENCE OF CONSTRUCTION:
A. CONTACT NEW CASTLE COUNTY DEPARTMENT OF SPECIAL SERVICES (2 BUSINESS DAYS NOTICE AT (302)-395-5756) PRIOR TO ANY EXCAVATION OR ACTIVITY INVOLVING SANITARY SEWER CONSTRUCTION, PUMP STATION CONSTRUCTION OR LATERAL TIE-INS TO EXISTING LINES.
B. CONSTRUCT PROPOSED SANITARY SEWER SYSTEM AS APPROVED BY NEW CASTLE COUNTY.
C. BACKFILL AND RE-GRADE AS REQUIRED.
D. PERFORM AIR TEST, IF REQUIRED, IN ACCORDANCE WITH SECTION 32.01-3 OF THE NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION, IN THE PRESENCE OF A NEW CASTLE COUNTY INSPECTOR.
E. FOLLOWING A PASSING AIR TEST (IF APPLICABLE), A FINAL VISUAL INSPECTION (LAMP TEST) MUST BE PERFORMED PRIOR TO ACCEPTANCE BY NEW CASTLE COUNTY.
F. BASED UPON THE RESULTS OF THE VISUAL INSPECTION, A MANDRAL TEST MAY BE REQUIRED FOLLOWING THE VISUAL INSPECTION.
G. A HYDROSTATIC TEST MUST BE PERFORMED FOR ANY SANITARY FOREMAIN IN ACCORDANCE WITH SECTION 32.03-3.4 OF THE NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION AS AMENDED.
H. LATERAL CONNECTIONS FROM NEW HOMES/OFFICE BUILDINGS INTO THE SEWER LINE WILL NOT BE PERMITTED UNTIL AFTER FINAL ACCEPTANCE.
I. PRIOR TO NEW CASTLE COUNTY MAKING A FINAL INSPECTION, THE FOLLOWING ITEMS MUST BE COMPLETED:
I. ALL MANHOLES MUST BE BROUGHT TO GRADE AND HAVE CONCRETE COLLARS INSTALLED.
II. CHANNELS MUST BE COMPLETED IN ALL MANHOLES.
III. ALL MANHOLES AND SEWER PIPES MUST BE CLEANED AND FLUSHED.
IV. AS-BUILT DRAWINGS (SIGNED AND SEALED BY A REGISTERED LAND SURVEYOR OR PROFESSIONAL ENGINEER IN DELAWARE) WITH ONE (1) MYLAR AND THREE (3) SETS OF PRINTS MUST BE SUBMITTED TO NEW CASTLE COUNTY.
V. TURF TRAIL IS CONSTRUCTED IN ACCORDANCE WITH NCCDPW SS-MISC-2, OR IF PIPE AND MANHOLES ARE WITHIN A PROPOSED ROADWAY, STABILIZED ROADWAY ACCESS IS CONSTRUCTED FOR THE PURPOSE OF MAINTAINING THE CONSTRUCTED SANITARY SEWER SYSTEM UNTIL FINAL PAVING IS COMPLETED.
J. CERTIFICATES OF OCCUPANCY WILL NOT BE ISSUED UNTIL THE AS-BUILT DRAWINGS HAVE BEEN RECEIVED, REVIEWED, AND APPROVED AND THE SANITARY SEWER CONSTRUCTION (INCLUDING ALL APPURTENANCES HAS BEEN ACCEPTED BY NEW CASTLE COUNTY.

SUPPLEMENTAL NOTES:

- 11. EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND ALLOW FOR THEIR LOCATION. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MISS UTILITY OF DELMARVA.
12. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE DONE TO UTILITIES DUE TO NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTOR'S EXPENSE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF DAMAGED OR DESTROYED LANDSCAPING.
14. SEPARATION FROM WATER MAINS TO BE PROVIDED PER RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES. THE STRICTER STANDARD BETWEEN NCCDPW STANDARDS & TEN STATE STANDARDS SHALL APPLY.
15. TOTAL NUMBER OF PROPOSED MANHOLES: 219
TOTAL LENGTH OF PROPOSED GRAVITY SANITARY SEWER IN FEET: 17,611 LF - 6" PVC, 1,512 LF - 8" DIP, 12,717 LF - 10" PVC, 2,302 LF - 10" DIP
TOTAL LENGTH OF PROPOSED FORCE MAIN SANITARY SEWER IN FEET: 3,365 LF - 8" PVC, 10 LF - 10" PVC
16. A CLEANOUT SHALL BE PROVIDED AT THE EDGE OF ROAD RIGHT OF WAY OR NEW CASTLE COUNTY SANITARY SEWER EASEMENT IN ACCORDANCE WITH NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION AND AMENDMENTS.
17. UNLESS OTHERWISE NOTED, ALL MANHOLES SHALL BE PRECAST CONCRETE, TYPE A-2 OR A-3, WITH A L-OK OR APPROVED EQUAL PIPE TO MANHOLE GASKET.
18. MANHOLES SHALL BE EQUIPPED WITH A HEAVY TRAFFIC MANHOLE FRAME AND COVER.
19. THE OWNER(S) OF THIS PROPERTY, VIA THE RECORD PLAN ASSOCIATED WITH THIS APPLICATION, HEREBY GRANT(S) AND CONVEY(S) TO NEW CASTLE COUNTY THE SANITARY SEWER EASEMENT(S) (WIDTH INDICATED ON THE PLAN) 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 SHOWN ON THIS AND THE RECORD PLAN, THE GRANTOR(S), THEIR HEIRS, EXECUTORS, ADMINISTRATORS, GRANTEES AND ASSIGNS OF THIS PROPERTY, COVENANT(S) AND AGREE(S) THAT THEY 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(S) DEPICTED ON THIS AND THE RECORD PLAN.
20. 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 SANITARY SEWER EASEMENTS SHOWN ON THIS PLAN.
21. TOP OF MANHOLE ELEVATIONS ARE AT TOP OF MANHOLE FRAME AND COVER.
22. ALL WORK PERFORMED WITHIN THE STATE R-O-W AND PROPERTY SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE UTILITY DESIGN MANUAL AND STANDARD SPECIFICATIONS.
23. SANITARY SEWER MANHOLE FRAME AND COVER ELEVATIONS ARE TO BE VERIFIED TO MATCH THE FINAL ROAD ELEVATION PRIOR TO FINAL PAVING. UTILIZATION OF ADJUSTMENT RISERS OF ANY TYPE IN ORDER TO MATCH THE FINAL PAVING ELEVATION IS NOT ACCEPTABLE.
24. BACKFILLING OF ALL PIPE TRENCHES LOCATED WITHIN A DELDOT MAINTAINED RIGHT-OF-WAY SHALL CONFORM TO THE DELDOT STANDARD SPECIFICATIONS, DIVISION 200 "EARTHWORK". OTHERWISE, THE SOIL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY DETERMINED BY ASTM D698 - STANDARD PROCTOR DENSITY.
25. ANY SANITARY SEWER TO BE ABANDONED, THE PIPE MUST BE FILLED WITH FLOWABLE FILL AND THE PIPE ENDS PLUGGED (GROUT PLUG OPTIONAL).
26. WHERE A 6" LATERAL DISCHARGES DIRECTLY INTO A MANHOLE, THE MANHOLE CHANNEL SHALL BE PRECAST SUCH THAT THE INVERT ELEVATION OF THE 6" PIPE IS HIGHER THAN THE INVERT ELEVATION OF THE LARGER DOWNSTREAM PIPE. THE CROWN ELEVATIONS OF THE 6" PIPE AND THE LARGER DOWNSTREAM PIPE SHALL MATCH.
27. NO BUILDING PERMIT SHALL BE ISSUED FOR LOTS 1 - 70 PROPOSED BY THIS APPLICATION UNTIL THE DEPARTMENT OF LAND USE RECEIVES WRITTEN VERIFICATION FROM THE DEPARTMENT OF PUBLIC WORKS THAT THE BRIGHTON HAMILT & PUMPING STATION AND ALL ASSOCIATED INFRASTRUCTURE HAS BEEN SUFFICIENTLY COMPLETED AND ACCEPTED BY THE DEPARTMENT OF PUBLIC WORKS.
28. NEW CASTLE COUNTY DEPARTMENT OF PUBLIC WORKS WILL NOT ACCEPT AS-BUILT SEWER WITH A SLOPE THAT IS LESS THAN 0.005/FT.
29. EACH PIPE SEGMENT SHALL BE AS-BUILT AND FOUND TO BE ACCEPTABLE PRIOR TO BACKFILLING PIPE. THE AS-BUILTS SHALL BE CERTIFIED, SIGNED, SEALED AND DATED BY A DELAWARE P.E. OR PLS.
30. CCTV OF EACH PIPE SEGMENT SHALL BE TAKEN AND FOUND TO BE ACCEPTABLE PRIOR TO BACKFILLING OF PIPE.
31. FOR 72" DIAMETER MANHOLES, SHOP DRAWINGS MUST BE SUBMITTED AND APPROVED PRIOR TO PROCUREMENT. FOUNDATION SLAB AND STONE BEDDING SHALL BE DESIGNED BASED UPON SOIL PROFILE. SHOP DRAWING SUBMITTAL SHALL INCLUDE SOIL PROFILE & RECOMMENDATION BY QUALIFIED STRUCTURAL ENGINEER, LADDER DRAWING, AND LADDER SPECIFICATIONS/DETAILS. MANHOLE SHALL INCLUDE A DRIP STONE PLATFORM LEDGE (SEE EXAMPLE SHEET 41).

SANITARY SEWER CONSTRUCTION PLAN
FOR
MONARCH

ST. GEORGE'S HUNDRED - NEW CASTLE COUNTY, DELAWARE



PLAN DATA AND NOTES

- 1. APPLICATION NO.: 2020-0644
2. TAX PARCEL NO.: 13-003.00-001; 13-007.00-020; 13-007.00-021; 13-007.00-053; 13-007.00-054; 13-007.00-090
3. EXISTING ZONING: S (SUBURBAN)
4. SOURCE OF TITLE: DR 189-140; DEED INSTRUMENT NO. 20030703-0079816
5. DATUM: NAVD 88 (B.M. NAIL SET ON CONCRETE CULVERT (ELEV 32.34))
6. LAND USE: GROSS AREA = 546.27 ACRES, DETACHED LOTS = 174.90 ACRES, PUMP STATION LOT = 0.17 ACRES, OPEN SPACE = 317.77 ACRES (INCLUDES XXX ACRES OF STORMWATER MANAGEMENT AND XXX ACRES OF USABLE OPEN SPACE), 18.58 ACRES, 60' WIDE R/W = 41.69 ACRES, 50' WIDE R/W =
7. WATER SUPPLY: ARTESIAN WATER COMPANY
8. SANITARY SEWER: (PUBLIC) NEW CASTLE COUNTY SEWERAGE IS SUBJECT TO THE APPROVAL OF NEW CASTLE COUNTY AND THE DELAWARE STATE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL. 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 SERVICE IN ACCORDANCE WITH THE LAND DEVELOPMENT IMPROVEMENT AGREEMENT FOR THIS DEVELOPMENT. THE OWNER OF THIS PROPERTY, HIS SUCCESSORS OR ASSIGNS, SHALL BE RESPONSIBLE FOR EXTENDING SEWER SERVICE TO EACH LOT CREATED BY THIS PLAN.
9. SANITARY SEWER FLOWS: ESTIMATED SEWAGE FLOW GENERATION: SINGLE FAMILY DETACHED UNITS = 674 x 300 G.P.D. = 202,200 G.P.D. (AVERAGE) PEAK FLOW = 202,200 G.P.D. x 4.00 (P.F.) x 1 DAY / 1,440 MIN. = 561.7 G.P.M.
10. FLOODPLAIN: A PORTION OF THE SITE LIES WITHIN THE 100-YEAR FLOODPLAIN LIMITS OF THE 100-YEAR FLOODPLAIN WERE TAKEN FROM THE FLOOD INSURANCE RATE MAPS NO. 10003C0237L & 10003C0240L, BOTH DATED JANUARY 22, 2020.
11. WATER RESOURCE PROTECTION AREA: AS PER THE "WATER RESOURCE PROTECTION AREAS FOR THE CITY OF NEWARK, CITY OF WILMINGTON, NEW CASTLE COUNTY DELAWARE" MAP 3 OF 3, REVISED MARCH 2017, A PORTION OF THE SITE IS LOCATED IN A RECHARGE WATER RESOURCE PROTECTION AREA (WRPA).
WRPA SUMMARY: TOTAL AREA IN WRPA = 64.65 ACRES, DISTURBED AREA (50% MAX.) = 31.40 ACRES (48.6%), IMPERVIOUS SUMMARY: IMPERVIOUS ALLOWABLE = 12.93 ACRES (20% MAX.), IMPERVIOUS PROPOSED = 10.55 ACRES (16.3%)
12. WETLANDS: THE WETLANDS BOUNDARIES DEPICTED ON THIS PLAN WERE TAKEN FROM A WETLAND DELINEATION REPORT BY WATERSHED ECO, LLC, DATED SEPTEMBER 1, 2015. WETLANDS WERE FIELD VERIFIED BY WATERSHED ECO, LLC IN AUGUST 2020.
13. CRITICAL NATURAL AREAS: THE STATE INVENTORY OF NATURAL AREAS HAS BEEN EXAMINED AND NO CRITICAL NATURAL AREAS (CNA) EXIST ON SITE.

PLAN PURPOSE NOTE

THE PURPOSE OF THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS IS TO PROVIDE SANITARY SEWER SERVICE FOR THE RESIDENTIAL SUBDIVISION OF MONARCH, CONSISTING OF 674 SINGLE FAMILY DETACHED UNITS.

FOR USE BY DEPARTMENT OF PUBLIC WORKS:

CERTIFICATION OF ACCURACY

I, THE UNDERSIGNED, 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 CONCEPT 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 SPECIAL SERVICES POLICIES #6 AND #7, THE NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION AND AMENDMENTS AND THE RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES (A.K.A. TEN STATE STANDARDS).

REGISTERED PROFESSIONAL ENGINEER DATE
PRINTED NAME

CERTIFICATION OF OWNERSHIP

(T.P. #13-003.00-001, #13-007.00-020, #13-007.00-021)
Chris Schell HEREBY CERTIFIES THAT I AM 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 SPECIAL SERVICES POLICIES #6 AND #7, THE NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION AND AMENDMENTS AND THE RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES (A.K.A. TEN STATES STANDARDS)

5/30/23
AUTHORIZED AGENT (SB NORTH LLC) DATE
Chris Schell
PRINTED NAME

CERTIFICATION OF OWNERSHIP

(T.P. #13-007.00-090, #13-007.00-053, #13-007.00-054)
Preston Schell HEREBY CERTIFIES THAT I AM 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 SPECIAL SERVICES POLICIES #6 AND #7, THE NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION AND AMENDMENTS AND THE RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES (A.K.A. TEN STATES STANDARDS)

5.31.2023
AUTHORIZED AGENT (OA NORTH LLC & OA JOY RUN LLC) DATE
Preston Schell
PRINTED NAME

Table with columns: STREET NAME, TOTAL NUMBER OF MANHOLES, NOMINAL DIAMETER OF SANITARY SEWER PIPE (INCHES), TOTAL LINEAR FEET OF GRAVITY SANITARY SEWER PIPE (PVC SDR-26), DIP CL 52, TOTAL LINEAR FEET OF FORCE MAIN (PVC DR-18)

OWNER/DEVELOPER: SB NORTH LLC, 20164 PHILLIPS ST., REHOBOTH BEACH, DE 19871. KCI TECHNOLOGIES, INC. ENGINEERS - PLANNERS - SURVEYORS. 1332 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711. PHONE: (607) 713-1976 FAX: (607) 731-8867 Website: www.kci.com

APPLICATION NO.: 2020-0644
SANITARY SEWER CONSTRUCTION PLANS
FOR
MONARCH
ST. GEORGE'S HUNDRED
NEW CASTLE, DELAWARE

Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=500'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-01



LEGEND

EXISTING	PROPOSED		
35	MAJOR CONTOURS	—	RIGHT OF WAY
36	MINOR CONTOURS	—	LOT LINE
—	RIGHT OF WAY	(10)	LOT NUMBER
—	ADJACENT RIGHT OF WAY	—	CENTERLINE OF ROAD
—	EASEMENT	FW	WATER MAIN
—	SANITARY SEWER FORCEMAIN	SS	SANITARY SEWER
—	FLOODPLAIN	FM	SANITARY SEWER FORCEMAIN
—	RIPARIAN BUFFER	—	TREELINE
—	RIPARIAN ZONE LINE		
—	WATER RESOURCE PROTECTION		
—	FOREST (MATURE)		
—	FOREST (YOUNG)		
SoD	SOIL LINE		
RoB	STREAM		
—	WETLANDS		
—	PROHIBITIVE SLOPES		
—	PRECAUTIONARY SLOPES		
—	FOREST (MATURE AREA)		
—	FOREST (YOUNG AREA)		
—	TREE / SHRUB		

INDEX PLAN
SANITARY SEWER CONSTRUCTION PLANS
FOR
MONARCH
 NEW CASTLE
 DELAWARE



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 Design: VRF Check: JC
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 SHEET: C-02

KCI TECHNOLOGIES, INC.
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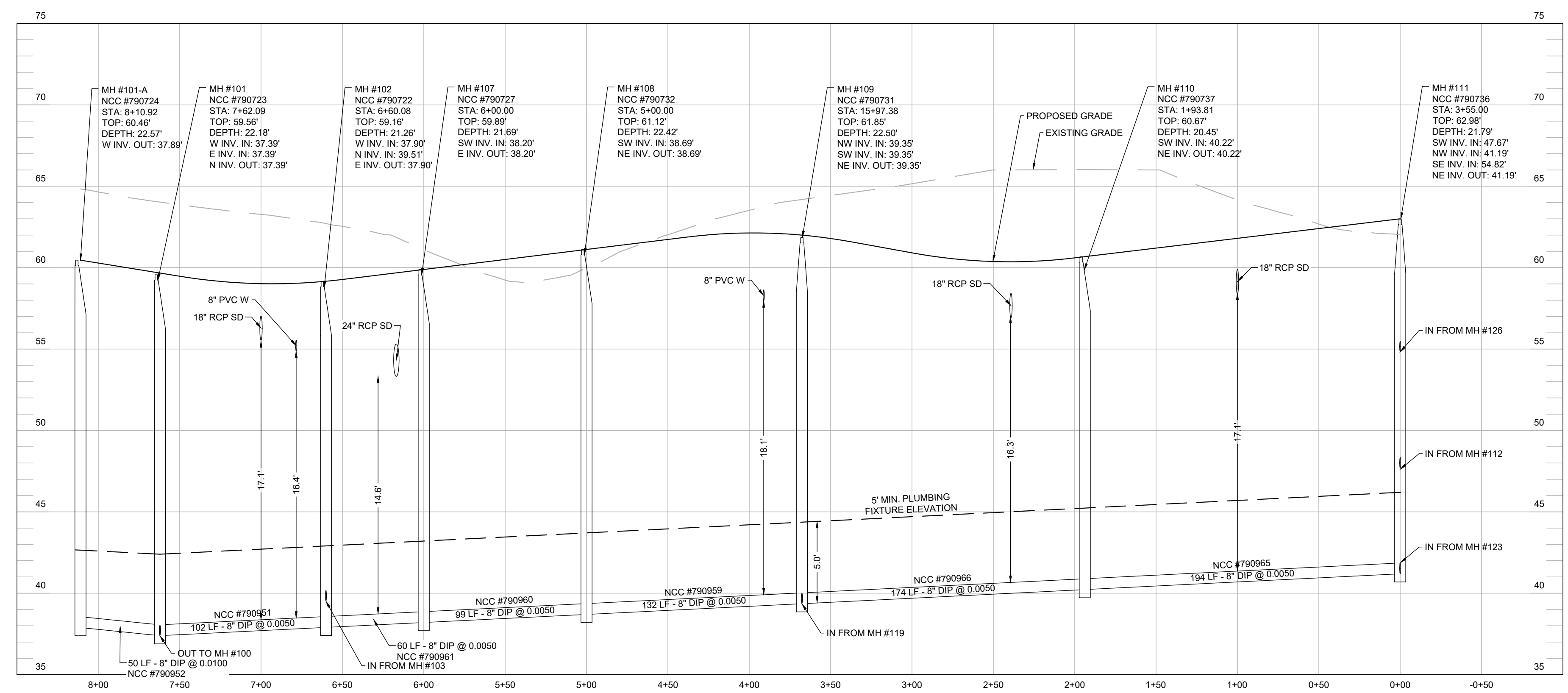
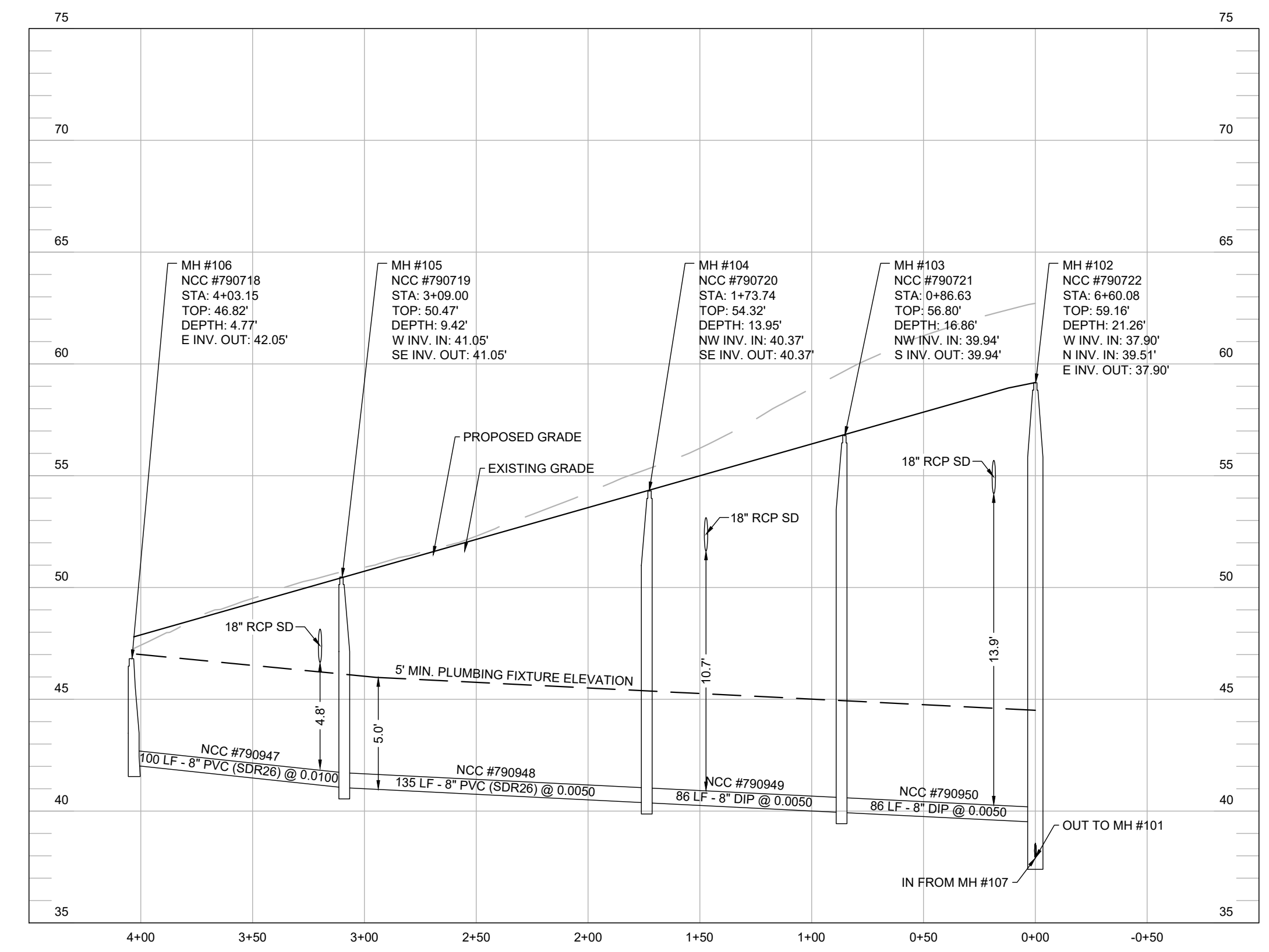
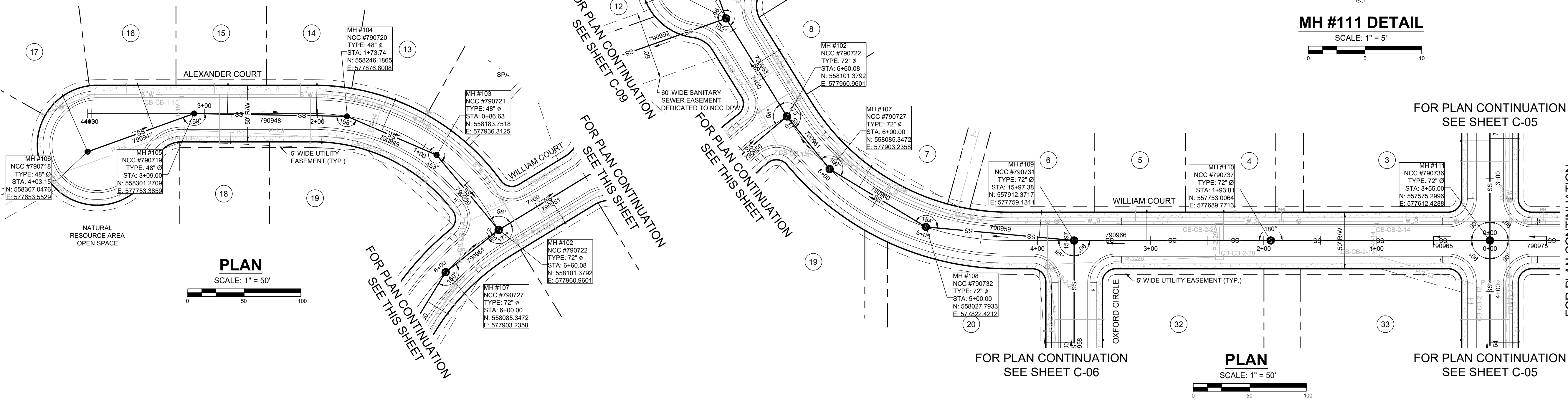
OWNER/DEVELOPER:
 SB NORTH LLC
 20184 PHILLIPS ST.
 REHOBOTH BEACH, DE 19871
 OA NORTH LLC
 18849 COASTAL HIGHWAY
 REHOBOTH BEACH, DE 19871
 OA JOY RUN LLC
 18849 COASTAL HIGHWAY
 REHOBOTH BEACH, DE 19871

01/17/24 REVISED PER NCCDPW COMMENTS 01/16/24
 02/07/24 REVISED PER NCCDPW COMMENTS 1/10/24
 08/01/23 REVISED PER NCCDPW COMMENTS 04/22/23
 05/12/23 REVISED PER NCCDPW COMMENTS 04/22/23
 04/05/23 REVISED PER DELDOT COMMENTS 03/27/23
 1/12/22 REVISED PER NCCDPW COMMENTS 08/30/22
 04/22 REVISED PER NCCDPW COMMENTS 03/27/23
 DATE: REVISED



NOTES:

1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
3. LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
4. PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



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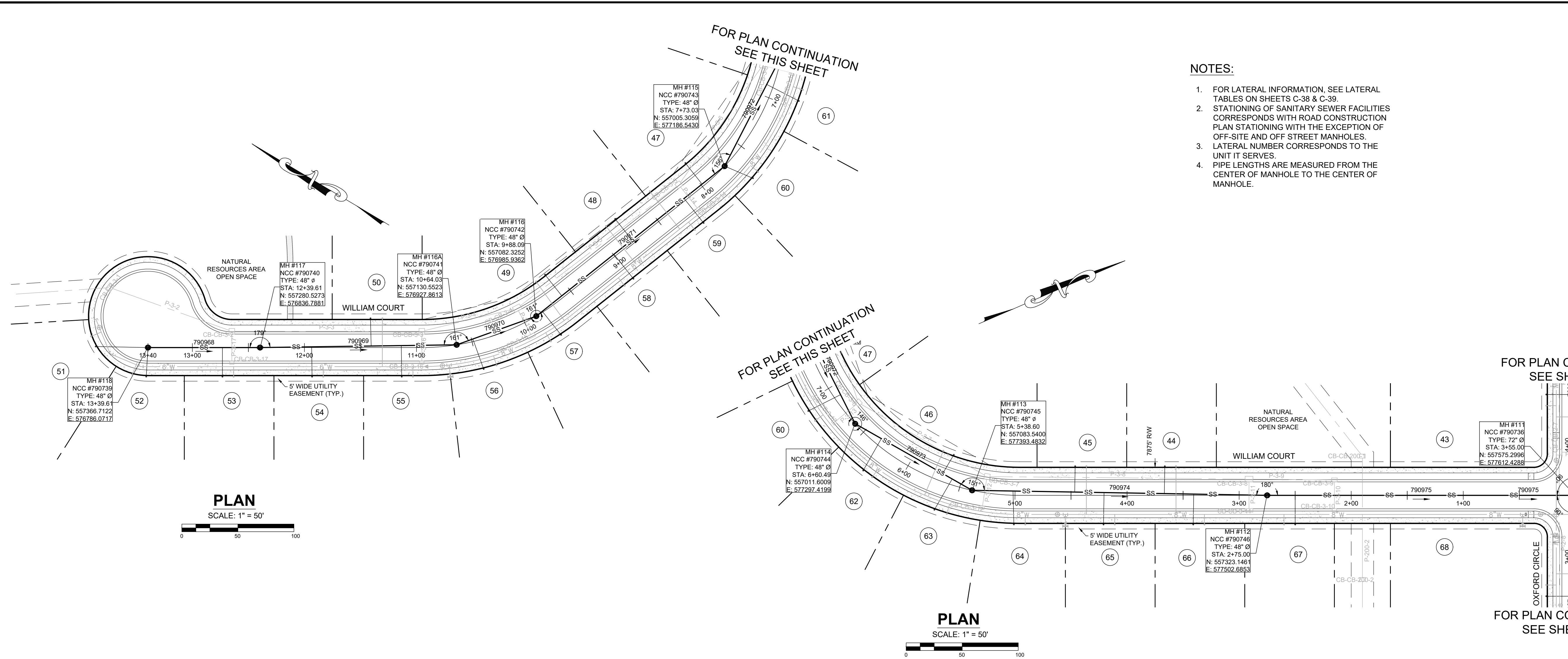
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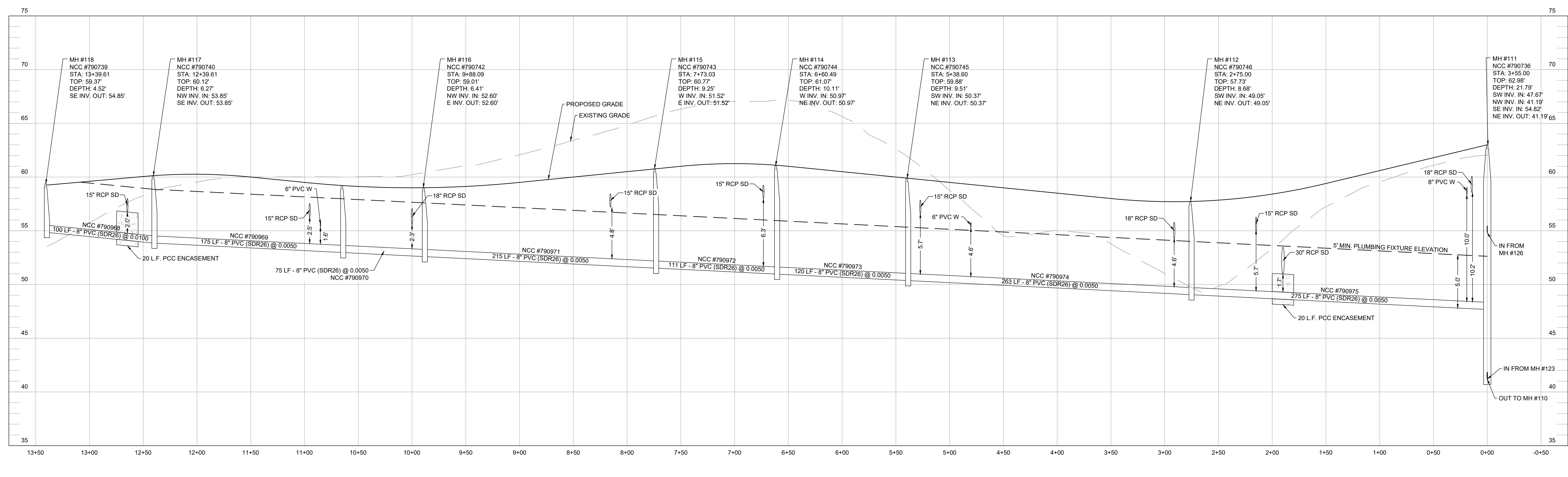
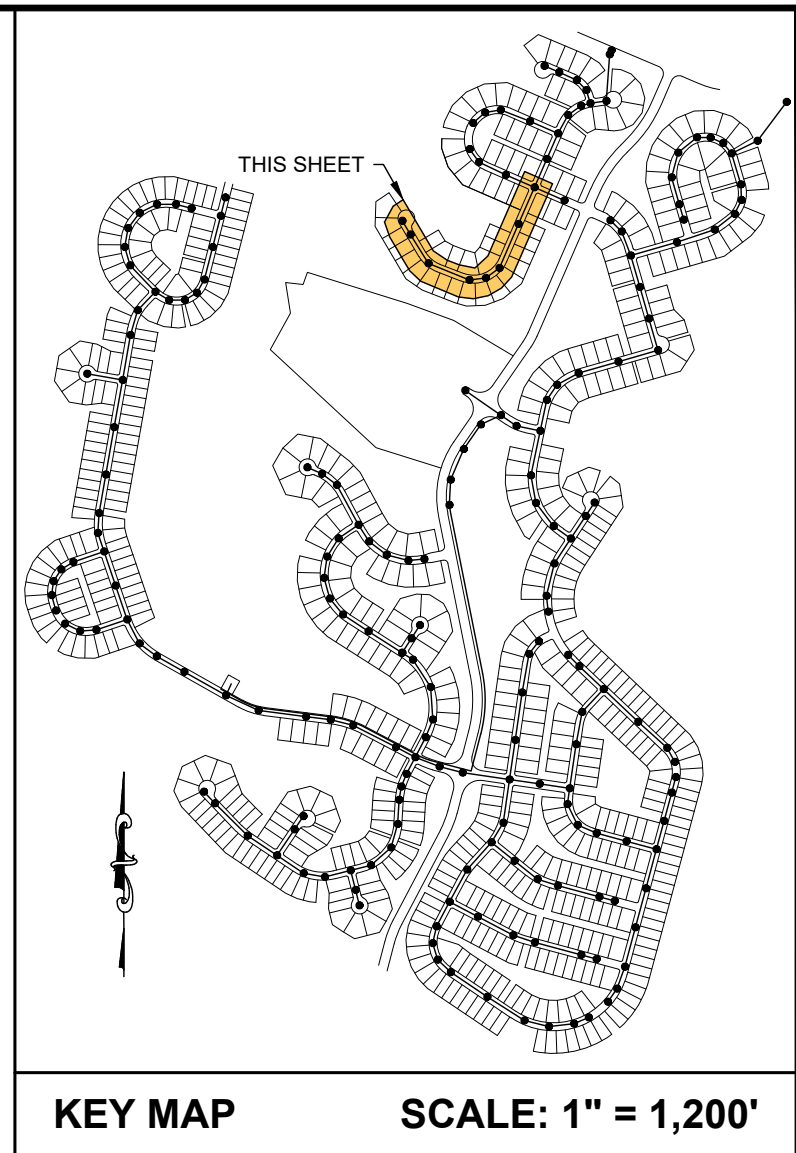
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONAROH DELAWARE
ST. GEORGES-HUNDRED NEW CASTLE

1/17/24
No. 28860
Professional Engineer
Delaware

Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-03



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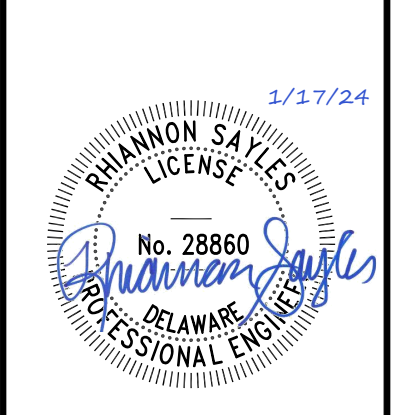
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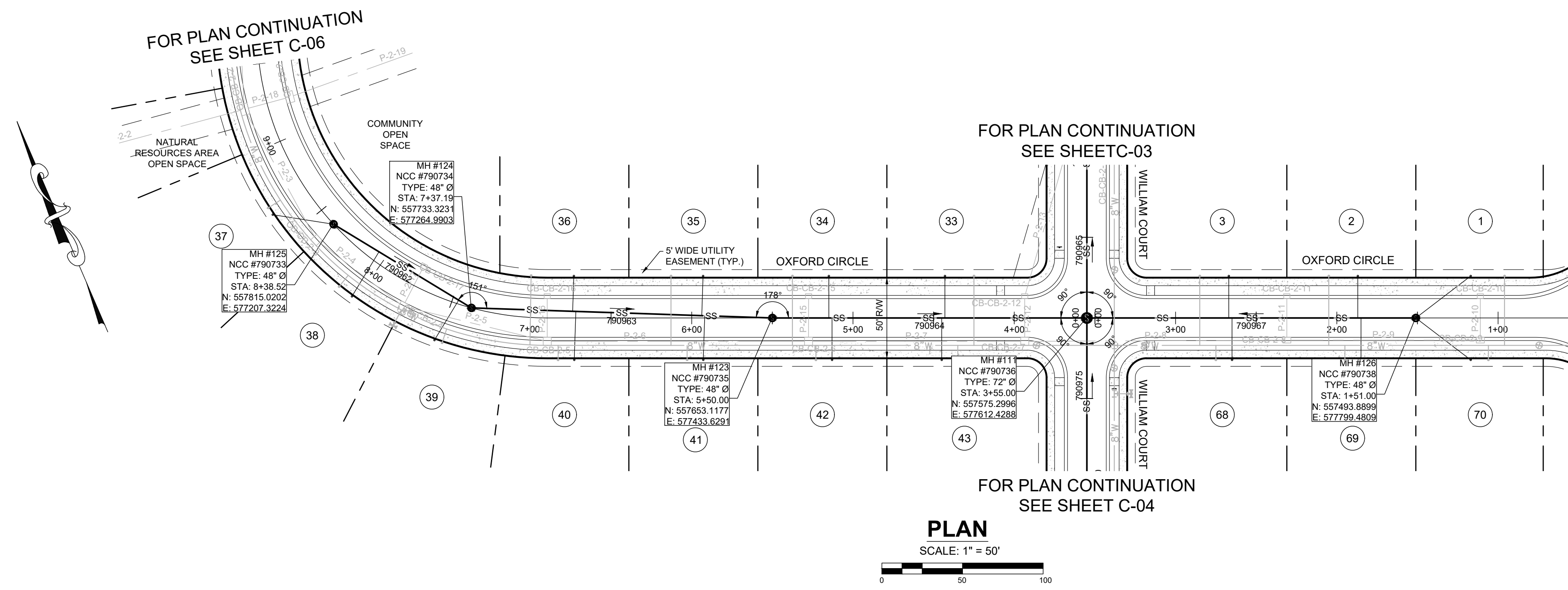
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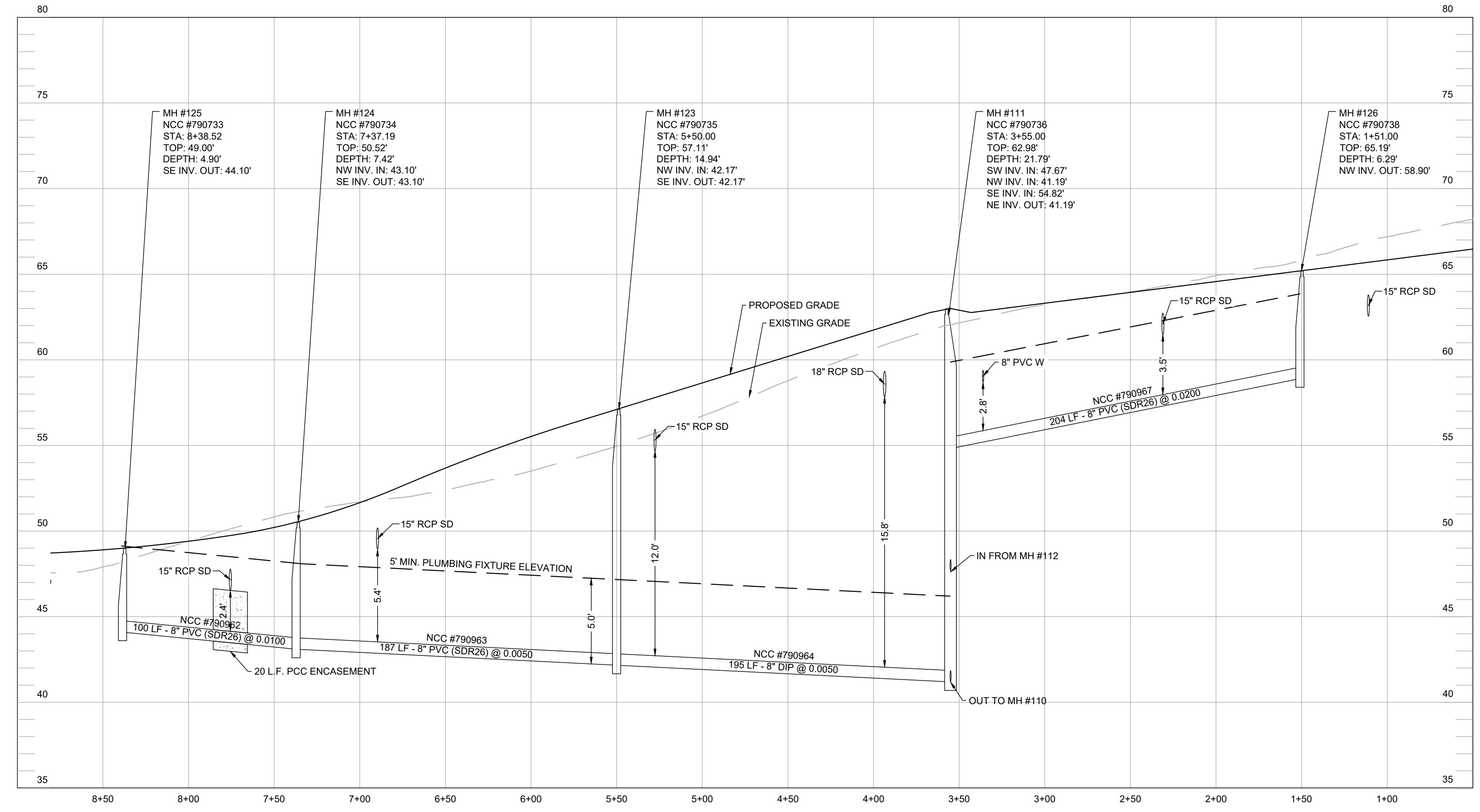
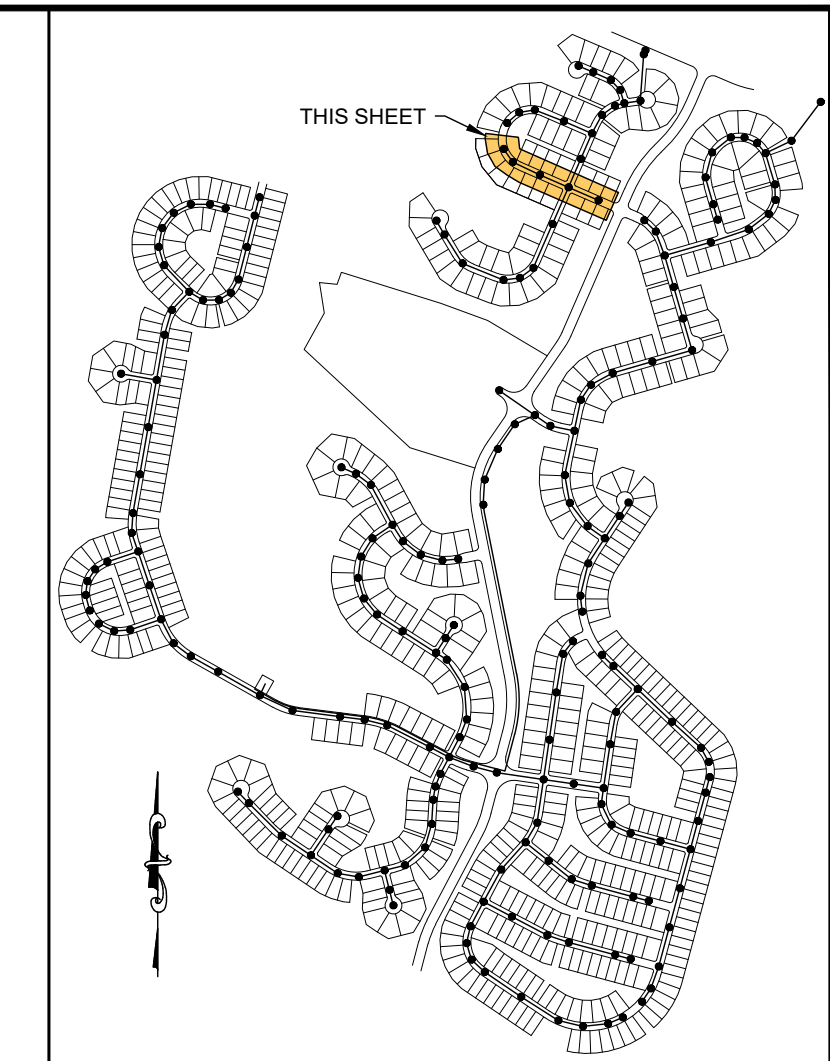
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SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
ST. GEORGES HUNDRED NEW CASTLE



Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-04



- NOTES:**
1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
 2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF-STREET MANHOLES. LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
 3. PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



DATE	REVISION	COMMENTS
01/17/24	REVISED PER NCCDRW COMMENTS 01/16/24	
02/07/23	REVISED PER NCCDRW COMMENTS 1/10/23	
08/07/23	REVISED PER NCCDRW COMMENTS 04/22/23	
05/12/23	REVISED PER NCCDRW COMMENTS 04/22/23	
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23	
1/12/22	REVISED PER NCCDRW COMMENTS 08/30/22	
01/12/22	REVISED PER NCCDRW COMMENTS 09/22/22	

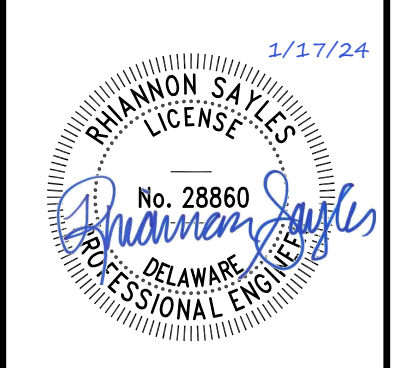
OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST.
REHOBOTH BEACH, DE 19871

CA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

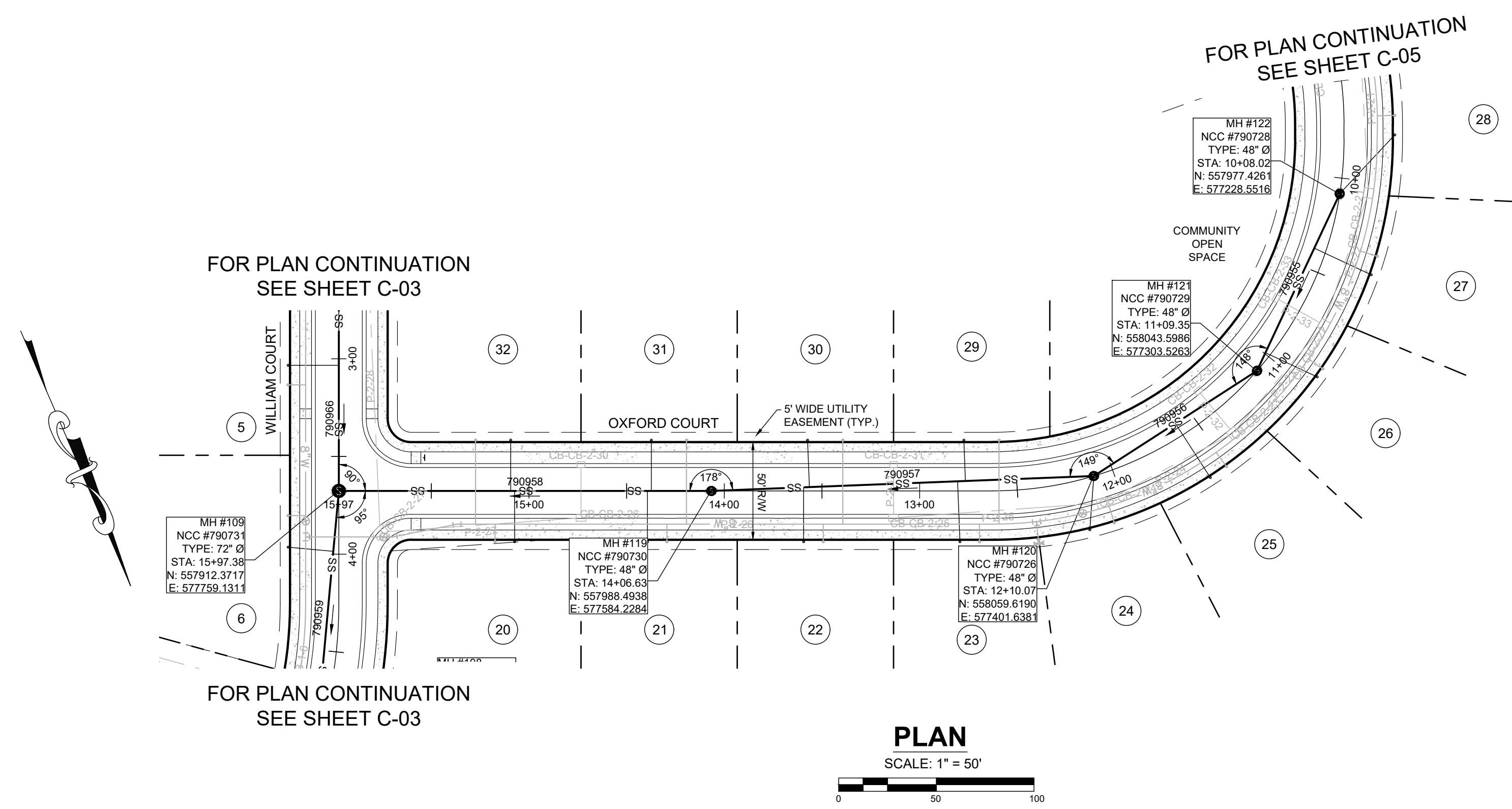
CA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-1887 Website: www.kci.com

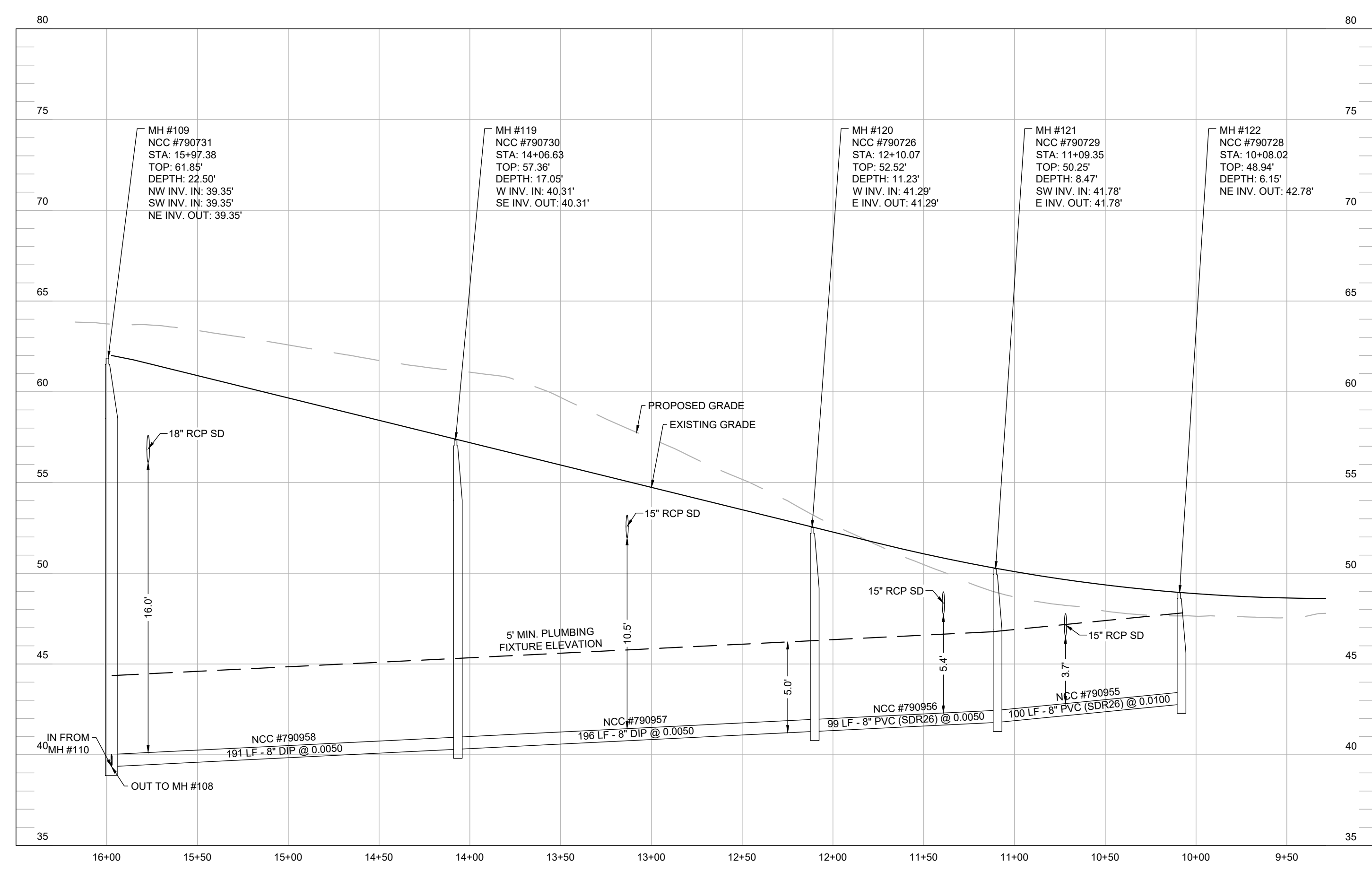
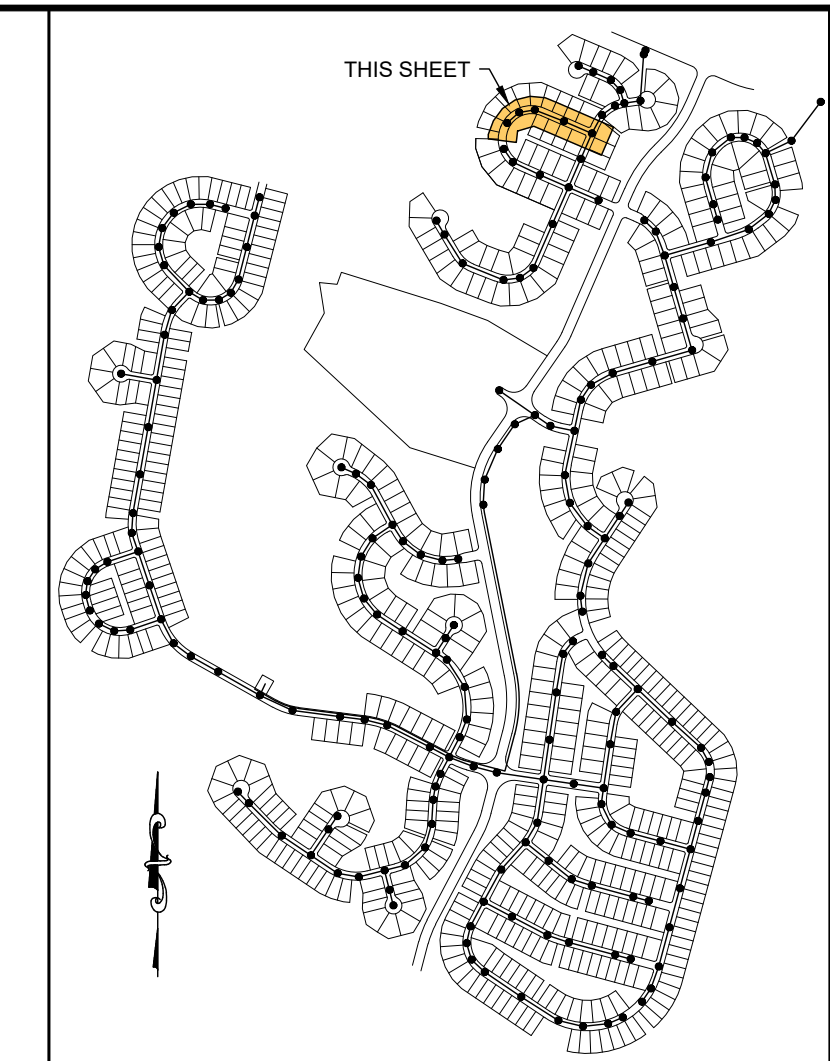
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
NEW CASTLE



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SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-05



- NOTES:**
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
 - STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES. LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
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05/12/23	REVISED PER NCCDRW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDRW COMMENTS 08/30/22
	DATE

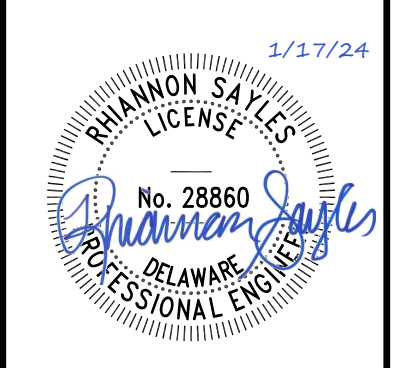
OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST.
REHOBOTH BEACH, DE 19871

CA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

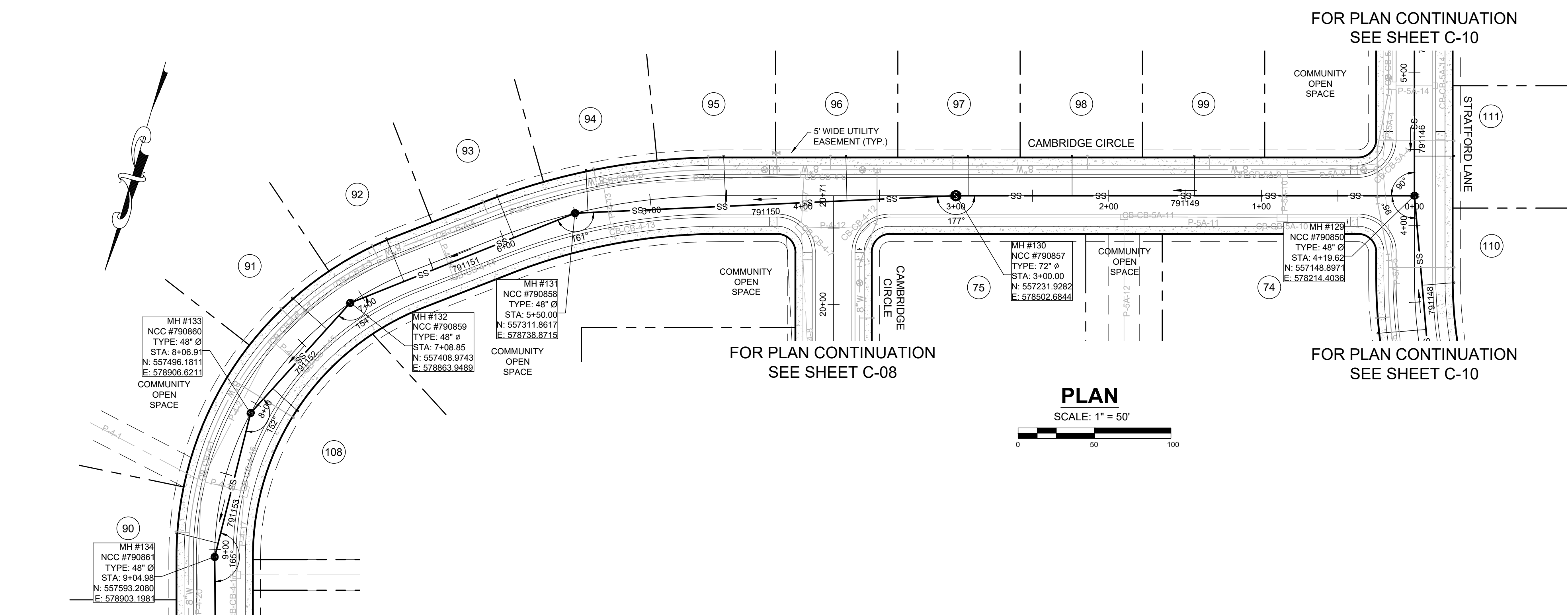
CA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9376 FAX: (302) 733-1887 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
NEW CASTLE



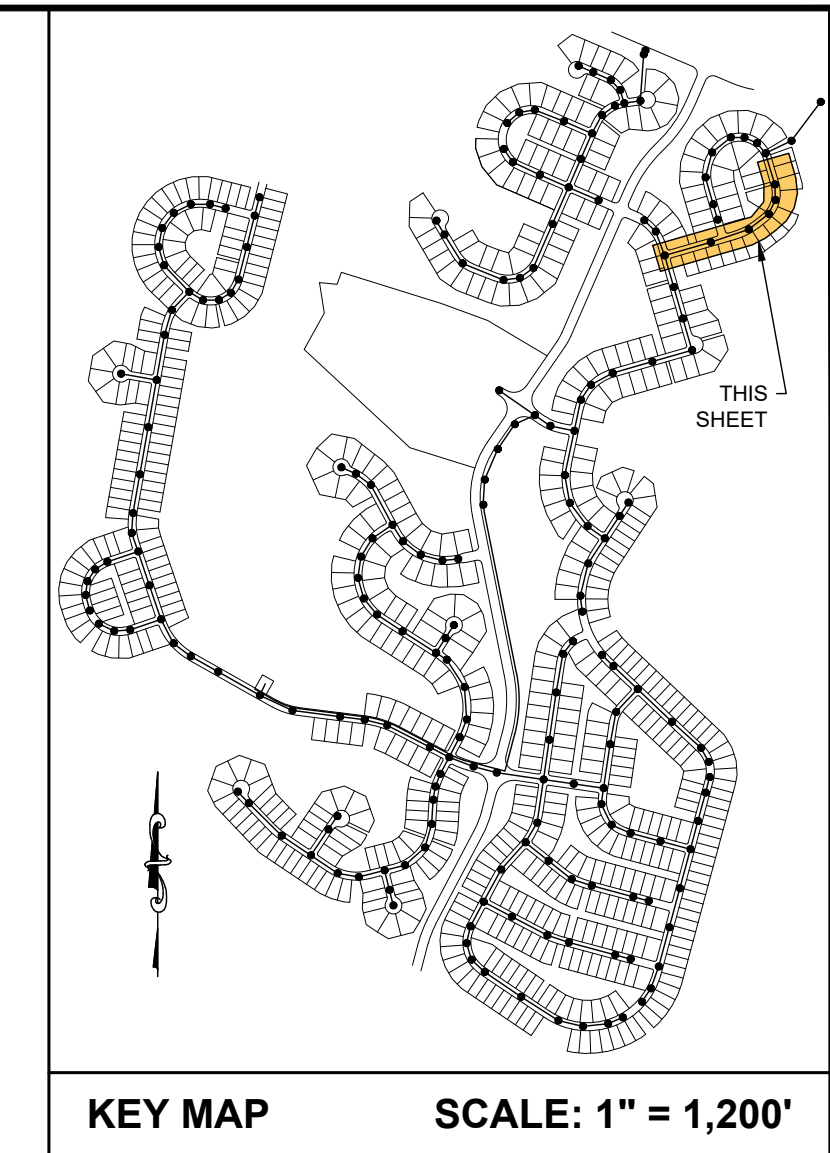
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SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-06



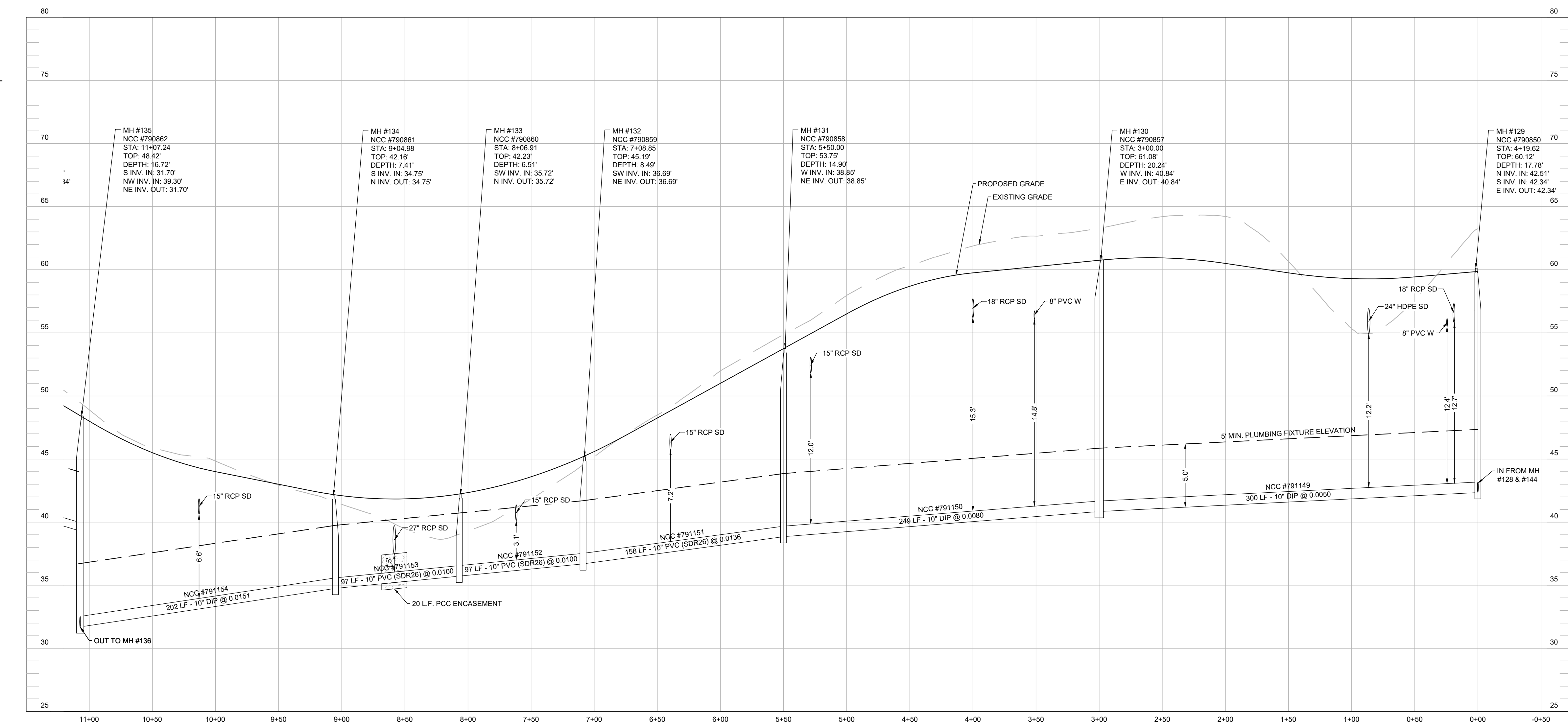
FOR PLAN CONTINUATION SEE SHEET C-08

FOR PLAN CONTINUATION SEE SHEET C-09

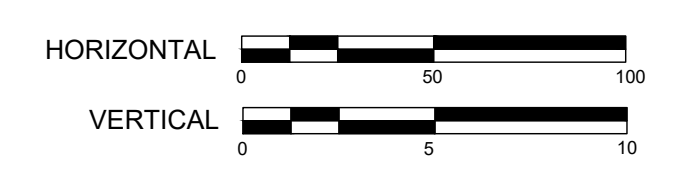
- NOTES:**
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
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KEY MAP SCALE: 1" = 1,200'



PROFILE: MH #129 TO MH #135
SCALE: HORIZ.: 1" = 50' VERT.: 1" = 5'



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08/07/23	REVISED PER NCCDRW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDRW COMMENTS 08/30/22
DATE	REVISION

OWNER/DEVELOPER:
SB NORTH LLC
20764 PHILLIPS ST.
REHOBOTH BEACH, DE 19871

CA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

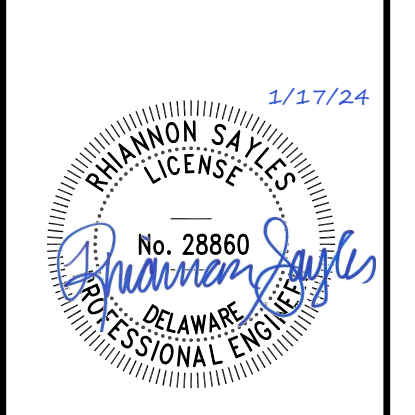
CA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.

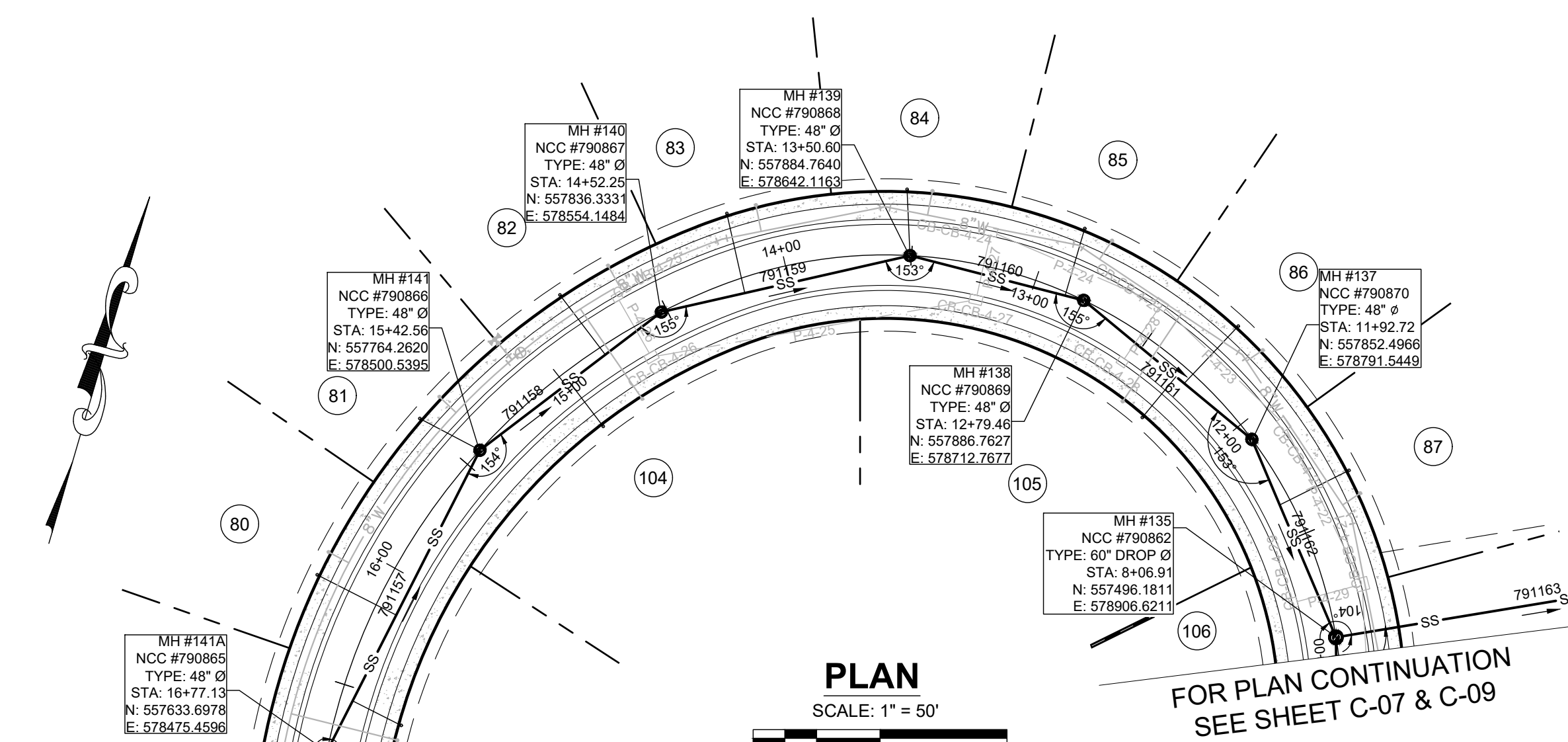
ENGINEERS - PLANNERS - SURVEYORS
1332 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-8871 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS

MONARCH DELAWARE
NEW CASTLE

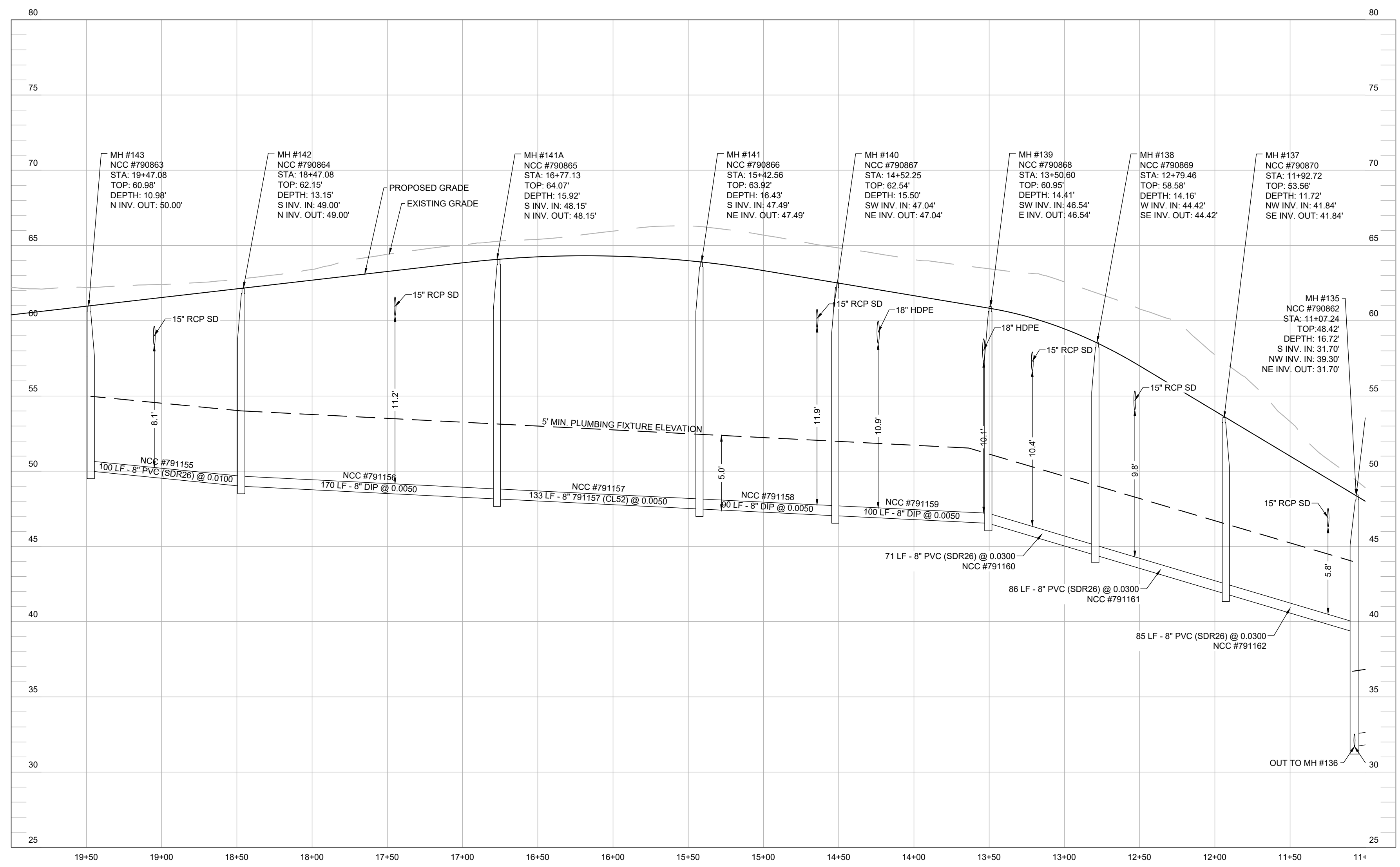


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Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-07



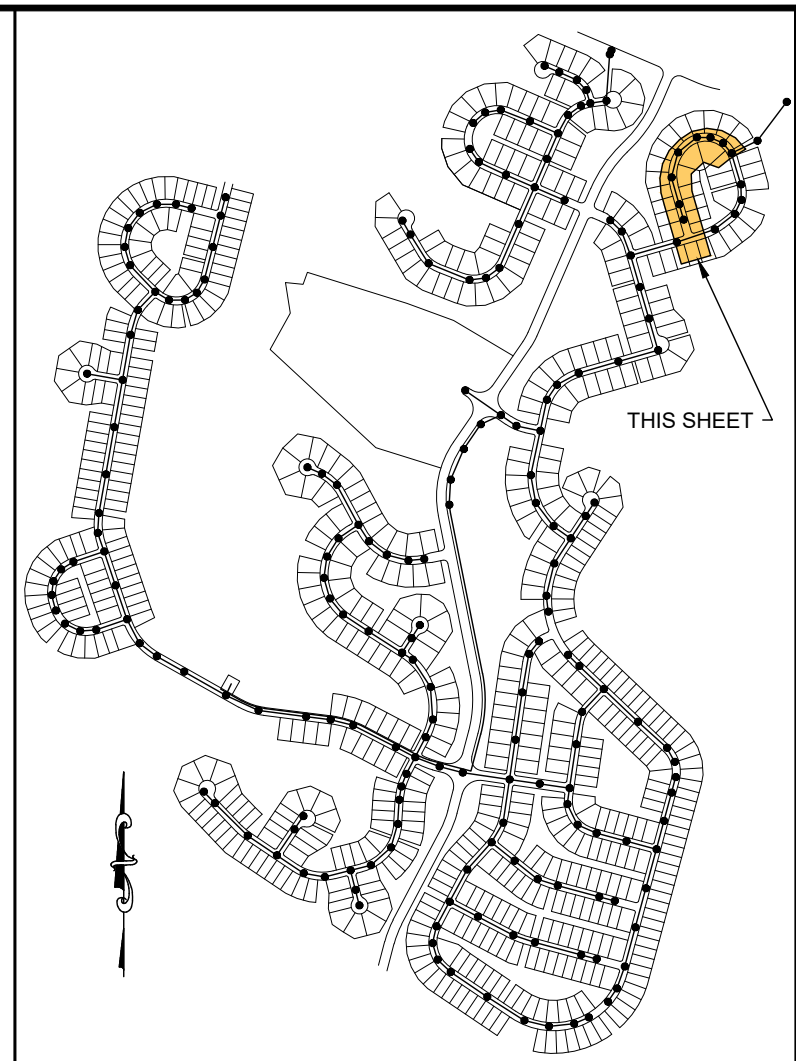
FOR PLAN CONTINUATION SEE SHEET C-07

FOR PLAN CONTINUATION SEE SHEET C-07



NOTES:

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1/12/22	REVISED PER NCCDRW COMMENTS 08/30/22	
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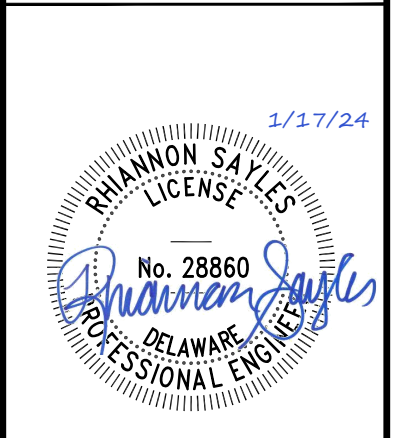
OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST.
REHOBOTH BEACH, DE 19871

CA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

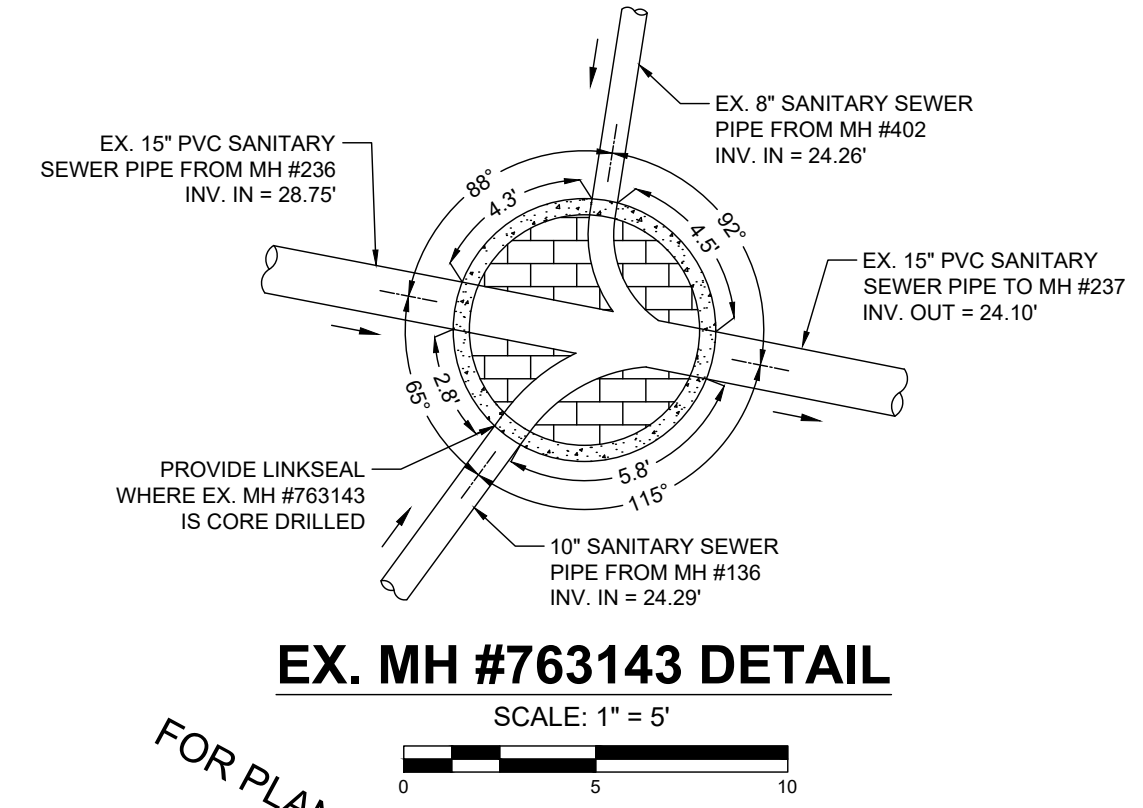
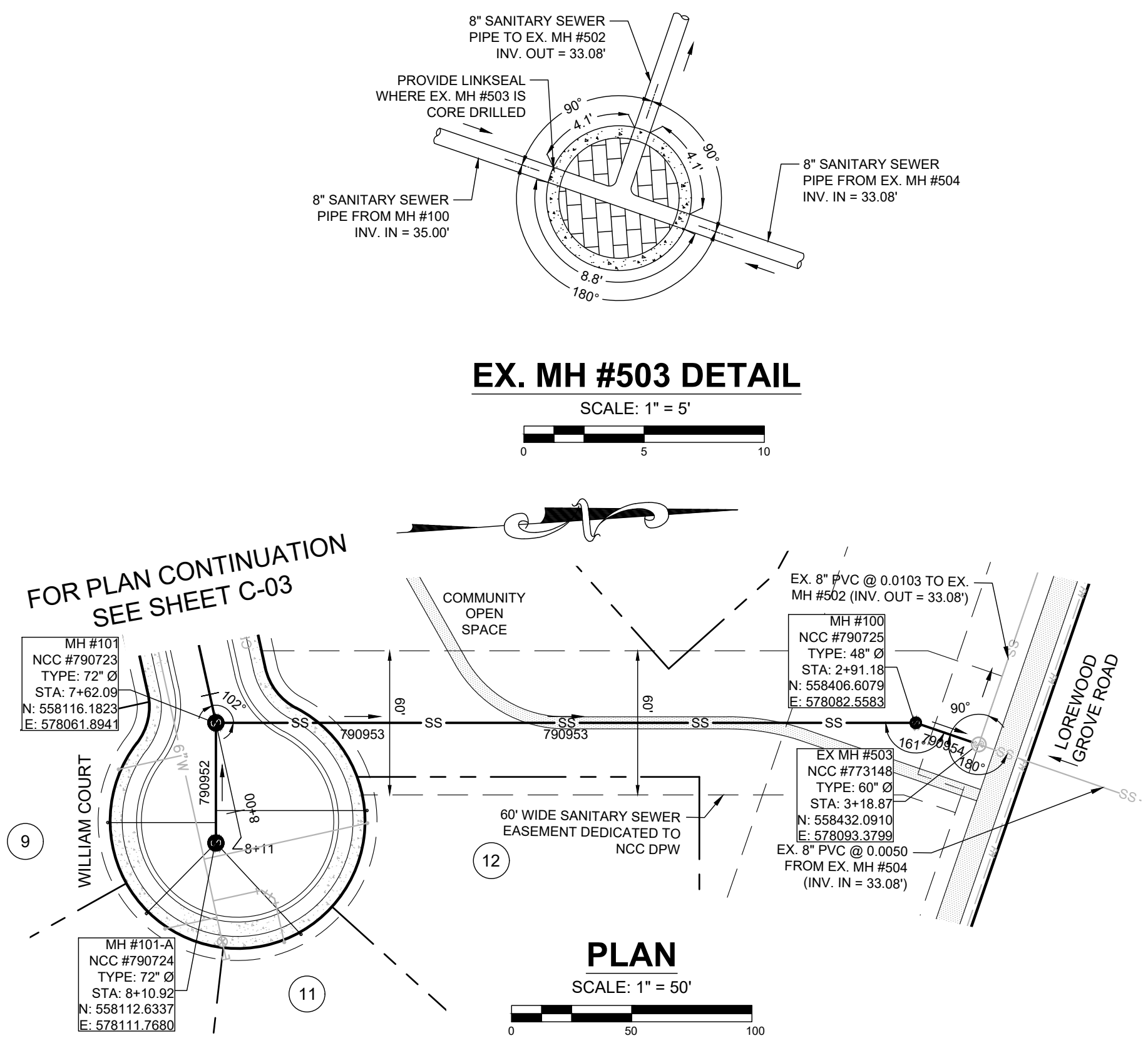
CA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-8807 Website: www.kci.com

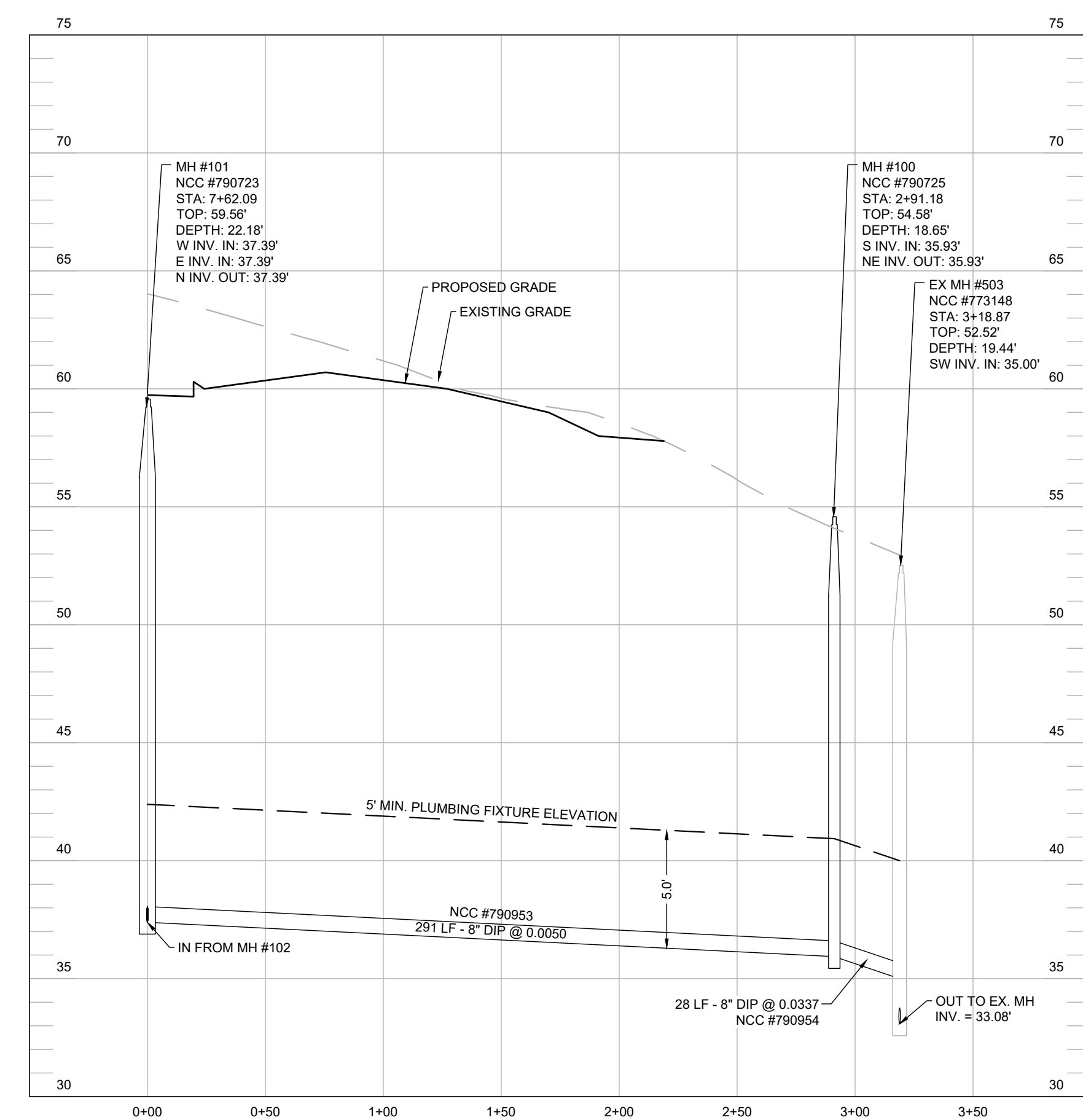
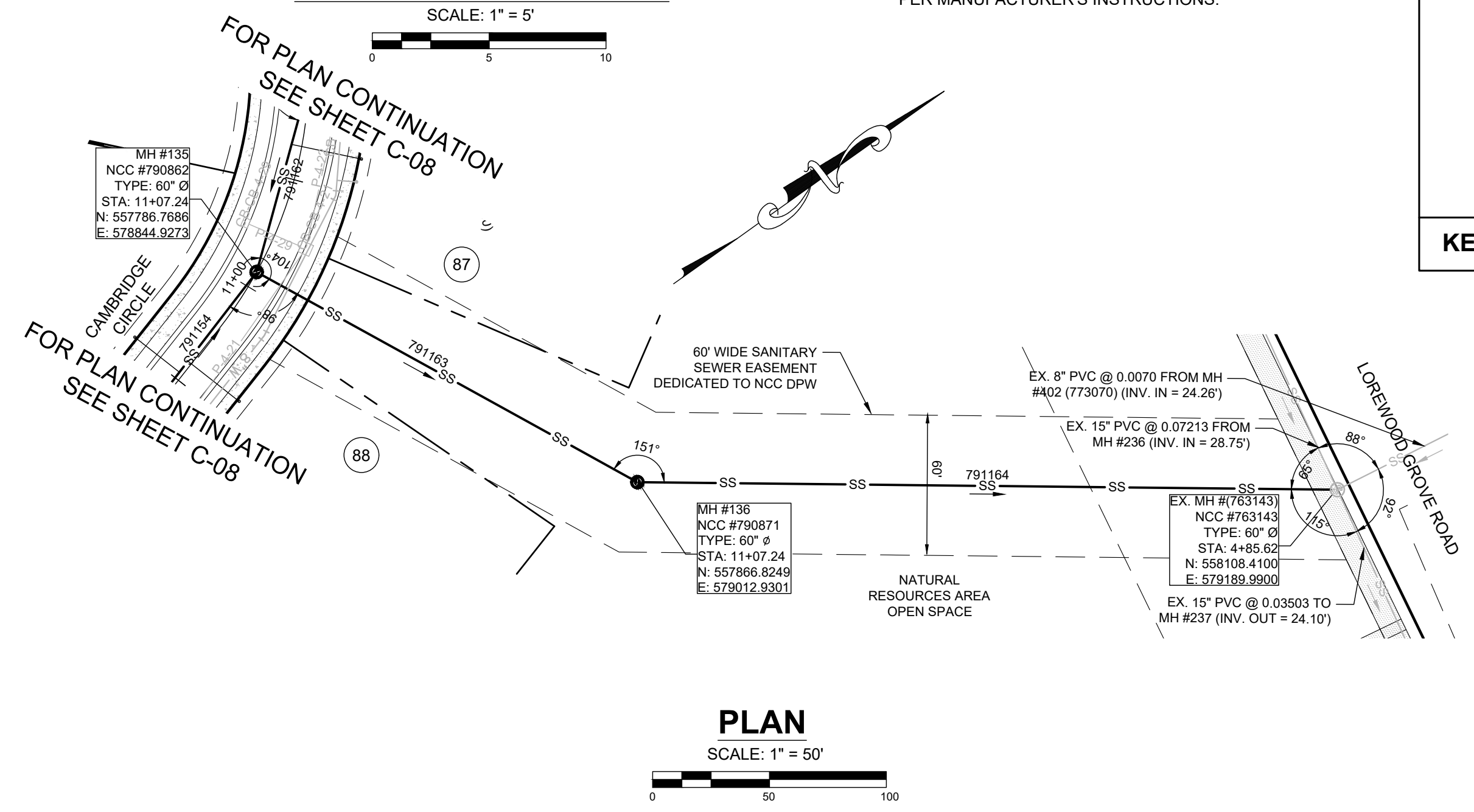
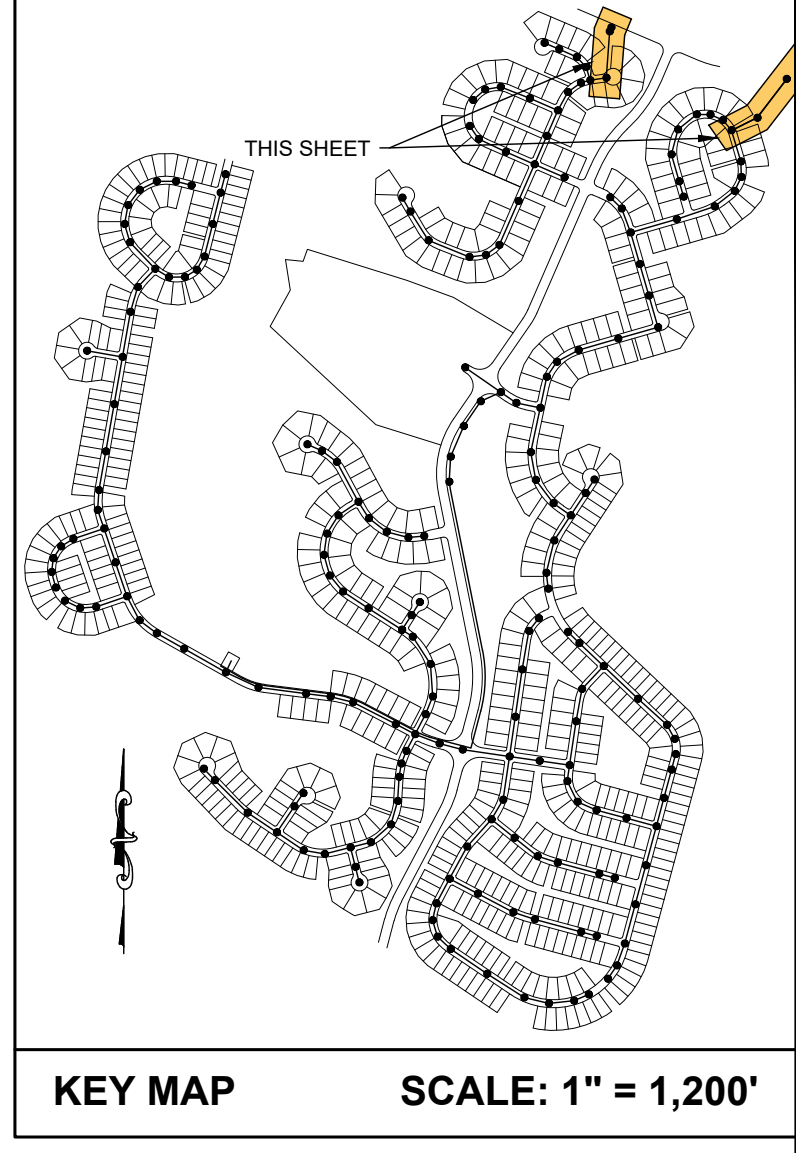
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONAROH DELAWARE
NEW CASTLE



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Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-08



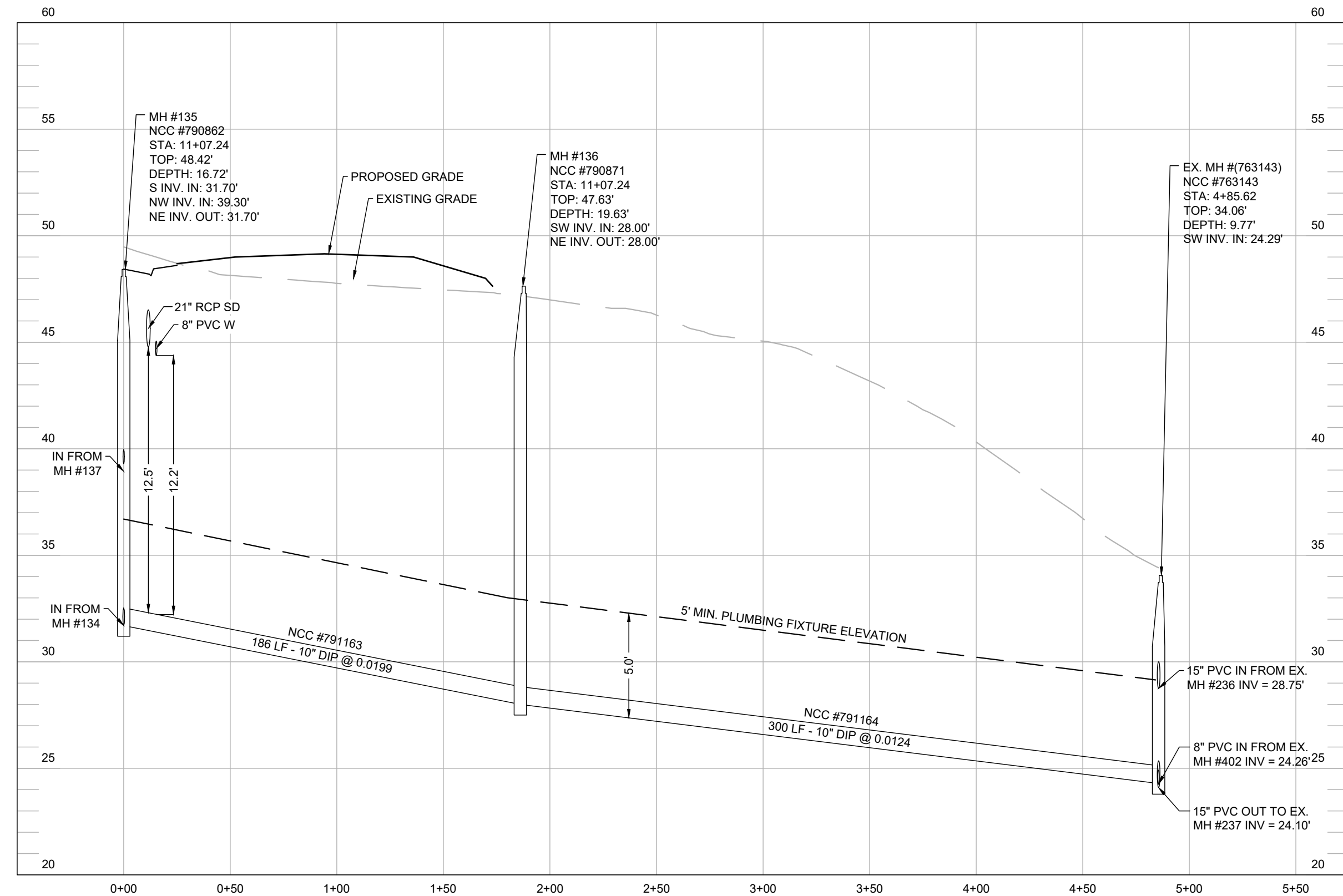
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PROFILE: MH #101 TO EX. MH #2
SCALE: HORIZ.: 1" = 50' VERT.: 1" = 5'

HORIZONTAL SCALE: 1" = 50'

VERTICAL SCALE: 1" = 5'



PROFILE: MH #135 TO EX. MH #763143
SCALE: HORIZ.: 1" = 50' VERT.: 1" = 5'

HORIZONTAL SCALE: 1" = 50'

VERTICAL SCALE: 1" = 5'

DATE	REVISION	COMMENTS
01/17/24	REVISED PER NCC DPW COMMENTS 01/16/24	
02/07/23	REVISED PER NCC DPW COMMENTS 1/10/23	
08/07/23	REVISED PER NCC DPW COMMENTS 04/22/23	
05/12/23	REVISED PER NCC DPW COMMENTS 04/22/23	
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23	
1/12/22	REVISED PER NCC DPW COMMENTS 08/30/22	
04/22	REVISED PER NCC DPW COMMENTS 03/09/22	

OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST.
REHOBOTH BEACH, DE 19871

CA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

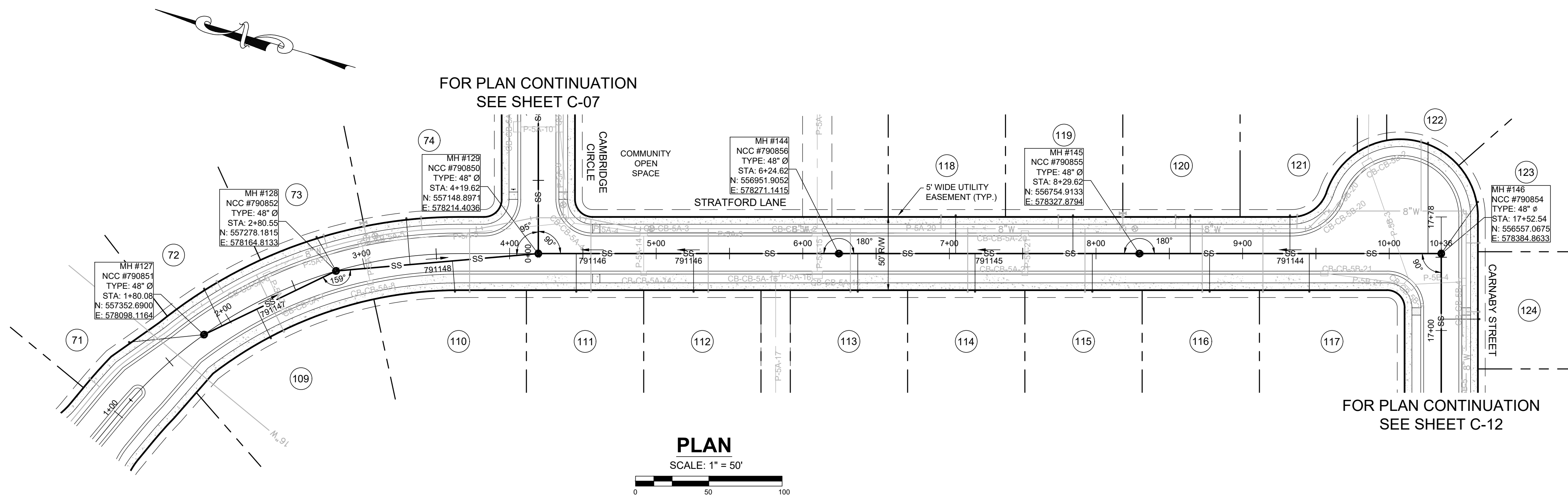
CA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1332 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-8687 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
ST. GEORGES HUNDRED NEW CASTLE

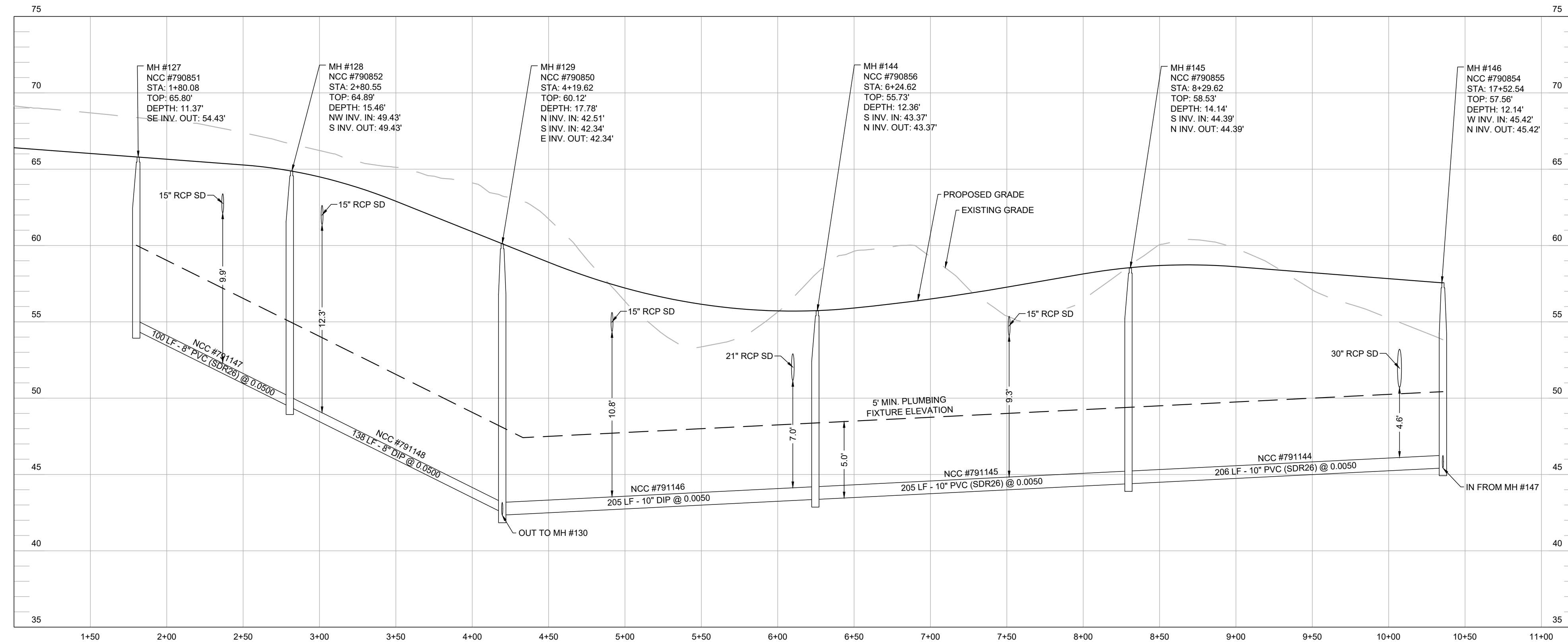
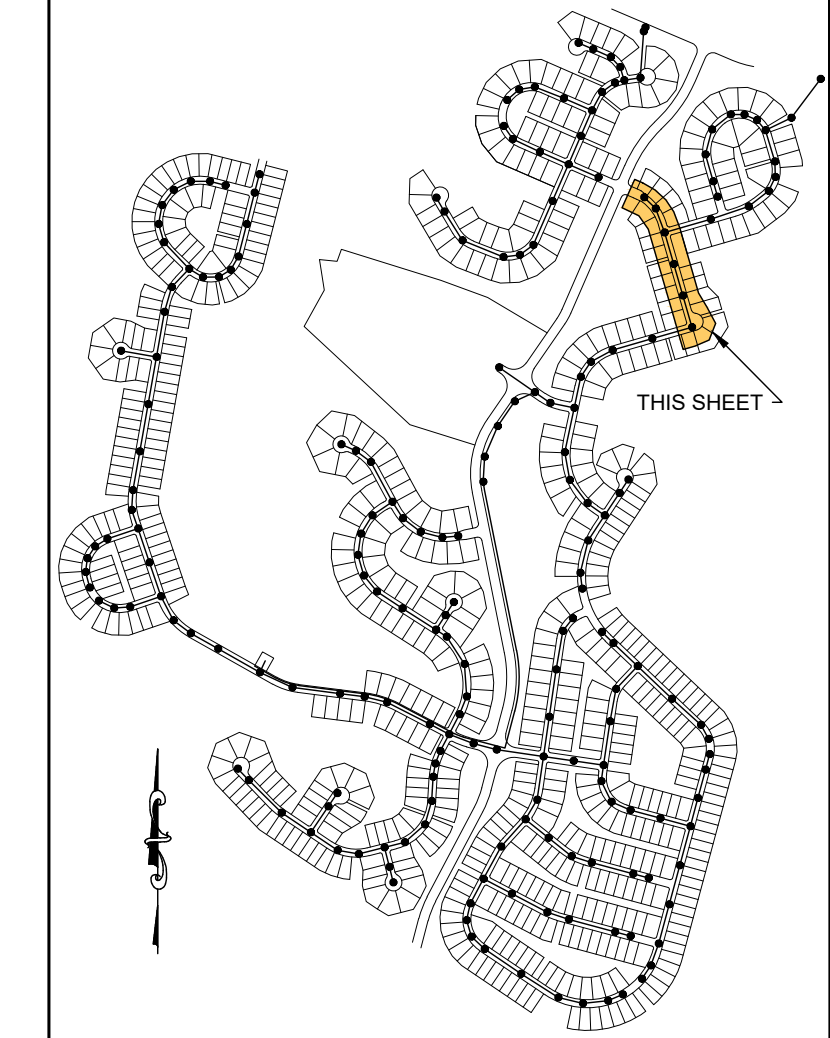


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Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904607.SP
SHEET: C-09



NOTES:

- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
- STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
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12/07/23	REVISED PER NCCDPW COMMENTS 11/07/23
08/07/23	REVISED PER NCCDPW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
11/21/22	REVISED PER NCCDPW COMMENTS 08/30/22
04/22	REVISED PER COMMENTS 03/02/22
	DATE

OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST.
REHOBOTH BEACH, DE 19871

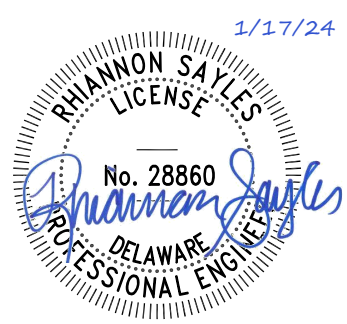
CA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

OA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

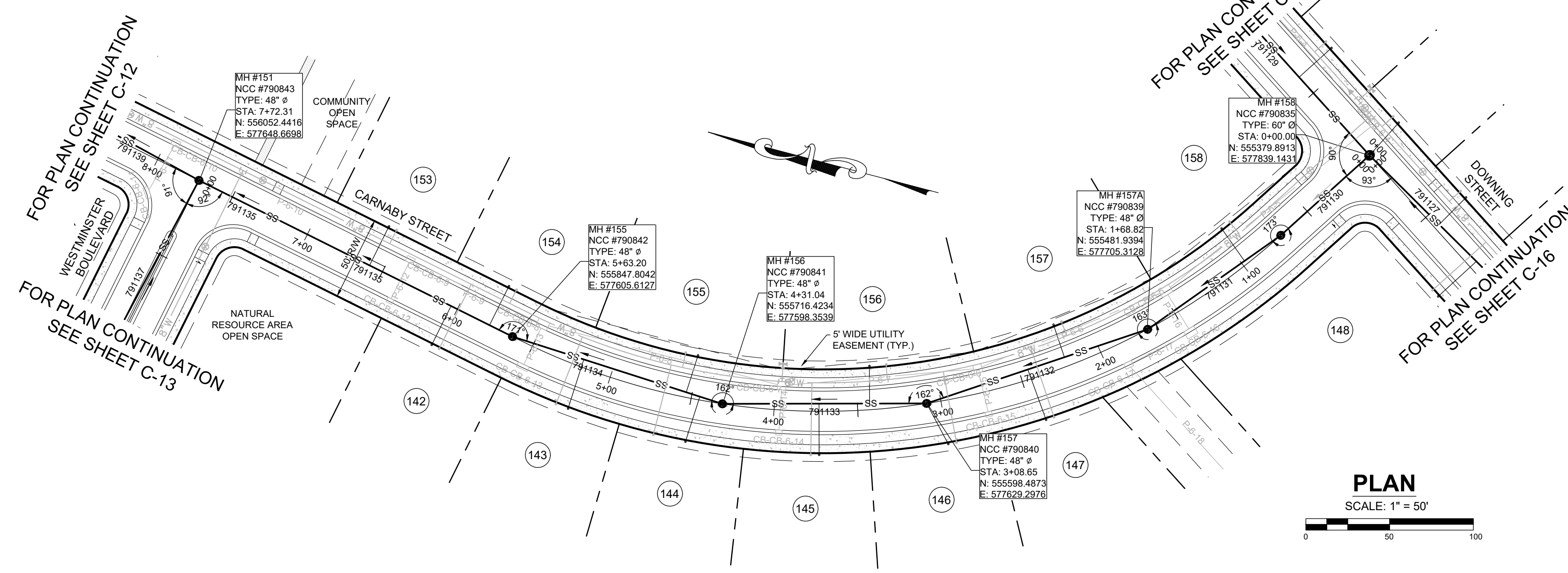
SCALE: PLAN: 1" = 50'

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 733-1887 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
NEW CASTLE
ST. GEORGES HUNDRED

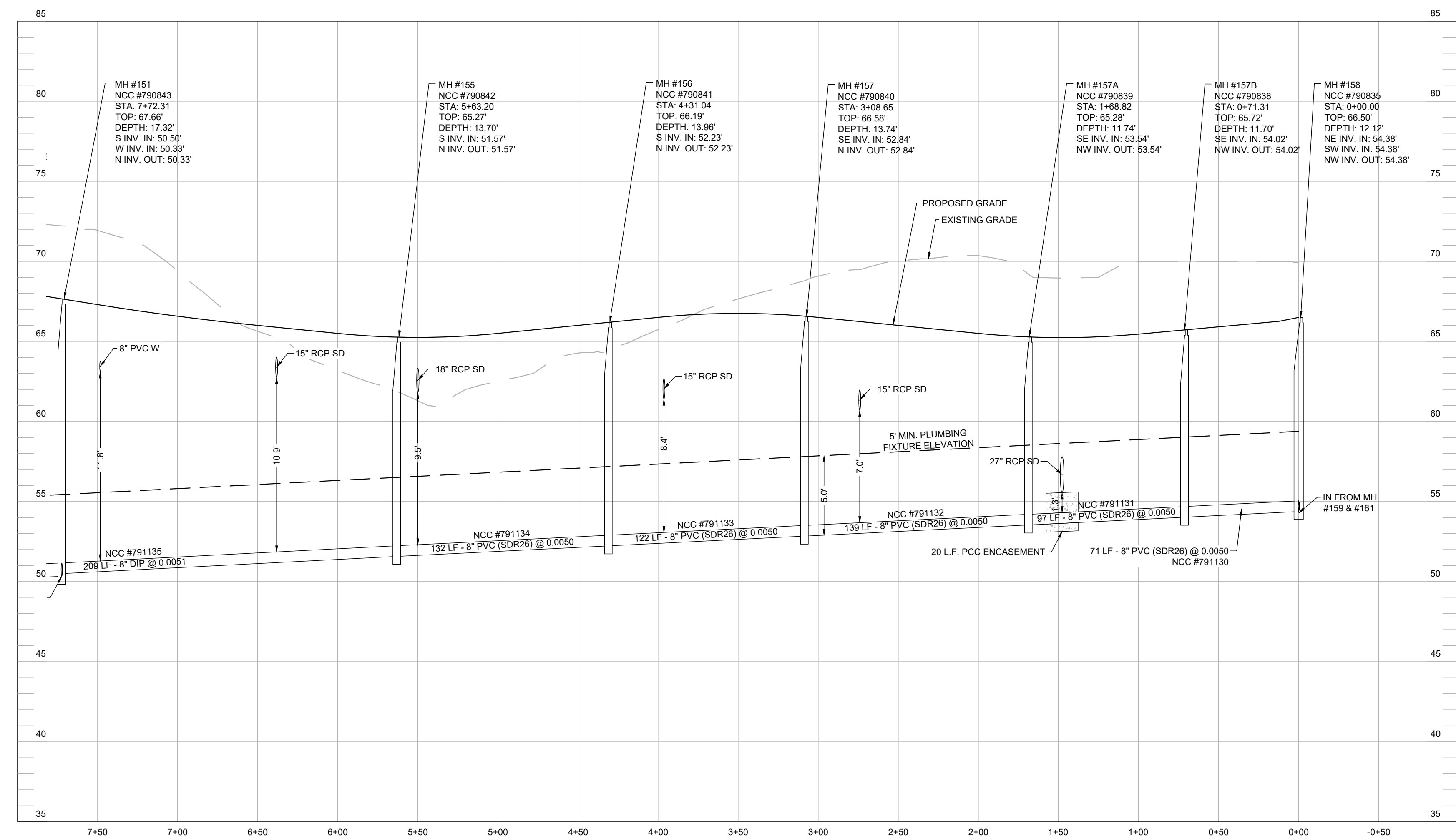
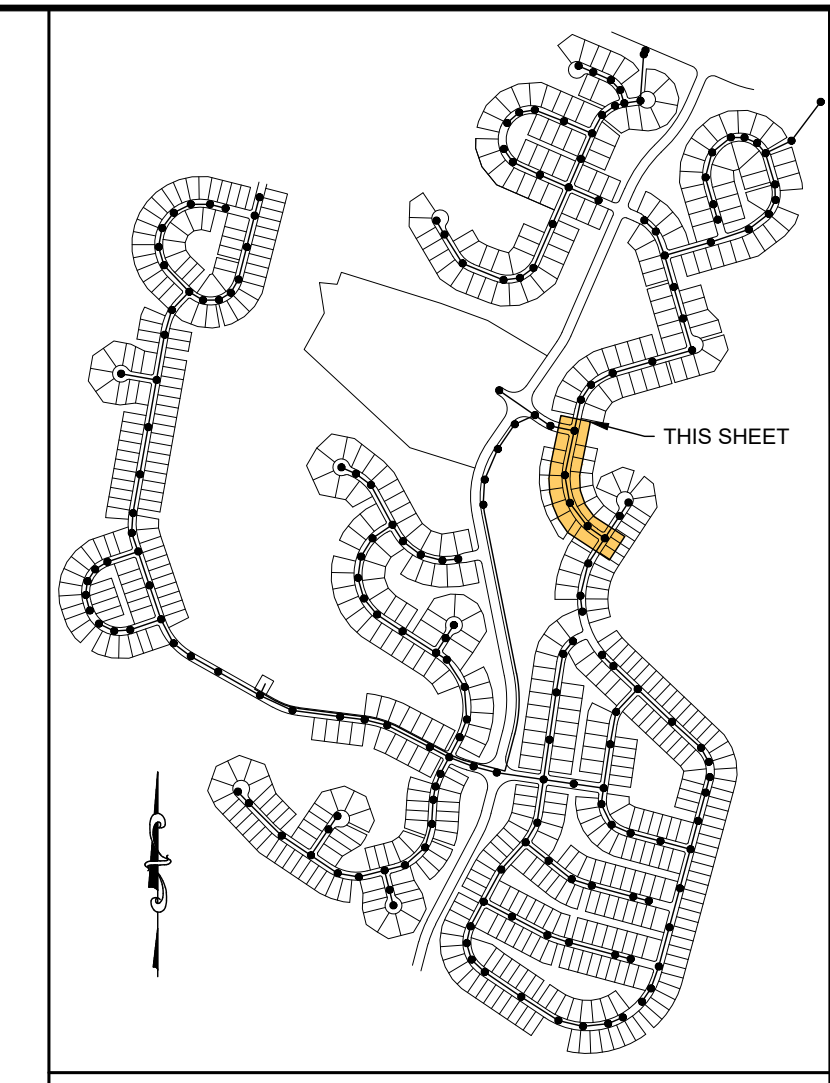


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Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-10



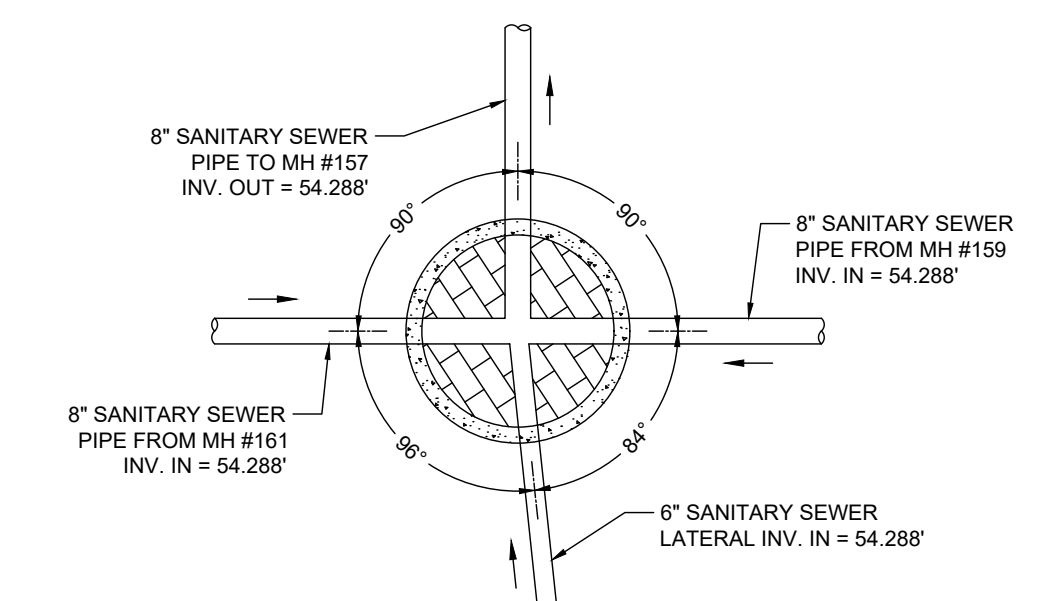
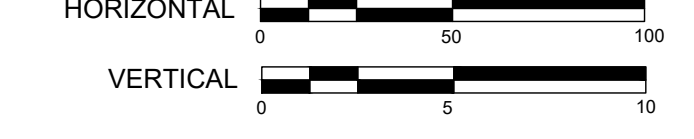
NOTES:

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PROFILE: MH #151 TO MH #158

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



MH #158 DETAIL

SCALE: 1" = 5'

DATE	REVISION	DESCRIPTION
01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24	
02/01/23	REVISED PER NCCDPW COMMENTS 1/10/23	
08/01/23	REVISED PER NCCDPW COMMENTS 04/22/23	
05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23	
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23	
1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22	
	DATE	REVISION

OWNER/DEVELOPER:
SB NORTH LLC
20184 PHILLIPS ST.
REHOBOTH BEACH, DE 19871

ENGINEER:
KCI TECHNOLOGIES, INC.
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

PLANNER - SURVEYORS:
KCI TECHNOLOGIES, INC.
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.

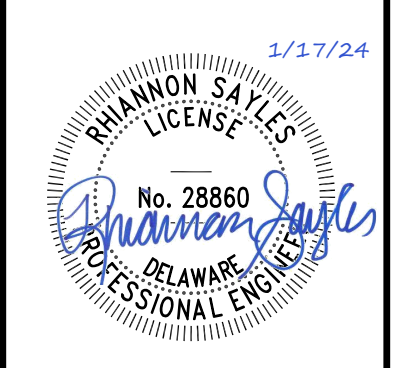
ENGINEERS - PLANNERS - SURVEYORS
1332 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 713-1976 FAX: (302) 713-1887 Website: www.kci.com

PLAN AND PROFILE

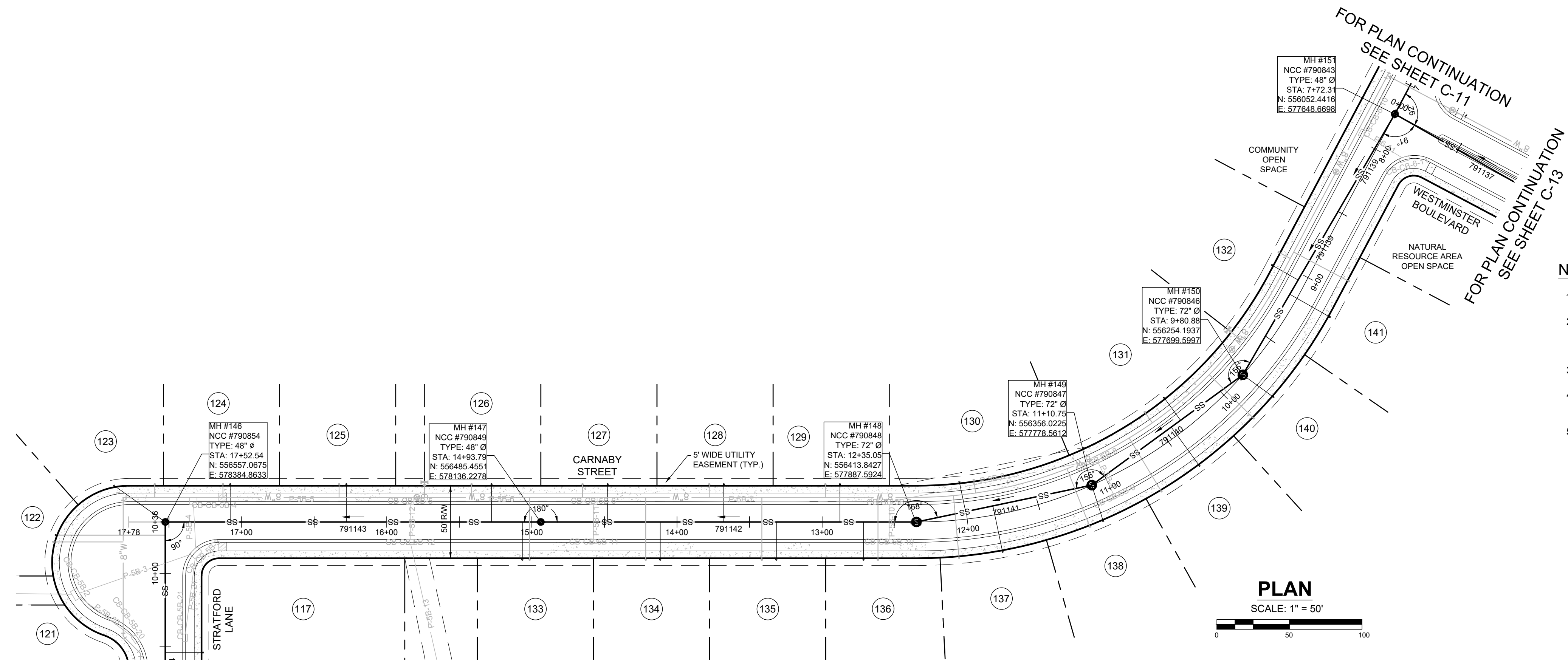
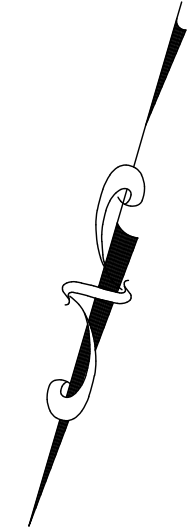
SANITARY SEWER CONSTRUCTION PLANS

MONAROH DELAWARE

NEW CASTLE
ST. GEORGES HUNDRED

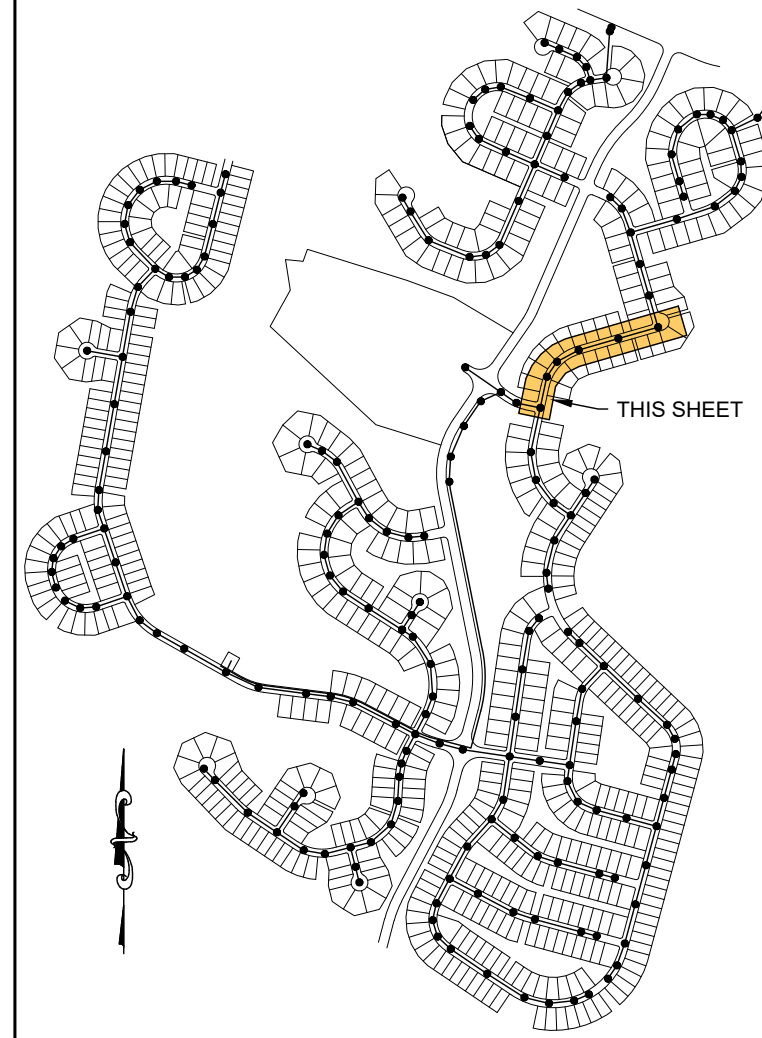


Drafting: VRF	Check: JC
Design: VRF	Check: JC
SCALE: 1"=50'	
DATE: 01/17/2024	
KCI JOB #: 271904607.SP	
SHEET: C-11	

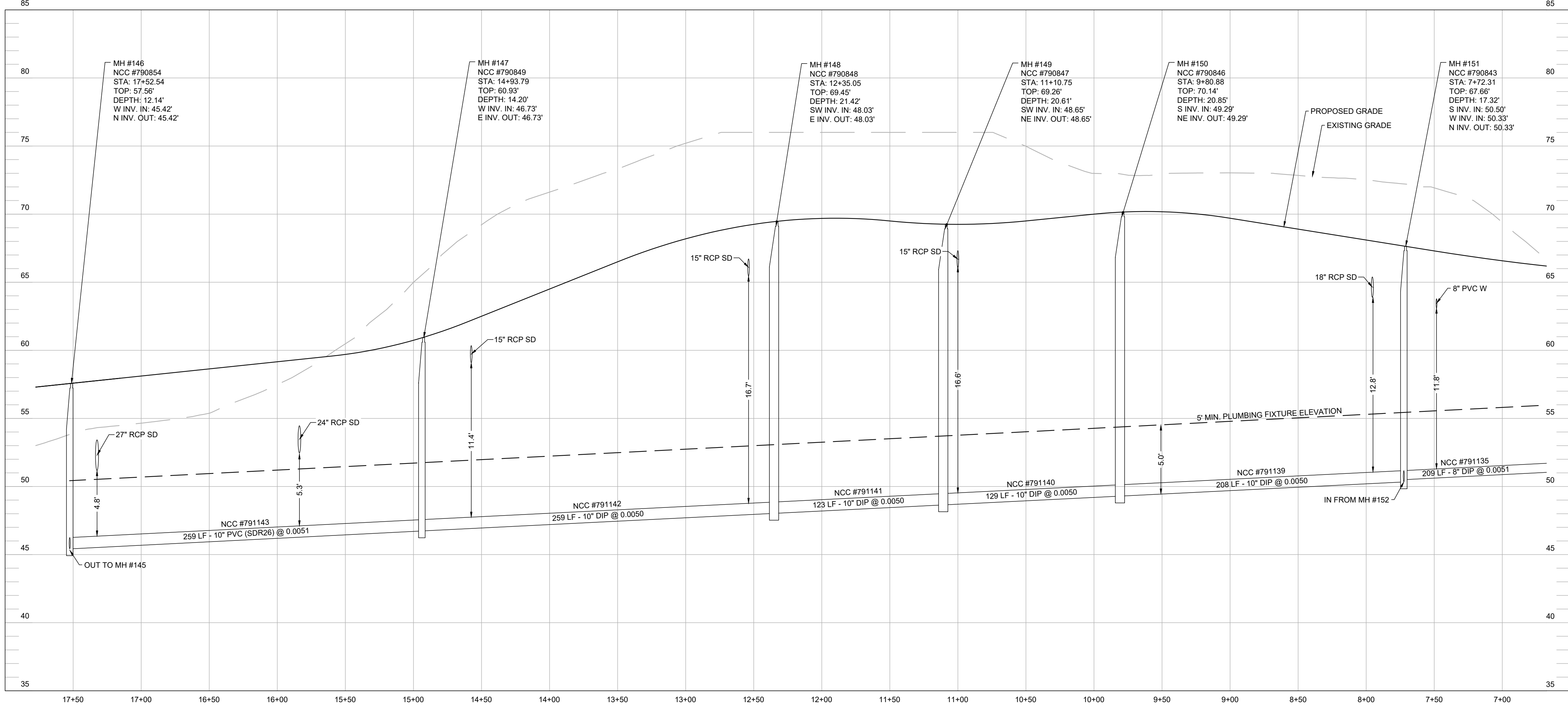


NOTES:

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FOR PLAN CONTINUATION SEE SHEET C-10



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04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
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01/22	REVISED PER NCCDRW COMMENTS 09/20/22
DATE	REVISION

OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST.
REHOBOTH BEACH, DE 19871

OA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

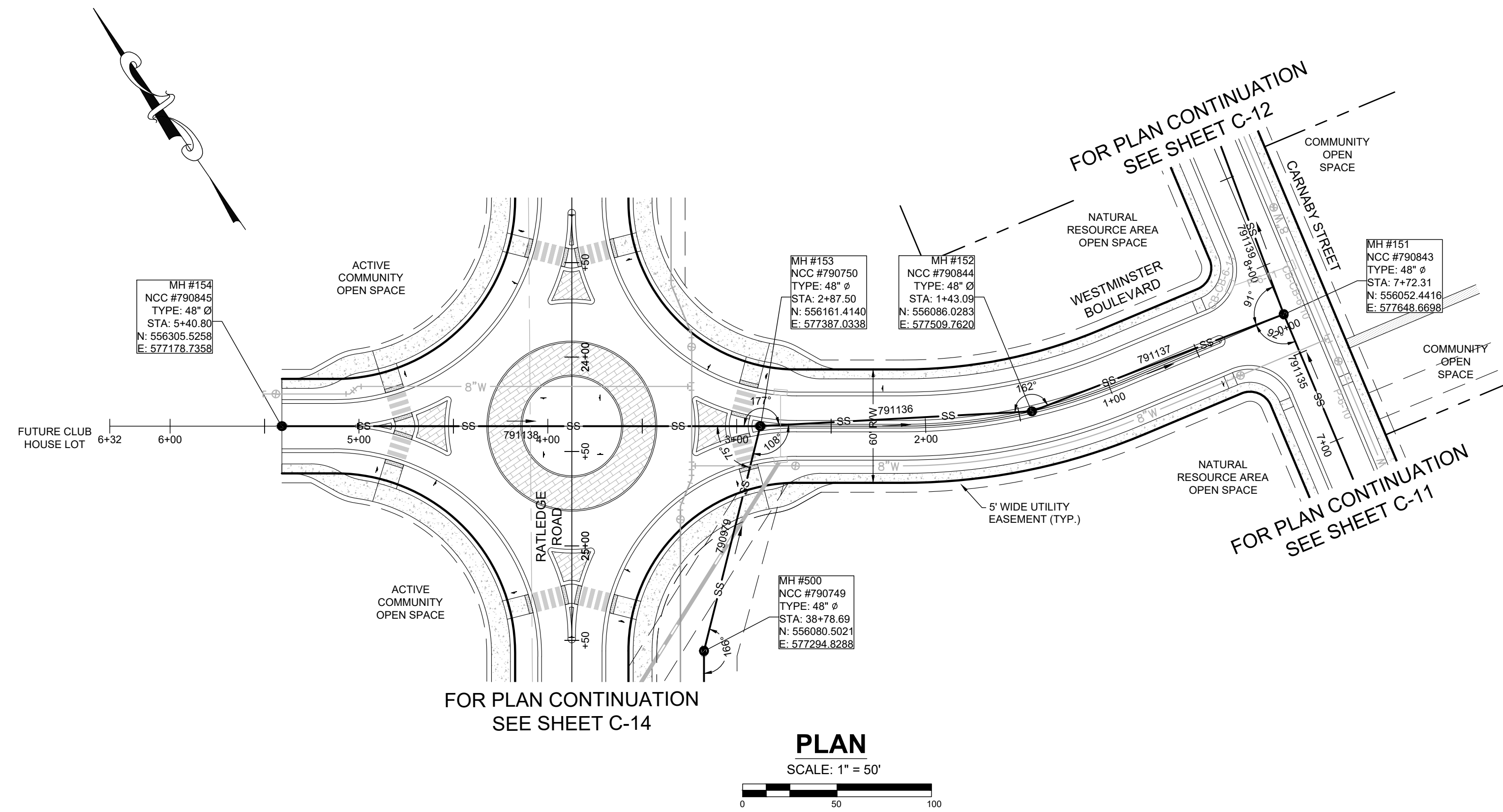
OA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

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ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-1887 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
NEW CASTLE
ST. GEORGES HUNDRED

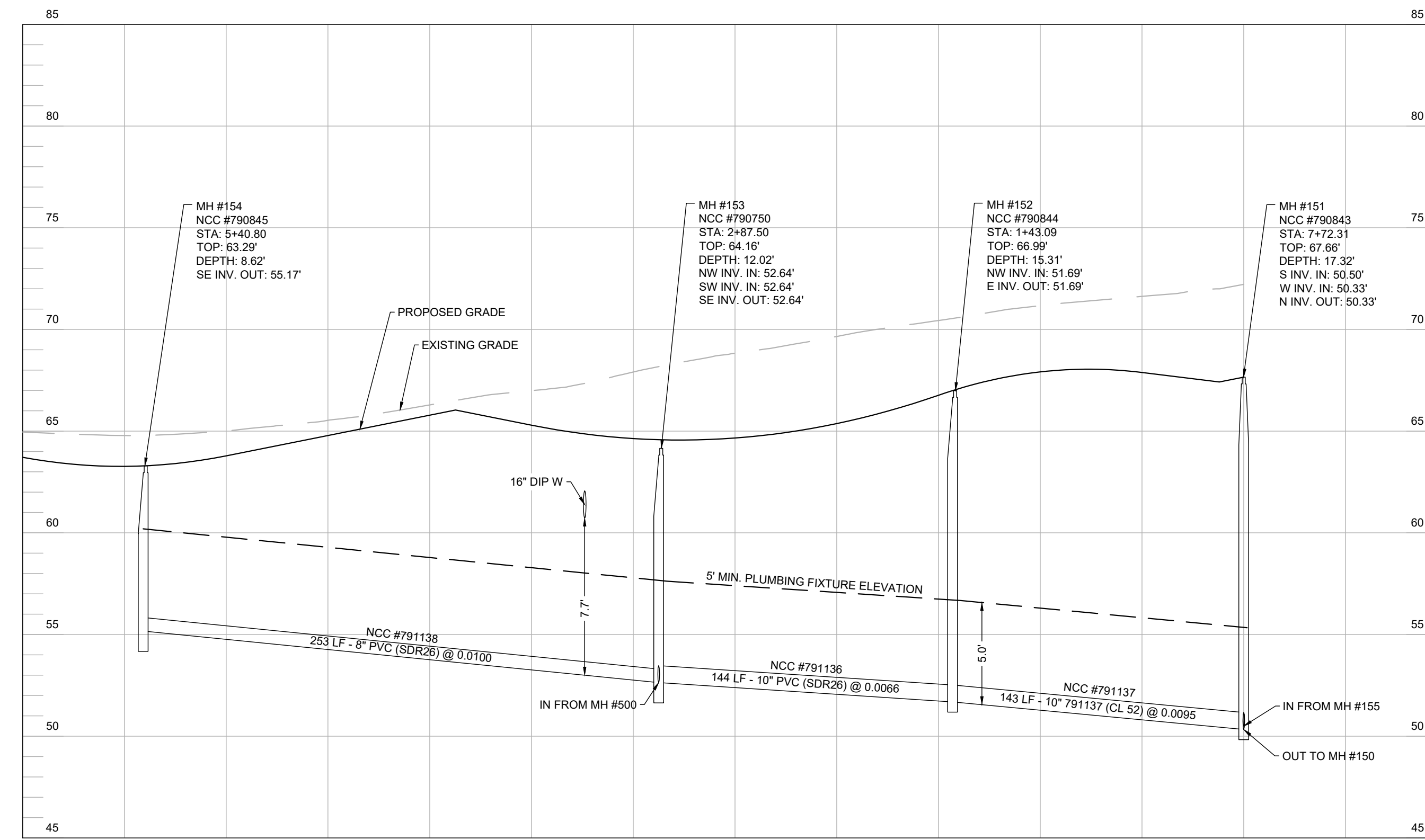
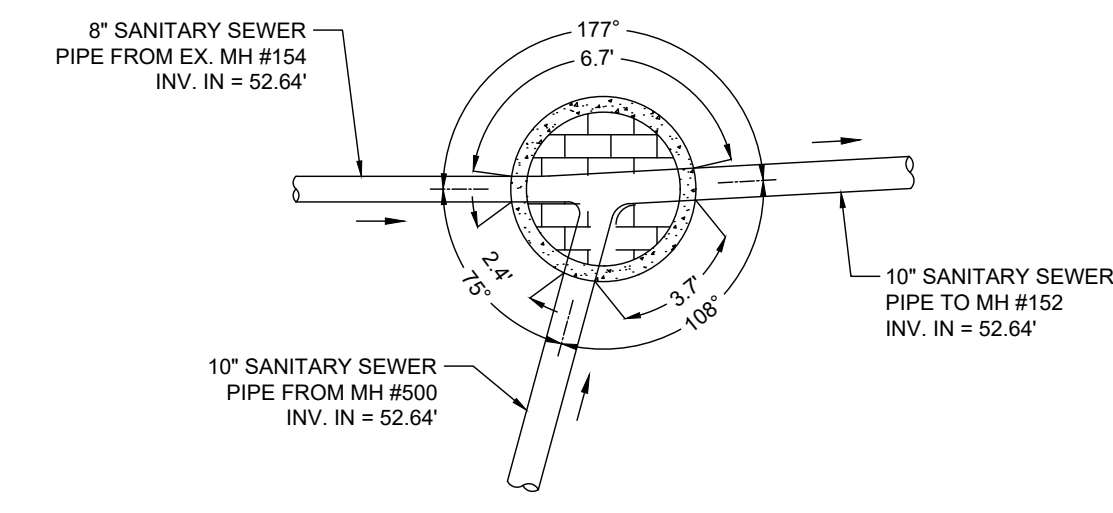
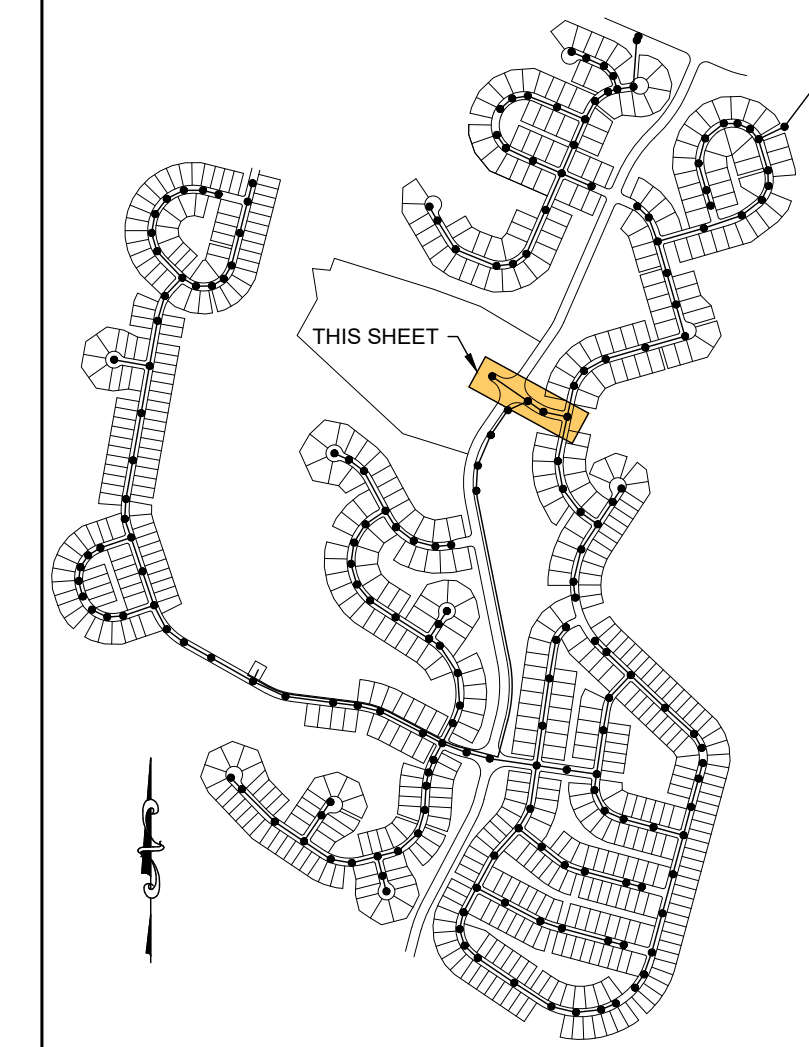


Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-12



NOTES:

- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
- STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
- LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
- PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.
- SEE SHEETS C-1 THROUGH C-3 OF THE SANITARY SEWER PUMP STATION PLANS FOR FORCEMAIN DESIGN.
- ALL MANHOLES DOWNSTREAM OF FORCE MAIN DISCHARGE MH #503 SHALL BE COATED WITH PARSON ENVIRONMENTAL "PARSONPOXY SEL-80" PROTECTIVE COATING AND INSTALLED PER MANUFACTURER'S INSTRUCTIONS.



DATE	REVISION	COMMENTS
01/17/24	REVISED PER NCCDRW COMMENTS 01/16/24	
02/07/23	REVISED PER NCCDRW COMMENTS 1/10/23	
08/07/23	REVISED PER NCCDRW COMMENTS 04/22/23	
05/12/23	REVISED PER NCCDRW COMMENTS 04/22/23	
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23	
1/12/22	REVISED PER NCCDRW COMMENTS 08/26/22	
	DATE	REVISION

OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST.
REHOBOTH BEACH, DE 19871

CA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

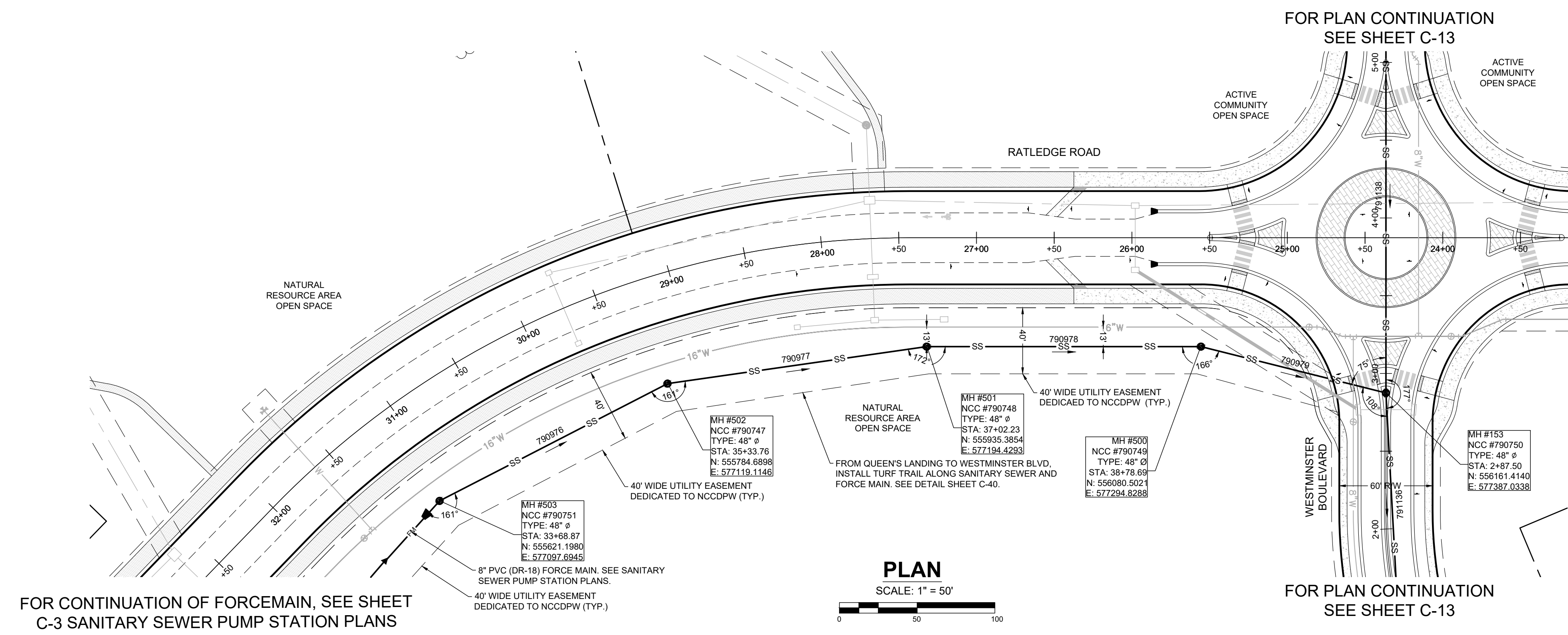
CA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
13522 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 713-1976 FAX: (302) 731-1887 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
ST. GEORGES HUNDRED NEW CASTLE

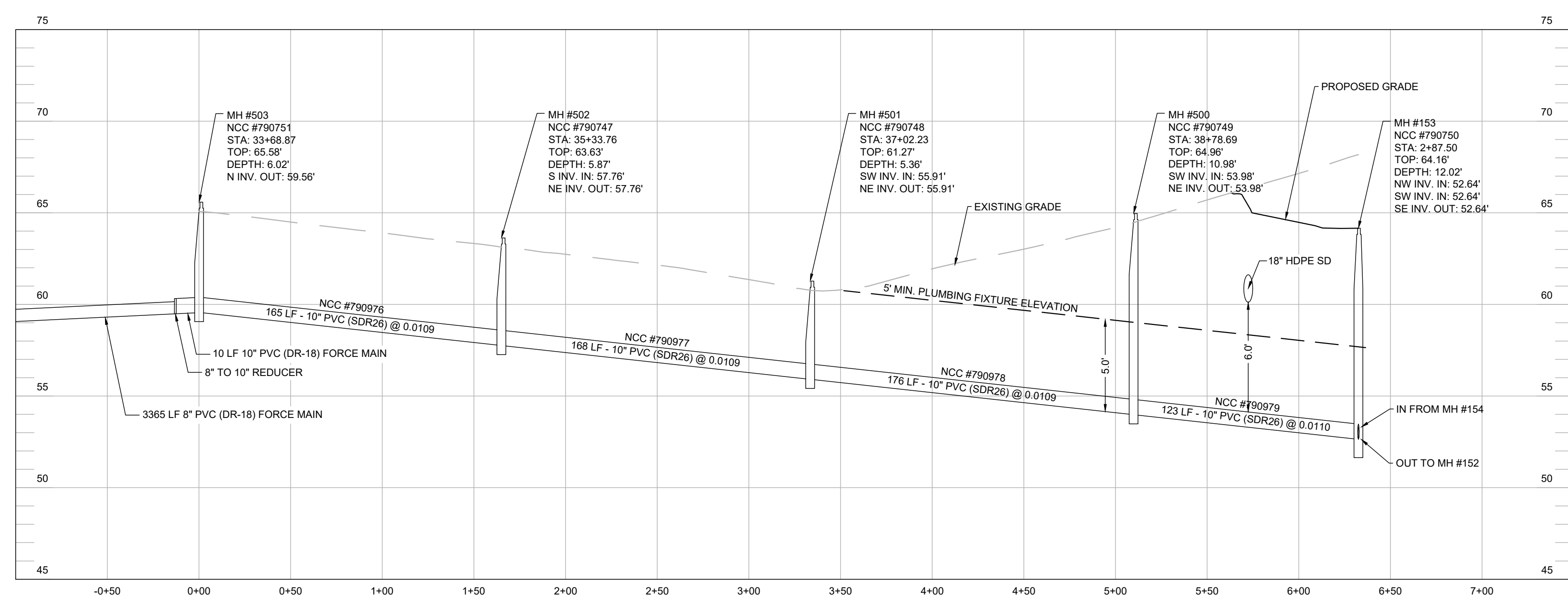
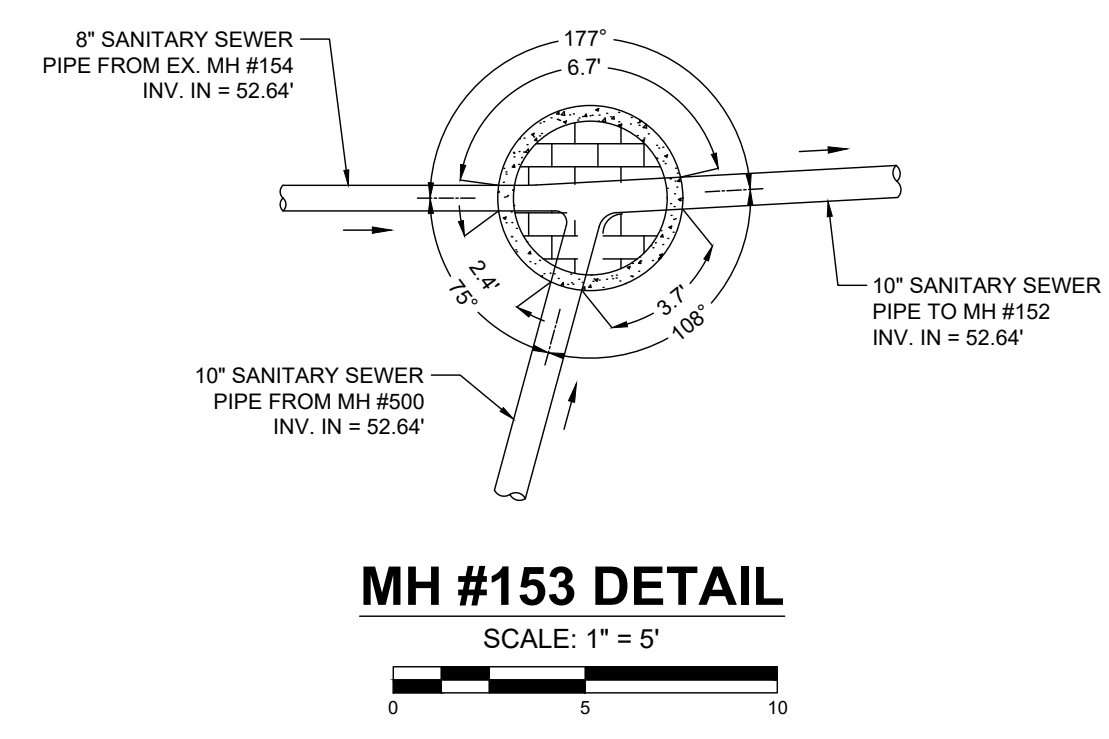
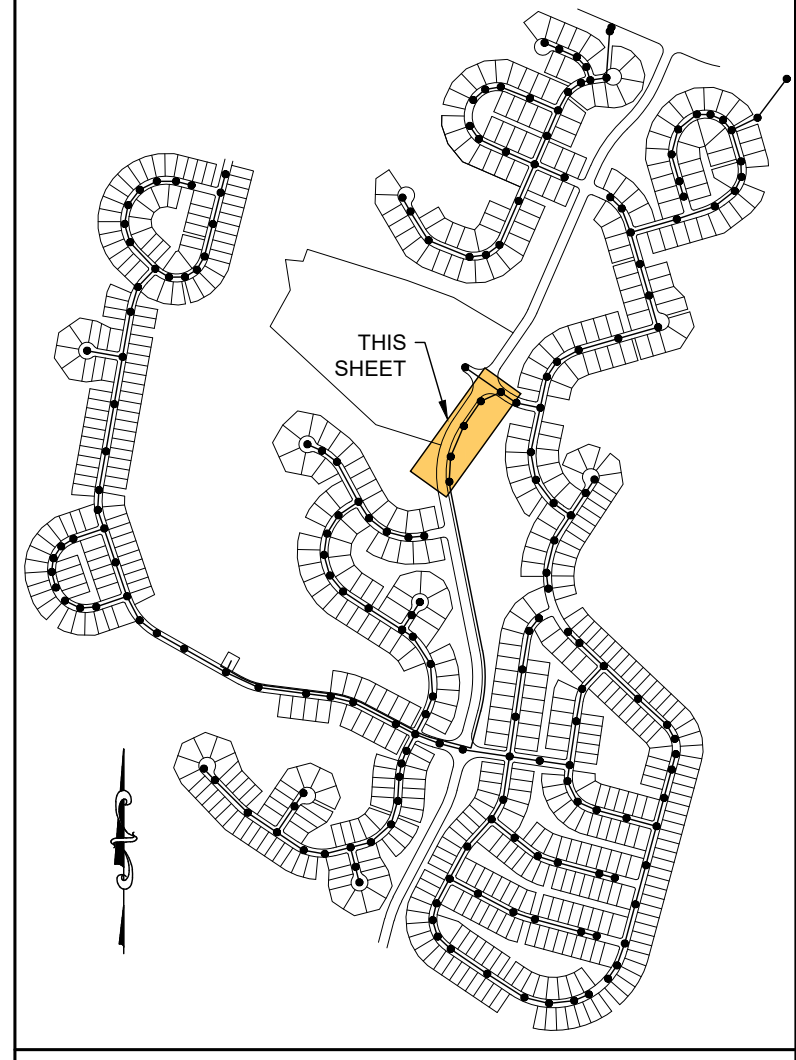
1/17/24
HARMON SAYLES
LICENSED
No. 28860
HARMON SAYLES
DELAWARE
PROFESSIONAL ENGINEER

Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-13



NOTES:

- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
- STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
- LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
- PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.
- SEE SHEETS C-1 THROUGH C-3 OF THE SANITARY SEWER PUMP STATION PLANS FOR FORCEMAIN DESIGN.
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DATE	REVISION
01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24
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08/07/23	REVISED PER NCCDPW COMMENTS 04/22/23
05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22
04/22	REVISED PER NCCDPW COMMENTS 03/22/22

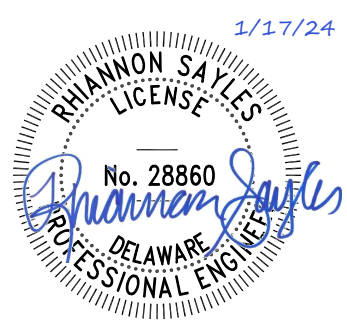
OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST.
REHOBOTH BEACH, DE 19871

CA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

OA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

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1332 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 731-9176 FAX: (302) 731-8871 Website: www.kci.com

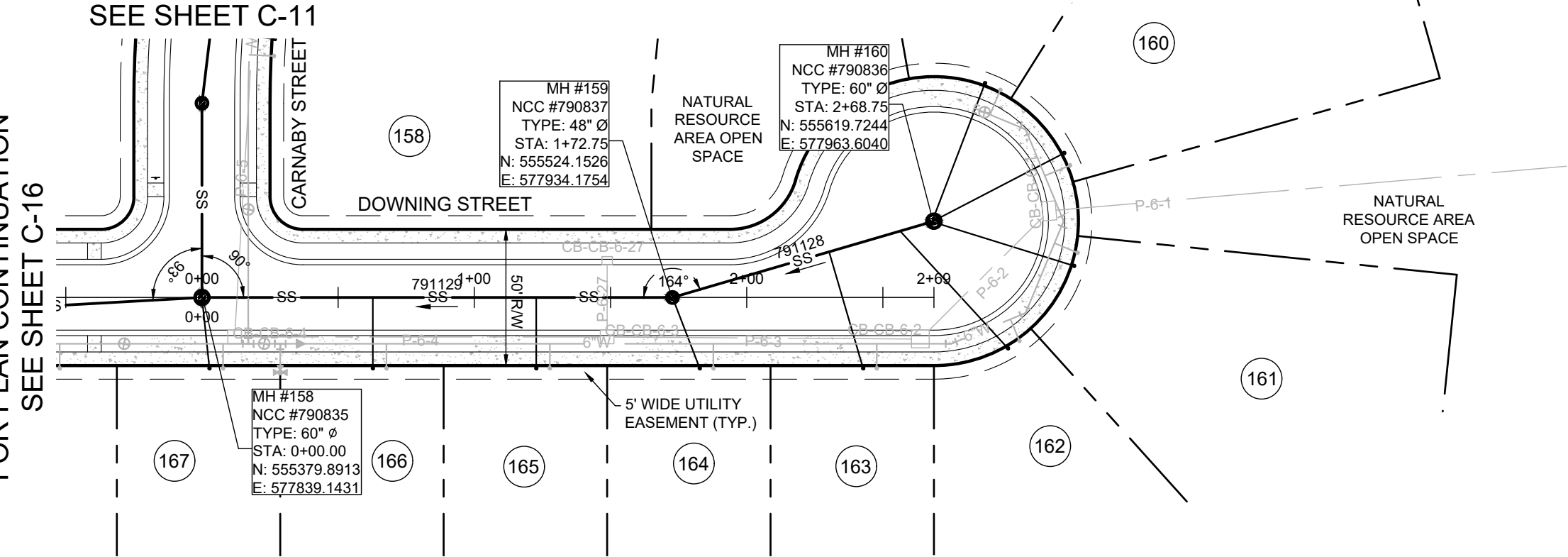
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
ST. GEORGES-HUNDRED NEW CASTLE



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Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-14

FOR PLAN CONTINUATION
SEE SHEET C-11

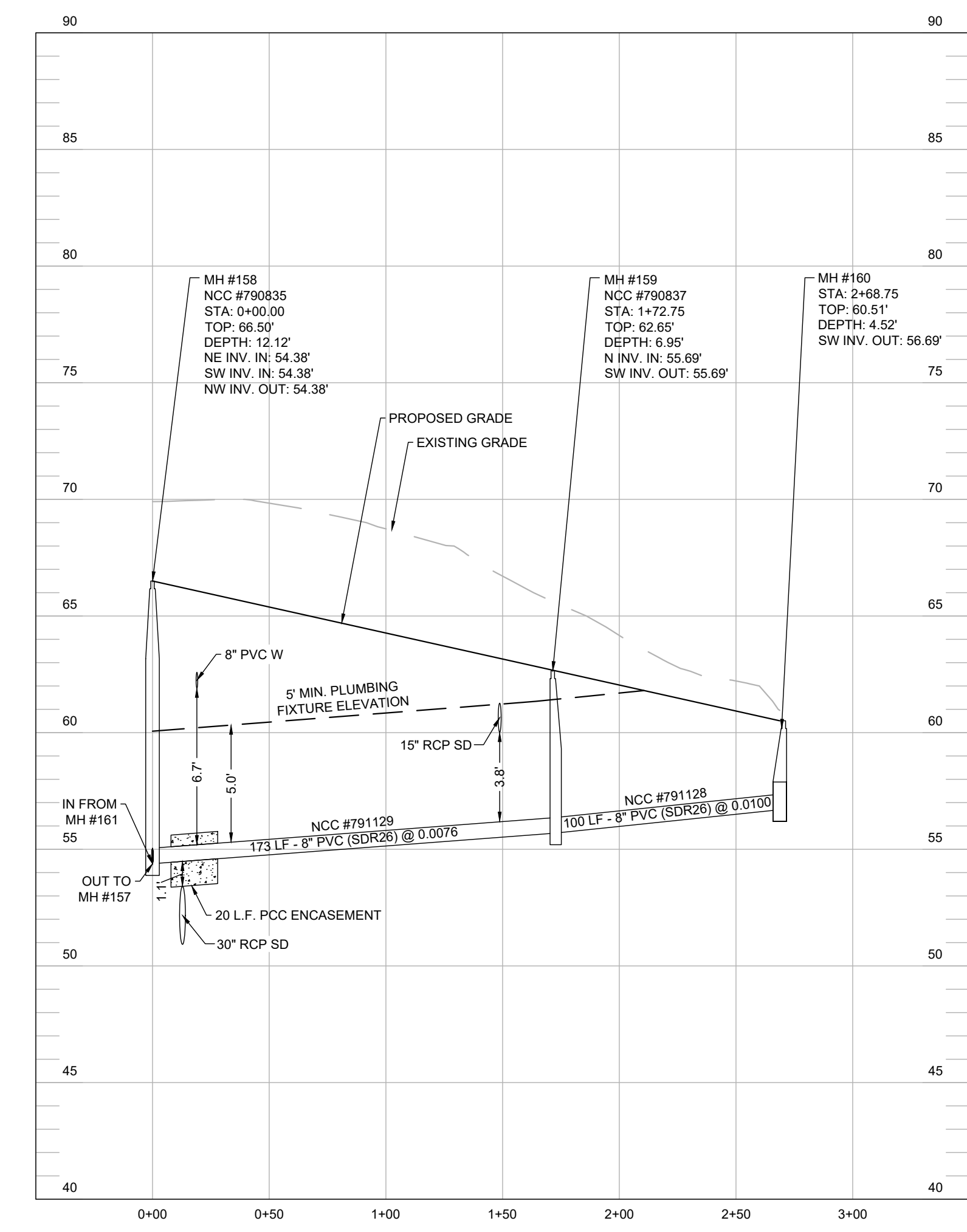
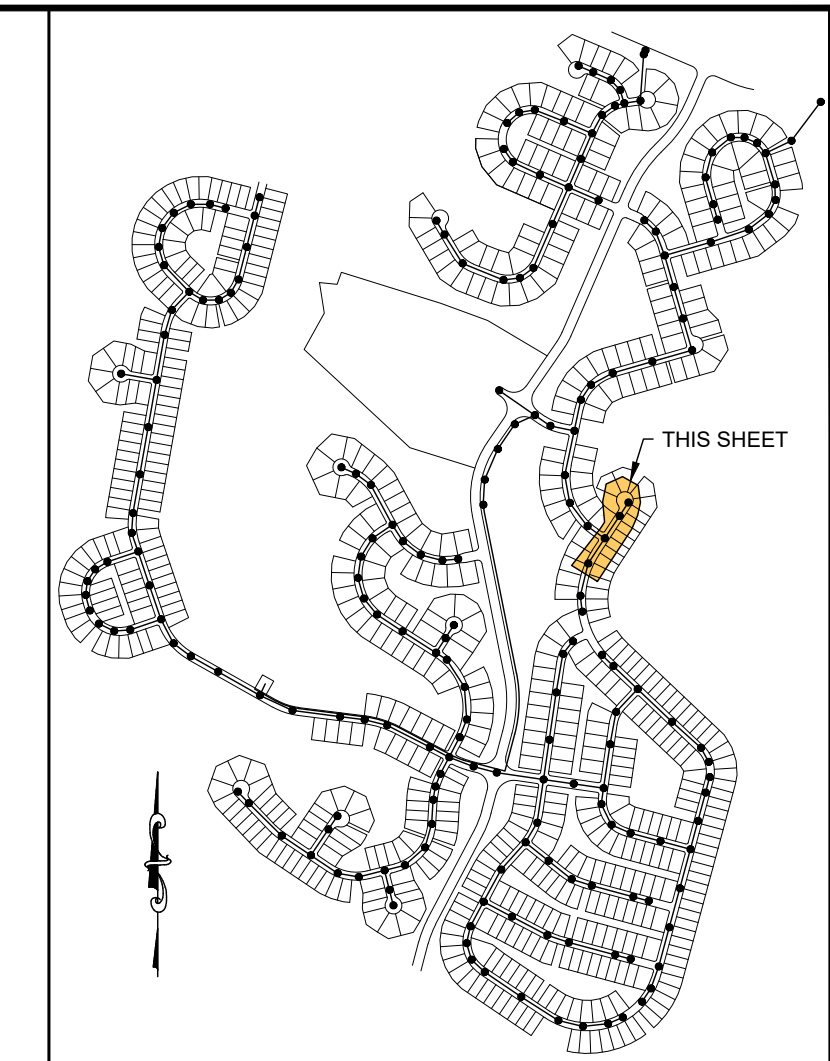
FOR PLAN CONTINUATION
SEE SHEET C-16



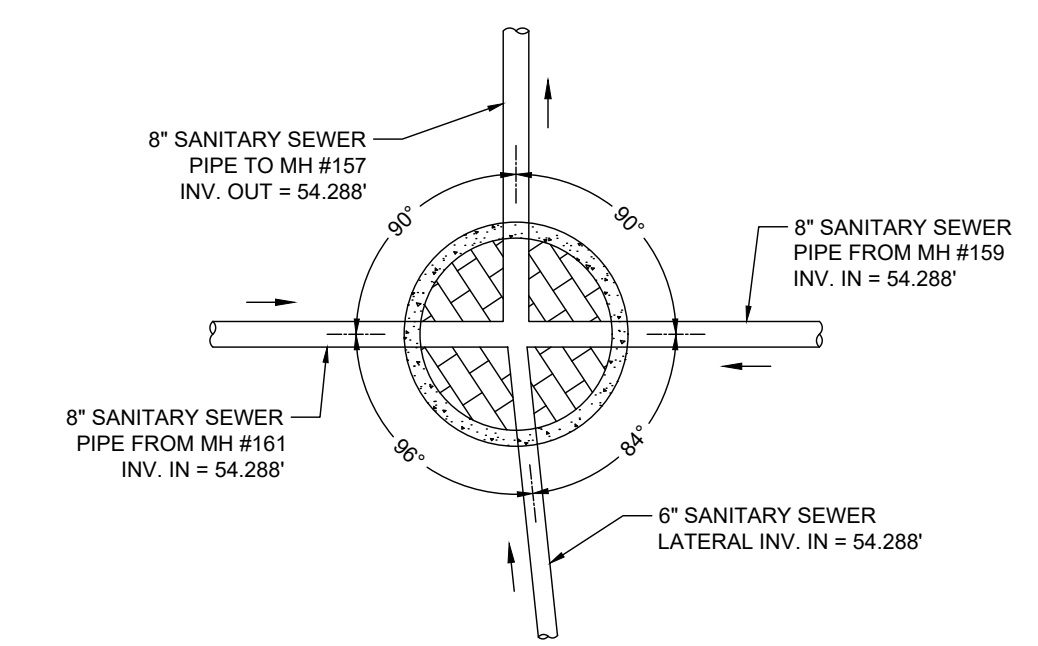
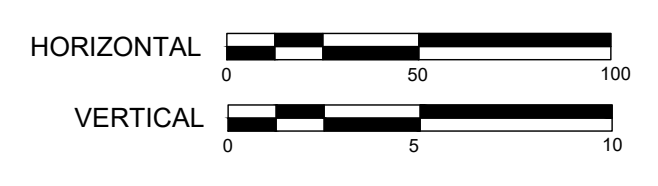
PLAN
SCALE: 1" = 50'

NOTES:

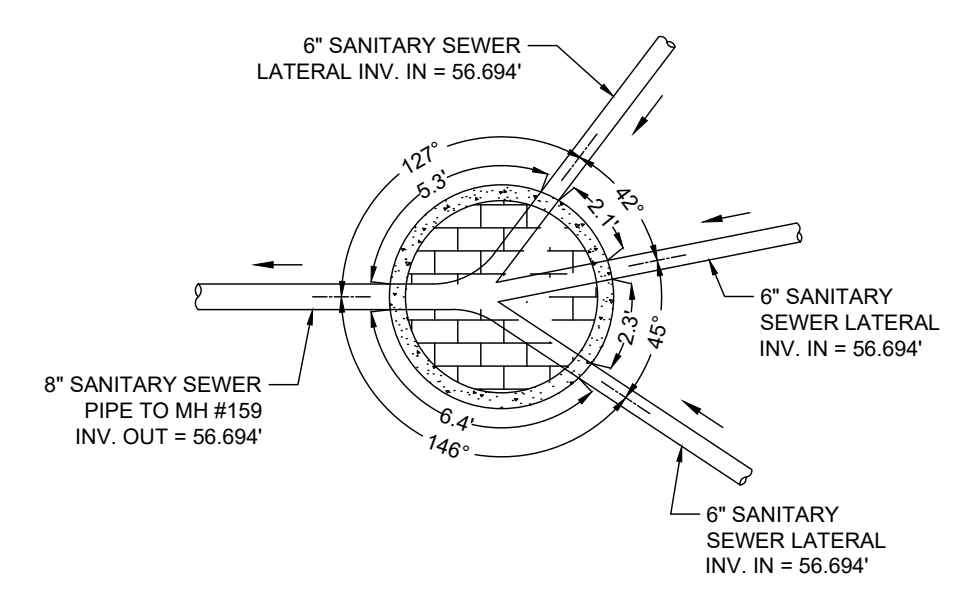
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
- STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
- LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
- PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



PROFILE: MH #158 TO MH #160
SCALE: HORIZ.: 1" = 50' VERT.: 1" = 5'



MH #158 DETAIL
SCALE: 1" = 5'



MH #160 DETAIL
SCALE: 1" = 5'

01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24
02/07/23	REVISED PER NCCDPW COMMENTS 1/10/23
08/07/23	REVISED PER NCCDPW COMMENTS 04/22/23
05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22
01/22	REVISED PER NCCDPW COMMENTS 09/22/22
	DATE

OWNER/DEVELOPER:
SB NORTH LLC
1054 WILKINS ST
REHOBOTH BEACH, DE 19871

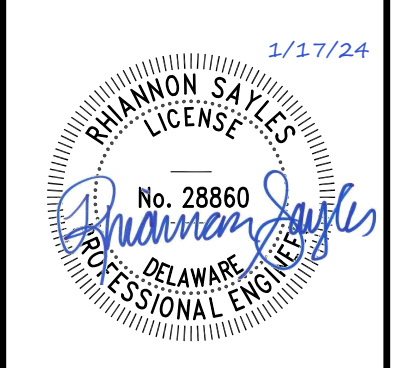
OA NORTH LLC
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

OA JOY RUN LLC
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

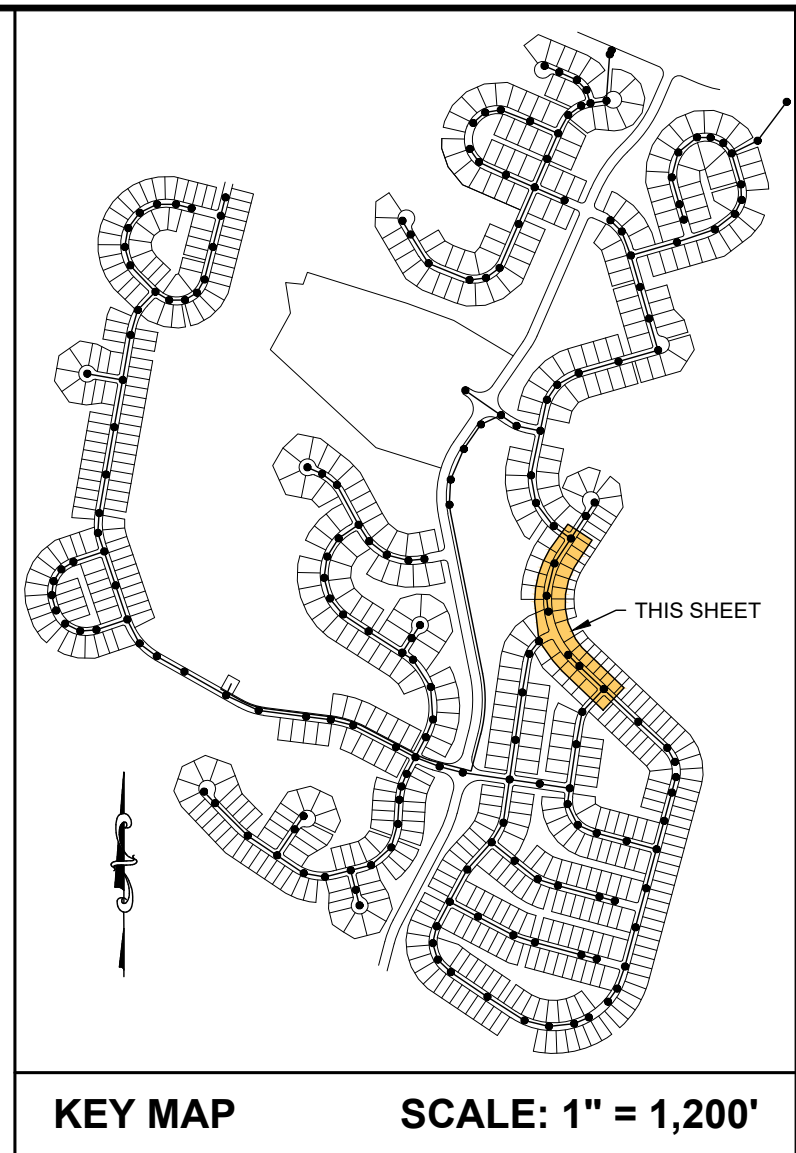
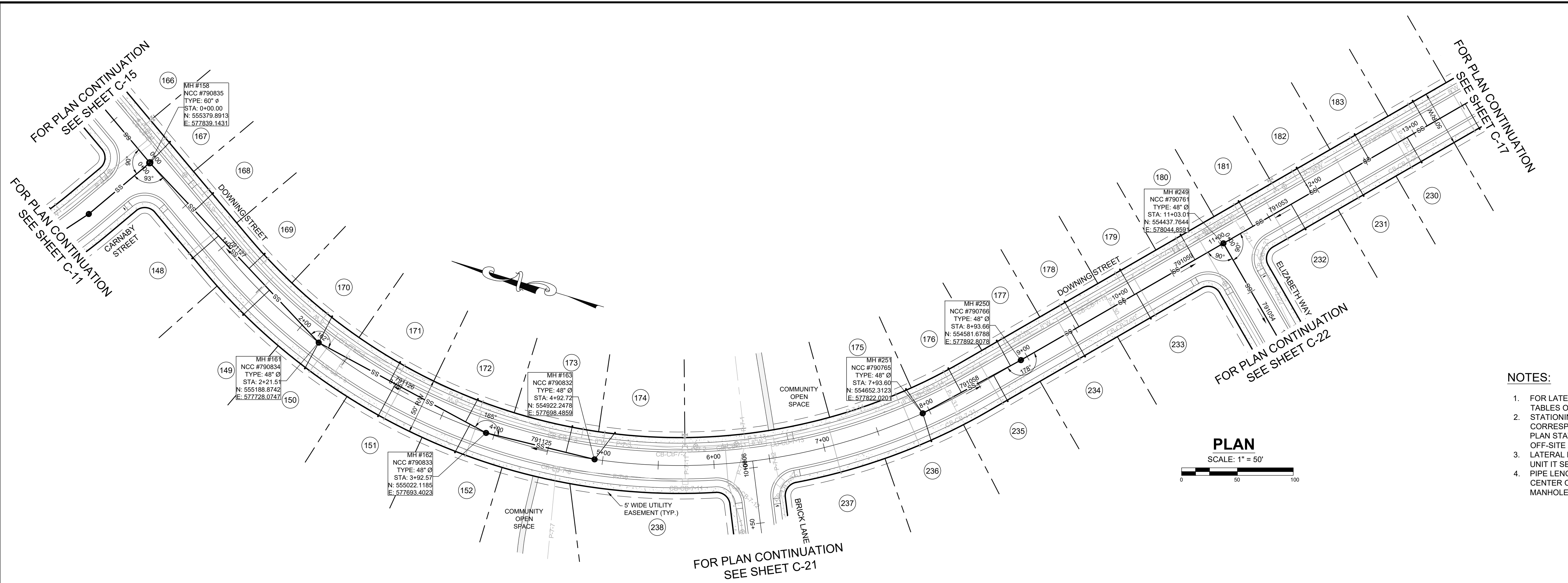
SCALE: 1" = 50'

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1352 MARRONS RD. SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-1887 Website: www.kci.com

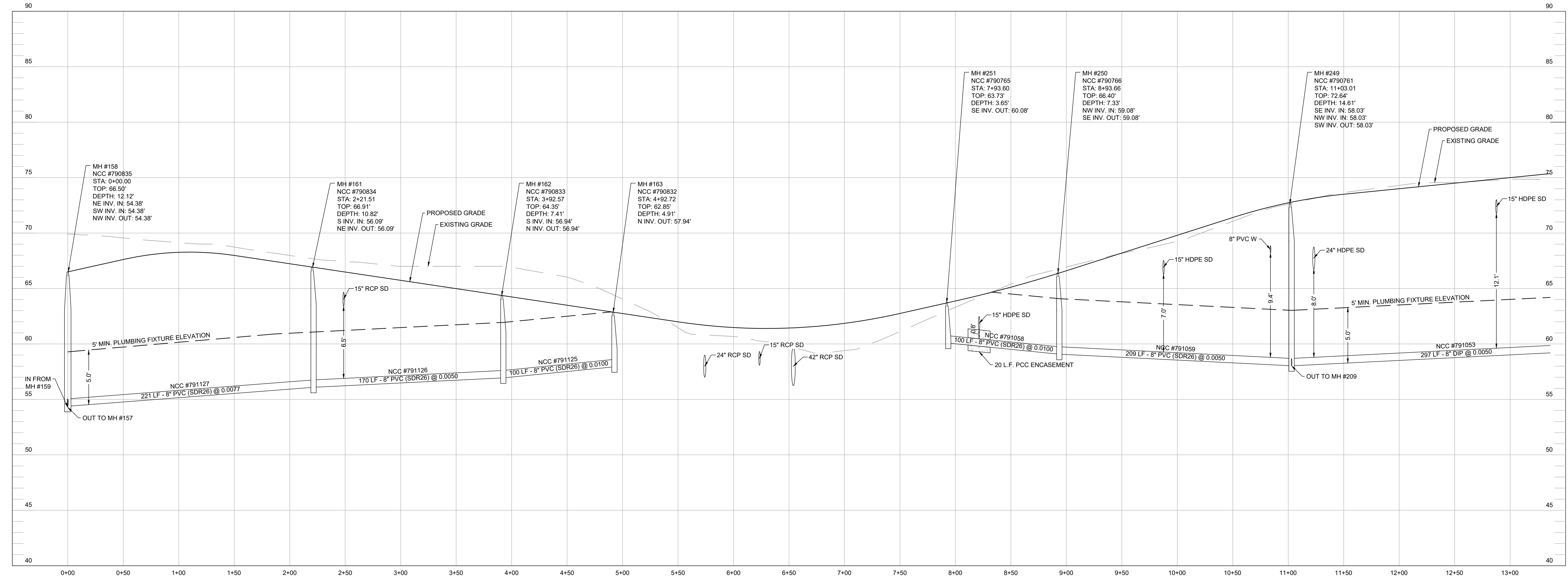
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
ST. GEORGES HUNDRED NEW CASTLE



Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-15



- NOTES:**
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
 - STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
 - LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
 - PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.

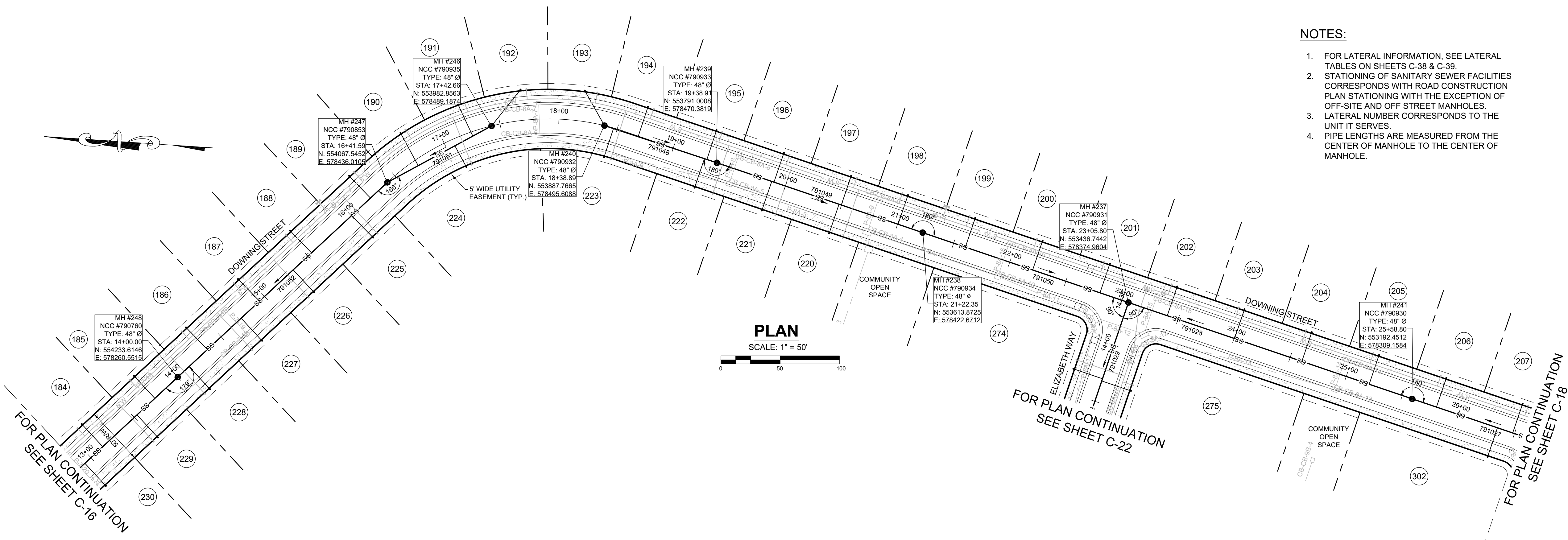


01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24
02/07/23	REVISED PER NCCDPW COMMENTS 1/10/23
08/01/23	REVISED PER NCCDPW COMMENTS 04/22/23
05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22
	DATE

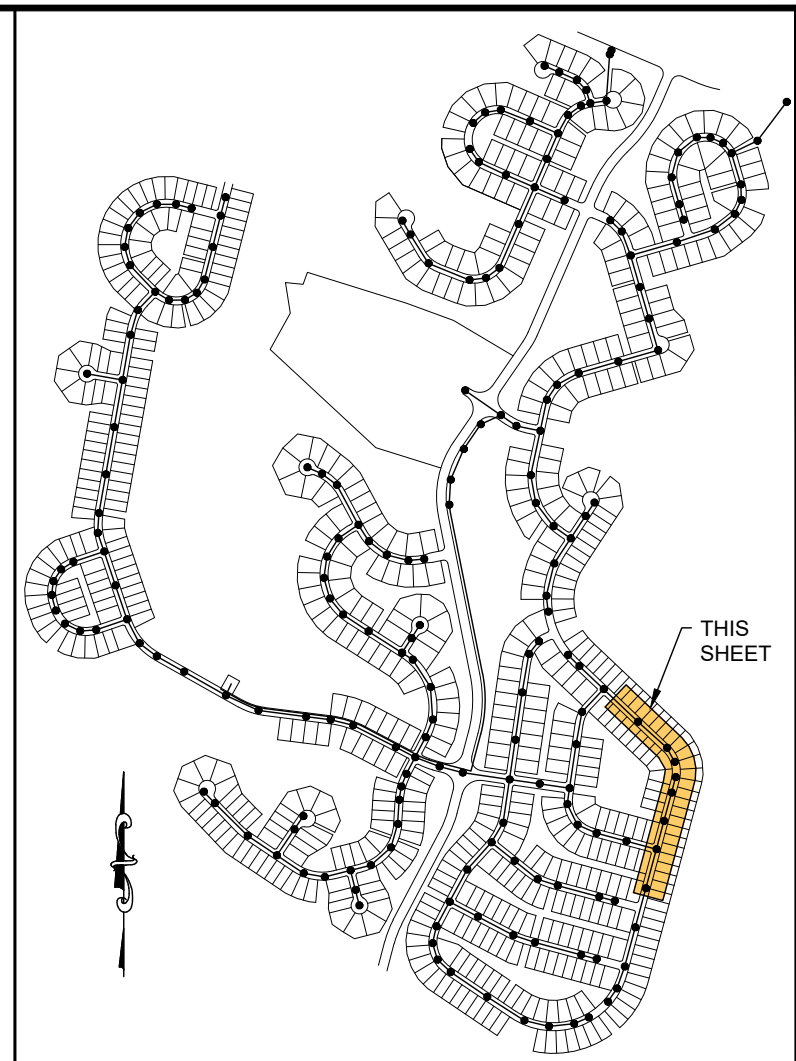
OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILIPS ST
REHOBOTH BEACH, DE 19871

ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19871
PHONE: (302) 733-9176 FAX: (302) 731-1887 Website: www.kci.com

Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-16

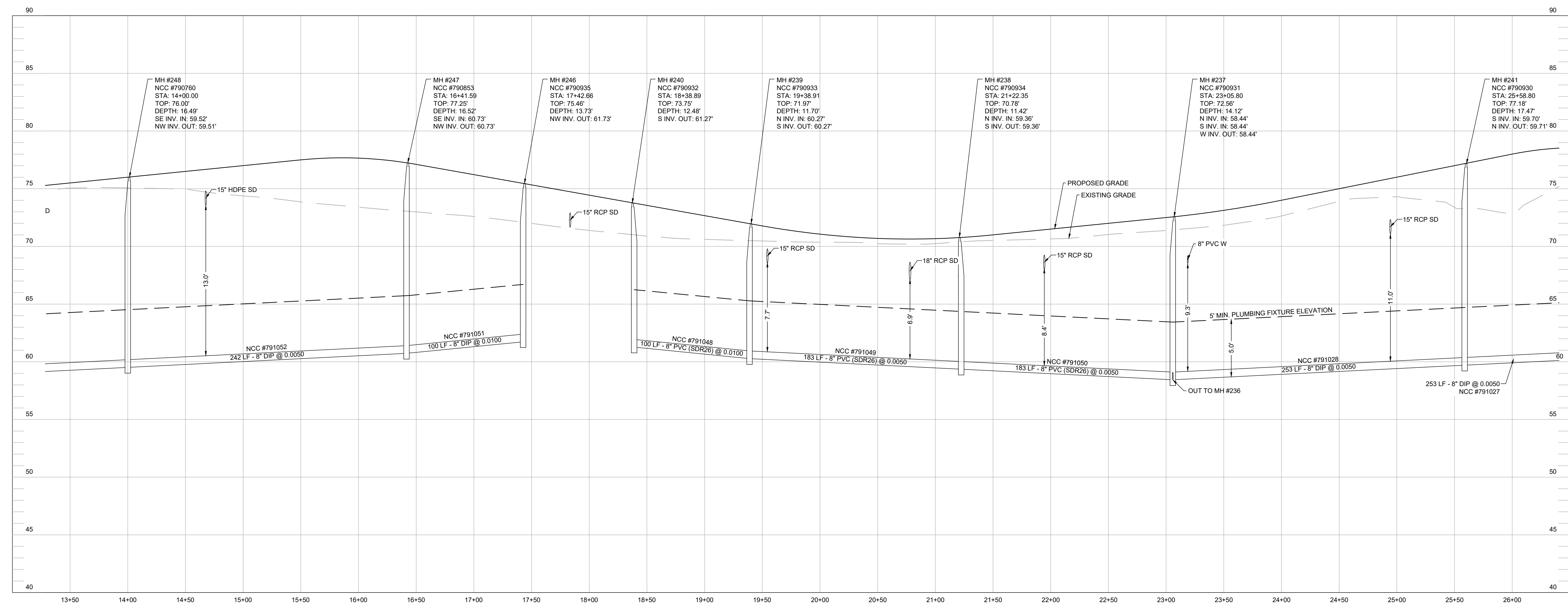


- NOTES:**
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
 - STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
 - LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
 - PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



KEY MAP SCALE: 1" = 1,200'

PLAN
SCALE: 1" = 50'



PROFILE: MH #248 TO MH #246 & MH #240 TO MH #241

SCALE: HORIZ.: 1" = 50' VERT.: 1" = 5'
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'

01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24
02/07/23	REVISED PER NCCDPW COMMENTS 11/07/23
08/07/23	REVISED PER NCCDPW COMMENTS 04/22/23
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04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
11/27/22	REVISED PER NCCDPW COMMENTS 08/30/22
01/27/22	REVISED PER NCCDPW COMMENTS 09/26/22
	DATE

OWNER/DEVELOPER:
 SB NORTH LLC
 2078 HILFIPS ST
 REHOBOTH BEACH, DE 19871

OA NORTH LLC
 1849 COASTAL HIGHWAY
 REHOBOTH BEACH, DE 19871

OA JOY RUN LLC
 1849 COASTAL HIGHWAY
 REHOBOTH BEACH, DE 19871

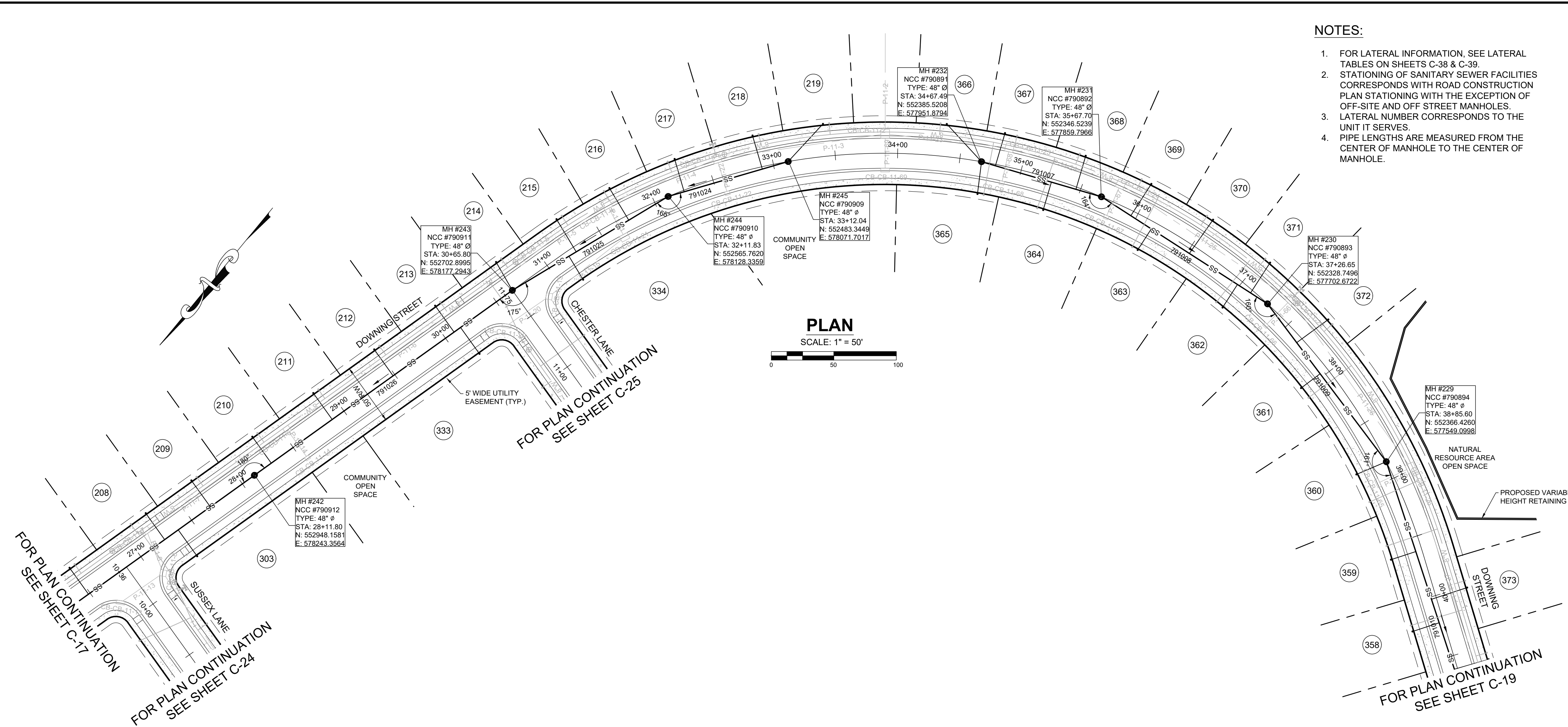
SCALE: PLAN: 1" = 50'

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 ENGINEERS - PLANNERS - SURVEYORS
 1332 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
 PHONE: (302) 733-9176 FAX: (302) 733-1887 Website: www.kci.com

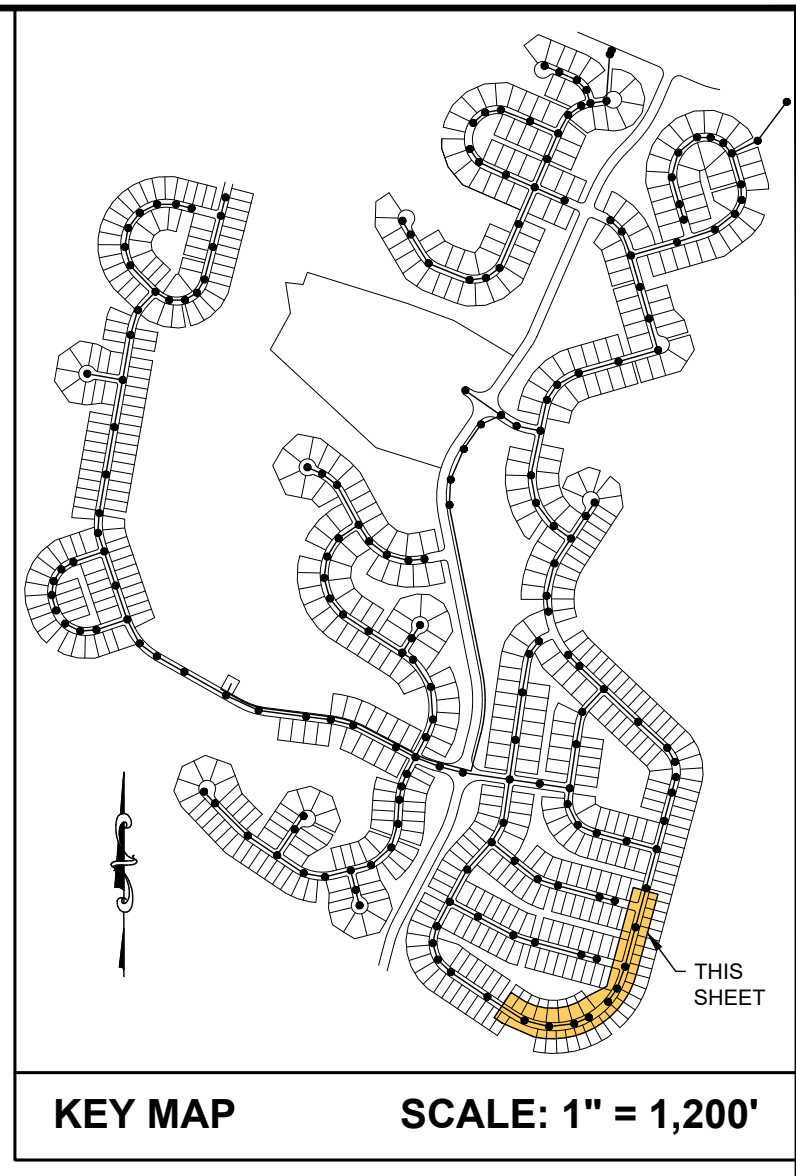
PLAN AND PROFILE
 SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
 ST. GEORGES HUNDRED NEW CASTLE



Drafting: VRF Check: JC
 Design: VRF Check: JC
 SCALE: 1"=50'
 DATE: 01/17/2024
 KCI JOB #: 271904807.SP
 SHEET: C-17



- NOTES:**
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
 - STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
 - LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
 - PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



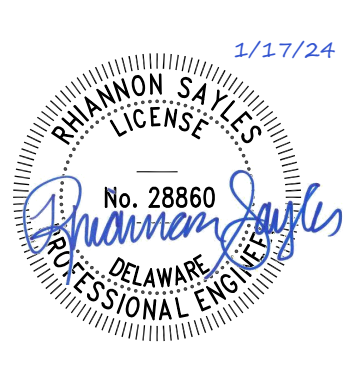
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02/07/23	REVISED PER NCCDRW COMMENTS 1/10/23	
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04/05/23	REVISED PER DELDOT COMMENTS 03/27/23	
1/12/22	REVISED PER NCCDRW COMMENTS 08/26/22	
01/22/22	REVISED PER NCCDRW COMMENTS 09/30/22	

OWNER/DEVELOPER:
SB NORTH LLC
2074 PHILIPS ST
REHOBOTH BEACH, DE 19871

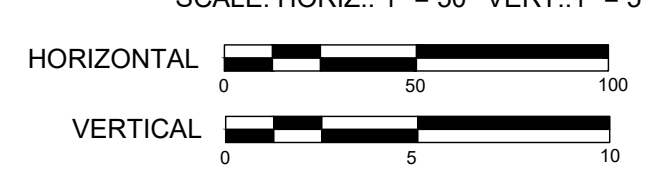
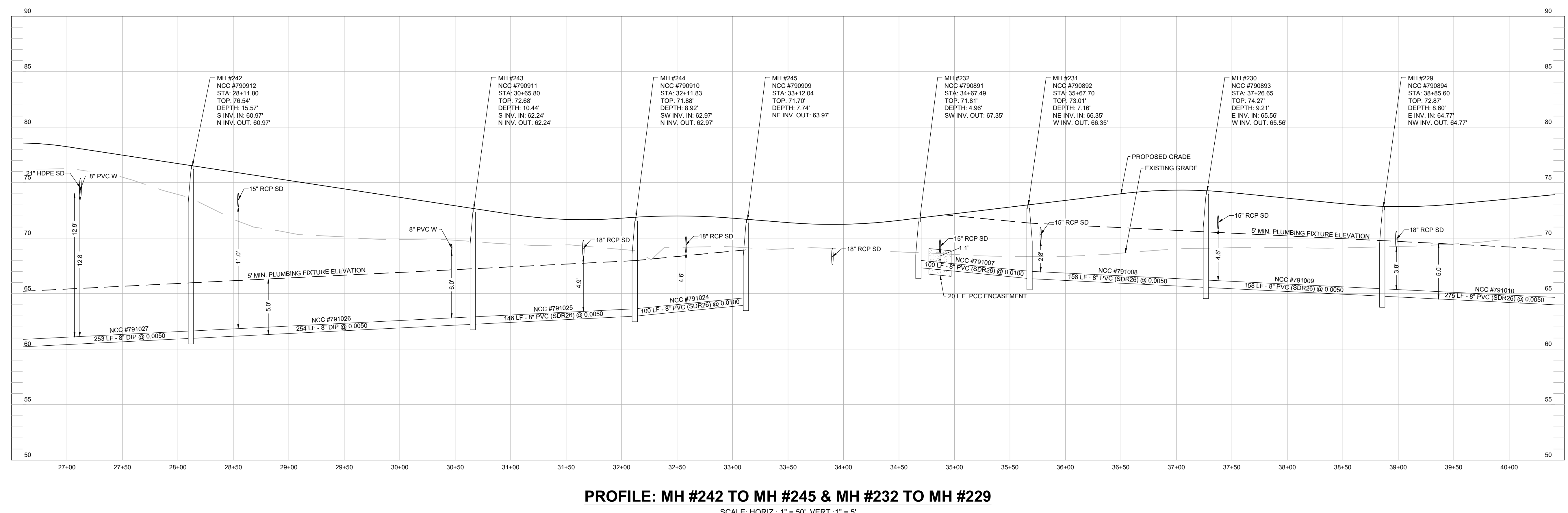
ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 733-1887 Website: www.kci.com

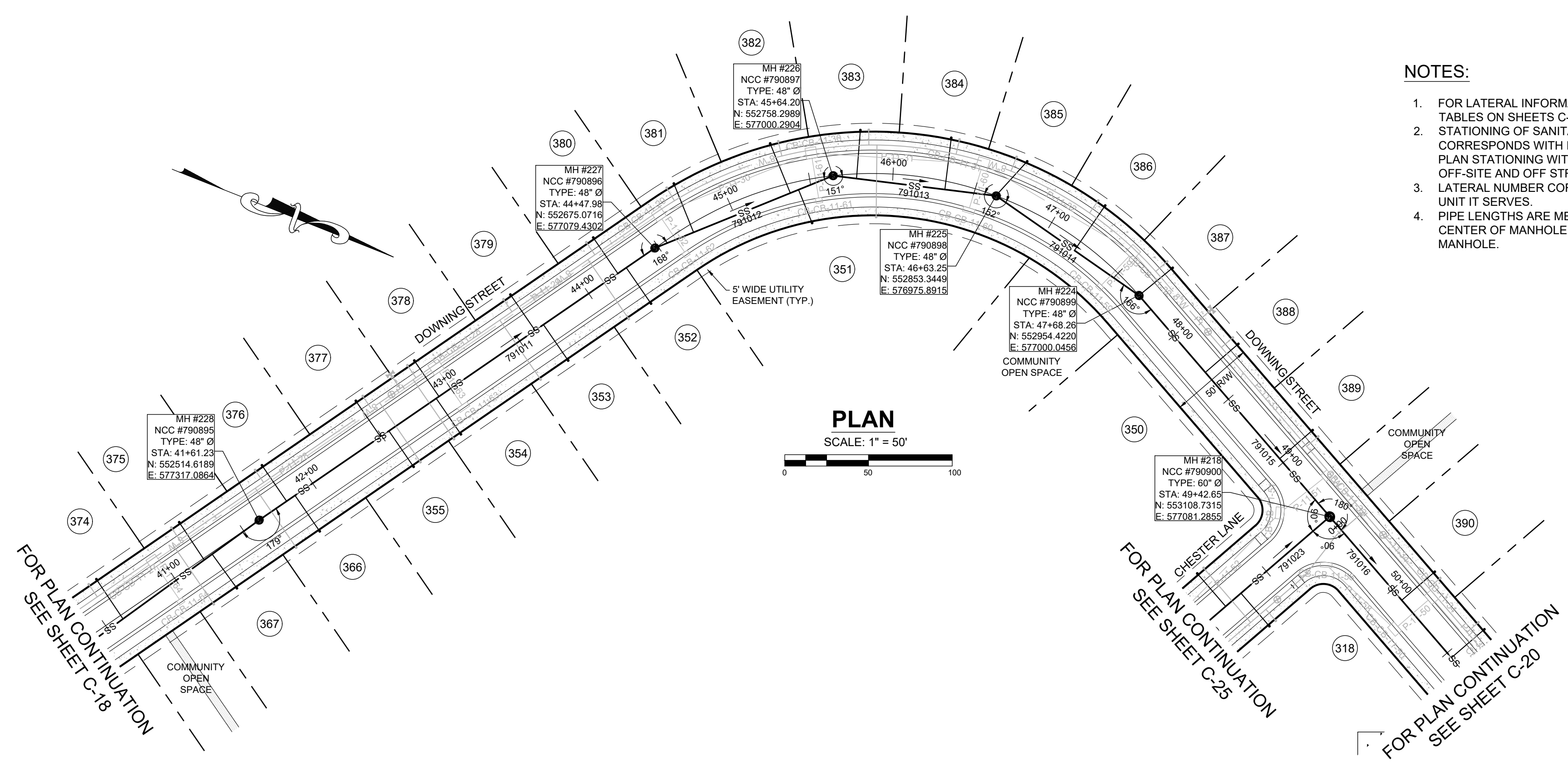
KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 733-1887 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
ST. GEORGES HUNDRED NEW CASTLE

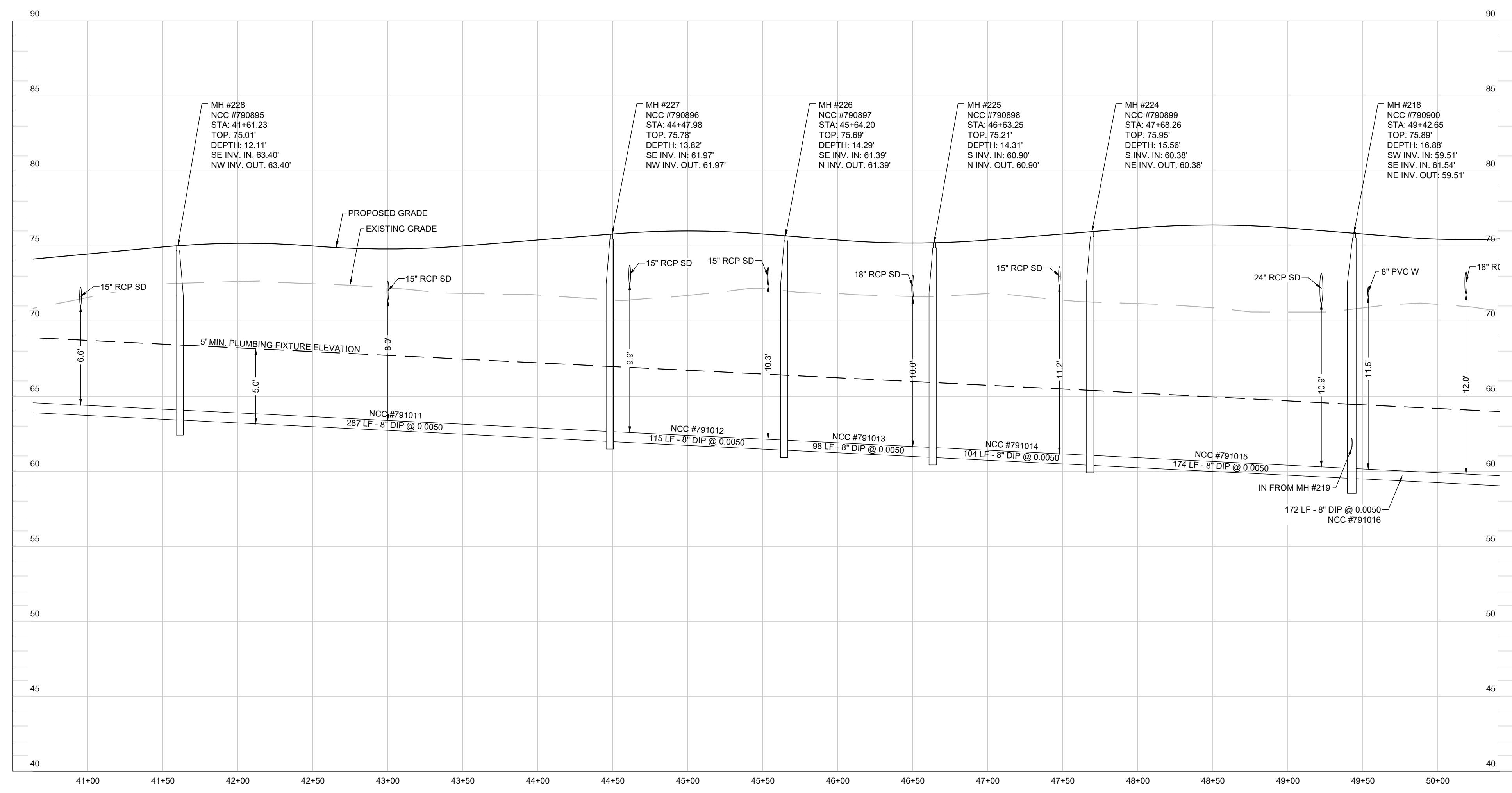
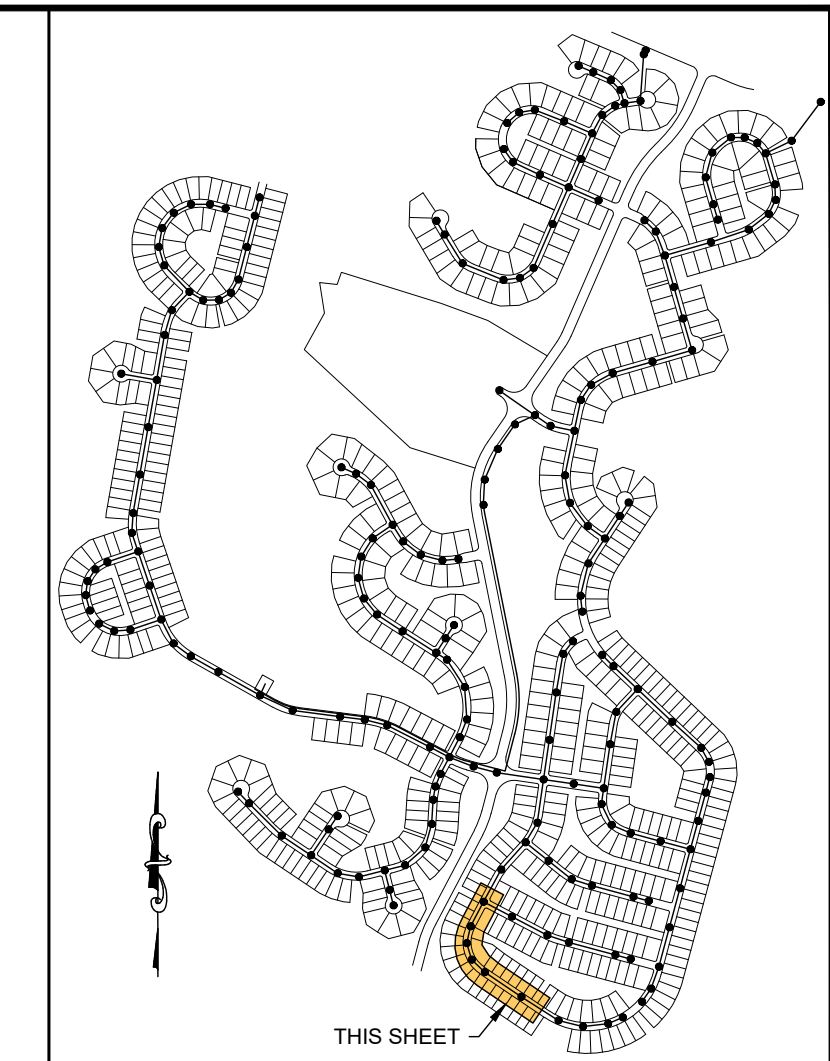


Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-18

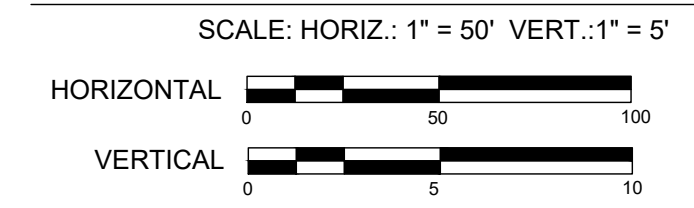




- NOTES:**
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PROFILE: MH #228 TO MH #218



01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24
02/07/23	REVISED PER NCCDPW COMMENTS 1/10/23
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05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23
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1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22
DATE	REVISION

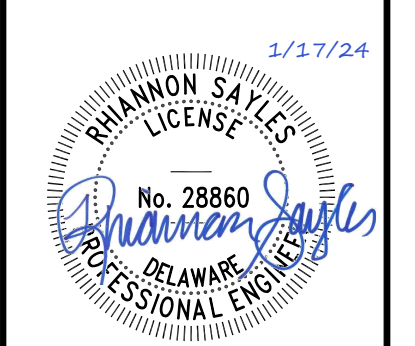
OWNER/DEVELOPER:
SB NORTH LLC
708 PHILIPS ST
REHOBOTH BEACH, DE 19871

EA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

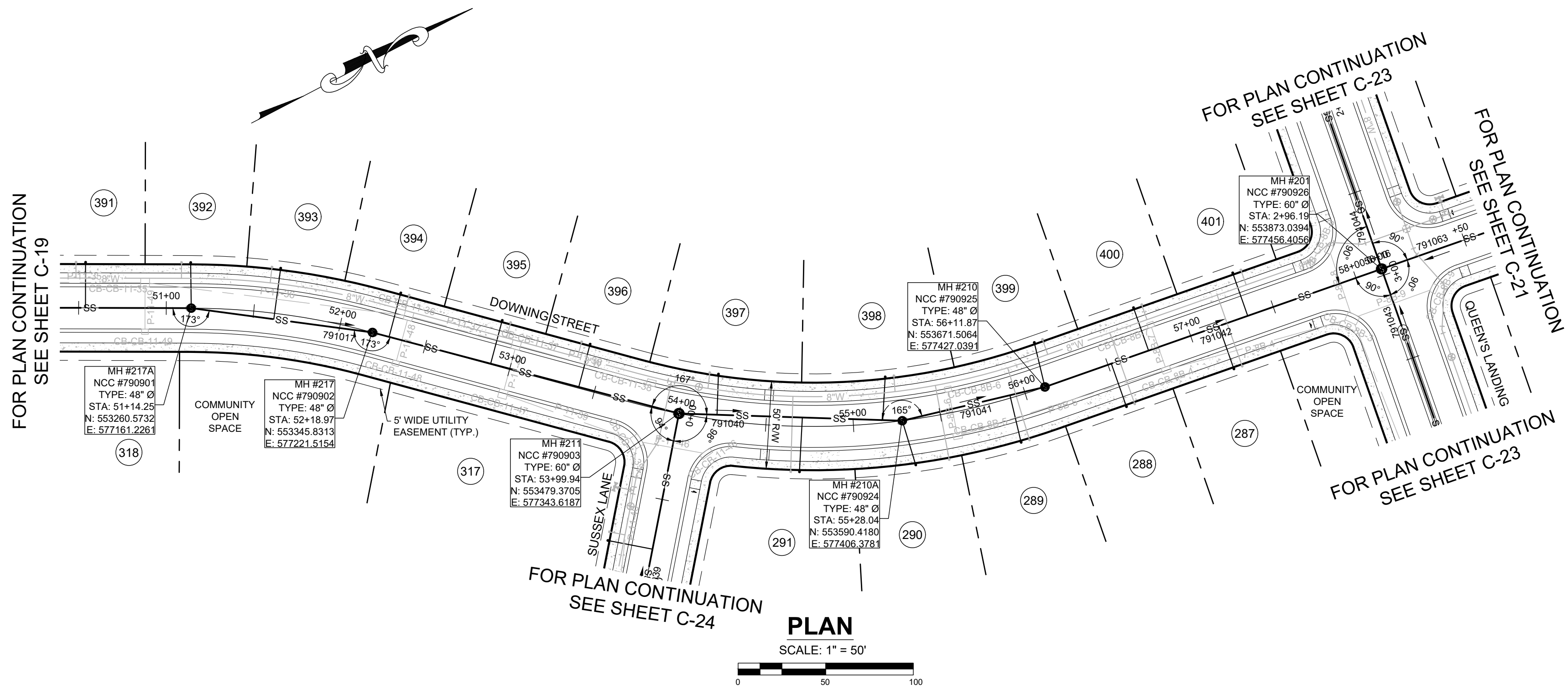
EA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-1887 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
NEW CASTLE
ST. GEORGES HUNDRED

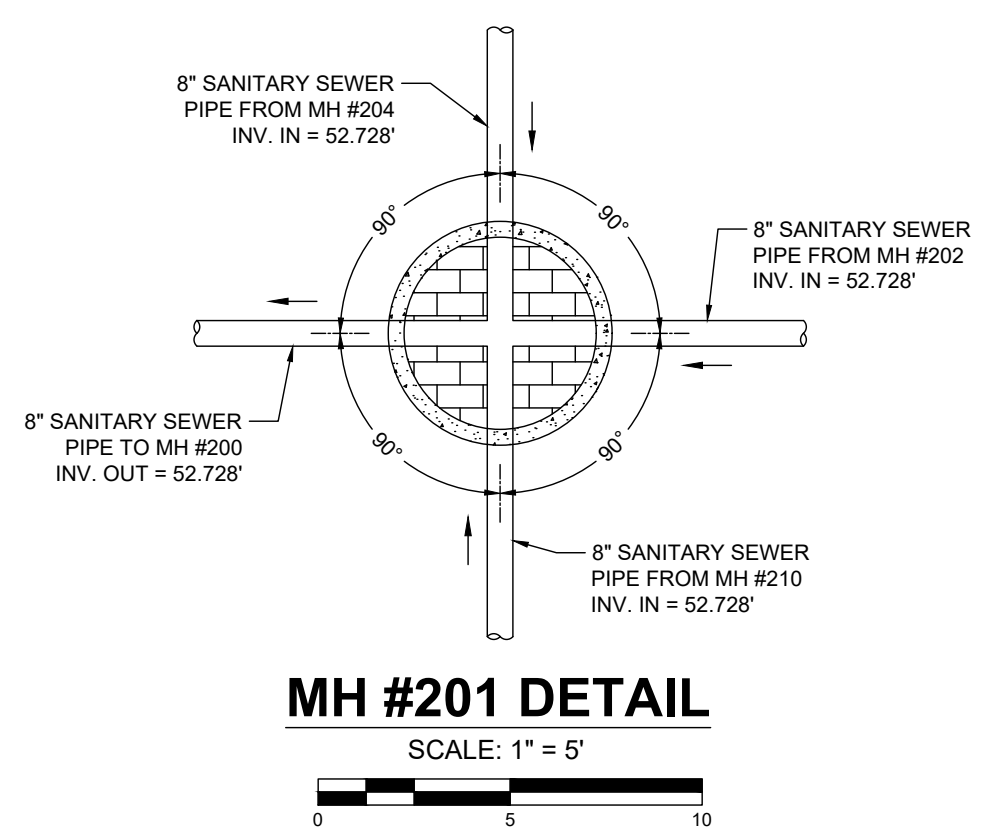
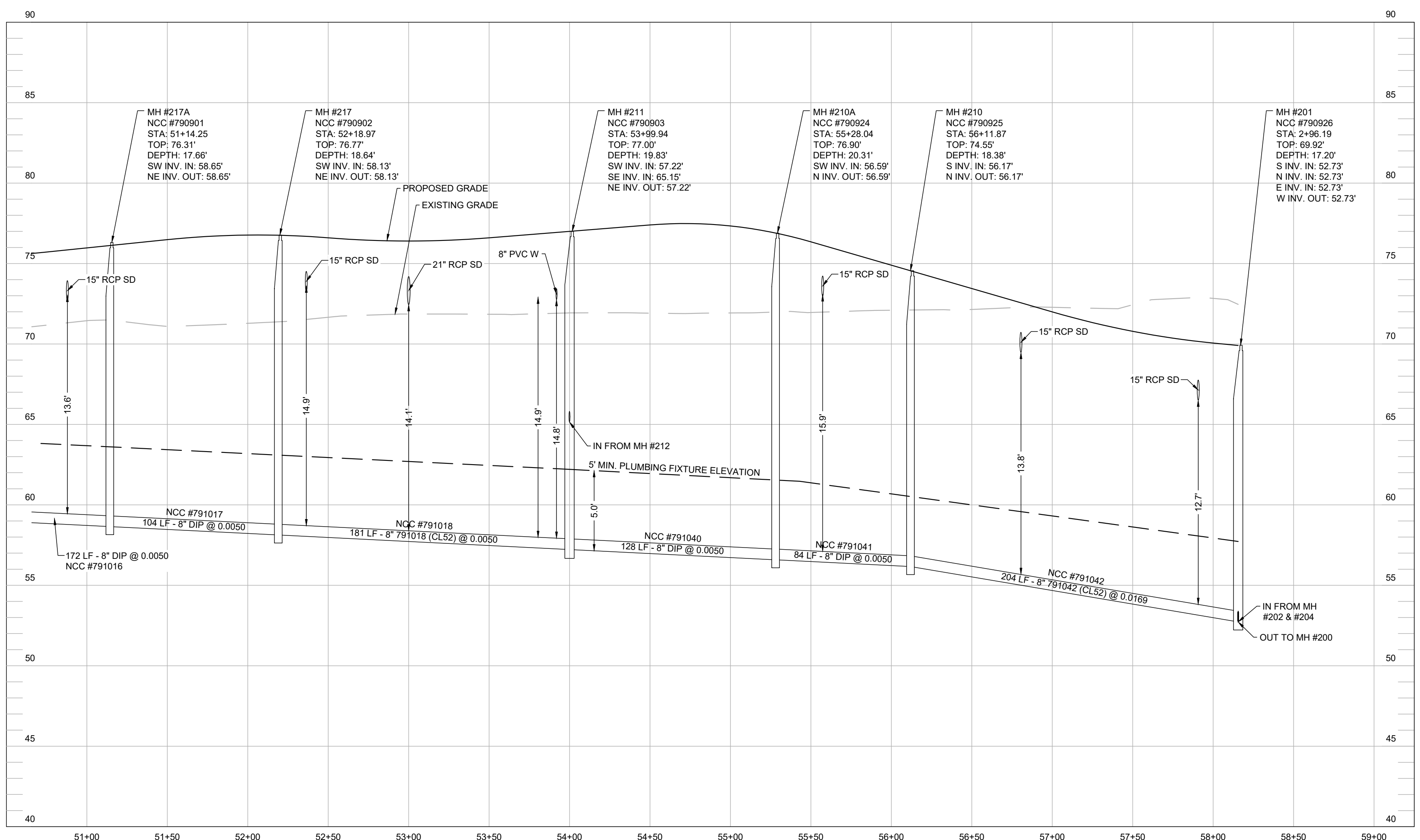
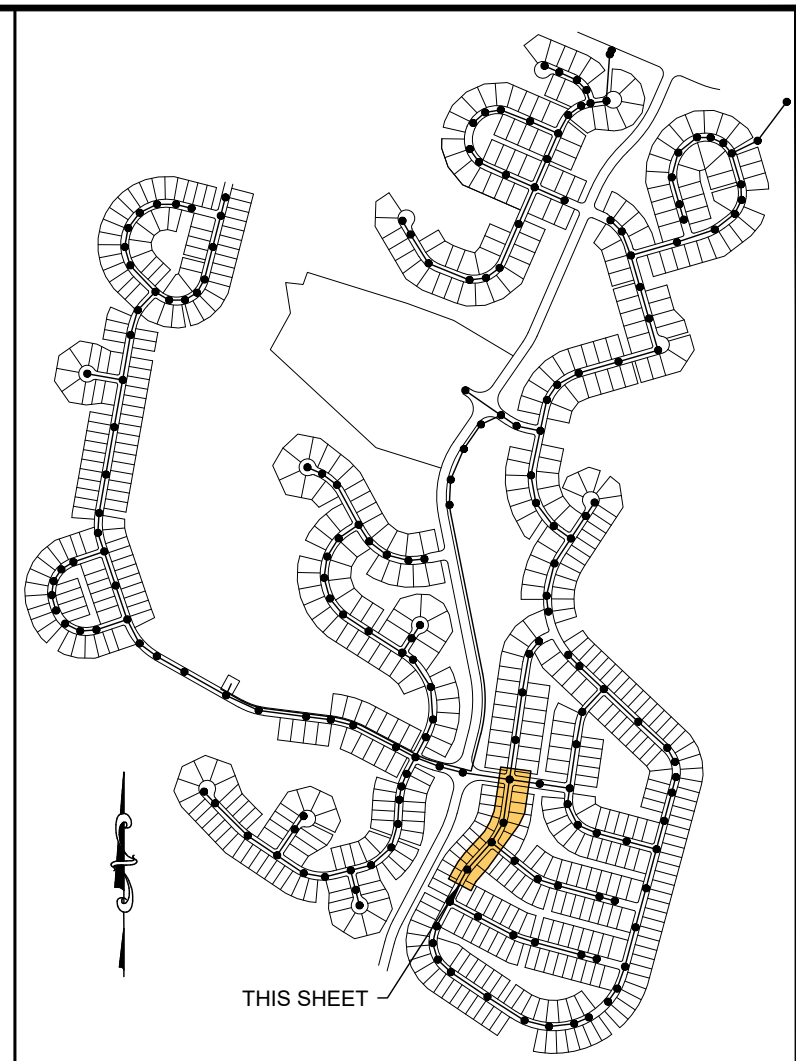


Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904607.SP
SHEET: C-19



NOTES:

1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
3. LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
4. PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



01/17/24	REVISED PER NCCDRW COMMENTS 01/16/24
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1/12/22	REVISED PER NCCDRW COMMENTS 08/30/22
01/12/22	REVISED PER NCCDRW COMMENTS 08/30/22
DATE	REVISION

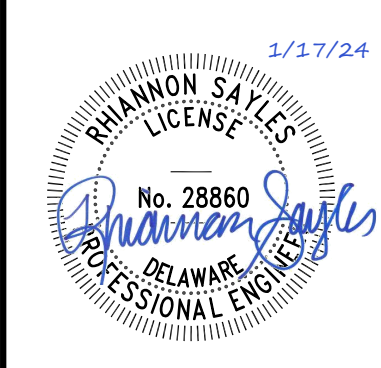
OWNER/DEVELOPER:
SB NORTH LLC
1054 PHILIPS ST
REHOBOTH BEACH, DE 19871

ENGINEER:
KCI TECHNOLOGIES, INC.
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

PLANNER - SURVEYORS
KCI TECHNOLOGIES, INC.
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 731-9176 FAX: (302) 731-1807 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
NEW CASTLE
ST. GEORGES HUNDRED

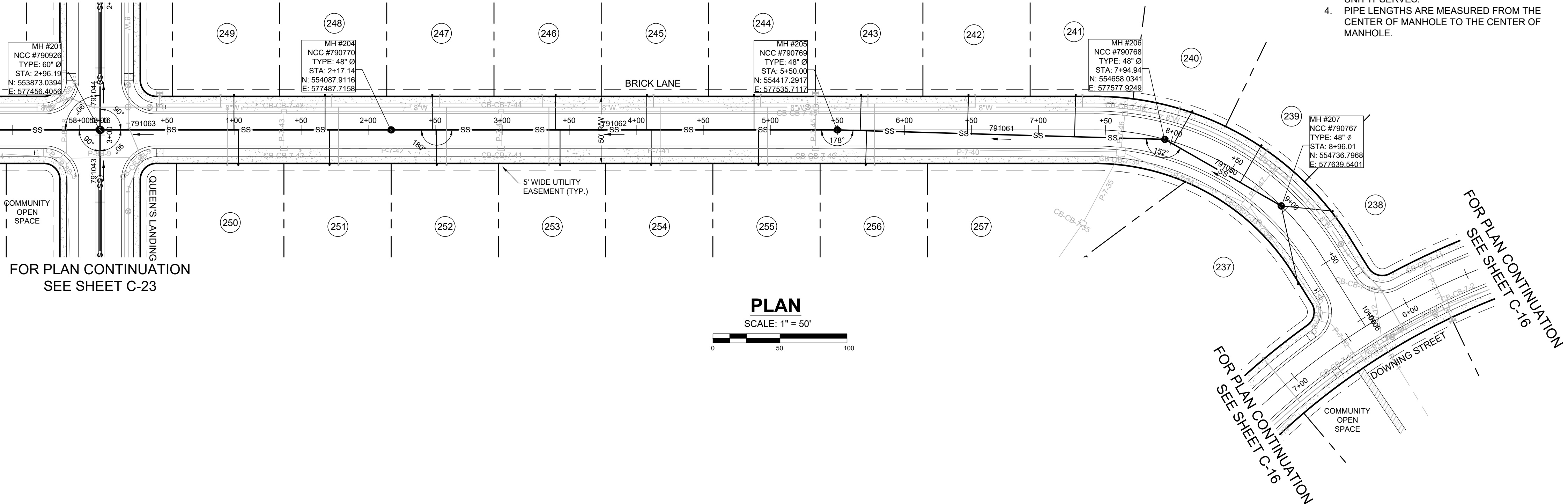


Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904607.SP
SHEET: C-20

FOR PLAN CONTINUATION
SEE SHEET C-20

FOR PLAN CONTINUATION
SEE SHEET C-23

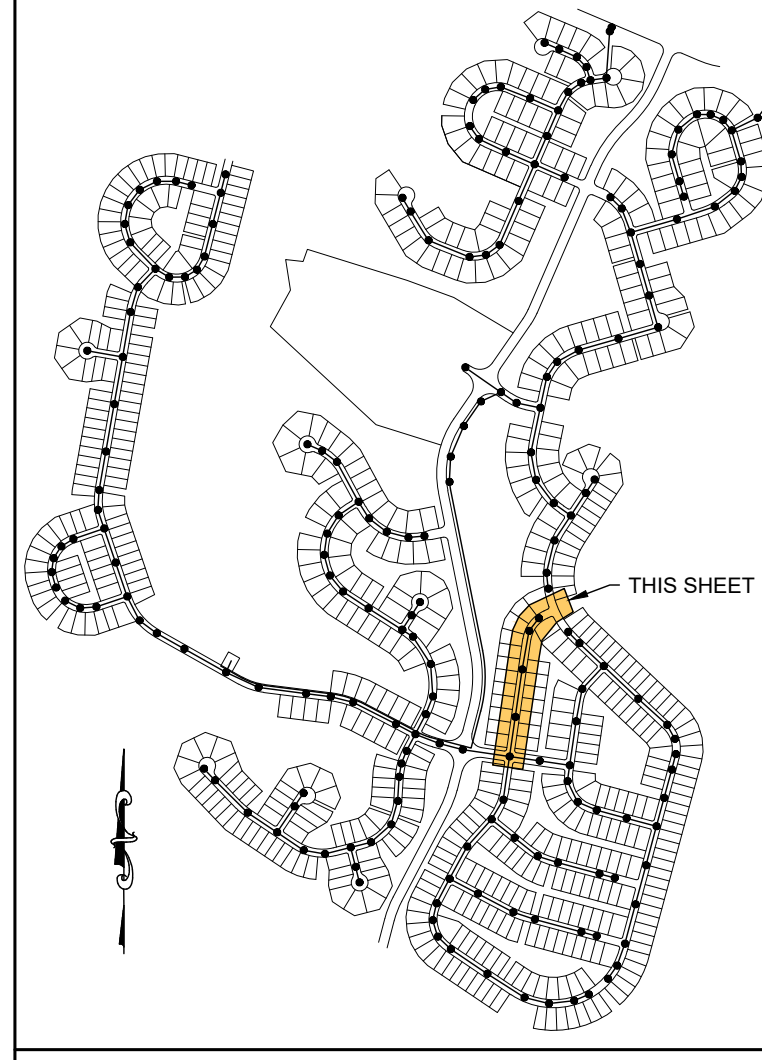
FOR PLAN CONTINUATION
SEE SHEET C-23



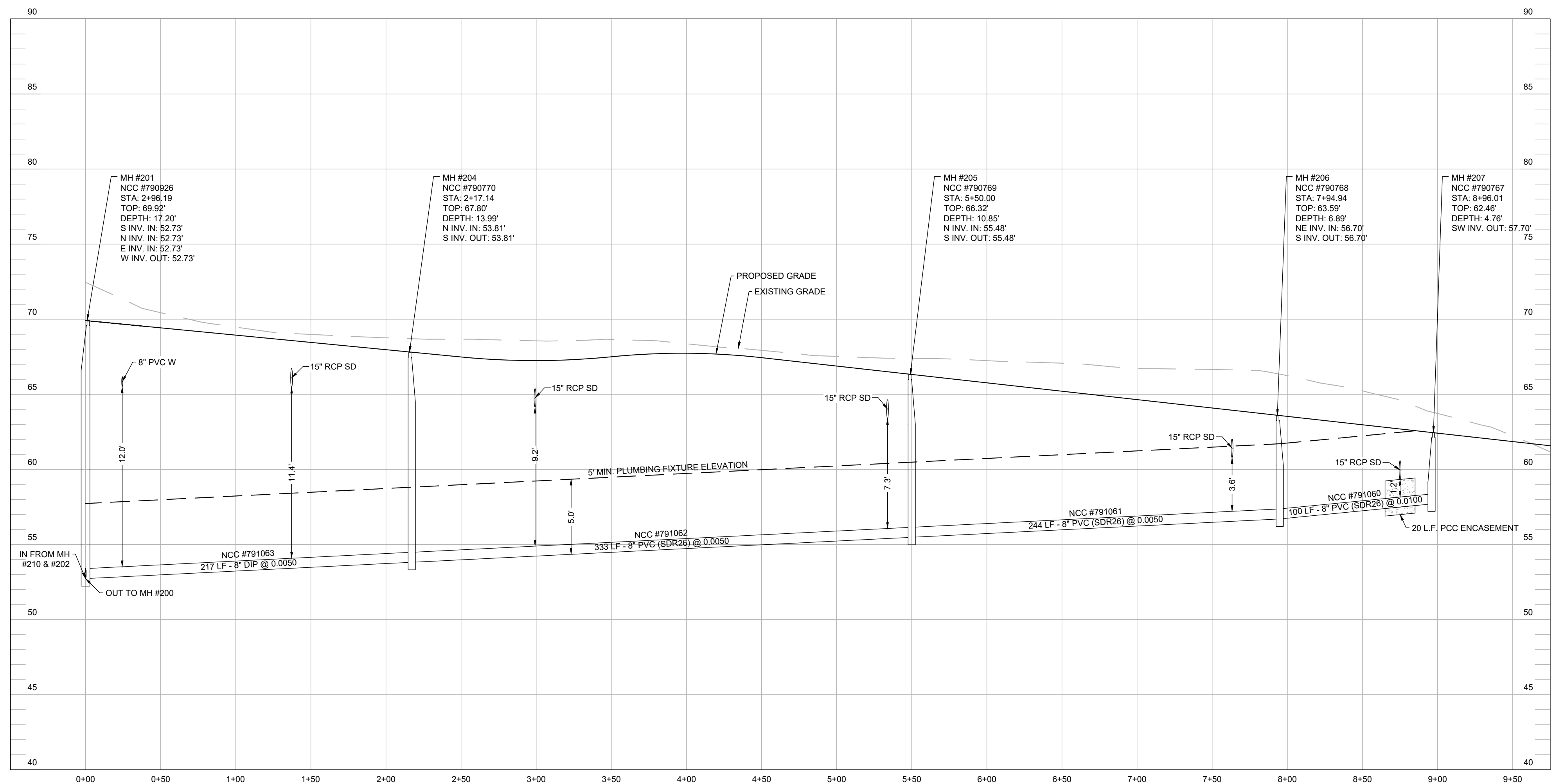
PLAN
SCALE: 1" = 50'

NOTES:

- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
- STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
- LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
- PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.

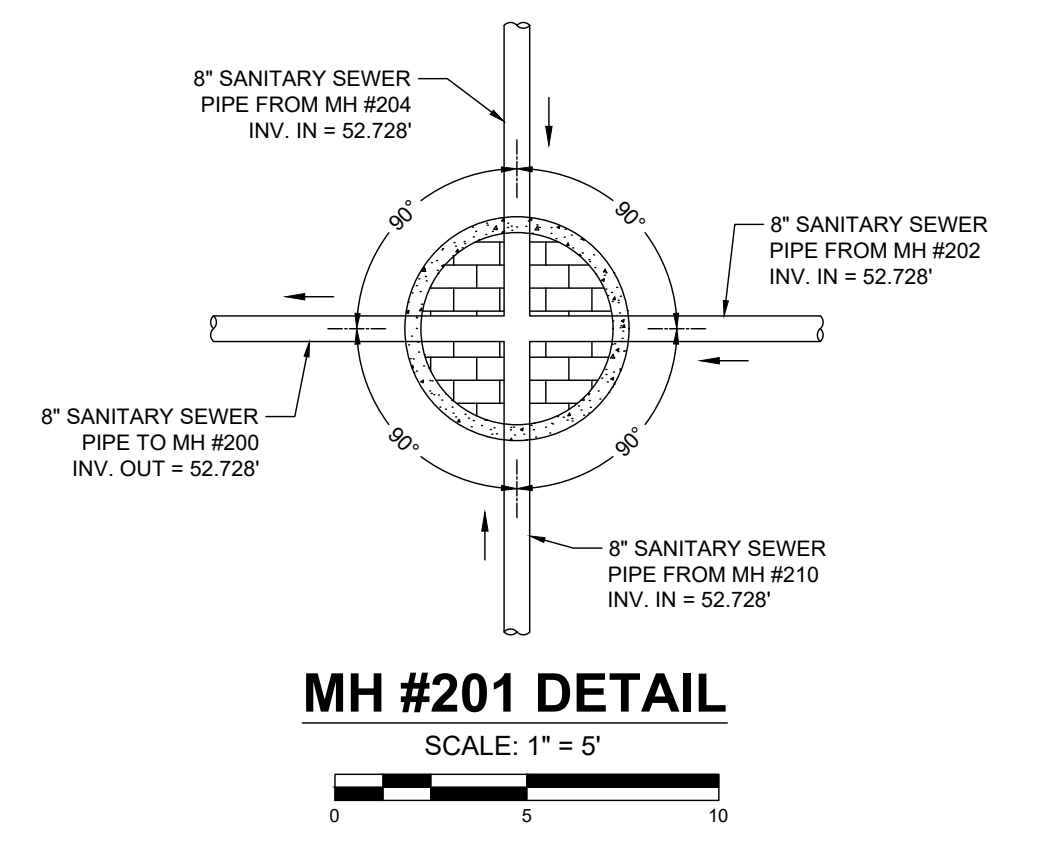
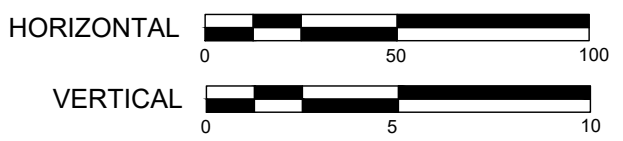


KEY MAP SCALE: 1" = 1,200'



PROFILE: MH #201 TO MH #207

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



MH #201 DETAIL
SCALE: 1" = 5'

01/17/24	REVISED PER NCCDRW COMMENTS 01/16/24
02/01/23	REVISED PER NCCDRW COMMENTS 1/10/23
08/01/23	REVISED PER NCCDRW COMMENTS 04/23/23
05/12/23	REVISED PER NCCDRW COMMENTS 04/23/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDRW COMMENTS 08/30/22
01/22/22	REVISED PER NCCDRW COMMENTS 09/30/22
	DATE

OWNER/DEVELOPER:
SB NORTH LLC
1074 PHILIPS ST
REHOBOTH BEACH, DE 19871

OA NORTH LLC
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

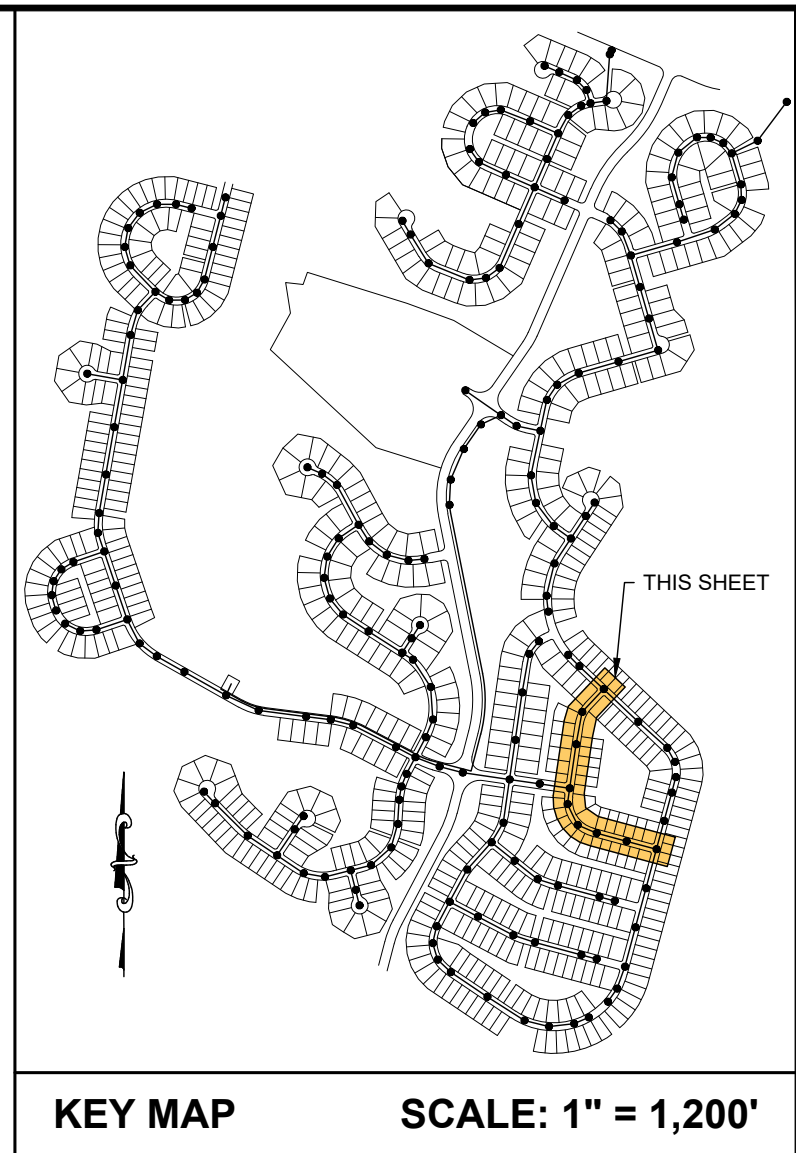
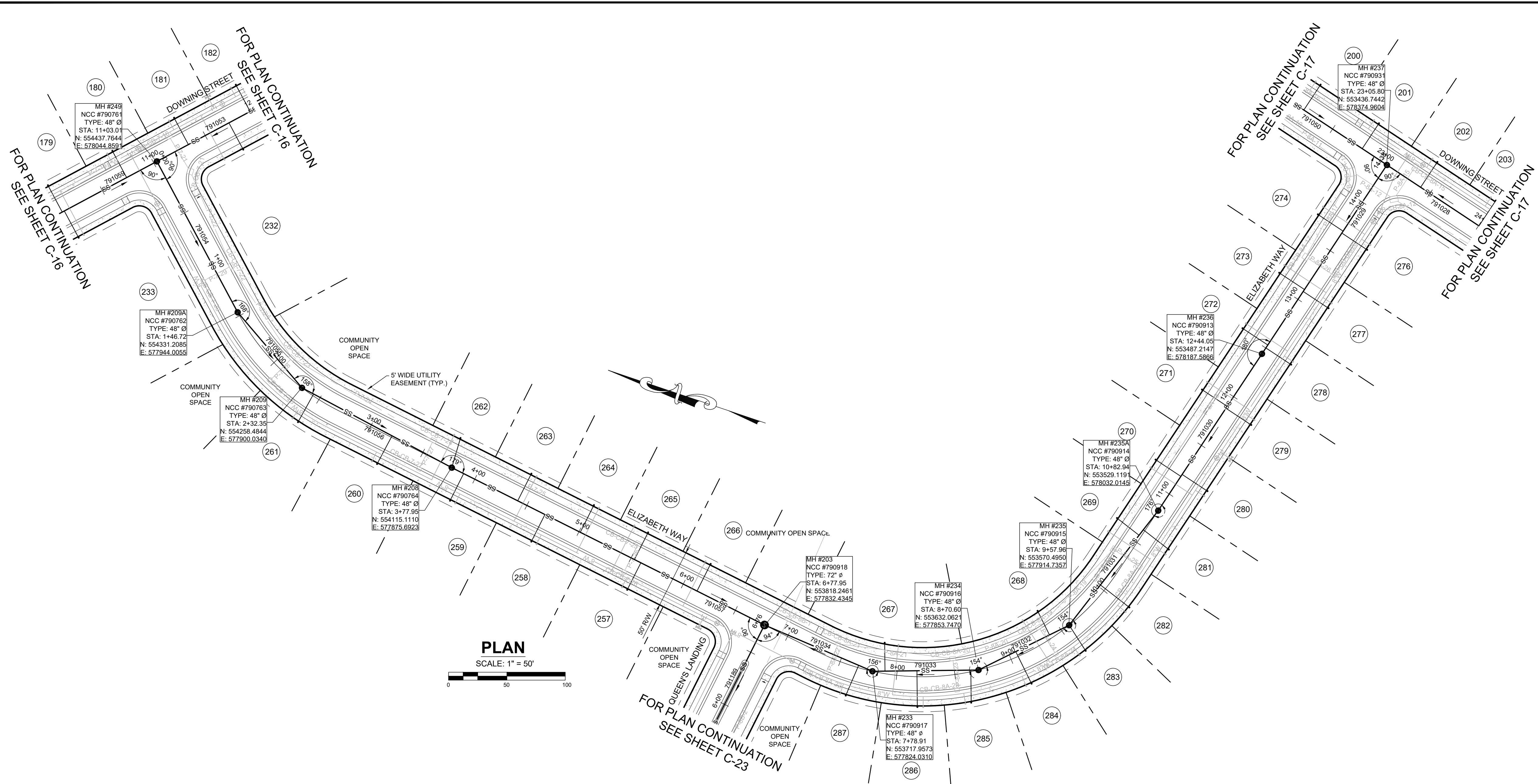
OA JOY RUN LLC
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-1970 FAX: (302) 733-1887 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
ST. GEORGES HUNDRED NEW CASTLE

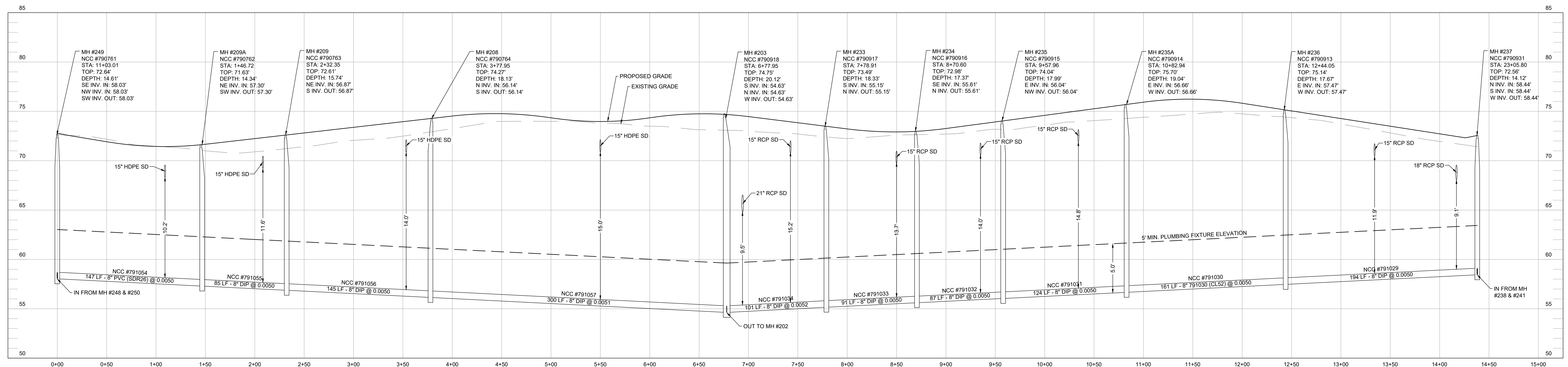


Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904607.SP
SHEET: C-21



NOTES:

1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
3. LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
4. PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24
02/07/23	REVISED PER NCCDPW COMMENTS 1/10/23
08/01/23	REVISED PER NCCDPW COMMENTS 04/22/23
05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22
	DATE

OWNER/DEVELOPER:
SB NORTH LLC
1078 PHILIPS ST
REHOBOTH BEACH, DE 19871

ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-8687 Website: www.kci.com

KCI TECHNOLOGIES, INC.

ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-8687 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS

MONARCH DELAWARE
ST. GEORGES-HUNDRED NEW CASTLE

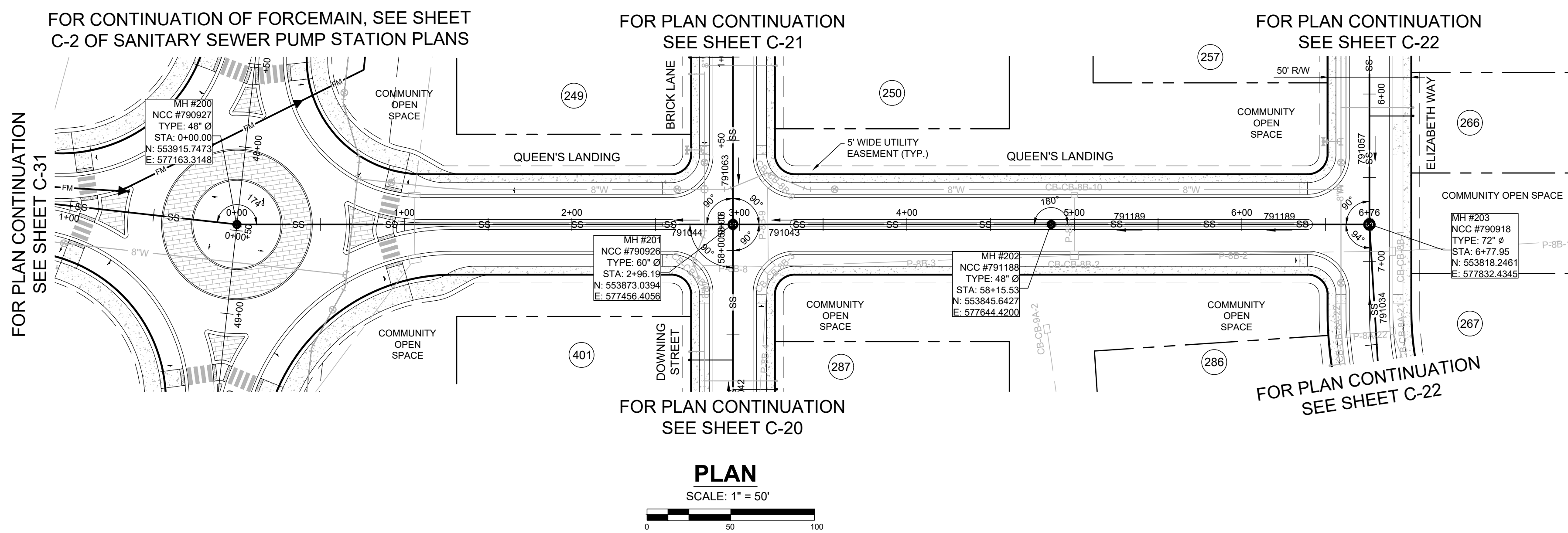
1/17/24

SHANNON SAYLES
LICENSED PROFESSIONAL ENGINEER
No. 28860
SHANNON SAYLES
DELAWARE

Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904607.SP
SHEET: C-22

NOTES:

1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES. LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
3. PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.
4. SEE SHEET C-1 THROUGH C-3 OF THE SANITARY SEWER PUMP STATION PLANS FOR FORCEMAIN DESIGN.



FOR PLAN CONTINUATION
SEE SHEET C-31

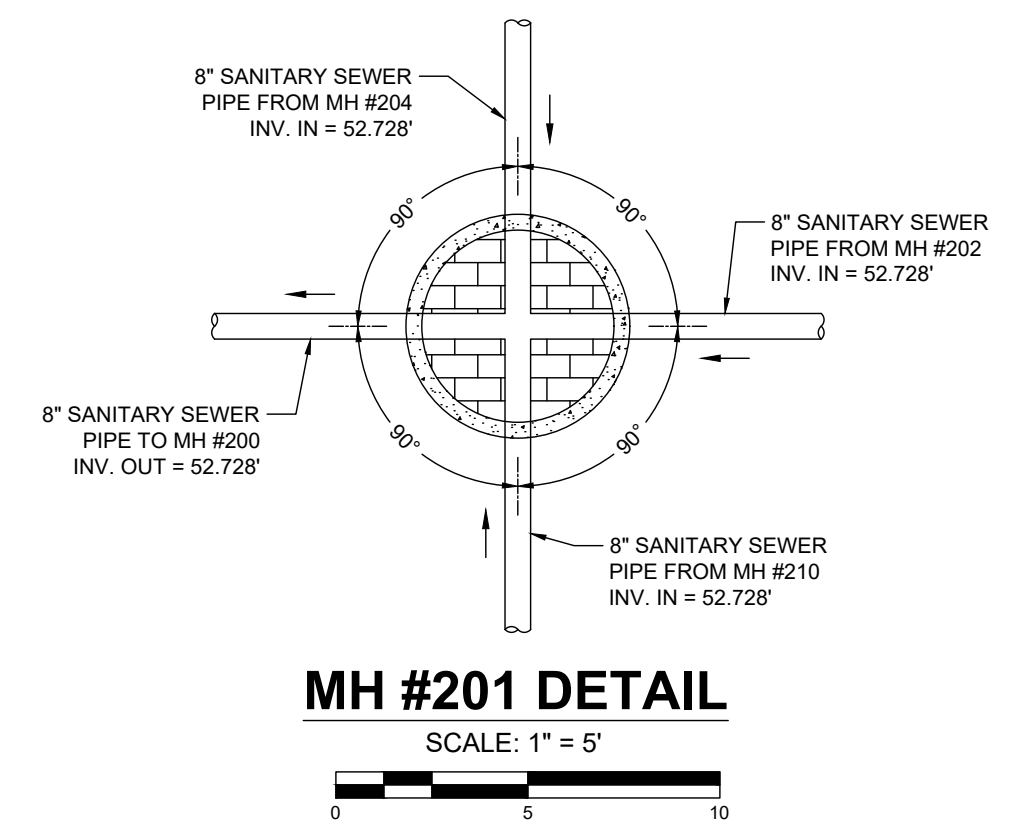
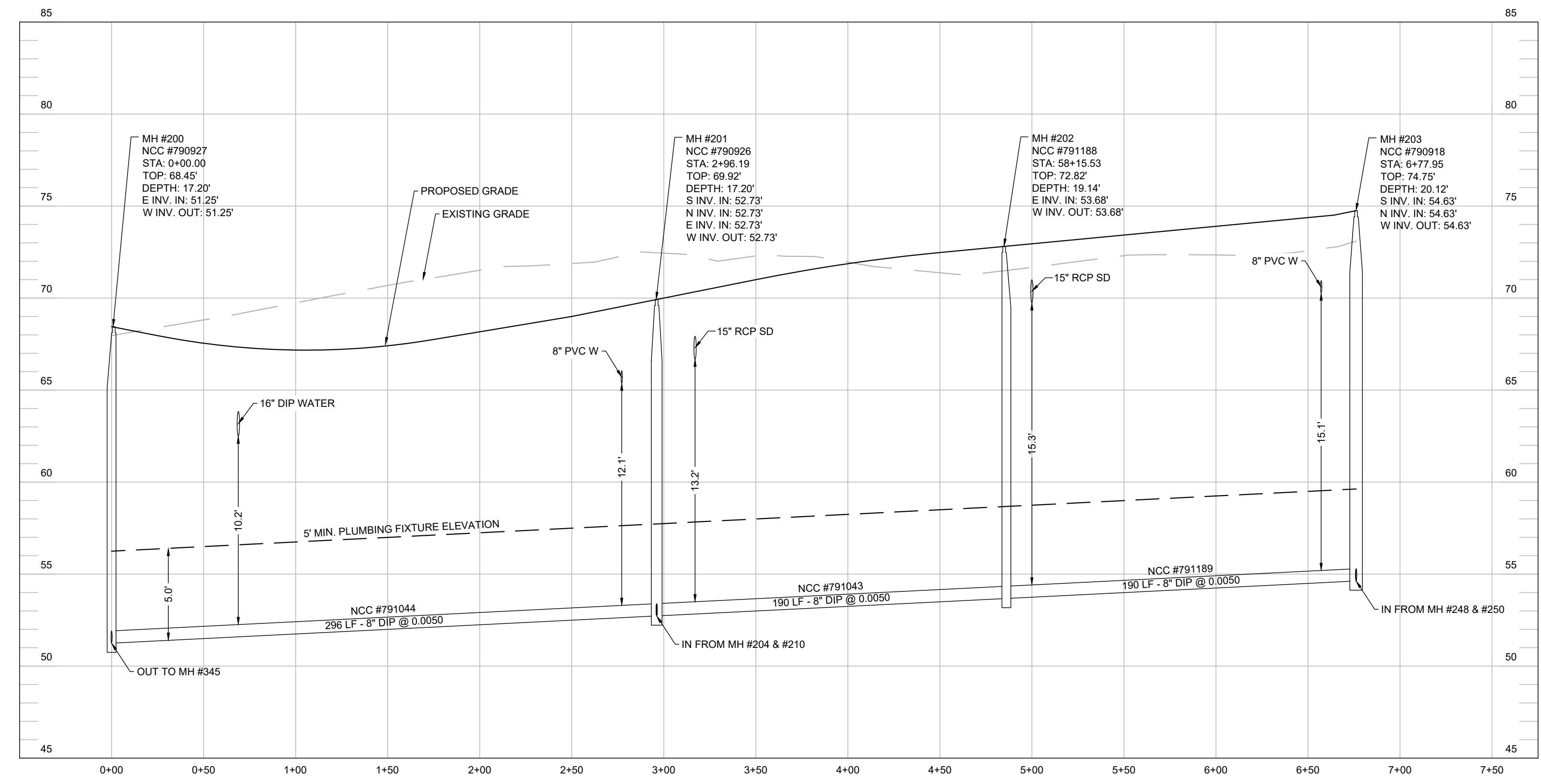
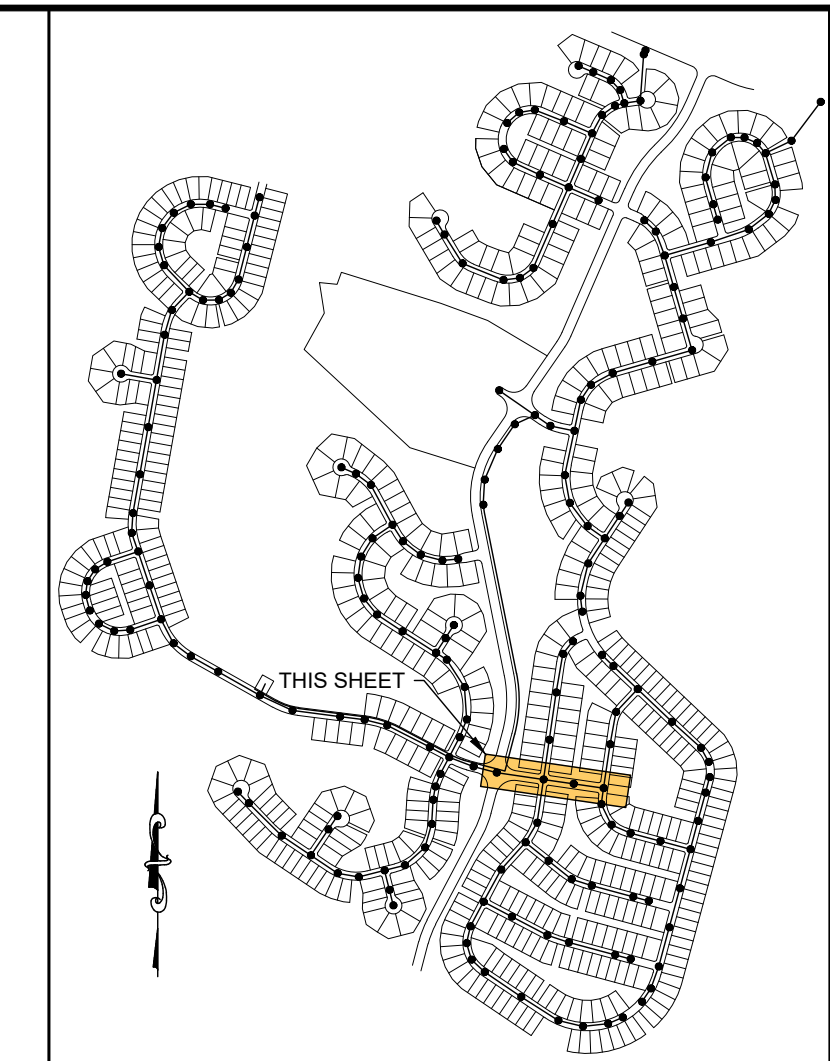
FOR CONTINUATION OF FORCEMAIN, SEE SHEET
C-2 OF SANITARY SEWER PUMP STATION PLANS

FOR PLAN CONTINUATION
SEE SHEET C-21

FOR PLAN CONTINUATION
SEE SHEET C-22

FOR PLAN CONTINUATION
SEE SHEET C-20

FOR PLAN CONTINUATION
SEE SHEET C-22



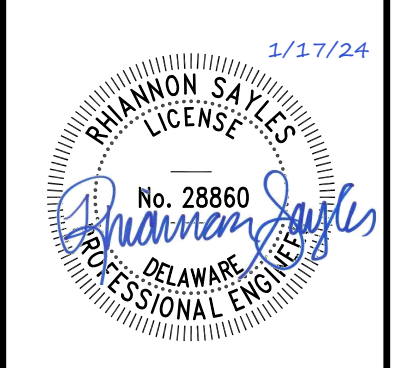
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02/07/23	REVISED PER NCCDRW COMMENTS 1/10/23
08/07/23	REVISED PER NCCDRW COMMENTS 04/22/23
05/12/23	REVISED PER NCCDRW COMMENTS 04/23/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDRW COMMENTS 08/30/22
DATE	REVISION

OWNER/DEVELOPER:
SB NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
1332 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 713-1976 FAX: (302) 731-1887 Website: www.kci.com

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1332 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 713-1976 FAX: (302) 731-1887 Website: www.kci.com

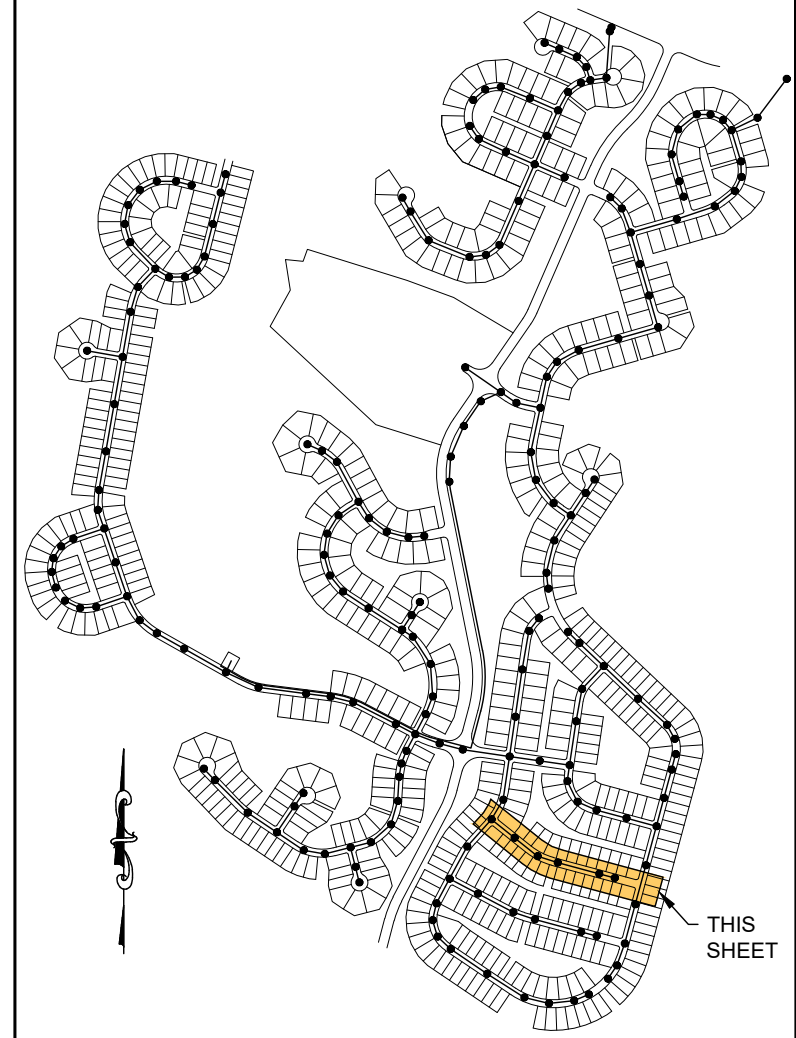
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
ST. GEORGES HUNDRED NEW CASTLE



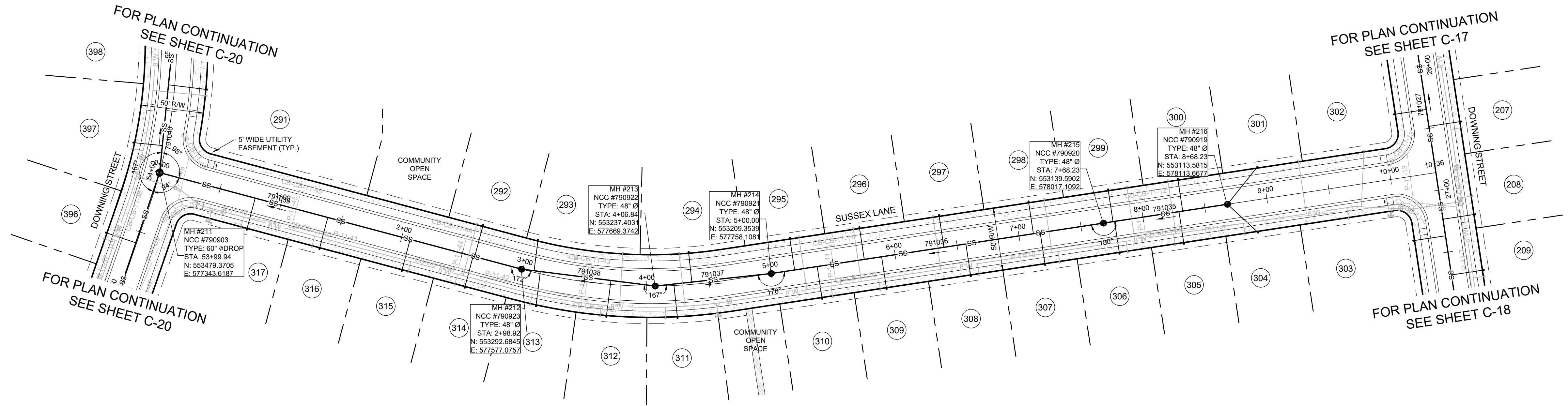
Drafting: VRF	Check: JC
Design: VRF	Check: JC
SCALE: 1"=50'	
DATE: 01/17/2024	
KCI JOB #: 271904807.SP	
SHEET: C-23	

NOTES:

1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
3. LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
4. PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.

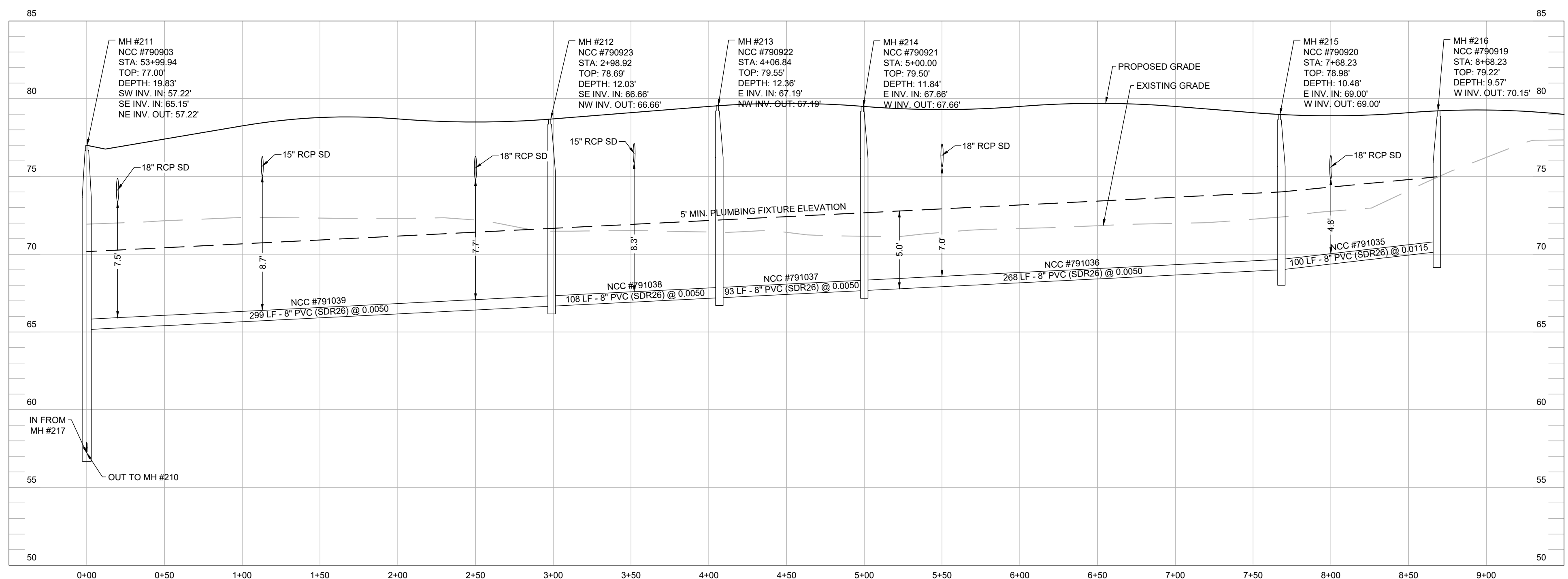


KEY MAP SCALE: 1" = 1,200'



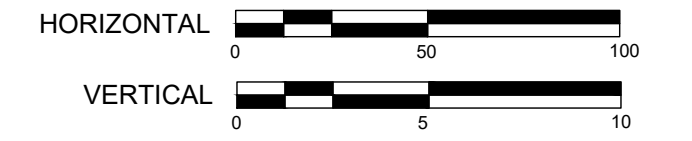
PLAN

SCALE: 1" = 50'



PROFILE: MH #211 TO MH #216

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



01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24
02/07/23	REVISED PER NCCDPW COMMENTS 1/10/23
08/01/23	REVISED PER NCCDPW COMMENTS 04/22/23
05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22
	DATE

OWNER/DEVELOPER:
SB NORTH LLC
2078 WILKINS ST.
REHOBOTH BEACH, DE 19871

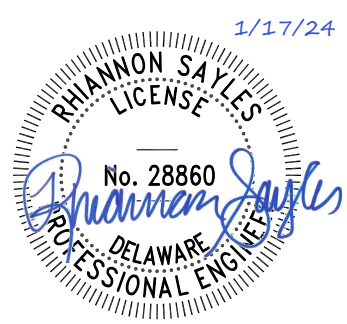
OA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

OA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

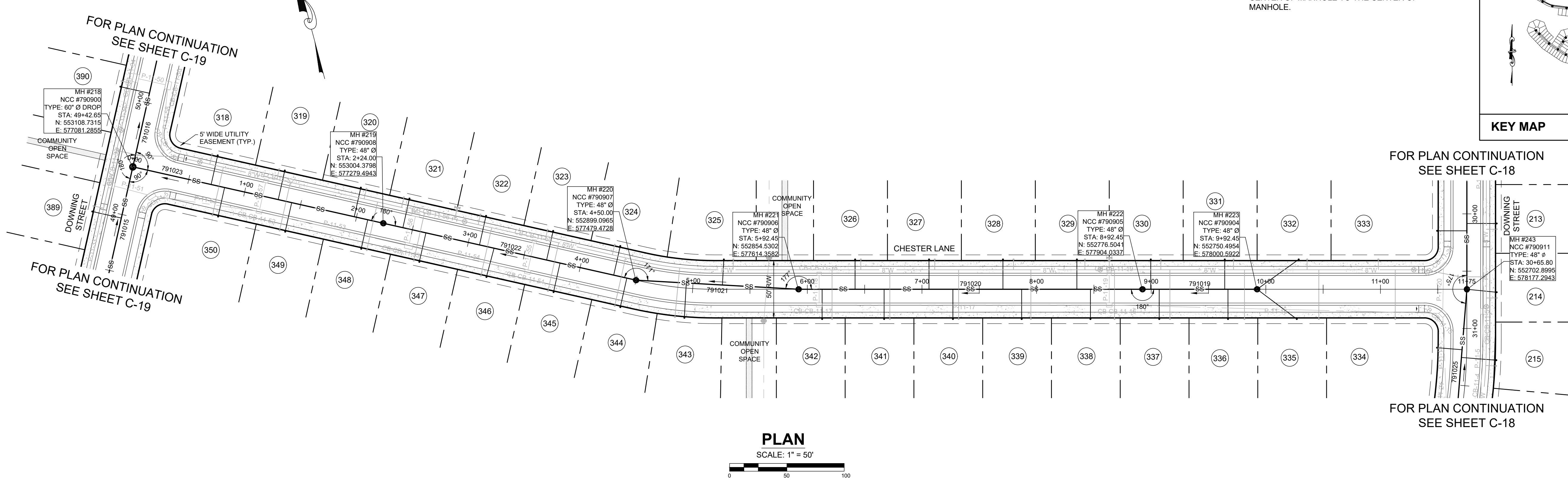
SCALE: PLAN: 1" = 50'

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1332 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9370 FAX: (302) 731-8877 Website: www.kci.com

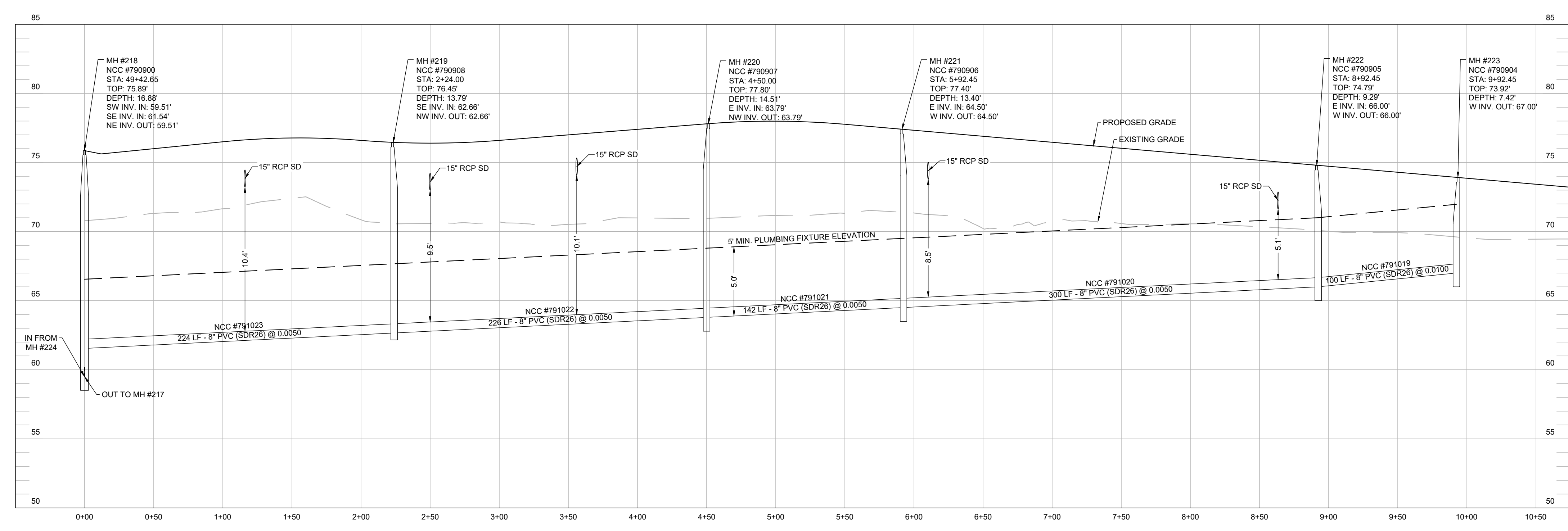
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
ST. GEORGES HUNDRED NEW CASTLE



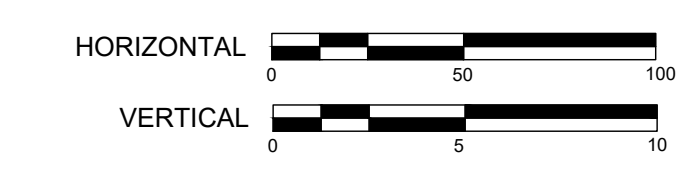
Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-24



PLAN
SCALE: 1" = 50'

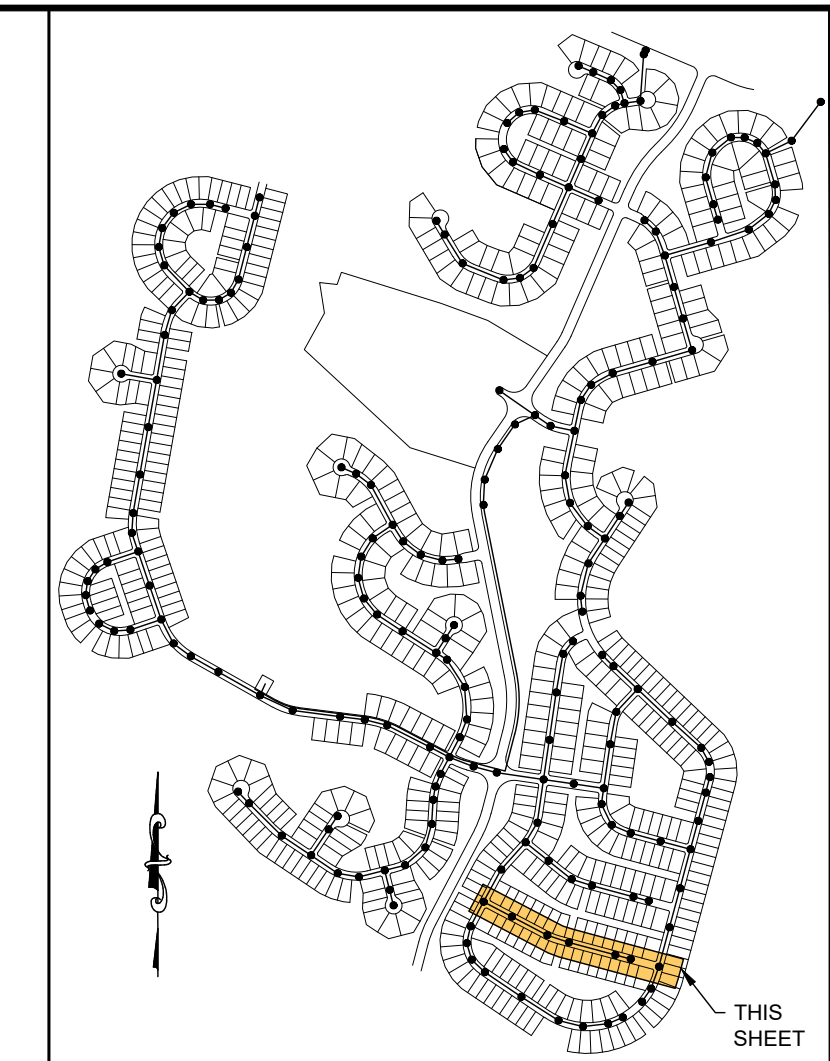


PROFILE: MH #218 TO MH #223
SCALE: HORIZ.: 1" = 50' VERT.: 1" = 5'



NOTES:

- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
- STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
- LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
- PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



KEY MAP SCALE: 1" = 1,200'

01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24
02/07/23	REVISED PER NCCDPW COMMENTS 1/10/23
08/01/23	REVISED PER NCCDPW COMMENTS 04/22/23
05/12/23	REVISED PER NCCDPW COMMENTS 04/23/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDPW COMMENTS 09/30/22
DATE	REVISION

OWNER/DEVELOPER:
SB NORTH LLC
2074 PHILIPS ST
REHOBOTH BEACH, DE 19871

OA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

OA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.

ENGINEERS - PLANNERS - SURVEYORS

1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-8877 Website: www.kci.com

PLAN AND PROFILE

SANITARY SEWER CONSTRUCTION PLANS

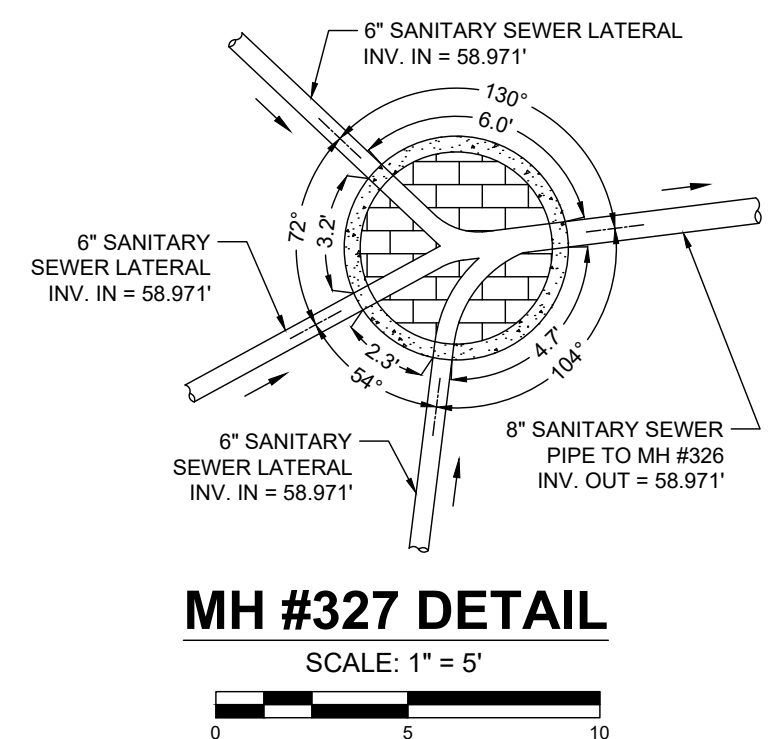
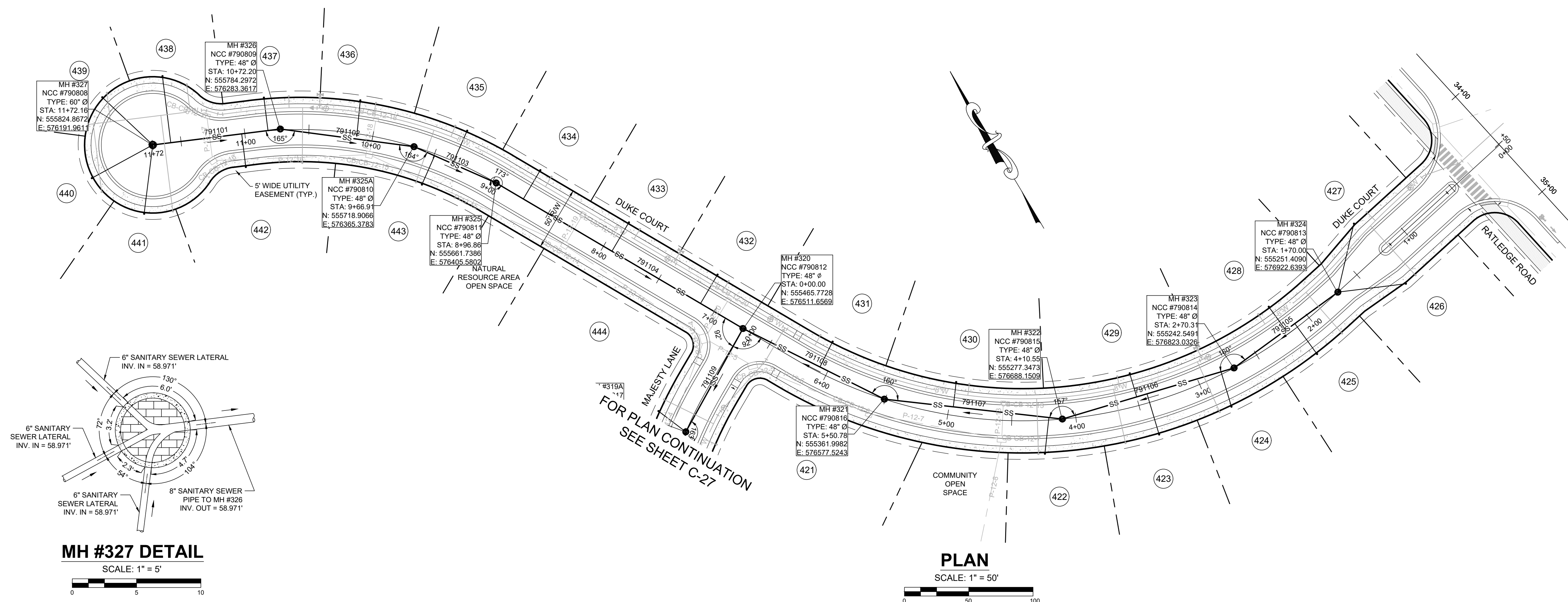
MONARCH DELAWARE

NEW CASTLE

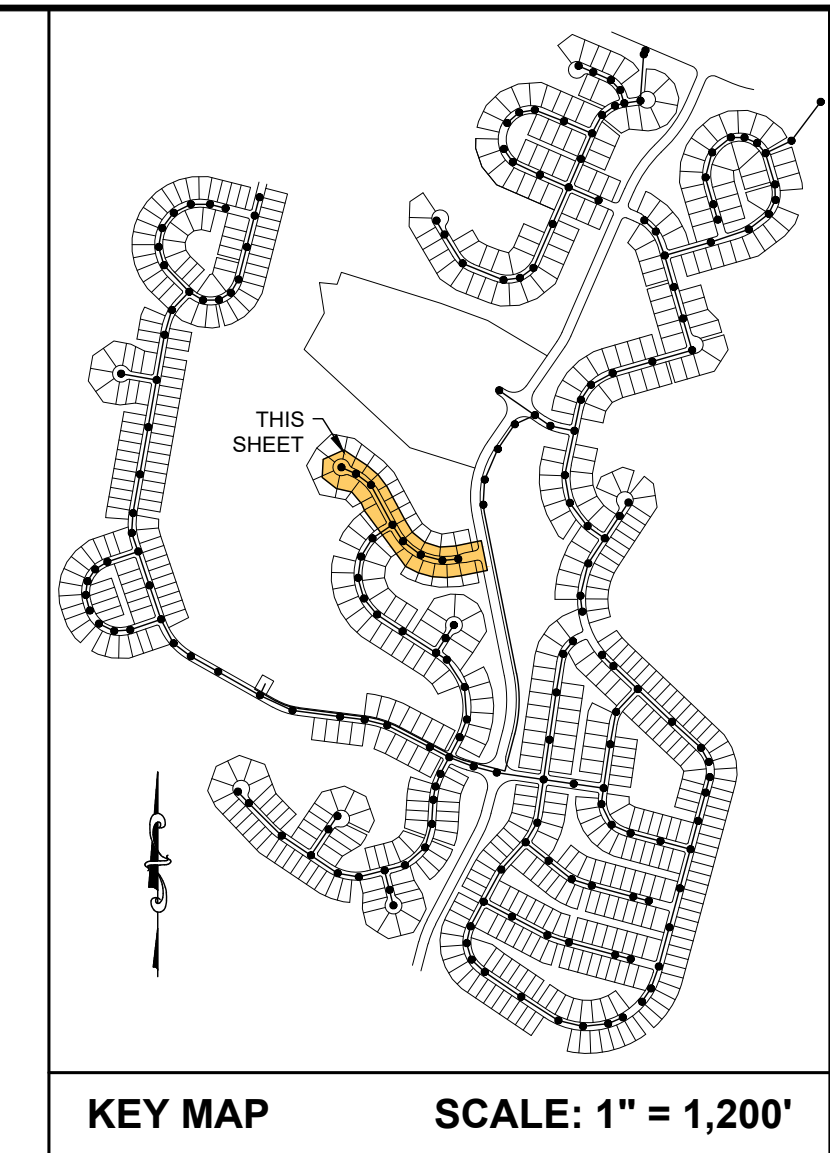
1/17/24

RAMMON SAYLES
LICENSED
No. 28860
Professional Engineer
DELAWARE

Drafting: VRF	Check: JC
Design: VRF	Check: JC
SCALE: 1"=50'	
DATE: 01/17/2024	
KCI JOB #: 271904807.SP	
SHEET: C-25	



- NOTES:**
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
 - STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
 - LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
 - PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.

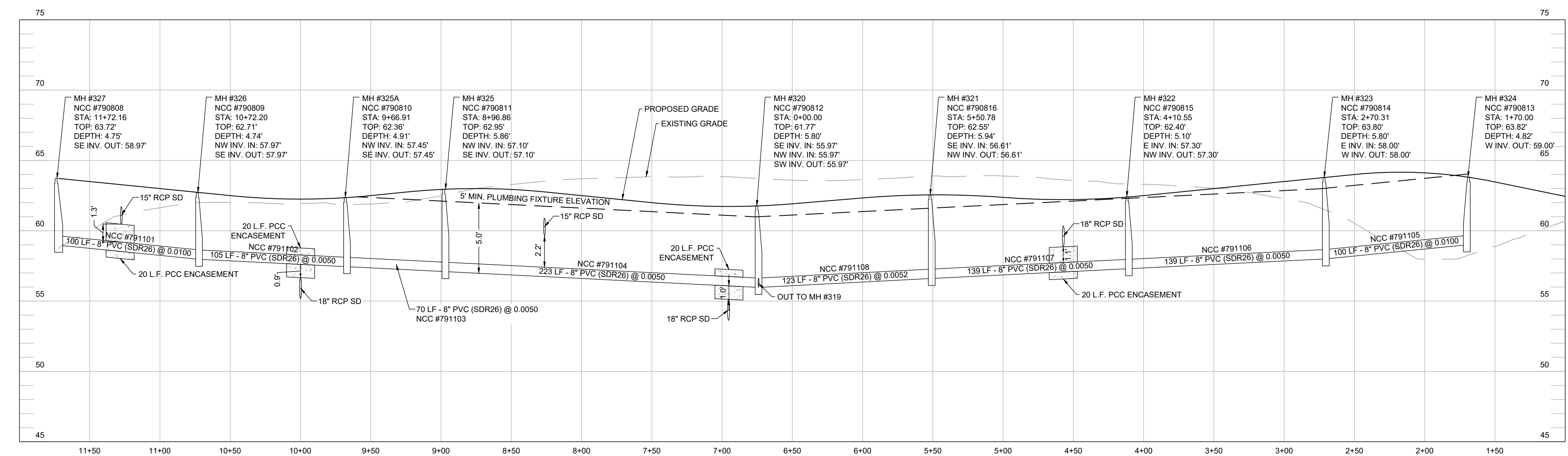


01/17/24	REVISED PER NCCDRW COMMENTS 01/16/24
02/07/23	REVISED PER NCCDRW COMMENTS 1/10/23
08/01/23	REVISED PER NCCDRW COMMENTS 04/22/23
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1/12/22	REVISED PER NCCDRW COMMENTS 08/29/22
01/12/22	REVISED PER NCCDRW COMMENTS 09/29/22
	DATE

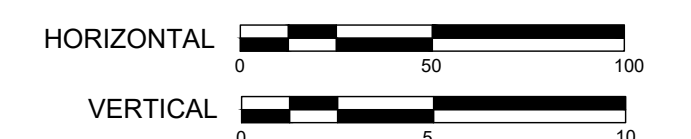
OWNER/DEVELOPER:
 SB NORTH LLC
 2078 PHILLIPS ST.
 REHOBOTH BEACH, DE 19871

ENGINEERS - PLANNERS - SURVEYORS
 KCI TECHNOLOGIES, INC.
 1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
 PHONE: (302) 733-9370 FAX: (302) 733-1887 Website: www.kci.com

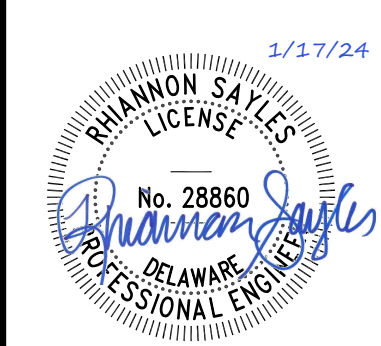
KCI TECHNOLOGIES, INC.
 ENGINEERS - PLANNERS - SURVEYORS
 1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
 PHONE: (302) 733-9370 FAX: (302) 733-1887 Website: www.kci.com



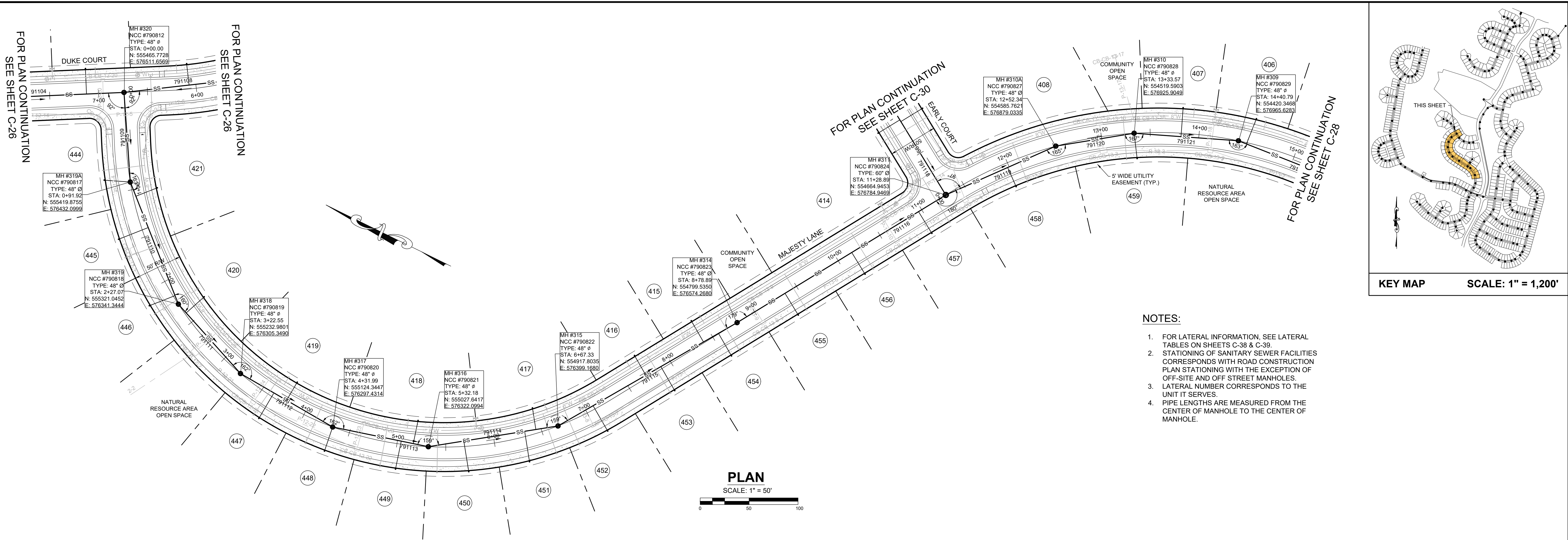
PROFILE: MH #327 TO MH #324
 SCALE: HORIZ.: 1" = 50' VERT.: 1" = 5'



PLAN AND PROFILE
 SANITARY SEWER CONSTRUCTION PLANS
 FOR
MONARCH
 ST. GEORGES-HUNDRED NEW CASTLE DELAWARE



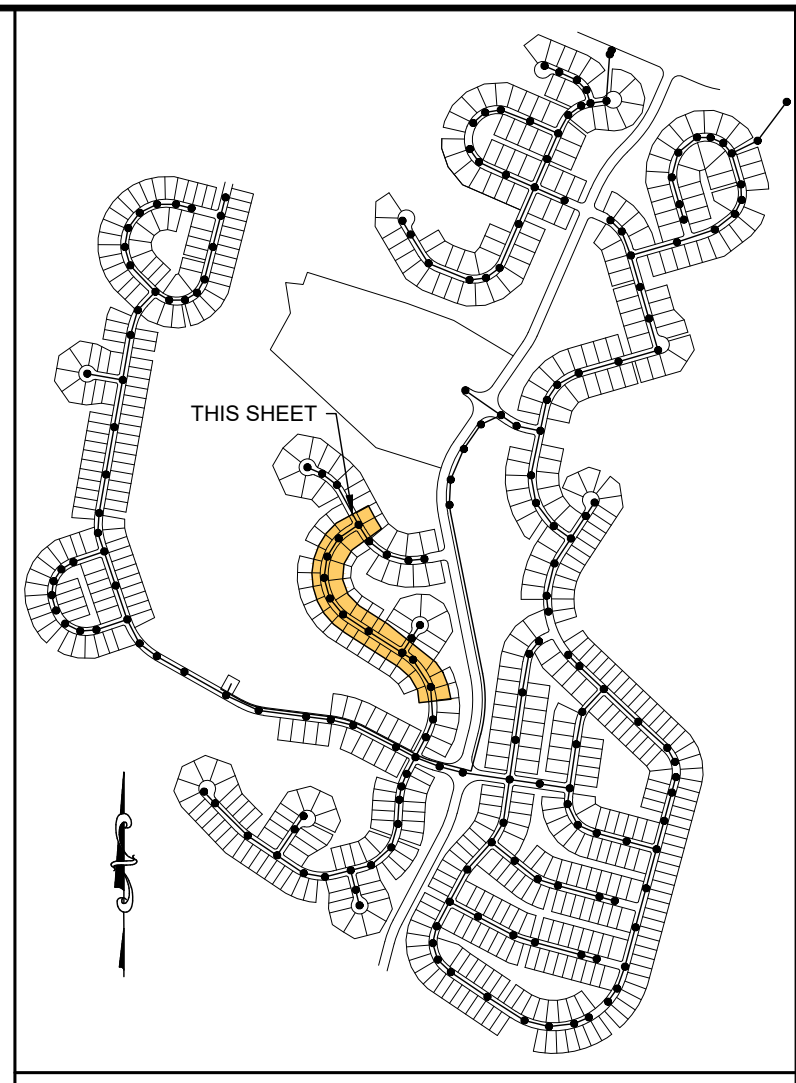
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 Design: VRF Check: JC
 SCALE: 1"=50'
 DATE: 01/17/2024
 KCI JOB #: 271904807.SP
 SHEET: C-26



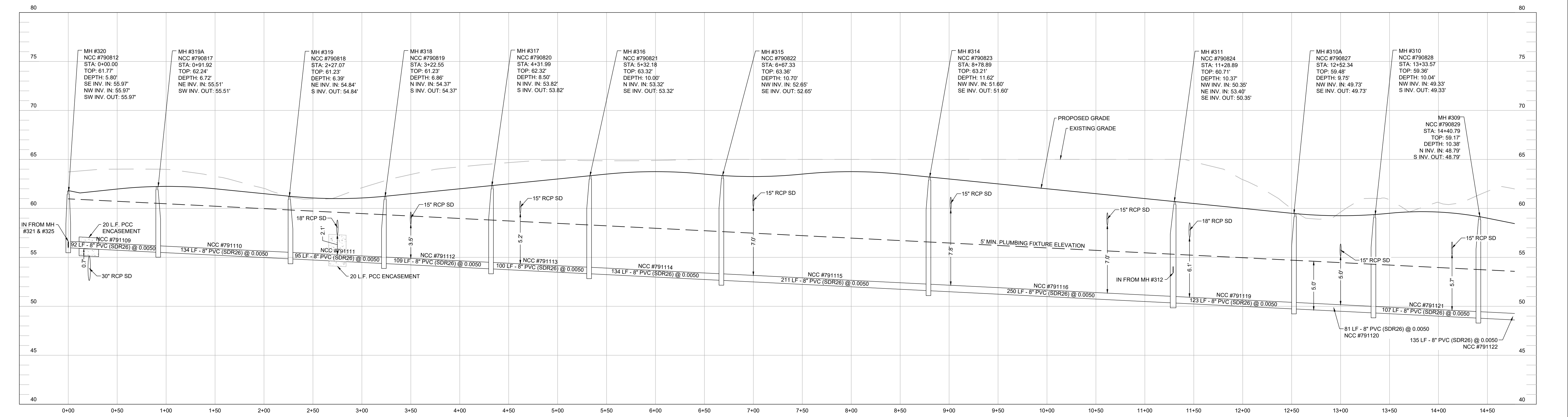
PLAN
SCALE: 1" = 50'

NOTES:

1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
3. LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
4. PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.

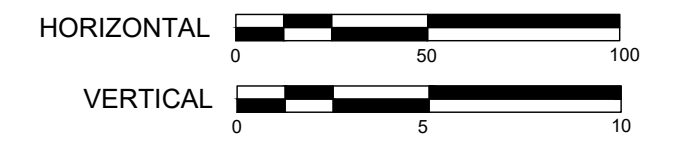


KEY MAP SCALE: 1" = 1,200'



PROFILE: MH #320 TO MH #310

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



DATE	REVISION	COMMENTS
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02/07/23	REVISED PER NCCDPW COMMENTS 1/10/23	
08/07/23	REVISED PER NCCDPW COMMENTS 08/22/23	
05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23	
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23	
1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22	
	DATE	

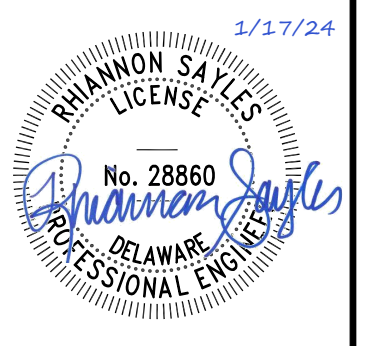
OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST
REHOBOTH BEACH, DE 19871

CA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

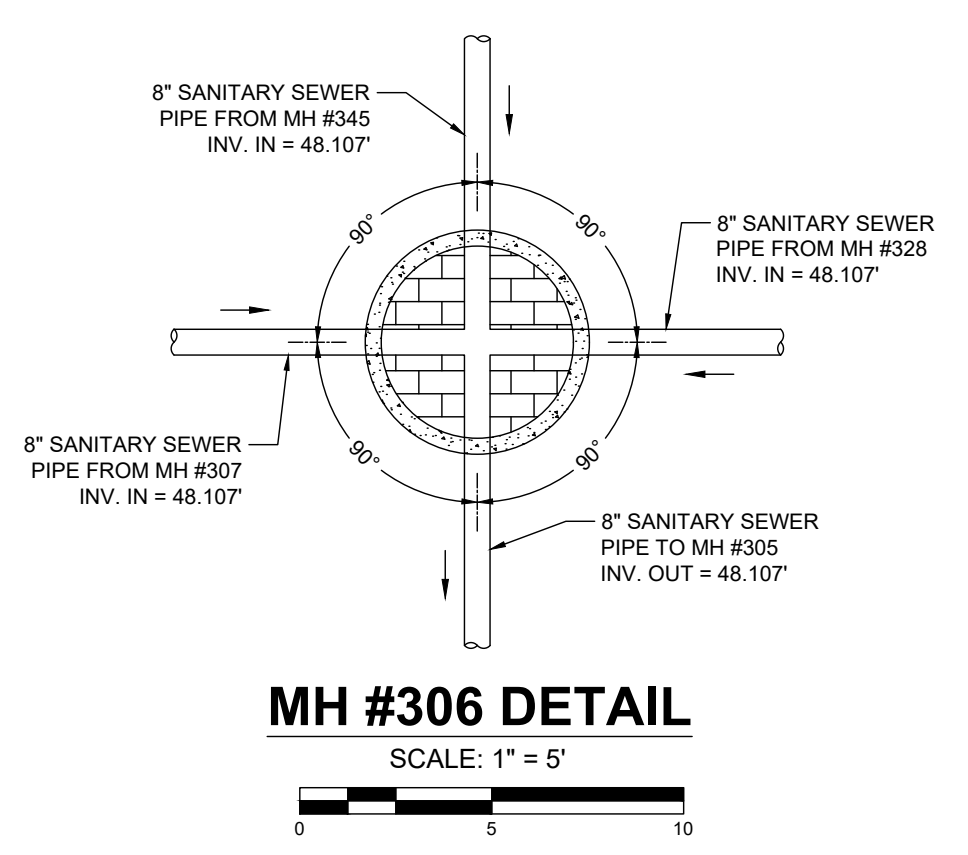
CA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1332 MARRONS RD. SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 733-1887 Website: www.kci.com

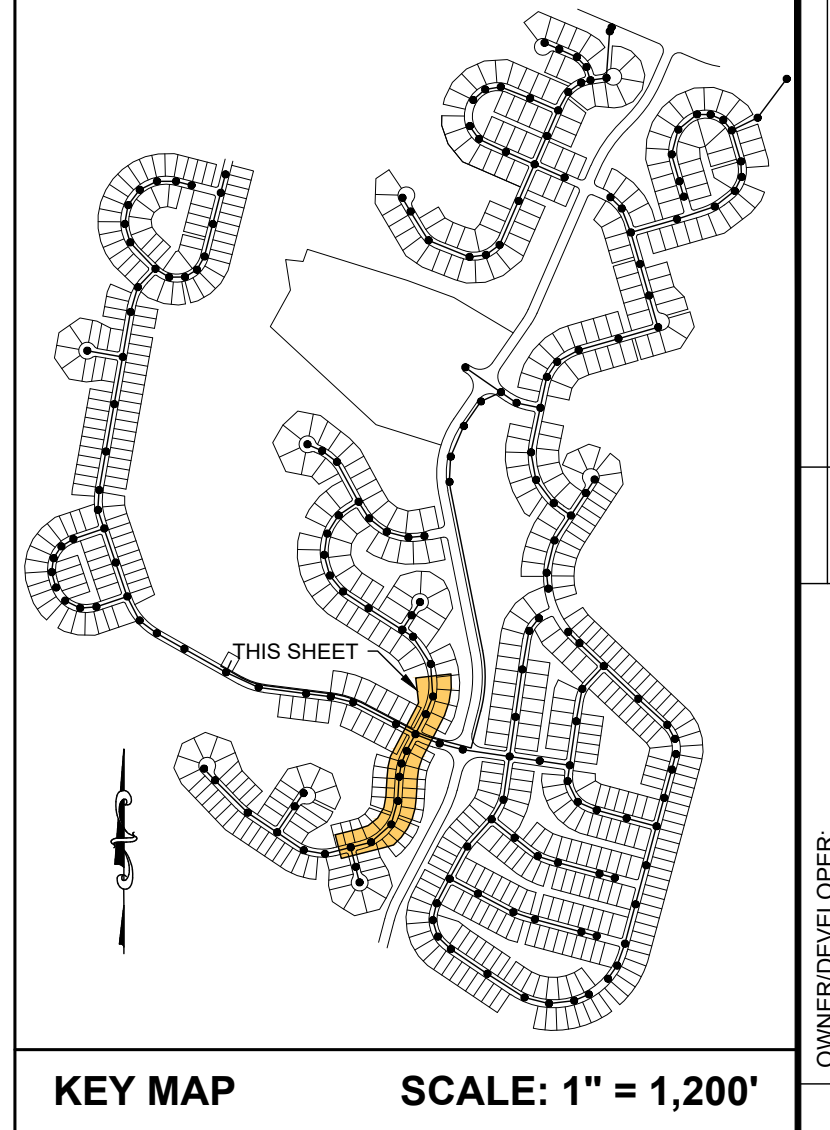
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
FOR
MONARCH
NEW CASTLE, DELAWARE
ST. GEORGES HUNDRED



Drafting: VRF	Check: JC
Design: VRF	Check: JC
SCALE: 1"=50'	
DATE: 01/17/2024	
KCI JOB #: 271904807.SP	
SHEET: C-27	



- NOTES:**
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
 - STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
 - LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
 - PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



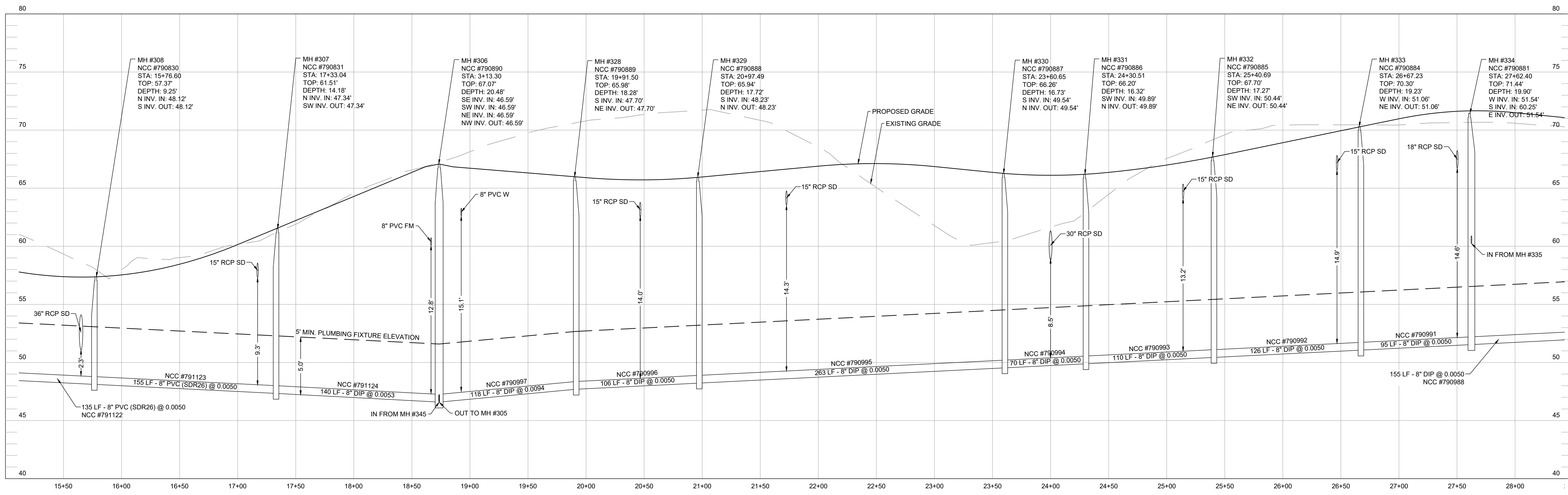
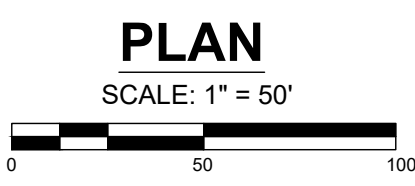
FOR PLAN CONTINUATION
SEE SHEET C-27

FOR PLAN CONTINUATION
SEE SHEET C-31

FOR PLAN CONTINUATION
SEE SHEET C-31

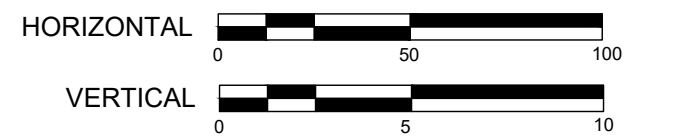
FOR PLAN CONTINUATION
SEE SHEET C-30

FOR PLAN CONTINUATION
SEE SHEET C-29



PROFILE: MH #308 TO MH #334

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



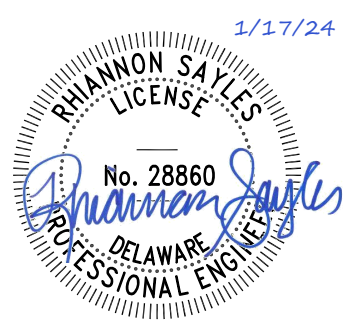
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05/12/23	REVISED PER NCCDPM COMMENTS 04/23/23	
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23	
11/21/22	REVISED PER NCCDPM COMMENTS 09/29/22	
04/22	REVISED PER NCCDPM COMMENTS 03/22/22	

OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST
REHOBOTH BEACH, DE 19871

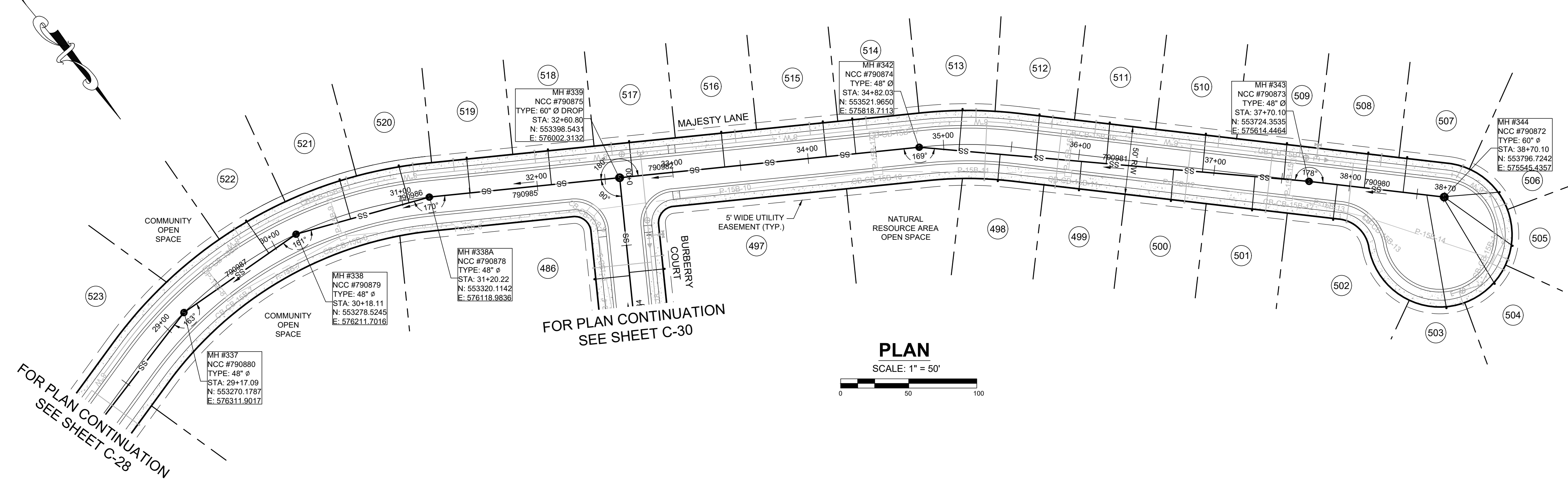
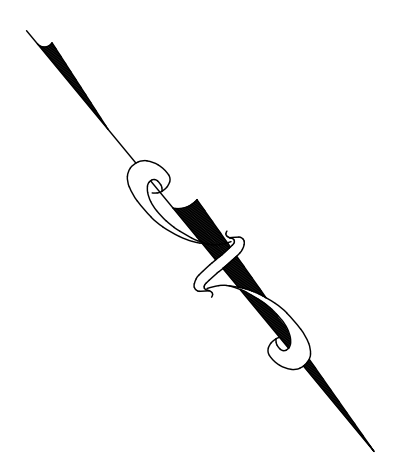
ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 731-9176 FAX: (302) 731-9871 Website: www.kci.com

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PHONE: (302) 731-9176 FAX: (302) 731-9871 Website: www.kci.com

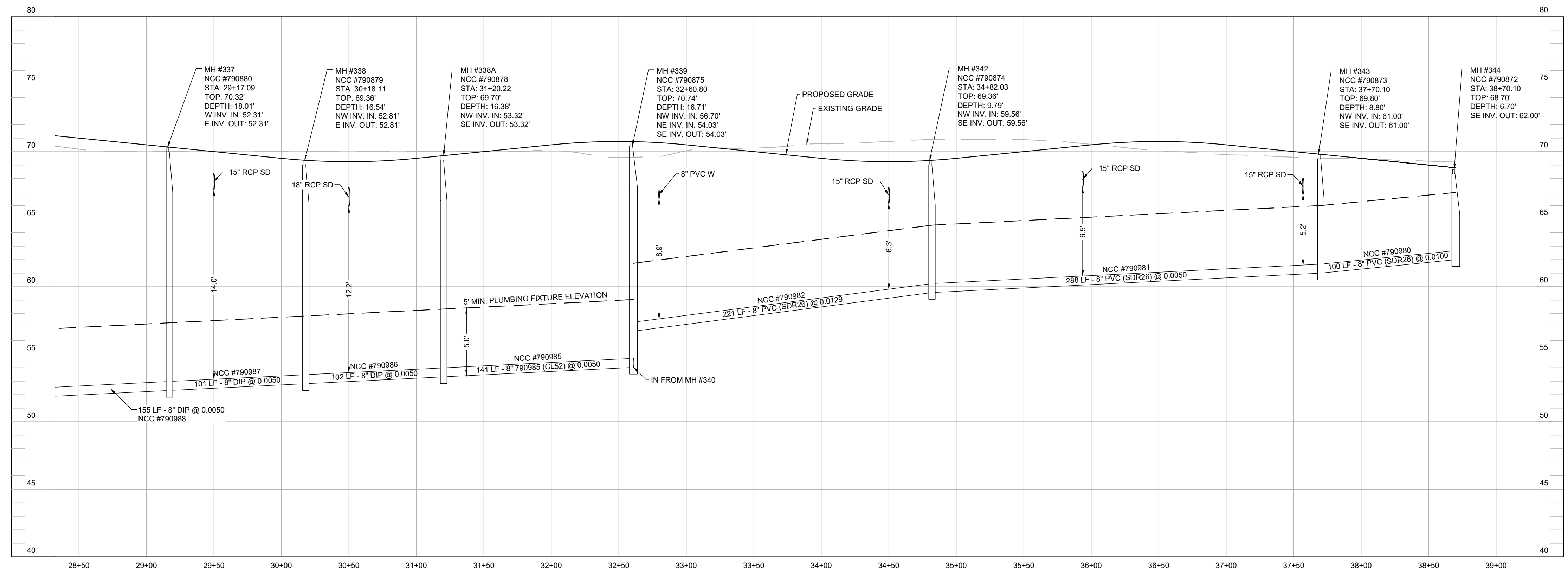
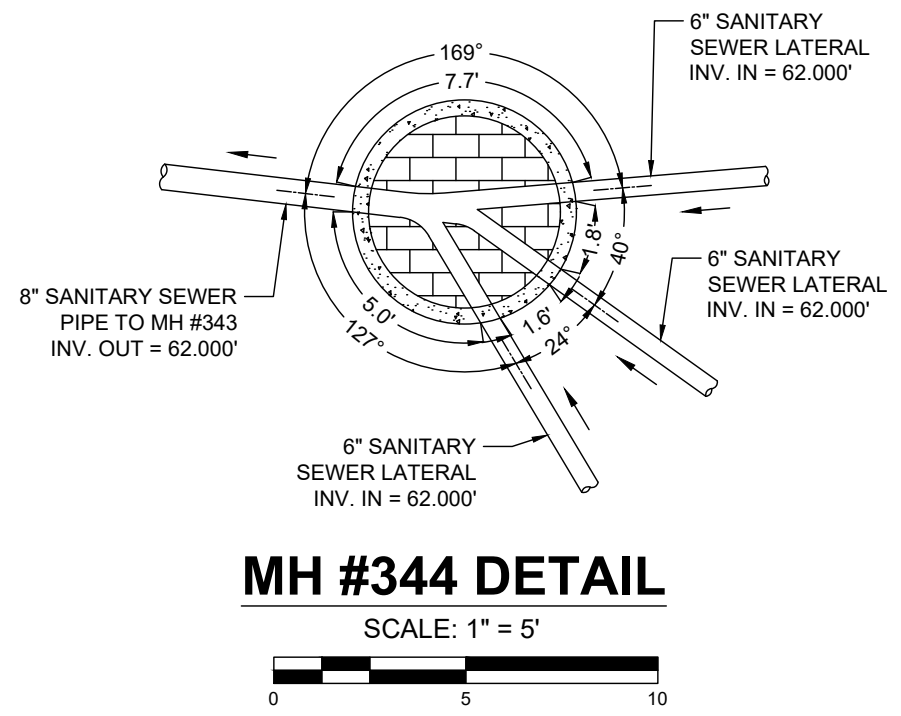
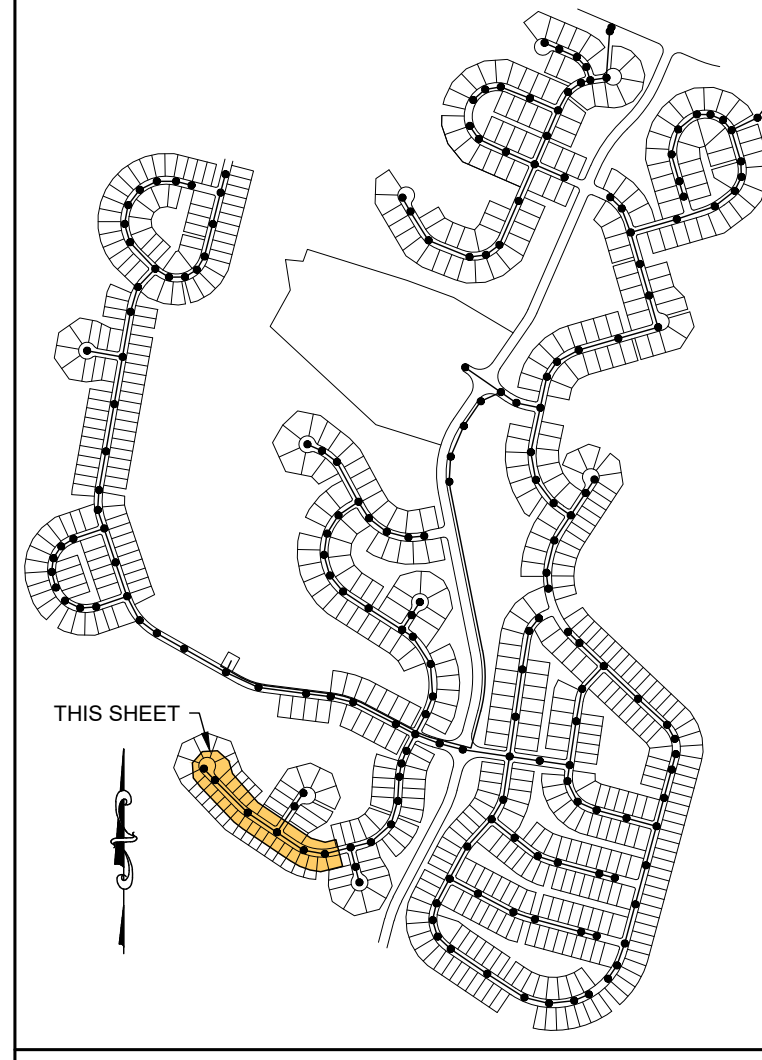
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
FOR
MONARCH
NEW CASTLE
DELAWARE



Drafting: VRF	Check: JC
Design: VRF	Check: JC
SCALE: 1"=50'	
DATE: 01/17/2024	
KCI JOB #: 271904607.SP	
SHEET: C-28	



- NOTES:**
1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
 2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
 3. LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
 4. PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



PROFILE: MH #337 TO MH #344
SCALE: HORIZ.: 1" = 50' VERT.: 1" = 5'

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

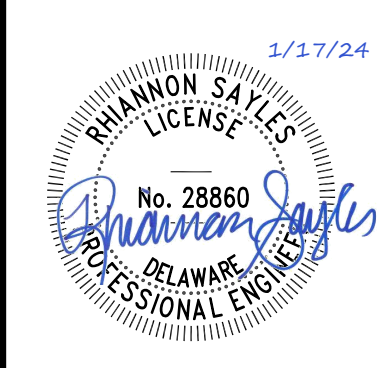
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05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
11/21/22	REVISED PER NCCDPW COMMENTS 09/29/22
01/27/22	REVISED PER NCCDPW COMMENTS 01/27/22

OWNER/DEVELOPER:
SB NORTH LLC
38 PHILLIPS ST
REHOBOTH BEACH, DE 19871

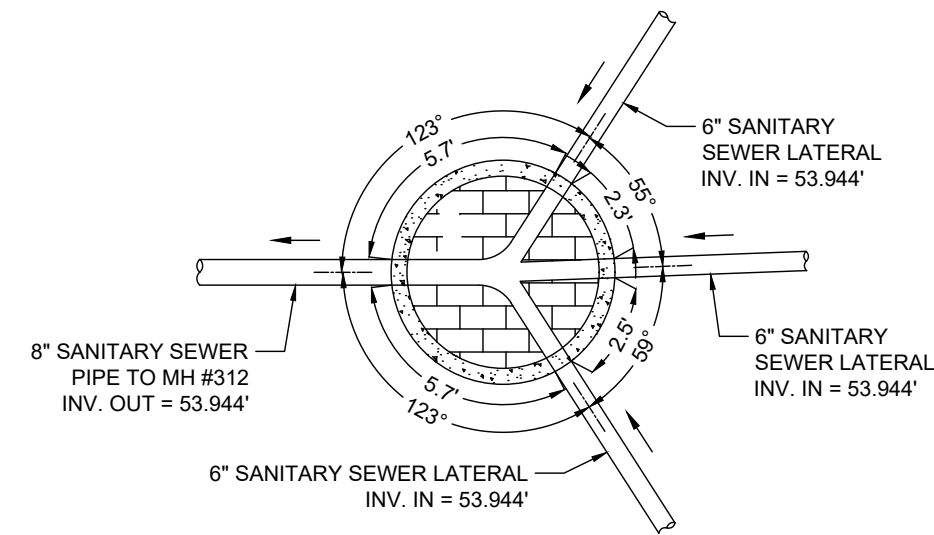
ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 731-9176 FAX: (302) 731-8687 Website: www.kci.com

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DELAWARE

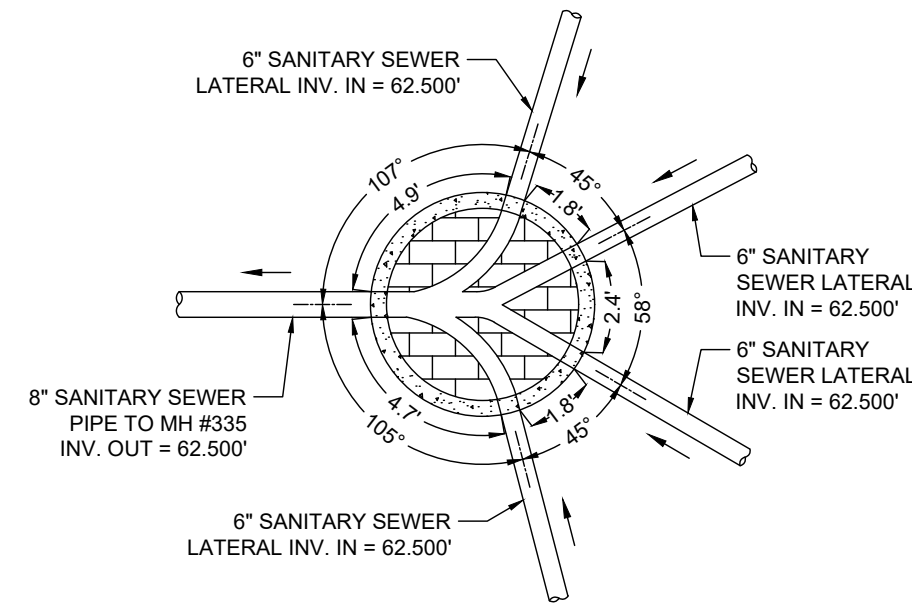
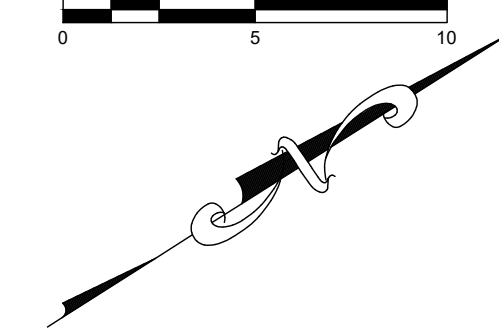


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Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904607.SP
SHEET: C-29



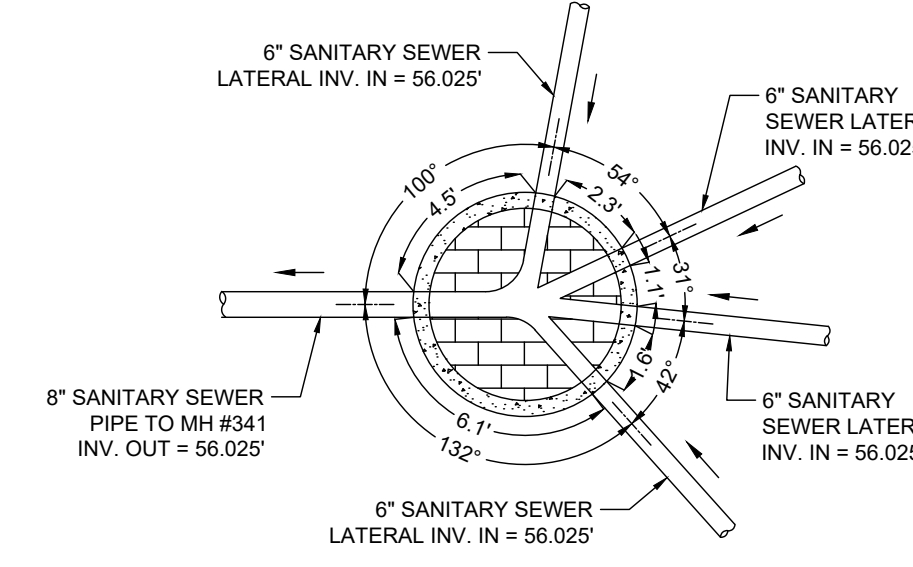
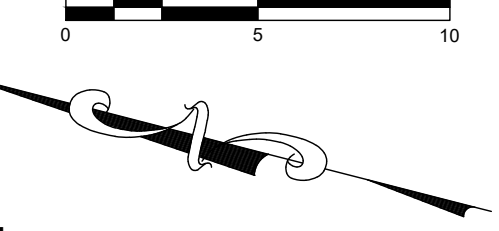
MH #313 DETAIL

SCALE: 1" = 5'



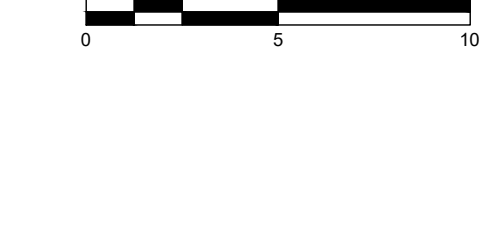
MH #336 DETAIL

SCALE: 1" = 5'



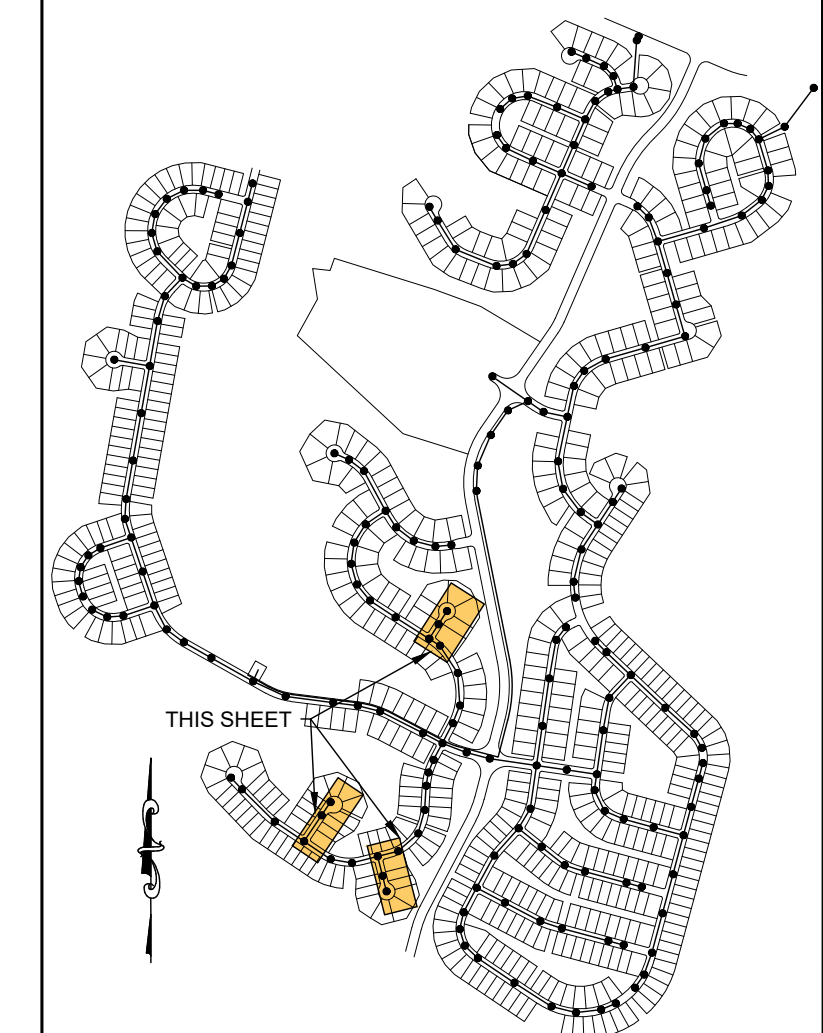
MH #341 DETAIL

SCALE: 1" = 5'



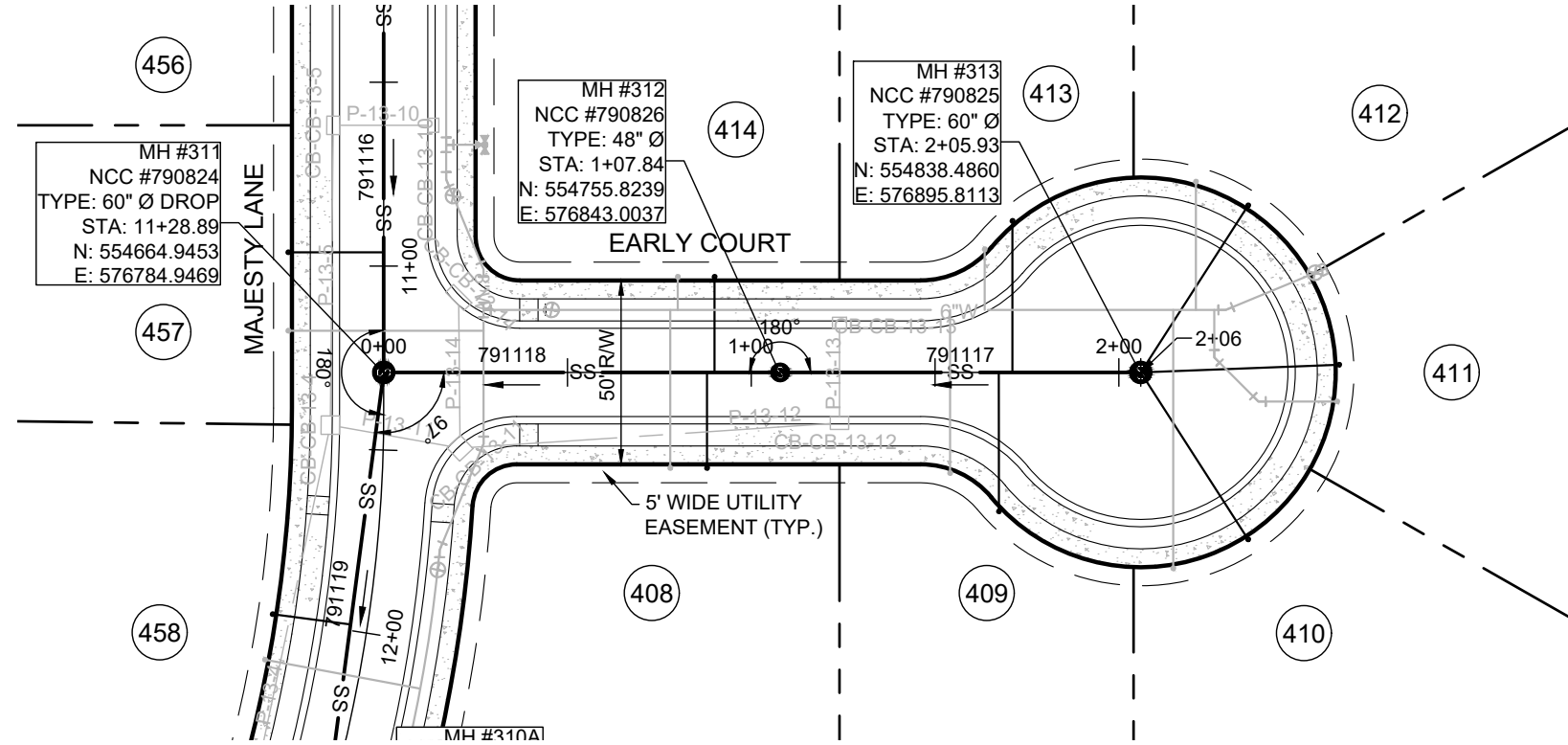
NOTES:

1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
3. LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
4. PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



KEY MAP SCALE: 1" = 1,200'

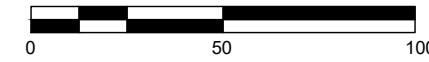
FOR PLAN CONTINUATION
SEE SHEET C-27



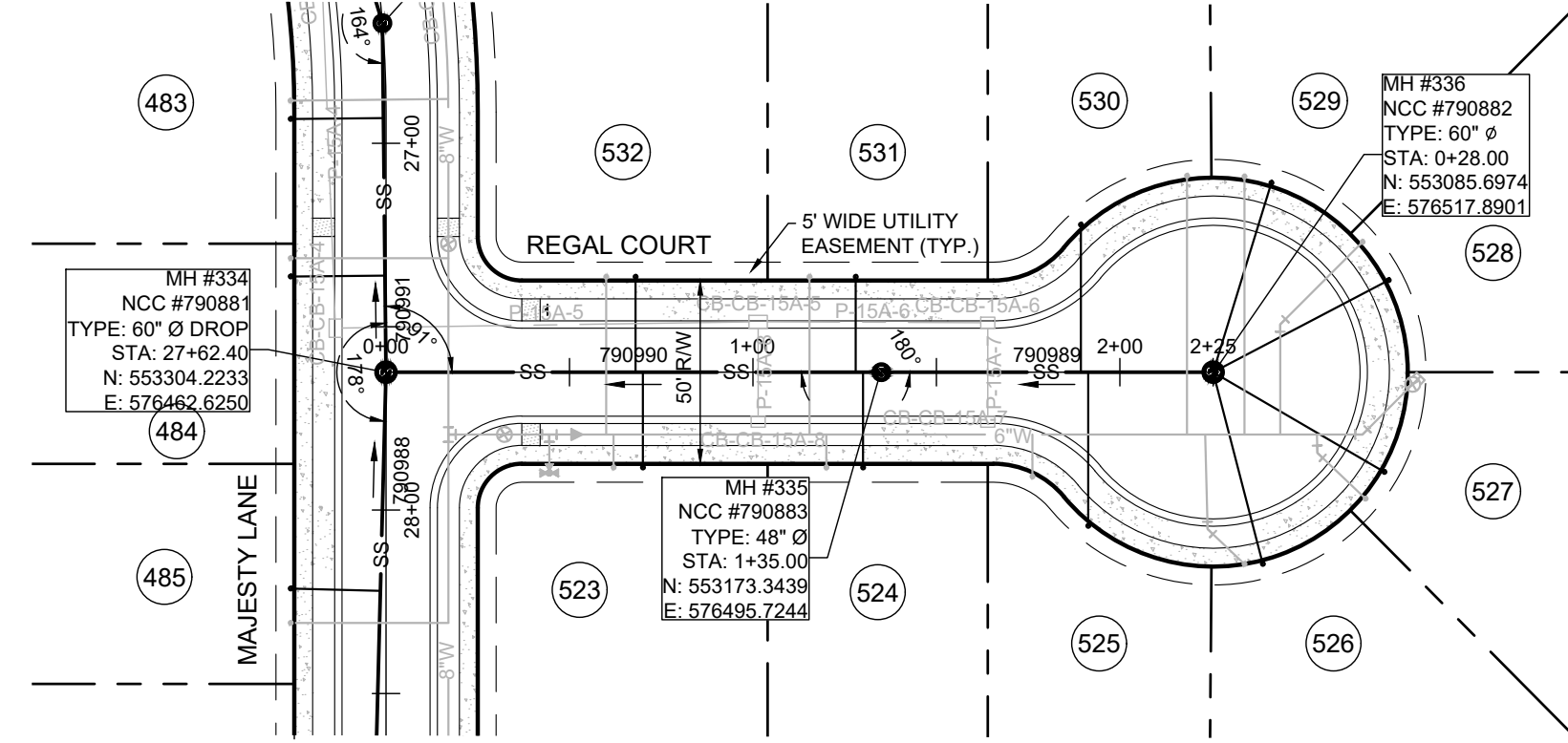
FOR PLAN CONTINUATION
SEE SHEET C-27

PLAN

SCALE: 1" = 50'



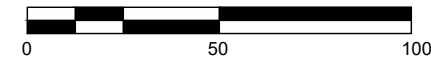
FOR PLAN CONTINUATION
SEE SHEET C-28



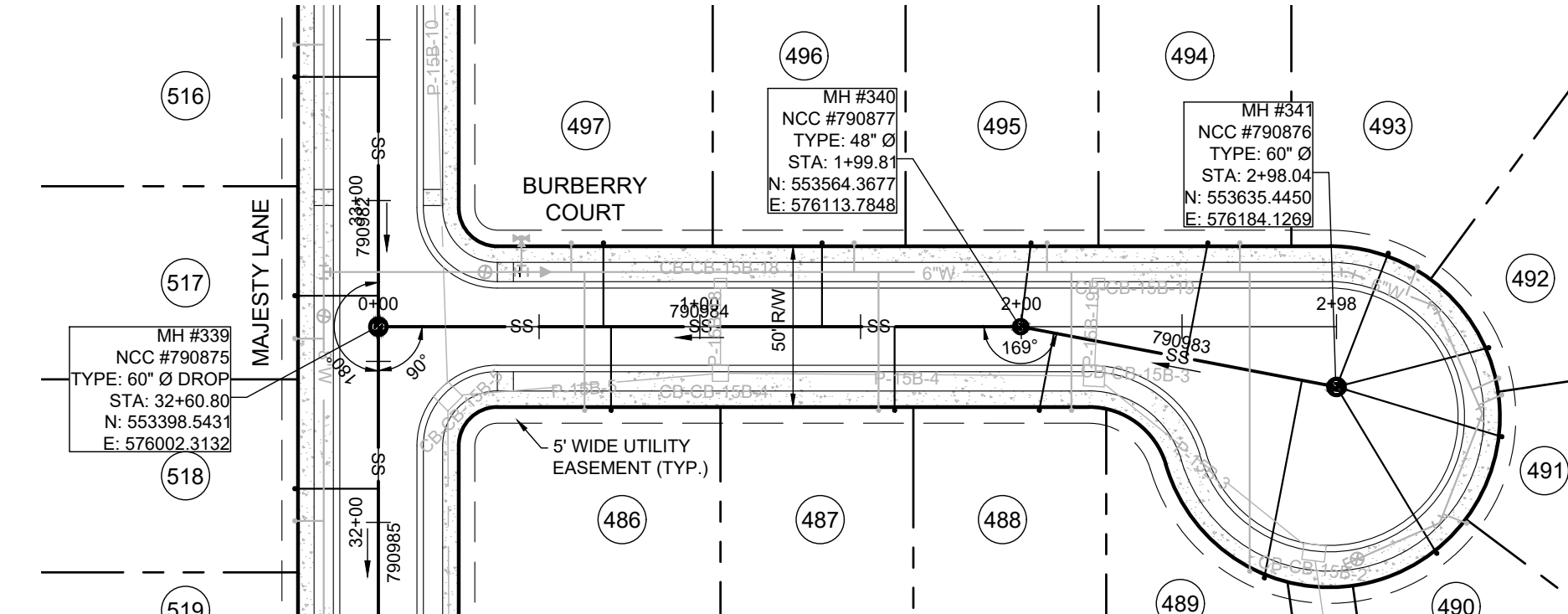
FOR PLAN CONTINUATION
SEE SHEET C-28

PLAN

SCALE: 1" = 50'



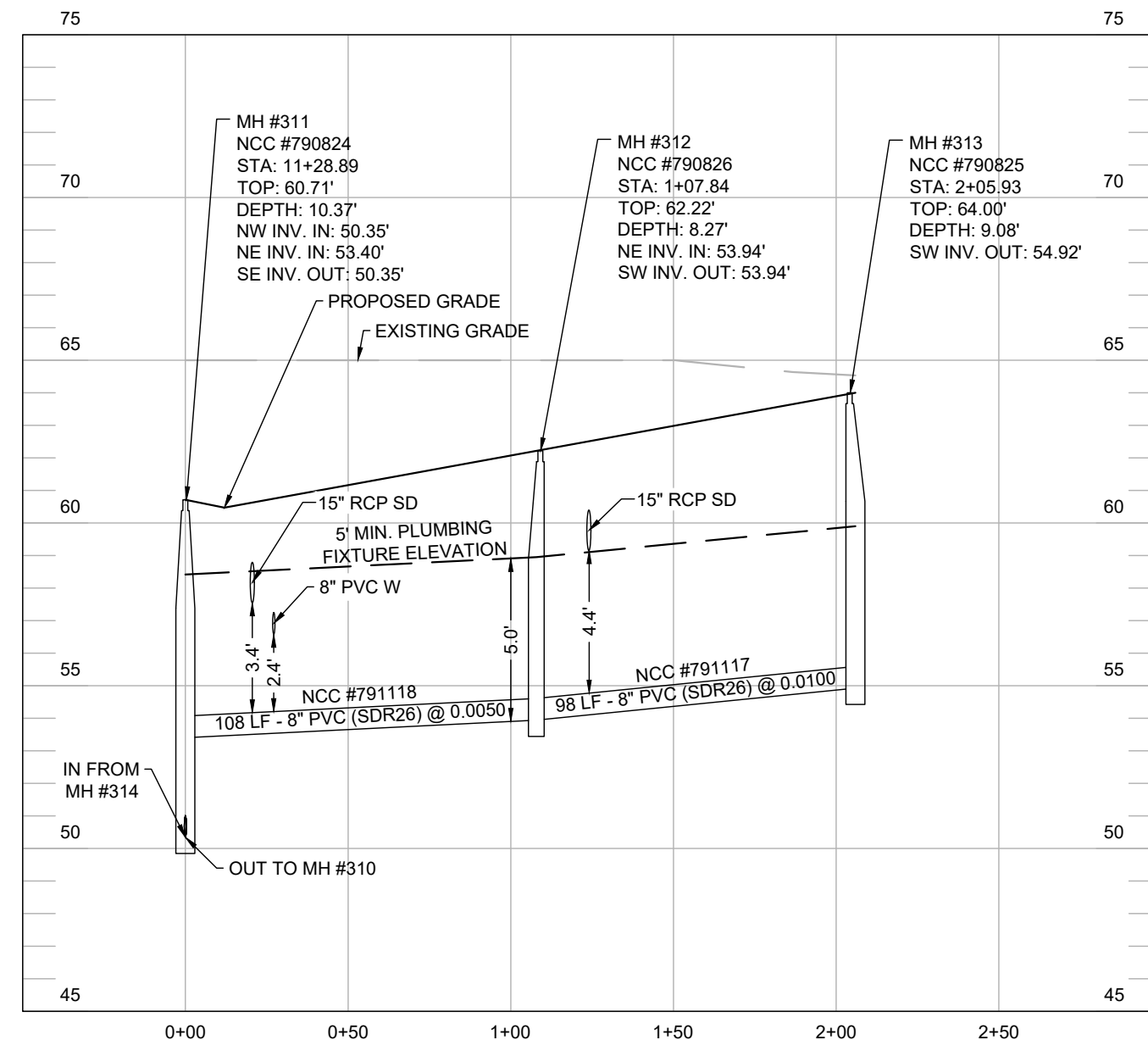
FOR PLAN CONTINUATION
SEE SHEET C-29



FOR PLAN CONTINUATION
SEE SHEET C-29

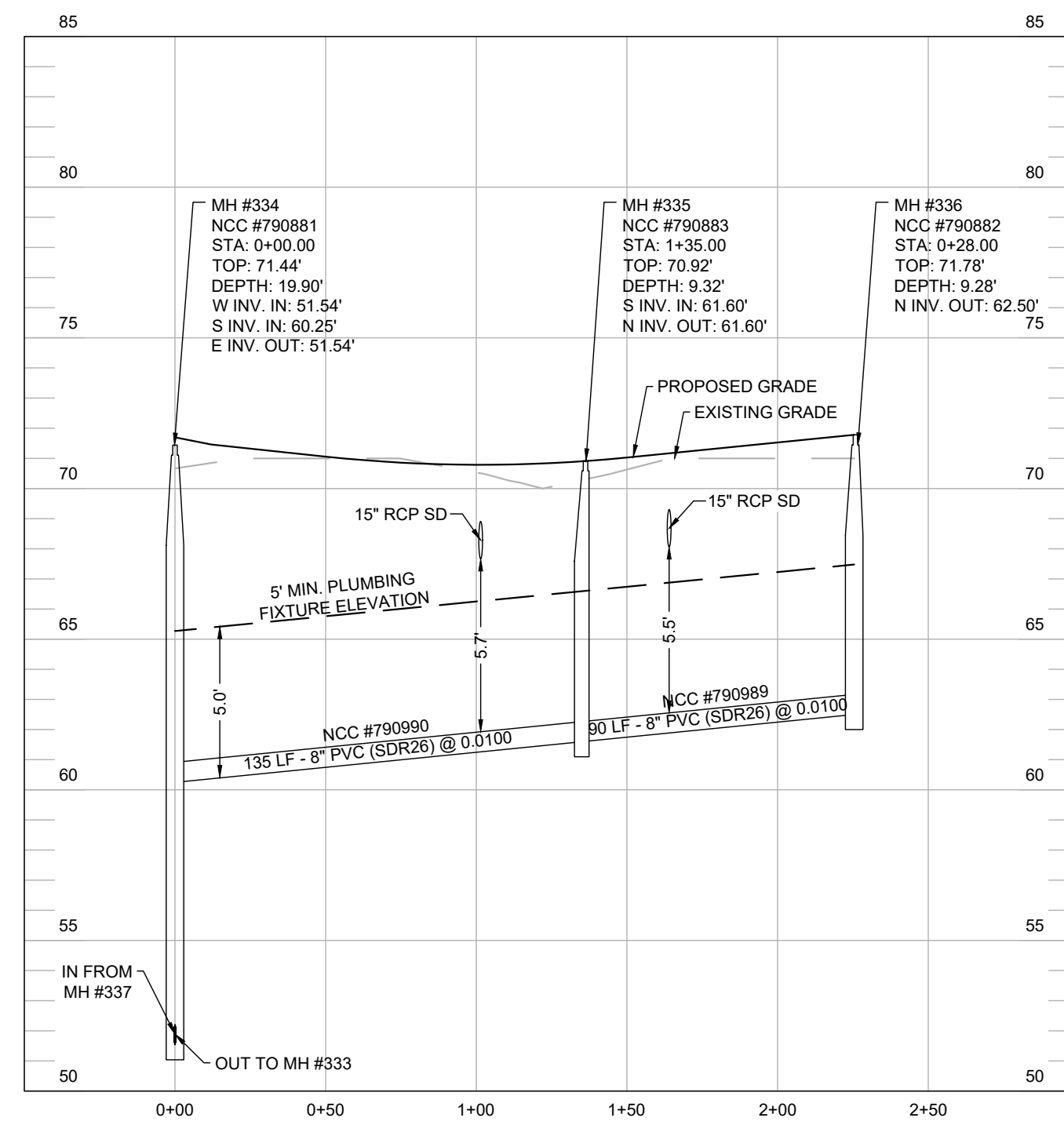
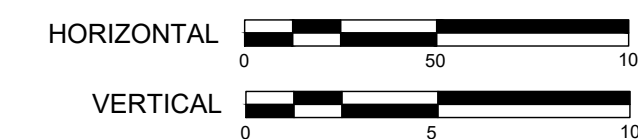
PLAN

SCALE: 1" = 50'



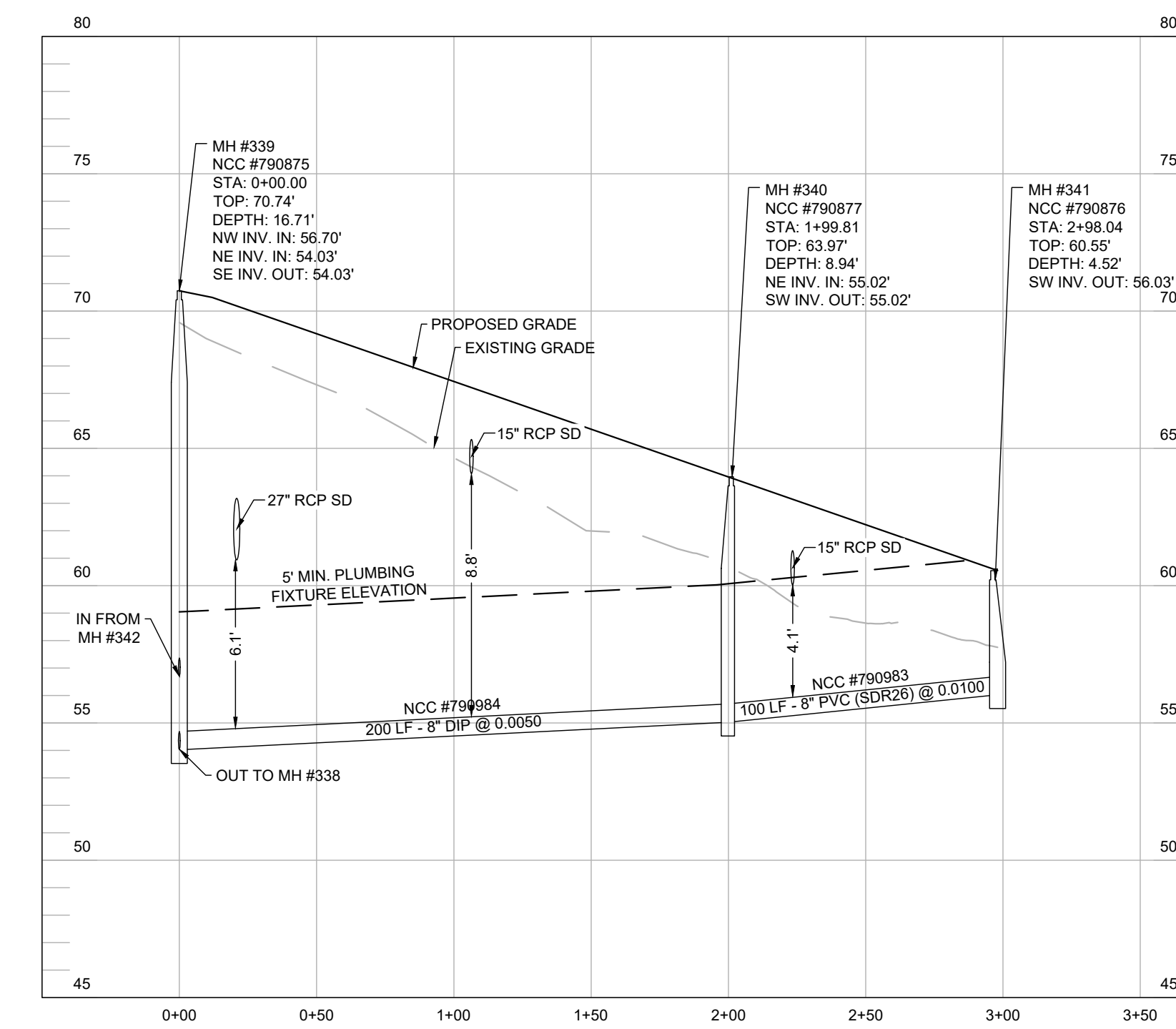
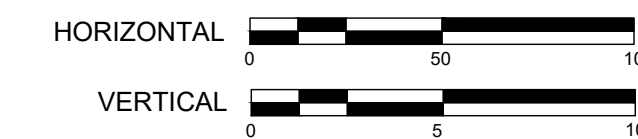
PROFILE: MH #311 TO MH #313

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



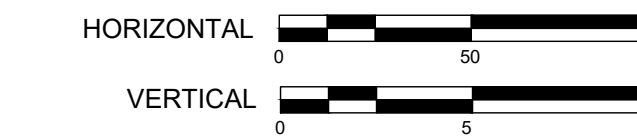
PROFILE: MH #334 TO MH #336

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



PROFILE: MH #339 TO MH #341

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



01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24
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08/01/23	REVISED PER NCCDPW COMMENTS 04/22/23
05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22
01/22	REVISED PER NCCDPW COMMENTS 09/30/22
DATE	REVISION

OWNER/DEVELOPER:
SB NORTH LLC
6784 PHILLIPS ST
REHOBOTH BEACH, DE 19871

CA NORTH LLC
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

CA JOY RUN LLC
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.

ENGINEERS - PLANNERS - SURVEYORS

1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711

PHONE: (302) 731-9176 FAX: (302) 731-8687 Website: www.kci.com

SCALE: PLAN: 1" = 50'

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS

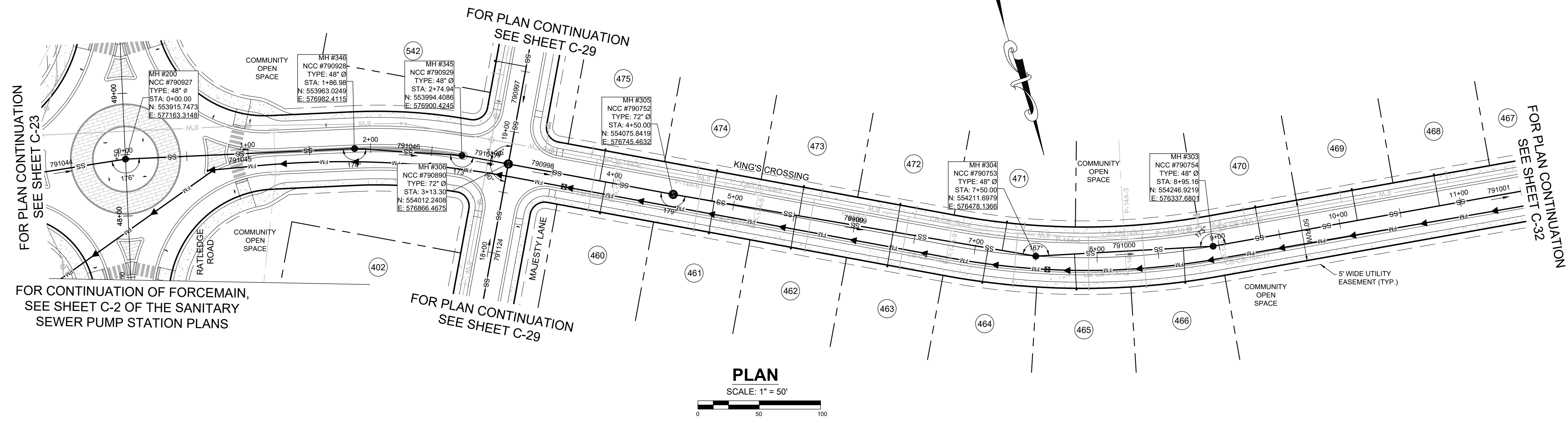
MONARCH DELAWARE

ST. GEORGES HUNDRED NEW CASTLE

1/17/24

RAMMON SAYLES
LICENSED PROFESSIONAL ENGINEER
No. 28860
Delaware

Drafting:	VRF	Check:	JC
Design:	VRF	Check:	JC
SCALE:	1" = 50'		
DATE:	01/17/2024		
KCI JOB #:	271904607.SP		
SHEET:	C-30		

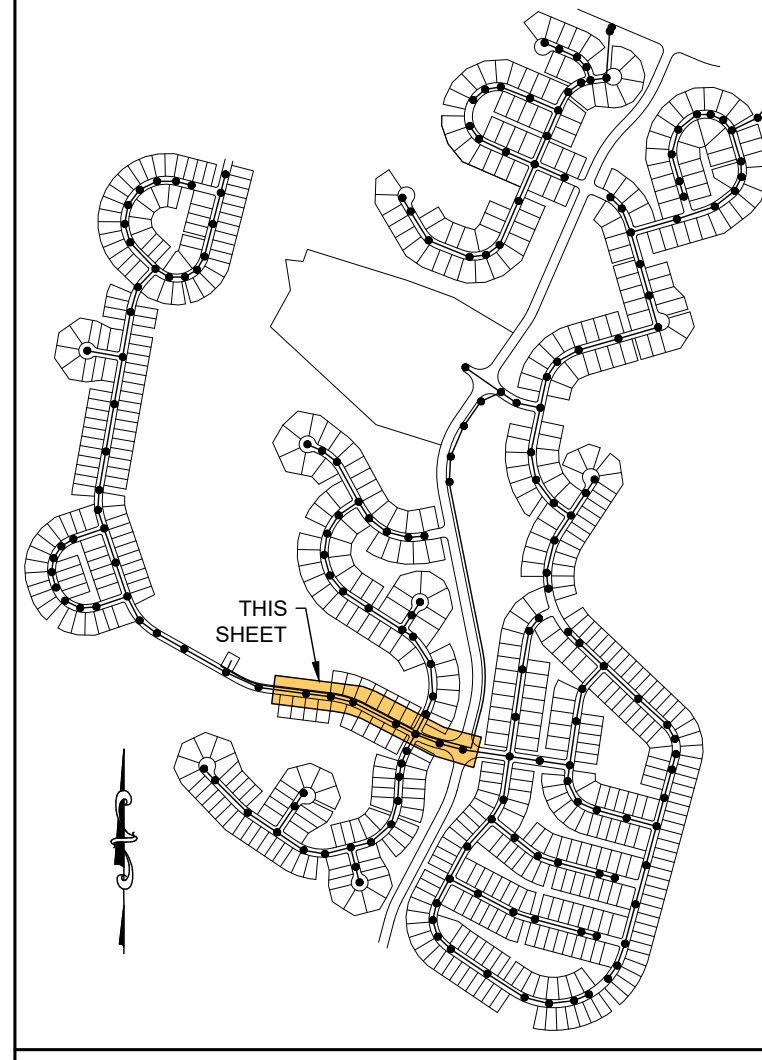
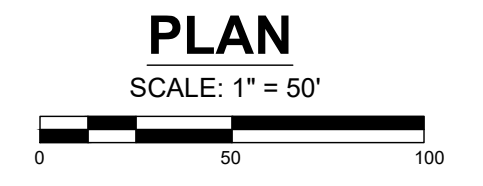


FOR CONTINUATION OF FORCEMAIN, SEE SHEET C-2 OF THE SANITARY SEWER PUMP STATION PLANS

FOR PLAN CONTINUATION SEE SHEET C-23

FOR PLAN CONTINUATION SEE SHEET C-29

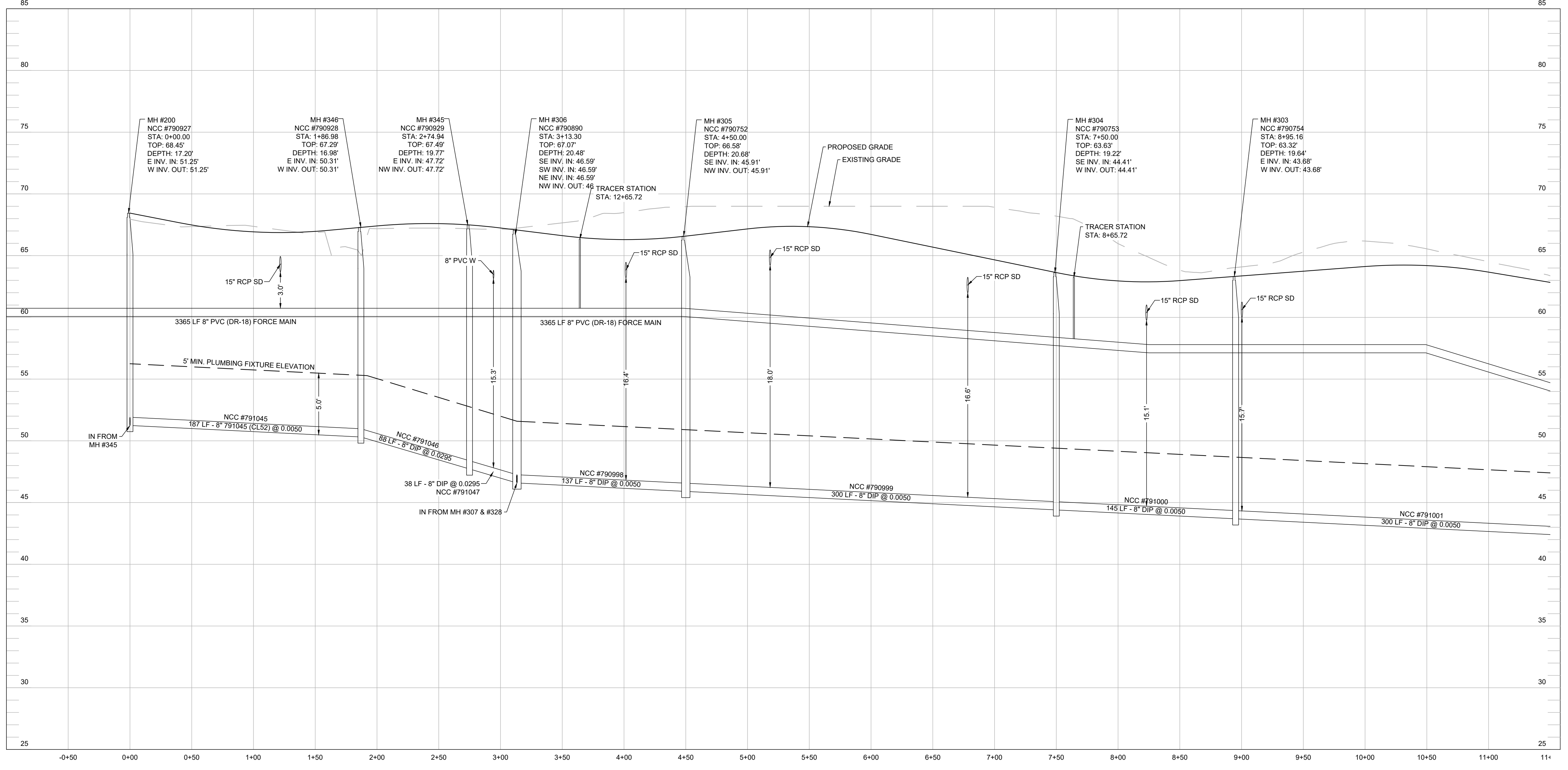
FOR PLAN CONTINUATION SEE SHEET C-32



KEY MAP SCALE: 1" = 1,200'

NOTES:

- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
- STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
- LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
- PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.
- SEE SHEET C-1 THROUGH C-3 OF THE SANITARY SEWER PUMP STATION PLANS FOR FORCEMAIN DESIGN.



PROFILE: MH #200 TO MH #302

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



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02/01/23	REVISED PER NCCDPW COMMENTS 1/10/23
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05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22
	DATE

OWNER/DEVELOPER:
 SB NORTH LLC
 38 PHILLIPS ST
 REHOBOTH BEACH, DE 19871

ENGINEERS - SURVEYORS
 KCI TECHNOLOGIES, INC.
 1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
 PHONE: (302) 733-9176 FAX: (302) 731-1887 Website: www.kci.com

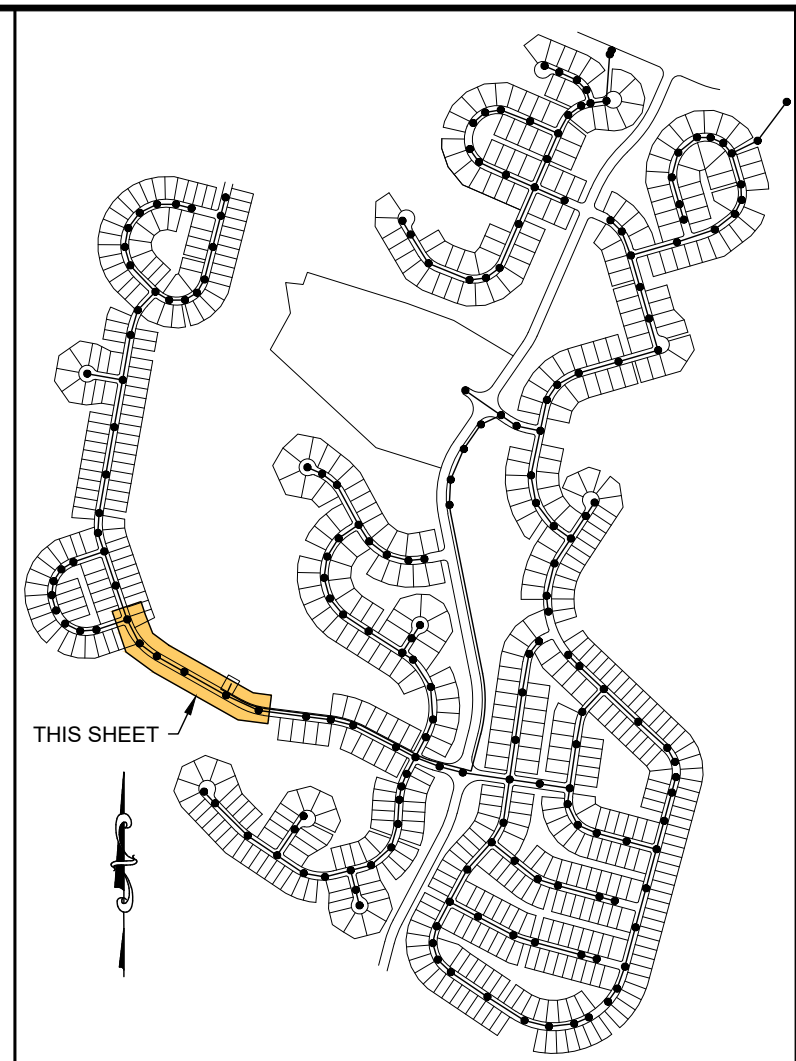
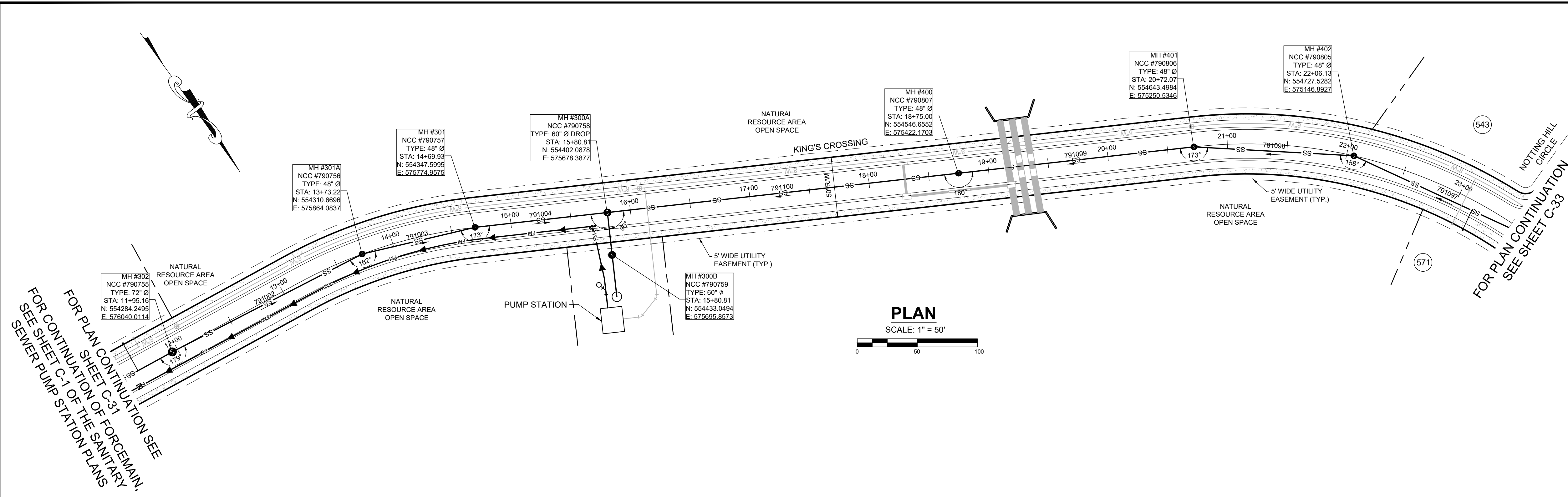
KCI TECHNOLOGIES, INC.

ENGINEERS - SURVEYORS
 PLANNERS - DESIGNERS
 1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
 PHONE: (302) 733-9176 FAX: (302) 731-1887 Website: www.kci.com

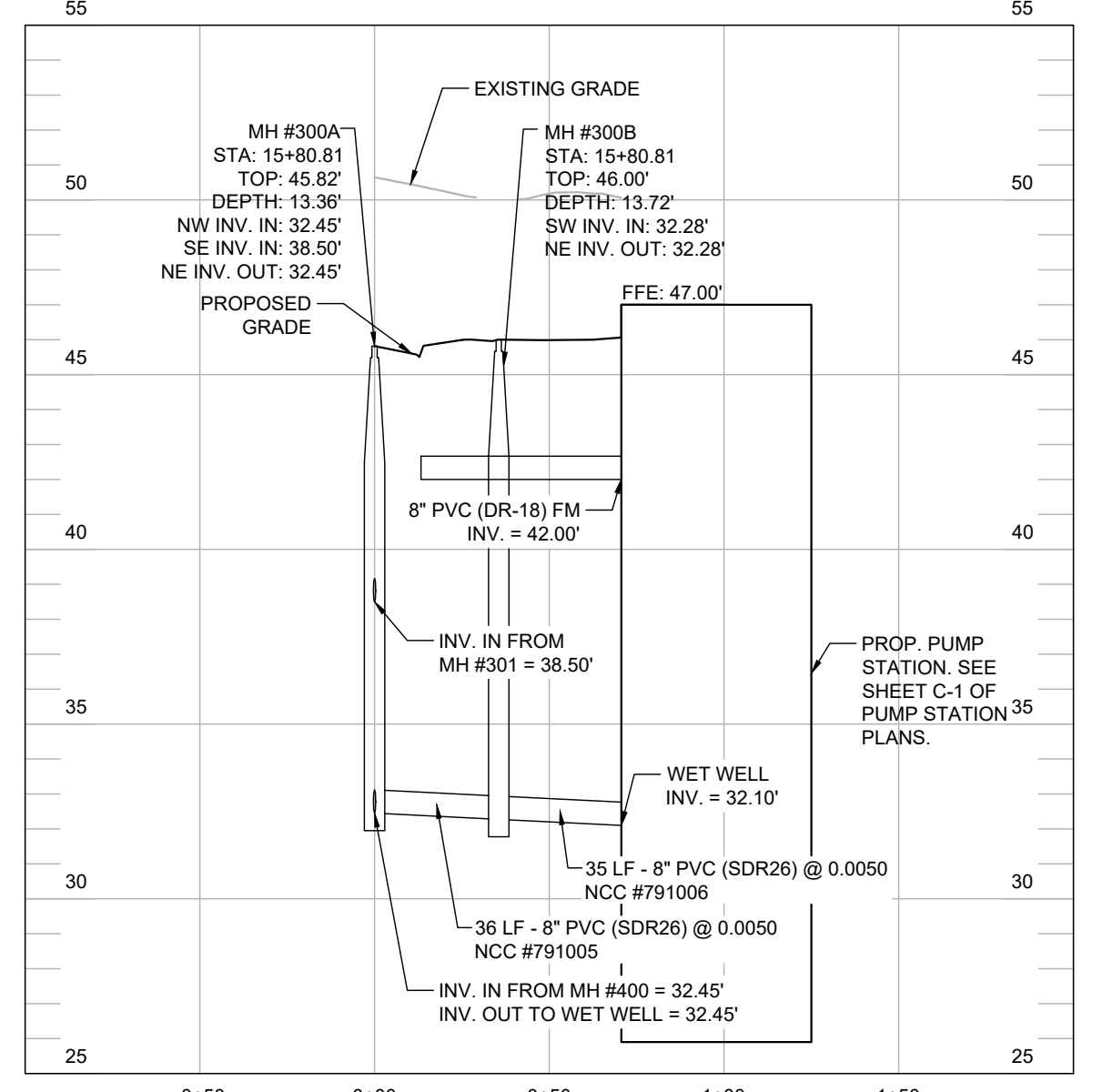
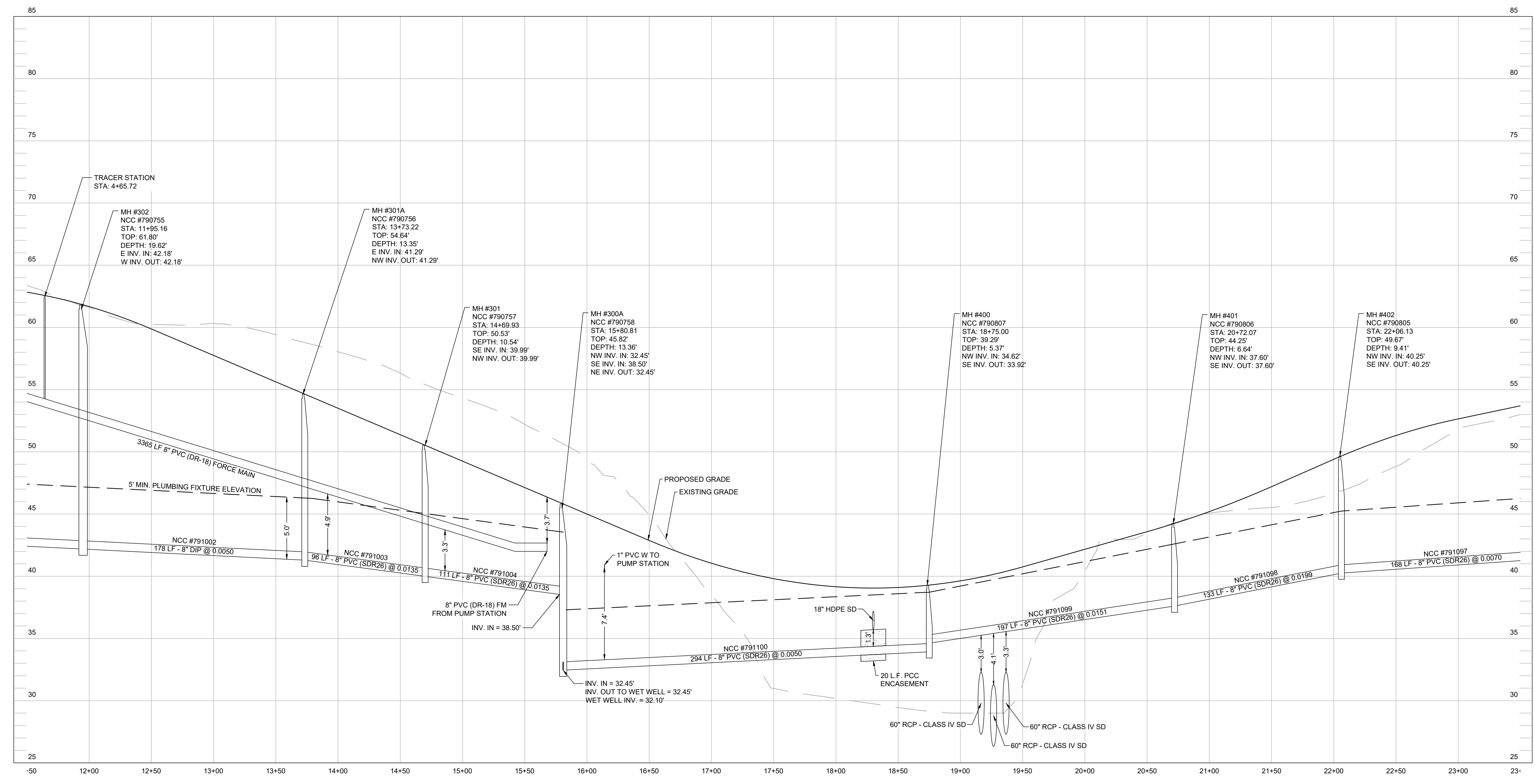
PLAN AND PROFILE
 SANITARY SEWER CONSTRUCTION PLANS
 FOR
MONARCH
 NEW CASTLE
 DELAWARE



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Design: VRF	Check: JC
SCALE: 1"=50'	
DATE: 01/17/2024	
KCI JOB #: 271904607.SP	
SHEET: C-31	



- NOTES:**
1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-37 & C-38.
 2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF-STREET MANHOLES.
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1/17/22	REVISED PER NCCDPW COMMENTS 08/30/22
02/22	REVISED PER COMMENTS 5/26/22
	DATE

OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST
REHOBOTH BEACH, DE 19871

CA NORTH LLC
18849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

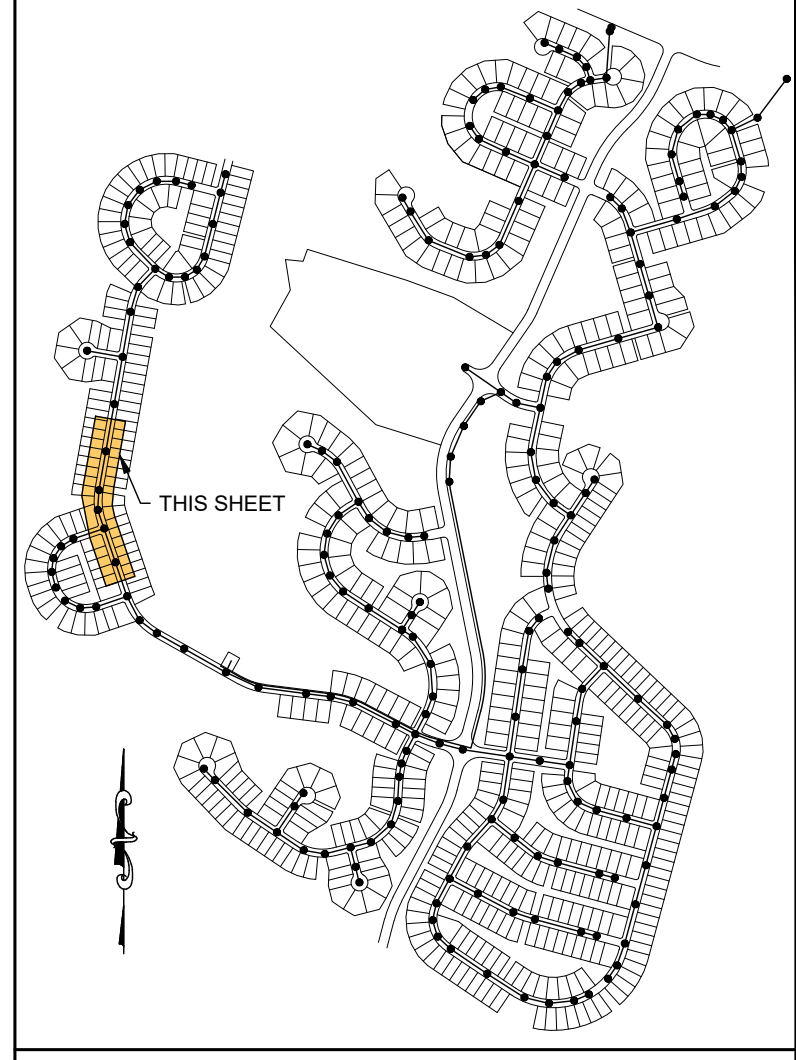
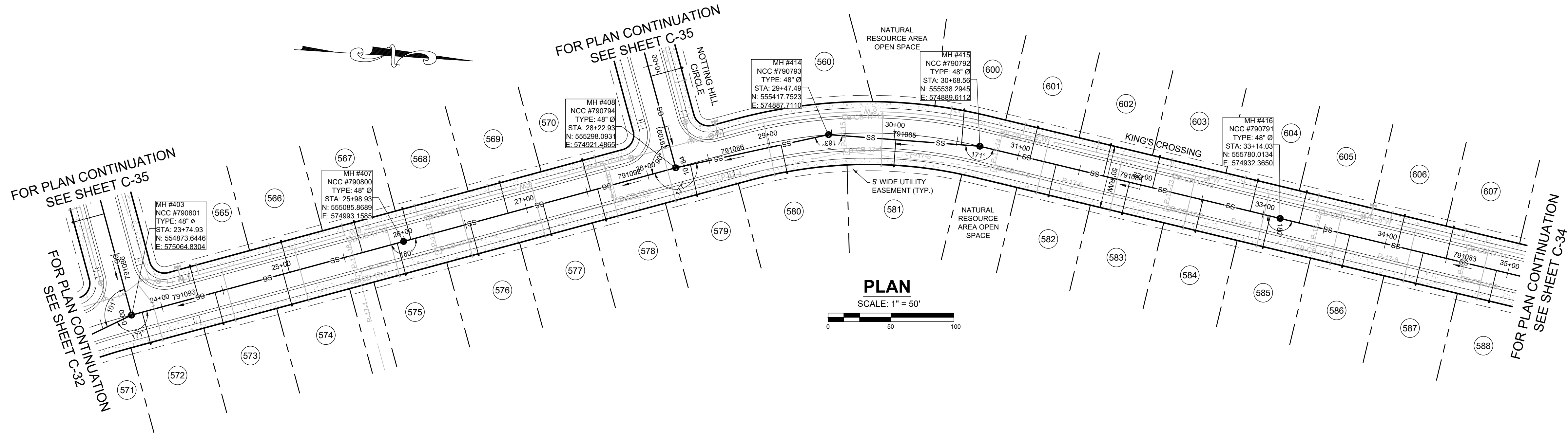
OA JOY RUN LLC
18849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

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KCI TECHNOLOGIES, INC.
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 733-1887 Website: www.kci.com

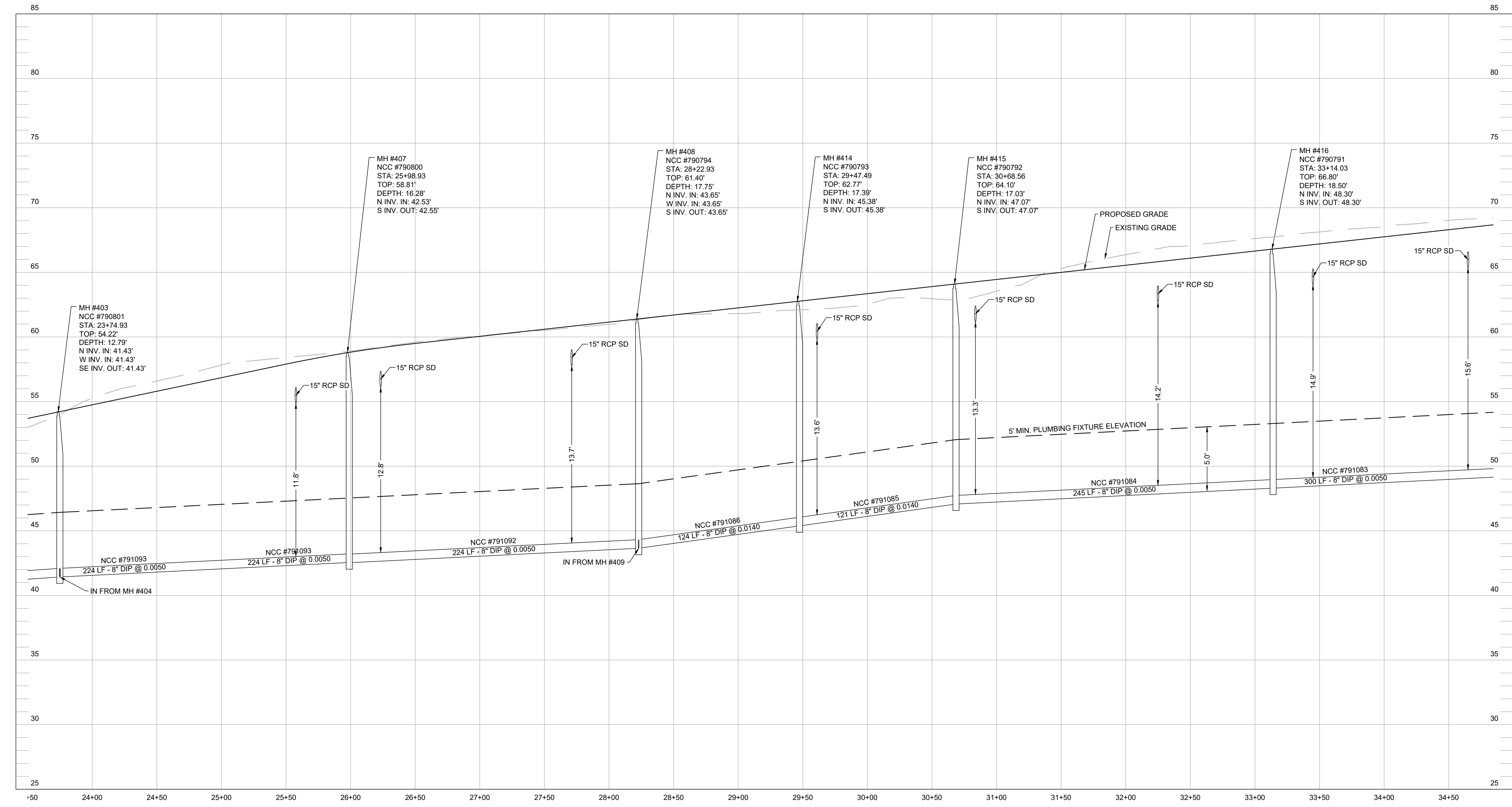
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
FOR
MONARCH
NEW CASTLE
DELAWARE

1/17/24
No. 28860
Professional Engineer
Delaware

Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904607.SP
SHEET: C-32



- NOTES:**
1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
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02/22	REVISED PER NCCDPW COMMENTS 01/26/22

OWNER/DEVELOPER:
SB NORTH LLC
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9376 FAX: (302) 731-8687 Website: www.kci.com

KCI TECHNOLOGIES, INC.

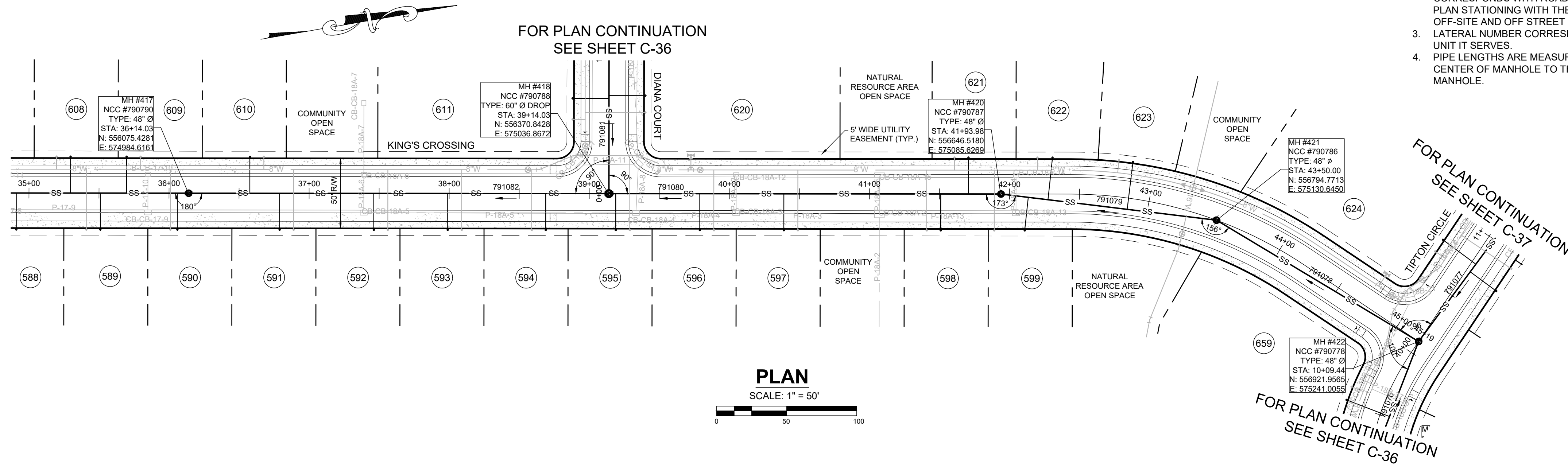
ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9376 FAX: (302) 731-8687 Website: www.kci.com

PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
FOR
MONARCH
NEW CASTLE
DELAWARE

1/17/24
HARMON SAYLES
LICENSED
No. 28860
Professional Engineer
DELAWARE

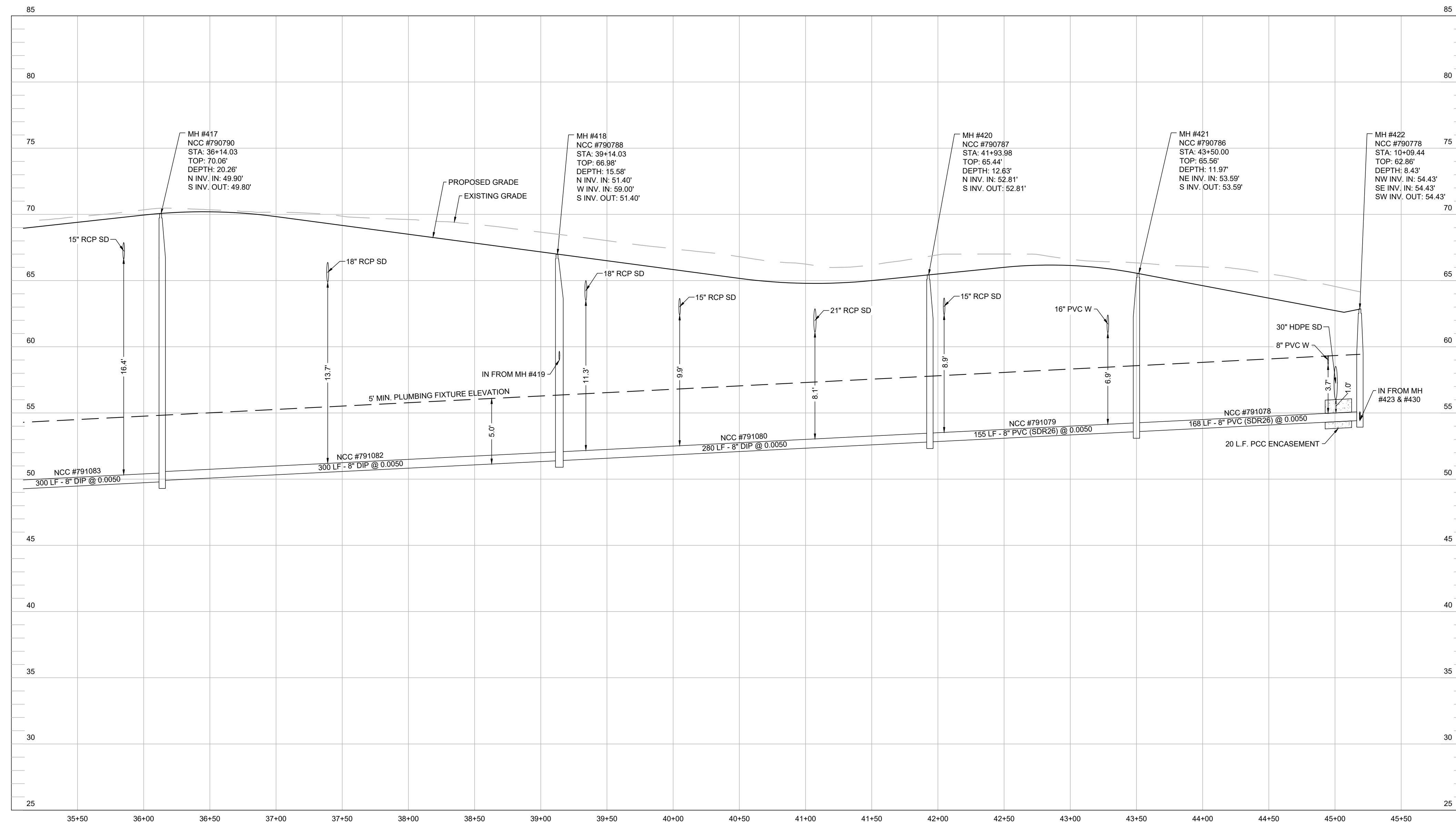
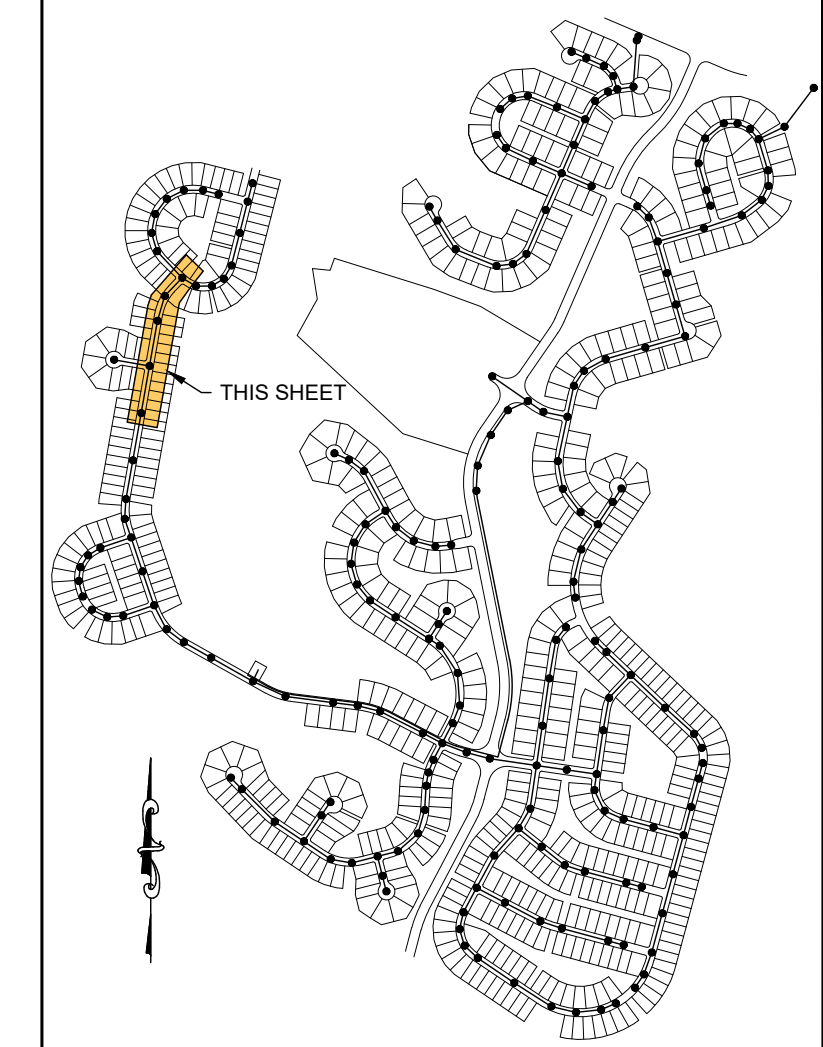
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SCALE:	1"=50'		
DATE:	01/17/2024		
KCI JOB #:	271904607.SP		
SHEET:	C-33		

FOR PLAN CONTINUATION
SEE SHEET C-33



NOTES:

1. FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
2. STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
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OWNER/DEVELOPER:
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1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

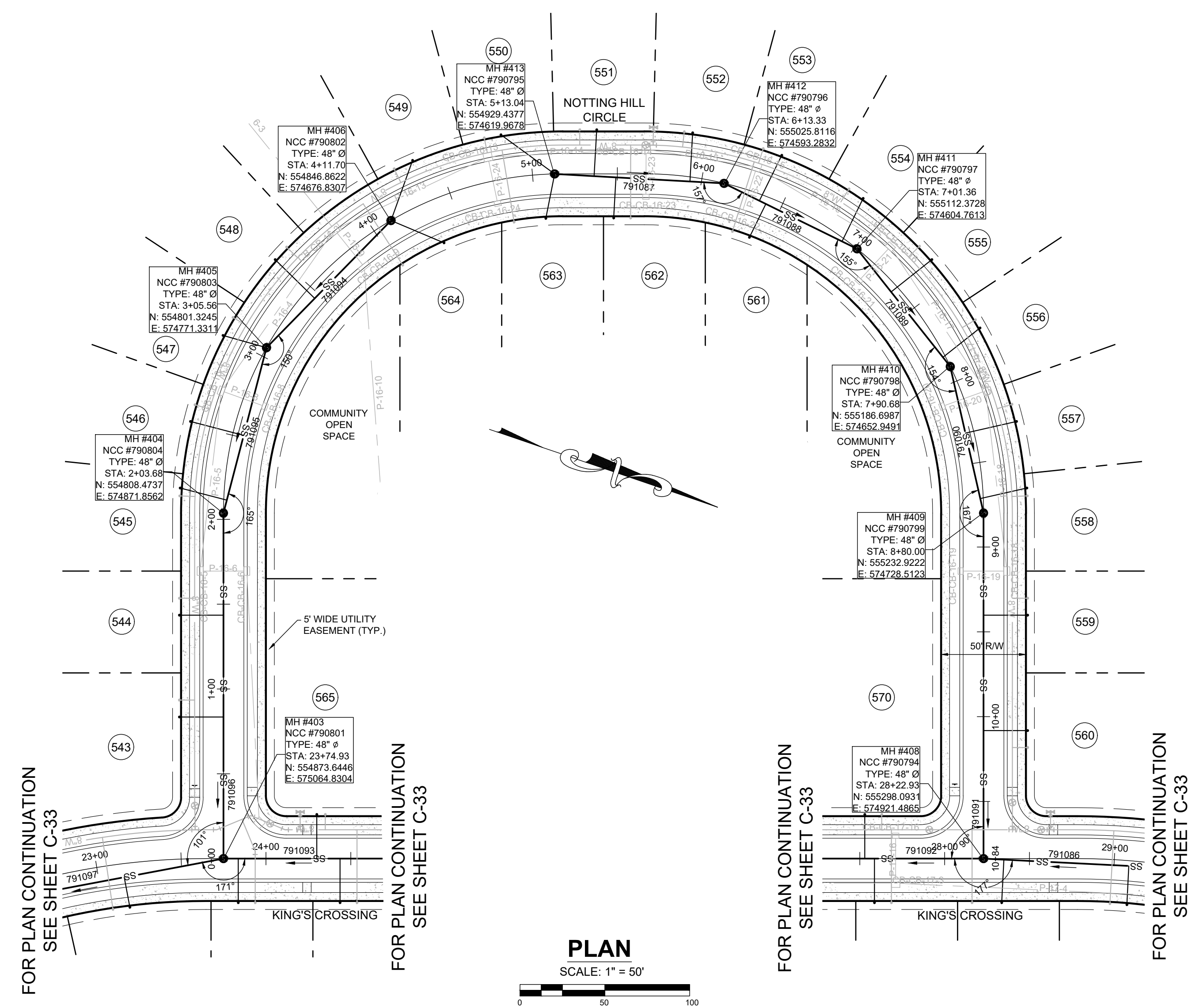
ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
1332 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-1887 Website: www.kci.com

ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
1332 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 731-1887 Website: www.kci.com

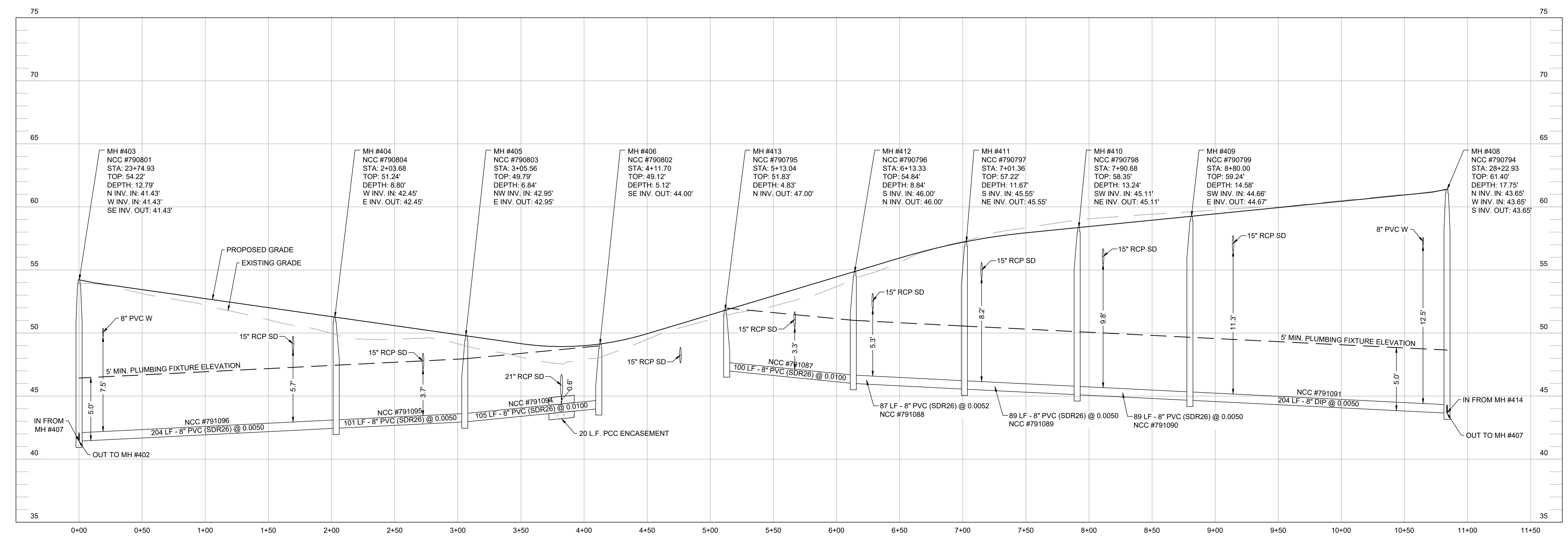
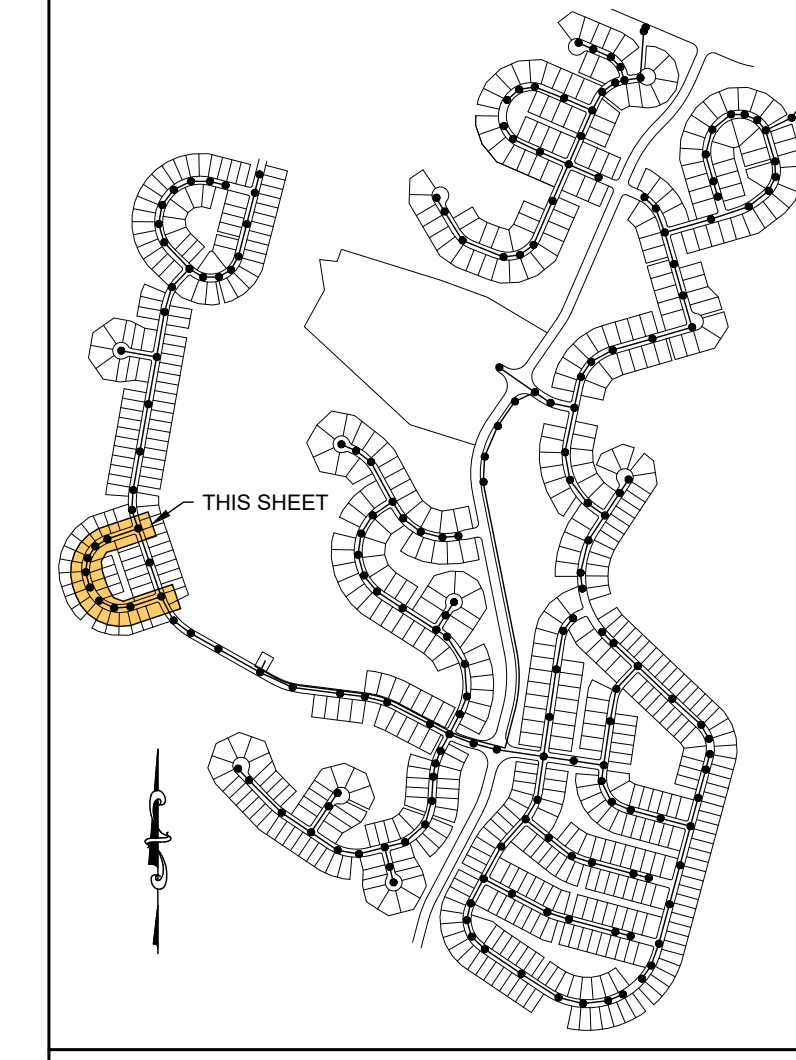
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
FOR
MONARCH
NEW CASTLE
DELAWARE



Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-34



- NOTES:**
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
 - STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
 - LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
 - PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



01/17/24	REVISED PER NCCDRW COMMENTS 01/16/24
02/07/23	REVISED PER NCCDRW COMMENTS 1/10/23
08/01/23	REVISED PER NCCDRW COMMENTS 04/22/23
05/12/23	REVISED PER NCCDRW COMMENTS 04/22/23
04/05/23	REVISED PER DEDDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDRW COMMENTS 08/30/22
DATE	REVISED PER NCCDRW COMMENTS 09/20/22

OWNER/DEVELOPER:
SB NORTH LLC
20784 PHILLIPS ST
REHOBOTH BEACH, DE 19871

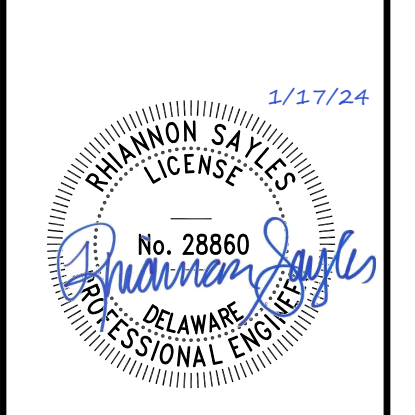
ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

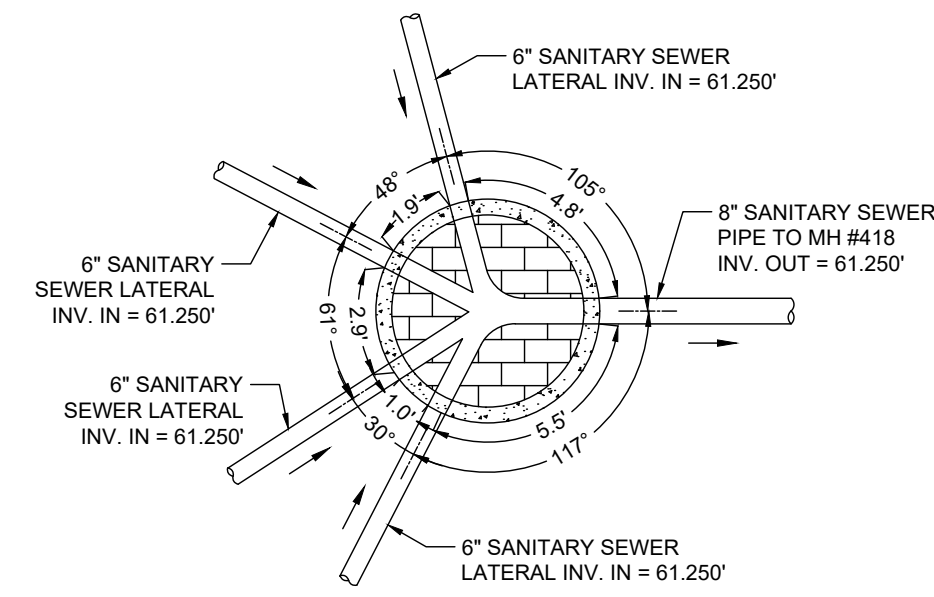
KCI TECHNOLOGIES, INC.

ENGINEERS - PLANNERS - SURVEYORS
1332 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 733-1887 Website: www.kci.com

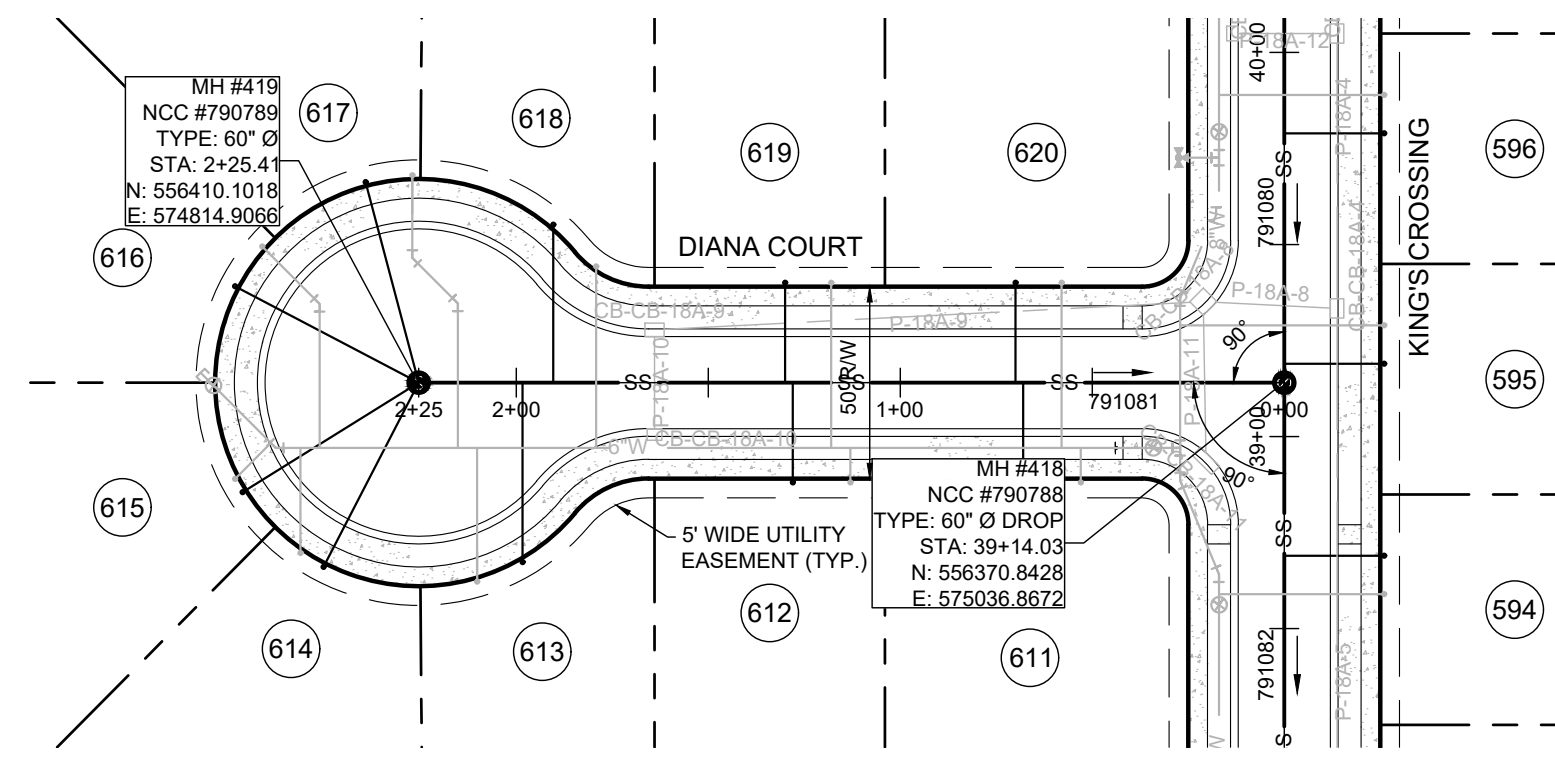
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
FOR
MONARCH
NEW CASTLE
DELAWARE



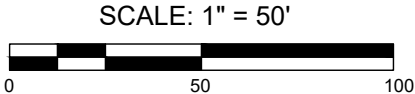
Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-35



MH #419 DETAIL
SCALE: 1" = 5'

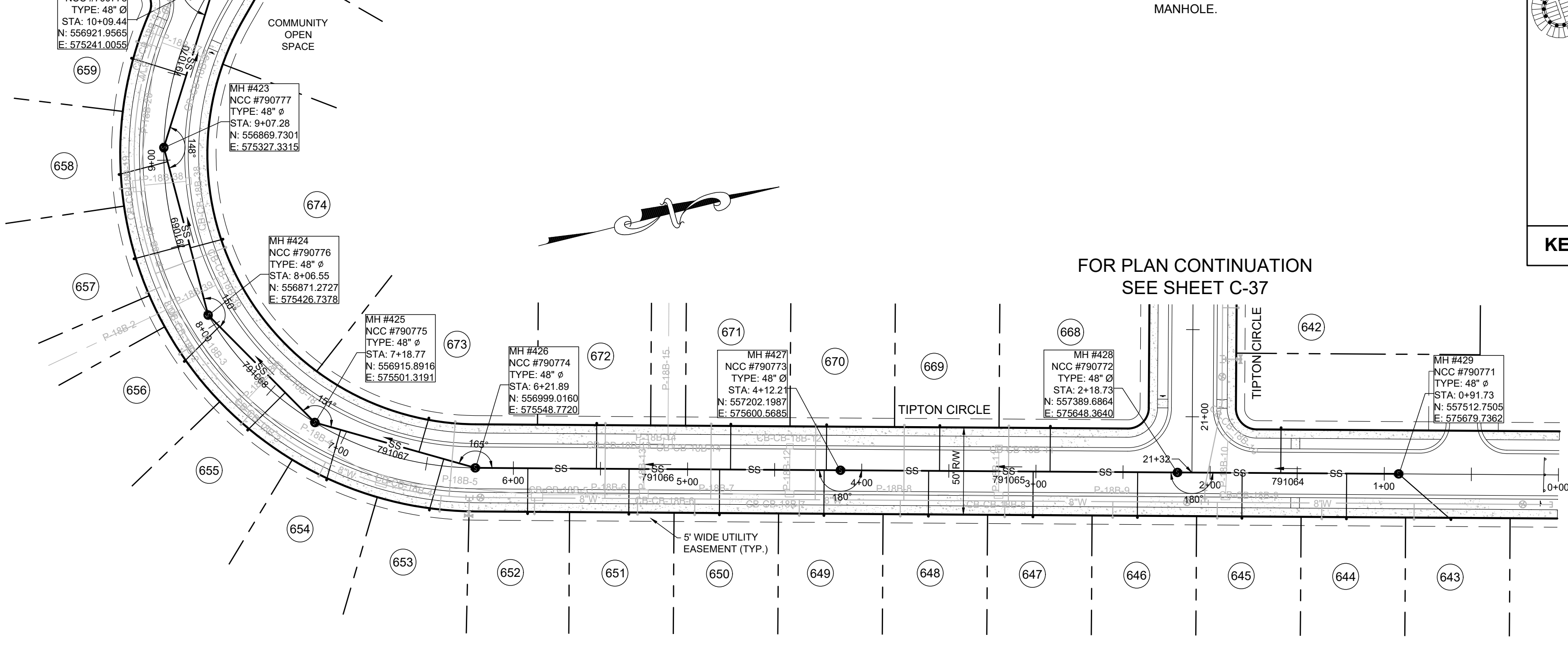


PLAN
SCALE: 1" = 50'



FOR PLAN CONTINUATION
SEE SHEET C-34

FOR PLAN CONTINUATION
SEE SHEET C-37

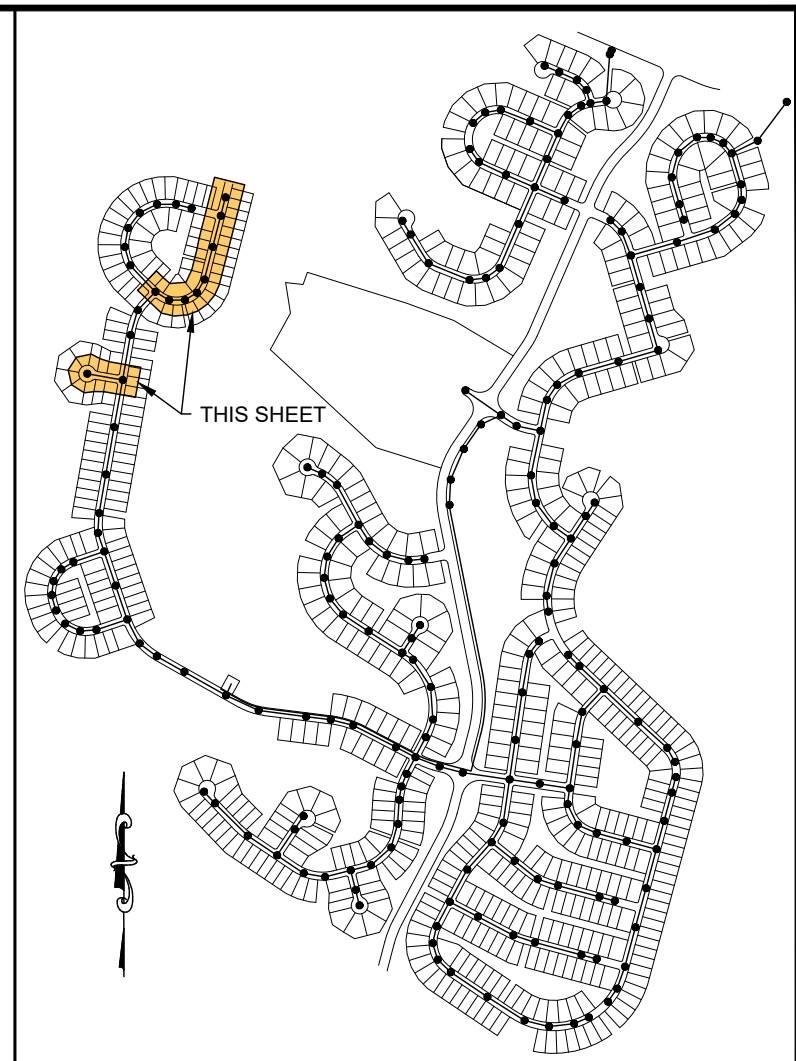


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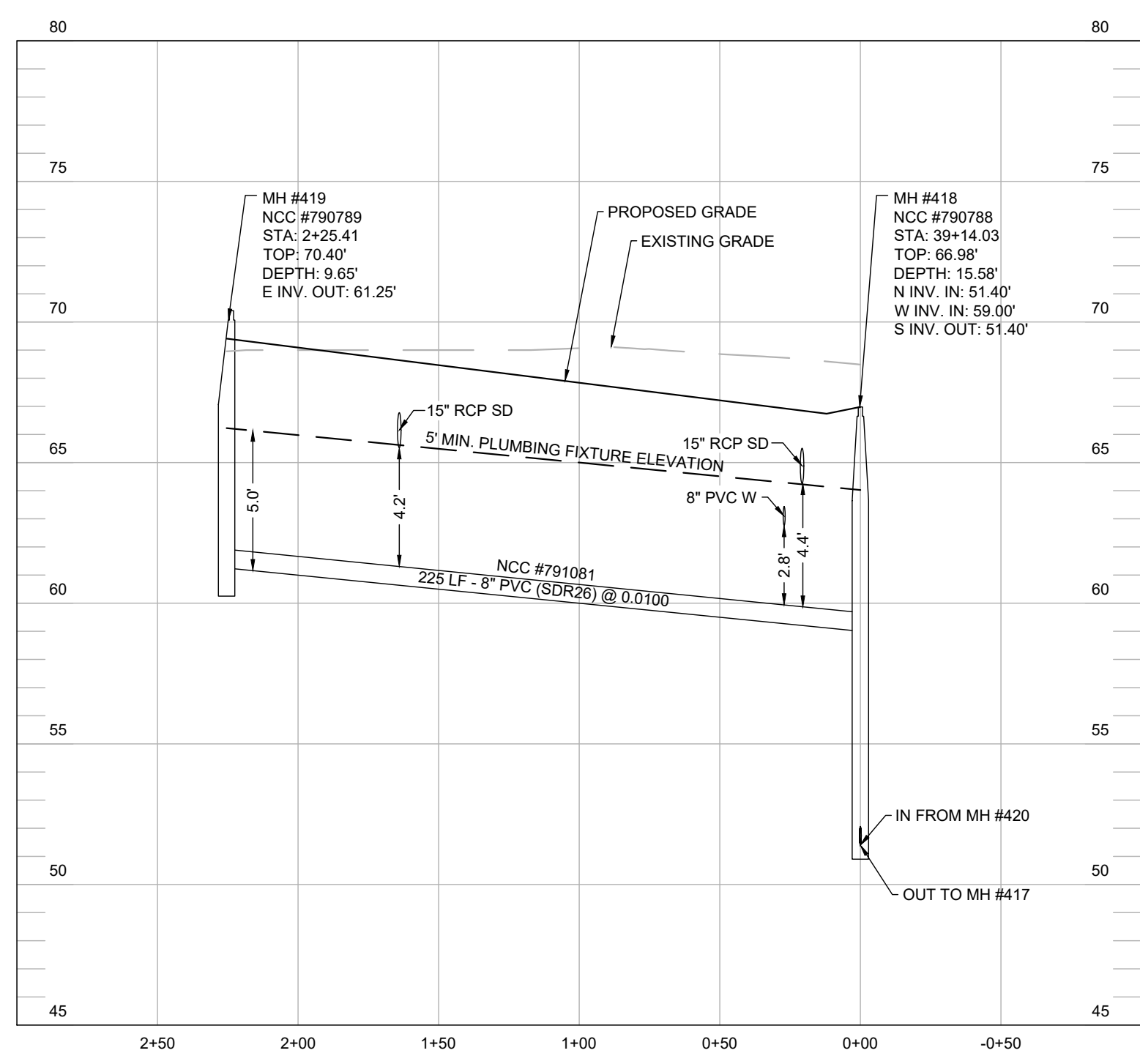


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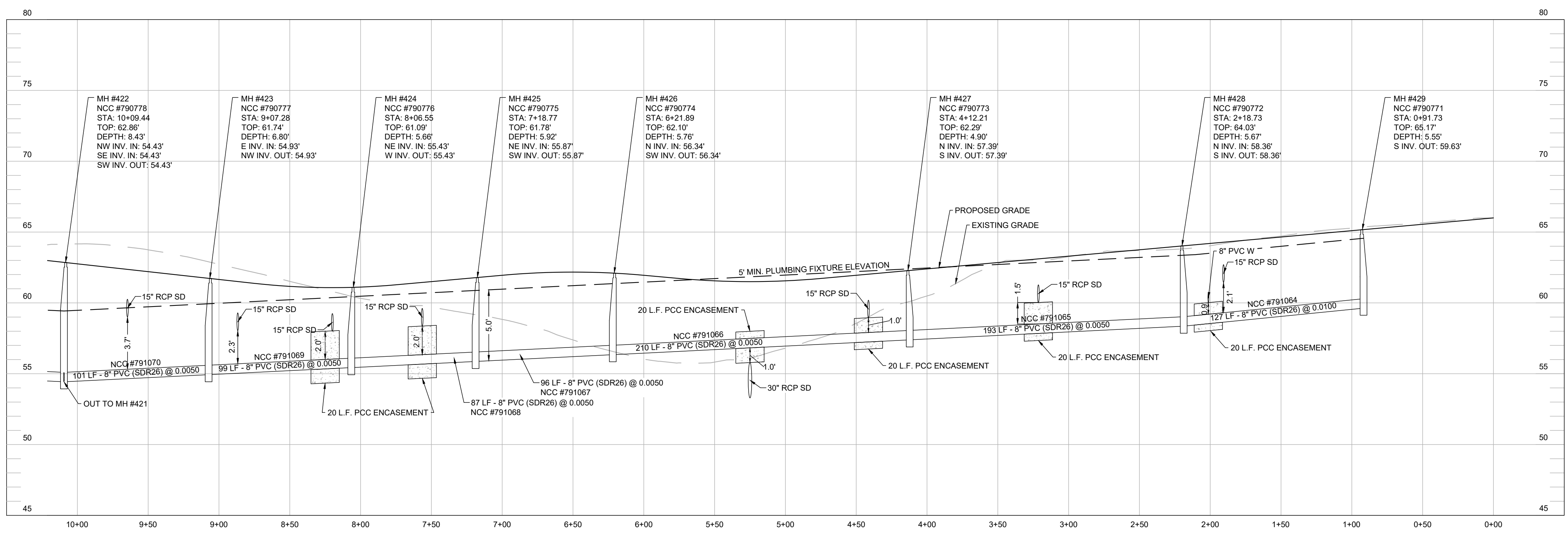
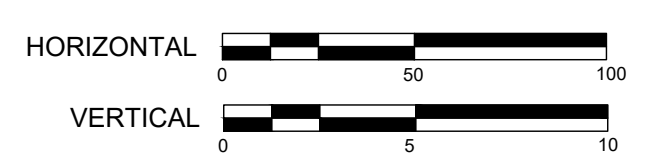
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
- STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
- LATERAL NUMBER CORRESPONDS TO THE UNIT IT SERVES.
- PIPE LENGTHS ARE MEASURED FROM THE CENTER OF MANHOLE TO THE CENTER OF MANHOLE.



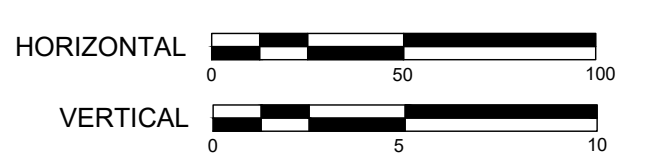
KEY MAP SCALE: 1" = 1,200'



PROFILE: MH #419 TO MH #418
SCALE: HORIZ.: 1" = 50' VERT.: 1" = 5'



PROFILE: MH #422 TO MH #429
SCALE: HORIZ.: 1" = 50' VERT.: 1" = 5'



01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24
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05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23
04/05/23	REVISED PER DELDOT COMMENTS 03/27/23
1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22
DATE	REVISION

OWNER/DEVELOPER:
SB NORTH LLC
30784 PHILLIPS ST
REHOBOTH BEACH, DE 19871

CA NORTH LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

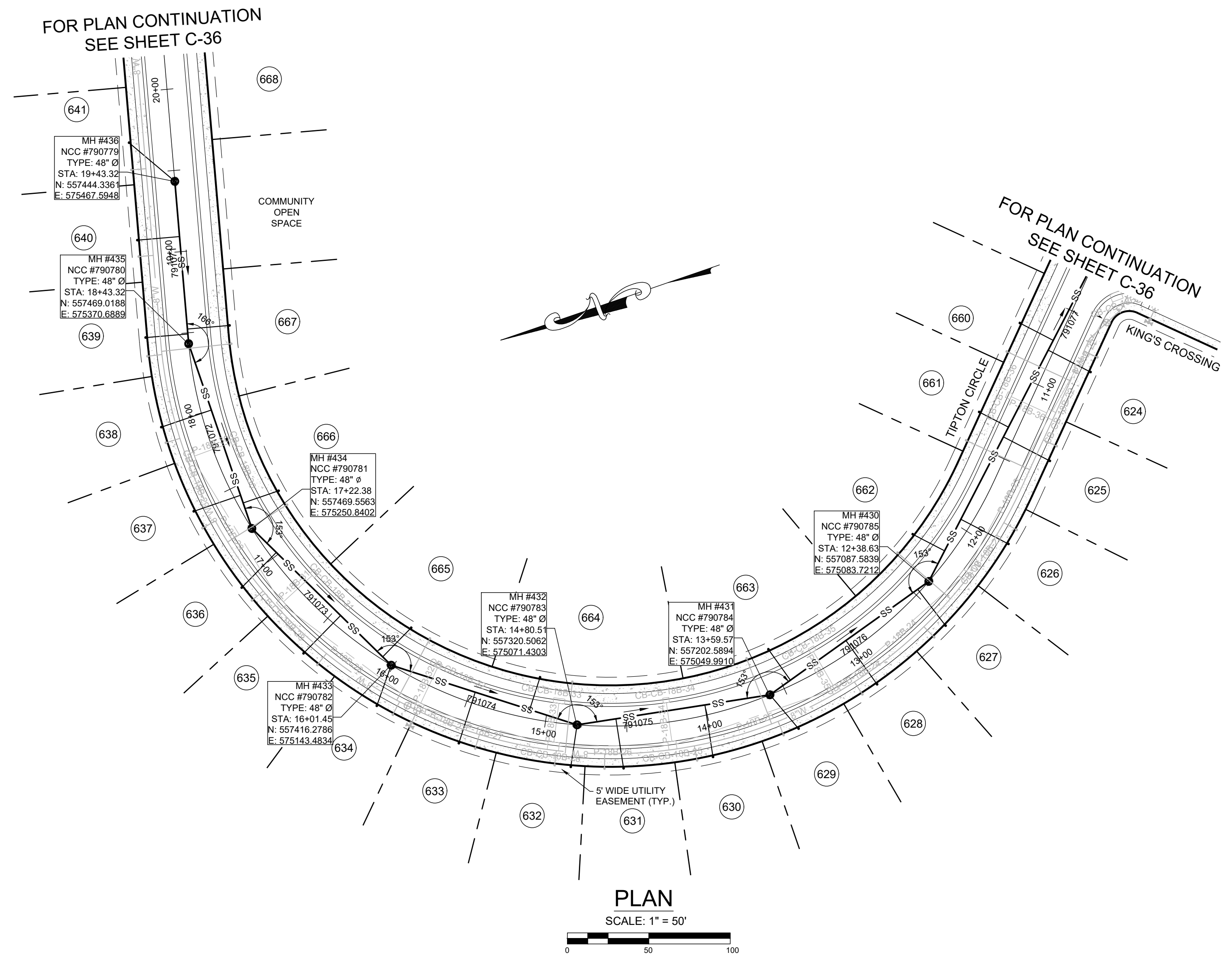
CA JOY RUN LLC
18949 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

KCI TECHNOLOGIES, INC.
ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9170 FAX: (302) 731-8871 Website: www.kci.com

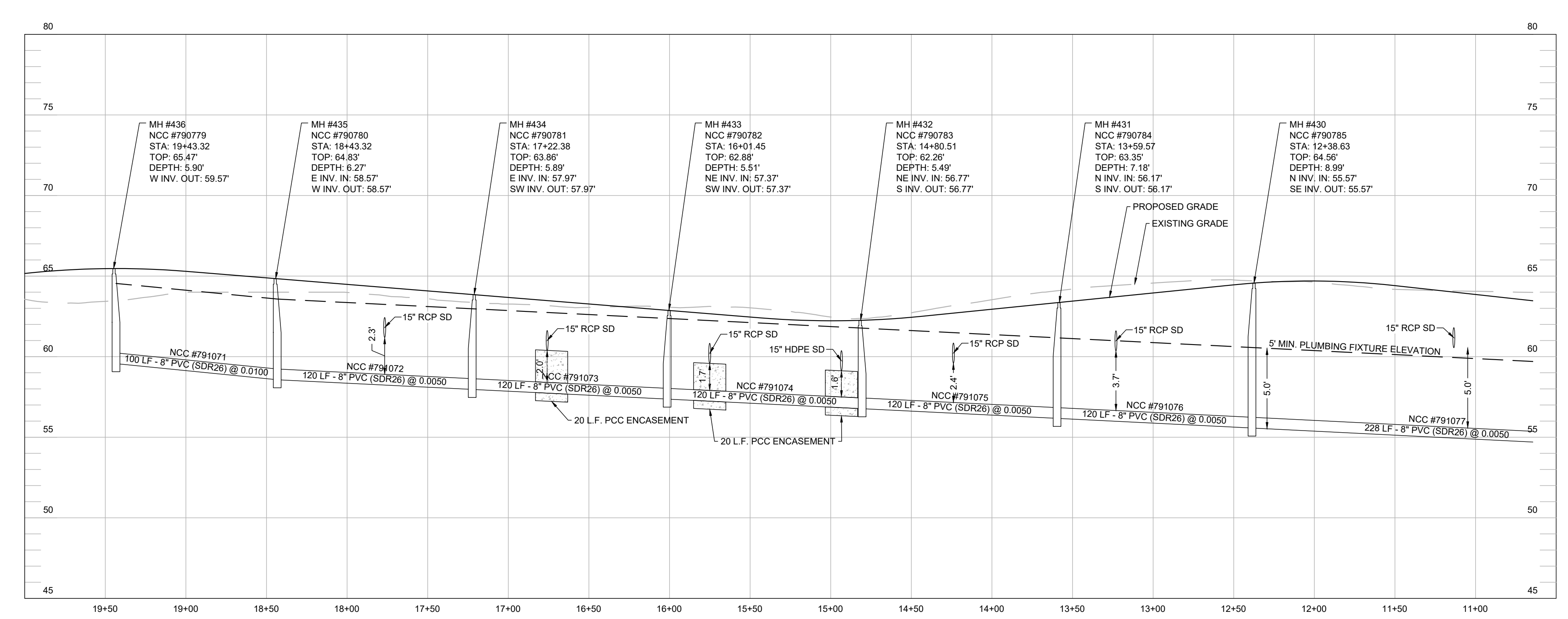
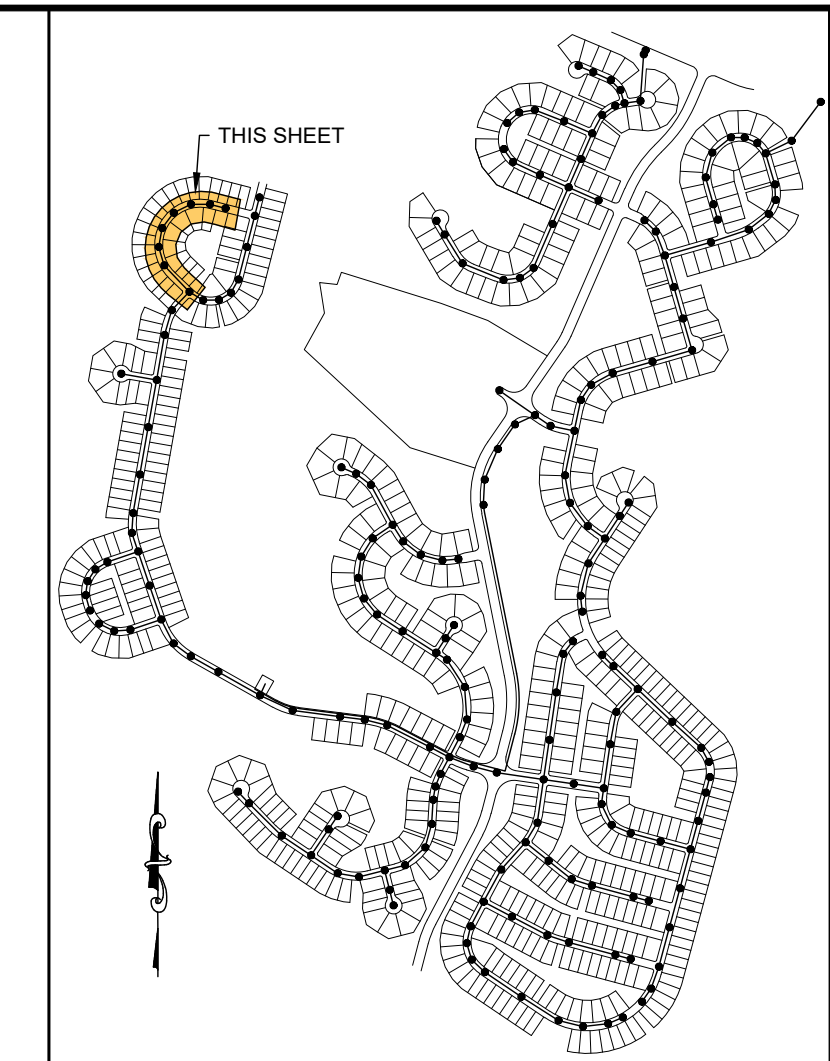
PLAN AND PROFILE
SANITARY SEWER CONSTRUCTION PLANS
FOR
MONARCH
NEW CASTLE
DELAWARE

1/17/24
No. 28860
Summer Saylor
PROFESSIONAL ENGINEER
DELAWARE

Drafting: VRF	Check: JC
Design: VRF	Check: JC
SCALE: 1"=50'	
DATE: 01/17/2024	
KCI JOB #: 271904807.SP	
SHEET: C-36	



- NOTES:**
- FOR LATERAL INFORMATION, SEE LATERAL TABLES ON SHEETS C-38 & C-39.
 - STATIONING OF SANITARY SEWER FACILITIES CORRESPONDS WITH ROAD CONSTRUCTION PLAN STATIONING WITH THE EXCEPTION OF OFF-SITE AND OFF STREET MANHOLES.
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1/12/22	REVISED PER NCCDPW COMMENTS 08/30/22
01/12/22	REVISED PER NCCDPW COMMENTS 09/30/22
DATE	REVISION

OWNER/DEVELOPER:
SB NORTH LLC
2014 PHILLIPS ST
REHOBOTH BEACH, DE 19871

ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
1332 MARRONS RD., SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (302) 733-9176 FAX: (302) 733-1887 Website: www.kci.com

PLANNING - SURVEYORS
KCI TECHNOLOGIES, INC.
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

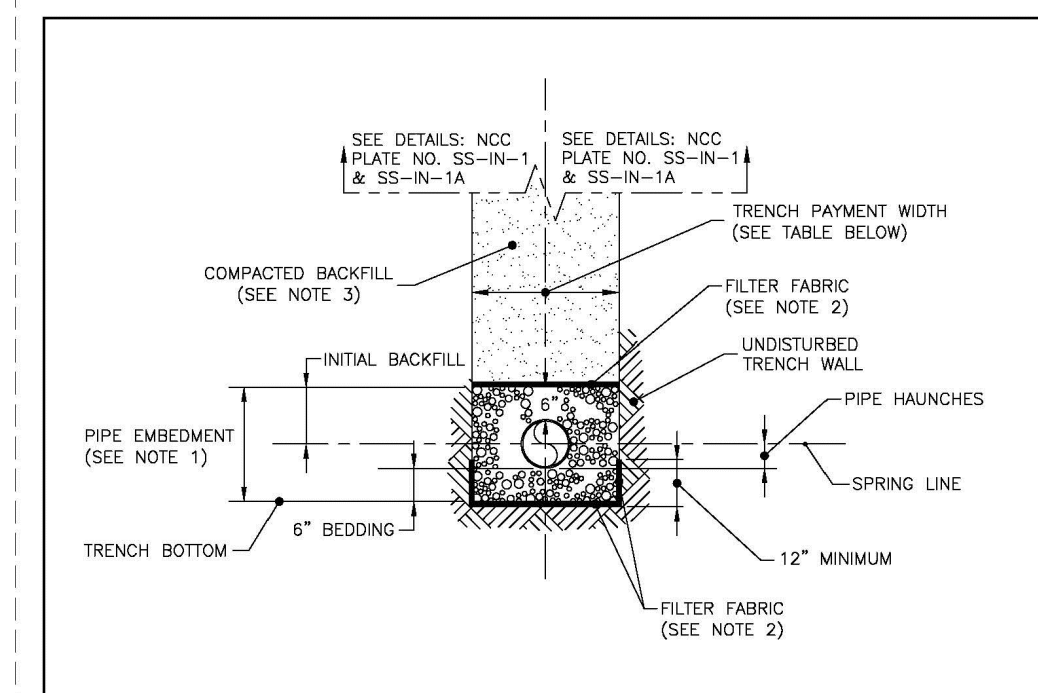
ENGINEERS - PLANNERS - SURVEYORS
KCI TECHNOLOGIES, INC.
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

SAINT GEORGES HUNDRED NEW CASTLE DELAWARE

1/17/24
RAMMON SAYLES
LICENSED
No. 28860
Professional Engineer

Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-37

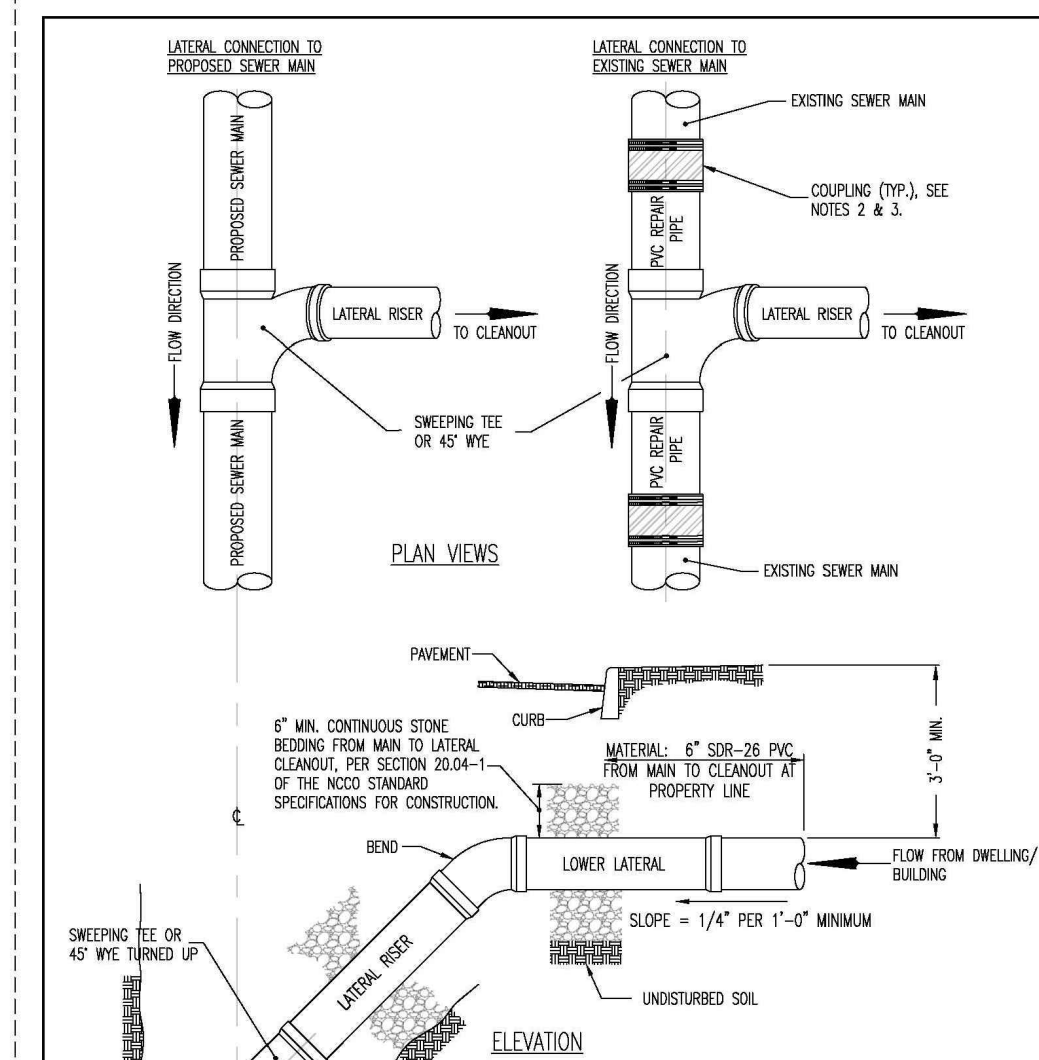
NOTE: FOR 72" DIAMETER MANHOLES, SHOP DRAWINGS MUST BE SUBMITTED AND APPROVED PRIOR TO PROCUREMENT. FOUNDATION SLAB AND STONE BEDDING SHALL BE DESIGNED BASED UPON SOIL PROFILE. SHOP DRAWING SUBMITTAL SHALL INCLUDE SOIL PROFILE & RECOMMENDATION BY QUALIFIED STRUCTURAL ENGINEER, LADDER LOCATION, AND LADDER SPECIFICATIONS/DETAILS. MANHOLE SHALL INCLUDE A DRIP STONE PLATFORM LEDGE (SEE EXAMPLE SHEET 41).



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

TRENCH WIDTH AND PIPE BEDDING DETAIL (NTS) NCC PLATE NO. SS-IN-2

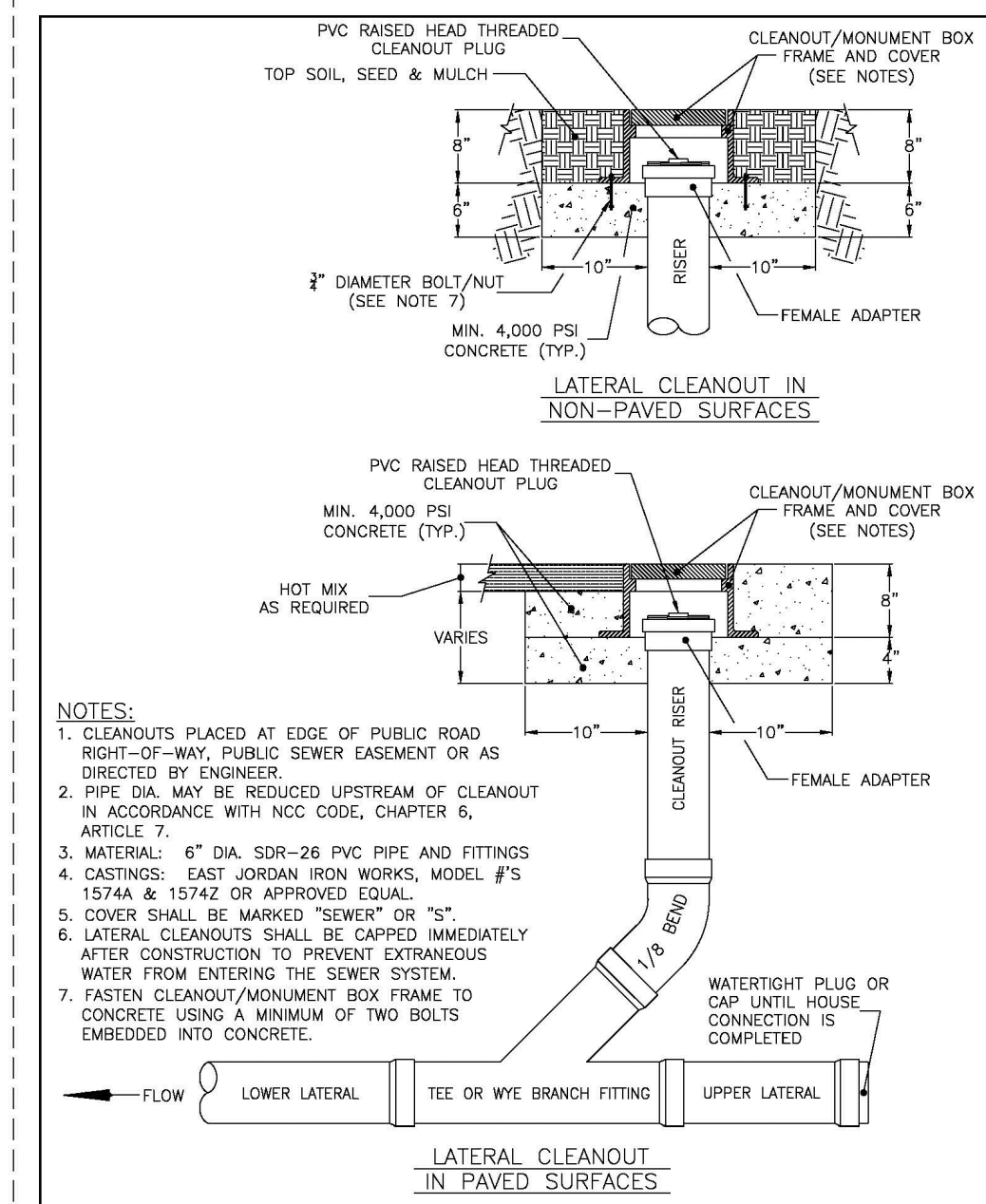
ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



PLAN VIEWS
ELEVATION
LATERAL CONNECTION TO PROPOSED SEWER MAN...
LATERAL CONNECTION TO EXISTING SEWER MAN...
LATERAL CLEANOUT IN NON-PAVED SURFACES

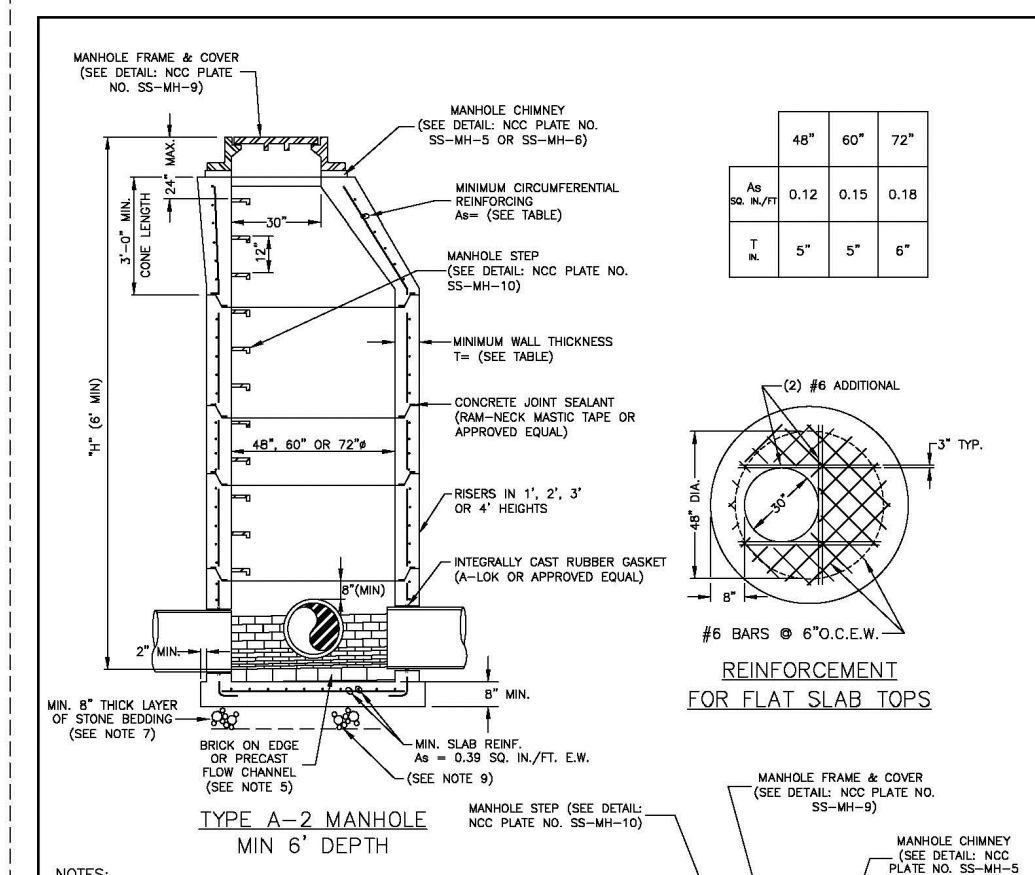
LATERAL TAP IN R.O.W DETAIL (NTS) NCC PLATE NO. SS-LAT-1

ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



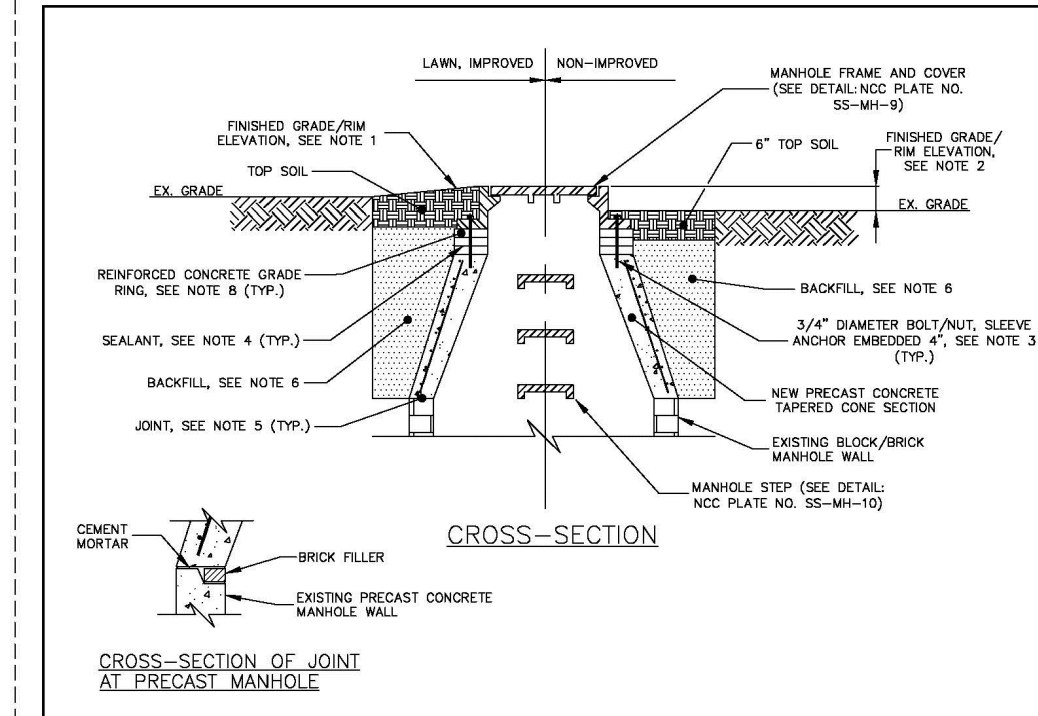
LATERAL CLEANOUT IN PAVED SURFACES DETAIL (NTS) NCC PLATE NO. SS-LAT-2

ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



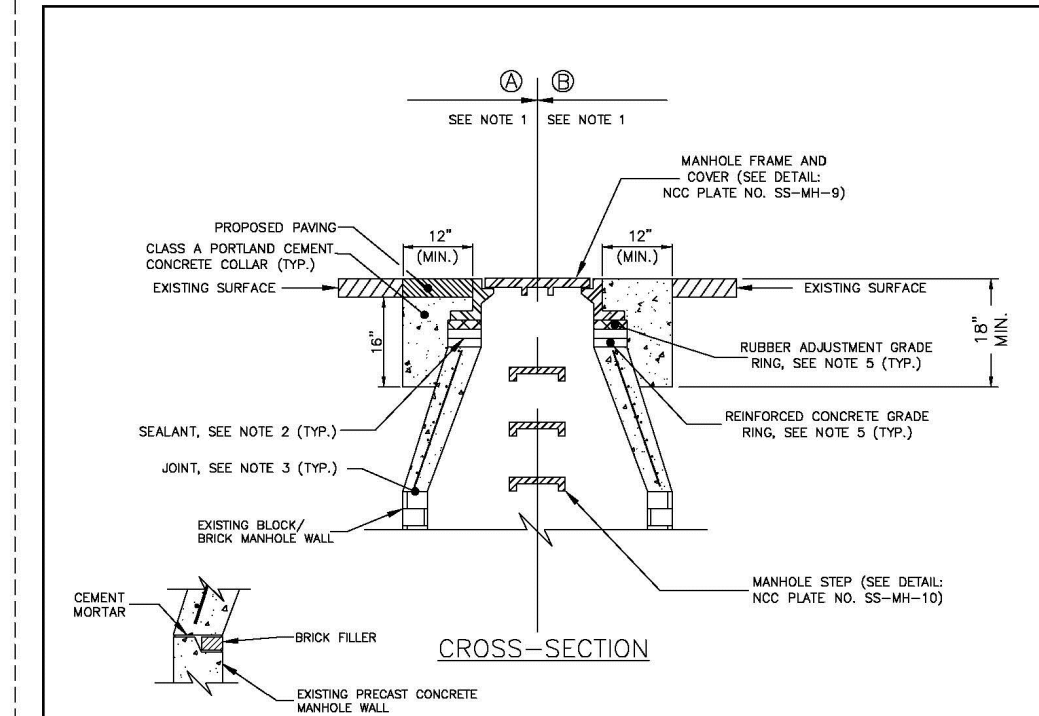
PRECAST CONCRETE MANHOLE DETAIL (NTS) NCC PLATE NO. SS-MH-1

ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



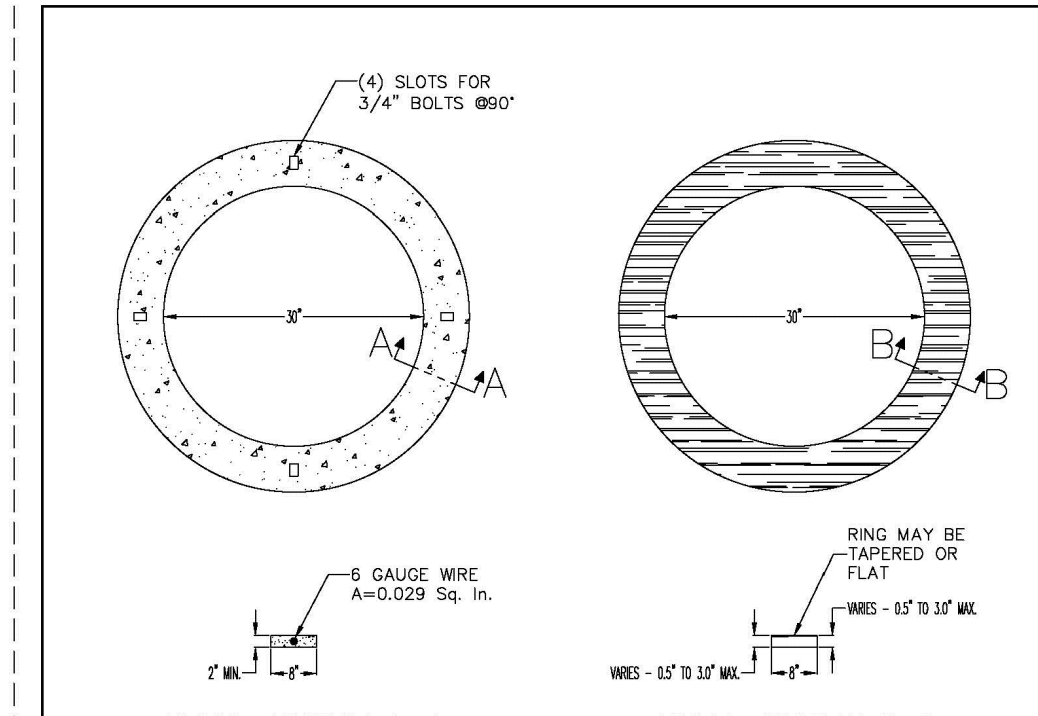
CROSS-SECTION OF JOINT IN PRECAST MANHOLE NCC PLATE NO. SS-MH-2

ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



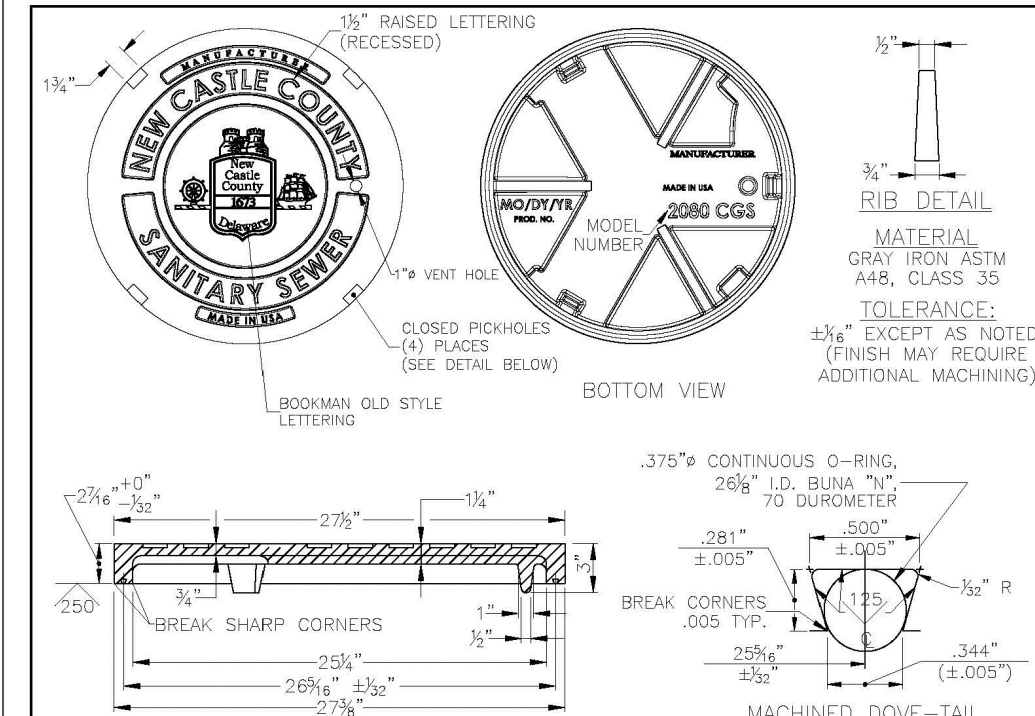
PAVED AREA MANHOLE CONE SECTION DETAIL (NTS) NCC PLATE NO. SS-MH-5

ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



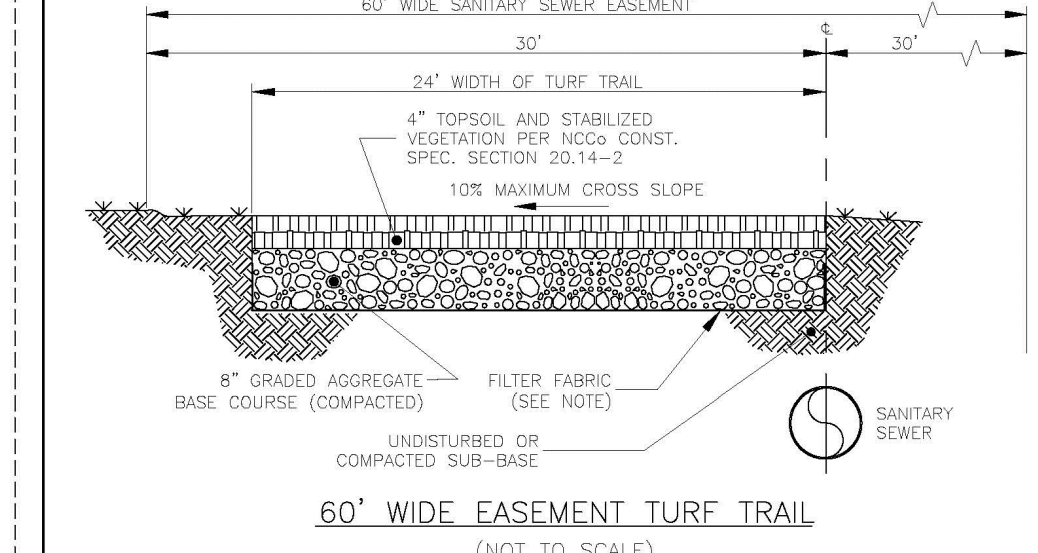
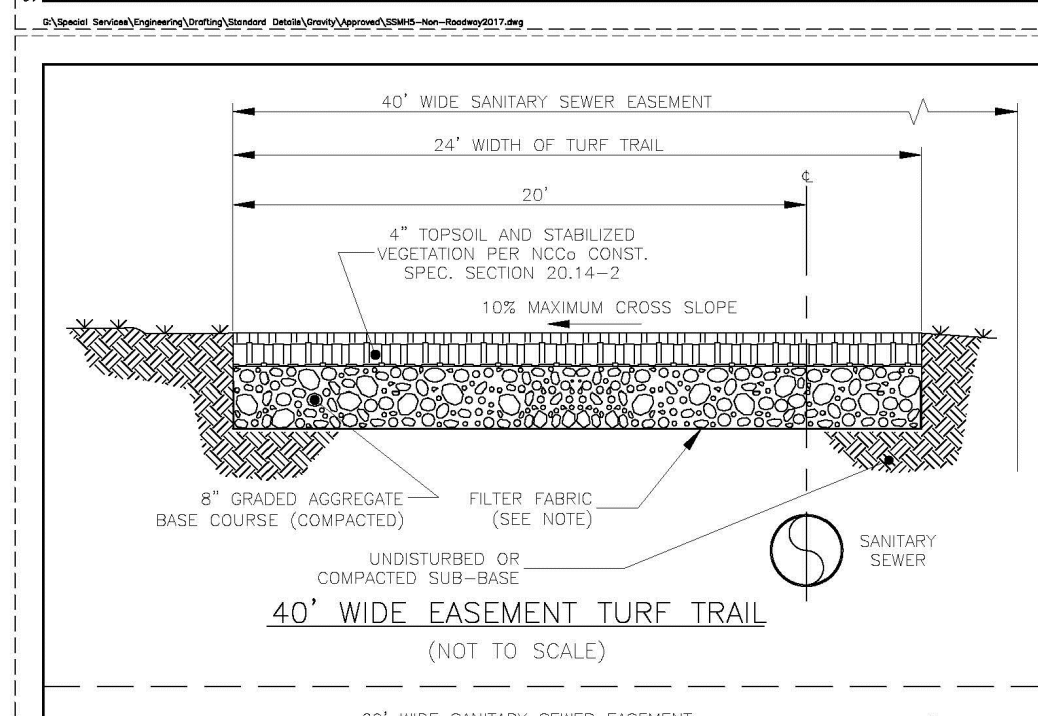
CROSS-SECTION A-A CROSS-SECTION B-B
REINFORCED CONCRETE GRADE RING RUBBER ADJUSTMENT GRADE RING
NCC PLATE NO. SS-MH-7

ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



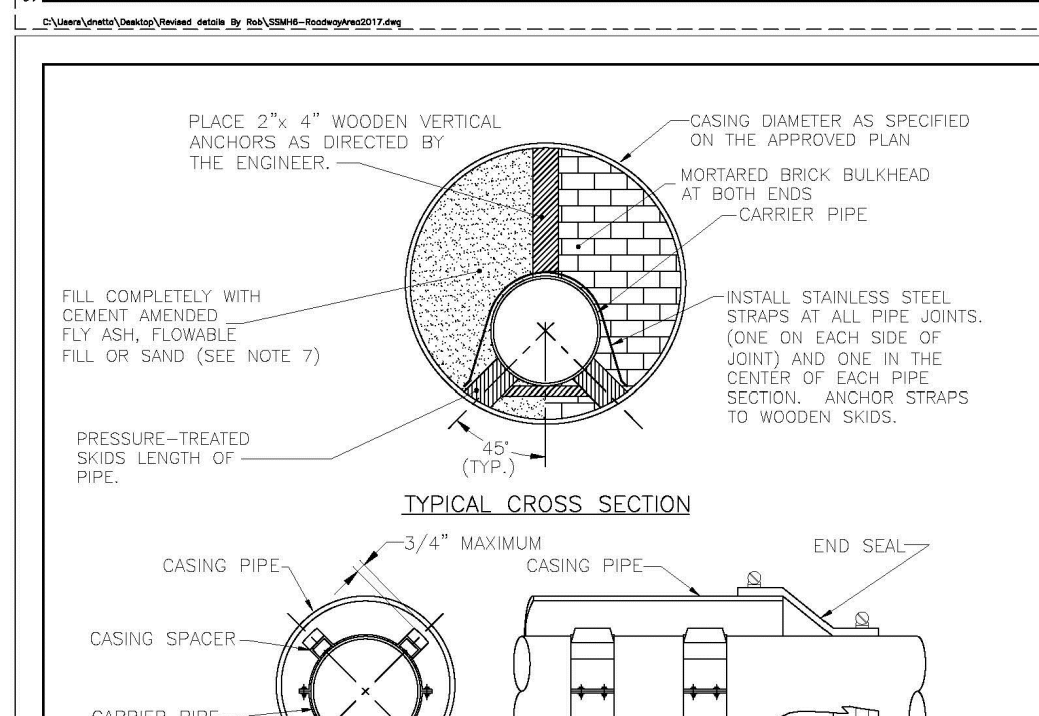
MANHOLE COVER DETAIL (NTS) NCC PLATE NO. SS-MH-8

ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



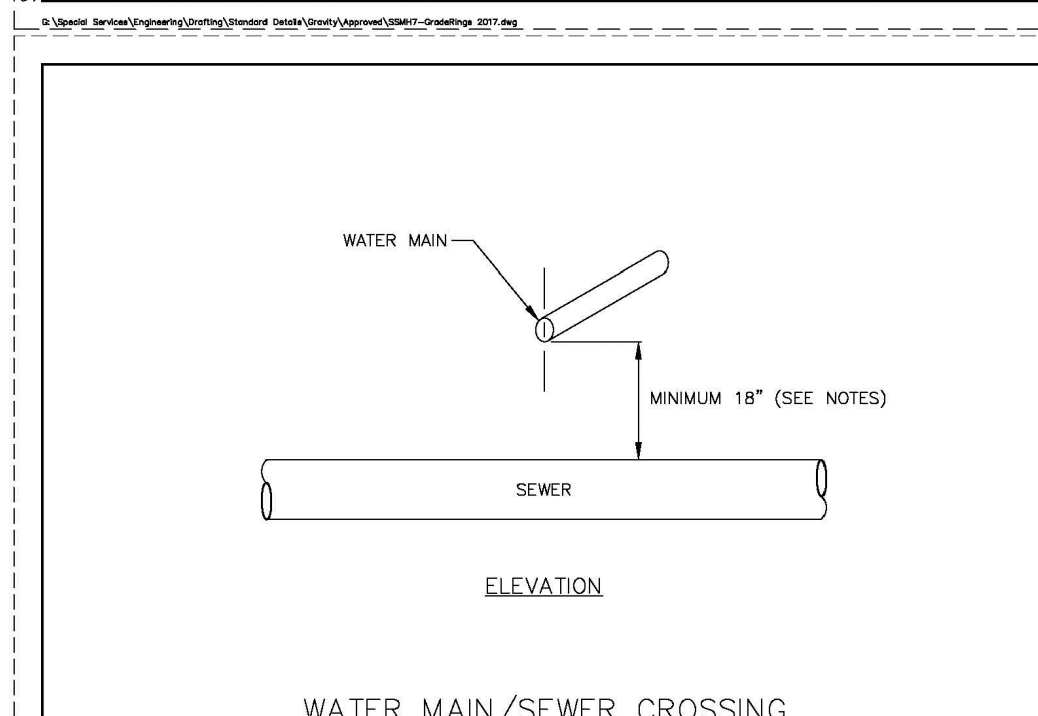
40' WIDE SANITARY SEWER EASEMENT
60' WIDE SANITARY SEWER EASEMENT
NCC PLATE NO. SS-MS-2

ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



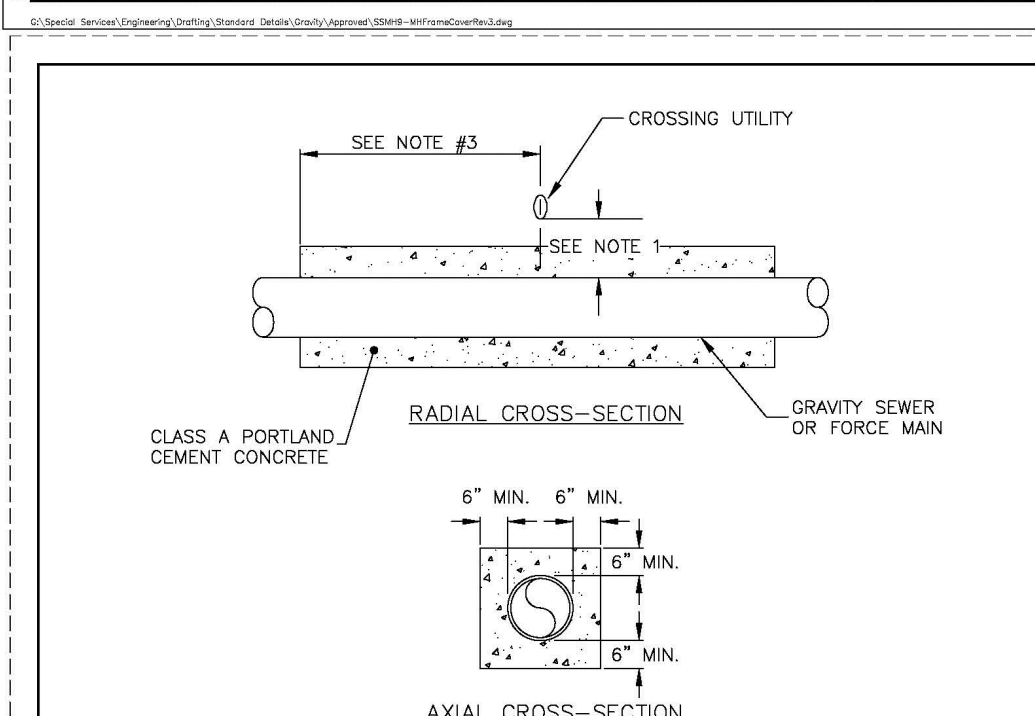
TYPICAL CROSS SECTION
CARRIER PIPE CASING SPACER
NCC PLATE NO. SS-MS-3

ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



WATER MAIN/SEWER CROSSING DETAIL (NTS) NCC PLATE NO. SS-MISC-4

ISSUED 3/22/19 REVISED 10/29/21 REVISION 01



CONCRETE ENCASUREMENT DETAIL FOR UTILITY CROSSING (NTS) NCC PLATE NO. SS-UC-1

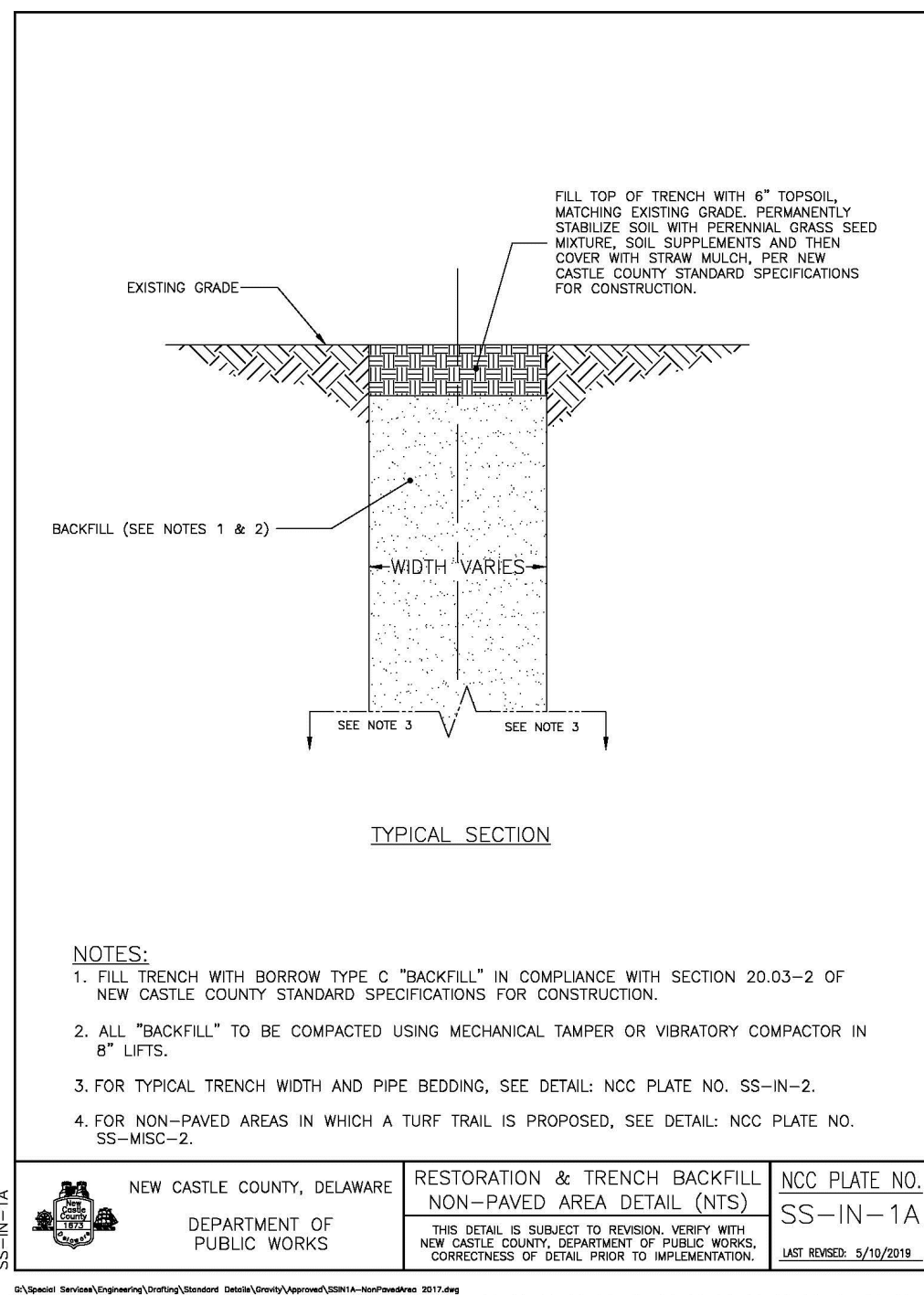
ISSUED 3/22/19 REVISED 10/29/21 REVISION 01

OWNER/DEVELOPER: SB NORTH LLC
18909 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19711
KCI TECHNOLOGIES, INC.
1535 MARRIOTT RD. - SUITE 100 - NEWARK, DELAWARE 19711
PHONE: (402) 713-1910 FAX: (402) 731-8877
WWW.KCI.COM
NEW CASTLE, DELAWARE

0 50 100
SCALE - PLAN: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP

Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
SHEET: C-40

NOTE: FOR 72" DIAMETER MANHOLES, SHOP DRAWINGS MUST BE SUBMITTED AND APPROVED PRIOR TO PROCUREMENT. FOUNDATION SLAB AND STONE BEDDING SHALL BE DESIGNED BASED UPON SOIL PROFILE. SHOP DRAWING SUBMITTAL SHALL INCLUDE SOIL PROFILE & RECOMMENDATION BY QUALIFIED STRUCTURAL ENGINEER, LADDER LOCATION, AND LADDER SPECIFICATIONS/DETAILS. MANHOLE SHALL INCLUDE A DRIP STONE PLATFORM LEDGE (SEE EXAMPLE THIS SHEET).



- NOTES:**
1. FILL TRENCH WITH BORROW TYPE C "BACKFILL" IN COMPLIANCE WITH SECTION 20.03-2 OF NEW CASTLE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 2. ALL "BACKFILL" TO BE COMPACTED USING MECHANICAL TAMPER OR VIBRATORY COMPACTOR IN 8" LIFTS.
 3. FOR TYPICAL TRENCH WIDTH AND PIPE BEDDING, SEE DETAIL: NCC PLATE NO. SS-N-2.
 4. FOR NON-PAVED AREAS IN WHICH A TURF TRIAL IS PROPOSED, SEE DETAIL: NCC PLATE NO. SS-MSC-2.

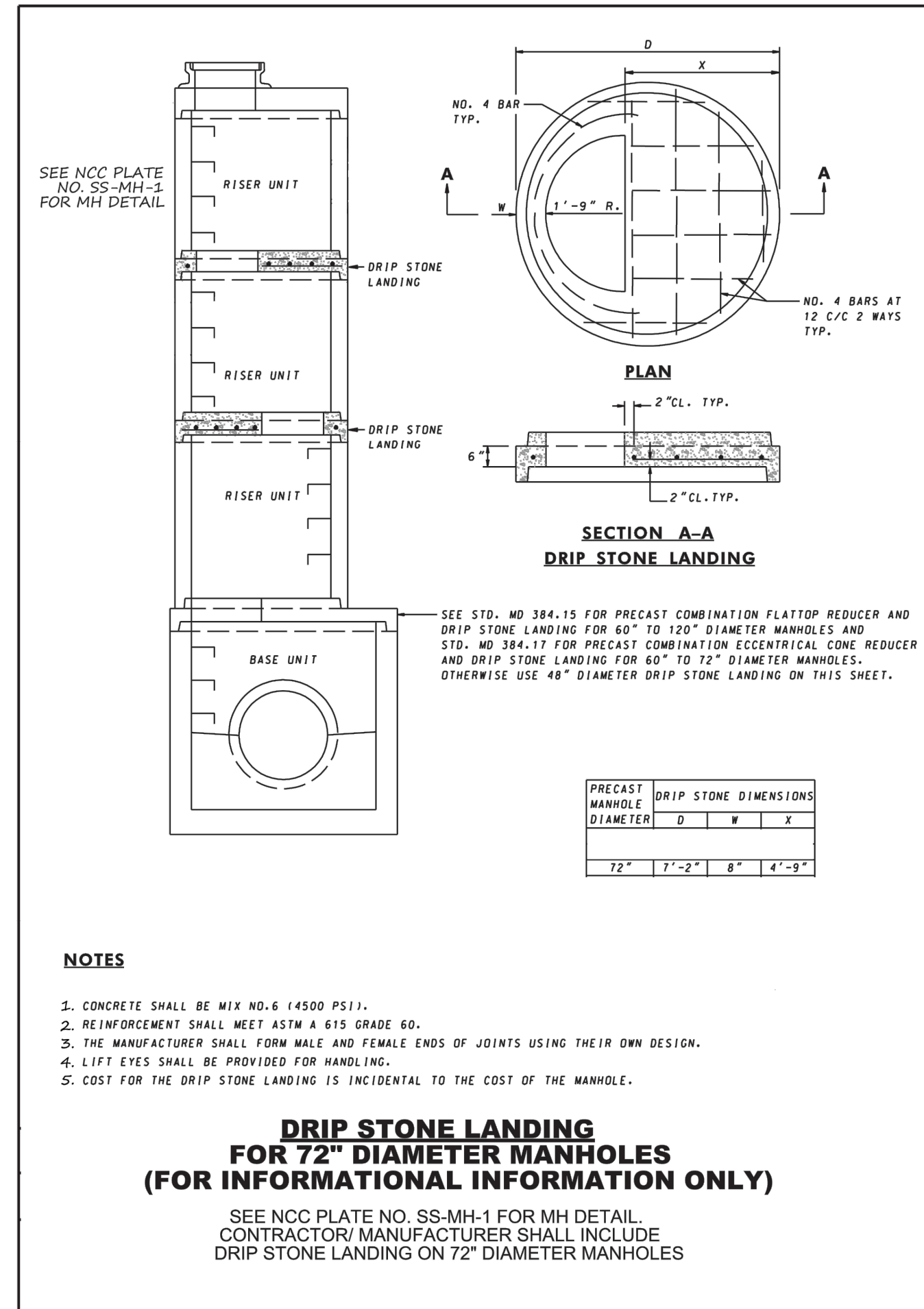
NEW CASTLE COUNTY, DELAWARE
DEPARTMENT OF PUBLIC WORKS

RESTORATION & TRENCH BACKFILL
NON-PAVED AREA DETAIL (NTS)

NCC PLATE NO.
SS-IN-1A

THIS DETAIL IS SUBJECT TO REVISION. VERIFY WITH
NEW CASTLE COUNTY, DEPARTMENT OF PUBLIC WORKS,
CORRECTNESS OF DETAIL PRIOR TO IMPLEMENTATION.

LAST REVISION: 5/15/2019



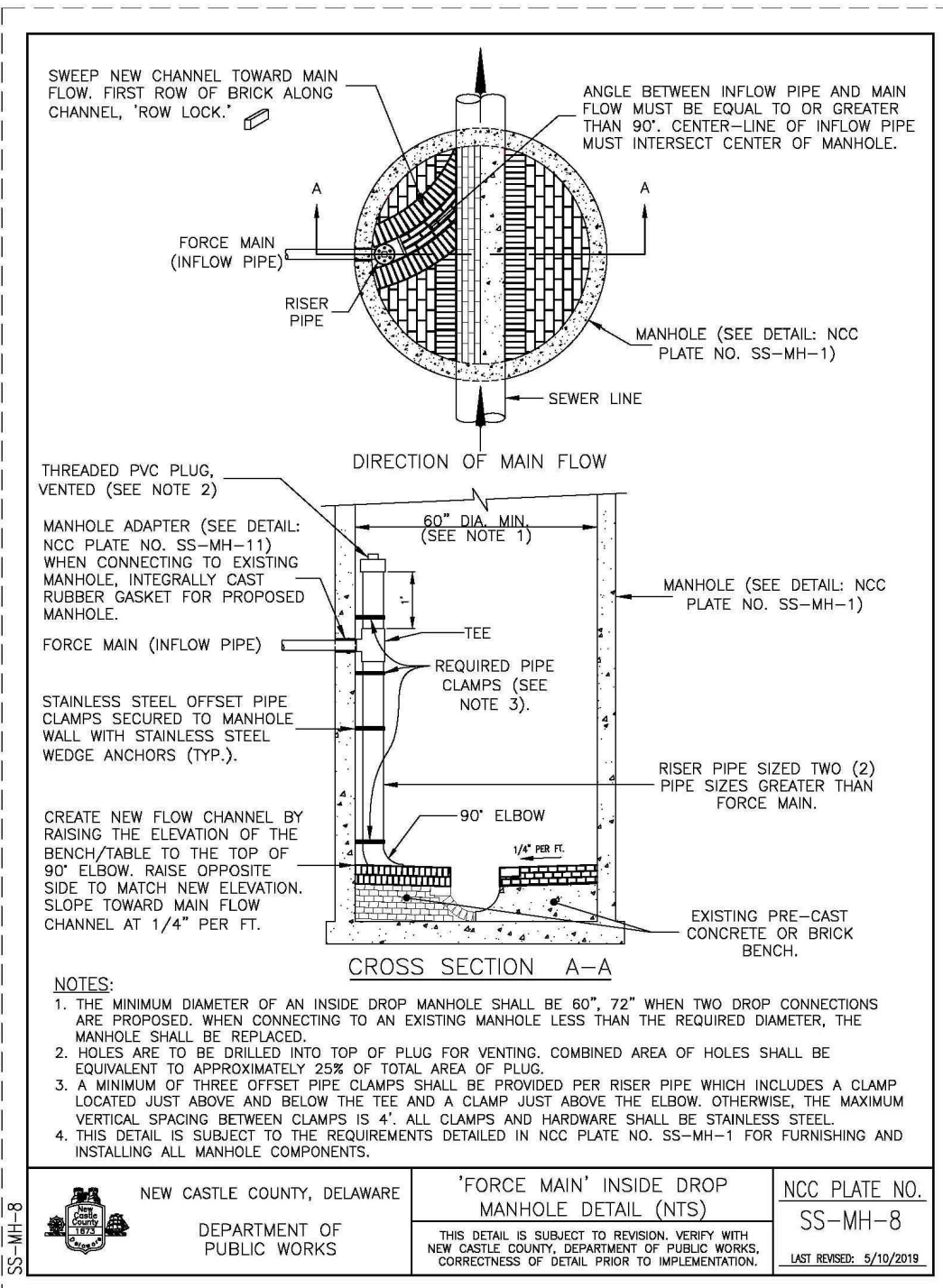
- NOTES:**
1. CONCRETE SHALL BE W/4.0 (4500 PSI).
 2. REINFORCEMENT SHALL MEET ASTM A 615 GRADE 60.
 3. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN.
 4. LIFT EYES SHALL BE PROVIDED FOR HANDLING.
 5. COST FOR THE DRIP STONE LANDING IS INCIDENTAL TO THE COST OF THE MANHOLE.

**DRIP STONE LANDING
FOR 72" DIAMETER MANHOLES
(FOR INFORMATIONAL INFORMATION ONLY)**

SEE NCC PLATE NO. SS-MH-1 FOR MH DETAIL.
CONTRACTOR/MANUFACTURER SHALL INCLUDE
DRIP STONE LANDING ON 72" DIAMETER MANHOLES

PRECAST DRIP STONE DIMENSIONS

MANHOLE DIAMETER	D	W	X
72"	7'-2"	6"	4'-9"



- NOTES:**
1. THE MINIMUM DIAMETER OF AN INSIDE DROP MANHOLE SHALL BE 60". 72" WHEN TWO DROP CONNECTIONS ARE PROPOSED. WHEN CONNECTING TO AN EXISTING MANHOLE LESS THAN THE REQUIRED DIAMETER, THE MANHOLE SHALL BE REINFORCED.
 2. HOLES ARE TO BE DRILLED INTO TOP OF PLUG FOR VENTING. COMBINED AREA OF HOLES SHALL BE EQUIVALENT TO APPROXIMATELY 25% OF TOTAL AREA OF PLUG.
 3. A MINIMUM OF THREE OFFSET PIPE CLAMPS SHALL BE PROVIDED PER RISER PIPE WHICH INCLUDES A CLAMP LOCATED JUST ABOVE AND BELOW THE TEE AND A CLAMP JUST ABOVE THE ELBOW. OTHERWISE, THE MAXIMUM VERTICAL SPACING BETWEEN CLAMPS IS 4". ALL CLAMPS AND HARDWARE SHALL BE STAINLESS STEEL.
 4. THIS DETAIL IS SUBJECT TO THE REQUIREMENTS DETAILED IN NCC PLATE NO. SS-MH-1 FOR FURNISHING AND INSTALLING ALL MANHOLE COMPONENTS.

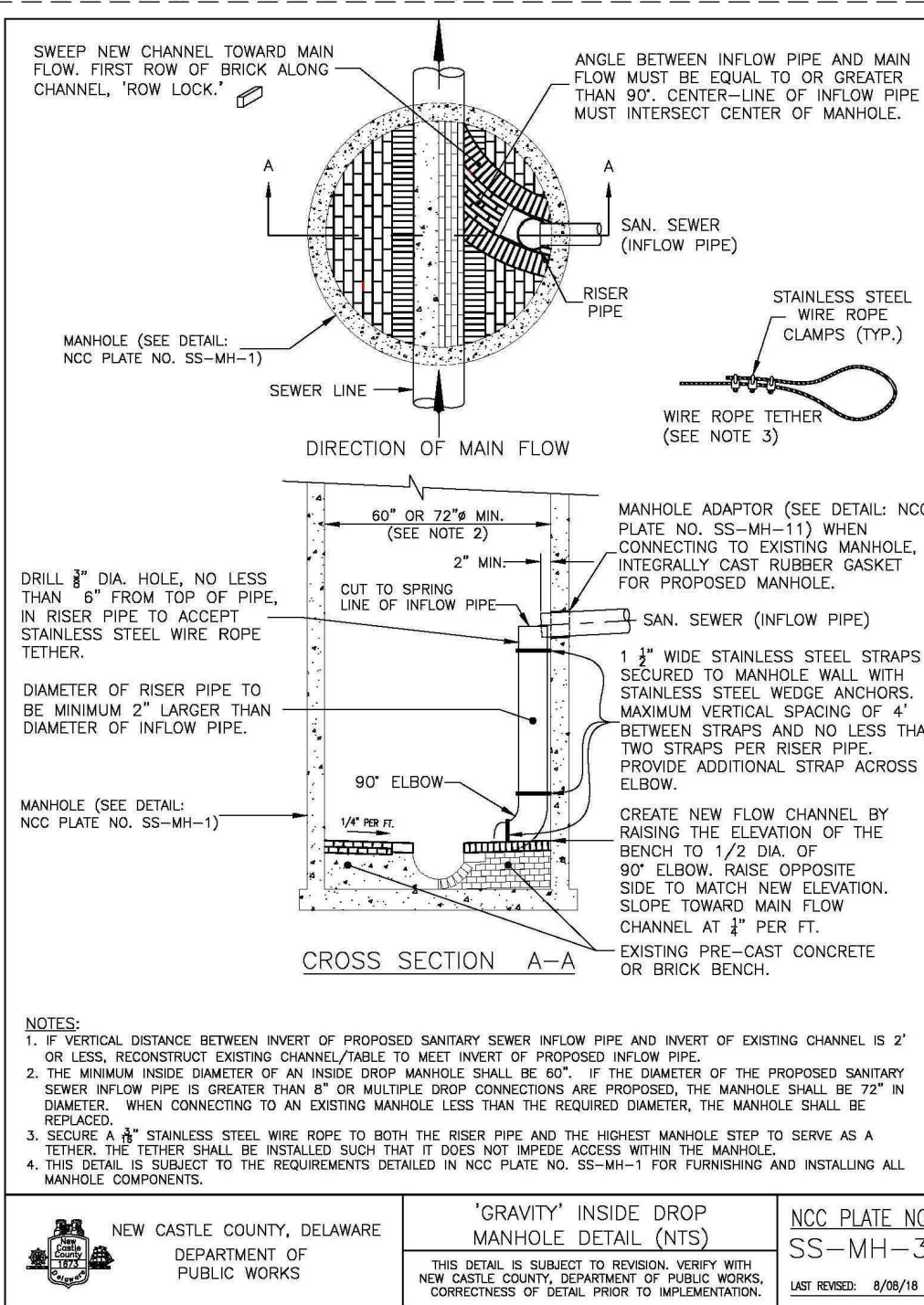
NEW CASTLE COUNTY, DELAWARE
DEPARTMENT OF PUBLIC WORKS

'FORCE MAIN' INSIDE DROP
MANHOLE DETAIL (NTS)

NCC PLATE NO.
SS-MH-B

THIS DETAIL IS SUBJECT TO REVISION. VERIFY WITH
NEW CASTLE COUNTY, DEPARTMENT OF PUBLIC WORKS,
CORRECTNESS OF DETAIL PRIOR TO IMPLEMENTATION.

LAST REVISION: 5/15/2019



- NOTES:**
1. VERTICAL DISTANCE BETWEEN INVERT OF PROPOSED SANITARY SEWER INFLOW PIPE AND INVERT OF EXISTING CHANNEL IS 2' OR LESS. RECONSTRUCT EXISTING CHANNELS TO MEET INVERT OF PROPOSED INFLOW PIPE.
 2. THE MINIMUM INSIDE DIAMETER OF AN INSIDE DROP MANHOLE SHALL BE 60". IF THE DIAMETER OF THE PROPOSED SANITARY SEWER INFLOW PIPE IS GREATER THAN 60" OR MULTIPLE DROP CONNECTIONS ARE PROPOSED, THE MANHOLE SHALL BE 72" IN DIAMETER. WHEN CONNECTING TO AN EXISTING MANHOLE LESS THAN THE REQUIRED DIAMETER, THE MANHOLE SHALL BE REINFORCED.
 3. SECURE A 1/2" STAINLESS STEEL WIRE ROPE TO BOTH THE RISER PIPE AND THE HIGHEST MANHOLE STEP TO SERVE AS A TETHER. THE TETHER SHALL BE INSTALLED SUCH THAT IT DOES NOT IMPERFECT ACCESS WITHIN THE MANHOLE.
 4. THIS DETAIL IS SUBJECT TO THE REQUIREMENTS DETAILED IN NCC PLATE NO. SS-MH-1 FOR FURNISHING AND INSTALLING ALL MANHOLE COMPONENTS.

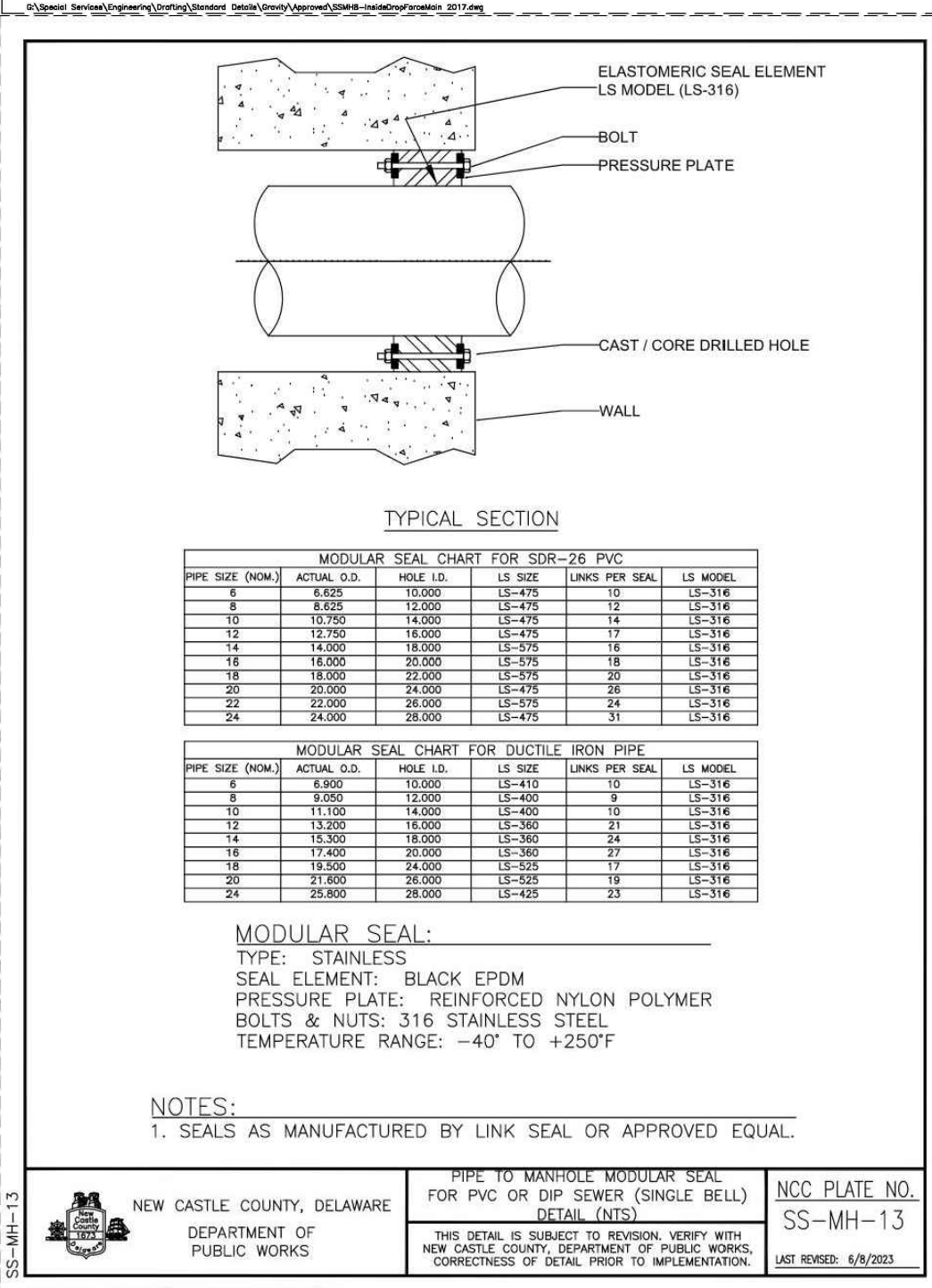
NEW CASTLE COUNTY, DELAWARE
DEPARTMENT OF PUBLIC WORKS

'GRAVITY' INSIDE DROP
MANHOLE DETAIL (NTS)

NCC PLATE NO.
SS-MH-3

THIS DETAIL IS SUBJECT TO REVISION. VERIFY WITH
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CORRECTNESS OF DETAIL PRIOR TO IMPLEMENTATION.

LAST REVISION: 6/26/21



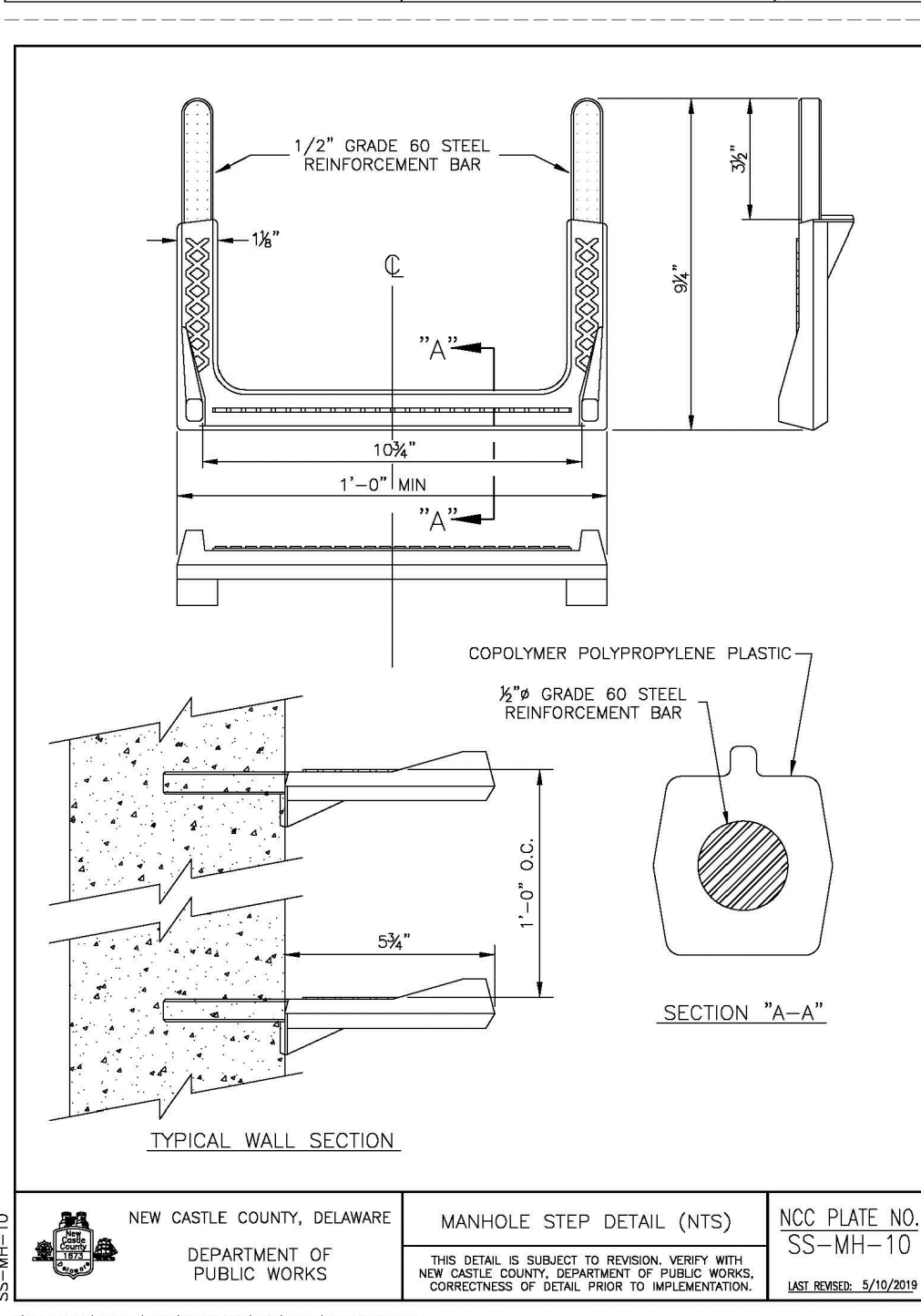
NEW CASTLE COUNTY, DELAWARE
DEPARTMENT OF PUBLIC WORKS

PIPE TO MANHOLE MODULAR SEAL
FOR PVC OR DIP SEWER (SINGLE BELL)
DETAIL (NTS)

NCC PLATE NO.
SS-MH-13

THIS DETAIL IS SUBJECT TO REVISION. VERIFY WITH
NEW CASTLE COUNTY, DEPARTMENT OF PUBLIC WORKS,
CORRECTNESS OF DETAIL PRIOR TO IMPLEMENTATION.

LAST REVISION: 6/16/2023



NEW CASTLE COUNTY, DELAWARE
DEPARTMENT OF PUBLIC WORKS

MANHOLE STEP DETAIL (NTS)

NCC PLATE NO.
SS-MH-10

THIS DETAIL IS SUBJECT TO REVISION. VERIFY WITH
NEW CASTLE COUNTY, DEPARTMENT OF PUBLIC WORKS,
CORRECTNESS OF DETAIL PRIOR TO IMPLEMENTATION.

LAST REVISION: 5/15/2019

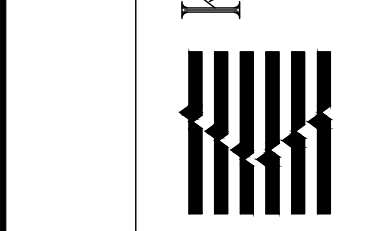
DATE	REVISION	COMMENTS
01/17/24	REVISED PER NCCDPW COMMENTS 01/16/24	
02/07/23	REVISED PER NCCDPW COMMENTS 1/10/23	
08/07/23	REVISED PER NCCDPW COMMENTS 08/22/23	
05/12/23	REVISED PER NCCDPW COMMENTS 04/22/23	
04/05/23	REVISED PER DEDOT COMMENTS 03/27/23	
1/12/22	REVISED PER NCCDPW COMMENTS 08/26/22	
01/12/22	REVISED PER NCCDPW COMMENTS 10/20/21	

OWNER/DEVELOPER:
SB NORTH LLC
108 W. HILIPS ST.
REHOBOTH BEACH, DE 19871

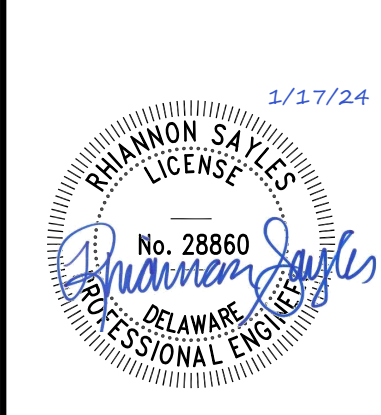
OA NORTH LLC
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

OA JOY RUN LLC
1849 COASTAL HIGHWAY
REHOBOTH BEACH, DE 19871

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ENGINEERS - PLANNERS - SURVEYORS
1352 MARRONS RD. - SUITE 100 - NEWARK, DELAWARE 19711
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DETAILS
SANITARY SEWER CONSTRUCTION PLANS
MONARCH DELAWARE
NEW CASTLE



Drafting: VRF Check: JC
Design: VRF Check: JC
SCALE: 1"=50'
DATE: 01/17/2024
KCI JOB #: 271904807.SP
SHEET: C-41