

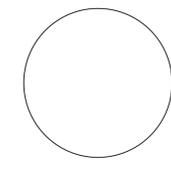


Carroll Engineering Corporation
CORPORATE OFFICE
949 EASTON ROAD
WARRINGTON, PA 18976
PHONE: 215.343.5700
FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
King of Prussia, PA 19386 Hillborough, NJ 08844
Phone: 610.572.7093 Fax: 908.874.7500

433 Lancaster Avenue, Suite 200
Malvern, PA 19355
Phone: 610.409.5100 Fax: 908.874.5702

www.carrollengineering.com



INDEX OF DRAWINGS, ABBREVIATIONS & LEGENDS

RONNIE PARK
DRAINAGE IMPROVEMENTS
SITUATED IN
WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
PREPARED FOR
WILLISTOWN TOWNSHIP
688 SUGARTOWN ROAD
MALVERN, PA 19355

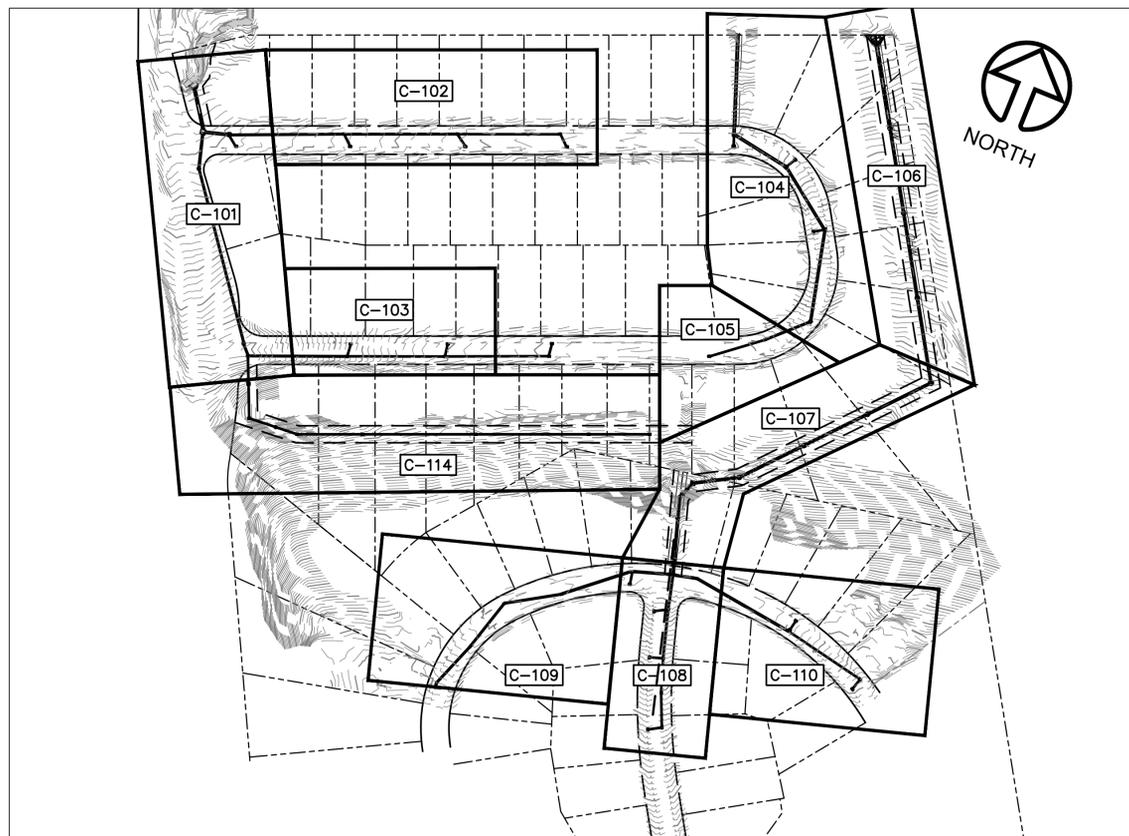
NO.	DATE	DESCRIPTION	INITIALS

DATE 01-30-2023
CADD FILE 2155570010
JOB NO 21-5557.003

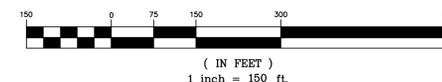
DSG BY VJC
DWN BY VJC
CKD BY WNM
SCALE 1"=25'

DRAWER NUMBER
SHEET 2 OF 18 SHEETS

DRAWING NUMBER
G-101



GRAPHIC SCALE



GENERAL NOTES:

- ALL PROPOSED CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF PENNDOT PUBLICATION 408 AND WILLISTOWN TOWNSHIP.
- PERFORM ALL EXCAVATION TO THE LINES, GRADES, AND ELEVATIONS INDICATED ON THE DRAWINGS, REGARDLESS OF THE TYPE AND CHARACTER OF THE MATERIALS ENCOUNTERED. PERFORM ALL EXCAVATION ON AN UNCLASSIFIED BASIS. NO EXTRA WILL BE ALLOWED FOR ROCK EXCAVATION, QUICKSAND EXCAVATION, MUCK EXCAVATION, OR FOR ANY OTHER TYPE OF EXCAVATION ENCOUNTERED. ROCK EXCAVATION IS THE REMOVAL AND DISPOSAL OF MATERIALS WHICH REQUIRES DRILLING AND BLASTING, WEDGING, SLEDGING, BORING, OR BREAKING UP WITH POWER OPERATED EQUIPMENT FOR REMOVAL, INCLUDING LEDGE ROCK, CONCRETE OR MASONRY STRUCTURES, BOULDERS, AND OTHER MATERIALS OF RELATED CHARACTER.
- THE CONTRACTOR SHALL EXPLORE AHEAD OF HIS TRENCHING AND EXCAVATION WORK AND SHALL UNCOVER ALL OBSTRUCTING UNDERGROUND UTILITIES AND STRUCTURES SUFFICIENTLY TO DETERMINE THEIR LOCATION, TO PREVENT DAMAGE TO THEM AND TO PREVENT INTERRUPTION TO THE SERVICES WHICH SUCH UTILITIES AND STRUCTURES PROVIDE. IF THE CONTRACTOR DAMAGES AN UNDERGROUND STRUCTURE, IT SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE AUTHORITY. ALL EXPLORATORY EXCAVATION AND HAND EXCAVATION NECESSARY TO AVOID DAMAGE TO EXISTING UTILITIES SHALL BE PERFORMED BY CONTRACTOR AT NO ADDITIONAL COST TO THE AUTHORITY.
- ALL RESTORATION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE BUCKS COUNTY CONSERVATION DISTRICT AND WILLISTOWN TOWNSHIP.
- NO EXCAVATED MATERIAL MAY BE STOCKPILED ON ADJACENT PROPERTIES OR WITHIN THE TOWNSHIP ROAD OR STATE ROAD RIGHT-OF-WAY WITHOUT WRITTEN APPROVAL OF THE PROPERTY OWNER AND/OR TOWNSHIP.
- SIGNS, MAILBOXES, FENCING, TRAFFIC SIGNS, STREET SIGNS ETC. ARE TO BE REMOVED AND REPLACED AS NECESSARY, AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL RESTORE DRIVEWAYS, LAWNS, AND ALL OTHER ABOVE GROUND FACILITIES TO THEIR PRE-CONSTRUCTION CONDITION AND LOCATION, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL ARRANGE FOR THE TEMPORARY SUPPORT OF UTILITY POLES IF NECESSARY TO COMPLETE THE WORK. MEANS OF TEMPORARY SUPPORT SHALL BE IN ACCORDANCE WITH THE POLE OWNERS REQUIREMENTS.
- GAS SERVICES, ALTHOUGH NOT SHOWN ON THE DRAWINGS, SHOULD BE ASSUMED TO EXIST. CONTRACTOR IS RESPONSIBLE FOR COORDINATING MARKOUT OF GAS SERVICES WITH PECO AND FOR PERFORMING EXPLORATORY EXCAVATIONS, BY HAND IF NECESSARY, IN ORDER TO LOCATE THESE SERVICES, AT NO ADDITIONAL COST TO THE AUTHORITY.

SURVEY NOTES:

- TOPOGRAPHIC SURVEY WAS PERFORMED BY CARROLL ENGINEERING CORPORATION IN DECEMBER OF 2022 AND JANUARY OF 2023 AND REPRESENTS EXISTING CONDITIONS AT THAT TIME.
- HORIZONTAL DATUM IS BASED ON STATE PLANE SOUTH COORDINATES, NAD83.
- VERTICAL DATUM IS NAVD83.
- A LAND SURVEYOR IN THE COMMONWEALTH OF PENNSYLVANIA CAN ONLY CERTIFY TO AS-CONSTRUCTED INFORMATION THAT CAN BE OBTAINED FROM ABOVE GROUND OBSERVATIONS. LOCATIONS OF UNDERGROUND UTILITY LINES SUCH AS ALL SANITARY MAINS, STORM SEWER PIPING, WATER LINES, GAS PIPING, ELECTRICAL AND CABLE LINES ARE NOT CERTIFIED BY THE BELOW SIGNED INDIVIDUAL AND ARE CONSIDERED TO BE APPROXIMATE.
- THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. ADDITIONAL EASEMENTS AND/OR RIGHT-OF-WAYS MAY EXIST.
- CARROLL ENGINEERING CORPORATION DID NOT PERFORM A BOUNDARY SURVEY FOR ANY PARCEL SHOWN. RIGHT-OF-WAYS SHOULD BE CONSIDERED APPROXIMATE AND MAY BE NARROWER/WIDER THAN SHOWN. RIGHT-OF-WAYS ARE BASED ON THE CENTERLINE OF ROAD, MONUMENTATION FOUND, AND THE FOLLOWING PLANS:
- PLAN TITLED "MAP OF PROPERTY OF ALBERT P. MANDES, INC. SECTION 2" DATED JULY 13, 1959 AND RECORDED IN THE CHESTER COUNTY RECORDER OF DEEDS IN BOOK 9 PAGE 28.
- PLAN TITLED "SECTION I PLAN OF PROPERTY FOR RONNIE PARK ALBER P MANDES" DATED DECEMBER 21 1955 AND LAST REVISED MARCH 12 1956 AND RECORDED IN THE CHESTER COUNTY RECORDER OF DEEDS IN BOOK 5 PAGE 45.
- PLAN TITLED "PROPOSED OFFICE-WAREHOUSE BUILDING" DATED JULY 16, 1985 AND LAST REVISED OCTOBER 30, 1985 AND RECORDED IN THE CHESTER COUNTY RECORDER OF DEEDS IN DOCUMENT ID 7555498.

LEGEND

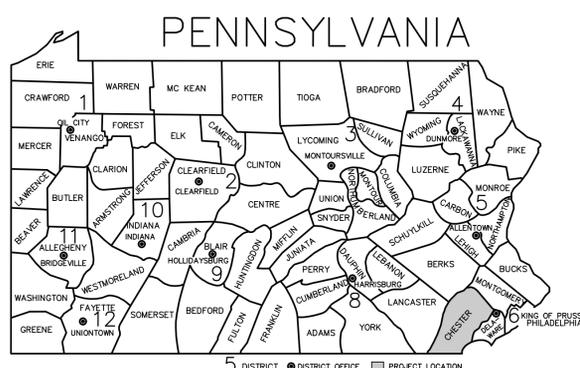
- 100 --- EXISTING CONTOURS
- EXISTING WATER CENTERLINE
- EXISTING TREELINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING FENCE LINE
- EXISTING SOILS LINE
- EXISTING STORM SEWER
- EXISTING ELECTRIC LINE
- EXISTING TELEPHONE LINE
- EXISTING FORCE MAIN
- EXISTING WATER MAIN
- EXISTING SANITARY SEWER
- EXISTING GAS MAIN
- EDGE OF STREAM
- 100-YR FLOODPLAIN/FLOODWAY
- DELINEATED WETLANDS
- GV --- EXISTING GAS VALVE
- --- EXISTING SANITARY MANHOLE
- C/O --- EXISTING CLEANOUT
- --- EXISTING STORM INLET
- --- EXISTING STORM MANHOLE
- --- EXISTING ENDWALL
- WV --- EXISTING WATER VALVE
- FH --- EXISTING FIRE HYDRANT
- WM --- EXISTING MONITORING WELL
- --- EXISTING TELEPHONE MANHOLE
- TB --- EXISTING TELEPHONE BOX
- UP --- EXISTING UTILITY POLE
- --- EXISTING ELECTRIC MANHOLE
- EB --- EXISTING GAS MAIN
- LP --- EXISTING LIGHT POLE
- --- EXISTING IRON PIN FOUND
- --- EXISTING IRON PIPE FOUND
- --- EXISTING MONUMENT FOUND
- --- EXISTING BOLLARD
- --- EXISTING VENT
- MB --- EXISTING MAILBOX
- SP --- EXISTING SIGN POST
- --- EXISTING DECIDUOUS TREE
- --- EXISTING CONIFEROUS TREE

INDEX OF DRAWINGS

SHEET NO.	SHEET TITLE
1	COVER SHEET
2	INDEX OF DRAWINGS, ABBREVIATIONS & LEGENDS
3	PLAN AND PROFILE--CEDAR HOLLOW ROAD NORTH--STA 0+00 TO 5+04
4	PLAN AND PROFILE--JACQUELINE DRIVE NORTH-- STA 0+00 TO 7+24
5	PLAN AND PROFILE--JACQUELINE DRIVE SOUTH-- STA 0+00 TO 7+50
6	PLAN AND PROFILE--JACQUELINE DRIVE EAST-- STA 0+00 TO 7+00
7	PLAN AND PROFILE--JACQUELINE DRIVE EAST-- STA 7+00 TO 8+62
8	PLAN AND PROFILE--ROLLINGVIEW DRIVE-- STA 0+00 TO 6+00
9	PLAN AND PROFILE--ROLLINGVIEW DRIVE--STA 6+00 TO 12+40
10	PLAN AND PROFILE--ROLLINGVIEW DRIVE--STA 12+40 TO 15+48
11	PLAN AND PROFILE--SUNSET DRIVE--STA 0+00 TO 5+00
12	PLAN AND PROFILE--SUNSET DRIVE--STA 5+00 TO 9+54
13	PLAN AND PROFILE--ROLLINGVIEW DRIVE--STA 0+00 TO 7+50
14	PLAN AND PROFILE--ROLLINGVIEW DRIVE--STA 7+50 TO 12+75
15	PLAN AND PROFILE--ROLLINGVIEW DRIVE--STA 12+75 TO 15+50
16	PLAN AND PROFILE--CUT OFF TRENCH--STA 0+00 TO 7+00
17	PLAN AND PROFILE--SUNSET DRIVE--STA 7+00 TO 8+24
18	DETAILS PLAN

SOIL(S) DATA

SOIL SYMBOL	NAME AND TEXTURE	SLOPE	HYDROLOGIC C SOIL GROUP	HYDRIC SOIL	DEPTH TO SEASONAL HIGH WATER TABLE (FEET)	DRAINAGE CLASS	FARMLAND CLASSIFICATION
C1B	CONESTOGA SILT LOAM	3 TO 8%	B	NO	>6.67'	WELL DRAINED	PRIME FARMLAND
MaC	MANOR LOAM	8 TO 15%	B	NO	>6.67'	WELL DRAINED	FARMLAND OF STATEWIDE IMPORTANCE
MaD	MANOR LOAM	15 TO 25%	B	NO	>6.67'	WELL DRAINED	NOT PRIME FARMLAND
MbF	MANOR LOAM	25 TO 60%	B	NO	>6.67'	WELL DRAINED	NOT PRIME FARMLAND
Th	THORNDALE SILT LOAM	0 TO 3%	C/D	YES	0-6"	POORLY DRAINED	NOT PRIME FARMLAND
UrB	URBAN LAND	0 TO 8%	C	NO	N/A	N/A	NOT PRIME FARMLAND
UrmB	URBAN LAND--GLENELG COMPLEX	0 TO 8%	C	NO	N/A	N/A	NOT PRIME FARMLAND
UrmD	URBAN LAND--GLENELG COMPLEX	8 TO 25%	C	NO	N/A	N/A	NOT PRIME FARMLAND
UrsB	URBAN LAND--MANOR COMPLEX	0 TO 8%	B	NO	>6.67'	WELL DRAINED	NOT PRIME FARMLAND
UugB	URBAN LAND--UDORTMENTS COMPLEX	0 TO 8%	C	NO	N/A	WELL DRAINED	NOT PRIME FARMLAND



PENNSYLVANIA ACT NO. 181 UNDERGROUND UTILITIES USERS LIST	
20230532335 (JACQUELINE DR), 20230532450 (ROLLINGVIEW DR), 20230532455 (SUNSET DR), 20230532517 (N. CEDAR HOLLOW DR)	
USER	CONTACT
WILLISTOWN TOWNSHIP	JIM STAIRS: PHONE 610-647-5300 X 300; EMAIL JSTAIRS@WILLISTOWN.PA.US
AQUA PENNSYLVANIA	THOMAS WADDY: PHONE 610-525-1400 X 52105; EMAIL TWADDY@AQUAAMERICA.COM
COMCAST	TOM RUSSO: PHONE 610-842-250; EMAIL TOM_RUSSO@CABLE.COMCAST.COM
PECO	NIKKIA SIMPKINS: PHONE 484-681-5720; EMAIL NIKKIASIMPKINS@USJCLLC.COM
ZAYO BANDWIDTH FORMERLY PPL TELCOM LLC	JOHN HOWELLS: PHONE 610-476-1634; EMAIL JOHN.HOWELLS@ZAYO.COM
ENERGY TRANSFER	KEVIN OSHEA: PHONE 713-989-7987; EMAIL KEVIN.OSHEA@ENERGYTRANSFER.COM
VERIZON BUSINESS FORMERLY MCI	VICTOR WOOD: PHONE 919-414-2782; EMAIL VICTOR.S.WOOD@VERIZON.COM

ANY INFORMATION APPEARING ON THESE DRAWINGS AS TO THE UNDERGROUND UTILITY LINES OF A USER, SUCH AS A PUBLIC UTILITY, HAS BEEN INCORPORATED HEREON, PURSUANT TO PENNSYLVANIA GENERAL ASSEMBLY ACT NO. 287 CARROLL ENGINEERING CORPORATION HAS NOT MADE AN INDEPENDENT DETERMINATION WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, AND SPECIFICALLY DISCLAIMS ANY WARRANTY OR REPRESENTATION AS TO THE ACCURACY OF SUCH INFORMATION. CARROLL ENGINEERING CORPORATION HAS OBTAINED PA ONE CALL SYSTEM SERIAL NUMBERS (SEE TABLE) FOR DESIGN PURPOSE ONLY. ANYONE USING THIS PLAN FOR CONSTRUCTION IS ADVISED TO CALL 1-800-242-1776 FOR UNDERGROUND UTILITY INFORMATION PRIOR TO EXCAVATION.

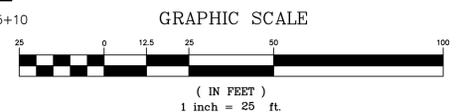
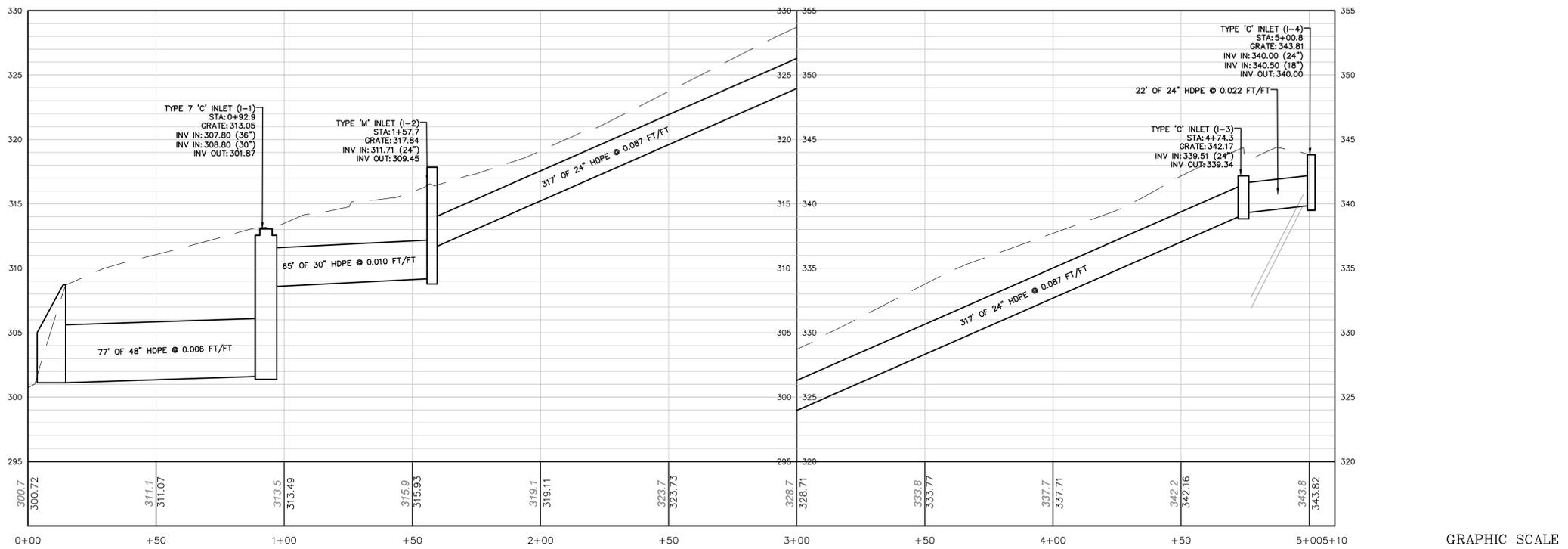
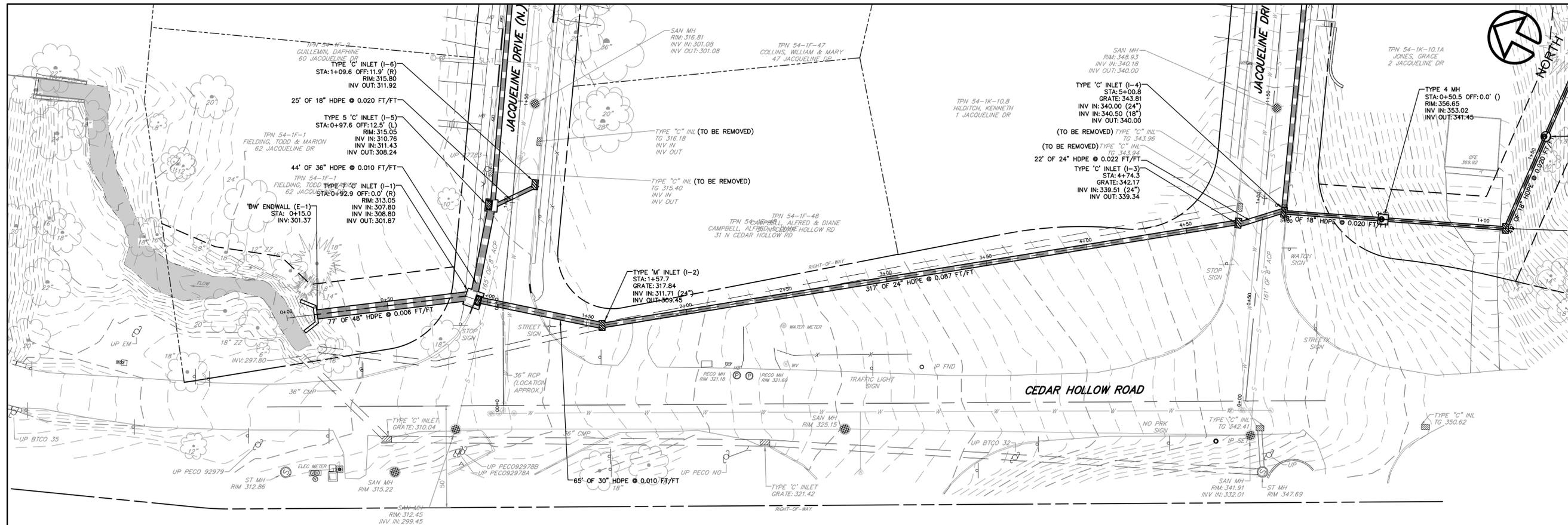
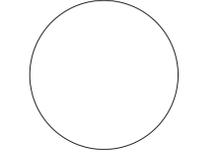
CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE--STOP CALL
PENNSYLVANIA ONE CALL SYSTEM, INC.
SERIAL NUMBERS, SEE TABLE
1-800-242-1776



Carroll Engineering Corporation
 CORPORATE OFFICE
 949 EASTON ROAD
 WARRINGTON, PA 18976
 PHONE: 215.343.5700
 FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
 King of Prussia, PA 19386 Hillborough, NJ 08044
 Phone: 610.572.7093 Fax: 908.874.7500
 433 Lancaster Avenue, Suite 200
 Malvern, PA 19355
 Phone: 610.480.5100 Fax: 908.874.5122

www.carrollengineering.com



STORM SEWER PLAN AND PROFILE
 CEDAR HOLLOW DRIVE STA 0+00 TO 5+04
 RONNIE PARK
 DRAINAGE IMPROVEMENTS
 SITUATED IN
 WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
 PREPARED FOR
 WILLISTOWN TOWNSHIP
 688 SUGARTOWN ROAD
 MALVERN, PA 19355

NO.	DATE	DESCRIPTION	INITIALS

DATE 01-30-23
 CADD FILE 2155570010
 JOB NO 21-5557.03
 DSG BY VJC
 DWN BY VJC
 CKD BY WNM
 SCALE 1"=25'
 DRAWER NUMBER -
 SHEET 3 OF 18 SHEETS
 DRAWING NUMBER C-101

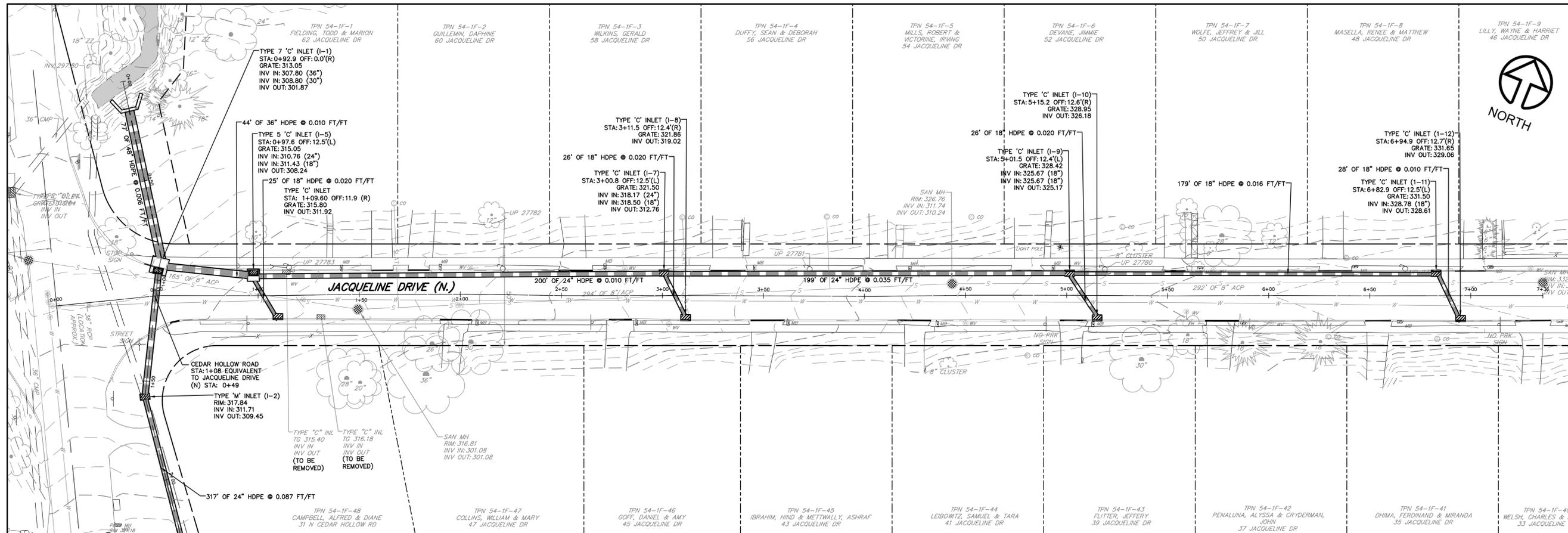
Copyright © 2024 Carroll Engineering Corporation - All Rights Reserved



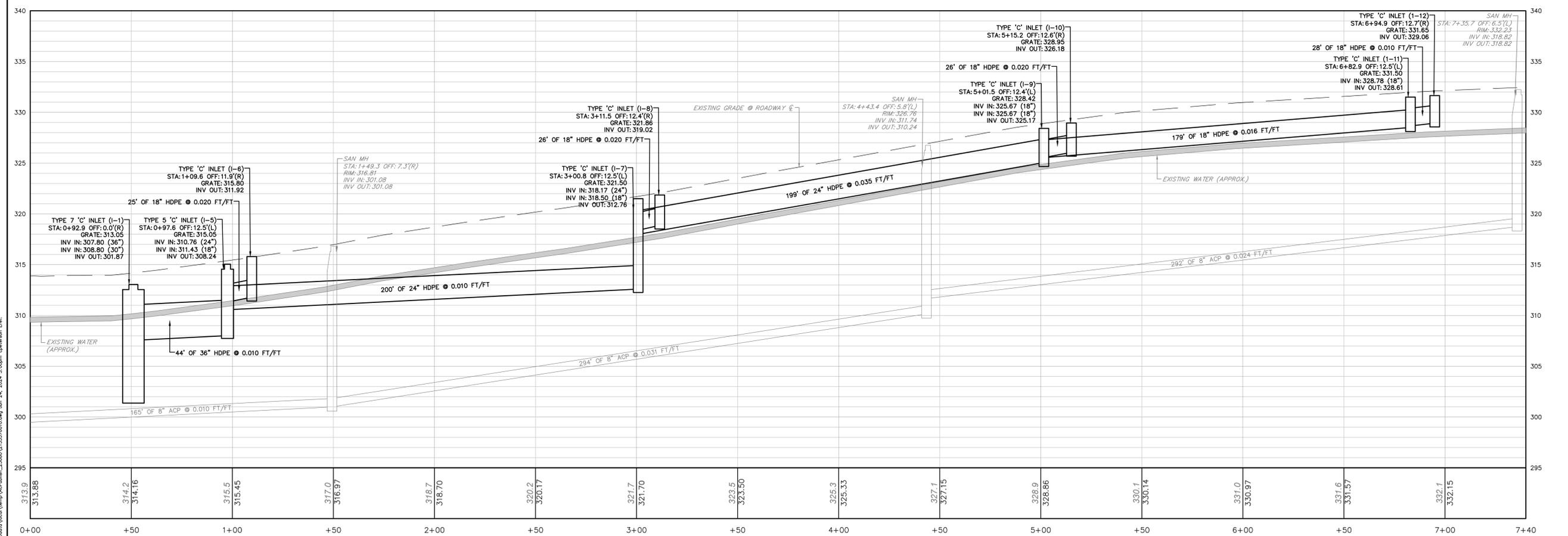
Carroll Engineering Corporation
 CORPORATE OFFICE
 949 EASTON ROAD
 WARRINGTON, PA 18976
 PHONE: 215.343.5700
 FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
 King of Prussia, PA 19406 Hillborough, NJ 08844
 Phone: 610.572.7093 Phone: 908.874.7500
 Fax: 908.874.3762

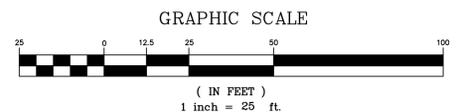
433 Lancaster Avenue, Suite 200
 Malvern, PA 19355
 Phone: 610.489.5100
 www.carrollengineering.com



PLAN
 SCALE: 1" = 25'



PROFILE
 SCALE: HORIZ. 1" = 25'
 VERT. 1" = 5'



STORM SEWER PLAN AND PROFILE
JACQUELINE DRIVE (N.) STA 0+00 TO 7+24
 RONNIE PARK
 DRAINAGE IMPROVEMENTS
 SITUATED IN
 WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
 PREPARED FOR
 WILLISTOWN TOWNSHIP
 688 SUGARTOWN ROAD
 MALVERN, PA 19355

NO.	DATE	DESCRIPTION	INITIALS

DATE: 01-30-23
 CADD FILE: 2155570010
 JOB NO: 21-5557.03
 DSG BY: VJC
 DWN BY: VJC
 CKD BY: WNM
 SCALE: 1"=25'
 DRAWER NUMBER: -
 SHEET 4 OF 18 SHEETS
 DRAWING NUMBER: C-102

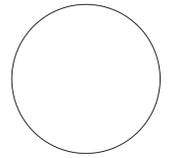
C:\Users\jvanderkorn\OneDrive\Work\Projects\2155570010.dwg, Sun, 24, 2024, 3:10pm, operation: Error



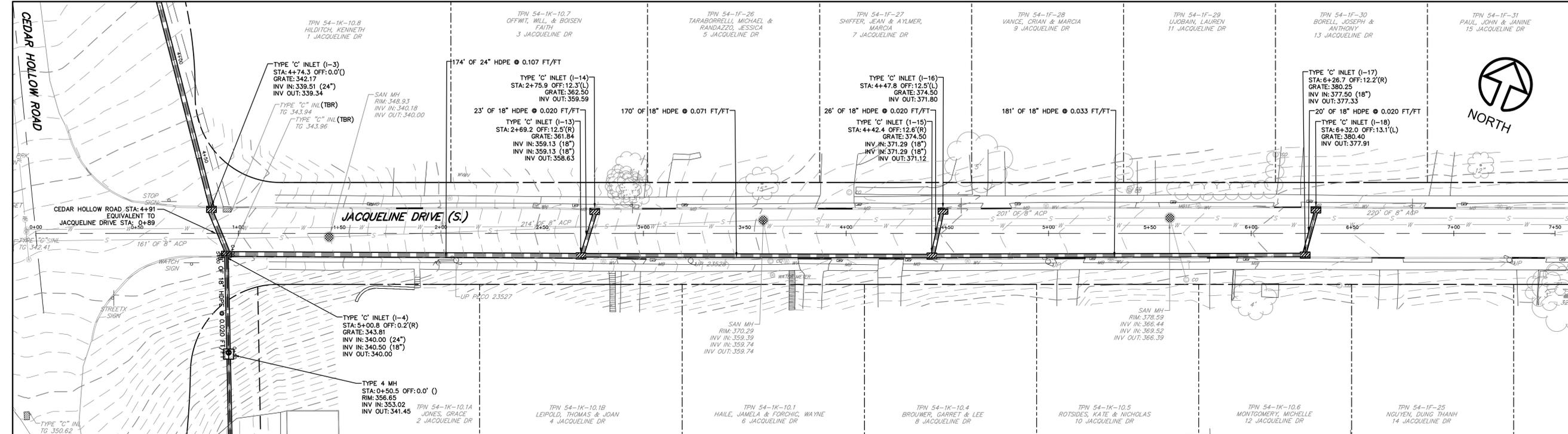
Carroll Engineering Corporation
 CORPORATE OFFICE
 949 EASTON ROAD
 WARRINGTON, PA 18976
 PHONE: 215.343.5700
 FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
 King of Prussia, PA 19386 Hillsborough, NJ 08044
 Phone: 610.572.7093 Phone: 908.874.7500
 Fax: 610.489.5100

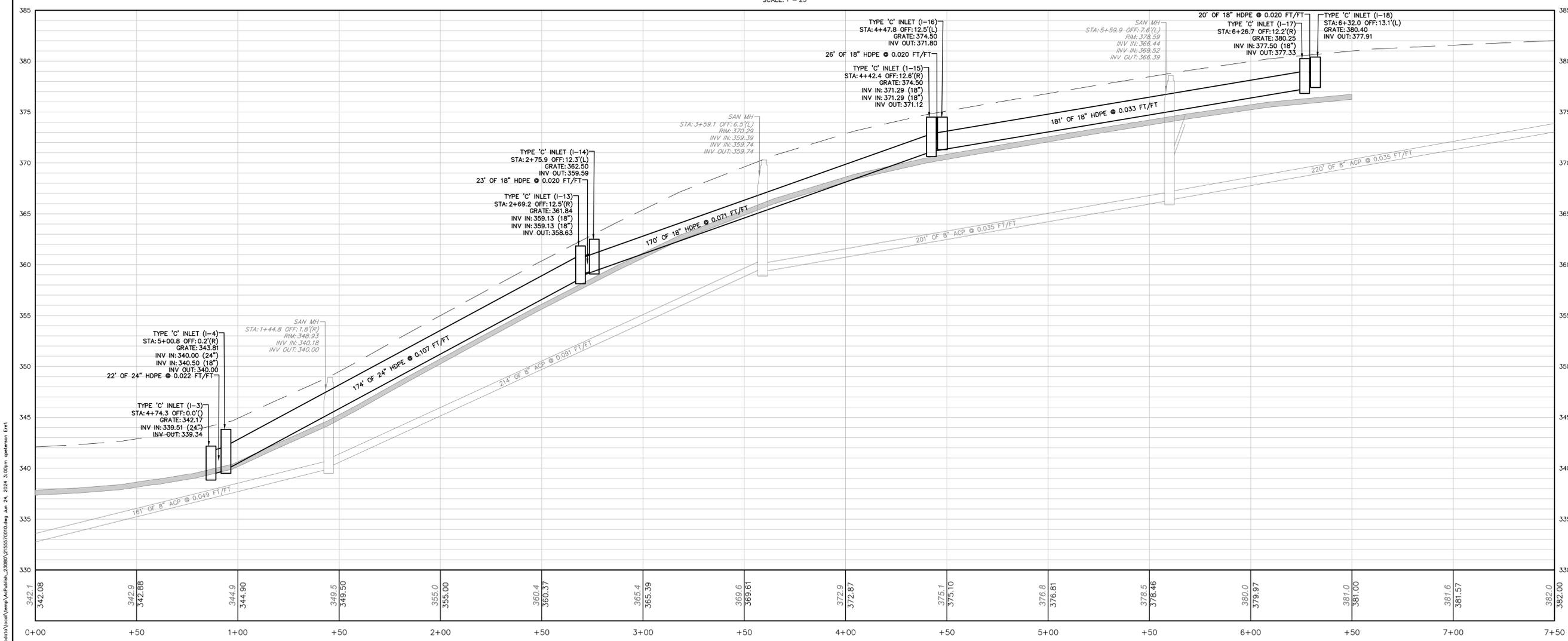
433 Lancaster Avenue, Suite 200
 Malvern, PA 19355
 Phone: 610.489.5100
 www.carrollengineering.com



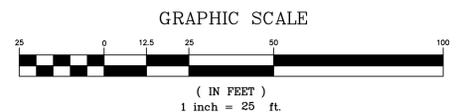
STORM SEWER PLAN AND PROFILE
JACQUELINE DRIVE (S.) STA 0+00 TO 7+50
 RONNIE PARK
 DRAINAGE IMPROVEMENTS
 SITUATED IN
 WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
 PREPARED FOR
 WILLISTOWN TOWNSHIP
 688 SUGARTOWN ROAD
 MALVERN, PA 19355



PLAN
 SCALE: 1" = 25'



PROFILE
 SCALE: HORIZ. 1" = 25'
 VERT. 1" = 5'



C:\Users\jvanderkrom\OneDrive\Work\Projects\2155570010.dwg Jun 24, 2024 3:10pm operation Error

NO.	DATE	DESCRIPTION	INITIALS

DATE	01-30-23
CADD FILE	2155570010
JOB NO	21-5557.03
DSG BY	VJC
DWN BY	VJC
CKD BY	WNM
SCALE	1"=25'
DRAWER NUMBER	-
SHEET	5 OF 18 SHEETS
DRAWING NUMBER	C-103

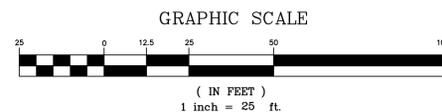
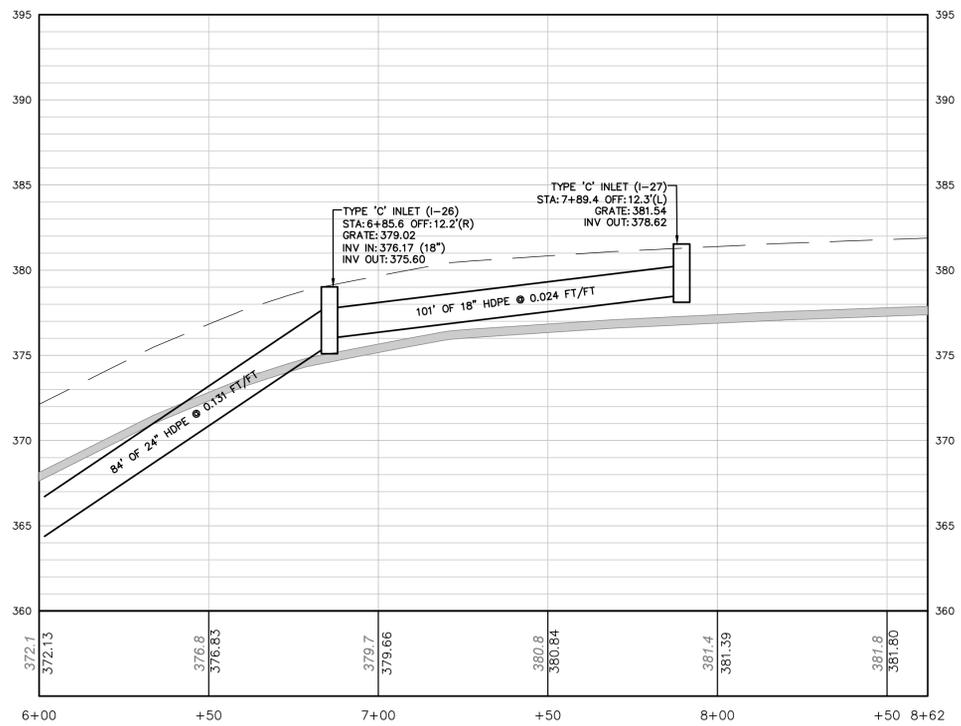
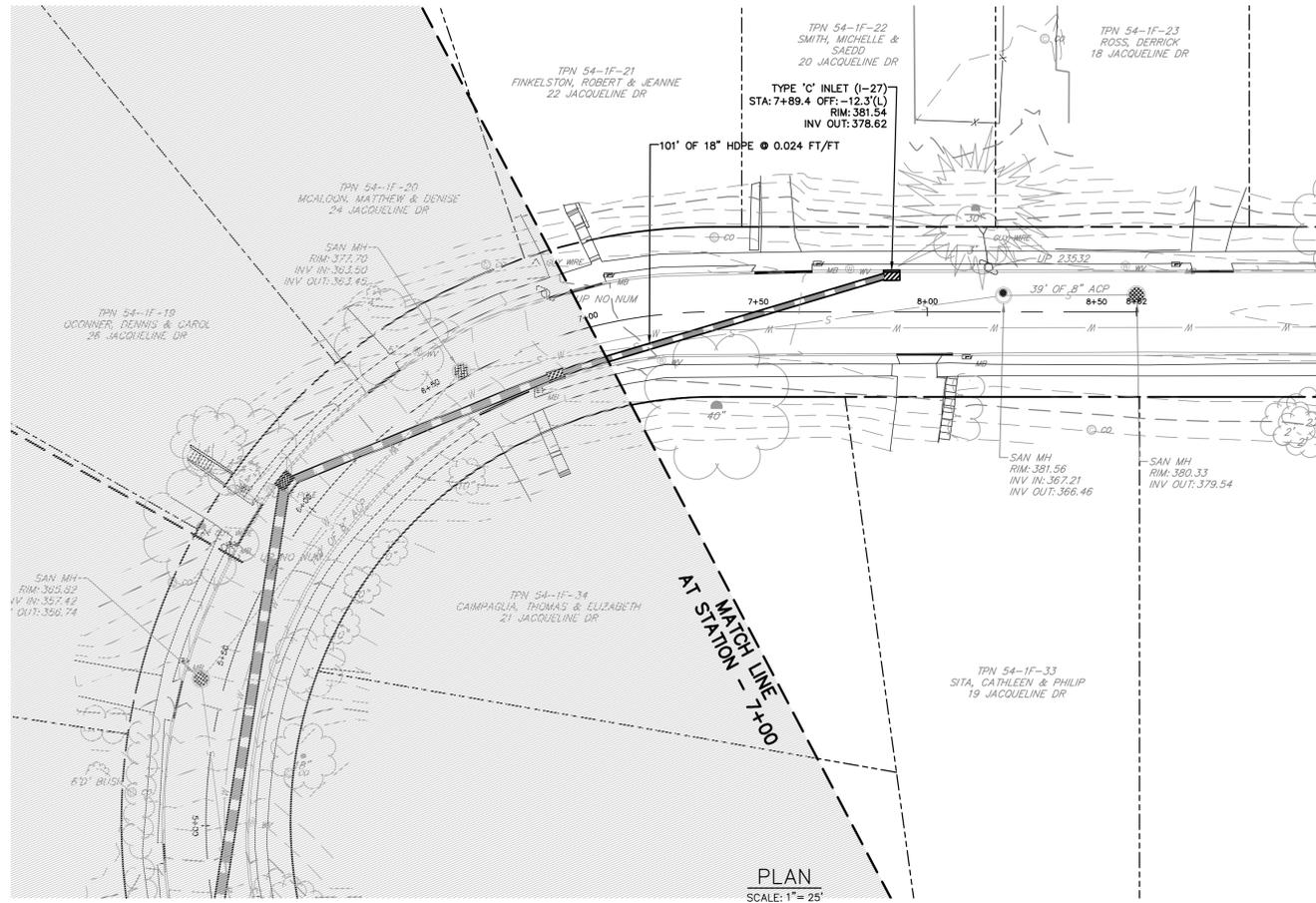
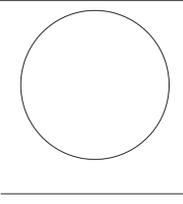


Carroll Engineering Corporation
 CORPORATE OFFICE
 949 EASTON ROAD
 WARRINGTON, PA 18976
 PHONE: 215.343.5700
 FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Raider Boulevard, Suite 206
 King of Prussia, PA 19406 Hillsborough, NJ 08044
 Phone: 610.572.7093 Fax: 908.874.7500

433 Lancaster Avenue, Suite 200
 Malvern, PA 19355
 Phone: 610.489.5100 Fax: 908.874.5712

www.carrollengineering.com



STORM SEWER PLAN AND PROFILE
JACQUELINE DRIVE (E.) STA 7+00 TO 8+62

RONNIE PARK
DRAINAGE IMPROVEMENTS

SITUATED IN
 WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA

PREPARED FOR
 WILLISTOWN TOWNSHIP
 688 SUGARTOWN ROAD
 MALVERN, PA 19355

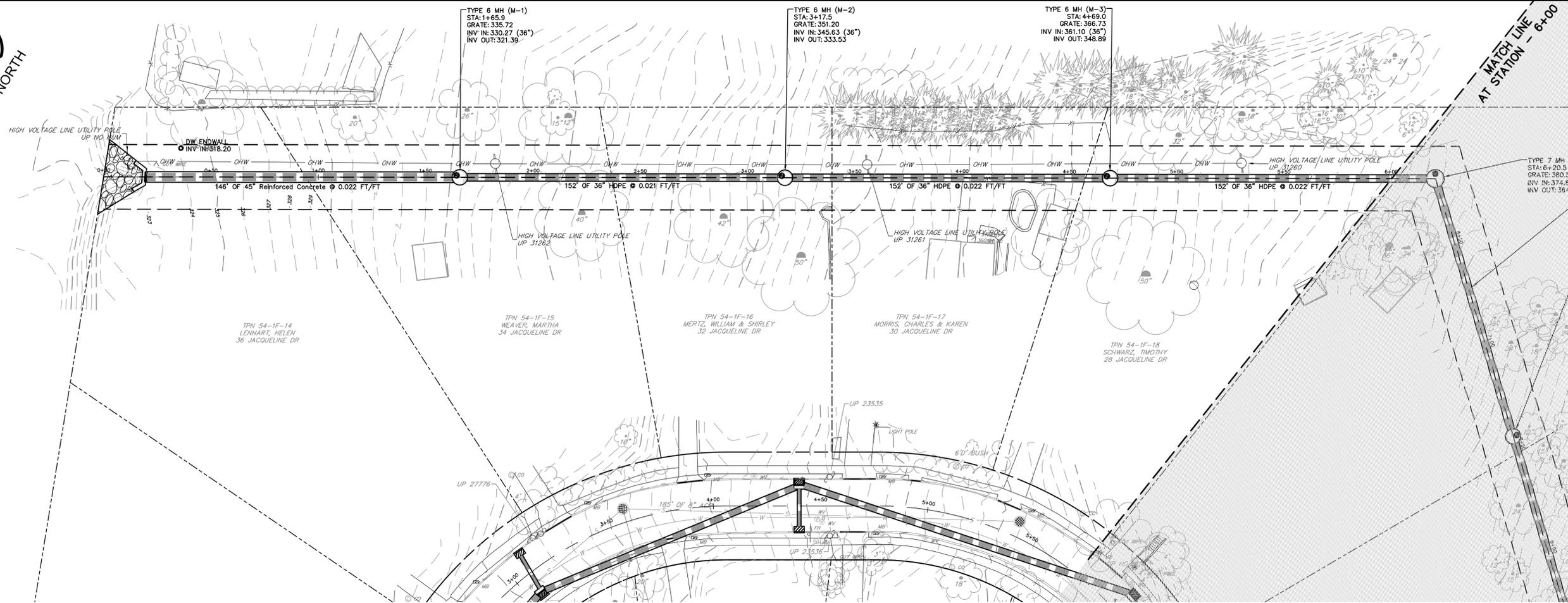
NO.	DATE	DESCRIPTION	INITIALS

DATE 01-30-23
 CADD FILE 2155570010
 JOB NO 21-5557.03

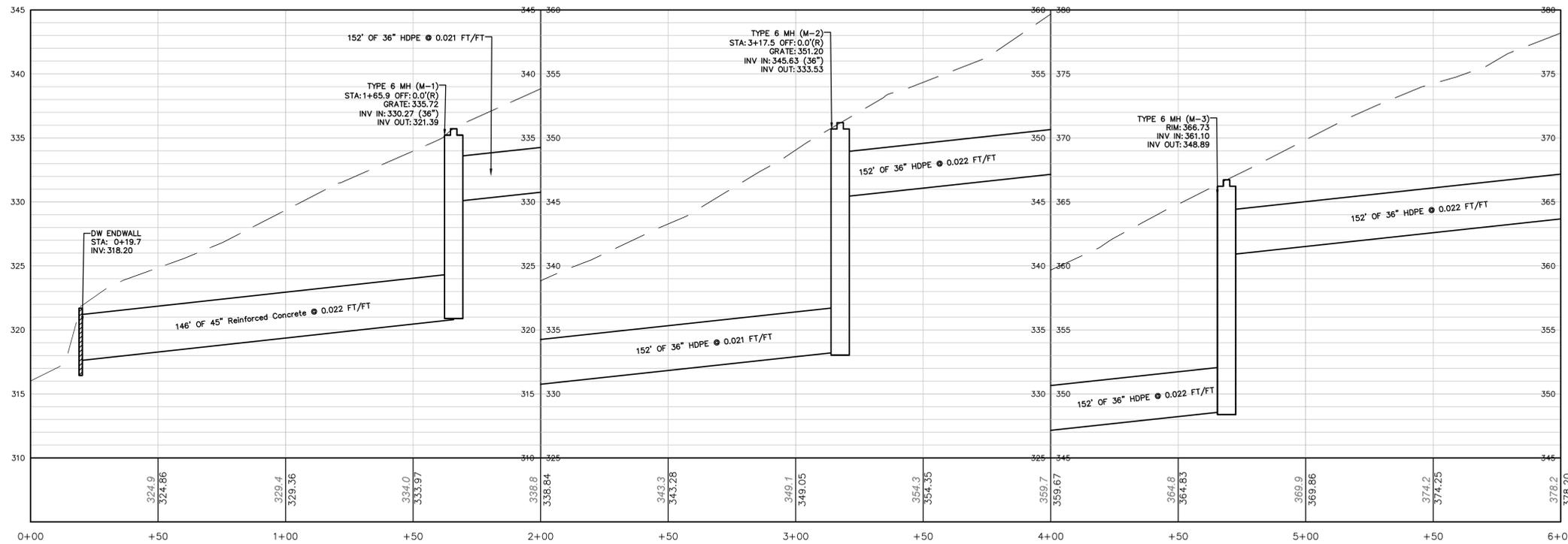
DSG BY VJC
 DWN BY VJC
 CKD BY WNM
 SCALE 1"=25'
 DRAWER NUMBER -

SHEET 7 OF 18 SHEETS

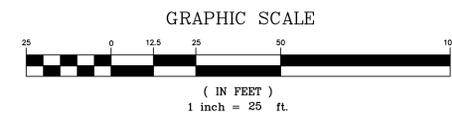
DRAWING NUMBER
C-105



PLAN
SCALE: 1" = 25'



PROFILE
SCALE: HORIZ. 1" = 25'
VERT. 1" = 5'



Carroll Engineering Corporation
CORPORATE OFFICE
949 EASTON ROAD
WARRINGTON, PA 18976
PHONE: 215.343.5700
FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
King of Prussia, PA 19406 Hillsborough, NJ 08044
Phone: 610.572.7093 Fax: 908.874.7500

433 Lancaster Avenue, Suite 200
Malvern, PA 19355
Phone: 610.489.5100

www.carrollengineering.com

STORM SEWER PLAN AND PROFILE
ROLLINGVIEW DRIVE STA 0+00 TO 6+00

RONNIE PARK
DRAINAGE IMPROVEMENTS
SITUATED IN
WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
PREPARED FOR
WILLISTOWN TOWNSHIP
688 SUGARTOWNROAD
MALVERN, PA 19355

NO.	DATE	DESCRIPTION	INITIALS

DATE	01-30-23
CADD FILE	2155570010
JOB NO	21-5557.03
DSG BY	VJC
DWN BY	VJC
CKD BY	WNM
SCALE	1"=25'
DRAWER NUMBER	-
SHEET	8 OF 18 SHEETS
DRAWING NUMBER	C-106

Copyright © 2024 Carroll Engineering Corporation - All Rights Reserved

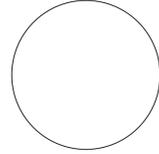


Carroll Engineering Corporation
 CORPORATE OFFICE
 949 EASTON ROAD
 WARRINGTON, PA 18976
 PHONE: 215.343.5700
 FAX: 215.343.0875

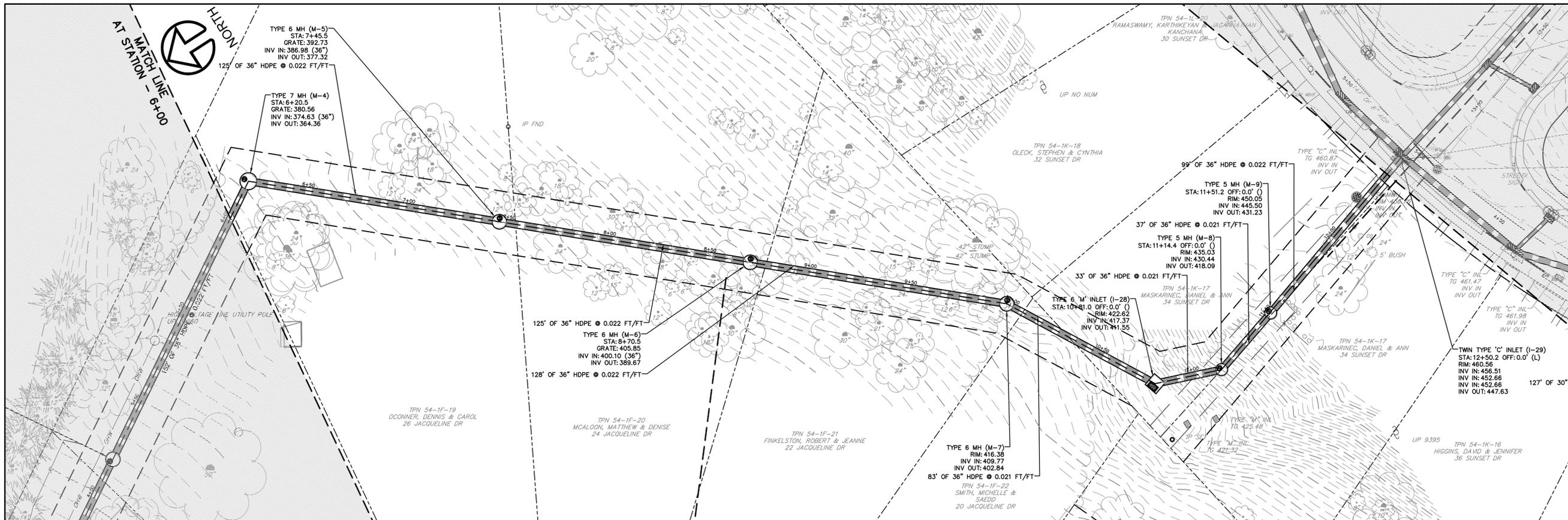
630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
 King of Prussia, PA 19381 Hillborough, NJ 08044
 Phone: 610.572.7093 Phone: 908.874.7500
 Fax: 908.874.5122

433 Lancaster Avenue, Suite 200
 Malvern, PA 19355
 Phone: 610.489.5100 Fax: 908.874.5122

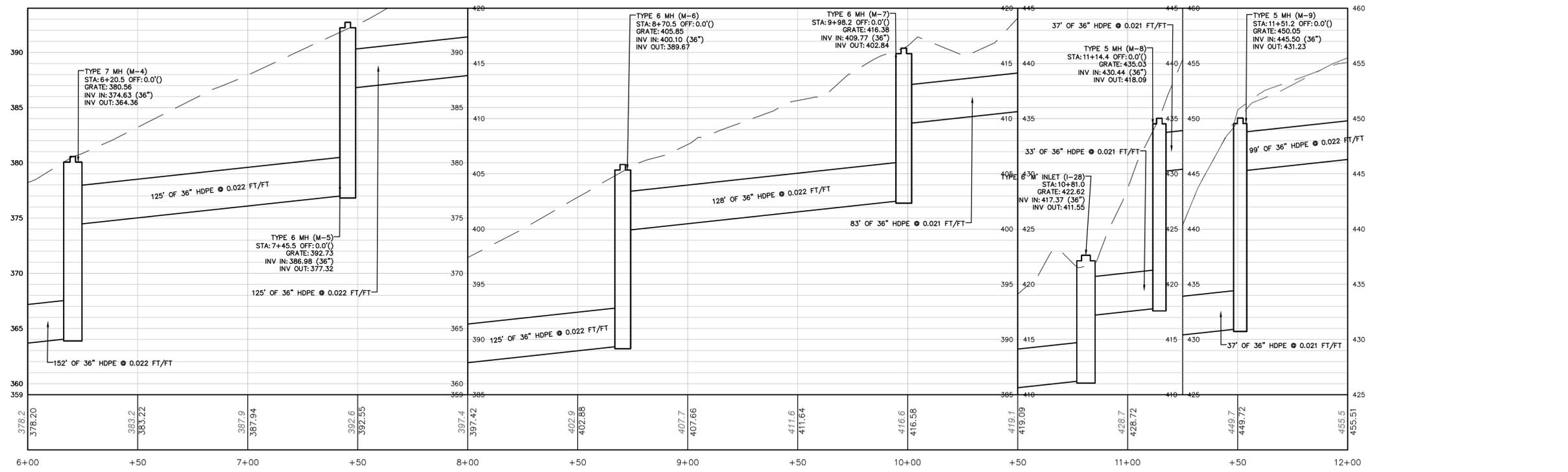
www.carrollengineering.com



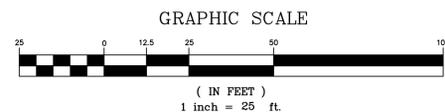
STORM SEWER PLAN AND PROFILE
ROLLINGVIEW DRIVE STA 6+00 TO 12+40
RONNIE PARK DRAINAGE IMPROVEMENTS
 SITUATED IN
 WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
 PREPARED FOR
WILLISTOWN TOWNSHIP
688 SUGARTOWN ROAD
MALVERN, PA 19355



PLAN
 SCALE: 1"=25'



PROFILE
 SCALE: HORIZ. 1"=25'
 VERT. 1"=5'



NO.	DATE	DESCRIPTION	INITIALS

DATE	01-30-23
CADD FILE	2155570010
JOB NO	21-5557.03
DSG BY	VJC
DWN BY	VJC
CKD BY	WNM
SCALE	1"=25'
DRAWER NUMBER	-
SHEET	9 OF 18 SHEETS
DRAWING NUMBER	C-107

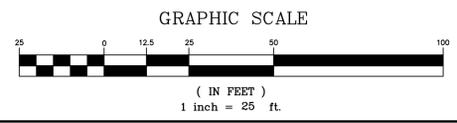
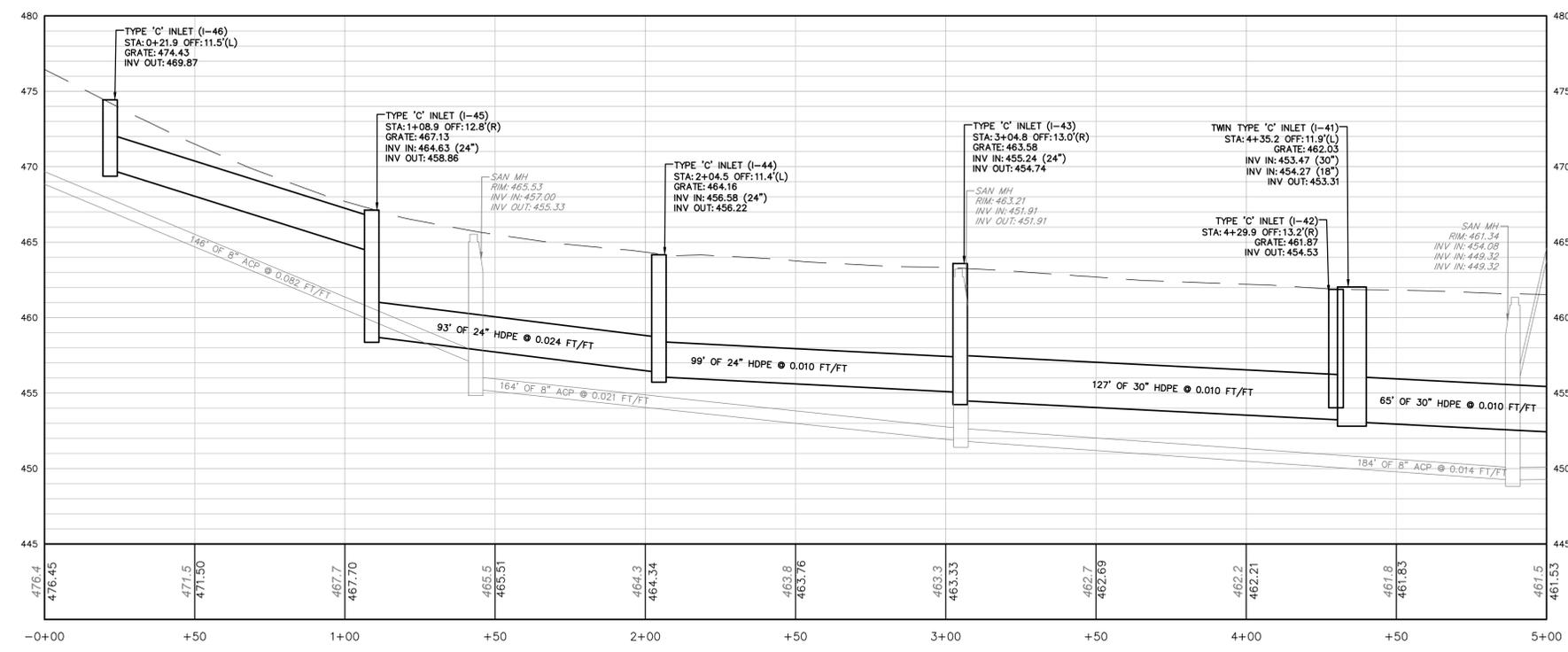
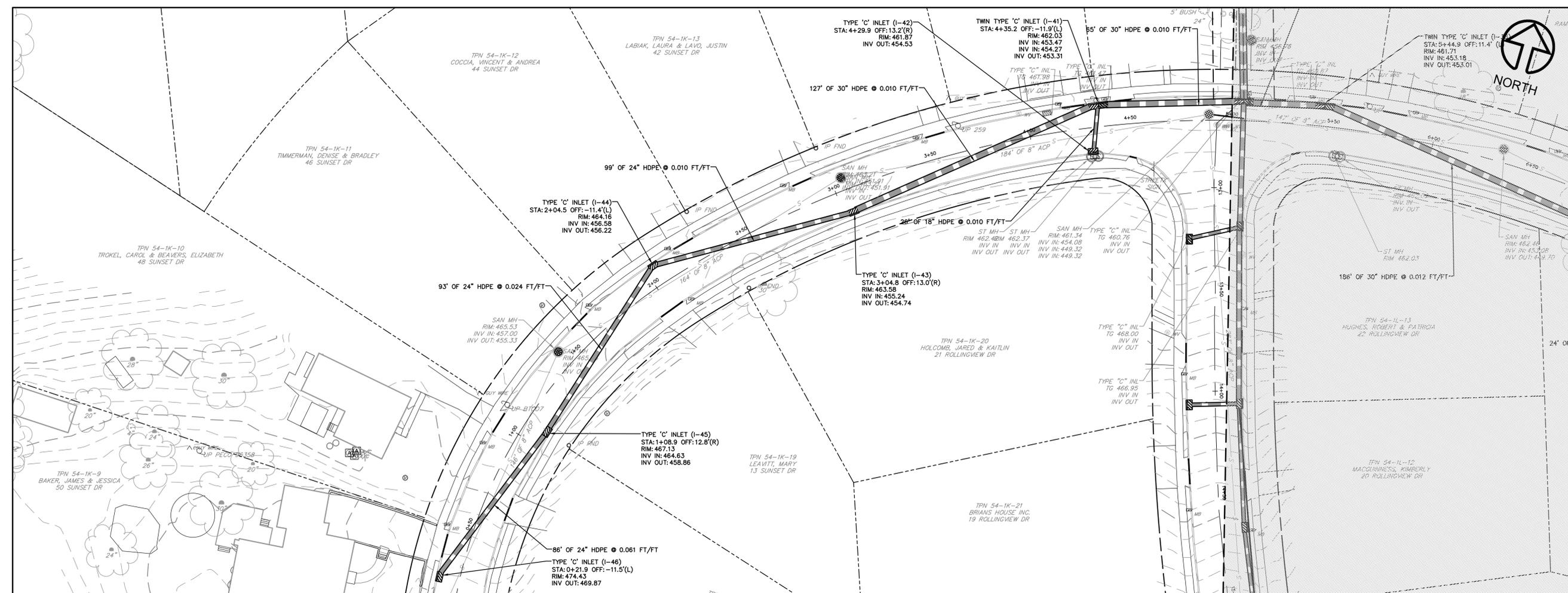
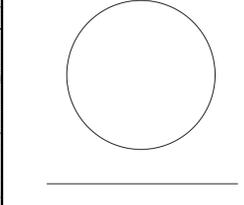
Copyright © 2024 Carroll Engineering Corporation - All Rights Reserved



Carroll Engineering Corporation
 CORPORATE OFFICE
 949 EASTON ROAD
 WARRINGTON, PA 18976
 PHONE: 215.343.5700
 FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
 King of Prussia, PA 19381
 Phone: 610.572.7093
 433 Lancaster Avenue, Suite 200
 Malvern, PA 19355
 Phone: 610.489.5100
 Fax: 908.874.5162

www.carrollengineering.com



STORM SEWER PLAN AND PROFILE
 SUNSET DRIVE STA 0+00 TO 5+00

RONNIE PARK
 DRAINAGE IMPROVEMENTS
 SITUATED IN
 WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
 PREPARED FOR
 WILLISTOWN TOWNSHIP
 688 SUGARTOWN ROAD
 MALVERN, PA 19355

NO.	DATE	DESCRIPTION	INITIALS

DATE	01-30-23
CADD FILE	2155570010
JOB NO	21-5557.03
DSG BY	VJC
DWN BY	VJC
CKD BY	WNM
SCALE	1"=25'
DRAWER NUMBER	-
SHEET	11 OF 18 SHEETS
DRAWING NUMBER	C-109

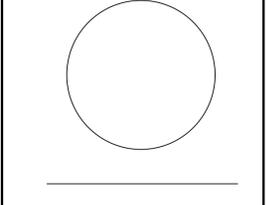
Copyright © 2024 Carroll Engineering Corporation - All Rights Reserved



Carroll Engineering Corporation
 CORPORATE OFFICE
 949 EASTON ROAD
 WARRINGTON, PA 18976
 PHONE: 215.343.5700
 FAX: 215.343.0875

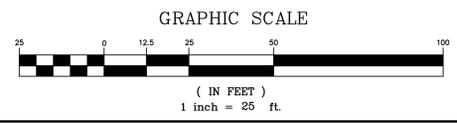
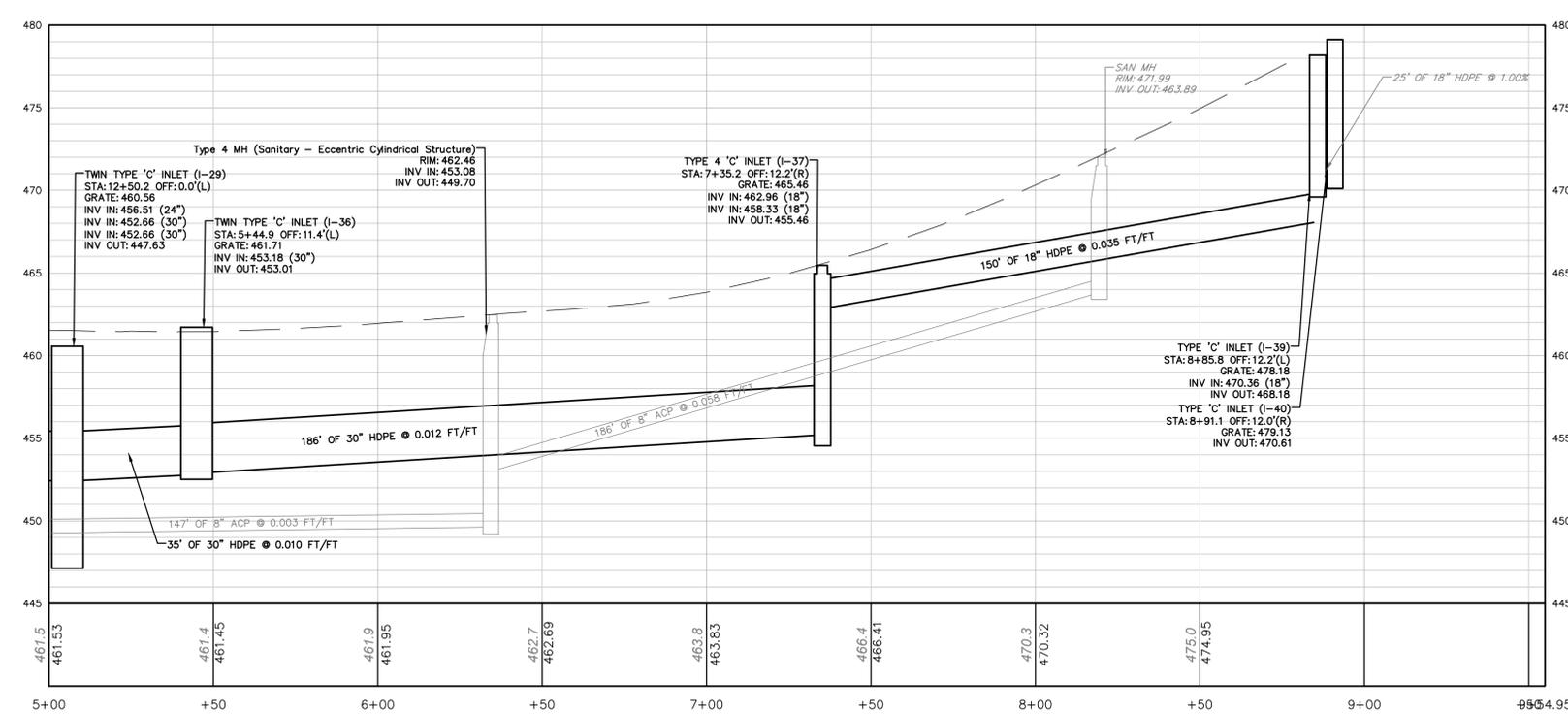
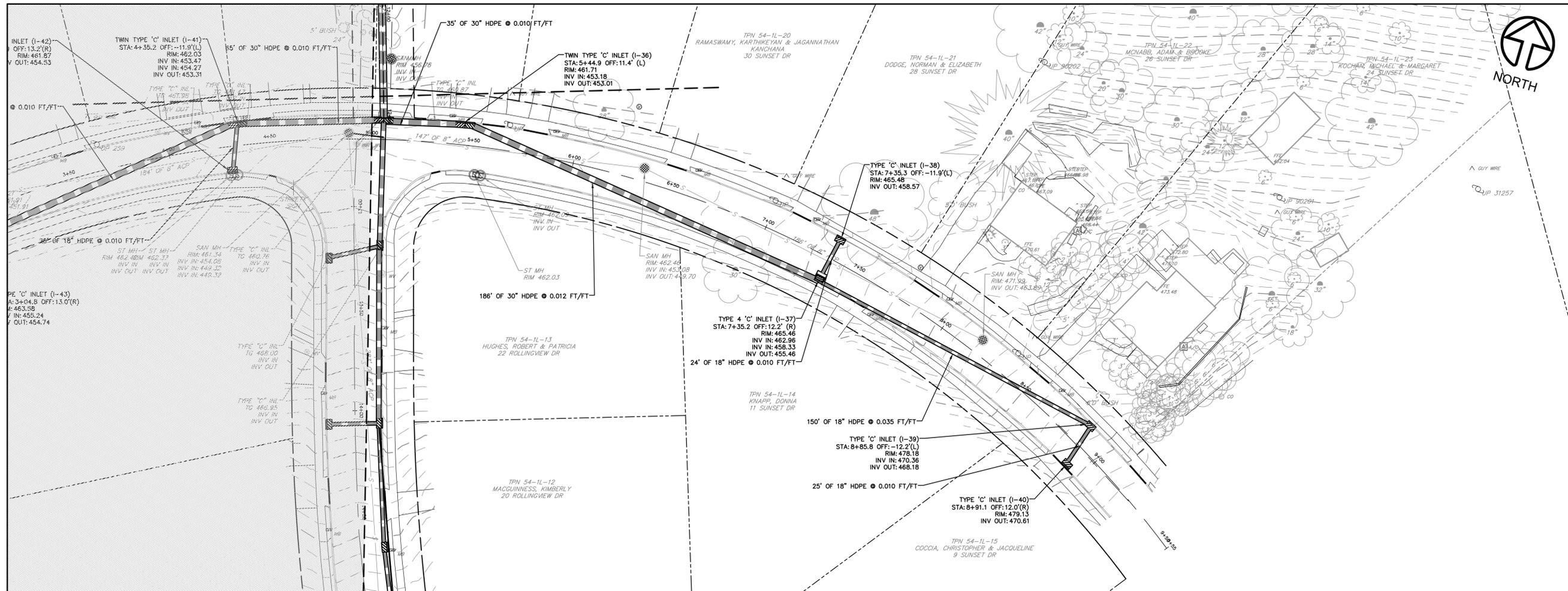
630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
 King of Prussia, PA 19381 Hillborough, NJ 08044
 Phone: 610.572.7003 Phone: 908.874.7500
 Fax: 610.480.5100 Fax: 908.874.5122

433 Lancaster Avenue, Suite 200
 Malvern, PA 19355
 Phone: 610.480.5100
 www.carrollengineering.com



STORM SEWER PLAN AND PROFILE
SUNSET DRIVE STA 5+00 TO 9+54

RONNIE PARK DRAINAGE IMPROVEMENTS
 SITUATED IN
 WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
 PREPARED FOR
WILLISTOWN TOWNSHIP
688 SUGARTOWN ROAD
MALVERN, PA 19355



DATE	01-30-23
CADD FILE	2155570010
JOB NO	21-5557.03
DSG BY	VJC
DWN BY	VJC
CKD BY	WNM
SCALE	1"=25'
DRAWER NUMBER	-
SHEET	12 OF 18 SHEETS
DRAWING NUMBER	C-110

C:\Users\jvaterston\OneDrive\Work\Projects\2155570010.dwg, Sun, 24, 2024, 3:10pm, operation Error



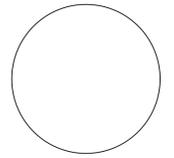
Carroll Engineering Corporation

CORPORATE OFFICE
949 EASTON ROAD
WARRINGTON, PA 18976
PHONE: 215.343.5700
FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
King of Prussia, PA 19386 Hillsborough, NJ 08044
Phone: 610.572.7093 Phone: 908.874.7500
Fax: 908.874.5162

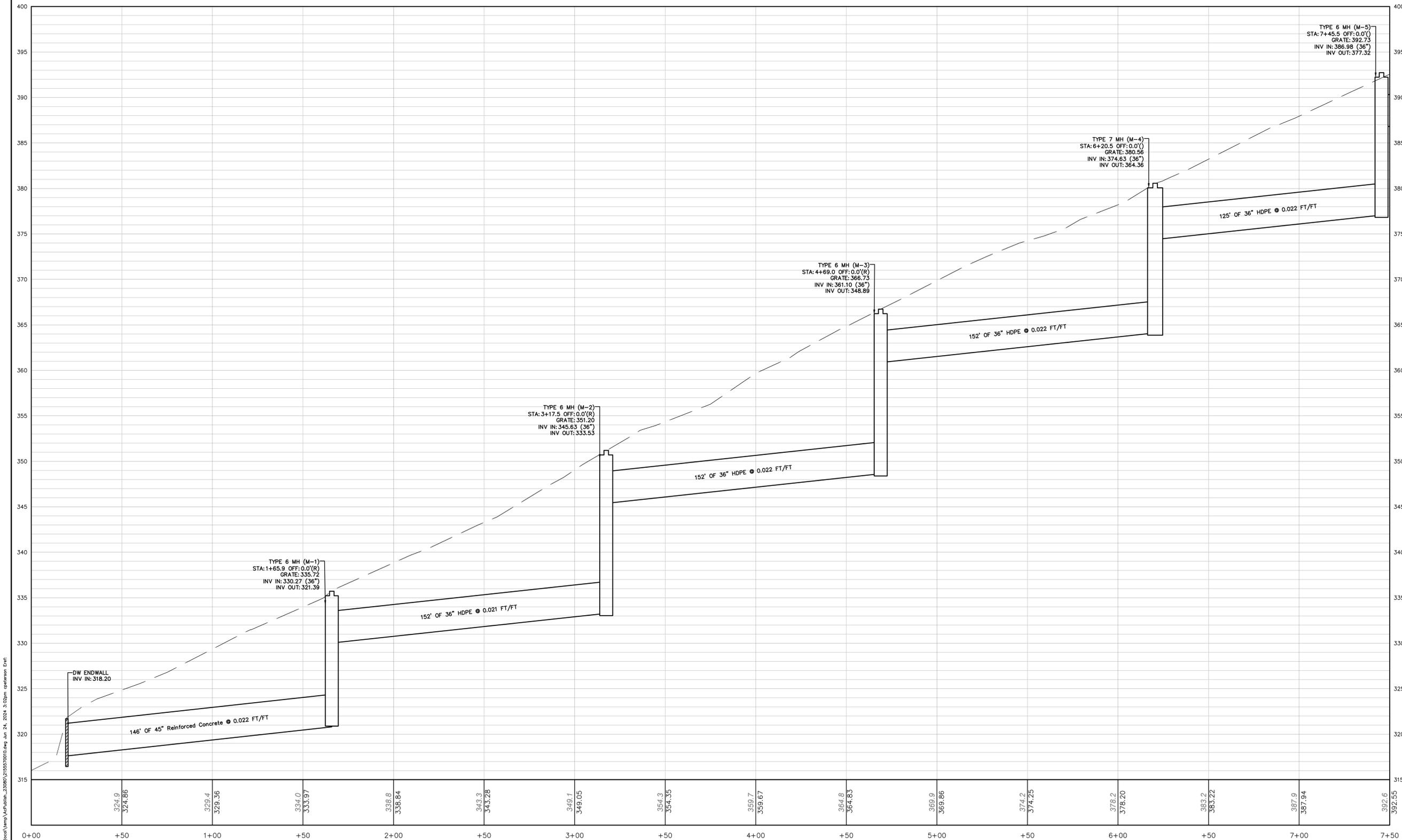
433 Lancaster Avenue, Suite 200
Malvern, PA 19355
Phone: 610.489.5100

www.carrollengineering.com



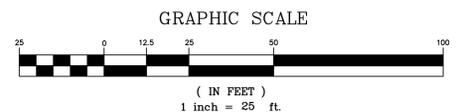
STORM SEWER PLAN AND PROFILE
ROLLINGVIEW DRIVE STA 0+00 TO 7+50

RONNIE PARK
DRAINAGE IMPROVEMENTS
SITUATED IN
WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
PREPARED FOR
WILLISTOWN TOWNSHIP
688 SUGARTOWNROAD
MALVERN, PA 19355



C:\Users\jvaterston\OneDrive\Documents\Projects\2155570010.dwg, Sun, 24, 2024, 3:10pm, operation, Error

PROFILE
SCALE: HORIZ. 1" = 25'
VERT. 1" = 5'



NO.	DATE	DESCRIPTION	INITIALS

DATE	01-30-23
CADD FILE	2155570010
JOB NO	21-5557.03
DSG BY	VJC
DWN BY	VJC
CKD BY	WNM
SCALE	1"=25'
DRAWER NUMBER	-
SHEET	13 OF 18 SHEETS
DRAWING NUMBER	C-111



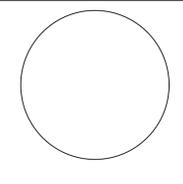
Carroll Engineering Corporation

CORPORATE OFFICE
949 EASTON ROAD
WARRINGTON, PA 18976
PHONE: 215.343.5700
FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
King of Prussia, PA 19381 Hillsborough, NJ 08044
Phone: 610.572.7093 Phone: 908.874.7500
Fax: 908.874.5122

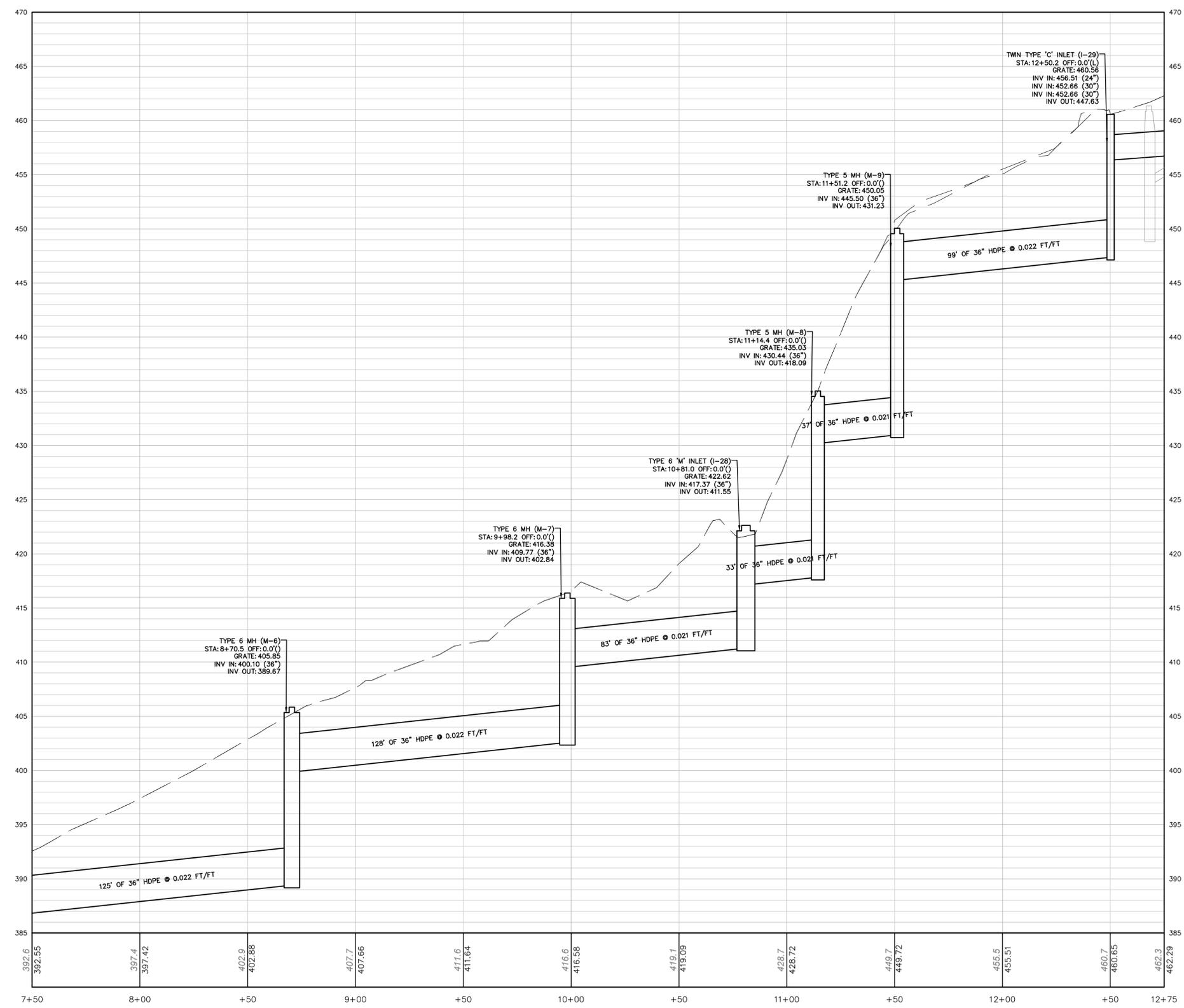
433 Lancaster Avenue, Suite 200
Malvern, PA 19355
Phone: 610.489.5100

www.carrollengineering.com

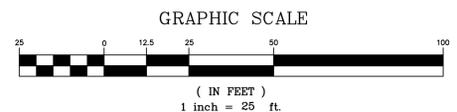


STORM SEWER PLAN AND PROFILE
ROLLINGVIEW DRIVE STA 7+50 TO 12+75

RONNIE PARK
DRAINAGE IMPROVEMENTS
SITUATED IN
WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
PREPARED FOR
WILLISTOWN TOWNSHIP
688 SUGARTOWNROAD
MALVERN, PA 19355



PROFILE
SCALE: HORIZ. 1" = 25'
VERT. 1" = 5'



NO.	DATE	DESCRIPTION	INITIALS

DATE	01-30-23
CADD FILE	2155570010
JOB NO	21-5557.03
DSG BY	VJC
DWN BY	VJC
CKD BY	WNM
SCALE	1"=25'
DRAWER NUMBER	-
SHEET	14
OF	18
SHEETS	
DRAWING NUMBER	C-112

C:\Users\jvaterston\OneDrive\Work\Projects\2155570010.dwg Jun 24, 2024 3:10pm operation Error



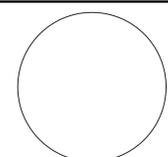
Carroll Engineering Corporation

CORPORATE OFFICE
949 EASTON ROAD
WARRINGTON, PA 18976
PHONE: 215.343.5700
FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
King of Prussia, PA 19106 Hillsborough, NJ 08044
Phone: 610.572.7093 Phone: 908.874.7500
Fax: 610.489.5100 Fax: 908.874.5102

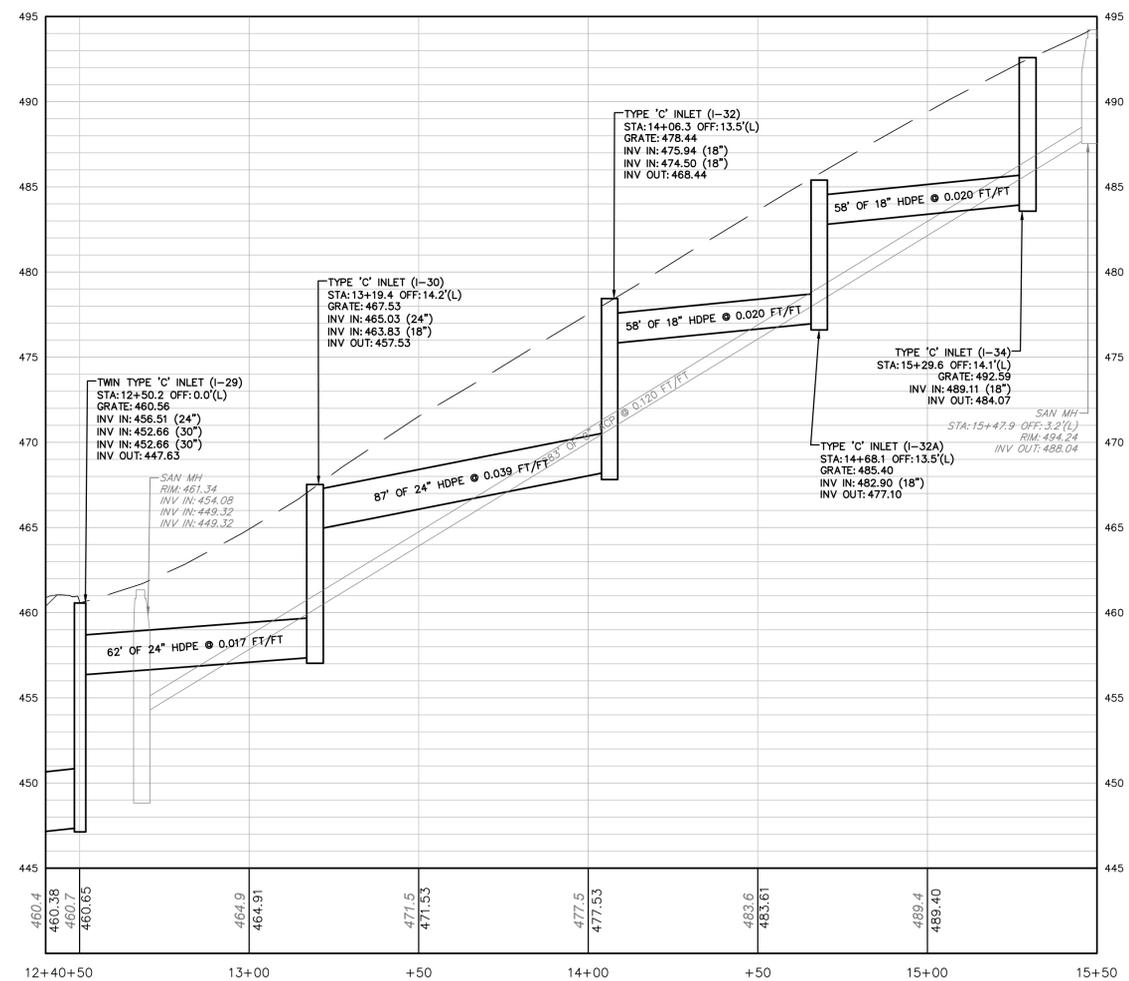
433 Lancaster Avenue, Suite 200
Malvern, PA 19355
Phone: 610.489.5100

www.carrollengineering.com

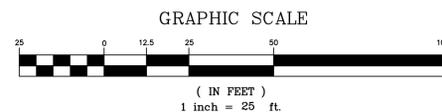


STORM SEWER PLAN AND PROFILE
ROLLINGVIEW DRIVE STA 12+75 TO 15+50

RONNIE PARK
DRAINAGE IMPROVEMENTS
SITUATED IN
WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
PREPARED FOR
WILLISTOWN TOWNSHIP
688 SUGARTOWNROAD
MALVERN, PA 19355



PROFILE
SCALE: HORIZ. 1" = 25'
VERT. 1" = 5'



NO.	DATE	DESCRIPTION	INITIALS

DATE	01-30-23
CADD FILE	2155570010
JOB NO	21-5557.03
DSG BY	VJC
DWN BY	VJC
CKD BY	WNM
SCALE	1"=25'
DRAWER NUMBER	-
SHEET	15 OF 18 SHEETS
DRAWING NUMBER	C-113

C:\Users\jvaterston\OneDrive\Work\Projects\2155570010.dwg, Sun, 24, 2024, 3:10pm, operation Error

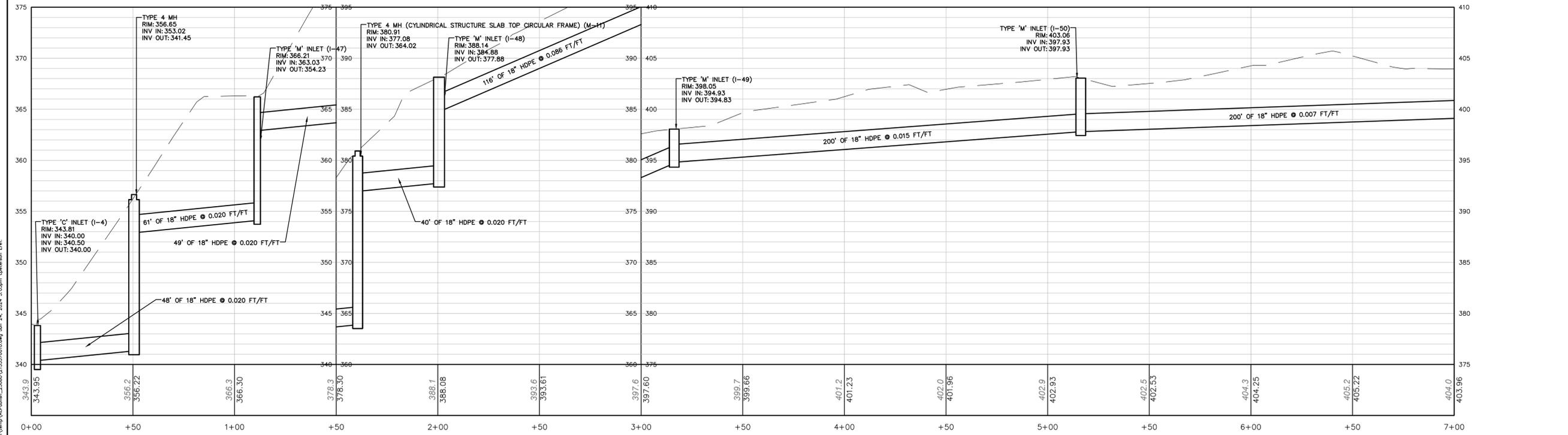
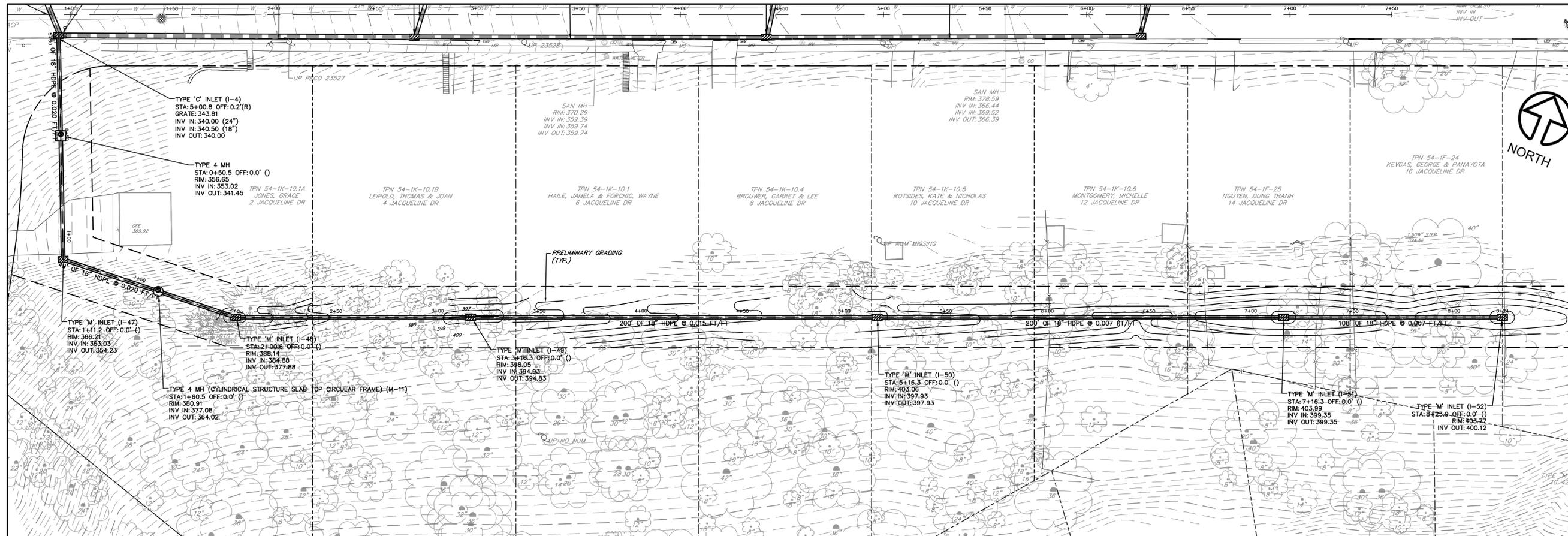


Carroll Engineering Corporation
 CORPORATE OFFICE
 949 EASTON ROAD
 WARRINGTON, PA 18976
 PHONE: 215.343.5700
 FAX: 215.343.0875

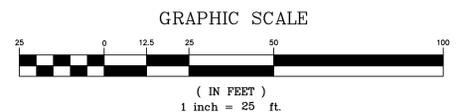
630 Freedom Business Ctr., 3rd Fl. 105 Radar Boulevard, Suite 206
 King of Prussia, PA 19386 Hillborough, NJ 08844
 Phone: 610.572.7093 Fax: 908.874.7500

433 Lancaster Avenue, Suite 200
 Malvern, PA 19355
 Phone: 610.489.5100 Fax: 908.874.5702

www.carrollengineering.com



PROFILE
 SCALE: HORIZ. 1" = 25'
 VERT. 1" = 5'



STORM SEWER PLAN AND PROFILE
 CUT OFF TRENCH STA 0+00 TO 7+00

RONNIE PARK
 DRAINAGE IMPROVEMENTS
 SITUATED IN
 WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
 PREPARED FOR
 WILLISTOWN TOWNSHIP
 688 SUGARTOWNROAD
 MALVERN, PA 19355

NO.	DATE	DESCRIPTION	INITIALS

DATE	01-30-23
CADD FILE	2155570010
JOB NO	21-5557.03
DSG BY	VJC
DWN BY	VJC
CKD BY	WNM
SCALE	1"=25'
DRAWER NUMBER	-
SHEET	16 OF 18 SHEETS
DRAWING NUMBER	C-113

Copyright © 2024 Carroll Engineering Corporation - All Rights Reserved



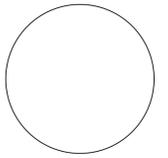
Carroll Engineering Corporation

CORPORATE OFFICE
949 EASTON ROAD
WARRINGTON, PA 18976
PHONE: 215.343.5700
FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Rader Boulevard, Suite 206
King of Prussia, PA 19406 Hillsborough, NJ 08844
Phone: 610.572.7093 Phone: 908.874.7500
Fax: 908.874.5762

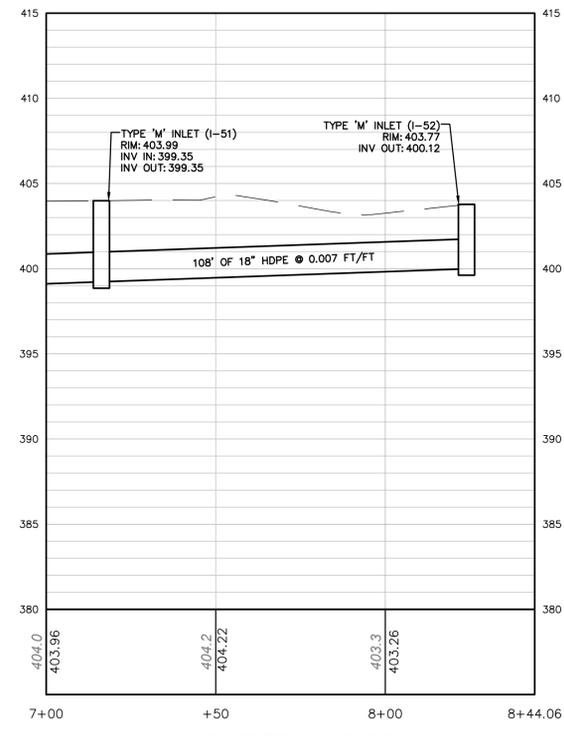
433 Lancaster Avenue, Suite 200
Malvern, PA 19355
Phone: 610.489.5100

www.carrollengineering.com

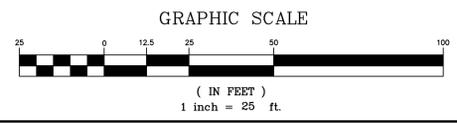


STORM SEWER PROFILE
CUT OFF TRENCH STA 7+00 TO 8+24

RONNIE PARK
DRAINAGE IMPROVEMENTS
SITUATED IN
WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
PREPARED FOR
WILLISTOWN TOWNSHIP
688 SUGARTOWNROAD
MALVERN, PA 19355



PROFILE
SCALE: HORIZ. 1" = 25'
VERT. 1" = 5'



NO.	DATE	DESCRIPTION	INITIALS

DATE 01-30-23
CADD FILE 2155570010
JOB NO 21-5557.03

DSG BY VJC
DWN BY VJC
CKD BY WNM
SCALE 1"=25'

DRAWER NUMBER -
SHEET 17 OF 18 SHEETS

DRAWING NUMBER
C-113



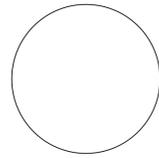
Carroll Engineering Corporation

CORPORATE OFFICE
949 EASTON ROAD
WARRINGTON, PA 18976
PHONE: 215.343.5700
FAX: 215.343.0875

630 Freedom Business Ctr., 3rd Fl. 105 Raider Boulevard, Suite 206
King of Prussia, PA 19381 Hillsborough, NJ 08844
Phone: 908.874.7500
Fax: 908.874.5102

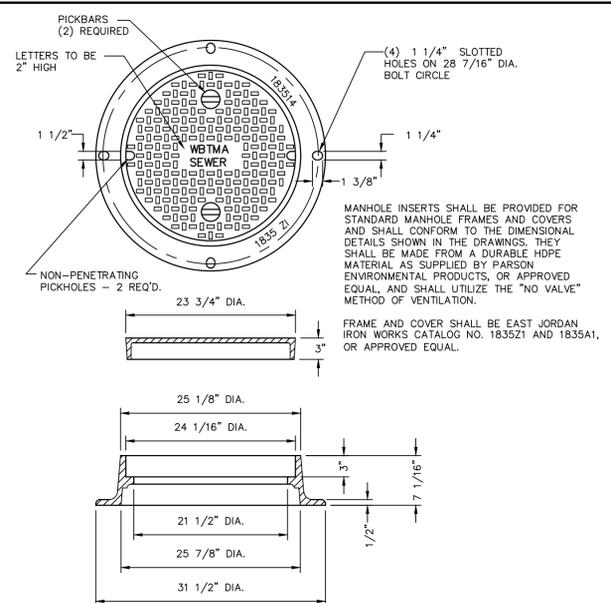
433 Lancaster Avenue, Suite 200
Malvern, PA 19355
Phone: 610.489.5100

www.carrollengineering.com

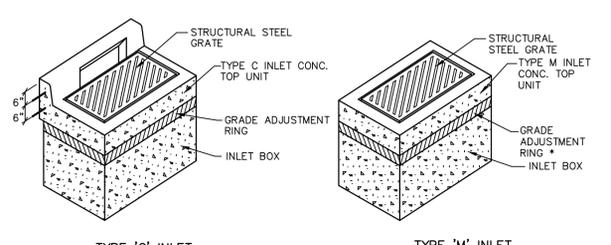


DRAINAGE IMPROVEMENTS
PLAN

RONNIE PARK
DRAINAGE IMPROVEMENTS
SITUATED IN
WILLISTOWN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA
PREPARED FOR
WILLISTOWN TOWNSHIP
688 SUGARTOWN ROAD
MALVERN, PA 19355



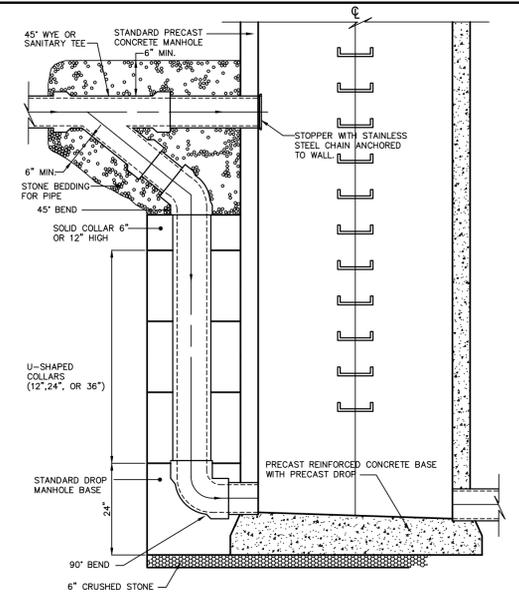
STANDARD MANHOLE FRAME AND COVER



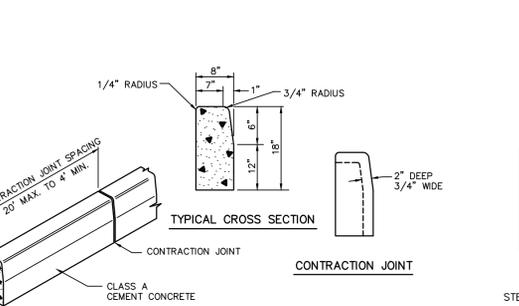
TYPE 'C' INLET
TYPE 'M' INLET

NOTE:
1. INLET BOXES SHALL CONFORM TO THE REQUIREMENTS OF PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION AND PENNDOT PUBLICATION 408/2011, SECTION 605, OR LATEST REVISION.
2. USE PRECAST CONCRETE OR MASONRY GRADE ADJUSTMENT RINGS.

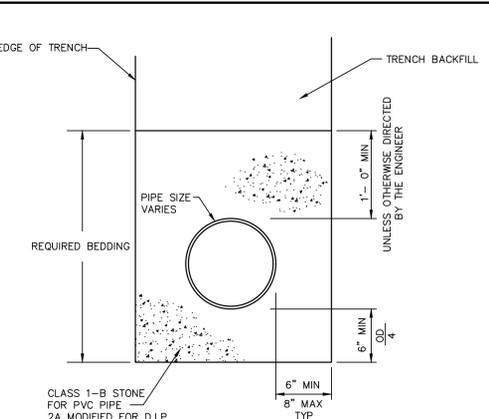
STORM INLETS



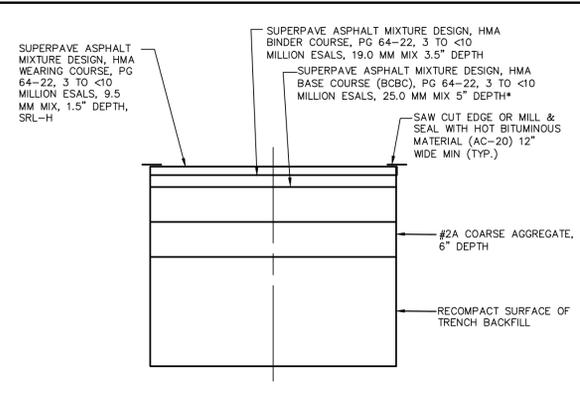
DROP MANHOLE CONNECTION GREATER THAN 4' DROP



PLAIN CEMENT CONCRETE CURB
POLYPROPYLENE MANHOLE STEP



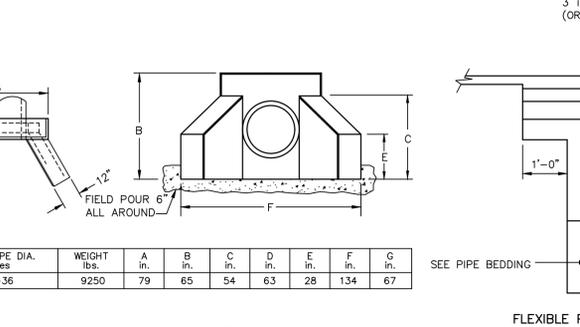
STANDARD PIPE BEDDING



PERMANENT PAVEMENT RESTORATION

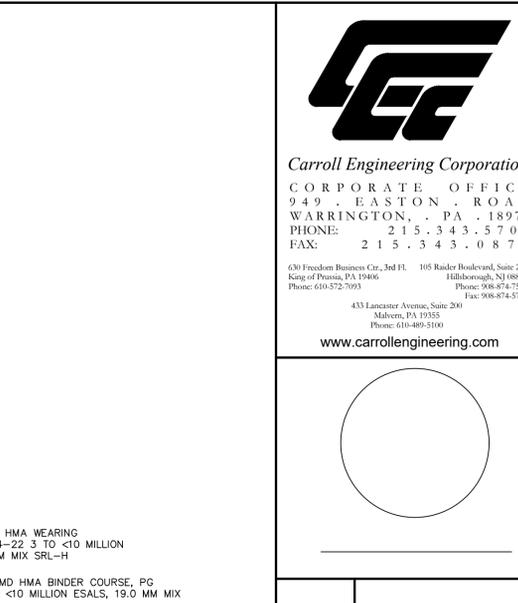
NOTES:
1. SPECIAL CONDITIONS OF ROAD OPENING PERMIT MAY SUPERSEDE THIS DETAIL.
2. EXPOSED VERTICAL AND HORIZONTAL SURFACES SHALL BE PREPARED AS PER PUB 408, SECTION 40L 3(F).
3. OVER CUT ALL EDGES 1' EXCAVATE OLD AND TEMPORARY MATERIAL. RECOMPACT SUB-GRADE. TACK COAT ALL VERTICAL EDGES. INSTALL ONLY BASE COURSE AND BINDER IN ONE DAY.
* MATCH EXISTING DEPTH IF GREATER

PERMANENT PAVEMENT, TRENCH RESTORATION AND BACKFILL

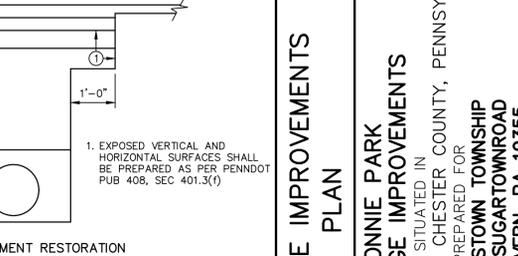


TYPE D-W ENDWALL

NOTE:
Type "D-W" endwall to be in accordance with PennDOT Publication 408 Specifications and Publication 72 RC-31 Details.



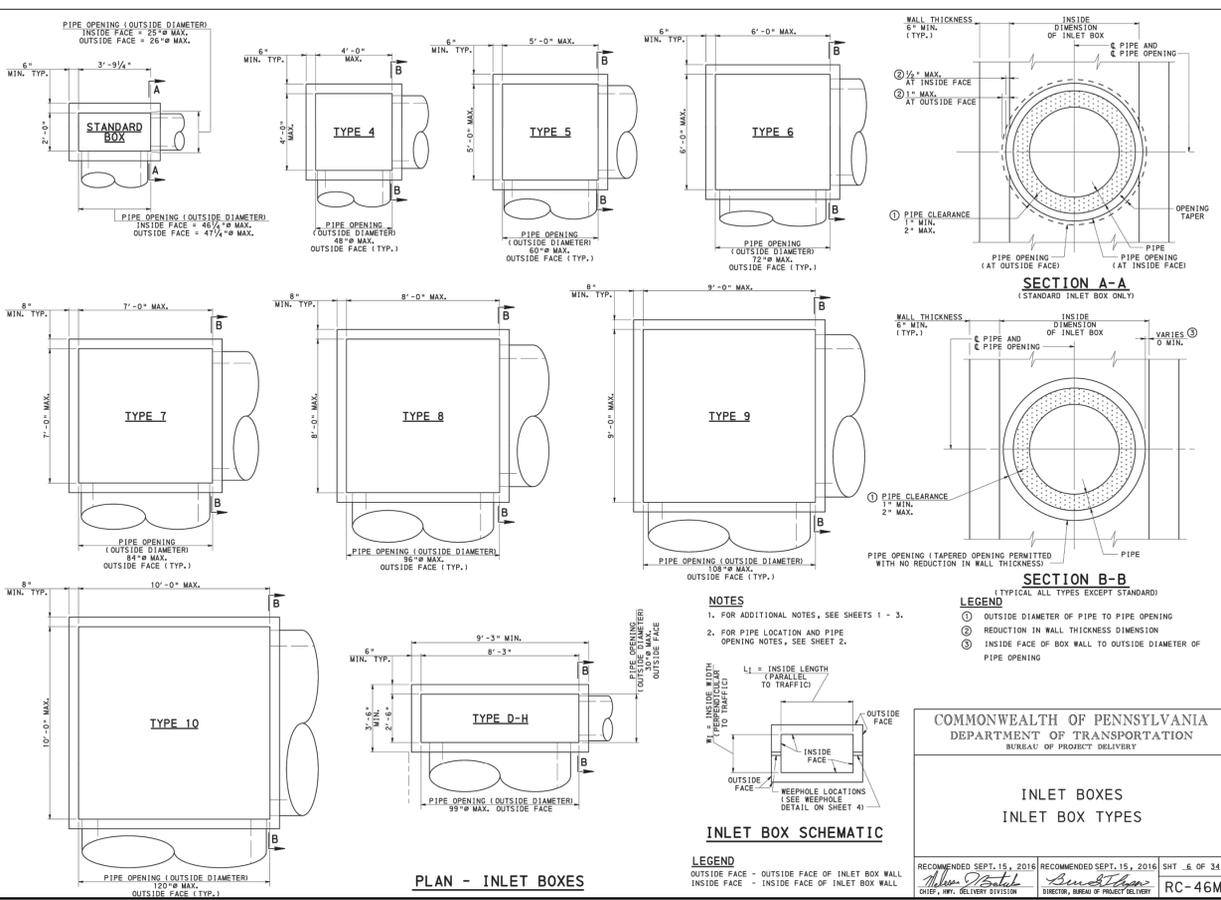
FLEXIBLE PAVEMENT RESTORATION



UTILITY CROSSINGS ENCASEMENT SECTION

NOTE:
PROVIDE REINFORCEMENT AT UTILITY CROSSINGS OR AS DIRECTED BY THE UTILITY OWNER OR THE ENGINEER.

CONCRETE ENCASEMENT



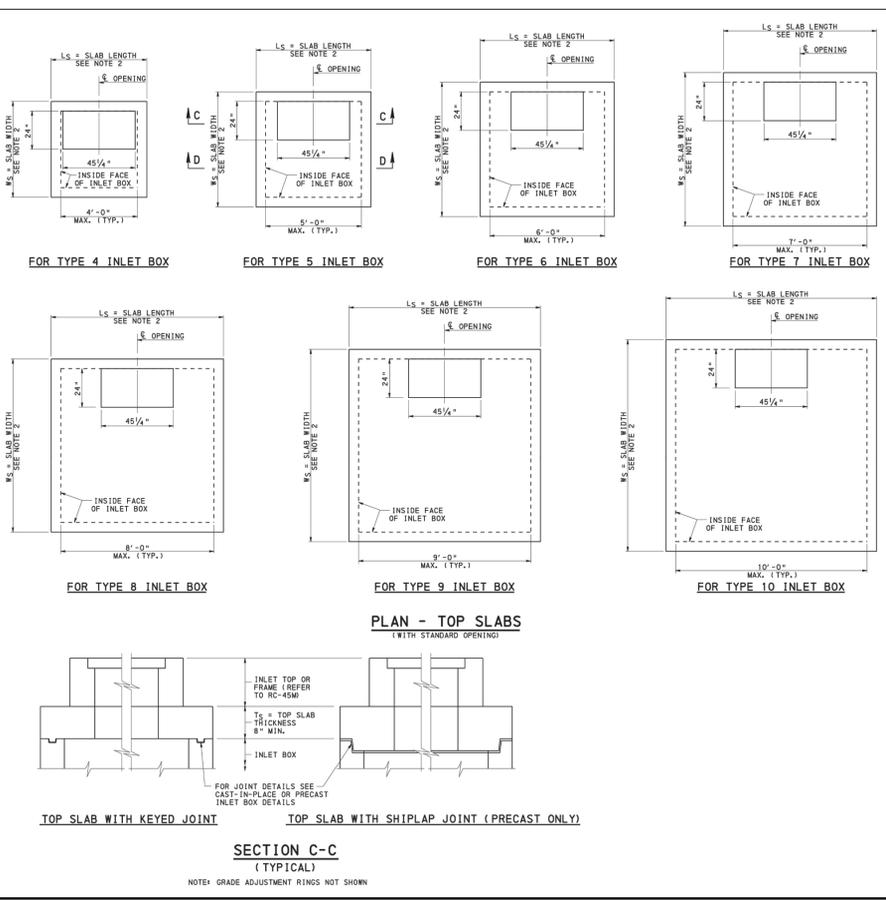
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

INLET BOXES
INLET BOX TYPES

LEGEND
1. FOR ADDITIONAL NOTES, SEE SHEETS 1 - 3.
2. FOR PIPE LOCATION AND PIPE OPENING NOTES, SEE SHEET 2.

LEGEND
1. OUTSIDE DIAMETER OF PIPE TO PIPE OPENING
2. REDUCTION IN WALL THICKNESS DIMENSION
3. INSIDE FACE OF BOX WALL TO OUTSIDE DIAMETER OF PIPE OPENING

RECOMMENDED SEPT. 15, 2016
DATE - REV. DELIVERED DATE
RC-46M

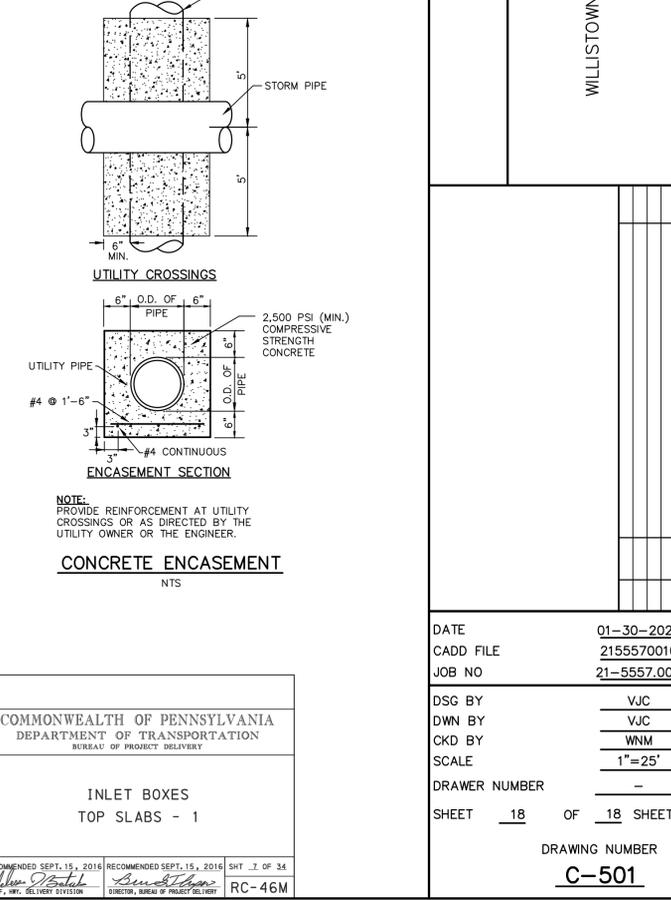


COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

PLAN - TOP SLABS
(WITH STANDARD OPENING)

LEGEND
1. INSIDE LENGTH (PARALLEL TO TRAFFIC)
2. INSIDE WIDTH (PERPENDICULAR TO TRAFFIC)
3. INSIDE FACE OF INLET BOX WALL TO INSIDE FACE OF INLET BOX WALL

RECOMMENDED SEPT. 15, 2016
DATE - REV. DELIVERED DATE
RC-46M



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

INLET BOXES
TOP SLABS - 1

LEGEND
1. INSIDE LENGTH (PARALLEL TO TRAFFIC)
2. INSIDE WIDTH (PERPENDICULAR TO TRAFFIC)
3. INSIDE FACE OF INLET BOX WALL TO INSIDE FACE OF INLET BOX WALL

RECOMMENDED SEPT. 15, 2016
DATE - REV. DELIVERED DATE
RC-46M

DATE	01-30-2023
CADD FILE	2155570010
JOB NO	21-5557.003
DSG BY	VJC
DWN BY	VJC
CKD BY	WNM
SCALE	1"=25'
DRAWER NUMBER	-
SHEET	18 OF 18 SHEETS
DRAWING NUMBER	C-501