

CITY OF HOLLY HILL, FLORIDA

CITY COMMISSION

AGENDA • OCTOBER 8, 2024

City Commission Chamber

Regular City Commission Meeting

6:00 PM

CITY HALL
1065 RIDGEWOOD AVENUE
HOLLY HILL, FL 32117

City Clerk's office: (386) 248-9441 - Fax: (386) 248-9448



City Commission Chamber
City Hall
1065 Ridgewood Avenue
Holly Hill, FL 32117

CITY COMMISSION MEMBERS

Mayor
Chris Via

District 1 - Commissioner
John Penny

District 3 - Commissioner
John C. Danio

District 2 - Commissioner
Penny Currie

District 4 - Commissioner
Roy Johnson

CITY MANAGER
Joseph Forte

CITY CLERK
Valerie Manning

1. CALL TO ORDER

- a. Roll Call
- b. Invocation by Commissioner John Danio
- c. Pledge of Allegiance

2. PUBLIC COMMENTS**3. APPROVAL OF MINUTES**

- 1. Minutes - September 24, 2024 Regular City Commission and Second PH on the Budget FY25 Meeting

(Requested by Valerie Manning, City Clerk)

4. CONSENT AGENDA - ITEMS (1 - 2)

The action proposed is stated for each item on the Consent Agenda. Unless a City Commissioner removes an item from the Consent Agenda, no discussion on individual items will occur and a single motion will approve all items. Is there anyone in the audience who wishes to speak on any item on the Consent Agenda?

- 1. Resolution -2024-R-75 A Resolution of the City Commission of the City of Holly Hill, Florida Awarding the Contract for Sewer Extension Construction to Hazen Construction, Inc., in the Amount of \$464,972.00.00 and Authorizing the City Manager to Execute the Same; Providing for Severability; and Providing for an Effective Date.

(Requested by Antoine Khoury, Public Works)

- 2. Resolution -2024-R-76 A Resolution of the City Commission of the City of Holly Hill, Florida, Approving Price Agreements for the Purchase of the Fiscal Year 2024-2025 Supply of Water and Wastewater Treatment Chemicals for the Public Works Department by Waiving Formal Bidding and Approving Piggybacking Contracts and Authorize the City Manager to Execute Any Necessary Price Agreements; Providing for Severability; and Providing for an Effective Date.

(Requested by Antoine Khoury, Public Works)

5. REGULAR AGENDA

- 1. Resolution -2024-R-77 A Resolution of the City Commission of the City of Holly Hill, Florida, Approving the Position and Utilization of a Canine (K-9) Unit for the Holly Hill Police Department; Providing for Severability; and Providing for an Effective Date.

(Requested by Valerie Manning, City Clerk)

- 2. Resolution -2024-R-78 A Resolution of the City of Holly Hill, Florida, Awarding the Naming Rights Of the Building Located at 1060 Ridgewood Avenue to Florida Health Care Plans, Inc., Providing for Severability; Providing for Conflicting Resolutions; And Providing for an Effective Date.

(Requested by Joseph Forte, City Manager)

3. Extention of Bike Week / Biketoberfest Events

(Requested by Brian Walker, Board of Planning and Appeals)

6. **PUBLIC HEARINGS - NONE**

Please silence any cell phone, pager or noise making device as not to interrupt the meeting. Staff will introduce each item for consideration, with comments and recommendations. The applicant or appellant and supporters will be heard first. Those in opposition to the request will be heard next. Comments should be restricted to pertinent information regarding the agenda item under discussion. Out of courtesy to others, we ask that speakers keep their comments brief and try to limit these comments to information not previously discussed. Speakers should state their name and address clearly for the record. The City Clerk's office is required to retain any documents, photographs, drawings, etc. that are shown to the City Commissioners in support of a position. The City Commission may ask questions of speakers or of staff members. The Mayor will then ask the City Commission to make a recommendation or motion. Once a motion has been made and seconded, discussion will be closed to the floor. Following City Commission discussion, a vote will be taken. During voting, Commissioners who do not cast objecting votes are considered to have voted in support of the motion.

7. **COMMUNICATIONS**

- A. City Manager Comments
- B. City Attorney Comments
- C. City Commission Comments
- D. Mayor's Comments

8. **ADJOURNMENT**

Website Address – www.hollyhillfl.org (City Clerk)

NOTICE – If any person decides to appeal any decision of the City Commission at this meeting, he/she will need a record of the proceedings and, for that purpose, he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. The City does not prepare or provide such a record.



For special accommodations, please notify the City Clerk's Office at least 72 hours in advance. (386) 248-9441



Help for the hearing impaired is available through the Assistive Listening System. Receivers can be obtained from the City Clerk's Office.

In accordance with the Americans with Disabilities Act (ADA), persons needing a special accommodation to participate in the Commission proceedings should contact the City Clerk's Office no later than three (3) days prior to the proceedings.



**STAFF REPORT
CITY OF HOLLY HILL, FLORIDA**

**City Commission
Agenda Item**

3.1

MEETING DATE: October 8, 2024
FROM: Valerie Manning
SUBJECT: Minutes - September 24, 2024 Regular City Commission and Second
PH on the Budget FY25 Meeting
NUMBER: (ID # 4645)
APPLICANT:
PLANNER:

DISCUSSION:

Minutes from the September 24, 2024 regular City Commission and the second public hearing on the Budget FY25.

MOTION:

Approve the minutes as submitted by staff.

- Minutes - September 24, 2024 - Regular CC and Second PH on Budget FY25 meeting (PDF)



CITY OF HOLLY HILL, FLORIDA

CITY COMMISSION

MINUTES • SEPTEMBER 24, 2024

City Commission Chamber Second Public Hearing Budget & Millage Rate Mtg

6:00 PM

CITY HALL
1065 RIDGEWOOD AVENUE
HOLLY HILL, FL 32117

City Clerk's office: (386) 248-9441 - Fax: (386) 248-9448

1. CALL TO ORDER

a. Roll Call

Attendee Name	Title	Status	Arrived
Chris Via	Mayor	Present	
John Penny	District 1 - Commissioner	Present	
Penny Currie	District 2 - Commissioner	Present	
John C. Danio	District 3 - Commissioner	Present	
Roy Johnson	District 4 - Commissioner	Present	

b. Invocation by City Commission Penny Currie

Commissioner Currie led the invocation.

c. Pledge of Allegiance

Mayor Via led the Pledge of Allegiance to the Flag.

2. PUBLIC HEARINGS - BUDGET & MILLAGE RATE - SECOND HEARINGS

1. -2024-R-65 Resolution

PUBLIC HEARING - SECOND READING - a Resolution of the City Commission of the City of Holly Hill, Volusia County, Florida, Adopting the Final Levying of Ad Valorem Taxes for the City of Holly Hill for Fiscal Year 2024-2025; Providing for Severability; and Providing for an Effective Date.

(Requested by Michele Moore, Finance)

Attorney Simpson read the entirety of the Resolution into the record:

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, VOLUSIA COUNTY, FLORIDA, ADOPTING THE FINAL LEVYING OF AD VALOREM TAXES FOR THE CITY OF HOLLY HILL FOR THE FISCAL YEAR 2024-2025; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, The City of Holly Hill of Volusia County, Florida, on September 9, 2024, adopted a Fiscal year 2024-2025 tentative millage rate following a

public hearing as required by Florida Statute 200.065; and

WHEREAS, The City of Holly Hill of Volusia County, Florida, on September 24, 2024, adopted a Fiscal year 2024-2025 final millage rate following a public hearing as required by Florida Statute 200.065; and

WHEREAS, the City of Holly Hill of Volusia County Florida, held a public hearing as required by Florida Statute 200.065; and

WHEREAS, the gross taxable value for operating purposes not exempt from taxation Volusia County has been certified by the County Property Appraiser to the City of Holly Hill as \$819,576,175.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. The FY2024-2025 final operating millage is 5.8 mills, which is greater than the rolled-back rate of 5.4151 mills by 7.11%

SECTION 2. The Final Public Hearing was held on September 24, 2024 at 6:00pm.

Mayor Via opened public participation. No one spoke.

RESULT:	ADOPTED [4 TO 1]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	John C. Danio, District 3 - Commissioner
AYES:	Penny, Currie, Danio, Johnson
NAYS:	Via

RESOLUTION

2024-R-65

PUBLIC HEARING - SECOND READING - A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, VOLUSIA COUNTY, FLORIDA, ADOPTING THE FINAL LEVYING OF AD VALOREM TAXES FOR THE CITY OF HOLLY HILL FOR FISCAL YEAR 2024-2025; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, VOLUSIA COUNTY, FLORIDA, ADOPTING THE FINAL LEVYING OF AD VALOREM TAXES FOR THE CITY OF HOLLY HILL FOR THE FISCAL YEAR 2024-2025; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, The City of Holly Hill of Volusia County, Florida, on September 9, 2024, adopted a Fiscal year 2024-2025 tentative millage rate following a public hearing as required by Florida Statute 200.065; and

WHEREAS, The City of Holly Hill of Volusia County, Florida, on September 24, 2024, adopted a Fiscal year 2024-2025 final millage rate following a public hearing as required by Florida Statute 200.065; and

WHEREAS, the City of Holly Hill of Volusia County Florida, held a public hearing as required by Florida Statute 200.065; and

WHEREAS, the gross taxable value for operating purposes not exempt from taxation Volusia County has been certified by the County Property Appraiser to the City of Holly Hill as \$819,576,175.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. The FY 2024-2025 final operating millage is 5.8 mills, which is greater than the rolled-back rate of 5.4151 mills by 7.11%

SECTION 2. The Final Public Hearing was held on September 24, 2024 at 6:00pm.

SECTION 3. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 4. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 24th day of SEPTEMBER, 2024 for final reading.

Enacted and approved this 24th day of September, 2024, in Holly Hill



2. -2024-R-66 Resolution

PUBLIC HEARING - SECOND READING - a Resolution of the City Commission of the City of Holly Hill, Volusia County, Florida, Adopting the Final Budget for the City of Holly Hill for the Fiscal Year 2024-2025; Providing for Severability; and Providing for an Effective Date.

(Requested by Michele Moore, Finance)

Mayor Via opened public participation. No one spoke.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Roy Johnson, District 4 - Commissioner
SECONDER:	John Penny, District 1 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

RESOLUTION

2024-R-66

PUBLIC HEARING - SECOND READING - A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, VOLUSIA COUNTY, FLORIDA, ADOPTING THE FINAL BUDGET FOR THE CITY OF HOLLY HILL FOR THE

FISCAL YEAR 2024-2025; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, VOLUSIA COUNTY, FLORIDA, ADOPTING THE FINAL BUDGET FOR THE CITY OF HOLLY HILL FOR THE FISCAL YEAR 2024 - 2025; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, The City of Holly Hill of Volusia County, Florida, on September 09, 2024, held a public hearing for the tentative budget as required by Florida Statute 200.065; and

WHEREAS, The City of Holly Hill of Volusia County, Florida, on September 24, 2024, held a public hearing for the final budget as required by Florida Statute 200.065; and

WHEREAS, the City of Holly Hill of Volusia County Florida, set forth the appropriations and revenue estimate for the Budget for Fiscal Year 2024-2025.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

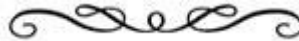
SECTION 1. That the City Commission of the City of Holly Hill, Florida pursuant to the Charter of the City of Holly Hill and Chapter 166, Florida Statutes, does hereby adopt the Final General, Enterprise and all other related Fund Budgets, which are attached hereto and incorporated herein as Exhibit "A", which may later be amended by the City Commission.

SECTION 2. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 3. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 24th day of SEPTEMBER, 2024 for final reading.

Enacted and approved this 24th day of September, 2024, in Holly Hill



3. PRESENTATION

1. Introduction of New Police Captain
Police Chief Williams introduced Police Captain Kenneth Ward to the Mayor, City Commissioners, and staff.

2.

Economic Development Update

(Requested by Valerie Manning, City Clerk)

John Cox, Economic Development/CRA Coordinator showed a PowerPoint presentation pertaining to Development Projects Update. *(the PowerPoint can be found as an attachment in the agenda packet)*

RESULT:	NO VOTE NEEDED

4. **PUBLIC COMMENTS**

The following individuals came forward to speak to the Mayor and City Commissioners: Holly Hill Police Sergeant Jason Weiss; Gabriel Varga, Daytona Beach; Julia Williams, Holly Hill.

5. **APPROVAL OF MINUTES**

1. -DOC-2024-7

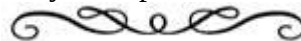
Minutes - September 9, 2024 - Regular City Commission Meeting/First Public Hearing on Budget FY2024-2025

(Requested by Valerie Manning, City Clerk)

Mayor Via opened public participation. No one spoke.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	John C. Danio, District 3 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

Enacted and approved this 24th day of September, 2024, in Holly Hill

6. **CONSENT AGENDA - ITEMS (1 - 7)**

Mayor Via asked if there was anyone in the audience that wished to speak on any item on the Consent Agenda or if any member of the City Commission would like to pull an item for further discussion. There was no one.

1. -2024-R-67 Resolution

A Resolution of the City Commission of the City of Holly Hill, Florida, Increasing the "Not to Exceed" Purchasing Authority with Carmeuse Lime and Stone, Inc., to \$182,000 for High Quick Lime, and Authorizing the City Manager to Execute the Same; Providing for Severability; Providing for an Effective Date.

(Requested by Antoine Khoury, Public Works)

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	Roy Johnson, District 4 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

RESOLUTION

2024-R-67

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, INCREASING THE “NOT TO EXCEED” PURCHASING AUTHORITY WITH CARMEUSE LIME AND STONE, INC., TO \$182,000 FOR HIGH QUICK LIME, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SAME; PROVIDING FOR SEVERABILITY; PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, INCREASING THE “NOT TO EXCEED” PURCHASING AUTHORITY WITH CARMEUSE LIME AND STONE, INC., TO \$182,000 FOR HIGH QUICK LIME, AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SAME; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City Utility requires High Calcium Quicklime to soften ground water into potable drinking water as required under the Florida Department of Environmental Protection permit; and

WHEREAS, the Holly Hill City Commission approved an annual purchase with Carmeuse Lime and Stone, Inc., for High Calcium Quicklime in an amount not to exceed \$154,000 annually through Resolution 2023-R-62; and

WHEREAS, the current price and use of lime will require a cost increase of \$28,000 to ensure adequate purchase of lime to close-out the fiscal year; and

WHEREAS, adequate budget is available within the City water funds to increase the annual purchasing amount to \$182,000 for High Calcium Quicklime.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

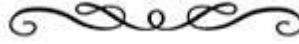
SECTION 1. That the Commission of the City of Holly Hill approve increasing the “Not to Exceed” purchasing authority with Carmeuse Lime and Stone, Inc., to \$182,000 for High Calcium Quicklime for the current fiscal year.

SECTION 2. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 3. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

2024. APPROVED AND AUTHENTICATED on this 24th day of SEPTEMBER,

Enacted and approved this 24th day of September, 2024, in Holly Hill



2. -2024-R-68 Resolution

A Resolution of the City Commission of the City of Holly Hill, Florida, Approving the Recommendation of Award for the Tidal Backflow Preventors Project to All State Civil Construction, Inc., and Authorizing the City Manager to Execute a Contract with All State Civil Construction, Inc., in the Amount of \$615,960.00; Providing for Severability; and Providing for an Effective Date.

(Requested by Antoine Khoury, Public Works)

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	Roy Johnson, District 4 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

RESOLUTION

2024-R-68

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, APPROVING THE RECOMMENDATION OF AWARD FOR THE TIDAL BACKFLOW PREVENTORS PROJECT TO ALL STATE CIVIL CONSTRUCTION, INC., AND AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT WITH ALL STATE CIVIL CONSTRUCTION, INC., IN THE AMOUNT OF \$615,960.00; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, APPROVING THE RECOMMENDATION OF AWARD FOR THE TIDAL BACKFLOW PREVENTORS PROJECT TO ALL STATE CIVIL CONSTRUCTION, INC., AND AUTHORIZING THE CITY MANAGER TO EXECUTE A CONTRACT WITH ALL STATE CIVIL CONSTRUCTION, INC., IN THE AMOUNT OF \$615,960.00; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City received one (1) bid for the Tidal Backflow Preventers project; and

WHEREAS, the City's engineering firm of Mead and Hunt, Inc., has checked the bid for conformance and complete documentation; and

WHEREAS, Mead and Hunt, Inc., contacted all references provided in the bid

documents and received positive feedback from them; and

WHEREAS, All State Civil Construction, Inc., is the only bidder with a bid of \$615,960.00; and

WHEREAS, the City's engineers are recommending the contract be awarded to All State Civil Construction, Inc.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. That the City Commission of the City of Holly Hill approve the recommendation of award for the Tidal Backflow Preventers project to All State Civil Construction, Inc.

SECTION 2. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 3. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 24th day of SEPTEMBER, 2024.

Enacted and approved this 24th day of September, 2024, in Holly Hill



3. -2024-R-69 Resolution

A Resolution of the City Commission of the City of Holly Hill, Florida, to Approve the Auction of Items Identified to be Surplused According to Purchasing Policy Section 13.2; Providing for Severability; Providing for an Effective Date.

(Requested by Michele Moore, Finance)

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	Roy Johnson, District 4 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

RESOLUTION

2024-R-69

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, TO APPROVE THE AUCTION OF ITEMS IDENTIFIED TO BE SURPLUSED ACCORDING TO PURCHASING POLICY SECTION 13.2; PROVIDING FOR SEVERABILITY; PROVIDING FOR AN EFFECTIVE DATE.

CITY OF HOLLY HILL, FLORIDA, TO APPROVE THE DISPOSAL OF ITEMS IDENTIFIED TO BE SURPLUSED ACCORDING TO PURCHASING POLICY SECTION 13.2;

**AND PROVIDING FOR SEVERABILITY; AND
PROVIDING FOR AN EFFECTIVE DATE.**

WHEREAS, the IT Department has identified twenty four (24) items that are no longer in use or has been replaced for a total value of \$19,982.47.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION
OF THE CITY OF HOLLY HILL, FLORIDA:**

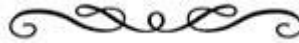
SECTION 1. That the City Commission does hereby declare the items identified as surplus and authorize the disposal of the surplus equipment via donation, to the City of Daytona Beach Fire Department.

SECTION 2. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 3. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

**APPROVED AND AUTHENTICATED on this 24th day of SEPTEMBER,
2024.**

Enacted and approved this 24th day of September, 2024, in Holly Hill

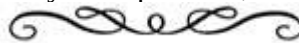


4.

Package Insurance Policy Renewal for FY2025
(Requested by Michele Moore, Finance)

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	Roy Johnson, District 4 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

Enacted and approved this 24th day of September, 2024, in Holly Hill



5.

Position Pay Plan - FY2024-2025
(Requested by Valerie Manning, City Clerk)

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	Roy Johnson, District 4 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

Enacted and approved this 24th day of September, 2024, in Holly Hill



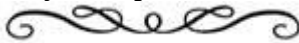
6.

CivicPlus - Full Service Supplementation Subscription & Online Code Hosting
Subscription Billing Agreement for Municode Codification Services

(Requested by Valerie Manning, City Clerk)

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	Roy Johnson, District 4 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

Enacted and approved this 24th day of September, 2024, in Holly Hill



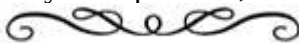
7.

UPS Temporary Holiday Package Storage Facility Agreement 2024

(Requested by Valerie Manning, City Clerk)

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	Roy Johnson, District 4 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

Enacted and approved this 24th day of September, 2024, in Holly Hill



7. REGULAR AGENDA

1. -2024-R-70 Resolution

A Resolution of the City of Holly Hill, Florida, Ratifying a Three Year Agreement with the Professional Firefighters' of Holly Hill, Local 3470, October 1, 2024 - September 30, 2027; Providing for Severability; Providing for Conflicting Resolutions; and Providing for an Effective Date.

(Requested by Valerie Manning, City Clerk)

Mayor Via opened public participation. No one spoke.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Roy Johnson, District 4 - Commissioner
SECONDER:	Penny Currie, District 2 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

RESOLUTION

2024-R-70

A RESOLUTION OF THE CITY OF HOLLY HILL, FLORIDA, RATIFYING A THREE YEAR AGREEMENT WITH THE PROFESSIONAL FIREFIGHTERS' OF HOLLY HILL, LOCAL 3470, OCTOBER 1, 2024 - SEPTEMBER 30, 2027; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTING RESOLUTIONS; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY OF HOLLY HILL, FLORIDA, RATIFYING A THREE-YEAR AGREEMENT WITH THE PROFESSIONAL FIREFIGHTERS OF HOLLY HILL LOCAL 3470 (I.A.F.F.), OCTOBER 1, 2024 - SEPTEMBER 30, 2027; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTING RESOLUTIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, negotiations between management of the City of Holly Hill and representatives from the Professional Firefighters of Holly Hill, Local 3470 (I.A.F.F.) have concluded with an agreement between the representatives and now requires ratification by the City Commission; and

WHEREAS, on August 19, 2024, management was advised that the members of the I.A.F.F., voted in support of the proposed agreement.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. That the City Commission hereby ratifies the attached Agreement with the International Association of Firefighters Local 3470, as a three-year contract, effective October 1, 2024 and expiring on September 30, 2027.

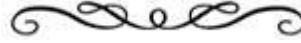
SECTION 2. That if any section, subsection, sentence, clause, phrase, or portion of this resolution, or application hereof, is for any reason held invalid or unconstitutional by an Court, such portion or application shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions or application hereof.

SECTION 3. That all Resolutions made in conflict with this Resolution are hereby repealed.

SECTION 4. That this Resolution shall become effective immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 24th day of SEPTEMBER, 2024.

Enacted and approved this 24th day of September, 2024, in Holly Hill



2. -2024-R-74 Resolution

A Resolution of the City Commission of the City of Holly Hill, Florida, Authorizing the City Manager to Sign a One Year Lease Agreement Extension Between the City and the Volusia / Flagler YMCA; Establishing the Terms of This Agreement; Providing for Severability; and Providing an Effective Date.

(Requested by Joseph Forte, City Manager)

Mr. Forte stated that he would like to move Resolution 2024-R-74, before items 2, 3, and 4 on the Regular Agenda for the Volusia/Flagler YMCA presentation.

Katie Lyle, Chief Operating Officer for the Volusia/Flagler YMCA shared a PowerPoint presentation, specifically about the Holly Hill YMCA, with the Mayor, City Commissioners, and staff pertaining to memberships, annual campaign turnouts, aquatics, sports, childcare, partnerships, and community outreach. *(the PowerPoint can be found as an attachment in the agenda packet)*

Mayor Via opened public participation.

Gabriel Varga, Daytona Beach; Jim Legary, Holly Hill.

Mayor Via closed public participation.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	John Penny, District 1 - Commissioner
SECONDER:	Penny Currie, District 2 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

**RESOLUTION
2024-R-74**

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, AUTHORIZING THE CITY MANAGER TO SIGN A ONE YEAR LEASE AGREEMENT EXTENSION BETWEEN THE CITY AND THE VOLUSIA / FLAGLER YMCA; ESTABLISHING THE TERMS OF THIS AGREEMENT; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, AUTHORIZING THE CITY MANAGER TO SIGN A ONE YEAR LEASE

AGREEMENT EXTENSION BETWEEN THE CITY AND THE VOLUSIA/FLAGLER YMCA; ESTABLISHING THE TERMS OF THIS AGREEMENT; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, The City of Holly Hill desires to continue its relationship with the Volusia/Flagler YMCA to provide recreational programs at the FACILITY located at 1046 Daytona Avenue; and

WHEREAS, the YMCA has a nationally recognized reputation and long-term history of providing quality community recreation programs.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. That the City Commission approve the attached agreement September 2024 and the City Manager is hereby authorized extend the lease agreement, under the same terms and conditions, so that the Volusia/Flagler YMCA may continue to perform as a recreation provider at the Daytona Avenue FACILITY.

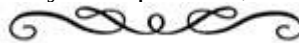
SECTION 2. That the term of this agreement shall commence on October 1, 2024 and shall continue for a period of (1) one year, expiring on September 30, 2025. The entirety of this Agreement will be negotiated for renewal providing each party has agreed upon new terms and conditions no later than June 30, 2024. During this time, the represented staff members from both the city and the YMCA will work to develop a 5 year Capital Improvement Plan to be approve before October 1, 2025.

SECTION 3. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 4. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 24th day of SEPTEMBER, 2024.

Enacted and approved this 24th day of September, 2024, in Holly Hill



3. -2024-R-71 Resolution

A Resolution of the City Commission of the City of Holly Hill, Florida, Approving the State of Florida Drinking Water State Revolving Fund Planning, Design, and Construction Agreement DW6410B0; Designating the Authorized Representative; Providing for Capital Funding; Providing for Assurances, and Providing for Conflicts; Providing for Severability; and Providing for an Effective Date.

(Requested by Antoine Khoury, Public Works)

Mayor Via opened public participation. No one spoke.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	John C. Danio, District 3 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

RESOLUTION**2024-R-71**

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, APPROVING THE STATE OF FLORIDA DRINKING WATER STATE REVOLVING FUND PLANNING, DESIGN, AND CONSTRUCTION AGREEMENT DW6410B0; DESIGNATING THE AUTHORIZED REPRESENTATIVE; PROVIDING FOR CAPITAL FUNDING; PROVIDING FOR ASSURANCES, AND PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, APPROVING THE STATE OF FLORIDA DRINKING WATER STATE REVOLVING FUND PLANNING, DESIGN, AND CONSTRUCTION AGREEMENT DW6410B0; DESIGNATING THE AUTHORIZED REPRESENTATIVE; PROVIDING FOR CAPITAL FUNDING; PROVIDING FOR ASSURANCES, PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Florida Statutes provide for loans to local government agencies to finance the water treatment plant (WTP) improvements and resiliency upgrades; and

WHEREAS, the City Commission authorized a Supplemental Appropriation application for Hurricanes Fiona and Ian (SAHFI) grant by the Florida Department of Environmental Protection (FDEP) loan program by Resolution 2024-R-45 on June 11, 2024; and

WHEREAS, the United States Environmental Protection Agency sponsored the SAHFI program through the FDEP as a no-repayment loan; and

WHEREAS, the City was awarded the Drinking Water State Revolving Funding (SRF) Planning, Design, and Contract Loan Agreement DW6410B0 for resiliency improvements to the WTP for \$ 11,250,000.00; and

WHEREAS, the SRF loan revenues will be used to fund WTP resilient capital improvements.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. The City of Holly Hill, Florida accepts the Drinking Water State Revolving Funding (SRF) Planning, Design, and Contract Loan Agreement DW6410B0 providing \$11,250,000.00 in Capital Funding for the WTP.

SECTION 2. The SRF Loan is a no-payment obligation loan sponsored by the United States Environmental Protection Agency through the FDEP with no City revenues pledged for the repayment of this loan.

SECTION 3. The City Mayor is hereby designated as the authorized representative to execute the loan agreement which will become a binding obligation in accordance with its terms when signed by both parties. The Mayor is authorized to represent the City in carrying out the City's responsibilities under the loan agreement. The Mayor is authorized to delegate responsibility to appropriate City Manager to carry out technical, financial, and administrative activities associated with the loan agreement.

SECTION 4. The legal authority for borrowing moneys to construct this Project is Section 166.111, Florida Statutes and Section 403.8532, Florida Statutes.

SECTION 5. That the City Commission of Holly Hill does hereby grant approval for the City Manager to perform amendments to utilize utility reserves funds for the capital WTP Project 24-WA-06 that was created for this SAHFI project account 400-8110-580-6300 where upon it will be repaid with receipt of reimbursement funds awarded by loan agreement DW6410B0 with the FDEP.

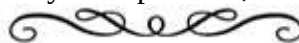
SECTION 6. All Resolutions or part of Resolutions in conflict with any of the provisions of this resolution are hereby repealed.

SECTION 7. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this resolution.

SECTION 8. This Resolution shall become effective immediately upon its adoption.

APPROVED AND AUTHENTICATED on the 24th day of SEPTEMBER, 2024.

Enacted and approved this 24th day of September, 2024, in Holly Hill



4. -2024-R-72 Resolution

A Resolution of the City Commission of the City of Holly Hill, Florida, Approving the State of Florida Clean Water State Revolving Fund Planning, Design, and Construction Agreement WW6410A0; Designating the Authorized Representative; Providing for Capital Funding; Providing for Assurances, and Providing for Conflicts; Providing for Severability; and Providing for an Effective Date.

(Requested by Antoine Khoury, Public Works)

Mayor Via opened public participation. No one spoke.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	John C. Danio, District 3 - Commissioner
SECONDER:	Penny Currie, District 2 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

RESOLUTION**2024-R-72**

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, APPROVING THE STATE OF FLORIDA CLEAN WATER STATE REVOLVING FUND PLANNING, DESIGN, AND CONSTRUCTION AGREEMENT WW6410A0; DESIGNATING THE AUTHORIZED REPRESENTATIVE; PROVIDING FOR CAPITAL FUNDING; PROVIDING FOR ASSURANCES, AND PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, APPROVING THE STATE OF FLORIDA CLEAN WATER STATE REVOLVING FUND PLANNING, DESIGN, AND CONSTRUCTION AGREEMENT WW6410A0; DESIGNATING THE AUTHORIZED REPRESENTATIVE; PROVIDING FOR CAPITAL FUNDING; PROVIDING FOR ASSURANCES, PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Florida Statutes provide for loans to local government agencies to finance the wastewater treatment plant (WWTP) improvements and resiliency upgrades; and

WHEREAS, The City Commission authorized a Supplemental Appropriation application for Hurricanes Fiona and Ian (SAHFI) grant by the Florida Department of Environmental Protection (FDEP) loan program by Resolution 2024-R-42 on June 11, 2024.; and

WHEREAS, the United States Environmental Protection Agency sponsored the SAHFI program through the FDEP as a no-repayment loan; and

WHEREAS, the City was awarded the Clean Water State Revolving Funding (SRF) Planning, Design, and Contract Loan Agreement WW6410A0 for resiliency improvements to the WWTP for \$ 9,300,000.00; and

WHEREAS, the SRF loan revenues will be used to fund WWTP resilient capital improvements.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. The City of Holly Hill, Florida accepts the Clean Water State Revolving Funding (SRF) Planning, Design, and Contract Loan Agreement WW6410A0 providing \$9,300,000.00 in Capital Funding for the WWTP.

SECTION 2. The SRF Loan is a no-payment obligation loan sponsored by the United States Environmental Protection Agency through the FDEP with no City revenues pledged for the repayment of this loan.

SECTION 3. The City Mayor is hereby designated as the authorized representative to execute the loan agreement which will become a binding obligation in accordance with its terms when signed by both parties. The Mayor is authorized to represent the City in carrying out the City's responsibilities under the loan agreement. The Mayor is authorized to delegate responsibility to appropriate City Manager to carry out technical, financial, and administrative activities associated with the loan agreement.

SECTION 4. The legal authority for borrowing moneys to construct this Project is Section 166.111, Florida Statutes and Section 403.8532, Florida Statutes.

SECTION 5. That the City Commission of Holly Hill does hereby grant approval for the City Manager to perform amendments to utilize utility reserves funds for the capital WWTP Project 24-WW-08 that was created for this SAHFI project account 400-8110-580-6300 where upon it will be repaid upon with receipt of reimbursement funds awarded by loan agreement WW6410A0 with the FDEP.

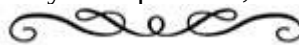
SECTION 6. All Resolutions or part of Resolutions in conflict with any of the provisions of this resolution are hereby repealed.

SECTION 7. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this resolution.

SECTION 8. This Resolution shall become effective immediately upon its adoption.

APPROVED AND AUTHENTICATED on the 24th day of SEPTEMBER, 2024.

Enacted and approved this 24th day of September, 2024, in Holly Hill



5. -2024-R-73 Resolution

A Resolution of the City Commission of the City of Holly Hill, Florida, Authorizing the City Manager to Execute the Task Order with Mead and Hunt, Inc., for Engineering Services for Water Plant Improvements Associated with SAHFI Grant Facility Plan in the Amount of \$1,236,268.00; Providing for Severability; and Providing for an Effective Date.

(Requested by Antoine Khoury, Public Works)

Mayor Via opened public participation. No one spoke.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Roy Johnson, District 4 - Commissioner
SECONDER:	Penny Currie, District 2 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

RESOLUTION**2024-R-73**

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, AUTHORIZING THE CITY MANAGER TO EXECUTE THE TASK ORDER WITH MEAD AND HUNT, INC., FOR ENGINEERING SERVICES FOR WATER PLANT IMPROVEMENTS ASSOCIATED WITH SAHFI GRANT FACILITY PLAN IN THE AMOUNT OF \$1,236,268.00; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, AUTHORIZING THE CITY MANAGER TO EXECUTE THE TASK ORDER WITH MEAD AND HUNT, INC., FOR ENGINEERING SERVICES FOR WATER PLANT IMPROVEMENTS ASSOCIATED WITH SAHFI GRANT FACILITY PLAN IN THE AMOUNT OF \$1,236,268.00; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City applied for inclusion of a Florida sponsored grant program to fund water treatment system resilience improvements under the Florida Supplemental Appropriations for Hurricane Fiona and Ian (SAHFI) funds; and

WHEREAS, the City was provided a “Drinking Water State Revolving Funding Planning, Design, and Contract Loan Agreement DW6410B0,” for SAHFI funding; and

WHEREAS, the Contract Loan Agreement requires a professional engineering contract to support resiliency improvements in the “Facility Plan” approved in Resolution 2024-R-49; and

WHEREAS, the City approved Professional Consultant Services Agreement for Engineering/CEI Services for water plant improvement with Resolution 2024-R-26 with Mead and Hunt, Inc.; and

WHEREAS, the City of Holly Hill Utility has a task order from Mead and Hunt, Inc., to complete the required Engineering Services Element of the Contract Loan Agreement.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. That the City Commission of the City of Holly Hill does hereby authorize the City Manager to execute the task order with Mead and Hunt, Inc., for professional engineering services to support resiliency improvements in the “Facility Plan” approved in Resolution 2024-R-73 in an amount of \$1,236,268.00.

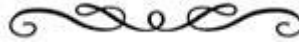
SECTION 2. The City Manager is hereby authorized to implant the reimbursable budget amendment to implement the improvements under the Drinking Water State Revolving Funding Planning, Design, and Contract Loan Agreement DW6410B0.

SECTION 3. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 4. EFFECTIVE DATE. This Resolution shall become effective immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 24th day of SEPTEMBER, 2024.

Enacted and approved this 24th day of September, 2024, in Holly Hill



6.

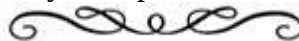
Uncollectible Utility Account Adjustments

(Requested by Michele Moore, Finance)

Mayor Via opened public participation. No one spoke.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Penny Currie, District 2 - Commissioner
SECONDER:	John C. Danio, District 3 - Commissioner
AYES:	Via, Penny, Currie, Danio, Johnson

Enacted and approved this 24th day of September, 2024, in Holly Hill



8. **PUBLIC HEARINGS - NONE**

9. **COMMUNICATIONS**

A. City Manager Comments

Mr. Forte informed the Mayor and Commissioners that there is a letter for the Mayor to sign, which is addressed to Mr. Suraj Budhrani, Project Manager for the Hazard Mitigation Grant Program/Florida Division of Emergency Management requesting to withdraw project 4680-025-R (064), City of Holly Hill, Lift Station upgrades, infrastructure retrofits for funding consideration. An application for funding this project was also submitted as a Tier II project under DR-4673: Hurricane Ian, and the city has received notification that the project will be fully funded under DR-4673 and the other is Form 424D for assurances - construction programs. Mr. Forte gave a brief update on Hurricane Helene.

- B. City Attorney Comments
None.

- C. City Commission Comments

Commissioner Johnson reminded everyone about the golf tournament this coming weekend; there is a TPO meeting tomorrow; Holly Hill RV Park is moving along on Flomich Avenue.

Commissioner Currie mentioned that she is passionate about this community and has always put her heart and soul into; welcomed Police Captain Kenneth Ward to the department and to the city.

Commissioner Penny informed the Mayor and Commissioners that the Volusia League of Cities dinner has been canceled due to Hurricane Helene and that the next one will be in December and those that paid for this upcoming dinner will go towards the one in December; mentioned the golf tournament and hope that they will be able to still play this coming Saturday and it's still sold out; 112 players have signed up to play; and that there will be a "See You At The Pole" at UBIC at 7:30 AM tomorrow if anyone would like to come over to the school.

- D. Mayor's Comments

Mayor Via reminded everyone to be hurricane prepared; looking forward to the golf tournament on Saturday; informed the Commissioners that there is a "Celebrate Volusia" on October 6, 2024 from 2:00 PM - 5:00 PM; on October 27th, The Holly Hill Market at Sunrise Park will be having a Halloween themed market that Sunday and encouraged everyone to come out; welcomed Police Captain Kenneth Ward to the department and to the city and reminded everyone that National Night Out will be Tuesday, October 1, 2024 here at City Hall from 5:30 PM - 7:30 PM.

10. ADJOURNMENT

The meeting adjourned at approximately 7:40 PM.



**STAFF REPORT
CITY OF HOLLY HILL, FLORIDA**

**City Commission
Resolution**

4.1

MEETING DATE: October 8, 2024
FROM: Antoine Khoury
SUBJECT: A Resolution of the City Commission of the City of Holly Hill, Florida Awarding the Contract for Sewer Extension Construction to Hazen Construction, Inc., in the Amount of \$464,972.00.00 and Authorizing the City Manager to Execute the Same; Providing for Severability; and Providing for an Effective Date.
NUMBER: 2024-R-75
APPLICANT:
PLANNER:

DISCUSSION:

On September 5, 2024, a bid opening was held for the construction of a sewer extension along 10th Street. The construction extend 4 inch sewer main under Nova Road to an underserved section of City land to the West to support new construction. Bid 24-WW-02 is attached for reference as Exhibit A.

Two (2) proposals were received from contractors:

-) Hazen Construction - \$464,972
-) All State Civil Construction - \$499,770

The low bid proposal by Hazen Construction is attached as Exhibit B.

The City's engineer of record for the project, Parker Mynchenberg & Associates, Inc., reviewed the proposals. After review, the engineer recommends Hazen Construction be awarded the contract.

The sewer extension is being funded by a grant from the State of Florida. LPA0541 is a reimbursement grant for both engineering and construction related costs up to \$1,360,000.00. The 100% reimbursement grant was previously approved as Resolution Number 2023-R-26 on September 26, 2023.

Staff have also reviewed the bid packet submitted by Hazen Construction, Inc., and concur with the engineer's recommendation of award.

FISCAL ANALYSIS:

Capital Project Number 24-WW-07 was created for this project at a not to exceed amount of \$1,360,000.00. The contract is \$ 464,972.00 will be initially funded by reserves until the State of Florida provides reimbursement quarterly.

STAFF RECOMMENDATION:

Award the contract for the construction of the 10th Street Sewer Extension to Hazen Construction, Inc., in the amount of \$464,972.00 and authorize the City Manager to execute the same.

COMMISSION GOAL:

Goal #1: Develop and maintain a sound and sustainable financial plan for the city that establishes sufficient reserves for all funds, ensures (whenever possible) that user fees pay for services rendered, provides a realistic capital improvement program, and encourages public/private sector partnerships and intergovernmental partnerships.

Goal #2: Enhance City aesthetics through beautification and maintenance of city property and public rights of way, consistent enforcement of zoning and property maintenance codes, and development of reasonable design standards and a corresponding process which is applicable to all new developments and business improvements in the city.

Goal #4: Provide proficient public health and safety services in terms of police and fire protection, water, storm water, waste water and solid waste management and disaster preparedness with a focus on intergovernmental collaboration, private sector partnerships, and utilization of technologies and proven innovations.

MOTION:

AWARD THE CONTRACT FOR THE CONSTRUCTION OF THE 10Th STREET SEWER EXTENSION TO HAZEN CONSTRUCTION, INC., IN THE AMOUNT OF \$464,972.00 AND AUTHORIZE THE CITY MANAGER TO EXECUTE THE SAME.

ATTACHMENTS:

- Exhibit B - Engineer Award Recommendation (PDF)
- Exhibit A - 10th Street Sewer Extension (PDF)
- Exhibit C - Hazen Construction - ITB 24-WW-07 (PDF)

Resolution No. 2024-75

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA AWARDING THE CONTRACT FOR SEWER EXTENSION CONSTRUCTION TO HAZEN CONSTRUCTION, INC., IN THE AMOUNT OF \$464,972.00.00 AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SAME; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA AWARDING THE CONTRACT FOR SEWER EXTENSION CONSTRUCTION TO HAZEN CONSTRUCTION, INC., IN THE AMOUNT OF \$464,972.00.00 AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE SAME; AND PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, An Invitation to Bid was advertised for the construction of a sewer main extension along 10th Street; and

WHEREAS, Two (2) proposals were received for this project; and

WHEREAS, Hazen Construction, Inc., was the apparent low bidder for this project; and

WHEREAS, the proposal from Hazen Construction, Inc., has been vetted with a recommendation of award given by Parker Mynchenberg & Associates, Inc.; and

WHEREAS, the City Utility received a State Grant LPA0541 with Resolution Number 2023-R-26 to provide reimbursement of up to \$1,360,000.00 in engineering and construction to fund this project.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. That the City Commission of the City of Holly Hill award the contract of construction of a sewer main extension along 10th Street to Hazen Construction, Inc., in the amount of \$464,972.00.00 and authorize the City Manager to execute the same.

SECTION 2. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 3. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 8th day of OCTOBER, 2024.

PARKER MYNCHENBERG & ASSOCIATES, INC.

1729 Ridgewood Avenue
Holly Hill, Florida 32117
(386) 677-6891
FAX (386) 677-2114
E-Mail: info@parkermynchenberg.com

September 20, 2024

Mr. Josef Grusauskas
Deputy Director Public Works-Utilities
City of Holly Hill
453 LPGA Blvd.
Holly Hill, FL. 32117

Via Email: jgrusauskas@hollyhillfl.org

**City of Holly Hill
10th Street Sewer Extension
Award Recommendation**

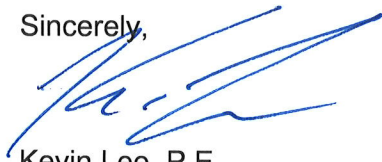
Dear Josef,

As you are aware, the City received bids for the above-referenced project on September 5, 2024. Two (2) contractors submitted bids of which Hazen Construction, of New Smyrna Beach, submitted the lowest bid of \$464,972.00.

We have reviewed Hazen Construction's bid package and have found it to be complete and responsive. We have worked with Hazen Construction on similar projects in the past and they have performed well. We recommend award of this project to Hazen Construction.

Please contact our office with any questions at 386-677-6891.

Sincerely,



Kevin Lee, P.E.

KL/af

Enclosure: Bid Tabulation

cc: Mr. Antoine Khoury, City of Holly Hill – akhoury@hollyhillfl.org
Mr. John Dally, City of Holly Hill – jdally@hollyhillfl.org

Attachment: Exhibit B - Engineer Award Recommendation (2024-R-75 : 10Th Street Sewer Extension)

CITY OF HOLLY HILL
10TH STREET SEWER EXTENSION
BID TABULATION
THURSDAY, SEPTEMBER 5, 2024

ITEM NO.	DESCRIPTION	QTY	UNIT	Hazen Construction		All State Civil	
				UNIT COST	TOTAL	UNIT COST	TOTAL
A.	Force Main Along 10th Street						
1	Pre-Construction Video	1	LS	\$1,275.00	\$1,275.00	\$1,250.00	\$1,250.00
2	Horizontal Directional Drill						
a)	4" HDPE DR11 (1,716 LF Shown)	1,800	LF	\$74.00	\$133,200.00	\$55.00	\$99,000.00
3	Resilient Seat Gate Valve & Box w/Collar						
a)	4" (2 Shown)	2	EA	\$3,169.00	\$6,338.00	\$2,560.00	\$5,120.00
4	Tie-Ins						
a)	Tie-In to Manhole Sta. 2+89	1	LS	\$9,640.00	\$9,640.00	\$5,200.00	\$5,200.00
5	2" Air Release Valves (4 Shown)	4	EA	\$8,408.00	\$33,632.00	\$7,500.00	\$30,000.00
6	DIP Fittings Add or Delete	1,000	LBS	\$3.50	\$3,500.00	\$20.00	\$20,000.00
7	Open Cut and Repair Asphalt	8	SY	\$350.00	\$2,800.00	\$220.00	\$1,760.00
8	Mill and Resurface Asphalt	240	SY	\$93.00	\$22,320.00	\$220.00	\$52,800.00
9	Concrete Sidewalk Remove and Replace (3,0	20	SY	\$126.00	\$2,520.00	\$300.00	\$6,000.00
10	Permits and Allowances	1	LS	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
11	As-Built Plans	1	LS	\$2,975.00	\$2,975.00	\$5,500.00	\$5,500.00
12	MOT	1	LS	\$24,500.00	\$24,500.00	\$6,500.00	\$6,500.00
13	Field Locate and Expose Utilities	1	LS	\$4,500.00	\$4,500.00	\$7,500.00	\$7,500.00
B.	Lift Station 17 Bypass Pump						
14	Pre-Construction Video	1	LS	\$1,275.00	\$1,275.00	\$1,250.00	\$1,250.00
15	Bypass Pump	1	LS	\$79,120.00	\$79,120.00	\$140,000.00	\$140,000.00
16	Piping for Bypass Pump	1	LS	\$94,336.00	\$94,336.00	\$89,950.00	\$89,950.00
17	Concrete Driveway and Sidewalk (6" Thick,	30	SY	\$188.00	\$5,640.00	\$150.00	\$4,500.00
18	Restoration	1	LS	\$6,506.00	\$6,506.00	\$3,690.00	\$3,690.00
19	As-Built Plans	1	LS	\$2,250.00	\$2,250.00	\$6,250.00	\$6,250.00
20	MOT	1	LS	\$18,645.00	\$18,645.00	\$3,500.00	\$3,500.00
	TOTAL				\$464,972.00		\$499,770.00

Attachment: Exhibit B - Engineer Award Recommendation (2024-R-75 : 10Th Street Sewer Extension)

CITY OF HOLLY HILL, FLORIDA

10th STREET SEWER EXTENSION

BID NO. 24-WW-07



April 2024

Prepared by:

 **PARKER
MYNCHENBERG
& ASSOCIATES, INC.**
PROFESSIONAL ENGINEERS

**TABLE OF CONTENTS
CITY OF HOLLY HILL
10th STREET SEWER IMPROVEMENTS
BID NO. 24-WW-07**

<u>Section</u>	<u>Title</u>
	DIVISION 0 – BIDDING AND CONTRACT REQUIREMENTS
00 02 00	Invitation to Bid
00 10 00	Instruction to Bidders
00 30 00	Proposal
00 31 00	Schedule of Unit Prices
00 32 00	Statement of Bidder's Qualifications
00 33 00	Listing of Subcontractors
00 33 10	Listing of Previous Experience
00 41 00	Bid Bond
00 47 00	Sworn Statement under Section 287.133(3)(a), Florida Statutes, on Public Entity Crimes
00 48 00	Anti-Collusion Statement
00 48 50	Drug Free/Tie Preference Statement
00 48 60	Compliance with the Public Records Law
00 48 70	Request for Taxpayer Identification Number and Certification
00 48 80	Affidavit of E-Verify Requirements Compliance
00 49 00	Trench Safety Affidavit
00 50 00	Agreement
00 62 00	Certificate as to Corporate Principal
00 62 76	Application for Payment
00 64 00	Combination Payment and Performance Bond for Public Construction
00 65 00	Certificate of Insurance for Public Liability & Property Damage
00 66 00	Affidavit Regarding Workman's Compensation
00 66 50	Certificate of Insurance For Workman's Compensation
00 67 00	Contractor's Statement Under Oath, To Owner
00 68 00	Receipt and Release
00 69 00	Consent of Surety For Final Payment
00 70 00	Standard General Conditions of the Construction Contract
00 70 50	Release of All Claims
00 80 00	Supplementary Conditions
00 80 00A	Contractor's Standard Insurance Requirement and Indemnification Clause
00 84 00	Contractor Request for Information (RFI)
00 84 10	Notice of Award Form
00 84 20	Notice to Proceed Form
00 84 30	Change Order Form
00 84 40	Application and Certificate for Payment Form
00 84 60	Stored Materials Summary
00 84 80	Certificate of Substantial Completion
00 84 90	Contractor's Final Release of Lien

DIVISION 1 – GENERAL REQUIREMENTS

01 00 00	General Requirements
01 11 00	Summary of Work
01 20 00	Price and Payment Procedures
01 29 73	Schedule of Values
01 29 76	Progress Payment Procedures
01 30 00	Administrative Requirements
01 31 19	Project Meetings
01 32 16	Construction Progress Schedules
01 32 33	Photographic Documentation
01 33 23	Shop Drawings, Product Data, and Samples
01 45 29	Testing Laboratory Services
01 57 13	Temporary Erosion and Sedimentation Controls
01 60 00	Product Requirements
01 71 13	Mobilization
01 74 00	Cleaning and Waste Management
01 77 00	Close Out Procedures
01 78 33	Bonds
01 78 36	Warranties
01 78 39	Project Record Documents

DIVISION 2 – GEOTECHNICAL DATA REPORT

02 06 14	Geotechnical Data Report

DIVISION 3 – CONCRETE

03 30 00	Cast In Place Concrete
03 60 00	Grouting

DIVISION 31 – EARTHWORK

31 22 00	Grading
31 23 00	Excavation and Fill
31 23 19	Dewatering

DIVISION 32 – EXTERIOR IMPROVEMENTS

32 92 00	Turf and Grasses

DIVISION 33 – UTILITIES

33 01 00	Operation and Maintenance of Utilities
33 01 30.82	Wetwell and Manhole Lining Systems
33 05 05.31	Hydrostatic Testing
33 05 07.13	Utility Directional Drilling

33 05 33.23 Polyethylene Pressure Pipe and Tubing

END OF TABLE OF CONTENTS

SECTION 00 02 00
INVITATION TO BID

**CITY OF HOLLY HILL, FLORIDA
10th STREET SEWER EXTENSION
BID# 24-WW-07**

Notice is hereby given that the City of Holly Hill, Florida is accepting bids for:

10th STREET SEWER EXTENSION

Sealed bids will be accepted by the City of Holly Hill, 1065 Ridgewood Avenue, Holly Hill, Florida 32117, ***until 2:00 p.m.***, _____ at which time and place all proposals received shall be publicly opened and read aloud in the City Hall.

There will be a non-mandatory pre-bid meeting for this project ***at 10:00 a.m. June 21st.*** The meeting will be held in the Commission Chambers, located in City Hall, 1065 Ridgewood Avenue, Holly Hill, FL 32117.

Description of Work:

Installation of approximately 1,700 LF of 4" force main by directional drill.

Copies of the bid documents may be obtained electronically from VendorLink at www.myvendorlink.com. Any addenda to these bid documents will be posted on the VendorLink website. It is the bidder's responsibility to confirm that all addenda have been received prior to submitting a bid for this project. All questions should be directed **in writing** to info@parkermynchenberg.com. Questions to be submitted no later than 5:00 p.m. on _____.

All bidders are required to complete and submit the "Public Entity Crime Sworn Statement," Form #PUR 7068, as designated by Florida Statutes, Section 287.133(3)(a), with their bids.

The City of Holly Hill is not responsible for the U.S. mail or private carriers or messengers in regard to mail being delivered by the specified time so that a bid can be considered.

No bids received after the time and date specified for the opening will be considered. The City of Holly Hill, Florida reserves the right to reject any and all bids, to waive any and all non-substantial irregularity in bids reviewed, whenever such rejection or waiver is in the best interest of the City.

One (1) original, and (1) electronic copy on USB flash drive of the bid shall be addressed to City Clerk, City of Holly Hill, 1065 Ridgewood Avenue, Holly Hill, Florida 32117, in a sealed envelope plainly marked on the outside: **LIFT STATION 11 PIPING IMPROVEMENTS.**

**CITY OF HOLLY HILL
VOLUSIA COUNTY, FLORIDA
s/ Joseph A. Forte
City Manager**

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 00 10 00
INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

1.01 PROJECT DESCRIPTION

- A. The work of this project consists of furnishing all labor, materials, equipment, tools, transportation, services, and incidentals and performing all work necessary to construct

10th STREET SEWER EXTENSION

BID NO. 24-WW-07

All above referenced work shall be complete, in place, and ready for service in accordance with the drawings and specifications prepared therefore by Parker Mynchenberg & Associates, Inc. and entitled,

10th STREET SEWER EXTENSION

- B. The location of the project is the City of Holly Hill, Florida.

1.02 DEFINED TERMS

Terms used in the Instructions to Bidders are defined and have the meanings assigned to them in the General Conditions.

1.03 COPIES OF BIDDING DOCUMENTS

- A. Only complete sets of Bidding Documents will be issued and shall be used in preparing bids. Neither the OWNER nor the ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets.
- B. Complete sets of Bidding Documents may be obtained in the manner and at the location stated in the Invitation to Bid.

1.04 RECEIPT OF BIDS

The Place to which proposal must be delivered, the amount of Proposal Security required and the date, time and place of opening of proposals, are stated in the Invitation to Bid. The Proposal form amplifies the Advertisement in indicating the location and description of the project to be constructed and shows the approximate quantities of work to be performed and materials to be furnished, if a unit price contract, any special requirements which may vary from or are not contained in the specifications. The bid documents as listed in Paragraph 1.08, Preparation of Proposal, shall be submitted as described in Section 00 30 00-3 under Supplemental Requirements.

1.05 BIDDER'S QUALIFICATIONS

The Bidder will be required to show that he/she is capable of performing the work contemplated and shall furnish, if requested, in duplicate the following:

- a. A sworn statement showing the equipment definitely controlled by the Bidder and available to him for performing the work;
- b. A sworn statement of his/her experience in performing work of the character for which his bid is submitted; and,
- c. A sworn statement showing his current assets and liabilities as of a date not more than ninety (90) days prior to the date of submission.

If the Owner approves the above required statements and the Proposal is accompanied by the specified security, the person, firm or corporation submitting such Proposal shall be considered as a qualified Bidder.

1.06 BIDDER'S RESPONSIBILITY

The Bidder is required to carefully examine the site of the project, the Proposal Form, Drawings, Specifications, Agreement Form, and all other forms pertinent to the work contemplated. It will be assumed that he has satisfied himself as to the conditions to be encountered, the character, quality, and quantities of work to be performed and materials to be furnished, and the requirements of the Contract and specifications. No allowance or concession will be made for lack of such information on the part of the Contractor.

Whenever such information concerning subsurface materials or conditions is given on the drawings, it is understood, in the absence of any qualifying notation, that it was obtained in the usual manner and the location, depths, and character of the material have been recorded in good faith. There is no expressed or implied agreement that the depths or the character of the material have been correctly indicated and Bidders should take into account the possibility that conditions affecting the cost or quantities of work to be done may differ from those indicated.

1.07 APPROXIMATE ESTIMATE OF QUANTITIES

The Bidder's attention is directed to the fact that in contracts based on unit prices the estimate of quantities of work to be done and materials to be furnished under these specifications, as shown on the Proposal Form, and in the Contract, is approximate and is given only as a basis of calculation upon which to determine the lowest Bidder. The Owner does not assume any responsibility that the quantities shall obtain strictly in the construction of the Project, nor shall the Contractor plead misunderstanding or deception because of such estimate of quantities, or of the character of the work or location, or other conditions pertaining thereto. The Owner reserves the right to increase or diminish any or all of the above mentioned quantities of work or to omit any of them, as it may deem necessary, and such increase or decrease of the quantities given for any of the items shall

not be considered as sufficient grounds for granting an increase in the unit prices bid, except as set forth in the General Conditions.

1.08 PREPARATION OF PROPOSAL

In preparing Proposals in the manner prescribed under Paragraph 1.14, the Proposal Form, the Bid Form (when a Bid Bond is permitted as proposal security), Certificate as to Corporate Principal, Public Entity Crimes Statement, Anti-Collusion Statement, and Drug Free/Tie Preference Statement, must be properly executed in ink .

Upon the prescribed Schedule of Unit Prices, all bid prices shall be written in ink, in both words and numerals, in the blank spaces for each item, with the amounts extended if a unit price bid and all amounts totaled. In the event of any discrepancy between the written amounts and the numerals, the written amounts shall govern and will be considered as the price bid. The sum of the Total Bid as calculated from the individual items in Section 00 31 00, Schedule of Unit Prices, shall equal the Total Price as listed in Section 00 30 00, Proposal.

Except as provided below, bids containing substitutions or combinations of alternates will not be considered unless such substitutions or combinations are specifically authorized by the Proposal.

In unit price bids, the extensions, if any, and the total are for informational purposes only, and the determination of the lowest bid will be based solely on the total results of computations of the estimated quantities and the prices bid. The Bidder shall submit a completed Schedule of Unit Prices, Section 00 31 00 with each bid. The bid may be considered non-responsive without this form.

The Bidder shall sign his/her name and give his/her business address in the spaces provided therefore. If the Proposal is made as a partnership, it shall be signed by all partners; if made by a corporation, it shall be signed in the name of the corporation by one of the officers thereof and shall have affixed the seal of the corporation.

1.09 PROPOSAL SECURITY

Each Proposal shall be accompanied by a security in the form of a certified check or, when specifically permitted, a Bid Bond, payable to the Owner, in the amount indicated in the Invitation to Bid and, in either case, with properly executed Agreement of Surety. Such proposal security of the successful Bidder shall be forfeited to the Owner as liquidated damages if the successful Bidder fails to execute and deliver the Contract in conformity with the Form of Agreement, and furnish bonds and insurance certificates as specified within ten (10) days after notification by the Owner of the acceptance of his bid, *excluding Bond review by the City Attorney*. Within three (3) days after formal opening of bids, if requested by the Contractor, the securities therefore will be returned excepting those which the Owner elects to hold until the award is made and the successful Bidder qualified and executes the Contract. Thereafter, Proposal Securities, other than that of the qualified low Bidder, will be returned at once. The security of the successful Bidder will be returned to him when the Contract is executed by both parties hereto and the Performance and Payment Bonds

have been recorded. If all Proposals are rejected, the securities therefore will be returned immediately after the determination of such rejection.

1.10 WITHDRAWAL OF PROPOSALS

All Bidders specifically waive any right to withdraw a Proposal after it has been submitted to the Owner, except as hereinafter provided. A Bidder may withdraw a Proposal provided the Bidder makes a request to do so by telephone, telegraph, or in writing to the Owner, and provided that such requests reach the office of the Owner not later than the day previous to the date set for opening thereof. Requests by telephone or telegraph must be confirmed in writing, by the Bidder in person, or by an accredited representative of the Bidder before the time set for the opening of the Proposals. No bids may be withdrawn for a period of NINETY (90) DAYS after the date and time designated for the opening thereof.

1.11 RIGHT TO REJECT PROPOSALS

The unqualified right is reserved by the Owner to waive any informalities in, or reject any or all Proposals as may be deemed to the best interest of the Owner. Proposals which contain any omissions, erasures, alterations, additions not called for, conditional bids, or irregularities of any kind, or Proposals otherwise regular which are not accompanied by Proposal Security, may be rejected as informal. Proposals in which the bid prices are obviously unbalanced may be rejected.

1.12 CHANGES PRIOR TO THE OPENING OF BIDS

During the period allowed for preparation of bids, the Bidders may be furnished addenda or bulletins for additions to or alterations of the Drawings or Specifications, which shall be included in the work covered by the Proposal and become a part of the Contract Documents, Bidders may submit to the Engineer a written request for an interpretation thereof. The Bidder submitting the request will be responsible for its prompt delivery. Any interpretation of the Contract Documents will be made only by addendum duly issued and a copy of such addendum will be mailed or delivered to each prospective Bidder of Record. The Owner will not be responsible for any other explanations or interpretations of the proposed Contract Documents.

1.13 LOBBYING

All firms are hereby placed on **NOTICE** that the City does not wish to be lobbied, either individually or collectively about a matter for which a firm has submitted a Qualification. Firms and their agents are not to contact members of the City Commission for such purposes as meeting or introduction, luncheons, dinners, etc. During the process, **from Proposal announcement to final Commission approval**, no firm or their agent shall contact any other employee of the City in reference to this Bid, with the exception of the Finance Director or the Engineer of record. Failure to abide by this provision may serve as grounds for disqualification for award of this contract to the firm.

1.14 SCOPE OF WORK

Unless otherwise provided in the Construction Specifications or the Proposal, it is the intent of the Contract Documents to prescribe a complete project which the Bidder proposes to construct, by furnishing all labor, materials, equipment, tools, necessary utilities and other facilities, and performing all work necessary to incidental to such construction, in full compliance with the Drawings, Specifications, Proposal, and Contract, and any special requirements contained therein or supplements attached thereto.

Should any construction or condition be anticipated which is not covered by these Specifications, the special requirements thereof will be stated in the Proposal, and any such special requirements shall be considered a part of these specifications as though they were fully contained herein. If any special requirements stated in the Proposal conflicts with any of the provisions of these Specifications, the former shall govern.

1.15 SUBMITTING PROPOSAL

One (1) original and (1) electronic copy on USB flash drive of the Proposal, accompanied by the Proposal Security, and all addenda, if any, and all other required supporting documentation shall be submitted in an opaque, sealed envelope, addressed to the Owner. The name of the Bidder shall appear in the upper left-hand corner of the envelope and the following notation shall appear in the lower left-hand corner.

10th STREET SEWER EXTENSION

1.16 AWARD AND EXECUTION OF CONTRACT

When a Proposal received has been determined to be satisfactory, a Contract will be awarded to the lowest responsible Bidder within the time designated in the Contract Documents.

The Bidder to whom the award is made shall execute the Contract and return it, together with the properly executed bonds and insurance certificates, to the office of the Owner, within the time specified in Paragraph 1.09 of Section 00 10 00.

If the Contractor executes his Contract as herein provided and the Contract is not executed by the Owner within thirty (30) days after the receipt thereof from the Contractor, the Owner upon written request of the Contractor will return the Proposal Security. In such event, the award of the Contract shall be considered as annulled.

The Contract, Surety Bonds, and insurance certificates shall be executed in quintuplicate, or in as many copies as the Owner may require.

1.17 CANCELLATION OF AWARD

The Owner reserves the right to cancel the award of any contract at any time prior to its execution by the Owner.

1.18 SURETY BONDS

With the execution and delivery of the Contract, the successful bidder receiving the Contract award will be required to furnish within the time specified in Paragraph 1.09 of Section 00 10 00, a Payment and Performance Bond, covering faithful and satisfactory performance of the work contracted, in an amount not less than one hundred percent (100%) of the total contract price, and a Public Construction Bond in an amount not less than one hundred percent (100%) of the Contract amount, covering payment in full for all services rendered, materials furnished and labor supplied or performed. The same Surety must execute both bonds each of which shall be in the form provided in the Contract Documents.

Should any Surety upon any Bond furnished in connection with this Contract become unacceptable or be deemed unsatisfactory to the Owner at any time, the Contractor shall upon written notice from the Owner, promptly furnish acceptable or substitute security as may be required to protect the interests of the Owners or of persons supplying services, labor and materials in the prosecution of the work under Contract. No further payment shall be deemed due or shall be made under this Contract, until the new Surety or Sureties will qualify and be accepted by the Owner.

1.19 INDEMNITY AND INSURANCE

The Contractor shall not commence work under this Contract until he has obtained all insurance required under by these Specifications and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on a subcontract until all similar insurance required of the subcontractor has been so obtained and approved by the Contractor.

- A. Certificates. The Contractor shall submit certificates or other documentary evidences to the Owner for approval, covering Workmen's Compensation Insurance; and Public Liability and Property Damage Insurance as well as any other insurance required by the Contract Documents.

Each certificate or other documentary evidence presented shall contain therein or have contained in a rider attached thereto and made a part thereof, a clause to the effect that the insurer will notify the insured and the Owner in writing thirty (30) days prior to the cancellation of the policy. The certificate for each policy shall be executed in quintuplicate, or in as many copies as the Owner may require.

- B. Accidents and Claims. The Contractor shall be held responsible for all accidents and shall indemnify to the extent permitted by law and protect the Owner from all suits, claims and actions brought against it, and all cost or liability, including attorneys fees, to which the Owner may be put for any injury or alleged injury to the person or property of another

resulting from negligence or carelessness in the performance of the work, or from any improper or inferior workmanship, or from inferior materials used in the work.

- C. **Mutual Responsibility of Contractors.** Should a Contractor in the performance of his/her Contract cause damage to any person, any property, or work of another Owner or other party to the damage, arrange for an amicable settlement thereon. It is agreed by all parties herein that such disputes shall not delay completion of the work, nor be cause for claim against the Owner. Work shall be continued by the party claiming damages at his expense, subject to such damages as may be obtained by due course of law.
- D. **Contractor's Liability.** The status of the Contractor in the work to be performed by him/her under this Contract is that of an independent Contractor and that, as such, he shall properly safeguard against any and all injury or damage to the public, to public and private property, materials and things; and that, as such, he/she alone shall be responsible for any and all damage, loss or injury to persons or property that may arise, or be incurred, in or during the conduct or progress of said work without regard to whether or not the Contractor, his/her subcontractors, agents, or employees have been negligent; and that the Contractor shall keep the Owner free, and discharge of, and from any and all responsibility for risks or casualties of every description, for any or all damage, loss or injury to persons or property arising out of the nature of the work, from the action of the elements, or from any unforeseen or unusual difficulty, the Contractor shall assume and be liable for all blame and loss of whatsoever nature by reason of neglect or violation of any federal, state, county, or local laws, regulations or ordinances; that Contractor shall indemnify and save harmless the Owner and all its officers, agents and employees from all suits or actions at law caused by the negligence, recklessness or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of the construction contract and shall, if required by the Owner, produce evidence of settlement of any such action before final payment shall be made by the Owner.

1.20 CANCELLATION OF CONTRACT

As soon as practicable after the satisfactory execution of the Contract by both parties, written notice to proceed with the work will be given to the Contractor. If such notice is not given within thirty (30) days after contract execution, and the delay is not caused by the Contractor or accepted by him/her in writing, the Contract may be declared null and void by either party.

If the Contractor incurs any expense in furtherance of the Contract prior to receipt of the Notice to Proceed, he/she does so on his own responsibility.

1.21 COMPLETION TIME AND LIQUIDATED DAMAGES

The Bidder shall understand that the time limit indicated for completion of this Contract, and the amount of liquidated damages to be charged against the Contractor shall be declared in default in accordance with the provisions of the Specifications, shall be as stated in Article II of the Form of Agreement which is a part of these Contract Documents.

1.22 PAYMENT OF TAXES

The Contractor will be responsible for payment of all Excise, Sales and Use Taxes, and all other taxes required by law on all materials, tools, apparatus, equipment, fixtures, and incidentals which he purchases or uses for the purpose of fulfilling the work of this Contract, and he/she shall include all amounts required for such taxes with the item prices bid in his Proposal. No additional payment will be made to cover such taxes. Each Bidder shall thoroughly familiarize himself before submitting a Proposal, with all laws requiring the payment of taxes.

1.23 PUBLIC ENTITY CRIMES INFORMATION STATEMENT

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount, provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

1.24 PROHIBITION OF GIFTS TO CITY EMPLOYEES

No organization or individual shall offer or give, either directly or indirectly, any favor, gift, loan, fee, service or other item of value to any City employee, as set forth in Chapter 112, Part III, Florida Statutes, the current City Ethics Ordinance, and City Administrative Policy. Violation of this provision may result in one or more of the following consequences: a. Prohibition by the individual, firm, and/or any employee of the firm from contact with City staff for a specified period of time; b. Prohibition by the individual and/or firm from doing business with the City for a specified period of time, including but not limited to: submitting bids, ITB, and/or quotes; and, c. immediate termination of any contract held by the individual and/or firm for cause.

1.25 PROTEST PROCEDURES

Any appeal or protest to the Request for Bid shall be governed by the City of Holly Hill's Purchasing Policies and Procedures shown in Resolution 2018-30. A copy of this resolution is available by request to the City Clerk.

1.26 IMMIGRATION REFORM AND CONTROL ACT

Proposer acknowledges, and without exception or stipulation, any firm(s) receiving an award shall be fully responsible for complying with the provisions of the Immigration Reform and Control Act of 1986 as located at 8 U.S.C. 1324, et seq. and regulations relating thereto, as either may be amended. Failure by the awarded firm(s) to comply with the laws referenced herein shall constitute a breach of the award agreement and the City shall have the discretion to unilaterally terminate said agreement immediately.

END OF SECTION

**SECTION 00 30 00
PROPOSAL
FOR
CITY OF HOLLY HILL
10th STREET SEWER EXTENSION
BID NO. 24-WW-07**

(To be completed in Duplicate)

Bidder's Name: _____

Submitted: _____, 20

City of Holly Hill
City Clerk
1065 Ridgewood Avenue
Holly Hill, FL 32117

Gentlemen:

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Proposal, as principal or principals, is or are named herein and that no other persons than herein mentioned has any interest in the Proposal or the Contract to which the work pertains; that this Proposal is made without connection or arrangement with any other person, company, or parties making a bid or proposal and that the Proposal is in all respects fair and made in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the work and that from personal knowledge and experience, or that he/she has made sufficient test holes and/or other subsurface investigations to fully satisfy self that such site is a correct and suitable one for this work and he/she assumes full responsibility therefore; that he/she is familiar with all legal requirements (Federal, State and local laws, ordinances, rules and regulations) pertaining to the Work; that he/she has examined the Drawings and Specifications for the work and from his/her own experience or from professional advice that the Drawings and Specifications are sufficient for the work to be done and he/she has examined the other Contract Documents and all addenda relating thereto, and that he/she has satisfied himself/herself fully, relative to all matters and conditions with respect to the work to which this Proposal pertains.

The Bidder proposes and agrees, if this Proposal is accepted, to contract with the City of Holly Hill, (Owner) in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, transportation, and labor and to perform all work necessary to complete the Work specified in the Proposal and other Contract Documents.

The Bidder further proposes and agrees to comply in all respects with the time limits for commencement and completion of the Work as stated in the Contract Form.

The Bidder further agrees that the deductions for liquidated damages, as stated in the Contract Form, constitute fixed and agreed liquidated damages to reimburse the Owner for additional costs to the Owner resulting from the Work not being completed within the time limit stated in the Contract Form.

The Bidder further agrees to execute a Contract and furnish satisfactory Performance and Payment Bonds, each in the amount of one-hundred percent of the Contract price, and the required Certificates of Insurance, within ten consecutive calendar days after written notice being given by the Owner of the award of the Contract, and the undersigned agrees that in case of failure on his/her part to execute the said Contract, Performance and Payment Bonds and Insurance Certificates within ten (10) consecutive calendar days after the award of the Contract, the bid guarantee accompanying his/her bid and the money payable thereon shall be paid to the Owner as liquidation of damages sustained by the Owner; otherwise, the bid guarantee shall be returned to the undersigned within fifteen days after the Contract is signed and the Performance and Payment Bonds and Insurance Certificates are filed.

The undersigned agrees to accept as full compensation for completion of the project in full compliance with the Contract Documents, the unit prices for the items named in Section 00 31 00, Schedule of Unit Prices, submitted herein with this Proposal.

The undersigned offers to furnish all materials, equipment and labor for construction of

10th STREET SEWER EXTENSION

for the City of Holly Hill, Florida, complete in every respect in strict accordance with the drawings, specifications and any future changes therein. The Contractor shall perform these obligations for the prices listed in the "Schedule of Unit Prices: Section 00 31 00" attached and made a part of this Bid. **The bid total is:**

(In Words)

Dollars \$_____ (In Figures)

COMPLETION TIME OF CONTRACT

The Contractor agrees that the work shall be started not later than the date indicated in the Notice to Proceed and that the total work shall be substantially completed within **60 days** and final completion within **30 days** of substantial completion.

The Contractor further agrees that for each calendar day, with the exception of Sundays and legal holidays that any work shall remain uncompleted after the stations completion times stipulated

above the sum of **\$1,000 (One Thousand Dollars)** per day shall be deducted from monies due the contractor, not as a penalty, but as liquidated damages. If the Contractor is declared in default in accordance with the provisions of the Specifications, liquidated damages shall be charged as provided herein, and such amounts shall be deducted from the final amount payable to the Contractor or his/her Surety. Should the total amount chargeable as liquidated damages exceed the amount due or payable to the Contractor or his/her Surety, then such excess shall be paid to the Owner by the Contractor or his/her Surety.

SUPPLEMENTAL REQUIREMENTS

The following documents are attached to and made a condition of this bid:

Schedule of Unit Prices: Section 00 31 00
 Statement of Bidder's Qualifications: Section 00 32 00
 Listing of Subcontractors: Section 00 33 00
 Listing of Previous Experience: Section 00 33 10
 Bid Bond: Section 00 41 00
 Public Entity Crimes Statement: Section 00 47 00
 Anti-Collusion Statement: Section 00 48 00
 Drug Free/Tie Preference Statement: Section 00 48 50
 Compliance with the Public Records Law: Section 00 48 60
 W9 Request for Taxpayer Identification Number and Certification: Section 00 48 70
 Affidavit of E-Verify Requirements Compliance: Section 00 48 80
 Trench Safety Affidavit: Section 00 49 00
 Certificate as to Corporate Principal: Section 00 62 00
 City of Holly Hill Insurance Requirements: Section 00 80 00A

REQUIRED DISCLOSURE

At its sole discretion, the City of Holly Hill, Florida may reject any bidder the City finds to lack, or whose present or former executive employees, officers, directors, stockholders, partners or owners are found by the City to lack honesty, integrity, or moral responsibility. The discretion of the City may be exercised based on the City's own investigation, public records, or any other reliable sources of information. By submitting a bid, bidder recognizes and accepts that the City may reject the bid based upon the exercise of its sole discretion and bidder waives any claim it might have for damages or other relief resulting from the rejection of its bid based on these grounds.

SCHEDULE OF MAJOR MANUFACTURERS AND SUPPLIERS

The equipment manufacturers/suppliers on this project shall be as delineated in the following schedule. Bidders should note that the Owner and Engineer have made rigorous investigations of equipment performance and features, and as a result, Bidders are to note that the contract price for this project shall be based on Base Bid equipment. The Base Bid equipment for this project falls under one of two categories. The first category is equipment that the Owner and Engineer have determined will be supplied by a sole source of supply, for which no substitutions or alternates will be entertained or allowed. Bidder is advised that offering of any alternatives to the sole source supplied equipment will be grounds for rejection of his bid as not responsive. The second category

of equipment includes those items where the Owner and Engineer deem there to be more than one acceptable supplier of the particular item listed. The equipment which falls under these two categories is shown on the subsequent pages of this Schedule of Major Manufacturers and Suppliers. Bidder is advised that the award of this Contract will be based solely on the use of Base Bid equipment.

The following comments relate only to the second category of equipment, where the Contract Documents are based upon the equipment or products available from the suppliers denoted as A, B, C, etc. below. These equipment manufacturers, along with the sole source suppliers constitute the Base Bid.

Provision is made in the Contract Documents for alternate manufacturers and suppliers whose equipment or product may be deemed equivalent in quality (see General Conditions). However, the Bidder must indicate in his Bid which Base Bid supplier he intends to use for each item of equipment listed by circling one of the listed manufacturers/suppliers. If the Bidder fails to indicate which listed manufacturer/supplier he intends to use if an alternate is rejected, he must use the supplier listed as "A". Also, if the Bidder circles more than one listed supplier, he must use the first supplier circled (unless an alternate is approved).

If the Bidder desires to propose one or more alternate manufacturers/suppliers, he may write in the name of such alternates in the spaces provided on the Alternate Manufactures/Suppliers page following the schedule. He must, nevertheless, also circle one of the listed manufacturers/suppliers because Bidders' Bid price must be based upon this Base Bid list. Wherever an alternate supplier is proposed, the Bidder must insert the amount to be deducted from the Contract Price (either lump sum or unit price) if the alternate supplier is eventually approved. If the proposed alternate supplier is determined "not equivalent" by the Engineer, the Bidder must use the circled supplier.

For any alternate supplier accepted by the Owner, the Contract Price will be reduced by the deductive amount stated in the Bid. However, the Contract Price will not be adjusted for any alternate supplier rejected.

Each proposed alternate will be evaluated in accordance with the General Conditions.

The deductive amount specified for alternate manufacturers/suppliers will not be used in determining the successful Bidder. Alternates will be considered only after award of the contract.

The Contractor shall reimburse the Owner for any costs directly attributable to the change in suppliers, such as additional field trips for the Engineer, additional redesign costs, additional review and inspection costs, etc.

The Owner may request and the Bidder shall supply complete information on proposed alternates prior to the Notice of Award.

SCHEDULE OF MAJOR MANUFACTURERS
AND SUPPLIERS

Category I - Sole Source Equipment Items:

Item No.	Spec. No.	Equipment/Material	Manufacturer or Supplier

Category II - Major Equipment Items:

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

ALTERNATE MANUFACTURERS/SUPPLIERS

EQUIPMENT ITEM MATERIAL	SPEC. SECTION	ALTERNATIVE MANUFACTURER / SUPPLIER (LIST ONE ONLY)	DEDUCTIBLE AMOUNT (indicate whether lump sum or unit price) ALTERNATE
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____

Name (signature)

Date

Name (typed and printed)

Title

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

ACKNOWLEDGMENT OF ADDENDA

Addenda will be issued via email and it is the Bidder's responsibility to confirm that all addenda have been received prior to submitting a bid for the project. Acknowledgment is hereby made of the following Addenda received since issuance of Drawings and Specifications:

Addendum No. _____ Dated: _____
 Addendum No. _____ Dated: _____
 Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____
 Addendum No. _____ Dated: _____
 Addendum No. _____ Dated: _____

Attached hereto is a cashier's check on the _____ Bank of
 _____ or Bid Bond for the sum of
 _____ Dollars (_____),
 made payable to _____ (Owner).

 (Name of Bidder) (Affix Seal)

 (Signature of Officer)

 (Title of Officer)

 Name of Bidder

 Address

 City/State/Zip

 Telephone

 Contractor's Florida License Number

The full names and residences of persons and firms interested in the foregoing bid, as principals, are as follows:

END OF SECTION

**SECTION 00 31 00
SCHEDULE OF UNIT PRICES**

**CITY OF HOLLY HILL
10th STREET SEWER EXTENSION
BID# 24-WW-07**

<i>ITEM NO.</i>	<i>DESCRIPTION</i>	<i>QTY</i>	<i>UNIT</i>	<i>UNIT COST</i>	<i>TOTAL</i>
1	Preconstruction Video	1	LS		
2	Horizontal Directional Drill				
	a) 4" HDPE DR11 (1,716 LF Shown)	1,800	LF		
3	Resilient Seat Gate Valve & Box w/Collar				
	a) 4" (2 Shown)	2	EA		
4	Tie-Ins				
	a) Tie-In to Manhole Sta. 2+89	1	LS		
5	2" Air Release Valves (4 Shown)	4	EA		
6	DIP Fittings Add or Delete	1,000	LBS		
7	Open Cut and Repair Asphalt	8	SY		
8	Mill and Resurface Asphalt	240	SY		
9	Concrete Sidewalk Remove ad Replace (3,000 PSI)	20	SY		
10	Permits and Allowances	1	LS	\$10,000.00	
11	As-Built Plans	1	LS		
12	MOT	1	LS		
13	Field Locate and Expose Utilities	1	LS		
	BID TOTAL				

Submitted by: _____

Contractor: _____

Address: _____

Telephone: _____ Fax: _____

State of Florida Certified General Contractor or Underground Contractor (Required Information)

Licensee: _____ License No: _____

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 00 32 00

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The bidder may submit any additional information he desires.

- A. Name of bidder.
- B. Permanent main office address.
- C. When organized.
- D. If a corporation, where incorporated.
- E. How many years have you been engaged in the contracting business under your present firm or trade name?
- F. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion.)
- G. General character of work performed by your company.
- H.⁽¹⁾ Have you ever failed to complete any work awarded to you? If so, where and why?
- H.⁽²⁾ Provide list of any lawsuits or judgments filed by or against your company in the last three years, indicating the nature and outcome.
- I. Have you ever defaulted on a contract? If so, where and why?
- J. List the more important projects recently completed by your company, stating the approximate cost for each and the month and year completed.
- K. List your major equipment _____.
- L. Experience in construction work similar in type to this project.
- M. Background and experience of the principal members of your organization, including the officers.
- N. Credit available: \$ _____
- O. Give bank reference: _____
- P. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the Owner?

- Q. The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated at _____ this _____ day of _____, 20____.

Name of Bidder

By: _____
Title

State of _____

County of _____

_____ being duly sworn deposes and says that

he is the _____ of _____ and that

the answers to the _____ foregoing questions
Name of Organization

and all statements therein contained are true and correct.

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public

Notary Public (Print or Type)

My commission expires: _____

SECTION 00 33 00
LISTING OF SUBCONTRACTORS

The Bidder proposes that the following subcontractors are qualified to perform the referenced work and have successfully done so on recent projects similar in nature and size. Upon approval of subcontractors listed the successful bidder shall not substitute subcontractors without approval from the Engineer. Bidder shall attach additional sheets as necessary.

SUBCONTRACTOR	COMPANY NAME	REFERENCES
		1) 2) 3)
		1) 2) 3)
		1) 2) 3)
		1) 2) 3)

END OF SECTION

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 00 33 10
LISTING OF PREVIOUS EXPERIENCE

The bidder proposes that he/she is qualified to perform the referenced work and has successfully done so on recent projects similar in nature and size. A minimum of three (3) projects must be listed below. The Owner reserves the right to check references and confirm information provided herein.

NO.	PROJECT	OWNER	DESCRIPTION/COST	REFERENCE	DATE WORK STARTED & FINISHED MM/YR TO MM/YR
1					
2					
3					

END OF SECTION

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

**SECTION 00 41 00
BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, _____ as Principal and _____ of the City of _____ State of _____, a corporation existing under the laws of the State of Florida, as Surety, are held and firmly bound unto the _____ hereinafter called the Owner, in the sum of _____ Dollars (\$ _____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that whereas the Principal has submitted the accompanying Proposal or Bid, for the construction of:

10th STREET SEWER EXTENSION

NOW, THEREFORE, if the Principal shall not withdraw said Bid within ninety (90) days after the opening of the same and in the event of the acceptance of his proposal by the Owner, shall, within the period specified therefore, enter into a written contract with the Owner in accordance with the Bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract, or in the event of the withdrawal of said Bid within the period specified, of the failure to enter into such contract and give bonds within the time specified, if the Principal shall pay the Owner the difference between the amount specified in said Bid and the amount for which the Owner may procure the required work, if the latter amount be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals this ____ day of _____, 20__, the name and corporate seal of each corporate body being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

IN PRESENCE OF:

(Seal)
(Seal)
(Seal)
Individual or Partner

Witness

Address
Corporate Principal

ATTEST:

President AFFIX
CORPORATE SEAL
Address

ATTEST:

By _____

AFFIX
CORPORATE SEAL
Corporate Surety
Title

END OF SECTION

SECTION 00 47 00

SWORN STATEMENT UNDER SECTION 287.133(3)(a), FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES:

This sworn statement is submitted with Bid, Proposal **or** Contract No. _____ for _____.

This sworn statement is submitted by _____ whose business address is _____ and (if applicable) its Federal Employer Identification Number (FEIN) is _____. (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____.)

My name is _____ any my relationship to the entity named above is _____.

I understand that a "public entity crime" as defined in Paragraph 287.133(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

I understand that "convicted" or "conviction" as defined in Paragraph 287.133(i)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

I understand that an "affiliate" as defined in Paragraph **287.133(l)(a)**, Florida Statutes, means:

1. A predecessor or successor of a person convicted of a public entity crime: or
2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie that one person controls another person. A person who knowingly enters into a joint venture with a

person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

I understand that a "person" as defined in Paragraph 287.133(i)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies).

- _____ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.
- _____ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)
- _____ There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)
- _____ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order).

(Signature) _____ Date: _____

State of _____ County of _____

PERSONALLY APPEARED BEFORE ME, the undersigned authority, _____
who, after first being sworn by me, affixed his/her signature in the space provided above on this
_____ day of _____, 20__.

Notary Public

My Commission Expires:

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 00 48 00
ANTI-COLLUSION STATEMENT

By signing this form, the bidder agrees that this is made without any other understanding, agreement, or connection with any person, corporation, or firm submitting a proposal for the same purpose and that the proposal is in all respects fair and without collusion or fraud.

SIGN in ink in the space provided below. Unsigned bids will be considered incomplete, and will be disqualified, and rejected.

IT IS AGREED BY THE UNDERSIGNED BIDDER THAT THE SIGNING AND DELIVERY OF THE BID REPRESENTS THE BIDDER'S ACCEPTANCE OF THE TERMS AND CONDITIONS OF THE FORGOING SPECIFICATIONS, CONTRACT AND PROVISIONS, AND IF AWARDED, THIS CONTRACT WILL REPRESENT THE AGREEMENT BETWEEN EACH OF THE GOVERNMENTAL PARTIES.

NAME OF FIRM: _____

SIGNED BY: _____
(MUST BE SIGNED BY A COMPANY OFFICER OR AUTHORIZED AGENT)

TITLE: _____

ADDRESS: _____

CITY AND STATE: _____

TELEPHONE: _____

COMPLETION TIME: _____

NO proposals will be withdrawn for a period of ninety (90) days subsequent to the opening of the proposals, without the consent of the City of Holly Hill.

NO BID (REASON) _____

END OF SECTION

SECTION 00 48 50
DRUG FREE/TIE PREFERENCE STATEMENT

In the event of a tie bid a preference is given to vendors submitting a certification with their bid/proposal certifying they have a drug-free workplace in accordance with Section 287.087, Florida Statutes. This requirement affects all public entities of the State and becomes effective January 1, 1991. The special conditions are as follow:

IDENTICAL TIE BIDS - Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction or, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfaction participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

VENDOR'S SIGNATURE

END OF SECTION

SECTION 00 48 60

COMPLIANCE WITH THE PUBLIC RECORDS LAW

Project Number: ITB # 24-WW-07

Upon award recommendation or ten (10) days after opening, submittals become "public records" and shall be subject to public disclosure consistent with Chapter 119, Florida Statutes. Proposers must invoke the exemptions to disclosure provided by law in the response to the solicitation, and must identify the data or other materials to be protected, and must state the reasons why such exclusion from public disclosure is necessary. The submission of a proposal authorizes release of your firm's credit data to the CITY.

If the company submits information exempt from public disclosure, the company must identify with specificity which pages/paragraphs of their bid/proposal package are exempt from the Public Records Act, identifying the specific exemption section that applies to each. The protected information must be submitted to the CITY in a separate envelope marked accordingly.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT

Valerie Manning, City Clerk

386-248-9441

vmanning@hollyhillfl.org

1065 Ridgewood Ave

Holly Hill, FL 32117

A provision that requires the contractor to comply with public records laws, specifically to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

By submitting a response to this solicitation, the company agrees to defend the CITY in the event we are forced to litigate the public records status of the company's documents.

Company Name: _____

Authorized representative (printed): _____

Authorized representative (signature): _____

Date: _____

END OF SECTION

Form **W-9**
(Rev. October 2007)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give form to the
requester. Do not
send to the IRS.

Print or type See Specific Instructions on page 2.	Name (as shown on your income tax return)	
	Business name, if different from above	
	Check appropriate box: ☐ Individual/Sole proprietor ☐ Corporation ☐ Partnership ☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ ☐ Other (see instructions) ▶	☐ Exempt payee
	Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
	City, state, and ZIP code	
List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
or
Employer identification number

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here	Signature of U.S. person ▶	Date ▶

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

Affidavit of E-Verify Requirements Compliance

ITB 24-WW-07 10th Street Sewer Extension

The Consultant/Contractor agrees to comply with Section 448.093, Florida Statutes, and to incorporate in all subcontracts the obligation to comply with Section 448.093, Florida Statutes.

1. The Consultant/Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Consultant/Contractor during the term of the Agreement and shall expressly require any subcontractors performing work or providing services pursuant to the Agreement to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subconsultant/subcontractor during the Agreement term.

2. That the Consultant/Contractor understands and agrees that its failure to comply with the verification requirements as set forth herein or its failure to ensure that all employees and subconsultant/subcontractors performing work under this Agreement are legally authorized to work in the United States and the State of Florida constitute a breach of this Agreement for which the City may immediately terminate the Agreement without notice and without penalty. The Consultant/Contractor further understands and agrees that in the event of such termination, the Consultant/Contractor shall be liable to the City for any costs incurred by the City as a result of the Consultant's/Contractor's breach.

Consultant/Contractor shall execute and return the Affidavit of E-Verify Requirements Compliance to City. IN WITNESS WHEREOF, the parties have made and executed this Agreement for the purposes stated above.

Consultant/Contractor Name and Address

Signature

Name and Title

SECTION 00 49 00
TRENCH SAFETY AFFIDAVIT

Trench excavations on this Project are expected to be in excess of 5 feet deep. The Occupational Safety and Health Administration excavation safety standards, 29 CFR 1926.650 Subpart P trench safety standards will be in effect during the period of construction of the Project.

Bidder acknowledges that included in the Bid Price are costs for complying with the Florida Trench Safety Act (90-096, Laws of FL) effective October 1, 1990, and hereby gives assurance that, if awarded the Contract, the Contractor or Subcontractor performing trench excavation work on the Project will comply with the applicable trench safety standards. The Bidder further identifies the costs as follows:

<u>Trench Safety Item (Description)</u>	<u>Cost</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(Cost in Words)

TOTAL \$ _____

FAILURE TO COMPLETE THE ABOVE SHALL RESULT IN THE BID BEING DECLARED NON-RESPONSIVE

COMPANY NAME: _____

DATE: _____ BY: _____

(Additional sheets shall be attached, as needed and, items shall be organized to correspond with the bid format)

SECTION 00 50 00

AGREEMENT

THIS AGREEMENT, entered into this ____ day of _____, 20__, by the City of Holly Hill, Florida, hereinafter called the OWNER, Party of the First Part, and a CORPORATION known as _____ organized and existing under the laws of the State of _____; PARTNERSHIP known as _____ consisting of the following members: _____ an INDIVIDUAL _____ trading as _____ of _____ City _____ State of _____ Zip Code _____, hereinafter called the CONTRACTOR, Party of the Second Part.

WITNESSETH: That the parties hereto do mutually agree as follows:

ARTICLE I.

- A. The Contractor agrees to furnish all labor, materials, equipment for:

Installation of approximately 1,700 LF of 4" force main by directional drill.

10th STREET SEWER EXTENSION

herein called for, in strict accordance with the Drawings and Specifications prepared by Parker Mynchenberg & Associates, Inc., Engineers, which Contract include, but is not limited to, the following Contract Documents:

a. Invitation	f. Labor and Material Payment Bond
b. Instructions	g. Insurance
c. Proposal	h. Specifications
d. This Agreement	i. Addenda (if any)
e. Performance Bond	j. Drawings

ARTICLE II.

- A. The Contractor agrees that the work shall be started not later than the date indicated in the Notice to Proceed and that all work shall be completed within **60 days with an additional 30 days for final completion.**
- B. The Contractor further agrees that for each calendar day, with the exception of Sundays and legal holidays, which any work shall remain uncompleted after the stations completion times stipulated above, the sum of **\$1,000 (ONE THOUSAND DOLLARS)** shall be deducted from monies due the Contractor, not as a penalty, but as liquidated damages. If the Contractor is declared in default in accordance with the provisions of the Specifications, liquidated damages shall be charged as provided herein, and such amounts shall be deducted from the final amount payable to the Contractor or his Surety. Should the total

amount chargeable as liquidated damages exceed the amount due or payable to the Contractor or his Surety, then such excess shall be paid to the Owner by the Contractor or his Surety.

ARTICLE III.

- A. The Contractor shall receive and accept the compensation for the performance of the Contract (subject to additions or deductions noted therein) in accordance with the prices stipulated in the Proposal, and in the manner provided in Article IV for the Contract Price of \$_____ and for additions or revisions approved in Change Orders at Unit Prices.

ARTICLE IV.

- A. Payment to the Contractor shall be made as follows:
1. Not later than the fifteenth (15th) day of each calendar month, the Owner will make a partial payment to the Contractor on the basis of a duly certified and approved estimate by the Engineer of the work performed during the preceding calendar month under this Contract, and (at the option of the City) an amount equal to 90% of materials and equipment not incorporated in the work but delivered and suitably stored. When payment to the Contractor is made for stored materials and equipment, Contractor shall submit invoices marked paid by the supplier with the next month's request for payment to document that Contractor has paid for said materials and equipment or the previously paid amount for stored materials shall be deducted from any remaining payment(s) for any stored materials not so properly documented. To insure the proper performance of this Contract, the Owner will retain ten percent (10%) of the amount of each estimate until the work is fifty percent (50%) complete.
 2. When work is fifty percent (50%) complete, the Owner may allow the reduction of the withholding to five percent (5%) of the dollar value of all work satisfactorily completed to date, provided that the Contractor is making satisfactory progress and there is no specific cause for greater withholding.
 3. Upon completion of the entire work under Contract, the Engineer shall make a final inspection and certify such completion to the Owner. Upon approval of the completion certificate by the Owner, the Owner shall notify the Contractor and the Surety of the satisfactory completion of the work and except as otherwise provided in the Specifications, final payment therefore shall be made to the Contractor within thirty (30) days after written acceptance by the Contractor of the final certificate computation.

ARTICLE V.

- A. The Contract shall not sublet, sell, transfer, assign, or otherwise dispose of the Contract or any portion thereof, or his right, title or interest therein, without written consent of the Owner.

ARTICLE VI.

- A. The work shall be subject at all times to the supervision of the Engineer and his authorized assistants. The Engineer shall decide all questions which may arise relative to the Drawings, Specifications, and the performance of the work. Any doubt concerning the meaning of the Specifications and the Drawings, or any ambiguity or obscurity as to wording or intent of them shall be decided by the Engineer, and such decisions shall be binding upon both parties hereto, and shall not be subject to arbitration.

ARTICLE VII.

- A. The Contractor shall guarantee his work and shall remedy, without cost to the Owner, any defects which may develop therein during a period of one (1) year from the date of the Owner's approval of the Completion Certificate issued by the Engineer.

ARTICLE VIII.

- A. In the event of conflict between any of the Contract Documents, the provisions of this Agreement shall govern.

IN WITNESS WHEREOF, the Parties hereto have signed this Contract in quintuplicate the day and year first above written.

ATTEST:

CITY OF HOLLY HILL, FLORIDA

Valerie Manning

By _____
Joseph A. Forte

Title City Clerk

Title _____
City Manager

WITNESS:

CONTRACTOR

By _____

END OF SECTION

SECTION 00 62 00
CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the _____
of the corporation named as Principal in the within Bid Bond; that _____
who signed the said Bid Bond on behalf of the Principal was then _____
of said corporation; that I know his signature, and his signature thereto is genuine; and that said
Bid Bond was duly signed, sealed and attested for in behalf of said corporation by authority of its
governing body.

AFFIX CORPORATE SEAL

END OF SECTION

SECTION 00 62 76 APPLICATION FOR PAYMENT

PART I - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Submit Application for payment to the Engineer in accordance with schedule established by Conditions of the Contract and Agreement between Owner and Contractor. Contractor shall use the Application and Certificate for Payment Form included on Section 00 84 40 as the official pay request form.
- B. Related Requirements Described Elsewhere:
 - 1. Agreement: Section 00 50 00.
 - 2. Section 01 32 16: Construction Progress Schedules
 - 3. Section 01 29 73: Schedule of Values
 - 4. Section 01 32 33: Photographic Documentation
 - 5. Section 01 78 39: Project Record Documents
 - 6. Section 00 84 40: Application and Certificate for Payment Form
 - 7. Section 01 77 00: Closeout Procedures
 - 8. Section 00 84 90: Final Release of Lien

1.02 FORMAT REQUIRED

- A. Submit applications typed on the form provided in Division 0, Section 00 84 40: Application and Certificate for Payment Form, with itemized data typed on 8-1/2 inch x 11 inch or white paper continuation sheets.
- B. Provide itemized data on continuation sheets of format, schedules, line items, and values specified on the Application and Certificate for Payment Form. The Contractor shall use the item descriptions and contract values included in schedule of values, approved and accepted by the Engineer as a basis for preparation of the Application for Payment Form.

1.03 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Application Form:
 - 1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
 - 2. Fill in percent complete for each activity and dollar values to agree with respective percents.

3. Execute certification with signature of a responsible officer of Contractor.

B. Continuous Sheets:

1. Fill in total of all scheduled component items of the Work, with item number and schedule dollar value for each item.
2. Fill in dollar value in each column for each scheduled line item when Work has been performed or products stored. Round off values to nearest dollar, or as specified for Schedule of Values.
3. List each Change Order executed prior to date of submission, at the end of the continuation sheets. List by Change Order Number, and description, as for an original component item Work.
4. To receive approval for payment on component material stored on site, submit copies of the original invoices with Application and Certificate for Payment.
5. As provided for in the Application and Certificate for Payment Form, the Contractor shall certify, for each current pay request, that all previous progress payments received from the Owner, under this Contract, have been applied by the Contractor to discharge in full, all obligations of the Contractor in connection with Work covered by prior Applications for Payment, and all materials and equipment incorporated into the Work are free and clear of all liens, claims, security interest, and encumbrances. Contractor shall attach to each Application and Certificate for Payment like affidavits by all Subcontractors.

1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. Contractor shall submit suitable information, with a cover letter identifying:
1. Project.
 2. Application number and date.
 3. Detailed list of enclosures.
 4. For stored products:
 5. Item number and identification as shown on application.
 6. Description of specific material.

- B. Submit one (1) copy of data and cover letter for each copy of application.
- C. The Contractor is to maintain an updated set of drawings to be used as record drawings in accordance with Section 01 78 39: Project Record Documents. As a prerequisite for monthly progress payments, the Contractor is to exhibit the updated record drawings for review by the Owner and the Engineer.
- D. Each monthly application for payment shall incorporate the corresponding “monthly progress status report” and updated construction schedule, prepared in accordance with the requirements of Section 01 32 16: Construction Progress Schedules.
- E. As a prerequisite for payment, Contractor shall submit a duly executed letter from surety consenting to payment due and progress to date.
- F. Provide construction photographs in accordance with Section 01 32 33: Photographic Documentation.

1.05 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in application form as specified for progress payments. Provide information as required by the General Conditions and Section 01 77 00: Closeout Procedures
- B. Furnish evidence of completed operations and insurance in accordance with the General Conditions.
- C. Provide Contractor’s Final Release of Lien (Section 00 84 90) and other close-out submittals as required by the General Conditions.

1.06 SUBMITTAL PROCEDURE

- A. Submit Application for Payment to the Engineer at the time stipulated in the Agreement, or as agreed to at the pre-construction meeting. Review the percents complete with the Engineer and resolve any conflict or discrepancies.
- B. Application for payments to be submitted electronically in color for processing and payment.
- C. When the Engineer finds the Application and Certificate for Payment Form is properly completed and correct, he will execute the Certificate for Payment and transmit the forms to the Owner, with a copy to the Contractor.

PART II - PRODUCTS (NOT USED)

PART III - EXECUTION (NOT USED)

END OF SECTION

Return Recorded Document to:
City Clerk
1065 Ridgewood Avenue
Holly Hill, FL 32117

10th STREET SEWER EXTENSION

Name of Project

City Project No. 24-WW-07

Bond No. _____

Space Reserved for Recording Data

COMBINATION PAYMENT AND PERFORMANCE BOND FOR PUBLIC CONSTRUCTION

*per Section 255.05, Florida Statutes (2010)
Guaranty for Construction of Public Improvements*

BY THIS BOND, We, _____, as Principal, and _____, a corporation, as Surety, are bound to **CITY OF HOLLY HILL, FLORIDA**, a municipal corporation, herein called Owner or sometimes referred to as "City," in the sum of _____ and /100 Dollars (\$_____), for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the terms of that certain Contract having an effective date of _____, entered into by and between the Principal and the City, hereinafter sometimes referred to as the Contract, entered into between Principal and Owner for construction of improvements reflected on the plans approved by the City Council, as prepared by Kevin A. Lee, P.E., Florida Registration No. 71501, of the engineering firm Parker Mynchenberg & Associates, Inc., the "Contract," being made a part of this bond by reference, at the times and in the manner prescribed in the Contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the Contract (the "Work"); and
3. Pays Owner all losses, damages, delay damages (including contractually authorized liquidated damages), expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a breach or material breach by Principal under the Contract Documents; and
4. Performs the guarantee of all work and materials furnished under the Contract for the time specified in the Contract, then this bond is void; otherwise it remains in full force.

Notice of Nonpayment and Time Limitations

Pursuant to Florida Statutes Section 255.05, as amended from time to time, a claimant, except a laborer, who is not in privity with the Principal, shall, before commencing or not later than forty-five (45) days after commencing to furnish labor, materials, or supplies for the prosecution of the Work, furnish the Principal with a notice that he or she intends to look to this bond for protection. A claimant who is not in privity with the Principal and who has not received payment for his or her labor, materials, or supplies shall deliver to the Principal and to the Surety written notice of the performance of the labor or delivery of the materials or supplies and of the nonpayment. The notice of nonpayment may be served at any time during the progress of the Work or thereafter but not before forty-five (45) days after the first furnishing of labor, services, or materials by the claimant or, with respect to rental equipment, not later than ninety (90) days after the date that the rental equipment was last on the job site

available for use. No action for the labor, materials, or supplies may be instituted against the Principal or the Surety unless both notices have been given. Notices required or permitted under this section may be served in accordance with Section 713.18, Florida Statutes. An action, except for an action exclusively for recovery of retainage, must be instituted against the Principal or the Surety on this bond within one (1) year after the performance of the labor or completion of delivery of the materials or supplies. An action exclusively for recovery of retainage must be instituted against the Principal or the Surety within one (1) year after the performance of the labor or completion of delivery of the materials or supplies, or within ninety (90) days after receipt of final payment (or the payment estimate containing the Owner's final reconciliation of quantities if no further payment is earned and due as a result of deductive adjustments) by the Principal or Surety, whichever comes last.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

IN WITNESS WHEREOF, this performance and payment bond is executed in duplicate originals, each of which shall be deemed an original, this _____, day of _____, 20____.

Attest:

(Name of Principal)

(As to Corporate Principal) Secretary

By: _____

Name/Title: _____

(Witness to Principal)

(Corporate Seal)

(Surety)

(Witness to Surety)

By: _____

(Attorney-In-Fact)

(Corporate Seal)

NOTE: Date of BOND must not be prior to date of Contract. If Developer/Principal is Partnership, all partners should execute BOND. All BONDS signed by an agent must be accompanied by a certified copy of the authority to act.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Florida.

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 00 64 00

Front Page for Bond required by Section 255.05, F.S

PAYMENT AND PERFORMANCE BOND

(Public Works)

Notice and Time Limitations Must Be In Accordance
With Section 255.05 Florida Statutes (2010)**BOND No.** _____**PRINCIPAL:**

Name of Developer/Contractor: _____

Address: _____

Contact Person: _____

Phone Number: () - _____

SURETY:Address: _____

Contact Person: _____

Phone Number: () - _____

OWNER:City of Holly Hill, Florida, a chartered municipal corporation
1065 Ridgewood Avenue
Holly Hill, FL 32117

Contact Person: City Manager

Phone Number: (386) 248-9463

Amount: \$ _____**City Case/Project No.** 24-WW-07**Description of Work:***Installation of approximately 1,700 LF of 4" force main by directional drill.***Project Location:** Holly Hill, Volusia County, Florida**Legal Description:** City Right-of-Way or Easement.Front Page

All other pages are subsequent to this page regardless of any numbers that may be printed thereon.

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

Certificate for Filing in Public Records**PAYMENT AND PERFORMANCE BOND**

(Public Works)

In Compliance with Section 255.05(1)(a) Florida Statutes (2010)

Bond No. _____

The Principal, _____
 by and through its undersigned representative, does hereby certify that the attached:

Payment and Performance Bond No. _____,
 is a true and correct copy of the fully executed financial guarantee delivered to:

CITY OF HOLLY HILL, FLORIDA

pursuant to Section 255.05, Florida Statutes (2010); as Owner/Holder of the subject property in trust for the public, for the public construction project known as:

10th STREET SEWER EXTENSION

located in Holly Hill, Volusia County, Florida, and identified by the City of Holly Hill as Case No. **24-WW-07**.

All claimants are called upon to take notice of the notice requirements and time limitations prescribed by Section 255.05(2), Florida Statutes (2010).

_____ a Florida _____
 Mailing Address: _____

By: _____
 Name/Title: _____

STATE OF FLORIDA
 COUNTY OF VOLUSIA

The foregoing Certificate of Filing was acknowledged before me this _____ day of _____, 20____, by _____ as a duly authorized representative of _____ a Florida _____, the Principal named in the attached **Payment and Performance Bond No.** _____.

Notary, please check one:

_____ Personally known to me
 _____ Produced identification

 Notary Public, State of Florida

My Commission Expires: _____

Printed Name: _____

SECTION 00 65 00
CERTIFICATE OF INSURANCE
FOR
PUBLIC LIABILITY AND PROPERTY DAMAGE

This is to certify _____ Company has
issued to _____, of the City of _____, State of _____,
the following policy or policies; Public Liability Policy No. _____ effective on _____,
_____, 20____, limits _____,
Property Damage Policy No. _____ effective on _____, 20____, and expiring
on _____, 20____, limits _____.

If at any time this coverage is to be canceled, the undersigned will notify the insured and _____
_____, in writing thirty (30) days prior to cancellation of
the policy.

(This certificate must be made by a duly authorized official of the Insurance Company carrying the risk, or a separate certificate of similar context executed on Insurance Company's Standard Form may be attached hereto.)

END OF SECTION

SECTION 00 66 00
AFFIDAVIT REGARDING WORKMEN'S COMPENSATION

State of _____

County of _____

_____ being duly sworn according to law, deposes and says (it, he, they) ha__ accepted the Workmen's Compensation laws of the State of Florida, with its supplements and amendments and has insured (its, his, their) liability there under in accordance with the terms of said Laws with the _____ Company, under the terms of Policy No. _____ for a period from _____, 20 _____ to _____, 20 ____.

WITNESS:

CONTRACTOR:

By _____

Title _____

Sworn to and subscribed before me this ____ day of _____, 20____.

Notary Public

Notary Public (Print or Type)

My Commission Expires: _____

END OF SECTION

**SECTION 00 66 50
CERTIFICATE OF INSURANCE
FOR
WORKMEN'S COMPENSATION**

This is to certify that _____, Company has issued
to _____, of the City of _____, State of _____,
the following policy or policies: Workmen's Compensation and Employer's Liability Policy No. _____
effective on _____, 20 _____.
re _____ Policy No. _____
effective on _____, 20 ____ and expiring on _____, 20 ____
re _____ limits _____.

If at any time this coverage is to be canceled, the undersigned will notify the insured and
the _____ in writing thirty (30) days
prior to cancellation of policy.

(This certificate must be made by a duly authorized official of the Insurance Company carrying
the risk, or a separate certificate of similar context executed on Insurance Company's Standard
Form may be attached hereto.)

END OF SECTION

SECTION 00 67 00
CONTRACTOR'S STATEMENT UNDER OATH, TO OWNER

To: _____

The undersigned as Contractor has heretofore, on the ____ day of _____, 20 __, has been awarded a Contract by you, as Owner, to furnish all the materials and labor in the construction of a project entitled: _____

for the Contract Price of _____ in accordance with plans and specifications therefore as prepared by Parker Mynchenberg & Associates, Inc., 1729 Ridgewood Ave., Holly Hill, FL 32117.

Said project has been completed and the Contract and Plans therefore fully complied with and all of the Contract Price has been paid by you, except the Final Payment thereon, which is now due, but is being withheld until a sworn statement is furnished, as required by _____ showing whether there are any unpaid and outstanding bills in connection with said Project.

The undersigned hereby certified, under oath, that all lienors contracting directly with or directly employed by the undersigned, on said Contract, have been paid in full, and further certifies, under oath, that there are no outstanding or unpaid bills for labor performed, or materials furnished in connection with said work or improvements.

Dated at _____ this ____ day of _____, 20____.

By _____
 Contractor

Title _____

State of _____

County of _____

Sworn to and subscribed before me this ____ day of _____, 20 ____.

 Notary Public

My Commission Expires: _____

END OF SECTION

**SECTION 00 68 00
RECEIPT AND RELEASE**

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned _____ of _____ was heretofore, on _____, 20 __, award a Contract by _____ for the Contract Price of _____ to furnish all the materials and labor in the construction of a project entitled:

10th STREET SEWER EXTENSION

in accordance with the plans and specifications therefore, as prepared by Parker Mynchenberg & Associates, Inc., Engineers, and the undersigned has completed said work and fully complied with said Contract and has heretofore received the sum of \$ _____ as payment thereon.

That the undersigned has this date received from _____ the sum of \$ _____, representing the full balance due _____, as Contractor, under the terms of said Contract, and certified that said Contract has been fully performed in accordance with the terms thereof, and that _____ has paid in full all persons furnishing labor and/or materials in connection therewith, including all subcontractors and suppliers, and that there are no unpaid bills for labor performed or materials furnished in connection with said work or improvements.

That the undersigned, for value received, does hereby forever release and discharge the said _____ as described in the said Contract, from any and all liens, claims or demands whatsoever that _____ has or may have for work performed or materials furnished thereon by any subcontractor or supplier and that will hold harmless the _____ from any and all loss and liability arising or to arise by reason of any unpaid bills for labor performed or materials furnished on said project in connection with said work or improvements. This document is only binding upon receipt of a check for the above balance due.

IN WITNESS WHEREOF, the undersigned has hereto set ____ hand and seal this _____ day of _____, 20 ____.

Witnessed by:

CONTRACTOR

By _____

Title _____

State of _____

County of _____

Before me, the undersigned authority, personally appeared _____, to me well known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged before me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal this ____ day of _____, 20 ____.

My Commission Expires:

Notary Public, State of Florida

END OF SECTION

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

**SECTION 00 69 00
CONSENT OF SURETY
For Final Payment**

Project Name:

10th STREET SEWER EXTENSION

Location _____

Project No. _____ Contract No. _____

Type of Contract _____

Amount of Contract _____

In accordance with the provisions of the above-named contract between the Owner and the Contractor, the following named surety: _____
on the Payment Bond of the following named Contractor: _____
hereby approves of final payment to the Contractor, and further agrees that said final payment to the Contractor shall not relieve the Surety Company named herein of any of its obligations to the following named Owner, as set forth in said Surety company's bond: _____.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand and seal this day of _____, 20 ____.

(Name of Surety Company)

(Signature of Authorized Representative)

(Affix Corporate Seal)

TITLE

END OF SECTION

00 69 00-1

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



Copyright© 2018

National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314-2794
(703) 684-2882
www.nspe.org

American Council of Engineering Companies
1015 15th Street N.W., Washington, DC 20005
(202) 347-7474
www.acec.org

American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191-4400
(800) 548-2723
www.asce.org

The copyright for this EJCDC document is owned jointly by the three sponsoring organizations listed above. The National Society of Professional Engineers is the Copyright Administrator for the EJCDC documents; please direct all inquiries regarding EJCDC copyrights to NSPE.

NOTE: EJCDC publications may be purchased at www.ejcdc.org, or from any of the sponsoring organizations above.

GUIDELINES FOR USE OF EJCDC® C-700, STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

1.0 PURPOSE AND INTENDED USE OF THE DOCUMENT

EJCDC® C-700, Standard General Conditions of the Construction Contract (2018), is the foundation document for the EJCDC Construction Series. The General Conditions define the basic rights, responsibilities, risk allocations, and contractual relationship of the Owner and Contractor, and establish how the Contract is to be administered.

2.0 OTHER DOCUMENTS

EJCDC documents are intended to be used as a system and changes in one EJCDC document may require a corresponding change in other documents. Other EJCDC documents may also serve as a reference to provide insight or guidance for the preparation of this document.

These General Conditions have been prepared for use with either EJCDC® C-520, Agreement Between Owner and Contractor for Construction Contract (Stipulated Price), or EJCDC® C-525, Agreement Between Owner and Contractor for Construction Contract (Cost-Plus-Fee) (2018 Editions). The provisions of the General Conditions and the Agreement are interrelated, and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC® C-800, Supplementary Conditions of the Construction Contract (2018).

The full EJCDC Construction series of documents is discussed in the EJCDC® C-001, Commentary on the 2018 EJCDC Construction Documents (2018).

3.0 ORGANIZATION OF INFORMATION

All parties involved in a construction project benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location; doing so frequently leads to confusion and unanticipated legal consequences. Careful attention should be given to the guidance provided in EJCDC® N-122/AIA® A521, Uniform Location of Subject Matter (2012 Edition) when preparing documents. EJCDC® N-122/AIA® A521 is available at no charge from the EJCDC website, www.ejcdc.org, and from the websites of EJCDC's sponsoring organizations.

If CSI MasterFormat™ is used for organizing the Project Manual, consult CSI MasterFormat™ for the appropriate document number (e.g., under 00 11 00, Advertisements and Invitations), and accordingly number the document and its pages.

4.0 EDITING THIS DOCUMENT

Remove these Guidelines for Use. Some users may also prefer to remove the two cover pages.

Although it is permissible to revise the Standard EJCDC Text of C-700 (the content beginning at page 1 and continuing to the end), it is common practice to leave the Standard EJCDC Text of C-700 intact and unaltered, with modifications and supplementation of C-700's provisions set forth in EJCDC® C-800, Supplementary Conditions of the Construction Contract (2018). If the Standard Text itself is revised, the

user must comply with the terms of the License Agreement, Paragraph 4.0, Document-Specific Provisions, concerning the tracking or highlighting of revisions. The following is a summary of the relevant License Agreement provisions:

1. The term “Standard EJCDC Text” for C-700 refers to all text prepared by EJCDC in the main body of the document. Document covers, logos, footers, instructions, or copyright notices are not Standard EJCDC Text for this purpose.
2. During the drafting or negotiating process for C-700, it is important that the two contracting parties are both aware of any changes that have been made to the Standard EJCDC Text. Thus, if a draft or version of C-700 purports to be or appears to be an EJCDC document, the user must plainly show all changes to the Standard EJCDC Text, using “Track Changes” (redline/strikeout), highlighting, or other means of clearly indicating additions and deletions.
3. If C-700 has been revised or altered and is subsequently presented to third parties (such as potential bidders, grant agencies, lenders, or sureties) as an EJCDC document, then the changes to the Standard EJCDC Text must be shown, or the third parties must receive access to a version that shows the changes.
4. Once the document is ready to be finalized (and if applicable executed by the contracting parties), it is no longer necessary to continue to show changes to the Standard EJCDC Text. The user may produce a final version of the document in a format in which all changes are accepted, and the document at that point does not need to include any “Track Changes,” redline/strikeout, highlighting, or other indication of additions and deletions to the Standard EJCDC Text.

5.0 LICENSE AGREEMENT

This document is subject to the terms and conditions of the **License Agreement, 2018 EJCDC® Construction Series Documents**. A copy of the License Agreement was furnished at the time of purchase of this document, and is available for review at www.ejcdc.org and the websites of EJCDC’s sponsoring organizations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

	Page
Article 1—Definitions and Terminology.....	1
1.01 Defined Terms.....	1
1.02 Terminology	6
Article 2—Preliminary Matters	7
2.01 Delivery of Performance and Payment Bonds; Evidence of Insurance.....	7
2.02 Copies of Documents	7
2.03 Before Starting Construction	7
2.04 Preconstruction Conference; Designation of Authorized Representatives	8
2.05 Acceptance of Schedules	8
2.06 Electronic Transmittals	8
Article 3—Contract Documents: Intent, Requirements, Reuse.....	9
3.01 Intent.....	9
3.02 Reference Standards.....	9
3.03 Reporting and Resolving Discrepancies	10
3.04 Requirements of the Contract Documents.....	10
3.05 Reuse of Documents	11
Article 4—Commencement and Progress of the Work	11
4.01 Commencement of Contract Times; Notice to Proceed.....	11
4.02 Starting the Work.....	11
4.03 Reference Points	11
4.04 Progress Schedule	12
4.05 Delays in Contractor’s Progress	12
Article 5—Site; Subsurface and Physical Conditions; Hazardous Environmental Conditions	13
5.01 Availability of Lands	13
5.02 Use of Site and Other Areas.....	14
5.03 Subsurface and Physical Conditions.....	15
5.04 Differing Subsurface or Physical Conditions	16

5.05	Underground Facilities	17
5.06	Hazardous Environmental Conditions at Site	19
Article 6—Bonds and Insurance.....		21
6.01	Performance, Payment, and Other Bonds	21
6.02	Insurance—General Provisions	22
6.03	Contractor’s Insurance.....	24
6.04	Builder’s Risk and Other Property Insurance	25
6.05	Property Losses; Subrogation	25
6.06	Receipt and Application of Property Insurance Proceeds	27
Article 7—Contractor’s Responsibilities		27
7.01	Contractor’s Means and Methods of Construction	27
7.02	Supervision and Superintendence	27
7.03	Labor; Working Hours	27
7.04	Services, Materials, and Equipment	28
7.05	“Or Equals”	28
7.06	Substitutes	29
7.07	Concerning Subcontractors and Suppliers.....	31
7.08	Patent Fees and Royalties.....	32
7.09	Permits	33
7.10	Taxes	33
7.11	Laws and Regulations.....	33
7.12	Record Documents.....	33
7.13	Safety and Protection	34
7.14	Hazard Communication Programs	35
7.15	Emergencies	35
7.16	Submittals	35
7.17	Contractor’s General Warranty and Guarantee	38
7.18	Indemnification	39
7.19	Delegation of Professional Design Services	39
Article 8—Other Work at the Site.....		40
8.01	Other Work	40
8.02	Coordination	41
8.03	Legal Relationships.....	41

Article 9—Owner’s Responsibilities	42
9.01 Communications to Contractor	42
9.02 Replacement of Engineer	42
9.03 Furnish Data	42
9.04 Pay When Due	42
9.05 Lands and Easements; Reports, Tests, and Drawings	43
9.06 Insurance	43
9.07 Change Orders	43
9.08 Inspections, Tests, and Approvals	43
9.09 Limitations on Owner’s Responsibilities	43
9.10 Undisclosed Hazardous Environmental Condition	43
9.11 Evidence of Financial Arrangements	43
9.12 Safety Programs	43
Article 10—Engineer’s Status During Construction	44
10.01 Owner’s Representative	44
10.02 Visits to Site	44
10.03 Resident Project Representative	44
10.04 Engineer’s Authority	44
10.05 Determinations for Unit Price Work	45
10.06 Decisions on Requirements of Contract Documents and Acceptability of Work	45
10.07 Limitations on Engineer’s Authority and Responsibilities	45
10.08 Compliance with Safety Program	45
Article 11—Changes to the Contract	46
11.01 Amending and Supplementing the Contract	46
11.02 Change Orders	46
11.03 Work Change Directives	46
11.04 Field Orders	47
11.05 Owner-Authorized Changes in the Work	47
11.06 Unauthorized Changes in the Work	47
11.07 Change of Contract Price	47
11.08 Change of Contract Times	49
11.09 Change Proposals	49
11.10 Notification to Surety	50

Article 12—Claims.....	50
12.01 Claims.....	50
Article 13—Cost of the Work; Allowances; Unit Price Work	51
13.01 Cost of the Work	51
13.02 Allowances	55
13.03 Unit Price Work.....	55
Article 14—Tests and Inspections; Correction, Removal, or Acceptance of Defective Work	56
14.01 Access to Work.....	56
14.02 Tests, Inspections, and Approvals.....	56
14.03 Defective Work	57
14.04 Acceptance of Defective Work.....	58
14.05 Uncovering Work	58
14.06 Owner May Stop the Work	58
14.07 Owner May Correct Defective Work.....	59
Article 15—Payments to Contractor; Set-Offs; Completion; Correction Period	59
15.01 Progress Payments.....	59
15.02 Contractor’s Warranty of Title	62
15.03 Substantial Completion.....	62
15.04 Partial Use or Occupancy	63
15.05 Final Inspection	64
15.06 Final Payment.....	64
15.07 Waiver of Claims	65
15.08 Correction Period	66
Article 16—Suspension of Work and Termination	67
16.01 Owner May Suspend Work	67
16.02 Owner May Terminate for Cause.....	67
16.03 Owner May Terminate for Convenience.....	68
16.04 Contractor May Stop Work or Terminate	68
Article 17—Final Resolution of Disputes	69
17.01 Methods and Procedures.....	69
Article 18—Miscellaneous	69
18.01 Giving Notice	69
18.02 Computation of Times.....	69

18.03	Cumulative Remedies	70
18.04	Limitation of Damages	70
18.05	No Waiver	70
18.06	Survival of Obligations	70
18.07	Controlling Law	70
18.08	Assignment of Contract.....	70
18.09	Successors and Assigns	70
18.10	Headings.....	70

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*
 - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

EJCDC® C-700, Standard General Conditions of the Construction Contract.

Copyright© 2018 National Society of Professional Engineers, American Council of Engineering Companies, and American Society of Civil Engineers. All rights reserved.

requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.

- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
 - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
 12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
 17. *Cost of the Work*—See Paragraph 13.01 for definition.
 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
 20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
 21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - 1. does not conform to the Contract Documents;
 - 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
 - 1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 - 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 - 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
 - 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and
 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
 - 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
 - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

- A. *Standards Specifications, Codes, Laws and Regulations*
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
 - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings*: The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities*: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents*: Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
 3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
 4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
2. is of such a nature as to require a change in the Drawings or Specifications;
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

- of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

- Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
 - F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
 - G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
 - H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
 - I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
 - J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
 - K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 Contractor's Insurance

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
 - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 Substitutes

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
 2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. *Resubmittal Procedures for Shop Drawings and Samples*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. *Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
- 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
 - 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 - 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
 - 1. Observations by Engineer;
 - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. Use or occupancy of the Work or any part thereof by Owner;
 - 5. Any review and approval of a Shop Drawing or Sample submittal;
 - 6. The issuance of a notice of acceptability by Engineer;
 - 7. The end of the correction period established in Paragraph 15.08;
 - 8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.

- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

B. If Owner has issued a Work Change Directive and:

1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

- B. *Change Proposal Procedures*

1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 Notification to Surety

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 Claims

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
 5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
 - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
 - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
- 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 6. Expenses incurred in preparing and advancing Claims.
- 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

- 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
- 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances*: Contractor agrees that:
1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 Defective Work

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
 - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.
- D. *Payment Becomes Due*
1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.
- E. *Reductions in Payment by Owner*
1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
 - 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
 - 1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 - 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 - 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

**SECTION 00 70 50
RELEASE OF ALL CLAIMS**

STATE OF _____

COUNTY OF _____

CITY OF _____

KNOW ALL MEN BY THESE PRESENTS, that the sum of: _____

Dollars (\$ _____) set out in the accompanying Estimate Statement No. _____

Final, the receipt of which is hereby acknowledged, is accepted as full and complete payment for all work done, materials furnished, and damages or claims arising under the City of Holly Hill Contract entitled _____.

WITNESSES:

Contractor

Title: _____

(SEAL)

Taken, sworn, and subscribed to before me this _____ day of _____, 20____.

Notary Public Signature

Notary Public (Print or Type)

(SEAL)

My commission Expires: _____

END OF SECTION

SECTION 00800 SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (NSPE/ACEC Document No. C-700, 2018 edition) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

SC-1.01A.42 Delete the definition of *Substantial Completion* and insert the following in its place:

42. *Substantial Completion* - The Work (or a specified part thereof) has progressed to the point where, in the opinion of the Engineer as evidenced by Engineer's definitive Certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents and that all conditions precedent to Substantial Completion have been met in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.

Add the following definitions at the end of Article 1 - definitions of the Standard General Conditions of the Construction Contract:

SC-1.01.A.51 Compensable Delay - Any delay beyond the control and without the fault or negligence of the Contractor resulting from Owner-caused changes in the Work, differing site conditions, suspensions of the Work, or termination for convenience by the Owner.

SC-1.01.A.52 Correction Period - The time during which the Contractor must correct defective Work or remove defective Work from the site and replace it with non-defective Work, all at no cost to the Owner, pursuant to paragraph 14.03 of the General Conditions, as supplemented.

SC-1.01A.53 Final Completion - The date upon which final payment is due to be paid by Owner to Contractor.

SC-1.01A.54 Excusable Delay - Any delay beyond the control and without the fault or negligence of the Contractor, the Owner, or any other Contractor caused by events or circumstances such as, but not limited to, acts of God or of the public enemy, acts of interveners, acts of the government, fires, floods, epidemics, quarantine restrictions, freight embargoes, and hurricanes, tornadoes, or new sink holes. Labor disputes and above average rainfall shall give rise only to Inexcusable Delays.

SC-1.01A.55 Float or Slack Time - The time available in the progress schedule during which an unexpected activity can be completed without delaying the Substantial Completion of the Work.

- SC-1.01A.56 Initiation of Operation - The date when the Owner actually begins to use the entire Work for the purposes for which it was planned, designed and built, thus commences the Correction Period. The Owner shall not be deemed to have accepted the Work until Initiation of Operation.
- SC-1.01A.57 Modification - (a) A written amendment of the Contract Documents signed by both parties, (b) a Change Order, or (c) a Field Order. A modification may be issued after the Effective Date of the Agreement.
- SC-1.01A.58 Inexcusable Delay - Any delay caused either (i) by events or circumstances within the control of the Contractor, such as inadequate crewing, slow submittals, etc., which might have been avoided by the exercise of care, prudence, foresight, or diligence on the part of the Contractor, (ii) by weather conditions (other than hurricanes and tornadoes) or (iii) labor disputes.
- SC-1.01A.59 Non-Prejudicial Delay - Any delay impacting a portion of the Work within the available total Float or Slack Time, as that term is used in Section 01 31 00: Progress Schedules, and not necessarily preventing completion of the Work within the Contract Time.
- SC-1.01A.60 Prejudicial Delay - Any Excusable or Compensable Delay impacting the Work and exceeding the total Float Time available in the progress schedule, thus preventing completion of the Work within the Contract Time unless the Work is accelerated.
- SC-1.01A.61 Preoperational Testing (Check-Out-Testing) - All field inspections, installation checks, water tests, performance tests, and necessary corrections required of the Contractor as a condition or conditions to achieving Substantial Completion to demonstrate to the Owner and Engineer that individual components of the Work have been properly constructed and operate in accordance with the Contract Documents for their intended purposes.
- SC-1.01A.62 Start-Up Testing (Demonstration Testing) - A predefined trial period required as a condition to Initiation of Operation during which Contractor is to operate the entire Work (or any part thereof agreed to by the Owner) under actual and simulated operating conditions for the purpose (i) of making such minor adjustments and changes to the Work as may be necessary for the Work to comply with the Contract Documents and (ii) of complying with the final test requirements in the Contract Documents."
- SC-2.02 Modify paragraph 2.02A of the General Conditions:
- A. Owner shall furnish Contractor one portable document format (PDF) copy of contract.
- SC-3.03 Add the following immediately after paragraph 3.03 A.3. of the Standard General Conditions:

- A. The Contractor shall not take advantage of any apparent error or omissions which may be found in the Drawings or Specifications, and the Engineer shall be entitled to make such corrections therein and interpretations thereof as may be deemed necessary for the fulfillment of their intent. The Contractor shall be responsible for all errors in construction which could have been avoided by such examination and notification and shall correct, at its own expense, all Work improperly constructed through failure to notify the Engineer and request specific instructions.

SC-3.03 Add the following immediately after paragraph 3.03B:

C. Order of Precedence of Contract Documents:

1. In resolving differences resulting from conflicts, errors or discrepancies in any of the following Contract Documents, the order of precedence shall be as follows:
 - a. Permits
 - b. Change Orders
 - c. Contract Agreement
 - d. Specification
 - e. Drawings
2. Within the Specifications, the order of precedence is as follows:
 - a. Addenda
 - b. Notice to Bidders
 - c. Instructions to Bidders
 - d. Supplementary General Conditions
 - e. General Conditions
 - f. Division 1, General Requirements
 - g. Technical Specifications
 - h. Referenced Standard Specifications
3. With reference to the Drawings, the order of precedence is as follows:
 - a. Figures govern over scaled dimensions
 - b. Detail drawings govern over general drawings
 - c. Change order drawings govern over contract drawings
 - d. Contract drawings govern over standard or shop drawings

- SC-4.01 Delete paragraph 4.01 of the General Conditions in its entirety and insert the following in its place.
- A. A "Notice to Proceed" may be given to the Contractor at any time after the Effective date of the Agreement. The Contract Time will commence to run on the day indicated in the Notice to Proceed. In no event will the Contract Time commence to run later than the sixtieth (60th) day after the Effective Date of the Agreement.
- SC-5.04 Change the first sentence in the paragraph to "Then Contractor shall, within three (3) days after becoming aware thereof..."
- SC-5.06 Add a new paragraph immediately after paragraph 5.06 K of the Standard General Conditions which is to read as following:
- L. No claim of the Contractor under paragraphs 5.03, 5.05 and 5.06 shall be allowed unless, (1) the Contractor has given the notice required in sub-paragraph 5.06E, and (2) within thirty (30) days (but before final payment) after the Contractor has given written notice, the Contractor submits to the Owner a detailed claim setting forth the Contractor's right to an increase in the Contract Price or extension of the Contract Time as provided in Articles 11 and 13 of the Standard General Conditions.
- SC-6.01 Add a new paragraph immediately after paragraph 6.01 C of the Standard General Conditions which is to read as follows:
1. The following requirements shall be met by all surety companies furnishing bid, performance, payment or other type of Bonds:
- a. The Surety shall be rated as "A" or better as to General Policyholders Rating and Class X or better as to Financial Category by Best's Key Rating Guide, published by Alfred M. Best Company, Inc., 75 Fulton Street, New York, New York, 10038.
- All Surety Companies are subject to approval and may be rejected by the Owner without cause.
2. Limitations: Bonding limits or bonding capacity refers to the limit or amount of Bond acceptable on any one (1) risk.
- a. The bonding limit of the Surety shall not exceed ten percent

(10%) of the policyholder surplus (capital and surplus) as listed by the aforementioned Best's Key Rating Guide, on any one risk (penalty or amount of any one bond).

3. Requirements:

- a. Policyholders surplus is required to be five (5) times the amount of any one bond.
- b. The Agent countersigning the bond shall be resident in the County where the Project is located and/or other counties that are acceptable to the Owner.

SC-6.01 Add a new paragraph immediately after paragraph 6.01 H of the Standard General Conditions which read as follows:

- I. Contractor shall pay Owner all losses, damages, expenses, costs, and attorney's fees, including but not limited to any appellate proceedings, which the Owner sustains because of default by the Contractor under the contract.

SC-7.02 Add the following sub-paragraphs immediately after paragraph 7.02 B of the Standard General Conditions which are to read as follow:

- C. The Owner reserves the right to review and approve the resident superintendent.

SC-7.03 Add the following sub-paragraphs immediately after paragraph 7.03C of the Standard General Conditions which are to read as follow:

- D. Maintenance work may be performed during hours other than regular working hours. Regular working hours are defined as daylight hours between one-half hour after sunrise to one-half hour before sunset. Requests to Work during other regular working hours must be submitted to the Owner at least seventy-two (72) hours in advance of the period proposed for such irregular working hours and shall set forth the proposed schedule for such hours to give the Owner ample time to arrange for its personnel to be at the site of the Work.
- E. The Owner will pay for charges of Engineer and construction observation performed during regular working hours. The Contractor shall pay for additional engineering and construction observations charges required during irregular hours which may be authorized under the provisions of paragraph SC-7.03D. The rate paid to the Owner by the Contractor for additional engineering and construction observation changes shall be in accordance with the existing Contract between the Owner and Engineer.

- F. The Contractor shall also pay for the costs of additional engineering charges and construction observation required during the correction of defective Work. Such additional costs incurred during irregular working hours and during the correction of defective Work, shall be a subsidiary obligation of the Contractor and no extra payment shall be made by the Owner on account of such Work.

SC-7.07E. Revise 2nd to last sentence of paragraph to “If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto within 45 days of identification submission), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation.”

SC-7.13 Add the following paragraphs immediately following paragraph 7.13J.

- K. The Engineer is not responsible for the safety of any person on the jobsite other than the Engineer’s own employees. The Engineer has no authority to exercise any control over any construction Contractor or other entity or their employees in connection with their work or any health or safety precautions. The Owner agrees that the Contractor is solely responsible for jobsite safety and warrants that this intent shall be made evident in the Owner’s agreement with the Contractor. The Owner agrees that the Engineer shall be entitled to indemnification from the Contractor for any loss incurred by the Engineer arising out of any claim brought by any person or personal injuries sustained on the jobsite and warrants that this intent shall be made evident in the Owner’s agreement with the Contractor. The Engineer shall be made an additional insured under the Contractor’s general liability insurance policy for personal injuries to any person sustained on the jobsite.

SC-8.02 Add the following paragraphs immediately following paragraph 8.02B:

- C. The Contractor shall cooperate with all other Contractors who may be performing Work on behalf of the Owner in the vicinity of the Work to be done under this contract, and he shall conduct his operation as to interfere to the least possible extent with the Work of such Contractor.
- D. If the Work is delayed because of any acts of omissions of any other Contractor, the Contractor shall have no claim against the Owner on that account.

SC-15.01D This section is hereby deleted. The requirements of Florida Statute 218.735 of the Florida Prompt Payment Act shall apply.

SC-15.08 Add the following new sub-paragraph immediately after sub-paragraph 15.08A.4:

5. When deemed necessary by Owner, Contractor shall furnish and install at no cost to Owner, such temporary equipment and material necessary to maintain functionality of the Work while defective Work is being corrected or replaced.

SC-15.08 Add the following new paragraphs immediately after paragraph 15.08F:

- G. Subject to adjustments as described in sub-paragraph 15.08H, the period during which the Contractor must correct defective Work or remove it from the site and replace it with non-defective Work, all at no cost to the Owner (the "Correction Period"), shall be no more than one (1) year. If the date of Substantial Completion is not the same date as Initiation of Operation, such Correction Period shall commence upon Initiation of Operation, not upon the date of Substantial Completion. In such cases, the time between Substantial Completion and Initiation of Operation shall not exceed one hundred (100) days.
- H. No later than thirty (30) days before Initiation of Operation the Owner shall notify the Contractor in writing of the date upon which Initiation of Operation is expected to occur, and the Contractor shall ensure that the Work is ready in its entirety by such date for use by the Owner as contemplated in the Contract Documents.
- I. From the date of Substantial Completion until Initiation of Operation, the Contractor shall bear all risks of injury, loss, or damage to any part of the Work arising from the elements or from any other cause. The Contractor shall rebuild, repair, restore, and make good at no cost to the Owner, all injuries, losses, or damage to any portion of the Work occasioned by any cause and shall, at no expense to the Owner, provide suitable drainage and erect such temporary structures and take all other actions as are necessary for the protection of the Work. Suspension of the Work or the granting of an extension of the Contract Time for any cause shall not relieve the Contractor of its responsibility for the Work as herein specified. The Contractor's responsibilities under this paragraph 15.08 are in addition to, not in lieu of, all other obligations imposed by these Contract Documents.

SC-17 Delete Article 17 and all other references to "Dispute Resolution Agreement" in the Standard General Conditions. Disputes between Owner and Contractor shall be arbitrated only if and to the extent agreed to by the parties at the time each dispute arises. The Contractor shall carry on the Work and maintain the progress schedule during any dispute, regardless of how resolved, unless otherwise mutually agreed in writing. Venue for any litigation, at law or equity or arbitration, shall lie exclusively in the place of the County of the Owner's location. This Contract, or any provision hereof, shall be construed and interpreted, and any litigation arising there from, shall be governed by the laws of the State of Florida.

SECTION 00 80 00-A

**CONTRACTORS STANDARD INSURANCE REQUIREMENTS
AND INDEMNIFICATION CLAUSE****I. INSURANCE**

- A. Prior to commencing work, the Contractor shall provide at his own cost and expense insurance to the City of HOLLY HILL as required below. The insurance companies must be licensed in the State of Florida and be rated by A.M. Best as A: Class X or better. The required insurance shall be evidenced by certificates and/or policies as determined by the City. All policies and certificates of insurance shall be approved by the City prior to inception of any work.
- B. It is required that each Certificate of Insurance and/or policy must give 30 days prior written notice of cancellation, non-renewal or adverse change to the City of HOLLY HILL Finance Department by registered mail, return receipt requested. All such notices shall name the Contractor and identify the contract number.
- C. The "City of HOLLY HILL," wherever used, shall be defined to include the City itself, elected officials, officers, employees, volunteers, representatives, agents and any affiliates.
- D. The "Contractor," wherever used, shall be defined to include the Contractor, any subsidiaries or affiliates, officers, employees, volunteers, representatives, agents, contractors and subcontractors.
- E. If at any time any of the required policies shall be or shall become unsatisfactory to the City as to form or substance, or if the insurance company becomes unsatisfactory to the City, the Contractor shall, upon written notice to that effect from the City, promptly obtain a new policy, submit the policy to the City for approval, and submit the Certificate of Insurance, as previously required.

If at any time the Contractor shall fail to furnish and/or maintain the required insurance, this contract may be declared suspended, discontinued or terminated, at the discretion of the City. Failure of the Contractor to take out and/or maintain any of the required insurances shall not relieve the Contractor from any liability under the contract, nor shall the insurance requirements be construed to conflict with or otherwise limit the obligations of the Contractor concerning indemnification.

- F. The Contractor is required to provide new Certificates of Insurance to the City at least 20 days prior to the coverage renewal dates. If any of the insurance requirements are not complied with at their renewal dates, the City may at their option, (1) withhold payments to the Contractor until those requirements have been met or, (2) pay the renewal premium and withhold such payments from any monies due the Contractor.
- G. In the event of any claims having been filed due to any operation under this contract that are in excess of the insured amounts, the excess amount of such claim, or any portion thereof, may be withheld from payments due the Contractor until such time as the Contractor shall furnish such additional security covering such claims as may be determined by the City of HOLLY HILL

- H. The Contractor shall provide the following insurance on forms no more restrictive than the latest edition of those filed by the Insurance Services Office, and name the "City of HOLLY HILL" (as defined in "C" above) as an Insured to the extent of the City's interests.

II. LIABILITY INSURANCE

- A. WORKERS' COMPENSATION - STATUTORY - in compliance with the Workers' Compensation law of the State of Florida including employers liability coverage of at least \$100,000. If any operations are to be undertaken on or about navigable waters, coverage must be included for the U.S. Longshoremen and Harbor Workers Acts and Jones Act.

- B. COMMERCIAL GENERAL LIABILITY - with minimum limits of:

\$2,000,000	General Aggregate
\$1,000,000	Products - Completed Operations Aggregate
\$1,000,000	Personal and Advertisement Injury
\$1,000,000	Each Occurrence
\$ 100,000	Fire Damage

- C. BUSINESS AUTOMOBILE LIABILITY - with minimum limits of \$1,000,000 per occurrence combined single limit. This insurance shall include for bodily injury and property damages the following coverage's:

- (1) Owned Automobiles
- (2) Hired Automobiles
- (3) Non-owned Automobiles
- (4) Employee Non-ownership

NOTE! The required limits of liability for the above policies may include umbrella insurance with the umbrella policy making up the difference between the policy limits of the underlying policies and the total amount of coverage required. Such Umbrella Liability insurance shall be a "follow form" and be at least as broad as the underlying policies.

III. PROPERTY INSURANCE

When this contract includes construction of and/or additions to above-ground buildings or structures, Builder's Risk and/or Installation Floater policies must be provided as follows:

- A. BUILDER'S RISK - "All risk" form in the amount of 100% of the completed value of such addition, building or structure to include personal property of others in the care, custody or control of the Contractor, and shall include a flat-premium endorsement.

- (1) Maximum Deductible - \$5,000 each claim

- (2) Certified Copy of the policy must be provided to the City prior to the commencement of work.
 - (3) Waiver of Occupancy Clause or Warranty - to provide that the Builder's Risk coverage will continue to apply until final acceptance by the City of the building or addition, regardless of any prior occupancy.
 - (4) Flood Insurance must be provided when buildings or structures are located within an identified special flood hazard area. The Flood Insurance must protect the interest of the City and be in the amount of the total insurable value of such building or structure, or the maximum amount of flood insurance coverage available under the National Flood program, whichever is the lesser.
 - (5) For additions or repairs of existing buildings or structures, the "Builder's Risk Completed Form" covering the Contractor's interest in improvements, repairs, additions, or alterations to completed buildings, shall be included.
 - (6) Bridges, Viaducts or similar structures - the "Bridge Builders Risk Form" - "All risk" contract with the flat-premium endorsement should be utilized.
- B. **INSTALLATION FLOATER** - when the contract is for the installation of machinery and/or equipment into an existing structure, but does not contemplate construction of or addition to the structure itself.
- (1) "All Risk" coverage to include transit and installation.
 - (2) Amount of Insurance - 100% of installed replacement cost value
 - (3) Maximum Deductible - \$5,000 each claim.
 - (4) Cessation of Insurance - Coverage is to continue in force until final acceptance by the City.
 - (5) Certified Copy of the policy must be provided to the City prior to commencement of work.
 - (6) Flood Insurance - must be provided when machinery or equipment are located within an identified special flood hazard area. The Flood Insurance must protect the interest of the city and be in the amount of the total insurable value of such machinery or equipment.

IV. **CERTIFICATE OF INSURANCE CLAUSES**

All policies and Certificates of Insurance of the Contractor shall contain the following clauses and agreements:

- A. Insurers shall have no right of recovery or subrogation against the City of HOLLY HILL (as defined in "C" above), it being the intention of the parties that the insurance policies so effected shall protect both parties and be primary coverage for any and all losses covered by the above described insurance.

- B. The clause "other insurance" in a policy in which the City of HOLLY HILL is named as an Insured shall not apply to the City of HOLLY HILL.
- C. The insurance companies issuing the policies shall have no recourse against the City of HOLLY HILL (as defined in "C" above) for payment of any premiums or for assessments under any policy for insurance.
- D. The contractor's insurer shall be requested to include a breach of warranty clause to prevent nullification of insurance because the Contractor breaches a condition of the policy.
- E. Any and all deductibles in the above described insurance policies shall be assumed by and be for the account of, and at the sole risk of the Contractor.
- F. Any loss payable under the Property Insurance, if any, is to be adjusted with and made payable to the City of HOLLY HILL, as their interest may appear.

V. CITY INDEMNIFICATION

The following Indemnification Agreement shall be a provision of this contract and also shall be endorsed onto or attached to the insurance policy and Certificate of Insurance:

"The Contractor agrees to protect, defend and pay on behalf of, and hold the City of HOLLY HILL and its elected officials, officers, employees, volunteers, representatives, agents and affiliates free and harmless from and against all claims for personal or bodily injury or death, or property damage or destruction of tangible property including loss of use thereof, losses, penalties, damages, settlements, costs, charges, professional fees or other expenses of every kind and character in connection with and arising directly or indirectly out of this agreement and/or performance thereof, unless such claims are a result of the City of HOLLY HILL's sole negligence. This indemnification clause includes claims made by the employees and subcontractors of the Contractor against the Owner and the Contractor hereby waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. Nothing contained herein shall be construed as a waiver of any immunity from or a limitation of liability the City may have under the doctrine of sovereign immunity or Chapter 768.28, Fla. Stat. This indemnification provision shall survive the completion of the project and shall be in full force and effect beyond the completion of the project or the termination of this contract.

VI. ENGINEER INDEMNIFICATION

"The Contractor agrees to protect, defend and pay on behalf of, and hold the ENGINEER and its officers, employees, and affiliates free and harmless from and against all claims for personal or bodily injury or death, or property damage or destruction of tangible property including loss of use thereof, losses, penalties, damages, settlements, costs, charges, professional fees or other expenses of every kind and character in connection with and arising directly or indirectly out of this agreement and/or performance thereof, unless such claims are a result of the ENGINEER'S sole negligence. This indemnification clause includes claims made by the employees and subcontractors of the Contractor against the ENGINEER. This indemnification provision shall survive the completion of the project and shall be in full force and effect beyond the completion of the project or the termination of this contract.

The Contractor shall be responsible for such requirements through the date of final acceptance of the project by the City. With regard to the Contractor's indemnification obligation for products

and completed operations, the Contractor shall be responsible for a minimum period of at least one year subsequent to the City's acceptance of the product or completed operation."

- VII.** The following Insurance Requirement Checklist shall be adhered to in its entirety. The coverage limits and language as indicated on the following checklist shall be reflected on the Contractor's Certificate of Insurance.
- VIII.** A Waiver of Subrogation shall be provided to the City.
- IX.** The Contractor' insurance carrier shall submit a letter showing authorization that the company is registered by the State of Florida Department of Insurance

Revised September 2005

**CITY OF HOLLY HILL, FLORIDA
INSURANCE REQUIREMENTS CHECKLIST
CITY OF HOLLY HILL, VOLUSIA COUNTY, FLORIDA**

Items marked "X" must be provided

<u>X</u>	<u>General Liability</u>	Minimum Limits Required	
	<u>X</u> Commercial General Liability	\$ <u>2,000,000</u>	General Aggregate
	<u>X</u> Occurrence Form	\$ <u>1,000,000</u>	Product/Completed Operations Agg.
	_____	\$ <u>1,000,000</u>	Personal & Advertising Injury
	_____	\$ <u>1,000,000</u>	Each Occurrence
	_____	\$ <u>100,000</u>	Fire Damage Pump Stations
<u>X</u>	<u>Automobile Liability</u>		
	Owned, Hired & Non-Owned	\$ <u>1,000,000</u>	Combined Single Limit per Occurrence
<u>X</u>	<u>Worker's Compensation and Employer's Liability</u>		
		Statutory	
		\$ <u>100,000</u>	Each Accident
		\$ <u>500,000</u>	Disease - Policy Limit
		\$ <u>100,000</u>	Disease - Each Employee
_____	<u>Professional Liability - Errors & Omissions</u> (*To be completed by Bidder)		
	* Deductible: \$ _____	\$ _____	Aggregate
	* Claims Made (Y/N): _____	\$ _____	Each Claim
	*Occurrence (Y/N): _____		
	*Defense included in Limits (Y/N): _____		
<u>X</u>	<u>Builder's Risk/Installation Floater</u> (*To be completed by Bidder)		
	* Flood included \$ _____ Limit	\$ _____	100% of Completed or Installed Value, All-Risk Form
	* Transportation included \$ _____ Limit		
	* Storage included \$ _____ Limit		
	City must be a named insured. Copy of policy will be required.		
_____	<u>Other</u>		
	_____	\$ _____	
	_____	\$ _____	
<u>X</u>	The Certificate of Insurance must show "The City of HOLLY HILL, elected officials and employees" and the adjacent property owners as an additional insured.		
<u>X</u>	Certificates must give to the City of HOLLY HILL 30 days' prior written notice of cancellation, non-renewal, or adverse change.		
<u>X</u>	Certificates must identify bid number and bid title.		
<u>X</u>	A Wavier of Subrogation shall be provided to the City		

Statement of Bidder:

We understand the requirements requested and agree to comply fully.

Bidder - Authorized Signature

A complete copy of this form with original signature must accompany bid.

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 00 84 00
CONTRACTOR REQUEST FOR INFORMATION (RFI)

PROJECT NAME:

10th STREET SEWER EXTENSION

OWNER: _____

ENGINEER: _____ PROJECT NO. _____

CONTRACTOR: _____ PROJECT NO. _____

RFI NO. _____ SPEC. SECT. _____ DRAWING NO. _____

RFI SHORT TITLE: _____

QUESTION/ISSUE: _____

BY: _____ DATE: _____

REPLY: _____

BY: _____ DATE: _____

CC:

☐

CONTRACTOR

☐

FIELD (INSPECTOR)

☐

OWNER

☐

ARCHITECT

☐

OTHER: _____

END SECTION

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

**SECTION 00 84 10
NOTICE OF AWARD FORM**

Date: _____

Contractor: _____

Project:

Date of Bid Opening: _____

You are notified that your bid dated _____, 20____ for the above Contract has been considered and the OWNER, expects to award you a contract for:

_____.

(Indicated total Work, Alternates or Sections of Work Awarded)

The Contract Price of your contract is _____
Dollars (\$_____).

Five (5) copies of each of the following proposed Contract Documents (except Project Manual and Drawings) accompany this Notice of Award:

- ◆ Agreement Between Owner and Contractor
- ◆ Payment and Performance Bond
- ◆ Public Construction Bond
- ◆ Insurance Requirements
- ◆ Affidavit Regarding Workman's Compensation
- ◆ Certificate of Insurance for Workman's Compensation

You must comply with the following conditions to the awarded contract within ten (10) days of the date of the Notice of Award, which is by _____, 20__.

1. You must deliver to the OWNER five (5) fully executed counterparts of the Agreement.
2. You must deliver with the executed Agreement five (5) completed original documents with original signatures on the Payment and Material Payment Bond and Public Construction Bond in the form specified in the Bidding Documents.
3. You must provide in writing the correct name and address of the surety which is providing the Payment and Material Payment Bond and Public Construction Bonds and the correct name and address of the surety's resident agent for service of process in Florida.
4. You must deliver with the executed Agreement five (5) completed, with original signatures, Certificates and Endorsements of Insurance in the form specified in the Bidding Documents.

Failure to comply with these conditions within the time specified will entitle the OWNER to consider your Bid abandoned, to annul this Notice of Award, and to declare your Bid Security forfeited.

Within ten (10) days after you comply with these conditions, the OWNER will return to you two (2) fully signed counterparts of the agreement with the Contract Documents attached.

OWNER'S REPRESENTATIVE:

(Authorized Signature)

Date: _____

(Title)

END OF SECTION

SECTION 00 84 20
NOTICE TO PROCEED FORM

Date: _____

Contractor: _____

Notice to Proceed on Project:

You are notified that the Contract Time under the above contract will commence to run on _____, 20____. On that date you are to start performing the Work and your other obligations under the Contract Documents. Based on the Contract Time stated in the Agreement, we calculate that the dates of substantial Completion and Final Completion are _____, 20____, and _____, 20____, respectively.

Work at the site must be started by _____, 20__ as indicated in the Contract Documents.

Enclosed is one (1) set of Drawings and one (1) bound copy of the Project Manual containing:

- Instruction to Bidders
- Bid Form
- Bid Bond
- Executed Agreement
- Payment and Performance Bond
- Public Construction Bond
- Certificates of Insurance
- General Conditions
- Supplementary Conditions
- Notice of Award
- Specifications
- Addenda Numbers ____ through ____

OWNER'S REPRESENTATIVE:

(Name/Title)

(Date)

END OF SECTION

SECTION 00 84 30
CHANGE ORDER FORM

PROJECT:

CHANGE ORDER NO. _____

CONTRACTOR: _____

The following changes are hereby made to the Contract Documents:

CHANGE IN CONTRACT PRICE: Original Contract Price: \$ _____	CHANGE IN CONTRACT TIMES: Original Contract Times: Substantial Completion: _____ Final Completion:
Net changes from previous Change Orders No. _____ to No. _____. \$ _____	Changes in contract time from previous Change Orders No. _____ to No. _____. _____ Days
Contract Price prior to this Change Order: \$ _____	Contract Completion Date prior to this Change Order: Final Completion:
Net Increase (decrease) of this Change Order: \$ _____	Changes in contract time requested this Change Order No. _____ _____ Days
Contract Price with all approved Change Orders: \$ _____	Contract Times with all approved Change Orders: Final Completion:

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

CHANGES ORDERED:

- I. GENERAL – This change order is necessary to cover changes in the work to be performed under this Contract. The General Conditions, Supplementary Conditions, Specifications and all parts of the Project Manual listed in Article 1, Definitions, of the General Conditions apply to and govern all work under this change order.

The change in price and/or delivery date described, is considered to be fair and reasonable and has been mutually agreed upon in full agreement and final settlement of all claims arising out of the modification including all claims for delays and disruptions resulting from, caused by, or incident to such modifications and change orders.

II. REQUIRED CHANGES:

III. JUSTIFICATION:

IV. PAYMENT:

Acknowledgments:

The aforementioned change, and work affected thereby, is subject to all provisions of the original contract not specifically changed by this Change Order;

It is expressly understood and agreed that the approval of the Change Order shall have no effect on the original contract other than matters expressly provided herein;

The prices quoted are fair and reasonable and in proper ratio to the cost of the original work contracted for under competitive bidding; and,

The change in price and/or delivery date described is considered to be fair and reasonable and has been mutually agreed upon in full agreement and final settlement of all claims arising out of this modification including all claims for delays and disruptions resulting from, caused by, or incident to such modifications and change orders.

RECOMMENDED BY:

(Engineer)

By: _____
Name Typed (Date)

(Authorized Signature)

ACCEPTED BY:

(Contractor)

Name Typed (Date)

(Authorized Signature)

APPROVED BY:

Owner

By: _____
Name Typed (Date)

(Authorized Signature)

END OF SECTION

SECTION 00 84 40

APPLICATION AND CERTIFICATE FOR PAYMENT FORM

Application No. _____ Progress _____ Final _____

Engineer's Project No.: _____

Project: _____

Contractor: _____ Contract Date: _____

Contract for : _____

Application Date: _____ For Period Ending _____

Change Order Summary			
Change Orders approved in previous months by OWNER		ADDITIONS	DEDUCTIONS
TOTAL		\$ 0.00	\$ 0.00
Approved this month			
Number	Date Approved		
TOTALS		\$ 0.00	\$ 0.00
Net Change by Change Orders			\$ 0.00

1.	ORIGINAL CONTRACT SUM	\$ 0.00
2.	Net Change by Change Order	\$ 0.00
3.	CONTRACT SUM TO DATE (Line 1 and 2)	\$ 0.00
4.	TOTAL COMPLETED AND STORED TO DATE	\$
5.	RETAINAGE: (Column I & N, Forms 00845 and 00846)	
	a. ____% of Completed Work	\$
	b. ____% of Stored Material	\$
	Total Retainage (Line 5a and 5b)	\$ 0.00
6.	TOTAL EARNED LESS RETAINAGE (Line 4 less Line 5 Total)	\$ 0.00
7.	LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate)	\$ 0.00
8.	AMOUNT DUE THIS APPLICATION	\$ 0.00
9.	BALANCE TO FINISH, PLUS RETAINAGE (Line 3 less Line 6)	\$ 0.00

00 84 40-1

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

Contractor's Certification

The undersigned Contractor hereby swears under penalty of perjury that (1) all previous progress payments received from the Owner on account of Work performed under the contract referred to above have been applied by the undersigned to discharge in full all obligations of the undersigned incurred in connection with Work covered by prior Applications for Payment numbered 1 through ____ inclusive; and (2) all materials and equipment incorporated in said Project or otherwise listed in or covered by this Application for Payment are free and clear of all liens, claims, security interest and encumbrances; (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and not defective as that term is defined in the Contract Documents.

Dated _____

(Contractor)

By: _____

(Name)

(Title)

COUNTY OF _____
STATE OF _____

Before me on this _____ day of _____, 20____, personally appeared _____, known to me, who being duly sworn, deposes and says that (s)he is the _____ of the Contractor above mentioned; that s(he) executed the above Application for Payment and statement on behalf of said Contractor; and that all of the statements contained therein are true, correct and complete.

(Notary Seal)

Notary Public

My commission Expires _____

Engineer's Recommendation

Payment of the above AMOUNT DUE THIS APPLICATION is recommended.

Parker Mynchenberg & Associates, Inc.

By: _____

(Authorized Signature)

Date: _____

00 84 40-2

Owner's Approval

By: _____

(Title)

Acct No. _____

Date: _____

END OF SECTION

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

00 84 40-3

4.1.b

Application Date:
Period Ending:
Contractor:

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

Section 00 84 60
Stored Materials Summary

Owner:
Project:
Bid No.:
Contractor:

Date:

Received thru:
Installed thru:

[illegible]

Subtotal
Sales Tax
Total

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 00 84 80
CERTIFICATE OF SUBSTANTIAL COMPLETION

OWNER'S Project No.: _____ ENGINEER's Project No.: _____

CONTRACTOR: _____

Contract Date: _____

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof.

To: _____
 Owner

And To: _____
 Contractor

The Work to which this Certificate applies has been inspected by authorized representatives of OWNER, CONTRACTOR and ENGINEER, and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on:

 Date of Substantial Completion

Certificate of Substantial Completion
 Page 1 of 3

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item therein does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract documents. When this Certification applies to a specified part of the Work the items in the tentative list shall be completed or corrected by CONTRACTOR within _____ days of the above date of Substantial Completion.

The date of Substantial Completion is the date upon which all guarantees and warranties begin, except as follows:

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities and insurance shall be as follows:

RESPONSIBILITIES:

OWNER _____

CONTRACTOR _____

The following documents are attached to and made a part of this Certificate:

Certificate of Substantial Completion

Page 2 of 3

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of CONTRACTOR'S obligation to complete the Work in accordance with the Contract Documents.

Executed by ENGINEER on _____, 20__.

(Engineer)

By _____

The CONTRACTOR accepts this Certificate of Substantial Completion on _____, 20__.

(Contractor)

By _____

Certificate of Substantial Completion
Page 3 of 3

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 00 84 90
CONTRACTOR'S FINAL RELEASE OF LIEN

Before me the undersigned authority in said County and State, appeared _____ who, being first duly sworn, deposes and says that he is _____ of _____, a company and/or corporation authorized to do business under the laws of Florida, which is the Contractor on the Contract described as: **10th STREET SEWER EXTENSION** dated the ____ day of _____, 20____, that the said deponent is duly authorized to make this affidavit by resolution of the Board of Directors of said company and/or corporation; that deponent knows of his own knowledge that said Contract has been complied with in every particular by said Contractor and that all parts of the work have been approved by the Owner's Engineers; that there are no bills remaining unpaid for labor, material, or otherwise, in connection with said Contract and work, and that there are no suits pending against the undersigned as Contractor or anyone in connection with the work done and materials furnished or otherwise under said Contract.

Deponent further says that the final estimate which has been submitted to the owner simultaneously with the making of the affidavit constitutes all claims and demands against the Owner on account of said Contract or otherwise, and the acceptance of the sum specified in said final estimate will operate as full and final release and discharge of the Owner from any further claims, demands or compensation by Contractor under the above Contract. Deponent further agrees that all guarantees under this Contract shall be in full force from the date of this release as spelled out in the Contract Documents.

Sworn to and subscribed to before me this ____ day of _____, 20____.

Notary Public

My Commission Expires: _____

We, the _____ having heretofore executed a Performance Bond for the above-mentioned Contractor covered Project and Section as described above in the sum of _____ dollars (\$ _____), hereby agree that the Owner may make full payment of the final estimate, including the retained percentage, to said Contractor.

It is fully understood that the granting of the right to the Owner to make payment of the final estimate to said Contractor and/or his assigns, shall in no way release the surety company of its obligations under its bond, as set forth in the Specifications, Contract and Bond pertaining to the above Project.

IN WITNESS WHEREOF, the _____ has caused this instrument to be executed on its behalf by its _____ and/or its duly authorized attorney in fact, and its corporate seal to be hereunto affixed, all of this _____ day of _____, A.D., 20_____.

Surety Company

Attorney in Fact

(Power of Attorney must be attached if executed by Attorney in Fact)

STATE OF FLORIDA

COUNTY OF _____

Before me the undersigned authority, personally appeared to me well known as the person described in and who executed the foregoing instrument in the name of _____ and/or authority to execute the same on behalf of said _____, a corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal at _____ this _____ day of _____, 20_____.

Notary Public

My Commission Expires: _____

END OF SECTION

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 01 00 00
GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: The Work to be done consists of the furnishing of all labor, materials and equipment, and the performance of all Work included in this Contract. The summary of the Work is presented in Section 01 11 00: Summary of Work.
- B. Work Included:
1. The Contractor shall furnish all labor, superintendence, materials, plant power, light, heat, fuel, water, tools, appliances, equipment, supplies, and means of construction necessary for proper performance and completion of the Work. The Contractor shall obtain and pay for all necessary local building permits. The Contractor shall perform and complete the work in the manner best calculated to promote rapid construction consistent with safety of life and property and to the satisfaction of the Engineer, and in strict accordance with the Contract Documents. The Contractor shall clean up the Work and maintain it during and after construction, until accepted, and shall do all Work and pay all costs incidental thereto. He shall repair or restore all structures and property that may be damaged or disturbed during performance of the Work.
 2. The cost of incidental work described in these Project Requirements, for which there are no specific Contract Items, shall be considered as part of the general cost of doing the Work and shall be included in the prices for the various Contract Items. No additional payment will be made therefore.
 3. The Contractor shall provide and maintain such modern plant, tools, and equipment as may be necessary, in the opinion of the Engineer, to perform in a satisfactory and acceptable manner all the Work required by this

Contract. Only equipment of established reputation and proven efficiency shall be used. The Contractor shall be solely responsible for the adequacy of his workmanship, materials, and equipment, prior approval of the Engineer notwithstanding.

C. Public Utility Installations and Structures:

1. Public utility installations and structures shall be understood to include all poles, tracks, pipes, wires, conduits, vaults, manholes, and all other appurtenances and facilities pertaining thereto whether owned or controlled by the Owner, other governmental bodies, or privately owned by individuals, firms, or corporations, used to serve the public with transportation, traffic control, gas, electricity, telephone, sewerage, drainage, water, or other public or private property which may be affected by the Work shall be deemed included hereunder.
2. The Contract Documents contain data relative to existing public utility installations and structures above and below the ground surface. These data are not guaranteed as to their completeness or accuracy and it is the responsibility of the Contractor to make his own investigations to inform himself fully of the character, condition, and extent of all such installations and structures as may be encountered and as may affect the construction operations.
3. The Contractor shall protect all public utility installations and structures from damage during the Work. Access across any buried public utility installation or structure shall be made to avoid any damage to these facilities. All required protective devices and construction shall be provided by the Contractor at his expense. All existing public utilities damaged by the Contractor shall be repaired by the Contractor, at his expense. No separate payment shall be made for such protection or repairs to public utility installations or structures.
4. Public utility installations or structures owned or controlled by the Owner or other governmental body which are shown on the Drawings to be removed, relocated, replaced, or rebuilt by the Contractor shall be

considered as a part of the general cost of doing the Work and shall be included in the prices bid for the various Contract Items; therefore, no separate payment shall be made.

5. Where public utility installations of structures owned or controlled by the Owner or other governmental body are encountered during the course of the Work, and are not indicated on the Drawings or in the Specifications, and when, in the opinion of the Engineer, removal, relocation, replacement, or rebuilding is necessary to complete the Work under this Contract, such Work shall be accomplished by the utility having jurisdiction, or such Work may be ordered, in writing by the Engineer, for the Contractor to accomplish. If such work is accomplished by the utility having jurisdiction it will be carried out expeditiously, and the Contractor shall give full cooperation to permit the utility to complete the removal, relocation, replacement, or rebuilding as required. If such work is accomplished by the Contractor, it will be paid for as extra work as provided in the Agreement.
6. The Contractor shall, at all times in performance of the Work, employ acceptable methods and exercise reasonable care and skill so as to avoid unnecessary delay, injury, damage, or destruction of public utility installations and structures; and shall, at all times in the performance of the Work, avoid unnecessary interference with, or interruption of, public utility services, and shall cooperate fully with the owners thereof to that end.
7. The Contractor shall give written notice to Owner and other governmental utility departments and other owners of public utilities of the location of his proposed construction operations, at least 48-hours in advance of breaking ground in any area or on any unit of the Work.
8. The maintenance, repair, removal, relocation, or rebuilding of public utility installations and structures, when accomplished by the Contractor as herein provided, shall be done by methods approved by the owners of such utilities.

1.02 DRAWINGS AND PROJECT MANUAL

- A. Drawings: When obtaining data and information from the Drawings, figures shall be used in preference to scaled dimensions, and large-scale drawings in preference to small-scale drawings.
- B. Supplementary Drawings:
 - 1. When, in the opinion of the Engineer, it becomes necessary to explain more fully the Work to be done or to illustrate the Work further or to show any changes which may be required, drawings known as Supplementary Drawings, with specifications pertaining thereto, will be prepared by the Engineer, and the Contractor will be furnished an electronic copy of the plans and project manual.
 - 2. The Supplementary Drawings shall be binding upon the Contractor with the same force as the Contract Drawings. Where such Supplementary Drawings require either less or more than the estimated quantities of Work, credit to the Owner or compensation therefore to the Contractor shall be subject to the terms of the Agreement.
- C. Contractor to Check Drawings and Data:
 - 1. The Contractor shall verify all dimensions, quantities, and details shown on the Drawings, Supplementary Drawings, schedules, Specifications, or other data received from the Engineer, and shall notify him of all errors, omissions, conflicts, and discrepancies found therein. Failure to discover or correct errors, conflicts, or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory work, faulty construction, or improper operation resulting there from, nor from rectifying such conditions at his own expense. He will not be allowed to take advantage of any errors or omissions, as full instructions will be furnished by the Engineer, should such errors or omissions be discovered.
 - 2. All schedules are given for the convenience of the Engineer and the Contractor and are not guaranteed to be complete. The Contractor shall

assume all responsibility or the making of estimates of the size, kind, and quality of materials and equipment included in work to be done under the Contract.

D. Specifications: The Technical Specifications consist of three (3) parts: General, Products, and Execution. The General part of a Specification contains General Requirements which govern the Work. The Products and Execution parts modify and supplement the General Requirements by detailed requirements for the Work and shall always govern whenever there appears to be a conflict.

E. Intent:

1. All Work called for in the Specifications applicable to this Contract, but not shown on the Drawings in their present form, or vice versa, shall be of like effect as if shown or mentioned in both. Work not specified in either the Drawings or in the Specifications but involved in carrying out their intent or in the complete and proper execution of the Work, is required and shall be performed by the Contractor as though it were specifically delineated or described.
2. The apparent silence of the Specifications as to any detail, or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used, the interpretation of these Specifications shall be made upon that basis.

1.03 MATERIALS AND EQUIPMENT

A. Manufacturer:

1. All transactions with the manufacturers or subcontractors shall be through the Contractor, unless the Contractor shall request and at the Engineer's option, that the manufacturer or subcontractor deal directly with the Engineer. Any such transactions shall not in any way release the Contractor from his full responsibility under this Contract.

2. Any two (2) or more pieces of material or equipment of the same kind, type, or classification, and being used for identical types of service, shall be made by the same manufacturer.

B. Delivery:

1. The Contractor shall deliver materials in ample quantities to ensure the most speedy and uninterrupted progress of the Work so as to complete the Work within the allotted time.
2. The Contractor shall also coordinate deliveries in order to avoid delay in, or impediment of, the progress of the work of any related Contractor.

C. Tools and Accessories:

1. The Contractor shall, unless otherwise stated in the Contract Documents, furnish with each type, kind, or size of equipment, one (1) complete set of suitably marked high grade special tools and appliances which may be needed to adjust, operate, maintain, or repair the equipment. Such tools and appliances shall be furnished in approved painted steel cases, properly labeled and equipped with good grade cylinder locks and duplicate keys.
2. Spare parts shall be furnished as specified herein and as recommended by the manufacturer necessary for the operation of the equipment, not including materials required for routine maintenance.
3. Each piece of equipment shall be provided with a substantial nameplate, securely fastened in place and clearly inscribed with the manufacturer's name, year of manufacture, serial number, weight, and principal rate data.

D. Service of Manufacturer's Engineer:

1. The Contract Prices for equipment shall include the cost of furnishing a competent and experienced engineer or superintendent who shall represent the manufacturer and shall assist the Contractor, when required, to install,

adjust, test, and place in operation, the equipment in conformity with the Contract Documents.

2. After the equipment is placed in permanent operation by the Owner, such engineer or superintendent shall make all adjustments and tests required by the Engineer to prove that such equipment is in proper and satisfactory operating condition, and shall instruct such personnel as may be designated by the Owner in the proper operation and maintenance of such equipment.

1.04 INSPECTION AND TESTING

A. General:

1. For tests specified to be made by the Contractor, the testing personnel shall make the necessary inspections and tests, and the reports thereof shall be in such form as will facilitate checking to determine compliance with the Contract Documents. One (1) original and one (1) electronic copy of the reports shall be submitted, and authoritative certification thereof must be furnished to the Engineer as a prerequisite for the acceptance of any material or equipment.
2. If, in the making of any test of any material or equipment, it is ascertained by the Engineer that the material or equipment does not comply with the Contract Documents, the Contractor will be notified thereof, and he will be directed to refrain from delivering said material or equipment, or to remove it promptly from the site or from the Work and replace it with acceptable material, without cost to the Owner.
3. Tests of electrical and mechanical equipment and appliances shall be conducted in accordance with the recognized test codes of the ANSI, ASME, or the IEEE, except as may otherwise be stated herein.
4. The Contractor shall be fully responsible for the proper operation of equipment during testing and instruction periods and shall neither have nor make any claim for damage which may occur to equipment prior to the time when the Owner formally takes over the operation thereof.

B. Costs:

1. All inspection and testing of materials furnished under this Contract will be provided by the Contractor, unless otherwise expressly specified.
2. The cost of shop and field tests of equipment and of certain other tests specifically called for in the Contract Documents shall be borne by the Contractor, and such costs shall be deemed to be included in the Contract Price.
3. Materials and equipment submitted by the Contractor as the equivalent to those specifically named in the Contract may be tested by the Owner for compliance. The Contractor shall reimburse the Owner for the expenditures incurred in making such tests of materials and equipment which are rejected for non-compliance.

C. Certificate of Manufacture:

1. Contractor shall furnish to Engineer authoritative evidence in the form of a certificate of manufacture that the materials to be used in the Work have been manufactured and tested in conformity with the Contract Documents.
2. These certificates shall be notarized and shall include copies of the results of physical tests and chemical analyses, where necessary, that have been made directly on the product or on similar products of the manufacturer.

D. Shop Tests:

1. Each piece of equipment for which pressure, duty, capacity, rating, efficiency, performance, function, or special requirements are specified shall be tested in the shop of the maker in a manner which shall conclusively prove that its characteristics comply fully with the requirements of the Contract Documents.

2. Five (5) copies of the manufacturer's actual test data and interpreted results thereof, accompanied by a certificate of authenticity sworn to by a responsible official of the manufacturing company and/or independent laboratory, shall be submitted to the Engineer for approval.
3. The cost of shop tests and of furnishing manufacturer's preliminary and shop test data of operating equipment shall be borne by the Contractor.

E. Start-up Tests:

1. As soon as conditions permit, the Contractor shall furnish all labor, materials, and instruments and shall make start-up tests of equipment.
2. If the start-up tests disclose any equipment furnished under this Contract which does not comply with the requirements of the Contract Documents, the Contractor shall, prior to demonstration tests, make all changes, adjustments, and replacements required. The furnishing Contractor shall assist in the start-up tests as applicable.

F. Demonstration Tests:

1. Prior to Contractor's request for a Substantial Completion inspection, all equipment and piping installed under this Contract shall be subjected to demonstration tests as specified or required to prove compliance with the Contract Documents.
2. The Contractor shall furnish labor, fuel, energy, water, and all other materials, equipment, and instruments necessary for all demonstration tests, at no additional cost to the Owner. Contractor shall assist in the demonstration tests as applicable.

1.05 LINES AND GRADES

A. Grade:

1. All work under this Contract shall be constructed in accordance with the lines and grades shown on the Drawings, or as given by the Engineer. The full responsibility for keeping alignment and grade shall rest upon the Contractor.
2. The vertical bench marks provided is USGS "Public Records" monumentation and the horizontal control is the monumentation on plats contained in the "Public Records of Volusia County."

B. Surveys:

1. The Contractor shall furnish and maintain, at his own expense, stakes and other such materials.
2. The Contractor shall check such reference marks by such means as he may deem necessary and, before using them, shall call the Engineer's attention to any inaccuracies.
3. The Contractor shall, at his own expense, establish all working or construction lines and grades as required from the reference marks set by the Engineer, and shall be solely responsible for the accuracy thereof. He shall, however, be subject to the check and review by the Engineer.

C. Safeguarding Marks:

1. The Contractor shall safeguard all points, stakes, grade marks, monuments, and bench marks made or established on the Work, bear the cost of re-establishing them if disturbed, and bear the entire expense of rectifying work improperly installed due to not maintaining or protecting or to removing without authorization such established points, stakes, and marks.

2. The Contractor shall safeguard all existing and known property corners, monuments, and marks adjacent to but not related to the Work and shall bear the cost of re-establishing them if disturbed or destroyed.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 11 00
SUMMARY OF WORK

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. This Contract is for the construction of the **10th STEET SEWER EXTENSION**. The work consists of furnishing all labor, equipment, and materials for the construction of the facilities consisting of, but not limited to, the following:

Installation of approximately 1,700 LF of 4" force main by directional drill.

- B. The Contractor shall furnish all labor, equipment, tools, services and incidentals to complete all Work required by these Specifications and as shown on the Drawings.
- C. The Contractor shall perform the Work complete, in place, and ready for continuous service, and shall include repairs, testing, permits, cleanup, replacements and restoration required as a result of damages caused during this construction.
- D. All materials, equipment, skills, tools and labor which is reasonably and properly inferable and necessary for the proper completion of the Work in a substantial manner and in compliance with the requirements stated or implied by these Specification or Drawings shall be furnished and installed by the Contractor without additional compensation, whether specifically indicated in the Contract Documents or not.
- E. The Contractor shall comply with all City, County, State, Federal, and other codes which are applicable to this Project.

1.02 CONTRACTOR'S USE OF PREMISES

- A. The Contractor shall assume full responsibility for the protection and safekeeping of products and materials at the job site. If additional storage or work areas are required, they shall be obtained by the Contractor at no additional cost to the

Owner.

1.03 PROJECT SEQUENCE

- A. The Contractor shall establish his work sequence based on the use of crews to facilitate completion of construction and testing within the specified Contract time.

END OF SECTION

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES

PART 1 – GENERAL

1.01 SCOPE

A. Separate payment will be made only for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work, shall be considered to be included in the scope of the appropriate listed work items.

B. The Contractor's attention is called to the fact that cleanup is considered a part of the work of construction. No payment will be made until cleanup is essentially complete.

C. No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work if not shown as a separate pay item.

1. Clearing and grubbing.
2. Excavation, including necessary pavement base removal.
3. Shoring and sheeting.
4. Dewatering and disposal of surplus water.
5. Structural fill.
6. Backfill.
7. Grading.
8. Replacement of unpaved roadways, grass, and shrubbery plots.
9. Cleanup.
10. Testing and placing system in operation.
11. Any material and equipment required to be installed and utilized for the test.
12. Pipe, structures, pavement replacement and/or appurtenances included within the limits of lump sum work.
13. Maintaining the existing quality of service during construction.
14. Appurtenant work as required for a complete and operable system.
15. Maintaining or detouring or traffic.

- D. No payment shall be made for work constructed outside the authorized limits of work.

PART 2 - MATERIALS AND EQUIPMENT

2.01 Pre-Construction Video

Bid Item 1

Lump sum payment will be made based on delivery to the City of two copies with documentation of the video for the project route. The contract lump sum price shall be full compensation for all materials and work necessary to complete the professional videotaping in accordance with the project specifications. Construction work shall not start until the videos are delivered and approved by the project representative.

2.02 Horizontal Directional Drill

Bid Item 2

Payment shall be made at the contract unit price per linear foot as measured along the installed horizontal layout of the pipe from the beginning bore location of the pipe to the end bore location of the pipe for each continuous directionally drilled pipe section. Distance shall be confirmed by a professional land surveyor. Distance information with bore logs shall be included in the As-Built or Record Drawings. The unit price shall be full compensation for all dewatering, sheet piling, excavation, directional drilling, testing, inserts, materials, fittings, restrained joints, equipment, labor, marker tape, locator wire, location wire “continuity testing”, successful hydrostatic testing, right-of-way restoration of all construction related disturbed areas where separate items (driveways, etc.) are not paid for separately and all items necessary to complete installation of the pipe. SDR11 HDPE pipe shall be DIP dimensioned outside with blue stripe for potable water main.

2.03 Resilient Seat Gate Valve & Box w/ Collar

Bid Item 3

Payment will be made at the applicable unit price for the installation of each AWWA C509 resilient seat gate valve with valve box and concrete collar as shown on the plans. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications including adjustment of valve box to final grade and shall include concrete collar in paved areas and restrained joint attachment at each end of valves installed.

2.04 Tie-Ins**Bid Item 4**

Payment shall be made at the contract price for each tie in to existing manhole. The contract price shall be full compensation for all materials, equipment and labor required to complete the installation in accordance with the drawings and specifications.

2.05 2" Air Release Valves**Bid Item 5**

Payment will be made at the contract unit price for all materials, equipment and labor required to provide and install the air release valves as detailed on the plans and described in the specifications. The devices shall be installed at the locations indicated or as directed in the field. The unit price includes all components as detailed on the plans and described in the specifications.

2.06 DIP Fittings Add or Delete**Bid Item 6**

Payment shall be made at the contract unit price per pound for all ductile iron/cast iron fittings installed by the CONTRACTORS as directed by the ENGINEER. This item is included in the CONTRACTOR cover the cost of additional fittings that are not shown on the project plans which are required to meet modified routing due to field conditions. This item includes the cost of providing and installing "restrained joints" at both ends of each additional fitting installed.

2.07 Open Cut and Repair Asphalt**Bid Item 7**

Payment will made at the contract unit price for removal and replacement of existing asphalt as shown on the plans. The contract unit price shall be full compensation for furnishing all labor, materials, and equipment to saw cut, remove and dispose of existing pavement, install suitable base and subgrade materials, recompact and install asphalt in accordance with pavement restoration requirements.

2.08 Mill and Resurface Asphalt**Bid Item 8**

Payment shall be made at the contract unit price for asphalt mill and resurfacing performed in accordance with FDOT specification section 327. Pricing shall be full compensation for all material and work necessary to mill and resurface in accordance with the drawings.

2.09 Concrete Sidewalk Remove and Replace**Bid Item 9**

Payment will be made at the applicable unit price for removal and replacement of existing sidewalk as shown on the plans. Replacement sidewalks shall be four inch (4") thick 3,000 psi fiber mesh sidewalks. The applicable unit price shall be full compensation for all labor, equipment, and materials necessary to saw cut, remove and dispose of existing concrete, recompact, and complete new concrete work in accordance with the plans and specification.

2.10 Permits and Allowances**Bid Item 10**

An allowance is established to pay costs associated with building permit fees and ancillary costs associated with construction of the lift station improvements. No provisions for mark-up are included within the allowance.

2.11 As-Built Plans**Bid Item 11**

Lump sum payment will be made based on delivery of record drawings produced by a licensed surveyor conforming to the specifications. Periodical record drawings shall be submitted with each pay estimate on which the ENGINEER shall rely to ensure the improvements are constructed in accordance with the design locations and elevations. Progress payments submitted without updated record drawings to document work constructed that pay period shall be a basis for rejection of the pay request until such time as adequate record drawings are submitted.

2.12 MOT**Bid Item 12**

Payment for traffic control will be made at the contract lump sum price which price and payment shall be full compensation for the material, labor, equipment and all other related work necessary to complete required traffic control during the period of construction affecting the flow of traffic within the project area or adjacent collector roads and highways. This item shall include the costs to prepare approved traffic control plans as well as the full cost to implement the approved plans. For areas under County or State control, traffic control shall be provided in accordance with each entity's requirements. Payment shall be made based on the percentage of the total construction cost completed.

2.13 Field Locate and Expose Utilities**Bid Item 13**

Payment at the applicable lump sum price will be made based on completion of exposing existing City utilities and all other utilities within the contract work limits. The contract lump sum price will be full compensation for all equipment, labor, and materials necessary to verify existing utilities within the rights-of-way or easements shown on the contract plans and provide a sketch of each major intersection or congested area with the Contractor's proposed solution to conflicts found prior to construction.

END OF SECTION

Attachment: Exhibit A - 10th Street Sewer Extension (2024-R-75 : 10Th Street Sewer Extension)

SECTION 01 29 73
SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Submit to the Engineer a Schedule of Values allocated to the various lump sum portions of the Work, at the Pre-Construction Conference, and as otherwise specified or requested to be submitted earlier as evidence of the Apparent Low Bidder's qualifications.
2. Upon request of the Engineer support the values with data which will substantiate their correctness. The data shall include, but not be limited to quantity of materials, all sub-elements of the activity, and their units of measure.
3. The Schedule of Values shall establish the actual value for each activity of the Work to be completed taken from the approved Critical Path Method (CPM) Construction Schedule and shall be used as the basis for the Contractor's Applications for Payment.

B. Related Requirements Described Elsewhere:

1. Conditions of the Construction Contract.
2. Section 00 84 60 - Stored Material Form

1.02 FORM AND CONTENT OF SCHEDULE OF VALUES

A. Identify schedule with:

1. Title of project and location.
2. Owner and purchase order number.
3. Engineer and project number.

4. Name and address of Contractor.
 5. Contract designation.
 6. Date of submission.
- B. Schedule shall list the installed value of the component parts of the Work in sufficient detail to serve as a basis for computing item prices for progress payments during construction.
- C. Identify each line item with the number and the title of the respective section of the Specifications.
- D. For each major item of the Work, list sub-values of major products or operations under the major item.
- E. For the various portions of the Work:
1. The amount for each item shall reflect a total installed cost including a directly proportional amount of the Contractor's overhead and profit.
 2. For items on which progress payments will be requested for stored materials, break down the value into:
 - a. The cost of the materials delivered and unloaded, with taxes paid. Paid invoices are required for materials. Payment for materials shall be limited to the invoiced amount only.
 - b. The total installed value.
- F. Round off figures to nearest dollar amount.
- G. The sum of the costs of all items listed in the schedule shall equal the total Contract Price.
- H. For each item which has an installed value of more than \$15,000, provide a breakdown of costs to list major products or operations under each item.

1.03 SUB-SCHEDULE OF UNIT MATERIAL VALUES

- A. Submit a separate schedule of unit prices for materials to be stored on site and for those materials incorporated into the Work for which progress payments will be requested.
- B. The unit values for the materials shall be broken down into:
 - 1. Cost of the material, delivered and unloaded at the site, with taxes paid.
 - 2. Copies of paid invoices for component material shall be included with the payment request in which the material first appears.
- C. Only materials unique to the project may be billed when stored on site. Materials of standard use such as conduit, wire, small-diameter pipe, steel, etc., shall not be accepted for payment.
- D. The installed unit value multiplied by the quantity listed shall equal the cost of that item in the Schedule of Values.

1.04 REVIEW AND RESUBMITTAL

- A. After review by Engineer, revise and resubmit Schedule of Values and Schedule of Unit Material Values as required.
- B. Resubmit revised schedules in same manner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 29 76
PROGRESS PAYMENT PROCEDURES

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Submit Application for payment to the ENGINEER on accordance with schedule established by Conditions of the Contract and Agreement between OWNER and CONTRACTOR. CONTRACTOR shall use the Application and Certificate for Payment Form included on Section 00 84 40 as the official pay request form.
- B. Related Requirements Described Elsewhere:
 - 1. Agreement: Section 00 50 00.
 - 2. Construction Progress Schedule: Section 01 32 16.
 - 3. Schedule of Values: Section 01 29 73.
 - 4. Photographic Documentation: Section 01 32 33.
 - 5. Project Record Documents: Section 01 78 39.

1.02 FORMAT REQUIRED

- A. Submit applications typed on the form provided in Division 0, Section 00 84 40: Application and Certificate for Payment Form, with itemized data typed on eight and one-half inch by 11 inch (8-1/2" x 11") or white paper continuation sheets.
- B. Provide itemized data on continuation sheets of format, schedules, line items, and values specified on the Application and Certificate for Payment Form. The CONTRACTOR shall use the item descriptions and contract values included in schedule of values, approved, and accepted by the ENGINEER as a basis for preparation of the Application for Payment Form.

1.03 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

A. Application Form:

1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
2. Fill in percent complete for each activity and dollar values to agree with respective percent.
3. Execute certification with signature of a responsible officer of CONTRACTOR.

B. Continuous Sheets:

1. Fill in total of all scheduled component items of the Work, with item number and schedule dollar value for each item.
2. Fill in dollar value in each column for each scheduled line item when Work has been performed or products stored. Round off values to nearest dollar, or as specified for Schedule of Values.
3. List each Change Order executed prior to date of submission, at the end of the continuation sheets. List by Change Order Number, and description, as for an original component item Work.
4. To receive approval for payment on component material stored on site, submit copies of the original invoices with Application and Certificate for Payment.
5. As provided for in the Application and Certificate for Payment Form, the CONTRACTOR shall certify, for each current pay request, that all previous progress payments received from the OWNER, under this Contract, have been applied by the CONTRACTOR to discharge in full, all obligations of the CONTRACTOR in connection with Work covered

by prior Applications for Payment, and all materials and equipment incorporated into the Work are free and clear of all liens, claims, security interest, and encumbrances. CONTRACTOR shall attach to each Application and Certificate for Payment like affidavits by all Subcontractors.

1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. CONTRACTOR shall submit suitable information, with a cover letter identifying:
 - 1. Project.
 - 2. Application number and date.
 - 3. Detailed list of enclosures.
 - 4. For stored products:
 - a. Item number and identification as shown on application.
 - b. Description of specific material.
- B. Submit one (1) copy of data and cover letter for each copy of application.
- C. The CONTRACTOR is to maintain an updated set of drawings to be used as record drawings in accordance with Section 01 78 39: Project Record Documents. As a prerequisite for monthly progress payments, the CONTRACTOR is to exhibit the updated record drawings for review by the OWNER and the ENGINEER.
- D. Each monthly application for payment shall incorporate the corresponding “monthly progress status report” and updated construction schedule, prepared in accordance with the requirements of Section 01 32 16: Construction Progress Schedule.
- E. As a prerequisite for payment, CONTRACTOR shall submit a duly executed letter from surety consenting to payment due and progress to date.

- F. Provide construction photographs in accordance with Section 01 32 33: Photographic Documentation.

1.05 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in application form as specified for progress payments. Provide information as required by the General Conditions and Section 01 77 00: Closeout Procedures.
- B. Furnish evidence of completed operations and insurance in accordance with the General Conditions.
- C. Provide CONTRACTOR's Final Release of Lien (Section 00 84 90) and other close-out submittals as required by the General Conditions.

1.06 SUBMITTAL PROCEDURE

- A. Submit Application for Payment to the ENGINEER at the time stipulated in the Agreement, or as agreed to at the pre-construction meeting. Review the percents complete with the ENGINEER and resolve any conflict or discrepancies.
- B. Application for payment to be submitted electronically in color for processing and payment.
- C. When the ENGINEER finds the Application and Certificate for Payment Form is properly completed and correct, he will execute the Certificate for Payment and transmit the forms to the OWNER, with a copy to the CONTRACTOR.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

- 1.01 The Contractor shall not have any right in property in any materials taken from any excavation and he shall not remove any earth, sand or other material from the lines of the work before the excavation is refilled except upon direction of the Engineer. The provisions of this paragraph shall not be construed as relieving the Contractor of any kind of his obligations to remove and dispose of any of the material excavated, with or without rehandling, at his cost and expense as provided in these specifications.
- 1.02 Where reference is made within these documents to government specifications, or those of well known organizations such as ASTM, ASA, ASME, etc., the latest editions shall be used, any or all references in these documents to earlier stated editions notwithstanding.
- 1.03 The Contractor shall take all necessary precautions to prevent damage to existing pipe which is to remain in service during any of his construction operations. Should such pipe be damaged by the Contractor, he shall be required to replace it to the complete satisfaction of the Engineer, at no additional cost to the Owner.
- 1.04 The Contractor agrees that the work shall be started no later than the date indicated in the Notice to Proceed, and that the total work shall be completed within **90** calendar days.

The Contractor further agrees that for each calendar day, with the exception of Sundays and legal holidays, that any such work shall remain uncompleted after the completion time, the sum of **One Thousand Dollars (\$1,000)** per day shall be deducted by the Owner from monies due the Contractor, not as a penalty but as liquidated damages. If the Contractor is declared in default in accordance with the provisions of the specifications, liquidated damages shall be charged as provided herein, and such amounts shall be deducted from the final amount payable to the Contractor or his Surety. Should the total amount chargeable as liquidated damages exceed the amount due or payable to the Contractor or his Surety, then such excess shall be paid to the Owner by the Contractor or his Surety.

- 1.05 At least thirty (30) days prior to the first progress payment request, the Contractor shall submit to the Owner a schedule of anticipated draws, which estimates as accurately as possible the amount of the anticipated "work in place" which will be completed each month.

Failure to comply may result in delay in payment, as funds from several sources customarily serve as the project funding source.

- 1.06 All dewatering and bypass pumping necessary to accomplish the work of this Contract shall be done by the Contractor at no extra or additional cost to the Owner. Any permits required will be the responsibility of the Contractor.
- 1.07 Examination of Contract Documents and Site. Before submitting a Bid each Contractor must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the work, (c) familiarize himself with federal, state and local laws, ordinance, rules and regulations that may in any manner affect cost, progress or performance of the work, and (d) study and carefully correlate Bidder's observations with the Contract Documents.
- 1.08 The Contractor is required to maintain the water service to customers within the project area at no extra cost to the Owner.
- 1.09 The Contractor is responsible for recording the Payment and Performance Bond and the Public Construction Bond in the Official Records of Volusia County, Florida. The Contractor shall provide copies of the recorded documents and/or the recording receipt from the County Clerk's office to the Engineer prior to the issuance of the "Notice to Proceed". The Contractor shall be responsible for paying all costs associated with the recording of these documents and no separate contract payment shall be made to the Contractor for this item.
- 1.10 The Contractor acknowledges that he is responsible for complying with all aspects of the Florida Trench Safety Act (90-96, Laws of Fla.) effective October 1, 1990. He assumes all responsibility and costs entailed.
- 1.11 Construction materials may be stockpiled at the Holly Hill wastewater treatment plant. Additional storage locations are allowed but all arrangements and costs incurred are the responsibility of the Contractor. Prior to making arrangements with individual property owners, the Contractor shall indicate to the City and the Engineer which sites have been targeted for material storage. The City reserves the right to approve or disapprove the proposed locations.

- 1.12 The Contractor is responsible for obtaining a St. Johns River Water Management District Permit for (dewatering) consumptive use if the Contractor's "means or methods" trip the Agency's thresholds requiring permits. No separate payment or contract time extension for the Contractor obtaining the permit will be granted by the City.
- 1.13 The Contractor shall submit an executed "Consent of Surety for Final Payment" form, copy of which is included with the Contract Documents, prior to submitting a final request for payment as well as lien releases from all suppliers filing 'Notice to Owners' with the City.
- 1.14 The Contractor is advised that all bypass pumping shall be coordinated with the Public Works Department. All pumping equipment, piping, operation and clean up is the sole responsibility of the Contractor.
- 1.15 All unit pricing shall remain valid for the duration of the contract.
- 1.16 Florida Sales Tax on materials, as well as all other customary taxes on construction activities, shall be paid for by the Contractor at no additional expense to the Owner.
- 1.17 All service outages shall be coordinated through the Public Works Department. Provisions shall be made for extended outages provisions may include temporary piping and services or alternative means of maintaining potable water service for affected residents. It is the Contractor's responsibility to notify the homeowner's of any potential impacts resulting from construction activities. The contractor shall document all notification procedures and provide written notification to the residents which specifically describe time frames for scheduled outages. Any claims for damages resulting from construction activities are the sole responsibility of the contractor.
- 1.18 The Contractor will set up an account and pay for all water used in the construction of the proposed improvements.
- 1.19 Construction shall be limited to weekday 'day light' working hours. No weekend, night time or holiday work shall be performed without obtaining permission in advance from the Project Engineer.

- 1.20 The Contractor must submit a work plan and traffic control plan in writing prior to commencement of work. The plan is subject to the approval of the fire department, police department, public works department and the Engineer.
- 1.21 The Contractor shall schedule his work in a manner that will result in a continuous process from commencement through completion. The intention of this requirement is to complete an area once work has commenced and avoid skipping from one site to another and disrupting several areas of the City simultaneously.
- 1.22 The Contractor must maintain access to driveways while construction is in progress.
- 1.23 This work may have an impact upon system customers. The Contractor shall have someone on call to take emergency calls on a 24 hour per day seven day per week basis. This individual will be able to respond to emergency calls from City personnel.

END OF SECTION

SECTION 01 31 19
PROJECT MEETINGS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. The Contractor shall coordinate with the Engineer to schedule and administer the preconstruction meeting, resident meeting, utility coordination, periodic progress meetings, and specifically called meetings throughout the progress of the Work.
2. The Engineer shall:
 - a. Prepare agenda for meetings.
 - b. Make physical arrangements for meetings.
 - c. Preside at meetings.
 - d. Take and distribute meeting minutes.
3. The Contractor shall:
 - a. Attend all meetings along with pertinent subcontractors and suppliers.
 - b. Appoint attendees who are qualified and authorized to act on behalf of the entity each represents.
 - c. Provide requested information at meetings.
4. The Owner shall:
 - a. Attend meetings to ascertain that the Work is expedited consistent with Contract Documents and construction schedules.

B. RELATED REQUIREMENTS DESCRIBED ELSEWHERE:

1. Section 01 32 16 - Construction Progress Schedules

2. Section 01 33 23 - Shop Drawings, Product Data, and Samples
3. Section 01 78 39 - Project Record Documents

1.02 PRECONSTRUCTION MEETING

- A. Purpose: To initiate coordination of contractual requirements prior to start of work.
- B. Scheduling: Engineer will schedule a preconstruction meeting after execution of the Contract. Invites shall be sent via electronic mail.
- C. Location: A local site, convenient for all parties, designated by the Engineer.
- D. Attendance:
 1. Owner's representative.
 2. Engineer and his sub-consultants.
 3. Resident project representative.
 4. Contractor and his superintendent.
 5. Major subcontractors.
 6. Representatives of major suppliers and manufacturers, as appropriate.
 7. Governmental and franchised utility representatives, as appropriate.
 8. Permit agency representatives, as appropriate.
 9. Funding agency representatives, as appropriate.
 10. Others as requested by the Contractor, Owner, and Engineer.
- E. Suggested Agenda:
 1. Introductions and Roles
 2. Contract Execution and Dates
 - a. Contracts
 - b. Contract Time/Dates
 - c. Copies of Conformed Documents
 3. Communications
 - a. Lines of Communication

- b. Coordination Meetings
 - c. Contact List
 - d. Requests for Information (RFIs)
- 4. Preconstruction Matters
 - a. Submittals
 - b. Material Acquisition
 - c. Mobilization
 - d. Permitting
- 5. Construction/Coordination
 - a. Working Days/Hours
 - b. Change Orders
 - c. Locating Existing Facilities
 - d. Demolition
 - e. Testing
 - f. Updated Schedules
- 6. Pay Requests
 - a. Process
 - b. Schedule of Values
 - c. Stored Materials
 - d. Preliminary As-Builts
- 7. Contract Closeout
 - a. Substantial Completion
 - b. Punch-list
 - c. Final Acceptance
 - d. Warranty
 - e. Final Payment

1.03 RESIDENT MEETING(S)

- A. Purpose: To present construction approach to effected residents and to allow residents to ask questions concerning such.
- B. Scheduling: Engineer/Owner will schedule resident meeting(s) after preconstruction meeting is held, but before construction begins. Invites shall be distributed via electronic mail and hard copy flyers. Contractor shall assist in the distribution of flyers.
- C. Location: A local site, convenient for all parties, designated by the Engineer/Owner.
- D. Attendance:
 - 1. Owner's representative.
 - 2. Engineer.
 - 3. Resident project representative.
 - 4. Contractor and his superintendent.
 - 5. Major subcontractors, as appropriate.
 - 6. Residents.
- E. Suggested Agenda: To be determined by Engineer/Owner

1.04 UTILITY COORDINATION MEETING(S)

- A. Purpose: To discuss the coordination of the construction with existing and proposed utilities.
- B. Scheduling: Engineer will schedule utility coordination meeting(s) as needed. These meetings may be held in conjunction with Progress Meetings. Invites shall be distributed via electronic mail.
- C. Location: A local site, convenient for all parties, designated by the Engineer.

D. Attendance:

1. Owner's representative.
2. Engineer.
3. Resident project representative.
4. Contractor and his superintendent.
5. Major subcontractors, as appropriate.
6. Utility representatives.

E. Suggested Agenda: To be determined by Engineer.

1.05 PROGRESS MEETINGS

A. Purpose: To discuss the progress of the construction and projected work activities.

B. Scheduling: Engineer will schedule progress meetings on a regular basis at a minimum frequency of once per week and at a maximum frequency of once per month. Invites shall be distributed via electronic mail.

C. Location: A local site, convenient for all parties, designated by the Engineer.

D. Attendance:

1. Owner's representative.
2. Engineer and sub-consultants, as appropriate.
3. Resident project representative.
4. Contractor and his superintendent.
5. Major subcontractors, as appropriate.
6. Utility representatives, as appropriate.
7. Permit agency representatives, as appropriate.
8. Funding agency representatives, as appropriate.

E. Suggested Agenda:

1. Work progress since last meeting
2. Work scheduled this period
3. Field observations, problems and conflicts.

4. Construction schedule

- a. Status of current schedule
- b. Issues impacting schedule
- c. Fabrication and delivery schedules
- d. Corrective measures to regain projected schedule

5. Submittals

6. RFIs

7. Pending Changes and Substitutions

8. Quality Control

9. Pay Requests

10. Other Business

PART 2- PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 32 16
CONSTRUCTION PROGRESS SCHEDULES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Promptly after award of the Contract, prepare and submit to the Engineer estimated construction progress schedules demonstrating complete fulfillment of all Contract requirements utilizing a Critical Path Method (hereinafter referred to as CPM) in planning, coordinating, and performing the Work under this Contract (including all activities of subcontractors, equipment vendors, and suppliers). The principles and definition of CPM terms used herein shall be as set forth in the Associated General Contractors of America (AGC) publication, The Use of CPM in Construction, A Manual for General Contractors and the Construction Industry, latest edition, but the provisions of this Specification shall govern the planning, coordinating, and performance of the Work.
2. Submit revised progress schedules on a monthly basis. No partial payments shall be approved until there is an approved construction progress schedule on hand.

B. Related Requirements Described Elsewhere:

1. Conditions of the Contract.
2. Section 01 11 00 - Summary of Work
3. Section 01 31 19 - Project Meetings
4. Section 00 62 76 - Application for Payment Form
5. Section 01 33 23 - Shop Drawings, Project Data, and Samples
6. Section 01 29 73 - Schedule of Values

1.02 QUALIFICATIONS

- A. A statement of computerized CPM capability shall be submitted in writing prior to the award of the Contract and shall verify that either Contractor's organization has in-house capability to use the CPM technique or that Contractor will employ a CPM consultant who is so qualified.
- B. In-house capability shall be verified by description of construction projects to which Contractor or Contractor's consultant has successfully applied computerized CPM and shall include at least two (2) projects valued at least half the expected value of this project.

1.03 FORM OF SCHEDULES

- A. Prepare schedules in the form of a horizontal bar chart.
 - 1. Provide a separate horizontal bar for each trade or operation within each structure or item.
 - 2. Horizontal time scale:
 - a. Show starting and completion dates for each activity in terms of the number of days after Notice to Proceed. All completion dates shown shall be within the period specified for contract completion.
 - b. Identify the first workday of each month.
 - 3. Scale and Spacing: Sufficient to allow space for notations and future revisions.
 - 4. Maximum Sheet Size: 24 inches by 36 inches.
- B. Format of Listings: The chronological order of the start of each item of work for each structure.

- C. Identification of Listings: By major specification section numbers as applicable and by utility.
- D. Construction Progress Schedules shall be computer generated using software offered by Primavera, or approved equal.

1.04 CONTENT OF SCHEDULES

- A. Construction Progress Schedule:
 - 1. Show the complete sequence of construction by activity and by structure.
 - 2. Show the dates for the beginning and completion of each major element of construction in no more than a two (2) week increment scale. Specifically, list, but do not limit to:
 - a. Shop Drawing Schedule.
 - b. Installation of temporary facilities.
 - c. Clearing.
 - d. Demolition
 - e. Subcontractor work
 - f. Utility Installations
 - g. Paving
 - h. Start-Up
 - i. Project closeout
 - 3. Show projected percentage of completion for each item, as of the first day of each month.
 - 4. Show projected dollar cash flow requirements for each month of construction and for each activity as indicated by the approved Schedule of Values.
- B. Submittals for construction progress schedules shall be in accordance with Section 01 33 23: Shop Drawings, Product Data, and Samples. Indicate on the schedule the following:

1. The dates for Contractor's submittals.
 2. The date submittals will be required for Owner-furnished products, if applicable.
 3. The date approved submittals will be required from the Engineer.
- C. A typewritten list of all long lead items (equipment, materials, etc.).
- D. To the extent that the progress schedule or any revised progress schedule shows anything not jointly agreed upon or fails to show anything jointly agreed upon, it shall not be deemed to have been approved by the Engineer. Failure to include any element of work required for the performance of this Contract shall not excuse the Contractor from completing all work required within any applicable completion date, notwithstanding the Engineer's approval of the progress schedule.
- E. Scheduling Constraints: The work within Owner's property must be completed within the maximum number of days start to finish, as indicated in the Contract. Additionally, work must proceed on a continuous basis, without stoppages, except for nights and weekends. There shall be no lapses between phases of construction.

1.05 PROGRESS REVISIONS

- A. Indicate progress of each activity to date of submission.
- B. Show changes occurring since previous submission of schedule:
1. Major changes in scope.
 2. Activities modified since previous submission.
 3. Revised projections of progress and completion.
 4. Other identifiable changes.
- C. Provide a narrative report as needed to define:
1. Problem areas, anticipated delays, and the impact on the schedule.
 2. Corrective action recommended, and its effect.
 3. The effect of changes on schedules of other prime contractors.

- D. If the Work falls behind the critical path schedule by two (2) weeks or more, the Contractor shall prepare a recovery schedule.

1.06 SUBMISSIONS

A. Submittal Requirements.

1. Logic network and/or time-phased bar chart, computer generated.
2. Computerized network analysis:
 - a. Sort by early start
 - b. Sort by float
 - c. Sort by predecessor/successor
3. Narrative description of the logic and reasoning of the schedule.

B. Time of Submittals.

Within ten (10) working days after Notice to Proceed, Contractor shall submit a network diagram describing the activities to be accomplished in the project and their dependency relationships, (predecessor/successor) as well as a tabulated schedule as herein defined. The total length of time indicated on the initial CPM schedule shall equal the exact number of days in the Contract Time as defined in Agreement. The schedule produced and submitted shall also indicate calendar dates, including project starting and completion dates, based on the Contract Commencement and completion dates indicated in the Notice to Proceed. The Engineer will complete the review of the complete schedule within fifteen (15) working days after receipt. During the review process, the Engineer may meet with a representative of Contractor to review the proposed plan and schedule to discuss any clarifications that may be necessary.

- C. Within ten (10) working days after the conclusion of the Engineer's review period, Contractor shall revise the network diagram as required and resubmit the network diagram and a tabulated schedule produced therefrom. The revised network diagram and tabulated schedule shall be reviewed and accepted or rejected by the

Engineer within fifteen (15) working days after receipt. The network diagram and tabulated schedule, when accepted by the Engineer, shall constitute the project work schedule unless a revised schedule is required due to substantial changes in the Work, a change in Contract Time or a recovery schedule is required and requested.

- D. Acceptance. The finalized schedule will be acceptable to the Engineer when, in the opinion of the Engineer, it demonstrates an orderly progression of the Work to completion in accordance with the Contract Documents. Such acceptance will neither impose on the Engineer responsibility for the progress or scheduling of the Work nor relieve Contractor from full responsibility, therefore. The finalized schedule of shop drawing submittals will be acceptable to the Engineer when, in the opinion of the Engineer, it demonstrates a workable arrangement for processing the submittals in accordance with the requirements. The finalized Schedule of Values (lump sum price breakdown), as applicable, will be acceptable to the Engineer as to form and content when, in the opinion of the Engineer, it demonstrates a substantial basis for equitably distributing the Contract Price. When the network diagram and tabulated schedule have been accepted, the Contractor shall submit to the Engineer six (6) copies of the time-scaled network diagram, six (6) copies of a computerized tabulated schedule in which the activities have been sequenced by numbers, six (6) copies of a computerized tabulated schedule in which the activities have been sequenced by early starting date, and six (6) copies of a computerized, tabulated schedule in which activities have been sequenced by total float, and six (6) copies sorted by predecessor/successor.
- E. Revised Work Schedules. Contractor, if requested by the Engineer, shall provide a revised work schedule if, at any time, the Engineer considers the completion date to be in jeopardy because of "activities behind schedule." The revised work schedule shall include a new diagram and tabulated schedule conforming to the requirements of Paragraph 1.09 herein, designed to show how Contractor intends to accomplish the Work to meet the completion date. The form and method employed by Contractor shall be the same as for the original work schedule. No payment will be made if activities fall more than two (2) weeks behind schedule and a revised work schedule is not furnished.

- F. Schedule Revisions. The Engineer may require Contractor to modify any portions of the work schedule that become infeasible because of "activities behind schedule" or for any other valid reason. An activity that cannot be completed by its original latest completion date shall be deemed to be behind schedule. No change may be made to the sequence, duration, or relationships of any activity without approval of the Engineer.

1.07 DISTRIBUTION

- A. Distribute copies of the reviewed schedules to:
1. Engineer.
 2. Jobsite file.
 3. Subcontractors.
 4. Other concerned parties.
 5. Owner (two copies).
- B. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by the projections shown in the schedules.

1.08 CHANGE ORDERS

- A. Upon approval of a change order, the approved changes shall be reflected in the next scheduled revision or update submittal of the construction progress schedule by the Contractor.

1.09 CPM STANDARDS

- A. CPM, as required by this Section, shall be interpreted to be generally as outlined in the Associated General Contractors (AGC) publication, The Use of CPM in Construction, A Manual for General Contractors and the Construction Industry, Copyright 1976.
- B. Work schedules shall include a graphic network and computerized, tabulated schedules as described below. To be acceptable the schedule must demonstrate the following:

1. A logical succession of work from start to finish.
2. Definition of each activity. Activities shall be identified by major specification section numbers, as applicable, and by major utility.
3. A logical flow of work crews/equipment (crews are to be defined by manpower category and man-hours; equipment by type and hours).
4. Show all work activities and interfaces including submittals as well as major material and equipment deliveries.

C. Networks.

1. The CPM network, or diagram, shall be in the form of a time-scaled diagram of the customary activity-on-type and may be divided into a number of separate pages with suitable notation relating the interface points among the pages. Notation on each activity line shall include a brief work description and duration, as described in Paragraph 1.09, D. herein.
2. All construction activities and procurement shall be indicated in a time-scaled format, and a calendar shall be shown on all sheets along the entire sheet length. Each activity arrow shall be plotted so the beginning and completion dates of said activity can be determined graphically by comparison with the calendar scale. All activities shall be shown using the symbols that clearly distinguish between critical path activities, non-critical path activities, and float for each non-critical activity. All non-critical path activities shall show estimated performances time and float time in scaled form.

- D. The duration indicated for each activity shall be in calendar days and shall represent the single best time considering the scope of the work and resources planned for the activity including time for inclement weather. Except for certain non-labor activities, such as curing concrete or delivering materials, activity durations shall not exceed fourteen (14) days nor be less than one (1) day unless otherwise accepted by the Engineer.

E. Tabulated Schedules. The initial schedule shall include the following minimum data for each activity:

1. Activity Beginning and Ending Numbers (i-j numbers) (single activity numbers may be used).
2. Duration.
3. Activity Description.
4. Early Start Date (Calendar Dated).
5. Late Start Date (Calendar Dated).
6. Early Finish Date (Calendar Dated).
7. Late Finish Date (Calendar Dated).
8. Identified Critical Path.
9. Total Float (Note: No activity may show more than 20 days float).
10. Cost of Activity.
11. Equipment Hours, by type; Man-Power Hours, by crew or trade.

F. Project Information. Each tabulation shall be prefaced with the following summary data:

1. Project Name.
2. Contractor.
3. Type of Tabulation (Initial or Updated).
4. Project Duration.
5. Project Scheduled Completion Date.
6. Effective or Starting Date of the Schedule.
7. New Project Completion Date and Project Status (if an updated or revised schedule).
8. Actual Start Date and Actual Finish Date (for all updated schedules.)

1.10 SCHEDULE MONITORING

A. At not less than monthly intervals or when specifically requested by Engineer, Contractor shall submit to the Engineer a computer printout of an updated schedule for those activities that remain to be completed. Typically, the updated schedule will be submitted with the application for payment as specified below.

- B. The updated schedule shall be submitted in the form, sequence, and number of copies requested for the initial schedule.

1.11 PROGRESS MEETINGS

- A. For the monthly progress meeting, Contractor shall submit a revised CPM schedule and a three-week look-ahead schedule, showing all activities completed, in progress, uncompleted, or scheduled to be worked during the weeks. The three weeks include the current week plus the next two weeks. All activities shall be from the approved CPM and must be as shown on the CPM unless behind or ahead of schedule. One copy of the revised CPM schedule shall be submitted with each copy of that month's application for payment, electronically in color.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 32 33
PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. Scope of Work: The Contractor shall employ a competent photographer to take construction record photographs and video recording prior to start of the Work, periodically during the course of the Work, and following the completion of the Work.
- B. Summary: This Section includes administrative and procedural requirements for the following
 - 1. Preconstruction photographs
 - 2. Preconstruction video recordings
 - 3. Periodic Construction photographs
 - 4. Completion construction photographs
- C. Related Requirements Described Elsewhere:
 - 1. Section 01 00 00 - General Requirements
 - 2. Section 01 11 00 - Summary of Work
 - 3. Section 01 30 00 - Administrative Requirements
 - 4. Section 01 78 39 - Project Record Documents
- D. Photographs and videos shall be taken in conformance with this Section and shall be furnished to the Engineer with each pay request. Failure to comply will result in rejection of pay request.

1.02 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of the Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include the same information as corresponding photographic documentation.
- B. Digital Photographs: Submit image files within three (3) days of taking photographs
 - 1. Digital Camera: Minimum sensor resolution of 8 megapixels
 - 2. Format: Minimum 3200 by 2400 pixels, in unaltered original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in folder named by date of photograph accompanied by key plan file.
 - 3. Identification: Provide the following information with each image description in file metadata tag:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Date photograph was taken.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - g. Unique sequential identifier keyed to accompanying key plan.
- C. Construction Photographs: Submit two (2) prints of each photographic view within seven (7) days of taking photographs.
 - 1. Format: Electronic submittal to Engineer.
 - 2. Identification: With each submittal, provide the following information:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Architect and Construction Manager.
 - d. Name of Contractor.

- e. Date photograph was taken if not date stamped by camera.
- f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
- g. Unique sequential identifier keyed to accompanying key plan.

D. Video Recordings: Submit video recordings within seven (7) days of recording.

- 1. Submit video recordings in digital video disc format acceptable to Architect by posting to Web-based photographic documentation service provider's Web site.
- 2. Identification: With each submittal, provide the following information:
 - a. Name of Project.
 - b. Name and address of photographer.
 - c. Name of Architect and Construction Manager.
 - d. Name of Contractor.
 - e. Date video recording was recorded.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - g. Weather conditions at time of recording.

1.03 COST OF PHOTOGRAPHY

- A. The Contractor shall pay costs for specified ground and aerial photography, videography, and web-based documentation.

1.04 QUALITY ASSURANCE

- A. Photographer Qualifications: An individual who has been regularly engaged as a professional photographer of construction projects for not less than three (3) years.
- B. Digital photographs may be taken by the Contractor's personnel but must be of professional quality as herein specified. Photographs which are deemed unsatisfactory will be rejected and retakes will be required.

1.05 USAGE RIGHTS

- A. Obtain and transfer copyright usage rights from the Photographer to the Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.01 PHOTOGRAPHIC MEDIA

- A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of 8 megapixels, and at an image resolution of not less than 3200 by 2400 pixels.
- B. Digital Video Recordings: Provide high- resolution digital video disc in format acceptable to Architect.

PART 3 - EXECUTION

3.01 CONSTRUCTION PHOTOGRAPHS

- A. Photographer: Engage a qualified photographer to take construction photographs.
- B. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- C. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
 - 1. Date and Time: Include date and time in file name for each image.

2. Field Office Images: Maintain one (1) set of images accessible in the field office at Project site, available always for reference. Identify images in the same manner as those submitted to Architect and Construction Manager.
- D. Preconstruction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect and Construction Manager.
1. Flag excavation areas and construction limits before taking construction photographs.
 2. Take twenty (20) photographs to show existing conditions adjacent to property before starting the Work.
 3. Take twenty (20) photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- E. Periodic Construction Photographs: Take twenty (20) photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- F. Final Completion Construction Photographs: Take twenty (20) color photographs after date of Substantial Completion for submission as project record documents. Architect and Construction Manager will inform photographer of desired vantage points.
1. Do not include date stamp.
- G. Additional Photographs: Architect or Construction Manager may request photographs in addition to periodic photographs specified. Additional photographs will be paid for by Change Order and are not included in the Contract Sum.
1. Three (3) days' notice will be given, where feasible.

2. In emergency situations, take additional photographs within 24 hours of request.
3. Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Special events planned at Project site.
 - b. Immediate follow-up when on-site events result in construction damage or losses.
 - c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
 - d. Substantial Completion of a major phase or component of the Work.
 - e. Extra record photographs at time of final acceptance.
 - f. Owner's request for special publicity photographs.

3.02 CONSTRUCTION VIDEO RECORDINGS

- A. Video Recording Photographer: Engage a qualified videographer to record construction video recordings. Time must be accurate and continuously generated.
- B. Recording: Mount camera on tripod before starting recording unless otherwise necessary to show area of construction. Display continuous running time and date. At start of each video recording, record weather conditions from local newspaper or television and the actual temperature reading at Project site.
- C. Narration: Describe scenes on video recording by dubbing audio narration off-site after video recording is recorded. Include description of items being viewed, recent events, and planned activities. At each change in location, describe vantage point, location, direction (by compass point), and elevation or story of construction.
 1. Confirm date and time at beginning and end of recording.
 2. Begin each video recording with name of Project, Contractor's name, videographer's name, and Project location.

- D. Transcript: Provide a typewritten transcript of the narration. Display images and running time captured from video recording opposite the corresponding narration segment.
- E. Preconstruction Video Recording: Before starting construction, record video recording of Project site and surrounding properties from different vantage points, as directed by Architect and Construction Manager.
1. Flag excavation areas and construction limits before recording construction video recordings.
 2. Show existing conditions adjacent to Project site before starting the Work.
 3. Show existing buildings either on or adjoining Project site to accurately record physical conditions at the start of construction.
 4. Show protection efforts by Contractor.
- F. Periodic Construction Video Recordings: Record video recording monthly, coinciding weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last video recordings were recorded. Minimum recording time shall be thirty (30) minutes.
- G. Time-Lapse Sequence Construction Video Recordings: Record video recording to show status of construction and progress.
1. Frequency: During each of the following construction phases, set up video recorder to automatically record one frame of video recording every five (5) minutes, from same vantage point each time, to create a time-lapse sequence of thirty (30) minutes in length as follows:
 - a. Commencement of the Work, through completion of subgrade construction.
 - b. Above-grade structural framing.
 - c. Exterior building enclosure.
 2. Timer: Provide timer to automatically start and stop video recorder so recording occurs only during daylight construction work hours.

3. Vantage points: Following suggestions by Architect and Construction Manager and Contractor, photographer shall select vantage points.

3.03 DELIVERY OF PHOTOGRAPHS AND VIDEOS

- A. Photographs and videos will be delivered electronically following specifications above with a coordinating log, to the Engineer as attachment to Application for Payment.
- B. Distribution of construction photographs, as soon as processed, is anticipated to be as follows:
 1. Engineer one (1) set.
 2. Project record file one (1) set to be stored by Contractor until the end of the project which shall then be delivered with Project Record Documents as specified in Section 01 78 39.
 3. Contractor one (1) set.

END OF SECTION

SECTION 01 33 23
SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the Engineer for review and approval, such working drawings, shop drawings, test reports and data on materials and equipment, and material samples materials list, certificates and affidavits as are required for the proper control of work, including but not limited to those working drawings, shop drawings, data and samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.
- B. Within twenty (20) calendar days after the Effective Date of the Agreement, the Contractor shall submit to the Engineer a complete materials list of preliminary data on items for which Shop Drawings are to be submitted. Included in this materials list shall be the names of all proposed manufacturers furnishing specified items. Review of this list by the Engineer shall in no way be expressed or implied relief to the Contractor from submitting complete Shop Drawings and providing material, equipment, etc., fully in accordance with the Specifications. This procedure is required in order to expedite final review of Shop Drawings.
- C. The Contractor shall maintain an accurate updated submittal log and will bring this log to each scheduled progress meeting with the Owner and the Engineer. This log shall include the following items:
 - 1. Submittal Description and Number assigned.
 - 2. Date submitted to Engineer
 - 3. Date returned to Contractor (from Engineer).
 - 4. Status of Submittal (Approved, Approved as Noted, Not Approved/Resubmit).
 - 5. Date of Resubmittal and Return (as applicable).
 - 6. Date of material release (for fabrication).
 - 7. Projected date of fabrication.
 - 8. Projected date of delivery to site.

9. Status of O&M manuals submitted.
10. Specification Section.
11. Drawings Sheet Number.

D. Related Work Specified Elsewhere

1. Section 01 60 00: Product Requirements

1.02 CONTRACTOR'S RESPONSIBILITY

- A. It is the duty of the Contractor to check all drawings, data and samples prepared by or for him before submitting them to the Engineer for review. Each and every copy of the drawings and data shall bear Contractor's stamp and signature showing that they have been so checked. Shop drawings submitted to the Engineer without the Contractor's stamp and signature will be returned to the Contractor for conformance with this requirement. Shop drawings shall indicate any deviations in the submittal from requirements of the Contract Documents. If the Contractor takes exception to the specifications, the Contractor shall note the exception in the letter of transmittal to the Engineer. Shop drawings submittals shall not be used as a vehicle for requesting approval of substitute or alternative equipment and materials. Substitution requests will be considered only when submitted in accordance with the applicable provisions of Section 01 60 00.
- B. Determine and Verify:
 1. Field measurements.
 2. Field construction criteria.
 3. Catalog numbers and similar data.
 4. Conformance with Specifications.
- C. The Contractor shall furnish the Engineer a schedule of Shop Drawings submittals fixing the respective dates for the submission of shop and working drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment. This schedule shall indicate those that are critical to the progress schedule.

- D. The Contractor shall not begin any of the work covered by a drawing, data, or a sample returned for correction until a revision or correction thereof has been reviewed and returned to him, by the Engineer, with approval.
- E. The Contractor shall submit to the Engineer all drawings and schedules sufficiently in advance of construction requirements to provide no less than thirty (30) calendar days for checking and appropriate action from the time the Engineer receives them.
- F. All submittals shall be accompanied by a transmittal letter prepared in duplicate containing the following information:
1. Date.
 2. Project Title and Number.
 3. Contractor's name and address.
 4. Notification of deviations from Contract Documents.
 5. Submittal Log Number conforming to Specification Section Numbers.
- G. The CONTRACTOR shall submit descriptive or product data submittals/drawings electronically to the ENGINEER. The ENGINEER will review the submittals/drawings and return marked-up submittals/drawings with appropriate review comments electronically to the CONTRACTOR.
- H. Once submittals/drawings are approved, they are to be distributed electronically to the OWNER, ENGINEER and CONTRACTOR.
- I. The Contractor shall be responsible for and bear all costs of damages which may result from the ordering of any material or from proceeding with any part of work prior to the completion of the review by Engineer of the necessary shop drawings.
- J. The Contractor shall be fully responsible for observing the need for and making any changes in the arrangement of piping, connections, wiring, manner of installation, etc., which may be required by the materials/equipment he proposed to supply both as pertaining to his own work and any work affected under other parts, headings, or divisions of Drawings and Specifications.

1.03. ENGINEER'S REVIEW OF SHOP DRAWINGS

- A. The Engineer's review of drawings, data and samples submitted by the Contractor will cover only general conformity to the Specifications, external connections, and dimensions which affect the installation. The Engineer's review and exceptions, if any, will not constitute an approval of dimensions, quantities, and details of the material, equipment, device, or item shown.
- B. The review of drawings and schedules will be general, and shall not be construed:
 - 1. As permitting any departure from the Contract requirements;
 - 2. As relieving the Contractor of responsibility of any errors, including details, dimensions, and materials;
 - 3. As approving departures from details furnished by the Engineer, except as otherwise provided herein.
- C. If the drawings or schedules as submitted describe variations and show a departure from the Contract requirements which Engineer finds to be in the interest of the Owner and to be so minor as not to involve a change in Contract Price or time for performance, the Engineer may return the reviewed drawings, without noting an exception.
- D. When reviewed by the Engineer, each of the Shop Drawings will be identified as having received such review, being so stamped and dated. Shop Drawings stamped "NOT APPROVED/RESUBMIT" and with required corrections shown will be returned to the Contractor for correction and re-submittal.
- E. Resubmittals will be handled in the same manner as first submittals. On Resubmittals the Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, to revisions other than the corrections requested by the Engineer on previous submissions. The Contractor shall make any corrections required by the Engineer.
- F. If the Contractor considers any correction indicated on the drawings to constitute a

change to the Contract Drawings or Specifications, the Contractor shall give written notice thereof to the Engineer.

- G. Shop Drawings and submittal data shall be reviewed by the Engineer for each original submittal and first Resubmittal; thereafter review time for subsequent Resubmittals shall be charged to the Contractor in accordance with the terms of the Engineer's Agreement with the Owner.
- H. When the Shop Drawings have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.
- I. No partial submittals will be reviewed. Submittals not complete will be returned to the Contractor for Resubmittal. Unless otherwise specifically permitted by the Engineer, make all submittals in groups containing all associated items for:
 - 1. Systems
 - 2. Processes
 - 3. As indicated in Specifications Sections, all drawings, schematics, manufacturer's product data, certifications and other shop drawing submittals required by a system specification shall be submitted at one time as a package to facilitate interface checking.

1.04 SHOP DRAWINGS

- A. When used in the Contract Documents, the term "Shop Drawings" shall be considered to mean Contractor's plans for materials and equipment which become an integral part of the Project. These drawings shall be completed and detailed. Shop Drawings shall consist of fabrication, erection and setting drawings and schedule drawings, manufacturer's scale drawing, and wiring and control diagrams. Cuts, catalogs, pamphlets, descriptive literature, and performance and test data shall be considered only as supportive to required shop drawings as defined above. As used herein, the term "manufactured" applied to standard units usually mass-

produced; and "fabricate" means items specifically assembled or made out of selected materials to meet individual design requirements.

- B. Manufacturer's catalog sheets, brochures, diagrams, illustrations and other standard descriptive data shall be clearly marked to identify pertinent materials, product or models. Delete information which is not applicable to the Work by striking or cross-hatching.
- C. Drawings and schedules shall be checked and coordinated with the work of all trades involved, before they are submitted for review by the Engineer and shall bear the Contractor's stamp of approval as evidence of such checking and coordination. Drawings or schedules submitted without this stamp of approval shall be returned to the Contractor for resubmission.
- D. Each Shop Drawing shall have a transmittal sheet. The transmittal sheet shall display the following:
 - 1. Project title and number
 - 2. Name of project building or structure
 - 3. Number and title of the shop drawing
 - 4. Date of shop drawing or revision
 - 5. Name of Contractor and subcontractor submitting drawing
 - 6. Supplier/manufacturer
 - 7. Separate detailer when pertinent
 - 8. Specification number
 - 9. Drawing number
- E. If drawings show variations from Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variations in his letter of transmittal. If acceptable, proper adjustment in the Contract shall be implemented where appropriate. If the Contractor fails to describe such variations, he shall not be relieved of the responsibility for executing the work in accordance with the Contract, even though such drawings have been reviewed.
- F. Data on materials and equipment include, without limitation, materials and equipment lists, catalog data sheets, cuts, performance curves, diagrams, materials of construction and similar descriptive material. Materials and equipment lists shall

give, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, size, finish and all other pertinent data.

- G. For all mechanical and electrical equipment furnished, the Contractor shall provide a list including the equipment name, address and telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained.
- H. All manufacturers or equipment suppliers who are proposed to furnish equipment or products shall submit an installation list to the Engineer along with the required shop drawings. The installation list shall include at least five (5) installations where identical equipment has been installed and has been in operation for a period of at least one (1) year.
- I. Only the Engineer will utilize the color "red" in marking shop drawing submittals.

1.05 WORKING DRAWINGS

- A. When used in the Contract Documents, the term "working drawings" shall be considered to mean the Contractor's plan for temporary structures such as temporary bulkheads, support of open cut excavation, support of utilities, ground water control systems, forming and false work; for underpinning; and for such other work as may be required for construction but does not become an integral part of the project.
- B. Copies of working drawings as noted in paragraph 1.05 A. above, shall be submitted to the Engineer where required by the Contract Documents or requested by the Engineer, and shall be submitted at least thirty (30) calendar days (unless otherwise specified by the Engineer) in advance of their being required for work.
- C. Working drawings shall be signed by a registered Professional Engineer, currently licensed to practice in the State of Florida and shall convey, or be accompanied by, calculation or other sufficient information to completely explain the structure, machine, or system described and its intended manner of use. Review of working drawings by the Engineer will not relieve the Contractor in any way from his responsibility with regard to the fulfillment of the terms of the Contract. All risks

of error are assumed by the Contractor; the Owner and Engineer shall have no responsibility therefore.

1.06 SAMPLES

- A. The Contractor shall furnish, for the approval of the Engineer, samples required by the Contract Documents or requested by the Engineer. Samples shall be delivered to the Engineer as specified or directed. The Contractor shall prepay all shipping charges on samples. Materials or equipment for which samples are required shall not be used in work until approved by the Engineer.
- B. Samples shall be of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of the product, with integrally related parts and attachment devices.
 - 2. Full range of color, texture and pattern.
 - 3. A minimum of two (2) samples of each item shall be submitted.
- C. Each sample shall have a label indicating:
 - 1. Name of project.
 - 2. Name of Contractor and subcontractor.
 - 3. Material or equipment represented.
 - 4. Place of origin.
 - 5. Name of producer and brand (if any).
 - 6. Location in project.
 - 7. Submittal Number.

(Samples of finished materials shall have additional marking that will identify them under the finish schedules).

- D. The Contractor shall prepare a transmittal letter in triplicate for each shipment of samples containing the information required in paragraph 1.06 B. above. He shall enclose a copy of this letter with the shipment and send a copy of this letter to the

Engineer. Approval of a sample shall be only for the characteristics or use names in such approval and shall not be construed to change or modify any Contract requirements.

- E. Approved samples not destroyed in testing shall be sent to the Engineer or stored at the site of work. Approved samples of the hardware in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in work shall match the approved samples. Samples which failed testing or were not approved will be returned to the Contractor at his expense, if so, requested at time of submission.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 45 29
TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Contractor will employ and pay for services of an Independent testing Laboratory to perform testing specifically indicated on the Contract Documents or specified in the Specifications herein and may at any other time elect to have materials and equipment tested for conformity with the Contract Documents.
2. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
3. Contractor shall provide Engineer with all test results as indicated herein within five (5) days of receipt.

B. Related Requirements Described Elsewhere:

1. Testing laboratory inspection, sampling and testing is required for, but not limited to the following:
 - a. Section 31 23 00 - Excavation and Fill
 - b. Section 03 30 00 - Cast-in-Place Concrete
 - c. Section 33 05 05 - Hydrostatic Testing

C. The following schedule defines the responsibility for various tests.

<u>Test</u>	<u>Notes</u>	<u>Paid for By</u>
Soil Compaction	Pipe Work: every 300 ft. at each lift of compaction minimum. Beneath Structures: each 500 sq. ft. lift of compaction minimum and each lift around structures.	Contractor
Pressure	As specified in Section 33 05 05	Contractor
Bacteriological	As required by local and state agencies.	Contractor
LBR	Each 1500 SF of pavement (minimum).	Contractor
Concrete	Slump test each delivery and compression test five cylinders every 50 C.Y. (minimum). Contractor	

- D. Additional Tests: The Contractor shall pay for first tests as specified herein. In the event that first test samples do not meet the applicable material specification, the Contractor shall take measures to conform the material and equipment to the Specifications. All subsequent tests shall be paid for by the Contractor.

1.02 LABORATORY TESTS

- A. The materials listed below shall require advance and periodic laboratory tests as indicated, and shall be sampled in accordance with the methods of the A.S.T.M. and as directed by the Engineer. With the exception of concrete test cylinders and mixing water, duplicate advance samples of all materials requiring laboratory tests shall be submitted to the Engineer, one of which will be certified by the Engineer for submission to the testing laboratory and the other retained on the job site in suitable storage provided by the Contractor. Except as noted below, preliminary samples of materials for advance laboratory tests shall be submitted at least two weeks prior to starting delivery of such materials to the site of the project. The testing laboratory shall furnish both the Engineer and the Contractor with two (2) copies of the reports showing the results of such tests, and the reports shall be considered as sufficient evidence of the acceptance or rejection of the quality of the materials tested. The specifications for, and the method of testing, will be found

under the detailed specifications for the particular material involved. All samples shall be properly packed and clearly marked as to source and intended use.

MATERIALS	TEST FREQUENCY	SAMPLE SIZE	SHIPPING CONTAINER
Fine Aggregate	Advance, first shipment then each 100 tons	100 lbs.	Canvas Sack
Coarse Aggregate	Advance, first shipment then each 200 tons	Stone or Gravel 200 lbs.	Strong Sack
Concrete	Advance test using approved materials	4 cylinders per mix, 2 broken at 7 days, 2 at 28 days	
Concrete (b) Air Entrainment	Advance test on trial mix air entraining agent is used. Test as specified under Article 405 (e)		

1.03 TESTS

- A. The materials listed below shall be tested at the shop or plant of, and by, the producer. Each manufacturer of such materials shall be fully equipped to carry out the tests herein designated. Upon demand of the Engineer, the manufacturer shall perform such additional number of tests as the Engineer may deem necessary to establish the quality of the material offered for use. The Engineer shall be furnished with the certified records of reports of the results of all tests, such reports of records to contain a sworn statement that the tests have been made as specified.

MATERIAL	TEST METHOD
Cement	ASTM C114
Ductile Iron Pipe (Centrifugally Cast)	As required under ANSI A21.51-1176
Brick	ASTM C-32
Reinforcement	ASTM A-15 & A-305

1.04 FIELD TESTS

- A. All sewers, water lines, piping and equipment shall be tested in the field in the presence of the Engineer or his authorized assistant, in the manner prescribed in the sections of these specifications pertaining to such installations. The Engineer may also perform or have performed any other field tests necessary to determine compliance with the Contract requirements. The Contractor shall furnish all necessary labor, equipment, and materials for such tests and, with the exception of the Engineer's expenses, shall bear all the cost thereof.

1.05 PAVING TESTS

- A. The following tests will be made, unless otherwise stipulated by the Engineer, by a testing laboratory approved by the Engineer:

Material	Test or Test Method	Frequency
Subbase	1) AASHO T-180 (Modified Proctor Minimum 98% Density)	Every 300 LF
	2) Lime rock Bearing Ratio 40	Every 300 LF
Base	(Soil Cement) (1) Mix Design 350 psi @ 28 days. Mix design required 7 days in advance.	Prior to Mixing Base
	(2) Optimum Moisture content and Maximum Density (AASHTO T-134)	Every 300 LF
	(3) LBR 100	Every 1500 sf
	(4) Depth (6-inch minimum)	Every 300 feet
Paving	(1) Job Mix Formula. Required 7 days in advance and submit to Engineer	Each Job
	(2) Bitumen Content of Mix	Every 2500 SY or fraction thereof
	(3) In Place Density	Every 300' (left, right & center)
	(4) Marshall Field Stability Index	Every 1500 SY or fraction thereof
	(5) Thickness Cores	Every 300' (left, right, & center)

1.06 Basis of Payment

- A. All shop tests and mill inspection shall be included in the price of the manufactured article, and no separate or extra payment will be made for such tests and inspection.

- B. All laboratory and field tests will be paid for by the Contractor; he shall furnish all necessary labor, equipment and materials for such tests and, with the exception of the Engineer's expenses, shall bear all the costs thereof.

1.07 LABORATORY DUTIES: LIMITATIONS OF AUTHORITY

- A. Cooperate with Engineer and Contractor; provide qualified personnel promptly on notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
 - 1. Comply with specific standards; ASTM, other recognized authorities, and as specified.
 - 2. Determine and report on compliance with requirements of Contract Documents.
- C. Promptly notify the Engineer and Contractor of material or operations which do not meet the specifications.
- D. Promptly submit one (1) original and (1) electronic copy of reports of inspections and tests to the Engineer including:
 - 1. Date issued.
 - 2. Project title and Engineer's job number.
 - 3. Testing Laboratory name and address.
 - 4. Name and signature of inspector.
 - 5. Date of inspection of inspector.
 - 6. Date of inspection or sampling.
 - 7. Date of test.
 - 8. Identification of product and Specification section.
 - 9. Location in project.
 - 10. Type of inspection or test.
 - 11. Compliance with Contract Documents or not.

- E. Laboratory is not authorized to:
1. Release, revoke, alter, or enlarge on requirements of Contract Documents.
 2. Approve or reject any portion of work.
 3. Perform any duties of the Contractor.

1.08 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel; provide access to Work and manufacture's operations.
- B. Secure and deliver to the laboratory adequate representational samples of materials purposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be for concrete, and other materials mixes which require control by the testing laboratory.
- D. Materials and equipment used in the performance of work under this Contract are subject to inspection and testing at the point of manufacturer of fabrication. Standard specifications for quality and workmanship are indicated in the Contract Documents. The Engineer may require the Contractor to provide statements or certificates from the manufacturers and fabricators that in full accordance with the standard specifications for quality and workmanship indicated in the Contract Documents. All costs of this testing and providing statements and certificates shall be a subsidiary obligation of the Contractor, and no extra charge to the Owner shall be allowed on account of such testing and certification.
- E. Furnish incidental labor and facilities:
1. To provide access to Work to be tested.
 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 3. To facilitate inspections and tests.

4. For storage and curing of test samples.
5. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 57 13
TEMPORARY EROSION AND SEDIMENTATION CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. The Work specified in this Section consists of designing, providing, maintaining and removing temporary erosion and sedimentation controls for construction activities impacting **less** than one acre, as required by Rules and Regulations and permit conditions.
2. Temporary erosion controls include, but are not limited to, grassing, mulching, setting, watering and re-seeding on-site surfaces, soil and borrow area surfaces, providing interceptor ditches at ends of berms and at those locations which will ensure that erosion during construction will be either eliminated or maintained within acceptable limits as established by the Owner.
3. Temporary sedimentation controls include, but are not limited to silt dams, traps, barriers, and appurtenances at the foot of sloped surfaces which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the Owner.
4. Temporary dust controls include, but are not limited to mulching, establishing temporary vegetation, water spraying, surface roughening through tilling, barriers, and spray on adhesives which will ensure minimal dust deposition into water bodies and reduce airborne dust that may cause low visibility or respiratory hazards.
5. Contractor is responsible for designing, providing, maintaining and removing effective temporary erosion, sediment and dust control measures during construction or until final controls become effective.

B. Related Work Described Elsewhere:

1. Section 31 23 00 - Excavation and Fill
2. Section 32 92 00 - Turf and Grasses

PART 2 - PRODUCTS

2.01 EROSION CONTROL

- A. Netting shall be fabricated of material acceptable to the Owner.

2.02 SEDIMENTATION CONTROL

- A. Bales shall be clean, see-free cereal hay type.
- B. Netting shall be fabricated of material acceptable to the Owner.
- C. Filter stone shall be crushed stone which conforms to Florida Department of Transportation (FDOT) specifications.
- D. Concrete block shall be hollow, non-load bearing type.
- E. Concrete shall be exterior grade not less than 1-inch thick.
- F. Sediment Fence

PART 3 – EXECUTION

3.01 EROSION CONTROL

- A. Minimum procedures for grassing are:
1. Scarify slopes to a depth of not less than 6 inches and remove large clods, rock, stumps, roots larger than 1/2 inch in diameter and debris.

2. Sow seed within 24 hours after the ground is scarified with either mechanical seed drills or rotary hand seeders.
3. Apply mulch loosely and to a thickness of between 3/4 inch and 1-1/2 inches.
4. Apply netting over mulched areas on sloped surfaces.
5. Roll and water seeded areas in a manner which will encourage sprouting of seeds and growing of grass. Reseed areas which exhibit unsatisfactory growth. Backfill and seed eroded areas.

3.02 SEDIMENTATION CONTROL

- A. Install and maintain silt dams, traps, barriers, and appurtenances as shown on the approved descriptions and working drawings. Hay bales which deteriorate and filter stone which is dislodged shall be replaced.

3.03 PERFORMANCE

- A. Should any of the temporary erosion and sediment control measures employed by the Contractor fail to produce results which comply with the requirements of the State of Florida, the Owner or Engineer, the Contractor shall immediately take whatever steps are necessary to correct the deficiency at his own expense.

END OF SECTION

SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Conform to applicable specifications and standards.
2. Comply with size, make, type and quality specified, or as specifically approved in writing by Engineer.
3. Manufactured and fabricated products:
 - a. Design, fabricate and assemble in accordance with the best engineering and shop practices.
 - b. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
 - c. Two or more items of the same kind shall be identical, by the same manufacturer.
 - d. Products shall be suitable for service conditions.
 - e. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.
4. Do not use material or equipment for any purpose other than that for which it is designed or is specified.

1.02 APPROVAL OF MATERIALS

- A. Only new materials and equipment shall be incorporated in the work. All materials and equipment furnished by Contractor shall be subject to the inspection and

approval of Engineer. No material shall be delivered to the work without prior approval of Engineer.

- B. Within twenty (20) days after the Effective Date of the Agreement, Contractor shall submit to Engineer, data relating to materials and equipment he proposes to furnish for the work. Such data shall be in sufficient detail to enable Engineer to identify the particular product to form an opinion as to its conformity to the specifications.
- C. Facilities and labor for handling and inspection of all materials and equipment shall be furnished by Contractor. If Engineer requires, either prior to beginning or during progress of the work, Contractor shall submit samples of materials for such special tests as may be necessary to demonstrate that they conform to the specifications. Such samples shall be furnished, stored, packed and shipped as directed at Contractor's expense. Except as otherwise noted, Contractor shall make arrangements for and pay for the tests.
- D. Contractor shall submit data and samples sufficiently early to permit consideration and approval before materials are necessary for incorporation in the work. Any delay of approval resulting from Contractor's failure to submit samples or data promptly shall not be used as a basis of claim against Owner or Engineer.
- E. In order to demonstrate the proficiency of workers or to facilitate the choice among several textures, types, finishes and surfaces, Contractor shall provide such samples of workmanship or finish as may be required.
- F. The materials and equipment used on the work shall correspond to the approved samples or other data.

1.03 SUBSTITUTIONS AND PRODUCT OPTIONS

- A. The substitution requirements of this Section are in addition to the requirements of the General Conditions and Supplementary Conditions.
- B. The intent of these Specifications is to provide Owner with a quality facility without discouraging competitive bidding. Substitutions may be submitted and will be evaluated as specified herein.

C. A Request for Substitution of Product may be submitted after the Contractor:

1. Has investigated the proposed product and determined that it is equal to or superior to specified product, furnishes a certification to that effect and waives all rights to additional payment or time that may subsequently become necessary due to the failure of the substituted product to perform adequately.
2. Agrees to provide same warranties or bonds for product substitution as for product specified.
3. Agrees to be responsible for coordinating and paying for any necessary changes to other work required by approved substitutions or product options which he selects and shall pay all such costs including the costs of the services of the design professional to revise the Contract Documents, if such revisions are required.
4. Waives all claims for additional costs due to substitution which may subsequently become apparent.
5. Is offering either a substantial credit to the Owner for acceptance of the substitution or a convincing justification that the product to be provided as the substitution is substantially superior in quality, performance, compatibility with adjacent products, durability, vandal-resistance or in other important ways.

D. Engineer's Action:

1. Engineer will consider written requests for product substitution for a period of 45 calendar days after the effective date of the Agreement. Engineer will review requests for substitutions and notify Contractor in writing of Owner's decision to accept or reject requested substitutions within ten (10) working days of receiving request. Only the Owner may accept a substitution.
2. Substitution requests made by means of Shop Drawings or product data submittal will not be considered.

3. After the period of 45 days has elapsed, the only substitution requests which will be considered are those which are made necessary by the removal of the specified products from the market or by other similar, unavoidable circumstances beyond the control of the Contractor.

1.04 MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION

- A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including five (5) electronic copies to Engineer.
 1. Maintain one set of complete instructions at the job site during installation and until completion.
- B. Handle, install, correct, clean, condition and adjust products in strict accord with such instructions and in conformity with specified requirements.
 1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Engineer for further instructions.
 2. Do not proceed with work without clear instructions.
- C. Perform work in accordance with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.

1.05 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accordance with construction schedules, coordinate to avoid conflict with work and conditions at the site.
 1. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
 2. Immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents and approved submittals, and that products are properly protected and undamaged.

- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.06 STORAGE AND PROTECTION

- A. The Contractor shall furnish a covered, weather-protected storage structure providing a clean, dry, noncorrosive environment for all mechanical equipment, valves, architectural items, electrical and instrumentation equipment, and special equipment to be incorporated into this project. Storage of equipment shall be in strict accordance with the "instructions for storage" of each equipment supplier and manufacturer including connection of heaters, placing of storage lubricants in equipment, etc. Corroded, damaged or deteriorated equipment and parts shall be replaced before acceptance of the project. Equipment and materials not properly stored will not be included in a payment estimate.
- B. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
 - 1. Store products subject to damage by the elements in weathertight enclosures such as buildings or trailers which have a concrete or wooden floor, a roof and fully closed walls on all sides.
 - 2. Maintain temperature and humidity within the ranges required by manufacturer's instructions (i.e. electrical and instrumentation equipment).
 - 3. Protect mechanical and electrical equipment from being contaminated by dust, dirt and moisture.
 - 4. Store fabricated products above the ground, on blocking or skids prevent soiling and staining. Cover products which are subject to deterioration with impervious sheet coverings, provided adequate ventilation to avoid condensation.
 - 5. Provide heated storage space for material which would be damaged by freezing.

6. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.
 7. Prior to the installation of equipment, it shall be stored at locations designated and approved by the Engineer.
- C. All materials and equipment to be incorporated in the work shall be handled and stored by Contractor before, during and after shipment in a manner to prevent warping, twisting, bending, breaking, chipping, rusting, and any injury, theft or damage of any kind whatsoever to the material or equipment.
- D. Cement, sand and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All structural and miscellaneous steel and reinforcing steel shall be stored off the ground or otherwise to prevent accumulations of dirt or grease, and in a position to prevent accumulations of standing water and to minimize rusting. Beams shall be stored with the webs vertical. Precast concrete beams shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in a manner to reduce breakage, chipping, cracking and spalling to a minimum.
- E. All materials which, in the opinion of Engineer, have become so damaged as to be unfit for the use intended or specified shall be promptly removed from the site of the work, and Contractor shall receive no compensation for the damaged material or its removal.
- F. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored materials and equipment to assure that products are maintained under specified conditions, and free from damage or deterioration.
- G. Protection After Installation: Provide substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations. Remove covering when no longer needed.
- H. The Contractor shall be responsible for all material, equipment, and supplies delivered to Owner under this Contract until final inspection of the work and acceptance thereof by Owner. In the event any such material, equipment and

supplies are lost, stolen, damaged or destroyed prior to final inspection and acceptance, Contractor shall replace same without additional cost to Owner.

- I. Should Contractor fail to take proper action on storage and handling of equipment supplied under the Contract within seven (7) days after written notice to do so has been given, Owner retains the right to correct all deficiencies noted in previously transmitted written notice and deduct the cost associated with these corrections from Contractor's Contract. These costs may be comprised of expenditures for labor, equipment usage, administrative, clerical, engineering and any other costs associated with making the necessary corrections.

1.07 SPECIAL TOOLS

- A. Manufacturers of equipment and machinery shall furnish any special tools (including grease guns or other lubricating devices) required for normal adjustment, operations and maintenance, together with instructions for their use. Contractor shall preserve and deliver to Owner these tools and instructions in good order no later than upon completion of the Contract.

1.08 STORAGE AND HANDLING OF EQUIPMENT ON SITE.

- A. Attention shall be given to the storage and handling of equipment on site. As a minimum, the procedure outlined below shall be followed:
 1. Equipment shall not be shipped until approved by Engineer. The intent of this requirement is to reduce on-site storage time prior to installation and/or operation. Under no circumstances shall equipment be delivered to the site more than one month prior to installation without written authorization from Engineer. Equipment shipped to the site shall be stored in accordance with Paragraph 1.06, herein. Operation and maintenance data shall be submitted to Engineer for review prior to shipment of equipment.
 2. All equipment having moving parts such as gears, electric motors, etc. and/or instruments shall be stored in a temperature and humidity-controlled building approved by Engineer, until such time as the equipment is to be installed.

3. All equipment shall be stored fully lubricated with oil, grease, etc. unless otherwise instructed by the manufacturer.
4. Manufacturer's storage instructions shall be carefully studied by Contractor and reviewed with Engineer by him. These instructions shall be carefully followed and a written record of this kept by the Contractor.
5. Moving parts shall be rotated a minimum of once weekly to insure proper lubrication and to avoid metal-to-metal "welding". Upon installation of the equipment, Contractor shall start the equipment, at least half load, once weekly for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.
6. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. Mechanical equipment to be used in the work, if stored for longer than ninety (90) days, shall have the bearings cleaned, flushed and lubricated prior to testing and startup, at no extra cost to Owner.
7. Prior to acceptance to the equipment, Contractor shall have the manufacturer inspect the equipment and certify that its condition has not been detrimentally affected by the long storage period. Such certifications by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that has been shipped, installed, tested and accepted in a minimum time period. As such, the manufacturer will guarantee the equipment equally in both instances. If such a certification is not given, the equipment shall be judged to be defective. It shall be removed and replaced at Contractor's expense.

1.09 WARRANTY

- A. For all major pieces of equipment, submit a warranty from the equipment manufacturer as specified. The manufacturer's warranty period shall be concurrent with the Contractor's for one (1) year after the time of acceptance.

1.10 SPARE PARTS

- A. Spare parts for certain equipment have been specified in the pertinent sections of the Specifications. Contractor shall collect and store all spare parts so required in an area to be designated by Engineer. In addition, Contractor shall furnish Engineer an inventory listing all spare parts, the equipment they are associated with, the name and address of the supplier, and the delivered cost of each items. Spare parts shall be turned over in conjunction with the "Spare Parts List" as shown. Copies of actual invoices for each item shall be furnished with the inventory to substantiate the delivered cost.

1.11 GREASE, OIL AND FUEL

- A. All grease, oil and fuel required for testing of equipment shall be furnished with the respective equipment. Owner shall be furnished with a year's supply of required lubricants including grease and oil of the type recommended by manufacturer with each item of equipment supplied.
- B. Contractor shall be responsible for changing the oil in all drives and intermediate drives of each mechanical equipment after initial break-in of the equipment, which in no event shall be any longer than three weeks of operation.

END OF SECTION

SECTION 01 71 13
MOBILIZATION

PART I - GENERAL

1.01 DEFINITION AND SCOPE

- A. Mobilization shall include the obtaining of all permits, insurance, and bonds; moving onto the site of all plant and equipment; furnishing and erecting plants, temporary buildings, and other construction facilities; all as required for the proper performance and completion of the Work. Mobilization shall include, but not be limited to, the following principal items.
1. Move onto the site all Contractors' plant and equipment required for first month operations.
 2. Install temporary construction power, wiring, and lighting facilities.
 3. Establish fire protection plan and safety program.
 4. Secure construction water supply.
 5. Provide field office trailers for Contractor and as may be specified for Owner and Engineer.
 6. Provide on-site sanitary facilities and potable water facilities as specified.
 7. Arrange for and erect Contractor's work and storage yard and employee's parking facilities.
 8. Submit all required insurance certificates and bonds.
 9. Obtain all required permits.
 10. Post all OSHA, EPA, Department of Labor, and all other required notices.

11. Have Contractor's superintendent at the job site full time.
12. Submit a detailed construction CPM schedule acceptable to the Engineer as specified.
13. Submit a schedule of values of the Work.
14. Submit a schedule of submittals.

1.02 DEMOBILIZATION

- A. Demobilization is the timely and proper removal of all contractor owned material, equipment or plant, from the job site and the proper restoration or completion of work necessary to bring the site into full compliance with the contract documents.

1.03 PAYMENT FOR MOBILIZATION/DEMOBILIZATION

- A. The Contractor's attention is directed to the condition that no payment for mobilization, or any part thereof, will be approved for payment under the Contract. Mobilization/Demobilization is a subsidiary obligation of the Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01 74 00
CLEANING AND WASTE MANAGEMENT

PART I - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Execute cleaning, during the progress of Work and at completion of the Work. This Section includes operations which cannot be specified in detail as separate items but can be sufficiently described as to the kind and extent of work involved. The Contractor shall furnish all labor, materials, equipment and incidentals to complete the work under this Section.

1. The work of this Section includes, but is not limited to, the following:
- a. Restoring of driveways and fences.
 - b. Cleaning up.
 - c. Incidental work.

1.02 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations and anti-pollution laws.

PART II - PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by manufacturer of the surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material

manufacturer.

- D. Materials required for this Section shall be of the same quality as materials that are to be restored. Where possible, the Contractor shall reuse existing materials that are removed and then replaced.

PART III - EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute daily cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations or personal activities.
- B. Provide on-site containers for the collection of waste materials, debris and rubbish.
- C. Remove waste materials, debris and rubbish from the site periodically, or as directed by the Owner and dispose of at legal disposal areas away from the site.

3.02 DUST CONTROL

- A. The Contractor shall employ construction techniques that minimize the production and distribution of dust.
- B. Clean interior spaces prior to the start of finish painting and continue cleaning on an as-needed basis until painting is finished.
- C. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly-coated surfaces.

3.03 RESTORATION OF DRIVEWAYS, FENCES, AND SIDEWALKS

- A. Existing public and private driveways and sidewalks disturbed by the Contractor shall be replaced. Paved drives shall be repaved to the limits and thickness existing prior to construction. Gravel drives shall be replaced and regraded.

Concrete driveways and sidewalks shall be replaced.

- B. The Contractor shall remove, store and replace existing fences during construction. Only the sections directed by the Engineer shall be removed. If any section of fence is damaged due to the Contractor's negligence, it shall be replaced with fencing equal to or better than that damaged, and the work shall be satisfactory to the Engineer.

3.04 INCIDENTAL WORK

- A. Do all incidental work not otherwise specified, but obviously necessary for the proper completion of the contract as specified and as shown on the Drawings.

3.05 FINAL CLEANING

- A. Employee skilled workman for final cleaning.
- B. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.
- C. Prior to final completion, or Owner occupancy, Contractor shall conduct an inspection of sight-exposed interior and exterior surfaces and all work areas, to verify that the entire Work site is clean.

END OF SECTION

SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Comply with requirement stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the Work.
- B. Related Requirements Described Elsewhere:
 - 1. Startup Procedures: Section 01 75 16
 - 2. Cleaning and Waste Management: Section 01 74 00
 - 3. Project Record Documents: Section 01 78 39
 - 4. Operation and Maintenance Data: Section 01 78 23
 - 5. Bonds: Section 01 78 33
 - 6. Warranties: Section 01 78 36

1.02 SUBSTANTIAL COMPLETION

- A. The Work will not be substantially complete, and Contractor may not request substantial completion inspection unless the following submittals and work is completed:
 - 1. All Operation and Maintenance manuals have been submitted and approved to the requirements of Section 01 78 23.
 - 2. All equipment has been checked-out by the equipment manufacturer and Certificates of Manufacturer's Check-Out has been submitted as required by Section 01 75 16.
 - 3. All start-up and demonstration testing completed, and Certificates of Completed Demonstration submitted to the requirements of Section 01 75 16.

4. Project Record Documents are complete and have been submitted and reviewed to the requirements of Section 01 78 39.
 5. All training of Owner's personnel completed.
 6. All areas to be used and occupied are safe, operable in automatic and complete.
 7. All building occupancy certificates have been issued by the appropriate building permitting agency.
 8. All painting, finishes, fencing, cleanup, final grading, grassing, planting, sidewalk construction, and paving shall have been completed and ready for inspection.
 9. All deficiencies noted on inspection reports or nonconformances are corrected or the correction plan approved.
- B. When the conditions of paragraph 1.02 A. are met the Contractor shall submit to the Engineer:
1. A written notice that he considers the Work, or portion thereof, is substantially complete, and requests an inspection.
 2. A punchlist of items to be corrected. (Uncompleted work which is not related to the safe, effective, efficient use of the Project may be allowed on the punchlist with the Engineer's approval.)
- C. Within a reasonable time after receipt of such notice, the Engineer will make an inspection to determine the status of completion.
- D. Should the Engineer determine that the Work is not substantially complete:
1. The Engineer will promptly notify the Contractor in writing, giving the reasons therefore.

2. Contractor shall remedy the deficiencies in the Work and send another written notice of substantial completion to the Engineer.
 3. The Engineer will within reasonable time, reinspect the Work. The Contractor will be liable for reinspection fees as described in paragraph 1.04, herein.
- E. When the Engineer finds that the Work is substantially complete, he will:
1. Schedule a walk-through of the facility to include the Owner. Engineer shall determine the completeness of the punchlist and readiness of the facility for occupancy by the Owner.
 2. Prepare and deliver to Owner a tentative Certificate of Substantial Completion with the tentative punchlist of items to be completed or corrected before final inspection.
 3. After consideration of any objections made by the Owner as provided in Conditions of the Contract, and when the Engineer considers the Work substantially complete, he will execute and deliver to the Owner and the Contractor a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected. Any incomplete work allowed on a punchlist must be reinspected upon completion and any deficiencies found will be added to the punchlist.

1.03 FINAL INSPECTION

- A. Prior to Contractor's request for a final inspection the following submittals and work must be complete:
1. Project Record Documents must be approved.
 2. All spare parts and maintenance materials must be suitably delivered to the Owner per the requirements of the Technical Sections of the Specifications.

3. Contractor to submit evidence of compliance with requirements of governing authorities.
- B. After satisfying the requirements of paragraph 1.03 A. and when Contractor considers the Work complete, he shall submit written certification that:
1. Contract Document requirements have been met.
 2. Work has been inspected for compliance with Contract Documents.
 3. Work has been completed in accordance with Contract Documents.
 4. Equipment and systems have been tested in the presence of the Owner's representative and are operational.
 5. All punchlist items have been corrected or completed and the Work is ready for final inspection.
- C. The Engineer will, within reasonable time, make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.
- D. Should the Engineer consider that the Work is incomplete or defective:
1. The Engineer will promptly notify the Contractor in writing, listing the incomplete or defective work.
 2. Contractor shall take immediate steps to remedy the stated deficiencies and send another written certification to the Engineer that the Work is complete.
 3. The Engineer will, within a reasonable amount of time, reinspect the Work and the Contractor shall be liable for reinspection fees as described in paragraph 1.04, herein.
- D. When the Engineer finds that the Work is acceptable under the Contract Documents, the Contractor may make closeout submittals.

1.04 REINSPECTION FEES

- A. Should the Engineer perform reinspections due to failure of the Work to comply with the claims of status of completion made by the Contractor:
 - 1. Contractor will compensate the Owner for such additional services.
 - 2. Owner will deduct the amount of such compensation from the final payment to the Contractor.

1.05 CONTRACTOR'S CLOSEOUT SUBMITTALS

- A. Warranties and Bonds: To requirements of Sections 01 78 36 and 01 78 33.
- B. Evidence of Payment and Release of Liens: To requirements of General and Supplementary Conditions.
- C. Certificate of Insurance for Products and Completed Operations.

1.06 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to the Engineer.
- B. Statement shall reflect all adjustments to the Contract Sum:
 - 1. The original Contract Sum.
 - 2. Additions and deductions resulting from:
 - a. Previous change orders or written amendment.
 - b. Allowances.
 - c. Unit prices.
 - d. Deductions for uncorrected work.
 - e. Penalties and bonuses.
 - f. Deductions for liquidated damages.
 - g. Deductions for reinspection payments

- h. Other adjustments.
- 3. Total Contract Sum, as adjusted.
- 4. Previous payments.
- 5. Sum remaining due.
- C. Engineer will prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

1.07 FINAL APPLICATION FOR PAYMENT

- A. Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 78 33
BONDS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Compile specified bonds as specified in these Specifications.
2. Co-execute submittals when so specified.
3. Review submittals to verify compliance with Contract Documents.
4. Submit to Engineer for review and transmittal to Owner.

B. Related Work Described Elsewhere:

1. Instructions to Bidders: Bid Bonds
2. Performance Bond and Payment Bond

1.02 SUBMITTAL REQUIREMENTS

A. Assembly bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.

B. Number of original signed copies required: Two (2) each.

C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.

1. Product of work item.
2. Firm, with name of principal, address and telephone number.
3. Scope.
4. Date of beginning of bond or service and maintenance contract.
5. Duration of bond or service maintenance contract.
6. Provide information for Owner's personnel:

- a. Proper procedure in case of failure.
- b. Instances which might affect the validity of warranty or bond.

7. Contractor, name of responsible principal, address and telephone numbers.

1.03 FORM OF SUBMITTALS

A. Prepare in duplicate packets.

B. Format:

- 1. Size 8 ½" x 11 inches, punch sheets for standard three-post binder.
 - a. Fold larger sheets to fit into binders.
- 2. Cover: Identify each packet with typed or printed title "BONDS". List:
 - a. Title of Project
 - b. Name of Contractor

C. Binders: Commercial quality, three-post binder, with durable and cleanable plastic covers and maximum post width of two inches.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 78 36
WARRANTIES

PART 1 - GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. Compile specified warranties as specified in these Specifications.
2. Co-execute submittals when so specified.
3. Review submittals to verify compliance with Contract Documents.
4. Submit to Engineer for review and transmittal to Owner.

1.02 SUBMITTAL REQUIREMENTS

- A. Assembly warranties and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.
- B. Number of original signed copies required: Two each.
- C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
1. Product of work item
 2. Firm, with name of principal, address and telephone number
 3. Scope
 4. Date of beginning of warranty or service and maintenance contract
 5. Duration of warranty or service maintenance contract.
 6. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure.
 - b. Instances which might affect the validity of warranty.
 7. Contractor, name of responsible principal, address and telephone numbers.

1.03 FORM OF SUBMITTALS

- A. Prepare in duplicate packets
- B. Format:
 - 1. Size 8 ½" x 11 inches, punch sheets for standard three-post binder.
 - a. Fold larger sheets to fit into binders.
 - 2. Cover: Identify each packet with typed or printed title "WARRANTIES".
List:
 - a. Title of Project
 - b. Name of Contractor
- C. Binders: Commercial quality, three-post binder, with durable and cleanable plastic covers and maximum post width of two inches.

1.04 WARRANTY SUBMITTALS REQUIREMENTS

- A. For all major pieces of equipment, submit a warranty from the equipment manufacturer. Manufacturer's warranty period shall be concurrent with Contractor's for one (1) year, unless otherwise specified, commencing at the time of final acceptance by Owner.
- B. Contractor shall be responsible for obtaining certificates for equipment warranty for all major equipment which has at least a 1 hp motor or which lists for more than \$1,000. Engineer reserves the right to request warranties for equipment not classified as major. Contractor shall still warrant equipment not considered to be "major" in the Contractor's one-year warranty period even though certificates of warranty may not be required.
- C. In the event that the equipment manufacturer or supplier is unwilling to provide a one-year warranty commencing at the time of Owner acceptance, the Contractor shall obtain from the manufacturer a two (2) year warranty commencing at the time of equipment delivery to the job site. This two-year warranty from the

manufacturer shall not relieve the Contractor of the one-year warranty starting at the time of Owner acceptance of the equipment.

- D. Owner shall incur no labor or equipment cost during the guarantee period.
- E. Guarantee shall cover all necessary labor, equipment and replacement parts resulting from faulty or inadequate design, improper assembly or erection, defective workmanship and materials, leakage, breakage or other failure of all equipment and components furnished by manufacturer.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 78 39
PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Maintain at the site for the Owner one record copy of:
1. Drawings
 2. Specifications
 3. Addenda
 4. Change Orders and other modifications of the contract
 5. Engineer's Field Orders or written instructions
 6. Approved Shop Drawings
 7. Field Test records
 8. Construction photographs, preconstruction videos, and pipeline videos.
 9. Preliminary as-built drawings

B. RELATED WORK SPECIFIED ELSEWHERE

1. Section 00 73 00: Supplementary Conditions

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents used for construction.
1. Provide files and racks for storage of documents.
 2. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with CSI format with section numbers as provided herein.
- C. Maintain documents in a clean, dry, legible, condition and in good order. Do not use record documents for construction purposes.

- D. Make documents and samples available at all times for inspection by the Engineer.
- E. As a prerequisite for monthly progress payments, the Contractor shall provide the currently updated "Record Documents" for review by the Engineer and Owner.

1.03 MARKING DEVICES

- A. Provide felt tip marking pens for recording information in the color code designated by the Engineer.

1.04 RECORDING

- A. Label each document. "PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- C. Drawings: Legibly mark to record actual construction:
 - 1. Depths of various elements of foundation in relation to finish first floor datum.
 - 2. All underground piping with elevations and dimensions. Change to piping location. Horizontal and vertical locations of underground utilities and appurtenances referenced to permanent surface improvements. Actual installed pipe materials, class, etc.
 - 3. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
 - 4. Field changes of dimensional and detail.
 - 5. Changes made by Field Order or by Change Order.
 - 6. Details not on original contract drawings.

7. Equipment and piping relocations.
8. Major architectural and structural changes including relocation of doors, windows, etc.
9. Architectural schedule changes according to Contractor's records or shop drawings.
 - a. Contractor shall provide copies of all such recordings to the Contractor's surveyor for incorporation into the preliminary and final as-builts drawings.

D. Specifications and Addenda: Legibly mark each section to record:

1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
2. Changes made by Field Order or by Change Order.

E. Shop Drawings (after final review and approval): Provide four (4) sets of record drawings for each process equipment, piping, electrical system and instrumentation system.

1.05 SUBMITTAL

A. Accompany each submittal with transmittal letter in duplicate, containing:

1. Date
2. Project title and number
3. Contractor's name and address
4. Title and number of each Record Document
5. Signature of Contractor of his authorized representative

B. Preliminary As-built Drawings: The Contractor shall submit to the Engineer two (2) paper copies of preliminary as-built drawings prepared and signed/sealed by the Contractor's surveyor with each monthly progress payment request. Preliminary

as-built drawings shall conform to the requirements of final as-built drawings and shall represent the completed work to date. Preliminary as-built drawings shall include all work which the Contractor is requesting to be paid for.

C. Final As-built Drawings: Upon project closeout and as a prerequisite to the final pay request, the Contractor shall submit to the Engineer final as-built drawings Administrative Code, pursuant to Section 472.027 of the Florida Statutes. The Engineer shall supply the Contractor copies of AutoCAD files for the Contractor's use in the as-built drawing preparation. Final as-built drawings shall include all work which the Contractor is requesting to be paid for. The final as-built drawing submittal shall include:

1. Two (2) sets of paper plans signed and sealed by a professional land surveyor licensed in the State of Florida and CD(s) or other media containing AutoCAD, version 14, drawing files.
2. AutoCAD drawing files shall include as-built information on layers separate from the original drawing layers and shall be named descriptively to represent the as-built features. (i.e. - Layer "wat ab" and "wat ab txt" for water as-built line work and text, respectively.) Drawing entities are to be shown on the correct layer. All as-built entities shall have color and line type set "by-layer". Text sizes shall be relative to the plotted scale. Additional details or exploded views shall be include to accurately and fully represent the as-built conditions.
3. Certification by surveyor that the as-built information shown is accurate and that all improvements shown were constructed within or on public rights-of-way, easements or property specifically owned by the Owner. Certification shall be to the Owner, Engineer and St. Johns River Water Management (if applicable.)
4. No line work and text shall be erased from the original design (construction) drawings during the as-built drawing preparation. Original line work or text shall be circled if accurate or stricken (not erased) if not with the accurate information noted/shown. New line work and text shall be provided to

accurately show the as-built information for the constructed improvements. Revisions to design dimensions alone will not be permitted.

5. **Pressure Pipeline and Utility Conduit Improvements:** For utility improvement projects, horizontal locations of the constructed pipelines with respect to the right-of-way lines or other readily visible, permanent features at 100-foot minimum intervals and at critical locations such as road intersections shall be shown. For treatment plant and pump station improvements, horizontal locations shall be provided at 20-foot intervals. Vertical locations of the constructed pipelines by elevation of centerline of pipe for above ground/exposed pipe or with respect to finished grade over buried pipe shall be shown at 100 feet minimum intervals. (i.e. final cover) For underground piping, all valves, blow-offs, stub-outs, pigging stations, fire hydrants, backflow preventers and services shall be located horizontally in relation to readily visible, permanent features with three-way horizontal dimensions less than 100 feet, each. Three-way dimensions to all buried fittings on treatment plant and pump station improvement projects shall be provided. If adequate features are not available, a station and offset dimensioning system can be used if prior approval is obtained from the Engineer. For above ground/exposed pipe, as-built dimensions between fittings or flanges shall be provided. Separations between “sanitary hazards” to potable water and reclaimed water mains per FDEP shall be shown.

6. **Gravity Pipeline Improvements:** Show elevations for all inverts, manhole tops, inlet throats/weirs, grate tops, etc. Show size and type of each structure. As-built length, size and type of pipes between the structures shall be shown. All service laterals and cleanouts shall be located horizontally to readily visible, permanent features with three-way horizontal dimensions less than 100 feet, each. If adequate features are not available, a station and offset dimensioning system can be used if prior approval is obtained from the Engineer. A labeling and dimension table scheme is recommended for the three way or station/offset dimensioning. (i.e. - constructed feature labeled as “A”, permanent feature labeled as “B”, “A”- “B” dimension shown in table for distance measured between the two. Use continuous labeling and complete single table per plan sheet.)

Separations between gravity “sanitary hazards” to potable water and reclaimed water mains per FDEP shall be shown.

7. Roadway Improvements: Elevation, size and location of swales, ditches, gutter flowlines, edge of pavement, and road crown on both sides of the road if applicable shall be provided at 100-foot minimum intervals and at critical areas such as intersections and inlets/flumes. As-built points of curvature, tangent and vertical intersection, along with radii of road alignment, intersecting streets and driveways and other alignment information shall be provided.
8. Stormwater Improvements: The limits, slopes and bottom depths of stormwater ponds, swales and other retention areas shall be provided. All stormwater piping information shall conform to the Gravity Pipeline Improvement requirements. Size, type, material, and elevations of all stormwater structures, including appurtenances such as weirs, orifices, skimmer plates, etc. shall be shown. As-built information shall conform to St. Johns River Water Management District requirements.
9. Treatment Facility Improvements: Location, size, number, and type of treatment equipment and structures shall be shown. Applicable requirements of as-built information listed herein for similar improvements shall be required.
10. Building Improvements: Finished floor elevations, ceiling heights, building locations, wall opening dimensions, equipment (electrical, mechanical, plumbing) locations, etc. shall be provided. Change of material shall be specifically noted as such.
11. Landscaping Improvements: Number, type, size, and general location of installed plant material shall be provided. Change of material shall be specifically noted as such. Location of irrigation meters, services, manual valves, automatic valves, controllers, rain shut off switches, etc. shall be shown. Changes to the designed irrigation system shall be shown.

12. Other Improvements: Changes from the original design of other improvements such as electrical, mechanical and structural improvements shall be noted as such on the as-built drawings with the size, number, type and location of the constructed/installed improvements noted.
13. Contractor may be required to reimburse the Owner for services rendered by the Engineer for review of multiple resubmittals.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 02 06 14
GEOTECHNICAL DATA REPORT

ATTACHMENTS:

1. Geotechnical Evaluation Prepare by Universal Engineering Sciences dated
_____.

SECTION 03 30 00
CAST IN PLACE CONCRETE

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The work included under this section consists of furnishing all materials, forms, transportation and equipment, and performing all necessary labor to do all the plain and reinforced concrete work shown on the Drawings, or incidental to the proper execution of the work, or as herein specified.
- B. Composition: Concrete shall be composed of cement, fine aggregate, coarse aggregate, and water so proportioned and mixed as to produce a plastic workable mixture in accordance with all requirements under this section suitable to the specific conditions of placement.

1.02 SUBMITTALS

- A. All materials specified shall be certified by the producer or manufacturer that the furnished material meets the specific requirements of the specifications. Concrete mix designs shall be submitted for approval prior to placement.

1.03 CODES AND STANDARDS

- A. ACI 301 "Specifications for Structural Concrete for Buildings", ACI 318" Building Code Requirements for Structural Concrete", ACI 347 "Recommended Practice for Concrete Formwork"; ACI 304 "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete"; comply with applicable provisions except as otherwise indicated.

1.04 TESTING

- A. Air content shall be in accordance with American Society for Testing Materials Standard Methods C 173, one for each set of compressive strength specimens.
- B. Sampling of freshly mixed concrete shall be in accordance with ASTM C172.

- C. Slump: ASTM C-143
- D. Test results will be reported in writing to Engineer, Contractor, Owner and Concrete producer on same day tests are made.
- E. Laboratory Reports: Submit 2 copies of laboratory test or evaluation reports for concrete materials and mix designs.

PART 2 - MATERIALS AND EQUIPMENT

2.01 PORTLAND CEMENT

- A. Shall comply with the standard specifications for Portland Cement, A.S.T.M. designation C-150, Type II, or Type III (high-early), where indicated on drawings.

2.02 CONCRETE AGGREGATE

- A. Shall conform to standard specifications for concrete aggregate, A.S.T.M. Designation C-33 or to ASTM C-330. Maximum size of aggregate shall not exceed one-fifth of the narrowest dimension between reinforcing bars.
- B. Fine Aggregate - Fine aggregate shall be clean, hard, strong, durable, uncoated particles of natural sand known as Lake Wales, Interlachen, or approved equal. The source, composition, quality and gradation of the fine aggregate shall be subject aid the approval of the Engineer. Samples of the sand shall be furnished, together with certified copies of the gradation and analysis from the recognized testing laboratory.
 - 1. The weight of extraneous or deleterious substances shall not exceed the following percentages:

Loss by Decantation	3%
Shale	1%
Clay Lumps	1%
Coal and Lignite	1%

2. The fine aggregate shall be reasonable well graded from coarse to fine and when tested by means of laboratory sieves shall meet the following requirements in percent of total weight:

<u>Total Retained On</u>	<u>Percent Retained</u>
No. 4 Sieve	0 - 5
No. 10 Sieve	3 - 30
No. 30 Sieve	30 - 70
No. 50 Sieve	65 - 95
No. 100 Sieve	95 - 100

- C. Deficiencies in the percentages of the fine aggregates passing the No. 50 and No. 100 Sieves may be remedied by the addition of pozzolanic or cementitious materials excepting Portland cement. Such materials must meet the approval of the Engineer.

- D. Coarse Aggregate.

1. Coarse aggregate shall consist of hard, tough, durable components free from adherent coatings and vegetable matter, and shall not contain soft, friable, thin or elongated particles in quantities considered deleterious by the Engineer. Coarse aggregate shall be properly graded from fine to coarse to produce concrete of desired strength, density, and workability. The source, composition, quality and gradation of the coarse aggregate shall be subject to the approval of the Engineers. Samples of the coarse aggregate shall be furnished together with certified copies of the gradation and analysis from a recognized testing laboratory.
2. All coarse aggregate shall be washed and shall be free from disintegrated pieces, salt, alkali, vegetable matter and adherent coatings. The total percentage of all deleterious substances shall not exceed 5 percent by weight. The substances designated shall not be present in excess of the following amounts.

Loss by Decantation	1%
Clay Lumps or Other Soluble Materials	3%
Soft Fragments	5%

3. Where the cover over reinforcing is 2 inches or more, the maximum size of aggregate shall be 12 inches. Where the cover over reinforcing is less than 2 inches, the maximum size of aggregate shall be 3/4 inch. The maximum size of aggregate shall not exceed one-fifth of the narrowest dimension between forms nor three-fourths of the minimum clear spacing between reinforcing bars. The grading of the coarse aggregate in the concrete shall be within the following limits.

Percent Passing

Maximum Size Square Mesh Screen	97 - 100%
2 Maximum Size Square Mesh Screen	40 - 70%
No. 4 Sieve	0 - 6%

2.03 WATER

- A. Water shall be clean and free from oil, acids, alkalis, organic materials or other injurious substances.

2.04 REINFORCEMENT

- A. Reinforcing Bars: ASTM A615, Grade 60, deformed bars of USA manufacture.
- B. Welded Wire Fabric: ASTM A185, gauges, spacing and dimensions as indicated.
- C. Metal Bar Supports: CRSI MSP-1, Chapter 3, Class 2, Type B, Stainless Steel Protected Bar Supports, or otherwise approved by the Engineer. Use concrete supports for reinforcement in concrete placed on grade.
- D. Tie Wire: 16 gauge minimum, black, soft annealed.
- E. Coupler Splice Devices: Cadweld tensions couplers, capable of developing the ultimate strength of the bar as manufactured by Erico Products, Incorporated, Solon, Ohio, or equal.
- F. Epoxy coated or FRP rebar shall be used for all marine applications.

2.05 FORM WORK

- A. Lumber: Douglas Fir or Larch, No. 2 grade, seasoned and surfaced on four sides.
- B. Plywood: Plyform, Class 1, BB-Exterior type, mill oiled, and edge sealed, with thickness not less than 3/4 inch.
- C. Medium Density Overlay (MDO) Plywood Forms: PS-1, B-B High Density Concrete Form Overlay, Class I, unoiled.
 - 1. Butt form panels, make contact surface fully flush and seal butting holes with sponge form tape. Chamfer edges of beams and ceilings.
 - 2. Where MDO plywood is used to form beams, do not use MDO plywood that has been patched or damaged.
- D. Drip Forms: Varnished ponderosa pine or equally rigid non-staining plastic, 2-inch-wide on each leg.
- E. Steel Forms. Uncoated steel, 3/16-inch minimum thickness, fabricated to close tolerances, protected only by the specified release agent, braced so as not to bend, dent, or dimple under wet concrete load, vibrator impact, and tool impact. Maintain steel form in rust-free condition by use of steel wood and light grinding, followed by coats of specified release agent. Use forms that can be adjusted into true alignment without stops or ridges.
- F. Glass Fiber Reinforced Plastic (FRP) Forms: Smooth coated forms, braced so as not to bend, dent or dimple under wet concrete loads, vibrator impact and tool impact, and at least 0.11 inch thick. Design forms for external bracing at piers and columns, without use of form ties.
- G. Plugged Cone Form Ties: Rod type, with ends or end fasteners which can be removed without spalling the concrete and which leave a hole equal in depth to the required reinforcement clearance. Form ties shall be of a design in which the hole left by the removed end or end fastener is easily filled to match the surface of the hardened concrete. Provide removable cones 13 inches in diameter by 12 inches

deep. Provide preformed mortar plugs to match the color of the concrete, recessed 3 inches, adhered with an approved two-part epoxy.

- H. Weep Hole Forms: PVC polyethylene, or ABS pipe, matching color of the concrete, 4 inch inside diameter, with outlet projecting 12 inches from wall and cutoff in a plane parallel to it.
- I. Circular and Elliptical Column Forms: Fabricate of two pieces, clamped watertight using gaskets and without horizontal joints. Install horizontal construction joints only where indicated or as directed by the Engineer.
- J. Beam Forms: Provide in one length without form joints and suitable for cambering up to 1/160 of span without distortion of profile or opening of seams.
- K. Forms of Hammerhead Pier Caps: Provide in one length with adjustable soffits, bulkheads and screens as necessary to accommodate different hammerhead beam configurations. Provide no construction joints in hammerhead pier caps. Where three or fewer identical hammerhead pier caps occur within a line section, steel braced HDO plywood forms may be substituted for steel forms if:
 - 1. Working drawings of formwork are submitted.
 - 2. Internal form ties are regularly spaced no less than 48 inches each way and are made watertight.
 - 3. Form ties have removable cones, which are filled to match concrete.
 - 4. Joints in panels are fully watertight.
 - 5. The resulting surface matches the appearance of steel formed hammerhead caps, with no visible discoloration due to form leakage.
- L. Styrofoam Board: Expanded polystyrene extruded into board form, closed cell, moisture resistant, capable of maintaining indicated clear space between concrete structures.

- M. Control Joint Filler: Use epoxy joint filler equal to BurkEpoxy Joint Filler to fill voids left by saw cuts and to resist against spalling caused by vehicle traffic in concrete slabs.
- N. Inserts: Galvanized cast steel or galvanized welded steel, complete with anchors to concrete and fittings such as bolts, wedges and straps. Provide hanger inserts spaced to match grid of suspended ceilings.
- O. Shoring: As designed and executed by Contractor to support all loads.
- P. Chamfer Strips: Polyvinyl strips designed to be nailed in the forms to provide a 3/4-inch chamfer at exposed edges of concrete members.
- Q. Form Release Agent: A blend of natural and synthetic chemicals that employs a chemical reaction to provide quick, easy and clean release of concrete from forms, and equal to Eucoslip, by the Euclid Chemical Company, or Release #1, by The Burke Company. Use a non-staining release agent that leaves the concrete with a paintable surface.

2.06 ADMIXTURES

- A. Air Entraining Admixture: ASTM C260.
- B. Water Reducing and Retarding Admixture:
 - 1. Concrete Without Superplasticizer:
 - a. Water Reducing Admixtures: ASTM C494, Type A, equal to Eucon WR-75 by the Euclid Company, Pozzoloth 200N by Master Builders, Plastocrete 161 by Sika Chemical Corporation, and containing no calcium chloride.
 - b. Water Reducing and Retarding Admixtures: ASTM C494, Type D, equal to Eucon Retarder-75 by the Euclid Company, Pozzoloth 100 XR by Master Builders, Plastiment by Sika Chemical Corporation, and containing no calcium chloride.

- c. Accelerating Admixtures: ASTM C494, Type C or E, equal to Accelguard 80 by the Euclid Company, Darex Set Accelerator by W.R. Grace, and containing no calcium chloride.
2. Concrete with Superplasticizer:
- a. Water Reducing, High Range Admixtures: ASTM C494, Type F or G, equal to Eucon 37 by the Euclid Company, Rheobild 716 by Master Builders, Daracem 100 by W.R. Grace, Sikament by Sika Chemical Corporation, and consisting of a second generation admixture, free of chlorides and alkalis (except for those attributable to water) composed of a synthesized sulfonated complex polymer, enabling the concrete to maintain its rheoplastic state in excess of two hours if necessary.
 - b. Manufacturer's Job Site Representation: Provide the services of a competent field service representative from the manufacturer of each of the admixtures selected for use to provide at the job site advice and consultation on the use of the admixture materials, including the effect on the concrete in place, including recommending maximum discharge time for superplasticizer method and procedure to induce superplasticizer into mixer, quantities of admixtures to be used if variations are required because of temperature/humidity, wind or other environmental considerations, and to be available on short call at any time requested by the Owner, Contractor, or concrete producer.
3. Concrete used in Marine Applications:
- a. Micro Silica admixtures shall be used for concrete installed in marine and coastal applications. Concrete designs shall meet the appropriate requirements of EN206-1, BS 8500 and BS 5075. Contractor shall provide plant certification for all mix designs used in marine and coastal applications.

2.07 GROUT

- A. Nonshrink, Nonmetallic Grout: The Burke Company's Non-Ferrous, Non-Shrink Grout, Sauereisen F-100 Level Fill, Master Builders Masterflow 713, Euclid NS Grout, or equal pre-mixed type.
- B. Nonshrink Metallic Grout: The Burke Company's Metallic Spec Grout, Master Builders Embeco 636 Grout pre-mixed type, or equal.
- C. Epoxy Grout: Sikadur 42 Grout-Pak, or equal, for grouting sleeves for anchor bolts, etc.
- D. Clarifier Basin Grout: Class B concrete of coarse aggregate shall pass the 3/4 inch sieve.

2.08 MEMBRANE CURING COMPOUND.

- A. Membrane curing compound shall be wax-free, pigmented, 100 percent resin base compound such as A.C. Horn's "Horncure 30 C", Hunt Process Corporation; Southern's "All-Resin", or equal.

2.09 BONDING AGENT.

- A. Bonding agent shall be Colma Fix, as manufactured by Sika Chemical Corporation, of Passaic, New Jersey or equal. To be considered equal, the material must be a two-component epoxy-polysulphide resin system, and it must have a demonstrated record of strong adhesion to both wet and dry concrete in either the hardened or the plastic state. It must also be of equal strength.

2.10 ACCESSORIES

- A. Precast Concrete Block Supports for Reinforcing Bars: Comply with ACI 315. Provide blocks with No. 4 dowels bent 90° to support top bars.
- B. Membrane: 6 mil polyethylene film.

- C. Water Stops: Polyvinyl chloride meeting all requirements of U.S. Army Corps of Engineer's Specification CRD-C-572 and equal to Burke Water Stops as manufactured by The Burke Company. Provide flat dumbbell type and center bulb type, 9 inches x 3/8 inch at wall thickness of 12 inches or greater, and 6 inches x 3/8 inches at wall thickness less than 12 inches. Provide 6-inch split-ribbed with center bulb type at connections of new concrete structures with existing concrete. Provide water stops as indicated on the Drawings.
- D. Preformed Expansion Joint Filler:
1. Bituminous type conforming to the requirements of ASTM D994.
 2. Nonextruding type, self-expanding cork, 3/4-inch thick or as otherwise shown on the Drawings, conforming to the requirements of ASTM D1752, Type III, and compatible with the specified joint sealant compound.
- E. Joint Sealant: A multipart gray polyurethane sealant, meeting U.S. Federal Specification TT-S-00227E (3) Type 1, Class A self-leveling for horizontal joints, and Type II, Class A, non-sag for vertical joints, and recommended by the manufacturer for continuous immersion in water. Provide sealants as manufactured by Products Research and Chemical Corporation, Mameco International, The Burke Company, W.R. Meadows, or equal.
- F. Tongue and Groove Joint Forms: 24-gauge steel forms complete with steel stakes and splice plates, designed for joints not to receive a poured seal, and equal to Burke Keyed Kold Joint as manufactured by The Burke Company.
- G. Inserts: Galvanized steel to fit the proposed hanger or support.
- H. Mortar for Repair of Concrete: Same materials as used for concrete, except omit coarse aggregate and use not more than one-part cement to two and on-half parts sand by damp loose volume. Use no more mixing water than is necessary for handling and placing.
- I. Burlap Mats: Conform to AASHTO Specification M182.

- J. Epoxy Bonding Agent: Euco #452, BurkEpoxy MV, Sikadur Hi Mod, Concresive 1001-LPL, or equal.
- K. Powered Epoxy Coating for Anchor Bolts: Powdered epoxy resin as manufactured by the 3M Company, Scotchkote No. 213, Armstrong No. R349.

2.11 CONDUITS AND PIPES EMBEDDED IN CONCRETE

- A. Conduits, pipes and sleeves of any material not harmful to concrete shall be permitted to be embedded in concrete with approval of the engineer, provided they are not considered to replace structurally the displaced concrete.
- B. Conduits and pipes of aluminum shall not be embedded in structural concrete unless effectively coated or covered to prevent electrolytic action between aluminum and steel.
- C. Conduits and pipes, with their fittings, embedded within a column shall not displace more than 4% of the area of cross section on which strength is calculated or which is required for fire protections.
- D. Conduits, pipes, sleeves passing through a slab, wall or beam shall not impair significantly the strength of the construction.
- E. Except when plans for conduits and pipes are approved by the engineer, conduits and pipes embedded within a slab, wall, or beam shall satisfy the following:
 - 1. They shall not be larger in outside dimension than one-third overall thickness of slab, wall, or beam in which they are embedded.
 - 2. They shall not be spaced closer than three diameters or widths on center.

2.12 PIPES CONTAINING LIQUID, GAS, OR VAPOR

- A. Pipes that will contain liquid, gas or vapor may be embedded in structural concrete under the following conditions:

1. Pipes and fittings shall be designed to resist effects of the material, pressure, and temperature to which they will be subjected.
2. No liquid, gas, or vapor, except water not exceeding 90°F (32C) nor 50 psi (345 kPa) pressure, shall be placed in the pipes until the concrete has attained its design strength.
3. Concrete cover for pipes, conduits and fittings shall be not less than 12 inches (38 mm) for concrete exposed to earth or weather or in contact with ground.
4. Reinforcement with an area of not less than 0.002 times area of concrete section shall be provided normal to piping.
5. Piping and conduit shall be so fabricated and installed that cutting, bending or displacement of reinforced from its proper location will not be required.

PART 3 - EXECUTION

3.01 PROPORTIONING

- A. The proportions of aggregate to cement shall be such as to produce a thoroughly plastic mixture which will work readily into the corners and angles of the forms and around the reinforcement but without permitting the materials to segregate or excess free water to collect on the surface. The percentage of sand shall not be less than thirty (30) nor more than fifty (50) percent of the total weight of the aggregate.
- B. The total content, including the surface water contained in the aggregate, shall not exceed 5.7 gallons per sack of cement. The slump shall not exceed four (4) inches. Air-entraining admixture shall be Darex AEA as manufactured by the Dewey and Almy Chemical Company.
- C. The amount of air entrained in the freshly mixed concrete shall not be less than three (3) percent nor more than six (6) percent. The minimum cement content in sacks per cubic yard of concrete shall not be less than six (6) sacks per cubic yard for Class "A" concrete.

D. Concrete materials shall be accurately measured by weight. Measurement of materials for ready-mixed concrete shall conform to the "Standard Specifications for Ready-Mixed Concrete", (A.S.T.M. designation C-94).

1. Class "A" concrete for all structures shall have minimum compressive strength of 4000 psi at 28 days.
2. Class "B" concrete for sidewalks shall have minimum compressive strength of 3000 psi at 28 days.
3. All concrete shall be Class "A" unless otherwise shown on the drawings.

3.02 MIXING AND PLACING

A. Concrete shall be mixed, conveyed and deposited in accordance with the "A.C.I. Building Code" (A.C.I. 318).

B. Prior to placing any concrete, the Contractor shall submit for the Engineer's approval a design mix, calculated by a recognized testing laboratory, and using the approved aggregates to produce a workable mix of the desired strength, together with certified copies of 7 days and 28 day tests of cylinders taken from concrete made according to the design mix. The mixes shall be designed to secure concrete having a minimum compressive strength at age 28 days.

C. Ready-mixed concrete delivered shall be accompanied by delivery tickets showing the following:

1.	Date and time leaving plant	Additives (if any)
2.	Type of cement and weight	Site arrival time
3.	Quantity of water and time added	Site leaving time

D. Concrete.

1. Ready-mixed concrete shall be used. All mixing requirements specified herein shall be enforced, and the Owner's laboratory representative and the Engineer shall have free access to the mixing plant at all times.

2. Except for materials and/or procedures otherwise specified herein, ready-mixed concrete shall be mixed and delivered in accordance with the requirements of ASTM C 94.
3. No water shall be added to the concrete after it leaves the plant except where part of the design water was purposely omitted at the plant, and then only as approved by the Engineer.

E. Mixer Speed.

1. Neither the speed of any mixer nor the quantity of material loaded into any mixer shall exceed the recommendations of the manufacturer.
2. Excessive over-mixing, required additions of water to preserve the required consistency, shall be cause for rejection of the batch.
3. Concrete shall not remain in a transit mixer or agitator truck more than 90 minutes after the water has been introduced, and not for more than 45 minutes if any approved retarding agent is not used.
4. Minimum mixing time shall be 50 revolutions of drum at rated speed.

F. Measurement.

1. Equipment necessary to determine and control the actual amounts of all materials entering the concrete shall be provided by the concrete manufacturer.
2. All materials shall be measured by weight, except that water may be measured by volume calculated at 8-1/3 pounds per gallon. One bag of cement will be considered as 94 pounds in weight.

G. Mixes.

1. Mix Design: Conform to ACI 318, Section 4.3. Submit data on consecutive tests and standard deviation.

2. Maximum Water-Cement Ratio:

- .37 (lbs/lb) - Concrete with superplasticizer
- .38 (lbs/lb) – Concrete in Marine Environments
- .45 (lbs/lb) - Class A concrete without superplasticizer
- .55 (lbs/lb) - Class B concrete without superplasticizer
- .65 (lbs/lb) - Class C concrete without superplasticizer

3. Air Content: 5 percent plus or minus 1.5 percent (Class A and B).

4. Slump: 4 inches plus or minus 1 inch for Class A and B without superplasticizer.

7 inches plus or minus 1 inch for Class A and B with superplasticizer.

8 inches plus or minus 1 inch for tremie concrete or as specified by details.

H. Placing Concrete.

1. All concrete shall be placed in clean, damp forms that are not hot to the touch.
2. To prevent segregation, concrete shall be deposited as nearly as practicable in final position and not allowed to drop freely more than necessary and in no case more than five feet, except in an approved funnel or tremie. All concrete shall be placed during daylight unless otherwise authorized at least four hours in advance. Where the reinforcing steel above the top of the concrete being placed becomes coated with laitance or partially set-up concrete, all such concrete shall be removed from the reinforcing steel prior to placing concrete around the bars.
3. Concrete shall be packed carefully and tightly around pipe and other items to secure maximum adhesion.
4. Concrete shall be placed in layers not over 12 inches deep before compacting. Concrete shall be compacted by internal vibrating equipment supplemented by spading and hand-rodding between reinforcing steel and

form to eliminate air bubbles and honeycomb. Vibrators shall not be used to move the concrete laterally inside the forms. Duration of vibration shall be limited to the time necessary to provide satisfactory consolidation without causing segregation, not less than five and not more than 15 seconds per square foot of exposed top surface. The vibrator shall be constantly relocated and shall be placed in each specific spot only once for each layer. The Contractor shall take steps to assure that sufficient personnel are available to devote full time to operating vibrator, spading and rodding.

5. Wall concrete shall be placed in layers as indicated above, with the first lift preceded by a 1-inch minimum layer of 1:2-1/2 cement-sand grout, with a 6-inch to 8-inch slump, placed on existing concrete not more than 20 minutes before concrete placement. The surface of previously placed hardened concrete shall be clean and wet before grouting or shall be treated with a bonding agent as required. Puddles of water in horizontal recessed keys shall be avoided by the use of drain recesses to outside edge of concrete. Concrete in walls and deep beams shall be placed in lifts not to exceed three layers at 12 inches each for the full length of the pour before proceeding higher. The placing of concrete shall not be delayed more than 20 minutes between layers or lifts.
6. Slab forms shall be thoroughly cleaned after placing wall concrete below. Concrete in beams or walls shall be placed to bottom of floor slab. After concrete in walls below floor slab has been in place for approximately 30 minutes, the concrete for the floor slab and upper portion of the beam shall be placed and vibrated.
7. When concrete is conveyed by chutes, the equipment shall be of proper size and design to insure a continuous flow in the chute. The chutes shall be metal or metal lined, and the different portions shall have approximately the same slope. The slope shall not be less than one vertical to three horizontal or more than one vertical to two horizontal, and there shall be provision for a baffle at the discharge end of the chute to prevent segregation. If the vertical distance between the discharge end of the chute and the surface of the concrete is more than five feet, a spout shall be used. The lower end of the spout shall be kept as near the surface of the deposit as is practicable.

All chutes and spouts shall be thoroughly cleaned before and after each run.
All debris and water shall be discharged outside the forms.

3.03 CURING AND PROTECTION

A. Curing:

1. Immediately after surface defects have been repaired, apply a spray coat of curing compound to all exposed surfaces, including slabs, walls, beams and columns in accordance with the manufacturer's recommendations. Protect exposed steel keyways and other embedded items from the curing compound. Water cure, as specified in paragraph B hereunder, all concrete surfaces that are to be exposed to wastewater, surfaces that are to be coated with a coal tar epoxy system, and concrete floors requiring a bond for special finishes.
2. Do not apply compound during periods of rainfall. Should the film become damaged from any cause within the required curing period, immediately repair the damaged portions with additional compound. Upon removal of forms, immediately coat the newly exposed surfaces to provide a curing treatment equal to that provided for the surface.
3. Curing and Sealing Compound: Use clear compound conforming to Federal Specification TT-C-800A, 30% solids content minimum, having test data from an independent laboratory indicating a maximum moisture loss of 0.030 grams per sq. cm. when applied at a coverage rate of 300 sq. ft per gallon, and equal to Super Floor Coat or Super Pliocure by The Euclid Chemical Company or Masterseal 66 by Master Builders. Furnish manufacturer's certification as required.
4. Apply specified clear curing and sealing compound to all horizontal areas so noted on the Drawings or in the Specifications. Apply immediately after final finishing. Apply this compound to non-structural construction joints of slabs on grade to act as a bond breaker prior to placement of adjacent concrete.

B. Water Curing Method: Cure all concrete that is to be water cured by either the wet burlap method, by continuous fogging or by covering with waterproof sheet.

1. Wet Burlap Method: Cover concrete surface with a double thickness of burlap, cotton mats, or other approved material, kept thoroughly saturated with water. Keep the forms wet until removed and upon removal, start the curing specified herein immediately. Cure the concrete for a period of 7 days for normal Portland cement or 4 days for high early strength cement. Do not submerge concrete poured in the dry until it has attained sufficient strength to adequately sustain the stress involved and do not subject it to flowing water across its surface until it has cured 4 days.
2. Continuous Fogging: Perform continuous fogging by fogging with a nozzle which so atomizes the flow of water that a mist, and not a spray, is formed. Fog the concrete surface regularly without allowing any part of the surface to become dry. Take all necessary precautions to prevent erosion of the concrete surface by the water.
3. Covering with Waterproof Sheets: Keep the entire area to be cured continuously wet by fogging, as specified in the fogging paragraph above, for at least 18 hours and then immediately cover with waterproof curing sheet conforming to ASTM C171, waterproof paper and polyethylene film, free of holes or tears. Keep sheet fully flat, without wrinkles or air bubbles, held down tautly at all edges. Do not use this method on slabs which will be exposed to view.

3.04 PLACING REINFORCEMENT

- A. All reinforcement shall be detailed, fabricated and erected in accordance with the A.C.I. "Manual of Standard Practice for Detailing Reinforced Concrete Structure", (A.C.I. 315), including bar supports and spacers. At splices all reinforcing bars shall be lapped a minimum of twenty-four (24) bar diameters but not less than twelve (12) inches.
- B. The reinforcing shall be fabricated to the shapes and dimensions shown and shall be placed where indicated on the drawing. Before placing, all reinforced steel shall be thoroughly cleaned of rust, mill scale or coatings, which would reduce or destroy

the bond. Reinforcing bars shall conform to the requirements of the latest editions of the A.C.I. Code and the CRSI Manuals.

- C. Wire mesh, unless otherwise shown on the drawings or specified, shall be 6" x 6" No. 10 woven or electrically welded wire fabric conforming to the requirements of ASTM Designation A185, latest revision.
- D. Space chairs and bolsters in accordance with ACI 315 and 318 using height to furnish cover over reinforcing required. Chairs with plastic feet or stainless steel shall be used in all beams and elevated slabs. Chairs for other concrete adjacent to or on the ground may be pieces of concrete block or concrete brick compressed into subgrade with the rebars bearing directly on the pointed edge of the masonry supports, or chairs set on precast concrete pads compressed into the subgrade.
- E. When placed in the forms, reinforcement shall be clean and free of all loose rust, scale, dust, dirt, paint, oil or other foreign material, and shall be accurately and securely positioned both laterally and vertically before placing concrete. Minimum clearances between the steel and face of concrete shall be maintained as shown.
- F. The rebars shall be fastened together at every intersection or at intervals not greater than 24 bar diameters by wire ties or by some alternate method acceptable to the Engineer. In areas where large bars are closer together, the wire ties may be spaced not more than 30 bar diameters apart, rather than as specified above.

3.05 FORMS

- A. Installation and erection shall be in accordance with ACI 347 and as specified hereinafter.
- B. Forms shall conform to shape, lines and dimensions of numbers indicated, and shall be sufficiently tight to prevent leakage of mortar. They shall not deflect under dead load weight of construction as a liquid or of construction load. Forms shall be properly braced or tied together so as to maintain position and shape within specified tolerances. Construct forms so that they can be removed steadily without hammering or prying against the concrete. Forms for exposed concrete shall be carefully made and accurately placed to obtain correct shape and line.

- C. Forms shall be of wood, metal, or other approved materials. Metal forms shall be of a type and manufacture acceptable to the Engineer. Plywood, fiberboard, or absorptive type form linings may be used where appropriate. Sectional forms shall produce a uniform surface and shall be assembled in a modular pattern. Pours will not be scheduled until all erection and bracing is complete. Walers, ties and braces shall be required for all forms.

Chamfer strips made from nominal dimensional 1" x 1" lumber cut on the diagonal shall be installed at the top of the forms on all exposed edges of walls, slabs, beams and other structures above grade.

- D. Drip edge shall be made from wood quarter round and installed where shown. Extruded plastic fillets shall be used where detailed. Circular structures shall be formed with special care, and attention to the appearance of the finished structure. Random location of fillers, non-modular sections, and excessive deviations from true circular segments shall be cause for rejection of the forms.
- E. The Contractor shall be fully responsible for the adequacy of formwork in its entirety. Forms shall support required loads and shall maintain their dimensional and surface correctness to produce members required by drawings.
- F. Slots, chases, recesses or other openings as shown on the drawings or as needed for the work of any other trades shall be boxed out.
- G. Box out for all temporary openings and build forms to seal them up when and as required.
- H. After sealing and immediately before the placing of reinforcing, faces of all forms in contact with the concrete shall receive a thorough coating of the liquid form releasing agent, applied in compliance with the Manufacturer's instructions.
- I. Reused forms shall be thoroughly cleaned out of dirt, debris, concrete and foreign matter. Forms shall not be reused if they have developed defects which would affect their tightness and strength or desired surface finish. Used forms shall not be used for architectural concrete.

- J. Forms shall be removed in a manner that will prevent injury to concrete. Supporting forms or shoring shall not be removed until the members have acquired sufficient strength to support their weight and any load thereon.
- K. Removal shall be in sequence as approved by the Engineer. Unless test cylinders warrant another procedure, the forms shall not be removed from members prior to the time listed in the schedule hereinafter unless otherwise directed.
- L. Bonding to Existing Surfaces: Clean existing concrete surfaces that are to have new concrete bonded thereto of all grease, oil, dust, dirt and loose particles and coat with an epoxy bonding agent just prior to placing of the new concrete. Apply the bonding agent as recommended by the manufacturer and allow the agent to become tacky before the new concrete is placed. Do not allow the bonding agent to overlap or be spilled on the surfaces to be exposed after the work is completed.

3.06 FORM REMOVAL

- A. Maintain formwork in place for the following structural conditions until the concrete has attained the minimum percentage of indicated design compressive strength or for the period of time specified in the following table.

Note: Time periods in the table include all days except those in which the temperature falls below 40 degrees F.

<u>Structural Member or Condition</u>	<u>Normal Strength Concrete</u>	<u>Normal High-Early Strength Concrete</u>	<u>Minimum Compressive Strength for Form Removal (% Design Strength)</u>
Cantilevers	12 days	7 days	90
Over 20 feet between supports	12 days	7 days	90
Stairway	10 days	5 days	80
Floor Slabs	5 days	3 days	70
Free standing walls, column and piers	5 days	3 days	70
Walls, piers columns, sides of beams, footings slabs on grade, and vertical surfaces	24-48 hours	12-24 hours	70
Front face form of curbs	6-24 hours	6 hours	70

3.07 CONCRETE FINISHINGS

A. Repair of Surface Defects:

1. General: Repair surface defects, including tie holes immediately after form removal. Dampen the area to be patched and an area at least 6 inches wide surrounding it to prevent absorption of water from the patching mortar. Notify the Engineer prior to commencing operations.

2. Removal of Defective Concrete: Remove all honeycombed and other defective concrete down to sound concrete. Cut edges perpendicular to the surface or slightly under cut. Sand blast surfaces to receive repair.
3. Bonding Grout: Thoroughly dampen surfaces to be patched and apply a coat of bonding grout consisting of one-part cement to one part fine sand passing a No. 30 sieve and having the consistency of thick cream.
4. Placing Patching Mortar: After the bonding grout begins to lose its water sheen, apply a premixed patching mortar, thoroughly consolidating it into place and striking it off so as to leave the patch slightly higher than the surrounding surface. Leave mortar undisturbed for one hour to permit initial shrinkage and then finally finish.
5. Tie Holes: After being cleaned and thoroughly dampened, fill the tie holes solid with patching mortar.

B. Concrete Finishes:

1. Formed Surfaces: After removal of forms, chip off all irregular projections, grind flush with adjacent surfaces and finish concrete surfaces in accordance with the following schedule:

Finish <u>Designation</u>	<u>Area Applied</u>
F-1	Exterior walls below grade not exposed to water: Repair defective concrete, fill depressions deeper than 2 inch, and fill tie holes.
F-2	Exterior and interior walls exposed to water: Repair defective concrete, remove fins, fill depressions 3 inch or deeper, and fill tie holes.
F-3	Walls of structures of buildings exposed to view and underside of formed floors or slabs: In addition to Finish F-2, fill depressions and airholes in mortar. Dampen surfaces and then spread a slurry

consisting of one-part cement and one and one-half parts sand by damp loose volume on the surface with clean burlap pads or sponge rubber floats. Remove any surplus by scraping and then rubbing with clean burlap.

- F-4 Tops of walls, beams and similar unformed surfaces occurring adjacent to formed surfaces: Strike smooth after concrete is placed and float to a texture reasonably consistent with that of formed surfaces.

2. Slab Surfaces:

- a. General: After concrete has been consolidated, finish all concrete slabs with a floated finish. After floating, trowel finish all concrete slabs, except for areas to receive roofing, insulation, tile or topping, and immediately light broom finish. Where a finish is not indicated, provide a troweled finish.

Finish

Designation

Area Applied

S-1	Slabs and floors not water bearing: Smooth steel trowel finish.
S-2	Slabs and floors which are water bearing and slab surfaces on which mechanical equipment moves: Steel trowel finish free from trowel marks and all irregularities.
S-3	Slabs, floors and stair treads of structures or buildings exposed to view: Steel trowel finish without local depressions or high points and apply a light hair-broom finish. Do not use stiff bristle brooms or brushes. Leave hair-broom lines parallel to the direction of slab drainage.
S-4	Slabs and floors at slopes greater than 10%: Steel trowel finish without local depressions or high points. Apply a stiff bristle broom finish. Leave broom lines parallel to the direction of slope drainage.

S-5 Exposed edges of slabs, floors and tops of walls: Finish with a 3-inch radius edge if a chamfer is not indicated.

- C. Floated Finish: After concrete has been placed, consolidated, struck off and leveled, do not work the surface further until water sheen has disappeared and the surface has hardened sufficiently to permit floating. During the first floating, check the planeness of the slab with a 10-foot straightedge applied at no less than two angles. Cut down all high spots and fill all low spots to produce a surface having the required tolerance. Then refloat the slab to a uniform sandy texture.
- D. Light Broomed Finish: After floating, power trowel slabs to receive a light broomed finish to produce a smooth surface, relatively free of defects. Before the surface sets, pass a soft broom drag over the surface to produce a surface uniform in texture and appearance.
- E. Troweled Finish: After floating, power trowel slabs to receive a troweled finish to produce a smooth surface, relatively free of defects. Hand trowel after the surface has hardened sufficiently. When a ringing sound is produced as the trowel is moved over the surfaces, perform final troweling by hand to produce a surface which is thoroughly consolidated, free from trowel marks, uniform in texture and appearance and plane to a tolerance of 1/8 inch in 10 feet as determined by a 10 foot straightedge placed anywhere on the slab in any direction.
- F. Hardener Finish: Where indicated to receive a troweled hardener finish, water cure slabs without application of curing and sealing agent. When slab is at least 20 days old and thoroughly dry, apply the hardener in accordance with the manufacturer's recommendations. Where dry-shake hardener or slip resistant finish is required, apply the hardener or slip-resistant product prior to complete curing and finishing, in accordance with the requirements and recommendations of the product manufacturer.
- G. Saw Cut Joints: Cut joints that are to be saw cut not sooner than 2 hours after the concrete is poured and not later than 8 hours after the pour.

3.07 TESTS

- A. Compressive strength tests shall be made by breaking standard 6-inch diameter by 12-inch high test specimens prepared, cured and broken in accordance with the American Society for Testing Materials Standard Methods C-31 and C-39, latest revision. Four specimen test cylinders shall be taken from each pour of five (5) cubic yards or more. One additional test shall be taken from each thirty (30) cubic yards or fraction thereof in each pour in excess of thirty (30) cubic yards.
- B. Test specimens shall be taken from manhole bottom pours of less than five (5) cubic yards as directed by the Engineer. Test specimens shall be taken in the presence of the Engineer. One cylinder from each pour shall be broken at seven (7) days, the remainder at twenty-eight (28) days. Additional test cylinders may be ordered for determining the characteristics of a new design mix or changes in equipment or methods, and under adverse weather or curing conditions.
- C. Slump test shall be made in accordance with ASTM C143, latest revision, and shall be made with each load and at time of cylinders.
- D. The Contractor shall supply all cylinder molds, slump cones, tools and labor for preparing specimen, and shall provide clean, moist sand or burlap for curing. Cylinder shall not be shipped to the testing laboratory until the third day following preparation and shall be protected from accidental damage at all times.
- E. The test cylinders shall be tested in a recognized commercial testing laboratory at the expense of the Contractor.

3.08 EXPANSION JOINTS, CONSTRUCTION JOINTS AND WATER STOPS

- A. Expansion Joints shall be places as indicated on the drawings. Joint materials for surfaces exposed to water and sewage shall conform to ASTM D175, Preformed Joint Filler, non-extruding and resilient (bituminous type), thickness as shown on the drawings. Joint materials for isolation joints, slab-on-grade joints and wall joints not exposed to water and sewage shall conform to ASTM D994, preformed expansion joint filler for concrete (bituminous type), thickness as shown on the drawings.

- B. Construction Joints shall be located in accordance with a schedule of pours which shall be prepared and submitted by the Contractor. Vertical construction joints shall be held to the minimum number consistent with good standard practice.
- C. Water Stops. Material for water stops shall be 9-inch PVC multi-rib center-bulb type for expansion joints, and 1/4" x 4" and 1/8" x 4" structural steel sheets for construction joints. PVC joint material shall be as manufactured by The Burke Company, or approved equal.

END OF SECTION

SECTION 03 60 00
GROUTING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provide all labor, materials, tools and equipment and perform all grouting as specified hereinafter and indicated on the Drawings.

1.02 RELATED WORK

- A. Section 03 30 00: Cast-In-Place Concrete

1.03 SUBMITTALS

- A. Submit manufacturer's literature for review on the following items:
 - 1. Non-shrink grout data including grout properties, mixing, surface preparation and installation instructions.

1.04 DELIVERY AND STORAGE

- A. Deliver and store grouting materials in unbroken containers with seals and labels intact as packaged by the manufacturer.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Non-shrink, Nonmetallic Grout: The Burke Company's Non-Ferrous, Non-Shrink Grout, Sauereisen F-100 Level Fill, Master Builders Masterflow 713, Euclid NS Grout, or equal pre-mixed type.
- B. Non-shrink Metallic Grout: The Burke Company's Metallic Spec Grout, Master Builders Embeco 636 Grout pre-mixed type, or equal.

- C. Epoxy Grout: Sikadur 42 Grout-Pak, or equal, for grouting sleeves for anchor bolts, etc.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Clean all bonding surfaces of dust and oil.

3.02 INSTALLATION

- A. Non-shrink Grout:

1. Use non-shrink, nonmetallic grout for grouting precast concrete wall panel connections, column base plates, anchor bolts, reinforcing bars, pipe sleeves, machinery supports and pump base plates. Use epoxy grout for anchor bolts, etc., where indicated on the Drawings.
2. Mix and place non-shrink grout as recommended by the manufacturer.
3. Mix grout as close to the work area as possible and transport quickly to its final position in a manner which will not permit segregation of materials.
4. Cure non-shrink grout with water saturated burlap for at least three days or with an application of Super Rez Seal cure and seal compound applied immediately after grout placement.
5. Do not operate machinery set on grout pads until the grout has cured for at least 24 hours.

END OF SECTION

SECTION 31 22 00
GRADING

PART 1 - GENERAL

1.01 Work Includes

- A. Excavation and embankment necessary for grading the site shall be considered to include that required for roads, walks, culvert installations, and drainage ditches and channels.

PART 2 - EXECUTION

2.01 Preparation

- A. After the removal of topsoil, the then existing surface is to be excavated or filled to the elevations and slopes indicated on the Drawings, or as directed by the Engineer. Additional fill, if required, and is not available elsewhere, shall be excavated from borrow areas selected by the Contractor, but subject to the approval of the Engineer. Unless otherwise provided, all borrow pits shall be located entirely outside the limits of the site.
- B. On areas where roadway pavement is to be placed, the subgrade therefore shall be no more than 0.10 foot above or below the established grade; in other areas, the finished grade shall be not more than 0.15 foot above or below the established grade.
- C. Where rock is encountered at road subgrade or finished grade in areas other than roads, it shall be removed for a depth of six (6) inches below such subgrade or finished grade elevation.
- D. Subgrades and shoulders for the access and service roads shall be constructed to the lines and grades indicated, and in conformance with the applicable requirements of the "Standard Specifications" for the Florida State Department of Transportation.

2.02 Embankment

- A. On hillsides in which the existing slope is steeper than four to one, the Engineer may require the surface to be plowed to provide binding of the embankment with the original ground. When, in the opinion of the Engineer, existing slopes are excessive, the Engineer may require the original ground to be cut into the steps or berms.
- B. All materials removed from classes of excavation, which are determined as suitable by the Engineer, shall be used in the formation of embankments. Excavated material which is not required for embankments shall be disposed of by the Contractor, at his responsibility and expense, outside the limits of the site, unless the Engineer gives notice of some point of disposal within the site. No material shall be disposed of in any flood channel area.
- C. Earth or other friable materials shall be placed in successive horizontal layers of loose material not more than nine (9) inches in depth, spread uniformly by use of graders or other approved devices, and rolled until thoroughly compacted with an approved three (3) wheel power roller weighing not less than ten (10) tons. The Engineer may permit the Contractor to use approved sheep-foot tamping rollers. Embankments at points inaccessible to the roller shall be made in horizontal layers of loose material not exceeding six (6) inches in depth and thoroughly compacted by mechanical tampers.
- D. Where rock only is available, it shall be placed in loose layers not exceeding two (2) feet in depth and rolled as provided above. Rock fills shall only be considered as such where the earth or other finer materials is uniformly distributed and is considerably less than sufficient to fill the voids and interstices; otherwise it shall be considered and placed as earth fill. The top layer of rock fills shall not exceed eight (8) inches in depth, and the interstices shall be thoroughly filled with small spall, shale, gravel, or other similar approved material and thoroughly compacted. This top layer of rock shall be kept at least eight (8) inches below the elevation of subgrade for payments, and finished grade elsewhere, with the balance of the fill formed by topsoil or other approved material, as required.
- E. No roots, leaves, grass, or any form of vegetation shall be placed or allowed to remain in filled or graded areas.

- F. The Contractor shall be responsible for the stability of all embankments and shall replace all sections which, in the opinion of the Engineer, have been damaged or displaced due to carelessness or neglect on the part of the Contractor due to natural causes, such as storms.
- G. During grading operations, cuts and fills shall be kept shaped and drained at all times.

END OF SECTION

SECTION 31 23 00
EXCAVATION AND FILL

PART 1 - GENERAL

1.01 SCOPE

- A. The work covered by this section and required by this Contract includes the completion of all excavation, backfilling and embankment to the lines and grades indicated by the drawings, as further specified below, and necessary to the following operations:
1. Stripping, storing and replacing topsoil;
 2. Excavation and backfill for pipe trenches;
 3. Excavation and embankment for road, grading and drainage of the site;
 4. Excavation and backfill for buildings and structures; and
 5. Borrow excavation.

1.02 CHARACTER OF MATERIAL.

- A. The Contractor must satisfy himself regarding the character and amount of loam, clay, sand, quicksand, muck, gravel, rock, water and all other material to be encountered in the work to be performed.

1.03 DESCRIPTION

- A. The Contractor shall excavate, protect and backfill all foundations, trenches, tunnels and other excavations that may be necessary for completing the work to be done under this Contract. All excavation shall be in open cuts, except where and to such extent as the Engineer may authorize or direct that the same be done in tunnel, or where such is specified in the Special Requirements or Contract drawings. Trenches may, in general, be excavated and backfilled either by machinery, or by hand as the Contractor may elect; provided, however, that the Engineer shall be empowered, wherever he shall decide that such necessity exists, to direct that hand

excavation by employed; and, provided, further that backfilling by hand shall be done to the extent hereinafter specified. The Contractor shall have not claim for extra compensation due to the fact that hand, instead of machine, excavation may be necessary from any cause whatever.

- B. The Contractor shall perform all excavation of every description and of whatever substances encountered, to the lines and grades or depths indicated by the drawings, as specified herein, or as directed by the Engineer. Embankments shall be prepared in accordance with the Specifications, and as necessary to bring the ground surface to the subgrade elevation for roads and to finished grade elevations for other areas as shown on the drawings, or directed by the Engineer. All excavated material not required for backfill or embankment shall be removed and wasted or otherwise disposed of as directed or specified.
- C. The term "subgrade" as used herein shall have the meaning given below:
 - 1. The bed of a trench prepared as specified to receive pipes or other conduits;
 - 2. The area upon which the lower surface of roadway paving, walks, gutters, or curb rests;
 - 3. The surface of excavation or embankment areas prepared to receive topsoil; and
 - 4. The areas upon which rest the planned bottom of footings, foundations, or slabs.

PART 2 - MATERIALS

2.01 TOPSOIL

- A. Stripping. The area from which topsoil is to be stripped and the locations where it is to be stored shall be as shown on the drawings or as specified below. The topsoil shall be stripped to a depth of not less than six inches (6"). On all areas where any type of grading is to be performed, including the areas within the lines of buildings and structures, the topsoil shall be carefully removed and spread either on areas

already graded or prepared for topsoil, or in stockpiles conveniently located to the areas which are later to receive application of topsoil.

- B. Spreading. On areas intended to receive topsoil, the compacted subgrade shall be scarified to a depth of two inches (2") for bonding topsoil with subsoil. The topsoil shall then be evenly spread, compacted and graded to the finished elevations shown on the drawings or as specified by the Engineer. Compaction shall be effected by a single pass of an approved roller.

2.02 REMOVAL AND STORAGE OF MATERIAL

- A. In locations where the working space is limited, the material excavated from the first one hundred feet (100') of any trench, or from such additional length as may be required, shall upon order of the Engineer, be removed at the Contractor's own cost and expense, as soon as excavated. The materials subsequently excavated shall be used to refill the trench. In no case will the Contractor be allowed to cast excavated material beyond curb of right-of-way lines, or on sidewalks or lawns, and the failure or refusal of the Contractor to comply with this requirement shall be sufficient cause for the Engineer to stop all work under the Contract.
- B. In case more material is excavated from any trench than can be backfilled over the completed sewer or can be stored within the limits of the right-of-way, leaving space for the traffic and drainage as herein provided, the excess material shall be removed to some convenient place, provided by the Contractor. The Contractor shall at his own cost and expense bring back as much of the material so removed, as may be required to properly backfill the trench, if of the proper kind; or, if so directed by the Engineer, the Contractor shall, at his own cost and expense, furnish such other suitable material as may be necessary.
- C. When it is necessary to haul soft or wet material over the streets, the Contractor shall provide suitable tight vehicles, or a pattern approved by the Engineer for this purpose.

2.03 SHEETING, BRACING AND SHORING

- A. The Contractor shall furnish the material for, and do all timber shoring, bracing and sheeting necessary to perform and protect the excavation, and as required by the

Engineer to protect the work, other structures, the public, and the Contractor's employees. If trench protection is necessary, per OSHA requirements, the Contractor shall account for the anticipated expense in the appropriate bid item, or in the unit cost for pipe installed, or a combination of both. If the Engineer deems that sheeting, bracing, or shoring is necessary, it shall be supplied by the Contractor at no additional expense to the Owner. Such sheeting, etc. may be removed as the work progresses, but where, in the opinion of the Engineer, damage may result through removal; it shall be left in place with payment therefore made as hereinafter provided. The right of the Engineer to order sheeting, etc. left in place shall not render the issuance of such order obligatory on the part of the Engineer.

- B. All sheeting, etc. shall be arranged so that it may be withdrawn, as the trenches are backfilled, without injury to the pipe and its appurtenances, and without injury to or settlement of adjacent structures and pavements. All voids caused by withdrawal shall be immediately filled with sand or other satisfactory material and compacted by ramming or other method satisfactory to the Engineer.
- C. No timber sheeting, bracing or shoring shall be left within 18 inches (18") of any natural ground surfaces or within 12 inches (12") of the subgrade of any rigid or flexible type pavement, or railroad roadbed. In any trench shoring system, no vertical member shall remain directly over the pipe and no horizontal member shall remain within 12 inches (12") of any pipe. After backfilling is started, no sheeting shall extend below the horizontal diameter of the pipe without the Engineer's approval. Sheeting left in place shall be cut off at such point as the Engineer may order, and the portions cut off shall be removed from the work.
- D. If the Engineer determines that the material furnished is not of proper size or quality, or not properly placed, the Contractor shall furnish and place other and satisfactory material in an acceptable manner, and shall not be entitled to additional compensation for such corrective work.

PART III - EXECUTION

3.01 ORDER OF WORK

- A. The Contractor shall submit a progress schedule as specified in Article 2.40 and shall carry on his work in strict accordance therewith. Deviations from the progress schedule may be made only with the approval of the Engineer.
- B. Manholes shall be constructed either at the same time as the main sewer or immediately after its completion.

3.02 SEWER LINES AND GRADES. Sewer lines and grades shall be laid out and maintained during construction in the following manner.

- A. Prior to the commencement of trench excavation, the Contractor shall prepare and submit to the Engineer for approval, detailed cut sheets provided by the Contractor's surveyor. The surveyor shall be registered in the State of Florida. Cut sheet shall show; the beginning and ending of manholes; the distance between manholes; the grade, size and type of line, the depth of cut; etc. The form of cut sheets shall be satisfactory to the Engineer. All expense for the preparation of cut sheets shall be borne by the contractor and be included in the unit price per foot of pipe. Cut sheets must be approved by the Engineer in writing before pipe laying operations may be permitted. It shall be the responsibility of the Contractor to prepare cut sheets far enough in advance of his anticipated trenching schedule so that avoidable delay in the work will not occur.
- B. Before beginning the excavation for any run of main sewer, the Contractor's forces, under the direction of the Engineer, shall:
 - 1. Set control points for line and grade as given on the Drawings or as otherwise determined by the Engineer. In unpaved or unsurfaced areas, these points shall be placed on the top of stakes securely driven into the ground. In paved areas, there may be spikes driven into the paving or crosses cut into the paving, and in either case, enclosed in a painted circle. Stakes or points shall be sufficiently offset from the centerline so as to be undisturbed during the excavation and pipe laying operations. The offset

shall be on the side of the centerline opposite to that on which excavation will be thrown.

2. As the rough excavation is completed, the Contractor's surveyor shall place grade or batter boards of finished, straight lumber across the trench opposite each stake or point. The grade boards shall be securely supported so as not to be subject to accidental displacement. The top of each board shall be leveled and set at the same distance above the sewer invert. A nail shall then be driven into the top of each board on the centerline of the sewer and each nail connected by a string line pulled taut.
3. The preparation of the final subgrade and the pipe laying shall then proceed in the manner specified herein, beginning at the manhole having the lower invert and working upgrade and using the string line as control for maintaining sewer grade and horizontal alignment. A straight wooden pole suitably marked and with a right-angled offset at the bottom to project past the bell of the pipe and rest upon the pipe invert, shall be used to check the vertical distance from string line to invert.

- C. The use of laser beams shall be acceptable as a method of controlling pipe alignment and grade.

3.03 WIDTH AND DEPTH OF TRENCHES

- A. From the subgrade elevation to an elevation at least 12 inches (12") above the top of the outside barrel of the pipe, the banks of trenches in all cases shall be excavated to vertical lines, and the trenches shall be not less than 12 inches (12") nor more than 16 inches (16") wider nor more than eight inches (8") in width is provided on each side of the barrel of the pipe. If sheeting is required, the foregoing dimensions shall be applicable to the inside faces of the sheeting.
- B. From a point twelve inches (12") above the top of the outside barrel of the pipe to the surface, the banks of trenches in all streets, roads or highways, paved or unpaved, shall be kept as nearly vertical as possible, and in no case shall the width of trench at the top exceed the outside diameter of the pipe plus 40 inches (40"). If the specified maximum width of trench cannot otherwise be maintained, the Contractor shall install temporary sheeting at his own cost and expense. Where

sewers are to be constructed on rights-of-way or easements in open country, the specified maximum width of trench at the top may be exceeded only if the construction is kept entirely within the limits of the easements or rights-of-way and can be carried on without damage to adjoining property.

- C. Except at locations where excavation of rock or unsuitable material is required, care shall be taken not to excavate below the depths specified, when rock is encountered, it shall be removed to a depth six inches (6") below the outside bottom of the pipe at the barrel. When the material encountered at subgrade is unstable, it shall be removed from under the pipe and on each side of the pipe for a distance of one (1) diameter of the pipe. Such rock or unsuitable material excavation below subgrade shall be backfilled with moist clay, sand, bankrun gravel, or other suitable material compacted to the satisfaction of the Engineer, and the bed thus formed shaped as required above. In rock excavation, if trenches are shattered by blasting below the lines of excavation specified herein, the trench shall be refilled to subgrade with sand, well tamped earth, or concrete, if required by the Engineer, at the Contractor's expense. If earth trenches are excavated beyond the specified depths, they shall be backfilled to the proper grade with suitable, thoroughly tamped material at the expense of the Contractor.

3.04 PREPARATION OF FOUNDATION

- A. In earth trenches, the bottom thereof shall be carefully rounded to fit the lower ninety degrees (90°) of the circumference of the pipe, i.e., so that one-fourth (1/4) of the external circumference of the pipe will rest firmly on the undisturbed soil. Bell-holes shall be excavated to ensure that the barrel of the pipe will rest for its entire length upon the trench bottom.
- B. Bell-holes shall be properly cut to provide free support of the pipe barrel and shall be directed by the Engineer. All irregularities and cavities, either in earth or rock excavation, in the bottom of trenches or tunnels, shall be filled up to a level which will support ninety degrees (90°) of the lower pipe circumference with selected material free from large gravel, rocks and stones, firmly compacted before pipe lines are laid therein.
- C. Where, in the opinion of the Engineer, the ground does not afford a sufficiently firm foundation, the Contractor shall construct a timber foundation, or shall

excavate the trench to such increased depth as may be directed, and then shall bring up the bottom of the trench to the required level and form with such material and in such manner as the Engineer may direct.

3.05 CONCRETE CRADLE AND ENCASEMENT

- A. The profiles generally indicate the approximate vertical limits where concrete cradle and encasement are necessary to support the anticipated loads on completed sewers for the widths of trench as required for each size and class of pipe, based on the crushing strength of the pipe.
- B. The Contractor is warned that if the trench widths or clearances between pipe and trench walls or face of sheeting, as specified above, are exceeded, he will be required to furnish in all locations at his own expense either concrete cradle or encasement as directed by the Engineer.
- C. It is anticipated that subsurface conditions may require a cradle for a portion of the project to provide an adequate foundation, even though the ultimate anticipated load on the pipe is less than the minimum crushing strength for sand bearing. The Contractor shall place the cradle or encasement at the location, and of the materials, as directed and required by the Engineer. The Contractor will not be paid for any cradle beyond the required widths of trench.
- D. All excavation made beyond the required limits shall be at the Contractor's expense.

3.06 LENGTH OF OPEN TRENCH

- A. The Engineer shall have the right to limit the amount of trench opened in advance of pipe laying and the amount of pipe laid in advance of backfilling, but in no case, except when leakage tests are required by the Engineer, shall these amounts exceed three hundred feet (300') and one hundred feet (100'), respectively. Trench excavation shall be fully completed, except for the shaping of the bottom of the trench, at least 20 feet (20') in advance of the pipe placement and shall be kept free from obstructions, except that at the close of work at night, or at the discontinuance of work, the pipe laying may be completed to within five feet (5') of the end of the open trench.

- B. The Engineer shall be empowered, at any time, to require the refilling of open trenches over completed pipe lines, if, in his judgment, such action is necessary, and the Contractor shall thereby have no claim for extra compensation even though to accomplish said refilling, he is compelled temporarily to stop excavation or other work at any place.
- C. If the work is stopped on any trench, for any reason except by order of the Engineer, and the excavation is left open for an unreasonable length of time (in the opinion of the Engineer) in advance of construction, the Contractor shall, if so directed, refill such trench at his own cost and shall not again open said trench until he is ready to complete the structure therein.

3.07 ACCOMMODATION OF TRAFFIC

- A. Streets shall not be unnecessarily obstructed and, unless the Engineer, in writing, shall authorize the complete closing of the street, the Contractor shall take such measures at his own expense as may be necessary to keep the street or road open and safe for traffic.
- B. The Contractor shall construct and maintain without extra compensation such adequate and proper bridges over excavations as may be necessary or as directed for the safe accommodation of pedestrians or vehicles. The Contractor shall furnish and erect without cost to the Owner substantial barricades at crossings of trenches, or along the trench, to protect the traveling public.
- C. The Contractor shall not obstruct fire hydrants.
- D. The roadway on one side of the line of work shall be kept open at all times.
- E. The streets, crosswalks and sidewalks shall be kept clean, clear and free for the passage of vehicles or pedestrians, unless otherwise authorized in writing by the Engineer. A straight and continuous passageway on sidewalks and over crosswalks, at least three feet (3') in width, shall be preserved free from all obstruction.
- F. Where deemed necessary, such additional passageway as may be directed shall be maintained free from obstructions.

- G. In narrow or congested streets or alleys, when so directed, the Contractor shall complete his work up to a point designated by the Engineer before opening the work ahead, in order to give access to garages and other places. The Contractor shall in all cases so arrange his work as to cause the least inconvenience to property owners consistent with the proper precaution of the work as determined by the Engineer.

3.08 ACCOMMODATION OF DRAINAGE

- A. Gutters, sewers, drains and ditches shall be kept open at all times for surface drainage. No damming or ponding of water in gutters or other waterways will be permitted, except where stream crossings are necessary and then only to an extent which the engineer shall consider necessary. The Contractor will be responsible for all clean-up to existing utilities caused by their activities.
- B. The Contractor shall not direct any flow of water across or over pavements except through approved pipes or properly constructed troughs and he shall, when so required at his own expense and cost, provide pipes or troughs of such sizes and lengths as may be required and place the same as directed.
- C. The grading in the vicinity of sewer trenches shall be controlled so that the ground surface is properly pitched to prevent water running into trenches.

3.09 PUMPING

- A. The Contractor shall keep all excavations free from water, at his own expense, while structural work is in progress, and to such extent as may be necessary while excavation work along is being carried on.
- B. The Contractor shall build all dams and other devices necessary for this purpose, including lowering the water table below trench bottom by well points and pumping, and provide and operate pumps of sufficient capacity for dewatering the excavations.
- C. He shall provide for the disposal of the water removed from excavation in such manner as shall not cause injury to the public health, to public or private property, to the work of other Contractors, to any portion of the work completed or in

progress, or produce any impediment to the use of the highways, roads, lanes, and streets by the public.

- D. Any dewatering required shall be performed at the Contractor's expense. Payment for dewatering shall be included in the Contractor's bid prices for pipe or other structures requiring dewatering for installation. If holes made for installation of well points are installed in a roadway, shoulder, or under a structure, these holes shall be filled with lean grout prior to backfill and compaction. Any permits needed for dewatering shall be obtained and paid for by the contractor.

3.10 EMBANKMENT

- A. Where embankment is necessary to support the foundations of the pipe or structure, it shall be made to the height, width and slopes shown on the drawings, or as directed. The entire embankment, or such portion thereof as may be deemed necessary by the Engineer, shall be made prior to the construction of the sewer, structure, or the foundation thereof, at such time and in such order as the Engineer may direct; and the embankment, sewer, or structure, and appurtenances, which may be laid thereon or therein, shall be maintained by the Contractor, at his own cost and expense, until the completion of the period of one (1) year from and after the date of the Certificate of Completion and Acceptance.
- B. After carefully grubbing and clearing the ground, removing all loose rock and stone, and all muck and improper material, to such a depth as the Engineer may determine, the embankment shall be built up of good loam, gravel or sand, or other selected and approved material, free from all stone above four inches (4") diameter, and not containing in any place a proportion of stones exceeding one (1) part stone to three (3) parts earth.
- C. In cast material which is unsatisfactory for the foundation of any embankment is encountered, said material shall be removed to such depth, and for such length and width as may be directed by the Engineer. Payment for the removal of material unfit for the foundation of an embankment will be made at the price bid or stipulated per cubic yard for excavation below subgrade.
- D. The material for embankment shall be deposited in layers of not more than nine inches (9") in thickness; each layer shall be separately compacted by heavy,

grooved iron rollers, or where such rollers cannot be used, by heavy paver's rammers. The embankment shall be watered during rolling, if so required. No breaks or irregularities in the distribution of the material or the formation of the layers will be allowed. The whole embankment shall be carried up evenly to the height given by the Engineer in such a manner as to make a compact and solid foundation. When pipe is to be laid in a fill, the embankment shall be brought to a height of at least one foot (1') above the proposed top of the pipe before the trench is excavated. The embankment shall then be excavated to the proper form and grade, and the sewer placed thereon; after which the embankment shall be carried up to a height of not less than three feet (3') above the top of the sewer, the material being placed and rolled or rammed in layers as above described.

3.11 BACKFILLING TRENCHES

- A. It is the intent of the following requirements for the backfilling of trenches to specify materials and methods which will:
 - 1. Result in thorough compaction of the backfilled material without the displacement of the grade or alignment of the sewer line and its appurtenances, and
 - 2. Eliminate settlement of the backfilled material.
- B. If displacement of the sewer or settlement of the backfilled material does occur, it will be considered as conclusive evidence of improper workmanship or the inclusion of unsuitable materials or both, and it shall be the Contractor's responsibility, at his own expense, to remove and recompact the settled material and regrade and realign the sewer. During the course of the backfilling operation, the Engineer may, at any location of depth of trench, make tests to determine whether the Contractor's compaction operations are sufficient to meet the requirements specified below.
- C. The procedure of backfilling shall be as follows:
 - 1. After the structure, pipe, or conduit and its appurtenances have been installed or constructed, the excavation, to a height of at least two feet (2') above the top of pipe or conduit, shall be refilled with clean earth deposited

in four inch (4") layers and solidly rammed down and tamped around the pipe, or conduit and under it, with mechanical tampers and proper tools made for this purpose. The operation shall be done in such manner as not to disturb the structure. The area around the pipe shall be hand-tamped.

2. The earth, to the height specified above, shall be carefully thrown in with hand shovels; under no condition shall any other means than hand shoveling, such as pushing in with heavy equipment be used.
 3. The remainder of the trench, except as described below, shall then be refilled evenly to the required height in layers, each layer not to exceed six inches (6") in thickness after compaction. Mechanical tampers shall be used so as to produce a density of backfill (as determined by weight) at the bottom of each layer of not less than ninety-five percent (95%) of the optimum density of that material based upon the AASHTO T-180 modified proctor. The earth shall be properly rammed as directed, and wetted as required as the work progresses.
 4. Care shall be taken to carry the fill up evenly on opposite side of the sewer, other trench excavations, and around the sides of all structures.
- D. If, in the opinion of the Engineer, the material being used for backfilling is of such character that satisfactory results cannot be obtained by tamping and ramming, the Contractor shall backfill and puddle the excavations in such manner and at such times as the Engineer may direct.
- E. If the material excavated is not clean earth, as above specified, the best of the materials excavated shall be used in backfilling, in position and manner as directed by the Engineer.
- F. In rock trenches, selected earth, sand or gravel shall be provided and used as backfill in the manner hereinbefore described to a height of two feet (2') above the top of the sewer. The backfill for the balance of the trench in all cases shall be of good earth, sand or gravel, which may contain stones not more than six inches (6") in largest dimensions, but not in proportion exceeding twenty percent (20%) of the total volume of backfill.

- G. No bulkheads, or retaining walls for the backfilling, will be allowed in the trenches over the sewer, except for temporary use.
- H. Should there be a deficiency of proper material for refilling the Contractor shall furnish acceptable material at his own cost and expense.
- I. No house ashes, putrescible refuse or other material of unsatisfactory character shall be used in refilling, and the Contractor shall not permit the trench to be used as a dumping ground for refuse.
- J. Testing of backfill in trenches shall be performed as deemed necessary by the Engineer or his representatives; the Contractor will supply and pay for the testing.

3.12 BORROW EXCAVATION

- A. In cases where the amount of embankment exceeds the amount of excavation within the limits of the site as indicated by the Drawings, and where material is not available from other sources of contracts, the Contractor shall obtain sufficient, suitable material from borrow pits located entirely beyond the limits of the site unless the Engineer gives written permission to obtain such material from an area within the site.
- B. The Contractor shall notify the Engineer sufficiently in advance of borrow excavation requirements to permit the Engineer to determine necessity and to view the proposed borrow pit.
- C. Borrow obtained from within the site shall be removed to uniform lines and grades satisfactory to the Engineer, and in such a manner as not to detract from the general appearance of the improvement and shall not create unsatisfactory conditions.
- D. All borrow pits shall be stripped of brush, roots, grass and other vegetation prior to removal of material for embankment purposes.

3.13 BUILDINGS AND STRUCTURES

A. Excavation.

1. All excavation for buildings and structures shall be performed in the dimensions indicated on the Drawings. If suitable bearing is not encountered at the planned footing or foundation elevations, the excavation shall be carried to such elevations as are approved by the Engineer.
2. Prior to construction of foundations, the excavation shall be inspected by the Engineer and no foundation work shall be started prior to the Engineer's approval of the excavation. Care shall be exercised to avoid excavation below the depths indicated on the Drawings or as directed by the Engineer.
3. Where excavation is made below plan elevation or below elevations directed by the Engineer. Where excavation is made below plan elevation or below elevations directed by the Engineer, through the fault of the Contractor, the excavation shall be restored to the proper elevation in the manner described for backfill below, or the heights of walls or footings shall be increased, as may be directed by the Engineer, at the expense of the Contractor.

B. Drainage.

1. Grading in the vicinity of structures shall be controlled to prevent water running into excavated areas. Any accumulation of water in excavations shall be removed by pumping or other means at the Contractor's expense.

C. Backfill.

1. After completion of footings and walls, and the removal of forms, and prior to backfilling, the excavation shall be cleaned of all trash and debris.
2. Backfill material shall consist of the excavation or other materials free from trash, lumbar or other debris. It shall be placed in horizontal layers not exceeding six inches (6") in depth, moistened if required and compacted by hand or mechanical tampers to a density to prevent excessive settlement.

3.14 RESPONSIBILITY FOR CONDITION OF EXCAVATION

- A. The Contractor shall be responsible for the condition of all excavations made by him. All slides and cave-ins shall be removed without extra compensation, at whatever time and under whatever circumstances they may occur.
- B. The failure of the Engineer to order the use of bracing or sheeting or a better quality, grade or section, or larger sizes of steel or timber, or to order sheeting, bracing, struts, or shoring to be left in place, or the failure to give orders or directions as to the manner or methods of placing or driving sheeting, bracing jacks, wales, rangers, or other members, shall not in any way or to any extent relieve the Contractor of any responsibility concerning the condition of excavation or of any of his obligations under the Contract; nor shall any delay, whether caused by any action or want of action on the part of the Contractor, or by any act of the Owner, or his agents, or employees, resulting in the keeping of an excavation open longer than would otherwise have been necessary, relieve the Contractor or from the necessity of properly and adequately protecting the excavation from caving or slipping, nor from any of his obligations under the Contract relating to injury of persons or property, nor entitle him to any claim for extra compensation.

3.15 PROTECTION OF PROPERTY AND STRUCTURES

- A. The Contractor shall, at his own expense, sustain in their places, and protect from direct or indirect injury, all pipes, tracks, walls, buildings, and other structures or property in the vicinity of his work, whether above or below the ground, or that may appear in the excavation. He shall at all times have a sufficient quantity of timber and plank, chains, ropes, trench boxes, and other material and equipment, on the ground and shall use them as necessary for sheeting his excavations and for sustaining or supporting any structures that are uncovered, undermined, endangered, threatened or weakened.
- B. The Contractor shall take all risks attending the presence of proximity of pipes, poles, tracks, walls, buildings, and other structures and property, of every kind and description, in or over his excavation, or in the vicinity of his work, whether above or below the surface of the ground; and he shall be responsible for all damages and assume all expense for direct or indirect injury, caused by his work, to any of time,

or to any person or property by reason of injury to them, whether such structures are not shown on the Drawings.

- C. Where necessary, in order to keep one side of the street or roadway free from any obstruction or to keep the material piled alongside the excavation from falling on private property outside the right of way, a safe and suitable fence shall be placed alongside the excavation.
- D. In the event of encountering quicksand, subsurface streams or similar dangerous contingencies, or where passing especially heavy building or any structures which by their construction or position might bring a great pressure upon the excavations the right is reserved by the Engineer to direct that such buildings, or structures, shall be underpinned, or supported and protected, or that special sheeting shall be driven in such a manner and to such depth, as may be directed, or that only a short length of excavation shall be opened at one time; and furthermore, if necessary, that the excavation shall be securely sheeted and braced on all sides, after the manner of a shaft, and that the permanent work shall be constructed in the same manner and the shaft backfilled before another opening is made. Any work done as above directed shall be at the cost and expense of the Contractor.
- E. The Engineer reserves the right under such conditions to stop the excavation or any other part of the work, and to require the Contractor to complete the structure and the backfilling up to such a point as the Engineer may direct before proceeding further with the excavation; and the Contractor shall not thereby become entitled to demand or to receive any allowance or compensation, other than an extension of the contract time for as many days as the Engineer may determine that the work was delayed by such stoppage.

3.16 OBSTRUCTION SHOWN ON DRAWINGS

- A. Certain information regarding the reputed presence, size, character, and location of existing underground structures, pipes and conduits has been shown on the Contract Drawings. There is no certainty of the accuracy of this information. The location of underground structures shown may be inaccurate and other obstructions not shown may be encountered.

- B. The Contractor hereby distinctly agrees that the Owner is not responsible for the correctness or sufficiency of the information given; that in no event is this information to be considered as a part of the Contract; that he shall have no claim for delay or extra compensation on account of incorrectness of information given, or on account of the insufficiency or absence of information regarding obstructions either revealed or not revealed by the Drawings; and that he shall have no claim for relief from an obligation of responsibility under the Contract, in case the location, size or character of any pipe or other underground structure is not as indicated on the Drawings; or in case any pipe or other underground structure is encountered that is not shown on the Drawings.
- C. The Contractor is solely and completely responsible for contacting utility providers and locating services to field locate existing utilities 48 hours in advance of his activities. If inadequate locations are made, or if hand-digging of "test holes" is deemed necessary, this shall be accomplished and affected by the Contractor at no additional expense to the Owner.

3.17 REMOVAL OF OBSTRUCTIONS

- A. Should the position of any pipe, conduits, pole, or other structures, above or below the ground be such as, in the opinion of the Engineer, to require its removal, realignment, or change due to work to be done under the Contract, the work of removal, realignment, or change will be done as extra work, or will be done by the Owner of the obstructions, without cost to the Contractor; but the Contractor shall uncover and sustain the structures, at his own expense, before such removal and before and after such realignment or change as constituting part of the Contract; and the Contractor shall not be entitled to any claim for damage or extra compensation on account of the presence of said structure, or on account of any delay in the removal or rearrangement of the same.
- B. The Contractor shall, without extra compensation, break through and reconstruct, if necessary, the invert or arch of any sewer, culver, or conduit that may be encountered, if the said structure is in such a position that in the judgment of the Engineer, as not to require its removal, realignment or complete reconstruction.
- C. The Contractor shall not interfere with any persons, firms or corporations, or with the Owner in protecting, removing, changing, or replacing their pipes, conduits,

poles, or other structures; but he shall suffer said persons, firms, or corporations, or the Owner to take all such measures as they may deem necessary or advisable for the purpose aforesaid, and the Contractor shall thereby be in no way relieved of any of his responsibilities under this Contract. At railway or railroad track crossings or paralleling, any expense to which the Owner of the trackage is put in shoring up tracks, or in maintaining traffic, shall be borne by the Contractor, whether the same is billed directly to him, or the Owner. Should any such bill be unpaid by the Contractor, before final payment under the Contract is made, the Owner shall be empowered to pay said bill and retain the amount thereof, from any monies due, or to become due the Contractor.

- D. Except where trees are in rights-of-way, in immediate proximity to the excavation, they shall not be cut down except by authorization of the Engineer and the Contractor shall have no claim for the extra compensation owing to the fact that he may be required to excavate by hand, or tunnel in the vicinity of trees that may be left standing.

3.18 CHANGE OF EXCAVATION LOCATION

- A. In case the Engineer shall direct that the location of a trench or other excavation be changed from that shown on the Drawings, on account of the presence of an obstruction, or from other cause, or if a changed location shall be authorized upon the Contractor's request, the Contractor shall not be entitled to extra compensation, or to a claim for damage, provided that the change is made before the excavation is begun. If, however, such change, made at the direction of the Engineer, involves the abandonment of excavation already made, such abandoned excavation, together with the necessary refill, will be classed as miscellaneous excavation. In the event that the excavation is abandoned in favor of a new location, at the Contractor's request, the abandoned excavation and refill shall be at the Contractor's expense.
- B. Minor changes in alignment of pipe or other structures to accommodate the actual location of existing facilities shall be considered typical of construction activities and no additional compensation will be made for changes of this nature.

3.19 CLEANUP

- A. As the trenches are filled in and the work completed, the Contractor shall immediately and at his own cost and expense remove and dispose of all surplus earth, stone or other material from the work, in such manner and at such point or points, as he may select or provide, subject to the approval of the Engineer; or he may deposit the same, either with or without rehandling, at any point or points on the line of the work covered by the Contract, if so directed by the Engineer; and shall leave all roads, sidewalks and other places free, clear and in good order. In case the Contractor shall fail or neglect to do so, or to make satisfactory progress in doing so within twenty-four (24) hours after the receipt of a written notice from the Engineer, the Owner may remove such surplus material and clear the roadways, sidewalks and other places, and the cost of said work shall be charged to the Contractor and deducted from any monies due or to become due him under the Contract.
- B. All surplus earth or other material wasted on public property shall be evenly spread and left in a neat and smooth condition. All removed materials shall become the property of the Owner, if they so desire. If the Owner does not want the removed materials, surplus materials will be removed by the Contractor at no extra cost to the Owner.
- C. As soon as the trenches are refilled, all surplus earth, sand or rubbish shall be removed and kept removed to a point not more than two hundred feet (200') from the head of the open trench, unless otherwise authorized by the Engineer.

3.20 MAINTENANCE OF BACKFILLED TRENCH SURFACES

- A. The Contractor shall crown to such height, as directed by the Engineer, the top of all backfilled trench excavations. The Contractor shall also maintain these crowned surfaces to the satisfaction of the Engineer, without additional compensation, from the time of crowning operation to and including a period of eight (8) months beyond date of a Certificate of Completion of the work under this contract.
- B. The Contractor shall be responsible for any injury or damage resulting from lack of required trench maintenance during the prescribed maintenance period. If the Contractor does not satisfactorily provide specified maintained surfaces or begin

repairs of such surfaces when needed, within twenty-four (24) hours after written notice from the Engineer, such work may be done by the Owner and the cost thereof charged against the Contractor.

END OF SECTION

SECTION 31 23 19
DEWATERING

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Scope: In general, the work specified in this section of the specifications shall consist of supplying labor, materials, and plant, and performing all work necessary to lower and control the groundwater levels and hydrostatic pressures to permit all excavations and construction specified under this Contract to be performed in the dry.
- B. Examination of Site: The Contractor shall take all steps that he considers necessary to familiarize himself with the site conditions, the ground conditions and the groundwater conditions. It is expressly understood that neither the Owner nor the Engineer will be held responsible for any interpretations or conclusions drawn by the Contractor.

PART 2 - PRODUCT

2.01 METHOD AND EQUIPMENT

- A. The Contractor may use any dewatering method he deems feasible so long as it results in working in the dry and in stable soil conditions. It is the intent of these specifications that an adequate dewatering system be installed to lower and control the groundwater in order to permit excavation, construction of the structures, construction of pipelines, and the placement of the fill materials, all to be performed under dry conditions. The dewatering system shall be adequate to pre-drain the water-bearing strata above and below the bottom of the foundations, the drains, the sewers and all other excavations. An adequate weight of fill material shall be in place prior to discontinuing operation of dewatering to prevent buoyancy of the structure.

PART 3 - EXECUTION

3.01 GENERAL

- A. The Contractor shall be solely responsible for the arrangement, location and depths of the dewatering system necessary to accomplish the work described under this section of the specifications. The dewatering shall be accomplished in a manner that will reduce the hydrostatic head below any excavation to the extent that the water level and piezometric water levels in the construction area are below the prevailing excavation surface; will prevent the loss of fines, seepage, boils, quick conditions, or softening of the foundation strata; will maintain stability of the sides and bottom of the excavation; and will result in all construction operations being performed in the dry.
- B. Disposal of Water: The Contractor shall promptly dispose of all water removed from the excavations in such a manner as will not endanger public health, damage public or private property, or affect adversely any portion of the work under construction or completed by him or any other Contractor. Contractor shall obtain written permission from the Owner of any property involved before digging ditches or constructing water courses for the removal of water.
- C. Siltation and Erosion:
 - 1. The Contractor shall take steps and make suitable provisions to minimize siltation and erosion which may result from, or as a result of, his operations during the course of construction of this project.
 - 2. The methods and provisions utilized by the Contractor to minimize siltation and erosion shall be approved by the Engineer and shall be in conformance with current Florida Department of Environmental Protection and St. Johns River Water Management District practices and regulations.
- D. Inadequate System: If the dewatering requirements are not satisfied due to inadequacy or failure of the dewatering system, then loosening of the foundation strata, or instability of the slopes, or damage to the foundations or structures may occur. The supply of all labor, materials, and plant, and the performance of all work

necessary to carry out additional work for reinstatement of the structures of foundation soil resulting from such inadequacy or failure shall be undertaken by the Contractor to the approval of the Engineer, and at no additional expense to the Owner.

END OF SECTION

SECTION 32 92 00
TURF AND GRASSES

PART I - GENERAL

1.01 WORK INCLUDED

- A. The work specified in this section consists of grassing, or of grassing and mulching on slopes, shoulders and other areas. The work of grassing shall include seeding and fertilizing; also watering as required. Any of the items of work covered by this section may be eliminated from the contract, at the discretion of the Engineer. Sodding is included herewith and shall conform to the lines and grades as shown on the plans.

PART II - MATERIALS AND EQUIPMENT

2.01 MATERIALS AND EQUIPMENT

- A. The materials used for the work in this section shall conform to the requirements hereinafter specified.

2.02 SOD

- A. Sod shall be well matted with roots. St. Augustine shall be used in residential areas. Bahia shall be used in the right-of-way areas, not covered by St. Augustine grass.
- B. The sod shall be taken up in commercial-size rectangles, preferably 12-inch by 12-inch, except where 6-inch strip sodding is called for.
- C. The sod shall be sufficiently thick to secure a dense stand of live grass. The sod shall be live, fresh and uninjured, at the time of planting. It shall be planted as soon as possible after being dug and shall be shaded and kept moist from the time it is dug until it is planted. The sod shall be approved by the Engineer before placing.
- D. Source Requirements for Sod and Mulch. No mulch material or sod shall be used which is not certified as being free of the imported fire ant, and before any mulch or sod is brought to the project, the Contractor will be required to furnish the

Engineer a written certification and clearance, from pest control officials of either the State or the Federal Department of Agriculture, verifying that the materials are being obtained from an area outside of the zone of quarantine of the imported fire ant, or that they are free of the imported fire ant.

2.03 WATER

- A. The water used in the grassing operations may be obtained from the reclaimed water system.
- B. The water shall be free of excess and harmful chemicals, acids, alkalis, or any substance which might be harmful to plant growth or obnoxious to traffic.
- C. Salt water shall not be used.

2.04 EQUIPMENT

- A. Fertilizer Spreader
 - 1. The device for spreading dry fertilizer or for spraying liquid fertilizer shall meet the approval of the Engineer.
- B. Seed Spreader
 - 1. The seed spreader shall be an approved mechanical head spreader or other approved type of spreader and may be integral with the cultipacker roller equipment specified below.
- C. Equipment for Cutting Mulch into Soil
 - 1. The mulching equipment shall be a rotovator, or other equipment determined by the Engineer to be equally suitable for cutting the specified materials uniformly into the soil and to the required controlled depth.
 - 2. Harrows will not be allowed.

D. Rollers

1. A cultipacker, traffic roller, or other roller approved by the Engineer, will be required for rolling the grassed and mulched areas.

E. Water-Metering Devices

1. The vehicle used for applying the water to the grassed areas shall be equipped with an approved metering device installed at such point on the vehicle as to measure the water at the time of its being applied to the grassed areas.

PART III - EXECUTION

3.01 TIME OF BEGINNING OPERATIONS

- A. Whenever a suitable length of roadway is completed and ready for planting the Contractor shall, if directed by the Engineer, proceed at once with the planting of the available shoulder or embankment areas.

3.02 WEATHER AND SOIL LIMITATIONS

- A. Fertilizing, seeding or mulching operations will not be permitted when wind velocities exceed 15 miles per hour.
- B. Seed shall be sowed only when the soil is moist and in proper condition to induce growth.

3.03 SOIL MANIPULATION

- A. All soil manipulation shall be done at right angles to the direction of slope.

3.04 WATERING

- A. The soil shall be maintained in a moist condition for a period of at least two weeks after the planting.

3.05 APPLYING AND MIXING FERTILIZER

A. Rate of Application

1. At the Contractor's option either dry or liquid commercial grade fertilizer may be used.
2. The rate of application for dry fertilizer shall be 800 to 1000 pounds per acre, with application in the upper range for sandy soils in the lower range for loamy soils. The exact rate will be set by the Engineer.
3. Liquid fertilizer shall be applied at an equivalent rate which will provide the same amount of plant food as required for dry fertilizer (or at approximately 74 to 92 gallons per acre).

B. Application

1. The fertilizer shall be spread or sprayed uniformly over the area to be grassed by use of the approved distributing device, except that on steep slopes or other areas where machine-spreading may not be practicable, spreading may be done by hand or by hose if the Engineer so directs.
2. Immediately after dry fertilizer is spread, it shall be harrowed in and mixed with the soil to a depth of approximately four inches.
3. When liquid fertilizer is sprayed, the soil, if dry, shall be moistened by sprinkling before the liquid fertilizer is applied not later than seven days after the seed is in place.

3.06 MULCHING

A. When Dry Mulch is Used:

1. When mulching is called for, approximately two inches, loose thickness, of the straw or hay material shall then be applied uniformly over the grassing

area, and the mulch material cut into the soil with the equipment specified, so as to produce a loose mulch thickness of three to four inches.

2. Care shall be exercised so that the materials are not cut too deeply into the soil.

B. When Green Mulch is Used:

1. When green mulch is used, the green mulch shall be incorporated into the soil not later than two days after being cut, and not artificial watering shall be done before the mulch is applied.
2. It shall be spread in a layer of approximately two inches loose thickness, and cut into the soil with the equipment specified.
3. The material shall not be cut too deeply into the soil.

3.07 SEEDING

- A. Soon after the mulch material has been cut into the soil, and while the soil is still loose and moist, the seed shall be scattered uniformly over the grassing area.

The rate of spread for the seed shall be as follows:

1. Where mulching is not called for, or where dry mulch is used, the rate shall be 60 pounds per acre. In the period from March 15 to October 15 the seed mixture shall be 30 pounds of Bahia and 30 pounds of Bermuda. In the remainder of the year, the mixture shall be 20 pounds each of Bahia, Bermuda and rye seed.
2. When green mulch is used, the required rate of spread shall be reduced to 45 pounds per acre, because of the faster growing rate of the green mulch as compared with that of the seeds. The seed mixture shall be 22-1/2 pounds of Bahia and 22-1/2 pound of Bermuda, except that in the period October 15 to March 15 the mixture shall be 15 pounds each of Bahia, Bermuda and rye grass seed.

3. Seeding may be done in conjunction with the rolling if the equipment used is designed for that purpose.
4. Rolling. Immediately after completion of the seeding, the entire grassed or mulched area shall be rolled thoroughly with the equipment specified. At least two trips over the entire area will be required.

3.08 SODDING

- A. Wherever sodding is indicated on the plans, it shall include all of the requirements of this section except "Mulching".

3.09 MAINTENANCE

- A. The Contractor shall be responsible for keeping the ground moist by watering until an acceptable stand of grass is grown. He will also be required to repair at his own expense any damage due to washouts, erosion or other causes which might occur prior to final acceptance of this work.

END OF SECTION

SECTION 33 01 00
OPERATION AND MAINTENANCE OF UTILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: The work included in this Section consists of furnishing all labor, equipment and materials and in performing all operations necessary for the construction or installation of all process and utility piping, valves, valve boxes and all castings and appurtenances within, complete and ready for operation as shown on the Drawings and specified herein.
- B. RELATED WORK SPECIFIED ELSEWHERE

1. Section 31 23 00: Excavation and Fill

1.02 QUALITY ASSURANCE

- A. Construction Requirements:
1. All underground lines shall be installed with at least 30 inches of cover or as detailed on the drawings.
 2. For underground utilities changes in pipe alignment and use of fittings may be allowed, subject to approval of the Engineer as to layout. Deflection shall not exceed 80 percent of the maximum allowable deflection as stated in the pipe manufacturer's installation instructions.
- B. Pipe Inspection:
1. The Contractor shall obtain from the pipe manufacturers a certificate of inspection to the effect that the pipe and fittings supplied for this Contract have been inspected at the plant and that they meet the requirements of these specifications. Certification shall be stamped with corporate seal.

2. All pipe and fitting shall be subject to visual inspection at time of delivery by rail or truck and also just before they are lowered into the trench to be laid. Joints or fittings that do not conform to these specifications will be rejected and must be removed immediately by the Contractor.
3. The entire product of any plant may be rejected when, in the opinion of the Engineer, the methods of manufacture fail to secure uniform results, or where the materials used are such as to produce inferior pipe or fittings.

1.03 SUBMITTALS

A. Shop Drawings:

1. In general electronic copies of the following, but not limited to, shop drawings shall be submitted to the Engineer for approval prior to construction. Shop drawings to be numbered sequentially. Cover transmittal sheets to include project name, shop drawing number, shop drawing description and spec section(s).
 - a. Mill test certificates or certified test reports on pipe and fittings
 - b. Details of restrained and flexible joints
 - c. Valve vaults
 - d. Valve boxes
 - e. All gate, plug, ball, solenoid, check valves, and automatic air release valves
 - f. Couplings
 - g. Service saddles, curb, & corp stops.
 - h. Flexible expansion joints
 - i. Pressure gauges

- j. Identification tape
- k. Joint lubricant
- l. Detailed piping layout drawings and pipe laying schedule
- m. Temporary plug and anchorage system for hydrostatic pressure test
- n. Tie rods
- o. Reduces pressure backflow preventers.

- 2. A separate shop drawing submittal will be required for each major item listed above and for each different type of an item within a major item. For example, separate submittals will be required for gate, plug, ball, solenoid, check and automatic air release valves. All submittals shall be in accordance with the General Conditions and the Supplementary Conditions.

B. Acceptance of Material:

- 1. The Contractor shall furnish an Affidavit of Compliance certified by the pipe manufacturer that the pipe, fittings and specials furnished under this Contract comply with all applicable provisions of current AWWA and ASTM Standards and these Specifications. No pipe or fittings will be accepted for use in the work on this project until the Affidavit has been submitted and approved by the Engineer.
- 2. The Owner reserves the right to sample and test any pipe or fitting after delivery and to reject all pipe and fittings represented by any sample which fails to comply with the specified requirements.

C. Operation and Maintenance Manuals:

- 1. Submit copies of operation and maintenance manuals for all the items requiring routine maintenance.

1.04 DELIVERY, STORAGE AND HANDLING

- A. During shipping, delivering and installing pipe, fittings, valves, backflow preventers, and accessories, they shall be handled in such manner as to ensure a sound undamaged condition.
- B. Particular care shall be taken not to damage the pipe coating.
- C. Insides of valves and backflow preventers shall be kept free of dirt and debris.

1.05 JOB CONDITIONS

- A. Water in Excavation:
 - 1. Water shall not be allowed in the trenches while underground pipes are being laid and/or tested. The Contractor shall not open more than 100' of trench than the available pumping facilities are able to dewater to the satisfaction of the Engineer. The Contractor shall assume responsibility for disposing of all water so as not to interfere with the normal drainage of the territory in which he is working.
 - 2. In no case shall the pipelines being installed be used as drains for such water, and the ends of the pipe shall be kept properly and adequately plugged during construction by the use of approved stoppers and not by improvised equipment. All necessary precautions shall be taken to prevent the entrance of mud, sand, or other obstructing matter into the pipelines. If on completion of the work any such materials have entered the pipelines, it must be cleaned as directed by the Engineer so that the entire system will be left clean and unobstructed.

PART 2 - PRODUCTS

2.01 DUCTILE IRON PIPE AND FITTINGS

- A. Ductile Iron Pipe: Ductile iron pipe shall conform to the requirements of ANSI/AWWA C150/A21.50, latest revision. The minimum thickness class for all pipe greater than 12" diameter shall be pressure Class 250, and all pipe 12" or less in diameter shall be pressure Class 350.

33 01 00-4

Pipe shall have a minimum rated water working pressure of 250 psi and shall be furnished in laying lengths of 20 feet or less, unless specifically shown otherwise on the Drawings. The pipe shall be lined and coated as specified below.

1. Interior Lining for Raw Activated Sludge (RAS), Sludge Lines and Force Mains: Ductile iron fittings and specials shall be coated with 40 mils nominal dry film thickness of Protecto 401 or approved equal in accordance with the manufacturers recommended actions.
 2. Interior Lining for Potable and Reclaimed Water Piping: Ductile iron pipe, fittings and specials shall be cement lined in accordance with ANSI/AWWA C104, current revision, "Cement-Mortar Lining for Ductile Iron and Gray Iron Pipe and Fittings for Water". The cement lining shall have a standard thickness and after curing the lining shall have a seal coat of bituminous material in accordance with ANSI/AWWA C104, current revision.
 3. Exterior Coatings: The exterior of ductile iron pipe fittings and specials to be installed underground shall be coated at the factory with standard bitumastic coating.
 4. Polyethylene Encasement: Where indicated the Contractor shall utilize polyethylene encasement in accordance with ANSI/AWWA C105-T1. The polyethylene shall conform with ASTM D-1248-68 and be color coded to the service application.
 5. Ductile iron pipe, fittings and specials to be installed aboveground shall be furnished with a shop applied primer on the exterior. The shop primer shall be as specified in accordance with manufacturers recommendations.
- B. Fittings: Fittings for ductile iron pipe shall be either mechanical joint, restrained joint or flanged joint as indicated on the Drawings and shall have a minimum working pressure of 250 psi. Fittings shall be ductile iron and shall conform to ANSI/AWWA C110, ANSI/AWWA C111 and ANSI/AWWA C153, latest revisions for flanged and mechanical joint pipe. Fittings shall be coated and lined as specified above for ductile iron pipe. The rubber gaskets for flanged, mechanical, and push on joints shall be as described below.

- C. Push-On Joints: Pipe using push-on joints shall be in strict accordance with ANSI/AWWA C111, latest revision and shall be as manufactured by American Cast Iron Pipe Company (Fastite Joint), United States Pipe Company (Tyton Joint), or Clow Corporation (Super Bell Tite Joint). Jointing materials shall be provided by the pipe manufacturer and installation shall be in strict accordance with the manufacturer's recommended practice.
- D. Mechanical Joints: Jointing materials for mechanical joints shall be provided by the pipe and fitting manufacturer. Materials assembly and bolting shall be in strict accordance with ANSI/AWWA C111 and ANSI/AWWA C153, latest revisions. Tee head bolts and nuts for mechanical joints shall be manufactured of CORTEN, high strength, low alloy, corrosion resistant steel as manufactured by NSS Industries, Plymouth, Michigan or an equal approved by the Engineer.
- E. Flanged Joints: Flanges shall be American Standard for 125 pound steam pressure with any special drilling and tapping as required to insure correct alignment and bolting. Gaskets shall be rubber full face type, minimum thickness of 1/8 inch. Flanged joints shall be made with bolts and nuts, studs with a nut on each end, or studs with nuts where the flange is tapped.

The number of size of bolts shall conform to the same American National Standard as the flanges. Unless noted otherwise, bolts and nuts shall be Grade B conforming to the ASTM Specifications for Steel Machine Bolts and Nuts and Tap Bolts, Designation A 307. Bolts and studs shall be of the same quality as machine bolts. Bolts and nuts shall have hexagonal heads. Where noted on the Drawings or where flanges are underground, stainless steel nuts and bolts shall be used for flanges. Stainless steel shall be Type 316 in accordance with ASTM A320, Class 2.

- 1. Machined Surfaces: Machined surfaces shall be cleaned and coated with a suitable rust preventative coating at the shop immediately after being machined.
- F. Restrained Joints: Restrained joints shall be provided for all buried piping systems at the location required to restrain the system thrust. Pipe joints and fitting shall be restrained as specified below.
 - 1. Manufactured Restrained Joints: Manufactured restrained joints shall be Flex-Ring, Lok-Ring or Lok-Fast manufactured by the American Cast Iron

Pipe Company, Lok-Tyte or Tr-Flex Type manufactured by the United States Pipe Company as manufactured by McWane, or an equal approved by the Engineer. Joints shall be manufacturer's standard specifically modified push-on type joints with joint restraint provided by ductile iron retainer rings joined together by corrosion resistant, high strength steel tee head bolts and nuts or with joint restraint provided by a welded on retainer ring and a split flexible ring assembled behind the retainer ring.

Restrained joint pipe and fittings shall be ductile iron only and shall comply with applicable portions of this specification. Manufactured restrained joints shall be capable of deflection during assembly. Deflection shall not exceed 80 percent of the manufacturer's recommendations.

Tee head bolts and nuts for restrained joints shall be manufactured of CORTEN, high strength, low alloy, corrosion resistant steel as manufactured by NSS Industries, Plymouth, Michigan, or an equal approved by the Engineer.

2. Alternate Restrained Joints:

- a. When prior approval is obtained from the Engineer, ductile iron pipe and fittings with mechanical joints may be restrained using a follower gland which includes a restraining mechanism. When actuated during installation, the restraining device shall impart multiple wedging action against the pipe wall which increases resistance as internal pressure in the pipeline increases. The pipe must be suitable for use with the proposed device.

The joint shall maintain flexibility after installation. Glands shall be manufactured of ductile iron conforming to ASTM A536 and restraining devices shall be of head treated ductile iron with a minimum hardness of 370 BHN. The gland shall have standard dimension and bolting patterns for mechanical joints conforming to ASNI/AWWA C111 and C153, latest revisions.

Tee head bolts and nuts shall be manufactured of corrosion resistant, high strength, low alloy CORTEN steel in accordance with ASTM A242.

The restraining wedges shall have twist off nuts to insure proper torquing. The mechanical joint restraint device shall have a minimum working pressure rating of 250 psi with a minimum safety factor of 2 to 1 and shall

be MEGALUG^R as manufactured by EBBA Iron, Inc.. No other retainer gland type device will be acceptable. After installation prior to backfilling, all parts of the joint restraint system shall be coated with coal tar epoxy equal to Kop-Coat Bitumastic No. 300-M.

- b. When prior approval is obtained from the Engineer, ductile iron pipe and fittings with push on joints may be restrained using a restraining gasket similar to the "Field Lok" gasket manufactured by U.S. Pipe & Foundry. The device must be suitable for the pipe and pressure rating intended and is subject to approval by the Engineer. The required length of restrained joint pipe shall be provided on either side of all valves and fittings employing restraining devices. Restrained lengths shall be calculated per DIPRA standards based on Type II laying conditions and an operating pressure of 150 psi, unless otherwise indicated.

2.02 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

- A. Gravity Drainage Piping: PVC pipe used for gravity drainage piping installed underground shall be SDR 26 pipe.
- B. Small PVC Pressure Piping: Unless otherwise specified, all PVC pressure pipe smaller than 4 inches nominal diameter shall be Schedule 80 PVC or Endot Endpure HDPE, (as shown). Schedule 80 pipe shall have either solvent welded or threaded joints. PVC pressure pipe shall bear the approved seal of the National Sanitation Foundation (NSF). PVC pipe that is exposed to sunlight shall be manufactured with additives to provide resistance to ultraviolet deterioration. No glued joint pipe shall be installed below ground, unless other specified. All water pipe to be Class 200 (DR 21) gasketed bell and spigot pipe blue in color.
- C. Fittings: Socket type, solvent welded fittings for Schedule 80 PVC pipe shall be in conformance with ASTM D2467. Threaded type fittings for Schedule 80 PVC pipe shall be in conformance with ASTM D2464. All solvent welded or threaded joints shall be watertight.

- D. Flanges: Flanges for Schedule 80 PVC pipe shall be rated for a 150 psi working pressure with ANSI B16.1 dimensions and bolting pattern. Flanges shall be connected to PVC piping with either solvent welded or threaded joints in accordance with ASTM D2467 or ASTM 2464, respectively. Gaskets shall be neoprene, full faced type with a minimum thickness of 1/8 inch. Nuts and bolts shall be hexagonal with machine threads, manufactured of Type 316 stainless steel in accordance with ASTM A320, Class 2. Type 316 stainless steel flat washers with lock washers shall be used against PVC flanges.
- E. Solvent Cement: PVC solvent cement shall be in compliance with ASTM D2564 and in accordance with the pipe manufacturer's recommendations.
- F. Thread Lubricant: Lubricant for Schedule 80 threaded joints shall be Teflon tape only.
- G. Polyvinyl Chloride Pipe 4 Inches and Larger in Size for Pressure Service: Polyvinyl chloride pipe for nominal diameters 4 inches to 12 inches in size shall conform to the requirements of AWWA C900 with a dimension ratio of DR 18, pressure class 150, and gasketed integral bell ends. For PVC pipe larger than 12 inches for pressure service, the pipe shall conform to the requirements of AWWA C-905 with a minimum DR of 25, pressure rating of 165 psi, with gasketed integral bell ends. Pipe shall be designed for maximum working pressure of not less than 150 psi and with not less than a 4 to 1 sustained hydrostatic pressure safety factor. Fittings for C-900 PVC pipe shall be ductile iron fittings with restrained joint ends for potable water or reclaimed water lines, and restrained PVC fittings for sanitary force mains.
- H. All PVC pipe installed shall be color coded for the service intended. Potable water piping shall be extruded blue, reclaimed water shall be lavender, force main white, and gravity sewer green. Care shall be taken to avoid exposure to sunlight. Pipe should be marked for its use in three places on the pipe barrel.

I. Joints (4 Inches and Larger PVC Pipe):

1. Bell and Spigot:

Pipe joints shall be made with integral bell and spigot pipe ends. The bell shall consist of an integral thickened wall section designed to be at least as strong as the pipe wall. The bell shall be supplied with factory glued rubber ring gasket with conforms to the manufacturer's standard dimensions and tolerances. The gasket shall meet the requirements of ASTM F477 "Elastomeric Seals (Gaskets) for Joining Plastic Pipe". PVC joints shall be "Ring-Tite" as manufactured by J-M Manufacturing Company, Inc. or an equal approved by the Engineer.

2. Restrained Joints:

Where indicated on Drawings, to prevent pipe joints and fittings from separating under pressure, pipe joints and fittings shall be restrained as follows:

- a. PVC pipe bell and spigot joints shall be restrained with EBBA Iron MEGALUG^R Series 1500 Restrainer or an equal approved by the Engineer. The restraining device and Tee head bolts shall be manufactured of high strength ductile iron meeting ASTM A536, Grade 65-42-10. Clamping bolts and nuts shall be manufactured of corrosion resistant high strength, low alloy CORTEN steel meeting the requirements of ASTM A242.
- b. Cast iron mechanical joint fittings used with PVC pipe shall be restrained with the EBBA Iron MEGALUG^R Series 2000 PV Restrainer or an equal approved by the Engineer. The restraining device and Tee head bolts shall be manufactured of high strength ductile iron meeting ASTM A536, Grade 65-42-10. Clamping bolts and nuts shall be manufactured of corrosion resistant high strength, low alloy CORTEN steel meeting the requirements of ASTM A242.
- c. Thrust Blocking. Provided concrete reaction or thrust backing on all pressure pipe lines four (4) inches in diameter or larger (except those having flanged joints or restrained joints) at all tees, plugs,

33 01 00-10

caps, and at bends defecting 222E or more, or movement shall be prevented by attaching suitable metal rods or straps as directed by the Engineer. Concrete used for this purpose shall be Class "C". Reference reaction blocking table shown on construction plan details.

- d. Joint restraint. Push on joints on either side of valves and fittings restrained by mechanical restraining devices shall be restrained with "Uni-Flange" mechanisms. The number of restrained joints shall be determined by DIPRA methods and a laying schedule shall be provided for approval by the Engineer prior to installation of joint restraint.

2.03 PVC FITTINGS (4 INCHES AND LARGER PVC PIPE)

1. Fittings shall be PVC and manufactured of the same design as the PVC pipe. PVC fittings 4 inches through 36 inches shall be PVC injection molded made of materials meeting or exceeding the requirements of cell class 12454-B material as defined in ASTM D1784. Fittings shall be manufactured with pipe that meets or exceeds AWWA C-905 standard. All PVC fittings must comply with or exceed ANSI/AWWA C907, Uni-B-12, Uni-B-14 standards. All PVC fittings must be certified by CSA to the CSA B137.3 standard as third party certification. The fittings must be of the same design as the PVC pipe with an HDB of 4000 psi and minimum SDR 25 wall thickness design. All fittings must have UL-FM approval, and shall comply with or exceed all ASTM Standards for fittings. Fittings must have NSF-61 certification for contact with potable water. PVC fittings shall be pressure rated to 165 psi or greater.
2. All restrained joint systems shall be pressure rated the same as the PVC pipe and fittings. All components of the restraint system shall meet or exceed all requirements of ANSI/AWWA C-111/A21.11 latest revision. Restraints shall provide a full 360 degree contact on the pipe with sufficient gripping action to secure the clamp to the pipe and be designed so that the restraint action is increased as a result of increases in the line pressure. Restraint devices for PVC pipe and fittings shall consist of split restraint ring installed on the spigot, connected to a split ring which seats behind the gasket race of the fitting. The split restraint ring shall incorporate a series of machined serrations (not "as cast") on the inside diameter to provide positive restraint, exact fit and 360 degree contact and support

33 01 00-11

of the pipe wall. The two halves of the split backup ring shall interlock without the need for additional bolts and shall form a beveled leading edge to assure exact fit behind the fitting gasket race. Restraint devices shall be of ductile iron, ASTM A536, Grade 65-45-12 and connecting bolts shall be of high strength, low alloy material in accordance with ASNI/AWWA C111/A21.11. Restraint devices shall be Uni-Flange 1300 series or other approved restrained joint devices.

2.04 WALL SLEEVES, SEALS, PIPES AND NON-STANDARD CASTINGS

- A. Wall Sleeves: Wall sleeves shall be of cast iron, ductile iron or carbon steel. The sleeve shall be hot dipped galvanized after fabrication and shall have a waterstop located in the center of the wall. Sleeves shall be provided with seals and shall be sized as required for the installation of seals. Sleeves shall terminate flush with finished surfaces of walls and ceilings, and shall extend 2 inches above the finished floor unless otherwise shown on the Drawings.
 - 1. Wall sleeves shall be installed for all piping passing through building walls and floors, except where noted on the Drawings. Sleeves shall be of sufficient size to pass the pipe without binding. Escutcheons shall be provided at walls and floor to completely conceal the sleeves smaller than 3 inches. Escutcheons shall be 304 SS split-type.
- B. Wall Sleeve Seals: Wall sleeve seals shall be modular mechanical type consisting of interlocking synthetic rubber links shaped to continuously fill the annular space between the pipe and wall sleeve. Links shall be loosely assembled with bolts to form a continuous rubber belt around the pipe with a pressure plate under each bolt head and nut. After the seal assembly is positioned in the sleeve, tightening of the bolts shall cause the rubber sealing elements to expand and provide an absolutely water-tight seal between the pipe and wall sleeve. The synthetic rubber shall be suitable for exposure to sludge and groundwater. Bolts, nuts and hardware shall be 18-8 stainless steel. The seals shall be Link Seal as manufactured by Thunderline Corporation or equal, and the wall sleeve and seal shall be sized as recommended by the seal manufacturer.
- C. Wall Pipes: Wall pipes shall be of the size and types indicated on the Drawings. All wall pipes shall be of ductile iron and shall have a central fin not less than 2 inch thick and the same diameter as the bolting flange cast midway of the length to form a waterstop. Each wall pipe shall be of the same grade, thickness and interior

coating as the piping to which it is joined. Those portions of the wall pipes that are buried shall have a coal tar epoxy outside coating.

- D. Non-Standard Fittings and Castings: Fittings having non-standard dimensions and cast especially for this project shall be of an approved design. Fittings shall be manufactured to meet the requirements of the same specifications and shall have the same diameter and thickness as standard fittings but laying lengths and types of ends shall be determined by positions in the pipelines and by the particular piping to which it is connected. Flange facing and drilling shall conform to the 125 pound American National Standards Institute. Where require, flanges shall be drilled and tapped for studs. Other dimensions shall be substantially equal to corresponding parts of standard bell and spigot fittings.

2.05 PIPE COUPLINGS

A. Couplings:

1. Pipe couplings used to joint two pieces of plain end pipe shall be sized to suit the outside diameter of the pipe ends to be jointed. Transition couplings shall be used to join pipes of different outside diameters. Pipe couplings shall be bolted type with steel middle ring and end followers. The couplings shall be restrained for the test pressure of line using approved retaining system.
2. All carbon steel parts of the coupling shall be coated on the interior and exterior with a fusion bonded thermosetting epoxy coating with a 12 mil nominal coating thickness. The coating shall be equal to AL-CLAD as manufactured by Dresser Industries, Inc.
3. Gaskets for the coupling shall be wedge type manufactured of Buna-N resilient rubber.
4. Bolts shall be manufactured of high strength Type 304 stainless steel with Type 316 stainless steel hexagonal nuts. Bolts and nuts shall conform dimensionally to ANSI/AWWA C111, latest revision.

5. Couplings shall be Style 38 as manufactured by Dresser Industries, Inc. or an equal approved by the Engineer.

2.06 PVC BALL AND BALL CHECK VALVES

- A. PVC Ball Valves: All PVC ball valves 2 inch through 4 inch in size shall be of a one piece capsule type manufactured of Type 1, Grade 1 PVC. Ball valves shall be true union design with two-way blocking capability and shall have solvent welded socket or NPT threaded ends. Ball valves shall have Teflon seats with Viton backing cushions and Viton O-ring seals, and shall be designed for a 150 psi water working pressure at 120° F. Valves shall be supplied with ABS lever operating handles. PVC ball valves shall be manufactured by Asahi/America, or equal approved by the Engineer.
- B. PVC Ball Check Valves: All PVC ball check valves 1 inch through 2-1/2 inch in size shall be of a solid thermoplastic construction manufactured of Type 1, Grade 1 PVC. Ball check valves shall be true union design with solvent welded socket or NPT threaded ends. Ball check valves shall be furnished with a solid thermoplastic ball. Ball seat shall be Teflon coated Viton. The same seal shall function as both the ball seat and the union seal. PVC ball check valves shall be designed for a 150 psi water working pressure at 120° F. Valves shall be manufactured by Asahi/America, or an equal approved by the Engineer.

2.07 GATE VALVES

- A. Bronze Gate Valves: Gate valves installed aboveground, less than 2 inches in size and smaller, shall be Class 150 all bronze valves conforming to Fed. Spec. WW-V-54d, Type I, Class B designed for a non-shock water pressure of 300 psi. Bronze for valve body and internals shall be in accordance with ASTM B16.18. Valves shall be furnished with screwed ends, handwheel operator, non-rising stem, one-piece solid wedge disc and screwed bonnet. Valves shall be as manufactured by Crane, Powell or an approved equal.
- B. Ductile Iron Gate Valves:
 1. Ductile iron gate valves shall open by turning to the left (counter-clockwise), when viewed from the stem. When fully open, gate valves shall have a clear waterway equal to the nominal diameter of the pipe. Operating

33 01 00-14

nut or hand 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 in 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. Hydrostatic and leakage tests shall be conducted in strict accordance with ANSI/AWWA C509, latest revisions.

2. Gate valves with nominal sizes from 2 to 24 inches shall conform to ANSI/AWWA C509, latest revision, and shall be designed for a minimum working pressure of 250 psi. Valves shall be ductile iron body resilient seat type with O-ring stem seals. The valve stem, stem nut, glands and bushings shall be manufactured of zinc free bronze. Valve disc shall be constructed to assure uniform seating pressure between disc seat ring and body seating surface. Resilient seat of valve shall be formed by a special corrosion and chloramine resistant, synthetic elastomer which is permanently bonded to and completely encapsulates a ductile iron valve disc.

Interior of valve body shall be coated with a fusion bonded, thermosetting epoxy coating in accordance with AWWA C550, latest revision. Coating shall be holiday free with a minimum thickness of 12 mils. Surfaces shall be clean, dry and free from rust and grease before coating. Exterior surfaces shall be coated as specified hereinafter. Resilient seated type gate valves shall be as manufactured by U.S. Pipe or equal.

3. Valve Joints: All gate valves shall have either mechanical joint, restrained joint or flanged ends to fit the pipe run in which they are to be used. Gate valves installed on push on joint pipe shall have mechanical joint ends unless otherwise specified.
4. Valve Operators: Gate valves shall open left (counter-clockwise) when viewed from the stem. Unless otherwise shown on the Drawings or specified herein, gate valves shall have non-rising stems. Buried gate valves shall be furnished with a 2 inch square AWWA standard nut operator with a valve box and cover. Gate valves located aboveground or inside structures shall be furnished with a handwheel operator which shall have an arrow cast in the metal indicating the direction of opening. Gate valves used as

isolation valves for reduced pressure backflow preventers shall be of the open screw and yoke (OS&Y) design with a handwheel operator.

5. Exterior Valve Coatings: All exterior surfaces of iron body gate valves shall be clean, dry and free from rust and grease before coating. For buried service, the exterior ferrous parts of all valves shall be coated at the factory with coal tar epoxy with a minimum total finish dry film thickness of 20 mils. Prior to backfilling, all uncoated units, bolts, glands, rods and other parts of joints shall be coated in the field with coal tar epoxy equal to Kop-Coat Bitumastic No. 300-M. For valves installed aboveground, the exterior ferrous parts of all valves shall be shop primed at the factory with one coat, minimum dry film thickness 1.5 mils, of a primer with rust-inhibitive pigments and synthetic resins. Following installation, aboveground valves shall be finish painted in accordance with manufactures recommendations.

2.08 PINCH CHECK VALVES

- A. Valves are to be of the flow operated check type with flanged joint ends on both check sleeve and metal body. Port areas shall be 100% of the mating pipe port area. The port area shall contour down to a duckbill which shall allow passage of flow in one direction and prevent reverse flow in the other direction. The flexible duckbill sleeve shall be one piece rubber construction with fabric reinforcement. The flange shall be drilled to ASNI B16.1, Class 125/ANSI B16.5 Class 150 standard. Valve body shall be drilled and tapped for flushing connection on top and bottom of the housing. Valve body shall be two piece split body construction. The two halves shall be sealed by diamond shaped cross section rubber gaskets permanently locked by a groove cast in the valve body. Company name and location shall be cast onto the valve body. The valve shall be designed for a maximum back pressure of 100 psi. The valve shall be red valve series 33 or equal.
- B. Interior Valve Coating: Prior to shipment from the factory, the interior ferrous surfaces of the valve, except for finished, non-ferrous or bearing surfaces, shall be coated with a fusion bonded, thermosetting epoxy coating in accordance with AWWA C550, latest revision. Coating shall be holiday free with a minimum thickness of 12 mils. Surfaces shall be clean, dry and free from rust and grease before coating.

- C. Exterior Valve Coating: All exterior surface of swing check valves shall be clean, dry and free from rust and grease before coating. For valves installed in below ground valve vaults, the exterior ferrous parts of all valves shall be coated at the factory with coal tar epoxy with a minimum total finish dry film thickness of 20 mils. Following installation, all uncoated nuts, bolts, glands, rods and other parts of joints shall be coated in the field with coal tar epoxy equal to Kop-Coat Bitumastic No. 300-M. For valves installed aboveground, the exterior ferrous parts of all valves shall be shop primed at the factory with one coat, minimum dry film thickness 1.5 mils, of a primer with rust-inhibitive pigments and synthetic resins. Following installation aboveground valves shall be finish painted in accordance with manufacturer's recommendations.

2.09 PLUG VALVES

- A. General: Plug valves shall be non-lubricated eccentric type with flanged or mechanical joint ends as specified below. Valves shall open by turning to the left (counter-clockwise), when viewed from the stem. Port area of valves shall be a minimum of 80 percent of full pipe area. Valve pressure ratings, body flanges and wall thicknesses shall be in full conformance with ASNI B16.1, latest revision. Valves shall seal leak-tight against full rated pressure in both directions. Prior to shipment from the factory, each valve shall be hydrostatically tested as follows: Valve seats shall be tested to provide leak tight shut off to 175 psi for valves through 12 inch and 150 psi for valves 14 inches and larger, with pressure in either direction. In addition, a hydrostatic shell test shall be performed with a plug open to a pressure twice that of rating specified above to demonstrate overall pressure integrity of the valve body. Plug valves shall be eccentric plug valves as manufactured by DeZurik, Milliken, or approved equal.
- B. Eccentric Plug Valves: Eccentric plug valves shall be Series 100 as manufactured by DeZurick or equal. Valve bodies shall be constructed of high strength cast iron conforming to ASTM A126, Class B and AWWA C504, latest revisions. Valve bodies shall be cast with raised eccentric seats which have a corrosion resistant welded in overlay of not less than 90 percent pure nickel on all surfaces contacting the plug face. Valve seats shall be in accordance with AWWA C504 and AWWA C507, latest revisions. Valves shall be furnished with resilient faced plugs with Neoprene facing, suitable for use with sludge. Valves shall be furnished with replaceable, permanently lubricated, stainless steel, sleeve-type bearings in the upper and lower plug stem journals. Plug stem bearings shall comply with AWWA

33 01 00-17

C504 and C507, latest revisions. Valves shall be bolted bonnet design. Valves shaft seals shall be designed so that they can be repacked without removing the bonnet and the packing shall be adjustable. Packing material shall be Buna-Vee type packing. Valve shaft seals shall be in accordance with AWWA C504 and AWWA C507, latest revisions. All exposed valve nuts, bolts, springs, washers and the like shall be Type 304 stainless steel.

- C. Interior Valve Lining: All interior ferrous surfaces of the valve that will have contact with the leachate except the valve seating surfaces shall be coated with a factory applied, fusion bonded, thermosetting epoxy coating in accordance with AWWA C550, latest revisions. Coating shall be holiday free with a minimum thickness of 12 mils. Surfaces shall be clean, dry and free from rust, oil and grease before coating.
- D. Exterior Valve Coating: All exterior surfaces of plug valves shall be clean, dry and free from rust and grease before coating. For buried service, the exterior ferrous parts of all valves shall be coated at the factory with coal tar epoxy with a minimum total finish dry film thickness of 20 mils. Prior to backfilling, all uncoated nuts, bolts, glands, rods and other parts of joints shall be coated in the field with coal tar epoxy equal to Kop-Coat Bitumastic No. 300-M. For valves installed above ground, the exterior ferrous parts of all valves shall be shop primed at the factory with one coat, minimum dry film thickness 1.5 mils, of a primer with rust inhibitive pigments and synthetic resins. Following installation aboveground valves shall be finish painted in accordance with manufacturer's recommendations.
- E. Valve Joints: All plug valves installed aboveground, in valve vaults or on flanged piping shall have flanged ends. Flanges shall comply with facing, drilling and thickness of ANSI Standards for Class 125 dimension. Nuts and bolts for flanged connections in valve vaults or corrosive atmospheres shall be Type 316 stainless steel in accordance with ASTM A320, Class 2. Nuts and bolts for aboveground installations or non-corrosive atmospheres shall be carbon steel in accordance with ASTM A307, Grade B. All buried plug valves shall have mechanical joint ends with dimensions, bolting patterns and assembly in strict accordance with ANSI/AWWA C111, latest revision. Tee head bolts and nuts for mechanical joints shall be manufactured of CORTEN-A, high strength, low alloy, corrosion resistant steel as manufactured by NSS Industries, Plymouth, Michigan or an equal approved by the Engineer.

F. Mechanical Valve Actuators:

1. All plug valves installed in valve vaults or buried underground shall have actuators designed for buried and submerged service. Valves shall have seals on all shafts and gaskets on valve and actuator covers to prevent entry of water and dirt. Actuator mounting brackets for buried and submerged service shall be totally enclosed and shall have gasket seals. All exposed valve nuts, bolts, springs, washers and the like shall be Type 304 stainless steel.
2. All plug valves 6 inch in size and larger shall be furnished with mechanical gear actuators. Gear actuators shall be furnished with AWWA Standard 2 inch square operating nuts for buried valves, or handwheel, chainwheel or 2 inch square nut operators for aboveground or valve vault installation, as shown on the Drawings. Gear actuator shall be sized for the maximum pressure differential across the valve, equal to the pressure rating of the valve. All gearing shall be enclosed in a high strength cast iron housing, suitable for running in a lubricant. Housing shall be provided with seals on all shafts to prevent the entry of dirt and water into the actuator. Actuator shaft and quadrant shall be supported on permanently lubricated bronze bearings. Actuator shall clearly indicate valve position for aboveground and valve vault installations and an adjustable stop shall be provided to set closing torque. Actuator shall be capable of withstanding an over-torque without damage up to 450 foot pounds for 2 inch square nut operators and to 300 foot pounds for handwheel or chainwheel operators.
3. Four inch and smaller aboveground valves shall be furnished with manual actuators, one-quarter turn to open. Actuator shall be supplied with an AWWA Standard 2 inch operating nut with a standard valve operating lever.

2.10 BUTTERFLY VALVES

- A. General: All butterfly valves shall be of the tight closing, rubber seat type with rubber seats that are securely fastened to the valve body or disc. No metal to metal seating surfaces will be permitted. Valves shall be bubble tight at rated pressures with flow in either direction, and shall be satisfactory for applications involving

throttling service and/or frequent operation and for applications involving valve operation after long periods of inactivity and for buried installation. Valve discs shall rotate 90 degrees from the full open position to the tight shut position. Valves shall meet the full requirements of AWWA Standard C 504 for Class 150B, short body, flanged or mechanical joint as required. Wafer design valves are not acceptable, except when indicated on the Drawings. The manufacturer shall have manufactured tight closing, rubber seat butterfly valves for a period of at least five years. All valves shall be Henry Pratt Company, DeZurik, Mueller, or equal.

- B. Valve Body: Valve bodies shall be constructed of cast iron ASTM A126 Class B or ASTM A48 Class 40. Ends shall be mechanical joint for buried service and flanged for aboveground use. Flange drilling shall be 125 pound in accordance with ANSI B16.1. Two trunnions for shaft bearings shall be integral with each valve body. When disc has the rubber seat, the valve body shall have a 18-8 Type 304 stainless steel body seat. The port diameter shall be no smaller than one inch less than the nominal valve size.
- C. Valve Shaft: The valve shaft may consist of a one piece unit extending completely through the valve unit or may be the "stub shaft" type. Materials to be stainless steel 18-8 Type 304.
- D. Valve Discs: Valve discs shall be constructed either of cast iron ASTM A126 Class B, ductile iron ASTM A536 or cast iron ASTM A48 each with Type 316 stainless steel seating edge or the entire disc may be constructed of cast 316 stainless steel. The stainless steel seating edge is not applicable to rubber seat disc type valves.
- E. Valve Seats: Valve seats shall be of a synthetic or natural rubber compound and any be mounted on the valve body.
- F. Valve Bearings: Valves shall be fitted with sleeve type bearings. Bearings shall be corrosion resistant and self-lubricating.
- G. Valve Packings: Packing shall be self-adjusting Chevron type or of the O-ring type.
- H. Interior and Exterior Valve Coatings: The valve shall be coated similarly as described in Section 2.07 B(2) and B(5).

2.11 SWING CHECK VALVES

- A. Swing check valves 2-inch through 12-inch in size shall conform to AWWA C-508, latest revision, and shall be designed for a minimum water working pressure of 150 psi. Check valves shall have cast iron body, swing type and ends shall be flanged, Class 125 in accordance with ANSI B16.1. When open, the valve shall have a straight way passage with a minimum flow area equal to the full pipe area. Swing check valves shall be completely bronze fitted with renewable bronze seat ring and a rubber faced disc; valve hinge pin shall be stainless steel. Check valves shall be supplied with an outside lever and weight.
- B. Swing check valves shall absolutely prevent the return of water back through the valve when the inlet pressure decreases below the downstream pressure. The check valve shall be constructed such that the disc and body seat ring may be easily removed and replaced without removing the valve from the line. Each valve shall be hydrostatically tested at the factory, at a test pressure of 300 psi.
- C. Interior Valve Coating: Prior to shipment from the factory, the interior ferrous surfaces of the valve, except for finished, non-ferrous or bearing surfaces, shall be coated with a fusion bonded, thermosetting epoxy coating in accordance with AWWA C-550, latest revision. Coating shall be holiday-free with a minimum thickness of 12 mils. Surfaces shall be clean, dry and free from rust and grease before coating.
- D. Exterior Valve Coating: All exterior surface of swing check valves shall be clean, dry and free from rust and grease before coating. For valves installed in below ground valve vaults, the exterior ferrous parts of all valves shall be coated at the factory with coal tar epoxy with a minimum total finish dry film thickness of 20 mils. Following installation, all uncoated nuts, bolts, glands, rods and other parts of joints shall be coated in the field with coal tar epoxy equal to Kop-Coat Bitumastic No. 300-M. For valves installed aboveground, the exterior ferrous parts of all valves shall be shop primed at the factory with one coat, minimum dry film thickness 1.5 mils, of a primer with rust-inhibitive pigments and synthetic resins. Following installation aboveground valves shall be finish painted in accordance with manufacturer's recommendations.

- E. All swing check valves shall be provided with a limit switch to indicate valve close position to pump starter, VFD, or control panel.

2.12 SERVICE SADDLES AND CORPORATION STOPS

- A. **Service Saddles:** Service saddles shall have ductile iron bodies in accordance with ASTM A536, latest revision, with double stainless steel straps. Bodies shall be brass or ductile iron, body shall have a fusion bonded nylon coating with a minimum thickness of 12 mils. Straps shall be Type 304 stainless steel with premium grade Type 304 L stainless steel bolts and Type 304 stainless steel washers and nuts. The nuts shall be Teflon coated.
The gasket material shall be an elastomeric compound resistant to degradation by oil, natural gas, acids, alkalies, most aliphatic fluids and leachate. The outlet of the saddle shall have NPT threads. Service saddles shall be Rockwell No. 317, Ford or an equal approved by the Engineer.
- B. **Corporation Stops:** Corporation stops shall be all bronze construction in accordance with AWWA C80, latest revision. Inlet threads shall be NPT iron pipe threads and the outlet connections shall be of the packed joint type suitable for use with Schedule 80 PVC pipe. Corporation stops shall be Ford Ball Corp Type FB 1102, McDonald or an equal approved by the Engineer.
- C. **Polyethylene Tubing.** Service tubing shall be nominal wall polyethylene tubing conforming to the requirements of ASTM D-2737 and AWWA C-901. Tubing shall be manufactured from prime virgin PE-3408 high density polyethylene (HDPE) resin. Each coil of tubing shall be spiral wrapped with four (4) inch wide black .004 polyethylene film with minimum 2% carbon black content to shield the tubing from ultraviolet and violet light. Reclaimed water service tubing shall be lavender in color.
- D. **Tubing** shall be DR 9.0 CTS OD and supplied in 100 foot rolls. Tubing shall conform to all requirements set forth in AWWA C901. Tubing shall be marked with the following information at not more than 5 foot intervals: nominal size, material code designation, dimension ration and diameter base, AWWA pressure class, AWWA designation and manufacturer's name or trademark and product record code.

- E. Fittings for use with polyethylene (PE) tubing shall be brass containing a pressure sealing O-ring and unidirectional grip ring and shall be designed for "press-on" or "stab-on" installation, and manufactured by Ford Meter Box Company.

2.13 SOLENOID VALVES

- A. Solenoid valves shall be 2 way type for normally closed operation designed for not less than a 150 psi water working pressure. The valves shall have forged stainless steel Series 300 bodies for 3/4 inch and smaller and brass bodies for 1 inch and larger with NPT threaded ends, Buna N seals/disks and NEMA 4X Red hat II solenoid enclosures. The valves shall operate on 120 VAC power, shall have threaded conduit hubs, standby manual operators and shall not require a minimum operating pressure differential for standby operation. The valves shall be provided with a manual override. The valves shall be Series 8210G for 3/4 inch and smaller and Series 8221G for one inch and larger as manufactured by Automatic Switch Company or approved equal.

2.14 FLEXIBLE EXPANSION JOINTS

- A. Flexible expansion joints shall be of the molded wide arch design manufactured of chloroprene (neoprene) rubber with polyester reinforcement. Chloroprene (neoprene) body shall be supplied with a hypalon coating. Joints shall be flanged suitable for 150 psi water working pressure and in accordance with ANSI B16.1 dimensions and bolting patterns. Flanged ends shall be furnished and galvanized, split ductile iron retaining rings.
- B. Provide limit restraint bolts on all pump suction and discharge lines. Expansion joints 6 inches and larger in size shall have a minimum of four limit restraint bolts. Restraint bolts and nuts shall be Type 304 stainless steel.
- C. Minimum performance for flexible expansion joints shall be as follows:

Size (in.)	Axial Compression (inches)	Axial Elongation (inches)	Lateral Deflection (inches)	Angular Deflection (degrees)
2	1-3/4	3/4	3/4	30
3	d.o.	d.o.	d.o.	30
4	d.o.	d.o.	d.o.	25
5	d.o.	d.o.	3/4	25
6	d.o.	d.o.	1	20
8	d.o.	d.o.	d.o.	20

- D. Flexible expansion joints shall be Style 1015 Maxi-Joint as manufactured by General Rubber Corporation, Style 100 Metrasphere as manufactured by the Metraflex Company or an equal approved by the Engineer. Flexible joints for pump suction and discharge piping shall be designed for leachate service at 250 degrees F.

2.15 PRESSURE GAUGE ASSEMBLIES

- A. Pressure gauges shall have the following design features: glycerin filled, 2 inch dial, aluminum dial with black numerals on white background, Type 316 stainless steel bourdon tube and movement, 300 series stainless steel case and ring, safety glass lens, threaded lens retaining ring, adjustable pointer with over-pressure stop and zero pointer stop, blowout protection, 2 inch Type 316 stainless steel stem mounting and 1.0 percent accuracy based on full scale. Provide Type 316 stainless steel pressure snubbers on all gauges not protected by seals. Pressure gauges shall be as manufactured by U.S. Gauge, Ashcroft, Marshalltown, Marsh, or approved equal.
- B. Pressure Gauge Service and Ranges: Pressure gauges shall be furnished for the following services with the indicated ranges. Diaphragm seals shall be furnished for gauges as indicated.

2.16 VALVE BOXES

- A. Furnish, assemble, and place a valve box over the operating nut for each buried valve. The valve box shall be designed so as to prevent the transmission of surface loads directly to the valve or piping.
- B. Valve boxes shall be of the adjustable slide type of suitable length with an interior diameter of not less than 5 inches. The valve boxes shall be manufactured of cast iron and shall be of the two piece design including a bottom section and top section with cover. The cast iron cover shall be shaped and labeled for the appropriate service designation. The top section shall be adjustable for elevation and shall be set to allow equal movement above and below finished grade.
- C. The castings shall be manufactured of clean, even grain, gray cast iron conforming to ASTM A48, Class 30B for Gray Iron Castings; and shall be smooth, true to pattern, free from blow holes, sand holes, projections and other harmful defects. The seating surfaces of both the cover and the top section shall be machined so that the cover will not rock after it has been seated.
- D. The valve boxes shall be coated inside and outside with an asphaltic coating prior to machining, so that the machined seating surfaces will be free of any coating. Cast iron valve box assemblies shall be Clow Corp. No F2452, Tyler Corp. Series 6855 or 6865 or an approved equal.
- E. Valve extension stems shall be provided for all buried valves when operating nut is deeper than 3 feet below final grade.

2.17 PIPE AND VALVE IDENTIFICATION SYSTEMS

- A. Not Included

2.18 GLOBE VALVES AND ANGLE VALVES

- A. Globe valves and angle valves shall be suitable for throttling flows of liquid, oil, gas and air lines. Valves shall have end connections as indicated on the Drawings and shall be suitable for a working pressure of not less than 150 psi.

- B. Each valve shall have self-lubricating TFE-impregnated asbestos packing to provide a tight stem steel. Valves shall have a removable bonnet in order to facilitate dismantling and reassembly of the valves.
- C. Globe valves shall be Crane Model No. 1, Stockham Valves Figures B-16, or equal. Angle valves shall be Crane Model No. 2, Stockham Valves Figure B-216, or equal.

2.19 PRESSURE REGULATING VALVE

- A. Pressure regulating valves shall be of bronze body construction, seat shall be of stainless steel, diaphragm shall be Buna N.
- B. Regulator shall have a maximum pressure limit of 100 psi and the pressure reduction range shall be to 5 psi for all the services except for belt washwater. The maximum and minimum pressure variation range for the belt washwater shall be per gravity belt supplier's recommendations. The regulator shall be a direct acting, spring loaded, diaphragm type for hydraulic operation, and shall be capable of delivering a constant pressure. An adjusting screw shall be easily accessible for changing the outlet pressure.
- C. Valves shall be installed in strict accordance with the manufacturer's recommendations. The manufacturer shall be Watts, or equal.

2.20 TIE RODS

- A. When prior approval is obtained from the Engineer, ductile iron pipe, fittings, and valves may be restrained using tie bolt joint restraint. Joint restraint materials for this method of restraint shall be the Super-Star SST Series Joint Restraint Joint System as manufactured by Star National Products, a Division of Star Industries, Inc., Columbus, Ohio, or an equal approved by the Engineer.
- B. All bolts, nuts, washers, tie rods and other fasteners for the joint restraint system shall be manufactured of CORTEN high strength, low alloy, corrosion resistant steel in conformance with ASTM A242. Tie bolts shall be manufactured of heat treated CORTEN steel. Tie rods and all fasteners for the system shall be galvanized in conformance with the requirements of ASTM A123. Tie rods shall have a

minimum diameter of 3/4 inch. The number of tie rods required per joint shall be as recommended by the manufacturer.

- C. Prior to backfilling after installation, all parts of the joint restraint system shall be coated with coal tar epoxy equal to Kop-Coat Bitumastic No. 300-M, for a minimum dry film thickness of 20 mils.

2.21 REDUCED PRESSURE BACKFLOW PREVENTERS

- A. Standards of Construction: Backflow prevention devices shall be manufactured in accordance with AWWA C506, latest revision, American Society of Sanitary Engineering Standards, and the University of Southern California Foundation for Cross Connection Control and Hydraulic Research "Manual of Cross Connection Control", latest edition.
- B. Product Handling: Exercise care in transporting and handling backflow preventers to avoid damage. Inside of backflow preventers shall be kept free of dirt and debris.
- C. Reduced pressure principle backflow preventers shall include an integral sensing system that will automatically open a relief valve whenever the differential pressure between the inlet supply and the reduced pressure zone drops to 2 psi. The relief valve shall remain open until a positive pressure differential of 2 psi is re-established. if pressure upstream of the first check valve drops to atmospheric or below, the relief valve shall remain fully open providing an internal air gap between the first check valve and the water level in the reduced pressure zone. The unit shall also be constructed such that any minor leakage of the second check valve will result in visible flow from the relief valve, event if the first check valve is totally disabled.
- D. Reduced pressure principle backflow preventers shall have all bronze bodies for sizes 22 inches and smaller and all ductile iron bodies for sizes 3 inches and larger. Ductile iron bodies shall be coated with a fusion bonded thermosetting epoxy coating in accordance with AWWA C550 with a minimum, holiday free, coating thickness of 12 mils. The reduced pressure backflow preventer shall consist of two independently operated, spring loaded, wye pattern, poppet type check valves designed for installation in a normal horizontal flow attitude. An independent spring loaded relief valve shall be located between the two check valves. Check

valve assemblies, springs and seats and all other internal parts shall be constructed of Type 316 stainless steel. Relief valve body and trim shall be constructed of bronze. Check valve and relief valve seats shall be field replaceable without removing the device from the service line. Backflow preventers shall be designed for a working pressure of 200 psi and a temperature range of 32°F to 140°F. The backflow preventer shall be manufactured as a complete unit including test cocks, and upstream and downstream isolation valves. The test cocks shall be manufactured of bronze and shall be arranged such that the unit can be tested without removing the unit from the line.

- E. Isolation Valves: Reduced pressure backflow preventers shall be furnished complete with isolation valves, For sizes 22 inches and smaller, the isolation valves shall be all bronze ball valves with Buna N O-rings and valve seats, and a lever operating handle. Ball valves shall be in accordance with AWWA C80, latest revision. For sizes 3 inches and larger, the isolation valves shall be resilient seated gate valves with flanged ends and OS&Y handwheel operators. Gate valves shall be as specified and described hereinbefore.
- F. Exterior Coating: The exterior ferrous surfaces of the reduced pressure backflow preventer and the isolation valves shall be shop primed at the factory with one coat, minimum dry film thickness 1.5 mils, of a primer with rust inhibitive pigments and synthetic resins compatible with the finish coats. Following installation, the backflow preventer unit and aboveground piping shall be finish painted in accordance with manufacturer's recommendations. All surfaces to be coated shall be clean, dry and free of rust, oil and grease.
- G. Acceptable Manufacturers: Reduced pressure principle backflow preventers shall Model 825 as manufactured by Febco, or an equal approved by the Engineer.

2.22 TAPPING SLEEVES AND VALVES

- A. Tapping sleeves shall be designed for a water working pressure of 150 psi and shall be mechanical joint end type. Tap shall be done under pressure and without interruptions of service. Taps shall be tested at factory to 175 psi.
- B. Tapping valves shall be as specified herein under Gate Valves.

- C. The manufacturer shall furnish the services of a supervisor who will direct all operations for the installation of material, attachment of tapping machine and operation of the machine in making the connection. The Contractors shall bear all such rental and supervision costs, and all other related costs.
- D. Tapping sleeves and valves shall be the product of one of the following manufacturers, or equal: Mueller, Clow, M&H.

2.23 FLANGED ADAPTERS (WHEN APPLICABLE)

- A. For joining plain end or grooved end pipe to flanged pipes and fittings.
- B. Adapters shall conform in size and bolt hole placement to ANSI standards for steel and/or cast iron flanges 125 or 150 pound standard unless otherwise required for connections.
- C. Exposed Sleeve Type:
 - 1. Constructed from steel.
 - 2. Coating: In accordance with manufacturer's recommendations.
 - 3. Bolts: Carbon steel.
 - 4. Acceptable Manufacturers:
 - a. Dresser Manufacturing Company - Style 128 for cast iron ductile iron and steel pipes with diameters of two (2) inches through 96 inches.
 - b. Or equal.

2.24 FIRE HYDRANTS

- A. Hydrants shall comply with AWWA Standard C402 "Fire Hydrants for Ordinary Water Works Service", and shall be equipped with a minimum of one (1) pump outlet nozzle 4 inches in diameter and two (2) hose nozzles 2 inches in diameter.

Threads, nozzle caps, operating nuts and color shall conform to City standards. Units shall be traffic types with breakable safety clips, or flange, and stem, with safety coupling located below barrel break line to preclude valve opening. Hydrants shall be dry top. Outlet nozzles shall be on the same place, with minimum distance of 18 inches from center of nozzles to ground line. Valve shall be compressive type with 52 inches minimum opening and hose inlet connection to be 6 inches minimum. Hydrants shall open left by Mueller A-423 or Clow Medallion Hydrant (AWWA C-502). Hydrants must drain.

2.25 INSERT VALVE

A. General

The Ductile Iron Insert Valve shall be a rated for 250 psig and shall be a Resilient Wedge Gate Valve as specified in this section. The valve shall be able to be installed into an existing pressurized pipeline while maintaining constant pressure and service as usual. After closing the wedge and adequately restraining the valve body the downstream pipe can be completely removed and replaced (allowing for upsizing of the pipe if necessary). The host pipe shall not be a permanent component of the Insert Valve. The Insert Valve shall be UL listed and approved to *NSF / ANSI Standard 61- Drinking Water System Components*. The insert valve must be installed by a qualified installer per the manufacturer's requirements.

- B. **Construction:** Sizes 12" and smaller must be capable of working on Cast/Grey Iron or Ductile Iron Class A, B, C and D, IPS PVC, C900 and C909 PVC, Steel, AC pipe diameters without changing either top or bottom portion of split valve body. The 250 psig maximum working rating markings must be cast into the body of the valve. After the installation of the Insert valve body on to the existing pipe a pressure test of 1.1 times that of the contents shall sustained for 15 minutes. Once the pressure test is affectively achieved the Insert valve body must not be moved in accordance with AWWA Standards. If the Insert valve is moved the pressure test must be completed again. The Insert valve must not be moved or repositioned once the pressure test is achieved.

- C. **Resilient Wedge Gate Assembly:** The construction of the Resilient Wedge shall comply with AWWA C509 requirements. The ductile iron wedge shall be fully encapsulated with EPDM rubber by a high pressure and high temperature compression or injection mold process. This will assure the ductile gate is fully

coated with molded rubber – no exposed iron. The resilient wedge shall seat on the valve body and not the pipe to obtain the optimum seating and flow control results. The resilient wedge shall be totally independent of the carrier pipe. The resilient wedge shall not come into contact with the carrier pipe or depend on the carrier pipe to create a seal. Abrasion results thus shorting the life and quality of the shut down if the wedge contacts the pipe. Pressure equalization on the down or upstream side of the closed wedge shall not be necessary to open the valve. The wedge shall be symmetrical and seal equally well with flow in either direction. The Resilient wedge must ride inside the body channels to maintain wedge alignment throughout its travel to achieve maximum fluid control regardless of high or low flow pressure or velocity. An oversized flow way shall be unobstructed to provide optimum flow. The valve shall be fully epoxy coated on the interior and the exterior a minimum of 10 mils epoxy in compliance with AWWA C550 and certified to ANSI/NSF-61. The fusion-bonded coating shall be applied prior to assembly so that even the bolt holes and body-to-bonnet flange surfaces are fully epoxy coated.

- D. The valve shall have triple O-Ring stem seals, two O-Rings above, and one below the thrust collar. The lower two O-Rings provide a permanently sealed lubrication chamber that will make the valve easier to operate over a longer period of time. The upper O-Ring ensures that sand, dirt or grit cannot enter the valve to cause damage to the lower O-Rings. This is especially important for buried and sewage service applications. Side flange seals shall be of the O-Ring type of either round, oval, or rectangular cross-sectional shape.
- E. American Made Quality: All primary parts and components to be exclusively and completely assembled, manufactured, machined and coated in the USA. The purchaser shall, with reasonable notice, have the right to plant visitation at his/her expense. Bolting materials shall develop the physical strength requirements of ASTM A307 with dimensions conforming to ANSI B18.2.1.
- F. Split Restraint Devices: Shall consist of multiple gripping wedges incorporated into a follower gland meeting the applicable requirements of ANSI/AWWA C110/A21.10. The devices shall have a working pressure rating of 350 psi for 4-12 inch. Ratings are for water pressure and must include a minimum safety factor of 2 to 1 in all sizes. Chemical and modularity tests shall be performed as recommended by the Ductile iron Society, on a per ladle basis. Three test bars shall be incrementally poured per production shift as per U.L. specifications and ASTM A536. Testing for tensile, yield and elongation shall be done in accordance with

33 01 00-31

ASTM E8. Gland body wedges and wedge actuating components shall be cast from grade 65-45-12 ductile iron material in accordance with ASTM A536. Mechanical joint restraint shall require conventional tools and installation procedures per AWWA C600, while retaining full mechanical joint deflection during assembly as well as allowing joint deflection after assembly. Proper actuation of the gripping wedges shall be ensured with torque limiting twist off nuts. Set screw pressure point type hardware shall not be used.

The Insert valve shall be as manufactured by **Team Industrial Services** 13131 Dairy Ashford Rd Sugar land, TX 77478 1-800-662-8326 281-331-6154, Team Insert Valve Patent number 6,776,187 and 7,225,827 or approved equal.

PART 3 - EXECUTION

3.01 INSPECTION

- A. All pipe, fittings, valves and other material shall be subject to inspection and approval by the Engineer after delivery, and no broken, cracked, imperfectly coated, or otherwise damaged or unsatisfactory material shall be used. When a defect or crack is discovered, the injured portion shall not be installed. Cracked pipe shall have the defect cut off at least 12 inches from the break in the sound section of the barrel.

3.02 GENERAL INSTALLATION REQUIREMENTS

- A. Excavation, backfill, and compaction shall conform to the provisions of Section 312300.
 - 1. Pipe Cradle: Upon satisfactory installation of the pipe bedding material as specified, a continuous trough for the pipe barrel and recesses for the pipe bells or couplings shall be excavated by hand digging. When the pipe is laid in the prepared trench, true to line and grade, the pipe barrel shall receive continuous, uniform support and no pressure will be exerted on the pipe joints from the trench bottom.
- B. Cover for underground piping shall not be less than that indicated on the Drawings. The minimum cover for pipe shall be 36 inches. In areas where other piping conflicts preclude the maximum cover desired, the piping shall be laid to provide the maximum cover obtainable.

- C. Pipe, fittings, valves and accessories shall be installed as shown or indicated on the Drawings.
- D. All connections to existing piping systems shall be made as shown or indicated on the Drawings after consultation and cooperation with authorities of the Owner.
- E. Pipe Joint Deflection: Whenever it is desirable, and approved by the Engineer, to deflect pipe joints to avoid obstructions or to maintain required alignment, the amount of the joint deflection shall not exceed 80 percent of the maximum limits allowed by the pipe manufacturer.
- F. In preparation for pipe installation, placement (stringing) of pipe should be as close to the trench as practical on the opposite side of the trench from the excavated material. The bell ends of the pipe should point in the direction of the work progress.
- G. Pipe and fittings shall be laid accurately to the lines and grades indicated on Drawings or required. Where grades for the pipeline are not indicated on the Drawings, maintain a uniform depth of cover with respect to finish grade. Care shall be taken to insure a good alignment both horizontally and vertically and to give the pipe a firm bearing along its entire length. Any pipe which has its grade or joint disturbed after laying shall be taken up and re-laid.
- H. All pipe and fittings shall be cleared of sand, dirt, and debris before laying. All precautions shall be taken to prevent sand, dirt or other foreign material from entering the pipe during installation. If necessary, a heavy, tightly woven canvas bag of suitable size shall be placed over each end of the pipe before lowering into the trench and left there until the connection is made to the adjacent pipe. Any sand, dirt, or other foreign material that enters the pipe shall be removed from the pipe immediately. Interior of all pipe and fittings shall be kept clean after installation until acceptable in the complete work.
- I. Any time that pipe installation is not in progress, the open ends of pipe shall be closed by a watertight plug or other method approved by the Engineer. Plugs shall remain in pipe ends until all water is removed from the trench. No pipe shall be installed when trench conditions are unsuitable for such work, including standing water, excess mud, or rain.

- J. After pipe has been laid, inspected, and found satisfactory, sufficient backfill shall be placed along the pipe barrel to hold the pipe securely in place while conducting the preliminary hydrostatic test. No backfill shall be placed over the joints until the preliminary test is satisfactorily completed, leaving them exposed to view for the detection of visible leaks.
- K. Upon satisfactory completion of the hydrostatic test, backfilling of the trench shall be completed.
- L. Aboveground and Exposed Piping: Piping shall be cut accurately to measurements established at the job site and shall be worked into place without springing or forcing, properly clearing all equipment access areas and openings. Changes in sizes shall be made with appropriate reducing fittings. Pipe connections shall be made in accordance with the details shown and manufacturer's recommendations. Open ends of pipe lines shall be properly capped or plugged during installation to keep dirt and other foreign material out of the system. Pipe supports and hangers shall be provided where indicated or as required to insure adequate support of the piping.

3.03 INSTALLATION OF DUCTILE IRON PIPE

- A. Handling and Cutting Pipe:
 - 1. Care shall be taken in handling, cutting, and laying ductile iron pipe and fittings to avoid damaging the pipe and interior coal tar epoxy or cement mortar lining, scratching or marring machined surfaces, and abrasion of the pipe coating. All cracked pipe and fittings shall be removed at once from the work at no additional cost to the Owner.
 - 2. Pipe cutting shall be done in a neat workmanlike manner without creating damage to the pipe and interior coal tar epoxy or cement mortar lining. Ductile iron pipe may be cut using an abrasive pipe saw, rotary wheel cutter, guillotine pipe saw, milling wheel saw or oxyacetylene torch. Cut ends and rough edges of ductile iron pipe shall be ground smooth. For push-on joint connections, the cut end shall be beveled to prevent gasket damage during joint assembly. Interior lining shall be repaired at cut ends per the manufacturer's instructions prior to joint assembly.

B. Laying Pipe and Fittings:

1. Bedding for Ductile Iron Pipe: Minimum bedding requirements shall be Type 2 as defined in ANSI/AWWA C600, latest revision. Provide proper bedding required, in accordance with thickness class of pipe being laid and depth of cover. Proper pipe laying conditions shall be in accordance with ANSI/AWWA C150 and C151, latest revision, and ANSI/AWWA C600, latest revision.
2. All ductile iron pipe and fittings shall be laid in accordance with American Water Works Association Standard ANSI/AWWA C600, latest revision, entitled "Standard for Installation of Ductile Iron Water Mains and Their Appurtenances", with the following sections specifically applying:
 - a. Section 3.3 - Pipe Installation
 - b. Section 3.4 - Joint Assembly

C. Ductile Iron Pipe Joints:

1. Type: The joints of all pipelines shall be made absolutely tight. The particular joint used shall be approved by the Engineer prior to installation. Where shown on the Drawings or where, in the opinion of the Engineer, settlement or vibration is likely to occur, all pipe joints shall be bolted mechanical type or restrained type as specified above, or as indicated on the Drawings.
2. Push-on Joints: Push-on joints shall be made in strict accordance with the the manufacturer's recommendations. Lubricant, if required, shall be an inert, non-toxic, water soluble compound incapable of harboring, supporting, or culturing bacterial life. Manufacturer's installation recommendations shall be submitted to the Engineer for review and approval before commencing work. The bell of the pipe shall be cleaned of excess tar or other obstructions and wiped out before the cleaned and prepared spigot of the next pipe is inserted. The new pipe shall be shoved firmly into place until properly seated and held securely until the joint has been completed.

3. Mechanical Joint: All types of mechanical joint pipes shall be laid and jointed in full conformance with manufacturer's recommendations, which shall be submitted to the Engineer for review and approval before work is begun. Only skilled workmen shall be permitted to makeup mechanical joints. Torque wrenches, set as specified ion AWWA Standard C111, shall be used; or spanner type wrenches not longer than specified therein may be used without the permission of the Engineer.
4. Flanged Joints: Flanged joints shall be made up by inserting the gasket between the flanges. The threads of the bolts and the faces of the gaskets shall be coated with suitable lubricant immediately before installation.
5. Restrained Joints: Restrained joints shall be provided where indicated on the Drawings. Joint assembly shall be made in strict accordance with the manufacturer's instructions, which shall be submitted to the Engineer for review and approval before commencing work.

3.04 INSTALLATION OF PVC PIPE

A. Storage and Handling:

1. PVC pipe shall be delivered to the site in unbroken bundles packaged in such manner as to provide protection against damage. When possible, pipe should be stored at the job site in the unit packages until ready for use. Packaged units shall be handled using a forklift or a spreader bar with fabric straps. Packaged units shall not be stacked at the job site higher than two units high.
2. When it is necessary to store PVC pipe for long periods of time, exposure to direct sunlight shall be prevented by covering the pipe with an opaque material. Adequate air circulation above and around the pipe shall be provided as required to prevent excessive heat accumulation. PVC pipe shall not be stored close to heat sources of hot objects such as heaters, fires, boiler, or engine exhaust. Pipe gaskets shall be protected from excessive exposure to heat, direct sunlight, ozone, oil and grease. The interior and all sealing surfaces of pipe, fittings, and other appurtenances shall be kept clean and free of dirt and foreign matter.

3. Care shall be taken in handling and laying pipe and fittings to avoid severe impact blows, crushing, abrasion damage, gouging or cutting. Pipe shall be lowered, not dropped, from trucks or into trenches. All cracked, damaged, or defective pipe and fittings, or any length of PVC pipe having a gouge, scratch or other permanent indentation of more than 10 percent of the wall thickness in depth, shall be rejected and removed at once from the work and replaced with new acceptable pipe at no additional cost to the Owner.
- B. Field Cutting PVC Pipe: Field cutting of pipe shall be done in a neat workmanlike manner without creating damage to the pipe. The pipe shall be cut square with a fine-toothed hand or power saw or other cutter or knife designed for use with plastic pipe. Prior to cutting, the pipe shall be marked around its entire circumference or a square in vise shall be used to ensure the pipe end is cut square. Remove burrs by smoothing edges with a knife, file, or sandpaper.
1. Field Cutting Bell and Spigot PVC Pipe: Bevel the cut end of the pipe using a pipe beveling tool, wood rasp or portable sander to prevent damage to the gasket during joint assembly. A factory finished beveled end should be used as a guide to ensure proper beveling angle and correct depth of bevel. Round off any sharp edges on the leading edge of the bevel with a knife or file.
- C. Laying PVC Pipe:
1. Pipe Bedding: Bedding for PVC pipe shall be as specified using granular pipe bedding material.
 2. All PVC pipe shall be laid in accordance with the pipe manufacturer's published installation guide, the AWWA Manual of Practice No. M23 "PVC Pipe-Design and Installation" and the Uni-Bell Plastic Pipe Association installation recommendations.
- D. PVC Pipe Joint Assembly for Rubber Gasketed Bell and Spigot Pipe:
1. The PVC bell and spigot joint shall be assembled in accordance with the pipe manufacturer's installation instructions. Clean the interior of the bell, the gasket, and the spigot of the pipe to be jointed with a rag to remove any

dirt or foreign material before assembling. Inspect the gasket, pipe spigot bevel, gasket groove and sealing surfaces for damage or deformation.

2. Lubricate the spigot end of the pipe with a lubricant supplied or specified by the pipe manufacturer for use with gasketed PVC pipe in potable water systems. The lubricant should be supplied as specified by the pipe manufacturer. After then spigot end is lubricated, it must be kept clean and free of dirt and sand. If dirt and sand adhere to the lubricated end, the spigot must be wiped clean and relubricated.
3. Insert the spigot into the bell so that it contacts the gasket uniformly. Align the pipe sections and push the spigot end into the bell until the manufacturer's reference mark on the spigot is flush with the end of the bell. The pipe should be pushed into the bell using a bar and wood block. The joint shall not be assembled by "stabbing" or swinging the pipe into the bell, nor shall construction machinery be used to push the pipe into the bell.
4. If undue resistance to insertion of the spigot end is encountered or if the reference mark does not reach the flush position, disassemble the joint and check the position of the gasket. If the gasket is twisted or pushed out of its seat, inspect the components, repair or replace damaged items, clean the components and repeat the assembly steps. Be sure the pipe is in proper alignment during assembly. If the gasket was not out of position, check the distance between the spigot end and the reference mark and relocate the mark if it is out of position.

E. PVC Pipe Joint Assembly for Threaded and Solvent Welded Pipe

1. All threaded and solvent welded joints shall be made watertight. All pipe cutting, threading and jointing procedures for threaded and solvent welded PVC pipe joints shall be in strict accordance with the pipe and fitting manufacturer's printed installation instructions. Thread lubricant for threaded joints shall be Teflon tape only.
2. At threaded joints between PVC and metal pipes, the metal side shall contain the socket end and the PVC side the spigot. A metal spigot shall not, under any circumstances, be screwed into a PVC socket.

- F. PVC forcemains underground shall be strapped every 10 feet or spiral wrapped with an insulated green No. 14 gauge copper ground wire for future location. The wire shall be stubbed out at each valve box or manhole.

3.05 FITTING INSTALLATION FOR UNDERGROUND PIPING

- A. The weight of ductile iron fittings shall not be carried by the pipe on which they are installed. The fitting shall be supported by a concrete cradle as shown on the standard details. Concrete used for supports shall have a minimum compressive strength of 3000 psi at 28 days. Concrete for support cradle shall be poured against undisturbed soil.
- B. All glands, clamps, bolts, nuts, studs and other uncoated parts of fitting joints for underground installation shall be coated with two coats, 10 mils DFT per coat, of coal tar epoxy equal to Kop-Coat Bitumastic No. 300-M.

3.06 CONCRETE PIPE ENCASEMENT

- A. Concrete for concrete pipe encasement shall have a minimum strength of 3000 psi at 28 days and encasement shall be constructed in accordance with details shown on the Drawings. Encasement shall be constructed where:
 - 1. Indicated on the Drawings
 - 2. The Engineer shall order the pipeline encased.
- B. The points of beginning and ending of concrete pipe encasement shall be not more than 6 inches from a pipe joint to protect the pipe from cracking due to uneven settlement of its foundation or the effects of superimposed live loads. Pipe shall be wrapped in visqueen.
- C. Pipe encasement shall provide a minimum coverage of 6 inches all around the pipe including pipe bells.

3.07 INSTALLATION OF PIPE SLEEVES, WALL CASTINGS AND COUPLINGS

- A. Pipe sleeves and wall castings shall be provided at the locations called for on the Drawings. These units shall be as detailed and of the material as noted on the Drawings. They shall be accurately set in the concrete or masonry to the elevations shown. All wall sleeves and castings required in the walls shall be in place when the walls are poured. Ends of all wall castings and wall sleeves shall be of a type consistent with the piping to be connected to them.
- B. Link seals for wall sleeves shall be installed in strict accordance with the manufacturer's printed installation instructions. For watertight applications in tanks or treatment units, the link seal installation shall be tested hydrostatically for leaks at the same time as the tank or treatment unit. Any leaks that occur during the test period shall be repaired by checking the link seals for proper installation and replacement of unit(s) found to be defective at no additional cost to the Owner.
- C. Pipe couplings shall be installed in strict accordance with the manufacturer's published instructions and recommendations.

3.08 INSTALLATION OF VALVES

- A. Valves of the size and type shown on the Drawings shall be set plumb and installed at the locations indicated on the Drawings. Valves shall be installed in accordance with manufacturer's installation instructions and with the Details shown on the Drawings.
- B. Valves shall be installed such that they are supported properly in their respective positions, free from distortion and strain. Valves shall be installed such that their weight is not borne by pumps and equipment that are not designed to support the weight of the valve.
- C. Valves shall be carefully inspected during installation; they shall be opened wide and then tightly closed and the various nuts and bolts shall be tested for tightness. Special care shall be taken to prevent any foreign matter from becoming lodged in the valve seat. Check and adjust all valves for smooth operation.
- D. Install valves with the operating stem in either horizontal or vertical position.

- E. Allow sufficient clearance around the valve operator for proper operation.
- F. Clean iron flanges by wire brushing before installing flanged valves. Clean carbon steel flange bolts and nuts by wire brushing, lubricate threads with oil or graphite, and tighten nuts uniformly and progressively. Clean threaded joints by wire brushing or swabbing. Apply Teflon joint compound or Teflon tape to pipe threads before installing threaded valves. Joints shall be watertight.
- G. For buried valves, a valve box shall be centered accurately over the operating nut and the entire assembly shall be plumb. The tops of valve boxes shall be adjusted to the proper elevation as specified below and as shown on the Drawings.
 - 1. In paved areas, tops of valve box covers shall be set flush with pavement. Following paving operations, a 16 inch square shall be neatly cut in the pavement around the box and the paving removed. The top of the box shall then be adjusted to the proper elevation and a 30 inch square by 6 inch thick concrete pad poured around the box cover. Concrete pads in traffic areas shall be reinforced with No. 4 reinforcement bars as shown on the Drawings. Concrete for the pad shall be 3000 psi compressive strength.
 - 2. In unpaved areas, tops of valve box covers shall be set 2 inches above finished grade. After the top of the box is set to the proper elevation, a 16 inch square by 6 inch thick concrete pad shall be poured around the box cover. Concrete for the pad shall be 3000 psi compressive strength.
- H. Valves shall be tested hydrostatically, concurrently with the pipeline in which they are installed. Protect or isolate any parts of valves, operators, or control and instrumentation system whose pressure rating is less than the pressure test(s). If valve joints leak during pressure testing, loosen or remove the nuts and bolts, reseal or replace the gasket, reinstall or retighten the bolts and nuts and hydrostatically retest the joints.
- I. Following installation, all aboveground valves shall be painted in accordance with the painting system specified in accordance with manufacturer's recommendations. Following installation of buried valves or valves installed in valve vaults, repair any scratches, marks and other types of surface damage, etc., with a coating equal to the original coating supplied by the manufacturer. Prior to backfilling, all nuts,

bolts and other parts of the valve joints shall be coated with two coats, 10 mils DFT per coat, of coal tar epoxy equal to Kop-Coat Bitumastic No. 300-M.

3.09 SEPARATION OF NON-POTABLE WATER MAINS AND POTABLE WATER MAINS

- A. Reclaimed water mains shall be installed with at least a 3 foot horizontal separation from any potable water main. Force mains and gravity sewers shall have a 6 foot separation from potable mains. At crossings the installation shall provide of a minimum vertical separation distance of 12 inches between the outside of the crossing non-potable and potable water mains. This separation shall be provided where the potable water main is either below or above the non-potable water main. When the 12 inch minimum vertical separation distance cannot be maintained, the potable water main shall be encased in concrete. Concrete encasement shall be as specified above. The potable water main shall be encased for 10 feet each way of the crossing.

3.10 MAIN CLEANING AND FLUSHING

- A. Following the hydrostatic and leakage tests, all the mains constructed under this contract shall be cleaned and flushed to remove sand, loose dirt and other debris. Flushing velocity shall be a minimum of 2.5 fps. Flushing shall continue until clean water flows from the main. However, the Contractor shall endeavor to use the minimum amount of flushing water required to complete the work. To increase the efficiency of the cleaning and flushing operation, the Contractor shall use a pipeline pigging device of the proper size and designed to clean the intended pipeline. The pigging device shall be capable of turning through a standard 90 degree MJ bend. The type of pipeline pigging device and the method of operation shall be approved by the Engineer.
- B. Upon completion of testing for the gravity drain line system, drain lines shall be flushed to remove dirt, sand, stones and other debris which may have entered the lines during construction and settled out in the lines and manholes. Materials and debris flushed from the drain lines shall be removed from a downstream manhole or basin and disposed of at an approved disposal area.

- C. Water for flushing shall be clean water provided by the Contractor from a source approved by the Engineer and the owner prior to beginning connections for flushing operations. Flushing shall only be completed upon approval by the Owner.
- D. Temporary blow offs may be required for the purpose of flushing mains. Temporary blow offs shall be installed as close as possible to the ends of the main being flushed. Blow offs installed on the main shall be the same diameter as the main. Temporary blow offs shall be removed and plugged after the main is flushed. All costs for installing and removing temporary blow offs shall be at n additional cost to the Owner.
- E. The Owner shall be notified at least 3 working days prior to flushing mains.
- F. Blow offs and temporary drainage piping used for flushing shall not be discharged into any gravity sewer or pumping station wetwell. The Contractor shall obtain prior approvals from the Engineer and the Owner as to the methods and locations of flushing water discharge.

3.11 INSTALLATION OF TIE RODS

- A. Tie rods shall be installed in strict accordance with the manufacturer's written installation requirements. Unless otherwise indicated on the Drawings, the size and number of tie rods for a joint or installation shall be as recommended by the manufacturer's design chart for a working pressure of 150 psi.
- B. Following installation and prior to backfilling, all parts of the tie rod joint restraint system, including tie rods, tie bolts, nuts, washers, and other fasteners, shall be coated with two coats, 10 mils DFT per coat, of coal tar epoxy equal to Kop-Coat Bitumastic No. 300-M.

3.12 INSTALLATION OF REDUCED PRESSURE BACKFLOW PREVENTERS

- A. Backflow preventers shall be installed at the locations shown on the Drawings. Backflow preventers shall be installed in accordance with the manufacturer's written installation instructions and as shown on the Drawings.

- B. Reduced pressure principle backflow preventers shall be installed horizontally with an 18 inch minimum clearance between the finished grade and the lowest point on the bottom of the unit. Reduced pressure backflow preventers shall be installed with provisions for a suitable drain arrangement to drain off discharges from the relief valve, so that discharges are not objectionable. Backflow preventers shall be installed such that they are easily accessible for testing, maintenance and repair.
- C. Piping and fittings for units 3 inches and larger in size shall have flanged joints. Piping, fittings and valves shall be properly supported with pipe support stands as shown on the Drawings.
- D. Following installation of the reduced pressure backflow preventer, piping, fittings and valves, the entire aboveground assembly shall be finished painted in accordance with manufacturer's recommendations.

END OF SECTION

SECTION 33 01 30.83
WETWELL AND MANHOLE LINING SYSTEMS

PART 1 – GENERAL

1.01 SITE ACCESS

- A. Accessibility to the lift station or manhole shall be the responsibility of the Contractor, and all expenses associated with work site accessibility should be taken into consideration as part of the Contractor's bid preparation. Damage to existing pavement surfaces and base courses, and/or other surface improvements, as a result of the Contractor's activities, shall be restored to like-new condition by the Contractor at his sole expense. The Contractor shall implement all required measures to provide the Owner's personnel and equipment with complete access to all work site areas during the entire course of performing this project.

1.02 SCOPE OF WORK

- A. The major elements of the proposed project work are summarized as follows: furnish all labor, materials, and equipment necessary to rehabilitate the interior surface areas of an existing sewer lift station structure using a structural composite liner system. The composite liner system shall consist of both a high strength structural cementitious build-up layer and a corrosion resistant 100 percent (100%) solids epoxy coating system. The work includes mobilization, bypass pumping (as Additional Pricing), removal of any existing deteriorated coating, preparation of lift station structure to be lined, furnishing and applying the specified cementitious and epoxy coating materials to the interior surface areas of the lift station, applicable QA/QC testing, clean-up, and demobilization.

1.03 INSPECTION OF THE WORK

- A. The Engineer will provide construction observation services to monitor project quality and determine conformance of the work with the specifications. Each step of the work described herein is subject to inspection and approval by the Engineer prior to proceeding with subsequent phases of the work.

1.04 MATERIALS AND EQUIPMENT

- A. All materials, equipment, and types of construction shall be in accordance with these Technical Specifications and shall conform to the requirements of all applicable laws, ordinances, and codes.
- B. All materials and equipment to be incorporated into the work shall be new, unused, and properly designed for the use intended. Materials and/or equipment which, in the opinion of the Engineer are inferior or of a lower grade than specified, or required, will not be accepted and shall be removed immediately from the project site.

1.05 EQUIVALENT PRODUCTS AND MATERIALS

- A. If “Or Equal” products are allowed herein, then all material or equipment submitted for consideration as “Or Equal” to that specified must include sufficient written information and data to demonstrate that the material or equipment conforms to the Contract Document requirements. The Engineer shall be the sole judge as to whether or not such material or equipment is equal to that specified or required herein.
- B. Upon rejection of any material or equipment submitted as the equivalent of that specifically named in the Contract, the Contractor shall furnish the specified material or equipment at no additional cost to the Owner.
- C. Neither the approval by the Engineer of any alternate material or equipment as being equivalent to that specified, nor the furnishing of the material or equipment specified, shall in any way relieve the Contractor of responsibility for failure of the material or equipment, due to faulty design, material, or workmanship, to perform the functions required by the Contract Documents.

1.06 MATERIAL AND EQUIPMENT DELIVERY AND STORAGE

- A. The Contractor shall deliver materials in sufficient quantities to ensure the most timely and uninterrupted progress of the work. All materials and equipment shall be stored in strict accordance with the manufacturer’s recommendations. Products shall also be stored and handled according to their Material Safety Data Sheets (MSDS).

1.07 SPILL OR DISCHARGE OF WASTEWATER

- A. The discharge of wastewater into the environment is prohibited. All spills or discharges of wastewater shall be immediately reported to the Engineer, the Owner, and the F.D.E.P. The Contractor also shall immediately control, contain, and stop the spill or discharge and shall repair any damage at no additional cost to the Owner.
- B. The Contractor is solely responsible for all fines and labor, materials, and equipment costs incurred by the Owner for wastewater spills or discharges to the environment resulting from the Contractor's actions or the Contractor's negligence.

1.08 TECHNICAL REFERENCES

- A. ASTM – The published standards of the American Society for Testing and Materials, West Conshohocken, PA.
- B. NACE – The published standards of National Association of Corrosion Engineers (NACE International), Houston, TX.
- C. SSPC – The published standards of the Society of Protective Coatings, Pittsburgh, PA.
- D. Los Angeles County Sanitation District – Evaluation of Protective Coatings for Concrete.
- E. ASTM C 109 – Compressive Strength of Hydraulic Cement Mortars.
- F. ASTM C 293 – Flexural Strength of Concrete.
- G. ASTM C 321 – Bond Strength of Chemical Resistant Mortars.
- H. ASTM C 666 – Resistance of Concrete to Rapid Freezing/Thawing.
- I. ASTM C 596 – Drying Shrinkage of Mortar Containing Cement.

- J. AASHTO –T277 – Rapid Chloride Permeability of Cement.
 - K. ASTM C 1244 – Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test.
 - L. ASTM D 638 – Tensile Properties of Plastics.
 - M. ASTM D 790 – Flexural Properties of Unreinforced and Reinforced Plastics.
 - N. ASTM D 695 – Compressive Properties of Rigid Plastics.
 - O. ASTM D 4541 – Pull-off Strength of Coatings Using a Portable Adhesion Tester.
 - P. ASTM D 2584 – Volatile Matter Content.
 - Q. ASTM D 2240 – Durometer Hardness, Type D.
 - R. ASTM D 543 – Resistance of Plastics to Chemical Reagents.
 - S. ASTM C 109 – Compressive Strength Hydraulic Cement Mortars.
 - T. ACI 506.2-77 – Specifications for Materials, Proportioning, and Application of Shotcrete.
 - U. ASTM C 579 – Compressive Strength of Chemically Setting Silicate and Silica Chemical Resistant Mortars.
 - V. NACE 6/SSPC SP13 – Joint Surface Preparation Standard - Surface Preparation of Concrete.
- 1.09 SUBMITTALS
- A. Product Data.
 - 1. Technical data sheet on each product proposed to be furnished demonstrating compliance with these specifications including independent ASTM test results indicating the product conforms to the published technical data.

2. MSDS for each product proposed to be furnished.

B. Application Guidelines.

1. Project specific guidelines and recommendations.
2. Proof of any required federal, state or local permits or licenses necessary for the project.
3. Design details for any ancillary systems and equipment to be used in site and surface preparation, application, and testing.
4. Written warranty.

C. Certifications.

1. Submit all Applicator Qualifications specified in Part 1.10 A.

D. “Or Equal” Submittal. In order to be considered as an equal product, said product will have to meet the minimum physical properties of the approved products as referenced in Paragraph 2.4 as measured by the applicable ASTM standards referenced in Paragraph 1.8. Testing results must be performed and presented by a third-party testing laboratory.

E. “Or Equal” products shall be submitted to the Engineer a minimum of two (2) weeks prior to bid date. In order for a product to be considered “equal” the submitted product must receive written approval via addendum to the current bid documents prior to the bid date. Only applicators that have been trained and certified by the approved liner system manufacturers are allowed to install the structural liner system specified herein.

1.10 QUALITY ASSURANCE

A. Applicator Qualifications.

1. Manufacturer certification that Applicator has been trained and approved in the handling, mixing, and application of the products to be used.
2. Certification that the equipment to be used for applying the products has been manufactured or approved by the cement or epoxy coating manufacturer and Applicator personnel have been trained and certified for proper use of the equipment.
3. Applicator shall initiate and enforce quality control procedures consistent with applicable ASTM, NACE, and SSPC standards and both the cementitious and epoxy material manufacturer's recommendations.
4. The installer/applicator shall submit a list of at least five (5) project references including project name, location, work performed, contract amount, completion date, contact person and phone number, and where similar work as specified herein has been performed.

1.11 WARRANTY

- A. The Applicator shall warrant all work against defects in materials and workmanship for a period of one (1) year, unless otherwise noted, from the date of final acceptance of the project. Applicator shall, within a reasonable time after receipt of written notice thereof, repair defects in materials or workmanship which may develop during said one (1) year period, and any damage to other work caused by such defects or the repairing of same, at his own expense and without additional cost to the Owner.

PART 2 – LIFT STATION SURFACE CONDITION ASSESSMENT

2.01 QUALIFICATION OF APPLICABLE SURFACE REPAIR

- A. The existing substrate of the master lift station to be rehabilitated under this project has been subjected to harsh biogenic hydrogen sulfide corrosion during its operational lifetime. It is anticipated that the depth of this corrosive attack and resulting degradation will likely vary by surface region throughout the interior walls, floor, and ceiling of the structure. In consideration of this variance in surface deterioration, the Contractor, in conjunction with the Owner will conduct

a surface area analysis of the existing substrate areas prior to commencement of any lining application. Surface areas will be classified based on the following condition assessments.

1. Condition I Surface Areas.

- a. The surface area, once cleaned and abraded, has experienced only minor biogenic corrosion to the host substrate, and deteriorated areas do not appear to compromise the load bearing integrity of the surface area. The surface loss in the Condition I areas should not exceed one inch (1.0").

2. Condition II Surface Areas.

- a. The surface area, once cleaned and abraded, may exhibit corrosion as evidenced in Condition I, but also has some areas with moderate to severe deterioration. Degradation may include signs of initial structural fatigue; however, the existing surface area should be sufficient to sustain and support both soil and live loading. The surface loss in the Condition II areas should not exceed one and a half inches (1.5").

2.02 APPROPRIATE CONDITION BASED REPAIR METHODS

- A. Subsequent to the aforementioned condition assessment, the Contractor will execute the application of the appropriate condition based repair method. The appropriate repair method shall be based on the following minimum design.

- 1. All surface areas identified as Condition I shall receive application of the specified calcium aluminate cementitious structural build-back material at a minimum thickness of one inch (1.0").
- 2. All surface areas identified as Condition II shall receive application of the specified calcium aluminate cementitious structural build-back material at a minimum thickness of one and a half inches (1.5").

3. All interior surface areas, regardless of area condition assessment, will receive an application of the approved epoxy coating material at a minimum uniform thickness of 150 mils.

PART 3 – PRODUCTS

3.01 EXISTING PRODUCTS

- A. Cementitious patching and repair materials shall not be used unless proof of suitability and compatibility with the herein approved cementitious and epoxy materials is provided in writing by the cementitious and epoxy material manufacturers. Project specific submittals should be provided including application, cure time, and surface preparation procedures that permit optimum bond strength with the epoxy coating.
- B. Remove existing coatings prior to application of the new cementitious lining and/or epoxy coating. Applicator is to maintain strict adherence to all manufacturer's recommendations with regard to proper surface preparation and compatibility with existing coatings.

3.02 CEMENTITIOUS & EPOXY COATING MANUFACTURERS

- A. Quadex, Inc., 1 Country Club Circle, Maumelle, AR (888)-831-1650 or (501) 803-9400 or FAX (501) 803- 9444, or Engineer approved equal.
- B. Raven Lining Systems, Inc., Tulsa, Oklahoma (800)-324-2810 or (918)-584-2810 or FAX (918)-582-4311, or Engineer approved equal.

3.03 REPAIR MATERIALS

- A. Patching and infiltration control repair materials shall be used to fill voids, structurally reinforce, and/or rebuild surfaces, etc. as determined necessary by the Owner and Contractor. Repair materials must be compatible for use with the specified cement and/or epoxy system and shall be applied in accordance with the manufacturer's recommendations.

B. The following products may be accepted and approved as compatible repair and infiltration materials for use within the specifications:

1. Infiltration Control.

- a. All fast setting infiltration control materials furnished shall be designed to be applied in dry powder form, with no prior mixing of water, directly to active leaks under hydrostatic pressure in manholes or related structures. Materials shall consist of rapid setting cements, siliceous aggregates, and various accelerating agents. Material shall not contain chlorides, gypsum, or metallic particles.

2. Invert Repair and Patching.

- a. All material furnished shall be designed to fill voids and to repair or reconstruct where no hydrostatic pressure exists. Material shall consist of rapid setting cements, high density non-absorptive aggregates, and various accelerating agents. Material shall not contain chlorides, gypsum, or metallic particles.

3. Structural Cementitious Liner Material.

- a. Material shall consist of a one component, fiber reinforced, fused calcium aluminate mortar, enhanced with a high density, chemically stable monocrystalline quartz aggregate.

4. Epoxy Coating Material.

- a. Material shall consist of a 100 percent (100%) solid, solvent-free two (2)-component epoxy resin system that is thixotropic in nature and filled with select fillers to minimize permeability and provide sag resistance.

Product Type	Amine Cured Epoxy
Color	Light Blue
Solids Content (% volume)	100
Mix Ratio	Three to One (3:1)
Compressive Strength (psi)	18,000
Tensile Strength (psi)	7,600
Tensile Elongation (%)	One and a Half (1.5)
Flexural Strength (psi)	13,000
Hardness, Type D	88
Bond Strength – Concrete	>Tensile Strength of Concrete
Chemical Resistance	
Severe Municipal Sewer	All Types of Service

3.04 CEMENTITIOUS LINING APPLICATION EQUIPMENT

- A. Only manufacturer approved low-velocity cementitious wet spray system shall be used in the application of the specified cementitious liner material. System shall consist of a batch style mixer, progressive cavity (rotor/stator) style mortar pump, and low-velocity spray nozzle. No gunite applications will be allowed.

3.05 EPOXY COATING APPLICATION EQUIPMENT

- A. Only manufacturer approved heated plural component spray equipment shall be used in the application of the specified epoxy coating. No hand or brush application of the epoxy materials will be allowed.

PART 4 – EXECUTION

4.01 APPLICATOR QUALIFICATIONS

- A. Repair material applicators shall be trained to properly apply the cementitious mortar according to manufacturer's recommendations.
- B. All cementitious and epoxy materials must be applied by a Certified Applicator of the product manufacturer and according to manufacturer specifications.

4.02 SURFACE PREPARATION

- A. Applicator shall inspect all specified surfaces prior to surface preparation. Applicator shall notify Owner of any noticeable disparity in the surfaces that may interfere with the proper preparation or application of the specified repair materials.
- B. Applicator personnel shall directly perform all aspects of surface preparation and shall not subcontract any element of surface preparation.
- C. All contaminants including: oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants shall be removed. All concrete or mortar that is not sound or has been damaged by chemical exposure shall be removed to a sound concrete surface or replaced.
- D. Surface preparation method(s) should be based upon the conditions of the substrate, service environment and the requirements of the appropriate condition based repair method to be applied. Surfaces to receive repair materials shall be cleaned and abraded to produce a sound surface with adequate profile and porosity to provide a strong bond between the repair materials and the substrate.
- E. Infiltration shall be stopped by using a material that is compatible with the appropriate and selected condition based repair method. All costs associated with minor infiltration control shall be considered inclusive with the cost of the application of the appropriate cement and/or epoxy application. Moderate to severe infiltration control may require the use of chemical injection grouting. If warranted, chemical injection grouting will involve a separate Payment item based of the contract unit price bid in the Itemized Proposal for each grouting application.
- F. All surfaces shall be examined by the Inspector both during and after preparation and before the repair material is applied.

4.03 APPLICATION OF CEMENTITIOUS LINER MATERIAL

- A. For each bag of product, use the amount of water required per manufacturer's recommendations following mixing procedures noted on product container and

using the approved equipment for mixing and material application. The cementitious liner material will require only the addition of potable water during mixing. No other materials will be added during the mixing process without prior written consent from the material manufacturer.

- B. Once materials have been mixed to an appropriate consistency, caution should be taken as to not over mix the mortar material.
- C. The surface prior to application of the cementitious liner shall be clean and free of all foreign material and shall be damp without noticeable free water droplets or running water, but totally saturated just prior to application of the liner material. No application shall be made to a dry surface.
- D. The material shall be spray applied in a consistent manner to create a minimum uniform thickness per appropriate surface area condition assessment.
- E. Troweling of the liner material shall begin immediately following the spray voids in the manhole wall and creating a relatively smooth finish on the surface of the liner material. Precautions should be taken not to over-trowel the material.
- F. Immediately upon completion of the troweling phase, a wet-brush finish shall be applied to all surface areas of the cementitious liner material.
- G. The cementitious liner material shall be cured in accordance with ACI recommendations. A water based curing compound may be used when necessary.
- H. The liner material, once placed, shall have a minimum of eight (8) hours cure time before being subjected to active flow of surcharge.
- I. In high traffic areas, the manhole should be barricaded and traffic withheld for a minimum of 12 hours after application is complete.
- J. Caution should be taken to minimize exposure of applied product to sunlight and air movement. If application of additional materials is to be longer than 15 minutes, the structure shall be covered. At no time, should the finished product be exposed to sunlight or air movement for longer than 15 minutes before covering or closing access. In extremely hot and arid climates, the manhole shall be shaded

while reconstruction is in process. In environments where humidity level is below 70 percent (70%), it shall be necessary to keep finished product damp for the first 72 hours.

- K. No application shall be made to frozen surfaces or if freezing is expected to occur within the substrate within 24 hours after the application. Precautions shall be taken to keep the mix temperature at time of the application below 90°F. Mix water temperature shall not exceed 80°F. Mix water may be chilled with ice if necessary.
- L. Payment will be made on the basis of the contract unit price bid in the Itemized Proposal for each square foot of cementitious build-back that is installed.

4.04 APPLICATION OF EPOXY COATING

- A. Application procedures shall conform to the recommendations of the epoxy coating manufacturer, including material handling, mixing, and environmental controls during application, safety, and spray equipment.
- B. The spray equipment shall be specifically designed to accurately ratio and apply the specified epoxy coating materials and shall be regularly maintained and in proper working order.
- C. Testing for soundness of substrate: upon completion of initial surface preparation, Applicator shall make a visual examination of the surfaces that were prepared to identify areas requiring additional preparation. A screwdriver shall be used to scratch the surface. Should the screwdriver easily remove or dig into any portion of the surface, further preparation shall be required. Retest until a screwdriver cannot scratch the surface.
- D. Testing for contaminants: a water drop test shall be used to test the surface for the presence of hydrophobic contaminants. Applicator shall place a drop of water on the surface in at least four representative locations in the manhole and its wetting behavior shall be observed. If the water droplet flattens out and “wets out” the surface, it is likely the surface is not contaminated. If the water droplet beads up and does not “wet out” the surface, it is likely the surface is contaminated. To remove hydrophobic contaminants the Applicator shall either add an epoxy coating manufacturer approved degreaser to the water blasting process and rewash

the interior of the manhole, or utilize another process such as steam cleaning, sodium bicarbonate injection, or abrasive blasting for removal of the contaminants. If contaminants are found and removed, retest the contaminated areas using the water drop test until the contaminants are gone.

- E. Ambient conditions: Applicator shall record air temperature inside the manhole and prevailing weather conditions at the time of coating application.
- F. Specified and properly prepared surfaces shall be coated by roller or spray application of a moisture tolerant, solvent-free, 100 percent (100%) solid, epoxy primer as further described herein. Application shall cover all specified surfaces to a minimum dry film thickness of 150 mils.
- G. During application, Applicator shall regularly perform and record epoxy coating thickness readings with a wet film thickness gage, such as those available through Paul N. Gardner Company, Inc. meeting ASTM D 4414 – Standard Practice for Measurement of Wet Film Thickness of Organic Coatings by Notched Gages, to ensure uniform thickness during application.
- H. Top coating or additional coats of the epoxy coating should occur as soon as the prior coat becomes tack free, but no later than the recoat window for the specified products (24 hours). Additional surface preparation procedures will be required if this recoat window is exceeded.
- I. Installation of the epoxy coating shall not commence until the concrete substrate has properly cured in accordance with these specifications.
- J. Payment will be made on the basis of the contract unit price bid in the Itemized Proposal for each square foot of manhole epoxy application.

PART 5 – ANCILLARY LIFT STATION REPAIR ITEMS

5.01 BYPASS PUMPING

- A. If warranted to facilitate any aspect of the manhole or lift station restoration process, the Contractor shall provide a bypass pumping system that is capable of handling a minimum flow of 1,000 GPM at 50 psi. The Contractor shall also provide a

secondary or standby pump system that is capable of handling similar flows in the event that the primary pump system experiences flows greater than 1,000 GPM, or if the first pump fails. Both pumping units shall be provided with the following items: sound reduction compartments, floatation sensors, automatic dialers, and internal and external check valve assemblies.

- B. Any requirement for bypass pumping shall be submitted by the Contractor to the Engineer for review and approval prior to commencement of actual sewer bypass. The Engineer shall have sole discretion in determining the necessity for any bypass pumping. No bypass pumping shall be executed without prior approval of the Engineer.
- C. Payment will be made on the basis of the contract unit price bid in the Itemized Proposal for any specific structure that requires bypass pumping. Payments for manhole bypass pumping will be limited to one installment per manhole. Any subsequent or additionally required bypass pumping will be at the sole responsibility and expense of the Contractor.

PART 6 – INSPECTION AND PERFORMANCE TESTING

6.01 PROTECTIVE LINER INSPECTION

- A. After the specified repair and rehabilitation work has been completed, the lift station shall be visually reviewed and tested by the Contractor in the presence of the Owner. Visual review shall be for water tightness against leakage of water into the structure. All visible leaks and defects observed during the review shall be repaired to the Owner's satisfaction. There shall be no visible infiltration.

6.02 PROTECTIVE LINER PERFORMANCE TESTING

- A. In addition to the visual inspection, will be subjected to the following in-field performance testing requirements as a prerequisite for Contractor payment.
- B. All equipment, materials, and work associated with the prescribed performance testing requirements shall be at the sole expense of the Contractor.

6.03 EPOXY COATING SPARK TESTING

- A. The epoxy coating shall be tested using a holiday or spark test method to identify any pinholes or holidays that were not detected during the visual inspection.
- B. The Contractor shall perform holiday detection on all surfaces coated with the epoxy coating in the presence of Inspector.
- C. After the epoxy coating has set hard to the touch, surfaces shall first be dried; an induced holiday shall then be made on to the coated concrete surface and shall serve to determine the minimum/maximum voltage to be used to test the coating for holidays at that particular area.
- D. The spark tester shall be initially set at 100 volts per one (1) mil (25 microns) of film thickness applied but may be adjusted as necessary to detect the induced holiday (ref. NACE RPO188-99).
- E. All detected holidays shall be marked and repaired by abrading the coating surface with grit disk paper or other hand tooling method. After abrading and cleaning, additional epoxy coating material can be hand applied to the repair area. All touch-up/repair procedures shall follow the epoxy coating manufacturer's recommendations.

END OF SECTION

SECTION 33 05 05.31
HYDROSTATIC TESTING

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

- A. The CONTRACTOR shall be responsible for the pressure testing of all systems prior to placing them in service.
- B. The pressure testing shall be as required to prove that the piping is left in proper condition for satisfactory operation under the conditions specified.

PART 2 - MATERIALS AND EQUIPMENT
(Not Applicable)

PART 3 - EXECUTION

3.01 PRESSURE AND LEAKAGE TESTS

- A. Tests shall be conducted in the presence of and to the satisfaction of the ENGINEER and of authorities having jurisdiction over the work. Notice shall be given prior to start of tests.
- B. Field pressure and leakage tests shall be conducted on the following:
- C. Force Mains.
 - 1. Mains shall be subjected to a leakage test. This test measures the amount of water required to be supplied to newly laid pipe to maintain a specific pressure after the pipe has been filled with water and the air expelled. The duration of this test shall be not less than two hours and the test pressure shall be 100 psig as measured at the end point in the line. The maximum allowable leakage shall not exceed the limits specified in AWWA C-600.

3.02 ENGINEER'S RIGHT TO RETESTING

- A. Should the CONTRACTOR refuse or neglect to make any tests necessary to demonstrate the integrity of the completed system, the ENGINEER may retain the services of an outside consultant to make all such tests and their resulting adjustments and balance.
- B. The costs for such tests shall be deducted from amounts owing to the CONTRACTOR and shall not be borne by the OWNER.

END OF SECTION

SECTION 33 05 07.13
UTILITY DIRECTIONAL DRILLING

PART 1 - GENERAL

1.01 DESCRIPTION

- A. SCOPE OF WORK. The work specified in this section consists of furnishing and installing underground utilities using the horizontal directional drilling (HDD) method of installation, also commonly referred to as directional boring or guided horizontal boring. This work shall include all services, equipment, materials, and labor for the complete and proper installation, testing, restoration of underground utilities and environmental protection and restoration.
- B. RELATED WORK SPECIFIED ELSEWHERE
1. Section 01 33 23: Shop Drawings, Product Data, and Samples
 2. Section 01 78 39: Project Record Documents
 3. Section 33 01 00: Operation and Maintenance of Utilities

1.02 QUALITY ASSURANCE

- A. The requirements set forth in this specification specify a wide range of procedural precautions necessary to ensure that the very basic, essential aspects of a proper directional bore installation are adequately controlled. Strict adherence shall be required under specifically covered conditions outlined in this specification. Adherence to the specifications contained herein, or the Engineer's approval of any aspect of any directional bore operation covered by this specification, shall in no way relieve the Contractor of their ultimate responsibility for the satisfactory completion of the work authorized under the Contract.

1.03 SUBMITTALS

- A. **WORK PLAN.** Prior to beginning work, the Contractor must submit to the Engineer a work plan detailing the procedure and schedule to be used to execute the project. The work plan should include a description of all equipment to be used, down-hole tools, a list of personnel and their qualifications and experience (including back-up personnel in the event that an individual is unavailable), list of subcontractors, a schedule of work activity, a safety plan (including MSDS of any potentially hazardous substances to be used), traffic control plan (if applicable), an environmental protection plan and contingency plans for possible problems. Work plan should be comprehensive, realistic and based on actual working conditions for this particular project. Plan should document the thoughtful planning required to successfully complete the project.
- B. **Equipment.** Contractor will submit specifications on directional drilling equipment to be used to ensure that the equipment will be adequate to complete the project. Equipment shall include but not be limited to: drilling rig, mud system, mud motors (if applicable), down-hole tools, guidance system, and rig safety systems. Calibration records for guidance equipment shall be included. Specifications for any drilling fluid additives that Contractor intends to use or might use will be submitted.
- C. **Material.** Specifications on material to be used shall be submitted to Engineer. Material shall include the pipe, fittings, drilling mud, drilling additives and any other item which is to be an installed component of the project or used during construction.
- D. All submittals shall be in conformance with Section 01 33 23.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Directional drilling equipment shall consist of a directional drilling rig of sufficient capacity to perform the bore and pullback the pipe, a drilling fluid mixing, and delivery system of sufficient capacity to successfully complete the crossing; a guidance system to accurately guide boring operations and trained and competent personnel to operate the system. All equipment shall be in good, safe operating

condition with sufficient supplies, materials and spare parts on hand to maintain the system in good working order for the duration of this project.

2.02 PIPE

- A. HDPE Pipe - The pipe shall be high density polyethylene (HDPE) AWWA C906 DR11 with standard ductile iron pipe outer diameters. Where fittings are required, a stainless steel stiffener shall be inserted in the end of the pipe for support. Stiffeners shall be so manufactured by Smith-Blair, Inc. ROMAC, or approved equal. HDPE pipe shall be as manufactured by Plexco, Driscopipe, or approved equal. Pipe shall be color coded for the type of utility service.
- B. PVC Pipe – The pipe shall conform to the requirements in Section 33 01 00 and have restrained joints to allow for pull back of the pipe. Pipe shall be TerraBrute by IPEX, CertaLok by Certainteed, fusible PVC by Underground Solutions, or approved equal.
- C. Ductile Iron Pipe – The pipe shall conform to the requirements in Section 33 01 00 and have restrained joints to allow for pull back of the pipe. Pipe shall be American MT Push Pipe or approved equal.

2.03 DRILLING SYSTEM

- A. Drilling Rig. The directional drilling machine shall consist of a hydraulically powered system to rotate, push and pull hollow drill pipe into the ground at a variable angle while delivering a pressurized fluid mixture to a guidable drill (bore) head. The machine shall be anchored to the ground to withstand the pulling, pushing and rotating pressure required to complete the crossing. The hydraulic power system shall be self-contained with sufficient pressure and volume to power drilling operations. Hydraulic system shall be free of leaks. Rig shall have a system to monitor and record maximum pull-back pressure during pull-back operations. The rig shall be grounded during drilling and pull-back operations. There shall be a system to detect electrical current from the drill string and an audible alarm which automatically sounds when an electrical current is detected.
- B. Drill Head. The drill head shall be steerable by changing its rotation and shall provide the necessary cutting surfaces and drilling fluid jets.

- C. Mud Motors (if required). Mud motors shall be of adequate power to turn the required drilling tools.
- D. Drill Pipe. Shall be constructed of high quality 4130 seamless tubing, grade D or better, with threaded box and pins. Tool joints should be hardened to 32-36 RC.

2.04 GUIDANCE SYSTEM

- A. A conventional electromagnetic sound walkover system, Magnetic Guidance System (MGS) probe or proven gyroscopic probe and interface shall be used to provide a continuous and accurate determination of the location of the drill head during the drilling operation. The guidance shall be capable of tracking at the maximum depth required and in any soil condition, including hard rock. It shall enable the driller to guide the drill head by providing immediate information on the tool face, azimuth (horizontal direction), and inclination (vertical direction). The guidance system shall be accurate to $\pm 2\%$ of the vertical depth of the borehole at sensing position at depths up to one hundred feet and accurate within 1.5 meters horizontally.
- B. The Guidance System shall be of a proven type and shall be setup and operated by personnel trained and experienced with this system. The Operator shall be aware of any geomagnetic anomalies and shall consider such influences in the operation of the guidance system if using a magnetic system.

2.05 DRILLING FLUID (MUD) SYSTEM

- A. Mixing System. A self-contained, closed, drilling fluid mixing system shall be of sufficient size to mix and deliver drilling fluid composed of bentonite clay, potable water and appropriate additives. Mixing system shall be able to molecularly shear individual bentonite particles from the dry powder to avoid clumping and ensure thorough mixing. The drilling fluid reservoir tank shall be a minimum of 500* gallons. Mixing system shall continually agitate the drilling fluid during drilling operations.
- B. Drilling Fluids. Drilling fluid shall be composed of clean water and bentonite clay.

Water shall be from an authorized source with a pH of 8.5 - 10. Water of a lower pH or with excessive calcium shall be treated with the appropriate amount of sodium carbonate or equal. The water and bentonite clay shall be mixed thoroughly and be absent of any clumps or clods. No additional material may be used in drilling fluid without prior approval from Engineer. Contractor is responsible for provisions to obtain clean water for the fluid.

- C. The Bentonite mixture used shall have the minimum viscosities as measured by a March Funnel:
1. Rock, Clay - 60 sec.
 2. Hard Clay - 40 sec.
 3. Soft Clay - 45 sec.
 4. Sandy Clay - 90 sec.
 5. Stable Sand - 80 sec.
 6. Loose Sand - 110 sec.
 7. Wet Sand - 110 sec.
- D. These viscosities may be varied to best fit the soil conditions encountered, as approved by the Engineer.
- E. Additives. Additives to drilling fluid such as drill soap, polymers, etc. shall be “environmentally safe” and be approved for such usage. No diesel fuel will be used.
- F. Delivery System. The mud pumping system shall have a minimum capacity of 50* GPM and be capable of delivering the drilling fluid at a constant minimum pressure of 1000 psi. The delivery system shall have filters in-line to prevent solids from being pumped into the drill pipe. Connections between the pump and drill pipe shall be relatively leak-free. Used

drilling fluid and drilling fluid spilled during drilling operations shall be contained and properly disposed of. A berm, minimum of 12" high, shall be maintained around drill rigs, drilling fluid mixing system, entry and exit pits and drilling fluid recycling system to prevent spills into the surrounding environment. Pumps and or vacuum truck(s) of sufficient size shall be in place to convey excess drilling fluid from containment areas to storage and facilities.

G. (not used)

2.06 OTHER EQUIPMENT

- A. Pipe Rollers. Pipe rollers shall be of sufficient size to fully support the weight of the pipe while being hydro-tested and during pull-back operations. Sufficient number of rollers shall be used to prevent excess sagging of pipe. Rollers shall be used as necessary to assist in pull back operations and in layout/fusing of material.
- B. Pipe Rammers. Hydraulic or pneumatic pipe rammers may only be used if necessary and with the authorization of Engineer.
- C. Restrictions. Other devices or utility placement systems for providing horizontal thrust other than those previously defined in the preceding sections shall not be used unless approved by the Engineer prior to commencement of the work. Consideration for approval will be made on an individual basis for each specified location. The proposed device or system will be evaluated prior to approval or rejection on its potential ability to complete the utility placement satisfactorily without undue stoppage and to maintain line and grade within the tolerances prescribed by the particular conditions of the project.

PART 3 - EXECUTION

3.01 GENERAL

- A. The Engineer must be notified 48 hours in advance of starting work. The Directional Bore shall not begin until the Engineer is present at the job site and agrees that proper preparations for the operation have been made. The Engineer approval for beginning the installation shall in no way relieve the Contractor of the ultimate responsibility for the satisfactory completion of the work as authorized

under the Contract.

- B. Existing Utilities. The drawings show existing utilities that are believed to be near the directional drill alignment. There is no guarantee that these utilities are located as shown or that other utilities may not be present. The Contractor is to field locate existing utilities in advance of the work so as not to delay work and avoid conflict and disruption of utility services.

3.02 PERSONNEL REQUIREMENTS

- A. All personnel shall be fully trained in their respective duties as part of the directional drilling crew and in safety. Each person must have at least two years directional drilling experience. A competent and experienced supervisor representing the Contractor and Drilling Subcontractor shall be present at all times during the actual drilling operations. A responsible representative who is thoroughly familiar with the equipment and type work to be performed, must be in direct charge and control of the operation at all times. In all cases the supervisor must be continually present at the job site during the actual Directional Bore operation. The Contractor and Subcontractor shall have a sufficient number of competent workers on the job at all times to ensure the Directional Bore is made in a timely and satisfactory manner.
- B. Personnel who are unqualified, incompetent or otherwise not suitable for the performance of this project shall be removed from the jobsite and replaced with a suitable person.

3.03 DRILLING PROCEDURE

- A. Site Preparation. If not completed, prior to any alterations to worksite, Contractor shall photograph or video tape entire work area, including entry and exit points. One copy of shall be given to Engineer and one copy to remain with Contractor for a period of one year following the completion of the project.
- B. Work site as indicated on drawings, within right-of-way, shall be graded or filled to provide a level working area. No alterations beyond what is required for operations are to be made. Contractor shall confine all activities to designated work areas.

- C. Drill Path Survey. Entire drill path shall be accurately surveyed with entry and exit stakes placed in the appropriate locations within the areas indicated on drawings. If Contractor is using a magnetic guidance system, drill path will be surveyed for any surface geomagnetic variations or anomalies.
- D. Environmental Protection. Contractor shall place silt fence between all drilling operations and any drainage, wetland, waterway or other area designated for such protection by contract documents, state, federal and local regulations. Additional environmental protection necessary to contain any hydraulic or drilling fluid spills shall be put in place, including berms, liners, turbidity curtains and other measures. Contractor shall adhere to all applicable environmental regulations. Fuel or oil may not be stored in bulk containers within 200' of any water body or wetland.
- E. Safety. Contractor shall adhere to all applicable state, federal and local safety regulations and all operations shall be conducted in a safe manner. Safety meetings shall be conducted at least weekly with a written record of attendance and topic submitted to Engineer.
- F. Pipe. Pipe shall be welded/fused together in one length, if space permits. Steel pipe welds will be X-rayed prior to being placed in bore hole. Pipe will be placed on pipe rollers before pulling into bore hole with rollers spaced close enough to prevent excessive sagging of pipe.
- G. Pilot Hole. Pilot hole shall be drilled on bore path with no deviations greater than 5% of depth over a length of one hundred feet. In the event that pilot does deviate from bore path more than 5% of depth in one hundred feet, Contractor will notify Engineer and Engineer may require Contractor to pull-back and re-drill from the location along bore path before the deviation.
- H. In the event that a drilling fluid fracture, inadvertent returns or returns loss occurs during pilot hole drilling operations, Contractor will cease operations and will discuss corrective options and with the Engineer and/or maintaining agency, then work will then proceed accordingly.
- I. Reaming. Upon successful completion of pilot hole, Contractor will ream bore hole to a minimum of 25% greater than outside diameter of pipe using the appropriate

tools. Contractor will not attempt to ream at one time more than the drilling equipment and mud system are designed to safely handle.

- J. Pull-Back. After successfully reaming bore hole to the required diameter, Contractor will pull the pipe through the bore hole. In front of the pipe will be a swivel. Once pull-back operations have commenced, operations must continue without interruption until pipe is completely pulled into bore hole. During pull-back operations Contractor will not apply more than the maximum safe pipe pull pressure at any time.
- K. In the event that pipe becomes stuck, Contractor will notify Engineer. Engineer, Contractor, and/or the maintaining agency will discuss options and then work will proceed accordingly.

3.04 PIPE TESTING

- A. Following successful pull-back of pipe, Contractor will hydro-test pipe as required in Section 33 01 00.

3.05 SITE RESTORATION

- A. Following drilling operations, Contractor will de-mobilize equipment and restore the work site to original condition. Any noticeable surface defects due to the drilling operation shall be repaired by Contractor.
- B. In areas where directional drill is required to take place under pavement, the following procedures shall be followed to prevent road failure. Upon completion of the drill and pull, the Contractor shall pump the drill pit free of all excess drill mud. This may cause a void between the top of this pipe and the roof of the pre-reamed hole. The Contractor can either over excavate the pit, exposing the top of the pipe in the void area, backfill, and compact to full depth. Alternatively, the pit may be filled with flowable fill to the full sub-base depth. Cover the pipe, fitting, or valves with visqueen, filling the annular space. The Contractor remains responsible for repairing the pavement if subsidence occurs in the pit area within 3 months of completing the work.

3.06 RECORD KEEPING

- A. As-Built. Contractor shall maintain a daily project log of drilling operations and a guidance system log with a copy given to Engineer at completion of boring. As-built drawings shall be certified as to accuracy by Contractor as required in Section 01 78 39.

END OF SECTION

SECTION 33 05 33.23
POLYETHYLENE PRESSURE PIPE AND TUBING

PART 1 – GENERAL

1.01 SECTION DESCRIPTION

- A. This specification includes but is not limited to high-density polyethylene (HDPE) pressure pipe primarily intended for the transportation of water or sewage either buried or above grade. Approved grades of HDPE pressure pipe are PE3408, PE4710, and PE100 (ISO), with ductile iron pipe size (DIPS) outer diameters.

1.02 REFERENCES

- A. Reference: Title:

1. AWWA C901 Polyethylene (PE) pressure Pipe & Tubing, 1/2 inch through 3 inch for water
2. AWWA C906 Polyethylene (PE) pressure Pipe & Fittings, 4 inch through 63 inch for water
3. ASTM D3035 Standard Spec for PE Pipe (DR-PR) Based on Controlled Outside
4. Diameter ASTM D3261 Butt Heat Fusion PE Fittings for PE Pipe & Tubing
5. ASTM D3350 Standard Specification for PE Pipe & Fittings Materials
6. ASTM D1238 Melt Flow Index
7. ASTM D1505 Density of Plastics
8. ASTM D2837 Hydrostatic Design Basis
9. NSF Std. #14 Plastic Piping Components & Related Materials
10. TR-33/2005 Generic Butt Fusion Joining Procedure for Field Joining of PE Pipe

11. Section 330112: Inspection and Testing of Water Utilities

1.03 GENERAL

A. USE

1. High Density Polyethylene (HDPE) pipes/fittings shall be allowed for use as water, wastewater and reclaimed water pressure pipe where compatible with the specific conditions of the project. The use of material other than HDPE pipe may be required by the Engineer if it is determined that HDPE pipe is unsuitable for the particular application. All material used in the production of water main piping shall be approved by the National Sanitation Foundation (NSF).

B. DOCUMENTATION

1. Documentation from the resin's manufacturer showing results of the following tests for resin identification:
 - a. Melt Flow Index ASTM D1238
2. Density ASTM D1505

C. MANUFACTURER

1. All HDPE pipe and fittings shall be from a single manufacturer, who is fully experienced, reputable and qualified in the manufacture of the HDPE pipe to be furnished. The pipe shall be designed, constructed and installed in accordance with the best practices and methods and shall comply with these Specifications. Qualified manufacturers shall be: PLEXCO Division of Chevron Chemical Company, DRISCOPIPE as manufactured by Phillips Products Co., Inc., SCLAIRPIPE as manufactured by DuPont of Canada or equal as approved by the Engineer.

D. FINISHED PRODUCT EVALUATION

1. Production staff shall check each length of pipe produced for the items listed below. The results of all measurements shall be recorded on production sheets, which become part of the manufacturer's permanent records.
 - a. Pipe in process shall be checked visually, inside and out for cosmetic defects (grooves, pits, hollows, etc.)
 - b. Pipe outside diameter shall be measured using a suitable periphery tape to ensure conformance with ASTM F714 or ASTM D3035, whichever is applicable.
 - c. Pipe wall thickness shall be measured at 12 equally spaced locations around the circumference at both ends of the pipe to ensure conformance with ASTM F714 or ASTM D3035, whichever is applicable.
 - d. Pipe length shall be measured.
 - e. Pipe marking shall be examined and checked for accuracy.
 - f. Pipe ends shall be checked to ensure they are cut square and clean.
 - g. Subject inside surface to a "reverse bend test" to ensure the pipe is free of oxidation (brittleness).

E. STRESS REGRESSION TESTING

1. The polyethylene pipe manufacturer shall provide certification that stress regression testing has been performed on the specific polyethylene resin being utilized in the manufacture of this product. This stress regression testing shall have been done in accordance with ASTM D2837 and the manufacturer shall provide a product supplying a minimum Hydrostatic Design Basis (HDB) of 1,600 psi as determined in accordance with ASTM D2837.

F. COMPATIBILITY

1. Contractor is responsible for compatibility between pipe materials, fittings and appurtenances.

G. WARRANTY

1. The pipe MANUFACTURER shall provide a warranty against manufacturing defects of material and workmanship for a period of ten years after the final acceptance of the project by the Owner. The MANUFACTURER shall replace at no expense to the Owner any defective pipe/fitting material including labor within the warranty period.

PART 2 - PRODUCTS

2.01 MATERIALS FOR PIPE SIZES 4-INCH DIAMETER AND LARGER

- A. Materials used for the manufacture of polyethylene pipe and fittings shall be made from an approved grade (PE 3408 at minimum) of high density polyethylene resin compound meeting cell classification 345434C per ASTM D3350; and meeting Type III, Class C, Category 5, Grade P34 per ASTM D1238.
- B. High Density Polyethylene (HDPE) pipe shall comply with AWWA Specifications C906.
- C. If rework compounds are required, only those generated in the Manufacturer's own plant from resin compounds of the same class and type from the same raw material supplier shall be used.
- D. Dimensions and workmanship shall be as specified by ASTM F714. HDPE fittings and transitions shall meet ASTM D3261. HDPE pipe shall have a minimum density of 0.945 grams per cubic centimeter. All HDPE pipe and fittings shall have a Hydrostatic Design Basis (HDB) of 1,600 psi.
- E. HDPE pipe and accessories 4-inch diameter and larger, shall be 160 psi at 73.4 meeting the requirements of Standard Dimension Ratio (SDR) 17 as MINIMUM STRENGTH.
- F. The pipe Manufacturer must certify compliance with the above requirements.

2.02 MATERIALS FOR PIPE SIZES 2-INCH DIAMETER AND LESS

- A. Materials used for the manufacture of polyethylene pipe and fittings shall be made from an approved grade (PE 3408 at minimum) of high density polyethylene resin compound meeting cell classification 345434C per ASTM D3350; and meeting Type III, Class C, Category 5, Grade P34 per ASTM D1238.
- B. High Density Polyethylene (HDPE) pipes shall comply with AWWA Specifications C901.
- C. If rework compounds are required, only those generated in the Manufacturer's own plant from resin compounds of the same class and type from the same raw material supplier shall be used.
- D. Dimensions and workmanship shall be as specified by ASTM D3035. HDPE fittings and transitions shall meet ASTM D3261. HDPE pipe shall have a minimum density of 0.945 grams per cubic centimeter. All HDPE pipe and fittings shall have a Hydrostatic Design Basis (HDB) of 1,600 psi.
- E. HDPE pipe and accessories 2" and less in diameter, shall be 160 psi at 73.4 F meeting the requirements of Standard Dimension Ratio (SDR) 9 as MINIMUM STRENGTH.
- F. The pipe Manufacturer must certify compliance with the above requirements.

2.03 FITTINGS

- A. All molded fittings and fabricated fittings shall be fully pressure rated to match the pipe SDR pressure rating to which they are made. All fittings shall be molded or fabricated by the manufacturer. No Contractor fabricated fittings shall be used unless approved by the Engineer.
- B. The manufacturer of the HDPE pipe shall supply all HDPE fittings and accessories as well as any adapters and/or specials required to perform the work as shown on the Drawings and specified herein.
- C. All fittings shall be installed using butt-fused fittings, thermo-fused fittings/couplings, flanged adapters, or fused mechanical joint adapters and must be approved by the Engineer. NO size on size wet taps shall be permitted.

- D. All transition from HDPE pipe to ductile iron or PVC shall be made per the approval of the Engineer and per the HDPE pipe manufacturer's recommendations and specifications. A molded flange connector adapter (or a molded mechanical joint adapter) within a carbon steel back-up ring assembly shall be used for pipe type transitions. Ductile iron back-up rings shall mate with cast iron flanges per ANSI B16.1. A 316 stainless steel back-up ring shall mate with a 316 stainless steel flange per ANSI B16.1.
1. Transition from HDPE to ductile iron fittings and valves shall be approved by the Engineer before installation.
 2. Solid sleeves shall be allowed between such material transitions with the use of stainless steel inserts only in exceptional circumstances requiring written approval by the Engineer.
 3. Fittings and transitions shall be as manufactured by Phillips DRISCOPE, Inc., 1000 Series Pressure Pipe, Chevron Chemical Company Plexco/Spiralite pipe, or equal.
 4. The pipe supplier must certify compliance with the above requirements.

2.04 PIPE IDENTIFICATION

- A. The following shall be continuously indent printed on the pipe or spaced at intervals not exceeding 5-feet:
1. Name and/or trademark of the pipe manufacturer.
 2. Nominal pipe size.
 3. Dimension ratio.
 4. The letters PE followed by the polyethylene grade in accordance with ASTM
 5. D1248 followed by the hydrostatic design basis in 100's of psi, e.g., PE 3408.

6. Manufacturing standard reference, e.g., ASTM F714 or D-3035, as required.
7. A production code from which the date and place of manufacture can be determined.
8. Color Identification, either stripped by co-extruding longitudinal identifiable color markings or shall be solid in color and as follows:
 - a. BLUE – Potable Water
 - b. GREEN – Sanitary Sewer
 - c. PURPLE – Reclaimed
 - d. BROWN – Membrane Concentrate/Reverse Osmosis reject.

B. Tracing Wire

1. Open trench installation of HDPE shall be identifiable per Specification Section “Plastic Pipe for Pressure Service” in Division 2.
2. Directional Drilled HDPE shall have two wires conforming to Copperhead Industries Reinforced #1245 Extra-High Strength Tracer Wire and affixed to the drilling head/reamer per Detail M-17.

C. Marking Tape: Marking tape shall be installed per Engineer approval.

PART 3 – EXECUTION

3.01 JOINING METHOD

- A. The pipe shall be joined with butt, heat fusion joints as outlined in ASTM D2657 and conform to the Generic Butt Fusion Joining Procedure for Field Joining of Polyethylene Pipe, Technical Report TR-33/2005, published by the Plastic Pipe Institute (PPI). All joints shall be made in strict compliance with the manufacturer’s recommendations. A factory qualified joining technician as designated by pipe manufacturer or experienced, trained technician shall perform all heat fusion joints in the presence of the Engineer or his representative.

- B. Lengths of pipe shall be assembled into suitable installation lengths by the butt-fusion process. All pipes so joined shall be made from the same class and type of raw material made by the same raw material supplier. Pipe shall be furnished in standard laying lengths not to exceed 50 feet and no shorter than 20 feet.
- C. On days butt fusions are to be made, the first fusion shall be a trial fusion in the presence of the Engineer or his representative. The following shall apply:
1. Heating plate surfaces shall be inspected for cuts and scrapes and shall be free of dirt and residue. Heater surfaces should be between 400°F (minimum) to 450°F (maximum). Measure the temperature @ 12:00, 3:00, 6:00 and 9:00 o'clock positions using a pyrometer or infrared thermometer at locations where the heating plate will contact the pipe/fitting ends. The maximum temperature difference between any two points on a single heating surface must not exceed 24°F. If this temperature is exceeded, the heating plate shall be cleaned per the manufacturer's recommendations.
 2. The fusion or test section shall be cut out after cooling completely for inspection.
 3. The test section shall be 12" or 30 times (minimum) the wall thickness in length and 1" or 1.5 times the wall thickness in width (minimum).
 4. The joint shall be visually inspected as to continuity of "beads" from the melted material, and for assurance of "cold joint" prevention (i.e. – joint shall have visible molded material between walls of pipe). Joint spacing between the walls of the two ends shall be a minimum of 1/16" to a maximum 3/16".
 5. The Engineer or his representative may choose to waive this joint test following sufficient review of the initial test joint and provided Contractor continues such fuses with the same attention to method detail.
- D. The polyethylene flange adapters at pipe material transitions shall be backed up by stainless steel flanges conforming to ANSI B16.1 and shaped as necessary to suit the outside dimensions of the pipe. The flange adapter assemblies shall be connected with corrosion resisting bolts and nuts of Type 316 Stainless Steel as specified in ASTM A726 and ASTM A307. All bolts shall be tightened to the manufacturer's specified torques. Bolts shall be tightened alternatively and evenly.

After installation, apply a bitumastic coating to bolts and nuts. (This applies equally to mechanical joint adapters, as appropriate)

3.02 INSTALLATION

- A. High Density Polyethylene (HDPE) Pipe shall be installed in accordance with the instruction of the manufacturer, as shown on the Drawings and as specified herein. A factory qualified joining technician as designated by the pipe manufacturer shall perform all heat fusion joints.
- B. HDPE shall be installed either by Open Trench Construction or Directional Bore Method as outlined in this section under sub-part 3.02 – Installation, Item Q – Open Trench Installation or Item R – Directional Bore Installation of this Section.
- C. Care shall be taken in loading, transporting and unloading to prevent damage to the pipe. Pipe or fitting shall not be dropped. All pipe or fitting shall be examined before installation, and no piece shall be installed which is found to be defective. Any damage to the pipe shall be repaired as directed by the Engineer. If any defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe in a satisfactory manner by the Contractor, at his own expense.
- D. Under no circumstances shall the pipe or accessories be dropped into the trench or forced through a directional bore upon “pull-back”.
- E. Care shall be taken during transportation of the pipe such that it will not be cut, kinked or otherwise damaged.
- F. Ropes, fabric or rubber protected slings and straps shall be used when handling pipes. Chains, cables or hooks inserted into the pipe ends shall not be used. Two slings spread apart shall be used for lifting each length of pipe.
- G. Pipes shall be stored on level ground, preferably turf or sand, free of sharp objects, which could damage the pipe. Stacking of the polyethylene pipe shall be limited to a height that will not cause excessive deformation of the bottom layers of pipes under anticipated temperature conditions. Where necessary due to ground conditions, the pipe shall be stored on wooden sleepers, spaced suitably and of such width as not to allow deformation of the pipe at the point of contact with the sleeper or between supports.

- H. Pipe shall be stored on clean level ground to prevent undue scratching or gouging. The handling of the pipe shall be in such a manner that the pipe is not damaged by dragging it over sharp and cutting objects. The maximum allowable depth of cuts, scratches or gouges on the exterior of the pipe is 5 percent of wall thickness. The interior pipe surface shall be free of cuts, gouges or scratches.
- I. Pipe shall be laid to lines and grade shown on the Drawings with bedding and backfill as shown on the Drawings.
- J. When laying is not in progress, including lunchtime, the open ends of the pipe shall be closed by fabricated plugs, or by other approved means.
- K. Sections of pipe with cuts, scratches or gouges exceeding 5 percent of the pipe wall thickness shall be removed completely and the ends of the pipeline rejoined.
- L. The pipe shall be joined by the method of thermal butt fusion, as outlined in PART 3 – Execution, Section 3.01 Joining Method. All joints shall be made in strict compliance with the manufacturer's recommendations.
- M. Mechanical connections of the polyethylene pipe to auxiliary equipment such as valves, pumps and tanks shall be through flanged connections which shall consists of the following:
 - 1. A polyethylene flange shall be thermally butt-fused to the stub end of the pipe.
 - 2. A 316 stainless steel back up ring shall mate with a 316 stainless steel flange.
 - 3. 316 stainless steel bolts and nuts shall be used.
- N. Flange connections shall be provided with a full-face neoprene gasket.
- O. All HDPE pipe must be at the temperature of the surrounding soil at the time of backfilling and compaction.
- P. If a defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe in a satisfactory manner at no additional cost to the Owner. All pipe and fittings shall be thoroughly cleaned before installation, shall

be kept clean until they are used in the work and when laid, shall conform to the lines and grades required.

Q. Open Trench Installation:

1. Refer to Specification Section “Excavation and Fill in Division 31 which shall apply in its entirety.
2. The centerline of the pipe shall not deviate from a straight line drawn between the centers of the openings at the ends of the pipe by more than 1/16-in per foot of length. If a piece of pipe fails to meet this requirement check for straightness, it shall be rejected and removed from the site. Laying instructions of the manufacturer shall be explicitly followed.
3. Good alignment shall be preserved during installation. Deflection of the pipe shall occur only at those places on design drawings and as approved by the Engineer. Fittings, in addition to those shown on the Drawings, shall be used only if necessary or required by the Engineer.
4. Each length of the pipe shall have the assembly mark aligned with the pipe previously laid and held securely until enough backfill has been placed to hold the pipe in place. Joints shall not be “pulled” or “cramped”.
5. Precautions shall be taken to prevent flotation of the pipe in the trench.
6. When moveable trench bracing such as trench boxes, moveable sheeting, shoring or plates are used to support the sides of the trench, care shall be taken in placing and moving the boxes or supporting bracing to prevent movement of the pipe, or disturbance of the pipe bedding and the backfill. Trench boxes, moveable sheeting, shoring or plates shall not be allowed to extend below top of the pipe. As trench boxes, moveable sheeting, shoring or plates are moved, pipe bedding shall be placed to fill any voids created and the backfill shall be recompact to provide uniform side support for the pipe.
7. Restrained joints shall be installed where shown on the Drawings or as directed by the Engineer.

R. Directional Bore Installation:

1. Refer to Specification 33 05 07.13 – Utility Directional Drilling, which shall apply in its entirety.

3.03 CLEANING

- A. At the conclusion of the work, thoroughly clean all of the new pipelines to remove all dirt, stones, pieces of wood or other material which may have entered during the construction period by forcing a cleaning swab through all mains 4" or greater. Flushing velocities shall be a minimum of 2.5 feet per second. All flushing shall be coordinated with the Engineer and the Utility Department providing the flushing water. Debris cleaned from the lines shall be removed from the job site.

3.04 TESTING

- A. Pressure testing shall be conducted per Manufacturer's recommendations and as approved by the Engineer. If manufacturer provides no sufficient pressure test protocol recommendation, Contractor shall follow the procedure outlined in sub-part 3.04-Testing, paragraph E of this section.
- B. All HDPE water mains shall be disinfected prior to pressure testing as per Section 330112.
- C. All HDPE mains shall be field-tested. Contractor shall supply all labor, equipment, material, gages, pumps, meters and incidentals required for testing. Each main shall be pressure tested upon completion of the pipe laying and backfilling operations, including placement of any required temporary roadway surfacing.
- D. All mains shall be tested at 150 percent of the operating design pressure of the pipe unless otherwise approved by the Engineer.
- E. Pressure testing procedure shall be per Manufacturer's recommendations or as follows:
 1. Fill line slowly with water. Maintain flow velocity less than 2 feet per second.

2. Expel air completely from the line during filling and again before applying test pressure. Air shall be expelled by means of taps at points of highest elevation.
 3. Apply initial test pressure and allow to stand without makeup pressure for two to three hours, to allow for diametric expansion or pipe stretching to stabilize. Repeat as necessary until pressure stabilizes for two hours.
 4. After this equilibrium period, apply the specified test pressure and turn the pump off. The final test pressure shall be held for two (or more) hours.
 5. Upon completion of the test, the pressure shall be bled off from a location other than the point where the pressure is monitored. The pressure drop shall be witnessed by the resident project representative and utility system representative at the point where the pressure is being monitored and shall show on the recorded pressure read-out submitted to the Engineer of Record.
- F. The Engineer shall have discretion on a case by case basis to approve the use of makeup water for expansion observed during pressure test. If permitted, the maximum allowable amount of makeup water for expansion during the pressure test shall conform to table 1, Allowance for Expansion Under Test Pressure, in this section. If there are no observed leaks or significant pressure drops during the final test period, the installed pipe passes the test.

Table 1

Allowance for Expansion Under Test Pressure (US Gallons per 100 Feet of Pipe at 73.4°F)			
Nominal Pipe Size	1 hour test	2 hour test	3 hour test
3	0.10	0.15	0.25
4	0.13	0.25	0.40
6	0.30	0.60	0.90
8	0.50	1.00	1.50
10	0.70	1.30	2.10
12	1.1	2.3	3.4
14	1.4	2.7	4.2

Allowance for Expansion Under Test Pressure (US Gallons per 100 Feet of Pipe at 73.4°F)			
Nominal Pipe Size	1 hour test	2 hour test	3 hour test
16	1.7	3.3	5.0
18	2.2	4.3	6.5
20	2.7	5.5	8.0
22	3.5	7.0	10.5
24	4.5	8.9	13.3
28	5.5	11.1	16.7
32	7.0	14.3	22.5
36	9.0	18.0	27.0
40	11.0	22.0	33.0
42	12.5	25.0	37.5
48	16.0	32.0	48.0
54	20.5	41.5	62.0
63	28.0	60.0	85.0

Source: Model Specification per Sclair Pipe ® HDPE Pipe, Table 1

- G. If any test of pipe laid disclosed leakage significant pressure drop greater than the manufacturer's recommended loss, the Contractor shall, at his/her own expense, locate and repair the cause of leakage and retest the line. The amount of leakage, which will be permitted, shall be in accordance with AWWA C600 Standards.
- H. All visible leaks are to be repaired regardless of the amount of leakage.
- I. The Contractor shall notify the Engineer and the utility system representative a minimum of 48 hours prior to test.

END OF SECTION

**SECTION 00 30 00
PROPOSAL
FOR
CITY OF HOLLY HILL
10th STREET SEWER EXTENSION
BID NO. 24-WW-07**

(To be completed in Duplicate)

Bidder's Name: Hazen Construction LLC

Submitted: 9/5, 2024

City of Holly Hill
City Clerk
1065 Ridgewood Avenue
Holly Hill, FL 32117

Gentlemen:

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Proposal, as principal or principals, is or are named herein and that no other persons than herein mentioned has any interest in the Proposal or the Contract to which the work pertains; that this Proposal is made without connection or arrangement with any other person, company, or parties making a bid or proposal and that the Proposal is in all respects fair and made in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the work and that from personal knowledge and experience, or that he/she has made sufficient test holes and/or other subsurface investigations to fully satisfy self that such site is a correct and suitable one for this work and he/she assumes full responsibility therefore; that he/she is familiar with all legal requirements (Federal, State and local laws, ordinances, rules and regulations) pertaining to the Work; that he/she has examined the Drawings and Specifications for the work and from his/her own experience or from professional advice that the Drawings and Specifications are sufficient for the work to be done and he/she has examined the other Contract Documents and all addenda relating thereto, and that he/she has satisfied himself/herself fully, relative to all matters and conditions with respect to the work to which this Proposal pertains.

The Bidder proposes and agrees, if this Proposal is accepted, to contract with the City of Holly Hill, (Owner) in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, transportation, and labor and to perform all work necessary to complete the Work specified in the Proposal and other Contract Documents.

The Bidder further proposes and agrees to comply in all respects with the time limits for commencement and completion of the Work as stated in the Contract Form.

The Bidder further agrees that the deductions for liquidated damages, as stated in the Contract Form, constitute fixed and agreed liquidated damages to reimburse the Owner for additional costs to the Owner resulting from the Work not being completed within the time limit stated in the Contract Form.

The Bidder further agrees to execute a Contract and furnish satisfactory Performance and Payment Bonds, each in the amount of one-hundred percent of the Contract price, and the required Certificates of Insurance, within ten consecutive calendar days after written notice being given by the Owner of the award of the Contract, and the undersigned agrees that in case of failure on his/her part to execute the said Contract, Performance and Payment Bonds and Insurance Certificates within ten (10) consecutive calendar days after the award of the Contract, the bid guarantee accompanying his/her bid and the money payable thereon shall be paid to the Owner as liquidation of damages sustained by the Owner; otherwise, the bid guarantee shall be returned to the undersigned within fifteen days after the Contract is signed and the Performance and Payment Bonds and Insurance Certificates are filed.

The undersigned agrees to accept as full compensation for completion of the project in full compliance with the Contract Documents, the unit prices for the items named in Section 00 31 00, Schedule of Unit Prices, submitted herein with this Proposal.

The undersigned offers to furnish all materials, equipment and labor for construction of

10th STREET SEWER EXTENSION

for the City of Holly Hill, Florida, complete in every respect in strict accordance with the drawings, specifications and any future changes therein. The Contractor shall perform these obligations for the prices listed in the "Schedule of Unit Prices: Section 00 31 00" attached and made a part of this Bid. **The bid total is:**

Four Hundred Sixty Four Thousand Nine Hundred Seventy Two
(In Words)

Dollars \$ 464,972.00 (In Figures)

COMPLETION TIME OF CONTRACT

The Contractor agrees that the work shall be started not later than the date indicated in the Notice to Proceed and that the total work shall be substantially completed within **60 days** and final completion within **30 days** of substantial completion.

The Contractor further agrees that for each calendar day, with the exception of Sundays and legal holidays that any work shall remain uncompleted after the stations completion times stipulated

00 30 00 - 2

Attachment: Exhibit C - Hazen Construction - ITB 24-WW-07 (2024-R-75 : 10Th Street Sewer Extension)

above the sum of **\$1,000 (One Thousand Dollars)** per day shall be deducted from monies due the contractor, not as a penalty, but as liquidated damages. If the Contractor is declared in default in accordance with the provisions of the Specifications, liquidated damages shall be charged as provided herein, and such amounts shall be deducted from the final amount payable to the Contractor or his/her Surety. Should the total amount chargeable as liquidated damages exceed the amount due or payable to the Contractor or his/her Surety, then such excess shall be paid to the Owner by the Contractor or his/her Surety.

SUPPLEMENTAL REQUIREMENTS

The following documents are attached to and made a condition of this bid:

Schedule of Unit Prices: Section 00 31 00
 Statement of Bidder's Qualifications: Section 00 32 00
 Listing of Subcontractors: Section 00 33 00
 Listing of Previous Experience: Section 00 33 10
 Bid Bond: Section 00 41 00
 Public Entity Crimes Statement: Section 00 47 00
 Anti-Collusion Statement: Section 00 48 00
 Drug Free/Tie Preference Statement: Section 00 48 50
 Compliance with the Public Records Law: Section 00 48 60
 W9 Request for Taxpayer Identification Number and Certification: Section 00 48 70
 Affidavit of E-Verify Requirements Compliance: Section 00 48 80
 Trench Safety Affidavit: Section 00 49 00
 Certificate as to Corporate Principal: Section 00 62 00
 City of Holly Hill Insurance Requirements: Section 00 80 00A

REQUIRED DISCLOSURE

At its sole discretion, the City of Holly Hill, Florida may reject any bidder the City finds to lack, or whose present or former executive employees, officers, directors, stockholders, partners or owners are found by the City to lack honesty, integrity, or moral responsibility. The discretion of the City may be exercised based on the City's own investigation, public records, or any other reliable sources of information. By submitting a bid, bidder recognizes and accepts that the City may reject the bid based upon the exercise of its sole discretion and bidder waives any claim it might have for damages or other relief resulting from the rejection of its bid based on these grounds.

SCHEDULE OF MAJOR MANUFACTURERS AND SUPPLIERS

The equipment manufacturers/suppliers on this project shall be as delineated in the following schedule. Bidders should note that the Owner and Engineer have made rigorous investigations of equipment performance and features, and as a result, Bidders are to note that the contract price for this project shall be based on Base Bid equipment. The Base Bid equipment for this project falls under one of two categories. The first category is equipment that the Owner and Engineer have determined will be supplied by a sole source of supply, for which no substitutions or alternates will be entertained or allowed. Bidder is advised that offering of any alternatives to the sole source supplied equipment will be grounds for rejection of his bid as not responsive. The second category

of equipment includes those items where the Owner and Engineer deem there to be more than one acceptable supplier of the particular item listed. The equipment which falls under these two categories is shown on the subsequent pages of this Schedule of Major Manufacturers and Suppliers. Bidder is advised that the award of this Contract will be based solely on the use of Base Bid equipment.

The following comments relate only to the second category of equipment, where the Contract Documents are based upon the equipment or products available from the suppliers denoted as A, B, C, etc. below. These equipment manufacturers, along with the sole source suppliers constitute the Base Bid.

Provision is made in the Contract Documents for alternate manufacturers and suppliers whose equipment or product may be deemed equivalent in quality (see General Conditions). However, the Bidder must indicate in his Bid which Base Bid supplier he intends to use for each item of equipment listed by circling one of the listed manufacturers/suppliers. If the Bidder fails to indicate which listed manufacturer/supplier he intends to use if an alternate is rejected, he must use the supplier listed as "A". Also, if the Bidder circles more than one listed supplier, he must use the first supplier circled (unless an alternate is approved).

If the Bidder desires to propose one or more alternate manufacturers/suppliers, he may write in the name of such alternates in the spaces provided on the Alternate Manufactures/Suppliers page following the schedule. He must, nevertheless, also circle one of the listed manufacturers/suppliers because Bidders' Bid price must be based upon this Base Bid list. Wherever an alternate supplier is proposed, the Bidder must insert the amount to be deducted from the Contract Price (either lump sum or unit price) if the alternate supplier is eventually approved. If the proposed alternate supplier is determined "not equivalent" by the Engineer, the Bidder must use the circled supplier.

For any alternate supplier accepted by the Owner, the Contract Price will be reduced by the deductive amount stated in the Bid. However, the Contract Price will not be adjusted for any alternate supplier rejected.

Each proposed alternate will be evaluated in accordance with the General Conditions.

The deductive amount specified for alternate manufacturers/suppliers will not be used in determining the successful Bidder. Alternates will be considered only after award of the contract.

The Contractor shall reimburse the Owner for any costs directly attributable to the change in suppliers, such as additional field trips for the Engineer, additional redesign costs, additional review and inspection costs, etc.

The Owner may request and the Bidder shall supply complete information on proposed alternates prior to the Notice of Award.

SCHEDULE OF MAJOR MANUFACTURERS
AND SUPPLIERS

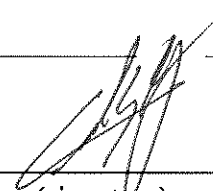
Category I - Sole Source Equipment Items:

Category II - Major Equipment Items:

Item No.	Spec. No.	Equipment/Material	Manufacturer or Supplier
1	33 32 48	Bypass Pump	A) Thompson Pump

ALTERNATE MANUFACTURERS/SUPPLIERS

EQUIPMENT ITEM MATERIAL	SPEC. SECTION	ALTERNATIVE MANUFACTURER / SUPPLIER (LIST ONE ONLY)	DEDUCTIBLE AMOUNT (indicate whether lump sum or unit price) ALTERNATE
1. <u>N/A</u>	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____



 Name (signature)

9/5/24
 Date

Chad S. Hazen
 Name (typed and printed)

President
 Title

ACKNOWLEDGMENT OF ADDENDA

Addenda will be issued via email and it is the Bidder's responsibility to confirm that all addenda have been received prior to submitting a bid for the project. Acknowledgment is hereby made of the following Addenda received since issuance of Drawings and Specifications:

Addendum No. 1 Dated: 8/24/24
 Addendum No. 2 Dated: 8/27/24
 Addendum No. _____ Dated: _____

Addendum No. _____ Dated: _____
 Addendum No. _____ Dated: _____
 Addendum No. _____ Dated: _____

Attached hereto is a cashier's check on the _____ Bank of _____ or Bid Bond for the sum of 5% of the bid Dollars (_____), made payable to _____ (Owner).

Hazen Construction LLC
 (Name of Bidder) (Affix Seal)

[Signature]
 (Signature of Officer)

President
 (Title of Officer)

Hazen Construction LLC
 Name of Bidder

1599 Tonia Rd
 Address

New Smyrna Beach FL 32168
 City/State/Zip

386 322 8700
 Telephone

CGC061991 / CUC1223713
 Contractor's Florida License Number

The full names and residences of persons and firms interested in the foregoing bid, as principals, are as follows:

Chad S. Hazen 6689 Merryvale Lane Port Orange FL 32128
Marc Hazen 2712 S Peninsula Dr. Daytona Beach FL 32118

END OF SECTION

**SECTION 00 31 00
SCHEDULE OF UNIT PRICES**

**CITY OF HOLLY HILL
10th STREET SEWER EXTENSION
BID# 24-WW-07**

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
A.	Force Main Along 10th Street				
1	Pre-Construction Video	1	LS	1,275.00	1,275.00
2	Horizontal Directional Drill				
a)	4" HDPE DR11 (1,716 LF Shown)	1,800	LF	74.00	133,200.00
3	Resilient Seat Gate Valve & Box w/Collar				
a)	4" (2 Shown)	2	EA	3,169.00	6,338.00
4	Tie-Ins				
a)	Tie-In to Manhole Sta. 2+89	1	LS	9,640.00	9,640.00
5	2" Air Release Valves (4 Shown)	4	EA	8,468.00	33,872.00
6	DIP Fittings Add or Delete	1,000	LBS	3.50	3,500.00
7	Open Cut and Repair Asphalt	8	SY	350.00	2,800.00
8	Mill and Resurface Asphalt	240	SY	93.00	22,320.00
9	Concrete Sidewalk Remove and Replace (3,000 PSI)	20	SY	126.00	2,520.00
10	Permits and Allowances	1	LS	\$10,000.00	10,000.00
11	As-Built Plans	1	LS	2,975.00	2,975.00
12	MOT	1	LS	24,500.00	24,500.00
13	Field Locate and Expose Utilities	1	LS	4,500.00	4,500.00
B.	Lift Station 17 Bypass Pump				
14	Pre-Construction Video	1	LS	1,275.00	1,275.00
15	Bypass Pump	1	LS	79,120.00	79,120.00
16	Piping for Bypass Pump	1	LS	94,336.00	94,336.00
17	Concrete Driveway and Sidewalk (6" Thick, 3,000 PSI)	30	SY	188.00	5,640.00
18	Restoration	1	LS	6,506.00	6,506.00
19	As-Built Plans	1	LS	2,250.00	2,250.00
20	MOT	1	LS	18,645.00	18,645.00
	BID TOTAL				464,972.00

Submitted by: Chad S. Hazen
 Contractor: Hazen Construction, LLC
 Address: 1599 Tonia Rd New Smyrna Beach FL 32168
 Telephone: 386 322 8700 Fax: 386 756 0000
 State of Florida Certified General Contractor or Underground Contractor (Required Information)
 Licensee: CGC061991 License No: RUC1223713

Attachment: Exhibit C - Hazen Construction - ITB 24-WW-07 (2024-R-75 : 10Th Street Sewer Extension)

SECTION 00 32 00

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The bidder may submit any additional information he desires.

- A. Name of bidder.
- B. Permanent main office address. *See attached*
- C. When organized.
- D. If a corporation, where incorporated.
- E. How many years have you been engaged in the contracting business under your present firm or trade name?
- F. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion.)
- G. General character of work performed by your company.
- H.⁽¹⁾ Have you ever failed to complete any work awarded to you? If so, where and why?
- H.⁽²⁾ Provide list of any lawsuits or judgments filed by or against your company in the last three years, indicating the nature and outcome.
- I. Have you ever defaulted on a contract? If so, where and why?
- J. List the more important projects recently completed by your company, stating the approximate cost for each and the month and year completed.
- K. List your major equipment _____.
- L. Experience in construction work similar in type to this project.
- M. Background and experience of the principal members of your organization, including the officers.
- N. Credit available: \$ _____.
- O. Give bank reference: _____.
- P. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the Owner?

HAZEN CONSTRUCTION, LLC

- A. Hazen Construction, LLC
- B. 1599 Tionia Road, New Smyrna Beach, FL 32168
- C. November 2001
- D. State of Florida
- E. 23 years
- | | | |
|-------------------------|------------|-------|
| F. Tomoka Village South | 6,300,000 | 11/24 |
| Karis Cold Storage | 7,700,000 | 10/24 |
| Cordova Apartments | 3,650,000 | 02/25 |
| Grand Champion | 14,300,000 | 01/25 |
| Ridgehaven | 11,200,000 | 02/25 |
| Lift Station 7 | 1,300,000 | 12/24 |
- G. Complete Site Work
- H. (1) No (2) NA
- I. No
- | | | |
|-------------------|------------|-------|
| J. Project Tarpon | 14,800,000 | 07/24 |
| Airpark Village | 2,900,000 | 05/24 |
| Iris | 3,500,000 | 06/24 |
| Flagler Village | 4,900,000 | 08/24 |
- K. Volvo loaders: L60, L70 & L90's / excavators 210, 240 & 360, Komatsu 250 and 320 loader, 220 excavators, CAT dozer, 360 excavators, 3 Ingersoll Rollers, 277 loaders
- L. Yes
- M. Marc Hazen 34 yrs, Chad Hazen 31 yrs
- N. 2,500,000
- O. Barwick Banking Company
- P. Yes

- Q. The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated at _____ this 5th day of September, 2024.

Hazen Construction
Name of Bidder

By: [Signature] Title President

State of Florida

County of Volusia

Chad S. Hazen being duly sworn deposes and says that

he is the President of Hazen Construction, LLC and that

the answers to the Hazen Construction, LLC foregoing questions
Name of Organization

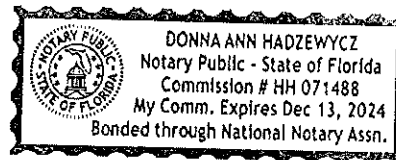
and all statements therein contained are true and correct.

Subscribed and sworn to before me this 5th day of September, 2024.

[Signature]
Notary Public

Donna Ann Hadzewycz
Notary Public (Print or Type)

My commission expires: 12/13/24



SECTION 00 33 00
LISTING OF SUBCONTRACTORS

The Bidder proposes that the following subcontractors are qualified to perform the referenced work and have successfully done so on recent projects similar in nature and size. Upon approval of subcontractors listed the successful bidder shall not substitute subcontractors without approval from the Engineer. Bidder shall attach additional sheets as necessary.

SUBCONTRACTOR	COMPANY NAME	REFERENCES
Directional Drill	B&B Underground	1) City of Deland 2) City of Ormond Beach 3) City of Port Orange
Electrical	Cates Electric	1) City of Daytona Beach 2) City of New Smyrna Beach 3) City of Port Orange
Wet Well	Sensus Utilities	1) City of New Smyrna Beach 2) City of Ormond Beach 3) City of Deland
		1) 2) 3)

END OF SECTION

SECTION 00 33 10
LISTING OF PREVIOUS EXPERIENCE

The bidder proposes that he/she is qualified to perform the referenced work and has successfully done so on recent projects similar in nature and size. A minimum of three (3) projects must be listed below. The Owner reserves the right to check references and confirm information provided herein.

NO.	PROJECT	OWNER	DESCRIPTION/COST	REFERENCE	DATE WORK STARTED & FINISHED MM/YR TO MM/YR
1	Lake Helen Eastern Rd Sewer Replacement	City of DeBona	\$433,000 New Sanitary manholes laterals in existing neighborhood	Jose Hampton 386 414 5055	12/23 - 2/24
2	Lift Station S Reconstruction	Utilities Commission New Smyrna Beach	\$950,000 New 15' gravity sewer with force main in existing neighborhood	Dana Hall 386 527-2327	4/23 - 10/23
3	Halifax Plantation Rwm	Volusia County	\$883,000 12" Rwm down easement with directional drill and connections	Roger Smith 386 804 7870	11/22 - 6/23

END OF SECTION

**SECTION 00 41 00
BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, Hazen Construction, LLC as Principal and
Western Surety Company of the City of Chicago State of South Dakota, a corporation
 existing under the laws of the State of Florida, as Surety, are held and firmly bound unto the
City of Holly Hill hereinafter called the Owner, in the sum of
FIVE Percent of amount bid Dollars (\$ 5%)
 lawful money of the United States of America, for the payment of which sum well and truly to be
 made, we bind ourselves our heirs, executors, administrators and successors, jointly and severally,
 firmly by these presents.

The condition of this obligation is such that whereas the Principal has submitted the accompanying
 Proposal or Bid, for the construction of:

10th STREET SEWER EXTENSION

NOW, THEREFORE, if the Principal shall not withdraw said Bid within ninety (90) days after the
 opening of the same and in the event of the acceptance of his proposal by the Owner, shall, within
 the period specified therefore, enter into a written contract with the Owner in accordance with the
 Bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for
 the faithful performance and proper fulfillment of such contract, or in the event of the withdrawal
 of said Bid within the period specified, of the failure to enter into such contract and give bonds
 within the time specified, if the Principal shall pay the Owner the difference between the amount
 specified in said Bid and the amount for which the Owner may procure the required work, if the
 latter amount be in excess of the former, then the above obligation shall be void and of no effect,
 otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals this 5 day of September, 2024, the name and corporate seal of each corporate body being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

IN PRESENCE OF:

Witness

ATTEST:

M. H. H.

_____(Seal)

_____(Seal)

_____(Seal)

Individual or Partner

Address

Hazen Construction, LLC

Corporate Principal

President - AFFIX
CORPORATE SEAL

1599 Tionia Road

Smyrna Beach, FL 32168

Address

By _____

AFFIX
CORPORATE SEAL

Western Surety Company

Corporate Surety

ATTEST:

R. Sharp

Paul A. Locascio

Title

END OF SECTION

Paul A. Locascio, Attorney-in-Fact & Fla. Resident Agent

00 41 00 - 2

Attachment: Exhibit C - Hazen Construction - ITB 24-WW-07 (2024-R-75 : 10Th Street Sewer Extension)

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

L Dale Waldorff, Benjamin H French, Paul A Locascio, K Wayne Walker, Ronald J Hays, Rebekah F Sharp, Trava Ridlon, Joshua T Morgan, Individually

of Fort Walton Beach, FL, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 22nd day of August, 2023.



WESTERN SURETY COMPANY

Larry Kasten

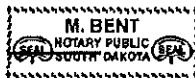
Larry Kasten, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 22nd day of August, 2023, before me personally came Larry Kasten, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

March 2, 2026



M. Bent

M. Bent, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law and Resolutions of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 5th day of September, 2024



WESTERN SURETY COMPANY

L. Nelson

L. Nelson, Assistant Secretary

Form F4280-4-2023

Go to www.cnasurety.com > Owner / Oblgee Services > Validate Bond Coverage, if you want to verify bond authenticity.

Authorizing By-Laws and Resolutions**ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY**

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

This Power of Attorney is signed by Larry Kasten, Vice President, who has been authorized pursuant to the above Bylaw to execute power of attorneys on behalf of Western Surety Company.

This Power of Attorney may be signed by digital signature and sealed by a digital or otherwise electronic-formatted corporate seal under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 27th day of April, 2022:

“RESOLVED: That it is in the best interest of the Company to periodically ratify and confirm any corporate documents signed by digital signatures and to ratify and confirm the use of a digital or otherwise electronic-formatted corporate seal, each to be considered the act and deed of the Company.”

SECTION 00 47 00

SWORN STATEMENT UNDER SECTION 287.133(3)(a), FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES:

This sworn statement is submitted with Bid, Proposal or Contract No. 24-WW-07 for City of Holly Hill.

This sworn statement is submitted by Hazen Construction, LLC whose business address is 1599 Tonia Rd New Smyrna Beach FL 32168 and (if applicable) its Federal Employer Identification Number (FEIN) is 01-0569979. (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____.)

My name is Chad S. Hazen any my relationship to the entity named above is President.

I understand that a "public entity crime" as defined in Paragraph 287.133(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

I understand that "convicted" or "conviction" as defined in Paragraph 287.133(i)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

I understand that an "affiliate" as defined in Paragraph 287.133(l)(a), Florida Statutes, means:

1. A predecessor or successor of a person convicted of a public entity crime: or
2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie that one person controls another person. A person who knowingly enters into a joint venture with a

person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

I understand that a "person" as defined in Paragraph 287.133(i)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies).

- ☒ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.
- ☐ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)
- ☐ There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)
- ☐ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order).

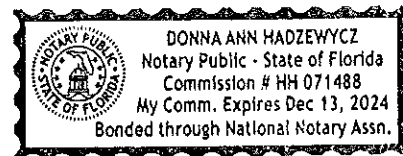
(Signature) _____ Date: 9/5/24

State of Florida County of Volusia

PERSONALLY APPEARED BEFORE ME, the undersigned authority, Chad S. Hazen
 who, after first being sworn by me, affixed his/her signature in the space provided above on this
5th day of September, 2024

Donna Ann Hadzewicz
 Notary Public

My Commission Expires:



**SECTION 00 48 00
ANTI-COLLUSION STATEMENT**

By signing this form, the bidder agrees that this is made without any other understanding, agreement, or connection with any person, corporation, or firm submitting a proposal for the same purpose and that the proposal is in all respects fair and without collusion or fraud.

SIGN in ink in the space provided below. Unsigned bids will be considered incomplete, and will be disqualified, and rejected.

IT IS AGREED BY THE UNDERSIGNED BIDDER THAT THE SIGNING AND DELIVERY OF THE BID REPRESENTS THE BIDDER'S ACCEPTANCE OF THE TERMS AND CONDITIONS OF THE FORGOING SPECIFICATIONS, CONTRACT AND PROVISIONS, AND IF AWARDED, THIS CONTRACT WILL REPRESENT THE AGREEMENT BETWEEN EACH OF THE GOVERNMENTAL PARTIES.

NAME OF FIRM: Hazen Construction, LLC

SIGNED BY: [Signature]
(MUST BE SIGNED BY A COMPANY OFFICER OR AUTHORIZED AGENT)

TITLE: President

ADDRESS: 1599 Tionia Road

CITY AND STATE: New Smyrna Beach, FL 32168

TELEPHONE: 386 322-8700

COMPLETION TIME: 90 Days

NO proposals will be withdrawn for a period of ninety (90) days subsequent to the opening of the proposals, without the consent of the City of Holly Hill.

NO BID (REASON) _____

END OF SECTION

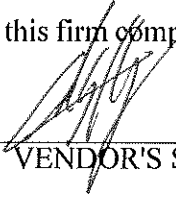
**SECTION 00 48 50
DRUG FREE/TIE PREFERENCE STATEMENT**

In the event of a tie bid a preference is given to vendors submitting a certification with their bid/proposal certifying they have a drug-free workplace in accordance with Section 287.087, Florida Statutes. This requirement affects all public entities of the State and becomes effective January 1, 1991. The special conditions are as follow:

IDENTICAL TIE BIDS - Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction or, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfaction participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.



VENDOR'S SIGNATURE

END OF SECTION

00 48 50 - 1

SECTION 00 48 60

COMPLIANCE WITH THE PUBLIC RECORDS LAW

Project Number: ITB # 24-WW-07

Upon award recommendation or ten (10) days after opening, submittals become "public records" and shall be subject to public disclosure consistent with Chapter 119, Florida Statutes. Proposers must invoke the exemptions to disclosure provided by law in the response to the solicitation, and must identify the data or other materials to be protected, and must state the reasons why such exclusion from public disclosure is necessary. The submission of a proposal authorizes release of your firm's credit data to the CITY.

If the company submits information exempt from public disclosure, the company must identify with specificity which pages/paragraphs of their bid/proposal package are exempt from the Public Records Act, identifying the specific exemption section that applies to each. The protected information must be submitted to the CITY in a separate envelope marked accordingly.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT

Valerie Manning, City Clerk
386-248-9441
vmanning@hollyhillfl.org
1065 Ridgewood Ave
Holly Hill, FL 32117

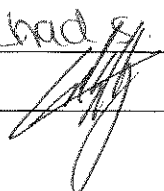
A provision that requires the contractor to comply with public records laws, specifically to:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

By submitting a response to this solicitation, the company agrees to defend the CITY in the event we are forced to litigate the public records status of the company's documents.

Company Name: Hazen Construction, LLC

Authorized representative (printed): Chad S. Hazen

Authorized representative (signature): 

Date: 9/5/24

END OF SECTION

00 48 60 - 1

Form W-9
(Rev. October 2007)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)	
Business name, if different from above <i>Hazen Construction LLC</i>	
Check appropriate box: ☐ Individual/Sole proprietor ☒ Corporation ☐ Partnership ☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ ☐ Exempt payee ☐ Other (see instructions) ▶	
Address (number, street, and apt. or suite no.) <i>1599 Tonia Road</i>	Requester's name and address (optional)
City, state, and ZIP code <i>NEW Smyrna Beach FL 32168</i>	
List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
or
Employer identification number <i>010569979</i>

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here

Signature of U.S. person ▶

Date ▶

9/5/24

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

Cat. No. 10231X

Form **W-9** (Rev. 10-2007)

END OF SECTION

00 48 70 - 1

Attachment: Exhibit C - Hazen Construction - ITB 24-WW-07 (2024-R-75 : 10Th Street Sewer Extension)

Affidavit of E-Verify Requirements Compliance

ITB 24-WW-07 10th Street Sewer Extension

The Consultant/Contractor agrees to comply with Section 448.093, Florida Statutes, and to incorporate in all subcontracts the obligation to comply with Section 448.093, Florida Statutes.

1. The Consultant/Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Consultant/Contractor during the term of the Agreement and shall expressly require any subcontractors performing work or providing services pursuant to the Agreement to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subconsultant/subcontractor during the Agreement term.

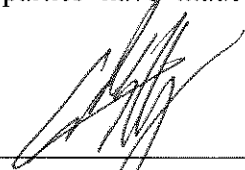
2. That the Consultant/Contractor understands and agrees that its failure to comply with the verification requirements as set forth herein or its failure to ensure that all employees and subconsultant/subcontractors performing work under this Agreement are legally authorized to work in the United States and the State of Florida constitute a breach of this Agreement for which the City may immediately terminate the Agreement without notice and without penalty. The Consultant/Contractor further understands and agrees that in the event of such termination, the Consultant/Contractor shall be liable to the City for any costs incurred by the City as a result of the Consultant's/Contractor's breach.

Consultant/Contractor shall execute and return the Affidavit of E-Verify Requirements Compliance to City. IN WITNESS WHEREOF, the parties have made and executed this Agreement for the purposes stated above.

Hazen Construction LLC

Consultant/Contractor Name and Address

1599 Tonia Rd
New Smyrna Beach FL 32168


Signature

Chad S. Hazen, President

Name and Title

**SECTION 00 49 00
TRENCH SAFETY AFFIDAVIT**

Trench excavations on this Project are expected to be in excess of 5 feet deep. The Occupational Safety and Health Administration excavation safety standards, 29 CFR 1926.650 Subpart P trench safety standards will be in effect during the period of construction of the Project.

Bidder acknowledges that included in the Bid Price are costs for complying with the Florida Trench Safety Act (90-096, Laws of FL) effective October 1, 1990, and hereby gives assurance that, if awarded the Contract, the Contractor or Subcontractor performing trench excavation work on the Project will comply with the applicable trench safety standards. The Bidder further identifies the costs as follows:

<u>Trench Safety Item (Description)</u>	<u>Cost</u>
<u>Trench excavation</u>	<u>2,000.00</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u>Two thousand</u>	
(Cost in Words)	
TOTAL \$	<u>2,000.00</u>

FAILURE TO COMPLETE THE ABOVE SHALL RESULT IN THE BID BEING DECLARED NON-RESPONSIVE

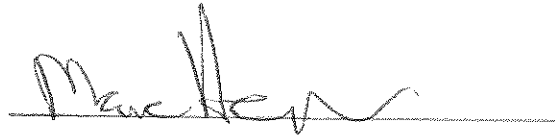
COMPANY NAME: Hazen Construction LLC

DATE: 9/5/24 BY: [Signature]

(Additional sheets shall be attached, as needed and, items shall be organized to correspond with the bid format)

SECTION 00 62 00
CERTIFICATE AS TO CORPORATE PRINCIPAL

I, Marc Hazen, certify that I am the Corporate Secretary of the corporation named as Principal in the within Bid Bond; that Chad Hazen who signed the said Bid Bond on behalf of the Principal was then President of said corporation; that I know his signature, and his signature thereto is genuine; and that said Bid Bond was duly signed, sealed and attested for in behalf of said corporation by authority of its governing body.



AFFIX CORPORATE SEAL

END OF SECTION



**STAFF REPORT
CITY OF HOLLY HILL, FLORIDA**

**City Commission
Resolution**

4.2

MEETING DATE: October 8, 2024
FROM: Antoine Khoury
SUBJECT: A Resolution of the City Commission of the City of Holly Hill, Florida, Approving Price Agreements for the Purchase of the Fiscal Year 2024-2025 Supply of Water and Wastewater Treatment Chemicals for the Public Works Department by Waiving Formal Bidding and Approving Piggybacking Contracts and Authorize the City Manager to Execute Any Necessary Price Agreements; Providing for Severability; and Providing for an Effective Date.
NUMBER: 2024-R-76
APPLICANT:
PLANNER:

DISCUSSION:

The City's Public Works Department utilizes various chemicals for the treatment of water and wastewater through various procurement methods. These chemicals are designed into the operational treatment process to maintain high quality drinking water disinfection and wastewater reuse compliance.

Current City of Holly Hill Purchasing Manual

Policy 2.39 Other Government Entities' Contracts.

The City may utilize (piggy-back) any other government entity's open contract that have been competitively bid and awarded to the low responsive, responsible bidder meeting the specifications, in accordance with City Purchasing regulations. The City may also piggyback off U.S. General Services Administration, GSA Contracts. When another entity's contracts is the be utilized, a copy of that contract shall be forwarded to the Finance Department for review and evaluation to determine if it meets the City's requirement regarding competitive bidding and award.

Chapter 287, Florida Statutes, grants the authority to piggyback the purchase of goods and services as a form of intergovernmental cooperative purchasing in which a public purchaser requests competitive sealed bids, enters into a contract, and arranges, as part of the contract, for other public purchasing units to purchase from the selected vendor under the same terms and conditions as itself in order to take advantage of the better pricing that large purchasers are able to obtain in order to reduce administrative time and costs involved in the procurement process (i.e., cost of preparing bid specifications, advertising, etc.).

Bidding Procedure

There are only three companies in Florida capable of providing liquid chlorine and liquid sulfur dioxide in the 1-ton cylinders the City utilizes for disinfection. The companies are JCI Jones Chemicals, Brenntag Mid-South, Inc., and Allied Universal Corporation. JCI Jones Chemicals declined to provide pricing. Allied Universal Corporation's quotes are contingent on the City purchasing both liquid chlorine and liquid sulfur dioxide from them. City staff recommend the purchase of liquid chlorine and liquid sulfur dioxide from Allied Universal Corporation, as the one ton cylinders are delivered on the same truck and have the lowest average price with delivery.

-) Allied Universal - Liquid Chlorine - \$1,580/Ton
Liquid Sulfur Dioxide - \$1,850/Ton
-) Brenntag Mid-South - Liquid Chlorine - \$1,847/Ton
Liquid Sulfur Dioxide - \$2,150/Ton
-) JCI Jones Chemicals - Liquid Chlorine - NO QUOTE
Liquid Sulfur Dioxide - NO QUOTE

Quotes from these three companies are attached under Exhibit A. The purchase of Liquid Chlorine for the water and wastewater division is estimated to be a combined total of \$186,600.00/yr. The purchase of Liquid Sulfur Dioxide for the wastewater division is estimated to be a total of 52,800.00/yr.

Piggyback Agreements

The City of Ocala, FL has an agreement with Airgas USA, LLC to provide their annual supply of carbon dioxide. Carbon dioxide is used to adjust the pH of drinking water. Airgas has offered to provide this product to Holly Hill under the same competitively bid price agreement. This agreement with pricing is attached as Exhibit B. The cost of the carbon dioxide is \$0.60/lb plus delivery fees and hazmat fees for each shipment.

The City of Edgewater, FL has an agreement with Carmeuse Lime, LLC to provide their annual supply of High Calcium Quicklime. Quicklime is used to soften the drinking water.

Carmeuse has offered to provide this product to Holly Hill under the same competitively bid price agreement. This agreement with pricing is attached as Exhibit C. The cost of the Quicklime is \$503.15/Ton to include all delivery fees and hazmat fees for each shipment.

-) Airgas USA, LLC - Carbon Dioxide - \$0.60/lb
-) Carmeuse Lime - High Calcium Quicklime - \$503.15/Ton

FISCAL ANALYSIS:

The expenditures related to the purchase of chemicals are fully budgeted in the utilities budget covering the water and wastewater divisions. The actual amount of expenditures for the above chemicals will vary with use throughout the year as required by the treatment process. Funds are

budgeted through the respective operating supplies account for the water and wastewater accounts. Specifically,

- 1) The purchase of Liquid Chlorine for the wastewater division account 400-3020-535-5201, not to exceed budget amount of \$99,600.00/yr.
- 2) The purchase of Liquid Chlorine for water division account 400-3010-533-5201, not to exceed budget amount of \$90,000.00/yr.
- 3) The purchase of Liquid Sulfur Dioxide for the wastewater division account 400-3020-533-5201, not to exceed budget amount of \$52,800.00/yr.
- 4) The purchase of Carbon Dioxide for the water division account 400-3010-533-5201, not to exceed budget amount of \$56,000.00/yr.
- 5) The purchase of High Calcium Quicklime for the water division account 400-3010-533-5201, not to exceed budget amount of \$164,000.00/yr.

STAFF RECOMMENDATION:

Approve price agreements for the purchase of Fiscal Year 2024-2025 supply of water and wastewater treatment chemicals for the Public Works Department and authorize the City Manager to execute necessary price agreements.

COMMISSION GOAL:

Goal #1: Develop and maintain a sound and sustainable financial plan for the city that establishes sufficient reserves for all funds, ensures (whenever possible) that user fees pay for services rendered, provides a realistic capital improvement program, and encourages public/private sector partnerships and intergovernmental partnerships.

Goal #4: Provide proficient public health and safety services in terms of police and fire protection, water, storm water, waste water and solid waste management and disaster preparedness with a focus on intergovernmental collaboration, private sector partnerships, and utilization of technologies and proven innovations.

MOTION:

APPROVING PRICE AGREEMENTS FOR THE PURCHASE OF THE FISCAL YEAR 2024-2025 SUPPLY OF WATER AND WASTEWATER TREATMENT CHEMICALS FOR THE PUBLIC WORKS DEPARTMENT AND AUTHORIZING THE CITY MANAGER TO EXECUTE ANY NECESSARY PRICE AGREEMENTS.

ATTACHMENTS:

- Exhibit A - Chlorine & Sulfur Dioxide Quotes (PDF)
- Exhibit B - Carbon Dioxide Piggyback with City of Ocala (PDF)
- Exhibit C - Calcuim Quicklime Piggyback with City of Edgewater (PDF)

Resolution No. 2024-76

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, APPROVING PRICE AGREEMENTS FOR THE PURCHASE OF THE FISCAL YEAR 2024-2025 SUPPLY OF WATER AND WASTEWATER TREATMENT CHEMICALS FOR THE PUBLIC WORKS DEPARTMENT BY WAIVING FORMAL BIDDING AND APPROVING PIGGYBACKING CONTRACTS AND AUTHORIZE THE CITY MANAGER TO EXECUTE ANY NECESSARY PRICE AGREEMENTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, APPROVING PRICE AGREEMENTS FOR THE PURCHASE OF THE FISCAL YEAR 2024-2025 SUPPLY OF WATER AND WASTEWATER TREATMENT CHEMICALS FOR THE PUBLIC WORKS DEPARTMENT BY WAIVING FORMAL BIDDING AND APPROVING PIGGYBACKING CONTRACTS AND AUTHORIZE THE CITY MANAGER TO EXECUTE ANY NECESSARY PRICE AGREEMENTS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Holly Hill is in need of chemicals for water and wastewater treatment; and

WHEREAS, the City of Holly Hill has identified an existing, competitively bid contract for the purchase of carbon dioxide with the City of Ocala; and

WHEREAS, the City of Holly Hill has identified an existing, competitively bid contract for the purchase of high calcium quicklime with the City of Edgewater; and

WHEREAS, there are only three companies in Florida capable of providing the City with liquid chlorine and liquid sulfur dioxide and the City received price quotes from two of these companies and one company declined to provide a proposal; and

WHEREAS, Chapter 287, Florida Statutes, grants the authority to piggyback the purchase of goods and services as a form of intergovernmental cooperative purchasing in which a public purchaser requests competitive sealed bids, enters into a contract, and arranges, as part of the contract, for other public purchasing units to purchase from the selected vendor under the same terms and conditions as itself in order to take advantage of the better pricing that large purchasers are able to obtain in order to reduce administrative time and costs involved in the procurement process (i.e., cost of preparing bid specifications, advertising, etc.); and

WHEREAS, the City Commission approves the price agreements for the purchase of Fiscal Year 2024-2025 supply of water and wastewater treatment chemicals for the Public Works Department.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. That the City Commission does hereby approve the piggybacking of contracts for the purchase of carbon dioxide and high calcium quicklime. The City Commission also waives the formal bidding process for the purchase of liquid chlorine and liquid sulfur dioxide and awards the contract to Allied Universal Corporation. The City Commission hereby approves all price agreements for the purchase of the Fiscal Year 2024-25 supply of water and wastewater treatment chemicals for the Public Works Department and authorizes City Manager to execute any necessary price agreements.

SECTION 2. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 3. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 8th day of OCTOBER, 2024.

email or other communication. If you have any questions about the Florida public records law refer to Chapter 119 Florida Statutes.

[Quoted text hidden]

Kambi Hunter <kambih@allieduniversal.com>
To: John Dally <jdally@hollyhillfl.org>

Allied Universal

Tue, Aug 20, 2024 at 12:01 PM

Hi John,

Happy Tuesday!

I have your pricing for you- valid 10/1/2024 to 9/30/2025.

CL2- Down to \$1580.00 / per ton / 4 ton min

SO2- The same at \$1850.00 / per ton / 1 ton min if shipped with 3 CL2

Let me know if you have any questions or if you need anything else.

Have a super day!

Kambi

Kambi Hunter

Area Accounts Manager

C: 386-717-2556

Allied Universal Corporation

www.AlliedUniversal.com

=====

NOTICE: This communication, including all attachments, may contain legally privileged, confidential or proprietary information. If the reader of this communication is not the intended recipient, you are hereby notified that any reading, dissemination, distribution, copying, disclosure or other use of this information is strictly prohibited. If you have received this message in error, please notify the sender immediately by email reply and delete this message and all copies and backups, thereof. Thank You.

=====

On Mon, Aug 19, 2024 at 3:03 PM John Dally <jdally@hollyhillfl.org> wrote:
We're not going out to bid this year, supply me a quote.

On Mon, Aug 19, 2024 at 10:37 AM Kambi Hunter <kambih@allieduniversal.com> wrote:
[Quoted text hidden]

--

John R. Dally, Chief WWTP Operator
Department of Public Works
City of Holly Hill
453 LPGA Boulevard
Holly Hill, FL 32117

Attachment: Exhibit A - Chlorine & Sulfur Dioxide Quotes (2024-R-76 : Water & Wastewater Plant Chemicals for FY 24-25)



MUNICIPAL QUOTE

DATE: 8/23/2024

TO: John R Dally - Cheif WWTP Operator
Department of Public Works
City of Holy Hill
453 LPGA Boulevard
Holy Hill, FL 32117

DIVISION: City of Holly Hill, FL

CUSTOMER NO: 274604

ON BEHALF OF BRENNTAG MID-SOUTH, A PART OF BRENNTAG GROUP, I AM PLEASED TO PROVIDE YOU WITH THIS QUOTE FOR PRODUCT LISTED BELOW. THE DETAILS OF THE QUOTE ARE AS FOLLOWS:

PRICING EFFECTIVE UNTIL:	LEADTIME	PAYMENT TERMS	PROVIDED QUOTE
8/23/2024	5-7 days	Net 30 Days	8/23/2024

PRODUCT CODE	PRODUCT DESCRIPTION	QUOTE	TOTAL
253418	Chlorine Ton Cylinders	\$1847 TON	
574589	S02 Ton Cylinders	\$2150 TON	
	** Minimum 4 tons order		
	Pricing can be held firm 10/1/2024 - 9/30/2025		
		Total	

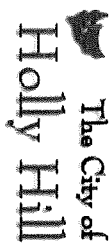
Thank you for the opportunity to provide a quote.

BRENNTAG MID-SOUTH / BMS-BIDS@BRENNTAG.COM / PHONE: 828-729-7557

UNLESS OTHERWISE NOTED OR AGREED TO BY US IN WRITING, THE ABOVE PRICE(S) IS/ARE SUBJECT TO CHANGE UPON WRITTEN NOTICE. THIS PROPOSAL IS SUBJECT TO THE TERMS AND CONDITIONS FOUND IN LINK:

[Terms & Conditions for Brenntag North America | Brenntag](#)

Attachment: Exhibit A - Chlorine & Sulfur Dioxide Quotes (2024-R-76 : Water & Wastewater Plant Chemicals for FY 24-25)



John Dally <jdally@hollyhillfl.org>

Re: Holly Hill FL CL2/SO2 pricing

2 messages

Jennifer Kesler <jkesler@jcichem.com>

To: John Dally <jdally@hollyhillfl.org>; "Jacksonville (External Use)" <jacksonville@jcichem.com>

Mon, Aug 26, 2024 at 3:14 PM

Hi John,

Let me check into this for you and see if we have any options available from another branch as we do not carry SO2 or currently have a cherry picker in Jacksonville. I will get back to you. Thank you for your interest in JCI!

Thank you,

Jennifer Kesler- Office Manager

JCI Jones Chemicals, Inc

904-355-0779 ext 150- jkesler@jcichem.com1433 Talleyrand Ave. | Jacksonville, Florida | 32206

****Please note** – we have not changed any banking or payment remittance information for JCI Jones Chemicals, Inc. If you have received a request to do so, please contact us immediately**

From: John Dally <jdally@hollyhillfl.org>**Sent:** Monday, August 26, 2024 3:02:55 PM**To:** Jacksonville (External Use) <jacksonville@jcichem.com>**Subject:** Holly Hill FL CL2/SO2 pricing

Some people who received this message don't often get email from jdally@hollyhillfl.org. Learn why this is important

I need pricing on 1 ton cylinders of chlorine. This is for our fiscal year October 1, 2024 through September 30, 2025. Delivery address is 453 LPGA blvd, Holly Hill FL. We take at least four tons per delivery with approximately 54 tons required per year. We also need a quote for 1 ton cylinders for SO2 with approximately 24 tons required per year We do require a cherry picker. Thank You.

9/16/2024

The City of Holly Hill is requesting a piggyback Agreement from Airgas. The Agreement will piggyback on the Agreement that the City of Ocala has with Airgas for delivery of liquid carbon dioxide.

\$.60/lb

\$135.00 Delivery Charge

\$65.00 Hazmat fee

Estimated Monthly Volume: 6,000 lbs

If you are in agreement, please sign below indicating your approval.

Airgas:

Name:

Title: Vice President of Atmospheric Gases
Steve W Jones

City of Holly Hill:

Name:

Title: CHIEF OPERATOR
Jeff Jacobson



CONTRACT# WRS/230165

AGREEMENT FOR LIQUID CARBON DIOXIDE SUPPLY AND DELIVERY

THIS AGREEMENT FOR LIQUID CARBON DIOXIDE SUPPLY AND DELIVERY ("Agreement") is entered into by and between the **CITY OF OCALA**, a Florida municipal corporation ("City"), and **AIRGAS USA, LLC**, a limited liability company duly organized in the state of Delaware and authorized to do business in the state of Florida (EIN: 45-3153734) ("Vendor").

WHEREAS, on January 24, 2023, the City of Ocala issued a Invitation to Bid ("ITB") for the provision of liquid carbon dioxide ITB No.: WRS/230165 (the "Solicitation"); and

WHEREAS, one (1) firm responded to the Solicitation and, after the consideration of price and other evaluation factors set forth in the Solicitation, Airgas USA, LLC was chosen as the intended awardee to supply and deliver liquid carbon dioxide ("Services").

NOW THEREFORE, in consideration of the foregoing recitals, the following mutual covenants and conditions, and other good and valuable consideration, City and Vendor agree as follows:

1. **RECITALS.** City and Vendor hereby represent, warrant, and agree that the Recitals set forth above are true and correct and are incorporated herein by reference.
2. **CONTRACT DOCUMENTS.** The Contract Documents which comprise the entire understanding between City and Vendor shall only include: (a) this Agreement; (b) those documents listed in this section as Exhibits to this Agreement; and (c) the City's Solicitation for the Services and the bid submitted by Vendor in response to same (the "Solicitation Documents"). Each of these documents are incorporated herein by reference for all purposes. If there is a conflict between the terms of this Agreement and the Contract Documents, then the terms of this Agreement shall control, amend, and supersede any conflicting terms contained in the remaining Contract Documents.

A. **Exhibits to Agreement:** The Exhibits to this Agreement are as follows:

Exhibit A: Scope of Work (A-1 through A-3)

3. **SCOPE OF SERVICES.** Vendor shall provide all materials, labor, supervision, tools, accessories, equipment, permits, certifications, and all other things necessary for Vendor to perform its obligations under this Agreement as set forth in the attached **Exhibit A - Scope of Work** and the Solicitation Documents. In the event of a conflict between this Agreement and the Solicitation Documents as to the Scope of Services to be performed by Vendor, this Agreement and all of its Exhibits shall be given precedence to resolve any identified inconsistency. The Scope of Work may only be adjusted by written amendment executed by both parties.
4. **COMPENSATION.** City shall pay Vendor a price not to exceed the maximum limiting amount of **FIFTY THOUSAND AND NO/100 DOLLARS (\$50,000)** (the "Contract Sum") The allowability of compensation sought under this Contract is expressly made subject to the terms of this Contract, and any pertinent Federal and State law.
 - A. **Pricing.** Vendor shall be compensated in accordance with the pricing schedule set forth below.

Description	UOM	Price
Commercial Grade (NSF Grade) Liquid Carbon Dioxide	Pound	\$.60

- B. **Renewal Pricing Increases.** Pricing shall remain firm for the first year of this Agreement. Any renewal price adjustment shall be subject to negotiation and must be approved by the City of Ocala. Vendor shall submit a written request for price adjustment identifying the reason for the price increase, and attach suitable documentation in support of same, no less than **NINETY (90) DAYS** prior to the expiration of the then existing Contract Term.



CONTRACT# WRS/230165

Attachment: Exhibit B - Carbon Dioxide Piggyback with City of Ocala (2024-R-76 : Water & Wastewater Plant Chemicals for FY 24-25)

No retroactive price adjustments will be allowed. Pricing increases shall not exceed the lesser of: (i) the amount of the percentage increase reflected in the Consumer Price Index for all Urban Consumers (CPI-U), not seasonally adjusted, based upon the most recent **TWELVE (12) MONTH** period; or (ii) **TEN PERCENT (10%) ANNUALLY** unless there are mitigating market conditions.

- C. **Invoice Submission.** Monthly invoices submitted by Vendor shall include the City Contract Number, an assigned Invoice Number, and an Invoice Date. Vendor shall submit the original invoice through the responsible City Project Manager at: **City of Ocala Water Resources Department Attn: Scott Hersey, 1805 NE 30th Avenue, Bldg. 600, Ocala, Florida 34470**, E-mail: shersey@ocalafl.org.
- D. **Payment of Invoices by City.** The City Project Manager must review and approve all invoices prior to payment. City Project Manager's approval shall not be unreasonably withheld, conditioned, or delayed.
- E. **Withholding of Payment.** City reserves the right to withhold, in whole or in part, payment for any and all work that: (i) has not been completed by Vendor; (ii) is inadequate or defective and has not been remedied or resolved in a manner satisfactory to the City Project Manager; or (iii) which fails to comply with any term, condition, or other requirement under this Agreement. Any payment withheld shall be released and remitted to Vendor within **THIRTY (30)** calendar days of the Vendor's remedy or resolution of the inadequacy or defect.
- F. **Excess Funds.** If due to mistake or any other reason Vendor receives payment under this Agreement in excess of what is provided for by the Agreement, Vendor shall promptly notify City upon discovery of the receipt of the overpayment. Any overpayment shall be refunded or credited to City within **THIRTY (30)** days of Vendor's receipt of the overpayment or must also include interest calculated from the date of the overpayment at the interest rate for judgments at the highest rate as allowed by law.
- G. **Tax Exemption.** City is exempt from all federal excise and state sales taxes (State of Florida Consumer's Certification of Exemption 85-8012621655C-9). The City's Employer Identification Number is 59-60000392. Vendor shall not be exempted from paying sales tax to its suppliers for materials to fulfill contractual obligations with the City, nor will Vendor be authorized to use City's Tax Exemption Number for securing materials listed herein.
5. **EFFECTIVE DATE AND TERM.** This Agreement shall become effective and commence on **MARCH 8, 2023** and continue for a term of **TWO (2)** years, through and including **MARCH 7, 2025**. This Agreement may be renewed for up to **ONE (1)** additional, **TWO-YEAR** (2-year) period by written consent between City and Vendor.
6. **FORCE MAJEURE.** Neither party shall be liable for delay, damage, or failure in the performance of any obligation under this Agreement if such delay, damage, or failure is due to causes beyond its reasonable control, including without limitation: fire, flood, strikes and labor disputes, acts of war, acts of nature, terrorism, civil unrest, acts or delays in acting of the government of the United States or the several states, judicial orders, decrees or restrictions, or any other like reason which is beyond the control of the respective party ("Force Majeure"). The party affected by any event of force majeure shall use reasonable efforts to remedy, remove, or mitigate such event and the effects thereof with all reasonable dispatch.
 - A. The party affected by force majeure shall provide the other party with full particulars thereof including, but not limited to, the nature, details, and expected duration thereof, as soon as it becomes aware.
 - B. When force majeure circumstances arise, the parties shall negotiate in good faith any modifications of the terms of this Agreement that may be necessary or appropriate in order to



CONTRACT# WRS/230165

arrive at an equitable solution. Vendor performance shall be extended for a number of days equal to the duration of the force majeure. Vendor shall be entitled to an extension of time and Vendor shall be entitled to any increased costs, additional compensation, resulting from such force majeure delays.

7. **INSPECTION AND ACCEPTANCE OF THE WORK.** All services, work, and products provided by Vendor under this Agreement shall be provided under the direction and to the satisfaction and approval of the City Project Manager (the "Project Manager").
- A. The Project Manager shall decide all questions regarding the quality, acceptability, and/or fitness of materials, the rate of progress of the work, and the acceptable fulfillment of the Agreement, in his or her sole discretion, based upon both the requirements set forth by City and the information provided by Vendor in its Bid. The authority vested in the Project Manager pursuant to this paragraph shall be confined to the direction or specification of what is to be performed under this Agreement and shall not extend to the actual execution of the Services.
- B. Neither the Project Manager's review of Vendor's work nor recommendations made by Project Manager pursuant to this Agreement will impose on Project Manager any responsibility to supervise, direct, or control Vendor's work in progress or for the means, methods, techniques, sequences, or safety precautions or programs incident to Vendor's provision of Services under this Agreement.
8. **TERMINATION AND DEFAULT.** Either party, upon determination that the other party has failed or refused to perform or is otherwise in breach of any obligation or provision under this Agreement or the Contract Documents, may give written notice of default to the defaulting party in the manner specified for the giving of notices herein. Termination of this Agreement by either party for any reason shall have no effect upon the rights or duties accruing to the parties prior to termination.
- A. **Termination by City for Cause.** City shall have the right to terminate this Agreement immediately, in whole or in part, upon the failure of Vendor to carry out any obligation, term, or condition of this Agreement. City's election to terminate the Agreement for default shall be communicated by providing Vendor written notice of termination in the manner specified for the giving of notices herein. Any notice of termination given to Vendor by City shall be effective immediately, unless otherwise provided therein, upon the occurrence of any one or more of the following events:
- (1) Vendor's performance or workmanship falls below acceptable City or trade standards;
 - (2) Vendor fails to timely and properly perform any of the services set forth in the specifications of the Agreement;
 - (3) Vendor provides material that does not meet the specifications of the Agreement;
 - (4) Vendor fails to complete the work required within the time stipulated in the Agreement; or
 - (5) Vendor fails to make progress in the performance of the Agreement and/or gives City reason to believe that Vendor cannot or will not perform to the requirements of the Agreement.
- B. **Vendor's Opportunity to Cure Default.** City may, in its sole discretion, provide Vendor with an opportunity to cure the violations set forth in City's notice of default to Vendor. Vendor shall commence to cure the violations immediately and shall diligently and continuously prosecute such cure to completion within a reasonable time as determined by City. If the violations are not corrected within the time determined to be reasonable by City or to the reasonable satisfaction of City, City may, without further notice, declare Vendor to be in breach of this Agreement and pursue all remedies available at law or equity, to include termination of this Agreement without further notice.



CONTRACT# WRS/230165

- C. **City's Remedies Upon Vendor Default.** In the event Vendor fails to cure any default under this Agreement within the time period specified in this section, City may pursue any remedies available at law or equity, including, without limitation, the following:
- (1) City shall be entitled to terminate this Agreement without further notice;
 - (2) City shall be entitled to hire another vendor to complete the required work in accordance with the needs of City;
 - (3) City shall be entitled to recover from Vendor all damages, costs, and attorney's fees arising from Vendor's default prior to termination; and
 - (4) City shall be entitled to recovery from Vendor any actual excess costs by: (i) deduction from any unpaid balances owed to Vendor; and (ii) any other remedy as provided by law.
- D. **Termination for Non-Funding.** In the event that budgeted funds to finance this Agreement are reduced, terminated, or otherwise become unavailable, City may terminate this Agreement upon written notice to Vendor without penalty or expense to City. City shall be the final authority as to the availability of budgeted funds.
- E. **Termination for Convenience.** City or Vendor reserves the right to terminate this Agreement in whole or in part at any time for the convenience of City or Vendor without penalty or recourse. The Project Manager or Vendor shall provide written notice of the termination. Upon receipt of the notice, Vendor or City shall immediately discontinue all work as directed in the notice, notify all subcontractors of the effective date of the termination, and minimize all further costs to City including, but not limited to, the placing of any and all orders for materials, facilities, or supplies, in connection with its performance under this Agreement. Vendor shall be entitled to receive compensation solely for: (1) the actual cost of the work completed in conformity with this Agreement; and/or (2) such other costs incurred by Vendor as permitted under this Agreement and approved by City.
9. **PERFORMANCE EVALUATION.** At the end of the contract, City may evaluate Vendor's performance. Any such evaluation will become public record.
10. **NOTICE REGARDING FAILURE TO FULFILL AGREEMENT.** Any Vendor who enters into an Agreement with the City of Ocala and fails to complete the contract term, for any reason, shall be subject to future bidding suspension for a period of one (1) year and bid debarment for a period of up to three (3) years for serious contract failures.
11. **VENDOR REPRESENTATIONS.** Vendor expressly represents that:
- A. Vendor has read and is fully familiar with all the terms and conditions of this Agreement, the Contract Documents, and other related data and acknowledges that they are sufficient in scope and detail to indicate and convey understanding of all terms and conditions of the work to be performed by Vendor under this Agreement.
 - B. Vendor has disclosed, in writing, all known conflicts, errors, inconsistencies, discrepancies, or omissions discovered by Vendor in the Contract Documents, and that the City's written resolution of same is acceptable to Vendor.
 - C. Vendor is familiar with all local, state, and Federal laws, regulations, and ordinances which may affect cost, progress, or its performance under this Agreement whatsoever.
 - D. Vendor understands that a "public entity crime" as defined in section 287.133(1)(g), Florida Statutes, is "a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States..." Vendor further understands that any person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime (1) may not submit a bid, proposal, or reply on a contract: (a) to provide any goods



CONTRACT# WRS/230165

or services to a public entity; (b) for the construction or repair of a public building or public work; or (c) for leases of real property to a public entity; (2) may not be awarded or perform work as a Vendor, supplier, subcontractor, or consultant under a contract with any public entity; and (3) may not transact business with any public entity in excess of the threshold amount provided in section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

12. **VENDOR RESPONSIBILITIES.** Except as otherwise specifically provided for in this Agreement, the following provisions are the responsibility of the Vendor:
- A. Vendor shall competently and efficiently supervise, inspect, and direct all work to be performed under this Agreement, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents.
 - B. Vendor shall be solely responsible for the means, methods, techniques, sequences, procedures, and safety precautions or programs incident thereto.
 - C. Vendor shall be responsible to see that the finished work complies accurately with the contract and the intent thereof.
 - D. Vendor shall comply with all local, state, and Federal laws, regulations, and ordinances which may affect cost, progress, or its performance under this Agreement, and be responsible for all costs associated with same.
 - E. Vendor shall continue its performance under this Agreement during the pendency of any dispute or disagreement arising out of or relating to this Agreement, except as Vendor and City may otherwise agree in writing.
13. **NO EXCLUSIVITY.** It is expressly understood and agreed by the parties that this is not an exclusive agreement. Nothing in this Agreement shall be construed as creating any exclusive arrangement with Vendor or as prohibit City from either acquiring similar, equal, or like goods and/or services or from executing additional contracts with other entities or sources.
14. **COMMERCIAL AUTO LIABILITY INSURANCE.** Vendor shall procure, maintain, and keep in full force, effect, and good standing for the life of this Agreement a policy of commercial auto liability insurance with a minimum combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury and property damage arising out of Vendor's operations and covering all owned, hired, scheduled, and non-owned automobiles utilized in said operations. If Vendor does not own vehicles, Vendor shall maintain coverage for hired and non-owned automobile liability, which may be satisfied by way of endorsement to Vendor's Commercial General Liability policy or separate Commercial Automobile Liability policy.
15. **COMMERCIAL GENERAL LIABILITY INSURANCE.** Vendor shall procure, maintain, and keep in full force, effect, and good standing for the life of this Agreement a policy of commercial general liability insurance with limits not less than:
- A. One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) aggregate (or project aggregate, if a construction project) for bodily injury, property damage, and personal and advertising injury; and
 - B. One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) aggregate (or project aggregate, if a construction project) for products and completed operations.
 - C. Policy must include coverage for contractual liability and independent contractors.
 - D. The City, a Florida municipal corporation, and its officials, employees, and volunteers are to be covered as an additional insured with a CG 20 26 04 13 Additional Insured – Designated Person or Organization Endorsement or similar endorsement providing equal or broader Additional



CONTRACT# WRS/230165

Insured Coverage with respect to liabilities arising out of activities performed by or on behalf of Vendor. This coverage shall contain no special limitation on the scope of protection to be afforded to the City, its officials, employees, and volunteers.

16. WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY. Vendor shall procure, maintain, and keep in full force, effect, and good standing for the life of this Agreement adequate workers' compensation and employer's liability insurance covering all of its employees in at least such amounts as required by Chapter 440, Florida Statutes, and all other state and federal workers' compensation laws, including the U.S. Longshore Harbor Workers' Act and the Jones Act, if applicable. Contractor shall similarly require any and all of its subcontractors to afford such coverage for all of its employees as required by applicable law. Vendor shall waive and shall ensure that Vendor's insurance carrier waives, all subrogation rights against the City of Ocala and its officers, employees, and volunteers for all losses or damages. Vendor's policy shall be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or its equivalent. **Exceptions and exemptions to this Section may be allowed at the discretion of the City's Risk Manager on a case-by-case basis in accordance with Florida Statutes and shall be evidenced by a separate waiver.**

17. POLLUTION LIABILITY INSURANCE. If not otherwise included in Vendor's Commercial General Liability Insurance coverage, Vendor shall procure and maintain, for a period of **THREE (3)** years after final completion of the Work under this Agreement, pollution liability insurance coverage for claims arising from the discharge, dispersal, release, or escape of any irritant or contaminant into or upon land, any structure, the atmosphere, watercourse, or body of water, including groundwater, in an amount not less than One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) aggregate limit. This shall include coverage for claims of: (a) clean up, either on-site or off site; (b) third party liability, including bodily injury, property damage, natural resource damage, third party property loss of use/revenue, and clean up; and/or (c) costs incurred for the investigation, defense, or settlement of claims.

18. MISCELLANEOUS INSURANCE PROVISIONS.

- A. Vendor's insurance coverage shall be primary insurance for all applicable policies. The limits of coverage under each policy maintained by Vendor shall not be interpreted as limiting Vendor's liability or obligations under this Agreement. City does not in any way represent that these types or amounts of insurance are sufficient or adequate enough to protect Vendor's interests or liabilities or to protect Vendor from claims that may arise out of or result from the negligent acts, errors, or omissions of Vendor, any of its agents or subcontractors, or for anyone whose negligent act(s) Vendor may be liable.
- B. No insurance shall be provided by the City for Vendor under this Agreement and Vendor shall be fully and solely responsible for any costs or expenses incurred as a result of a coverage deductible, co-insurance penalty, or self-insured retention to include any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation.
- C. Certificates of Insurance. No work shall be commenced by Vendor under this Agreement until the required Certificate of Insurance and endorsements have been provided nor shall Vendor allow any subcontractor to commence work until all similarly required certificates and endorsements of the subcontractor have also been provided. Work shall not continue after expiration (or cancellation) of the Certificate of Insurance and work shall not resume until a new Certificate of Insurance has been provided. **Vendor shall provide evidence of insurance in the form of a valid Certificate of Insurance (binders are unacceptable) prior to the start of**



CONTRACT# WRS/230165

work contemplated under this Agreement to: City of Ocala. Attention: Procurement & Contracting Department, Address: 110 SE Watula Avenue, Third Floor, Ocala Florida 34471, E-Mail: vendors@ocalafl.org. Vendor's Certificate of Insurance and required endorsements shall be issued by an agency authorized to do business in the State of Florida with an A.M. Best Rating of A or better. The Certificate of Insurance shall indicate whether coverage is being provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.

- D. City as an Additional Insured. The City of Ocala shall be named as an Additional Insured and Certificate Holder on all liability policies identified in this Section with the exception of Workers' Compensation and Professional Liability policies.
 - E. Notice of Cancellation of Insurance. Vendor's Certificate of Insurance shall provide **THIRTY (30) DAY** notice of cancellation, **TEN (10) DAY** notice if cancellation is for non-payment of premium. In the event that Vendor's insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of Vendor to provide the proper notice. Such notification shall be in writing by registered mail, return receipt requested, and addressed to the certificate holder. Additional copies may be sent to the City of Ocala at vendors@ocalafl.org.
 - F. Failure to Maintain Coverage. The insurance policies and coverages set forth above are required and providing proof of and maintaining insurance of the types and with such terms and limits set forth above is a material obligation of Vendor. Vendor's failure to obtain or maintain in full force and effect any insurance coverage required under this Agreement shall constitute material breach of this Agreement.
 - G. Severability of Interests. Severability of Interests. Vendor shall arrange for its liability insurance to include, or be endorsed to include, a severability of interests/cross-liability provision so that the "City of Ocala" (where named as an additional insured) will be treated as if a separate policy were in existence, but without increasing the policy limits.
19. **SAFETY/ENVIRONMENTAL**. Vendor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. Vendor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
- A. All employees on the work and other persons that may be affected thereby;
 - B. All work, materials and equipment to be incorporated therein, whether in storage on or off the site; and
 - C. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities.
- All, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Vendor, any subcontractor, or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, shall be remedied by Vendor. Vendor's duties and responsibilities for the safety and protection of the work shall continue until such time as the work is completed and accepted by City.
20. **NON-DISCRIMINATORY EMPLOYMENT PRACTICES**. During the performance of the contract, Vendor shall not discriminate against any employee or applicant for employment because of race, color, religion, ancestry, national origin, sex, pregnancy, age, disability, sexual orientation, gender identity, marital or domestic partner status, familial status, or veteran status and shall take affirmative action to ensure that an employee or applicant is afforded equal employment opportunities without



CONTRACT# WRS/230165

discrimination. Such action shall be taken with reference to, but not limited to: recruitment, employment, termination, rates of pay or other forms of compensation and selection for training or retraining, including apprenticeship and on-the-job training.

21. **SUBCONTRACTORS.** Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by City or its representatives to any subcontractor of Vendor or any other persons or organizations having a direct contract with Vendor, nor shall it create any obligation on the part of City or its representatives to pay or seek payment of any monies to any subcontractor of Vendor or any other persons or organizations having a direct contract with Vendor, except as may otherwise be required by law. City shall not be responsible for the acts or omissions of any vendor, subcontractor, or of any of their agents or employees.
22. **INDEPENDENT CONTRACTOR STATUS.** Vendor acknowledges and agrees that under this Agreement, Vendor and any agent or employee of Vendor shall be deemed at all times to be an independent contractor and shall be wholly responsible for the manner in which it performs the services and work required under this Agreement. Neither Vendor nor its agents or employees shall represent or hold themselves out to be employees of City at any time. Neither Vendor nor its agents or employees shall have employee status with City. Nothing in this Agreement shall constitute or be construed to create any intent on the part of either party to create an agency relationship, partnership, employer-employee relationship, joint venture relationship, or any other relationship which would allow City to exercise control or discretion over the manner or methods employed by Vendor in its performance of its obligations under this Agreement.
23. **ACCESS TO FACILITIES.** City shall provide Vendor with access to all City facilities as is reasonably necessary for Vendor to perform its obligations under this Agreement.
24. **ASSIGNMENT.** Neither party may assign its rights or obligations under this Agreement to any third party without the prior express approval of the other party, which shall not be unreasonably withheld.
25. **RIGHT OF CITY TO TAKE OVER CONTRACT.** Should the work to be performed by Vendor under this Agreement be abandoned, or should Vendor become insolvent, or if Vendor shall assign or sublet the work to be performed hereunder without the written consent of City, the City Project Manager shall have the power and right to hire and acquire additional men and equipment, supply additional material, and perform such work as deemed necessary for the completion of this Agreement. Under these circumstances, all expenses and costs actually incurred by City to accomplish such completion shall be credited to City along with amounts attributable to any other elements of damage and certified by the Project Manager. The Project Manager's certification as to the amount of such liability shall be final and conclusive.
26. **PUBLIC RECORDS.** Vendor shall comply with all applicable provisions of the Florida Public Records Act, Chapter 119, Florida Statutes. Specifically, Vendor shall:
 - A. Keep and maintain public records required by the public agency to perform the service.
 - B. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
 - C. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if Vendor does not transfer the records to the public agency.



- D. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of Vendor or keep and maintain public records required by the public agency to perform the service. If Vendor transfers all public records to the public agency upon completion of the contract, Vendor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Vendor keeps and maintains public records upon completion of the contract, Vendor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

IF VENDOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO VENDOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT: CITY OF OCALA, OFFICE OF THE CITY CLERK; 352-629-8266; E-mail: clerk@ocalafl.org; City Hall, 110 SE Watula Avenue, Ocala, FL 34471.

27. **AUDIT.** Vendor shall comply and cooperate immediately with any inspections, reviews, investigations, or audits relating to this Agreement as deemed necessary by the Florida Office of the Inspector General, the City's Internal or External auditors or by any other Florida official with proper authority.
28. **PUBLICITY.** Vendor shall not use City's name, logo, seal or other likeness in any press release, marketing materials, or other public announcement without City's prior written approval.
29. **E-VERIFY.** Pursuant to section 448.095, Vendor shall register with and use the U.S. Department of Homeland Security's ("DHS") E-Verify System, accessible at <https://e-verify.uscis.gov/emp>, to verify the work authorization status of all newly hired employees. Vendor shall obtain affidavits from any and all subcontractors in accordance with paragraph 2(b) of section 448.095, Florida Statutes, and maintain copies of such affidavits for the duration of this Agreement. By entering into this Agreement, Vendor certifies and ensures that it utilizes and will continue to utilize the DHS E-Verify System for the duration of this Agreement and any subsequent renewals of same. Vendor understands that failure to comply with the requirements of this section shall result in the termination of this Agreement and Vendor may lose the ability to be awarded a public contract for a minimum of one (1) year after the date on which the Agreement was terminated. Vendor shall provide a copy of its DHS Memorandum of Understanding upon City's request. Please visit www.e-verify.gov for more information regarding the E-Verify System.
30. **CONFLICT OF INTEREST.** Vendor must have disclosed with the submission of their bid, the name of any officer, director, or agent who may be employed by City. Vendor must disclose the name of any City employee who owns, directly or indirectly, any interest in Vendor or any affiliated business entity. Any additional conflicts of interest that may occur during the contract term must be disclosed to the City of Ocala Procurement Department.
31. **WAIVER.** The failure or delay of any party at any time to require performance by another party of any provision of this Agreement, even if known, shall not affect the right of such party to require performance of that provision or to exercise any right, power or remedy hereunder. Any waiver by any party of any breach of any provision of this Agreement should not be construed as a waiver of any continuing or succeeding breach of such provision, a waiver of the provision itself, or a waiver of any right, power or remedy under this Agreement. No notice to or demand on any party in any



CONTRACT# WRS/230165

circumstance shall, of itself, entitle such party to any other or further notice or demand in similar or other circumstances.

32. **SEVERABILITY OF ILLEGAL PROVISIONS.** Wherever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under the applicable law. Should any portion of this Agreement be declared invalid for any reason, such declaration shall have no effect upon the remaining portions of this Agreement.
33. **INDEMNITY.** Vendor shall indemnify City and its elected officials, employees and volunteers against, and hold City and its elected officials, employees and volunteers harmless from, all damages, claims, losses, costs, and expenses, including reasonable attorneys' fees, which City or its elected officials, employees or volunteers may sustain, or which may be asserted against City or its elected officials, employees or volunteers, arising out of the activities contemplated by this Agreement including, without limitation, harm or personal injury to third persons during the term of this Agreement to the extent attributable to the actions of Vendor, its agents, and employees.
34. **NO WAIVER OF SOVEREIGN IMMUNITY.** Nothing herein is intended to waive sovereign immunity by the City to which sovereign immunity may be applicable, or of any rights or limits of liability existing under Florida Statute § 768.28. This term shall survive the termination of all performance or obligations under this Agreement and shall be fully binding until any proceeding brought under this Agreement is barred by any applicable statute of limitations.
35. **NOTICES.** All notices, certifications or communications required by this Agreement shall be given in writing and shall be deemed delivered when personally served, or when received if by facsimile transmission with a confirming copy mailed by registered or certified mail, postage prepaid, return receipt requested. Notices can be concurrently delivered by e-mail. All notices shall be addressed to the respective parties as follows:

If to Vendor:

Airgas USA, LLC
 Attention: Brian McHale
 5249 Tampa West Blvd.
 Tampa, Florida 33634
 Phone: 407-402-9651
 E-mail: brian.mchale@airgas.com

If to City of Ocala:

Daphne M. Robinson, Esq., Contracting Officer
 City of Ocala
 110 SE Watula Avenue, Third Floor
 Ocala, Florida 34471
 Phone: 352-629-8343
 E-mail: notices@ocalafl.org

Copy to:

William E. Sexton, Esq., City Attorney
 City of Ocala
 110 SE Watula Avenue, Third Floor
 Ocala, Florida 34471
 Phone: 352-401-3972
 E-mail: cityattorney@ocalafl.org



CONTRACT# WRS/230165

36. **ATTORNEYS' FEES.** If any civil action, arbitration or other legal proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default or misrepresentation in connection with any provision of this Agreement, the successful or prevailing party shall be entitled to recover reasonable attorneys' fees, sales and use taxes, court costs and all expenses reasonably incurred even if not taxable as court costs (including, without limitation, all such fees, taxes, costs and expenses incident to arbitration, appellate, bankruptcy and post-judgment proceedings), incurred in that civil action, arbitration or legal proceeding, in addition to any other relief to which such party or parties may be entitled. Attorneys' fees shall include, without limitation, paralegal fees, investigative fees, administrative costs, sales and use taxes and all other charges reasonably billed by the attorney to the prevailing party.
37. **JURY WAIVER.** IN ANY CIVIL ACTION, COUNTERCLAIM, OR PROCEEDING, WHETHER AT LAW OR IN EQUITY, WHICH ARISES OUT OF, CONCERNS, OR RELATES TO THIS AGREEMENT, ANY AND ALL TRANSACTIONS CONTEMPLATED HEREUNDER, THE PERFORMANCE HEREOF, OR THE RELATIONSHIP CREATED HEREBY, WHETHER SOUNDING IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE, TRIAL SHALL BE TO A COURT OF COMPETENT JURISDICTION AND NOT TO A JURY. EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY. NEITHER PARTY HAS MADE OR RELIED UPON ANY ORAL REPRESENTATIONS TO OR BY ANY OTHER PARTY REGARDING THE ENFORCEABILITY OF THIS PROVISION. EACH PARTY HAS READ AND UNDERSTANDS THE EFFECT OF THIS JURY WAIVER PROVISION.
38. **GOVERNING LAW.** This Agreement is and shall be deemed to be a contract entered and made pursuant to the laws of the State of Florida and shall in all respects be governed, construed, applied and enforced in accordance with the laws of the State of Florida.
39. **JURISDICTION AND VENUE.** The parties acknowledge that a majority of the negotiations, anticipated performance and execution of this Agreement occurred or shall occur in Marion County, Florida. Any civil action or legal proceeding arising out of or relating to this Agreement shall be brought only in the courts of record of the State of Florida in Marion County or the United States District Court, Middle District of Florida, Ocala Division. Each party consents to the exclusive jurisdiction of such court in any such civil action or legal proceeding and waives any objection to the laying of venue of any such civil action or legal proceeding in such court and/or the right to bring an action or proceeding in any other court. Service of any court paper may be effected on such party by mail, as provided in this Agreement, or in such other manner as may be provided under applicable laws, rules of procedures or local rules.
40. **REFERENCE TO PARTIES.** Each reference herein to the parties shall be deemed to include their successors, assigns, heirs, administrators, and legal representatives, all whom shall be bound by the provisions hereof.
41. **MUTUALITY OF NEGOTIATION.** Vendor and City acknowledge that this Agreement is a result of negotiations between Vendor and City, and the Agreement shall not be construed in favor of, or against, either party because of that party having been more involved in the drafting of the Agreement.
42. **SECTION HEADINGS.** The section headings herein are included for convenience only and shall not be deemed to be a part of this Agreement.



CONTRACT# WRS/230165

43. **RIGHTS OF THIRD PARTIES.** Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies under or because of this Agreement on any persons other than the parties hereto and their respective legal representatives, successors and permitted assigns. Nothing in this Agreement is intended to relieve or discharge the obligation or liability of any third persons to any party to this Agreement, nor shall any provision give any third persons any right of subrogation or action over or against any party to this Agreement.
44. **AMENDMENT.** No amendment to this Agreement shall be effective except those agreed to in writing and signed by both parties to this Agreement.
45. **COUNTERPARTS.** This Agreement may be executed in counterparts, each of which shall be an original and all of which shall constitute the same instrument.
46. **ELECTRONIC SIGNATURE(S).** Vendor, if and by offering an electronic signature in any form whatsoever, will accept and agree to be bound by said electronic signature to all terms and conditions of this Agreement. Further, a duplicate or copy of the Agreement that contains a duplicated or non-original signature will be treated the same as an original, signed copy of this original Agreement for all purposes.
47. **ENTIRE AGREEMENT.** This Agreement, including exhibits, (if any) constitutes the entire Agreement between the parties hereto with respect to the subject matter hereof. There are no other representations, warranties, promises, agreements or understandings, oral, written or implied, among the Parties, except to the extent reference is made thereto in this Agreement. No course of prior dealings between the parties and no usage of trade shall be relevant or admissible to supplement, explain, or vary any of the terms of this Agreement. No representations, understandings, or agreements have been made or relied upon in the making of this Agreement other than those specifically set forth herein.
48. **LEGAL AUTHORITY.** Each person signing this Agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and to bind and obligate such party with respect to all provisions contained in this Agreement.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK. SIGNATURE PAGE TO FOLLOW]



CONTRACT# WRS/230165

IN WITNESS WHEREOF, the parties have executed this Agreement on 7/13/2023.

ATTEST:

CITY OF OCALA

DocuSigned by:

Angel B. Jacobs

Angel B. Jacobs
City Clerk

DocuSigned by:

James P. Hilty Sr.

James P. Hilty
City Council President

Approved as to form and legality:

AIRGAS USA, LLC

DocuSigned by:

William E. Sexton

William E. Sexton, Esq.
City Attorney

DocuSigned by:

Steve Jones

2501916D3E28424...

By: Steve Jones
(Printed Name)

Title: V.P of Bulk
(Title of Authorized Signatory)

Attachment: Exhibit B - Carbon Dioxide Piggyback with City of Ocala (2024-R-76 : Water & Wastewater Plant Chemicals for FY 24-25)

Exhibit A – SCOPE OF WORK**CONTRACT# WRS/230165****BACKGROUND**

Vendor shall supply and deliver Commercial Grade (NSF grade) carbon dioxide for ph. stabilization to the Water Treatment Plant, located at 1808 NE 36th Avenue, Ocala, Florida 34470.

Deliveries shall be coordinated with the City Project Manager, Scott Hersey, 352-401-6941, email: shersey@ocalafl.org.

PROJECT SUMMARY, DELIVERABLES AND HOURS

1. **Project Summary:** Vendor shall perform the following services for the City of Ocala: Vendor shall provide all materials, labor, and equipment to supply and deliver liquid carbon dioxide (NSF Grade) to the City of Ocala Water Treatment Plant #1.
2. **Deliverables:** Deliverables must be provided to the City of Ocala Project Manager before payment for such work.
3. **Working Hours:** The normal/standard working hours for this project are 7:00 AM – 5:00 PM Monday through Friday, excluding holidays. Vendor shall provide 48-hour advance notice to City Project Manager for work outside normal shift hours. The City may decline the request.

VENDOR EMPLOYEES AND EQUIPMENT

1. Vendor must utilize competent employees in performing the work. Employees performing the work must be properly licensed or qualified as required by the scope/project.
2. The Vendor shall provide an assigned Project Manager, who will be the primary point of contact. Vendor must provide a valid telephone number and address at all times to the City Project Manager. The telephone must be answered during normal working hours or voicemail must be available to take a message.
3. At the request of the City, the Vendor must replace any incompetent, unfaithful, abusive, or disorderly person in their employment. The City and the Vendor must each be promptly notified by the other of any complaints received.
4. Vendor's employees must wear suitable work clothes and personal protective equipment as defined by OSHA. Employees shall be clean and in as good appearance as the job conditions permit.
5. Vendor shall operate as an independent contractor and not as an agent, representative, partner or employee of the City of Ocala, and shall control their operations at the work site, and be solely responsible for the acts or omissions of their employees.
6. No smoking is allowed on City property or projects.
7. Vendor must possess/obtain all required equipment to perform the work. A list of equipment shall be provided to the City upon request.
8. All company trucks must display a visible company name/logo on the outside of the vehicle.

CITY OF OCALA RESPONSIBILITIES

1. The City of Ocala will furnish, the following services/data to the Vendor for the performance of services:
 - A. Access to City buildings and facilities to perform the work.
 - B. Provide access to drawings, specifications, schedules, reports, and other information prepared by/for the City of Ocala pertinent to the Vendor's responsibilities.

Exhibit A – SCOPE OF WORK**CONTRACT# WRS/230165**

- C. Provide office facilities for the Vendor, if needed.
2. The City reserves the right to purchase any materials for the Vendor to use. The Vendor shall not charge a mark-up fee for material furnished by the City.

VENDOR RESPONSIBILITIES

1. Vendor shall complete all work performed under this solicitation in accordance with policies and procedures of the City of Ocala and all applicable State and Federal laws, policies, procedures, and guidelines.
2. Vendor shall obtain and pay for any and licenses, , dumping and/or disposal fees, etc., required to fulfill this agreement.
3. Vendor is responsible for any and all damages including but not limited to buildings, curbing, pavement, landscaping, or irrigation systems caused by their activity. Should any public or private property be damaged or destroyed, the Vendor at their expense, shall repair or make restoration as acceptable to the City of destroyed or damaged property no later than one (1) month from the date damage occurred.
4. If the Vendor is advised to leave a property by the property owner or their representative, the Vendor shall leave at once without altercation. Vendor shall then contact the City Project Manager within 24 hours and advise of the reason for not completing the assigned project.
5. Data collected by the Vendor shall be in a format compatible with, or easily converted to City's databases. A sequential naming convention should be applied to the files and documentation provided to the City.

SITE HOUSEKEEPING AND CLEANUP

1. **Cleanup:** The Vendor shall keep the premises free at all times from accumulation of waste materials and rubbish caused by operations and employees. Such responsibilities shall include but not limited to:
 - A. Periodic cleanup to avoid hazards or interference with operations at the site, and to leave the site in a reasonable neat condition.
 - B. Work site will be completely cleaned after each day of work.
 - C. Vendor shall dispose of debris in a legal manner.
2. **Final Cleaning:** Upon completion of work, clean entire work area as applicable.
 - A. All furnishings and equipment shall be placed back in the original locations.
 - B. All work areas must be returned to original condition.
 - C. The Vendor shall clean and remove from the premises, all surplus and discarded materials, rubbish, and temporary structures, and shall restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work and shall have the work in a neat and presentable condition. *Note: Any and all debris shall be removed from the premises. Debris, trash, etc., shall not be left or buried on site.*

SAFETY

1. Vendor shall be fully responsible for the provision of adequate and proper safety precautions meeting all OSHA, local, state, and national codes concerning safety provisions for their employees, sub-contractors, all building and site occupants, staff, public, and all persons in or around the work area.

Exhibit A – SCOPE OF WORK**CONTRACT# WRS/230165**

2. In no event shall the City be responsible for any damages to any of the Vendor's equipment, materials, property, or clothing lost, damaged, destroyed or stolen.
3. Prior to completion, storage and adequate protection of all material and equipment will be the Vendor's responsibility.

PRICING

The City shall pay the Vendor only for the actual units that the Vendor delivers.

Certificate Of Completion

Envelope Id: 0D305DAF82CB48ED8760FEFEFBF93CE9
 Subject: FOR SIGNATURE - Liquid Carbon Dioxide Supply and Delivery (WRS/230165)
 Source Envelope:
 Document Pages: 16 Signatures: 4
 Certificate Pages: 5 Initials: 0
 AutoNav: Enabled
 Envelope Stamping: Enabled
 Time Zone: (UTC-05:00) Eastern Time (US & Canada)

Status: Completed

Envelope Originator:
 Patricia Lewis
 110 SE Watula Avenue
 City Hall, Third Floor
 Ocala, FL 34471
 plewis@ocalafl.org
 IP Address: 216.255.240.104

Record Tracking

Status: Original
 7/7/2023 6:41:34 AM
 Security Appliance Status: Connected
 Storage Appliance Status: Connected

Holder: Patricia Lewis
 plewis@ocalafl.org
 Pool: StateLocal
 Pool: City of Ocala - Procurement & Contracting

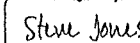
Location: DocuSign

Location: DocuSign

Signer Events

Steve Jones
 steve.jones@airgas.com
 V.P of Bulk
 Security Level: Email, Account Authentication
 (None)

Signature

DocuSigned by:

 2501918D3E28424...

Signature Adoption: Pre-selected Style
 Using IP Address: 24.227.65.211

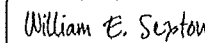
Timestamp

Sent: 7/7/2023 6:45:45 AM
 Viewed: 7/7/2023 8:41:59 AM
 Signed: 7/7/2023 8:43:18 AM

Electronic Record and Signature Disclosure:

Accepted: 7/7/2023 8:41:59 AM
 ID: fa1a14cb-0a22-4a8c-bbf7-987dfb95fc4a

William E. Sexton
 wsexton@ocalafl.org
 City Attorney
 City of Ocala
 Security Level: Email, Account Authentication
 (None)

DocuSigned by:

 B07DCFC4E08E428...

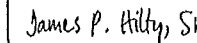
Signature Adoption: Pre-selected Style
 Using IP Address: 216.255.240.104

Sent: 7/7/2023 8:43:20 AM
 Viewed: 7/13/2023 8:52:13 AM
 Signed: 7/13/2023 8:52:27 AM

Electronic Record and Signature Disclosure:

Not Offered via DocuSign

James P. Hilty, Sr.
 jhilty@ocalafl.org
 President
 Security Level: Email, Account Authentication
 (None)

DocuSigned by:

 6FD4FC328B8F4DF...

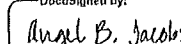
Signature Adoption: Pre-selected Style
 Using IP Address: 98.180.104.233
 Signed using mobile

Sent: 7/13/2023 8:52:28 AM
 Viewed: 7/13/2023 9:10:26 AM
 Signed: 7/13/2023 9:11:15 AM

Electronic Record and Signature Disclosure:

Accepted: 2/22/2023 9:50:44 PM
 ID: 14e56788-1409-4fcd-8b7c-ddcc68b32a87

Angel B. Jacobs
 ajacobs@ocalafl.org
 April 19
 City of Ocala
 Security Level: Email, Account Authentication
 (None)

DocuSigned by:

 F82788491C4E4E6...

Signature Adoption: Pre-selected Style
 Using IP Address: 216.255.240.104

Sent: 7/13/2023 9:11:17 AM
 Viewed: 7/13/2023 9:14:23 AM
 Signed: 7/14/2023 4:36:23 PM

Electronic Record and Signature Disclosure:

Signer Events

Not Offered via DocuSign

Signature**Timestamp****In Person Signer Events****Signature****Timestamp****Editor Delivery Events****Status****Timestamp****Agent Delivery Events****Status****Timestamp****Intermediary Delivery Events****Status****Timestamp****Certified Delivery Events****Status****Timestamp****Carbon Copy Events****Status****Timestamp**

Brian McHale

brian.mchale@airgas.com

V.P. of Bulk Gases

Security Level: Email, Account Authentication
(None)**Electronic Record and Signature Disclosure:**

Accepted: 7/5/2023 1:08:53 PM

ID: 209d9443-bd8f-4774-be95-c8232d2d084b

COPIED

Sent: 7/14/2023 4:36:25 PM

Annalisa Schmidt

annalisa.schmidt@airgas.com

Security Level: Email, Account Authentication
(None)**Electronic Record and Signature Disclosure:**

Not Offered via DocuSign

COPIED

Sent: 7/14/2023 4:36:25 PM

Witness Events**Signature****Timestamp****Notary Events****Signature****Timestamp****Envelope Summary Events****Status****Timestamps**

Envelope Sent

Hashed/Encrypted

7/7/2023 6:45:45 AM

Certified Delivered

Security Checked

7/13/2023 9:14:23 AM

Signing Complete

Security Checked

7/14/2023 4:36:23 PM

Completed

Security Checked

7/14/2023 4:36:26 PM

Payment Events**Status****Timestamps****Electronic Record and Signature Disclosure**

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

From time to time, City of Ocala - Procurement & Contracting (we, us or Company) may be required by law to provide to you certain written notices or disclosures. Described below are the terms and conditions for providing to you such notices and disclosures electronically through the DocuSign system. Please read the information below carefully and thoroughly, and if you can access this information electronically to your satisfaction and agree to this Electronic Record and Signature Disclosure (ERSD), please confirm your agreement by selecting the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

Getting paper copies

At any time, you may request from us a paper copy of any record provided or made available electronically to you by us. You will have the ability to download and print documents we send to you through the DocuSign system during and immediately after the signing session and, if you elect to create a DocuSign account, you may access the documents for a limited period of time (usually 30 days) after such documents are first sent to you. After such time, if you wish for us to send you paper copies of any such documents from our office to you, you will be charged a \$0.00 per-page fee. You may request delivery of such paper copies from us by following the procedure described below.

Withdrawing your consent

If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

Consequences of changing your mind

If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. Further, you will no longer be able to use the DocuSign system to receive required notices and consents electronically from us or to sign electronically documents from us.

All notices and disclosures will be sent to you electronically

Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through the DocuSign system all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact City of Ocala - Procurement & Contracting:

You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:

To contact us by email send messages to: contracts@ocalafl.org

To advise City of Ocala - Procurement & Contracting of your new email address

To let us know of a change in your email address where we should send notices and disclosures electronically to you, you must send an email message to us at contracts@ocalafl.org and in the body of such request you must state: your previous email address, your new email address. We do not require any other information from you to change your email address.

If you created a DocuSign account, you may update it with your new email address through your account preferences.

To request paper copies from City of Ocala - Procurement & Contracting

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an email to contracts@ocalafl.org and in the body of such request you must state your email address, full name, mailing address, and telephone number. We will bill you for any fees at that time, if any.

To withdraw your consent with City of Ocala - Procurement & Contracting

To inform us that you no longer wish to receive future notices and disclosures in electronic format you may:

- i. decline to sign a document from within your signing session, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;
- ii. send us an email to contracts@ocalafl.org and in the body of such request you must state your email, full name, mailing address, and telephone number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

Required hardware and software

The minimum system requirements for using the DocuSign system may change over time. The current system requirements are found here: <https://support.docusign.com/guides/signer-guide-signing-system-requirements>.

Acknowledging your access and consent to receive and sign documents electronically

To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please confirm that you have read this ERSD, and (i) that you are able to print on paper or electronically save this ERSD for your future reference and access; or (ii) that you are able to email this ERSD to an email address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format as described herein, then select the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

By selecting the check-box next to 'I agree to use electronic records and signatures', you confirm that:

- You can access and read this Electronic Record and Signature Disclosure; and
- You can print on paper this Electronic Record and Signature Disclosure, or save or send this Electronic Record and Disclosure to a location where you can print it, for future reference and access; and
- Until or unless you notify City of Ocala - Procurement & Contracting as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by City of Ocala - Procurement & Contracting during the course of your relationship with City of Ocala - Procurement & Contracting.

**ADDENDUM #1
PROFESSIONAL SERVICES AGREEMENT
CHEMICALS FOR CITY OF EDGEWATER
WATER TREATMENT FACILITIES (ITB-23-ES-07)**

By Agreement made and entered into this 4th day of March, 2024, by and between the **CITY OF EDGEWATER, FLORIDA** (hereinafter referred to as "CITY"), 104 North Riverside Drive, Edgewater, FL 32132 and **CARMEUSE LIME AND STONE** (hereinafter referred to as "CONTACTOR") 11 Stanwix Street, 21st Floor, Pittsburgh, PA, 15222

WITNESSETH

The CITY and CONTRACTOR mutually agree to amend that certain Agreement between the CITY and CONTRACTOR made and entered into on March 6, 2023, as follows:

- 1) Both parties wish to utilize the option contained in **Section 2 - TERM OF THE CONTRACT** by electing to renew the contract for an additional term of one (1) year. Thereby extending the current contract from April 15, 2024, through and until April 14, 2025.
- 2) **Section 3 - COMPENSATION:** The CITY agrees to pay the CONTRACTOR \$503.15 per ton, an 8.75% increase over the price stipulated in the proposal form.
- 3) The parties acknowledge that all other terms, provisions and conditions of the original Agreement are republished, ratified and reaffirmed by the parties hereto.

IN WITNESS HEREOF the parties have made and executed this Addendum the day and year written above.

ATTEST:

CITY OF EDGEWATER, FLORIDA

Bonnie Zlotnik
Bonnie Zlotnik, City Clerk

By: Glenn A. Irby
Glenn Irby, City Manager

Dated 03/05/24

WITNESSES:

CARMEUSE LIME AND STONE

Jonathan Bright By: Jonathan Bright
Jonathan Bright, VP - Finance
Dated 2/2/2024

Matt Benusa

Company	CITY OF HOLLY HILL	E-mail	aarmstrong@hollyhillfl.org
To	Andy Armstrong	Date	04-26-2024
From	Matthew Cherpak	E-mail	
Tel		Pages	5

Re: City of Holly Hill, FL 2024 HiCal T002

Price Quote 10021315

Dear Andy Armstrong,

Thank you for the opportunity to consider Carmeuse as your business partner.

It is our pleasure to provide you with the following quote offer:

Please note this price is per piggyback agreement off the City of Edgewater, FL pricing.

Product	Plant	Product Description	Currency	Incoterms	Destination
10597	Jacksonville Luttrell Ter	HiCal QL Terminal Small Pebble Bulk Total Price: \$503.15/TON	USD	DDP	Holly Hill, FL

To place an order, please call Customer Service at 1.800.445.3930.

The following additional information applies:

Validity: Our prices are valid from 05-01-2024 upon formal approval from your side within 2 weeks.

Unloading conditions to be communicated through your care (opening hours, security procedures..)

Equipment Ship Type: Pneumatic Trailer

Shipping Cond: Delivered

Payment Terms: 30 days net due. We insist upon payment in due time of our invoices, this being an essential component of your price-offering.

Product pricing is subject to change with 30 days written notice.

Freight pricing is subject to change with 30 days written notice.

[IMPACTING EVERYDAY LIFE]

O-N Minerals (Luttrell) Company, 11 Stanwix Street, Pittsburgh, 15222, U.S.

1/5

We remain at your disposal for any further information.

Signatures

Sales Representative

Matthew Cherpak

Sales Manager

STANDARD TERMS

- All Quotes are good for 30 days from the issue date unless agreed to otherwise in bid
- Quoted pricing is based on availability of material at the time the order is received
- All taxes are extra. Taxes will be collected until an exemption certificate is received
- Variable Fuel Surcharge (FSC) is adjusted monthly and can be found at <https://www.carmeuse.com/na-en/products-services/service/logistics-delivering-products-safely>
- Email all purchase orders and tax exempt certificates to SalesAdminRequests@carmeuse.com for review and approval
- Returns are subject to a \$250.00 restocking fee
- Any freight charges where it is necessary for Carmeuse to prepay for shipment will carry an admin fee of 5.5%
- Alabama Severance Tax will be added where applicable
- Spread Charge will be added where applicable
- Harbor Maintenance Fee if applicable is collected by the federal government. This is a 0.125% tax on the value of cargo to specified docks
- The latest SDS can be found at <https://www.carmeuse.com/eu-en/products-services>
- Enclosed are the Terms and Conditions of Sale and Guidelines for Contract Haulers
- IN NO EVENT SHALL CARMEUSE BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS, ARISING OUT OF, OR IN ANY WAY CONNECTED WITH THE PRODUCT OR CARMEUSE'S OBLIGATIONS HEREUNDER. All sales are expressly contingent upon this limitation of liability. To the extent any purchase order contains terms or conditions in addition or contrary to such limitation, then such terms or conditions are objected to, null and void, and will not form a part of the parties' contract

[IMPACTING EVERYDAY LIFE]

O-N Minerals (Luttrell) Company, 11 Stanwix Street, Pittsburgh, 15222, U.S.

2/5

CARMEUSE STANDARD TERMS & CONDITIONS OF SALE

Orders and Acceptance. All Purchase Orders ("Orders") and quotations are subject to acceptance by Carmeuse Lime & Stone ("Carmeuse"). Unless otherwise stated, all sales transactions are expressly limited to the terms and conditions set forth below. All terms and conditions (including but not limited to additional and/or different terms and conditions) contained in any of Buyer's purchase orders or other documents submitted by Buyer are EXPRESSLY rejected. No waiver of these terms and conditions or acceptance of other terms and conditions shall be construed from Carmeuse's failure to object to the same. All sales are final. Goods cannot be returned without Carmeuse's prior written consent.

Quotations and Published Prices. All written quotations shall automatically expire on the expiration date listed on the quotation, but in no event later than thirty (30) days after issuance, and are subject to withdrawal by notice within that period. Carmeuse, at its sole option, may extend the effective date of written quotations up to six months. Oral quotations shall expire in thirty (30) days. All quote prices for material sold by Carmeuse pursuant to any Purchase Order ("Material") are F.O.B. stated shipping point, unless otherwise specified. Transportation shall be by means that are commercially reasonable and customary and at the Buyer's expense. Delivered prices are based on transportation prices available to Carmeuse at time of quotation and assume that carriers are able to discharge their loads at the delivery site in a reasonable time. If unloading delays occur, additional charges may apply. Any charges at destination for spotting, switching, handling, storage and other services and demurrage, shall be for Buyer's account. Pricing of aggregate assumes normal residual moisture content, including free moisture in the case of washed Materials. Prices shown on published price lists and other literature issued by Carmeuse do not represent unconditional offers to sell, and are subject to change without notice.

Payment. Buyer shall make payment in advance of shipping unless Carmeuse's credit department, in its sole discretion, approves Buyer's credit. Unless otherwise stated in Carmeuse's quotation, payment pursuant to approved credit terms shall be made thirty (30) days from the date of Carmeuse's invoice. No discounts are allowed for early payment, unless otherwise specified by Carmeuse on the quotation. Invoices for shipments to approved credit customers shall be issued upon shipment. Past due invoices are subject to a monthly service charge at a rate equal to the lesser of 1½ % per month or the maximum rate from time to time permitted by applicable law. Carmeuse's Credit Department may revoke credit approval or alter payment terms at any time. Upon placing this instrument with an attorney for collection of past due payments or repossession of Material, Buyer shall reimburse Carmeuse for attorney's fees, court costs, and other expenses incurred by Carmeuse to enforce the terms and conditions stated herein. If an invoice is past-due, Carmeuse may suspend delivery of Material until such invoice, and any other past-due invoices, have been paid. If there is an adverse change to Buyer's financial condition, Carmeuse may require adequate assurances of performance be provided by Buyer and if Buyer fails to provide such assurances, payment terms shall automatically be modified to a cash advance basis until such assurances are provided or terminate future orders subject to this quotation.

Forecasts. Buyer must purchase the amount of Material contained on the quote form. Buyer shall provide Carmeuse with a forecast of Buyer's requirements for Material by month. In no event will Carmeuse be required to supply Buyer more than the amount of Material contained on the quote form or any written forecast.

Taxes. Carmeuse's prices do not include federal, state, or local taxes, including sales, use, property, import/export, value added, excise or similar tax payments. Carmeuse shall bill as a separate invoice line item all such taxes and Buyer agrees to pay and/or reimburse Carmeuse for any such applicable taxes.

Order Changes/Cancellation. Requested changes to Orders are subject to Carmeuse's approval and acceptance. Buyer shall reimburse Carmeuse for all additional costs and expenses related to any such change. Buyer's cancellation of any standard Material Order is subject to Carmeuse's receipt of Buyer's prior written notice not less than thirty (30) days before any Material is shipped. In the event of any whole or partial cancellation of any Order by Buyer, Buyer shall pay to Carmeuse the reasonable costs and expenses incurred by Carmeuse prior to Carmeuse's receipt of the cancellation notice plus Carmeuse's usual rate of profit for similar Material on the portion of the Order canceled.

Shipping. Unless otherwise specified, title to and risk of loss of the Materials shall pass to Buyer upon Carmeuse's delivery of the Materials to a carrier or directly to Buyer at the F.O.B. point, or upon removal of the Material from Carmeuse's plant or terminal if the F.O.B. point is a location other than Carmeuse's plant. Unless otherwise stated, Carmeuse's prices do not include shipping charges, including fuel surcharges and administrative fees. Carmeuse will use its best efforts to load Buyer's trucks, rail cars or barges, provided that, Carmeuse shall not be liable for overweight charges or fines, minimum charges for light loaded cars or trucks or for demurrage or other charges associated with shipping the Materials to Buyer.

Delivery/Access. All delivery/performance dates indicated on Carmeuse's documents are approximate and are based upon the prompt receipt of all necessary information from Buyer regarding Materials ordered. Buyer agrees to provide Carmeuse with reasonable advance notice of Material requirements, time and rate of delivery. Carmeuse will use reasonable efforts to meet the indicated delivery/performance dates but shall not be held responsible for delays caused by carriers. In the event of any delivery delay caused by Buyer, Carmeuse will store and handle all Materials ordered at Buyer's risk and will invoice the Buyer for the unpaid portion of the contract price plus storage, insurance and handling charges on or after the date on which the Materials are ready for delivery. Buyer shall provide suitable roadways or approaches to points of delivery. If delivery is requested beyond the curb line, Buyer assumes all liability for damage to sidewalks, driveways or other property. Buyer must arrange in advance with Seller's dispatcher for deliveries of Materials at times other than normal working hours which may result in extra charges.

Security Interest. Until such time as Carmeuse is fully paid for Material shipped, Buyer shall grant to Carmeuse a purchase money security interest in the Materials. Buyer will assist Carmeuse in taking necessary action to protect Carmeuse's security interest. All checks or other commercial paper shall be accepted subject to collection, and the foregoing security interest shall remain until such time as funds are actually collected.

Warranty. Carmeuse warrants to Buyer that all Material supplied by Carmeuse is in compliance with Carmeuse's published specifications at the point of shipment from Carmeuse's facility. If Material sold by Carmeuse fails to meet the foregoing warranty, Carmeuse will at its sole option either: (1) refund the amount received by Carmeuse for defective Material, or (2) replace any defective Material free of charge. The foregoing is contingent upon Carmeuse receiving Buyer's prompt written notice of any defect. In no event shall Buyer make any claim or initiate any proceeding based upon alleged breach of warranty more than six (6) months from the date of shipment of the relevant Material. Buyer acknowledges that Material may degrade by improper handling after leaving Carmeuse's facility or terminal, or from time may contain impurities that render the materials unacceptable for certain applications and that all such Material is excluded from the warranties stated herein. THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. CARMEUSE'S WARRANTY DOES NOT APPLY IF MATERIALS HAVE BEEN SUBJECT TO MISUSE, MISHANDLING, NEGLIGENCE (INCLUDING WITHOUT LIMITATION IMPROPER STORAGE), ACCIDENT OR MODIFICATION NOT EXPRESSLY AUTHORIZED BY CARMEUSE. THIS WARRANTY CONTAINS CARMEUSE'S SOLE LIABILITY AND BUYER'S SOLE AND EXCLUSIVE REMEDIES AND IS EXPRESSLY IN LIEU OF ALL OTHER REMEDIES BASED IN LAW OR EQUITY.

Limitation of Liability. CARMEUSE SHALL NOT BE LIABLE FOR ANY LOSS, CLAIM, EXPENSE OR DAMAGE CAUSED BY, CONTRIBUTED TO OR ARISING OUT OF THE ACTS OR OMISSIONS OF BUYER OR THIRD PARTIES, WHETHER NEGLIGENT OR OTHERWISE. IN NO EVENT SHALL CARMEUSE'S LIABILITY FOR ANY CAUSE OF ACTION WHATSOEVER EXCEED THE AMOUNT PAID BY BUYER FOR THE MATERIAL GIVING RISE TO THE CLAIM, WHETHER BASED IN CONTRACT, WARRANTY, INDEMNITY OR TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHERWISE. IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL OR OTHER SUCH INDIRECT DAMAGES (INCLUDING, WITHOUT LIMITATION, LOSS OF REVENUES, PROFITS OR OPPORTUNITIES), WHETHER ARISING OUT OF OR AS A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.

[IMPACTING EVERYDAY LIFE]

O-N Minerals (Luttrell) Company, 11 Stanwix Street, Pittsburgh, 15222, U.S.

3/5

Carmeuse's Premises. While on Carmeuse's premises Buyer's employees, invitees, and subcontractors (including subcontractors or carriers used for the purpose of transporting Material) shall be subject to and shall observe such safety and other rules and regulations as Carmeuse may then have in force at such premises. Buyer shall confine its employees, invitees, and subcontractors to that portion of Carmeuse's premises where work is to be performed and to such in-plant roads leading to and from such site as Carmeuse authorizes Buyer to use. Buyer shall assume sole responsibility for the safety of, and shall take all necessary measures and precautions at all times to prevent injury to its employees, subcontractors' employees and others who enter upon Carmeuse's premises for reasons relating to any Order. Buyer shall also take all necessary measures and precautions to protect and to avoid damage to or loss of property while on Carmeuse's premises. Compliance with MSHA, OSHA, or any other regulatory agency rules are a condition of entry to Carmeuse property. Buyer shall save Carmeuse harmless from any and all claims, damages, liabilities and loss, arising from injury to, or the death of, any person, or damage to or the loss of any property, caused or occasioned by the acts or omissions of Buyer, his employees, invitees, and subcontractors while on or about Carmeuse's premises in connection with any matter relating to the performance of an Order.

Excuse of Performance. Neither party shall be liable for any delay or failure to perform to the extent caused by fire, flood, explosion, war, riot; embargo, labor disputes, strikes, shortage of utilities, material or labor, delay in transportation, compliance with any laws, regulations, orders, acts or requirements from the government, civil or military authorities, acts of God or the public enemy, or any act or event of any nature reasonably beyond such party's control. In such circumstances, Buyer or Carmeuse may cancel the portion of this Order subject to such delay by giving prompt written notice, provided that, such cancellation shall apply only to that portion of the Order affected by the foregoing circumstances and the balance of the Order shall continue in full force and effect. If Carmeuse's Material production capacity is impaired as a result of one of the foregoing events of force majeure, then Carmeuse may allocate to Buyer a pro rata portion of Carmeuse's total remaining capacity taking into account Carmeuse's impaired Material production capacity, Buyer's requirements pursuant to this Order and Carmeuse's aggregate customer requirements for Materials.

Waiver. No condoning, excusing or waiver by any party of any default, breach or nonobservance by any other party, at any time or times with respect to any covenants or conditions set forth herein shall operate as a waiver of that party's rights with respect to any continuing or subsequent default, breach or nonobservance, and no waiver shall be inferred from or implied by any failure to exercise any rights by the party having those rights.

Severability. Should any provision of these terms and conditions be declared by any court of competent jurisdiction to be invalid or unenforceable, the remaining provisions shall not be affected thereby, it being the intent of the parties that they would have executed the remaining portion without including any such part or portion which may for any reason be declared invalid.

Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania (excluding its conflict of laws provisions), including the provisions of the UCC in Pennsylvania. Any proceeding pertaining to any such claim shall be venued in Pittsburgh, PA.

Entire Agreement/Amendment. Carmeuse and Buyer agree that the terms and conditions set forth herein constitute their complete and exclusive agreement regarding the subject matter of this Order and supersede any prior communications, representations or agreements of the parties, whether oral or written and cannot be altered, amended, or modified except in writing executed by an authorized representative of each party.

Assignability. Neither party may sell, assign, or transfer its rights, duties, or obligations under this Agreement without the prior written consent of the other; provided, however, that Carmeuse reserves the right to assign its rights, duties and obligations to any party purchasing substantially all of Carmeuse's assets. To the extent that assignment is permitted, this Agreement shall inure to the benefit of and be binding upon each party and its permitted successors and assigns.

Change in Law. It is expressly agreed that if there is an impact to Seller's costs as a result of pending or enacted legislation and regulations relevant to, among other things, CO2 cap and trade law or regulation ("Law"), such cost shall be added to the Material price in order to cover the increased cost per ton associated with such Law.

Breach. If either party breaches the terms and conditions of sale, such breach has a material effect on the performance of this Agreement, and such breach continues for a period of thirty (30) days after written notice from the non-breaching party to the breaching party, the non-breaching party may terminate this Agreement. Subject to the terms hereof, the non-breaching party shall have those remedies available to it at law or in equity for such breach. The prevailing party in any dispute hereunder shall be reimbursed by the non-prevailing party for reasonable legal expenses and for reasonable costs incurred.

GUIDELINES FOR CONTRACT HAULERS

Hauler Equipment: Contract Haulers must provide their own equipment, tools, personal protective equipment, maintenance shop devices or other items required to fulfill the contract. Carmeuse reserves the right to examine a Contract Hauler's equipment, tools, etc.

Adherence to Regulatory and Carmeuse North America Standards: All Contract Haulers picking up or delivering bulk materials to Carmeuse premises will strictly adhere to at least minimum state and federal (DOT, MSHA, OSHA, etc.) requirements. Carmeuse will not hire any Contract Hauler who cannot adequately demonstrate proficiency with this standard operating procedure (SOP). Carmeuse will not be responsible to oversee Contract Haulers while performing this type of work but will occasionally monitor for compliance to this SOP. The site is governed by federal safety standards (MSHA, OSHA) in which all haulers must adhere even if they are governed by a different federal agency. It shall be the Contract Hauler's complete responsibility to train its respective employees and adhere to applicable standards. Failure to follow any items contained in this contract or any safety standard may result in immediate discharge from the site and/or revocation of contracts.

- Where truck wash stations are provided, haulers must use prior to leaving the site.
- Bulk tanker haulers will not drive for any period of time to or from the site with their hatches open and will not be allowed on site with open hatches on open bed trailers; haulers will ensure tarpaulins are in place covering the entire load prior to leaving the site
- The operator/driver will ensure if they leave their cab for any amount of time, they are equipped with:
 - Over the ankle pants and sleeved shirt
 - Leather work gloves as conditions require
 - Head Protection - Class A hard hat which meets CSA or ANSI standard Z89.1-1986
 - Eye Protection - Which meets Carmeuse or ANSI standard ANSI Z87.1-2003 - Note: Contract Haulers who wear prescription eyeglasses must use side shields - Sunglasses are not permitted
 - Foot Protection - Boots that meet Carmeuse or ANSI standard ANSI Z41-1991
 - Hearing Protection - NIOSH approved hearing protection (muffs or earplugs) must be worn where required
 - Waterproof Boots and Slickers - If there is any chance of coming in contact with surface water containing lime as burns may occur
 - 6 Point Body Harness - If drivers are required to climb on top of their vehicles or tankers, for any reason, they will use the required fall protection equipment
 - High Visibility / Reflective Clothing - Some sites require the use of this type of clothing - hauler must verify site-specific requirements



STAFF REPORT
CITY OF HOLLY HILL, FLORIDA

5.1

City Commission
Resolution

MEETING DATE: October 8, 2024
FROM: Valerie Manning
SUBJECT: A Resolution of the City Commission of the City of Holly Hill, Florida, Approving the Position and Utilization of a Canine (K-9) Unit for the Holly Hill Police Department; Providing for Severability; and Providing for an Effective Date.
NUMBER: 2024-R-77
APPLICANT:
PLANNER:

DISCUSSION:

The Holly Hill Police Department is seeking approval and funding for the acquisition and training of a new K-9 dog and the re-establishment of a K-9 program for the Holly Hill Police Department.

A K-9 unit serves as a versatile and effective tool in areas such as narcotics detection, crime prevention, and community engagement. The addition of a K-9 unit will greatly assist in ensuring the safety of our officers and the public, while enhancing our ability to prevent and respond to criminal activity efficiently. The presence of a K-9 unit fosters positive relationships between the police department and the community. Through demonstrations and public appearances at community events, the K-9 program serves as an outreach tool.

The breakdown of the estimated onetime and recurring costs for launching and sustaining the K-9 program will be through a combination of city budget allocations, the police foundation, grants, and community donations. All onetime costs minus the purchase of the K-9, will be requested through the Police Foundation and donations. Annual re-occurring costs will be sustained through a combination of police departments budget and community donations.

The onetime costs of the program consist of:

K-9 Acquisition - \$12,500.00 - Forfeiture & Seizure Assets		
Kennel	Boss	- \$750.00
Tracking Harness - \$350.00		
Breaker	Bar	- \$80.00
K-9 first Aid Kit - \$299.00		
Bite	Suit	- \$1,899.00
K-9 Bite Sleeve - \$60.00		

TOTAL: \$15,938.00

Annual Re-occurring Costs of the program:

Food - \$840.00
Vet check-ups (Allied Vet/South Daytona) – varies
Heat alarm - \$169.00
Preventive Meds - \$440.00
Training Software - \$140.00
Misc. Equip/Toys - \$1,000.00

TOTAL: \$2,589.00

We have already received initial commitments for donations from several businesses and civic organizations to help fund the acquisition of the K-9 and necessary equipment. Additional fundraising initiatives are planned to ensure the long-term sustainability of the program.

FISCAL ANALYSIS:

Funds are available from the Law Enforcement Trust Fund which contains forfeiture receipts. Attachment A is a budget amendment for carry forward of those funds for the one time costs of \$15,938.00 and year one annual costs of \$2,589.00. The Budget Amendment Request also includes the transfer of the total funds, \$18,527.00 to the general fund to create the expenditure budget by the Police Department. The GL for this expenditure is 001-2110-521-5201.

STAFF RECOMMENDATION:

Accept and approve the acquisition of a K-9 dog for the Holly Hill Police Department and authorize the department to seek funding through budget allocations, grants, and community partnerships.

COMMISSION GOAL:

Goal #4: Provide proficient public health and safety services in terms of police and fire protection, water, storm water, waste water and solid waste management and disaster preparedness with a focus on intergovernmental collaboration, private sector partnerships, and utilization of technologies and proven innovations.

MOTION:

APPROVING THE POSITION AND UTILIZATION OF A CANINE UNIT FOR THE HOLLY HILL POLICE DEPARTMENT.

ATTACHMENTS:

- Southern Coast K9 Incorporated Proposal (PDF)

Resolution 2024-77

Meeting of October 8, 2024

- HHPD Budget Items for K-9 Unit (PDF)
- Attachment A - BAR Police Dept K9 Unit (PDF)

Resolution No. 2024-77**A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, APPROVING THE POSITION AND UTILIZATION OF A CANINE (K-9) UNIT FOR THE HOLLY HILL POLICE DEPARTMENT; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.**

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA, APPROVING THE POSITION AND UTILIZATION OF A CANINE UNIT FOR THE HOLLY HILL POLICE DEPARTMENT; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, The City of Holly Hill Police Department has identified a need for a Canine (K-9) Unit to include canine cruiser; and

WHEREAS, the primary goal of the K-9 Unit is to enhance the police department's objectives in providing quality law enforcement service to the community. Police K-9 teams are valuable tools in accomplishing law enforcement objectives of criminal apprehension and search and seizure; and

WHEREAS, the police K-9 breed will be a German Shepherd.

WHEREAS, the K-9 shall remain under the care of Sergeant Nikolas Stacy at his residence; and

WHEREAS, this is a Capital Project identified in the FY24-25 budget cycle; and

WHEREAS, the requested amount for the initial cost of the K-9 is \$12,500.00 through Southern Coast K-9 Incorporated.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA AS FOLLOWS:

SECTION 1. That the City Commission of the City of Holly Hill approve the position of K-9 Unit, to include the care, training, and maintenance of the canine and its liabilities.

SECTION 2. The City Commission directs the Police Chief to develop a plan for the implementation of the K-9 Unit, including but not limited to, the selection of qualified officers for K-9 handler roles, procurement of suitable K-9s, and acquisition of necessary equipment, facilities, and training.

SECTION 3. Funding for the K-9 Unit shall be derived from existing law enforcement budgets, grants, community donations, or other appropriate sources as deemed necessary by the City of Holly Hill.

SECTION 4. The K-9 Unit shall be utilized for purposes including, but not limited to, narcotics detection, suspect apprehension, search and rescue, and community policing initiatives.

SECTION 5. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 6. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 8th day of OCTOBER, 2024.



Making Your World Safer™

Proposal

Name / Address
Holly Hill Police Department

Date	Proposal #
9/11/2024	P2024-0699L

Qty	Description	Rate	Total
1	Selection Tested Dual Purpose K9	12,500.00	12,500.00

*** This Proposal is valid for no more than thirty (30) days from the Proposal date ***

TERMS AND CONDITIONS OF SALE

1. GENERAL - By signing this proposal, Buyer acknowledges and agrees to be bound by the Terms and Conditions of Sale ("Terms and Conditions") with respect to the purchase of the canine identified on the proposal. The agreement may be modified only by a written amendment signed by both Buyer and Seller.

2. CANINE HEALTH WARRANTY - Canines are accompanied with a health certificate, hip x-rays and a one year guarantee on skeletal health. If canine is returned within the warranty period for any valid warranty reason, the canine must be returned in the same condition as received. Upon approval by Seller, canine replacement or account credit will be issued. Refunds will not be given.

3. RELEASE AND LIMITATION OF LIABILITY - Buyer understands that by taking possession and/or ownership of the canine, Buyer assumes sole responsibility for such canine and releases and fully discharges Seller of any liability that may be incurred, except with regard to the above CANINE HEALTH WARRANTY.

4. PAYMENT TERMS - Net 30 Days from the date of the invoice. All payments are to be made to Southern Coast K9, 1425 Greenway Dr Suite 250, Irving TX 75038

ACCEPTANCE OF BUYER:

By (Signature): _____

Name/Title (Please Print or Type): _____

Date: _____

Subtotal	\$12,500.00
Sales Tax (0.0%)	\$0.00
Total	\$12,500.00

POLICE DEPT BUDGET ITEMS:

- 1)DOG FOOD- \$840.00 for the year
- 2)VET VISIT'S- UNK ATT *Allied Vet South
Daytona*
- 3)HEAT ALARM SUB- \$169.00 per year
- 4)FLEA AND TIK MED'S- \$440.00 for the year
- 5)K9 TRAINING SOFTWARE- \$140.00 a year
- 6)MISC- EQUIP/ TOYS/ UNK cost- \$1,000.00

FOUNDATION REQUEST ITEMS:

- 1)ACE WATCH DOG- \$899
- 2)KENNEL BOSS LARGE- \$750
- 3)MODERN ICON TRACKING HARNESS- \$350
- 4)SIRIUS BREAKER BAR- \$80
- 5)K9 FIRST AID KIT- \$299
- 6) BITE SUIT- \$1,899
- 7) BITE SLEEVE- 215+ COVER \$60

CITY OF HOLLY HILL **Budget Amendment Request** **Fiscal Year 2024-2025**

Requesting Department		Date
Police Dept.		10/8/2024
ADD FUNDS FROM ACCOUNT NUMBER	ACCOUNT DESCRIPTION:	AMOUNT:
110-0000-389-1000	Carryforward	\$18,527.00
001-0000-381-0101	Transfer from Law Enforcement Trust Fund	\$18,527.00
	Total	\$37,054.00
ADD FUNDS TO ACCOUNT NUMBER:		
110-8110-581-9101	Transfer to General Fund	\$18,527.00
001-2110-521-5201	Operating Supply	\$18,527.00
	Total	\$37,054.00

Purpose of Transfer: (include as much detail as possible)

To create budget for K9 unit from the receipt of Forfeits revenue and to transfer those funds to the general fund to create budget for K9 related expenditures by the Police Dept.

Note: Funds can only be transferred within the same fund and same department without requiring further commission action. In addition funds can only be expended after amendment is completed.

----- Management Approvals -----	
Department Head Signature	Date
City Manager Signature	Date
----- For Finance Use Only -----	
Step 1: Finance Review	
Finance Director Signature	Date
Step 2: Budget Adjustment Entry	
Funds are available for this request?	Yes ____ No ____
Employee Signature	Date
	Tyler Packet #

Attachment: Attachment A - BAR Police Dept K9 Unit (2024-R-77 : Utilization of a Canine (K-9) Unit for the Holly Hill Police Department)



**STAFF REPORT
CITY OF HOLLY HILL, FLORIDA**

**City Commission
Resolution**

MEETING DATE: October 8, 2024
FROM: Joseph Forte
SUBJECT: A Resolution of the City of Holly Hill, Florida, Awarding the Naming Rights Of the Building Located at 1060 Ridgewood Avenue to Florida Health Care Plans, Inc., Providing for Severability; Providing for Conflicting Resolutions; And Providing for an Effective Date.
NUMBER: 2024-R-78
APPLICANT:
PLANNER:

DISCUSSION:

The City and the Pictona has the right to designate the name of the building and facilities located at 1066 Ridgewood Avenue, Holly Hill, FL 32117 (the “Facility”). The City and Pictona have already entered into a real property lease agreement and a management services agreement for Facility previously known as the City Hall Annex.

Florida Health Care plan, Inc., would like to acquire the right to name the Facility from the Owner and Tenant in consideration of the foregoing and mutual promises set forth in the attached Agreement. Florida Health Care Plans, Inc., will be paying a fee to Pictona for the naming rights.

FISCAL

ANALYSIS:

There is no financial impact to the City for the naming rights.

STAFF

RECOMMENDATION:

To approve the Agreement and authorize the City Manager to execute the Agreement

COMMISSION GOAL:

Goal #3: Implement the CRA master plan with a focus on the best utilization of vacant properties and blighted properties in the city. Attention should also focus on infrastructure improvements within the district and strategies to encourage private investment and business retention.

Goal #5: Promote a small town city “branding” that focuses on the city’s accessible staff and interactive use of technologies (i.e. city website), the city’s business friendly approach to attract

and retain business, and the city's available open space, parks, and waterfront amenities that enhance the quality of life for citizens.

MOTION:

TO APPROVE THE AGREEMENT AND AUTHORIZE THE CITY MANAGER TO EXECUTE THE AGREEMENT.

ATTACHMENTS:

- Naming Rights Agreements to Protect the Brands - City of Holly Hill, Pictona and FHCP FINAL (PDF)

Resolution No. 2024-78

A RESOLUTION OF THE CITY OF HOLLY HILL, FLORIDA, AWARDED THE NAMING RIGHTS OF THE BUILDING LOCATED AT 1060 RIDGEWOOD AVENUE TO FLORIDA HEALTH CARE PLANS, INC., PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTING RESOLUTIONS; AND PROVIDING FOR AN EFFECTIVE DATE.

A RESOLUTION OF THE CITY OF HOLLY HILL, FLORIDA, AWARDED THE NAMING RIGHTS OF THE BUILDING LOCATED AT 1060 RIDGEWOOD AVENUE TO FLORIDA HEALTH CARE PLANS, INC.; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTING RESOLUTIONS; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, City of Holly Hill is the Owner with an address of 1065 Ridgewood Avenue, Holly Hill, FL 32117; Pictona is the Tenant with an address of 1060 Ridgewood Avenue, Holly Hill, FL 32117, Florida; and, Florida Health Care Plan, Inc., is the Sponsor with an address of 2450 Mason Avenue, Daytona Beach, FL 32114; and

WHEREAS, the Tenant and the Owner has the right to designate the name of the building and facilities located at 1066 Ridgewood Avenue, Holly Hill, FL 32117 (the “Facility”); and

WHEREAS, Owner and Tenant have entered into a real property lease agreement and a management services agreement for Facility; and

WHEREAS, Sponsor would like to acquire the right to name the Facility from the Owner and Tenant; and

WHEREAS, in consideration of the foregoing and mutual promises set forth in the Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF HOLLY HILL, FLORIDA:

SECTION 1. That the City Commission authorizes the City Manager to execute the Naming Rights Agreement To Protect the Brands document.

SECTION 2. That if any section, subsection, sentence, clause, phrase, or portion of this resolution, or application hereof, is for any reason held invalid or unconstitutional by an Court, such portion or application shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions or application hereof.

hereby **SECTION 3.** That all Resolutions made in conflict with this Resolution are repealed.

SECTION 4. That this Resolution shall become effective immediately upon its adoption.

APPROVED AND AUTHENTICATED on this 8th day of OCTOBER, 2024.

NAMING RIGHTS AGREEMENT TO PROTECT THE BRANDS

This Naming Rights Agreement ("Agreement") shall be effective as of the date last listed below ("Effective Date") is entered into by and between Pictona ("Tenant") with an address of 1060 Ridgewood Avenue, Holly Hill, FL 32117, City of Holly Hill ("Owner") with an address of 1065 Ridgewood Avenue, Holly Hill, FL 32117 and Florida Health Care Plan, Inc. ("Sponsor") with an address of 2450 Mason Avenue, Daytona Beach, FL 32114. Owner and Sponsor are each sometimes referred to individually herein as a "Party," and collectively as the "Parties."

WHEREAS, the Tenant and the Owner has the right to designate the name of the building and facilities located at 1066 Ridgewood Avenue, Holly Hill, FL 32117 (the "Facility");

WHEREAS, Owner and Tenant have entered into a real property lease agreement and a management services agreement for Facility.

WHEREAS, Sponsor would like to acquire the right to name the Facility from the Owner and Tenant;

NOW THEREFORE, in consideration of the foregoing and mutual promises set forth below, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. Definitions.

As used in this Agreement, the following terms have the following meanings.

- (a) The term "BCBSA" means Blue Cross and Blue Shield Association.
- (b) The term "BCBSA Marks" means any Blue Cross and Blue Shield names and symbols, including without limitation the word mark BLUE CROSS, the word mark BLUE SHIELD, the standard Blue Cross symbol (with the interior design element of the Vitruvian Man), the standard Blue Shield symbol (with the interior design element of the Staff of Asclepius), the solid Blue Cross symbol, and the solid Blue Shield symbol, and any other names or symbols incorporating any such names or symbols or the term BLUE and any applications or registrations therefore identified or set forth in the Naming Rights. For purposes of this Agreement, BCBSA Marks shall include the Florida Health Care Plan, Inc. names, symbols, and logos.
- (c) The term "Facility" means the facility to be named under the Naming Rights.
- (d) The term "Naming Rights" means the naming rights, and associated rights and obligations, given to the Sponsor set forth in Exhibit A to this Agreement.
- (e) The term "BCBSA License Agreement" means the license agreement between BCBSA and Sponsor under which Sponsor has certain rights to use certain BCBSA Marks.

- (f) The term “Sponsor Facility Name” means the name given to the Facility by Sponsor as set forth in the Naming Rights.
- (g) The term “Sponsorship Commitment” means the sponsorship commitments set forth in Exhibit B to this Agreement.
- (h) The term “Term” means the period starting from the Effective Date and continuing for the period or through such times set forth in Exhibit A to this Agreement or until termination (whichever is earlier).

2. Sponsorship.

- (a) **Naming Rights.** Subject to the terms and conditions of this Agreement, during the Term, Sponsor shall fulfill the Sponsorship Commitment, and Owner and/or Tenant will honor and fulfill the Naming Rights. Without limitation to the Naming Rights, Owner and/or Tenant will refer to the Facility with the Sponsor Facility Name and use the Sponsor Facility Name in any applicable signage, websites, social media, or other ways in which the name of a facility would commonly be used or referenced; Owner and/or Tenant will require applicable third parties (including without limitation tenants or other users of the facilities, media users, and advertisers) to refer to the Facility with the Sponsor Facility Name, including without limitation in any future written contracts; and Owner and/or Tenant will use commercially reasonable efforts to encourage others to refer to the Facility with the Sponsor Facility Name. For clarity, Owner and/or Tenant may not make any use of any BCBSA Marks except as part of the Sponsor Facility Name.
- (b) **Quality.** Owner and/or Tenant acknowledges the importance of maintaining high standards of quality in any goods or services that may be reasonably associated with the Sponsor Facility Name or is likely to be seen as emanating from the same source and agrees, during the Term, to maintain and follow standards of quality that are comparable within the industry with respect to the type, nature, or quality of any such goods or services for comparable facilities.
- (c) **Exclusivity.** During the Term, Sponsor has exclusive naming rights on or within the Facility over any entities primarily providing competitive or related goods or services. Sponsor shall have exclusive rights to the programming and other services provided at Facility. No competitors of Sponsor may use the Facility for programming or other services at Facility.

3. BCBSA Marks.

- (a) **Ownership.** Owner and/or Tenant acknowledges and agrees that BCBSA owns all rights in the BCBSA Marks, including without limitation any trademark rights, service-mark rights, associated goodwill, and other intellectual-property, proprietary, or intangible rights, and that any and all use of the BCBSA Marks inures to the benefit of BCBSA. Owner and/or Tenant further acknowledges and agrees that any use of BCBSA Marks under this Agreement is subject to the BCBSA License Agreement; and if the BCBSA License Agreement expires or terminates, either BCBSA or Sponsor may give written notice to Owner and/or Tenant of such expiration or termination, in which case Owner and/or Tenant must cease use of any BCBSA Marks.

- (b) **Presentation and Use.** Sponsor has the right to approve the presentation and use of any applicable BCBSA Marks in signage, advertising, tickets, and other materials or items to ensure that the use and quality standards of the BCBSA Marks are maintained and that any such presentation or use is consistent with Sponsor's obligations under the BCBSA License Agreement. Without limitation to the generality of the foregoing, Sponsor has the right to temporarily reduce, or require Owner and/or Tenant to temporarily reduce, when feasible, the prominence of the applicable BCBSA Marks on signage and associated materials for events at the Facility that Sponsor deems to be potentially controversial or otherwise reflect negatively on the BCBSA Marks.

4. Termination.

- (a) If Owner and/or Tenant breaches this Agreement, Sponsor may terminate this Agreement upon 30 days' written notice to Owner and Tenant, if such breach has not been cured within such 30 day period to the sole satisfaction of Sponsor.
- (b) After the third (3rd) year of the Term, Sponsor has the right to terminate this Agreement without cause upon one hundred twenty (120) days prior written notice.
- (c) Sponsor may terminate this Agreement immediately upon written notice to Owner and/or Tenant if any one or more of the following occurs:
 - (1) Owner and/or Tenant fails to meet any of the following criteria:
 - (i) None of the events that are Financial Stability Conditions are applicable to Owner and/or Tenant;
 - (ii) Owner and/or Tenant has not been convicted of a felony within the past three years;
 - (iii) Owner and/or Tenant does not have a reputation that through association would be likely to dilute or tarnish the unique value of any of the BCBSA Marks, in Sponsor's reasonable business judgment;
 - (iv) No impermissible use of or reference to any BCBSA Marks currently appears in any of Owner's and/or Tenant's public- or consumer-facing communications, including without limitation Owner's and/or Tenant's website; or
 - (v) Owner is not a National Competitor or an entity in dispute or litigation with BCBSA involving enforcement and protection of any of the BCBSA Marks;
 - (2) Owner and/or Tenant uses or permits the Facility to be used for or associated with activities or events likely to tarnish the reputation or value of the BCBSA Marks, such as a casino; or
 - (3) The BCBSA License Agreement expires or terminates.

- (d) Upon the expiration or termination of this Agreement, Owner and/or Tenant must cease any and all use of any BCBSA Marks under this Agreement.
- (e) In the event, the underlying lease by and between Owner and Tenant is terminated or otherwise expires this Agreement shall also co-terminate with no additional obligations of the parties.

5. Representations and Warranties.

Each of the parties represents and warrants to the other as follows:

- (a) It has the full power and authority to execute and perform under this Agreement—including without limitation the absence of any duty or obligation that would prevent (or be put in breach or default by) such execution, delivery, or performance;
- (b) It has investigated the facts pertaining to this Agreement as it deemed necessary;
- (c) It has relied upon its own judgment, belief, knowledge, and understanding, after careful consultation with its own legal counsel concerning the legal effect of this Agreement; and
- (d) It enters into this Agreement voluntarily in the absence of any fraud, mistake, duress, coercion, or undue influence.

6. Limitation of Liability.

IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING WITHOUT LIMITATION LOSS OF PROFITS, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN AN ACTION FOR CONTRACT, STRICT LIABILITY, TORT, NEGLIGENCE, OR OTHERWISE, WHETHER OR NOT THE PARTY HAD BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

7. General Provisions.

- (a) **Modifications.** This Agreement may not be amended or modified except by a writing duly executed by the parties.
- (b) **Binding Effect.** This Agreement contains the entire agreement between the parties and supersedes and replaces any and all prior or contemporaneous agreements or understandings, written or oral, with regard to the matters set forth herein. This Agreement will bind and inure to the benefit of each of the parties and their respective successors in interest. Except as expressly provided (including express mentions of BCBSA), this Agreement is not for the benefit of any person or entity not a party to this Agreement.
- (c) **Interpretation.** In the language of this Agreement, the singular and plural numbers, and the masculine, feminine and neuter genders, include the others; and the conjunctive “and” and the disjunctive “or” include the other. Section,

paragraph, and other captions or headings are used in this Agreement as a matter of convenience and for reference—and do not affect the interpretation of this Agreement.

- (d) **Ambiguities or Uncertainties.** This Agreement (and any ambiguities or uncertainties) will be equally and fairly interpreted without reference to the identity of the party preparing this Agreement, on the express understanding and agreement that the parties participated equally in the negotiation and preparation of the Agreement—or have had equal opportunity to do so. The parties each hereby waives the benefit of any statute or principle of law that provides that, in cases of uncertainty, language of a contract should be interpreted most strongly against the party who caused the uncertainty to exist.
- (e) **Severability.** If any provision of this Agreement is held to be invalid or unenforceable under applicable law, that provision will be reformed and construed consistently with applicable law as nearly as possible to reflect the original intentions of this Agreement; and in any event, the remaining provisions of this Agreement will remain in full force and effect.
- (f) **Waiver.** Any waiver of any breach or covenant of this Agreement must be in a writing duly executed by the Party waiving the breach. A waiver of a breach or covenant of this Agreement may not be construed to be a waiver of any succeeding breach or any other covenant, unless specifically and explicitly stated in the waiver.
- (g) **Counterparts; Signatures.** This Agreement may be executed in counterparts, each of which may be deemed an original and all of which together will constitute a single instrument. In the execution of this Agreement and delivery of signatures, facsimile or scanned signatures will be treated as having the same effect as original signatures.

IN WITNESS WHEREOF, the parties to this Agreement execute this Agreement as of the date and year written below.

SPONSOR

Signature

Printed Name

Title

Date

OWNER

Signature

Printed Name

Title

Date

TENANT

Signature

Printed Name

Title

Date

EXHIBIT A NAMING RIGHTS

Facility: Pictona's Activity Center located at 1060 Ridgewood, Holly Hill, Florida

Monument Sign shall be placed and maintained throughout the Term. The Monument Sign shall read "Florida Health Care Plans Activity Center at Pictona Holly Hill".

Term: Six (6) years

EXHIBIT B SPONSORSHIP COMMITMENT

B.1. Sponsor shall commit over the Term of this Agreement, in good and valuable consideration forty five thousand seven hundred fifty dollars (\$ 45,750) per year. Payment shall be to Tenant. This is in addition to the amounts previously committed by Sponsor and the additional funds committed by Sponsor's affiliate.

B.2. Tenant shall be responsible for building, maintaining, and updating the programming schedule to the satisfaction of Sponsor. Sponsor will provide educational programs.

B.3. Tenant shall develop and present a marketing plan within 30 days of the Effective Date to Sponsor with the objective of bringing attendance and awareness to the programs offered at Facility. Tenant shall actively promote Sponsor. Owner shall only use such materials as preapproved by Tenant.



**STAFF REPORT
CITY OF HOLLY HILL, FLORIDA**

**City Commission
Agenda Item**

5.3

MEETING DATE: October 8, 2024
FROM: Brian Walker
SUBJECT: Extension of Bike Week / Biketoberfest Events
NUMBER: (ID # 4659)
APPLICANT:
PLANNER: Brian Walker

DISCUSSION:

At the August 13, 2019, meeting of the City Commission, the decision was made to amend the City's special event calendar for 2019, to allow Biketoberfest and Bike Week to be 10-day events. This was done to allow local businesses time in advance of the actual event to prepare and setup tents, staging, prepare vendor spaces, and similar preparations. However, the selling of items could not occur until the actual day of the event's official start.

There were no issues in 2019 associated with the extension of time for these events.

Since the decision to allow Biketoberfest and Bike Week to be 10-day events was addressed only for the 2019 event year, staff is bringing the issue back to the Commission with the recommendation that these events be made 10-day events until such time that the Commission decides otherwise.

The additional days will be "front loaded" in the sense that they will occur prior to the event for setup only - not sales.

FISCAL ANALYSIS:

No financial effects are expected since this only addresses additional time to setup.

STAFF RECOMMENDATION:

Staff recommends the Commission allow the extension of Bike Week and Biketoberfest to 10 (ten) days total, with the additional days being prior to the actual event and used for setup only.

COMMISSION GOAL:

N/A

MOTION:

APPROVE THE EXTENSION OF BIKE WEEK AND BIKETOBERFEST TO 10 (TEN)

DAYS TOTAL, WITH THE ADDITIONAL DAYS BEING PRIOR TO THE ACTUAL EVENT AND USED FOR SETUP ONLY.

- 8-13-19 Meeting Minutes (PDF)

Minutes From August 13, 2019

DISCUSSION ON CONSENT AGENDA - RESOLUTION 2019-R-45, DESIGNATING THE SPECIAL EVENTS CALENDAR FOR 2020-2021

Mr. Forte showed the list of events to the Mayor and Commissioners. This list has grown beyond what its intended purpose was based on the Ordinance that's attached to this agenda item. This has turned into a city calendar of events and it really should be identification of Special Events, weeks or days because those are the days the Commission allows business owners to have outside sales and vendors on their property that they typically wouldn't be allowed. He wanted to get their approval to narrow this list down to what it really should be. Staff will keep a calendar of city events on the city's website but this list should be narrowed down and he would like the Commission's participation in it on which events should be classified as Special Event weeks. Obviously, Bike Week and Biketoberfest would be the two right off the top. Spring break used to be on that list many years ago but that was taken off but he doesn't really see anything else on this list, other than Bike Week and Biketoberfest that the city would declare as a Special Event.

There was some discussion amongst the Mayor and Commissioners.

Commissioner Penny made a motion to REMOVE all events except Bike Week and Biketoberfest from the Special Events Calendar for the remainder of the year and through 2021 and continuing forward, seconded by Commissioner Currie.

Mayor Via opened public participation.

Robin Hanger, 950 Ridgewood Avenue, Holly Hill, stated in keeping the Bike Week and Biketoberfest on there, he would like to suggest that or the City of Holly Hill, they have talked about this once before, lengthening the days of Biketoberfest and Bike Week to possibly allow Holly Hill vendors and the businesses here in town, to set up a couple of days before the actual date that Daytona's event happens. What it does, is people come from Orlando and Jacksonville the weekend before to see what's going on over here because there are vendors that are parked here waiting to set up. A business that is here and was allowed to put vendors out or put signage out, maybe don't allow them to put the vendors out but allow them to put their flags out and their promotional material for that business, it will let people know that are riding down here from Jacksonville or Orlando or from other cities since this thing has spread out so far now, Holly Hill is competing with a lot of places. A big Harley-Davidson shop is opening up in St. Augustine so that's going to stop a lot of people from coming down from the Jacksonville area. He would like to see some form of benefit for area

businesses to advertise prior to the 10-days. Daytona says it's a 4-day Biketoberfest but realistically, it's 2 days.

Mayor Via closed public participation.

There was some discussion amongst the Mayor and Commissioners.

Commissioner Penny made a motion to AMEND his original motion to allow Biketoberfest 2019 to be 10-days, treated similar to Bike Week, and the Commission will discuss Bike Week and Biketoberfest 2020 at a later date, seconded by Commissioner Johnson.

Commissioner Currie stated Mayor, just technically, because this is bothering her. Technically, I removed her "second" from the original motion.

Commissioner Penny withdrew his original motion and a NEW original motion was made and NOT an AMENDED motion.

Commissioner Penny made a motion to APPROVE AMENDING THE SPECIAL EVENT CALENDAR FOR BIKETOBERFEST 2019 TO BE A 10-DAY EVENT AND THE 2020 SPECIAL EVENT CALENDAR WILL ONLY INCLUDE BIKE WEEK AND BIKETOBERFEST AND THOSE DATES WILL BE DETERMINED AT A LATER DATE, seconded by Commissioner Johnson.

Mayor Via opened public participation.

Robin Hanger, 950 Ridgewood Avenue, Holly Hill, stated he's grateful for the 10-days, whatever they get there, that's fine. What his suggestion was to allow the businesses to promote 3 or 4 days ahead of time and for either event, so that the businesses have time to get vendors in, as vendors are coming into town too, prior to them setting up, they may see that there's a nice spot there that we didn't see before. To say that a vendor wouldn't make any money prior to an event, we don't know that. He thinks it's a win-win to be able to promote local businesses and be able to set up ahead of time so that they can catch people that are here or people that may be driving through and come back the next time.

Mayor Via closed public participation.

PASSED, 5-0.