

## ELECTRONIC DOCUMENTS DISCLAIMER

1. Electronic copies of the solicitation documents are made available on this website solely for the convenience of prospective bidders (whether as a prime contractor or sub-contractor) on the Project, and are not considered part of the Contract Documents. No representation or warranty is made, either expressed or implied, with regard to the accuracy or suitability of these electronic copies for any purpose whatsoever. In the event of discrepancies or conflicts between the County's originally published document(s) and any other version distributed or submitted by other parties, the County's original hard copy version shall prevail.
2. Miami-Dade County Department of Transportation and Public Works (DTPW) does not track or monitor downloads of Project documents from this website. Therefore, prospective bidders who choose to use this method of distribution shall also be responsible for monitoring the site and downloading any applicable addenda or supplemental information. DTPW will distribute hard copy addenda or supplemental information only to those persons or firms who we have purchased a hard copy of the original solicitation documents.
3. Miami-Dade County shall not be responsible for errors and omissions occurring in the transmission or downloading of any documents or specifications from this website. In the event of any discrepancy between information obtained from this website and the DTPW hard copy solicitation documents and specifications, the terms of the hard copy documents will prevail.
4. Miami-Dade County does not guarantee continuous, uninterrupted or secure access to this or other related websites. Operation of this website may be affected from time to time by numerous factors outside of our control. In the event that we are notified of any problems in a timely manner we will do our best to assist with those problems that fall within our control. For assistance, contact us at 305-375-2930. Solicitation documents are removed from this website as soon as possible after the due date.
5. DTPW does not accept facsimile or electronic bid responses of any kind. All bids must be submitted in writing, on the forms provided by the County, to the address designated in the bid package. It is the bidder's responsibility to ensure that their submittals are received at the designated location, complete and on time. Bids received after the due date will be rejected, even if the solicitation is still appearing on this site.
6. With regards to Miscellaneous Construction Contracts (MCC) 7040 Plan Request for Price Quotations:
  - a. Only bidders included on the Project's Bidders List, provided by the Internal Service Department, Procurement Management Division to the DTPW, can submit a bid.
  - b. Only timely bids received from bidders included in the Project's Bidders List will be considered.
7. These documents shall not be altered in any manner. Utilization or viewing of these electronic documents shall constitute implicit acknowledgement and acceptance of these provisions. Failure to comply with these provisions may result in rejection of your bid.

# CONTRACT SPECIFICATIONS

DEPARTMENT OF TRANSPORTATION  
& PUBLIC WORKS  
DESIGN AND ENGINEERING DIVISION

## BID DOCUMENTS

DTPW AC Replacement (Coral Way  
TRB & Garage)

CONTRACT NO. CICC 7360 PLAN

RPQ NO.: TP-0000032176

VOLUME I OF II

SEPTEMBER 2025



RPQ NO.: TP-0000032176

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**SECTION 1: INVITATION TO BID**

## INVITATION TO BID

**Department of Transportation and Public Works**

Capital Improvements Division  
 111 NW 1 St Suite 1410  
 Miami 33128



**MIAMI-DADE COUNTY, FLORIDA  
 REQUEST FOR PRICE QUOTATION (RPQ)**

Contract No: MCC 7360 Plan  
 RPQ No: TP-0000032176

**INVITATION TO BID**

A RPQ has been issued for the work identified below. If you are interested in submitting a bid for this project, please submit your bid via Sealed Envelopes, attention to Clerck of the Board at 111 NW 1st Street, 1710 no later than 10/29/2025 at 02:00 PM. If you have any questions, contact Alicia Arce at 305-375-1363.

This RPQ is issued under the terms and conditions of the Miscellaneous Construction Contracts (MCC) Program MCC 7360 Plan.

**RPQ DETAILED BREAKDOWN**

Bid Due Date:	10/29/2025	Time Due:	02:00 PM	Submitted Via:	Sealed Envelopes		
Estimated Value:	\$720,875	(excluding Contingencies and Dedicated Allowances)					
Project Name:	DTPW A/C Replacement Coral Way Bus TRB and Garage						
Project Location:	2775 S.W. 74 Avenue Miami Florida 33155						
License Requirements:	Primary:	Air Conditioning Unlimited					
Scope of Work:	<p>(Contractor must obtain and submit all permits prior to performing any work).                  Contractor must obtain and submit all permits prior to performing any work.) The Contractor must obtain all permits and submit copies to the Project Manager prior to performing any work and complete all work required to properly commission the equipment described for installation.</p> <p>A. The Scope of Work for this project includes, but is not limited to, furnishing all labor, A/C units, material, equipment, and crane services necessary for the replacement of (17) rooftop A/C units at Miami Dade Transit Coral Way Bus Facility 2775 S.W 74 Ave. Miami FL 33155. Folio: 30-4014-010-0020</p> <p>B. Contractor shall be responsible for restoring any damages to the existing finished surfaces and building components caused by the execution of this work.                  Replace (17) various old Coleman Rooftop Package Units from 7.5 to 15-ton size on existing curbs and with curb adapters as required. With new Tempmaster/JCI type units to match. Each new unit to have: 460/60/3, Hinged door panels all-access, factory coil coating condenser coil, unit mounted non-fused disconnect, condensate overflow switch, phase monitor, motorized damper, heater selection as specified factory wired and installed. Powered 120-volt convenience outlet on the two 12.5-ton units only.</p> <ol style="list-style-type: none"> <li>The Contractor must provide and install new motorized outside air dampers on all units as required by the code.</li> <li>The Contractor must provide and install a factory electric heater as specified for the equipment.</li> <li>The Contractor must provide and install new digital, non-programmable, two staged thermostats compatible with new JCI type units.</li> <li>The Contractor must reconnect the system to existing, smoke detector system, and ductwork.</li> <li>The Contractor must pull Mechanical A/C Permit and other required permits and provide any documentation, installation of code required items, drawings, engineering tie-down or wind load plans as required for permitting. Per Florida State Statute 218.80 requires permit fees to be disclosed, which is part of the contractor's responsibility as part of the contractors' bid and MCC 7040 requirements.</li> <li>The Contractor must perform smoke test to comply with Building Department's requirement for final inspection.</li> <li>The Contractor must provide crane service.</li> <li>The Contractor will be required to dispose of old equipment.</li> <li>The Contractor must supply all roofing and incidental materials to complete work as per code. To include curb to unit sealing with 2" wide by 1/2" thick peel &amp; stick Armaflex type curb gasket to be placed in and around all existing curbs.</li> <li>The Contractor must provide and secure unit, curb, and any required curb adapter as per code and provide and install all required f</li> </ol>						

fasteners and hardware required for installation.

11. The Contractor shall connect to existing wiring and provide any required additional electrical items, flexible conduit, or wiring necessary to connect new units per code. All 3/4", 1" and 1-1/4" Seal-tight and any existing bell boxes on roof to be replaced furnished and installed under this contract. Connect all low voltage wiring to A/C units, thermostats, and fire alarm system.

12. The work area must be cleaned daily.

13. Replace all condensation drain traps as needed, with an insulated copper pipe with overflow shut off switch. All units will require insulated 1" NPT copper lines and copper P-traps. Drains to have from unit, short PVC nipple, PVC union FPT x FPT, copper male adapter, and copper P-trap and pipe. Furnish and install all necessary parts for condensate drain lines for the new unit connection. All 1" copper pipes to be a minimum of type M pipe. All copper condensate drains shall terminate indirect to nearest roof drain or indirect to 2" PVC lines on roof to nearest roof drain. All smaller units 12.5-ton and under shall require insulated 3/4" copper lines and copper P-traps. Furnish all necessary parts for condensate drain lines for the new connection.

Document Pickup:	Contact:	Capital Improvements Division	Phone No:	3053755301	Date:	9/25/2025
	Location:	111 NW 1 Street, Suite 1410				

Pre-Bid Meeting::	YES	Mandatory:	No	Date:	10/8/2025	Time:	10:00 AM
	Location:	14 Floor Front Conference Room					

Site Meeting:	No	Mandatory:	No	Date:		Time:	
	Location:						

Bid shall be submitted to:	Contact:	Clerck of the Board				
	Address:	111 NW 1st Street, 1710				
	Email:	clerckbcc@miamidade.gov	FAX # :	305-375-2931		

Type of Contract:	Single Trade	Method of Award:	Lowest Responsible Bidder
Method of Payment:	Scheduled Monthly Payments	Insurance Required:	YES

Additional Insurance Required:	YES	If Yes - Minimum Coverage:	\$1,000,000.00
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Performance & Payment Bond Required:	YES	Bid Bond Required:	YES
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Davis Bacon:	NO	Maintenance Wages:	NO	AIPP:	NO	Amount:	
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DBE Participation:	NO	Percentage:	0.00%	DBE Subcontractor Forms Required:	NO
SBE-S Requirements	NO	Percentage:	0.00%		
SBE-Services Commodity Set-Aside	NO	If Yes, Service =			
SBE-G Requirements	NO	Percentage:	0.00%		
SBE-Goods Commodity Set-Aside	NO	If Yes, Goods =			
Liquidated Damages:	YES	\$\$ Per Day:	\$1,685.00		

For RPQ's less than \$10,000, if no LD rate is specified, the County reserves the right to assess actual damages in lieu of LDs.

Design Drawing Included:	NO	Shop Drawing Included:	NO	Specifications Included:	YES
Anticipated Start Date:	1/22/2026		Calendar Days for Project Completion:	240	

Comments:

Pursuant to Section 2-8.10 of the Code of Miami-Dade County, this Contract is subject to a user access fee under the County's User Access Program (UAP) in the amount of two percent (2%). All construction services provided under this contract are subject to the 2% UAP. This fee applies to all Contract usage whether by County Departments or by any other governmental, quasi-governmental or not-for-profit entity. From every payment made to the Contractor under this contract (including the payment of retainage), the County will deduct the two percent (2%) UAP fee provided in the ordinance and the Contractor will accept such reduced amount as full compensation for any and all deliverables under the contract. The County shall retain the 2% UAP for use by the County to help defray the cost of its procurement program. Contractor participation in this pay request reduction portion of the UAP is mandatory.

Provided, however, UAP shall not be applicable for total contract values, inclusive of contingency

and allowance accounts, of less than five hundred thousand dollars (\$500,000.00).

On May 28, 2024, the Governor signed into law House Bill ("HB") 705. Prior to the adoption of HB 705, section 255.0992 of the Florida Statutes generally prohibited Miami-Dade County (the "County"), from requiring a contractor, subcontractor, or supplier to pay or provide a predetermined amount of wages or benefits to its employees or recruit or hire employees from a designated or restricted source in construction projects paid for with any state-appropriated funds. Additionally, under the same statute, the County could not apply small business measures or limit bidding among Small Business Enterprise-Construction ("SBE-Con") firms for construction projects paid for with any state funds. However, for contracts funded solely with County funds, prior to the adoption of HB 705, section 255.0992 did not limit the application of the County's SBE-Con program, responsible wages, or workforce requirements.

HB 705 revised the definition of the term "public works project" in Section 255.0992, Florida Statutes to include activities paid for with local County funds, making the various prohibitions found in section 255.0992 applicable to County funded construction contracts. HB 705 impacts construction projects that are in various phases of the procurement process whether pending advertisement or bid submittal, and in some cases pending contract award with bids having been received. Thus, considering the passing of HB 705, effective July 1, 2024, the following prohibitions exist:

- The County's Responsible Wages & Benefits, Community Workforce, Residence First Training and Employment, and Employ Miami-Dade Program requirements will not be applied to the County's capital construction projects, including design-build projects, awarded after July 1, 2024.
- The County's SBE-Con requirements cannot be applied on any capital construction projects, including design-build projects, if initial bids or proposals are received on or after July 1, 2024.

#### LICENSE REQUIREMENTS:

At the time of Bid and pursuant to the requirements of Section 10-3 of the Code of Miami-Dade County, Florida and these Solicitation and Contract Documents, the Bidder must hold a valid, current, and active:

a. Certificate of Competency from the County's Construction Trades Qualifying Board as a General Engineering Contractor, General Building Contractor or as a Specialty Engineering Contractor, commensurate to the requirements of the Scope of Work, in one or more engineering crafts to include Roofing engineering contractor. The specialty contractor shall subcontract with a qualified contractor any work which is incidental to the specialty but is specified in the aforementioned Code as being the work of other than that of the Engineering Specialty for which certified.

#### INDEMNIFICATION AND INSURANCE REQUIREMENTS

The Contractor shall furnish to Department of Transportation and Public Works, 111 NW 1 Street, Miami Florida 33128, Certificate(s) of Insurance which indicate that insurance coverage has been obtained which meets the requirements as outlined below:

1. Worker's compensation insurance for all employees as required by Florida Statute 440.
2. Commercial General Liability in an amount not less than \$300,000 per occurrence, and \$600,000 in the aggregate not to exclude coverage for Products and Completed Operations Miami-Dade County must be shown as an additional insured with respect to this coverage.
3. Automobile Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the work, in an amount not less than \$300,000 combined single limit per occurrence for bodily injury and property damage

#### BID DOCUMENTS:

Bidding documents may be obtained from the Miami-Dade County Department of Transportation and Public Works, Capital Improvements Division, located at 111 NW 1st Street, 14th Floor, Miami, Florida 33128, for a non-refundable fee of fifteen dollars (\$15.00) per USB drive. Payment must be made by company check, cashier's check, or money order payable to "Miami-Dade County, Department of Transportation and Public Works."

Alternatively, bidding documents are available for free download at:  
<https://www.miamidade.gov/apps/isd/StratProc/Home/CurrentSolicitations>

#### ADDENDUMS - RFIs

All RFI requests should be e-mailed to [Alicia.Arce@miamidade.gov](mailto:Alicia.Arce@miamidade.gov) while copying the Clerk of the Board ([clerkbcc@miamidade.gov](mailto:clerkbcc@miamidade.gov)).

The Department of Transportation and Public Works has made changes with regard to how

addendums and requests for information (RFI) will be sent to document holders. Be advised that all Addendums, RFI's, and the document holders list (bidder's list) are now available to view online at the following web address:

<https://www.miamidade.gov/apps/isd/StratProc/Home/CurrentSolicitations>

All document holders must provide a dedicated e-mail address. The Department will only be sending addendums and RFI's by e-mail and posting online at the aforementioned link. The bidders list will be updated every Friday during the advertisement phase of the contract. Please be aware that acknowledgment of receipt of all addendums and RFI's remain a requirement when submitting bids.

**Vendor Registration:**

Due to the new Vendor Registration procedures of the Internal Services Department, Procurement Management Division, updated definitions along with the "Affirmation of Vendor Affidavits" has been added to the Bid Submittal Package. The successful bidder must be registered under this new procedure prior to award.

**PRE BID - BID SUBMITTAL DUE DATE:**

Pre-Bid Conference date, time and location: Wednesday October 8, 2025, at 10:30 A.M. The Department of Transportation and Public Works (DTPW) has scheduled a non-mandatory Site Visit Meeting. The Site Visit Meeting will be held on Wednesday August 6, 2025, at the following location: Miami Dade Transit Coral Way Bus Facility 2775 S.W 74 Ave. Miami FL 33155

The bidder must arrive on time for the Site Visit Meeting and Pre-Bid meeting; there is no guarantee that the meeting will be repeated.

Bid Submittal Time and Location: Monday, 2:00 P.M., October 29, 2025, at 111 NW 1 Street, 17th Floor, Clerk of the Board Office.

Deadline to received questions (RFI) will be August 29, 2025.

Bid Opening immediately after Bid Submittal on the 18th floor.

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RPQ No: TP-0000032176 processed as SBE - No Measure

## **DISCLOSURE:**

- Contractor shall indemnify and hold harmless the County and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorneys' fees and costs of defense, which the County or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the performance of this Agreement by the Contractor or its employees, agents, servants, partners principals or subcontractors. Contractor shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the County, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon. Contractor expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by the Contractor shall in no way limit the responsibility to indemnify, keep and save harmless and defend the County or its officers, employees, agents and instrumentalities as herein provided.

The Contractor shall furnish to **Department of Transportation and Public Works, Capital Improvements Division, 111 NW 1 St Suite 1410, Miami 33128**, Certificate(s) of Insurance which indicate that insurance coverage has been obtained which meets the requirements as outlined below:

- A.** Worker's Compensation Insurance for all employees of the Contractor as required by Florida Statute 440.
  - a. If applicable should include coverage required under the U.S. Longshoremen and Harbor Workers' Act (USL&H) and/or Jones Act for any activities on or about navigable water.
- B.** Commercial General Liability in an amount not less than \$300,000 per occurrence, and \$600,000 in the aggregate. Miami-Dade County must be shown as an additional insured with respect to this coverage.
- C.** Automobile Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the work, in an amount not less than \$300,000 combined single limit per occurrence for bodily injury and property damage.

\*Under no circumstances are Contractors permitted on the Aviation Department, Aircraft Operating Airside (A.O.A) at Miami International Airport without increasing automobile coverage to \$5 million. Only vehicles owned or leased by a company will be authorized. \$1 million limit applies at all other airports.

## **VERIFICATION OF EMPLOYMENT ELIGIBILITY (E-VERIFY):**

By entering the Contract, the Awarded Bidder becomes obligated to comply with the provisions of Section 448.095, Florida Statute, titled "Verification of Employment Eligibility." This includes but is not limited to utilization of the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all newly hired employees by the Awarded Bidder effective, January 1, 2021, and requiring all Subcontractors to provide an affidavit attesting that the Subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. Failure to comply may lead to termination of this Awarded Bidder, or if a Subcontractor knowingly violates the statute, the subcontract must be terminated immediately. Any challenge to termination under this provision must be filed in the Circuit Court no later than twenty (20) calendar days after the date of termination. If this Contract is terminated for a violation of the statute by the Awarded Bidder, the Awarded Bidder may not be awarded a public contract for a period of one year after the date of termination, and the Awarded Bidder may be liable for any additional costs incurred by the County resulting from the termination of the Contract. Public and private employers must enroll in the E-Verify System (<http://www.uscis.gov/e-verify>) and retain the I-9 Forms for inspection.

## **SECTION 2: SOLICITATION FORMS**

All forms and documents contained in this Section shall be completed pursuant to these Contract Documents and submitted with the Bid Submittal for this Project.

# BID FORM

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

BID DOCUMENTS

DTPW AC Replacement (Coral Way Bus TRB & Garage)

PROJECT NO. CTP000003009706

RPQ NO. TP-0000032176

To: Miami-Dade County  
Board of County Commissioners  
Miami, Florida

Bid Opening Date: \_\_\_\_\_  
Bid Opening Time: \_\_\_\_\_  
Local Time: \_\_\_\_\_

Gentlemen:

We \_\_\_\_\_

Bidder's Name

have received, have examined and are familiar with the Contract Documents bearing the title **DTPW AC Replacement (Coral Way TRB & Garage)- RPQ NO. TP-0000032176**, the forms for the Submittal of Bids and have included the cost of their provisions, in our Bid. We have examined, are familiar with, and do accept the conditions of the Work site and other conditions affecting the Work.

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Failure to acknowledge receipt of all addenda may cause the bid to be considered not responsive to the invitation, which would require rejection of the bid.

RPQ No.: **TP-0000032176**

**Metrorail Martin Luther King Parking Garage Emergency Demolition**  
**RPQ No.: TP-000032176**  
**PROJECT No.: CTP000003009706**

**BID FORM**

IF THIS CONTRACT IS ACCEPTED, THE BIDDER AGREES TO COMPLETE ALL WORK UNDER THIS CONTRACT *WITHIN 240 CALENDAR DAYS* AFTER THE EFFECTIVE DATE OF NOTICE TO PROCEED. **PRICING SHALL BE INCLUSIVE OF ALL REQUIREMENTS TO COMPLETE THE SCOPE OF WORK AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.**

\*\*\*\*\* TO BE COMPLETED BY BIDDER AT BID SUBMISSION \*\*\*\*\*

<u>Item No.</u>	<u>DESCRIPTION</u>	<u>Quantity</u>	<u>Written Unit Amount</u>	<u>UNIT PRICE</u>	<u>TOTAL</u>
1	A/C Replacement of 15-ton rooftop package unit model# LV15E1BP4A3AAH81F1 with all listed items, including labor, permitting requirements, bonding, thermostats, crane lift, drain connections miscellaneous electrical & tie down fasteners, markup and curb adapters. Furnish and Install.	5			
2	A/C Replacement of 7.5-ton rooftop package unit model# KJ090E09P4HBBAB1A1 with all listed items, including labor, permitting requirements, bonding, thermostats, crane lift, drain connections miscellaneous electrical & tie down fasteners, and markup. Furnish and Install.	10			
3	A/C Replacement of 12.5-ton rooftop package unit model# KJ150E18P4HFBAB1A1 with all listed items, including labor, permitting	2			

	requirements, bonding, thermostats, crane lift, drain connections miscellaneous electrical & tie down fasteners, and markup. Furnish and Install.				
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**TOTAL BASE BID**      \$ \_\_\_\_\_

(Instructions: The spaces provided in the Total Price Column(s) for the Bid Line Item(s) must be filled in and no spaces left blank. The sum of the Bid Line Items must represent your Base Bid Total. Failure to submit a complete and accurate Bid Form may result in your bid found non-responsive.)

**A TEN PERCENT (10%) CONTINGENCY ALLOWANCE AND OTHER DEDICATED ALLOWANCES AS REQUIRED WILL BE ADDED TO THE BASE BID TOTAL AS STIPULATED IN THE SPECIAL PROVISIONS.**

LICENSE NO. \_\_\_\_\_ BIDDER'S NAME \_\_\_\_\_

BIDDER'S TELEPHONE NUMBER \_\_\_\_\_ BIDDER'S ADDRESS \_\_\_\_\_

BIDDER'S FEIN NUMBER \_\_\_\_\_ BIDDER'S SIGNATURE \_\_\_\_\_

THE BIDDER UNDERSTANDS AND AGREES THAT THE BASE BID TOTAL AND ALL APPLICABLE ALLOWANCES ARE INCLUSIVE OF ALL WORK NECESSARY TO COMPLETE THE SCOPE OF WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS, AND IF THIS PROPOSAL IS ACCEPTED, THE BIDDER AGREES TO ENTER INTO AND EXECUTE THE CONTRACT WITH THE NECESSARY BOND AND ACCEPT THE ABOVE BASE BID, INCLUSIVE OF ALL ALLOWANCES, AS FULL COMPENSATION FOR THE WORK PERFORMED UNDER THIS CONTRACT.

**\*YOU ARE REQUIRED TO TRANSFER TOTALS TO FORM APPENDIX 5A. FAILURE TO COMPLY WITH THIS REQUEST MAY RENDER THE PROPOSAL NON-RESPONSIVE.**

**LOCAL PREFERENCE CERTIFICATION:** For the purpose of this certification, a “local business” is a business located within the limits of Miami-Dade County that conforms with the provisions of Section 3.0 of the Special Provisions of this solicitation and contributes to the economic development of the community in a verifiable and measurable way. This may include, but not be limited to, the retention and expansion of employment opportunities and the support and increase to the County’s tax base.

Place a check mark here only if affirming bidder meets requirements for Local Preference. Failure to complete this certification at this time (by checking the box above) may render the vendor ineligible for Local Preference.

**LOCALLY-HEADQUARTERED BUSINESS CERTIFICATION:** For the purpose of this certification, a “locally-headquartered business” is a Local business whose “principal place of business” is in Miami-Dade County as defined in Section 3.0 of the Special Provisions of this solicitation.

Place a check mark here only if affirming bidder meets requirements for the Locally-Headquartered Preference (LHP). Failure to complete this certification at this time (by checking the box above) may render the vendor ineligible for the LHP. The address of the locally-headquartered office is \_\_\_\_\_

**LOCAL CERTIFIED WARTIME VETERAN BUSINESS ENTERPRISE CERTIFICATION:** A Local Certified Service-Warime Veteran Business Enterprise is a firm that is (a) a local business pursuant to Section 2-8.5 of the Code of Miami-Dade County and (b) prior to bid submission is certified by the State of Florida Department of Management Services as a service-warime veteran business enterprise pursuant to Section 295.187 of the Florida Statutes.

Place a check mark here only if affirming bidder is a Local Certified Service-Warime Veteran Business Enterprise. A copy of the certification must be submitted with this proposal.

**A. WAIVER OF CONFIDENTIALITY AND TRADE SECRET TREATMENT OF BID:**

The Bidder acknowledges and agrees that the submittal of the Bid is governed by Florida’s Government in the Sunshine Laws and Public Records Laws, as set forth in Florida Statutes Section 286.011 and Florida Statutes Chapter 119. As such, all material submitted as part of, or in support of, the Bid will be available for public inspection after opening of bids and may be considered by the County in public.

**By submitting a bid pursuant to this solicitation, Bidder agrees that all such materials may be considered to be public records. The Bidder shall not submit any information in response to this solicitation which the Bidder considers to be a trade secret, proprietary or confidential.** In the event that the Bid contains a claim that all or a portion of the Bid submitted contains confidential, proprietary or trade secret information, the Bidder, **by signing below**, knowingly and expressly **waives** all claims made that the Bid, or any part thereof no matter how indicated, is confidential, proprietary or a trade secret and authorizes the County to release such information to the public for any reason.

**B. CONVICTION DISCLOSURE:**

Pursuant to Section 2-8.6 of the Code of Miami-Dade County, any individual, corporation, partnership, joint venture or other legal entity having an officer, director, or executive who has been convicted of a felony during the past ten (10) years shall disclose this information at the time of bid submittal.

Place a check mark here only if the Bidder has such conviction to disclose to comply with this requirement.

D. C. CERTIFICATE OF COMPETENCY NO \_\_\_\_\_ BIDDER'S NAME \_\_\_\_\_

BIDDER'S TELEPHONE NUMBER \_\_\_\_\_ BIDDER'S ADDRESS \_\_\_\_\_

BIDDER'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

ATTACHMENT 5A

Department of  
Transportation and Public  
Works  
Capital Improvements Division  
111 NW 1 St Suite 1410  
Miami, 33128



MIAMI-DADE COUNTY, FLORIDA  
REQUEST FOR PRICE QUOTATION (RPQ)  
Contract No: MCC 7360 Plan  
RPQ No: TP-0000032176

**RPQ BID FORM – ATTACHMENT 5A**

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**RPQ Project Name:** DTPW A/C Replacement Coral Way Bus TRB and Garage

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**Price Proposal** (Cost to Perform the work **must** be stated here. State 'No Bid' if not submitting a price proposal)

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**Bidder's Company Name:** \_\_\_\_\_

**Company Address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Telephone No:** \_\_\_\_\_ **Fax No:** \_\_\_\_\_ **E-Mail:** \_\_\_\_\_

THE EXECUTION OF THIS FORM CONSTITUTES THE UNEQUIVOCAL OFFER OF PROPOSER TO BE BOUND BY THE TERMS OF ITS PROPOSAL. FAILURE TO SIGN THIS SOLICITATION WHERE INDICATED BELOW BY AN AUTHORIZED REPRESENTATIVE SHALL RENDER THE PROPOSAL NON-RESPONSIVE. THE COUNTY MAY, HOWEVER, IN ITS SOLE DISCRETION, ACCEPT ANY PROPOSAL THAT INCLUDES AN EXECUTED DOCUMENT WHICH UNEQUIVOCALLY BINDS THE PROPOSER TO THE TERMS OF ITS OFFER.

**Name of Person Submitting Quote (Print):** \_\_\_\_\_

**Number of Addendums received:** \_\_\_\_\_ (if none' write "None")

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

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**Note:** Quotes must be submitted on this form. Quote envelope must state RPQ Number, date and time due and the Bidder's Name. Use of any other form for submission of the price quotation shall result in the rejection of the price quotation. Late bids will not be opened. *Low bidder will be notified, in the Recommendation of Award, of the requirements to submit current copies of insurance certificates in accordance with the Contract Documents. By signature, the CONTRACTOR agrees to be bound by the terms set forth in the MCC 7360 Plan.*

## ACKNOWLEDGEMENT OF ADDENDA

MIAMI-DADE COUNTY  
Department of Transportation and Public Works (DTPW)

---

PROJECT: DTPW AC Replacement (Coral Way TRB Garage)  
Project No. TP-0000032176

**ACKNOWLEDGEMENT OF ADDENDA**

(Must be completed and submitted with required solicitation documents)

**Instructions:** Complete Part I or Part II, as applicable.

---

**PART I:** Listed below are the dates of issue for each Addendum received in connection with this solicitation.

Addendum #1, Dated _____,	202__
Addendum #2, Dated _____,	202__
Addendum #3, Dated _____,	202__
Addendum #4, Dated _____,	202__
Addendum #5, Dated _____,	202__
Addendum #6, Dated _____,	202__
Addendum #7, Dated _____,	202__
Addendum #8, Dated _____,	202__
Addendum #9, Dated _____,	202__
Addendum #10, Dated _____,	202__

---

**PART II:**

\_\_\_\_ No Addendum was received in connection with this solicitation.

---

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print Name: \_\_\_\_\_ Title: \_\_\_\_\_

Firm Name: \_\_\_\_\_

SURETY BID BOND FORM

PRINCIPAL (Full legal name and business address)	TYPE OF ORGANIZATION ("X" one)	
	<input type="checkbox"/> Individual	<input type="checkbox"/> Partnership
	<input type="checkbox"/> Joint Venture	<input type="checkbox"/> Corporation

SURETY (Name and business address)

PENAL SUM OF BOND	*****Five Percent of the Total amount Bid*****			
BID IDENTIFICATION	Project No:	TP-0000032176	Bid Opening Date:	
	County Project Name:	DTPW AC Replacement (Coral Way TRB Garage)		

**OBLIGATION**

Principal and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Miami-Dade County, Florida (herein after County) upon default of Principal the penal sum set forth on the face of this Bond.

Principal and Surety agree that the Penal Sum of the Bond is a liquidated damage reasonably estimated to compensate the County for damages suffered as a result of the Principal's default including but not limited to any resulting from delay, reprourement costs and incremental costs of contracting.

Default of Principal shall occur in the event that the Principal withdraws Bid within 180 days after bid opening (or any extension thereof agreed to in writing by the Bidder and County); or, after proper notification of intent to Contract from the County, fails to comply with all pre-award requirements including, but not limited to providing Payment and Performance Bonds with good and sufficient surety and the necessary Insurance Certificates pursuant to the Contract Documents, and enter into a written Contract with the County, as may be required; all within 10 days after the prescribed forms are presented to Principal for signature or as otherwise required by the Bidding Documents.

Payment under this Bond will be due and payable upon default of Principal and within 30 calendar days after receipt by Principal and Surety of written notice of default from County, which notice will be given with reasonable promptness, identifying this Bond and the Project.

Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

**CONDITIONS**

The Principal has submitted the Bid identified above.

**THEREFORE**

By executing this instrument Surety agrees that its obligation is not impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the County. Notice to the Surety of extensions is waived. However, waiver of the notice applies only to extensions aggregating not more than 60 calendar days in addition to the period originally allowed for acceptance of the bid. 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.

**WITNESS**

The Principal and Surety executed this Bond and affixed their seals on the above date. Copy of Authorized Agent's current Identification Card as issued by State of Florida Insurance Commissioner must be attached.

<b>PRINCIPAL</b>		
SIGNATURE		Principal's Corporate Seal
NAME AND TITLE (Typed)		

<b>SURETY</b>		
SIGNATURE OF ATTORNEY-IN-FACT		Surety's Corporate Seal
PRINTED NAME OF ATTORNEY-IN-FACT (Typed)		
SIGNATURE OF AUTHORIZED FLORIDA AGENT		
PRINTED NAME OF AUTHORIZED FLORIDA AGENT (Typed)		

# NON-COLLUSION AFFIDAVIT



**NON-COLLUSION AFFIDAVIT**

*(In accordance with Sections 2-8.1.1 and 10-33.02.1 of the Code of Miami-Dade County)*

I, the undersigned, am over 18 years of age, have personal knowledge of the facts stated in the Non-Collusion Affidavit (*this Affidavit*) and I am an owner, officer, director, principal shareholder and/or otherwise authorized to bind the Bidder/Proposer of this solicitation.

A. I have reviewed the list of respondents attached to this Affidavit. I state that the Bidder/Proposer of this competitive solicitation (check one):

is **not related** to any of the other respondents submitting a Bid/Proposal in the competitive solicitation.

is **related** to the following respondents who submitted a Bid/Proposal in the competitive solicitation, which are identified and listed below:

B. I state that the Bidder/Proposer of this competitive solicitation:

1. has prepared this Bid/Proposal independently without consultation, communication, agreement or arrangement with any other Bidder/Proposer or competitor for the purpose of restricting competition;
2. has submitted the Bid/Proposal in its own behalf, and not in the interest or on behalf of any person not therein named;
3. has not, directly or indirectly, induced or solicited any other Bidder/Proposer to put in a sham proposal, or any other person, firm, or corporation to refrain from proposing;
4. has not in any manner sought by collusion to secure an advantage over any other Bidder/Proposer.

**Note:** Any person or entity that fails to submit this executed Affidavit shall be ineligible for contract award. In accordance with Section 2-8.1.1 of the Code of Miami-Dade County, where two or more related parties, as defined herein, each submit a Bid for any contract, such Bids shall be presumed to be collusive. The foregoing presumption may be rebutted by the presentation of evidence as to the extent of ownership, control and management of such related parties in preparation and submittal of such Bids. **Related parties** shall mean the Bidder/Proposer; the principals, corporate officers, and managers of a Bidder/Proposer; or the spouse, domestic partner, parents, stepparents, siblings, children or stepchildren of a Bidder/Proposer or the principals, corporate officers and managers thereof which have a direct or indirect ownership interest in another Bidder/Proposer for the same contract or in which a parent company or the principals thereof of one Bidder/Proposer have a direct or indirect ownership interest in another Bidder/Proposer for the same contract. Bid/Proposal found to be collusive shall be rejected. Bidder/Proposer who has been found to have engaged in collusion may be considered non-responsible, and may be suspended or debarred, and any contract resulting from collusive bidding may be terminated for default.

**Written Declaration:** Pursuant to §92.525, Florida Statutes, under penalties of perjury, I declare that I have read the foregoing Affidavit and that the facts stated in it are true, accurate, and complete.

Solicitation No.: \_\_\_\_\_ Solicitation Title: \_\_\_\_\_

By: \_\_\_\_\_  
Signature of Affiant

Date: \_\_\_\_\_ 20 \_\_\_\_

\_\_\_\_\_  
Printed Name of Affiant and Title

\_\_\_\_/\_\_\_\_/\_\_\_\_-\_\_\_\_/\_\_\_\_/\_\_\_\_  
Federal Employer Identification Number

\_\_\_\_\_  
Printed Name of Bidder/Proposer

\_\_\_\_\_  
Address of Bidder/Proposer

## AFFIRMATION OF VENDOR AFFIDAVITS



# New Vendor Registration and Bid/Proposal Contract Language

## 1.1. DEFINITIONS FOR VENDOR REGISTRATION

**Bid** – shall refer to any offer(s) submitted in response to this solicitation.

**Bidder** – shall refer to anyone submitting a Bid in response to this solicitation.

**Bid Solicitation** – shall mean this solicitation documentation, including any and all addenda.

**Bid Submittal Form** – defines the requirement of items to be purchased, and must be completed and submitted with Bid. The Bidder should indicate its name in the appropriate space on each page.

**County** – shall refer to Miami-Dade County, Florida

**DPM** – shall refer to Miami-Dade County's Department of Procurement Management.

**Enrolled Vendor** – shall refer to a firm that has completed the necessary documentation in order to receive Bid notifications from the County.

**Registered Vendor** – shall refer to a firm that has completed the Miami-Dade County Business Entity Registration Application and has satisfied all requirements to enter into business agreements with the County.

**The Vendor Registration Package** – shall refer to the Business Entity Registration Application.

For additional information about on-line vendor enrollment or vendor registration contact the Vendor Assistance Unit at 111 N.W. 1<sup>st</sup> Street, 13<sup>th</sup> Floor, Miami, FL 33128, Phone 305-375-5773. Vendors can enroll online and obtain forms to register by visiting our web site at [www.miamidade.gov/dpm](http://www.miamidade.gov/dpm)

## 1.2. INSTRUCTIONS TO BIDDERS

### A. Bidder Qualification

It is the policy of the County to encourage full and open competition among all available qualified vendors. All vendors regularly engaged in the type of work specified in the Bid Solicitation are encouraged to submit Bids. Vendors may enroll with the County to be included on a notification list for selected categories of goods and services. To be eligible for award of a contract (including small purchase orders), Bidders must become a Registered Vendor. Only Registered Vendors can be awarded County contracts. Vendors are required to register with the County by contacting the Vendor Assistance Unit. The County endeavors to obtain the participation of all qualified small business enterprises. For information and to apply for certification, contact the Department of Small Business Development at 111 N.W. 1<sup>st</sup> Street, 19<sup>th</sup> Floor, Miami, FL 33128-1900, or telephone at 305-375-3111. County employees and board members wishing to do business with the County are referred to Section 2-11.1 of the Miami-Dade County Code relating to Conflict of Interest and Code of Ethics.

### B. Vendor Registration

To be recommended for award the County requires that vendors complete a Miami-Dade County Vendor Registration Package. Effective June 1, 2008, a new Vendor Registration Package, including a Uniform Affidavit Packet (Affidavit form), must be completed by vendors and returned to the Department of Procurement Management (DPM), Vendor Assistance Unit, within fourteen (14) days of notification of the intent to recommend for award. In the event the Vendor Registration Package is not properly completed and returned within the specified time, the County may in its sole discretion, award to the next lowest responsive, responsible Bidder. The Bidder is responsible for obtaining the Vendor Registration Package, including all affidavits by downloading from the DPM website at [www.miamidade.gov](http://www.miamidade.gov) or from the Vendor Assistance Unit at 111 N.W. 1<sup>st</sup> Street, 13<sup>th</sup> Floor, Miami, FL 33128.

Bidders are required to affirm that all information submitted with the Vendor Registration Package is current, complete and accurate, at the time they submit a response to a Bid Solicitation, by completing the provided Affirmation of Vendor Affidavit form.

In becoming a Registered Vendor with Miami-Dade County, the vendor confirms its knowledge of and commitment to comply with the following:

1. **Miami-Dade County Ownership Disclosure Affidavit**  
(Sec. 2-8.1 of the County Code)
2. **Miami-Dade County Employment Disclosure Affidavit**  
(County Ordinance No. 90-133, amending Section 2-8.1(d)(2) of the County Code)
3. **Miami-Dade County Employment Drug-free Workplace Certification**  
(Section 2-8.1.2(b) of the County Code)
4. **Miami-Dade Disability and Nondiscrimination Affidavit**  
(Article 1, Section 2-8.1.5 Resolution R182-00 Amending R-385-95)
5. **Miami-Dade County Debarment Disclosure Affidavit**  
(Section 10.38 of the County Code)
6. **Miami-Dade County Vendor Obligation to County Affidavit**  
(Section 2-8.1 of the County Code)
7. **Miami-Dade County Code of Business Ethics Affidavit**  
(Article 1, Section 2-8.1(j) and 2-11(b)(1) of the County Code through (6) and (9) of the County Code and County Ordinance No 00-1 amending Section 2-11.1(c) of the County Code)
8. **Miami-Dade County Family Leave Affidavit**  
(Article V of Chapter 11 of the County Code)

9. **Miami-Dade County Living Wage Affidavit**  
(Section 2-8.9 of the County Code)

10. **Miami-Dade County Domestic Leave and Reporting Affidavit**  
(Article 8, Section 11A-60 11A-67 of the County Code)

11. **Subcontracting Practices**  
(Ordinance 97-35)

12. **Subcontractor /Supplier Listing**  
(Ordinance 97-104)

13. **Environmentally Acceptable Packaging**  
Resolution (R-738-92)

14. **W-9 and 8109 Forms**

The vendor must furnish these forms as required by the Internal Revenue Service.

15. **Social Security Number**

In order to establish a file for your firm, you must provide your firm's Federal Employer Identification Number (FEIN). If no FEIN exists, the Social Security Number of the owner or individual must be provided. This number becomes your "County Vendor Number". To comply with Section 119.071(5) of the Florida Statutes relating to the collection of an individual's Social Security Number, be aware that DPM requests the Social Security Number for the following purposes:

- Identification of individual account records
- To make payments to individual/vendor for goods and services provided to Miami-Dade County
- Tax reporting purposes
- To provide a unique identifier in the vendor database that may be used for searching and sorting departmental records

16. **Office of the Inspector General**

Pursuant to Section 2-1076 of the County Code.

17. **Small Business Enterprises**

The County endeavors to obtain the participation of all small business enterprises pursuant to Sections 2-8.2, 2-8.2.3 and 2-8.2.4 of the County Code and Title 49 of the Code of Federal Regulations.

18. **Antitrust Laws**

By acceptance of any contract, the vendor agrees to comply with all antitrust laws of the United States and the State of Florida.

### C. PUBLIC ENTITY CRIMES

To be eligible for award of a contract, firms wishing to do business with the County must comply with the following:

Pursuant to Section 287.133(2)(a) of the Florida Statutes, 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 of the Florida Statutes, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.



CONTRACTOR DUE DILIGENCE AFFIDAVIT

# Miami-Dade County

## Contractor Due Diligence Affidavit

Per Miami-Dade County Board of County Commissioners (Board) Resolution No. R-63-14, County Vendors and Contractors shall disclose the following as a condition of award for any contract that exceeds one million dollars (\$1,000,000) or that otherwise must be presented to the Board for approval:

- (1) Provide a list of all lawsuits in the five (5) years prior to bid or proposal submittal that have been filed against the firm, its directors, partners, principals and/or board members based on a breach of contract by the firm; include the case name, number and disposition;
- (2) Provide a list of any instances in the five (5) years prior to bid or proposal submittal where the firm has defaulted; include a brief description of the circumstances;
- (3) Provide a list of any instances in the five (5) years prior to bid or proposal submittal where the firm has been debarred or received a formal notice of non-compliance or non-performance, such as a notice to cure or a suspension from participating or bidding for contracts, whether related to Miami-Dade County or not.

All of the above information shall be attached to the executed affidavit and submitted to the Procurement Contracting Officer (PCO)/ AE Selection Coordinator overseeing this solicitation. The Vendor/Contractor attests to providing all of the above information, if applicable, to the PCO.

Contract No. : \_\_\_\_\_ Federal Employer  
Identification Number (FEIN): \_\_\_\_\_

Contract Title: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Affiant Printed Title of Affiant Signature of Affiant

\_\_\_\_\_  
Name of Firm Date

\_\_\_\_\_  
Address of Firm State Zip Code

### Notary Public Information

Notary Public - State of \_\_\_\_\_ County of \_\_\_\_\_

Subscribed and sworn to (or affirmed) before me this \_\_\_\_\_ day of, \_\_\_\_\_ 20

by \_\_\_\_\_ He or she is personally known to me  or has produced identification

Type of identification produced \_\_\_\_\_

\_\_\_\_\_  
Signature of Notary Public Serial Number

\_\_\_\_\_  
Print or Stamp of Notary Public Expiration Date Notary Public Seal

## **SECTION 3: INSTRUCTIONS TO BIDDERS**

## SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

**SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

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## 1. SUPPLEMENTAL BIDDING REQUIREMENTS

---

### 1.01 BID FORMS

#### A. Estimated Quantities.

1. The Bid Form contains estimated quantities that are provided for bidding purposes only. The actual quantities required to construct the Work may vary from those shown. The County reserves the right to increase, or decrease the quantities, or to delete any of the items for which there is no need throughout the length of the Contract.
2. Bid Items which are estimated with a unit quantity of one are anticipated to be use in minimal quantities, if any, as approved by the Engineer. Any Contract provisions pertaining to adjustments in item prices shall not apply. Therefore, no adjustment shall be made to the unit prices awarded as a result of changes to the estimated quantities provided in the Bid Form. Final quantities shall be as approved by the Engineer.

#### B. Preparation of Proposal.

1. All blank spaces on the Bid Form for bid prices must be filled in ink, in both words and figures. In the event of any discrepancy in the entries for the price of any item, the unit price as shown in words shall govern unless both the extension and the unit prices shown in figures are in agreement with each other, in which case they shall govern over the unit price shown in words.
2. If the Bid is made by an individual, a sole proprietorship or an individual operating under a trade name, the name and post office address of the individual or owner must be shown in each instance. If made by a partnership, the Bid must be signed by one of the partners, and the names and addresses of the partners must be listed. If made by a corporation, the Bid must be signed by an authorized officer or agent of the corporation, the corporation must be clearly identified and the corporate seal must be affixed. In addition, a Bid made by a corporation must also list the name of the state wherein the corporation was chartered and the business address of the corporation.
3. Bids must be submitted only on the hardcopy Bid form provided with these Contract Documents unless a revised Bid Form is provided by the County via Addendum, in which case the latest Bid Form provided by Addendum shall be used.
4. All required forms must be completed and submitted and, all blanks must be filled in.

#### C. Rejection of Irregular Proposals.

1. Bids will be considered irregular, and may be rejected, if they show omissions, alterations of form, additions not called for, conditions or unauthorized alternate bids, or irregularities of any kind; or if the unit prices are obviously unbalanced either in excess of or below a reasonable cost analysis value.

#### D. Pay Items.

1. Any work not specifically mentioned in the pay items listed in the Proposal, but indicated on the plans and/or specifications, shall be considered as incidental to one or more of the pay items, and no claim for additional compensation will be allowed, and it shall be assumed that the cost therefore is included in the prices for the various items in the Contract.

## 1.02 BID SECURITY

- A. Simultaneously with the delivery of the Bid to the County, on or before the bid due date, the Bidder must deliver to the County a bid security in the form of a Bid Bond on the form provided in the Bidding Documents or in Cash, in the form of a Certified Check, Cashier's Check or Irrevocable Letter of Credit made payable to the Department, for an amount equal to no less than five percent of the Total amount Bid. Failure to furnish a bid security in the proper form and amount, with the delivery of the Bid to the County, shall result in the Bid being declared "non-responsive."
- B. A Bid Bond shall have as the surety thereon only such surety company or companies that are acceptable to the County and are authorized to write bonds of such character and amount in accordance with the qualifications established for Payment and Performance Bonds.
- C. The bid security submitted with the Bid becomes payable to the County upon default of the Bidder. Default of Bidder shall occur in the event that the Bidder withdraws Bid within 180 days after bid opening (or any extension thereof agreed to in writing by the Bidder and County); or, after proper notification of intent to Contract from the County, fails to comply with all pre-award requirements including, but not limited to providing Payment and Performance Bonds with good and sufficient surety and the necessary Insurance Certificates pursuant to the Contract Documents, and enter into a written Contract with the County, as may be required; all within 10 days after the prescribed forms are presented to Principal for signature or as otherwise required by these Bidding Documents.

## 1.03 CERTIFICATION PURSUANT TO ACT RELATING TO SCRUTINIZED COMPANIES

- A. This section shall apply only to the extent permitted under applicable regulations of the United States Department of State and the United States Department of Treasury.
- B. By submitting a bid executed through a duly authorized representative, the bidder certifies that the bidder is not on the Scrutinized Companies with Activities in Sudan List, Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, Scrutinized Companies that boycott Israel List or engaged in a boycott of Israel as those terms are used and defined in sections 287.135 and 215.473 of the Florida Statutes. In the event that the bidder is unable to provide such certification but still seeks to be considered for award of this solicitation, the bidder shall, on a separate piece of paper, clearly state that it is on one or both of the Scrutinized Companies lists and shall furnish together with its bid a duly executed written explanation of the facts supporting any exception to the requirement for certification that it claims under Section 287.135 of the Florida Statutes. The bidder agrees to cooperate fully with the County in any investigation undertaken by the County to determine whether the claimed exception would be applicable. The County shall have the right to terminate any contract resulting from this solicitation for default if the bidder is found to have submitted a false certification or to have been placed on the Scrutinized Companies for Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, Scrutinized Companies that boycott Israel List or engaged in a boycott of Israel.

## 1.04 SMALL BUSINESS ENTERPRISE-CONSTRUCTION PROGRAM

- A. Miami-Dade County web-based Business Management Workforce System (BMWS)
  - 1. Bidders must register under Miami-Dade County web-based Business Management Workforce System (BMWS). BMWS is managed by the Small Business Development (SBD) Division of the Internal Services Department. BMWS is utilize to apply online for Small Business

Enterprise (SBE) certification, manage County contracts, and track compliance with SBE Program measures, Workforce Program requirements, and subcontractor payments.

2. The use of this web-based system is mandatory for firms contracting with Miami-Dade County for the submission and verification of payment information and certified payrolls. Training for BMWS can be offered at the following web address: <https://mdcsbd.gob2g.com/>
1. BMWS is accessible, at no charge, to all vendors doing – or interested in doing – business with Miami-Dade County. Key features include:
  - a. Online application for Small Business Enterprise (SBE), Disadvantaged Business Enterprise (DBE) and Local Developing Business (LDB) certification
  - b. Online registration for the Equitable Distribution Program (EDP)
  - c. Enhanced online SBE, DBE, and LDB Directory, with key-word search capabilities
  - d. Electronic submission of subcontractors for fulfillment of SBE requirements
  - e. Electronic submission of contractors' utilization payments and verification of SBE payments via the web or a mobile device
  - f. Automated tracking of progress towards meeting SBE goals
  - g. Electronic submission of certified payrolls
  - h. Electronic submission of workforce compliance data
  - i. Automated notifications regarding compliance requirements
  - j. Elimination of/ or limited paper-based reporting

#### B. SBE-CONST Make-up Plan

1. A contractor that failed to meet an established Small Business Enterprise-Construction (SBE-CONST) goal on any contract must submit a SBE-CONST Make-up Plan for approval by the Miami-Dade County Internal Services Department, Small Business Division (SBD).
2. The SBE-CONST Make-up Plan along with a corresponding Certificate of Assurance (COA), located under Section 2 of these Solicitation and Contract Documents must be included with the Bid submittal at the time of bid. The corresponding COA must identify all SBE-CONST firms to be utilized to meet the first tier subcontractor goal and the trade designation of work that each firm will perform in satisfaction of a make-up, in addition to any other goals that may be applicable.
3. The Department will forward the Make-up Plan and COA(s) to SBD for compliance review. Bidders who fail to submit the SBE-CONST Make-up Plan and corresponding COA by the Bid due date and time will be considered "non-compliant."
4. Before the award, bidder must submit via County's web-based system Business Management Workforce System (BMWS) its commitment, that if awarded, the contractor, will fulfill all or a portion of any pending Small Business Enterprise Construction Services makeup requirements and identify the certified CSBE firm(s) to be utilized to fulfill the make-up requirements that is excess of any SBE goal(s) required on the project and the percentage dollar value and description of the work that needs to be made up within the time frame specified by SBD.

#### C. Small Business Enterprise-Construction Program Measures

1. In accordance with Miami-Dade County Ordinances No. 97-52, 14-98, and 97-158; A.O. 3-22, no SBE-CONST measures have been established for this Project.

#### 1.05 DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM

- A. Disadvantaged Business Enterprise (DBE) Program does not apply for this Contract.

#### 1.06 SITE INVESTIGATION

- A. Examine the Contract Documents and the site of the proposed work, when applicable, carefully before submitting a proposal for the work contemplated. Investigate the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished and as to the requirements of all Contract Documents.
- B. The Department does not guarantee the details pertaining to borings, as shown on the plans, to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the work, approximately at the locations indicated. The Contractor shall examine boring data, where available, and make his own interpretation of the subsoil investigations and other preliminary data, and shall base his bid on his own opinion of the conditions likely to be encountered.
- C. The bidder's submission of a proposal is sufficient evidence that the bidder has made an examination as described in this Article. Therefore:
  1. The bidder, by virtue of submitting their bid, acknowledges that they and all their subcontractors have satisfied themselves as to the nature and location of the Work or requirements of similar Work to be performed within Miami-Dade County Public Right-of-Ways. The general and local conditions include, but are not restricted to those bearing upon transportation and traffic maintenance; the disposal, handling and storage of materials; access roads to the site; site constraints, restrictions and limitations; the conformation and conditions of the work area; and the character of equipment and facilities needed prior to and during the performance of the Work.
  2. Failure on the part of the bidder to completely or properly evaluate any factors of costs prior to bidding shall not form a basis for additional compensation if awarded the Contract.

#### 1.07 CONTRACTOR QUALIFICATION REQUIREMENTS

- A. Certificate of Competency Requirement:
  1. At the time of Bid and pursuant to the requirements of Section 10-3 of the Code of Miami-Dade County, Florida and these Solicitation and Contract Documents, the Bidder must hold a valid, current, and active:
    - a. Certificate of Competency from the County's Construction Trades Qualifying Board as a General Engineering Contractor, General Building Contractor or as a Specialty Engineering Contractor, commensurate to the requirements of the Scope of Work, in one or more engineering crafts to include Roofing Engineering Contractor. The specialty contractor shall subcontract with a qualified contractor any work which is incidental to the specialty but is specified in the aforementioned Code as being the work of other than that of the Engineering Specialty for which certified; or

- b. Certification, as a general contractor, provided by the State of Florida Construction Industry Licensing Board, pursuant to the provisions of Section 489.115 of the Florida Statutes (F.S.).

B. Experience Requirement:

1. The Bidder must demonstrate that it has full-time personnel with the necessary experience to perform the Project's Scope of Work. This experience shall include work in successfully completed projects performed by the identified personnel whose bulk of work performed in the Public Right-of-Way is similar in detail to the Project's Scope of Work described in these Solicitation Documents. Demonstrate the experience requirement by:
  - a. Providing a detailed description of all projects similar in detail to the Project's Scope of Work described in these Solicitation Documents and in which the Bidder's identified personnel is currently engaged or has completed within the past five years. List and describe the aforementioned projects and state whether the work was performed for the County, other government clients, or private entities. The description must identify for each project:
    - 1) The identified personnel and their assigned role and responsibilities for the listed project
    - 2) The client name and address including a contact person and phone number for reference
    - 3) Description of work
    - 4) Total dollar value of the contract
    - 5) Contract duration
    - 6) Statement or notation of whether Bidder's referenced personnel is/was employed by the prime contractor or subcontractor, and
    - 7) For completed projects, provide letters of certification of final acceptance or similar project closure documentation issued by the client and available Contractor's performance evaluations; or
2. The County reserves the right to request additional information and/or contact listed persons pertaining to bidder's experience.

1.08 JOB ORDER CONTRACTING

- A. Job Order Contracting under CICC 7360-0/08 does not apply for this contract.

1.09 AWARD OF CONTRACT

- A. The award of the Contract, if it be made in the County's sole discretion, shall be to the lowest responsive and responsible bidder whose bid complies with all of the material terms of this solicitation and is determined to be in the best interest of the County.
- B. A fully executed Notice to Proceed (NTP) Letter constitutes a contract with Miami-Dade County. The County may issue to the Contractor a NTP Letter only when, in the discretion of Miami-Dade County, all conditions for award have been satisfied including, but not limited to, compliance with all of the requirements set forth in the Recommendation for Award letter and the expiration of any applicable protest period. The Contractor must provide the County with the completed and fully

executed NTP Letter prior to the date stated in the letter for commencement of the Work. The award is final only upon the County's receipt of a fully executed NTP Letter from the Contractor.

- C. Without limiting the generality of the foregoing, the County may determine that it is in the County's best interest to award the Contract to the next low bidder when the low bidder's existing contractual commitments with the County, in the sole discretion of the County (a) could prevent the timely prosecution of the work requiring competing commitments of site, supervisory or home office personnel, or (b) could present potential conflicts with billing of similar items under existing contracts for similar or related work, or (c) could disfavor competition in the contracting industry in pricing or in the use of personnel or subcontractors.
- D. By submitting a bid, the bidder acknowledges that the County shall have the right to investigate the existence of these factors in determining whether to award the bid, and to evaluate, without limitation, the bidder's outstanding commitments on other awarded contracts, its resources to perform the Work under the Contract, and its past performance.
- E. The County reserves the right to waive any informality in, or to reject any or all bids. Bids from any person, firm or corporation in default upon any agreement with the County will be rejected.
- F. The Bidders should be qualified by experience, financing, and equipment to do the work described in the Contract Documents. The County may require from the apparent lowest responsive and responsible Bidder, as a condition for Award, a list of the major construction equipment that is available to perform all the work required by the Contract. The list shall include all equipment required and available including: quantity; condition; make and model; whether owned or leased; and their present location. Actual proof of ownership (bills of sale or certified proof of a valid lease in the name of the firm submitting the Bid) of the equipment or the ability to secure the equipment prior to Contract Award is required. A visual inspection by the County of the equipment listed shall be facilitated within 10 days of submittal of the aforementioned list. Failure to meet the timeframes and conditions stipulated herein or in the Recommendation for Award may result in the disqualification of the Bidder.

#### 1.10 PAYMENT AND PERFORMANCE BONDS

- A. Unless otherwise exempted herein, the successful bidder must submit, within the timeframe stipulated in the Recommendation for Award, duly executed Payment and Performance Bonds, meeting the requirements of Section 255.05, F.S., on the forms prescribed by the Department or in Cash, each in the amount of the total contract price (i.e. the accepted total amount bid plus any contingency and dedicated allowances attributable to the Contract), as security for the faithful performance of this Contract and for the payment of all persons performing labor or furnishing materials in connection therewith. If Cash is used in lieu of the bonds, all terms and conditions stipulated in the bonds shall be just as applicable.
- B. Exemption. For contracts of \$200,000.00 or less for Community Small Business Enterprise (CSBE) work as either the (i) prime contractor directly contracting with a County department, or (ii) subcontractor of a prime contractor, there shall be no requirement for the CSBE firm entering into said contract or subcontract to execute and deliver a payment and performance bond as a condition of executing such contract or subcontract, or performing the work, unless pre-approved by Small Business Development.
  - A. The Performance and Payment Bonds shall have as the surety thereon only such surety company or companies as are acceptable to the County and are authorized to write bonds of such character and amount in accordance with the following qualifications:

1. All bonds shall be written through surety insurers authorized to do business in the State of Florida as surety, with the following qualifications as to management and financial strength according to the latest edition of Best's Insurance Guide, published by A.M. Best Company, Oldwick, New Jersey:

<u>Bond Amount (\$)</u>	<u>Best Rating</u>
500,001 to 1,500,000	B V
1,500,001 to 2,500,000	A VI
2,500,001 to 5,000,000	A VII
5,000,000 to 10,000,000	A VIII
Over 10,000,000	A IX

2. On contract amounts of \$500,000 or less, the bond provisions of Section 287.0935, F.S. shall be in effect and surety companies not otherwise qualifying with this paragraph may optionally qualify by:
    - a. Providing evidence that the Surety has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued.
    - b. Certifying that the Surety is otherwise in compliance with the Florida Insurance Code, and;
    - c. Providing a copy of the currently valid Certificate of Authority issued by the United States Department of the Treasury under ss. 31 U.S.C. 9304-9308.
  3. Surety insurers shall be listed in the latest Circular 570 of the U.S. Department of the Treasury entitled "Surety Companies Acceptable on Federal Bonds", published annually. The bond amount shall not exceed the underwriting limitations as shown in this circular.
  4. For contracts in excess of \$500,000 the provision of Subarticle 2 above will be adhered to plus the company must have been listed for at least three consecutive years, or holding a valid Certificate of Authority of at least 1.5 million dollars and on the Treasury List.
  5. Surety Bonds guaranteed through U.S. Government Small Business Administration or Contractors Training and Development Inc. will also be acceptable.
  6. The attorney-in-fact or other officer who signs performance and payment bonds for a surety company must file with such bond a certified copy of his power of attorney authorizing him to do so. The performance and payment bonds must be counter signed by the surety's resident Florida agent.
- B. The Payment and Performance Bonds must be executed on the forms provided by the Department after the recommendation of award has been made. Failure to do so shall result in the rescission of the contract award recommendation.
  - C. Provide the County with three executed originals of the Payment and Performance Bonds and a letter from the bonding agent granting Miami-Dade County authorization to date the Bonds.
  - D. The Performance Bond or Cash used in lieu of the Performance Bond shall remain in force for five (5) years from the date of final acceptance of the work to protect the County against losses resulting from defects in materials or improper performance of work under the Contract; provided however, that this limitation does not apply to suits seeking damages for latent defects in materials or

workmanship, such actions being subject to the limitations found in Section 95.11(3)(c), Florida Statutes.

- E. The cost of the bond(s) shall be included in the Total Amount Bid. No separate payment for the cost of said bond(s) shall be made by the County.
- F. The required bond(s) shall be written by or through and countersigned by a licensed Florida agent of the surety insurer pursuant to Section 624.425, F.S.
- G. In the event the Surety on the bond(s) given by the Contractor becomes insolvent, or is placed in the hands of a receiver, or has its right to do business in its State of domicile or the State of Florida suspended or revoked as provided by law, or in the event of cancellation of the required hands by the Surety, the County shall withhold all payments until the Contractor shall give good and sufficient bond(s) in lieu of the bond(s) executed by such Surety.

#### 1.11 ADDITIONAL INSURANCE TO BE CARRIED BY CONTRACTOR

Subparagraphs 2.9A through 2.9C and 2.9E through 2.9G of the Special Conditions to the CICC 7360-0/08 Contract are deleted and replaced with the following:

- A. Contractor shall indemnify and hold harmless the County and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorneys' fees and costs of defense, which the County or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the performance of this Agreement by the Contractor or its employees, agents, servants, partners principals or subcontractors. Contractor shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the County, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon. Contractor expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by Contractor shall in no way limit the responsibility to indemnify, keep and save harmless and defend the County or its officers, employees, agents and instrumentalities as herein provided.
- B. Contractor shall furnish to the Department of Transportation and Public Works, 111 NW 1 Street, Miami Florida 33128-1987, Certificate(s) of Insurance which indicate that insurance coverage has been obtained which meets the requirements as outlined below:
  - 1. Worker's compensation insurance for all employees as required by Florida Statute 440.
  - 2. Commercial General Liability Insurance in an amount not less than \$1,000,000 per occurrence, and \$2,000,000 in the aggregate. Miami-Dade County must be shown as an additional insured with respect to this coverage.
  - 3. Automobile Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the work, in an amount not less than \$1,000,000 combined single limit
  - 4. Installation Floater on an All-Risks or Special perils basis for 100% of the cost of the project on a replacement cost basis. Miami-Dade County must be included as a loss payee.

All insurance policies required above shall be issued by companies authorized to do business under the laws of the State of Florida, with the following qualifications:

The company must be rated no less than "A-" as to management, and no less than "Class VII" as to financial strength, by Best's Insurance Guide, published by A.M. Best Company, Oldwick, New Jersey, or its equivalent, subject to the approval of the County Risk Management Division or the company must hold a valid Florida Certificate of Authority as shown in the latest "List of All Insurance Companies Authorized or Approved to Do Business in Florida" issued by the State of Florida Department of Financial Services..

Miami-Dade County reserves the right, upon reasonable notice, to request and examine the policies of insurance (including but not limited to policies, binders, amendments, exclusions or riders, etc ).

NOTE: MIAMI DADE COUNTY CONTRACT NUMBER AND TITLE OF CONTRACT MUST APPEAR ON EACH CERTIFICATE.

CERTIFICATE HOLDER MUST READ:

MIAMI-DADE COUNTY  
111 NW 1<sup>st</sup> STREET, SUITE 2340, MIAMI, FL 33128

Compliance with the foregoing requirements shall not relieve the Contractor of his liability and obligation under this section or under any other section of this agreement.

## **SECTION 4: SUPPLEMENTAL INFORMATION**

SAMPLE SURETY PERFORMANCE AND PAYMENT BOND

### SURETY PERFORMANCE AND PAYMENT BOND

By this Bond, We \_\_\_\_\_, as Principal, whose principal business address is \_\_\_\_\_, as Contractor under the contract dated \_\_\_\_\_, 20 \_\_, between Principal and Miami-Dade County for the construction of \_\_\_\_\_ Project No. \_\_\_\_\_ (herein after referred to as "Contract") the terms of which Contract are incorporated by reference in its entirety into this Bond and \_\_\_\_\_, a corporation, whose principal business address is \_\_\_\_\_ as Surety, are bound to Miami-Dade County (hereinafter referred to as "County") in the sum of \_\_\_\_\_ (U.S. 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 all the work under the Contract, including but not limited to guarantees, warranties and the curing of latent defects, said Contract being made a part of this bond by reference, and in the times and in the manner prescribed in the Contract, including any and all damages for delay; 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; and
3. Pays County all losses, damages, including damages for delay, expenses, costs and attorney's fees, including appellate proceedings, that County sustains because of a default by Principal under the Contract, including but not limited to a failure to honor all guarantees and warranties or to cure latent defects in its work or materials within 5 years after completion of the work under the Contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the Contract, including all warranties and curing all latent defects within 5 years after completion of the work under the Contract;

then this bond is void; otherwise it remains in full force.

If no specific periods of warranty are stated in the Contract for any particular item or work, material or equipment, the warranty shall be deemed to be a period of one (1) year from the date of final acceptance by the County. This Bond does not limit the County's ability to pursue suits directly with the Principal seeking damages for latent defects in materials or workmanship, such actions being subject to the limitations found in Section 95.11(3) (c), Florida Statutes.

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.

**SURETY PERFORMANCE BOND (Cont'd)**

IN WITNESS WHEREOF, the above bounden parties have caused this Bond to be executed by their appropriate officials as of the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_.

**SAMPLE ONLY**

CONTRACTOR

\_\_\_\_\_  
(Contractor Name)

BY:

\_\_\_\_\_  
(President) (Managing Partner or Joint Venture)

(SEAL)

COUNTERSIGNED BY RESIDENT  
FLORIDA AGENT OF SURETY:

SURETY:

\_\_\_\_\_

\_\_\_\_\_  
(Copy of Agent's current  
Identification Card as issued by  
State of Florida Insurance Commissioner must be attached) By:

\_\_\_\_\_  
Attorney-in-Fact

(CORPORATE SEAL)

(Power of Attorney must be attached)

## **SECTION 5: SUPPLEMENTARY CONDITIONS**

## SUPPLEMENTARY CONDITIONS

**SUPPLEMENTARY CONDITIONS**  
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APPENDIX TO THE SUPPLEMENTARY CONDITIONS

Appendix C: Notice of Construction Clearing House Forms A, B and C

## 1. SUPPLEMENTARY CONDITIONS

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### 1.01 MISCELLANEOUS CONSTRUCTION CONTRACT (7360 PLAN)

- A. These Supplementary Conditions amend or supplement the Miscellaneous Construction Contract (MCC) CICC 7360-0/08 the MCC, 7360 Plan, and other provisions of the Contract Documents as indicated below. All provisions that are not so amended or supplemented remain in full force and effect. All requirements of the Contract Documents, or portions thereof, which are not specifically modified, deleted, or superseded hereby, remain in full effect. The MCC Contract and Plan may also be supplemented elsewhere in the Contract Documents by provisions located in, but not necessarily limited to, Division 1 (General Requirements) of the Contract Specifications.

### 1.02 APPLICABLE WAGE RATES

- A. Amend Paragraph 2.17 of the CICC 7360-0/08 Miscellaneous Construction Contract by adding the following:

On May 28, 2024, the Governor signed into law House Bill (“HB”) 705. Prior to the adoption of HB 705, section 255.0992 of the Florida Statutes generally prohibited Miami-Dade County (the “County”), from requiring a contractor, subcontractor, or supplier to pay or provide a predetermined amount of wages or benefits to its employees or recruit or hire employees from a designated or restricted source in construction projects paid for with any state-appropriated funds. Additionally, under the same statute, the County could not apply small business measures or limit bidding among Small Business Enterprise-Construction (“SBE-Con”) firms for construction projects paid for with any state funds. However, for contracts funded solely with County funds, prior to the adoption of HB 705, section 255.0992 did not limit the application of the County’s SBE-Con program, responsible wages, or workforce requirements.

No RESPONSIBLE WAGES AND BENEFITS apply for this project.

### 1.03 CONTINGENCY ALLOWANCE FOR TIME

- A. Paragraph 2.58 of the CICC 7360-0/08 Miscellaneous Construction Contract is hereby amended to provide a Contingency Allowance for time extension not to exceed ten percent of the original Contract Duration pursuant to a written request by Contractor for a time extension for an Excusable Delay, as described in Paragraph 2.58 of the 7360 Miscellaneous Construction Contract, that affects the critical path schedule of the Contract or any previously approved changes. The request must be accompanied by written documentation that supports the justification of a time extension and is subject to review and concurrence by the department Engineer, or designee. If approved, a Contract Contingency Allowance Expenditure Authorization will be created for execution by all parties. Once executed the time extension will adjust the scheduled completion date. The cumulative total of all Contingency Allowance time extensions shall not exceed ten percent of the original Contract Duration rounded off to the next whole number.

### 1.04 WEATHER DELAYS

- A. Schedule of Anticipated Weather Delay Days

1. The following schedule of average climatic range, based on National Oceanic and Atmospheric Administration (NOAA) normal data (1981-2010 Monthly Normals; GHCN Daily ID:

USW00012839; MIAMI INTL AP, FL), will be used as the standard baseline for monthly evaluations of weather delays for this Contract.

Schedule of Anticipated Weather Delay Days												
Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Days	3	4	4	4	7	12	11	13	13	8	4	4

2. The above schedule provides the anticipated number of days each month during which construction activity exposed to weather conditions is expected to be prevented and suspended by cause of adverse weather. Suspension of construction activity for the number of days listed in the schedule, for each month, is included in the Work and is not eligible for extension of Contract Time. The Work Progress Schedule submitted by Contractor must reflect these anticipated adverse weather delays in all weather dependent activities.

**B. Extension of Contract Time for Adverse Weather Days In Excess of the Standard Baseline**

1. If the basis exists, in accordance with the Conditions of the Contract, for a claim for extension of time, an extension of time on the basis of weather may be granted only for the number of Weather Delay Days in a month that are in excess of the number of days listed above for that month in the Schedule of Anticipated Adverse Weather Delay Days.
2. Adverse Weather Day is defined, for the purpose of this Article, as the occurrence of one or more of the following weather conditions within a twenty-four (24) hour day that prevents scheduled critical path construction activity exposed to weather conditions:
  - a. Precipitation in excess of one-tenth inch (0.10").
  - b. Temperatures that do not rise above that required for the day's construction activity, if such temperature requirement is specified or accepted as standard industry practice.
  - c. Sustained wind in excess of twenty-five (25) miles per hour.
3. Adverse Weather Day may include "dry-out" days, resulting from precipitation that occurs beyond the Anticipated Weather Delay Days for the month, only if there is a hindrance to site access or sitework and Contractor has taken all reasonable accommodations to avoid such hindrance; and, at a rate no greater than 1 make-up day for each precipitation day (or consecutive days) that total 1.0 inch or more of precipitation.
4. A Weather Delay Day may be counted by the Engineer, if adverse weather prevents work on the Project for fifty percent (50%) or more of the Contractor's normal scheduled work day and critical path construction activities were included in the day's schedule, including a weekend day or holiday approved by the Engineer with construction activity scheduled that day.
5. No additional compensation will be made for weather delays.

**C. Contractor Documentation and Submittals**

1. Organize claim to facilitate evaluation by calendar month and submit in accordance with the claims submittal requirements of the Contract Documents. Documentation is required for each Adverse Weather Day that results in a Weather Delay. Identify the number of days claimed for the month that exceeds the Schedule of Anticipated Adverse Weather Delays. Documentation must include:

- a. Daily jobsite work logs showing which and to what extent critical path construction activities have been affected by adverse weather.
  - b. Daily weather data, obtained from the nearest NOAA weather station or other independently verified source approved by Engineer at beginning of the Project, to support claim for time extension. NOAA Global Historical Climatology Network (GHCN) Daily data may be obtained from the NOAA website at <http://www.ncdc.noaa.gov/cdo-web/search>.
2. If an extension of Contract Time is appropriate and approved by the Department, such extension will be made in accordance with the requirements of the Contract Documents.

#### 1.05 ADDITIONAL FUNDING SOURCE PROVISIONS

##### A. People's Transportation Plan (PTP)

1. Since proceeds from the Charter County Transportation System Sales Surtax levied pursuant to Section 29.121 of the Code of Miami-Dade County may be used to pay for all or some part of the cost of this Contract, no award of this Contract shall be effective and thereby give rise to a contractual relationship with the County unless and until the Citizens' Independent Transportation Trust (CITT) and County Commission have approved the award of the Contract, and such award becomes final either by expiration of 10 days after such award without veto by the Mayor, or by Commission override of a veto.

#### 1.06 ADDITIONAL SBE-CONST CONTRACT MEASURE REQUIREMENTS

- A. Because this project is estimated at \$720,875.02 above the 700K threshold for the application of SBE – Goods and Services goal and with the passing of House Bill (HB) 705 it will be processed as a “No Measure” (no SBE Measure) and with no responsible wages.

#### 1.07 COMMUNITY WORKFORCE PROGRAM

- A. Considering the passing of HB 705, effective July 1, 2024, the following prohibitions exist:

The County's Community Workforce Program requirements will not be applied to the County's capital construction projects, including design-build projects, awarded after July 1, 2024.

#### 1.08 CLEARINGHOUSE FOR POSTING NOTICE OF JOB OPPORTUNITIES

- A. Pursuant to Miami-Dade County Resolution R-1145-99, Contractor must post a notice of job opportunities with the Miami-Dade County Job Clearinghouse (JCH) within ten (10) business days of the contract award or no later than five (5) business days after start of construction. If job opportunities are available, complete all portions of the Notice of Construction Clearinghouse Job Opportunity form (Form B). If no job opportunities are available, complete a JCH Affidavit- No Notice(s) of Construction Job Opportunities form (Form C). Submit the completed Form B or C (with copies to the Engineer) to:

Miami-Dade County Internal Service Department  
Small Business Development Division  
Project Review and Analysis Section  
Attention: Job Clearinghouse  
111 NW 1st Street, 19th floor

Miami, Florida 33128  
Telephone: (305) 375-3111 Fax (305) 375-3160

- B. Job applicants interested in posting an application for employment to be considered by contractors with job openings may complete a JCH Construction Clearinghouse Job Application (Form A) and submit it to the address provided in the Form.
- C. The necessary forms are provided as Appendix "C" to these Supplementary Conditions. Additional information pertaining to the Miami-Dade County Job Clearinghouse is available in the County's website at <http://www.miamidade.gov/sba/about-us-job-clearinghouse.asp>.

#### 1.09 RESIDENTS FIRST TRAINING AND EMPLOYMENT PROGRAM COMPLIANCE

- A. Considering the passing of HB 705, effective July 1, 2024, the following prohibitions exist:

The County's Residence First Training and Employment Program requirements will not be applied to the County's capital construction projects, including design-build projects, awarded after July 1, 2024.

#### 1.10 EMPLOY MIAMI-DADE PROGRAM

- A. Considering the passing of HB 705, effective July 1, 2024, the following prohibitions exist:

The County's Employ Miami-Dade Program requirements will not be applied to the County's capital construction projects, including design-build projects, awarded after July 1, 2024.

#### 1.11 ACCEPTANCE TESTS

- A. Replace Article 2.89 of the CICC 7360-0/08 Miscellaneous Construction Contract with the following:
- B. When Contractor informs Engineer that the Work is ready for inspection, Engineer may request, the tests necessary to confirm that the required material, or work specifications are met. If the results of the tests reveal that the applicable specifications have not been met, Contractor, without additional compensation, must perform, to the satisfaction of Engineer, all work necessary to meet the applicable specifications and is responsible for the costs of all re-testing required by Engineer and the Contract Documents.

#### 1.12 CHANGE ORDER PROCEDURES AND BASIS FOR PAYMENT

- A. Extra Work shall result in an equitable adjustment (increase or decrease) to the applicable RPQ representing the reasonable cost or the reasonable financial savings related to the change in Work. Extra Work may also result in an equitable adjustment in the RPQ schedule for performance for both the Extra Work and any other Work affected by the Extra Work.
- B. The County shall initiate the Extra Work procedure by a notice to Contractor outlining the proposed Extra Work. Upon receipt of the notice to proceed with the Extra Work, the Contractor is required to immediately start the Extra Work. The Contractor is required to obtain permission for an extension to start the Extra Work if it is beyond the Contractor's ability to start within the allotted timeframe.

- C. The Contractor is required to provide the Project Manager with a detailed Change Order Proposal, if an Owner's Representative has been identified, which shall include requested revisions to the Contract, including but not limited to adjustments in the RPQ price and schedules for performance for the applicable RPQ. The change to the RPQ shall not exceed \$100,000 or 10% of original RPQ, whichever is less. The Contractor is required to provide sufficient data in support of the cost proposal demonstrating reasonableness. In furtherance of this obligation, the County may require that the Contractor submit any or all of the following: a cost breakdown of material costs, labor costs, labor rates by trade, and Work classification and overhead rates in support of Contractors Change Order Proposal. The Contractor's Change Order Proposal must include any schedule revisions and an explanation of the cost and schedule impact of the extra Work on the project. If the Contractor fails to notify the Project Manager of the schedule changes associated with a Notice of Proposed Change Order by submitting a revised schedule document, it will be deemed to be an acknowledgment by Contractor that the proposed Extra Work will not have any scheduling consequences. The Contractor agrees the Change Order Proposal will in no event include a combined profit and home office overhead rate in excess of fifteen (15%) percent of the direct labor and material costs, unless the Project Manager determines that the complexity and risk of the Extra Work is such that an additional factor is appropriate. The Change Order Proposal may be accepted or modified by negotiations between the Contractor and the County. If an agreement on the Extra Work is reached, both parties shall execute the Extra Work order in writing. The execution by the Contractor of the Extra Work order shall serve as a release of the County from all claims and liability to the Contractor relating to, or in connection with, the Extra Work, including any impact, and any prior acts, neglect or default of the County relating to the Extra Work.

1.13 MIAMI-DADE COUNTY'S USER ACCESS PROGRAM (UAP).

- A. On November 5, 2013 the Board of County Commissioners adopted Ordinance No. 13-103 eliminating the construction contract exemption to the User Access Program set forth in Section 2-8.10 of the Code of Miami-Dade County with the exception of Miscellaneous Construction Contract Program contracts with a total contract value of less than \$500,000. Ordinance No. 13-103 retained the other exemptions listed in Section 2-8.10 of the Code including an exemption for contracts "funded with any funding source, including federal, which prohibits or restricts the application of the credit to the County effected in the UAP." As bond funding would be a funding source "which prohibits or restricts the application" of the UAP, construction contracts funded by bond proceeds (e.g., General Obligation Bond (GOB), People's Transportation Plan (PTP)) remain exempt from the application of the County's User Access Program.
- B. UAP does apply for this project, Therefore:

This Contract is subject to a user access fee under the County's User Access Program (UAP) in the amount of two percent (2%) pursuant to Miami-Dade County Budget Ordinance No. 03-192. All construction services provided under this contract are subject to the 2% UAP. This fee applies to all Contract usage whether by County Departments or by any other governmental, quasi-governmental or not-for-profit entity. From every payment made to the Contractor under this contract (including the payment of retainage), the County will deduct the two percent (2%) UAP fee provided in the ordinance and the Contractor will accept such reduced amount as full compensation for any and all deliverables under the contract. The County shall retain the 2% UAP for use by the County to help defray the cost of its procurement program. Contractor participation in this pay request reduction portion of the UAP is mandatory.

1.14 PUBLIC RECORDS AND CONTRACTS FOR SERVICES PERFORMED ON BEHALF OF MIAMI-DADE COUNTY.

- A. The Contractor shall comply with the Public Records Laws of the State of Florida, including but not limited to:
  - 1. Keeping and maintaining all public records that ordinarily and necessarily would be required by Miami-Dade County (County) in order to perform the service
  - 2. Providing the public with access to public records on the same terms and conditions that the County would provide the records and at a cost that does not exceed the cost provided in Chapter 119, F.S., or as otherwise provided by law
  - 3. Ensuring that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law; and
  - 4. Meeting all requirements for retaining public records and transferring, at no cost, to the County all public records in possession of the Contractor upon termination of the contract and destroying any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements upon such transfer.
- B. In addition, all records stored electronically must be provided to the County in a format that is compatible with the information technology systems of the County. Failure to meet any of these provisions or to comply with Florida's Public Records Laws as applicable shall be a material breach of the agreement and shall be enforced in accordance with the terms of the agreement.
- C. For 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 (305) 375-4735; [isd-vss@miamidade.gov](mailto:isd-vss@miamidade.gov); 111 NW 1 Street, suite 1300, Miami, Florida 33128.

#### 1.15 NONDISCRIMINATION

- A. During the performance of this Contract, Contractor agrees to not discriminate against any employee or applicant for employment because of race, color, religion, ancestry, national origin, sex, pregnancy, age, disability, marital status, familial status, sexual orientation, gender identity or gender expression, status as victim of domestic violence, dating violence or stalking, or veteran status, and on housing related contracts the source of income, and will take affirmative action to ensure that employees and applicants are afforded equal employment opportunities without 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.
- B. By entering into this Contract, the Contractor attests that it is not in violation of the Americans with Disabilities Act of 1990 (and related Acts) or Miami-Dade County Resolution No. R-385-95. If the Contractor or any owner, subsidiary or other firm affiliated with or related to the Contractor is found by the responsible enforcement agency or the County to be in violation of the Act or the Resolution, such violation shall render this Contract void. This Contract shall be void if the Contractor submits a false affidavit pursuant to this Resolution or the Contractor violates the Act or the Resolution during the term of this Contract, even if the Contractor was not in violation at the time it submitted its affidavit.

#### 1.16 CONTRACTOR DUE DILIGENCE AFFIDAVIT

- A. In accordance with Board of County Commissioners Resolution 63-14, Contractor, as a condition of award, must submit Contractor Due Diligence Affidavit Form on any contract that exceeds \$1 million, or that is otherwise subject to Board approval.
1. Affidavit is attached in Section 2 of these Solicitation Documents and must be included in the solicitation package. Form requires that Contractors attest to the following under oath:
    - a. All of the lawsuits that have been filed against that entity, its directors, partners, principals, and/or board members, based on breach of contract by that entity in the five years prior to bid or proposal submittal, including the case name and number and the disposition of the case;
    - b. Any instances in the five years prior to bid or proposal submittal where that entity has been defaulted and a brief description of the circumstances; and
    - c. All of the instances in the five years prior to bid or proposal submission where that entity has been debarred or received a formal notice of non-compliance or non-performance, such as a notice to cure or a suspension from participating or bidding for contracts, whether related to Miami-Dade County or not.
- B. It is the responsibility of the Contractor to return the fully executed Affidavit at the time of bid or proposal submittal. This affidavit will be used as an additional measure of due diligence prior to award of a contract.

#### 1.17 CLAIMS

- A. Amend Paragraph 2.78 of the CICC 7360-0/08 Miscellaneous Construction Contract by adding the following:
- B. Notice of Claims
1. The Contractor will not be entitled to additional time or compensation otherwise payable for any act or failure to act by the Department, the happening of any event or occurrence, or any other cause, unless he shall have given the Project manager a written notice of claim therefore as specified in this article.
  2. The Contractor shall provide immediate verbal notification with written confirmation within forty-eight (48) hours of any potential claims and of the anticipated time and/or cost impacts resulting thereof. The written notice of claim shall set forth the reasons for which the Contractor believes additional compensation and/or time will or may be due, the nature of the costs involved and the approximate amount of the potential claim.
  3. It is the intention of this article, that differences between the parties arising under and by virtue of the Contract shall be brought to the attention of the Project Manager at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken.
  4. The notice requirements of this article are in addition to those required in other articles of these Contract Documents, inclusive of the conditions listed under the MCC Plan.
  5. The Contractor shall segregate all costs associated with each individual claim including but not limited to labor, equipment, material, subcontractor and supplier costs, and all other costs related to the claim. In the event that the Contractor has multiple claims, the Contractor will segregate each claim individually including the respective costs associated with each claim.

Failure to segregate claims and their respective costs will be grounds for the Department's rejection of the claim. No "total cost claims" shall be allowed under this Contract.

6. The Contractor must maintain a cost accounting system as a condition for making a claim against the Department. The cost accounting system must segregate the costs of the work under the Contract (non-claims-related) from claims-related and other Contractor costs through the use of a job cost ledger and be otherwise in compliance with general accounting principles.
7. If the Department decides to pay all or part of a claim for which notice was not timely made, the Department does not waive the right to enforce the notice requirements in connection with any other claim.
8. Inasmuch as the notice of claim requirements of this article are intended to enable the Project Manager to investigate while facts are fresh and to take action to minimize or avoid a claim which might be filed thereafter, the Contractor's failure to make the required notice on time is likely to disadvantage the Department. Therefore, a claim that does not comply with the notice requirements above shall not be considered unless the Contractor submits with his claim proof showing that the Department has not been prejudiced by the Contractor's failure to so comply and, in the event the Department has been prejudiced by the Contractor's failure to submit a timely notice of claim, the Department will reduce any equitable adjustment claimed by the Contractor to reflect the damage.

#### C. Claim Submittals

1. Claims or requests for equitable adjustments filed by the Contractor shall be filed in full accordance with this article no later than 30 calendar days after the act giving rise to the claim and in sufficient detail to enable the Department to ascertain the basis and amount of said claims. In the case of continuing or on-going claim events, the Contractor shall be allowed to periodically amend his claim to more accurately reflect the impact of said claim, until the end of the claim event. No claims for additional compensation, time extension or for any other relief under the Contract shall be recognized, processed, or treated in any manner unless the same is presented in accordance with this Article. Failure to present and process any claim in accordance with this Article shall be conclusively deemed a waiver, abandonment or relinquishment of any such claim, it being expressly understood and agreed that the timely presentation of claims, in sufficient detail to allow proper investigation and prompt resolution thereof, is essential to the administration of this Contract.
2. The Department will review and evaluate the Contractor's claims. It will be the responsibility of the Contractor to furnish, when requested by the Project manager, such further information and details as may be required to determine the facts or contentions involved in his claims. The cost of claims preparation or Change Order negotiations shall not be reimbursable under this Contract.
3. Any work performed by the Contractor prior to Notice-to-Proceed (NTP) shall not be the basis for a claim from the Contractor of any kind.
4. Each claim must be certified by the Contractor as required by the Miami-Dade Code, False Claims Act (see Code Section 21-255, et seq.), and accompanied by all materials required by Miami-Dade County Code Section 21-257. A "certified claim" shall be made under oath by a person duly authorized by the claimant, and shall contain a statement that:
  - a. The claim is made in good faith;
  - b. The claim's supporting data is accurate and complete to the best of the person's knowledge and belief;

- c. The amount of the claim accurately reflects the amount that the claimant believes is due from the Department; and
  - d. The certifying person is duly authorized by the claimant to certify the claim.
5. In order to substantiate time-related claims (delays, disruptions, impacts, etc.), the Contractor shall, if applicable and as determined by the Department, submit, in triplicate, the following information:
- a. Copy of Contractor's notice of claim in accordance with this article. Failure to submit the notice is sufficient grounds to deny the claim.
  - b. The approved, as-planned Schedule in accordance with the applicable section of the Contract Documents and computer storage media, if applicable.
  - c. The as-built Schedule reflecting changes to the approved schedule up to the time of the impact in question and computer storage media if applicable.
  - d. The basis for the duration of the start and finish dates of each impact activity and the reason for choosing the successor and predecessor events affected in the schedule shall be explained. Also, the basis for the duration of any lead/lags inserted into the schedule and the duration in related activity duration shall be explained.
  - e. A marked-up as-built Schedule indicating the causes responsible for changes between the as-planned and as-built schedule and establishing the required cause and effect relationships.
  - f. After indicating specific time related changes on the as-built schedule, the documentation must be segregated into separate packages with each package documenting a specific duration change identified previously. This documentation package shall include Change Orders, Change Notices, Work Orders, written directions, meeting minutes, etc., related to the change in duration.
  - g. Any loss of efficiency, acceleration, disruption and loss of productivity claims shall be compensated as part of the Liquidated Indirect Costs paid for compensable, excusable delays and mark-up on Direct Cost of changes as allowed by the Contract. Total cost and modified total cost claims will not be accepted and the Contractor agrees to waive the right to seek recovery by these methods. The claimed delay shall not result from a cause specified in the Contract Documents as a non-excusable delay.
  - h. The Contractor assumes all risk for the following items, none of which shall be the subject of any claim and none of which shall be compensated for except as they may have been included in the compensation described under Liquidated Indirect Costs:
    - 1) Home office expenses or any Direct Costs incurred allocated from the headquarters of the Contractor;
    - 2) Loss of anticipated profits on this or any other project;
    - 3) Loss of bonding capacity or capability;
    - 4) Losses due to other projects not bid upon;
    - 5) Loss of business opportunities;
    - 6) Loss of productivity on this or any other project;
    - 7) Loss of interest income on funds not paid;
    - 8) Costs to prepare, negotiate or prosecute claims and

- 9) Costs spent to achieve compliance with applicable laws and ordinances (excepting only sales taxes paid shall be reimbursable expense subject to the provisions of the Contract Documents).
  - i. All non-time-related claim items for additional compensation for Direct Costs shall be properly documented and supported with copies of invoices, time sheets, rental agreements, crew sheets and the like.
  - j. Cost information shall be submitted in sufficient detail to allow for review. The basis for the budgeted or actual costs shall include man-hours by trade, labor rates, material and equipment costs etc. These costs shall be broken down by pay.
  - k. The documentation for budgeted cost shall, as a minimum, include:
    - 1) Copies of all the Contractor's bid documents, bid quotes, faxed quotes, etc.
    - 2) Copies of all executed subcontracts.
    - 3) Other related budget documents as requested by the Project Manager.
  - l. The documentation for actual cost shall, as a minimum, include:
    - 1) Time Sheets.
    - 2) Materials invoices
    - 3) Equipment invoices
    - 4) Subcontractors' payments
    - 5) Other related documents as required by the Project Manager.
  - m. The Contractor shall make all his books, employees, work sites and records available to the Department or its representatives for inspection and audit.
6. No payment shall be made to the Contractor by the Department for loss of anticipated profit(s) from any deleted work.
7. As indicated above, the Project Manager and the Field Representative shall be allowed full and complete access to all personnel, documents, work sites or other information reasonably necessary to investigate any claim. Within sixty (60) days after a claim has been received, the claim shall either be rejected with an explanation as to why it was rejected or acknowledged. Once the claim is acknowledged, the parties shall attempt to negotiate a satisfactory settlement of the claim, which settlement shall be included in a subsequent Work Order or Change Order. If the parties fail to reach an agreement on a recognized claim, the Department shall pay to the Contractor the amount of money it deems reasonable, less any appropriate retention, to compensate the Contractor for the recognized claim.
8. Failure of the Contractor to make a specific reservation of rights regarding any such disputed amounts in the body of the Change Order which contains the payment shall be construed as a waiver, abandonment, or relinquishment of all claims for additional monies resulting from the claims embodied in said Change Order. However, once the Contractor has properly reserved rights to any claim, no further reservations of rights shall be required and the Contractor shall not be required to repeat the reservation in any subsequent change order. Prior reservation of rights may however be modified, by express reference, in subsequent change orders. Notwithstanding the aforementioned, at the time of final payment under the Contract, the Contractor shall specify all claims which have been denied and all claims for which rights have been reserved in accordance with this section. Failure to so specify any particular claim shall be constructed as a waiver, abandonment, or relinquishment of such claim.

## 1.18 DISPUTES

- A. Amend Paragraph 2.81 of the CICC 7360-0/08 Miscellaneous Construction Contract by adding the following:
- B. Disputes
  1. The following provisions shall govern disputes under this Contract unless the Special Provisions to this Contract contain the requirement for the use of an alternate dispute resolution method. For example, for large projects of great complexity, a Dispute Review Board (DRB) may be employed by the Department to settle disputes in lieu of the Department Director or Office of the Mayor (OOM) designee as specified below. In this case, the DRB alternative shall be specified by the Department in the Special Provisions and, if utilized, shall supersede this dispute provision.
    - a. In the event the Contractor and the Department are unable to resolve their differences concerning any determination made by the Project Manager or Department on any dispute or claim arising under or relating to the Contract (referred to in this Section as a "Dispute"), either the Contractor or the Department may initiate a dispute in accordance with the procedure set forth in this article. Exhaustion of these procedures shall be a precondition to any lawsuit permitted hereunder.
    - b. For contracts with a value of \$5 million or less, all Disputes under this Contract shall be decided by the Department Director or his designee. For contracts valued at more than \$5 million, Disputes shall be decided by a designee appointed by the OOM. Decisions rendered by the Department Director or OOM designee shall not be binding but shall be admissible in a court of competent jurisdiction.
    - c. As soon as practicable, the Department Director or OOM designee shall adopt a schedule for the Contractor and the Department to file written submissions stating their respective positions and the bases therefore. The written submissions shall include copies of all documents and sworn statements in affidavit form from all witnesses relied on by each party in support of its position. Within 20 working days of the date on which such written submissions are filed, the Department Director or OOM designee shall afford each party an opportunity to present a maximum of one hour of argument. The Department Director or OOM designee may decide the Dispute on the basis of the affidavits and other written submissions if, in his opinion, there is no issue of material fact and the party is entitled to a favorable resolution pursuant to the terms of this Contract. As part of such decision, the Department Director or OOM designee shall determine the timeliness and sufficiency of each notice of claim and claim at issue as provided in this article. The Department Director or OOM designee shall have the authority to rule on questions of law, including disputes over contract interpretation, and to resolve claims, or portions of claims, via summary judgment where there are no disputed issues of material fact. Furthermore, the Department Director or OOM designee is authorized by both parties to strike elements of claims seeking relief or damages not available under the contract (such as, but not limited to, claims for lost profits, off-site overhead, loss of efficiency or productivity claims or claim's preparation costs) by summary disposition.
    - d. In the event that the Department Director or OOM designee determines that the affidavits or other written submissions present issues of material fact, he shall allow the presentation of evidence in the form of lay or expert testimony directed solely to the issues which he may specifically identify to require factual resolution. The testimonial portion of the process shall not exceed one day in duration per side, including opening statements and closing arguments, if allowed by the Department Director or OOM designee at his reasonable discretion.

- e. No formal discovery shall be allowed in connection with any proceeding under this article. Notwithstanding the foregoing, both parties agree that all of the audit, document inspection, information and documentation requirements set forth elsewhere in this contract shall remain in force and effect throughout the proceeding. The Department Director or OOM designee shall not schedule the hearing until both parties have made all their respective records available for inspection and reproduction and the parties have been afforded reasonable time to analyze the records. The continued failure of a party to comply with the document inspection, examination, or submission requirements set forth in this contract shall constitute a waiver of that party's claims and/or defenses, as applicable. Hearsay evidence shall be admissible but shall not form the sole basis for any finding of fact. Failure of any party to participate on a timely basis, to cooperate in the proceedings, or to furnish evidence in support or defense of a claim shall be a criteria in determining the sufficiency and validity of a claim.
- f. The Department Director or OOM designee shall issue a written decision within 15 working days after conclusion of any testimonial proceeding and, if no testimonial proceeding is conducted, within 45 days of the filing of the last written submission. This written decision shall set forth the reasons for the disposition of the claim and a breakdown of any specific issues or subcontractor claims. As indicated previously, the decision of the Department Director or OOM designee is not binding on the parties, but will be admissible in a court of competent jurisdiction.
- g. If either party wishes to protest the decision of the Department Director or OOM designee, such party may commence an action in a court of competent jurisdiction, within the periods prescribed by law, it being understood that the review of the court shall be limited to the question of whether or not the Department Director or OOM designee's determination was arbitrary and capricious, unsupported by any competent evidence, or so grossly erroneous to evidence bad faith.
- h. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract and in accordance with the Department's interpretation. Any presentation or request by the Contractor under this article will be subject to the same requirements for Submittal of Claims in this article.

#### 1.19 EXTRA WORK

- A. The following Subarticle replaces the following items: Article 2.83, Extra Work and Payment Therefore, of the Special Conditions of the MCC 7360 Plan.
  - 1. Contractor may be asked to perform extra work, for which there is no price included in the Proposal, wherever it is deemed necessary or desirable by the Engineer to satisfactorily complete the Project as contemplated, and such extra work must be performed promptly in accordance with the Specifications and as directed by the Engineer, provided, however, that before any extra work is begun, a written order from the Engineer to do the work shall be given to the Contractor. No extra work will be paid for unless ordered in writing.
  - 2. All changed or added work so authorized shall be performed by the Contractor at the time and in the manner specified.
  - 3. The Change Order shall include, as a minimum:
    - a. Scope of work to be added, deleted or modified;
    - b. Cost of work to be added, deleted or modified;

- c. The Contract time extension or reduction in contract time in the case of deleted work required to perform the work to be added, deleted or modified;
  - d. Full release of claims associated with the Contract through the date of the change order, or a reservation of claims identified as to each claim reserved, the scope of the work, the maximum cost of the work, and the maximum number of days of Contract time requested, shall be specified.
4. The Work Order shall include, at a minimum:
- a. Scope of work to be added, deleted or modified;
  - b. Cost of work to be added, deleted or modified;
  - c. The Contract time extension required to perform the work to be added, deleted or modified;
  - d. Full release of claims associated with the work order work, or a reservation of claims identified as to each claim reserved, the scope of the work, the maximum cost of the work, and the maximum number of days of Contract time requested, shall be specified.
- B. Extra Work Payment
1. The following Subarticle replaces the following items: Article 2.83, Extra Work and Payment Therefore, of the Special Conditions of the MCC 7360 Plan.
  2. If Work is ordered, changed, or deleted which is not covered by Unit Prices, then, a NAM must be executed.
  3. Extra work, for a complete job, will be paid for in a lump sum or at unit prices agreed to in writing by the Engineer and the Contractor before the extra work is ordered for performing the work. Payment for lump sum work will be based on the following:
    - a. Contractor shall submit to the Engineer an estimated proposal containing a complete breakdown of costs to perform the work to which shall be added an amount equal to fifteen (15) percent of such sum for labor and the total thereof will be full compensation to the Contractor for performing the work which includes overhead and profit, home office expenses for general supervision and for furnishing and repairing small tools and ordinary equipment used in doing the extra work. In addition, the Contractor shall include their labor burden costs of social security taxes, unemployment insurance, worker's compensation, fringe benefits, inclusive of life and health insurance, union dues, pension, pension plans, vacations and insurance and Contractor's public liability and property damage insurance involved in such extra work, based on the wages paid to such labor. Contractor's documentation of the labor burden costs must be provided upon demand by the Engineer.
    - b. For all materials used, Contractor will include the estimate total cost of such materials, including taxes and freight charges, to which cost will be, added an amount equal to ten (10) percent thereof; for full compensation that includes overhead, profit and home office expenses.
    - c. For any construction equipment .or special equipment including fuel and lubricant required for the economical performance of extra work, the Engineer will pay the Contractor a rental price, for every hour that such construction equipment or special equipment is estimated to operate on the work. This provision is intended to pay for heavy or special construction equipment; the County shall therefore not pay for small tools and equipment ordinarily used in construction. Where there is a question as to whether payment pursuant to this section is valid the Engineer will make the final determination as to the validity of such payment. The hourly rental price of such construction or special equipment will not exceed 1/176 part of the monthly rate stated for such equipment in the latest edition of the "Compilation

of Rental Rates for Construction Equipment" by Associated Equipment Distributors. In the event that the equipment is not owned by the Contractor or his companies and the equipment is rented from a recognized equipment rental company, the Contractor will be paid the estimated time that the equipment will work at the hourly rental rate to which shall be added ten (10) percent for fuel, maintenance and lubrication for rented equipment.

4. Contractor is required to include a statement certifying that the proposal is consistent with the Plans and Specifications and he has reviewed all the costs for extra work and has found them to be accurate, fair and reasonable. If extra work is ordered, it must be included in the Contractor's monthly estimate when Allowance Account funds are available in the Contract for the work actually done. An Allowance Account expenditure form shall be prepared and executed by all appropriate parties to the Contract. If no allowance account funds are available a change order will be issued.
5. The performance of any extra work or the furnishing of any extra material which, in the judgment of the Engineer, is of like character to and susceptible of classification under a unit price item of the Contract shall, if the order of the Engineer shall so provide, be paid for at the unit price bid for such item or items, where Allowance Account funds are available in the Contract with the Contractor's monthly estimate, for the work actually done. Said Allowance Account funds shall be transferred to the various Proposal payment item funds via the Allowance Account expenditure form, to allow payment for this extra work without depletion of the payment item fund.
6. All extra work performed hereunder will be subject to all of the provisions of the Contract. Whenever, in the judgment of the Engineer, such extra work or such extra material is not of like character to and susceptible of classification under a unit price item of the Contract, or the application of the unit price will result in unacceptably high costs to the Department, and it is impracticable because of the nature of the work, or for any other reason, to fix the price before the extra work order is issued, extra work and material will be paid for in the following manner:
  - a. For all labor, including a working foreman in direct charge of the specified operation, the Contractor will receive a sum equal to the current local rate of wages for every hour that the labor is actually performed. For a working foreman who performs labor, the Contractor may charge one hundred (100) percent of his hourly wage rate; for a foreman who only directs workers in the performance of their work, the Contractor may charge the following: twenty five (25) percent of the working foreman's salary for directing up to two workers in their work; fifty (50) percent of sum salary for directing up to four workers in their work; seventy-five (75) percent for directing five workers in their work; and one hundred (100) percent for directing six workers or more their work, to which shall be added an amount equal to fifteen percent of such sum, and the total thereof shall be full compensation to the Contractor for performing the work, which includes overhead and profit, home office expenses, general supervision and for furnishing and repairing small tools and ordinary equipment used in doing the extra work. In addition, the Contractor shall be paid their labor burden costs of social security taxes, unemployment insurance, worker's compensation, fringe benefits, inclusive of life and health insurance, union dues, pension, pension plans, vacations, and insurance and contractor's public liability and property damage insurance involved in such extra work, based on the actual wages paid to such labor.
  - b. For all materials used, the Contractor shall receive the actual cost of such materials, including freight charges as shown by original receipted bills, to which costs will be added an amount equal to ten (10) percent thereof, for full compensation which includes overhead, profit and home office expenses.
  - c. For any construction equipment or special equipment including fuel and lubricants, required for the economical! Performance of extra work, excluding the small tools and ordinary equipment as specified above, the Engineer shall allow the Contractor a rental price to be

agreed upon in writing before such work is begun, for every 1 hour that such construction equipment or special equipment is actually operated on the work. Such hourly rental price shall not exceed 1/176 part of the monthly rate stated for such equipment in the latest edition of the "Compilation of Rental Rates for Construction Equipment" by Associated Equipment Distributors. In the event that the equipment is not owned by the Contractor or his companies and the equipment is rented from a recognized equipment rental company, the Contractor will be paid for every hour that the equipment is actually working at the hourly rental rate to which will be added ten (10) percent for fuel, maintenance and lubricants for rented equipment.

7. Contractor's representative and the Counties representative will compare records of extra work done at the end of each day. Such records will be made in duplicate upon a form provided for such purpose by the Counties representative, and shall be signed by both the counties representative and the Contractor's representative, one copy being submitted to the Engineer and the other being retained by the Contractor.
8. Contractor upon certified statements will submit all claims for extra work done, to which shall be attached the original receipted bills covering the costs of and freight charges on all materials used in such work, and such statements, accompanied by copies of the orders authorizing the performance of the work, shall be submitted to the Engineer for inclusion in the estimate of month. In which the work was actually done, where allowance account funds are available in the contract. If no allowance account fund is available, the extra work shall be paid for, subject to approval of a change order for the work, by the county representative via Expedite Ordinance or the Board of County Commissioners.
9. If required, the Contractor shall produce any books, vouchers, other records, or memoranda that will assist the Engineer in determining the true, necessary cost of work and materials to be paid for on a cost plus basis.
10. In the event that the Contractor employs a subcontractor to perform his extra work for any portion of the lump sum work, or for any portion of extra work, material or equipment. Contractor may charge an additional ten (10) percent for his full compensation for overhead, profit, home office expenses and general supervision for the portion of work performed by the subcontractor.
11. The subcontractor must comply with all the requirements of the Contract for his portion of extra work and be compensated as permitted within this Section for the extra work.
12. No additional compensation will be paid for overhead, profit, home office expenses or supervision to any subcontractors working for subcontractors.

## 1.20 WARRANTY OF CONSTRUCTION

- A. For a period of one year, except as provided below, from the date of Final Acceptance, the Contractor warrants that the Work conforms to the Contract requirements and the RPQ requirements and is free of any patent and/or latent defect of the material or workmanship.
  1. Exception to the above year warranty:
    - a. Where the manufacturer of material provides a warranty in excess of one (1) year, the Contractor shall provide an assignment of warranty to the County with the manufacturer's written authorization. Contractors shall be obligated to provide to the County copies of all

manufacturer's warranties and guarantees. Where the County specifies in an RPQ a warranty greater than one (1) year, such warranty will only be for the specified RPQ.

- b. The warranty hereunder shall be in addition to whatever rights the County may have under law. The Contractor's obligation under this warranty shall be at its own cost and expense, to promptly repair or replace (including cost of removal and installation), that item (or part of component thereof) which proves defective or fails to comply with the Contract within the warranty period such that it complies with the Contract.
- c. In the event the Contractor fails to repair or replace defective Work in accordance with the terms of the Contract, the RPQ, and this warranty, the County shall have the right to collect such costs incurred or withhold the cost of the anticipated repairs by offsetting the amount against any payment due the Contractor under any contract between the County and the Contractor.
- d. The warranty covering defective Work shall be reinstated for a period of one (1) year effective as of the date when the defect is remedied. If the defect is found to have a significant effect on any other part, component or item, the reinstatement of the warranty shall then be extended to cover the part component, or item so affected as well, and shall start as of the date the interrelated parts, components and items function properly. The warranty reinstatement provided for in this paragraph shall apply only to the first replacement or repair of any such item, part and component and, in the case of a failure which has a significant effect on another part, component or item, to the first extension of the said warranty to such affected items, parts and components.
- e. As specified in the construction documents. All guarantees and warranties under the Contract are fully enforceable by the County acting in its own name.

APPENDIX C OF THE SUPPLEMENTARY CONDITIONS  
NOTICE OF CONSTRUCTION CLEARING HOUSE FORMS A, B AND C



**MIAMI-DADE COUNTY – DEPARTMENT OF SMALL BUSINESS DEVELOPMENT**  
**Job Clearinghouse (JCH)**  
**CONSTRUCTION CLEARINGHOUSE JOB APPLICATION**  
 Governed by Miami-Dade County Code section 2-1701 and R-1395-05

**Section 1. To be completed by Job Applicant.** Please print clearly or type

Title of position sought			Contract/Project Number (if applicable)		
Name: Last	First	Middle Initial	Last 4 digits of Social Security #		
Address (Street Name and Number)		Apt.	Home telephone number:		
City	State	Zip Code	Additional Contact Telephone number:		
How long have you resided at the above address: <input type="checkbox"/> less than 12 months <input type="checkbox"/> 1 -5 years <input type="checkbox"/> 6-10 yrs <input type="checkbox"/> more than 10yrs			Address (Street Name and Number) _____ Apt.____ City _____ State _____ Zip Code _____		
Date of Birth ____/____/____ <input type="checkbox"/> Male <input type="checkbox"/> Female			Languages spoken <input type="checkbox"/> English <input type="checkbox"/> Spanish <input type="checkbox"/> Creole <input type="checkbox"/> Other _____		
			Languages you are able to read and clearly understand: <input type="checkbox"/> English <input type="checkbox"/> Spanish <input type="checkbox"/> Creole <input type="checkbox"/> Other _____		
Current Driver's license: <input type="checkbox"/> None <input type="checkbox"/> Operator/Class E <input type="checkbox"/> Commercial/Class ____ <input type="checkbox"/> Chauffeur/Class D					

Have you ever been employed in the construction industry?  Yes  No If yes, indicate the trade and the years of experience in each trade.

General Laborer \_\_\_\_ months/years of experience  Carpentry \_\_\_\_ months/years of experience  Electrical \_\_\_\_ months/years of experience  
 Mechanical \_\_\_\_ months/years of experience  Plumbing \_\_\_\_ months/years of experience  Site & Prep Work \_\_\_\_ months/years of experience  
 Equipment Operator \_\_\_\_ months/years of experience  Painting \_\_\_\_ months/years of experience  Sprinkler fitting \_\_\_\_ months/years of experience  
 Drywall Finishing \_\_\_\_ months/years of experience  Masonry \_\_\_\_ months/years of experience  Tile layer \_\_\_\_ months/years of experience  
 Landscaping \_\_\_\_ months/years of experience  Pipe Fitting \_\_\_\_ months/years of experience  Truck Driver \_\_\_\_ months/years of experience  
 Roofing \_\_\_\_ months/years of experience  \_\_\_\_\_ \_\_\_\_ months/years of experience

What hours are you available to work?  6am-2pm  7am-3pm  8am- 4pm  Any shift  Other

What construction trades are you interested in?  Same as indicated above  Other \_\_\_\_\_

Applicant's signature \_\_\_\_\_ Date \_\_\_\_\_

**Section 2 \*\*\*\*\*FOR SBD USE ONLY\*\*\*\*\***

Certificates/Licenses: \_\_\_\_\_  
 Job References: \_\_\_\_\_

Title of Position Hired:	Date of Hire:
Duration of Job:	Job Salary (hourly rate):
Employer/Contractor	Contract/Project Number:
Applicant was recruited through: <input type="checkbox"/> Self Recruit <input type="checkbox"/> WDO <input type="checkbox"/> WRO <input type="checkbox"/> WTP	

Submit this application to:  
 Attention: Job Clearinghouse  
 Miami-Dade County, Department of Small Business Development (SBD)  
 Project Review and Analysis Division  
 111 NW 1<sup>st</sup> Street, 19<sup>th</sup> floor  
 Miami, Florida 33128  
 Telephone: (305) 375-3111 Fax (305) 375-3160



MIAMI-DADE COUNTY  
DEPARTMENT OF SMALL BUSINESS DEVELOPMENT  
**Job Clearinghouse (JCH)**

**NOTICE OF CONSTRUCTION CLEARINGHOUSE JOB OPPORTUNITY**

Governed by Miami-Dade County Code section 2-1701 and R-1395-05

**To be completed by Employer/Contractor. Please print clearly or type**

<b>EMPLOYER/CONTRACTOR INFORMATION</b>	
Business Name:	Contract/Project Number
Address (Street Name and Number)	Federal ID#
City	State
	Zip Code
Telephone Number	Fax Number
Contact Person	Email Address
<b>JOB LISTING INFORMATION</b>	
Job Title	Application Deadline
Job Site Location	Number of Openings
Describe Job Duties:	Hourly Rate
Specialized Training:	
Experience Required (Months/Years):	
Specialized machinery or equipment:	
Job Duration: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary/If Temporary, how long? ____ Fringe Benefits? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Education Required: <input type="checkbox"/> None <input type="checkbox"/> H.S Diploma/GED <input type="checkbox"/> AA Degree <input type="checkbox"/> Bachelor's Degree <input type="checkbox"/> Master's Degree	
Certifications/License Required: <input type="checkbox"/> None <input type="checkbox"/> Yes If Yes, please list _____	
Driver's license required: <input type="checkbox"/> None <input type="checkbox"/> Operator/Class E <input type="checkbox"/> Commercial/Class ____ <input type="checkbox"/> Chauffeur/Class D	
Language(s) required: <input type="checkbox"/> English <input type="checkbox"/> Spanish <input type="checkbox"/> Creole <input type="checkbox"/> Other	
<b>APPLICANTS SHOULD CONTACT EMPLOYER BY:</b>	
<input type="checkbox"/> Call for Appointment <input type="checkbox"/> Phone Interview <input type="checkbox"/> Send Resume via: <input type="checkbox"/> Mail <input type="checkbox"/> Fax <input type="checkbox"/> Email	
<input type="checkbox"/> Apply In Person Day of the Week: _____ Time: _____ Application Deadline: _____	

**Employer/Contractor must submit this form for all job openings.**

Attention: Job Clearinghouse  
Miami-Dade County Department of Small Business Development  
Project Review and Analysis Division  
111 NW 1<sup>st</sup> Street, 19<sup>th</sup> floor  
Miami, Florida 33128  
Telephone: (305) 375-3111 Fax (305) 375-3160



*Delivering Excellence Every Day*

**JOB CLEARINGHOUSE AFFIDAVIT**  
Notice of Construction Job Opportunities

Project / Contract Number: \_\_\_\_\_

Pursuant to Miami-Dade County Resolution No. R-1395-05, there are \_\_\_\_ open position(s) to submit to the Job Clearinghouse for this project at this time. All open positions will be submitted to South Florida Workforce at <https://iapps.careersourcesfl.com/jchcwp/>.

\_\_\_\_\_  
(Signature of Affiant)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Printed Name of Affiant, Title, and Firm Name)

\_\_\_\_\_  
(Witness)

Sworn to and subscribed before me this  
\_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_

By: \_\_\_\_\_

\_\_\_\_\_  
Signature of Notary Public

Personally Known

Produced ID

Type of ID produced \_\_\_\_\_

## **SECTION 6: SPECIFICATIONS**

# GENERAL REQUIREMENTS

## DTPW DIVISION 1

DTPW SPECIFICATIONS  
GENERAL REQUIREMENTS  
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## 1. GENERAL REQUIREMENTS

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### 1.01 DEFINITIONS AND TERMINOLOGY

#### A. General

1. These Specifications are written to the bidders, prior to award of the Contract, and to Contractor.
2. Where sentences directing work or other action appear in the active voice-imperative mood, without a subject, the subject "bidder" or "Contractor" is understood. In any other case where the subject is not clearly understood, Engineer will make a clarification and final determination as to the subject of the action.

#### B. Governing Regulations and Standard References

1. The following Standards and Governing Regulations, as amended by the Contract Documents, are hereby incorporated by reference:
  - a. Building Code as set forth in Chapter 8 of the Code of Miami-Dade County.
  - b. Public Works Manual of Metropolitan Dade County (Public Works Manual).
  - c. United States Department of Justice's 2010 ADA Standards For Accessible Design
  - d. Miami-Dade County's Traffic Control Equipment Specifications and Standards for The Metro Traffic Control System Miami-Dade County (TCESS).
  - e. Florida Department of Transportation's Standard Plans for Road and Bridge Construction (FDOT Standard Plans).  
<http://www.fdot.gov/design/standardplans/SPRBC.shtm>
  - f. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Divisions II & III), Special Provisions and Supplemental Specifications  
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks/default.shtm>
  - g. Florida Department of Transportation Surveying and Mapping Procedure  
<http://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/FormsAndProcedures/ViewDocument?topicNum=550-030-101>
  - h. Florida Department of Transportation Drainage Manual  
<http://www.fdot.gov/roadway/Drainage/Manualsandhandbooks.shtm>
  - i. Florida Department of Transportation Soils and Foundations Handbook  
<http://www.fdot.gov/structures/DocsandPubs.shtm>
  - j. Florida Department of Transportation Structures Manual

<http://www.fdot.gov/structures/DocsandPubs.shtm>

- k. Florida Department of Transportation Current Structures Design Bulletins

<http://www.fdot.gov/structures/Memos/currentbulletins.shtm>

- l. Manual on Uniform Traffic Control Devices (MUTCD)

<https://mutcd.fhwa.dot.gov/>

- m. Safe Mobility For Life Program Policy Statement

<http://www.fdot.gov/traffic/TrafficServices/SafetyisGolden.shtm>

- n. Florida Department of Transportation American with Disabilities Act (ADA) Compliance

<http://www.fdot.gov/roadway/ada/>

- o. Florida Department of Transportation Florida Sampling and Testing Methods

<http://www.fdot.gov/materials/administration/resources/library/publications/fstm/disclaimer.shtm>

- p. Florida Department of Transportation Flexible Pavement Coring and Evaluation Procedure

<http://www.fdot.gov/materials/administration/resources/library/publications/materialsmanual/documents/v1-section32-clean.pdf>

- q. Florida Department of Transportation Design Bulletins and Update Memos

<http://www.fdot.gov/roadway/Bulletin/>

- r. Florida Department of Transportation Utility Accommodation Manual

<http://www.fdot.gov/programmanagement/utilities/default.shtm>

- s. Florida Department of Transportation Flexible Pavement Design Manual

<http://www.fdot.gov/roadway/pm/pcs/flexiblepavementmanual.pdf>

- t. Florida Department of Transportation Rigid Pavement Design Manual

<http://www.fdot.gov/roadway/pm/pcs/rigidpavementmanual.pdf>

- u. Florida Department of Transportation Pavement Type Selection Manual

<http://www.fdot.gov/roadway/pm/Publications/PTSM.pdf>

- v. Florida Department of Transportation Traffic Engineering Manual

<http://www.fdot.gov/traffic/trafficservices/Studies/TEM/TEM.shtm>

- w. Florida Department of Transportation Bicycle and Pedestrian Policies and Standards

<http://www.fdot.gov/roadway/bikeped/default.shtm>

- x. Federal Highway Administration Hydraulic Engineering Circular Number 18 (HEC 18).

[https://www.fhwa.dot.gov/engineering/hydraulics/library\\_listing.cfm](https://www.fhwa.dot.gov/engineering/hydraulics/library_listing.cfm)

y. Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Florida Greenbook)

<http://www.fdot.gov/roadway/floridagreenbook/fgb.shtm>

z. Florida Department of Transportation Project Development and Environment Manual, Parts 1 and 2  
<http://www.fdot.gov/environment/pubs/pdem/an/pdeman1.shtm>

aa. Florida Department of Transportation Contract Compliance Manual.  
<https://www.fdot.gov/equalopportunity/contractcompliancemanual.shtm>

bb. Florida Department of Transportation Equal Opportunity Compliance (EOC) System.  
<https://www.fdot.gov/equalopportunity/eoc.shtm>

cc. Florida Statutes  
<http://www.leg.state.fl.us/statutes/>

dd. Miami-Dade County and Local Municipal Ordinances, unless otherwise is prohibited, by State or Federal regulations.

2. The above list is not all inclusive and it is the responsibility of Contractor to comply with all applicable requirements whether included in this list or not. Additional project-specific criteria are provided throughout the Contract Documents

3. The above referenced Standards are intended to supplement, not supersede the requirements set forth herein and, unless otherwise noted, the latest revision shall apply. Where differences occur between referenced Standards and these Contract Documents, the more stringent shall apply unless otherwise noted in the Contract Documents or directed by Engineer in writing.

4. FDOT Standard Specifications.

a. FDOT Standard Specifications for Road and Bridge Construction (Divisions II & III), as amended by the Contract Documents, apply to an Article within these Specifications when:

1) The applicable FDOT Standard Specification Section (e.g. FDOT SECTION 415) is referenced in the title of the Article; or

2) The FDOT Standard Specification section, article, or subarticle is referenced within the Article (e.g. FDOT Section 415, FDOT 415-3; FDOT 415-5.1, etc.)

b. Unless otherwise specified, where page numbers are used in these Specifications to reference modifications to the FDOT Standard Specifications, it shall be understood to reference the 2007 edition.

### C. Abbreviations

The following abbreviations, when used in the Contract Documents, represent the full text shown.

AAN	American Association of Nurserymen, Inc.
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	The Associated General Contractors of America, Inc.
AGMA	American Gear Manufacturers Association
AIA	American Institute of Architects.
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute, Inc.
APL	FDOT Approved Product List
AREA	American Railway Engineering Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATSSA	American Traffic Safety Services Association
AWG	American Wire Gauge
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
CFR	Code of Federal Regulations
CRSI	Concrete Reinforcing Steel Institute
DOL	U.S. Department of Labor
EASA	Electrical Apparatus Service Association
EPA	Environmental Protection Agency of the United States Government
F.A.C.	Florida Administrative Code
FBC	Florida Building Code
FDEP	Florida Department of Environmental Protection
FDOH	Florida Department of Health
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FM	Florida Method or Florida Sampling and Testing Method
F.S.	Florida Statutes
FSS	Federal Specifications and Standards
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IMSA	International Municipal Signal Association
IPCEA	Insulated Power Cable Engineers Association
ISO	International Organization for Standards
MDC	Miami-Dade County
MSTCSD	Minimum Specifications for Traffic Control Signals and Devices
NAM	Negotiated Acceptance Memorandum
MUTCD	Manual on Uniform Traffic Control Devices
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
NIST	National Institute for Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
NSF	NSF International

OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
DTPW	Miami-Dade County Department of Transportation and Public Works
SAE	Society of Automotive Engineers
SBE-CONST	Small Business Enterprise-Construction
SI	International System of Units
SSPC	Society of Protective Coatings
TSSQPL	Traffic Signals and Signs Qualified Products List
UL	Underwriters' Laboratories
U.S.C.	United States Code

D. Definitions

The following terms, when used in the Specifications, have the meaning described.

1. Article. The numbered prime subdivision of a Division of these Specifications.
2. Bracing. A temporary structural member(s) placed between beams, girders, piles columns, etc. to provide stability during construction activities.
3. Bridge. A structure, including supports, erected over a depression or over an obstruction such as water, highway or railway, or for elevated roadway, for carrying traffic or other moving loads, and having a length, measured along the center of the roadway, of more than 20 feet between the inside faces of end supports. A multiple-span box culvert is considered a bridge, where the length between the extreme ends of the openings exceeds 20 feet.
4. Calendar day. Every day shown on the calendar, ending and beginning at midnight. Unless otherwise stipulated in the Contract Documents, the term "days" shall be understood as calendar days. In computing any period of time prescribed or allowed by this Contract, the day of the act, event, or default from which the designated period of time begins to run shall not be included. The last day of the period so computed shall be included unless it is a Saturday, Sunday, or legal holiday, in which event the period shall run until the end of the next day which is neither a Saturday, Sunday, or legal holiday. When the period of time prescribed or allowed is less than 7 days, intermediate Saturdays, Sundays, and legal holidays shall be excluded in the computation.
5. Construction Affecting Public Safety. Construction that may jeopardize public safety such as structures spanning functioning vehicular roadways, pedestrian walkways, railroads, navigation channels of navigable waterways and walls or other structure foundations located in embankments immediately adjacent to functioning roadways. It does not apply to those areas of the site under Contractor's control and outside the limits of normal public access.
6. Contract. The term "Contract" means the entire and integrated agreement between the parties thereunder and supersedes all prior negotiations, representations, or agreements, either written or oral. The executed Contract Documents form the Contract between the

Department (on behalf of the County) and Contractor setting forth the obligations of the parties thereunder, including, but not limited to, the performance of the Work and the basis of payment.

7. Contract Documents. Consists of those items so designated in and inclusive of the executed Contract. Only printed or hard copies of the items listed in the executed Contract Form are Contract Documents.
8. Contract Time. The maximum number of calendar days, including authorized time extensions, allowed for final completion of all Contract work and requirements. Also called Contract Duration.
9. Contract Unit Price. Refers to the Unit Price provided by the Contract that is fixed at time of Contract award.
10. Contractor. The individual, firm, joint venture, or company contracting with the County to perform the Work pursuant to the Contract.
11. Contractor's Engineer of Record.
  - a. A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing of components of the permanent structure as part of a redesign, or for repair designs and details of the permanent work. Contractor's Engineer of Record may also serve as the Specialty Engineer.
  - b. Contractor's Engineer of Record must be an employee of a pre-qualified firm. The firm shall be pre-qualified in accordance with the Rule 14-75, F.A.C. Any Corporation or Partnership offering engineering services must hold a Certificate of Authorization from the Florida Board of Professional Engineers.
  - c. As an alternate to being an employee of a pre-qualified firm, Contractor's Engineer of Record may be a pre-qualified Specialty Engineer. For items of the permanent Work declared by the FDOT Construction Office to be "major" or "structural", the work performed by a pre-qualified Specialty Engineer must be checked by another pre-qualified Specialty Engineer. An individual Engineer may become pre-qualified in the work groups listed in Rule 14-75, F.A.C., if the requirements for the Professional Engineer are met for the individual work groups. Pre-qualified Specialty Engineers are listed on the FDOT Construction Office website. Pre-qualified Specialty Engineers will not be authorized to perform redesigns of items fully detailed in the Plans.
12. Contractor Originated Designs. Items which the Contract Documents require Contractor to design, detail and incorporate into the permanent works.
13. Controlling Work Items. The activity or work item on the critical path having the least amount of total float. The controlling item of work will also be referred to as a Critical Activity.
14. County. Miami-Dade County, Florida.

15. Culverts. Any structure not classified as a bridge that provides an opening under the roadway.
16. Department. Miami-Dade County Department of Transportation and Public Works.
17. Engineer. The County Engineer, acting directly or through duly authorized representatives; such representatives acting within the scope of the duties and authority assigned to them.
  - a. Note: In order to avoid cumbersome and confusing repetition of expressions in these Specifications, it is provided that whenever anything is, or is to be done, if, as, or, when, or where "acceptable, accepted, approval, approved, authorized, condemned, considered necessary, contemplated, deemed necessary, designated, determined, directed, disapproved, established, given, indicated, insufficient, ordered, permitted, rejected, required, reserved, satisfactory, specified, sufficient, suitable, suspended, unacceptable, or unsatisfactory," it shall be understood as if the expression were followed by the words "by Engineer," "by the Engineer," "to the Engineer," or "of the Engineer."
18. Engineer of Record. The Professional Engineer or Engineering Firm registered in the State of Florida that develops the criteria and concept for the project, performs the analysis, and is responsible for the preparation of the Plans and Specifications. The Engineer of Record may be Departmental in-house staff, or a consultant retained by the Department. Contractor shall not employ the Engineer of Record as Contractor's Engineer of Record or as a Specialty Engineer.
19. Equipment. The machinery and equipment, together with the necessary supplies for upkeep and maintenance thereof, and all other tools and apparatus necessary for the construction and acceptable completion of the work.
20. Extra Work. Any "work" which is required by Engineer to be performed and which is not otherwise covered or included in the project by the existing Contract Documents, whether it be in the nature of additional work, altered work, deleted work, work due to differing site conditions, or otherwise. This term does not include a "delay".
21. Falsework. Includes any temporary construction work used to support the permanent structure until it becomes self-supporting. Falsework includes steel or timber beams, girders, columns, piles and foundations, and any proprietary equipment including modular shoring frames, post shores, and adjustable horizontal shoring.
22. Formwork. Includes any structure or mold used to retain plastic or fluid concrete in its designated shape until it hardens. Formwork comprises common materials such as wood or metal sheets, battens, soldiers and walers, ties, proprietary forming systems such as stay-in-place metal forms, and proprietary supporting bolts, hangers and brackets. Formwork may be either permanent formwork requiring a shop drawing submittal such as stay-in-place metal or concrete forms, or may be temporary formwork which requires certification by the Specialty Engineer for Construction Affecting Public Safety and for Major and Unusual Structures.
23. Highway, Street, or Road. A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.
24. Holidays. Days designated by Miami-Dade County as holidays, which include, but are not limited to, New Year's Day, Martin Luther King's Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day and the following Friday, and Christmas Day.
25. Inspector. An authorized representative of the Engineer, assigned to make official inspections of the materials furnished and of the work performed by Contractor.
26. Laboratory. The official testing laboratory authorized by the Department.
27. Major and Unusual Structures: Bridges of complex geometry and/or complex design. Generally, this includes the following types of structures:
  - a. Bridges with an individual span longer than 300 feet.
  - b. Structurally continuous superstructures with spans over 150 feet.
  - c. Steel box and plate girder bridges.
  - d. Steel truss bridges.
  - e. Concrete segmental and longitudinally post-tensioned continuous girder bridges.
  - f. Cable stayed or suspension bridges.
  - g. Arch bridges.
  - h. Tunnels.
  - i. Movable bridges (specifically electrical and mechanical components).
  - j. Rehabilitation, widening, or lengthening of any of the above.
28. Major Item of Work. Any item of work having an original Contract value in excess of 5% of the original Contract amount.
29. Materials. Any substances to be incorporated in the work under the Contract.
30. Median. The portion of a divided highway or street separating the traveled ways for traffic moving in opposite directions.
31. Permanent Works. All the permanent structures and parts thereof required of the completed Contract.
32. Plans. The part of the Contract Documents prepared or approved by the Engineer, including reproductions thereof, which graphically shows or supplements the scope, extent, and character of the Work to be performed by Contractor. Whenever the word "Plans" appears in these Contract Documents, it shall include any related drawings or standard details referenced by the Contract Documents.

33. Right-of-Way. The land that the Department has title to, or right of use, for the road and its structures and appurtenances, and for material pits furnished by the Department.
34. Roadbed. The portion of the roadway occupied by the subgrade and shoulders.
35. Roadway. The portion of a highway within the limits of construction.
36. Scaffolding. An elevated work platform used to support workmen, materials and equipment, but not intended to support the structure.
37. Section. A numbered prime division of these Specifications.
38. Shop Drawings. All working, shop and erection drawings, associated trade literature, calculations, schedules, manuals and similar documents submitted by Contractor to define some portion of the Work. The Work may include both permanent and temporary works as appropriate to the Project. Shop Drawings and other contractor submittals are not Plans as so defined.
39. Shoring. A component of falsework such as horizontal, vertical or inclined support members. In this Section, this term is interchangeable with falsework.
40. Special Erection Equipment. Includes launching gantries, beam and winch equipment, form travelers, stability towers, strong-backs, erection trusses, launching noses or similar items made purposely for construction of the structure. It does not apply to commonly available proprietary construction equipment such as cranes.
41. Special Provisions. Project specific clauses adopted by the Department that add to or revise these Specifications and associated supplemental specifications, or provide other requirements applicable to the Contract.
42. Specialty Engineer.
  - a. A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing preparation of components, systems, or installation methods and equipment for specific temporary portions of the Work or for special items of the permanent works not fully detailed in the plans and required to be furnished by Contractor such as but not limited to pot bearing designs, non-standard expansion joints, mechanically stabilized earth wall designs and other specialty items. The Specialty Engineer may also provide designs and details for items of the permanent work declared by the FDOT Construction Office to be "minor" or "non-structural". The Specialty Engineer may be an employee or officer of Contractor or a fabricator, an employee or officer of an entity providing components to a fabricator, or an independent consultant.
  - b. For items of work not specifically covered by Rule 14-75, F.A.C., a Specialty Engineer is qualified if he has the following qualifications:
    - 1) Registration as a Professional Engineer in the State of Florida.
    - 2) The education and experience necessary to perform the submitted design as required by the Florida Board of Professional Engineers.
43. Specifications. The directions, provisions, and requirements contained herein, together with all stipulations contained in the Contract Documents, setting out or relating to the method and manner of performing the work, or to the quantities and qualities of materials and labor to be furnished under the Contract.
44. State. State of Florida.
45. Structure. Any waterworks, drainage works, sewage works, river works, earthworks or constructions of any kind, including those of earth or rock, permanent or temporary, and including bridges, dam, wall, caisson, mast, tower, pylon, underground tank, earth retaining elements or assembly of elements, formwork, falsework, scaffold, fences, poles, buildings, pavings, inlets, levees, tide gates, spillways, drop structures, any structure similar to the foregoing, and any other form of building, construction, arrangement of parts, elements, or materials found in structures.
46. Subarticle. A prime subdivision of an Article of these Specifications.
47. Subgrade. The portion of the roadbed immediately below the base course or pavement, including below the curb and gutter, valley gutter, shoulder and driveway pavement. The subgrade limits ordinarily include those portions of the roadbed shown in the plans to be constructed to a design bearing value or to be otherwise specially treated. Where no limits are shown in the plans, the subgrade section extends to a depth of 12 inches below the bottom of the base or pavement and outward to 6 inches beyond the base, pavement, or curb and gutter.
48. Substantial Completion. The time and date at which the Work has progressed to the point where, in the opinion of Engineer, the Work is sufficiently complete, in accordance with the Contract Documents, so that the Work can be occupied and/or utilized for the purposes for which it is intended. Substantial Completion must occur before the Project is issued a Certificate of Occupancy (or Completion, if applicable) by the Department that allows the County to utilize the entire Project for the purposes for which it is intended. Substantial completion on roadway projects includes completion and operation of traffic signals, street lighting and completion of landscape items.
49. Substructure. All of that part of a bridge structure below the bridge seats, including the parapets, backwalls, and wingwalls of abutments.
50. Superintendent. Contractor's authorized representative in responsible charge of the work.

51. Superstructure. The entire bridge structure above the substructure, including anchorage and anchor bolts, but excluding the parapets, backwalls, and wingwalls of abutments.
52. Surety. The corporate body that is bound by the Contract Bond with and for Contractor and responsible for the performance of the Contract and for payment of all legal debts pertaining thereto.
53. Temporary Works. Any temporary construction work necessary for the construction of the permanent works. This includes but is not limited to bracing, falsework, formwork, scaffolding, shoring, temporary earthworks, sheeting, cofferdams, and special erection equipment.
54. Traveled Way. The portion of the roadway providing for the movement of vehicles, exclusive of shoulders and auxiliary lanes.
55. Traffic Control Signals and Devices. Any signal or device, manually, electrically or mechanically operated, by which traffic is alternately directed to stop and permitted to proceed or controlled in any manner. Traffic control signals and devices regulate, warn, or guide traffic on, over or adjacent to a street, highway, pedestrian facility, or bikeway by authority of a public agency having jurisdiction. Traffic control signals and devices include, but are not limited to, controller assemblies (controller cabinets and their contents); signal heads including their hanging or mounting devices; vehicle detection systems (loops, sealant, amplifier, lead-in wire, or cable); pedestrian detection systems (push button, push button housing, lead-in wires, and signal); motorist information systems, video equipment, network devices, dynamic message signs, highway advisory radios, cameras, vehicle detection systems, and other equipment used within a traffic control system.
56. Underground Facilities. All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
57. Work. All labor, materials and incidentals required to execute and complete the requirements of the Contract including superintendence, use of equipment and tools, and all services and responsibilities prescribed or implied.
58. Working Day. Any calendar day on which Contractor works or is expected to work in accordance with the approved work progress schedule.

## 1.02 WORK COVERED BY THE CONTRACT DOCUMENTS

### A. Intent of Contract and Contract Documents

1. The intent of the Contract and Contract Documents is to describe a functionally complete project (or part thereof) to be constructed, and to provide for the

construction and completion in every detail of the Work described therein.

2. The intent of the Contract is for Contractor to provide, at no additional cost to the County, all labor, documentation, services, materials, equipment, tools, transportation, and supplies that are:
  - a. Necessary to complete the Work in accordance with the Contract Documents.
  - b. Reasonably inferred and incidental to the Work, whether or not specifically called for by the Contract Documents.

### B. Alteration of Plans or of Character of Work

1. Engineer reserves the right to make, at any time prior to or during the progress of the Work, such increases or decreases in quantities, whether a significant change or not, and such alterations in the details of construction, whether a substantial change or not, including but not limited to alterations in the grade or alignment of the road or structure or both, as may be found necessary or desirable by the Engineer. The term "significant change" applies only when the Engineer determines that the character of the work, as altered, differs materially from that involved or included in the original proposed construction.
2. Such increases, decreases or alterations shall not constitute a breach of Contract, shall not invalidate the Contract, nor release the Surety from any liability arising out of this Contract or the Surety bond. Contractor agrees to perform the work, as altered, the same as if it had been a part of the original Work.
3. The Department may require work that is not covered by a price in the Contract if the Department determines that such work does not constitute a significant change and is essential to the satisfactory completion of the Contract within its intended scope. If an adjustment in price is warranted, Engineer will determine the basis of payment for such an adjustment in a fair and equitable amount and authorize the adjustment through an executed Negotiated Acceptance Memorandum (NAM) provided by the Department.
4. In the instance of an alleged significant change, Engineer will review all pertinent information provided by Contractor to determine the validity of the allegation. The determination by Engineer shall be conclusive and shall not be subject to challenge by Contractor in any forum, except upon Contractor establishing by clear and convincing proof that the determination by Engineer was without any reasonable and good-faith basis.

### C. Connections to Existing Pavement, Drives and Walks

1. Adhere to the limits of construction at the beginning and end of the Project as detailed in the Contract Documents. However, if Engineer determines that it is necessary to extend the construction in order to make suitable connections to existing pavement, Engineer will authorize such a change.

2. For necessary connections to existing pavement, walks and drives that are not indicated on the Plans, Engineer will provide direction regarding the proper connections in accordance with the applicable Standards.

D. Differing Site Conditions

1. During the progress of the Work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract Documents, or if unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract are encountered at the site, the party (County or Contractor) discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before Contractor disturbs the conditions or performs the affected work.
2. Upon receipt of written notification of differing site conditions from Contractor, Engineer will investigate the conditions. If Engineer determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly. Engineer will notify Contractor whether or not an adjustment of the Contract is warranted.
3. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
  - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to the County with respect to Contract Price and Contract Times by the submission of a Bid; or
  - b. The existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making a Bid; or
  - c. Contractor failed to give the written notice as required by this Article.
4. Engineer will not allow a Contract adjustment for a differing site condition unless Contractor has provided the required written notice.
5. Engineer will not allow a Contract adjustment under this clause for any effects caused to any other Department or non-Department projects on which Contractor may be working.

E. Underground Facilities.

1. It is generally recognized, and Contractor should anticipate that information provided by utility owners during project design, frequently fails to disclose all

Underground Facilities. The fact that more utility lines or other Underground Facilities are located in the Project Site than shown on the Project Plans does not constitute an unforeseen or differing Site Condition and such undisclosed Underground Facilities do not differ materially from the conditions which Contractor should expect.

2. Any information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to the County design engineer by the owners of such Underground Utilities. Additional utilities may exist which are not shown in the Contract Documents. Unless it is otherwise expressly stated in the Special Provisions, the County is not responsible for the accuracy or completeness of any such information or data provided
3. Contractor is responsible for field verification and location of all Underground Facilities prior to the start of construction. No field work shall be allowed to start until Contractor has notified Sunshine State One-Call of Florida, Inc. and all affected utilities have been located. In addition, Contractor, without any additional compensation, must expose and physically locate all potentially conflicting Underground Facilities prior to construction and is fully responsible for:
  - a. Reviewing and checking all Underground Facilities information and data;
  - b. Locating and verifying all Underground Facilities at or contiguous to the Site;
  - c. Coordination of the Work with the owners of such Underground Facilities, including the County, during construction; and
  - d. The safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.
4. The actual locations of the Underground Facilities must be compared to locations shown on the Plans and any required changes in alignment and grade must be made at the time of construction in consultation with Engineer.
5. If an Underground Utilities is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents:
  - a. Identify the owner of such Underground Facilities and give written notice to that owner and to Engineer promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
  - b. Engineer will promptly review the Underground Facilities and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. If

Engineer determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of the Work, an adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly. Engineer will notify Contractor whether or not an adjustment of the Contract is warranted.

F. Contractor Proposed Changes Affecting Utilities

1. Contractor is responsible for identifying and assessing any potential impacts to a utility that may be caused by the changes proposed by Contractor, and Contractor must, at the time of making the request for a change, notify the Department in writing of any such potential impacts to utilities.
2. Department approval of a Contractor proposed change does not relieve Contractor of sole responsibility for all utility impacts, costs, delays or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those in the original Contract Specifications, design plans (including traffic control plans) or other Contract Documents and which effect a change in utility work different from that shown in the utility plans, joint project agreements or utility relocation schedules.

G. Rights in and Use of Materials Found on the Site of the Work

1. Ownership and Disposal of Existing Materials: Unless otherwise directed by Engineer or elsewhere in the Contract Documents, take ownership and dispose of all materials that are not designated as the property of other parties, in both roadway and structures, found on the right-of-way, and all material in structures designated for removal. Such materials do not include earth or other excavated material required for the construction of the Project. During construction, Contractor may use materials from existing structures that are required to be removed and that are designated to remain the property of the Department. Do not cut or otherwise damage such material during removal unless Engineer gives permission to do so. Store material in an accessible location as Engineer directs. The Department is not responsible for the quality or quantity of any material salvaged.
2. Ornamental Trees and Shrubs: Take ownership of all ornamental trees or shrubs existing in the right-of-way that are required to be removed for the construction operations and which are not specifically designated on the Plans to be reset, relocated, or to be removed by others prior to the construction operations.

H. Restoration of Property

1. Take preconstruction videos/pictures of the entire work zone and adjacent areas.
2. Public or private property damaged during construction or removed for convenience of the Work

must be repaired or replaced at Contractor's expense in a manner acceptable to Engineer, prior to final acceptance of the Work or sooner if otherwise required by the Contract Documents or Engineer. This includes, but is, not limited to signalization equipment and miscellaneous hardware removed from the construction site, signs, driveways, landscaping, sidewalk, walkways, walls, fences, footings, underground utilities, etc.

3. Contractor must comply with the requirements of Miami-Dade County Code Section 2-103.1 (b), CONSTRUCTION OF PUBLIC UTILITIES OR WORKS IN PUBLIC RIGHTS-OF-WAY

- a. "Whenever any person, corporation, partnership, association, County Department or other legal entity performs any construction or public work within an existing right-of-way located within unincorporated Miami-Dade County, or in right-of-ways of roads or streets located within municipalities that are maintained by the County, the right-of-way, including sidewalks, curbs and gutters, landscaping and must be restored to their legally permissible preexisting condition, including any aesthetic enhancements thereto and any adjacent private property damaged during construction, within thirty (30) days of completion of the construction or public work in that right of way or within thirty (30) days of damage to the affected property or area, whichever occurs first. Prior to the time such construction work begins, the contractor, by posting the construction site, shall inform the local community of the requirement to restore the right-of-way as well as any affected adjacent private property and the fines that could be imposed for each failure to do so. All work to be done pursuant to this Section shall be performed in compliance with the Public Works Manual. Any entity failing to restore the right-of-way to its preexisting condition or better within the time permitted shall be subject to a civil fine of five hundred dollars (\$500.00) per violation per day until such time as the right-of-way is restored, as well as five hundred dollars (\$500.00) per day for each affected adjacent private property until it is restored." Contractor may obtain a complete copy of the Ordinance from the Clerk of the Board.
- b. Post the construction site pursuant to Miami-Dade County Code Section 2-103 (b). The Public Notice to be posted is to read as follows:

**PUBLIC NOTICE**  
**ORDINANCE NO. 03-89**

*Contractor shall restore the right-of-way as well as any affected adjacent private property within 30 days of completion of construction or damage to the affected property or area, whichever occurs first.*

*Any entity failing to restore the right-of-way to its pre-existing condition or better within the time promoted shall be subject to a civil fine of \$500 per violation per day.*

4. Survey monuments.
  - a. Upon completion of construction activities and prior to the expiration of the Contract:
    - 1) Coordinate the replacement of any monument(s) disturbed or destroyed.
    - 2) Submit to Engineer for review and approval, a survey report that includes all monuments replaced and all monuments impacted as a result of construction activities.
  - b. The replacement of monuments and the preparation of the survey report must be by a licensed Florida Surveyor and Mapper and meet all applicable State Rules, Statutes, and requirements of the Department. All costs required for compliance with these requirements will be included among the Contract pay items.
5. Failure to Restore Damaged Property:
  - a. In case of failure on the part of Contractor to restore such property, bridge, road or street, or to make good such damage or injury, Engineer may, upon 48 hours notice, proceed to repair, rebuild, or otherwise restore such property, road, or street as may be deemed necessary, and the Department will deduct the cost thereof from any monies due or which may become due Contractor under the Contract. Nothing in this clause prevents the Contractor from receiving proper compensation for the removal, damage, or replacement of any public or private property, not shown on the plans, that is made necessary by alteration of grade or alignment. Engineer will authorize such work, provided that Contractor, or his employees or agents, have not, through their own fault, damaged such property.
6. Work Site Clean-Up:
  - a. Debris and trash shall be removed from the site daily. Mow turf or vegetation within the project limits in accordance with Article 107 of the Construction Specifications.

- b. Upon completion of all work specified herein at each work site and before acceptance and payment is made, Contractor shall remove from each work site all machinery, equipment, surplus and discarded materials, rubbish and temporary structures. Material cleared from site and deposited on adjacent property will not be considered as having been disposed of satisfactorily.

I. Final Cleaning Up of Right-of-Way

1. Upon completion of the Work, and before the Department accepts the Work and makes final payment, remove from the right-of-way and adjacent property all falsework, equipment, surplus and discarded materials, rubbish and temporary structures; restore in an acceptable manner all property, both public and private, that has been damaged during the prosecution of the work; and leave the waterways unobstructed and the roadway in a neat and presentable condition throughout the entire length of the work under Contract. Clean all areas impacted by the Work and remove sedimentation in drainage structures caused by the construction activities.
2. Do not dispose of materials of any character, rubbish or equipment, on abutting property, with or without the consent of the property owners. Engineer will allow Contractor to temporarily store equipment, surplus materials, usable forms, etc., on a well-kept site owned or leased by Contractor, adjacent to the Project. However, do not place or store discarded equipment, materials, or rubbish on such a site.
3. Shape, dress and restore areas adjacent to the Project right-of-way that were used as plant sites, materials storage areas or equipment yards when they are no longer needed for such purposes.

1.03 CONTROLLING WORK

A. Plans

1. Contract Documents: Have one complete copy of the Contract Documents available on the worksite at all times.
2. Department's Plans: Unless otherwise labeled, all Items shown on the Plans are considered to be part of the Work, and must be incorporated into the Work and included in the established prices.
3. Alterations in Plans: The Department will issue, in writing, all authorized alterations affecting the requirements and information given on the approved plans.

B. Typical Details and/or Sketches

1. Typical details and/or sketches regarding the proposed work may be provided in addition to the standard details that are available in the Miami-Dade County Public Works Manual and the latest edition of the Florida Department of Transportation's Design

Standards for Design, Construction, Maintenance and Utility Operations on The State Highway System.

2. County through its Engineer shall have the right to modify the details and/or sketches, to supplement the sketches with additional plans and/or with additional information as work proceeds; all of which shall be considered as plans accompanying these Specifications herein generally referred to as the "Plans." In case of disagreement between the Plans and Specifications, Engineer will make a final determination as to which will govern.

C. Or-Equals and Substitutes

1. Except where specifically provided, whenever material or equipment is specified or described in the Contract Documents by proprietary name or as being available from a particular supplier, the intent is to establish the type, function, appearance, and quality required. A written request to Engineer to authorize an "or-equal" or "substitute" material or equipment may be submitted as described below unless the item specified or described contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted.

a. Or-Equal Material or Equipment:

- 1) Material or equipment proposed by Contractor may be considered by Engineer as an "or equal" item if in Engineer's sole discretion the item proposed is functionally equal and sufficiently similar to that specified or described in the Contract Documents and that no change in related Work will be required.
- 2) Contractor has the burden of proving at Contractor's own cost and expense, to the satisfaction of Engineer, that the proposed item is equal to the named item. If Contractor fails to comply with the provisions of this Article, or if Engineer determines that the proposed item is not equal to that named, Contractor must supply the product named.
- 3) For the purposes of this Article and at Engineer's sole discretion, a proposed item of material or equipment will be considered functionally equal to the item specified or described in the Contract Documents if:
  - a) In the exercise of reasonable judgment Engineer determines that the proposed item is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics; 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; has a proven

record of performance and availability of responsive service; and

- b) Contractor certifies that, if approved and incorporated into the Work, there will be no increase in cost to the County or increase in Contract Times, and the proposed item will conform substantially to the detailed requirements of the item named in the Contract Documents.

b. Substitute Material or Equipment:

- 1) If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, it may be proposed for consideration as a substitute item by Contractor submitting sufficient information as stipulated below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to and an acceptable substitute for that named. Requirements pertaining to a proposed substitute item request for review by Engineer will be as set forth in this Article, as supplemented in the Contract Documents, and as Engineer may decide are appropriate under the circumstances.
- 2) Contractor must make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application shall:
  - a) Certify that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified;
  - b) State the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time; whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents to adapt the design to the proposed substitute item; and whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
  - c) Identify all variations of the proposed substitute item from that specified, and available engineering, sales, maintenance, repair, and replacement services;

- d) Contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
2. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. For Engineer approval, submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be as set forth in this Article, as supplemented in the Contract Documents, and as Engineer may decide are appropriate under the circumstances.
  3. Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to this Article and will be the sole judge of acceptability. Engineer may require Contractor to furnish additional data about the proposed substitute item. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by receipt from Engineer of either a written approval or Change order where required for a substitute; or an approved Shop Drawing or written approval for an "or equal." Engineer will advise Contractor in writing of any negative determination. Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense. County may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute item.
  4. Engineer's Cost Reimbursement: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to this Article whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse the County for the costs for evaluating each such proposed substitute. Contractor shall also reimburse the County for the costs of making changes in the Contract Documents from the acceptance of each proposed substitute.
- D. Right Of Way Verification
1. All Work and improvements shall be performed, constructed and installed within the limits of the existing Right-of-Way pursuant to the Contract Documents.
  2. Obtain all necessary documentation for verifying rights-of-way and property lines.
  3. Retain a Florida Registered Surveyor and Mapper to obtain right-of-way and property lines by examining available rights-of-way maps, plats, occupation, legal descriptions or other legal documents or means. The Surveyor will layout the required alignments and grades and be responsible for their accuracy.
4. All field notes on this Project must be kept in a dedicated field book. Submit all field books to Engineer once the Project is completed or prior to completion when a field book gets filled.
5. All costs for complying with these requirements are included under the several scheduled items of the overall Contract. Therefore, no separate payment will be made for this work.
- E. Shop Drawings
1. Shop Drawings:
    - a. General. Prepare and submit whatever detailed working drawings necessary to fabricate, erect, and construct all parts of the Work in conformity with the Plans and Specifications. Shop drawings shall be submitted to Engineer; two sets will be returned to Contractor approved or showing the changes or corrections required; if changes or corrections are required, four revised copies shall be resubmitted until they are approved. Payment for shop drawings and required documents, revisions thereof, and for all copies furnished, shall be included in the various items of work bid. Contractor should allow a minimum of 14 days for the County's approval of shop drawings. County is not responsible for errors or minor discrepancies of Contractor's drawings, even though approved.
    - b. Work Items Requiring Shop Drawings: In general, the Department requires shop drawings for items of work not fully detailed in the plans which require additional drawings and coordination prior to constructing the item, including but not limited to:
      - 1) Bridge components not fully detailed in the plans
      - 2) Retaining Wall Systems
      - 3) Precast Box Culverts
      - 4) Non-standard lighting, signalization and signing structures and components
      - 5) Building structures
      - 6) Drainage structures, attenuators, and other nonstructural items
      - 7) Design and structural details furnished by Contractor in compliance with the Contract
      - 8) Temporary Works affecting public safety.
    - c. Schedule of Submittals: Prepare and submit a schedule of submittals that identifies the work for which shop drawings apply. For each planned submittal, define the type, and approximate number of drawings or other

documents that are included and the planned submittal date, considering the processing requirements herein. Submit the schedule of submittals to Engineer at the preconstruction conference, and prior to the submission of any shop drawings. Coordinate subsequent submittals with construction schedules to allow sufficient time for review, approval, and re-submittal as necessary.

d. Style, Numbering, and Material of Submittals:

- 1) Drawings: Furnish four clearly legible copies of all shop drawings that are necessary to complete the structure in compliance with the design shown on the Plans. Prepare all shop drawings using the same units of measure as those used in the Plans. Use sheets no larger than 11 by 17 inches unless otherwise required by Engineer. Consecutively number each sheet in the submittal series, and indicate the total number in the series (i.e., 1 of 12, 2 of 12, . . . , 12 of 12). Include on each sheet the following items as a minimum requirement: the Project Number, Bridge Number(s), drawing title and number, a title block showing the names of the fabricator or producer and Contractor for which the work is being done, the initials of the person(s) responsible for the drawing, the date on which the drawing was prepared, the location of the item(s) within the Project, Contractor's approval stamp with date and initials, and, when applicable, the documents shall be signed and sealed by the Specialty Engineer or Contractor's Engineer of Record, as appropriate. A re-submittal will be requested when any of the required information is not included.
- 2) Other Documents: Provide four sets of original documents or clearly legible copies of documents other than drawings, such as trade literature, catalogue information, calculations, and manuals. Provide sheets no larger than 11 by 17 inches unless otherwise required by Engineer. Clearly label and number each sheet in the submittal to indicate the total number of sheets in the series (i.e., 1 of 12, 2 of 12, . . . , 12 of 12). Additional sets of documentation may be required by Engineer for review of precast prestressed and structural steel components.
- 3) Prepare all documents using the same units of measure as those used in the Contract Documents. Bind and submit all documents with a Table of Contents cover sheet. List on the cover sheet the total number of pages and appendices, and include the Project Number, a title referencing the submittal item(s), the name of the firm and person(s)

responsible for the preparation of the document, Contractor's approval stamp with date and initials, and, when applicable, the documents shall be signed and sealed by the Specialty Engineer or Contractor's Engineer of Record, as appropriate.

- 4) Submit appropriately prepared and checked calculations and manuals that clearly outline the design criteria. Include on the internal sheets the Project Number and the initials of the person(s) responsible for preparing and checking the document.
- 5) Clearly label trade literature and catalogue information on the front cover with the title, Project Number, date and name of the firm and person(s) responsible for that document.

e. Submittal Paths and Copies:

- 1) General: Submit shop drawings to Engineer or Engineer's duly authorized representative. At the preconstruction conference, the Department will notify Contractor of any changes in the submittal path and whether the Department's or the Consultant's review stamp will signify an officially reviewed shop drawing. When the Engineer of Record is a consultant hired by the Department, submit shop drawings to the consultant with a copy to Engineer. For work requiring other documentation (e.g., catalog data, procedure manuals, fabrication/welding procedures, and maintenance and operating manuals), submit the required number of copies with the prints. If not shown on the plans, the Department will furnish the mailing address of the Consulting Engineer of Record. Provide copies of material certifications and material tests to Engineer.
- 2) Contractor-Originated Design: Submit shop drawings and applicable calculations to the Engineer of Record for review. Ensure that each sheet of the shop drawings and the cover sheet of the calculations are signed and sealed by the Specialty Engineer or Contractor's Engineer of Record. Transmit the submittal and copies of the transmittal letters in accordance with the submittal requirements stipulated herein.
- 3) Temporary Works: For Construction Affecting Public Safety, submit to the Engineer of Record shop drawings and the applicable calculations for the design of special erection equipment, bracing, falsework, scaffolding, etc. Ensure that each sheet of the shop drawings and the

cover sheet of the applicable calculations is signed and sealed by the Specialty Engineer. Transmit the submittal and copies of the transmittal letters in accordance with the submittal requirements stipulated herein.

- 4) Formwork and Scaffolding: Contractor is solely responsible for the safe installation and use of all formwork and scaffolding. The Department does not require any formwork or scaffolding submittals unless such work would be classified as Construction Affecting Public Safety or called for by the Contract Documents.
  - 5) Beam and Girder Temporary Bracing: Contractor is solely responsible for ensuring stability of beams and girders during all handling, storage, shipping and erection. Adequately brace beams and girders to resist wind, weight of forms and other temporary loads, especially those eccentric to the vertical axis of the products, considering actual beam geometry and support conditions during all stages of erection and deck construction. Develop the required designs following the AASHTO Guide Design Specifications for Bridge Temporary Works and Construction Handbook for Bridge Temporary Works and the Contract Documents.
  - 6) For Construction Affecting Public Safety, submit signed and sealed calculations for stability for all beams and girders.
  - 7) Erection Plan: Submit, for Engineer's review, an Erection Plan that meets the specific requirements of FDOT Sections 450, 452 and 460 and this section. Refer to FDOT Design Standards Index 600 for construction activities not permitted over traffic.
  - 8) Other Miscellaneous Design and Structural Details Furnished by Contractor in Compliance with the Contract: Submit to Engineer any shop drawings and applicable calculations. Ensure that each sheet of the shop drawings and the cover sheet of the applicable calculations is signed and sealed by the Specialty Engineer. Transmit the submittal and copies of the transmittal letters in accordance with the submittal requirements stipulated herein.
- f. Processing of Shop Drawings:
- 1) Contractor Responsibility for Accuracy and Coordination of Shop Drawings:
    - a) Coordinate, schedule, and control all submittals, with a regard for the required priority, including those of the various subcontractors, suppliers, and engineers, to provide for an orderly and balanced distribution of the work.
  - b) Submit shop drawings to facilitate expeditious review. Contractor is discouraged from transmitting voluminous submittals of shop drawings at one time. For submittals transmitted in this manner, allow for the additional review time that may result.
  - c) Only shop drawings distributed that have been approved by the Department are valid. Any work that Contractor performs in advance of approval will be at Contractor's risk.
- 2) Scope of Review by Engineer: The Engineer of Record's review of the shop drawings is for conformity to the requirements of the Contract Documents and to the intent of the design. The Engineer of Record's review of shop drawings which include means, methods, techniques, sequences, and construction procedures are limited to the effects on the permanent works. The Engineer of Record's review of submittals which include means, methods, techniques, sequences, and construction procedures does not include an in-depth check for the ability to perform the work in a safe or efficient manner. Review by the Engineer of Record does not relieve Contractor of responsibility for dimensional accuracy to ensure field fit and for conformity of the various components and details.
- 3) Special Review by Engineer of Shop Drawings for Construction Affecting Public Safety: For Construction Affecting Public Safety, the Engineer of Record, or other Engineer as the Department appoints for this purpose, will make an independent review of all relevant shop drawings and similar documents. Do not proceed with construction of the permanent works until receiving the Engineer of Record's approval. The review of these shop drawings is for overall structural adequacy of the item to support the imposed loads and does not include a check for economy, efficiency or ease of construction.
- g. Other Requirements for Shop Drawings for Bridges:
- 1) Shop Drawings for Structural Steel and Miscellaneous Metals: Furnish shop drawings for structural steel and miscellaneous metals. Shop drawings shall consist of working, shop, and erection drawings, welding procedures, and other working plans, showing

- details, dimensions, sizes of material, and other information necessary for the complete fabrication and erection of the metal work.
- 2) Shop Drawings for Concrete Structures: Furnish shop drawings for concrete components that are not cast-in-place and are not otherwise exempted from submittal requirements. Also, furnish shop drawings for all details that are required for the effective prosecution of the concrete work and are not included in the Contract Documents such as: special erection equipment, masonry layout diagrams, and diagrams for bending reinforcing steel, in addition to any details required for concrete components for the permanent work.
  - 3) Shop Drawings for Major and Unusual Structures: In addition to any other requirements, within 60 days from the Notice to Proceed, submit information to Engineer outlining the integration of the Major and Unusual Structure into the overall approach to the project. Where applicable to the project, include, but do not limit this information to:
    - a) The overall construction program for the duration of the Contract. Clearly show the Milestone dates.
    - b) The overall construction sequence. The order in which individual structures are to be built, the sequence in which individual spans of girders or cantilevers are erected, and the sequence in which spans are to be made continuous.
    - c) The general location of any physical obstacles to construction that might impose restraints or otherwise affect the construction, and an outline of how to deal with such obstacles while building the structure(s).
    - d) The approximate location of any special lifting equipment in relation to the structure, including clearances required for the operation of the equipment.
    - e) The approximate location of any temporary falsework, and the conceptual outline of any special erection equipment. Provide the precise locations and details of attachments, fixing devices, loads, etc. in later detailed submittals.
    - f) An outline of the handling, transportation, and storage of fabricated components, such as girders or concrete segments. Provide the precise details in later detailed submittals.
    - g) Any other information pertinent to the proposed scheme or intended approach.
    - h) Clearly and concisely present the above information on as few drawings as possible in order to provide an overall, integrated summary of the intended approach to the project. The Department will use these drawings for information, review planning, and to assess Contractor's approach in relation to the intent of the original design. The delivery to and receipt by Engineer does not constitute any Department acceptance or approval of the proposals shown thereon. Include the details of such proposals on subsequent detailed shop drawing submittals. Submit timely revisions and re-submittals for all variations from these overall scheme proposals.
  - h. Cost of Shop Drawings: Include the cost of furnishing shop and working drawings in the Contract prices for the work requiring the shop and working drawings. The Department will not pay Contractor additional compensation for such drawings.
2. Certifications:
- a. Special Erection Equipment: Prior to its use, ensure that the Specialty Engineer personally inspects the special erection equipment and certifies to Engineer in writing that the equipment has been fabricated in accordance with the submitted drawings and calculations. In addition, after assembly, ensure that the Specialty Engineer observes the equipment in use and certifies to Engineer in writing that it is being used as intended and in accordance with the submitted drawings and calculations. In each case, ensure that the Specialty Engineer also signs and seals the letter of certification.
  - b. Falsework and Shoring Requiring Shop Drawings: After its erection or installation but prior to the application of any superimposed load, ensure that the Specialty Engineer personally inspects the falsework and certifies to Engineer in writing that the falsework has been constructed in accordance with the materials and details shown on the submitted drawings and calculations. Ensure that the Specialty Engineer also signs and seals the letter of certification.
  - c. Temporary Formwork: For Construction Affecting Public Safety and for Major and Unusual Structures, prior to the placement of any concrete, ensure that the Specialty Engineer inspects the formwork and certifies to Engineer in writing that the formwork has been constructed to safely withstand the

- superimposed loads to which it will be subjected. Ensure that the Specialty Engineer signs and seals the letter of certification.
- d. Erection: For Construction Affecting Public Safety, submit an erection plan signed and sealed by the Specialty Engineer to Engineer at least four (4) weeks prior to erection commencing. Include as part of this submittal signed and sealed calculations and details for any falsework, bracing or other connection(s) supporting the structural elements shown in the erection plan.
  - e. At least two (2) weeks prior to beginning erection, conduct a Preerection meeting with the Specialty Engineer and Engineer to review details of the plan.
  - f. After erection of the elements but prior to opening of the roadway below the structure, ensure that a Specialty Engineer has personally inspected the erected member(s) and certified to Engineer that the structure has been erected in accordance with the signed and sealed erection plan.
  - g. Perform daily inspections of the erected structural systems. For structures without temporary supports but with temporary girder bracing systems, perform inspections until all the diaphragms and cross frames are in place. For structures with temporary supports, perform inspections until the temporary supports are no longer needed as indicated in the erection plans. Provide written documentation of the inspections to Engineer within 24 hours of the inspection.
3. Corrections for Construction Errors:
    - a. For work that Contractor constructs incorrectly or does not meet the requirements of the Contract Documents, Contractor has the prerogative to submit an acceptance proposal to Engineer for review and disposition. The acceptance proposal shall describe the error or defect and either describe remedial action for its correction or propose a method for its acceptance. In either case, the acceptance proposal shall address structural integrity, aesthetics, maintainability, and the effect on Contract Time. The Department will judge any such proposal for its effect on these criteria and also for its effect on Contract Administration.
    - b. When Engineer judges that a proposal infringes on the structural integrity or maintainability of the structure, Contractor's Engineer of Record will perform a technical assessment and submit it to Engineer for approval.
    - c. Do not take any corrective action without Engineer's approval. Carry out all approved corrective construction measures at no expense to the County.
  - d. Notwithstanding any disposition of the compensation aspects of the defective work, Engineer's decision on the technical merits of a proposal is final.
- F. Coordination of Contract Documents
    1. These Specifications, the Plans, Special Provisions, and all supplementary documents are integral parts of the Contract; a requirement occurring in one is as binding as though occurring in all.
    2. All parts of the Contract Documents are complementary and describe and provide for a complete work. In addition to the work and materials specified in the Specifications as being included in any specific pay item, include in such pay items additional, incidental work, not specifically mentioned, when so shown in the plans, or if indicated, or obvious and apparent, as being necessary for the proper completion of the work under such pay item and not stipulated as being covered under other pay items.
    3. Promptly notify Engineer in writing of any conflict, error, ambiguity, omission or discrepancy which Contractor may discover within the Contract Documents and obtain a written interpretation or clarification from Engineer before proceeding with any work affected thereby. The higher quality, greater quantity, more specific or restrictive, or more expensive requirement necessary and applicable to the completed Project, based on Engineer's interpretation, will take precedence. Engineer's written decision on the issue will be final and binding.
  - G. Conformity of Work with Contract Documents
    1. Perform all work and furnish all materials in conformity with the lines, grades, cross-sections, dimensions, and material requirements, including tolerances, as specified in the Contract Documents.
    2. In the event that Engineer finds that Contractor has used material or produced a finished product that is not in conformity with the Contract Documents, but that Contractor has produced reasonably acceptable work, Engineer will determine if the Department will accept the work. In this event, Engineer will document the basis of acceptance by Contract modification, which provides for an appropriate reduction in the Contract price for such work or materials included in the accepted work as deemed necessary to conform to the determination based on engineering judgment.
    3. In the event that Engineer finds that Contractor has used material or produced a finished product that is not in conformity with the Contract Documents, and that Contractor has produced an inferior or unsatisfactory product, Contractor shall remove and replace or otherwise correct the work or materials at no expense to the County.
    4. For base and surface courses, the Department will allow the finished grade to vary as much as 0.1 foot from the grade shown in the plans, provided that Contractor's work meets all templates and

straightedge requirements and contains suitable transitions.

#### H. Errors or Omissions in Contract Documents

1. Do not take advantage of any apparent error or omission discovered in the Contract Documents, but immediately notify Engineer of such discovery. Engineer will then make such corrections and interpretations as necessary to reflect the actual spirit and intent of the Contract Documents.

#### I. Authority of Engineer

1. Perform all work to the satisfaction of Engineer. Engineer will decide all questions, difficulties, and disputes, of whatever nature, that may arise relative to the interpretation of the Plans, construction, prosecution, and fulfillment of the Contract, and as to the character, quality, amount, and value of any work done, and materials furnished, under or by reason of the Contract.

#### J. Authority and Duties of Engineer's Assistants

1. Engineer's assistants and representatives are authorized to inspect all work done and all materials furnished. Such inspection may extend to all or any part of the work and to the manufacture, preparation, or fabrication of the materials to be used. Such assistants and representatives are not authorized to revoke, alter, or waive any requirement of these Specifications. Rather, they are authorized to call to the attention of Contractor any failure of the work or materials to meet the Contract Documents, and have the authority to reject materials or suspend the work until any questions at issue can be referred to and decided by Engineer.
2. Engineer will immediately notify Contractor in writing of any such suspension of the work, stating in detail the reasons for the suspension. The presence of the inspector or other assistant in no way lessens the responsibility of Contractor.

#### K. Engineering and Layout

##### 1. Control Points Furnished by the Department:

- a. Engineer will provide centerline control points (Begin Project, End Project, Pls, PTs, etc.) and bench marks at appropriate intervals along the line of the project to facilitate the proper layout of the work. Normally, Engineer will furnish only one bench mark for water crossings. Preserve all reference points and bench marks that the Department furnishes.
- b. As an exception to the above, for projects where the plans do not show a centerline or other survey control line for construction of the work (e.g. resurfacing, safety modifications, etc.) Engineer will provide only points marking the beginning and ending of the project, and all exceptions.

2. Furnishing of Stake Materials: Furnish all stakes, templates, and other materials necessary for establishing and maintaining the lines and grades necessary for control and construction of the Work.

##### 3. Layout of Work:

- a. Utilizing the control points furnished by the Department, establish all horizontal and vertical controls necessary to construct the work in conformity to the Contract Documents. Perform all calculations required, and set all stakes needed such as grade stakes, offset stakes, reference point stakes, slope stakes, and other reference marks or points necessary to provide lines and grades for construction of all roadway, bridge, and miscellaneous items.
- b. When performing utility construction as part of the project, establish all horizontal and vertical controls necessary to carry out such work.

##### 4. Specific Staking Requirements:

- a. When performing new base construction as part of the Project, set stakes to establish lines and grades for subgrade, base, curb, and related items at intervals along the line of the work no greater than 50 feet on tangents and 25 feet on curves. Set grade stakes at locations that Engineer directs to facilitate checking of subgrade, base, and pavement elevations in crossovers, intersections, and irregular shaped areas.
- b. For bridge construction stakes and other control, set references at sufficiently frequent intervals to ensure construction of all components of a structure in accordance with the lines and grades shown in the plans.
- c. For projects where the plans do not show a centerline or other survey control line for construction of the work (resurfacing, safety modifications, etc.), provide only such stakes as necessary for horizontal and vertical control of work items.
- d. For resurfacing and resurfacing-widening type projects, establish horizontal controls adequate to ensure that the asphalt mix added matches with the existing pavement. In tangent sections, set horizontal control points at 100 foot intervals by an instrument survey. In curve sections, set horizontal control points at 25 foot intervals by locating and referencing the centerline of the existing pavement.
- e. Establish by an instrument survey, and mark on the surface of the finished pavement at 25 foot intervals, the points necessary for striping of the finished roadway. As an exception, for resurfacing and resurfacing/widening projects, establish these points in the same manner as used for horizontal control of paving operations. Mark the pavement with white paint. If performing striping, Engineer may approve an alternate

method for layout of striping provided that Contractor achieves an alignment equal to or better than the alignment that would be achieved using an instrument survey.

- f. For projects that include temporary or permanent striping of "no passing zones", provide the location and length of these zones as shown in the plans, except projects where the vertical or horizontal alignment is new or altered from preconstruction alignment. For projects that consist of new or altered vertical or horizontal alignment, the Department will provide the location and length of the "no passing zones" during construction. For these projects, notify Engineer not less than 21 calendar days prior to beginning striping.
- g. For all projects, set a station identification stake at each right-of-way line at 100 foot intervals and at all locations where a change in right-of-way width occurs. Mark each of these stakes with painted numerals, of a size readable from the roadway, corresponding to the project station at which it is located. As an exception to the above, for projects where plans do not show right-of-way lines, set station identification stakes at locations and intervals appropriate to the type of work being done. For resurfacing and resurfacing/widening projects, set station identification stakes at 200 foot intervals.

5. Personnel, Equipment, and Record Requirements:

- a. Employ only competent personnel and use only suitable equipment in performing layout work. Do not engage the services of any person or persons, employed by the Department, for performance of layout work.
- b. Keep adequate field notes and records while performing layout work. Make these field notes and records available for Engineer's review as the work progresses, and furnish copies to Engineer at the time of completion of the project. Engineer's inspection, checking, or acceptance of Contractor's field notes or layout work does not relieve Contractor of his responsibility to achieve the lines, grades, and dimensions shown in the Contract Documents.
- c. Prior to final acceptance of the project, mark, in a permanent manner on the surface of the completed work, all horizontal control points originally furnished by the Department.

6. Payment: Include the cost of performing layout work as described above in the Contract unit prices for the various items of work that require layout.

L. Contractor's Supervision

1. Contractor's Superintendent:

- a. Maintain a competent superintendent at the Site at all times while work is in progress to

act as Contractor's agent. The superintendent must:

- 1) Be capable of properly interpreting the Contract Documents and thoroughly experienced in the type of work being performed.
  - 2) Have full authority to receive instructions from Engineer and to execute the orders or directions of the Engineer, including promptly supplying any materials, tools, equipment, labor, and incidentals that may be required.
  - 3) Speak and understand English.
- b. Maintain at least one other responsible person who speaks and understands English, on the Project during all working hours.
  - c. Furnish sufficient superintendence and supervisory personnel commensurate to the amount and type of work being performed.

2. Supervision for Emergencies:

- a. Provide a responsible person, who speaks and understands English, and who is available at or reasonably near the worksite on a 24 hour basis, seven days a week. Designate this person as the point of contact for emergencies and in cases that require immediate action to maintain traffic or to resolve any other problem that might arise.
- b. Submit, by certified mail, the phone numbers and names of personnel designated to be contacted in cases of emergencies, along with a description of the project location, to the Miami-Dade Police and all other local law enforcement agencies.

M. General Inspection Requirements

1. Cooperation by Contractor:

- a. Notify Engineer daily where each of his crews will be working and what work will be done. This notification shall be given each weekday between 3:00 p.m. and 4:00 p.m. on the prior day.
- b. Do not perform work or furnish materials without obtaining inspection by Engineer or his representative. Furnish Engineer with every reasonable facility for ascertaining whether the work performed and materials used are in accordance with the requirements and intent of the Contract Documents.
- c. If Engineer so requests at any time before final acceptance of the work, remove or uncover such portions of the finished work as directed. After examination, restore the uncovered portions of the work to the standard required by the Contract Documents. If Engineer determines that the work so exposed or examined is

unacceptable, perform the uncovering or removal, and the replacing of the covering or making good of the parts removed, at no expense to the County. However, if Engineer determines that the work thus exposed or examined is acceptable, the County will pay for the uncovering or removing, and the replacing of the covering or making good of the parts removed in accordance with the terms of the Contract Documents.

2. Failure of Engineer to Reject Work During Construction: If, during or prior to construction operations, Engineer fails to reject defective work or materials, whether from lack of discovery of such defect or for any other reason, such initial failure to reject in no way prevents the later rejection when such defect is discovered, or obligates the County to final acceptance. The County is not responsible for losses suffered due to any necessary removals or repairs of such defects.
3. Failure to Remove and Renew Defective Materials and Work: If Contractor fails or refuses to remove and renew any defective materials used or work performed, or to make any necessary repairs in an acceptable manner and in accordance with the requirements of the Contract within the time indicated in writing, the Engineer has the authority to repair, remove, or renew the unacceptable or defective materials or work as necessary, all at Contractor's expense. The Department will obtain payment for any expense it incurs in making these repairs, removals, or renewals, that Contractor fails or refuses to make, by deducting such expenses from any moneys due or which may become due Contractor, or by charging such amounts against the Contract bond.
4. Inspection by State and/or Federal Government: When the State of Florida and/or the United States Government pays a portion of the cost of construction, their representatives may inspect the construction work as they deem necessary. However, such inspection(s) will in no way make the State or the Federal Government a party to the Contract.

N. Final Inspection

1. Maintenance until Acceptance: Maintain all Work until Engineer has given final acceptance in accordance with the requirements of the Contract Documents.
2. Inspection for Acceptance:
  - a. Upon notification that all Contract Work, or all Contract Work on the portion of the Contract scheduled for acceptance, has been completed, Engineer will make an inspection for acceptance. The inspection will be made within seven days of the notification. If Engineer finds that all work has been satisfactorily completed, the Department will consider such inspection as the final inspection. If any or all of the Work is found to be unsatisfactory, Engineer will detail the remedial work required to achieve acceptance. Immediately perform such

remedial work. Subsequent inspections will be made on the remedial work until Engineer accepts all Work.

- b. Upon satisfactory completion of the Work, the Department will provide written notice of acceptance, either partial or final, to Contractor.
  - c. Until final acceptance in accordance with the requirements of the Contract Documents, replace or repair any damage to the accepted Work.
3. Partial Acceptance: At Engineer's sole discretion, Engineer may accept any portion of the Work under the provisions stipulated above.
  4. Conditional Acceptance: Engineer will not make, or consider requests for conditional acceptance of a project.
- O. Final Acceptance.
- a. When, upon completion of the final construction inspection of the entire Project, Engineer determines that Contractor has satisfactorily completed all the Work and furnished all documents required by the Contract Documents, Engineer will give Contractor written notice of final acceptance. Final Acceptance shall also denote the beginning of any warranty periods associated with the Project.

#### 1.04 CONTROLLING MATERIALS

A. Acceptance Criteria

1. General:

- a. All materials and equipment, except for materials specifically called for on the Contract Documents to be provided by the County, are to be supplied by the Contractor who must, as required, obtain shop drawing approvals and order these items in a timely fashion so as not to cause any delays in the approved schedule.
- b. Acceptance of materials is based on the criteria provided herein and elsewhere in the Contract Documents. All requirements may not apply to all materials. Use only materials in the Work that meet the requirements of the Contract Documents. Engineer may inspect and test any material, at points of production, distribution and use.

2. Sampling and Testing:

- a. Use sample identification and tracking forms approved by Engineer to provide related information and attach the information to each sample. Restore immediately any site from which material has been removed for sampling purposes to the pre-sampled condition with materials and construction methods used in the initial construction, at no

additional cost to the County. Ensure that sufficient material is delivered to allow for proper sample collection, at no expense to the County.

b. Where required:

- 1) Pretest by Manufacturers: Submit certified manufacturer's test results to Engineer for qualification and use on the Project. Testing will be as specified in the Contract Documents. The Department may require submittal from manufacturers of samples of materials for independent verification purposes.
- 2) Point of Production Test: Test the material during production as specified in the Contract Documents.
- 3) Point of Distribution Test: Test the material at Distribution facilities as specified in the Contract Documents.
- 4) Point of Use Test: Test the material immediately following placement as specified in the Contract Documents. After delivery to the Project, the Department may require the retesting of materials that have been tested and accepted at the source of supply, or may require the testing of materials that are to be accepted by Producer Certification. The Department may reject all materials that, when retested, do not meet the requirements of the Contract Documents.

3. Certification:

- a. Manufacturer Material Certification: Submit material certifications for all materials to Engineer for approval when required by the Specifications. Materials will not be considered for payment when not accompanied by a material certification. Sample material certification forms are available on the FDOT's website at the following URL: <http://www.fdot.gov/materials/navigation/documents.shtm>
- b. Ensure that the material certification follows the format of the sample form, is submitted on the manufacturer's letterhead and is signed by a legally responsible person employed by the manufacturer.
- c. FDOT Approved Product List (APL): The Department will limit Contractor's use of products and materials that require use of APL items to those listed on the APL effective at the time of placement.
- d. Traffic Signals and Signs (TSS) Division's Qualified Products List (TSSQPL):
  - 1) Only those traffic control equipment and materials listed in the DTPW Traffic Signals and Signs (TSS) Division's Qualified Products List (TSSQPL), or

submitted to and approved in writing by the DTPW TSS for addition to the TSSQPL, are allowed to be installed within Miami-Dade County. Equipment or material used in the performance of the Work, without prior Departmental approval, must be replaced with Department approved equipment or material, at no cost to the County. The TSSQPL is available at <http://www.miamidade.gov/qpl/Home.aspx>

- e. Contractor Installation Certification: Provide installation certifications as required by the Contract Documents.

B. Applicable Documented Authorities Other Than Specifications

1. General: Details on individual materials are identified in various material specific Sections of the Specifications that may refer to other documented authorities for requirements. When specified, meet the requirements as defined in such references.
  2. Test Methods: Methods of sampling and testing materials are in accordance with the Florida Methods (FM). If a Florida Method does not exist for a particular test, perform the testing in accordance with the method specified in the Specification. When test methods or other standards are referenced in the Specifications without identification of the specific time of issuance, use the most current issuance, including interims or addendums thereto, at the time of bid opening.
3. Construction Aggregates:

- a. Unless otherwise specified in the Contract Documents:
  - 1) All aggregate products and sources used in performance of the Work must be approved by FDOT pursuant to Rule 14-103, F.A.C. Aggregates and sources used must be identified in the FDOT "Approved Aggregate Products from Mines or Terminals" listings current at the time the aggregate is proposed for use on the Project.
  - 2) Each truck aggregate load ticket provided must include the DTPW Project Name and Number, name of the aggregate source, the FDOT Source Number, quantity, aggregate description and corresponding FDOT material code, producer ticket number, and statement "CERTIFIED FOR FDOT" or "CERT. FOR FDOT."

C. Storage of Materials and Samples

1. Method of Storage: Store materials in such a manner as to preserve their quality and fitness for the work, to facilitate prompt inspection, and to minimize noise impacts on sensitive receivers. More detailed

requirements concerning the storage of specific materials are prescribed under the applicable Specifications. The Department may reject improperly stored materials.

2. Use of Right-of-Way for Storage: Unless otherwise stated in the Contract Documents, no Project staging areas have been provided by the County. If Engineer allows, Contractor may use a portion of the right-of-way for temporary storage purposes and for temporarily placing Contractor's plant and equipment. Use only the portion of the right-of-way that is outside the clear zone, which is the portion not required for public vehicular or pedestrian travel. When used, restore the right-of-way to pre-construction condition at no additional cost to the County or as specified in the Contract Documents. Provide any additional space required at no expense to the County.
3. Responsibility for Stored Materials: Accept responsibility for the protection of stored materials. The Department is not liable for any loss of materials, by theft or otherwise, or for any damage to the stored materials.
4. Storage Facilities for Samples: Provide facilities for storage of samples as described in the Contract Documents and warranted by the test methods and Specifications.

#### D. Defective Materials

1. Materials not meeting the requirements of the Contract Documents will be considered defective. Engineer will reject all such materials, whether in place or not. Remove all rejected material immediately from the site of the work and from storage areas, at no expense to the County.
2. Do not use material that has been rejected and the defects corrected, until Engineer has approved the material's use. Upon failure to comply promptly with any order of Engineer made under these provisions, Engineer will remove and replace defective material and deduct the cost of removal and replacement from any moneys due or to become due to Contractor.
3. As an exception to the above, Contractor may submit, upon approval of Engineer, an engineering and/or laboratory analysis to evaluate the effect of defective in-place materials. A Specialty Engineer, who is an independent consultant or Contractor's Engineer of Record as stated within each individual Section shall perform any such analysis. Engineer will determine the final disposition of the material after review of the information submitted by Contractor. No additional monetary compensation or time extension will be granted for the impact of any such analysis or review.

#### E. Products and Source of Supply

1. Source of Supply—Convict Labor (Federal-Aid Contracts Only):
  - a. Do not use materials that were produced after July 1, 1991, by convict labor for Federal-aid highway construction projects

unless the prison facility has been producing convict-made materials for Federal-aid highway construction projects before July 1, 1987.

- b. Use materials that were produced prior to July 2, 1991, by convicts on Federal-aid highway construction projects free from the restrictions placed on the use of these materials by 23 U.S.C. 114. The Department will limit the use of materials produced by convict labor for use in Federal-aid highway construction projects to:
    - 1) Materials produced by convicts on parole, supervised release, or probation from a prison or,
    - 2) Materials produced in a qualified prison facility.
  - c. The amount of such materials produced for Federal-aid highway construction during any 12-month period shall not exceed the amount produced in such facility for use in such construction during the 12-month period ending July 1, 1987.
2. Buy American: Contractor must comply with the requirements of Miami Dade County Code, Section 2-8.2.6.1, Buy American Iron and Steel Products Procurement Program:
    - a. The Buy American legislation requires that iron and steel products utilized in certain Miami-Dade County public improvement projects be produced in the United States. This requirement shall not apply if:
      - 1) The project is federal funded.
      - 2) iron and steel products are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality; or
      - 3) upon a written recommendation of the County Mayor approved by a majority vote of the Board members present, compliance with this requirement is not consistent with the best interests of the public.
  3. Source of Supply-Steel (Federal-Aid Contracts Only):
    - a. Use steel and iron manufactured in the United States, in accordance with the Buy America provisions of 23 CFR 635.410, as amended. Ensure that all manufacturing processes for this material occur in the United States. As used in this specification, a manufacturing process is any process that modifies the chemical content, physical shape or size, or final finish of a product, beginning with the initial melting and continuing through the final shaping and coating. If a steel or iron product is taken outside the United States for any manufacturing process, it becomes foreign source material. When using steel or iron materials as a component of any prestressed

beams, corrugated steel pipe, etc.), these same provisions apply manufactured product (e.g., concrete pipe. Foreign steel and iron may be used when the total actual cost of such foreign materials does not exceed 0.1% of the total Contract amount or \$2,500, whichever is greater.

- b. These requirements are applicable to all steel and iron materials incorporated into the finished work, but are not applicable to steel and iron items that the Contractor uses but does not incorporate into the finished work. Submit certification from the manufacturer of steel or iron, or any product containing steel or iron, stating that all steel or iron furnished or incorporated into the furnished product was produced and manufactured in the United States or a statement that the product was produced within the United States except for minimal quantities of foreign steel and iron valued at \$ Submit (actual cost). each such certification to the Engineer prior to incorporating the material or product into the project. Prior to the use of foreign steel or iron materials on a project, document the actual cost of such material submit invoices to, and obtain the Engineer's written approval prior to incorporating the material into the project.

4. Contaminated Unfit, Hazardous, and Dangerous Materials:

- a. Do not use any material that, after approval and/or placement, has in any way become unfit for use.
- b. Do not use materials containing any substance that has been determined to be hazardous by the State of Florida Department of Environmental Protection or the U.S. Environmental Protection Agency (EPA). Provide workplaces free from serious recognized hazards and to comply with occupational safety and health standards, as determined by the U.S. Department of Labor Occupational Safety and Health Administration (OSHA).

1.05 LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC

A. Disaster Preparedness

1. General:

- a. During periods in which any portion of Miami-Dade County is designated by the National Oceanic and Atmospheric Administration's National Hurricane Center as being under a Tropical Storm Watch or greater, Contractor shall perform all precautions as necessary to safeguard the Work and property, including the removal of all small equipment and materials from the site, securing all other equipment and materials to each other and to

rigid construction, and any other safety measures as may be directed by Engineer.

2. Upon Notification of a Tropical Storm or Hurricane Watch:

- a. Engineer will provide formal notification to Contractor to prepare and submit for approval a Plan of Action for the specific actions to be taken on their particular projects.

3. Upon Notification of a Tropical Storm or Hurricane Warning:

- a. Engineer will provide formal notification to Contractor to implement the approved Plan of Action to protect the Project and the public.
- b. For construction projects within the public right-of-way, Contractor will be notified by Engineer to suspend his construction operations. Contractor will backfill all open trenches, remove all construction equipment and materials from the right-of-way, remove unnecessary traffic barricades and signs, and secure remaining barricades by "half burial" or "double sand bags."

4. Storm or Disaster Services:

- a. Contractor, by accepting the award of this Contract, recognizes and agrees that should a storm or other severe and catastrophic natural disaster affect the Miami-Dade-County area during the performance of the work, Contractor shall provide services contracted for during the contract period, at the Contract unit prices and at the same or different locations from those covered by this Contract.
- b. For emergency services and conditions not addressed by this Contract, Contractor agrees to negotiate reasonable prices and terms with the County for any disaster-relief work required by the County. In all instances, Contractor agrees to negotiate reasonable time extensions for performance of disaster-relief work.

B. Laws to be Observed

1. General:

- a. Become familiar with and comply with all applicable Federal, State, County, and city laws, by-laws, ordinances, and regulations that control the action or operation of those engaged or employed in the Work or that affect materials used. Pay particular attention to the applicable safety regulations promulgated by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). In addition, comply with Chapter 403, F.S. (Florida Statutes), regarding control of air pollution. Direct special attention to that portion of Chapter 17-5, F.A.C. (Florida Administrative Code), pertaining to open burning in land clearing

operations. Where work or structures included in the Contract are in "Navigable Waters of the U.S.," (reference 33 of the Code of Federal Regulations, Part 329); "Waters of the U.S.," (reference 33 of the Code of Federal Regulations, Parts 323 and 328); or "Waters of the State," (reference Part 4, Chapters 253 and 373 of the Florida Statutes and Section 62-340, F.A.C.); comply with the regulatory provisions of Section 404 of the Federal Clean Water Act of 1977; Sections 9 and 10 of the Federal River and Harbor Act of 1899; Chapter 161, F.S.; and any local authority having jurisdiction over such waters.

- b. Obtain certification from the Construction Industry Licensing Board as required by Part I, Chapter 489, F.S., regardless of exemptions allowed by Section 489.103, F.S., prior to removing underground pollutant storage tanks. Dispose of tanks and pollutants in accordance with the requirements and regulations of any Federal, State, or local, agency having jurisdiction.
  - c. Prior to building construction or renovation, provide copies of current registrations or certifications issued by the Florida Construction Industry Licensing Board in accordance with Chapter 489, F.S. for the appropriate category of construction.
  - d. Corporations must be registered with the State of Florida, Department of State, Division of Corporations, and hold a current State Corporate Charter Number in accordance with Chapter 607, F.S.
  - e. Contractor or the authorized subcontractor applying any roofing material must be licensed or be an approved dealer and applicator of the proposed roofing material.
  - f. Indemnify, defend, and save harmless the County and all of its officers, agents, and employees, in the amount of the Contract price, against all claims or liability arising from or based on the violation of any such laws, by-laws, ordinances, regulations, order, or decrees; whether by himself or his employees.
2. Plant Quarantine Regulations: The U.S. Department of Agriculture and the Florida Department of Agriculture and Consumer Services have issued quarantine regulations pertaining to control of the nematodes of citrus, Rule 5B-44, Florida Administrative Code, and other plant pests. Contact the local (or other available) representatives of the Animal and Plant Health Inspection Service of the U.S. Department of Agriculture, and the Division of Plant Industry of the Florida Department of Agriculture and Consumer Services to ascertain all current restrictions regarding plant pests that are imposed by these agencies. Keep advised of current quarantine boundary lines throughout the construction period.
- a. These restrictions may affect operations in connection with such items as clearing and

grubbing, earthwork, grassing and mulching, sodding, landscaping, and other items which might involve the movement of materials containing plant pests across quarantine lines.

- b. Obtain quarantine regulations and related information from the following:

Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
3029 Lake Alfred Road  
Winter Haven, Florida 33881

Director, Division of Plant Industry  
Florida Department of Agriculture and Consumer Services  
Post Office Box 147100  
Gainesville, Florida 32614-7100

3. Introduction or Release of Prohibited Aquatic Plants, Plant Pests, or Noxious Weeds:
  - a. Do not introduce or release prohibited aquatic plants, plant pests, or noxious weeds into the project limits as a result of clearing and grubbing, earthwork, grassing and mulching, sodding, landscaping, or other such activities. Immediately notify Engineer upon discovery of all prohibited aquatic plants, plant pests, or noxious weeds within the project limits. Do not move prohibited aquatic plants, plant pests, or noxious weeds within the project limits or to locations outside of the project limits without Engineer's permission. Maintain all borrow material brought onto the project site free of prohibited aquatic plants, plant pests, noxious weeds, and their reproductive parts. Refer to Rule 16C-52 and Rule 5B-57, F.A.C. for the definition of prohibited aquatic plants, plant pests, and noxious weeds.
  - b. Furnish Engineer, prior to incorporation into the Project, with a certification from the Florida Department of Agriculture and Consumer Services, Division of Plant Industry, stating that the sod, hay, straw, and mulch materials are free of noxious weeds, including Tropical Soda Apple.
4. Compliance with Federal Endangered Species Act and other Wildlife Regulations:
  - a. The Federal Endangered Species Act requires that the Department investigate the potential impact to a threatened or endangered species prior to initiating an activity performed in conjunction with a highway construction project. If the Department's investigation determines that there is a potential impact to a protected, threatened or an endangered species, the Department will conduct an evaluation to determine what measures may be necessary to mitigate such impact. When mitigation measures and/or special conditions are necessary, these measures and conditions

will be addressed in the Contract Documents or in permits as identified in 7-2.1.

- b. In addition, in cases where certain protected, threatened or endangered species are found or appear within close proximity to the project boundaries, the Department has established guidelines that will apply when interaction with certain species occurs, absent of any special mitigation measures or permit conditions otherwise identified for the project. These guidelines are posted at the following URL address:  
[https://fdotwww.blob.core.windows.net/sitefinity/docs/defaultsource/programmanagement/implemented/urinspecs/files/endangeredwildlifeguidelines.pdf?sfvrsn=e27baf3f\\_2](https://fdotwww.blob.core.windows.net/sitefinity/docs/defaultsource/programmanagement/implemented/urinspecs/files/endangeredwildlifeguidelines.pdf?sfvrsn=e27baf3f_2)  
  
Take responsibility to obtain this information and take all actions and precautions necessary to comply with the conditions of these guidelines during all project activities.
  - c. Prior to establishing any off-project activity in conjunction with a project, notify the Engineer of the proposed activity. Covered activities include but are not necessarily limited to borrow pits, concrete or asphalt plant sites, disposal sites, field offices, and material or equipment storage sites. Include in the notification the Financial Project ID, a description of the activity, the location of the site by township, range, section, county, and city, a site location map including the access route, the name of the property owner, and a person to contact to arrange a site inspection. Submit this notification at least 30 days in advance of planned commencement of the off-site activity, to allow for the Department to conduct an investigation without delaying job progress.
  - d. Do not perform any off-project activity without obtaining written clearance from the Engineer. In the event the Department's investigation determines a potential impact to a protected, threatened or endangered species and mitigation measures or permits are necessary, coordinate with the appropriate resource agencies for clearance, obtain permits and perform mitigation measures as necessary. Immediately notify the Engineer in writing of the results of this coordination with the appropriate resource agencies. Additional compensation or time will not be allowed for permitting or mitigation, associated with Contractor initiated off-project activities.
5. Occupational Safety and Health Requirements: Contractor shall take all precautions necessary for the protection of life, health, and general occupational welfare of all persons, including employees of both Contractor and the County, until Contractor has completed the work required under the Contract. Comply at all times with applicable Federal, State, and local laws, provisions, and policies governing safety and health, including 29 CFR 1926, including all subsequent revisions and updates.
6. Discovery of an Unmarked Human Burial: When an unmarked human burial is discovered, immediately cease all activity that may disturb the unmarked human burial and notify Engineer. Do not resume activity until specifically authorized by Engineer.
  7. Insecticides and Herbicides: Use products approved by the Florida Department of Agriculture for the State of Florida, found on the following website <http://state.ceris.purdue.edu/>. The use of restricted products is prohibited. Do not use any products in the sulfonylurea family of chemicals. Herbicide application by broadcast spraying is not allowed.
    - a. Procure any necessary licenses, pay all charges and fees, and give all notices necessary for lawful performance of the work.
    - b. Ensure that all employees applying insecticides and herbicides possess a current Florida Department of Agriculture Commercial Applicator license with the categories of licensure in Right-of-Way Pest Control and Aquatic Pest Control. Provide a copy of current certificates upon request, to Engineer.
    - c. Ensure that employees who work with herbicides comply with all applicable Federal, State, and local regulations.
    - d. Comply with all regulations and permits issued by any regulatory agency within whose jurisdiction work is being performed. Post all permit placards in a protected, conspicuous location at the work site.
    - e. Acquire any permits required for work performed on the rights-of-way within the jurisdiction of National Forests in Florida. Contact the Local National Forest Ranger District, or the United States Department of Agriculture (USDA) office for the proper permits and subsequent approval.
    - f. Acquire all permits required for aquatic plant control as outlined in Chapter 62C-20, F.A.C., Rules of the Florida Department of Environmental Protection. Contact the Regional Field Office of Bureau of Invasive Plant Management of the Florida Department of Environmental Protection for proper permits and subsequent approval. If application of synthetic organo-auxin herbicides is necessary, meet the requirements of Chapter 5E-2, F.A.C.
    - g. Fertilizer: Ensure that all employees applying fertilizer, possess a current Florida Department of Agriculture and Consumer Services Commercial Applicator license in accordance with Section 482.1562, F.S. Upon request, submit the current certificates to the Engineer.
  8. Compliance with Section 4(f) of the USDOT Act: (Staging Areas)

- a. Section 4(f) of the USDOT Act prohibits the U. S. Secretary of Transportation from approving a project which requires the use of publicly owned land of a public park, recreation area or a wildlife and waterfowl refuge, or of any historic site of national, state, or local significance unless there is no prudent or feasible alternative to using that land and the program or project includes all possible planning to minimize the harm to the site resulting from the use.
- b. Before undertaking any off-project activity associated with any federally assisted undertaking, ensure that the proposed site does not represent a public park, recreation area, wildlife or waterfowl refuge, or a historic site (according to the results of the Cultural Resources Survey discussed under FDOT 120-6.2). If such a site is proposed, notify the Engineer and provide a description of the proposed off-site activity, the location of the site by township, range, section, a county or city map showing the site location, including the access route and the name of the property. It is the Contractor's responsibility to submit justification for use of Section 4(f) property that is sufficient for the Florida Department of Transportation and the Federal Highway Administration to make a Section 4(f) determination. Submit this notification sufficiently in advance of planned commencement of the off-site activity to allow a reasonable time for the Engineer to conduct an investigation without delaying job progress. Do not begin any off-project activity without obtaining written clearance from the Engineer

9. Employment Eligibility Verification

- a. The 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 Contractor during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract 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 subcontractor during the Contract term.
- b. Miami-Dade County reserves the right, at any time, to request supporting documentation, as evidence of services provided and demonstration of compliance with the above requirements.

C. Permits and Licenses

1. General:

- a. Except for permits procured by the Department, as incorporated by Special Provision to this Contract, if any, procure all permits and licenses, pay all charges and

fees, and give all notices necessary and incidental to the due and lawful prosecution of the Work.

- b. The Department will also acquire any modifications or revisions to an original permit incorporated by Special Provision to this Contract when Contractor requires such modifications or revisions to complete the construction operations specified in the Plans or Special Provisions and within the right-of-way limits.
- c. Contractor must obtain all other permits required for this Project prior to commencing the Work. This includes permits required by other municipalities and agencies, permits to work in the Right-of-Way, and those required for the removal or relocation of trees.
- d. The actual amount paid for the permits will be reimbursed to Contractor from a dedicated allowance established by the County. If no dedicated allowance is specified the reimbursement shall be paid from the Contract's Contingency Allowance. Original receipts must be presented to Engineer for approval.
- e. Contractor must give all notices, pay all fees and comply with all laws, rules and regulations applicable to the Work at no additional cost.
- f. Acquire all permits for work performed outside the right-of-way or easements for the Project.
- g. In carrying out the work in the Contract, when under the jurisdiction of any environmental regulatory agency, comply with all regulations issued by such agencies and with all general, special, and particular conditions relating to construction activities of all permits issued to the Department as though such conditions were issued to Contractor. Post all permit placards in a protected location at the worksite.
- h. In case of a discrepancy between any permit condition and other Contract Documents, the more stringent condition shall prevail.

2. Additional Contractor Requirements For Work With Traffic Control Devices or Street Lighting

- a. In addition to the license(s) required of Contractor, all personnel engaged in installing, modifying, repairing, removing or maintaining: roadway street lighting systems; traffic signalization; or any other electrical/electronic traffic control device in Miami-Dade County must:
  - 1) Perform work under the direction of a Master Electrician that is present at the job site or able to respond within 2 hours of notification (4 hours for roadway street lighting systems).
  - 2) Perform all work under the direct supervision of a Journeyman Electrician.

For Traffic Signalization or Control Devices the Journeyman Electrician must be certified as an International Municipal Signal Association (IMSA) certified Traffic Signal Technician (TST) Level II or Level III. All work related at or pertaining to the controller must be performed by an IMSA certified TST Level II (Field).

- 3) Have in their possession a wallet size card or a photocopy of their certifications and licenses. Failure to provide said documents will be cause for removal of employee from the work site, issuance of citations, and shutdown of the Work by the County.
  - b. At the Preconstruction Conference, provide Engineer and the DTPW, Traffic Signal & Signs Division (7100 NW 36 Street, Miami, FL 33166) a signed affidavit affirming that the personnel performing the work described herein have all proper and valid licenses and certifications (County, State, Private or other Government Agency) required to perform the Work. Attach a list of employees assigned to this Project with a description of their duties and include copies of all of the required licenses and certifications for the Contractor and personnel performing the Work. Changes to authorized personnel must be approved by the Engineer.
  - c. Provide copies of renewed licenses and certifications prior to their expiration.
3. Work or Structures in Navigable Waters of the U.S., Waters of the U.S., and Waters of the State:
- a. In general, one or more governmental agencies will exercise regulatory authority over work or structures, including related construction operations, in all tidal areas (Channelward of the mean high water lines); in the ocean and gulf waters to the outer limits of the continental shelf; in all rivers, streams, and lakes to the ordinary high water line; in marshes and shallows that are periodically inundated and normally characterized by aquatic vegetation capable of growth and reproduction; in all artificially created channels and canals used for recreational, navigational, or other purposes that are connected to navigable waters; and in all tributaries of navigable waters up to their headwaters.
  - b. Whenever the work under or incidental to the Contract requires structures or dredge/fill/construction activities in "Navigable Waters of the U.S.," "Waters of the U.S.," and "Waters of the State," the Federal, State, county, and local regulatory agencies may require the Department to obtain a permit. For such dredge/fill /construction specified in the plans to be accomplished within the limits of the project, or for any dredge/fill/construction within the

limits of Department-furnished borrow areas, the Department will procure the necessary permits prior to advertising for bids.

D. Patented Devices, Materials and Processes

1. Include all royalties and costs arising from patents, trademarks, and copyrights, in any way involved in the work in the Contract price. Whenever using any design, device, material, or process covered by letters patent or copyright, obtain the right for such use by suitable legal agreement with the patentee or owner of the copyright. File a copy of such agreement with Engineer. However, whether or not such agreement is made or filed as noted, Contractor and the surety in all cases shall indemnify, defend, and save harmless, the County from all claims for infringement by reason of the use of any such patented design, device, material, or process on work under the Contract, and shall indemnify the County for all costs, expenses, and damages that it may be obliged to pay by reason of any such infringement, at any time during the prosecution or after the completion of the Work.

E. Right-of-Way Furnished by the Department

1. Except as otherwise stipulated in these Specifications or as shown in the Plans, the Department will furnish all rights-of-way necessary for the proper completion of the Work at no expense to Contractor.

F. Sanitary Provisions

1. Contractor shall provide and maintain, in a neat and sanitary condition, such accommodations for the use of his employees as are necessary to comply with the requirements and regulations of the State and local boards of health. Commit no public nuisance.

G. Control of Contractor's Equipment

1. Traffic Interference: Do not allow equipment, while it is on or traversing a road or street, to unreasonably interfere with traffic.
2. Overloaded Equipment: Do not operate on any road or street any hauling unit or equipment loaded in excess of (1) the maximum weights specified in the Florida Uniform Traffic Control Law, or (2) lower weights legally established for any section of road or bridge by the State, the Department, or local authorities. The governmental unit having jurisdiction over a particular road or bridge may provide exceptions by special permit under the provisions provided below for Crossings. This restriction applies to all roads and bridges inside and outside the Contract limits as long as these roads and bridges are open for public use. Contractor may overload roads and bridges which are to be demolished after they are permanently closed to the public. Contractor is responsible for all loss or damages resulting from equipment operated on a structure permanently closed to the public.
3. Crossings: Where it is necessary to cross an existing road or street, including specifically the existing

traveled lanes of a divided highway within the limits of the Project, obtain permits from the Municipality, the Department or FDOT depending on the location, for crossing overloaded or oversized equipment. Cross existing roads or streets only at Engineer-designated points. Engineer may require Contractor to protect the pavement or Roadway at the crossing by using lumber, planks, or fill. Provide flagging and watchman service, or approved signal devices, for the protection of traffic at all such crossings, in accordance with an approved written plan for that activity.

4. Protection from Damage by Tractor-Type Equipment: Take positive measures to ensure that tractor-type equipment does not damage the road. If any such damage should occur, repair it without delay, at no expense to the County and subject to Engineer's approval.

#### H. Contractor's Equipment on Bridge Structures

1. The Specialty Engineer shall determine the effect that equipment loads have on the bridge structure and develop the procedures for using the loaded equipment without exceeding the structure's design load capacity.
2. A completed bridge structure is a bridge structure in which all elemental components comprising the load carrying assembly have been completed, assembled, and connected in their final position. The components to be considered shall also include any related members transferring load to any bridge structure.
3. The Specialty Engineer shall analyze the effect of imposed loads on bridge structures, within the limits of a construction contract, resulting from the following operations:
  - a. Overloaded Equipment as defined above operating on or crossing over completed or partially completed bridge structures.
  - b. Equipment within legal load limits operating on or crossing over partially completed bridge structures.
  - c. Construction cranes operating on completed or partially completed bridge structures.
4. Submit to the Department for approval three copies of design calculations, layout drawings, and erection drawings showing how the equipment is to be used so that the bridge structure will not be overstressed. The Specialty Engineer shall sign and seal one set of the three copies of the drawings and the cover sheet of one of the three copies of the calculations for the Department's Record Set.
5. Any pipe culvert(s) or box culvert(s) qualifying as a bridge by definition is excluded from the requirements above.
6. Posting of the Legal Gross Vehicular Weight: Display the maximum legal gross weight, as specified in the Florida Uniform Traffic Code, in a permanent manner on each side of any dump truck or dump type tractor-trailer unit hauling embankment material, construction aggregates, road base material, or hot bituminous mixture to the project over any public road or street.

Display the weight in a location clearly visible to the scale operator, in numbers that contrast in color with the background and that are readily visible and readable from a distance of 50 feet.

#### I. Structures over Navigable Waters

##### 1. Compliance with Federal and Other Regulations:

- a. Where erecting structures in, adjacent to, or over, navigable waters, observe all regulations and instructions of Federal and other authorities having control over such waters. Do not obstruct navigation channels without permission from the proper authority, and provide and maintain navigation lights and signals in accordance with the Federal requirements for the protection of the structure, of false work, and of navigation.
- b. In the event of accidental blocking of the navigation channel, immediately notify the U.S. Coast Guard of the blockage and upon removal of the blockage.
- c. When work platforms are indicated in the permit for construction, submit work platform construction plans to the appropriate Coast Guard District for approval. Obtain approval prior to beginning construction on the platform.

2. Maintenance of Channel: Where the work includes the excavation of a channel or other underwater areas to a required section, maintain the section from shoaling or other encroachment until final acceptance of the project.

#### J. Manatee Protection

1. This Subarticle applies to work in tidal waters, major canals, bodies of water where manatees have been recently spotted, or where required by any regulatory permit applicable to this Project:
  - a. Instruct all personnel associated with the Project about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. Advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
  - b. Operate all vessels associated with the construction project at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
  - c. Properly secure and regularly monitored all siltation or turbidity barriers to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement. Siltation or

turbidity barriers must be made of material in which manatees cannot become entangled.

- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shut down if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Report any collision with or injury to a manatee immediately to the FWC Hotline at 1-888-404-3922. In addition, report collision and/or injury to the U.S. Fish and Wildlife Service in Vero Beach (1-772-562-3909), and to FWC at [ImperiledSpecies@myFWC.com](mailto:ImperiledSpecies@myFWC.com)
- f. Post, facing the water, temporary signs concerning manatees prior to and during all in-water project activities. One sign which reads "Caution: Boaters" must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. Use temporary signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used (see [MyFWC.com/manatee](http://MyFWC.com/manatee)). Questions concerning these signs can be sent to the email address listed above. Remove all signs upon completion of the Project.
- g. Comply with all manatee protection requirements of regulatory permits applicable to this Project.

#### K. Forest Protection

1. Compliance with State and Federal Regulations: In carrying out work within or adjacent to State or National forests or parks, comply with all of the regulations of the State or Federal authority having jurisdiction, governing the protection of and the carrying out of work in forests or parks, and observe all sanitary laws and regulations with respect to the performance of work in these areas. Keep the areas in an orderly condition, dispose of all refuse, and obtain permits for the construction, installation, and maintenance of any construction camps, living quarters, stores, warehouses, sanitary facilities, and other structures; all in accordance with the requirements of the forest or park official.
2. Prevention and Suppression of Forest Fires: Take all reasonable precautions to prevent and suppress forest fires. Require employees and subcontractors, both independently and at the request of forest officials, to do all reasonably within their power to prevent and

suppress forest fires. Assist in preventing and suppressing forest fires, and make every possible effort to notify a forest official at the earliest possible moment of the location and extent of all fires. Extinguish the fire if practicable.

#### L. Preservation of Property

##### 1. General:

- a. Protect all geodetic monuments, horizontal or vertical, located within the limits of construction.
- b. All street name signs shall remain in place during time of construction except those required to be relocated due to interference with actual construction. All signs relocated or damaged by Contractor during the course of the work shall be re-installed or replaced at the proper location, as soon as possible at Contractor's expense.
- c. Prior to the removal of any traffic control signs that interfere with the construction, Contractor shall provide temporary signing or other provisions to assure a continuous flow of traffic under at least the same conditions as previously existed.
- d. All signs that are found to be unserviceable shall be reported to the Miami-Dade County, Department of Transportation and Public Works, Traffic Signals & Signs Division, at (305) 592-3580, prior to the commencement of work.

##### 2. Contractor's Use of Streets and Roads:

- a. When hauling materials or equipment to the project over roads and bridges on the State road system, County road system, or city street system, and such use causes damage, immediately, at no expense to the County, repair such road or bridge to as good a condition as before the hauling began.
- b. The Department may modify the above requirement in accordance with any agreement Contractor might make with the governmental unit having jurisdiction over a particular road or bridge, provided that Contractor submits written evidence of such agreement to Engineer prior to commencement of the Work.
- c. The use of public streets and alleys shall be such as to provide a minimum of inconvenience to the public and to other traffic. Contractor shall so conduct his operations that he shall not close any thoroughfare nor interfere in any way with traffic on railway, highways, or on water, without the written consent of the proper authorities.
- d. Contractor must immediately remove any earth or other excavated material spilled from trucks and clean the streets to the satisfaction of the governing authority.

- e. The Department has not made any attempt to define the equipment to be used in transporting the excavated material since this may vary, however, Contractor shall abide by the following general requirements:
    - 1) Transport vehicles must be of the type(s) approved for this application by the political jurisdiction involved.
    - 2) General requirements are that the vehicles have watertight bodies that they are properly equipped and fitted with seals and covers to prohibit material spillage or draining, and that they are cleaned as often as is necessary to prevent deposit of material on roadways.
    - 3) Vehicles must be loaded within all legal weight limits and operated safely within all traffic and speed regulations.
  - f. The Department will not allow the operation of equipment or hauling units of such weight as to cause damage to previously constructed elements of the project, including but not necessarily limited to bridges, drainage structures, base course, and pavement.
  - g. Do not operate hauling units or equipment loaded in excess of the maximum weights specified for Overloaded Equipment on existing pavements that are to remain in place (including pavement being resurfaced), cement-treated subgrades and bases, concrete pavement, any course of asphalt pavement, and bridges.
  - h. Engineer may allow exceptions to these weight restrictions for movement of necessary equipment to and from its worksite, for hauling of offsite fabricated components to be incorporated into the Project, and for crossings as specified in the Contract Documents.
3. Protection of Existing Utility Poles:
- a. Ensure that existing utility poles are properly protected during installation of pipes and structures and must coordinate with the utility pole owner any safeguards necessary to protect the utility pole, including bracing of the pole, if necessary. All costs for protection of utility poles and any costs for the temporary bracing by the utility pole owner shall be the responsibility of Contractor and shall be considered incidental to and included in the Contract prices.
4. Traffic Signs, Signal Equipment, Highway Lighting and Guardrail:
- a. Protect all existing roadside signs, signal equipment, highway lighting and guardrail, for which permanent removal is not indicated, against damage or displacement. Whenever such signs, signal equipment, highway lighting or guardrail lie within the limits of construction, or wherever so directed by Engineer due to urgency of construction operations, take up and properly store the existing roadside signs, signal equipment, highway lighting and guardrail and subsequently reset them at their original locations or, in the case of widened pavement or roadbed, at locations designated by Engineer.
  - b. If the Department determines that damage to such existing or permanent installations of traffic signs, signal equipment, highway lighting or guardrail is caused by a third party, and is not otherwise due to any fault or activities of Contractor, the Department will, with the exception of any damage resulting from vandalism, compensate Contractor for the costs associated with the repairs. Repair damage caused by vandalism at no expense to the County.
5. Operations Within Railroad Right-of-Way:
- a. Notification to the Railroad Company: Notify the superintendent of the railroad company, as shown on the Plans, and Engineer at least 72 hours before beginning any operation within the limits of the railroad right-of-way; any operation requiring movement of employees, trucks, or other equipment across the tracks of the railroad company at other than an established public crossing; and any other work that may affect railroad operations or property.
  - b. Contractor's Responsibilities: Comply with whatever requirements an authorized representative of the railroad company deems necessary in order to safeguard the railroad's property and operations. Contractor is responsible for all damages, delays, or injuries and all suits, actions, or claims brought on account of damages or injuries resulting from Contractor's operations within or adjacent to railroad company right-of-way.
  - c. Watchman or Flagging Services: The railroad company will furnish protective services (i.e., watchman or flagging services) to ensure the safety of railroad operations during certain periods of the project. The Department will reimburse the railroad company for the cost thereof. Schedule work that affects railroad operations so as to minimize the need for protective services by the railroad company.
6. Utilities:
- a. General:
    - 1) Contact the Sunshine State One Call of Florida, Inc. at 1-800-432-4770 and other affected utility owners at least 48 hours prior to commencing any trenching or excavation work on this Project.
    - 2) Make all necessary arrangements with the utility companies concerned for

maintenance of their lines during the construction period. In the event that a relocation of utilities is required, but has not been accomplished prior to the effective date of the "Notice to Proceed," Contractor nevertheless must commence work under this Contract, and must schedule his work to avoid interference with the utility relocation work.

- 3) County will not be liable for any delay or added expense the Contractor experiences due to the activities of utility companies, nor shall the County be held responsible for any damages to any utilities due to any actions by Contractor.

b. Arrangements for Protection or Adjustment:

- 1) Do not commence work at points where the construction operations are adjacent to utility facilities or other property, until making arrangements with the utility facilities to protect against damage that might result in expense, loss, disruption of service, or other undue inconvenience to the public or to the owners. Contractor is solely and directly responsible to the owners and operators of such properties for all damages, injuries, expenses, losses, inconveniences, or delays caused by Contractor's operations.

- 2) The Department will make the necessary arrangements with utility owners for removal or adjustment of utilities where Engineer determines that such removal or adjustment is essential to the performance of the required construction. The Department will not consider relocation or adjustment requests based on Contractor's proposed use of a particular method of construction or a particular type of equipment as essential to the construction of the Project if Contractor could use other common methods and equipment without relocating or adjusting the utility. Engineer will determine the responsibility for any such required adjustments of utilities. Contractor shall make all requested relocations or adjustments because of delivery to the job site of Contractor-furnished materials, at no expense to the County.

- 3) The Department considers relocations and adjustments (or other protection) under the following circumstances as essential to the construction of the Project:

- a) Utilities lying within the vertical and horizontal construction limits, plus the reasonably required working room necessary for operation of

equipment normally used for the particular type of construction, all as determined by Engineer (and except as provided in paragraph (d) below). (In the case of overhead electrical conductors that carry more than 400 Volts, a minimum of 10 feet clearance between the conductor and the nearest possible approach of any part of the equipment is required, except where the utility owner effects safeguards approved by OSHA.)

- b) Utilities lying within the horizontal limits of the project and within 12 inches below the ground surface or the excavation surface on which Contractor operates construction equipment, or within 12 inches below the bottom of any stabilizing course specified in the Plans.

- c) Utilities lying within the normal limits of excavation for underground drainage facilities or other structures (except as provided in paragraph (d) below). Such normal limits shall extend to side slopes along the angle of repose, as established by sound engineering practice, unless the Contract Documents require support of the excavation sides by sheeting or Contractor elects to sheet such excavation for his own convenience.

- d) Where utilities cross pipe trenches transversely within the excavation area, but not within positions from which relocation or removal is necessary, the utility owner is responsible for providing and effecting all reasonable measures for their support and protection during construction operations. Cooperate with the utility owner in the owner's effecting of such support and protective measures. Contractor is responsible for all damage to the utility that is caused by Contractor's neglect or failure to cooperate or to use proper precaution in performing his work.

- 4) In the event that a temporary relocation of a utility or a particular sequence of timing in the relocation of a utility is necessary, Engineer will direct such relocation so as to cause the least impediment to the overall construction operations. The Department is not responsible for utility adjustments or temporary relocation work, or for the conditions resulting there from, where such adjustments are:

- a) Not necessitated by the construction of the Project,

- b) Done solely for the benefit or convenience of the utility owner or its contractor, or Contractor where the Department considers his construction procedures to be other than normal, or
  - c) Not shown on the approved plans for the utility relocation or the construction of the Project.
- c. Cooperation with Utility Owners:
- 1) Cooperate with the owners of all underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner, that duplication or rearrangement work may be reduced to a minimum, and that services rendered by the utility owners will not be unnecessarily interrupted.
  - 2) In the event of interruption of water or other utility services as a result of accidental breakage, exposure, or lack of support, promptly notify the proper authority and cooperate with the authority in the prompt restoration of service. If water service is interrupted and Contractor is performing the repair work, Contractor shall work continuously until the service is restored. Do not begin work around fire hydrants until the local fire authority has approved provisions for continued service.
- d. Utility Adjustments:
- 1) Certain utility adjustments and reconstruction work may be underway during the progress of the Contract. If known prior to award, the Department will include in the Contract documents the utility authorities who are scheduled to perform utility work on the Project.
  - 2) Cooperate with the various utility construction crews who are maintaining utility service.
  - 3) Exercise due caution when working adjacent to relocated utilities. Repair all damage to the relocated utilities resulting from his operations at no expense to the County.
  - 4) Protect utility facilities in accordance with the requirements of the Contract Documents and the owner.
- e. Weekly Meetings:
- 1) Conduct weekly meetings on the job site with all the affected utility companies and Engineer in attendance to coordinate project construction and utility relocation. Submit a list of all attendees one week in advance to Engineer for approval.
- 2) Provide the approved Work Progress Schedule and Work Plan for the Project, as specified in the Contract Documents, to document the schedule and plan for road construction and utility adjustments.
  - 3) When utility relocations no longer affect construction activities, Contractor may discontinue the meetings with Engineer's approval.
- M. Responsibility for Damages, Claims, etc.
- 1. Contractor to Provide Indemnification:
    - a. Contractor shall indemnify and hold harmless the County, its officers and employees from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of Contractor and persons employed or utilized by Contractor in the performance of the construction Contract.
    - b. It is specifically agreed between the parties executing this Contract that it is not intended by any of the provisions of any part of the Contract to create in the public or any member thereof, a third party beneficiary hereunder, or to authorize anyone not a party to this Contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Contract.
  - 2. Guaranty of Payment for Claims: Contractor guaranties the payment of all just claims for materials, supplies, tools, or labor and other just claims against him or any subcontractor, in connection with the Contract. The Department's final acceptance and payment does not release Contractor's bond until all such claims are paid or released.
- N. Contractor's Responsibility for Work
- 1. Until the Department's acceptance of the work, take charge and custody of the work, and take every necessary precaution against injury or damage to the work by the action of the elements or from any other cause whatsoever, arising either from the execution or from the nonexecution of the work. Rebuild, repair, restore, and make good, without additional expense to the Department, all injury or damage to any portion of the work occasioned by any of the above causes before its completion and acceptance, except that in case of extensive or catastrophic damage, the Department may, at its discretion, reimburse Contractor for the repair of such damage due to unforeseeable causes beyond the control of and without the fault or negligence of Contractor, including but not restricted to Acts of God, of the public enemy, or of governmental authorities.
- O. Opening Sections of Roadway to Traffic

1. Whenever any bridge or section of roadway is in an acceptable condition for travel, Engineer may direct Contractor to open it to traffic. The Department's direction to open a bridge or roadway does not constitute an acceptance of the bridge or roadway, or any part thereof, or waive any Contract provisions. Perform all necessary repairs or renewals, on any section of the roadway or bridge thus opened to traffic under instructions from Engineer, due to defective material or work or to any cause other than ordinary wear and tear, pending completion and Engineer's acceptance of the roadway or bridge, or other work, at no expense to the County.

P. Scales for Weighing Materials

1. Applicable Regulations: When determining the weight of material for payment, use scales meeting the requirements of Chapter 531, F.S., pertaining to specifications, tolerances, and regulations, as administered by the Bureau of Weights and Measures of the Florida Department of Agriculture.
2. Base for Scales: Place such scales on a substantial horizontal base to provide adequate support and rigidity and to maintain the level of the scales.
3. Protection and Maintenance: Maintain all scale parts in proper condition as to level and vertical alignment, and fully protect them against contamination by dust, dirt, and other matter that might affect their operation.

Q. Source of Forest Products

1. As required by Section 255.20, F.S., where price and quality are equal, and when available, use only timber, timber piling, or other forest products that are produced and manufactured in the State of Florida. This provision does not apply to Federal-aid projects.

R. Dust Control

1. Dust control measures are required as necessary to prevent the surface and air transport of dust from any construction activity performed under this contract. This may include but is not limited to: Pre-watering deeply before excavation; scheduling thorough and consistent watering that does not run off the site; applying best management practices in the loading, offloading, and transport of soils and miscellaneous materials; covering or otherwise stabilizing piles when necessary; and planning schedules so control measures are available throughout the project.
2. Ensure that excessive dust is not transported beyond the limits of construction in populated areas. Contractor may control dust for embankments or other cleared or unsurfaced areas by applying water, as directed by Engineer. When included in the Plans, install mulch, seed, sod, or temporary paving as early as practical. Control dust during the storage and handling of dusty materials by wetting, covering, or other means as approved by Engineer.
3. When cutting through concrete, care should be exercised to prevent dust from becoming air borne.

Contractor must use an engineering control such as the use of a wet saw or dust collector. Engineer shall have the final determination when in a particular circumstance this is not feasible, and the concrete must be cut dry.

4. No separate item for dust control measures is included for payment in this Contract. Contractor must consider the cost of any dust control measures that is necessary for the proper construction of the Project as included in the Contract price for items of work for which dust control measures are required.

S. Dredging and Filling

1. Section 370.033, F.S., requires that all persons, who engage in certain dredge or fill activities in the State of Florida, obtain a certificate of registration from the Florida Department of Environmental Protection, Tallahassee, Florida 32301, and that they keep accurate logs and records of all such activities for the protection and conservation of the natural resources. Obtain details as to the application of this law from the Department of Environmental Protection and contact local regulatory agencies for additional applicable requirements.

T. Contractor's Motor Vehicle Registration

1. Provide the Department with proof that all motor vehicles operated or caused to be operated by such Contractor are registered in compliance with Chapter 320, F.S. Submit such proof of registration in the form of a notarized affidavit to the Department.
2. The Department will not make payment to Contractor until the required proof of registration is on file with the Department.

U. Compliance with FHWA 1273:

1. For federally funded projects and when required by law, comply with the provisions contained in FHWA-1273.
2. The FHWA-1273 Electronic version, dated July 5, 2022 is posted on the FDOT's website at the following URL address: <https://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf>.
3. Take responsibility to obtain this information and comply with all requirements posted on this website up through five calendar days before the opening of bids.
4. If the FDOT website cannot be accessed, contact FDOT Department's Specifications Office Web Coordinator at (850) 414-4101.

V. Sustainable Building / Infrastructure Program (As Applicable)

1. Projects that involve the planning, design, construction, management, renovation, maintenance and decommissioning of infrastructure or buildings owned, financed, or operated by the County shall

comply with the requirements of the County's Sustainable Buildings Program. All activity as a result of this contract shall comply with Chapter 2, Article I, Sec. 2-1, Rules 5.09 through 5.10, and Chapter 9, Article III, Sec. 9-71 through 9-75, and Implementing Order(IO) 8-8 of the Code of Miami-Dade County which established a County policy to incorporate, wherever practical, Green Building Practices. These sections of the code, together with the IO, are referred to as the Sustainable Buildings Program

2. The primary mechanisms for determining compliance with the Sustainable Buildings Program shall be the current LEED rating system (for Buildings) and the Envision rating system (for Infrastructure), except as noted elsewhere in IO 8-8. If an alternative rating system is requested to demonstrate compliance, substitutions of standard, compliance interpretations, and exemptions may be sought, as detailed in IO 8-8. Compliance shall be determined by completing a formal certification process with the U.S. Green Building Council, or as otherwise directed by the County's Sustainability Manager.
3. If the project is a building that is a Public Project:
  - a. For all New Construction Public Projects, the minimum rating shall be LEED Silver in the version most recently adopted by USGBC for all project phases, and the Section VII Prescriptive Path elements shall be required. Except as provided in IO 8-8 Section VI(A)(3).
  - b. For Public Projects that are not New Construction but meet LEED prerequisites, the minimum rating shall be LEED Silver in the version most recently adopted by USGBC for all project phases, and the Section VII Prescriptive Path elements shall be required. Except as provided in IO 8-8 Section VI(A)(3).
  - c. For Public Projects that are not New Construction and do not meet LEED prerequisites as determined by the Sustainability Manager, the Public Project shall adhere to Maximum Measures, and the IO 8-8 Section VII Prescriptive Path elements shall be required. Except as provided in IO 8-8 Section VI(A)(3).
4. If the project is a for infrastructure that is a Public Project:
  - a. For Infrastructure Public Projects that are subject to this IO with project costs greater than two million dollars (\$2,000,000), the minimum rating shall be Envision Silver, per the version most recently adopted by the Institute for Sustainable Infrastructure, and the required Section VII Prescriptive Path elements in I.O. 8-8.
  - b. For Infrastructure Public Projects with project costs less than two million dollars (\$2,000,000), the following requirements shall be met per I.O. 8-8:
    - 1) Maximum Measures

## 2) Section VII Prescriptive Path elements

### 1.06 PROSECUTION AND PROGRESS

#### A. Subletting Or Assigning The Contract

1. Do not, sell, transfer, assign or otherwise dispose of the Contract or Contracts or any portion thereof, or of the right, title, or interest therein, without written consent of the Department. If the Contractor chooses to sublet any portion of the Contract, the Contractor must provide a written request to sublet work on the Certification of Sublet Work form developed by the Department for this purpose.
2. Contractor must perform, with its own organization, contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the Contract Documents) of the total original contract price, excluding any specialty items designated by the County. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization.
  - a. "Its own organization" is construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.
  - b. "Specialty Items" is construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.
3. The contract amount, upon which the requirements set forth in this Subarticle is computed, includes the cost of material and manufactured products which are to be purchased or produced by the Contractor under the provisions of the Contract. For the purpose of meeting this requirement the Department will not consider off-site commercial production of materials and manufactured component products that the Contractor purchases, or their transportation to the project, as subcontracted work.
4. If the Contractor sublets a part of a Contract item, the Department will use only the sublet proportional cost in determining the percentage of subcontracted normal work.
5. Execute all agreements to sublet work in writing and include all pertinent provisions and requirements of the Contract. All other agreements must be in writing and reference all applicable Contract provisions. Upon request, furnish the Department with a copy of the subcontract and agreement. The subletting of work

does not relieve the Contractor or the surety of their respective liabilities under the Contract.

6. The Department recognizes a subcontractor only in the capacity of an employee or agent of the Contractor, and the Engineer may require the Contractor to remove the subcontractor as in the case of an employee.
7. Contractor must furnish:
  - a. A competent superintendent or supervisor who is employed by its firm, has full authority to direct performance of the Work in accordance with the Contract requirements, and is in charge of all construction operations (regardless of who performs the work); and
  - b. Such other of its own organizational resources (supervision, management, and engineering services) as the Engineer determines is necessary to assure the performance of the Contract.

B. Notice to Proceed

1. Unless otherwise agreed to by the parties, the Department may issue the Notice to Proceed (NTP) within 30 Days after all conditions for Contract execution have been met. The NTP will identify the date Contractor is to begin the construction and will start the Contract Time.

C. Project Signs

1. Project Signs will be provided by Miami-Dade County Internal Services Department (ISD) at no cost to Contractor.
2. The type, location, and number of signs required per each work site shall be at the discretion of Engineer.
3. No work shall commence until the Project Signs are secured in place as directed by Engineer.
4. Maintain and Relocate Project Signs.
  - a. Maintain and relocate Project Signs throughout the duration of the Contract, as directed by Engineer and at no additional cost to Miami-Dade County.
  - b. Install relocated Project Signs as required by Engineer. All materials and work necessary to secure, brace, mount, place, and maintain the Project Signs will be provided at Contractor's expense.
  - c. Notify Engineer immediately if at any time, during the Contract duration, a Project Sign becomes damaged, defaced, or unreadable. If Engineer determines that a replacement sign is required, Engineer will request it from ISD.
5. Upon completion of the Contract or at any time as directed by Engineer, deliver all available Project Signs to the designated ISD facility.
6. No separate payment will be made for the activities described above.

D. Schedule Of Values

1. A Schedule of Values is required for any Stipulated (Lump) sum contract, or for major lump sum items on Unit price contracts for which Contractor requests progress payments.
2. Upon notification of intent to Award and prior to the Notice to Proceed, submit to Engineer for review and approval, a preliminary Schedule of Values that:
  - a. Logically subdivides the Work into component parts with sufficient detail to serve as the basis for progress payments during performance of the Work and correlates to the Work Progress Schedule.
  - b. Includes quantities and prices of items for all of the Work which when added together equal either the Contract Base Award Amount for a Stipulated sum contract or the Contract Price for a major lump sum item in a Unit price contract.
  - c. Separately identifies the scope of work to be performed by any SBE-CONST utilized to satisfy any SBE-CONST goal in the Contract. In addition, payment requisitions for the scope of work of such SBE-CONST shall be accompanied by the statements of completion of the work of the SBE-CONST and shall be accompanied by appropriate documentation including invoicing and checks reflecting payment of the SBE-CONST for the previous construction draw.
3. The Schedule of Values for a Stipulated sum contract will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Base Award Amount to component parts of the Work.
4. When directed by Engineer, submit at least 10 days prior to the next application for progress payment, a revised or updated Schedule of Values to address any changes in the Work.

E. Preconstruction Conference

1. A Preconstruction Conference will be held with Contractor, members of the Department and other Miami-Dade County Agencies, representative of Utility Companies, and other municipalities or contractors affected by the Work. The Department will set the time and place of this conference.
2. Submit the following items to Engineer at the Preconstruction Conference unless otherwise noted:
  - a. Two copies of the proposed Work Progress Schedule. (Provide an updated schedule within 5 days of each Work Order for work order contracts.)
  - b. Contractor's Chain of Authority.
  - c. Contractor's Emergency Telephone Numbers, during work hours, after hours, and on weekend, of Prime and MOT Contractor's Representatives.

- d. Letter naming Contractor's Superintendent and his qualifications.
- e. Letter naming Contractor's Work Site Traffic Supervisor and a copy of their respective Certification(s).
- f. Letter naming Contractor's MOT Flagmen and a copy of their training Certification(s).
- g. Maintenance of Traffic Plan: Letter outlining the Specific Maintenance of Traffic Plan or Plans that will be used during construction. If the MOT plan is noted in the Construction Plans, it will be for reference only. Contractor is responsible to provide his own MOT Plan. MOT plans must be submitted within 5 days of the date of each Work Order for work order contracts.
- h. Shop drawing submittal schedule. To be submitted within 5 days of the date of each Work Order for work contracts.
- i. List of potential subcontractors and rental agreements.
- j. Letter listing the material providers for this project, with the respective name and address; and letter certifying the compliance of the material with the project requirements.
- k. List of equipment to be utilized for construction; including make, model, year, name and description of equipment.
- l. Contractor's Erosion Control Plan (ECP) pursuant to the requirements of the Contract Documents.
- m. Lighting plan if Contractor intends to perform any night work.
- n. All other submittal requirements stipulated in the Contract Documents.

#### F. Scheduling of the Work

##### 1. Work Progress Schedule.

- a. Within 21 days after Contract award or at the Preconstruction Conference, whichever is earlier, submit to Engineer for approval two copies of a Work Progress Schedule for this Project. Engineer will review and respond to Contractor within 15 days of receipt.
- b. The Work progress Schedule must show the various activities of work in sufficient detail to demonstrate a reasonable and workable plan to initiate, construct, and complete all requirements of the Contract Documents within the Contract Duration and must:
  - 1) Include a projected Project completion, measured in dollars and time, on a monthly basis or at each progress payment cutoff date.
  - 2) Identify a date for substantial completion with "sufficient time" between substantial completion and end of Contract Duration for final inspections, final roadway striping if required, development of a

punch list by the Engineer, completion of all punch list items by Contractor, final submittals, and any remaining site restoration activities. "Sufficient time," as it pertains solely to this requirement, means no less than 60 days unless otherwise required by the Contract Documents or approved in writing by Engineer.

- 3) Include the order and interdependence of activities and the sequence for accomplishing the Work including phased restoration of areas impacted by work.
- 4) Describe activities in sufficient detail so that the Engineer can readily identify the Work and measure the progress of each activity.
- 5) Show each activity with a beginning work date, activity duration, and a monetary value.
- 6) Include within the activities the necessary steps for procurement, fabrication, and delivery of materials, plant, and equipment.
- 7) Include the review time for shop drawings and submittals.
- 8) Include the Critical Path and milestone activities when milestones are required by the Contract Documents.
- 9) In projects with more than one phase, adequately identify each phase and its substantial completion date, and do not allow phase specific activities to span more than one phase.

c. Submit with the Work Progress Schedule a narrative report describing current project schedule status and identifying potential delays. This report will include a description of the progress made since the previous schedule submission and objectives for the upcoming 30 calendar days. It will be submitted on 8.5 by 11 inch paper. This report shall at a minimum include the following information:

- 1) Indicate if the Project is on schedule, ahead of schedule or behind schedule. If the Project is ahead of schedule or behind schedule, the report shall include the specific number of calendar days. If the Project is behind schedule, the report shall include a detailed recovery plan that will put the Project back on schedule.
- 2) The report will describe the current critical path of the Project and indicate if this has changed in the last 30 calendar days. Discuss current successes or problems that have affected either the critical path's length or have caused a

shift in the critical path within the last 30 calendar days. Identify specific activities, progress, or events that may reasonably be anticipated to impact the critical path within the next 30 calendar days, either to affect its length or to shift it to an alternate path.

- 3) List all schedule logic or duration changes that have been made to the schedule since the previous submission. For each change, describe the basis for the change and specifically identify the affected activities by identification number.
  - 4) Identify any and all activities, either in progress or scheduled to occur within the following 30 days that require County participation, review, approval, etc.
- d. Submit, with the Work Progress Schedule, clear documentation demonstrating that all necessary coordination activities with utility owners that have facilities within the limits of construction have been conducted. In addition, incorporate into the work progress schedule any utility adjustment schedules included in the Contract Documents unless the utility company and the Department mutually agree to changes to the utility schedules shown in the Contract.
  - e. Engineer will return inadequate schedules to Contractor for corrections. Resubmit a corrected schedule within 15 days from the date of Engineer's return transmittal.
  - f. Submit an updated Work Progress Schedule, for Engineer's acceptance, if there is a significant change in the planned order or duration of an activity. Engineer will review the corrected schedule and respond within 7 days of receipt.
  - g. By acceptance of the schedule, Engineer does not endorse or otherwise certify the validity or accuracy of the activity durations or sequencing of activities. Engineer will use the accepted schedule as a baseline against which to measure the progress.
  - h. If Contractor fails to finalize either the initial or a revised schedule in the time specified, Engineer will withhold all Contract payments until Engineer accepts the schedule.

## 2. Weekly Work Progress Meetings:

- a. Coordinate weekly meetings to discuss Contract progress with Engineer including near term scheduled activities, utility relocations, and problems and their proposed solutions.
- b. Submit a Two-Week "Look Ahead" Planning Schedule at each weekly meeting, showing the items of work planned for the next two weeks. Develop the schedule in Bar Chart format, identifying current and planned activities and related Contract Schedule work

activities, including subcontractor work. Designate all activities that are controlling work items as determined by the currently accepted Contract Schedule.

- c. A report shall be submitted at each weekly meeting identifying schedule activity progress including actual start or finish dates achieved for any activities.

## 3. Prosecution of the Work.

- a. Give the Work the constant attention necessary to ensure the scheduled progress, and cooperate fully with Engineer and with other contractors at work in the vicinity.
- b. Do not commence work under the Contract until after the Department has issued the Notice to Proceed. Thereafter, commence the Work and continue all work in an expeditious manner to a conclusion acceptable to Engineer and in accordance with the approved Work Progress Schedule.
- c. All requirements of the Contract, including completion of punch list items and final deliverables, must be completed during the Contract Duration.
- d. Compliance with Time Requirements: Commence work in accordance with the approved Work Progress Schedule and provide sufficient labor, materials and equipment to complete all work as scheduled. Should Contractor fail to furnish sufficient and suitable equipment, forces, and materials, as necessary to prosecute the Work in accordance with the required schedule, Engineer may withhold all progress payments that are, or may become due, or suspend the work until Contractor corrects such deficiencies.
- e. Provisions for Convenience of Public: Schedule construction operations so as to minimize any inconvenience to adjacent businesses or residences. Where necessary, Engineer may require Contractor to first construct the work in any areas along the Project where inconveniences caused by construction operations would present a more serious handicap. In such critical locations, where there is no assurance of continuous effective prosecution of the work once the construction operations are begun, Engineer may require Contractor to delay removal of the existing (usable) facilities.
- f. The lack of equipment or unsuitability of said equipment shall not be an acceptable reason for falling behind schedule.
- g. If Contractor fails to complete all work under the Contract, within the time specified in the "Notice to Proceed" and/or Work Order(s), or fails to perform the Work with sufficient personnel and equipment or with sufficient materials to assure the prompt completion of the work assigned, or discontinues the prosecution of the Work, or fails to resume

work which has been discontinued within a reasonable time after notice to do so, or becomes insolvent or is declared bankrupt, or files for reorganization under the bankruptcy or insolvency code, or for any other cause whatsoever, fails to carry on the work in an acceptable manner, or if the surety executing the bond, becomes unsatisfactory in the opinion of the County, Engineer will give notice in writing to Contractor and his surety of such delay, neglect, or default. Additionally, the County may opt to not issue further Work orders and/or to terminate the Contract in addition to assigning a non-responsive Contractor Evaluation rating. Continuous failure by Contractor to complete work in a timely fashion may result in the County not issuing further work and/or cancellation of the Contract.

4. Additional Requirements for Work Order Contracts:

- a. The completion time for each Work Order will consist of a reasonable duration determined by Engineer.
- b. After the "Notice to Proceed" and issuance of the Work Order(s), Contractor shall commence the Work on the effective date of each Work Order and continue all work in an expeditious manner to a conclusion acceptable to Engineer.
- c. All activities required to be performed for each Work Order, including completion of punch list items and final deliverables, must be completed during the Work Order Days provided for each Work Order.
- d. Unless otherwise provided by the Contract Documents, Engineer may issue subsequent Work Order(s) any time after Engineer determines that work under an existing Work Order is substantially completed, even if site restoration or punch list items are pending for the existing Work Order.

G. Progress of the Work.

1. Unless otherwise stipulated herein, progress of the Work will be evaluated monthly and compared to the approved Work Progress Schedule.
  - a. When dollars invoiced by Contractor on the Project are 15 percent greater than the estimated dollars for the work scheduled, Engineer may request in writing, that Contractor submit a revised Work Progress Schedule for approval by the next scheduled monthly submittal date.
  - b. When the dollars earned by Contractor on the Project are 15 percent less than the estimated dollars for the work scheduled, Engineer may deem the progress of the Work unsatisfactory and will issue a notice to Contractor of unsatisfactory performance.
  - c. In the event a noncritical item becomes critical as determined by Engineer,

Contractor must submit a revised CPM schedule.

- d. When an activity on the critical path, as shown on the current approved Work Progress Schedule, has exceeded its late start date by 7 Days, Engineer will deem the progress of Work unsatisfactory and will hold a meeting with Contractor to address the schedule within 7 Days of the discovery. If a resolution cannot be determined within 5 Days, Engineer will issue a notice to Contractor of unsatisfactory performance.
  - e. When it becomes apparent that an activity on the critical path, as shown on the current approved Work Progress Schedule, has exceeded its original duration by 10 or more Days, regardless of the Contract's definition of Contract Time, Contractor must submit a revised Work Progress Schedule for approval within 5 Days of the discovery and Engineer will issue a notice of unsatisfactory performance to the Contractor and identify the unsatisfactory performance.
2. The notice of unsatisfactory performance will also allow a reasonable period of time, as determined by Engineer but not to exceed 30 Days from receipt of the notice, for Contractor to bring the progress of the Work into compliance with the current accepted work progress schedule or to provide acceptable written justification for the delay. Contractor must do the following things within the time specified in the notice to Contractor of unsatisfactory performance:
    - a. Submit a revised baseline progress schedule and recovery plan to Engineer for review and approval. Demonstrate the proposed method to complete the Project within the remaining time specified in the current accepted work progress schedule; and
    - b. If Contractor is unable to provide such a revised schedule, a late completion schedule shall be submitted indicating the time required to complete the Work. The Department's approval of the late completion schedule will not operate as a waiver of the Department's right to assess liquidated damages;
    - c. Take all necessary action, subject to Engineer's approval, to ensure completion of the Project at no additional cost to the Department within the remaining time specified in the accepted schedule. Actions may include but not be limited to the following:
      - 1) Additional overtime;
      - 2) Added work shift;
      - 3) Additional workforce;
      - 4) Extended workweek;
      - 5) Additional Equipment; or
      - 6) A combination of these.

H. Performance of Work

1. Give due and adequate notices to those in control of all properties that may be affected by the construction activities.
2. Keep on the job site sufficient plant and equipment to meet the requirements of the Work. The plant shall be kept in a satisfactory operating condition and be capable of safely and efficiently performing the Work as set forth in the Plans and Specifications. The equipment and all operations shall be subject to inspection by Engineer at all times.
3. Submit for approval by Engineer, a description of the type of materials and equipment to be used; and the method of procedure to be used in the performance of the Work.

4. Condition of Equipment

- a. All equipment used in the performance of the Work must be in first class operating condition, including proper mufflers and other silencing accessories. All equipment must be properly lubricated on a special maintenance type schedule to reduce noise, including tracks, rollers, idlers, sheaves and other noise producing components. Care must be taken to prevent oil spillage of any kind or oil dripping from equipment. All dewatering pumps and welding machines must be engine driven or powered by Contractor furnished generators. The temporary power source available at the jobsite is not sufficient to power that type of equipment.
- b. If the equipment used proves less than satisfactory and is unduly or needlessly disturbing the neighbors, in the opinion of Engineer, he will have the right to order Contractor to immediately modify the equipment to make it satisfactory, or to change to other equipment that is satisfactory at no additional cost to the County.

5. Saw Cutting:

- a. When required in performance of this Contract, material may be removed by either saw cutting the slab perpendicular to the long edge, or by any other means that will produce a clean neat cut and that is acceptable to Engineer. All costs for saw cutting and/or any other necessary means for accomplishing the bid items listed in this Contract shall be included in the cost for said item.

6. Open Excavations:

- a. At the close of each workday, Contractor shall refill all open excavations, or cover open excavations with steel plates capable of supporting vehicular traffic at no additional cost to the County.

7. Florida Trench Safety Act

- a. The Florida Trench Safety Act (Sections 553.60-553.64, Florida Statutes) is hereby

incorporated by reference and made a part of these Specifications. The purpose and intention of the State of Florida "Trench Safety Act" is to provide for increased worker safety by requiring compliance with sufficient standards for trench safety and providing additional specific requirements when the excavation is in excess of 5 feet deep. By executing the Contract, Contractor certifies that he is fully aware of the Trench Safety Act, and will comply with applicable trench safety standards.

- b. In accordance with Sections 553.60-553.64, F.S., the bidder acknowledges those included in the various items of the proposal and in the total bid price are costs for complying.

I. As-Built Drawings

1. Five (5) sets of complete "As-Built" drawings signed and sealed by either a Florida Registered Surveyor and Mapper or a Florida Registered Professional Engineer, shall be accurately recorded by Contractor and submitted to Engineer prior to final acceptance of the Work. As Built drawing required for Federally Funded Projects must be signed and sealed only by a Florida Registered Professional Engineer.
2. The As-Built Drawings must contain detailed information pertaining to the locations, spans, depths, and elevations of all significant elements of construction performed pursuant to the Contract Documents in addition to all information necessary to comply with Project permits and regulatory requirement.
3. All locations, depths, and elevations shall be taken by a Florida Registered Surveyor and Mapper and be shown on the As-Built drawings.
4. No separate payment will be made for the As-Built drawings.

J. Liquidated Damages

1. Contractor, or in case of his default the surety, shall pay to the County, not as a penalty but as liquidated damages, the amount stipulated below should Contractor fail to complete all work specified within the time stipulated in the Contract for substantial completion, including extra time granted in writing by the County. Substantial completion must be achieved 60 days prior to contract final acceptance, unless a different time is stipulated under contract duration on the Special Provisions. For Work Order based Contracts, liquidated damages shall be the amount stipulated below, computed for each Work Order, should Contractor fail to complete all work specified within the time stipulated in the Work Order, including extra time granted in writing by the County.
2. Applicable liquidated damages for each day after the scheduled substantial completion date are the amounts established in the following schedule:

Total Contract/Work Order Amount	Daily Charge Per Calendar Day
\$299,999 and under	\$980
\$300,000 but less than \$2,000,000	\$1,699
\$2,000,000 but less than \$5,000,000	\$2,650
\$5,000,000 but less than \$10,000,000	\$3,819
\$10,000,000 but less than \$20,000,000	\$4,687
\$20,000,000 but less than \$40,000,000	\$7,625
\$40,000,000 and over	\$10,467 plus 0.00005 of any amount over \$40 million (Round to nearest whole dollar)

3. Contractor, or in case of his default the surety, shall pay to the County, not as a penalty but as liquidated damages, 30% of the amount stipulated above under this Subarticle J.2 should Contractor fail to complete punch list items and deliver all required documents, including warranties, necessary to close out the project within the total time stipulated in the Contract for final acceptance, including extra time granted in writing by the County.
4. Engineer will count default days in calendar days.
5. County has the right to apply, as payment on such liquidated damages, any money the County owes Contractor.
6. County does not waive its right to liquidated damages due under the Contract by allowing Contractor to continue and to finish the work, or any part of it, after the expiration of the Contract/Work Order Time including granted time extensions.
7. The requirements of this Article may not be waived, compromised or settled without the express written consent of the Board of County Commissioners.

K. Limitations of Operations

1. General:

- a. Subject to any provision to the contrary provided in these Contract Documents, Work must not be carried out during the night or on Saturdays, Sundays or on County holidays without prior written approval from Engineer issued at least 72 hours before these times so that proper inspection and engineering services may be scheduled.
- b. Prior written approval from Engineer, as specified in this Article, is not required for the performance of work that is necessary for proper care, maintenance, and protection of Work already done, or in cases when the Work would otherwise be endangered or when hazard to life or property would result, in which case Contractor must inform

Engineer at the earliest possible opportunity of the same.

- c. All construction activities, designated by Engineer as requiring inspection by the County, must be scheduled to coincide with the hours of availability of Engineer or Engineer's duly authorized inspector. The hours of availability are from 7:00 AM until 4:30 PM Monday through Friday; unless otherwise approved by the Engineer, these construction activities must be scheduled to coincide with the aforementioned hours of availability.
- d. Work performed without the prior written approval of Engineer and without an Engineer's duly authorized inspector may be declared defective solely on the grounds that it was not properly inspected.
- e. In the event, that the Engineer approves work on night or on Saturdays, Sundays or on County holidays; the Contractor will be responsible to pay the overtime incurred during the approved overtime hours at the current inspector's hourly rate. Such payment will be deducted from the monthly invoice.
- f. Contractor must conform to all applicable laws, regulations, or ordinances with regard to labor employed, hours of work and general operations.

2. Night Work:

- a. Night work may be undertaken as a regular procedure when required by the Contract Documents or approved in writing by Engineer. Such approval, however, may be revoked at any time by Engineer if Contractor fails to maintain adequate equipment, lighting, and supervision for the proper prosecution and control of the Work at night pursuant to the requirements herein.
- b. For the purposes of this Article, the term "night" shall mean the period from 6:00 p.m. to 7:00 a.m. Due to traffic interference concerns, authorized night construction activities that may be disruptive to traffic flow can only be performed weekdays between 9:00 p.m. to 5:00 a.m.
- c. Prepare a specific work plan and submit it to the Engineer for approval at least one week in advance of the anticipated work. The plan must include a schedule of all activities of work and show in detail the special arrangements that will be made to provide for all regulatory and Contract requirements including cordoning off the areas with sufficient roadwork safety signs; providing approved MOT; worksite personnel and citizen safety; necessary lighting; and daily restoration of the work site.
- d. Obtain and comply with all necessary permits and authorizations from the applicable jurisdictions.

- e. Complete all scheduled work and restore the work site as required in the Engineer's approval.
- f. Lighting during nighttime operations:
  - 1) During active nighttime operations, furnish, place and maintain lighting sufficient to permit proper workmanship and inspection. Use lighting with 5 ft•cd minimum intensity. Arrange the lighting to prevent interference with traffic or produce undue glare to property owners. Operate such lighting only during active nighttime construction activities. Provide a light meter to demonstrate that the minimum light intensity is being maintained.
  - 2) Lighting may be accomplished by the use of portable floodlights, standard equipment lights, existing street lights, temporary street lights, or other lighting methods approved by Engineer.
  - 3) Submit a lighting plan at the Preconstruction Conference for review and acceptance by Engineer. Submit the plan on standard size plan sheets (not larger than 24 by 36 inch), and on a scale of either 100 or 50 feet to 1 inch. Do not start night work prior to the Engineer's acceptance of the lighting plan.
  - 4) During active nighttime operations, furnish, place and maintain variable message signs to alert approaching motorists of lighted construction zones ahead. Operate the variable message signs only during active construction activities.
  - 5) Where night work is required by the Contract Documents, include compensation for lighting for night work in the Contract prices for the various items of the Contract. Take ownership of all lighting equipment for night work.
- 3. Sequence of Operations: Do not open up work to the prejudice of work already started. Engineer may require Contractor to finish a section on which work is in progress before starting work on any additional section.
- 4. Interference with Traffic:
  - a. At all times conduct the Work in such manner and in such sequence as to ensure the least practicable interference with traffic. Operate all vehicles and other equipment safely and without hindrance to the traveling public. Park all private vehicles outside the clear zone. Place materials authorized to be stored along the roadway so as to cause no obstruction to the traveling public as possible.
  - b. Where existing pavement is to be widened and stabilizing is not required, prevent any open trench from remaining after working hours by scheduling operations to place the full thickness of widened base by the end of each day. Do not construct widening strips simultaneously on both sides of the road, except where separated by a distance of at least 1/4 mile along the road and where either the work of excavation has not been started or the base has been completed.
- 5. Coordination with other contractors:
  - a. Sequence the work and dispose of materials so as not to interfere with the operations of other contractors engaged upon adjacent work; join the work to that of others in a proper manner, in accordance with the spirit of the Contract Documents; and perform the work in the proper sequence in relation to that of other contractors; all as may be directed by Engineer.
  - b. Contractor is responsible for any damage done by him or his agents to the work performed by another contractor.
- 6. Drainage: Conduct the operations and maintain the work in such condition to provide adequate drainage at all times. Unless otherwise required by the Contract Documents, do not obstruct existing functioning storm drains, gutters, ditches, and other run-off facilities.
- 7. Fire Hydrants: Keep fire hydrants on or adjacent to the roadway accessible to fire apparatus at all times, and do not place any material or obstruction within 15 feet of any fire hydrant.
- 8. Protection of Structures: Do not operate heavy equipment close enough to pipe headwalls or other structures to cause their displacement.
- 9. Fencing: Erect permanent fence as a first order of business on all projects that include fencing where Engineer determines that the fencing is necessary to maintain the security of livestock on adjacent property, or for protection of pedestrians who are likely to gain access to the project from adjacent property.
- 10. Contaminated Materials:
  - a. When the construction operations encounter or expose any abnormal condition that may indicate the presence of a contaminated material, discontinue such operations in the vicinity of the abnormal condition and notify Engineer immediately. Be alert for the presence of tanks or barrels; discolored earth, metal, wood, ground water, etc.; visible fumes; abnormal odors; excessively hot earth; smoke; or other conditions that appear abnormal as possible indicators of the presence of contaminated materials. Treat these conditions with extraordinary caution.
  - b. Make every effort to minimize the spread of Contaminated Material into uncontaminated areas.
  - c. Do not resume the construction operations until so directed by Engineer.
  - d. Dispose of the Contaminated Material in accordance with the requirements and

regulations of any Local, State, or Federal agency having jurisdiction. Where Contractor performs work necessary to dispose of Contaminated material, and the Contract does not include pay items for disposal, the Department will pay for this work as unforeseeable work.

- e. The Department may agree to hold harmless and indemnify Contractor for damages when Contractor discovers or encounters Contaminated materials or pollutants during the performance of services for the Department when the presence of such materials or pollutants were unknown or not reasonably discoverable. Such indemnification agreements are only effective if Contractor immediately stops work and notifies the Department of the Contaminated material or pollutant problem.
- f. Such indemnification agreement is not valid for damages resulting from Contractor's willful, wanton, or intentional conduct or the operations of Contaminated and Hazardous Material Contractors.

L. Qualifications of Contractor's Personnel

- 1. Meet the personnel qualifications requirements stipulated in Article 105 of the DTPW Specifications.
- 2. Provide competent, careful, and reliable superintendents, foremen, and workmen. Provide workmen with sufficient skill and experience to properly perform the work assigned to them. Provide workmen engaged on special work, or skilled work, such as bituminous courses or mixtures, concrete bases, pavements, or structures, or in any trade, with sufficient experience in such work to perform it properly and satisfactorily and to operate the equipment involved. Provide workmen that shall make due and proper effort to execute the work in the manner prescribed in the Contract Documents, or Engineer may take action as prescribed below.
- 3. It is prohibited as a conflict of interest for a Contractor to subcontract with a Consultant to perform Contractor Quality Control when the Consultant is under contract with the Department to perform work on any project described in Contractor's Contract with the Department. Prior to approving a Consultant for Contractor Quality Control, Contractor shall submit to the Department a Certificate from the proposed Consultant certifying that no conflict of interest exists.
- 4. Whenever Engineer determines that any person employed by Contractor is incompetent, unfaithful, intemperate, disorderly, or insubordinate, Engineer will provide written notice and Contractor shall discharge the person from the work. Do not employ any discharged person on the Project without the written consent of Engineer. If Contractor fails to remove such person or persons, Engineer may withhold all payments that are or may become due, or suspend the work until Contractor complies with such orders. Protect, defend, indemnify, and hold the County, its agents, officials, and employees harmless from all

claims, actions, or suite arising from such removal, discharge, or suspension of employees.

M. Temporary Suspension of Contractor's Operations

1. Authority to Suspend Contractor's Operations:

- a. Engineer has the authority to suspend Contractor's operations, wholly or in part. Engineer will order such suspension in writing, giving in detail the reasons for the suspension. Contract Time will be charged during all suspensions of Contractor's operations.
- b. Any work in the public right of way may be temporarily suspended by the roadway governing authority. If an extension of Contact time is authorized pursuant to the requirements of the Contract Documents, it will be of a non-compensable nature. All costs associated with temporary suspension including any demobilization or re-mobilization costs are the sole responsibility of the Contractor and no extra compensation will be allowed.
- c. No additional time extension will be granted to Contractor when the operations are suspended for the following reasons:
  - 1) Contractor fails to comply with the Contract Documents.
  - 2) Contractor fails to carry out orders given by Engineer.
  - 3) Contractor causes conditions considered unfavorable for continuing the Work.
- d. Immediately comply with any suspension order. Do not resume operations until authorized to do so by Engineer in writing. Any operations performed by Contractor, and otherwise constructed in conformance with the provisions of the Contract, after the issuance of the suspension order and prior to Engineer's authorization to resume operations will be at no cost to the County. Further, failure to immediately comply with any suspension order will also constitute an act of default by Contractor and is deemed sufficient basis in and of itself for the Department to declare Contractor in default, with the exception that Contractor will not have ten calendar days to correct the conditions for which the suspension was ordered.

- 2. Prolonged Suspensions: If Engineer suspends Contractor's operations for an indefinite period, store all materials in such manner that they will not obstruct or impede the traveling public unnecessarily or become damaged in any way. Take every reasonable precaution to prevent damage to or deterioration of the work performed. Provide suitable drainage of the roadway by opening ditches, shoulder drains, etc., and

provide any temporary structures necessary for public travel through the project.

3. Permission to Suspend Contractor's Operations: Do not suspend operations or remove equipment or materials necessary for completing the work without obtaining Engineer's written permission. Submit all requests for suspension of operations in writing to Engineer, and identify specific dates to begin and end the suspension. Contractor is not entitled to any additional compensation for suspension of operations during such periods.
4. Suspension of Contractor's Operations-Holidays:
  - a. Unless Contractor submits a written request to work on a holiday at least ten days in advance of the requested date and receives written approval from Engineer, Contractor must not work on the following days: Martin Luther King, Jr. Day; President's Day, Memorial Day; the Saturday and Sunday immediately preceding Memorial Day; Independence Day; Labor Day; the Saturday, and Sunday immediately preceding Labor Day; Columbus Day, Veterans' Day; Thanksgiving Day; the Friday, Saturday and Sunday immediately following Thanksgiving Day; and December 24 through January 2, inclusive. Contract Time will be charged during these holiday periods regardless of whether or not Contractor's operations have been suspended.
  - b. During such suspensions, remove all equipment and materials from the clear zone, except those required for the safety of the traveling public and retain sufficient personnel at the job site to properly meet all applicable requirements for: (1) Maintenance of Traffic; and (2) Prevention, Control, and Abatement of Erosion and Water Pollution. Contractor is not entitled to any additional compensation for removal of equipment from clear zones or for compliance with the aforementioned requirements during such holiday periods.

N. Computation of Contract Time

1. Date of Beginning of Contract Time: The Contract Time begins on the effective start date of the "Notice to Proceed." Perform the Work fully, entirely, and in accordance with the Contract Documents within the Contract Time(s) specified in the Contract Documents, or as may be extended in accordance with the provisions herein.
2. Contract Time Extensions:
  - a. The Department will consider the delays in delivery of materials or component equipment that affect progress on a controlling item of work as a basis for granting a time extension if such delays are beyond the control of Contractor or supplier. Such delays may include an area-wide shortage, an industry-wide strike, or a natural disaster

that affects all feasible sources of supply. In such cases, Contractor shall furnish substantiating letters from a representative number of manufacturers of such materials or equipment clearly confirming that the delays in delivery were the result of an area-wide shortage, an industry-wide strike, etc. No additional compensation will be made for delays caused by delivery of materials or component equipment.

- b. The Department will not consider requests for time extension due to delay in the delivery of custom manufactured equipment including traffic signal equipment, highway lighting equipment, etc., unless Contractor furnishes documentation that the order for such equipment was placed in a timely manner, the delay was caused by factors beyond the manufacturer's control, and the lack of such equipment caused a delay in progress on a controlling item of work. No additional compensation will be paid for delays caused by delivery of custom manufactured equipment.
- c. The Department will consider the effect of utility relocation and adjustment work on job progress as the basis for granting a time extension only if all the following criteria are met:
  - 1) Delays are the result of either utility work that was not detailed in the plans, or utility work that was detailed in the plans but was not accomplished in reasonably close accordance with the schedule included in the Contract Documents.
  - 2) Utility work actually affected progress toward completion of controlling work items.
  - 3) Contractor took all reasonable measures to minimize the effect of utility work on job progress, including cooperative scheduling of Contractor's operations with the scheduled utility work at the preconstruction conference and providing adequate advance notification to utility companies as to the dates to coordinate their operations with Contractor's operations to avoid delays.
- d. As a condition precedent to an extension of Contract Time, Contractor must submit to Engineer:
  - 1) A preliminary request for an extension of Contract Time made in writing to Engineer within ten calendar days after the commencement of a delay to a controlling item of work. If Contractor fails to submit this required preliminary request for an extension of Contract Time, Contractor fully, completely, absolutely and irrevocably waives any entitlement to an extension of Contract Time for that delay. In the case of a

continuing delay only a single preliminary request for an extension of Contract Time will be required. Each such preliminary request for an extension of Contract Time shall include as a minimum the commencement date of the delay, the cause of the delay, and the controlling item of work affected by the delay; and

- 2) Further, Contractor must submit to Engineer a request for a Contract Time extension in writing within 30 days after the elimination of the delay to the controlling item of work identified in the preliminary request for an extension of Contract Time. Each request for a Contract Time extension shall include as a minimum all documentation that Contractor wishes the Department to consider related to the delay, and the exact number of days requested to be added to Contract Time. If Contractor contends that the delay is compensable, then Contractor is also required to submit with the request for a Contract Time extension a detailed cost analysis of the requested additional compensation. If Contractor fails to submit this required request for a Contract Time extension, with or without a detailed cost analysis, depriving Engineer of the timely opportunity to verify the delay and the costs of the delay, Contractor waives any entitlement to an extension of Contract Time or additional compensation for the delay.
- e. Upon timely receipt of the preliminary request of Contract Time from Contractor, Engineer will investigate the conditions, and if it is determined that a controlling item of work is being delayed for reasons beyond the control of Contractor, Engineer will take appropriate action to mitigate the delay and the costs of the delay. Upon timely receipt of the request for a Contract Time extension Engineer will further investigate the conditions, and if it is determined that there was an increase in the time or the cost of performance of the controlling item of work beyond the control of Contractor, then an adjustment of Contract Time will be made, and a monetary adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly.
- f. The existence of an accepted schedule, including any required update(s), as required by the Contract Documents is a condition precedent to Contractor having any right to the granting of an extension of contract time or any monetary compensation arising out of any delay. Contractor failure to have an accepted schedule, including any required update(s), for the period of potential impact, or in the event the currently accepted

schedule and applicable updates do not accurately reflect the actual status of the project or fail to accurately show the true controlling or non-controlling work activities for the period of potential impact, will result in any entitlement determination as to time or money for such period of potential impact being limited solely to the Department's analysis and identification of the actual controlling or non-controlling work activities. Further, in such instances, the Department's determination as to entitlement as to either time or compensability will be final.

#### O. Default and Termination of Contract

##### 1. Determination of Default:

a. The following acts or omissions constitute acts of default and, except as to subparagraph 10) below, the Department will give notice, in writing, to Contractor and his surety for any delay, neglect or default, if Contractor:

- 1) Fails to begin the work under the Contract within the time specified in the Notice to Proceed;
- 2) Fails to perform the work with sufficient workmen and equipment or with sufficient materials to ensure prompt completion of the Contract;
- 3) Performs the work unsuitably, or neglects or refuses to remove materials or to perform anew such work that Engineer rejects as unacceptable and unsuitable;
- 4) Discontinues the prosecution of the work, or fails to resume discontinued work within a reasonable time after Engineer notifies Contractor to do so;
- 5) Becomes insolvent or is declared bankrupt, or files for reorganization under the bankruptcy code, or commits any act of bankruptcy or insolvency, either voluntarily or involuntarily;
- 6) Allows any final judgment to stand against him unsatisfied for a period of ten calendar days;
- 7) Makes an assignment for the benefit of creditors;
- 8) Fails to comply with Contract requirements regarding minimum wage payments;
- 9) Fails to comply with Engineer's written suspension of work order within the time allowed for compliance and which time is stated in that suspension of work order; or
- 10) For any other cause whatsoever, fails to carry on the work in an acceptable

manner, or if the surety executing the bond, for any reasonable cause, becomes unsatisfactory in the opinion of the Department.

- b. For a notice based upon reasons stated in subparagraphs a. 1) through 8) and 10) above: if Contractor, within a period of ten calendar days after receiving the notice described above, fails to correct the conditions of which complaint is made, the Department will, upon written certificate from Engineer of the fact of such delay, neglect, or default and Contractor's failure to correct such conditions, have full power and authority, without violating the Contract, to take the prosecution of the work out of the hands of Contractor and to declare Contractor in default.
- c. If Contractor, after having received a prior notice described above for any reason stated in subparagraph a. 2), 3), 4), 5), 6) or 8), commits a second or subsequent act of default for any reason covered by the same subparagraph a. 2), 3), 4), 5), 6) or 8) as stated in the prior notice, and regardless whether the specific reason is the same, then, regardless of whether Contractor has cured the deficiency stated in that prior notice, the Department will, upon written certificate from Engineer of the fact of such delay, neglect or default and Contractor's failure to correct such conditions, have full power and authority, without any prior written notice to Contractor and without violating the Contract, to take the prosecution of the work out of the hands of Contractor and to declare Contractor in default.
- d. Regarding subparagraph a. 9), if Contractor fails to comply with Engineer's written suspension of work order within the time allowed for compliance and which time is stated in that suspension of work order, the Department will, upon written certificate from Engineer of the fact of such delay and Contractor's failure to correct that condition, have full power and authority, without violating the Contract, to immediately take the prosecution of the work out of the hands of Contractor and to declare Contractor in default.
- e. The Department has no liability for anticipated profits for unfinished work on a Contract that the Department has determined to be in default.

## 2. Completion of Work by Department:

- a. Upon declaration of default, the Department will have full power to appropriate or use any or all suitable and acceptable materials and equipment on the site and may enter into an agreement with others to complete the work under the Contract, or may use other methods to complete the work in an acceptable manner. The Department will

charge all costs that the Department incurs because of Contractor's default, including the costs of completing the work under the Contract, against Contractor. If the Department incurs such costs in an amount that is less than the sum that would have been payable under the Contract had the defaulting Contractor completed the work then the Department will pay the difference to the defaulting Contractor. If the Department incurs such costs in an amount that exceeds the sum that would have been payable under the Contract, then Contractor and the surety shall be liable and shall pay the County the amount of the excess.

- b. If, after the ten day notice period and prior to any action by the Department to otherwise complete the work under the Contract, Contractor establishes his intent to prosecute the work in accordance with the Department's requirements, then the Department may allow Contractor to resume the work, in which case the Department will deduct from any monies due or that may become due under the Contract, any costs to the County incurred by the delay, or from any reason attributable to the delay.

## 3. Termination of Contract for Convenience:

- a. The Department may terminate the entire Contract or any portion thereof, if the Department determines termination is in the County's interest. Engineer will deliver to Contractor a Written Notice of Termination specifying the extent of termination and the effective date.
- b. When the Department terminates the entire Contract, or any portion thereof, before Contractor completes all items of work in the Contract, the Department will make payment for the actual number of units or items of work that Contractor has completed, at the Contract unit price, and as approved by Engineer for items of work partially completed, and such payments will constitute full and complete compensation for such work or items. No payment of any kind or amount will be made for items of work not started. The Department will not consider any claim for loss of anticipated profits, or overhead of any kind (including home office and jobsite overhead or other indirect impacts).
- c. The Department will consider reimbursing Contractor for actual cost of mobilization (when not otherwise included in the Contract) including moving equipment to the job where the volume of the work that Contractor has completed is de minimis and thereby too small to compensate Contractor for these expenses under the Contract unit prices.
- d. The Department may purchase at actual cost acceptable materials and supplies procured for the work, that the Department has

inspected, tested, and approved and that Contractor has not incorporated in the work. Submit the proof of actual cost, as shown by receipted bills and actual cost records, at such points of delivery as Engineer may designate.

- e. Termination of a contract or a portion thereof, under the provisions of this Subarticle, does not relieve Contractor or the surety of its responsibilities for the completed portion of the Contract or its obligations for and concerning any just claims arising out of the work performed.

P. Release of Contractor's Responsibility

The Department considers the Contract complete when Contractor has completed all work and requirements of the Contract and the Department has accepted the Work. The Department will then release Contractor from further obligation except as set forth in the Contract Bonds, and except as allowed by the Contract Documents subsequent to Final Payment.

1.07 MEASUREMENT AND PAYMENT

A. Compensation

- 1. Compensation provided by the Contract, through the various scheduled items having awarded Contract Unit Prices, constitutes full payment for completing the Work and meeting all requirements of the Contract Documents. Approved payments will be made only under items having awarded Contract Unit Prices that are measured and accepted by Engineer.
- 2. The aforementioned compensation includes:
  - a. Full payment for furnishing any material, supply, equipment, tool, labor, supervision, or meeting any requirement that is reasonably inferred or incidental to the Work whether or not specifically called for by the Contract Documents.
  - b. Items of work that do not have awarded Contract Unit Prices, even if the items appear within the Articles of these Specifications or anywhere else in the Contract Documents. These items will not be measured separately for payment. Compensation for performing any work or meeting any requirement associated with these items is included in approved payments made under the various scheduled items having awarded Contract Unit Prices.
- 3. For Job Order Contracts, the Contract Unit Price, where referenced anywhere in these Contract Documents, is the price which results from the multiplication of the unit price provided by the County on the Project Bid Form times the awarded Contractor's percentage factor. All compensation for services called for in this Contract shall be made on the basis of the Contract Unit Prices for quantities based upon the actual work performed and accepted

by Engineer. Such compensation shall be complete payment for all phases of the operation and no additional payment shall be made for any reason whatsoever.

- 4. Miami-Dade County offers a payment option that will expedite County payments to your organization via Automatic Clearing House transfers instead of the issuance and mailing of a County check. More information is available at <http://www.miamidade.gov/finance/vendor-payment.asp#5> The form can also be found on the Appendices to the Special Provisions

B. Contingency Allowance Account

- 1. A Contingency Allowance account has been established for the Work under this Contract. The Total Contract award amount will include no more than ten percent (10%) Contingency Allowance Account. Contractor is not entitled to funds from the Contingency Allowance Account unless, at the discretion of Engineer, work is directed to be performed that is beyond the scope of established pay items. Contractor shall perform such work only upon receipt of an executed Miami-Dade-County Contingency Allowance Account expenditure form from Engineer.

C. Florida Power And Light Connection Allowance

- 1. County will reimburse Contractor, at invoice cost, for the services of the Florida Power and Light (FPL) connection fees required by Engineer. The necessary invoices shall be submitted to Engineer for inclusion in the payment requisition. This payment will be made from the appropriate dedicated allowance. If no dedicated allowance is provided, then payment shall be made from the Contingency Allowance Account.

D. Retainage; Punch List Requirements

- 1. Amount of retainage.
  - a. An amount of 5-percent retainage will be withheld from each progress payment made to Contractor.
- 2. Project closeout (Punch List).
  - a. Within 21 days of reaching Substantial Completion and performance of required inspection(s), Engineer, with cooperation of Contractor, will develop a single punch list subject to the provisions of Section 218.735 (7) of the Florida Statutes (F.S.), listing all items necessary to render complete, satisfactory, and acceptable to Engineer all work and requirements of the Contract. Contractor will review and comment as necessary to assist Engineer in the preparation of the final draft of the list during the aforementioned timeframe.
  - b. Engineer will provide Contractor with the Punch List within 5 days after the List has been developed and reviewed as provided in

Subarticle 2.a above. Contractor must immediately work on completion of the items listed and provide to Engineer within 5 days of receipt of the Punch List, a final schedule for the completion of all pending work and requirements of the Contract. The schedule must provide for the final completion of all Contract requirements and acceptance by the Engineer prior to the expiration of the Contract.

c. For work order or multiphase projects:

- 1) Provide a punch list listing all items necessary to render complete, satisfactory, and acceptable to Engineer all work and requirements for each phase or work order as applicable.
- 2) All time limitations and requirements stipulated above apply except that the timeframe requirements for the individual punch lists are based on the specific phase or work order's substantial completion.

3. Release of Retainage.

a. The release of retainage is subject to Section 218.735 (7), F.S. and may be requested as follows:

- 1) Upon completion of all items on the punch list and their acceptance by Engineer, Contractor may submit a payment request for all remaining retainage withheld by the County
- 2) under this Contract. If a good faith dispute exists as to whether one or more items identified on the Punch List have been completed pursuant to the Contract requirements, the County may continue to withhold an amount equal to 150 percent of the total costs to complete such items.
- 3) The County is not required to pay or release any amounts of retainage that are the subject of a good faith dispute, the subject of a claim brought pursuant to Section 255.05, F.S., or otherwise the subject of a claim or demand by the County or Contractor.

E. Measurement of Quantities

1. Measurement Standards: Engineer will measure all work completed under the Contract in accordance with the United States Standard Measures.
2. Method of Measurements: Engineer will take all measurements horizontally or vertically as applicable.
3. Determination of Pay Areas:
  - a. Final Calculation: When measuring items paid for on the basis of area of finished work, where the pay quantity is designated to be determined by calculation, Engineer will use

lengths and widths in the calculations based on the station to station dimensions shown on the plans; the station to station dimensions actually constructed within the limits designated by Engineer; or the final dimensions measured along the surface of the completed work within the neat lines shown on the Plans or designated by Engineer. Engineer will use the method or combination of methods of measurement that reflect, with reasonable accuracy, the actual surface area of the finished work as Engineer determines.

4. Construction Outside Authorized Limits: Engineer will not pay for surfaces constructed over a greater area than authorized, or for material that Contractor has moved from outside of slope stakes and lines shown on the plans, except where Engineer provides written instruction for Contractor to perform such work.
5. Truck Requirements: Provide all trucks with numbers and certify that all trucks used have a manufacturer's certification or permanent decal showing the truck capacity rounded to the nearest tenth of a cubic yard placed on both sides of the truck. This capacity will include the truck body only and any side boards added will not be included in the certified truck body capacity. Ensure the lettering and numbers are legible for identification purposes at all times.
6. Ladders and Instrument Stands for Bridge Projects:
  - a. On bridge projects, in order to facilitate necessary measurements, provide substantial ladders to the tops of piers and bents, and place and move such ladders as Engineer directs.
  - b. For bridge projects crossing water or marshy areas, supply fixed stands for instrument mounting and measurements, in accordance with the details stipulated in the Specifications for the project.

F. Fuel Adjustment

1. DTPW will, in the Contract Documents, provide an estimated quantity for fuel requirements for diesel to cover the Work specified in the Contract. Price adjustments will be made only for the amount of diesel fuel estimated by the DTPW required to complete the Contract. The requirement of fuel for each pay item is estimated by multiplying FDOT's standard fuel factor for that pay item by the quantity of that pay item. On Contracts with an original Contract Time in excess of 120 calendar days, DTPW will make price adjustments on each applicable progress estimate to reflect increases or decreases in the price of diesel from those in effect during the month in which bids were received. The Contractor will not be given the option of accepting or rejecting these adjustments. Price adjustments for fuel will be made only when the current fuel price (CFP) varies by more than 5% from the price prevailing in the month when bids were received (BFP), and then only on the portion that exceeds 5%.

2. Price adjustments will be based on the monthly bulk average price for diesel as derived by FDOT. These average indexes shall be determined by averaging bulk fuel prices on the first day of each month as quoted by major oil companies that are reasonably expected to furnish fuel for projects in the State of Florida. Average price indices for will be available on FDOT Construction Office website before the 15th of each month, at the following URL: <https://www.fdot.gov/construction/fuel-bit/fuel-bit.shtm>.
3. Payment will be based on the quantities shown on the progress estimate on all items for which established standard fuel factors are on a file maintained by DTPW. Payment on progress estimates will be adjusted to reflect adjustments in the prices for diesel in accordance with the following:
  - a. When fuel prices have decreased between month of bid and month of this progress estimate:
    - 1)  $A_i = F_i (P_i - 0.95 P_b)$  during a period of decreasing prices.
    - 2)  $A_i =$  Total dollar amount - positive or negative - of the cost adjustment for fuel used by the Contractor during the month "i."
    - 3)  $F_i =$  Total gallons calculated as being used during the month.
    - 4)  $P_i =$  Average price for fuel prevailing during month "i."
    - 5)  $P_b =$  Average price for fuel prevailing during the month "b" when bids were received on this Contract.
  - b. When fuel prices have increased between month of bid and month of this progress estimate:
    - 1)  $A_i = F_i (P_i - 1.05 P_b)$  during a period of increasing prices.
    - 2)  $A_i =$  Total dollar amount - positive or negative - of the cost adjustment for fuel used by the Contractor during the month "i."
    - 3)  $F_i =$  Total gallons calculated as being used during the month.
    - 4)  $P_i =$  Average price for fuel prevailing during month "i."
    - 5)  $P_b =$  Average price for fuel prevailing during the month "b" when bids were received on this Contract
4. Payment will be made on the current progress estimate to reflect the index difference at the time Work was performed.
5. Adjustments will be paid or charged to the Prime Contractor only. Any Contractor receiving an adjustment under this provision shall distribute the proper proportional part of such adjustment to subcontractors who perform applicable Work

#### G. Bituminous Material

- a. On Contracts having an original Contract Time of more than 365 calendar days, or more than 5,000 tons of asphalt concrete, the Department will adjust the bid unit price for bituminous material, excluding cutback and emulsified asphalt to reflect increases or decreases in the Asphalt Price Index (API) of bituminous material from that in effect during the month in which bids were received. Contractor will not be given the option of accepting or rejecting this adjustment. Bituminous adjustments will be made only when the current API (CAPI) varies by more than 5% of the API prevailing in the month when bids were received (BAPI), and then only on the portion that exceeds 5%.
- b. The Department will use the API determined by FDOT and available on the FDOT Office of Construction website L: <https://www.fdot.gov/construction/fuel-bit/fuelbit.shtm>.
- c. Payment on progress estimates will be adjusted to reflect adjustments in the prices for bituminous materials in accordance with the following:
  - 1) \$ Adjustment = (ID)(Gallons)
  - 2) Where ID = Index Difference = [CAPI - 0.95(BAPI)] when the API has decreased between the month of bid and month of this progress estimate.
  - 3) Where ID = Index Difference = [CAPI - 1.05(BAPI)] when the API has increased between the month of bid and month of this progress estimate.
  - 4) Payment will be made on the current progress estimate to reflect the index difference at the time work was performed.
  - 5) For asphalt concrete items payable by the ton, the number of gallons will be determined assuming a mix design with 6.25 percent liquid asphalt weighing 8.58 lb/gal.
  - 6) Asphalt concrete items payable by the square yard will be converted to equivalent tons assuming a weight of 100 lb/yd<sup>2</sup> per inch.
2. Non-Duplication of Payment: In cases where the basis of payment clause in these Specifications relating to any unit price in the bid schedule requires that the unit price cover and be considered compensation for certain work or material essential to the item, the Department will not measure or pay for this same work or material under any other pay item that may appear elsewhere in these Specifications.

#### H. Material Adjustments for Aluminum, PVC, and Copper.

1. DTPW will make price adjustments for aluminum, PVC, and copper materials included in the Contract pay item list in accordance with the following procedures:
  - a. Prepare separate Contractor's Certification of Quantities for each material invoice month using the FDOT forms for Material Price Adjustment.  
<https://www.fdot.gov/construction/material-price-adjustment>.
  - b. Submit certifications for materials purchased. Submit certifications for subsequent estimate periods as directed by the Engineer, based on the quantity of each material purchased within the estimate period. Material certifications reflecting quantities beyond the final contract quantity shall not be accepted. Ensure each certification includes the Contract Number, Certification Date and Number, the period the certification represents, and the quantity represented by each invoice for each pay item. Submit material invoices with each certification and clearly identify the following:
    - 1) Pay Item Number
    - 2) Certification Quantity
    - 3) Invoice Number
    - 4) Invoice Date
    - 5) Invoice Quantity
    - 6) Invoice Unit Price
    - 7) Invoice Total
2. On Contracts with an original Contract Time of more than 120 days, DTPW will adjust the unit price to reflect increases or decreases in material costs from those in effect during the month in which bids were received. The contractor will not be given the option of accepting or rejecting these adjustments. Price adjustments will be made only when the invoice month material price index (IMP) varies by more than 5% from the price index prevailing in the month when the bids were received (BMP), and then only on the portion that exceeds 5%.
3. DTPW will use factors to determine the percentage of unit price applicable to material only. Price Adjustments will be based on the USDOL monthly Producer Price Index (PPI). The Material Price indices will be available on the FDOT Construction Office website before the 15th of each month at the following website: <https://www.fdot.gov/construction/material-priceadjustment>
4. Payment on progress estimates will be adjusted to reflect adjustments in the prices for aluminum, PVC, and copper materials in accordance with the following:
  - a.  $\$ \text{ Adjustment} = (\text{quantity})(\text{unit price})(\text{material factor})(\text{ID})$
  - b. Where  $\text{ID} = \text{Index \% Difference} = [\text{IMP} - 0.95(\text{BMP})] / \text{BMP}$  when the IMP has decreased between the month of bid and the month of material invoice.
5. A line-item adjustment will be made on the last progress estimate prior to the final estimate to each applicable pay item to reflect the cumulative value of all Contractor Certification of Quantities submitted throughout the duration of the contract.
6. Adjustments will be paid or charged to the Prime Contractor only. Any Contractor receiving an adjustment under this provision for work performed by a subcontractor shall distribute such adjustment to subcontractors who perform applicable work.
7. DTPW reserves the right to audit the Contractor's records pertaining to the material certifications submitted for this Contract.
  1. Material Adjustments for Steel Guardrail
    1. DTPW will make price adjustments for steel guardrail materials included in the Contract pay item list in accordance with the following procedures:
    2. Prepare separate Contractor's Certification of Quantities for each material invoice month using the FDOT form for Material Price Adjustment.  
<https://www.fdot.gov/construction/material-price-adjustment>.
    3. Submit certifications for materials purchased. Submit certifications for subsequent estimate periods as directed by the Engineer, based on the quantity of each material purchased within the estimate period. Material certifications reflecting quantities beyond the final contract quantity shall not be accepted. Ensure each certification includes the Contract Number, Certification Date and Number, the period the certification represents, and the quantity represented by each invoice for each pay item. Submit material invoices with each certification and clearly identify the following:
      4. Pay Item Number
      5. Certification Quantity
      6. Invoice Number
      7. Invoice Date
      8. Invoice Quantity
      9. Invoice Unit Price
      10. Invoice Total
  11. On Contracts with an original Contract Time of more than 120 days, DTPW will adjust the unit price to reflect increases or decreases in material costs from those in effect during the month in which bids were received. The contractor will not be given the option of accepting or rejecting these adjustments. Price adjustments will be made only when the invoice month material price index (IMP) varies by more than 5%

from the price index prevailing in the month when the bids were received (BMP), and then only on the portion that exceeds 5%.

12. DTPW will use factors to determine the percentage of unit price applicable to material only. Price Adjustments will be based on the USDOL monthly Producer Price Index (PPI). The Material Price indices will be available on the FDOT Construction Office website before the 15th of each month at the following website: <https://www.fdot.gov/construction/material-price-adjustment>.
13. Payment on progress estimates will be adjusted to reflect adjustments in the prices for aluminum, PVC, and copper materials in accordance with the following:
  - a.  $\$ \text{ Adjustment} = (\text{quantity})(\text{unit price})(\text{material factor})(\text{ID})$
  - b. Where  $\text{ID} = \text{Index \% Difference} = [\text{IMP} - 0.95(\text{BMP})] / \text{BMP}$  when the IMP has decreased between the month of bid and the month of material invoice.
  - c. Where  $\text{ID} = \text{Index \% Difference} = [\text{IMP} - 1.05(\text{BMP})] / \text{BMP}$  when the IMP has increased between the month of bid and the month of material invoice.
14. : A line-item adjustment will be made on the last progress estimate prior to the final estimate to each applicable pay item to reflect the cumulative value of all Contractor Certification of Quantities submitted throughout the duration of the contract.
15. Adjustments will be paid or charged to the Prime Contractor only. Any Contractor receiving an adjustment under this provision for work performed by a subcontractor shall distribute the proper proportional part of such adjustment to subcontractors who perform applicable work.
16. DTPW reserves the right to audit the Contractor's records pertaining to the material certifications submitted for this Contract.

J. Lump Sum Quantities

1. Error in Lump Sum Quantity: Where the Department designates the pay quantity for an item to be a lump sum and the plans show an estimated quantity, the Department will adjust the lump sum compensation only in the event that either Contractor submits satisfactory evidence or the Department determines from satisfactory evidence that a difference exists between the original plan quantity and final quantity of greater than 5 percent.
2. Authorized Changes in Work: Where the Department designates the pay quantity for an item to be a lump sum and the plans show an estimated quantity, the Department will adjust compensation for that item proportionately when an authorized plan change is made which results in an increase or decrease in the quantity of that item. When the plans do not show an estimated plan quantity or the applicable specifications do not provide adjustments for contingencies, the Department will compensate for any authorized plan change resulting in an increase or decrease in the cost

of acceptably completing the item by establishing a new unit price through a Change Order.

K. Deleted Work

1. The Department will have the right to cancel the portions of the Contract relating to the construction of any acceptable item therein, by the payment to Contractor of a fair and equitable amount covering all items of cost incurred prior to the date that Engineer cancels the work.

L. Partial Payments

1. General:
  - a. Engineer will make partial payments on monthly estimates based on the amount of work that Contractor completes during the month (including delivery of certain materials, as specified herein below). Engineer will make approximate monthly payments, and the Department will correct all partial estimates and payments in the subsequent estimates and in the final estimate and payment.
  - b. The Department will base the amount of such payments on the total value of the work that Contractor has performed to the date of the estimate, based on the quantities completed as determined by Engineer and the Contract prices, less payments previously made and less any retainage withheld.
2. Withholding Payment for Defective Work: If the Department discovers any defective work or material prior to the final acceptance, or if the Department has a reasonable doubt as to the integrity of any part of the completed work prior to final acceptance, then the Department will not allow payment for such defective or questioned work until Contractor has remedied the defect and removed any causes of doubt.

3. Partial Payments for Delivery of Certain Materials:

- a. General:
  - 1) The Department may allow partial payments for new materials that will be permanently incorporated into the Project and are stockpiled in approved locations in the project vicinity. Stockpile materials so that they will not be damaged by the elements.
  - 2) The following conditions apply to all partial payments for stockpiled materials:
    - a) There must be reasonable assurance that the stockpiled material will be incorporated into the Project.
    - b) The stockpiled material must be approved by Engineer as meeting applicable specifications.

- c) The total quantity for which partial payment is made shall not exceed the estimated total quantity required to complete the Project.
  - d) Contractor must furnish Engineer with copies of certified invoices to document the value of the materials received. The amount of the partial payment will be determined from invoices for the material up to the unit price in the Contract.
  - e) Delivery charges for materials delivered to the jobsite will be included in partial payments if properly documented.
  - f) Partial payments will not be made for materials which were stockpiled prior to award of the Contract for a project.
- b. Partial Payment Amounts: The following partial payment restrictions apply:
- 1) Partial payments less than \$5,000 for any one month will not be processed.
  - 2) Partial payments for structural steel and precast prestressed items will not exceed 85% of the Contract price for the item. Partial payments for all other items will not exceed 75% of the Contract price of the item in which the material is to be used.
  - 3) Partial payment will not be made for aggregate and base course material received after paving or base construction operations begin except when a construction sequence designated by the Department requires suspension of paving and base construction after the initial paving operations, partial payments will be reinstated until the paving and base construction resumes.
4. Certification of Payment to Subcontractors:
- a. The term "subcontractor," as used herein, includes persons or firms furnishing materials or equipment incorporated into the work or stockpiled for which the Department has made partial payment and firms working under equipment-rental agreements. Contractor is required to pay all subcontractors for satisfactory performance of their Contracts before the Department will make a further progress (partial) payment. Contractor shall also return all retainage withheld to the subcontractors within 30 days after the subcontractor's work is satisfactorily complete, as determined by the Department. Prior to receipt of any progress (partial) payment, Contractor shall certify that all subcontractors having an interest in the Contract were paid for satisfactory performance of their contracts and that the retainage is returned to subcontractors within 30 days after satisfactory completion of the subcontractor's work. Provide this certification in the form designated by the Department.
  - b. Within 30 days of Contractor's receipt of the final progress payment or any other payments thereafter, except the final payment, Contractor shall pay all subcontractors and suppliers having an interest in the Contract for all work completed and materials furnished. The Department will honor an exception to the above when Contractor demonstrates good cause for not making any required payment and furnishes written notification of any such good cause to both the Department and the affected subcontractors or suppliers within said 30-day period.
- M. Record of Construction Materials
- 1. General: For all construction materials used in the construction of the Project, (except materials for materially generally classed as non-commercial), preserve for the Department's inspection the invoices and records of the materials for a period of five years from the date of completion of the Project. Apply this requirement when subcontractors purchase materials, and obtain the invoices and other materials records from the subcontractors. By providing the materials, Contractor certifies that all invoices will be maintained for the required period.
- N. Recovery Rights, Subsequent to Final Payment
- 1. The Department reserves the right, if it discovers an error in the partial or final payments, or if it discovers that Contractor performed defective work or used defective materials, after the final payment has been made, to claim and recover from Contractor or his surety, or both, by process of law, such sums as may be sufficient to correct the error or make good the defects in the work and materials.
  - 2. Retain all records pertaining to the Project for a period of five years from the date of Engineer's final acceptance of the Project and final payment, or greater if required by record retention laws. Upon request, make all such records available to the Department or its representative. For the purpose of this Article, records include all books of account, supporting documents, and papers that the Department deems necessary to ensure compliance with the Contract provisions.
  - 3. Make all provisions to comply with Florida House Bill (HB) 1309 comply with public records laws.
    - a. Keep and maintain public records that ordinarily and necessarily would be required by the public agency in order to perform the service;
    - b. Provide the public with access to such public records on the same terms and conditions that the public agency would provide the records and at a cost that does not exceed

that provided in chapter 119, F.S., or as otherwise provided by law;

- c. Ensure that public records that are exempt or that are confidential and exempt from public record requirements are not disclosed except as authorized by law; and
- d. Meet all requirements for retaining public records and transfer to the public agency, at no cost, all public records in possession of the contractor upon termination of the contract and destroy any duplicate public records that are exempt or confidential and exempt. All records stored electronically must be provided to the public agency in a format that is compatible with the information technology systems of the agency.

# CONSTRUCTION SPECIFICATIONS

SPECIFICATIONS  
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**101 MOBILIZATION (REV. 03-12-2013)**

A. Description.

1. Perform preparatory work and operations in mobilizing for beginning work on the Project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site(s) and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, and sanitary and other facilities.
2. Include the costs of bonds and any required insurance and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials.

B. Basis of Payment.

1. When No Separate Item for Mobilization is Included in the Contract:
  - a. All work and incidental costs specified as being covered under this Article will be included for payment under the several scheduled items of the overall Contract, and no separate payment will be made therefore.
2. When a Separate Pay Item for Mobilization is Included in the Contract:
  - a. The work and incidental costs specified as being covered under this Article will be paid for at the Contract lump sum price for the Mobilization pay item, after an executed Notice to Proceed has been issued, by partial payments made in accordance with the following:
    - 1) For contracts of 120 contract days duration or less, partial payment will be made at 50% of the bid price per month for the first two months. For contracts in excess of 120 contract days duration, partial payment will be made at 25% of the bid price per month for the first four months. In no event shall more than 50% of the bid price be paid prior to commencing construction on the project site.
    - 2) Total partial payments for Mobilization on any project, including when more than one project or job is included in the Contract, will be limited to 10% of the original Contract amount for that project. Any remaining amount will be paid upon completion of all work on the Contract.
    - 3) Retainage, as specified in the Contract Documents, will be applied to all partial payments.
    - 4) Partial payments made on this Subarticle will in no way act to preclude or limit any of the provisions for partial payments otherwise provided for by the Contract.

3. Basis of Payment:

a. Payment will be made under:

- 1) No separate item(s) for Mobilization will be provided under this contract.

**105 CONTRACTOR QUALITY CONTROL GENERAL  
REQUIREMENTS (REV. 08-23-12)**

A. General.

1. Submit to Engineer a meeting the requirements stipulated in this Article and that addresses the transportation, storage, placement, sampling, inspection of Contract materials and related construction operations; and to ensure that all work and material incorporated into the Project meet the requirements of the Contract Documents.
2. Comply with all personnel qualification requirements stipulated in this Article and elsewhere in the Contract Documents.

B. Guidelines for Development of the CQCP

1. Use the following guidelines for developing the CQCP and include other additional items as necessary.
  - a. General. Provide detailed policies, methods and procedures to ensure the specified quality of all applicable materials and related production and field operations.
  - b. Process control testing. List the material to be tested by pay item, tests to be conducted, the location of sampling, and the frequency of testing.
  - c. Inspection/control procedures. Address each of the following subjects in each phase of construction:
    - 1) Preparatory phase.
      - a) Review all Contract requirements.
      - b) Ensure compliance of component material to the Contract requirements.
      - c) Coordinate all submittals including certifications.
      - d) Ensure capability of equipment and personnel to comply with the Contract requirements.
      - e) Ensure preliminary testing is accomplished.
      - f) Coordinate surveying and staking of the work.
    - 2) Start-up phase.
      - a) Review the Contract requirements with personnel performing the work.
      - b) Inspect start-up of work.
      - c) Establish standards of workmanship.
      - d) Provide training as necessary.
      - e) Establish detailed testing schedule based on the production schedule.
    - 3) Production phase.
      - a) Conduct intermittent or continuous inspection during construction to identify and correct deficiencies.

- b) Inspect completed work before requesting Engineer inspection acceptance.
- c) Provide feedback and system changes to prevent repeated deficiencies.
- d. Description of records. List the records to be maintained.
- e. Personnel qualifications.
  - 1) Identify the primary contact that will communicate with the Department. Identify roles and responsibilities of the personnel involved in the Quality Control (QC) process. Document the name, authority, relevant experience, and qualifications of person with overall responsibility for the inspection system.
  - 2) Document the names, authority, and relevant experience of all personnel directly responsible for inspection and testing.
  - 3) Submit the Training Identification Numbers (TINs) or any other information which will be traceable to the certification agency's training location and dates for all technicians performing sampling, testing and inspection for both field and laboratory tests. Provide the names of the Florida Department of Transportation's Construction Training and Qualification Program (CTQP) certifications and other pertinent certifications held and the expiration dates for each certification for each technician. Include employed and subcontracted technicians.
- f. Subcontractors.
  - 1) Include the work of all subcontractors.
  - 2) If a subcontractor is to perform work subject to the requirements of this Article, detail how that subcontractor will interface with Contractor's and other subcontractor's organizations.
- g. Raw Materials:
  - 1) Source: Identify the sources of raw materials. Provide locations and plant or mine numbers when applicable. Include the mailing address, physical address including county of the plant, telephone and fax numbers, E-mail address, primary contact at the plant, responsible person in charge, facility number provided by the FDOT, Owner information and Vendor Number and other information as required.
  - 2) Certification: Describe methods of verifying compliance of certification with the Specifications.
  - 3) Disposition of Failing Materials: Describe the system for controlling non-conforming materials, including procedures for identification, isolation and disposition.
  - 4) Storage Facilities for Raw Materials: Describe measures and methods, including bedding details, for preventing segregation, contamination and degradation.
  - 5) Describe methods of identifying individual materials. Where applicable, submit a site plan showing the locations of various materials.
- h. Production Equipment: Describe calibration frequencies, maintenance schedule and procedures for production equipment.
- i. Other Requirements:
  - 1) Copy of Certification: Attach certifications issued by the plant/Contractor for the products approved by the FDOT that will be used in the Project.
  - 2) Statement of Compliance: Include a statement of compliance with all quality requirements set forth by the Department in the Contract Documents.
  - 3) Information on Producers with Accepted FDOT Quality Control Programs: All producers of materials listed herein in Subarticle 105-G.1 must have FDOT accepted QC Programs and be listed on the FDOT's List of Producers with Accepted QC Programs. Identify the Producers of materials for the Project and include the FDOT's Facility Id number as part of the identification.
  - 4) Describing Documentation Procedure: Identify location of document storage to enable Department review. Include QC charts, qualification/accreditation records, inspection reports, and other pertinent/supporting documents for an approved CQCP.
- j. Final Manufactured Product - Plant Operations: Describe inspection schedule and methods for identifying defects and non-compliance with the specifications. Describe corrective actions and methods to resolve them.
  - 1) Storage: When storage of the produced materials is required and it is not defined in the Contract Documents, describe the methods and duration for storage. Include measures and methods for preventing segregation, contamination and degradation during storage.
  - 2) Disposition of Failing Materials: When not described in the specifications, describe the methods and measures for identifying and controlling the failing materials. Include preventive and corrective measures. Describe disposition of failing materials.
- k. Final Manufactured Product - Field Operations:
  - 1) Transportation: Describe the method of delivery from the point of production/storage to the point of placement.
  - 2) Storage: When storage of the produced materials is required and it is not defined in the Contract Documents, describe the methods and duration for storage. Include measures and methods for preventing segregation, contamination and degradation during storage.
  - 3) Placement: Describe the methods and identify the type of equipment used in incorporation of the materials into the project.
  - 4) Disposition of Failing Materials: When not described in the specifications, describe the methods and measures for identifying and controlling the failing materials. Include preventive

and corrective measures. Describe disposition of failing materials.

C. Quality Control Plan Submittal.

1. Submit the CQCP to Engineer for approval within 21 days after the Contract Award or at the Preconstruction Conference, whichever is sooner. Do not incorporate materials into the Project or begin any work subject to the CQCP prior to Engineer's acceptance of the CQCP.
2. Modifications or additions may be required to any part of the CQCP that is not adequately covered. Acceptance of the CQCP will be based on the inclusion of the required information. Acceptance does not imply any warranty by the County that the CQCP will result in consistent contract compliance. It remains the responsibility of Contractor to demonstrate such compliance.
3. If at any time Contractor is not in compliance with the approved CQCP, or a part thereof, affected portions of the CQCP will be disapproved. Cease work in the affected operation(s) and submit a revision to Engineer. If the CQCP, or a part thereof, must be revised, submit the revision to Engineer. Engineer will review the revision and respond within seven calendar days of receipt.
4. Continue to work on operations that are still in compliance with the approved sections of the CQCP.
5. As work progresses, submit to Engineer for acceptance supplementary documentation to the CQCP whenever quality control or quality control personnel changes are necessary.

D. Quality Control Documentation.

1. Maintain complete testing and inspection records by pay item number and make them accessible to Engineer. When or where required, submit the record and certification within one working day of the work being performed. If the record is incomplete, in error, or otherwise misleading, a copy of the record will be returned with corrections noted. When chronic errors or omissions occur, correct the procedures by which the records are produced.
2. Submission of Materials Certification and Reporting Test Results: Provide certifications prior to placement of materials. Report test results at completion of the test and meet the requirements of the applicable Specifications.
3. Worksheets: Make available to the Department, when requested, worksheets used for collecting test information. Ensure the worksheets at a minimum contain the following:
  - a. Project Identification Number,
  - b. Time and Date,
  - c. Laboratory Identification and Name,
  - d. Training Identification Numbers (TIN) and initials,
  - e. Record details as specified within the test method.

4. Inspections to Assure Compliance with Acceptance Criteria.

- a. General: The Department is not obligated to make an inspection of materials at the source of supply, manufacture, or fabrication.
- b. Quality Control Inspection: Provide all necessary inspection to assure effective Quality Control of the operations related to materials acceptance. This includes but is not limited to sampling and testing, production, storage, delivery, construction and placement. Ensure that the equipment used in the production and testing of the materials provides accurate and precise measurements in accordance with the applicable Specifications. Maintain a record of all inspections, including but not limited to, date of inspection, results of inspection, and any subsequent corrective actions taken. Make available to the Department the inspection records, when requested.
- c. Notification of Placing Order:
  - 1) Order materials sufficiently in advance of their incorporation in the work to allow time for sampling, testing and inspection. Notify Engineer, prior to placing orders for materials.
  - 2) Submit to Engineer a fabrication schedule for all items requiring commercial inspection, before or at the preconstruction meeting. These items include, but are not limited to steel bridge components, overhead cantilevered sign supports with cantilevered arms exceeding 41 feet, moveable bridge components or any other item identified as an item requiring commercial inspection in the Contract Documents.
  - 3) Notify Engineer at least 30 days before beginning any production and include a production schedule.

E. Contractor Certification of Compliance.

1. Provide Engineer with a notarized monthly certification of compliance with the requirements of this Article, to accompany each progress estimate, on a form acceptable by Engineer. The Department may not authorize payment of any progress estimate not accompanied by an executed certification document.
2. Final payment will not be made until a final notarized certification summarizing all QC exceptions has been submitted.

F. Personnel Qualifications.

1. General:
  - a. Provide qualified personnel for sampling, testing and inspection of materials and construction activities. Ensure that qualifications are maintained during the course of sampling, testing and inspection.
  - b. Construction operations that require a qualified technician must not begin until Engineer verifies that the technician is on the FDOT CTQP list of qualified technicians.
2. QC Manager:

- a. Designate a QC Manager who has full authority to act as Contractor's agent to institute any and all actions necessary for the successful implementation of the CQCP. The QC Manager must speak and understand English. The QC Manager must be on-site at the Project on a daily basis or always available upon four hours notice to administer the CQCP. This includes administering, implementing, monitoring, and as necessary, adjusting the processes to ensure compliance with the Contract Documents. Ensure that the QC Manager is qualified as such through the FDOT CTQP.
  - b. Under the direction of the QC Manager, and using standard forms approved by Engineer, summarize the daily QC activities including testing and material sampling. Since erasures are strictly prohibited on all reports and forms, use blue or colored ink. Do not use black ink. If manual corrections to original data are necessary, strike through, correct, and date the entry, including the initials of the person making the correction. Make copies of the completed forms available for the Department to review daily unless otherwise required in the specifications. Maintain all QC related reports and documentation for a period of three years from final acceptance of the Project. Make copies available for review by the Department upon request.
3. Worksite Traffic Supervisor:
- a. Provide a Worksite Traffic Supervisor who is responsible for initiating, installing, and maintaining all traffic control devices as described in Article 102 (Maintenance of Traffic) and in the Contract Documents. Ensure that the Worksite Traffic Supervisor is certified in the advanced training category by a FDOT approved training Provider. Approved Providers will be posted on the FDOT's website at the following URL address:
    - 1) <http://www.dot.state.fl.us/rddesign/MOT/MOT.shtm>
  - b. Use approved alternate Worksite Traffic Supervisors when necessary.
4. Flagger: Provide trained flaggers to direct traffic where one-way operation in a single lane is in effect and in other situations as required. The Worksite Traffic Supervisor or others as approved by the Department will provide training for flaggers.
5. Earthwork Quality Control Personnel:
- a. Earthwork Level I: Ensure the technician who samples soil and earthwork materials from the roadway project, takes earthwork moisture and density readings, and records those data in the Density Log Book holds a CTQP Earthwork Construction Inspection Level I qualification.
  - b. Earthwork Level II: Ensure the technician responsible for determining the disposition of soil and earthwork materials on the roadway, and for interpreting and meeting Contract Document requirements holds a CTQP Earthwork Construction Inspection Level II qualification.
6. Asphalt Quality Control Personnel:
- a. Plant Technicians: For asphalt plant operations, provide a QC technician, qualified as a CTQP Asphalt Plant Level II technician, available at the asphalt plant at all times when producing mix for the Department. Perform all asphalt plant related testing with a CTQP Asphalt Plant Level I technician. As an exception, measurements of temperature may be performed by someone under the supervision of a CTQP Plant Level II technician.
  - b. Paving Technicians: For paving operations (with the exception of miscellaneous or temporary asphalt), keep a qualified CTQP Asphalt Paving Level II technician on the roadway at all times when placing asphalt mix for the Department, and perform all testing with a CTQP Asphalt Paving Level I technician. As an exception, measurements of cross-slope, temperature, and yield (spread rate) can be performed by someone under the supervision of a CTQP Paving Level II technician at the roadway.
  - c. Mix Designer: Ensure all mix designs are developed by individuals who are CTQP qualified as an Asphalt Hot Mix Designer.
  - d. Documentation: Document all QC procedures, inspection, and all test results and make them available for review by Engineer throughout the life of the Contract. Identify in the asphalt producer's Quality Control Plan the Quality Control Manager(s) and/or Asphalt Plant Level II technician(s) responsible for the decision to resume production after a quality control failure.
7. Concrete QC Personnel:
- a. Concrete Field Technician - Level I: Ensure technicians performing plastic property testing on concrete for materials acceptance are qualified CTQP Concrete Field Technicians Level I. Plastic property testing will include but not be limited to slump, temperature, air content, water-to-cementitious materials ratio calculation, and making and curing concrete cylinders. Duties will include initial sampling and testing to confirm specification compliance prior to beginning concrete placements, ensuring timely placement of initial cure and providing for the transport of compressive strength samples to the designated laboratories.
  - b. Concrete Field Inspector - Level II: Ensure field inspectors responsible for the quality of concrete being placed on major bridge projects are qualified CTQP Concrete Field Inspectors Level II. A Level II Inspector must be present on the jobsite during all concrete placements. Prior to the placement of concrete, the inspector will inspect the element to be cast to ensure compliance with Contract Documents. A Level II Inspector's duties may include ensuring that concrete testing, inspection, and curing in the field are performed in accordance with the Contract Documents. The QC Inspector will inform the Verification Inspector of anticipated concrete placements and LOT sizes.
  - c. Concrete Laboratory Technician:
    - 1) Concrete Laboratory Technician - Level I: Ensure technicians testing cylinders and recording concrete strength for material acceptance are

- qualified CTQP Concrete Laboratory Technicians Level I. Duties include final curing, compressive strength testing, and the recording/reporting of all test data.
- 2) Concrete Laboratory Technician – Level II: Ensure that laboratories providing hardened property test results to the Department are under the supervision of a CTQP Concrete Laboratory Technician - Level II. This person is responsible to ensure that the tests are performed in accordance with Standard Test Methods, project specifications and other contract documents.
8. Supervisory Personnel – Post-Tensioned and Movable Bridge Structures:
- a. General: Provide supervisory personnel meeting the qualification requirements only for the post-tensioned and movable bridge types detailed in this Article. Submit qualifications to Engineer at the pre-construction conference. Do not begin construction until the qualifications of supervisory personnel have been approved by Engineer.
  - b. Proof of License or Certification:
    - 1) Submit a copy of the Professional Engineer license current and in force issued by the state in which registration is held. The license must be for the field of engineering that the construction work involves such as Civil, Electrical or Mechanical. Under certain circumstances Florida registration may be required.
    - 2) Submit a copy of the license issued by the State of Florida for tradesmen that require a license indicating that the license is in force and is current. Submit a copy of the certification issued by the Instrumentation, Systems and Automation Society of America for each Certified Control Systems Technician.
  - c. Experience Record: Submit the following information for supervisory personnel to substantiate their experience record. The supervisor (project engineer, superintendent/manager or foreman) seeking approval must provide a notarized certification statement attesting to the completeness and accuracy of the information submitted. Provide the following experience information for each individual seeking approval as a supervisor:
    - 1) Project owner's name and telephone number of an owner's representative, project identification number, state, city, county, highway number and feature intersected.
    - 2) Provide a detailed description of each bridge construction experience, and the level of supervisory authority during that experience. Report the duration in weeks, as well as begin and end dates, for each experience period.
    - 3) Provide the name, address and telephone number of an individual that can verify that the experience being reported is accurate. This individual should have been an immediate supervisor unless the supervisor cannot be contacted in which case another individual with direct knowledge of the experience is acceptable.
  - d. Concrete Post-Tensioned Segmental Box Girder Construction: Ensure the individuals filling the following positions meet the minimum requirements as follows:
    - 1) Project Engineer-New Construction: Ensure the Project Engineer is a registered Professional Engineer with five years of bridge construction experience. Ensure a minimum of three years of experience is in Segmental Box Girder Construction Engineering and includes a minimum of one year in segmental casting yard operations and related surveying, one year in segment erection and related surveying, including post-tensioning and grouting of longitudinal tendons and a minimum of one year as the Project Engineer in responsible charge of Segmental Box Girder Construction Engineering. Ensure this individual is present at the site of construction, at all times while segmental box girder construction or segment erection is in progress.
    - 2) Project Engineer-Repair and Rehabilitation: Ensure the Project Engineer is a registered Professional Engineer with five years of bridge construction experience. Ensure a minimum of three years of experience is in Segmental Box Girder Construction Engineering and includes one year of post-tensioning and grouting of longitudinal tendons and a minimum of one year as the Project Engineer in responsible charge of Segmental Box Girder rehabilitation engineering or Segmental Box Girder new construction engineering.
    - 3) Project Superintendent/Manager - New Construction:
      - a) Ensure the Project Superintendent/Manager has a minimum of ten years of bridge construction experience or is a registered Professional Engineer with five years of bridge construction experience. Ensure that a minimum of three years of experience is in Segmental Box Girder construction operations and includes a minimum of one year in the casting yard operations and related surveying, one year in segment erection and related surveying including post-tensioning and grouting of longitudinal tendons and a minimum of one year as the Project
      - b) Superintendent/Manager in responsible charge of Segmental Box Girder construction operations. Ensure this individual is present at the site of construction, at all times while segmental box girder construction or segment erection is in progress.
    - 4) Project Superintendent/Manager-Repair and Rehabilitation: Ensure the Project Superintendent/Manager has a minimum of five years of bridge construction experience or is a registered Professional Engineer with three years of bridge construction experience. Ensure that a minimum of two years of experience is in Segmental Box Girder construction operations and

includes a minimum of one year experience performing post-tensioning and grouting of longitudinal tendons and a minimum of one year as the Project Superintendent/Manager in responsible charge of Segmental Box Girder rehabilitation operations or Segmental Box Girder new construction operations.

- 5) Foreman-New Construction: Ensure that the Foreman has a minimum of five years of bridge construction experience with two years of experience in Segmental Box Girder Operations and a minimum of one year as the foreman in responsible charge of Segmental Box Girder new construction Operations. Ensure this individual is present at the site of construction, at all times while segmental box girder construction or segment erection is in progress.
- 6) Foreman-Repair and Rehabilitation: Ensure the Foremen has a minimum of five years of bridge construction experience with two years of experience in Segmental Box Girder Operations and a minimum of one year as the foreman in responsible charge of Segmental Box Girder rehabilitation operations or Segmental Box Girder new construction operations.
- 7) Geometry Control Engineer/Manager:
  - a) Ensure that the Geometry Control Engineer/Manager for construction of cast-in-place box segments is a registered Professional Engineer with one year of experience, a non-registered Engineer with three years of experience or a Registered Professional Land Surveyor with three years of experience in geometry control for casting and erection of cast-in-place box segments. Credit for experience in cast-in-place box girder geometry control will be given for experience in precast box girder geometry control but not vice versa.
  - b) Ensure that the Geometry Control Engineer/Manager for precast box segments is a registered Professional Engineer with one year of experience or non-registered with three years of experience in casting yard geometry control of concrete box segments.
  - c) The Geometry Control Engineer/Manager must be responsible for and experienced at implementing the method for establishing and maintaining geometry control for segment casting yard operations and segment erection operations and must be experienced with the use of computer programs for monitoring and adjusting theoretical segment casting curves and geometry. This individual must be experienced at establishing procedures for assuring accurate segment form setup, post-tensioning duct and rebar alignment and effective concrete placement and curing operations as well as for verifying that casting and erection field survey data has been properly gathered and recorded. Ensure this individual is present at the site of construction, at all times while cast-in-place segmental box girder

construction is in progress or until casting yard operations and segment erection is complete.

- 8) Surveyor: Ensure that the Surveyor in charge of geometry control surveying for box segment casting and/or box segment erection has a minimum of one year of bridge construction surveying experience. Ensure this individual is present at the site of construction, at all times while segmental box girder construction or segment erection is in progress.
- e. Movable Bridge Construction: Ensure the individual filling the following positions meet the minimum requirements as follows:
    - 1) Electrical Journeyman: Ensure the Electrical Journeyman holds, an active journeyman electrician's license and has at least five years experience in industrial electrical work, or is a Certified Control Systems Technician. A Certified Control Systems Technician will not be permitted to perform electrical power work including, but not limited to, conduit and wire-way installation or power conductor connection. Ensure the electrical journeyman has successfully completed the installation of one similar movable bridge electrical system during the last three years.
    - 2) Control Systems Engineer and Mechanical Systems Engineer: Ensure the Control Systems Engineer and Mechanical Systems Engineer are both registered Professional Engineers with a minimum of 10 years supervisory experience each in movable bridge construction. Ensure the engineers have working knowledge of the movable bridge leaf motion control techniques, mechanical equipment and arrangements specified for this project. Ensure that each Engineer has been in responsible control of the design and implementation of at least three movable bridge electrical control and machinery systems within the past 10 years of which, at least one of the three bridges was within the last three years. Ensure that a minimum of one of the three bridge designs incorporated the same type of leaf motion control and machinery systems specified for this project.
  - f. Concrete Post-Tensioned Other Than Segmental Box Girder Construction: Ensure the individual filling the following positions meet the minimum requirements as follows:
    - 1) Project Engineer: Ensure the Project Engineer is a registered Professional Engineer with five years of bridge construction experience. Ensure that a minimum of three years of experience is in concrete post-tensioned construction. Ensure that the three years of experience includes experience in girder erection, safe use of cranes, stabilization of girders; design of false work for temporary girder support, post-tensioning and grouting operations, and a minimum of one year as the Project Engineer in responsible charge of post-tensioning related engineering responsibilities.
    - 2) Project Superintendent/Manager: Ensure the Project Superintendent/Manager has a minimum of ten years of bridge construction experience or is a

- registered Professional Engineer with five years of bridge construction experience and has a minimum of three years of supervisory experience in girder erection, safe use of cranes, stabilization of girders; design of falsework for temporary girder support post-tensioning, grouting operations and a minimum of one year as the Project Superintendent/Manager in responsible charge of post-tensioning related operations.
- 3) Foreman: Ensure the Foreman has a minimum of five years of bridge construction experience with two years of experience in post-tensioning related operations and a minimum of one year as the foreman in responsible charge of post-tensioning related operations.
- g. Post-Tensioning (PT) and Grouting Personnel Qualifications: Perform all stressing and grouting operations in the presence of Engineer and with personnel meeting the qualifications of this article. Coordinate and schedule all PT and grouting activities to facilitate inspection by Engineer.
- 1) Post-Tensioning: Perform all PT field operations under the direct supervision of a Level II CTQP Qualified PT Technician who must be present at the site of the post-tensioning work during the entire duration of the operation. For the superstructures of bridges having concrete post-tensioned box or I girder construction, provide at least two CTQP qualified PT technicians, Level I or II, on the work crew. The supervisor of the work crew, who must be a Level II CTQP Qualified PT Technician, may also be a work crew member, in which case, the supervisor shall count as one of the two CTQP qualified work crew members. For PT operations other than the superstructures of post-tensioned box or I girder construction, perform all PT operations under the direct supervision of a Level II CTQP Qualified PT Technician who must be present at the site of the PT work during the entire duration of the operation. Work crew members are not required to be CTQP qualified.
  - 2) Grouting:
    - a) Perform all grouting field operations under the direct supervision of a Level II CTQP Qualified Grouting Technician who must be present at the site of the grouting work during the entire duration of the operation. For the superstructures of bridges having concrete post-tensioned box or I girder construction, provide at least two CTQP qualified grouting technicians, Level I or II, on the work crew. The supervisor of the work crew, who must be a Level II CTQP Qualified Grouting Technician, may also be a work crew member, in which case, the supervisor shall count as one of two CTQP qualified work crew members.
    - b) For grouting operations other than the superstructures of post-tensioned box or I girder construction, perform all grouting operations under the direct supervision of a Level II CTQP Qualified Grouting Technician who must be present at the site of the grouting work during the entire duration of the operation. Work crew members are not required to be CTQP qualified.
- c) Perform all vacuum grouting operations under the direct supervision of a crew foreman who has been trained and has experience in the use of vacuum grouting equipment and procedures. Submit the crew foreman's training and experience records to Engineer prior to performing any vacuum grouting operation.
- h. Failure to Comply with Bridge Qualification Requirements:
- 1) Make an immediate effort to reestablish compliance. If an immediate effort is not put forth as determined by Engineer, payment for the bridge construction operations requiring supervisors to be qualified under this Specification will be withheld up to 60 days. Cease all bridge construction and related activities (casting yard, etc.) if compliance is not met within 60 days, regardless of how much effort is put forth. Resume bridge construction operations only after written approval from Engineer stating that compliance is reestablished.
9. Prestressed Concrete Plant Quality Control Personnel:
- a. Ensure each prestressed concrete plant has an onsite production manager, an onsite Plant Quality Control Manager, a Plant engineer, and adequate onsite QC inspectors/technicians to provide complete QC inspections and testing.
  - b. Ensure the Plant Manager for QC has at least five years of related experience and a current PCI QC personnel Level III certification and a certificate of completion of FDOT Section 450 Specification examination. Ensure that the QC inspector/technician has current PCI QC Technician/Inspector Level II certification and a certificate of completion of FDOT Section 450 Specification examination.
  - c. Ensure that the batch plant operators of the ready mixed concrete batch plants meet the requirements of Section 9.2 of the FDOT Materials Manual. Ensure that the batch plant operators of the onsite centrally mixed concrete plants meet the training requirements of Subarticle 105-F.11.b.4) b) below.
10. Signal Installation Inspector:
- a. Provide an inspector trained and certified by the International Municipal Signal Association (IMSA) as a Traffic Signal Inspector to perform all signal installation inspections. Use only Department approved signal inspection report forms during the signal inspection activities.
  - b. Ensure all equipment, materials, and hardware is in compliance with Department Specifications and verify that all equipment requiring certification is listed on the PWWM Traffic Signals And Signs Qualified Products List (TSSQPL) <http://www.miamidade.gov/qpl/>.
  - c. Provide the completed signal inspection report form(s), certified by the IMSA Traffic Signal Inspector to Engineer. Sample forms are available at the FDOT webpage <http://www.dot.state.fl.us/trafficoperations> address:

11. Pipe and Precast Concrete Products Manufacturing Facilities Quality Control Personnel:

- a. General: Obtain personnel certifications from FDOT accredited training providers. The list of FDOT approved courses and their accredited providers is available on the State Materials Office website.
- b. Precast Concrete Drainage Structures, Precast Concrete Box Culvert, Precast Concrete Pipe, Incidental Precast Concrete, and Flexible Pipe Manufacturing Facilities Quality Control Personnel:

1) Level I Quality Control Inspectors: Ensure that the Level I Inspectors have completed a minimum of a 12-hour, Department approved, Level I QC Inspector training course in the respective work area. As an exception to this, ensure Flexible Pipe Level I QC Inspectors have completed a minimum of an 8-hour, Department approved, Level I QC Flexible Pipe Inspector training course. For Incidental Precast Concrete, as an alternative to the completion of the 12-hour training course, the Department will accept QC personnel meeting the requirements of Subarticle 105-F.11.b.4)a) below and CTQP Concrete Field Technician level I certification or Precast/Prestressed Concrete Institute (PCI) Quality Control Technician/Inspector Level II certification.

2) Level II Quality Control Inspectors: Ensure that Level II Inspectors have completed FDOT approved Level I QC Inspector training and a minimum of a 5-hour, FDOT approved, Level II QC Inspector training course in the respective work areas. For Incidental Precast Concrete, as an alternative to the completion of the 5-hour training course, the Department will accept CTQP Concrete Field Technician Level II or PCI Quality Control Level III certifications.

3) Plant Quality Control Manager: Ensure that QC Manager has completed FDOT approved Level II QC Inspector training and has a minimum of 2 years construction related experience in the specific work area.

4) Additional Requirements for Quality Control Personnel of Precast Concrete Drainage, Precast Concrete Box Culvert, and Incidental Precast Concrete Manufacturing Facilities:

a) Testing Personnel: Ensure the personnel performing plastic property tests have ACI Concrete Field Testing Technician-Grade I certification. Ensure the personnel performing laboratory compressive strength testing have ACI Concrete Laboratory Testing Technician-Grade 1 certification or ACI Concrete Strength Testing Technician certification.

b) Batch Plant Operator: Ensure the concrete batch plant operator is qualified as a CTQP Concrete Batch Plant Operator. As an alternative to CTQP qualification, the Department will accept the completion of a minimum of a 6-hour, FDOT approved, Batch Plant Operator training course.

12. Structural Steel and Miscellaneous Metals Fabrication Facility Quality Control Personnel:

a. Ensure each fabrication facility has an onsite production manager, an onsite facility manager for QC, a plant engineer, and on site QC inspectors/technicians to provide complete QC inspections and testing.

b. Ensure that the Facility Manager for QC and QC inspectors/technicians meet the certification requirements set forth in the latest version of AASHTO/NSBA Steel Bridge Collaboration S 4.1, Steel Bridge Fabrication QC/QA Guide Specification, including the years of experience required in Table 105-1 below. The Facility Manager for QC must meet the requirements of Table 105-1 for every Structural Steel Member Type produced by a plant with QC being managed by the Facility Manager for QC. The Facility Manager for QC will report directly to the plant manager or plant engineer and must not be the plant production manager nor report to or be the subordinate of the plant production manager. QC inspectors/technicians must be the employees of, and must report directly to the Facility Manager for QC.

Structural Steel Member Type	Minimum Years of Experience Required	
	QC Inspector/Technician	Facility Manager for QC
Rolled beam bridges	1 year	3 years
Welded plate girders (I sections, box sections, etc.)	2 years	4 years
Complex structures, such as trusses, arches, cable stayed bridges, and moveable bridges	3 years	5 years
Fracture critical (FC) members	3 years	5 years

G. FDOT Quality Control Program.

- 1. Producers for the following materials must have an accepted FDOT Quality Control Program during the production of materials to be used on Department projects and be currently listed in the FDOT Materials/Producer Listings and must meet and maintain the approved FDOT Quality Control Program requirements at all times while producing materials that will be incorporated into the Project (<http://www.dot.state.fl.us/statematerialsoffice/quality/programs/qualitycontrol/materialslistings/postjuly2002.shtml>):

- a. Aggregate
  - b. Asphalt Mix
  - c. Cementitious Material
  - d. Drainage Products
  - e. Earthwork
  - f. Galvanize Metal Products
  - g. Portland Cement Concrete (Structural)
  - h. Prestress/Precast Concrete Products
  - i. Steel and Miscellaneous Metal
  - j. Timber
2. When accreditation or certification is required, make supporting documents from the two previous inspections performed by the accrediting or certifying agency available to the Department upon request.
  3. Prestressed Concrete Quality Control Program: Ensure that prestressed concrete plants participating in the FDOT's Acceptance Program are qualified. Obtaining qualification requires a current certification from a FDOT approved precast prestressed concrete plant certification agency and a FDOT approved Quality Control Plan. The list of FDOT approved certification agencies is available on the website of the FDOT State Materials Office.
  4. Steel and Miscellaneous Metals Quality Control Program:
    - a. Ensure that the fabricators of Steel and miscellaneous metal products participating in the FDOT's Quality Control Acceptance Program are qualified. Obtaining qualification requires an accepted FDOT Quality Control Plan. A current American Institute for Steel Construction (AISC) certification is a requirement for the Quality Control Acceptance Program of the steel and miscellaneous metal fabricators, provided that AISC certification program is available for the category of the fabrication products.
    - b. Steel and Miscellaneous Metal products, including aluminum, are defined as the metal components of bridges, including pedestrian and moveable bridges, overhead and cantilevered sign supports, ladders and platforms, bearings, end wall grates, roadway gratings, drainage items, expansion joints, roadway decking, shear connectors, handrails, galvanized products, fencing, guardrail, light poles, high mast light poles, standard mast arm assemblies and Monotube assemblies, stay in-place forms, casing pipe, strain poles, fasteners, connectors and other hardware.

## 110 CLEARING AND GRUBBING (REV. 05-16-11)

### A. General.

1. Perform all Clearing and Grubbing required by the Contract Documents or necessary to prepare the Project site for the proposed construction.
2. Remove and dispose of all structures, material, product and debris not required to be salvaged or not required to complete the construction.

3. Trim trees and shrubs within the Project right-of-way that are required by the Contract Documents or necessary for the construction of the Project.
4. Perform the work and meet all the requirements for the miscellaneous operations described in Subarticle B.6 herein.
5. Protect and do not displace structures which are to remain in place.

### B. Clearing and Grubbing:

#### 1. Standard Clearing and Grubbing.

- a. Perform Standard Clearing and Grubbing within:
  - 1) Right-of-way of the roadway to be constructed.
  - 2) All Project areas, whether or not shown in the Plans, that require Clearing and Grubbing including:
    - a) Areas where excavation is to be done.
    - b) Areas where roadway embankments will be constructed.
    - c) Areas where structures will be constructed or installed.
- b. Work includes complete removal and disposal of:
  - 1) All buildings, structures, appurtenances, existing pavement, trees, plants, vegetation, timber, brush, stumps, roots, rubbish, debris, and all other obstructions resting on or protruding through the surface of the existing ground and the surface of excavated areas.
  - 2) All other structures and obstructions necessary to be removed and for which other items of the Contract do not specify the removal thereof.
  - 3) Any boulders encountered in the roadway excavation or found on the surface of the ground unless otherwise permitted by the Contract Documents
- c. Depths of Removal of Roots, Stumps, and Other Debris:
  - 1) Completely remove and dispose of all stumps found within the roadway right-of-way.
  - 2) Remove roots and other debris from all excavated material to be used in the construction of roadway embankment.
  - 3) In all areas where excavation is to be performed or roadway embankments are to be constructed, plow the surface to a depth of at least 6 inches, and remove roots and other debris to a depth of 12 inches below the ground surface.
  - 4) Remove all roots and other debris protruding through or appearing on the surface of the completed excavation within the roadway area and for structures, to a depth of at least 12 inches below the finished excavation surface.
  - 5) In borrow pits, material pits, and lateral ditches, remove or cut off all stumps, roots, etc. below the surface of the completed excavation. Do not

perform any clearing or grubbing within 3 feet inside the right-of-way line in borrow and material pits.

- 6) Within all other areas where Standard Clearing and Grubbing is to be performed, remove roots and other debris projecting through or appearing on the surface of the original ground to a depth of 12 inches below the surface, but do not plow or harrow these areas.

d. Trees to Remain:

- 1) As an exception to the above provisions, where so directed by the Engineer, trim, protect, and leave standing desirable trees within the Project area.
- 2) Trim branches of trees extending over the area occupied by the roadway as directed, to give a clear height of 16 feet above the roadway.

2. Selective Clearing and Grubbing.

- a. Perform Selective Clearing and Grubbing only in areas so designated in the Plans or where directed by the Engineer.
- b. Completely remove and dispose of stumps and remove and dispose of all vegetation, obstructions, etc., as required for Standard Clearing and Grubbing except that, where so elected, the Contractor may cut roots flush with the ground surface.
- c. Entirely remove undergrowth except in specific areas designated by the Engineer to remain for aesthetic purposes.
- d. Trim, protect, and leave standing desirable trees, with the exception of such trees as the Engineer may designate to be removed in order to facilitate right-of-way maintenance. Remove undesirable or damaged trees as so designated by the Engineer.

3. Removal of Buildings.

- a. Completely remove all parts of the buildings, including utilities, plumbing, foundations, floors, basements, steps, connecting concrete sidewalks or other pavement, septic tanks, and any other appurtenances, by any practical manner which is not detrimental to other property and improvements. Remove utilities to the point of connection to the utility authority's cut-in.
- b. After removing the sewer connections to the point of cut-in, construct a concrete plug at the cut-in point, as directed by the Engineer, except where the utility owners may elect to perform their own plugging. Contact the appropriate utility companies prior to removal of any part of the building to ensure disconnection of services.
- c. Removal by Others: Where buildings within the area to be cleared and grubbed are so specified to be removed by others, remove and dispose of any foundations, curtain walls, concrete floors, basements or other foundation parts which might be left in place after such removal of buildings by others.

4. Removal of Existing Structures.

a. Structures to be removed include:

- 1) Structures, or portions of structures, shown in the Plans to be removed;

- 2) Structures, or portions of structures, found within the areas requiring Clearing and Grubbing, and directed by the Engineer to be removed;
- 3) Structures, or portion of structures, which are necessary to be removed in order to construct new structures; and
- 4) All other appurtenances or obstructions which may be designated in the Contract Documents as to be included for removal under this Article.

b. Removal Requirements:

1) General:

- a) Remove and dispose of all materials from existing structures required to be removed.
- b) Remove the structures in a neat manner so as to leave no obstructions to any proposed new structures, construction, or to any waterways.
- c) Pull, cut off, or break off pilings to the requirements of the permit or other Contract Documents, whichever requires the deepest removal, but not less than 2 feet below the finish ground line.
- d) If Plans indicate channel excavation to be done by others, consider the finish ground line as the limits of such excavation.
- e) For materials which are to remain the property of the Department or are to be salvaged for use in temporary structures, avoid damage to such materials, and entirely remove all bolts, nails, etc. from timbers to be so salvaged.
- f) Mark structural steel members for identification as directed.

2) Removal of Steel Members With Hazardous Coatings:

- a) Provide to the Engineer for approval, a copy of the "Contractor's Lead in Construction Compliance Program" from the firm actually removing and disposing of these steel members before any members are disturbed.
- b) Vacuum power tool clean any coated steel member to bare metal as defined by SSPC-SP11 a minimum of 4 inches either side of any area to be heated (torch cutting, sawing, grinding, etc.) in accordance with 29 CFR 1926.354. Abrasive blasting is prohibited.
- c) Provide air supplied respirators in accordance with 29 CFR 1926.62 and 29 CFR 1910.134.

c. Partial Removal of Bridges:

- 1) For all demolition methods, submit for review and approval of the Engineer, a demolition plan that describes the method of removal, equipment to be used, types of rebar splices or couplers, and method of straightening or cutting rebars. In addition, for hydro-demolition, describe the method for control of water or slurry runoff and measures for safe containment of concrete fragments that are thrown out by the hydro-demolition machine.
- 2) Where concrete is to be removed to neat lines, use concrete saws or hydro-demolition methods

- capable of providing a reasonably uniform cleavage face. If the equipment used will not provide a uniform cut without surface spalling, first score the outlines of the work with small trenches or grooves.
- 3) On concrete bridges to be partially removed and widened, remove concrete by manually or mechanically operated pavement breakers, by concrete saws, by chipping hammers, or by hydro-demolition methods. Do not use explosives.
- d. Authority of U.S. Coast Guard: For structures in navigable waters, when constructing the project under authority of a U.S. Coast Guard permit, the U.S. Coast Guard may inspect and approve the work to remove any existing structures involved therein, prior to acceptance by the Department.
  - e. Asbestos Containing Materials (ACM) Not Identified Prior to the Work:
    - 1) When encountering or exposing any condition indicating the presence of asbestos, cease operations immediately in the vicinity and notify the Engineer.
    - 2) Make every effort to minimize the disturbance of the ACM. Immediately provide for the health and safety of all workers at the job site and make provisions necessary for the health and safety of the public that may be exposed to any potentially hazardous conditions. Provisions shall meet all applicable laws, rules or regulations covering hazardous conditions and will be in a manner commensurate with the gravity of the conditions.
    - 3) The Engineer will direct the Prime Contractor when operations may resume in the affected area.
5. Removal of Existing Concrete Pavement.
    - a. Remove and dispose of existing rigid portland cement concrete pavement, sidewalk, slope pavement, ditch pavement, curb, and curb and gutter etc., where shown in the plans or ordered by the Engineer to be removed or where required because of the construction operations.
    - b. The work under Removal of Existing Concrete Pavement does not include the removal of retaining walls, drainage structures and flexible asphalt pavement.
  6. Miscellaneous Operations.
    - a. Water Wells Required to be Plugged:
      - 1) Fill or plug all water wells within the right-of-way, including areas of borrow pits and lateral ditches that are not to remain in service, in accordance with applicable Water Management District rules or the Department of Environmental Protection regulations.
      - 2) Cut off the casing of cased wells at least 12 inches below the ground line or 12 inches below the elevation of the finished excavation surface, whichever is lower. Water wells, as referred to herein, are defined either as artesian or non-artesian, as follows:
        - a) An artesian well is an artificial hole in the ground from which water supplies may be obtained and which penetrates any water-bearing rock, the water in which is raised to the surface by natural flow or which rises to an elevation above the top of the water-bearing bed. Artesian wells are further defined to include all holes drilled as a source of water that penetrate any water-bearing beds that are a part of the artesian water system of Florida, as determined by representatives of the applicable Water Management District.
        - b) A non-artesian (water-table) well is a well in which the source of water is an unconfined aquifer. The water in a non-artesian well does not rise above the source bed.
    - b. Landscape Areas: When certain areas of the right-of-way, outside of the limits of construction, are shown in the plans or designated by the Engineer to be landscaped, either under the construction Contract or at a later time, remove undesirable trees, stumps, undergrowth, and vegetation, as directed, and preserve and trim natural growth and trees as directed by the Engineer.
    - c. Leveling Terrain: Within the areas between the limits of construction and the outer limits of clearing and grubbing, fill all holes and other depressions, and cut down all mounds and ridges. Make the area of a sufficient uniform contour so that the Department's subsequent mowing and cutting operations are not hindered by irregularity of terrain. Perform this work regardless of whether the irregularities were the result of construction operations or existed originally.
    - d. Mailboxes: When the Contract Documents require furnishing and installing mailboxes, permit each owner to remove the existing mailbox. Work with the Local Postmaster to develop a method of temporary mail service for the period between removal and installation of the new mailboxes. Install the mailboxes in accordance with the Design Standards.
- C. Ownership of Materials.
    1. Except as may be otherwise specified in the Contract Documents, the Contractor shall take ownership of all buildings, structures, appurtenances, and other materials removed by him and shall dispose of them in accordance with subarticle D below.
  - D. Disposal of Materials.
    1. General:
      - a. Dispose of all debris, timber, stumps, brush, roots, rubbish, and other waste material resulting from clearing and grubbing in areas and by methods meeting the applicable requirements of all Local, State and Federal regulations.
    2. Disposal of Treated Wood:
      - a. Treated wood, including that which comes from bridge channel fender systems, must be handled and disposed of properly during removal.

- b. Treated wood should not be cut or otherwise mechanically altered in a manner that would generate dust or particles without proper respiratory and dermal protection.
  - c. Treated wood must be disposed of in at least a lined solid waste facility or through recycling/reuse.
  - d. Treated wood shall not be disposed by burning or placement in a construction and demolition (C&D) debris landfill.
  - e. All compensation for the cost of removal and disposal of treated wood will be included in the Cost of Removal of Existing Structures when an item for direct payment is provided in the Contract. If an item of direct payment is not provided in the Contract, the aforementioned cost is included in the cost for Clearing and Grubbing or among the other items of work in the Contract.
3. Hazardous Materials/Waste:
- a. General:
    - 1) Handle, transport and dispose of hazardous materials in accordance with all Local, State and Federal requirements including the following:
      - a) SSPC Guide 7
      - b) Federal Water Pollution Control Act, and
      - c) Resource Conservation and Recovery Act (RCRA).
    - 2) Accept responsibility for the collection, sampling, classification, packaging, labeling, accumulation time, storage, manifesting, transportation, treatment and disposal of hazardous waste, both solid and liquid. Separate all solid and liquid waste and collect all liquids used at hygiene stations and handle as hazardous materials/waste. Obtain written approval from the Engineer and required agencies for all hazardous materials/waste stabilization methods before implementation.
    - 3) Obtain an EPA/FDEP Hazardous Waste Identification Number (EPA/FDEP ID Number) before transporting and/or disposal of any hazardous materials/waste.
    - 4) List the Department as the generator of all hazardous materials/waste.
    - 5) Submit the following for the Engineers' approval before transporting, treatment or disposal of any hazardous materials/waste:
      - a) Name, address and qualifications of the transporter,
      - b) Name, address and qualifications of the treatment facility,
      - c) Proposed treatment and/or disposal of all Hazardous Materials/Waste.
    - 6) Transport all hazardous materials/waste in accordance with applicable 40 CFR 263 Standards. Provide a copy of all completed Hazardous Materials/Waste manifest/bills of lading to the Engineer within 21 days of each shipment.
  - b. Steel Members With Hazardous Coating:
    - 1) Unless otherwise required by the Contract Documents, dispose of steel members with hazardous coating in one of the following manners:
      - a) Deliver the steel members and other hazardous waste to a licensed recycling or treatment facility capable of processing steel members with hazardous coating.
      - b) Deliver any other hazardous materials/waste to a licensed hazardous materials/waste recycling treatment facility.
    - 2) Dismantle and/or cut steel members to meet the required dimensions of the recycling facility, treatment facility or other regulatory agency.
    - 3) All compensation for the cost of removal and disposal of hazardous materials/waste will be included in the Cost of Removal of Existing Structures when an item for direct payment is provided in the Contract. If an item of direct payment is not provided in the Contract, the aforementioned cost is included in the cost for Clearing and Grubbing or among the other items of work in the Contract.
  - c. Certification of Compliance:
    - 1) Furnish two copies of Certification of Compliance from the firm actually removing and disposing of the hazardous materials/waste stipulating, the hazardous materials/waste has been handled, transported and disposed of in accordance with this Specification.
    - 2) The Certification of Compliance shall be attested to by a person having legal authority to bind the company.
  - d. Maintain all records required by this Specification and ensure they are available to the Department upon request.
- E. Method of Measurement.
- 1. Clearing and Grubbing:
    - a. No Direct Payment Provided: When no item for direct payment of Clearing and Grubbing is provided by the Contract, the costs for performing all work and meeting the requirements of this Article will be included among the various scheduled items of the Contract.
    - b. Direct Payment Provided: When direct payment for Clearing and Grubbing is provided in the Contract, the quantity to be paid for will be the lump sum quantity.
  - 2. One or more of the following items may appear in a contract where no direct payment item for Clearing and Grubbing is provided. Only those items with an Awarded Unit Price will be considered for direct payment. All other work of Clearing and Grubbing is included among the various scheduled items of the Contract.
    - a. Removal of Existing Structures: When a separate item for the Removal of Existing Structures is provided for direct payment in the Contract, the quantity to be paid for will be the lump sum quantity or actual

quantities for the specific structures removed, as stipulated in the Contract Documents.

- b. Removal of Existing Concrete Pavement: When a separate item for Removal of Existing Concrete Pavement is provided for direct payment in the Contract, the quantity to be paid for will be the number of square yards of existing pavement of the types listed in subarticle B.5 herein, acceptably removed and disposed of, as specified. The quantity will be determined by actual measurement along the surface of the pavement before its removal. Measurements for appurtenances which have irregular surface configurations, such as curb and gutter, steps, and ditch pavement, will be the area as projected to an approximate horizontal plane. Where the removal of pavement areas is necessary only for the construction of box culverts, pipe culverts, storm sewers, french drains, inlets, manholes, etc., these areas will not be included in the measurements.
- c. Removal of Trees: When separate items for the Removal of Trees are provided for direct payment in the Contract, trees that are greater than 6 inches in diameter, will be paid on a per each basis by actual count by the Engineer of such trees under the appropriate item provided in the Contract. The diameter of a tree shall be obtained by measuring its circumference at 4.5 feet above the ground using a flexible tape measure and dividing the circumference by 3.14. If the tree is growing on a slope, the circumference is measured at 4.5 feet from the center of the slope. If the tree begins to branch below 4.5 feet, measure at the smallest circumference below the first branch.
- d. Plugging Water Wells: When a separate item for Plugging of Water Wells is provided for direct payment in the Contract, the quantity to be paid for will be the number of water wells plugged, for each type of well (artesian or non-artesian).
- e. Mailboxes: When a separate item is provided in the Contract for furnishing and installing mailboxes, the quantity to be paid for will be the number of mailboxes acceptably furnished and installed.
- f. Delivery of Salvageable Material to the Department: When a separate item is provided in the Contract for the delivery of salvageable material to the Department, the quantity to be paid for will be the Lump Sum quantity for delivery of salvageable materials to the Department as indicated in the Plans or as directed by the Engineer.

#### F. Basis of Payment.

##### 1. Clearing and Grubbing:

- a. No Direct Payment Provided: When direct payment for Clearing and Grubbing is not provided in the Contract, the cost of any work of clearing and grubbing necessary for the proper construction of the Project and meeting all requirements of this Article, is included in the Contract price for the structure or other item of work for which such clearing and grubbing is required.
- b. Direct Payment Provided:

1) Price and payment will be full compensation for all clearing and grubbing indicated or required for the construction of the entire Project, including all necessary hauling, furnishing equipment, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain and the landscaping work of trimming, etc., as specified herein, except for any areas designated to be paid for separately or to be specifically included in the costs of other work under the Contract.

2) Unless otherwise provided by the Contract, price and payment will be full compensation for all work required by this Article including Removal of Existing Structures, Removal of Existing Concrete Pavement, Removal of Trees, Plugging of Water Wells, Mailboxes, and Delivery of Salvageable Material to the Department.

3) Where construction easements are specified in the Plans and the limits of clearing and grubbing for such easements are dependent upon the final construction requirements, no adjustment will be made in the lump sum price and payment, either over or under, for variations from the limits of the easement defined on the Plans.

- c. The Contractor shall include the cost of all clearing and grubbing which might be necessary in pits or areas from which base material is obtained in the Contract price for the base in which such material is used.
- d. The clearing and grubbing of areas for obtaining stabilizing materials, where required only for the purpose of obtaining materials for stabilizing, will not be paid for separately.

##### 2. Removal of Existing Structures:

- a. Price and payment will be full compensation for all work of removal and disposal of the designated structures.
- b. When direct payment for the removal of existing structures is not provided in the Contract, the cost of removing all structures is included in the Contract price for Clearing and Grubbing or, if no item of Clearing and Grubbing is included, in the compensation for the other items covering the new structure being constructed.

##### 3. Removal of Existing Concrete Pavement:

- a. Price and payment will be full compensation for performing and completing all the work of removal and satisfactory disposal including any saw cutting required.
- b. When direct payment for the removal of existing concrete pavement is not provided in the Contract and no applicable item of excavation or embankment covering such work is included in the Contract, the Contractor shall include the costs of this work in the Contract price for the item of Clearing and Grubbing or, if no item of Clearing and Grubbing is included in the Contract, in any work, pipe or other structure for which the concrete pavement removal is required.

##### 4. Removal of Trees:

- a. Price and payment will be full compensation for complete removal and disposal of each tree counted by the Engineer pursuant to these specifications.
  - b. When direct payment for the removal of trees is not provided in the Contract, the cost of removing all trees is included in the Contract price for Clearing and Grubbing or, if no item of Clearing and Grubbing is included in the Contract, in the compensation for all other items in the Contract.
5. Plugging Water Wells:
- a. Price and payment will be full compensation for each type of well acceptably plugged.
  - b. When direct payment for plugging water wells is not provided in the Contract, the cost plugging water wells is included in the Contract price for Clearing and Grubbing or, if no item of Clearing and Grubbing is included in the Contract, in the compensation for all other items in the Contract.
6. Mailboxes:
- a. Price and payment will be full compensation for all work and materials required, including supports and numbers.
  - b. When direct payment for mailboxes is not provided in the Contract, the cost for all work and materials required, including supports and numbers, is included in the Contract price for Clearing and Grubbing or, if no item of Clearing and Grubbing is included in the Contract, in the compensation for all other items in the Contract.
7. Delivery of Salvageable Material to the Department:
- a. Price and payment will be full compensation for all work required for delivery of the materials to the Department.
  - b. When the Contract does not provide direct payment for the Delivery of Salvageable Material that is to be delivered to the County, the cost of Delivery of Salvageable Material is included in the Contract price for Clearing and Grubbing or, where no item for Clearing and Grubbing is included in the Contract, in the compensation for all other items in the Contract.
8. Payment Items: Payment will be made under:
- a. No separate item(s) for Clearing and Grubbing will be provided under this contract.

**DIVISION 300 BITUMINOUS TREATMENTS SURFACE COURSES AND CONCRETE PAVEMENT**

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**344 PORTLAND CEMENT CONCRETE (REV. 10-26-11)**

A. Description.

1. Use concrete composed of a mixture of Portland cement, aggregates, and water, with or without chemical or mineral admixtures. Construct Concrete based on the type of work as described in the Contract Documents and the Concrete Work Categories below.
  - a. Concrete Work Category 1: Includes the construction of sidewalks, curb and gutter, ditch and slope pavement, or other non-reinforced cast-in-place or precast elements.
  - b. Concrete Work Category 2: Includes the construction of precast concrete including concrete barriers, traffic railing barriers, parapets, sound barriers, inlets, manholes, junction boxes, pipe culverts, storm sewers, box culverts, prestressed concrete poles, concrete bases for light poles, highway sign foundations, retaining wall systems, traffic separators or other structural precast elements.
  - c. Concrete Work Category 3: Includes the work associated with the placement and/or construction of structural cast-in-place concrete requiring a class of concrete specified in FDOT Section 346.

B. Materials.

1. General: Certify that all materials used in concrete meet the following requirements:

Portland Cement:	FDOT Section 921 except Portland cements meeting the requirements of AASHTO M-85 or ASTM C-150 are allowed for nonstructural concrete.
Coarse Aggregate:	FDOT Section 901
Fine Aggregate:	FDOT Section 902
Water:	FDOT Section 923
Chemical Admixtures:	FDOT Section 924
Pozzolans and Slag:	FDOT Section 929
2. Admixture Requirements: Chemical admixtures may be added at the dosage rates recommended by the manufacturer.
3. Material Storage: Use a concrete production facility that meets the following requirements.
  - a. Cementitious Materials Storage: Provide a separate and clearly labeled weatherproof facility to store each brand or type of cementitious material without mixing or contamination. Different brands of cement, cement of the same brand from different facilities, or different types of cement must be stored separately and must

not be mixed. Provide a suitable, safe and convenient means of collecting cementitious material samples at each storage facility.

- b. Aggregate Storage: Provide suitable bins, stockpiles or silos to store and identify aggregates without mixing, segregating or contaminating different grades or types of materials. Identify aggregate type/gradation. Handle the aggregates in a manner to minimize segregation and meet the specification requirements when recovered from storage. Continuously and uniformly sprinkle coarse aggregate with water, for 24 hours preceding introduction into the concrete mix. Timers may be used to facilitate the sprinkling of aggregate stockpiles using an alternating on/off method. However, in no event shall the top surface of the stockpile be permitted to become dry prior to batching of concrete. Moisture probes may be used to determine the moisture content of the aggregate. Ensure that the accuracy of the probe is certified annually and verified weekly. Maintain stored aggregates in a well-drained condition to minimize free water content. Provide access for the Engineer to sample the aggregates from the recovery side of the storage facility.

C. Production, Mixing and Delivery of Concrete.

1. Concrete Production Requirements:

- a. Use concrete production facilities certified by the National Ready-Mixed Concrete Association (NRMCA) and approved by the FDOT.
- b. Produce concrete utilizing equipment that is in good operating condition and operated in a manner to ensure a consistent product. When moisture probes are not used, ensure that the concrete production facility determines the free moisture for the coarse and fine aggregates within two hours prior to each day's batching. On concrete placements expected to exceed three hours, perform an additional moisture test approximately half way through the batching operations and adjust batch proportions accordingly.
- c. Ensure that the calibration of the measuring devices of the concrete production facilities meets the requirements of Chapter 531 of the Florida Statutes, and are in accordance with Chapter 9.2 of the FDOT Materials Manual. At least quarterly, ensure that all scales, meters and other weighing or measuring devices are checked for accuracy by a qualified representative of a scale company registered with the Bureau of Weights and Measures of the Florida Department of Agriculture. As an alternative, the producer may have this frequency identified in an FDOT approved QC plan. The accuracy of admixture measuring dispensers will be certified annually by the admixture supplier.
- d. When Volumetric Mixers are used for Category I applications, deliver concrete in accordance with the requirements of Volumetric Mixer Manufacturers Bureau (VMMB) and ensure that the vehicle has a VMMB registered rating plate.

2. Classes of Concrete: Classes of concrete to be used on the Project will be as specified in the Contract Documents or FDOT Section 346 when applicable.
3. Contractors Quality Control: Provide Engineer for approval a Quality Control (QC) plan to identify to the Department how quality will be ensured at the project site. During random inspections Engineer will use this document to verify that the construction of the Project is in agreement with the QC plan and the Contract Documents.
4. Concrete Mix Design:
  - a. Before producing any concrete, submit the proposed mix design to Engineer on a form provided by the Department. Otherwise, the Department may accept applicable mix designs previously described in an FDOT approved QC plan. In any event, use only concrete mix designs having prior approval of the Engineer.
  - b. Materials may be adjusted provided that the theoretical yield requirement of the approved mix design is met. Show all required original approved design mix data and batch adjustments and substituted material on a Department approved concrete delivery ticket. Engineer may disqualify any concrete production facility for non-compliance with specification requirements.
5. Delivery:
  - a. For cast-in-place applications, the maximum allowable mixing and agitation time of concrete is 90 minutes.
  - b. Furnish a delivery ticket on a form approved by the Department with each batch of concrete before unloading at the placement site. The delivery ticket shall be printed. Record material quantities incorporated into the mix on the delivery ticket. Ensure that the Batcher responsible for producing the concrete certifies that the batch was produced in accordance with these Specifications and signs the delivery ticket. Contractor must sign the delivery ticket certifying that the concrete was batched, delivered and placed in accordance with these Specifications.
  - c. The Contractor is responsible for rejecting loads of concrete that do not meet the plastic properties of the approved mix design or the minimum compressive strength requirements.
  - d. At the sole option of the Department, the Engineer may accept concrete at a reduced pay when it is determined that the concrete will serve its intended function.
6. Placing Concrete:
  - a. Concreting in Cold Weather:
    - 1) Do not place concrete when the temperature of the concrete at placement is below 45°F.
    - 2) Meet the air temperature requirements for mixing and placing concrete in cold weather as specified in FDOT Section 346. During the curing period, if NOAA predicts the ambient temperature to fall below 35°F for 12 hours or more or to fall below 30°F for more than 4 hours, enclose the structure in such a way that the concrete and air within the enclosure can be kept above 60°F for a period of 3 days after placing the concrete or until the concrete reaches a minimum compressive strength of 1,500 psi.
  - b. Concreting in Hot Weather:
    - 1) Meet the temperature requirements and special measures for mixing and placing concrete in hot weather as specified in FDOT Section 346.
    - 2) When the temperature of the concrete as placed exceeds 75°F, incorporate in the concrete mix a water-reducing retarder or water reducer if allowed by FDOT Section 346.
  - c. Spray reinforcing steel and metal forms with cool fresh water just prior to placing the concrete in a method approved by the Engineer.
  - d. Assume all risks connected with the placing and curing of concrete. Although Engineer may give permission to place concrete, Contractor is responsible for satisfactory results. If the placed concrete is determined to be unsatisfactory, remove, dispose of, and replace the concrete at no expense to the County.
7. Mixers: Ensure that mixers are capable of combining the components of concrete into thoroughly mixed and uniform mass, free from balls or lumps of cementitious materials, and capable of discharging the concrete uniformly. Operate concrete mixers at speeds per the manufacturer's design. Do not exceed the manufacturer's rated capacity for the volume of mixed concrete in the mixer, mixing drum, or container.
8. Small Quantities of Concrete: With approval of the Engineer, small quantities of concrete, less than 3 yd<sup>3</sup> placed in one day and less than 0.5 yd<sup>3</sup> placed in a single placement may be accepted using a pre-bagged mixture. The Department may verify that the pre-bagged mixture is prepared in accordance with the manufacturer's recommendations and will meet the requirements of this Specification.
9. Sampling and Testing:
  - a. Category 1: Engineer may sample and test the concrete at his discretion to verify its quality. The minimum 28 day compressive strength requirement for this concrete is 3,000 psi.
  - b. Category 2: Provide a statement of certification from the manufacturer of the precast element that the element meets the quality control and inspection testing requirements of the Contract Documents.
  - c. Category 3: The Department will randomly select a sample from each 200 yd<sup>3</sup> or one day's production to determine plastic properties and to make three 4 x 8 inch cylinders for testing by the Department at 28 days to ensure that the design compressive strength has been met. The Department may, at its discretion, test

additional concrete samples to ensure compliance with the Specifications.

10. Records: Maintain the following records for review for at least 3 years after final acceptance of the Project:

- a. Approved concrete mix designs.
- b. Materials source (delivery tickets, certifications, certified mill test reports).
- c. A copy of the scale company or testing agency report showing the observed deviations from quantities checked during calibration of the scales and meters.
- d. A copy of the documentation certifying the admixture weighing/measuring devices.
- e. For non structural concrete, the Department will accept recent NRMCA, VMMB or FDOT inspection records certifying the plant or truck can produce concrete. In addition, documentation will be available at the plant or in the truck showing that action has been taken to correct deficiencies noted during the inspections.

D. Acceptance of the Work.

1. Category 1 Work: Category 1 work will be accepted based upon compliance with Production, Mixing and Delivery Requirements specified in herein.
2. Category 2 Work: Precast elements will be accepted based upon certification from the Contractor that the elements were produced by a production facility on the FDOT's current approved plant list. In addition, the producers QC stamp will be displayed on the element.
3. Category 3 Work: Category 3 work shall be in full compliance with this Specification, and with current FDOT Specifications, FDOT Section 346 and associated Contractor Quality Control (QC) specifications governing cast-in-place concrete. In addition, a Delivery Ticket as described in Subarticle 344-B.5 will be required for acceptance of the material at the Project site.

E. Method of Measurement.

1. The quantities to be paid for will be the concrete items having awarded Contract Prices that are completed and accepted by Engineer.

F. Basis of Payment.

- a. No separate item(s) for Portland Cement Concrete will be provided under this contract.

## **SECTION 7: SPECIAL PROVISIONS**

## SPECIAL PROVISIONS

**SPECIAL PROVISIONS**  
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Authorization Agreement for Automatic Deposit

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Equipment Specifications

## 1. GENERAL REQUIREMENTS

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### 1.01 MISCELLANEOUS CONSTRUCTION CONTRACTS (MCC) PLAN. GENERAL TERMS AND CONDITIONS AND SPECIAL CONDITIONS

1. Division 01 (General Requirements) of the DTPW Specifications amends the MCC Plan, and other provisions of the Contract Documents. All requirements of the MCC Plan, Resolution and amendments', or portions thereof, which are not specifically modified, deleted, or superseded by Division 01, remain in full effect. In the event a conflict between these two complementary portions of the Contract Documents occurs, Division 01 will prevail and Engineer will provide a clarification and final determination. These Special Provisions also amend, complement, modify or delete items from the DTPW Construction Specifications of these Solicitation and Contract Documents.

The contractor must obtain and submit all permits prior to performing any work. The contractor must obtain all permits and submit copies to the project manager prior to performing any work and complete all work required to properly commission the equipment described for installation within 240 days from the date of the notice to proceed.

### 1.02 SCOPE OF WORK

1. The Scope of Work for this project includes, but is not limited to, furnishing all labor, A/C units, material, equipment, and crane services necessary for the replacement of (17) rooftop A/C units at Miami Dade Transit Coral Way Bus Facility 2775 S.W 74 Ave. Miami FL 33155. Folio: 30-4014-010-0020
2. Contractor shall be responsible for restoring any damages to the existing finished surfaces and building components caused by the execution of this work.

Replace (17) various old Coleman Rooftop Package Units from 7.5 to 15-ton size on existing curbs and with curb adapters as required. With new Tempmaster/JCI type units to match. Each new unit to have: 460/60/3, Hinged door panels all-access, factory coil coating condenser coil, unit mounted non-fused disconnect, condensate overflow switch, phase monitor, motorized damper, heater selection as specified factory wired and installed. Powered 120-volt convenience outlet on the two 12.5-ton units only.

3. The Contractor must provide and install new motorized outside air dampers on all units as required by the code.
4. The Contractor must provide and install a factory electric heater as specified for the equipment.
5. The Contractor must provide and install new digital, non-programmable, two staged thermostats compatible with new JCI type units.
6. The Contractor must reconnect the system to existing, smoke detector system, and ductwork.
7. The Contractor must pull Mechanical A/C Permit and other required permits and provide any documentation, installation of code required items, drawings, engineering tie-down or wind load plans as required for permitting. Per Florida State Statute 218.80 requires permit fees to be disclosed, which is part of the contractor's responsibility as part of the contractors' bid and MCC 7360 requirements. Estimated permit fees based on 175 total tons x \$21.48 per ton = \$3,759.00 (+) 251 KW heat x \$4.30 per KW = \$1079.30 prices subject to change by the building department.

8. The Contractor must perform smoke test to comply with Building Department's requirement for final inspection.
9. The Contractor must provide crane service.
10. The Contractor will be required to dispose of old equipment.
11. The Contractor must supply all roofing and incidental materials to complete work as per code. To include curb to unit sealing with 2" wide by 1/2" thick peel & stick Armaflex type curb gasket to be placed in and around all existing curbs.
12. The Contractor must provide and secure unit, curb, and any required curb adapter as per code and provide and install all required fasteners and hardware required for installation.
13. The Contractor shall connect to existing wiring and provide any required additional electrical items, flexible conduit, or wiring necessary to connect new units per code. All 3/4", 1" and 1-1/4" Seal-tight and any existing bell boxes on roof to be replaced furnished and installed under this contract. Connect all low voltage wiring to A/C units, thermostats, and fire alarm system.
14. The work area must be cleaned daily.
15. Replace all condensation drain traps as needed, with an insulated copper pipe with overflow shut off switch. All units will require insulated 1" NPT copper lines and copper P-traps. Drains to have from unit, short PVC nipple, PVC union FPT x FPT, copper male adapter, and copper P-trap and pipe. Furnish and install all necessary parts for condensate drain lines for the new unit connection. All 1" copper pipes to be a minimum of type M pipe. All copper condensate drains shall terminate indirect to nearest roof drain or indirect to 2" PVC lines on roof to nearest roof drain. All smaller units 12.5-ton and under shall require insulated 3/4" copper lines and copper P-traps. Furnish all necessary parts for condensate drain lines for the new connection.
16. Prior to the NTP, the Contractor must submit an employee list of names for the workers who will be performing work at the facility to the project manager. MDT personnel will perform background checks on each of those employees before issuing the required security clearance and provide County badges to those working on MDT property. The employee list must include the following: Name, DOB, and SSN.

### 1.03 LOCATION OF WORK

1. Work is located at Miami Dade Transit Coral Way Bus Facility 2775 S.W 74 Ave. Miami FL 33155
2. The facilities and buildings therein are owned by Miami-Dade County Department. Contractor is responsible for obtaining all permits that may be required from them and meeting all requirements of the Owner.

#### Building:

1. Miami Dade Transit Coral Way Bus Facility.

#### 1.04 TIME FOR COMPLETION

1. The Work must be substantially completed within 240 days after the date when the Contract Time commences to run as provided in subarticle 1.06 N of the General Requirements (Division 1), and all requirements of the Contract Documents completed and ready for final payment within 210 days after the date when the Contract Time commences to run.
2. The effective date of the "Notice to Proceed" will be established during the Preconstruction Conference which is held shortly after the Award of Contract and which is attended by members of Department of Transportation and Public Works, the Contractor, representatives of utility companies, and others affected by the Work. The effective date shall be set as a date no later than 30 calendar days after the date of execution of the Contract Documents unless a later date acceptable to both parties is agreed upon in writing.

##### WORK PERFORMED:

- A. Monday thru Friday from 7:00 a.m. to 4:00 p.m., additional times and weekends can be arranged with the DTPW project manager to expedite the installation. All work must be scheduled with DTPW personnel. The contractor may be required when using crane services to operate after hours and on weekends and will be included as part of this bid.

#### 1.05 LIQUIDATED DAMAGES

1. Delete Sub-Article 1.06, J from the DTPW, Liquidated Damages, from the General Requirements and replace as follows:

Contractor, or in case of his default the surety, shall pay to the County, not as a penalty but as liquidated damages, the amount stipulated below should Contractor fail to complete all work specified within the time stipulated in the Contract for substantial completion, including extra time granted in writing by the County.

Liquidated Damages shall be assessed in the amount of \$ 980,00, per day for each day of delay, not as a penalty, but as Liquidated Damages for each day or fraction thereof of delay until the Final Completion Date is met, which will be paid to Miami-Dade County by the Contractor.

Engineers will count default days in calendar days.

County has the right to apply, as payment on such liquidated damages, any money the County owes Contractor.

County does not waive its right to liquidated damages due under the Contract by allowing Contractor to continue and to finish the work, or any part of it, after the expiration of the Contract/Work Order Time including granted time extensions.

The requirements of this Article may not be waived, compromised or settled without the express written consent of the Director or his designee.

## 2. GENERAL CONSTRUCTION

---

### 2.01 EQUIPMENT SPECIFICATIONS

1. Refer to Appendix "B" to the Special Provisions

### 2.02 MECHANICAL WORK

1. Description.
  1. Provide all labor, material, equipment, including cranes and any required permits installation of a new roof system and insulation, inclusive of all mechanical items, electrical items, connections, curbs, flashings, appurtenances.
  2. Properly remove and dispose of all old equipment and appurtenances.
2. Execution of Work
  1. Work area must be cleaned daily.
  2. Perform the Work from 7:00 am to 6:00 pm, Monday through Friday. Any deviation from this schedule is to be requested in writing 3 days in advance. The Contractor is responsible for scheduling and coordinating subcontractor work.
  3. Restore any damages to the existing finished surfaces and building components caused by the execution of this work.
3. Permits
  1. Comply with all the requirements of crane service and road blockage requirements by the City of Miami or Miami-Dade County.
4. Warranty:
  1. Provide warranties on all materials and workmanship for a period of one year and transfer all factory warranties to Miami Dade County. Unit must have a factory warranty of at least 5 years.
5. Measurement and Payments:
  1. All work described under this Article, inclusive of material, labor equipment, permits, and any incidental, to be covered under a single payment.
6. Basis of Payment.
  1. All material, labor and equipment and permit if required is to be paid under a single pay item.

APPENDIX "A" TO SPECIAL PROVISIONS  
AUTHORIZATION AGREEMENT FOR AUTOMATIC DEPOSIT





## ACH AUTHORIZATION AGREEMENT FOR AUTOMATIC DIRECT DEPOSIT OF MIAMI-DADE COUNTY WARRANTS

### INSTRUCTIONS

Please contact us at (305) 375-5111 or email at [FIN-ACHN@miamidade.gov](mailto:FIN-ACHN@miamidade.gov) if you have any questions or need assistance with this form.

You may obtain blank copies of this form at : [http://www.miamidade.gov/finance/library/ach\\_form.pdf](http://www.miamidade.gov/finance/library/ach_form.pdf)

At our Vendor Payment Inquiry (VPI) website you can obtain payment information as well as status of invoices, payment due date and other important information. You can reach the VPI site at :

<https://w85exp.miamidade.gov/VInvoice/login.do>

### Section 1

#### Transaction Type

New : If vendor is currently not on ACH deposits with Miami-Dade County.

Change : If vendor is currently on ACH deposits with Miami-Dade County and would like to make changes to their information ( example : change of financial institution, account number, etc.)

Terminate : If vendor is currently on ACH deposits with Miami-Dade County and would like to switch to either Check or AP Control disbursement type )

**Federal Identification Number** : Enter your Federal Employer Identification Number (FEIN) or Social Security Number (SSN) used to register you as a vendor with Miami-Dade County. Name and FEIN/SS must be exactly as provided on IRS Form W-9.

**Vendor Name** : Enter the name of your business or individual name used to register you as a vendor with Miami-Dade County.

**DBA (Doing Business As )** : If you have registered a DBA for your business or for you as an individual, please enter it here.

**Fiscal Officer Name, Title and E-Mail** : Name of Authorized Corporate officer, Title and E-Mail address to be contacted to. Corporate officer signing this form must be an authorized signatory in the corporate bank account listed on this form.

**ACH Notification E-Mail** : This is the E-Mail address where payment information will be sent to.

### Section 2

This section must be completed in full and legible manner by your banking institution in order to prevent delays in processing change to ACH. Both acknowledgment statements must be checked off by Bank Official signing and dating the form.

### Section 3

This section will be completed by Miami-Dade County Finance Department.

#### ORIGINAL FORM AND VOIDED CHECK OR REDACTED STATEMENT MUST BE MAILED TO :

##### Accounts Payable Manager

**Miami-Dade County Finance Department**

**111 NW First Street, Suite 2620**

**Miami, Florida 33128**

#### Terms and Conditions

Completed form should not contain any changes (scratched off /white out) or altered information; otherwise, form will not be accepted.

Processing time is approximately fifteen (15) days from receipt of complete form and voided check or redacted Bank statement.

Providing account information does not authorize Miami-Dade County to access bank account activity.

ACH deposits can be made into **only** one (1) bank account. Payments can not be split between multiple accounts.

Notification E-mail providing payment information can be sent to one (1) single E-mail address **only**.

Proper verification will be conducted by Miami-Dade County Finance Department Staff, via a telephone call to confirm the information being provided is accurate.

This authorization shall remain in effect until terminated in writing with sufficient notice to Miami-Dade County Finance Department.

Miami-Dade County will not be responsible for any loss that may arise solely by reason of error, mistake or fraud regarding information provided on this ACH Authorization Agreement Form.

APPENDIX "B" TO SPECIAL PROVISIONS ADDITIONAL  
EQUIPMENT SPECIFICATIONS

## Submittal Summary Page

Qty	Tag #	Model # / Material #	Description
5	CWF-O/I-AC-1F,CWF-O/I-AC-2i,CWF-O/I-AC-1H,CWF-O/I-AC-2G,CWF-TRB-AC-1B	LV15E1BP4A3AAH81F1	15 Ton, Omni Choice Single Packaged R-454B Air Conditioner, Two Stage Compressor Operation, Standard Efficiency, Bottom Duct, Electric Heat, Low Heat 25 kW, 460-3-60, 5 kA Standard SCCR, 2 HP Standard Static Belt Drive Blower <ul style="list-style-type: none"> <li>• IntelliSpeed control of the VFD based on stages of cooling.</li> </ul> Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10. <ul style="list-style-type: none"> <li>• 2" Throwaway Filter</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors.</li> <li>• HACR Circuit Disconnect</li> <li>• Phase Monitor</li> <li>• Epoxy Polymer Coating Condenser Coil</li> <li>• Copper tube/Aluminum fin evaporator coils</li> <li>• Refrigerant Detection System</li> <li>• Hinged Access Panel</li> <li>• Polyester SMC Drain Pan</li> <li>• Condensate Overflow(COF)</li> <li>• Mod Option - Double Wall</li> <li>• Mod Option - UV Lights</li> </ul>
5	CWF-O/I-AC-1F,CWF-O/I-AC-2i,CWF-O/I-AC-1H,CWF-O/I-AC-2G,CWF-TRB-AC-1B	2MD04705324	Motorized Outside Air Damper, 0-25% open position
5		CCT20ACYC32S	ADAPTER CURB : Existing - ZW15 TO New - LV15
5		1WS0404	Wood Skid - Allows unit to be handled with 90 inch forks
10	CWF-O/I-AC-1G,CWF-O/I-AC-1E,CWF-O/I-AC-2H,CWF-O/I-AC-2E,CWF-TRB-AC-1A,CWF-TRB-AC-1C,CWF-TRB-AC-1D,CWF-TRB-AC-2A,CWF-TRB-AC-	KJ090E09P4HBBAB1A1	7.5 Ton, Single Packaged R-454B Air Conditioner, High Efficiency, Two Stage Cooling, 12.4 EER, 9 kW Factory Installed Electric Heat, 460-3-60 <ul style="list-style-type: none"> <li>• Refrigerant Detection System</li> <li>• Motorized Damper (Bottom Return Only)</li> <li>• 1.5 HP Standard Static Belt Drive Blower</li> <li>• Standard 2" Throwaway Filters</li> <li>• IntelliSpeed control of the VFD based on stages of cooling (Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10)</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors.</li> <li>• HACR Circuit Breaker/Disconnect</li> <li>• Phase Monitor</li> <li>• E-Coat Condenser Coil</li> <li>• Micro-Channel "all-aluminum" condenser coil, Copper tube/aluminum fin evaporator coil</li> </ul>

Qty	Tag #	Model # / Material #	Description
	2B,CWF- TRB-AC-2C		<ul style="list-style-type: none"> <li>• Composite Drain Pan - Front Connection</li> <li>• Tool-free maintenance with features like hinged doors for all-access panels, slide-out blower and blower motor tray</li> <li>• Mod Option - UV Lights</li> <li>• Mod Option - OverFlow Drain Pan Switch</li> </ul>
2	CWF-TRB- AC-2D, CWF-O/I- AC-2F	KJ150E18P4HFBAB1A1	<p>12.5 Ton, Single Packaged R-454B Air Conditioner, High Efficiency, Two Stage Cooling, 12.1 EER, 18 kW Factory Installed Electric Heat, 460-3-60</p> <ul style="list-style-type: none"> <li>• Refrigerant Detection System</li> <li>• Motorized Damper (Bottom Return Only)</li> <li>• 3 HP Standard Static Belt Drive Blower</li> <li>• Standard 2" Throwaway Filters</li> <li>• IntelliSpeed control of the VFD based on stages of cooling (Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10)</li> <li>• Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors.</li> <li>• Powered Convenience Outlet (110 VAC / 15 Amp)</li> <li>• HACR Circuit Breaker/Disconnect</li> <li>• Phase Monitor</li> <li>• E-Coat Condenser Coil</li> <li>• Micro-Channel "all-aluminum" condenser coil, Copper tube/aluminum fin evaporator coil</li> <li>• Composite Drain Pan - Front Connection</li> <li>• Tool-free maintenance with features like hinged doors for all-access panels, slide-out blower and blower motor tray</li> <li>• Mod Option - UV Lights</li> <li>• Mod Option - OverFlow Drain Pan Switch</li> </ul>

Cooling Performance	
Total gross capacity	171.8 MBH
Sensible gross capacity	127.4 MBH
Total net capacity	166.6 MBH
Sensible net capacity	122.2 MBH
Efficiency (at ARI)	11.10 EER
Integrated eff. (at ARI)	14.20 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	78.1 °F
Entering WB temp.	64.9 °F
Evap Coil Leaving DB temp.	55.4 °F
Evap Coil Leaving WB temp.	53.8 °F
Unit Leaving DB temp.	56.3 °F
Unit Leaving WB temp.	54.2 °F
Leaving air temp dew point	52.70 °F
Sound power	85 dB(a)
Refrigerant	
Refrigerant type	R-454B
Sys1	7 lb
Sys2	7 lb 6 oz
Heating Performance	
Entering DB temp.	60 °F
Heating output capacity (Max)	78.4 MBH
Nominal electric heat	25 kW
Applied electric heat	23.0 kW
Installed	Factory
Supply air	5200 cfm
Leaving DB temp.	74.0 °F
Air temp. rise	14.0 °F



#### Unit Features

- Refrigerant Detection System (RDS) is Factory Installed
- Two Stage Compressor Operation
- Two independent refrigerant circuits
- Full Perimeter Base Rails with Built in Rigging Capabilities
- 2 HP Standard Static Belt Drive Blower
- 2" Throwaway Filter
- Replacement Filters: 6 (20" x 25" x 2" or 4"). Unit accepts 2" or 4" wide filters.

Equipment start-up and commissioning by a factory trained technician is recommended.  
Contact your supplying distributor or sales representative for additional information & guidance.



WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Project Name: **LT0626-FSD-RTUs**

 Unit Model #: **LV15E1BP4A3AAH81F1**

 Quantity: **5** Tag #: **CWF-O/I-AC-1F,CWF-O/I-AC-2i,CWF-O/I-AC-1H,CWF-O/I-AC-2G,CWF-TRB-AC-1B**

 System: **LV15E1BP4A3AAH81F1**

Supply Air Blower Performance		
Supply air	5200 cfm	
Ext. static pressure	0.6 IWG	
Addl. Unit Losses (Options/Accessories)	-0.02 IWG	
Blower speed	717 rpm	
Max BHP of Motor (including service factor)	2.30 HP	
Duct location	Bottom	
Motor rating	2.00 HP	
Actual required BHP	1.64 HP	
Power input	1.53 kW	
Elevation	0 ft	
Drive type	BELT	
Outside/Mixed Air		
Outside Air cfm	800 cfm	
Outside Air DB temp.	95 °F	
Outsided Air WB temp.	78 °F	
Outside Air RH	47.3 %	
Return Air cfm	4400 cfm	
Return Air DB temp.	75 °F	
Return Air WB temp.	62 °F	
Return Air RH	48.1 %	
Electrical Data		
Power supply	460-3-60	
Unit min circuit ampacity	43.6 A	
Unit max over-current protection	45 A	
Dimensions & Weight		
Hgt 49 in	Len 130 in	Wth 89 in
Weight with factory installed options		1840 lb
Clearances		
Right 42 in	Front 80 in	Rear 36 in
Top 120 in	Bottom 0 in	Left 18 in

- Units are provided with the selected 2-inch or 4-inch filter and can easily be converted in the field to accept either size in the standard filter rack
  - Utility Connections - Gas and electrical utility locations are supplied in the unit underside as well as the side of the unit. Utility connections can be made quickly and with a minimum amount of field labor
  - Copper tube/Aluminum fin evaporator coils
  - Epoxy Polymer Coating protects the condenser coil against corrosion.
- 15 Ton**
- Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

### BAS Controller

- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors.

### Standard Unit Controller: Smart Equipment Control Board

- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, On-Board Diagnostic and Fault Code Display. Allows all units to operate in the cooling mode down to 0 °F outdoor ambient without additional components or intervention.
- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements

Note: Please refer to the tech guide for listed maximum static pressures



Additional Electrical Data	
Power supply	460-3-60
Unit min circuit ampacity	43.6 A
Unit max over-current protection	45 A
Min Voltage	416 V
Max Voltage	508 V
Comp #1 RLA	12.2
Comp #1 LRA	100
Comp #2 RLA	12.2
Comp #2 LRA	100
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	6.1
Outdoor Mtr Qty	2
Outdoor Fan Voltage	460-1-60
OD Fan Mtr FLA (ea.)	1.1
Power Ex Mtr Qty (if applicable)	2
Powered Ex Voltage(if applicable)	460-1-60
Power Ex Mtr FLA (ea) (if applicable)	2.2

Project Name: **LT0626-FSD-RTUs**

 Unit Model #: **LV15E1BP4A3AAH81F1**

 Quantity: **5** Tag #: **CWF-O/I-AC-1F,CWF-O/I-AC-2i,CWF-O/I-AC-1H,CWF-O/I-AC-2G,CWF-TRB-AC-1B**

 System: **LV15E1BP4A3AAH81F1**

### RDS SUMMARY (Lowest Elevation Floor Being Served)

**Refrigerant Detection System (RDS) Not Required.  
Refrigerant Detection System is factory installed.**

Room with the Lowest Discharge Height	0	ft
Smallest RDS Required Room Area on the Lowest Floor	N/A	ft <sup>2</sup>
Min. Allowed Smallest Room Area without an RDS	N/A	ft <sup>2</sup>
Total Applied Area	0	ft <sup>2</sup>
Min. Allowed Total Applied Area	N/A	ft <sup>2</sup>
Min. CFM when RDS is enabled	N/A	cfm
Min. System Exhaust (External to Unit)	N/A	cfm
Total Largest Circuit Refrigerant Charge	0	lb

### JOBSITE INPUTS

R454B is a mildly flammable refrigerant. Unit installation must be in compliance with UL 60335-2-40 and installation and operations manual available on Solution Navigator, DS Solutions app and shipped with the unit.

## Factory Installed Options

### LV15E1BP4A3AAH81F1

Equipment Options	Option(s) Selected
Product Category:	<b>L</b> Omni Choice Single Packaged R-454B Air Conditioner
Efficiency:	<b>V</b> Standard Efficiency, Bottom Duct
Nominal Cooling Capacity:	<b>15</b> 15 Ton
Heat Type:	<b>E</b> Electric Heat
Heat Size:	<b>1</b> Low Heat 25 kW
Blower Option:	<b>B</b> 2 HP Standard Static Belt Drive Blower
Air Volume:	<b>P</b> Two Stage Compressor Operation IntelliSpeed control of the VFD based on stages of

Project Name: **LT0626-FSD-RTUs**

 Unit Model #: **LV15E1BP4A3AAH81F1**

 Quantity: **5** Tag #: **CWF-O/I-AC-1F,CWF-O/I-AC-2i,CWF-O/I-AC-1H,CWF-O/I-AC-2G,CWF-TRB-AC-1B**

 System: **LV15E1BP4A3AAH81F1**

		cooling. Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10.
<b>Voltage:</b>	<b>4</b>	460-3-60 5 kA Standard SCCR
<b>Outside Air Option:</b>	<b>A</b>	
<b>Coil Options:</b>	<b>3</b>	Epoxy Polymer Coating Condenser Coil Copper tube/Aluminum fin evaporator coils
<b>Controls:</b>	<b>A</b>	Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors.
<b>Sensor Options:</b>	<b>A</b>	Refrigerant Detection System
<b>Service Options:</b>	<b>H</b>	HACR Circuit Disconnect Phase Monitor
<b>Refrigeration:</b>	<b>8</b>	
<b>Additional Options:</b>	<b>1</b>	2" Throwaway Filter
<b>Cabinet Options:</b>	<b>F</b>	Hinged Access Panel Polyester SMC Drain Pan Condensate Overflow(COF)
<b>Product Generation:</b>	<b>1</b>	

### Field Installed Accessories

- |  |   |  |
|--|---|--|
| <input type="radio"/> 1BD0411 - Burglar Bars (85.0 lbs)                                    | <input type="radio"/> 1FA0422 - Manual Outside Air Damper, 0-100% open position (65.0 lbs)        | <input type="radio"/> 2EE04710524 - Low Leak Economizer for Standard Smart Equipment controls connection (195.0 lbs) |
| <input type="radio"/> 1CV0406 - Concentric Diffuser,Flush Mount,18X36                      | <input type="radio"/> 1HG0454 - Louvered Hail/Coil Guard (76.0 lbs)                               | <input type="radio"/> 2LA04700646 - Low Ambient Controller for 460V (12.0 lbs)                                       |
| <input type="radio"/> 1CV0407 - Concentric Diffuser,Flush Mount,24X28                      | <input type="radio"/> 1RC0443 - 14" Roof Curb (171.0 lbs)   | <input type="radio"/> 2MD04705324 - Motorized Outside Air Damper, 0-25% open position (225.0 lbs)                    |
| <input type="radio"/> 1CV0415 - Concentric Diffuser,Side Discharge,18X36                   | <input type="radio"/> 1RC0446 - 24" Roof Curb (237.0 lbs)   | <input type="radio"/> 1RD0414 - Barometric Relief Damper (40.0 lbs)  |
| <input type="radio"/> 1CV0416 - Concentric Diffuser,Side Discharge,24X48                   | <input type="radio"/> 2AP0402 - Air Proving Switch (1.0 lbs)                                      | <input type="radio"/> 2MD04705424 - Motorized Outside Air Damper, 0-100% open position (168.0 lbs)                   |
| <input type="radio"/> 1CV0421 - Concentric Diffuser,Specialty,28X28                        | <input type="radio"/> 2AQ04700524 - CO <sup>2</sup> Space Sensor - Wall Mount Accessory (5.0 lbs) | <input type="radio"/> 2NC0401 - Non-powered Convenience Outlet (5.0 lbs)   |
| <input type="radio"/> 1CV0422 - Concentric Diffuser,Specialty,30X30                        | <input type="radio"/> 2AQ04700624 - CO <sup>2</sup> Unit Mount Accessory (4.6 lbs)                | <input type="radio"/> 2SD04702024 - Supply Air Smoke Detector (8.0 lbs)  |
| <input type="radio"/> 1CV0423 - Concentric Diffuser,Specialty,36X36                        | <input type="radio"/> 2DF0403 - Dirty Filter Switch (1.0 lbs)                                     | <input type="radio"/> 2SD04703024 - Return Air Smoke Detector (8.0 lbs)  |
| <input type="radio"/> 1CV0427 - Concentric Diffuser,Specialty,28X28                        | <input type="radio"/> 2EE04710424 - Low Leak Economizer for BAS controls connection (280.0 lbs)   | <input type="radio"/> 2SD04703124 - Supply & Return Air Smoke Detector (12.0 lbs)                                    |
| <input type="radio"/> 1CV0428 - Concentric Diffuser,Specialty,30X30                        |   |  |
| <input type="radio"/> 1FA0421 - Manual Outside Air Damper, 0-25% open position (200.0 lbs) |   |  |

Project Name: **LT0626-FSD-RTUs**

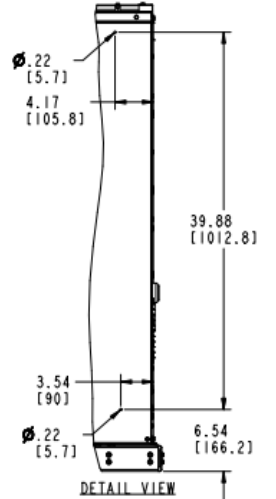
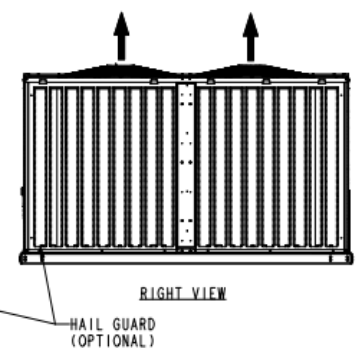
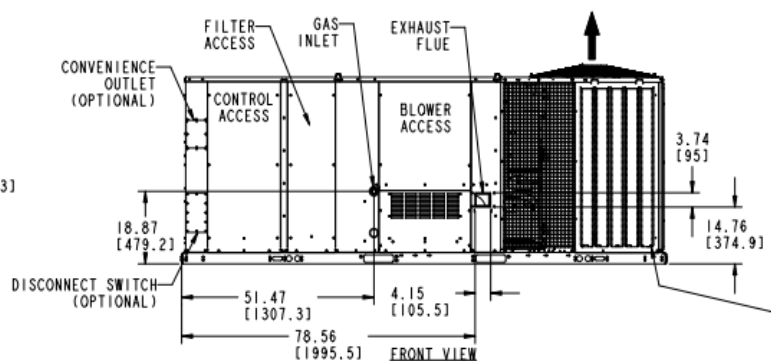
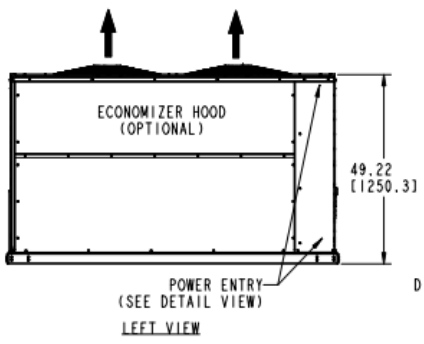
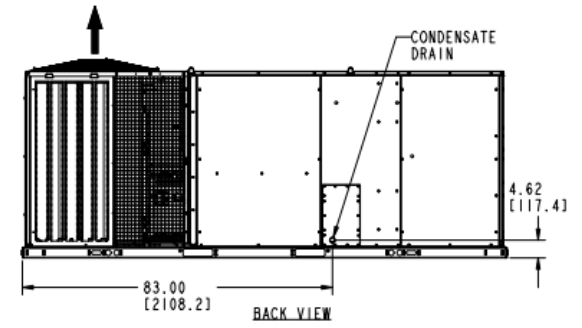
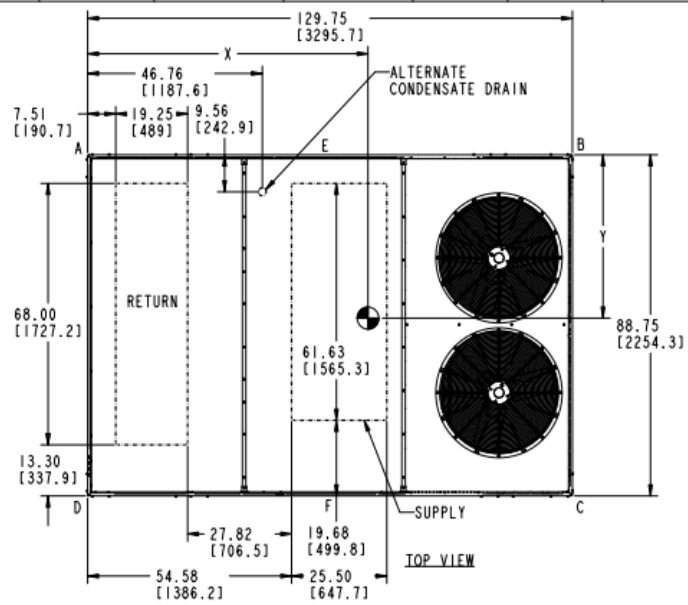
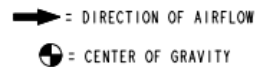
Unit Model #: **LV15E1BP4A3AAH81F1**

Quantity: **5** Tag #: **CWF-O/I-AC-1F,CWF-O/I-AC-2i,CWF-O/I-AC-1H, CWF-O/I-AC-2G,CWF-TRB-AC-1B**

**KV 15-17.5T Submittal**

- NOTES:**
- FOR OUTDOOR USE ONLY.
  - WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
  - SERVICE (S) AND MINIMUM (M) CLEARANCE TO COMBUSTIBLE MATERIAL:
- | UNIT SIDE               | INCHES | MM     |
|-------------------------|--------|--------|
| RIGHT (S)               | 42     | [1067] |
| LEFT, NO ECON OR PE (S) | 18     | [457]  |
| LEFT, W/ ECON OR PE (S) | 96     | [2438] |
| FRONT/HEAT ACCESS (S)   | 80     | [2032] |
| REAR (S)                | 36     | [914]  |
| TOP (S)                 | 120    | [3048] |
| UNIT-TO-UNIT (S)        | 120    | [3048] |
| DUCT (M)                | 0      | [0]    |
| FLOOR (M)               | 0      | [0]    |
| FRONT/FLUE (M)          | 42     | [1067] |
- FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES CONTACT YOUR APPLICATION ENGINEERING DEPARTMENT.
  - DOWNFLOW DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY.
  - MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
  - DIMENSIONS IN [ ] ARE IN MILLIMETERS OR KILOGRAMS.
  - OPTIONAL COIL GAURDS, GAS HEAT, DISCONNECT SWITCH SHOWN.
  - HEAT EXCHANGER IS TYPICAL OF HIGH GAS HEAT OPTION.

TONNAGE	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)		4 POINT CORNER LOADS (LBS) (BASE UNIT)				6 POINT CORNER LOADS (LBS) (BASE UNIT)					
		X	Y	A	B	C	D	A	B	C	D	E	F
AV/KV15	1750 [793]	66.1 [1678.9]	49.9 [1267.4]	375 [170]	390 [176]	502 [227]	483 [219]	249 [113]	261 [118]	337 [153]	320 [145]	255 [116]	328 [149]
AV/KV17.5	1830 [830]	66.4 [1686.6]	49.4 [1254.7]	397 [180]	416 [188]	521 [236]	497 [225]	262 [119]	279 [127]	350 [159]	329 [149]	271 [123]	339 [154]



REV	DATE	REVISION RECORD	EC NO	DR	CK	ENG	THIRD ANGLE PROJECTION	ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HEREOF ARE RESERVED AND NO PERMISSION IS GRANTED TO REPRODUCE THIS PRINT IN WHOLE OR IN PART OR DISCLOSE ANY OF THE INFORMATION HEREON TO OTHERS WITHOUT WRITTEN RELEASE BY JOHNSON CONTROLS	SAFETY AND KEY CHARACTERISTICS PER SE-FSD-STD-91 MATERIAL
1	01-11-24	NEW DRAWING	XXXXX	HG	YK	AJR		DRAWING PER ASME Y14.5-2009 TOLERANCES UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL = ± .1 TWO PLACE DECIMAL = ± .01 THREE PLACE DECIMAL = ± .010 ANGLES = ± 2° DIMENSIONS ARE IN INCHES DO NOT SCALE PRINT	TYPE ENG SPEC SIZE
								SUBMITTAL DWG, CHOICE 2 ODF, 48.5" CAB	REV
								JOHNSON CONTROLS UNITARY PRODUCTS GROUP NORMAN, OK 73069	ONE NO. REV PART NO.
								SCALE 0.065	REV 1
								SHT NO 1 OF 1	

Project Name: LT0626-FSD-RTUs

Unit Model #: LV15E1BP4A3AAH81F1

Quantity: 5 Tag #: CWF-O/I-AC-1F,CWF-O/I-AC-2i,CWF-O/I-AC-1H,CWF-O/I-AC-2G,CWF-TRB-AC-1B

### Rain hood dimensions

Figure 8: Rain hood dimensions

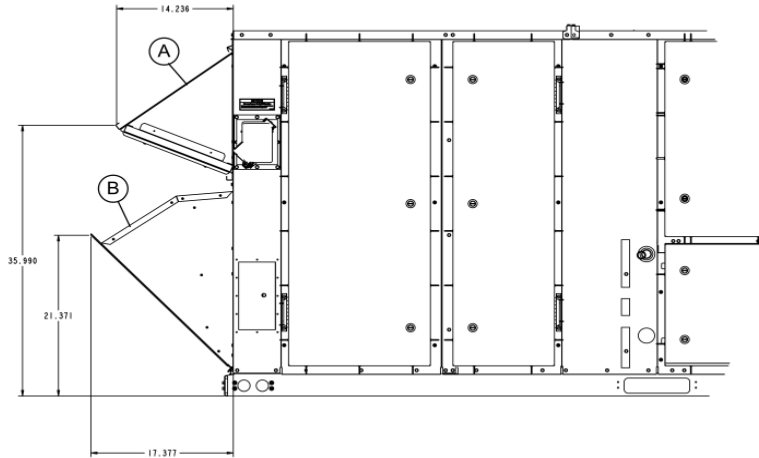


Table 32: Rain hood components

Item	Description
A	Economizer/motorized damper and power exhaust rain hood
B	Air intake hood

Project Name: **LT0626-FSD-RTUs**Unit Model #: **KJ090E09P4HBBAB1A1**

Quantity: **10** Tag #: **CWF-O/I-AC-1G,CWF-O/I-AC-1E,CWF-O/I-AC-2H,CWF-O/I-AC-2E,CWF-TRB-AC-1A,CWF-TRB-AC-1C,CWF-TRB-AC-1D,CWF-TRB-AC-2A,CWF-TRB-AC-2B,CWF-TRB-AC-2C**

System: **KJ090E09P4HBBAB1A1**

### Cooling Performance

Total gross capacity	90.5 MBH
Sensible gross capacity	64.5 MBH
Total net capacity	86.6 MBH
Sensible net capacity	60.6 MBH
Efficiency (at ARI)	12.40 EER
Integrated eff. (at ARI)	16.00 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	77.2 °F
Entering WB temp.	64.1 °F
Evap Coil Leaving DB temp.	55.1 °F
Evap Coil Leaving WB temp.	52.7 °F
Unit Leaving DB temp.	56.4 °F
Unit Leaving WB temp.	53.2 °F
Leaving air temp dew point	50.90 °F
Power input (w/o blower)	6.30 kW
Sound power	86 dB(a)

### Refrigerant

Refrigerant type	R-454B
Sys1	5 lb 10 oz
Sys2	5 lb 10 oz

### Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	30.7 MBH
Nominal electric heat	9 kW
Applied electric heat	9.0 kW
Installed	Factory
Supply air	2700 cfm
Leaving DB temp.	70.5 °F
Air temp. rise	10.5 °F
Stages	1

### Supply Air Blower Performance

Supply air	2700 cfm
Ext. static pressure	0.6 IWG
Add. Unit Losses (Options/Accessories)	0.09 IWG
Blower speed	815 rpm
Max BHP of Motor (including service factor)	1.73 HP
Duct location	Bottom
Motor rating	1.50 HP
Actual required BHP	1.22 HP
Power input	1.13 kW
Elevation	0 ft
Drive type	BELT

### Outside/Mixed Air

Outside Air cfm	300 cfm
Outside Air DB temp.	95 °F
Outsided Air WB temp.	78 °F
Outside Air RH	47.3 %
Return Air cfm	2400 cfm
Return Air DB temp.	75 °F
Return Air WB temp.	62 °F
Return Air RH	48.1 %

### Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	20.9 A
Unit max over-current protection	25 A

### Dimensions & Weight

Hgt	51 in	Len	89 in	Wth	59 in
Weight with factory installed options	1165 lb				

### Clearances

Right	12 in	Front	48 in	Rear	12 in
Top	72 in	Bottom	0 in	Left	36 in

Note: Please refer to the tech guide for listed maximum static pressures



### Unit Features

- Refrigerant Detection System (RDS) is Factory Installed
- Two Stage Cooling
- 9 kW Factory Installed Electric Heat
- Full perimeter base rails with built in rigging capabilities
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- Scroll Compressor[s]
- Motorized Damper (Bottom Return Only)
- 1.5 HP Standard Static Belt Drive Blower
- Solid Core Liquid Line Filter Driers
- Unit Ships with 2" Throwaway Filters
- Replacement Filters: 4 - (24" x 20").
- HACR Circuit Breaker/Disconnect
- Single Point Power Connection
- Through-the-Curb and Through-the-Base Utility Connections
- Short Circuit Current: 5kA RMS Symmetrical
- E-Coat Condenser Coil
- Micro-Channel "all-aluminum" condenser coil, Copper tube/aluminum fin evaporator coil
- Composite Drain Pan - Front Connection
- Tool-free maintenance with features like hinged doors for all-access panels, slide-out blower and blower motor tray

### 7.5 Ton

- Tempmaster units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### Product Features

- All units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### BAS Controller

- IntelliSpeed control of the VFD based on stages of cooling. Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10.
- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors.

### Standard Unit Controller: Smart Equipment Control Board

- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Three (3) Year Warranty - ElectroFin Condenser Coil
- Five (5) Year Warranty - Compressors and Electric Heater Elements



Project Name: **LT0626-FSD-RTUs**

 Unit Model #: **KJ090E09P4HBBAB1A1**

 Quantity: **10** Tag #: **CWF-O/I-AC-1G,CWF-O/I-AC-1E,CWF-O/I-AC-2H,CWF-O/I-AC-2E,CWF-TRB-AC-1A,CWF-TRB-AC-1C,CWF-TRB-AC-1D,CWF-TRB-AC-2A,CWF-TRB-AC-2B,CWF-TRB-AC-2C**

 System: **KJ090E09P4HBBAB1A1**

### Additional Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	20.9 A
Unit max over-current protection	25 A
Min Voltage	432 V
Max Voltage	504 V
Comp #1 RLA	5.8
Comp #1 LRA	50.0
Comp #2 RLA	5.8
Comp #2 LRA	50
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	4.6
Outdoor Mtr Qty	2
Outdoor Fan Voltage	460-1-60
OD Fan Mtr FLA (ea.)	1.6
Power Ex Mtr Qty (if applicable)	1
Powered Ex Voltage(if applicable)	460-1-60
Power Ex Mtr FLA (ea) (if applicable)	2.2



# 3-12.5 TempMaster® Omni™ Pro

Project Name: **LT0626-FSD-RTUs** Unit Model #: **KJ090E09P4HBBAB1A1**

Quantity: **10** Tag #: **CWF-O/I-AC-1G,CWF-O/I-AC-1E,CWF-O/I-AC-2H,CWF-O/I-AC-2E,CWF-TRB-AC-1A,CWF-TRB-AC-1C,CWF-TRB-AC-1D,CWF-TRB-AC-2A,CWF-TRB-AC-2B,CWF-TRB-AC-2C** System: **KJ090E09P4HBBAB1A1**

<b>RDS SUMMARY (Lowest Elevation Floor Being Served)</b>		
<b>Refrigerant Detection System (RDS) Not Required. Refrigerant Detection System is factory installed.</b>		
Room with the Lowest Discharge Height	0	ft
Smallest RDS Required Room Area on the Lowest Floor	N/A	ft <sup>2</sup>
Min. Allowed Smallest Room Area without an RDS	N/A	ft <sup>2</sup>
Total Applied Area	0	ft <sup>2</sup>
Min. Allowed Total Applied Area	N/A	ft <sup>2</sup>
Min. CFM when RDS is enabled	N/A	cfm
Min. System Exhaust (External to Unit)	N/A	cfm
Total Largest Circuit Refrigerant Charge	0	lb

### **JOBSITE INPUTS**

R454B is a mildly flammable refrigerant. Unit installation must be in compliance with UL 60335-2-40 and installation and operations manual available on Solution Navigator, DS Solutions app and shipped with the unit.

### **Factory Installed Options**

### **KJ090E09P4HBBAB1A1**

<b>Equipment Options</b>		<b>Option(s) Selected</b>
<b>Product Category:</b>	<b>KJ</b>	Single Packaged R-454B Air Conditioner, High Efficiency 12.4 EER
<b>Nominal Cooling Capacity:</b>	<b>090</b>	7.5 Ton Two Stage Cooling
<b>Heat Type and Nominal Heat Capacity:</b>	<b>E09</b>	9 kW Factory Installed Electric Heat
<b>Blower Option:</b>	<b>P</b>	1.5 HP Standard Static Belt Drive Blower IntelliSpeed control of the VFD based on stages of cooling (Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10)

Project Name: **LT0626-FSD-RTUs**

 Unit Model #: **KJ090E09P4HBBAB1A1**

 Quantity: **10** Tag #: **CWF-O/I-AC-1G,CWF-O/I-AC-1E,CWF-O/I-AC-2H,CWF-O/I-AC-2E,CWF-TRB-AC-1A,CWF-TRB-AC-1C,CWF-TRB-AC-1D,CWF-TRB-AC-2A,CWF-TRB-AC-2B,CWF-TRB-AC-2C**

 System: **KJ090E09P4HBBAB1A1**

<b>Voltage:</b>	<b>4</b>	460-3-60
<b>Outside Air Option:</b>	<b>H</b>	Motorized Damper (Bottom Return Only)
<b>Service Options:</b>	<b>B</b>	Refrigerant Detection System HACR Circuit Breaker/Disconnect
<b>Sensor Options:</b>	<b>B</b>	
<b>Controls:</b>	<b>A</b>	Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors.
<b>Refrigeration:</b>	<b>B</b>	E-Coat Condenser Coil Micro-Channel "all-aluminum" condenser coil, Copper tube/aluminum fin evaporator coil
<b>Additional Options:</b>	<b>1</b>	Standard 2" Throwaway Filters Phase Monitor
<b>Cabinet Options:</b>	<b>A</b>	Composite Drain Pan - Front Connection Tool-free maintenance with features like hinged doors for all-access panels, slide-out blower and blower motor tray
<b>Product Generation:</b>	<b>1</b>	

### Field Installed Accessories

- |   |   |   |
|---|---|---|
| <ul style="list-style-type: none"> <li><input type="radio"/> 1BD0408 - Burglar Bars (32.0 lbs)</li> <li><input type="radio"/> 1CG0419 - Coil Guard (27.0 lbs)</li> <li><input type="radio"/> 1CV0403 - Concentric Diffuser, Flush Mount, 20RD</li> <li><input type="radio"/> 1CV0404 - Concentric Diffuser, Flush Mount, 18X28</li> <li><input type="radio"/> 1CV0412 - Concentric Diffuser, Side Discharge, 20RD</li> <li><input type="radio"/> 1CV0413 - Concentric Diffuser, Side Discharge, 18X28</li> <li><input type="radio"/> 1CV0420 - Concentric Diffuser, Specialty, 24X24</li> <li><input type="radio"/> 1EH0407 - Barometric Relief Kit for Power Exhaust, Downflow Application (Includes Hood) (27.0 lbs)</li> <li><input type="radio"/> 1FF0414 - 2" Only Metal Filter Frame Kit (16.0 lbs)</li> <li><input type="radio"/> 1FL0402 - Permanent 2" only Filter Kit (Includes (4) Four Filters) (2.2 lbs)</li> <li><input type="radio"/> 1HG0411 - Hail Guard Kit-Diamond Pattern (37.0 lbs)</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> 1HG0432 - Hail Guard Kit-Provent Style (25.0 lbs)</li> <li><input type="radio"/> 1RC0470 - Roof Curb - 8" High, Flat, Uninsulated, Full Perimeter (Shipped Knocked Down) (135.0 lbs)</li> <li><input type="radio"/> 1RC0471 - Roof Curb - 14" High, Flat, Uninsulated, Full Perimeter (Shipped Knocked Down) (135.0 lbs)</li> <li><input type="radio"/> 1RC0472 - Roof Curb, Transition-Sunline 7.5T thru 12.5T to Pro 3.0T thru 12.5T (Shipped Assembled) (200.0 lbs)</li> <li><input type="radio"/> 1RC0476 - Roof Curb - 24" High, Flat, Uninsulated, Full Perimeter (Shipped Knocked Down) (135.0 lbs)</li> <li><input type="radio"/> 1WC0412 - Wooden Crate (445.0 lbs)</li> <li><input type="radio"/> 2AP0402 - Air Proving Switch (1.0 lbs)</li> <li><input type="radio"/> 2DF0403 - Dirty Filter Switch (1.0 lbs)</li> </ul> | <ul style="list-style-type: none"> <li><input type="radio"/> 2EC0401 - Kit, Single Enthalpy Field Installed (1.0 lbs)</li> <li><input type="radio"/> 2LA04702412 - Low Ambient Kit - ICM 333 (2.2 lbs)</li> <li><input type="radio"/> 2SD04700824 - Smoke Detector Kit w/ Mounting Hardware for Supply Air (Horizontal/Downflow) Only (9.4 lbs)</li> <li><input type="radio"/> 2SD04700924 - Smoke Detector Kit w/ Mounting Hardware for Return Air (Downflow Only) Only (10.0 lbs)</li> <li><input type="radio"/> 2SD04701024 - Smoke Detector Kit w/ Mounting Hardware for Supply (Horizontal/Downflow) and Return Air (Downflow Only) (8.0 lbs)</li> <li><input type="radio"/> S1-ADDWIRE - Add-a-Wire allows 5-wire thermostats to use only 4 wires. (0.3 lbs)</li> <li><input type="radio"/> S1-CTSDTS - CTS Wired Temperature Sensor for thermostat   Duct *Also works for LX Series (0.3 lbs)</li> </ul> |
|---|---|---|

Project Name: LT0626-FSD-RTUs

Unit Model #: KJ090E09P4HBBAB1A1

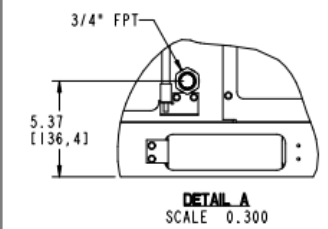
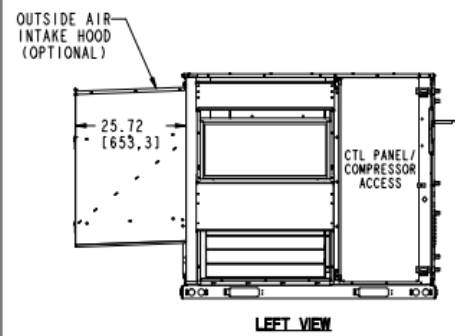
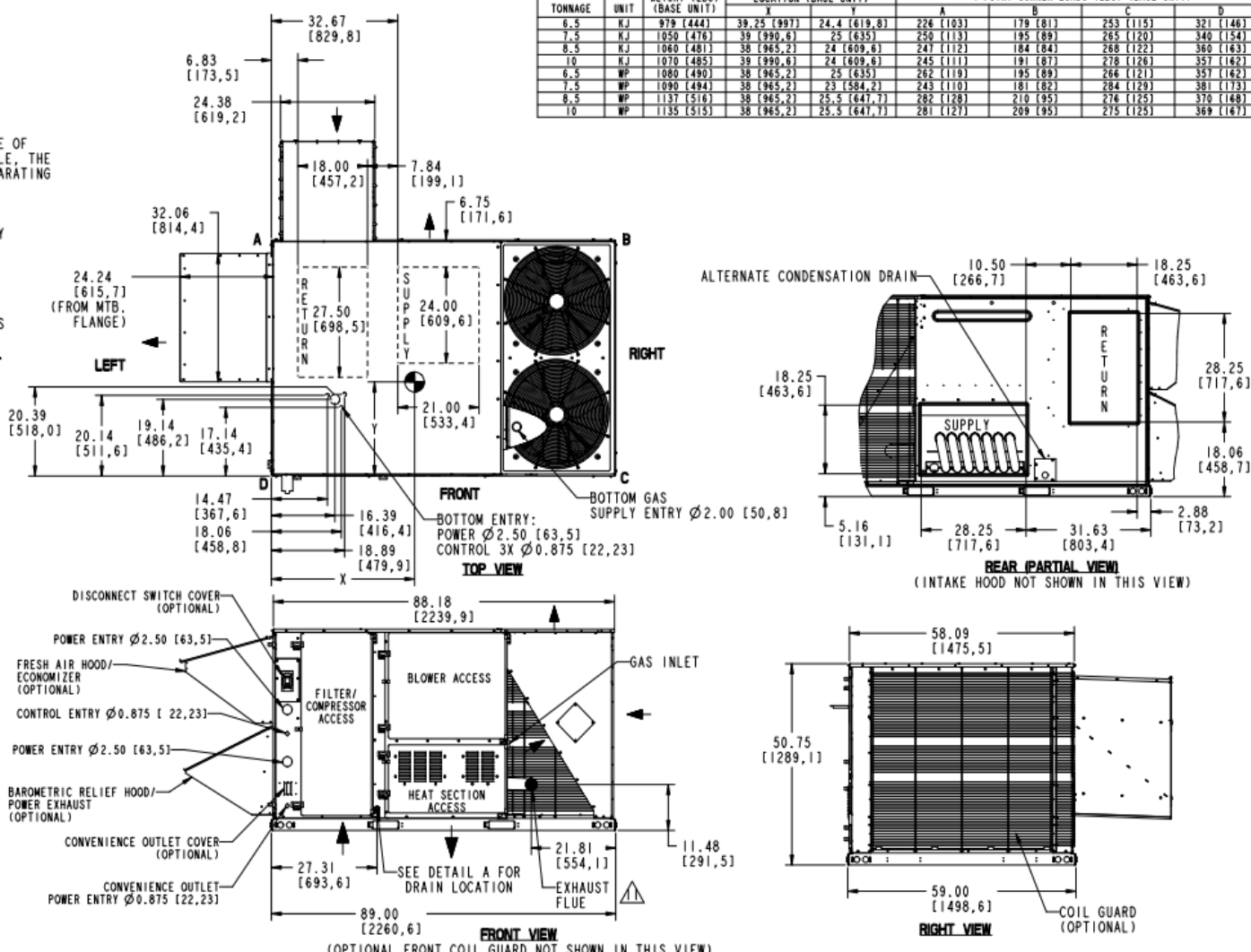
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Submittal

- NOTES:
- FOR OUTDOOR USE ONLY.
  - WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
  - MIN. CLEARANCES TO BE:  
RIGHT SIDE: 12 [305]  
LEFT SIDE: 36 [915]  
FRONT: 48 [1220]  
REAR: 36 [915]  
TOP: 72 [1830]  
BOTTOM: 0 [0]
  - TO REMOVE THE SLIDE-OUT DRAIN PAN, A REAR CLEARANCE OF 60 in (1525 mm) IS REQUIRED. IF SPACE IS UNAVAILABLE, THE DRAIN PAN CAN BE REMOVED THROUGH THE FRONT BY SEPARATING THE CORNER WALL.
  - FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES CONTACT YOUR APPLICATION ENGINEERING DEPARTMENT.
  - DOWNFLOW DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. IF UNIT IS MOUNTED SIDE SUPPLY, IT IS RECOMMENDED THAT THE DUCTS ARE SUPPORTED BY CROSS BRACES, AS DONE ON ACCESSORY ROOF CURBS.
  - SIDE DUCT FLANGES ARE 0.75" HIGH. BOTTOM DUCTS DO NOT HAVE FLANGES.
  - MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
  - DIMENSIONS IN [ ] ARE IN MILLIMETERS OR KILOGRAMS.
  - OPTIONAL COIL GUARDS, POWER EXHAUST, GAS HEAT, ECONOMIZER, DISCONNECT SWITCH, CONVENIENCE OUTLET, AND BAROMETRIC RELIEF AND FRESH AIR HOODS SHOWN.

- ▲ EXCEPT WP (HEAT PUMP) UNITS.
- ➔ DIRECTION OF AIRFLOW
- CENTER OF GRAVITY

TONNAGE	UNIT	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)		4 POINT CORNER LOADS (LBS) (BASE UNIT)			
			X	Y	A	B	C	D
6.5	RJ	979 (444)	39.25 (997)	24.4 (619.8)	226 (103)	179 (81)	253 (115)	321 (146)
7.5	RJ	1050 (476)	39 (990.6)	25 (635)	250 (113)	195 (89)	265 (120)	340 (154)
8.5	RJ	1060 (481)	38 (965.2)	24 (609.6)	247 (112)	184 (84)	268 (122)	360 (163)
10	RJ	1070 (485)	38 (965.2)	24 (609.6)	245 (111)	191 (87)	278 (126)	357 (162)
6.5	WP	1080 (490)	38 (965.2)	25 (635)	262 (119)	195 (89)	264 (121)	357 (162)
7.5	WP	1090 (494)	38 (965.2)	23 (584.2)	243 (110)	181 (82)	284 (129)	381 (173)
8.5	WP	1137 (516)	38 (965.2)	25.5 (647.7)	282 (128)	210 (95)	276 (125)	370 (168)
10	WP	1135 (515)	38 (965.2)	25.5 (647.7)	281 (127)	209 (95)	275 (125)	369 (167)



REV	DATE	REVISION RECORD	EC NO	DR	CK	ENG
A	10-31-23	NEW DRAWING		100724	LOP	RCH BV

THIRD ANGLE PROJECTION

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DRAWING PER ASME Y14.5-2009 TOLERANCES UNLESS OTHERWISE SPECIFIED:

ONE PLACE DECIMAL = ± .1  
TWO PLACE DECIMAL = ± .03  
THREE PLACE DECIMAL = ± .010  
ANGLES = ± 2°  
DIMENSIONS ARE IN INCHES  
DO NOT SCALE PRINT

SAFETY AND KEY CHARACTERISTICS PER RE-PDP-STD-01

MATERIAL TYPE NOT APPLICABLE  
ENG SPEC NOT APPLICABLE  
SIZE

SUBMITTAL DATA DWG, PRO STD FLAT COIL, 50"

JOHNSON CONTROLS  
UNITARY PRODUCTS GROUP  
NORMAN, OK 73069

DWG NO. 6454071  
PART NO. SH1 NO. 1 OF 1

REV A

Project Name: **LT0626-FSD-RTUs**

 Unit Model #: **KJ150E18P4HFBAB1A1**

 Quantity: **2** Tag #: **CWF-TRB-AC-2D,  
CWF-OI-AC-2F**

 System: **KJ150E18P4HFBAB1A1**

### Cooling Performance

Total gross capacity	154.5 MBH
Sensible gross capacity	99.8 MBH
Total net capacity	147.0 MBH
Sensible net capacity	92.3 MBH
Efficiency (at ARI)	12.10 EER
Integrated eff. (at ARI)	15.40 IEER
Ambient DB temp.	95.0 °F
Entering DB temp.	77.7 °F
Entering WB temp.	64.5 °F
Evap Coil Leaving DB temp.	53.0 °F
Evap Coil Leaving WB temp.	50.2 °F
Unit Leaving DB temp.	54.9 °F
Unit Leaving WB temp.	51.0 °F
Leaving air temp dew point	47.90 °F
Power input (w/o blower)	11.20 kW
Sound power	82 dB(a)

### Refrigerant

Refrigerant type	R-454B
Sys1	9 lb 6 oz
Sys2	8 lb 10 oz

### Heating Performance

Entering DB temp.	60 °F
Heating output capacity (Max)	61.4 MBH
Nominal electric heat	18 kW
Applied electric heat	18.0 kW
Installed	Factory
Supply air	3750 cfm
Leaving DB temp.	75.2 °F
Air temp. rise	15.2 °F
Stages	2

### Supply Air Blower Performance

Supply air	3750 cfm
Ext. static pressure	0.6 IWG
Addl. Unit Losses (Options/Accessories)	0.2 IWG
Blower speed	1043 rpm
Max BHP of Motor (including service factor)	3.45 HP
Duct location	Bottom
Motor rating	3.00 HP
Actual required BHP	2.36 HP
Power input	2.20 kW
Elevation	0 ft
Drive type	BELT

### Outside/Mixed Air

Outside Air	500 cfm
Outside Air DB temp.	95 °F
Outside Air WB temp.	78 °F
Outside Air RH	47.3 %
Return Air	3250 cfm
Return Air DB temp.	75 °F
Return Air WB temp.	62 °F
Return Air RH	48.1 %

### Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	41 A
Unit max over-current protection	45 A

### Dimensions & Weight

Hgt	51 in	Len	120 in	Wth	59 in
Weight with factory installed options	1402 lb				

### Clearances

Right	12 in	Front	48 in	Rear	12 in
Top	72 in	Bottom	0 in	Left	36 in

Note: Please refer to the tech guide for listed maximum static pressures



### Unit Features

- Refrigerant Detection System (RDS) is Factory Installed
- Two Stage Cooling
- 18 kW Factory Installed Electric Heat
- Full perimeter base rails with built in rigging capabilities
- Unit Cabinet Constructed of Powder Painted Steel, Certified At 750 Hours Salt Spray Test (ASTM B-117 Standards)
- Scroll Compressor[s]
- Motorized Damper (Bottom Return Only)
- Solid Core Liquid Line Filter Driers
- Unit Ships with 2" Throwaway Filters
- Replacement Filters: 4 - (24" x 20")
- Powered Convenience Outlet (110 VAC / 15 Amp)
- HACR Circuit Breaker/Disconnect
- Single Point Power Connection
- Through-the-Curb and Through-the-Base Utility Connections
- Short Circuit Current: 5kA RMS Symmetrical
- E-Coat Condenser Coil
- Micro-Channel "all-aluminum" condenser coil, Copper tube/aluminum fin evaporator coil
- Composite Drain Pan - Front Connection
- Tool-free maintenance with features like hinged doors for all-access panels, slide-out blower and blower motor tray

### 12.5 Ton

- Tempmaster units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### Product Features

- All units are manufactured at an ISO 9001 registered facility and each rooftop is completely computer-run tested prior to shipment.

### BAS Controller

- IntelliSpeed control of the VFD based on stages of cooling. Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10.
- Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors.

### Standard Unit Controller: Smart Equipment Control Board

- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

### Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Three (3) Year Warranty - ElectroFin Condenser Coil
- Five (5) Year Warranty - Compressors and Electric Heater Elements



Project Name: **LT0626-FSD-RTUs**

 Unit Model #: **KJ150E18P4HFBAB1A1**

 Quantity: **2** Tag #: **CWF-TRB-AC-2D,  
CWF-O/I-AC-2F**

 System: **KJ150E18P4HFBAB1A1**

### Additional Electrical Data

Power supply	460-3-60
Unit min circuit ampacity	41 A
Unit max over-current protection	45 A
Min Voltage	432 V
Max Voltage	504 V
Comp #1 RLA	8.8
Comp #1 LRA	74.6
Comp #2 RLA	8.8
Comp #2 LRA	74.6
Indoor Mtr Voltage	460-3-60
Indoor Mtr FLA	6.1
Outdoor Mtr Qty	4
Outdoor Fan Voltage	460-1-60
OD Fan Mtr FLA (ea.)	1.1
Power Ex Mtr Qty (if applicable)	1
Powered Ex Voltage(if applicable)	460-1-60
Power Ex Mtr FLA (ea) (if applicable)	2.2
Powered Conv. Outlet FLA	20.0

### RDS SUMMARY (Lowest Elevation Floor Being Served)

**Refrigerant Detection System (RDS) Not Required.  
Refrigerant Detection System is factory installed.**

Room with the Lowest Discharge Height	0	ft
Smallest RDS Required Room Area on the Lowest Floor	N/A	ft <sup>2</sup>
Min. Allowed Smallest Room Area without an RDS	N/A	ft <sup>2</sup>
Total Applied Area	0	ft <sup>2</sup>
Min. Allowed Total Applied Area	N/A	ft <sup>2</sup>
Min. CFM when RDS is enabled	N/A	cfm
Min. System Exhaust (External to Unit)	N/A	cfm
Total Largest Circuit Refrigerant Charge	0	lb

### JOBSITE INPUTS

————— R454B is a mildly flammable refrigerant. Unit installation must be in compliance with UL 60335-2-40 and installation and operations manual available on Solution Navigator, DS Solutions app and shipped with the unit.

Project Name: **LT0626-FSD-RTUs**

 Unit Model #: **KJ150E18P4HFBAB1A1**

 Quantity: **2** Tag #: **CWF-TRB-AC-2D,  
CWF-O/I-AC-2F**

 System: **KJ150E18P4HFBAB1A1**

## Factory Installed Options

### KJ150E18P4HFBAB1A1

Equipment Options	Option(s) Selected
<b>Product Category:</b>	<b>KJ</b> Single Packaged R-454B Air Conditioner, High Efficiency 12.1 EER
<b>Nominal Cooling Capacity:</b>	<b>150</b> 12.5 Ton Two Stage Cooling
<b>Heat Type and Nominal Heat Capacity:</b>	<b>E18</b> 18 kW Factory Installed Electric Heat
<b>Blower Option:</b>	<b>P</b> 3 HP Standard Static Belt Drive Blower IntelliSpeed control of the VFD based on stages of cooling (Provides Single Zone VAV Fan Operation as defined by ASHRAE 90.1 section 6.4.3.10)
<b>Voltage:</b>	<b>4</b> 460-3-60
<b>Outside Air Option:</b>	<b>H</b> Motorized Damper (Bottom Return Only)
<b>Service Options:</b>	<b>F</b> Refrigerant Detection System Powered Convenience Outlet (110 VAC / 15 Amp) HACR Circuit Breaker/Disconnect
<b>Sensor Options:</b>	<b>B</b>
<b>Controls:</b>	<b>A</b> Smart Equipment Controller including Discharge Air, Return Air, and Outdoor Air Temperature Sensors.
<b>Refrigeration:</b>	<b>B</b> E-Coat Condenser Coil Micro-Channel "all-aluminum" condenser coil, Copper tube/aluminum fin evaporator coil
<b>Additional Options:</b>	<b>1</b> Standard 2" Throwaway Filters Phase Monitor
<b>Cabinet Options:</b>	<b>A</b> Composite Drain Pan - Front Connection Tool-free maintenance with features like hinged doors for all-access panels, slide-out blower and blower motor tray
<b>Product Generation:</b>	<b>1</b>

## Field Installed Accessories

- |   |   |  |
|---|---|--|
| <input type="radio"/> 1BD0408 - Burglar Bars (32.0 lbs)<br><input type="radio"/> 1CV0404 - Concentric Diffuser, Flush Mount, 18X28<br><input type="radio"/> 1CV0405 - Concentric Diffuser, Flush Mount, 18X32 | <input type="radio"/> 1CV0406 - Concentric Diffuser, Flush Mount, 18X36<br><input type="radio"/> 1CV0413 - Concentric Diffuser, Side Discharge, 18X28 | <input type="radio"/> 1CV0414 - Concentric Diffuser, Side Discharge, 18X32<br><input type="radio"/> 1CV0415 - Concentric Diffuser, Side Discharge, 18X36 |
|---|---|--|

Project Name: **LT0626-FSD-RTUs**

Unit Model #: **KJ150E18P4HFBAB1A1**

Quantity: **2** Tag #: **CWF-TRB-AC-2D, CWF-O/I-AC-2F**

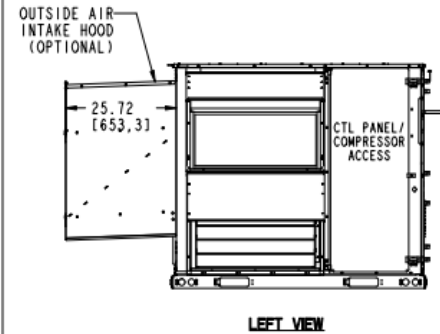
**Submittal**

- NOTES:**
- FOR OUTDOOR USE ONLY.
  - WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
  - MIN. CLEARANCES TO BE:  
RIGHT SIDE: 12 [305]  
LEFT SIDE: 36 [915]  
FRONT: 48 [1220]  
REAR: 36 [915]  
TOP: 72 [1830]  
BOTTOM: 0 [0]
  - TO REMOVE THE SLIDE-OUT DRAIN PAN, A REAR CLEARANCE OF 60 in (1525 mm) IS REQUIRED. IF SPACE IS UNAVAILABLE, THE DRAIN PAN CAN BE REMOVED THROUGH THE FRONT BY SEPARATING THE CORNER WALL.
  - FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES CONTACT YOUR APPLICATION ENGINEERING DEPARTMENT.
  - DOWNFLOW DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. IF UNIT IS MOUNTED SIDE SUPPLY, IT IS RECOMMENDED THAT THE DUCTS ARE SUPPORTED BY CROSS BRACES, AS DONE ON ACCESSORY ROOF CURBS.
  - SIDE DUCT FLANGES ARE 0.75" HIGH. BOTTOM DUCTS DO NOT HAVE FLANGES.
  - MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
  - DIMENSIONS IN [ ] ARE IN MILLIMETERS OR KILOGRAMS.
  - OPTIONAL COIL GUARDS, POWER EXHAUST, GAS HEAT, ECONOMIZER, DISCONNECT SWITCH, CONVENIENCE OUTLET, AND BAROMETRIC RELIEF & FRESH AIR HOODS SHOWN.

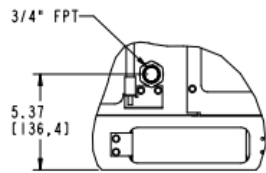
EXCEPT WP (HEAT PUMP) UNITS.

➔ DIRECTION OF AIRFLOW

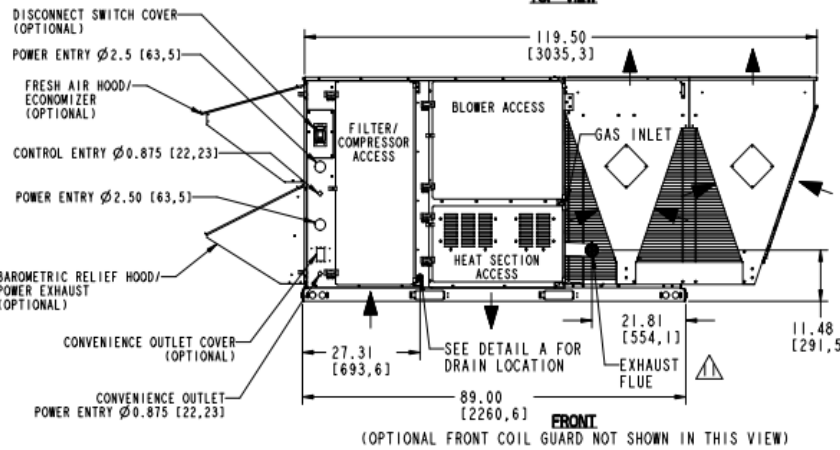
⊙ CENTER OF GRAVITY



**LEFT VIEW**



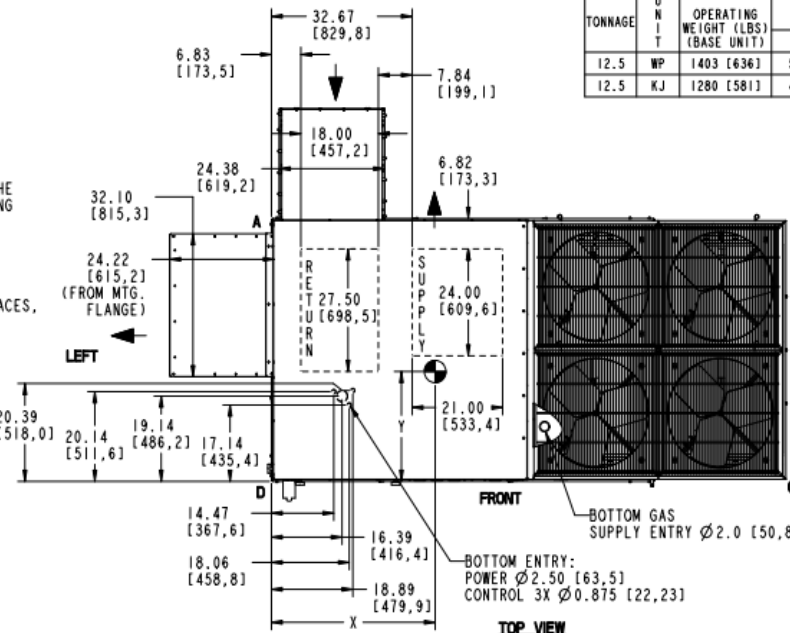
**DETAIL A**  
SCALE 0.300



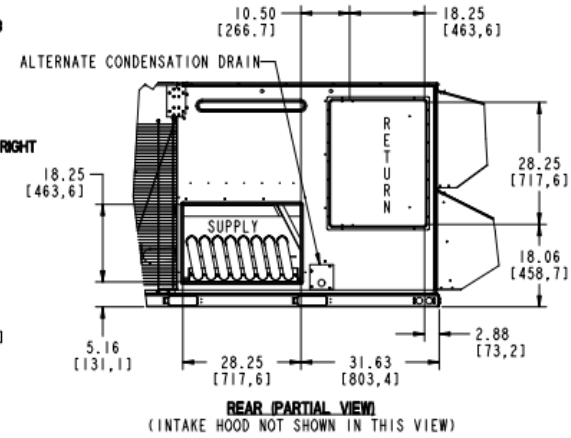
**FRONT**  
(OPTIONAL FRONT COIL GUARD NOT SHOWN IN THIS VIEW)

- DISCONNECT SWITCH COVER (OPTIONAL)
- POWER ENTRY  $\varnothing$ 2.5 [63,5]
- FRESH AIR HOOD/ECONOMIZER (OPTIONAL)
- CONTROL ENTRY  $\varnothing$ 0.875 [22,23]
- POWER ENTRY  $\varnothing$ 2.5 [63,5]
- BAROMETRIC RELIEF HOOD/POWER EXHAUST (OPTIONAL)
- CONVENIENCE OUTLET COVER (OPTIONAL)
- CONVENIENCE OUTLET POWER ENTRY  $\varnothing$ 0.875 [22,23]

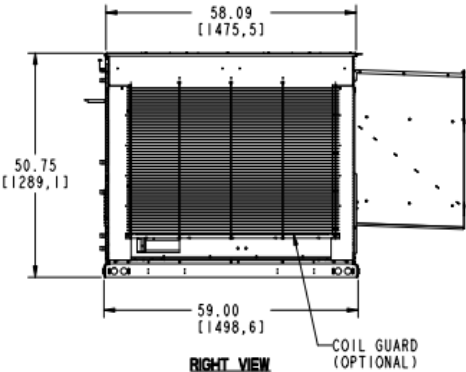
TONNAGE	UNIT	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)		4 POINT CORNER LOADS (LBS) (BASE UNIT)			
			X	Y	A	B	C	D
12.5	WP	1403 [636]	51 [1295,4]	25.5 [647,7]	259 [118]	347 [157]	456 [207]	340 [154]
12.5	KJ	1280 [581]	48 [1219,2]	24 [609,6]	240 [109]	281 [128]	410 [186]	350 [159]



**TOP VIEW**



**REAR (PARTIAL VIEW)**  
(INTAKE HOOD NOT SHOWN IN THIS VIEW)



**RIGHT VIEW**

REV	DATE	REVISION RECORD	EC NO	DR	CK	ENG	THIRD ANGLE PROJECTION	ALL PROPRIETARY RIGHTS IN THE SUBJECT MATTER HEREOF ARE RESERVED AND NO PERMISSION IS GRANTED TO REPRODUCE THIS PRINT IN WHOLE OR IN PART OR DISCLOSE ANY OF THE INFORMATION UPON IT TO OTHERS WITHOUT WRITTEN RELEASE BY JOHNSON CONTROLS	SAFETY AND KEY CHARACTERISTICS PER EC-PSD-STD-01
A	10-31-23	NEW DRAWING	100724	LOP	RCH	BV		DRAWING PER ASME Y14.5-2009 TOLERANCES UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL = ±.1 TWO PLACE DECIMAL = ±.03 THREE PLACE DECIMAL = ±.010 ANGLES = ±° DIMENSIONS ARE IN INCHES DO NOT SCALE PRINT	TYPE NOT APPLICABLE ENG SPEC NOT APPLICABLE MATERIAL SIZE DWG NO. 6454073 PART NO. SHT NO 1 OF 1

SUBMITTAL DATA DWG,  
PRO W COIL, 50" CAB

JOHNSON CONTROLS  
UNITARY PRODUCTS GROUP  
NORMAN, OK 73069

**Date**  
12/16/2024  
**Project Name**  
LT0626-FSD-RTUs  
**Project Number**  
**Client / Purchaser**



## Guide Specification Summary Page

Product Series	Models and Unit Tags
15 - 27.5 Ton Omni Choice	LV15E1BP4A3AAH81F1 CWF-O/I-AC-1F, CWF-O/I-AC-2i, CWF-O/I-AC-1H, CWF-O/I-AC-2G, CWF-TRB-AC-1B
3-12.5 TempMaster® Omni™ Pro	KJ090E09P4HBBAB1A1 CWF-O/I-AC-1G, CWF-O/I-AC-1E, CWF-O/I-AC-2H, CWF-O/I-AC-2E, CWF-TRB-AC-1A, CWF-TRB-AC-1C, CWF-TRB-AC-1D, CWF-TRB-AC-2A, CWF-TRB-AC-2B, CWF-TRB-AC-2C KJ150E18P4HFBAB1A1 CWF-TRB-AC-2D, CWF-O/I-AC-2F

**15 to 27.5 Tons Nominal Cooling**  
**178,000 to 324,000 BTUH Nominal Gas Heating Output**  
**25 to 75 kW Electric Heating**

**23 06 80 Schedules for Decentralized HVAC Equipment**

- 23 06 80. 13 Decentralized Unitary HVAC Equipment Schedule
- 23 06 80. 13.A. Rooftop unit schedule
  - 1. Schedule is per the project specification requirements.

**23 07 16. HVAC Equipment Insulation**

- 23 07 16. 13 Decentralized, Rooftop Units:
  - 23 07 16. 13.A. Evaporator fan compartment:
    - 1. Interior cabinet surfaces shall be insulated with a minimum 0.5 in. thick, fiber glass insulation with thermal conductivity of 0.23 or better, adhered with water based adhesive.
    - 2. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
  - 23 07 16. 13.B. Gas heat compartment:
    - 1. Interior cabinet surfaces shall be insulated with a minimum 0.5 in. thick, fiber glass insulation with thermal conductivity of 0.23 or better, adhered with water based adhesive.
    - 2. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
  - 23 07 16. 13.C. Economizer and Control compartment:
    - 1. Shall be Interior cabinet surfaces shall be insulated with a minimum 0.5 in. thick, fiber glass insulation with thermal conductivity of 0.23 or better, adhered with water based adhesive.
    - 2. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
  - 23 07 16. 13.D. Partition and Duct Panel:
    - 1. Interior cabinet surfaces shall be insulated with a minimum 0.5 in. thick, fiber glass insulation with thermal conductivity of 0.23 or better, adhered with water based adhesive.
    - 2. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
  - 23 07 16. 13.E. Base Pan and Blower Back:
    - 1. Interior cabinet surfaces shall be insulated with a minimum 0.5 in. thick, foil faced fiber glass insulation with thermal conductivity of 0.23 or better, adhered with water based adhesive.
    - 2. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

### **23 09 13 Instrumentation and Control Devices for HVAC**

23 09 13. 23 Sensors and Transmitters

23 09 13. 23.A. Thermostats

1. Thermostat must
  - a. Energize "Y" when calling for cooling and "W" when calling for heating.
  - b. Shall have capability to energize 2 different stages of cooling, and 2 different stages of heating.
  - c. Shall include capability for occupancy scheduling.

### **23 09 23 Direct- digital Control system for HVAC**

23 09 23. 13 Decentralized, Rooftop Units:

23 09 23. 13.A. Simplicity SMART Equipment Control

1. Shall be ASHRAE 62 compliant.
2. Shall accept 20-30 VAC input power, 50/60Hz. 24 VAC nominal.
3. Shall have an operating temperature range from -40°F to 158°F; 10-90% RH (non-condensing UI), and -4°F to 158°F; 10-90% RH (non-condensing), with a storage temperature range from -40°F to 194°F; 5-95% RH (non-condensing).
4. Shall include an option of an Economizer microprocessor controller which communicates directly with the Unit Control Board and has 8 Analog outputs, 2 Analog inputs, 2 Binary outputs, 3 Binary inputs.
5. Controller shall accept the following inputs: space temperature, return air temperature sensor, set point adjustment, outdoor air temperature, indoor air quality, outdoor air quality, indoor relative humidity, compressor lock-out, fire/smoke shutdown, single and dual enthalpy, fan status, remote time clock, Sensor Actuator (SA) Bus communicated temperature/humidity/CO2 values from Network sensors, Field Controller (FC) Bus Network Overrides for space temperature, outdoor air temperature, space humidity, outdoor air quality, Indoor air quality, System purge.
6. Shall accept a CO2 sensor or multiple CO2 sensors networked together in the conditioned space, and be Demand Control Ventilation (DCV) ready.
7. Shall provide compressor short-cycle protection with minimum compressor runtime set at 3 minutes standard and adjustable from 2 to 7 minutes.
8. Unit shall provide surge protection for the controller through a circuit breaker.
9. Shall have open communication protocols with all required points exposed. Protocols supported include: BACnet®, MS/TP, Modbus®, and N2 communication.
10. Shall have an LCD display on the Unit Control Board to display fault messages as well as navigate the menu structure to review and change set points.
11. Shall utilize a USB connection to allow for uploading and downloading of data.
  - a. USB shall allow for downloading of "trending data" for analysis of inputs and values on other device such as a PC.
  - b. USB shall allow for uploading of new firmware to the UCB.
  - c. USB shall allow for backing up controller set points and parameters and for uploading of these same parameters to the UCB.
12. Shall include an RJ-12 port to be used with a Wi-Fi signal transmitting device and allow unit(s) access via any non-proprietary smart device.
  - a. Unit access shall include ability to view and change all adjustable parameters and set points using the same characteristics and values available directly through the UCB joystick and LCD display.
  - b. Unit access shall be configurable at 3 different levels to allow control over parameter and set point changes.
  - c. Wi-Fi transmitting device can be connected by 3 means.
    - 1) RJ-12 port connected directly to UCB.
    - 2) Optional connection port mounted in operating space.
    - 3) Optional connection to building network allowing unit access from any internet browser worldwide.
13. Shall have the capability to integrate with Verasys zoning controls system.
14. Shall not require any proprietary software or contractor tool to start-up, commission and troubleshoot unit operation.

15. Software upgrades will be accomplished by local download via USB port on main Unit Control Board.
16. Shall be UL Recognized, File E107041, UL 916, Energy management Equipment, UL 60335-2-40, Heating and Cooling Equipment; FCC Compliant to CFR47, Part 15, Subpart B, Class B, CSA 22.2 No. 236, Signal Equipment Industry Canada, ICES-003 Recognized, and BTL certified.

### **23 09 33                    Electric and Electronic Control System for HVAC**

23 09 33. 13    Decentralized, Rooftop Units:

23 09 33. 13.A. General

1. Shall be complete with self- contained low- voltage control circuit protected by a resettable circuit breaker on the 24- v transformer side. Transformer shall have minimum 75VA capability.
2. Shall utilize color- coded wiring.
3. Shall include a central control terminal board to conveniently and safely provide connection points for vital control functions such as: smoke detectors, phase monitor, gas controller, economizer, thermostat, DDC control options, and low and high pressure switches.
4. The gas furnace shall be controlled by an integrated gas controller (IGC) microprocessor. See heat exchanger section of this specification.

23 09 33. 23.B. Safeties:

1. Compressor over- temperature and over- current.
2. Low pressure switch and high pressure switch.
  - a. Low pressure switch shall use different color wire than the high pressure switch. The purpose is to assist the installer and service technician to correctly wire and or troubleshoot the rooftop unit.
3. Automatic reset, motor thermal overload protector.
4. Gas heating section shall be provided with the following minimum protections.
  - a. Primary and auxiliary high temperature limit switches
  - b. Induced draft pressure sensor
  - c. Flame rollout switch
  - d. Flame proving controls
5. Electric heat section shall be provided with the following minimum protections:
  - a. Primary, backup and auxiliary high temperature limit switches

### **23 40 13                    Panel Air Filters**

23 40 13 13.    Decentralized, Rooftop Units:

23 40 13. 13.A. Standard filter section

1. Shall consist of factory installed, low velocity, disposable 2- in. thick fiberglass filters of commercially available sizes.
2. Units can accept 2" or 4" filters and have a field convertible transition.
3. Filters shall be accessible through an access panel; hinged panel with toolless access is available as described in the Special Features Options and Special Features Options and Accessories section of this specification.

### **23 81 19                    Self- Contained Air Conditioners**

23 81 19 13    Small- Capacity Self- Contained Air Conditioners

23 81 19. 13.A. General

1. Outdoor, rooftop mounted, electrically controlled, heating and cooling unit utilizing a fully hermetic, suction gas cooled, direct drive compressor(s) for cooling duty and gas combustion or nickel chromium elements for heating duty.
2. Factory assembled, single- piece heating and cooling rooftop unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, and special features required prior to field start- up.
3. Unit shall be installed in accordance with the manufacturer's instructions.
4. Unit must be selected and installed in compliance with local, state, and federal codes.

23 81 19. 13.B. Quality Assurance

1. Unit meets ASHRAE 90.1 minimum efficiency requirements.
2. Unit shall be rated in accordance with AHRI Standards 210/240 or 340/360.
3. Unit shall be designed to conform to ASHRAE 15.
4. Unit shall be CSA tested and certified in accordance with ANSI Z21.47 -2016/CSA 2.3-2016, and CSA C22.2 No. 60335-2-40.
5. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
6. Unit casing shall be capable of withstanding 750- hour salt spray exposure per ASTM B117 (scribed specimen).
7. Roof curb shall be designed to conform to NRCA Standards.
8. Unit shall be subjected to a completely automated run test on the assembly line. The data for each unit will be stored at the factory, and must be available upon request.
9. Unit shall be designed in accordance with CSA C.22.2 NO.60335-2-40, including tested to withstand rain.
10. Unit shall be constructed to prevent intrusion of snow into the control box.
11. 15 – 25 ton units shall be shake tested to Truck 2, ASTM D4169 to ensure shipping reliability.

23 81 19. 13.C. Delivery, Storage, and Handling

1. Unit shall be stored and handled per manufacturer's recommendations.
2. Overhead crane can be used to place the units on a roof using rigging holes built into the unit base rails without any additions to the unit.
3. Unit shall only be stored or positioned in the upright position.

23 81 19. 13.D. Project Conditions

1. As specified in the contract.

23 81 19. 13.E. Operating Characteristics

1. Unit shall be capable of starting and running at 115°F (52°C) ambient outdoor temperature, meeting maximum load criteria of AHRI Standard 210/240 or 340/360 at ±10% voltage.
2. Compressor with standard controls shall be capable of operation down to 45°F (7°C), ambient outdoor temperatures. Intermittent cooling shall be operational down 0° F (-17° C). Low ambient kit is necessary if mechanically cooling at ambient temperatures below 40°F (4°C).
3. Unit shall be factory configured for vertical supply & return configurations.

23 81 19. 13.F. Electrical Requirements

1. Main power supply voltage, phase, and frequency must match those required by the manufacturer.

23 81 19. 13.G Unit Cabinet

1. Unit cabinet shall be constructed of galvanized steel with exterior surfaces coated with a non-chalking, powder paint finish, certified at 750 hour salt spray test per ASTM-B117 standards.
2. Unit cabinet exterior paint shall be: film thickness, (dry) 3.0 MILS minimum, gloss (per ASTM D523, 60°F / 16°C): 80+/-5, Hardness: H- 2H Pencil hardness.
3. Unit cabinet shall have gas utility entry holes in the side of the unit and in the unit underside. Entry holes shall not require field setup and shall be capped from the factory to prevent water intrusion when not in use.
4. Unit cabinet shall have electric utility entry locations marked from the factory with a dimple for accuracy of field drilling. Entry locations shall be available for entry through the side of the unit or from the unit underside.
5. Base Rail
  - a. Unit shall have base rails on all 4 sides.
  - b. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.
  - c. Holes shall be provided in the base rail for moving the unit by fork truck.
  - d. Base rail shall be a minimum of 15 gauge thickness.
6. Condensate pan and connections:
  - a. Shall be a multidirectional internally sloped condensate drain pan made of a non- corrosive material.
  - b. Shall comply with ASHRAE Standard 62.
  - c. Shall use a 1" NPT female drain connection through the side of the drain pan. Connection shall be made per manufacturer's recommendations.

- d. Shall include intentional "overflow notch" and water containment path to guide flow of water where desired in the event of a drain pan overflow.
- 7. Top panel:
  - a. Shall be a multi piece top panel.
- 8. Electrical Connections
  - a. All unit power wiring shall enter unit cabinet through a field drilled hole located by a factory provided dimple.
  - b. Through- the- base capability.
    - 1) Standard unit shall have a through- the- base electrical location(s) using a raised, embossed portion of the unit base-pan.
    - 2) No base-pan penetration, other than those authorized by the manufacturer, is permitted.
- 23 81 19. 13.H. Electric Heating
  - 1. Use nickel chromium elements for heating.
  - 2. Shall have a single stage of capacity on 25 kW heaters and two stages of capacity for other heater capacities.
  - 3. Shall have a primary limit control with automatic reset to prevent the heating element system from operating at an excessive temperature.
  - 4. Shall have a non-resetting backup limit control to prevent the heating element system from operating at an excessive temperature in the event a primary limit control fails.
  - 5. Shall be wired for single point power supply with branch circuit fusing (where required).
- 23 81 19. 13.I. Coils
  - 1. Evaporator Coils, Aluminum Fin - Copper Tube:
    - a. Standard evaporator coils shall have aluminum plate fins mechanically bonded to seamless internally grooved copper tubes with all joints brazed.
    - b. Shall be leak tested to 150 psig, pressure tested to 250 psig, and burst qualified to CSA C22.2 No. 60335-2-40.<sup>th</sup> edition burst test at 1775 psig.
    - c. Assembled unit shall be pressure tested to 450 psig.
  - 2. Condenser Coils, All Aluminum Microchannel:
    - a. Condenser coils shall have all aluminum microchannel design consisting of aluminum multiport flat tube design and aluminum fin. Coils shall be a furnace brazed design and contain epoxy lined shrink wrap on all aluminum to copper connections.
    - b. Microchannel condenser coils shall be leak tested to 150 psig, pressure tested by supplier to 600 psig, and burst qualified to CSA C22.2 No. 60335-2-40.
    - c. Assembled unit shall be pressure tested to 450 psig.
  - 3. E-coated evaporator and/or condenser coils:
    - a. Shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins.
    - b. Coating process shall ensure complete coil encapsulation of tubes, fins and headers.
    - c. Color shall be high gloss black with gloss per ASTM D523- 89.
    - d. Uniform dry film thickness from 0.6 to 1.2 mil on all surface areas including fin edges.
    - e. Superior hardness characteristics of 2H per ASTM 3363-00 and cross- hatch adhesion of 4B- 5B per ASTM D3359- 97.
    - f. Impact resistance shall be 160 in.- lb. (ASTM D2794- 93).
    - g. Humidity and water immersion resistance shall be a minimum of 1000 hours (ASTM D2247- 99 and ASTM D870- 02).
    - h. Corrosion durability shall be confirmed through testing to exceed 6000 hours salt spray per ASTM B117- 97.
- 23 81 19. 13.J. Refrigerant Circuits
  - 1. 2 stage IntelliSpeed airflow options shall have 2 refrigerant circuits with 2 stages of cooling.
  - 2. Refrigerant circuit shall include the following control, safety, and maintenance features:

- a. Thermostatic Expansion Valve (TXV) shall help provide optimum performance across the entire operating range.
- b. Refrigerant filter drier - Solid core design.
- c. Service gauge connections on suction and discharge lines.
3. Compressors
  - a. Unit shall use fully hermetic scroll compressors for each independent refrigeration circuit.
  - b. Two stage models shall use a single stage compressor on each refrigeration circuit.
  - c. Compressor motors shall be cooled by refrigerant gas passing through motor windings.
  - d. Compressors shall be internally protected from high discharge temperature conditions.
  - e. Compressors shall be protected from an over- temperature and over- amperage conditions by an internal, motor overload device.
  - f. Compressor shall be factory mounted on rubber grommets.
  - g. Crankcase heaters shall be installed in the factory as needed on tandem compressor sets.
- 23 81 19. 13.K. Filter Section
  1. Filters access is specified in the unit cabinet section of this specification.
- 23 81 19. 13.L. Evaporator Fan and Motor
  1. Evaporator fan motor:
    - a. Shall have permanently lubricated ball-bearings.
    - b. Shall have inherent automatic- reset thermal overload protection.
    - c. The job site selected brake horsepower shall be required to not exceed the motor's nameplate horsepower rating plus the service factor.
  2. Evaporator Fan:
    - a. Fan shall be a belt drive assembly with an adjustable pitch motor pulley.
    - b. Blower bearings shall have an L10 life of 100,000 hrs
    - c. Shall use sealed, permanently lubricated ball-bearing type.
    - d. Shall use dual blower design consisting of two balanced blower fans on a single shaft.
    - e. Blower fan shall be double- inlet type with forward- curved blades.
    - f. Shall be constructed from steel with a corrosion resistant finish and dynamically balanced.
- 23 81 19. 13.M Condenser Fans and Motors
  1. Condenser fan motors:
    - a. Shall be a totally enclosed motor.
    - b. Shall use permanently lubricated ball-bearings.
    - c. Shall have inherent thermal overload protection with an automatic reset feature.
    - d. Shall use a shaft- down design.
  2. Condenser Fans:
    - a. Shall be a direct- driven propeller type fan.
- 23 81 19. 13.N. Special Features Options and Accessories
  1. IntelliSpeed staged air volume system:
    - a. Evaporator fan motor:
      - 1) Shall have permanently lubricated bearings.
      - 2) Shall have a maximum continuous bhp rating for continuous duty operation; no safety factors above that rating.
      - 3) Shall be Variable Frequency duty and multi-speed control.
  2. Variable Frequency Drive (VFD). Available on multi-speed (IntelliSpeed) and VAV indoor fan motor options:
    - a. Shall be installed inside the unit cabinet, mounted, wired and tested.
    - b. Shall contain Electromagnetic Interference (EMI) frequency protection.

- c. Insulated Gate Bi- Polar Transistors (IGBT) used to produce the output pulse width modulated (PWM) waveform.
  - d. Built in LED display and controls. Does not require additional kit or options.
  - e. RS485 capability standard.
  - f. Electronic thermal overload protection.
  - g. All printed circuit boards shall be conformal coated.
3. Motorized Damper:
- a. Damper shall be a Two- Position Damper. Damper travel shall be from the full closed position to the full open position, depending on model selected.
  - b. Assembly shall include adjustable block off to allow air entry of 0% to 25% or 0% to 100% (dependent on selected option) of maximum allowed outside air.
  - c. Damper shall include multiple blades, tie-bar driven dampers and actuator motor.
  - d. Damper shall close upon indoor (evaporator) fan shutoff and/or loss of power.
  - e. The damper actuator shall plug into the rooftop unit's wiring harness plug. No hard wiring shall be required.
  - f. Outside air hood shall include aluminum water entrainment filter.
4. Phase Monitor:
- a. Shall provide protection against phase reversal, phase loss, and phase unbalance.
  - b. Switch shall automatically shut off unit control circuit if any of the above conditions is detected.
  - c. Shall have visual LED indication of operational status.
5. Hinged and tool less access panels:
- a. Cabinet panels shall be hinged.
  - b. Shall provide easy access with toolless latching mechanism.
  - c. Shall be on major panels of: filter, control box, fan motor, and gas or electric heat controls.
6. Unit-Mounted, Non-Fused Disconnect Switch:
- a. Switch shall be factory installed, internally mounted.
  - b. National Electric Code (NEC) and UL approved non- fused switch shall provide unit power shutoff.
  - c. Shall be accessible from outside the unit.
  - d. Shall provide local shutdown and lockout capability.
7. Condensate Overflow Switch:
- a. Shall utilize float switch in condensate drain pan to signal if water level rises above acceptable threshold.
  - b. Switch shall detect a 0.25 inch rise above mounted location to determine need to send shutoff signal.
  - c. Shall send 24V signal to unit controller when tripped to shut down cooling operation and prevent additional buildup of water in condensate drain pan.

## GENERAL

units are convertible single packages with a common footprint cabinet and common roof curb for all 6-1/2 through 12-1/2 ton models. All have two compressors with independent refrigeration circuits to provide 2 stages of cooling. The units were designed for light commercial applications and can be easily installed on a roof curb, slab, or frame. All units are self contained and assembled on rigid full perimeter base rails allowing for 3-way forklift access and overhead rigging. Every unit is completely charged with refrigerant, wired, piped, and tested at the factory to provide a quick and easy field installation. All units are convertible between side and down airflow. Independent economizer designs are used on side and down discharge applications, as well as all tonnage sizes. Predator® units are available in the following configurations: cooling only, cooling with electric heat, cooling with gas heat, reheat only, reheat with electric heat and reheat with gas heat. Electric heaters are available as factory-installed options or field-installed accessories.

## DESCRIPTION

Units shall be factory assembled, single package, (Elec/Elec, Gas/ Elec), designed for outdoor installation. They shall have built in field convertible duct connections for down discharge supply/return or horizontal discharge supply/return and be available with factory installed options or field installed accessories. The units shall be factory wired, piped and charged with refrigerant and factory tested prior to shipment. All unit wiring shall be both numbered and color coded. The cooling performance shall be rated in accordance with DOE and AHRI test procedures. Units shall be CSA certified to ANSI Z21.47 and UL 1995/CAN/CSA No. 236-M90 standards.

## UNIT CABINET

Unit cabinet shall be constructed of galvanized steel with exterior surfaces coated with a non-chalking, powder paint finish, certified at a 750-hour salt spray test per ASTM-B117 standards. Indoor blower sections shall be insulated with up to 1" thick insulation coated on the airside. Either aluminum foil faced or elastometric rubber insulation shall be used in the unit's compartments and be fastened to prevent insulation from entering the air stream. Cabinet doors shall be hinged with toolless access for easy servicing and maintenance. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging, fork truck access and proper sealing on roof curb applications. Disposable 2" filters shall be furnished as standard and be accessible through hinged access door. Fan performance measuring ports shall be provided on the outside of the cabinet to allow accurate air measurements of evaporator fan performance without

removing panels or creating bypass of the coils. Condensate pan shall be slide out design, constructed of a non corrosive material, internally sloped and conforming to ASHRAE 62-B9 standards. Condensate connection shall be a minimum of 3/4" I.D. female and be rigid mount connection.

## INDOOR (EVAPORATOR) FAN ASSEMBLY

Fan shall be a belt drive assembly and include an adjustable pitch motor pulley. Job site selected brake horsepower shall not exceed the motors nameplate horsepower rating plus the service factor. Units shall be designed to operate within the service factor. Fan wheel shall be double inlet type with forward curve blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design shall be constant volume. Bearings shall be sealed and permanently lubricated for longer life and no maintenance. Entire blower assembly and motor shall be slide out design.

## OUTDOOR (CONDENSER) FAN ASSEMBLY

The outdoor fans shall be of the direct drive type, discharge air vertically, have aluminum blades riveted to corrosion resistant steel spider brackets and shall be dynamically balanced for smooth operation. The outdoor fan motors shall have permanently lubricated bearings internally protected against overload conditions and staged independently. A cleaning window shall be provided on two sides of the units for coil cleaning.

## REFRIGERANT COMPONENTS

### Compressors:

- a. Shall be fully hermetic type, direct drive, internally protected with internal high-pressure relief and over temperature protection. The hermetic motor shall be suction gas cooled and have a voltage range of + or - 10% of the unit nameplate voltage.
- b. Shall have internal spring isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.

### Coils:

- a. Evaporator coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed. Special Phenolic coating shall be available as a factory option.
- b. Evaporator coils shall be of the direct expansion, draw-thru design.
- c. Condenser coils shall have aluminum plate fins mechanically bonded to seamless internally enhanced copper tubes with all joints brazed or Micro-Channel aluminum tube, aluminum fins.
- d. Condenser coils shall be of the draw-thru design.

#### Refrigerant Circuit and Refrigerant Safety Components shall include:

- a. Independent fixed-orifice or thermally operated expansion devices.
- b. Solid core filter drier/strainer to eliminate any moisture or foreign matter.
- c. Accessible service gage connections on both suction and discharge lines to charge, evacuate, and measure refrigerant pressure during any necessary servicing or troubleshooting, without losing charge.
- d. The unit shall have two independent refrigerant circuits, equally split in 50% capacity increments.

#### Unit Controls:

- a. Unit shall be complete with self-contained low-voltage control circuit protected by a resettable circuit breaker on the 24-volt transformer side.
- b. Unit shall incorporate a lockout circuit which provides reset capability at the space thermostat or base unit should any of the following standard safety devices trip and shut off compressor:
  - Loss-of-charge/Low-pressure switch.
  - High-pressure switch.
  - Freeze condition sensor on evaporator coil. If any of these safety devices trip, the LCD screen will display the alarm message.
- c. Unit shall incorporate "AUTO RESET" compressor over temperature, over current protection.
- d. Unit shall operate with conventional thermostat designs and have a low voltage terminal strip for easy hook-up.
- e. Unit control board shall have on-board diagnostics and fault message display.
- f. Standard controls shall include anti-short cycle and low voltage protection, and permit cooling operation down to a selectable value as low as 0 °F.
- g. Control board shall monitor each refrigerant safety switch independently.

#### **ELECTRIC HEATING SECTION**

An electric heating section, with nickel chromium elements, shall be provided in a range of 9 thru 54KW. The heating section shall have a primary limit control(s) (automatic reset) to prevent the heating element system from operating at an excessive temperature. The Heating Section assembly shall slide out of the unit for easy maintenance and service. Units with Electric Heating Sections shall be wired for a single point power supply with branch circuit fusing (where required).

#### **UNIT OPERATING CHARACTERISTICS**

Unit shall be capable of starting and running at 125 °F outdoor temperature, exceeding maximum load criteria of AHRI Standard 340/360. The compressor, with standard controls, shall be capable of operation down to 0 °F outdoor temperature.

**ELECTRICAL REQUIREMENTS** - All unit power wiring shall enter unit cabinet at a single factory provided location and be capable of side or bottom entry to minimize roof penetrations and avoid unit field modifications. Separate side and bottom openings shall be provided for the control wiring.

**STANDARD LIMITED WARRANTIES** - Compressor – 5 Years, Heat Exchanger – 10 Years, Elect. Heat Elem. – 5 Years, Parts – 1 Year.

#### **FACTORY INSTALLED OPTIONAL OUTDOOR AIR** (Shall be made available by either/or):

- **MOTORIZED OUTDOOR AIR DAMPERS** – Outdoor and return air dampers that are interlocked and positioned by a 2-position, spring-return damper actuator. A unit-mounted potentiometer shall be provided to adjust the outdoor and return air damper assembly to take in the design CFM of outdoor air to meet the ventilation requirements of the conditioned space during normal operation. Whenever the indoor fan motor is energized, the dampers open up to one of two pre-selected positions – regardless of the outdoor air enthalpy. Dampers return to the fully closed position when the indoor fan motor is de-energized. Dampers shall fully close on power loss.

#### **ADDITIONAL FACTORY INSTALLED OPTIONS**

- **IntelliSpeed™ Supply Fan Control Option (ASHRAE 90.1 compliant, section 6.4.3.10)** – Units configured with the IntelliSpeed™ Supply Fan Option will contain a VFD for variable volume supply fan operation. This option allows the supply fan RPM to vary based on the number of compressors or heating stages energized. The economizer's minimum position will also be configurable to vary based on the supply fan VFD frequency output.

- **Powered Convenience Outlet** – Unit is provided with an internally powered 120VAC GFCI outlet with cover on the corner of the unit housing the compressors.
- **Electric Heat** – Electric Heaters range from 9 thru 54KW and are available in all the voltage options of the base unit.
- **BAS Controls** – Include supply air sensor, return air sensor, dirty filter indicator and air proving switch.
- **ElectroFin® E-coat Epoxy Polymer Coated Condenser Coil** – The condenser coils are coated with an epoxy polymer coating to protect against corrosion.

**FIELD INSTALLED OPTIONS**

**Date**  
12/16/2024  
**Project Name**  
LT0626-FSD-RTUs  
**Project Number**  
**Client / Purchaser**



## Control Summary Page

Control	Models and Unit Tags
Stand Alone Simplicity	LV15E1BP4A3AAH81F1 CWF-O/I-AC-1F,CWF-O/I-AC-2i,CWF-O/I-AC-1H, CWF-O/I-AC-2G,CWF-TRB-AC-1B

**23 09 23 Direct- digital Control system for HVAC**

23 09 23. 13 Decentralized, Rooftop Units:

23 09 23. 13.A. Unit Control Board

1. ASHRAE 62- 2001compliant. BTL certified.
2. Shall accept 20-30 VAC input power, 50/60Hz. 24 VAC nominal.
3. Operating temperature range from -40F to 158F; 10-90% RH (non-condensing UI), and -4F to 158F; 10-90% Rh (non-condensing), with a storage temperature range from -40F to 194F; 5-95% RH (non-condensing).
4. Shall include an option of and Economizer microprocessor controller which communicates directly with the Unit Control Board and has 8 Analog outputs, 2 Analog inputs, 2 Binary outputs, 3 Binary outputs.
5. Controller shall accept the followinginputs: space temperature, return air temperature sensor, setpointadjustment, outdoor air temperature, indoor air quality, outdoor air quality, indoor relative humidity, compressor lock- out, fire/smoke shutdown, single and dual enthalpy,fan status, remote time clock, SA Bus communicated temperature/humidity/CO2 values from Network sensors, FC Bus Network Overrides for space temperature, outdoor air temperature, space humidity, outdoor air quality, Indoor air quality, System purge.
6. Shall accept a single CO2 sensor or multiple CO2 sensors networked together via communication bus in the conditioned space, and be Demand Control Ventilation (DCV) ready.
7. Shall provide the following outputs: economizer, fan, cooling stage 1, cooling stage 2, heat stage 1, heat stage 2, heat stage 3/ exhaust/ reversing valve/ dehumidify/occupied.
8. Unit shall provide surge protection for the controller through a circuit breaker.
9. Shall be Internet capable, and communicate at a Baud rate of 38.4K or faster.
10. Shall have an LED display independently showingthe status of activity on the communication bus, and processor operation.
11. Unit shall incorporate a lockout circuit which provides reset capability at the space thermostat or base unit should any of the following standard safety devices trip and shut off compressor. If any of these safety devices trip, the LCD screen will display alarm message indicating the specific safety device that caused the lockout.
  - a. Loss of charge/Low-pressure switch.
  - b. High-pressure switch.
  - c. Freeze condition sensor on evaporator coil.
12. Unit control board must support each usage case:
  - a. Conventional thermostat with low voltage input terminals for easy installation
  - b. Communicating network sensors in the occupied space to provide feedback on space conditions for unit control board to compare with associated setpoints
  - c. Communication via BACnet MS/TP, Modbus RTU, N2 protocols for integration into a building automation/management system
13. Anti-short cycle and low voltage protection features included.
14. Internal occupied/unoccupied scheduling
15. Unit control board shall permit cooling operation down to a selectable value as low as 0 degrees F.
16. Shall allow for start-up, commissioning, troubleshooting, parameter adjustment, setpoint adjustment via onboard display and navigable menu with no additional interface tool or controls technician required.
17. The unit control board shall run a self-test diagnostics algorithm at startup that operated the cooling cycle, heating cycle, fan operation. A status report shall be provided upon completion of the diagnostic self-test.
18. Utilize any wi-fi enabled smart device to access the HVAC or multiple HVAC units if communication wiring between them is present (FC Bus or SA Bus). Remote access shall allow complete ability to perform start-up, commissioning, troubleshooting, parameter adjustment, setpoint adjustment.
19. Local embedded trending and scheduling. Trending data and occupancy scheduling predefined from the factory. Occupancy schedule to be modified via control board joystick menu navigation and remotely using a smart device (cellular phone, laptop, tablet)
20. A menu on the onboard screen shall display the unit status and allow changing parameters where applicable. These include but are not limited to:
  - a. Demand Ventilation Mode – enable or disable
  - b. Operational Setpoint – display current value
  - c. Supply Air Temperature (SAT) – display current value

- d. Return Air Temperature (RAT) – display current value
  - e. Operational Supply Humidity (OprSH) – display current value as provided by a 0-10VDS input, SA Bus Network Sensor, or FC Bus communicated value
  - f. Return Air Humidity (RAH) – display current value
  - g. Operational outdoor Air Temperature (OprOAT) – enthalpy calculated from OAH 0-10VDC input to Economizer board and OprOAT only if economizer is present
  - h. Operational Outdoor Air Humidity (OprOAH) – the buffered outdoor air humidity. May be from economizer boards OAH 0-10VDC input or FC Bus communicated value
  - i. Operational outdoor Air Quality (OprOAQ) – the buffered outdoor air quality in use. May be from economizer boards OAQ 0-10VDC input or FC Bus communicated value
  - j. Operational Indoor Air Quality (OprIAQ) – the buffered indoor air quality in use. May be from economizer board IAQ 0-10VDC input, SA Bus Network Sensor, or FC Bus communicated value
21. A menu shall display and allow modification to the following operations and settings:
- a. HVAC Zone Fan
  - b. Cooling
  - c. Heating
  - d. Economizer
  - e. Demand Ventilation
  - f. Power Exhaust
  - g. Sensors
  - h. Network
22. A menu shall display and allow modification to the following operations and settings:
- a. HVAC Zone – Occupied status
  - b. Indoor Fan status
  - c. Cooling status
  - d. Heating status
  - e. Economizer indication whether free-cooling is available or not
  - f. Enabling or disabling of Demand Ventilation
  - g. Power Exhaust
    - 1) Enable/disable hot-gas reheat if available
    - 2) Warmup/Cooldown
    - 3) Title 24 Load Shed
    - 4) Defrost
23. A menu shall display and allow modification to the following operations and settings:
- a. Firmware version (of UCB, Economizer, other peripheral boards)
  - b. Setting time zone
  - c. Network information
    - 1) Device name that will appear on the FC Bus
    - 2) Selection of communication protocol
    - 3) Operational Baud Rate
    - 4) Device ID
24. A menu shall display and allow modification to the following operations and settings:
- a. Version of firmware
  - b. Ability to Load new firmware
  - c. Create a backup file of the firmware and parameter setting via USB port
  - d. Restore factory default parameter values and setup
  - e. Full and Partial Cloning of parameter setpoints from or to other units
  - f. Data trend exporting

25. A menu shall display and allow modification to the following operations and settings:
  - a. Unit serial number, model number and name
  - b. Ability to reset Lockouts
  - c. Controller name
  - d. Displays the current values of all setpoints in use
  - e. Displays all current values for the indoor and outdoor zones
  - f. Displays current values related to:
    - 1) Indoor Fan
    - 2) Cooling
    - 3) Heating
    - 4) Heat Pump operation
    - 5) Economizer operation
    - 6) Power Exhaust
    - 7) Demand Ventilation
    - 8) Air monitoring station
    - 9) Hot Gas Reheat
    - 10) Smoke Control
  - g. Current information for inputs; including
    - 1) Sensors
    - 2) Coil Sensors
    - 3) Thermostat
    - 4) Binary Inputs
    - 5) Unit Protection
    - 6) Network Inputs
    - 7) All outputs (relay and binary)
  - h. Self-Test
    - 1) A patented self-test system that runs through a series of algorithms to provide a report of all functioning characteristics of the system at time of startup and commissioning.

23 09 23. 13.B. Auxiliary Control Boards

1. ASHRAE 62- 2001 compliant. BTL certified.
2. Economizer controller CEC Title 24 Compliant
  - a. Display alarms if the following occur
    - 1) Economizer is economizing when conditions do not support
    - 2) Economizer is not economizing when conditions do support
    - 3) Damper Stuck
    - 4) Excess Outdoor Air
    - 5) Failed Sensor
3. Refrigeration Fault Detection & Diagnostics
  - a. There is insufficient refrigerant in any circuit
  - b. There is excessive refrigerant in any circuit
  - c. There is excessive refrigerant flow
  - d. There is insufficient refrigerant flow (restriction)
  - e. Inefficient compressor
  - f. Insufficient High-side heat transfer
  - g. Excessive High-side heat transfer (low ambient control problem, low  $\Delta P$ )
  - h. Insufficient Low-side heat transfer

- i. Excessive Low-side heat transfer
- j. Sensor fault- The liquid temperature is greater than the condenser temperature (Could also be triggered if refrigerant level is very low in the system)
- k. Sensor fault- Sensor data is not available
- l. The unit is off
- m. The ambient temperature is too low
- n. The ambient temperature is too high
- o. The return air wet-bulb temperature is too low
- p. The return air wet-bulb temperature is too high
- q. Sensor fault- The condensing temperature is lower than the ambient temperature (Could also be triggered when the condenser is wet)
- r. The suction line temperature is less than the evaporator temperature
- s. The evaporator temperature is greater than the ambient temperature
- t. The liquid temperature is lower than the ambient temperature
- u. Sensor fault- Suction temperature or ambient temperature is invalid
- v. Sensor fault- The return air dry-bulb or wet-bulb temperature is invalid
- w. Sensor fault- The liquid pressure or suction pressure is invalid
- x. Sensor fault- The suction line temperature is invalid
- y. The return air dry-bulb temperature is too low
- z. The return air dry-bulb temperature is too high
- aa. The Efficiency Index is below 75% of ideal
- bb. The Capacity Index is below 75% of ideal

23 09 23. 13.C Remote Accessibility:

1. ASHRAE 62- 2001 compliant. BTL certified.
2. Provide the ability to adjust parameter values, setpoints, limits remotely
3. Connectivity to an Ethernet network via static IP address or Dynamic Name Server (DNS)
4. Allow a maximum of 100 devices on the same FC bus trunk and accessed by one remote device

## Start-up sheet

**START-UP & SERVICE DATA INSTRUCTION****COMMERCIAL PACKAGE UNITS****3.0 To 50.0 TONS****START-UP CHECKLIST**

Date: \_\_\_\_\_

Job Name: \_\_\_\_\_

Customer Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Model Number: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Qualified Start-up Technician: \_\_\_\_\_ Signature: \_\_\_\_\_

HVAC Contractor: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Contractor's E-mail Address: \_\_\_\_\_

Electrical Contractor: \_\_\_\_\_ Phone: \_\_\_\_\_

Distributor Name: \_\_\_\_\_ Phone: \_\_\_\_\_

**WARRANTY STATEMENT**

Johnson Controls/Ducted Systems is confident that this equipment will operate to the owner's satisfaction if the proper procedures are followed and checks are made at initial start-up. This confidence is supported by the 30 day dealer protection coverage portion of our standard warranty policy which states that Johnson Controls/Ducted Systems will cover parts and labor on new equipment start-up failures that are caused by a defect in factory workmanship or material, for a period of 30 days from installation. Refer to the current standard warranty policy and warranty manual for details.

In the event that communication with Johnson Controls/Ducted Systems is required regarding technical and/or warranty concerns, all parties to the discussion should have a copy of the equipment start-up sheet for reference. A copy of the original start-up sheet should be filed with the Technical Services Department.

The packaged unit is available in constant or variable air volume versions with a large variety of custom options and accessories available. Therefore, some variation in the startup procedure will exist depending upon the products capacity, control system, options and accessories installed.

This start-up sheet covers all startup check points common to all package equipment. In addition it covers essential startup check points for a number of common installation options. Depending upon the particular unit being started not all sections of this startup sheet will apply. Complete those sections applicable and use the notes section to record any additional information pertinent to your particular installation.

Warranty claims are to be made through the distributor from whom the equipment was purchased.

**EQUIPMENT STARTUP**

**Use the local LCD or Mobile Access Portal (MAP) Gateway to complete the start-up.**

**A copy of the completed start-up sheet should be kept on file by the distributor providing the equipment and a copy sent to:**

Johnson Controls/Ducted Systems  
 Technical Services Department  
 5005 York Drive  
 Norman, OK 73069

**SAFETY WARNINGS**

The inspections and recording of data outlined in this procedure are required for start-up of Johnson Controls/Ducted Systems' packaged products. Industry recognized safety standards and practices must be observed at all times. General industry knowledge and experience are required to assure technician safety. It is the responsibility of the technician to assess all potential dangers and take all steps warranted to perform the work in a safe manner. By addressing those potential dangers, prior to beginning any work, the technician can perform the work in a safe manner with minimal risk of injury.

<b>⚠ WARNING</b>
Lethal voltages are present during some start-up checks. Extreme caution must be used at all times.

<b>⚠ WARNING</b>
Moving parts may be exposed during some startup checks. Extreme caution must be used at all times.

**NOTE:** Read and review this entire document before beginning any of the startup procedures.

**DESIGN APPLICATION INFORMATION**

This information will be available from the specifying engineer who selected the equipment. If the system is a VAV system the CFM will be the airflow when the remote VAV boxes are in the

full open position and the frequency drive is operating at 60 HZ. **Do not proceed with the equipment start-up without the design CFM information.**

Design Supply Air CFM: \_\_\_\_\_ Design Return Air CFM: \_\_\_\_\_

Design Outdoor Air CFM At Minimum Position: \_\_\_\_\_

Total External Static Pressure: \_\_\_\_\_

Supply Static Pressure: \_\_\_\_\_

Return Static Pressure: \_\_\_\_\_

Design Building Static Pressure: \_\_\_\_\_

Outside Air Dilution: Economizer Position Percentage: \_\_\_\_\_ CFM: \_\_\_\_\_

Supply Gas Pressure After Regulator W/o Heat Active \_\_\_\_\_ Inches \_\_\_\_\_

ADDITIONAL APPLICATION NOTES FROM SPECIFYING ENGINEER:

## REFERENCE

General Inspection	Completed	See Notes
Unit inspected for shipping, storage, or rigging damage	<input type="checkbox"/>	<input type="checkbox"/>
Unit installed with proper clearances	<input type="checkbox"/>	<input type="checkbox"/>
Unit installed within slope limitations	<input type="checkbox"/>	<input type="checkbox"/>
Refrigeration system checked for gross leaks (presence of oil)	<input type="checkbox"/>	<input type="checkbox"/>
Terminal screws and wiring connections checked for tightness	<input type="checkbox"/>	<input type="checkbox"/>
Filters installed correctly and clean	<input type="checkbox"/>	<input type="checkbox"/>
Economizer hoods installed in operating position	<input type="checkbox"/>	<input type="checkbox"/>
Condensate drain trapped properly, refer to Installation Manual	<input type="checkbox"/>	<input type="checkbox"/>
Economizer damper linkage tight	<input type="checkbox"/>	<input type="checkbox"/>
Gas Heat vent hood installed	<input type="checkbox"/>	<input type="checkbox"/>
All field wiring (power and control) complete	<input type="checkbox"/>	<input type="checkbox"/>

Air Moving Inspection	Completed	See Notes
Alignment of drive components	<input type="checkbox"/>	<input type="checkbox"/>
Belt tension adjusted properly	<input type="checkbox"/>	<input type="checkbox"/>
Blower pulleys tight on shaft, bearing set screws tight, wheel tight to shaft	<input type="checkbox"/>	<input type="checkbox"/>
Pressure switch or transducer tubing installed properly	<input type="checkbox"/>	<input type="checkbox"/>

Exhaust Inspection Powered <input type="checkbox"/> Barometric Relief <input type="checkbox"/>	Completed	See Notes
Check hub for tightness	<input type="checkbox"/>	<input type="checkbox"/>
Check fan blade for clearance	<input type="checkbox"/>	<input type="checkbox"/>
Check for proper rotation	<input type="checkbox"/>	<input type="checkbox"/>
Check for proper mounting (screen faces towards unit)	<input type="checkbox"/>	<input type="checkbox"/>
Prove operation by increasing minimum setting on economizer	<input type="checkbox"/>	<input type="checkbox"/>

Economizer Inspection Standard <input type="checkbox"/> BAS <input type="checkbox"/>	Completed	See Notes
CO <sub>2</sub> sensor installed Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check economizer setting (Reference Smart Equipment™ Control Board LCD menu location)	<input type="checkbox"/>	<input type="checkbox"/>
Prove economizer open/close through Smart Equipment™ Board Setting	<input type="checkbox"/>	<input type="checkbox"/>

Reheat Mode Normal <input type="checkbox"/> or Alternate <input type="checkbox"/> Not Applicable <input type="checkbox"/>
Humidity Sensor (2SH0401) _____

### Operating Measurements - Air Flow

Fan operates with proper rotation (All VFD equipped units with the optional Manual Bypass must be phased for correct blower rotation with the Bypass switch set in the LINE position) ID Fans  Exh. Fans  Cond. Fans

Pressure drop across dry evaporator coil (At maximum design CFM) <sup>1</sup>	IWC
External Static Pressure	IWC
Return Static Pressure	IWC
Supply Static Pressure	IWC
Supply Air CFM Using Dry Coil Chart	CFM
Final Adjusted Supply Air CFM <sup>2</sup>	CFM

1. Consult the proper airflow to pressure drop table to obtain the actual airflow at the measured pressure differential.
2. Was a motor pulley adjustment or change required to obtain the correct airflow?  
 Was it necessary to increase or decrease the airflow to meet the design conditions?  
 If the motor pulley size was changed, measure the outside diameters of the motor and blower pulleys and record those diameters here;

Blower Motor HP \_\_\_\_\_ FLA \_\_\_\_\_ RPM \_\_\_\_\_

Pulley Pitch Diameter \_\_\_\_\_ Turns Out \_\_\_\_\_ Final Turns Out \_\_\_\_\_

Blower Pulley Pitch Diameter \_\_\_\_\_ Fixed Sheave \_\_\_\_\_

### ELECTRICAL DATA

T1 - T2 \_\_\_\_\_ Volts T2 - T3 \_\_\_\_\_ Volts  
 Control Voltage \_\_\_\_\_ Volts T1 - T3 \_\_\_\_\_ Volts

Device	Nameplate	Measured List All Three Amperages
Supply Fan Motor <sup>1,2</sup>	AMPS	AMPS
Exhaust Motor (Dampers 100%)	AMPS	AMPS
Condenser Fan #1	AMPS	AMPS
Condenser Fan #2 (if equipped)	AMPS	AMPS
Condenser Fan #3 (if equipped)	AMPS	AMPS
Condenser Fan #4 (if equipped)	AMPS	AMPS
Compressor #1	AMPS	AMPS
Compressor #2 (if equipped)	AMPS	AMPS
Compressor #3 (if equipped)	AMPS	AMPS
Compressor #4 (if equipped)	AMPS	AMPS

1. VAV units with heat section - simulate heat call to drive VAV boxes and VFD/IGV to maximum design airflow position.
2. VAV units without heat section - VAV boxes must be set to maximum design airflow position.

**OPERATING MEASUREMENTS - COOLING**

Stage	Discharge Pressure	Discharge Temp.	Liquid Line Temp. <sup>1</sup>	Subcooling <sup>2</sup>	Suction Pressure	Suction Temp.	Superheat
First	#	°	°	°	#	°	°
Second (if equipped)	#	°	°	°	#	°	°
Third (if equipped)	#	°	°	°	#	°	°
Fourth (if equipped)	#	°	°	°	#	°	°
Reheat 1st Stage	#	°	°	°	#	°	°

- Liquid temperature should be taken before filter/drier.
- Subtract 10 psi from discharge pressure for estimated liquid line pressure

Outside air temperature	_____ °F db	_____ °F wb	_____ %RH
Return Air Temperature	_____ °F db	_____ °F wb	_____ %RH
Mixed Air Temperature	_____ °F db	_____ °F wb	_____ %RH
Supply Air Temperature	_____ °F db	_____ °F wb	_____ %RH

**REFRIGERANT SAFETIES**

Action	Completed	See Notes
Prove Compressor Rotation (3 phase only) by gauge pressure	<input type="checkbox"/>	<input type="checkbox"/>
Prove High Pressure Safety, All Systems	<input type="checkbox"/>	<input type="checkbox"/>
Prove Low Pressure Safety, All Systems	<input type="checkbox"/>	<input type="checkbox"/>

**OPERATING MEASUREMENTS - GAS HEATING**

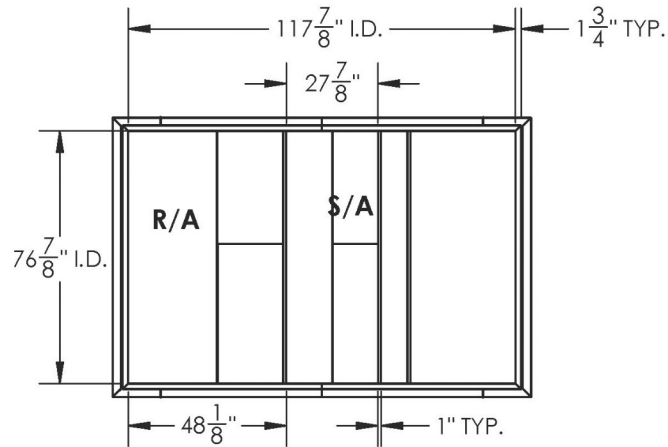
Fuel Type:  Natural Gas  LP Gas

Action	Completed	See Notes
Check for gas leaks	<input type="checkbox"/>	<input type="checkbox"/>
Prove Ventor Motor Operation	<input type="checkbox"/>	<input type="checkbox"/>
Prove Primary Safety Operation	<input type="checkbox"/>	<input type="checkbox"/>
Prove Auxiliary Safety Operation	<input type="checkbox"/>	<input type="checkbox"/>
Prove Rollout Switch Operation	<input type="checkbox"/>	<input type="checkbox"/>
Prove Smoke Detector Operation	<input type="checkbox"/>	<input type="checkbox"/>
Manifold Pressure	Stage 1	IWC <input type="checkbox"/>
	Stage 2 (If Equipped)	IWC <input type="checkbox"/>
	Stage 3 (If Equipped)	IWC <input type="checkbox"/>
Supply gas pressure at full fire		IWC <input type="checkbox"/>
Check temperature rise <sup>1</sup>	<input type="checkbox"/> measured at full fire	°F <input type="checkbox"/>

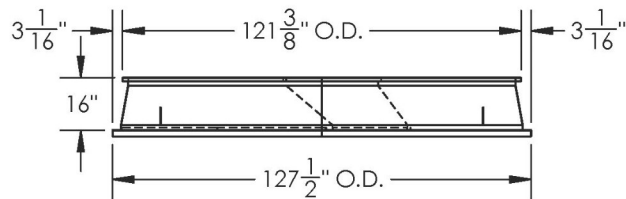
- $\frac{\text{Input} \times \text{Eff. (BTU/output)}}{1.08 \times \text{Temp. Rise}}$



ADAPTER CURB : Existing - ZW15 TO New - LV15



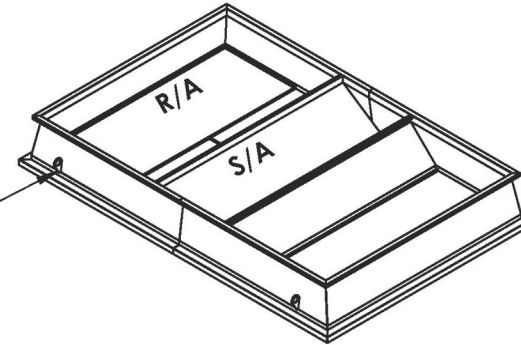
**PLAN VIEW**



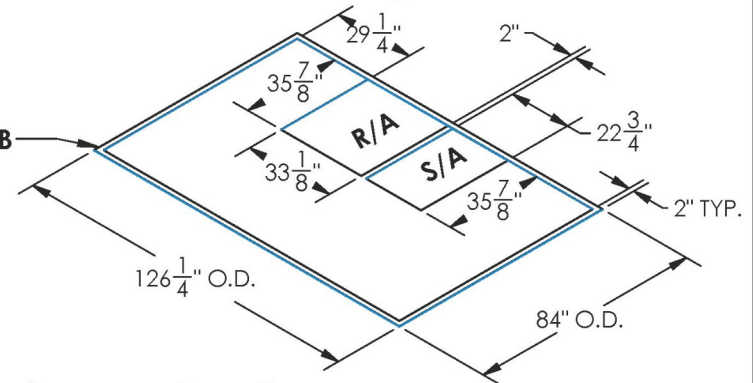
**FRONT VIEW**

**WEIGHT: 463 LBS**

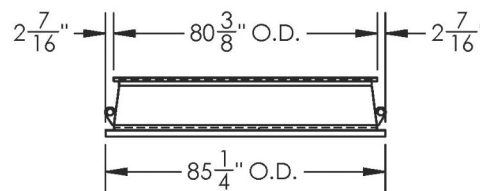
LIFTING LUGS 4 PL.



**EXISTING CURB**



**ISOMETRIC VIEW**



**SIDE VIEW**

**NOTES:**

1. 14 GA. GALV. STEEL CONSTRUCTION
2. INTERNALLY INSULATED WITH 1"-1.5 PCF DENSITY INSULATION
3. CONTINUOUS WELDED SEAMS AND CORNERS
4. 1/4" X 1 1/4" GASKETING
5. SHIPPED FULLY ASSEMBLED
6. UNIT TO ADAPTER GASKET INCLUDED

**INSTALLATION INSTRUCTIONS:**

- REMOVE OLD A/C UNIT.
- APPLY 1/4" X 1 1/4" GASKETING ON EXISTING CURB.
- INSTALL & SECURE ADAPTER CURB ON EXISTING CURB AS REQUIRED BY LOCAL BUILDING CODES.
- APPLY 1/4" X 1 1/4" GASKETING ON ADAPTER CURB.
- INSTALL & SECURE NEW A/C UNIT ON ADAPTER CURB AS REQUIRED BY LOCAL BUILDING CODE.

APPROVED		
DATE		
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS SHOWN ARE IN INCHES (MILLIMETERS) MILLIMETERS ARE REFERENCE ONLY	CHECK LIST	DATE
UNLESS OTHERWISE SPECIFIED TOLERANCES ON LENGTH ANGLE	Drawn by: MDC	3/8/24
THIRD ANGLE		
MATERIAL		
Galvanized Steel		

**Penums of Florida Incorporated**

**CCT20ACYC432S**

DWG SIZE A	DWG NO.	3/8/2024	ISS
SCALE 1:50	SHEET 1 OF 1		