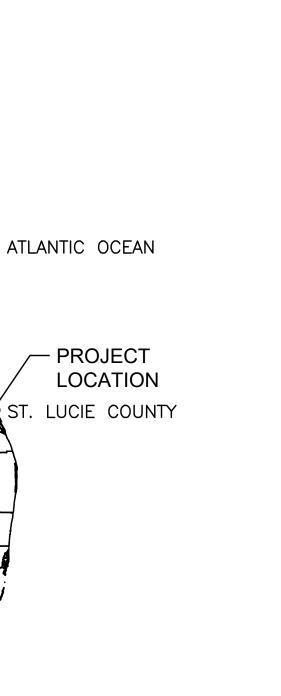
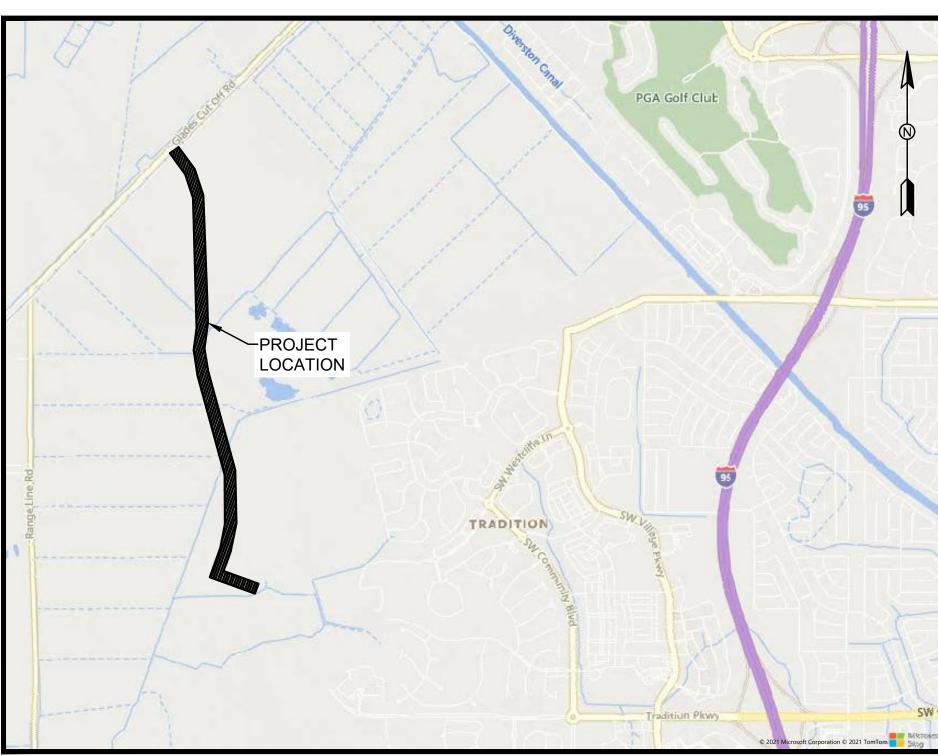
GLADES TO TRADITION REUSE WATER MAIN

PREPARED FOR CITY OF PORT ST. LUCIE

ST. LUCIE COUNTY, FLORIDA SECTION 31, 5-8, TOWNSHIP 36S, 37S, RANGE 39E





VICINITY MAP

NTS



GULF OF MEXICO

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
PHONE (772) 873-6400
FAX (772) 873-6433

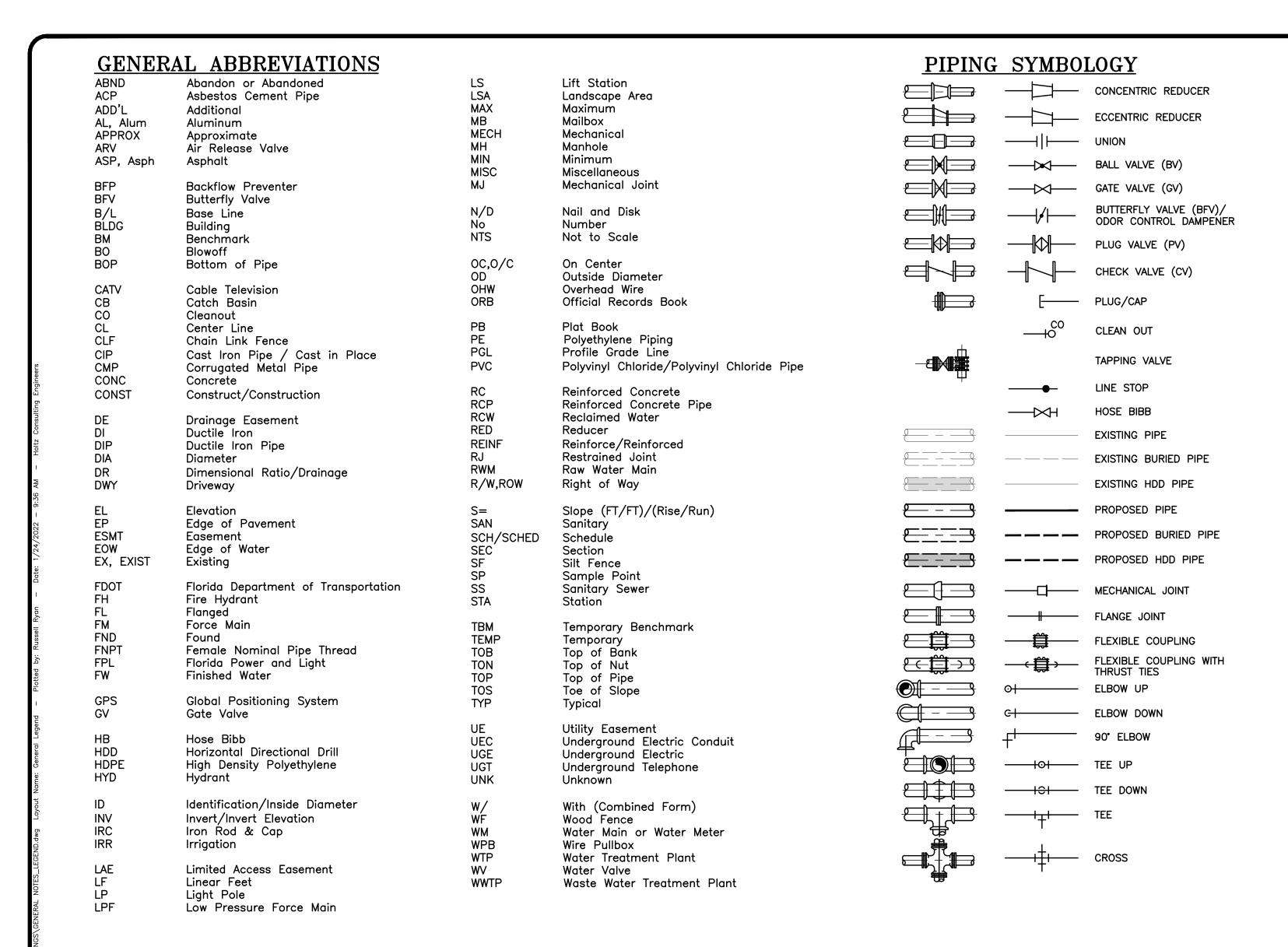
JANUARY 2022 PSLUSD PROJECT No: 25-0032

BRAD MACEK UTILITY DIRECTOR

	SHEET INDEX
SHEET No.	SHEET TITLE
G-1	COVER
G-2	GENERAL NOTES AND LEGEND
G-3	KEYSHEET
C-1	PLAN AND PROFILE STA: 0+00 TO STA: 5+40
C-2	PLAN AND PROFILE STA: 5+40 TO STA: 10+00; STA: 20+00 TO STA: 22+00
C-3	PLAN AND PROFILE STA: 20+00 TO STA: 27+30
C-4	PLAN AND PROFILE STA: 27+30 TO STA: 34+40
C-5	PLAN AND PROFILE STA: 34+40 TO STA: 41+20
C-6	PLAN AND PROFILE STA: 41+20 TO STA: 47+80
C-7	PLAN AND PROFILE STA: 47+80 TO STA: 54+40
C-8	PLAN AND PROFILE STA: 54+40 TO STA: 61+00
C-9	PLAN AND PROFILE STA: 61+00 TO STA: 67+60
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C-11	PLAN AND PROFILE STA: 74+20 TO STA: 80+80
C-12	PLAN AND PROFILE STA: 80+80 TO STA: 87+40
C-13	PLAN AND PROFILE STA: 87+40 TO STA: 94+00
C-14	PLAN AND PROFILE STA: 94+00 TO STA: 100+60
C-15	PLAN AND PROFILE STA: 100+60 TO STA: 107+2
C-16	PLAN AND PROFILE STA: 107+20 TO STA: 113+8
C-17	PLAN AND PROFILE STA: 113+80 TO STA: 120+4
C-18	PLAN AND PROFILE STA: 120+40 TO STA: 127+0
C-19	PLAN AND PROFILE STA: 127+00 TO STA: 133+0
C-20	36" FORCE MAIN EXTENSION PLAN AND PROFILE STA: 125+80 TO STA: 133+00
D-1	DETAILS



D-2 CROSS SECTIONS



ENVIRONMENTAL NOTES

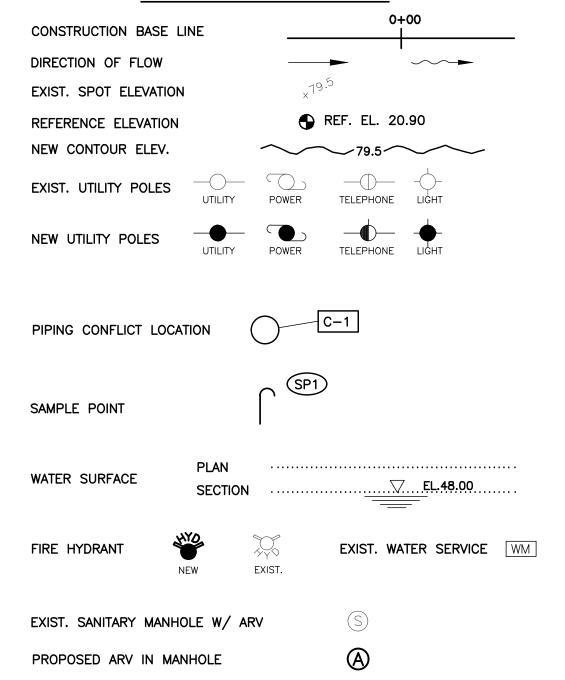
- 1. TOTAL WETLAND DISTURBANCE = 0.00 ACRES
- 2. EXISTING ROADWAY AND EASEMENT ACCESS POINTS WILL BE USED FOR PROJECT ACCESS. NO ACCESS IS PROPOSED THROUGH WETLAND AREAS.
- 3. HORIZONTAL DIRECTIONAL DRILL IS PROPOSED FOR CROSSING OF WETLAND AND SURFACE WATERS ALONG THE PROJECT ROUTE. PROPOSED PIPE COVER WILL EXCEED 5 FEET OR 5X OUTSIDE PIPE DIAMETER IN THESE LOCATIONS.

LINETYPES

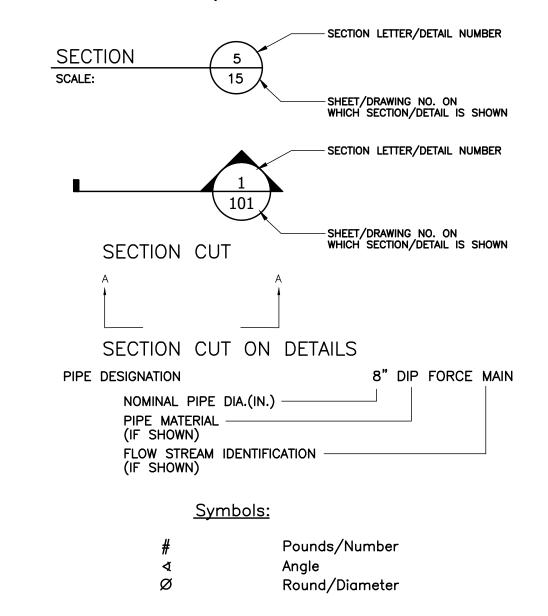
	EXISTING*	PROPOSED*			
BOUNDARY					
CENTER LINE					
EASEMENT					
EDGE OF PAVEMENT					
ELECTRIC	—— E ——— E ———				
FENCE (BARB/FIELD)	x x	xx			
FENCE (CHAINLINK)	o	0			
FIBER OPTIC	——————————————————————————————————————	—FOCFOC			
OVERHEAD UTILITIES	—— они ——— они ——				
RAILROAD TRACK	-				
RIGHT-OF-WAY					
SILT FENCE		SF SF			
TELEPHONE	— — T — — T — — T —				
TOP OF BANK					
TOE OF SLOPE	· · · · _ · · ·				
WATER MAIN	WM	—— wм ——— wм ——			
WATER SERVICE	WS				

* DEPICTS BELOW GRADE --- TEXT --- TEXT

CIVIL SYMBOLOGY



SECTION/DETAIL SYMBOL





1. THE BEARINGS AS SHOWN HEREON ARE BASED ON STATE PLANE COORDINATES,

2. ELEVATIONS AS SHOWN HEREON REFERENCE THE NORTH AMERICAN VERTICAL

VERTICAL POSITIONAL ACCURACY OF 0.10 FEET

3. TO CONVERT NAVD88 TO NGVD29 ADD 1.45 FT.

NO. 06-77, LAST DATED MARCH 4, 2008.

DISTANCES. THE SCALE FACTOR IS 0.999975452.

DATUM OF 1988 (NAVD 88). REFERENCE THE BENCHMARKS AS SHOWN ON

DRAWINGS. ELEVATIONS AS SHOWN HAVE BEEN MEASURED TO AN ESTIMATED

4. THE LINEWORK AND RECORDING INFORMATION FOR EASEMENTS, RIGHT OF WAYS, SECTION LINES, PROPERTY LINES, BASELINE, ETC. WERE TAKEN FROM DIGITAL FILES PROVIDED BY FELIX AND ASSOCIATES FOR THE CITY OF PORT ST. LUCIE, FLORIDA. REFERENCE DRAWINGS: GLADES BOOSTER PUMP STATION FORCE MAIN, REFERENCE PROJECT NO. 20050064-BM, AMENDMENT NO. 3, VOLUME III, LAST DATED 9/26/06 AND FOR THE RANGELINE ROAD WATER TRANSMISSION MAIN AND WASTEWATER FORCE MAIN, REFERENCE PROJECT NO. 20050151, VOLUME IV, LAST DATED 12/14/06. THE EXISTING UTILITIES WERE TAKEN FROM A RECORD SURVEY PERFORMED BY BETSY LINDSAY, INC. FOR THESE PROJECTS, REFERENCE PROJECT

5. WELL-IDENTIFIED FEATURES IN THIS SURVEY AND MAP HAVE BEEN MEASURED TO

6. THIS SURVEY WAS DONE IN THE FIELD UTILIZING GLOBAL POSITIONING SYSTEM (G.P.S.) WITH REAL TIME KINEMATIC (R.T.K.). ALL DISTANCES GIVEN ARE GRID

AN ESTIMATED HORIZONTAL POSITIONAL ACCURACY OF 0.10 FEET.

NORTH AMERICAN DATUM OF 1983/1990 (N.A.D. 83/90), FLORIDA EAST ZONE.

SURVEY NOTES

CITY OF PORT ST. LUCIE GLADES TO TRADITION REUSE WATER MAIN

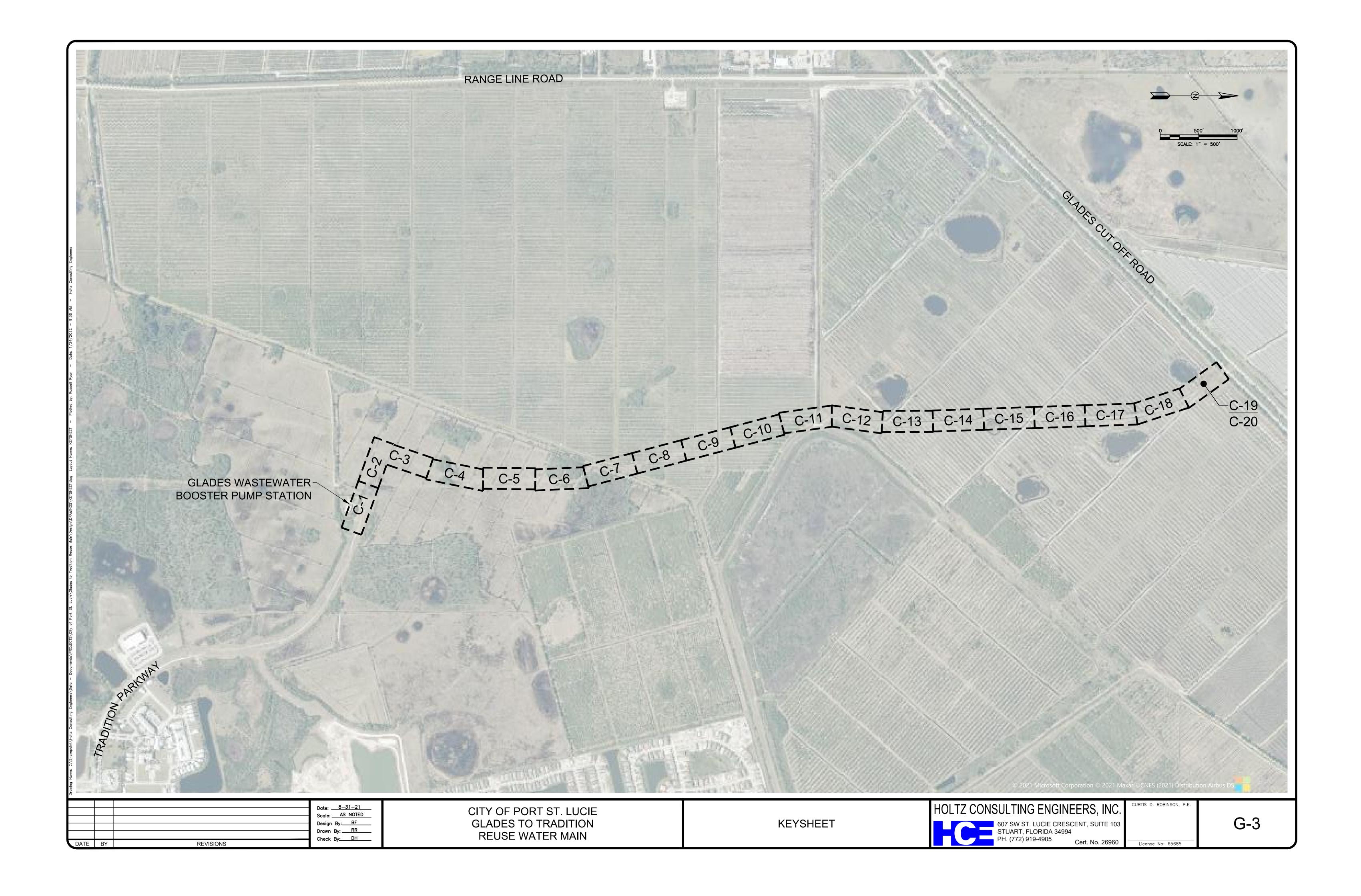
GENERAL NOTES AND LEGEND

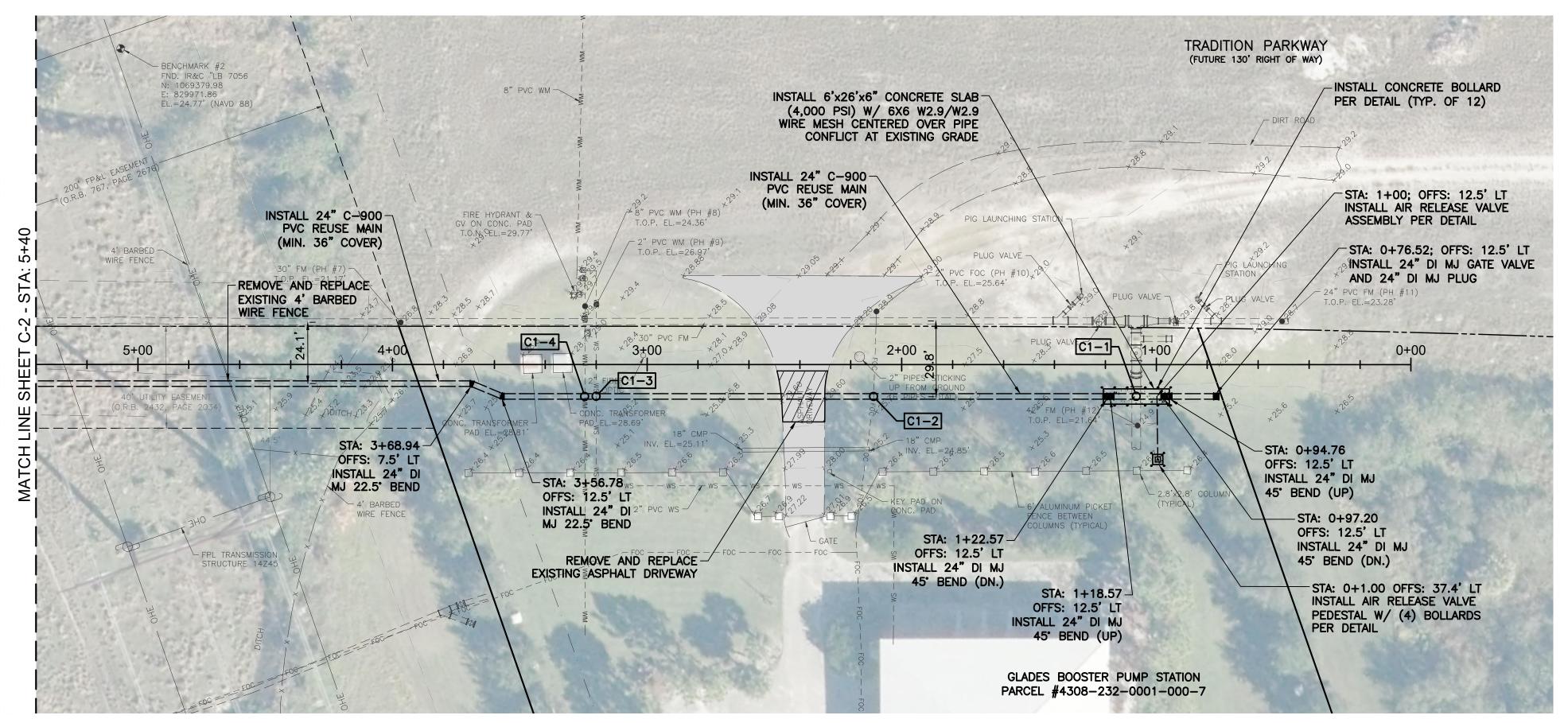


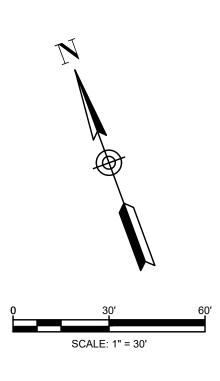
CURTIS D. ROBINSON, P.E.

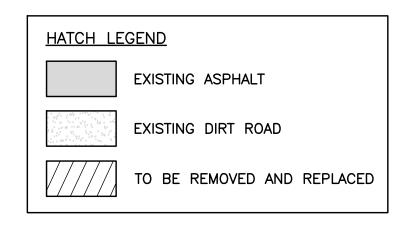
O3

License No: 65685

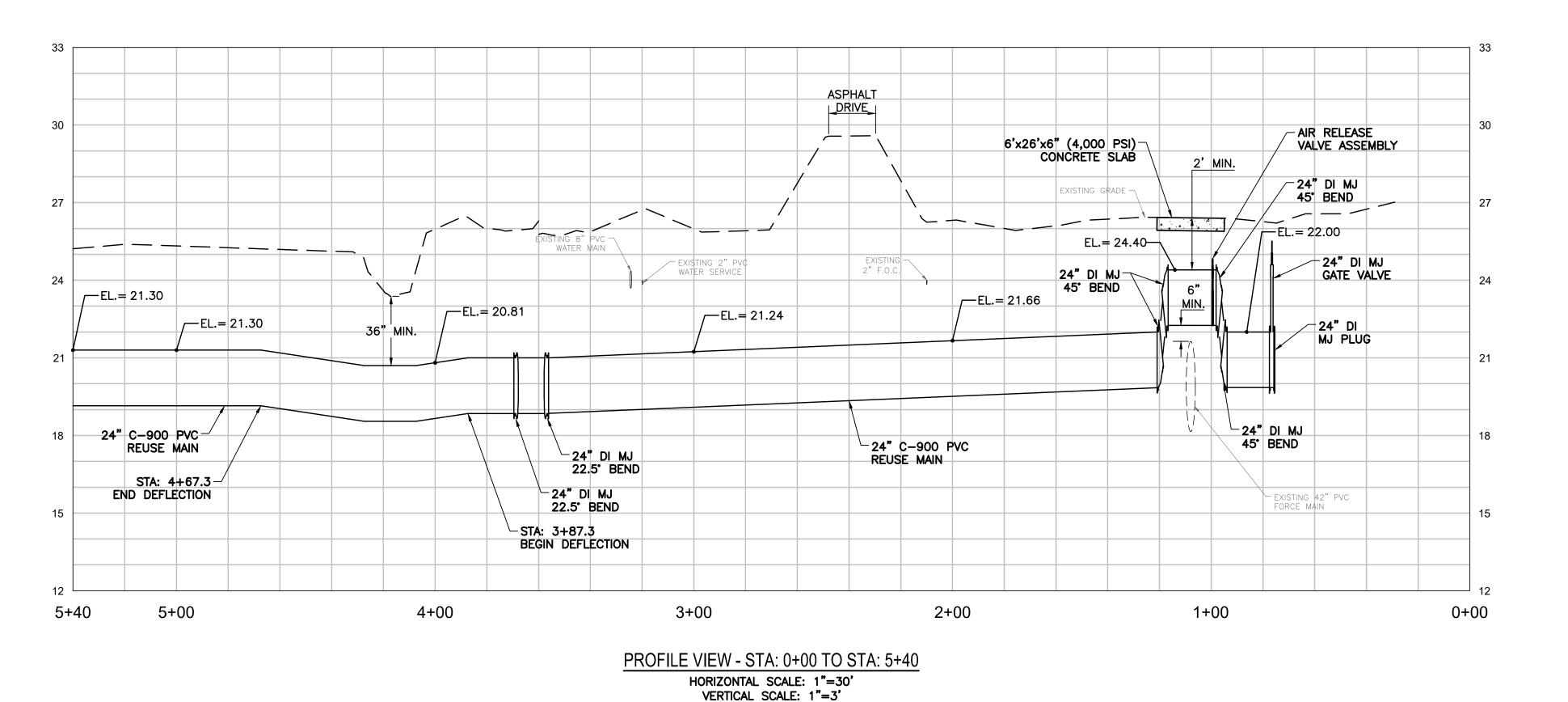








REUSE WATER MAIN CROSSING TABLE												
CONFLICT CONFLICT PIPE		ELEVATION	PROPOSED RWM	UNDER/ OVER	CLEARANCE	ELEVATION						
C1-1	42" FM	TOP 21.6	24" PVC	OVER	0.7'	BOP 22.3						
C1-2	2" FOC	BOP 23.8	24" PVC	UNDER	2.2'	TOP 21.6						
C1-3	2" WS	BOP 23.8	24" PVC	UNDER	2.6'	TOP 21.2						
C1-4	8" WM	BOP 23.7	24" PVC	UNDER	2.5'	TOP 21.2						



- NOTES:

 1. THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND ARE BASED UPON LIMITED SURFACE SURVEY. CONTRACTOR SHALL VERIFY EXISTING HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITY CROSSINGS AND FOR UTILITIES IN CLOSE PROXIMITY OF PROPOSED PIPING. PROTECT AND TEMPORARILY SUPPORT ALL UTILITIES WITHIN EXCAVATION DURING THE WORK IN ADDITION TO PROTECTING UTILITIES BELOW DRILLING EQUIPMENT FROM DAMAGE.
- 2. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, WHETHER SHOWN OR NOT, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 3. ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT FROM NAVD88 TO NGVD29 ADD 1.45'.
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- 5. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH FPL ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND POWER LINES AND VERIFY PROPER CLEARANCE
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- 7. PROPOSED REUSE WATER MAIN SHALL HAVE A MINIMUM 36" COVER UNLESS OTHERWISE
- 8. CONTRACTOR SHALL ADEQUATELY RESTRAIN ALL EXISTING VALVES, FITTINGS, PIPES, AND APPURTENANCES AS NECESSARY TO MAKE CONNECTIONS AT NO ADDITIONAL COST TO THE



KEY MAP

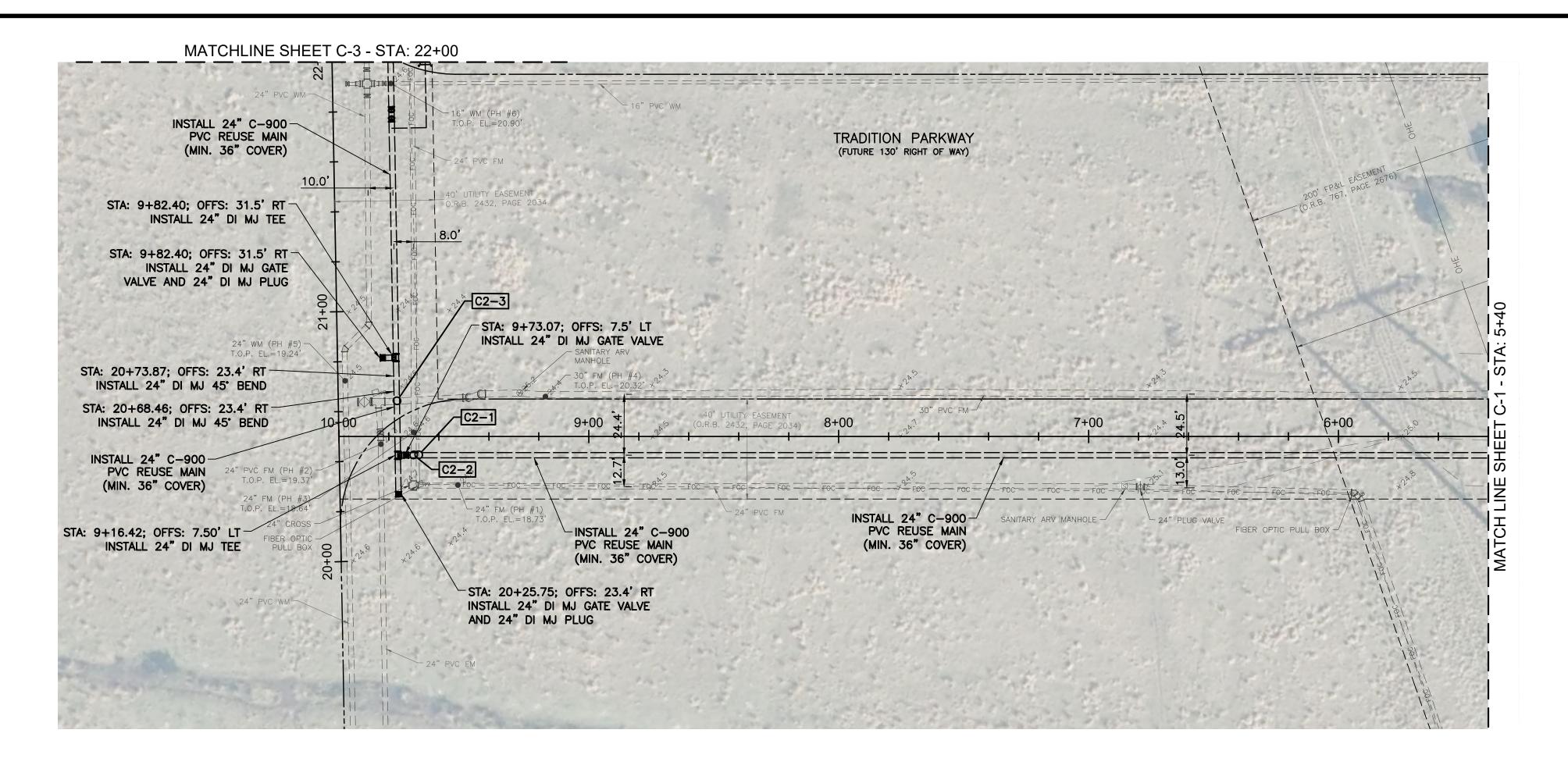
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REV	DATE	REVISIONS	BY	Check By: DH

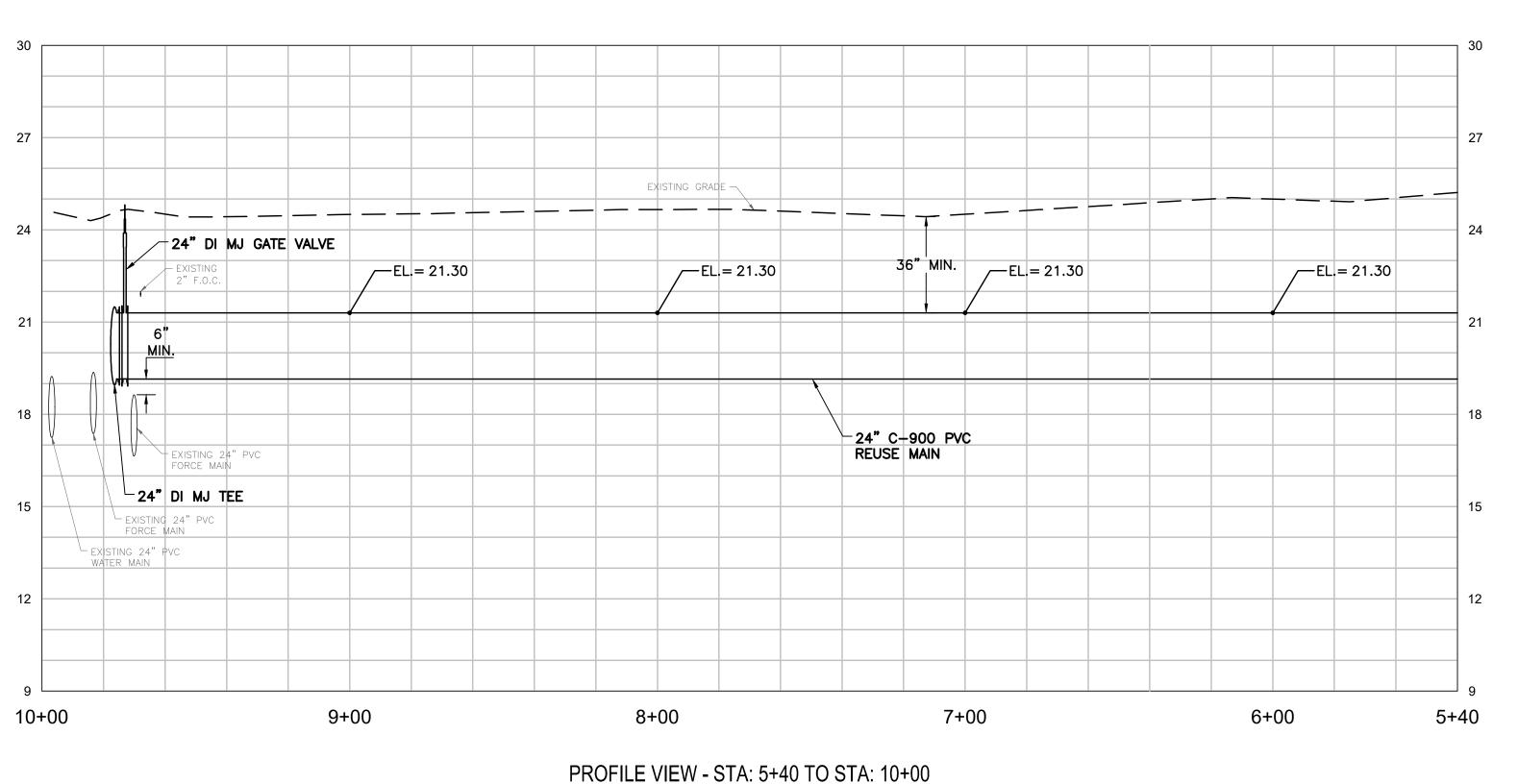
CITY OF PORT ST. LUCIE **GLADES TO TRADITION** REUSE WATER MAIN

PLAN AND PROFILE STA: 0+00 TO STA: 5+40

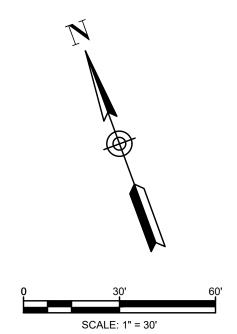


CURTIS D. ROBINSON, P.E. License No: 65685





HORIZONTAL SCALE: 1"=30' VERTICAL SCALE: 1"=3"



	REUSE WATER MAIN CROSSING TABLE											
CONFLICT	CONFLICT PIPE	ELEVATION	PROPOSED RWM	UNDER/ OVER	CLEARANCE	ELEVATION						
C2-1	2" FOC	BOP 21.8	24" PVC	UNDER	0.8'	TOP 21.0						
C2-2	24" FM	TOP 18.6	24" PVC	OVER	0.6'	BOP 19.2						
C2-3	30" FM	TOP 14.5	24" PVC	OVER	4.4'	BOP 18.9						

- NOTES:

 1. THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND ARE BASED UPON LIMITED SURFACE SURVEY. CONTRACTOR SHALL VERIFY EXISTING HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITY CROSSINGS AND FOR UTILITIES IN CLOSE PROXIMITY OF PROPOSED PIPING. PROTECT AND TEMPORARILY SUPPORT ALL UTILITIES WITHIN EXCAVATION DURING THE WORK IN ADDITION TO PROTECTING UTILITIES BELOW DRILLING EQUIPMENT FROM DAMAGE.
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- 4. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO TAKE THE NECESSARY PRECAUTIONS TO ENSURE PROPER SAFETY AND WORKMANSHIP WHEN WORKING IN THE VICINITY OF EXISTING UTILITY LINES.
- 5. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH FPL ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND POWER LINES AND VERIFY PROPER CLEARANCE
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- 8. CONTRACTOR SHALL ADEQUATELY RESTRAIN ALL EXISTING VALVES, FITTINGS, PIPES, AND APPURTENANCES AS NECESSARY TO MAKE CONNECTIONS AT NO ADDITIONAL COST TO THE



KEY MAP

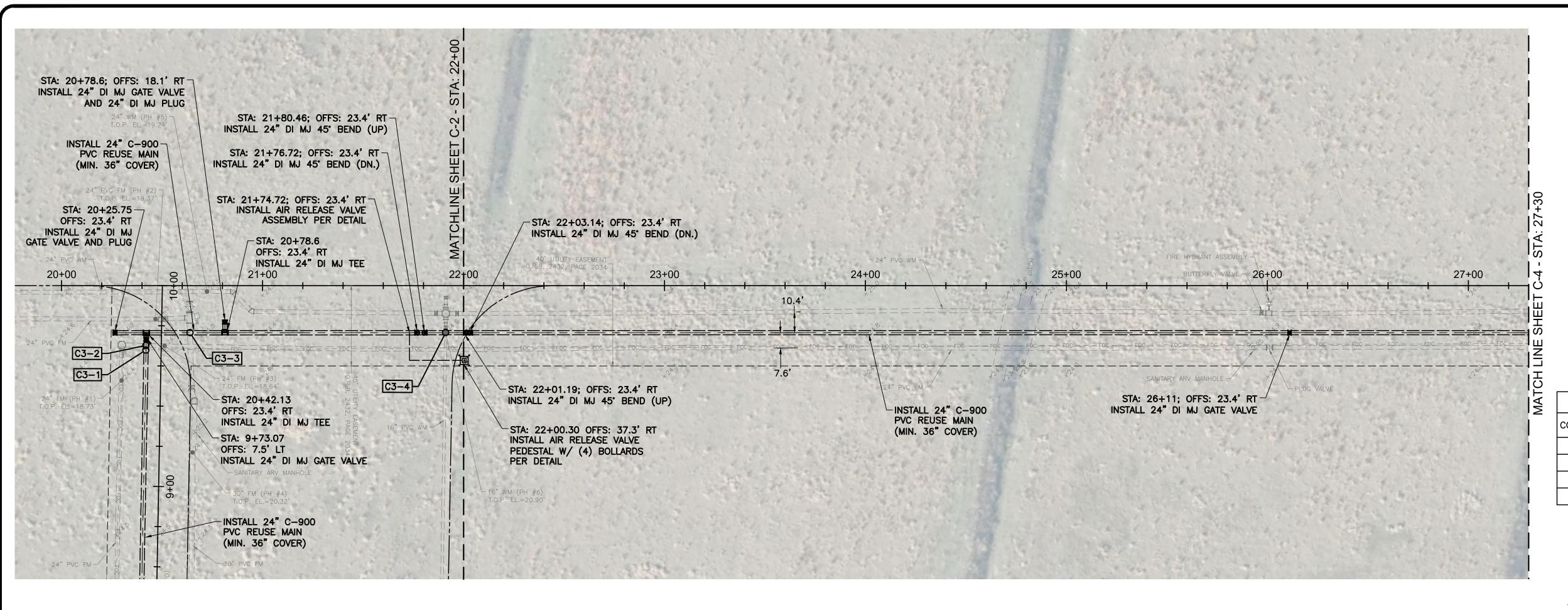
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REV	DATE	REVISIONS	BY	Check By: DH

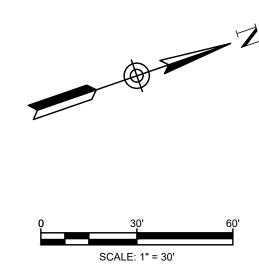
CITY OF PORT ST. LUCIE GLADES TO TRADITION **REUSE WATER MAIN**

PLAN AND PROFILE STA: 5+40 TO STA: 10+00 STA: 20+00 TO STA: 22+00

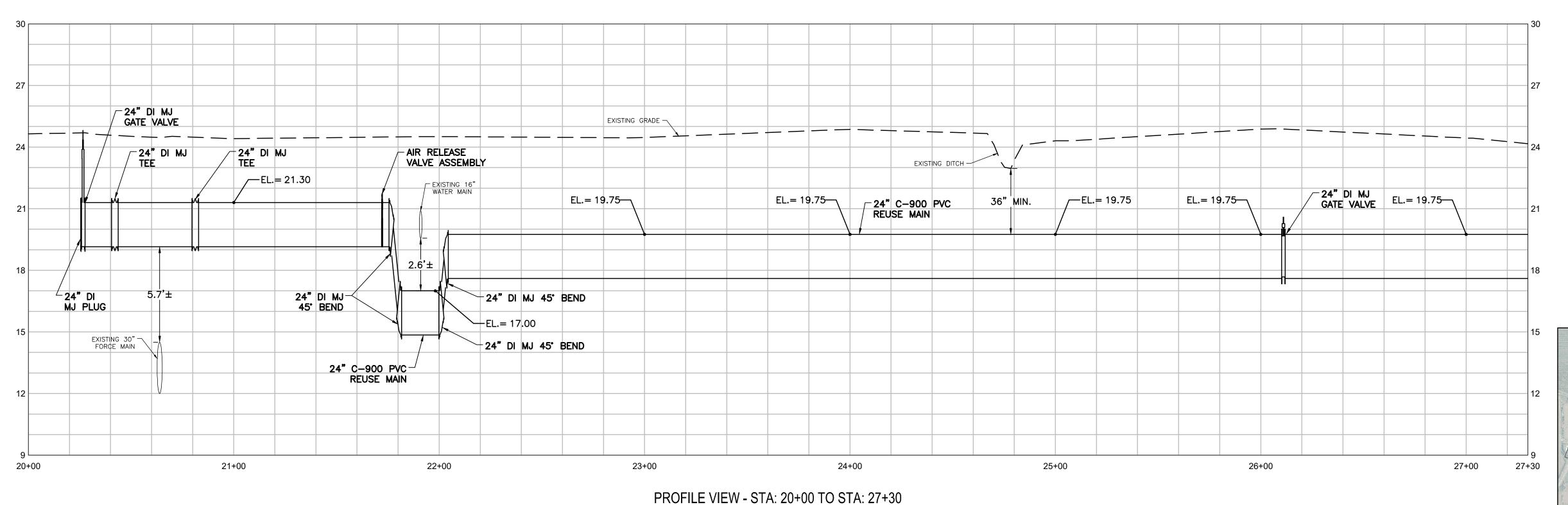


CURTIS D. ROBINSON, P.E. License No: 65685





REUSE WATER MAIN CROSSING TABLE												
CONFLICT	CONFLICT PIPE	ELEVATION	PROPOSED UNDER/ RWM OVER		CLEARANCE	ELEVATION						
C3-1	2" FOC	BOP 21.8	24" PVC	UNDER	0.5'	TOP 21.3						
C3-2	24" FM	TOP 18.6	24" PVC	OVER	0.6'	BOP 19.2						
C3-3	30" FM	TOP 14.5	24" PVC	OVER	4.7'	BOP 19.2						
C3-4	16" WM	BOP 19.6	24" PVC	UNDER	2.6'	TOP 17.0						



HORIZONTAL SCALE: 1"=30' VERTICAL SCALE: 1"=3' NOTES:

1. THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND ARE BASED UPON LIMITED RECORD DRAWING INFORMATION, GIS, AND SURFACE SURVEY. CONTRACTOR SHALL VERIFY EXISTING HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITY CROSSINGS AND FOR UTILITIES IN CLOSE PROXIMITY OF PROPOSED PIPING. PROTECT AND TEMPORARILY SUPPORT ALL UTILITIES WITHIN EXCAVATION DURING THE WORK IN ADDITION TO PROTECTING UTILITIES BELOW DRILLING EQUIPMENT FROM DAMAGE.

2. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, WHETHER SHOWN OR NOT, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

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5. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH FPL ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND POWER LINES AND VERIFY PROPER CLEARANCE BELOW EXISTING

OVERHEAD POWER LINES PRIOR TO WORKING WITHIN THE VICINITY.

6. CONTRACTOR SHALL PLAN ALL UTILITY CROSSINGS TO CONFIRM HORIZONTAL AND VERTICAL SEPARATIONS PRIOR TO

7. PROPOSED REUSE WATER MAIN SHALL HAVE A MINIMUM 36" COVER UNLESS OTHERWISE NOTED.

CONSTRUCTION.

8. CONTRACTOR SHALL ADEQUATELY RESTRAIN ALL EXISTING VALVES, FITTINGS, PIPES, AND APPURTENANCES AS NECESSARY TO MAKE CONNECTIONS AT NO ADDITIONAL COST TO THE OWNER.



KEY MAP

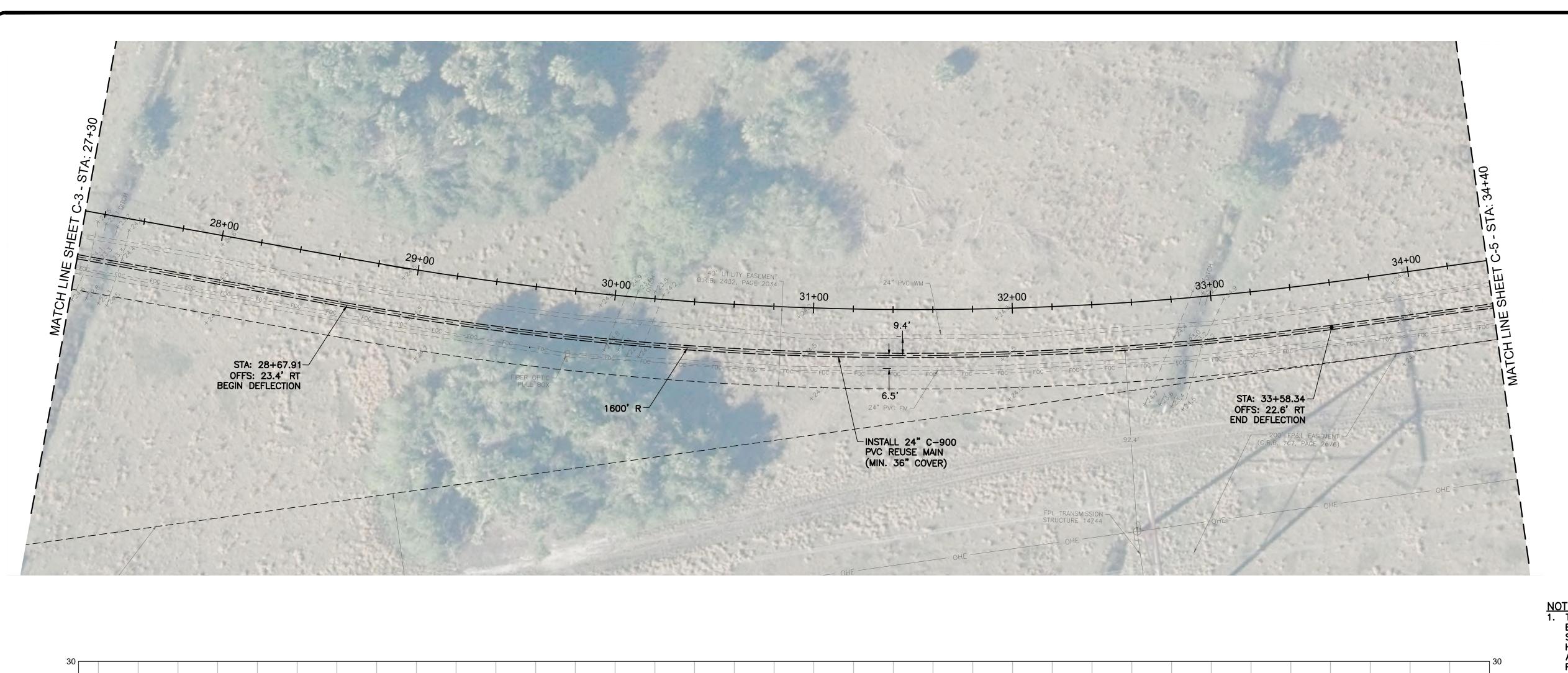
CITY OF PORT ST. LUCIE GLADES TO TRADITION REUSE WATER MAIN PLAN AND PROFILE STA: 20+00 TO STA: 27+30 HOLTZ CONSULTING ENGINEERS, INC.

607 SW ST. LUCIE CRESCENT, SUITE 103
STUART, FLORIDA 34994
PH. (772) 919-4905

Cert. No. 26960

CURTIS D. ROBINSON, P.E.

License No: 65685



EXISTING GRADE -

31+00

PROFILE VIEW - STA: 27+30 TO STA: 34+40

HORIZONTAL SCALE: 1"=30' VERTICAL SCALE: 1"=3'

/─EL.= 19.75



0 30' SCALE: 1" = 30'

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KEY MAP

28+00

_−EL.= 19.75

EXISTING DITCH

36" MIN.

27+30

CITY OF PORT ST. LUCIE GLADES TO TRADITION REUSE WATER MAIN

24" C-900 PVC

REUSE MAIN

EXISTING DITCH -

EL.= 19.75-\

/─EL.= 19.75

29+00

36" MIN.

30+00

PLAN AND PROFILE STA: 27+30 TO STA: 34+40

EXISTING DITCH -

/—EL.= 19.75

32+00

36" MIN.

33+00

/─EL.= 19.75

HOLTZ CONSULTING ENGINEERS, INC.

607 SW ST. LUCIE CRESCENT, SUITE 103
STUART, FLORIDA 34994
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Cert No. 26960

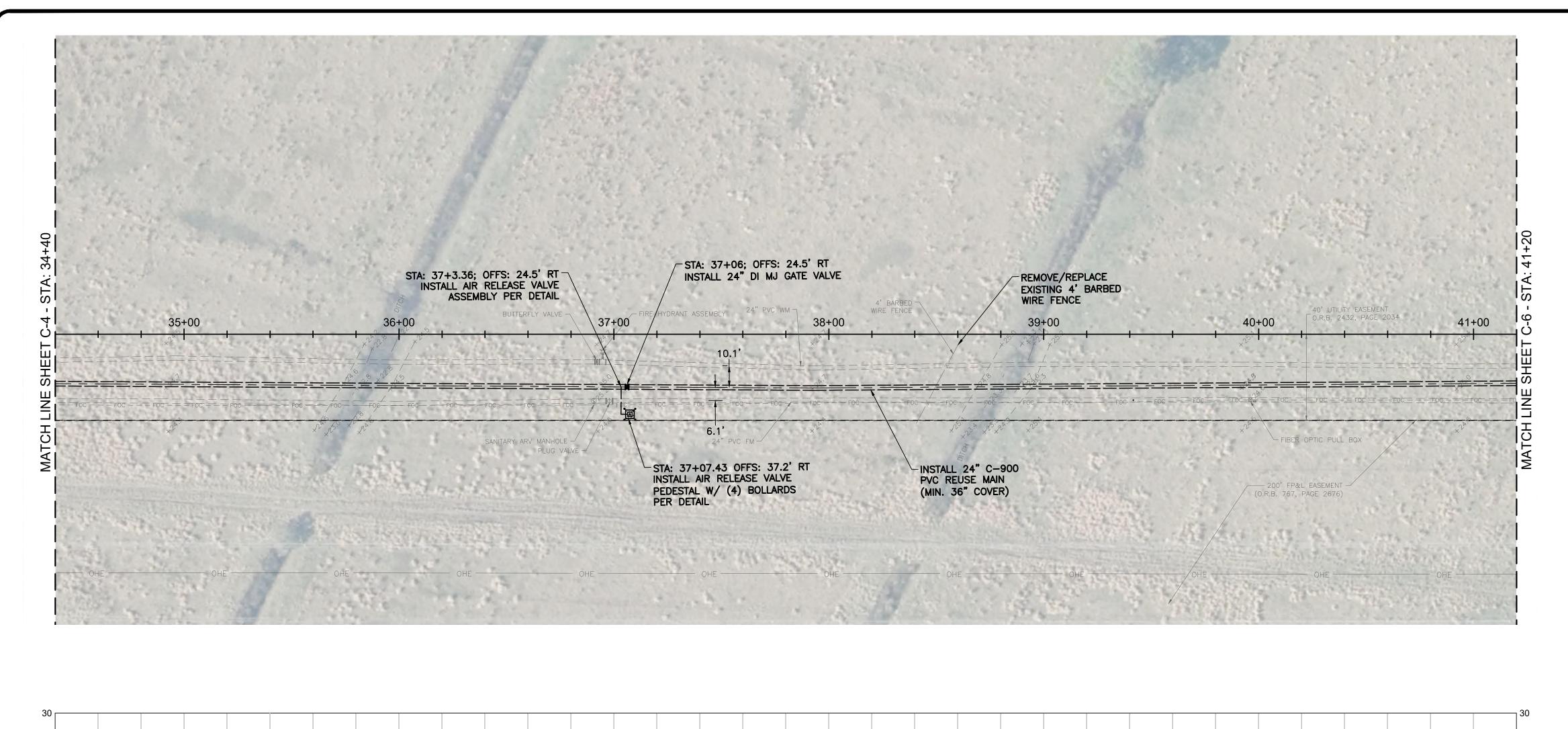
34+40

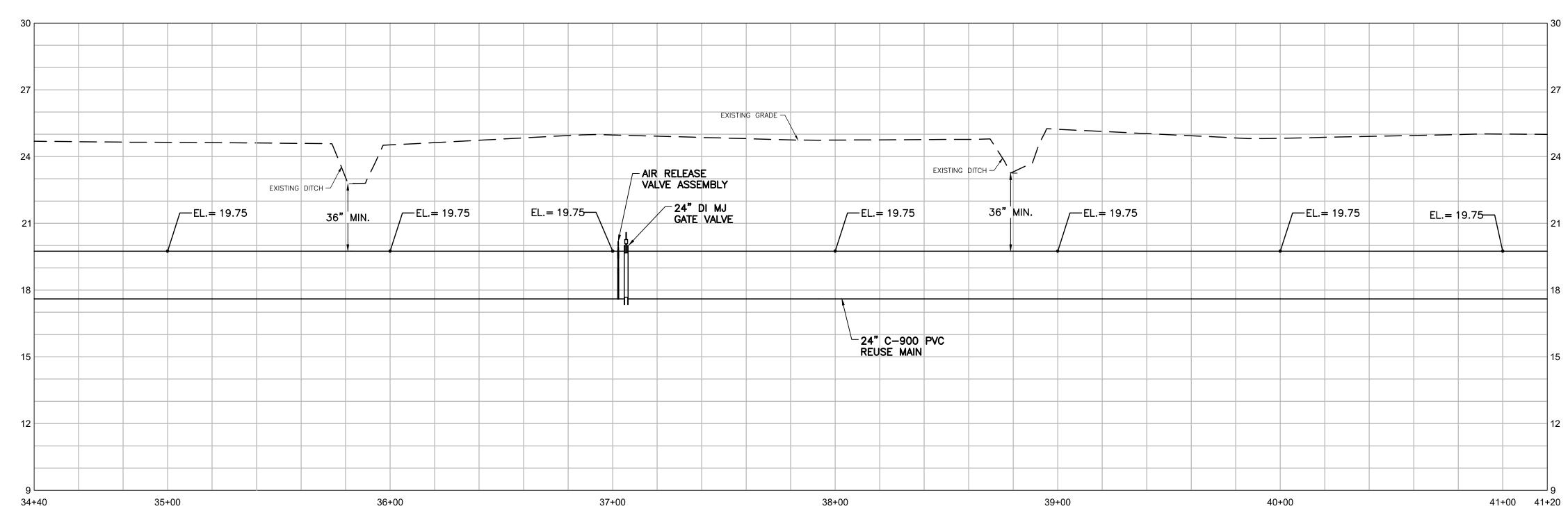
34+00

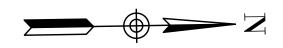
/—EL.= 19.75 |

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License No: 65685









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KEY MAP

Date: <u>10-27-21</u> Scale: AS NOTED Design By: BF Drawn By: RR Check By: DH REV DATE REVISIONS

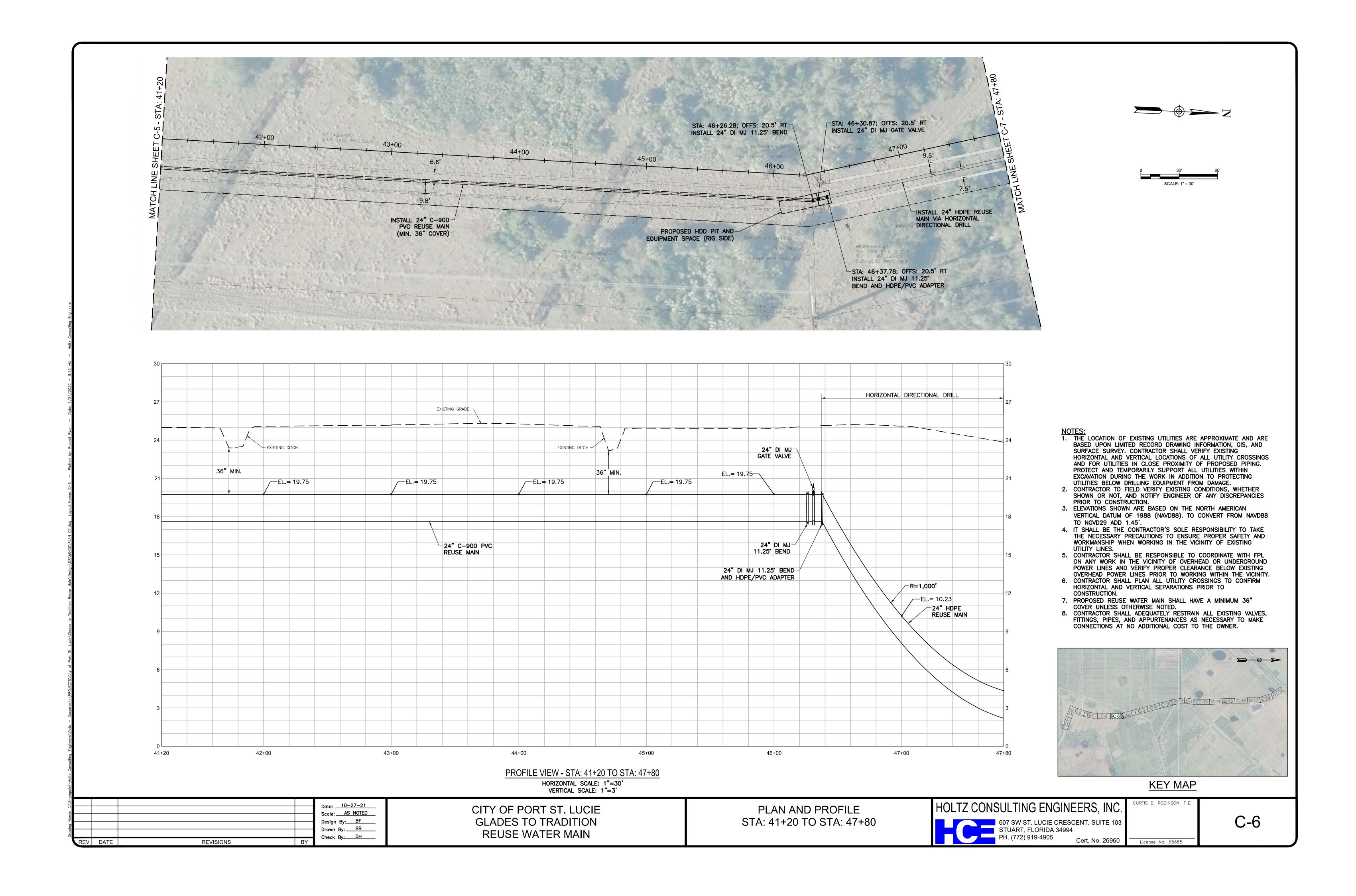
CITY OF PORT ST. LUCIE GLADES TO TRADITION **REUSE WATER MAIN**

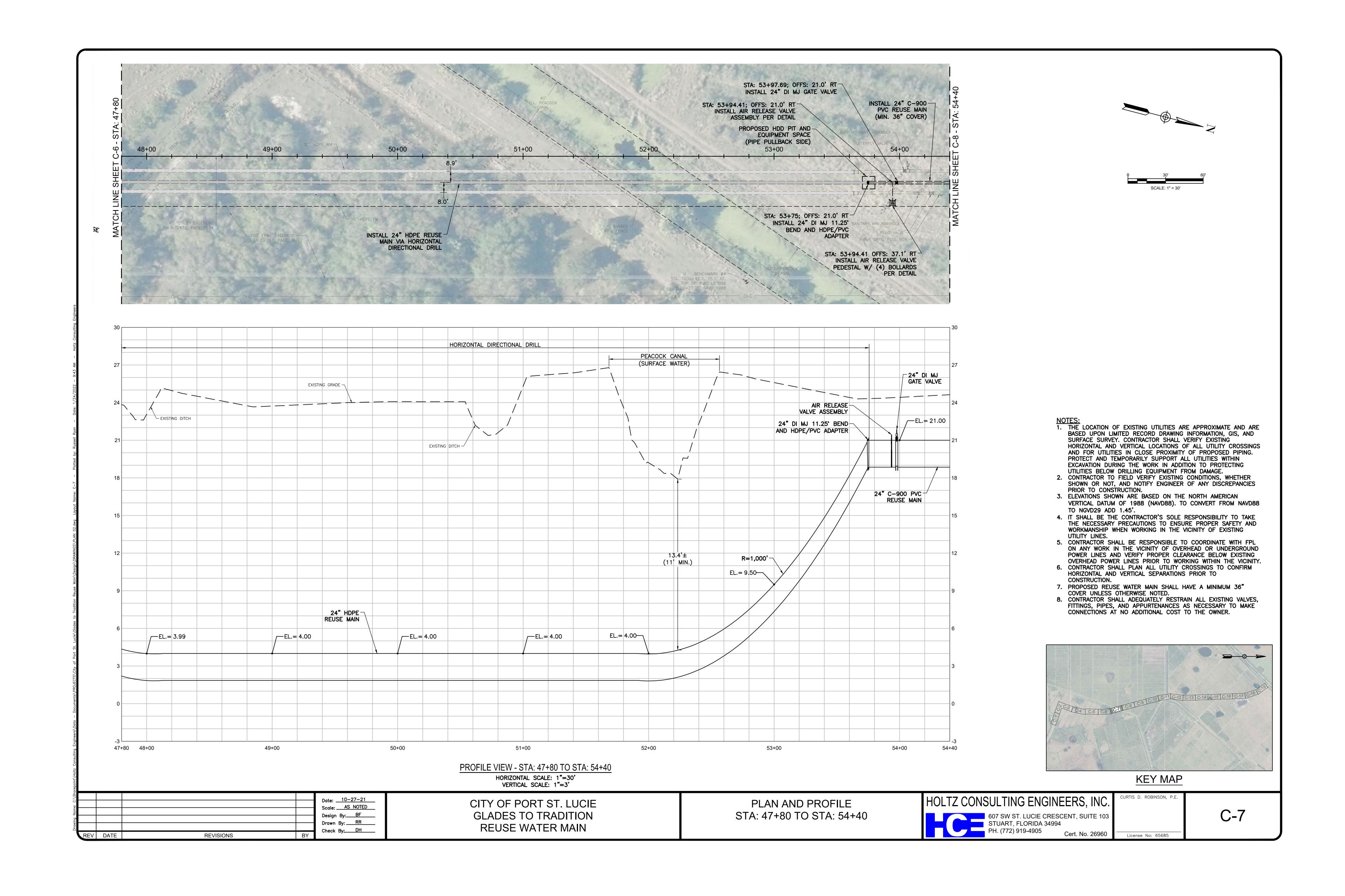
PROFILE VIEW - STA: 34+40 TO STA: 41+20 HORIZONTAL SCALE: 1"=30' VERTICAL SCALE: 1"=3"

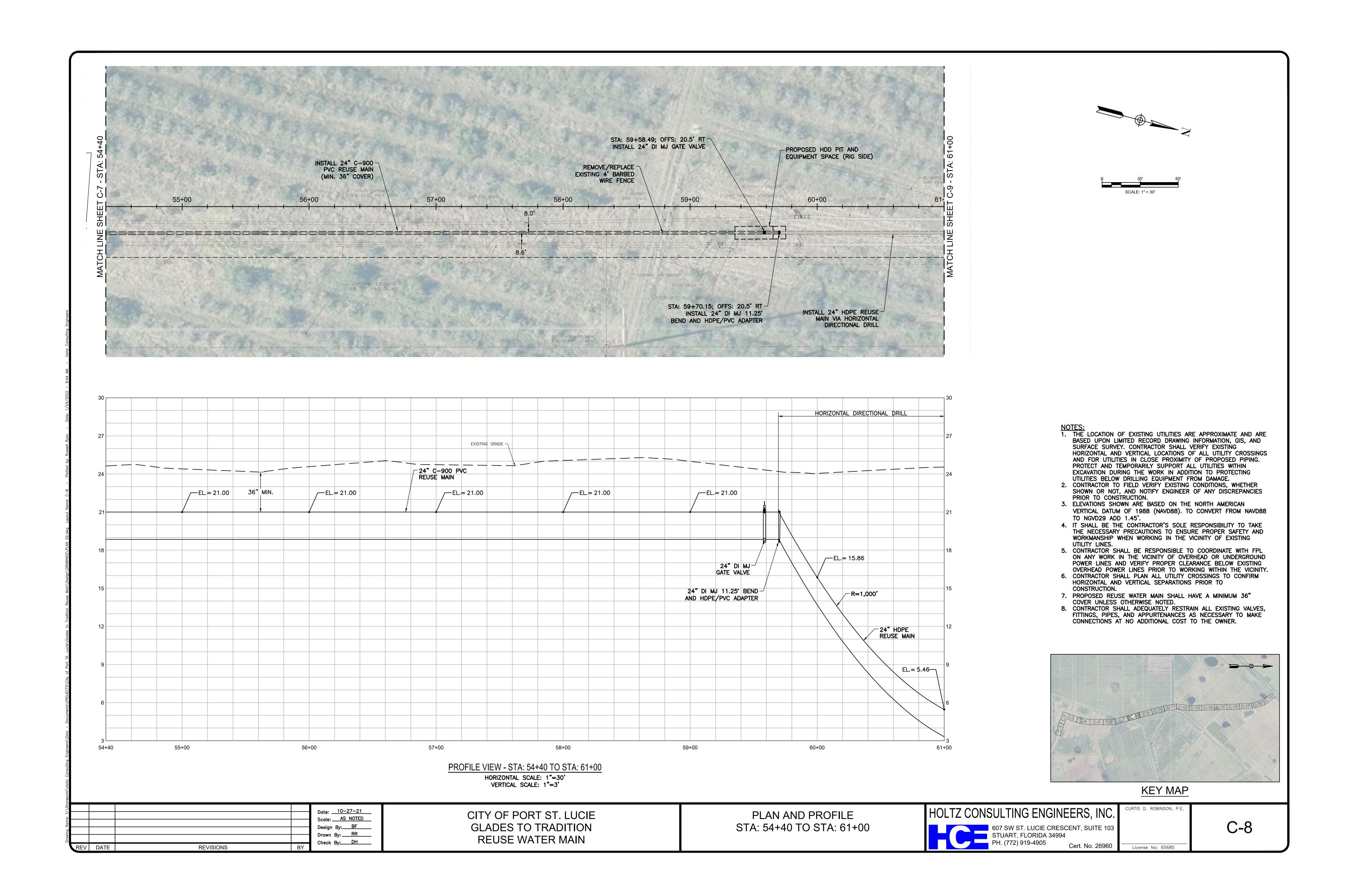
> PLAN AND PROFILE STA: 34+40 TO STA: 41+20

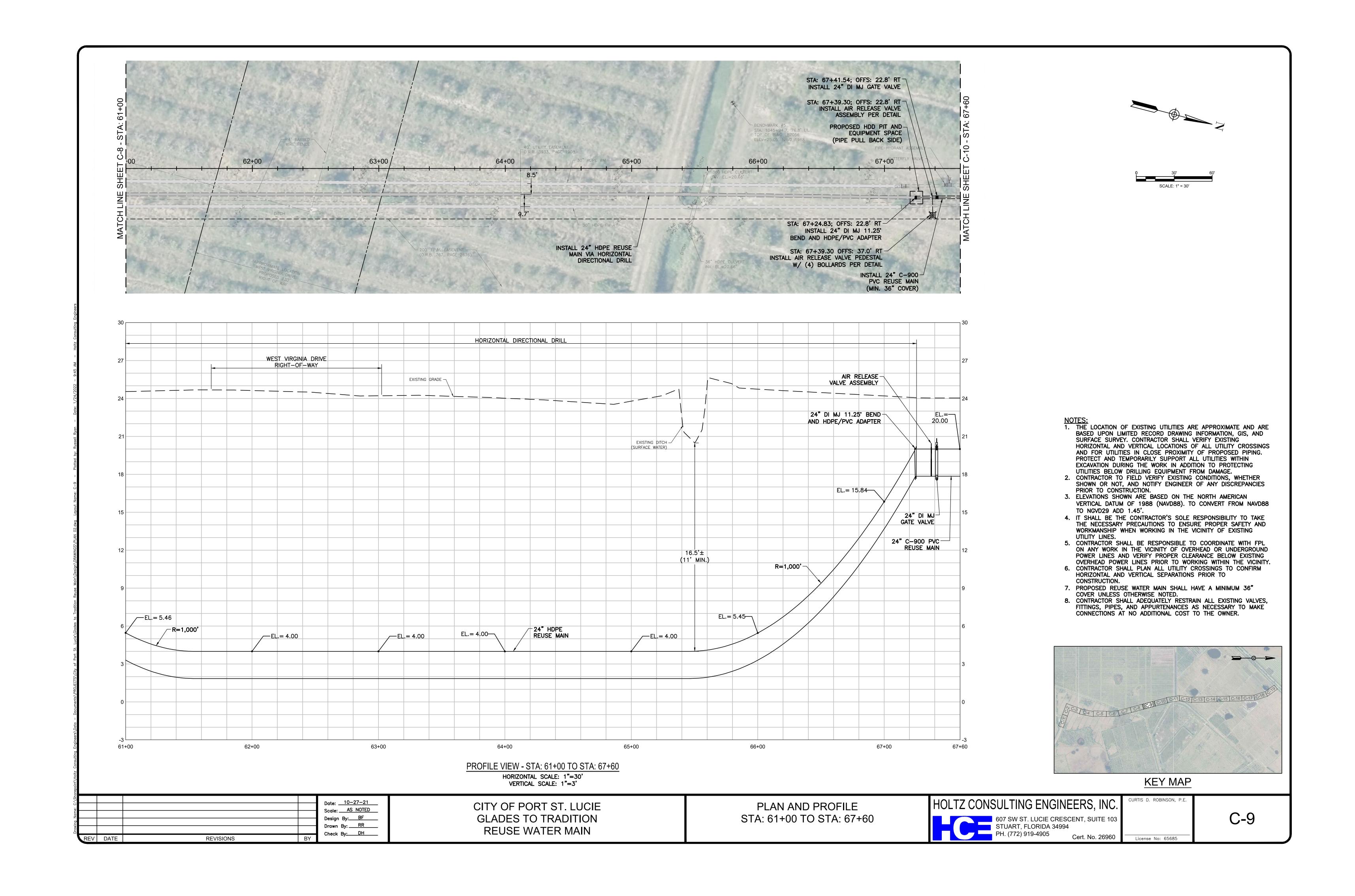
HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905

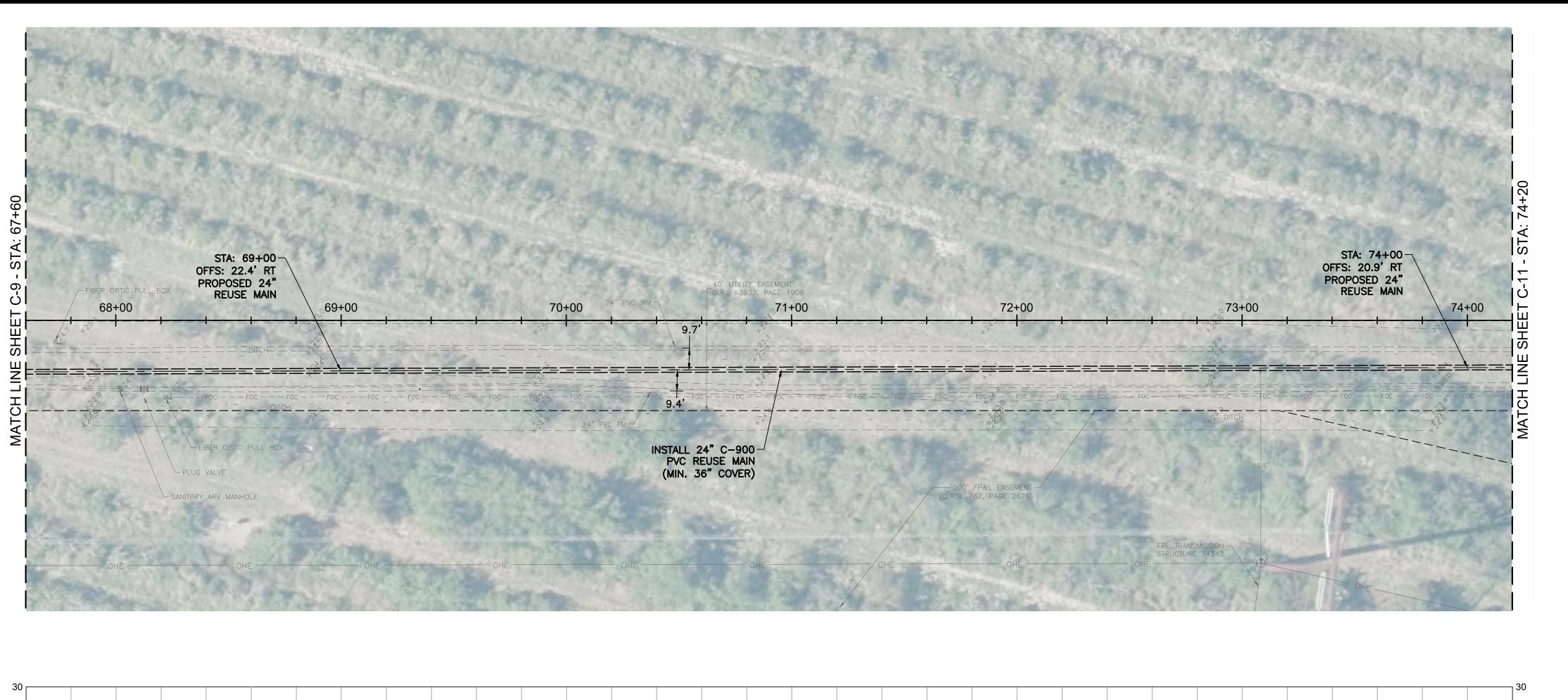
CURTIS D. ROBINSON, P.E. License No: 65685

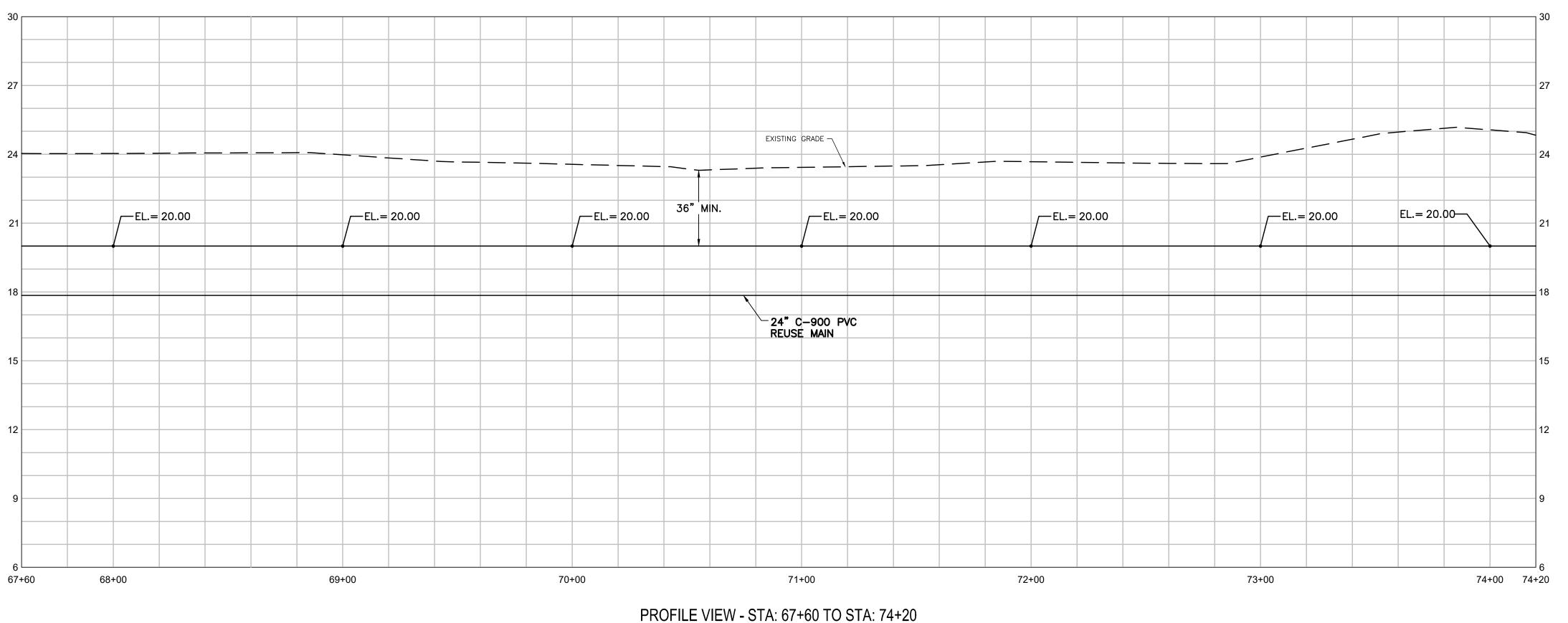












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- 8. CONTRACTOR SHALL ADEQUATELY RESTRAIN ALL EXISTING VALVES, FITTINGS, PIPES, AND APPURTENANCES AS NECESSARY TO MAKE CONNECTIONS AT NO ADDITIONAL COST TO THE OWNER.



KEY MAP

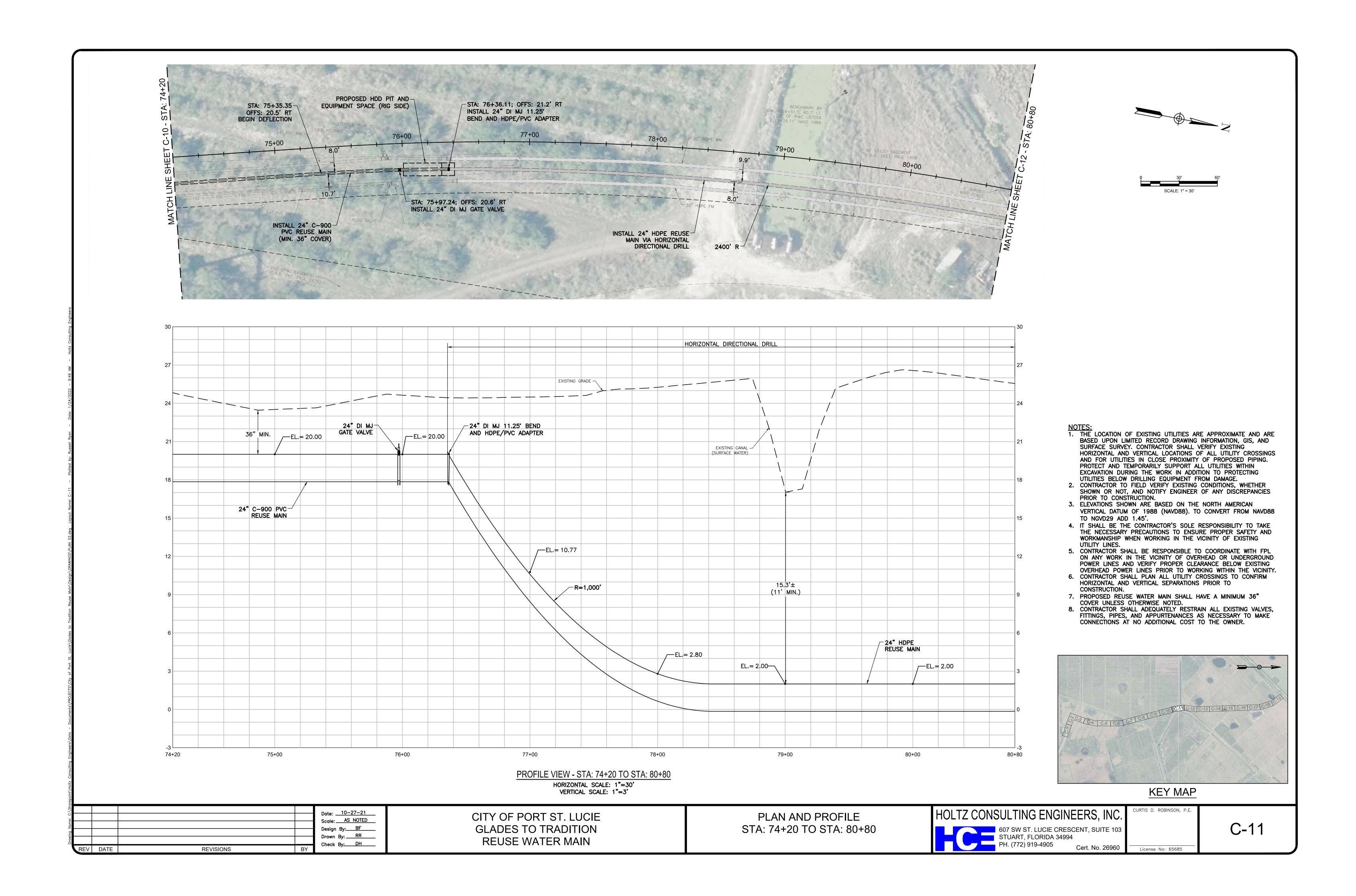
Date: ___10-27-21 Scale: AS NOTED Design By: BF Drawn By: RR Check By: DH REV DATE REVISIONS

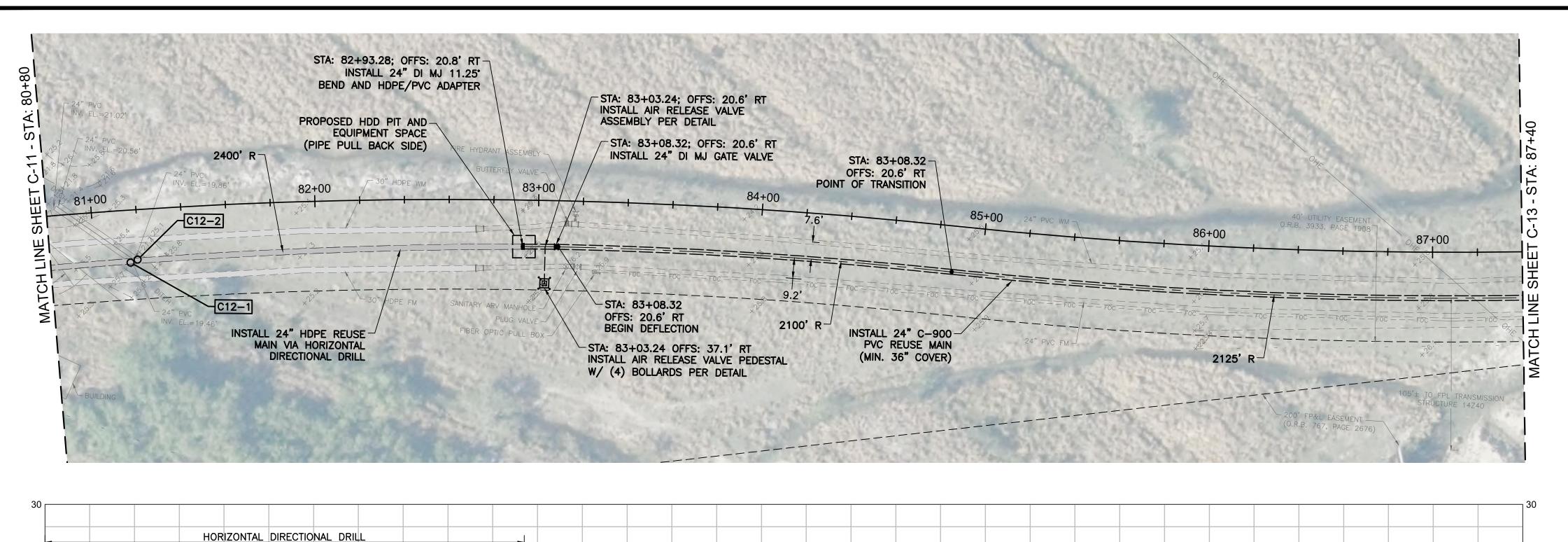
CITY OF PORT ST. LUCIE **GLADES TO TRADITION REUSE WATER MAIN**

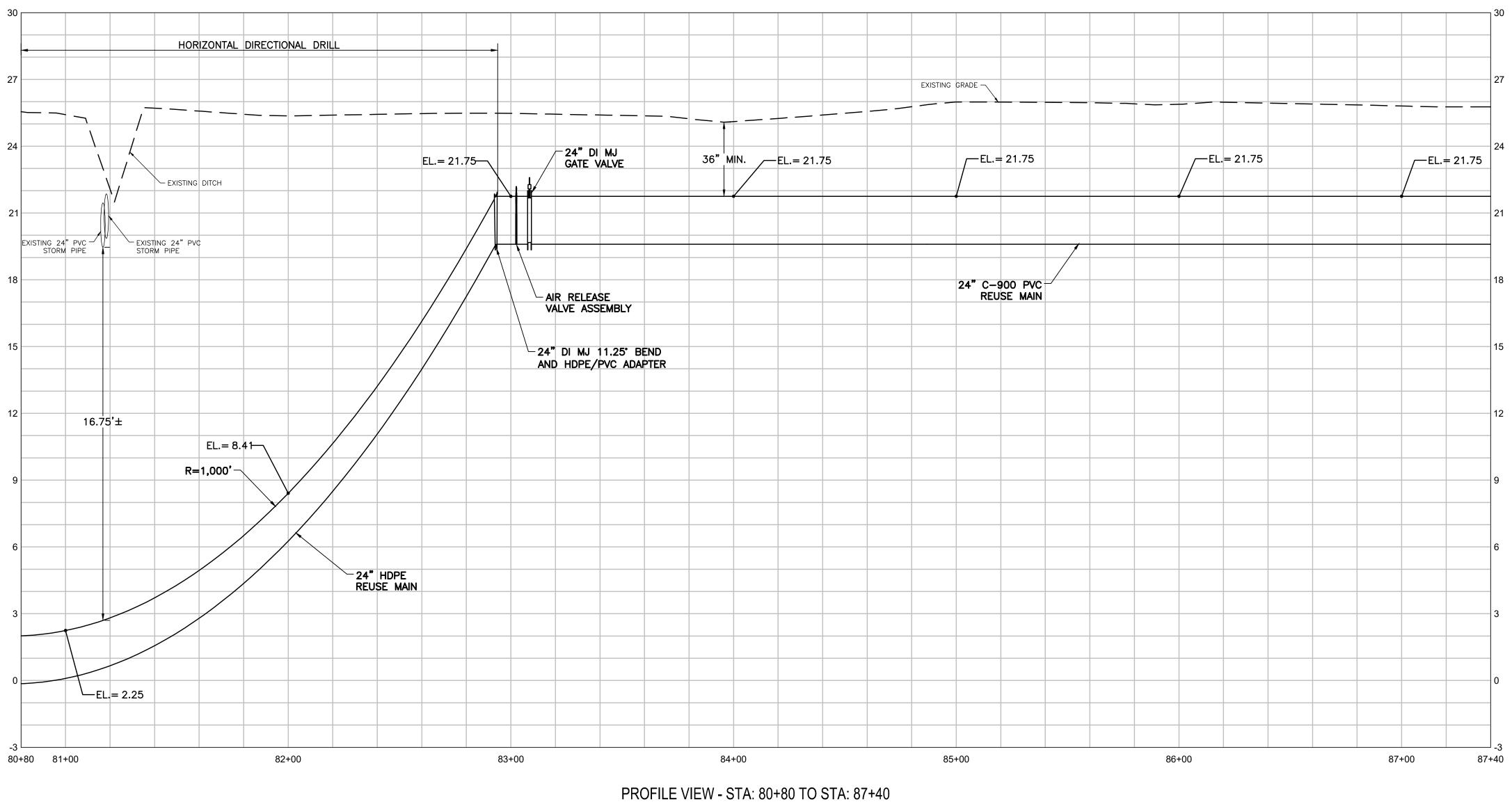
PLAN AND PROFILE STA: 67+60 TO STA: 74+20 HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905

CURTIS D. ROBINSON, P.E.

License No: 65685







HORIZONTAL SCALE: 1"=30' VERTICAL SCALE: 1"=3"

CITY OF PORT ST. LUCIE

GLADES TO TRADITION

REUSE WATER MAIN

Date: <u>10-27-21</u>

Design By: BF

Scale: AS NOTED

Drawn By: RR

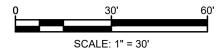
Check By: DH

BY

REV DATE

REVISIONS





	WATER REUSE MAIN CROSSING TABLE											
CONFLICT	CONFLICT PIPE	ELEVATION	PROPOSED RWM	UNDER/ OVER	CLEARANCE	ELEVATION						
C12-1	24" STORM	BOP 19.5	8" HDPE	UNDER	16.75'	TOP 2.75						
C12-2	24" STORM	BOP 19.9	8" HDPE	UNDER	17.15'	TOP 2.75						

- NOTES:

 1. THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND ARE BASED UPON LIMITED RECORD DRAWING INFORMATION, GIS, AND SURFACE SURVEY. CONTRACTOR SHALL VERIFY EXISTING HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITY CROSSINGS AND FOR UTILITIES IN CLOSE PROXIMITY OF PROPOSED PIPING. PROTECT AND TEMPORARILY SUPPORT ALL UTILITIES WITHIN EXCAVATION DURING THE WORK IN ADDITION TO PROTECTING
- UTILITIES BELOW DRILLING EQUIPMENT FROM DAMAGE.

 2. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, WHETHER SHOWN OR NOT, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 3. ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT FROM NAVD88 TO NGVD29 ADD 1.45'.
- 4. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO TAKE THE NECESSARY PRECAUTIONS TO ENSURE PROPER SAFETY AND WORKMANSHIP WHEN WORKING IN THE VICINITY OF EXISTING
- UTILITY LINES. 5. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH FPL ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND POWER LINES AND VERIFY PROPER CLEARANCE BELOW EXISTING
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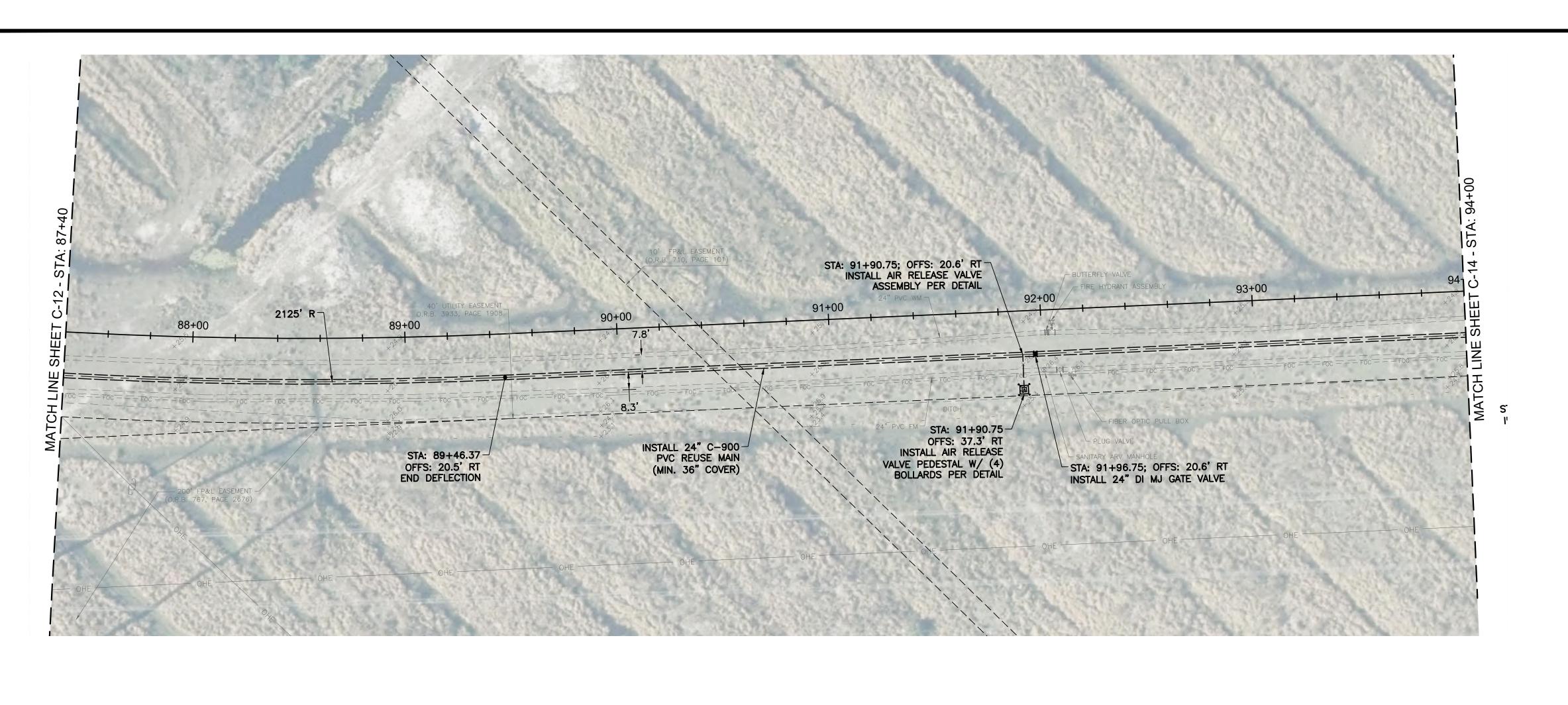
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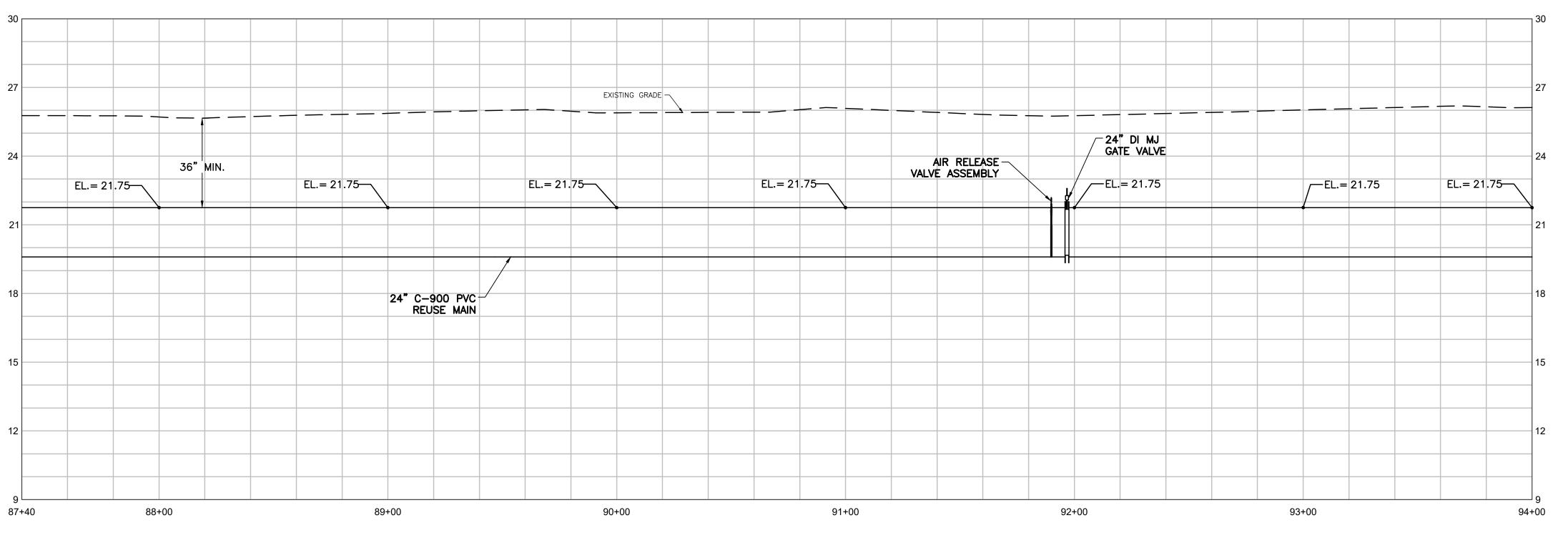
CURTIS D. ROBINSON, P.E.

License No: 65685

HOLTZ CONSULTING ENGINEERS, INC. PLAN AND PROFILE STA: 80+80 TO STA: 87+40

607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905





PROFILE VIEW - STA: 87+40 TO STA: 94+00 HORIZONTAL SCALE: 1"=30' VERTICAL SCALE: 1"=3"

CITY OF PORT ST. LUCIE **GLADES TO TRADITION REUSE WATER MAIN**

Date: <u>10-27-21</u>

Design By: BF

Scale: AS NOTED

Drawn By: RR

Check By: DH

REV DATE

REVISIONS

PLAN AND PROFILE STA: 87+40 TO STA: 94+00



CURTIS D. ROBINSON, P.E. License No: 65685

C-13

D 0 >

HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103

NOTES:

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CONNECTIONS AT NO ADDITIONAL COST TO THE OWNER.

POWER LINES AND VERIFY PROPER CLEARANCE BELOW EXISTING OVERHEAD POWER LINES PRIOR TO WORKING WITHIN THE VICINITY.

3. ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN

PRIOR TO CONSTRUCTION.

TO NGVD29 ADD 1.45'.

UTILITY LINES.

CONSTRUCTION.

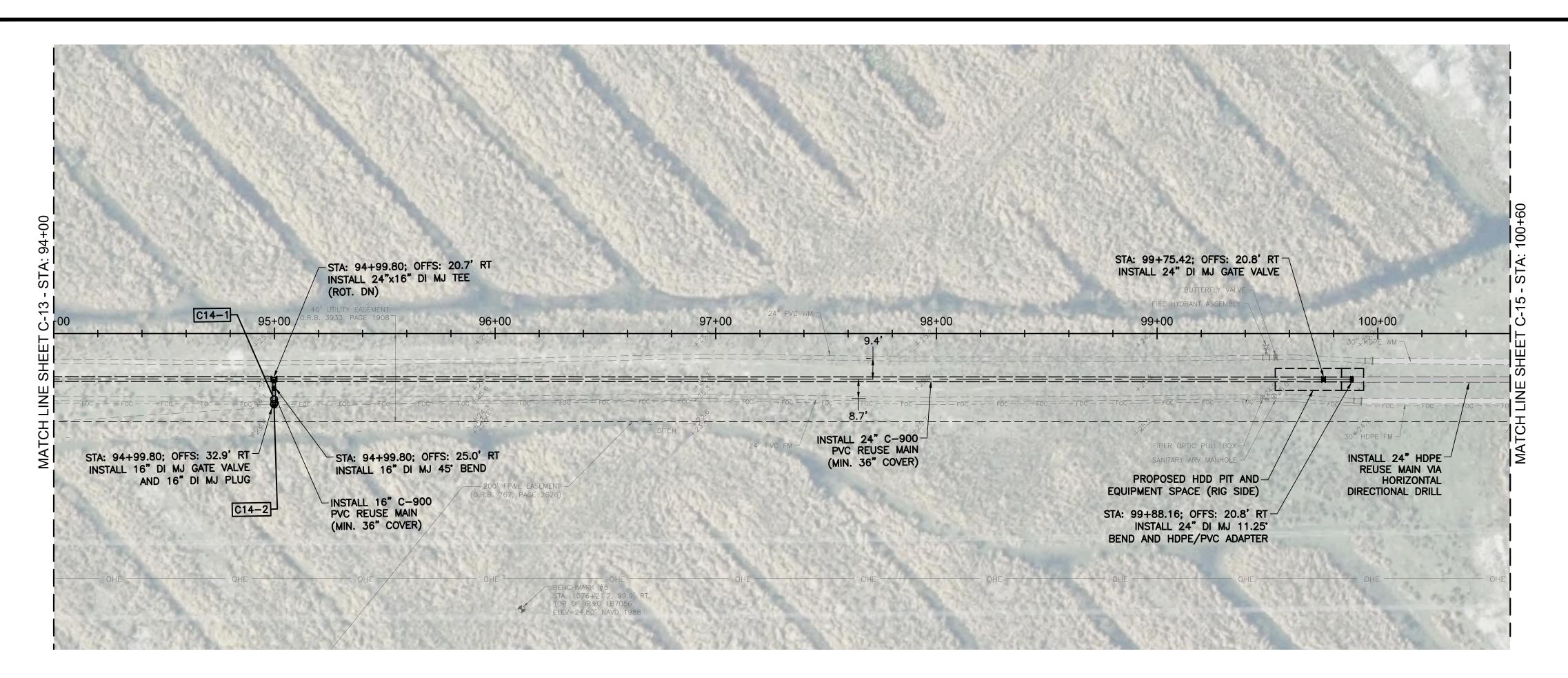
COVER UNLESS OTHERWISE NOTED.

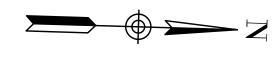
HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITY CROSSINGS AND FOR UTILITIES IN CLOSE PROXIMITY OF PROPOSED PIPING. PROTECT AND TEMPORARILY SUPPORT ALL UTILITIES WITHIN

VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT FROM NAVD88

SURFACE SURVEY. CONTRACTOR SHALL VERIFY EXISTING

KEY MAP







WATER REUSE MAIN CROSSING TABLE											
CONFLICT	CONFLICT PIPE	ELEVATION	PROPOSED RWM	UNDER/ OVER	CLEARANCE	ELEVATION					
C14-1	24" FM	BOP 17.5	16" PVC	UNDER	0.5'	TOP 17.0					
C14-2	2" FOC	BOP 19.3	16" PVC	UNDER	2.3'	TOP 17.0					

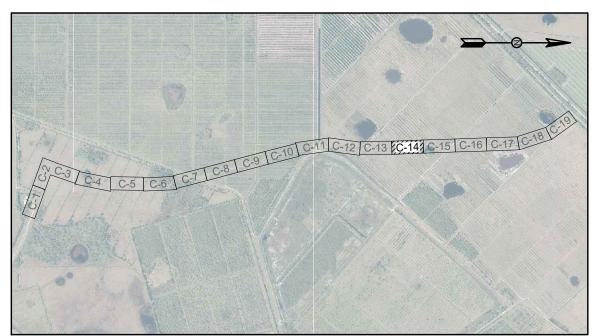
HORIZONTAL DIRECTIONAL / 24"x16" DI MJ TEE 36" MIN. ∕—EL.= 21.75 __EL.= 21.75 ∕—EL.= 21.75 *,*—EL.≠ 21.75 EL.= 21.75 EL.= 21.75— ∕—EL.= 19.77 _R=1,200' 24" C-900 PVC REUSE MAIN 24" DI MJ — GATE VALVE 24" DI MJ 11.25" BEND-AND HDPE/PVC ADAPTER 24" HDPE REUSE MAIN 95+00 96+00 97+00 99+00 100+00 100+60 94+00 98+00

> PROFILE VIEW - STA: 94+00 TO STA: 100+60 HORIZONTAL SCALE: 1"=30' VERTICAL SCALE: 1"=3"

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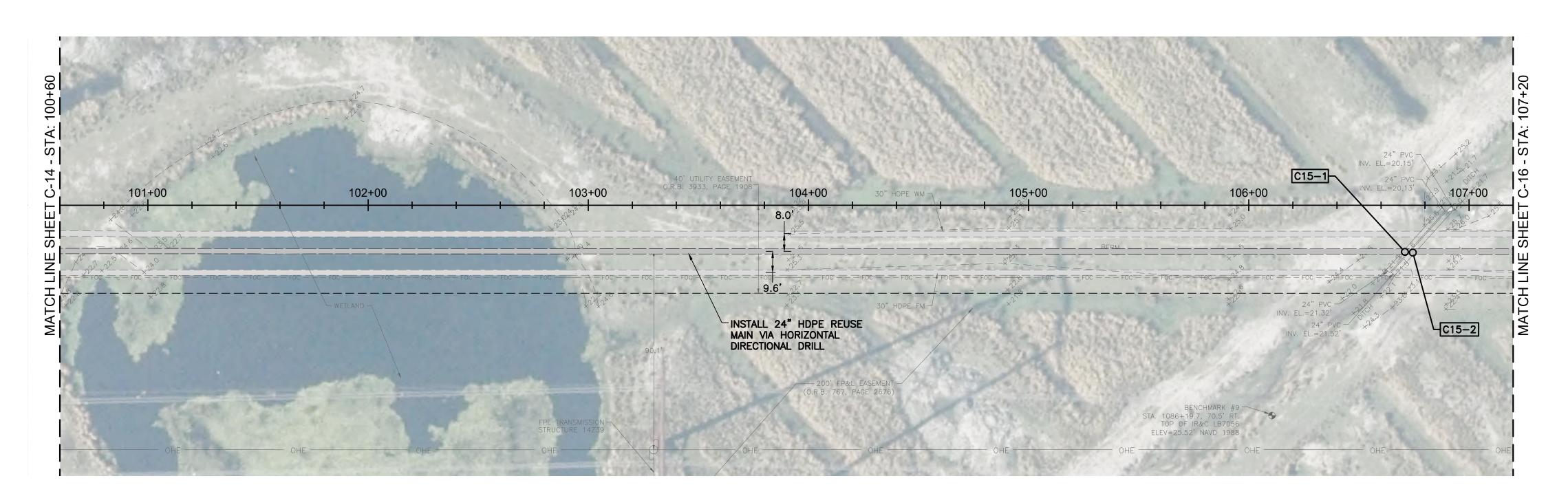
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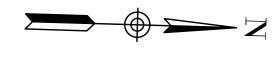
Date: <u>10-27-21</u> Scale: AS NOTED Design By: BF Drawn By: RR Check By: DH REV DATE REVISIONS

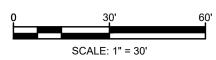
CITY OF PORT ST. LUCIE GLADES TO TRADITION **REUSE WATER MAIN**

PLAN AND PROFILE STA: 94+00 TO STA: 100+60 HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905

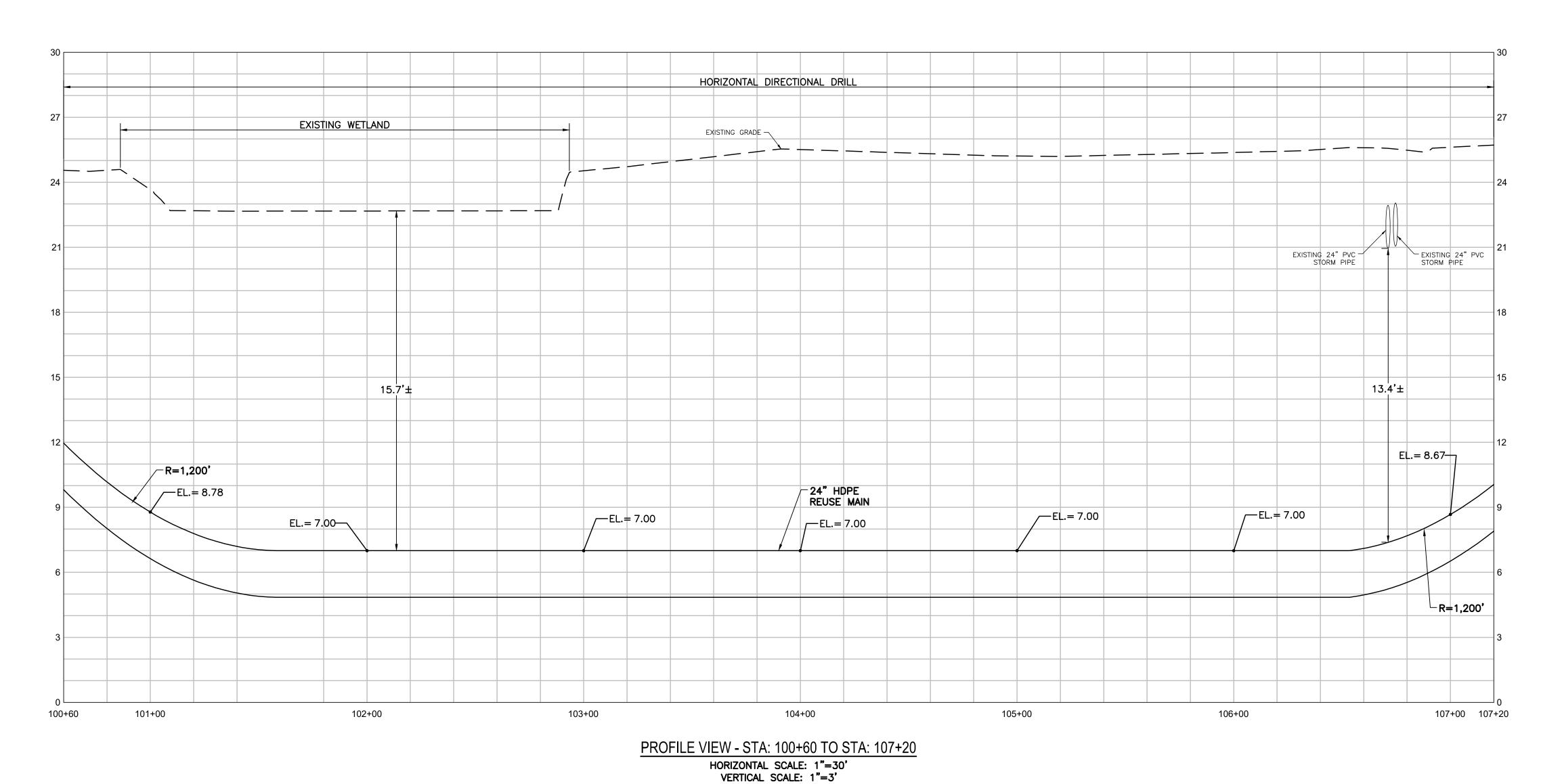
CURTIS D. ROBINSON, P.E. License No: 65685







WATER REUSE MAIN CROSSING TABLE									
CONFLICT	CONFLICT PIPE	ELEVATION	PROPOSED RWM	UNDER/ OVER	CLEARANCE	ELEVATION			
C15-1	C15-1 24" STORM BOP 20.9		8" HDPE	UNDER	13.4'	TOP 7.5			
C15-2	24" STORM	BOP 21.0	8" HDPE	UNDER	13.5'	TOP 7.5			



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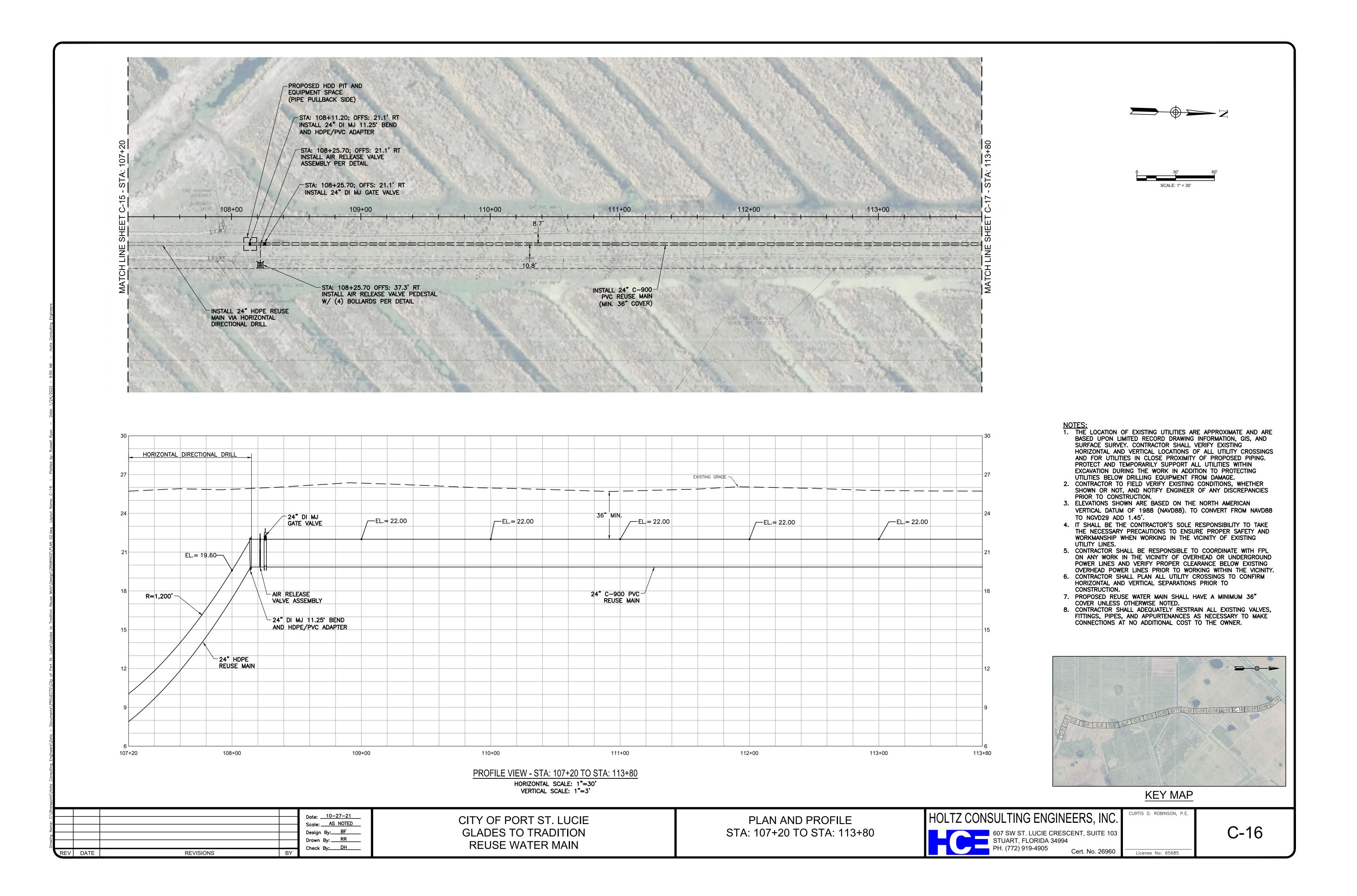
KEY MAP

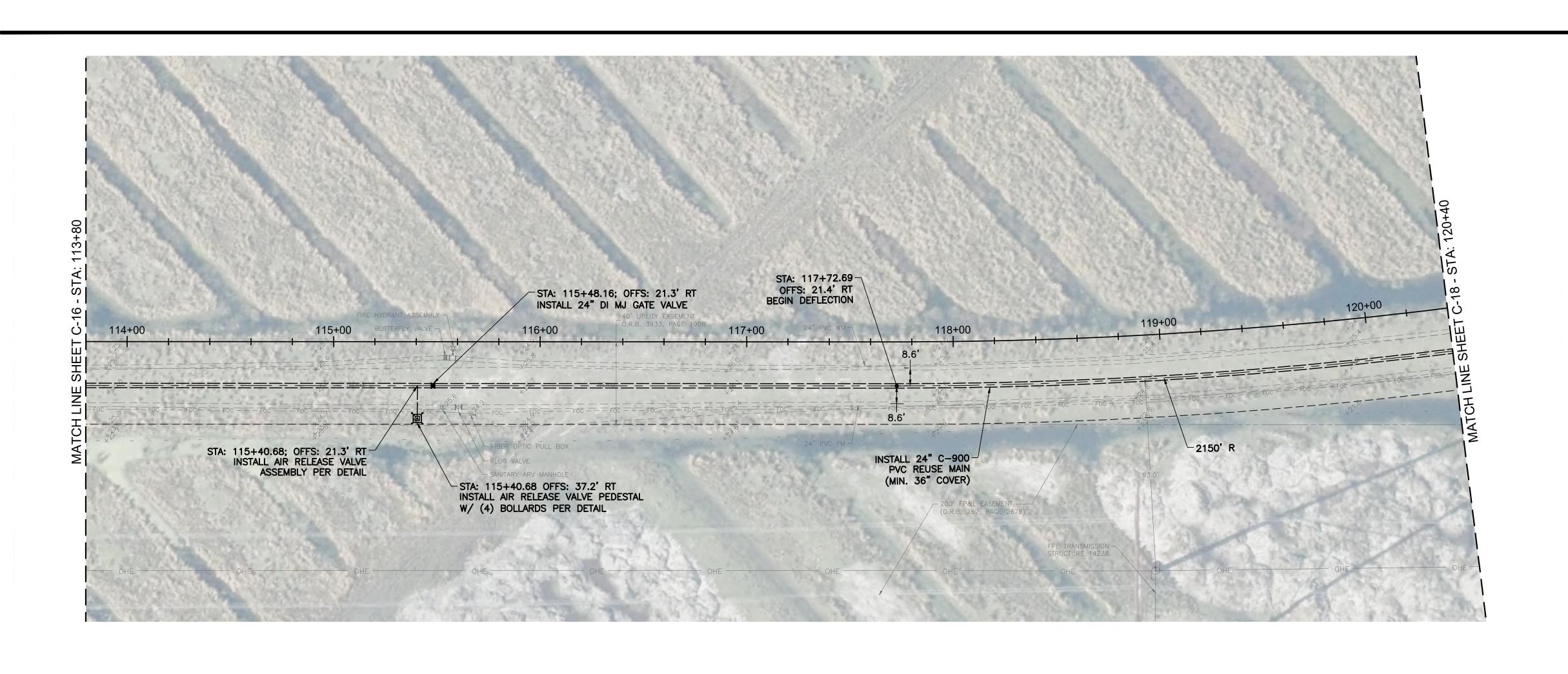
Date: ___10-27-21 Scale: AS NOTED Design By: BF Drawn By: RR Check By: DH REV DATE REVISIONS

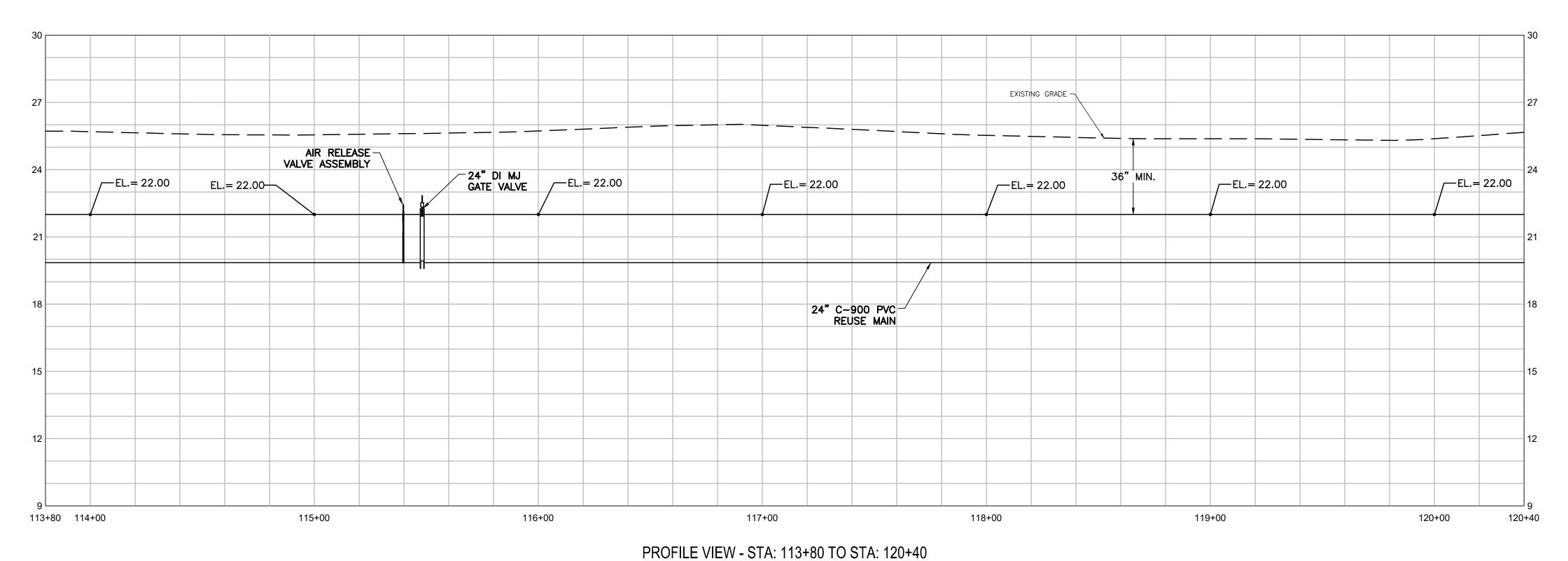
CITY OF PORT ST. LUCIE GLADES TO TRADITION **REUSE WATER MAIN**

PLAN AND PROFILE STA: 100+60 TO STA: 107+20 HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905

CURTIS D. ROBINSON, P.E. License No: 65685







HORIZONTAL SCALE: 1"=30' VERTICAL SCALE: 1"=3"





- NOTES:

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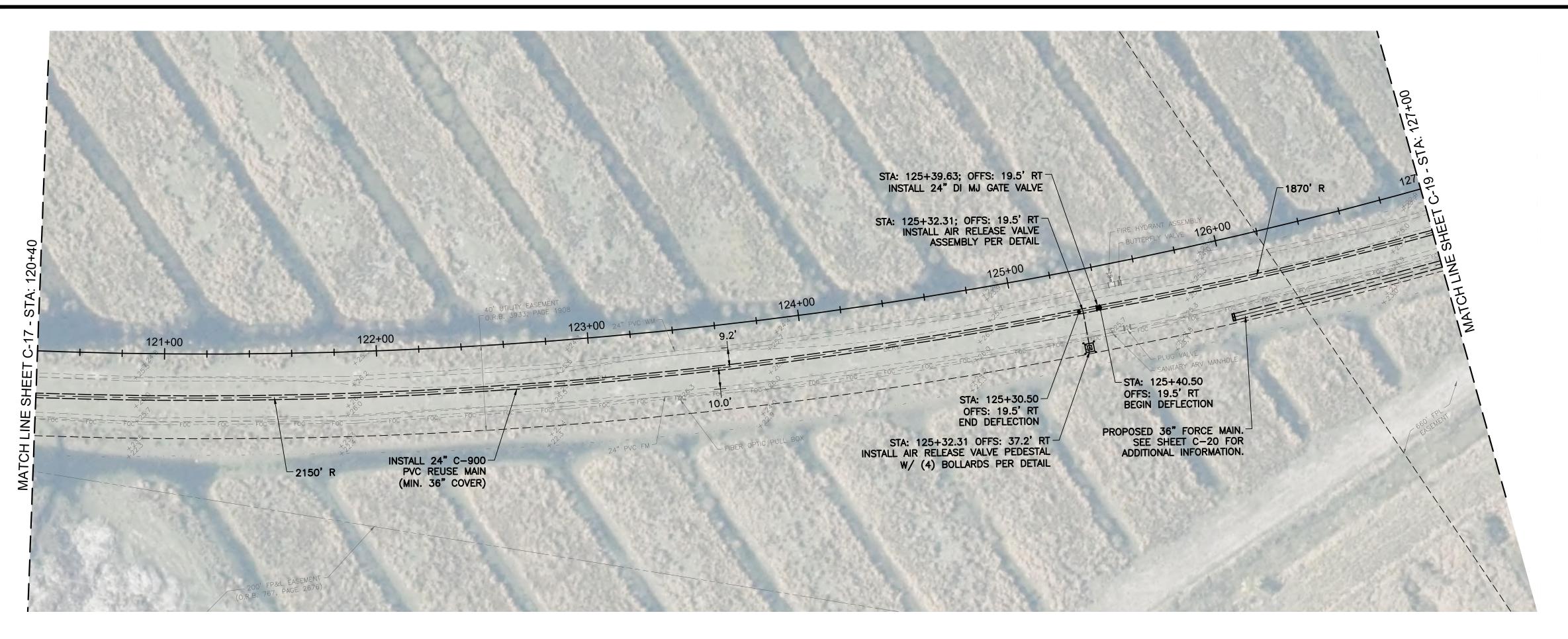
KEY MAP

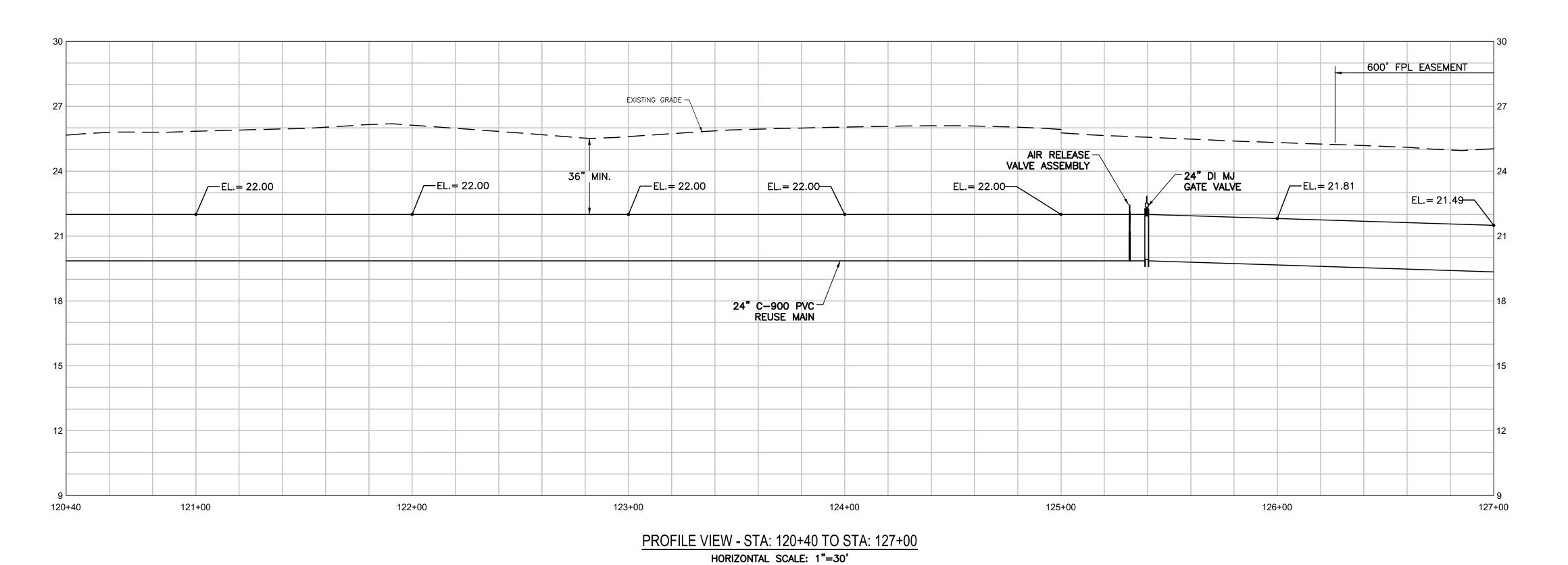
Date: ___10-27-21 Scale: AS NOTED Design By: BF Drawn By: RR Check By: DH REV DATE REVISIONS

CITY OF PORT ST. LUCIE **GLADES TO TRADITION REUSE WATER MAIN**

PLAN AND PROFILE STA: 113+80 TO STA: 120+40 HOLTZ CONSULTING ENGINEERS, INC. 607 SW ST. LUCIE CRESCENT, SUITE 103 STUART, FLORIDA 34994 PH. (772) 919-4905

CURTIS D. ROBINSON, P.E. License No: 65685





VERTICAL SCALE: 1"=3"

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KEY MAP

				Date: 10-27-21 Scale: AS NOTED Design By: BF Drawn By: RR Check By: DH
REV	DATE	REVISIONS	BY	Olicon Dy. Dir

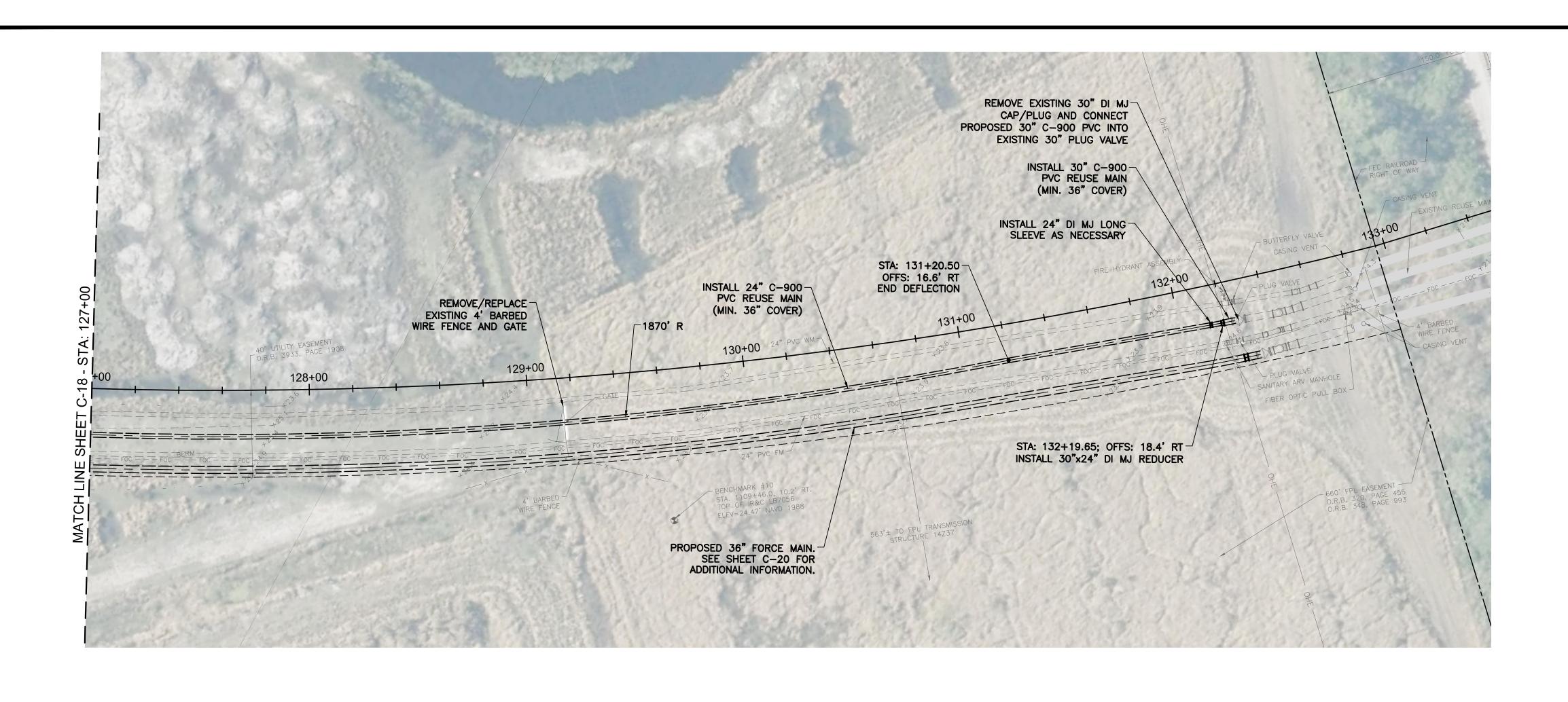
CITY OF PORT ST. LUCIE **GLADES TO TRADITION REUSE WATER MAIN**

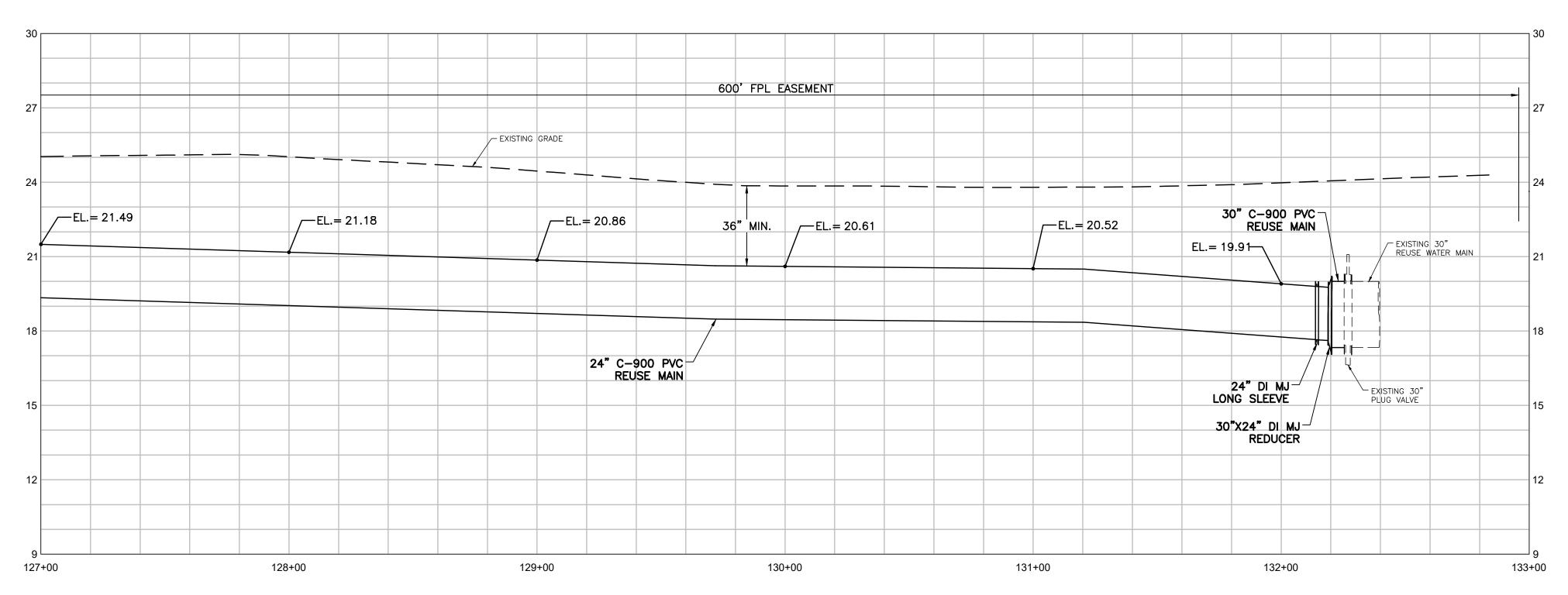
PLAN AND PROFILE STA: 120+40 TO STA: 127+00



CURTIS D. ROBINSON, P.E.

License No: 65685





PROFILE VIEW - STA: 127+00 TO STA: 133+00

HORIZONTAL SCALE: 1"=30"

VERTICAL SCALE: 1"=3"

CITY OF PORT ST. LUCIE GLADES TO TRADITION REUSE WATER MAIN

Date: <u>10-27-21</u>

Design By: BF

Scale: AS NOTED

Drawn By: RR

Check By: DH

REV DATE

REVISIONS

PLAN AND PROFILE STA: 127+00 TO STA: 133+00 CURTIS D. ROBINSON, P.E.

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License No: 65685

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HOLTZ CONSULTING ENGINEERS, INC.

607 SW ST. LUCIE CRESCENT, SUITE 103
STUART, FLORIDA 34994
PH. (772) 919-4905
Cert. No. 26960

CY C-3 C-4 C-5 C-6 C-7 C-8 C-9 C-10 C-11 C-12

PRIOR TO CONSTRUCTION.

TO NGVD29 ADD 1.45'.

UTILITY LINES.

CONSTRUCTION.

COVER UNLESS OTHERWISE NOTED.

KEY MAP

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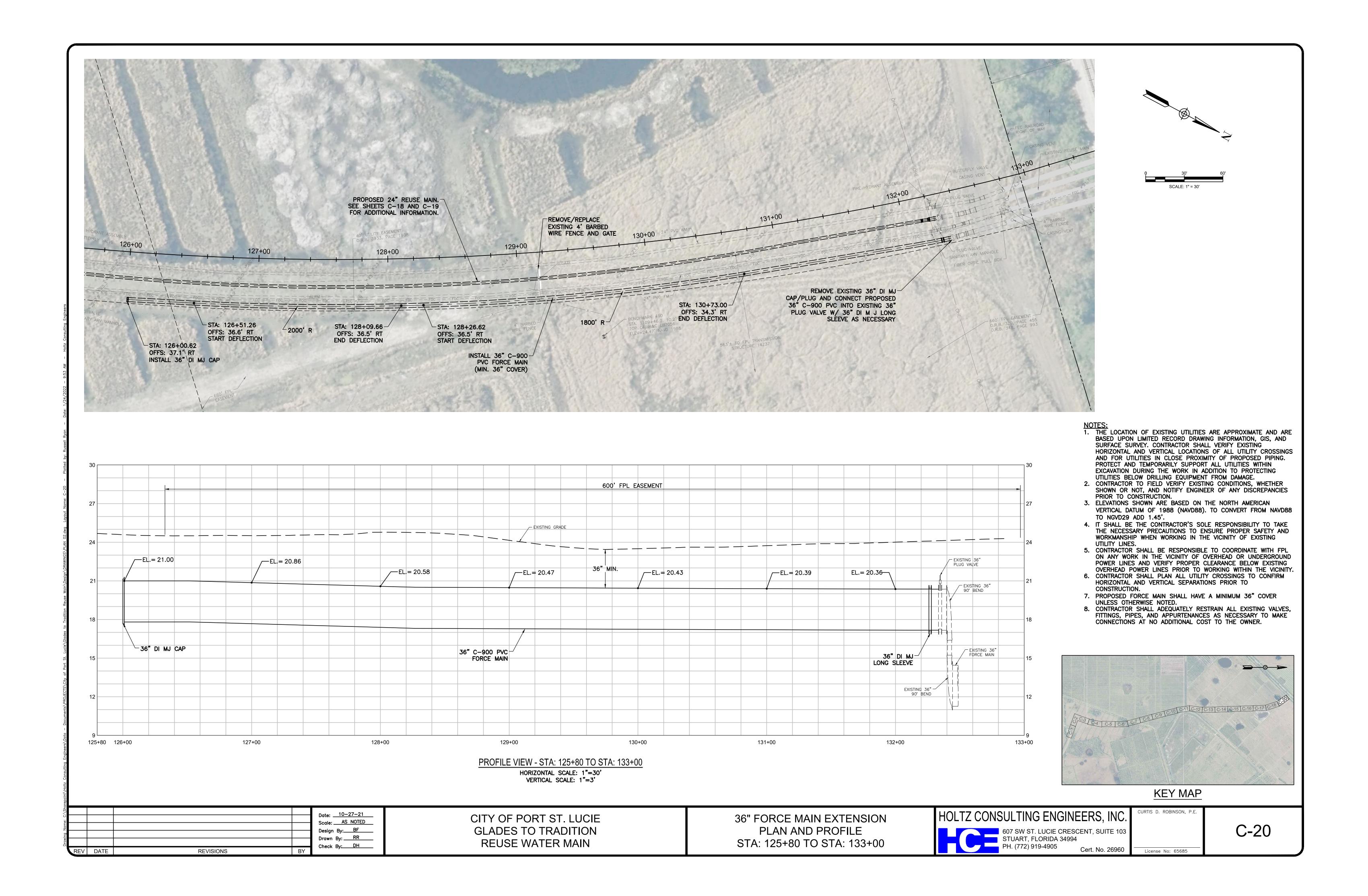
CONNECTIONS AT NO ADDITIONAL COST TO THE OWNER.

POWER LINES AND VERIFY PROPER CLEARANCE BELOW EXISTING

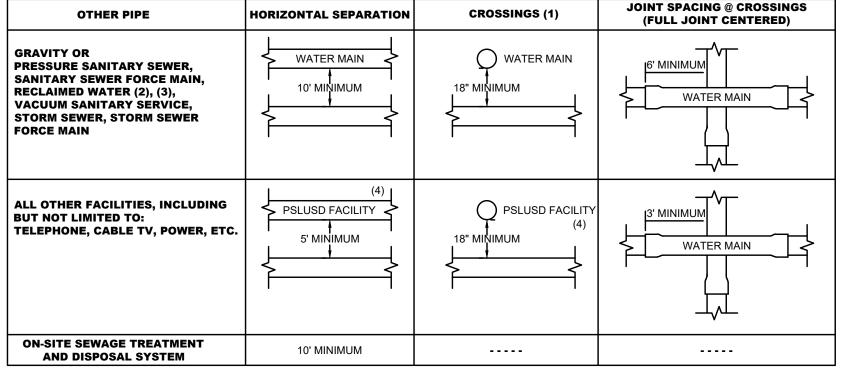
OVERHEAD POWER LINES PRIOR TO WORKING WITHIN THE VICINITY.

SURFACE SURVEY. CONTRACTOR SHALL VERIFY EXISTING

ONCHI TING ENGINEEDS INC CURTIS D. ROI



MINIMUM SEPARATION BETWEEN PSLUSD FACILITIES AND OTHER UTILITIES



- (1) WATER MAIN SHOULD CROSS OVER OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 18"
- (2) RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

SEE TYPICAL VALVE

-2" PACK JOINT

90° SWEEP

BOX & COLLAR-DETAIL THIS SHEET

- (3) RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- (4) A PSLUSD FACILITY INCLUDES MAINS AND STRUCTURES FOR POTABLE WATER, WASTEWATER AND RECLAIMED WATER.

1-14" TYPE S-1 A.C.S.C. ON-

1-1/4" TYPE S-1 A.C.S.C.

COMPACTED TO 98% MAXIMUM DENSITY

AS DETERMINED BY AASHTO T-180

STANDARD SEPARATION REQUIREMENTS

_12" LIME ROCK BASE

-PVC STREET ELL

STAINLESS STEEL

10" COIL/PIGTAIL LOCATE WIRE LOOP

-2" STAINLESS

-#57 STONE W/

FILTER FABRIC

STEEL BALL VALVE

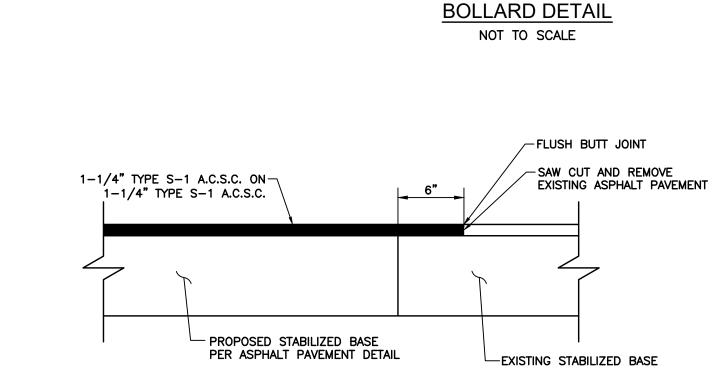
-2" STAINLESS STEEL

-2" PACK JOINT 90°

-4" PVC CASING

(LBR 100 MIN.)

NOT TO SCALE



ROUNDED CONCRETE OR CAP-

6" SCH 40 STEEL

PIPE OR DIP FILLED_

ONE COAT OF PRIMER AND TWO

COATS OF SAFETY YELLOW PAINT

SLOPE CONCRETE TO DRAIN-

EXISTING GRADE—

0.35 YD3 CONC. MIN.

(3000 P.S.I.)

WITH AND SET

IN CONCRETE

NOTE: PROVIDE PRIME COAT BETWEEN BASE AND ASPHALT AND TACK COAT BETWEEN ASPHALT LIFTS

12" COMPACTED SUBGRADE -

ASPHALT PAVEMENT DETAIL NOT TO SCALE

GREEN PEDESTAL HOUSING (QPL)

S.S. POST, HARDWARE

2" GATE

← VALVE

-2" CORP. STOP AT TOP OF PIPE

" DOUBLE STRAP

TAPPING SADDLE LOCATE WIRE

FORCE MAIN

AND LOCKING HASP-

W/ BRASS LOCK

2" POLY-TUBE

1. ALL AIR RELEASE VALVES SHALL BE INSTALLED IN ACCORDANCE WITH THIS DETAIL. FORCE MAIN AIR VALVE

2. AIR VALVE, PIPING AND APPURTENANCES SHALL BE IN ACCORDANCE WITH PSLUSD UTILITY STANDARDS.

3. THE AIR VALVE SHALL BE SIZED BY THE ENGINEER-OF-RECORD (EOR) BASED ON MANUFACTURER'S

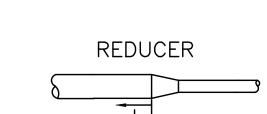
RECOMMENDATION. THE EOR SHALL CONSULT WITH THE PSLUSD REGARDING THE TYPE OF THE VALVE TO BE USED AND LOCATION.

AUTOMATIC AIR RELEASE VALVE FOR

FORCE MAINS IN UNPAVED AREAS

NOT TO SCALE

ASPHALT PAVEMENT JOINT NOT TO SCALE

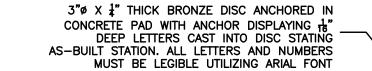


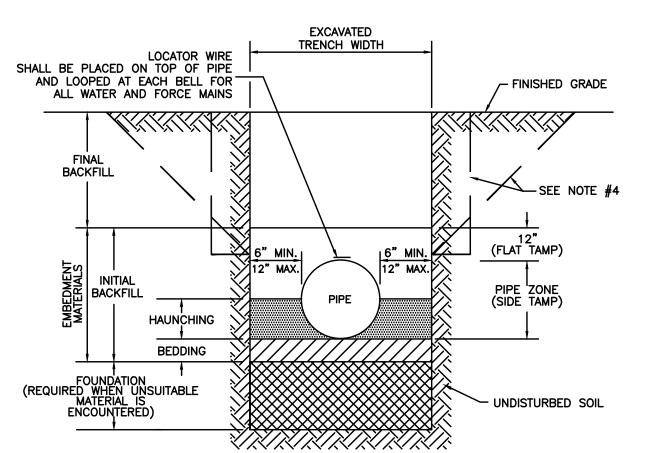
	L	= RE	TRAIN	ED LEI	NGTH .	AT LAF	RGER S	SIZE C	F RED	UCER	(FEET)		
DIAMETER	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48'
4"		29	52	71	89	105	121	136	151	179	217	253	285	318
6"			31	53	74	93	111	127	143	172	211	249	282	315
8"				29	54	76	96	114	131	163	204	243	277	310
10"					30	55	78	98	117	151	195	235	271	305
12"						30	56	79	100	137	184	226	263	299
14"							30	56	79	120	171	216	255	292
16"								30	56	101	156	204	245	283
18"									30	80	140	190	233	273
20"										56	121	175	221	263
24"											78	141	192	238
30"												78	140	194
36"		ĺ											75	139
42"														75

- 1. THE REQUIREMENTS SET FORTH ABOVE WERE CALCULATED FOR PVC PIPE BASED UPON THE FOLLOWING ASSUMPTIONS:
- SOIL CONDITIONS: SILTY SAND (SM) - TRENCH TYPE: 3 (PIPE BEDDED IN 4" MINIMUM OF LOOSE SOIL WITH BACKFILL LIGHTLY COMPACTED)
- MINIMUM COVER: 3 FT - SAFETY FACTOR: 1.5
- TEST PRESSURE: 150 PSI

2. IF FIELD CONDITIONS DIFFER FROM THE ABOVE, THE ENGINEER-OF-RECORD (EOR) SHALL SUBMIT CALCULATIONS BASED ON THE FIELD CONDITION FOR REVIEW AND APPROVAL OF PSLUSD.

> PIPELINE RESTRAINT REQUIREMENTS (REDUCER) NOT TO SCALE





-EXISTING PAVEMENT

-EXISTING BASE

1. FOR TRENCHES REQUIRING SHEETING, SHORING, STAY BRACING, TRENCH JACKS OR TRENCH BOX, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SUPPORTS.

2. IF THE MAXIMUM TRENCH WIDTH MUST BE EXCEEDED, THE AREA OUTSIDE OF THE MAXIMUM EMBEDMENT SHALL BE COMPACTED TO FINAL BACKFILL REQUIREMENTS. IF THE PIPE IS INSTALLED IN A COMPACTED EMBANKMENT, THE EMBANKMENT SHALL BE IN PLACE AND COMPACTED TO 12" MIN. COVER BEFORE INSTALLATION OF PIPE.

3. IF BEDDING IS REQUIRED TO BRING TRENCH BOTTOM UP TO GRADE AND PROVIDE UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE, THEN A MINIMUM COMPACTED DEPTH OF 4 TO 6 INCHES OF SELECT EMBEDMENT MATERIAL IS REQUIRED.

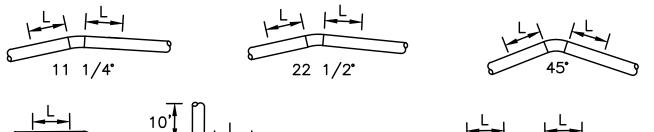
4. THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.

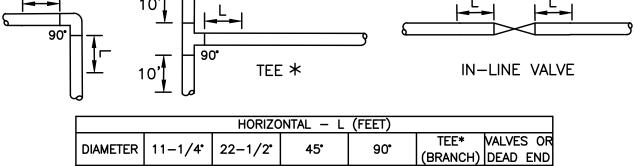
5. AN APPROVED LOCATOR WIRE SHALL BE USED.

6. EARTHWORK, EXCAVATION, BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH PSLUSD

STANDARD PIPE TRENCH CROSS SECTION NOT TO SCALE

HORIZONTAL BENDS





		HORIZO	NTAL - L	(FEET)		
DIAMETER	11-1/4	22-1/2*	45°	90°	1	VALVES OF DEAD END
4"	2	4	8	18	20	39
6"	3	5	11	25	36	55
8"	4	7	14	33	52	72
10"	4	8	16	39	65	87
12"	5	9	19	45	80	102
14"	5	11	21	51	93	116
16"	6	12	24	57	107	131
18"	7	13	26	63	120	145
20"	7	14	29	68	133	159
24"	8	16	33	79	157	185
30"	10	19	39	93	192	222
36"	11	21	44	106	225	257
42"	12	24	49	117	254	289
48"	13	26	53	128	283	321

NOTES:

1. THE REQUIREMENTS SET FORTH ABOVE WERE CALCULATED FOR PVC PIPE BASED UPON THE FOLLOWING

- SOIL CONDITIONS: SILTY SAND (SM)
- TRENCH TYPE: 3 (PIPE BEDDED IN 4" MINIMUM OF LOOSE SOIL WITH BACKFILL LIGHTLY COMPACTED) - MINIMUM COVER: 3 FT
- SAFETY FACTOR: 1.5 - TEST PRESSURE: 150 PSI
- * SIZE ON SIZE TEE & 5' LENGTH ALONG RUN

2. IF FIELD CONDITIONS DIFFER FROM THE ABOVE, THE ENGINEER-OF-RECORD (EOR) SHALL SUBMIT CALCULATIONS BASED ON THE FIELD CONDITION FOR REVIEW AND APPROVAL OF PSLUSD.

PIPELINE RESTRAINT REQUIREMENTS (HORIZONTAL) NOT TO SCALE

AS-BUILT

STATION

XX+XX.XX

1. WHEN TOP OF OPERATING NUT IS DEEPER THAN 30", A HIGH STRENGTH STEEL EXTENSION WILL BE REQUIRED TO BRING OPERATING NUT 24"-30" BELOW FINISHED GRADE. A STEEL CENTERING PLATE, WELDED TO THE EXTENSION, IS ALSO REQUIRED.

2. A VALVE BOX ALIGNMENT DEVICE SHALL BE PROVIDED TO ELIMINATE SHIFTING OF THE VALVE BOX AGAINST THE OPERATING NUT.

- WATER, SEWER OR REUSE

CAST IN COVER AS

#4 REBAR — 24" X 24" X 6" THICK — CONCRETE COLLAR

LOCATOR -

RISER PIPE

APPLICABLE

CONCRETE VALVE COLLAR

FINISH GRADE -

3"ø X 1 THICK BRONZE DISC ANCHORED IN

CONCRETE PAD WITH ANCHOR DISPLAYING 16"

OF TURNS TO OPERATE & SCHEMATICALLY

ANCHOR

— CAST IRON VALVE BOX

(SEE NOTE #2)

- PIPE PER APPROVED PLANS

- BAG OF CONCRETE MIX

VALVE BOX ALIGNMENT DEVICE

DEEP LETTERS CAST INTO DISC STATING NUMBER

IDENTIFIED MAIN & VALVE LOCATION ALL LETTERS AND NUMBERS MUST BE LEGIBLE UTILIZING ARIAL

CUT, LEGIBLE

SECTION A-A

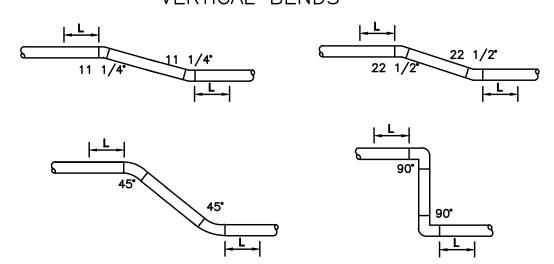
3. C900 OR SDR-26 P.V.C. RISER PIPE SHALL BE ADDED TO EXTEND THE VALVE BOX IF NEEDED.

4. RPM'S SHALL NOT BE INSTALLED IN CROSSWALKS OR PEDESTRIAN WALKWAYS.

5. THE TOP SIDE OF THE VALVE BOX COVER AND THE INSIDE OF TOP SECTION OF THE VALVE BOX SHALL BE PAINTED BLUE FOR WATER MAINS, GREEN FOR SEWER MAINS AND PURPLE FOR RECLAIMED WATER MAINS.

TYPICAL VALVE BOX AND COLLAR IN UN-PAVED AREA NOT TO SCALE

VERTICAL BENDS



			VERTICAL	OFFSET -	L (FEET)			
DIAMETER	11-1/4°		22-1/2°		45*		90•	
	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
	BEND	BEND	BEND	BEND	BEND	BEND	BEND	BEND
4"	4	2	8	3	17	5	39	11
6"	6	2	11	4	23	7	55	15
8"	8	2	15	4	30	9	72	20
10"	9	3	18	5	36	10	87	24
12"	11	3	21	6	43	12	102	28
14"	12	4	24	7	49	14	116	32
16"	13	4	27	8	55	16	131	36
18"	15	4	29	8	60	17	145	40
20"	16	5	32	9	66	19	158	44
24"	19	6	37	11	77	22	185	51
30"	22	7	45	13	92	26	222	62
36"	26	8	52	15	107	30	256	71
42"	29	8	58	16	120	34	289	80
48"	32	9	64	18	133	37	320	89

NOTES:

1. THE REQUIREMENTS SET FORTH ABOVE WERE CALCULATED FOR PVC PIPE BASED UPON THE

- SOIL CONDITIONS: SILTY SAND (SM) - TRENCH TYPE: 3 (PIPE BEDDED IN 4" MINIMUM OF LOOSE SOIL WITH BACKFILL LIGHTLY
- UPPER SIDE MINIMUM COVER: 3 FT - LOWER SIDE MINIMUM COVER: 5 FT
- SAFETY FACTOR: 1.5

COMPACTED)

- TEST PRESSURE: 150 PSI

2. WHEN CONDITIONS DIFFER FROM THE ABOVE, THE ENGINEER-OF-RECORD (EOR) SHALL SUBMIT CALCULATIONS FOR REVIEW AND APPROVAL OF PSLUSD.

3. ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.

PIPELINE RESTRAINT REQUIREMENTS (VERTICAL) NOT TO SCALE

Date: 10-27-21 Scale: AS NOTED Drawn By: RR Check By: DH DATE BY REVISIONS

& ACCESS MANHOLE SHALL BE USED ONLY AS DIRECTED BY PSLUSD IN WRITING.

CITY OF PORT ST. LUCIE **GLADES TO TRADITION** REUSE WATER MAIN

DETAILS



License No: 65685

D-1

