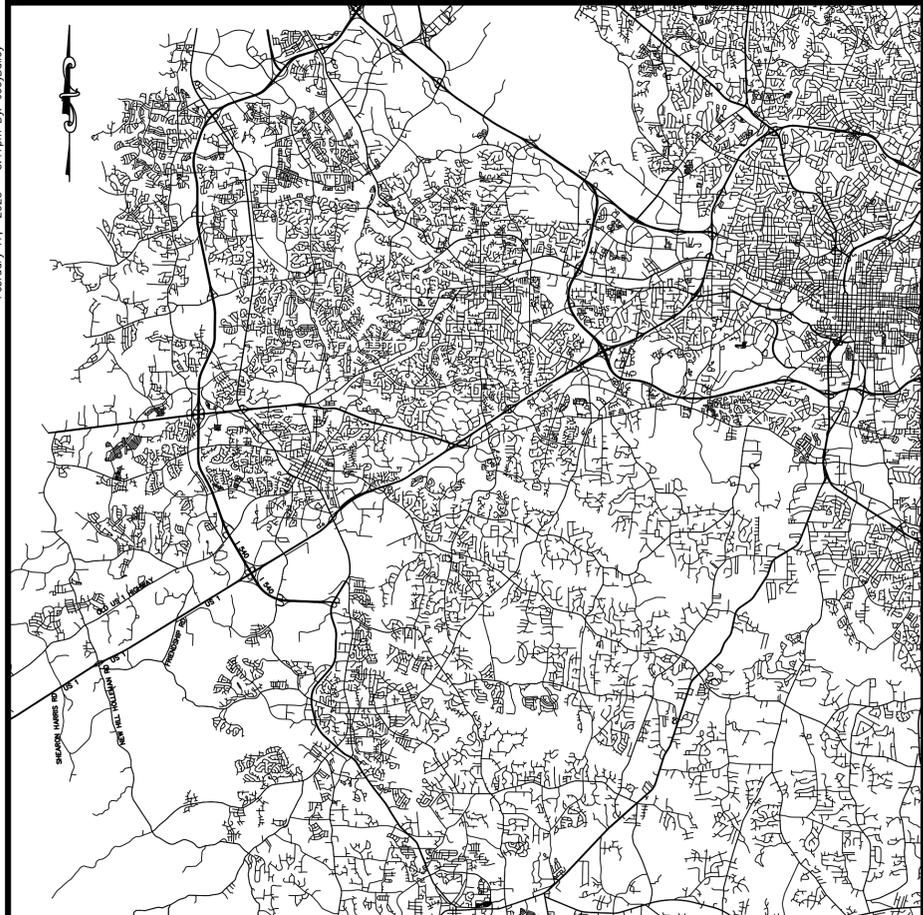
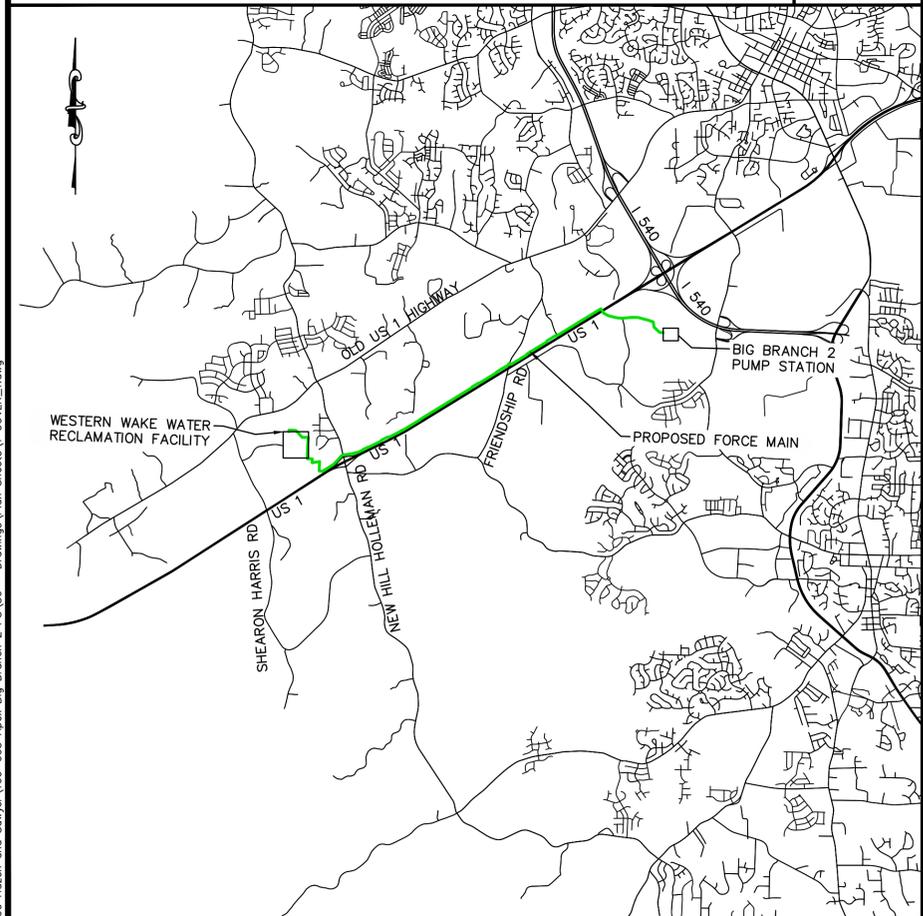


February 17, 2023 - 3:17pm By: Joey Bailey



PROJECT LOCATION

NOT TO SCALE



PROJECT SITE

NOT TO SCALE

TOWN OF APEX
WATER RESOURCES DEPARTMENT
APEX, NC

BIG BRANCH 2 PUMP STATION - FORCE MAIN

60% DESIGN

FEBRUARY 2023



105-B UPCHURCH STREET
APEX, NC 27502

PHONE: (919) 372-7475
FAX: (919) 387-7055

CLIENT PROJECT NO. WS-9856

PREPARED IN THE OFFICE OF:



320 S. ACADEMY STREET
CARY, NC 27511

NC LICENSE #P-1611 WWW.CJS CONVEYANCE.COM

PHONE: (919) 890-3876

CJS PROJECT NO. 100-005

C:\100-Hazen and Sawyer\100-005-Apex Big Branch 2 FS\80 - Drawings\Plan Sheets\ COVER_1.dwg

60% DESIGN

CJS JOB NO. 100-005

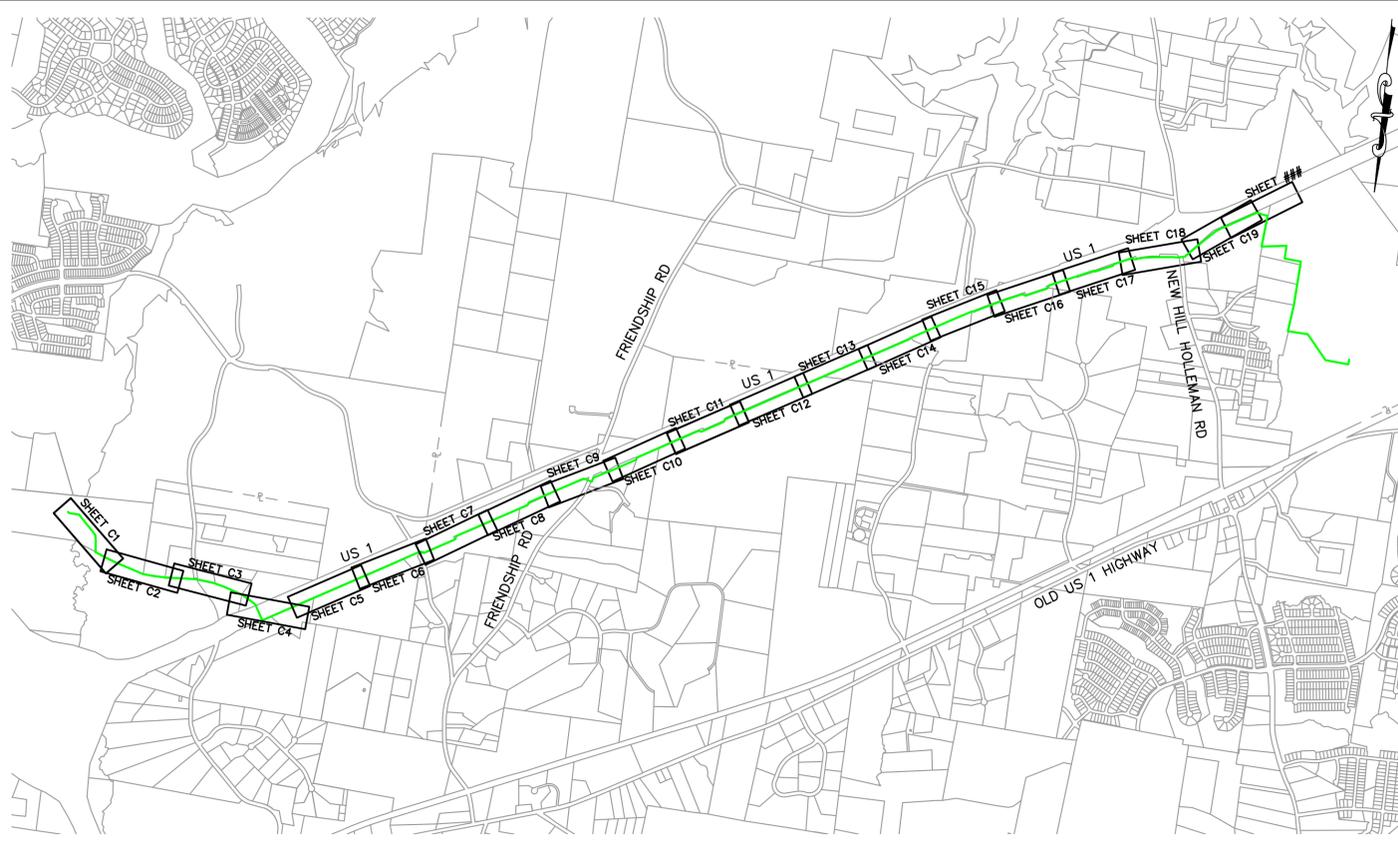
CLIENT: WATER RESOURCES DEPARTMENT TOWN OF APEX

PROJECT: BIG BRANCH 2 PUMP STATION - FORCE MAIN

ABBREVIATIONS

ABC	AGGREGATE BASE COURSE	EL/ELEV	ELEVATION	NIC	NOT IN CONTRACT	TBM	TEMPORARY BENCHMARK
ABN	ABANDONED	ENGR	ENGINEER	NO	NUMBER	TC	TERRA COTTA/TOP OF CURB
AC	ASBESTOS CEMENT	EOI	END OF INVESTIGATION	NOM	NOMINAL	TCP	TRAFFIC CONTROL PLAN
ADDL	ADDITIONAL	EOP	EDGE OF PAVEMENT	NPW	NON-POTABLE WATER	TD	TRENCH DRAIN
ALT	ALTERNATE	EQPT	EQUIPMENT	NTS	NOT TO SCALE	TDH	TOTAL DYNAMIC HEAD
APPROX	APPROXIMATE	ESMT	EASEMENT	OHE	OVERHEAD ELECTRIC	TEL	TELEPHONE
ASPH	ASPHALT	EXIST/EX	EXISTING	PC	PRESSURE CLASS	TEMP	TEMPORARY
ATTN	ATTENTION	EXT	EXTERIOR	PCP	PRESSURE CLASS PRE-STRESSED CONCRETE CYLINDER PIPE	TOB	TOP OF BANK
AVG	AVERAGE	FDC	FIRE DEPARTMENT CONNECTION	PP	POUNDS PER SQUARE FOOT	TOL	TOLERANCE
B	BORING	FDE	FIRE DEPARTMENT END SECTION	PPM	POUNDS PER MILLION	TOS	TOP OF SLAB
BFE	BASE FLOOD ELEVATION	FL	FINISHED FLOOR ELEVATION	PRV	PRESSURE RELIEF VALVE	TP	TELEPHONE POLE
BFP	BACKFLOW PREVENTER	FPE	FINISHED PAVEMENT ELEVATION	PS	PUMP STATION	TPF	TREE PROTECTION FENCE
BFV	BUTTERFLY VALVE	FOP	FIBERGLASS PIPE	PSF	POUNDS PER SQUARE FOOT	TRANS	TRANSFORMER
BLDG	BUILDING	FPH	FIRE HYDRANT	PT	POINT OF TANGENT/POINT	TV	TELEVISION
BLK	BLOCK	FLG	FLOW LINE	PV	PLUG VALVE	TYP	TYPICAL
BM	BENCHMARK	FLN	FLOW LINE	PVC	POLYVINYL CHLORIDE	UGND	UNDERGROUND
BO	BLOWOFF	FM	FORCE MAIN	PWT	POTABLE WATER	UNK	UNKNOWN
BOC	BACK OF CURB	FOC	FACE OF CURB	QA	QUALITY ASSURANCE	UTIL	UTILITY
BOT	BOTTOM	FPS	FEET PER SECOND	QC	QUALITY CONTROL	VAR	VARIABLE FREQUENCY DRIVE
BRG	BEARING	FW	FINISHED WATER	QTY	QUANTITY	VOL	VOLUME
C&G	CURB AND GUTTER	G	NATURAL GAS	RCP	REINFORCED CONCRETE PIPE	W	WEST
CAP	CAPACITY	GAL	GALLON	RCW	RECLAIMED WATER	W/O	WITHOUT
CB	CATCH BASIN	GALV	GALVANIZED	RD	ROAD/ROOF DRAIN	WL	WATERLINE
CCW	COUNTERCLOCKWISE	GOVT	GOVERNMENT	REIN	REINFORCED	WM	WATER METER
CEM	CEMENT	GPD	GALLONS PER DAY	REQD	REQUIRED	WP	WATERPROOF
CI	CAST IRON	GPH	GALLONS PER HOUR	REST	RESTRAINED JOINT	WPF	WATERPROOF
CIP	CAST IRON PIPE	GPM	GALLONS PER MINUTE	RR	RAILROAD	WT	WEIGHT
CL	CENTERLINE	GTS	GAS TEST STATION	RW	RAW WATER	WV	WATER VALVE
CLM	CORRUGATED METAL PIPE	GV	GATE VALVE	S	SOUTH	WVW	WASTE WATER
CO	CLEANOUT	GW	GUY WIRE	SAN	SANITARY	YD	YARD
CONC	CONCRETE	HDPE	HIGH DENSITY POLYETHYLENE	SCHED	SCHEDULE	YI	YARD INLET
CONST	CONSTRUCTION	HH	HAND HOLE	SECT	SECTION		
CONT	CONTINUOUS	HORIZ	HORIZONTAL	SERV	SERVICE		
COORD	COORDINATE	HP	HORSEPOWER	SF	SQUARE FEET/SILT FENCE		
CORP	CORPORATION	HYD	HYDRANT	SHT	SHEET		
CORR	CORRUGATED PLASTIC PIPE	IN	INCH	SI	INTERNATIONAL SYSTEM OF UNITS/SQUARE INCHES		
CPP	CENTER	INCL	INCLUDED	SIM	SIMILAR		
CTR	CONTROL	INV	INVERT	SLV	SLEEVE		
CTL	CONTROL	IP	IRON PIPE	SN	STIFFNESS		
CU FT/CF	CUBIC FEET	IPF	IRON PIPE FOUND	SPEC	SPECIFICATION		
CU IN	CUBIC INCH	IRF	IRON ROD FOUND	SO	SQUARE		
CU YD/CY	CUBIC YARD	JT	JOINT	SS	SANITARY SEWER		
CW	CLOCKWISE	LF	LINEAR FEET (FOOT)	SST	STAINLESS STEEL		
DAT	DATUM	LL	LOWER LEVEL	ST	STREET		
DATUR	DRAWN ACCORDING TO	LLOD	LIMIT OF DISTURBANCE	STD	STANDARD		
UTILITY	RECORDS	LN	LANE	STD	STANDARD		
DB	DEED BOOK	LP	LIGHT POLE	SUR	SURFACE		
DBL	DOUBLE	LSD	LUMP SUM	SURV	SURVEY		
DC	DIRECT CURRENT	LTS	LAND TREATMENT SITE	SW	SIDEWALK		
DEG	DEGREE	MATL	MATERIAL	SYM	SYMBOL		
DEPT	DEPARTMENT	MAX	MAXIMUM				
DET	DETAIL	MGD	MILLION GALLONS PER DAY				
DI	DROP INLET	MH	MANHOLE				
DIA	DIAMETER	MISC	MISCELLANEOUS				
DIM	DIMENSION	MIN	MINIMUM				
DIP	DUCTILE IRON PIPE	MJ	MECHANICAL JOINT				
DISC	DISCHARGE	MSL	MEAN SEA LEVEL				
DIST	DISTANCE	N	NORTH				
DR	DRIVE	NA	NOT APPLICABLE				
E	EAST	NFC	NATIONAL FIRE CODE				
EA	EACH						
EFF	EFFICIENCY						

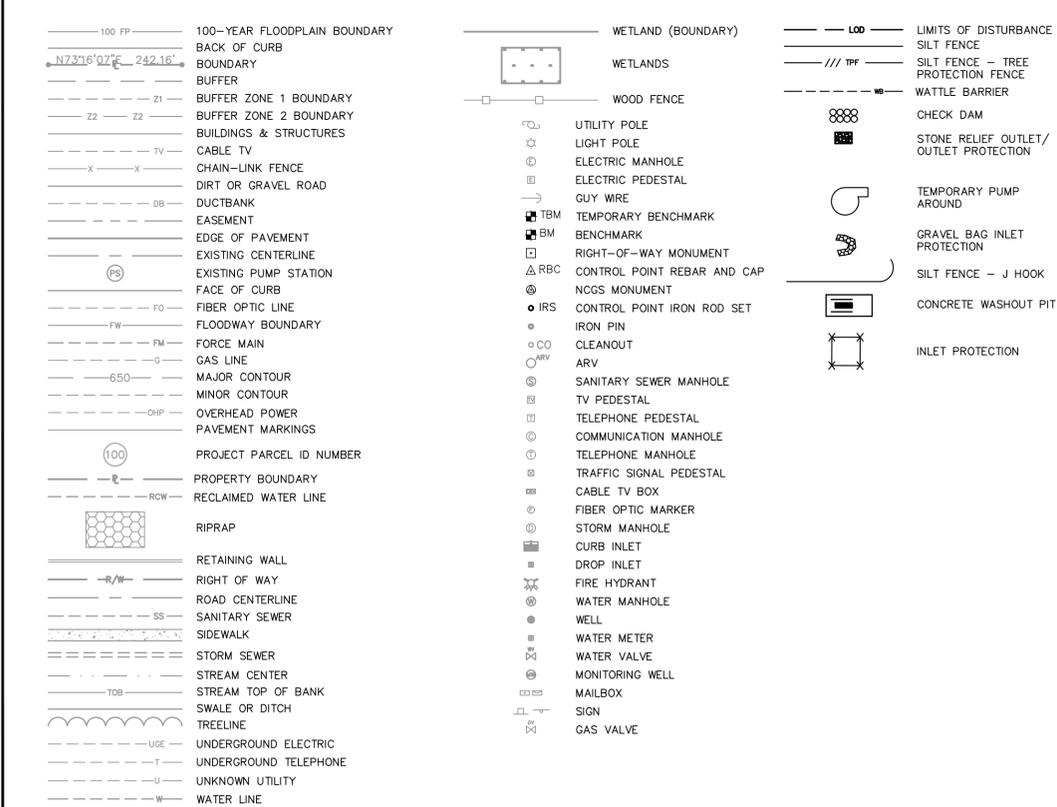
SHEET INDEX MAP



INDEX TO SHEETS

SHEET NO.	DWG NO.	SHEET TITLE
1	XX	COVER
2	G2	INDEX, GENERAL NOTES, AND ABBREVIATIONS
3	C1	FORCE MAIN PLAN AND PROFILE STA 10+00 TO STA 21+50
4	C2	FORCE MAIN PLAN AND PROFILE STA 21+50 TO STA 33+00
5	C3	FORCE MAIN PLAN AND PROFILE STA 33+00 TO STA 44+50
6	C4	FORCE MAIN PLAN AND PROFILE STA 44+50 TO STA 56+00
7	C5	FORCE MAIN PLAN AND PROFILE STA 56+00 TO STA 67+50
8	C6	FORCE MAIN PLAN AND PROFILE STA 67+50 TO STA 79+00
9	C7	FORCE MAIN PLAN AND PROFILE STA 79+00 TO STA 90+50
10	C8	FORCE MAIN PLAN AND PROFILE STA 90+50 TO STA 102+00
11	C9	FORCE MAIN PLAN AND PROFILE STA 102+00 TO STA 113+50
12	C10	FORCE MAIN PLAN AND PROFILE STA 113+50 TO STA 125+00
13	C11	FORCE MAIN PLAN AND PROFILE STA 125+00 TO STA 136+50
14	C12	FORCE MAIN PLAN AND PROFILE STA 136+50 TO STA 148+00
15	C13	FORCE MAIN PLAN AND PROFILE STA 148+00 TO STA 159+50
16	C14	FORCE MAIN PLAN AND PROFILE STA 159+50 TO STA 171+00
17	C15	FORCE MAIN PLAN AND PROFILE STA 171+00 TO STA 182+50
18	C16	FORCE MAIN PLAN AND PROFILE STA 182+50 TO STA 194+00
19	C17	FORCE MAIN PLAN AND PROFILE STA 194+00 TO STA 205+50
20	C18	FORCE MAIN PLAN AND PROFILE STA 205+50 TO STA 217+00
21	C19	FORCE MAIN PLAN AND PROFILE STA 217+00 TO STA 228+50
22	C20	FORCE MAIN PLAN AND PROFILE STA 228+50 TO END
28	D1	TOWN OF APEX STANDARD DETAILS

LEGEND



PROJECT NOTES

- GENERAL NOTES**
- CONTRACTOR TO FIELD VERIFY SIZE, DEPTH, LOCATION, AND MATERIAL OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION.
 - THE UNDERGROUND UTILITIES INDICATED ON THE PLANS HAVE BEEN TAKEN FROM INFORMATION MADE AVAILABLE FROM THE VARIOUS UTILITY OWNERS AND LIMITED SUBSURFACE UTILITY INVESTIGATIONS. THIS INFORMATION IS NOT INCLUSIVE OF ALL EXISTING UNDERGROUND UTILITIES AND CABLES. THE CONTRACTOR IS ADVISED THAT ADDITIONAL UNDERGROUND UTILITIES AND CABLES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. PLEASE BE ADVISED THAT THE UNDERGROUND UTILITIES AND CABLES COULD CONFLICT WITH THE SEWER MAIN CONSTRUCTION AS SHOWN. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY OF ALL POTENTIAL CONFLICTS.
 - THE CONTRACTOR SHALL CAREFULLY SUPPORT AND PROTECT ANY UTILITIES, STRUCTURES, POWER POLES, PIPE LINES, AND CONDUITS WHICH MAY BE ENCOUNTERED DURING COMPLETION OF THE WORK AT NO ADDITIONAL COST TO THE OWNER. ANY DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR OR UTILITY OWNER (WHERE REQUIRED) TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF APEX STANDARDS AND SPECIFICATIONS AND COMPLY WITH THE TOWN'S CURRENT DESIGN MANUAL.
 - CONTRACTOR SHALL REMOVE/RESET/REPLACE ALL DISTURBED MAILBOXES, SIGNS, PROPERTY IRONS, FENCES, ETC. IN LIKE KIND OR BETTER CONDITION. COST INCURRED FOR THESE INCIDENTAL ITEMS SHALL BE INCLUDED IN THE UNIT PRICE BID ITEMS. PROPERTY IRONS MUST BE REPLACED BY A N.C. P.L.S.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL PROCEDURES, PRACTICES, AND METHODS OF CONSTRUCTION AS DICTATED BY THE TOWN OF APEX AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.
 - CONTRACTOR TO INSTALL EROSION CONTROL MEASURES PRIOR TO THE START OF CONSTRUCTION.
 - ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE PROJECT AND UNTIL A GOOD STAND OF GRASS IS ESTABLISHED.
 - NO NEW SEWER SHALL BE LOCATED WITHIN A 25 FOOT RADIUS OF AN EXISTING POTABLE WATER WELL. IF THE SEWER DESIGN CONFLICTS WITH THIS RULE, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY. CONTRACTOR SHALL NOT PROCEED WITH SEWER INSTALLATION IN AREA OF CONFLICT UNTIL DIRECTED TO DO SO BY ENGINEER IN WRITING.
 - ALL LAND DISTURBANCES SHALL BE MAINTAINED WITHIN THE PERMANENT AND TEMPORARY EASEMENTS AS INDICATED ON THE PLANS. IF CONTRACTOR REQUIRES ADDITIONAL AREA FOR CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL NOTIFY ENGINEER AS SOON AS POSSIBLE AND NOT OCCUPY ADDITIONAL AREA UNTIL THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS REVISED AND APPROVED BY NCDEQ. CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH PERMIT MODIFICATION.
 - REINFORCED SILT FENCE OUTLETS AND WOODMATS OR TEMPORARY BRIDGE SHALL BE USED AT ALL STREAM CROSSINGS. PROVIDE REINFORCED OUTLETS ALONG PERIMETER SILT FENCE IN LOW LYING AREAS AND AT SHARP ANGLE CHANGES LESS THAN 90 DEGREES. ALL WOODMATS OR TEMPORARY BRIDGES MUST REMAIN IN PLACE UNTIL CROSSING IS STABILIZED AS SHOWN ON THE PLANS.
 - AT CHANNEL OR STREAM CROSSINGS CONTRACTOR SHALL PROVIDE RIP-RAP AS SHOWN. AT LOCATIONS NOT REQUIRING RIP-RAP CONTRACTOR SHALL PROVIDE APPROPRIATE TEMPORARY GROUND COVER IMMEDIATELY FOLLOWING LAND DISTURBANCE OR UTILIZE BIODEGRADABLE STRAW BLANKET UNTIL GROUND COVER CAN BE ESTABLISHED.
 - CONTRACTOR SHALL TAKE STEPS NECESSARY TO PROTECT EXISTING UTILITIES FROM DAMAGE DURING ALL PHASES OF CONSTRUCTION.
 - CREEK CROSSINGS AND DITCHES REQUIRING RIP-RAP SHALL HAVE THE RIP-RAP PLACED WITHIN 24-HOURS OF PIPE INSTALLATION IN THAT AREA.
 - 100-YR FLOOD ELEVATION INFORMATION INDICATED IN PIPE PROFILE AND USED FOR COMPLIANCE TO FEMA FLOOD RULES IS BASED ON THE CURRENT FIRM 100-YR BASE FLOOD ELEVATIONS.
 - IN INSTANCES THE PLANS REFER TO OBJECT AS "TO BE REMOVED AND REPLACED", IT IS THE INTENT OF THE NOTE TO MEAN THAT THE OBJECTS WILL BE REMOVED AND REPLACED AS MUCH THAT HAS BEEN DISTURBED, OR AS NECESSARY.

No.	REVISIONS	DATE	BY	SEAL

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Conveyance, PLLC

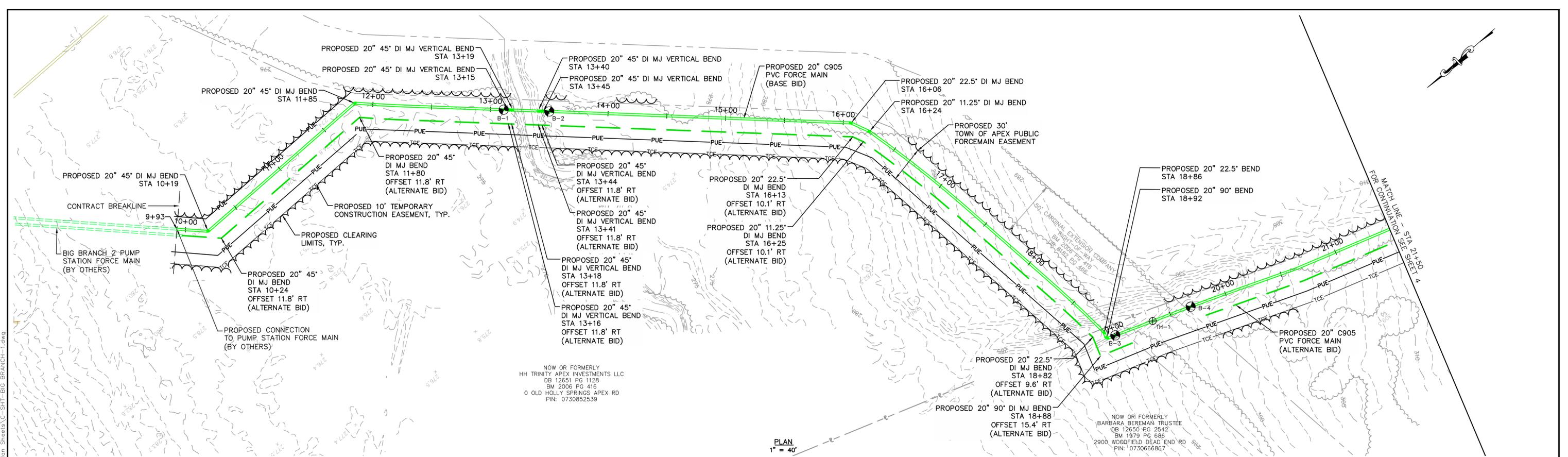
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CARY, NC 27511

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**TOWN OF APEX
WATER RESOURCES DEPARTMENT
BIG BRANCH 2 PUMP STATION - FORCE MAIN**

**INDEX, GENERAL NOTES, AND
ABBREVIATIONS**

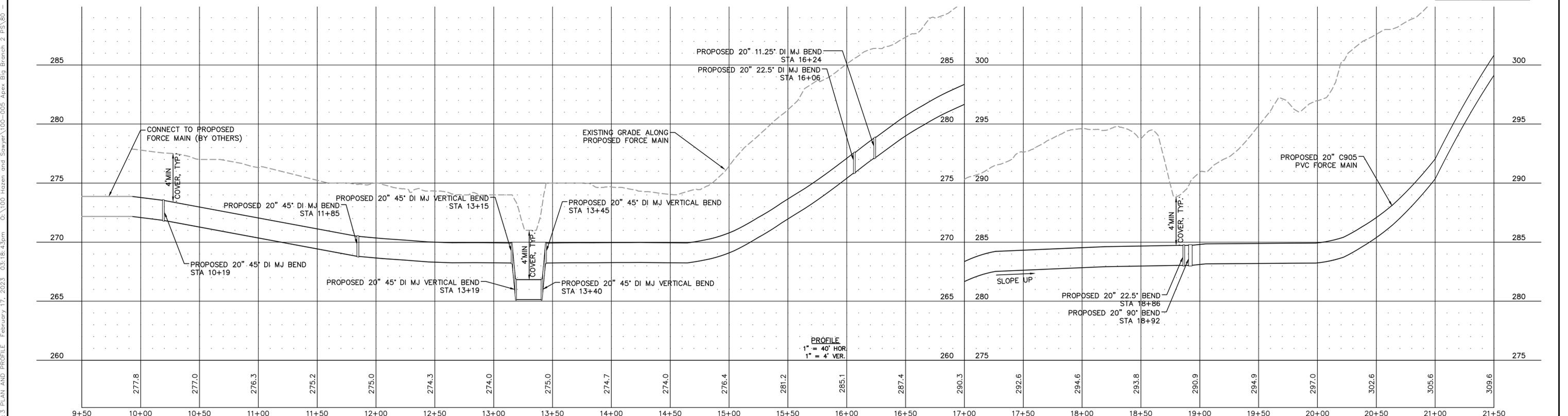
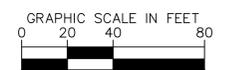
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DRAWN BY:	JJS	SHEET NUMBER
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NOW OR FORMERLY
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 DB 12651 PG 1128
 BM 2006 PG 416
 0 OLD HOLLY SPRINGS APEX RD
 PIN: 0730852539

NOW OR FORMERLY
 BARBARA BEREMAN TRUSTEE
 DB 12650 PG 2542
 BM 1979 PG 686
 2900 WOODFIELD DEAD END RD
 PIN: 0730668867

PLAN
 1" = 40'



PROFILE
 1" = 40' HOR
 1" = 4' VER.

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 CARY, NC 27511
 NC LICENSE #P-1611 WWW.CJSCONVEYANCE.COM

WATER RESOURCES DEPARTMENT
 TOWN OF APEX
 BIG BRANCH 2 PUMP STATION -
 FORCE MAIN

FORCE MAIN PLAN AND PROFILE
 STA 10+00 TO STA 21+50

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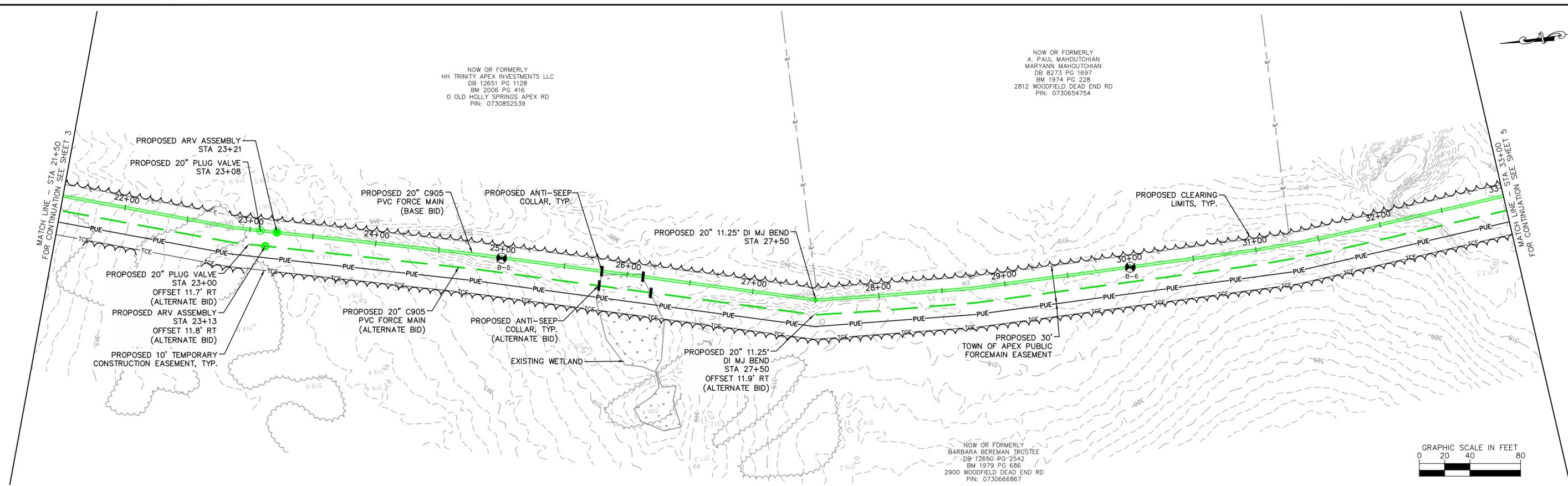
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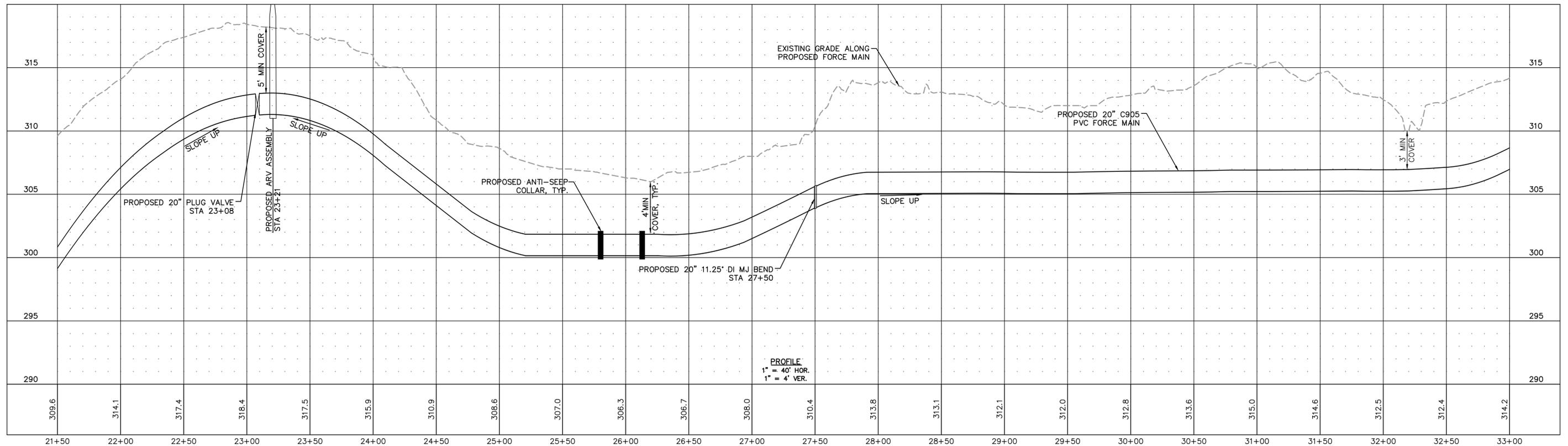
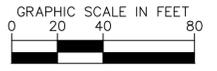
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PIN: 0730852539

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A. PAUL MAHOUTCHIAN
MARYANN MAHOUTCHIAN
DB 8273 PG 1697
BM 1974 PG 228
2812 WOODFIELD DEAD END RD
PIN: 0730654754



PLAN
1" = 40'

NOW OR FORMERLY
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BM 1979 PG 686
2900 WOODFIELD DEAD END RD
PIN: 0730668667



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WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

FORCE MAIN PLAN AND PROFILE
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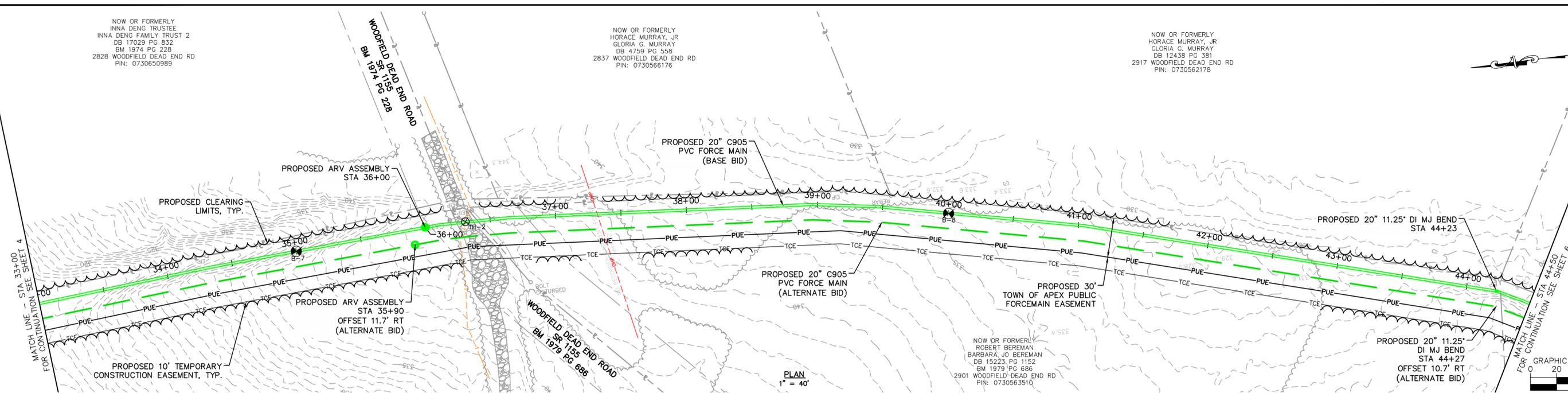
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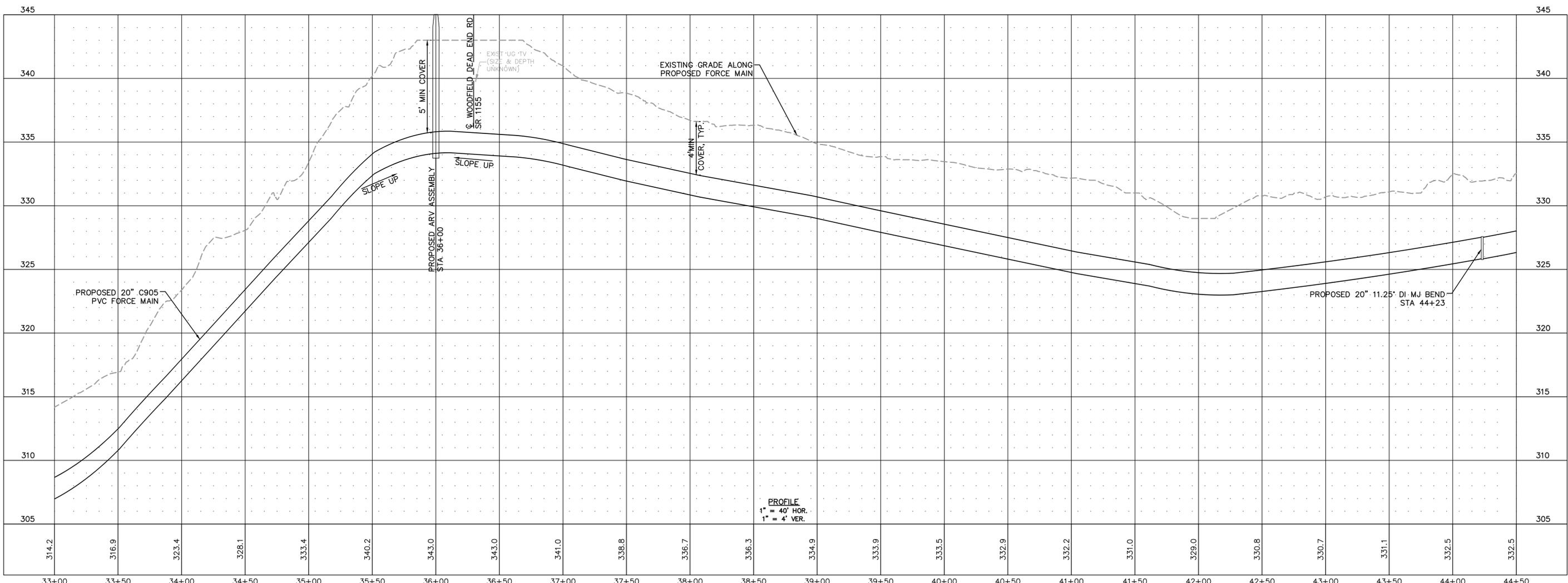
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INNA DENG FAMILY TRUST 2
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BM 1974 PG 228
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PIN: 0730650989

NOW OR FORMERLY
HORACE MURRAY, JR
GLORIA G. MURRAY
DB 4759 PG 558
2837 WOODFIELD DEAD END RD
PIN: 0730566176

NOW OR FORMERLY
HORACE MURRAY, JR
GLORIA G. MURRAY
DB 12438 PG 381
2917 WOODFIELD DEAD END RD
PIN: 0730562178



PLAN
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PROFILE
1" = 40' HOR.
1" = 4' VER.

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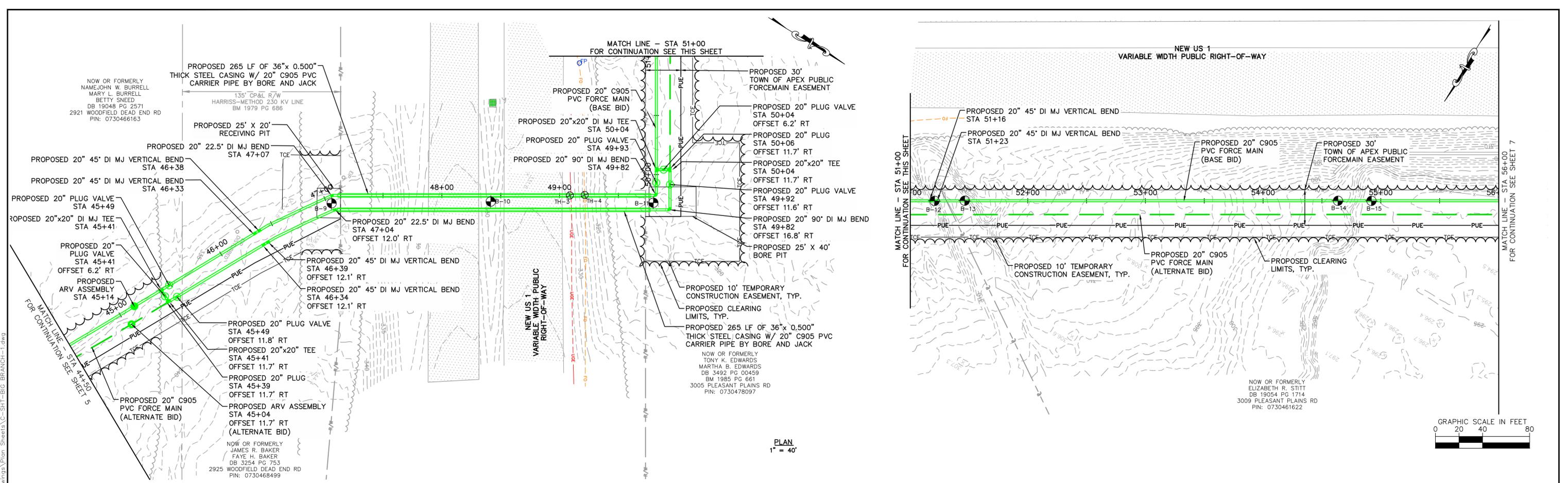
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BIG BRANCH 2 PUMP STATION -
FORCE MAIN

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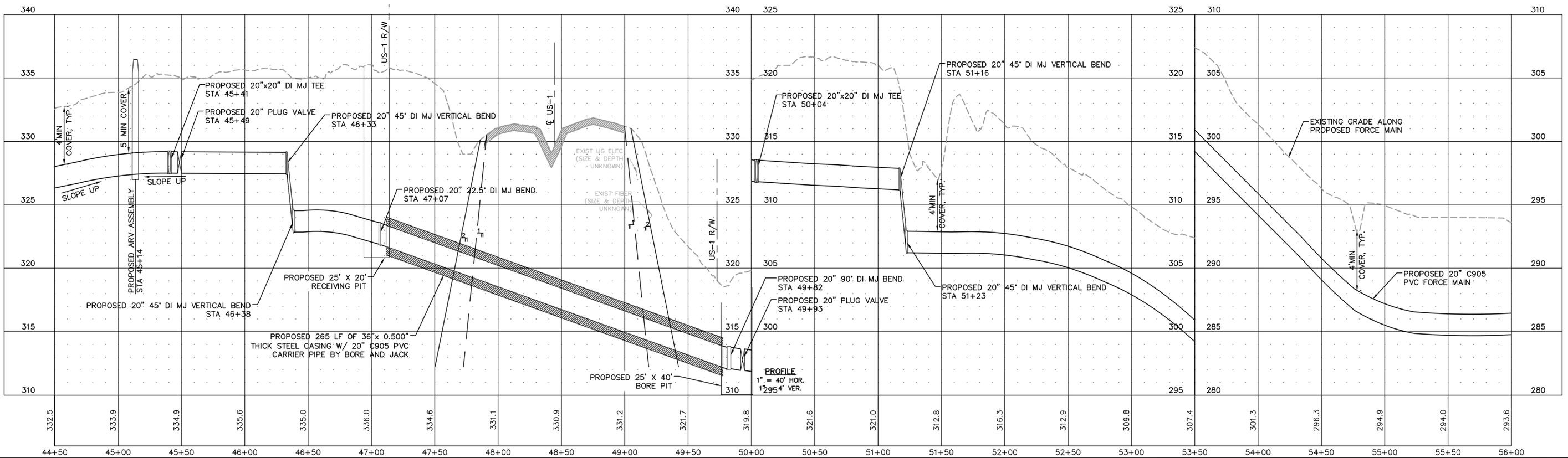
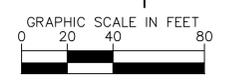
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DRAWN BY:	JJS
CHECKED BY:	SDL

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PROFILE
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1" = 95' 4" VER.

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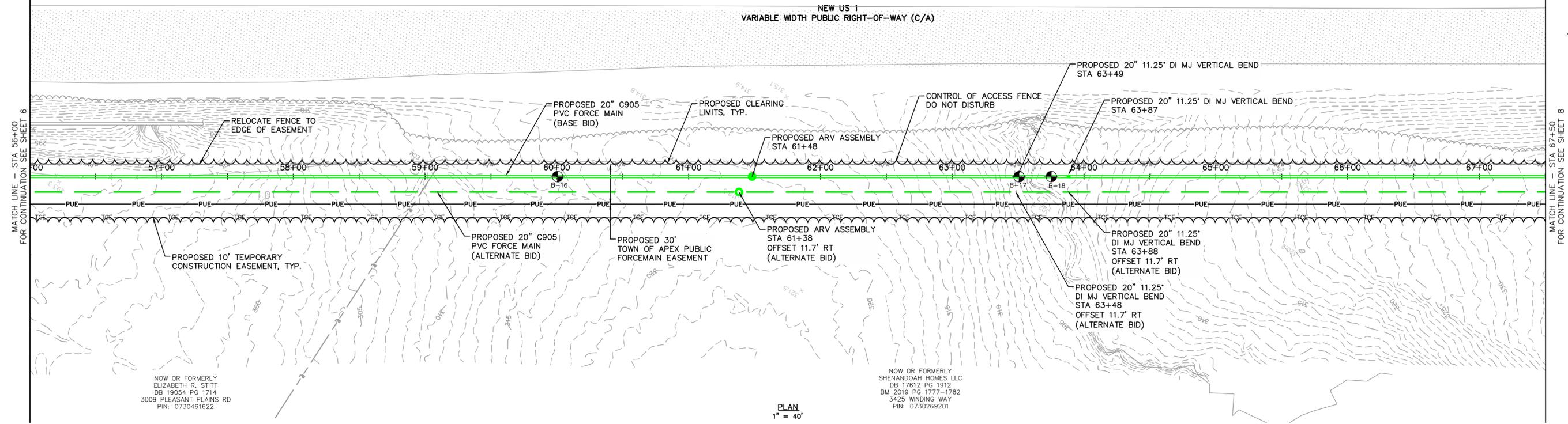
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WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

FORCE MAIN PLAN AND PROFILE
STA 44+50 TO STA 56+00

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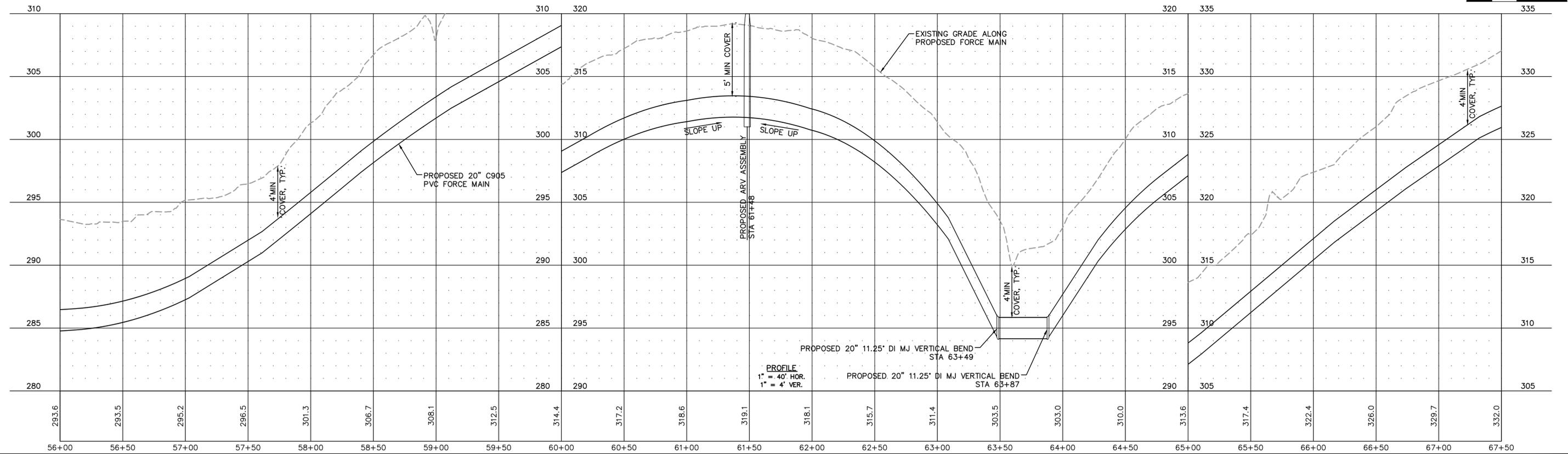
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NOW OR FORMERLY
ELIZABETH R. STITT
DB 19054 PG 1714
3009 PLEASANT PLAINS RD
PIN: 0730461622

NOW OR FORMERLY
SHENANDOAH HOMES LLC
DB 17612 PG 1912
BM 2019 PG 1777-1782
3425 WINDING WAY
PIN: 0730269201

PLAN
1" = 40'



PROFILE
1" = 40' HOR.
1" = 4' VER.

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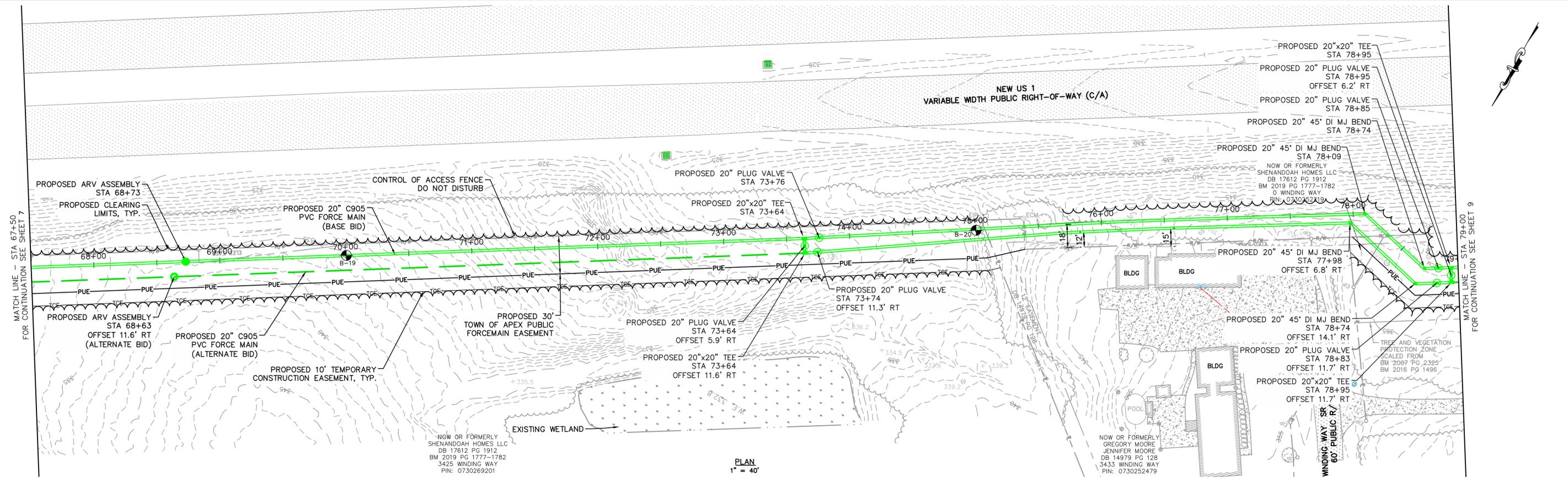
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BIG BRANCH 2 PUMP STATION -
FORCE MAIN

FORCE MAIN PLAN AND PROFILE
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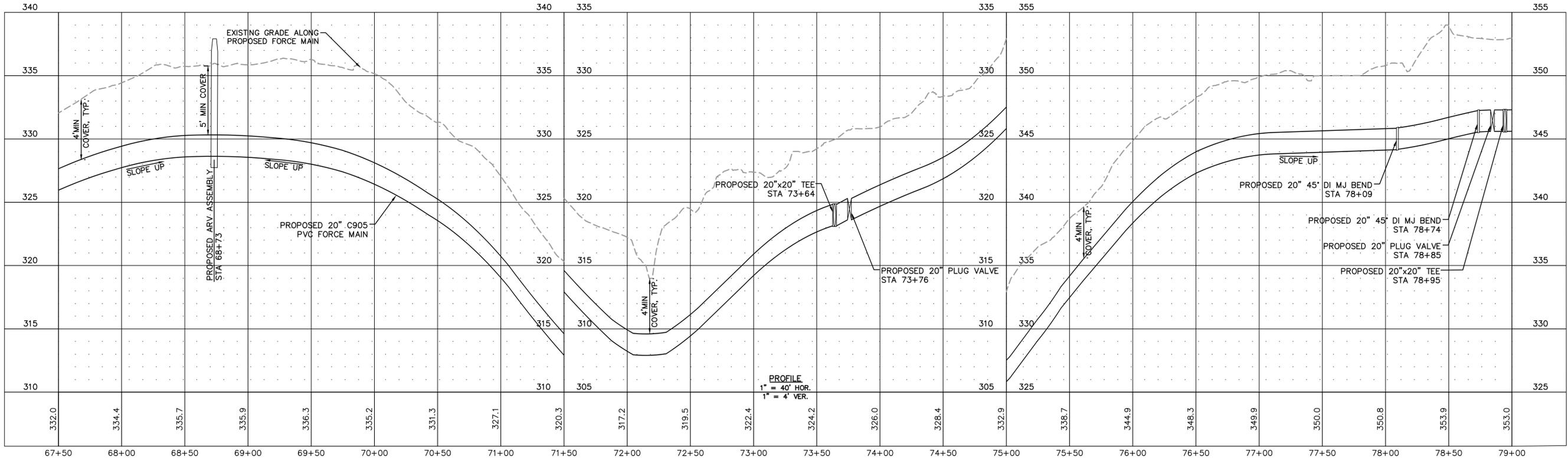
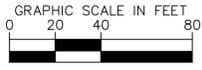
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PROFILE
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1" = 4' VER.

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No.	REVISIONS	DATE	BY	SEAL

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FOR REVIEW ONLY

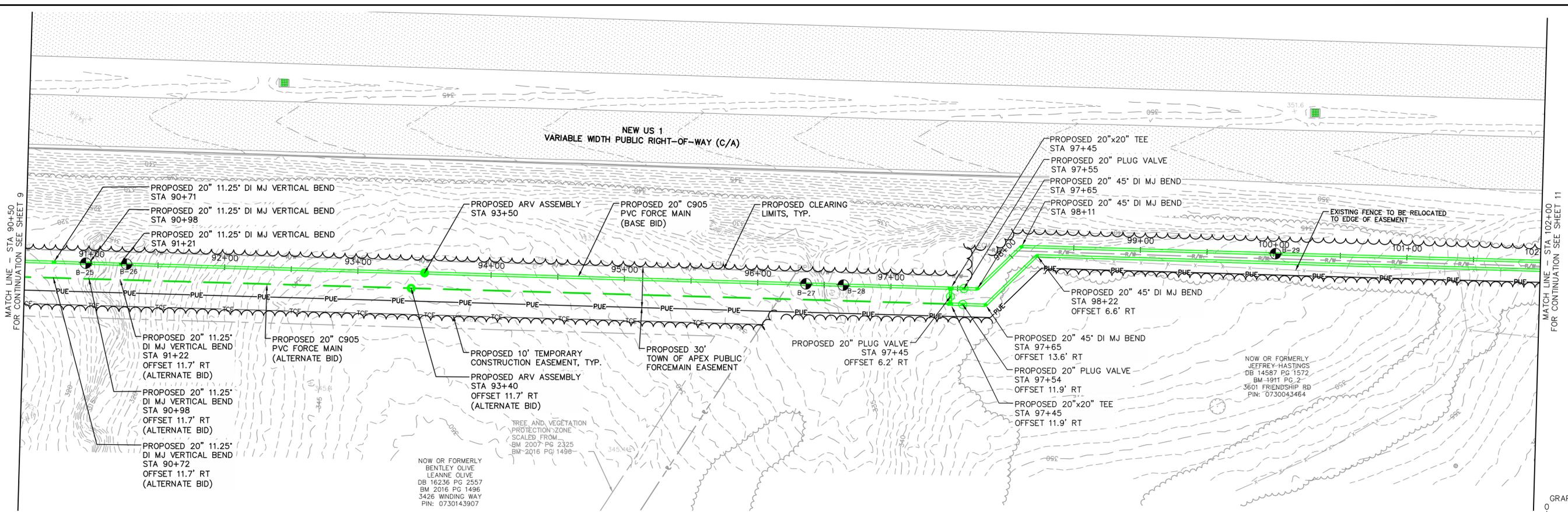
320 S. ACADEMY ST
CARY, NC 27511
NC LICENSE #P-1611 WWW.CJS.CONVEYANCE.COM

**WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN**

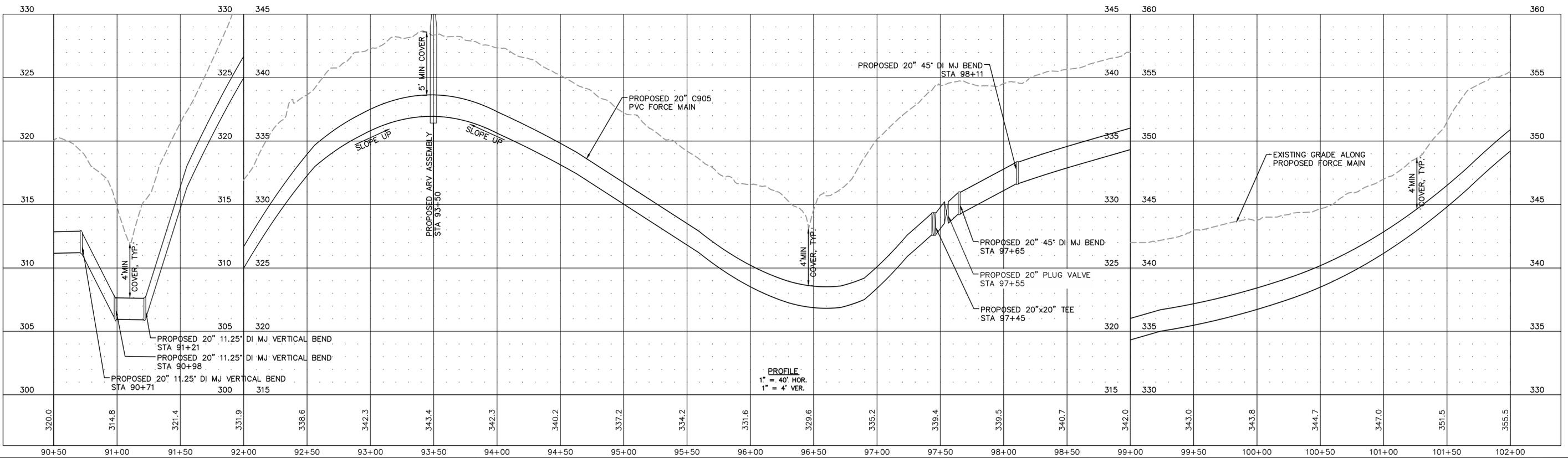
**FORCE MAIN PLAN AND PROFILE
STA 67+50 TO STA 79+00**

CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C6
SHEET NUMBER
8 OF 28



PLAN
1" = 40'



PROFILE
1" = 40' HOR.
1" = 4' VER.

Plotted By: Joey Bailey, Layout: 10 PLAN AND PROFILE, February 17, 2023 03:20:10pm, C:\100 Hazen and Sawyer\100-005 Apex Big Branch 2 PS\80 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-2.dwg

No.	REVISIONS	DATE	BY	SEAL

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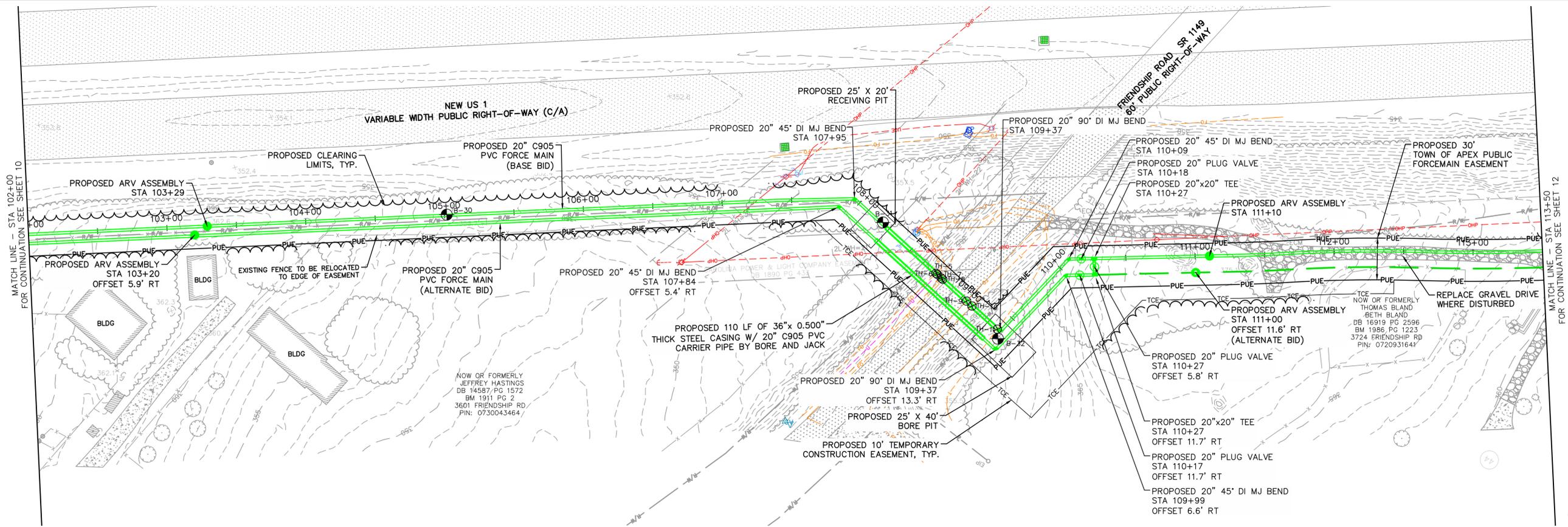
CJS
Conveyance, PLLC
320 S. ACADEMY ST
CARY, NC 27511
NC LICENSE #P-1611 WWW.CJSCONVEYANCE.COM

WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

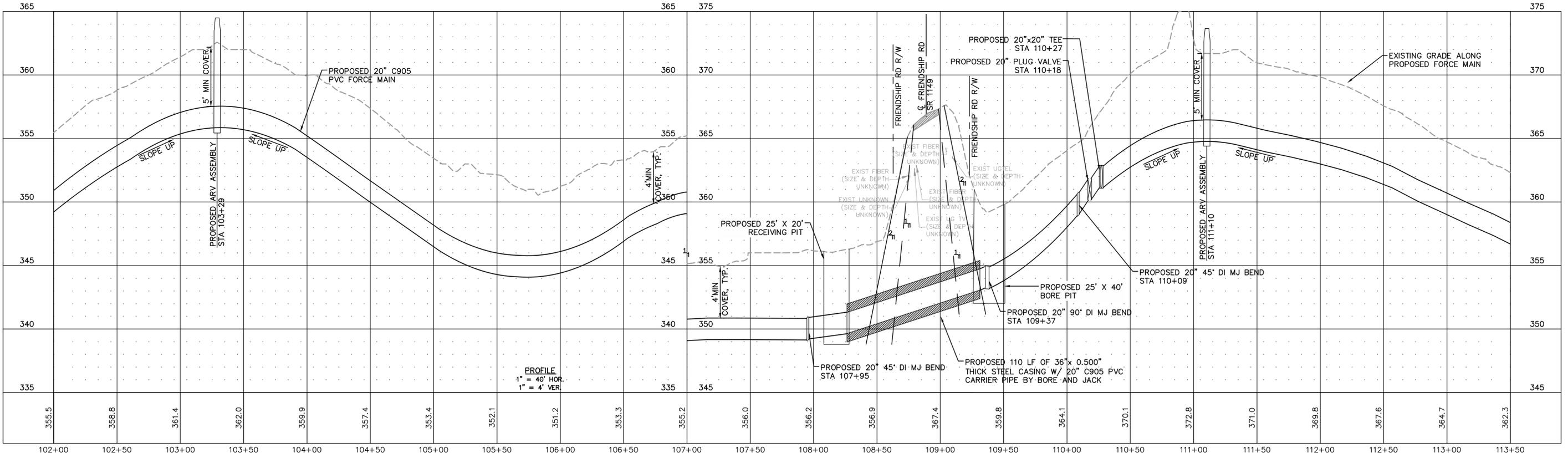
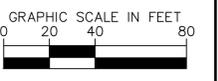
FORCE MAIN PLAN AND PROFILE
STA 90+50 TO STA 102+00

CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C8
SHEET NUMBER
10 OF 28



PLAN
1" = 40'



PROFILE
1" = 40' HOR.
1" = 4' VER.

No.	REVISIONS	DATE	BY	SEAL

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NC LICENSE #P-1611 WWW.CJS.CONVEYANCE.COM

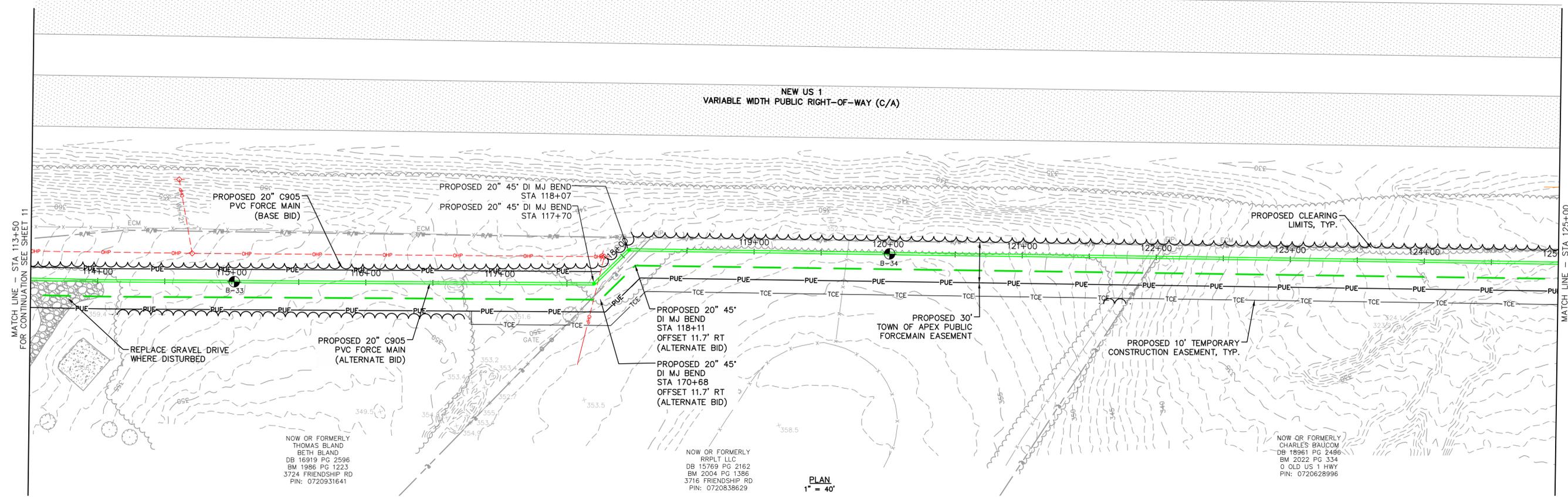
**WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN**

**FORCE MAIN PLAN AND PROFILE
STA 102+00 TO STA 113+50**

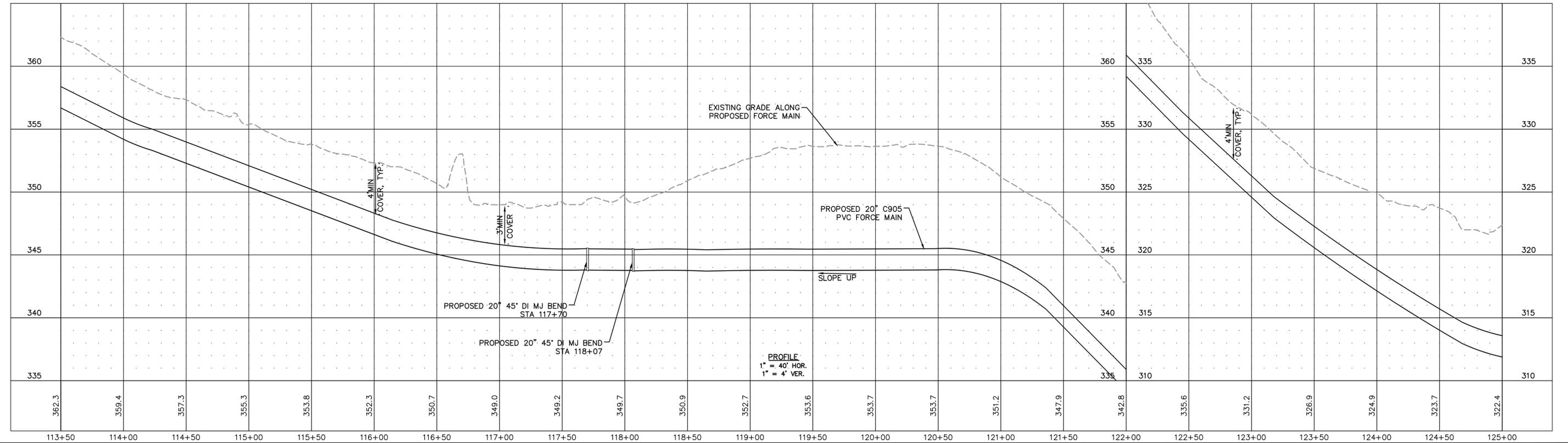
CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C9
SHEET NUMBER
11 OF 28

Plotted By: Joey Bailey, Layout: 11, PLAN AND PROFILE, February 17, 2023, 03:20:19pm, C:\100 Hazen and Sawyer\100-005 Apex Big Branch 2 PS\A30 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-2.dwg



PLAN
1" = 40'



PROFILE
1" = 40' HOR.
1" = 4' VER.

Plotted By: Joey Bailey, Layout: 12 PLAN AND PROFILE, February 17, 2023 03:20:28pm, C:\100 Hazen and Sawyer\100-005 Apex, Big Branch 2, PS, B0 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-2.dwg

No.	REVISIONS	DATE	BY	SEAL

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WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

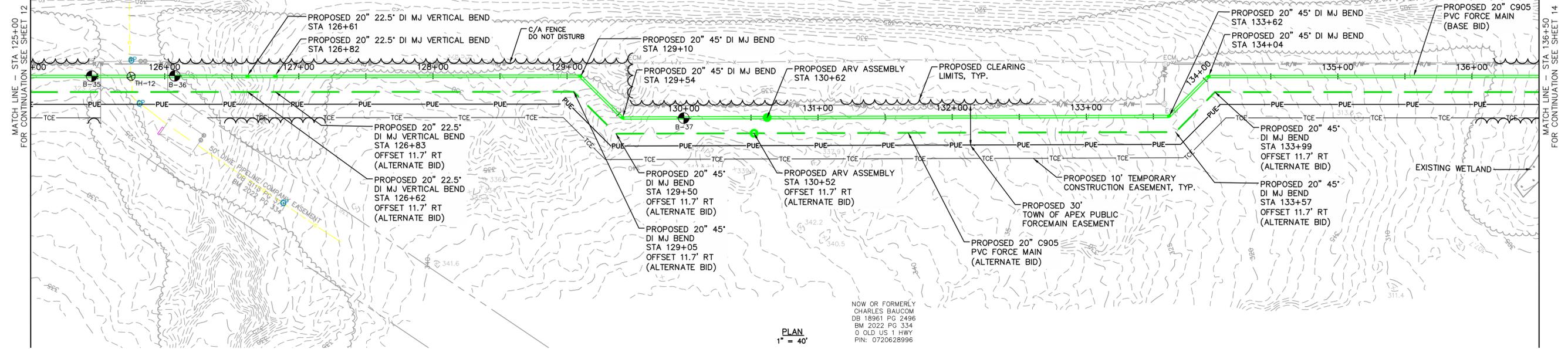
FORCE MAIN PLAN AND PROFILE
STA 113+50 TO STA 125+00

CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C10
SHEET NUMBER
12 OF 28

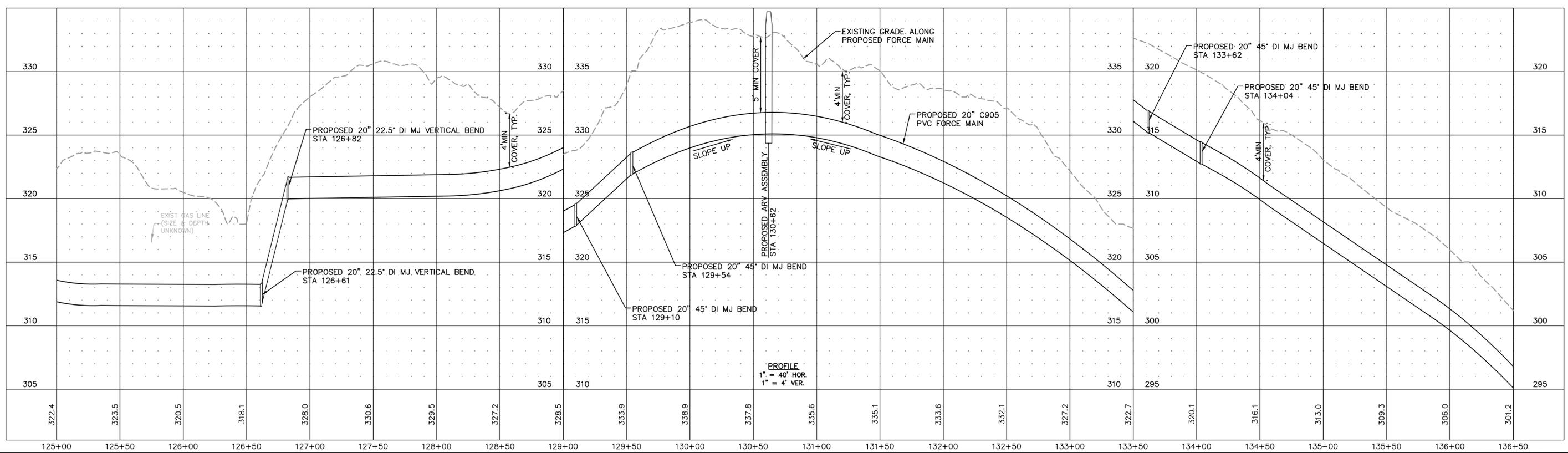


NEW US 1
VARIABLE WIDTH PUBLIC RIGHT-OF-WAY (C/A)



PLAN
1" = 40'

NOW OR FORMERLY
CHARLES BAUCOM
DB 18961 PG 2496
BM 2022 PG 334
0 OLD US 1 HWY
PIN: 0720628996



PROFILE
1" = 40' HOR.
1" = 4' VER.

Plotted By: Joey Bailey, Layout: T3 PLAN AND PROFILE, February 17, 2023 03:20:54pm, C:\100 Hazen and Sawyer\100-005 Apex, Big Branch 2 PS, B0 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-3.dwg

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NC LICENSE #P-1611 WWW.CJSCONVEYANCE.COM

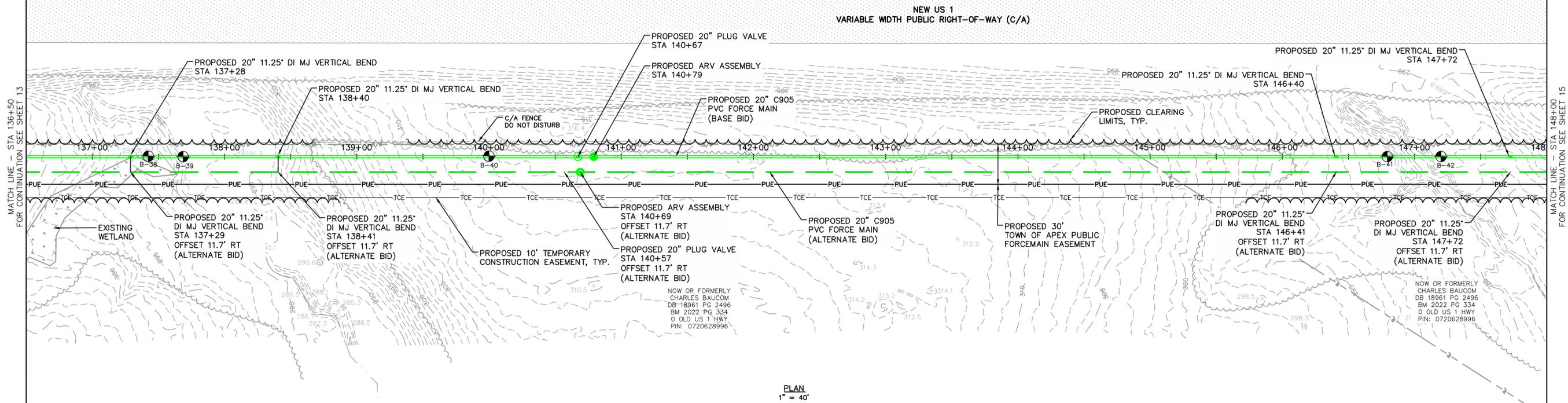
WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

FORCE MAIN PLAN AND PROFILE
STA 125+00 TO STA 136+50

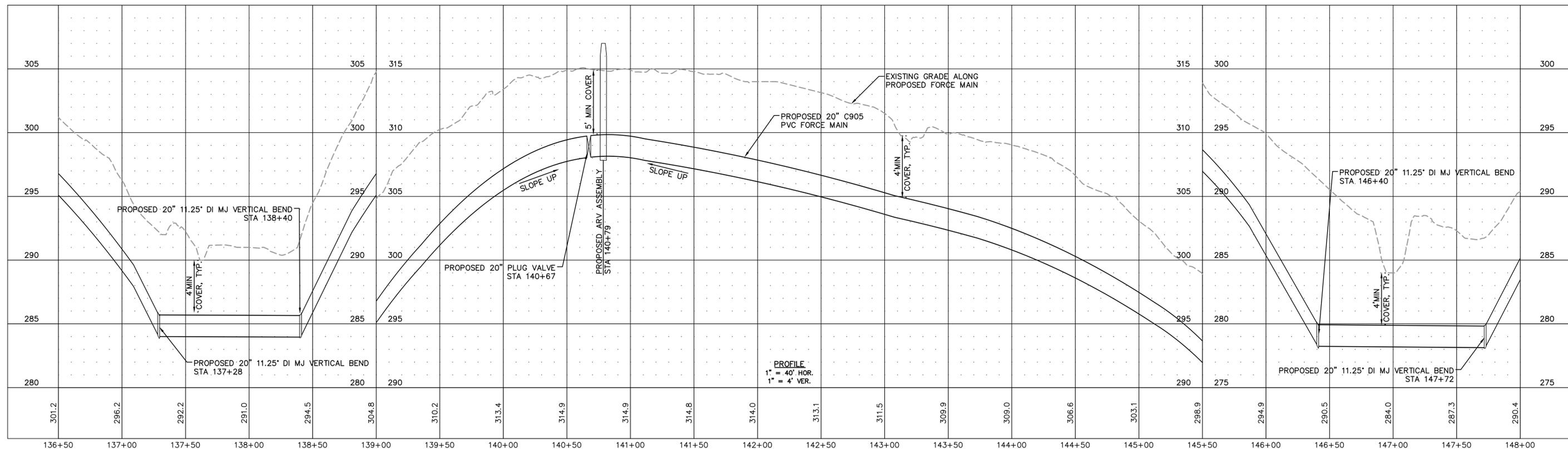
CJS PROJ. #: 100-005
DATE: 2-9-2023
SCALE: 1" = 20'
PROJECT ENGINEER: SDL
DESIGNED BY: JJS
DRAWN BY: JJS
CHECKED BY: SDL

C11
SHEET NUMBER
13 OF 28

No.	REVISIONS	DATE	BY	SEAL



PLAN
1" = 40'



PROFILE
1" = 40' HOR.
1" = 4' VER.

Plotted By: Joey Bailey, Layout: 14_Plan AND Profile, February 17, 2023 03:21:04pm, C:\100 Hazen and Sawyer\100-005 Apex Big Branch 2_Plan AND Profile\Drawings\Plan Sheets\C-SHT-BIG BRANCH-5.dwg

No.	REVISIONS	DATE	BY	SEAL

60% DESIGN
FOR REVIEW ONLY

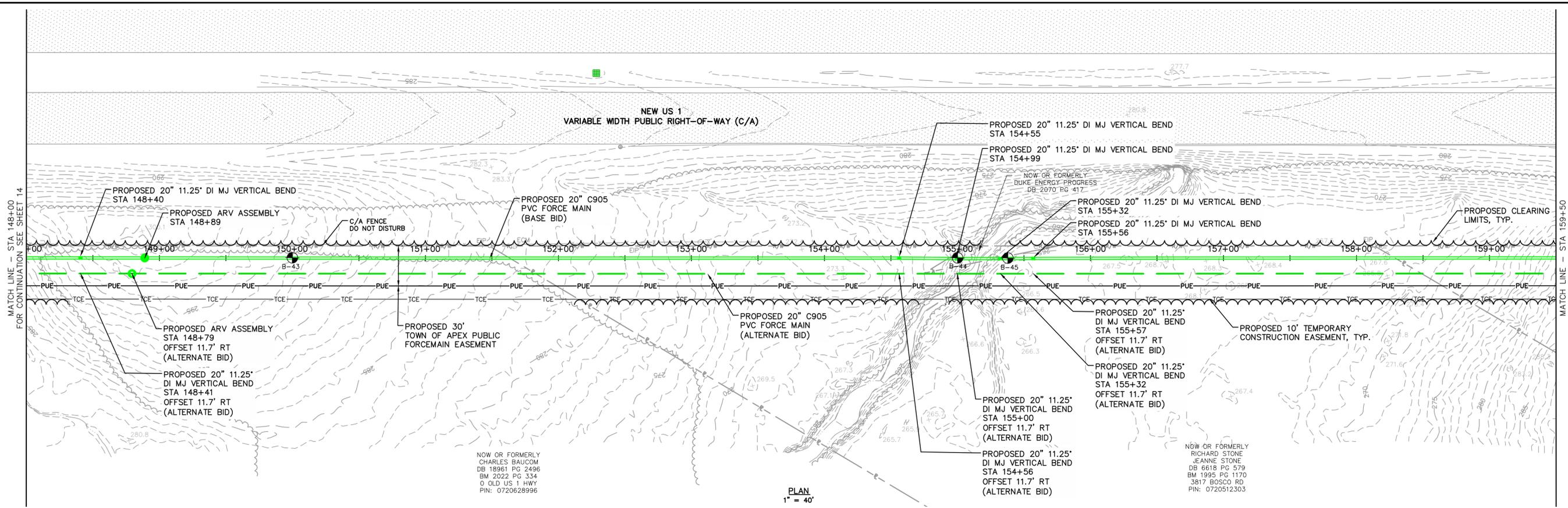
CJS
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320 S. ACADEMY ST
CARY, NC 27511
NC LICENSE #P-1611 WWW.CJS.CONVEYANCE.COM

WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

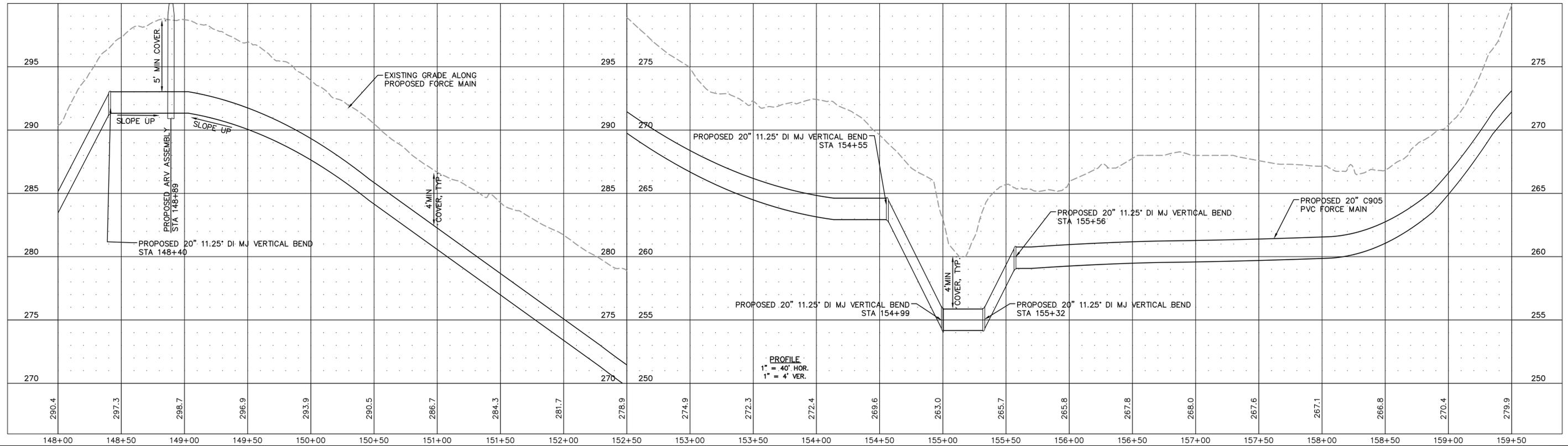
FORCE MAIN PLAN AND PROFILE
STA 136+50 TO STA 148+00

CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C12
SHEET NUMBER
14 OF 28



PLAN
1" = 40'



PROFILE
1" = 40' HOR.
1" = 4' VER.

Plotted By: Joey Bailey, Layout: IS PLAN AND PROFILE, February 17, 2023 03:21:13pm, C:\100 Hazen and Sawyer\100-005 Apex Big Branch 2 P&S\80 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-3.dwg

60% DESIGN
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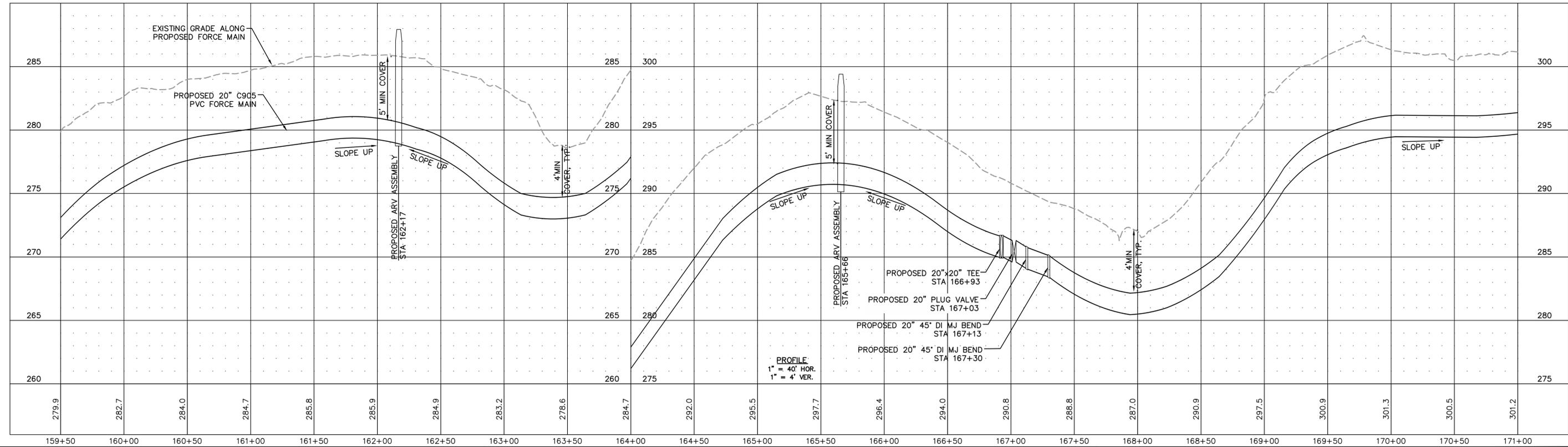
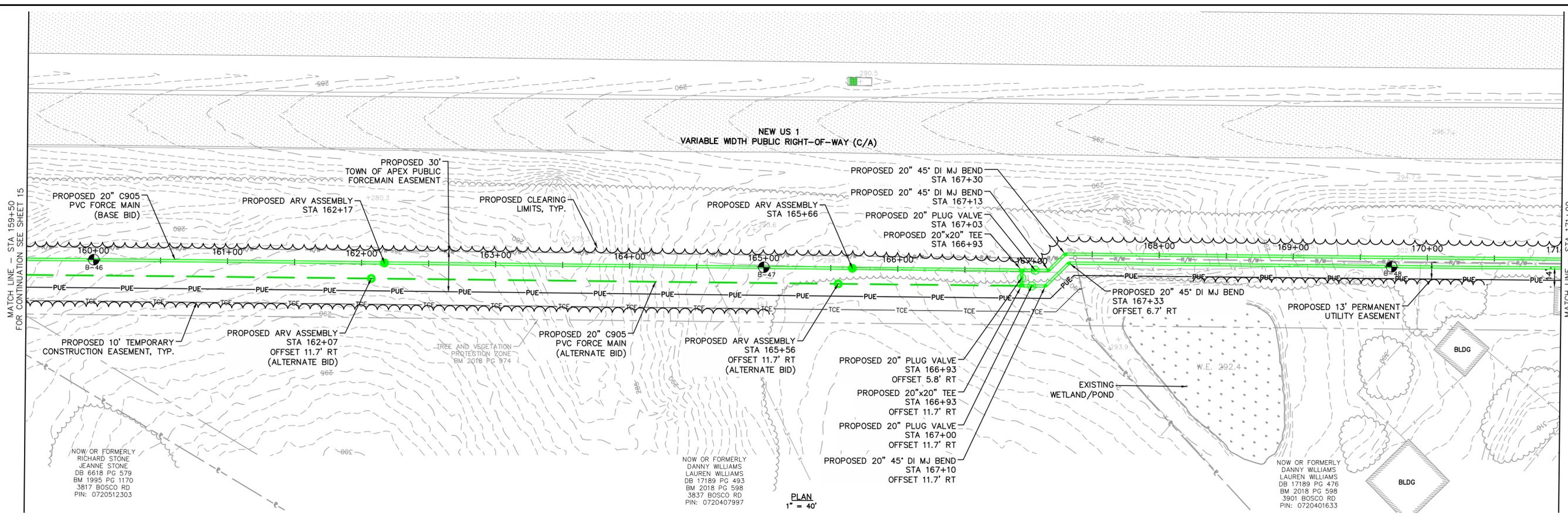
WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

FORCE MAIN PLAN AND PROFILE
STA 148+00 TO STA 159+50

CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C13
SHEET NUMBER
15 OF 28

No.	REVISIONS	DATE	BY	SEAL



Plotted By: Joey Bailey, Layout: 16 PLAN AND PROFILE, February 17, 2023 03:21:23pm, C:\100 Hazen and Sawyer\100-005 Apex Big Branch 2 PS\60 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-3.dwg

No.	REVISIONS	DATE	BY	SEAL

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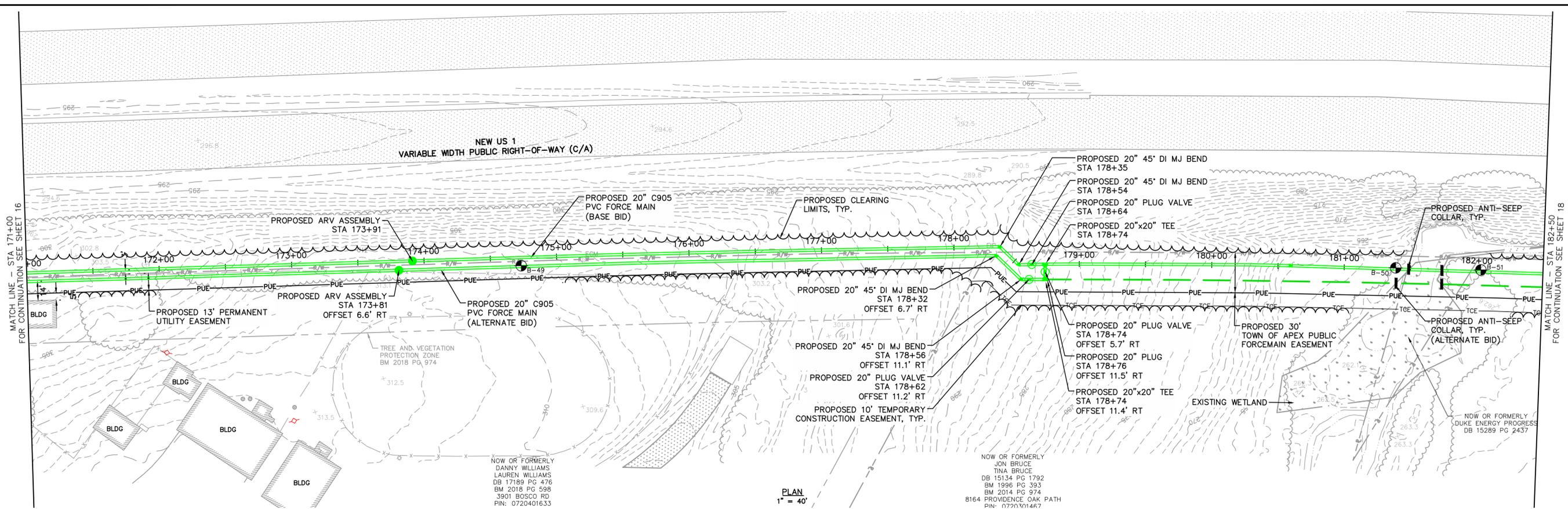
WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

FORCE MAIN PLAN AND PROFILE
STA 159+50 TO STA 171+00

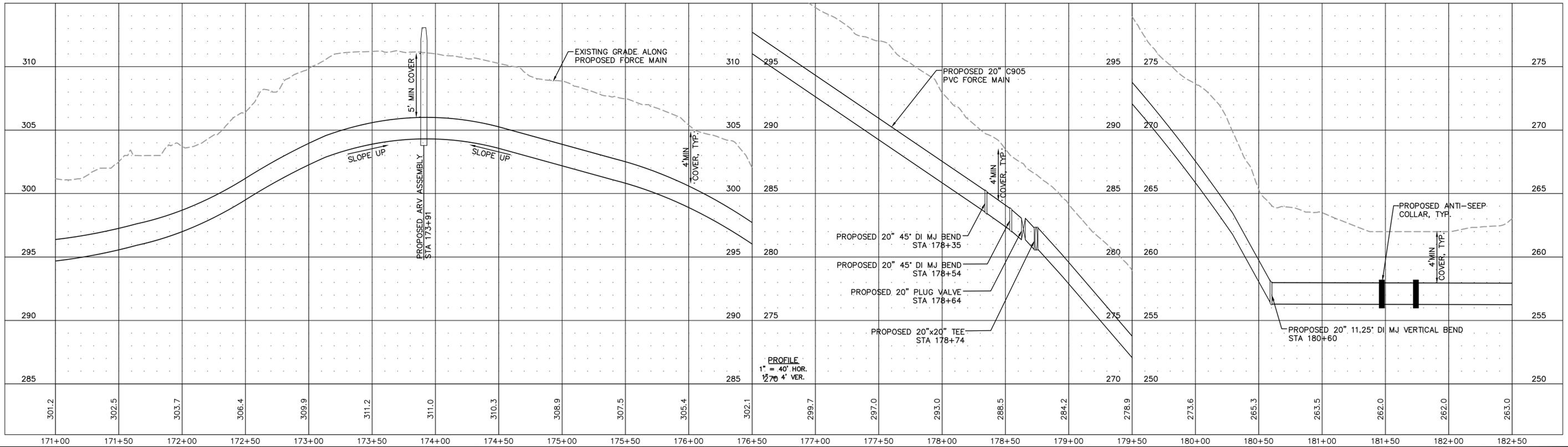
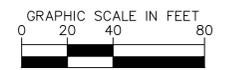
CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C14

SHEET NUMBER
16 OF 28



PLAN
1" = 40'



PROFILE
1" = 40' HOR.
1/2" = 4' VER.

Plotted By: Jacey Bailey, Layout: 17 PLAN AND PROFILE, February 17, 2023 03:21:33pm, C:\100 Hazen and Sawyer\100-005 Apex Big Branch 2 PS\80 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-3.dwg

No.	REVISIONS	DATE	BY	SEAL

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CARY, NC 27511
NC LICENSE #P-1611 WWW.CJSCONVEYANCE.COM

WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

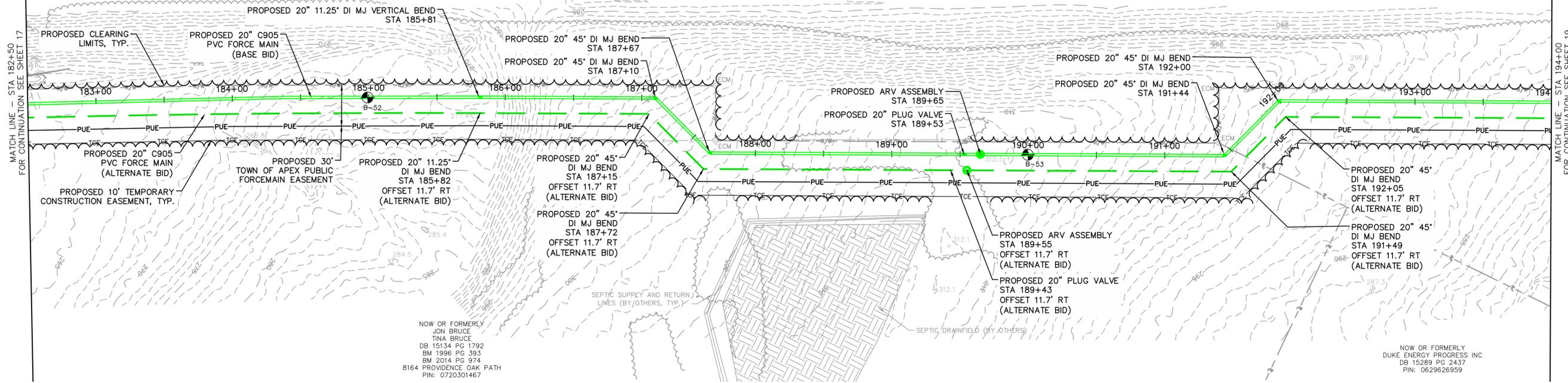
FORCE MAIN PLAN AND PROFILE
STA 171+00 TO STA 182+50

CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C15
SHEET NUMBER
17 OF 28



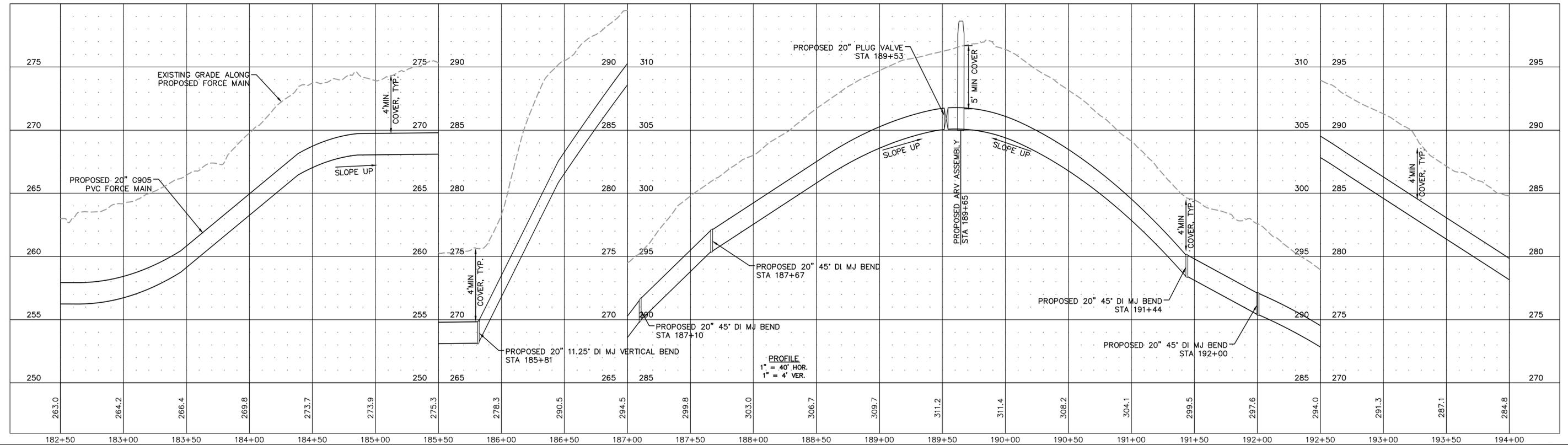
NEW US 1
VARIABLE WIDTH PUBLIC RIGHT-OF-WAY (C/A)



NOW OR FORMERLY
JON BRUCE
TINA BRUCE
DB 15134 PG 1792
BM 1996 PG 393
BM 2014 PG 974
8164 PROVIDENCE OAK PATH
PIN: 0720301467

NOW OR FORMERLY
DUKE ENERGY PROGRESS INC
DB 15289 PG 2437
PIN: 0629626959

PLAN
1" = 40'



PROFILE
1" = 40' HOR.
1" = 4' VER.

Plotted By: Joey Bailey, Layout: 18 PLAN AND PROFILE, February 17, 2023 03:22:00pm, C:\100 Hazen and Sawyer\100-005 Apex, Big Branch 2, PS, B0 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-4.dwg

No.	REVISIONS	DATE	BY	SEAL

60% DESIGN
FOR REVIEW ONLY



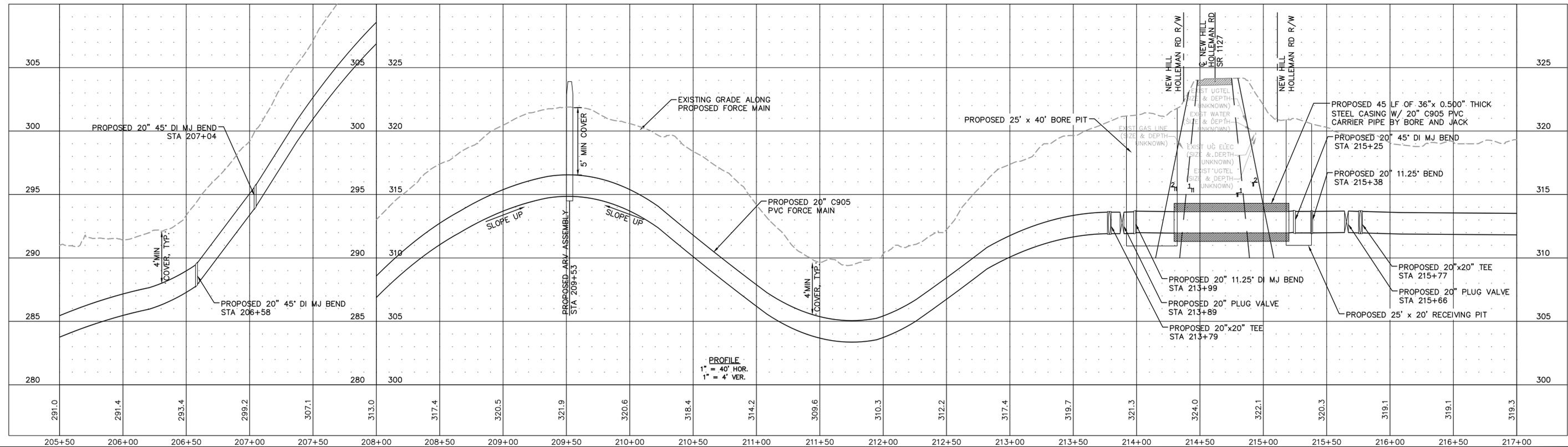
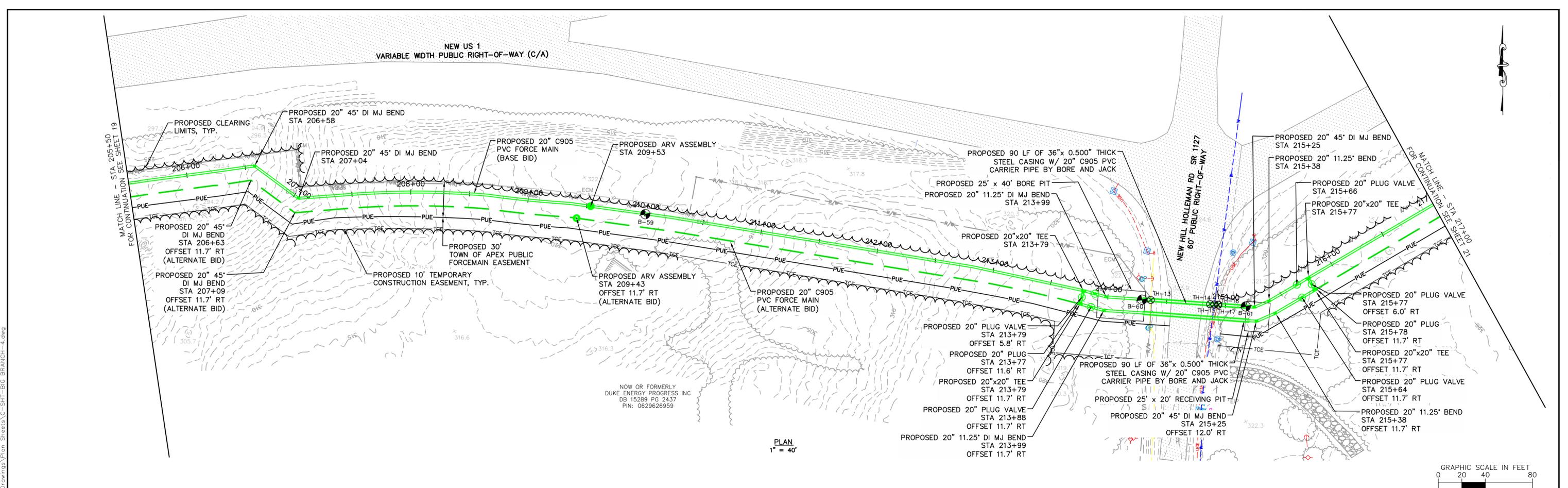
320 S. ACADEMY ST
CARY, NC 27511
NC LICENSE #P-1611 WWW.CJS-CONVEYANCE.COM

WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

FORCE MAIN PLAN AND PROFILE
STA 182+50 TO STA 194+00

CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C16
SHEET NUMBER
18 OF 28



No.	REVISIONS	DATE	BY	SEAL

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WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

FORCE MAIN PLAN AND PROFILE
STA 205+50 TO STA 217+00

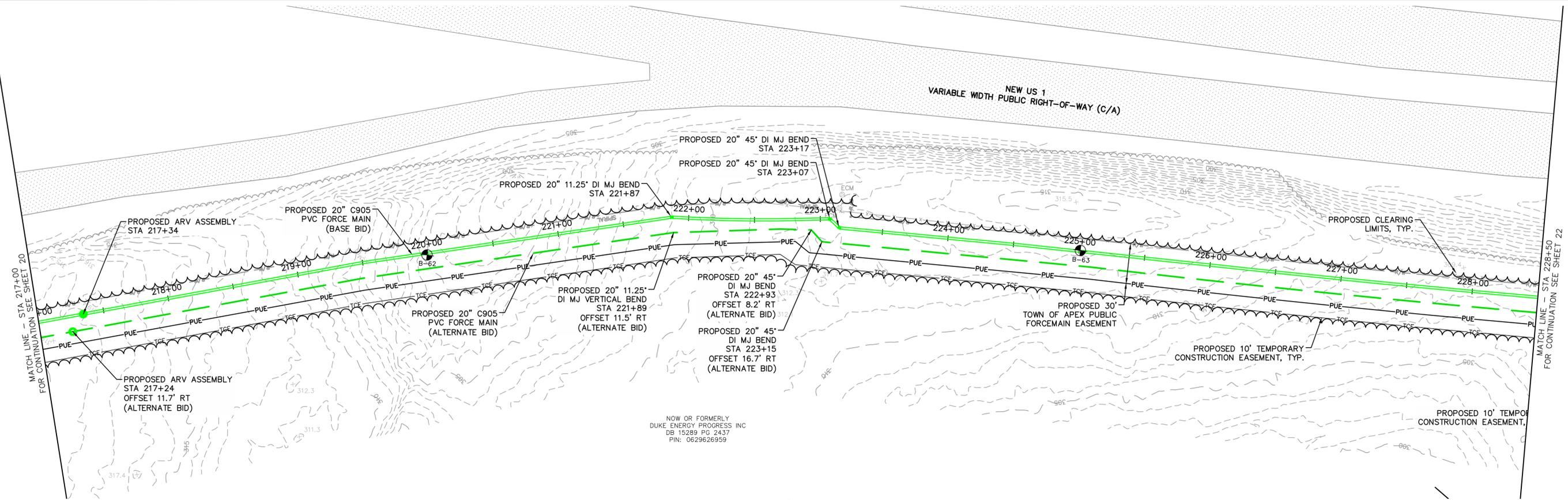
CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C18

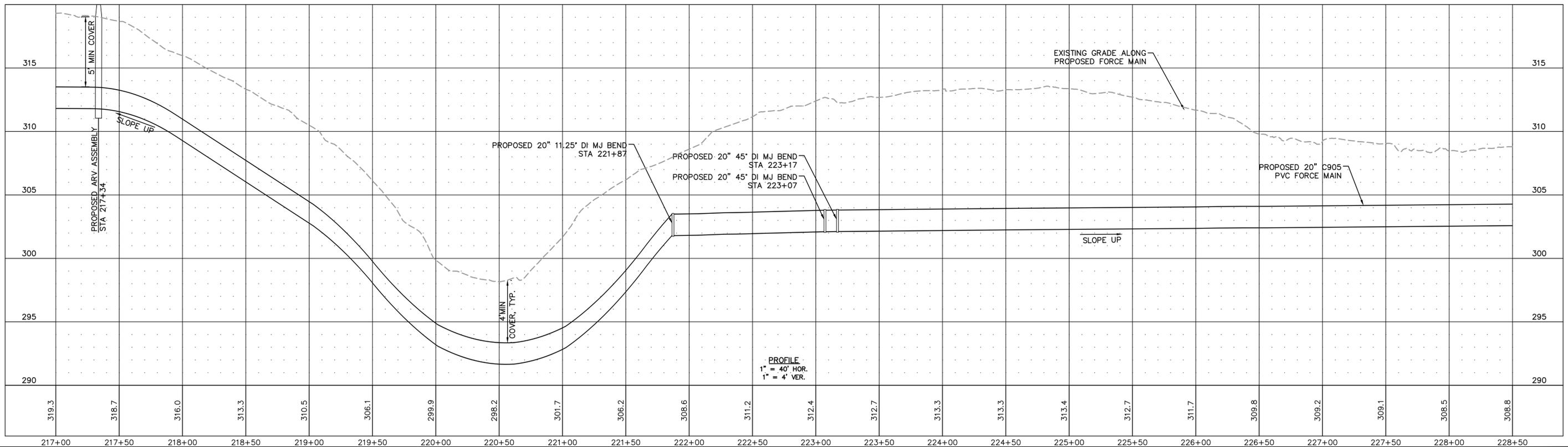
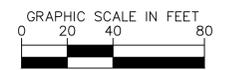
SHEET NUMBER
20 OF 28

Plotted By: Joey Bailey, Layout: 20 PLAN AND PROFILE, February 17, 2023 03:22:19pm, C:\100 Hazen and Sawyer\100-005 Apex, Big Branch 2, PS, B0 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-4.dwg

Plotted By: Joey Bailey, Layout: 21 FORCE MAIN PLAN AND PROFILE STA 217+00 TO STA 228+50, February 17, 2023 03:22:29pm, C:\100 Hazen and Sawyer\100-005 Apex Big Branch 2 PS\60 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-4.dwg



PLAN
1" = 40'



PROFILE
1" = 40' HOR.
1" = 4' VER.

No.	REVISIONS	DATE	BY	SEAL

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320 S. ACADEMY ST
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NC LICENSE #P-1611 WWW.CJSCONVEYANCE.COM

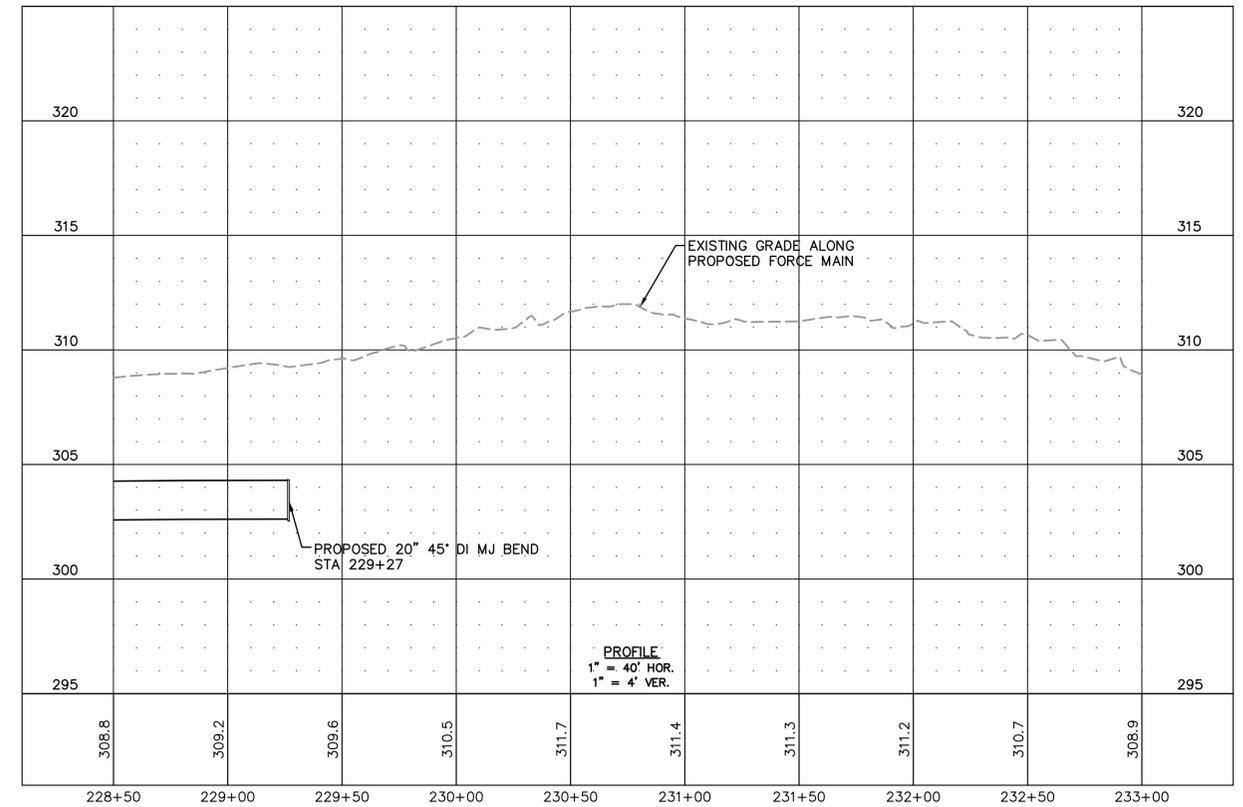
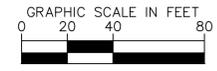
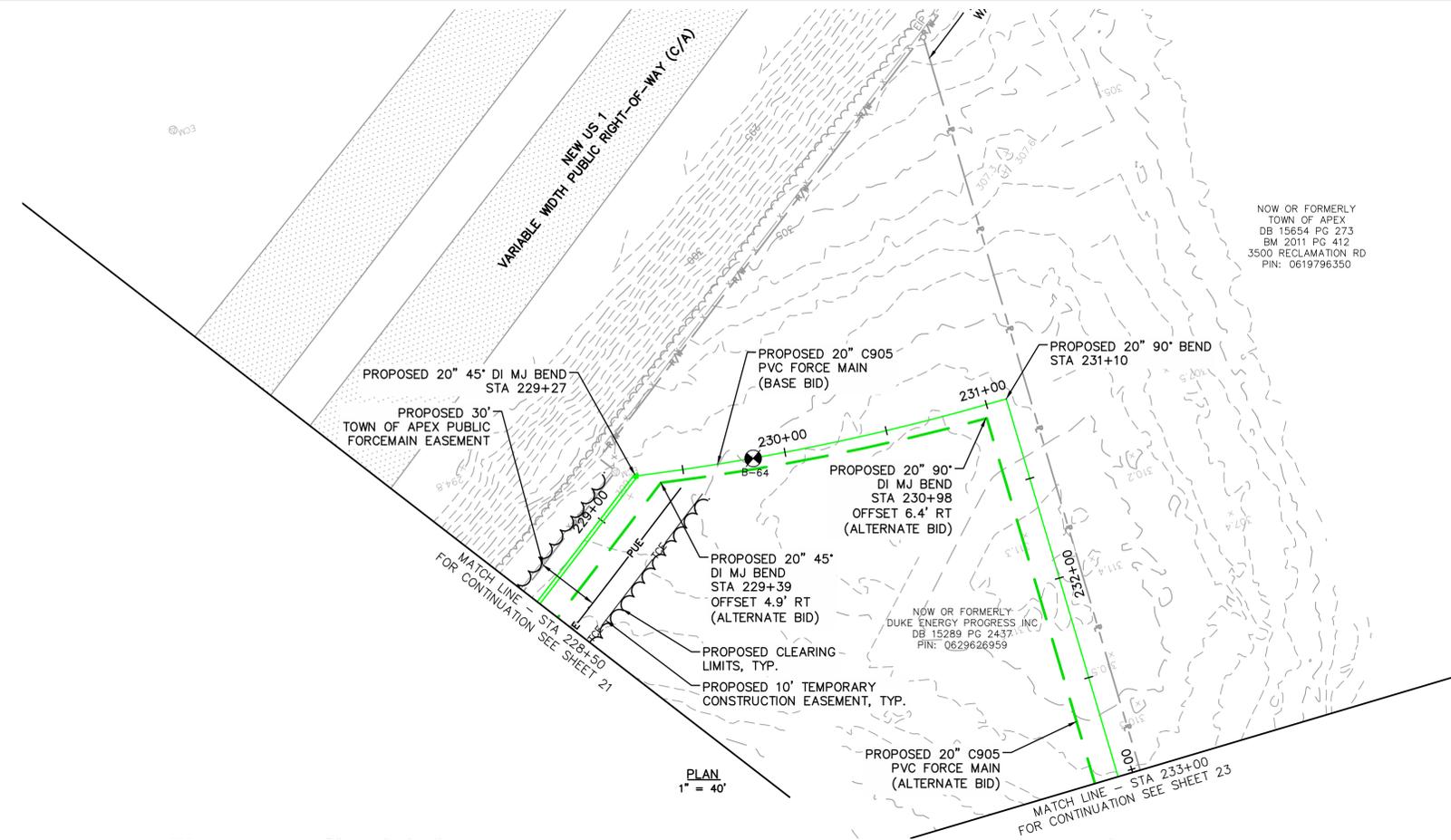
WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN

FORCE MAIN PLAN AND PROFILE
STA 217+00 TO STA 228+50

CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C19
SHEET NUMBER
21 OF 28

Plotted By: Joey Bailey, Layout: 22 FORCE MAIN PLAN AND PROFILE, February 17, 2023 03:22:39pm, C:\100 Hazen and Sawyer\100-005 Apex Big Branch 2 PS\80 - Drawings\Plan Sheets\C-SHT-BIG BRANCH-4.dwg



No.	REVISIONS	DATE	BY	SEAL

**60% DESIGN
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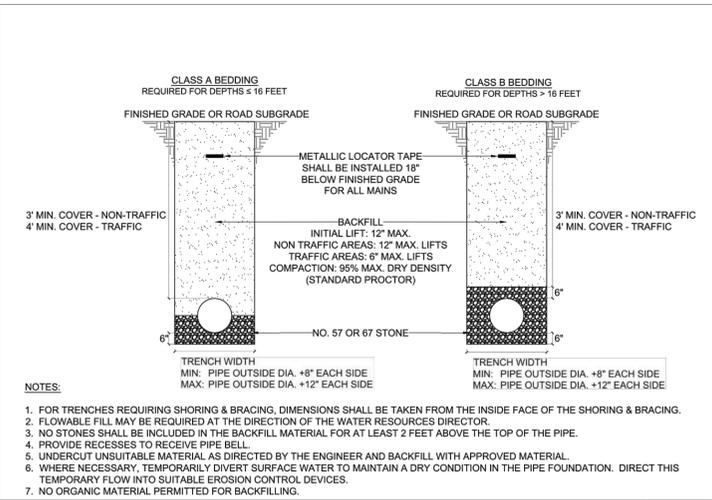
**WATER RESOURCES DEPARTMENT
TOWN OF APEX
BIG BRANCH 2 PUMP STATION -
FORCE MAIN**

**FORCE MAIN PLAN AND PROFILE
STA 228+50 TO STA 233+00**

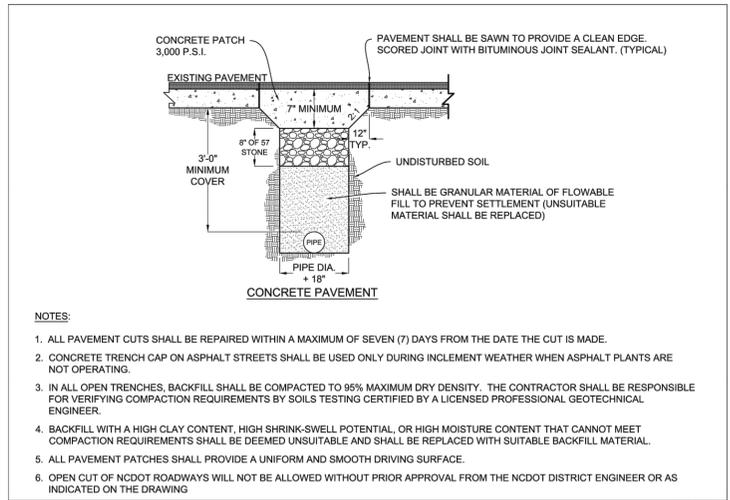
CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	1" = 20'
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

C20

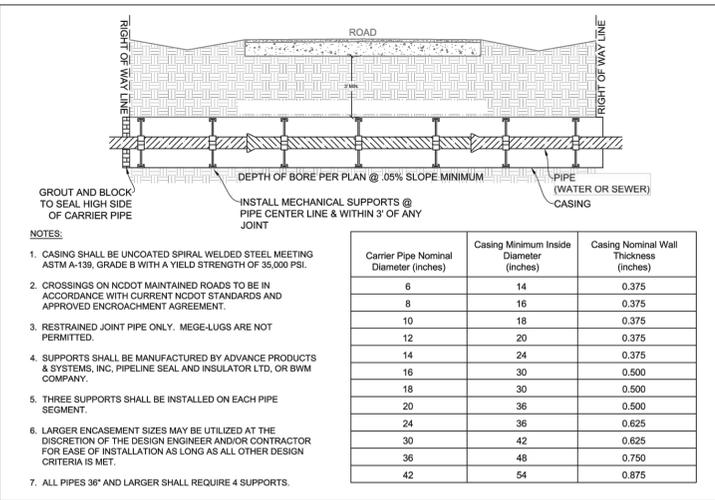
SHEET NUMBER
22 OF 28



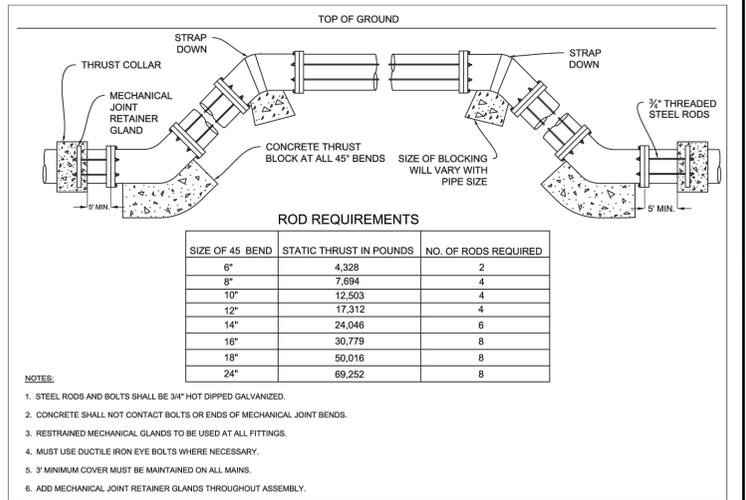
TOWN OF APEX STANDARDS	SANITARY SEWER PIPE BEDDING & BACKFILLING	STD. NO. 450.02
EFFECTIVE: MARCH 23, 2021		SHEET 1 OF 1



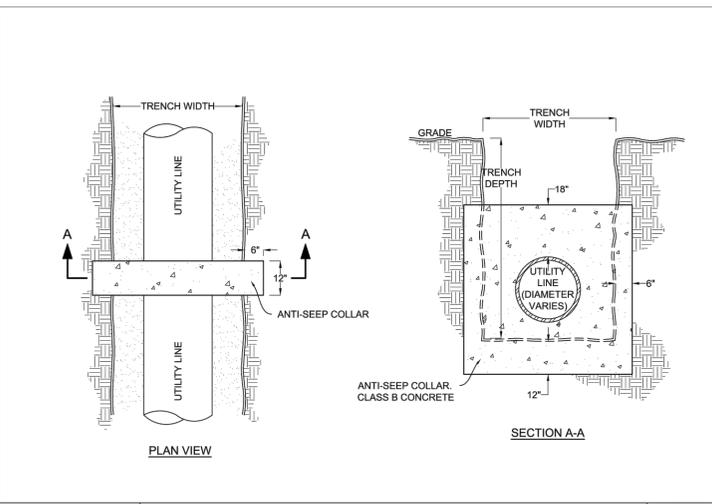
TOWN OF APEX STANDARDS	CONCRETE REPAIR	STD. NO. 450.03
EFFECTIVE: MARCH 23, 2021		SHEET 1 OF 1



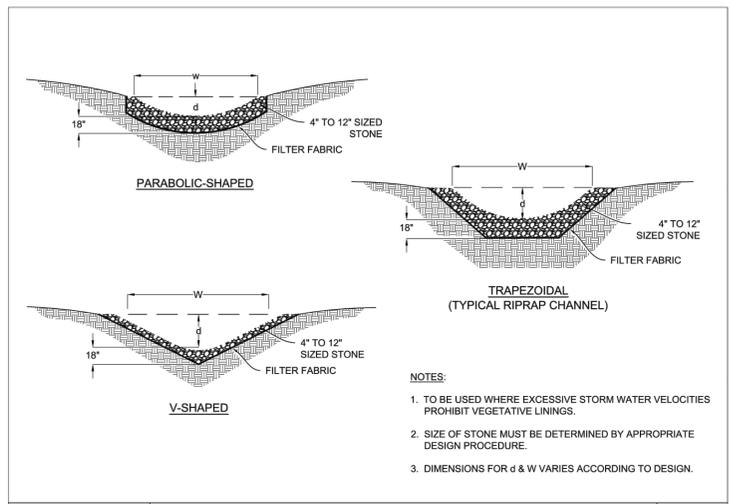
TOWN OF APEX STANDARDS	BORE & JACK	STD. NO. 450.06
EFFECTIVE: MARCH 23, 2021		SHEET 1 OF 1



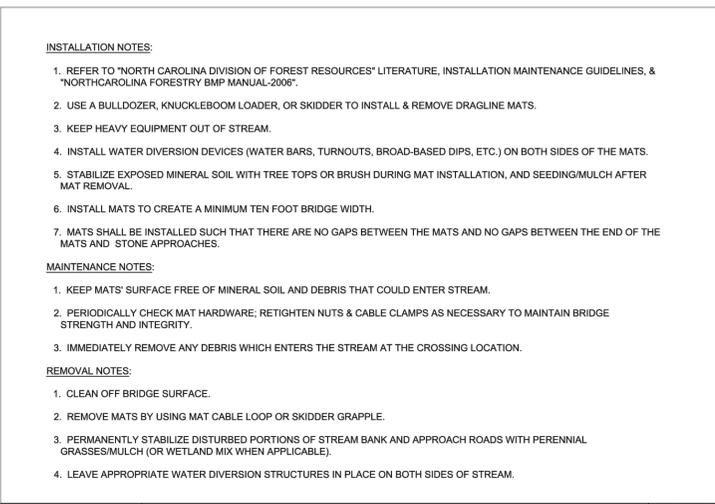
TOWN OF APEX STANDARDS	VERTICAL BEND	STD. NO. 450.08
EFFECTIVE: MARCH 23, 2021		SHEET 1 OF 1



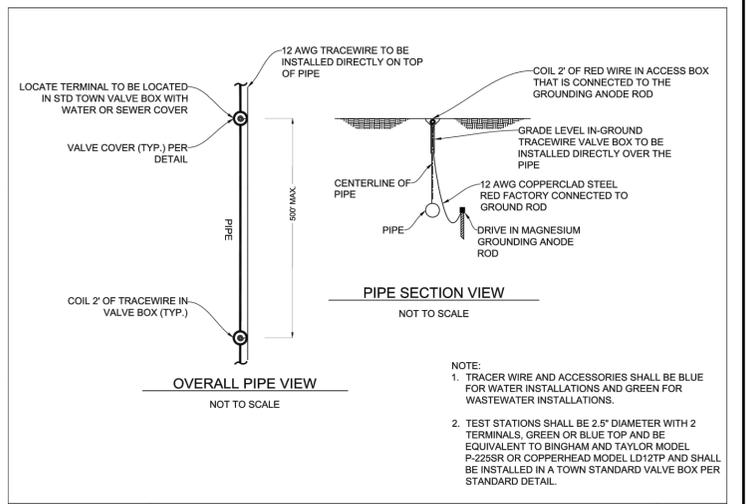
TOWN OF APEX STANDARDS	ANTI-SEEP COLLAR	STD. NO. 450.10
EFFECTIVE: MARCH 23, 2021		SHEET 1 OF 1



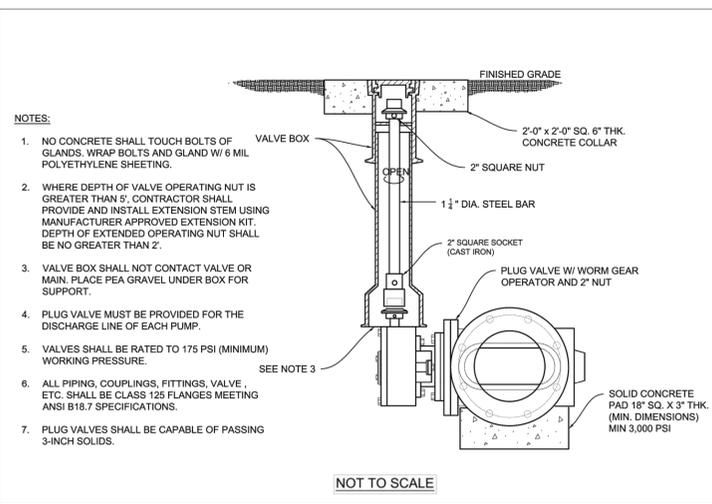
TOWN OF APEX STANDARDS	OPEN CUT DITCH	STD. NO. 450.11
EFFECTIVE: MARCH 23, 2021		SHEET 1 OF 1



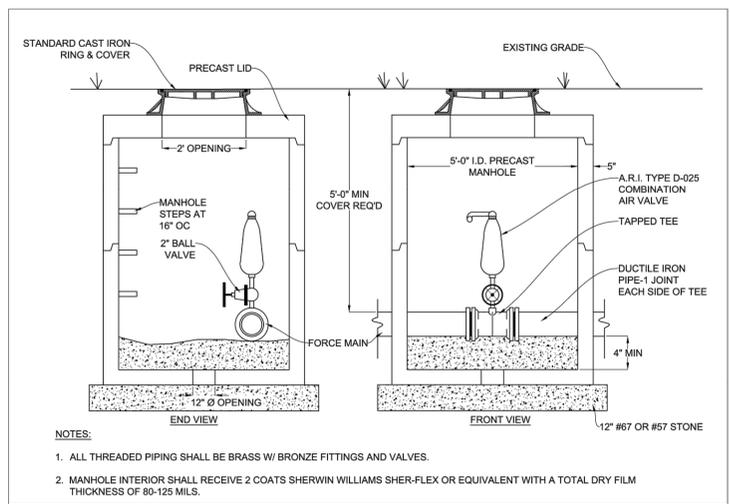
TOWN OF APEX STANDARDS	VEHICLE CROSSING AT STREAM	STD. NO. 450.12
EFFECTIVE: MARCH 23, 2021		SHEET 2 OF 2



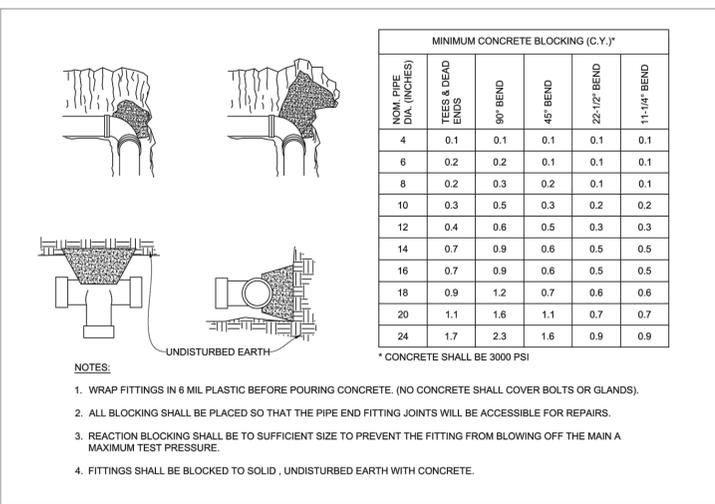
TOWN OF APEX STANDARDS	TRACER WIRE	STD. NO. 450.13
EFFECTIVE: MARCH 23, 2021		SHEET 1 OF 1



TOWN OF APEX STANDARDS	PLUG VALVE BOX INSTALLATION	STD. NO. 800.02
EFFECTIVE: MARCH 23, 2021		SHEET 1 OF 1



TOWN OF APEX STANDARDS	AIR RELEASE MANHOLE FOR SANITARY SEWER FORCE MAINS	STD. NO. 800.11
EFFECTIVE: MARCH 23, 2021		SHEET 1 OF 1



TOWN OF APEX STANDARDS	REACTION BLOCKING	STD. NO. 600.13
EFFECTIVE: MARCH 23, 2021		SHEET 1 OF 1

No.	REVISIONS	DATE	BY	SEAL

60% DESIGN FOR REVIEW ONLY

CJS
Conveyance, PLLC

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CARY, NC 27511

NC LICENSE #P-1611 WWW.CJS.CONVEYANCE.COM

TOWN OF APEX
WATER RESOURCES DEPARTMENT
BIG BRANCH 2 PUMP STATION - FORCE MAIN

TOWN OF APEX STANDARD DETAILS

CJS PROJ. #:	100-005
DATE:	2-9-2023
SCALE:	N/A
PROJECT ENGINEER:	SDL
DESIGNED BY:	JJS
DRAWN BY:	JJS
CHECKED BY:	SDL

D1

SHEET NUMBER
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