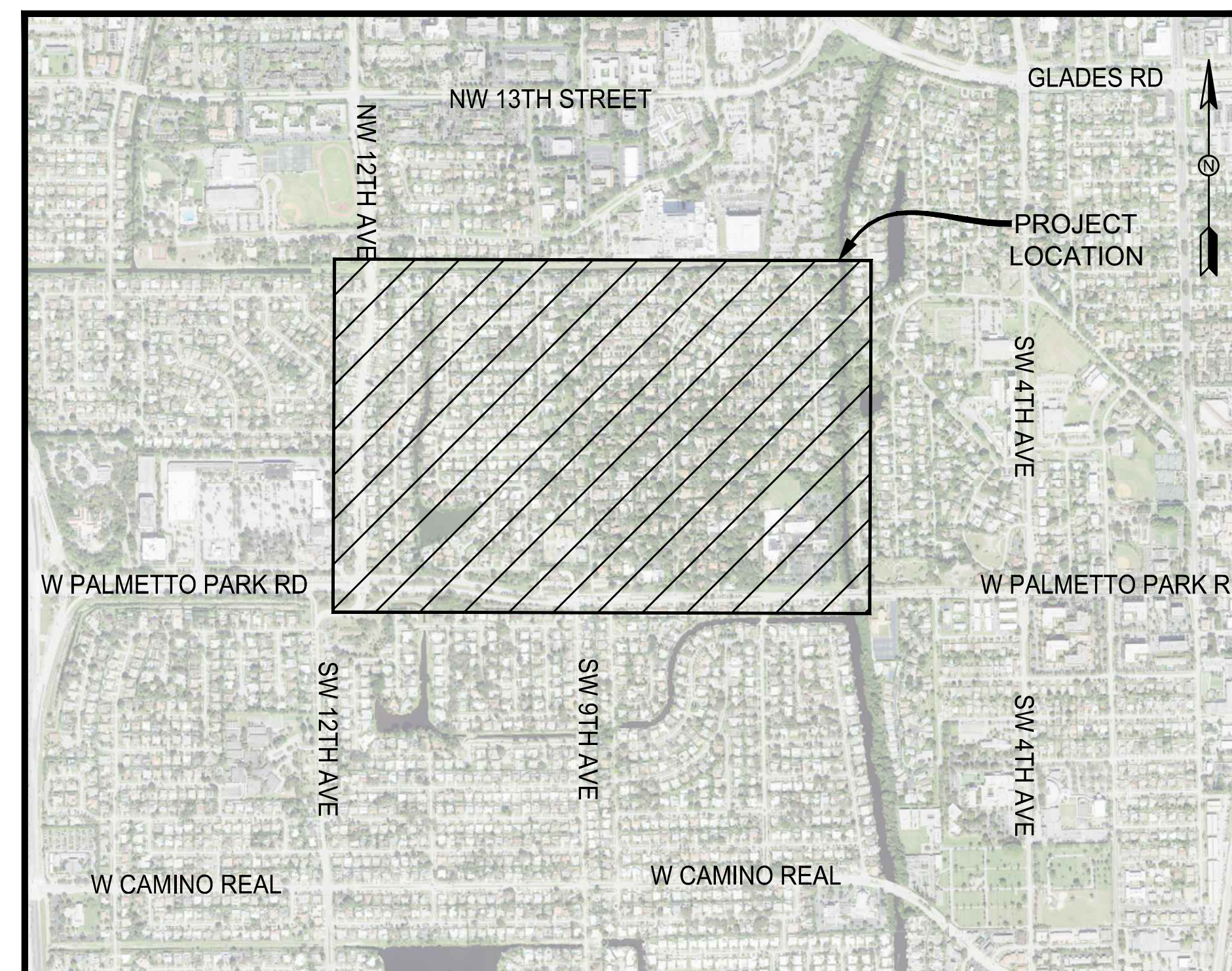
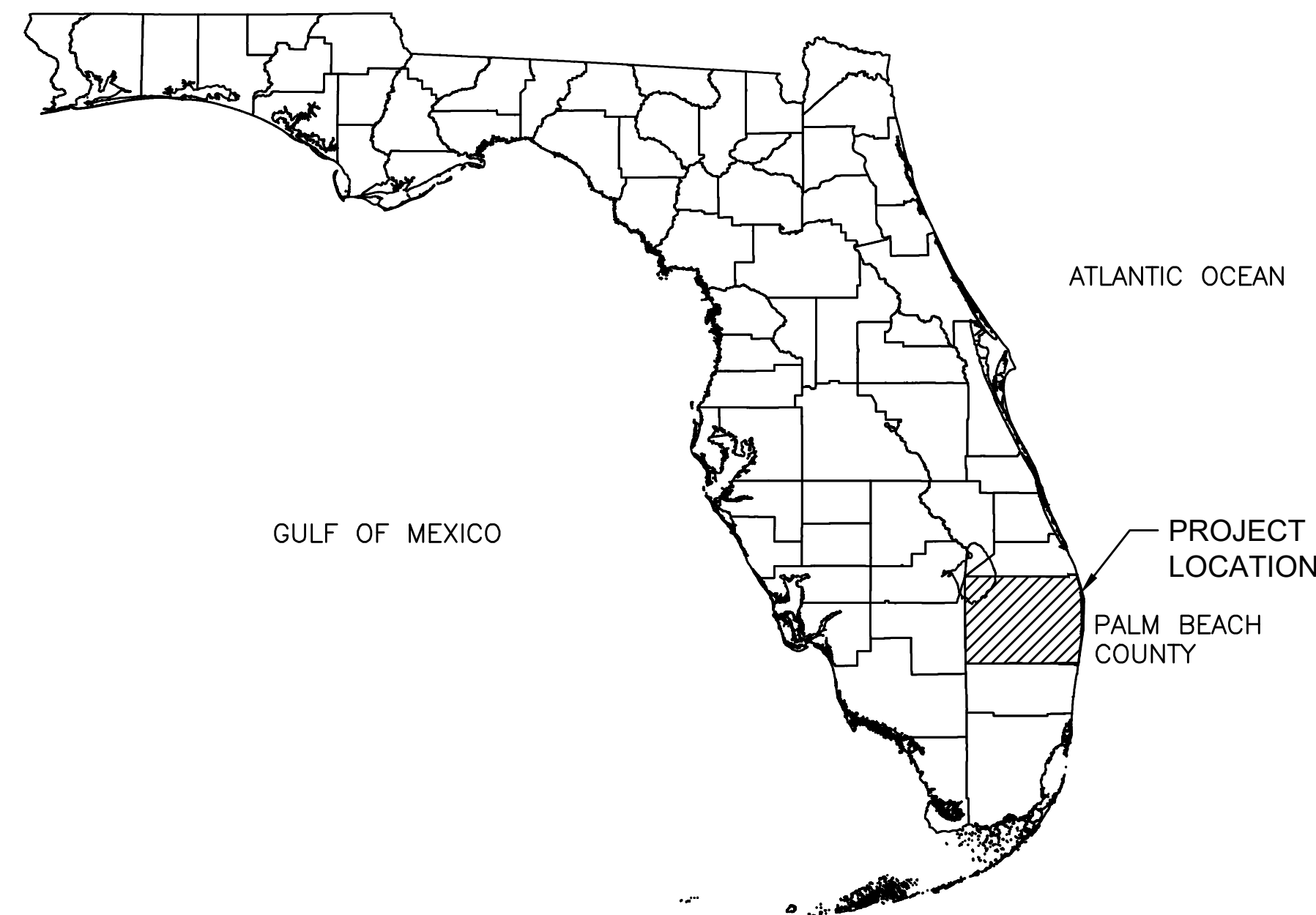




OLD FLORESTA INFRASTRUCTURE UPGRADES

PREPARED FOR CITY OF BOCA RATON

PALM BEACH COUNTY, FLORIDA
SECTION 25, TOWNSHIP 47S, RANGE 42E



VICINITY MAP

NTS



INNOVATIVE SUSTAINABLE
INFRASTRUCTURE PROGRAM

JANUARY 2026

RPF NO. 2026-006-NP

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

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GENERAL ABBREVIATIONS

ABND	Abandon or Abandoned	MECH	Mechanical
ACP	Asbestos Cement Pipe	MH	Manhole
ADD'L	Additional	MIN	Minimum
AL, Alum	Aluminum	MISC	Miscellaneous
APPROX	Approximate	MJ	Mechanical Joint
ARV	Air Release Valve	N/D	Nail and Disk
ASP, Asph	Asphalt	No	No
		NTS	Not to Scale
BFP	Backflow Preventer	OC, O/C	On Center
BFV	Butterfly Valve	OD	Outside Diameter
B/L	Base Line	OHU	Overhead Utilities
BLDG	Building	ORB	Official Records Book
BM	Benchmark		
BO	Blowoff	PB	Plat Book
BOP	Bottom of Pipe	PE	Polyethylene Piping
		PGL	Profile Grade Line
CATV	Cable Television	PVC	Polyvinyl Chloride/Polyvinyl Chloride Pipe
CB	Catch Basin		
CO	Cleanout	RC	Reinforced Concrete
CL	Center Line	RCP	Reinforced Concrete Pipe
CLF	Chain Link Fence	RCW	Reclaimed Water
CIP	Cast Iron Pipe / Cast in Place	RED	Reducer
CMP	Corrugated Metal Pipe	REINF	Reinforce/Reinforced
CONC	Concrete	RJ	Restrained Joint
CONST	Construct/Construction	RWM	Raw Water Main
		R/W, ROW	Right of Way
DE	Drainage Easement	S=	Slope (FT/FT)/(Rise/Run)
DI	Ductile Iron	SAN	Sanitary
DIP	Ductile Iron Pipe	SCH/SCHED	Schedule
DIA	Diameter	SEC	Section
DR	Dimensional Ratio/Drainage	SF	Silt Fence
DWY	Driveway	SP	Sample Point
		SS	Sanitary Sewer
EL	Elevation	STA	Station
EP	Edge of Pavement		
ESMT	Easement	TBM	Temporary Benchmark
EOW	Edge of Water	TEMP	Temporary
EX, EXIST	Existing	TFMR	Transformer
		TOB	Top of Bank
FDOT	Florida Department of Transportation	TON	Top of Nut
FH	Fire Hydrant	TOP	Top of Pipe
FL	Flanged	TOS	Toe of Slope
FM	Force Main	TYP	Typical
FND	Found		
FNPT	Female Nominal Pipe Thread	UE	Utility Easement
FPL	Florida Power and Light	UEC	Underground Electric Conduit
FW	Finished Water	UGE	Underground Electric
		UGT	Underground Telephone
GPS	Global Positioning System	UNK	Unknown
GV	Gate Valve	VCP	Vitrified Clay Pipe
HB	Hose Bibb	W/	With (Combined Form)
HDD	Horizontal Directional Drill	WF	Wood Fence
HDPE	High Density Polyethylene	WM	Water Main or Water Meter
HYD	Hydrant	WPB	Wire Pullbox
		WTP	Water Treatment Plant
ID	Identification/Inside Diameter	WV	Water Valve
INV	Invert/Invert Elevation	WWTP	Waste Water Treatment Plant
IRC	Iron Rod & Cap		
IRR	Irrigation		
LAE	Limited Access Easement		
LF	Linear Feet		
LP	Light Pole		
LS	Lift Station		
LSA	Landscape Area		
MAX	Maximum		
MB	Mailbox		

PIPING SYMOLOGY

	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	UNION
	BALL VALVE (BV)
	GATE VALVE (GV)
	BUTTERFLY VALVE (BFV)
	PLUG VALVE (PV)
	CHECK VALVE (CV)
	PLUG/CAP
	CLEAN OUT
	TAPPING VALVE
	LINE STOP
	HOSE BIBB
	EXISTING PIPE
	EXISTING BURIED PIPE
	PROPOSED PIPE
	PROPOSED BURIED PIPE
	MECHANICAL JOINT
	FLANGE JOINT
	FLEXIBLE COUPLING
	FLEXIBLE COUPLING WITH THRUST TIES
	ELBOW UP
	ELBOW DOWN
	90° ELBOW
	TEE UP
	TEE DOWN
	TEE
	CROSS

LINETYPES

	EXISTING*	PROPOSED*
ABANDONED WATER MAIN	---AWM---AWM---AWM---	
ABANDONED FORCE MAIN	---AFM---AFM---	
CABLE TV	---CATV---CATV---	
CENTER LINE		---DR---DR---
DRAIN	---DR---DR---	---DR---DR---
EASEMENT	---E---E---	
ELECTRIC	---E---E---	
FENCE (BARB/FIELD)	---X---X---	---X---X---
FENCE (CHAINLINK)	---O---O---	---O---O---
FENCE (WOOD)	---WF---WF---	---WF---WF---
FIBER OPTIC	---FOC---FOC---	---FOC---FOC---
FIRE MAIN	---FIRE---FIRE---	---FIRE---FIRE---
FORCE MAIN	---FM---FM---	---FM---FM---
FORCE MAIN (LOW PRESSURE)	---LPF---LPF---	---LPF---LPF---
FUEL	---FUEL---FUEL---	---FUEL---FUEL---
GAS	---GAS---GAS---	
GUARDRAIL	---GR---GR---	
IRRIGATION	---IRR---IRR---	
OVERHEAD UTILITIES	---OHU---OHU---	
RAILROAD TRACK	---RR---RR---	
RAW WATER MAIN	---RWM---RWM---	---RWM---RWM---
RECLAIMED WATER MAIN	---RCW---RCW---	---RCW---RCW---
RIGHT-OF-WAY	---ROW---ROW---	
SANITARY SEWER	---S---S---	---S---S---
SANITARY SEWER SERVICE	---SS---SS---	---SS---SS---
SILT FENCE	---SF---SF---	---SF---SF---
STORM DRAINAGE	---ST---ST---	---ST---ST---
TELEPHONE	---T---T---	
TO BE ABANDONED (SIZE)** FORCEMAIN		---TBA"x"FM---TBA"x"FM---
TO BE ABANDONED (SIZE)** WATERMAIN		---TBA"x"WM---TBA"x"WM---
TOP OF BANK	---TOB---TOB---	
TOE OF SLOPE	---TOS---TOS---	
TRAFFIC SIGNAL	---TS---TS---	---TS---TS---
TURBIDITY BARRIER	---TB---TB---	---TB---TB---
UNKNOWN	---UNK---UNK---	
VACUUM SEWER	---VS---VS---	---VS---VS---
WATER MAIN	---WM---WM---	---WM---WM---
WATER SERVICE	---WS---WS---	---WS---WS---
WATER SERVICE W/ CASING		---WS---WS---

CIVIL SYMOLOGY

CONSTRUCTION BASE LINE	CONFLICT LOCATION	SAMPLE POINT	WATER SURFACE ELEVATION	DIRECTION OF FLOW	BENCHMARK
EXISTING ELEVATION	PROPOSED ELEVATION	TEST HOLE	EXIST. FIRE HYDRANT	PROP. FIRE HYDRANT	ARV MANHOLE
EXIST. WATER METER	PROP. WATER METER	STORM INLET	STORM MANHOLE	YARD DRAIN	STREET SIGN
SEWER MANHOLE	SEWER CLEANOUT(S)	CONCRETE UTILITY POLE	WOOD UTILITY POLE(S)	UTILITY PULLBOX	ELECTRIC MANHOLE
GUY ANCHOR	PHONE PEDESTAL	CABLE TV BOX	LIFT STATION(S)		

HATCH LEGEND

ASPHALT	CONCRETE	GRAVEL	DIRT/SAND
NOMINAL PIPE DIA. (IN.)			
PIPE MATERIAL (IF SHOWN)			
FLOW STREAM IDENTIFICATION (IF SHOWN)			
PIPE DESIGNATION			

SECTION/DETAIL SYMBOL

SECTION SCALE:	SECTION LETTER/DETAIL NUMBER	SECTION FLAG
SECTION CUT		



Know what's below.
Call before you dig.

SURVEYOR LEGENDS

LEGEND	
	BENCHMARK
	BOLLARD (UNLESS NOTED)
	CATCH BASIN
	CLEAN OUT
	CONCRETE UTILITY POLE
	CONCRETE UTILITY POLE WITH LIGHT
	CURB INLET
	EXISTING ELEVATION
	FIRE HYDRANT
	IRRIGATION CONTROL BOX
	IRRIGATION CONTROL VALVE
	LANDSCAPE LIGHT (SPOT LIGHT)
	MAIL BOX
	SANITARY MANHOLE
	STORMWATER MANHOLE
	TELEPHONE MANHOLE
	SIGN (UNLESS NOTED)
	TELEPHONE RISER
	TRAFFIC SIGNAL SERVICE BOX
	WATER METER
	WATER VALVE
	WOOD LIGHT POLE
	WOOD UTILITY POLE
	WOOD UTILITY POLE WITH LIGHT

TREE LEGEND	
	CITRUS
	FICUS
	MANGO
	OAK
	PALM
	PINE
	POINCIANA
	SHRUB
	BLACK OLIVE
	GUMBO LIMBO
	NORFOLK ISLAND PINE
	SCHIEFFLERA / UMBRELLA
	SEA GRAPE
	UNKNOWN SPECIES
	12" DENOTES 12" DIAMETER TRUNK (TYPICAL)

VERTICAL INFORMATION HEREON IS RELATIVE TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29). CONVERSION TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) IS THE FOLLOWING: NAVD88 = NGVD29 - 1.558 FT.

* DEPICTS ABOVE GRADE
* DEPICTS BELOW GRADE
** "X" INDICATES SPECIFIC LINE TYPE SIZE AS DENOTED ON PLANS

REV	DATE	REVISIONS	BY

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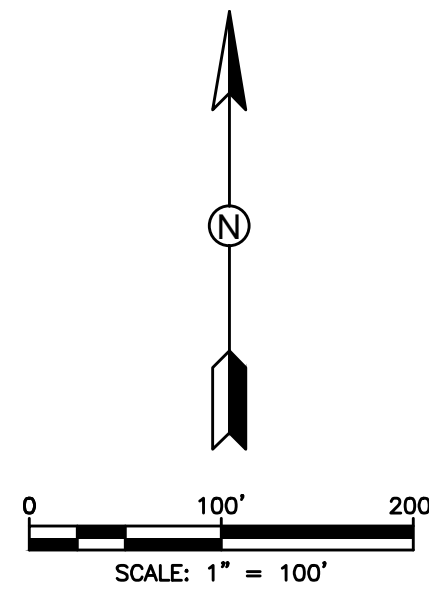
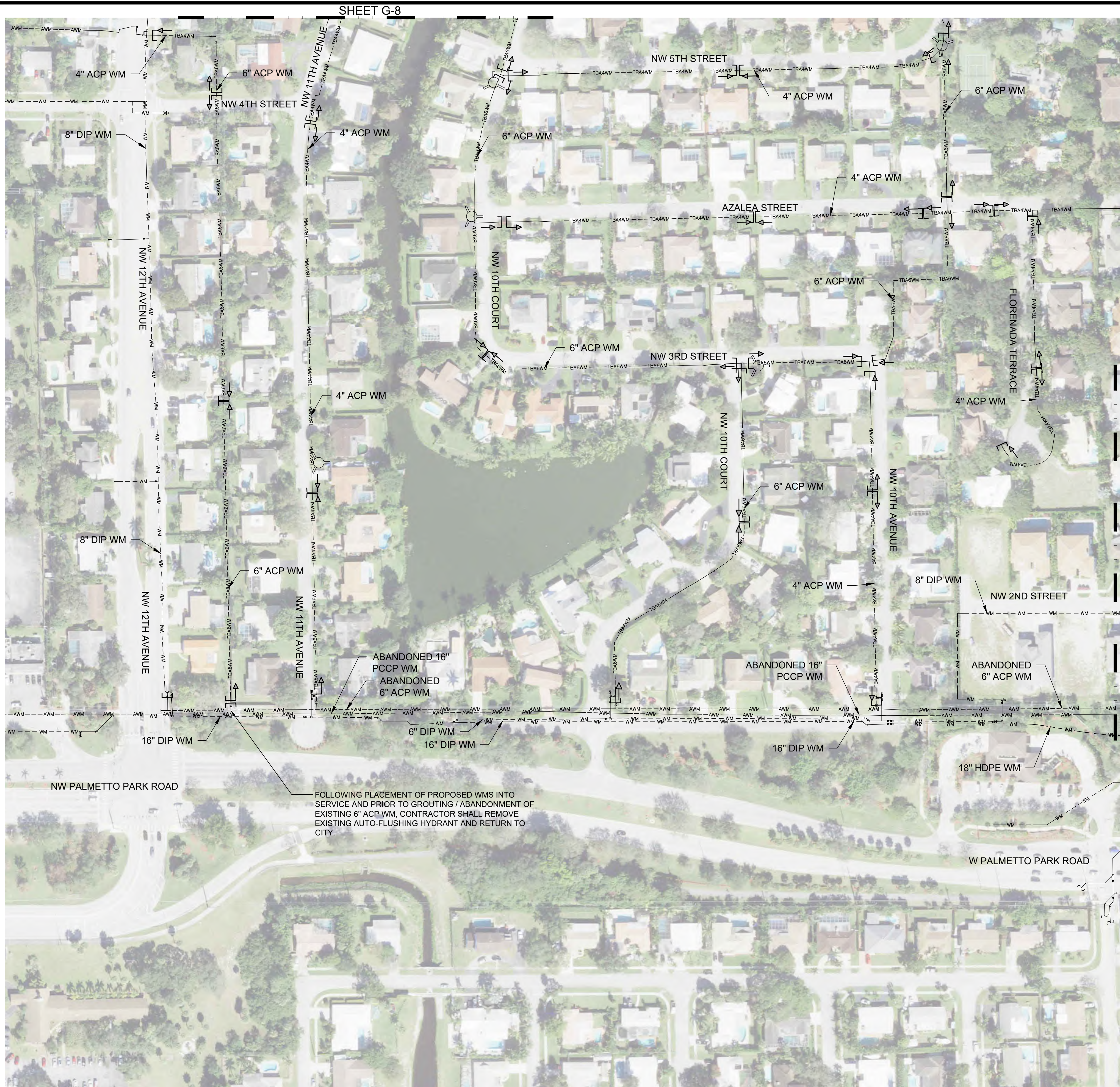
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

GENERAL LEGEND

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ROBERT HARRISON BARRON III
License No: 91550

G-3



- NOTES:**
1. MASTER ABANDONMENT PLAN IS A GENERALIZED SUGGESTED METHOD OF GROUTING PIPES TO BE ABANDONED IN PLACE. THE CONTRACTOR SHALL SUBMIT THEIR GROUTING/ABANDONMENT PLAN PRIOR TO COMMENCING THE PIPE ABANDONMENT WORK. NOTE THAT PORTIONS OF WM AND/OR FM MAY REQUIRE COMPLETE REMOVAL AS DIRECTED BY CITY/ENGINEER.
 2. CONTRACTOR SHALL COORDINATE WITH CITY AND HOMEOWNERS FOLLOWING PRIVATE PROPERTY INVESTIGATIONS FOR REAR-TO-FRONT SERVICE TRANSFERS REGARDING ABANDONMENT OF EXIST. WATER MAINS LOCATED IN REAR EASEMENTS, CUT/CAP/GROUTING LOCATIONS IN REAR EASEMENTS ARE SUBJECT TO CHANGE FOLLOWING FIELD INVESTIGATIONS IN ORDER TO MINIMIZE IMPACTS TO PROPERTY OWNERS.
 3. CONTRACTOR SHALL RESTORE PRIVATE PROPERTY AT NO ADDITIONAL COST TO THE OWNER. COSTS FOR RESTORATION OF PRIVATE PROPERTY SHALL BE INCLUDED IN UNIT PRICING FOR GROUTING/ABANDONMENT.
 4. ALL TBAWM'S 3" AND LARGER SHALL BE GROUTED IN PLACE UNLESS OTHERWISE NOTED.
 5. CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING GROUTING OPERATIONS TO PREVENT GROUTING "FRAC-OUT". ADDITIONAL GROUT POINT AND/OR GRADES OF FLOWABLE FILL, CELLULAR CONCRETE, ETC... SHALL BE EMPLOYED AS NECESSARY AND AT NO ADDITIONAL COST TO THE OWNER TO SUCCESSFULLY GROUT/ABANDON SMALLER DIAMETER WATER MAINS (LESS THAN OR EQUAL TO 6" DIA.).

LEGEND

	PROPOSED CUT/CAP LOCATION
	EXISTING FORCE MAIN TO BE ABANDONED
	EXISTING FORCE MAIN TO REMAIN IN SERVICE
	EXISTING WATER MAIN TO BE ABANDONED
	EXISTING WATER MAIN TO REMAIN IN SERVICE
	SUGGESTED GROUT FLOW


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CITY OF BOCA RATON
OLD FLORESTA
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MASTER ABANDONMENT PLAN

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G-6



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	PROPOSED CUT/CAP LOCATION
	EXISTING FORCE MAIN TO BE ABANDONED
	EXISTING FORCE MAIN TO REMAIN IN SERVICE
	EXISTING WATER MAIN TO BE ABANDONED
	EXISTING WATER MAIN TO REMAIN IN SERVICE
	SUGGESTED GROUT FLOW

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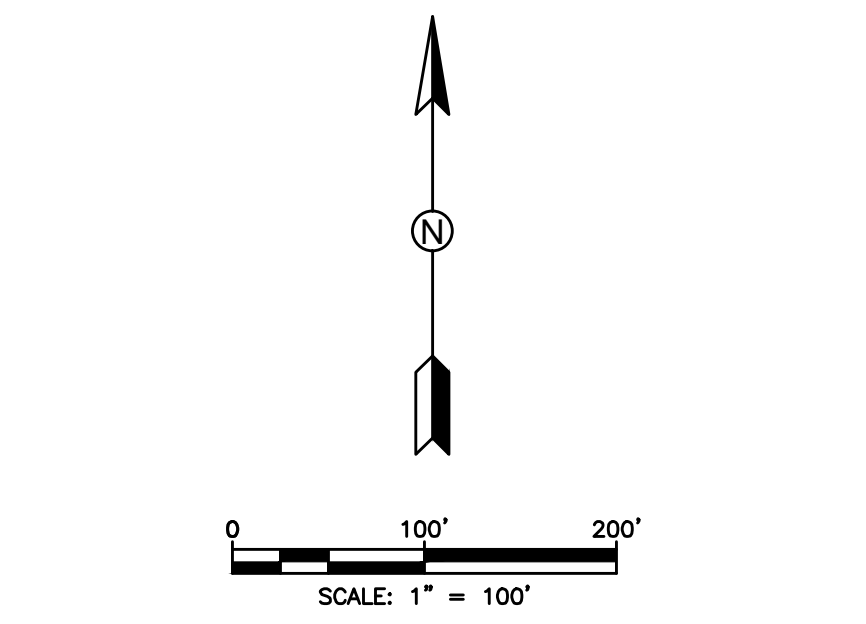
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LEGEND	
]	PROPOSED CUT/CAP LOCATION
---	EXISTING FORCE MAIN TO BE ABANDONED
---	EXISTING FORCE MAIN TO REMAIN IN SERVICE
---	EXISTING WATER MAIN TO BE ABANDONED
---	EXISTING WATER MAIN TO REMAIN IN SERVICE
→	SUGGESTED GROUT FLOW

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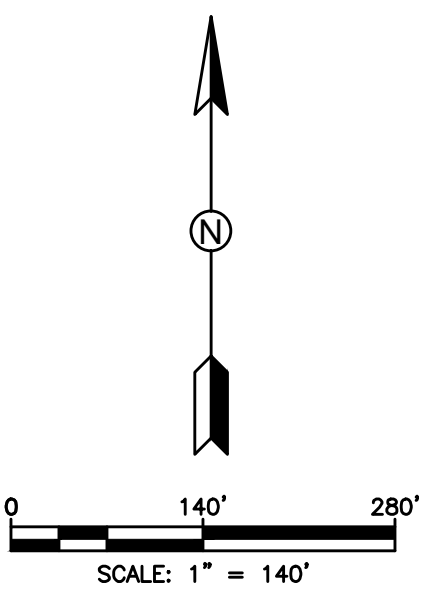
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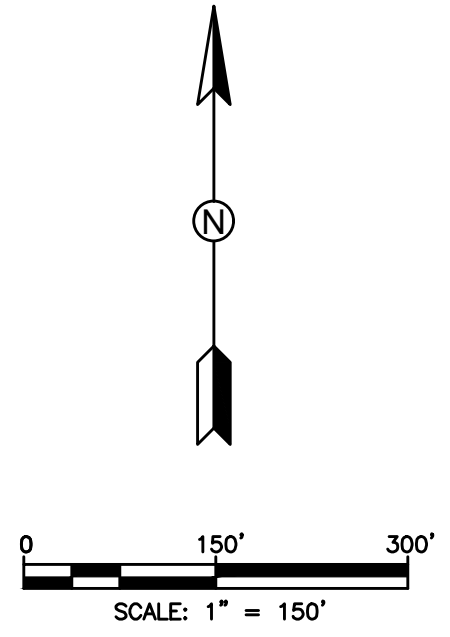
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OVERALL SAMPLING SITE PLAN

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G-10



HATCH LEGEND	
	MILL AND RESURFACE ASPHALT PAVEMENT
	ADJUSTED MILL AND RESURFACE ASPHALT PAVEMENT


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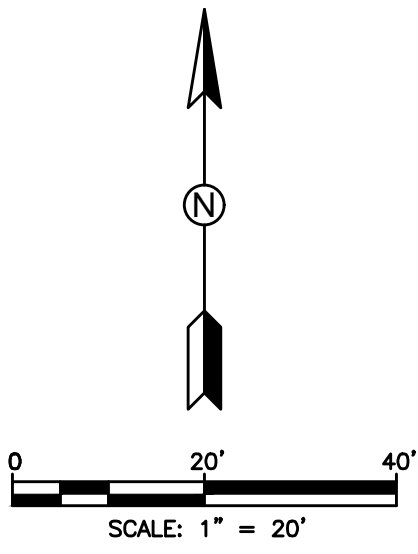
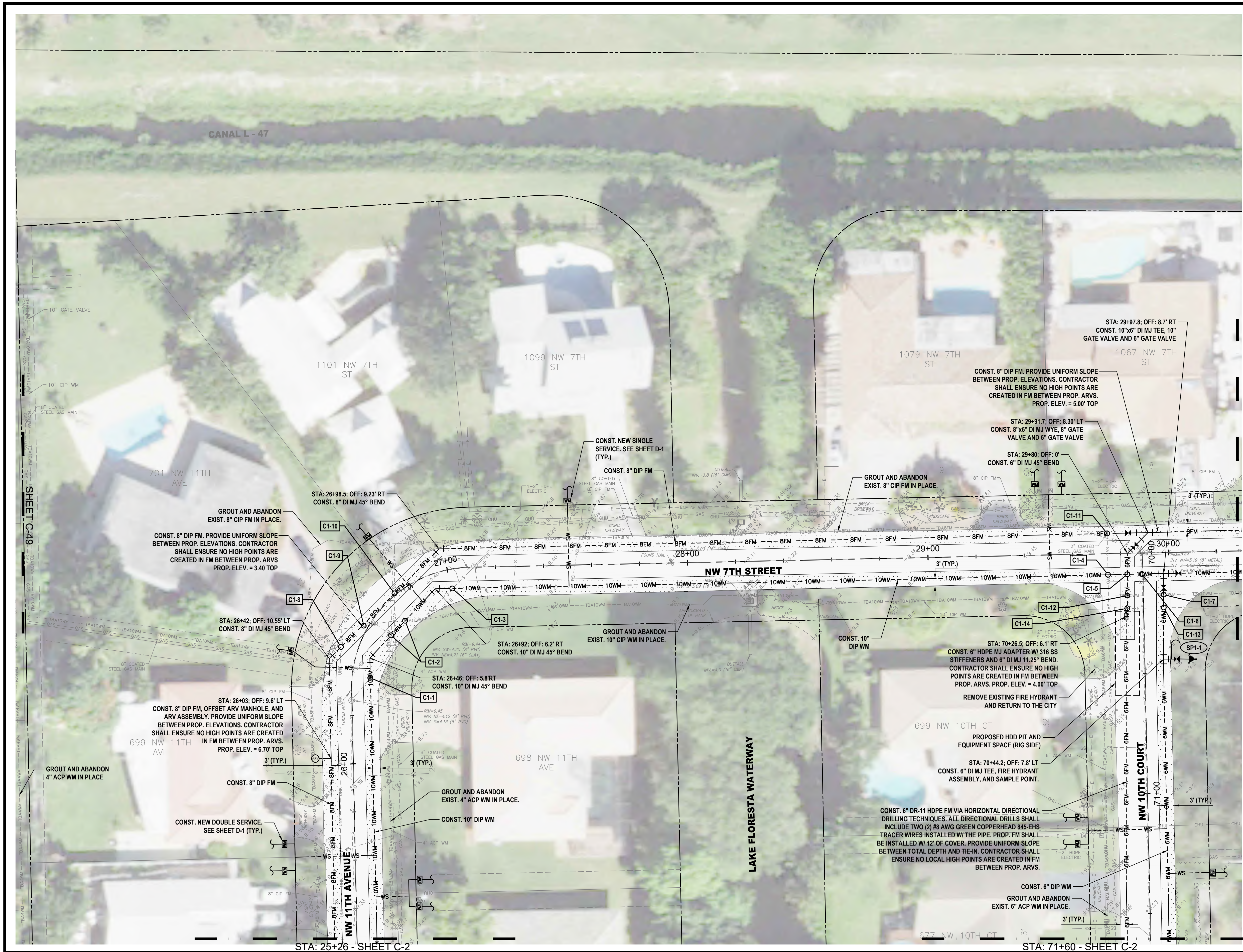
CITY OF BOCA RATON
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OVERALL PAVING SITE PLAN



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HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

- NOTES:
1. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
 2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6\"/>
 3. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
 4. CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
 5. EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
 6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5-FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5-FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
 7. MAINTAIN MIN. 36\"/>
 8. MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
 9. EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED, IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION. COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN-KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/RIBBON/CURBING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
 10. WHERE EXISTING CROSSWALK SIDEWALK RAMP ARE PROPOSED FOR REPLACEMENT, EXISTING CROSSWALK RAMP SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK. RE-SOD WHERE PROP. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED.
 11. ALL COSTS ASSOCIATED WITH TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WM/FM CONSTRUCTION AND MILLING/SURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C1-1	PROP. 10\"/>
C1-2	PROP. 10\"/>
C1-3	PROP. 10\"/>
C1-4	PROP. 10\"/>
C1-5	PROP. 10\"/>
C1-6	PROP. 10\"/>
C1-7	PROP. 6\"/>
C1-8	PROP. 8\"/>
C1-9	PROP. 8\"/>
C1-10	PROP. 8\"/>
C1-11	PROP. 8\"/>
C1-12	PROP. 8\"/>
C1-13	PROP. 6\"/>
C1-14	PROP. 6\"/>

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	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30		C21	C15	C39
	C6	C31	C32		C22	C16	C42
	C7	C45	C47		C23	C17	C43
	C8	C46	C48		C24	C18	C44

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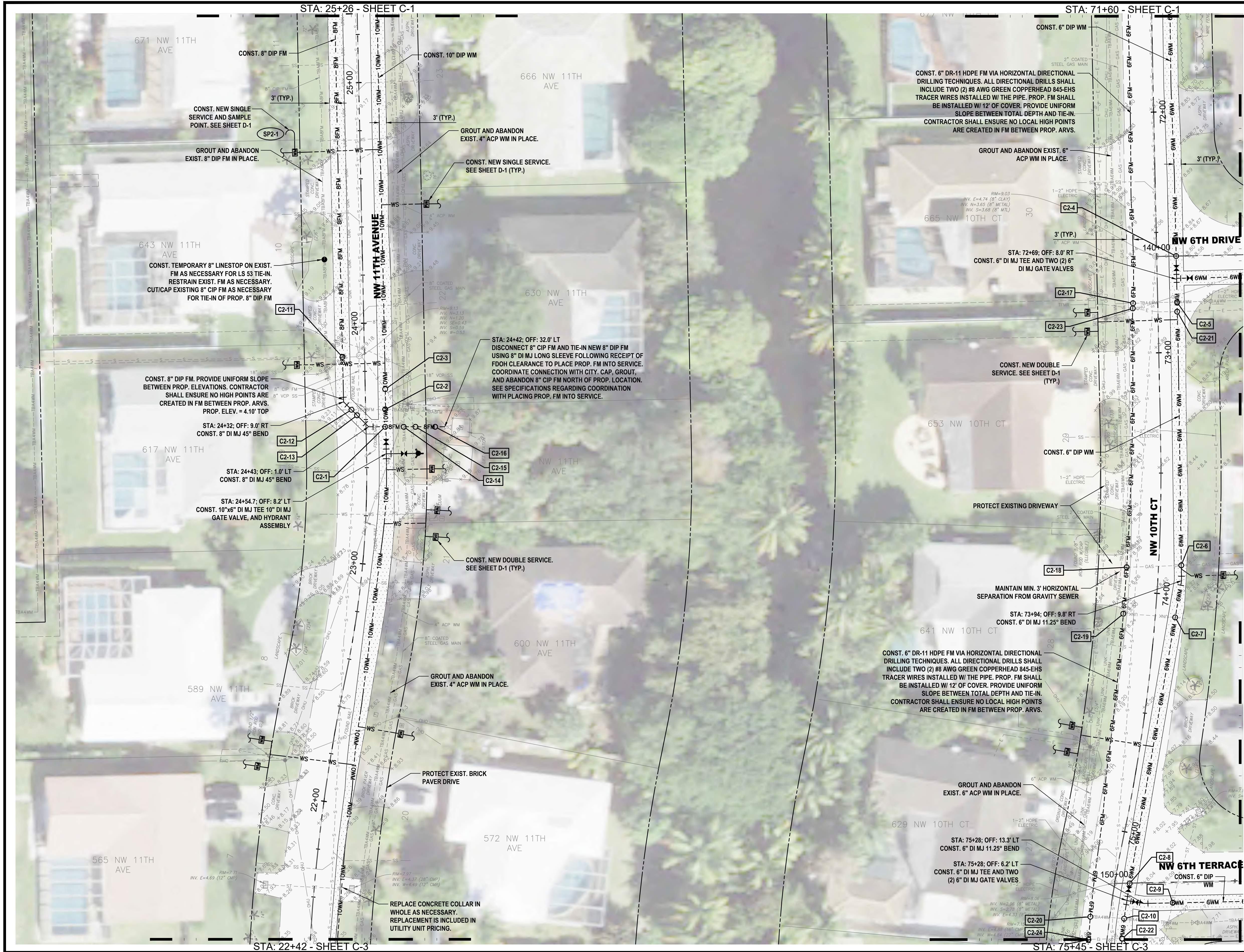
CITY OF BOCA RATON
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NW 7TH STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. NO. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-1



Scale: 1" = 20'

HATCH LEGEND

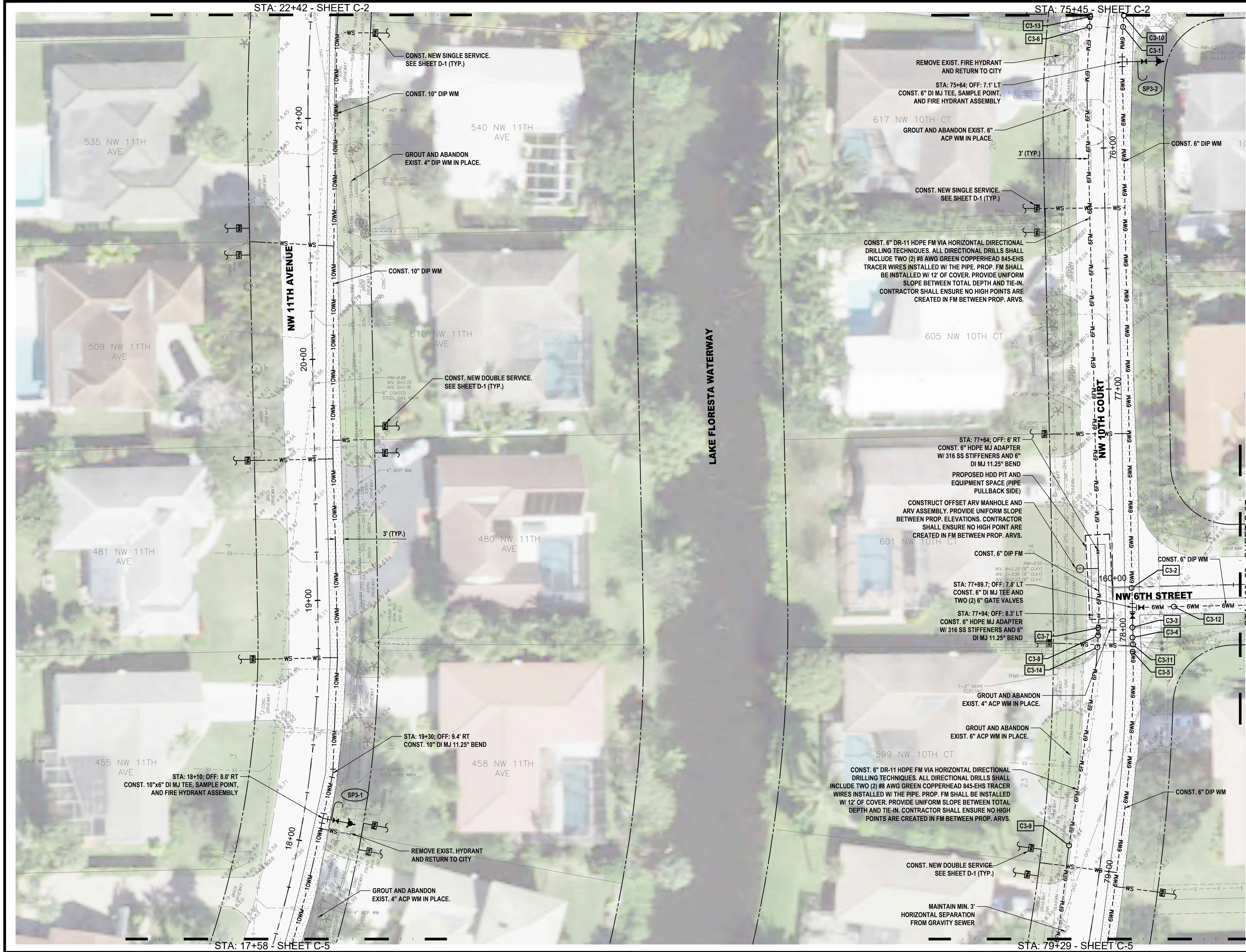
- TRENCH PAVEMENT RESTORATION
- MILL AND RESURFACE ASPHALT PAVEMENT
- BRICK PAVERS RESTORATION

NOTES

- WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
- CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6' VERTICAL CLEARANCE.
- CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
- EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
- REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5 FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
- MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
- MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
- EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION. COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN-KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/RIBBON CURBING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
- WHERE EXISTING CROSSWALK SIDEWALK RAMPS ARE PROPOSED FOR REPLACEMENT, EXISTING CROSSWALK RAMPS SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK. RE-SOD WHERE PROP. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED.
- ALL COSTS ASSOCIATED WITH TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WM/FM CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION	ID NO.	DESCRIPTION
C2-1	PROP. 10" DIP WM OVER PROP. 8" DIP FM. MAINTAIN MIN. 12" CLEARANCE.	C2-14	PROP. 8" DIP FM OVER UNDER EXIST. GAS, WM, AND TELEPHONE. MAINTAIN MIN. 8" CLEARANCE. 12" CLEARANCE FROM WM.
C2-2	PROP. 10" DIP WM OVER UNDER EXIST. FM. MAINTAIN MIN. 12" CLEARANCE.	C2-15	PROP. 8" DIP FM OVER EXIST. 18" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C2-3	PROP. 10" DIP WM OVER EXIST. 18" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C2-16	PROP. 8" FM OVER UNDER EXIST. ELECT. MAINTAIN MIN. 6" CLEARANCE.
C2-4	PROP. 10" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C2-17	PROP. 8" DIP FM UNDER EXIST. WM. MAINTAIN MIN. 12" CLEARANCE.
C2-5	PROP. 6" DIP WM OVER UNDER EXIST. WM. MAINTAIN MIN. 6" CLEARANCE.	C2-18	PROP. 8" DIP FM UNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.
C2-6	PROP. 6" DIP WM OVER UNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.	C2-19	PROP. 8" DIP FM UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C2-7	PROP. 6" DIP WM OVER UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C2-20	PROP. 8" DIP FM UNDER EXIST. WM. MAINTAIN MIN. 12" CLEARANCE.
C2-8	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C2-21	PROP. 8" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C2-9	PROP. 6" DIP WM UNDER EXIST. 16" CMP STORM. MAINTAIN MIN. 12" CLEARANCE.	C2-22	PROP. 8" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C2-10	PROP. 6" DIP WM OVER UNDER EXIST. WM. MAINTAIN MIN. 6" CLEARANCE.	C2-23	PROP. 8" DIP FM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C2-11	PROP. 8" DIP FM OVER EXIST. 18" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C2-24	PROP. 8" DIP FM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C2-12	PROP. 8" DIP FM OVER UNDER EXIST. FM. MAINTAIN MIN. 6" CLEARANCE.		
C2-13	PROP. 8" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.		

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
	C6	C31	C32	C21	C15	C39	C40
				C22	C16	C42	C41
	C7	C45	C47				
	C8	C46	C48	C23	C17	C43	
				C24	C18	C44	



020'40'

SCALE: 1" = 20'

HATCH LEGEND

TRENCH PAVEMENT RESTORATION

MILL AND RESURFACE ASPHALT PAVEMENT

BRICK PAVERS RESTORATION

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ID NO.	DESCRIPTION
C3-1	PROP. 6" DIP WM UNDER EXIST. 16" CMP STORM. MAINTAIN MIN. 12" CLEARANCE.
C3-2	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C3-3	PROP. 6" DIP WM OVER/UNDER EXIST. 4" ACP WM. MAINTAIN MIN. 6" CLEARANCE.
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C3-9	PROP. 6" DIP FM UNDER EXIST. ELECT. MAINTAIN MIN. 6" CLEARANCE.
C3-10	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
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C3-14	PROP. 6" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
	C6	C31	C32	C21	C15	C39	C40
				C22	C16	C42	C41
	C7	C45	C47				
	C8	C46	C48	C23	C17	C43	
				C24	C18	C44	

VERIFY SCALE

BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING

0 1

ADJUST ALL SCALED DIMENSIONS ACCORDINGLY

Date: 10/31/24

Scale: AS NOTED

Design By: HB

Drawn By: FG/RR

Check By: LL

CITY OF BOCA RATON

OLD FLORESTA

INFRASTRUCTURE UPGRADES

NW 11TH AVENUE

WATER/SEWER IMPROVEMENTS

PLAN SHEET

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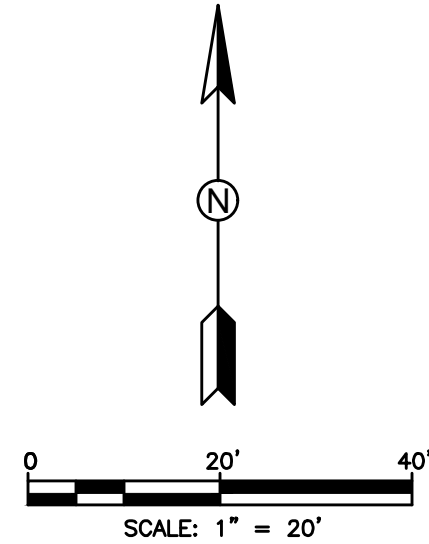
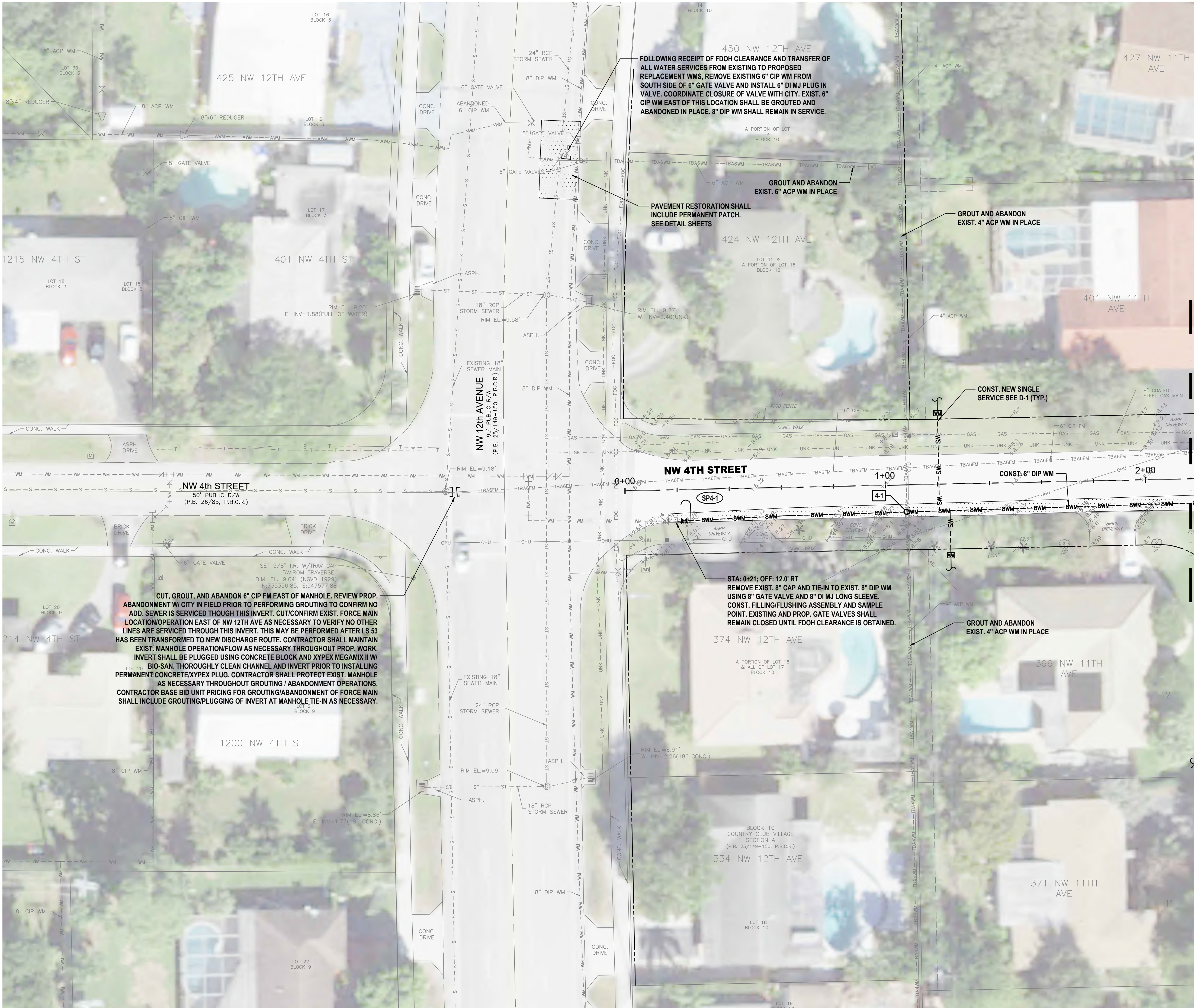
PH. (561) 575-2005

CERTIFICATE OF AUTH. NO. 26960

ROBERT HARRISON BARRON III

License No. 91550

C-3



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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ID NO.	DESCRIPTION
C4-1	PROP. 8\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
	C5	C29	C30	C21	C15	C39	C40
C4	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

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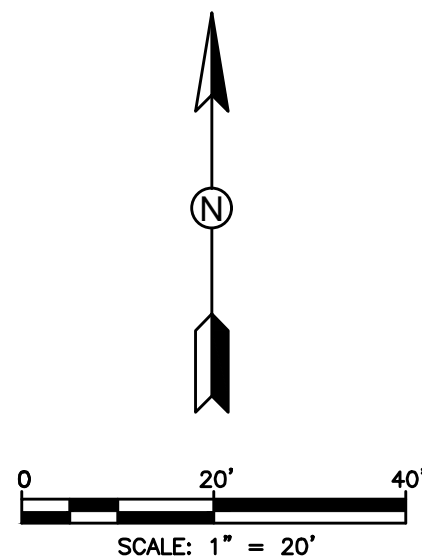
Date: 10/31/24
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CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 4TH STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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ID NO.	DESCRIPTION
C5-1	PROP. 10\"/>
C5-2	PROP. 10\"/>
C5-3	PROP. 10\"/>
C5-4	PROP. 10\"/>
C5-5	PROP. 10\"/>
C5-6	PROP. 6\"/>
C5-7	PROP. 6\"/>
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C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
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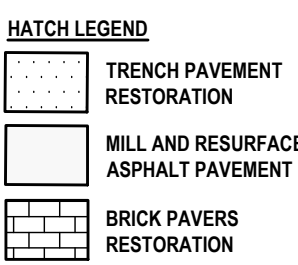
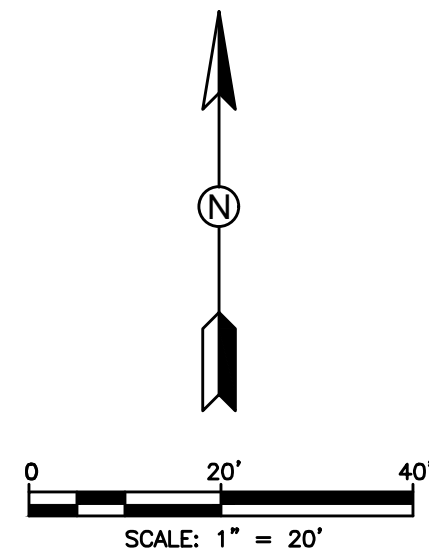
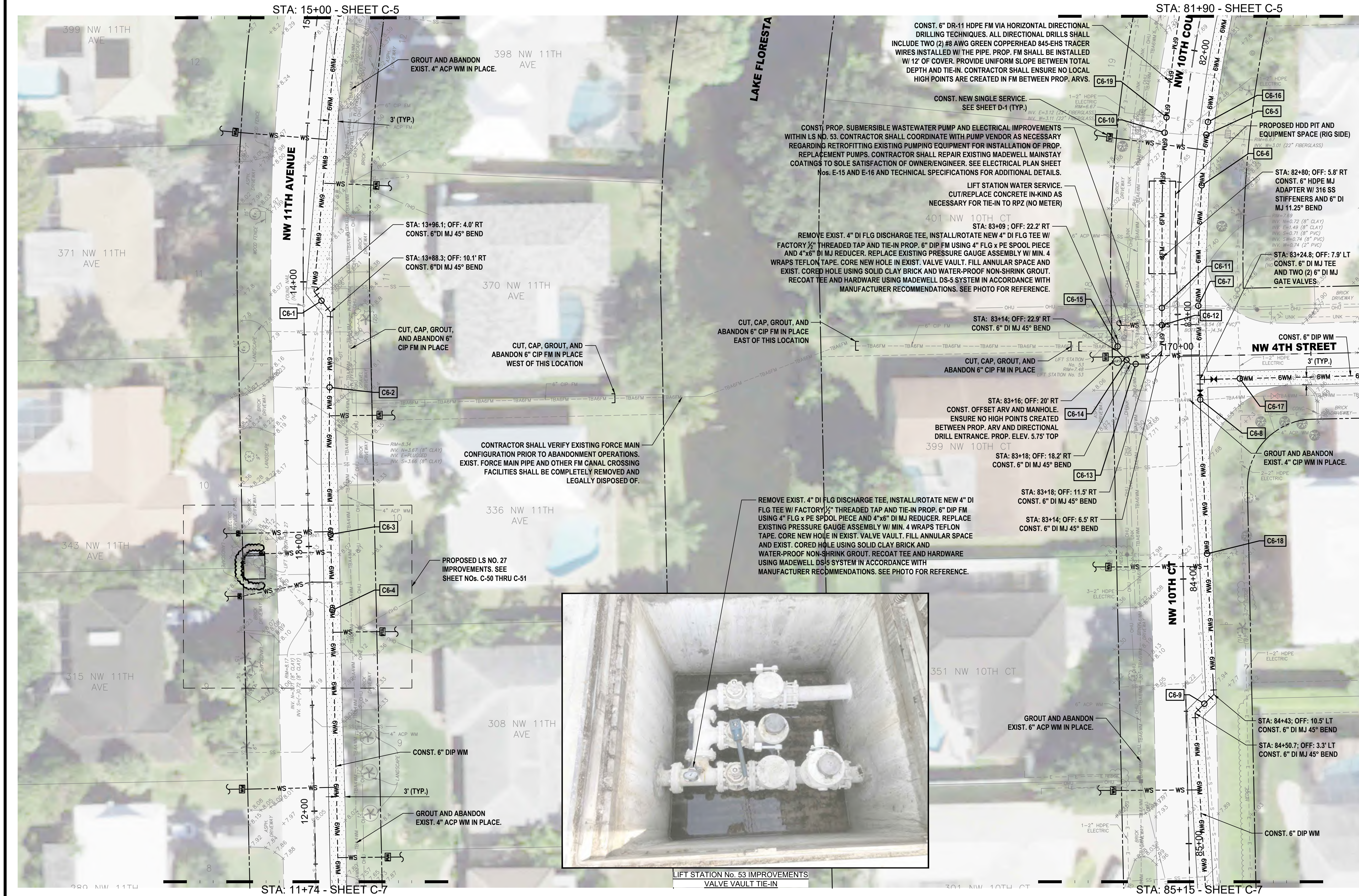
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 11. ALL COSTS ASSOCIATED W/ TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WM/FM CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION	ID NO.	DESCRIPTION
C6-1	PROP. 8" DIP WM UNDER EXIST. 8" VCP SS. MAINTAIN MIN. 12" CLEARANCE.	C6-11	PROP. 8" DIP FM OVER EXIST. 2" PVC SS. MAINTAIN MIN. 6" CLEARANCE.
C6-2	PROP. 8" DIP WM OVER UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C6-12	PROP. 8" DIP FM OVER EXIST. 8" PVC SS. MAINTAIN MIN. 6" CLEARANCE.
C6-3	PROP. 8" DIP WM OVER UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C6-13	PROP. 8" DIP FM OVER UNDER EXIST. 6" ACP WM. MAINTAIN MIN. 12" CLEARANCE.
C6-4	PROP. 8" DIP WM OVER EXIST. ELECT. MAINTAIN MIN. 6" CLEARANCE.	C6-14	PROP. 8" DIP FM OVER UNDER EXIST. UNKNOWN. MAINTAIN MIN. 6" CLEARANCE.
C6-5	PROP. 8" DIP WM UNDER EXIST. 22" FIBERGLASS STORM. MAINTAIN MIN. 12" CLEARANCE.	C6-15	PROP. 8" DIP FM OVER UNDER EXIST. 6" DIP FM. MAINTAIN MIN. 6" CLEARANCE.
C6-6	PROP. 8" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C6-16	PROP. 8" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C6-7	PROP. 8" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C6-17	PROP. 8" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C6-8	PROP. 8" DIP WM OVER UNDER EXIST. 4" ACP WM. MAINTAIN MIN. 6" CLEARANCE.	C6-18	PROP. 8" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C6-9	PROP. 8" DIP WM OVER EXIST. 8" PVC SS. MAINTAIN MIN. 6" CLEARANCE.	C6-19	PROP. 8" DIP FM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C6-10	PROP. 8" DIP FM UNDER EXIST. 22" FIBERGLASS STORM. MAINTAIN MIN. 6" CLEARANCE.		

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
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ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

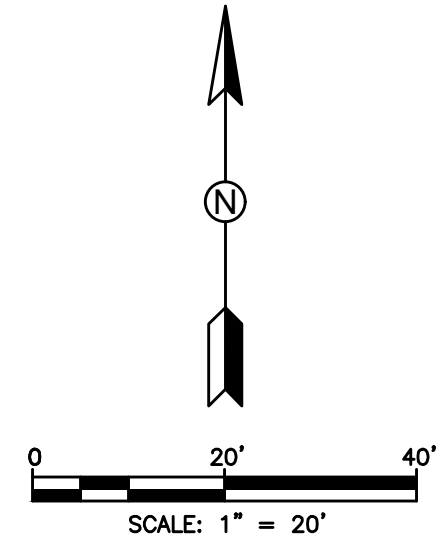
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Design By: HB
Drawn By: FG/RR
Check By: LL

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 11TH AVENUE
WATER/SEWER IMPROVEMENTS
PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No. 91550



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

- NOTES:
1. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
 2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6\"/>

ID NO.	DESCRIPTION
C7-1	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE	Date: 10/31/24
BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING	Scale: AS NOTED
0 1	Design By: HB
ADJUST ALL SCALED DIMENSIONS ACCORDINGLY	Drawn By: FG/RR
	Check By: LL

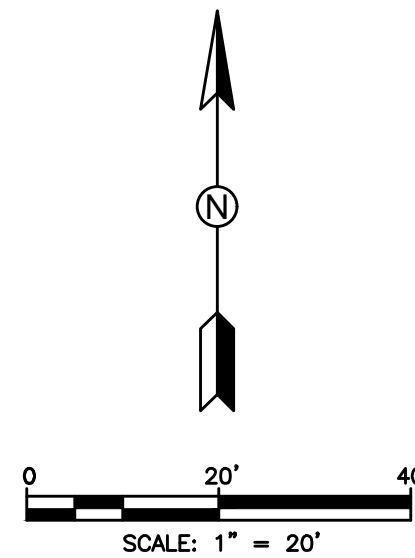
CITY OF BOCA RATON
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INFRASTRUCTURE UPGRADES

NW 11TH AVENUE
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C-7



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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 3. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
 4. CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
 5. EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
 6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5-FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5-FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
 7. MAINTAIN MIN. 30\"/>
 8. MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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ID NO.	DESCRIPTION
C8-1	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
	C5	C29	C30	C21	C15	C39	C40
C4	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

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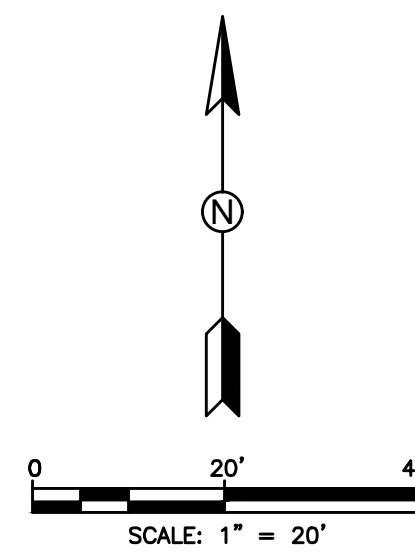
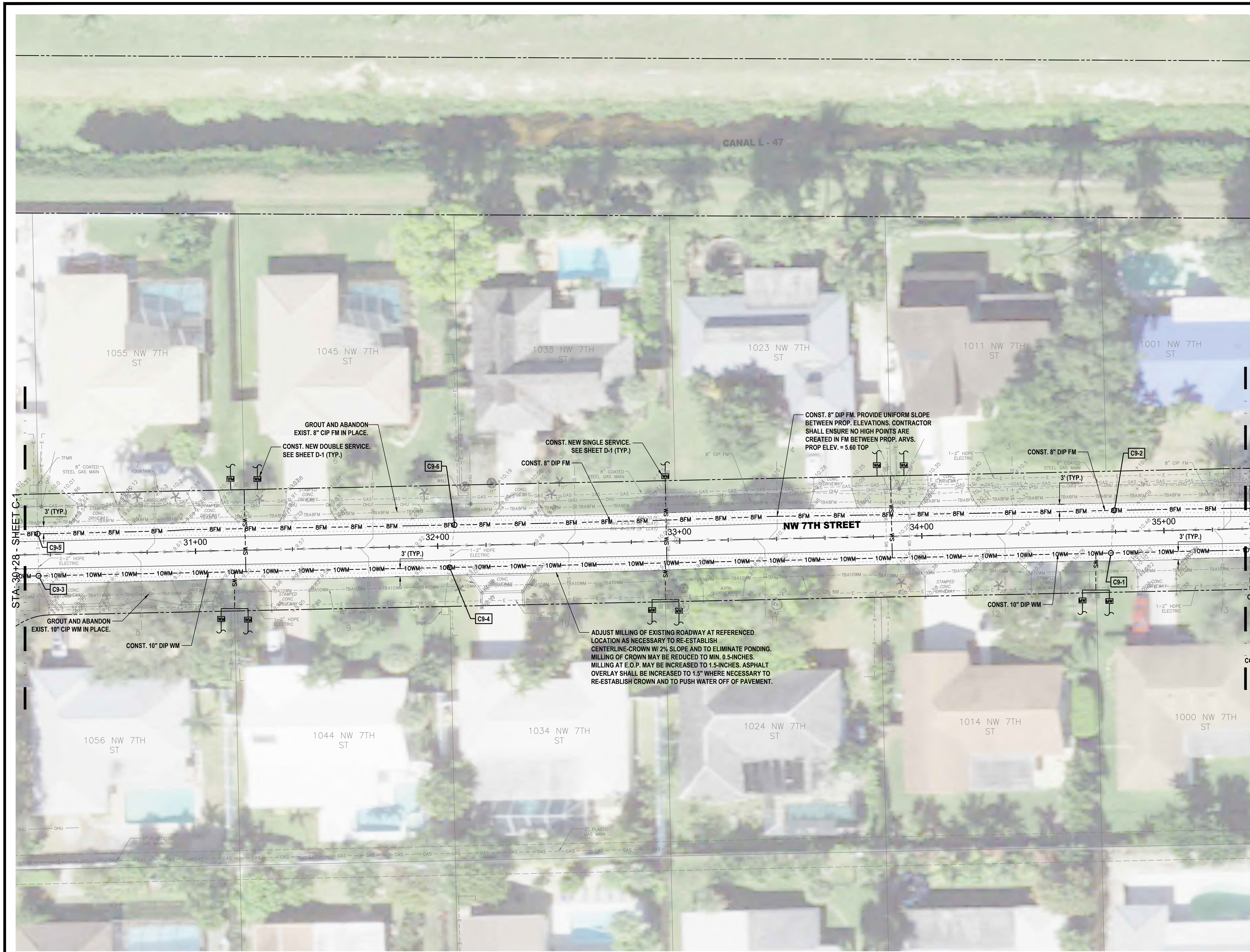
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 11TH AVENUE
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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ROBERT HARRISON BARRON III
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C-8



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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 7. MAINTAIN MIN. 36\"/>
 8. MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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ID NO.	DESCRIPTION
C9-1	PROP. 10\"/>
C9-2	PROP. 8\"/>
C9-3	PROP. 10\"/>
C9-4	PROP. 10\"/>
C9-5	PROP. 8\"/>
C9-6	PROP. 8\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
	C6	C31	C32	C21	C15	C39	C40
				C22	C16	C42	C41
	C7	C45	C47				
	C8	C46	C48	C23	C17	C43	
				C24	C18	C44	

REV	DATE	REVISIONS	BY

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ADJUST ALL SCALED
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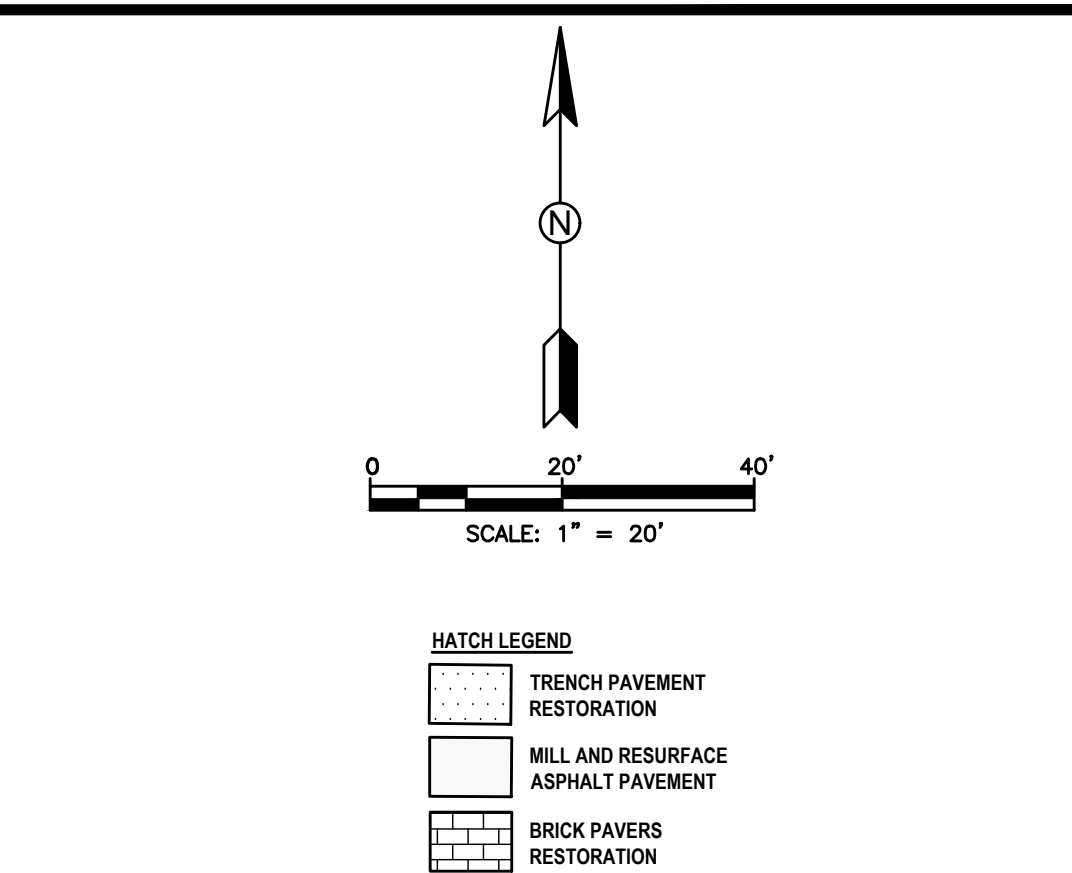
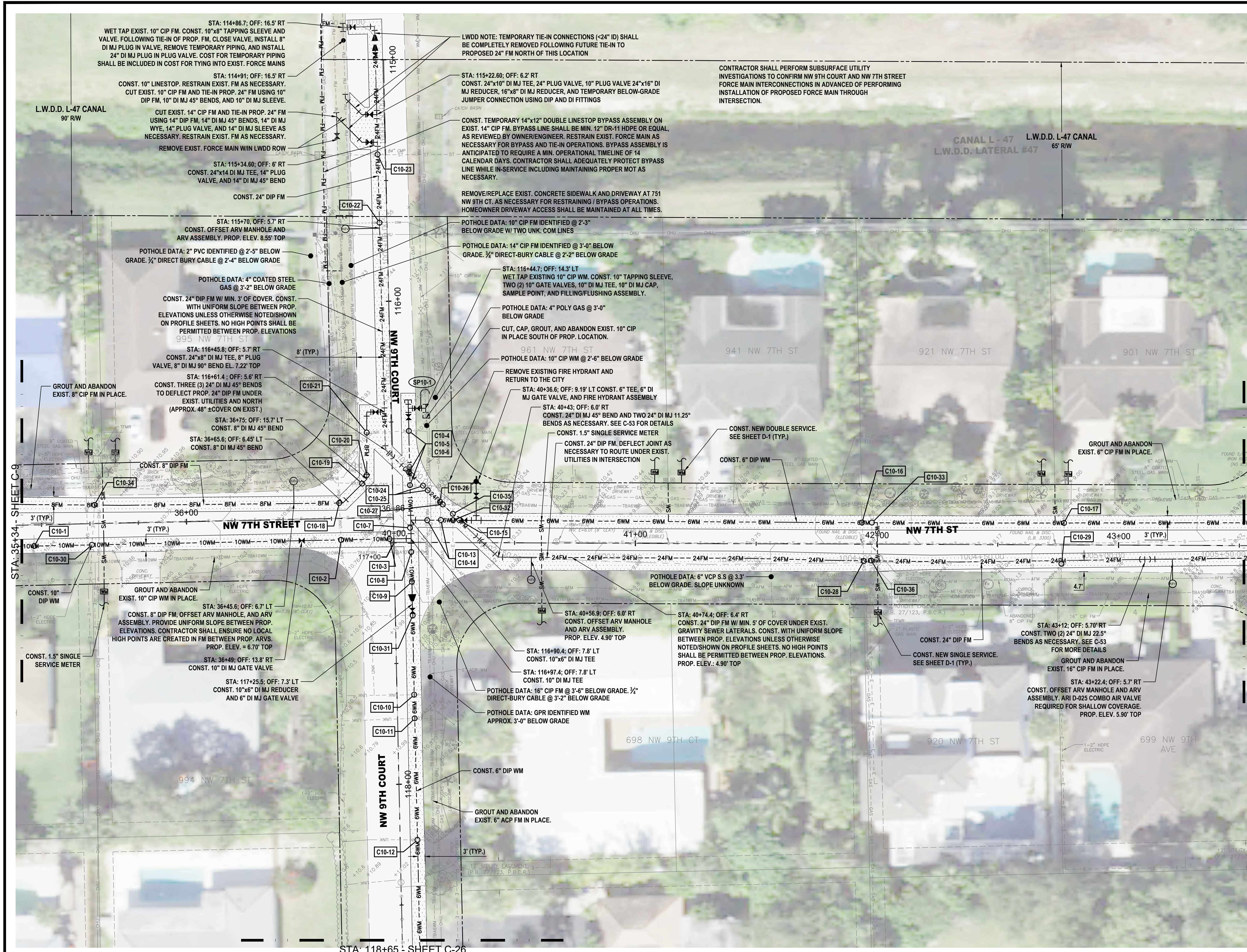
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 7TH STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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ROBERT HARRISON BARRON III
License No: 91550

C-9



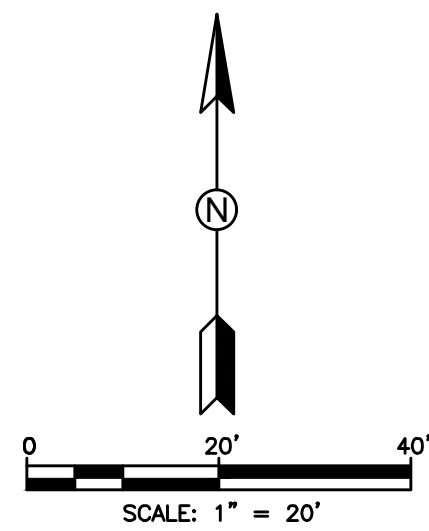
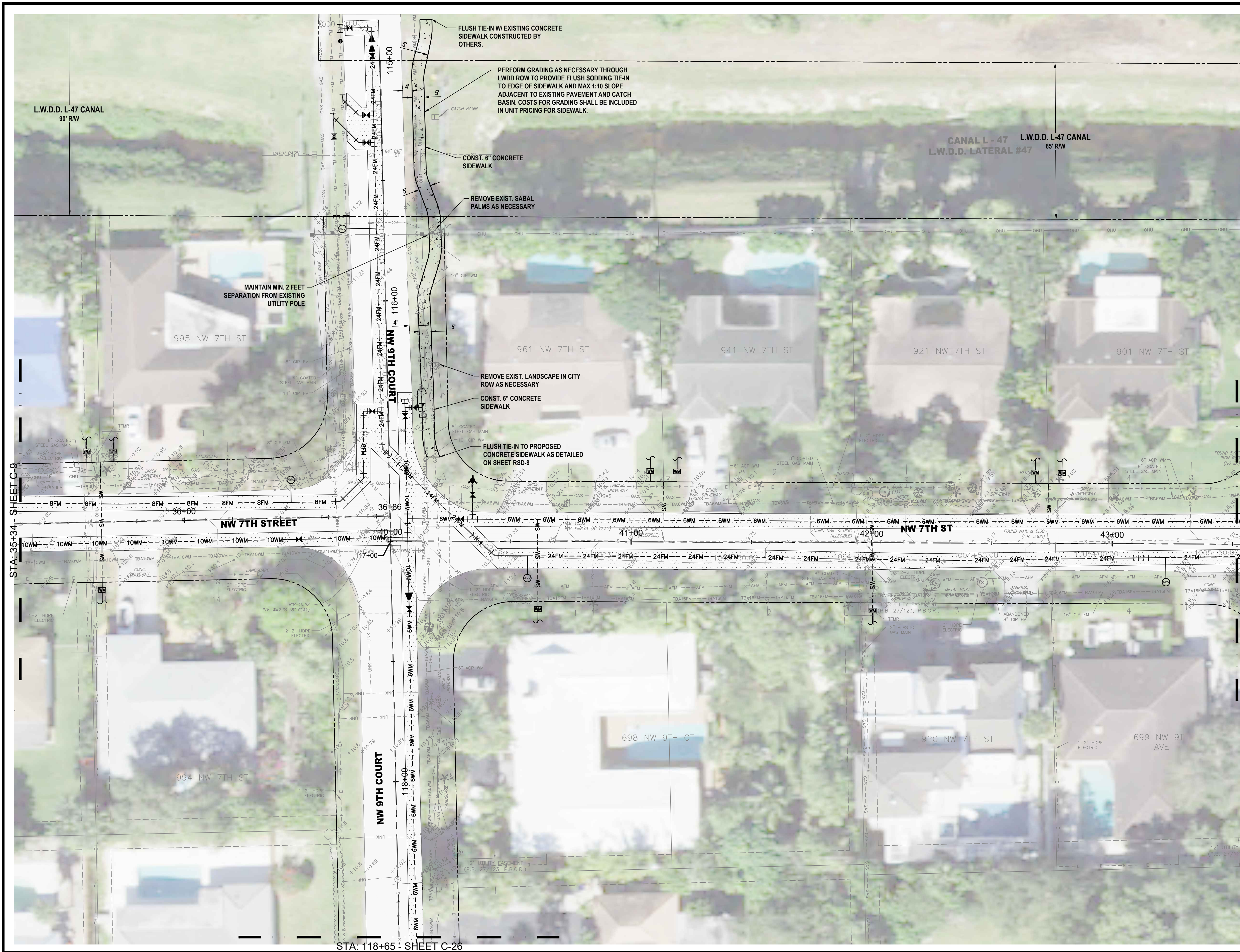
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 7. MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
 8. MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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ID NO.	DESCRIPTION	ID NO.	DESCRIPTION
C10-1	PROP. 10" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.	C10-19	PROP. 8" DIP FM OVER/UNDER EXIST. 16" FM AND GAS. MAINTAIN MIN. 6' CLEARANCE.
C10-2	PROP. 10" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.	C10-20	PROP. 8" DIP FM OVER/UNDER THROUGH EXIST. ABAND. FM. CUT AND REMOVE AS NECESSARY. MAINTAIN MIN. 6' CLEARANCE.
C10-3	PROP. 10" DIP WM OVER EXIST. 16" CIP FM. MAINTAIN MIN. 12' CLEARANCE.	C10-21	PROP. 8" DIP FM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.
C10-4	PROP. 10" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.	C10-22	PROP. 24" DIP FM OVER/UNDER EXIST. COM. MAINTAIN MIN. 6' CLEARANCE.
C10-5	PROP. 10" DIP WM OVER PROP. 24" DIP FM. MAINTAIN MIN. 12' CLEARANCE.	C10-23	PROP. 24" DIP FM OVER EXIST. STORM. MAINTAIN MIN. 6' CLEARANCE.
C10-6	PROP. 10" DIP WM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6' CLEARANCE.	C10-24	PROP. 24" DIP FM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6' CLEARANCE.
C10-7	PROP. 10" DIP WM OVER/UNDER THROUGH EXIST. ABAND. FM. CUT AND REMOVE AS NECESSARY. MAINTAIN MIN. 6' CLEARANCE.	C10-25	PROP. 24" DIP FM OVER/UNDER EXIST. 10" WM. MAINTAIN MIN. 12' CLEARANCE.
C10-8	PROP. 10" DIP WM OVER/UNDER EXIST. 10" WM. MAINTAIN MIN. 6' CLEARANCE.	C10-26	PROP. 24" DIP FM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6' CLEARANCE.
C10-9	PROP. 10" DIP WM OVER/UNDER EXIST. 16" CIP FM. MAINTAIN MIN. 12' CLEARANCE.	C10-27	PROP. 24" DIP FM OVER/UNDER EXIST. 6" WM. MAINTAIN MIN. 12' CLEARANCE.
C10-10	PROP. 6" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.	C10-28	PROP. 24" DIP FM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6' CLEARANCE.
C10-11	PROP. 6" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.	C10-29	PROP. 24" DIP FM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.
C10-12	PROP. 6" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.	C10-30	PROP. 10" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.
C10-13	PROP. 6" DIP WM OVER/UNDER EXIST. 6" WM. MAINTAIN MIN. 6' CLEARANCE.	C10-31	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.
C10-14	PROP. 6" DIP WM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6' CLEARANCE.	C10-32	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.
C10-15	PROP. 6" DIP WM OVER PROP. 24" DIP FM. MAINTAIN MIN. 12' CLEARANCE.	C10-33	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.
C10-16	PROP. 6" DIP WM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6' CLEARANCE.	C10-34	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.
C10-17	PROP. 6" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.	C10-35	PROP. 24" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.
C10-18	PROP. 8" DIP FM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.	C10-36	PROP. 24" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

VERIFY SCALE BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING 0 1 ADJUST ALL SCALED DIMENSIONS ACCORDINGLY		Date: 10/31/24 Scale: AS NOTED Design By: HB Drawn By: FG/RR Check By: LL	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	NW 7TH STREET WATER/SEWER IMPROVEMENTS PLAN SHEET	HOLTZ CONSULTING ENGINEERS, INC. 270 SOUTH CENTRAL BLVD., SUITE 207 JUPITER, FLORIDA 33458 PH. (561) 575-2005 CERTIFICATE OF AUTH. No. 26960	ROBERT HARRISON BARRON III License No. 91550	C-10
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Drawing Name: F:\PROJECTS\Boca Raton\WO - Old Floresta\Design\Drawings\Plan Sheet.dwg Layout Name: C-10 - Plotted by: Russell Ryan - Date: 1/27/2025 - 9:52 AM - Holtz Consulting Engineers



HATCH LEGEND	
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	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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 4. CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
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 7. MAINTAIN MIN. 36\"/>
 8. MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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ID NO.	DESCRIPTION	ID NO.	DESCRIPTION
C10-1	PROP. 10\"/>	C10-19	PROP. 8\"/>
C10-2	PROP. 10\"/>	C10-20	PROP. 8\"/>
C10-3	PROP. 10\"/>	C10-21	PROP. 8\"/>
C10-4	PROP. 10\"/>	C10-22	PROP. 24\"/>
C10-5	PROP. 10\"/>	C10-23	PROP. 24\"/>
C10-6	PROP. 10\"/>	C10-24	PROP. 24\"/>
C10-7	PROP. 10\"/>	C10-25	PROP. 24\"/>
C10-8	PROP. 10\"/>	C10-26	PROP. 24\"/>
C10-9	PROP. 10\"/>	C10-27	PROP. 24\"/>
C10-10	PROP. 6\"/>	C10-28	PROP. 24\"/>
C10-11	PROP. 6\"/>	C10-29	PROP. 24\"/>
C10-12	PROP. 6\"/>	C10-30	PROP. 10\"/>
C10-13	PROP. 6\"/>	C10-31	PROP. 6\"/>
C10-14	PROP. 6\"/>	C10-32	PROP. 6\"/>
C10-15	PROP. 6\"/>	C10-33	PROP. 6\"/>
C10-16	PROP. 6\"/>	C10-34	PROP. 8\"/>
C10-17	PROP. 8\"/>	C10-35	PROP. 24\"/>
C10-18	PROP. 8\"/>	C10-36	PROP. 24\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

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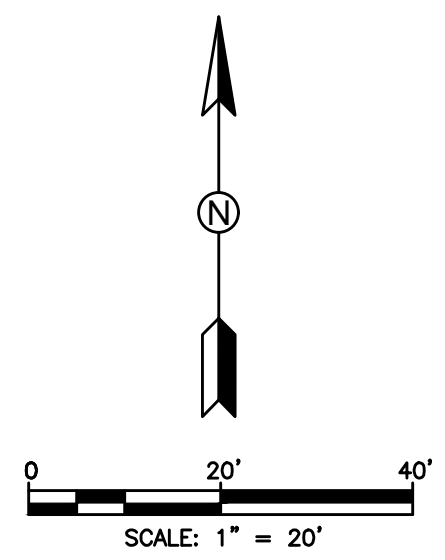
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 9TH COURT
SIDEWALK IMPROVEMENTS
PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
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PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-10A



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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ID NO.	DESCRIPTION
C11-1	PROP. 6\"/>
C11-2	PROP. 6\"/>
C11-3	PROP. 6\"/>
C11-4	PROP. 6\"/>
C11-5	PROP. 8\"/>
C11-6	PROP. 8\"/>
C11-7	PROP. 8\"/>
C11-8	PROP. 8\"/>
C11-9	PROP. 8\"/>
C11-10	PROP. 8\"/>
C11-11	PROP. 24\"/>
C11-12	PROP. 24\"/>
C11-13	PROP. 24\"/>
C11-14	PROP. 24\"/>
C11-15	PROP. 24\"/>
C11-16	PROP. 6\"/>
C11-17	PROP. 24\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
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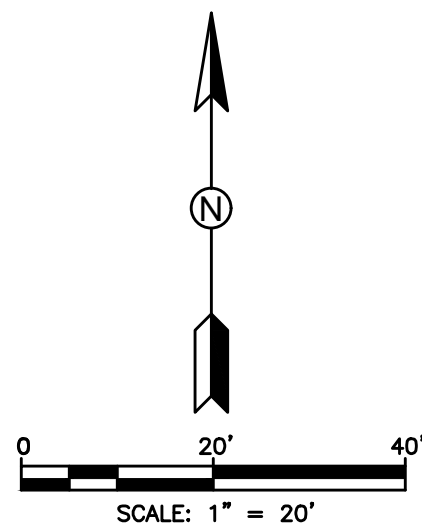
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OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 7TH STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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ROBERT HARRISON BARRON III
License No. 91550

C-11



HATCH LEGEND

- TRENCH PAVEMENT RESTORATION
- MILL AND RESURFACE ASPHALT PAVEMENT
- BRICK PAVERS RESTORATION

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C12-1	PROP. 6\"/>	C12-11	PROP. 24\"/>
C12-2	PROP. 6\"/>	C12-12	PROP. 24\"/>
C12-3	PROP. 6\"/>	C12-13	PROP. 6\"/>
C12-4	PROP. 6\"/>	C12-14	PROP. 24\"/>
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C12-6	PROP. 6\"/>	C12-16	PROP. 6\"/>
C12-7	PROP. 6\"/>	C12-17	PROP. 6\"/>
C12-8	PROP. 6\"/>	C12-18	PROP. 6\"/>
C12-9	PROP. 6\"/>	C12-19	PROP. 24\"/>
C12-10	PROP. 6\"/>	C12-20	PROP. 24\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
	C6	C31	C32	C21	C15	C39	C40
				C22	C16	C42	
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

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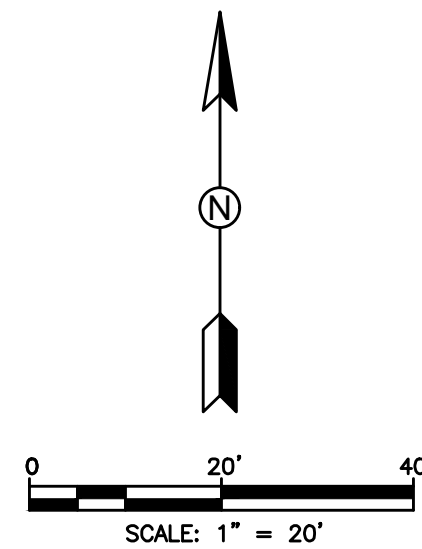
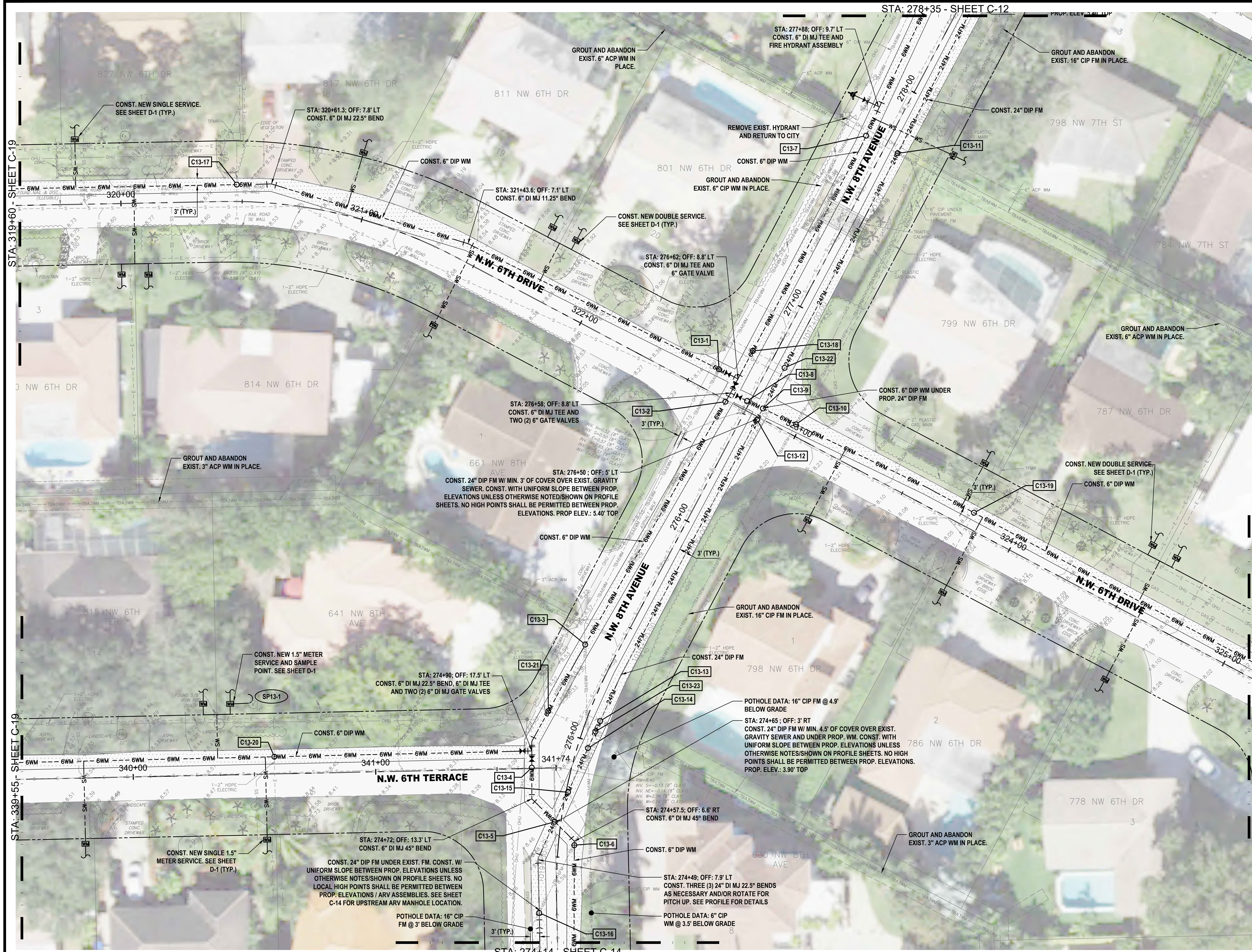
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 7TH STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-12



HATCH LEGEND	
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	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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C13-1	PROP. 6\"/>	C13-13	PROP. 24\"/>
C13-2	PROP. 6\"/>	C13-14	PROP. 24\"/>
C13-3	PROP. 6\"/>	C13-15	PROP. 24\"/>
C13-4	PROP. 6\"/>	C13-16	PROP. 24\"/>
C13-5	PROP. 24\"/>	C13-17	PROP. 6\"/>
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C13-9	PROP. 6\"/>	C13-21	PROP. 6\"/>
C13-10	PROP. 6\"/>	C13-22	PROP. 24\"/>
C13-11	PROP. 24\"/>	C13-23	PROP. 24\"/>
C13-12	PROP. 24\"/>		

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
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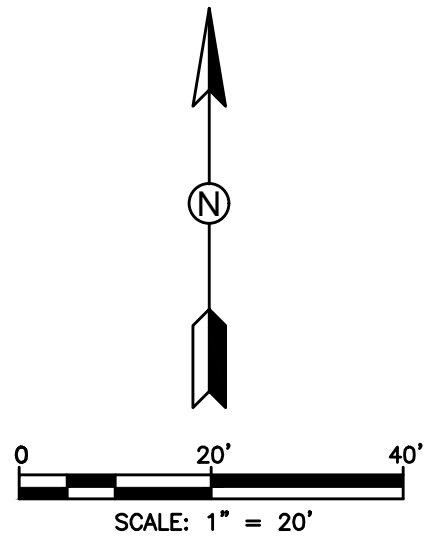
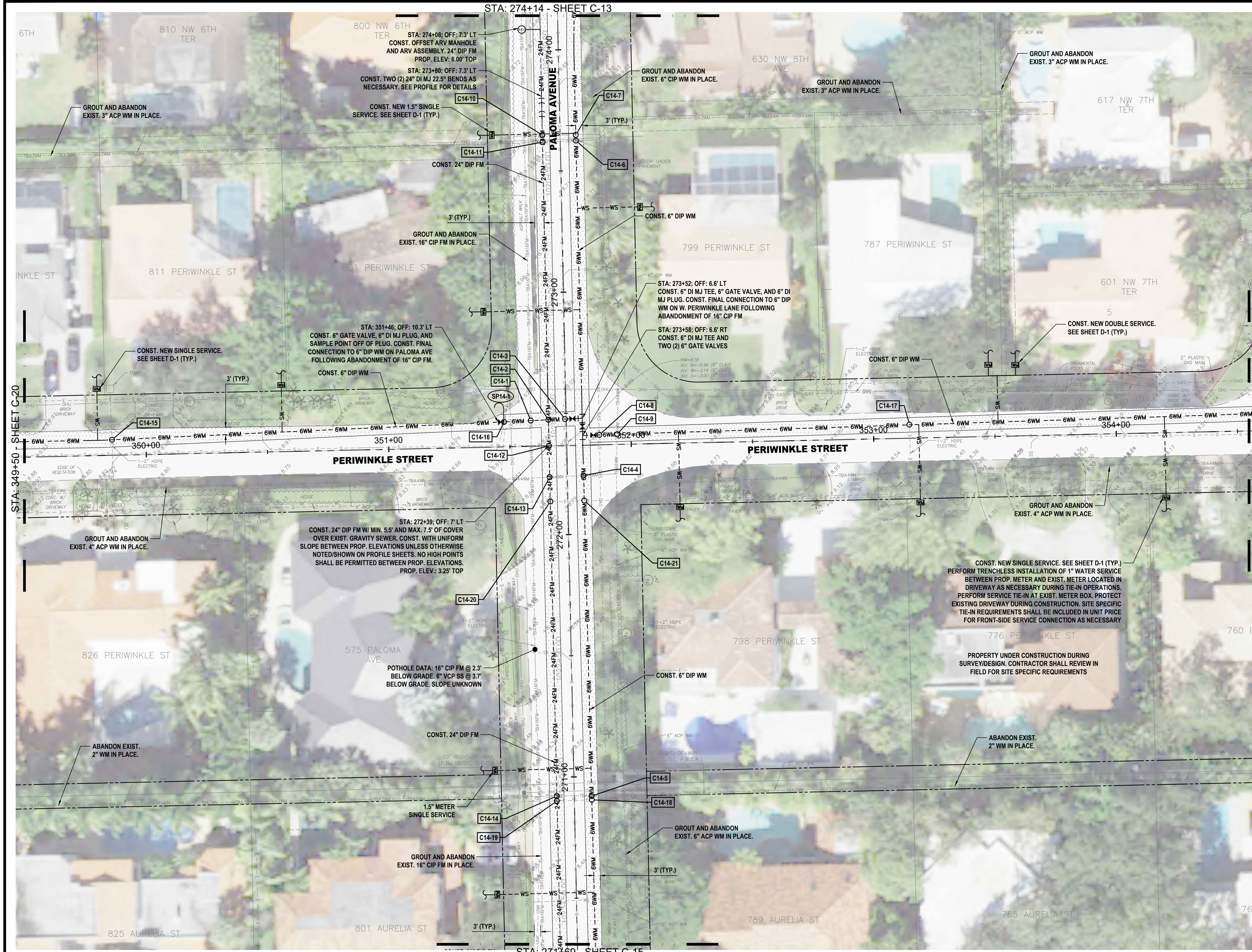
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C-13



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ID NO.	DESCRIPTION	ID NO.	DESCRIPTION
C14-1	PROP. 6" DIP WM OVER UNDER EXIST. 16" CIP FM. MAINTAIN MIN. 12" CLEARANCE.	C14-12	PROP. 24" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C14-2	PROP. 6" DIP WM OVER PROP. 24" DIP FM. MAINTAIN MIN. 12" CLEARANCE.	C14-13	PROP. 24" DIP FM OVER UNDER EXIST. 4" WM. MAINTAIN MIN. 12" CLEARANCE.
C14-3	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C14-14	PROP. 24" DIP FM OVER UNDER EXIST. 2" WM. MAINTAIN MIN. 12" CLEARANCE.
C14-4	PROP. 6" DIP WM OVER UNDER EXIST. 4" WM. MAINTAIN MIN. 6" CLEARANCE.	C14-15	PROP. 6" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C14-5	PROP. 6" DIP WM OVER UNDER EXIST. 2" WM. MAINTAIN MIN. 6" CLEARANCE.	C14-16	PROP. 6" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C14-6	PROP. 6" DIP WM OVER UNDER EXIST. 3" CIP WM. MAINTAIN MIN. 6" CLEARANCE.	C14-17	PROP. 6" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C14-7	PROP. 6" DIP WM OVER UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C14-18	PROP. 6" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C14-8	PROP. 6" DIP WM OVER UNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.	C14-19	PROP. 24" DIP FM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C14-9	PROP. 6" DIP WM OVER UNDER EXIST. 6" CIP WM. MAINTAIN MIN. 6" CLEARANCE.	C14-20	PROP. 24" DIP FM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C14-10	PROP. 24" DIP FM OVER UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C14-21	PROP. 6" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C14-11	PROP. 24" DIP FM OVER UNDER EXIST. 3" CIP WM. MAINTAIN MIN. 12" CLEARANCE.		

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
	C6	C31	C32	C21	C15	C39	C40
				C22	C16	C42	C41
	C7	C45	C47				
	C8	C46	C48	C23	C17	C43	
				C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 10/31/24
Scale: AS NOTED
Design By: HB
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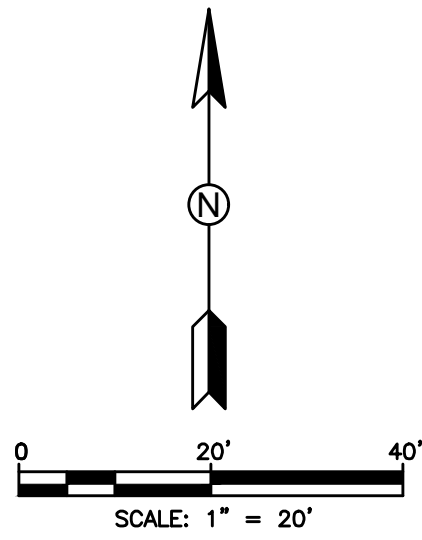
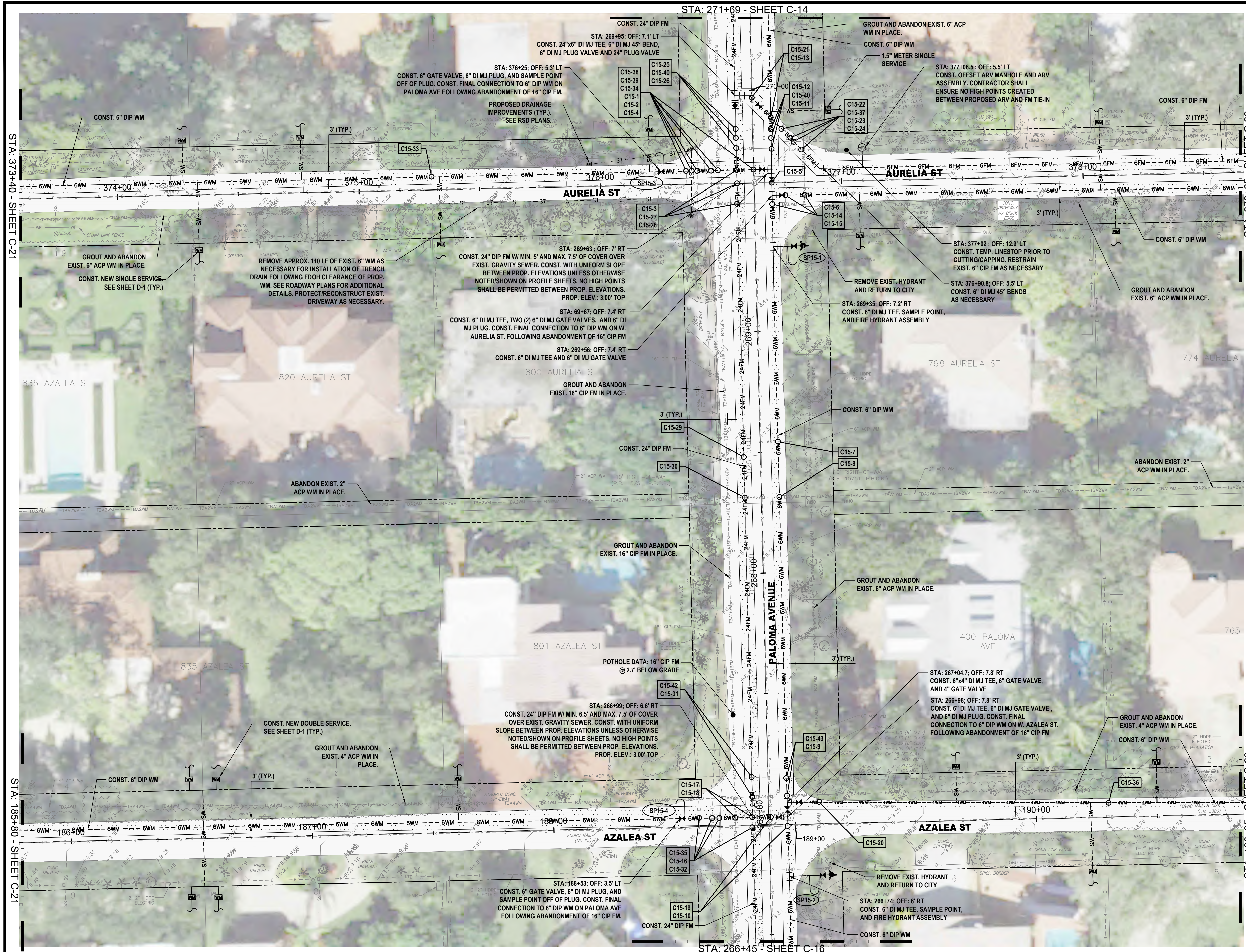
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

PALOMA AVENUE
WATER/SEWER IMPROVEMENTS
PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-14



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

- NOTES:
1. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
 2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6" VERTICAL CLEARANCE.
 3. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
 4. CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
 5. EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
 6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5 FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
 7. MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
 8. MAINTAIN MINIMUM 5 FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
 9. EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/REINFORCING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
 10. WHERE EXISTING CROSSWALK SIDEWALK RAMPS ARE PROPOSED FOR REPLACEMENT, EXISTING CROSSWALK RAMP SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK. RE-SOD WHERE PROP. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED.
 11. ALL COSTS ASSOCIATED WITH TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WMM/FM CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION	ID NO.	DESCRIPTION
C15-1	PROP. 6" DIP FM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C15-23	PROP. 6" DIP FM OVERUNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.
C15-2	PROP. 6" DIP FM OVERUNDER EXIST. 16" CIP FM. MAINTAIN MIN. 12" CLEARANCE.	C15-24	PROP. 6" DIP FM OVERUNDER EXIST. 6" CIP FM AND 6" WM. MAINTAIN MIN. 12" CLEARANCE.
C15-3	PROP. 6" DIP FM OVER PROP. 24" DIP FM. MAINTAIN MIN. 12" CLEARANCE.	C15-25	PROP. 24" DIP FM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C15-4	PROP. 6" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C15-26	PROP. 24" DIP FM OVERUNDER EXIST. 6" CIP FM. MAINTAIN MIN. 6" CLEARANCE.
C15-5	PROP. 6" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C15-27	PROP. 24" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C15-6	PROP. 6" DIP FM OVERUNDER EXIST. 6" WM. MAINTAIN MIN. 6" CLEARANCE.	C15-28	PROP. 24" DIP FM OVER EXIST. 6" WM. MAINTAIN MIN. 12" CLEARANCE.
C15-7	PROP. 6" DIP FM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C15-29	PROP. 24" DIP FM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C15-8	PROP. 6" DIP FM OVERUNDER EXIST. 2" WM. MAINTAIN MIN. 6" CLEARANCE.	C15-30	PROP. 24" DIP FM OVERUNDER EXIST. 2" WM. MAINTAIN MIN. 12" CLEARANCE.
C15-9	PROP. 6" DIP FM OVER EXIST. 4" WM. MAINTAIN MIN. 6" CLEARANCE.	C15-31	PROP. 24" DIP FM OVERUNDER EXIST. 4" WM. MAINTAIN MIN. 12" CLEARANCE.
C15-10	PROP. 6" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C15-32	PROP. 24" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C15-11	PROP. 6" DIP FM OVERUNDER EXIST. 6" CIP FM. MAINTAIN MIN. 12" CLEARANCE.	C15-33	PROP. 6" DIP FM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C15-12	PROP. 6" DIP FM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C15-34	PROP. 6" DIP FM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C15-13	PROP. 6" DIP FM OVER PROP. 6" DIP FM. MAINTAIN MIN. 12" CLEARANCE.	C15-35	PROP. 4" DIP FM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C15-14	PROP. 6" DIP FM OVERUNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.	C15-36	PROP. 4" DIP FM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C15-15	PROP. 6" DIP FM OVERUNDER EXIST. 6" WM. MAINTAIN MIN. 6" CLEARANCE.	C15-37	PROP. 6" DIP FM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C15-16	PROP. 6" DIP FM OVERUNDER EXIST. TELEPHONE. MAINTAIN MIN. 6" CLEARANCE.	C15-38	PROP. 6" DIP FM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C15-17	PROP. 6" DIP FM OVERUNDER EXIST. 16" CIP FM. MAINTAIN MIN. 12" CLEARANCE.	C15-39	PROP. 6" DIP FM OVERUNDER PROP. 15" RCP PER FAC. MAINTAIN MIN. 12" CLEARANCE BELOW.
C15-18	PROP. 6" DIP FM OVER PROP. 24" DIP FM. MAINTAIN MIN. 12" CLEARANCE.	C15-40	PROP. 24" DIP FM OVERUNDER 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C15-19	PROP. 6" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C15-41	PROP. 6" DIP FM OVERUNDER 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C15-20	PROP. 6" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C15-42	PROP. 24" DIP FM OVERUNDER 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C15-21	PROP. 6" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C15-43	PROP. 6" DIP FM OVERUNDER 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C15-22	PROP. 6" DIP FM OVERUNDER EXIST. UNK. AND GAS. MAINTAIN MIN. 6" CLEARANCE.		

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32		C22	C16	C42
	C7	C45	C47		C23	C17	C43
	C8	C46	C48		C24	C18	C44

REV	DATE	REVISIONS	BY

VERIFY SCALE	Date: 10/31/24
BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING	Scale: AS NOTED
0" = 1"	Design By: HB
ADJUST ALL SCALED DIMENSIONS ACCORDINGLY	Drawn By: FG/RR
	Check By: LL

CITY OF BOCA RATON
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INFRASTRUCTURE UPGRADES

PALOMA AVENUE
WATER/SEWER IMPROVEMENTS
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CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No. 91550

C-15



0 20' 40'

SCALE: 1" = 20'

HATCH LEGEND

- TRENCH PAVEMENT RESTORATION
- MILL AND RESURFACE ASPHALT PAVEMENT
- BRICK PAVERS RESTORATION

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6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5-FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5-FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.

7. MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.

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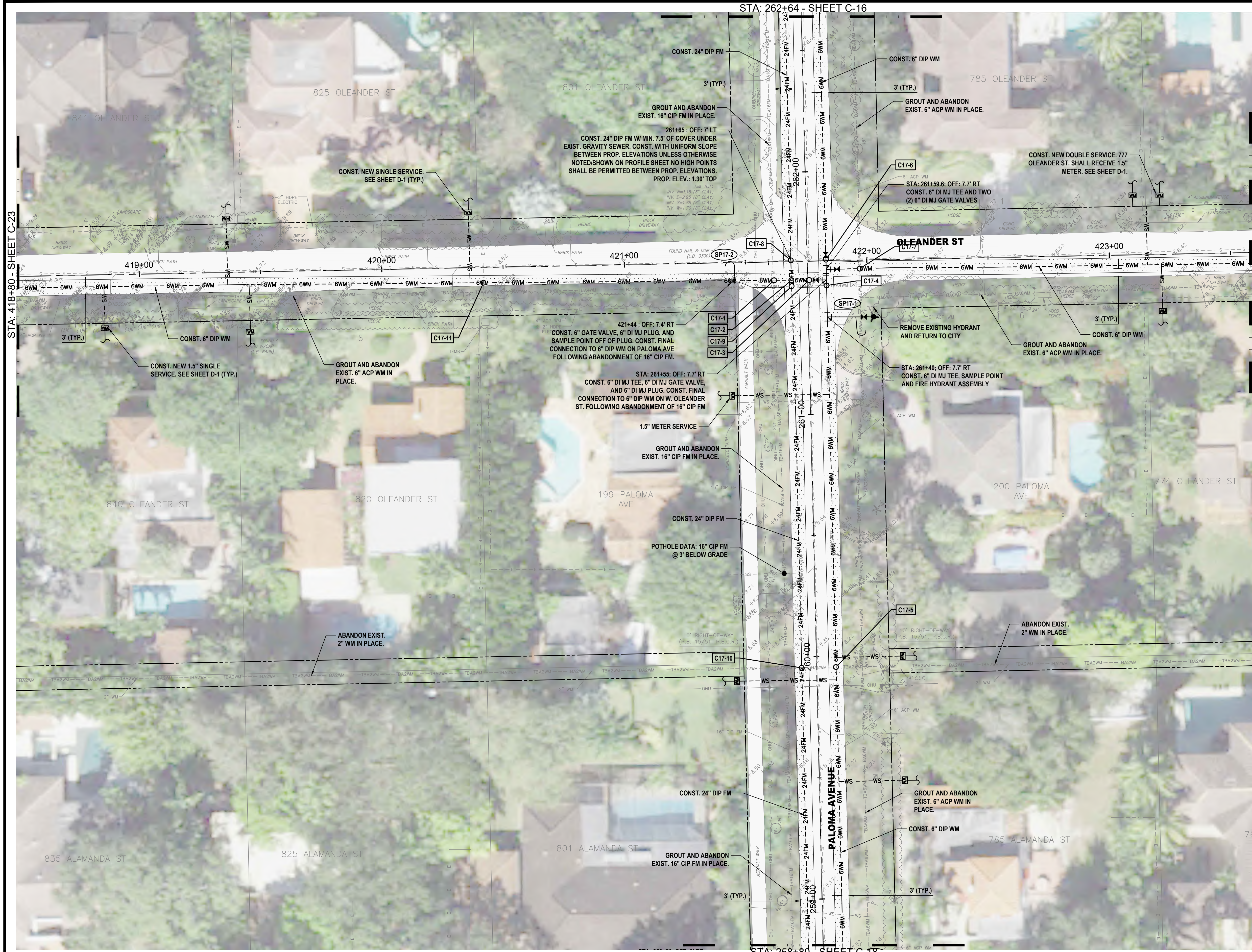
9. EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN-KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/REINFORCING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.

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ID NO.	DESCRIPTION	ID NO.	DESCRIPTION
C16-1	PROP. 6" DIP WM OVER/UNDER EXIST. 16" CIP FM. MAINTAIN MIN. 12" CLEARANCE.	C16-11	PROP. 24" DIP FM OVER/UNDER EXIST. 6" WM. MAINTAIN MIN. 12" CLEARANCE.
C16-2	PROP. 6" DIP WM OVER PROP. 24" DIP FM. MAINTAIN MIN. 12" CLEARANCE.	C16-12	PROP. 24" DIP FM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C16-3	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C16-13	PROP. 24" DIP FM OVER/UNDER EXIST. 2" WM. MAINTAIN MIN. 12" CLEARANCE.
C16-4	PROP. 6" DIP WM OVER/UNDER EXIST. 6" WM. MAINTAIN MIN. 6" CLEARANCE.	C16-14	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C16-5	PROP. 6" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C16-15	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C16-6	PROP. 6" DIP WM OVER/UNDER EXIST. 2" WM. MAINTAIN MIN. 6" CLEARANCE.	C16-16	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C16-7	PROP. 6" DIP WM OVER/UNDER EXIST. 6" WM. MAINTAIN MIN. 6" CLEARANCE.	C16-17	PROP. 6" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C16-8	PROP. 6" DIP WM OVER/UNDER EXIST. 6" WM. MAINTAIN MIN. 6" CLEARANCE.	C16-18	PROP. 24" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C16-9	PROP. 24" DIP FM OVER/UNDER EXIST. 2" WM. MAINTAIN MIN. 12" CLEARANCE.	C16-19	PROP. 24" DIP FM OVER/UNDER 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C16-10	PROP. 24" DIP FM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.	C16-20	PROP. 6" DIP WM OVER/UNDER 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	



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ID NO.	DESCRIPTION
C17-1	PROP. 6" DIP WM OVER UNDER EXIST. 16" CIP FM. MAINTAIN MIN. 12" CLEARANCE.
C17-2	PROP. 6" DIP WM OVER PROP. 24" DIP FM. MAINTAIN MIN. 12" CLEARANCE.
C17-3	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
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C17-6	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C17-7	PROP. 6" DIP WM OVER UNDER EXIST. 6" WM. MAINTAIN MIN. 6" CLEARANCE.
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C17-9	PROP. 24" DIP FM OVER UNDER EXIST. 4" WM. MAINTAIN MIN. 12" CLEARANCE.
C17-10	PROP. 24" DIP FM OVER UNDER EXIST. 2" WM. MAINTAIN MIN. 12" CLEARANCE.
C17-11	PROP. 6" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
	C6	C31	C32	C21	C15	C39	C40
				C22	C16	C42	C41
	C7	C45	C47				
	C8	C46	C48	C23	C17	C43	
				C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED DIMENSIONS ACCORDINGLY
Date: 10/31/24
Scale: AS NOTED
Design By: HB
Drawn By: FG/RR
Check By: LL

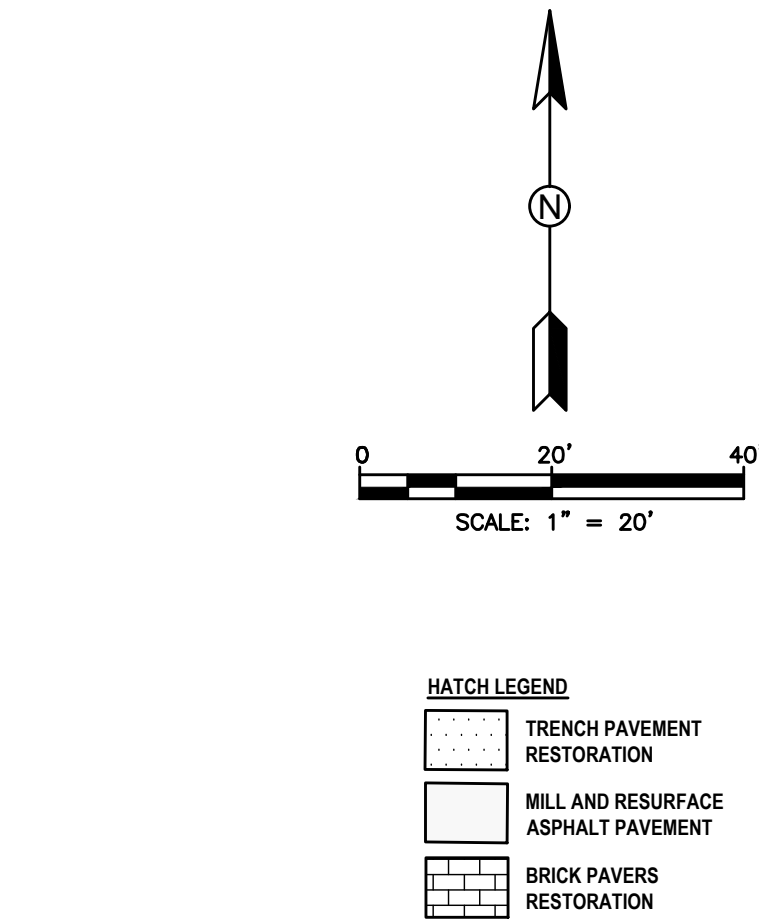
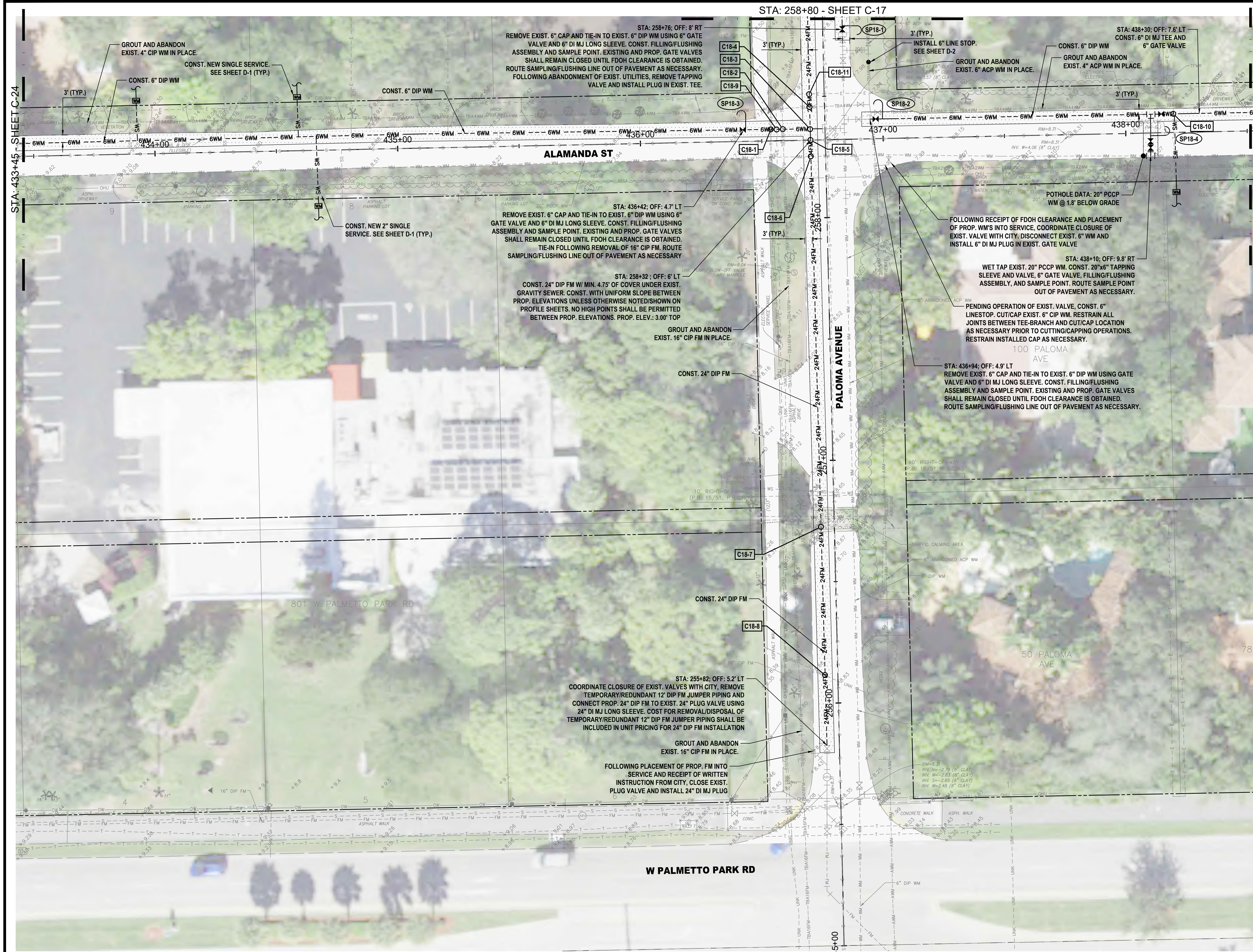
CITY OF BOCA RATON
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CERTIFICATE OF AUTH. NO. 26960

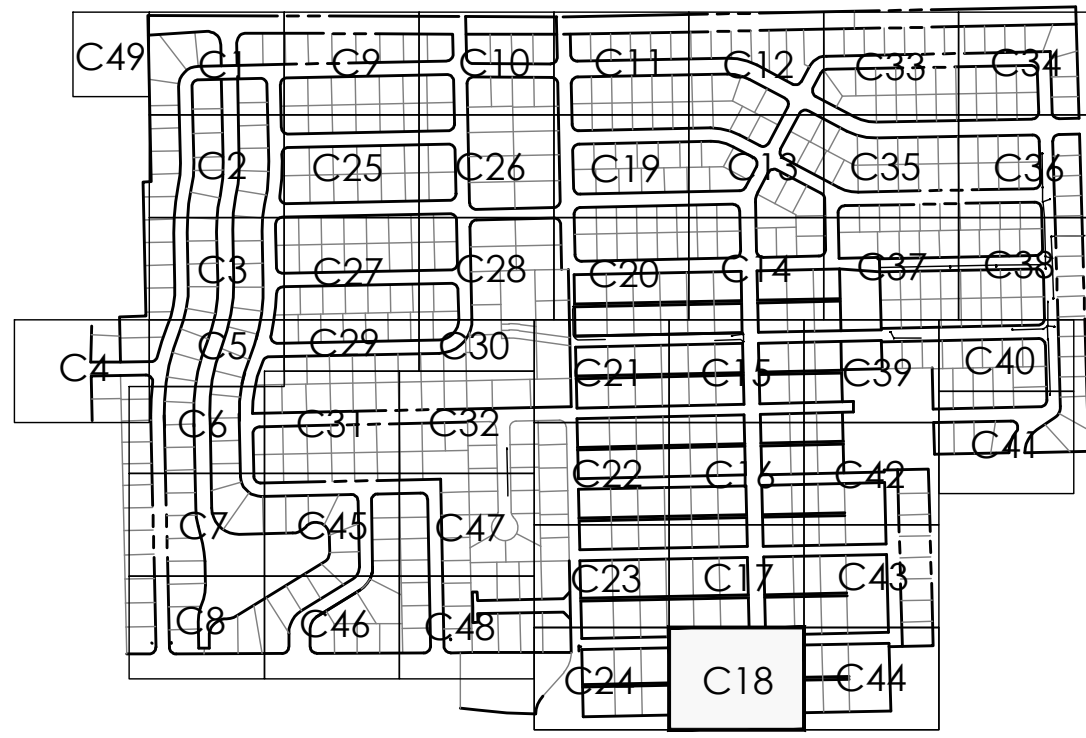
ROBERT HARRISON BARRON III
License No: 91550

C-17



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 4. CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
 5. EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
 6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5-FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5-FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHAFT PROPOSED UTILITIES AS NECESSARY.
 7. MAINTAIN MIN. 30" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
 8. MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
 9. EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN-KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/RIBBON/CURBING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
 10. WHERE EXISTING CROSSWALK SIDEWALK RAMP ARE PROPOSED FOR REPLACEMENT, EXISTING CROSSWALK RAMP SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK. RE-SOD WHERE PROP. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED.
 11. ALL COSTS ASSOCIATED WITH TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WM/FM CONSTRUCTION AND MILLING/SURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C18-1	PROP. 6" DIP WM OVERUNDER EXIST. TELEPHONE. MAINTAIN MIN. 6' CLEARANCE.
C18-2	PROP. 6" DIP WM OVERUNDER EXIST. 16" CIP FM. MAINTAIN MIN. 12' CLEARANCE.
C18-3	PROP. 6" DIP WM OVER PROP. 24" CIP FM. MAINTAIN MIN. 12' CLEARANCE.
C18-4	PROP. 24" DIP FM OVERUNDER EXIST. 4" CIP WM. MAINTAIN MIN. 12' CLEARANCE.
C18-5	PROP. 24" DIP FM UNDER EXIST. 8" VCP SS. MAINTAIN MIN. 6' CLEARANCE.
C18-6	PROP. 24" DIP FM OVERUNDER EXIST. 20" WM. MAINTAIN MIN. 12' CLEARANCE.
C18-7	PROP. 24" DIP FM OVERUNDER EXIST. TELEPHONE. MAINTAIN MIN. 6' CLEARANCE.
C18-8	PROP. 24" DIP FM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6' CLEARANCE.
C18-9	PROP. 6" DIP WM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.
C18-10	PROP. 6" DIP WM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.
C18-11	PROP. 24" DIP FM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.



REV	DATE	REVISIONS	BY

VERIFY SCALE BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING 0 1 ADJUST ALL SCALED DIMENSIONS ACCORDINGLY	Date: 10/31/24 Scale: AS NOTED Design By: HB Drawn By: FG/RR Check By: LL
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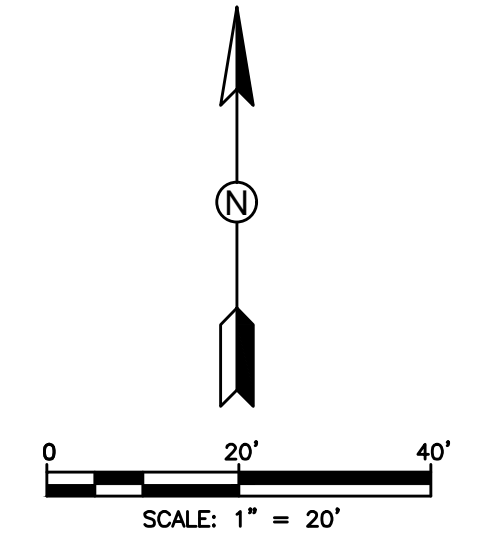
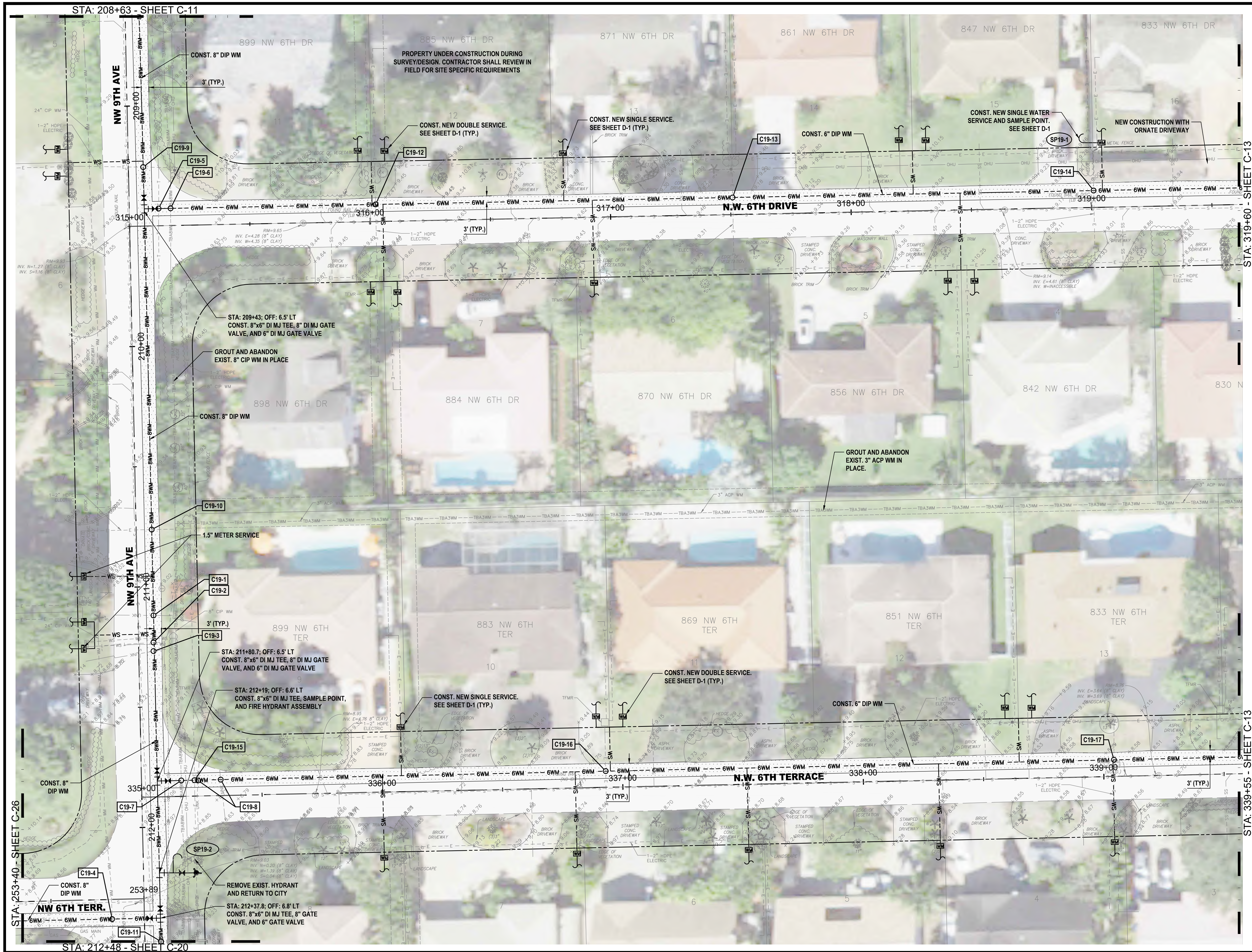
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

PALOMA AVENUE
WATER/SEWER IMPROVEMENTS
PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. NO. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-18



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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 7. MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
 8. MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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ID NO.	DESCRIPTION	ID NO.	DESCRIPTION
C19-1	PROP. 8" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C19-11	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C19-2	PROP. 8" DIP WM OVER/UNDER EXIST. TELEPHONE AND WM. MAINTAIN MIN. 6" CLEARANCE.	C19-12	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C19-3	PROP. 8" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C19-13	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C19-4	PROP. 8" DIP WM OVER/UNDER EXIST. 24" WM. MAINTAIN MIN. 6" CLEARANCE.	C19-14	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C19-5	PROP. 8" DIP WM OVER/UNDER EXIST. TELEPHONE. MAINTAIN MIN. 6" CLEARANCE.	C19-15	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C19-6	PROP. 8" DIP WM OVER/UNDER EXIST. 8" CIP WM. MAINTAIN MIN. 6" CLEARANCE.	C19-16	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C19-7	PROP. 8" DIP WM OVER/UNDER EXIST. 8" CIP WM. MAINTAIN MIN. 6" CLEARANCE.	C19-17	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C19-8	PROP. 8" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.	C19-18	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C19-9	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.	C19-19	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C19-10	PROP. 8" DIP FM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.		

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
	C6	C31	C32	C21	C15	C39	C40
				C22	C16	C42	C41
	C7	C45	C47				
	C8	C46	C48	C23	C17	C43	
				C24	C18	C44	

REV		DATE	REVISIONS	BY

VERIFY SCALE		Date: 10/31/24
BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING		Scale: AS NOTED
0 1		Design By: HB
ADJUST ALL SCALED DIMENSIONS ACCORDINGLY		Drawn By: FG/RR
		Check By: LL

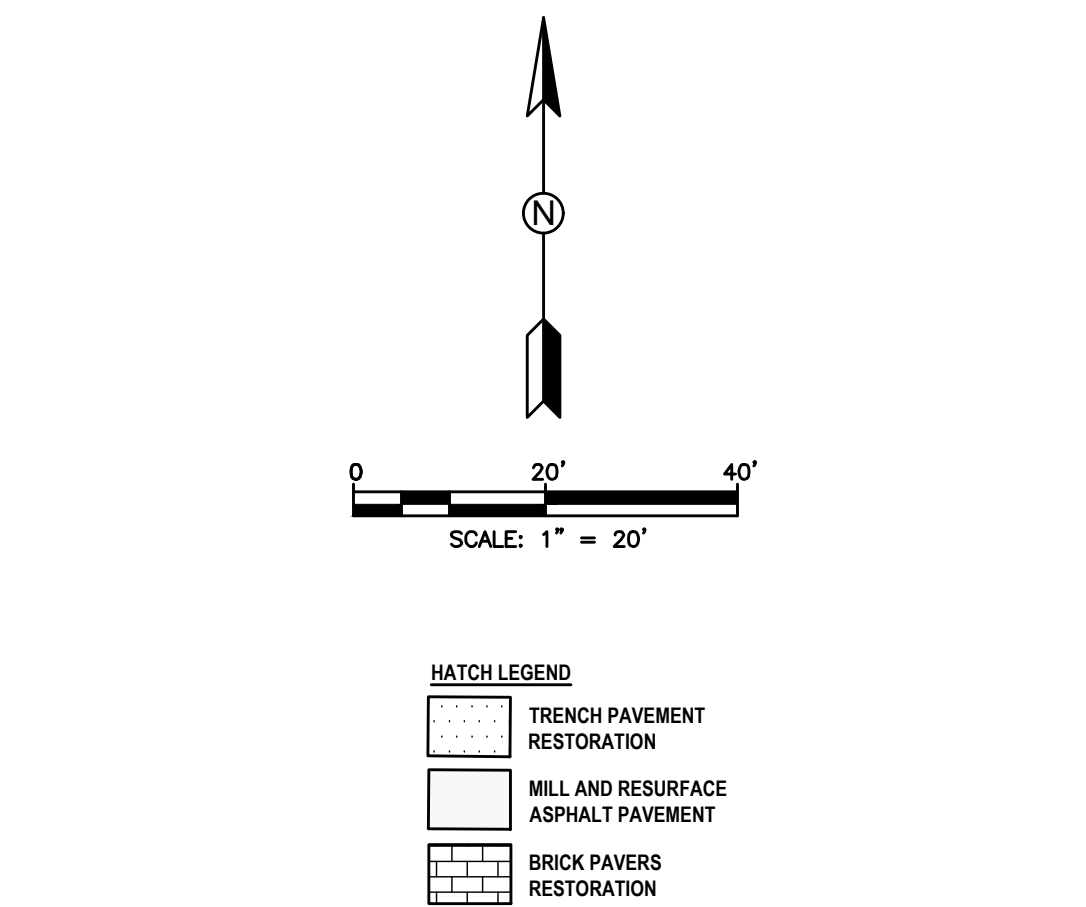
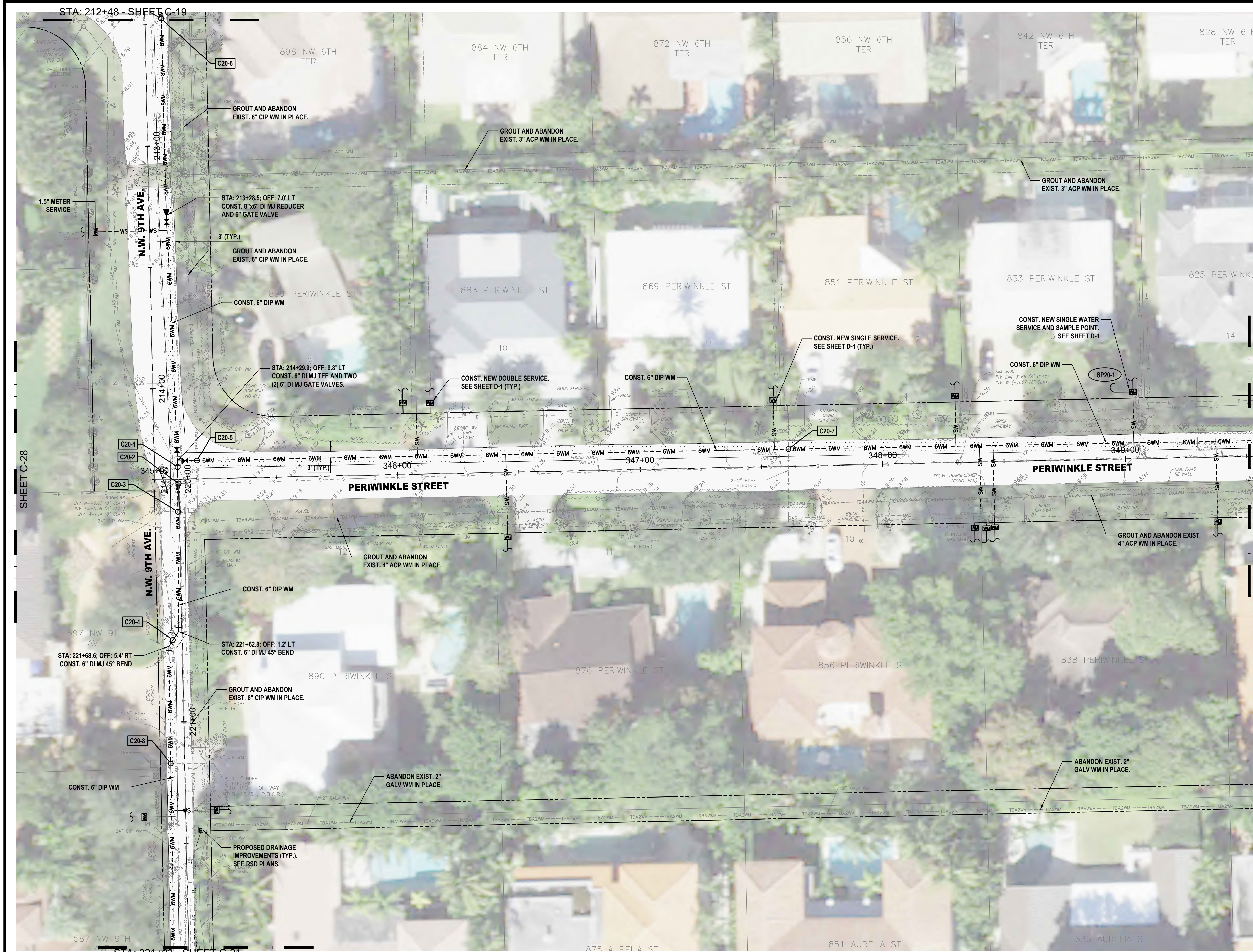
CITY OF BOCA RATON	
OLD FLORESTA	
INFRASTRUCTURE UPGRADES	

NW 9TH AVENUE	
WATER/SEWER IMPROVEMENTS	
PLAN SHEET	

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CERTIFICATE OF AUTH. No. 26960	

ROBERT HARRISON BARRON III	
License No: 91550	

C-19	
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ID NO.	DESCRIPTION
C20-1	PROP. 6\"/>
C20-2	PROP. 6\"/>
C20-3	PROP. 6\"/>
C20-4	PROP. 6\"/>
C20-5	PROP. 6\"/>
C20-6	PROP. 6\"/>
C20-7	PROP. 6\"/>
C20-8	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

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ADJUST ALL SCALED
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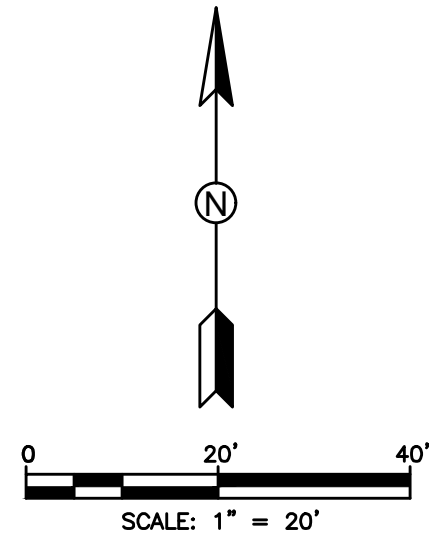
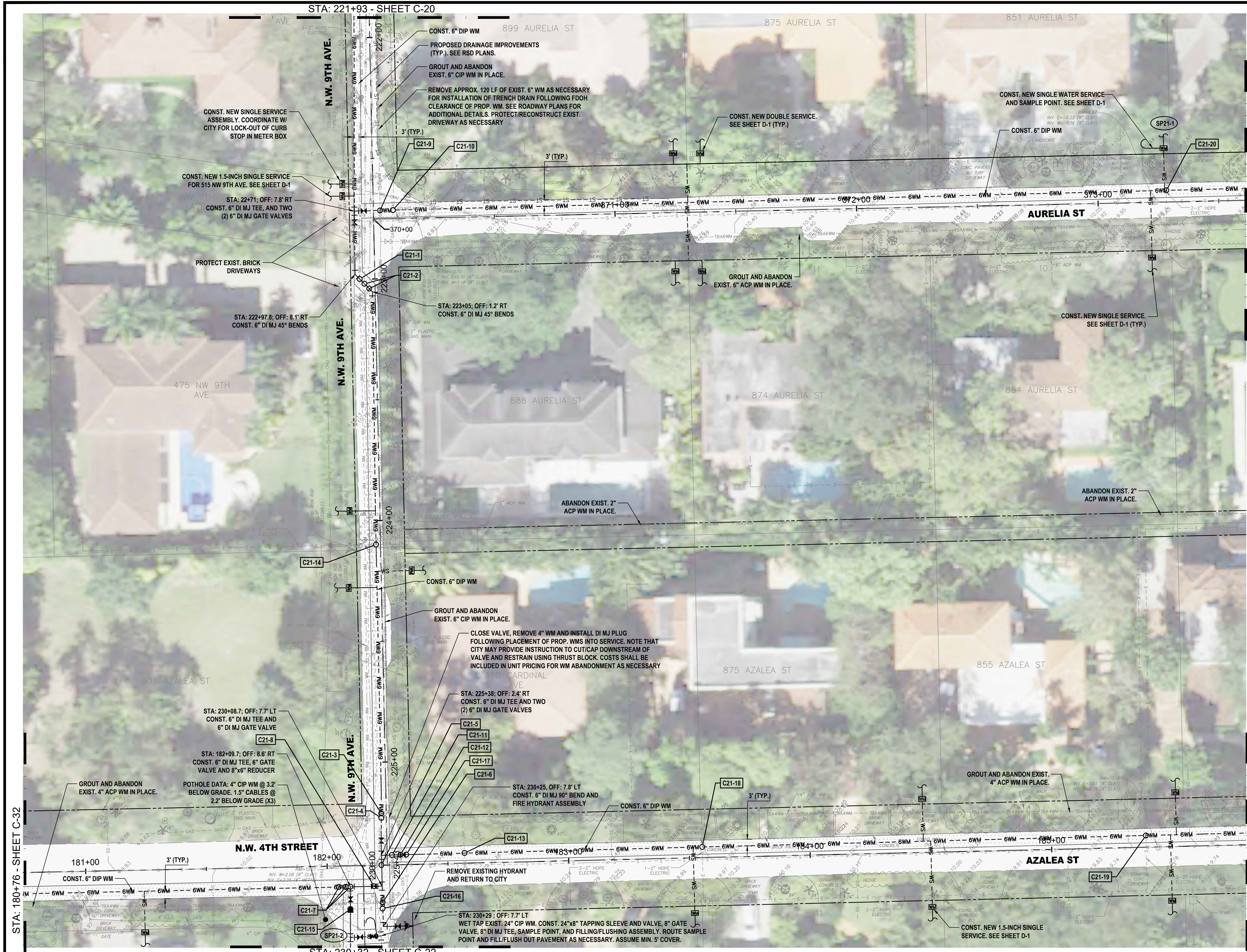
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ROBERT HARRISON BARRON III
License No: 91550

C-20



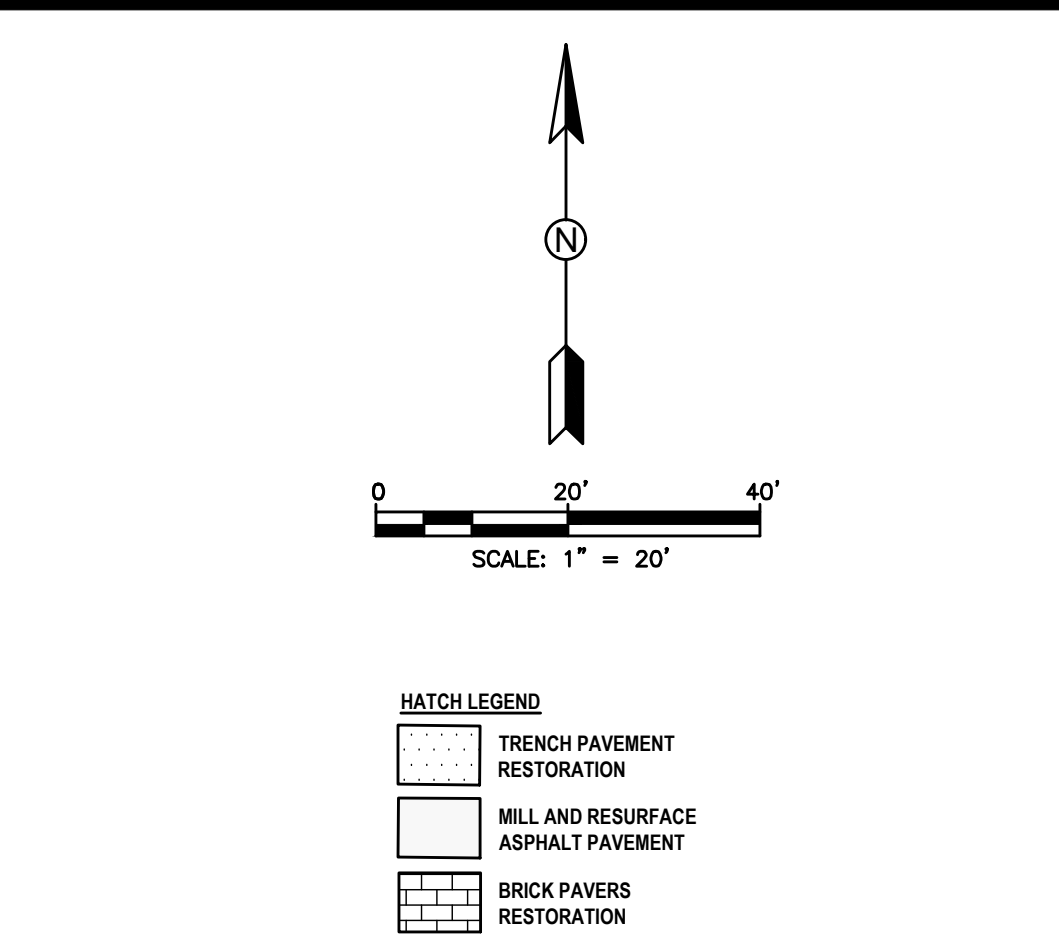
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ID NO.	DESCRIPTION	ID NO.	DESCRIPTION
C21-1	PROP. 6" DIP WM OVER/UNDER EXIST. 24" WM. MAINTAIN MIN. 6" CLEARANCE.	C21-11	PROP. 8" DIP WM OVER/UNDER EXIST. 6" CIP WM. MAINTAIN MIN. 6" CLEARANCE.
C21-2	PROP. 6" DIP WM OVER/UNDER EXIST. TELEPHONE. MAINTAIN MIN. 6" CLEARANCE.	C21-12	PROP. 6" DIP WM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.
C21-3	PROP. 6" DIP WM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.	C21-13	PROP. 8" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C21-4	PROP. 8" DIP WM OVER/UNDER EXIST. 4" WM. MAINTAIN MIN. 6" CLEARANCE.	C21-14	PROP. 8" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
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C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32		C22	C16	C42
	C7	C45	C47		C23	C17	C43
	C8	C46	C48		C24	C18	C44

<div>VERIFY SCALE</div> <div>BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING</div> <div>0 1</div> <div>ADJUST ALL SCALED DIMENSIONS ACCORDINGLY</div>	<div>Date: 10/31/24</div> <div>Scale: AS NOTED</div> <div>Design By: HB</div> <div>Drawn By: FG/RR</div> <div>Check By: LL</div>	<div>CITY OF BOCA RATON</div> <div>OLD FLORESTA</div> <div>INFRASTRUCTURE UPGRADES</div>	<div>NW 9TH AVENUE</div> <div>WATER/SEWER IMPROVEMENTS</div> <div>PLAN SHEET</div>	<div>HOLTZ CONSULTING ENGINEERS, INC.</div> <div>270 SOUTH CENTRAL BLVD., SUITE 207</div> <div>JUPITER, FLORIDA 33458</div> <div>PH. (561) 575-2005</div> <div>CERTIFICATE OF AUTH. No. 26960</div>	<div>ROBERT HARRISON BARRON III</div> <div>License No: 91550</div>	<div>C-21</div>																
<table><tr><th>REV</th><th>DATE</th><th>REVISIONS</th><th>BY</th></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>	REV						DATE	REVISIONS	BY													Drawing Name: F:\PROJECTS\Boca Raton\W_5 Old Floresta\Design\Drawings\Plan Sheet.dwg Layout Name: C-21 Plotted by: Russell Ryan Date: 11/5/2024 5:14 PM Holtz Consulting Engineers
REV	DATE	REVISIONS	BY																			



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 4. CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
 5. EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
 6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5-FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5-FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
 7. MAINTAIN MIN. 36\"/>
 8. MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
 9. EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/RIBBON/CURBING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
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 11. ALL COSTS ASSOCIATED WITH TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WWMF CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C22-1	PROP. 8\"/>
C22-2	PROP. 8\"/>
C22-3	PROP. 8\"/>
C22-4	PROP. 8\"/>
C22-5	PROP. 8\"/>
C22-6	PROP. 8\"/>
C22-7	PROP. 8\"/>
C22-8	PROP. 8\"/>
C22-9	PROP. 8\"/>
C22-10	PROP. 8\"/>
C22-11	PROP. 8\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 10/31/24
Scale: AS NOTED
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Check By: LL

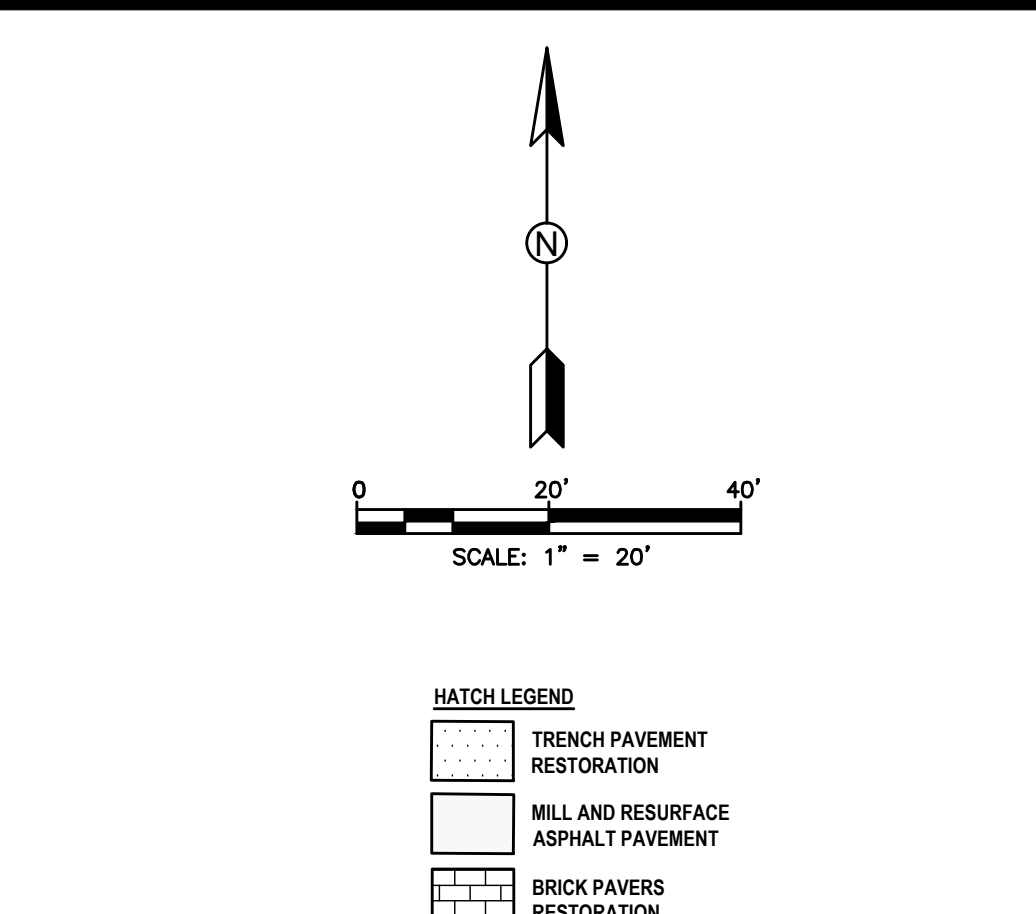
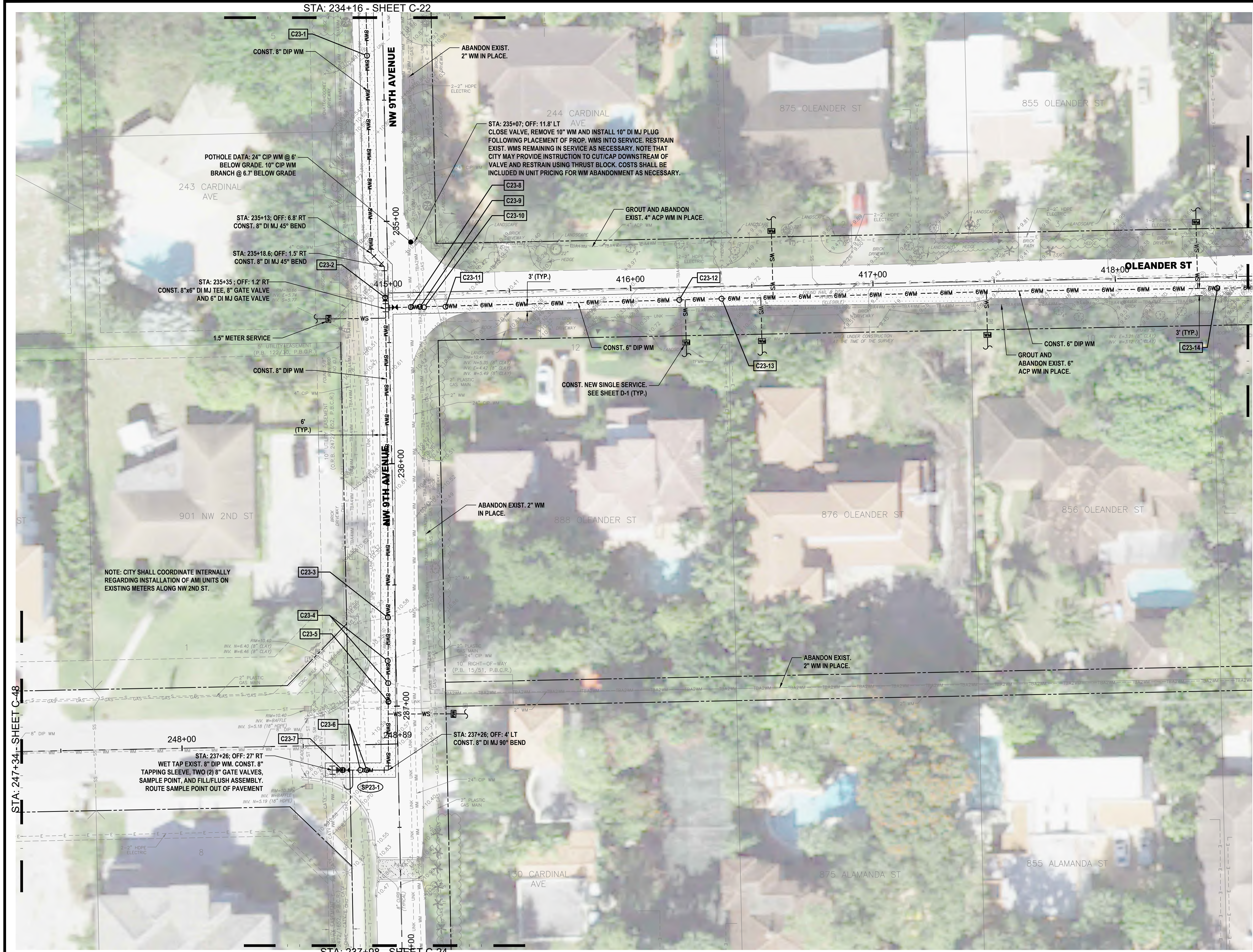
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 9TH AVENUE
WATER/SEWER IMPROVEMENTS
PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

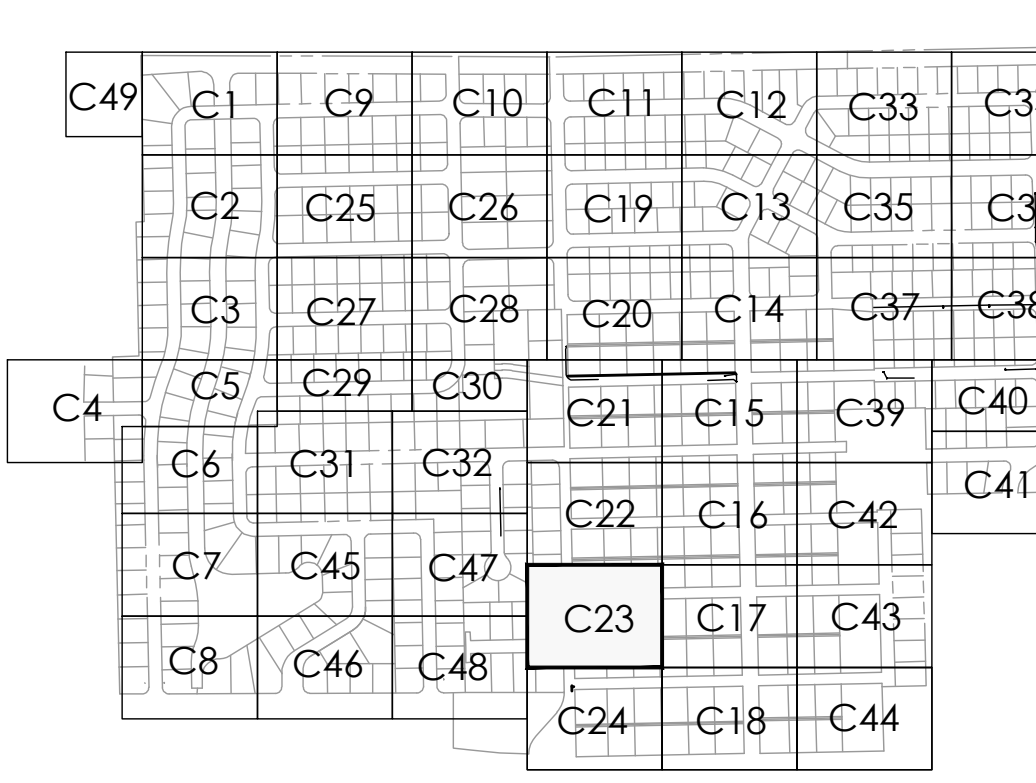
ROBERT HARRISON BARRON III
License No: 91550

C-22

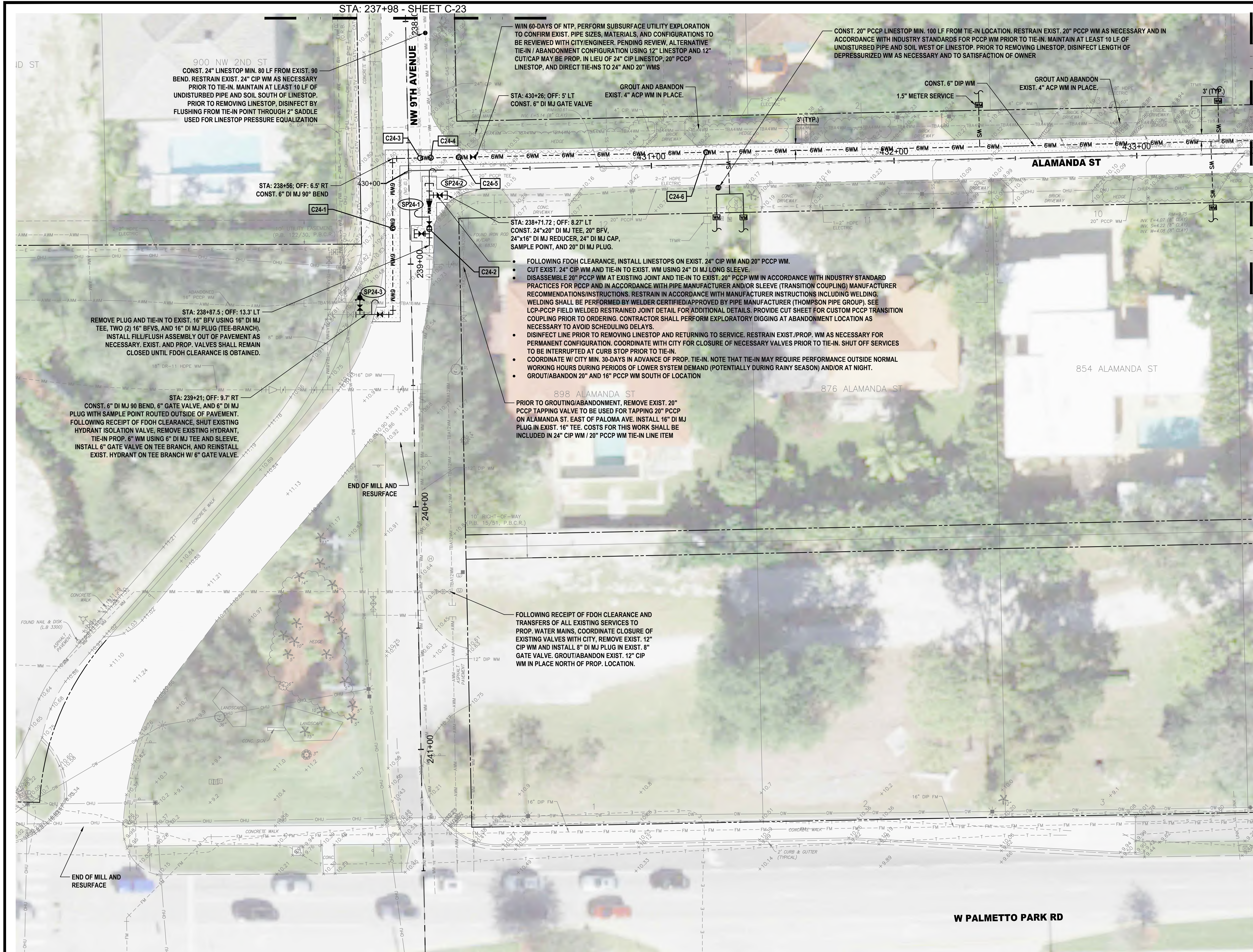


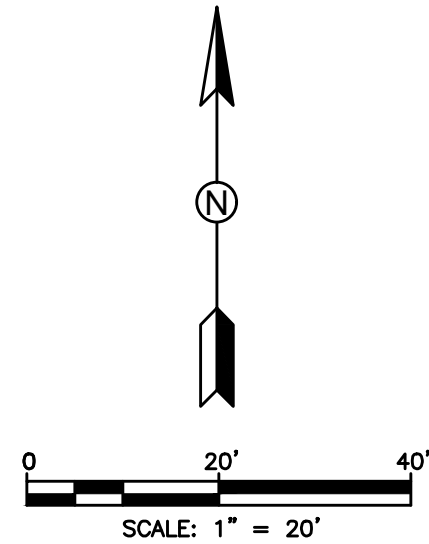
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 7. MAINTAIN MIN. 30" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
 8. MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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ID NO.	DESCRIPTION
C23-1	PROP. 8" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C23-2	PROP. 8" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C23-3	PROP. 8" DIP WM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.
C23-4	PROP. 8" DIP WM OVER/UNDER EXIST. TELEPHONE. MAINTAIN MIN. 6" CLEARANCE.
C23-5	PROP. 8" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C23-6	PROP. 8" DIP WM OVER/UNDER EXIST. TELEPHONE. MAINTAIN MIN. 6" CLEARANCE.
C23-7	PROP. 8" DIP WM OVER/UNDER EXIST. ELECTRIC. MAINTAIN MIN. 6" CLEARANCE.
C23-8	PROP. 8" DIP WM OVER/UNDER EXIST. 24" WM. MAINTAIN MIN. 6" CLEARANCE.
C23-9	PROP. 8" DIP WM OVER/UNDER EXIST. 4" WM. MAINTAIN MIN. 6" CLEARANCE.
C23-10	PROP. 8" DIP WM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.
C23-11	PROP. 8" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C23-12	PROP. 8" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C23-13	PROP. 8" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C23-14	PROP. 8" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.



VERIFY SCALE BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING 0 1 ADJUST ALL SCALED DIMENSIONS ACCORDINGLY		Date: 10/31/24 Scale: AS NOTED Design By: HB Drawn By: FG/RR Check By: LL	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	NW 9TH AVENUE WATER/SEWER IMPROVEMENTS PLAN SHEET	HOLTZ CONSULTING ENGINEERS, INC. 270 SOUTH CENTRAL BLVD., SUITE 207 JUPITER, FLORIDA 33458 PH. (561) 575-2005 CERTIFICATE OF AUTH. NO. 26960	ROBERT HARRISON BARRON III License No. 91550	C-23
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HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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 7. MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
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ID NO.	DESCRIPTION
C25-1	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C25-2	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C25-3	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C25-4	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
C2	C25	C26	C19	C13	C35	C36	
C3	C27	C28	C20	C14	C37	C38	
C4	C5	C29	C30	C21	C15	C39	C40
C6	C31	C32		C22	C16	C42	C41
C7	C45	C47		C23	C17	C43	
C8	C46	C48		C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
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ADJUST ALL SCALED
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Date: 10/31/24
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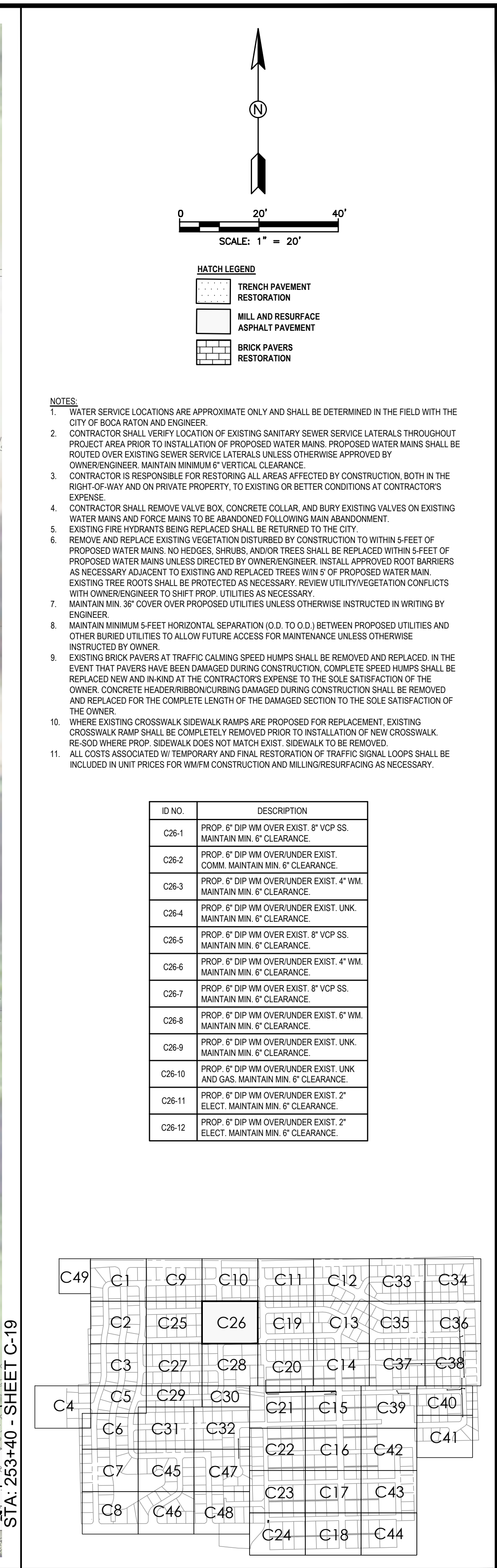
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 6TH DRIVE
WATER/SEWER IMPROVEMENTS
PLAN SHEET

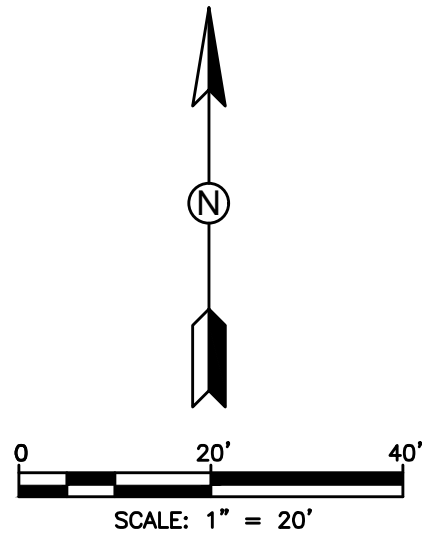
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JUPITER, FLORIDA 33458
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CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-25



ROBERT HARRISON BARRON III	C-26
License No: 91550	



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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ID NO.	DESCRIPTION
C27-1	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

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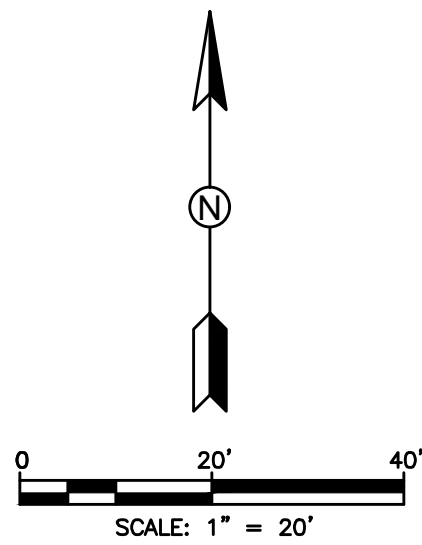
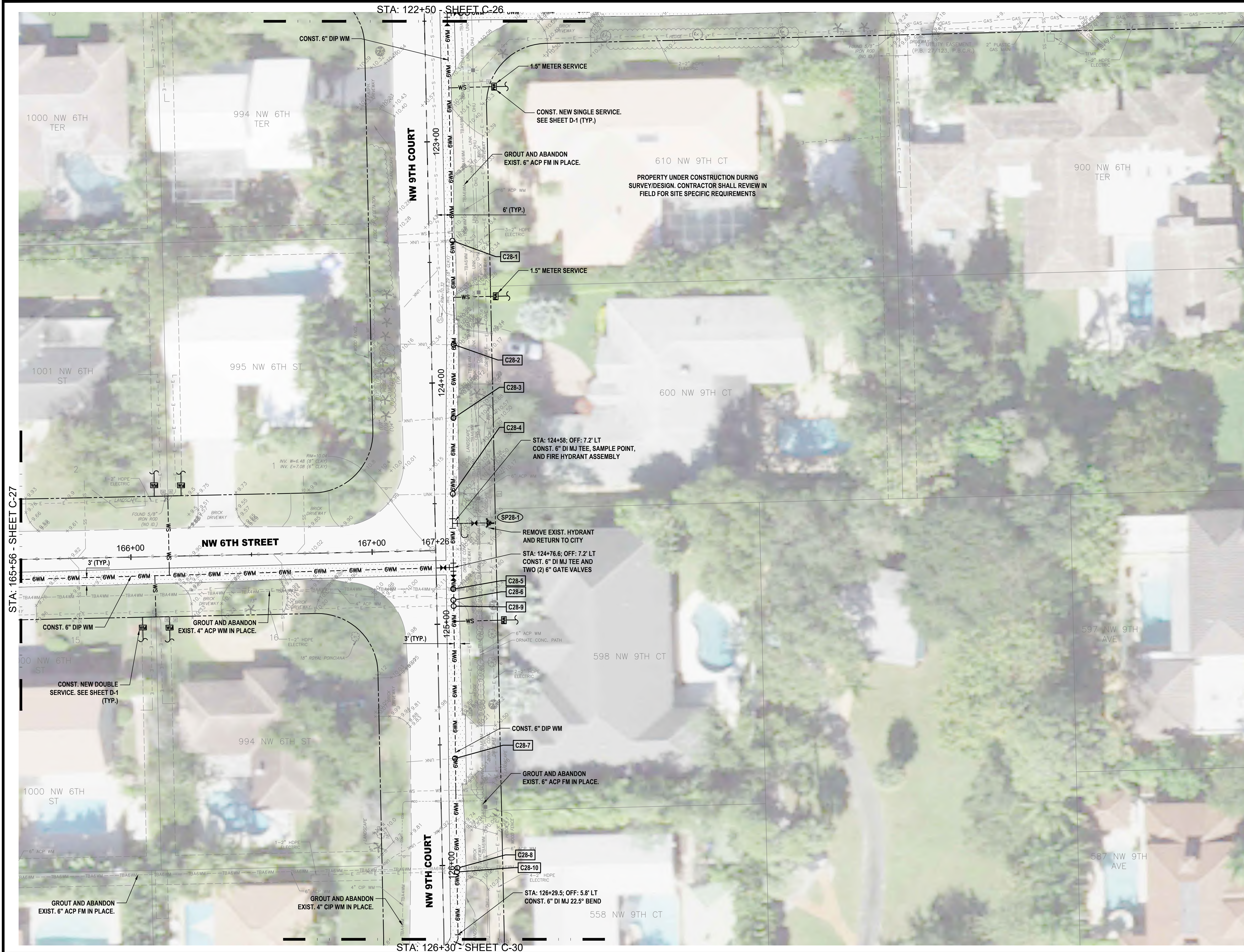
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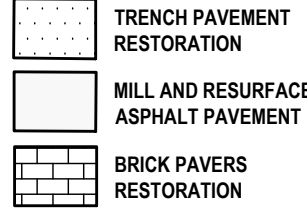
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ID NO.	DESCRIPTION
C28-1	PROP. 6" DIP WM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C28-2	PROP. 6" DIP WM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C28-3	PROP. 6" DIP WM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C28-4	PROP. 6" DIP WM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C28-5	PROP. 6" DIP WM OVERUNDER EXIST. 4" WM. MAINTAIN MIN. 6" CLEARANCE.
C28-6	PROP. 6" DIP WM OVERUNDER EXIST. ELECT. MAINTAIN MIN. 6" CLEARANCE.
C28-7	PROP. 6" DIP WM OVERUNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C28-8	PROP. 6" DIP WM OVERUNDER EXIST. 6" WM. MAINTAIN MIN. 6" CLEARANCE.
C28-9	PROP. 6" DIP WM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C28-10	PROP. 6" DIP WM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
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	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE
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Drawn By: FG/RR
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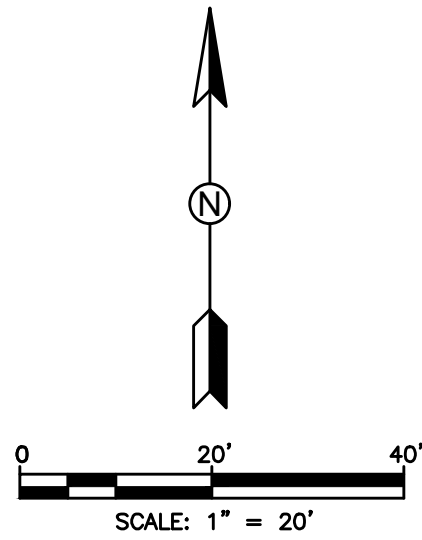
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 9TH COURT
WATER/SEWER IMPROVEMENTS
PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-28

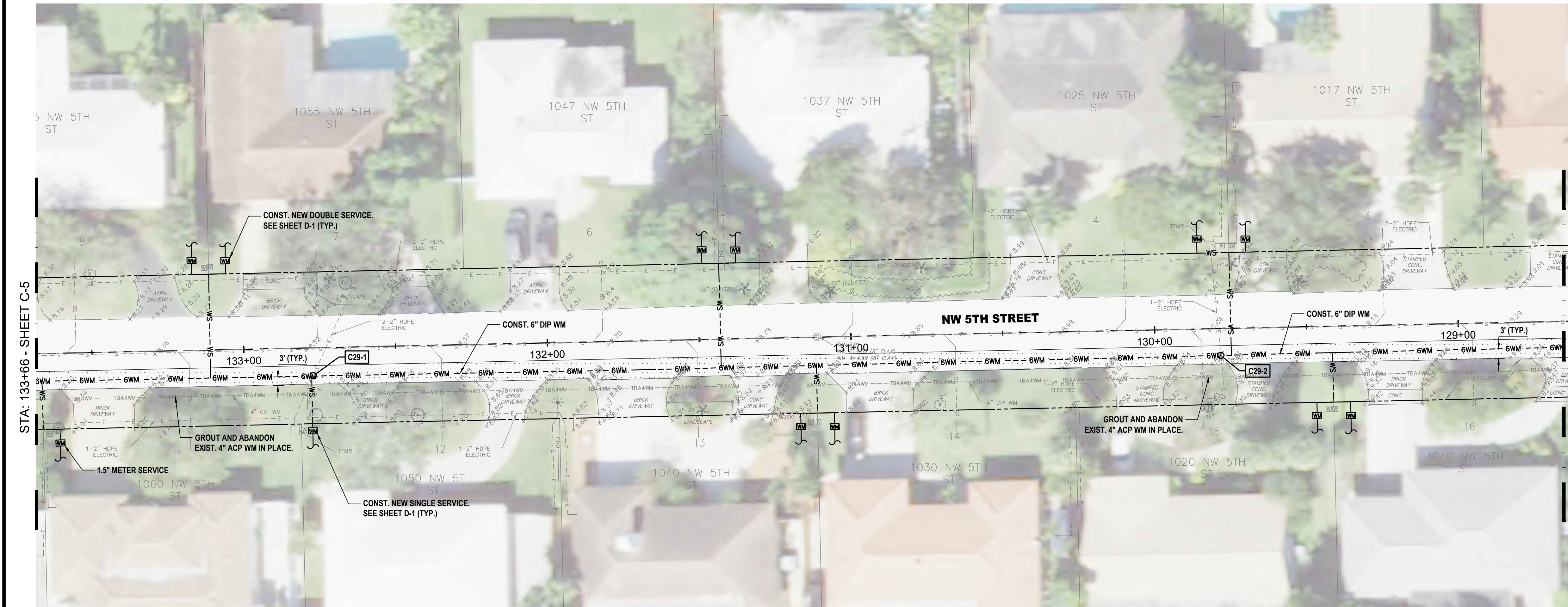


HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

- NOTES:
- WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
 - CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6" VERTICAL CLEARANCE.
 - CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
 - CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
 - EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
 - REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5 FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAINS. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
 - MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
 - MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
 - EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN-KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/RIBBON CURBING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
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 - ALL COSTS ASSOCIATED WITH TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WWM/FORM CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C29-1	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 8" CLEARANCE.
C29-2	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 8" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
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	C8	C46	C48	C24	C18	C44	



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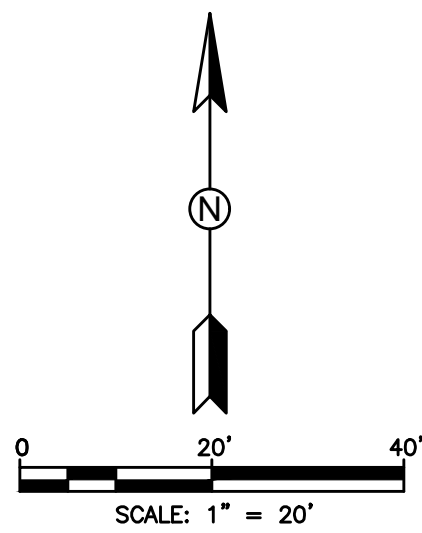
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OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 5TH STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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C-29



HATCH LEGEND

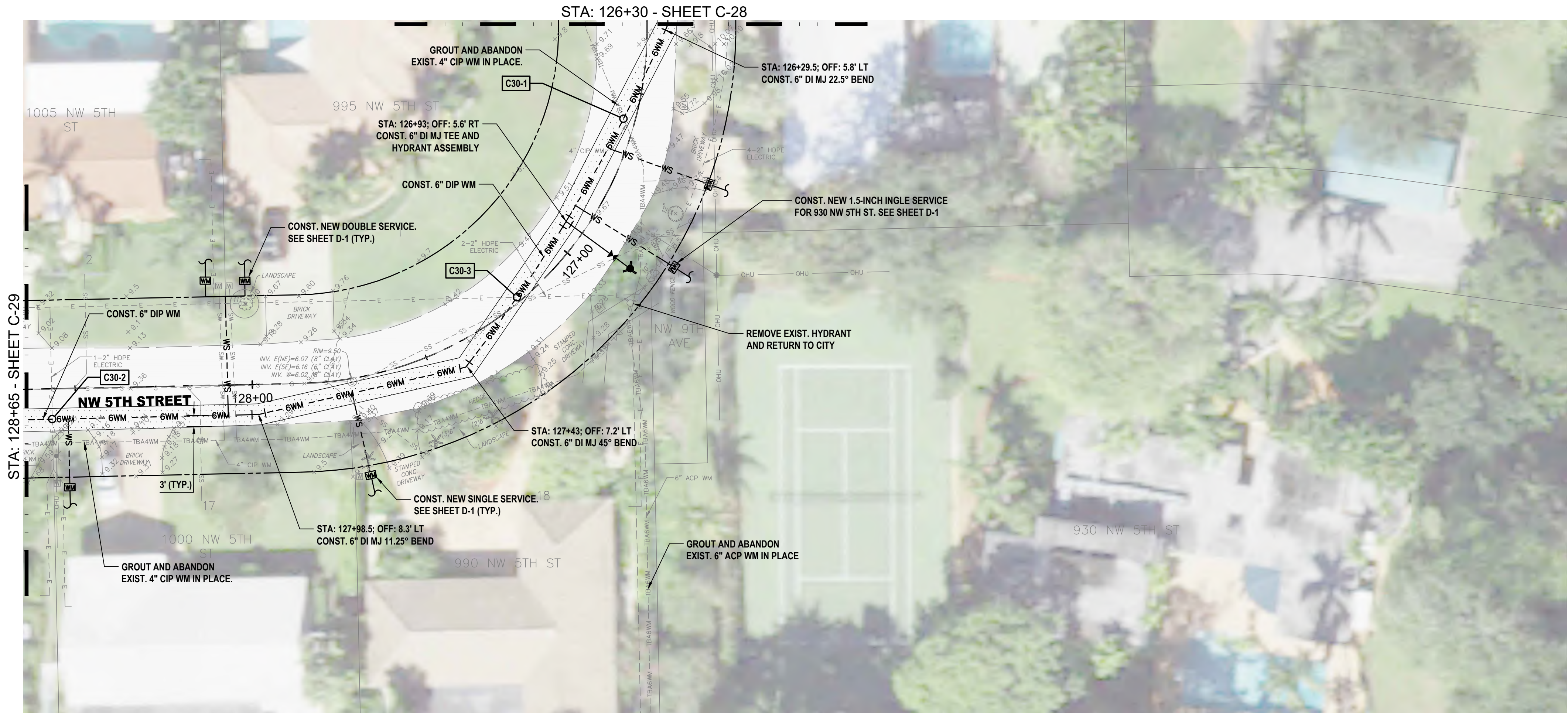
- TRENCH PAVEMENT RESTORATION
- MILL AND RESURFACE ASPHALT PAVEMENT
- BRICK PAVERS RESTORATION

NOTES:

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C30-1	PROP. 6" DIP WM OVER/UNDER EXIST. 4" CIP WM. MAINTAIN MIN. 6" CLEARANCE.
C30-2	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C30-3	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
	C6	C31	C32	C21	C15	C39	C40
	C7	C45	C47	C22	C16	C42	C41
	C8	C46	C48	C23	C17	C43	
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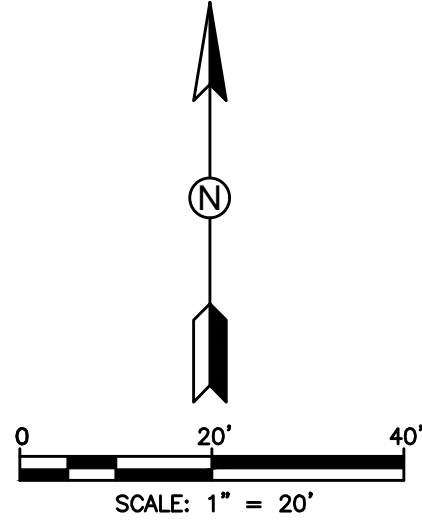
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CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-30



HATCH LEGEND

- TRENCH PAVEMENT RESTORATION
- MILL AND RESURFACE ASPHALT PAVEMENT
- BRICK PAVERS RESTORATION

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ID NO.	DESCRIPTION
C31-1	PROP. 6\"/>
C31-2	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
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	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
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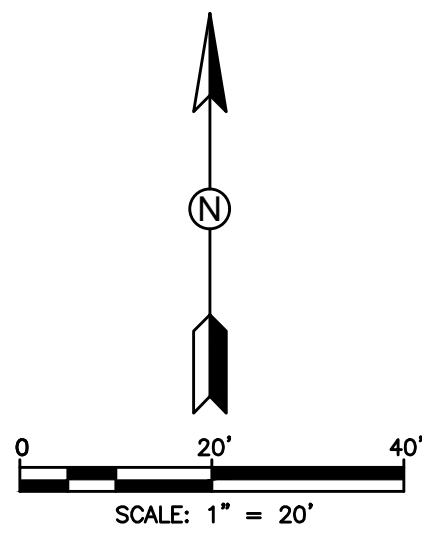
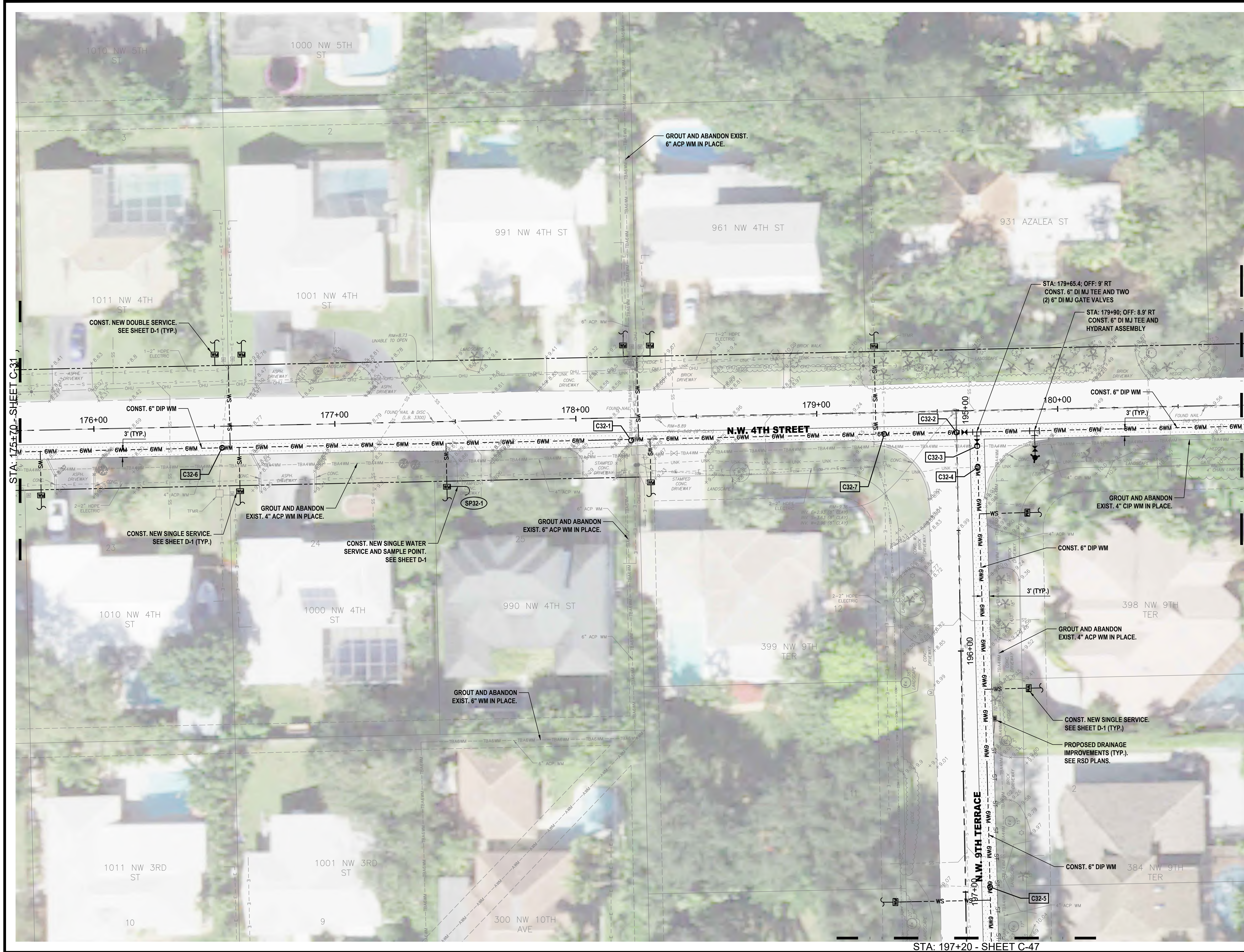
CITY OF BOCA RATON
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INFRASTRUCTURE UPGRADES

NW 4TH STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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ROBERT HARRISON BARRON III
License No: 91550

C-31



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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ID NO.	DESCRIPTION
C32-1	PROP. 6\"/>
C32-2	PROP. 6\"/>
C32-3	PROP. 6\"/>
C32-4	PROP. 6\"/>
C32-5	PROP. 6\"/>
C32-6	PROP. 6\"/>
C32-7	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
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	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
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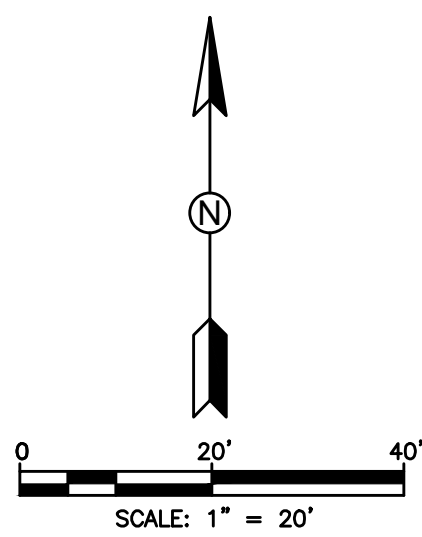
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ROBERT HARRISON BARRON III
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C-32



HATCH LEGEND	
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	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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ID NO.	DESCRIPTION
C33-1	PROP. 6\"/>
C33-2	PROP. 6\"/>
C33-3	PROP. 6\"/>
C33-4	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
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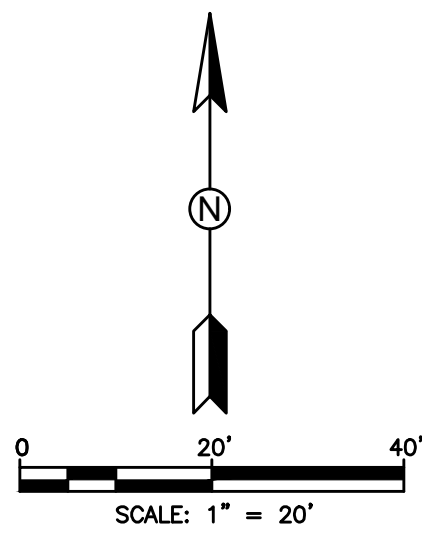
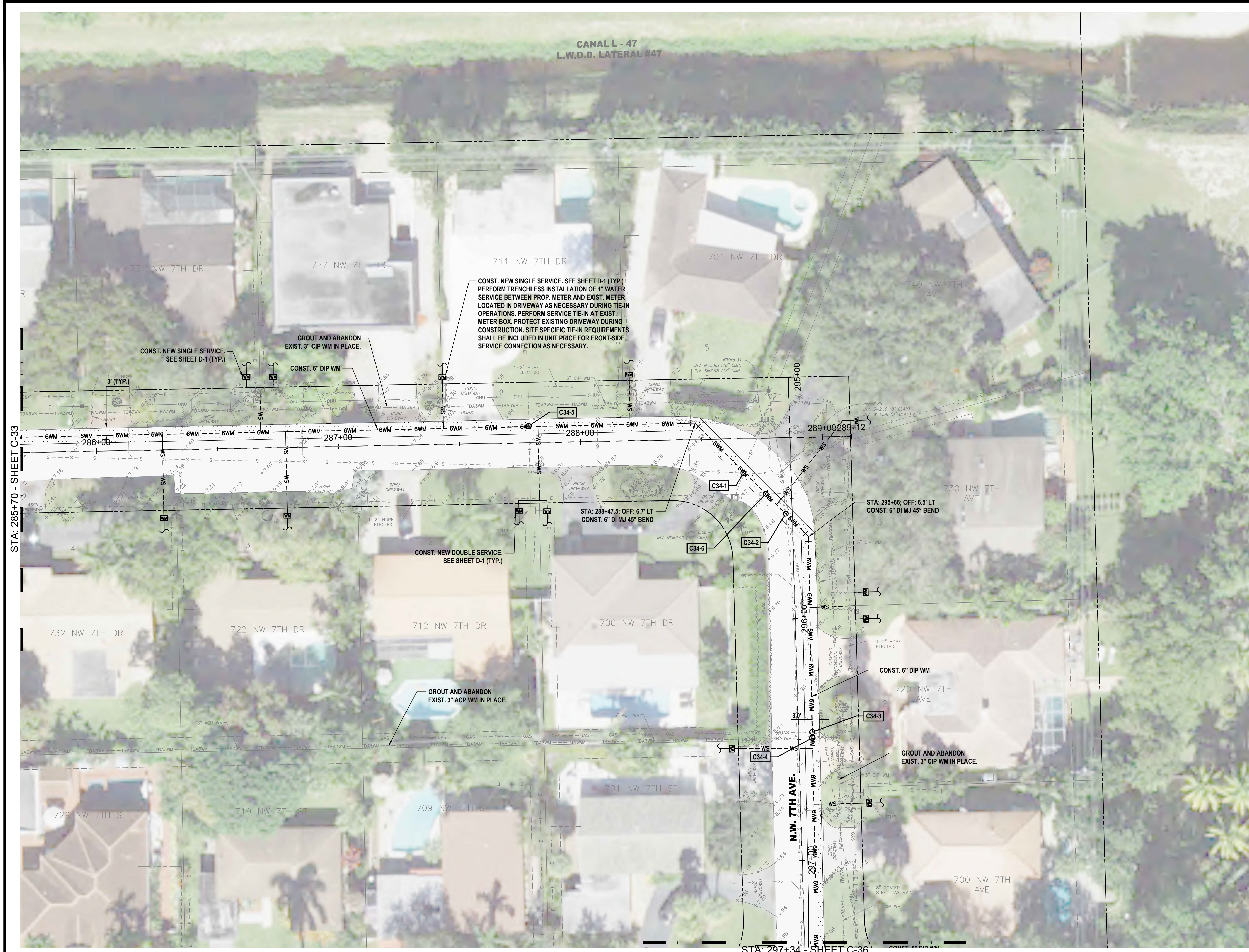
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HATCH LEGEND

- TRENCH PAVEMENT RESTORATION
- MILL AND RESURFACE ASPHALT PAVEMENT
- BRICK PAVERS RESTORATION

NOTES:

- WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
- CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6\"/>
- CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
- EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
- REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5 FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
- MAINTAIN MIN. 36\"/>
- MAINTAIN MINIMUM 5 FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
- EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/RIBBON CURBING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
- WHERE EXISTING CROSSWALK SIDEWALK RAMPS ARE PROPOSED FOR REPLACEMENT, EXISTING CROSSWALK RAMP SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK. RE-SOD WHERE PROP. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED.
- ALL COSTS ASSOCIATED WITH TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WATER MAIN CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C34-1	PROP. 6\"/>
C34-2	PROP. 6\"/>
C34-3	PROP. 6\"/>
C34-4	PROP. 6\"/>
C34-5	PROP. 6\"/>
C34-6	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

<div>REV</div> <div>DATE</div> <div>REVISIONS</div> <div>BY</div>		<div>VERIFY SCALE</div> <div>BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING</div> <div>0 1</div> <div>ADJUST ALL SCALED DIMENSIONS ACCORDINGLY</div>	<div>Date: 10/31/24</div> <div>Scale: AS NOTED</div> <div>Design By: HB</div> <div>Drawn By: FG/RR</div> <div>Check By: LL</div>	<div>CITY OF BOCA RATON</div> <div>OLD FLORESTA</div> <div>INFRASTRUCTURE UPGRADES</div>	<div>NW 7TH AVENUE</div> <div>WATER/SEWER IMPROVEMENTS</div> <div>PLAN SHEET</div>	<div>HOLTZ CONSULTING ENGINEERS, INC.</div> <div>270 SOUTH CENTRAL BLVD., SUITE 207</div> <div>JUPITER, FLORIDA 33458</div> <div>PH. (561) 575-2005</div> <div>CERTIFICATE OF AUTH. NO. 26960</div>	<div>ROBERT HARRISON BARRON III</div> <div>License No: 91550</div>	<div>C-34</div>
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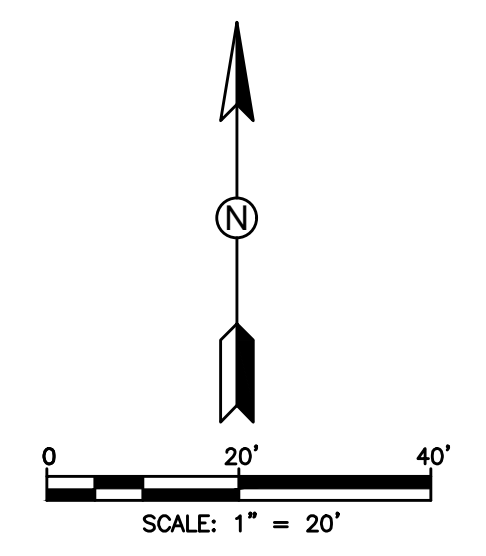
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Layout Name: C-34

Plotted by: Russell Ryan

Date: 11/5/2024 - 5:24 PM

Holtz Consulting Engineers



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

- NOTES:
1. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
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 3. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
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 7. MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
 8. MAINTAIN MINIMUM 5 FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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 11. ALL COSTS ASSOCIATED WITH TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WMMF CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C35-1	PROP. 6" DIP WM OVERUNDER EXIST. 6" WM. MAINTAIN MIN. 6" CLEARANCE.
C35-2	PROP. 6" DIP WM OVERUNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.
C35-3	PROP. 6" DIP WM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C35-4	PROP. 6" DIP WM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C35-5	PROP. 6" DIP WM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C35-6	PROP. 6" DIP WM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C35-7	PROP. 6" DIP WM OVERUNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
	C6	C31	C32	C21	C15	C39	C40
				C22	C16	C42	C41
C7	C45	C47		C23	C17	C43	
C8	C46	C48		C24	C18	C44	

REV	DATE	REVISIONS	BY

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BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 10/31/24
Scale: AS NOTED
Design By: HB
Drawn By: FG/RR
Check By: LL

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

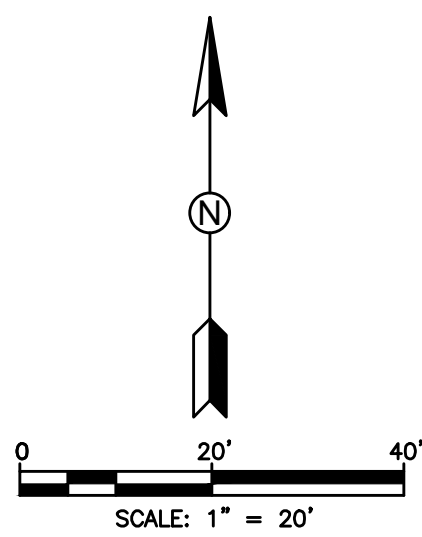
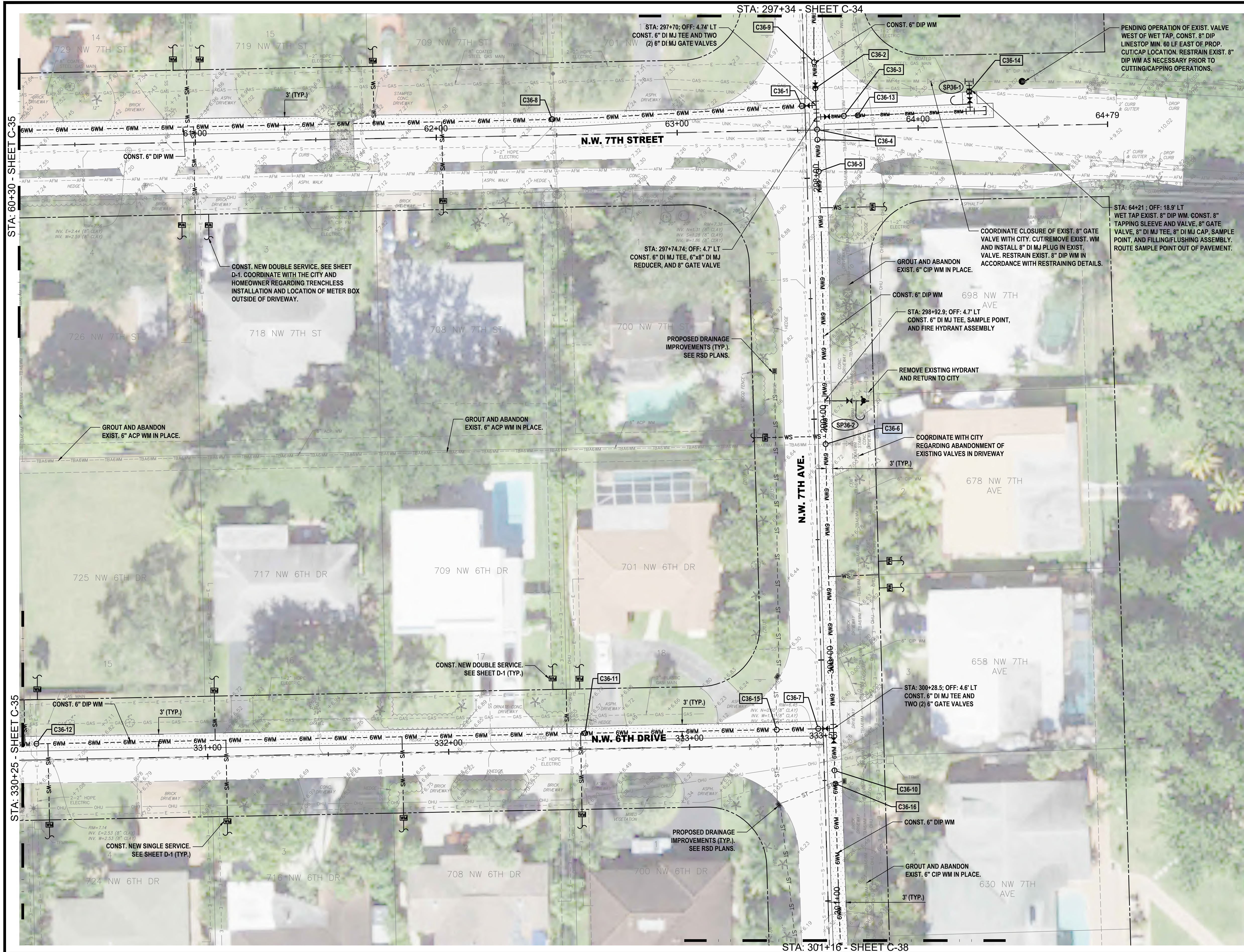
NW 7TH STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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ROBERT HARRISON BARRON III
License No. 91550

C-35

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HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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ID NO.	DESCRIPTION
C36-1	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C36-2	PROP. 8" DIP WM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.
C36-3	PROP. 8" DIP WM OVER/UNDER EXIST. 6" WM. MAINTAIN MIN. 6" CLEARANCE.
C36-4	PROP. 6" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C36-5	PROP. 8" DIP WM OVER/UNDER EXIST. 8" WM. MAINTAIN MIN. 6" CLEARANCE.
C36-6	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C36-7	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C36-8	PROP. 8" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C36-9	PROP. 8" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C36-10	PROP. 8" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C36-11	PROP. 8" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C36-12	PROP. 8" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C36-13	PROP. 8" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C36-14	PROP. 8" DIP WM OVER/UNDER EXIST. GAS. MAINTAIN MIN. 6" CLEARANCE.
C36-15	PROP. 8" DIP WM UNDER PROP. 12"X18" RCP. MAINTAIN MIN. 12" CLEARANCE.
C36-16	PROP. 8" DIP WM UNDER PROP. 15" RCP. MAINTAIN MIN. 12" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30				
	C6	C31	C32	C21	C15	C39	C40
				C22	C16	C42	C41
	C7	C45	C47				
	C8	C46	C48	C23	C17	C43	
				C24	C18	C44	

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VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

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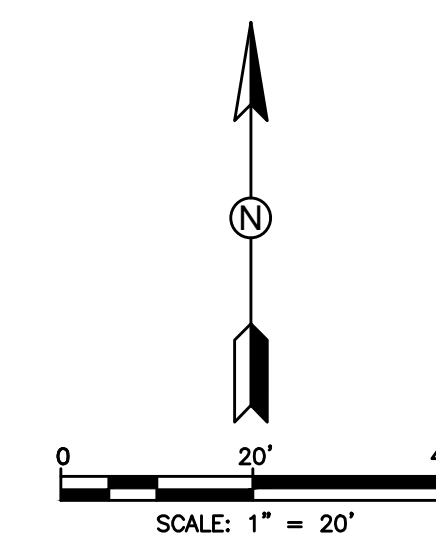
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 7TH AVENUE
WATER/SEWER IMPROVEMENTS
PLAN SHEET




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CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No. 91550

C-36



HATCH LEGEND

	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACING ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION


NOTE

- NOTES:
1. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT THE AREA PRIOR TO THE START OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6" VERTICAL CLEARANCE.
3. IF THERE IS RESISTANCE TO THE EXISTING LATERAL DETECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COULDS, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOR FLOWING MAIN ABANDONMENT.
5. EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5 FEET OF EXISTING WATER MAINS. EXISTING WATER MAINS SHALL BE PROTECTED WITHIN 4 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAINS.
7. EXISTING TREE ROOTS SHALL BE PROTECTED AND MAINTAINED TO PREVENT ANY UTILITY/VEGETATION CONFLICT WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
8. MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY OWNER/ENGINEER.
9. MAINTAIN MINIMUM 5-FOOT HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
10. EXISTING CURB PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION. COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE CITY OF BOCA RATON. EXISTING ROADWAY SHALL BE REPAIRED TO ORIGINAL CONDITION. EXISTING CURB PAVERS TO BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
11. EXISTING CROSSWALK SIDEWALK RAMP ARE PROPOSED FOR REPLACEMENT. EXISTING CROSSWALK RAMP SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK RAMP. RED-SHOW WHERE PROP. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED.
12. ALL CLOSURES ASSOCIATED IN TEMPORARY AND FINAL CLOSURE OF TRAFFIC SIGNAL, LOOPS SHALL BE MAINTAINED PRIOR TO THE START OF CONSTRUCTION.
13. ALL CLOSURES SHALL BE MAINTAINED THROUGHOUT THE PROJECT. ALL CLOSURES ARE NECESSARY.

ID NO.	DESCRIPTION
C37-1	PROP. 6" DIP WM OVER/UNDER EXIST. 3 MAINTAIN MIN. 6" CLEARANCE.
C37-2	PROP. 6" DIP WM OVER/UNDER EXIST. 2 MAINTAIN MIN. 6" CLEARANCE.
C37-3	PROP. 6" DIP WM OVER/UNDER EXIST. 4 MAINTAIN MIN. 6" CLEARANCE.
C37-4	PROP. 6" DIP WM OVER/UNDER EXIST. 1 MAINTAIN MIN. 6" CLEARANCE.
C37-5	PROP. 6" DIP WM OVER/UNDER EXIST. 2 ELECT. MAINTAIN MIN. 6" CLEARANCE.
C37-6	PROP. 6" DIP WM OVER/UNDER EXIST. 2 ELECT. MAINTAIN MIN. 6" CLEARANCE.
C37-7	PROP. 6" DIP WM OVER/UNDER EXIST. 8 VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C37-8	PROP. 6" DIP WM OVER 18" FRENCH DR. MAINTAIN MIN. 6" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C3
	C2	C25	C26	C19	C13	C35	C3
	C3	C27	C28	C20	C14	C37	C38
	C5	C29	C30	C21	C15	C39	C40
C4	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

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BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
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ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

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INFRASTRUCTURE UPGRADES

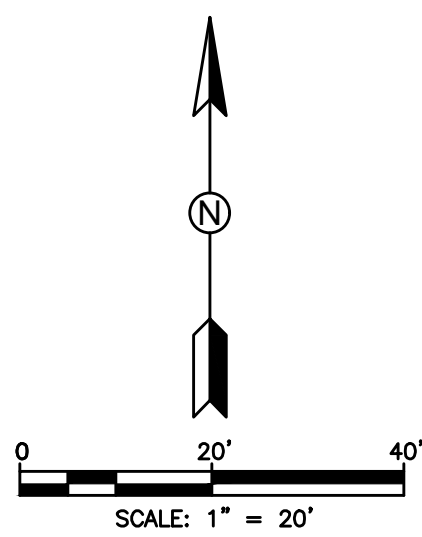
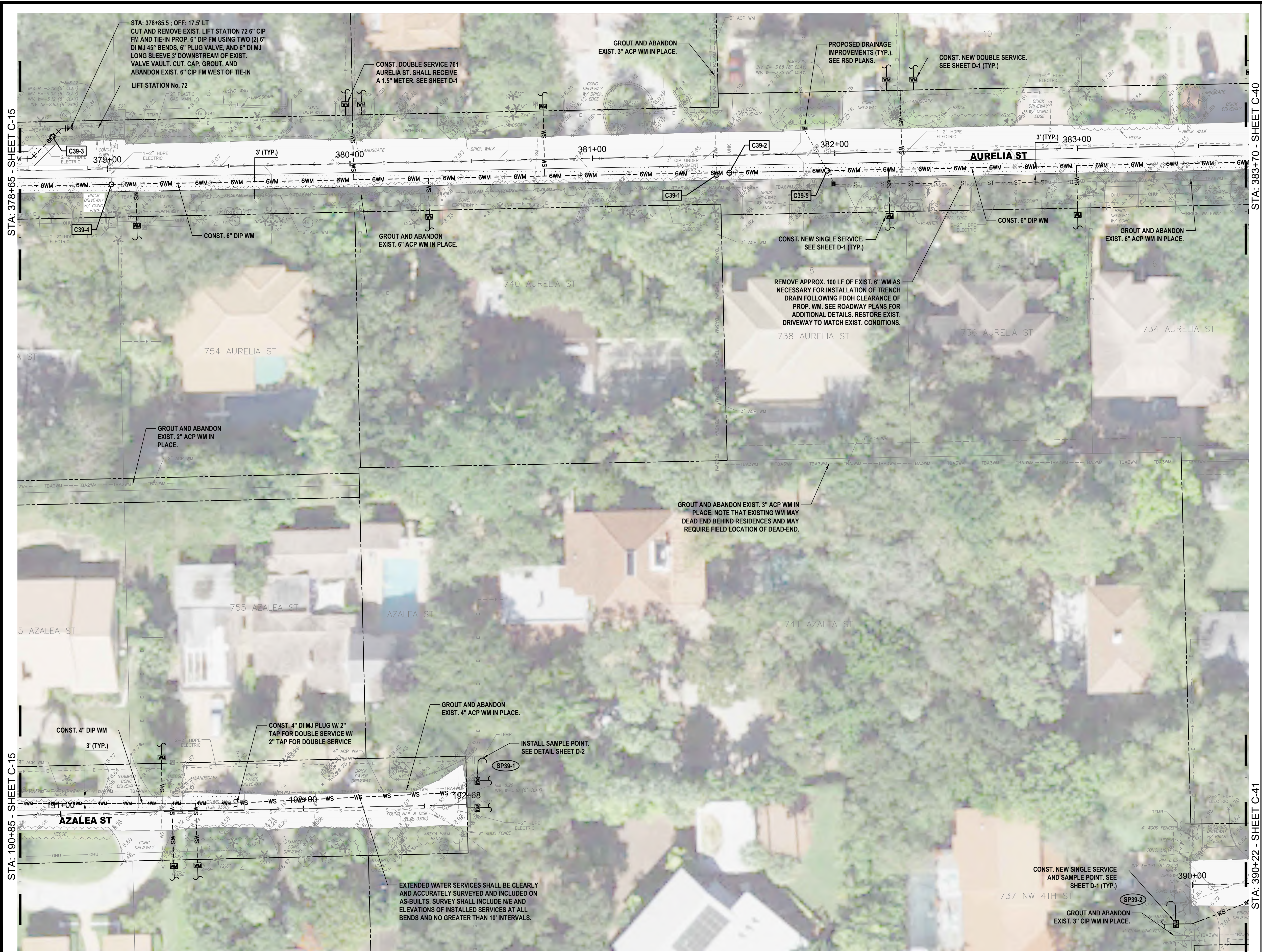
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ROBERT HARRISON BARRON II

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C-37



HATCH LEGEND	
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	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

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ID NO.	DESCRIPTION
C39-1	PROP. 6\"
C39-2	PROP. 6\"
C39-3	PROP. 6\"
C39-4	PROP. 6\"
C39-5	PROP. 6\"

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30			C39	C40
	C6	C31	C32				C41
	C7	C45	C47			C22	C16
	C8	C46	C48			C23	C17
						C24	C18
							C44

REV	DATE	REVISIONS	BY

VERIFY SCALE	Date: 10/31/24
BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING	Scale: AS NOTED
0 1	Design By: HB
ADJUST ALL SCALED DIMENSIONS ACCORDINGLY	Drawn By: FG/RR
	Check By: LL

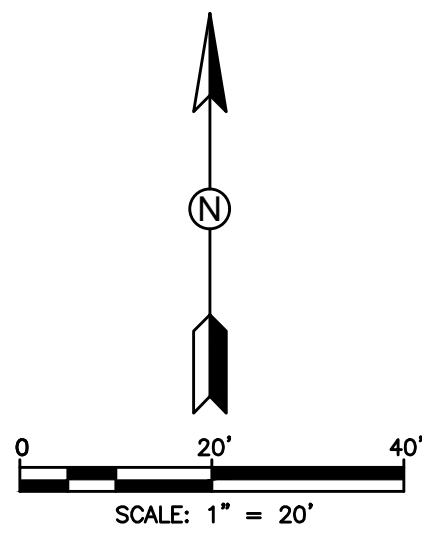
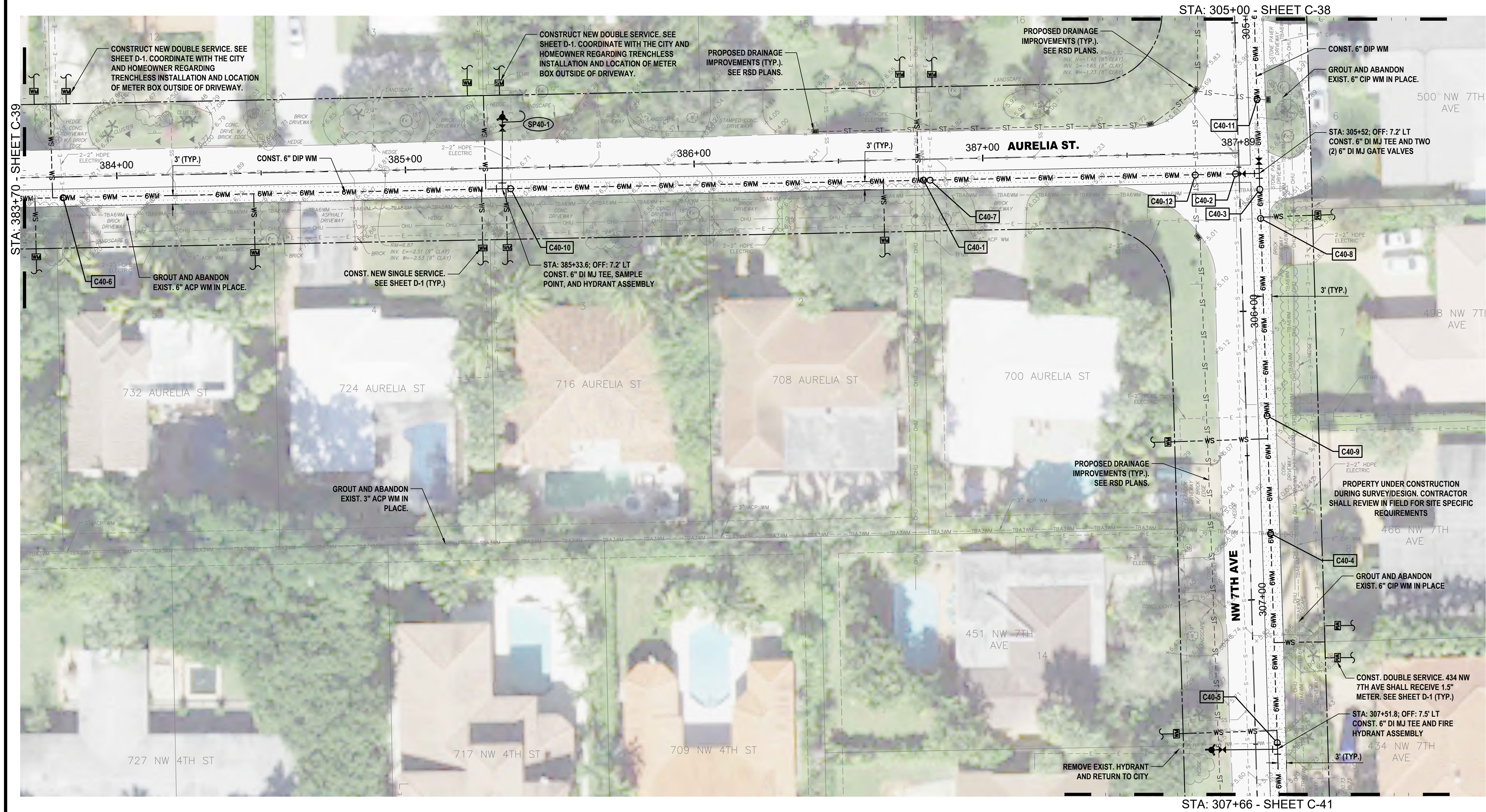
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

AURELIA STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. NO. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-39



HATCH LEGEND

- TRENCH PAVEMENT RESTORATION
- MILL AND RESURFACE ASPHALT PAVEMENT
- BRICK PAVERS RESTORATION

NOTES:

- WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
- CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6\"/>
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- CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
- EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
- REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5 FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHEET PROP. UTILITIES AS NECESSARY. MAINTAIN MIN. 36\"/>
- ENGINEER.
- MAINTAIN MINIMUM 5 FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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ID NO.	DESCRIPTION
C40-1	PROP. 6\"/>
C40-2	PROP. 6\"/>
C40-3	PROP. 6\"/>
C40-4	PROP. 6\"/>
C40-5	PROP. 6\"/>
C40-6	PROP. 6\"/>
C40-7	PROP. 6\"/>
C40-8	PROP. 6\"/>
C40-9	PROP. 6\"/>
C40-10	PROP. 6\"/>
C40-11	PROP. 6\"/>
C40-12	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

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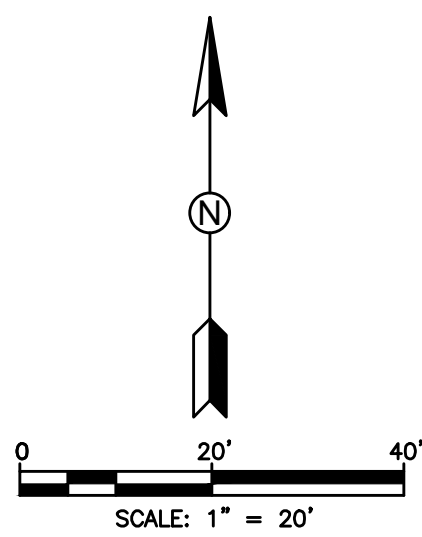
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 6TH STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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CERTIFICATE OF AUTH. NO. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-40



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

- NOTES:
1. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
 2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6' VERTICAL CLEARANCE.
 3. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
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 6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5 FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
 7. MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
 8. MAINTAIN MINIMUM 5 FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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ID NO.	DESCRIPTION
C41-1	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6' CLEARANCE.
C41-2	PROP. 6" DIP WM OVER UNDER EXIST. 3" CIP WM. MAINTAIN MIN. 6' CLEARANCE.
C41-3	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6' CLEARANCE.
C41-4	PROP. 6" DIP WM OVER EXIST. STORM. MAINTAIN MIN. 6' CLEARANCE.
C41-5	PROP. 6" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.
C41-6	PROP. 6" DIP WM OVER UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6' CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

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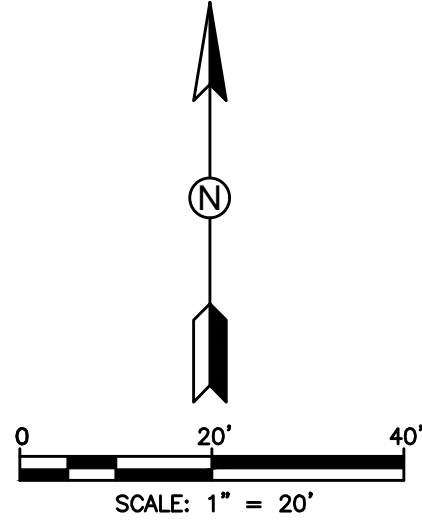
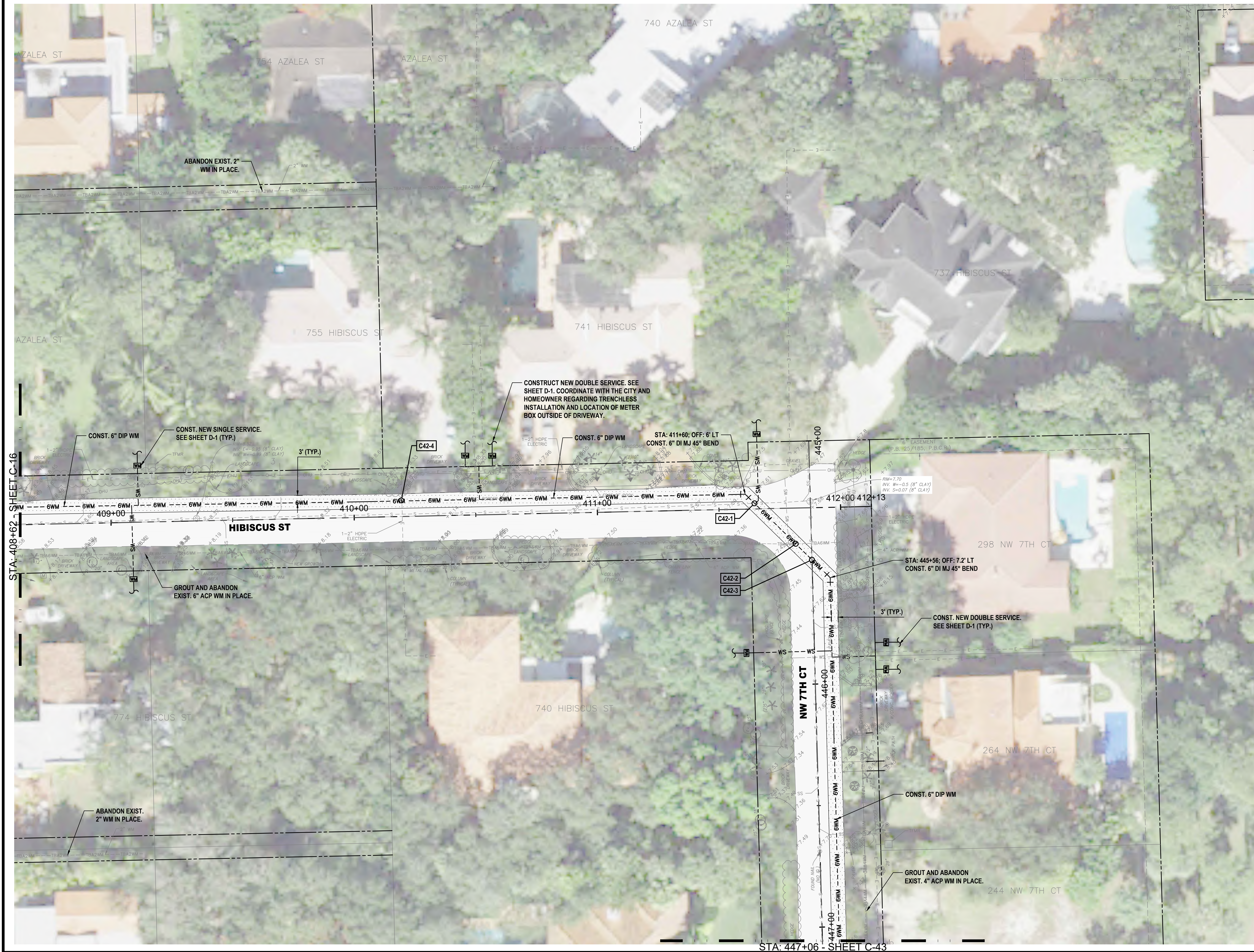
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 7TH AVENUE
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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CERTIFICATE OF AUTH. NO. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-41



HATCH LEGEND

	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

NOTES:

1. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
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7. MAINTAIN MIN. 36\"/>
8. MAINTAIN MINIMUM 5 FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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ID NO.	DESCRIPTION
C42-1	PROP. 6\"/>
C42-2	PROP. 6\"/>
C42-3	PROP. 6\"/>
C42-4	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
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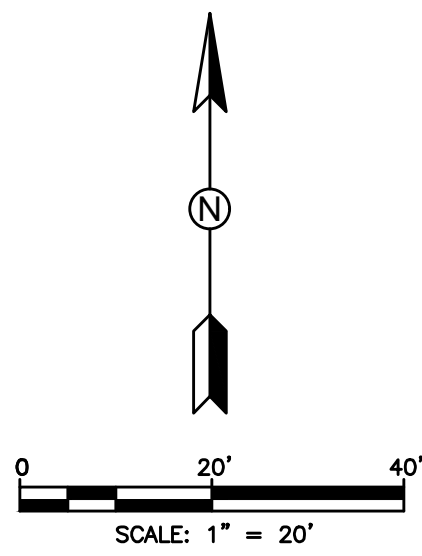
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 7TH COURT
WATER/SEWER IMPROVEMENTS
PLAN SHEET

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270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-42



HATCH LEGEND	
	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

- NOTES:
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 7. MAINTAIN MIN. 36\"/>
 8. MAINTAIN MINIMUM 5 FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
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ID NO.	DESCRIPTION
C43-1	PROP. 6\"/>
C43-2	PROP. 6\"/>
C43-3	PROP. 6\"/>
C43-4	PROP. 6\"/>
C43-5	PROP. 6\"/>
C43-6	PROP. 6\"/>
C43-7	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

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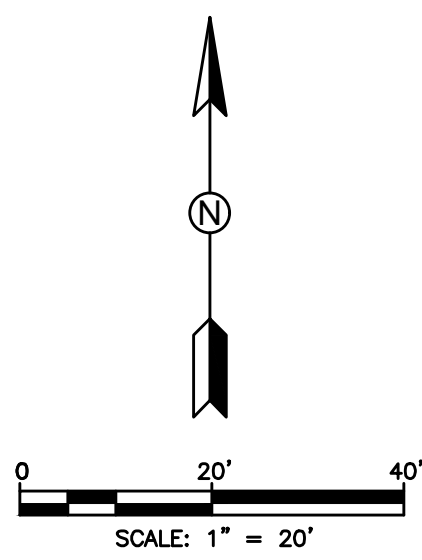
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ROBERT HARRISON BARRON III
License No: 91550

C-43



HATCH LEGEND

-  TRENCH PAVEMENT RESTORATION
 -  MILL AND RESURFACE ASPHALT PAVEMENT
 -  BRICK PAVERS RESTORATION


NOTES

3. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
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5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INCURRED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE CURB, AND BURY EXISTING VALVES IN EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
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8. EXISTING AND NEW EXISTING TREES SHALL BE MAINTAINED TO REMAIN TO WITHIN 5 FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND PROPOSED TREES WITHIN 5 FEET OF PROPOSED WATER MAINS. THE CONTRACTOR SHALL MAINTAIN EXISTING AND NEW UTILITY/VEGETATION CONDITIONS WITH OWNER/ENGINEER TO SHIFT POOR UTILITIES AS NECESSARY.
9. MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTALLED IN WRITING BY ENGINEER.
10. MAINTAIN MINIMUM 5-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTALLED BY OWNER.
11. EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED WITH NEW 8x14 IN. AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE CITY OF BOCA RATON. EXISTING CONCRETE DRIVEWAYS SHALL BE REPAIRED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
12. EXISTING CROSSWALK CROSSWALK SIDEWALK RAMPS ARE PROPOSED FOR REPLACEMENT. EXISTING CROSSWALK RAMP SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK. RE-DO WHERE POOR. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED AND REPLACED WITH NEW 8x14 IN. AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE CITY OF BOCA RATON. EXISTING DRIVEWAY RAMPS SHALL BE INCLUDED IN UNIT PRICES FOR RWMF CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C44-1	PROP. 6" DIP WM OVER/UNDER EXIST. 4" WM. MAINTAIN MIN. 6" CLEARANCE.
C44-2	PROP. 6" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C44-3	PROP. 6" DIP WM OVER EXIST. 8" VCP SS. MAINTAIN MIN. 6" CLEARANCE.
C44-4	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C44-5	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
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ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 10/31/24
Scale: AS NOTED
Design By: HB
Drawn By: FG/RR
Check By: LL

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

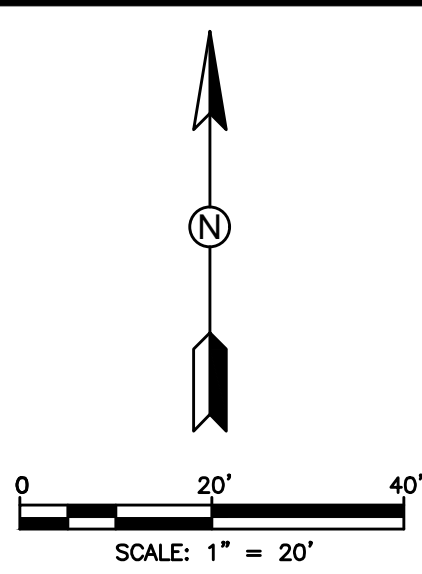
ALAMANDA STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
HCE 270 SOUTH CENTRAL BLVD., SUITE 207
 JUPITER, FLORIDA 33458
 PH. (561) 575-2005
 CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III

License No: 91550

C-44



HATCH LEGEND

	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

NOTES:

1. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6\"/>
3. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
5. EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5 FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
7. MAINTAIN MIN. 36\"/>
8. MAINTAIN MINIMUM 5 FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
9. EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN-KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/RIBBON/CURBING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
10. WHERE EXISTING CROSSWALK SIDEWALK RAMP ARE PROPOSED FOR REPLACEMENT, EXISTING CROSSWALK RAMP SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK. RE-SOD WHERE PROP. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED.
11. ALL COSTS ASSOCIATED WITH TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WM/WMF CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C45-1	PROP. 6\"/>
C45-2	PROP. 6\"/>
C45-3	PROP. 6\"/>
C45-4	PROP. 6\"/>
C45-5	PROP. 6\"/>
C45-6	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE
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ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

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Drawn By: FG/RR
Check By: LL

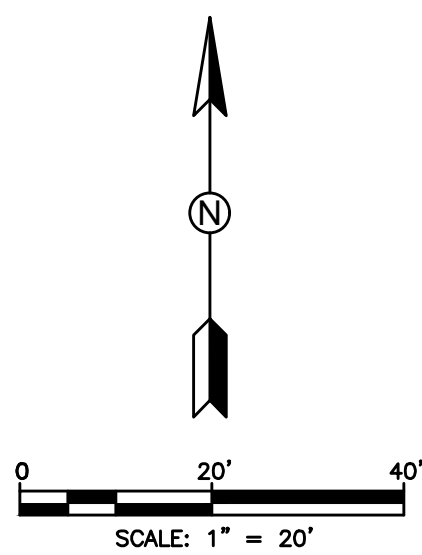
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 3RD STREET
WATER/SEWER IMPROVEMENTS
PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. NO. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-45



HATCH LEGEND

- TRENCH PAVEMENT RESTORATION
- MILL AND RESURFACE ASPHALT PAVEMENT
- BRICK PAVERS RESTORATION

NOTES:

1. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6\"/>
3. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
5. EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5 FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
7. MAINTAIN MIN. 36\"/>
8. MAINTAIN MINIMUM 5 FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
9. EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN-KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/RIBBON/CURBING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
10. WHERE EXISTING CROSSWALK SIDEWALK RAMPS ARE PROPOSED FOR REPLACEMENT, EXISTING CROSSWALK RAMP SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK. RE-SOO WHERE PROP. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED.
11. ALL COSTS ASSOCIATED WITH TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WM/WMF CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C46-1	PROP. 6\"/>
C46-2	PROP. 6\"/>

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

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ADJUST ALL SCALED
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Design By: HB
Drawn By: FG/RR
Check By: LL

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 10TH COURT
WATER/SEWER IMPROVEMENTS
PLAN SHEET




HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

C-46



HATCH LEGEND


	TRENCH PAVEMENT RESTORATION
	MILL AND RESURFACE ASPHALT PAVEMENT
	BRICK PAVERS RESTORATION

1. WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
2. EXISTING CROSSWALK SHALL BE REMOVED PRIOR TO CONSTRUCTION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINS MINIMUM 6" VERTICAL CLEARANCE.
3. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
5. EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
6. REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 8 FEET OF EXISTING WATER MAINS AND KICK-OUTS. EXISTING VEGETATION SHALL BE REPLACED WITHIN 8 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONSULT WITH CITY ENGINEER TO DETERMINE PROTECTION OF EXISTING TREES.
7. MAINTAIN MIN. 36" COVER OVER PROPOSED UTILITIES UNLESS OTHERWISE INSTRUCTED IN WRITING BY ENGINEER.
8. MAINTAIN MINIMUM 5'-FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
9. EXISTING BRICK PAVEMENT AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED, IN THE EVENT THAT PAVEMENT HAS BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADBROOM/CURBING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
10. WHERE EXISTING CROSSWALK SHALL BE REMOVED FOR REPLACEMENT, EXISTING CROSSWALK SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK. BE RE-USED WHERE PROP. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED.
11. ALL NEW SIDEWALK SHALL BE CONCRETE. ALL EXISTING SIDEWALK SHALL HAVE CIRCULAR LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR RMVIM CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C47-1	PROP. 6" DIP WM OVER/UNDER EXIST. 6" WM. MAINTAIN MIN. 6" CLEARANCE.
C47-2	PROP. 6" DIP WM OVER/UNDER EXIST. ELECTRIC. MAINTAIN MIN. 6" CLEARANCE.
C47-3	PROP. 6" DIP WM OVER/UNDER EXIST. UNK. MAINTAIN MIN. 6" CLEARANCE.
C47-4	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.
C47-5	PROP. 6" DIP WM OVER/UNDER EXIST. 2" ELECT. MAINTAIN MIN. 6" CLEARANCE.

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
	C5	C29	C30	C21	C15	C39	C40
C4	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
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ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

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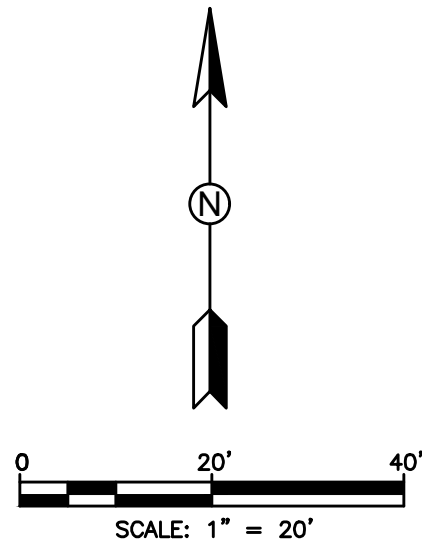
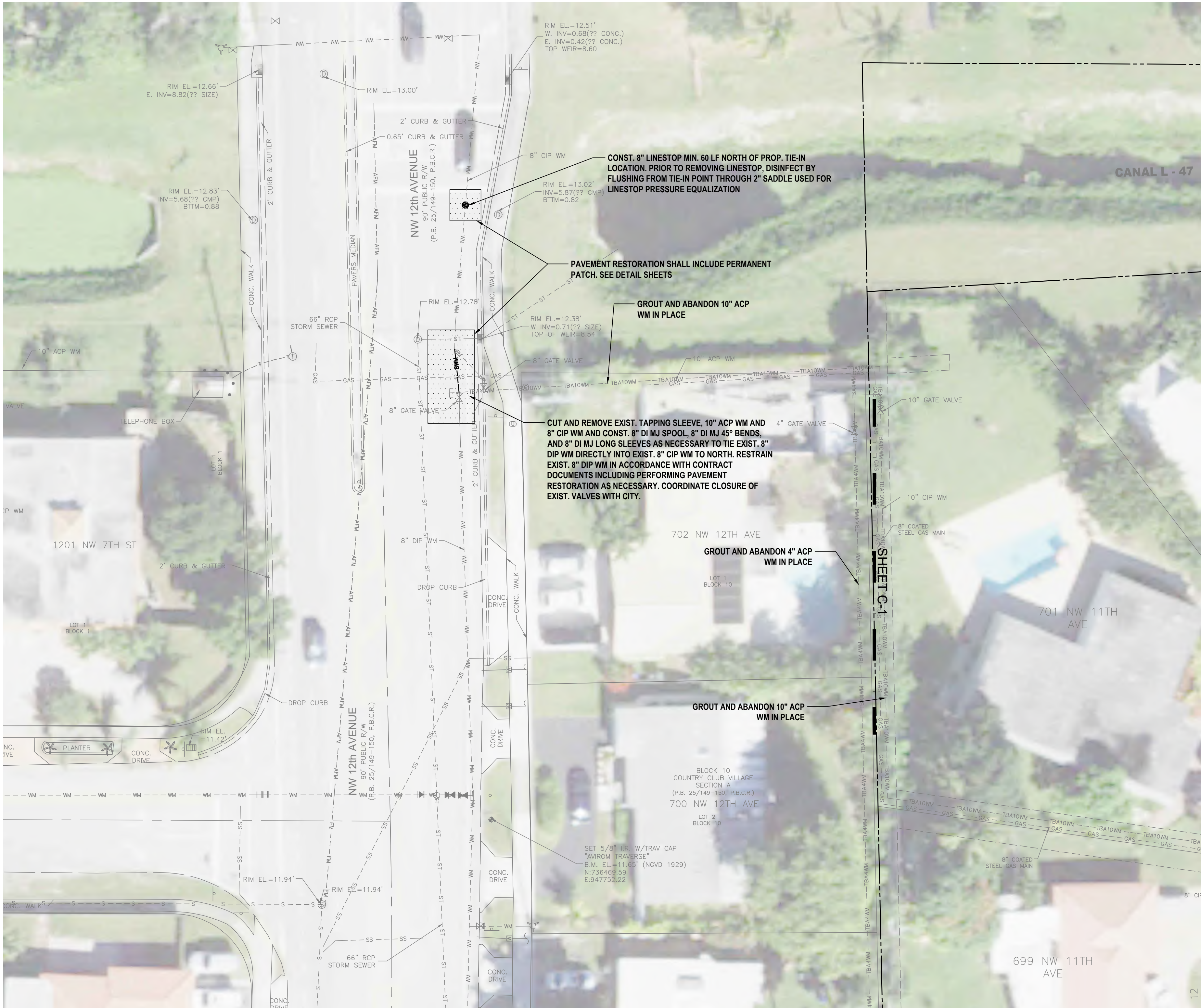
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 10TH AVENUE WATER/SEWER IMPROVEMENTS PLAN SHEET

HOLTZ CONSULTING ENGINEERS, INC.
 270 SOUTH CENTRAL BLVD., SUITE 207
 JUPITER, FLORIDA 33458
 PH. (561) 575-2005
 CERTIFICATE OF AUTH. No. 26960

License No: 91550

C-47



HATCH LEGEND

- TRENCH PAVEMENT RESTORATION
- MILL AND RESURFACE ASPHALT PAVEMENT
- BRICK PAVERS RESTORATION

NOTES:

- WATER SERVICE LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE DETERMINED IN THE FIELD WITH THE CITY OF BOCA RATON AND ENGINEER.
- CONTRACTOR SHALL VERIFY LOCATION OF EXISTING SANITARY SEWER SERVICE LATERALS THROUGHOUT PROJECT AREA PRIOR TO INSTALLATION OF PROPOSED WATER MAINS. PROPOSED WATER MAINS SHALL BE ROUTED OVER EXISTING SEWER SERVICE LATERALS UNLESS OTHERWISE APPROVED BY OWNER/ENGINEER. MAINTAIN MINIMUM 6\"
- CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS AFFECTED BY CONSTRUCTION, BOTH IN THE RIGHT-OF-WAY AND ON PRIVATE PROPERTY, TO EXISTING OR BETTER CONDITIONS AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL REMOVE VALVE BOX, CONCRETE COLLAR, AND BURY EXISTING VALVES ON EXISTING WATER MAINS AND FORCE MAINS TO BE ABANDONED FOLLOWING MAIN ABANDONMENT.
- EXISTING FIRE HYDRANTS BEING REPLACED SHALL BE RETURNED TO THE CITY.
- REMOVE AND REPLACE EXISTING VEGETATION DISTURBED BY CONSTRUCTION TO WITHIN 5 FEET OF PROPOSED WATER MAINS. NO HEDGES, SHRUBS, AND/OR TREES SHALL BE REPLACED WITHIN 5 FEET OF PROPOSED WATER MAINS UNLESS DIRECTED BY OWNER/ENGINEER. INSTALL APPROVED ROOT BARRIERS AS NECESSARY ADJACENT TO EXISTING AND REPLACED TREES WITHIN 5' OF PROPOSED WATER MAIN. EXISTING TREE ROOTS SHALL BE PROTECTED AS NECESSARY. REVIEW UTILITY/VEGETATION CONFLICTS WITH OWNER/ENGINEER TO SHIFT PROP. UTILITIES AS NECESSARY.
- MAINTAIN MIN. 36\"
- MAINTAIN MINIMUM 5 FEET HORIZONTAL SEPARATION (O.D. TO O.D.) BETWEEN PROPOSED UTILITIES AND OTHER BURIED UTILITIES TO ALLOW FUTURE ACCESS FOR MAINTENANCE UNLESS OTHERWISE INSTRUCTED BY OWNER.
- EXISTING BRICK PAVERS AT TRAFFIC CALMING SPEED HUMPS SHALL BE REMOVED AND REPLACED. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, COMPLETE SPEED HUMPS SHALL BE REPLACED NEW AND IN-KIND AT THE CONTRACTOR'S EXPENSE TO THE SOLE SATISFACTION OF THE OWNER. CONCRETE HEADER/RIBBON/CURBING DAMAGED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED FOR THE COMPLETE LENGTH OF THE DAMAGED SECTION TO THE SOLE SATISFACTION OF THE OWNER.
- WHERE EXISTING CROSSWALK SIDEWALK RAMPS ARE PROPOSED FOR REPLACEMENT, EXISTING CROSSWALK RAMP SHALL BE COMPLETELY REMOVED PRIOR TO INSTALLATION OF NEW CROSSWALK. RE-SOD WHERE PROP. SIDEWALK DOES NOT MATCH EXIST. SIDEWALK TO BE REMOVED.
- ALL COSTS ASSOCIATED W/ TEMPORARY AND FINAL RESTORATION OF TRAFFIC SIGNAL LOOPS SHALL BE INCLUDED IN UNIT PRICES FOR WM/FM CONSTRUCTION AND MILLING/RESURFACING AS NECESSARY.

ID NO.	DESCRIPTION
C49-1	PROP. 6\"
C49-2	PROP. 6\"
C49-3	PROP. 6\"
C49-4	PROP. 6\"

C49	C1	C9	C10	C11	C12	C33	C34
	C2	C25	C26	C19	C13	C35	C36
	C3	C27	C28	C20	C14	C37	C38
C4	C5	C29	C30	C21	C15	C39	C40
	C6	C31	C32	C22	C16	C42	C41
	C7	C45	C47	C23	C17	C43	
	C8	C46	C48	C24	C18	C44	

REV	DATE	REVISIONS	BY

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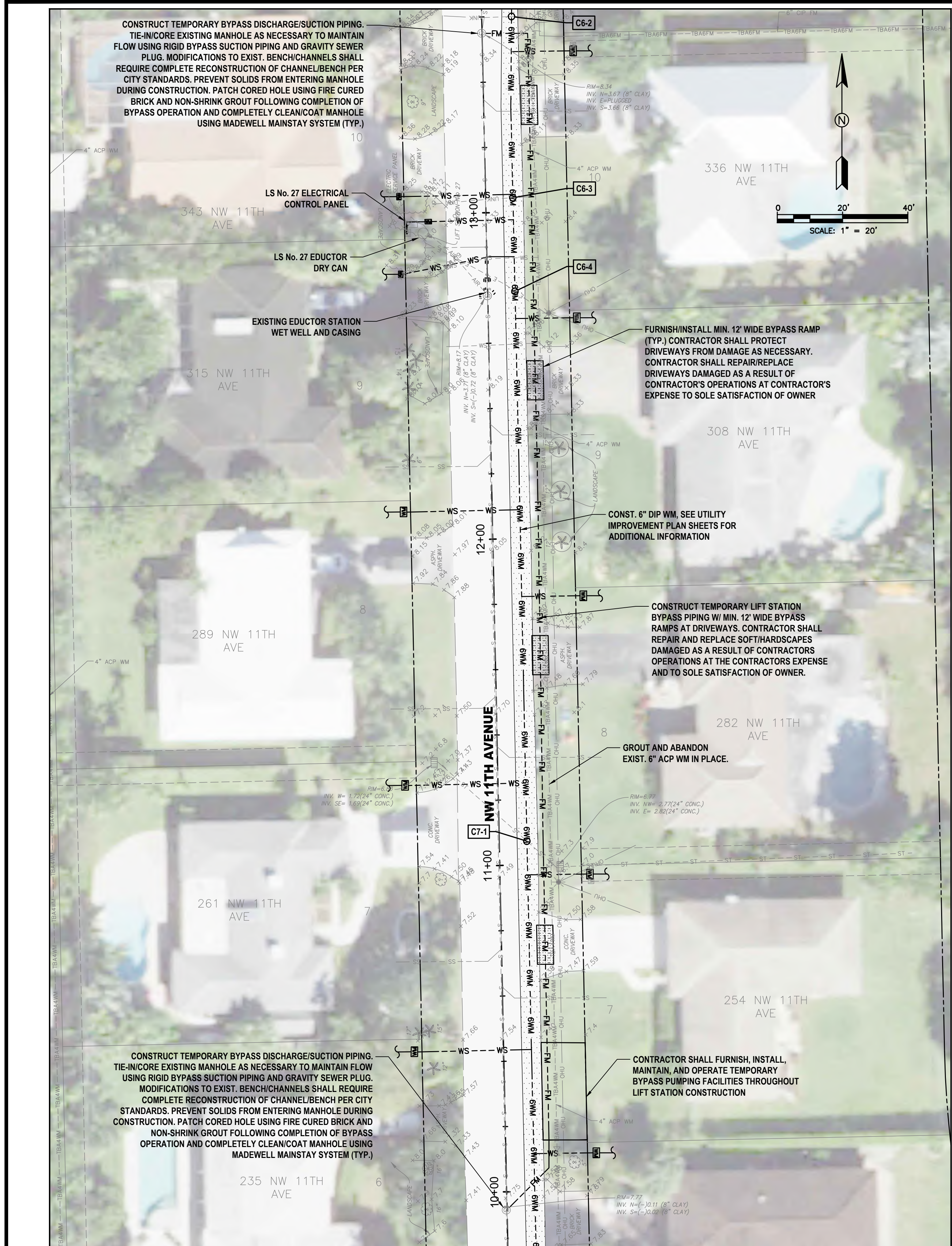
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

NW 12 TH AVENUE
WATER/SEWER IMPROVEMENTS
PLAN SHEETS

HOLTZ CONSULTING ENGINEERS, INC.
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JUPITER, FLORIDA 33458
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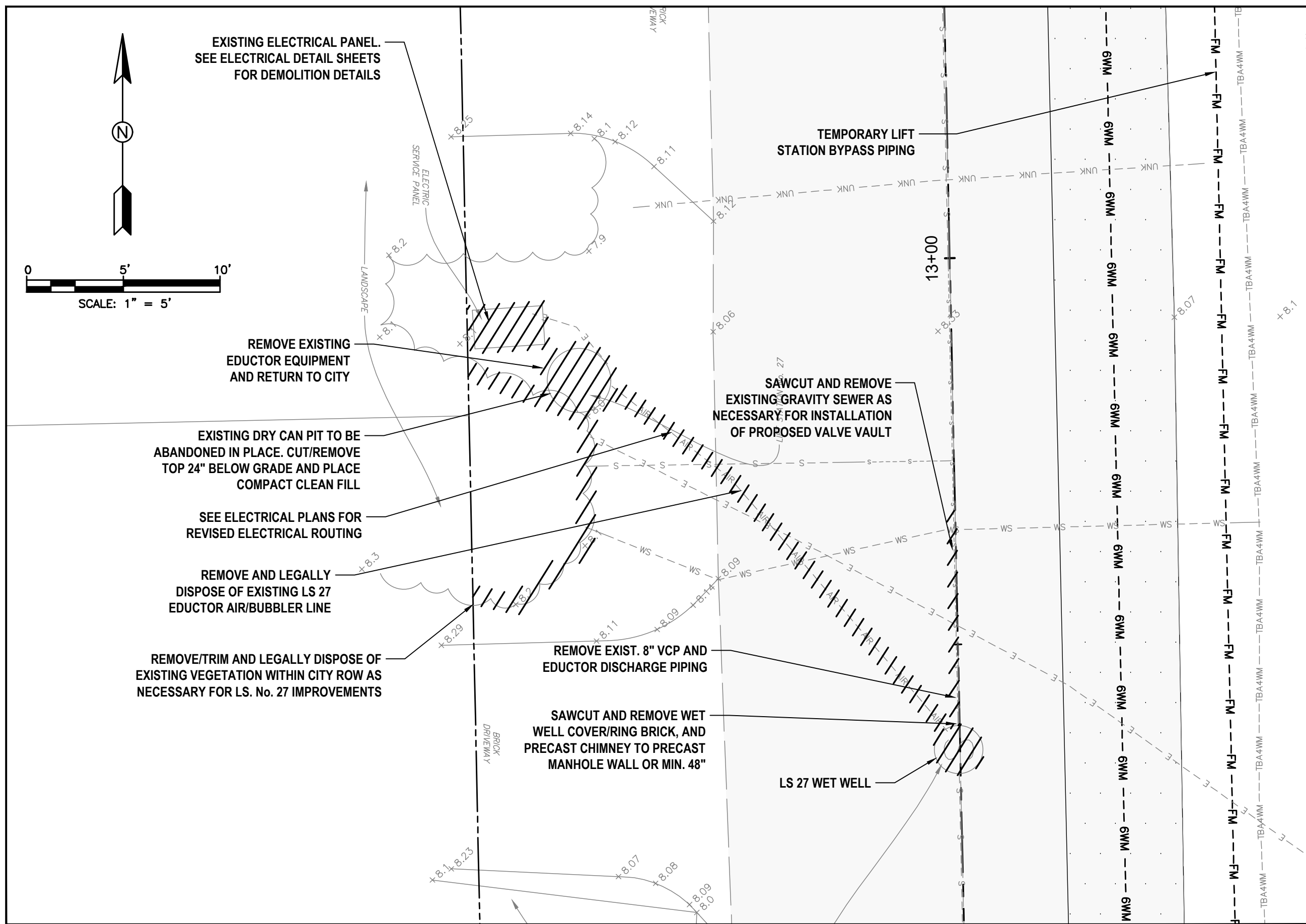
ROBERT HARRISON BARRON III
License No: 91550

C-49



LIFT STATION No. 27
BYPASS SITE PLAN

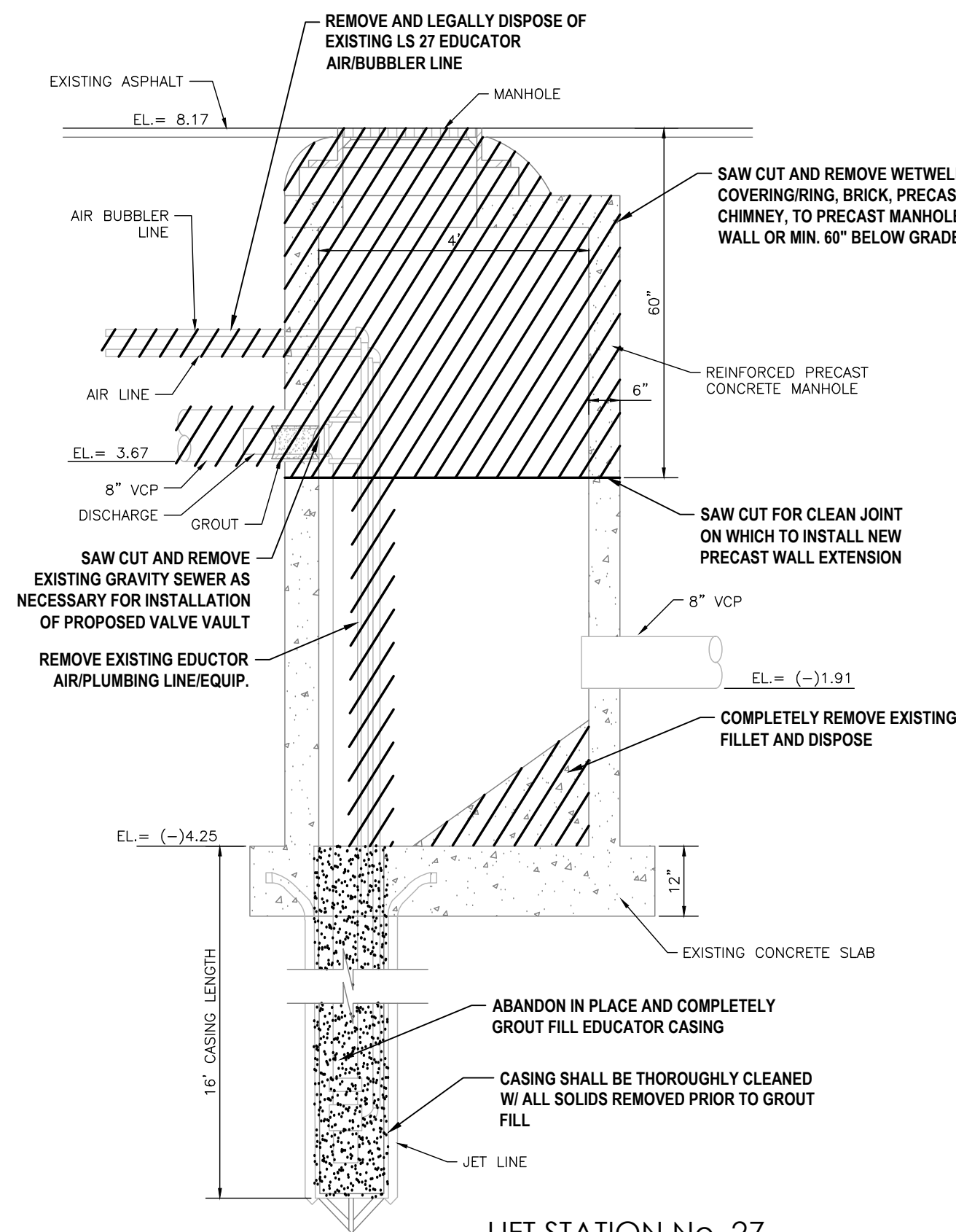
- HATCH LEGEND**
- TRENCH PAVEMENT RESTORATION
 - MILL AND RESURFACE ASPHALT PAVEMENT
 - BRICK PAVERS RESTORATION
- NOTES:**
- CONTRACTOR SHALL COORDINATE LS 27 IMPROVEMENTS WITH REMAINING UTILITY IMPROVEMENTS.
 - CONTRACTOR SHALL PROVIDE 24/7 SUPPORT/STAFFING FOR BYPASS OPERATIONS/EQUIPMENT INCLUDING MONITORING OF FUEL LEVELS, SEWAGE LEVELS, ALARMS, NOISE LEVELS, PROPER PUMPING EQUIPMENT FUNCTION, PROTECTION AGAINST LEAKS, FLUSHING OF GRAVITY SEWER SYSTEM, AND ALL OTHER SUPPORT NECESSARY TO MAINTAIN PROPER BYPASS PUMPING OPERATIONS.
 - CONTRACTOR SHALL MAINTAIN HOMEOWNER/RESIDENT/CITY ACCESS ALONG NW 11TH AVE THROUGHOUT CONSTRUCTION.
 - CONTRACTOR SHALL PROVIDE BYPASS PLAN FOR REVIEW PRIOR TO BEGINNING CONSTRUCTION.
 - CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITY ELEVATIONS PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. ANY DISCREPANCIES FROM PLANS SHALL BE REVIEWED W/ ENGINEER.



LIFT STATION No. 27
SITE PLAN DEMO



LIFT STATION No. 27
PHOTO



LIFT STATION No. 27
EXISTING SECTION DEMO

REV	DATE	REVISIONS	BY

VERIFY SCALE
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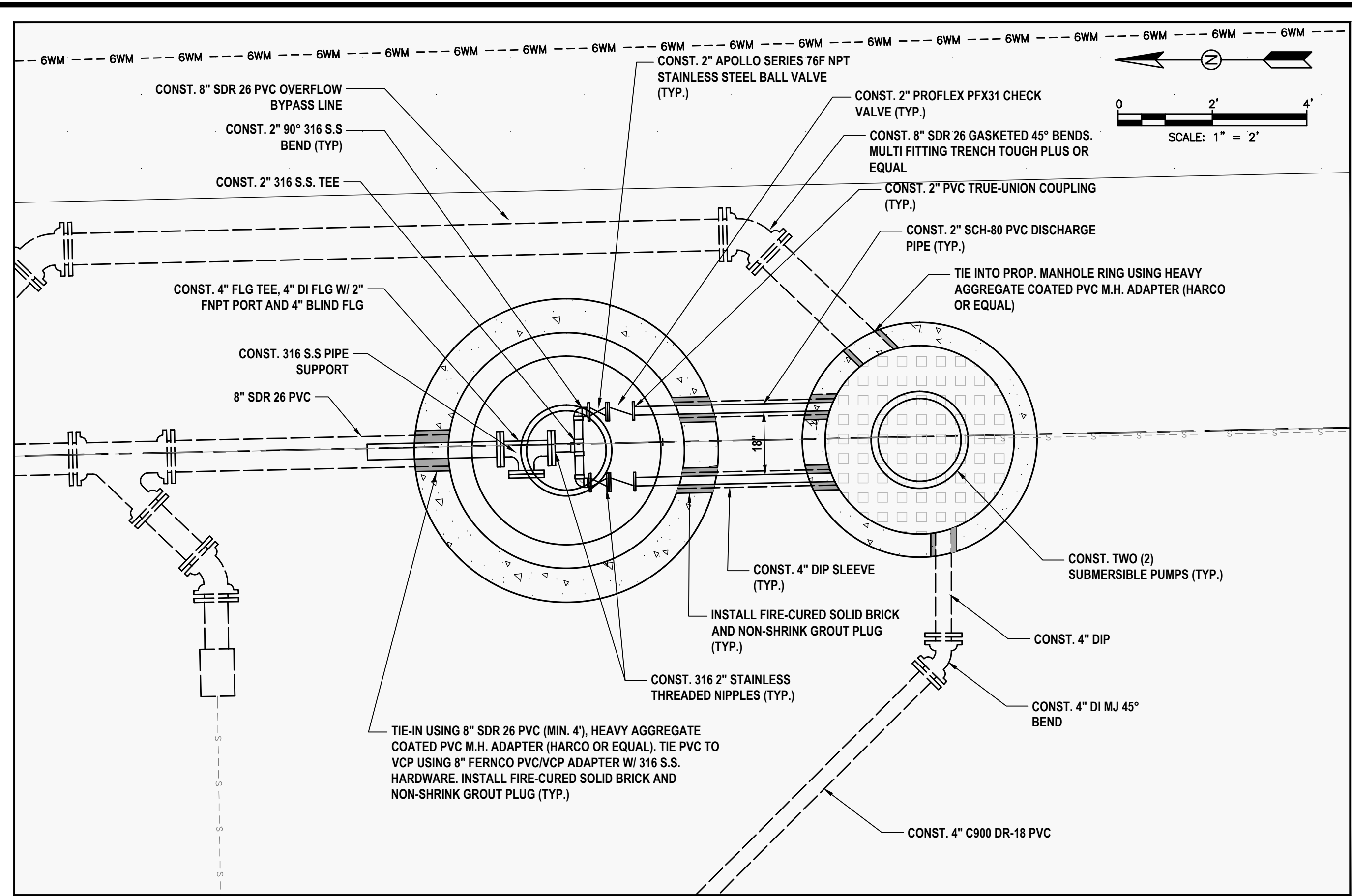
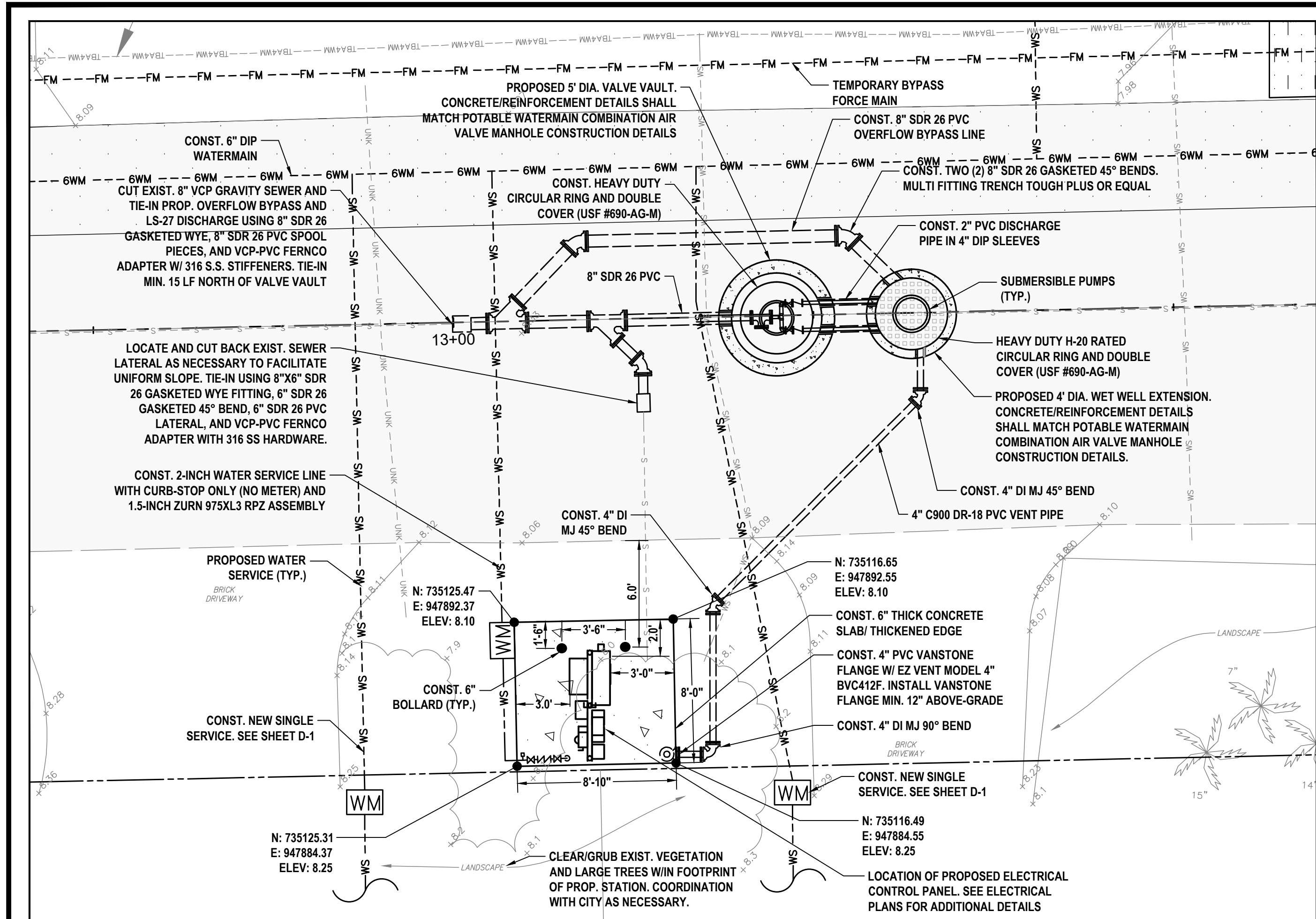
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27
DEMOLITION PLAN

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

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License No. 91550

C-50



LIFT STATION No. 27
PROPOSED PLAN

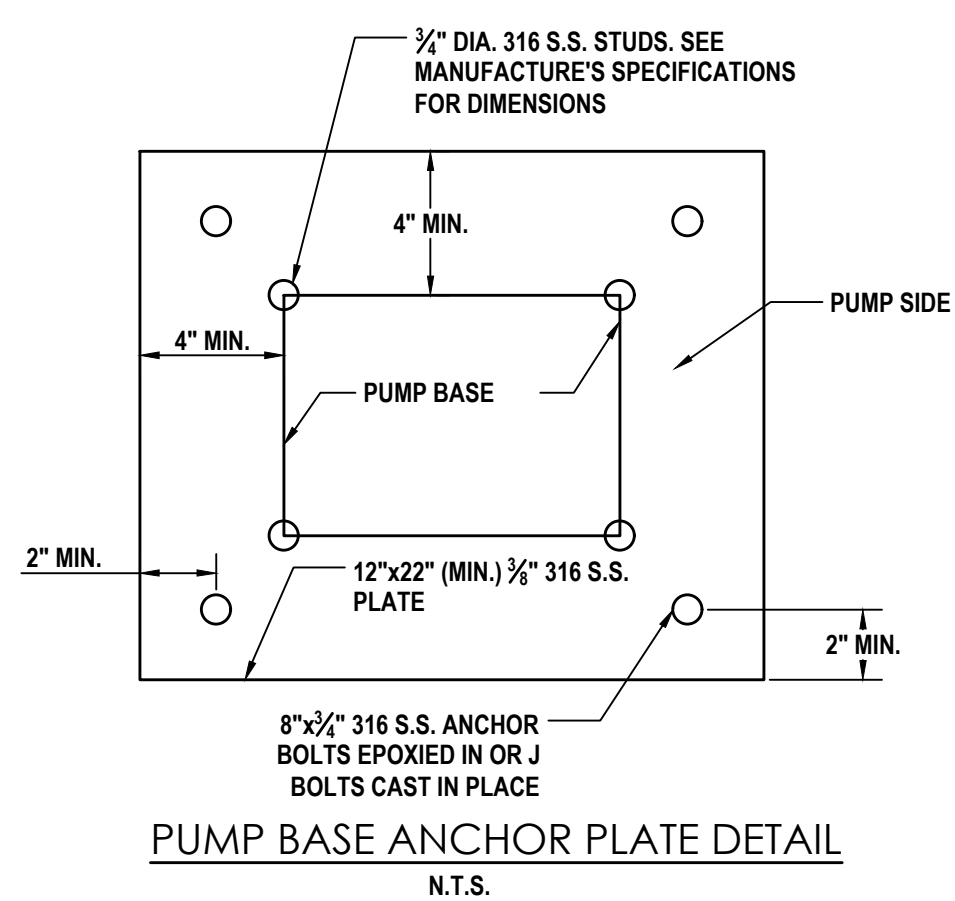
- NOTES:
- REFER TO DETAIL SHEETS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
 - NEW PUMP GUIDE RAILS, BASE ELBOWS, AND APPURTENANCES SHALL BE COMPATIBLE WITH NEW PUMP.
 - CONTRACTOR SHALL MAINTAIN WASTEWATER FLOW DURING CONSTRUCTION.
 - ALL ELEVATIONS ARE NAVD 88.
 - PROVIDE 36" MINIMUM COVER FROM FINISHED GRADE TO TOP OF PIPE.
 - CONTRACTOR SHALL PROTECT ALL VEGETATION AND PRIVATE PROPERTY, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL RESTORE OR REPLACE ANY DAMAGED PROPERTY AT NO COST TO THE OWNER.
 - REFER TO SITE PLAN, PLAN VIEW, AND SECTION VIEW FOR COMPLETE SCOPE OF WORK.
 - NON-SHRINK GROUT FOR ALL OPENINGS.
 - EPOXY LINER SYSTEM TO COVER ALL VERTICAL SURFACES, BOTTOM SLAB, AND BOTTOM OF TOP SLAB OF WET WELL AND VALVE VAULT. EPOXY LINER SYSTEM TO BE MAINSTAY ML-72 BASE COAT AT A MIN. 1" THICKNESS WITH MAINSTAY DS-5 100% SOLIDS EPOXY TOPCOAT AT 100 MIL THICKNESS. ALL DIP PIPING, VALVES, CHECK VALVES, AND FITTINGS SHALL BE COATED WITH MAINSTAY DS-5 AT 50 MIL THICKNESS. SMALL DIAMETER SS / BRASS FITTINGS/VALVES SHALL NOT BE COATED.
 - HATCH COVERS SHALL BE AIR TIGHT AND MUST ALLOW FOR UNRESTRICTED VERTICAL REMOVAL OF PUMPS/VALVES. HAVE FLUSH ALUMINUM DROP HANDLES W/ LOCK MECHANISM, AN AUTOMATIC HOLD OPEN ARM WITH RELEASE HANDLE, AND BE GROUNDED PER GROUNDING DETAILS.
 - FLOAT WIRES SHALL BE CUT TO LENGTH WITH 4' OF SLACK.
 - FLOATS AND CABLES SHALL BE CLEARLY/PERMANENTLY LABELED.
 - PROPOSED LANDSCAPING SHALL HAVE NON-AGGRESSIVE ROOT SYSTEM. APPROVED HEDGES ARE WAX MYRTLE, SIMPSON STOPPER, SILVER BUTTONWOOD, AND SOUTHERN RED CEDAR. MIN. SIZE SHALL BE 10-GALLON WITH FULLY DEVELOPED ROOT SYSTEM. CONTRACTOR SHALL FURNISH TEMPORARY IRRIGATION TO ESTABLISH LANDSCAPING ROOT SYSTEM.
 - ALL HARDWARE SHALL BE 316 S.S.

LIFT STATION No. 27
SITE PLAN PROPOSED

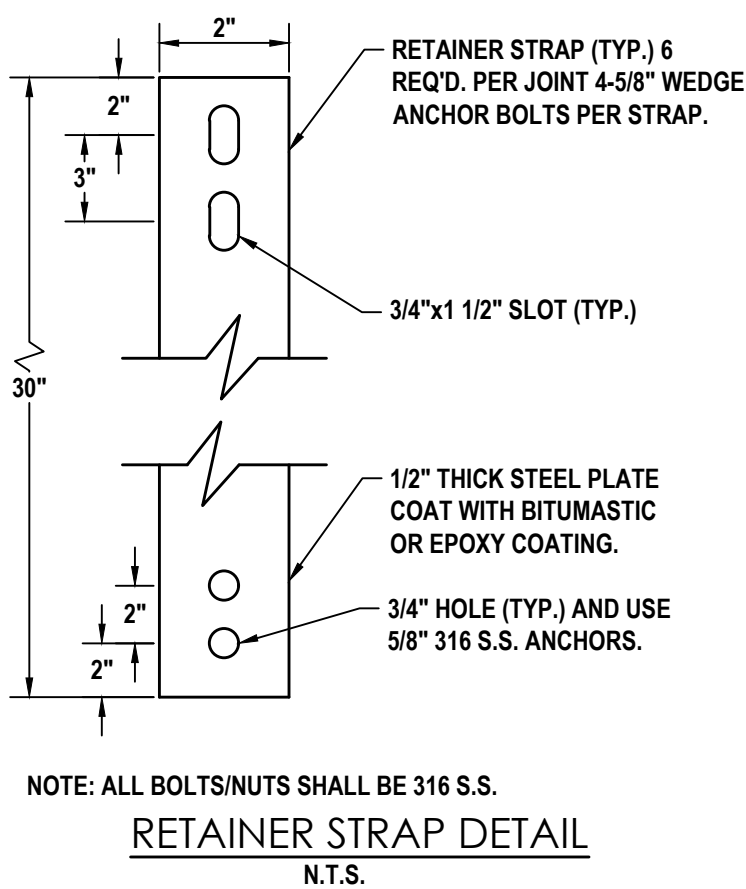
DESIGN CRITERIA	
FLOW (GPM)	30
T.D.H. (FT)	9.17
PHASE	1
VOLTS	208-230

PUMP DATA	
PUMP STATION NUMBER	27
PUMP NUMBER	-
MANUFACTURER	WEIL/WILO
MODEL	CK 2437-1750-J
MOTOR	HIGH TEMP
IMPELLER NUMBER	550 MM
R.P.M.	1750
H.P.	0.75
DISCHARGE SIZE	2"
PHASE	1
VOLTS	208-230

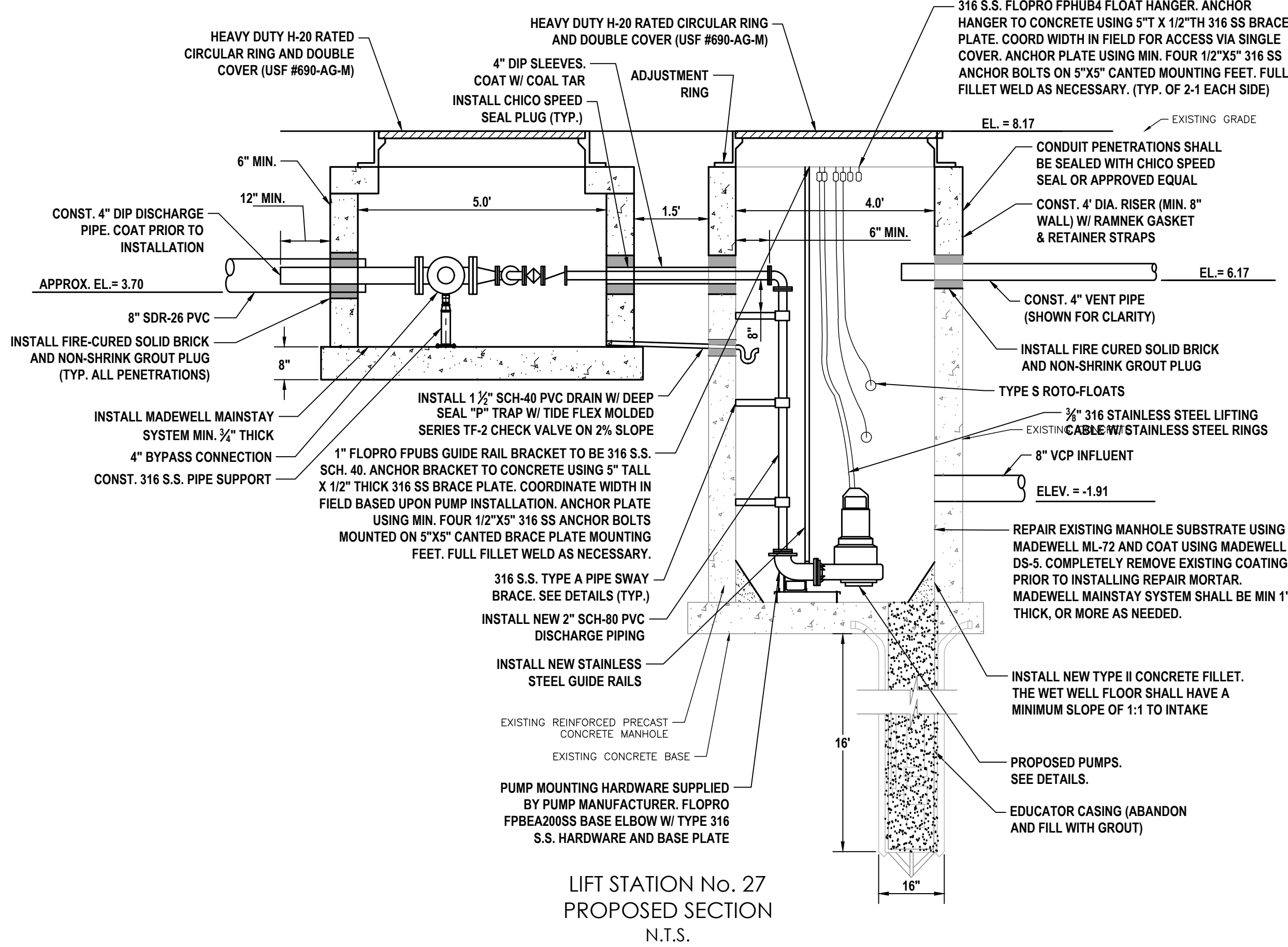
WELL DATA	
PUMP STATION NUMBER	27
DIAMETER	4' ±
TOP SLAB ELEVATION	8.17
INFLUENT ELEVATION	-1.91
BOTTOM ELEVATION	-4.25
HIGH WATER ALARM	-1.91
STANDBY PUMP ON	-2.00
DUTY PUMP ON	-2.50
BOTH PUMPS OFF	-3.25
OVERFLOW BYPASS INVERT	3.80
FINISHED GRADE	-
100 YR FLOOD ELEVATION	-



PUMP BASE ANCHOR PLATE DETAIL
N.T.S.



RETAINER STRAP DETAIL
N.T.S.



LIFT STATION No. 27
PROPOSED SECTION
N.T.S.

REV	DATE	REVISIONS	BY

VERIFY SCALE
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Check By: LL

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27
PROPOSED PLAN

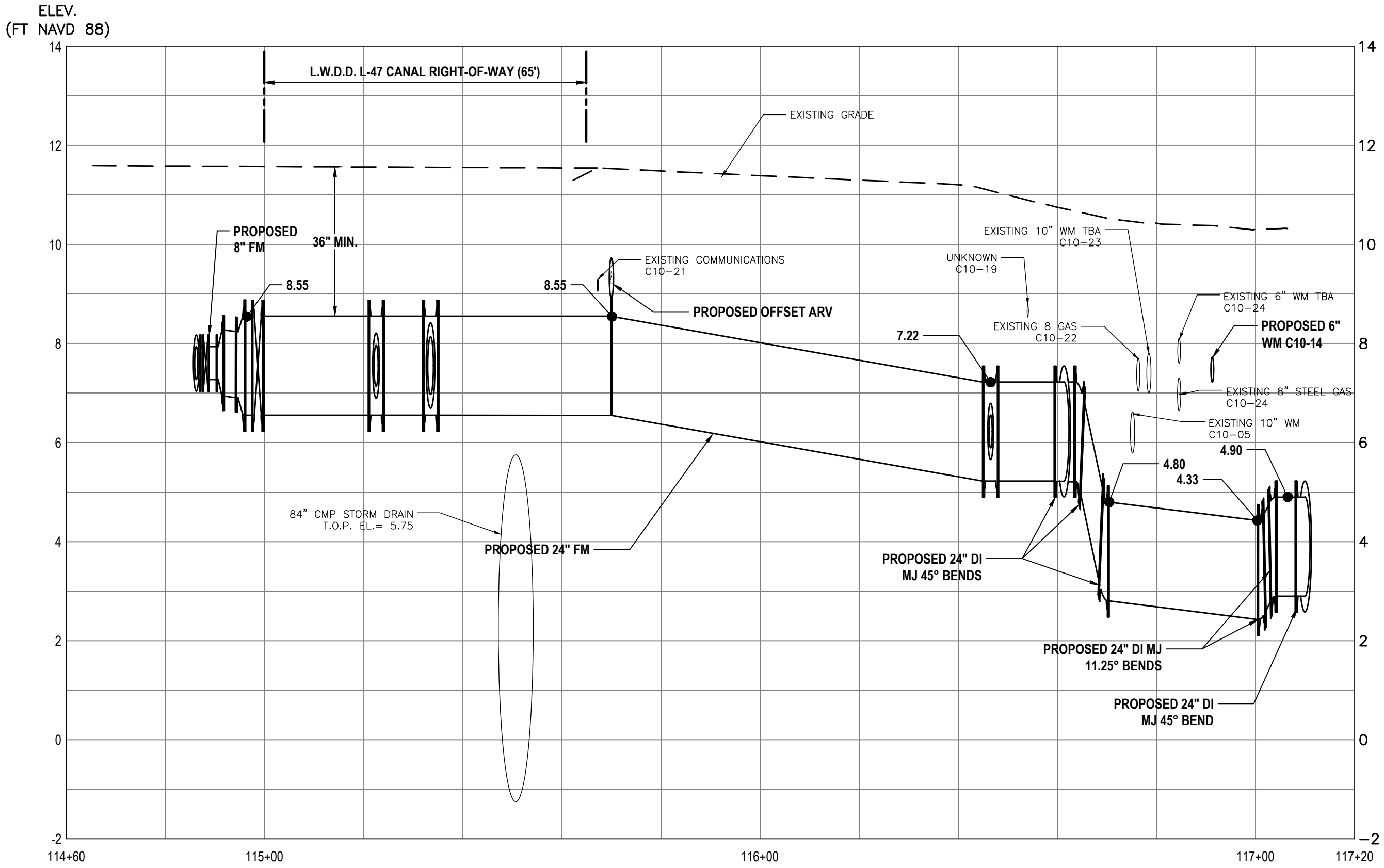
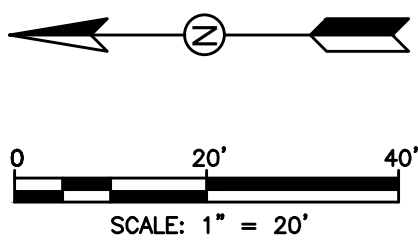
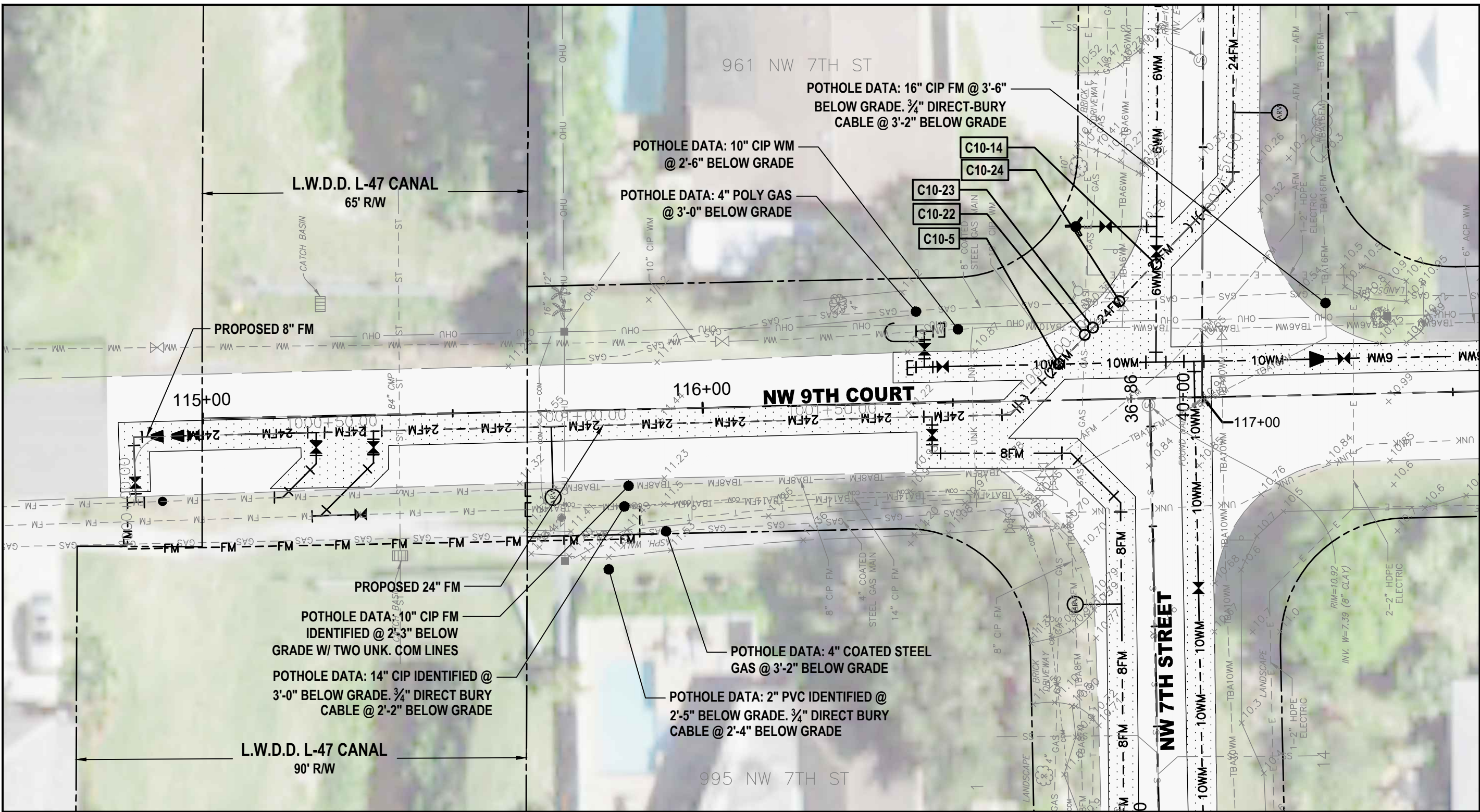
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CERTIFICATE OF AUTH. No. 26960

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License No. 91550

C-51

NOTES:

1. PRESENCE/ELEVATION OF EXISTING UTILITIES IS BASED UPON BEST AVAILABLE RECORD DOCUMENTS AND LIMITED SURFACE/SUBSURFACE EXPLORATION (SEE POT HOLE DATA REFERENCES). CONTRACTOR SHALL PERFORM SURFACE/SUBSURFACE UTILITY INVESTIGATION IN ACCORDANCE WITH CONTRACT AND AS NECESSARY TO VERIFY PRESENCE / EXISTENCE OF ANY/ALL CONFLICTS LOCATED WITHIN THE PATH/ALIGNMENT OF THE PROPOSED FORCE MAINS (INCLUDING SMALLER DIAMETER FORCE MAINS NOT DIRECTLY SHOWN HEREIN; SEE 6" DIP FM ON AURELIA ST., 8" DIP FM ON NW 11TH AVE / NW 7TH ST., AND 6" HDPE FM ON NW 10TH CT.). CONTRACTOR SHALL ENSURE THAT NO LOCAL HIGH POINTS ARE CREATED IN PROPOSED FORCE MAIN BETWEEN PROPOSED AIR RELEASE VALVE LOCATIONS (INCLUDING FORCE MAIN BRANCHES REFERENCED ABOVE). ANY DISCREPANCIES WITH PROPOSED DESIGN SHALL BE BROUGHT TO OWNER / ENGINEER'S ATTENTION SUFFICIENTLY IN ADVANCE OF EXPECTED CONSTRUCTION START DATE TO ENABLE REVIEW OF AND PREPARATION OF REVISED PLAN/PROFILE DRAWINGS AS NECESSARY. NO ADDITIONAL PAYMENT SHALL BE MADE TO CONTRACTOR FOR DELAYS CAUSED BY FAILURE TO PERFORM UTILITY INVESTIGATION SUFFICIENTLY IN ADVANCE OF PROPOSED CONSTRUCTION START DATE. SEE GENERAL NOTES FOR ADDITIONAL DETAILS.
2. PROPOSED WATER MAIN IMPROVEMENTS SHALL BE CONSTRUCTED AND PLACED INTO SERVICE AND EXISTING WATER MAINS / SERVICES SHALL BE GROUTED / ABANDONED IN PLACE (UNLESS OTHERWISE NOTED) IN ADVANCE OF PROPOSED FORCE MAIN CONSTRUCTION TO ALLOW FOR REMOVAL OF EXISTING WATER MAIN / SERVICE CONFLICTS DURING PROPOSED FORCE MAIN INSTALLATION. PROPOSED WATER SERVICES SHALL BE INSTALLED OUTSIDE OF POTENTIAL CONFLICT WITH THE PROPOSED FORCE MAIN.
3. PROPOSED FORCE MAIN DEPTH / ALIGNMENT MAY BE FIELD ADJUSTED, WITH PRIOR WRITTEN APPROVAL FROM OWNER / ENGINEER, WHERE EXISTING UTILITY CONFLICTS ALLOW SO LONG AS NO ADDITIONAL HIGH POINTS OUTSIDE OF THOSE DESIGNED HEREIN ARE CREATED. ANY ADDITIONAL AIR RELEASE VALVES REQUIRED, AS IDENTIFIED DURING AS-BUILT REVIEW, DUE TO FAILURE OF THE CONTRACTOR TO CONSTRUCT THE FORCE MAIN IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND/OR DUE TO FAILURE OF THE CONTRACTOR TO NOTIFY THE OWNER / ENGINEER OF ADDITIONAL UNFORESEEN UTILITY CONFLICTS AS IDENTIFIED DURING SUBSURFACE UTILITY INVESTIGATION SHALL BE FURNISHED / INSTALLED AT THE CONTRACTOR'S SOLE EXPENSE. AT THE SOLE DISCRETION OF THE OWNER, OWNER / ENGINEER MAY REQUIRE THAT CONTRACTOR REMOVE / RECONSTRUCT PROPOSED FORCE MAIN AT PROPER / DESIGN ELEVATIONS AT THE CONTRACTOR'S SOLE EXPENSE AS NECESSARY TO ELIMINATE UNNECESSARY HIGH POINTS.
4. CONTRACTOR SHALL SUPPORT ALL UTILITIES THROUGHOUT INSTALLATION OF FORCE MAIN INCLUDING AT ALL GRAVITY SEWER MAIN / LATERAL CROSSINGS. BACKFILLING SHALL BE PERFORMED USING EXCAVATABLE FLOWABLE FILL WHENEVER CROSSING UNDER EXISTING GRAVITY SEWER MAINS TO A MIN. OF 24" ABOVE GRAVITY SEWER PIPING. FLOWABLE FILL SHALL BE ALLOWED TO FULLY CURE PRIOR TO CONTINUING BACKFILL/COMPACTION.



PROFILE VIEW - STA: 114+60 TO STA: 117+20



PROFILE KEY MAP

REV	DATE	REVISIONS	BY

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0 1
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Scale: AS NOTED
Design By: HB
Drawn By: FG/RR
Check By: LL

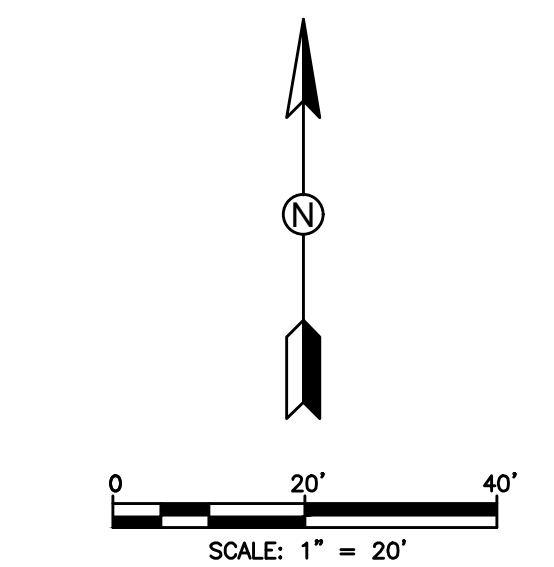
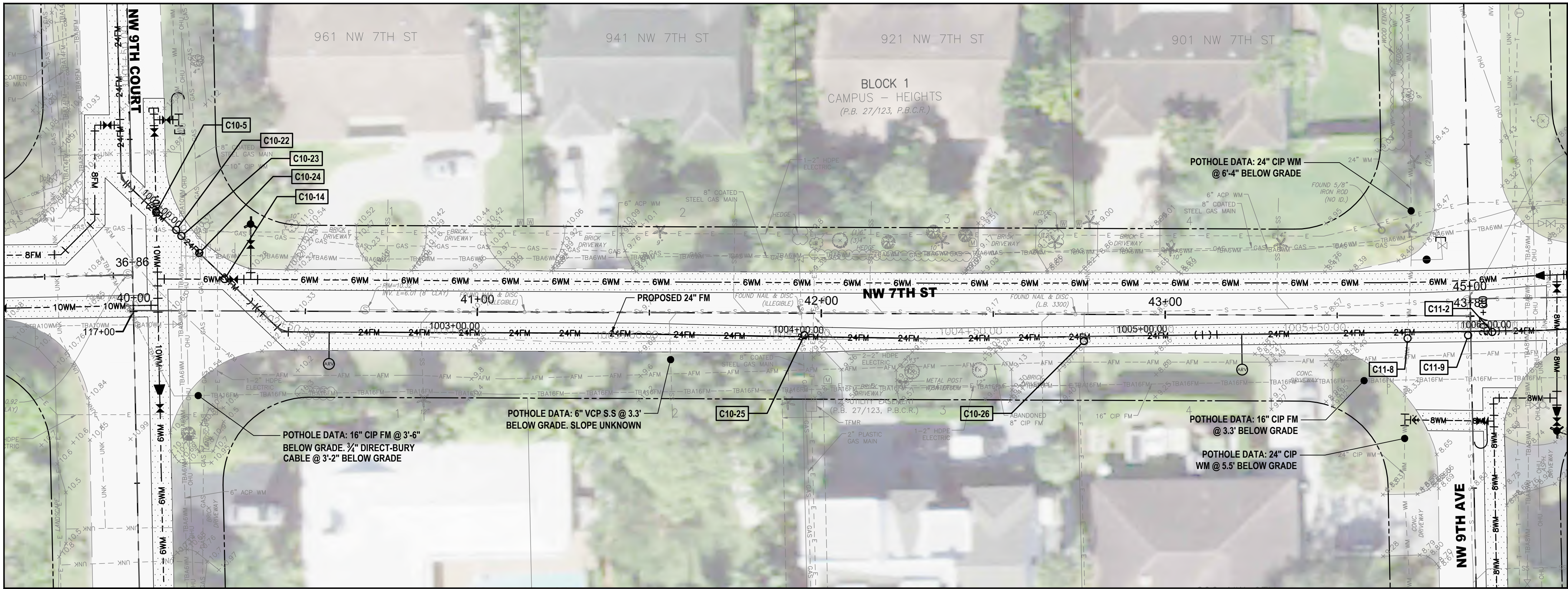
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

FORCE MAIN PROFILE

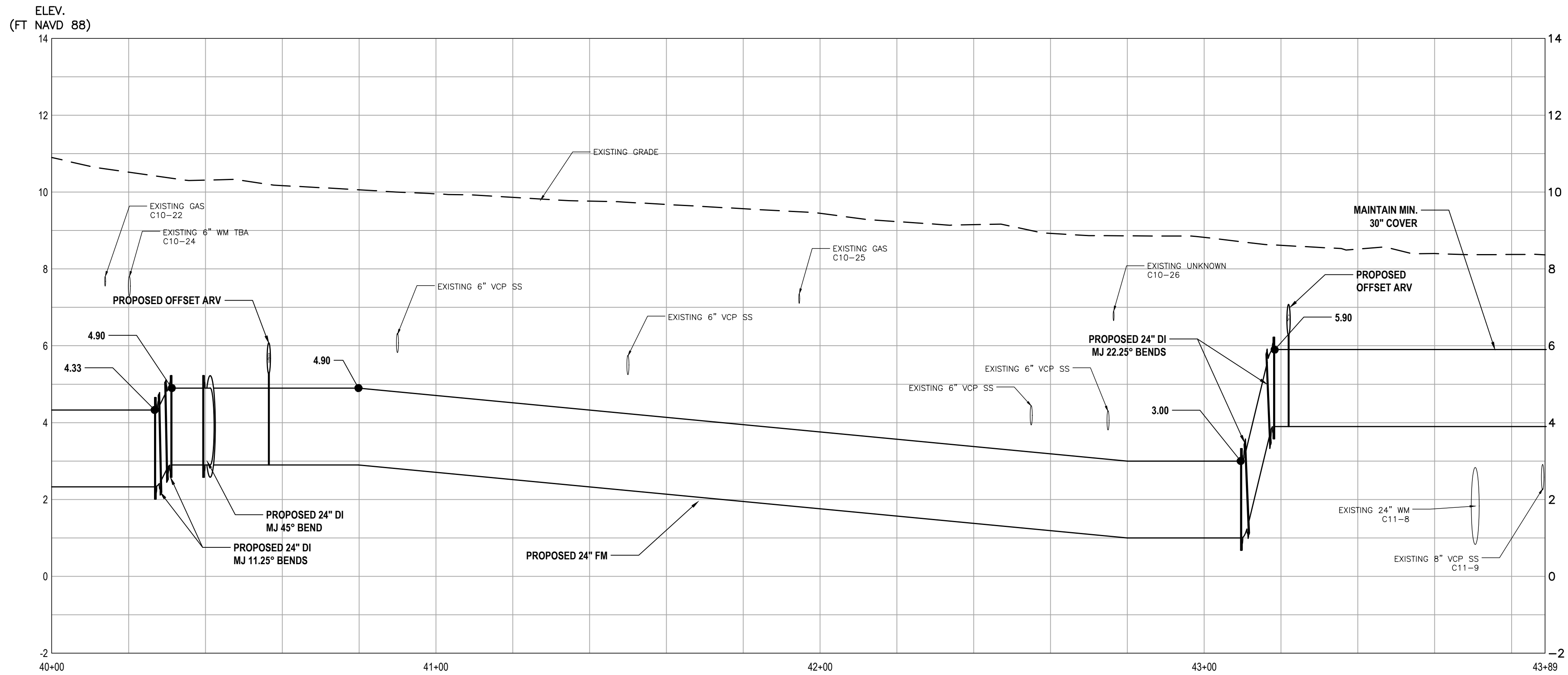
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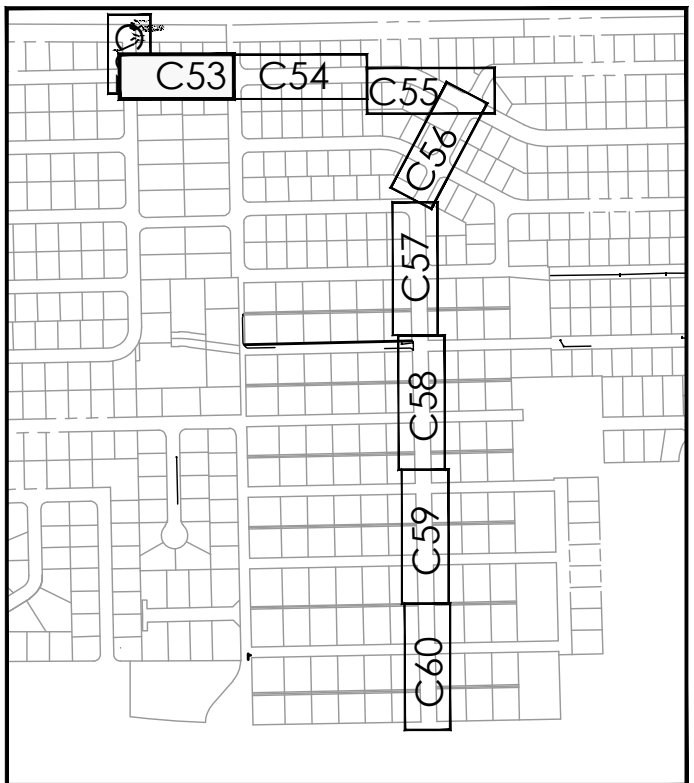
C-52



NOTES:
REFER TO SHEET C-52 FOR NOTES



PROFILE VIEW - STA: 40+00 TO STA: 43+89



PROFILE KEY MAP

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VERIFY SCALE
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0 1
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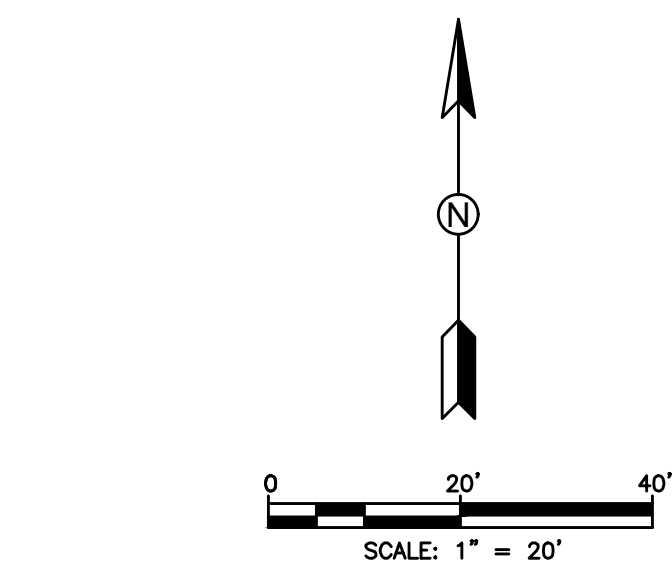
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CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

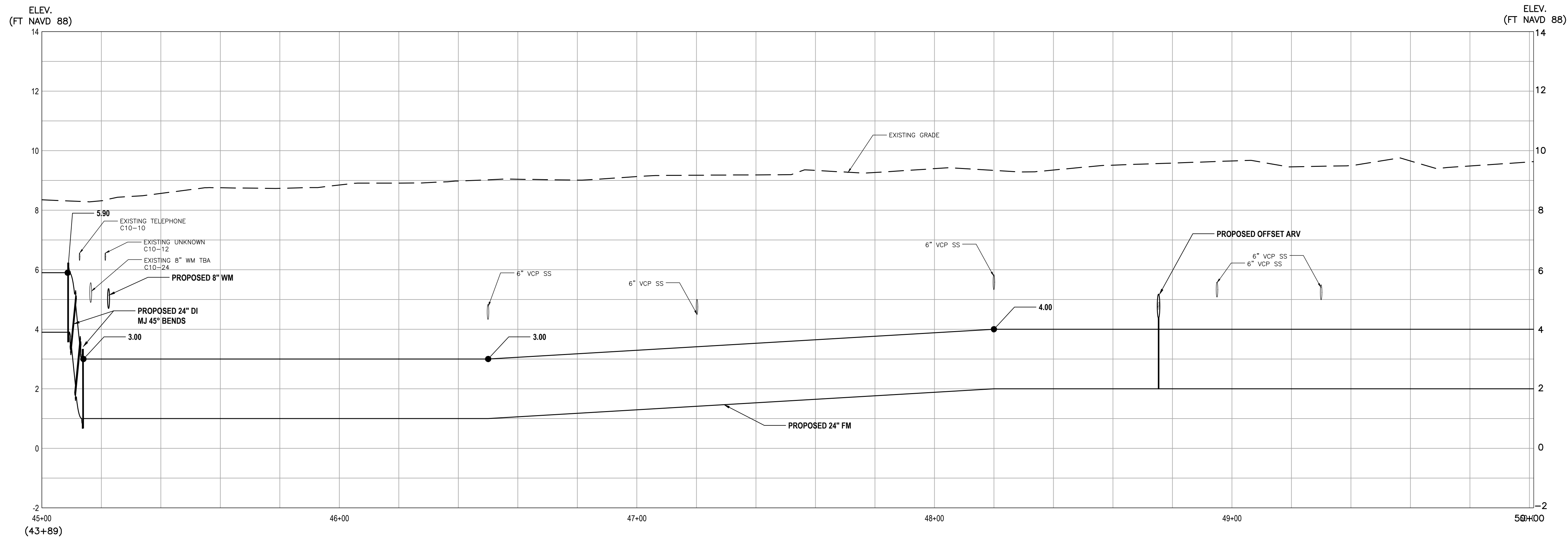
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NOTES:
REFER TO SHEET C-52 FOR NOTES



PROFILE VIEW - STA: 45+00 TO STA: 50+00



PROFILE KEY MAP

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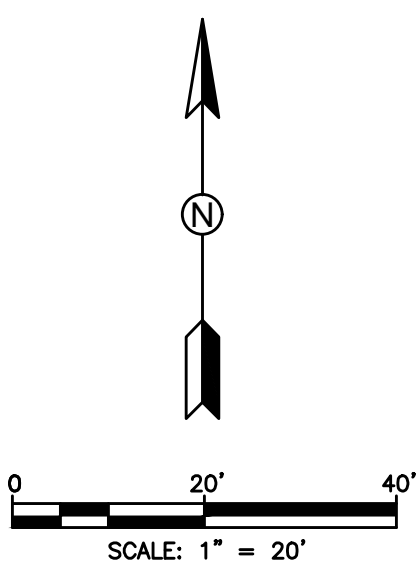
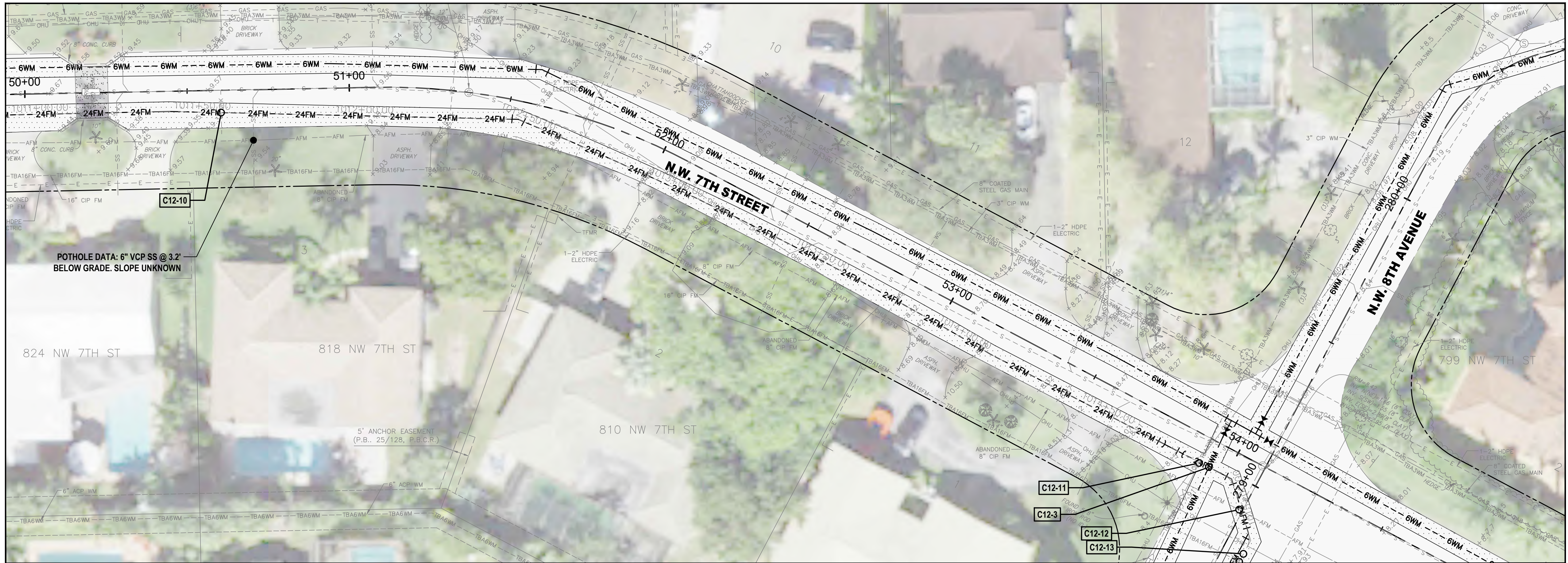
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

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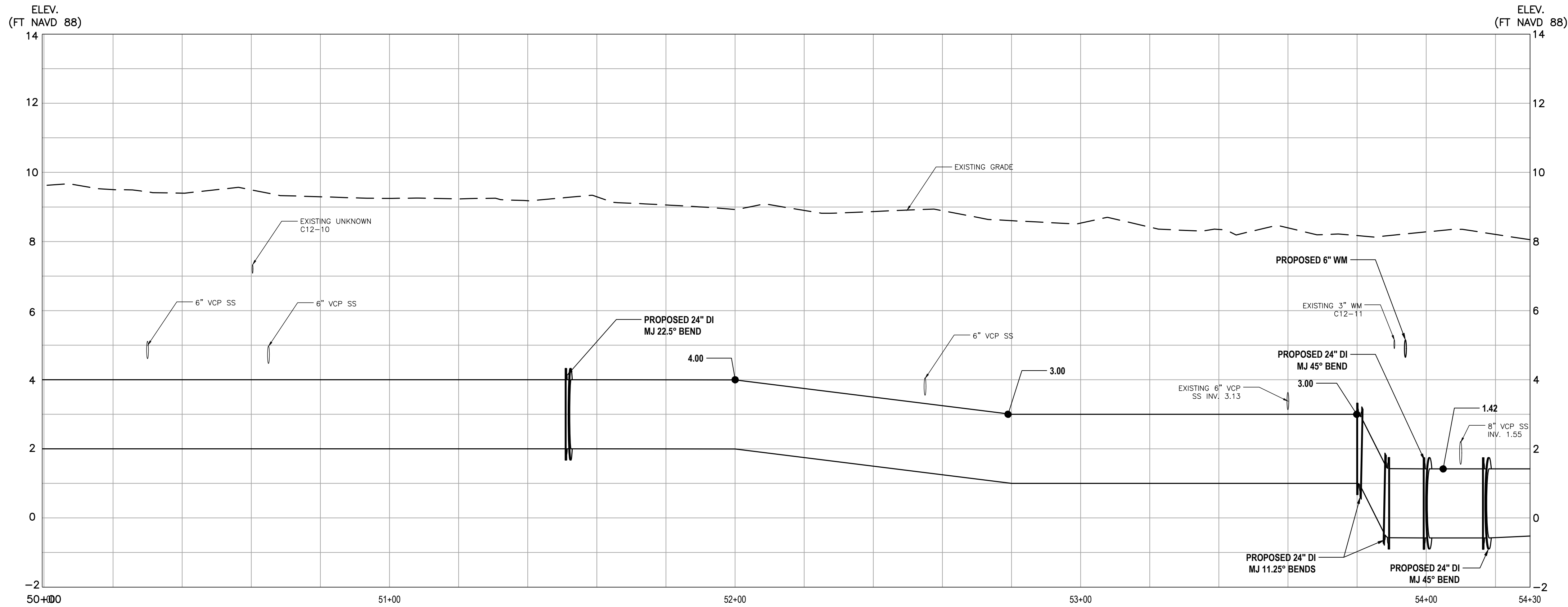
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C-54



NOTES:
REFER TO SHEET C-52 FOR NOTES



PROFILE VIEW - STA: 50+00 TO STA: 54+30



PROFILE KEY MAP

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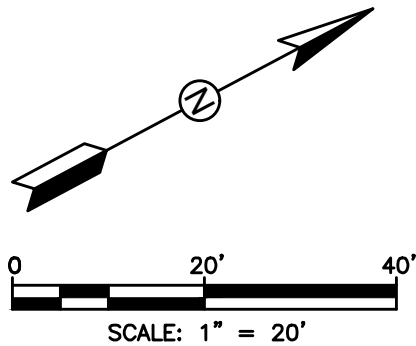
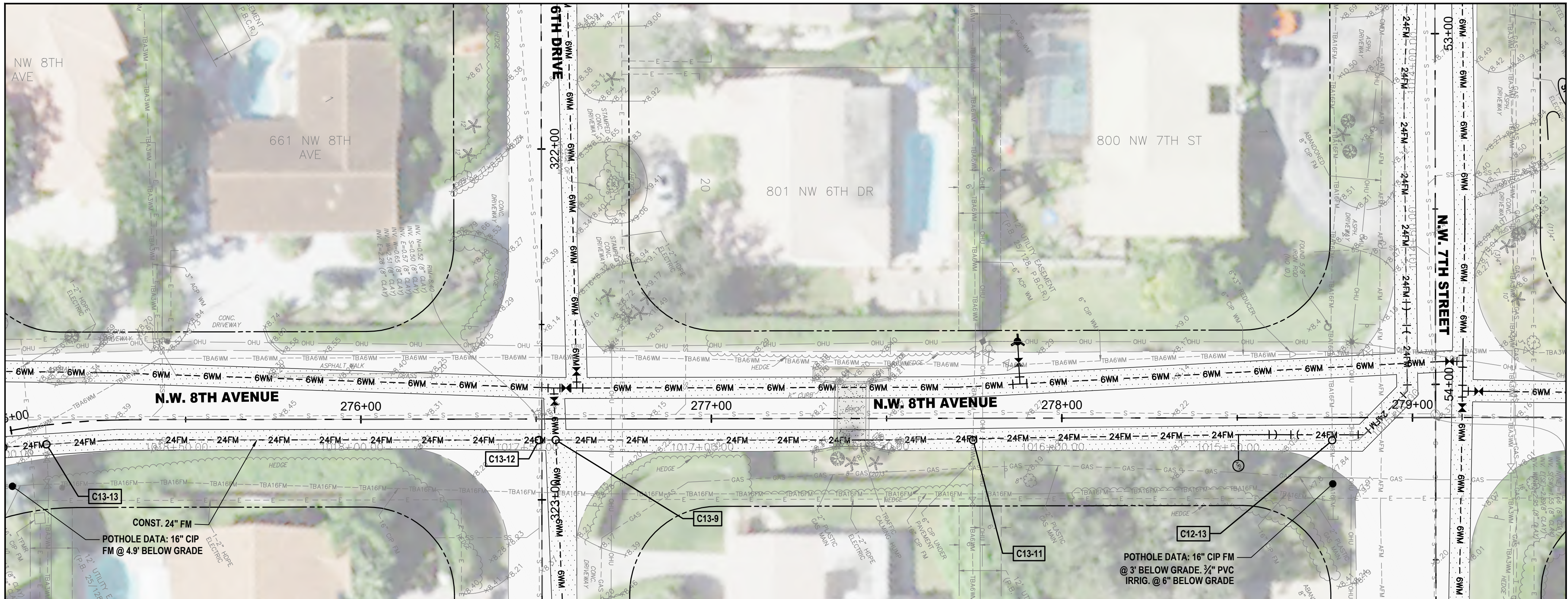
CITY OF BOCA RATON
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INFRASTRUCTURE UPGRADES

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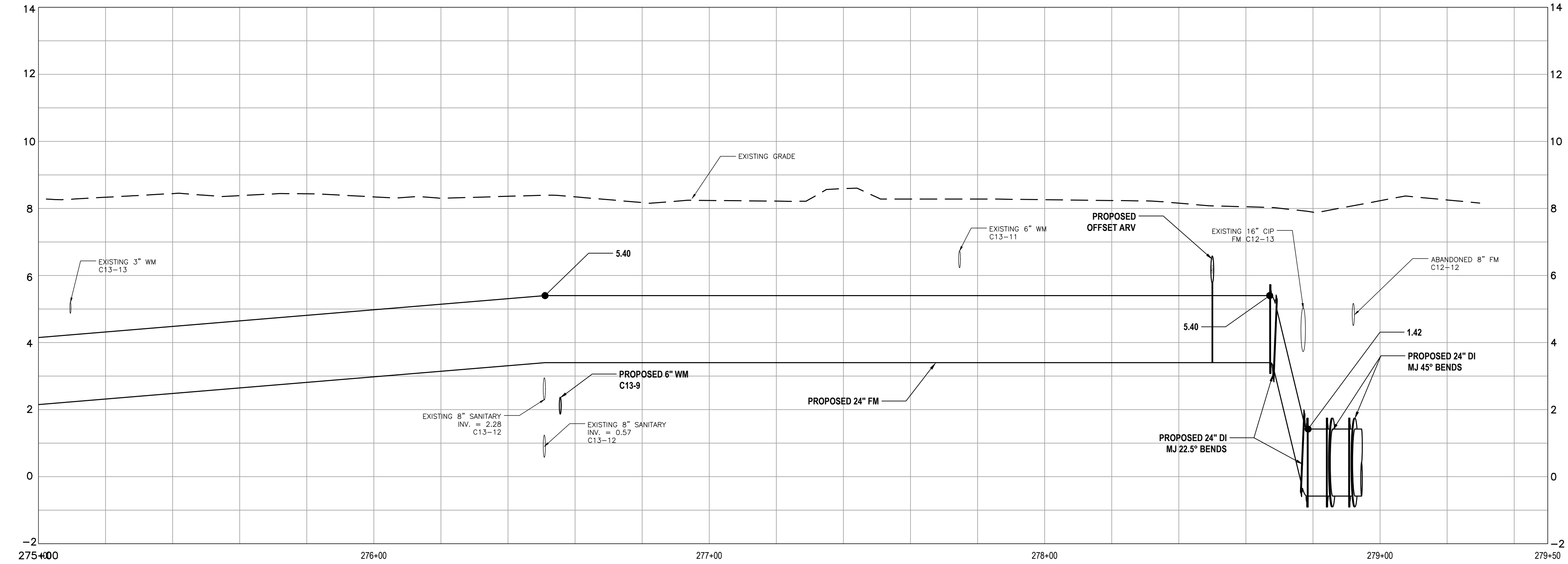
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C-55



NOTES:
REFER TO SHEET C-52 FOR NOTES

ELEV.
(FT NAVD 88)



ELEV.
(FT NAVD 88)

PROFILE VIEW - STA: 275+00 TO STA: 279+50



PROFILE KEY MAP

REV	DATE	REVISIONS	BY

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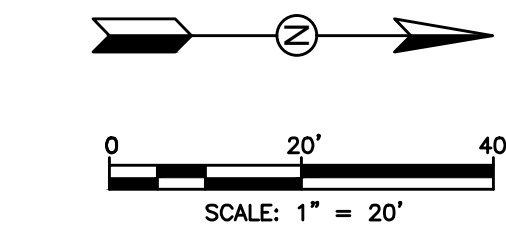
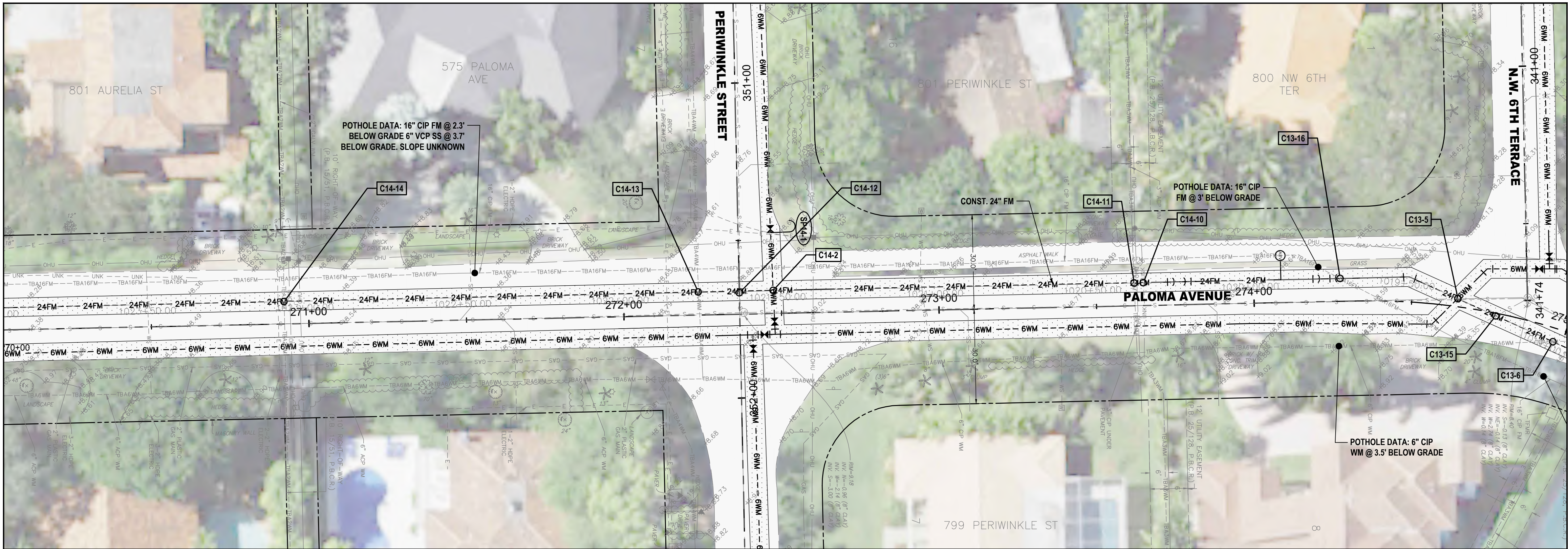
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

FORCE MAIN PROFILE

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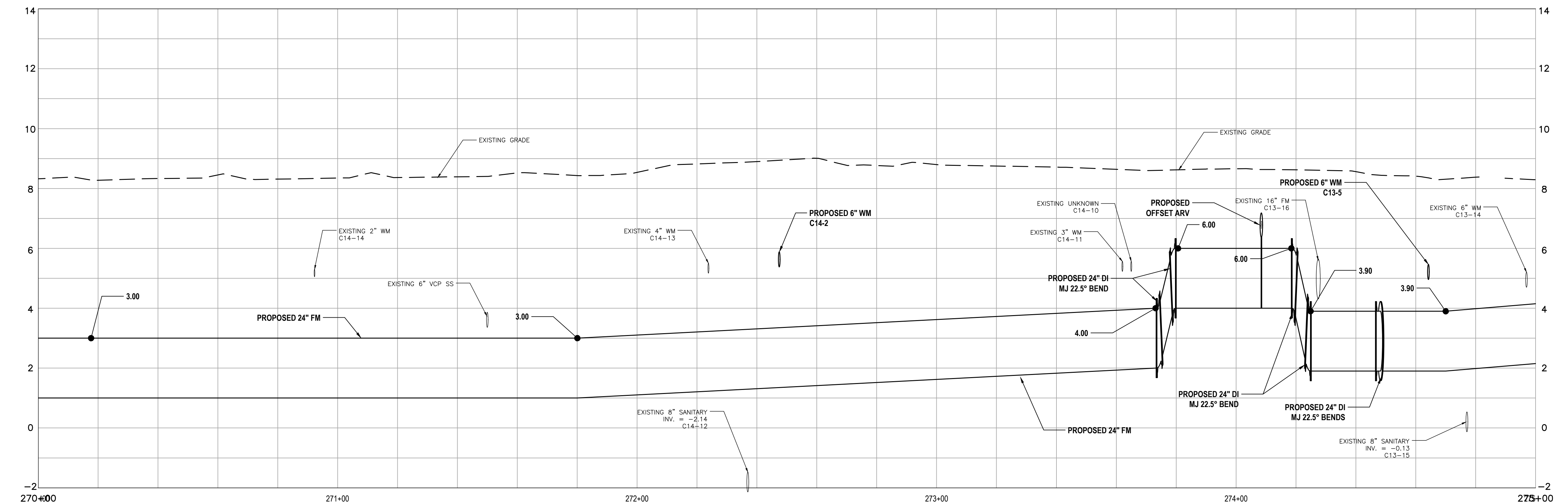
C-56



NOTES:
REFER TO SHEET C-52 FOR NOTES

ELEV.
(FT NAVD 88)

ELEV.
(FT NAVD 88)



PROFILE VIEW - STA: 270+00 TO STA: 275+00



PROFILE KEY MAP

REV	DATE	REVISIONS	BY

VERIFY SCALE BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING 0 1 ADJUST ALL SCALED DIMENSIONS ACCORDINGLY	Date: 10/31/24 Scale: AS NOTED Design By: HB Drawn By: FG/RR Check By: LL
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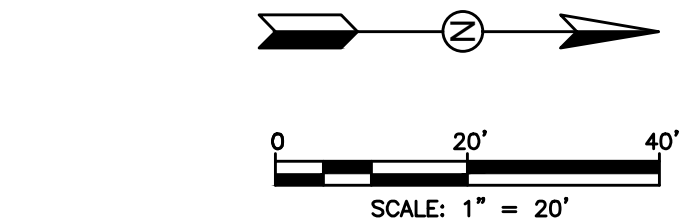
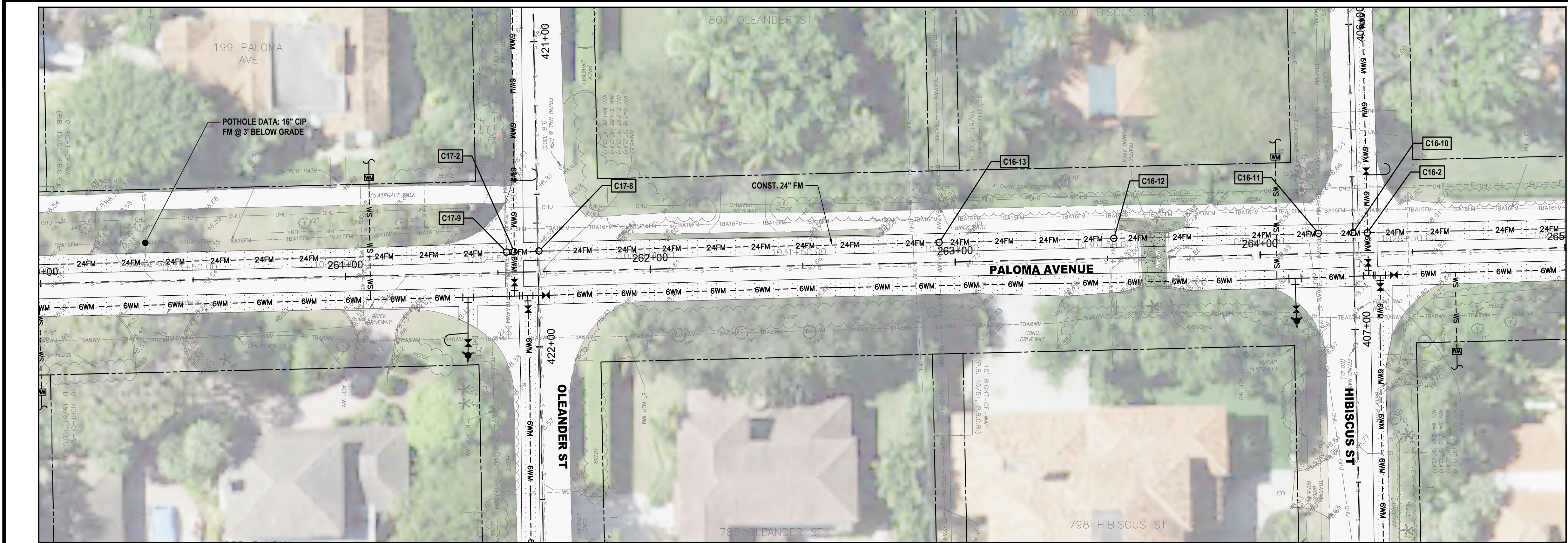
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

FORCE MAIN PROFILE

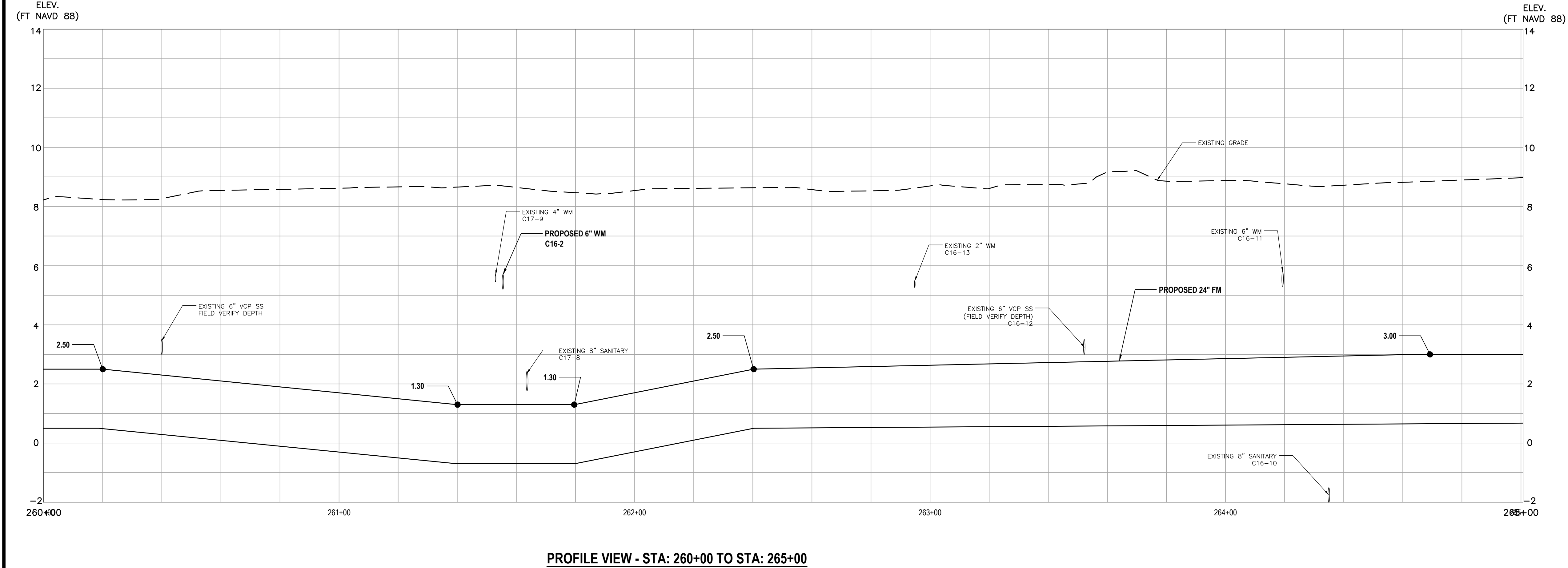
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C-57



NOTES:
REFER TO SHEET C-52 FOR NOTES



PROFILE KEY MAP

REV	DATE	REVISIONS	BY

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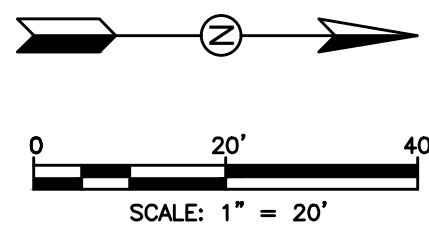
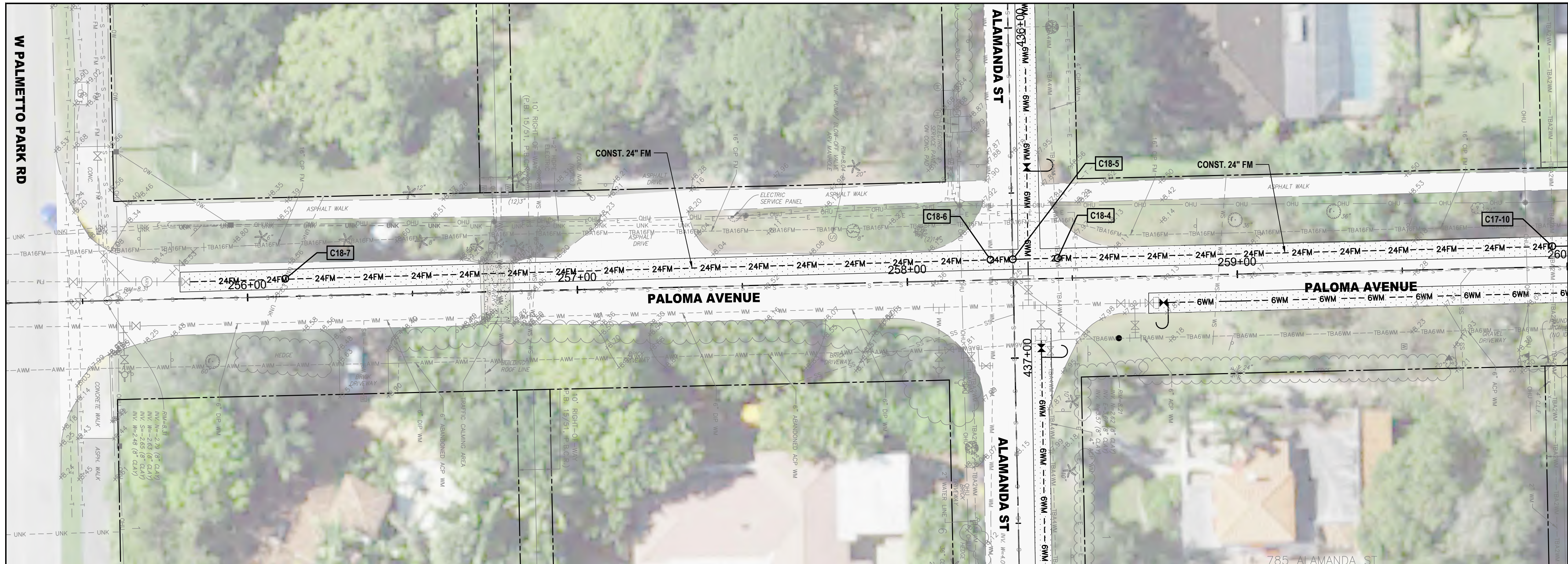
CITY OF BOCA RATON
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INFRASTRUCTURE UPGRADES

FORCE MAIN PROFILE

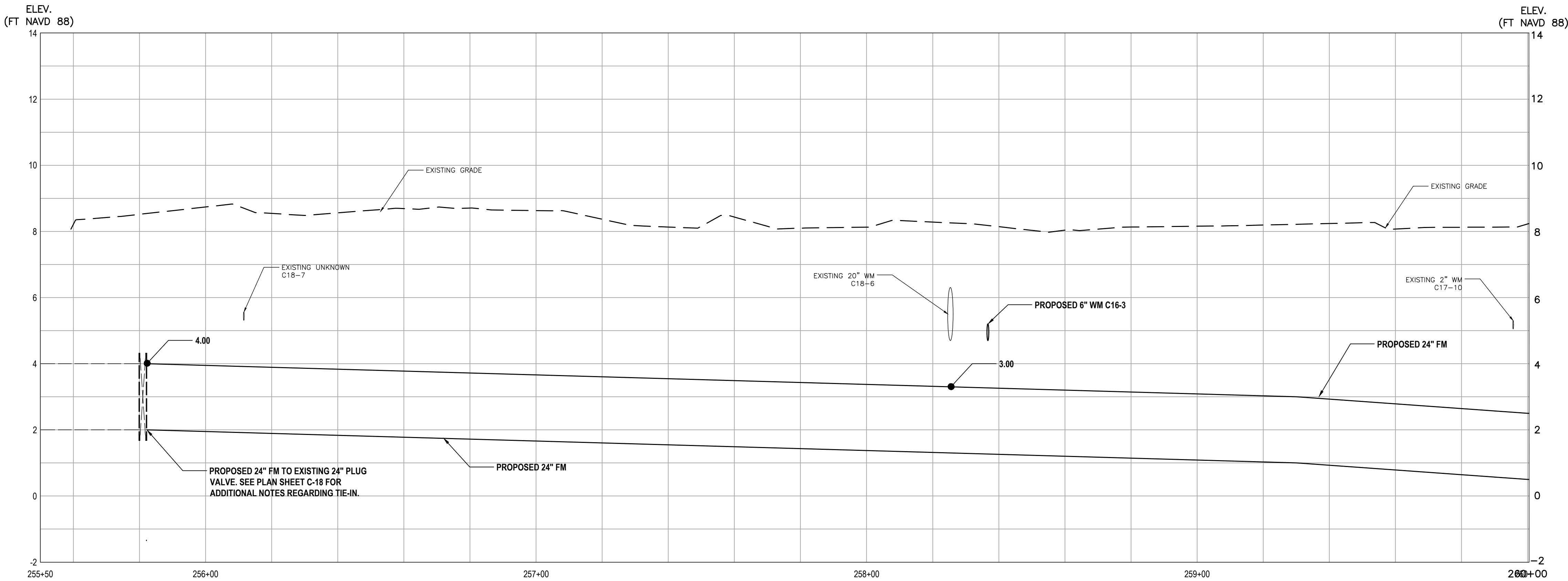
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C-59



NOTES:
REFER TO SHEET C-52 FOR NOTES



PROFILE VIEW - STA: 255+50 TO STA: 260+00



PROFILE KEY MAP

REV	DATE	REVISIONS	BY

VERIFY SCALE
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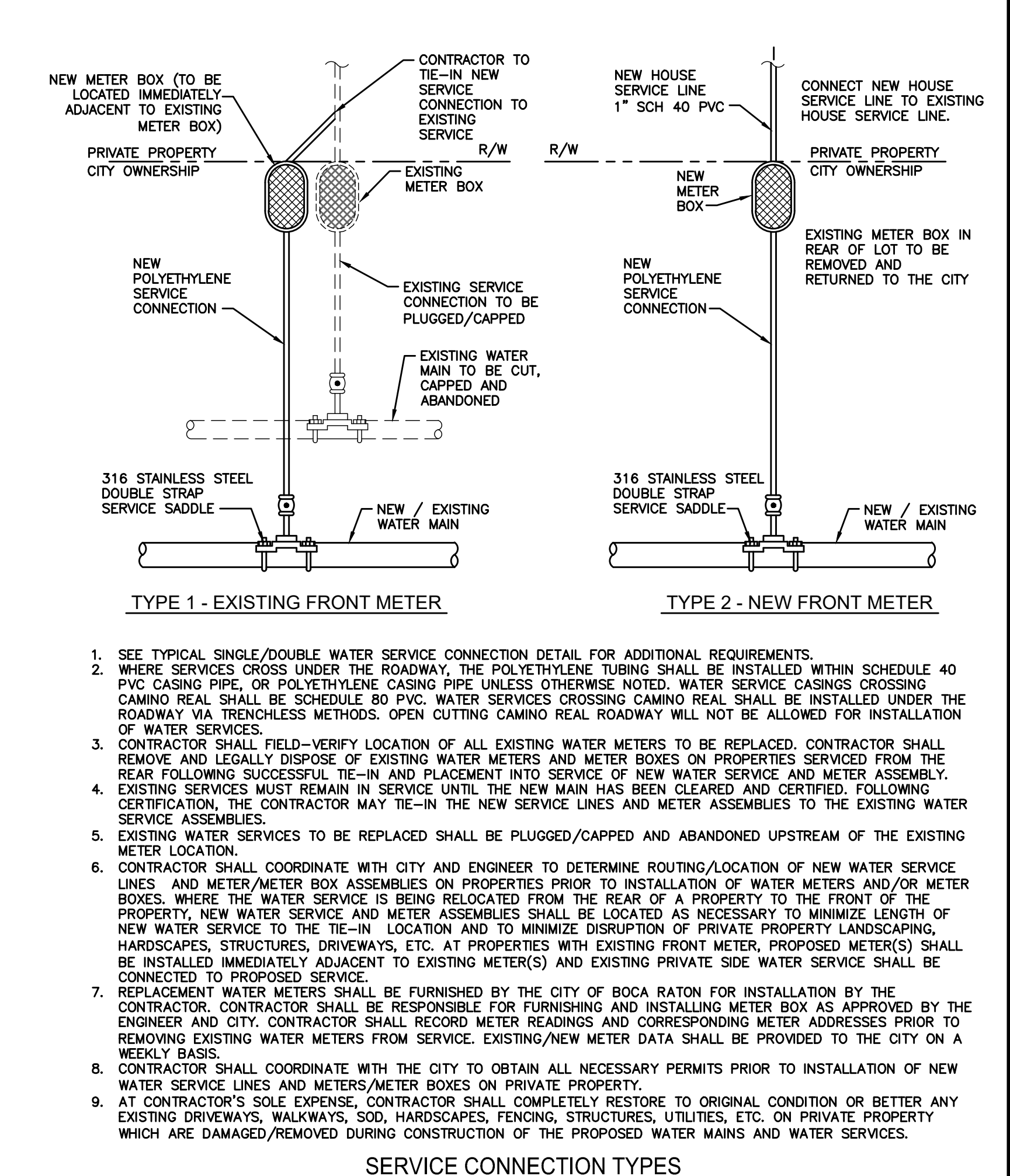
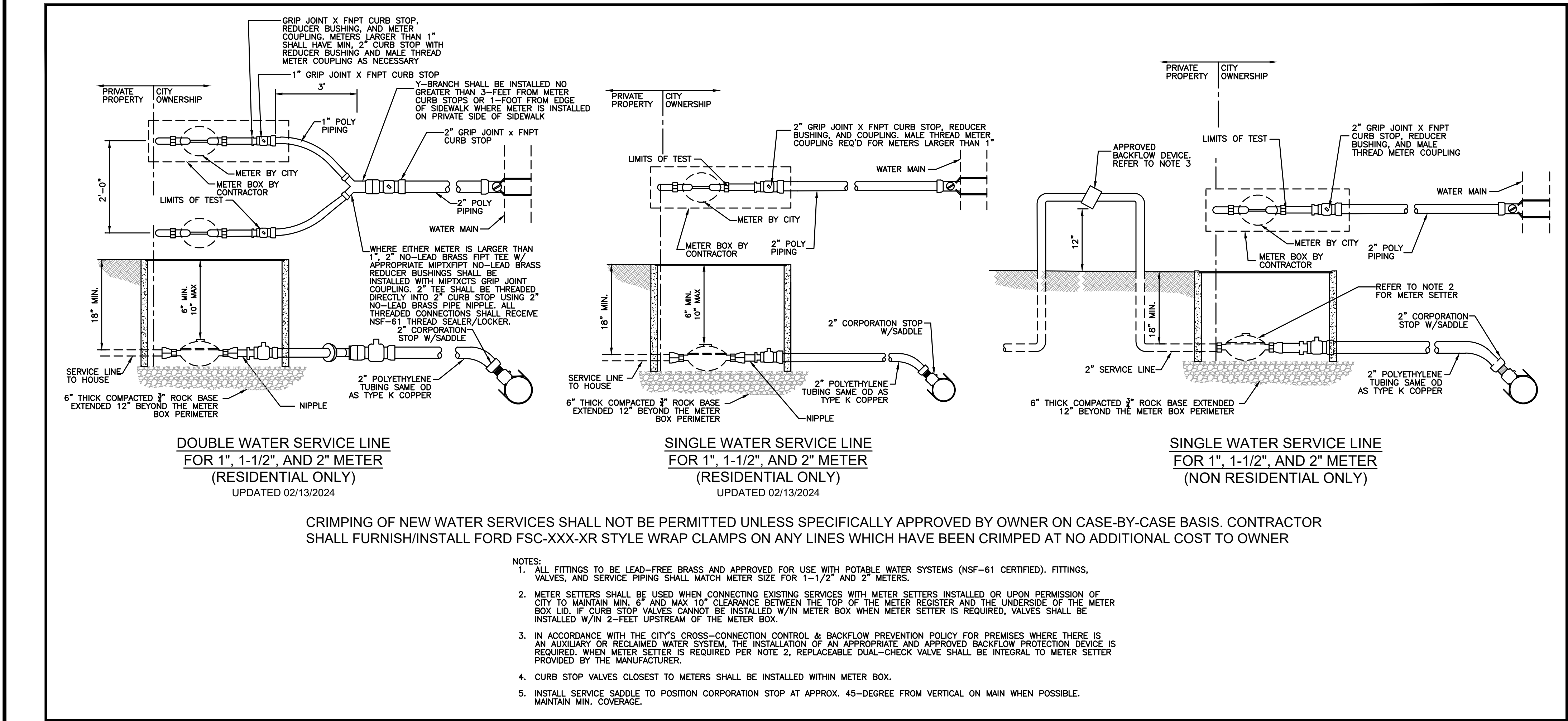
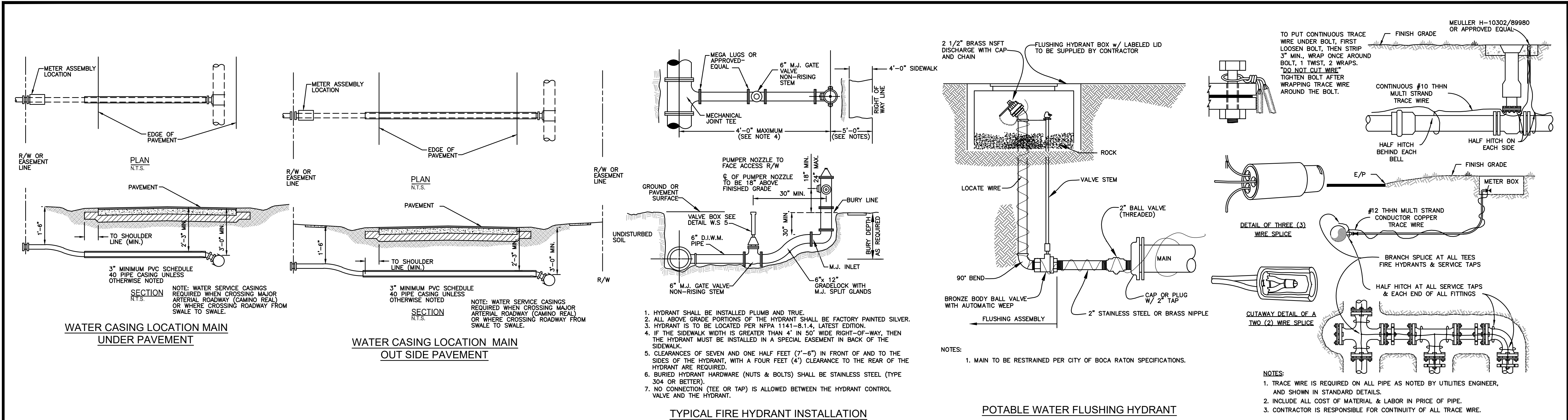
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

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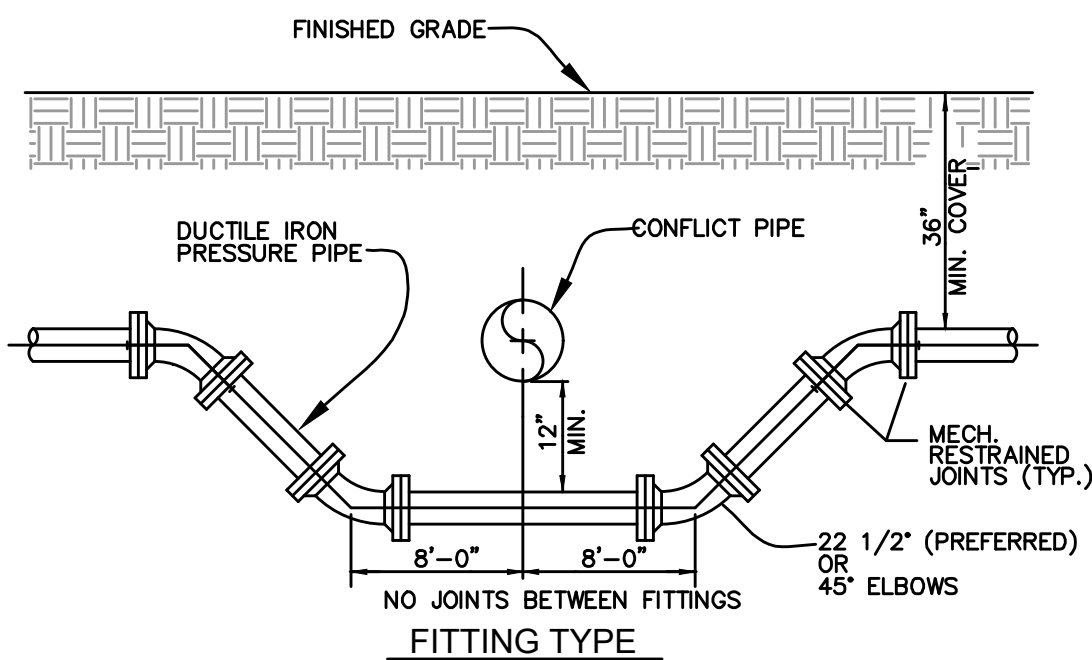
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C-60



- NOTE:
1. SAMPLE POINTS COMING FROM HYDRANTS TO INCLUDE A SMALL VALVE WITH A REMOVABLE HANDLE.
 2. LABEL AND NUMBER ALL SAMPLE POINTS PER PLAN SHEETS.

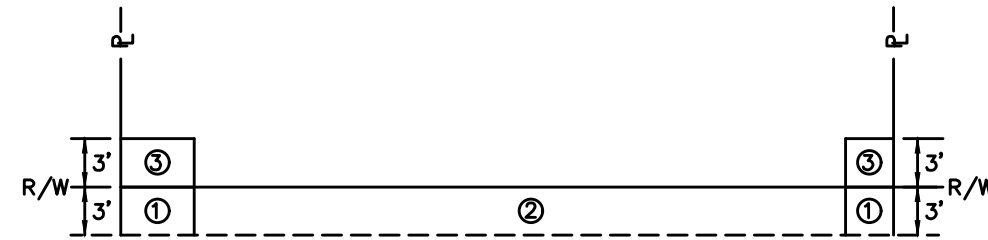
SAMPLING POINT DETAILS



PRESSURE PIPE CONFLICT DETAIL

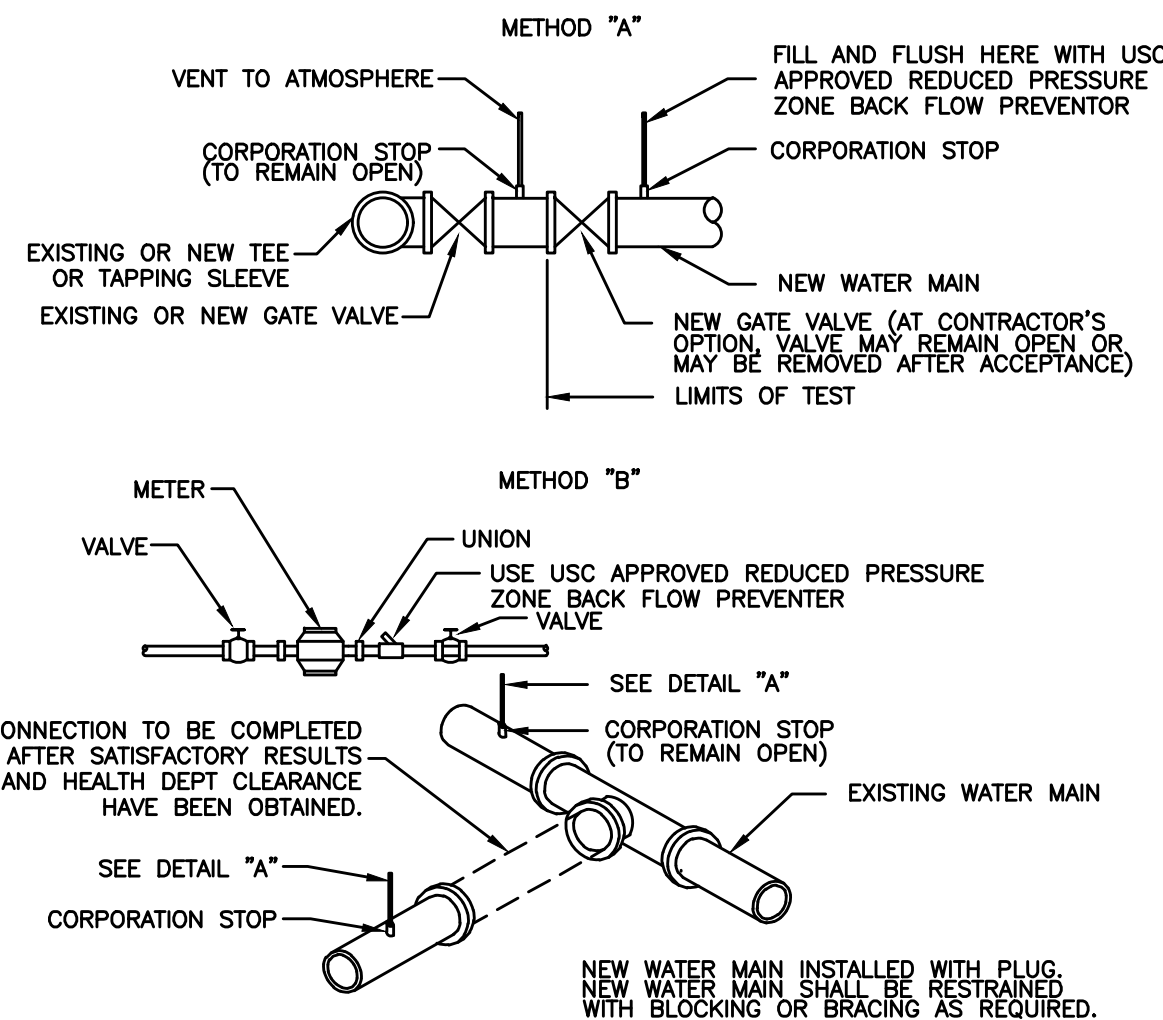
GENERAL POLICY

WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE CITY TO PROVIDE WATER AND SEWER SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY. DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SOURCE FACILITIES, REAR OR SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE CITY.



- ① THE PREFERRED POINT OF CONNECTION TO THE CITY WATER METER, AREA ① SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE CITY AS THE BEST LOCATION FOR THE WATER METER. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO WATER SERVICES AND METERS CAN BE CONNECTED.
 - ② IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE CITY WATER SERVICE, WITHIN AREA ①, THE CITY UTILITY DEPARTMENT MAY AUTHORIZE THE CONNECTION ALONG THE LOT/ION OF THE R/W LINE MARKED AREA ②, OR ALONG THE PROPERTY LINES MARKED AREA ③.
- NOTES:
1. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF 10 FEET.
 2. ALL METERS WILL BE INSTALLED IN A UNRESTRICTED AREA ALLOWING EASE OF ACCESS AND PROVIDING ADEQUATE PROTECTION.
 3. THE CITY SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WATER SERVICE AND METER WITHIN THE EASEMENT OR RIGHT-OF-WAY, UP TO THE POINT OF CONNECTION.

WATER METER REPLACEMENT POLICY



1. REMOVE TEMPORARY CONNECTION OF CORPORATION STOP ON EXISTING MAIN AFTER FILLING AND FLUSHING OF NEW LINE.
2. DO NOT REMOVE TEMPORARY CONNECTION AT CORPORATION STOP ON NEW MAIN UNTIL TESTING HAS BEEN COMPLETED.
3. PRESSURE TESTING SHALL BE SUCCESSFULLY COMPLETED PRIOR TO DISINFECTION AND BACTERIOLOGICAL TESTING.
4. CITY SHALL BE NOTIFIED BEFORE FILLING AND FLUSHING.
5. AFTER BACTERIOLOGICAL CLEARANCE, GATE VALVE IS TO BE OPEN WITH VALVE BODY PRESSURE TEST PUMP CONNECTS TO SERVICE LINE OR BLOWOFF. NO EXTRA TAPS ARE PERMITTED.
6. PRESSURE GAUGE TO BE LOCATED IN VICINITY OF TEST PUMP CONNECTION.
7. GATE VALVE IS TO BE REMOVED AFTER SUCCESSFUL PRESSURE TEST.
8. REMOVE TEMPORARY CONNECTION AT CORPORATION STOPS AFTER FILLING & FLUSHING HAS BEEN COMPLETED.
9. INJECT CHLORINE ON PROJECT SIDE OF BACKFLOW PREVENTER.
10. MUST OBTAIN METER AND BACKFLOW ASSEMBLY FROM CITY OF BOCA RATON PRIOR TO INSTALLATION.

FILLING AND FLUSHING CONNECTION

STANDARD SEPARATION STATEMENT FOR WATER / RECLAIMED / SEWER CONFLICTS

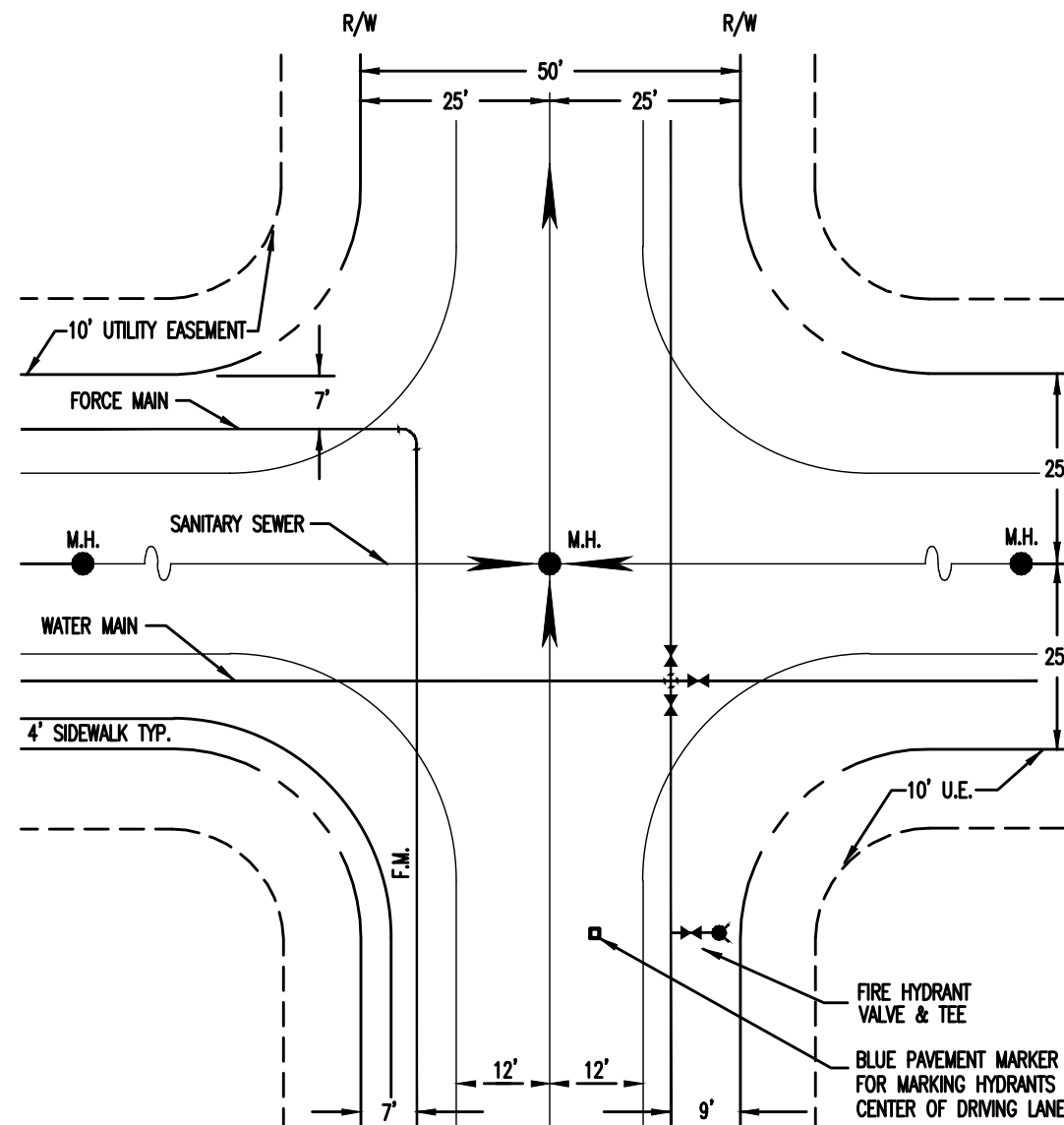
1. SANITARY SEWER, FORCE MAINS, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS, FORCE MAINS, RECLAIM WATER MAINS AND STORM SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE.

WHERE SANITARY SEWER, FORCE MAINS, RECLAIMED WATER MAINS AND STORM SEWERS MUST CROSS A WATER MAIN LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).

CITY OF BOCA RATON WATER DISTRIBUTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE CITY OF BOCA RATON.
2. MIN. CLASS 50 WATER MAIN, WHERE SPECIFIED AS DUCTILE IRON PIPE , SHALL CONFORM TO ANSI/AWWA C-150/A-21.50 OR ANSI/AWWA C-151/A-21.51 AND SHALL BE PRESSURE CLASS 350 (MINIMUM).
3. DIP PIPE SHALL REQUIRE THE USE OF IDENTIFICATION TAPE.
4. FITTINGS SHALL BE DUCTILE IRON, CONFORMING TO AWWA C-153 AND ANSI A21.11, CLASS 250 MINIMUM, CEMENT LINED, AND SEAL COATED.
5. GATE VALVES SHALL BE MUELLER RESILIENT WEDGE SEAT, AMERICAN, CLOW, OR APPROVED EQUAL. VALVES SHALL CONFORM TO AWWA C-509. SEE RESILIENT SEATED GATE VALVE SPECIFICATION DETAIL.
6. WATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY THE SPECIFICATIONS, THE COUNTY, AND FDOT. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
7. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER AND CITY/COUNTY/FODOT.
8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, CITY OF BOCA RATON AND COUNTY/FODOT 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AT ANY NEW PROJECT LOCATION.
9. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, THE CITY, COUNTY/FODOT AND ANY OTHER APPLICABLE AGENCIES SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
10. TRAFFIC CONTROL, BARRICADES, ETC., SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS AND APPROVED BY THE CITY AND ENGINEER.
11. MINIMUM COVER SHALL BE 36 INCHES EXCEPT AS APPROVED BY THE ENGINEER AND CITY/COUNTY/FODOT.
12. DISTURBED AREAS SHALL BE RESTORED IN CONFORMANCE WITH THE APPLICABLE GOVERNING AGENCY REQUIREMENTS.
13. EXISTING UTILITIES AND DRAINAGE SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND PROTECTED BY THE CONTRACTOR.
14. WATER MAINS SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH THE APPLICABLE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AWWA C-601 FOR DISINFECTION.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING UTILITIES AND DRAINAGE.
16. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER INCLUDING LOCATIONS OF VALVES, FITTINGS, SERVICE CONNECTIONS, BLOWOFFS, AIR RELEASE VALVES, AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT, AS REQUIRED BY THE UTILITIES ENGINEER.



PLAN

UTILITY LOCATION
50' RIGHT OF WAY

STANDARD SEPARATION STATEMENT FOR WATER /
RECLAIMED / SEWER CONFLICTS CONTINUED

2. A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON A UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
3. WHERE MINIMUM SEPARATIONS CANNOT BE MAINTAINED, WATER MAINS SHALL BE CONSTRUCTED TO COMPLY WITH THE REQUIREMENTS OF F.A.C. 62-555.314.
4. ALL DIP SHALL BE PRESSURE CLASS 350 MIN. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN ENGINEER.

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON A UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.

WHERE MINIMUM SEPARATIONS CANNOT BE MAINTAINED, WATER MAINS SHALL BE CONSTRUCTED TO COMPLY WITH THE REQUIREMENTS OF F.A.C. 62-555.314.

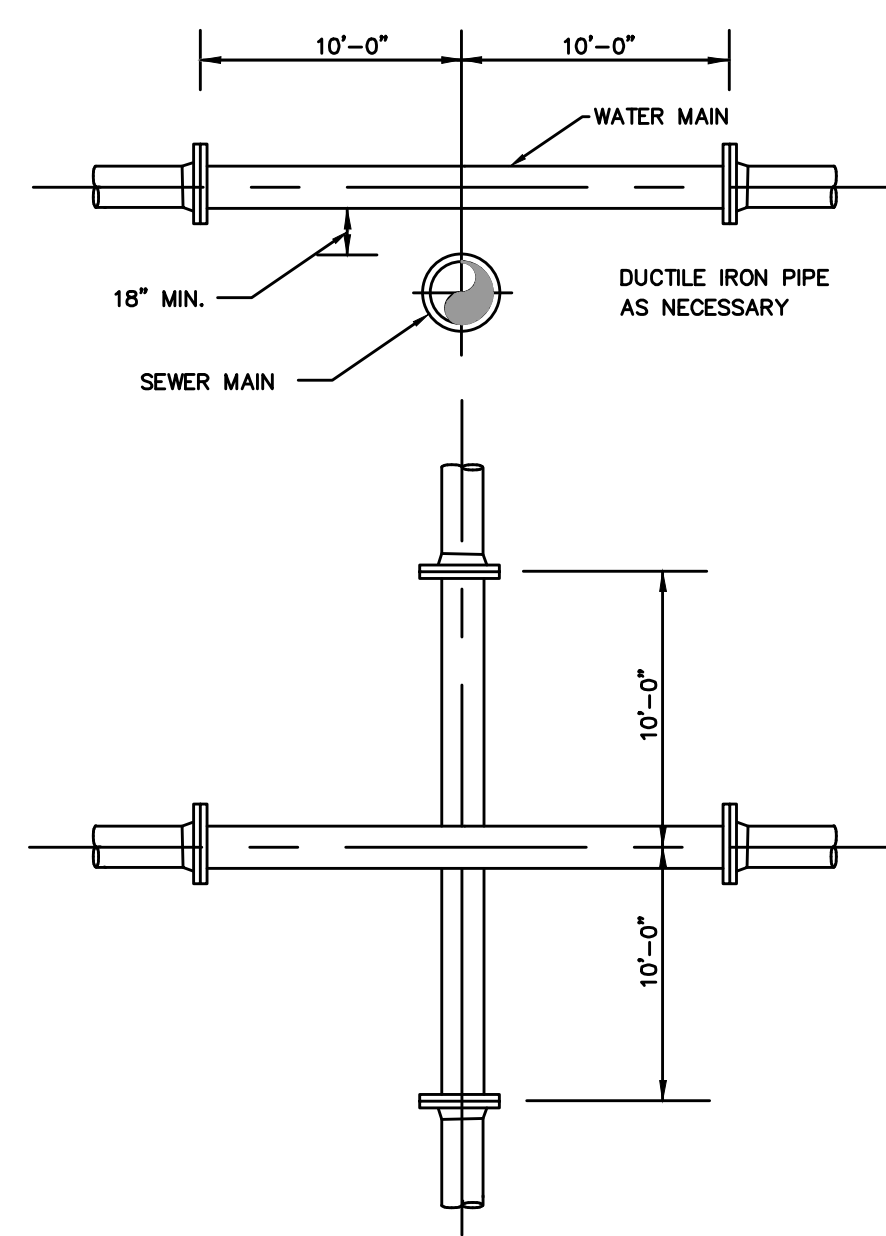
ALL DIP SHALL BE PRESSURE CLASS 350 MIN.. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN ENGINEER.

CITY OF BOCA RATON WATER DISTRIBUTION NOTES CONTINUED

17. THE CONTRACTOR SHALL TAP EXISTING LINES UNDER THE SUPERVISION OF THE CITY OF BOCA RATON ONLY AFTER TESTING AND DISINFECTION HAS BEEN COMPLETED AND APPROVED ON THE TAPPING SLEEVE AND VALVE.
18. NON-FERROUS WATER MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THIN MULTI STRANDED WIRE (BLUE IN COLOR). ALL OPEN-CUT WATER MAINS SHALL BE INSTALLED WITH A CONTINUOUS STRIP OF IDENTIFICATION TAP WITH "WATER" MARKED ON TAP, PERMANENTLY ATTACHED TO THE TOP OF THE WATER MAIN, DIP WATER MAINS SHALL INCLUDE A HAND PAINTED 5" WIDE BLUE STRIP ON THE TOP OF THE DRAIN.
19. SERVICE TAPS SHALL BE PLACED APPROXIMATELY THREE FEET AWAY FROM GATE VALVES, AS SHOWN, FOR TESTING. FOLLOWING TESTING AND STERILIZATION OF WATER LINES, CONTRACTOR SHALL PLACE A BRASS PLUG IN CORPORATION STOPS AND CURB STOPS SHALL BE REMOVED FROM TESTING LOCATIONS.
20. MECHANICAL RESTRAINTS TO BE USED ON ALL FITTINGS AND PLACED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS SPECIFICATIONS.
21. ALL MAINS SHALL BE TESTED AT A MINIMUM OF 150 PSI. TESTING METHODS SHALL CONFORM TO AWWA C-600.

$L = \frac{SD(P) 1/2}{148,000}$ OR CURRENT AWWA STANDARD
 L = LEAKAGE IN GPH
 S = LENGTH OF PIPE IN FEET
 D = PIPE DIAMETER IN INCHES
 P = TESTING PRESSURE IN PSI

22. PRIOR TO ANY TESTING, ALL MAINS "3" IN DIA. AND LARGER SHALL HAVE A LINE SIZE SWAB PASSED THRU THE ENTIRE LENGTH OF THE LINE. NOTE: SWAB SHOULD BE PLACED IN 1st. JOINT OF NEW LINE. END OF MAIN SHOULD BE "TURNED UP" AT 45% AND EXTENDED SO THAT SWABBING AND A FULL BORE FLUSH CAN BE ACCOMPLISHED. BLOW-OFF ASSY CAN THEN BE PLACED. WHERE LINES BRANCH, SWABS WILL BE PLACED IN BRANCH LINES AND SEQUENTIALLY SWABBED AND FLUSHED.
23. TEN FEET MINIMUM HORIZONTAL AND 18 INCHES MINIMUM VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY WASTEWATER LINES. THE DISTANCE SHALL BE MEASURED FROM THE PIPE TO OUTSIDE OF PIPE OR STRUCTURE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS, WHERE MINIMUM SEPARATIONS CANNOT BE MAINTAINED, WATER MAINS SHALL BE CONSTRUCTED TO COMPLY WITH THE REQUIREMENTS OF F.A.C. RULE 62-555.314.
24. WHERE A WATER MAIN IS TO BE INSTALLED BELOW A STORM DRAIN PIPE, A MINIMUM OF 6 INCHES OF VERTICAL CLEARANCE BETWEEN PIPES SHALL BE CONSTRUCTED OF DIP AT THE CROSSING, AND SHALL BE MECHANICALLY RESTRAINED WITHIN 20 FEET OF THE CROSSING.
25. CONTRACTOR SHALL COMPLY WITH FLORIDA TRENCH SAFETY ACT REQUIREMENTS.



UTILITY CROSSING DETAIL

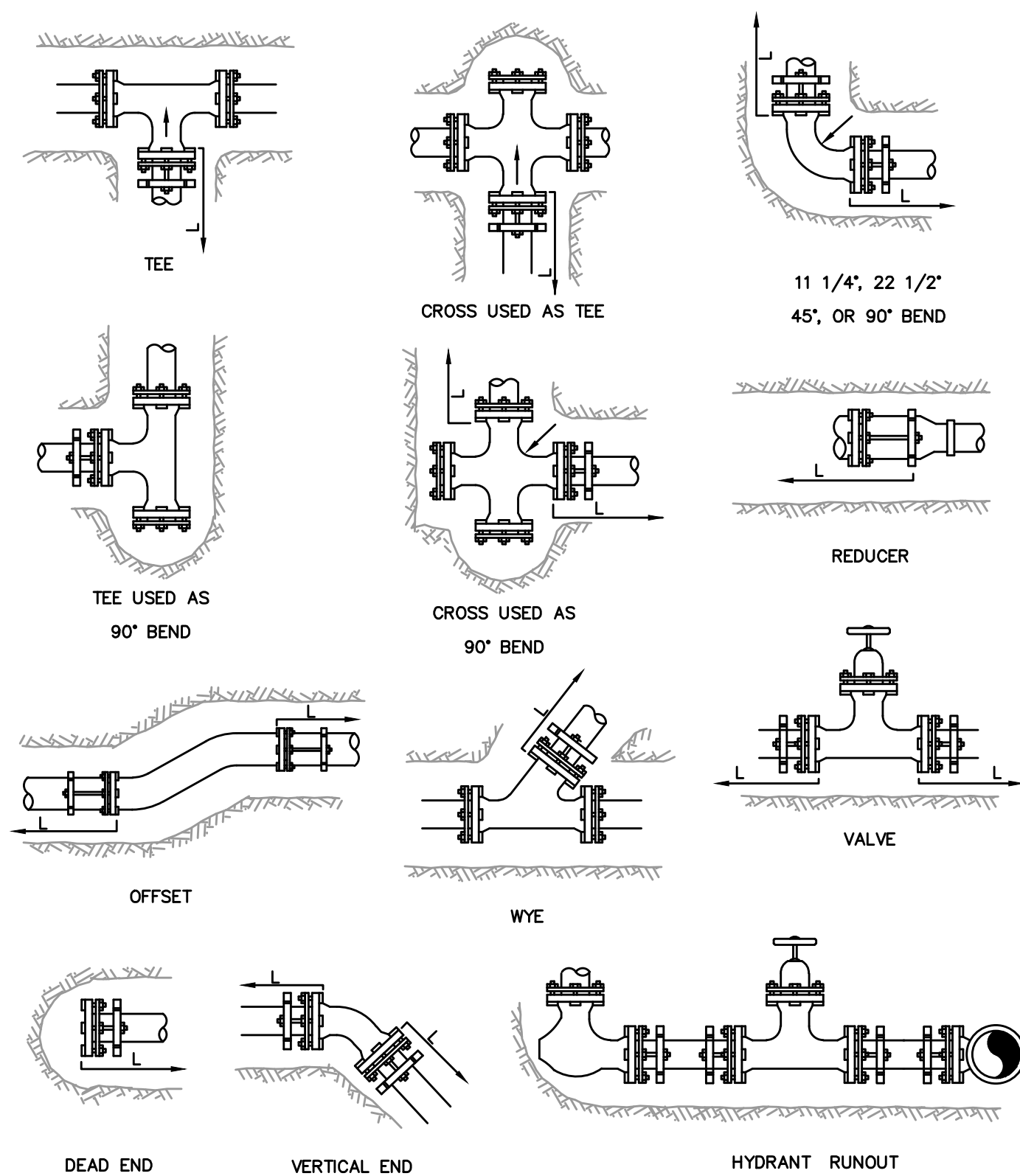
NOTES:
WATER MAIN CROSSING EXISTING FORCE MAIN SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUAL DISTANCE FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). WHERE MINIMUM SEPARATIONS CANNOT BE MAINTAINED, WATER MAINS SHALL BE CONSTRUCTED TO COMPLY WITH THE REQUIREMENTS OF F.A.C. RULE 62-555.314

MIN. LENGTH OF PIPE (FEET) TO BE RESTRAINED													
(SOURCES: EBAA IRRIGATION RESTRAINT LENGTH CALCULATION PROGRAM FOR PVC PIPE, RELEASE 3.1, AND DIPRA THRUST RESTRAINT PROGRAM FOR DUCTILE IRON PIPE, RELEASE 3.2)													
FITTING TYPE		PIPE SIZE						200psi					
		4"	6"	8"	10"	12"	16"	20"	24"	30"	36"	42"	48"
90° HORIZ. BEND	UPPER	14	20	25	30	35	45	54	62	98	112	124	135
	LOWER	6	8	11	13	15	19	22	26	41	46	51	56
45° HORIZ. BEND	UPPER	3	4	5	6	7	9	11	12	19	22	25	27
	LOWER	1	2	3	3	4	4	5	6	10	11	12	13
90° VERT. OFFSET	UPPER	29	41	53	64	74	95	115	134	214	246	276	304
	LOWER	6	7	13	16	19	25	30	35	57	66	74	83
45° VERT. OFFSET	UPPER	12	19	24	29	34	39	48	56	89	102	114	128
	LOWER	3	4	6	7	8	10	12	15	23	27	31	34
22.5° VERT. OFFSET	UPPER	6	9	12	14	17	19	23	27	43	49	55	60
	LOWER	1	2	4	4	4	5	6	7	11	13	15	16
11.25° VERT. OFFSET	UPPER	3	4	6	7	8	9	11	13	21	24	27	30
	LOWER	1	1	1	2	2	2	3	3	6	6	7	8
PLUG (DEAD END)	UPPER	32	45	59	70	83	107	129	151	214	246	276	304
	LOWER	32	45	45	45	45	55	65	80	110	125	140	155
TEE (BRANCH RESTRAINT)	4"x 6"	23	-	-	-	-	-	-	-	-	-	-	-
	6"x 6"	21	35	-	-	-	-	-	-	-	-	-	-
	8"x 6"	18	34	47	-	-	-	-	-	-	-	-	-
	10"x 6"	16	32	46	58	-	-	-	-	-	-	-	-
	12"x 6"	13	30	44	57	69	-	-	-	-	-	-	-
	16"x 6"	7	26	41	55	67	90	-	-	-	-	-	-
	20"x 6"	1	21	38	52	65	88	109	128	-	-	-	-
	24"x 6"	1	16	34	48	62	86	108	129	-	-	-	-
	30"x 6"	1	8	28	44	58	83	106	127	208	-	-	-
	36"x 6"	1	1	22	39	54	80	103	124	206	240	-	-
REDUCER (LARGER PIPE RESTRAINT)	42"x 6"	1	1	15	33	49	77	100	122	205	239	270	-
	6"x 8"	7	1	27	44	73	97	120	203	238	269	298	-
	8"x 8"	23	-	-	-	-	-	-	-	-	-	-	-
	8"x 8"	23	-	-	-	-	-	-	-	-	-	-	-
	10"x 8"	57	43	24	-	-	-	-	-	-	-	-	-
	12"x 8"	72	60	44	41	-	-	-	-	-	-	-	-
	16"x 8"	99	90	78	75	45	-	-	-	-	-	-	-
	20"x 8"	123	116	100	105	81	45	-	-	-	-	-	-
	24"x 8"	146	140	132	131	111	82	45	-	-	-	-	-
	30"x 8"	209	204	192	191	173	146	116	75	-	-	-	-
200psi	36"x 8"	243	236	233	226	217	196	168	135	74	-	-	-
	42"x 8"	273	270	265	259	252	234	211	183	133	72	-	-
	48"x 8"	301	298	294	289	283	268	249	226	183	131	71	-

- NOTES:
1. THE DATA IN THE ABOVE TABLE ARE BASED UPON THE FOLLOWING INSTALLATION CONDITIONS:
SOIL TYPE—SAND TEST PRESSURE—150 PSI/200 PSI DEPTH OF BURY—3'
TRENCH TYPE—3 SAFETY FACTOR—1.5 VERTICAL OFFSET—3'
 2. MINIMUM PIPE LENGTH ALONG TIE RUN—5'
 3. MINIMUM PIPE LENGTHS ARE REQUIRED TO FRACTURE IRON AND PVC PIPE.
 4. ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.
 5. RESTRAINED PIPE LENGTHS APPLY TO PIPE ON BOTH SIDES OF VALVES AND FITTINGS.
 6. MULTIPLY PIPE LENGTH BY 1.4 FOR POLYETHYLENE ENCASED PIPE.
 7. RESTRAINED PIPE LENGTHS EQUAL TO UNRESTRAINED PIPE LENGTHS ARE REQUIRED AT EACH END OF A TRANSITION FROM HDPE PIPE TO OTHER PIPE MATERIALS.

MECHANICAL THRUST RESTRAINT

MINIMUM PIPE LENGTHS



MECHANICAL JOINT ANCHORING REQUIREMENTS

REV	DATE		REVISIONS		BY

VERIFY SCALE

BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING

0 1

ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 10/31/24
Scale: AS NOTED
Design By: HB
Drawn By: FG/RR
Check By: LL

Date: 10/31/24
Scale: AS NOTED
Design By: HB
Drawn By: FG/RR
Check By: LL

Check By: LL

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

DETAILS

HOLTZ CONSULTING ENGINEERS, INC.
HCE 270 SOUTH CENTRAL BLVD., SUITE 207
 JUPITER, FLORIDA 33458
 PH. (561) 575-2005
 CERTIFICATE OF AUTH. No. 26960

License No: 91550

D-2

RESILIENT SEATED GATE VALVE SPECIFICATIONS

4" THROUGH 12" SIZE
(WATER AND FORCE MAIN)

GATE VALVES SHALL BE RESILIENT SEATED, MANUFACTURED TO MEET OR EXCEED THE REQUIREMENTS OF ANWA C509 OF LATEST REVISION AND IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS.

VALVES SHALL HAVE AN UNOBSTRUCTED WATERWAY EQUAL TO OR GREATER THAN THE FULL NOMINAL DIAMETER OF THE VALVE.

THE VALVES ARE TO BE NON-RISING STEM WITH THE STEM MADE OF CAST, FORGED OR ROLLED BRONZE SHOWN IN ANWA C509. TWO STEM SEALS SHALL BE PROVIDED AND SHALL BE OF THE O-RING TYPE, ONE ABOVE AND ONE BELOW THE THRUST COLLAR WITH LUBRICANT BETWEEN O-RINGS.

THE STEM NUT, ALSO MADE OF BRONZE, MAY BE INDEPENDENT OF THE GATE OR CAST INTEGRALLY WITH THE GATE. IF THE STEM NUT IS CAST INTEGRALLY, THE THREADS SHALL BE STRAIGHT AND TRUE WITH THE AXIS OF THE STEM TO AVOID BINDING DURING THE OPENING OR CLOSING CYCLE.

THE SEALING MECHANISM SHALL CONSIST OF A CAST IRON GATE HAVING A VULCANIZED SYNTHETIC RUBBER COATING OR A RUBBER SEAT MECHANICALLY RETAINED ON THE GATE, THE RESILIENT SEALING MECHANISM SHALL PROVIDE ZERO LEAKAGE AT THE WATER WORKING PRESSURE WHEN INSTALLED WITH THE LINE FLOW IN EITHER DIRECTION.

THE VALVE BODY, BONNET AND BONNET COVER SHALL BE CAST IRON ASTM A126, CLASS B. ALL FERROUS SURFACE INSIDE SHALL HAVE A BONDED EPOXY COATING.

A 2-INCH SQUARE WRENCH NUT SHALL BE PROVIDED FOR OPERATING THE VALVE.

ALL VALVES ARE TO BE SUPPLIED COMPLETE AND READY FOR INSTALLATION INCLUDING, BUT NOT LIMITED TO ALL NUTS, BOLTS RINGS AND RUBBERS.

ALL VALVES ARE TO BE TESTED IN STRICT ACCORDANCE WITH ANWA C509.

STANDARD SEPARATIONS

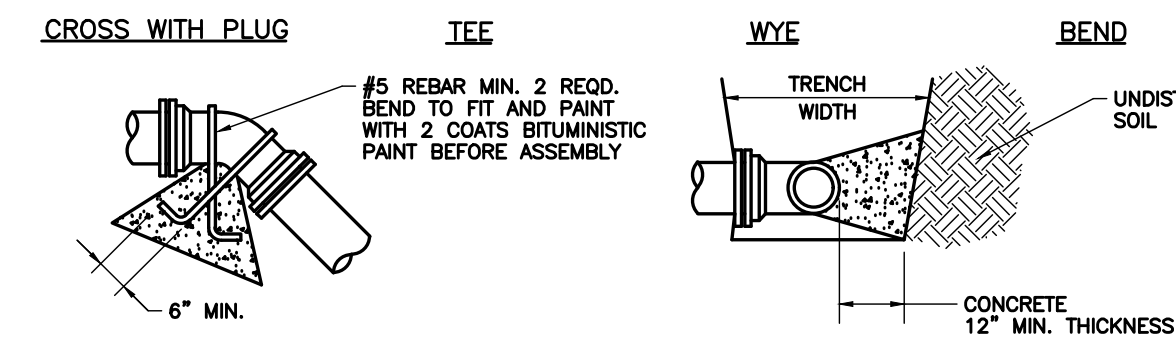
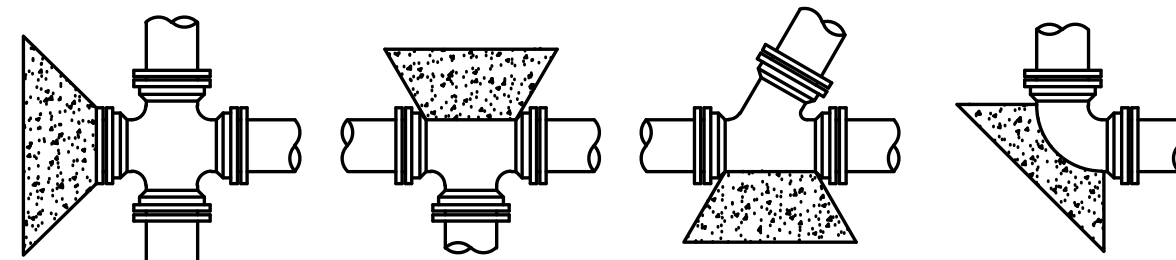
NEW OR RELOCATED, UNDERGROUND WATER MAINS WILL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER (OR A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER); A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE TREATMENT AND DISPOSAL SYSTEM."

NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY-OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES ABOVE THE OTHER PIPELINE, AND NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE.

AT THE UTILITY CROSSINGS DESCRIBE IN PART II.C.1.W OF DEP FORM 62-555.900(7), ONE FULL LENGTH OF WATER MAIN PIPE WILL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE OR THE PIPES WILL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY-OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

PIPE MARKINGS

ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(B)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE, WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE, FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.)



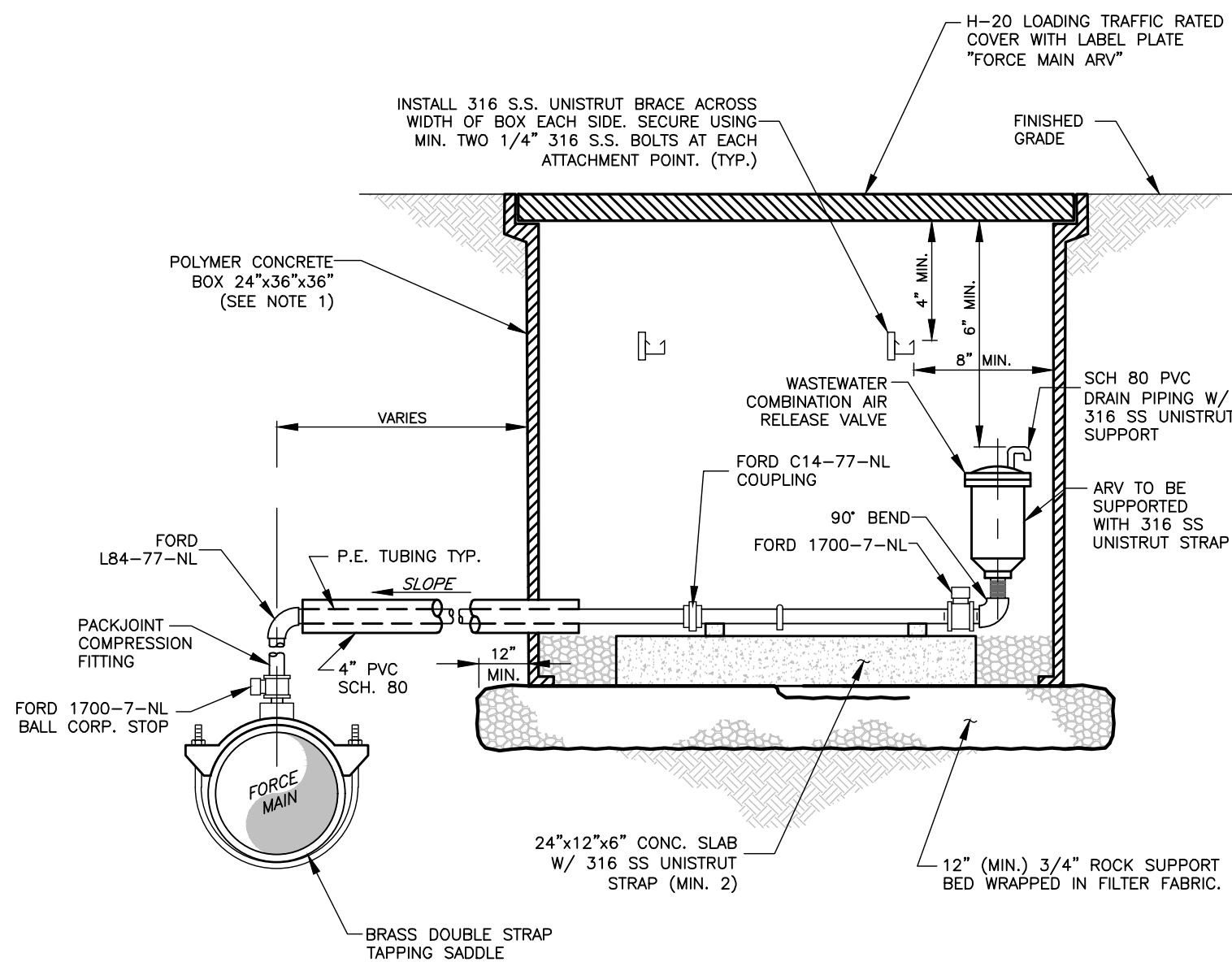
ALL THRUST BLOCKS SHALL BE FORMED, LAID FORMS SHALL BE INSPECTED BY OWNER/ENGINEER PRIOR TO THE POURING OF CONCRETE AND SHALL ALSO BE INSPECTED BY CITY PRIOR TO COVER-ING. TYPICAL LOCATIONS WHICH REQUIRE CONCRETE REACTIONS (THRUST) BLOCKS, FOR PRESSURE MAINS FOUR INCHES (4") AND GREATER CONCRETE SHALL HAVE 2500 P.S.I. MINIMUM STRENGTH AT TWENTY EIGHT (28) DAYS AND BEAR AGAINST UNDISTURBED STABLE SOILS. AREA OF CONTACT SHALL BE GOVERNED BY PIPE SIZE, MAXIMUM PRESSURE IN PIPE, AND BEARING CAPACITY OF SOIL. PROTECT FITTINGS, BOLTS, ETC. BY COVERING WITH VISQUEINE OR OTHER ACCEPTABLE MATERIAL. CONCRETE SHALL BE A MINIMUM OF TWELVE INCHES (12") THICK.

(PLEASE REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)

PIPE	THRUST BLOCK SOIL BEARING AREA REQUIRED	PIPE	THRUST BLOCK SOIL BEARING AREA REQUIRED	REMARKS
4"	2.0 SQ. FT.	18"	30.0 SQ. FT.	
6"	4.0 SQ. FT.	20"	37.0 SQ. FT.	
8"	6.6 SQ. FT.	24"	53.0 SQ. FT.	
10"	10.0 SQ. FT.	27"	80.0 SQ. FT.	
12"	14.0 SQ. FT.	30"	98.0 SQ. FT.	
14"	18.0 SQ. FT.	36"	127.0 SQ. FT.	
16"	24.0 SQ. FT.			

* THE ENGINEER OF RECORD SHALL CALCULATE THE SIZE OF THE DEADMAN REQUIRED AS WELL AS ANY INSTALLATION WHICH IS NOT COVERED BY THE ABOVE.

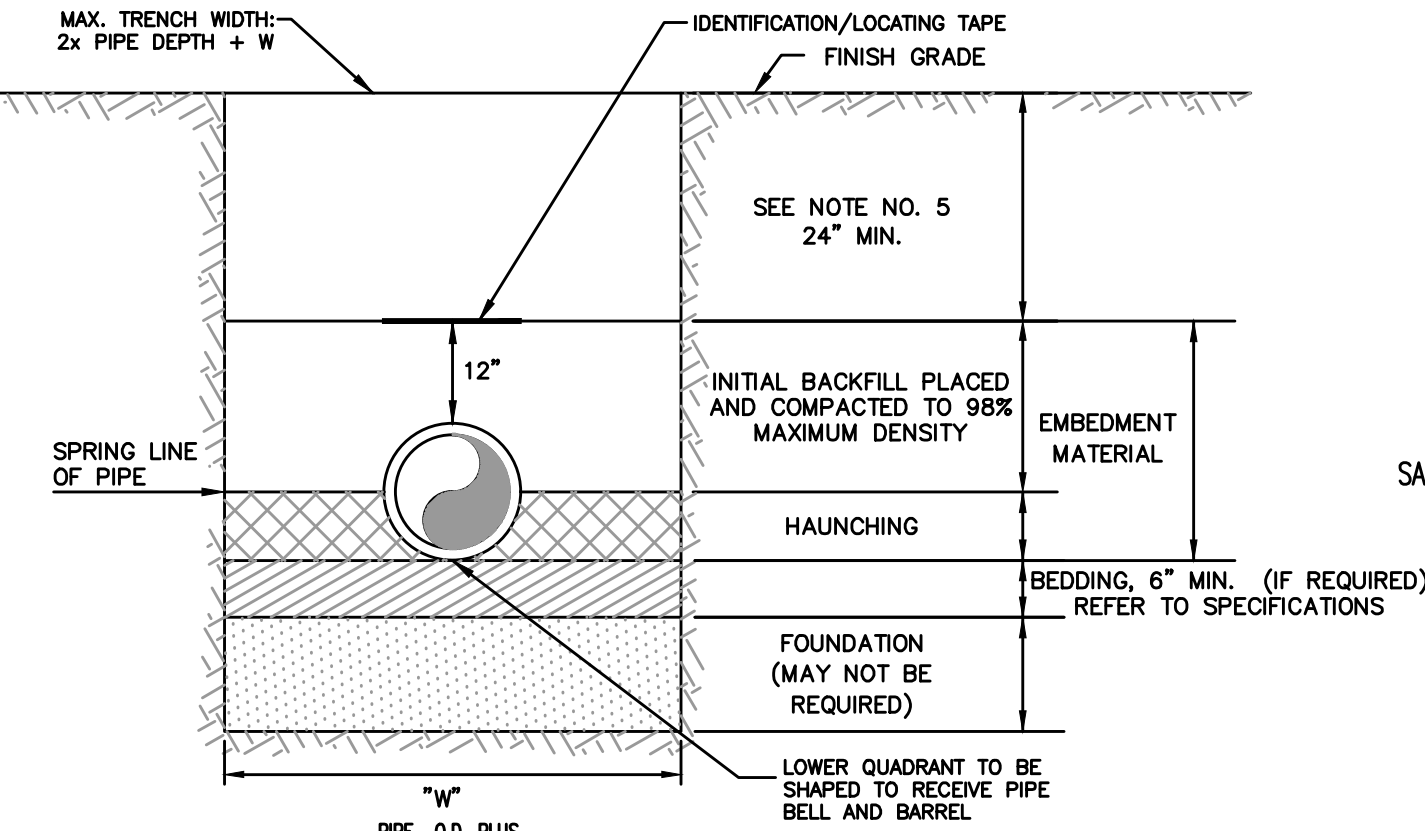
THRUST BLOCKS



NOTES:

- POLYMER CONCRETE BOX 24"x36"x36" (MIN. 36" DEPTH AS REQUIRED) BY OLDCASTLE PRECAST, INC. OR APPROVED EQUAL (SHOP DRAWING IS REQUIRED FOR REVIEW AND APPROVAL).
- POLYMER CONCRETE BOX AND COVER SHALL BE HEAVY DUTY TRAFFIC RATED 20K POUNDS.
- BOXES SHALL NOT BE INSTALLED IN ROADWAYS OR DRIVEWAYS AND SHALL BE INSTALLED FLUSH WITH THE FINISH GRADE SURFACE.
- THREADED AREAS OF BALL CORP. STOP AND OTHER FITTINGS SHALL BE SPIRAL WRAPPED WITH TWO WRAPS OF TEFLON TAPE.
- ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING GROUT.
- ALL PIPE HOLES SHALL BE PRECAST OR CORE-DRILLED.
- WASTEWATER COMBO AIR RELEASE VALVE SHALL BE ARI D-025 W/ POLYMER BODY AND 316 SS INTERNAL/EXTERNAL HARDWARE.
- AIR RELEASE VALVE & PIPING TO BE IDENTIFIED AS "FORCE MAIN ARV" STAMPED ON THE LID.
- ALL PIPE AND FITTINGS INSIDE VAULT TO BE BRASS.
- STANDARD DESIGN FOR ALL EASEMENT AREAS & RIGHT-OF-WAY.

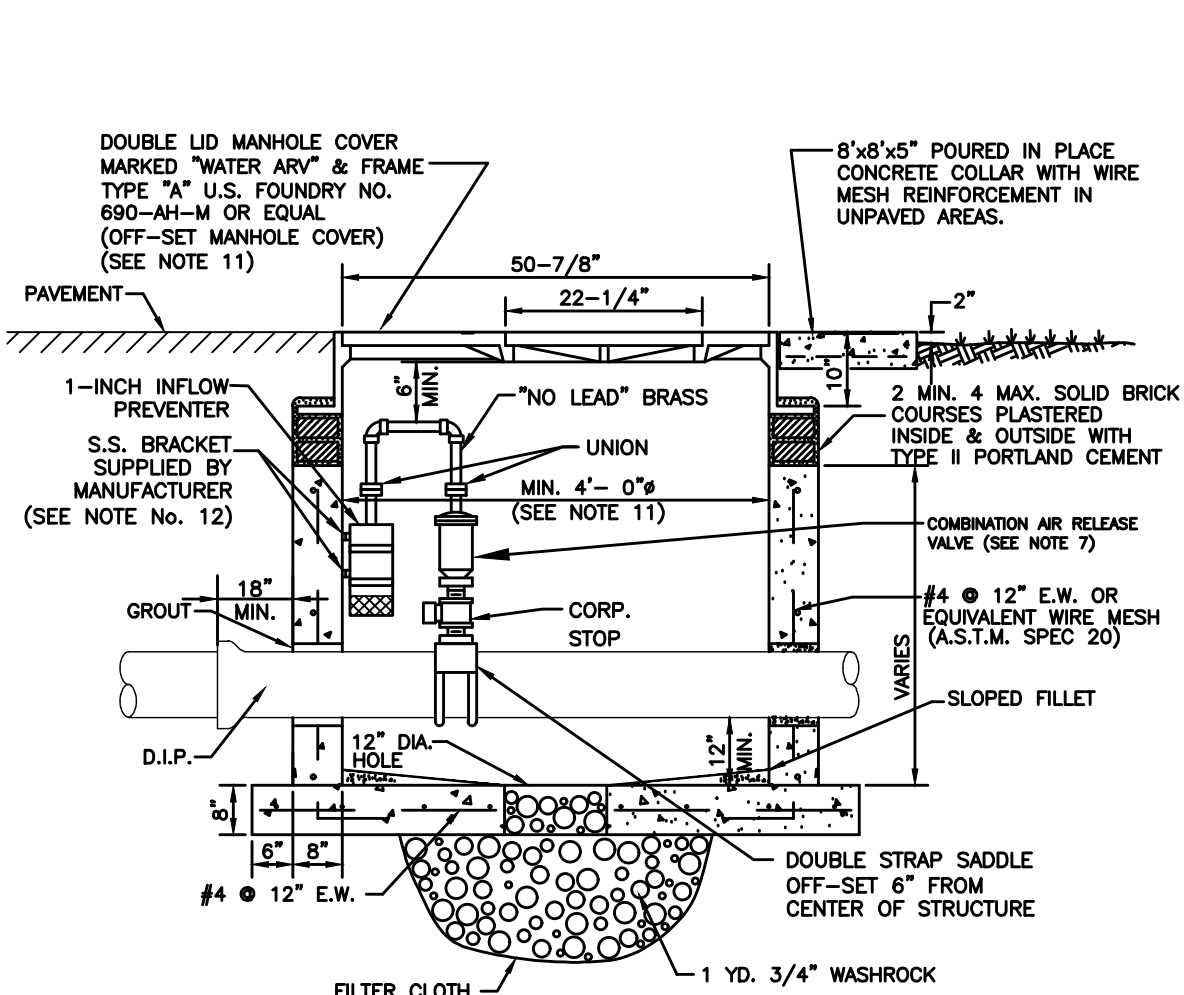
FORCE MAIN OFFSET COMBINATION AIR VALVE AND MANHOLE



NOTES:

- THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT. IN CERTAIN SOIL CONDITIONS A FOUNDATION MAY BE REQUIRED. FOR EXCAVATION AND BACKFILL AROUND MANHOLES, APPURTENANCES, OR IN WATER, REFER TO PROVISIONS WITH SPECIFICATIONS. REFER TO SPECIFICATIONS FOR EXCAVATION IN MUCK OR OTHER UNSUITABLE MATERIAL.
- BEDDING IS REQUIRED PRIMARILY TO BRING THE TRENCH BOTTOM UP TO GRADE. BEDDING MATERIALS SHALL PROVIDE A UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE. UNLESS OTHERWISE SPECIFIED, BEDDING MATERIAL SHALL CONSIST OF WASHED AND GRADED LIMEROCK (3/4" - 1/2").
- HAUNCHING MATERIAL SHALL BE HAND PLACED TO THE SPRINGLINE OF THE PIPE. MATERIAL SHALL BE CONSOLIDATED UNDER THE PIPE AND HAND TAMPED TO PROVIDE ADEQUATE SIDE SUPPORT.
- INITIAL BACKFILL MATERIAL SHALL BE HAND PLACED TO 12" ABOVE THE TOP OF PIPE AND BE COMPACTED USING A HAND OPERATING TAMPING DEVICE.
- BACKFILL SHALL BE UNIFORMLY COMPACTED THROUGHOUT TO 98% OF MAX. DENSITY AS PER AASHTO T-180, TO A POINT 24" BELOW PROPOSED PROFILE GRADE OR EXISTING GRADE (12" MAX. LIFTS). THE FINAL 24" OF BACKFILL SHALL BE COMPACTED TO 98% OF MAX. DENSITY AS PER AASHTO T-180, NON-TRAFFIC AREAS, AS DIRECTED BY ENGINEER, SHALL ACHIEVE MIN. 95% MAX DENSITY.
- DENSITY TEST SHALL BE PERFORMED AT AREAS DETERMINED BY THE DESIGN ENGINEER OR PERMIT AGENCY HAVING JURISDICTION. THE CITY SHALL PAY FOR THE FIRST PASSING TEST AT EACH LOCATION. CITY SHALL PROVIDE THE LAB FOR COMPLETING TESTING. FAILED TESTS SHALL BE PAID FOR BY THE CONTRACTOR.
- WHERE REQUIRED, SHEETING AND SHORING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.

TRENCH AND BACKFILLING REQUIREMENTS



NOTES:

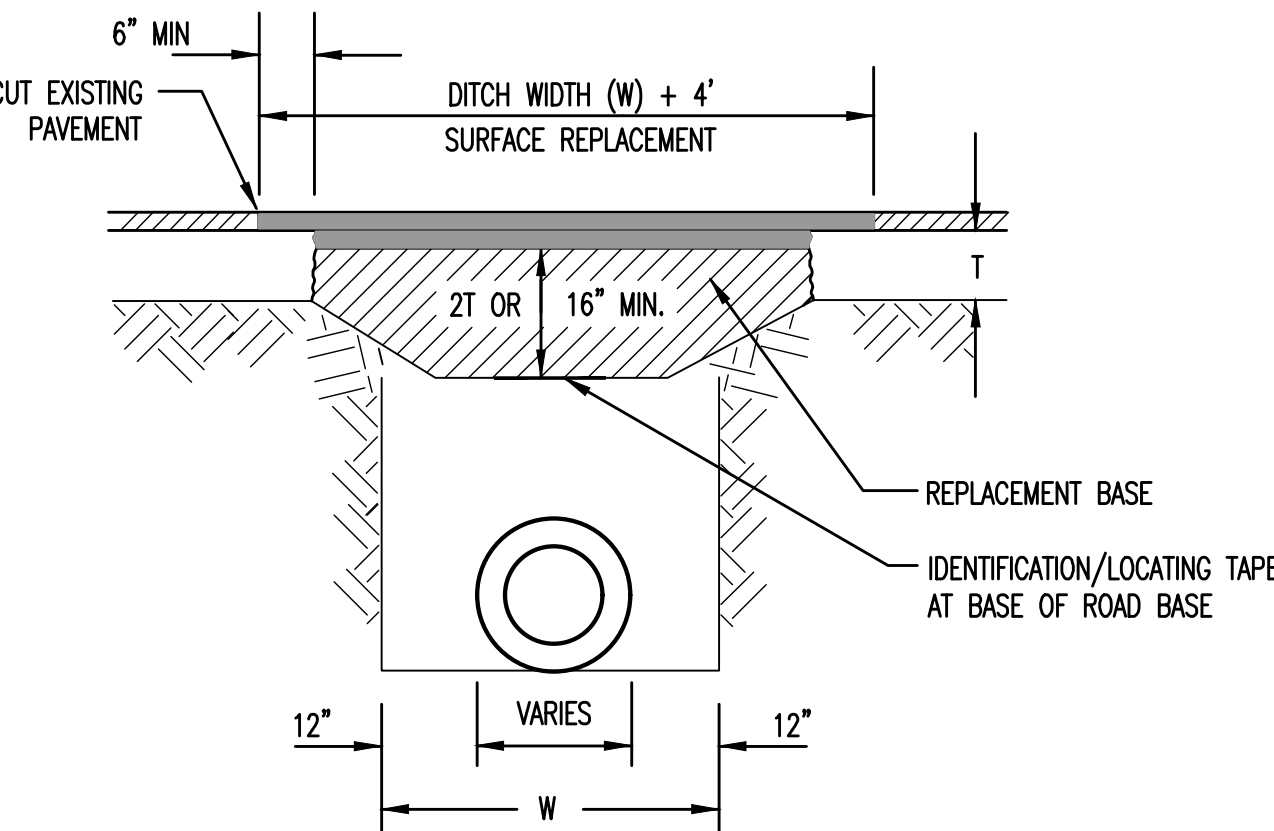
- PRECAST 4000 P.S.I. TYPE II CONCRETE STRUCTURE. SHOP DRAWING IS REQUIRED TO BE APPROVED BY THE CITY PRIOR TO BUILD CONSTRUCTION AND/OR INSTALLATION.
- ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING GROUT.
- LIFT HOLES ARE PERMITTED.
- ALL PIPE HOLES SHALL BE PRECAST.
- MANHOLE FABRICATION SHALL BE IN ACCORDANCE WITH A.S.T.M. C-478 LATEST STANDARD.
- CONCRETE COLLAR REQUIRED WHEN MANHOLE IS OUTSIDE OF PAVEMENT, SEE DETAIL.
- COMBINATION AIR VALVE SHALL BE 2-INCH, UNLESS OTHERWISE SPECIFIED.
- DUCTILE IRON PIPE IS REQUIRED THROUGH THE VAULT. NO PIPE JOINTS INSIDE OR WITHIN 18" OF THE MANHOLE.
- THREADED AREAS OF BRASS FITTINGS SHALL BE SPIRAL WRAP WITH TWO WRAPS OF TEFLON TAPE.
- POTABLE WATER MAINS 12" AND SMALLER, AN ALTERNATE VAULT AND COVER DESIGN MAY BE USED PROVIDED ALTERNATE VAULT AND/OR COVER SHOP DRAWINGS WERE SUBMITTED AND APPROVED BY THE CITY PRIOR TO THE VAULT AND/OR COVER BEING INSTALLED.
- LARGER MANHOLES WILL BE REQUIRED FOR PIPES LARGER THAN 12" PIPE SIZE
- MIN. MANHOLE DIAMETER
- 15"-24" 60"
- 30"-42" 72"
- SHOP DRAWINGS ARE REQUIRED FOR CUSTOM MADE BRACKETS
- MANHOLES IN ROADWAYS SHALL BE LOCATED OUTSIDE OF WHEEL PATHS.

POTABLE WATER MAIN COMBINATION AIR VALVE
MANHOLE IN PAVED AREA AND IN ROAD R/W

NOTES:

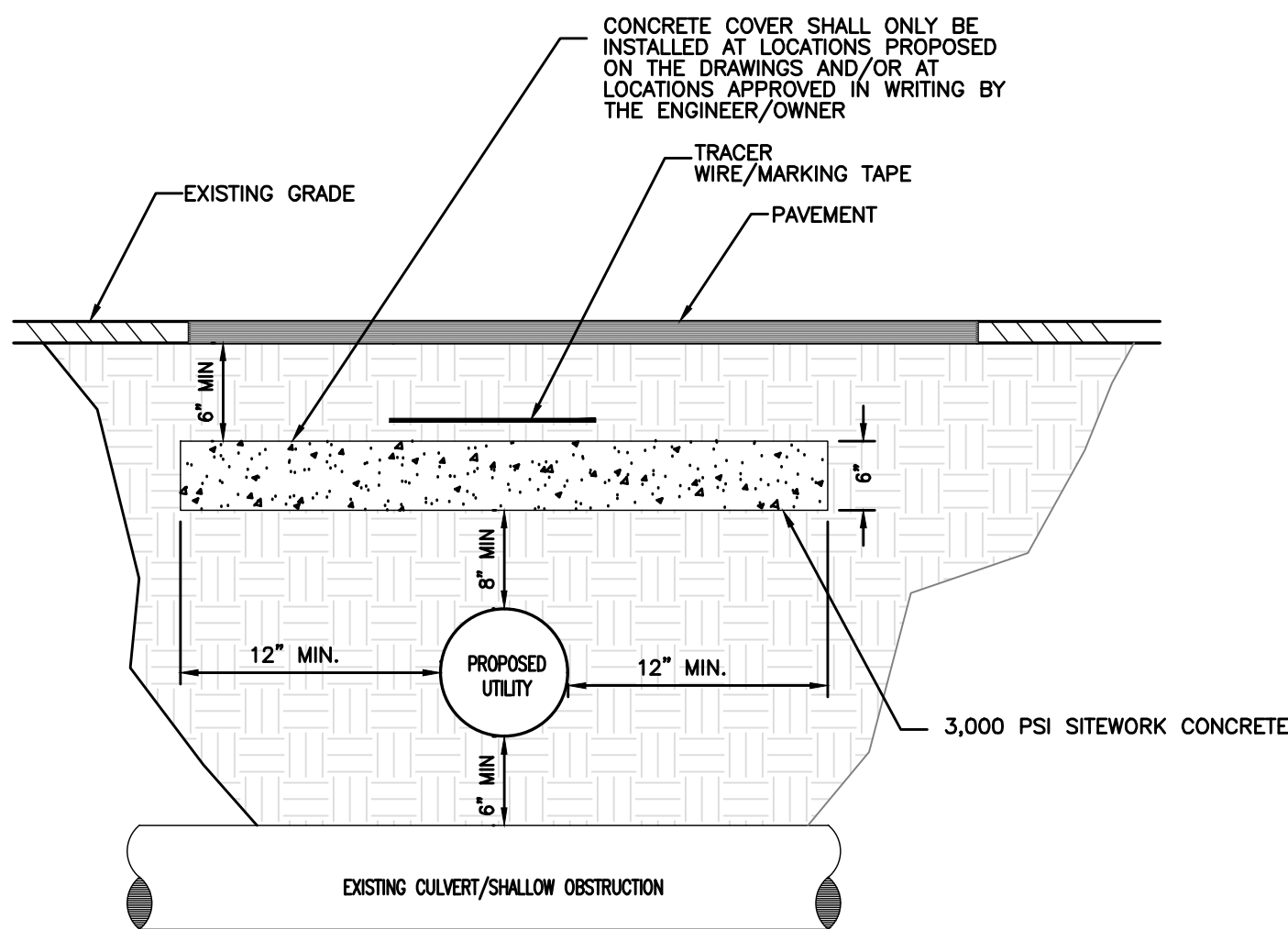
- PRECAST MONOLITHIC POURED 4000 P.S.I. TYPE II CONCRETE STRUCTURE. SHOP DRAWING IS REQUIRED TO BE APPROVED BY THE DEPARTMENT PRIOR TO VAULT CONSTRUCTION AND/OR INSTALLATION.
- ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING GROUT.
- ALL PIPE HOLES SHALL BE PRECAST.
- ALTERNATE VAULT DESIGN MAY BE USED WITH AN APPROVED 32" DIAMETER HINGED MANHOLE COVER PROVIDED ALTERNATE VAULT AND/OR COVER SHOP DRAWING WAS SUBMITTED AND APPROVED BY THE DEPARTMENT PRIOR TO THE VAULT AND/OR COVER BEING INSTALLED.
- ARV, TAP AND PIPING TO BE TYPE AND SIZE APPROPRIATE FOR SERVICE INTENDED.
- COMBINATION AIR RELEASE VALVE (ARV) SHALL BE TYPE AND SIZE APPROPRIATE FOR SERVICE INTENDED ALTHOUGH A 1" MINIMUM SIZED ARV IS REQUIRED ON POTABLE WATER MAIN INSTALLATIONS.
- SHOP DRAWING IS REQUIRED FOR REVIEW AND APPROVAL.
- THREADED AREAS OF BRASS FITTINGS AND OTHER FITTINGS SHALL BE SPIRAL WRAPPED WITH TWO WRAPS OF TEFLON TAPE.
- IN LIEU OF BRICK WORK, APPROVED PRECAST CONCRETE ADJUSTING RINGS MAY BE USED. INSTALLATION SHALL FOLLOW MANUFACTURERS RECOMMENDATIONS.
- SHOP DRAWINGS ARE REQUIRED FOR CUSTOM MADE BRACKETS
- PIPE AND FITTINGS SHALL BE NO LEAD BRASS.
- MANHOLES SHALL BE INSTALLED OUTSIDE TRAFFIC AREAS.

POTABLE WATER MAIN OFF-SET UNDERGROUND AIR RELEASE VALVE



- REPLACED BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE. (2T) OR 16" MIN. WHICHEVER IS GREATER.
- BASE MATERIAL SHALL BE PLACED IN EVENLY COMPACTED LIFTS OF NO GREATER THAN 8" THICKNESS AND COMPACTED TO 98% MAXIMUM DENSITY PER AASHTO T-180.
- ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED AND BUTT-JOINTED.
- ALL DISTURBED PAVEMENT MARKINGS SHALL BE RESTORED IN ACCORDANCE WITH CITY STANDARDS.
- SURFACE MATERIAL SHALL BE ONE (1) LIFT OF MINIMUM TWO INCH (2") FOOT TYPE SP-12.5 ASPHALT OVER OPEN CUT WIDTH (W+4").
- ANY PAVEMENT CUTS SHALL BE COLD PATCHED AT END OF EACH WORKING DAY TO FACILITATE UNHINDERED TRAFFIC FLOW.
- PIPE SHALL BE PLACED IN A DRY TRENCH.
- CONTRACTOR SHALL PROVIDE ADEQUATE COMPACTED FILL BENEATH THE HAUNCHES OF THE PIPE, USING MECHANICAL TAMPS SUITABLE FOR THIS PURPOSE.

ROADWAY PAVEMENT RESTORATION



CONCRETE COVER CROSSING DETAIL

REV	DATE	REVISIONS	BY

VERIFY SCALE
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DIMENSIONS ACCORDINGLY

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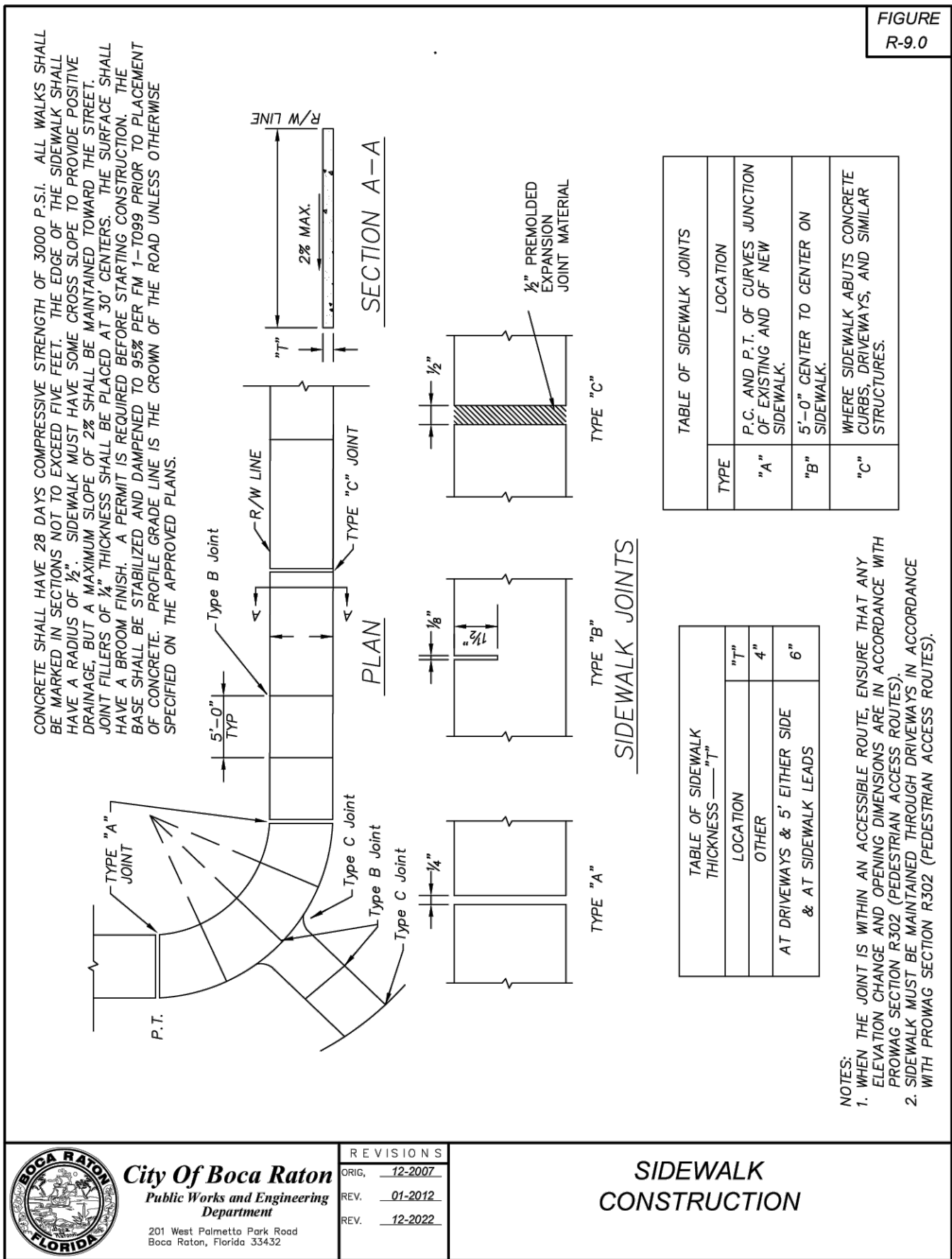
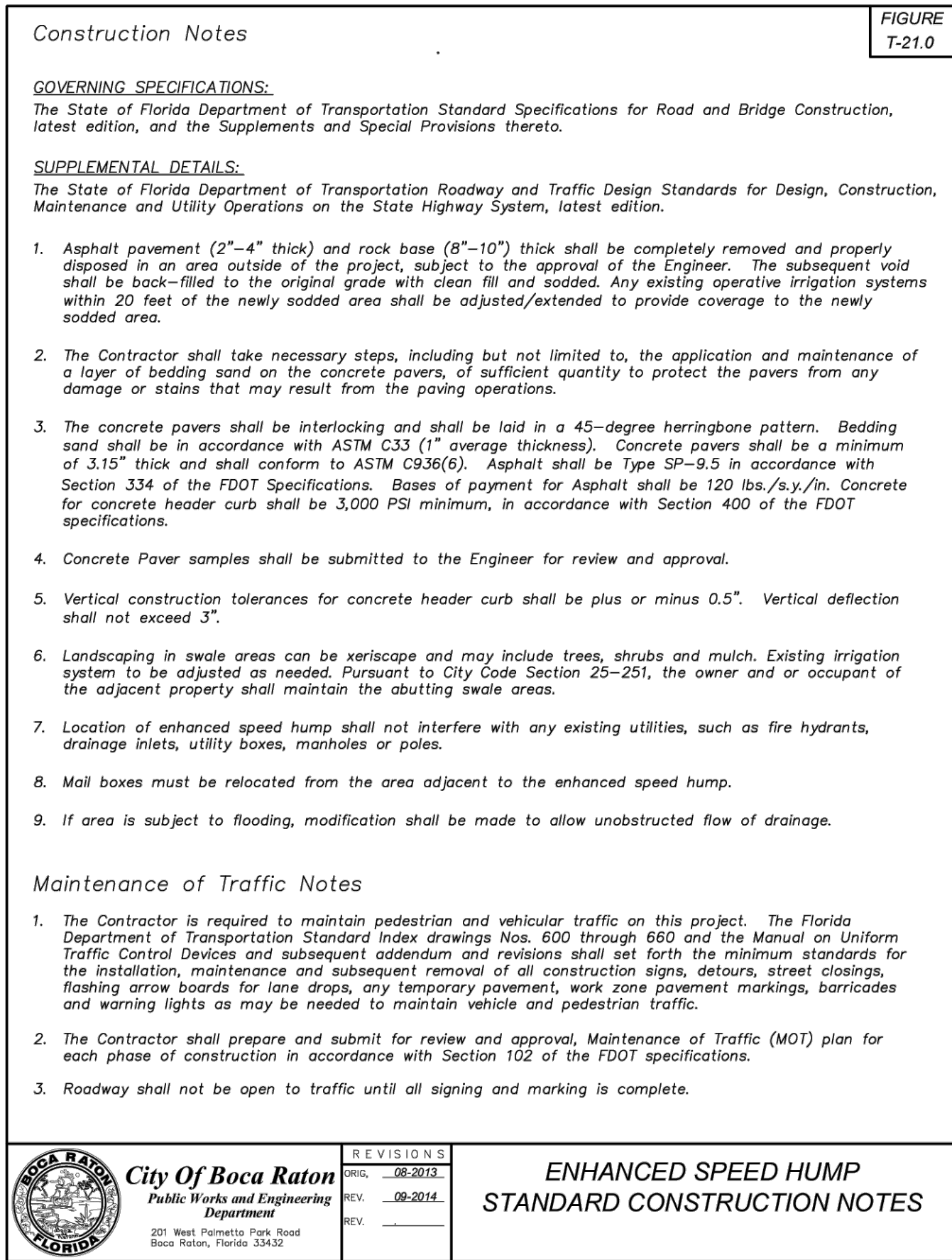
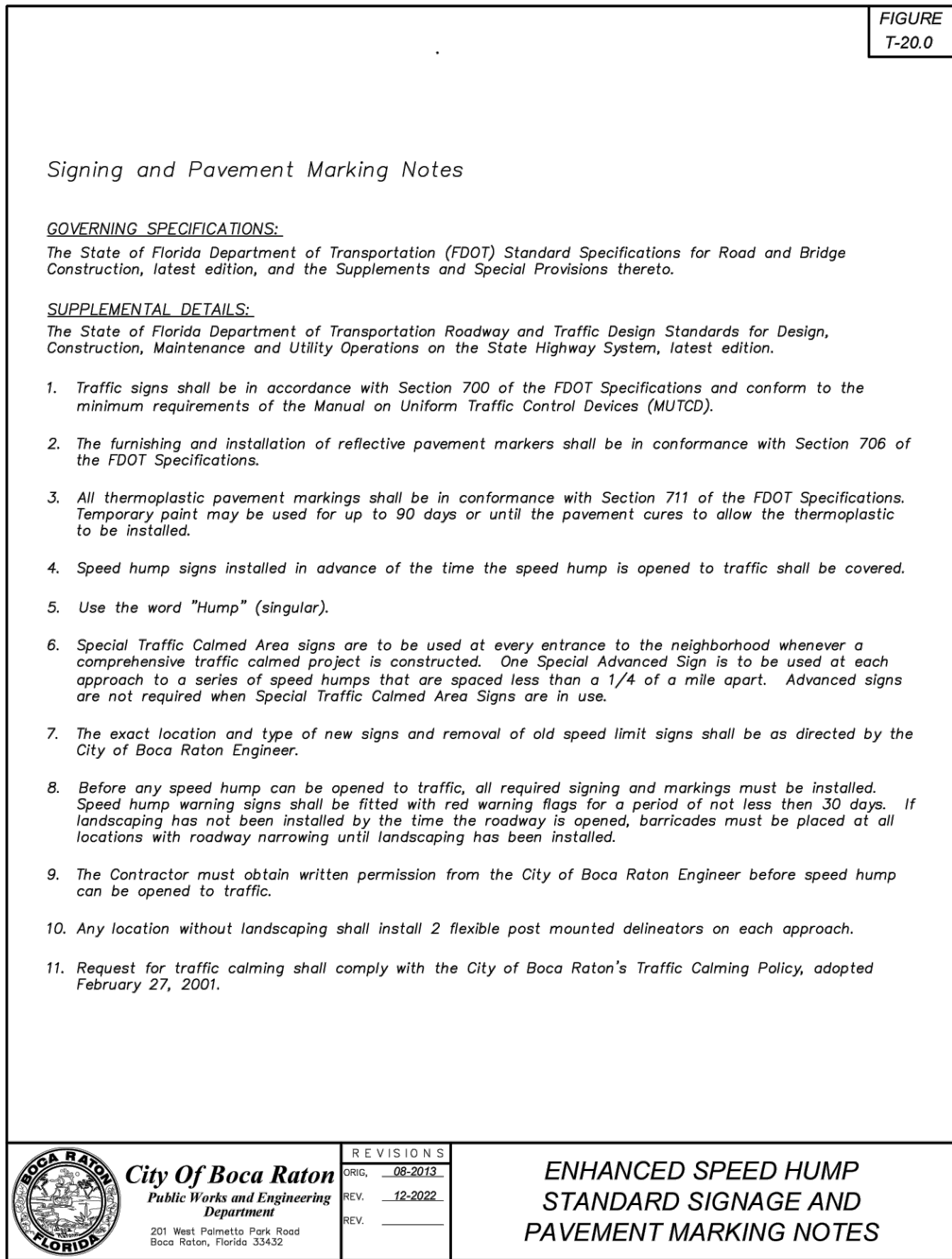
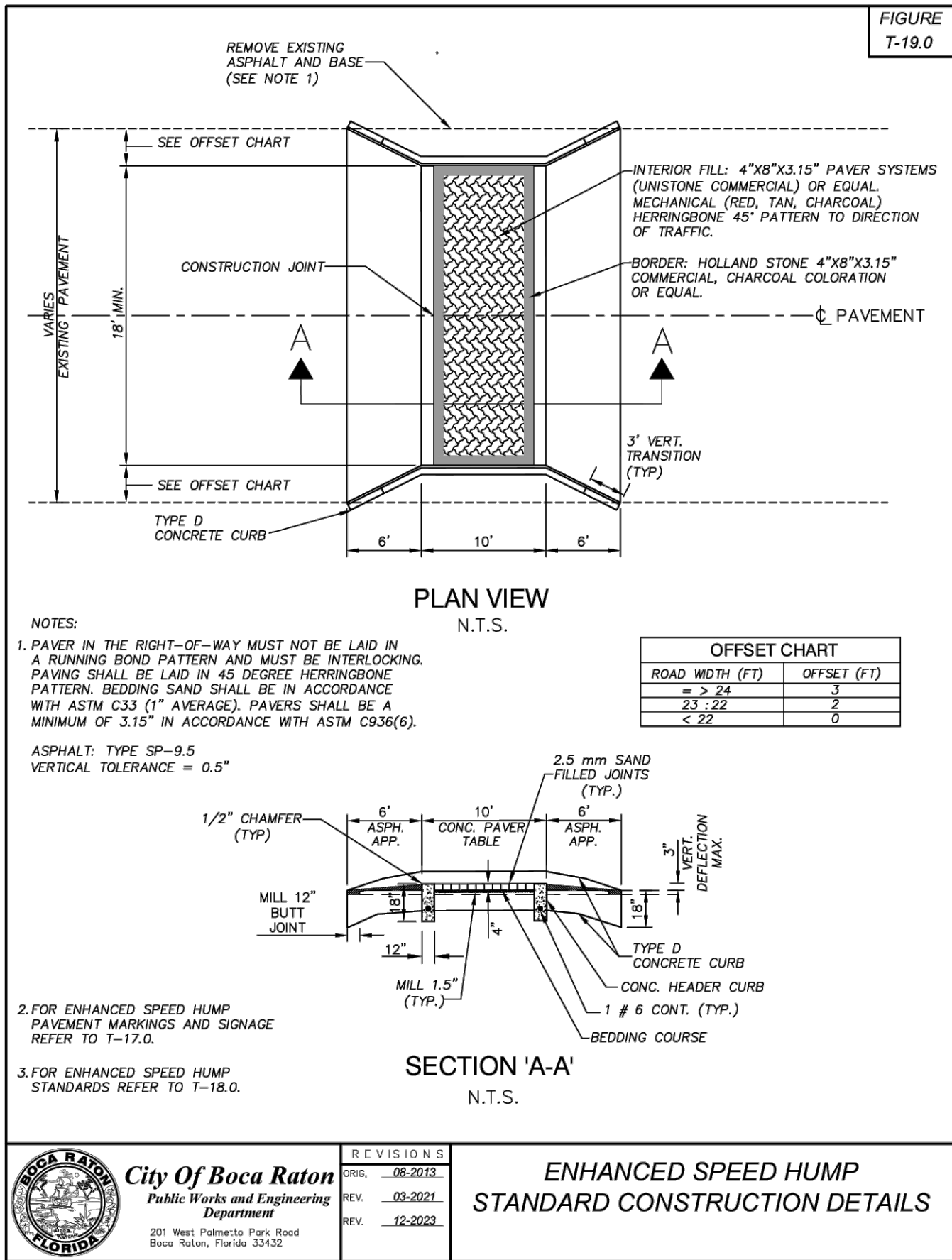
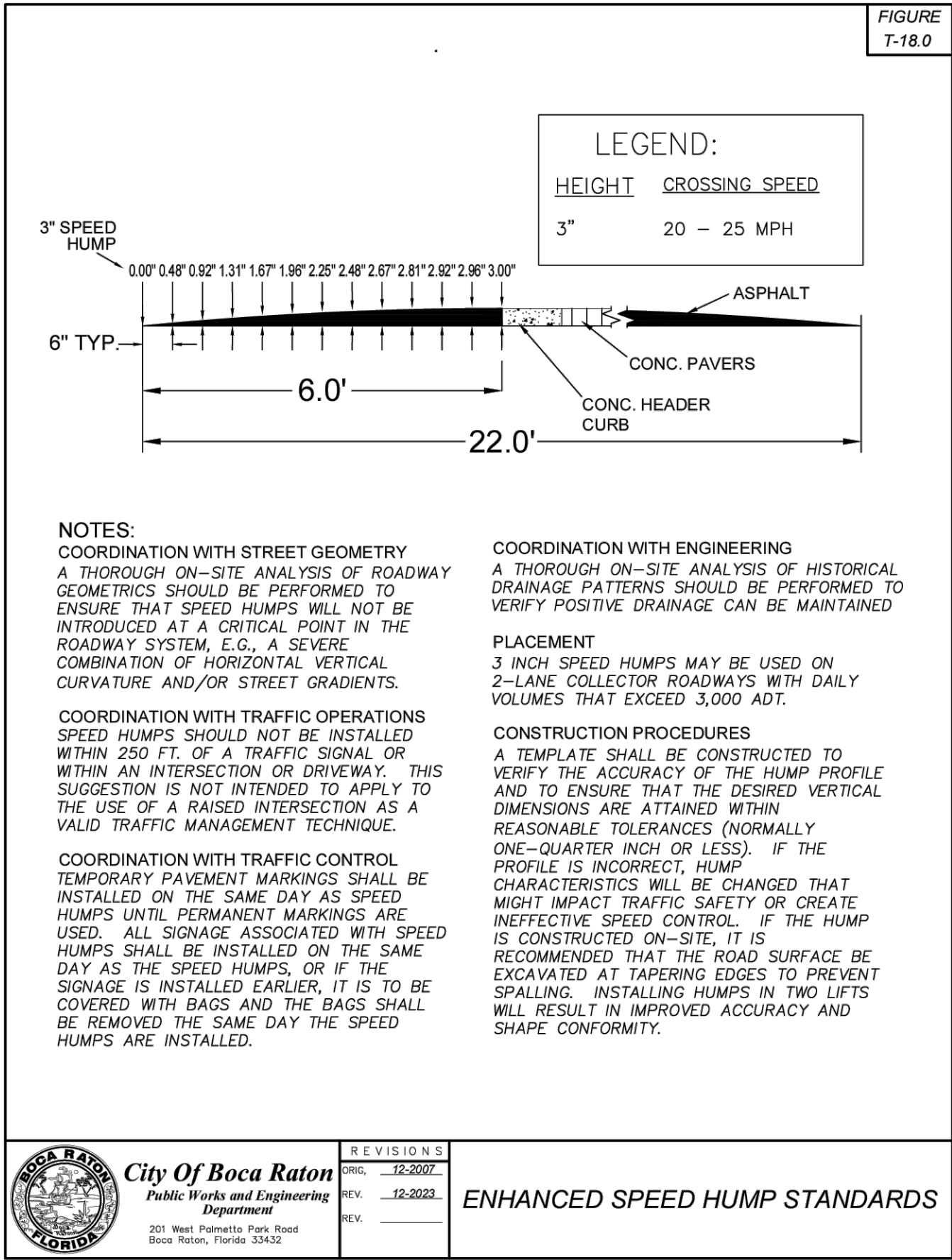
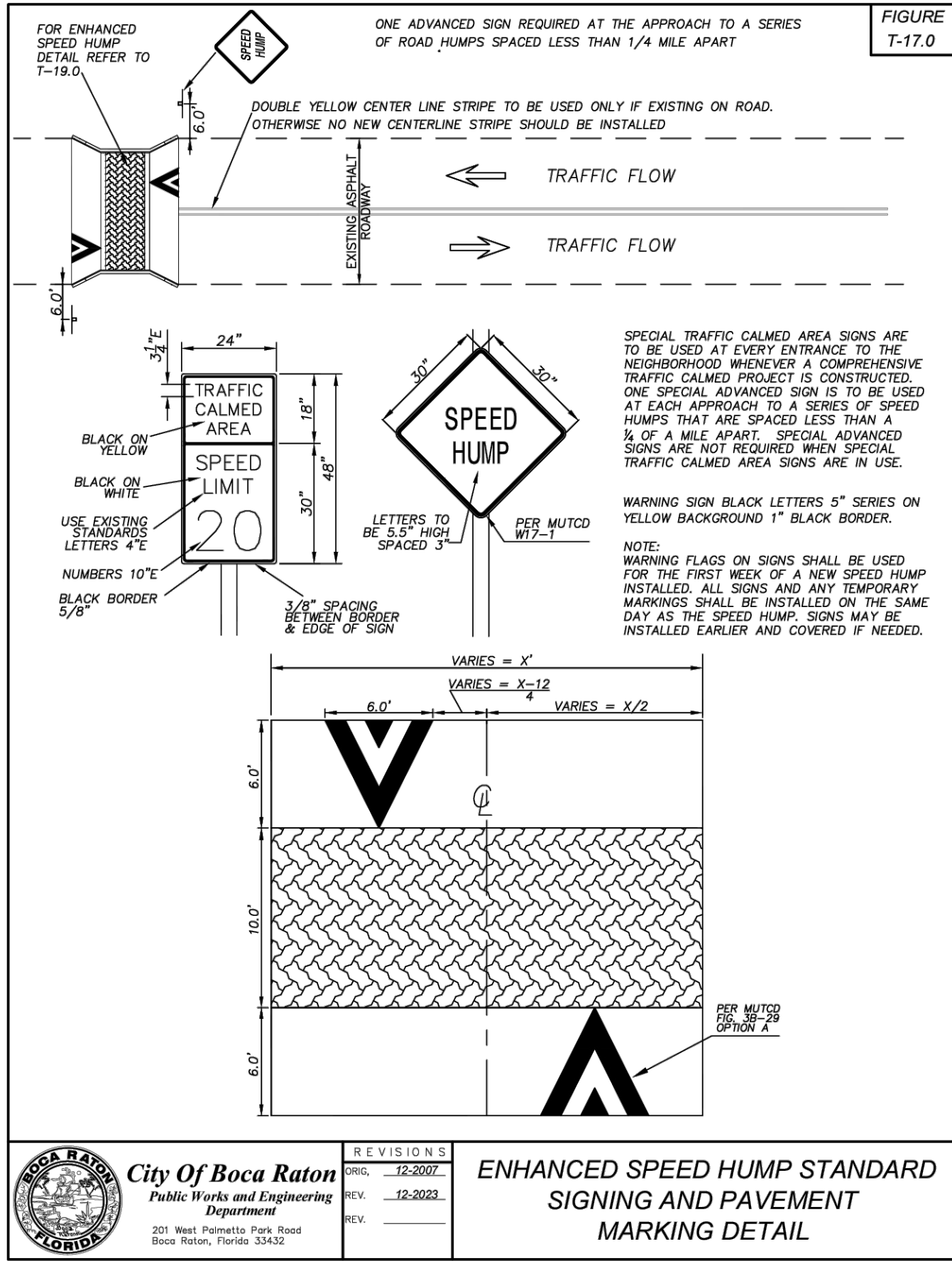
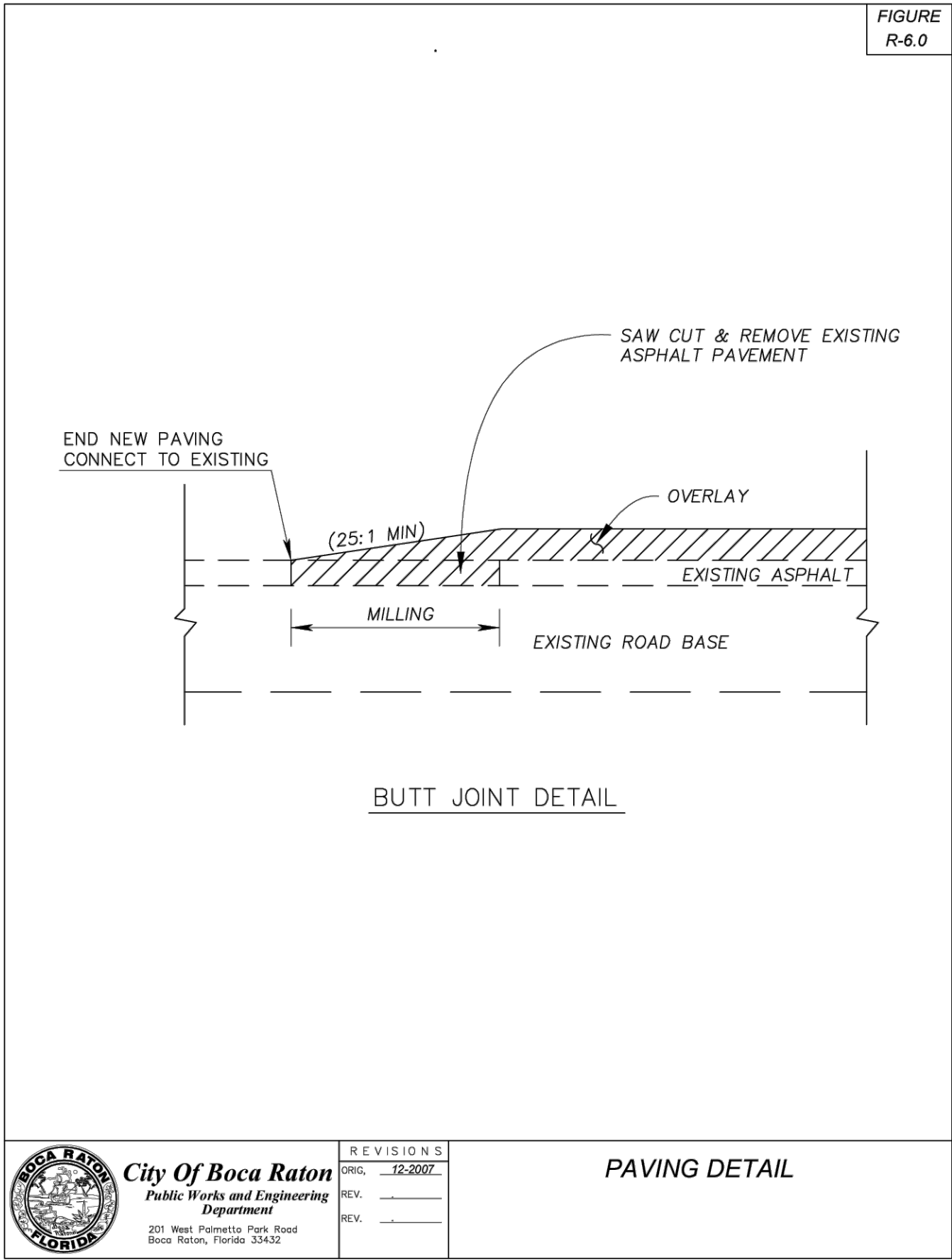
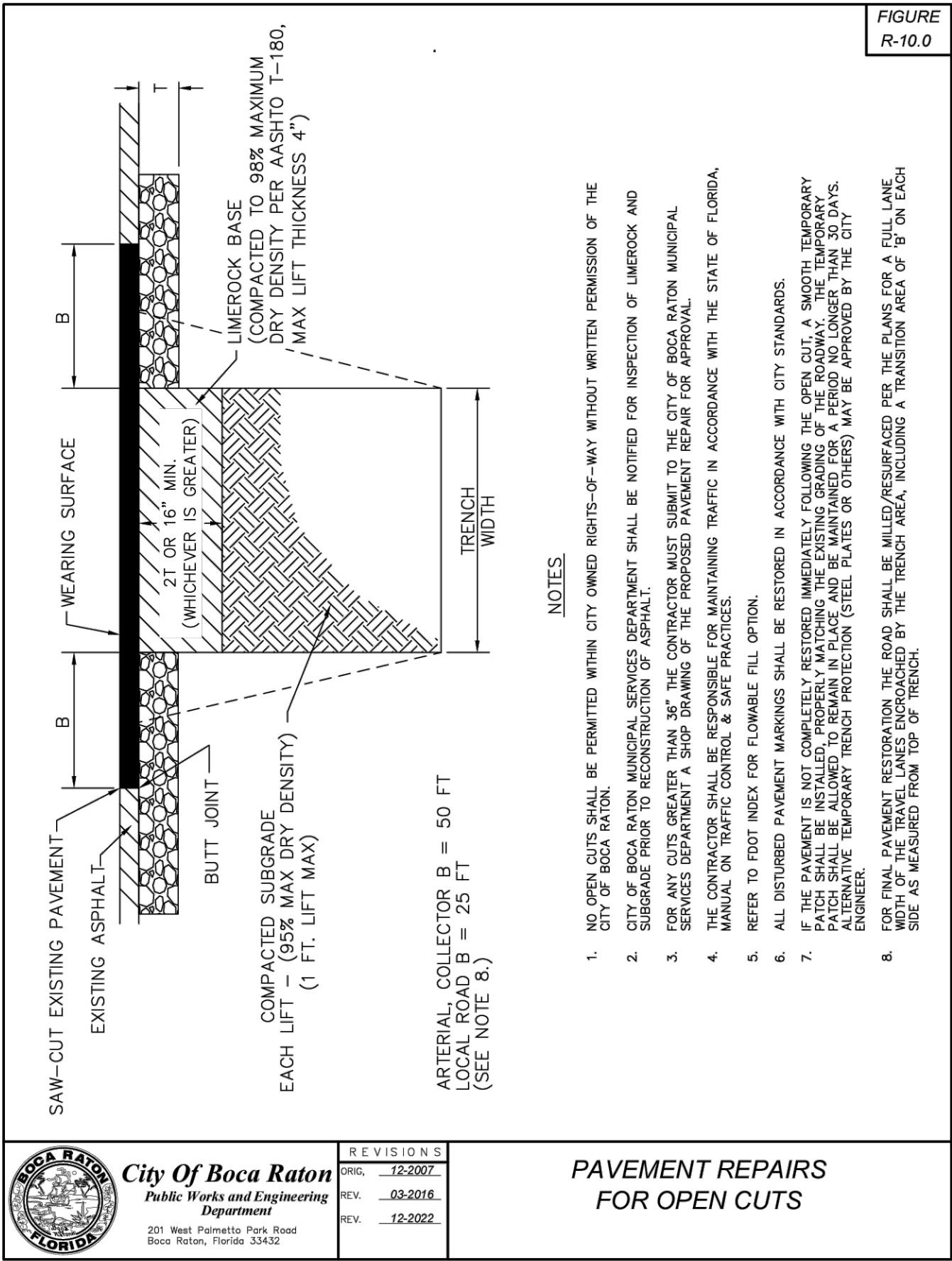
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

DETAILS

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270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III

License No: 91550



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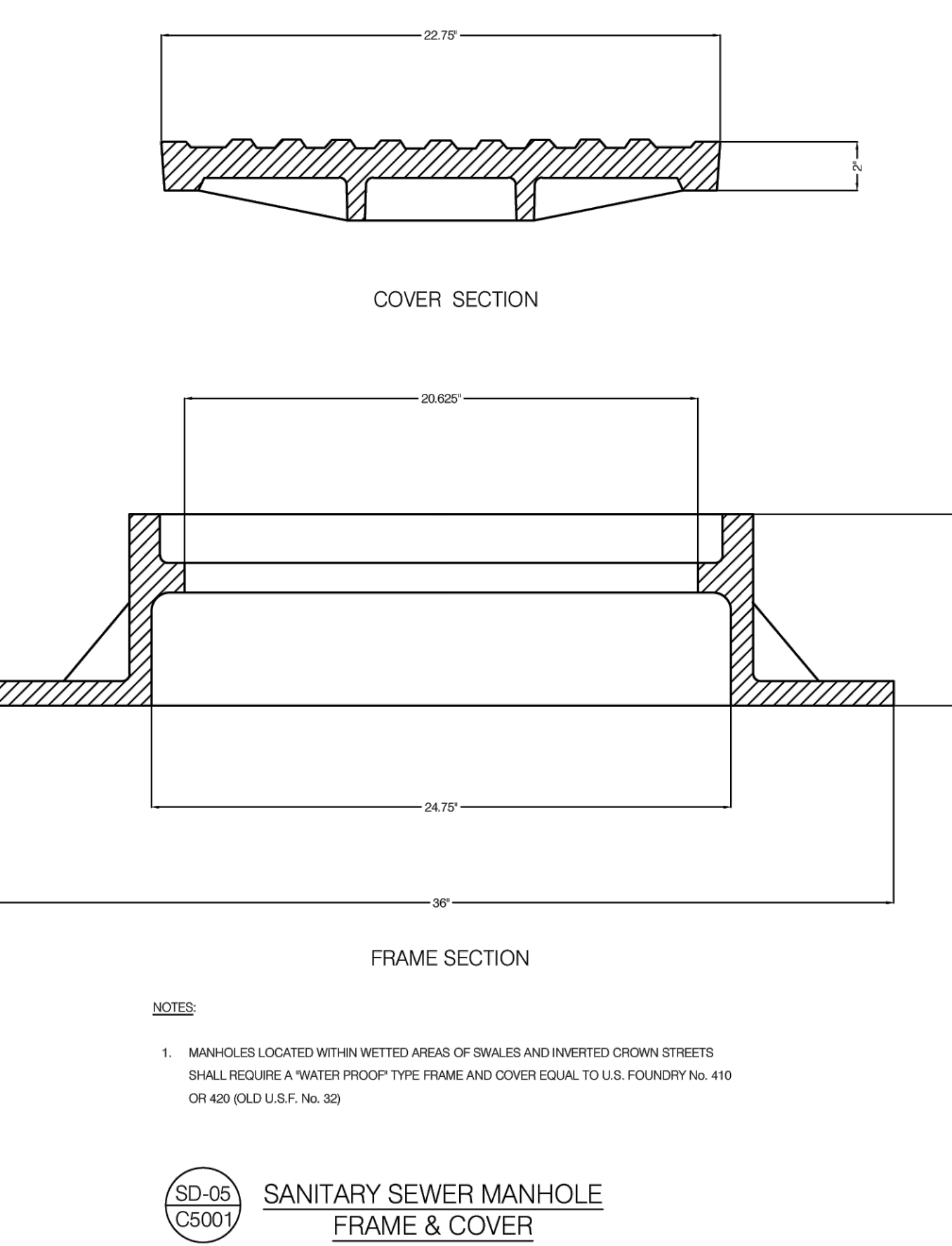
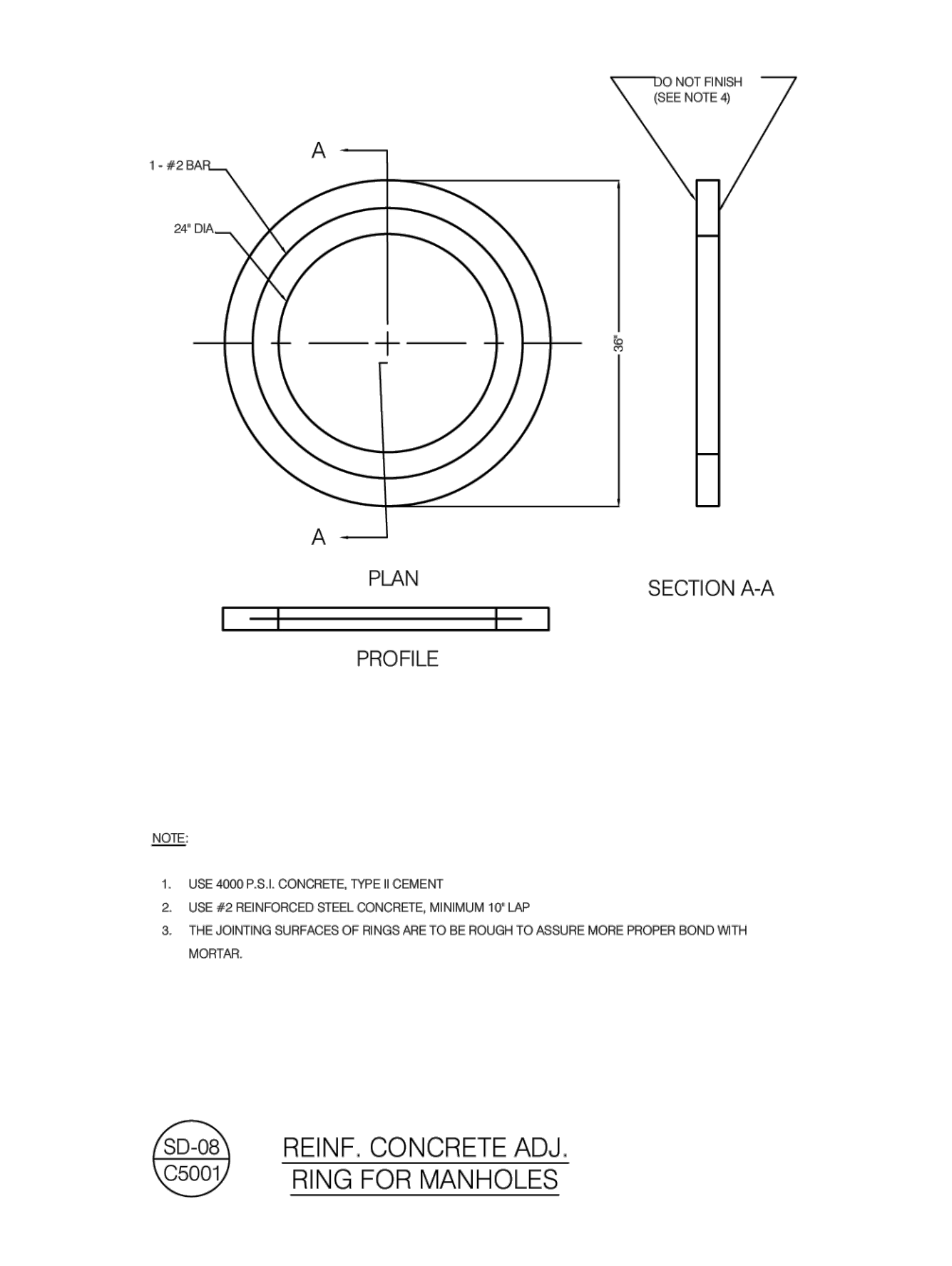
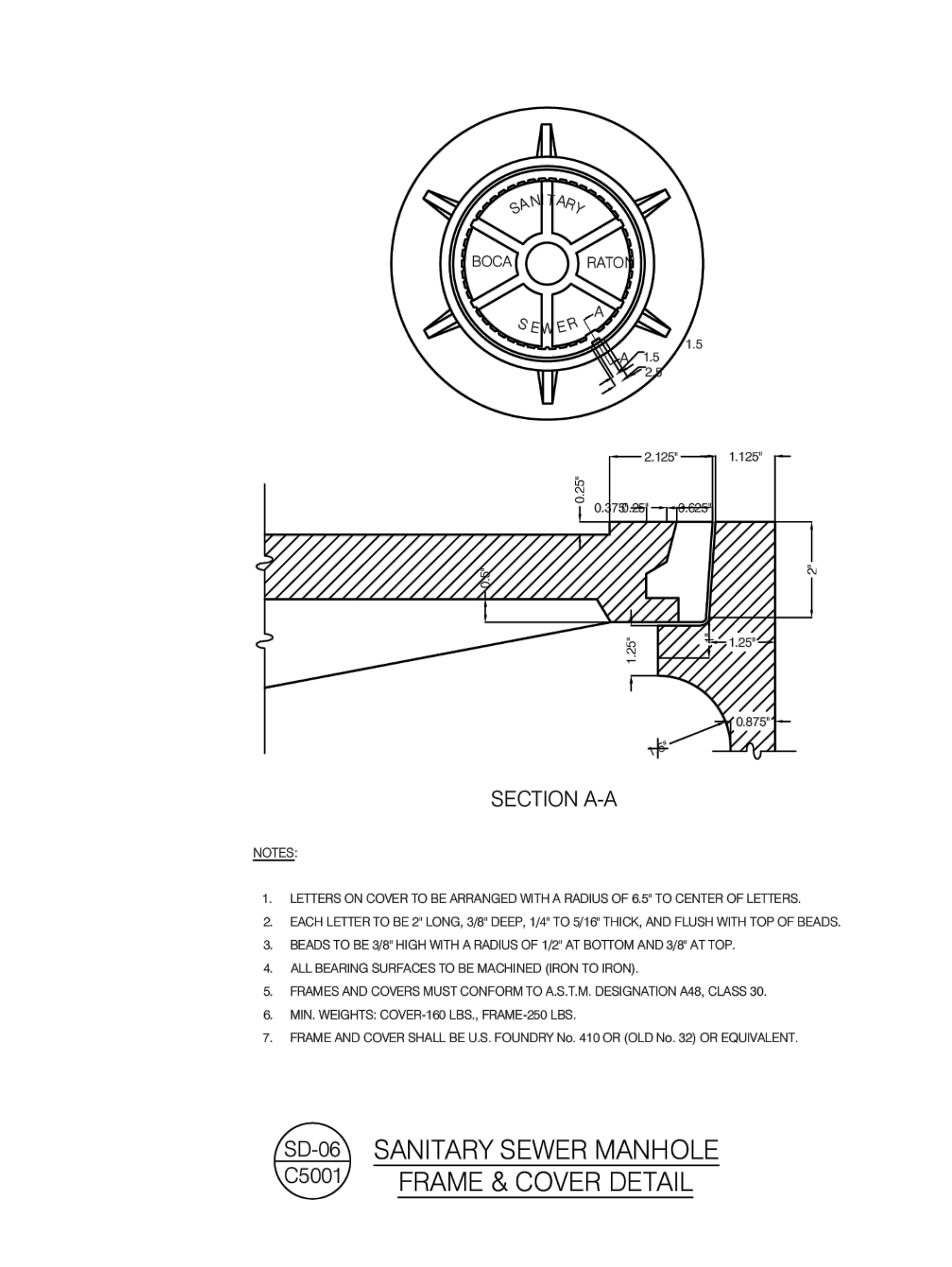
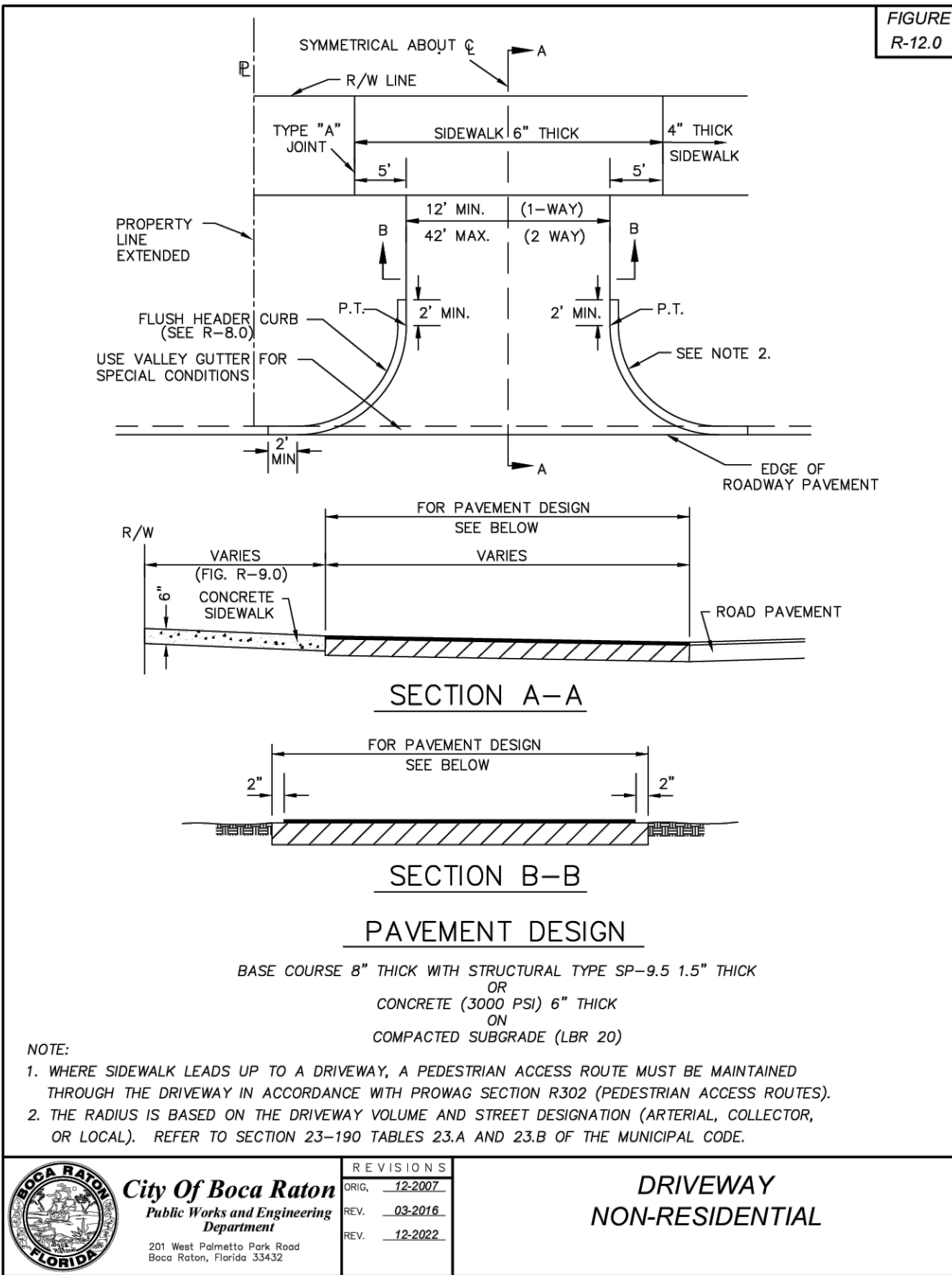
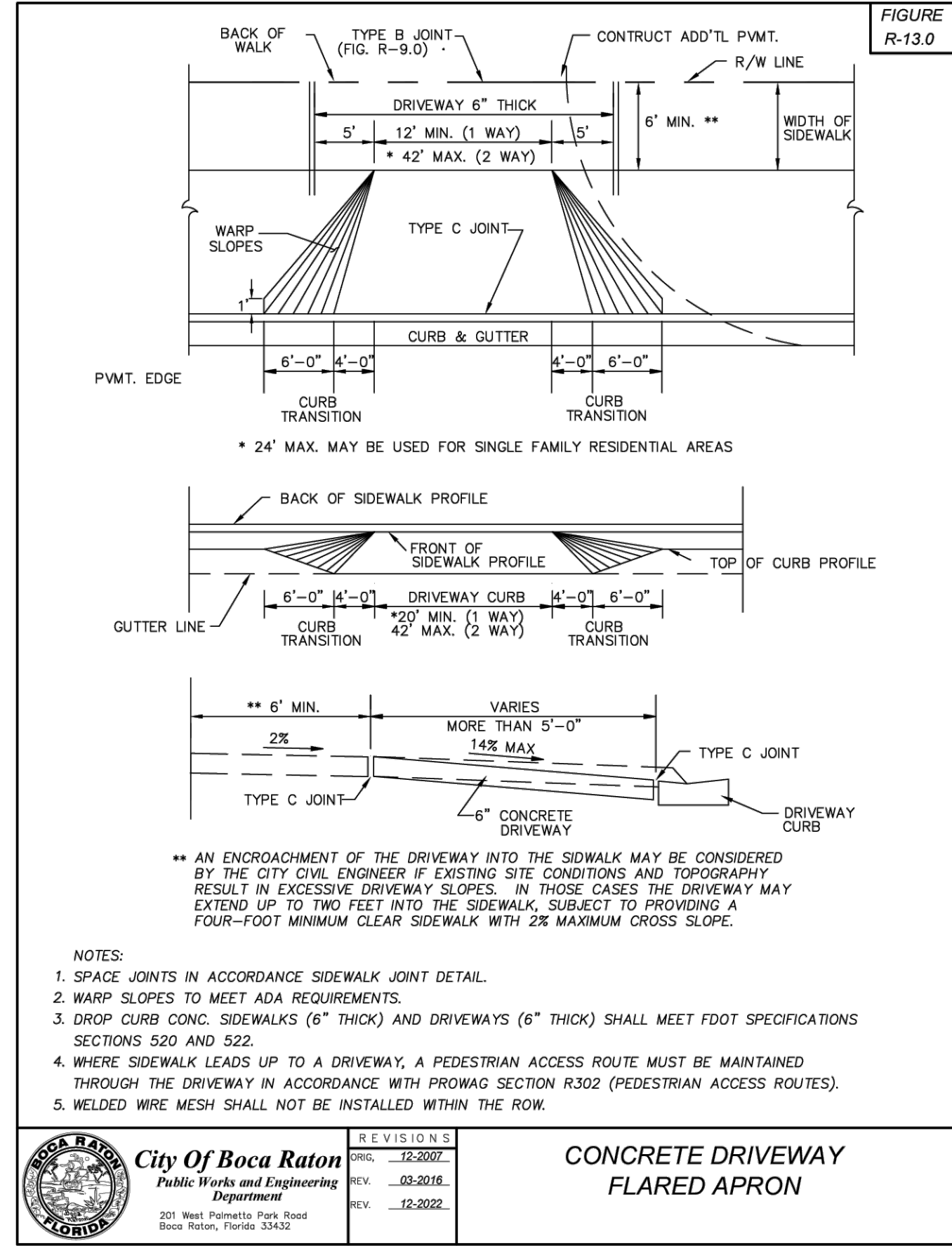
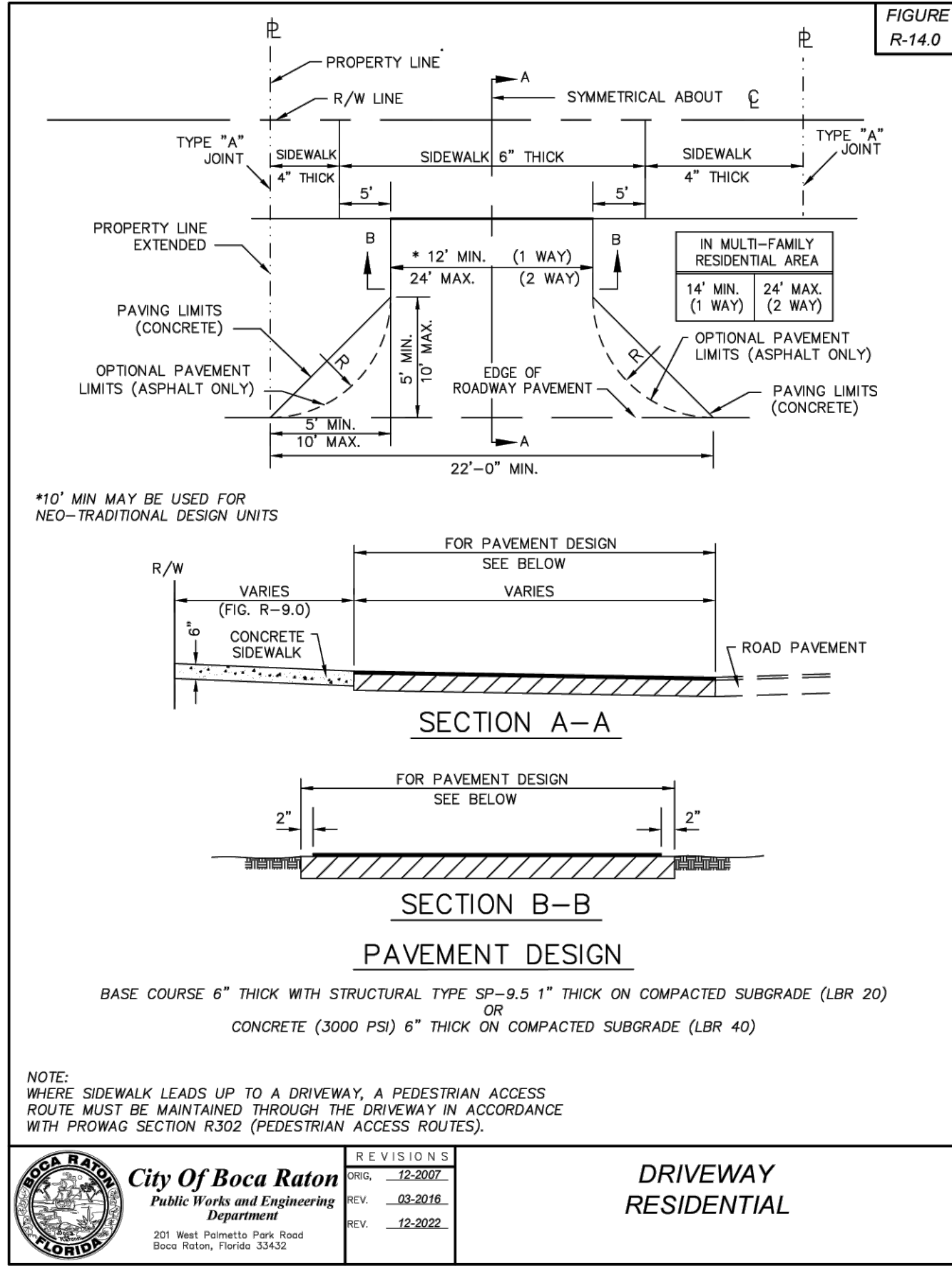
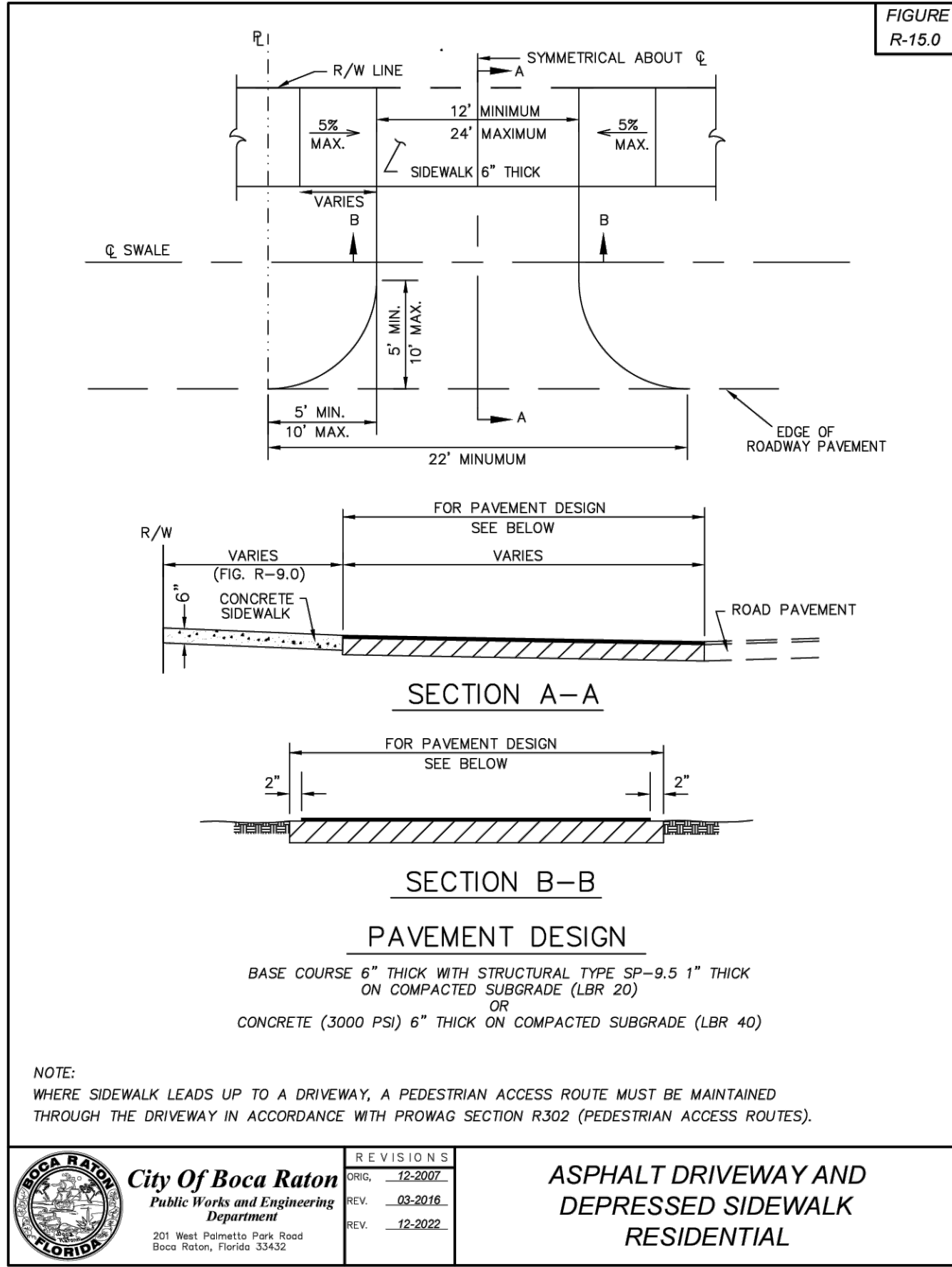
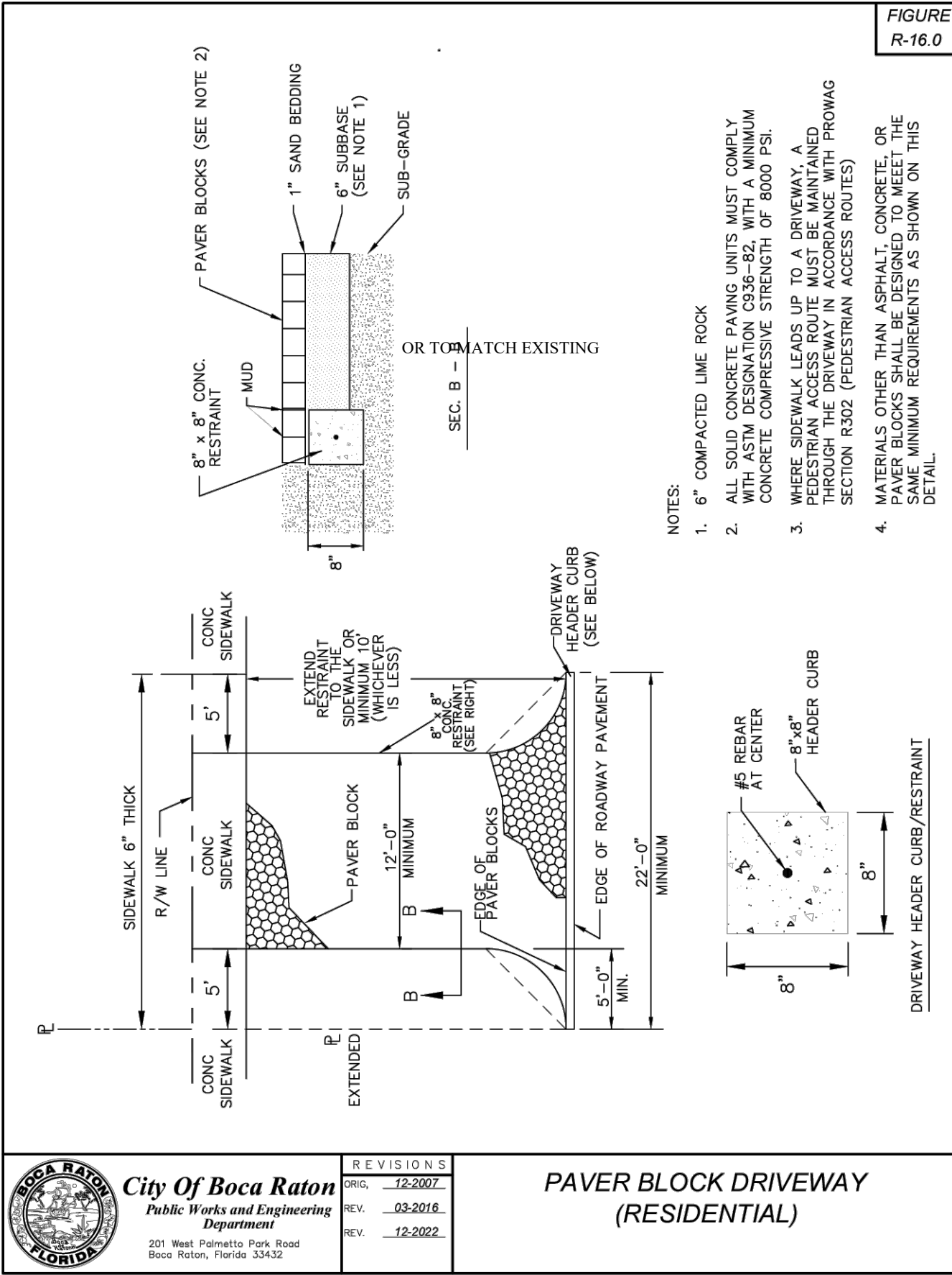
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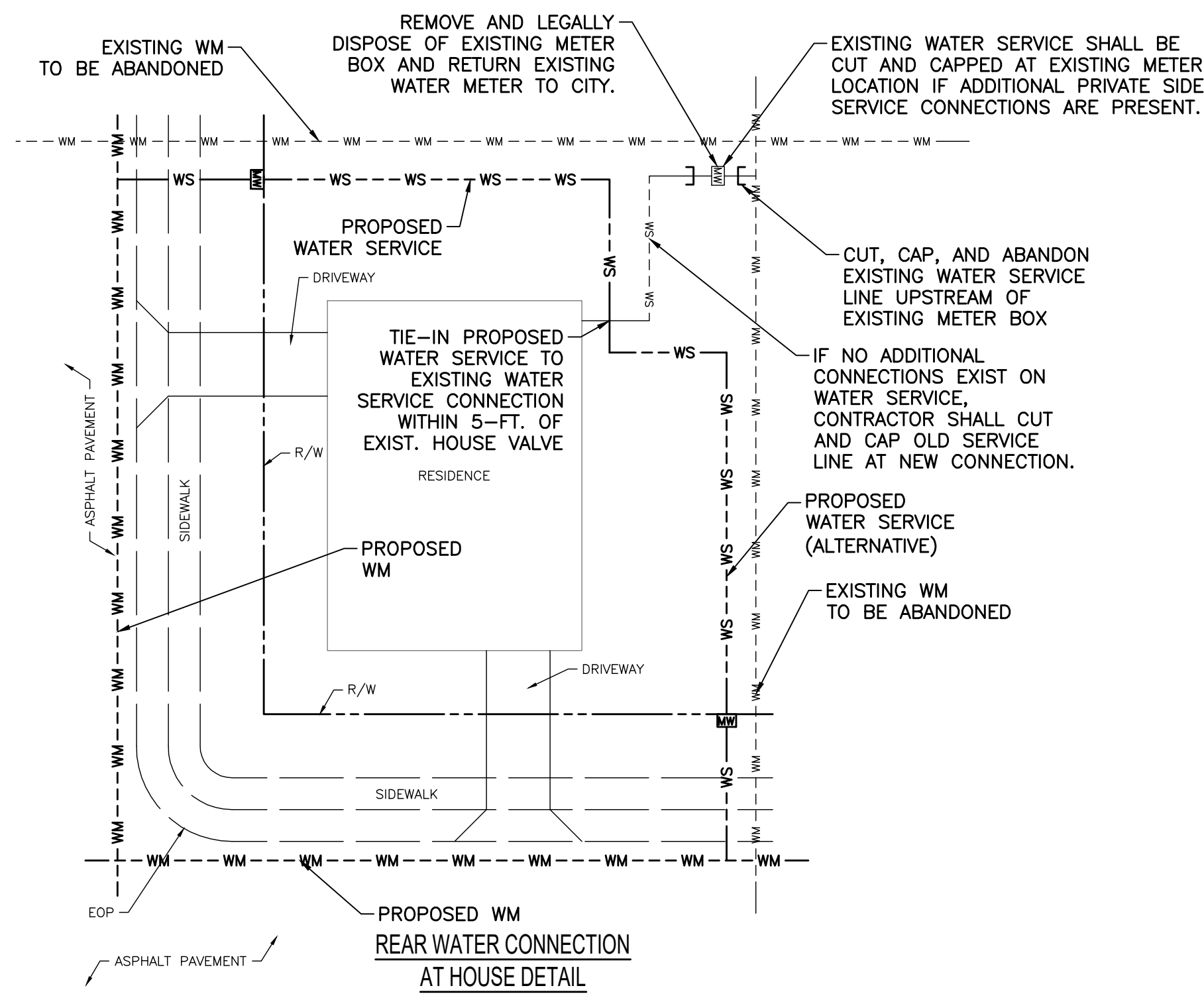
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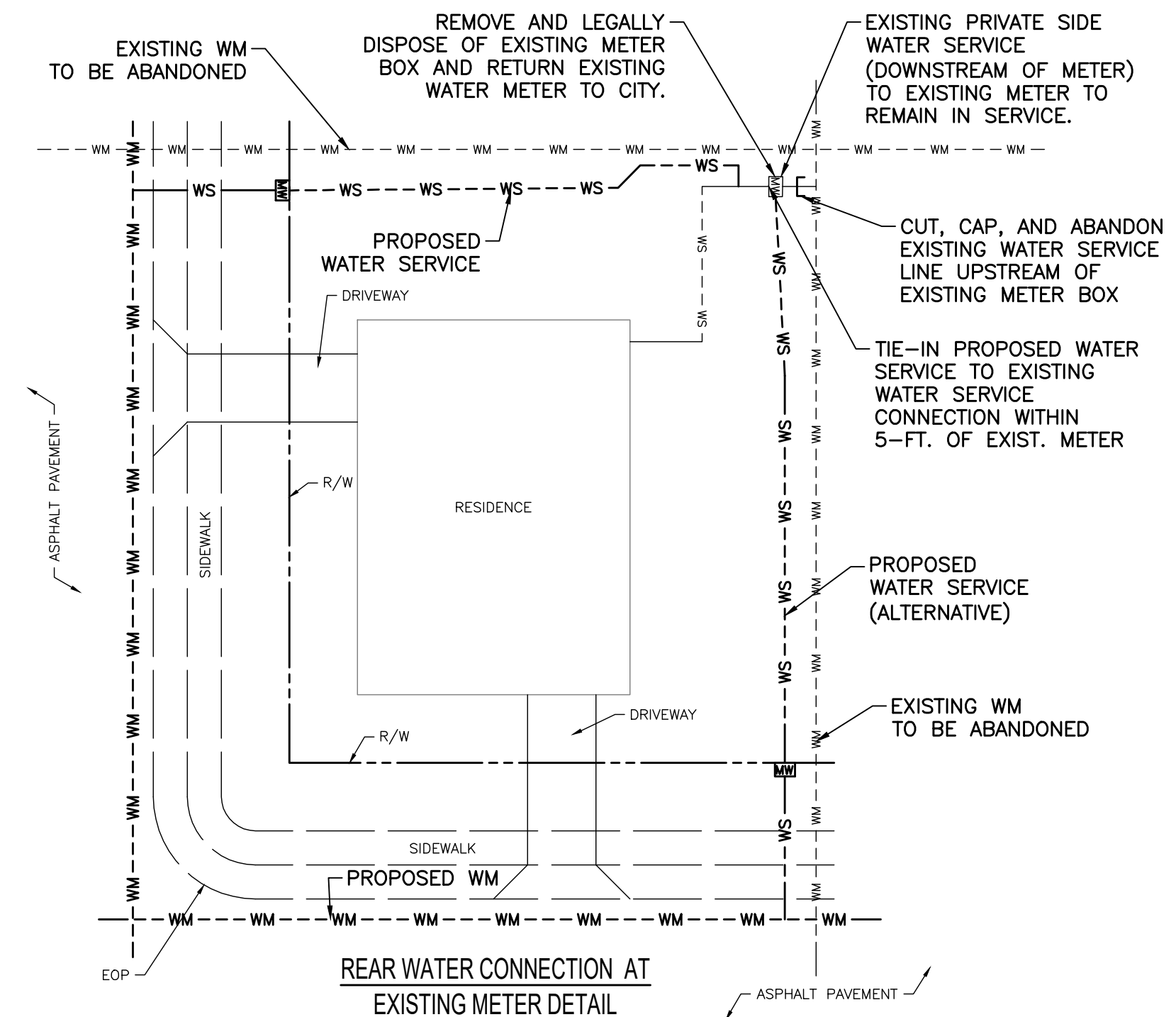
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License No: 91550

D-5



WATER CONNECTION NOTES:

1. PROPOSED WATER SERVICE CONNECTION SHALL BE ROUTED TO MINIMIZE LAY-LENGTH AND DISRUPTION OF PRIVATE PROPERTY, LANDSCAPING, HARDSCAPES, STRUCTURES, DRIVEWAYS, ETC. WATER SERVICES SHALL BE INSTALLED VIA TRENCHLESS TECHNOLOGY. SEE SERVICE CONNECTION TYPES DETAIL FOR ADDITIONAL DETAILS AND REQUIREMENTS.
2. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER TO DETERMINE IF ADDITIONAL CONNECTIONS EXIST PRIOR TO INSTALLATION OF NEW SERVICE.
3. CONTRACTOR SHALL FURNISH AND INSTALL ALL BACKFLOW PREVENTION EQUIPMENT INCLUDING BUT NOT LIMITED TO LOW AND HIGH HAZARD RATED BACKFLOW PREVENTION ASSEMBLIES AND/OR BACKFLOW PREVENTER PLUMBING DEVICES AS REQUIRED PER FLORIDA ADMINISTRATIVE CODE AND FLORIDA BUILDING/PLUMBING CODE WHEREVER PRIVATE-SIDE WATER SERVICE LINE REQUIRES REPLACEMENT. INSTALLATION OF ABOVEGRADE BACKFLOW PREVENTION EQUIPMENT SHALL BE COORDINATED WITH THE OWNER AND PROPERTY-OWNER AND SHALL BE LOCATED NO GREATER THAN 2- FEET AWAY FROM THE EXISTING PERMANENT RESIDENCE STRUCTURE, UNLESS OTHERWISE REQUESTED BY THE HOMEOWNER. ALL RESIDENCES WHERE THE EXISTING PRIVATE-SIDE WATER SERVICE IS PROPOSED FOR REPLACEMENT AND WHICH INCLUDE AN EXISTING POTABLE WATER IRRIGATION CONNECTION SHALL INCLUDE INSTALLATION OF AN ATMOSPHERIC VACUUM BREAKER, PRESSURE VACUUM BREAKER ASSEMBLY, OR A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY, WHEN AN EXISTING HIGH HAZARD BACKFLOW PREVENTION ASSEMBLY IS NOT PRESENT.



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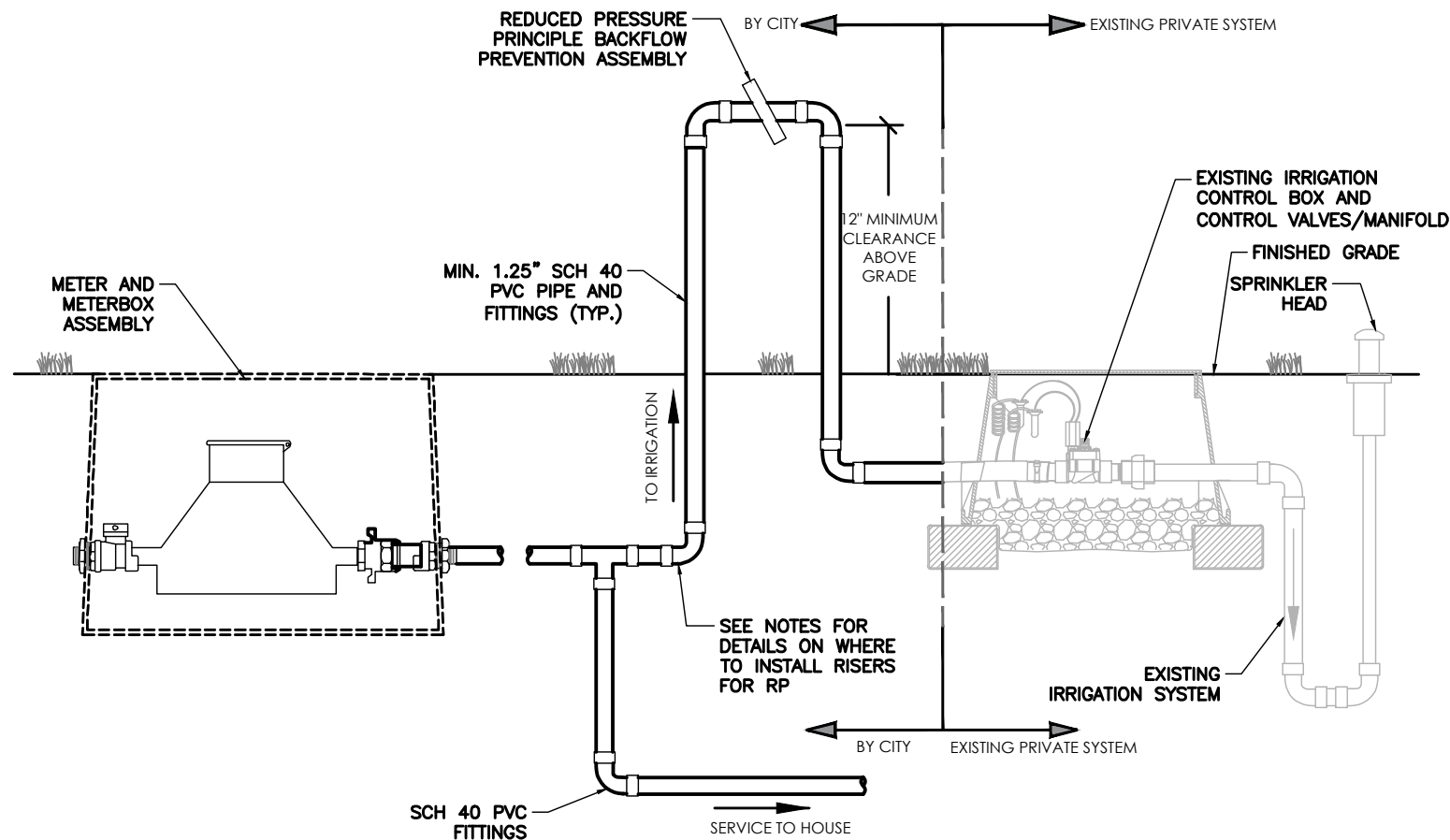
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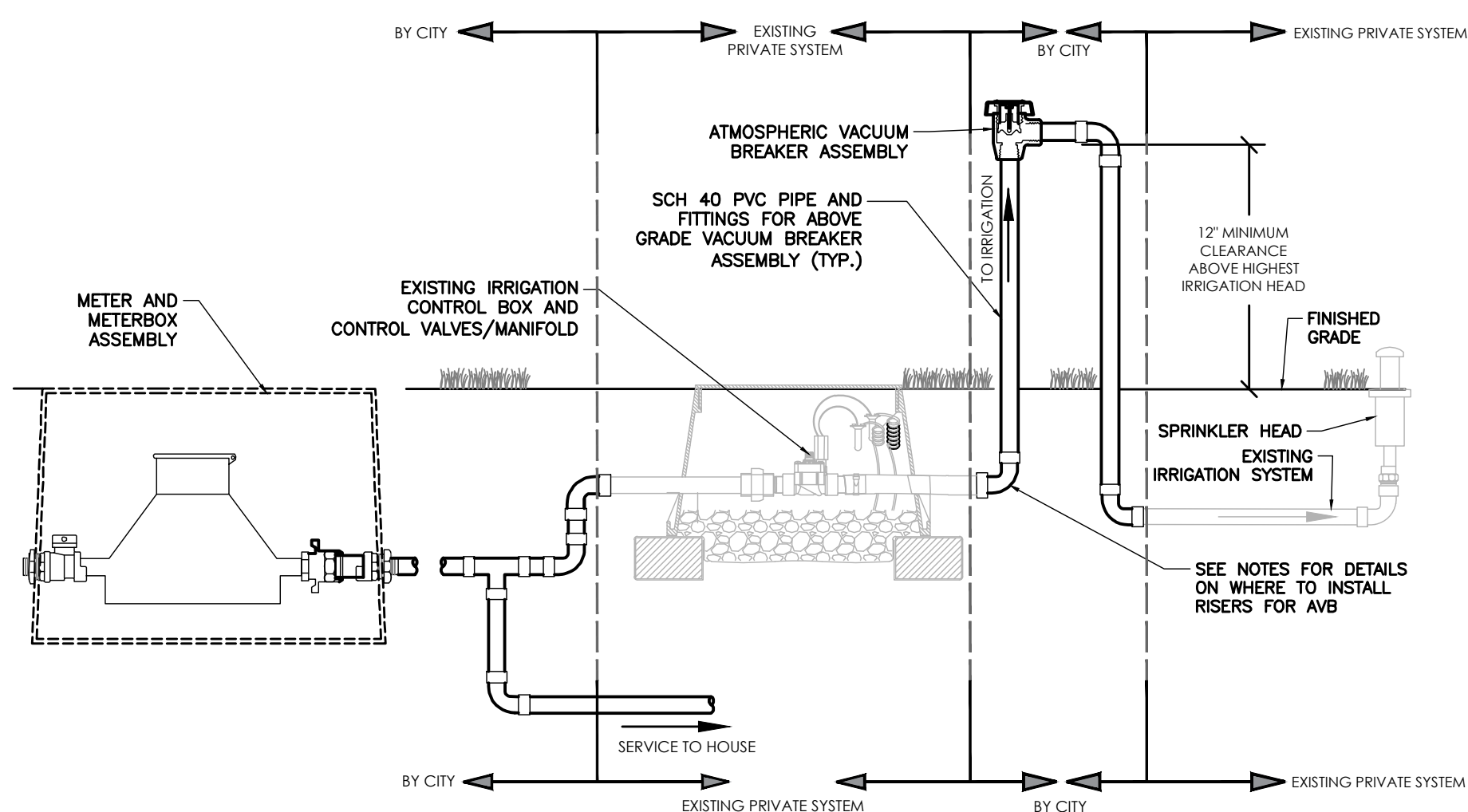
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- NOTES:
1. THE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY (RP) SHALL BE INSTALLED ONLY AS APPROVED IN WRITING BY OWNER/ENGINEER. NOTE THAT EXISTING IRRIGATION CONTROL BOX AND CONTROL VALVES/MANIFOLD ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. CONTRACTOR SHALL FIELD LOCATE POTABLE WATER IRRIGATION TIE-POINT AND MODIFY CONNECTIONS AS REQUIRED TO ENSURE THAT ALL IRRIGATION SYSTEM/ZONE COMPONENTS ARE PROTECTED BY RP IN ACCORDANCE WITH FLORIDA PLUMBING CODE. EXISTING MANIFOLDS MAY BE INSTALLED ABOVE-GRADE AT SOME RESIDENCES.
 2. THE RP DEVICE SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION FOR SERVICE AND INSPECTION. RP ASSEMBLY SHALL BE INSTALLED NO GREATER THAN 2-FEET AWAY FROM THE EXISTING PERMANENT RESIDENCE STRUCTURE, UNLESS OTHERWISE REQUESTED BY HOMEOWNER. WHERE REPLACEMENT WATER SERVICE IS CONNECTING TO EXISTING WATER SERVICE AT THE LOCATION OF THE EXISTING WATER METER, THE RP DEVICE MAY BE INSTALLED AT THE EXISTING WATER METER LOCATION SO LONG AS THE ASSEMBLY IS INSTALLED NO GREATER THAN 3-FEET FROM AN EXISTING PERMANENT FENCE OR PROPERTY LINE. NOTE THAT THIS DETAIL IS SCHEMATIC AND IS NOT DRAWN TO SCALE. FINAL LOCATION FOR ASSEMBLY TO BE APPROVED BY ENGINEER / OWNER AND PROPERTY OWNER.
 3. RP DEVICE SIZE SHALL MATCH IRRIGATION SUPPLY LINE SIZE. RP DEVICE SHALL BE ZURN MODEL 975XL3, OR APPROVED EQUAL. RP DEVICE SHALL BE USC APPROVED AND NSF / ANSI 61 COMPLIANT.
 4. ALL BRASS FITTING MATERIAL INSTALLED SHALL CONTAIN NO LEAD IN ACCORDANCE WITH CURRENT DRINKING WATER STANDARDS.

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY (RP) FOR POTABLE WATER IRRIGATION

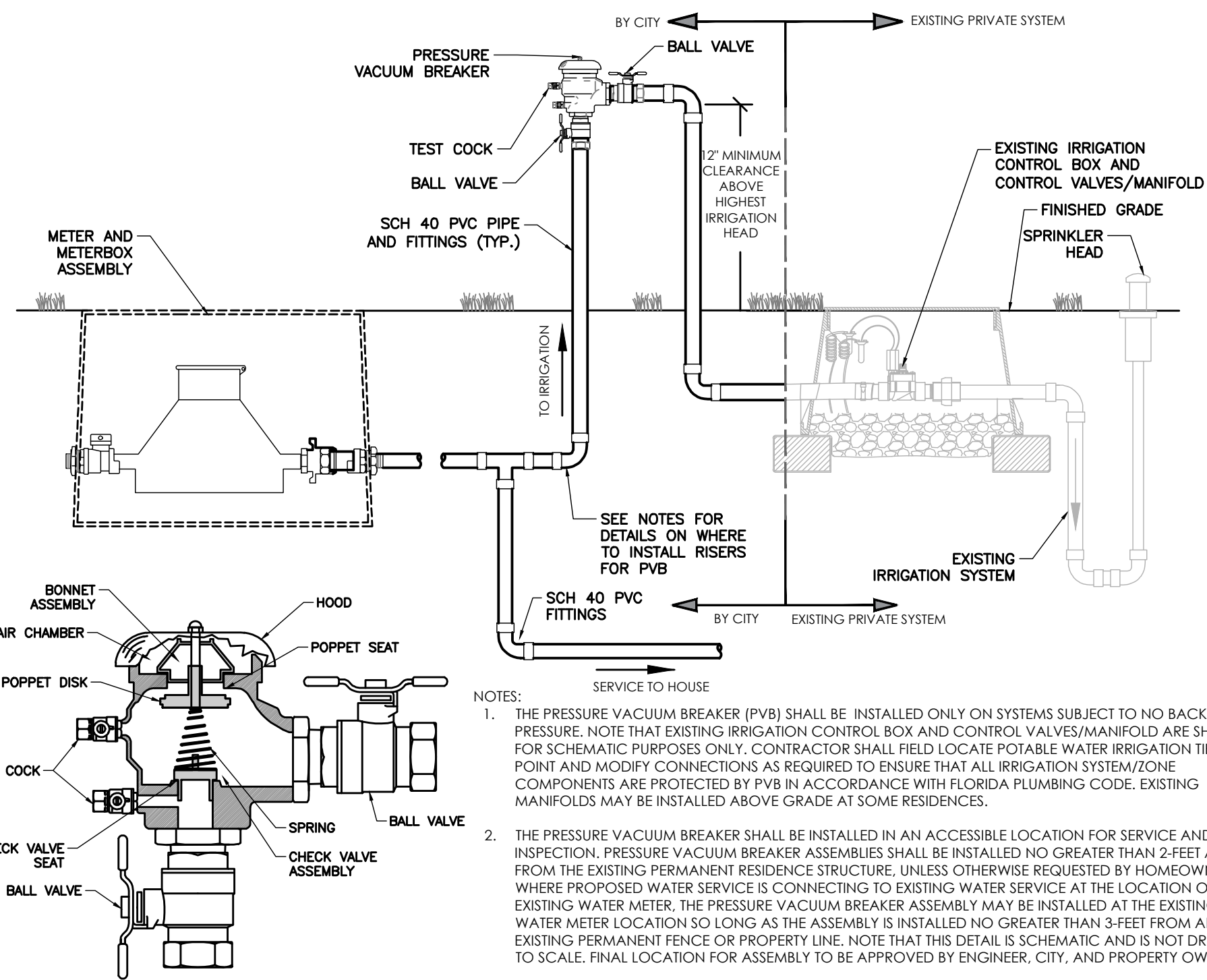
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- NOTES:
1. THE ATMOSPHERIC VACUUM BREAKER (AVB) SHALL ONLY BE INSTALLED ON SYSTEMS SUBJECT TO NO BACK PRESSURE. THE AVB SHALL ONLY BE INSTALLED IN LOCATIONS WHERE THERE ARE NO DOWNSTREAM VALVES PRESENT. NOTE THAT EXISTING IRRIGATION CONTROL BOX AND CONTROL VALVES/MANIFOLDS ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. CONTRACTOR SHALL FIELD LOCATE POTABLE WATER IRRIGATION TIE-IN POINT AND MODIFY CONNECTIONS AS REQUIRED TO ENSURE THAT ALL IRRIGATION SYSTEM/ZONE COMPONENTS ARE PROTECTED BY AVB(S) IN ACCORDANCE WITH FLORIDA PLUMBING CODE. EXISTING MANIFOLDS/MANIFOLD MAY BE INSTALLED ABOVE GRADE AT SOME RESIDENCES.
 2. THE ATMOSPHERIC VACUUM BREAKER SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION FOR SERVICE AND INSPECTION. ATMOSPHERIC VACUUM BREAKER ASSEMBLIES SHALL BE INSTALLED NO GREATER THAN 2-FEET AWAY FROM THE EXISTING PERMANENT RESIDENCE STRUCTURE, UNLESS OTHERWISE REQUESTED BY HOMEOWNER. WHERE PROPOSED WATER SERVICE IS CONNECTING TO EXISTING WATER SERVICE AT THE LOCATION OF EXISTING WATER METER, THE ATMOSPHERIC VACUUM BREAKER ASSEMBLY MAY BE INSTALLED AT THE EXISTING WATER METER LOCATION SO LONG AS THE ASSEMBLY IS INSTALLED NO GREATER THAN 3-FEET FROM AN EXISTING PERMANENT FENCE OR PROPERTY LINE. NOTE THAT THIS DETAIL IS SCHEMATIC AND IS NOT DRAWN TO SCALE. FINAL LOCATION FOR ASSEMBLY TO BE APPROVED BY ENGINEER, CITY, AND PROPERTY OWNER.
 3. THE ATMOSPHERIC VACUUM BREAKER SHALL BE INSTALLED ON THE MAIN LINE TO THE IRRIGATION SYSTEM, NOT LESS THAN 12 INCHES ABOVE THE HIGHEST SPRINKLER HEAD.
 4. WHERE EXISTING IRRIGATION SUPPLY LINE IS 1", ATMOSPHERIC VACUUM ASSEMBLIES SHALL BE 1" WATTS SERIES LF288A, IRRITROL MODEL 2709PR, OR APPROVED EQUAL. WHERE EXISTING IRRIGATION SUPPLY LINE IS GREATER THAN 1", ATMOSPHERIC VACUUM ASSEMBLIES SHALL BE 1.5" WATTS SERIES LF288A, OR APPROVED EQUAL. ALL MATERIALS SHALL BE APPROVED BY THE CITY OF BOCA RATON BUILDING DEPARTMENT PRIOR TO INSTALLATION.
 5. ALL BRASS FITTING MATERIAL INSTALLED SHALL CONTAIN NO LEAD IN ACCORDANCE WITH THE CURRENT DRINKING WATER STANDARDS.

ATMOSPHERIC TYPE VACUUM BREAKER FOR POTABLE IRRIGATION

NOT TO SCALE



- NOTES:
1. THE PRESSURE VACUUM BREAKER (PVB) SHALL BE INSTALLED ONLY ON SYSTEMS SUBJECT TO NO BACK PRESSURE. NOTE THAT EXISTING IRRIGATION CONTROL BOX AND CONTROL VALVES/MANIFOLD ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. CONTRACTOR SHALL FIELD LOCATE POTABLE WATER IRRIGATION TIE-IN POINT AND MODIFY CONNECTIONS AS REQUIRED TO ENSURE THAT ALL IRRIGATION SYSTEM/ZONE COMPONENTS ARE PROTECTED BY PVB IN ACCORDANCE WITH FLORIDA PLUMBING CODE. EXISTING MANIFOLDS MAY BE INSTALLED ABOVE GRADE AT SOME RESIDENCES.
 2. THE PRESSURE VACUUM BREAKER SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION FOR SERVICE AND INSPECTION. PRESSURE VACUUM BREAKER ASSEMBLIES SHALL BE INSTALLED NO GREATER THAN 2-FEET AWAY FROM THE EXISTING PERMANENT RESIDENCE STRUCTURE, UNLESS OTHERWISE REQUESTED BY HOMEOWNER. WHERE PROPOSED WATER SERVICE IS CONNECTING TO EXISTING WATER SERVICE AT THE LOCATION OF EXISTING WATER METER, THE PRESSURE VACUUM BREAKER ASSEMBLY MAY BE INSTALLED AT THE EXISTING WATER METER LOCATION SO LONG AS THE ASSEMBLY IS INSTALLED NO GREATER THAN 3-FEET FROM AN EXISTING PERMANENT FENCE OR PROPERTY LINE. NOTE THAT THIS DETAIL IS SCHEMATIC AND IS NOT DRAWN TO SCALE. FINAL LOCATION FOR ASSEMBLY TO BE APPROVED BY ENGINEER, CITY, AND PROPERTY OWNER.
 3. THE PRESSURE VACUUM BREAKER SHALL BE INSTALLED ON THE MAIN LINE TO THE IRRIGATION SYSTEM, NOT LESS THAN 12 INCHES ABOVE THE HIGHEST SPRINKLER HEAD.
 4. WHERE EXISTING IRRIGATION SUPPLY LINE IS 1", PRESSURE VACUUM ASSEMBLIES SHALL BE 1" WATTS SERIES 76S, OR APPROVED EQUAL. WHERE EXISTING IRRIGATION SUPPLY LINE IS GREATER THAN 1", PRESSURE VACUUM ASSEMBLIES SHALL BE 1.5" WATTS SERIES 76S, OR APPROVED EQUAL. ALL MATERIALS SHALL BE APPROVED BY THE CITY OF BOCA RATON BUILDING DEPARTMENT PRIOR TO INSTALLATION.
 5. ALL BRASS FITTING MATERIAL INSTALLED SHALL CONTAIN NO LEAD IN ACCORDANCE WITH THE CURRENT DRINKING WATER STANDARDS.

PRESSURE TYPE VACUUM BREAKER FOR POTABLE IRRIGATION

NOT TO SCALE

ROOT BARRIER BY: Century Root Barrier (714)632-7083
(or) DeepRoot (800)458-7668
(or approved equal)

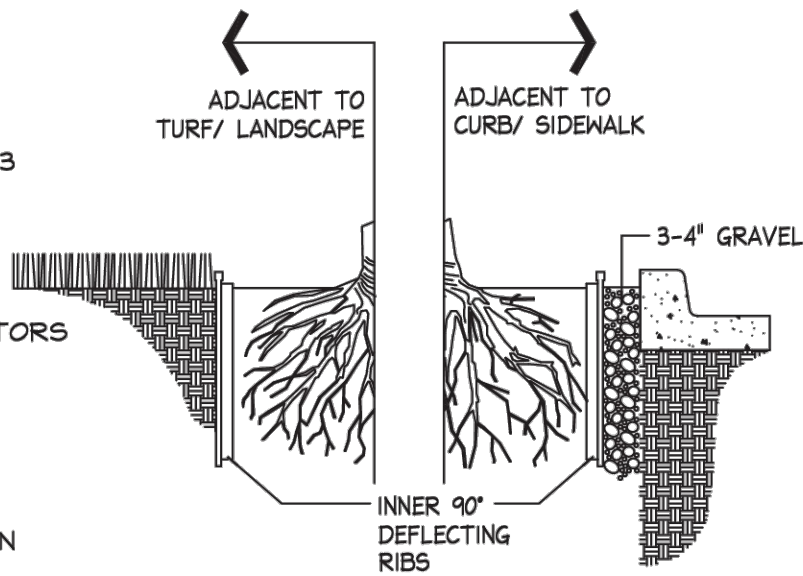
SIZE: 36" D
MATERIAL: POLYETHYLENE WITH ULTRAVIOLET INHIBITORS
THICKNESS: .085 IN. (min.)

NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. INSTALL 20' LENGTH PER LOCATION, CENTERED ON TREE TRUNK.
3. SUBMIT PRODUCT DATA FOR APPROVAL. ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

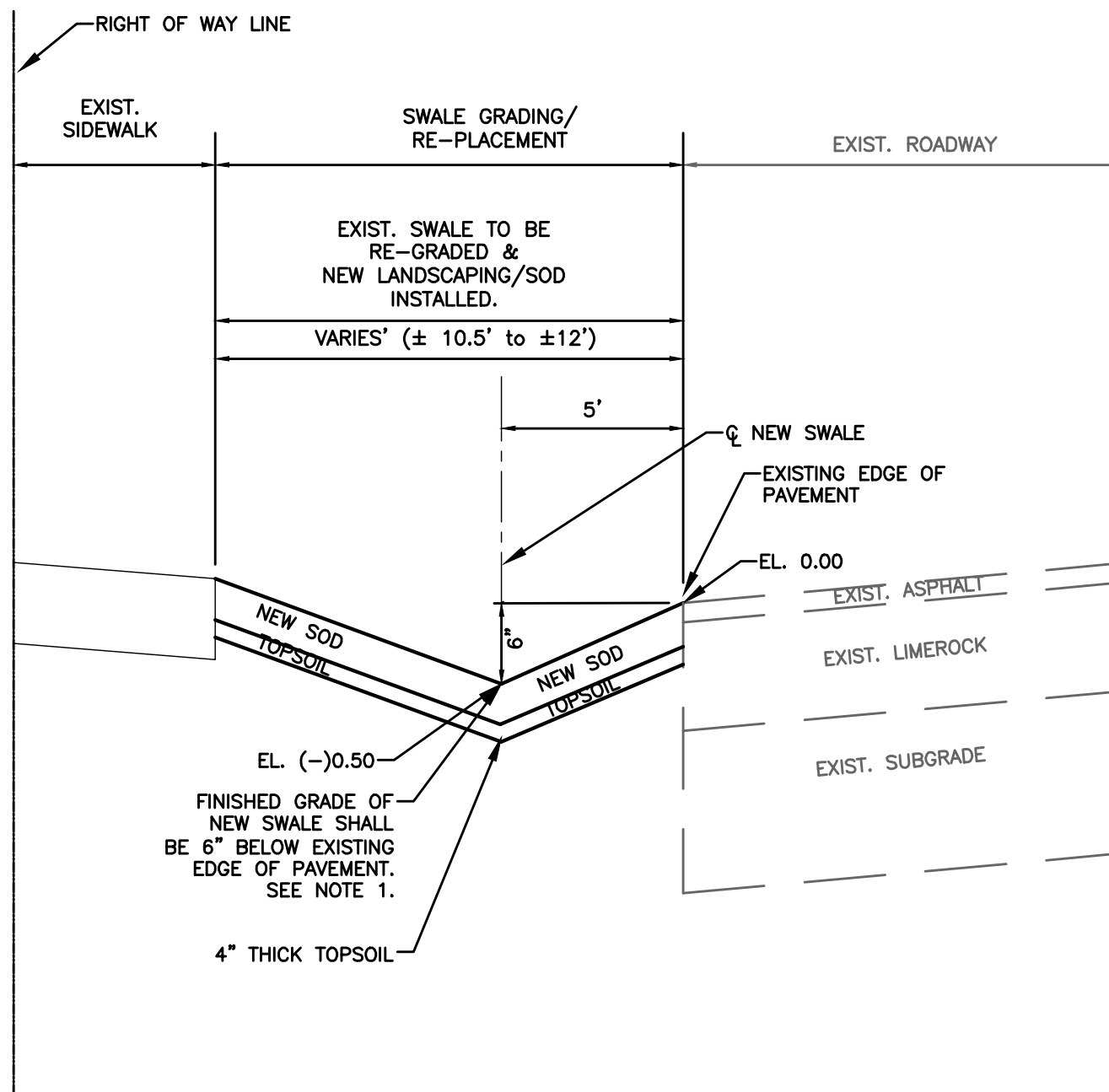
Root Barrier

Barrier Detail



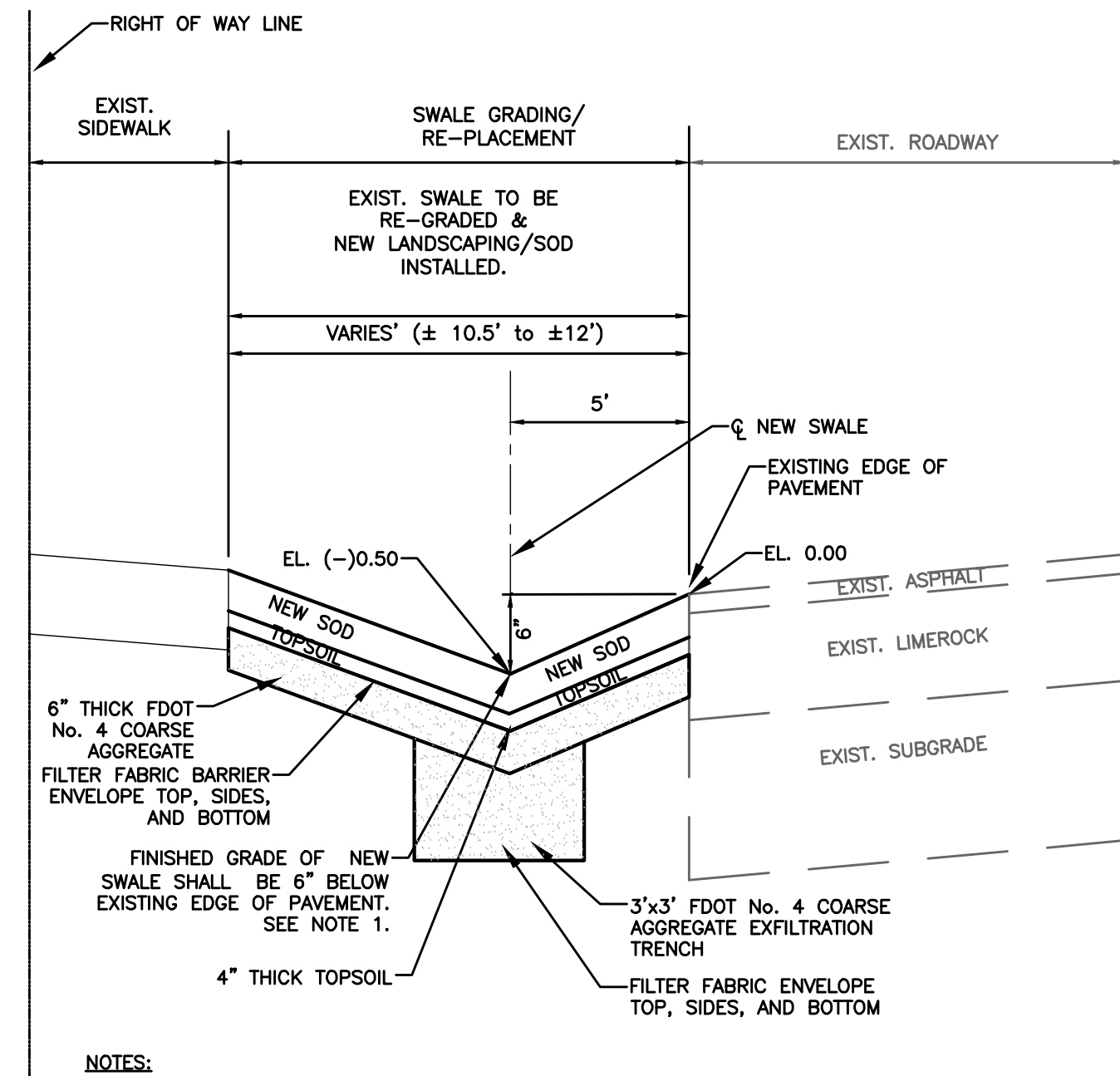
LINEAR APPLICATION

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CLEAR AND GRADE SWALE DETAIL

NOT TO SCALE



NOTES:

1. CONTRACTOR TO ACCOUNT FOR SOD THICKNESS (APPROX. 3"). INSTALL BOTTOM OF SOD 3" BELOW FINISHED GRADE OF PROPOSED SWALE, EXISTING OR PROPOSED SIDEWALK, & EXISTING EDGE OF PAVEMENT SO THAT MOWED TOP OF SOD WILL BE FLUSH WITH INTENDED FINISHED GRADE/TOP OF SIDEWALK/EDGE OF PAVEMENT.
2. FILTER FABRIC SHALL BE SUBSURFACE DRAINAGE TYPE MEETING THE REQUIREMENTS OF FDOT SECTION 985. ALL FILTER FABRIC JOINTS SHALL LAP A MINIMUM OF ONE (1) FOOT.
3. WHERE EXISTING RIGHT-OF-WAY FRONT SLOPE IS GREATER THAN OR EQUAL TO 1:10, OR AS NOTED IN THE PLANS / DIRECTED BY ENGINEER, ENHANCED SWALE SHALL BE CONSTRUCTED W/ COARSE AGGREGATE EXFILTRATION TRENCH IMMEDIATELY ABUTTING EDGE OF SIDEWALK.

ENHANCED CLEAR AND GRADE SWALE DETAIL

NOT TO SCALE

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ADJUST ALL SCALED DIMENSIONS ACCORDINGLY

Date: 10/31/24
Scale: AS NOTED
Design By: HB
Drawn By: FG/RR
Check By: LL

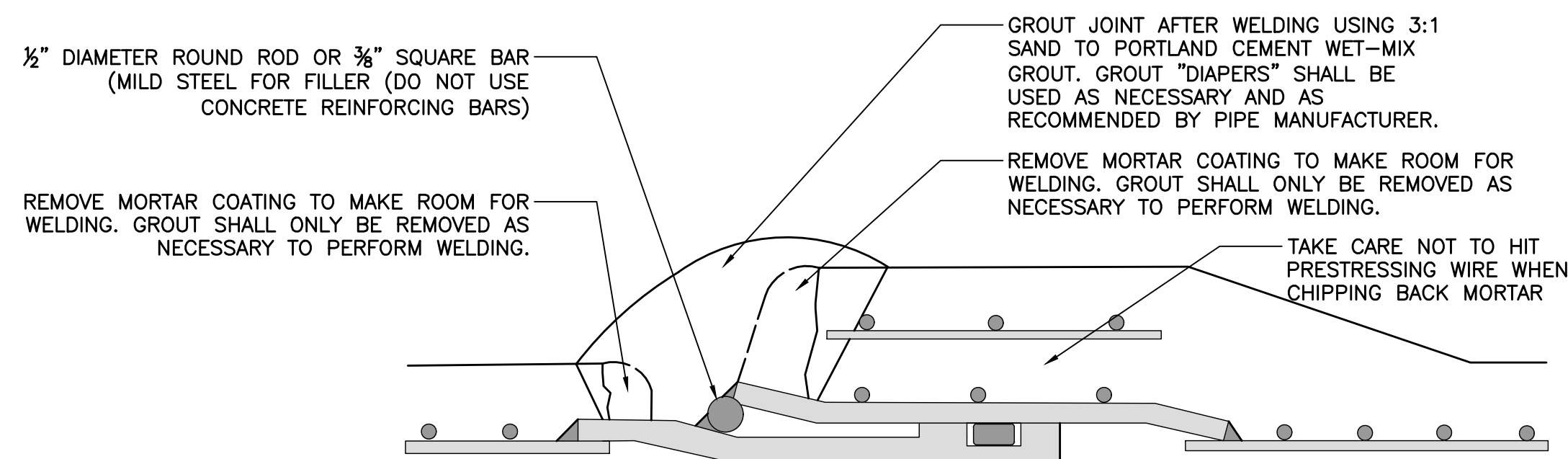
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

DETAILS

HOLTZ CONSULTING ENGINEERS, INC.
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005
CERTIFICATE OF AUTH. No. 26960

ROBERT HARRISON BARRON III
License No: 91550

D-7



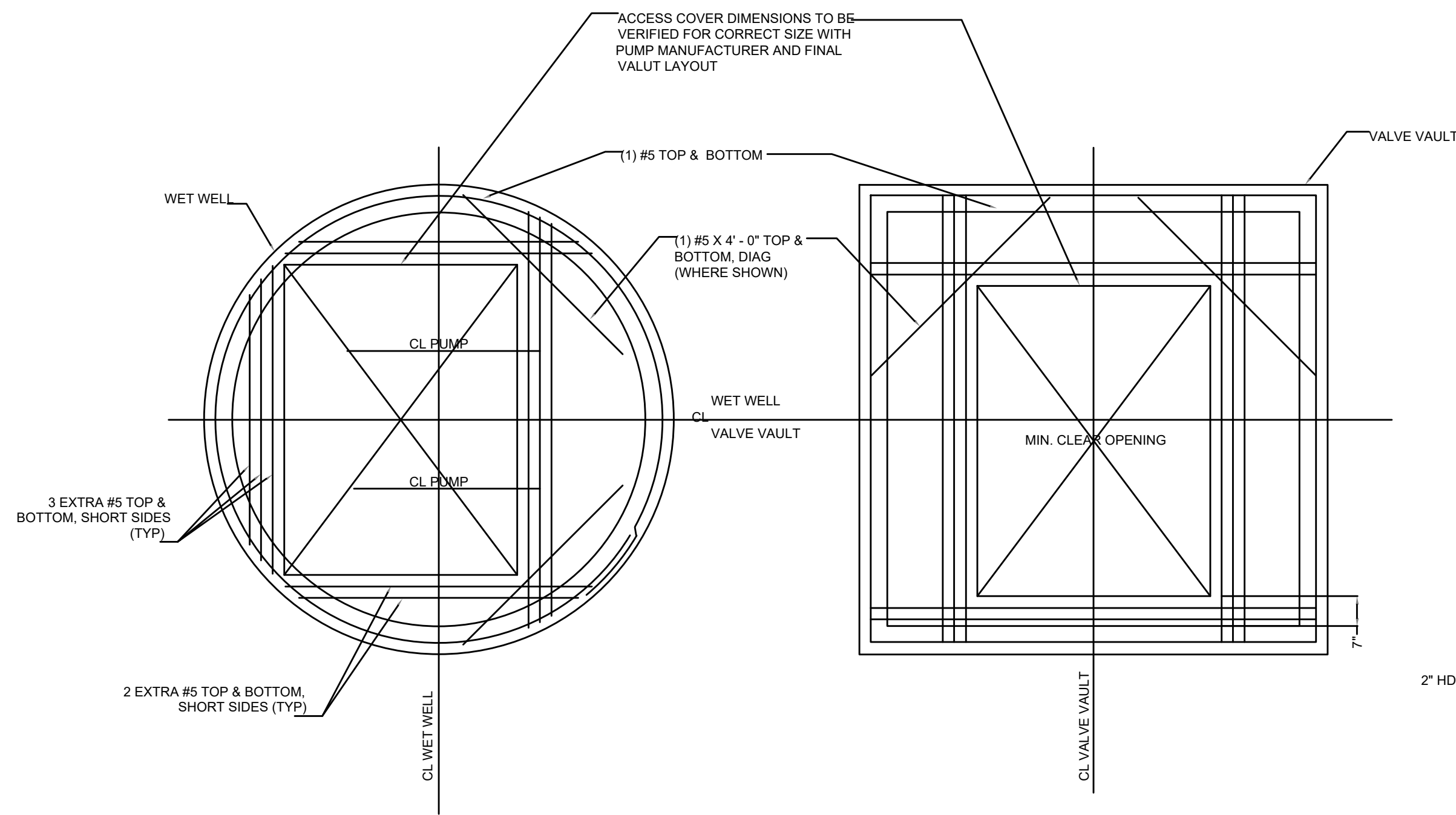
1. WELDS MUST BE HIGH QUALITY AND OF SUFFICIENT PENETRATION TO DEVELOP THE STRENGTH OF THE STEEL CYLINDER.
2. FILLER ROD MUST BE MILD, LOW-CARBON STEEL MEETING ASTM A36 / ASTM A283.
3. STEEL JOINT RINGS SHALL BE FABRICATED FROM MILD, LOW CARBON STEEL.
4. WELDS SHALL BE PERFORMED IN MAX. 6" SEGMENTS AND IN A MANNER WHICH DOES NOT CAUSE OVERHEATING OF EXISTING RUBBER GASKETS.
5. REFER TO TABLE FOR WELD LENGTH REQUIREMENTS.
6. STICK ELECTRODES SHALL BE E7018, E6010 OR E6011.
7. WELDING SHALL BE PERFORMED BY WELDER CERTIFIED/APPROVED BY PIPE MANUFACTURER. THOMPSON PIPE GROUP. WELDER SHALL BE EXPERIENCED IN PERFORMING FIELD-WELDS ON PCPP STYLE PIPE. PIPE MANUFACTURER SHALL INSPECT EXISTING PIPE PRIOR TO PERFORMING WELDING OPERATIONS TO CONFIRM SUITABILITY FOR WELDING. COSTS FOR FURNISHING PIPE MANUFACTURER REPRESENTATIVE WELDING/INSPECTION SERVICES SHALL BE INCLUDED IN APPROPRIATE BID ITEM.

DEADMAN BASIS OF DESIGN				
PIPE DIAMETER (INCHES)	MINIMUM CONCRETE (CY)	EFFECTIVE RESTRAINT LOADING REQUIRED (LBS)	MIN. No. L BRACKETS	DIMENSION "A" (INCHES)
6	0.30	4250	0	24
8	0.65	7540	0	24
10	1.15	11790	4	24
12	1.15	16970	4	24
14	2.70	23100	4	36
16	2.70	30160	4	36
20	3.90	47130	4	36
24	6.90	67860	4	48
30	13.14	106030	4	72
36	27.42	152690	4	156

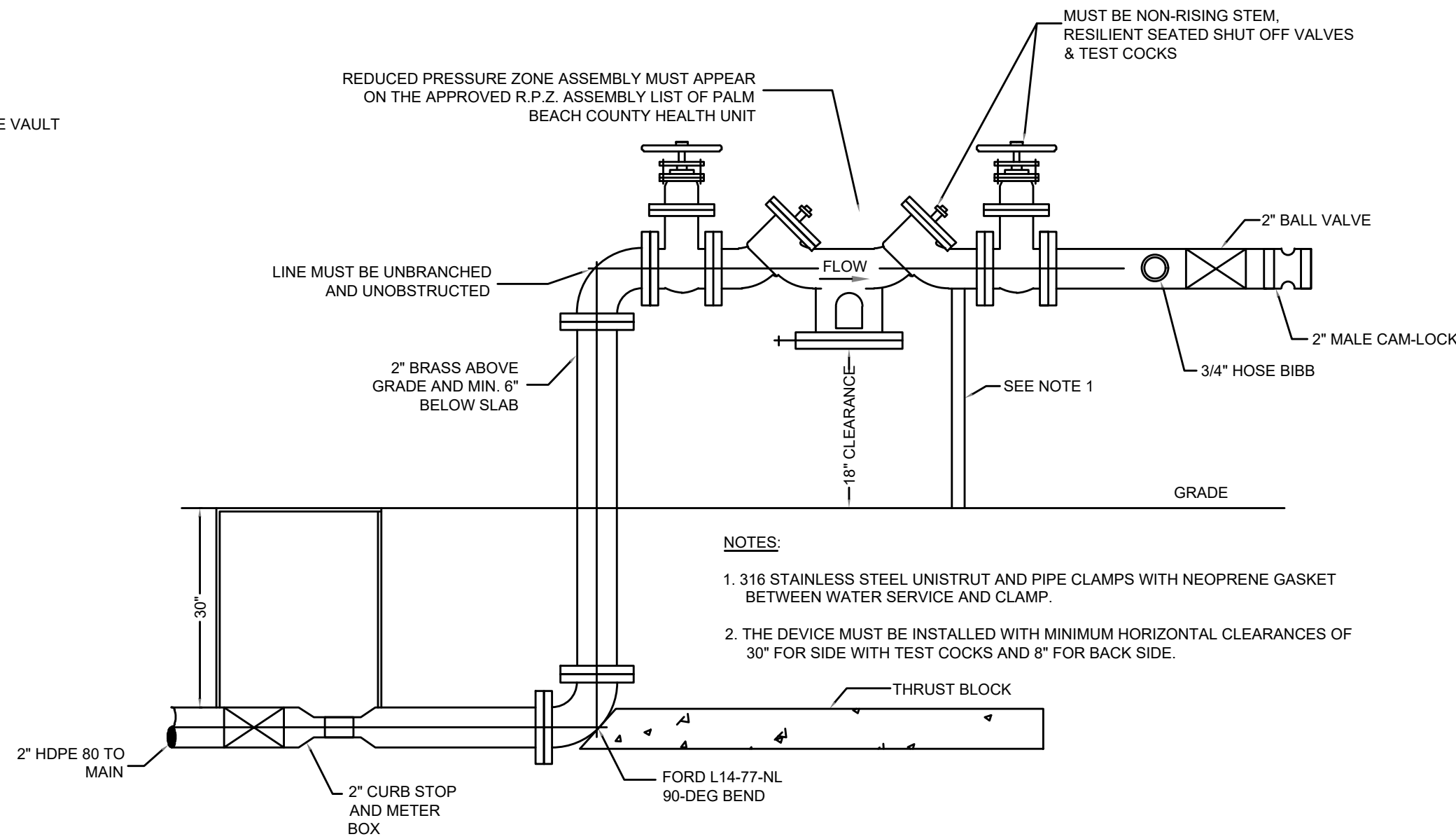
1. DETAIL IS TO BE A GUIDELINE FOR INSTALLING DEADMAN TYPE RESTRAINT ON EXISTING OR PROPOSED WATER MAINS AND IS SUBJECT TO CHANGE DUE TO INDIVIDUAL PROJECT/SITE CIRCUMSTANCES/CONSTRAINTS PER OWNER APPROVAL. DEADMAN DESIGN MAY CONSIDER SOIL BEARING LOAD. VALUES SHALL BE BASED ON 1,000 PSF SAFE BEARING LOAD, UNLESS OTHERWISE NOTED OR DIRECTED BY OWNER/ENGINEER DURING CONSTRUCTION. CONTRACTOR SHALL SUBMIT DESIGN FOR REVIEW ON CASE-BY-CASE BASIS PRIOR TO INSTALLATION.
2. ALL FITTINGS SHALL BE SPLIT--LAND MEGA--LUG, FORD STYLE 202BS W/ THREADED COUPLINGS FOR L--BOLTS SHALL BE USED ON CONCRETE PIPE MATERIALS AND SHALL BE INSTALLED 90--DEG OFF--CENTER FROM ONE ANGLE.
3. ANCHOR BLOCKING TO BE POURED A MINIMUM OF 24--HOURS IN ADVANCE OF PROPOSED WORK REQUIRED DEADMAN RESTRAINT. NO PRESSURE MAIN SHALL BE CUT WITHOUT PRIOR COUNTY NOTIFICATION AND APPROVAL.
4. PBC INSPECTOR MUST BE PRESENT DURING INSTALLATION.
5. CONTRACTOR SHALL ENSURE NO UNRESTRAINED JOINTS REMAIN BETWEEN PROP. DEADMAN THRUST RESTRAINT AND PROP. WM MODIFICATIONS WORKING AREA WHICH WOULD RESULT IN AN UNRESTRAINED DYNAMIC JOINT DURING PROPOSED WORK/MODIFICATIONS.
6. EXISTING JOINTS BETWEEN LINESTOPS AND DEADMAN RESTRAINTS ARE RESTRAINED.
7. MIN. DISTANCE BETWEEN INSTALLED DEADMAN AND PROPOSED LINESTOP SHALL BE 20 LINEAR FEET OR GREATER AS DIRECTED BY ENGINEER/OWNER.
8. ALL EXCAVATIONS BETWEEN DEADMAN AND LINESTOP SHALL BE BACKFILLED AND COMPACTED IN MAX. 6" LIFTS TO 98% AASHTO T-180.

DEADMAN THRUST RESTRAINT WITH MASS WEIGHT BLOCKING

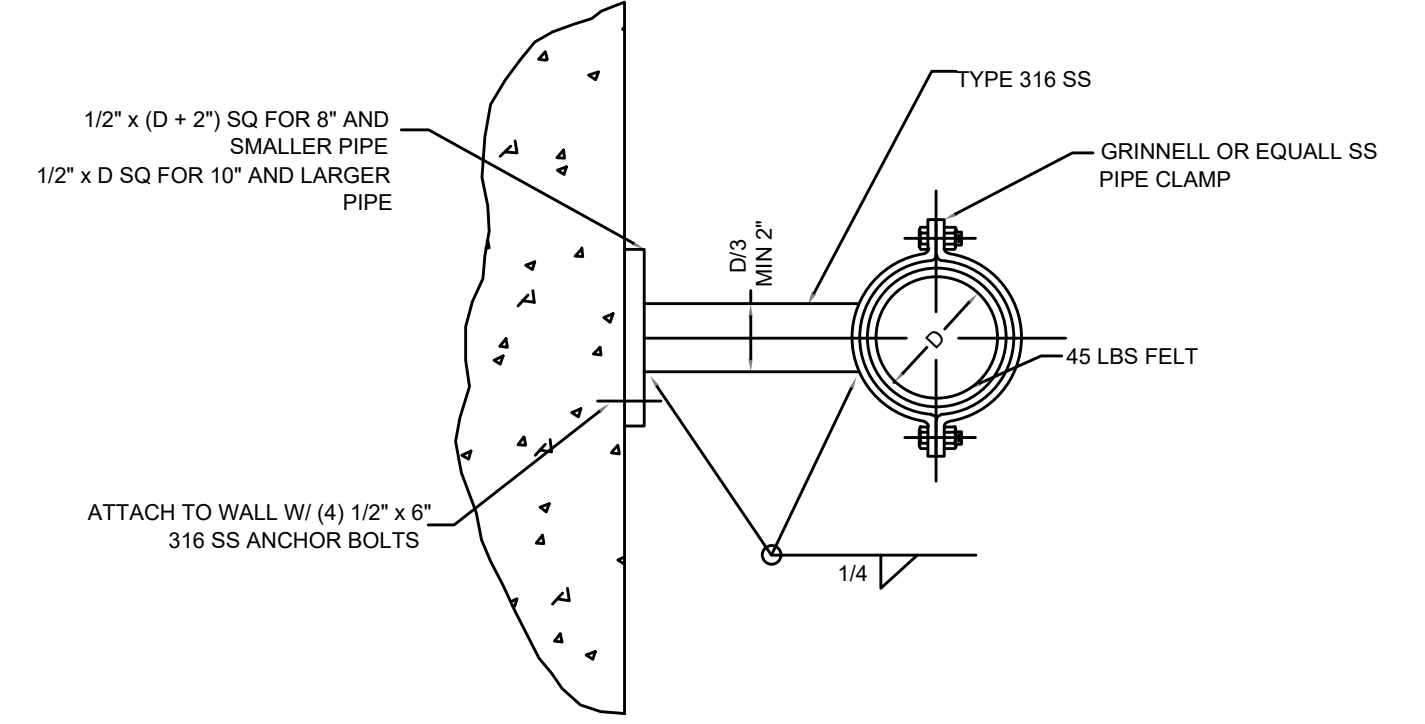
D-8



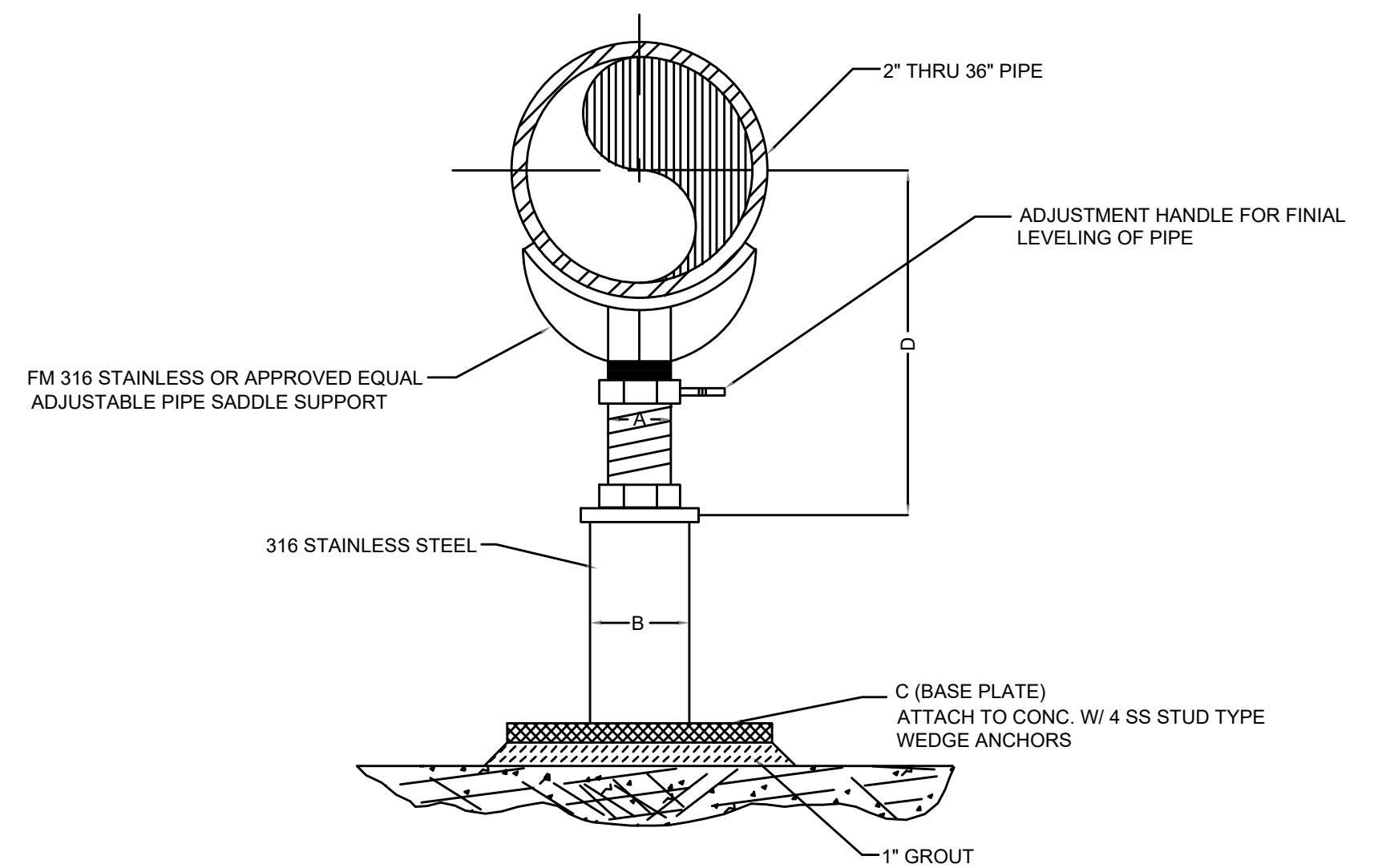
TOP SLAB
N.T.S.



LIFT STATION RPZ BACKFLOW
PREVENTER DETAIL
NTS



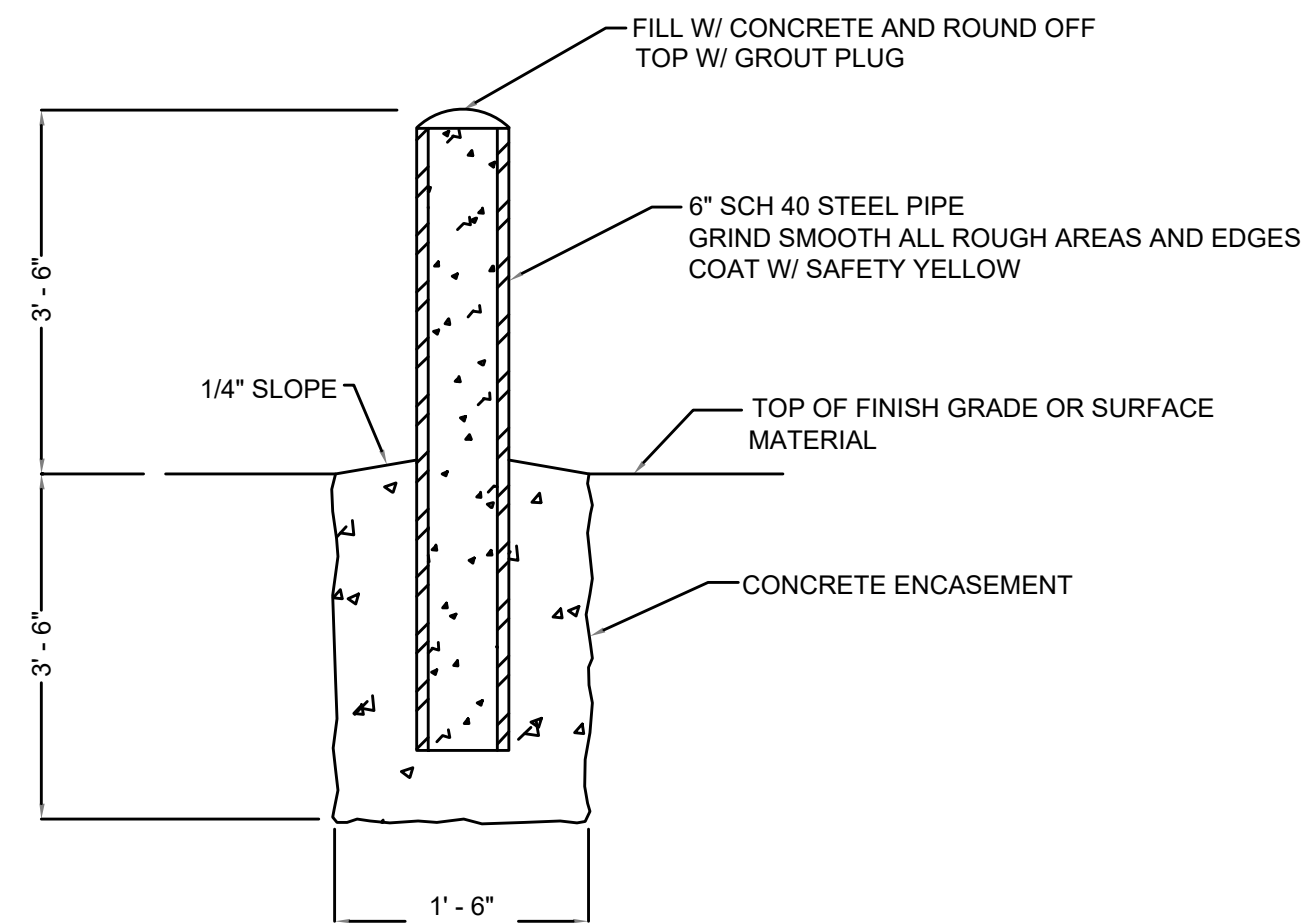
TYPE A PIPE SWAY BRACE
NTS



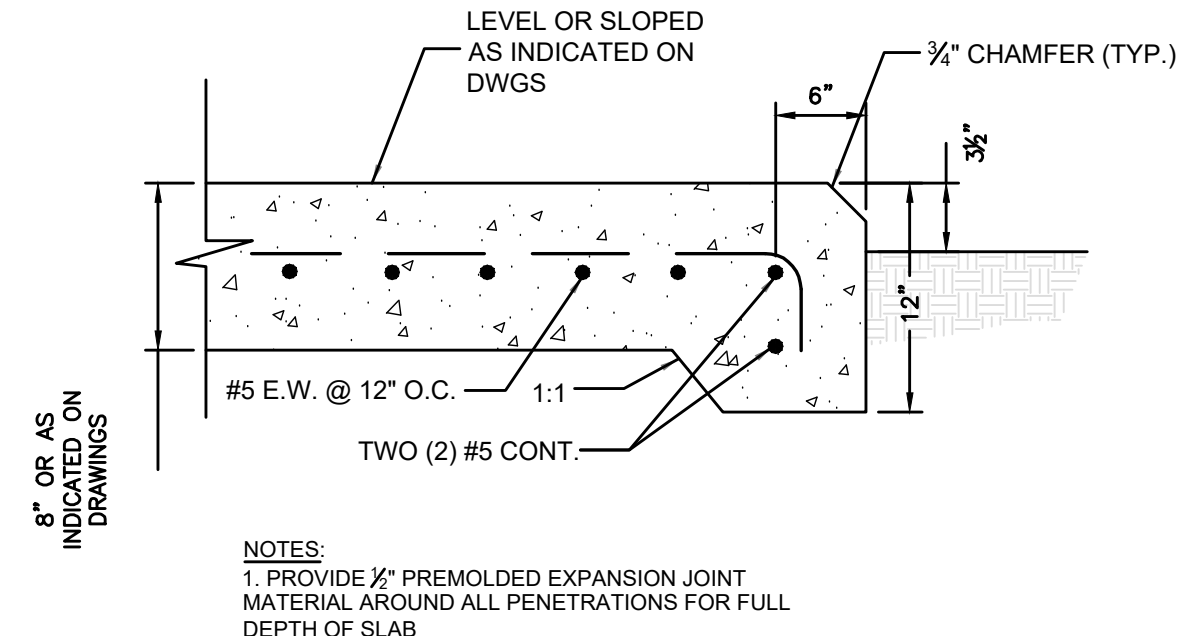
- NOTES:
1. PROVIDE NEOPRENE WAFFLE MASON TYPE 'W' OR KORFUND KORPAD 40, ISOLATION PAD
 2. SEE TABLE FOR DIMENSIONS

DIMENSION TABLE				
PIPE SIZE	A THREAD DIA.	B PIPE DIA.	C BASE	D VERTICAL ADJUSTMENT.
2"	1"	2"	1/4", 6", 6"	6"
3"	1"	2-1/2"	1/4", 6", 6"	6"
4"	1"	2-1/2"	1/4", 6", 6"	6"
6"	1-1/2"	2-1/2"	1/4", 6", 6"	6"
8"	1-1/2"	3"	3/8", 9", 9"	6"
10"	1-1/2"	3"	3/8", 9", 9"	6"
12"	1-1/2"	3"	3/8", 11", 11"	6"
14"	2"	4"	3/8", 11", 11"	8"
16"	2"	4"	3/8", 13", 13"	8"
18"	2"	4"	3/8", 13", 13"	10"
20"	2"	4"	3/8", 13", 13"	10"
24"	2"	6"	3/8", 13", 13"	10"
30"	2-1/2"	6"	3/8", 18", 18"	10"
33"	2-1/2"	6"	3/8", 18", 18"	10"

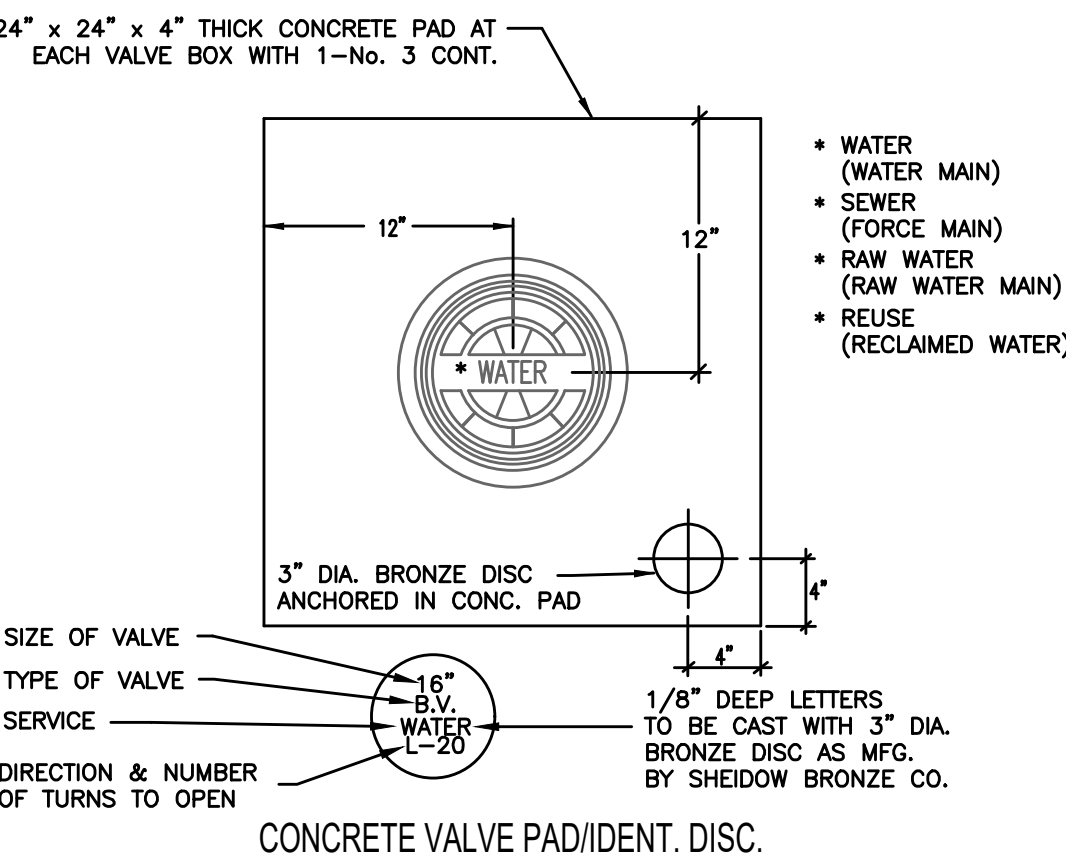
METAL PIPE SUPPORT
NTS



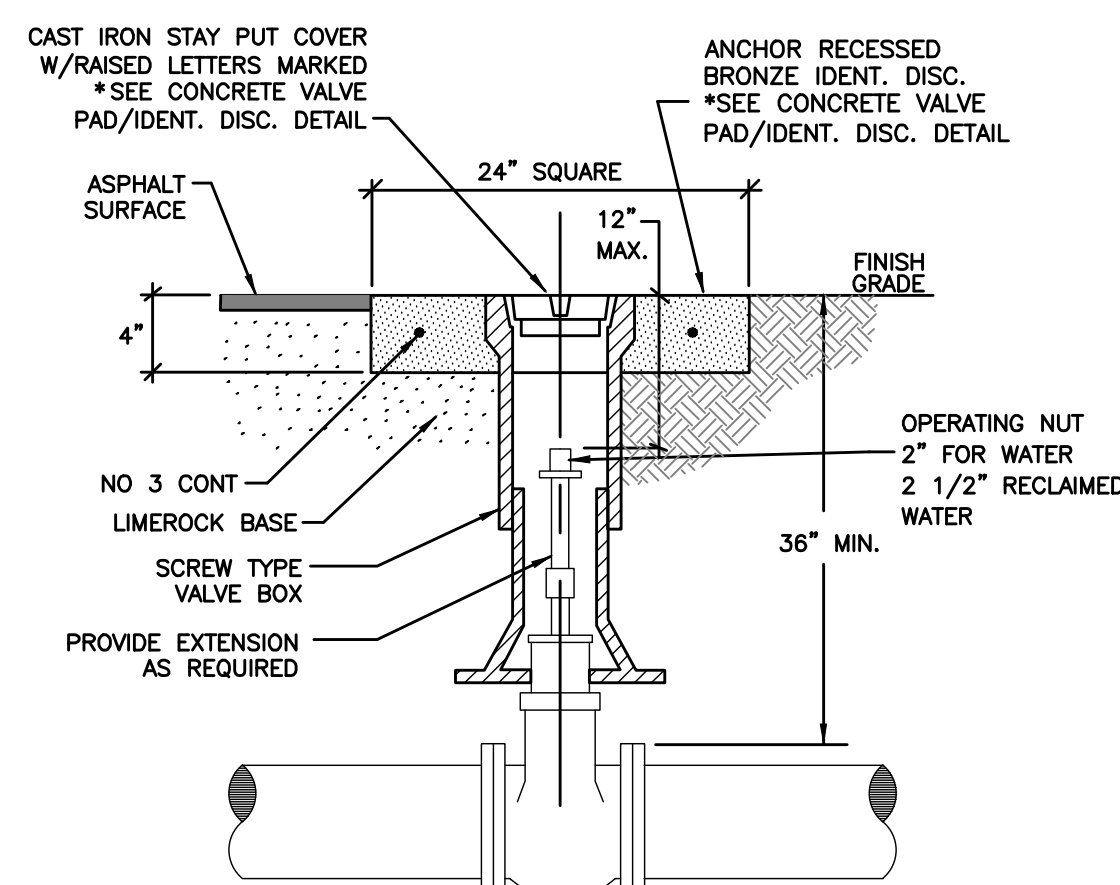
PIPE BOLLARD
NTS



SLAB ON GRADE DETAIL
NTS



CONCRETE VALVE PAD/IDENT. DISC.



VALVE AND BOX DETAIL
NTS

REV	DATE	REVISIONS	BY

VERIFY SCALE
BAR IS EQUAL TO ONE
INCH ON ORIGINAL DRAWING
0 1
ADJUST ALL SCALED
DIMENSIONS ACCORDINGLY

Date: 10/31/24
Scale: AS NOTED
Design By: HB
Drawn By: FG/RR
Check By: LL

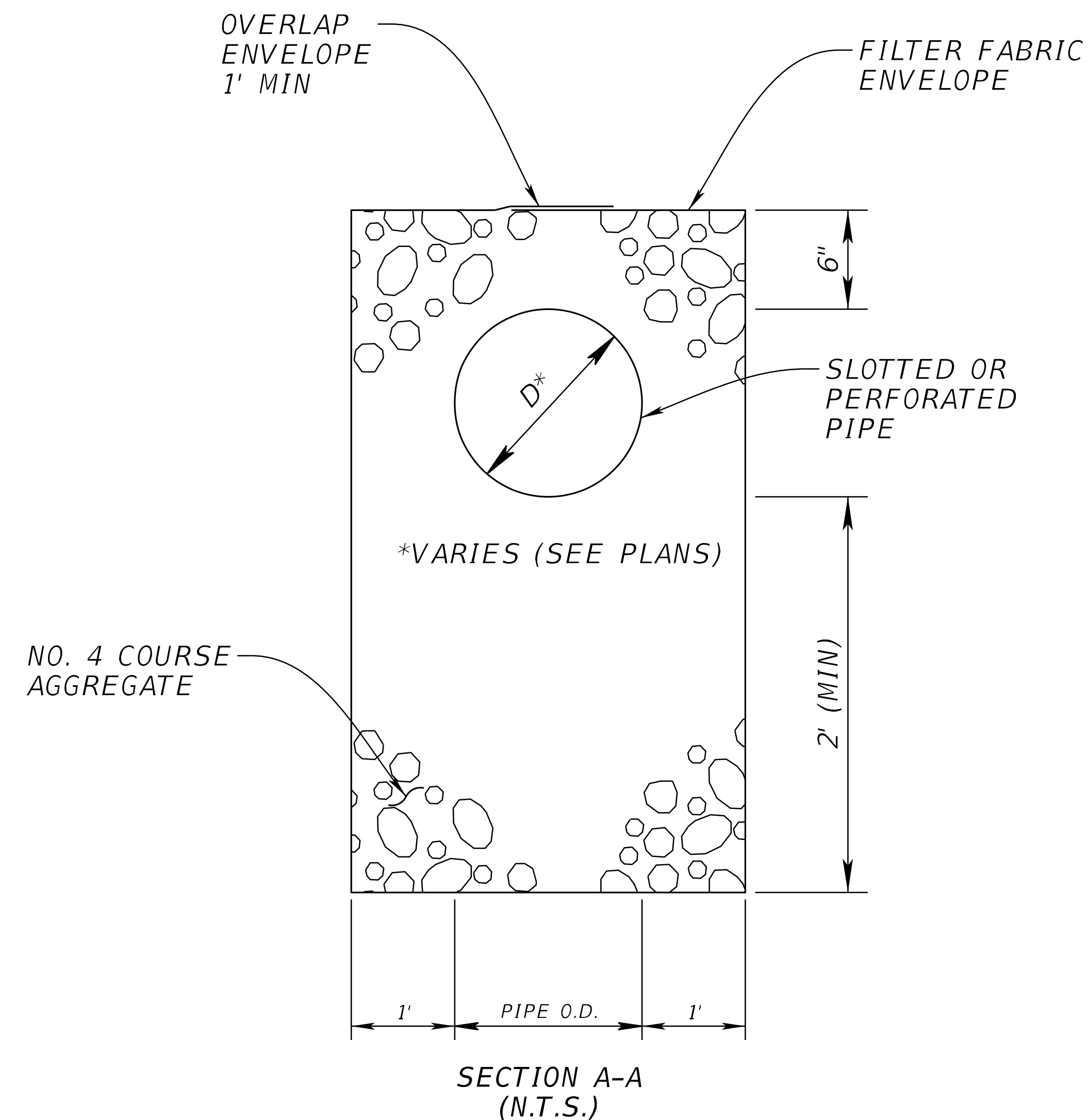
CITY OF BOCA RATON
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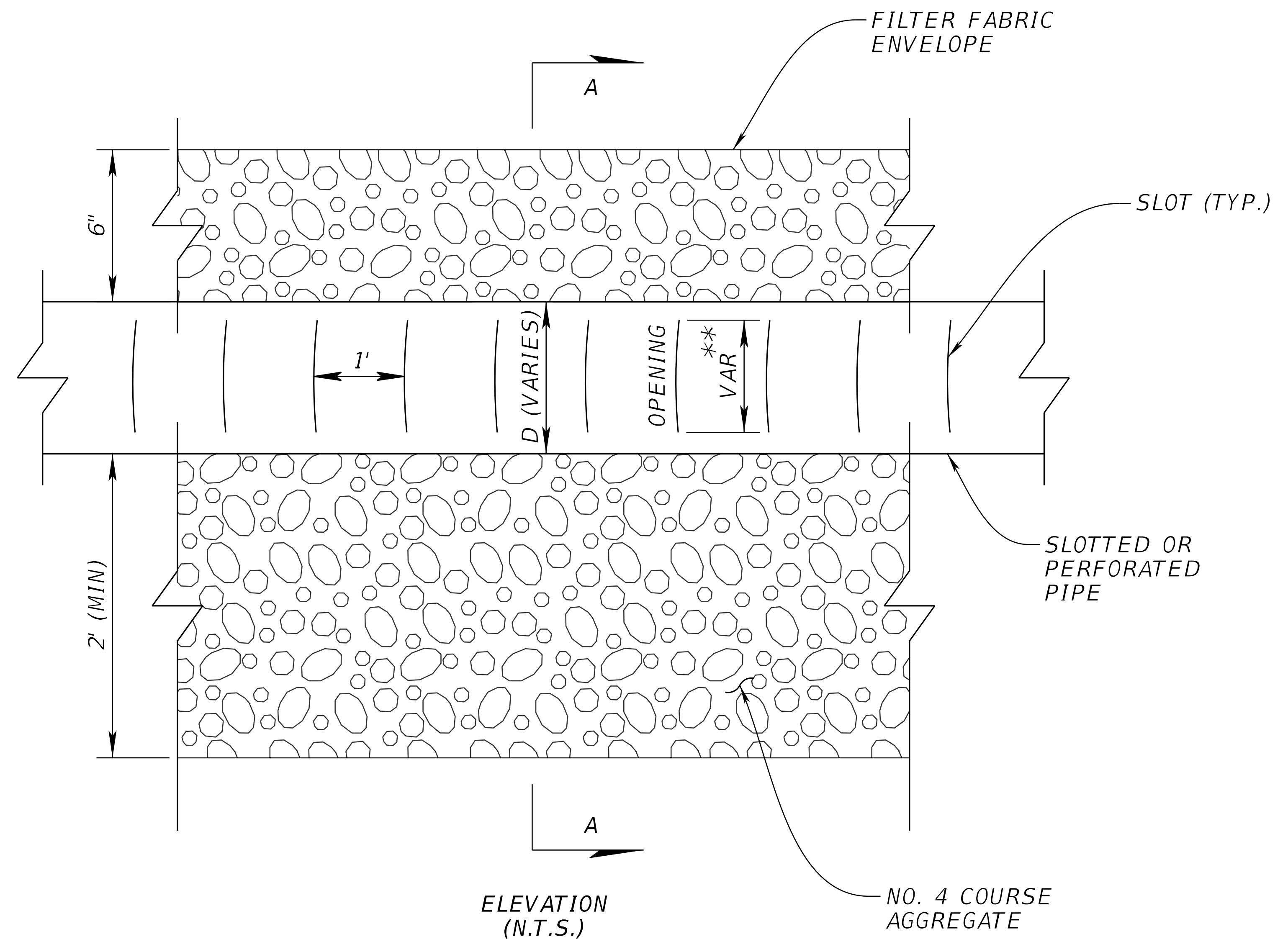
ROBERT HARRISON BARRON III
License No: 91550

D-9



NOTE:

1. CONTRACTOR SHALL COORDINATE INSTALLATION OF PROP. FRENCH DRAIN WITH PROP. WATER SERVICE REPLACEMENTS.
2. CONTRACTOR SHALL COORDINATE WITH CITY REGARDING INSALLATION OF FRENCH DRAIN WHICH CONFLICTS WITH EXISTING/PROPOSED UTILITIES INCLUDING EXISTING SEWER LATERALS. UTILITY PENETRATIONS THROUGH THE PROPOSED FRENCH DRAIN AGGREGATE SHALL BE SEALED USING FILTER FABRIC TO THE SOLE SATISFACTION OF THE OWNER.



** SEE INDEX 443-001 SHEET 3 FOR DIMENSIONS

FRENCH DRAIN DETAILS

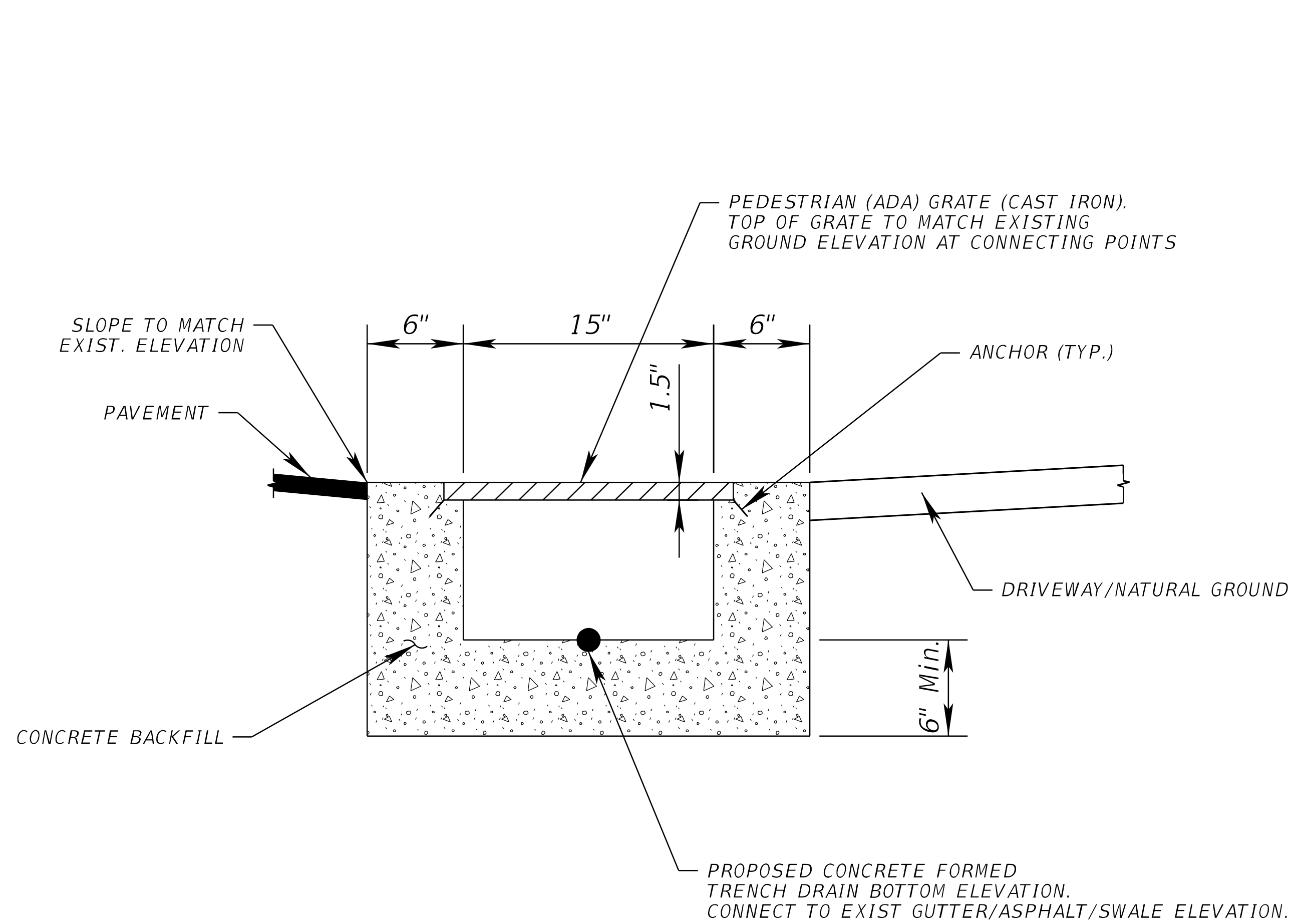
REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	MISCELLANEOUS DETAILS	SHEET NO. D-10
DATE	DESCRIPTION	DATE	DESCRIPTION				

steven.monte

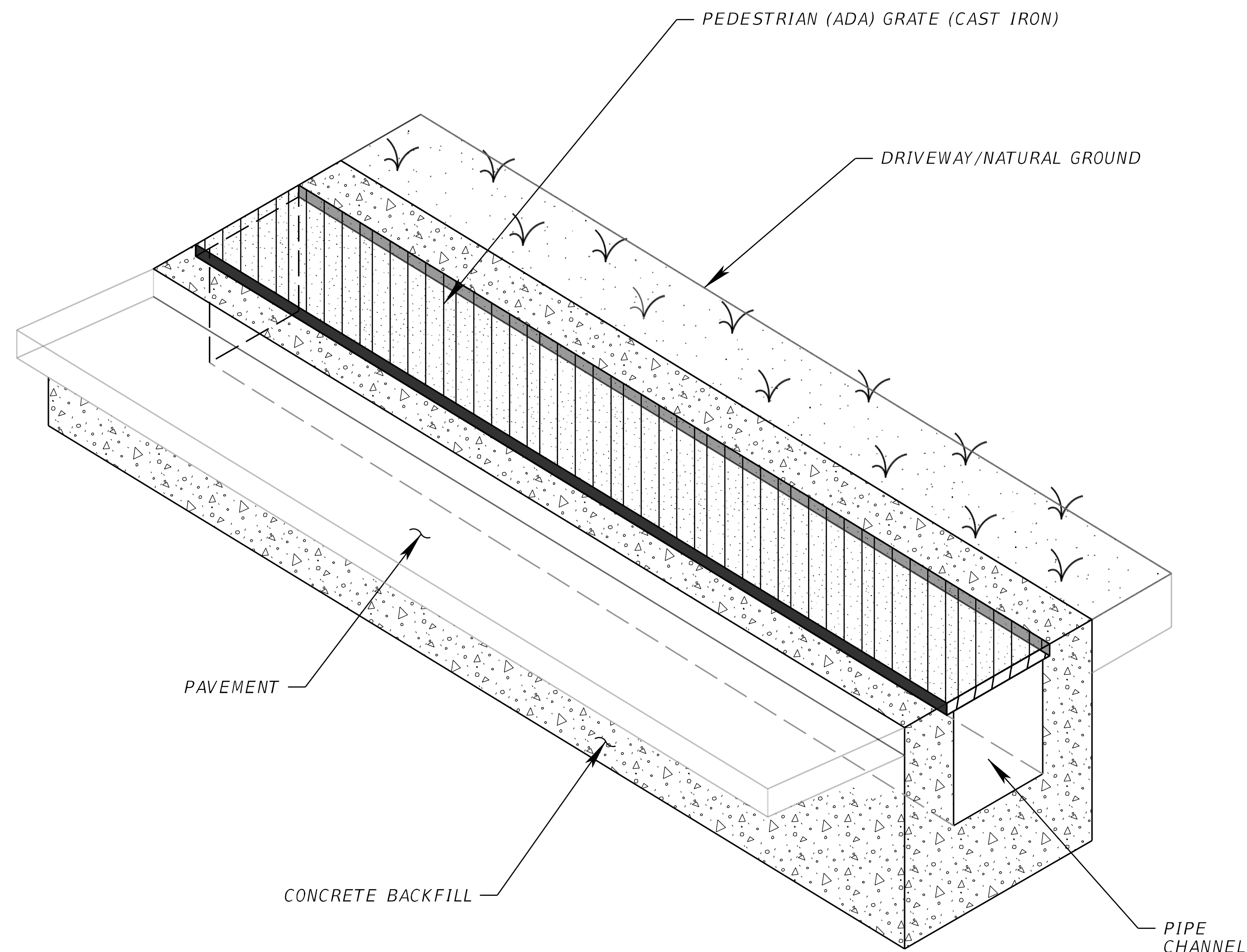
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**TRENCH DRAIN TYPE II SECTION
(N.T.S.)**



**TRENCH DRAIN TYPE II ASSEMBLY
(N.T.S.)**

NOTE:

1. CONTRACTOR SHALL COORDINATE INSTALLATION OF PROP TRENCH DRAIN WITH PROP. WATER SERVICE REPLACEMENTS.

LOCATIONS

STA 698+68.53 TO STA 699+64.39
STA 802+73.66 TO STA 803+86.61
STA 901+77.65 TO STA 902+80.10

TRENCH DRAIN DETAILS

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DATE	DESCRIPTION	DATE	DESCRIPTION				
							D-11

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GENERAL NOTES

1.

PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 556.105 FOR THE PROTECTION OF UNDERGROUND FACILITIES.
2.

GRADES SHOWN ARE FINISHED GRADES, UNLESS OTHERWISE NOTED.
3.

BENCHMARK DATUM REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)
4.

EXISTING SECTION CORNERS, QUARTER SECTION CORNERS, PROPERTY CORNERS, PALM BEACH COUNTY SURVEY CONTROL MONUMENTS AND ALL OTHER PERMANENT MONUMENTS LOCATED WITHIN PROPOSED CONSTRUCTION ARE TO BE REFERENCED PRIOR TO THE CONSTRUCTION AND RESET AFTER CONSTRUCTION BY A PROFESSIONAL SURVEYOR AND MAPPER WITH A MONUMENT BEARING EITHER THE FLORIDA LICENSE NUMBER OR CERTIFICATE OF AUTHORIZATION NUMBER OF THE PARTY IN RESPONSIBLE CHARGE. PALM BEACH COUNTY SHALL BE NOTIFIED UPON COMPLETION AND PROVIDED WITH FIELD NOTES, CERTIFIED CORNER RECORDS AND ALL SUPPORTING INFORMATION PRIOR TO FINAL CERTIFICATION OF THE PROJECT.
5.

THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE APPROXIMATE AND BASED ON THE INFORMATION FURNISHED TO THE ENGINEER BY THE SURVEYOR AND ARE SHOWN AS A NOTICE TO THE CONTRACTOR THAT UNDERGROUND UTILITIES EXIST. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OWNERS FOR LOCATION AND STAKING OF UNDERGROUND FACILITIES FORTY- EIGHT (48) HOURS PRIOR TO EXCAVATING.
6.

FLORIDA STATUTE 553.851 (1994) REQUIRES THAT BEFORE EXCAVATING, NOTICE BE GIVEN TO THE UTILITY OWNER A MINIMUM OF TWO DAYS AHEAD AND A MAXIMUM OF FIVE DAYS AHEAD, EXCLUDING SATURDAY, SUNDAY AND LEGAL HOLIDAYS. NOTE: NOT ALL UTILITY COMPANIES ARE MEMBERS OF "CALL SUNSHINE" 1-800-432-4770 OR 811.
7.

THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE UTILITIES PRIOR TO CONSTRUCTION.
8.

COMPACTION DURING EARTHWORK AND ASPHALT SHALL BE SUCH THAT THE MAXIMUM PEAK PARTICLE VELOCITY DOES NOT EXCEED 0.2 IN/SEC IN ANY DIRECTION (LONGITUDINAL, TRANSVERSE, AND VERTICAL; NOT A VECTOR SUM) AT ANY EXISTING BUILDING OUTSIDE THE PROJECT RIGHT-OF-WAY.
9.

CONTRACTOR WILL PROVIDE THE NECESSARY DENSITIES IN ACCORDANCE WITH SECTIONS 125-8 AND 125-9 OF FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FEBRUARY 2023) PRIOR TO FINAL ACCEPTANCE BY THE FDOT.
10.

CONTRACTOR WILL RESTORE THE RIGHT-OF-WAY AT A MINIMUM, TO ITS ORIGINAL CONDITION OR BETTER IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FEBRUARY 2023) OR AS DIRECTED BY THE CITY.
11.

ALL PUBLIC SIDEWALK CURB RAMPS WILL MEET FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION (FY 2023-24) INDEX NO. 522-002. CURB/RAMP INSPECTIONS REQUIRED PRIOR TO INSTALLATION OF CONCRETE.
12.

REMOVAL/INSTALLATION OF SIDEWALK WILL BE IN ACCORDANCE WITH FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION (FY 2023-24) STANDARD PLAN INDEX 522-001.
13.

SODDED AREAS WILL BE IN ACCORDANCE WITH FDOT STANDARD PLAN (FY 2023-24) INDEX 570-010 AND SECTIONS 570, 981, 982, 983, AND 987 OF FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FEBRUARY 2023). ALL DISTURBED AREAS WILL BE SODDED WITHIN ONE (1) WEEK OF INSTALLATION OF SAID PERMITTED WORK.
14.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS PRIOR TO CONSTRUCTION.
15.

ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE CITY AND THE ENGINEER.
16.

THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE LOCAL ELECTRICAL PROVIDER ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND POWER LINES.
17.

WHEREVER THE EXISTING GROUND IS DISTURBED SOLELY FOR THE PURPOSE OF CONSTRUCTING, REPAIRING, OR REMOVING PIPES, INLETS, MANHOLES, ETC. THE SITE SHALL BE RESTORED TO THE CITY AND ENGINEER'S SATISFACTION, WITHOUT ADDITIONAL COMPENSATION.
18.

ALL EXISTING TREES AND HEDGES SHALL REMAIN UNLESS OTHERWISE NOTED IN THE PLANS.
19.

THE ENTIRE PROJECT SITE SHALL BE MILLED AND RESURFACED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS FOLLOWING COMPLETION OF ALL CONSTRUCTION. SEE C-SHEETS AND TECHNICAL SPECIFICATIONS FOR ADDITIONAL DETAILS REGARDING THE LIMITS OF MILLING.
20.

EXISTING STRIPING AND/OR RPM'S IMPACTED BY PROPOSED UTILITY / ROADWAY, SIDEWALK, & DRAINAGE CONSTRUCTION SHALL BE REPLACED NEW AND IN-KIND UNLESS OTHERWISE NOTED HEREIN.
21.

CONTRACTOR SHALL COORDINATE WITH CITY FIELD STAFF REGARDING INSTALLATION OF WATER SERVICES AND WATER MAINS WHERE SERVICES AND MAINS CROSS PROPOSED STORMWATER IMPROVEMENTS.
22.

CONTRACTOR SHALL FIELD VERIFY EXISTING DRIVEWAY MATERIALS/CONDITIONS AS NECESSARY. REVIEW UTILITIES PLANS FOR UPDATED SURVEY INFO, AS NECESSARY.

APPLICABLE STANDARDS

1.

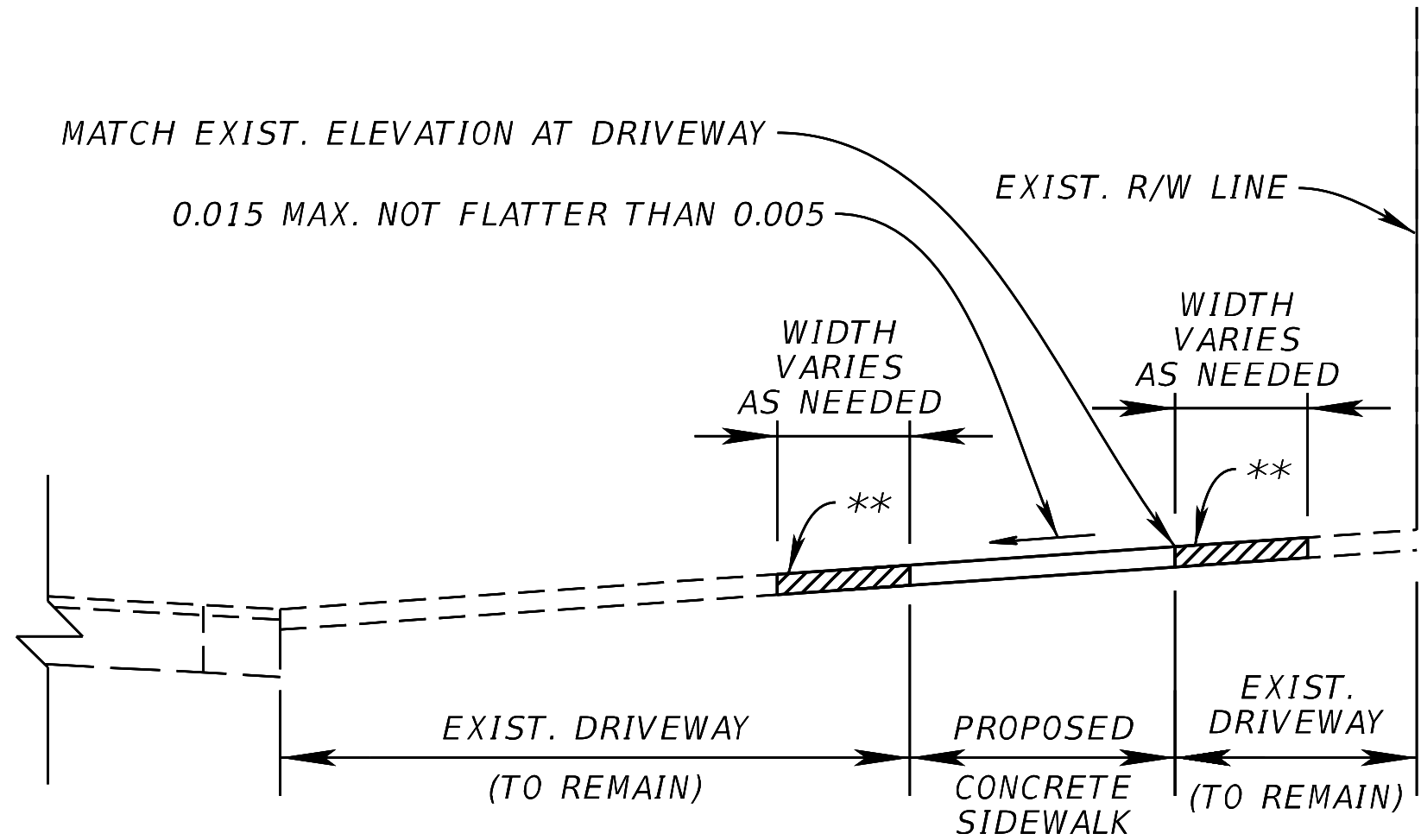
WITHIN CITY OF BOCA RIGHT-OF-WAY, THE CONTRACTOR SHALL BE GOVERNED BY THE LATEST EDITION OF THE FLORIDA GREENBOOK (2018) AND THE CITY OF BOCA RATON ENGINEERING DESIGN STANDARDS MANUAL FOUND AT: [HTTPS://WWW.MYBOCA.US/DOCUMENTCENTER/VIEW/27981/ENGINEERING-DESIGN-STANDARDS-MANUAL](https://www.myboca.us/documentcenter/view/27981/engineering-design-standards-manual)
2.

THE TRAFFIC CONTROL PLANS FOR THIS PROJECT SHALL COMPLY WITH THE LATEST EDITION OF FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION (FY 2024-25), MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FY 2024-25).

3.

ANY MENTION OR REFERENCES TO THE STANDARD PLANS INDICES SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION FY2024-25 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND APPLICABLE INTERIM REVISIONS (IRS). STANDARD PLANS FOR ROAD CONSTRUCTION AND ASSOCIATED IRS ARE AVAILABLE AT THE FOLLOWING WEBSITE: [HTTP://WWW.FDOT.GOV/DESIGN/STANDARDPLANS](http://www.fdot.gov/design/standardplans)
4.

ALL MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION, FY2024-25 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AT THE FOLLOWING WEBSITE: [HTTP://WWW.FDOT.GOV/PROGRAMMANAGEMENT/IMPLEMENTED/SPECBOOKS](http://www.fdot.gov/programmanagement/implemented/specbooks)



** IF REQUIRED FOR TIE-IN, RECONSTRUCT DRIVEWAY WITH SAME TYPE OF MATERIAL AS EXIST. DRIVEWAY

DRIVEWAY DETAIL

1.

THE CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES.
2.

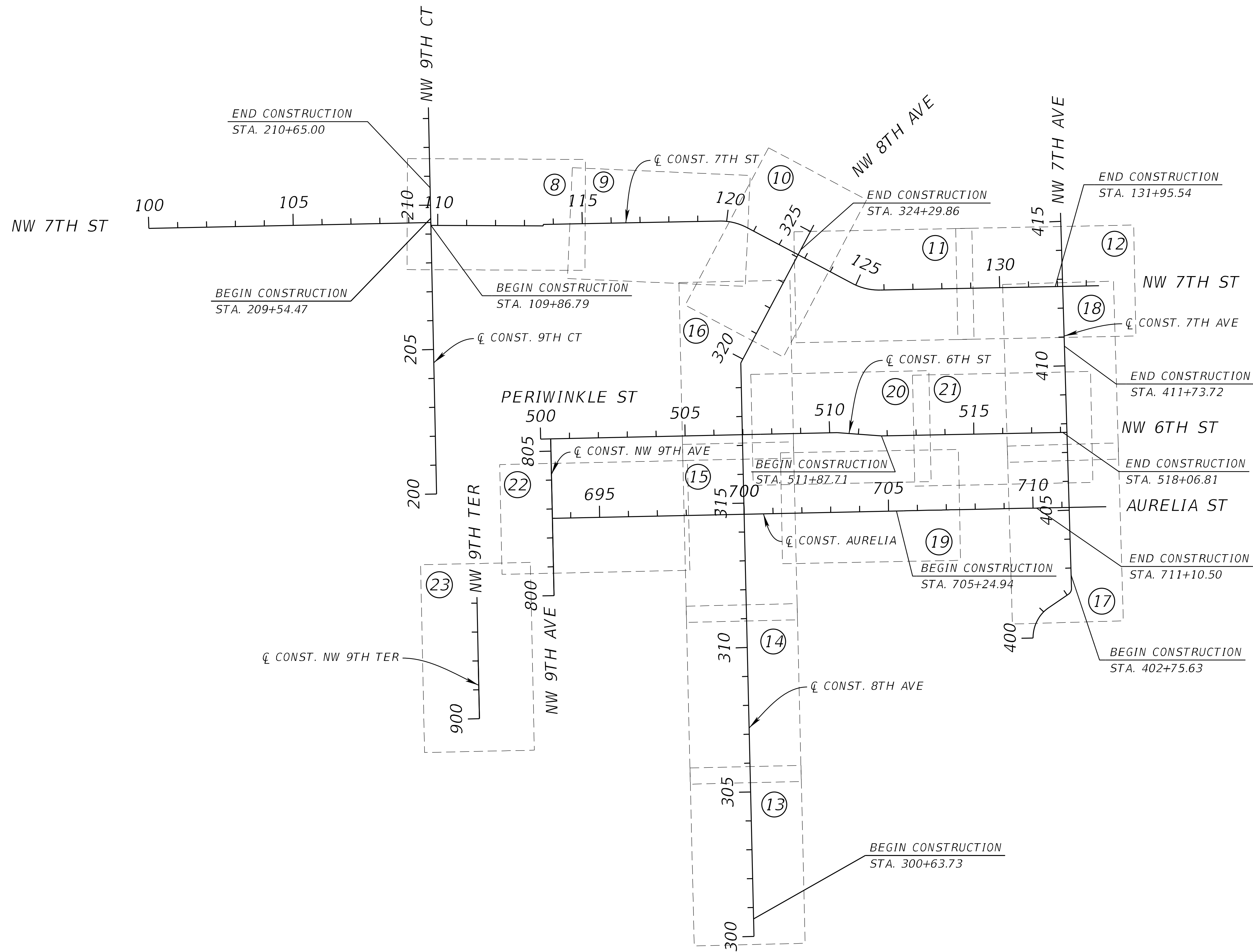
COST OF DRIVEWAY RECONSTRUCTION AFFECTED BY SIDEWALK / UTILITY PIPE INSTALLATION TO BE INCLUDED IN UNIT PRICE OF SIDEWALK AND / OR UTILITY PIPE.
3.

EXIST. DRIVEWAYS WITH BRICK PAVERS SHALL BE REMOVED AND REINSTALLED WITH EXIST. BRICK PAVERS. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, DRIVEWAYS SHALL BE REPLACED NEW AND IN-KIND TO SOLE SATISFACTION OF THE OWNER.



Know what's below.
Call before you dig.

REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	ROADWAY, SIDEWALK, & DRAINAGE GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-1



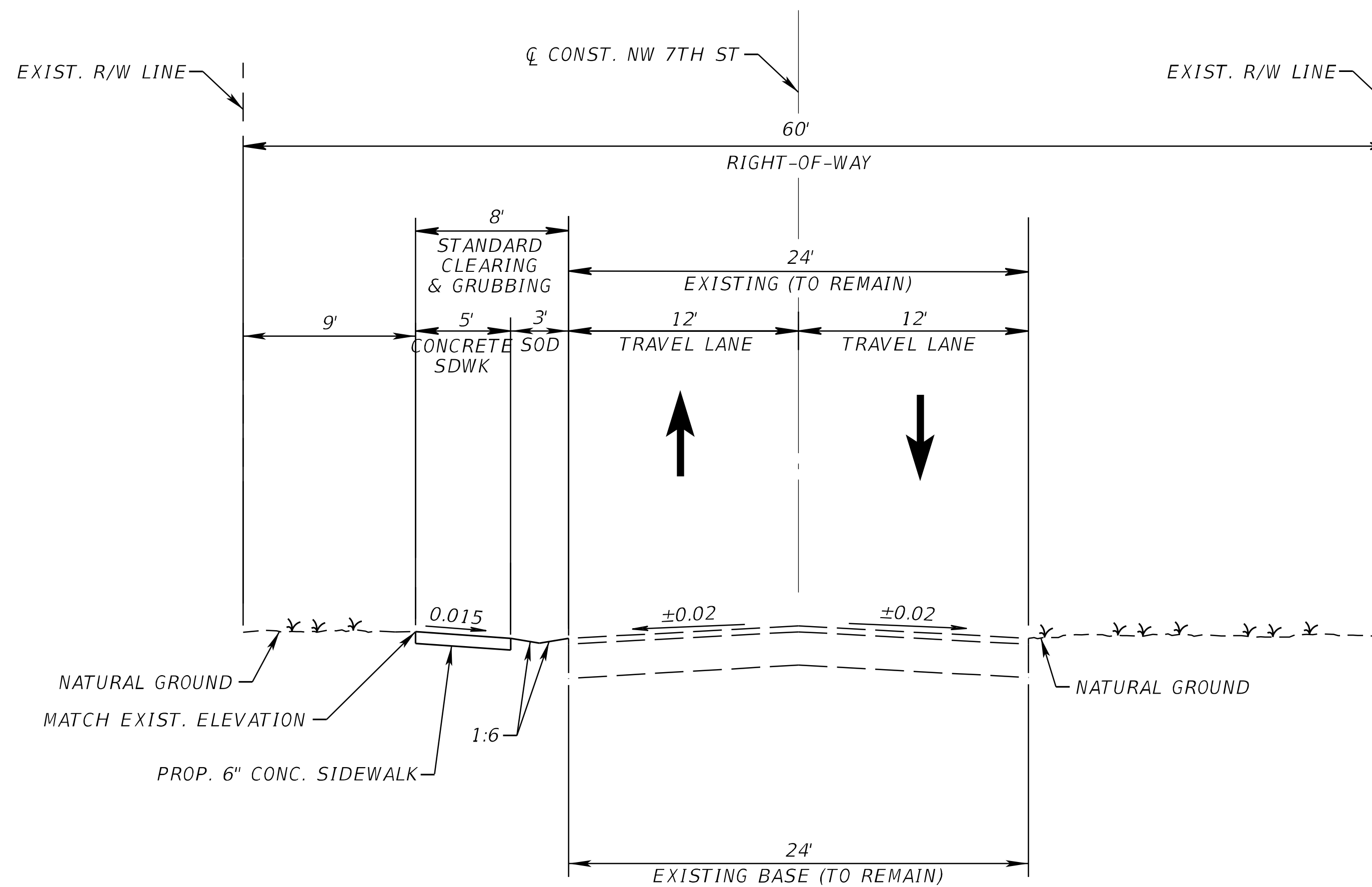
REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	ROADWAY, SIDEWALK, & DRAINAGE KEY SHEET	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-2

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PROPOSED TYPICAL SECTION
NW 7TH STREET
STA. 109+86.79 TO STA. 122+56.38
POSTED SPEED 20 mph

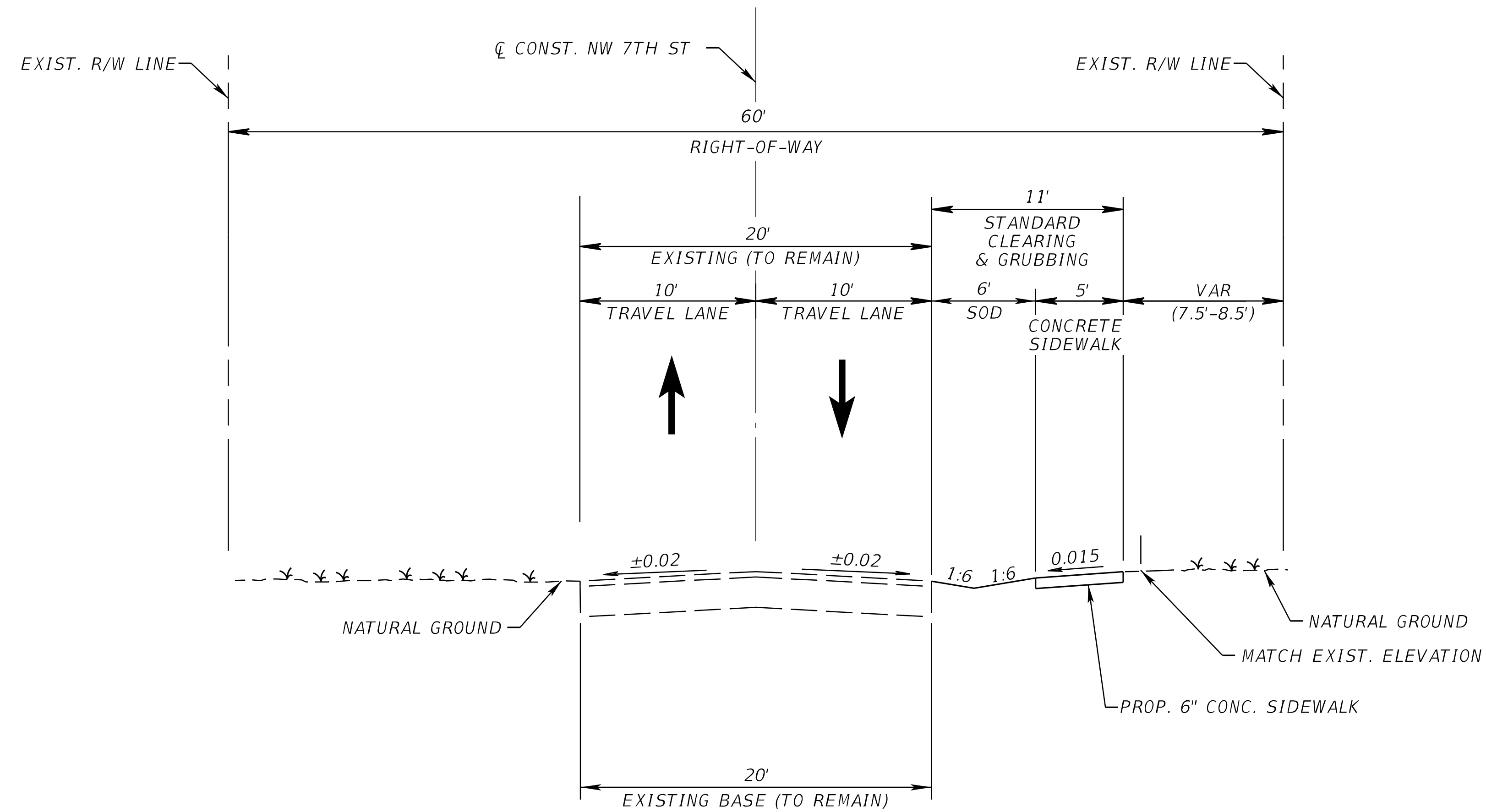
REVISIONS				<p>Kimley-Horn and Associates, Inc.</p> <p>Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411</p>	<p>CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES</p>	<p>TYPICAL SECTION</p>	<p>SHEET NO.</p>
DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-3

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PROPOSED TYPICAL SECTION
NW 7TH STREET
STA. 122+97.20 TO STA. 131+95.54
POSTED SPEED 20 mph

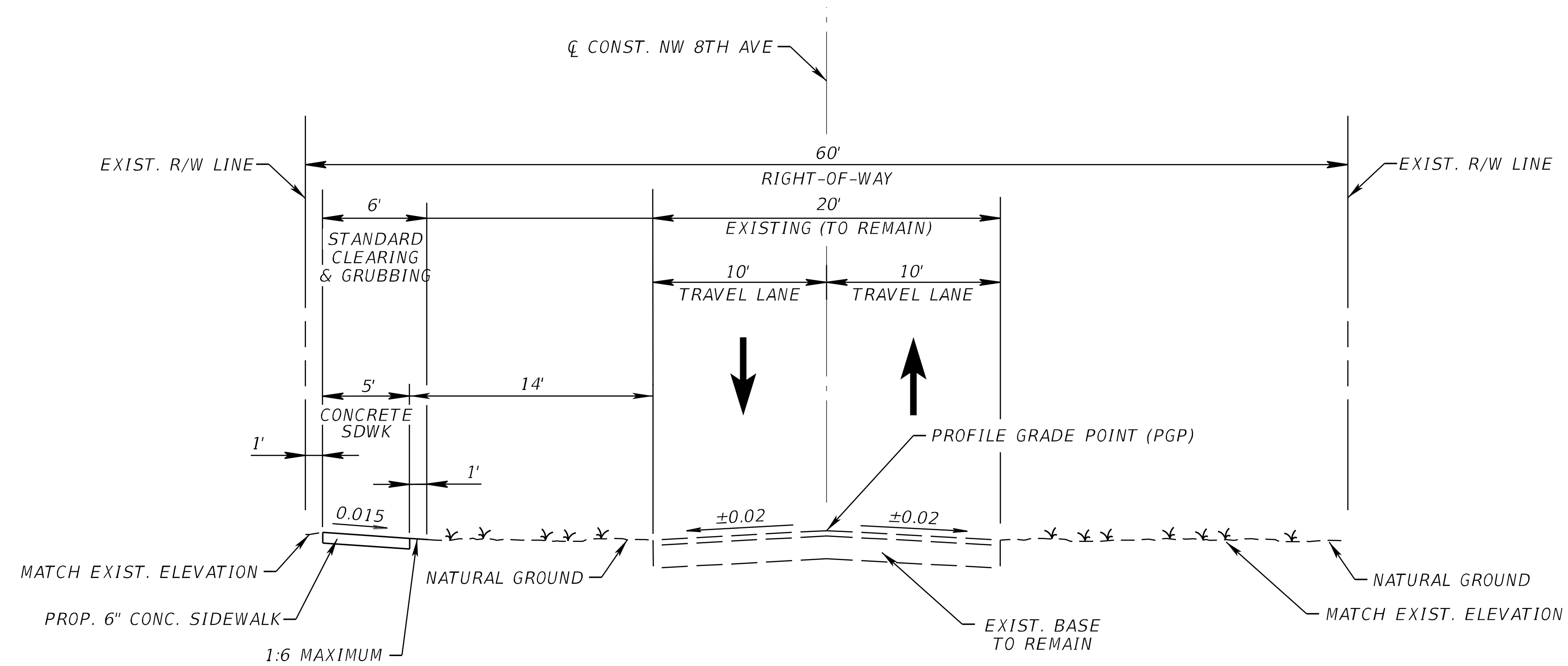
REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	TYPICAL SECTION	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-4

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PROPOSED TYPICAL SECTION
NW 8TH AVENUE
STA. 300+63.73 TO 306+55.28
POSTED SPEED 20 mph

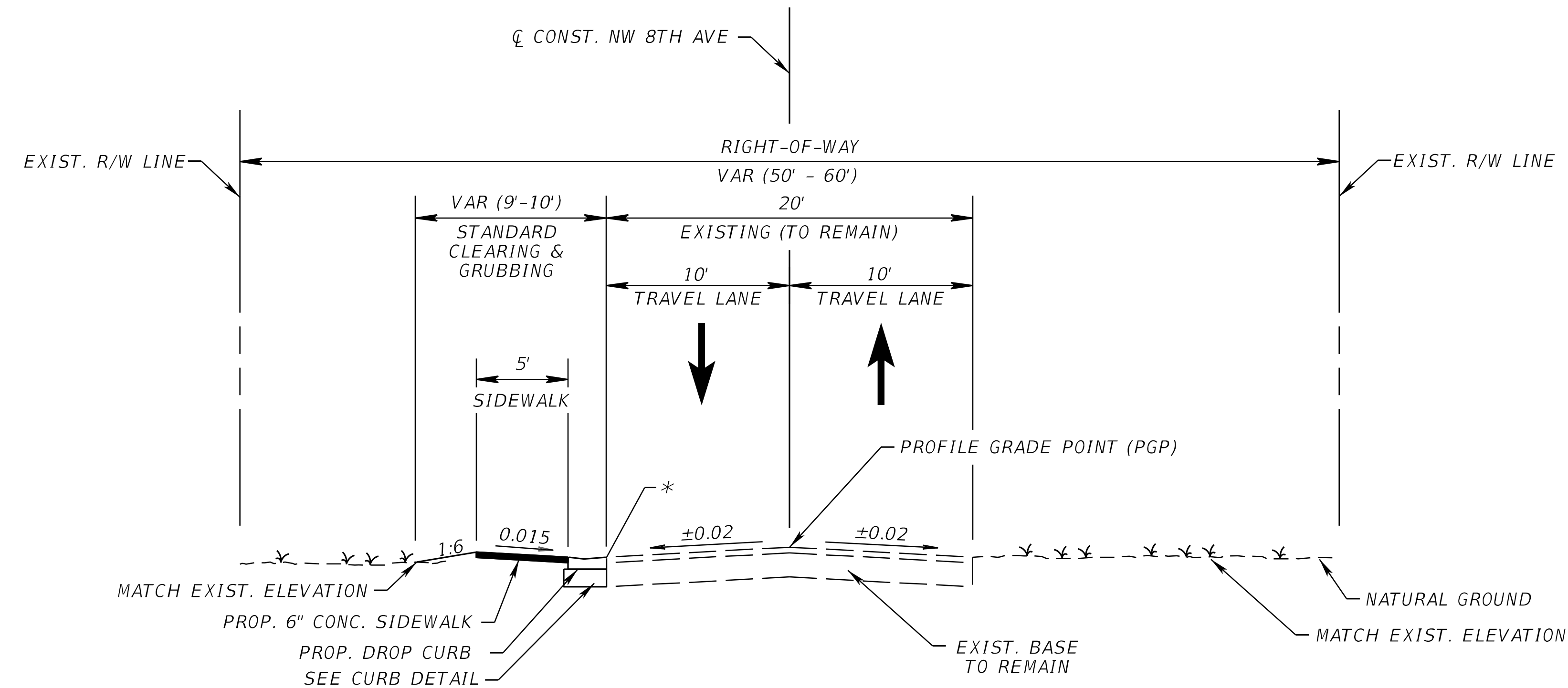
REVISIONS				<p>Kimley-Horn and Associates, Inc.</p> <p>Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411</p>	<p>CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES</p>	<p>TYPICAL SECTION</p>	<p>SHEET NO.</p>
DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-5

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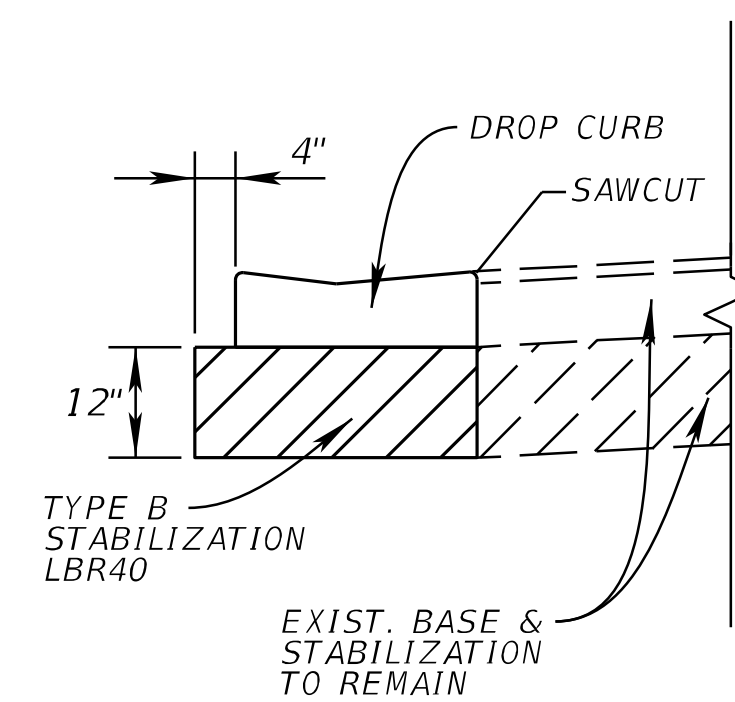
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PROPOSED TYPICAL SECTION
NW 8TH AVENUE
306+73.32 TO 324+29.86
POSTED SPEED 20 mph

CURB DETAIL



* CURB PAD TO BE INCLUDED
IN COST OF DROP CURB

LEGEND:

* SAWCUT EXISTING PAVEMENT

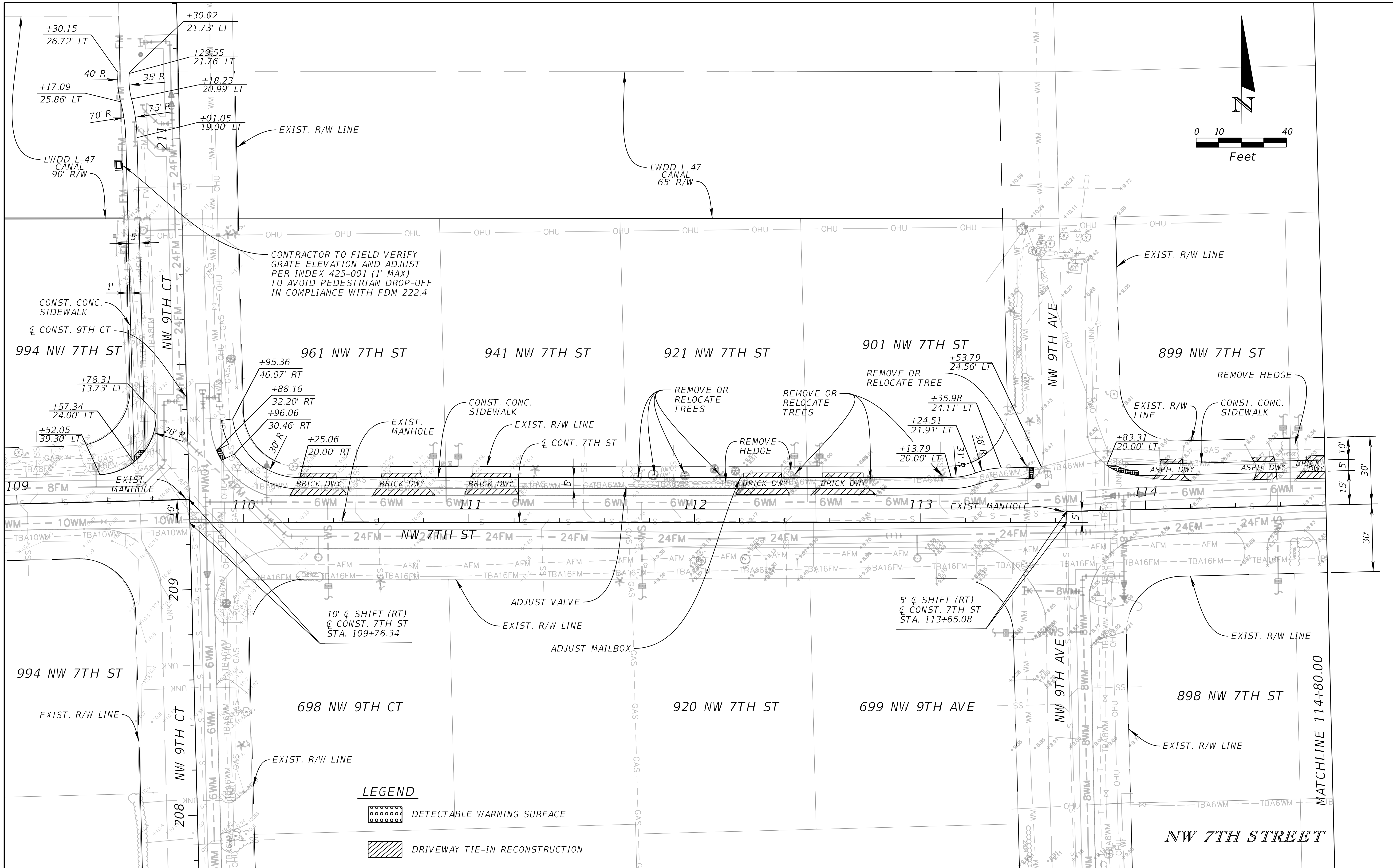
REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	TYPICAL SECTION	SHEET NO. RSD-6
DATE	DESCRIPTION	DATE	DESCRIPTION				

steven.monte

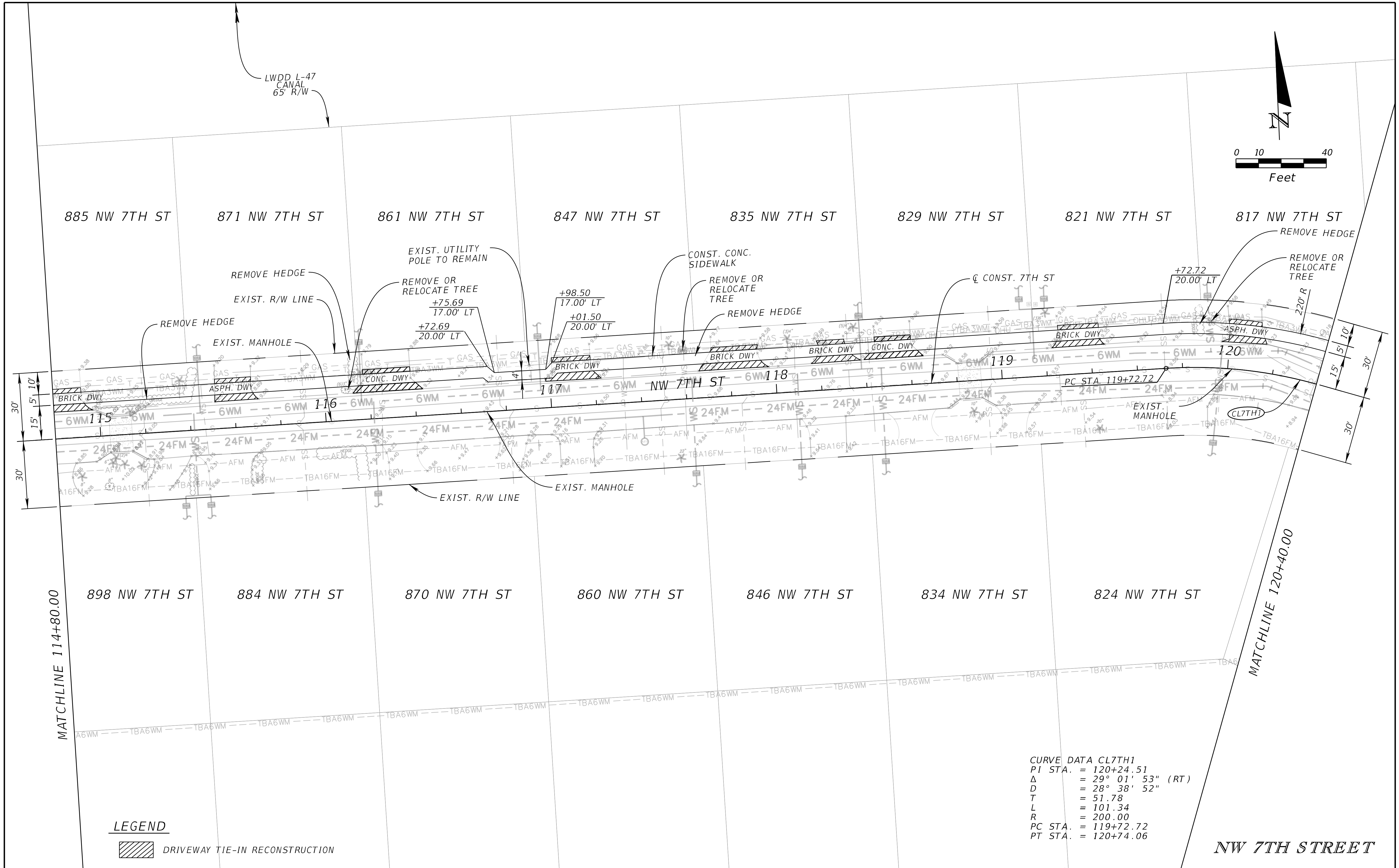
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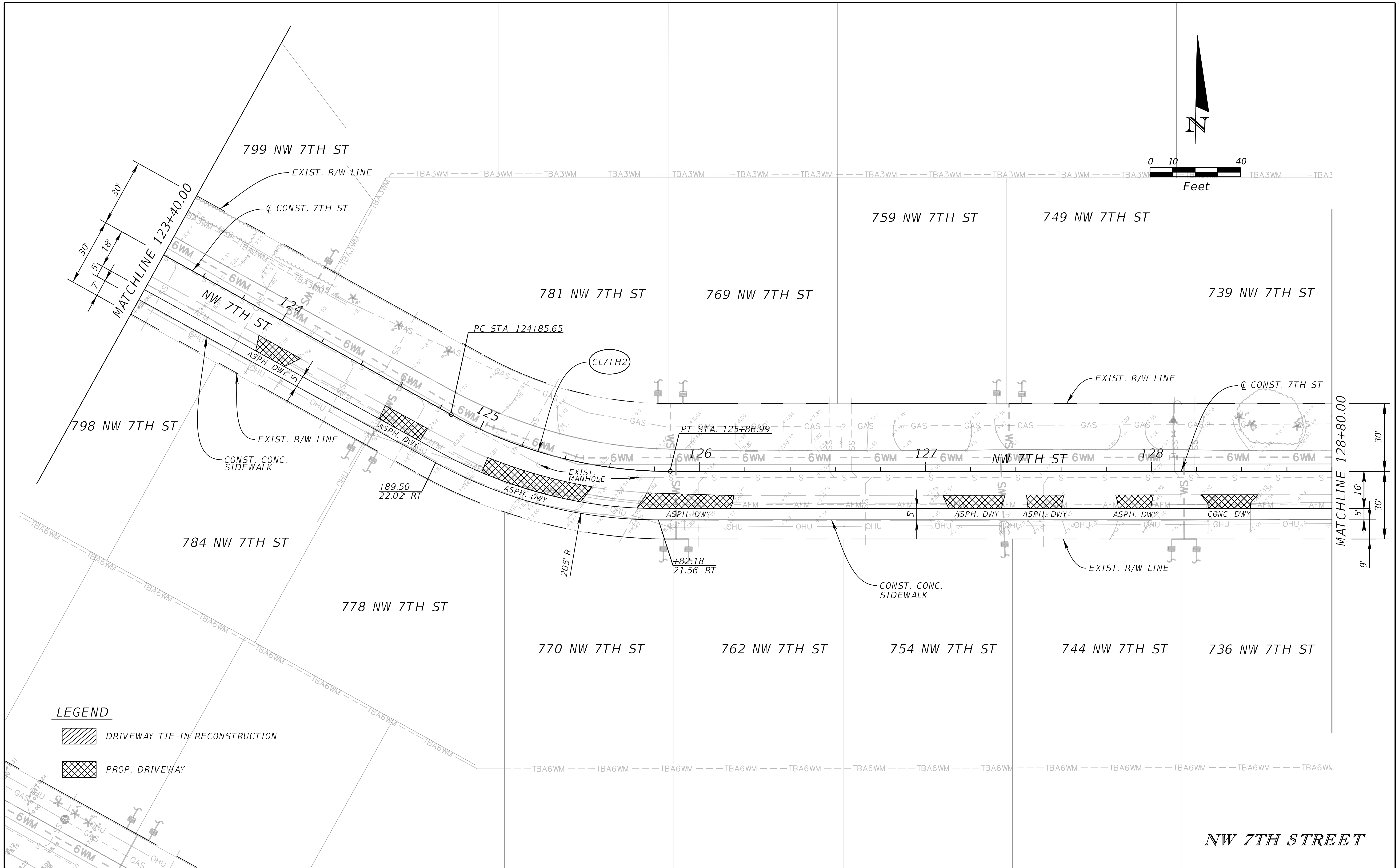


REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	ROADWAY PLAN (01)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-7



REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	ROADWAY PLAN (02)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
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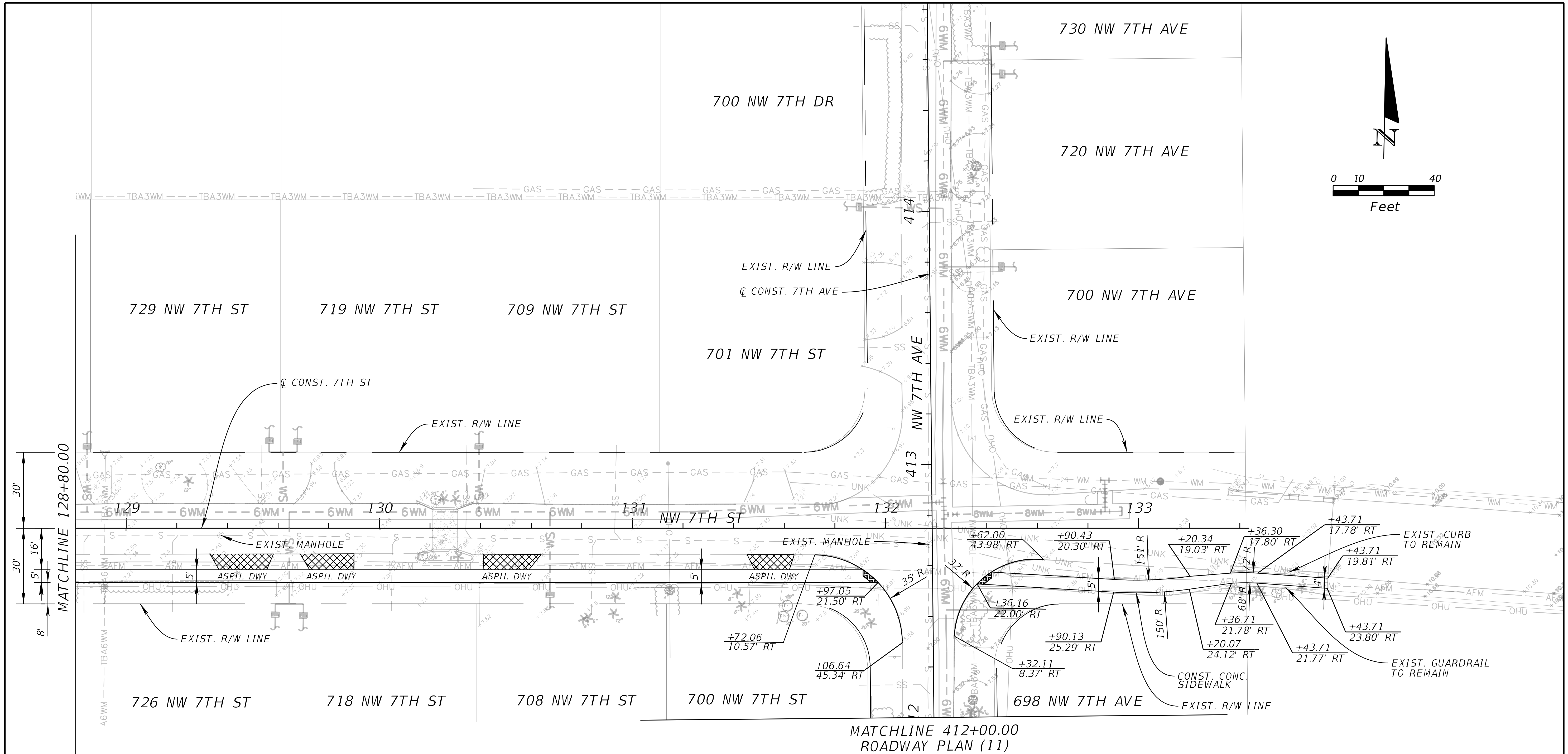
LEGEND

DRIVEWAY TIE-IN RECONSTRUCTION

PROP. DRIVEWAY

REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	ROADWAY PLAN (04)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-10

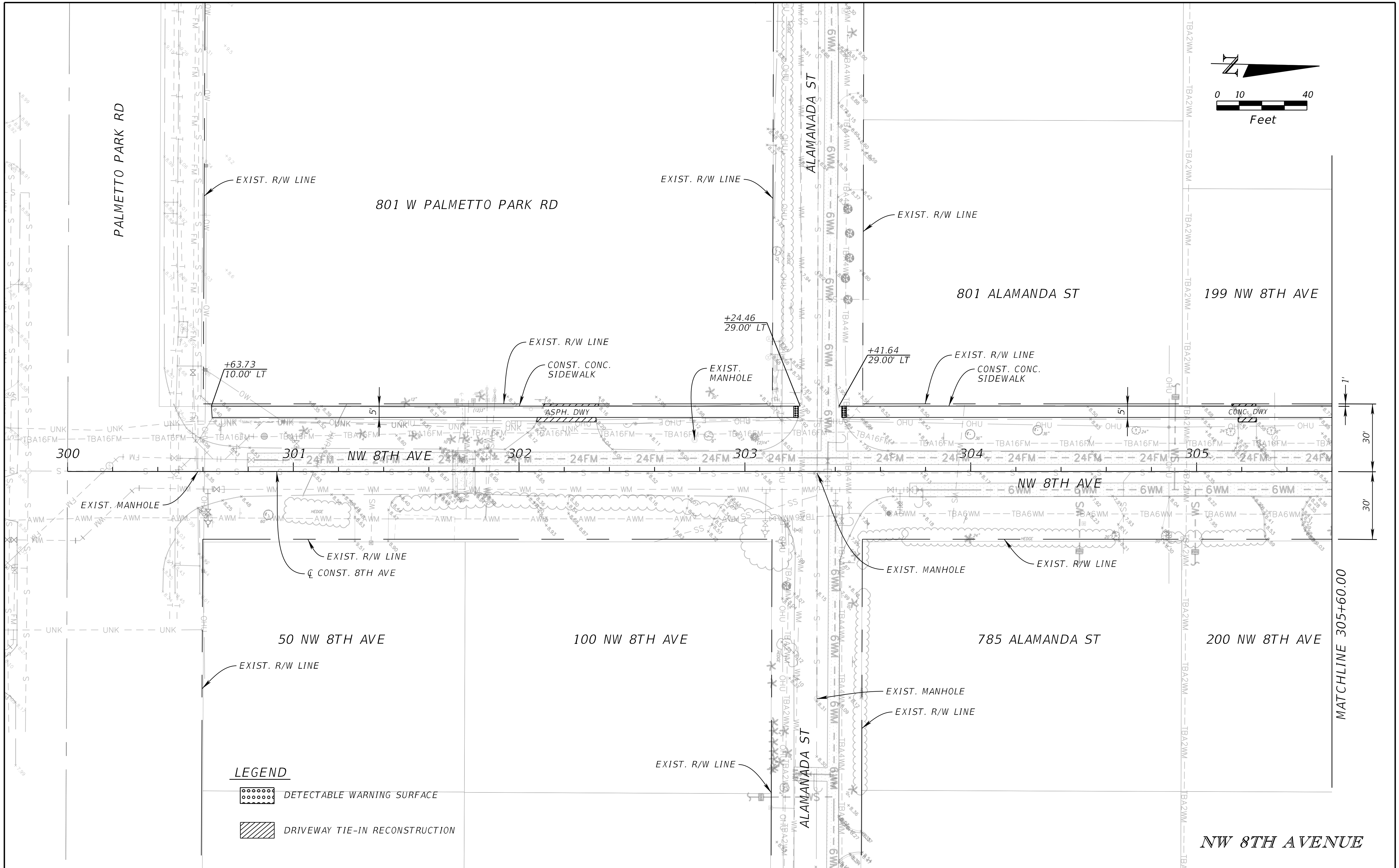
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- LEGEND**
- DETECTABLE WARNING SURFACE
 - DRIVEWAY TIE-IN RECONSTRUCTION
 - PROP. DRIVEWAY

REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	ROADWAY PLAN (05)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
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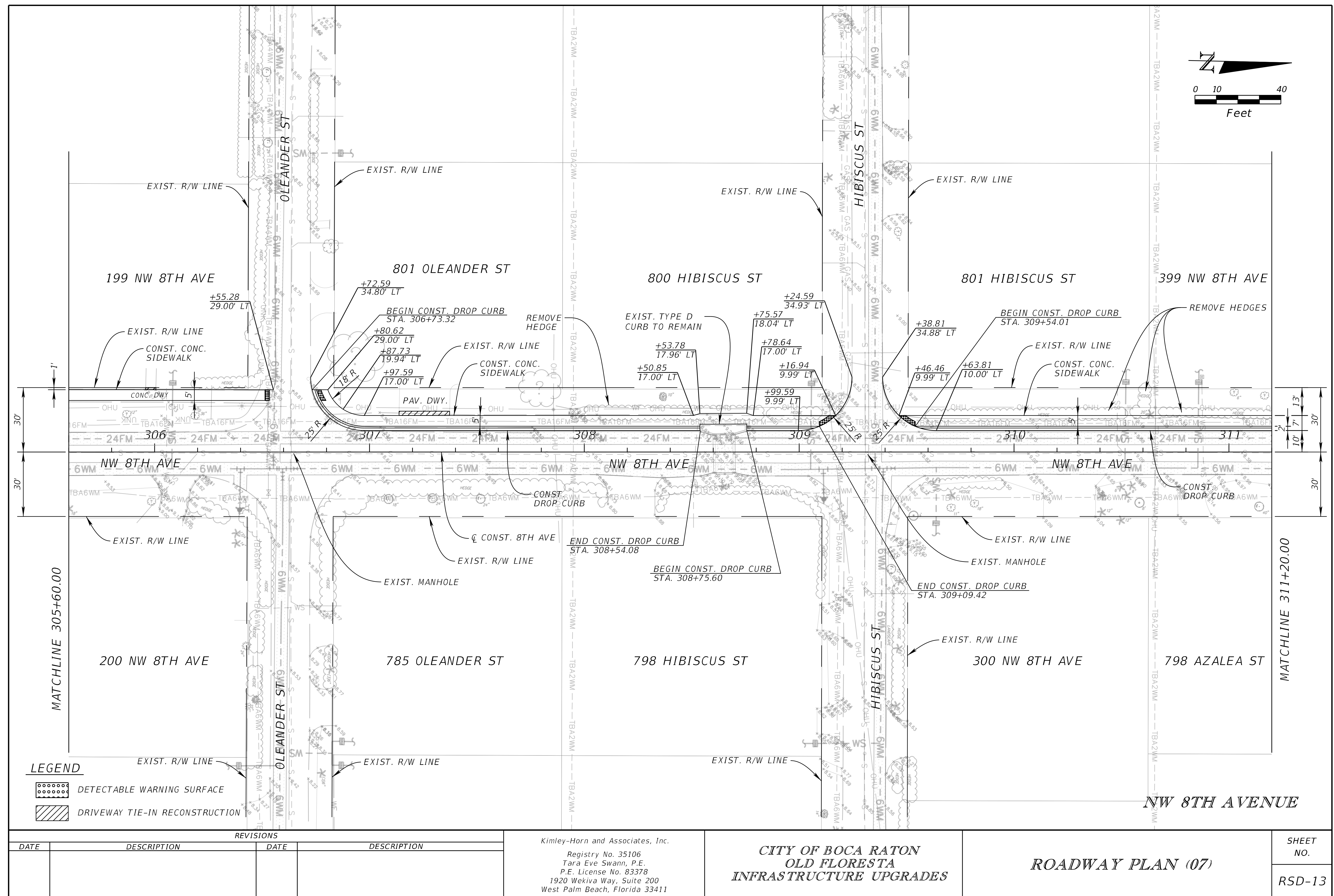
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DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-12

steven.monte

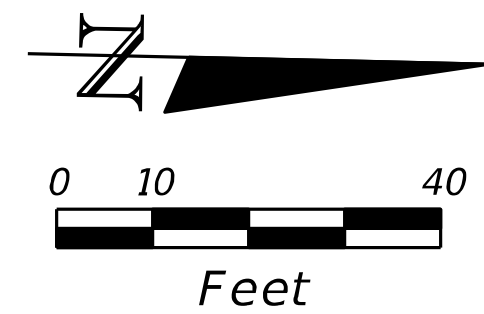
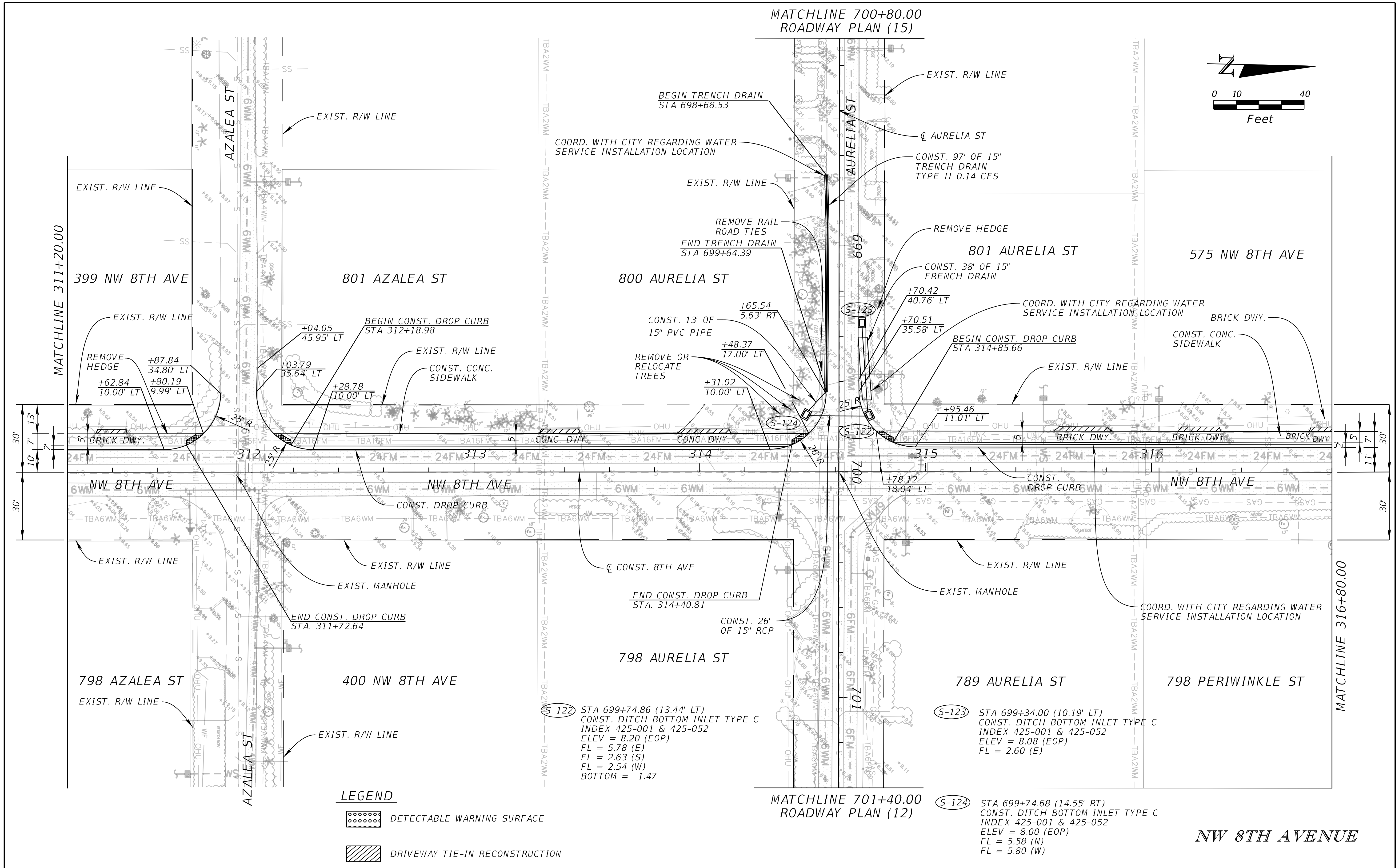
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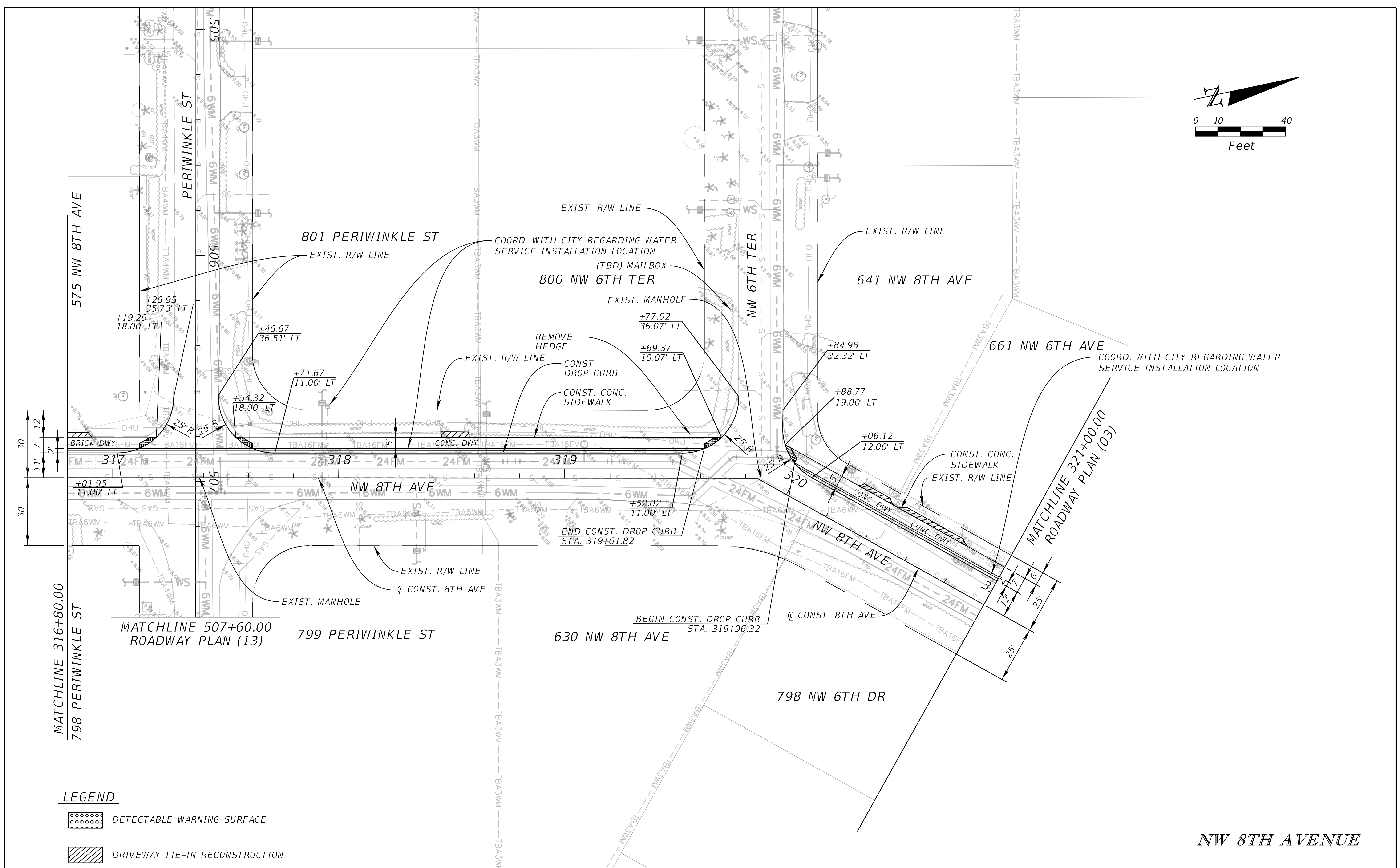


LEGEND

- DETECTABLE WARNING SURFACE
- DRIVEWAY TIE-IN RECONSTRUCTION

REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	ROADWAY PLAN (08)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
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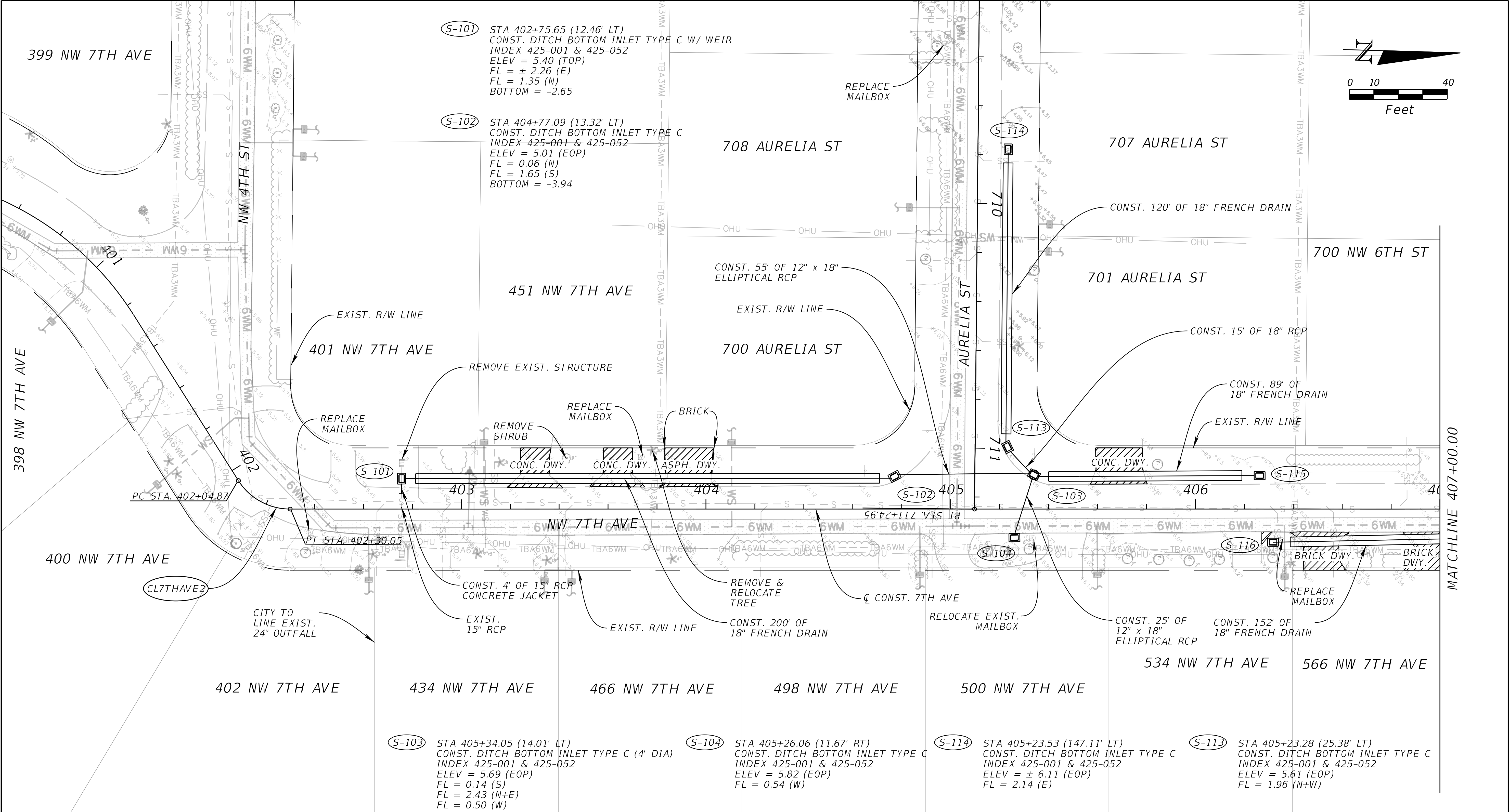
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REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	ROADWAY PLAN (09)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				RSD-15

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LEGEND

 DRIVEWAY TIE-IN RECONSTRUCTION

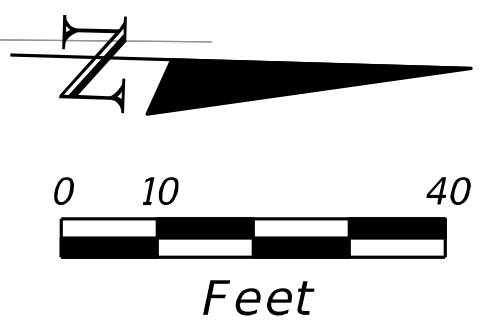
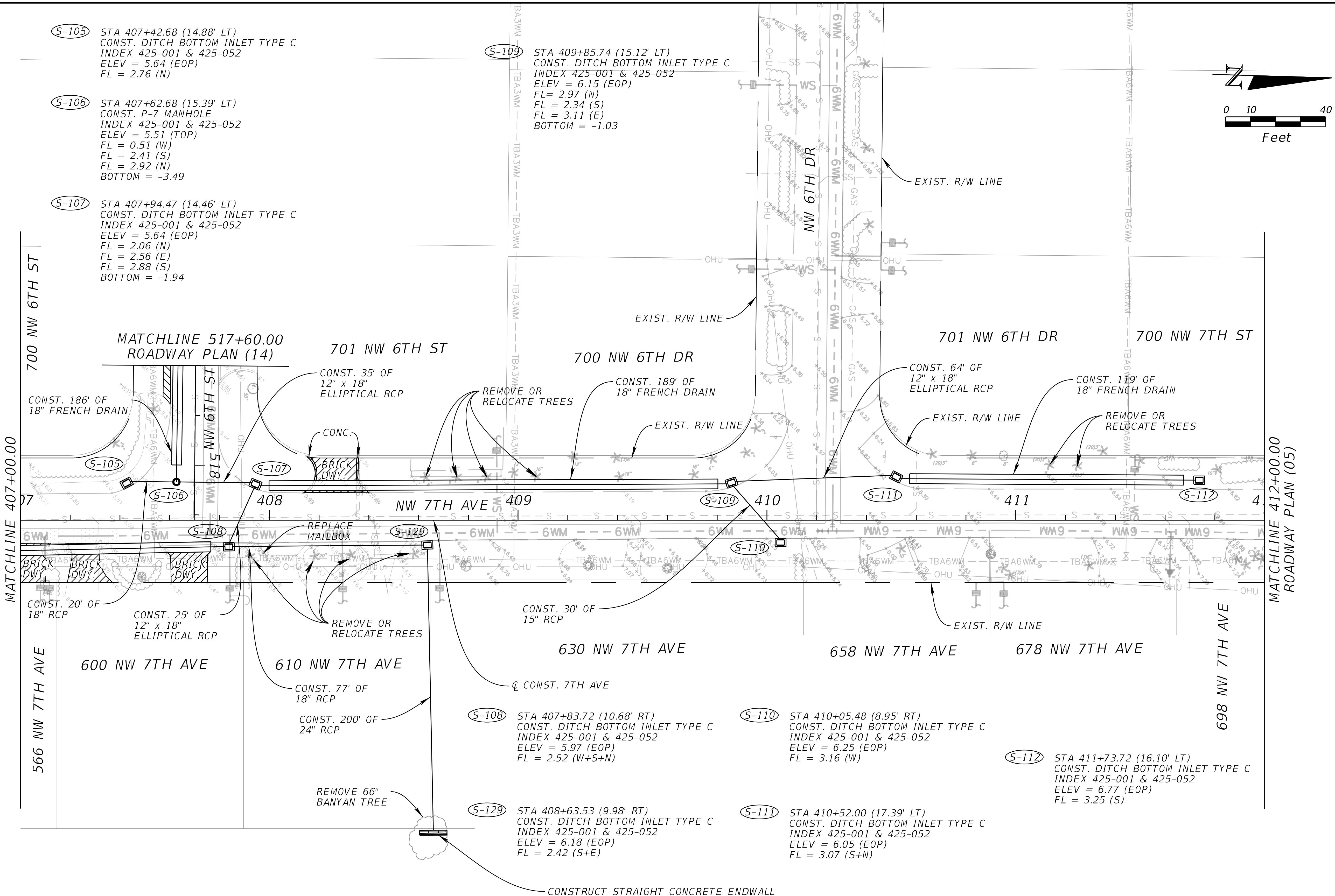
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DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-16

steven.monte

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LEGEND

 DRIVEWAY TIE-IN RECONSTRUCTION

REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	ROADWAY PLAN (11)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
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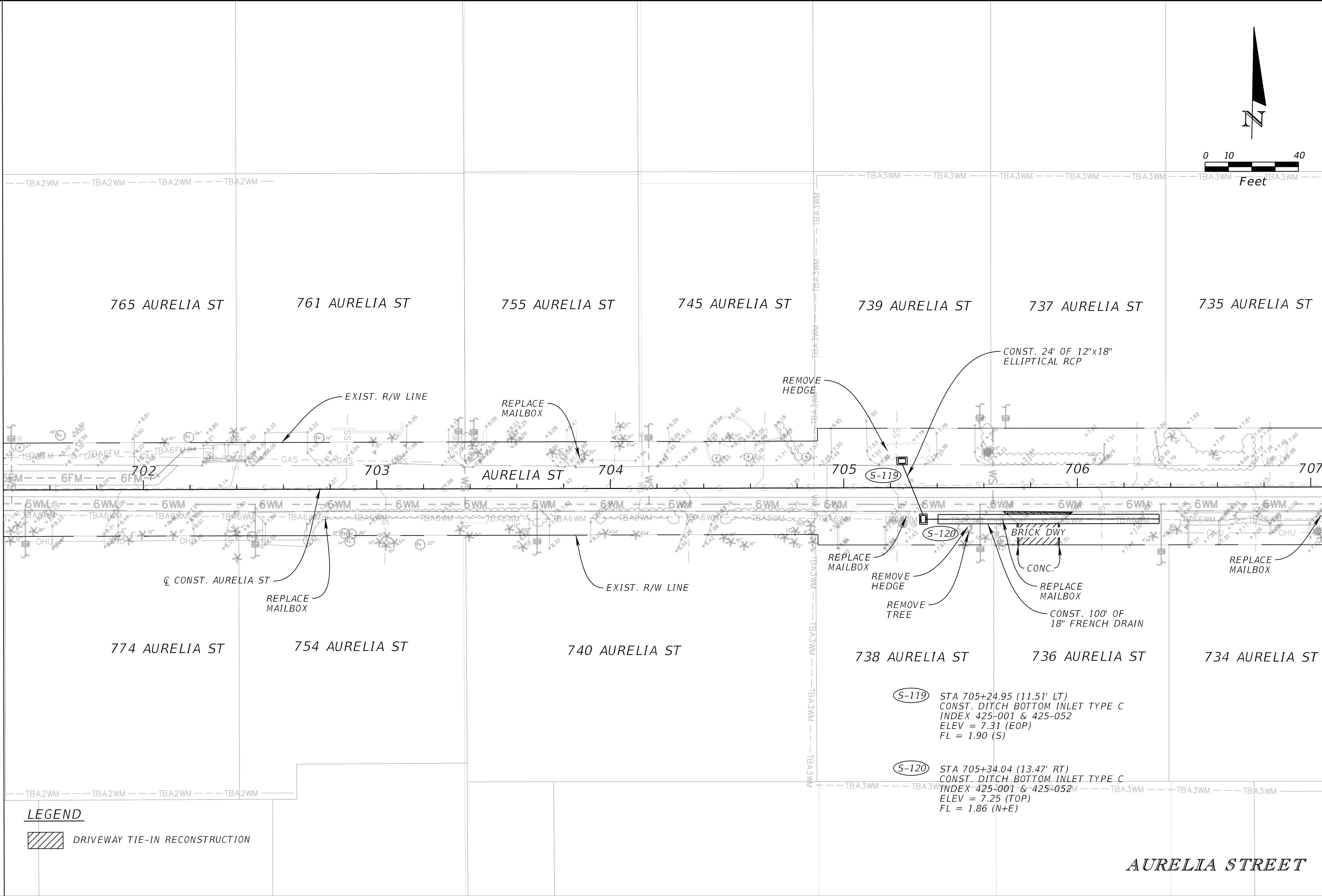
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MATCHLINE 701+40.00
ROADWAY PLAN (08)



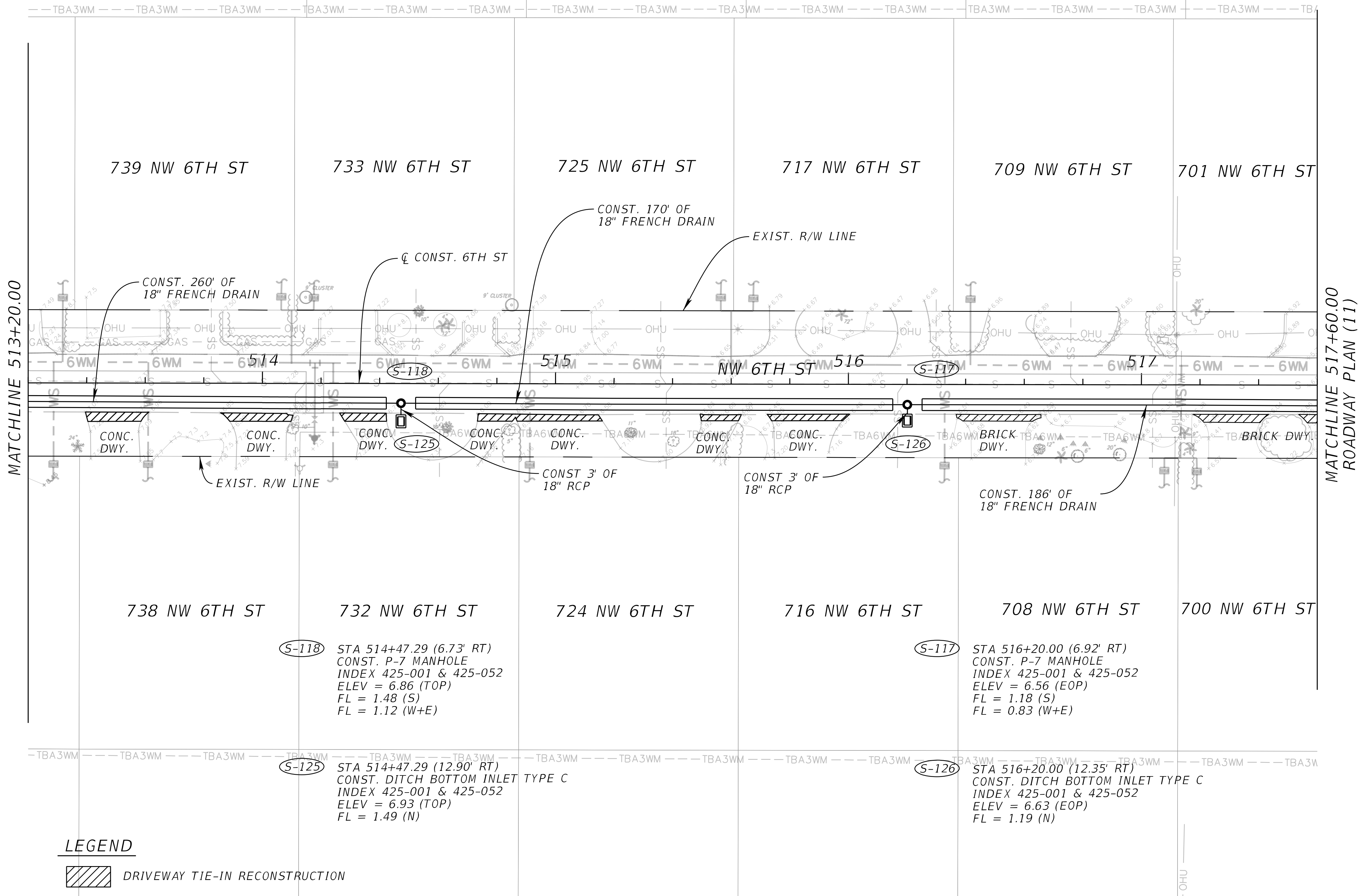
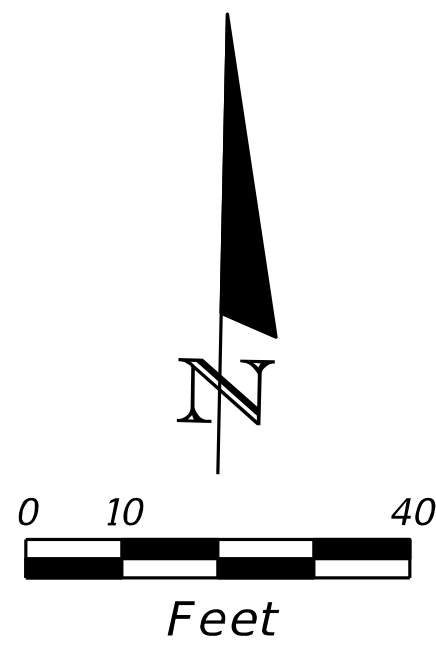
REVISIONS				Kimley-Horn and Associates, Inc. Registry No. 35106 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	ROADWAY PLAN (12)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-18

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LEGEND

 DRIVEWAY TIE-IN RECONSTRUCTION

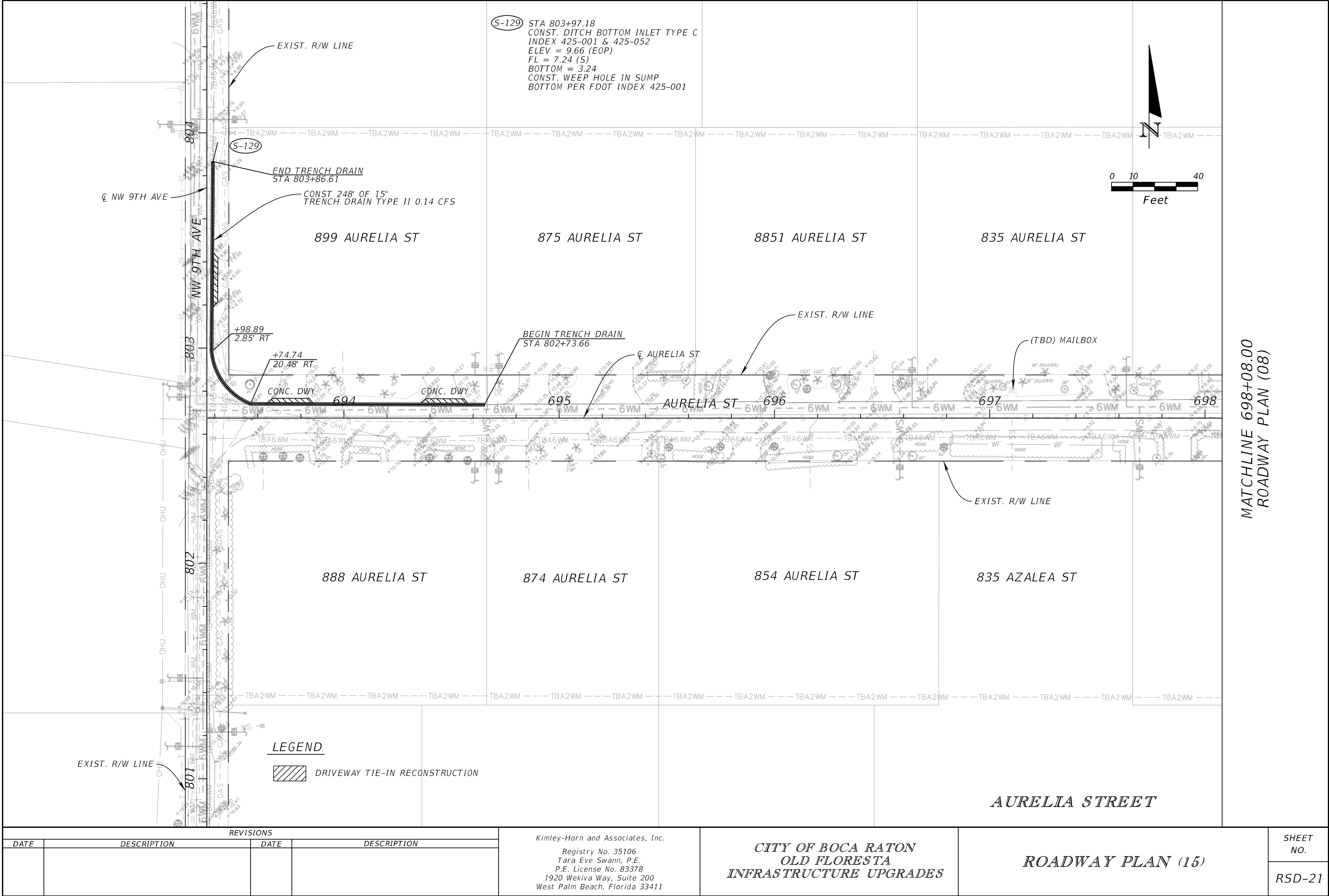
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DATE	DESCRIPTION	DATE	DESCRIPTION				
							RSD-20

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DATE	DESCRIPTION	DATE	DESCRIPTION

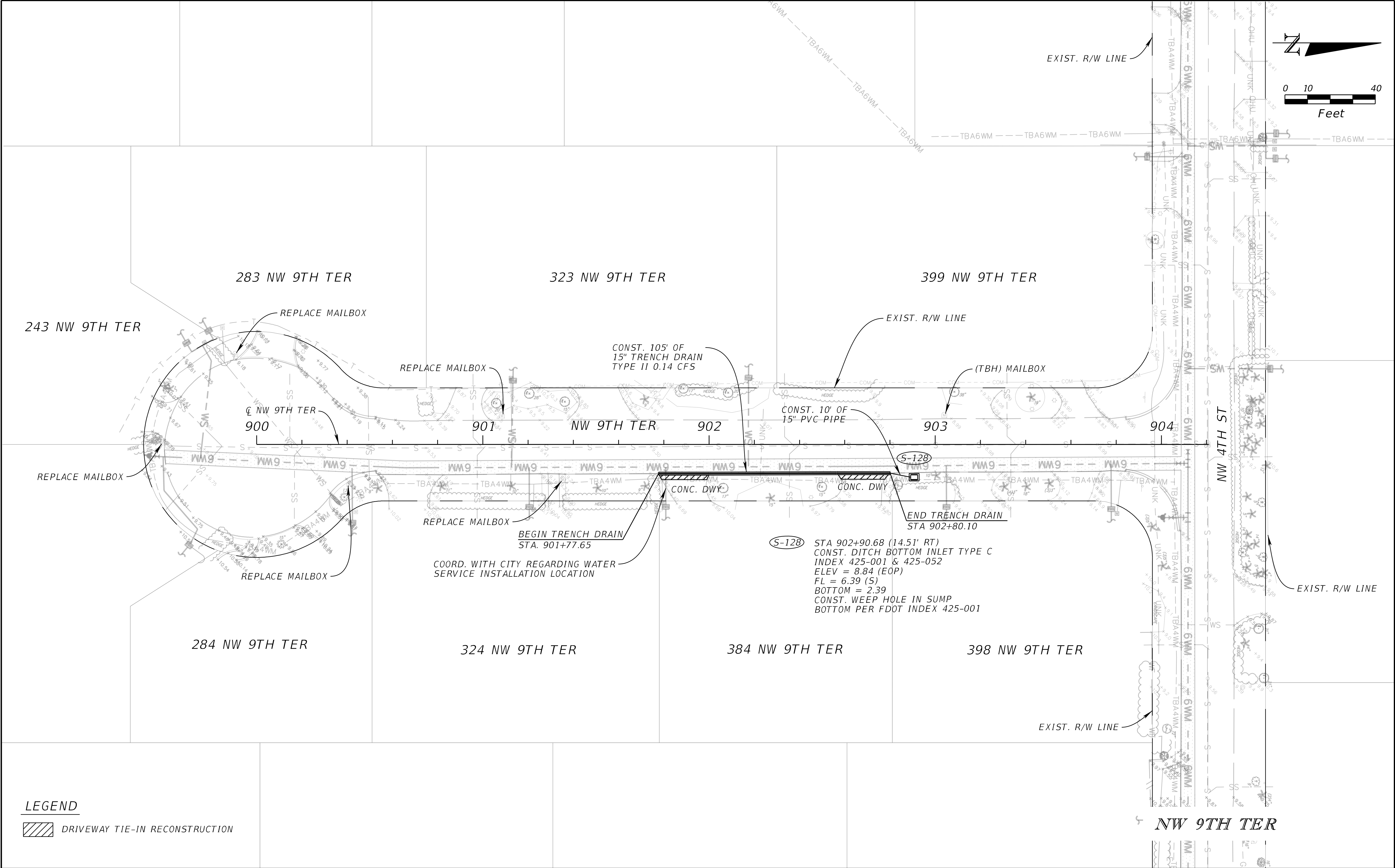
Kimley-Horn and Associates, Inc.
Registry No. 35106
Tara Eve Swann, P.E.
P.E. License No. 83378
1920 Wekiva Way, Suite 200
West Palm Beach, Florida 33411

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

ROADWAY PLAN (15)

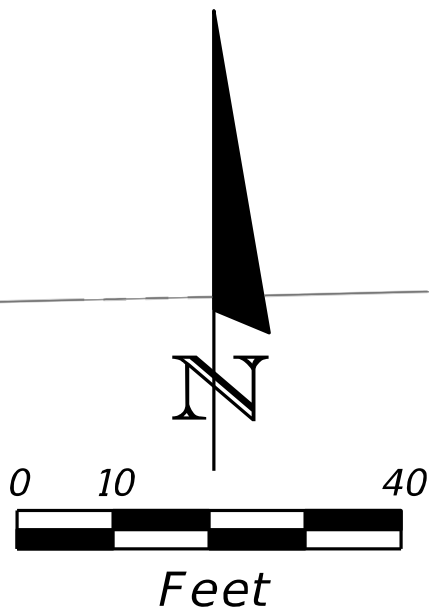
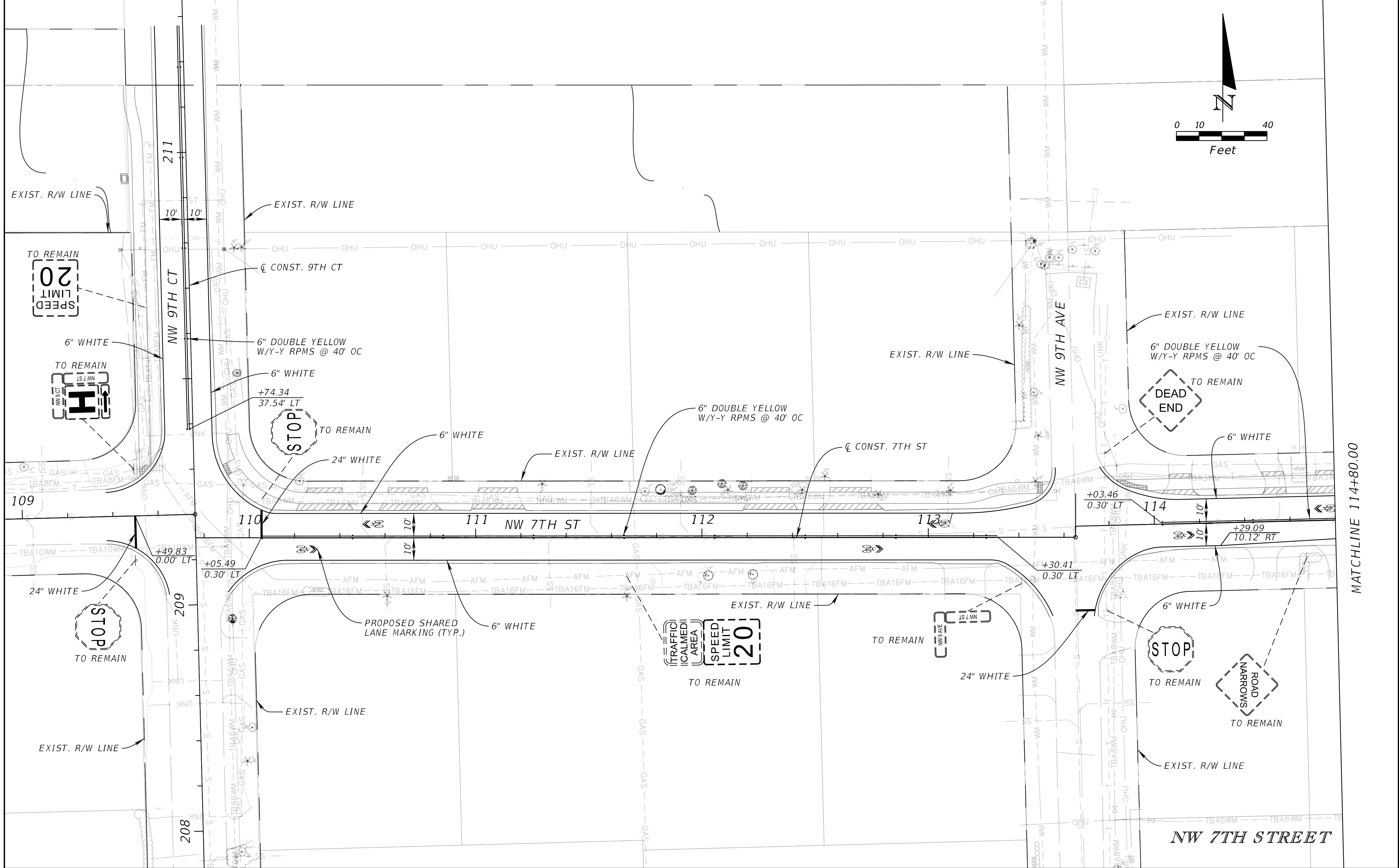
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RSD-21

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DATE	DESCRIPTION	DATE	DESCRIPTION				
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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



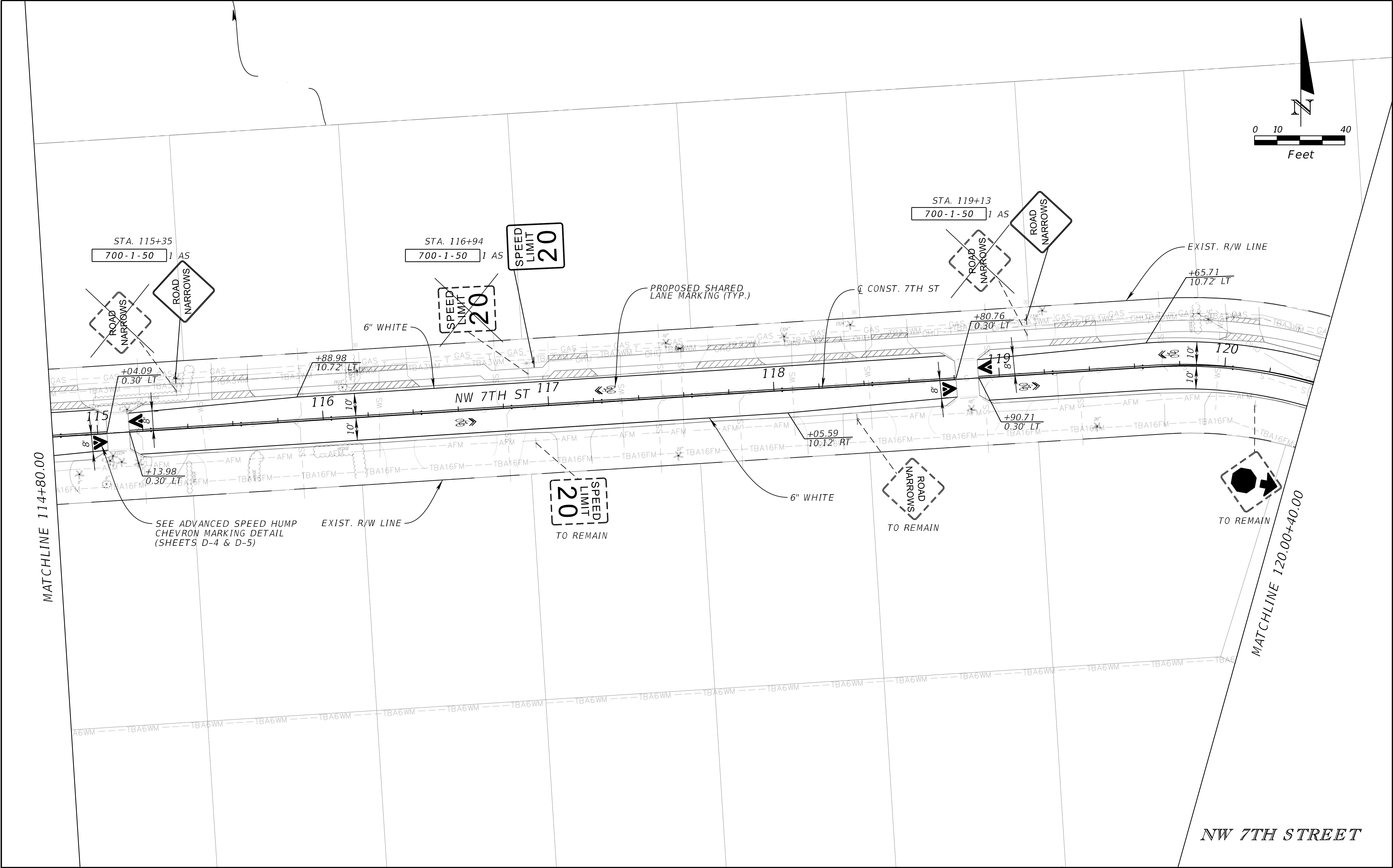
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Kimley-Horn and Associates, Inc.
Certificate Of Authorization No. 696
Tara Eve Swann, P.E.
P.E. License No. 83378
1920 Wekiva Way, Suite 200
West Palm Beach, Florida 33411

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

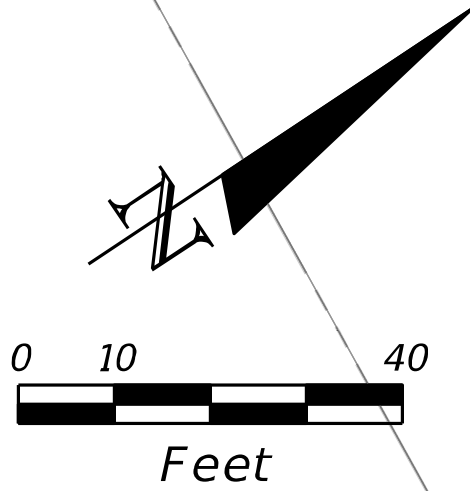
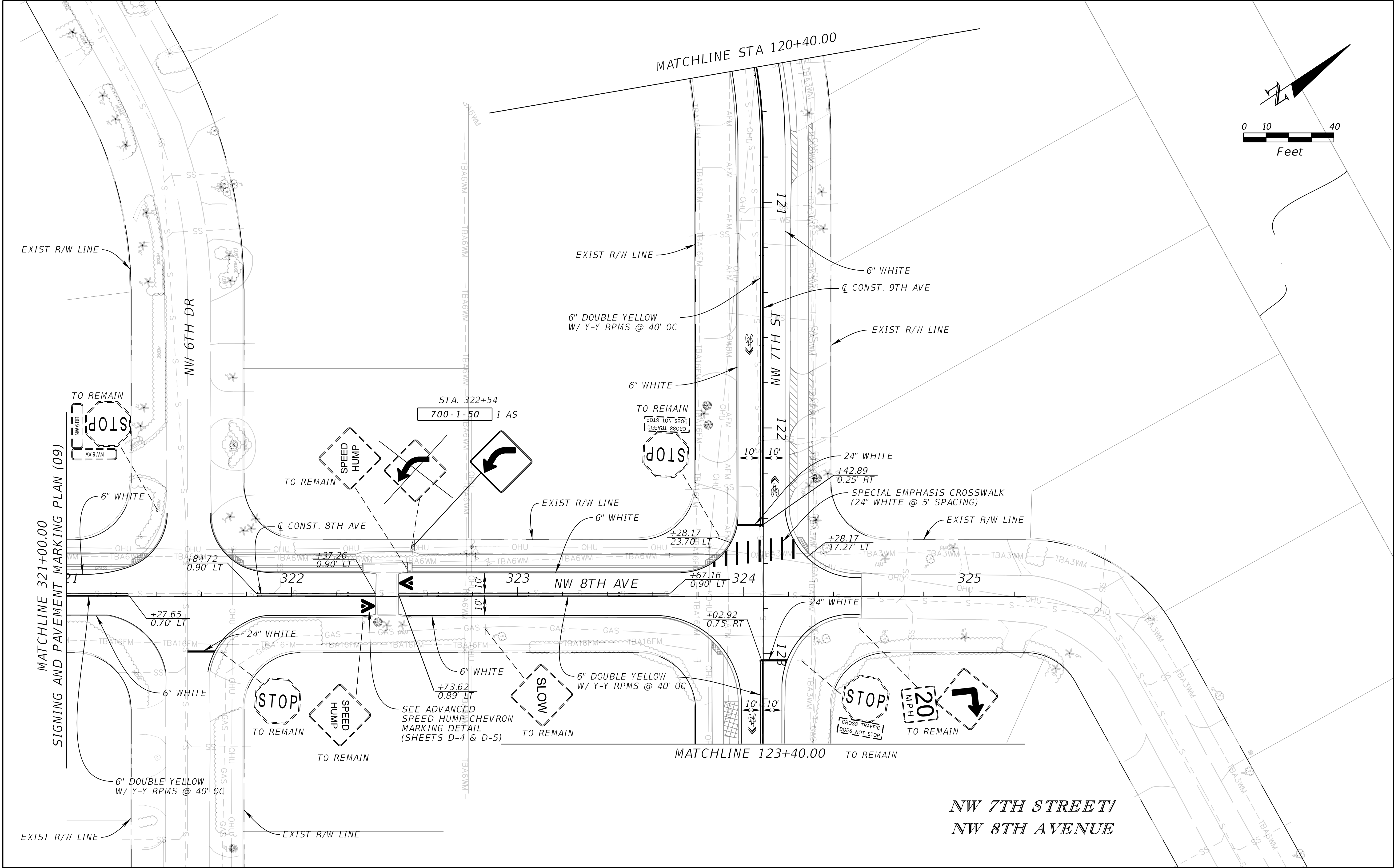
SIGNING AND PAVEMENT
MARKING PLAN (01)

SHEET
NO.
SP-1



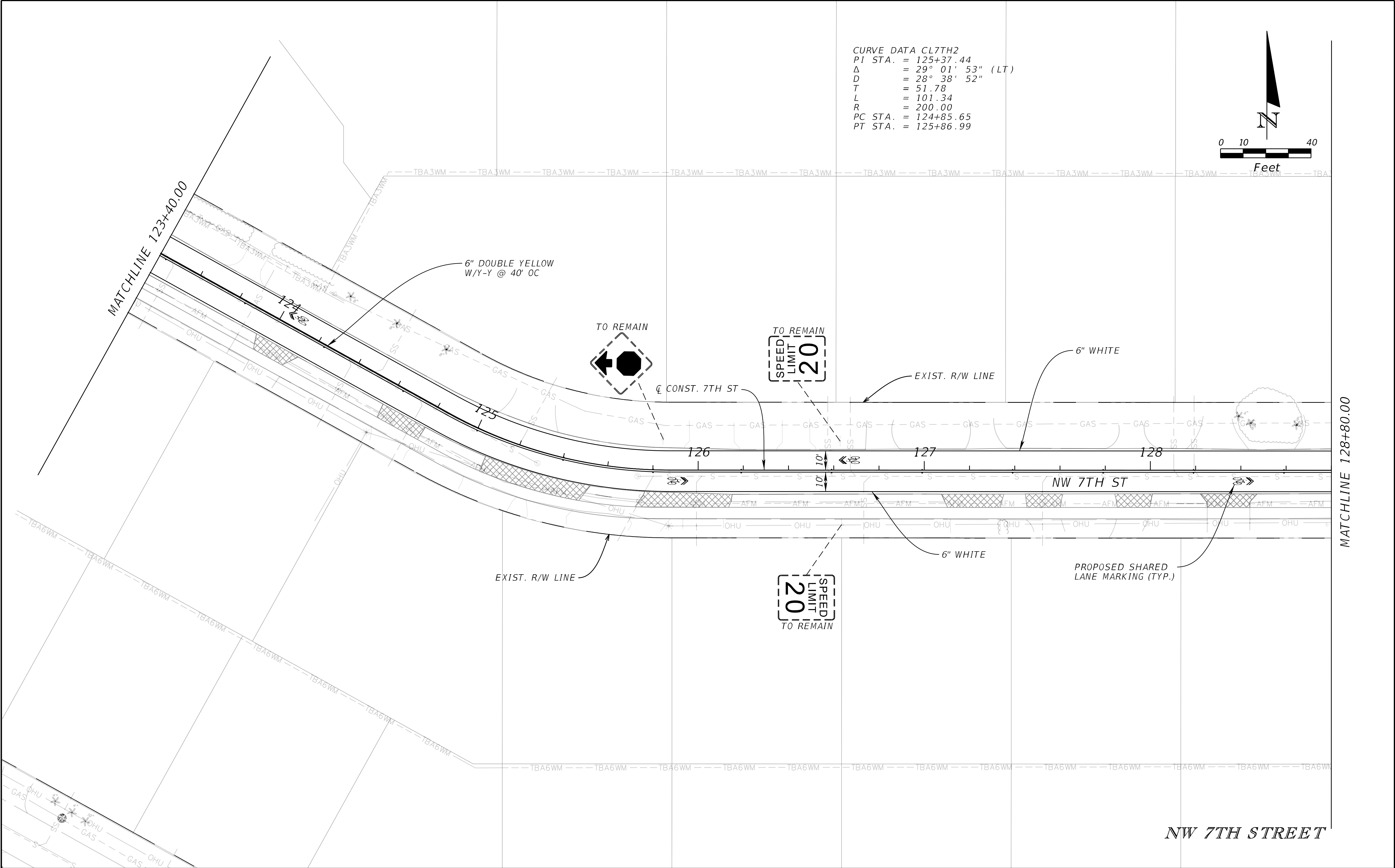
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DATE	DESCRIPTION	DATE	DESCRIPTION				SP-2

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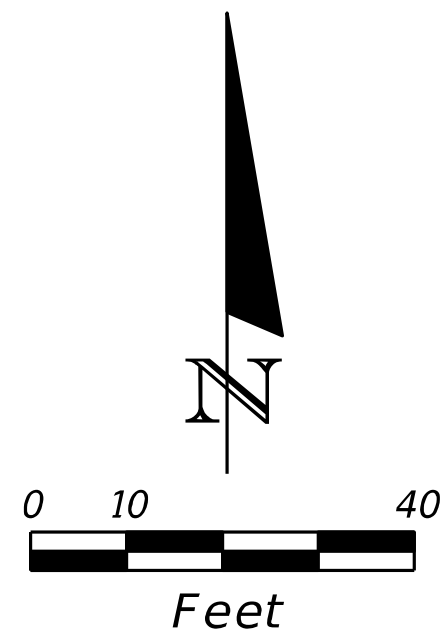
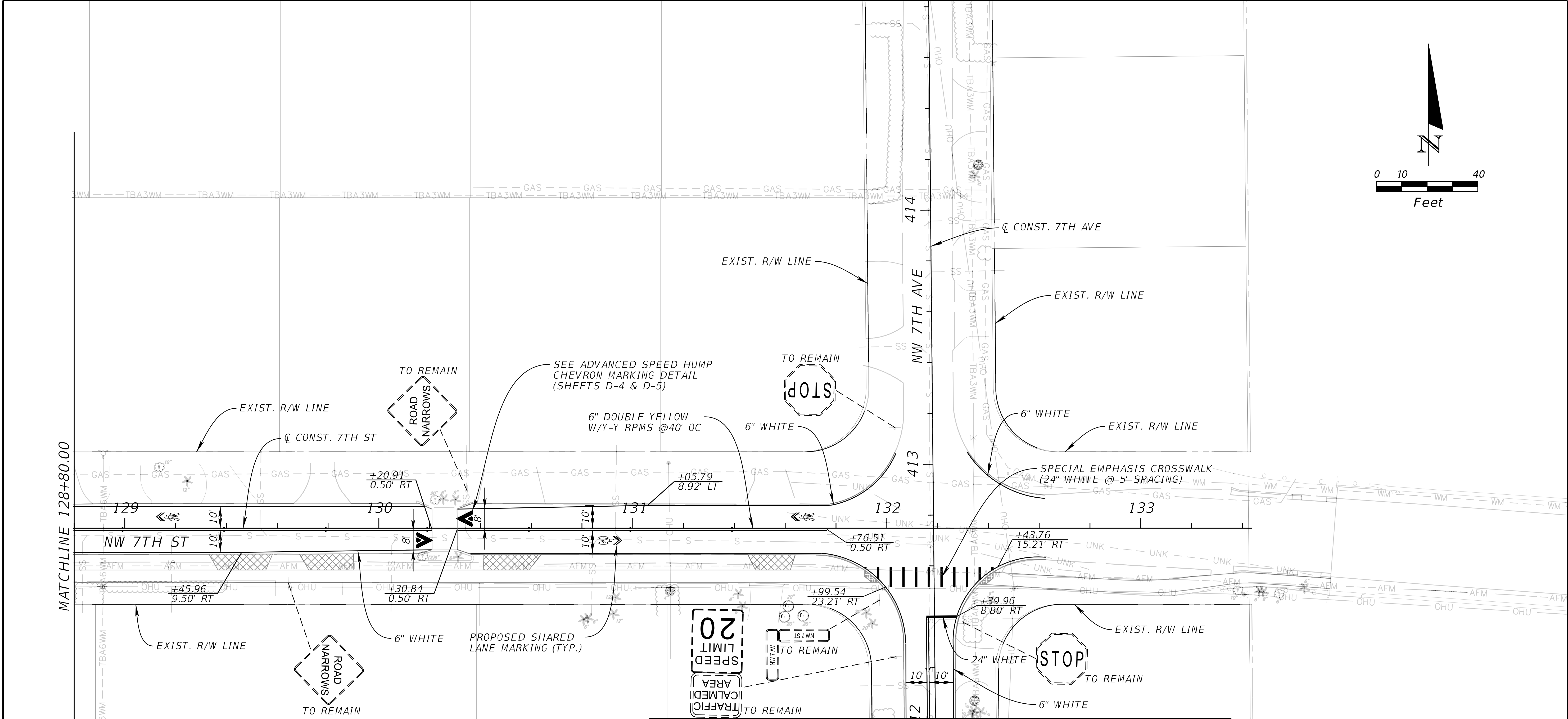
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DATE	DESCRIPTION	DATE	DESCRIPTION				
							SP-3

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DATE	DESCRIPTION	DATE	DESCRIPTION				
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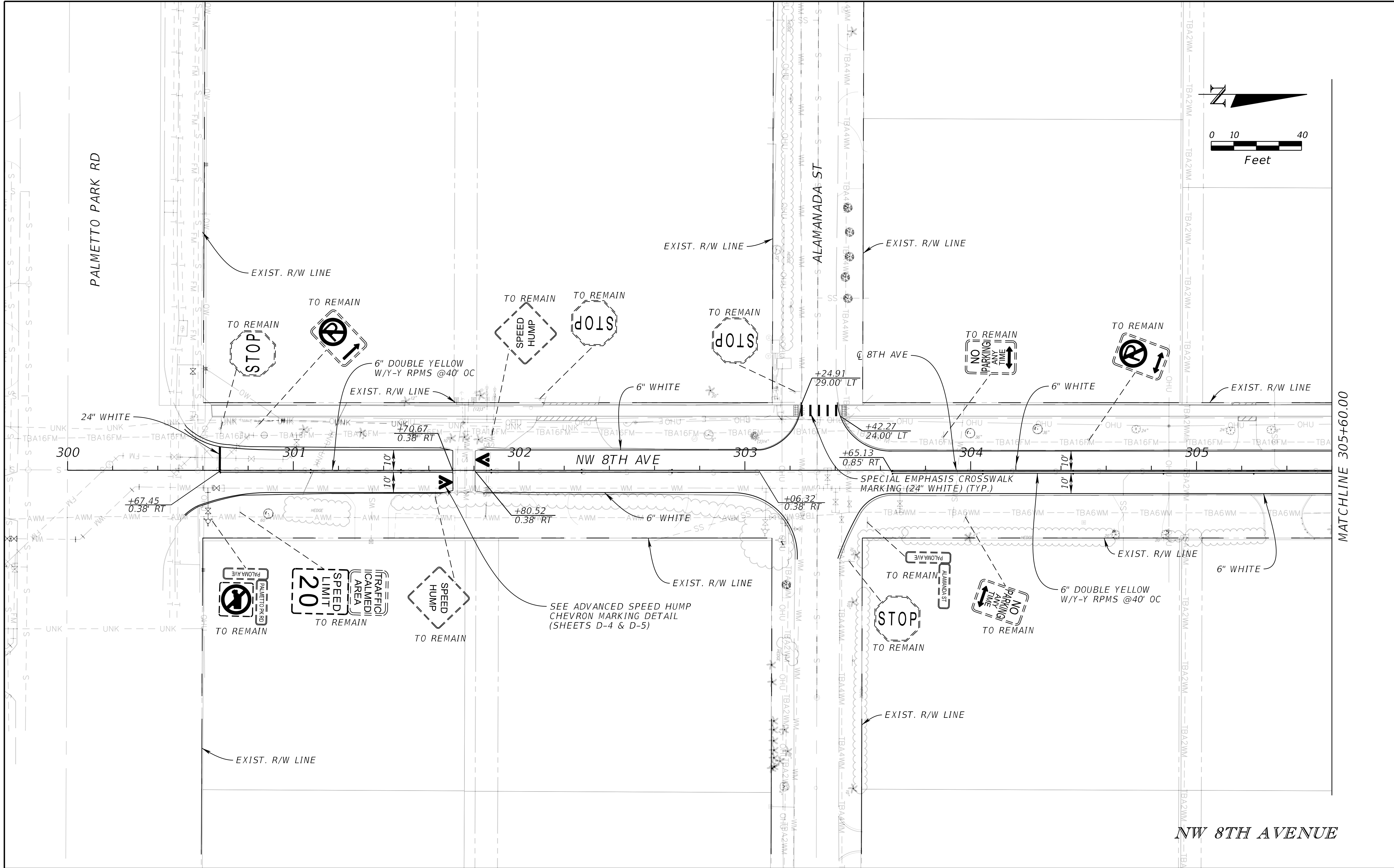


MATCHLINE 412+00.00
SIGNING AND PAVEMENT MARKING PLAN (11)

NW 7TH STREET

REVISIONS				Kimley-Horn and Associates, Inc. Certificate Of Authorization No. 696 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	SIGNING AND PAVEMENT MARKING PLAN (05)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
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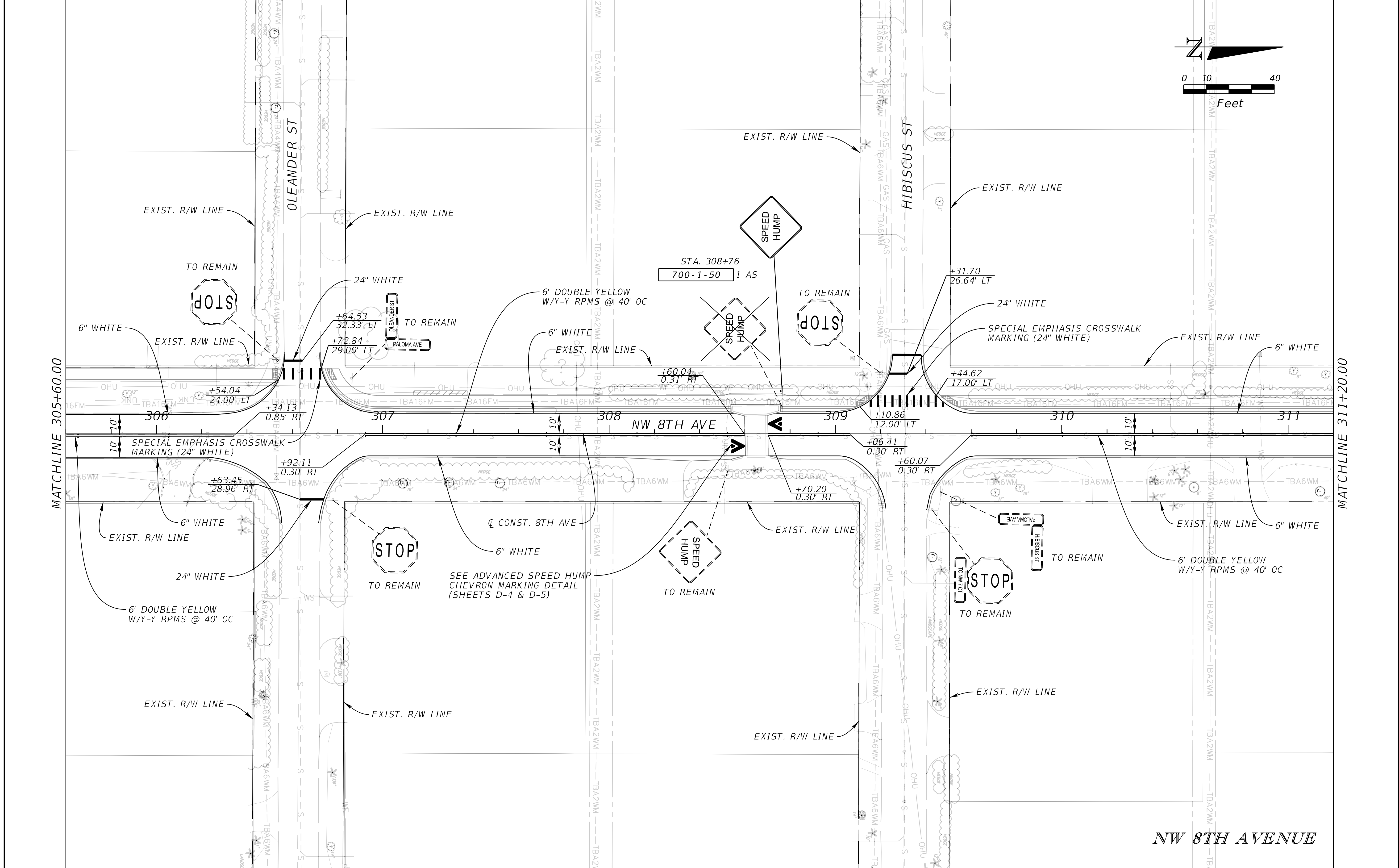
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DATE	DESCRIPTION	DATE	DESCRIPTION				

steven.monte

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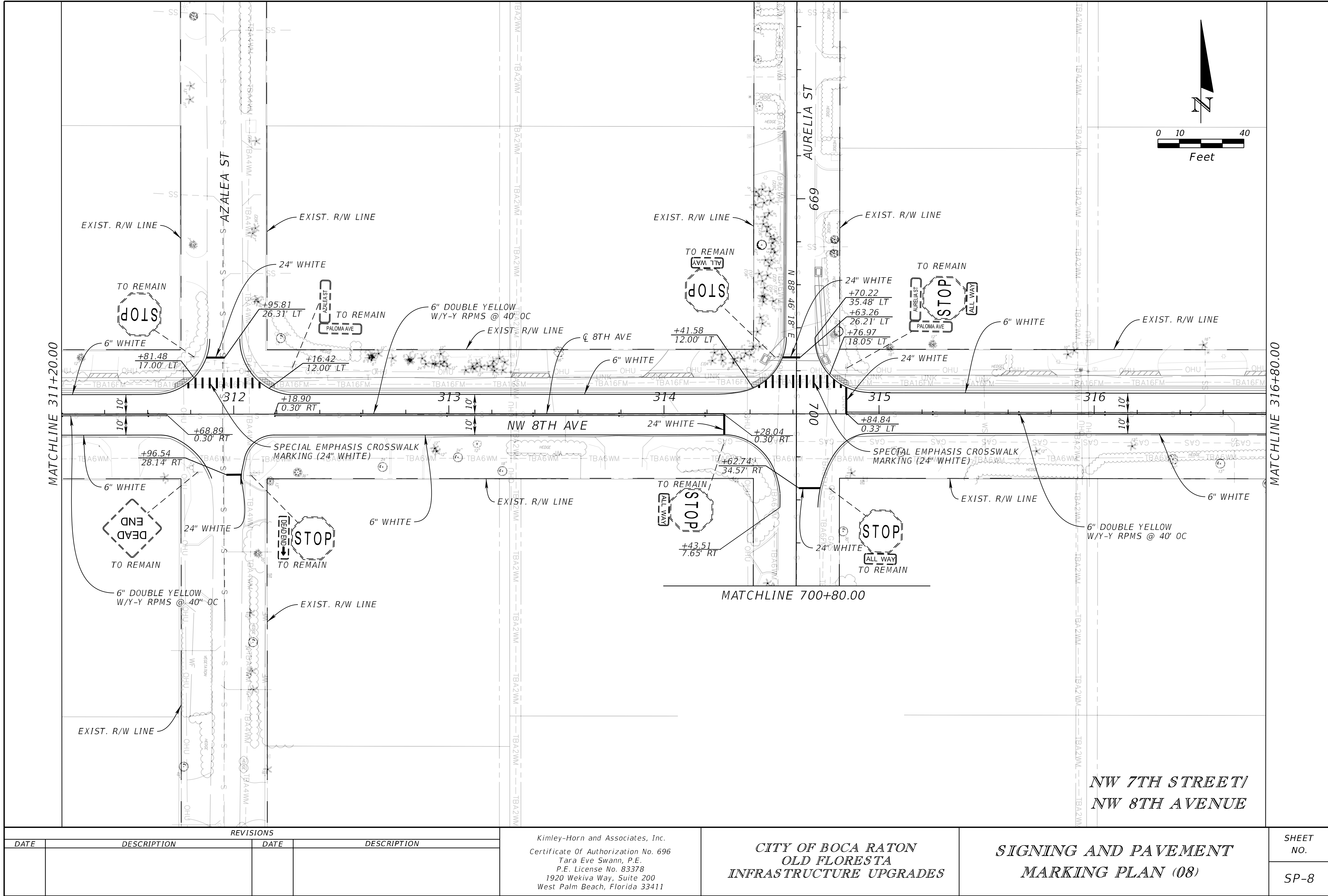
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DATE	DESCRIPTION	DATE	DESCRIPTION				
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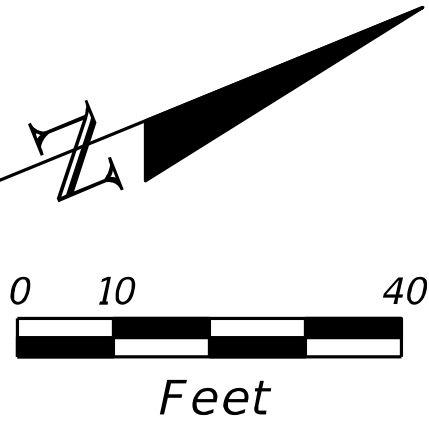
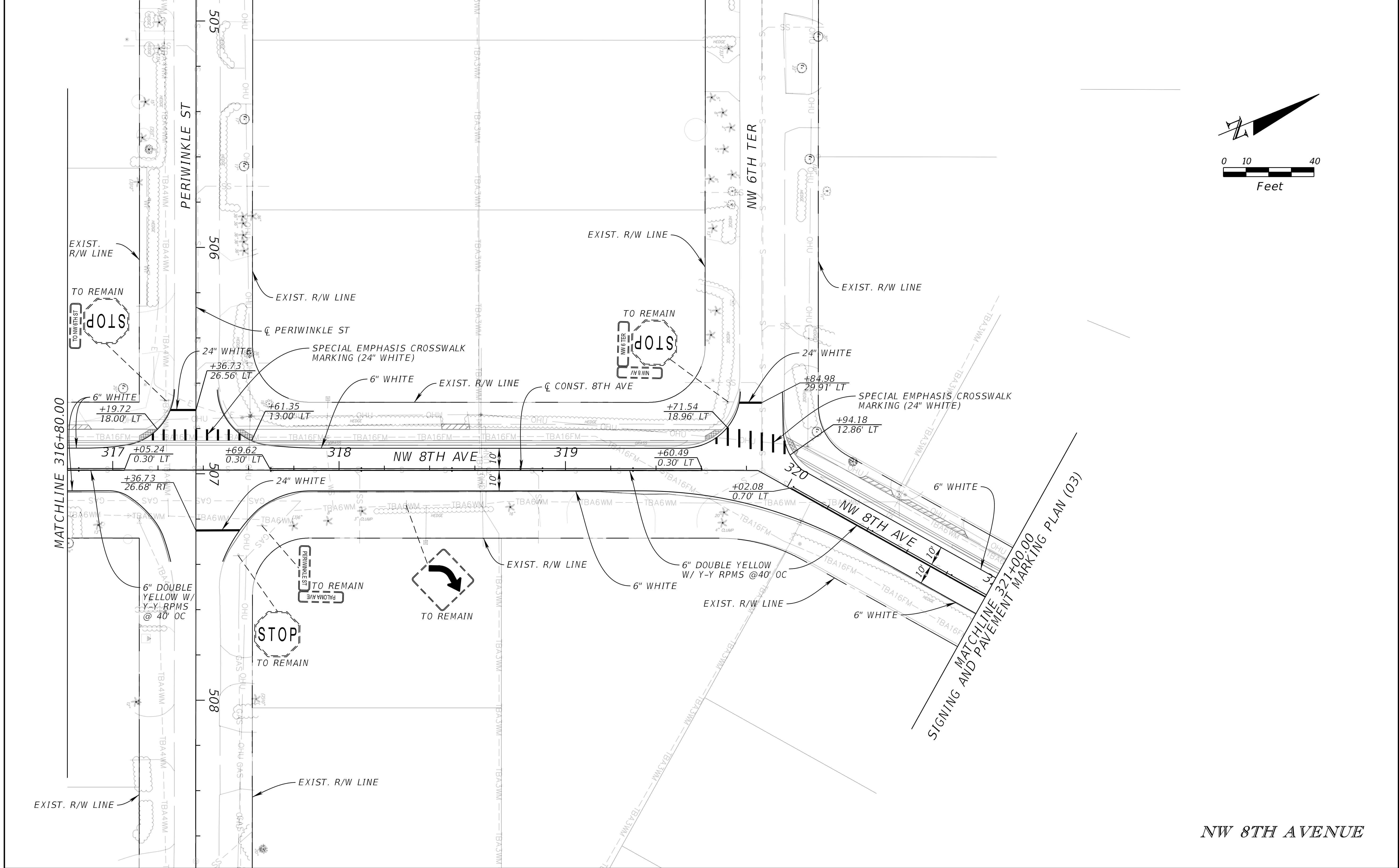
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Kimley-Horn and Associates, Inc.
Certificate Of Authorization No. 696
Tara Eve Swann, P.E.
P.E. License No. 83378
1920 Wekiva Way, Suite 200
West Palm Beach, Florida 33411

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

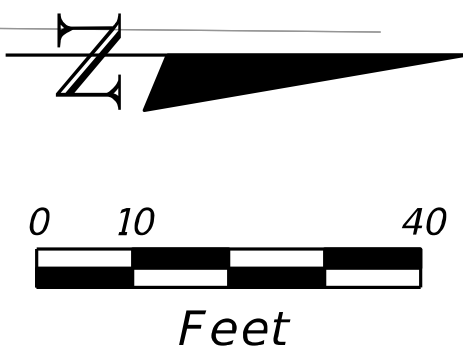
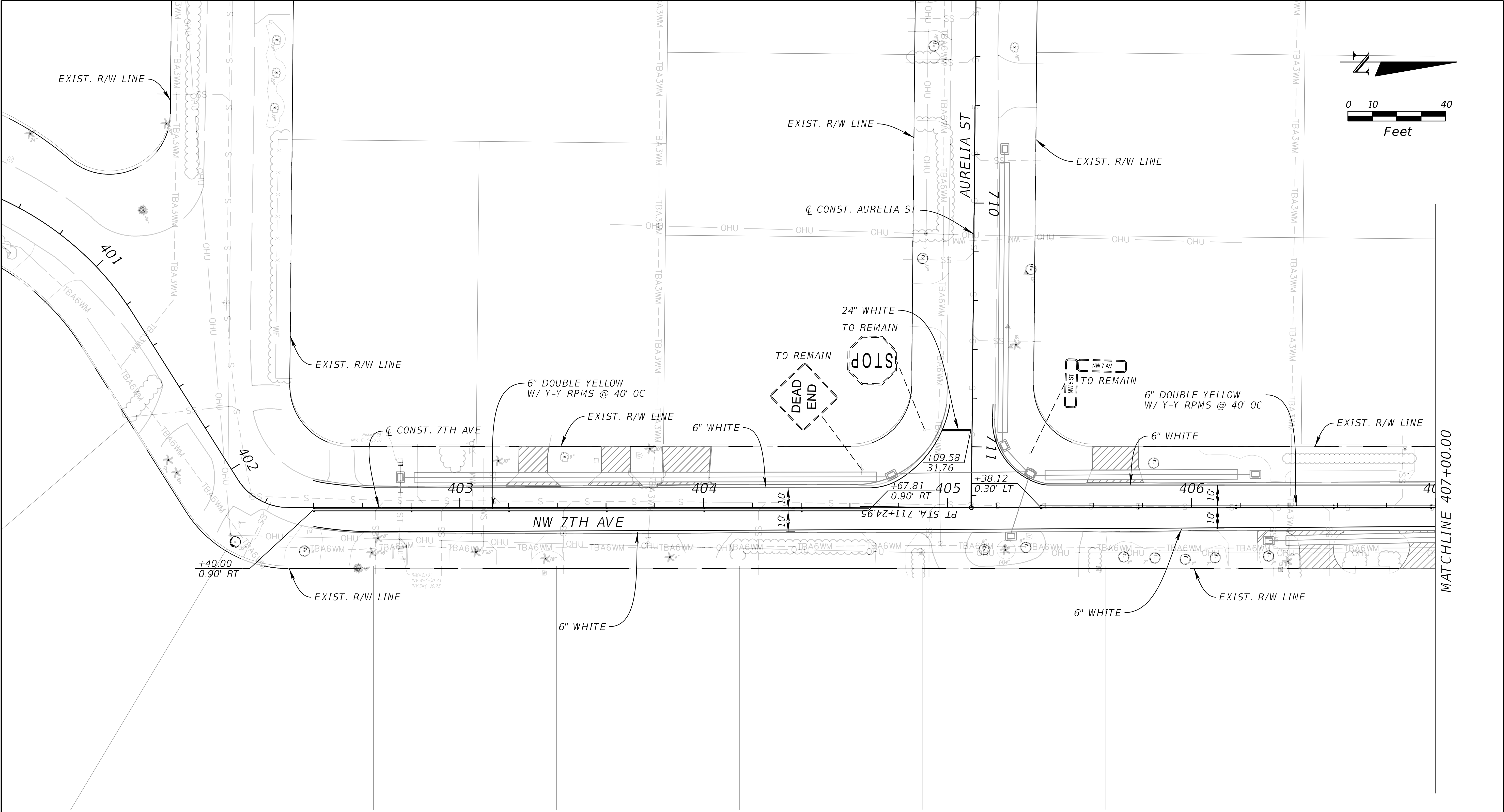
SIGNING AND PAVEMENT
MARKING PLAN (08)

SHEET
NO.
SP-8



REVISIONS				Kimley-Horn and Associates, Inc. Certificate Of Authorization No. 696 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	SIGNING AND PAVEMENT MARKING PLAN (09)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
							SP-9

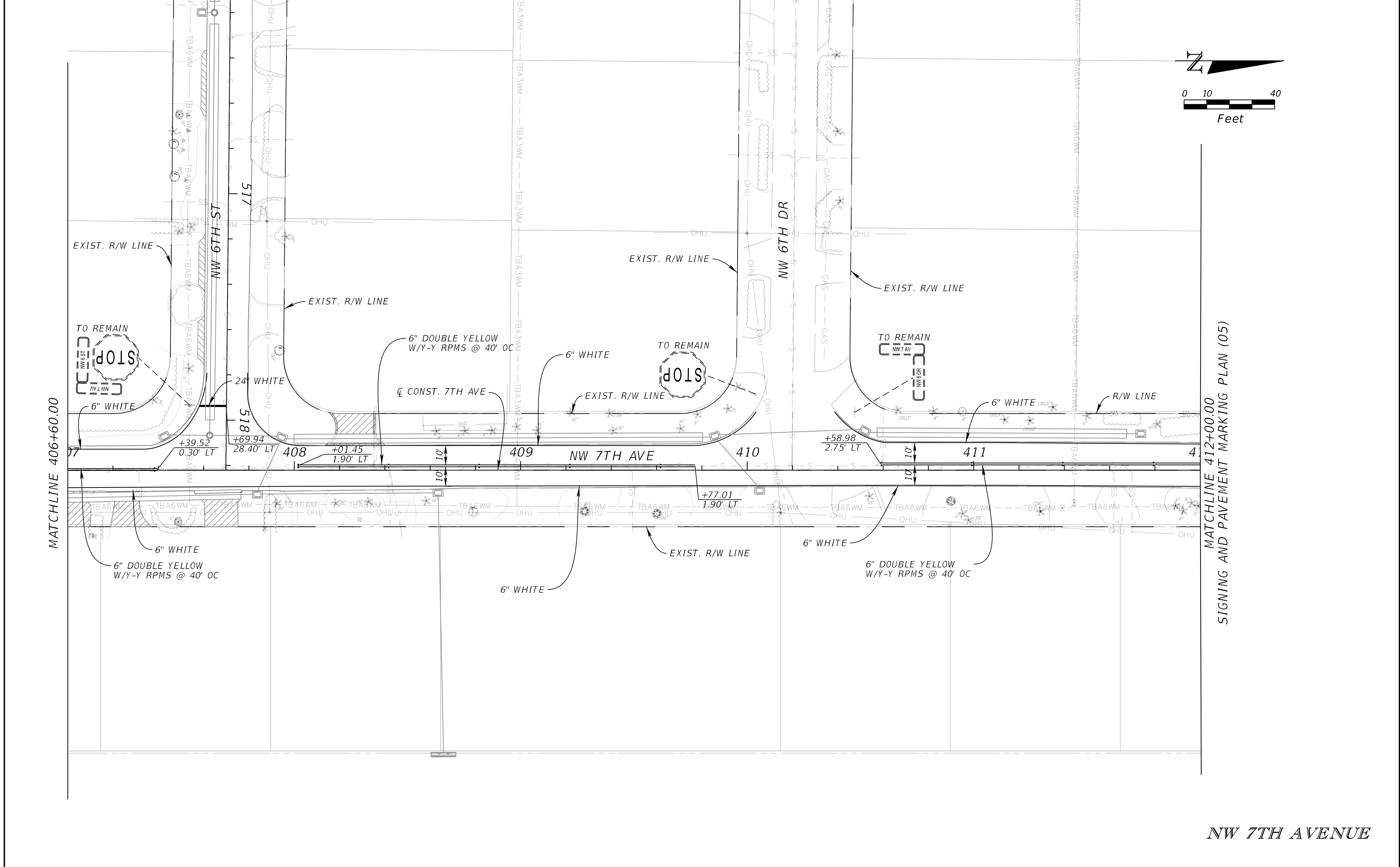
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NW 7TH AVENUE

REVISIONS				Kimley-Horn and Associates, Inc. Certificate Of Authorization No. 696 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	SIGNING AND PAVEMENT MARKING PLAN (10)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
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DATE	DESCRIPTION	DATE	DESCRIPTION				
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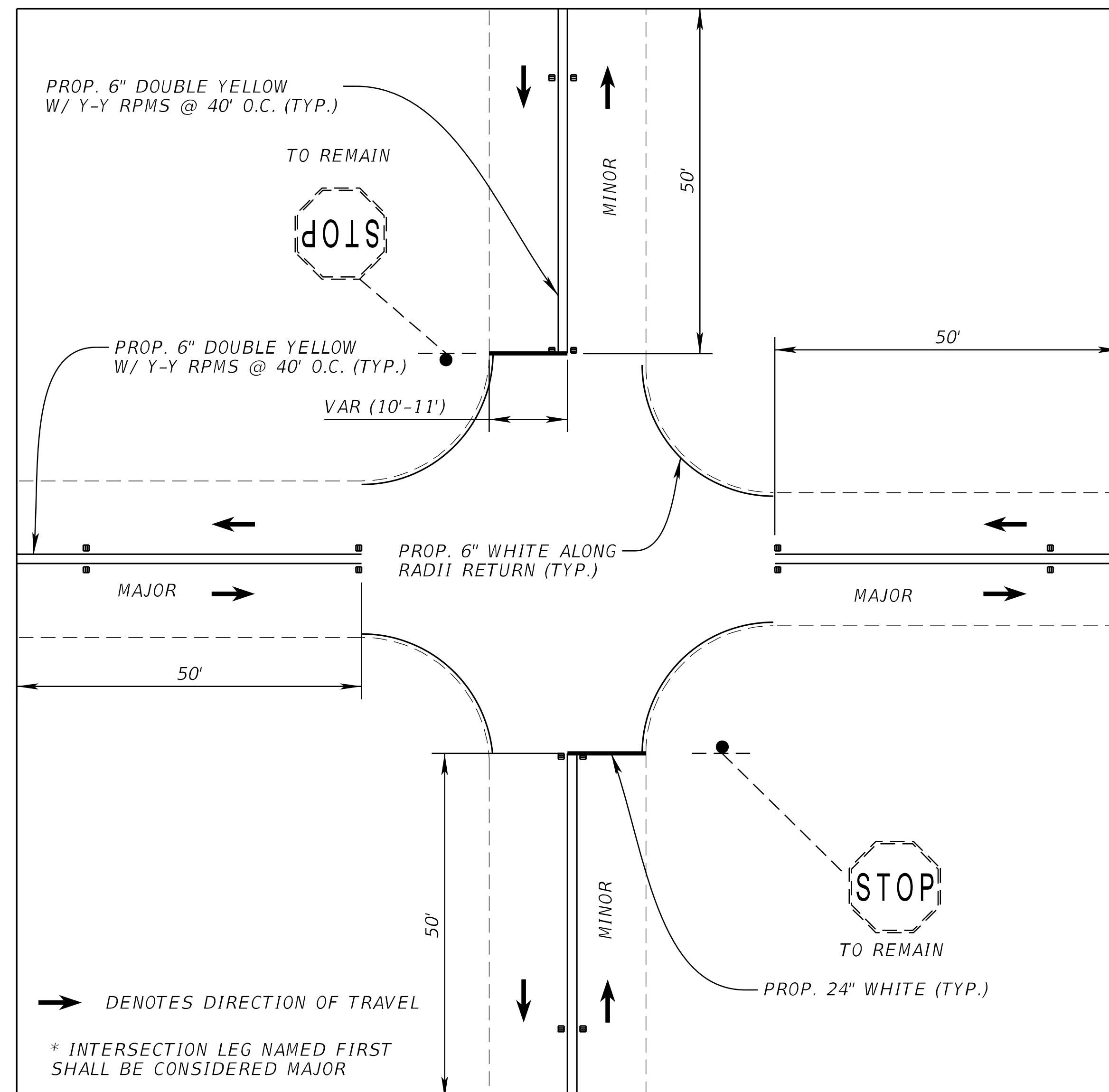
steven.monte

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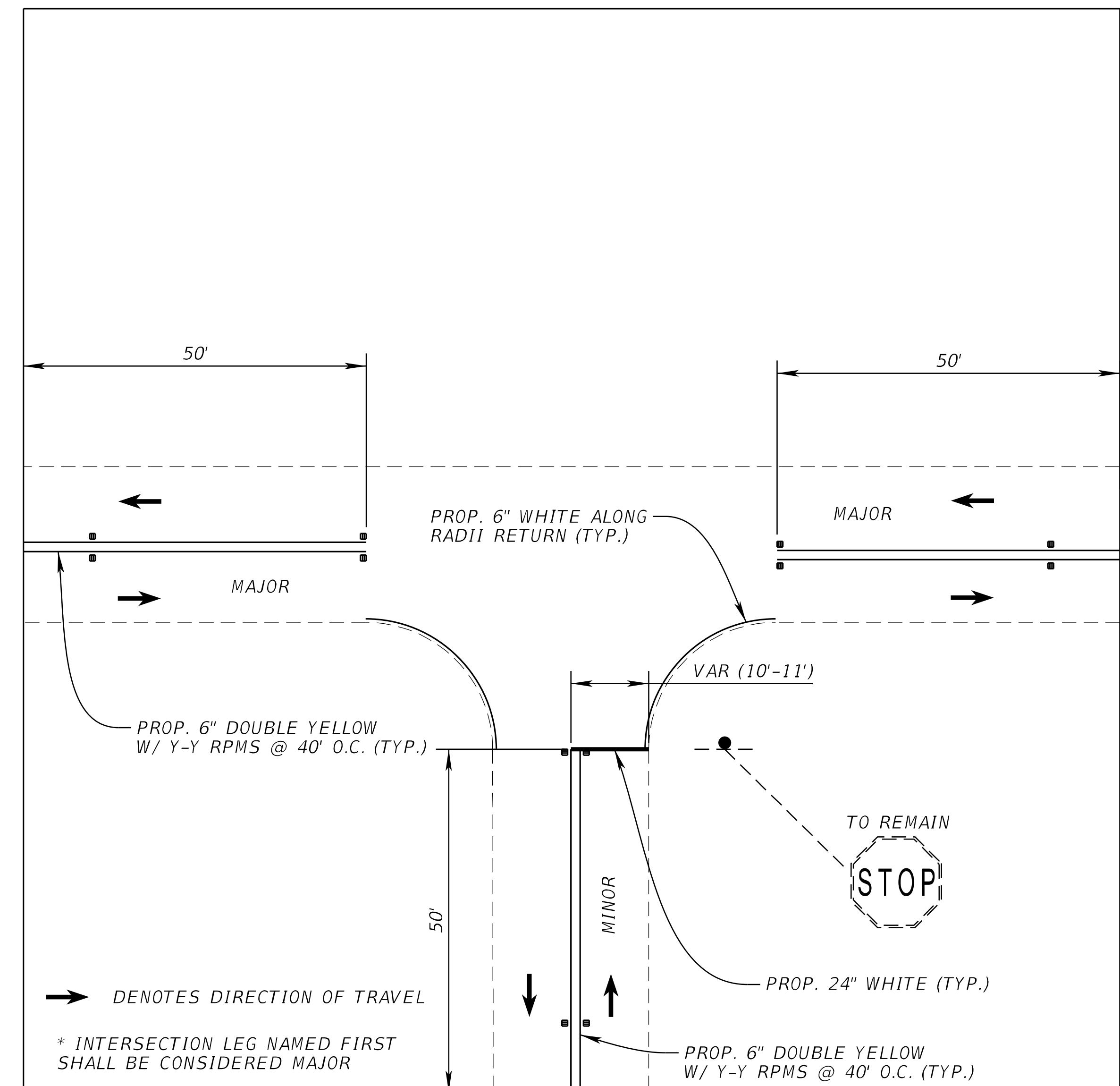
(NTS)



NW 9TH CT & NW 6TH TER
NW 9TH AVE & NW 6TH TER
NW 8TH AVE & ALAMANDA ST **
NW 8TH AVE & OLEANDER ST **
NW 8TH AVE & HIBISCUS ST **
NW 8TH AVE & AZALEA ST **
NW 8TH AVE & AURELIA ST (ALL WAY-STOP) **
NW 8TH AVE & NW 6TH ST **
NW 8TH AVE & NW 6TH DR **
NW 8TH AVE & NW 7TH ST **
NW 7TH ST & NW 7TH AVE **
NW 7TH ST & NW 9TH CT (ALL WAY-STOP) **

**) CONTINUE PROP. DOUBLE YELLOW CENTERLINE STRIPING ALONG MAJOR STREET. SEE PLANS FOR ADDITIONAL STRIPING DETAILS

(NTS)

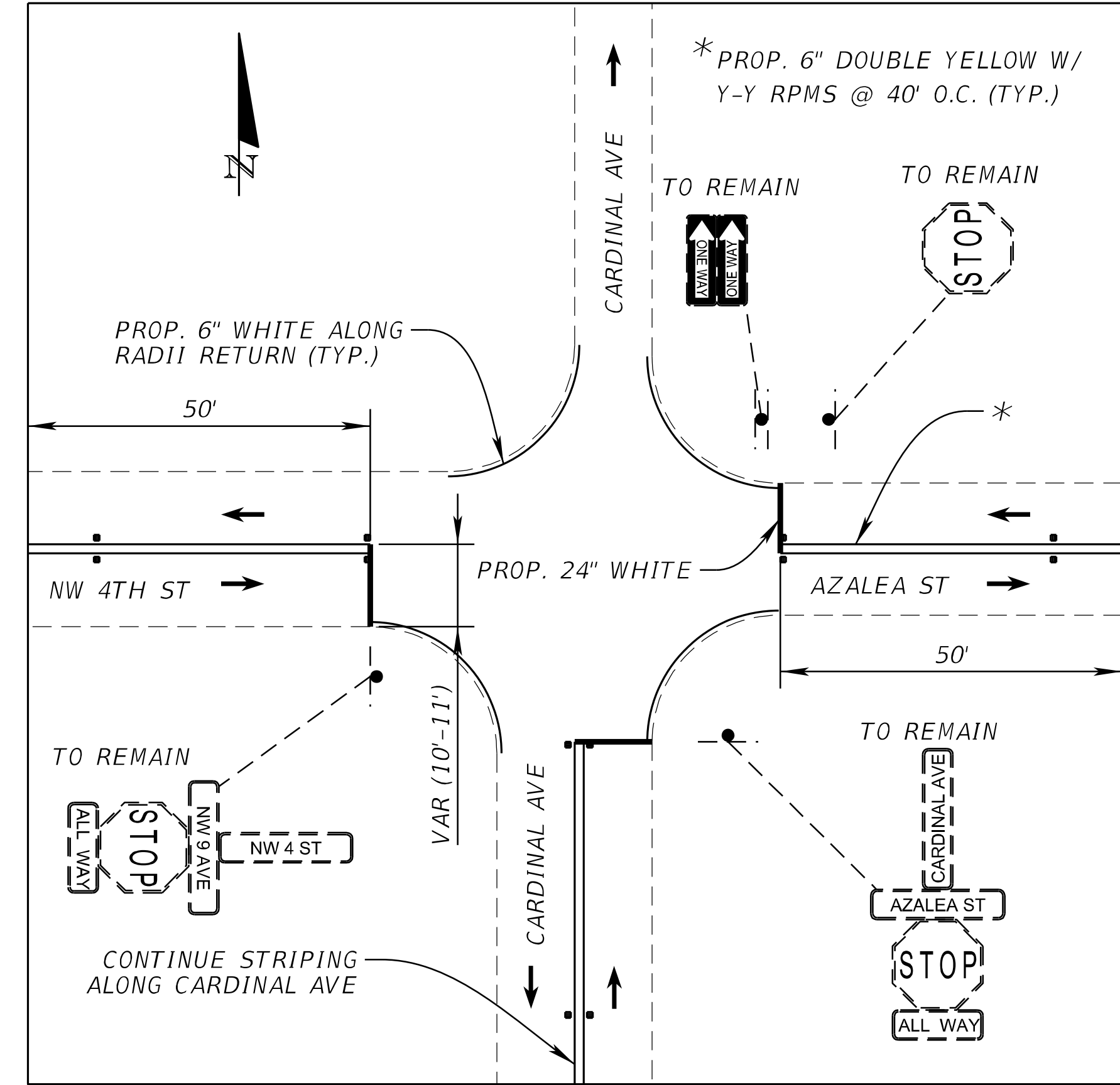


NW 11TH AVE & NW 4TH ST	CARDINAL AVE & OLEANDER ST **
NW 10TH CT & NW 4TH ST	CARDINAL AVE & HIBISCUS ST **
NW 10TH CT & NW 5TH ST	NW 9TH AVE & NW 6TH DR
NW 10TH CT & NW 6TH ST	NW 8TH AVE & NW 6TH TER **
NW 10TH CT & NW 6TH TER	NW 7TH AVE & AURELIA ST **
NW 10TH CT & NW 6TH DR	NW 7TH AVE & NW 6TH ST **
NW 9TH CT & NW 6TH ST	NW 7TH AVE & NW 6TH DR **
NW 9TH CT & NW 6TH DR	NW 7TH ST & NW 10TH CT
NW 9TH TER & NW 4TH ST	NW 7TH ST & NW 9TH AVE **
CARDINAL AVE & ALAMANDA ST **	NW 6TH DR & NW 7TH TER
CARDINAL AVE & NW 2ND ST **	NW 6TH ST & NW 7TH TER
	NW 3RD ST & NW 10TH CT

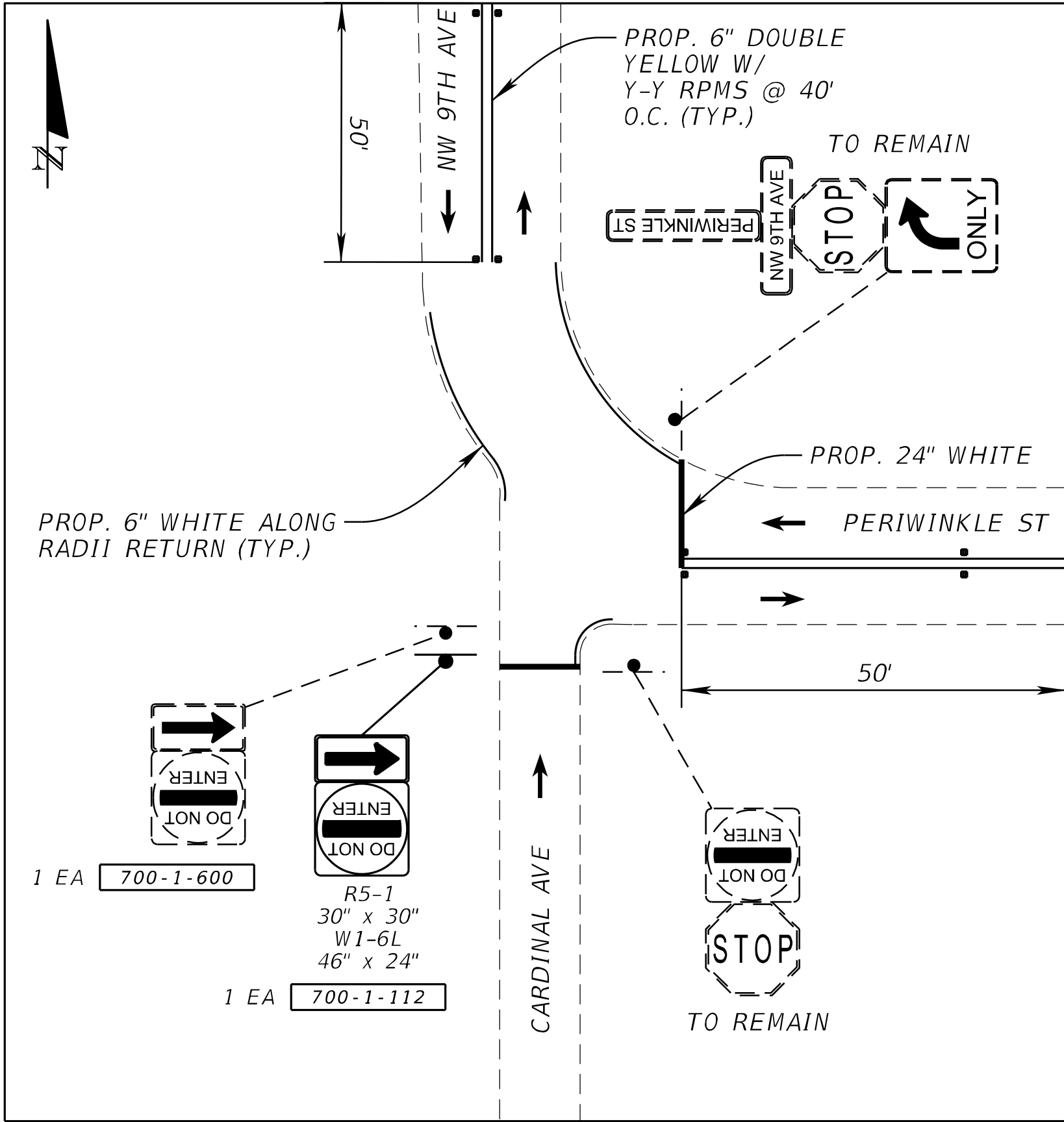
STANDARD INTERSECTION STRIPING DETAILS

REVISIONS				Kimley-Horn and Associates, Inc. Certificate Of Authorization No. 696 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	SIGNING AND PAVEMENT MARKING DETAIL	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				SP-12

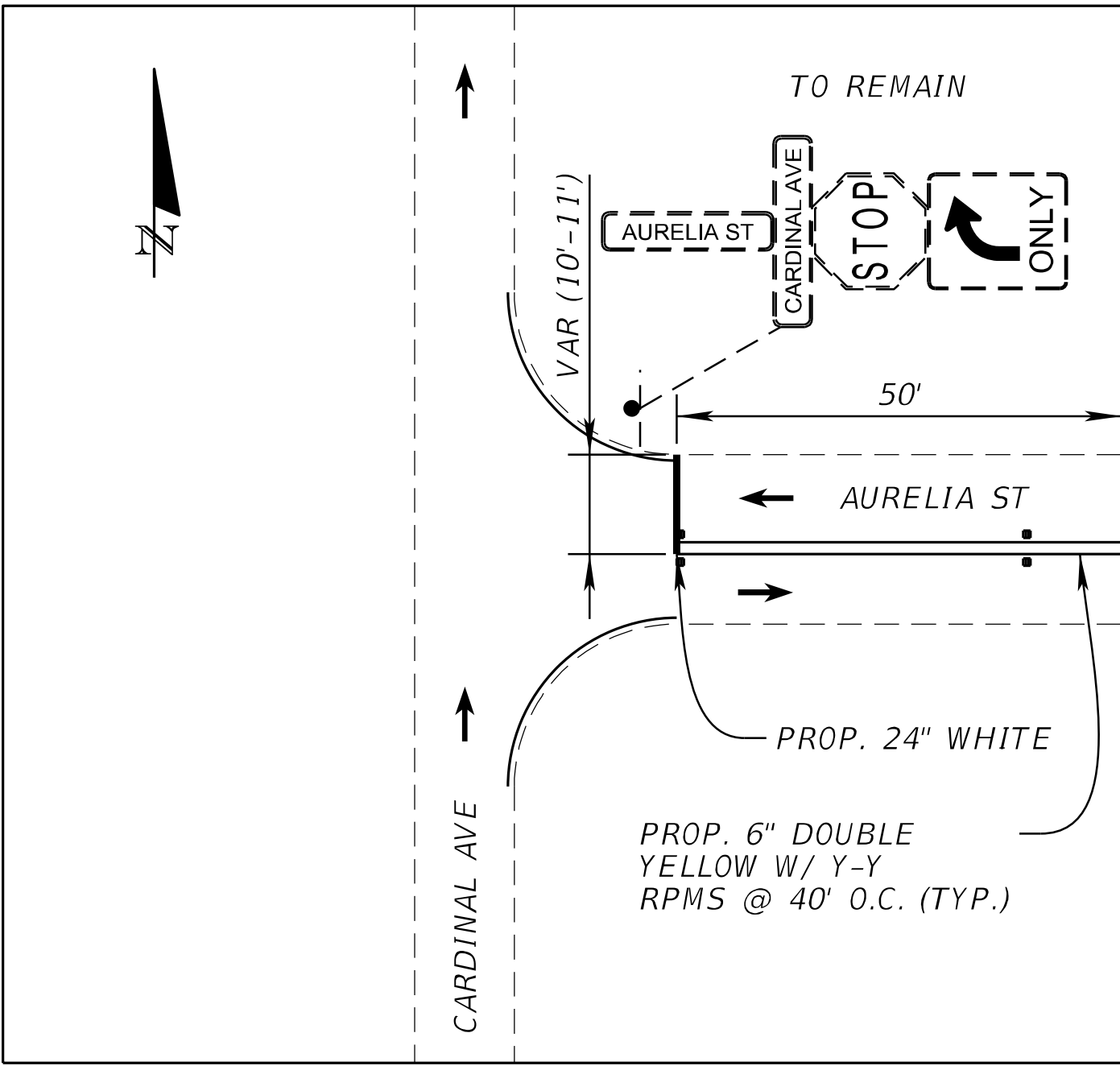
CARDINAL AVE & NW 4TH ST INTERSECTION STRIPING DETAIL
(NTS)



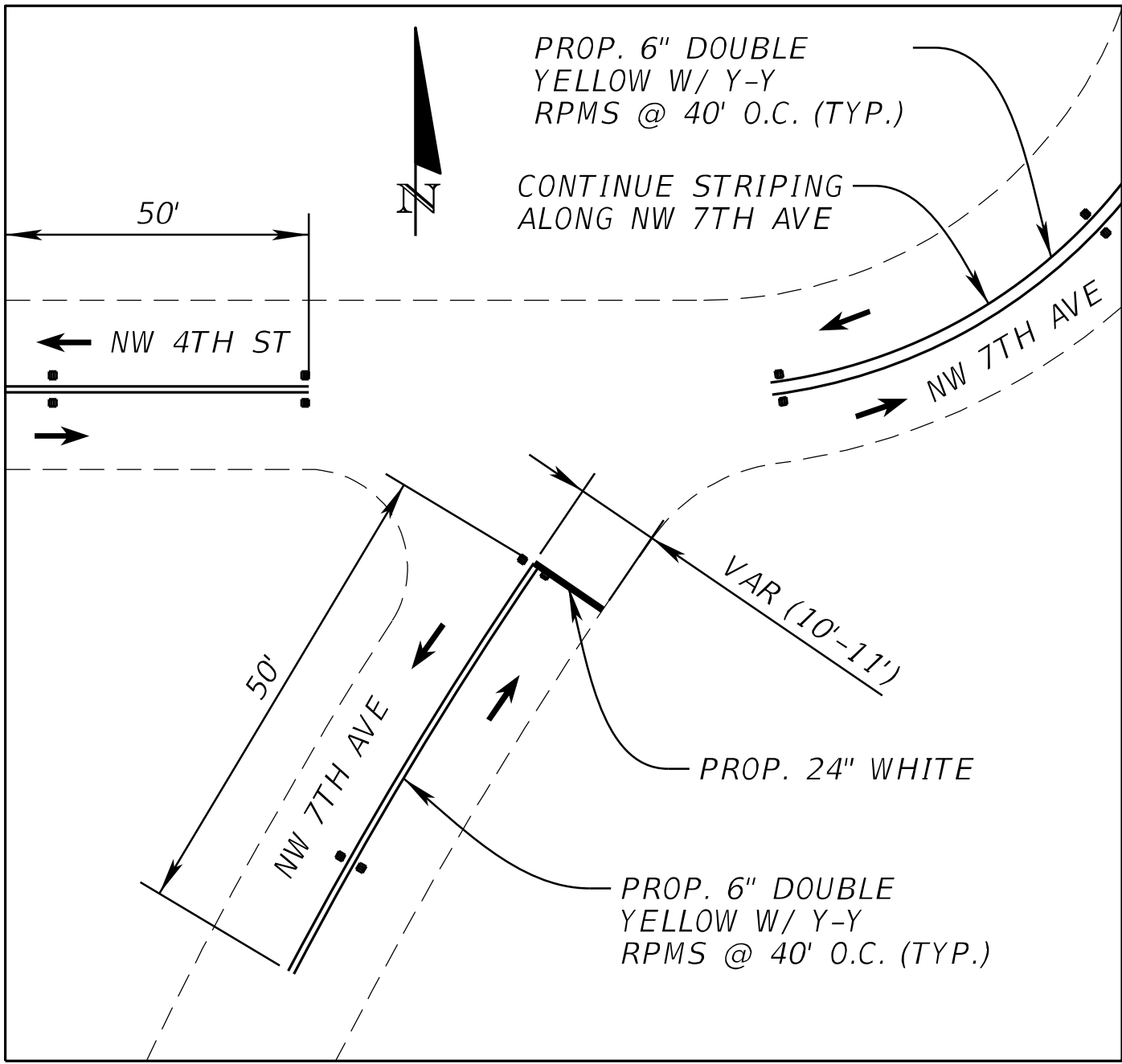
NW 9TH AVE & PERIWINKLE ST INTERSECTION STRIPING DETAIL
(NTS)



CARDINAL AVE & AURELIA ST INTERSECTION STRIPING DETAIL
(NTS)



NW 4TH ST & NW 7TH AVE
(NTS)



NOTE:
→ DENOTES DIRECTION OF TRAVEL

NONSTANDARD INTERSECTION
STRIPING DETAILS

REVISIONS				Kimley-Horn and Associates, Inc. Certificate Of Authorization No. 696 Tara Eve Swann, P.E. P.E. License No. 83378 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CITY OF BOCA RATON OLD FLORESTA INFRASTRUCTURE UPGRADES	SIGNING AND PAVEMENT MARKING DETAIL	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				SP-13

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Drawing Name: \\10.1.10.26\CW Dropbox\JOBS\58-HOLZ CONSULTING\225803 BOCA RATON LIFT STATION 27 & 53 REHABILITATION\DRAWINGS\01 - LS No. 27 Electrical Site Plans.dwg Layout Name: LES - Plotted by: Andres Demarchi - Date: 11/7/2024 - 4:28 PM - Holz Consulting Engineers

- A. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND LABOR FOR A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS INCLUDING ITEMS NOT SHOWN BUT OBVIOUSLY NECESSARY FOR A COMPLETE SYSTEM.
- B. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS.
- C. ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, NFPA, THE LOCAL BUILDING CODES AND CITY OF BOCA RATON LIFT STATION STANDARDS (LATEST REVISION). ALL COMPONENTS SHALL BE U.L. APPROVED.
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL CONCEALED FACILITIES BEFORE ANY WORK BEGINS.
- E. CONTRACTOR SHALL COORDINATE WITH POWER COMPANY FOR INSTALLATION OF NEW TEMPORARY CONSTRUCTION POWER AND PERMANENT NEW SERVICE. CONTRACTOR SHALL INSTALL NEW U.G. SERVICE RACEWAY AND CONDUCTORS PER CONTRACT DRAWINGS AND FPL COORDINATION.

- A. PROVIDE DEMO OF EXISTING ELECTRICAL EQUIPMENT.
- B. PROVIDE & INSTALL PROPOSED ELECTRICAL EQUIPMENT.
- C. COORDINATION WITH FPL FOR DISCONNECT & DEMO OF EXISTING SERVICE, INSTALL OF NEW RISER/HANDHOLE & RECONNECT OF NEW SERVICE.
- D. STARTUP, TESTING, & TRAINING OF CITY STAFF.

A. CONDUIT SIZES AS SHOWN ON THE DRAWINGS ARE A MINIMUM. THE CONTRACTOR MAY INCREASE AS REQUIRED FOR EASE OF PULLING.

B. ALL EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL. CONDUITS SHALL HAVE BURRS REMOVED WITH A REAMER. CONDUITS ENTERING CABINETS SHALL HAVE LOCK NUTS INSIDE AND OUT UNLESS ENTRANCE IS THREADED. NYLON INSULATED BUSHINGS SHALL BE USED ON ALL CONDUIT TERMINATIONS.

4. JUNCTION BOXES

A. PROVIDE ADDITIONAL BOXES AS MAY BE REQUIRED. PROVIDE NEMA 4X OUTSIDE.

A. CONDUCTORS SHALL BE COPPER STRANDED TYPE THWN WITH 75°C RISE INSULATION.

A. PROVIDE GROUND SYSTEM AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY THE NATIONAL ELECTRIC CODE.

7. FACILITY SHUT DOWN

A. CONTRACTOR SHALL COORDINATE POWER SYSTEM DOWNTIME WITH FPL AND THE OWNER. PROVIDE TEMPORARY BYPASS PUMPING AS REQUIRED BY CONTRACT DOCUMENTS.

A. CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITIONS ALL FACILITIES HE DISTURBS. CONTRACTOR SHALL PROVIDE CLEANUP TO ORIGINAL CONDITIONS.

A. CONTRACTOR SHALL WARRANT LABOR AND MATERIALS PER THE TERMS IN THE CONTRACT, SEE OTHER SPECIFICATIONS

10. EXCEPT AS INDICATED OR NOTED, ALL MATERIAL SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
11. ALL RTU AND SCADA PROGRAMING SHALL BE PROVIDED BY THE OWNERS.

A. PLANS ARE SCHEMATIC IN NATURE AND MEANT TO SHOW THE SCHEMATIC ARRANGEMENT OF EQUIPMENT AND CONDUIT

A. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MEET N.E.C. CLEARANCES ABOUT EQUIPMENT. THE SAME APPLIES TO RACEWAY SUPPORTS.

A. CONDUIT ROUTING IS SCHEMATIC IN NATURE. CONDUIT ROUTING IS SHOWN FOR CLARITY ON THE CONTRACT DRAWINGS. ROUTE CONDUITS AS MAY BE REQUIRED. WHENEVER POSSIBLE INSTALL/ROUTE WITHIN UTILITY EASEMENTS.

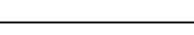




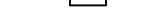
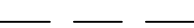






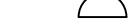


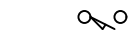








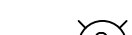


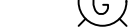


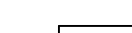
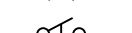





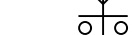




A. THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE NEC AND ITS APPLICATION TO THE INSTALLATION ENVIRONMENT.

A. CONTRACTOR SHALL COORDINATE HOME RUNS BETWEEN PLAN VIEWS. WHERE ANY CONDUIT IS SHOWN IN ANY PLAN VIEW IT SHALL BE INSTALLED THE ENTIRE LENGTH AS MAY BE REQUIRED.

18. THE CONTRACTOR SHALL PROVIDE NEW ELECTRICAL SERVICE (UNLESS OTHERWISE INDICATED). PROVIDE POWER CO. COORDINATION, LABOR, AND ALL MATERIALS AS REQUIRED. TH SHALL INCLUDE DEMOLITION OF EXISTING SERVICE, DIRECTION BORING, AND/OR CUTTING AND PATCHING, AND RESTORATION OF ALL AREAS TO ORIGINAL CONDITIONS.

19. PROVIDE CONDUIT SWEEPS TO WETWELL AND VALVE VAULT WHENEVER POSSIBLE, AVOID 90° BENDS.

CLF	CURRENT LIMITING FUSE	HOA	HAND-OFF-AUTO	PM	POWER MONITOR	ST	SHUNT TRIP
CP	CONTROL PANEL	HOR	HAND-OFF-REMOTE	PMR	PUMP MONITOR RELAY	ST/SP	START/STOP
CPP	CONCRETE POWER POLE	LOR	LOCAL-OFF-REMOTE	PWPT	POTABLE WATER PRESS. TRANS.	TC	TIME CLOCK
CR	CONTROL RELAY	LSCP	LIFT STATION CONTROL PANEL	RF	RADIO FREQ.	TOT	TOTALIZER
DISC	DISCONNECT SWITCH	LIT	LEVEL INDICATING TRANSMITTER	R,G,A	RED, GREEN, AMBER PILOT LIGHT	TS	TEST SWITCH
DLT	DIESEL LEVEL TRANS.	LT	LEVEL TRANS.	RGS	RIGID GALVANIZED STEEL	TX	TRANSFORMER
DDM	DIGITAL MULTIMETER	M	MOTOR STARTER	SFM	SEAL FAIL MONITOR	VFD	VARIABLE FREQUENCY DRIVE
ETM	ELAPSED TIME METER	NF	NON FUSED	SA	SURGE ARRESTER	WP	WEATHER PROOF
F	FUSE	OHU	OVER HEAD ELEC UTILITIES	SS	SELECTOR SWITCH OR	WPP	WOOD POWER POLE
FMPT	FORCE MAIN PRESS. TRANS.	OL	OVER LOAD RELAY		316 STAINLESS STEEL	WWF	WASTEWATER FLOATS
GF1	GROUND FAULT INTERRUPTOR	PB	PUSH BUTTON	SSRVs	SOLID STATE REDUCED VOLTAGE STARTER		
GBATT	GENSET BATTERY CHARGER						

	RACEWAY EXPOSED		LEVEL SWITCH, FLOAT SWITCH		JUNCTION BOX
	LIGHTING RACEWAY CONCEALED		PRESSURE SWITCH		PANELBOARD, ELECTRICAL EQUIP. ENCL.
	RACEWAY CONCEALED		LIMIT SWITCH		CROSS HATCH DENOTES DELETION
	RACEWAY TURNED UP/DOWN		THERMAL SWITCH		MANUAL MOTOR STARTER
	MOTOR		HEATER		RED, MAINTAINED PUSH BUTTON
	TRANSFORMER		PILOT LIGHT		TIMING CONTACT
	FUSE		ELAPSED TIME METER		FLOW SWITCH
	CIRCUIT BREAKER		SELECTOR SWITCH		CONTROL RELAY, MOTOR STARTER, ETC.
	CAPACITOR		PUSH BUTTON		DENOTES CONDUIT TAG 01
	LIGHTNING ARRESTER		ON-OFF SWITCH		DENOTES SEPARATE CONDUITS WITH SEPARATE WIRE
	SAFETY DISCONNECT SWITCH, HP RATED		SWITCH 48" AFF.		DENOTES PANELBOARD A, CIRCUIT 3
	GROUND		SWITCH 48" AFF, 3-WAY		
	DUPLEX, 14" AFF				
	SIMPLEX, 14" AFF				
	NORMALLY OPEN CONTACT				
	NORMALLY CLOSED CONTACT				

NOTE: ALL CONDUIT TAGS INDICATE NEW WIRE AND CONDUIT. EXISTING WIRE AND EQUIPMENT IS SHOWN ON DRAWINGS AS LIGHT WEIGHT

CONDUIT LEGEND

6 TSP, 1#14, 1-1/2"C

NOTE: ALL CONDUIT TAGS INDICATE NEW WIRE AND CONDUIT. EXISTING CONDUIT
AND EQUIPMENT IS SHOWN ON DRAWINGS AS LIGHT WEIGHT LINE TYPES.

CONDUIT SIZE
1 #14 WIRE
6 TWISTED SH

REV	DATE	REVISIONS	BY

Date: 11/07/24
Scale: AS NOTED
Design By: JLR
Drawn By: YGC
Check By: MAG

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATIONS NO. 27 & 53 ELECTRICAL NOTES & LEGEND

HOLTZ CONSULTING ENGINEERS, INC.



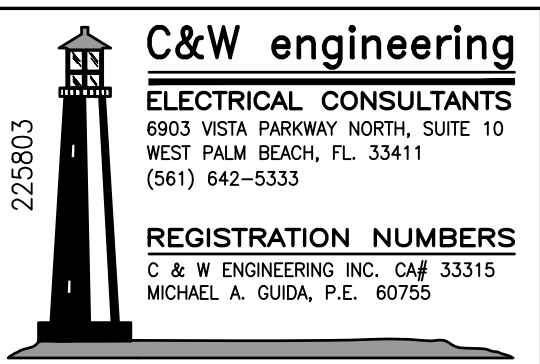
270 SOUTH CENTRAL BLVD., SUITE 207
JUPITER, FLORIDA 33458
PH. (561) 575-2005

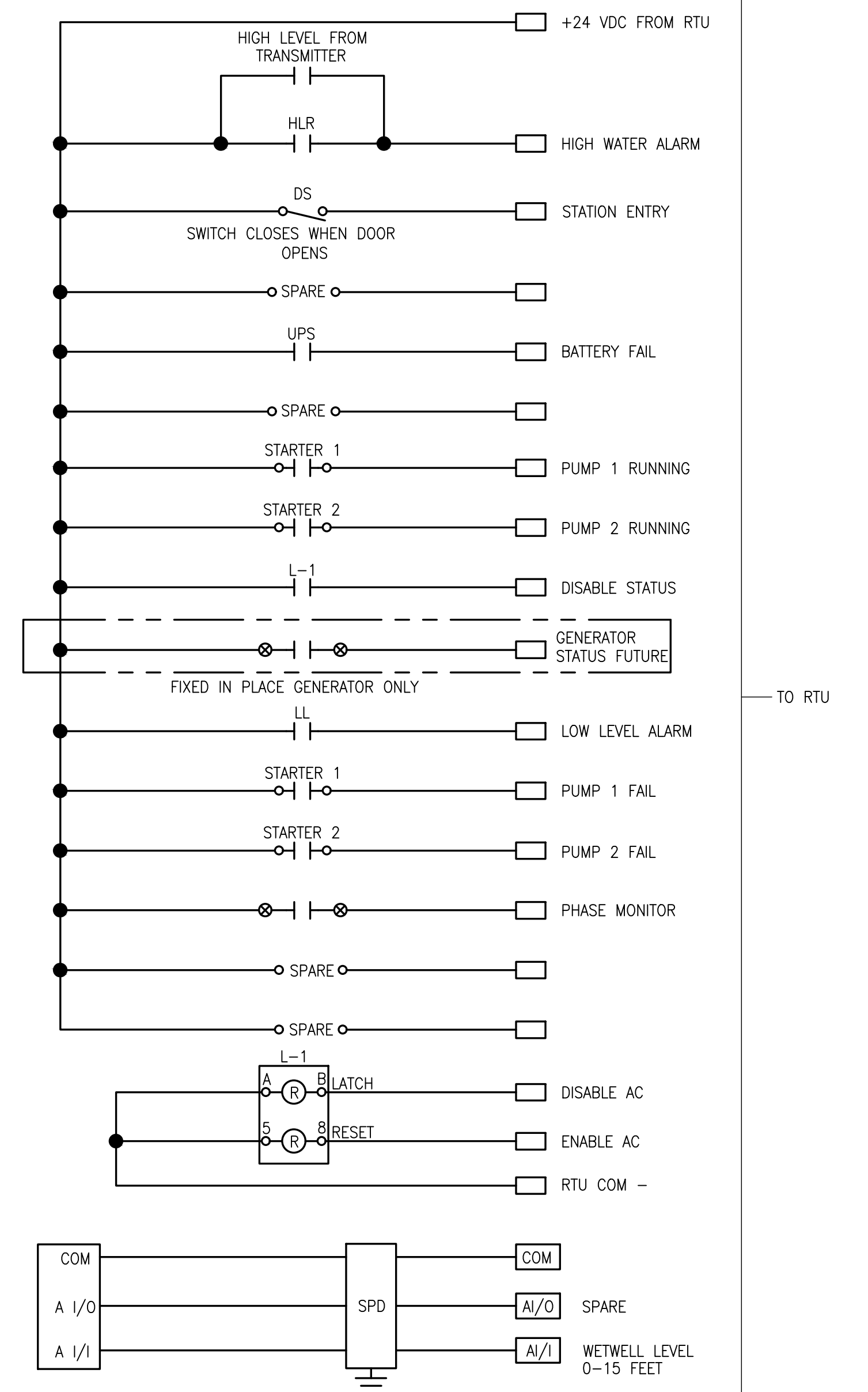
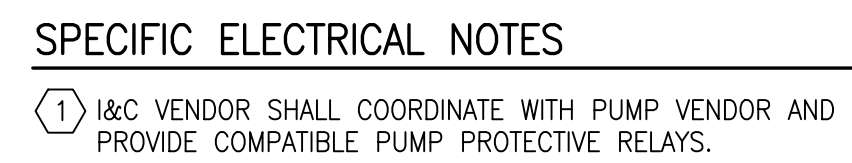
Cert. No. 26960

MICHAEL A. GUIDA

License No: 60755

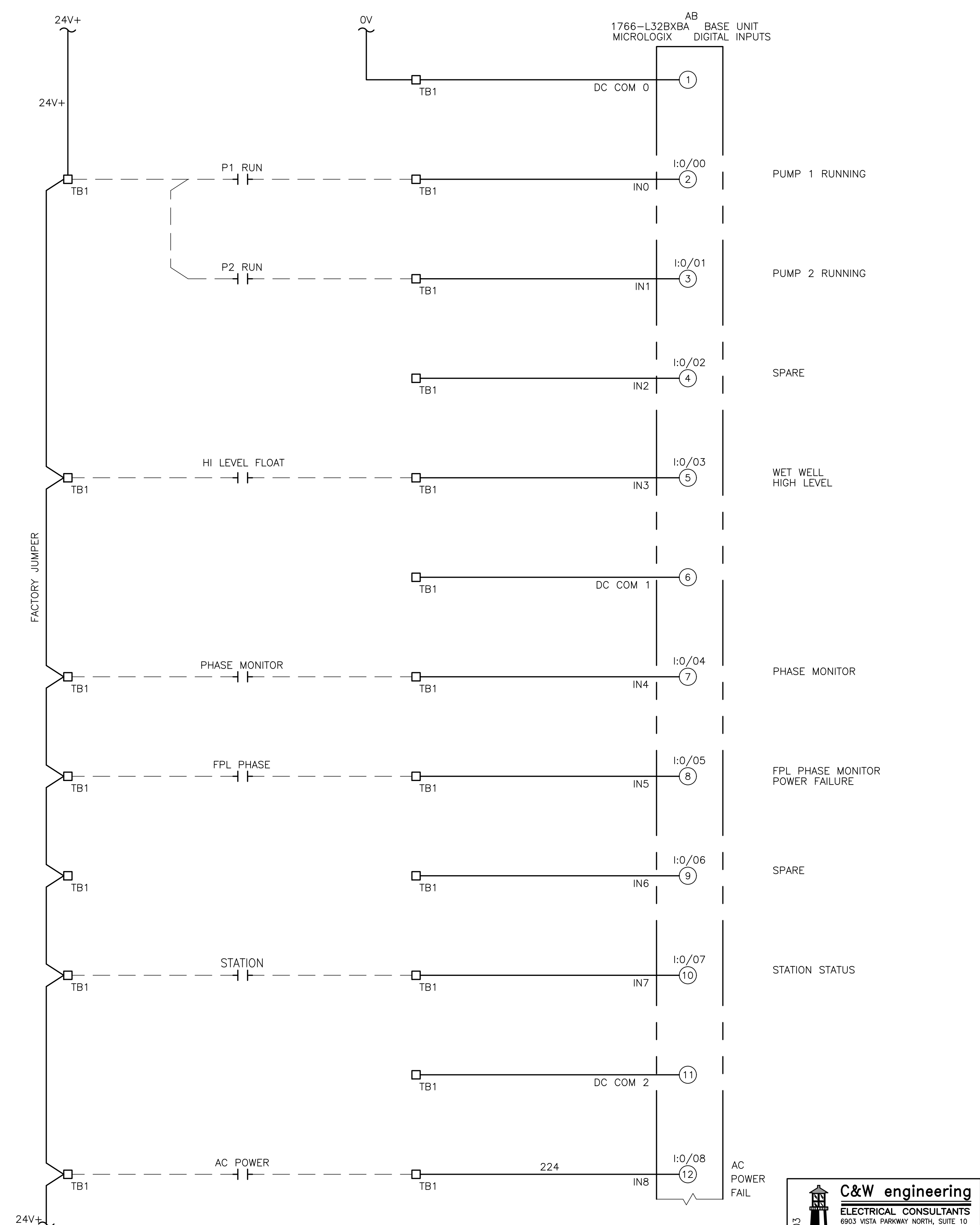
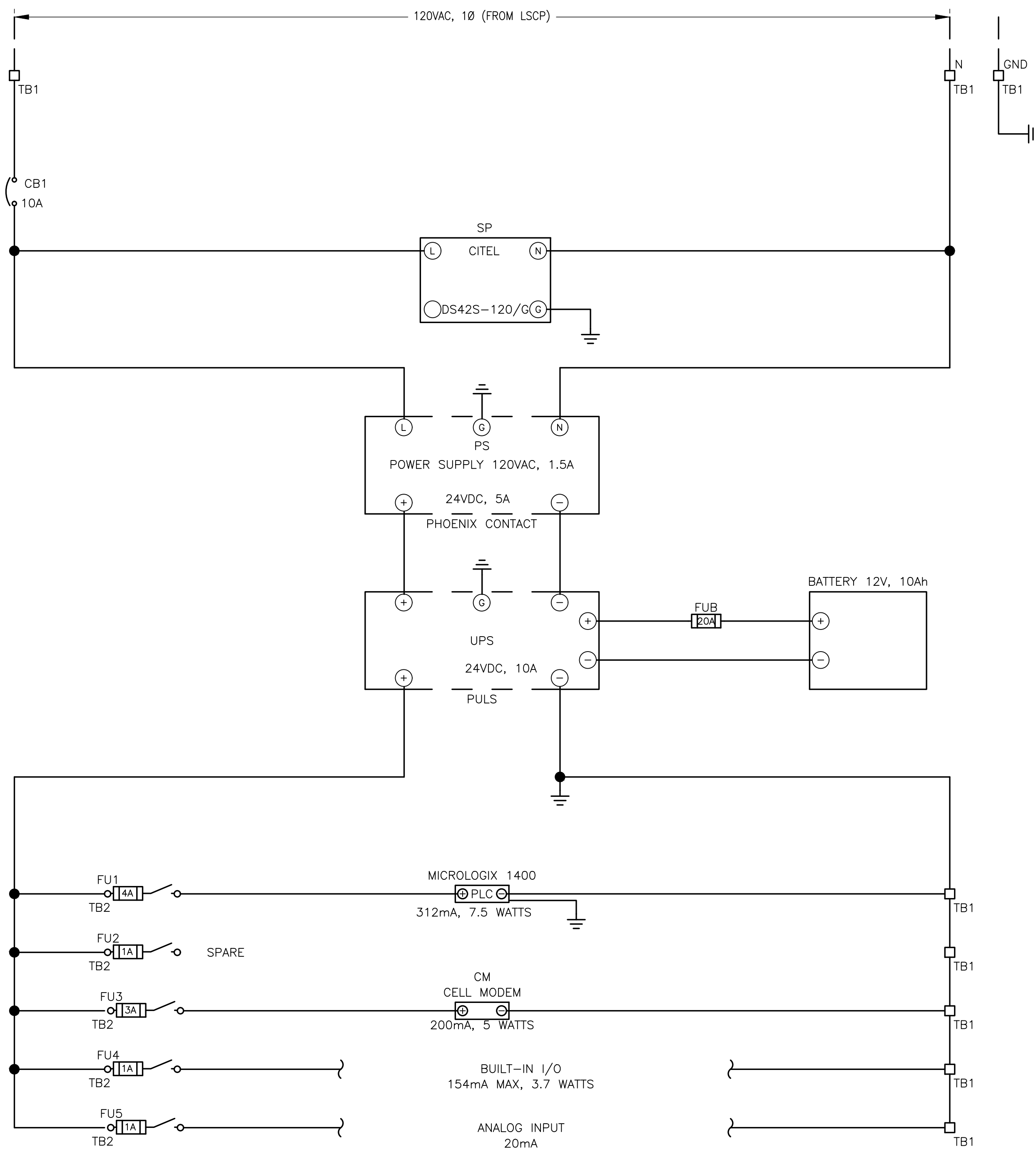
E-1





NOTE: I&C VENDOR SHALL PROVIDE RELAYS, PILOT DEVICES TO PROVIDE STATUS SIGNALS ABOVE, NOT ALL RELAY LOGIC SHOWN.

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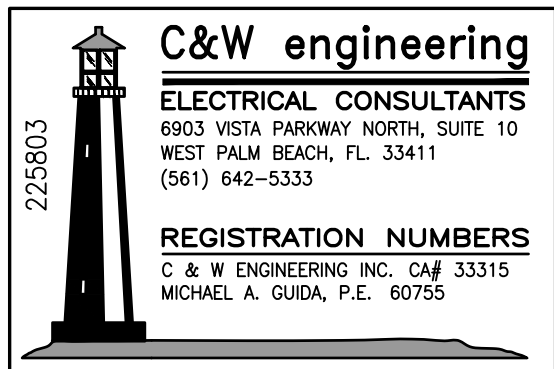
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Drawn By: YGC
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CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27
RTU WIRING DIAGRAM, SHEET 1

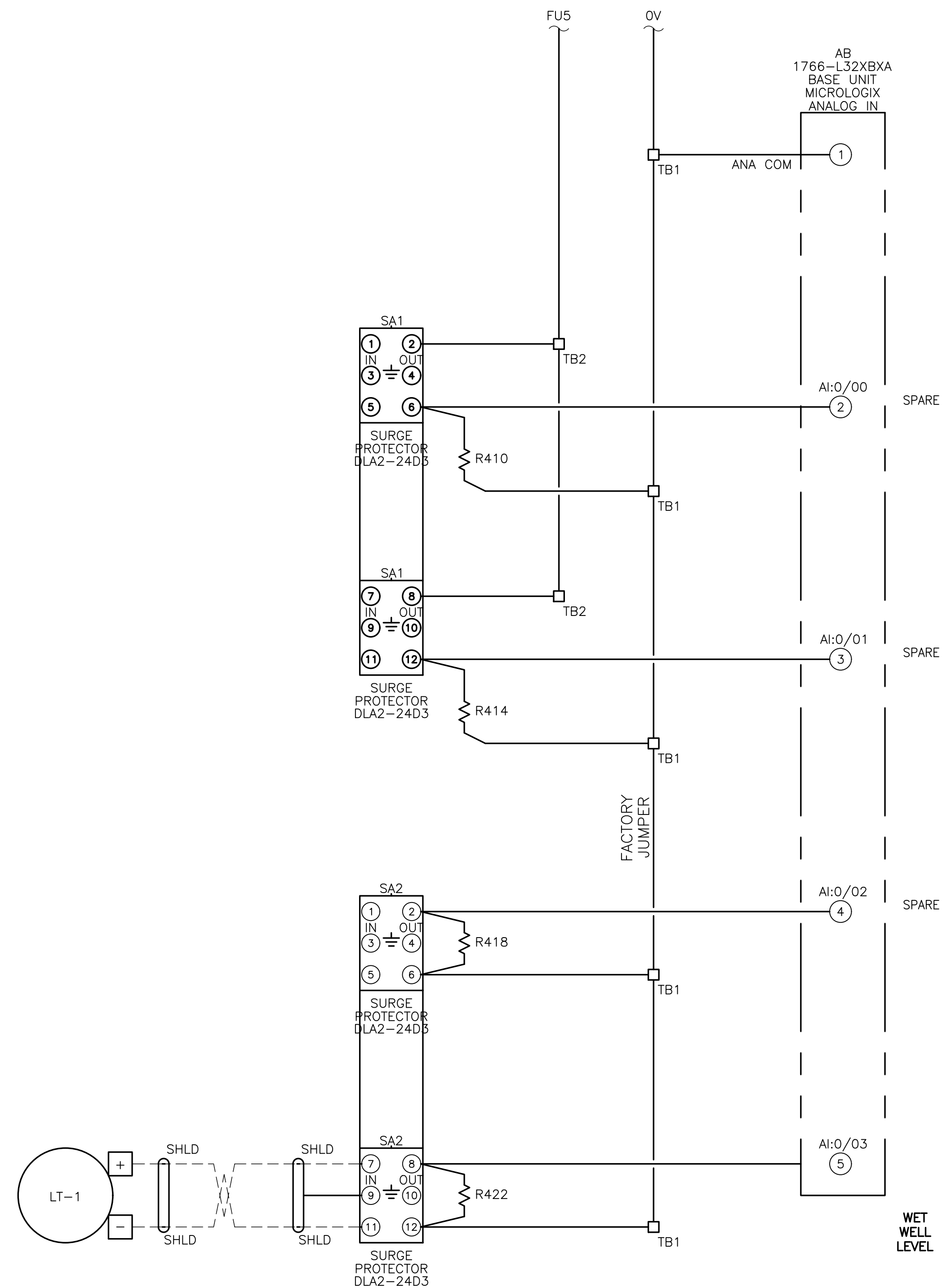
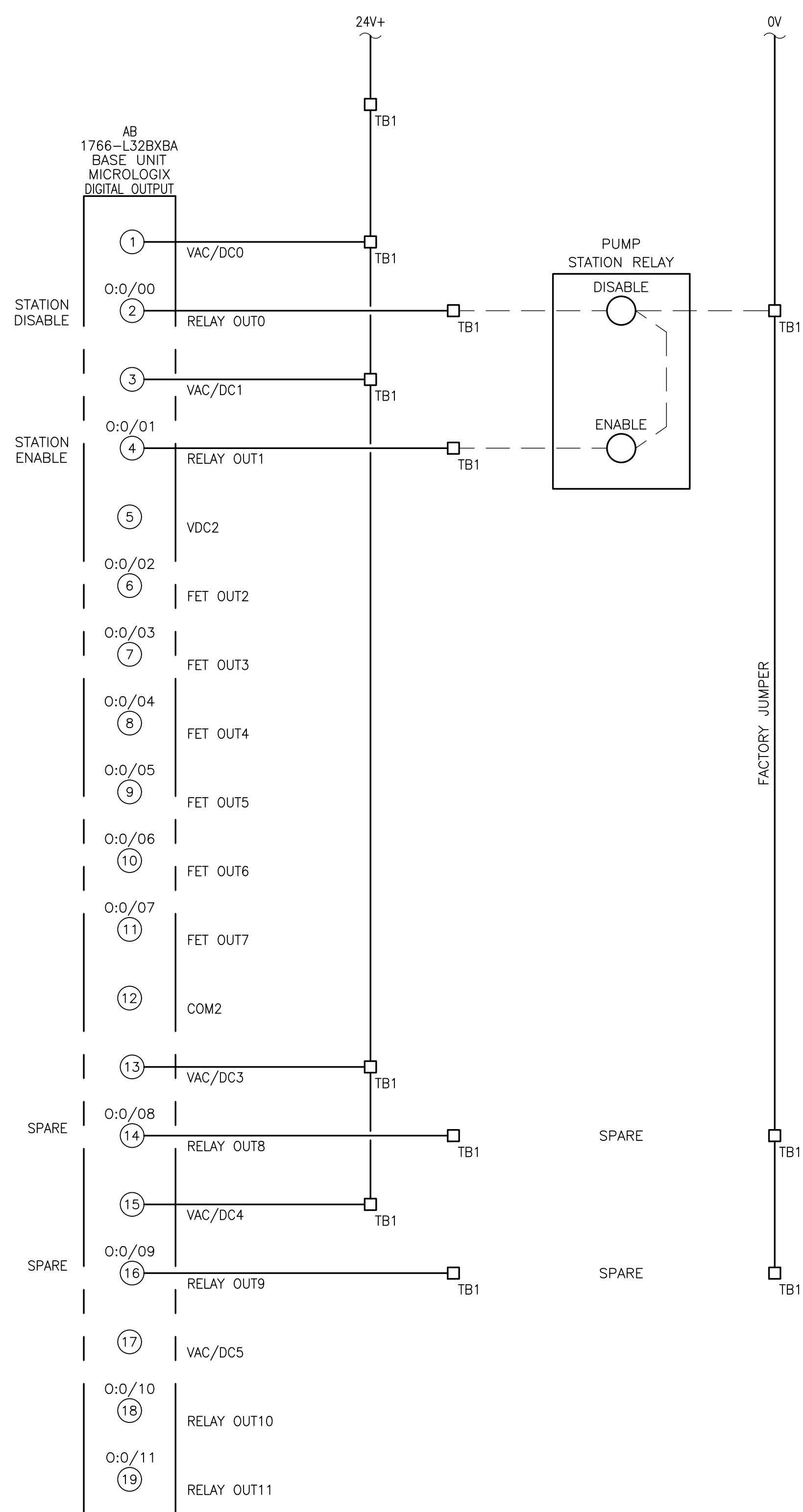
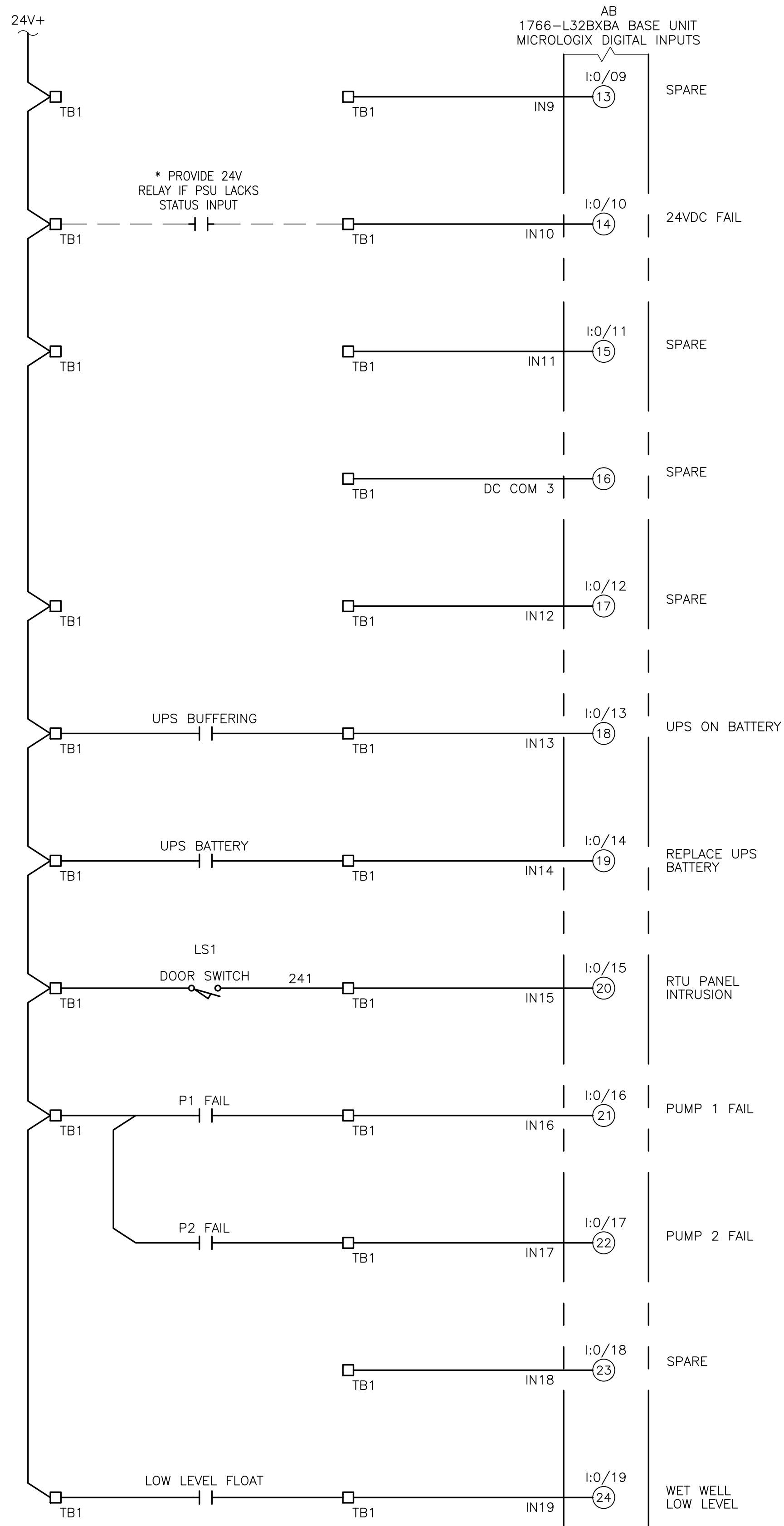
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Cert. No. 26960

MICHAEL A. GUIDA
License No: 60755



E-6

Drawing Name: \\G:\10.26\City of Boca Raton\RTU Station 27 & 53\REGULATION\Drawings\02 - LS No. 27 Electrical Diagrams\Layout Name: RTU 2 - Date: 11/7/2024 - 4:29 PM - Holtz Consulting Engineers



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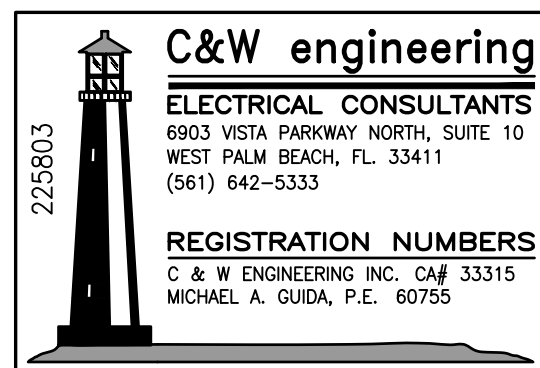
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27
RTU WIRING DIAGRAM, SHEET 2

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PH. (561) 575-2005
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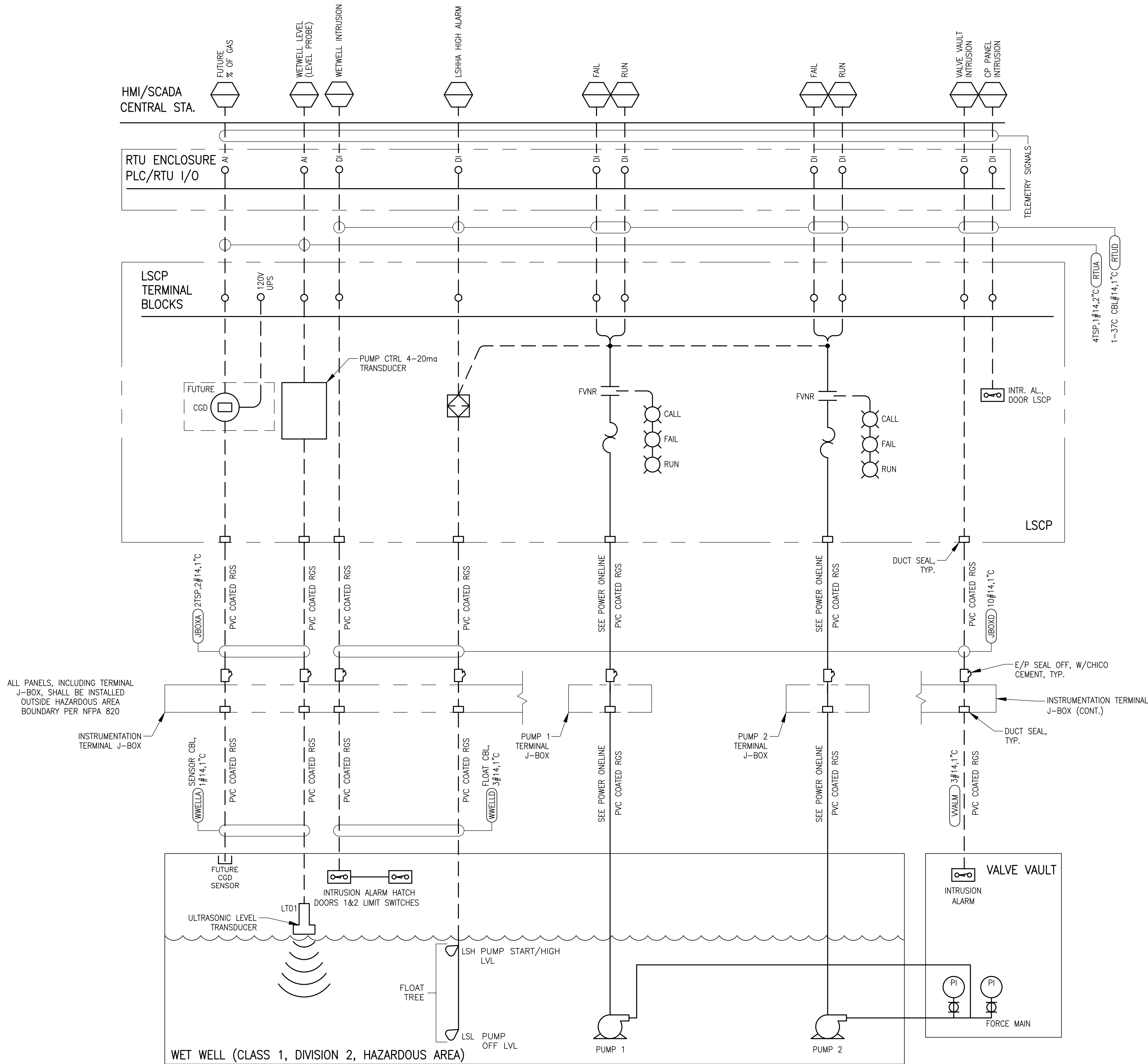
MICHAEL A. GUIDA

License No: 60755



E-7

Drawing Name: \\10.110.28\ENR\Projects\08-HOLTZ CONSULTING\225803 BOCA RATON LIFT STATION 27 & 53 REGULATION\Drawings\02 - LS No. 27 Electrical\Drawings Layout Name: 02 - Plotted by: Anders Demuth Date: 11/7/2024 - 4:29 PM - HOLTZ CONSULTING ENGINEERS



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Scale: AS NOTED
Design By: JLR
Drawn By: YGC
Check By: MAG

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27
I&C ONLINE

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Cert. No. 26960

MICHAEL A. GUIDA
License No: 60755

C&W engineering
ELECTRICAL CONSULTANTS
6903 VISTA PARKWAY NORTH, SUITE 10
WEST PALM BEACH, FL. 33411
(561) 642-5333
REGISTRATION NUMBERS
C & W ENGINEERING INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755

3. DIVERSIFIED ELECTRONICS 8 PIN PHASE MONITOR, SLA 230 ASA FOR 230V OR TIME MARK A258 FOR 480V.
2. POWER TO R.T.U. WIRED AS PER PRINTS, HOWEVER, THE ALARM IS INTERNAL TO R.T.U.
3. FLOATS IN WET WELL TO BE WIRED FOR BACKUP HIGH LEVEL AND LOW LEVEL ALARM IN ADDITION TO LEVEL TRANSDUCER.
4. HAND/OFF/AUTO SWITCHES MUST BE SPRING RETURN FROM HAND TO OFF.
5. LATCHING RELAYS SHALL BE POTTER AND BRUMFIELD KUL 11D15D-24.
6. CONTROL PANEL MOUNTING STRUCTURE SHALL BE SET ON 4" ALUMINUM BOX POST SET IN CONCRETE AND HAVE STAINLESS STEEL UNISTRUT BARS ON 17-3/4" CENTERS WITH 20" X 20" CLEARANCE FOR MOUNTING R.T.U.
7. ALL PANELS SHALL BE U.L. LISTED UL508 AND UL698A.
8. ENTRY ALARM MUST HAVE CONTACTS CLOSED WHEN CONTROL PANEL DOOR IS OPEN.
9. ALL CIRCUIT BREAKERS AND SWITCHES MUST BE LABELED (NOT NUMBERED). THERE MUST BE A MASTER CIRCUIT BREAKER, EMERGENCY MASTER BREAKER, CONVENIENCE OUTLET, STARTERS, DIVERSIFIED ALTERNATOR, RUN LIGHTS AND ELAPSED TIME METERS.
10. ALL TELEMETRY WIRING SHALL BE PRE-WIRED FROM RELAYS, SENSORS AND SWITCHES TO TERMINAL STRIP TB1 AS PER CURRENT BOCA WIRING DIAGRAMS. BOCA UTILITIES AND TELEMETRY PERSONNEL MUST APPROVE THE SUBMITTALS OF THE CONTROL PANEL PRINTS BEFORE PANEL IS BUILT. TERMINAL STRIP TB2 SHALL BE TERMINATION POINTS BETWEEN MAIN PANEL AND INNER INSTRUMENTATION DOOR.
11. SUBMERSIBLE LIFT STATION CONTROL PANELS MUST BE IN HOFFMAN STAINLESS STEEL HOUSING RATED NEMA 4X OR EQUAL AND WIRED ACCORDING TO CONTRACT DOCUMENTS.
12. SUBMERSIBLE LIFT STATIONS MUST HAVE SEPARATE CONDUIT EACH FROM PANEL TO WET WELL FOR EACH PUMP MOTOR, THE BACKUP FLOAT SYSTEM (MINIMUM OF 2") AND THE TRANSDUCER (MINIMUM OF 1").
13. EACH LIFT STATION REQUIRES AN EMERGENCY GENERATOR RECEPTACLE, A LIGHTNING ARRESTOR AND A SURGE CAPACITOR. THE NORMAL MASTER BREAKER AND THE EMERGENCY MASTER BREAKER SHALL BE MECHANICALLY INTERLOCKED SO ONLY ONE CAN BE ENERGIZED AT ANY TIME.
14. ANTENNA AND R.T.U. INSTALLATION MUST HAVE SEPARATE GROUNDING ROD (8" MINIMUM) AND WIRED TO R.T.U.
15. ALL MATERIAL SHALL BE NEW, AND OF INDUSTRIAL/ SPECIFICATION GRADE. ANY DEVIATION OF MATERIAL AS SPECIFIED SHALL HAVE WRITTEN APPROVAL FROM THE UTILITY SERVICES DEPARTMENT.
16. ALL WIRING TO BE NUMBERED AND COLOR CODED AS SHOWN. ALL WIRING SHALL BE MTW, COPPER, SIZED AS PER NEC WITH MINIMUM SIZE #16AWG, WHERE APPLICABLE, THE HIGH VOLTAGE PHASE SHALL BE IDENTIFIED WITH AN ORANGE BAND. ALL PHASES SHALL BE IDENTIFIED AT EACH TERMINATION POINT.
17. ALL TERMINAL BLOCKS SHALL BE IDENTIFIED AND EACH TERMINATION POINT SHALL BE IDENTIFIED WITH APPROPRIATE WIRE NUMBER.
18. PHASE MONITORS SHALL BE PROTECTED WITH APPROPRIATE FUSES AND METAL OXIDE VARISTORS.
19. PVC-COATED RIGID GALVANIZED STEEL CONDUIT SHALL MEET REQUIREMENTS OF NEMA RN1. CONDUIT SHALL ALSO MEET ANSI C80.1 AND UL6 PVC COATING SHALL BE 40 MILS THICK AND BONDED TO METAL CONDUIT SHALL BE COATED INSIDE OUT.
20. DISCONNECT SHALL BE NEMA 4 RATED 316 STAINLESS STEEL.
21. PANEL LIGHTS SHALL BE L.E.D.
22. THE AREA INSIDE THE WET WELL IS A HAZARDOUS, CLASS 1, DIV. 1 OR 2 LOCATION, SEE N.F.P.A. 820.
23. THE AREA WITHIN A 3 FOOT RADIUS FROM THE VENT OPENING IS A HAZARDOUS LOCATION, SEE N.F.P.A.820.
24. THE AREA INSIDE THE VALVE VAULT IS A HAZARDOUS, CLASS 1, DIV. 2 LOCATION.
25. FIELD PANEL AND CONCRETE SLAB SHALL BE ABLE TO WITHSTAND WIND LOADING AS PER 2014 FLORIDA BUILDING CODE: PROVIDE MOUNTING TO SLAB PER MANUFACTURER'S RECOMMENDATIONS.
26. ALL CONDUITS SHALL ENTER THE RTU AND CONTROL PANEL FROM THE BOTTOM OR SIDE UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER AND THE OWNER.
27. PROVIDE WIRING METHODS AND MATERIALS SUITABLE FOR A CLASS 1, DIVISION 1 OR 2 AREA WITHIN ALL HAZARDOUS AREAS. USE CROUSE-HINDS MODEL EYSR SEALING FITTING. FITTINGS BETWEEN THE TERMINATION BOX AND PCP TO BE FILLED WITH CHICO CREUSEMENT.
28. FIELD PANEL LOCATIONS ARE TO BE FIELD VERIFIED AND ARE SHOWN FOR CLARITY ONLY.
29. MAIN CIRCUIT BREAKERS AND MOTOR CIRCUIT BREAKERS TO BE SIZED ACCORDING TO MOTOR H.P. AND SYSTEM LOAD.
30. FUSED DISCONNECT IS TO BE LOCATED BETWEEN THE FPL METER AND THE ATS.
31. BATTERY IN RTU CABINET SHALL BE RATED AT 12V 10AH (MINIMUM).
32. METER BASE SHALL BE IN ACCORDANCE WITH FPL STANDARDS.



NTS

ROW	LINE	LOCATION AND FUNCTION	FIRE AND EXPLOSION HAZARD	VENTILATION	EXTENT OF CLASSIFIED AREA	NEC--AREA ELECTRICAL CLASSIFICATION (ALL CLASS I, GROUP D)	MATERIAL OF CONSTRUCTION FOR BUILDINGS OR STRUCTURES	FIRE PROTECTION MEASURES
16	a	WASTEWATER PUMPING STATION WETWELLS - LIQUID SIDE OF PUMPING STATION SERVING A SANITARY SEWER OR COMBINED SYSTEM	POSSIBLE IGNITION OF FLAMMABLE GASES AND FLOATING FLAMMABLE LIQUIDS	NOT NORMALLY VENTILATED	ENTIRE ROOM OR SPACE	DIVISION 1	NON COMBUSTIBLE, LIMITED COMBUSTIBLE MATERIAL, LOW FLAME SPREAD MATERIAL	NO REQUIREMENT
11	a	RESIDENTIAL WASTEWATER PUMPING STATION WET WELL: PUMP STATION TRANSPORTING PRIMARILY RESIDENTIAL WASTEWATER	POSSIBLE IGNITION OF FLAMMABLE GASES AND FLOATING FLAMMABLE LIQUIDS	NOT NORMALLY VENTILATED	ENTIRE ROOM OR SPACE	DIVISION 2	NON COMBUSTIBLE, LIMITED COMBUSTIBLE MATERIAL, LOW FLAME SPREAD MATERIAL	COMBUSTIBLE GAS DETECTION SYSTEM

NTS

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Date: 11/07/24
Scale: AS NOTED
Design By: JLR
Drawn By: YGC
Check By: MAG

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27

LIFT STATION & CONTROL PANEL NOTES

HOLTZ CONSULTING ENGINEERS, INC.

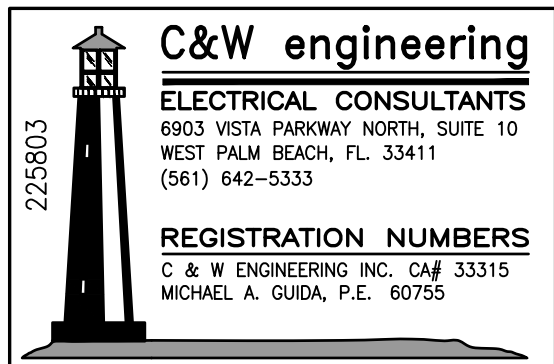


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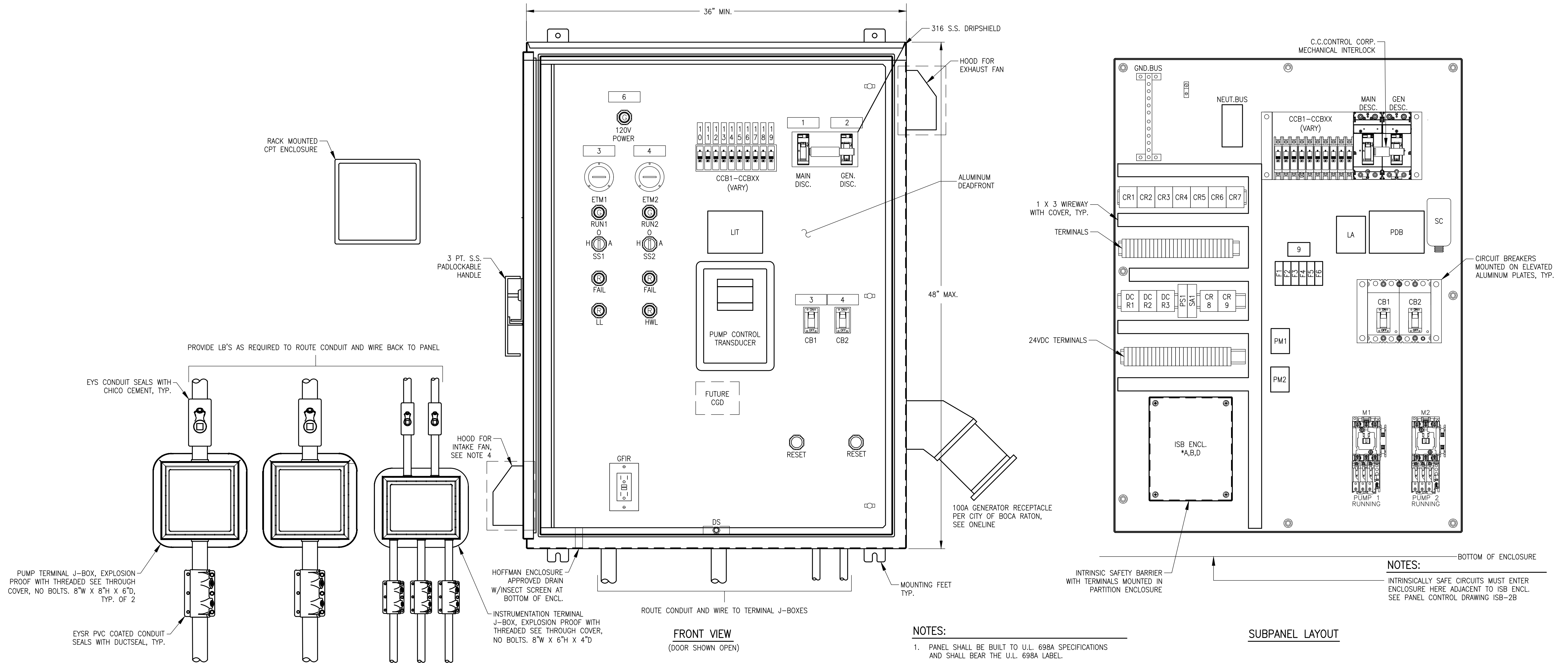
MICHAEL A. GUIDA

License No: 60755



E-9

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REV	DATE	REVISIONS	BY

Date: 11/07/24
Scale: AS NOTED
Design By: JLR
Drawn By: YGC
Check By: MAG

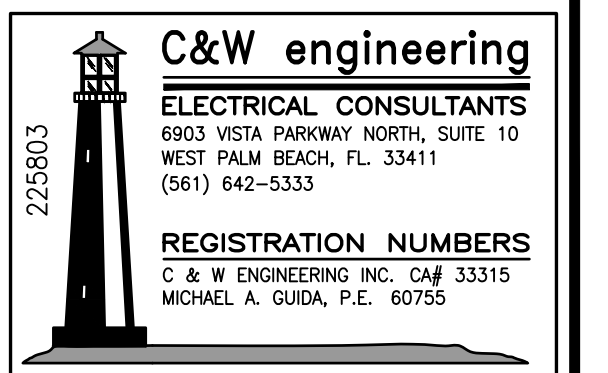
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27
CONTROL PANEL DETAILS

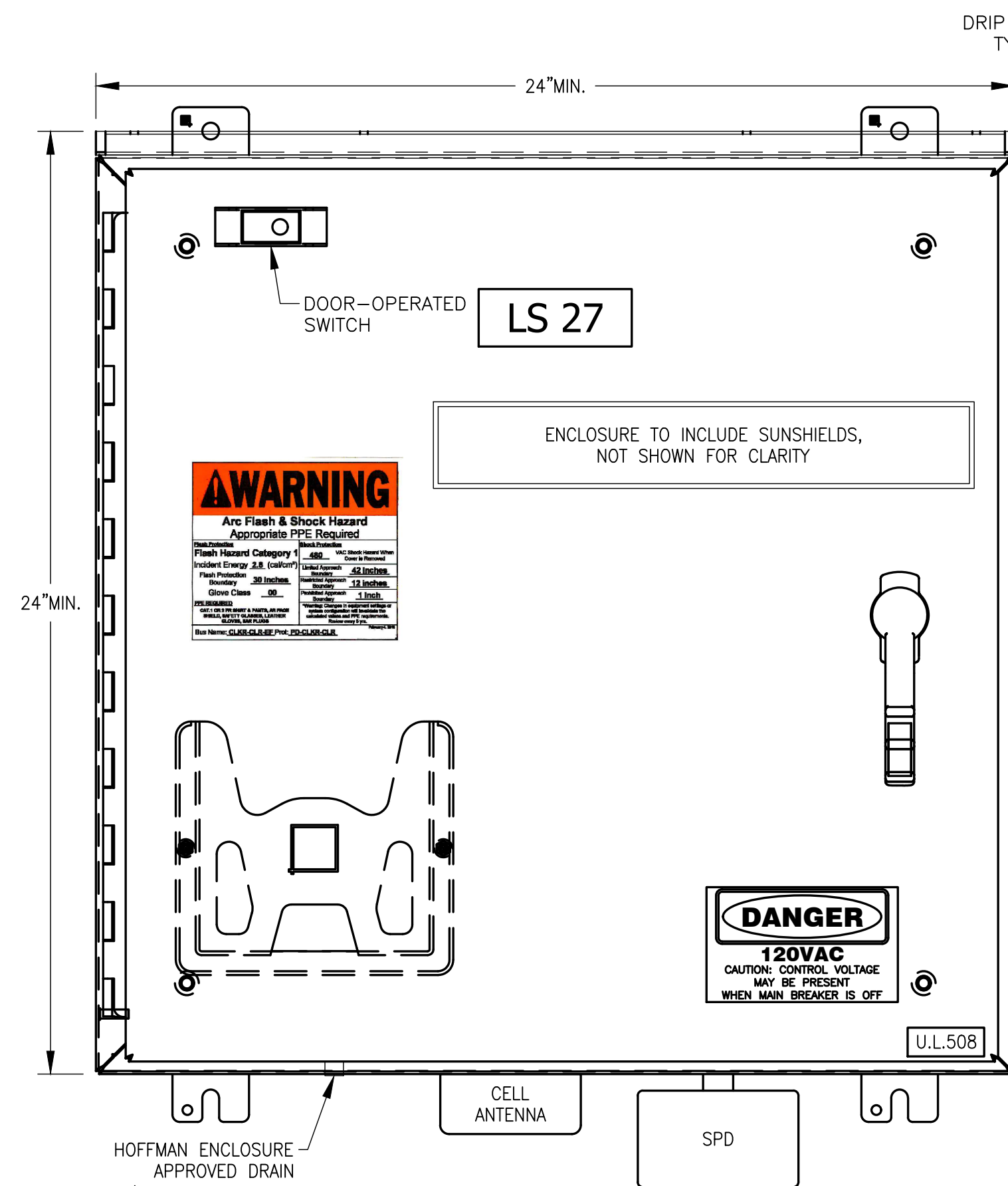
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JUPITER, FLORIDA 33458
PH. (561) 575-2005
Cert. No. 26960

MICHAEL A. GUIDA
License No: 60755

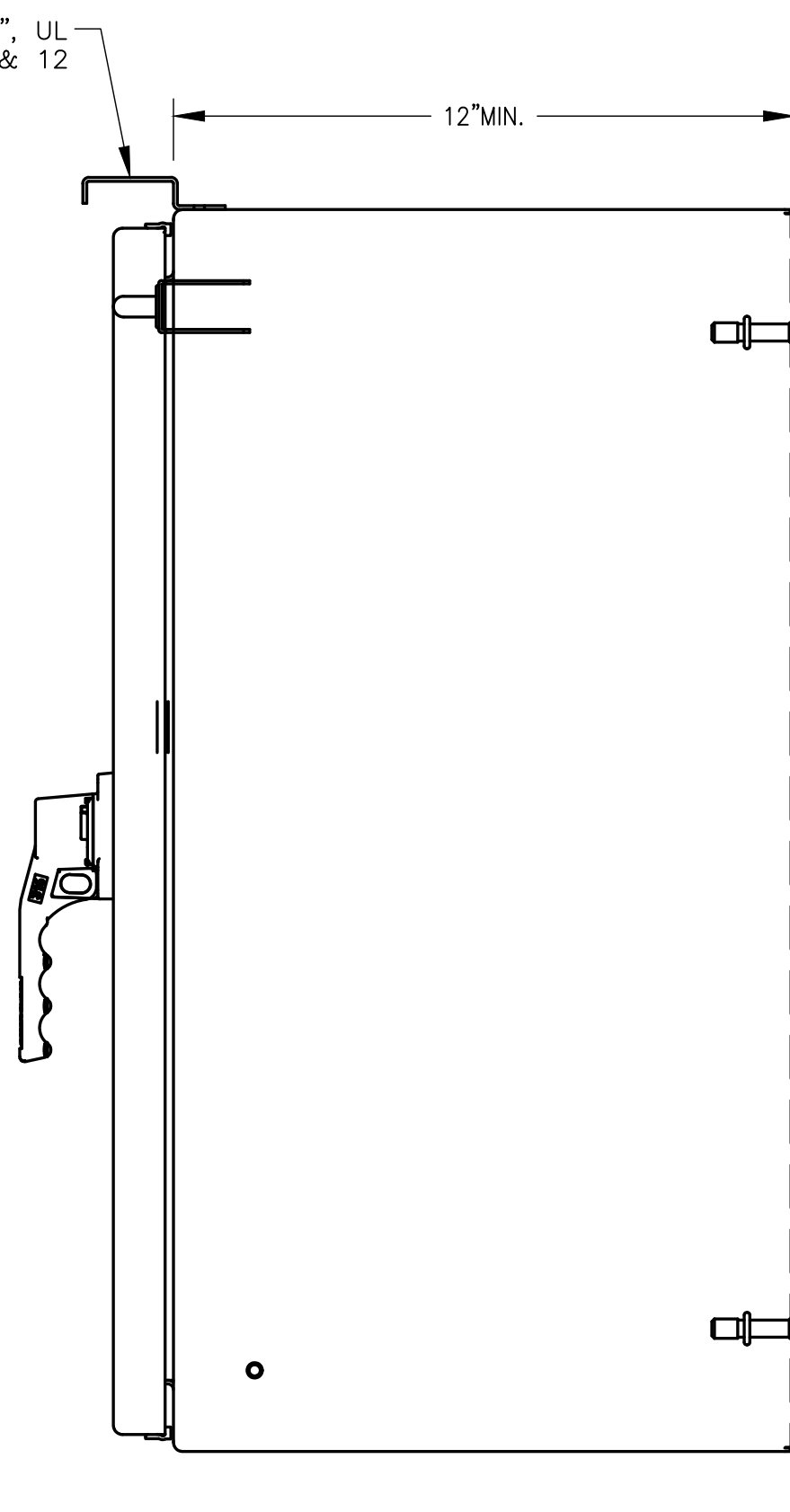
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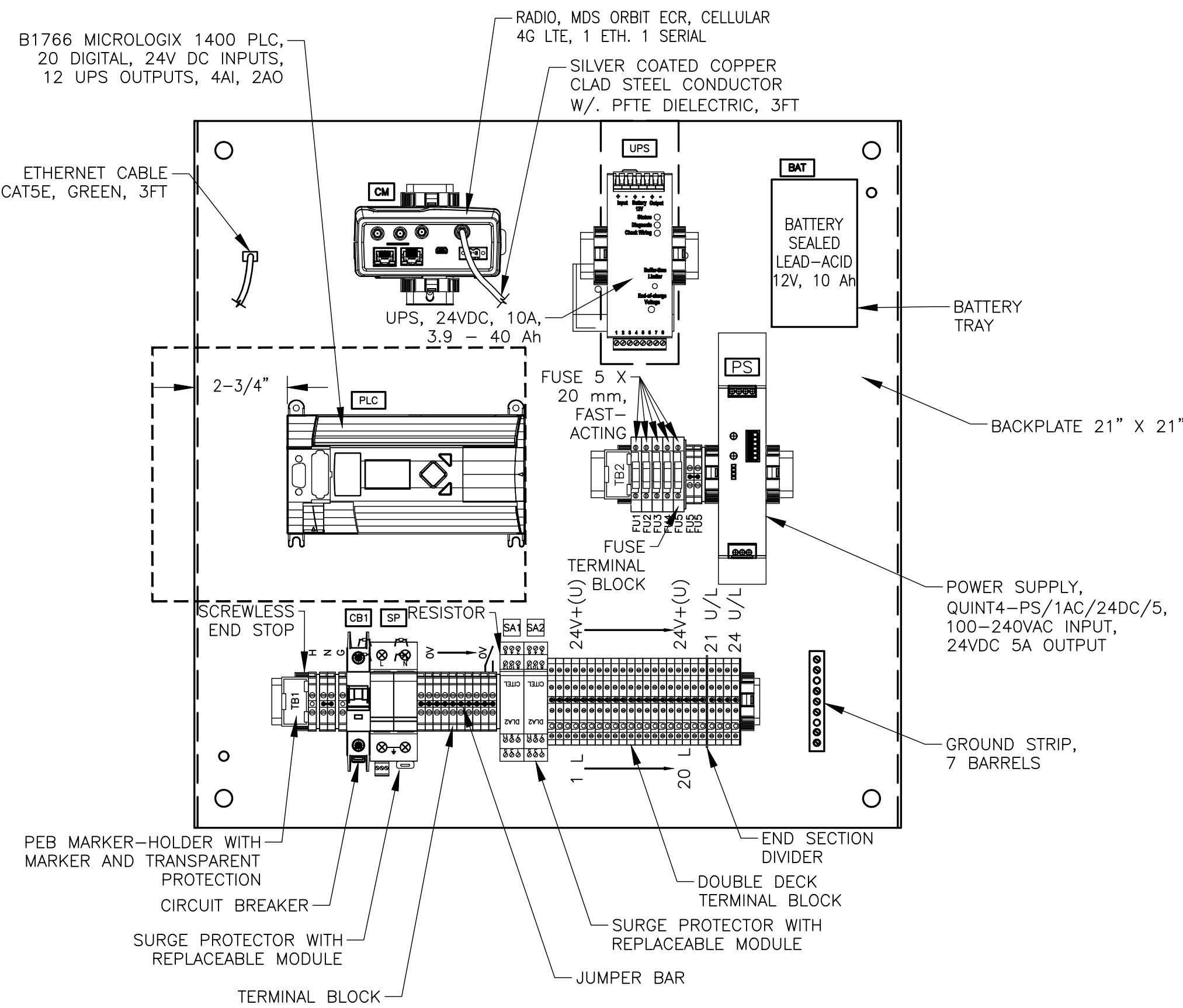
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ENCLOSURE - FRONT VIEW



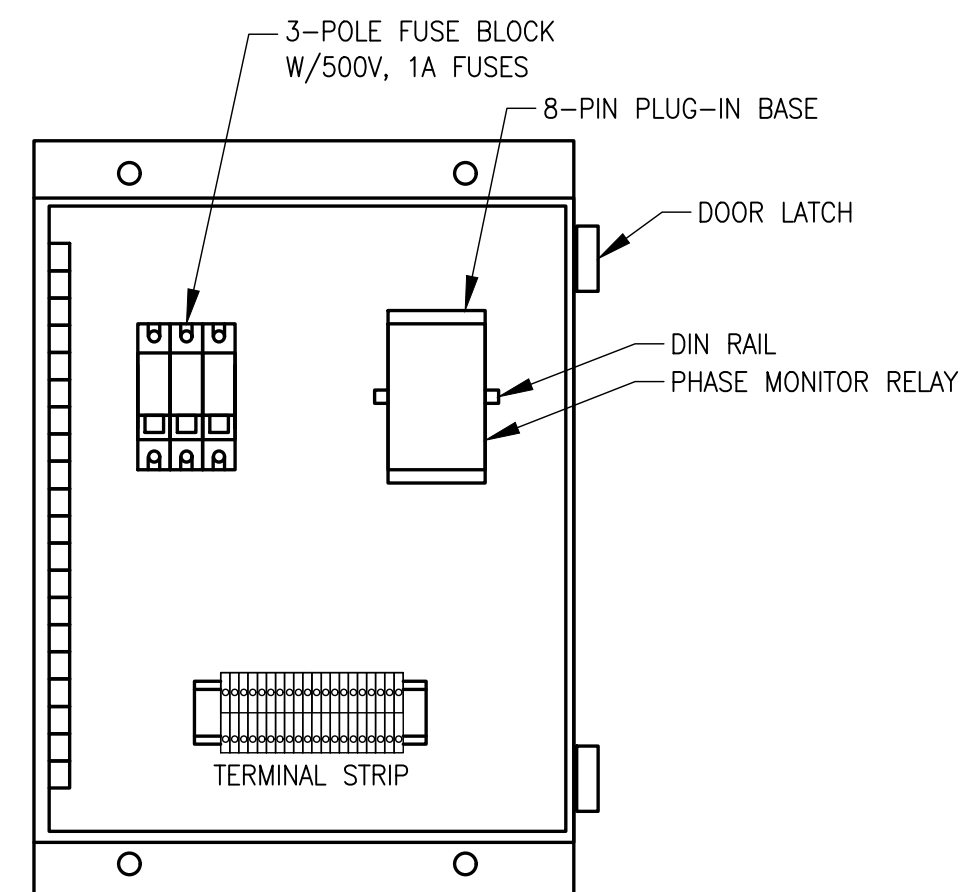
ENCLOSURE - SIDE VIEW



PANEL LAYOUT

NOTES:

1. PANEL SHALL BE BUILT BY AN SHOP ACCORDING TO U.L. 508 AND SHALL BE U.L. LISTED.
2. PANEL SHALL BE NEMA 4X 316 STAINLESS STEEL.
3. INSTALL NEXT TO MAIN DISCONNECT



INTERIOR

RTU PANEL LAYOUT

NTS

PHASE MONITOR PANEL LAYOUT

NTS

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Date: 11/07/24
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Design By: JLR
Drawn By: YGC
Check By: MAG

CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27
RTU & PHSE MONITOR PANEL LAYOUT

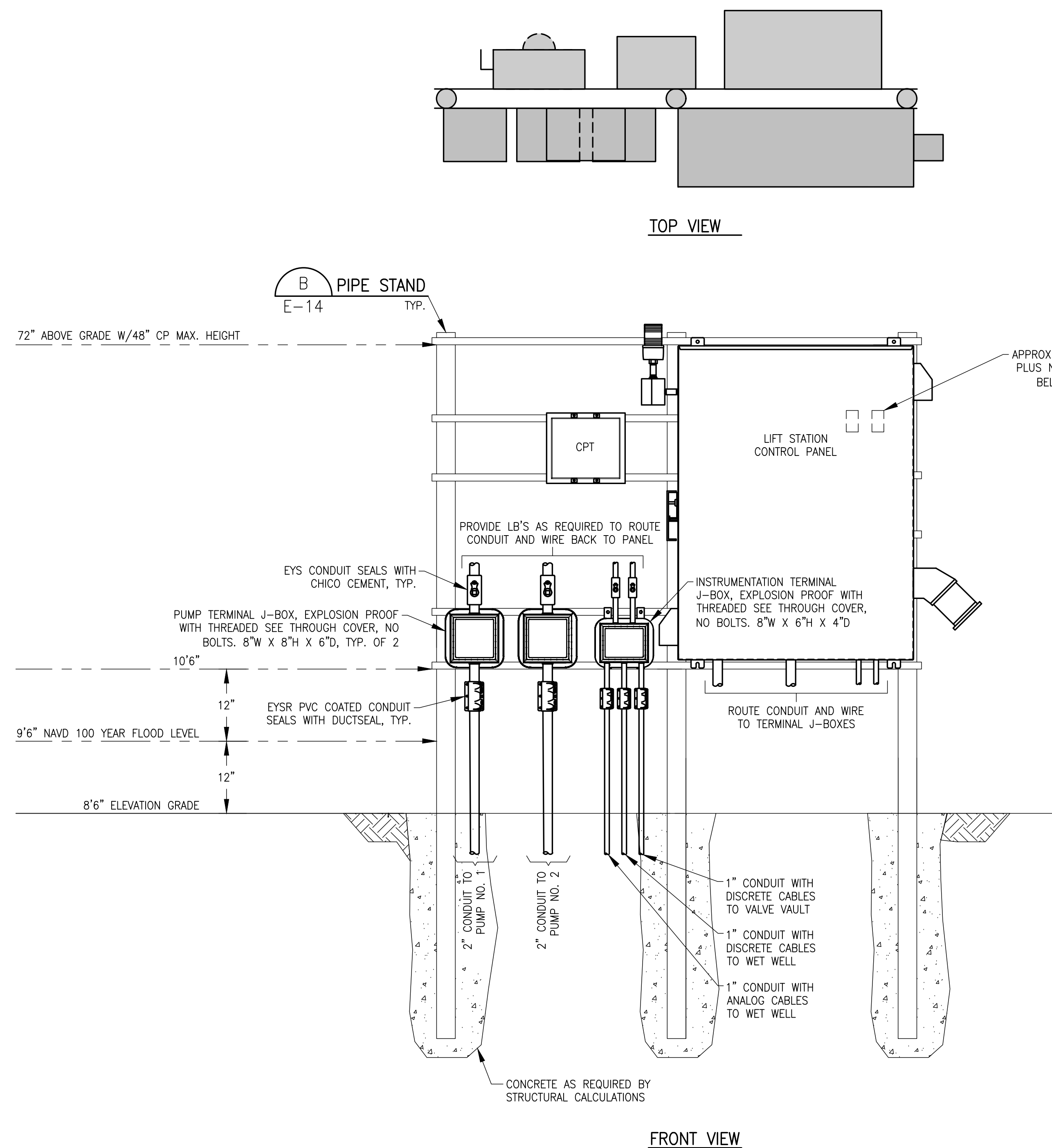
HOLTZ CONSULTING ENGINEERS, INC.
HCE 270 SOUTH CENTRAL BLVD., SUITE 207
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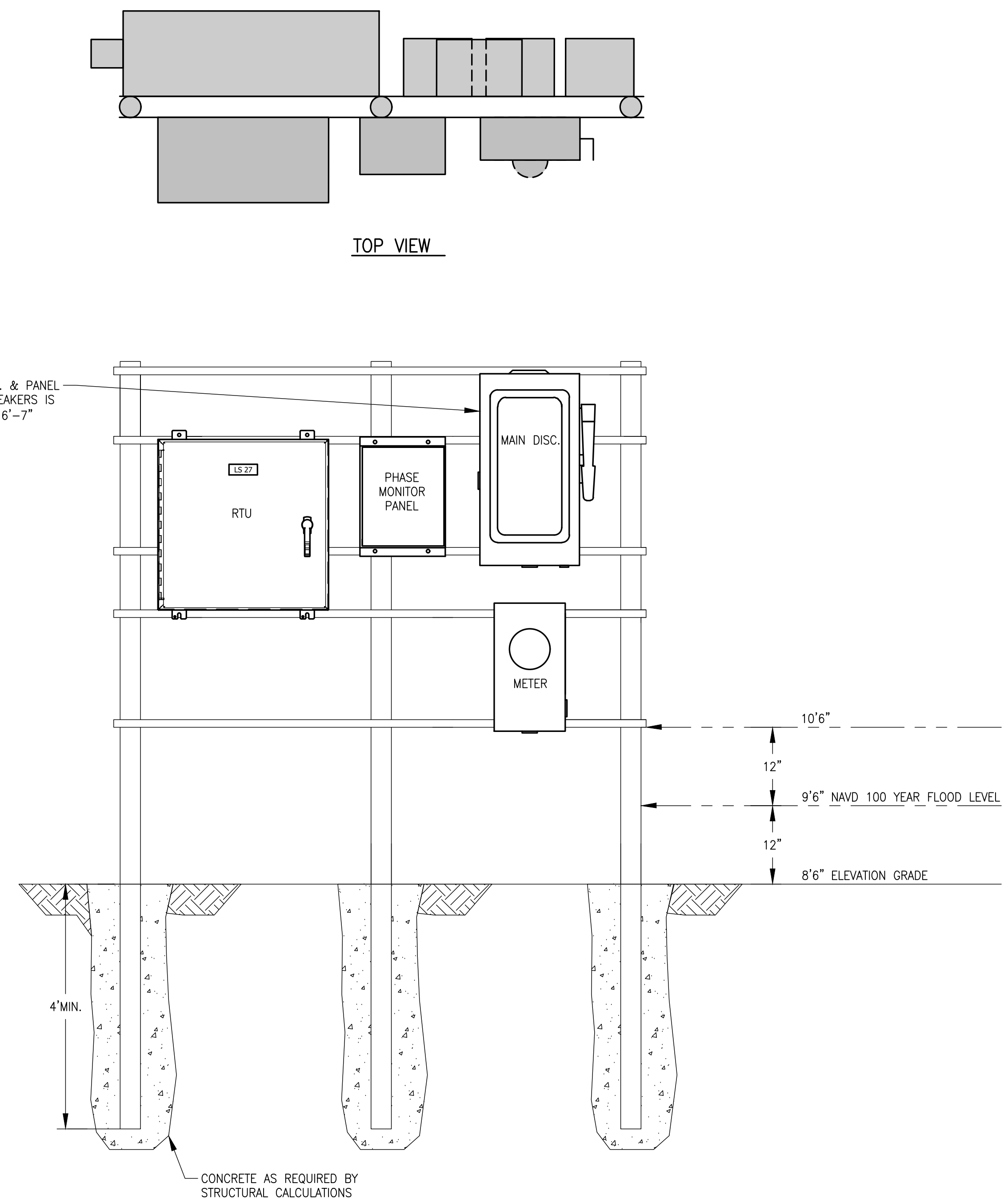
C&W engineering
ELECTRICAL CONSULTANTS
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WEST PALM BEACH, FL. 33411
(561) 642-5333
REGISTRATION NUMBERS
C & W ENGINEERING INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755

E-11

Drawing Name: \\10.110.28\ENR\Projects\Boca-Raton\Boca-Raton Lift Station 27 & 43 Rehabilitation\Drawings\02 - LS No. 27 Electrical Detailing.dwg Layout Name: Rack Detail - Date: 11/7/2024 - 4:29 PM - Plotted by: Andrew Demerchis - Plot Date: 11/7/2024 - 4:29 PM - Holtz Consulting Engineers



FRONT VIEW



REAR VIEW

REV	DATE	REVISIONS	BY

Date: 11/07/24
Scale: AS NOTED
Design By: JLR
Drawn By: YGC
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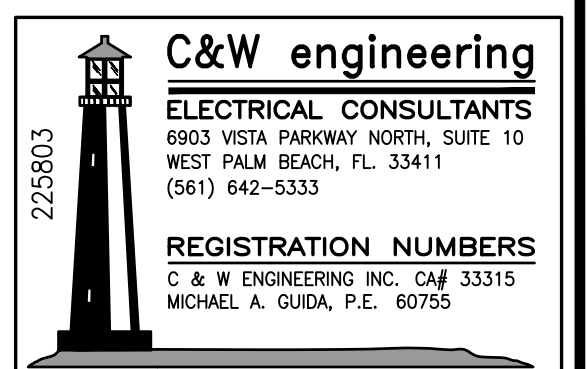
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27
ELECTRICAL RACK DETAIL

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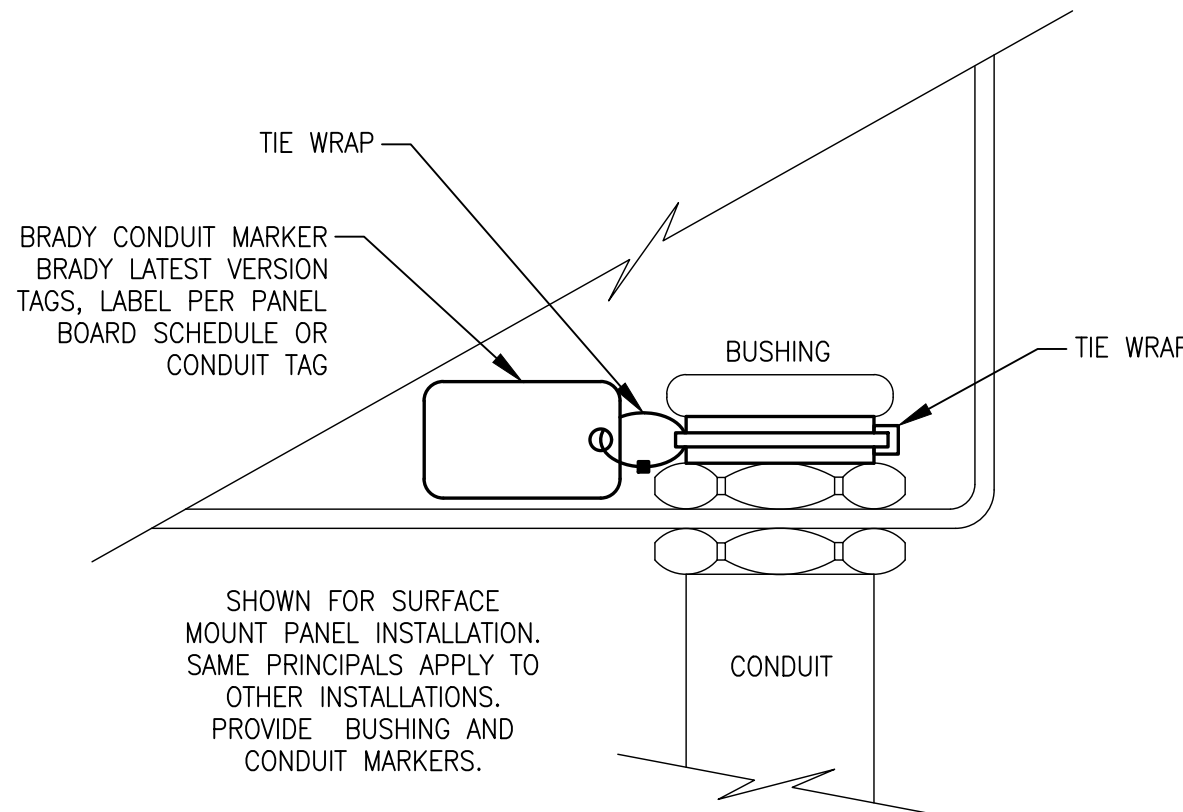
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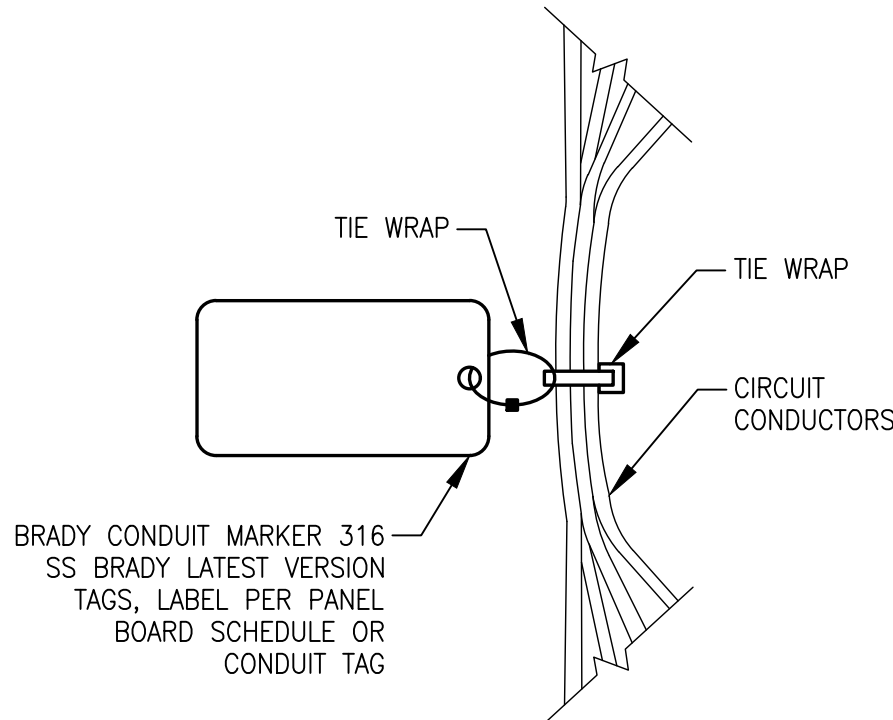
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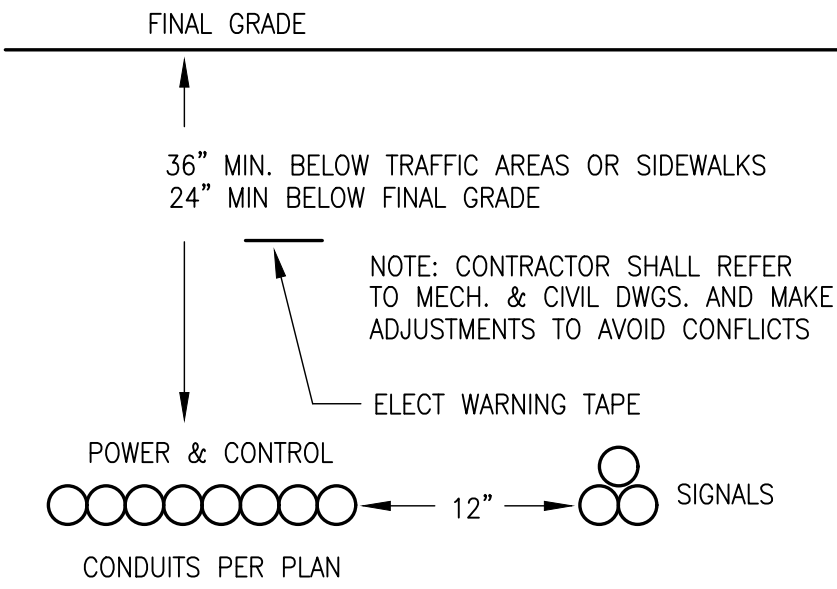
CONDUIT DETAIL

NTS



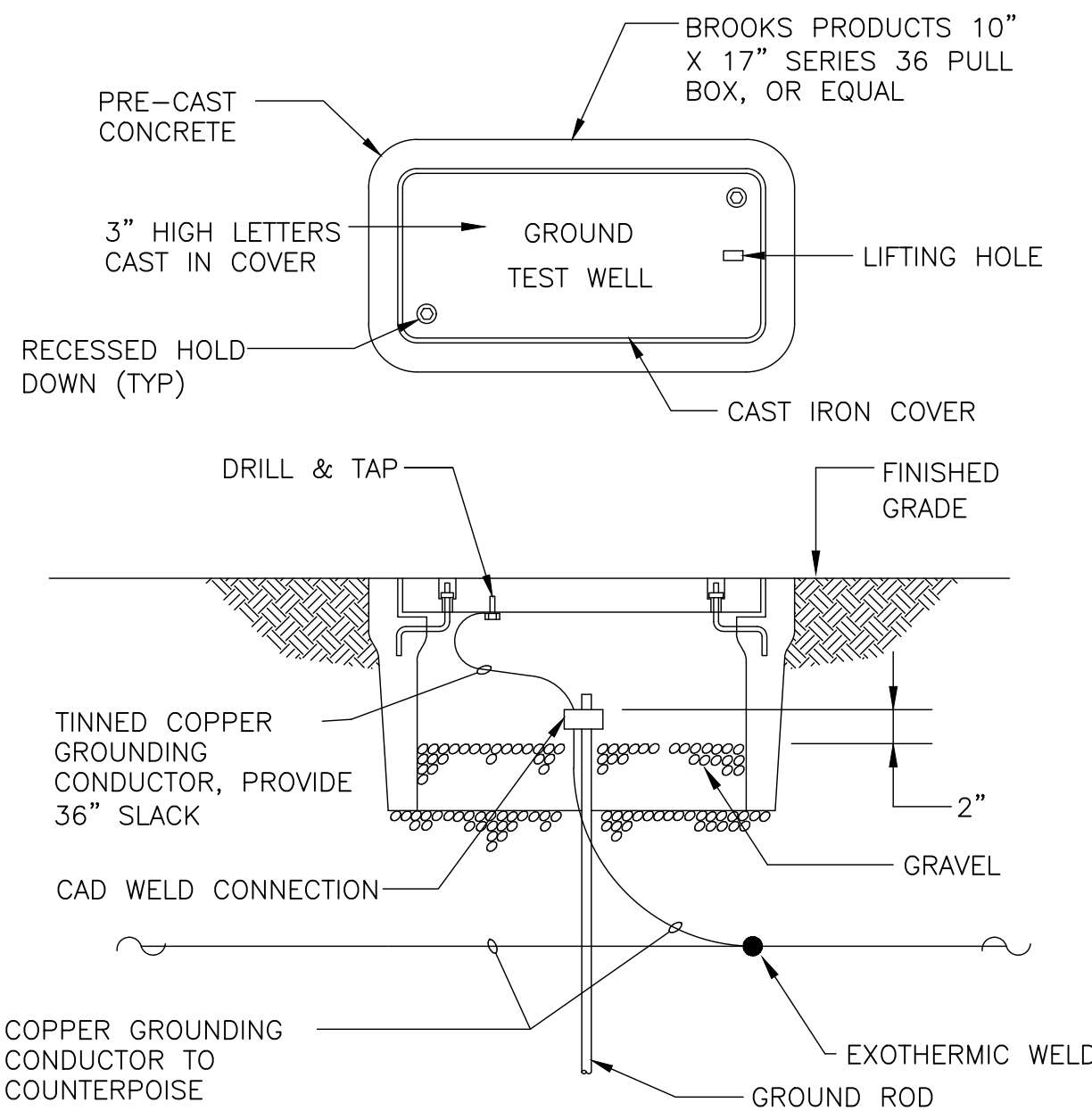
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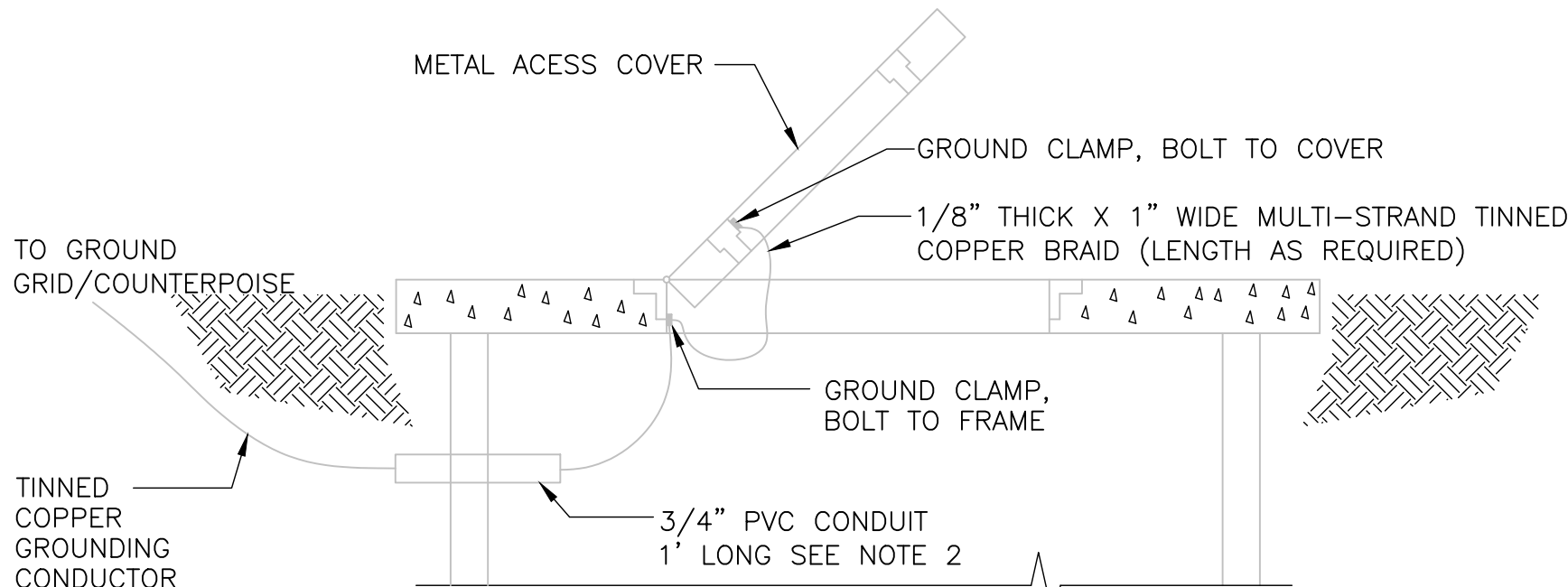
DIRECT BURIED CONUDIT

NTS, TYPICAL FOR DIRECT BURIED CONDUITS



GROUND WELL

NTS

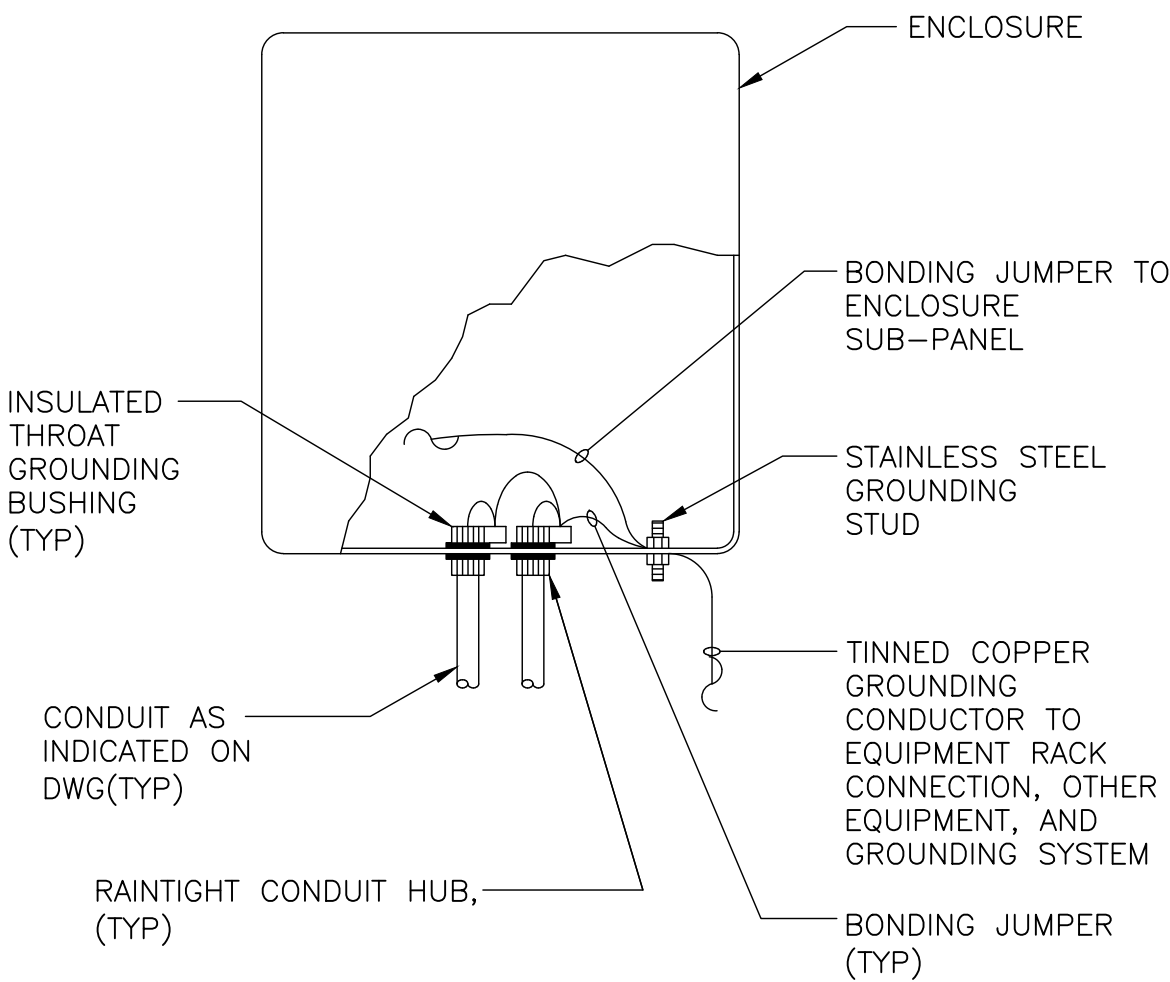


NOTES:

1. ON COVERS WITH MULTIPLE DOORS, PROVIDE BRAID FROM FRAME TO DOOR ON EACH DOOR
2. PROVIDE WATERPROOF CAULKING WHERE GROUND CABLE AND CONDUIT PENETRATES WETWELL TO PREVENT INTRUSION OF GROUND WATER AND ESCAPE OF VAPORS FROM WETWELL.
3. INSTALL GROUND WIRE SO THAT IT WILL NOT CROSS CLEAR OPENING OR PREVENT OR IMPEDE NORMAL METHOD OF REMOVING FLOATS OR PUMPS.

COVER & DOOR GROUNDING DETAIL

NTS



GROUNDING ENCLOSURE DETAIL

NTS

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Date: 11/07/24
Scale: AS NOTED
Design By: JLR
Drawn By: YGC
Check By: MAG

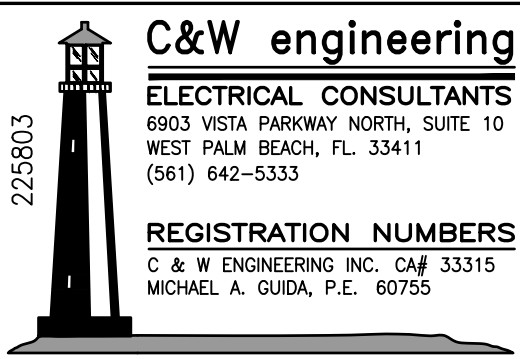
CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27
ELECTRICAL DETAILS, SHEET 1

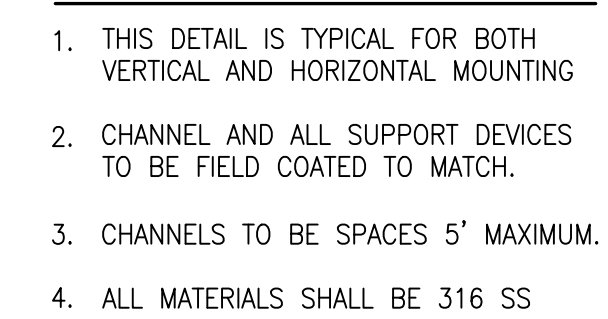
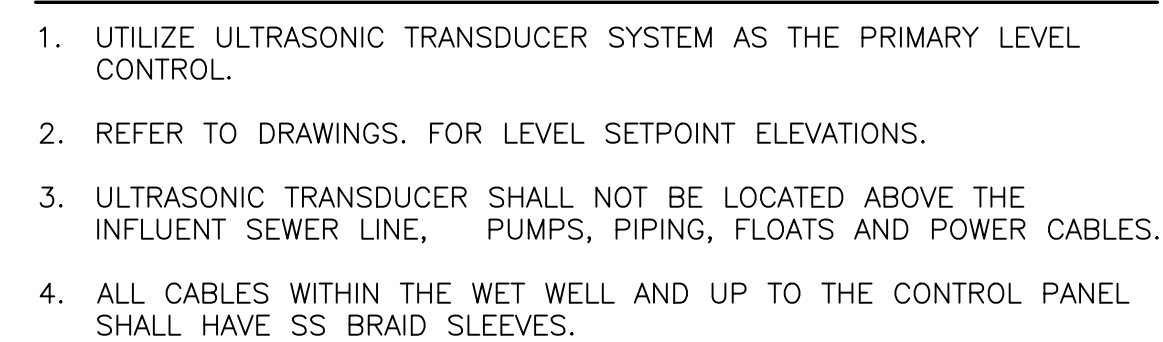
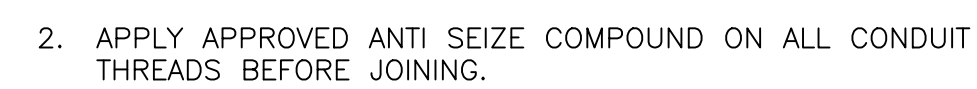
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E-13



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CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 27
ELECTRICAL DETAILS, SHEET 2

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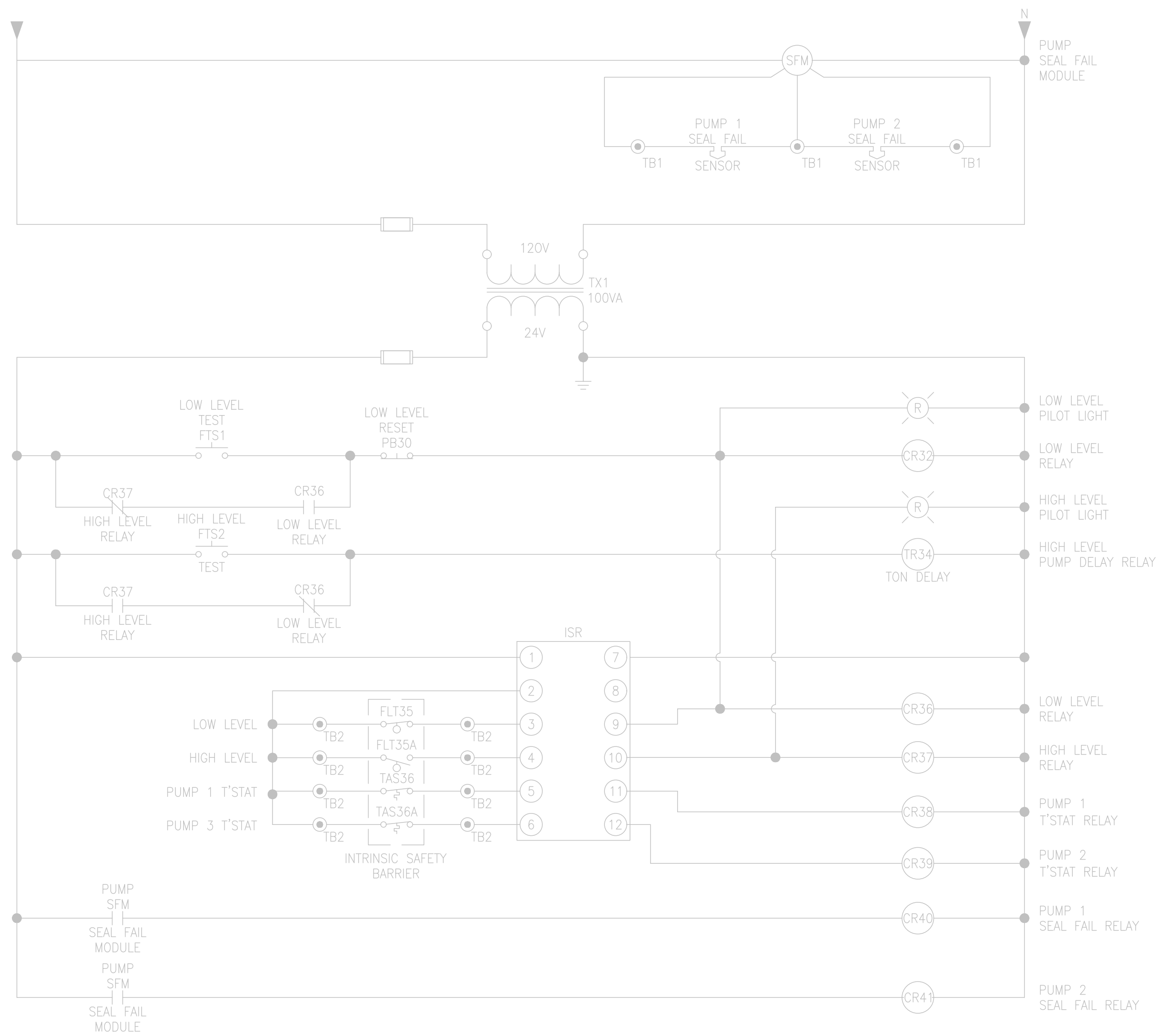
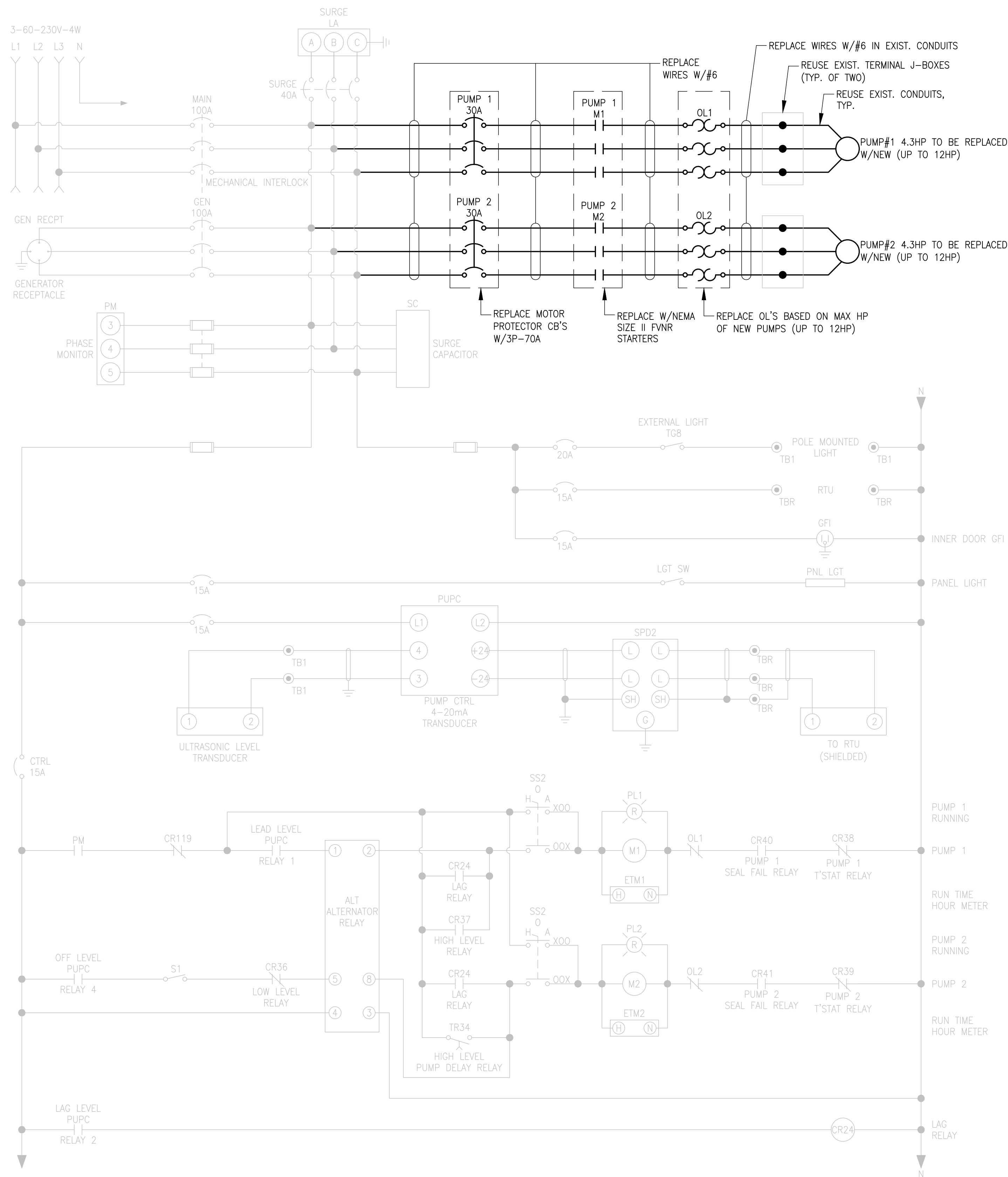
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MICHAEL A. GUIDA

License No: 60755

E-14

Drawing Name: \\G:\11026\City of Boca Raton\Projects\225803 - Lift Station No. 53\Electrical\Drawings\03 - LIFT STATION NO. 53 - SINGLE LINE DIAGRAM.dwg Date: 11/7/2024 Time: 4:29 PM Plotted by: Andrew Demerchis



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Date: 11/07/24
Scale: AS NOTED
Design By: JLR
Drawn By: YGC
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CITY OF BOCA RATON
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INFRASTRUCTURE UPGRADES

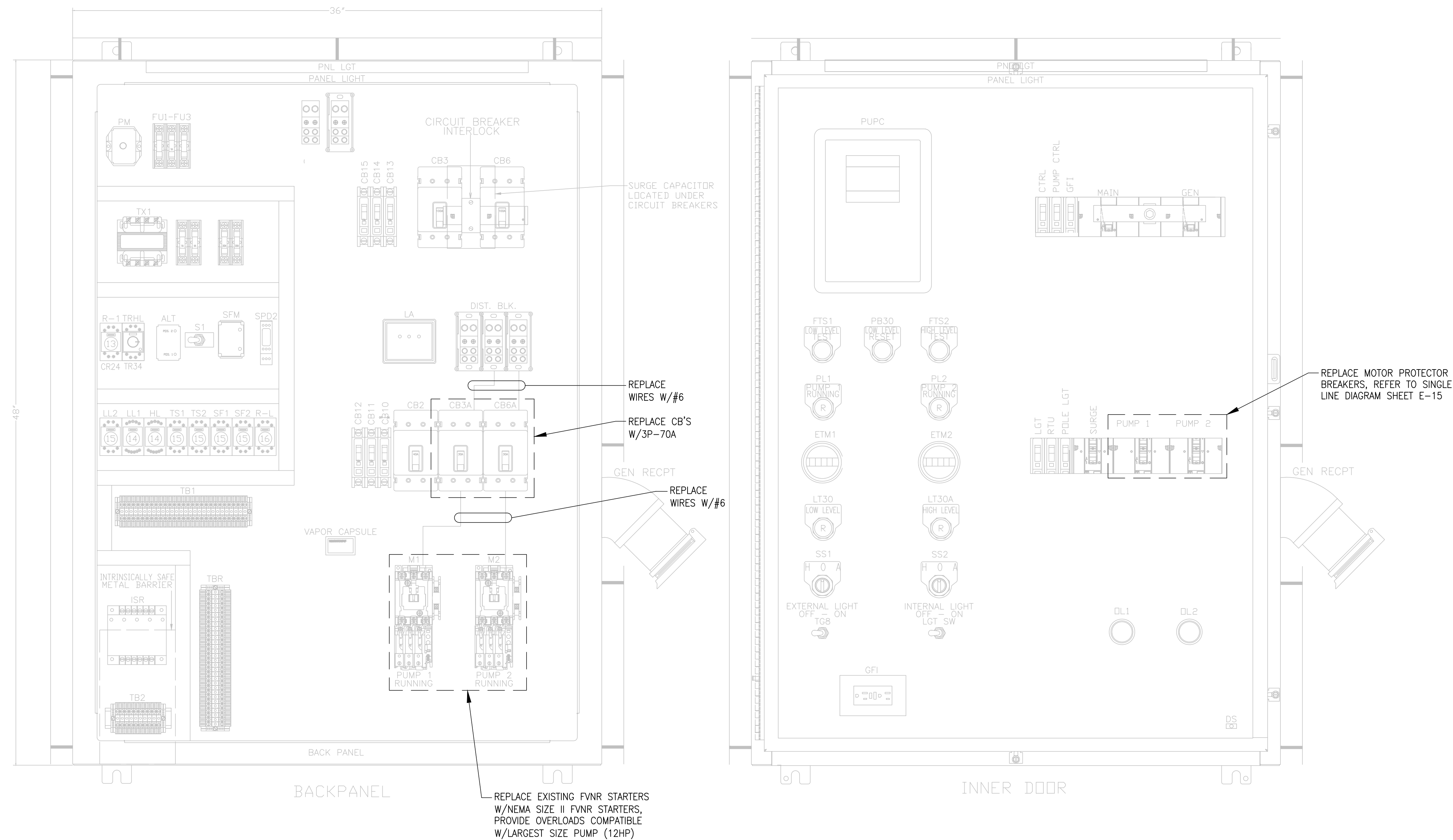
LIFT STATION NO. 53
SINGLE LINE DIAGRAM

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(561) 642-5333
REGISTRATION NUMBERS
C & W ENGINEERING INC. CA# 33315
MICHAEL A. GUIDA, P.E. 60755

Drawing Name: \\G:\10-26\City of Boca Raton\Drawings\225803 - Lift Station No. 53\Electrical\Drawings\225803 - Lift Station No. 53 - HOLTZ CONSULTING ENGINEERS, INC. Date: 11/07/24 - 4:29 PM - HOLTZ CONSULTING ENGINEERS



NOTES: ALL CONTROL PANEL MODIFICATIONS SHALL
BE CARRIED OUT BY A U.L. 508 SHOP
LIKE CHAMPION CONTROLS OR EQUAL

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Date: 11/07/24
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Design By: JLR
Drawn By: YGC
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CITY OF BOCA RATON
OLD FLORESTA
INFRASTRUCTURE UPGRADES

LIFT STATION NO. 53
CONTROL PANEL DETAILS

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MICHAEL A. GUIDA
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