

**AGENDA FOR REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF
INVERNESS, FLORIDA, CITY HALL, 212 WEST MAIN STREET
November 6, 2024 - 5:30 PM**

NOTICE TO THE PUBLIC

Any person who decides to appeal any decision of the Governing Body with respect to any matter considered at this meeting will need a record of the proceedings and, for such purpose, may need to provide that a verbatim record of the proceeding is made, which record includes testimony and evidence upon which the appeal is to be based (Section 286.0105, Florida Statutes).

Accommodation for the disabled (hearing or visually impaired, etc.) may be arranged with advance notice of seven (7) days before the scheduled meeting, by dialing (352) 726-2611 weekdays from 8 AM to 4 PM.

ENCLOSURES*

- 1) INVOCATION, PLEDGE OF ALLEGIANCE & ROLL CALL**
- 2) PLEASE SILENCE ELECTRONIC DEVICES**
- 3) ACCEPTANCE OF AGENDA**
- 4) PRE-SCHEDULED APPEARANCES / RECOGNITIONS**
- 5) PUBLIC HEARINGS / WORKSHOPS**
- 6) OPEN TO THE PUBLIC**
*The public is invited to speak. (Speaking time limit: Individual - 3 minutes;
Group/Organization - 5 minutes)*
- 7) CITY ATTORNEY REPORT**
- 8) CONSENT AGENDA**
 - a) Bill Listing
 - b) Council Minutes* - 10.15.2024
- 9) CITY CLERK'S REPORT**
- 10) CITY MANAGER'S REPORT**
 - a) Hwy 44 West Special Assessment District Project Completed - Resolution 2024-15

**AGENDA FOR REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF
INVERNESS, FLORIDA, CITY HALL, 212 WEST MAIN STREET
November 6, 2024 - 5:30 PM**

- b) Interlocal Agreement with Citrus County for Potable Water Interconnect
- c) Planning and Zoning Commission - Board Appointment
- d) Projects and Programs - Update
 - Boat Dock Relocation
 - Other

11) MAYOR & COUNCIL SUBJECTS / REPORTS

- a) Mayor Plaisted
- b) Councilwoman Bega
- c) Councilwoman Hepfer
- d) Councilwoman Lizanich
- e) Councilman Davis
- f) Councilman McBride

12) NON-SCHEDULED PUBLIC COMMENT

(Speaking time limit: Individual - 3 minutes; Group/Organization - 5 minutes)

13) ADJOURNMENT

- a) **DATES TO REMEMBER**
 - Veterans Car Show
Friday, November 8, 2024 from 5:00pm – 8:00pm
Downtown Inverness

 - Movie Night in the Park – The Garfield Movie
Friday, November 8, 2024 @ 6:00pm
Liberty Park

 - Under Siege Enterprises Presents – Girls Night Out
Friday, November 8, 2024 @ 7:30pm
Saturday, November 9, 2024 @ 3:30pm
Sunday, November 10, 2024 @ 3:30pm
Valerie Theatre

 - Small Town Saturday Night
Saturday, November 9, 2024 from 5:00pm – 9:00pm

**AGENDA FOR REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF
INVERNESS, FLORIDA, CITY HALL, 212 WEST MAIN STREET
November 6, 2024 - 5:30 PM**

Downtown Inverness

Veterans Day Parade

Veterans Luncheon following Parade & Ceremony @ Historic Courthouse
Monday, November 11, 2024 @ 10:00am
Downtown Inverness

Veterans Day Observance

Monday, November 11, 2024
City Administrative Offices Closed
(City Parks, City Fire Department, Utilities, & Law Enforcement Operate)

Siege Enterprises Presents – Girls Night Out

Friday, November 15, 2024 @ 7:30pm
Saturday, November 16, 2024 @ 3:30pm
Sunday, November 17, 2024 @ 3:30pm
Valerie Theatre

Market at the Depot

Saturday, November 16, 2024 from 9:00am – 2:00pm
Depot Pavilion

Inverness City Council Regular Meeting

Tuesday, November 19, 2024 @ 5:30pm
Inverness Government Center

CASH REQUIREMENTS REPORT

VENDOR	DOCUMENT	INVOICE	VOUCHER	DESCRIPTION	DUE DATE	DUE 10/30/25
		TOTALS FOR ACE HARDWARE CO OF INV INC				45.44
		TOTALS FOR AQUA TRIANGLE 1 CORP				766.90
		TOTALS FOR AT & T MOBILITY NATIONAL ACCOUNTS LLC				240.99
		TOTALS FOR TIME WARNER CABLE				119.98
		TOTALS FOR EMBARQ FLORIDA, INC				711.09
		TOTALS FOR CITRUS EQUIPMENT REPAIR				16.91
		TOTALS FOR CITRUS VETTES & CAMAROS CAR CLUB, INC.				650.00
		TOTALS FOR CIVICPLUS, LLC.				7,547.40
		TOTALS FOR CRYSTAL RIVER QUARRIES INC				
		TOTALS FOR DUKE ENERGY				9,677.22
		TOTALS FOR DYNAFIRE, LLC				12,170.00
		TOTALS FOR FRANK A. FRAUNFELTER				416.00
		TOTALS FOR OFF DUTY MANAGEMENT, INC.				1,132.11
		TOTALS FOR OFFICE DEPOT INC				779.78
		TOTALS FOR PRICE FAMILY ENTERTAINMENT INC				671.00
		TOTALS FOR REP SERVICES INC				978.26
		TOTALS FOR SOFTWARE HOUSE INTERNATIONAL				-1,653.24
		TOTALS FOR SUMTER ELECTRIC COOPERATIVE INC				58.90
		TOTALS FOR DATA MANAGEMENT, INC				2,656.70
		TOTALS FOR ULINE, INC.				558.10
		TOTALS FOR UNIFIRST CORPORATION				116.86
		TOTALS FOR WXOF, INC				4,000.00
		REPORT TOTALS				41,660.40

** END OF REPORT - Generated by Stacey Iddings **

October 15, 2024
5:30 PM

The City Council of the City of Inverness met on the above date in Regular Session at 212 W. Main Street, Inverness (City Hall) with the following members present:

President Hepfer
Vice President Davis
Councilwoman Bega
Councilwoman Lizanich
Councilman McBride
Mayor Plaisted

Also present were City Manager Williams, City Attorney Batsel, Staff Members, and City Clerk Jackson.

The Invocation was given by Councilman Davis and the Pledge of Allegiance was led by the City Council.

ACCEPTANCE OF AGENDA

Councilwoman Lizanich motioned to accept the Agenda with the addition to Pre-Scheduled Appearances. Seconded by Councilman McBride. The motion carried.

PRE-SCHEDULED APPEARANCES

Cootertober Presentation with City Manager Williams providing a visual presentation of the events to date, including attendance and popularity. He stated that none of this would happen without community partnerships and the community coming together to enjoy family friendly events. He detailed the various events including events at the Valerie Theatre, ROCCS, Spooky Story Time, and the Cooter Carnival, to name a few. Councilwoman Bega has enjoyed several of the events. Mayor Plaisted spoke of his recent article in the newspaper and how Cootertober is good family entertainment. He questioned where are the people who object to Halloween, etc., where are they when Wal-Mart, Target, etc. are promoting with costume sales, etc. Councilwoman Lizanich read a prepared statement noting that the majority of City residents support the events. Her family has greatly enjoyed every event to date. She acknowledged that everyone has an opinion, but she has only heard good things about Cootertober and the City. Council President Hepfer attended the story time and noted how much fun everyone was having. This is a wonderful fun event for families.

PUBLIC HEARINGS / WORKSHOP

None

OPEN PUBLIC MEETING

The following people spoke of concerns regarding negative rumors being circulated and potential negative impact on local business and support for Cootertober events: Timothy Gilbert – Inverness is a father concerns for protecting children being used and noted the events are about the kids and thanked Council for everything they do to have fun family-friendly entertainment. Deborah Spence – Crystal River attended story time and noted the great crowds. Spoke of family, supporting businesses and this weekend demonstrated a Small Town Done Right. Jojo Gregory – Independence Highway spoke of involvement in the events for all, that bring people here from all over. Praised the Belden's and the Twistid Arts Initiative.

Chad Ridge – Lecanto spoke of growing up in New England. He promotes Cootertoher and the City and has worked in various events. Rosemary Nilles – Inverness stated she grew up just fine enjoying Halloween activities, etc. Cootertoher has great events, but it is sad that a local business has been attacked. Keith Pasowicz – Homosassa spoke of Cootertoher and the Nativity. If you don't like – don't come. Darrell Reneau – Cornerstone Church stated he is the pastor of Cornerstone and commended the City for great events such as the National Day of Prayer and how the City opened doors for religious events. He spoke of truth and love and appreciates City deeply. Thanked the Beldens for investing in the children. Samantha Carter – Inverness thanked the City for the commitment to Cootertoher and the vibrancy it brings to the community. Spoke of the great things the Twistid Arts do. Marion Walsh – Hernando stated the children are equal citizens and praised Twistid Arts Initiative. Cassidy Cabral – Inverness spoke of moving here during the pandemic. Spoke of the work done for the City and commended Twistid Arts Initiative for supporting the children and the arts. Spoke of religious freedom and respect. Ben Olson – Inverness spoke of the wonderful job with Cootertoher, even with the hurricane. Spoke of accusations being made without facts and wondered if this was an election year stunt. The Beldens helped make the event successful. Alicia McBratney – Inverness spoke to ethics statement for the upcoming election. She did not see any evil and darkness in story time or any events. Has concerns of candidate for City Council noting the current Council is impressive and represents the whole community. John Comer – Citrus County spoke of the LGBTQ+ community. Josiah Webb – Inverness spoke of a personal friend that has come under criticism. Stated the privilege of working with the Beldens as they gave him his first job and so many opportunities. Thanked all for the effort for events that all can enjoy. Becky Beattie – Hernando is worried about the hate and division and using religious manipulation. This is not who we are. Jacqueline Dixon – Inverness is proud to serve on the Board of the Directors for Twistid Arts Initiative and spoke of the dedication, and wants the City to keep doing what it's doing. The following people spoke against Cootertoher and spoke of the upcoming election: Ray Brown – Citrus County spoke of bringing evil into neighborhoods. Sara Scozzafava – Citrus County stated the Depot is a great job and questioned the person in charge of events. Donna Rummel – Citrus County spoke of things invited into the City. April Wnuk – Hernando noted we should love one another. Spoke of witches, Halloween, etc. and Christmas month. John Labriola - Inverness spoke of particular board appointments if elected to Council. Debbie Wheatley – Inverness gave kudos to City workers for their hard work after the storms. Referenced the ethical campaign form, highlighting certain points on the form and how candidates should be held accountable.

CITY ATTORNEY REPORT

City Attorney Batsel noted the suggested legal change regarding the agreement for auditor services. He noted how impressed with the positive things about the Twistid Arts Initiative.

CONSENT AGENDA

- a) Bill Listing*
 - Recommendation – Approval
- b) Council Minutes – 10/01/2024*
 - Recommendation – Approval

Councilman McBride motioned to accept the Consent Agenda. Seconded by Councilwoman Lizanich. The motion carried.

CITY CLERK'S REPORT

None

CITY MANAGER'S REPORT

10)a) Audit Selection Committee – Bid Evaluations and Award* with City Manager Williams stating the Agreement for audit services is expiring, and a Request for Proposal (RFP) for submittals from firms was let. Finance Director Koter provided an analysis of the responding firms: Mauldin & Jenkins, LLC, Bradenton FL; McDirmit Davis, LLC, Orlando FL; and Purvis, Gray and Company, LLP, Ocala FL. She advised that Mauldin & Jenkins was the lowest and best and fits the needs of the City. The proposals were submitted to the Audit Selection Committee for review and evaluation and concluded Mauldin & Jenkins. The firm has over 100 years of experience and has made the governmental sector their primary focus, servicing over 700 governmental entities across the Southeast. The agreement's initial term is for audit services of three (3) fiscal years, beginning with the audit of Fiscal Year 2024, with the City reserving the right to extend the contract for two (2) additional one (1) fiscal year term(s). The total cost of auditing services for the initial three fiscal year audits is \$122,500. **Councilwoman Bega motioned to accept the proposal by Mauldin & Jenkins LLC, as best and authorize the Council President to execute the contract with changes noted by City Attorney. Seconded by Councilwoman Lizanich. The motion carried.**

10)b) Florida Senior Games* with City Manager Williams stating the Senior Games first started in Sanford, Florida in 1974. In 1988, the State of Florida appointed a committee to investigate the status of the Senior Games movement in the state and determine its course to follow. Over the years, the Senior Games has continued to grow and bring together this particular age group. In 2023, there were over 3,000 athletes competing in the games. The Senior Games encourage and promotes healthy lifestyles for Florida Seniors, provides Florida Seniors with the opportunity to compete at the local, state, and national levels, as well as provides all senior citizens of Florida with an affordable and quality multi-sport festival they can call their own. In February 2025, the City of Inverness has an opportunity to host a series qualifier Senior Games to compete at the State level with the cost of approx. \$5,000 which would be offset by grants and entry fees. The City of Inverness would partner with the local Department of Health, as well as other local businesses to be able to host such an event. The events would take place at Liberty Park, Wallace Brooks Park, Whispering Pines Park, along with other locations, in order to host events such as bowling, archery, and golf. Parks Director Worley spoke of the history of the games and the events involved. Councilman McBride noted this fits the demographics of our City. Councilman Davis questioned the types and number of events with Director Worley comparing the events and ceremony to Olympic-ish. **Councilman McBride motioned to approve the City of Inverness hosting the 2025 Florida Senior Games Series Qualifier in February and authorize the City Manager to execute any documents to proceed. Seconded by Councilman Davis. The motion carried.**

g) Project/Program Updates (Verbal)

- Hurricane Milton impacts to the City and County was discussed. The City is paying approx. \$100,000 for debris cleanup from the curbs in the City.
- Whispering Pines Park slideshow of the effects of the storm. Hope to reopen by the weekend.

- Florida Assistance to Firefighters Grant Award of approx. \$20,000 for additional bunker gear.
- Small Town Saturday Night with Director Worley noting this weekend concert by Twysted Vyne and the next will be November 9 with Crossfire Creek band.
- Veteran's Day Parade with Dep. Ruby explaining the changes to the parade route. The roads involved will close at 9:30am and the parade starts at 10:00am. This will be followed by the 11th hour ceremony at the historic Courthouse.
- Other with City Manager Williams stating he has lived here for 20 years, being a part of the community, raising his son here, this is a welcoming community.

COUNCIL/MAYOR SUBJECTS

Mayor Plaisted stated he has been an elected official since 1999, and this is the greatest City he has ever lived in and the way we conduct business. Twistid Arts is an outstanding partner.

Councilman McBride attended the October 3 Hernando/Citrus MPO meeting where the approved the 2050 Long Range Transportation Plan, to include finalization of 41N.

Councilwoman Bega noticed neighbors helping neighbors after the storms. Noted she had been on Council for 14 years, lived in Inverness 50 years, and Inverness as open minded.

Councilwoman Lizanich noted to keep those affected by the hurricanes in our thoughts and prayers. Will be attending the Citrus County Community Charitable Foundation (CCCCF) meeting on October 23 and will have a report for the next Council meeting. Stated what an amazing partner Twistid Arts Initiative is with the City and praised their dedication and time given to the community. Thanked all who spoke this evening.

Councilman Davis stated that the entire Council loves the City and strive to leave it better then they found it. Spoke of living here 70 years and the many changes, he is blessed and proud.

Council President Hepfer praised the Beldens and the story time was a wonderful event. Spoke of the production at the Valerie this past weekend. Spoke of meeting a couple of visitors to Inverness during the ROCCS event. Noted Council strives to do what is best for the majority.

CITIZENS NOT ON AGENDA

Karen Esty stated it was nice to see families have a good time at the Cooter Carnival and Belden's have made a big effort for Cootertober to be a success.

Jojo Gregory Spoke of leaders, Beldens and how civilized the City Council meetings are.

Josiah Webb spoke of Twistid Arts Initiative, getting local businesses involved, etc.

Emily Seer supported Twistid Arts Initiative and the Beldens as an outreach to everyone. Proud of how welcoming the City is.

Alicia McBratney stated the City did a great job after the storm and spoke of election concerns.

Meeting adjourned at 7:49 p.m.

City Clerk

Council President

Agenda Memorandum - *City of Inverness*

November 6, 2024

TO: Elected Officials

FROM: Eric Williams, City Manager

SUBJECT: Hwy 44 West Special Assessment District Project Completed - Resolution 2024-15

CC: Susan Jackson, City Clerk, Frank Calascione, Assistant City Manager, Alexis Koter, Finance Director, Rob Pell, Assistant Public Works Director

Enclosures: 1. RESOLUTION 2024-15 44W Special Assessment Project Completed
2. Notice of Project Complete - Sample Letter
3. LIEN ASSESSMENT ROLL - 07.06.2023

The Resolution before Council tonight declares the Highway 44W Special Assessment District Project complete and final. This septic to sewer project extended water and wastewater utilities in the west central section of the City, and provides municipal water and/or wastewater service to residences and businesses. The project will eliminate 43 commercial septic tanks and 7 residential septic tanks. Adopting this resolution represents the last action by the City with respect to the assessment process.

Staff will present a review of the next steps for properties within the assessment district for the respective connections to the newly installed City system. It is recommended that Council proceed with the adoption of the enclosed resolution.

Recommended Action:

1. Allow Staff to Present
2. Motion, second, vote to read the Resolution by title only
3. Dilberate the matter
4. Motion, second, and vote to adopt the Resolution by roll call

If you wish to discuss this further, please contact me at your convenience.

Eric C. Williams

RESOLUTION 2024 – 15

A RESOLUTION OF THE CITY OF INVERNESS, FLORIDA, PROVIDING ACCEPTING 44 WEST SEPTIC TO SEWER SPECIAL ASSESSMENT PROJECT AS COMPLETED; PROVIDING THE PAYMENT DUE DATE FOR THE FIRST MONTHLY INSTALLMENT; AND PROVIDING FOR RECORDATION OF THIS INSTRUMENT.

WHEREAS, the City of Inverness, Florida, pursuant to the authority of Chapter 170, Laws of Florida, determined the necessity to provide a water delivery system to the specifically benefited property within the incorporated area of Citrus County designated as the 44 West Septic to Sewer Special Assessment District; and

WHEREAS, pursuant thereto, the City passed Resolution No. 2022 – 10 declaring its intent to make such improvements, designating the lands to be improved, estimating the costs of said improvements, setting forth the method to assess the affected properties, setting forth the method and terms of payment of the assessments, and establishing that no costs associated thereto shall be paid from the general improvement fund of the City; and

WHEREAS, the City passed Resolution No. 2023 – 11 setting forth notice to the public and all property owners of their right and opportunity to be heard by the City Council of the City on the advisability

and propriety of the 44 West Septic to Sewer Special Assessment District;
and

WHEREAS, the City Council of the City held a public hearing as set forth above on August 15, 2023 at 5:30 p.m. at the City Hall located at 212 W. Main Street, Inverness, Florida, where all in attendance were given the opportunity to be heard and wherein the City Council met as an equalizing board and considered any and all complaints as to the special assessments; and

WHEREAS, the City Council, after due consideration, adjusted and equalized the assessments on the basis of justice and right; and

WHEREAS, the City Council passed Resolution No. 2023 – 13 adjusting, equalizing and finalizing the 44 West Septic to Sewer Special Assessment District and providing for the recordation of the Final Assessment Roll and Resolution; and

WHEREAS, work on the 44 West Septic to Sewer Special Assessment District was commenced and finished; and

WHEREAS, it appears that the finished 44 West Septic to Sewer Special Assessment District has been done to the Council's satisfaction.

NOW, THEREFORE, BE IT RESOLVED THIS 6th DAY OF NOVEMBER, 2024 BY THE CITY COUNCIL OF THE CITY OF

INVERNESS, FLORIDA, AT ITS REGULAR MEETING HELD AS
FOLLOWS:

1. That the 44 West Septic to Sewer Special Assessment District Project is hereby accepted as being completed.
2. That the first installment payment of such special assessment shall be due within thirty (30) days of the date of this Resolution in accordance with Resolution No. 2023 – 13 of the City.
3. Property owners subject to the Special Assessment may pay the entire assessment in full within thirty (30) days of the date of this Resolution without interest if they so desire.
4. That the City Clerk shall cause a certified copy of this Resolution to be recorded in the Public Records of Citrus County, Florida.

ATTEST:

CITY OF INVERNESS, FLORIDA

City Clerk

Council President

Approved as to form and content:

City Attorney

November 8, 2024

John & Jane Smith
5555 Example Street
Inverness, FL 34450

HIGHWAY 44 WEST SPECIAL ASSESSMENT DISTRICT (2023)

Dear Property Owner,

The City of Inverness is pleased to announce the Highway 44 West Special Assessment District project has been completed. To fulfill legal requirements, the Inverness City Council approved a final Resolution during a regular City Council meeting on November 6, 2024.

Each property owner will be required to connect to the system within three hundred and sixty-five (365) days from December 9, 2024. The assessment may be paid in-full within thirty days or financing is available through the City for a period of sixty (60) months at an interest rate of three (3%) percent. In addition, there will also be a one-time administrative fee of two (2%) percent for those that finance the assessment. The assessment must be paid regardless of when the property is connected to the system.

An overview of the steps required to connect and start benefiting from the system is below:

- Obtaining a building permit from the City for the water and/or sewer plumbing necessary to connect to the City's system, utilizing a licensed plumbing contractor
- Setting up a utility account with the City of Inverness (if not already a utility account holder)
- Obtaining a permit through the Florida Department of Health for septic tank abandonment utilizing a qualified contractor.

Building permits are available from the City's Community Development Department, see the contacts section at the end of this letter for more information. Permits are required to allow the licensed plumbing contractor of your choice to complete the connection/s from the water meter and/or wastewater line connection point to your structure. Each property owner will be responsible for scheduling and payment of plumbing services required to connect to the respective meter and/or wastewater line connection point.

Property owners will also be responsible for permitting, scheduling, and payment for a qualified contractor to complete the septic tank abandonment work required. This permitting is handled by the Florida Department of Health (please see contact list below). The City has already included a credit in the assessment for property owners that are abandoning a septic tank.

Once the connection/s have been completed to the meter and/or wastewater line connection point, the next step will be to open a utility account, if you are not currently a utility customer, with the City of Inverness. The Finance Department will assist you in filing the necessary paperwork and discuss the payment options with you. Please see contact information for our Finance Department below.

Contacts:

City of Inverness Building Permitting

Community Development Department, Debra Schramm, 726-2611, ext. 1404

Inverness Government Center, 212 W Main Street, Inverness, FL 34450

www.Inverness.gov

City of Inverness Utility Account Setup

Finance Department, Sheila Hennessey, 726-2611, ext. 1209

Inverness Government Center, 212 W Main Street, Inverness, FL 34450

Florida Department of Health-Citrus County, Septic Tank Abandonment Permitting

Environmental Health for Citrus County, 352-513-6100

Lecanto Government Building, 3600 W Sovereign Path, Lecanto, FL 34461

<https://citrus.floridahealth.gov/programs-and-services/environmental-health/index.html>

The City of Inverness looks forward to serving you. We take pride in our program of high-quality customer service, and if you have any questions, please do not hesitate to contact us at (352) 726-2611.

Sincerely,



Susan Jackson
City Clerk

HIGHWAY 44 WEST, INVERNESS FLORIDA
WATER AND SEWER ASSESSMENT LIENS (Updated 07.06.2023)

Block & Lot	Alt Key #	Owner Name	Mailing Address	Site Address	Parcel Identification	Assessment per Lot
SW Cor of SE 1/4 of SW 1/4 TH N AL W LN of SE 1/4 of	1672287	RITI INVESTMENTS LLC	1820 SE 18th Avenue Ste 3 Ocala, FL 34471-8303	2612 Hwy 44 W Inverness FL	19E19S12 32320	\$3,278.38
NW 1/4 of SW 1/4 S of Inv & N 1/2 of NW 1/4 of	1672295	DUKE ENERGY FLORIDA INC	PO Box 37996 Charlotte, NC 28237	2811 Forest Drive Inverness FL	19E19S12 33000	\$0.00
NW 1/4 of SW 1/4 S of Inv & N 1/2 of NW 1/4 of	1672295	DUKE ENERGY FLORIDA INC	PO Box 37996 Charlotte, NC 28237	2811 Forest Drive Inverness FL	19E19S12 33000	\$0.00
SW Cor of SE 1/4 of SW 1/4 & Run N on W Ln of SE 1/4 of	1688124	KONGQUEE MILTON G KONGQUEE NADEEN	831 E Charleston Court Hernando, FL 34442	2608 Hwy 44 W Inverness FL	19E19S130020 0120	\$3,278.38
Block 3 Lot 19/20/21	1689376	VICTOR T NOTHNAGEL OD PA	2332 Hwy 44 W Inverness, FL 34453	2328 W Hwy 44 Inverness FL	19E19S130030 00030 0190	\$3,278.38
Block 3 Lot 22	1689392	DIRECT ADMINISTRATION INC ATTN RE DPMT DIRECT	1281 Murfeesboro Road Nashville, TN 37217	2322 W Hwy 44 Inverness FL	19E19S130030 00030 0220	\$3,278.38
Block 3 Lot 28 Less SW;ly 5.10'	1689422	J M PLUMBING INC	2302 Hwy 44 W Inverness, FL 34453	2310 W Hwy 44 Inverness FL	19E19S130030 00030 0280	\$0.00
Block 4 Lot 13/14/15	1689520	DECARMINE FRANK DECARMINE PATRICIA	2628 W Sunrise Street Lecanto, FL 34461-2700	2514 W Hwy 44 Inverness FL	19E19S130030 00040 0130	\$4,138.97
Block 4 Lot 16/17/18	1689546	MEAN KID INC	13937 Thoroughbred Drive Dade City, FL 33525-6214	2500 W Hwy 44 Inverness FL	19E19S130030 00040 0160	\$3,278.38
Block 4 Lot 22/23	1689554	COOPER WAYNE & BETTY	2681 Hampshire Street Inverness, FL 34453	2410 W Hwy 44 Inverness FL	19E19S130030 00040 0220	\$3,278.38
Block 4 Lot 24/25/26 & 1/27	1689562	BRANNEN BANK	PO Box 1929 Inverness, FL 34451-1929	2400 W Hwy 44 Inverness FL	19E19S130030 00040 0240	\$3,278.38
Block 5 Lot 1	1689597	DELARCO RYAN N	7495 N Fuller Terrace Citrus Springs, FL 34434	1303 S Border Avenue Inverness FL	19E19S130030 00050 0010	\$2,132.48

Block 5 Lot 2	1689601	DELARCO RYAN N	7495 N Fuller Terrace	3005 Crystal Blvd	19E19S130030 00050 0020	\$1,775.60
		DELARCO DEVEN L	Citrus Springs, FL 34434	Inverness FL		
Block 5 Lot 3	1689619	DELARCO RYAN N	7495 N Fuller Terrace	3003 Crystal Blvd	19E19S130030 00050 0030	\$2,132.48
			Citrus Springs, FL 34434	Inverness FL		
Block 5 Lot 4	1689627	TEREMA INCORPORATED	PO Box 2741	2925 E Crystal Blvd	19E19S130030 00050 0040	\$2,132.48
			Inverness FL 34451-2741	Inverness FL		
Block 5 Lot 5	1689635	ASA INDOUNITED LLC	PO Box 753	2917 E Crystal Blvd	19E19S130030 00050 0050	\$2,132.48
			Odessa, FL 33556	Inverness FL		
Block 5 Lot 6	1689643	CHRIS ANDREADIS INC	5 Mayten Circle	2911 E Crystal Blvd	19E19S130030 00050 0060	\$2,132.48
			Homosassa, FL 34446	Inverness FL		
Block 5 Lot 7	1689651	WHEELER CONTRUCTION INC	PO Box 310	2905 Crystal Blvd	19E19S130030 00050 0070	\$1,775.60
			Inverness FL 34451-0310	Inverness FL		
Block 5 Lot 8	1689660	METCALFE ONEIL	6460 SW 9th Place	2901 Crystal Blvd	19E19S130030 00050 0080	\$1,775.60
			North Lauderdale, FL 33068	Inverness FL		
Block 5 Lot 9	1689678	M18 LAND LLC	4327 S. Hwy 27, Ste. 607	2825 Crystal Blvd	19E19S130030 00050 0090	\$1,775.60
			Clermont, FL 34711	Inverness FL		
Block 5 Lot 10	1689686	KERSAINT BADY	891 NE 205th Street	2819 Crystal Blvd	19E19S130030 00050 0100	\$1,775.60
			Miami, FL 33179	Inverness FL		
Block 5 Lot 11	1689694	CORNMAN LARRY ADAM	2301 W Hewhope Ln	2813 Crystal Blvd	19E19S130030 00050 0110	\$1,775.60
			Citrus Springs, FL 34434	Inverness FL		
Block 5 Lot 12	1689708	MAHABIR-JACOB NIRMALA	40 Southhampton Dr	2807 E Crystal Blvd	19E19S130030 00050 0120	\$1,775.60
			Willingboro, NJ 08046	Inverness FL		
Block 11 Lot 1/2 Less SR 44 PCL	1690668	LOWMAN CITRUS HOLDINGS LL	31 S Main St	2623 W Hwy 44	19E19S130030 00110 0010	\$3,278.38
			Brooksville, FL 34601	Inverness FL		
Block 11 Lot 3/4 & W 50' of Lot 43	1690676	JENNA DEAN INVESTMENTS LLC	5675 34th Street N	2619 Highway 44	19E19S130030 00110 0030	\$3,278.38
			St. Petersburg, FL 33714-1203	Inverness FL		
Block 11 Lot 3/4 & W 50' of Lot 43	1690676	JENNA DEAN INVESTMENTS LLC	5675 34th Street N	2619 Highway 44	19E19S130030 00110 0030	N/A
			St. Petersburg, FL 33714-1203	Inverness FL		
Block 11 Lot 3/4 & W 50' of Lot 43	1690676	JENNA DEAN INVESTMENTS LLC	5675 34th Street N	2619 Highway 44	19E19S130030 00110 0030	N/A
			St. Petersburg, FL 33714-1203	Inverness FL		
Block 11 Lot 7/8/9	1690692	RJK OF BEVERLY HILLS LLC	12010 W Bayshore Dr	2611 W Hwy 44	19E19S130030 00110 0070	\$3,278.38
			Crystal River, FL 34429-9261	Inverness FL		

Block 11 Lot 10/11	1690714	JOSENIE LOUIS UNLIMITED LLC	2525 Hwy 44 W Inverness, FL 34452	2525 Hwy 44 W Inverness FL	19E19S130030 00110 0100	\$3,278.38
Block 11 Lot 12/13	1690731	KING PHILIP	3354 E Gulf to Lake Hwy Inverness, FL 34453	2519 W Hwy 44 Inverness FL	19E19S130030 00110 0120	\$3,278.38
Block 11 Lot 14/15/16	1690749	KADUK THEODORE C	1202 Tuscany Dr New Port Richey, FL 34655	2513 W Hwy 44 Inverness FL	19E19S130030 00110 0140	\$3,278.38
Block 11 Lot 25	1690781	COOPER TROY	2205 Newbern Street Valdosta, GA 31602-2454	2405 W Hwy 44 Inverness FL	19E19S130030 00110 0250	\$0.00
Block 11 Lot 26/27	1690790	COOPER TROY	2205 Newbern Street Valdosta, GA 31602-2454	2403 W Hwy 44 Inverness FL	19E19S130030 00110 0260	\$3,278.38
Block 11 Lot 28	1690803	COOPER TROY	2205 Newbern Street Valdosta, GA 31602-2454	2500 Clearwood Street Inverness FL	19E19S130030 00110 0280	\$6,483.77
Block 11 Lot 29	1690811	COOPER TROY	2205 Newbern Street Valdosta, GA 31602-2454	2504 Clearwood Street Inverness FL	19E19S130030 00110 0290	\$6,483.77
Block 11 Lot 30	1690820	WHITE HARRIET JEAN HAMBURG	83 Geneva Drive #3641 Oviedo, FL 32762	2508 Clearwood Street Inverness FL	19E19S130030 00110 0300	\$14,064.40
Block 11 Lot 33	1690838	WHITE HARRIET JEAN HAMBURG	83 Geneva Drive #3641 Oviedo, FL 32762	2520 Clearwood Street Inverness FL	19E19S130030 00110 0330	\$14,064.40
Block 11 Lot 35	1690846	LOGAN FOUNDATION LLC	3690 W Gandy Blvd, Ste 423 Tampa, FL 33611	2528 Clearwood Street Inverness FL	19E19S130030 00110 0350	\$6,483.77
Block 11 Lot 37	1690854	KING PHILIP	3354 E Gulf to Lake Hwy Inverness, FL 34453	2600 Clearwood Street Inverness FL	19E19S130030 00110 0370	\$6,483.77
Block 11 Lot 40	1690862	CORPUS LIBRADA	1438 St Rd 64 West Wauchula, FL 33873	2612 Clearwood Street Inverness FL	19E19S130030 00110 0400	\$6,483.77
Block 11 Lot 41	1690871	RJK OF BEVERLY HILLS LLC	12010 W Bayshore Dr Crystal River, FL 34429-9261	2616 Clearwood Street Inverness FL	19E19S130030 00110 0410	\$6,483.77
Block 11 Lot 42	1690889	ACOSTA ROBERT M	20233 Naglee Rd Tracy, CA 95304	2618 Clearwood Street Inverness FL	19E19S130030 00110 0420	\$6,483.77

Block 11 Lot 44	1690897	LOGAN FOUNDATION LLC	3690 W Gandy Blvd, Ste 423 Tampa, FL 33611	2626 Clearwood Street Inverness FL	19E19S130030 00110 0440	\$6,483.77
Block 11 Lot 45	1690901	FUTURE INVESTMENT CORP	5344 9th St, Ste 115 Zephyrhills, FL 33542	2630 Clearwood Street Inverness FL	19E19S130030 00110 0450	\$6,483.77
Block 12 Lot 1	1690919	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2625 Clearwood Street Inverness FL	19E19S130030 00120 0010	\$6,483.77
Block 12 Lot 2	1690927	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2621 Clearwood Street Inverness FL	19E19S130030 00120 0020	\$6,483.77
Block 12 Lot 3	1690935	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2617 Clearwood Street Inverness FL	19E19S130030 00120 0030	\$6,483.77
Block 12 Lot 4	1690943	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2613 Clearwood Street Inverness FL	19E19S130030 00120 0040	\$6,483.77
Block 12 Lot 5	1690951	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2609 Clearwood Street Inverness FL	19E19S130030 00120 0050	\$6,483.77
Block 12 Lot 6	1690960	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2601 Clearwood Street Inverness FL	19E19S130030 00120 0060	\$6,483.77
Block 12 Lot 7	1690978	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2533 Clearwood Street Inverness FL	19E19S130030 00120 0070	\$6,483.77
Block 12 Lot 8	1690986	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2529 Clearwood Street Inverness FL	19E19S130030 00120 0080	\$6,483.77
Block 12 Lot 9	1690994	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2525 Clearwood Street Inverness FL	19E19S130030 00120 0090	\$6,483.77
Block 12 Lot 10	1691001	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2521 Clearwood Street Inverness FL	19E19S130030 00120 0100	\$6,483.77
Block 12 Lot 11	1691010	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2519 Clearwood Street Inverness FL	19E19S130030 00120 0110	\$6,483.77
Block 12 Lot 12	1691028	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2513 Clearwood Street Inverness FL	19E19S130030 00120 0120	\$6,483.77
Block 12 Lot 13	1691036	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2509 Clearwood Street Inverness FL	19E19S130030 00120 0130	\$6,483.77
Block 12 Lot 14	1691044	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2505 Clearwood Street Inverness FL	19E19S130030 00120 0140	\$6,483.77
Block 12 Lot 15	1691052	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2501 Clearwood Street Inverness FL	19E19S130030 00120 0150	\$6,483.77

Block 12 Lot 16	1691061	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2429 Clearwood Street Inverness FL	19E19S130030 00120 0160	\$6,483.77
Block 12 Lot 17	1691079	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2429 Clearwood Street Inverness FL	19E19S130030 00120 0170	\$6,483.77
Block 12 Lot 18	1691087	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2425 Clearwood Street Inverness FL	19E19S130030 00120 0180	\$6,483.77
Block 12 Lot 19	1691095	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2421 Clearwood Street Inverness FL	19E19S130030 00120 0190	\$6,483.77
Block 12 Lot 20	1691109	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2417 Clearwood Street Inverness FL	19E19S130030 00120 0200	\$6,483.77
Block 12 Lot 21	1691117	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2413 Clearwood Street Inverness FL	19E19S130030 00120 0210	\$6,483.77
Block 12 Lot 22	1691125	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2409 Clearwood Street Inverness FL	19E19S130030 00120 0220	\$6,483.77
Block 12 Lot 23	1691133	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2405 Clearwood Street Inverness FL	19E19S130030 00120 0230	\$6,483.77
Block 12 Lot 24	1691141	INVERNESS PROPERTIES CORP	PO Box 126428 Hialeah, FL 33012-1607	2401 Clearwood Street Inverness FL	19E19S130030 00120 0240	\$6,483.77
Block 13 Lot 4	1691397	CHUCK EVERIDGE INSURANCE AGENCY INC	2309 Highway 44 W Inverness, FL 34453	2309 W Hwy 44 Inverness FL	19E19S130030 00130 0040	\$3,278.38
Block 13 Lot 9/10	1691401	MID STATE GLASS OF CITRUS CO INC	2319 Hwy 44 W Inverness, FL 34453-3809	2319 W Hwy 44 Inverness FL	19E19S130030 00130 0090	\$3,278.38
Block 13 Lot 11/12	1691419	CYR MICHAEL P	1055 S Telephone Point Rd Inverness, FL 34450	2323 W Hwy 44 Inverness FL	19E19S130030 00130 0110	\$3,278.38
Block 13 Lot 18	1691451	VAUGHN RODERICK	416 Curry Street Fairfield, IL 62837-1902	2416 Clearwood Street Inverness FL	19E19S130030 00130 0180	\$6,483.77
Block 13 Lot 19	1691460	TAPARAN EDUARD B TAPARAN MARY ANNE	2155 Royal Drive Apt C Santa Clara, CA 95050	2412 Clearwood Street Inverness FL	19E19S130030 00130 0190	\$6,483.77

Block 13 Lot 21	1691478	TGTS	8801 Saint Thomas Dr 76 Pasco, WA 99301	2404 Clearwood Street Inverness FL	19E19S130030 00130 0210	\$6,483.77
Block 13 Lot 24	1691486	ORTIZ CARMELA	3149 N Appaloosa Point Crystal River, FL 34428	208 N Crestview Avenue Inverness FL	19E19S130030 00130 0240	\$6,483.77
Block 13 Lot 25	1691494	DOREEN M SCOTT REV LIV TRUS	2107 Hammock Park Court Trinity, FL 34655	206 N Crestview Avenue Inverness FL	19E19S130030 00130 0250	\$6,483.77
Block 13 Lot 27	1691508	DOREEN M SCOTT REV LIV TRUS	2107 Hammock Park Court Trinity, FL 34655	202 N Crestview Avenue Inverness FL	19E19S130030 00130 0270	\$6,483.77
Block 13 Lot 28	1691516	SALEEM MUHAMMAD A	8227 Lake Serene Drive Orlando, FL 32836	200 N Crestview Avenue Inverness FL	19E19S130030 00130 0280	\$6,483.77
Block 13 Lot 29	1691524	SCOTT SONIA & ELIZABETH BANKS	2 Farrington Terrace Kingston 6, Jamaica, West Indi	124 N Crestview Avenue Inverness FL	19E19S130030 00130 0290	\$1,775.60
Parkers Place Unrec Subd E 1/2 Lot 1	1694574	BERMEO VICTOR	3163 Mariner Blvd Spring Hill, FL 34609	1302 S Border Avenue Inverness FL	19E19S14 1A000 0010	\$3,278.38
Block 3 Lot 31/32	1936411	MATYSIK FAMILY LIMITED PARTNERSHIP	2246 Hwy 44 W Inverness, FL 34453	2246 Hwy 44 W Inverness FL	19E19S130030 00030 0310	\$3,278.38
Block 11 Lot 5/6	1936420	DMP OF CITRUS COUNTY INC	8486 Athens Ct Weeki Wachee, FL 34613	2617 W Hwy 44 Inverness FL	19E19S130030 00110 0050	\$3,278.38
Block 3 Lot 23/24	2233893	JENNA DEAN INVESTMENTS LLC	5675 34th Street N St. Petersburg, FL 33714-1203	2320 Highway 44 Inverness FL	19E19S130030 00030 0230	\$3,278.38
Block 13 Lot 20	2242957	HARTY LARRY F TRUSTEE	3380 S Mauna Terrace Inverness, FL 34452-8914	2408 Clearwood Street Inverness FL	19E19S130030 00130 0200	\$6,483.77
Block 1 Lot 1 & Pt of SAL abandoned	2245514	CRWL LLC	3715 Little Rd Lutz, FL 33548	2242 Hwy 44 Inverness FL	19E19S13 14101 0010	\$3,278.38
Block 11 Lot 23/24	2245522	INFINITA SALUTEM PA	2421 Hwy 44 W Inverness, FL 34453	2421 W Hwy 44 Inverness FL	19E19S130030 00110 0230	\$3,278.38
Block 4 Lot 6	2247690	ABELY GERALD E & JANET S	11556 N Caribee Point Inglis, FL 34449	2602 W Hwy 44 Inverness FL	19E19S130030 00040 0060	\$3,278.38
Block 13 Lot 5/6/7/8	2264161	O'REILLY AUTOMOTIVE STORES INC	PO Box 9167 Springfield, MO 65801-9167	2313 W Hwy 44 Inverness FL	19E19S130030 00130 0050	\$3,278.38

Block 4 Lot 19 & NW'y 1/2 of Lot 20	2279486	NIANCA LLC	PO Box 273766 Boca Raton, FL 33427-3766	2418 W Hwy 44 Inverness FL	19E19S130030 00040 0190	\$3,278.38
Block Lot 12 of SR 44 & Pt of 33	2328762	RICHIES GARAGE COMPLETE AUTOMOTIVE LLC	2604 Hwy 44 W Inverness, FL 34453	2604 W Hwy 44 Inverness FL	19E19S130020 0121	\$3,278.38
Block 3 Lot 29/30 1995 Less Outs	2375060	J M PLUMBING INC	2302 Hwy 44 W Inverness, FL 34453	2306 W Hwy 44 Inverness FL	19E19S130030 00030 0290	\$4,138.97
Block Lot PT of 27 Beg at Most W	2378646	COFFEE HOLDING COMPANY LL	PO Box 641024 Beverly Hills, FL 34464	2236 W Hwy 44 Inverness FL	19E19S130020 0271	\$3,278.38
Block 11 Lot 34	2395061	WILSON ROBERT L JACQUELINE A COPELAND	6165 Deltona Blvd Spring Hill, FL 34606	2524 Clearwood Street Inverness FL	19E19S130030 00110 0340	\$6,483.77
Block 131 Lot 38/39	2401401	ST MARTIN DACELIN	PO Box 1976 Lecanto, FL 34460-1976	2604 Clearwood Street Inverness FL	19E19S130030 00110 0380	\$12,967.54
Block 11 Lot 43	2402288	JENNA DEAN INVESTMENTS LLC	5675 34th Street N St. Petersburg, FL 33714-1203	2622 Clearwood Street Inverness FL	19E19S130030 00110 0430	\$0.00
Block 4 Lot 21/ S 1/2 of 20	2452161	DLEON ENTERPRISES LLC	2416 W Hwy 44 Inverness, FL 34453	2416 W Hwy 44 Inverness FL	19E19S130030 00040 0200	\$3,278.38
Block 13 Lot 26	2497742	GOBIN ROXANNE GOBIN DAVID	Ste 1002 1188 3rd Street SE Calgary, Alberta, T2G1H8 Cana	204 N Crestview Avenue Inverness FL	19E19S130030 00130 0260	\$6,483.77
Block 11 Lot 36	2694572	WILSON ROBERT L JACQUELINE A COPELAND	6165 Deltona Blvd Spring Hill, FL 34606	2532 Clearwood Street Inverness FL	19E19S130030 00110 0360	\$6,483.77
Block 13 Lot 22/23	2694581	HARTY LARRY F TRUSTEE	3380 S Mauna Terrace Inverness, FL 34452-8914	2400 Clearwood Street Inverness FL	19E19S130030 00130 0220	\$12,967.54
Block 4 Lot 7/8/9/10/ 11/12	2894938	GROW LAND LLC	2227 E Hampshire Street Inverness, FL 34453	2524 W Hwy 44 Inverness FL	19E19S130030 00040 0070	\$3,278.38
Block 13 Lot 1/2/3	2998059	JNR CITRUS HOLDINGS LLC	5870 E Tenison Street Inverness, FL 34452	2303 W Hwy 44 Inverness FL	19E19S130030 00130 0010	\$3,278.38
Block 13 Lot 13/14/ 15/16/17	3109131	MCMM INVESTMENTS LLC	7344 E Gospel Island Road Inverness, FL 34450-2509	2327 W Hwy 44 Inverness FL	19E19S130030 00130 0130	\$8,847.14
Block 13 Lot 13/14/ 15/16/17	3109131	MCMM INVESTMENTS LLC	7344 E Gospel Island Road Inverness, FL 34450-2509	2327 W Hwy 44 Inverness FL	19E19S130030 00130 0130	\$19,451.31
Block Lot 1/Part 2 E of PWR	3221500	STORANDT INVESTMENTS LLC	2805 Hwy 44 W Inverness, FL 34453	2805 Highway 44 West Inverness FL	19E19S120030 0010	\$3,278.38
Block 11 Lot 17/18/19 20/21/22	3221512	HEINZ ENTERPRISES INC	7524 Ridge Rd Port Richey, FL 34668	2507 Hwy 44 W Inverness FL	19E19S130030 00110 0170	\$3,278.38

Block 5 Lot 13/14/ 15/16/17/18	3396624	RKM CRYSTAL LLC	One Ashley Way Arcadia, WI 54612-1218	2705 Hwy 44 W Inverness FL	19E19S130030 00050 0130	\$3,278.38
Block Lot 9 Less PT E of S Proj of	3406401	SIGNET INVESTMENTS	3500 E Oak Trace Path Inverness, FL 34452-8898	2901 W Hwy 44 Inverness FL	19E19S120030 0030	\$0.00
Block 3 Lot 25/26/27	3462432	J M PLUMBING INC	2302 Hwy 44 W Inverness, FL 34453-3810	2312 Hwy 44 W Inverness FL	19E19S130030 00030 0250	\$3,278.38
Block 11 Lot 31	3525914	STUART TODD ANTHONY	3333 N Burroughs Path Beverly Hills, FL 34465	2512 Clearwood Street Inverness FL	19E19S130030 00110 0310	\$6,483.77
Block 11 Lot 32	3525915	STUART TODD ANTHONY	3333 N Burroughs Path Beverly Hills, FL 34465	2516 Clearwood Street Inverness FL	19E19S130030 00110 0320	\$6,483.77
Block 5 Lot 1	2497904	CITY OF INVERNESS	212 W Main Street Inverness, FL 34450-4855	3007 E Crystal Blvd Inverness FL	19E19S130030 00050 0015	\$0.00
Block 13 Lot 30	2497718	CRUZ RODRIGO	1461 13th Street SW Naples, FL 34117	122 N Crestview Avenue Inverness FL	19E19S130030 00130 0300	\$1,775.60

Agenda Memorandum - *City of Inverness*

November 6, 2024

TO: Elected Officials

FROM: Eric Williams, City Manager

SUBJECT: Interlocal Agreement with Citrus County for Potable Water Interconnect

CC: Eric Williams, City Manager, Susan Jackson, City Clerk, Frank Calascione, Assistant City Manager, Alexis Koter, Finance Director

Enclosures: 1. City and County Water Interconnect Agreement
2. City County Interconnect Plans

The City of Inverness and Citrus County wish to cooperate in a potable water system interconnect that will provide resiliency for the City's residents in the event of an emergency where the City's water system may experience a drop in pressure or other interruption in supply. The County has the available capacity to provide the City with bulk water for emergency use. The City has designed the interconnect and the County has reviewed and approved the plans. The City will fund and construct the interconnect as it is proposed as a one-way benefit to the City.

The project will be completed within 6 months of notice to proceed with an estimated cost of \$140,000. Once complete, should the city require the use of the interconnect for delivery of potable water, it will be billed at whatever the currently adopted bulk water rate for the County is at the time of dispensation.

Recommended Action:

1. Allow Staff to Present
2. Motion and second to approve an Interlocal Agreement for Water Interconnect as presented
3. Deliberate the Matter
4. Vote the Matter

If you wish to discuss this further, please contact me at your convenience.

Eric C. Williams

**INTERLOCAL AGREEMENT BETWEEN THE CITY
OF INVERNESS AND ~~THE CITRUS COUNTY~~
~~BOARD OF COUNTY COMMISSIONERS~~CITRUS
COUNTY, FLORIDA FOR A WATER SYSTEM
INTERCONNECT**

THIS WATER INTERCONNECT AGREEMENT is made this ____ day of ____ 2024, by and between the CITY OF INVERNESS, a Florida Municipal Corporation (hereinafter "CITY"), and CITRUS COUNTY, FLORIDA, a political subdivision of the State of Florida (hereinafter "COUNTY").

WHEREAS, CITY and COUNTY wish to cooperate in a water system interconnect (hereinafter "INTERCONNECT") to provide resiliency for the CITY's customers in the event of an emergency; and

WHEREAS, COUNTY has available capacity to enter into a bulk water purchase agreement for emergency use with the CITY that allows the CITY to quickly respond to emergency needs; and

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the parties hereto do hereby agree as follows:

1. CITY has completed the design of the INTERCONNECT and COUNTY has reviewed and approved the design. CITY will fund and construct the INTERCONNECT.
2. CITY shall retain ownership and maintenance of INTERCONNECT up to and including the meter assembly. COUNTY will retain ownership and maintenance past the meter assembly. See Interconnect Plans attached hereto as Exhibit "A"
3. COUNTY shall be responsible for reading the meter, but CITY may read the meter and verify and investigate any disagreement about quantities.
4. COUNTY shall endeavor to fulfill the bulk water emergency assistance needs of CITY at all times, but COUNTY shall not be held responsible for failure to provide same for any reason whatsoever.
5. If either CITY or COUNTY is prevented from or delayed in performing any act required of it hereunder, and such prevention or delay is caused by strikes, labor disputes, inability to obtain labor materials, or equipment, inclement weather, acts of God, governmental restrictions, regulations, or controls, judicial orders, enemy or hostile government actions, civil commotion, fire, or other casualty, or other causes beyond the CITY'S or COUNTY'S reasonable control (collectively, "Force Majeure"), the performance of such act shall be excused for a period equal to the period of prevention or delay.
6. Indemnification.
 - 6.1. CITY shall indemnify and defend COUNTY and hold COUNTY harmless from and against

every claim or demand with respect to bodily injury, death, property damage, nuisance, or other loss or damage of any kind, including attorneys' fees and costs incurred by COUNTY, proximately caused by CITY'S negligence in the use, occupancy, or operation of the INTERCONNECT.

6.2. COUNTY shall indemnify and defend CITY and hold CITY harmless from and against every claim or demand with respect to bodily injury, death, property damage, nuisance, or other loss or damage of any kind, including attorneys' fees and costs incurred by COUNTY proximately caused by COUNTY negligence in the use, occupancy, or operation of the INTERCONNECT.

6.3. Nothing contained in the Agreement shall be construed as a waiver of either parties' right to sovereign immunity under Section 768.28, *Florida Statutes*, or other limitations imposed on the party's potential liability under state or federal law.

7. All water delivered under this Agreement shall conform to the standards of the State of Florida Department of Health, the Florida Department of Environmental Protection, and the Federal Safe Water Drinking Act, 40 CFR Parts 141 and 142, or their successors in function.

8. CITY and COUNTY agree that pricing shall be based on the bulk pricing rate currently in effect for COUNTY at the time of dispensation.

9. CITY and COUNTY agree that the INTERCONNECT will be utilized only during emergency conditions when water supply to CITY's service area is compromised due to system failures, potential contamination, or other circumstances that may pose a public health or safety risk.

10. In the event either party brings an action to enforce this Agreement by court proceedings or otherwise, the prevailing party shall be entitled to recover from the other party all costs incurred, together with reasonable attorneys' fees at all levels, including appeals, except that each party shall equally bear the cost of mediation.

11. The failure by either party to demand compliance with a provision of this Agreement will not constitute a waiver of that party's right to demand compliance with the provisions thereafter.

12. This Agreement is binding upon and inures to the benefit of the parties and their respective successors, heirs, and assigns.

13. This Agreement shall be governed, construed, and controlled in accordance with the laws of the State of Florida.

14. This is the entire agreement between the parties, covering everything agreed upon or understood in the transaction, and supersedes all previous correspondence, drafts, or documents on the same subject. There are no oral promises, conditions, representations, understandings, interpretations, or terms of any kind as conditions or inducements to the execution hereof in effect between the parties.

No change or additions is to be made to this Agreement except by written agreement executed by the parties.

15. This agreement shall be effective from the day and year first written through September 30, 204³4. The agreement shall automatically renew thereafter on a year-to-year basis unless terminated as follows. This Agreement may be terminated upon the mutual agreement of both parties. Additionally, this Agreement may be terminated upon written notice from one party to the other at least six (6) months prior to the date of termination.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be duly executed by its proper officers, thereunto authorized and its seal to be hereunto affixed, this _____day of _____, 2024.

CITY OF INVERNESS, FLORIDA
A Municipal Corporation

ATTEST:

Susan Jackson, Clerk

By: _____
Jacqueline Hepfer, President

ATTEST:

CITRUS COUNTY, ~~FLORIDA~~ ~~BOCC~~
A Political Subdivision of the State of Florida
BY: _____
NAME: Holly L. Davis, Chairman
TITLE: _____

**CITY OF INVERNESS
CITRUS COUNTY, FLORIDA**

PERMITTING PLANS N INDEPENDENCE AND DAWSON INTERCONNECTION

SHEET	TITLE
NO.	
1	COVER SHEET
2	SITE PLAN
3	WATER SYSTEM NOTES 1
4	WATER SYSTEM NOTES 2
5	WATER SYSTEM NOTES 3
6	WATER SYSTEM DETAILS 1
7	WATER SYSTEM DETAILS 2
8	WATER SYSTEM DETAILS 3
9	WATER SYSTEM DETAILS 4
10	WATER SYSTEM DETAILS 5
11	WATER SYSTEM DETAILS 6
12	WATER SYSTEM DETAILS 7

INDEX OF DRAWINGS

**ENGINEERING PLANS
PREPARED FOR:
CITY OF INVERNESS
CITRUS COUNTY
FLORIDA**

THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF U.S. WATER SERVICES CORP. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.

PROJECT
LOCATION

LOCATION MAP
N.T.S.



**INVESTIGATE
BEFORE YOU
EXCAVATE**

**'CALL SUNSHINE
STATE ONE'
1-800-432-4770**

FL. STATUTE 553.851 (1979) REQUIRES
MIN. OF 2 DAYS AND MAX. OF 5 DAYS
NOTICE BEFORE YOU EXCAVATE.

LOCATION:

PROJECT LOCATION: NORTHWEST TO NORTHEAST CORNER OF INTERSECTION BETWEEN N. INDEPENDENCE HIGHWAY AND EAST DAWSON DRIVE IN INVERNESS, FLORIDA

PROJECT DESCRIPTION:

5" MEETERED INTERCONNECTION BETWEEN THE CITRUS COUNTY 12" W.M. ON THE WEST SIDE OF NORTH INDEPENDENCE HIGHWAY TO THE CITY OF INVERNESS 12" W.M. ON THE WEST SIDE OF NORTH INDEPENDENCE HIGHWAY. CONSTRUCTION TO INCLUDE APPROXIMATELY 44 L.F. OF 10" DRILL HDPE INSTALLED BY HORIZONTAL DIRECTIONAL DRILL METHOD.

PROJECT TEAM

OWNER -
CITY OF INVERNESS
PUBLIC WORKS DEPARTMENT
212 W MAIN STREET
INVERNESS, FL 34450

PROFESSIONAL ENGINEERING SERVICES -
U.S. WATER SERVICES CORPORATION
4939 CRISS BAYDU BLVD.
NEW PORT RICHEY, FL 34652-3434
(727) 848-8292 - FAX (727) 848-7701

UTILITIES -

CHARTER COMMUNICATIONS
2850 S. LECANTO HWY
LECANTO, FL 34461
LAINE CADDY
352-527-7683
CITRUS COUNTY UTILITIES
3600 S. SWEDEHORN PATH, SUITE 291
LECANTO, FL 34461
FAX: 352-527-7644
CENTRAL FLORIDA GAS
3050 N. FLORIDA AVE
HERNANDO, FL 34442
SCOTT MCCULLOCH
352-726-2321
CITY OF INVERNESS
212 W MAIN STREET
INVERNESS, FL 34450
BILL MCCLOUD
850-599-1444
CENTURYLINK
1325 BLAIRSTONE RD. ROOM 113
TALLAHASSEE, FL 32301
DUKE ENERGY
1150 GREENWOOD BLVD.
LAKE MARY, FL 32745
CUSTOMER SERVICE
407-629-1010
SUMTER ELECTRIC COOPERATIVE, INC.
PO BOX 301
SUMTERVILLE, FL 33555
HILLARY BREWER
352-793-3801 EXT. 9568

MOHAMMED Y. KADER, P.E.
FL REG. NO.: 45129

PIPE & TUBING SPECIFICATIONS

(MANUAL SECTION VII, PAGES 350-12,3,4 & 5)			
PIPE	PIPE SIZE	JOINT TYPE	APPLICATIONS
DUCTILE IRON	3" & LARGER	MECH. JT, PUSH-ON JT, FLANGED JT, BALL JT, ETC.	WATER MAINS & SERVICES - 3" FOR SERVICES
PVC DRI4, DRI8	4" THRU 48"	PUSH-ON JOINT	WATER MAINS & SERVICES - 4" FOR SERVICES ONLY
SC40 40 PVC	2" ONLY	SOLVENT WELD	SERVICES ONLY
SC40 80 PVC	2" ONLY	PUSH-ON JOINT	SERVICES ONLY
POLYETHYLENE TUBING	2" & SMALLER	NO JOINTS IN PIPE	SERVICES ONLY
POLYETHYLENE (HDPE)	2" & LARGER	BUTT FUSED OR M, FAF, W/SS STIFFENERS	ADVANCED UD APPROVAL
STEEL	4" & LARGER	WELDED	CASING ONLY

2.1.1 DUCTILE IRON PIPE - DUCTILE IRON PIPE WALL THICKNESS AND PRESSURE CLASS SHALL CONFORM TO ANSI SPECIFICATION ANSI A21.5 (AWWA C150) AND ANSI A21.51 (AWWA C151) WITH PRESSURE CLASS 150 AS A MINIMUM. PIPE SHALL ALSO BE CERTIFIED BY ISO 9000 BY AN ACCREDITED REGISTRAR. EACH LENGTH SHALL BE CLEARLY MARKED WITH THE NAME OF THE MANUFACTURER, LOCATION OF THE FOUNDRY, PRESSURE RATING, THICKNESS OF PRESSURE CLASS, NOMINAL PIPE DIAMETER, WEIGHT OF PIPE WITHOUT LINING AND LENGTH. ALL PIPE FURNISHED BY THE MANUFACTURER SHALL BE CAST AND MACHINED AT ONE FOUNDRY LOCATION TO ASSURE QUALITY CONTROL AND PROVIDE SATISFACTORY TEST DATA. ALL DUCTILE IRON PIPE SHALL BE EXTERNALLY COATED AND INTERNALLY LINED AS SPECIFIED IN THIS SECTION. ALL DUCTILE IRON PIPE SHALL BE COLOR CODED BLUE BY FIELD PAINTING A BLUE STRIPE, 3 INCHES WIDE, ALONG THE CROWN OF THE PIPE BARREL.

2.1.2 POLYVINYL CHLORIDE PRESSURE PIPE - PIPE SHALL BE VIRGIN POLYVINYL CHLORIDE (PVC) PIPE FOR POTABLE WATER AND SHALL HAVE A BELL TYPE COUPLING WITH A THICKENED WALL SECTION INTERVAL WITH THE PIPE BARREL IN ACCORDANCE WITH ASTM D3139. ELASTOMERIC SEALS SHALL MEET ASTM F477. THE PIPE MATERIAL SHALL BE CLEAN, VIRGIN, NATIONAL SANITATION FOUNDATION NO. 14 APPROVED, CLASS 12454-A OR 12454-B PVC COMPOUND CONFORMING TO ASTM RESIN SPECIFICATION D1784. EACH LENGTH SHALL BE CLEARLY MARKED WITH THE NAME OF THE MANUFACTURER, LOCATION OF THE PLANT, PRESSURE RATING, NOMINAL PIPE DIAMETER AND LENGTH. STORAGE AND HANDLING OF PVC PIPE SHALL BE IN ACCORDANCE WITH CHAPTER 6 OF AWWA MANUAL M23. ALL PVC WATER PIPE SHALL BE BLUE.

2.1.2.1 PVC 1120, CLASS 150, DR 18 PIPE - PIPE SHALL CONFORM TO AWWA STANDARD C900 FOR 4 INCH THROUGH 12-INCH PIPE AND AWWA STANDARD C905 FOR 14-INCH THROUGH 36-INCH PIPE. ALL PIPE SHALL BE HYDROSTATICALLY PROOF TESTED AT THE FACTORY IN CONFORMANCE WITH UN-8-11 STANDARDS. IN CASE OF CONFLICT BETWEEN STANDARDS SPECIFIED HEREIN, THE REQUIREMENTS OF AWWA STANDARD C900 AND C905 SHALL PREVAIL. PIPE IS TO BE MANUFACTURED TO DUCTILE IRON PIPE EQUIVALENT OUTSIDE DIAMETERS. THE PIPE SHALL BE DESIGNED TO PASS WITHOUT FAILURE A SUSTAINED PRESSURE TEST 500 PSI IN CONFORMANCE WITH ASTM D1598 AND A QUICK BURST TEST OF 750 PSI IN CONFORMANCE WITH ASTM D1599.

2.1.2.2 PVC 1120, CLASS 200, DRI 4 PIPE - PIPE SHALL CONFORM TO AWWA STANDARD C900 FOR 6 INCH THROUGH 12-INCH PIPE, AND AWWA STANDARD C905 FOR 14-INCH THROUGH 36-INCH PIPE. ALL PIPE SHALL BE HYDROSTATICALLY PROOF TESTED AT THE FACTORY IN CONFORMANCE WITH UN-8-11 STANDARDS. IN CASE OF CONFLICT BETWEEN STANDARDS SPECIFIED HEREIN, THE REQUIREMENTS OF AWWA STANDARD C900 AND C905 SHALL PREVAIL. PIPE IS TO BE MANUFACTURED TO DUCTILE IRON PIPE EQUIVALENT OUTSIDE DIAMETERS. THE PIPE SHALL BE DESIGNED TO PASS WITHOUT FAILURE A SUSTAINED PRESSURE TEST OF 650 PSI IN CONFORMANCE WITH ASTM D1598 AND A QUICK BURST TEST OF 985 PSI IN CONFORMANCE WITH ASTM D1599.

2.1.2.3 PVC 1120, PR200, SDR21 PIPE - PIPE SHALL CONFORM TO ASTM D2241 AND SHALL BE USED ONLY FOR THE CONSTRUCTION OF 2-INCH WATER SERVICE MAIN. PIPE IS TO BE MANUFACTURED TO 1P.S. (STEEL) STANDARD PIPE EQUIVALENT OUTSIDE DIAMETERS. THE PIPE SHALL BE DESIGNED FOR A HYDROSTATIC WORKING PRESSURE OF 200 PSI AT 73.4 DEGREES F. AND TO PASS WITHOUT FAILURE A SUSTAINED PRESSURE TEST OF 420 PSI MINIMUM WHEN TESTED IN ACCORDANCE WITH ASTM D1598. PIPE SHALL BE MARKED NSF-PW APPROVED.

2.1.2.4 PVC 1120, SCHEDULE 40 AND SCHEDULE 80 PIPE - PIPE SHALL CONFORM TO ASTM D1784 AND D1785 (STEEL) STANDARD PIPE EQUIVALENT OUTSIDE DIAMETERS. THE SUSTAINED PRESSURE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM D1598 AT TEST PRESSURES GIVEN IN ASTM D1785. THE BURST PRESSURE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM D1599 AT TEST PRESSURES GIVEN IN ASTM D1785. PIPE SHALL BE MARKED NSF-PW APPROVED.

2.1.3 STEEL CASING PIPE - PIPE TO BE USED AS A CASING SHALL CONFORM TO EITHER ASTM STANDARD A139 "ELECTRIC FUSION (ARC) WELDED STEEL PIPE" WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI OR "API SPECIFICATION API-5LX, GRADE X-42 WELDED STEEL PIPE." WALL THICKNESS SHALL MEET THE REQUIREMENTS OF THE LATEST REVISION OF THE AMERICAN RAILWAY ENGINEERING ASSOCIATION MANUAL OF RECOMMENDED PRACTICE OR THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION FOR STREET USES, WHICH ARE NOT DOT OR RAILROAD, USE DOT CASING THICKNESS UNLESS OTHERWISE INDICATED BY ENGINEER. ALL PIPE FURNISHED BY THE MANUFACTURER SHALL BE CAST AND MACHINED AT ONE FOUNDRY LOCATION TO ASSURE QUALITY CONTROL AND PROVIDE SATISFACTORY TEST DATA.

2.2 SERVICE LINES

2.2.1 POLYETHYLENE TUBING - ALL SERVICES 2 INCHES AND SMALLER SHALL BE POLYETHYLENE TUBING. TUBING SHALL BE MANUFACTURED OF PE 3408, HIGH DENSITY POLYETHYLENE (HDPE), IN ACCORDANCE WITH AWWA C901, ASTM D1248, ASTM D2239, ASTM D2737 AND ASTM D3350. THE TUBING SHALL HAVE A MINIMUM WORKING PRESSURE OF 200 PSI. POLYETHYLENE TUBING SHALL BE COPPER TUBE SIZE SDR9 AND SHALL BE COLORED BLUE. HDPE PIPE SHALL HAVE ULTRAVIOLET (UV) INHIBITORS FOR PROTECTION AGAINST DIRECT SUNLIGHT FOR 4 YEARS. INSERTS FOR POLYETHYLENE TUBING SHALL BE 316 STAINLESS STEEL. TUBING SHALL BE APPROVED FOR USE WITH POTABLE WATER BY THE NATIONAL SANITATION FOUNDATION (NSF-14) AND SHALL BE CONTINUOUSLY MARKED AT INTERVALS OF NOT MORE THAN TWO FEET WITH THE FOLLOWING: NOMINAL SIZE, PRESSURE RATING, NSF SEAL, MANUFACTURER'S NAME OR TRADEMARK, STANDARD DIMENSION RATIO & ASTM SPECIFICATION.

FITTING SPECIFICATIONS

(MANUAL SECTION VII, PAGES 350-5, 6 & 7)

2.2.3 FITTINGS - FITTINGS SHALL HAVE JOINTS THAT MATCH THE TYPE OF PIPE FURNISHED EXCEPT AS OTHERWISE SPECIFIED. FITTINGS ON 2-INCH PVC MAY BE PVC WITH PUSH-ON BELL TYPE JOINT OR SOLVENT WELD. FITTINGS 3-INCHES AND LARGER ON PUSH-ON JOINT PIPE FOR UNDERGROUND PVC AND DIP MAINS SHALL BE DUCTILE IRON CLASS 350 THROUGH 12" AND CLASS 250 IN SIZES 16" AND LARGER (SHORT BODY TYPE). THE FITTING JOINTS SHALL BE RESTRAINED AS NECESSARY TO PREVENT MOVEMENT OF PIPE OR APPURTENANCES IN RESPONSE TO THRUST. THE RESTRAINTS MAY BE IN THE FORM OF CONCRETE THRUST BLOCKS (AS SHOWN IN DETAIL NO. III-12) OR MECHANICAL JOINT RESTRAINTS (AS SPECIFIED IN SECTION VII, SUB-SECTION 2.4.9) DEPENDING ON THE DESIGN REQUIREMENTS. THE FITTINGS SHALL BE CEMENT LINED AND SEALED THE SAME AS DUCTILE IRON PIPE IN ACCORDANCE WITH AWWA/ANSI C110 LATEST REVISION. LONG BODY FITTINGS MAY BE USED WHERE THE DRAWINGS SPECIFICALLY CALL FOR THEM WHERE COMPACT FITTINGS ARE NOT AVAILABLE, OR AT THE OPTION OF THE CONTRACTOR WHEN THE LAYING LENGTH IS NOT CONTROLLED BY COMPACT FITTING PATTERNS. FITTINGS 3-INCHES AND LARGER INSTALLED ABOVEGROUND SHALL BE DUCTILE IRON WITH FLANGED ENDS OR RESTRAINED JOINTS, UNLESS SHOWN OTHERWISE ON THE DRAWINGS. FITTINGS FOR FIRE HYDRANT LATERALS SHALL BE DUCTILE IRON, INCLUDING TEE TO LATERAL.

2.3.1 DUCTILE IRON FITTINGS - DUCTILE IRON FITTINGS SHALL HAVE A MINIMUM WORKING PRESSURE OF 250 PSI. FITTINGS SHALL CONFORM TO ANSI SPECIFICATION A21.10 (AWWA C100), A21.11 (AWWA C110), A21.13 (AWWA C113) AND/OR A21.53 (AWWA C153). FITTINGS SHALL ALSO BE CERTIFIED BY ISO 9000 BY AN ACCREDITED REGISTRAR. COMPACT FITTINGS SHALL NORMALLY BE INSTALLED. LONG BODY FITTINGS ARE NOT AVAILABLE, OR AT THE OPTION OF THE CONTRACTOR WHEN THE LAYING LENGTH IS NOT CONTROLLED BY COMPACT FITTING PATTERNS. ALL FITTINGS OF THE CONTRACTOR SHALL BE U-F/M APPROVED AND SHALL CONFORM TO NSF STANDARD 61 AS APPLICABLE. ALL FITTINGS FURNISHED BY THE APPROVED MANUFACTURER SHALL BE CAST AND MACHINED AT ONE FOUNDRY LOCATION TO ASSURE QUALITY CONTROL AND PROVIDE SATISFACTORY TEST DATA. FITTINGS SHALL HAVE CAST ON THEM THE PRESSURE RATING, NOMINAL DIAMETER OF OPENINGS, MANUFACTURER'S NAME, FOUNDRY LOCATION, PLANT CODE AND DEGREES OR FRACTION OF THE CIRCLE. CAST LETTERS AND FIGURES SHALL BE ON THE OUTSIDE BODY OF THE FITTING. DUCTILE IRON FITTINGS SHALL BE EXTERNALLY COATED AND INTERNALLY LINED AS SPECIFIED IN THIS SECTION.

2.3.2 POLYVINYL CHLORIDE FITTINGS - FITTINGS THAT ARE 2 INCH MAY BE PVC WITH PUSH-ON BELL TYPE JOINT OR PVC WITH SOLVENT WELD JOINTS AS OUTLINED IN THE CHART OF ARTICLE 2.1. FITTINGS THAT ARE 4 INCH AND LARGER SHALL BE PUSH ON BELL JOINT. RESTRAINTS SHALL BE IN ACCORDANCE WITH THIS SPECIFICATION INSTALLATION AND MATERIAL. THE FITTINGS SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THESE SPECIFICATIONS FOR PVC PIPE AND PVC PIPE JOINTS.

2.3.2.1 PVC 1120, CLASS 150, DRI8 FITTINGS - PVC FITTINGS 4 INCH THROUGH 8 INCH MAY BE USED WITH PVC C900 PIPE. FITTINGS SHALL BE PVC INJECTION MOLED, MADE FROM MATERIALS MEETING OR EXCEEDING THE REQUIREMENTS OF CELL CLASS 12454-B MATERIAL AS DEFINED IN ASTM D1784. ALL PVC FITTINGS MUST COMPLY WITH, OR EXCEED, AWWA C907. ALL FITTINGS MUST BE DESIGNED TO THE PRESSURE CLASS OF DRI8, WITH A PRESSURE RATING OF 150 PSI AND A 2.5 TO 1 FACTOR OF SAFETY. VIRGIN MATERIALS ONLY SHALL BE USED IN MANUFACTURE OF PVC PRESSURE FITTINGS. THESE FITTINGS MUST HAVE U-F/M APPROVAL AND SHALL COMPLY WITH OR EXCEED ALL ASTM STANDARDS FOR PVC FITTINGS. ALL FITTINGS MUST HAVE NSF-61 APPROVAL. THE ELASTOMERIC GASKET SHALL COMPLY WITH THE REQUIREMENTS SPECIFIED IN ASTM F477.

2.3.2.2 PVC 1120, SDR 21 FITTINGS - SDR 21 FITTINGS SHALL BE INJECTION MOLED, PUSH ON BELL TYPE WITH ELASTOMERIC RUBBER SEALS IN ACCORDANCE WITH ASTM D3139. SEALS SHALL CONFORM TO ASTM F477.

2.3.2.3 PVC 1120, SCH 40 AND SCH 80 FITTINGS - SCH 40 & SCH 80 FITTINGS SHALL HAVE SOLVENT WELD JOINTS AND SHALL BE IN ACCORDANCE WITH ASTM D2672.

2.3.2.4 POLYETHYLENE FITTINGS - ALL POLYETHYLENE FITTINGS SHALL COMPLY WITH NSF-14 REQUIREMENTS. ALL FITTINGS AND COUPLINGS SHALL BE THERMOPLASTIC NYLON 6/6 MATERIAL SUITABLE FOR WORKING PRESSURE OF 200 PSI. JOINTS ON ALL THERMOPLASTIC FITTINGS SHALL BE COMPRESSION TYPE WITH 360-DEGREE RESTRAINT OR THREADED AS REQUIRED FOR A COMPLETE INSTALLATION.

2.3.3 NONSTANDARD FITTINGS AND WALL CASTINGS - FITTINGS HAVING NONSTANDARD DIMENSIONS AND CAST SPECIFICALLY FOR PROJECT SHALL BE OF APPROVED DESIGN. THEY SHALL BE MANUFACTURED TO MEET THE REQUIREMENTS OF THE SAME SPECIFICATIONS AND SHALL HAVE THE SAME DIAMETER AND THICKNESS AS STANDARD FITTINGS, BUT THEIR LAYING LENGTHS AND TYPES OF ENDS SHALL BE DETERMINED BY THEIR POSITIONS IN THE PIPELINES AND BY THE PARTICULAR PIPING TO WHICH THEY CONNECT. WALL CASTINGS SHALL BE OF THE SIZE AND TYPES INDICATED ON THE DRAWINGS. FLANGES, FACING, AND DRILLING SHALL CONFORM TO THE 125-POUND AMERICAN NATIONAL STANDARD. FLANGES SHALL BE DRILLED AND TAPPED FOR STUDS. OTHER DIMENSIONS SHALL BE SUBSTANTIALLY EQUAL TO CORRESPONDING PARTS OF STANDARD BELL AND SPIGOT FITTINGS.

2.3.4 TAPPING SLEEVES

2.3.4.1 STAINLESS STEEL - STAINLESS STEEL TAPPING SLEEVES MAY BE USED ON 4-INCH PIPE AND LARGER. STAINLESS STEEL TAPPING SLEEVES SHALL BE ALL 304 STAINLESS STEEL, INCLUDING FLANGES, BOLTS AND NUTS AND SHALL BE RATED FOR 150-PSI MINIMUM OPERATING PRESSURE AND 200 PSI MINIMUM TEST PRESSURE. THE TAPPING SLEEVE SHALL HAVE A PILOT FLANGE RECESSED FOR TAPPING PER MSS SP-60. THE PILOT FLANGE SHALL BE PRESSURE RATED CLASS D ACCORDING TO AWWA C207 WITH 125 POUND DRILLING CONFORMING TO ANSI B16. EACH SLEEVE SHALL BE SUPPLIED WITH A FLANGE GASKET BONDED TO THE FLANGE. THE BODY GASKET SHALL BE A FULL CIRCLE, GRID PATTERN, COVERING THE ENTIRE LENGTH OF THE SLEEVE. CLOTH REINFORCED, WITH ATTACHED STAINLESS STEEL BRIDGE TO SUPPORT THE GASKET AT THE LUGS. THE GASKET SHALL BE MADE OF SBR RUBBER OR SIMILAR MATERIAL COMPOUNDED FOR USE WITH WATER SALT SOLUTION, MILD ACIDS, BASES AND SEWAGE. THE SLEEVE SHALL HAVE A 3/4-INCH NPT BRONZE OR STAINLESS STEEL TEST PLUG. ALL WELDS SHALL CONFORM TO ASTM A380 AND SHALL BE FULLY PASSIVAIED.

JOINTS

(MANUAL SECTION VII, PAGES 350-9, 10 & 11)

2.4 JOINTS - TYPE OF JOINT USED SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. JOINTS SHALL BE MADE IN ACCORDANCE WITH APPROVED PRINTED INSTRUCTIONS OF THE MANUFACTURER, AND SHALL BE ABSOLUTELY WATERTIGHT.

2.4.1 MECHANICAL JOINTS - ALL JOINING MATERIALS FOR MECHANICAL JOINTS SHALL BE PROVIDED BY THE PIPE AND/OR FITTING MANUFACTURER. MATERIAL ASSEMBLY AND BOLTING SHALL BE IN ACCORDANCE WITH ANSI SPECIFICATION A21.11 (AWWA C111). ALL GLANDS SHALL BE MADE OF DUCTILE IRON ONLY.

2.4.2 PUSH-ON JOINTS

2.4.2.1 DUCTILE IRON - PUSH-ON JOINTS SHALL BE IN ACCORDANCE WITH ANSI SPECIFICATION A21.11 (AWWA C111). ALL JOINT MATERIAL SHALL BE PROVIDED BY THE PIPE MANUFACTURER AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PRACTICE.

2.4.2.2 POLYVINYL CHLORIDE (PVC) - PVC PIPE JOINTS SHALL BE THE MANUFACTURER'S STANDARD PUSH-ON BELL TYPE WITH RUBBER SEALING RING IN ACCORDANCE WITH ASTM D3139. ELASTOMERIC GASKETS SHALL CONFORM TO ASTM F477.

JOINTS (CONTINUED)

(MANUAL SECTION VII, PAGES 350-9, 10 & 11)

2.4.3 BALL AND SOCKET JOINTS - WHERE SUB-AQUEOUS JOINTS ARE INDICATED, JOINTS SHALL BE BOLTED OR BOLTS FLEXIBLE BALL AND SOCKET JOINTS CONFORMING TO THE PRESSURE AND THICKNESS REQUIREMENTS OF ANSI A21.10 (AWWA C110) AND ANSI A21.51 (AWWA C151) AND SHALL BE CAPABLE OF PROVIDING A MAXIMUM DEFLECTION OF FIFTY DEGREES AT EACH JOINT. JOINTS AND GASKET MATERIAL SHALL BE MANUFACTURED TO STANDARD. THE SPECIFIC TYPE JOINT SHALL BE AS SHOWN ON THE DRAWINGS AND/OR AS APPROVED BY THE ENGINEER. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED PRACTICE.

2.4.4 FLANGED JOINTS - DUCTILE IRON FLANGED JOINTS SHALL CONFORM TO ANSI A21.10 (AWWA C110) AND ANSI A21.15 (AWWA C115). FLANGES SHALL BE IN ACCORDANCE WITH ANSI SPECIFICATION B16.1, CLASS 125 WITH ANY SPECIAL DRILLING AND TAPPING AS REQUIRED TO INSURE CORRECT ALIGNMENT AND BOLTING. SCREWED FLANGES SHALL BE SCREWED IN TIGHT AT THE FOUNDRY BY MACHINE BEFORE THEY ARE FACED AND DRILLED. FLANGES FOR FLANGED JOINTS AND FLANGED SPECIALS SHALL BE INTERNALLY CAST AT RIGHT ANGLES TO THE AXES, ACCURATELY FACED, AND DRILLED SMOOTH AND TRUE. GASKETS SHALL BE RUBBER RING TYPE, CLOTH INSERTED, MINIMUM THICKNESS OF 1/8 INCH AND SHALL BE USED ON ALL FLANGES. THE ENTIRE GASKET, INCLUDING THE RETAINER AND SEALING RING, SHALL BE ONE CONTINUOUS PIECE. RETAINERS GLUED TOGETHER WILL NOT BE ACCEPTED. FLANGED JOINTS SHALL BE MADE WITH BOLTS, BOLT STUDS WITH A NUT ON EACH END, OR STUDS WITH NUTS WHERE THE FLANGE IS TAPPED. THE NUMBER AND SIZE OF BOLTS SHALL CONFORM TO THE SAME ANSI STANDARD AS THE FLANGES.

BOLTS AND NUTS SHALL BE OF GRADE 8 CONFORMING TO THE ASTM SPECIFICATIONS FOR STEEL MACHINE BOLTS AND NUTS AND TAP BOLTS, DESIGNATION A307. BOLT STUDS SHALL BE OF THE SAME QUALITY AS MACHINE BOLTS. BOLTS SHALL BE TIGHTENED SO AS TO DISTRIBUTE EVENLY THE STRESS IN THE BOLTS AND BRING THE PIPE IN ALIGNMENT. THE CONTRACTOR SHALL PROVIDE SUITABLE FILING RINGS WHERE THE LAYOUT OF THE FLANGE PIPING IS SUCH AS TO NECESSITATE THEIR USE. IN MATERIALS WORKMANSHIP, FACING AND DRILLING, SUCH RINGS SHALL CONFORM TO ANSI B16.1 CLASS 125.

2.4.5 MACHINED SURFACES - MACHINED SURFACES SHALL BE CLEANED AND COATED WITH A SUITABLE RUST PREVENTIVE COATING AT THE SHOP IMMEDIATELY AFTER BEING MACHINED.

2.4.6 STEEL CASING PIPE JOINTS - STEEL CASING PIPE JOINTS SHALL BE ELECTRIC FUSION (ARC) WELDED BY OPERATORS WHOSE QUALIFICATIONS MEET THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STANDARD PROCEDURES AND IN CONFORMANCE WITH AWWA C206.

2.4.7 POLYVINYL CHLORIDE SOLVENT WELD JOINTS - PIPE JOINTS FOR SCH 40 OR SCH 80 PIPE SHALL BE SOLVENT WELD JOINTS. THE SOLVENT CEMENT SHALL COMPLY WITH ASTM D2564. THE JOINT SHALL BE MADE IN ACCORDANCE WITH ASTM D2855. THE JOINT SHALL CONFORM TO ASTM D2672.

2.4.8 POLYETHYLENE JOINTS - POLYETHYLENE JOINTS SHALL BE BUTT-FUSED, DONE WITH POLYETHYLENE FITTING OR BRASS COMPRESSION FITTINGS.

2.4.9 RESTRAINED JOINTS

2.4.9.1 RESTRAINTERS - THE RESTRAINER SHALL BE MANUFACTURED OF DUCTILE IRON AND SHALL MEET OR EXCEED ALL THE REQUIREMENT OF ANSI A21.11 (AWWA C111) AND ASTM A536. THE RESTRAINER SYSTEM SHALL PROVIDE ANCHORING OF PVC PIPE TO MECHANICAL JOINT FITTINGS OR BELL TO SPIGOT PVC PIPE JOINTS. RESTRAINTS SHALL PROVIDE A FULL 360 DEGREE CONTACT WITH SUFFICIENT GRIPPING ACTION TO SECURE THE CLAMP TO THE PIPE AND BE DESIGNED SO THAT RESTRAINT ACTION IS INCREASED AS A RESULT OF INCREASES IN LINE PRESSURE. THE RESTRAINER SHALL ACCOMMODATE THE FULL WORKING PRESSURE RATING OF THE PIPE PLUS SURE ALLOWANCE.

2.4.9.2 RETAINER GLANDS - RETAINER GLANDS SHALL BE MANUFACTURED OF DUCTILE IRON GRADE 64-42-10, ASTM A536 OR PRE-APPROVED EQUAL AND SHALL BE DESIGNED TO FIT STANDARD MECHANICAL JOINT BELLS CONFORMING TO APPLICABLE SECTIONS OF ANSI A21.10 (AWWA C110), ANSI A21.11 (AWWA C111) AND ANSI A21.53 (AWWA C153). THE RESTRAINING DEVICE SHALL BE RATED FOR THE FULL WORKING PRESSURE OF THE PIPE TYPE USED INCLUDING SURGE ALLOWANCE AND A 2:1 SAFETY FACTOR.

MECHANICAL RESTRAINTS SHALL INCLUDE A RESTRAINING MECHANISM WHICH, WHEN ACTUATED, IMPARTS A WEDGING ACTION AGAINST THE PIPE, INCREASING ITS RESISTANCE AS THE PRESSURE INCREASES. THE RESTRAINT SHALL BE COMPATIBLE WITH THE TYPE OF JOINT BEING INSTALLED. THE JOINT DEFLECTION SHALL NOT EXCEED 80% OF THE PIPE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION. DEFLECTION, IF NECESSARY, SHALL BE MADE BEFORE TIGHTENING THE SET SCREWS. BOLTS AND SETSCREWS SHALL BE TIGHTENED ALTERNATELY, 180 DEGREES APART, TORQUE RECOMMENDED BY THE MANUFACTURER. RETAINER GLANDS HAVING SET SCREWS THAT MAKE POINT CONTACT WITH THE PIPE WITHOUT USING A PAD TO DISPERSE POINT LOADING SHALL NOT BE USED ON PVC PIPE. THE RESTRAINING DEVICE SHALL NOT DAMAGE OR LOWER THE WORKING PRESSURE OF THE PIPE INSTALLED.

2.4.10 FLANGE ADAPTERS - FLANGE ADAPTERS SHALL BE DUCTILE IRON MANUFACTURED TO ASTM A536 STANDARDS. BOLT CIRCLES AND BOLTHOLES OF AWWA C900, ASTM D2241 AND ASTM D1599.

2.4.11 PIPE COUPLINGS - THE CONTRACTOR SHALL FURNISH AND INSTALL PIPE COUPLINGS AS REQUIRED TO COMPLETE THE WORK. PIPE COUPLINGS USED TO JOIN TWO PIECES OF DUCTILE IRON PIPE OR PVC PIPE SHALL BE SIZED TO MATCH THE OUTSIDE DIAMETER OF THE PIPELINE. TRANSITION COUPLINGS SHALL BE USED TO JOIN PIPES OF DIFFERENT OUTSIDE DIAMETERS. THE COUPLING SLEEVE SHALL BE MANUFACTURED OF DUCTILE IRON CONFORMING TO ASTM A536 AND BE COATED WITH 14 MILS OF EPOXY. THE BOLTS SHALL BE MANUFACTURED OF A METAL OF HIGH CORROSION RESISTANCE AND SHALL CONFORM TO ANSI 21.11 (AWWA C111). GASKETS SHALL BE WEDGE-TYPE AND MANUFACTURED OF VIRGIN SBR FOR WATER AND SEWER SERVICE. THE INSTALLATION OF ALL COUPLINGS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. AFTER INSTALLATION, ALL COUPLING SURFACES INCLUDING BOLTS AND NUTS SHALL BE COATED WITH AN APPROVED COATING AS SPECIFIED IN THIS SECTION OF THESE SPECIFICATIONS. COUPLERS AND ADAPTERS FOR POLYETHYLENE PIPE SHALL BE BRASS CONFORMING TO AWWA C800 AND SHALL BE FEMALE IP, PACK JOINT OR COMPRESSION NUT.

2.4.12 FULL CIRCLE REPAIR CLAMPS - FULL CIRCLE REPAIR CLAMPS SHALL HAVE TYPE 304 STAINLESS STEEL SHELL, LUGS, BOLTS, NUTS AND WASHER AS PER ASTM A193, A194, A240, OR SHALL HAVE TYPE 304 STAINLESS STEEL SHELL PER ASTM A240, DUCTILE IRON LUGS AS PER ASTM A536, AND 304 STAINLESS STEEL BOLTS, WASHERS AND NUTS. GASKETS FOR BOTH TYPES SHALL BE VIRGIN SBR AS PER ASTM D2000 FOR WATER AND SEWER SERVICE.

NOTE:

1. THIS DRAWING IS TO BE INCLUDED IN THE ENGINEER'S PACKAGE OF DRAWINGS THAT WILL BE USED TO INSTALL OR MODIFY A POTABLE WATER SYSTEM IN CITRUS COUNTY. BY DOING THIS, THE ENGINEER INDICATES THAT HE HAS REVIEWED THESE SPECIFICATIONS AND AGREES THAT ALL OR PART OF THEM ARE APPLICABLE TO HIS PROJECT. THE ENGINEER SHALL NOT REPEAT THESE SPECIFICATIONS ON OTHER DRAWINGS IN THE ENGINEER'S PACKAGE OF DRAWINGS. THE ENGINEER SHALL SPECIFY THE SIZE, TYPE AND LOCATION OF THE ITEMS BEING DESIGNED ON OTHER DRAWINGS IN HIS PACKAGE AND REFER BY NOTE TO THESE SPECIFICATIONS FOR MATERIAL REQUIREMENTS. IF THE ENGINEER WISHES TO DEVIATE FROM THESE SPECIFICATIONS, HE MUST REQUEST A VARIANCE IN WRITING FROM THE CITRUS COUNTY DEPARTMENT OF PUBLIC WORKS, UTILITIES DIVISION. IF ITEMS BEING DESIGNED BY THE ENGINEER ARE NOT COVERED BY THESE SPECIFICATIONS, THEN THE ENGINEER MUST PROVIDE SPECIFICATIONS FOR THEM ON HIS DRAWINGS.

2. THESE SPECIFICATIONS WERE TAKEN (WITHOUT ANY MODIFICATIONS) FROM THE CITRUS COUNTY UTILITIES DIVISION MANUAL OF STANDARDS AND SPECIFICATIONS FOR PIPING.

CITRUS WATERWORKS, INC.
WATER SYSTEM INTERCONNECTION
WATER SYTEM NOTES 1
CITRUS COUNTY, FLORIDA

ENGINEERING	
Designer: MK	Date: 7/6/2024
Drawn By: MK	Scale: NOT TO SCALE
Checked By: MK	Revision: Revision

4939 CROSS BAYOU BOULEVARD
NEW PORT RICHEY, FL 34652
(727) 848-8292 FAX: (727) 848-7701
FL CDP NO. 9754 & FL REG. NO. 45129



3
12
1012321204

MOHAMMED Y. KADER, P.E.

FL REG. NO.: 45129

CORROSION PROTECTION FOR DUCTILE IRON PIPE

(MANUAL SECTION VII, PAGE 350-12)	
2.5 CORROSION PROTECTION FOR DUCTILE IRON PIPE	
2.5.1 INTERIOR LINING – THE INTERIOR OF ALL DUCTILE IRON PIPE, FITTINGS AND SPECIALS SHALL BE THIN CEMENT UNED. THE LINING SHALL COMPLY WITH ANSI STANDARD A21.4 (AWWA C104).	
2.5.2 EXTERIOR COATING – ALL DUCTILE IRON PIPE AND FITTINGS, EXCEPT ON BRIDGES OR AS OTHERWISE NOTED, SHALL RECEIVE AN EXTERIOR BITUMINOUS COATING AS SPECIFIED IN ANSI A21.51. THE FINISHED COATING SHALL BE CONTINUOUS SMOOTH, NEITHER BRITTLE WHEN COLD NOR STICKY WHEN EXPOSED TO THE SUN, AND BE STRONGLY ADHERENT TO THE FITTING. ALL BOLTS, NUTS, STUDS AND OTHER UNCOATED PARTS OF JOINTS FOR UNDERGROUND INSTALLATION SHALL BE COATED WITH ASPHALT OR COAL TAR PRIOR TO BACKFILLING. PIPES CROSSING UNDER DITCHES, CULVERTS, RIVERS, CREEKS, ETC., SHALL BE CONSIDERED AS BURIED PIPE. ALL DUCTILE IRON PIPE SHALL BE COLOR CODED BLUE BY FIELD PAINTING A BLUE STRIPE, 3 INCHES WIDE, ALONG THE CROWN OF THE PIPE BARREL.	
2.5.3 POLYETHYLENE WRAP – IN AREAS WHERE SOILS ARE CORROSIVE IN NATURE, AS MAY BE DETERMINED BY THE ENGINEER, DUCTILE IRON PIPE, FITTINGS, VALVES AND OTHER APPURTENANCES SHALL BE PROTECTED WITH POLYETHYLENE WRAP OR TUBING. THE CONTRACTOR SHALL FURNISH AND INSTALL POLYETHYLENE TUBE OR WRAP FOR DUCTILE IRON PIPE AT THE LOCATIONS SHOWN ON THE CONSTRUCTION DRAWINGS.	
2.5.3.1 MATERIAL – THE POLYETHYLENE MATERIAL SHALL MEET OR EXCEED THE REQUIREMENTS OF AWWA C105 IN ALL RESPECTS. THE WRAP SHALL BE VIRGIN, HIGH-DENSITY POLYETHYLENE, 4 MILS THICK MINIMUM. THE POLYETHYLENE WRAP SHALL BE WHITE WITH 2 EACH, 6-INCH WIDE, CONTINUOUS BLUE TAPES LOCATED AT THE 2:00 AND 10:00 O'CLOCK POSITION ON THE PIPE.	
2.5.3.2 INSTALLATION – ALTHOUGH NOT INTENDED TO BE A WATER-TIGHT ENCLOSURE, THE POLYETHYLENE SHALL PRESENT CONTACT BETWEEN THE PIPE AND THE SURROUNDING BACKFILL. INSTALLATION SHALL BE DONE ACCORDING TO ONE OF THE METHODS DESCRIBED IN AWWA C105, SUBJECT TO APPROVAL BY THE ENGINEER AND THE MANUFACTURER.	
WATER VALVES AND APPURTENANCES	
(MANUAL SECTION VII, PAGES 351-1 THROUGH 11)	
1.3 ROTATION OF OPENING – ALL VALVES LARGER THAN TWO INCHES INSTALLED WITHIN A WATER SYSTEM TO BE CITRUS COUNTY OWNED SHALL OPEN BY TURNING TO THE LEFT OR COUNTER-CLOCKWISE, WHEN VIEWED FROM THE STEM.	
1.4 EXTENSION STEMS – WHERE EXTENSION STEMS ARE REQUIRED, SUBSTANTIAL, ADJUSTABLE WALL BRACKETS AND EXTENSION STEMS SHALL BE FURNISHED AND LOCATED AS DIRECTED. EXTENSION STEMS SHALL BE PROVIDED ON ALL BURIED VALVES WHEN THE OPERATING NUT IS DEEPER THAN 30 INCHES BELOW THE FINAL GRADE. SUFFICIENT STEM EXTENSION SHALL BE PROVIDED SO THAT THE NUT WILL BE NO MORE THAN 30 INCHES BELOW GRADE.	
1.5 PAINTING OF VALVES AND VALVE BOX LIDS – THE TOP SIDE OF ALL WATER VALVE BOX COVERS SHALL BE PAINTED BLUE EXCEPT FOR GATE VALVES AT FIRE HYDRANTS. TOP OF VALVE BOX COVERS AT FIRE HYDRANTS SHALL BE PAINTED YELLOW. OIL BASED, TRAFFIC-RED PAINT SHALL BE USED.	
1.6.1 LOCATING MARKERS FOR VALVES – A 'V' CUT WHERE INDICATED IN THE PLANS SHALL BE CARVED IN THE CURB CLOSEST/ADJACENT TO A BELOW GRADE VALVE. THIS 'V' CUT SHALL BE PAINTED BLUE.	
2.0 GATE VALVES	
2.0 GENERAL – GATE VALVES SMALLER THAN 3" SHALL BE MILWAUKEE VALVE NO. 1176 (NON-RISING STEM) OR 1163 (RISING STEM) OR APPROVED EQUAL, 200 LB. SW, 400 LB. WOG, HEAVY DUTY SERVICE, SOLID WEDGE DISC, STAINLESS SEAT GLAND PACKED, UNION BONNET AND THREADED ENDS. GATE VALVES 3 TO 12 INCH IN DIAMETER SHALL BE DESIGNED FOR 200 PSI MINIMUM WORKING PRESSURE. VALVES OVER 12 INCHES IN DIAMETER SHALL BE DESIGNED FOR 150 PSI MINIMUM WORKING PRESSURE. WHEN FULL OPEN, GATE VALVES SHALL HAVE A CLEAR WATERWAY EQUAL TO THE NOMINAL DIAMETER OF THE PIPE. THE OPERATING NUT OR WHEEL SHALL HAVE AN ARROW CAST IN THE METAL INDICATING THE DIRECTION OF OPENING. EACH VALVE SHALL HAVE THE MANUFACTURER'S DISTINCTIVE MARKING, PRESSURE RATING AND YEAR OF MANUFACTURE CAST ON THE BODY. PRIOR TO SHIPMENT FROM THE FACTORY, EACH VALVE SHALL BE TESTED BY APPLYING TO IT A HYDROSTATIC PRESSURE EQUAL TO TWICE THE SPECIFIED WORKING PRESSURE.	
2.1 BURIED VALVES – BURIED GATE VALVES SHALL BE IRON BODY BRONZE MOUNTED, RUBBER ENCAPSULATED, RESILIENT SEAT, SOLID WEDGE, NON-RISING STEM TYPE WITH OPERATING NUTS AND ADJUSTABLE VALVE BOXES AND COVERS. OPERATING NUTS SHALL BE TWO INCHES SQUARE. RESILIENT SEAT OR WEDGE TYPE GATE VALVES SHALL CONFORM TO APPLICABLE SECTIONS OF AWWA STANDARDS C500 DOUBLE DISC OR C500 RESILIENT SEAT. ALL GATE VALVES 20 INCHES OR LARGER MUST BE BENE GRADED FOR BOTH HORIZONTAL AND VERTICAL INSTALLATIONS. ALL VALVES SHALL BE INSTALLED VERTICALLY UNLESS ADDITIONAL DEPTH OF BURY IS IMPOSSIBLE DUE TO PHYSICAL OBSTRUCTIONS.	
2.2 ABOVE GROUND VALVES – GATE VALVES LOCATED ABOVE GROUND OR INSIDE STRUCTURES SHALL BE HAND WHEEL OPERATED, NON-RISING STEM TYPE WITH FLANGED ENDS AND BE OF THE SAME GENERAL CONSTRUCTION AS BURIED VALVES.	
2.3 VALVE JOINTS – ALL GATE VALVES SHALL HAVE MECHANICAL JOINT ENDS, FLANGED ENDS, OR SCREW JOINTS TO FIT THE PIPE RUN IN WHICH THEY ARE USED. EXCEPT VALVES INSTALLED ON PUSH-ON JOINT PIPE SHALL HAVE MECHANICAL JOINT ENDS UNLESS OTHERWISE SPECIFIED.	
3.0 BUTTERFLY VALVES	
3.1 GENERAL – BUTTERFLY VALVES MAY BE USED ON WATER MAINS LARGER THAN 24 INCHES. BUTTERFLY VALVES SHALL NOT BE USED ON PIPE 24 INCHES OR SMALLER. ALL BUTTERFLY VALVES SHALL BE OF THE TIGHT CLOSING, RUBBER SEAT TYPE WITH RUBBER SEATS WHICH ARE RECESS-MOUNTED AND SECURELY FASTENED TO THE VALVE BODY OR ATTACHED TO THE VALVE DISC. VALVES SHALL BE BUBBLE TIGHT AT RATED PRESSURES IN BOTH DIRECTIONS OF FLOW AND SHALL BE SATISFACTORY FOR APPLICATIONS INVOLVING VALVE OPERATION AFTER LONG PERIODS OF INACTIVITY. VALVE DISCS SHALL ROTATE 90 DEGREES FROM THE FULL OPEN POSITION TO THE TIGHT SHUT POSITION. VALVES SHALL MEET THE FULL STRUCTURAL REQUIREMENTS OF THE APPLICABLE CLASSES OF AWWA C504.	
3.2 VALVE BODIES – VALVE BODIES SHALL BE CONSTRUCTED OF DUCTILE IRON CONFORMING TO ASTM A126, CLASS B, AND BURIED VALVES SHALL HAVE INTEGRALLY CAST MECHANICAL JOINT ENDS. ABOVE GROUND VALVES SHALL BE FLANGED IN ACCORDANCE WITH ANSI B16.1, CLASS 125. TWO TRUNIONS FOR SHAFT BEARINGS SHALL BE INTERNAL WITH EACH VALVE BODY. BODY THICKNESS SHALL BE IN ACCORDANCE WITH AWWA C504.	
3.3 VALVE DISCS – VALVE DISCS SHALL BE CONSTRUCTED OF NI-RESIST, TYPE 1 OR DUCTILE IRON, ASTM A536, GRADE 65-45-12 WITH STAINLESS STEEL SEATING EDGES. ALL DISC-SEATING EDGES NOT INCORPORATING RECESS-MOUNTED RUBBER SEATS SHALL BE SMOOTH AND POLISHED.	

WATER VALVES AND APPURTENANCES (CONTINUED)

(MANUAL SECTION VII, PAGES 351-1 THROUGH 11)	
3.4 VALVE SHAFTS – VALVE SHAFTS SHALL BE "STUB SHAFT" TYPE OR ONE PIECE EXTENDING FULL SIZE THROUGH THE DISC (OR A MINIMUM OF 1-1/2 SHAFT DIAMETERS PER "STUB SHAFT" VALVES) BEARINGS AND INTO THE OPERATING MECHANISM AND SHALL BE CONSTRUCTED OF ASTM A276, TYPE 304 STAINLESS STEEL OR A STAINLESS STEEL WITH GREATER OVERALL CORROSION AND OXIDATION RESISTANCE, OR SHALL BE HIGH TENSILE STEEL WITH STAINLESS STEEL SHAFT JOURNALS, TEFLOON BUSHINGS AND SHAFT SEALS. SHAFT DIAMETERS SHALL MEET THE MINIMUM REQUIREMENTS OF AWWA C504 FOR CLASS 150B.	
3.5 VALVE SEATS – SHALL BE OF A NATURAL RUBBER OR A SYNTHETIC RUBBER COMPOUND. BONDED SEATS SHALL BE SIMULTANEOUSLY MOLDED IN, VULCANIZED AND BONDED INTO THE VALVE BODY. SEAT BOND MUST WITHSTAND 75 LB. PULL UNDER TEST PROCEDURE ASTM D429, METHOD B. VALVE SEATS ON 24" DIAMETER VALVES AND LARGER SHALL BE FIELD ADJUSTABLE AND RELOCABLE WITHOUT DISMANTLING OPERATOR, DISC OR SHAFT AND WITHOUT REMOVING THE VALVE FROM THE LINE. PROVISION FOR ADJUSTMENT SHALL TAKE THE FORM OF HEAVY CORROSION RESISTANT RETAINING SEGMENTS WHICH LOCK THE SEAT RIGIDLY IN POSITION AFTER ADJUSTMENT AND WHICH WILL EFFECT A MINIMUM OF 1/8 INCH CHANGE IN SEAT RISE AT EQUAL INCREMENTS AROUND THE PERIPHERY. SEATS ATTACHED TO THE VALVE DISC SHALL BE HEED IN PLACE BY A STAINLESS STEEL, ASTM A296 GRADE C78, RETAINING RING. CAP SCREWS THROUGH THE RUBBER SEAT AND THE SEAT RETAINING RING MUST BE PROVIDED FOR ADJUSTMENT OF THE RUBBER SEAT. THE MATING BODY SEAT SHALL BE CONSTRUCTED OF TYPE 304 STAINLESS STEEL.	
3.6 VALVE BEARINGS – VALVES SHALL BE FITTED WITH SLEEVE TYPE BEARINGS. BEARINGS SHALL BE CORROSION RESISTANT AND SELF-LUBRICATING. BEARING LOAD SHALL NOT EXCEED THE PUBLISHED DESIGN LOAD FOR THE BEARING MATERIAL, OR 1/3 OF THE COMPRESSIVE STRENGTH OF THE BEARING OR SHAFT MATERIAL.	
3.7 VALVE OPERATORS – MANUAL VALVE OPERATORS SHALL BE OF THE WORM GEAR OR TRAVELING NUT TYPE AND FULLY ENCLOSED. UNITS FURNISHED FOR BURIED SERVICE SHALL BE FULLY GASKETED AND GREASE PACKED. VALVES LOCATED ABOVE GROUND SHALL BE EQUIPPED WITH HAND WHEEL OPERATORS AND SHALL HAVE A SUITABLE INDICATOR ARROW TO GIVE VALVE POSITION FROM FULL OPEN TO FULLY CLOSED. BURIED VALVES, DESIGNATED TO BE FURNISHED WITH ABOVE GROUND OPERATORS, SHALL BE EQUIPPED WITH HAND WHEEL OPERATORS AND POSITION INDICATORS ON EXTENDED BONNET.	
THE HAND WHEEL FOR BURIED VALVES SHALL BE SET 3 FEET ABOVE FINISHED GRADE. ALL OTHER BURIED BUTTERFLY VALVES SHALL BE FURNISHED WITH 2 INCH AWWA NUT OPERATOR WITH VALVE BOX AND COVER. OPERATOR COMPONENTS SHALL AT THE EXTREME OPERATOR POSITIONS, WITHSTAND, WITHOUT DAMAGE, A PULL OF 200 LB FOR HAND WHEEL OR CHAIN WHEEL OPERATORS OR AN INPUT TORQUE OF 500 FT LB FOR OPERATING NUTS.	
4.0 CHECK VALVES – CHECK VALVES SHALL CONFORM TO THE REQUIREMENTS OF AWWA C508. CHECK VALVES LARGER THAN 2-INCH NOMINAL SIZE SHALL BE IRON BODY, FLANGED ENDS, OUTSIDE LEVER, SPRING LOADED, SWING TYPE WITH STRAIGHT-AWAY PASSAGEWAY OF FULL PIPE AREA. THE VALVE SHALL HAVE REMEMABLE WORKING PRESSURE. CHECK VALVES 2 INCHES AND SMALLER NOMINAL SIZE SHALL BE ALL BRASS SWING CHECK VALVES, 200 PSI WORKING PRESSURE. BURIED CHECK VALVES SHALL BE INSTALLED IN AN APPROVED ACCESS BOX WITH TRAFFIC RATED COVER.	
5.0 MISCELLANEOUS VALVES AND APPURTENANCES	
5.1.1 TAPPING VALVES GENERAL – TAPPING VALVES SHALL BE IRON BODY, BRONZE MOUNTED GATE VALVES, NON-RISING STEM, OPEN LEFT, RESILIENT SEAT, 2 INCH SQUARE OPERATING NUT, FOR VERTICAL MOUNTING IN APPROXIMATELY LEVEL SETTING ON BURIED WATER LINES. THE VALVE ENDS SHALL BE MECHANICAL JOINT FOR USE WITH DUCTILE IRON PIPE ON ONE SIDE AND STANDARD FLANGED (CLASS 125) ON THE OTHER. VALVES SHALL CONFORM TO SUB-SECTION 100 OF THESE SPECIFICATIONS.	
5.1.2 DISINFECTION OF TAPPING OR DRILLING MACHINE – PRIOR TO TAPPING A PORTABLE WATER MAIN, THE DRILLING MACHINE'S PILOT DRILL, SHELL CUTTER AND CUTTER HUB SHALL BE STERILIZED AS FOLLOWS. FOUR GALLONS OF PORTABLE WATER SHALL BE COMBINED WITH 8 OZ. OF SODIUM HYPOCHLORITE (HOUSEHOLD BLEACH), THE PILOT DRILL, SHELL CUTTER AND CUTTER HUB SHALL BE SUBMERGED UNTIL CLEAN OR TOTALLY IMMERSIED IN THE STERILIZING SOLUTION AND ALLOWED TO REMAIN WET AT LEAST FIVE MINUTES BEFORE TAPPING OPERATION COMMENCES. ITS IS NOT NECESSARY TO RINSE THE STERILIZING SOLUTION FROM TAPPING COMPONENTS PRIOR TO USE.	
5.1.3 HYDROSTATIC AND LEAKAGE TEST – AFTER INSTALLING A TAPPING SLEEVE AND VALVE, AND PRIOR TO SERVICE TAPPING OF A PRESSURIZED WATER MAIN, A HYDROSTATIC AND LEAKAGE TEST SHALL BE PERFORMED. THE TEST WILL BE CONDUCTED BY INTRODUCING WATER INTO A TAP OR TEST HOLE LOCATED AT THE NECK OF THE CLOSED HALF OF THE SLEEVE. ON SLEEVES FURNISHED WITH SAID TAP, AND WITH THE TAPPING VALVE IN THE CLOSED POSITION, SLEEVES SHALL BE PROVIDED WITH A TEST PLUG. THE SLEEVE AND VALVE SHALL BE CAPABLE OF MAINTAINING A TEST PRESSURE OF 150 PSI FOR 30 MINUTES DURATION, WITH NO SIGN OF VISIBLE LEAKS. ALL LEAKS SHALL BE REPAIRED BY REMOVING AND REPLACING DEFECTIVE ITEMS WITH ITEMS FREE OF DEFECTS, AFTER WHICH THE SLEEVE AND VALVE SHALL BE RE-TESTED.	
SUCH REPAIR AND RE-TESTING SHALL BE DONE UNTIL THE INSTALLATION PASSES THE SPECIFIED TEST. THE CONTRACTOR SHALL FURNISH AND INSTALL ANY NECESSARY TEMPORARY RESTRAINTS, GAUGES, PUMPS, AND OTHER INCIDENTAL AND APPURTENANT ITEMS NECESSARY TO COMPLETE THIS WORK, AND SHALL REMOVE SAME UPON COMPLETION OF THE TEST. A WATER-TIGHT PLUG SHALL THEN BE INSERTED INTO THE TEST HOLE.	
5.2 CORPORATION STOPS – CORPORATION STOPS SHALL BE MANUFACTURED FROM CAST BRONZE WITH MACHINED FITTING SURFACES, AND IN ACCORDANCE WITH AWWA C800 IN SIZES 3/4 INCH THROUGH 2 INCHES. THE INLET CONNECTION SHALL BE AWWA STANDARD CORPORATION STOP TREAD OR IRON PIPE (IPT) TREAD. THE OUTLET CONNECTION SHALL BE A FLARE NUT FITTING FOR TYPE K COPPER TUBING OR A PACK JOINT OUTLET FOR COPPER OR PLASTIC TUBING. CORPORATION STOPS SHALL BE REQUIRED ON ALL SERVICES LARGER THAN 1 INCH AND ALL SERVICES WHICH CONNECT TO A 12-INCHES OR LARGER WATER MAIN. CORPORATION STOPS SHALL BE INSTALLED AT THE SERVICE SADDLE AT THE INTERSECTION OF THE WATER MAIN AND THE SERVICE PIPE.	
5.3 CURB STOP – CURB STOPS SHALL BE MANUFACTURED FROM CAST BRONZE WITH MACHINED FITTING SURFACES AND IN ACCORDANCE WITH AWWA C800 IN SIZES 3/4 INCH THROUGH 2 INCHES. CURB STOP SHALL BE FULL-PORT BALL VALVE WITH CHECK COINTEGRATED CAP AND TEE WITH CLOSED POSITION. CURB STOPS FOR USE WITH OPERATING TEE CAP TO PROVIDE FOR LOCKING THE STOP IN CLOSED POSITION. CURB STOPS FOR USE WITH COPPER SERVICES SHALL HAVE AN INLET CONNECTION WITH A FLARE NUT FITTING FOR TYPE K COPPER TUBING, AND AN OUTLET CONNECTION WITH FEMALE IRON PIPE TREAD OR SHALL HAVE AN INLET CONNECTION WITH A COMPRESSION JOINT AND AN OUTLET CONNECTION WITH FEMALE IRON PIPE TREAD. CURB STOPS FOR USE WITH SCH 40 PVC PIPE SHALL HAVE OUTLET CONNECTIONS WITH FEMALE IRON PIPE TREADS AND INLET CONNECTIONS WITH FEMALE IRON PIPE TREADS. THESE STOPS WILL REQUIRE THE USE OF AN APPROVED SCH 40 PVC ADAPTER (MPT X SLIP), WHEN PERFORMING PRESSURE TESTS. CURB STOPS MUST BE CAPPED OR PLUGGED AND TESTED IN THE OPEN POSITION.	
5.4 BALL VALVES – BALL VALVES SHALL BE LIMITED TO 3/4 INCH THROUGH 2 INCHES IN SIZE AND SHALL HAVE CAST BRONZE BODY, BRONZE TEE HEAD, STEM WITH CHECK, FULL ROUNDWAY OPENING AND PROVISIONS FOR LOCKING IN A CLOSED POSITION. BALL VALVES FOR USE WITH COPPER SERVICES SHALL HAVE AN INLET CONNECTION WITH A FLARE NUT FITTING FOR TYPE K COPPER TUBING AND AN OUTLET CONNECTION WITH FEMALE IRON PIPE TREAD, OR SHALL HAVE AN INLET CONNECTION WITH A COMPRESSION JOINT (INSET STIFFENER WILL BE USED WITH PLASTIC SERVICE CONNECTIONS) AND AN OUTLET CONNECTION WITH FEMALE IRON PIPE TREAD.	

WATER VALVES AND APPURTENANCES (CONTINUED)

(MANUAL SECTION VII, PAGES 351-1 THROUGH 11)	
BALL VALVES FOR USE WITH SCH 40 PVC PIPE SHALL HAVE AN OUTLET CONNECTION WITH FEMALE IRON PIPE TREADS AND AN INLET CONNECTION WITH EITHER A COMPRESSION JOINT OR FEMALE IRON PIPE TREADS. THE LATTER WILL REQUIRE THE USE OF AN APPROVED SCH 40 PVC ADAPTER (MPT X SLIP). COMPRESSION JOINTS WILL REQUIRE INSERT STIFFENERS. BELOW GRADE BALL VALVES ON WATER MAINS MUST HAVE 2 INCH OPERATING NUTS AND BE INSTALLED IN STANDARD VALVE BOXES.	
5.5 SERVICE OR TAPPING SADDLE – SERVICES SADDLES SHALL HAVE STAINLESS STEEL DOUBLE STRAPS WITH MALLEABLE IRON OR DUCTILE IRON BODY AND HAVE IRON PIPE TREADS (IPT). OUTLET SIZES SHALL BE 3/4 INCH THROUGH 2 INCHES. THE OUTSIDE DIAMETER RANGE OF THE SADDLE SHALL BE PROPERLY SIZED TO CONFORM TO THE TYPE OF PIPE BEING TAPPED.	
6.0 FIRE HYDRANTS	
6.1 GENERAL – FIRE HYDRANTS SHALL BE 5 1/4-INCH DUCTILE IRON BODY, FULLY BRONZE MOUNTED, FOR 150 PSI WORKING PRESSURE, COMPLYING WITH AWWA STANDARD C502. THE INLET CONNECTION SHALL BE MECHANICAL JOINT TYPE WITH ACCESSORIES FOR 6-INCH DUCTILE IRON PIPE. THE HYDRANT FOOT SHALL BE EPOXY COATED AND HAVE INTERNAL CAST-TE BACK LUGS. THE INTERNAL SHUT-OFF VALVE SHALL BE COMPRESSION TYPE OPENING AGAINST WATER PRESSURE, COUNTERLOCKING (LEFT) VALVE OPENINGS, VALVE DIAMETER AND INTERIOR DESIGN SHALL BE SUFFICIENT TO PROVIDE HEAD LOSS/FLOW QUANTITY RATIOS LESS THAN SPECIFIED IN THE ABOVE-CITED STANDARD. THE MAIN VALVE SEAT AND THE THREADED PORTION OF THE HYDRANT INTO WHICH IT SCREWS SHALL BE BRONZE. THE HYDRANT BARREL DRAIN VALVE AND PORT SHALL BE BRONZE. THE HYDRANT BARREL DRAIN SHALL BE AGUATED BY OPERATION OF THE MAIN VALVE STEM. THE STEM OPERATING TREADS AND THURST BEARING SHALL BE SEALED, BY O' RINGS, FROM EXPOSURE TO MOISTURE AND SHALL BE PROVIDED WITH MEANS FOR LUBRICATION. THE HOSE NOZZLES SHALL BE BRONZE WITH NATIONAL STANDARD FIRE HOSE COUPLING SCREW THREADS, ONE 4 1/2 INCH PUMPER NOZZLE AND TWO 2 1/2 INCH HOSE NOZZLES. THE HYDRANT OPERATING NUT AND NOZZLE CAP NUTS SHALL BE 1 1/4 INCH TAPERED SQUARE. PIPE USED FOR FIRE HYDRANT LATERAL SHALL BE DUCTILE IRON PRESSURE CLASS 200.	
TEES AND BENDS LEADING TO FIRE HYDRANTS SHALL BE DUCTILE IRON ONLY. THE NOZZLE CAPS SHALL BE SECURELY CHAINED TO THE HYDRANT BARREL. THE CHAINS SHALL BE FREE FROM RUST OR CORROSION AND PAINTED TO MATCH THE COLOR OF THE HYDRANT. THE HYDRANT SHALL BE "TRAFFIC" TYPE WITH A FRANGIBLE FLANGE OR LUGS AND OPERATING STEM SECTION AT THE GROUND LINE. THE HYDRANT SHALL BE PAINTED WITH THE ABOVE GROUND FINISH COLOR OF FEDERAL SAFETY YELLOW.	
6.2 INSTALLATION – FIRE HYDRANTS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE DRAWINGS IN ACCORDANCE WITH THE STANDARD DETAILS.	
6.3 INDEPENDENT VALVE – INDEPENDENT VALVE FURNISHED WITH EACH HYDRANT SHALL BE 6 INCH, NON-RISING STEM GATE VALVE WITH MECHANICAL JOINT ENDS IN CONFORMANCE WITH THE SUB-SECTION ENTITLED "GATE VALVES" OF THESE SPECIFICATIONS. INDEPENDENT SUB-SECTION ENTITLED "VALVE BOXES".	
6.4 HYDROSTATIC AND LEAKAGE TEST – HYDROSTATIC, MECHANICAL, HYDRAULIC, AND LEAKAGE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH AWWA C502, SECTION 5.	
7.0 VALVE BOXES	
7.1 GENERAL – THE CONTRACTOR SHALL FURNISH, ASSEMBLE AND INSTALL A VALVE BOX FOR EACH BURIED VALVE. EACH VALVE BOX INSTALLED IN NON-PAVED AREAS SHALL BE INSTALLED WITH A 24 INCH SQUARE, 6-INCH THICK CONCRETE COLLAR POURED TO GRADE AROUND THE TOP OF THE VALVE BOX COVER. THE CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 2,500 PSI. PROVIDE BRASS IDENTIFICATION TAG WITH "WATER" VALVE SIZE AND VALVE TYPE TYPES EPOXYED OR BURET TO INTERIOR OF VALVE BOX. TAG SHALL BE 2 INCH DIAMETER, 1/8 INCH THICK BRASS, LOCATED A MAXIMUM OF 2 INCHES BELOW THE TOP OF THE VALVE BOX.	
7.2 VALVE BOXES – ADJUSTABLE 3-PIECE BOXES OF SUITABLE LENGTH SHALL BE USED. COVER SHALL BE MARKED WATER. THE TOP SECTION SHALL BE ADJUSTABLE FOR ELEVATION AND SHALL BE SET ALLOW EQUAL MOVEMENT ABOVE AND BELOW FINISHED GRADE. THE BASE SHALL BE CENTERED OVER THE VALVE AND SHALL BE ON LINE WITH NUT AT TOP OF VALVE STEM AND THE ENTIRE ASSEMBLY SHALL BE PLUMB. BOXES FOR PAVED AREAS SHALL BE CAST IRON. CAST IRON CASTINGS SHALL BE MANUFACTURED OF CLEAN, EVEN GRAIN, GRAY CAST IRON CONFORMING TO ASTM DESIGNATION A48, CLASS 20B, GRAY IRON CASTINGS, AND SHALL BE SMOOTH, TRUE TO PATTERN, FREE FROM BLOW HOLE, SAND HOLE, PROTECTIONS, OR OTHER HARMFUL DEFECTS AND SHALL BE COATED WITH A SINGLE THIN COAT OF COAL TAR EPOXY. THE COVER WILL NOT ROCK AFTER IT HAS BEEN SEATED IN ANY POSITION IN ITS ASSOCIATED JACKET.	
7.3 DEBRIS CAP – DEBRIS CAPS SHALL BE REQUIRED IN ALL VALVE BOXES. THE DEBRIS CAP SHALL BE COMPRSED OF A HOLLOW MEMBER HAVING A CYLINDRICAL OUTER SURFACE A CLOSURE FOR ONE END AND THREE POINT RESILIENT CONTACT PADS PROECTING FROM THE OUTER SURFACE. ONE CONTACT PAD SHALL BE MOVABLE BY MEANS OF A CAM HAVING A LOW ANGLE OF ADVANCE WHEREBY EXTERNAL FORCES APPLIED TO THE CAM VIA THE MOVABLE CONTACT PAD WILL NOT CAUSE ROTATION OF SAID CAM. THE CAP SHALL HAVE A FLEXIBLE SKIRT PROVIDING AN OUTWARD SEAL PREVENTING DEBRIS FROM GETTING PAST THE CAP. THE CAP MUST WITHSTAND WITHOUT SLIPPAGE, A MINIMUM VERTICAL FORCE OF 50 LBS AT A LOADING RATE OF 1.0 INCHES/MINUTE. THE CAP SHALL HAVE RETAINING PROXES TO RETAIN A STANDARD LOCATING COL, AND SHALL BE CAPABLE OF INSTALING A STANDARD FITTING FOR "LOCK-OUT/TAG-OUT" IN COMPLIANCE TO ALL STANDARDS AND REQUIREMENTS OF STATE AND FEDERAL, OSHA GUIDELINES.	
8.0 METER BOXES	
8.1 CONCRETE – WHERE CALLED FOR ON THE DRAWINGS, CONCRETE METER BOXES SHALL BE THE TYPE AS LISTED IN CITRUS COUNTY'S WATER AND SEWER STANDARDS, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE WATER AND SEWER STANDARD DETAILS. METER BOXES SHALL ACCOMMODATE THE "TOUCH READ" SYSTEM. USE OF CONCRETE METER BOXES REQUIRES PRE-APPROVAL BY THE UD.	
8.2 COPOLYMER – WHERE CALLED FOR ON THE DRAWINGS, COPOLYMER METER BOXES SHALL BE THE TYPE AS LISTED IN CITRUS COUNTY'S WATER AND SEWER STANDARDS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE WATER AND SEWER STANDARDS DETAILS. METER BOXES SHALL ACCOMMODATE THE "TOUCH READ" SYSTEM.	
NOTE: 1. THIS DRAWING IS TO BE INCLUDED IN THE ENGINEER'S PACKAGE OF DRAWINGS THAT WILL BE USED TO INSTALL OR MODIFY A POTABLE WATER SYSTEM IN CITRUS COUNTY. BY DOING THIS, THE ENGINEER INDICATES THAT HE HAS REVIEWED THESE SPECIFICATIONS AND AGREES THAT ALL OR PART OF THEM ARE APPLICABLE TO HIS PROJECT. THE ENGINEER SHALL NOT REPEAT THESE SPECIFICATIONS ON OTHER DRAWINGS IN THE ENGINEER'S PACKAGE OF DRAWINGS. THE ENGINEER SHALL SPECIFY THE SIZE, TYPE AND LOCATION OF THE ITEMS BEING DESIGNED ON OTHER DRAWINGS IN HIS PACKAGE AND REFER BY NOTE TO THESE SPECIFICATIONS FOR MATERIAL REQUIREMENTS. IF THE ENGINEER WISHES TO DEVIATE FROM THESE SPECIFICATIONS, HE MUST REQUEST A VARIANCE IN WRITING FROM THE CITRUS COUNTY DEPARTMENT OF PUBLIC WORKS, UTILITIES DIVISION. IF ITEMS BEING DESIGNED BY THE ENGINEER ARE NOT COVERED BY THESE SPECIFICATIONS, THEN THE ENGINEER MUST PROVIDE SPECIFICATIONS FOR THEM ON HIS DRAWINGS. 2. THESE SPECIFICATIONS WERE TAKEN (WITHOUT ANY MODIFICATIONS) FROM THE CITRUS COUNTY UTILITIES DIVISION MANUAL OF STANDARDS AND SPECIFICATIONS FOR PIPING.	

CITRUS WATERWORKS, INC.
WATER SYSTEM INTERCONNECTION
WATER SYSTEM NOTES 2
CITRUS COUNTY, FLORIDA

4939 CROSS BAYOU BOULEVARD
NEW PORT RICHEY, FL 34652
(727) 848-8292 FAX: (727) 848-7701
FL. CDA NO. 9754 & FL. REG. NO. 45129



MOHAMMED Y. KADER, P.E.
FL REG. NO.: 45129

ENGINEERING	
Designer: MK	Date: 7/9/2024
Drawn By: KK	Scale: NOT TO SCALE
Checked By: MK	Revision No:

WATER VALVES AND APPURTENANCES (CONTINUED)

(MANUAL SECTION VII, PAGES 351--1 THROUGH 11)

9.0 BACKFLOW PREVENTION DEVICES

9.1 DOUBLE CHECK VALVE BACKFLOW ASSEMBLY – WHERE CALLED FOR ON THE DRAWINGS, DOUBLE CHECK VALVE BACKFLOW ASSEMBLY SHALL BE THE TYPE AS SHOWN IN CITRUS COUNTY'S WATER AND SEWER STANDARDS, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITRUS COUNTY'S WATER AND SEWER STANDARD DETAILS.

9.2 DOUBLE CHECK VALVE DETECTOR ASSEMBLY – WHERE CALLED FOR ON THE DRAWINGS, DOUBLE CHECK VALVE DETECTOR ASSEMBLY SHALL BE THE TYPE AS LISTED IN APPROVED MATERIALS AND EQUIPMENT AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITRUS COUNTY'S WATER AND SEWER STANDARD DETAILS.

9.3 REDUCED PRESSURE PRINCIPLE ASSEMBLY – THE REDUCED PRESSURE BACKFLOW PREVENTOR SHALL CONSIST OF TWO INDEPENDENTLY OPERATING CHECK VALVES AND A HYDRAULICALLY DEPENDENT DIFFERENTIAL RELIEF VALVE AND TWO INDEPENDENT BALL VALVE SHUT-OFFS. THE REDUCED PRESSURE BACKFLOW PREVENTOR SHALL PROTECT AGAINST BACK-SIPHONAGE AND BACK-PRESSURE CONDITIONS WITH BOTH CHECKS FOULED.

9.4 ATMOSPHERIC (NON-PRESSURE) TYPE VACUUM BREAKER – WHERE CALLED FOR ON THE DRAWINGS, ATMOSPHERIC (NON-PRESSURE) TYPE VACUUM BREAKERS SHALL BE THE TYPE AS LISTED IN APPROVED MATERIALS AND EQUIPMENT AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITRUS COUNTY'S WATER AND SEWER STANDARD DETAILS.

9.5 PRESSURE TYPE VACUUM BREAKER – THE PRESSURE VACUUM BREAKER SHALL BE A DEVICE CONTAINING WITHIN ITS STRUCTURE AN APPROVED CHECK VALVE, VACUUM RELIEF, INLET AND SHUTOFF VALVES AND FIELD TESTING COCKS. ALL MOVING PARTS SHALL BE CORROSION RESISTANT. THE DEVICE SHALL MEET THE REQUIREMENTS OF A.S.S.E. STANDARD 1020.

10.0 WATER METERS

10.1 COMPOUND WATER METER – WHERE CALLED FOR ON THE DRAWINGS, COMPOUND WATER METERS SHALL BE THE TYPE AS LISTED IN APPROVED MATERIALS AND EQUIPMENT AND SHALL BE INSTALLED IN ACCORDANCE WITH CITRUS COUNTY'S WATER AND SEWER STANDARD DETAILS.

10.2 TURBINE WATER METER – WHERE CALLED FOR ON THE DRAWINGS, TURBINE WATER METERS SHALL BE THE TYPE AS LISTED IN APPROVED MATERIALS AND EQUIPMENT AND SHALL BE INSTALLED IN ACCORDANCE WITH CITRUS COUNTY'S WATER AND SEWER STANDARD DETAILS.

10.3 COMPACT FIRE LINE WATER METERS – WERE CALLED FOR ON THE DRAWINGS, COMPACT FIRE LINE WATER METERS SHALL BE THE TYPE AS LISTED IN APPROVED MATERIALS AND EQUIPMENT AND SHALL BE INSTALLED IN ACCORDANCE WITH CITRUS COUNTY'S WATER AND SEWER STANDARD DETAILS.

10.4 POSITIVE DISPLACEMENT WATER METER – WHEN CALLED FOR ON THE DRAWINGS OR SPECIFIED, THE POSITIVE DISPLACEMENT WATER METER SHALL BE THE TYPE LISTED IN THE "APPROVED MATERIALS AND EQUIPMENT LIST" AND SHALL BE INSTALLED IN ACCORDANCE WITH CITRUS COUNTY'S WATER AND SEWER STANDARD DETAILS.

11.0 MATERIAL WARRANTY – THE MANUFACTURER OF MATERIALS FURNISHED ON A PROJECT SHALL SUPPLY TO CITRUS COUNTY A ONE (1) YEAR UNCONDITIONAL WARRANTY. THE WARRANTY SHALL BE LIMITED TO THE MATERIAL WHICH SHALL CONSTITUTE COMPLETE REPLACEMENT AND DELIVERY TO THE SITE OF MATERIALS ONLY TO REPLACE DEFECTIVE MATERIALS CONFORMING TO THE SPECIFICATIONS.

NOTE:
1. THIS DRAWING IS TO BE INCLUDED IN THE ENGINEER'S PACKAGE OF DRAWINGS THAT WILL BE USED TO INSTALL OR MODIFY A POTABLE WATER SYSTEM IN CITRUS COUNTY. BY DOING THIS, THE ENGINEER INDICATES THAT HE HAS REVIEWED THESE SPECIFICATIONS AND AGREES THAT ALL OR PART OF THEM ARE APPLICABLE TO HIS PROJECT. THE ENGINEER SHALL NOT REPEAT THESE SPECIFICATIONS ON OTHER DRAWINGS IN THE ENGINEER'S PACKAGE OF DRAWINGS. THE ENGINEER SHALL SPECIFY THE SIZE, TYPE AND LOCATION OF THE ITEMS BEING DESIGNED ON OTHER DRAWINGS IN HIS PACKAGE AND REFER BY NOTE TO THESE SPECIFICATIONS FOR MATERIAL REQUIREMENTS. IF THE ENGINEER WISHES TO DEVIATE FROM THESE SPECIFICATIONS, HE MUST REQUEST A VARIANCE IN WRITING FROM THE CITRUS COUNTY DEPARTMENT OF PUBLIC WORKS, UTILITIES DIVISION. IF ITEMS BEING DESIGNED BY THE ENGINEER ARE NOT COVERED BY THESE SPECIFICATIONS, THEN THE ENGINEER MUST PROVIDE SPECIFICATIONS FOR THEM ON HIS DRAWINGS.
2. THESE SPECIFICATIONS WERE TAKEN (WITHOUT ANY MODIFICATIONS) FROM THE CITRUS COUNTY UTILITIES DIVISION MANUAL OF STANDARDS AND SPECIFICATIONS FOR PIPING.

MOHAMMED Y. KADER, P.E.
FL REG. NO.: 45129

SHEET

5

12

PROJECT NO.

1012321204

U.S. Water

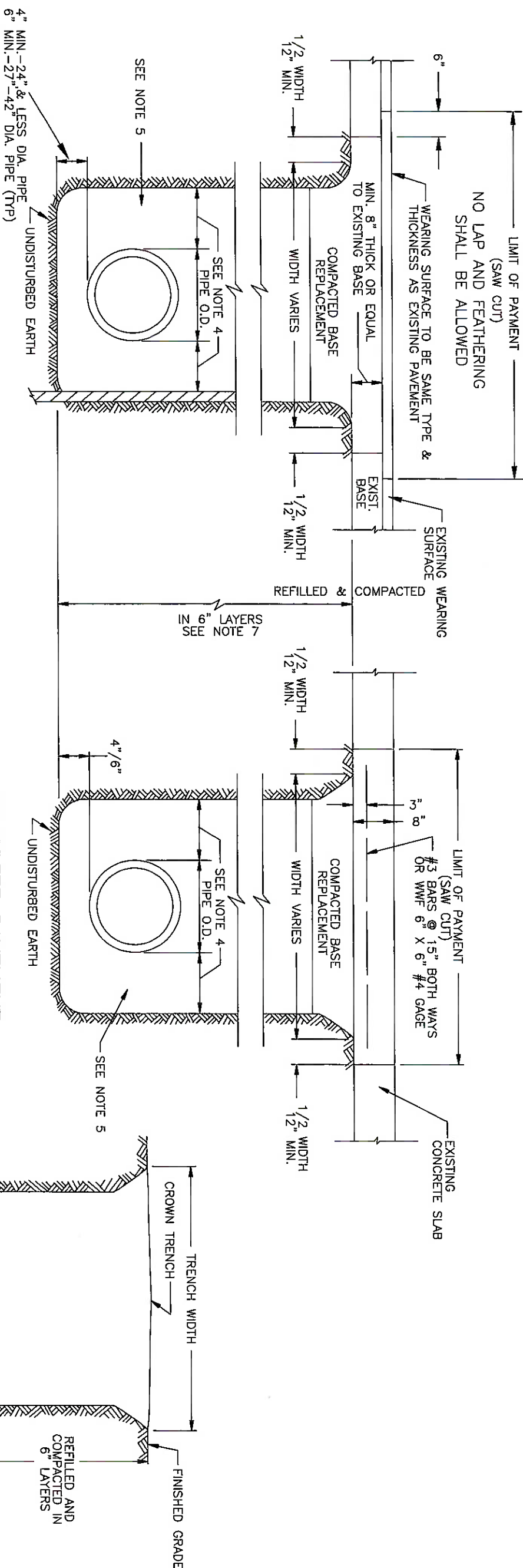
Services Corporation

4939 CROSS BAYOU BOULEVARD
NEW PORT RICHEY, FL 34652
(727) 848-8292 FAX, (727) 848-7701
FL. COA NO. 9754 & FL. REG. NO. 45129

CITRUS WATERWORKS, INC.
WATER SYSTEM INTERCONNECTION
WATER SYSTEM NOTES 3
CITRUS COUNTY, FLORIDA

ENGINEERING			
Designer:	NK	Date:	7/9/2024
Drawn By:	NK	Scale:	NOT TO SCALE
Checked By:	NK	Revision:	No.

REVISIONS



ASPHALT PAVEMENT

CONCRETE PAVEMENT

TYPE 3 PIPE BEDDING

SHEETING AS NECESSARY
SHEETING ORDERED LEFT IN PLACE
SHALL BE CUT OFF 24" BELOW
FINISH GRADE OR 12" BELOW SUBGRADE

NOTES:

1. USE OF TYPE 4, 4A & 5 PIPE BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE ENGINEER.
2. WATER SHALL NOT BE PERMITTED IN TRENCH DURING CONSTRUCTION.
3. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO DIRECTION OF FLOW.
4. 10" MAX. FOR PIPE DIAMETER LESS THAN 24", 12" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. CLEAN EARTH FROM ORIGINAL TRENCH EXCAVATION OR IN CASES OF UNSUITABLE NATURAL MATERIAL, SELECTED FILL MATERIAL SHALL BE USED.
6. TYPE 2 BEDDING PERMITTED WHEN EARTH AT BELL IS HAND EXCAVATED, WITH ENGINEER'S APPROVAL.
7. COMPACTION SHALL BE CARRIED OUT ONLY WITH MECHANICAL COMPACTION EQUIPMENT TO OBTAIN A DENSITY OF AT LEAST 95% MAXIMUM DRY DENSITY AS MEASURED BY ASTM D-1557, UNLESS OTHERWISE PROVIDED FOR IN SPECIFICATIONS.

UNIMPROVED SURFACE

CITRUS COUNTY
DEPARTMENT OF PUBLIC WORKS

UTILITIES DIVISION
1300 S. LECANTO HIGHWAY
LECANTO, FLORIDA 34461

TYPICAL TRENCH
EXCAVATION AND
PAVEMENT REPLACEMENT

DATE: APRIL 2002
DETAIL No. III-1

MOHAMMED Y. KADER, P.E.
FL REG. NO.: 45129



- SW3.DWG

NOT TO SCALE

CITRUS COUNTY
DEPARTMENT OF PUBLIC WORKS

TYPE B BEDDING AND TRENCHING DETAIL

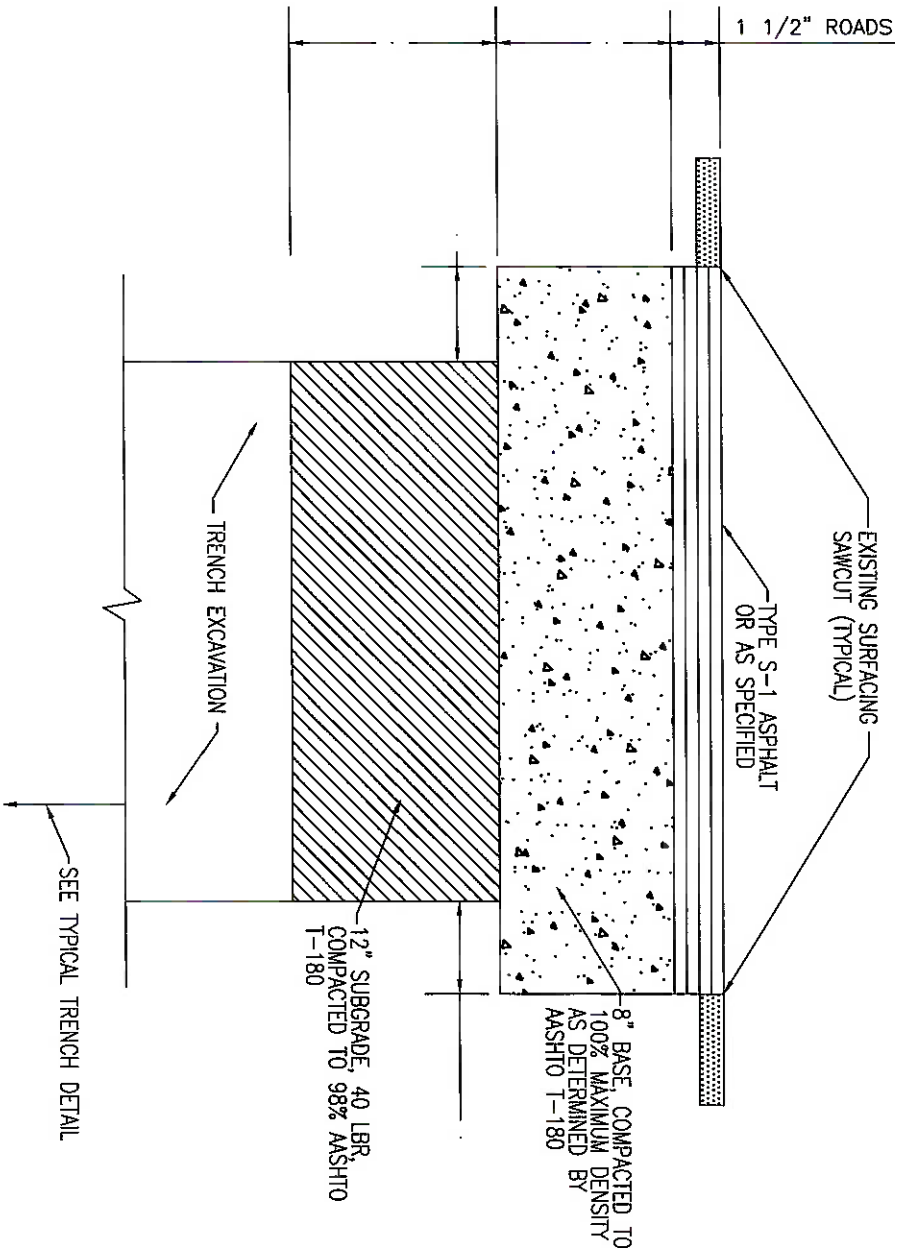
UTILITIES DIVISION
1300 S. LECANTO HIGHWAY
LECANTO, FLORIDA 34461

REVISED: _____

DATE: APRIL 2002
DETAIL No. III-3

MUHAMMED Y. KADER, P.E.
FL REG. NO.: 45129

Page 34 of 44



- NOTE:**
1. FOR ASPHALT AND CONCRETE DRIVEWAYS, THE SUBBASE SHALL BE 8" MIN.
 2. SEE SECTION V1 SUB-SECTION 290 FOR DETAILED SPECIFICATIONS FOR CUT, REMOVAL, AND REPLACEMENT OF PAVED SURFACES.

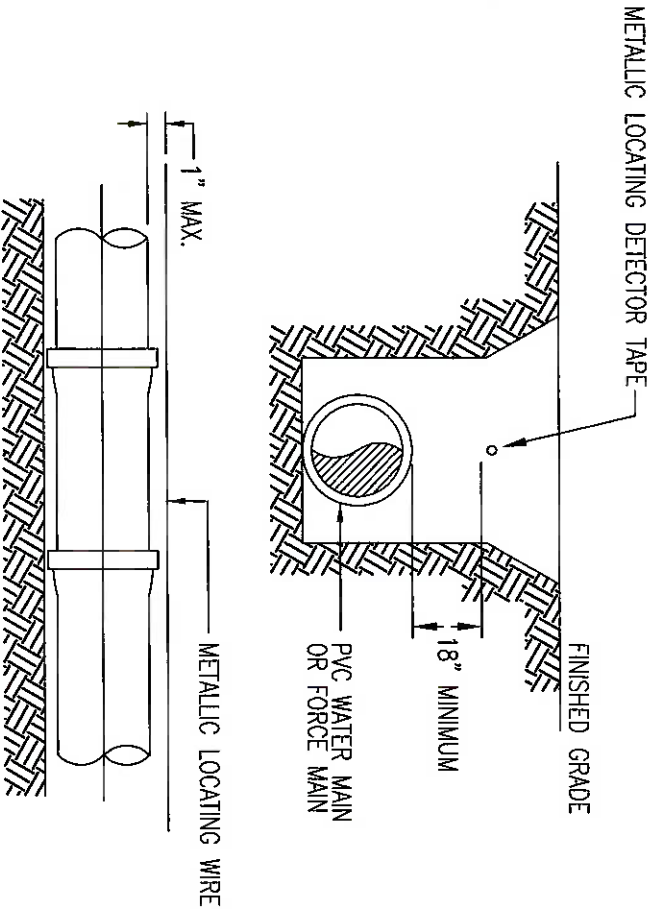
SW4.DWG NOT TO SCALE

CITRUS COUNTY
DEPARTMENT OF PUBLIC WORKS

UTILITIES DIVISION
1300 S. LECANTO HIGHWAY
LECANTO, FLORIDA 34461

**PAVEMENT
REPLACEMENT
DETAIL**

REVISED: _____ DATE: APRIL 2002
DETAIL No. III-4



- NOTES:**
1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 GAUGE STRAND COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE.
 2. LOCATING WIRE SHALL TERMINATE AT THE TOP OF EACH VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION. (EXTEND WIRE UP OUTSIDE OF VALVE BOX). USE PLASTIC ZIPPER TYPE TIES ON EACH SIDE OF BELL JOINT OR FITTING AND AT 10 FT. INTERVALS ALONG THE PIPELINE AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE.

SW8.DWG

CITRUS COUNTY
DEPARTMENT OF PUBLIC WORKS

UTILITIES DIVISION
1300 S. LECANTO HIGHWAY
LECANTO, FLORIDA 34461

**PVC PIPE LOCATING
WIRE DETAIL**

REVISED: _____ DATE: APRIL 2002
DETAIL No. III-8

NOT TO SCALE

ENGINEERING		REVISIONS
Design: MK	Date: 7/9/2024	
Drawn By: RK	Scale: NOT TO SCALE	
Checked By: MK	Revision No:	

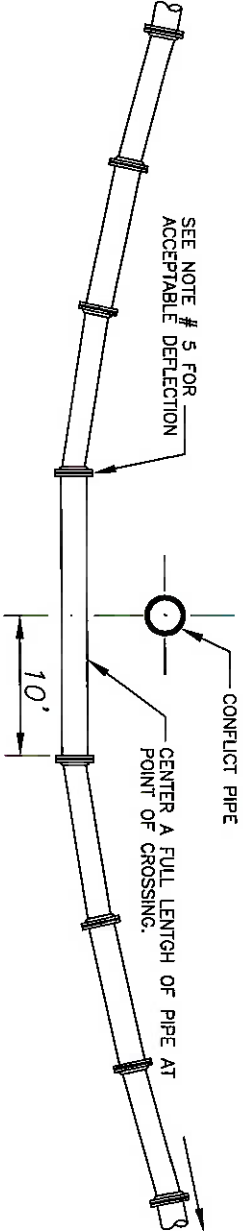
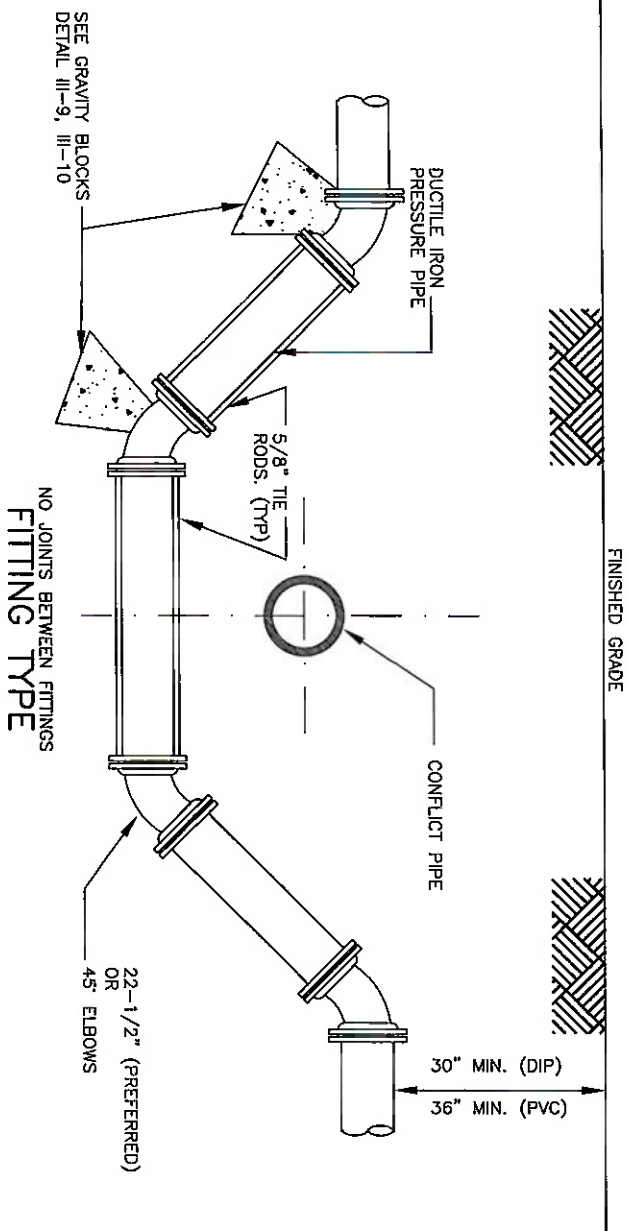
CITRUS WATERWORKS, INC.
WATER SYSTEM INTERCONNECTION
WATER SYSTEM DETAILS 3
CITRUS COUNTY, FLORIDA

4939 CROSS BAYOU BOULEVARD
NEW PORT RICHEY, FL 34652
(727) 848-8292 FAX: (727) 848-7701
FL. CDA NO. 9754 & FL. REG. NO. 45129



Sheet No. 8 of 12
Project No. 1012321204

MOHAMMED Y. KADER, P.E.
FL REG. NO.: 45129



DEFLECTION TYPE

NOTE:

1. THERE SHALL BE IN ALL CASES A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN WATER MAINS AND FORCE MAINS.
2. WHEREVER POSSIBLE WATER MAINS SHALL PASS OVER FORCE MAINS OR STORM SEWERS.
3. FITTINGS SHALL BE RESTRAINED WITH RETAINER GLANDS AND EITHER GRAVITY BLOCKS OR TIE RODS.
4. THE DEFLECTION TYPE CROSSING IS PREFERRED.
5. DO NOT EXCEED 75% OF MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION.
6. A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN WATER MAINS AND STORM SEWERS, SHALL BE MAINTAINED, WHERE THIS IS NOT POSSIBLE WATER MAIN SHALL BE D.I.P. WITH NO LESS THAN 6" SEPARATION.
7. ALL TIE RODS/STEEL SHALL BE COATED WITH COAL-TAR EPOXY.

ANY NEW OR RELOCATED WATERMAINS THAT CROSS ANY SANITARY SEWERS, STORM SEWERS, FORCE MAINS OR RECLAIMED WATER LINES, SHALL CROSS ABOVE SUCH PIPELINES WITH A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAINS AND THE OUTSIDE OF SUCH PIPELINES, OR SUCH CROSSINGS SHALL BE ARRANGED SO THAT ALL PIPE JOINTS ARE EQUIDISTANCE FROM THE POINT OF CROSSING WITH NO LESS THAN TEN FEET BETWEEN ANY TWO JOINTS (OR ALTERNATIVELY, THE SANITARY SEWERS, STORM SEWERS, FORCE MAINS AND RECLAIMED WATER LINES AT SUCH CROSSINGS ARE PLACED IN SLEEVES OR ENCASED IN CONCRETE TO OBTAIN THE EQUIVALENT OF THE TEN FOOT SEPERATION BETWEEN JOINTS):

SW11.DWG

CITRUS COUNTY
DEPARTMENT OF PUBLIC WORKS

UTILITY
SEPARATION

UTILITIES DIVISION
1300 S. LECANTO HIGHWAY
LECANTO, FLORIDA 34461

REVISED: _____ DATE: APRIL 2002
DETAIL NO. III-11

NOT TO SCALE

GENERAL NOTES :

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", WHERE APPLICABLE.
2. GRADES SHOWN ARE FINISHED GRADES, OR AS SHOWN ON THE PLANS.
3. EXISTING (VALVE BOXES, METER BOXES, MANHOLES, ETC.) SHALL BE ADJUSTED TO THE FINAL GRADE AS DIRECTED BY THE ENGINEER.
4. ANY NGVD-29 MONUMENT WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY: CITRUS COUNTY SURVEY SECTION OR THE FOLLOWING:
GEODETIC INFORMATION CENTER
ATTN: MARK MAINTENANCE SECTION
ATTN: N/CG-162
6001 EXECUTIVE BOULEVARD
ROCKVILLE, MD. 20852
TELEPHONE NO.: (301) 443-8319

5. UTILITY OWNERS

TELEPHONE NUMBERS

CITRUS COUNTY UTILITIES DIVISION	527-7650
CITRUS COUNTY ENGINEERING DIVISION	527-5446
FLORIDA POWER CORP.	1-800-432-4770
WTHILACOOCHIEE ELECTRIC	489-6818
SUMTER ELECTRIC	726-3944
TIME WARNER	746-0755
UNITED TELEPHONE	1-800-432-4770
BELL SOUTH TELEPHONE	1-800-432-4770
FLORIDA WATER SERVICES	489-2452/ 1 (800) 432-4501
HOMOSSASSA SPECIAL WATER DISTRICT	628-3740
PSG	746-4291
FLORAL CITY WATER ASSOCIATION	726-3366
CRYSTAL RIVER	795-4216
CITY OF INVERNESS	726-2321, 726-5016
OZELLO WATER ASSOCIATION	795-5331
FLORIDA GAS & TRANSMISSION	527-1898
SUNSHINE ONE CALL (CABLE LOCATES)	1 (800) 432-4770

6. ALL STATIONS AND OFFSETS ARE REFERENCED TO THE BASELINE OF SURVEY. DEPTHS ARE REFERENCED TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED IN THE PLANS.
7. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHOULD NOTIFY THE COUNTY SURVEYOR BY TELEPHONE WITHOUT DELAY, AND PROCEED AS INSTRUCTED BY HIM.
8. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES OR UNDERGROUND UTILITIES. CONTRACTOR SHALL HAVE ALL EXISTING BURIED UTILITIES LOCATED PRIOR TO EXCAVATION.
9. THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED BY THE CONTRACTOR 48 HOURS IN ADVANCE OF ANY EXCAVATION INVOLVING THEIR LINES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT FOR EXACT LOCATIONS.
10. PRIOR TO CONSTRUCTION, CONTRACTOR IS TO LOCATE ALL UNDERGROUND UTILITIES AND PROTECT THEM AT ALL TIMES DURING CONSTRUCTION IN ACCORDANCE WITH F.S.S. #556 OR LATER REVISION THERE OF.

SW19.DWG

CITRUS COUNTY
DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

UTILITIES DIVISION
1300 S. LECANTO HIGHWAY
LECANTO, FLORIDA 34461

REVISED: _____ DATE: APRIL 2002
DETAIL NO. III-19

NOT TO SCALE



4939 CROSS BAYDU BOULEVARD
NEW PORT RICHEY, FL 34652
(727) 848-8292 FAX. (727) 848-7701
FL. COA NO. 9754 & FL. REG. NO. 45129

CITRUS WATERWORKS, INC.
WATER SYSTEM INTERCONNECTION
WATER SYSTEM DETAILS 4
CITRUS COUNTY, FLORIDA

ENGINEERING	
Designer: MK	Date: 7/9/2024
Drawn By: MK	Scale: NOT TO SCALE
Checked By: MK	Revision No:

REVISIONS	

MOHAMMED Y. KADER, P.E.
FL REG. NO. 45129

11. THE LOCATION OF THE PROPOSED FACILITIES SHOWN ON THE PLANS IS APPROXIMATE. LOCATION ADJUSTMENT SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION BASED UPON FIELD CONDITIONS.	
12. ALL EXISTING LANDSCAPING AND IRRIGATION WITHIN THE CONSTRUCTION AREAS ARE TO BE REMOVED AND RELOCATED BY THE CONTRACTOR, AS DIRECTED BY THE ENGINEER	
13. PRIOR TO COMMENCING CONSTRUCTION, A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED BY THE ENGINEER. THE FOLLOWING SHALL BE INCLUDED IN THE CONFERENCE: THE CITRUS COUNTY UTILITIES DIVISION, THE CONTRACTOR, THE ENGINEER, AND UTILITY COMPANIES.	
14. DENSITY TESTS SHALL BE TAKEN AT THE DIRECTION OF THE ENGINEER. THE ENGINEER SHALL BE RESPONSIBLE FOR OBSERVATION OF CONSTRUCTION AND UPON COMPLETION OF THE PROJECT A LETTER OF CERTIFICATION FROM THE ENGINEER INDICATING THAT CONSTRUCTION WAS CARRIED OUT IN CONFORMANCE TO THE APPROVED PLANS, SHALL BE SUBMITTED TO THE ENVIRONMENTAL ENGINEERING SECTION, CITRUS COUNTY PUBLIC HEALTH UNIT, CITRUS COUNTY UTILITIES DIVISION. AS APPLICABLE EVERY CERTIFICATION SUBMITTAL TO THE C.C.P.H.U. & C.C.U.D. SHALL INCLUDE ONE (1) SET OF 'AS BUILT'/RECORD PLANS, ALONG WITH COPIES OF PERTINENT BACTERIOLOGICAL MAIN CLEARANCE AND HYDROSTATIC TEST REPORTS. UNDER NO CIRCUMSTANCES SHALL WATER MAINS PERMITTED HEREIN BE PLACED INTO OPERATION PRIOR TO THE ISSUANCE OF A LETTER OF CLEARANCE BY THE C.C.P.H.U. OR F.D.E.P., AS APPLICABLE	
15. NO PHYSICAL CONNECTION OF NEW WATER MAINS TO ACTIVE WATER MAINS SHALL BE MADE UNTIL SUCH TIME THAT NEW MAINS ARE CONFIRMED TO BE BACTERIOLOGICALLY SAFE	
16. ALL WATER MAINS SHALL BE DESIGNED FOR A MINIMUM WORKING PRESSURE OF 150 PSI	
17. THE WATER SYSTEM SHALL BE HYDROSTATICALLY PRESSURE TESTED FOR A PERIOD OF 2 HOURS AT NOT LESS THAN 150 PSI IN ACCORDANCE WITH ANSI/AWWA STANDARD C600 LATEST REVISION WITH AN ALLOWABLE LEAKAGE NOT GREATER THAN DETERMINED BY THE FOLLOWING FORMULA. $\frac{S \times D}{\sqrt{P}} = \frac{\text{GAL}}{\text{HR}}$ $\frac{133200}{\sqrt{P}} = \frac{\text{GAL}}{\text{HR}}$ D= SIZE OF LINE TESTED DIAMETER IN INCHES S= LENGTH OF LINE IN FEET P= AVERAGE TEST PRESSURE (P.S.I.) Q= ALLOWABLE LEAKAGE IN GALS/HOUR	
18. WATER MAIN PIPE SHALL MEET THE REQUIREMENTS OF AWWA C-900a LATEST REVISION "POLYVINYL CHLORIDE (PVC) PRESSURE PIPE". PRESSURE CLASS 150 PIPE SHALL COMFORM TO REQUIREMENT OF DR-18. PRESSURE CLASS 200 PIPE SHALL CONFORM TO REQUIREMENTS OF DR-14. PVC PIPE SHALL BE BLUE COLOR.	
19. PVC MAINS SHALL BE LAID WITH A MINIMUM OF 36" CLEAR COVER. FITTINGS SHALL BE DUCTILE IRON CLASS 350 THROUGH 12" AND CLASS 250 IN SIZES 16" AND LARGER (SHORT BODY TYPE). ALL FITTINGS SHALL BE CEMENT LINED AND SEALED THE SAME AS DUCTILE IRON PIPE (WHERE SPECIFIED)IN ACCORDANCE WITH AWWA/ANSI C110 LATEST REVISION	
20. DUCTILE IRON PIPE SHALL BE CLASS 350 AND SHALL BE CEMENT LINED AND SEALCOATED IN ACCORDANCE WITH AWWA/ANSI STANDARD C151 LATEST REVISION D.I.P. MAINS SHALL BE LAID WITH A MINIMUM 30" CLEAR COVER. DUCTILE IRON FITTINGS SHALL BE CLASS 350 (SHORT BODY TYPE)THROUGH 12" AND CLASS 250 IN SIZES 16" AND LARGER. ALL FITTINGS SHALL BE CEMENT LINED AND SEALCOATED THE SAME AS DUCTILE IRON PIPE IN ACCORDANCE WITH C104 LATEST REVISION & C153 LATEST REVISION.	
SW20.DWG	
CITRUS COUNTY DEPARTMENT OF PUBLIC WORKS	
UTILITIES DIVISION 1300 S. LECANTO HIGHWAY LECANTO, FLORIDA 34461	
GENERAL NOTES..... CONT.	
REVISED: _____	
DATE: APRIL 2002	
DETAIL No. III-20	
NOT TO SCALE	

21. ALL PVC WATER MAINS SHALL HAVE CONTINUOUS DETECTO TAPE 18 INCHES ABOVE THE MAIN. DETECTOR TAPE SHALL HAVE BLUE SIDE-UP. ALSO A CONTINUOUS 10 GAUGE MULTI-STRAND INSULATED COPPER WIRE SHALL BE STRAPPED TO THE PIPE. THE WIRE SHALL BE BROUGHT UP AT ALL VALVES LEAVING AN EXCESS OF 4 FT. OF WIRE COILED AT EACH VALVE. ATTACH LOCATE WIRE WITH PLASTIC ZIPPER TIES AT EACH SIDE OF JOINTS AND AT 10 FT. INTERVALS ALONG THE PIPE. EXTEND WIRE UP OUTSIDE OF VALVE BOX. AT THE PRESSURE TESTING OF THE MAINS. A CONTINUITY TEST SHALL BE PERFORMED BY THE CONTRACTOR. THE TEST IS TO BE WITNESSED AND APPROVED BY BOTH THE CITRUS COUNTY UTILITIES DEPARTMENT AND THE ENGINEER.	
22. ALL DRIVEWAYS TO BE REPLACED IN KIND IF CROSSED BY OPEN-CUT. COMPACTED TO 98% OF ITS MAXIMUM LABORATORY MODIFIED DRY DENSITY, ASTM D1557.	
23. RE-SOD ALL DISTURBED AREAS. (PRESERVE EXISTING SURFACE DRAINAGE).	
HORIZONTAL SEPARATION BETWEEN PARALLEL LINES	
24. ALL NEW AND RELOCATED WATER MAINS SHALL BE LOCATED AT LEAST TEN FEET HORIZONTALLY FROM ALL SANITARY SEWERS, STORM SEWERS, FORCE MAINS, AND RECLAIMED WATER LINES CARRYING RECLAIMED WATER FOR RESTRICTED PUBLIC ACCESS AREAS AND AT LEAST THREE FEET HORIZONTALLY FROM ALL RECLAIMED WATER LINES CARRYING RECLAIMED WATER FOR PUBLIC ACCESS AREAS; (ALL DISTANCES ARE MEASURED FROM OUTSIDE PIPE EDGE TO OUTSIDE PIPE EDGE).	
VERTICAL SEPARATION BETWEEN LINES	
25. ANY NEW OR RELOCATED WATER MAINS THAT CROSS ANY SANITARY SEWERS, STORM SEWERS, FORCE MAINS OR RECLAIMED WATER LINES. SHALL CROSS ABOVE SUCH PIPELINES WITH A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAINS AND THE OUTSIDE OF SUCH PIPELINES, OR SUCH CROSSINGS SHALL BE ARRANGED SO THAT ALL PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN TEN FEET BETWEEN ANY TWO JOINTS (OR ALTERNATIVELY, THE SANITARY SEWERS, STORM SEWERS, FORCE MAINS, AND RECLAIMED WATER LINES AT SUCH CROSSINGS SHALL BE PLACED IN SLEEVES TO OBTAIN THE EQUIVALENT OF THE TEN-FOOT SEPARATION BETWEEN JOINTS).	
DISINFECTION OF WATER LINES	
26. BACTERIOLOGICAL SAMPLING--DISINFECTION OF ALL NEW AND RELOCATED WATER MAINS SHALL BE IN ACCORDANCE WITH ANSI/AWWA SPECIFICATION C651 LATEST REVISION. CITRUS COUNTY UTILITIES DEPARTMENT PERSONEL MUST BE PRESENT AT THE TIME OF CHLORINATION AND FLUSHING.	
SPECIFIC NOTES :	
1. ALL WATER MAINS TAKEN OUT OF SERVICE BY A PROJECT SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.	
2. EXISTING 911 CABLE IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AND OR RELOCATE AS NECESSARY. PENALTIES MAY BE INCURRED. SEE CONTRACT FOR EXPLANATION.	
3. WHEN PRESSURE TESTING PVC WATER PIPE, THE MORE STRINGENT AWWA LEAKAGE ALLOWANCE STANDARD FOR DUCTILE IRON PIPE SHALL BE APPLIED FOR PVC PIPE AS PROVIDED IN NOTE 17.	
SW21.DWG	
CITRUS COUNTY DEPARTMENT OF PUBLIC WORKS	
UTILITIES DIVISION 1300 S. LECANTO HIGHWAY LECANTO, FLORIDA 34461	
GENERAL NOTES..... CONT.	
REVISED: _____	
DATE: APRIL 2002	
DETAIL No. III-21	
NOT TO SCALE	

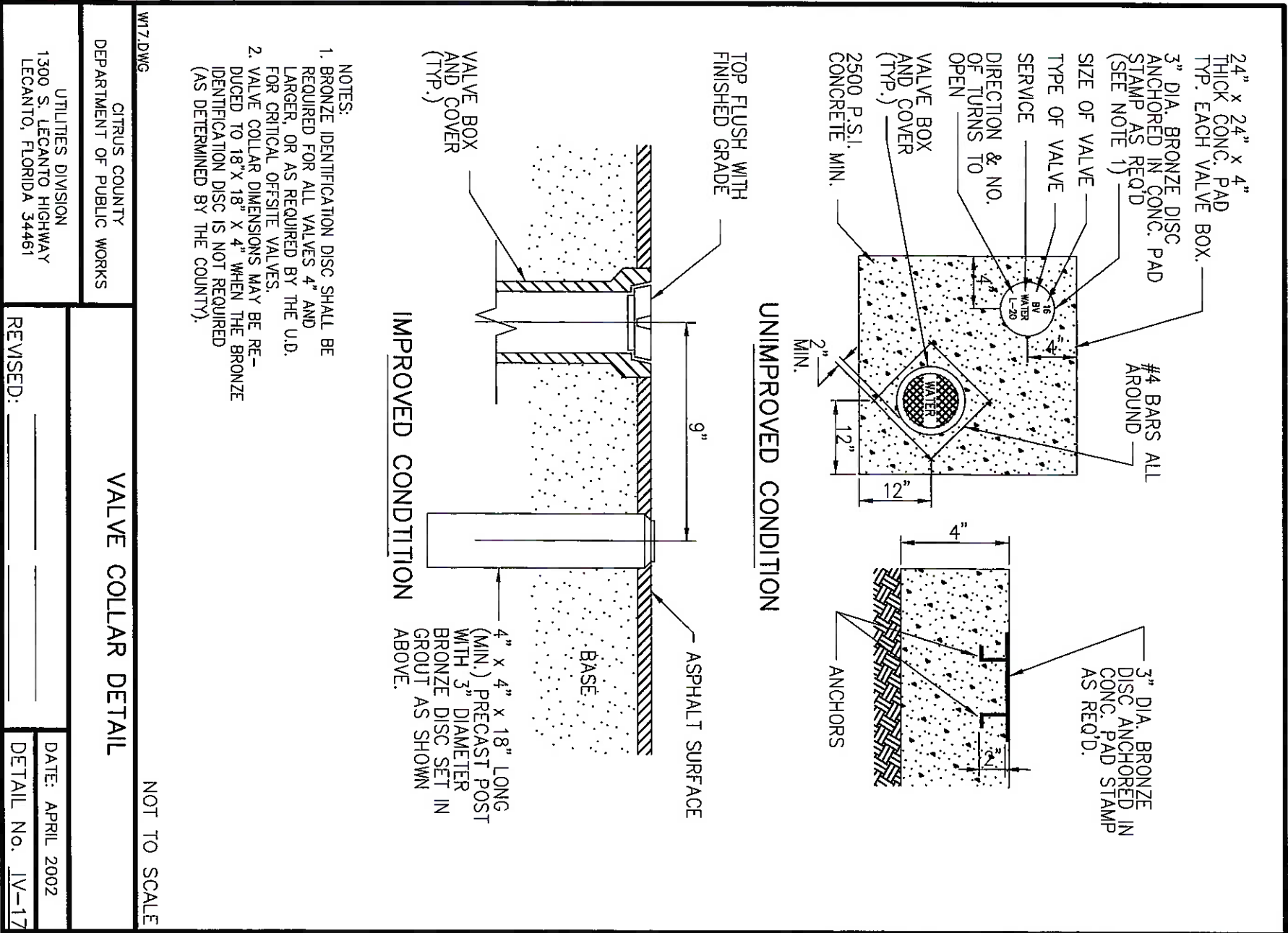


TABLE SHOWING MINIMUM LENGTH OF PIPE EACH WAY FROM FITTING OR DEAD-END FOR WHICH RESTRAINT IS REQUIRED.

FITTING:	DEAD-END	TEE	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
PIPE SIZE:						
6	18'	18'	18'	18'	18'	18'
8	18'	18'	18'	18'	18'	18'
10	21.5'	21.5'	21.5'	18'	18'	18'
12	25.2'	25.2'	25.2'	18'	18'	18'
14	28.8'	28.8'	28.8'	18'	18'	18'
16	32.4'	32.4'	32.4'	18.75'	18'	18'
18	35.85'	35.85'	35.85'	20.55'	18'	18'
20	39.3'	39.3'	39.3'	22.5'	18'	18'
24	45.9'	45.9'	45.9'	25.95'	18'	18'
30	55.05'	55.05'	55.05'	30.75'	18'	18'
36	63.75'	63.75'	63.75'	35.25'	19.35'	18'
42	71.7'	71.7'	71.7'	39.3'	21.45'	18'
48	79.35'	79.35'	79.35'	43.05'	23.25'	18'
54	86.55'	86.55'	86.55'	46.5'	25.05'	18'

TABLE APPLIES TO DUCTILE IRON PIPE @ 150 P.S.I.G. TEST PRESSURE IN SAND WITH THREE FEET OF COVER OVER PIPE.

LENGTHS TO RIGHT OF HEAVY LINE INDICATE 1 FULL LENGTH (18' MIN.) OF PIPE TO BE RESTRAINED.

NOTE: RESTRAINT JOINT SCHEDULE FOR PVC PIPE IS SHOWN IN VII SUB-SECTION 350, PAGE 13.

W15.DWG

CITRUS COUNTY
DEPARTMENT OF PUBLIC WORKS

UTILITIES DIVISION
1300 S. LECANTO HIGHWAY
LECANTO, FLORIDA 34461

SCHEDULE OF LENGTHS
OF RESTRAINED PIPE

NOT TO SCALE

REVISED: _____

DATE: APRIL 2002

DETAIL No. IV-15

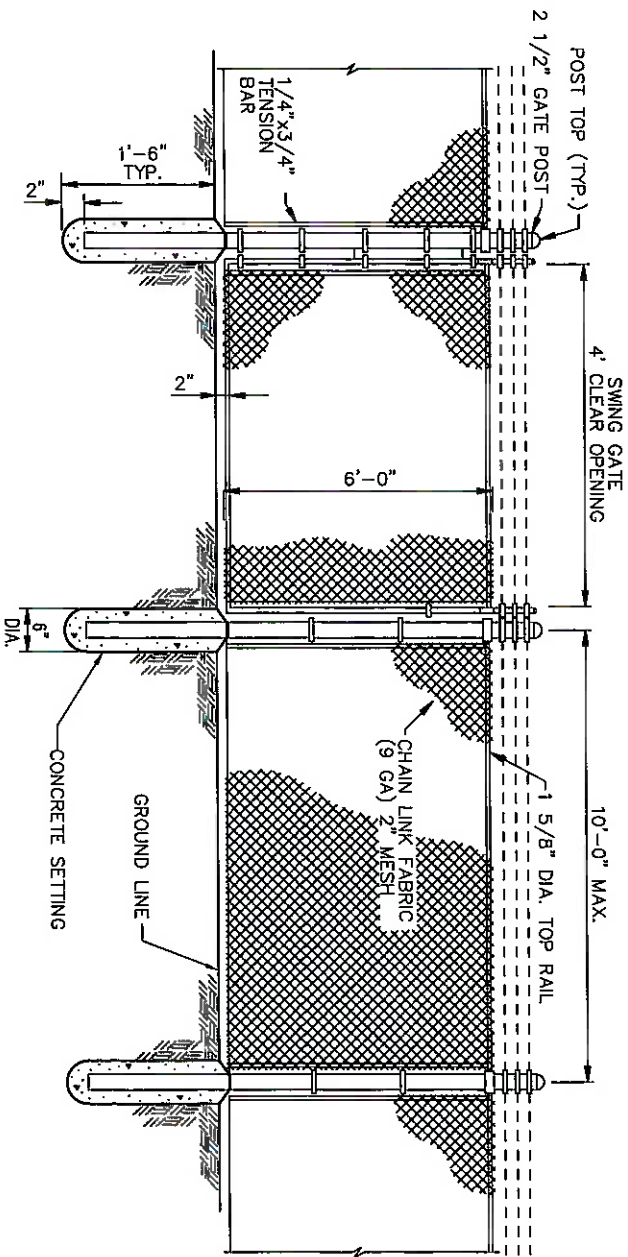
MOHAMMED Y. KADER, P.E.
FL REG. NO. 45129



4939 CROSS BAYOU BOULEVARD
NEW PORT RICHEY, FL 34652
(727) 848-8292 FAX: (727) 848-7701
FL. CDA NO. 9754 & FL. REG. NO. 45129

CITRUS WATERWORKS, INC.
WATER SYSTEM INTERCONNECTION
WATER SYSTEM DETAILS 6
CITRUS COUNTY, FLORIDA

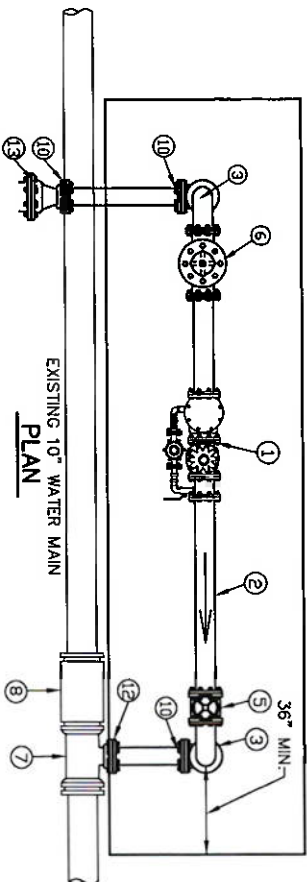
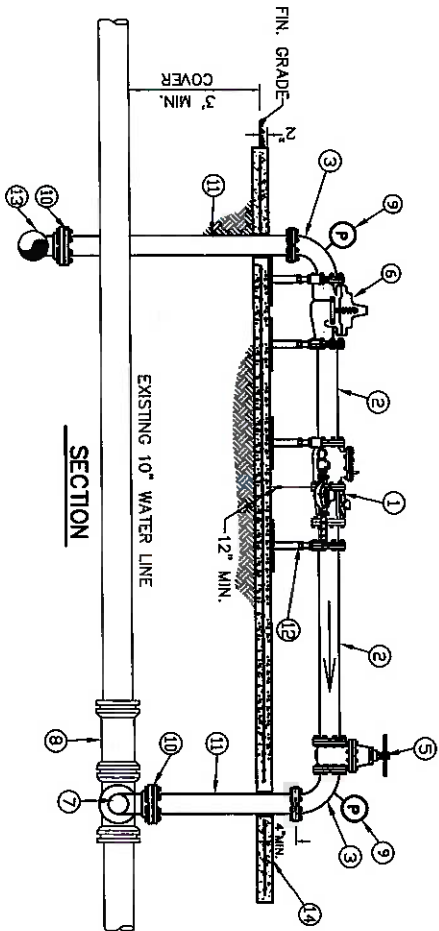
ENGINEERING	
Design: MK	Date: 7/9/2024
Drawn By: MK	Scale: NOT TO SCALE
Checked By: MK	Revision No:



M A T E R I A L S	
ITEM	DESCRIPTION
TYPE	CHAIN LINK
HEIGHT	6'
FABRIC	9 GAUGE - 2" DIAMOND SIZE - TOP AND BOTTOM KNUCKLES
POST	2-1/2" DIA. - .085 WALL THICKNESS (MINIMUM)
TOP RAILS	1-5/8" DIA. - .080 WALL THICKNESS (MINIMUM)
GATES (4)	4' x 6' SWING TYPE W/ 2" DIA. - .085 WALL THICKNESS (MINIMUM)
LATCH	FORK TYPE - PADLOCK COMPATIBLE

Note: This standard detail is provided for information purposes, and no modification shall be made without written Pasco County Utilities approval.

DATE	07-03-01	FENCE SPECIFICATIONS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
SCALE	NONE		
DRAWN BY			
APPROVED			
PASCO COUNTY UTILITIES		PAGE 3	



M A T E R I A L S	
ITEM	QUANT.
1	1 RECORDALL 8" COMBO METER WITH SPRING LOADED CHECK VALVE
2	2 8" D.I. SPOOL PIECE FLG x FLG - MANUFACTURER SPECIFIED LENGTH (10D x 5D)
3	2 8" D.I. BEND 90° FLG x FLG LONG RADIUS
4	1 CONCRETE SLAB 6" THICK W/ 6"x6" 10/10 WELDED WIRE
5	1 VALVE, GATE FLG x FLG RESILIENT WEDGE
6	1 CLA-VAL 92-01 COMBINATION PRESSURE REDUCING & SUSTAINING VALVE
7	1 10" X 8" TEE, MJ x MJ x MJ
8	1 SOLIDS SLEEVE CONNECTOR
9	2 PRESSURE GAUGE
10	2 BEND 90° MJ x MJ
11	2 SPOOL PIECE FLG x PE D.I.P.
12	4 SUPPORTS (AS NEEDED)
13	1 10" DR11 HDPE BY HORIZONTAL DIRECTIONAL DRILL

- NOTES:
- CONTRACTOR SHALL CONNECT INTO THE EXISTING WATER MAIN. THE EXACT LOCATION OF TIE-IN AND METER ASSEMBLY WILL BE DETERMINED IN THE FIELD BY THE OWNER.
 - NO TIE RODS OR EYE BOLT RETAINERS PERMITTED ABOVE GROUND.
 - METER & VALVE ASSEMBLY TO BE INSTALLED LEVEL & PLUMB.
 - MECHANICAL JOINTS/UNDERGROUND PIPING SHALL BE RESTRAINED AS SPECIFIED BY COUNTY/ENGINEER.
 - ENTIRE ASSEMBLY TO BE PAINTED BLUE (PER SPECIFICATIONS).

CREATED	03/14/24	COMBO METER INSTALLATION ON EXISTING SYSTEM	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN APPROVAL
REVISED			
CITRUS COUNTY UTILITIES		DETAIL W2B	

MOHAMMED Y. KADER, P.E.
FL REG. NO.: 45129

Agenda Memorandum - *City of Inverness*

November 6, 2024

TO: Elected Officials

FROM: Eric Williams, City Manager

SUBJECT: Planning and Zoning Commission - Board Appointment

CC: Susan Jackson, City Clerk, Christopher Shoemaker, Director of Community Development

Enclosures: 1. 11.6 Encl Appointment Planning and Zoning Commission

The Planning and Zoning Committee is empowered by Section 3.5 of the City of Inverness Land Development Code. The Committee is composed of seven (7) regular members and two (2) alternate members. There is currently an opening for one member and two alternates.

An application was recently submitted to become a member by Mr. Marco Wilson. Mr. Wilson has lived in Citrus County for 28 years, including the last four years as a resident of the City of Inverness. He has volunteered for several community initiatives, including emergency response and food distribution.

The mission and membership of the Planning and Zoning Commission follows: In order to guide and accomplish a coordinated, adjusted and harmonious development of the City and its environs which will, in accordance with present and future needs, best promote health, safety, morals, order, convenience, prosperity and general welfare, as well as efficiency and economy in the process of development, including among other things, plans for land use, community facilities, zoning, subdivision regulations, adequate provision for traffic, the promotion of safety from fire and other dangers, adequate provision for light and air, the promotion of healthful and convenient distribution of population, the promotion of good civic design and arrangement and wise and efficient expenditure of public funds, the Inverness Planning and Zoning Commission is hereby created and established, and such Planning Commission shall be organized and empowered as provided in this section.

The Planning Commission shall consist of seven (7) regular members and two (2) alternate members appointed by the City Council of the City of Inverness. All members of the Planning Commission shall be residents of the City of Inverness, or residents of Citrus County owning improved property within the corporate limits of the City of Inverness, and shall serve without compensation, but may be reimbursed for actual expenses incurred in connection with their official duties. No member of the Planning Commission shall be an elected official or an employee of the City or county.

Recommended Action

1. Motion and second to approve the appointment of Mr. Marco Wilson to the Planning and Zoning for 3-year term year from November 5, 2024 through November 5, 2027

2. Deliberate the matter.
3. Vote on the matter.

If you wish to discuss this further, please contact me at your convenience.

Eric C. Williams



CITY OF INVERNESS
212 W. MAIN STREET • INVERNESS • FLORIDA 34450
352-726-2611
DDS@INVERNESS.GOV

APPLICATION FOR APPOINTMENT TO CITY BOARDS/COMMISSIONS

PLEASE INDICATE WHICH BOARD/COMMITTEE YOU WOULD LIKE TO SERVE:

- ☐ Planning & Zoning Commission
☐ Inverness Community Redevelopment Agency
☐ Architectural Aesthetic Review Committee
☐ Zoning Board of Adjustment

Please provide the following information:

Marco Wilson
Name
408 Lake St., Inverness, FL 34450

bearsden1215@hotmail.com
Email

Mailing Address

Same

Physical Address

352-302-0648-Cell
Phone #

Cell #

Work #

Retired
Employer:

Employer Address:

Please provide any background information (business, personal, educational, civic) that might be useful in considering your application (A resume may be attached in lieu of this information).

See attached

Are you a citizen of the City of Inverness? ☒ Yes ☐ No If so, how long? 4 years

Citrus County 28 years

What additional board/commissions have you served in the past? None

Do you, or your employer, have any business dealings with the City of Inverness that may present a conflict of interest? ☐ Yes ☒ No. If yes, then how is there a conflict of interest?

When completed and filed with the City, this document is a public record under **Chapter 119, Florida Statutes**, and opened to public inspection by any person.

Applicants Signature: Marco Wilson

Date: 10/7/24

Return completed form:

Email: DDS@inverness.gov or mail/drop off: 212 W. Main Street, Inverness.

Per Florida Statutes 112.3145, Appointments to this board requires to file an annual Financial Disclosure Form with the Supervisor of Elections on or before July 1st each year.

I am writing to express my interest in the open board position within the City of Inverness. I have been an active member of the Citrus County community for many years and have been involved in various initiatives that have allowed me to contribute positively to our community. Some of my past involvements include serving as President for two terms at Too Far, where I worked on water conservation issues, as well as volunteering for the food giveaway program at Church Without Walls. Additionally, I have been involved in emergency response efforts, including working as a CERT member and utilizing my skills as a licensed FAA drone operator and ham radio operator. Given my experiences and commitment to community service, I believe that I am well-equipped to serve on the Zoning Board of Adjustment or the Inverness Community Redevelopment Agency. I am passionate about leveraging my skills and experiences to further contribute to the growth and development of our city. I would be honored to be considered for the board vacancy and am confident that I can make meaningful contributions to the City of Inverness. Thank you for considering my application.

Agenda Memorandum - ***City of Inverness***

November 6, 2024

TO: Elected Officials

FROM:

SUBJECT: Projects and Programs - Update

- Boat Dock Relocation
- Other

CC:

Enclosures:
