



INVITATION FOR BID

IFB NO. 16-120 OSBORNE PAVILION IMPROVEMENTS PROJECT

Bid Submission Deadline

Day / Date: Tuesday, August 16, 2016
Time: 3:00 PM
Location: Finance Office
City Hall
7 North Dixie Highway
2nd Floor
Lake Worth, FL 33460

Pre-Bid Meeting

Day / Date: Tuesday, July 26, 2016
Time: 10:00 AM
Location: City Hall
1st Floor Conference Room
7 North Dixie Highway
Lake Worth, FL 33460



Financial Services
7 North Dixie Highway
Lake Worth, FL 33460
561.586.1654

INVITATION FOR BID IFB 16-120

OSBORNE PAVILION IMPROVEMENTS PROJECT

The City of Lake Worth is soliciting bids from responsible and experienced contractors to perform construction services for the Osborne Pavilion Improvements Project.

The scope of work is inclusive of all necessary improvements to construct a new 24'x20' public use pavilion, benches, split rail fencing, asphalt millings parking area, refurbishment of existing pavilion and all other associated work for a complete new City pavilion. This project is being funded through Federal Community Development Block Grant (CDBG) funds.

Bid documents may be downloaded at the City's website at www.LakeWorth.org. Hard copies of bid documents may also be acquired from the Financial Services office at 7 North Dixie Highway, Lake Worth, FL 33460.

Time is of the essence. Any bid received after **3:00 PM on August 16, 2016**, whether by mail or otherwise, will be returned unopened. The time of receipt shall be determined by the time clock located in the Financial Services office. Bids shall be placed in a sealed envelope, marked in the lower left-hand corner with the bid number, title, date, and hour bids are scheduled to be received. Bidders are responsible for insuring that their bid is stamped by office personnel by the deadline indicated.

A Pre-Bid meeting is scheduled for 10:00 AM on Tuesday, July 26, 2016, located at City Hall, 7 North Dixie Highway, Lake Worth, FL 33460. City Hall Conference Room, 1st Floor.

All bids must be delivered or mailed to:

City of Lake Worth
Financial Services
7 North Dixie Highway
2nd Floor
Lake Worth, FL 33460

ENVELOPES CONTAINING BIDS MUST BE IDENTIFIED AS BID 16-120. Bids shall be accompanied by a certified check, cashier's check, or Bid Bond in an amount not less than 5% of bid.

BY: 
Corinne Elliott, Asst. Finance Director

PUBLISHED: July 17, 2016
Palm Beach Post

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IFB # 16-120

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SECTION 1 - SCOPE OF WORK

OSBORNE PAVILION IMPROVEMENTS PROJECT

The City of Lake Worth is soliciting bids from responsible and experienced contractors to perform construction services for the Osborne Pavilion Improvements Project.

The scope of work is inclusive of all necessary improvements to construct a new 24'x20' public use pavilion, benches, split rail fencing, asphalt millings parking area, refurbishment of the existing pavilion and all other associated work for a complete new City pavilion. This project is being funded through Federal Community Development Block Grant (CDBG) funds.

All work shall be constructed in accordance with the plans and specifications and in accordance with the Florida Building Code (latest edition) and the City of Lake Worth's Standards and Details available on the City's website at www.lakeworth.org.

The project is being bid and awarded as a unit price contract and quantities are located within this Invitation for Bid on Form B3.

END OF SECTION 1 – SCOPE OF WORK

SECTION 2 – SPECIAL TERMS

1. **Pre-Bid Conference**

A Pre-Bid Conference is scheduled at 10:00AM on Tuesday, July 26, 2016 at the City Hall Conference Room, 7 North Dixie Highway, Lake Worth, Florida 33460 to provide potential bidders the opportunity to ask questions and receive clarification concerning the project.

2. **Time of Completion and Liquidated Damages.** The work to be performed under this project shall commence on the date of Notice to Proceed. The work shall be substantially completed within **ninety (90)** calendar days after the date of such notice, and fully completed within **one hundred twenty (120)** calendar days, with such extensions of time as are provided for in the General Terms and Conditions.

3. **Permits and Fees.** In accordance with the Public Bid Disclosure Act, the Contractor will be required to make payment to the City of Lake Worth for following permits or licenses, impact, inspection or other fees for this Project under the Contract: (F.S. 218.80)

(Permit)

(Fee/Amount or calculation)

Building Permit (pavilion) Per City fee schedule

Permit Fees will be reimbursed through the "Permit Fees" bid item. Contractor required to pay fees and submit receipt for direct reimbursement with no markup allowed.

4. **Licenses.** Each Bidder shall have the following licenses at the time of bid submittal or its bid may be disqualified:

- State of Florida General Contractor license

Each Bidder will also be required, at the time of contract execution, to have a business tax receipt or certificate of registration in accordance with the following:

- No person, contractor or subcontractor may conduct business within the City without a business tax receipt or certificate of registration.
- A contractor who holds a valid countywide contractor's license, in addition to a county business tax receipt shall register with the City.
- Any person engaging in any business, occupation or profession within the City without a permanent business location or branch office in the City, but holding a valid and currently effective business tax receipt issued by the county or another incorporated municipality, shall be issued a certificate of registration upon registering with the business tax official.

5. **Construction Bond.**

Payment and Performance Bonds are required and are included in this bid package.

6. **Insurance.** Prior to execution of the resulting contract derived from this IFB, the awarded bidder shall obtain and maintain in force at all times during the term of the resulting contract insurance coverage as required herein. All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida. The Certificates shall clearly indicate that the selected bidder has obtained insurance of the type, amount, and classification as required for strict compliance with this provision and that no material change or cancellation of the insurance shall be effective without thirty (30) days prior written notice to the City. Compliance with the foregoing requirements shall not relieve the selected bidder of its liability and obligations under the resulting contract.

- A. The selected bidder shall maintain, during the life of the contract, commercial general liability, including public and contractual liability insurance in the amount of \$1,000,000.00 per occurrence (\$2,000,000.00 aggregate) to protect the bidder from claims for damages for bodily and personal injury, including wrongful death, as well as from claims of property damages which may arise from any operations under the contract, whether such operations be by the bidder or by anyone directly or indirectly employed by or contracting with the bidder.
- B. The selected bidder shall maintain general automobile liability insurance for owned and hired vehicles (optional / per case basis) of at least \$1,000,000 combined single limit.
- C. The selected bidder shall carry Workers' Compensation Insurance and Employer's Liability Insurance for all employees as required by Florida Statutes.

All insurance, other than Workers' Compensation, to be maintained by the selected bidder shall specifically include the CITY as an "Additional Insured". Selected bidder will need to supply additional insured endorsements.

7. **Other Special Conditions:**

a. This project is funded through Community Development Block Grant (CDBG) funds provided by Palm Beach County Department of Economic Sustainability. The project is thereby subject to Federal Davis Bacon Act requirements and other Federal requirements. The applicable wage decision and Federal Requirement forms are provided in this Invitation to Bid package.

b. Work hours are from 7am to 6pm, Monday through Friday and on Saturday, from 8am to 6pm. Neither the prime contractor nor any subcontractor shall be allowed to perform one hundred percent (100%) of their work on this project on nights, weekends, or County recognized holidays, and shall assure that the prime contractor and all subcontractors shall, at a minimum, perform work on this project for the duration of one regular working day. Due to this is being a grant funded project, the Municipality may request DES for a waiver to the above requirement should the nature of the project so necessitate, and in such instance, DES may, at its discretion, grant the Municipality such waiver. No work on Sunday & Holiday, unless a waiver is authorized by both Public Services and DES with at least a 48 hours advanced notice.

c. The Section 3 report is a requirement for this project. Section 3 companies are encouraged to bid. The local Workforce Investment Board, Inc. may be able to assist with recruiting from low income populations. Contractors can contact:

Michelle Dryer, Director of Community Partnership
(561) 340-1060 x2487, MDryer@CareerSourcePBC.com

The services to be provided under this IFB are set to commence upon the City's issuance of a notice to proceed. Due to the nature of the services, the notice to proceed may be by oral communication to the selected bidder. All bidders must have all necessary equipment and/or personnel to immediately commence upon receipt of the notice to proceed.

END OF SECTION 2 – SPECIAL TERMS

SECTION 3 - MINIMUM QUALIFICATIONS

CHECKLIST

Contractors must meet the following minimum requirements in order to be considered for award.

Contractors not meeting these requirements will be disqualified. All decisions of the City are final.

- 1) Contractor must have served as prime contractor for a minimum of two similar (2) projects involving similar scope of work (parks and recreation facilities) and similar size projects within the last thirty six (36) months.

Complete Form A1 - Contractor's Prior Experience Form

- 2) Contractor must possess an active General Contractor license in the State of FL. Please submit a copy of the license with this bid submittal package.

END OF SECTION 3 – MINIMUM QUALIFICATIONS

City of Lake Worth

IFB # 16-120

CONTRACTOR'S PRIOR EXPERIENCE FORM

Contractor must provide two (2) references for each project identified to satisfy the minimum experience requirements. A reference person must be someone who has personal knowledge of the Contractor's and Subcontractor's performance. The reference person must have been informed that they are being used as a reference so that the City may check references.

Contractor' Name: _____

PROJECT (FIRST PROJECT)

Name of Project: _____

Project Location: _____

Description of Project: _____

Describe the project construction elements (type of project, road lanes, number of employees used on project, time frame for completion, etc.) completed by the Contractor, Sub-Contractors, and/or Suppliers:

Description of any Change Orders: _____

Contract Name: _____ Contract Amount: _____

Project Start Date: _____ Project End Date: _____

Contact Name & Title: _____

Phone Number: (____) _____ Email Address: _____

Note: Use an additional sheet with the same format to list other projects as proof of prior experience.

Contractor' Name: _____

PROJECT (SECOND PROJECT)

Name of Project: _____

Project Location: _____

Description of Project:

Describe the project construction elements (type of project, road lanes, number of employees used on project, time frame for completion, etc.) completed by the Contractor, Sub-Contractors, and/or Suppliers:

Description of any Change Orders: _____

Contract Name: _____ Contract Amount: _____

Project Start Date: _____ Project End Date: _____

Contact Name & Title: _____

Phone Number: (_____) _____ Email Address: _____

Note: Use an additional sheet with the same format to list other projects as proof of prior experience.

SECTION 4 - INSTRUCTIONS TO BIDDERS

1. HOW TO SUBMIT A BID:

a. **The original and two (2) copies** of your bid must be submitted in a sealed envelope, marked on the outside lower left-hand corner of the envelope with the Bid number, title, and date and hour bids are scheduled to be received. Sealed bids shall be mailed or hand-delivered to:

**City of Lake Worth – Finance Office – 2nd Floor
7 North Dixie Highway
Lake Worth, FL 33460**

b. Time is of the essence and any bid received after the closing date and time indicated on the cover of this IFB, whether by mail or otherwise, will be returned unopened and will not be considered. The time of receipt shall be determined by the time clock located in the Procurement Office. Bidders are responsible for insuring that their bid is stamped by City personnel by the deadline indicated. The City shall in no way be responsible for delays caused by any occurrence.

c. Bids submitted by telephone, telegram, facsimile or email shall not be accepted.

d. Submission of a Bid implies a full understanding of this IFB. Any misunderstanding as to such terms by the Bidder will not relieve the Bidder from performance.

e. This IFB consists of this document along with all addenda, plans, drawings and/or technical specifications incorporated or attached to this IFB, all of which are incorporated herein by this reference.

2. THE BID PACKAGE. Each bid submitted in response to this IFB shall contain the following documents:

Minimum Requirements and Checklist and Form A1

B1 Bid Package Cover Sheet

B2 Bid

B3 Schedule of Bid Items

B4 Substitution Sheet

B5 Schedule of Subcontractors

B6 Contractor Verification

B7 Reference List

B8 Drug Free Certification

B9 Trench Safety Compliance Form

B10 Contractor's Existing and Projected Workload

___ Bid bond or deposit

___ Copies of required licenses, certificates or registrations

___ Forms Packet for Federally Funded Projects

___ Sample of Daily Reporting Form and Employee Sign-In Sheet

___ Any issued Addenda

The Bid Submission Package, and any other required documents must be returned in order for the bid to be considered and responsive.

AVOID BID REJECTION: Bids may be rejected for noncompliance to requirements after review by the Procurement Office. All bids must be submitted on the provided Bid forms and **signed in ink by an officer authorized to bind the Bidder where applicable.**

3. COMPLETION OF BID SUBMISSION PACKAGE.

a. It is the responsibility of the bidder to insure that all pages are included. All Bidders are advised to closely examine this IFB.

b. **All bids must be submitted on the provided Bid forms (B1 – B10).** Bids submitted on Bidder's letterhead or quotation forms will not be accepted.

c. Bid forms must be neatly written in ink or typed, and must be signed in ink by an officer or employee having authority to bind the bidder (where a signature is required). **Failure to submit a duly signed bid shall be cause for rejection of the bid.**

4. ERRORS/ERASURES/CORRECTIONS

a. **Bids having erasures or corrections must be initialed in ink by the Bidder.** If a correction is necessary, draw a single line through the entered figure and enter the corrected figure above it and initial the correction. Any illegible entries, pencil bids or corrections not initialed will not be accepted.

b. In the event of mathematical extension error(s), the unit price will prevail and the bidder's total offer will be corrected accordingly. In the event of addition errors, the extended line item will prevail and the bidder's total will be corrected accordingly.

c. Bidders shall not be allowed to modify their bids after the bid opening time and date. Bid files may be examined during normal working hours, after bid opening, by appointment only.

d. Bidder represents that it has taken all necessary steps to ascertain the nature and location of the work and that it has investigated and satisfied itself as to the general and local conditions which can affect the performance of the work, including: (i) conditions relating to access, egress, transportation, debris disposal, parking and storage of materials; (ii) availability of labor; and (iii) physical conditions at the site. Any failure by Bidder to take these steps will not relieve the Bidder from the responsibility for estimating properly the difficulty and cost of successfully performing the work without additional expense to Owner.

5. BID PRICES. All prices shall remain valid for **one hundred twenty (120)** days after the date of bid closing or other time stated in the Special Terms. Prices must be stated in the units specified on the Bid form.

6. SUBSTITUTIONS. If Bidder wishes to offer a substitution for a specified item of materials or equipment, the proposed substitution must be listed on the Substitution Sheet. In each case, the difference in price between the base bid and the price for the proposed substitution shall be specified or if there is no price difference that shall be specifically indicated. The Bid shall reflect the Bidder's price for the item specified in the Schedule of Bid items; not the proposed substitution. The best value bid will be established considering the base Bid, not any proposed substitution.

7. SUBCONTRACTING. If a Bidder intends to subcontract any portion of the work, the Schedule of Subcontractors form must be fully completed and submitted with the bid. The name, address, phone number and extent of work and value of the work to be performed should be included for all sub-contractors. The City reserves the right to reject any bid if the bid names a subcontractor who has previously failed in the proper performance of an award, or failed to deliver on time contracts of a similar nature, or who is not in a position to perform under this award. The City reserves the right to inspect all facilities of any subcontractor in order to make a determination as to the foregoing. **The Schedule of Subcontractors form must be completed with the listing of anticipated subcontractors. Failure to submit the completed form may result in the City rejecting the bid.**

8. BID BONDS OR DEPOSITS

Each bid must be accompanied by a certified check, cashier's check or bid bond in the amount of five percent (5%) of the total bid. Only the following types of bonds or deposits will be accepted:

1. Bid bond signed by a surety company authorized to do business in the State of Florida.
2. Cashier Check of any national or state bank.
3. Certified check drawn on a financial institution acceptable to the City of Lake Worth

All checks and orders must be made payable to the City of Lake Worth. The City reserves the right to hold the bid security until a contract is properly executed. If any bidder presented with a contract fails to execute such contract with the City, the City may be entitled to retain the deposit or enforce the bond. Bid deposits of unsuccessful bidders will be returned after execution of a contract.

9. CERTIFICATION AND LICENSES. Bidder must include with its bid package a copy of all applicable certificates and licenses and a current Business Tax Receipt in the name of the Bidder submitting the Bid from the County in which the Bidder's principal place of business is located. If awarded the contract, any Bidder who is not required to have a Business License from the City will be required to obtain a Certificate of Registration from the City of Lake Worth prior to contract execution.

10. NO LOBBYING – CONE OF SILENCE. In accordance with the Palm Beach County Lobbyist Registration Ordinance and Section 2-112(k) the City's procurement code, the City's procurement cone of silence will be in effect as of the due date for proposals in response to this IFB. A complete copy of the City's procurement code is available on-line at municode.com under the City's code of ordinances (sections 2-111 – 2-117). All Bidders are highly encouraged to review the same. In summary, the cone of silence prohibits communication between certain City officials, employees and agents and any entity or person seeking to be awarded a contract (including their representatives, lobbyists and potential subcontractors). The cone of silence terminates at the time of award, rejection of all response or some other action by the City to end the selection process

11. CONFLICT OF INTEREST AND ETHICS REQUIREMENTS. This IFB is subject to the State of Florida Code of Ethics and the Palm Beach County Code of Ethics. Accordingly, there are prohibitions and limitations on the employment of City officials and employees and contractual relationships providing a benefit to the same. Bidders are highly encouraged to review both the Florida Code of Ethics and the Palm Beach County Code of Ethics in order to insure compliance with the same.

Further, any Bidder coming before the City Commission for an award of a contract and who has made an election campaign contribution in an amount that is more than one hundred dollars (\$100.00) to any elected official of the City Commission, who is a current sitting member of the Commission, must disclose such election campaign contribution, verbally and in writing, in their responsive proposal to this IFB.

12. OFFICE OF THE INSPECTOR GENERAL

In accordance with Palm Beach County ordinance number 2011-009, this IFB and resulting Agreement may be subject to investigation and/or audit by the Palm Beach County Inspector General. The Inspector General of Palm Beach County has the authority to investigate and audit matters relating to the negotiation and performance of this contract and in furtherance thereof may demand and obtain records and testimony from the contractor and its subcontractors and lower tier subcontractors. The contractor understands and agrees that in addition to all other remedies and consequences provided by law, the failure of the contractor or its subcontractors or lower tier subcontractors to fully cooperate with the Inspector General when requested may be deemed by the municipality to be a material breach of this contract justifying its termination. Bidder/Proposer should review Palm Beach County ordinance number 2011-009 in order to be aware of its rights and/or obligations under such ordinance and as applicable.

13. PUBLIC ENTITY CRIMES. Pursuant to section 287.133, Florida Statutes, a person or affiliate who has been placed on the convicted vendor list maintained by the State of Florida may not submit a bid to the City as agent for the ECR Board for 36 months following the date of being placed on the convicted vendor list.

14. INQUIRIES AND ADDENDA. Any and all inquiries on the scope of work, specifications, additional requirements, attachments, terms and general conditions or instructions, or any issue, must be directed in writing, by US mail, fax or email to:

City of Lake Worth
Financial Services
7 North Dixie Highway
Lake Worth, FL 33460
E-mail: lsexton@lakeworth.org
(561) 586-1654

Any addenda or other modification to the Bid documents will be issued by the City prior to the date and time of Bid closing, as a written addenda distributed to all prospective bidders who have obtained the bid package directly from the City or its authorized representative. Such written addenda or modification shall be part of the Bid documents and shall be binding upon each Bidder. Each Bidder is required to acknowledge receipt of any and all addenda in writing and submit with their bid. No Bidder may rely upon any oral or verbal modification or interpretation in preparing its bid. No interpretation of this IFB will be made for any bidder, except by written addendum.

15. ACCEPTANCE; REJECTION; CANCELLATION. In accordance with the City's procurement code, this IFB may be cancelled and may or may not be re-bid when determined to be in the best interests of the City. Any or all bids may be accepted or rejected in whole or in part, when determined to be in the best interests of the City. The City also reserves the right to reject the bid of any Bidder who has previously failed in the performance of an award or to deliver contracts of a similar nature on time or who is not in a position to perform properly under this award. The City reserves the right to inspect all facilities of bidders. Any bid received without an authorized signature or past the submittal deadline will be rejected.

Any withdrawal or cancellation of this Invitation for Bid, either before or after selection of a bidder, shall be without liability or obligation on the part of the City or its employees. Any action, selection or failure to select a successful bidder to this Invitation for Bid shall be without any liability or obligation of the part of the City or its employees.

The City reserves the right to waive any non-material irregularities and technicalities, except timeliness and signature requirements. Additionally, bids may be considered irregular and may be rejected if the bid: 1) does not strictly conform to the requirements of this IFB; 2) is incomplete; 3) any Bid Form is altered; 4) contains additions not called for; 5) is conditional; 6) contains prices that are, in the opinion of the City, unbalanced either in excess or below the reasonable cost analysis values; 7) bids is in excess of the approved budget for the project.

16. SELECTION OF BIDDER WITH WHOM TO CONTRACT. The selection of a bidder with whom to contract shall be based on the lowest responsive, responsible bidder using the following criteria:

1. Qualifications;
2. Skill and experience based on reference verification;
3. Amount of the bid in relation to the needed goods & services and in relation to other bids received; and,
4. Adherence to the specifications and requirements of the IFB.

5. Past Performance
6. Content of the bid

Contractors must meet the following minimum requirements in order to be considered for award.

Contractors not meeting these requirements will be disqualified. All decisions of the City are final.

- 3) Contractor must have served as prime contractor for a minimum of two similar (2) projects involving similar scope of work (parks and recreation facilities) and similar size projects within the last thirty six (36) months.

Complete Form A1 - Contractor's Prior Experience Form

- 4) Contractor must possess an active General Contractor license in the State of FL. Please submit a copy of the license with this bid submittal package.

17. POSTING OF AWARD TABULATIONS. The selected bidder will be notified in writing with intent to award a contract. Recommended awards will be posted at 7 North Dixie Highway, Lake Worth, FL 33460 Procurement Office and available for review and also posted on the city's website at www.lakeworth.org and the bid results will be available for 5 business days at the Procurement Office.

18. CONTRACT. The City and successful bidder will be contractually bound only if and when a written contract between the parties is executed by the City. In the event a contract is not executed with the selected bidder and City reserve the right to select the next lowest responsive, and responsible bidder based on the bid tabulation and to contract with said bidder.

19. PROCUREMENT CODE. Palm Beach County's procurement code is to be followed for Federally Funded projects.

20. COSTS. All costs incurred by any party in responding to this Invitation for Bid are the sole responsibility of the Bidder including any costs, fees or expenses associated with a protest.

21. PROTEST PROCEDURE. Any actual Bidder who is aggrieved in connection with this IFB may protest such procurement. The protest must be filed with the City in accordance with Palm Beach County Purchasing Code protest requirements. A complete copy of the county's code is available on-line at municode.com under the County's code of ordinances, section 2-55. There are strict deadlines for filing a protest. Failure to abide by the deadlines will result in a waiver of the protest.

Sec. 2-55. Protested solicitations and awards.

- (a) Right to protest. After posting of the recommended awardee, any bidder or proposer who is aggrieved in connection with the recommended award may protest in writing to the director of purchasing. The right to protest is limited to those procurements of goods or services solicited through an invitation for bid or a request for proposal. Recommended awards less than the mandatory bid or proposal amount cannot be protested.

(b) Notice of protest. The protest shall be submitted within five (5) business days after posting of the award recommendation. The protest shall be in writing and shall identify the protestor and the solicitation, and shall include a factual summary of the basis of the protest. Such protest is considered filed when it is received and date/time stamped by the department of purchasing. Neither the director of purchasing nor a special master shall consider any issue not submitted in writing within the time frame specified for the notice of protest.

22. CITY IS DOCUMENT GATEKEEPER. This IFB is issued directly by the City and the City shall be the sole distributor of all addenda and/or revisions to these documents. It is the responsibility of the Bidder to confirm the legitimacy of procurement opportunities or notices directly with the Procurement Office. The City is not responsible for any solicitations advertised by subscriptions, publications, websites (other than the City's) or other sources not connected with the City and the Bidder should not rely on such sources for information regarding any solicitation made by the City of Lake Worth.

23. PUBLIC RECORDS REQUESTS DURING BID OPENINGS

Sec. 255.0518, Fla. Stat., requires that when the bids are open, they must be opened at a public meeting (held in accordance with sec. 286.011, Fla. Stat.); the name of each bidder and the price submitted on each bid must be announced; and the name of each bidder and the price must be made available by the City upon request. Sealed bids or proposals received by the City in response to an invitation to bid are exempt from public records disclosure requirements until the City provides a notice of decision or thirty (30) days after the opening of the proposal / bid. If the City rejects all bids or proposals submitted in response to an invitation to bid or request for proposals and the City concurrently provides notice of its intent to reissue the competitive solicitation, the rejected bids or proposals remain exempt from public records disclosure until such time as the City provides notice of a decision or intended decision concerning the competitive solicitation or until the City withdraws there issued competitive solicitation. A bid, proposal, or reply is not exempt for longer than twelve (12) months after the initial City notice rejecting all bids, proposals, or replies. Requests for bid or proposal documents should be submitted to the City Clerk's Office. Documents may be inspected without charge, but a charge will be incurred to obtain copies.

24. DISCLOSURE AND DISCLAIMER. The information contained herein is provided solely for the convenience of the Bidders. It is the responsibility of each Bidder to assure itself that information contained herein is accurate and complete. Neither the City, nor its advisors provide any assurances as to the accuracy of any information in this IFB. Any reliance on the contents of this IFB regarding the project or scope of thereof, or on any oral communications with City representatives or advisors, shall be at each Bidder's own risk. Bidders should rely exclusively on their own investigations, interpretations and analyses in connection with this matter. This IFB is being provided by the City without any warranty or representation, express or implied, as to its content, accuracy or completeness and no Bidder or other party shall have recourse to the City if any information herein contained shall be inaccurate or incomplete. No warranty or representation is made by the City that any bid or proposal conforming with these requirements will be selected for consideration, negotiation or approval.

Any action taken by the City in response to bids or proposals made pursuant to this IFB or in making any award or failure or refusal to make any award pursuant to such bids or proposals, or in any cancellation of award, or in any withdrawal or cancellation of this RFP, either before or after issuance of an award, shall be without any liability or obligation on the part of the City, or their advisors.

Any recipient of this IFB who responds hereto fully acknowledges all the provisions of this Discloser and Disclaimer and agrees to be bound by the terms hereof. Any proposal submitted pursuant to this IFB is at the sole risk and responsibility of the party submitting such proposal.

25. COMPLIANCE. All bids or proposals received in accordance with this IFB shall be subject to applicable Florida Statutes governing public records including without limitation Chapter 119, Florida Statutes.

26. CONSTRUCTION CONTRACT/RETAINAGE. It is the City's intent to withhold 10% retainage on all construction contracts generally in accordance with the provisions of section 218.735 (8)(a-g), Florida Statutes.

END OF SECTION 4 - INSTRUCTIONS TO BIDDERS

BID PACKAGE COVER SHEET

IFB # 16-120	Project Title: Osborne Pavilion Improvements Project
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Bidder Company Name:

Enclose the following documents:

- _____ 1. Bid Package Cover Sheet. (B1)
- _____ 2. Prior Experience. (A1)
- _____ 3. Bid (B2) **Must be signed.**
- _____ 4. Schedule of Bid Items (B3) **Must be signed.**
- _____ 5. Substitution Sheet (B4). If none, mark "none".
- _____ 6. Schedule of Sub-contractors (B5). If none, mark "none".
- _____ 7. Contractor Verification (B6). Check the license and insurance requirements to ensure that you will comply and attach copies of current licenses.
- _____ 8. Reference List (B7)
- _____ 9. Drug Free Certification (B8)
- _____ 10. Trench Safety Compliance Form (B9)
- _____ 11. Contractor's Existing and Projected Workload (B10)
- _____ 12. Bid bond or Deposit
- _____ 13. Copies of Licenses, Certifications and Registrations (Contractor to Supply)
- _____ 14. Form's Packet for Federally Funded Projects
- _____ 15. Sample of your Daily Reporting Form and Employee Sign-In Sheet
- _____ 16. Any issued Addenda

Clearly mark the outside lower left corner of the Envelope with the Invitation for Bid number and title, and the Date and Time for the bid closing deadline.

THIS PAGE AND THE FOLLOWING PAGES ARE TO BE RETURNED WITH YOUR BID.

Submit ONE (1) ORIGINAL and TWO (2) PHOTOCOPIES of your Bid package.

AVOID BID REJECTION:

All bids must be submitted on the provided Bid forms with each form completed and signed where requested. Signatures must be in ink and by a person authorized to bind the Bidder.

BID

Osborne Pavilion Improvements Project

IFB # 16-120

Proposal of:

(Bidder Company Name)

Bid Amount: \$ _____

(Write Dollar Figure Here)

Bidder agrees to furnish, unless otherwise provided, all implements, machinery, equipment, transportation, tools, materials, supplies, labor and other things necessary for the performance and completion of the work for the amount indicated above.

The undersigned Bidder hereby declares that:

1. This bid is made in good faith, without collusion or fraud and is fair and competitive in all respects.
2. The Bidder has carefully and to his full satisfaction examined the attached Scope of Work, Special Terms, General Conditions, technical specifications, and form of bonds, if applicable, together with the accompanying plans, and Bidder has read all issued addenda issued.
3. Bidder has made a full examination of the site and is familiar with the site conditions that may impact its performance.
4. There is enclosed a bid guarantee consisting of five percent (5%) of bid price in the amount of \$_____.
5. Upon receipt of a Notice of Intent to Award the contract the Bidder shall: 1) commence obtaining a Performance Bond, a Payment Bond, and Certificate(s) of Insurance immediately after receiving a Notice of Intent to Award, and 2) immediately obtain a Certificate of Registration for engaging in business from the City, as such documents will be required prior to execution of a Contract.
6. Bidder understands that the contract time starts on the date of Notice to Proceed.
7. Bidder furthermore agrees that, in case of failure on his part to execute a Contract and provide all required documents within ten (10) calendar days of receipt of the Contract for execution, the offer to contract may be withdrawn and the check, bond, or other security accompanying his bid and the money payable thereon, shall become the property of the City, by forfeit as agreed liquidated damages.
8. The Bidder states that this bid is the only bid for this project in which Bidder is interested; and Bidder shall not be a sub-contractor or sub-subcontractor on this project.

IFB # 16-120

SCHEDULE OF UNIT BID ITEMS

In accordance with the specifications and Scope of Work included with this bid, following is the recommended unit prices in order to evaluate the total bid as submitted with your proposal. These prices are intended to equal the total base bid as submitted at the top of page 16 of the IFB. These prices are used as a tool for the evaluation of the bid(s).

<u>ITEM #</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL</u>
<u>GENERAL CONDITIONS</u>					
1	SITE MOBILIZATION/GENERAL REQUIREMENTS	1	LS		
2	EROSION CONTROL	1	LS		
<u>SITework</u>					
3	REMOVE/HAULOFF 2" OF TOP MATERIAL AT ASPHALT MILLINGS PARKING AREA	675	SY		
4	2" ASPHALT MILLINGS PARKING AREA (SPREAD AND COMPACTED)	675	SY		
5	ADA PARKING STALL AND ACCESS AISLE W/ TRUNCATED DOME SURFACE (6" thick concrete)	1	LS		
6	5' CONCRETE SIDEWALK (4") 3,000psi	50	SF		
7	4" CONCRETE SLAB (26'X22') (incl. grading work) (Same Finished Elev. as exist. Pavilion slab), 3,000 psi	572	SF		
8	24'X20' STEEL FRAME PAVILION W/ FOOTERS	1	LS		
9	NEW BENCHES W/ TABLES	4	EA		
10	BAHIA SODDING	200	SY		
11	WOOD SPLIT RAIL FENCE W/ POST	225	LF		
12	SANDBLAST AND COAT EXISTING PAVILION FRAMING (Ex. Pavilion is 24'x20' w/ approx. 100 LF of 6"x6" tube framing)	1	LS		
<u>ALLOWANCE</u>					
13	PERMIT FEES	1	LS	2,000.00	2,000.00

14	UNFORESEEN CONDITIONS	1	LS	750.00	750.00
		GRAND TOTAL			\$

Name of Firm: _____

Print Name: _____ Title: _____

SIGNATURE: _____ Date: _____

SUBSTITUTION SHEET

This form must be completed if Bidder proposes to deviate from any contract requirements including, but not limited to, proposed material specifications, proposed method, construction schedule, or phasing plan.

Associated "Add" or "Deduct" must be provided.

DESCRIPTION OR MAKE BID ITEM NO. SPECIFIED	PROPOSED SUBSTITUTION	ADD	DEDUCT
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____

IFB # 16-120

SCHEDULE OF SUBCONTRACTORS

The following is a complete list of all sub-contractors utilized for this project:

Dollar amount of subcontract work

1.			\$	
	(company name)	(type of work)		
	(address)	(tel. #)		
	(zip code)	(federal I.D. #)		
2.			\$	
	(company name)	(type of work)		
	(address)	(tel. #)		
	(zip code)	(federal I.D. #)		
3.			\$	
	(company name)	(type of work)		
	(address)	(tel. #)		
	(zip code)	(federal I.D. #)		

Total dollar amount to be awarded to sub-contractors (this page) \$ _____

Authorized Signature: _____

Note: The above schedule of subcontractors will become a part of the Contract documents. Changes made to the above schedule of subcontractors after the contract has been executed must be submitted in writing to the Project Engineer for approval prior to that sub-contractor performing any work.

IFB # 16-120

CONTRACTOR VERIFICATION FORM

BIDDER:

Name of Firm: _____

Address: _____

Telephone: () _____

Fax: () _____

Email: _____

CONTRACTOR OF RECORD (if same, state "same as above"):

Name: _____

Address: _____

Telephone: () _____

Email: _____

State License # _____ **(ATTACH APPLICABLE COPY)**

County License # _____ **(ATTACH APPLICABLE COPY)**

Type of License: _____

Unlimited _____ (yes/no)

If "NO", Limited to what trade? _____

Is the Contractor/Licensee a full-time employee of Bidder?

____ Yes ____ No ____ N/A

Will the Contractor/Licensee be in responsible charge of the work performed and installed under this contract?

____ Yes ____ No ____ N/A

City License: **(ATTACH COPY OF CITY REGISTRATION OR BUSINESS TAX RECEIPT – May be obtained from City Construction Services)**

Failure to fully or accurately complete this form may be cause for rejection of the bid.

OSBORNE PAVILION IMPROVEMENTS PROJECT

IFB # 16-120

LIST OF REFERENCES

NOTE: If you completed A1 this form may be omitted.

1. Owner's Name & Address: _____

Project: _____

Contact Person: _____

Telephone: () _____ Fax: () _____ E-Mail: _____

2. Owner's Name & Address: _____

Project: _____

Contact Person: _____

Telephone: () _____ Fax: () _____ E-mail: _____

3. Owner's Name & Address: _____

Project: _____

Contact Person: _____

Telephone: () _____ Fax: () _____ E-Mail: _____

IFB # 16-120

DRUG FREE WORKPLACE CERTIFICATION

The undersigned Bidder, in accordance with Florida Statute 287.087 hereby certifies that

_____ does:
(Name of Business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violation of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business' policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under this bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities, or contractual services that are under bid, the employee will abide by the terms of the statement, and will notify the employer of any conviction of, or plea of guilty, or *nolo contendere* to any violation of Chapter 1893, or of any controlled substance law of the United States, or any State, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance, or rehabilitation program, if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

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

Bidders Authorized Signature

Print Name: _____

Date

FLORIDA TRENCH SAFETY COMPLIANCE

This form is required where Contractor will perform trench excavation which exceeds a depth of 5 feet.

If Not Applicable - Check this Box and sign below.

In accordance with the Florida Trench Safety Act, F.S. 553.63, Bidder acknowledges:

1. The trench safety standards applicable to this bid and contract are either:

Included in the specifications for this bid or

Are identified as: _____

2. Bidder will comply with all applicable trench safety standards and any special shoring requirements applicable to the Project.

3. Included in the various items of the Bid and in the Total Bid Price are costs for complying with the Florida Trench Safety Act, which costs are summarized below.

Note: Included in the various bid items on Form B-3 are costs for compliance with trench safety standards, including sheeting and shoring. Costs on this Form B-9 shall be consistent with Form B-3. The bid items for trench safety compliance on Form B-3 must equal the total amount for trench safety compliance indicated below.

	Trench Safety Measure (Description)	Cost per Linear Foot	Linear Feet	Extended Cost
A.	_____	_____	_____	_____
B.	_____	_____	_____	_____
C.	_____	_____	_____	_____

	Shoring Safety Measure (Description)	Cost per Square Foot	Square Feet	Extended Cost
D.	_____	_____	_____	_____
E.	_____	_____	_____	_____
F.	_____	_____	_____	_____

FAILURE TO COMPLETE THE ABOVE MAY RESULT IN THE BID BEING REJECTED.

Bidder Firm: _____

Authorized Signature: _____

Date: _____

IFB # 16-120

Contractor's Existing and Projected Workload Form

List all major construction projects your firm has in process, giving the name of project, owner, engineer, contract amount, percent complete, and scheduled completion date. Include additional pages as required.

Failure to fully and accurate complete this form may result in disqualification of the Bid.

Project Name	Owner	Engineer	Contract Amount	Percent Complete	Scheduled Completion Date

REQUIREMENTS FOR FEDERALLY FUNDED PROJECTS

PROJECT NAME	City of Lake Worth - Osborne Pavilion Improvements
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This project is funded in part, or in whole, with Federal funds and is subject to the requirements listed below. The requirements contained in this document are intended to cooperate with, to supplement, and to modify the general conditions and other specifications for this project. In case of disagreement with any other section of this bid document/contract, the requirements contained herein shall govern. **Note: This document must be included in the bid documents for this project, and it must be made part of the contract/subcontracts for the project.**

1. General Requirements:

The following requirements are attached:

- Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)
- Equal Employment Opportunity Clause for Contracts Subject to Executive Order 11246
- Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)
- Public Entity Crimes - Section 287.133, Florida Statute
- Bonding Requirements
- Section 109 Housing and Community Development Act of 1974
- Nondiscrimination under the Age Discrimination Act of 1975, As Amended
- Title VI of the Civil Rights Act of 1964
- Section 3 Clause
- Lead-based Paint Poisoning Prevention Act
- Compliance with Clean Air and Water Acts

<p>2. Forms to be completed and submitted by all bidders with their bids:</p> <p>The following forms are attached:</p> <ul style="list-style-type: none"> - Noncollusion Affidavit of Prime Bidder - Anti-kickback Affidavit - Certification of Eligibility of General Contractor - Certification of Nonsegregated Facilities - Workforce Projection
--

3. Form for the successful bidder for use by subcontractors after contract award:

The following form is attached:

- Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion - Lower Tier Participant.

4. Report to be submitted to County by the successful bidder after contract award:

- Contract Award Report to be submitted as follows:
 - with the first payment request, but no later than September 30 of the year during which the construction contract was awarded, and
 - with the final payment request

(The attached form has been condensed, ask County for a larger form on legal size paper)

5. Davis-Bacon Act:

Federal labor standards provisions of the Davis-Bacon Act apply to construction projects valued over \$2,000. Attached are the pertinent forms:

- Display of Posters
- Federal Labor Standards Provisions - Form HUD-4010
- Guidance to Contractor for Compliance with Labor Standards Provisions
- The applicable wage decision(s) shown below are attached:

Wage Decision(s) No.:	FL160225 Mod -0-: Highway FL160173 Mod -1-: Heavy
------------------------------	--

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specification" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for minority participation for each trade	Goals for female participation in each trade
	22.4%	6.9%
Area covered:	Palm Beach County	All trades for the life of the project

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR-60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notifications to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is Palm Beach County, Florida.

EQUAL EMPLOYMENT OPPORTUNITY CLAUSE
FOR CONTRACTS SUBJECT TO EXECUTIVE
ORDER 11246

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensating; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

7. The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or order of the Secretary of Labor pursuant to section 204 of Executive Order 11246 of September 24, 1985, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

S:\CapImprv\MUNICIPAL\LakeWorth\OsbornePavillionImprvmnts\FederalRequirements.WPD

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246)

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941.
 - d. "Minority includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origins);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Island (all persons having origins in any or the original people of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original people of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in the approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federally or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the FEDERAL REGISTER in notice form, and such notices may be obtained from any Office of Federal Contract and Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources provide written notification to minority and female organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with what ever additional actions the Contractor may have taken.

- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-site-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7a above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper; annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violating of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at last as extensive as those standards prescribed I paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to company with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out; to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

PUBLIC ENTITY CRIMES

As provided in F.S. 287.133 by entering into this contract or performing any work in furtherance hereof, the contractor certifies that it, its affiliates, suppliers, subcontractors and consultants who will perform hereunder, have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the 36 months immediately preceding the date hereof. This notice is required by F.S. 287.133 (3)(a)."

SECTION 109 HOUSING AND COMMUNITY DEVELOPMENT ACT OF 1974

The Nondiscrimination Clause of the Housing and Community Development Act of 1974 applies to all sections of Title 1 of the Act.

"No person in the United States shall on the ground of race, color, national origin or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds available under this title."

The contractor certifies that the above Section 109 statement forms part of the contract and is in compliance with Section 570.601 of the Community Development Block Grant Regulations.

NONDISCRIMINATION UNDER THE AGE DISCRIMINATION ACT OF 1975, AS AMENDED

To the extent required by law, the Contractor shall comply with the requirements of the Age Discrimination Act of 1975 (P.L. 94-135), as amended, which provides that no person in the United States shall, on the basis of age, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

To the extent applicable to this agreement, the contractor will comply with, and agrees to include this provision in every subcontract:

Title VI of the Civil Rights Act of 1964 (P. L. 88-352), and the regulations issued pursuant thereto (24 CFR Part 1), which provides that no person in the United States shall on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant receives Federal financial assistance and will immediately take any measures necessary to effectuate This assurance/ If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the applicant, this assurance shall obligate the applicant, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits.

SECTION 3 CLAUSE

A. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U. S.C. 170 lu (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3 shall, to the greatest extent feasible, be directed to low-and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

B. The parties to this contract agree to comply with HUD’s requirements in 24 CFR Part 135, which implement Section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Part 135 regulations.

C. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers representative of the contractor’s commitment under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

D. The contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.

E. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the contractor’s obligations under 24 CFR Part 135.

F. Noncompliance with HUD’s regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

WORK ON NIGHTS, WEEKENDS, AND HOLIDAYS

Neither the prime contractor nor any subcontractor shall be allowed to perform one hundred percent (100%) of their work on this project on nights, weekends, or Palm Beach County recognized holidays. The prime contractor and all subcontractors shall, at a minimum, perform work on this project for the duration of one regular working day. The prime contractor may request a waiver to the above requirement should the nature of the project so necessitate.

BONDING REQUIREMENTS
CONSTRUCTION CONTRACTS

Except as otherwise required by law, the following requirements are applicable to this project as it relates to bid guarantees, performance bonds and payment bonds for construction contracts exceeding \$100,000. Refer to the bid specifications for the applicability of these requirements to projects with contracts valued at \$100,000 or less.

1. BID SECURITY (BID GUARANTEE)

The “bid guarantee” shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will upon acceptance of his bid, execute such contractual documents as may be required within the time specified.

Each bid shall be accompanied by a certified check, cashiers check or bid bond in the amount of five percent (5%) of the total bid. Said check or bond shall be made payable to the entity soliciting the bid as the owner of the project, and shall be given as a guarantee that the bidder, upon receipt of the notice of intent to award the contract, will enter into an agreement with the owner, and will furnish the necessary documents including, but not limited to: insurance certificates, Payment Bond and Performance Bond; each of the said bonds to be in the amount stated herein. In case of refusal or failure to enter into said agreement, the check or bid bond, as the case may be, shall be forfeited to the owner.

All bonds shall be written by a surety company of recognized standing, authorized to conduct business in the State of Florida, and shall have a registered agent in the State of Florida.

2. BONDS

When the successful bidder delivers the executed agreement to the owner, it must be accompanied by a Performance Bond and a Payment Bond, each in the amount of one hundred percent (100%) of the contract price, executed by a corporate surety company of recognized standing, authorized to do business in the State of Florida, as security for the faithful performance and payment of all contractor’s obligations under the contract, and the bidder shall state in the bid proposal the name, address, telephone number and full name of the authorized agent of the surety or sureties who will sign these bonds in the event the contract is awarded to the bidder. During the bidding and construction periods the surety company shall hold a current certificate of authority as an acceptable surety on Federal Bonds, in accordance with U. S. Department of Treasury Circular 570, Current Revision.

LEAD-BASED PAINT POISONING PREVENTION ACT

- References:
- 24 CFR Part 570
 - 24 CFR Part 35
 - Lead-Based Paint Poisoning Prevention Act, as amended
 - Residential Lead-Based Paint Hazard Reduction Act of 1992
 - 40 CFR Part 745

The aforementioned Acts and the referenced regulations prohibit the use of lead-based paint in housing receiving Federal assistance, and in child occupied facilities. In addition, these regulations require elimination of lead-based paint hazards in housing constructed prior to 1978 which receives Federal assistance.

* * * * *

COMPLIANCE WITH CLEAN AIR AND WATER ACTS

In compliance with the Clean Air Act, as amended, 42 U.S.C. 1857(R) et. Seq., Section 508 of Clean Water Pollution Control Act, as amended 33 U.S.C. 1368 and Executive Order 11738.

1251 et. Seq., and the regulations of the Environmental Protection Agency with respect thereto, the appropriate parts of 40 CFR as amended from time to time. Contractor agrees that:

- (1) No facility to be utilized in the performance of this Contract or any subcontract shall not be a facility listed on the EPA list of Violating Facilities pursuant to 40 CFR 15.20.
- (2) He will comply with all requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857 c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 USC 1368 relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in said Section 114 and Section 308. And all regulations and guidelines issued thereunder.
- (3) He will promptly notify the Owner of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized or to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
- (4) He will comply with mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (P.L. 49-163).
- (5) He will include or cause to be included the provisions of paragraph (1) through (5) of this section in every nonexempt subcontract and that he will take such action as the Government may direct as a means of enforcing such provisions.

NONCOLLUSION AFFIDAVIT OF PRIME BIDDER

State of Florida
County of Palm Beach

BEFORE ME, the undersigned authority, personally appeared _____,
who, after being by me first duly sworn, deposes and says of his/her personal knowledge that:

(1) He is _____ of _____, the Bidder that
has submitted a proposal to perform work for the following project:

Contract #: _____ Project Name: _____

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all
pertinent circumstances respecting such Bid;

(3) Such Bid is genuine and is not a collusive or sham Bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives,
employees or parties in interest, including this affiant, has in any way colluded, conspired,
connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a
collusive or sham Bid in connection with the Contract for which the attached Bid has been
submitted or to refrain from bidding in connection with such Contract, or has in any manner,
directly or indirectly, sought by agreement or collusion or communication or conference with
any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other
Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any
other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful
agreement any advantage against Palm Beach County or any person interested in the
proposed Contract: and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any
collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any
of its agents, representatives, owners, employees, or parties in interest, including this
affiant.

Signature

Subscribed and sworn to (or affirmed) before me this ____ day of _____ 20__ by _
_____, who is personally known to me or who has produced ___
_____ as identification.

NOTARY SEAL:

Notary Signature: _____

Notary Name: _____

Notary Public-State of Florida

ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA
COUNTY OF PALM BEACH

BEFORE ME, the undersigned authority, personally appeared _____
_____, who, after being by me first duly sworn, deposes and says:

(1) I am _____ of _____, the bidder that has
submitted a proposal to perform work for the following project:

Contract #: _____ Project Name: _____

(2) I, the undersigned, hereby depose and say that no portion of the sum bid in connection with
the work to be performed at the property identified above will be paid to any employee of Palm
Beach County or, _____ as a commission, kickback, reward or gift,
directly or indirectly by me or any member of my firm or by an officer of the corporation.

Signature

Subscribed and sworn to (or affirmed) before me this ___ day of _____ 20__ by
_____, who is personally known to me or who has produced _____
_____ as identification.

NOTARY SEAL:

Notary Signature: _____

Notary Name: _____
Notary Public-State of Florida

CERTIFICATION OF ELIGIBILITY OF GENERAL CONTRACTOR

STATE OF FLORIDA
COUNTY OF PALM BEACH

BEFORE ME, the undersigned authority, personally appeared _____, who, after being by me first duly sworn, deposes and says of his/her personal knowledge that

(1) He/she is the _____ of _____, hereinafter referred to as the "General Contractor"; who submitted a proposal to perform work for the following project:

Contract #: _____ Project Name: _____

(2) He/she is fully informed that the Proposal submitted for work to be performed under the above mentioned contract, is being funded, in whole or in part, by a Federally-assisted or insured contract; and

(3) The General Contractor nor any of its officers, partners, owners or parties of interest is not named on the current General Services Administration List of Parties Excluded from Federal Procurement or Non-procurement Programs prior to award of the contract; and

(4) The General Contractor acknowledges that should the contractor be subsequently found ineligible after award of the contract, its Construction Contract shall be terminated and the matter referred to the Department of Labor, the Department of Housing and Urban Development, or the General Services Administration for its action; and

(5) The General Contractor acknowledges the responsibility of informing all of its subcontractors that this contract is being funded, in whole or in part, by a Federally-assisted or insured contract; and

(6) The General Contractor acknowledged the responsibility that all of its subcontractors are to sign a "Certification Regarding Debarment Suspension, Ineligibility and Voluntary Exclusion-Lower-Tier Participant" as a part of its contract with such subcontractors, and that the "General Contractor" will retain such certifications in its files. Furthermore, should the subcontractor be subsequently found ineligible after award of the Construction Contract, its contract with the "General Contractor" shall be terminated and the matter referred to the Department of Labor, the Department of Housing and Urban Development, or the General Services Administration, for its action.

Signature

Subscribed and sworn to (or affirmed) before me this ____ day of _____, 20__ by _____, who is personally known to me or who has produced _____ as identification.

NOTARY SEAL:

Notary Signature: _____

Notary Name: _____
Notary Public-State of Florida

CERTIFICATION OF NONSEGREGATED FACILITIES

The Bidder certifies that he/she does not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that he/she does not permit his/her employees to perform their services at any location, under his/her control where segregated facilities are maintained. The bidder certifies further that he/she will not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that he/she will not permit his/her employees to perform their services at any location under his/her control where segregated facilities are maintained. The bidder agrees that a breach of this certification will be a violation of the Equal Opportunity clause in any contract resulting from acceptance of this bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The bidder agrees that (except where he/she has obtained identical certification from proposed subcontractors for specific time periods) he/she will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he/she will retain such certifications in his/her files.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

Project Name: _____

Company Name and Address:

Signature

Name and Title

Date

WORKFORCE PROJECTION

PROJECT NAME:	City of Lake Worth - Osborne Pavilion Improvements
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Instructions: Check below all the work classifications that you anticipate will be working on this project including the prime contractor's work force and all subcontractors' work forces.

POWER EQUIPMENT OPERATORS

- Asphalt Distributor
- Asphalt Paving Machine
- Asphalt Screed
- Backhoe
- Boom Auger Operator
- Bulldozer
- Concrete Curb Machine Operator
- Concrete Joint Saw Operator
- Concrete Pump
- Cranes with boom length less than 150 ft
- Cranes with boom length 150 ft and over
- Cranes, all tower cranes, and all
- Derrick, or Dragline
- Earthmover
- Excavator
- Forklift
- Front End Loader
- Grader/Blade
- Guardrail Erector
- Guardrail Erector
- Guardrail Post Driver
- Mechanic (type: _____)
- Milling Machine Grade Checker
- Milling Machine Operator
- Motor Grader
- Mulching Machine
- Oiler, Greasemen
- Pavement Striping Machine
- Pavement Striping Machine Nozzleman
- Piledriver
- Power Subgrade Mixer
- Roller
- Scraper
- Sign Erector
- Small Tool Operator
- Tractor
- Trenching Machine
- Truck Driver (type: _____)
- Other: _____
- Other: _____

OTHER WORK CLASSIFICATIONS

- Acoustical Tile Installer
- Air Tool Operators
- Asphalt Rakers
- Bricklayer/Brickmason/Blocklayer
- Carpenter
- Cement Mason/Concrete Finisher
- Drywall Hanger
- Drywall Finisher/Taper
- Electrician
- Elevator Mechanic
- Fence Erector
- Form Setter
- Glazier
- Grade Checker
- HVAC Mechanic (type: _____)
- Ironworker - Ornamental
- Ironworker - Reinforcing
- Ironworker - Structural
- Landscape and Irrigation laborer
- Lather
- Mason Tenders
- Painter
- Pipefitter (excluding HVAC pipe work)
- Pipelayer
- Plasterer
- Plasterers Tenders
- Plumber (excluding HVAC pipe)
- Plumber (including HVAC pipe)
- Roofer (including built-up, composition and single ply)
- Sheet Metal Worker (including HVAC duct work)
- Sprinkler Fitter (fire sprinkler)
- Terrazzo Worker Mechanic
- Tile Setter
- Traffic Control Specialist
- Traffic Signalization - Installer
- Traffic Signalization - Mechanic
- Unskilled Laborer
- Welder
- Other: _____

Submitted by: _____

CONTRACT AWARD REPORT

Project Name:		Report Date:	
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Prime Contractor Information - construction contracts funded in whole or in part by HCD

Grant/Project Number or HUD Case Number or other identification of property, subdivision, dwelling unit, etc	Amount of Contract	Type of Trade Code (See below) (A)	Contractor Business Racial/Ethnic Code (see below) (B)	Woman Owned Business (Yes or No)	Prime Contractor Employer Identification Number	Sec. 3 (Yes or No) (C)	Subcontractor Employer Identification Number	Sec. 3 (Yes or No) (C)	Contractor Name and Address					
									Name	Street	City	State	Zip Code	
//////////							//////////	////						

Sub-Contractor Information - construction sub-contracts funded in whole or in part by HCD

Grant/Project Number or HUD Case Number or other identification of property, subdivision, dwelling unit, etc	Amount of Subcontract	Type of Trade Code (See below) (A)	Subcontractor Business Racial/Ethnic Code (see below) (B)	Woman Owned Business (Yes or No)	Prime Contractor Employer Identification Number	Sec. 3 (Yes or No) (C)	Subcontractor Employer Identification Number	Sec. 3 (Yes or No) (C)	Subcontractor Name and Address					
									Name	Street	City	State	Zip Code	
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SAMPLE
DO NOT USE

Other Contractor Information - non-construction contracts funded in whole or in part by HCD (such as consultants, engineers, architects, surveyors, etc.)

Grant/Project Number or HUD Case Number or other identification of property, subdivision, dwelling unit, etc	Amount of Contract	Type of Trade Code (See below) (A)	Contractor Business Racial/Ethnic Code (see below) (B)	Woman Owned Business (Yes or No)	Prime Contractor Employer Identification Number	Sec. 3 (Yes or No) (C)	Subcontractor Employer Identification Number	Sec. 3 (Yes or No) (C)	Contractor Name and Address					
									Name	Street	City	State	Zip Code	
//////////							//////////	////						
//////////							//////////	////						

(A) Type of Trade Codes:

- Concern: Enter Yes or No
 1 = New Construction
 2 = Substantial Rehab
 3 = Repair
 4 = Service
 5 = Project Mangt.

(B) Racial/Ethnic Codes

- 6 = Professional
 7 = Tenant Services
 8 = Education/Training
 9 = Arch./Engrg./Appraisal
 0 = Other

(C) Section 3 Business

- 1 = White Americans
 2 = Black Americans
 3 = Native Americans
 4 = Hispanic Americans
 5 = Asian/Pacific Americans

DISPLAY OF POSTERS

The contractor shall, for each federally funded project, supply a standard display of posters at the job site as follows:

One (1) 24" x 36" display surface with clear acrylic cover sheet for all-weather protection and easy visibility of posters on the job site.

Said panel shall be mounted on a substantial post of steel, aluminum, or wood, with the bottom edge of the panel at 48" from ground level. Exceptions to this mounting system may be approved by Palm Beach County Housing and Community Development.

Cost of poster mounting boards and posts are to be paid by the contractor.

Posters for display will be provided by Palm Beach County Housing and Community Development at the pre-construction conference and shall be in a prominent location for the ease of exposure to all employees.

Display board and required posters must be maintained in a legible condition through the entire project duration. Failure to provide the above could result in suspension of contract payments until violation(s) are corrected as directed by Palm Beach County Housing and Community Development.

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Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1: (i) Minimum Wages. All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section I(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U. S. Department of Labor, Washington, D. C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate). HUD or its designee shall refer the questions, including the view of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30 day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

A.2: (I) Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employee to whom, they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

A.3: (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanic working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct

classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborer or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage raises prescribed in the applicable programs.

(Approved by the Office of Management of Budget under OMB Control Number 1215-0140 and 1215-0017.)

(II)(a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR Part 5.5(a)(3)(I) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include and individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional form WH-347 is available for this purpose from the Wage and Hour Division Web Site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> Or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submissions to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance." signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR Part 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(I), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph A.3(ii)(b) of this section.

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(III) The contractor or subcontractor shall make the records required under paragraph A.3(i) of this section available for inspection, copying or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR Part 5.12.

A.4: Apprentices and Trainees.

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U. S. Department of Labor, Employment and Training Administration, Office of Apprenticeship and Training, Employer and Labor Services or with a State Apprenticeship Agency recognized by the

Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship and Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not register or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice, performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship and Training, Employer and Labor Services or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U. S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program.

If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR Part 30.

A.5: Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.

A.6: Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in Subparagraphs 1 through 11 in this Paragraph A, and such other clauses as HUD or its designee may by appropriate instructions require and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

A.7: Contracts termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

A.8: Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon Acts contained in 29 CFR Part 1, 3, and 5 are herein incorporated by reference in this contract.

A.9: Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5,6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any

of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

A.10: (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S.C., Section 1010, Title 18, U.S.C., "Federal Housing Administration transactions, provides in part "Whoever, for the purpose of ... influencing in any way the action of such Administration...makes, utters or publishes any statement, knowing the same to be false...shall be fined not more than \$5,000 or imprisoned not more than two years or both."

A.11: Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act The provisions of this Paragraph B are applicable where the amount of prime contract exceeds \$100,000. As used in this paragraph, the term "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontracting contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in case of work done under contract for the District of Columbia or a territory, to such District or such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

(3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraphs (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety

The provisions of this Paragraph C are applicable only where the amount of the prime contract exceeds \$100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

(3) The Contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

**Form HUD-4010 (06/2009)
ref. Handbook 1344.1**

GUIDANCE TO CONTRACTOR FOR COMPLIANCE WITH LABOR STANDARDS PROVISIONS

A. Contracts with Two Wage Decisions

If the contract includes two wage decisions, the contractor, and each subcontractor who works on the site, must submit either two separate payrolls (one for each wage decision) or one payroll which identifies each worker twice and the hours worked under each wage decision. One single payroll, reflecting each worker once, may be submitted provided the Contractor uses the higher rate in the wage decisions for each identical job classification. However, where a job classification is not listed in a wage decision and is needed for that portion of the work, the classification must be added to the wage decision. A worker may not be paid at the rate for a classification using the hourly rate for that same classification in another wage decision. After the additional classification is approved, the contractor may pay the higher of the two rates and submit one payroll, if desired.

B. Complying with Minimum Hourly Amounts

(1) The minimum hourly amount due to a worker in each classification is the total of the amounts in the "Rates" and "Fringe Benefits" (if any) columns of the applicable wage decision.

(2) The contractor may satisfy this minimum hourly amount by any combination of cash and bona fide fringe benefits, regardless of the individual amounts reflected in the "Rates" and "Fringe Benefits" columns.

(3) A contractor payment for a worker which is required by law is not a fringe benefit in meeting the minimum hourly amount due under the applicable wage decision. For example, contractor payments for FICA or unemployment insurance are not a fringe benefit; however, contractor payments for health insurance or retirement are a fringe benefit. Generally, a fringe benefit is bona fide if (a) it is available to most workers and (b) involves payments to a third party.

(4) The hourly value of the fringe benefit is calculated by dividing the contractor's annual cost (excluding any amount contributed by the worker) for the fringe benefit by 2080. Therefore, for workers with overtime, an additional payment may be required to meet the minimum hourly wages since generally fringe benefits have no value for any time worked over 40 hours weekly. (If a worker is paid more than the minimum rates required by the wage decision, this should not be a problem. As long as the total wages received by a worker for straight time equals the hours worked times the minimum hourly rate in the wage decision, the requirement of the Davis-Bacon and Related Acts has been satisfied.)

C. Overtime

For any project work over 40 hours weekly, a worker generally must be paid 150% of the actual hourly cash rate received, not the minimum required by the wage decision. (The Davis-Bacon and Related Acts only establishes minimum rates and does not address overtime; the

Contract Work Hours Act contains the overtime requirement and uses "basic rate of pay" as the base for calculation, not the minimum rates established by the Davis-Bacon and Related Acts.)

D. Deductions

Workers who have deductions, not required by law, from their pay must authorize these deductions in writing. The authorization must identify the purpose of each deduction and the amount, which may be a specific dollar amount or a percentage. A copy of the authorization must be submitted with the first payroll containing the deduction. If deducted amounts increase, another authorization must be submitted. If deducted amounts decrease, no revision to the original authorization is needed. Court-ordered deductions, such as child support, may be identified by the responsible payroll person in a separate document. This document should identify the worker, the amount deducted and the purpose. A copy of the court order should be submitted.

E. Classifications Not Included in the Wage Decision

If a classification not in the wage decision is required, please advise the owner's representative in writing and identify the job classification(s) required. In some instances, the State agency may allow the use of a similar classification in the wage decision.

Otherwise, the contractor and affected workers must agree on a minimum rate, which cannot be lower than the lowest rate for any trade in the wage decision. Laborers (including any subcategory of the laborer classification) and truck drivers are not considered a trade for this purpose. If the classification involves a power equipment operator, the minimum cannot be lower than the lowest rate for any power equipment operator in the wage decision. The owner will provide forms to document agreement on the minimum rate by the affected workers and contractor.

The U.S. Department of Labor (USDOL) must approve the proposed classification and rate. The contractor may pay the proposed rate until the USDOL makes a determination. Should the USDOL require a higher rate, the contractor must make wage restitution to the affected worker(s) for all hours worked under the proposed rate.

F. Supervisory Personnel

Foremen and other supervisory personnel who spend at least 80% of their time supervising workers are not covered by the Davis-Bacon and Related Acts. Therefore, a wage decision will not include such supervisory classifications and their wages are not subject to any minimums under the Davis-Bacon and Related Act or overtime payments under the Contract Work Hours and Safety Standards Act. However, foremen and other supervisory personnel who spend less than 80% of their time engaged in supervisory activities are considered workers/mechanics for the time spent engaged in manual labor and must be paid at least the minimum in the wage decision for the appropriate classification(s) based on the work performed.

G. Sole Proprietorships / Independent Contractors / Leased Workers

The nature of the relationship between a prime contractor and a worker does not affect the requirement to comply with the labor standards provisions of this contract. The applicability of the labor standards provisions is based on the nature of the work performed.

If the work performed is primarily manual in nature, the worker is subject to the labor standards provisions in this contract. For example, if John Smith is the owner of ABC Plumbing and performs all plumbing work himself, then Mr. Smith is subject to the labor standards provisions, including minimum wages and overtime. His status as "owner" is irrelevant for labor standards purposes.

If a worker meets the IRS standards for being an independent contractor, and is employed as such, this means that the worker must submit a separate payroll as a subcontractor rather than be included on some other payroll. The worker is still subject to the labor standards provisions in this contract, including minimum wages and overtime.

If a contractor or subcontractor leases its workers, they are subject to the labor standards provisions in this contract, including minimum wages and overtime. The leasing firm must submit payrolls and these payrolls must reflect information required to determine compliance with the labor standards provisions of this contract, including a classification for each worker based on the nature of the work performed, number of regular hours worked, and number of overtime hours worked.

H. Apprentices / Helpers

A worker may be classified as an apprentice only if participating in a federal or state program. Documentation of participation must be submitted. Generally, the apprentice program specifies that the apprentice will be compensated at a percentage of journeyman rate. For Davis-Bacon Act purposes, the hourly rate cannot be lower than the percentage of the hourly rate for the classification in the applicable wage decision.

If the worker does not participate in a federal or state apprentice program, then the worker must be classified according to duties performed. This procedure may require classification in the "trade" depending on tools used, or as a laborer if specialized tools of the trade are not used. The contractor may want to consult with the Wage and Hour Division of the U.S. Department of Labor located in most large cities regarding the appropriate classification.

Presently, no worker may be classified as a "helper". As with apprentices not participating in a formal apprentice program, the worker must be classified according to duties performed and tools used.

General Decision Number: FL160173 05/13/2016 FL173
 Superseded General Decision Number: FL20150173
 State: Florida
 Construction Type: Heavy
 County: Palm Beach County in Florida.

HEAVY CONSTRUCTION PROJECTS (Including Sewer and Water Lines)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016
1	05/13/2016

* ELEC0728-006 03/01/2016

	Rates	Fringes
ELECTRICIAN.....	\$ 30.00	10.85

 ENGI0487-014 07/01/2013

	Rates	Fringes
OPERATOR: Crane All Tower Cranes Mobile, Rail, Climbers, Static- Mount; All Cranes with Boom Length 150 Feet & Over (With or without jib) Friction, Hydraulic, Electric or Otherwise; Cranes 150 Tons & Over; Cranes with 3 Drums (When 3rd drum is rigged for		

work); Gantry & Overhead
 Cranes; Hydraulic Cranes
 Over 25 Tons but not more
 than 50 Tons;

Hydraulic/Friction Cranes;
 & All Types of Flying

Cranes; Boom Truck.....\$ 29.05 8.80

Cranes with Boom Length
 Less than 150 Feet (With
 or without jib); Hydraulic

Cranes 25 Tons & Under, &
 Over 50 Tons (With Oiler);

Boom Truck.....\$ 28.32 8.80

OPERATOR: Drill.....\$ 25.80 8.80

OPERATOR: Oiler.....\$ 22.99 8.80

 IRON0402-003 02/01/2015

Rates Fringes

IRONWORKER, STRUCTURAL.....\$ 22.29 7.90

 LABO1652-004 06/01/2013

Rates Fringes

LABORER: Grade Checker.....\$ 14.50 4.92

 PAIN0452-007 08/01/2014

Rates Fringes

PAINTER: Brush, Roller and
 Spray.....\$ 19.50 8.83

 SUFL2009-169 06/24/2009

Rates Fringes

CARPENTER, Includes Form Work....\$ 17.00 2.51

CEMENT MASON/CONCRETE FINISHER...\$ 16.93 0.00

LABORER: Common or General.....	\$ 10.64	0.00
LABORER: Landscape.....	\$ 7.25	0.00
LABORER: Pipelayer.....	\$ 14.00	0.00
LABORER: Power Tool Operator (Hand Held Drills/Saws, Jackhammer and Power Saws Only).....	\$ 10.63	2.20
OPERATOR: Asphalt Paver.....	\$ 11.59	0.00
OPERATOR: Backhoe Loader Combo.....	\$ 16.10	2.44
OPERATOR: Backhoe/Excavator.....	\$ 15.33	3.60
OPERATOR: Bulldozer.....	\$ 14.95	0.81
OPERATOR: Grader/Blade.....	\$ 16.00	2.84
OPERATOR: Loader.....	\$ 16.05	0.00
OPERATOR: Mechanic.....	\$ 14.32	0.00
OPERATOR: Roller.....	\$ 10.95	0.00
OPERATOR: Scraper.....	\$ 11.00	1.74
OPERATOR: Trackhoe.....	\$ 20.92	5.50
OPERATOR: Tractor.....	\$ 10.54	0.00
TRUCK DRIVER, Includes Dump Truck.....	\$ 9.60	0.00
TRUCK DRIVER: Lowboy Truck.....	\$ 12.73	0.00
TRUCK DRIVER: Off the Road Truck.....	\$ 12.21	1.97

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all

rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted

because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: FL160225 01/08/2016 FL225

Superseded General Decision Number: FL20150225

State: Florida

Construction Type: Highway

County: Palm Beach County in Florida.

HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016

* SUFL2013-043 08/19/2013

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 15.38	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 15.69	0.00
ELECTRICIAN.....	\$ 18.20	0.00
FENCE ERECTOR.....	\$ 12.82	0.00
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine).....	\$ 15.09	0.00
HIGHWAY/PARKING LOT STRIPING: Painter.....	\$ 12.13	0.00
HIGHWAY/PARKING LOT STRIPING: Operator (Spray Nozzleman).....	\$ 11.81	0.00
INSTALLER - GUARDRAIL.....	\$ 13.96	0.00
IRONWORKER, ORNAMENTAL.....	\$ 13.48	0.00
IRONWORKER, REINFORCING.....	\$ 16.58	0.00
IRONWORKER, STRUCTURAL.....	\$ 16.42	0.00

LABORER (Traffic Control Specialist incl. placing of cones/barricades/barrels - Setter, Mover, Sweeper).....	\$ 12.97	0.00
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	\$ 12.99	0.00
LABORER: Common or General.....	\$ 10.66	0.00
LABORER: Flagger.....	\$ 12.53	0.00
LABORER: Grade Checker.....	\$ 12.41	0.00
LABORER: Landscape & Irrigation.....	\$ 9.02	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 13.91	3.50
LABORER: Pipelayer.....	\$ 14.82	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 15.66	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 12.88	0.00
OPERATOR: Boom.....	\$ 18.95	0.00
OPERATOR: Boring Machine.....	\$ 16.23	0.00
OPERATOR: Broom/Sweeper.....	\$ 12.70	0.00
OPERATOR: Bulldozer.....	\$ 16.00	0.00
OPERATOR: Concrete Finishing Machine.....	\$ 15.44	0.00
OPERATOR: Concrete Saw.....	\$ 16.22	0.00
OPERATOR: Crane.....	\$ 21.66	0.00
OPERATOR: Curb Machine.....	\$ 20.76	0.00
OPERATOR: Distributor.....	\$ 14.76	0.00
OPERATOR: Drill.....	\$ 14.78	0.00
OPERATOR: Forklift.....	\$ 16.32	0.00
OPERATOR: Gradall.....	\$ 15.75	0.91
OPERATOR: Grader/Blade.....	\$ 20.25	0.00

OPERATOR: Grinding/Grooving Machine.....	\$ 13.87	0.00
OPERATOR: Loader.....	\$ 14.19	0.00
OPERATOR: Mechanic.....	\$ 18.03	0.00
OPERATOR: Milling Machine.....	\$ 15.60	0.00
OPERATOR: Oiler.....	\$ 16.32	0.00
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 14.73	2.36
OPERATOR: Piledriver.....	\$ 17.23	0.00
OPERATOR: Post Driver (Guardrail/Fences).....	\$ 14.45	0.00
OPERATOR: Roller.....	\$ 13.03	0.00
OPERATOR: Scraper.....	\$ 12.01	0.00
OPERATOR: Screed.....	\$ 15.51	0.00
OPERATOR: Tractor.....	\$ 10.79	0.00
OPERATOR: Trencher.....	\$ 14.74	0.00
PAINTER: Spray.....	\$ 16.52	0.00
SIGN ERECTOR.....	\$ 14.02	0.00
TRUCK DRIVER: Distributor Truck.....	\$ 14.96	2.17
TRUCK DRIVER: Dump Truck.....	\$ 11.84	0.00
TRUCK DRIVER: Flatbed Truck.....	\$ 14.28	0.00
TRUCK DRIVER: Lowboy Truck.....	\$ 13.98	0.00
TRUCK DRIVER: Slurry Truck.....	\$ 11.96	0.00
TRUCK DRIVER: Vector Truck.....	\$ 14.21	0.00
TRUCK DRIVER: Water Truck.....	\$ 13.25	0.00

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after

award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.

Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

3/16/16

BIDDER'S BOND

KNOW ALL MEN BY THESE PRESENTS, that we:

_____ (the "Principal"), and

_____ (the "Surety"),

a corporation authorized to do business as a surety in the State of Florida, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally and firmly by these presents in the full and just sum of

_____ Dollars (\$ _____) good and lawful money of the

United States of America, to be paid upon demand of the **City of Lake Worth, Florida**.

WHEREAS, the Principal is about to submit, or has submitted a bid in response to an Invitation for Bid issued by the City of Lake Worth; and

WHEREAS, the Principal desires to file this Bond in accordance with law, in lieu of a certified bidder's check otherwise required to accompany its Bid.

NOW THEREFORE, the conditions of this obligation are such that if the Bid is accepted by the City of Lake Worth. the Principal shall within ten (10) calendar days after receipt of a contract, execute said contract and upon the terms, conditions and price set forth in the Invitation for Bid and Bid, in the form and manner required by the City of Lake Worth, Florida, in an amount of one hundred percent (100%) of the total contract price, as indicated in the Bid, in form and with security satisfactory to the City, then this obligation is to be void, otherwise to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the City upon demand the amount hereof, not as a penalty but as liquidated damages.

IN TESTIMONY THEREOF, the Principal and Surety have caused these present to be duly signed and sealed this _____ day of _____, 2014.

Bidder as PRINCIPAL:

SURETY:

Company: _____

Company: _____

Signature: _____

Signature: _____

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Address: _____

CONTRACT PERFORMANCE BOND

BY THIS BOND, we, _____, as Principal and _____, a Corporation, as Surety, whose address is _____, are bound to the City of Lake Worth, hereinafter called CITY, for the sum of \$ _____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the Contract dated _____, 20____ between Principal and CITY, Contract No. _____, the Contract being made a part of this bond by reference, in the time and in the manner prescribed in the Contract and;
2. Pays CITY all loss, damages, expenses, costs, and attorney's fees, including appellate proceedings, the CITY sustains because of a default by Principal under the Contract and;
3. Performs the guarantee of all-work and materials furnished under the Contract for the time specified in the Contract;

then this bond is void; otherwise it remains in full force. Whenever Principal shall be, and declared by CITY to be in default under the Contract, the CITY having performed CITY'S obligations thereunder, the Surety may promptly remedy the default or shall promptly:

(1) Complete the Contract in accordance with its terms and conditions; or

(2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the CITY elects, upon determination by the CITY and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and CITY, and make available as the work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this Paragraph) sufficient funds to pay the costs of completion, less the balance of the Contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract price" as used in this paragraph, shall mean the total amount payable by CITY to Principal under the Contract and any amendments thereto, less the amount properly paid by CITY to Principal.

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. Any increase in the total contract amount as authorized by the CITY shall accordingly increase the Surety's obligation by the same dollar amount of said increase. The Principal shall be responsible for notification to Surety of all such changes.

Surety expressly acknowledges its obligations and liabilities for liquidated damages suffered by CITY under the provisions of the Contract Documents.

See subsection (2) of Section 255.05, Florida Statutes as amended for the notice and time limitations for claimants.

Dated on _____, 20____

PRINCIPAL:

By: _____

Signature

Attest as to the signature of Principal Title

Title

(SEAL)

Address: _____

SURETY:

By: _____

Signature

Attest as the signature of Surety Title

Title

(SEAL)

Address: _____

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners must execute bond.

IMPORTANT: Surety companies executing bonds **must** appear and remain on the U.S. Treasury Department's most current list (Federal Register), during construction, guarantee and warranty periods, and be authorized to transact business in the State of Florida.

CONTRACT PAYMENT BOND

BY THIS BOND, WE, _____, as Principal and _____, a Corporation, as Surety, whose address is _____, are bound to the City of Lake Worth, hereinafter called CITY, in the sum of \$_____, 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. Promptly makes payment to all claimants and lienors supplying Principal with labor, materials and suppliers, used directly or indirectly by Principal in the prosecution of the work provided for in the Contract dated _____, 20____, between Principal and CITY for construction of _____, Contract No. _____, the Contract being made a part of this bond by reference, in the time and in the manner prescribed in the Contract, and;
2. Pays CITY all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, the CITY sustains because of a default by Principal under the Contract; then this bond is void; otherwise it remains in full force.

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. Any increase in the total contract amount as authorized by the CITY shall accordingly increase the Surety's obligation by the same dollar amount of said increase. The Principal shall be responsible for notification to Surety of all such changes. *See Section 255.05, Florida Statutes as amended for the notice and time limitations for claimants.*

Dated on _____, 2014

PRINCIPAL:
By: _____
Signature

Attest as to the signature of Principal

Title

Title

(SEAL)

Address: _____

SURETY:

By: _____
Signature

Attest as the signature of Surety Title

(SEAL)

Address: _____

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners must execute bond.

IMPORTANT: Surety companies executing bonds **must** appear and remain on the U.S. Treasury Department's most current list (Federal Register), during construction, guarantee and warranty periods, and be authorized to transact business in the State of Florida.

CITY OF LAKE WORTH

LIENOR'S PAID IN FULL AFFIDAVIT

STATE OF FLORIDA }
COUNTY OF PALM BEACH }

Sealed Bid / Project No. _____

Project Name _____

Before me the undersigned authority, authorized to administer oaths and take acknowledgements, personally appeared _____ who, after being first and duly sworn, upon oath disposes and says that all lienors contracting directly with or directly employed by them and all bills, ages, fees, claims or other charges in connection with the above stated project incurred by _____ have been paid in full.

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

Lienor's Name

(Company Name) (SEAL)

Signed By _____

Print Name:

Title

STATE OF FLORIDA }
COUNTY OF PALM BEACH } SS:

The foregoing instrument was acknowledged before me this _____ day of _____, 20_____.

By _____ and who is personally known to me or produced _____ as identification and who did take an oath.

(Notary Public)

(SEAL)

THE CITY OF LAKE WORTH

PARTIAL RELEASE OF LIEN - Subcontractor

The undersigned lienor, in consideration of the partial payment in the amount of \$_____ hereby waives and releases its lien and right to claim a lien of labor, services or materials furnished from

_____, 20____ through _____, 20____ to:
(Insert date) (Insert date)

Contractor Company Name

On the job of THE CITY OF LAKE WORTH for the construction of:

Sealed Bid/Project No. _____

Project Name _____

This release does not cover any retention of labor, services, or materials furnished after the date specified. Dated on _____, 20____

Lienor's Name: _____ (SEAL)
(company name)

Signed By: _____

Printed Name: _____

Title: _____

STATE OF FLORIDA }
COUNTY OF PALM BEACH } SS:

Sworn to and subscribed before me this _____ day of _____, 20____, a Notary Public

appeared _____ of _____ who

acknowledged that he/she executed the above PARTIAL RELEASE OF LIEN on behalf of the Corporation and its free act deed.

Signature of Notary Public

Print, Type, or Stamp Name of Notary

Personally Known _____

Produced Identification _____

Type of Identification Produced _____

THE CITY OF LAKE WORTH

PARTIAL RELEASE OF LIEN-Contractor

The undersigned lienor, in consideration of the partial payment in the amount of \$ _____ hereby waives and releases its lien and right to claim a lien of labor, services or _____ materials _____ furnished _____ from _____, 20 ____ through _____, 20 ____:
(Insert date) (Insert date)

On the job of THE CITY OF LAKE WORTH for the construction of:

Sealed Bid/Project

NoNo. _____

Project Name _____

This release does not cover any retention of labor, services, or materials furnished after the date specified. Dated on _____, 20 ____

Lienor's Name: _____ (SEAL)
(company name)
Signed By: _____
Printed Name: _____
Title: _____

STATE OF FLORIDA }
COUNTY OF PALM BEACH } SS:

Sworn to and subscribed before me this ____ day of _____, 20 ____, a Notary Public appeared _____ of _____ who

acknowledged that he/she executed the above PARTIAL RELEASE OF LIEN on behalf of the Corporation and its free act deed.

Signature of Notary Public Print, Type, or Stamp Name of Notary

Personally Known _____ Produced Identification _____
Type of Identification Produced _____

THE CITY OF LAKE WORTH
FINAL RELEASE OF LIEN- Subcontractor

KNOW ALL MEN BY THESE PRESENTS, that

_____ (subcontractor company name)

for and in consideration of

_____ Dollars (\$ _____)
(total amount of contract)

paid to me/us by _____, the contractor for the City of Lake Worth, Florida, on the project listed below, receipt of which is hereby acknowledged, do hereby release and waive all liens, lien rights, claims or demands for labor, services or materials of any kind whatsoever which I/we now have or might have against the property, building, and/or for any incidental expense for the construction of

_____ (project name) _____ (project number)

_____ (property address)

or in otherwise improving said property.

The undersigned acknowledges that, under Florida law, the contractor, owner and other parties have a right to rely upon this waiver and release and that making any false statements shall constitute perjury and punishment can be made in accordance with the provisions of the law.

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

_____ (subcontractor company name)

By _____

WITNESS:

Print Name: _____

_____ Title _____

STATE OF FLORIDA }
COUNTY OF PALM BEACH } SS:

The foregoing Release was acknowledged before me this _____ day of
200__ by _____, who is personally known to
me or produced _____ as identification and who did not
take an oath.

(Seal) _____
Notary Public
Commission Number _____

THE CITY OF LAKE WORTH

FINAL RELEASE OF LIEN

KNOW ALL MEN BY THESE PRESENTS, that

_____ (contractor company name)

for and in consideration of

_____ Dollars (\$ _____)
(total amount of contract)

paid to me/us by the City of Lake Worth, Florida, receipt of which is hereby acknowledged, do hereby release and quit claim to the City of Lake Worth, Florida, the Owner, its successors or assigns, all liens, lien rights, claims or demands of any kind whatsoever which I/we now have or might have against the property, building, and/or for any incidental expense for the construction of

_____ (project name) _____ (project number)

_____ (property address)

thereon or in otherwise improving said property.

IN WITNESS WHEREOF I have hereunto set my hand and seal this

_____ day of _____, 20__.

(SEAL) (contractor company name)

By: _____
(name)

Title: _____

STATE OF FLORIDA }
COUNTY OF PALM BEACH } SS:

_____ personally appeared before me this _____ day
of

_____, 20__, and acknowledged before me that he/she executed the foregoing
Partial Release of Lien. I relied upon the following form of identification:

- _____ personally known to me;
- _____ produced drivers license _____
- _____ other (describe) _____

Notary Public
[Seal:]



OSBORNE PAVILION



Wingfield St

S-J St

S-K St

S-M St

Washington Ave

Railroad Ave

16th Ave S

Johnson St

Douglas St-S

Ray St

S Dixie Hwy

W Latona Ave

Truman St

© 2015 Google

Google earth

1995

Imagery Date: 1/18/2014 26°35'45.13" N 80°03'25.34" W elev 15 ft eye alt 2004 ft

A photograph showing the underside of a corrugated metal roof supported by a steel frame. The steel beams are heavily rusted and show signs of wear. A white text box with black text is positioned in the upper center, with three red arrows pointing to different parts of the steel framing: one points to a diagonal beam on the left, one points to a horizontal beam on the right, and one points to a vertical support post in the center. In the background, a grassy field is visible, enclosed by a chain-link fence. A soccer goal is on the right, and a man in a light blue shirt is looking down in the bottom right corner. The sky is clear and bright.

Existing steel framing to be
sandblasted and coated





For coating of existing pavilion
steel framing.
Or Approved Equal.



PRO INDUSTRIAL™ URETHANE ALKYD ENAMEL



**VERSATILE AND TIME TESTED.
PRO INDUSTRIAL DELIVERS.**

Blending the familiarity of traditional alkyd technology with the enhanced performance of urethane modifications, Pro Industrial Urethane Alkyd Enamel provides the versatility needed for commercial and light industrial applications. Suitable for both interior and exterior use, Pro Industrial Urethane Alkyd Enamel offers easy application, making protecting and maintaining facilities easier.



KEY BENEFITS:

- ✓ Urethane modification provides better color and gloss retention
- ✓ Resists chipping and flaking, even in high wear areas
- ✓ Excellent application properties deliver an outstanding appearance
- ✓ Versatile coating for a variety of interior and exterior applications

KEY USES:

- ✓ Door and jambs
- ✓ Beams and columns
- ✓ Safety coating marking
- ✓ Handrails
- ✓ Machinery and equipment
- ✓ Structural steel
- ✓ Bollards
- ✓ Piping

COMPLIES WITH*:

OTC	Yes
SCAQMD	No
CARB	No
CARB SCM 2007	No
MPI	No
LEED® 09 CI	No
LEED® 09 NC	No
LEED® 09 CS	No
LEED® 09 S	No
NGBS	No

*As of 10/27/2014

PRO INDUSTRIAL™ URETHANE ALKYD ENAMEL

Pro Industrial Urethane Alkyd Enamel is a high solids, high-gloss coating designed to provide surface protection in commercial and industrial environments. Urethane resin modification provides increased exterior durability, allowing for an interior/exterior product that offers protection without sacrificing appearance.

Pro Industrial Urethane Alkyd Enamel has the easy application of a traditional alkyd, with outstanding brush, roll, and spray properties across a wide variety of substrates, making it an excellent maintenance coating.

With outstanding resistance to abrasion, chipping, and flaking, the Pro Industrial Urethane Alkyd Enamel is ideal for high-wear applications, such as doors and jambs, handrails, and safety coating markings. When it comes to versatile protection for high-wear surfaces, rely on Pro Industrial Urethane Alkyd Enamel.

PRO INDUSTRIAL: SETTING THE STANDARD FOR HIGH-PERFORMANCE COATINGS.

When performance and appearance matter, trust the time-proven line of Pro Industrial coatings from Sherwin-Williams to ensure exceptional durability and lasting aesthetics. These innovative technologies are engineered to withstand high traffic and demanding conditions, making them ideal for busy commercial and institutional environments. Backed by more than 145 years of experience and the support of 2,400 field reps and 4,000 Sherwin-Williams stores, Pro Industrial is truly the professional's choice when performance is critical.

To learn more, contact your Sherwin-Williams representative or call **1-800-524-5979** to have a representative contact you.





Item # PSPT6TP, Portable Perforated Table OR APPROVED EQUAL



Portable Perforated Table

These portable perforated tables have weather resistant thermoplastic coating on 11 gauge tops and seats. Frames are 2 3/8" O.D. steel tubes powder coated black. The combination makes this an attractive and durable table for any outdoor setting.

Specify Thermoplastic color choice for tops and seats: Black, Orange, Green, Blue, Teal,, Purple, Brown, Gray, Sandstone, Red, Yellow, Black Green, Navy, Burgundy, Beige, Granite.

The table shall be affixed to the concrete slab with 1/2" stainless steel wedge anchors.

SPECIFICATIONS

Length	6 feet
Weight	280 lbs
Color Options ¹	Beige Black Black Green Blue Brown Burgundy Granite Gray <u>Green</u> Navy Orange Purple Red Sandstone Teal Yellow

¹ Due to computer monitor variations actual product colors may vary from colors shown on website.

CITY OF LAKE WORTH OSBORNE PARK PAVILION PROJECT SPECIFICATIONS FOR PAVILION CONSTRUCTION

CALCULATIONS FOR:

**POLIGON HXE 24
MULTI RIB
2014 FLORIDA BUILDING CODE**

OR APPROVED EQUAL

CHRISTOPHER M. EVANS
(616) 399-1963
4240 N. 136TH AVENUE
HOLLAND, MI 49424
FLA. LICENSE NO. 70957



PREPARED UNDER THE CONTROL AND SUPERVISION
OF THE DESIGN PROFESSIONAL ABOVE

TABLE OF CONTENTS

Design Criteria
Structural Engineering Notes
Load Combinations
Materials
RISA Model Views
Foundation Design
Connection Design
RISA Analysis Report
Panel Data

DESIGN CRITERIA

GENERAL

Building Code:	See Cover Sheet	Roof Slope (°):	22.62	5:12 Pitch
Design Code:	ASCE 7-10			
Risk Category:	II	Equivalent Roof Height:	15.00	ft

DEAD LOAD

Weight of Roofing System	2	psf	
Frame Dead Load	Frame Self-Weight		(See RISA Analysis Report)

LIVE LOAD

Roof Live Load, L_r	20	psf	ASCE 7 Table 4-1
-----------------------	----	-----	------------------

SNOW LOAD

Ground Snow Load, p_g	0.0	psf	
Importance Factor, I (Snow Loads)	1.0		ASCE 7 Table 1.5-2
Slope Factor, C_s	1.0		ASCE 7 Figure 7-2
Thermal Factor, C_t	1.2		ASCE 7 Table 7-3
Exposure Factor, C_e	1.0		ASCE 7 Table 7-2
Flat Roof Snow Load, p_f	0.0	psf	ASCE 7 Section 7.3
Leeward Unbalanced Snow Load	0.0	psf	ASCE 7 Section 7.6.1

WIND LOAD

Basic Wind Speed,	V_{ult}	170	mph	V_{asd}	130	mph	ASCE 7 Section 26.5
Exposure Category		C					ASCE 7 Section 26.7
Gust Effect Factor, G		0.85					ASCE 7 Section 26.9.1
Velocity Pressure Exposure Coefficient, K_z		0.85					ASCE 7 Table 27.3.1
Wind Directionality Factor, K_d		0.85					ASCE 7 Table 26.6-1
Topographic Factor, K_{zt}		1.00					ASCE 7 Section 26.8.2
Velocity Pressure, q_z		53.45	psf				ASCE 7 Section 27.3.2

Main Wind-Force Resisting System ASCE 7 Section 27.4.3

Open Building, Clear Wind Flow (Cn from ASCE 7 Fig. 27.4-4 - 27.4-7)

Load Case	Roof	
	A	B
$y = 0$		
Windward $C_p =$	1.10	-0.10
p (psf):	50.12	-4.54
$y = 180$		
Leeward $C_p =$	0.10	-0.80
p (psf):	4.69	-36.42
$y = 90$		
Sideward $C_p =$	0.80	-0.80
p (psf):	36.35	-36.35

Component and Cladding Elements ASCE 7 Section 30.8.2

Open Building, Clear Wind Flow (Cn from ASCE 7 Fig. 30.8-1 - 30.8-3)

Zone	Wind Direction	Wind Direction	
		Toward Roof	Away From Roof
Zone 3	Cn:	2.40	-2.00
	p (psf):	109.19	-90.73
Zone 2	Cn:	1.85	-1.55
	p (psf):	84.16	-70.32
Zone 1	Cn:	1.20	-1.00
	p (psf):	54.60	-45.36

SEISMIC LOAD

Analysis Procedure	Equivalent Lateral Force Procedure	ASCE 7 Section 12.8	
Seismic Site Class	D	ASCE 7 Section 11.4.2	
Basic Seismic Force Resisting System	Steel Systems Not Specifically Detailed For Seismic Resistance	ASCE 7 Table 12.2-1	
Short Spectral Response Parameter, S_s	0.55		
1-Sec Spectral Response Parameter, S_1	0.13		
Seismic Design Category	C	ASCE 7 Section 11.6	
Importance Factor, I	1.00	ASCE 7 Table 11.5-1	
Response Modification Coefficient, R	3.00	ASCE 7 Table 12.2-1	
Redundancy Factor, ρ	1.00	ASCE 7 Table 12.2-1	
Overstrength Factor, Ω_o	3.00	ASCE 7 Table 12.2-1	
Design Short Spectral Response Parameter, S_{DS}	0.50	ASCE 7 Section 11.4.4	
1-Sec Design Spectral Response Parameter, S_{D1}	0.20	ASCE 7 Section 11.4.4	
Seismic Response Coefficient, C_s	0.17	ASCE 7 Section 12.8.1	
Effective Seismic Weight, W	2.00	psf	ASCE 7 Section 12.7.2
Seismic Base Shear, V	0.33	psf	ASCE 7 Section 12.8.1
Seismic Load, E	0.33	psf	ASCE 7 Section 12.4
Seismic Load with Overstrength Factor, E_m	1.00	psf	ASCE 7 Section 12.4

STRUCTURAL ENGINEERING NOTES

GENERAL NOTES

All field connections must be made with A325 High Strength bolts using the "Turn-of-Nut Pretensioning" method of tightening as described in the latest AISC Manual.

Loads applied to the structure may be greater than required for the project location.

Actual structure dimensions may be smaller than shown in this document.

STRUCTURAL ANALYSIS NOTES

RISA-3D structural analysis software was used to model the 3-D space frame.

To reduce the amount of computer printout, the analysis results only show each member's controlling load case.

Unless noted otherwise in the 'RISA Analysis Report', the roof deck was not utilized in the structural analysis to provide lateral support to the members.

From the analysis, all member deflections and structural drift are within allowable limits.

STRUCTURAL DESIGN NOTES

End plates were designed by applying beam end forces to the edges of the plate and calculating the resulting prying moment at the edge of the bolt holes. In determining the prying moment it was assumed that the area of the plate between bolts was fixed.

Light gage members were designed in accordance with the latest edition of the AISC specifications and the AISI Cold-Formed Steel Design Manual.

STRUCTURAL CONNECTION NOTES

Bolt threads were assumed to not be excluded from the connections.

Product Specification Form

PROJECT NAME: _____
 PROJECT LOCATION: _____
 CUSTOMER NAME: _____
 E-MAIL: _____
 COMPANY: _____
 ADDRESS: _____
 ADDRESS 2: _____
 CITY: _____
 STATE: _____ ZIP: _____
 PHONE: _____ FAX: _____
 WIND LOAD: _____ SNOW LOAD: _____
 SEISMIC DESIGN: _____ BLDG CODE: _____

Shelter Options

SELECT APPLICABLE ROOF TYPE:

- MR (Metal Roof)
- SPMR (Structural Panel under Metal Roof)
- TGMR (Tongue & Groove under Metal Roof)
- SS (Standing Seam Roof)
- SPSS (Structural Panel under Standing Seam)
- TGSS (Tongue & Groove under Standing Seam)
- SPAS (Structural Panel under Asphalt Shingles)
- SPCS (Structural Panel under Cedar Shingles)
- SPCH (Structural Panel under Milled Cedar Shingles)
- TGAS (Tongue & Groove under Asphalt Shingles)
- TGCS (Tongue & Groove under Cedar Shingles)
- TGCH (Tongue & Groove under Milled Cedar Shingles)
- LATIA (Santa Fe metal stick style)
- TRELIS

FRAME COLOR: _____

ROOF COLOR: _____

SELECT MODIFICATIONS TO A STANDARD:

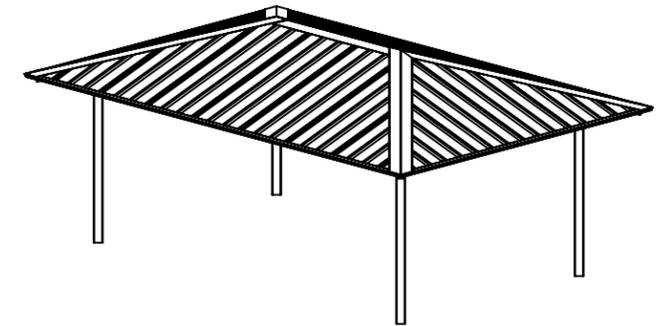
- INCREASE UPB HEIGHT: _____
- ADD ELECTRICAL CUTOUPS: _____
- ADD CUPOLA: _____
- ADD ORNAMENTATION: _____
- ADD BENCHES: _____
- ADD HANDRAILS: _____

SELECT CUSTOMIZATION:

- INCREASE UPB MORE THAN 2': _____
- CUSTOM COLUMNS: _____
- CUSTOM PITCH: _____
- ADD E-COATING FRAME: _____
- ADD GALVANIZING FRAME: _____

Sheet Index

COVER SHEET / ORDER FORM
ELEVATION VIEWS
STRUCTURAL FRAME
ANCHOR LAYOUT

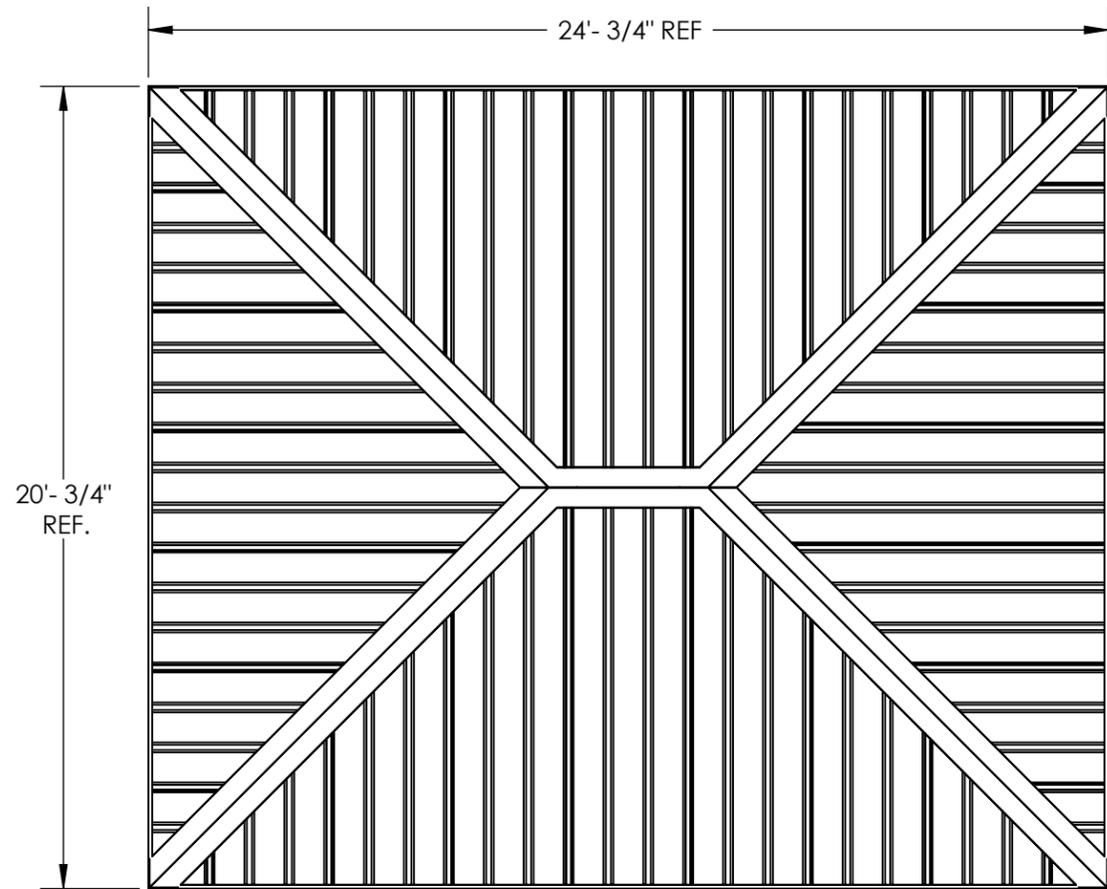


Rectangle Standard Sizes

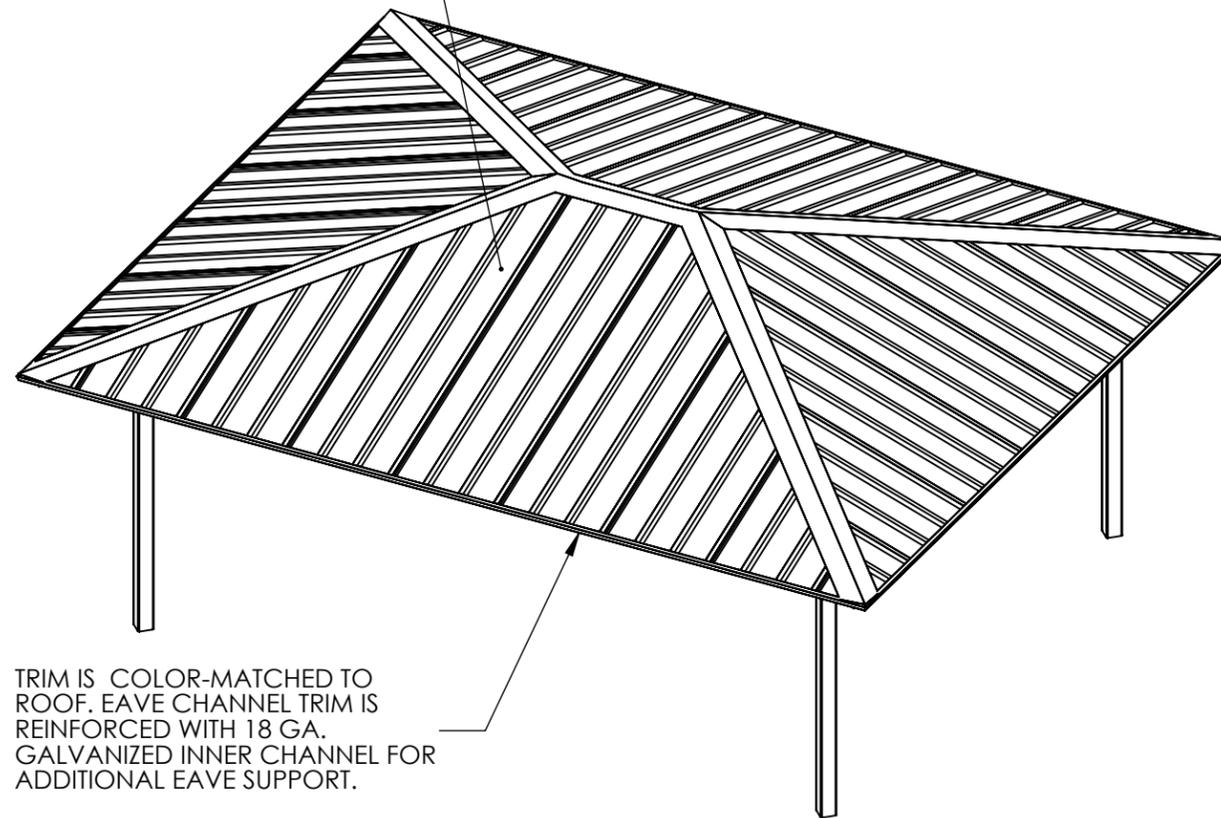
BIN	W	L	BAY SIZE
RAM	8	12	10
RAM	8	20	18
RAM	8	28	26
RAM	12	18	16
RAM	12	22	20
RAM	12	32	30
RAM	12	42	20
RAM	16	24	20
RAM	16	34	30
RAM	16	44	20
RAM	16	64	20

BIN	W	L	BAY SIZE
RAM	20	24	20
RAM	20	34	30
RAM	20	44	20
RAM	20	64	20
RAM	24	34	30
RAM	24	44	20
RAM	24	64	20
RAM	24	84	20
RAM	24	104	20
RAM	30	34	30
RAM	30	44	20

BIN	W	L	BAY SIZE
RAM	30	64	20
RAM	30	84	20
RAM	30	104	20
RAM	40	44	20
RAM	40	64	20
RAM	40	84	20
RAM	40	104	20
RAM	50	64	20
RAM	50	70	20
RAM	50	90	20
RAM	50	110	20



24 GA., GALVALUME COATED, KYNAR 500 PAINTED, STEEL ROOFING PANELS. SEE COLOR MATRIX FOR AVAILABLE COLORS.



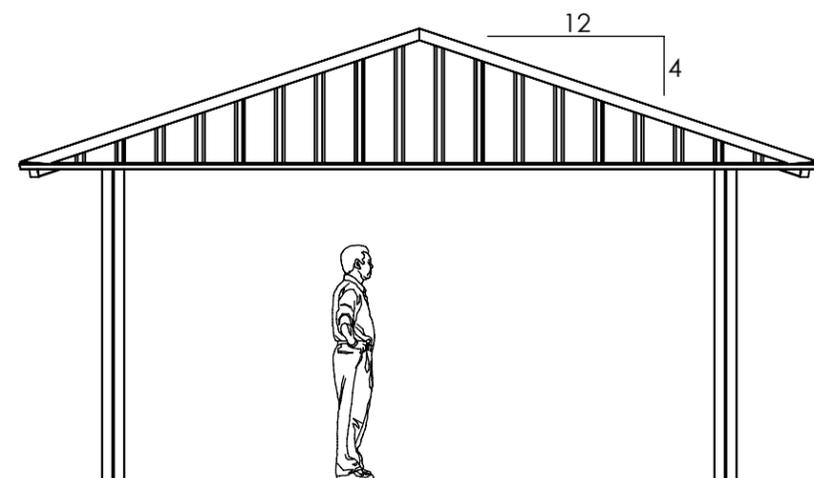
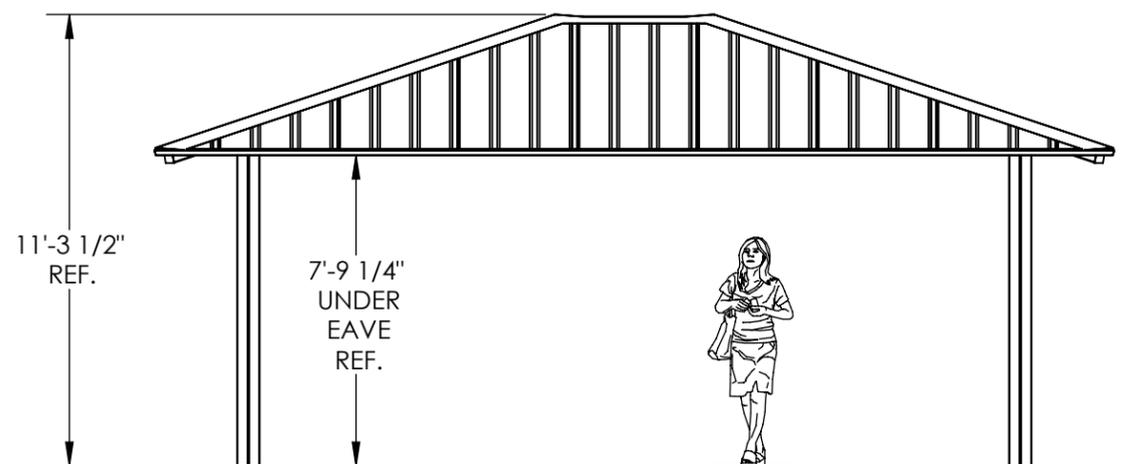
NOTE: THIS IS A **PLANNING LEVEL DRAWING.**

THE STRUCTURE SHOWN IS SUBJECT TO ON-GOING DESIGN REVIEW AND UPDATE. EXPECT SOME CHANGES TO MATERIAL SIZES AND GENERAL DIMENSIONS. ONLY USE DRAWINGS PROVIDED WITH ENGINEERED STRUCTURES FOR CONSTRUCTION.

- SEE FINISHES / ROOFING PAGE FOR:
- FRAME FINISH OPTIONS
 - POWDER COAT AND ROOFING COLOR SELECTION
 - TONGUE & GROOVE, STRUCTURAL INSULATED PANEL AND METAL ROOF OPTIONS
 - OTHER ROOFING OPTIONS

- SEE ORNAMENTATION PAGE FOR:
- ORNAMENTATION PATTERNS
 - RAILING PATTERNS
 - COLUMN OPTIONS
 - CUPOLA OPTIONS

THIS SHELTER PROVIDES 480 SQ. FT. OF SHADE.

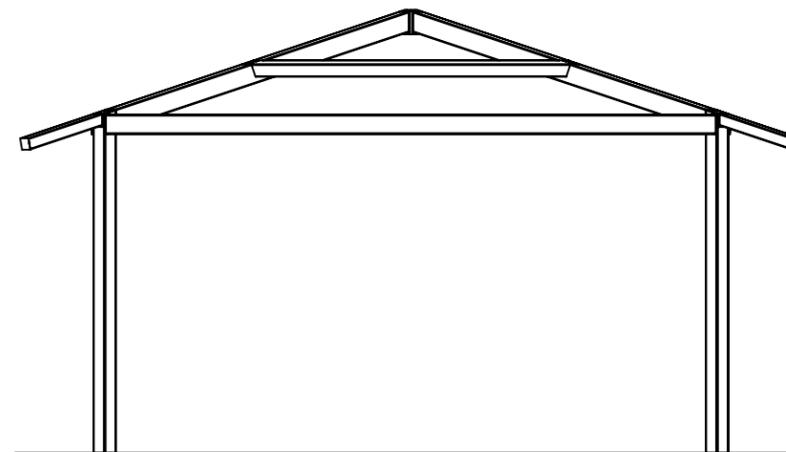
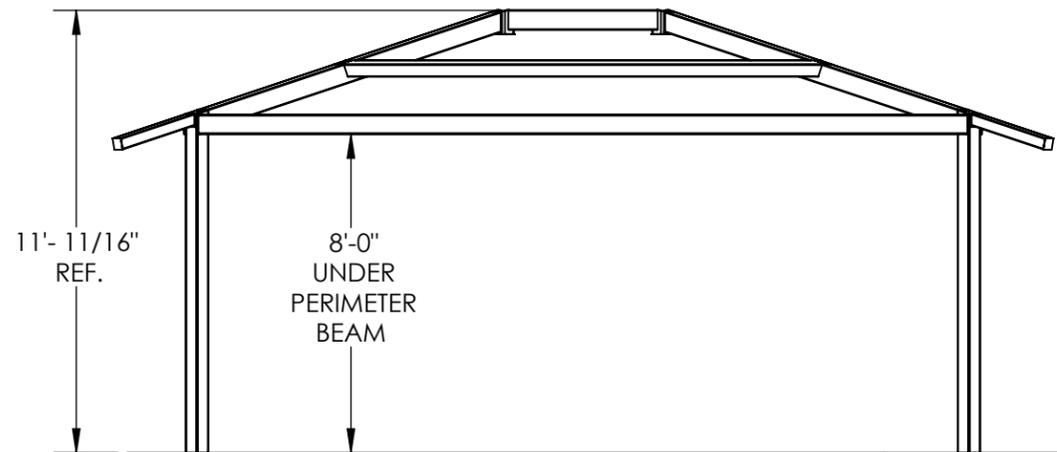
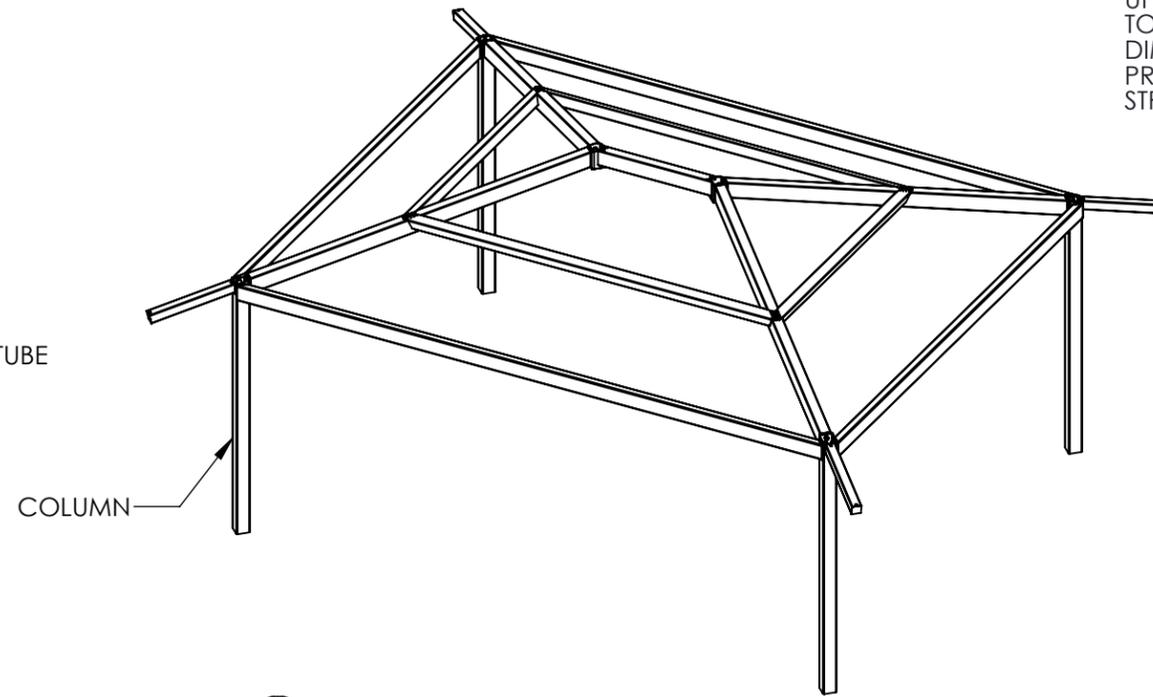
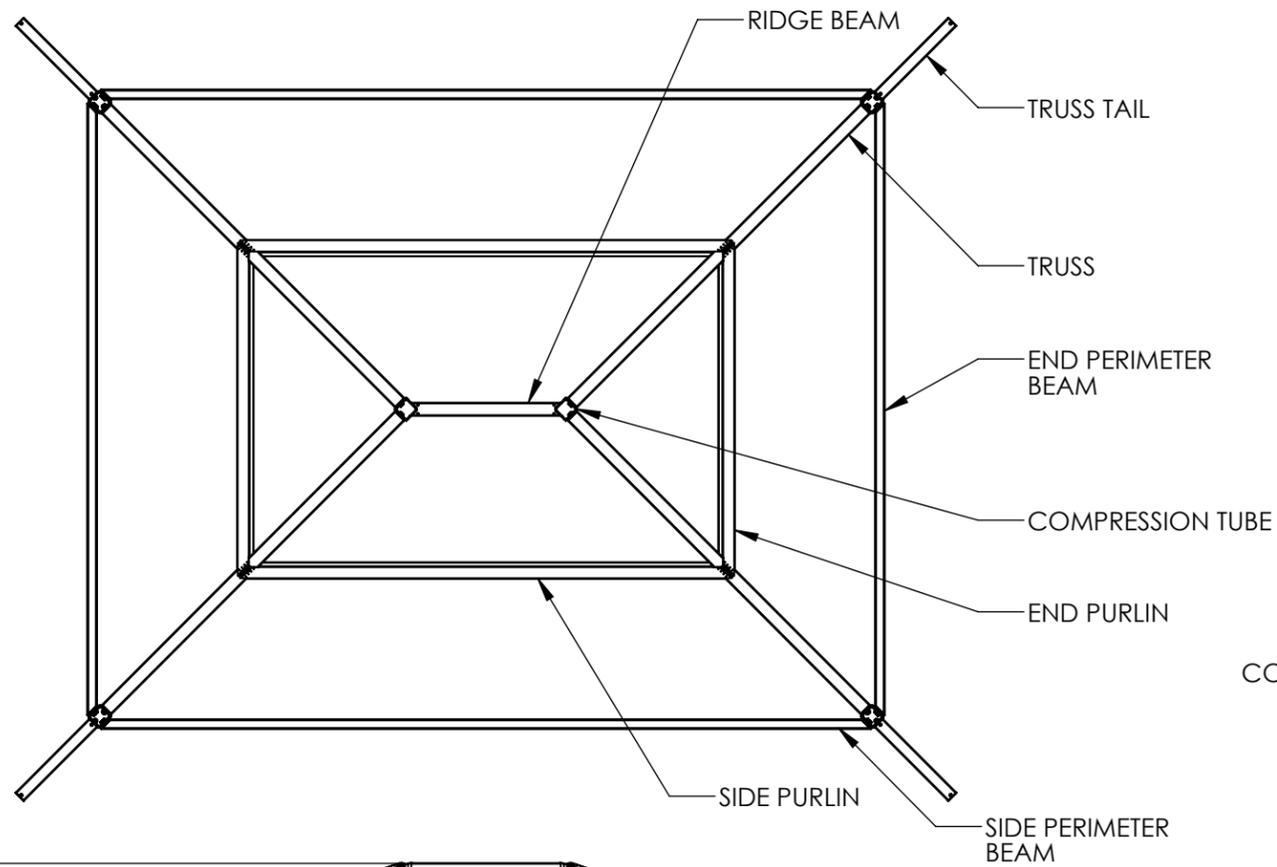


FINISH GRADE

24' AND 34' (20' AND 30' BAY LENGTHS) ARE STANDARD SHELTER LENGTHS FOR SINGLE BAY UNITS. 20' IS THE STANDARD BAY LENGTH FOR MULTIPLE BAY INSTALLATIONS. CUSTOM SHELTER LENGTHS TO SUIT SITE AND USE REQUIREMENTS ARE ALSO AVAILABLE.

NOTE: THIS IS A
PLANNING LEVEL DRAWING.

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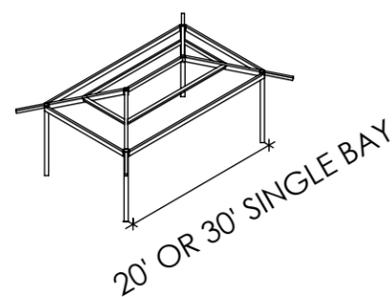
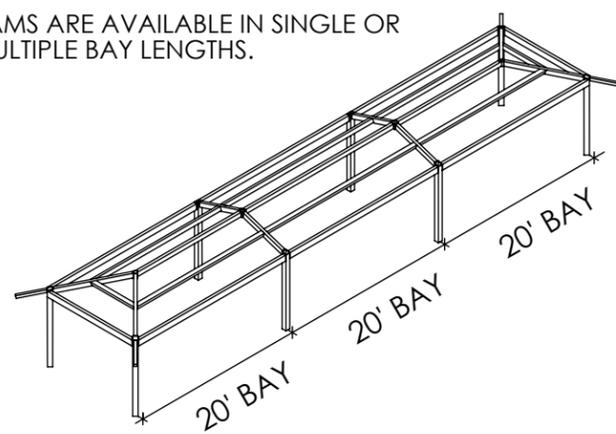
RAMS ARE AVAILABLE IN SINGLE OR MULTIPLE BAY LENGTHS.

RAM 20 MATRIX

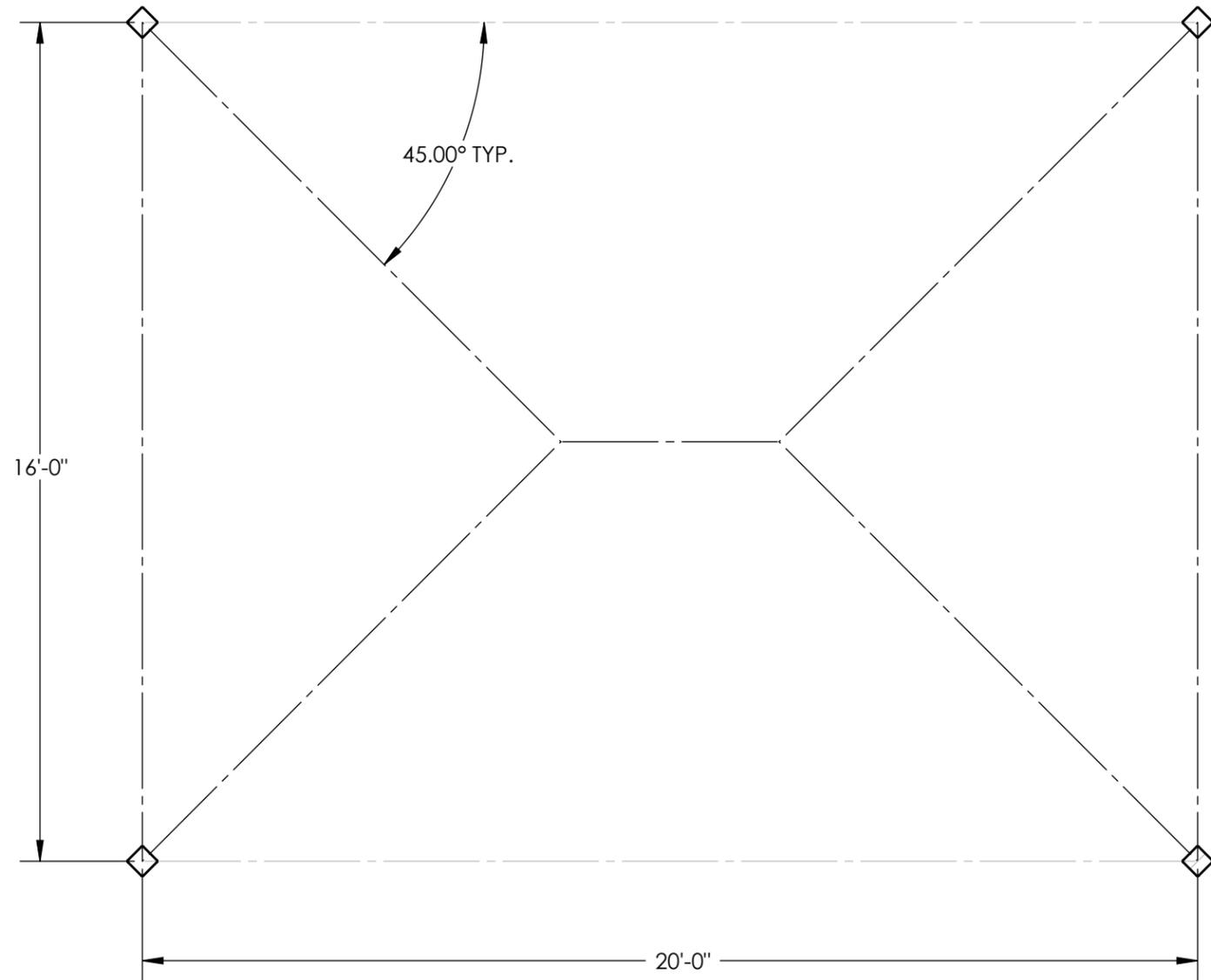
• 20X24	20' SINGLE BAY
• 20X34	30' SINGLE BAY
• 20X44	20' MULTIPLE BAYS
• 20X64	20' MULTIPLE BAYS

FRAME AND ORNAMENTATION FINISH:

MEMBERS SHOT BLASTED TO NEAR WHITE CONDITION (SSPC SP-10), WASHED AND SEALED IN A PHOSPHATE SPRAY, COATED WITH A SPECIAL EPOXY PRIMER POWDER COAT BASE, COATED WITH A SUPER DURABLE TGIC POLYESTER POWDER AND OVEN CURED.



FINISH GRADE



NOTE: THIS IS A

PLANNING LEVEL DRAWING.

THE STRUCTURE SHOWN IS SUBJECT TO ON-GOING DESIGN REVIEW AND UPDATE. EXPECT SOME CHANGES TO MATERIAL SIZES AND GENERAL DIMENSIONS. ONLY USE DRAWINGS PROVIDED WITH ENGINEERED STRUCTURES FOR CONSTRUCTION.

REFER TO ANCHOR AND FOOTING DOWNLOAD SHEETS FOR GENERAL INFORMATION ON BOTH ANCHOR ATTACHMENT AND TYPICAL FOOTING TYPES. ANCHOR ATTACHMENT AND FOOTING DESIGNS ARE SITE AND SITUATION SPECIFIC AND ARE INTEGRAL TO THE FINAL SHELTER DESIGN.

DO NOT POUR FOOTING OR INSTALL ANCHOR BOLTS WITHOUT JOB SPECIFIC ANCHOR AND FOOTING DESIGN DRAWINGS.

LOAD COMBINATIONS

Key		Service (Unfactored)	
Abbreviation	Description	Number	Description
DL	Dead Load	1	SERVICE D
Lr	Roof Live Load	2	SERVICE Lr
S	Snow Load	3	SERVICE S
Su	Unbalanced Snow Load	4	SERVICE Su
Wx	Wind Load (X-Direction)	5	SERVICE Wx (Load Case A)
Wz	Wind Load (Z-Direction)	6	SERVICE Wz (Load Case B)
Wx (Minimum)	10 psf Minimum Wind Load (X-Direction)	7	SERVICE Wz (Load Case A)
Wz (Minimum)	10 psf Minimum Wind Load (Z-Direction)	8	SERVICE Wz (Load Case B)
Ex	Seismic Load (X-Direction)	9	SERVICE Ex
Ez	Seismic Load (Z-Direction)	10	SERVICE Ez
Emx	Seismic Load (X-Direction) with Overstrength Factor		
Emz	Seismic Load (Z-Direction) with Overstrength Factor		
Sds	Design Spectral Acceleration Parameter		

Allowable Stress Design (Factored)		Strength Design (Factored)	
Number	Description	Number	Description
14	D	54	1.4D
15	D + Lr	55	1.2D + 0.5Lr
16	D + S	56	1.2D + 0.5S
17	D + Su	57	1.2D + 0.5Su
18	D + 0.6Wx (Load Case A)	58	1.2D + 1.6Lr + 0.5Wx (Load Case A)
19	D + 0.6Wx (Load Case B)	59	1.2D + 1.6Lr + 0.5Wx (Minimum)
20	D + (0.6Wx (Minimum))	60	1.2D + 1.6S + 0.5Wx (Load Case A)
21	D + 0.75(0.6Wx (Load Case A)) + 0.75Lr	61	1.2D + 1.6S + 0.5Wx (Minimum)
22	D + 0.75(0.6Wx (Minimum)) + 0.75Lr	62	1.2D + 1.0Wx (Load Case A) + 0.5Lr
23	D + 0.75(0.6Wx (Load Case A)) + 0.75S	63	1.2D + 1.0Wx (Load Case B) + 0.5Lr
24	D + 0.75(0.6Wx (Minimum)) + 0.75S	64	1.2D + 1.0Wx (Minimum) + 0.5Lr
25	0.6D + 0.6Wx (Load Case A)	65	1.2D + 1.0Wx (Load Case A) + 0.5S
26	0.6D + 0.6Wx (Load Case B)	66	1.2D + 1.0Wx (Load Case B) + 0.5S
27	0.6D + (0.6Wx (Minimum))	67	1.2D + 1.0Wx (Minimum) + 0.5S
28	D + 0.6Wz (Load Case A)	68	0.9D + 1.0Wx (Load Case A)
29	D + 0.6Wz (Load Case B)	69	0.9D + 1.0Wx (Load Case B)
30	D + (0.6Wz (Minimum))	70	0.9D + 1.0Wx (Minimum)
31	D + 0.75(0.6Wz (Load Case A)) + 0.75Lr	71	1.2D + 1.6Lr + 0.5Wz (Load Case A)
32	D + 0.75(0.6Wz (Minimum)) + 0.75Lr	72	1.2D + 1.6Lr + 0.5Wz (Minimum)
33	D + 0.75(0.6Wz (Load Case A)) + 0.75S	73	1.2D + 1.6S + 0.5Wz (Load Case A)
34	D + 0.75(0.6Wz (Minimum)) + 0.75S	74	1.2D + 1.6S + 0.5Wz (Minimum)
35	0.6D + 0.6Wz (Load Case A)	75	1.2D + 1.0Wz (Load Case A) + 0.5Lr
36	0.6D + 0.6Wz (Load Case B)	76	1.2D + 1.0Wz (Load Case B) + 0.5Lr
37	0.6D + (0.6Wz (Minimum))	77	1.2D + 1.0Wz (Minimum) + 0.5Lr
38	(1.0+0.14*Sds)D+ 0.7Ex	78	1.2D + 1.0Wz (Load Case A) + 0.5S
39	(1.0+0.105*Sds)D + 0.525Ex + 0.75S	79	1.2D + 1.0Wz (Load Case B) + 0.5S
40	(0.6-0.14*Sds)D + 0.7Ex	80	1.2D + 1.0Wz (Minimum) + 0.5S
41	(1.0+0.14*Sds)D + 0.7Ez	81	0.9D + 1.0Wz (Load Case A)
42	(1.0+0.105*Sds)D + 0.525Ez + 0.75S	82	0.9D + 1.0Wz (Load Case B)
43	(0.6-0.14*Sds)D + 0.7Ez	83	0.9D + 1.0Wz (Minimum)
		84	(1.2+0.2*Sds)D + 1.0Ex + 0.2S
		85	(0.9-0.2*Sds)D + 1.0Ex
		86	(1.2+0.2*Sds)D + 1.0Ez + 0.2S
		87	(0.9-0.2*Sds)D + 1.0Ez
107	(1.0+0.14*Sds)D + 0.7Emx		
108	(1.0+0.105*Sds)D + 0.525Emx + 0.75S		
109	(0.6-0.14*Sds)D + 0.7Emx		
110	(1.0+0.14*Sds)D + 0.7Emz		
111	(1.0+0.105*Sds)D + 0.525Emz + 0.75S		
112	(0.6-0.14*Sds)D + 0.7Emz		

Notes:

1. Load combinations are effective in all states that have adopted IBC as a base code.
2. See "RISA Analysis Report" for the load combinations that are not listed above.

MATERIALS

Column	HSS5x5x3/16
Truss	HSS5x5x1/8
Eave	HSS4x4x1/8
Purlin	HSS4x4x1/8
Compression Ring	C7x9.8

HSS Sections:	ASTM A500 Gr. B
Pipe Sections:	ASTM A53 Gr. B
RMT Sections:	ASTM A519
Channel & Angle Sections:	ASTM A36
Connection Plates:	ASTM A36
Connections Bolts	ASTM A325
Welding Process:	Gas Metal Arc Welding
Welding Electrode:	E70xx

RISA MODEL VIEWS

Joint Labels
Member Labels
Member Shapes
Member Lengths
Member Local Axis

FOUNDATION NOTES:

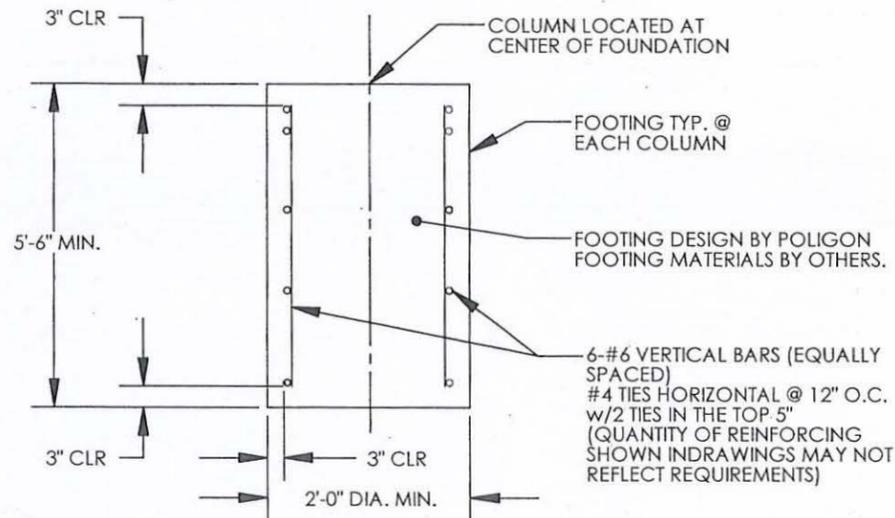
1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE BUILDING CODE, AMERICAN CONCRETE INSTITUTE, AND ALL APPLICABLE STATE AND LOCAL ORDINANCES AND REQUIREMENTS.
2. THE CONCRETE DESIGN IS BASED ON THE FOLLOWING PROPERTIES:
 - 28 DAY STRENGTH OF 3000 PSI.
 - SLUMP OF 4" (+/-1").
3. THE FOOTING SHALL BEAR ON COMPETENT UNDISTURBED SOIL OR 95% COMPACTED FILL. IF SIGNS OF ORGANIC MATERIAL, UNCONTROLLED FILL, CLAY OR SILT, HIGH WATER TABLE OR OTHER POSSIBLE DETRIMENTAL CONDITIONS ARE FOUND, INSTALLATION OF THE FOUNDATION MUST BE DISCONTINUED AND A SOILS ENGINEER CONTACTED.
4. THE REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615, GRADE 60.
5. IF FOOTING DEPTHS SHOWN DO NOT MEET LOCAL FROST REQUIREMENTS, USE THE DRILLED PIER FOOTING OPTION AND EXTEND AS REQUIRED. EXTEND VERTICAL BARS AS REQUIRED AND PROVIDE ADDITIONAL TIES TO MEET SPACING REQUIREMENTS AS SHOWN. IF LOCAL FROST DEPTH REQUIREMENTS ARE NOT MET AND NO DRILLED PIER FOOTING OPTION IS GIVEN, CONTACT POLIGON ENGINEERING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCAL FROST LINE DEPTH BELOW GRADE PRIOR TO CONSTRUCTION.

THE FOUNDATION DESIGN SHOWN ON THESE DRAWINGS IS NOT SITE SPECIFIC, BUT BASED ON THE PRESUMPTIVE ALLOWABLE FOUNDATION PRESSURES IN CHAPTER 18 OF THE BUILDING CODE (CLASS 5 SOIL). THE BUILDING OFFICIAL IN THE JURISDICTION IN WHICH THIS STRUCTURE IS LOCATED MAY REQUIRE A SITE SPECIFIC GEOTECHNICAL REPORT OR LETTER FROM A QUALIFIED LOCAL PROFESSIONAL ENGINEER ATTESTING TO WHETHER THE ACTUAL SITE CONDITIONS MEET THE ASSUMPTIONS IDENTIFIED ABOVE.

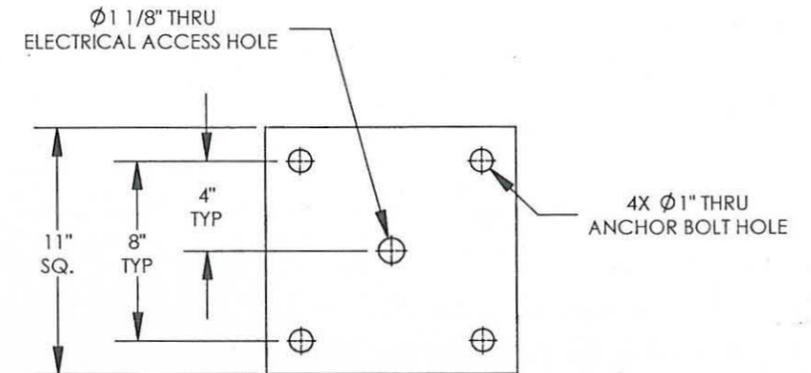
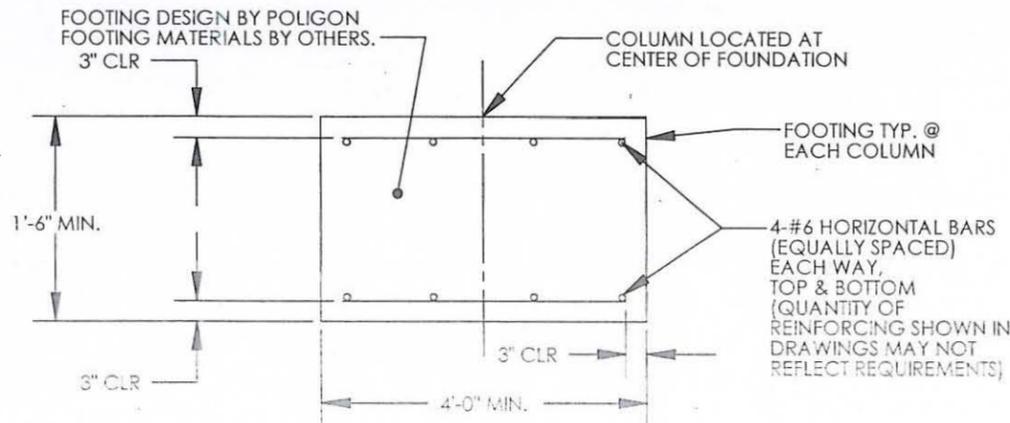
ANCHOR BOLT NOTES - FIXED BASE STRUCTURES (ANCHOR BOLTS LOCATED OUTSIDE COLUMN):

1. ANCHOR BOLTS SHALL BE ASTM F1554 (GRADE 55) MATERIAL UNLESS OTHERWISE NOTED.
2. ANCHOR BOLTS SHALL BE EITHER "HEADED" OR "THREADED WITH NUT" AS DEFINED IN THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL (PART 14), 13th EDITION. HOOKED ANCHOR BOLTS ARE NOT ACCEPTABLE.
3. ACCURATE ANCHOR BOLT PLACEMENT IS CRITICAL. TO ENSURE THE ANCHOR BOLT LAYOUT MEETS THE DIMENSIONS REQUIRED ON THE DRAWINGS, SURVEY (OR MEASURE) THE LOCATION OF ALL ANCHOR BOLTS PRIOR TO POURING THE FOOTINGS. AN ADDITIONAL SURVEY (OR MEASUREMENT) SHOULD BE MADE AFTER THE FOOTINGS ARE POURED TO CONFIRM THE ANCHOR BOLTS DID NOT SHIFT DURING THE CONCRETE POUR.
4. POLIGON STRONGLY RECOMMENDS USING ANCHOR BOLT TEMPLATES BECAUSE THEY SIGNIFICANTLY IMPROVE THE ACCURACY OF ANCHOR BOLT PLACEMENT.
5. IF OUTSIDE CONSULTING ENGINEERS ARE DESIGNING THE FOUNDATIONS FOR THIS STRUCTURE, THEY MUST REFER TO POLIGON CALCULATIONS FOR MINIMUM CONCRETE PROPERTIES (COMPRESSIVE STRENGTH, EDGE DISTANCE, ETC.) REQUIRED FOR THE ANCHOR BOLT DESIGN.
6. ELECTRICAL ACCESS HOLE IS ALWAYS LOCATED IN THE COLUMN BASE PLATE AS SHOWN.
7. GROUT UNDER BASEPLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH MINIMUM $f_c=6500$ PSI.

DRILLED PIER FOOTING OPTION

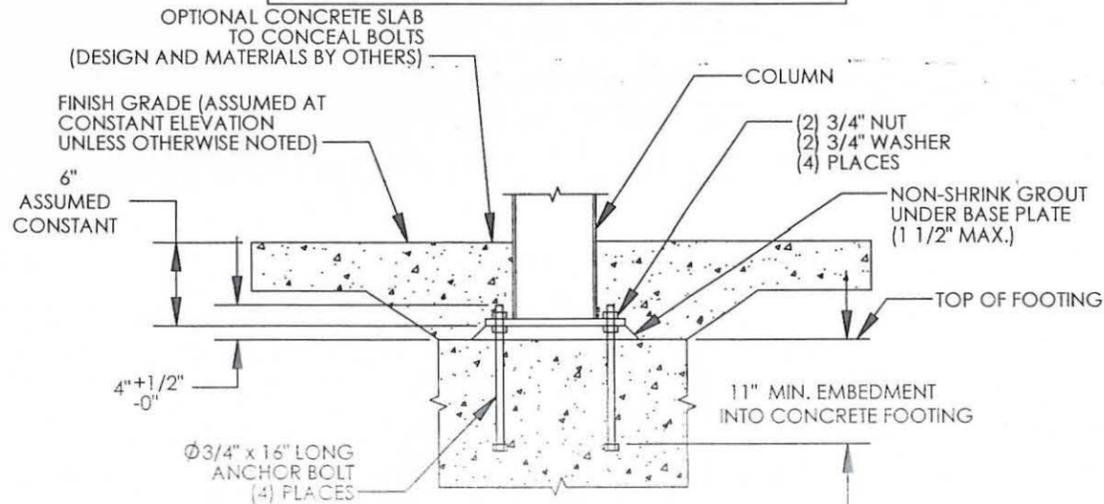


SQUARE FOOTING OPTION



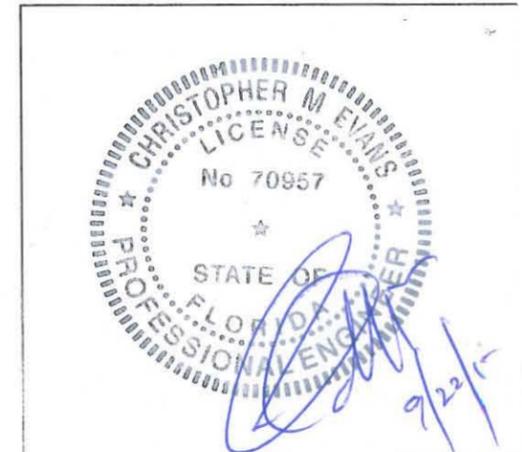
ANCHOR BOLT SUBSTITUTION
 THE FOLLOWING EPOXY ANCHORS MAY BE SUBSTITUTED FOR THE CAST IN PLACE ANCHOR BOLT:
 -HILTI HIT-HY 200 ADHESIVE w/ Ø3/4" HAS B7 ROD WITH A MINIMUM 11" EMBEDMENT.
 CONTRACTOR SHALL FOLLOW ALL INSTALLATION SPECIFICATIONS AND REQUIREMENTS OF ANCHOR MANUFACTURER.

2 ANCHOR BOLT PATTERN
 2 BASE PLATE THICKNESS: 3/4"



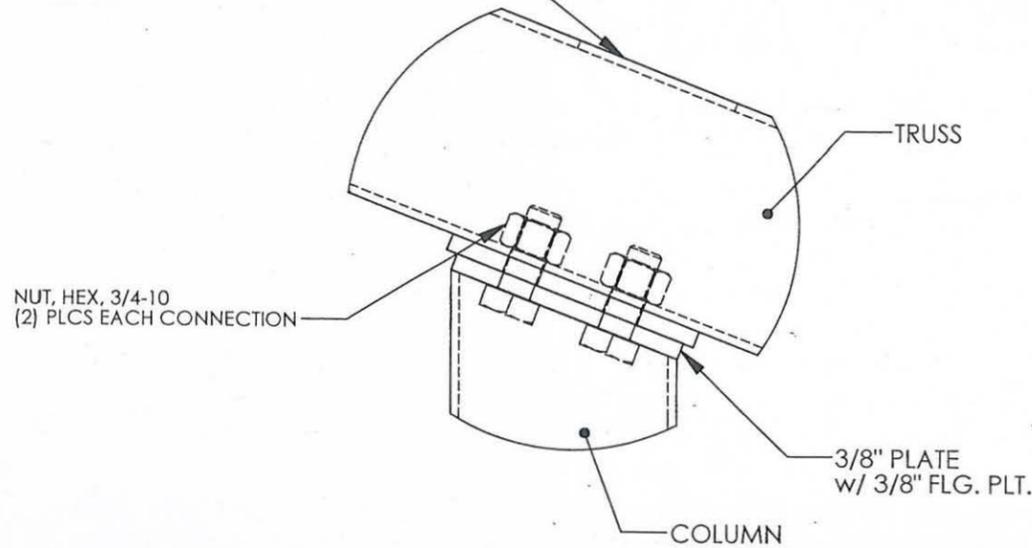
1 ANCHOR BOLT DETAIL

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 4240 N. 136th Avenue
 Holland, MI 49424
 Fla. License No. 70957



IF THESE DRAWINGS ARE SEALED, THE SEAL APPLIES ONLY TO BUILDING COMPONENTS AND FOUNDATION DESIGN IF APPLICABLE DETAILED WITHIN THESE DRAWINGS.

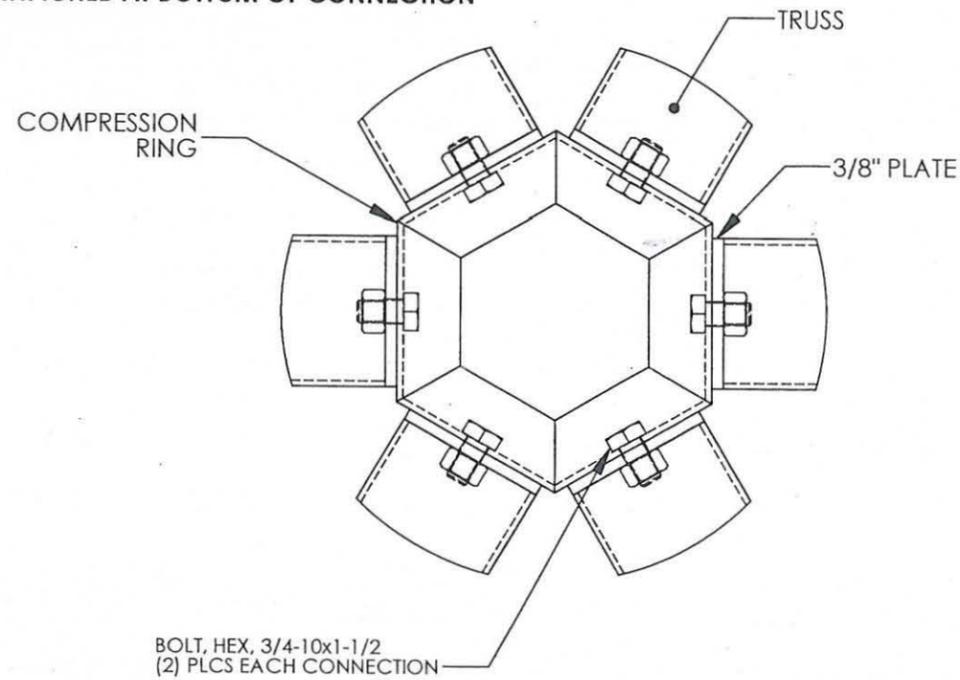
COVER ACCESS HOLES WITH GRACE ICE AND WATER SHIELD (1M1024118) BEFORE ATTACHING ROOF DECKING.



COLUMN CONNECTIONS

K-100

NOTE:
COVER PLATE (XXXXX)
W/ FASTENER (XXXXX)
ATTACHED AT BOTTOM OF CONNECTION



COMPRESSION MEMBER CONNECTION

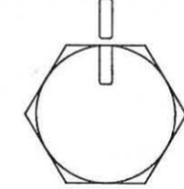
T-100

TURN-OF-NUT PRETENSIONING METHOD:

THESE STEPS ILLUSTRATE THE REQUIREMENTS OUTLINED IN THE AISC SPECIFICATION. THE ROTATION INDICATED IS ACCURATE FOR MOST BOLT DIAMETERS AND LENGTHS BUT IT IS THE RESPONSIBILITY OF THE INSTALLER TO MEET AISC REQUIREMENTS.

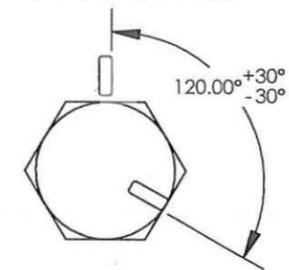
STEP ONE:

AFTER SNUG TIGHT, MATCH MARK PLATE



STEP TWO:

THEN TURN BOLT/NUT PAST SNUG TIGHT 1/3 TURN



CONNECTION NOTES:

- ALL HIGH STRENGTH BOLTS ARE A325 BOLTS AND TO BE INSTALLED BY THE "TURN-OF-NUT" PRETENSIONING METHOD AS SPECIFIED IN THE 13TH EDITION OF THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", SECTION 8 (SEE ILLUSTRATION). A325 BOLTS MAY BE INSTALLED WITHOUT WASHERS WHEN TIGHTENED BY THE "TURN-OF-NUT" PRETENSIONING METHOD. IT IS THE RESPONSIBILITY OF THE ERECTOR TO INSURE PROPER TIGHTNESS. THIS METHOD IS ONLY REQUIRED ON 5/8" DIAMETER AND LARGER BOLTS. ANCHOR BOLTS NEED NOT BE TIGHTENED PAST SNUG TIGHT.
- LOCAL JURISDICTIONS MAY REQUIRE AN INSPECTOR TO BE PRESENT TO WITNESS HARDWARE INSTALLATION AND INDEPENDENT TESTING. INSPECTION REQUIREMENTS SHOULD BE VERIFIED PRIOR TO STEEL ERECTION.
- ERECTION OF THE FRAMING MEMBERS WILL REQUIRE THE MAIN COLUMNS TO BE PLUMB SQUARE AND TIGHTENED TO THE TRUSSES AND TENSION MEMBERS BEFORE INSTALLING THE PURLINS. PURLINS, IF REQUIRED, MUST BE PARALLEL TO THE EAVE BEAMS AND TENSION MEMBERS.
- TOUCH-UP PAINT MUST BE APPLIED TO ALL EXPOSED BOLTS & NUTS. PERIODIC TOUCH-UP AT THESE BOLTED CONNECTIONS IS REQUIRED.
- UNLESS THE BUILDING HAS A FACTORY APPLIED POWDERCOAT, E-COAT OR GALVANIZING, THE FRAME WILL BE PRIME PAINTED AND WILL BE REQUIRED TO BE FINISH PAINTED IN THE FIELD WITH ALL PAINT, MATERIALS AND LABOR NOT BY POLIGON (PORTERCORP). REFER TO FINAL SALES ORDER.
- PRIOR TO THE ERECTION OF SHELTER COMPONENTS, IT IS RECOMMENDED TO CHASE AND TAP STRUCTURAL HARDWARE, EVEN THOUGH POLIGON MAKES EVERY EFFORT TO PROTECT THE HARDWARE DURING THE PROCESS OF PRODUCTION, FINISH, AND SHIPPING, THE ON-SITE CHASING AND TAPPING OF THREADS IS ALWAYS GOOD POLICY.
- TO PREVENT RUST STAINING OF FINISH, ALL METAL SHAVINGS MUST BE REMOVED AFTER INSTALLATION. ENSURE NO SHAVING ARE TRAPPED BETWEEN MEMBER SURFACES.

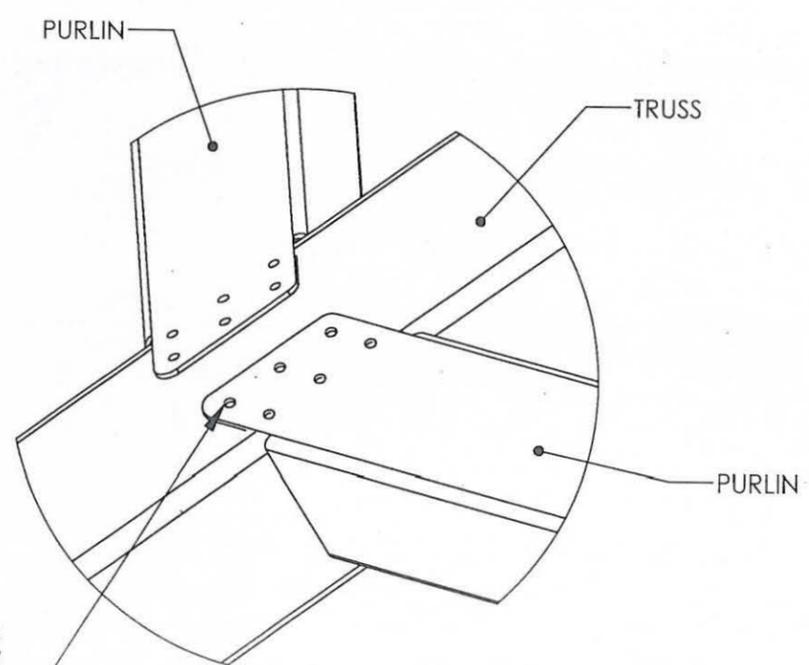
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Fla. License No. 70957



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SHEET

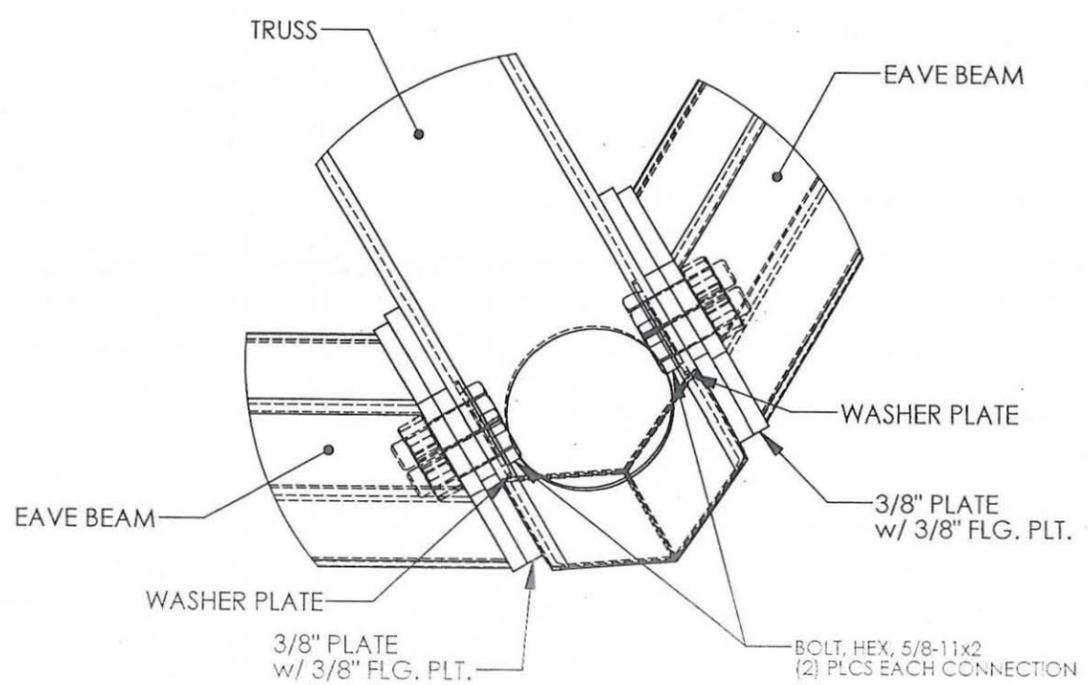
4



(6) 1/4-14 x 1 1/4
ONE STEP SCREW
(1M1008414)
EACH CONNECTION

PURLIN CONNECTION

P-100



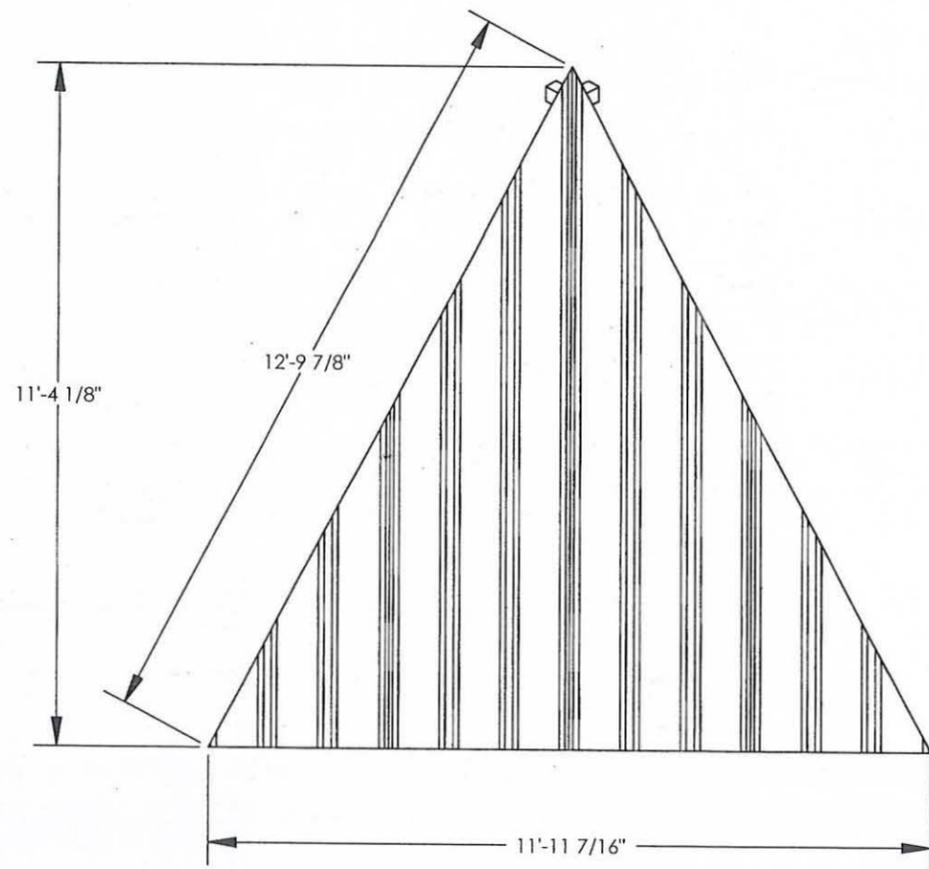
EAVE BEAM CONNECTION

E-100

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IF THESE DRAWINGS ARE SEALED, THE SEAL APPLIES ONLY TO BUILDING COMPONENTS AND FOUNDATION DESIGN IF APPLICABLE DETAILED WITHIN THESE DRAWINGS.



MULTI-RIB NOTES:

THE DETAILS SHOWN ARE SUGGESTIONS OR GUIDELINES ON HOW TO ERECT THE SYSTEMS. THE INFORMATION SHOWN IS ACCURATE, BUT IT IS NOT INTENDED TO COVER ALL INSTANCES, BUILDING REQUIREMENTS, DESIGNS OR CODES. THE DETAILS MAY REQUIRE CHANGES OR REVISIONS DUE TO FIELD CONDITIONS.

IT SHALL BE THE RESPONSIBILITY OF THE ERECTOR TO ENSURE THAT THE DETAILS MEET PARTICULAR BUILDING REQUIREMENTS AND TO ASSURE ADEQUATE WATER TIGHTNESS.

THE ERECTOR SHOULD THOROUGHLY FAMILIARIZE HIMSELF/HERSELF WITH ALL ERECTION INSTRUCTIONS BEFORE STARTING WORK.

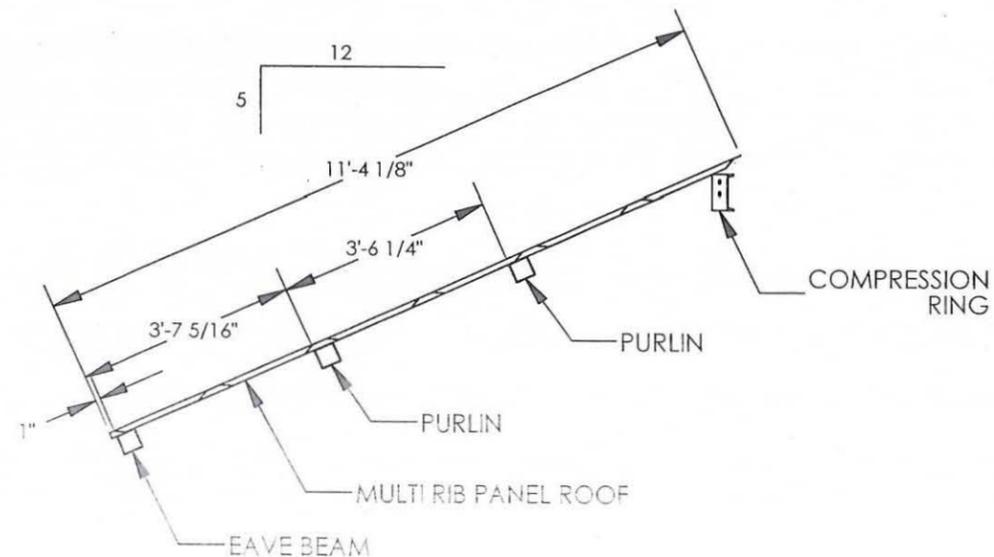
THE PANELS SHOULD BE INSTALLED PLUMB, STRAIGHT, AND ACCURATELY TO THE ADJACENT WORK.

FLASHING AND TRIM SHALL BE INSTALLED TRUE, AND IN PROPER ALIGNMENT, WITH ANY EXPOSED FASTENERS EQUALLY SPACED FOR THE BEST APPEARANCE.

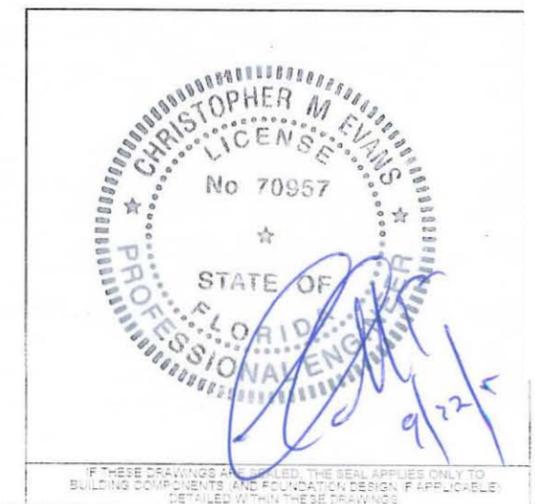
SEALANT SHALL BE FIELD APPLIED ON DRY, CLEAN SURFACES. SOME FIELD CUTTING AND FITTING OF PANELS AND FLASHING IS TO BE EXPECTED BY THE ERECTOR AND MINOR FIELD CORRECTIONS ARE A PART OF NORMAL ERECTION WORK.

WORKMANSHIP SHALL BE OF THE BEST INDUSTRY STANDARDS AND INSTALLATION SHALL BE PERFORMED BY EXPERIENCED METAL CRAFTSMEN.

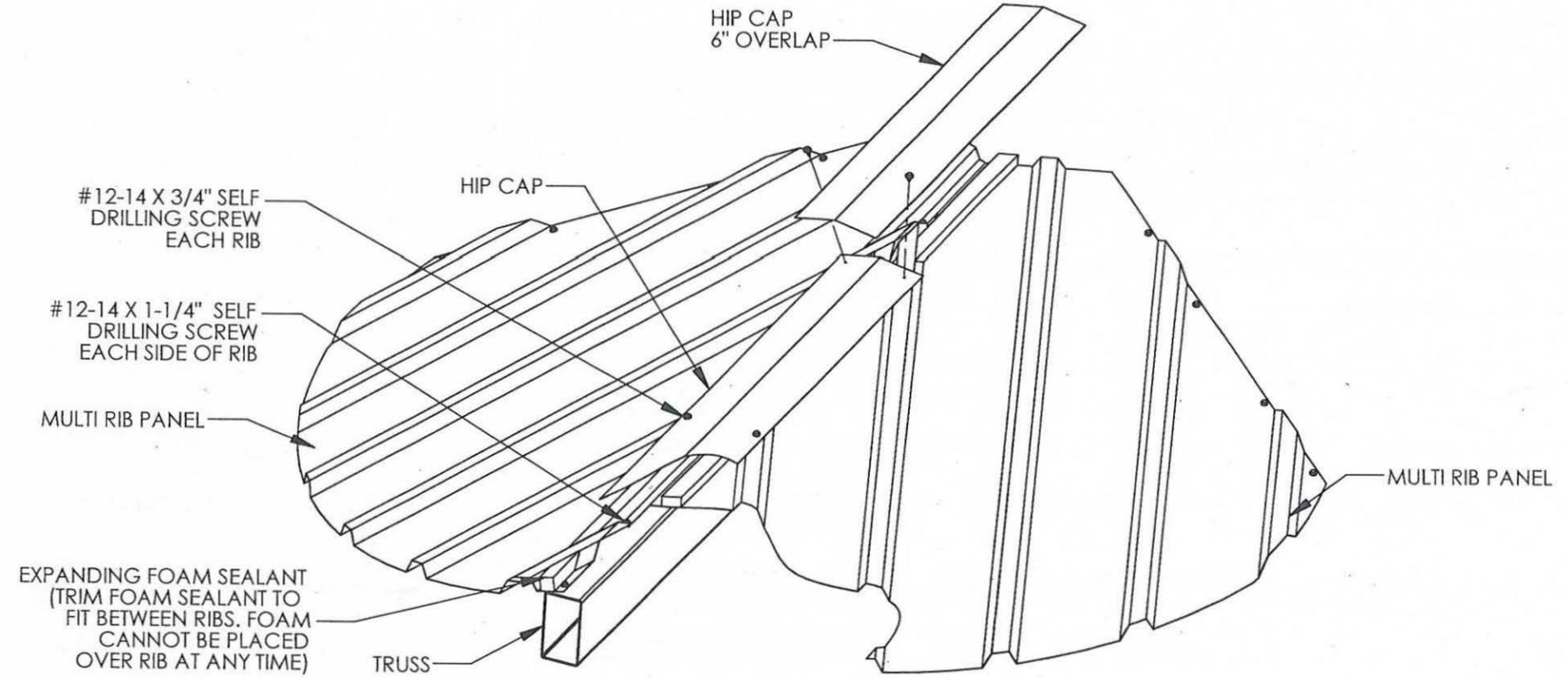
METAL SHAVINGS FROM DRILLING OR INSTALLATION OF ROOF FASTENERS MUST BE CAREFULLY REMOVED FROM THE ROOF BY BRUSHING OR SWEEPING AT THE END OF EACH DAY DURING INSTALLATION. SHAVINGS LEFT ON THE ROOF WILL QUICKLY RUST AND STAIN THE ROOF FINISH.



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 Holland, MI 49424
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IF THESE DRAWINGS ARE REPRODUCED, THE SEAL APPLIES ONLY TO BUILDING COMPONENTS AND FOUNDATION DESIGN, IF APPLICABLE, DETAILED WITHIN THESE DRAWINGS.



PART DESCRIPTIONS:

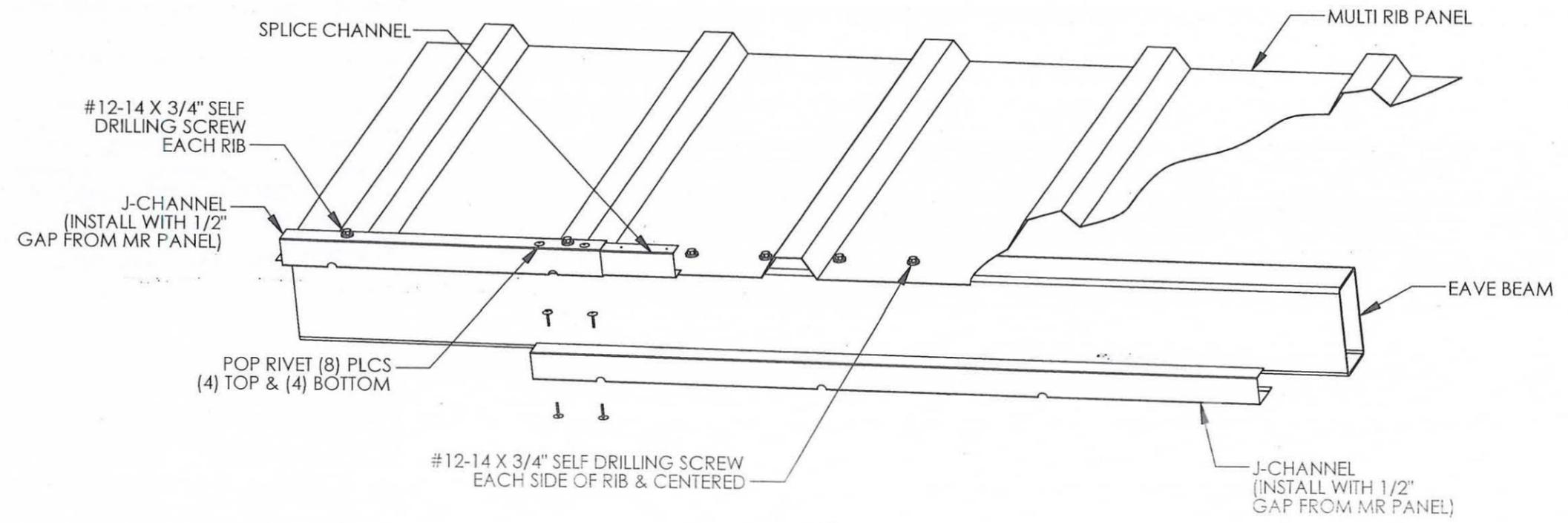
- #12-14x3/4" SELF DRILLING SCREW.
- #12-14x1 1/4" SELF DRILLING SCREW.
- 1/8" POP RIVET.

NOTE:
ALL MATERIALS ARE CALLED
OUT ON SHEETS 5.1.

2013B

TRUSS DETAIL

MR-300



EAVE DETAIL

MR-102

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SHEET

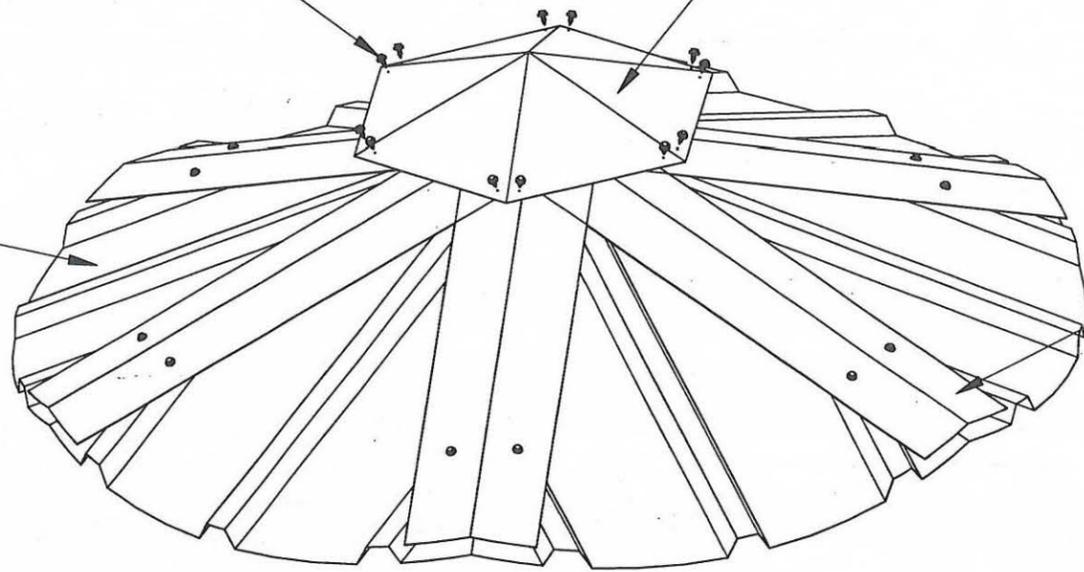
6

#12-14 X 3/4" SELF DRILLING SCREW
EACH CORNER OF ROOF PEAK CAP

ROOF PEAK CAP

MULTI RIB PANEL

HIP CAP



ROOF PEAK DETAIL

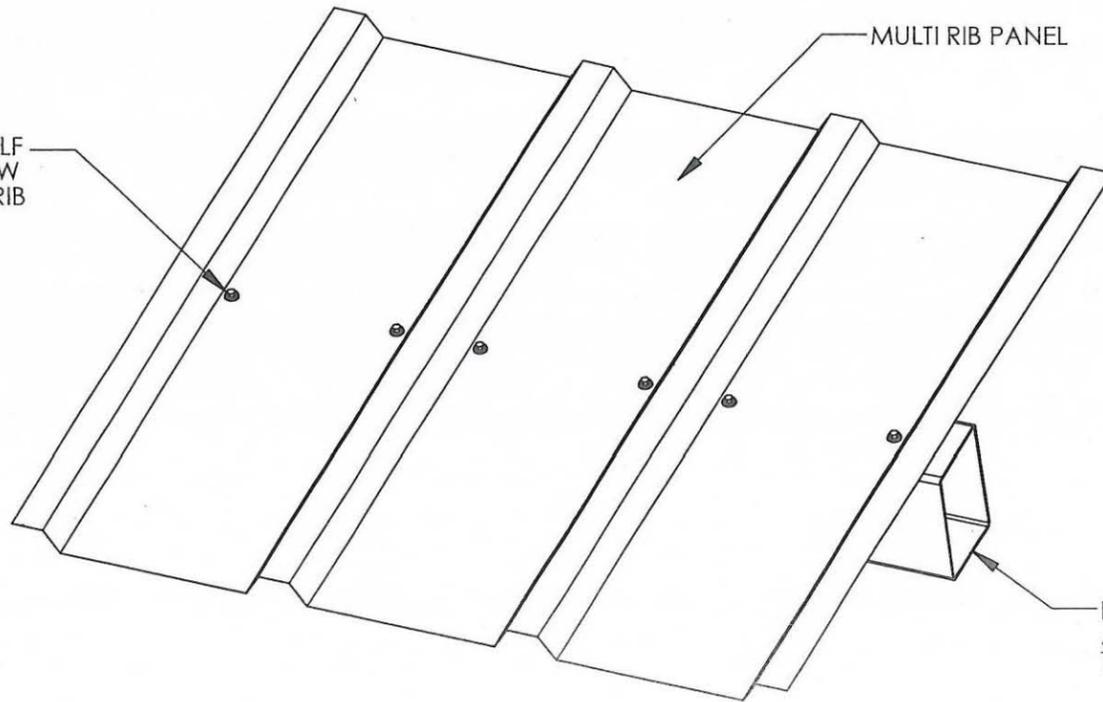
MR-800

2013B

#12-14 X 3/4" SELF DRILLING SCREW
EACH SIDE OF RIB

MULTI RIB PANEL

PURLIN
AND/OR
TAIL



PURLIN DETAIL

MR-600

2013E

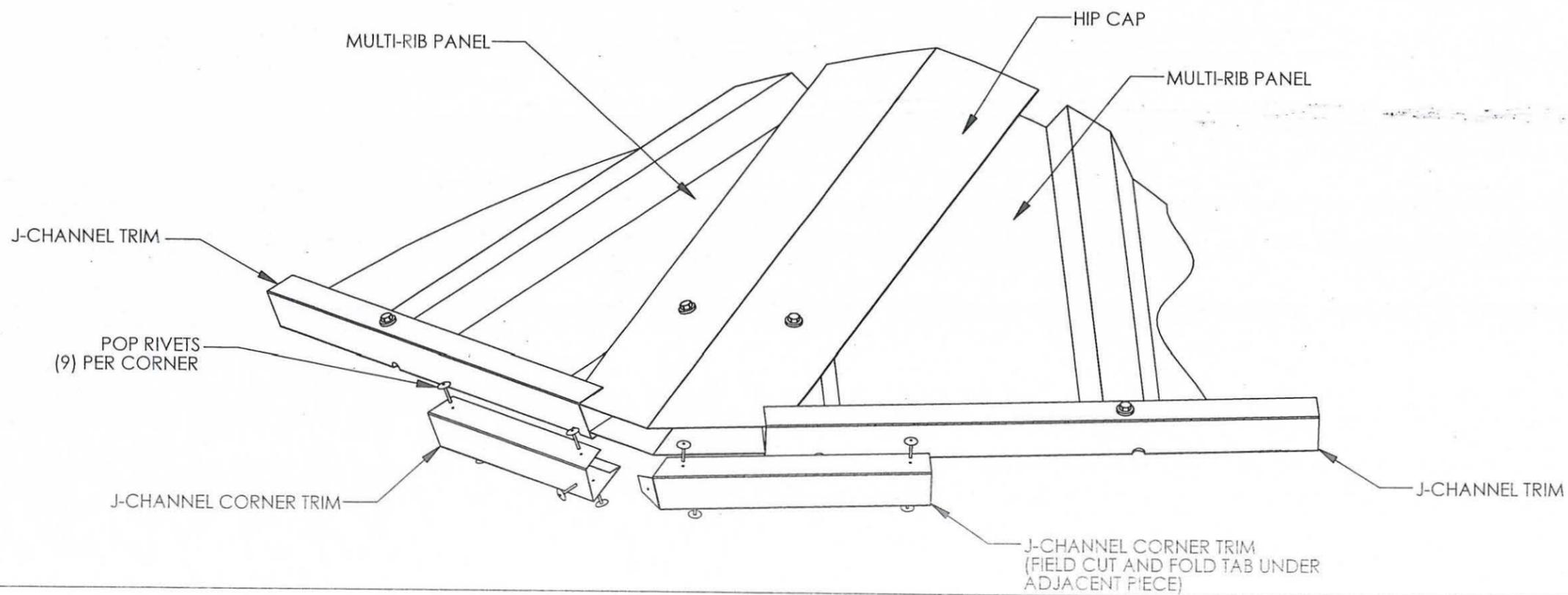
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SHEET

6.1



CORNER DETAIL

MR-900

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SHEET

6.2

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FOUNDATION DESIGN

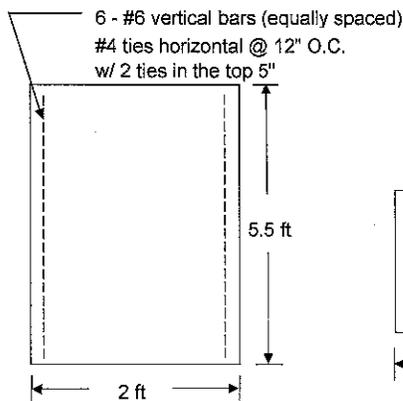
FOUNDATION DESIGN

FIXED BASE

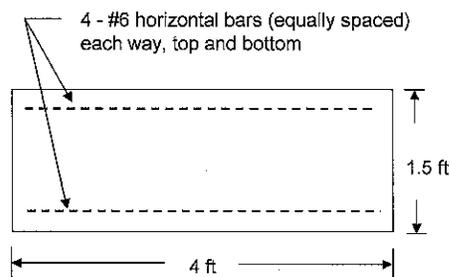
Drilled Pier		Allowable	Actual	Load Combination / Member	
1	Bearing Pressure (Chapter 18 of the Building Code)	1500 psf	860 psf	21 / Column1	OK
2	Embedment Check (Chapter 18 of the Building Code)	5.0 ft	5.5 ft	18 / Column4	OK
3	Uplift Check SF = 1.42	1503 lbs	1055 lbs	36 / Column1	OK
4	Area of Reinforcement (ACI Chapter 10)	2.26 in ²	2.65 in ²	Minimum Value Controls	OK

Spread Footing		Allowable	Actual	Load Combination / Member	
5	Bearing Pressure (Chapter 18 of the Building Code)	1500 psf	584 psf	18 / Column2	OK
6	Shear Check (ACI Chapter 11)	N/A	N/A	Does Not Control / OK By Inspection	OK
7	Overturning Check SF = 1.31	50 kip-in	38 kip-in	26 / Column4	OK
8	Sliding Check SF = 9.66	2.1 kip	0.2 kip	18 / Column4	OK
9	Area of Reinforcement (ACI Chapter 7)	3.53 in ²	3.53 in ²	Minimum Value Controls	OK

Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	21	Column1	2.70	0.16	0.00	0.01	-0.04	16.76
2	18	Column4	0.84	-0.22	0.00	-0.01	-0.05	-23.26
3	36	Column1	-1.06	0.00	-0.08	0.32	8.83	0.21
x	x	x	x	x	x	x	x	x
5	18	Column2	2.01	0.10	0.18	-0.69	-19.83	11.02
x	x	x	x	x	x	x	x	x
7	26	Column4	-0.97	-0.14	0.00	-0.01	0.04	-15.04
8	18	Column4	0.84	-0.22	0.00	-0.01	-0.05	-23.26
x	x	x	x	x	x	x	x	x



Drilled Pier Option



Spread Footing Option

The foundation design contained herein is not site specific, but is based on the presumptive allowable foundation pressures in Chapter 18 of the Building Code (Class 5 soil). The building official in the jurisdiction in which this structure is located may require a site specific geotechnical report or letter from a qualified local professional engineer attesting to whether the actual site conditions meet the assumptions identified above.

Pier Diameter (ft): 2.00
 Pier Depth (ft): 5.50

Spread Footing Width (ft): 4.0
 Spread Footing Thickness (ft): 1.5

f'c (psi): 3000
 Concrete Unit Weight (lb/ft³): 145

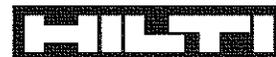
SERVICE LOAD FOUNDATION REACTION SUMMARY

Refer to RISA model views for column local axis

Service Loads (Unfactored)

LC	Member Label	Sec	Axial [k]	y Shear [k]	z Shear [k]	Torque [k-in]	y-y Moment [k-in]	z-z Moment [k-in]	LC Description
1	Column1	1	0.483	-0.001	0.000	0.000	0.000	-0.112	SERVICE D
1	Column2	1	0.483	-0.001	0.000	0.000	0.000	-0.112	SERVICE D
1	Column3	1	0.483	-0.001	0.000	0.000	0.000	-0.112	SERVICE D
1	Column4	1	0.483	-0.001	0.000	0.000	0.000	-0.112	SERVICE D
1	Column5	1	0.483	-0.001	0.000	0.000	0.000	-0.112	SERVICE D
1	Column6	1	0.483	-0.001	0.000	0.000	0.000	-0.112	SERVICE D
2	Column1	1	1.247	-0.003	0.000	0.000	0.000	-0.357	SERVICE Lr
2	Column2	1	1.247	-0.003	0.000	0.000	0.000	-0.357	SERVICE Lr
2	Column3	1	1.247	-0.003	0.000	0.000	0.000	-0.357	SERVICE Lr
2	Column4	1	1.247	-0.003	0.000	0.000	0.000	-0.357	SERVICE Lr
2	Column5	1	1.247	-0.003	0.000	0.000	0.000	-0.357	SERVICE Lr
2	Column6	1	1.247	-0.003	0.000	0.000	0.000	-0.357	SERVICE Lr
3	Column1	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE S
3	Column2	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE S
3	Column3	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE S
3	Column4	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE S
3	Column5	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE S
3	Column6	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE S
4	Column1	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE Su
4	Column2	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE Su
4	Column3	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE Su
4	Column4	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE Su
4	Column5	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE Su
4	Column6	1	0.000	0.000	0.000	0.000	0.000	0.000	SERVICE Su
5	Column1	1	1.712	0.207	0.000	0.011	-0.049	22.307	SERVICE Wx (Load Case A)
5	Column2	1	1.528	0.102	0.182	-0.688	-19.643	11.018	SERVICE Wx (Load Case A)
5	Column3	1	0.850	-0.107	0.182	-0.719	-19.663	-11.602	SERVICE Wx (Load Case A)
5	Column4	1	0.357	-0.212	0.000	-0.005	-0.049	-22.934	SERVICE Wx (Load Case A)
5	Column5	1	0.848	-0.107	-0.181	0.719	19.564	-11.601	SERVICE Wx (Load Case A)
5	Column6	1	1.526	0.102	-0.181	0.704	19.544	11.020	SERVICE Wx (Load Case A)
6	Column1	1	-0.305	0.143	0.000	0.004	0.040	15.456	SERVICE Wx (Load Case B)
6	Column2	1	-0.817	0.072	0.122	-0.508	-13.132	7.827	SERVICE Wx (Load Case B)
6	Column3	1	-1.293	-0.068	0.121	-0.475	-13.092	-7.348	SERVICE Wx (Load Case B)
6	Column4	1	-1.257	-0.138	0.000	-0.007	0.039	-14.895	SERVICE Wx (Load Case B)
6	Column5	1	-1.294	-0.068	-0.122	0.462	13.170	-7.348	SERVICE Wx (Load Case B)
6	Column6	1	-0.819	0.072	-0.122	0.506	13.211	7.828	SERVICE Wx (Load Case B)
7	Column1	1	1.351	-0.003	-0.121	0.477	13.045	-0.313	SERVICE Wz (Load Case A)
7	Column2	1	1.536	0.102	-0.060	0.232	6.487	11.003	SERVICE Wz (Load Case A)
7	Column3	1	1.536	0.102	0.061	-0.215	-6.597	11.003	SERVICE Wz (Load Case A)
7	Column4	1	1.351	-0.003	0.122	-0.467	-13.154	-0.314	SERVICE Wz (Load Case A)
7	Column5	1	0.859	-0.108	0.061	-0.247	-6.618	-11.674	SERVICE Wz (Load Case A)
7	Column6	1	0.857	-0.108	-0.060	0.247	6.509	-11.674	SERVICE Wz (Load Case A)
8	Column1	1	-1.345	0.003	-0.081	0.320	8.778	0.278	SERVICE Wz (Load Case B)
8	Column2	1	-0.834	0.073	-0.041	0.181	4.435	7.876	SERVICE Wz (Load Case B)
8	Column3	1	-0.832	0.073	0.040	-0.182	-4.339	7.876	SERVICE Wz (Load Case B)
8	Column4	1	-1.344	0.003	0.080	-0.329	-8.682	0.278	SERVICE Wz (Load Case B)
8	Column5	1	-1.309	-0.067	0.040	-0.148	-4.300	-7.238	SERVICE Wz (Load Case B)
8	Column6	1	-1.308	-0.067	-0.041	0.136	4.395	-7.238	SERVICE Wz (Load Case B)
9	Column1	1	-0.008	0.081	0.000	0.000	0.000	7.810	SERVICE Ex
9	Column2	1	-0.004	0.040	0.070	-0.032	-6.734	3.905	SERVICE Ex
9	Column3	1	0.004	-0.040	0.070	-0.032	-6.734	-3.905	SERVICE Ex
9	Column4	1	0.008	-0.081	0.000	0.000	0.000	-7.810	SERVICE Ex
9	Column5	1	0.004	-0.040	-0.070	0.032	6.734	-3.905	SERVICE Ex
9	Column6	1	-0.004	0.040	-0.070	0.032	6.734	3.905	SERVICE Ex
10	Column1	1	0.000	0.000	-0.080	0.037	7.775	0.000	SERVICE Ez
10	Column2	1	-0.007	0.070	-0.040	0.018	3.888	6.764	SERVICE Ez
10	Column3	1	-0.007	0.070	0.040	-0.018	-3.888	6.764	SERVICE Ez
10	Column4	1	0.000	0.000	0.080	-0.037	-7.775	0.000	SERVICE Ez
10	Column5	1	0.007	-0.070	0.040	-0.018	-3.888	-6.764	SERVICE Ez
10	Column6	1	0.007	-0.070	-0.040	0.018	3.888	-6.764	SERVICE Ez

CONNECTION DESIGN



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Company:
 Specifier:
 Address:
 Phone | Fax:
 E-Mail:

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 Project:
 Sub-Project | Pos. No.:
 Date: 9/18/2015

Specifier's comments:

1 Input data

Anchor type and diameter: Heavy Hex Head ASTM F 1554 GR. 55 3/4

Effective embedment depth: $h_{ef} = 11.000$ in.

Material: ASTM F 1554

Proof: Design method ACI 318-08 / CIP

Stand-off installation: $e_b = 0.000$ in. (no stand-off); $t = 0.750$ in.

Anchor plate: $l_x \times l_y \times t = 12.000$ in. x 12.000 in. x 0.750 in.; (Recommended plate thickness: not calculated)

Profile: Square HSS (AISC); $(L \times W \times T) = 5.000$ in. x 5.000 in. x 0.188 in.

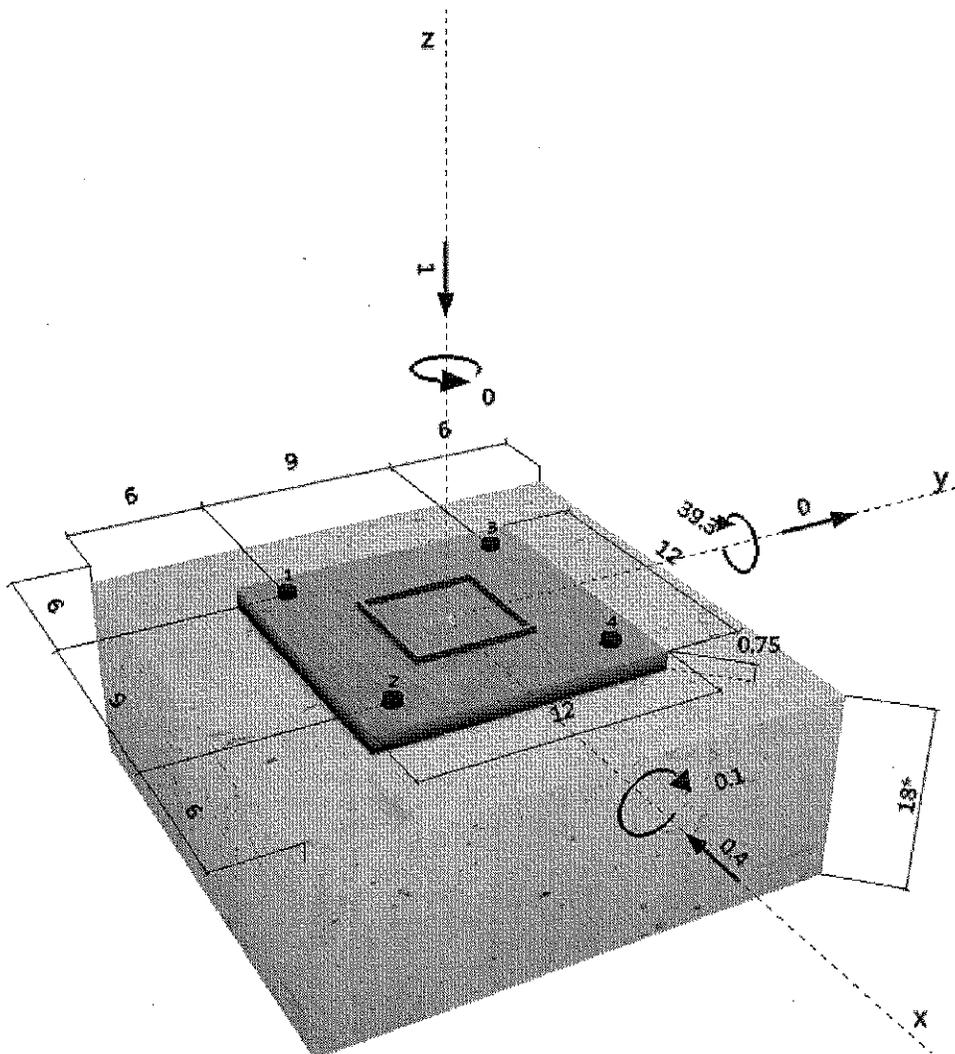
Base material: cracked concrete, 3000 , $f_c' = 3000$ psi; $h = 18.000$ in.

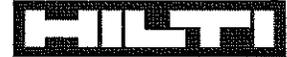
Reinforcement: tension: condition B, shear: condition B;
 edge reinforcement: none or < No. 4 bar

Seismic loads (cat. C, D, E, or F) no



Geometry [in.] & Loading [kip, in.kip]





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2 Proof | Utilization (Governing Cases)

Loading	Proof	Design values [kip]		Utilization		Status
		Load	Capacity	β_N / β_V [%]		
Tension	Concrete Breakout Strength	3.566	11.688	31	-	OK
Shear	Concrete edge failure in direction x-	0.400	5.437	-	8	OK
Loading		β_N	β_V	ζ	Utilization $\beta_{N,V}$ [%]	Status
Combined tension and shear loads		0.305	0.074	5/3	16	OK

3 Warnings

- Please consider all details and hints/warnings given in the detailed report!

Fastening meets the design criteria!

4 Remarks; Your Cooperation Duties

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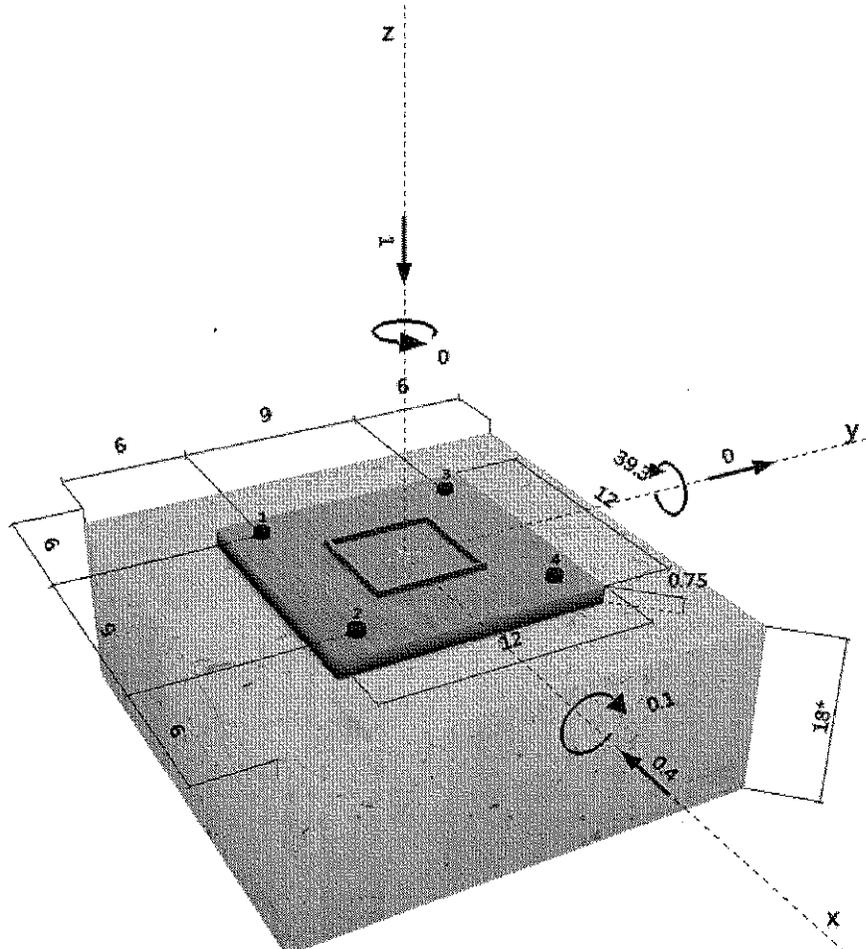
Specifier's comments: Please Note: Post Installed Anchors are Optional

1 Input data

Anchor type and diameter:	HIT-HY 200 + HAS B7 3/4
Effective embedment depth:	$h_{ef,act} = 11.000$ in. ($h_{ef,limit} = -$ in.)
Material:	ASTM A 193 Grade B7
Evaluation Service Report:	ESR-3187
Issued Valid:	1/1/2015 3/1/2016
Proof:	Design method ACI 318-08 / Chem
Stand-off installation:	$e_b = 0.000$ in. (no stand-off); $t = 0.750$ in.
Anchor plate:	$l_x \times l_y \times t = 12.000$ in. x 12.000 in. x 0.750 in.; (Recommended plate thickness: not calculated)
Profile:	Square HSS (AISC); $(L \times W \times T) = 5.000$ in. x 5.000 in. x 0.188 in.
Base material:	cracked concrete, 3000 , $f'_c = 3000$ psi; $h = 18.000$ in., Temp. short/long: 32/32 °F
Installation:	hammer drilled hole, Installation condition: Dry
Reinforcement:	tension: condition B, shear: condition B; no supplemental splitting reinforcement present edge reinforcement: none or < No. 4 bar
Seismic loads (cat. C, D, E, or F)	no



Geometry [in.] & Loading [kip, in.kip]





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2 Proof I Utilization (Governing Cases)

Loading	Proof	Design values [kip]		Utilization	Status	
		Load	Capacity	β_N / β_V [%]		
Tension	Concrete Breakout Strength	3.566	7.687	47 / -	OK	
Shear	Concrete edge failure in direction x-	0.400	5.437	- / 8	OK	
Loading		β_N	β_V	ζ	Utilization $\beta_{N,V}$ [%]	Status
Combined tension and shear loads		0.464	0.074	5/3	30	OK

3 Warnings

- Please consider all details and hints/warnings given in the detailed report!

Fastening meets the design criteria!

4 Remarks; Your Cooperation Duties

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STRENGTH DESIGN FOUNDATION REACTIONS

Strength Design Reactions (Factored)

Controlling Column: Column4

LC	Load Combination Description	Axial [k]	y Shear [k]	z Shear [k]	Torque [in-kip]	strong axis		Controlling Combination
						y-y Moment [in-kip]	z-z Moment [in-kip]	
54	1.4D	0.7	0.0	0.0	0.0	0.0	-0.2	
55	1.2D + 0.5Lr	1.2	0.0	0.0	0.0	0.0	-0.3	
56	1.2D + 0.5S	0.6	0.0	0.0	0.0	0.0	-0.1	
57	1.2D + 0.5Su	0.6	0.0	0.0	0.0	0.0	-0.1	
58	1.2D + 1.6Lr + 0.5Wx (Load Case A)	2.9	-0.2	0.0	0.0	0.0	-20.8	
59	1.2D + 1.6Lr + 0.5Wx (Minimum)	2.6	-0.1	0.0	0.0	0.0	-7.6	
60	1.2D + 1.6S + 0.5Wx (Load Case A)	0.9	-0.2	0.0	0.0	0.0	-19.4	
61	1.2D + 1.6S + 0.5Wx (Minimum)	0.6	-0.1	0.0	0.0	0.0	-6.7	
62	1.2D + 1.0Wx (Load Case A) + 0.5Lr	1.8	-0.4	0.0	0.0	-0.1	-40.2	
63	1.2D + 1.0Wx (Load Case B) + 0.5Lr	-0.9	-0.2	0.0	0.0	0.1	-25.4	
64	1.2D + 1.0Wx (Minimum) + 0.5Lr	1.2	-0.1	0.0	0.0	0.0	-13.6	
65	1.2D + 1.0Wx (Load Case A) + 0.5S	1.2	-0.4	0.0	0.0	-0.1	-39.4	
66	1.2D + 1.0Wx (Load Case B) + 0.5S	-1.5	-0.2	0.0	0.0	0.1	-24.9	
67	1.2D + 1.0Wx (Minimum) + 0.5S	0.6	-0.1	0.0	0.0	0.0	-13.2	
68	0.9D + 1.0Wx (Load Case A)	1.0	-0.4	0.0	0.0	-0.1	-39.3	X
69	0.9D + 1.0Wx (Load Case B)	-1.7	-0.2	0.0	0.0	0.1	-24.8	
70	0.9D + 1.0Wx (Minimum)	0.5	-0.1	0.0	0.0	0.0	-13.2	
71	1.2D + 1.6Lr + 0.5Wz (Load Case A)	3.7	0.0	0.1	-0.4	-11.5	-1.0	
72	1.2D + 1.6Lr + 0.5Wz (Minimum)	2.6	0.0	0.1	-0.1	-7.9	-0.7	
73	1.2D + 1.6S + 0.5Wz (Load Case A)	1.7	0.0	0.1	-0.4	-11.0	-0.4	
74	1.2D + 1.6S + 0.5Wz (Minimum)	0.6	0.0	0.1	-0.1	-7.6	-0.1	
75	1.2D + 1.0Wz (Load Case A) + 0.5Lr	3.5	0.0	0.2	-0.8	-22.9	-0.8	
76	1.2D + 1.0Wz (Load Case B) + 0.5Lr	-1.0	0.0	0.1	-0.6	-14.6	0.2	
77	1.2D + 1.0Wz (Minimum) + 0.5Lr	1.2	0.0	0.1	-0.1	-15.3	-0.3	
78	1.2D + 1.0Wz (Load Case A) + 0.5S	2.8	0.0	0.2	-0.8	-22.6	-0.7	
79	1.2D + 1.0Wz (Load Case B) + 0.5S	-1.7	0.0	0.1	-0.5	-14.4	0.3	
80	1.2D + 1.0Wz (Minimum) + 0.5S	0.5	0.0	0.1	-0.1	-15.1	-0.2	
81	0.9D + 1.0Wz (Load Case A)	2.7	0.0	0.2	-0.8	-22.5	-0.6	
82	0.9D + 1.0Wz (Load Case B)	-1.8	0.0	0.1	-0.5	-14.4	0.4	
83	0.9D + 1.0Wz (Minimum)	0.4	0.0	0.1	-0.1	-15.1	-0.1	
84	(1.2+0.2*Sds)D + 1.0Ex + 0.2S	0.6	-0.1	0.0	0.0	0.0	-8.0	
85	(0.9-0.2*Sds)D + 1.0Ex	0.4	-0.1	0.0	0.0	0.0	-8.0	
86	(1.2+0.2*Sds)D + 1.0Ez + 0.2S	0.6	0.0	0.1	0.0	-7.9	-0.1	
87	(0.9-0.2*Sds)D + 1.0Ez	0.4	0.0	0.1	0.0	-7.8	-0.1	

HILTI PROFIS INPUT

Tensile Force	-1.0	kip - uplift is positive
Shear (x)	-0.4	kip
Shear (y)	0.0	kip
Torsional Moment (z-axis)	0.0	in-kip
Bending moment (x-axis)	-0.1	in-kip
Bending moment (y-axis)	-39.3	in-kip

COLUMN BASE PLATE CONNECTION

FIXED CONNECTION

Base Plate Check: 11"x11"x0.75"

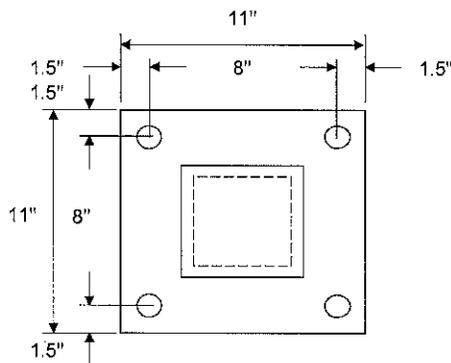
			Allowable	Actual	Load Combination / Member	
1	Plate Size	(AISC J8-1)	7.1 in ²	121.0 in ²	18 / Column1	OK
2	Plate Thickness	(AISC PART 14)	0.41 in	0.75 in	18 / Column1	OK
3	Concrete Bearing	(AISC J8-2)	1020 psi	303 psi	18 / Column1	OK

Column Weld Checks

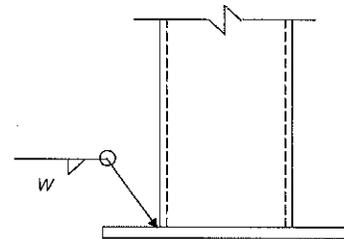
			Allowable	Actual	Load Combination / Member	
4	Tension ($F_x/A_w + M_y/S_y + M_z/S_z$)	(AISC J2-3)	2.8 k/in	0.9 k/in	25 / Column3	OK
5	Shear Y ($F_y/V_y + (M_x \cdot (b/2))/I_w$)	(AISC J2-3)	2.8 k/in	0.0 k/in	18 / Column3	OK
6	Shear Z ($F_z/V_z + (M_x \cdot (d/2))/I_w$)	(AISC J2-3)	2.8 k/in	0.0 k/in	18 / Column3	OK
7	Combined	(AISC J2-3)	2.8 k/in	0.9 k/in	25 / Column3	OK

Design Forces / Moments

Check	Load Combination	Member	F _x (Axial) [k]	F _y [k]	F _z [k]	M _x [k-in]	M _y [k-in]	M _z [k-in]
1	18	Column1	2.20	0.21	0.00	0.01	-0.05	22.41
2	18	Column1	2.20	0.21	0.00	0.01	-0.05	22.41
3	18	Column1	2.20	0.21	0.00	0.01	-0.05	22.41
4	25	Column3	1.14	-0.11	0.18	-0.72	-19.78	-11.73
5	18	Column3	1.33	-0.11	0.18	-0.72	-19.85	-11.82
6	18	Column3	1.33	-0.11	0.18	-0.72	-19.85	-11.82
7	25	Column3	1.14	-0.11	0.18	-0.72	-19.78	-11.73



Base Plate Plan



Base Plate Elevation

Column Size: HSS5x5x3

Base Plate Size: 11"x11"x0.75"

Weld Size (in): 0.188

f_c (psi): 3000

FLYOVER TRUSS

2 BOLTS

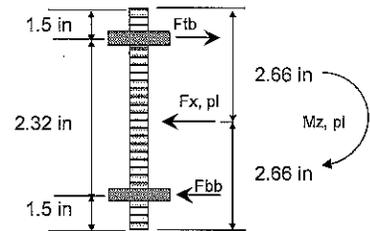
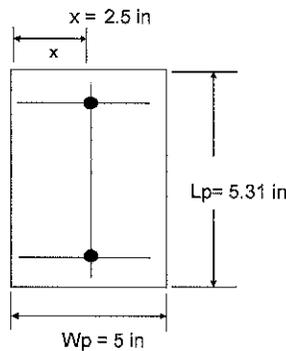
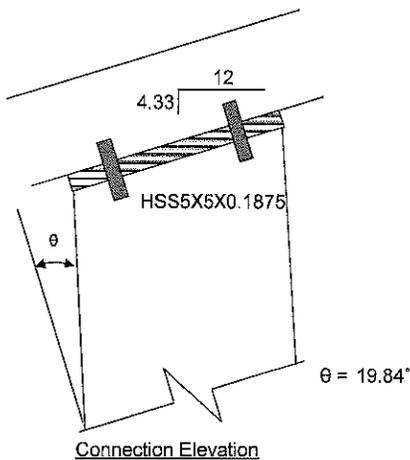
Bolt Check: (2) 0.75" Diameter, A325 Bolts

			Allowable	Actual	Load Combination / Member	
1	Shear	AISC (J3-1)	R_N/Ω 11.9 kip	1.0 kip	21 / Column1	OK
2	Tension	AISC (J3-1)	R_N/Ω 19.9 kip	0.5 kip	36 / Column4	OK
3	Bearing	AISC (J3-6b)	R_N/Ω 17.8 kip	1.0 kip	21 / Column1	OK

End Plate Check: 0.375" Thick

			Allowable	Actual	Load Combination / Member	
4	Shear Yielding	AISC (J4-3)	R_N/Ω 28.7 kip	1.0 kip	21 / Column1	OK
5	Shear Rupture	AISC (J4-4)	R_N/Ω 24.1 kip	1.0 kip	21 / Column1	OK
6	Weld Check	$w = 0.1875"$ AISC (J2-3)	R_N/Ω 2.8 kip/in	0.1 kip/in	26 / Column3	OK
7	Plate Thickness (t_p)		$\sqrt{\frac{4M_{pl}}{22W_p}}$ 0.09 in	0.38 in	36 / Column1	OK

Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	21	Column1	2.6	0.2	0.0	0.0	0.0	0.0
2	36	Column4	-1.1	0.0	0.1	-0.3	0.0	0.0
3	21	Column1	2.6	0.2	0.0	0.0	0.0	0.0
4	21	Column1	2.6	0.2	0.0	0.0	0.0	0.0
5	21	Column1	2.6	0.2	0.0	0.0	0.0	0.0
6	26	Column3	-1.1	-0.1	0.1	-0.5	0.0	0.0
7	36	Column1	-1.1	0.0	-0.1	0.3	0.0	0.0



Member Height (in): 5

Member Width (in): 5

Member Thickness (in): 0.188

End Plate Weld Size (in): 0.188

Number of Bolts: 2

Bolt Diameter (in): 0.750

End Plate Thickness (in): 0.375

Flange Plate Thickness (in): 0.375

TRUSS TO COMPRESSION MEMBER

2 BOLTS

Bolt Check: (2) 0.75" Diameter, A325 Bolts

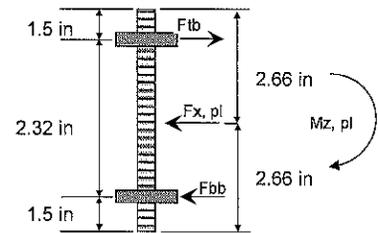
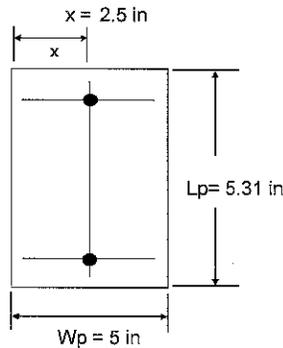
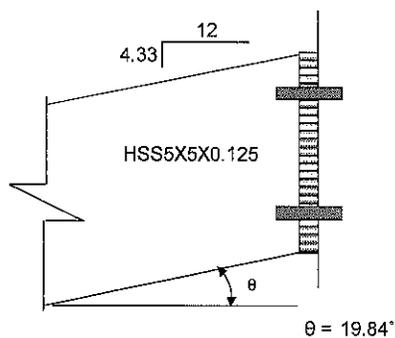
		Allowable	Actual	Load Combination / Member	
1	Shear	AISC (J3-1)	R_N/Ω 11.9 kip	0.2 kip	18 / Truss6 OK
2	Tension	AISC (J3-1)	R_N/Ω 19.9 kip	0.6 kip	36 / Truss4 OK
3	Bearing	AISC (J3-6b)	R_N/Ω 17.8 kip	0.2 kip	18 / Truss6 OK

End Plate Check: 0.375" Thick

		Allowable	Actual	Load Combination / Member	
4	Shear Yielding	AISC (J4-3)	R_N/Ω 28.7 kip	0.2 kip	18 / Truss4 OK
5	Shear Rupture	AISC (J4-4)	R_N/Ω 24.1 kip	0.2 kip	18 / Truss4 OK
6	Weld Check	$w = 0.125"$ AISC (J2-3)	R_N/Ω 1.9 kip/in	0.1 kip/in	21 / Truss3 OK
7	Plate Thickness (t_p)	$\sqrt{\frac{4M_{pl}}{22W_p}}$	0.11 in	0.38 in	36 / Truss4 OK

Design Forces / Moments

Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	18	Truss6	0.4	-0.2	0.0	0.2	-0.4	1.0
2	36	Truss4	-0.3	0.1	0.0	-0.1	0.1	-1.4
3	18	Truss6	0.4	-0.2	0.0	0.2	-0.4	1.0
4	18	Truss4	0.4	0.1	0.0	0.0	0.0	2.2
5	18	Truss4	0.4	0.1	0.0	0.0	0.0	2.2
6	21	Truss3	0.6	-0.1	0.0	-0.2	0.2	2.4
7	36	Truss4	-0.3	0.1	0.0	-0.1	0.1	-1.4



Member Height (in): 5
 Member Width (in): 5
 Member Thickness (in): 0.125
 End Plate Weld Size (in): 0.125

Number of Bolts: 2
 Bolt Diameter (in): 0.750
 End Plate Thickness (in): 0.375
 Flange Plate Thickness (in): NONE

EAVE BEAM TO FLYOVER TRUSS

2 BOLTS

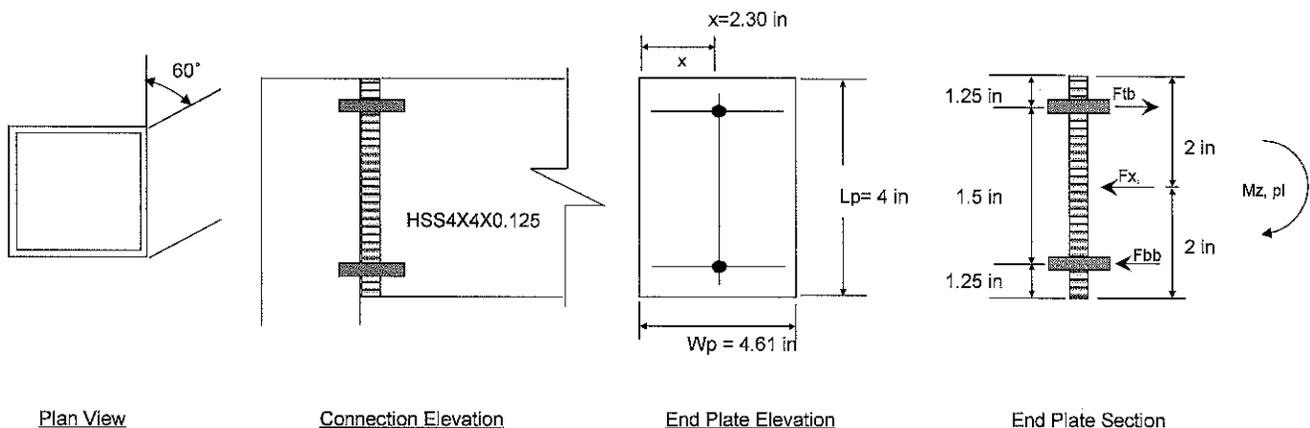
Bolt Check: (2) 0.625" Diameter, A325 Bolts

			Allowable	Actual	Load Combination / Member	
1	Shear	AISC (J3-1)	R_N/Ω 8.3 kip	0.2 kip	31 / Eave1	OK
2	Tension	AISC (J3-1)	R_N/Ω 13.8 kip	0.1 kip	31 / Eave3	OK
3	Bearing	AISC (J3-6b)	R_N/Ω 13.3 kip	0.2 kip	31 / Eave1	OK

End Plate Check: 0.375" Thick

			Allowable	Actual	Load Combination / Member	
4	Shear Yielding	AISC (J4-3)	R_N/Ω 21.6 kip	0.4 kip	31 / Eave1	OK
5	Shear Rupture	AISC (J4-4)	R_N/Ω 17.1 kip	0.4 kip	31 / Eave1	OK
6	Weld Check	$w = 0.125"$ AISC (J2-3)	R_N/Ω 1.9 kip/in	0.0 kip/in	31 / Eave1	OK
7	Plate Thickness (t_p)		$\frac{4M_{PL}}{\sqrt{22}W_p}$ 0.03 in	0.38 in	31 / Eave3	OK

Design Forces / Moments								
Check	Load Combination	Member	Fx (Axial) [k]	Fy [k]	Fz [k]	Mx [k-in]	My [k-in]	Mz [k-in]
1	31	Eave1	-0.2	-0.4	0.1	0.0	0.0	0.0
2	31	Eave3	-0.2	-0.3	0.1	0.0	0.0	0.0
3	31	Eave1	-0.2	-0.4	0.1	0.0	0.0	0.0
4	31	Eave1	-0.2	-0.4	0.1	0.0	0.0	0.0
5	31	Eave1	-0.2	-0.4	0.1	0.0	0.0	0.0
6	31	Eave1	-0.2	-0.4	0.1	0.0	0.0	0.0
7	31	Eave3	-0.2	-0.3	0.1	0.0	0.0	0.0



Plan View

Connection Elevation

End Plate Elevation

End Plate Section

Member Height (in): 4
 Member Width (in): 4
 Member Thickness (in): 0.125
 End Plate Weld Size (in): 0.125

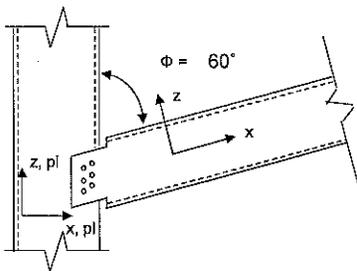
Number of Bolts: 2
 Bolt Diameter (in): 0.625
 End Plate Thickness (in): 0.375
 Flange Plate Thickness (in): 0.375

PURLIN CONNECTION LASER CUT

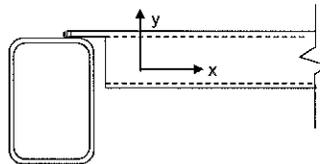
Purlin Tab Checks			Allowable	Actual	Load Combination / Member	
1	Tensile Yielding	AISC (J4-1)	R_n/Ω 13.1 kip	-1.5 kip	31 / Purlin5	OK
2	Tensile Rupture	AISC (J4-2)	R_n/Ω 9.5 kip	-1.5 kip	31 / Purlin5	OK
3	Shear Yielding	AISC (J4-3)	R_n/Ω 8.7 kip	0.9 kip	31 / Purlin5	OK
4	Shear Rupture	AISC (J4-4)	R_n/Ω 5.7 kip	0.9 kip	31 / Purlin5	OK
5	Block Shear F_x , pl	AISC (J4-5)	R_n/Ω 8.2 kip	1.4 kip	31 / Purlin8	OK
6	Block Shear F_z , pl	AISC (J4-5)	R_n/Ω 5.4 kip	0.9 kip	31 / Purlin5	OK
7	Bending in Tab	AISC (F11-1)	R_n/Ω 27.5 ksi	12.7 ksi	31 / Purlin1	OK

Required Number of Screws			Allowable	Actual	Load Combination / Member	
8	No. of Screws		2.0	6.0	31 / Purlin5	OK

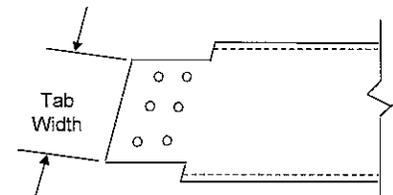
Design Forces / Moments								
Check	Load Combination	Member	F_x (Axial) [k]	F_y [k]	F_z [k]	M_x [k-in]	M_y [k-in]	M_z [k-in]
1	31	Purlin5	-1.7	0.4	-0.1	0.0	0.0	0.0
2	31	Purlin5	-1.7	0.4	-0.1	0.0	0.0	0.0
3	31	Purlin5	-1.7	-0.4	0.1	0.0	0.0	0.0
4	31	Purlin5	-1.7	-0.4	0.1	0.0	0.0	0.0
5	31	Purlin8	1.6	-0.3	0.0	0.0	0.0	0.0
6	31	Purlin5	-1.7	-0.4	0.1	0.0	0.0	0.0
7	31	Purlin1	-1.6	-0.5	0.1	0.0	0.0	0.0
8	31	Purlin5	-1.7	0.4	-0.1	0.0	0.0	0.0



Connection Plan View



Connection Elevation



End Plate Plan View

* Purlin on opposite side of truss not shown for clarity
* Screw quantity in sketches above may not reflect actual requirements

Member Height (in): 4
Member Width (in): 4
Member Thickness (in): 0.125

Screw Size: 14-14 # 030026
No. of Screws: 6
Tab Design Width (in): 4.08
Tab Design Thickness (in): 0.116

RISA ANALYSIS REPORT

Basic Load Cases

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area (Me...)	Surface
1 FRAMEWEIGHT	DL							
2 DL	DL						6	
3 DL	LI						6	
4 SL	SL						6	
5 SLU	SL						3	
6 X WINDWARD LOW	WL						6	
7 X LEeward LOW	WL						6	
8 X SIDEward LOW	WL						6	
9 X LEeward UPPER	WL						6	
10 X SIDEward UPPER	WL						6	
11 X LEeward UPPER	WL						2	
12 X DOWNWIND	WL						3	
13 Z WINDWARD LOW	WL						3	
14 Z LEeward LOW	WL						3	
15 Z SIDEward LOW	WL						12	
16 Z LEeward UPPER	WL						3	
17 Z SIDEward UPPER	WL						3	
18 Z LEeward UPPER	WL						3	
19 Z DOWNWIND	WL						3	
20 EX FRAME	EL						6	
21 EZ ROOF	EL						6	
22 EZ ROOF	EL						6	
23 BLC 2: Transient Area Loads	None						278	
24 BLC 3: Transient Area Loads	None						278	
25 BLC 6: Transient Area Loads	None						278	
26 BLC 7: Transient Area Loads	None						278	
27 BLC 8: Transient Area Loads	None						92	
28 BLC 9: Transient Area Loads	None						168	
29 BLC 10: Transient Area Loads	None						92	
30 BLC 11: Transient Area Loads	None						94	
31 BLC 12: Transient Area Loads	None						94	
32 BLC 13: Transient Area Loads	None						552	
33 BLC 14: Transient Area Loads	None						139	
34 BLC 15: Transient Area Loads	None						278	
35 BLC 16: Transient Area Loads	None						278	
36 BLC 17: Transient Area Loads	None						278	

Load Combinations

Description	So. P.	S.	BLC Fact.						
1 SERVICE D	1	1	1	2					
2 SERVICE LT	3	20							
3 SERVICE S	4								
4 SERVICE Su	5								
5 SERVICE Wx (Load Case A)	6	30.0	7	2.813	8	21.8	9	10	11
6 SERVICE Wz (Load Case B)	6	27.7	7	21.8	8	21.8	9	10	11
7 SERVICE Wz (Load Case A)	13	30.0	14	2.813	15	21.8	16	17	18
8 SERVICE Wz (Load Case B)	13	27.7	14	21.8	15	21.8	16	17	18
9 SERVICE EX	20	167	21	333					
10 SERVICE EZ	22	167	23	333					
11									
12									
13									
14 D	Yes	Y	L1	1	L2	1			
15 D+Lr	Yes	Y	L1	1	L2	1			

Load Combinations (Continued)

Description	So. P.	S.	BLC Fact.						
16 D+S	Yes	Y	L1	1	L3	1			
17 D+Su	Yes	Y	L1	1	L4	1			
18 D+0.6Wx (Load Case A)	Yes	Y	L1	1	L5	1			
19 D+0.6Wz (Load Case B)	Yes	Y	L1	1	L6	1			
20 D+(0.6Wx (Minimum))	Yes	Y	L1	1	L7	1			
21 D+(0.6Wz (Minimum))	Yes	Y	L1	1	L8	1			
22 D+(0.75(0.6Wx (Load Case A)+0.75Lr)	Yes	Y	L1	1	L5	7.5	L2	7.5	
23 D+(0.75(0.6Wz (Load Case B)+0.75Lr)	Yes	Y	L1	1	L6	7.5	L3	7.5	
24 D+(0.75(0.6Wx (Minimum)+0.75S)	Yes	Y	L1	1	L5	7.5	L3	7.5	
25 D+(0.75(0.6Wz (Minimum)+0.75S)	Yes	Y	L1	1	L6	7.5	L3	7.5	
26 0.6D+0.6Wx (Load Case A)	Yes	Y	L1	1	L7	1			
27 0.6D+0.6Wz (Load Case B)	Yes	Y	L1	1	L8	1			
28 D+0.6Wz (Load Case B)	Yes	Y	L1	1	L6	1			
29 D+0.6Wz (Load Case B)	Yes	Y	L1	1	L6	1			
30 D+(0.6Wz (Minimum))	Yes	Y	L1	1	L7	1			
31 D+0.75(0.6Wz (Load Case A)+0.75Lr)	Yes	Y	L1	1	L7	7.5	L2	7.5	
32 D+0.75(0.6Wz (Load Case B)+0.75Lr)	Yes	Y	L1	1	L8	7.5	L2	7.5	
33 D+0.75(0.6Wz (Minimum)+0.75S)	Yes	Y	L1	1	L7	7.5	L3	7.5	
34 D+0.75(0.6Wz (Minimum)+0.75S)	Yes	Y	L1	1	L8	7.5	L3	7.5	
35 0.6D+0.6Wz (Load Case A)	Yes	Y	L1	1	L7	1			
36 0.6D+0.6Wz (Load Case B)	Yes	Y	L1	1	L8	1			
37 0.6D+0.6Wz (Minimum)	Yes	Y	L1	1	L7	1			
38 (1.0+0.14*Sds)D+0.75Ez	Yes	Y	L1	1	L9	7			
39 (1.0+0.105*Sds)D+0.595Sx+0.76S	Yes	Y	L1	1	L9	5.25	L3	7.5	
40 (0.6-0.14*Sds)D+0.7Ez	Yes	Y	L1	1	L9	7			
41 (1.0-0.14*Sds)D+0.7Ez	Yes	Y	L1	1	L10	7			
42 (1.0+0.105*Sds)D+0.595Ez+0.76S	Yes	Y	L1	1	L9	5.25	L3	7.5	
43 (0.6-0.14*Sds)D+0.7Ez	Yes	Y	L1	1	L10	7			
44									
45									
46									
47									
48									
49									
50									
51									
52									
53									
54 1.4D			L1	1	L4				
55 1.2D+0.5Lr			L1	1	L2	1	5		
56 1.2D+0.5S			L1	1	L3	5			
57 1.2D+0.5Su			L1	1	L4	5			
58 1.2D+1.6Lr+0.5Wx (Load Case A)			L1	1	L2	1	6	L5	8.33
59 1.2D+1.6Lr+0.5Wz (Load Case A)			L1	1	L2	1	6	L5	8.33
60 1.2D+1.6S+0.5Wx (Load Case A)			L1	1	L3	1	6	L5	8.33
61 1.2D+1.6S+0.5Wz (Load Case A)			L1	1	L3	1	6	L5	8.33
62 1.2D+1.0Wx (Load Case A)+0.5Lr			L1	1	L5	1	6	L7	5
63 1.2D+1.0Wz (Load Case B)+0.5Lr			L1	1	L6	1	6	L7	5
64 1.2D+1.0Wx (Minimum)+0.5Lr			L1	1	L2	1	6	L7	5
65 1.2D+1.0Wz (Load Case A)+0.5S			L1	1	L5	1	6	L7	5
66 1.2D+1.0Wz (Load Case B)+0.5S			L1	1	L6	1	6	L7	5
67 1.2D+1.0Wx (Minimum)+0.5S			L1	1	L2	1	6	L3	5
68 0.9D+1.0Wx (Load Case A)			L1	1	L5	1	6	L7	5
69 0.9D+1.0Wz (Load Case B)			L1	1	L6	1	6	L7	5
70 0.9D+1.0Wx (Minimum)			L1	1	L2	1	6	L7	5
71 1.2D+1.6Lr+0.5Wz (Load Case A)			L1	1	L2	1	6	L7	8.33
72 1.2D+1.6Lr+0.5Wz (Minimum)			L1	1	L2	1	6	L7	8.33

Envelope AISC 14th(360-10): ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc1/LC	Shear	Loc1/D1/L	Ch/Conc	Purlin	Mn/Wo	Mnzz/Co	Cb	Eqn				
9	Truss2	HSS5x5x2	254	2.537	21	0.89	2.537	21	49.247	161.425	92.118	2	H1-b		
10	Truss3	HSS5x5x2	243	2.537	31	0.88	2.537	31	49.247	161.425	92.118	2	H1-b		
11	Truss4	HSS5x5x2	234	2.537	41	0.83	2.537	41	49.246	161.425	92.118	2	H1-b		
12	Truss5	HSS5x5x2	200	2.537	21	0.89	2.537	21	49.247	161.425	92.118	2	H1-b		
13	Compress	C7x8.8	049	0	28	0.16	3.71	19	61.14	161.868	21.309	154.994	1	H1-b	
14	Compress	C7x8.8	028	0	28	0.11	3.71	19	61.14	161.868	21.309	154.994	1	H1-b	
15	Compress	C7x8.8	050	0	38	0.19	3.87	23	61.14	161.868	21.309	154.994	1	H1-b	
16	Compress	C7x8.8	027	0	21	0.11	0	0	18.61	141.161	868.21	309.154	994.1	H1-b	
17	Compress	C7x8.8	050	75	88	0.19	3.64	28	61.14	161.868	21.309	154.994	1	H1-b	
18	Eave1	HSS4x4x2	271	6.061	31	0.26	0	0	27.819	48.754	65.792	65.792	1	H1-b	
19	Eave2	HSS4x4x2	266	6.061	21	0.26	0	0	27.819	48.754	65.792	65.792	1	H1-b	
20	Eave3	HSS4x4x2	266	6.061	21	0.26	0	0	27.819	48.754	65.792	65.792	1	H1-b	
21	Eave4	HSS4x4x2	237	6.061	31	0.22	0	0	27.818	48.754	65.792	65.792	1	H1-b	
22	Eave5	HSS4x4x2	233	6.061	31	0.22	0	0	27.819	48.754	65.792	65.792	1	H1-b	
23	Eave6	HSS4x4x2	232	6.061	31	0.22	0	0	27.819	48.754	65.792	65.792	1	H1-b	
24	Eave7	HSS4x4x2	256	4.187	21	0.36	8.25	31	37.397	48.754	65.792	65.792	1	H1-b	
25	Purlin1	HSS4x4x2	256	4.187	21	0.36	8.25	31	37.397	48.754	65.792	65.792	1	H1-b	
26	Purlin2	HSS4x4x2	256	4.187	21	0.36	8.25	31	37.397	48.754	65.792	65.792	1	H1-b	
27	Purlin3	HSS4x4x2	224	4.187	21	0.31	8.25	31	37.397	48.754	65.792	65.792	1	H1-b	
28	Purlin4	HSS4x4x2	224	4.187	21	0.31	8.25	31	37.397	48.754	65.792	65.792	1	H1-b	
29	Purlin5	HSS4x4x2	224	4.187	21	0.31	8.25	31	37.397	48.754	65.792	65.792	1	H1-b	
30	Purlin6	HSS4x4x2	074	2.273	31	0.15	0	0	31.45	0.55	48.754	65.792	65.792	1	H1-b
31	Purlin7	HSS4x4x2	083	2.273	31	0.18	0	0	21.45	0.55	48.754	65.792	65.792	1	H1-b
32	Purlin8	HSS4x4x2	082	2.273	21	0.18	0	0	21.45	0.55	48.754	65.792	65.792	1	H1-b
33	Purlin9	HSS4x4x2	082	2.273	21	0.18	0	0	21.45	0.55	48.754	65.792	65.792	1	H1-b
34	Purlin10	HSS4x4x2	082	2.273	21	0.18	0	0	21.45	0.55	48.754	65.792	65.792	1	H1-b
35	Purlin11	HSS4x4x2	073	2.273	31	0.15	0	0	31.45	0.55	48.754	65.792	65.792	1	H1-b
36	Purlin12	HSS4x4x2	074	2.273	31	0.15	0	0	31.45	0.55	48.754	65.792	65.792	1	H1-b

Material Takeoff

Material	Size	Pieces	Length(ft)	Weight(k)
1	Hot Rolled Steel			
2	A36 Gr.36	6	4.5	0
3	A500 Gr.46	18	148.5	9
4	A500 Gr.46	6	71.8	5
5	A500 Gr.46	6	54	6
6	Total HR-Steel	36	278.8	21

PANEL DATA



TECHNICAL BULLETIN

Issue Date : June 1, 2006

No. 07-232-06

Multi-Rib



SECTION PROPERTIES						TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
GAUGE	FY (KSI)	WEIGHT (PSF)	V _a kip/ft.	P _{a_end} lbs/ft.	P _{a_int} lbs/ft.	I _x (in. ⁴ /ft.)	S _e (in. ³ /ft.)	M _a kip-in./ft.	I _x (in. ⁴ /ft.)	S _e (in. ³ /ft.)	M _a kip-in./ft.
24	50.0	1.14	0.9053	223.34	377.49	0.0523	0.0576	1.7233	0.0327	0.0543	1.6267

- Section properties are calculated in accordance with the 2001 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
- V_a is the allowable shear.
- P_a is the allowable load for web crippling on end & interior supports.
- I_x is for deflection determination.
- S_e is for bending.
- M_a is the allowable bending moment.
- All values are for one foot of panel width.

Allowable Uniform Loads (PSF)

Span Type	Load Type	Span in Feet															
		1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00
Single	Positive Wind	510	287	183	127	93	71	56	45	37	31	27	23	20	17	15	14
	Negative Wind	481	271	173	120	88	67	53	43	35	30	25	22	19	16	15	13
	Live	510	287	183	127	93	71	56	45	37	31	27	23	20	17	15	14
	Deflection (L/180)	1354	571	292	169	106	71	50	36	27	21	16	13	10	8	7	6
	Deflection (L/240)	1015	428	219	126	79	53	37	27	20	15	12	9	8	6	5	4
2 Span	Positive Wind	431	253	166	116	86	66	52	42	35	29	25	22	19	16	14	13
	Negative Wind	451	266	175	123	91	70	55	45	37	31	26	23	20	17	15	14
	Live	431	253	166	116	86	66	52	42	35	29	25	22	19	16	14	13
	Deflection (L/180)	2651	1118	572	331	208	139	98	71	53	41	32	26	21	17	14	12
	Deflection (L/240)	1988	838	429	248	156	104	73	53	40	31	24	19	15	13	10	9
3 Span	Positive Wind	516	309	204	144	107	82	65	53	44	37	31	27	23	21	18	16
	Negative Wind	538	324	214	152	113	87	69	56	46	39	33	29	25	22	19	17
	Live	516	309	204	144	107	82	65	53	44	37	31	27	23	21	18	16
	Deflection (L/180)	2077	876	448	259	163	109	76	56	42	32	25	20	16	13	11	9
	Deflection (L/240)	1557	657	336	194	122	82	57	42	31	24	19	15	12	10	8	7
4 Span	Positive Wind	489	291	191	135	100	77	61	49	41	34	29	25	22	19	17	15
	Negative Wind	510	305	201	142	105	81	64	52	43	36	31	27	23	20	18	16
	Live	489	291	191	135	100	77	61	49	41	34	29	25	22	19	17	15
	Deflection (L/180)	2204	930	476	275	173	116	81	59	44	34	27	21	17	14	12	10
	Deflection (L/240)	1653	697	357	206	130	87	61	44	33	25	20	16	13	10	9	7

Notes:

- Allowable uniform loads are based upon equal span lengths.
- Positive Wind is wind pressure and is **NOT** increased by 33 1/3 %.
- Negative Wind is wind suction or uplift and is **NOT** increased by 33 1/3%.
- Live is the allowable live or snow load.
- Deflection (L/180) is the allowable load that limits the panel's deflection to L/180 while under positive or live load.
- Deflection (L/240) is the allowable load that limits the panel's deflection to L/240 while under positive or live load.
- The weight of the panel has **NOT** been deducted from the allowable loads.
- Positive Wind, Negative Wind, and Live Load values are limited to combined shear & bending using Eq. C3.3.1-1 of the AISI Specification.
- Positive Wind and Live Load values are limited by web crippling using a bearing length of 2".
- Web crippling values are determined using a ratio of the uniform load actually supported by the top flanges of the section.



OR APPROVED EQUAL

TECHNICAL BULLETIN

Issue Date : September 9, 2004

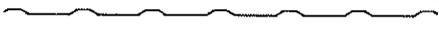
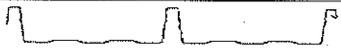
Revised: December 11, 2013

No. 04-188-04

Florida State Approval

Structural Metal Roofing
(Applied over open framing)

The following roofing products have been approved by the Florida Building Commission for being in compliance with the 2010 Florida State Building Code.

Panel Name	Panel widths	Minimum Gauge	Florida Approval Number	Panel Profile
MasterLok 90	24"	24	1747.1	
Max-Rib	36"	29	1747.2	
Maxima	12", 16", 18"	24	1747.3	
Maxima ADV	12", 16", 18"	24	1747.4	
MedallionLok	16", 18"	24	1747.5	
Mega-Rib	36"	26	1747.6	
Mirage	16"	24	1747.7	
Multi-Rib	36"	26	1747.8	
R-Panel	36"	26	1747.9	
MasterLok FS	24"	24	8051.1	
Maxima 1.5	16", 18"	24	8051.2	
U-Panel	36"	26	8885.1	
Mirage II	16"	24	13647.1	
ABC 238T	16", 18"	24	16606.1	

For additional information and verification please visit www.floridabuilding.org.

CITY OF LAKE WORTH, FLORIDA

TECHNICAL SPECIFICATIONS AND DRAWINGS



IFB 16-120

**PROJECT NAME: OSBORNE PAVILION IMPROVEMENTS
PROJECT**

PROJECT NAME: OSBORNE PAVILION IMPROVEMENTS PROJECT

TECHNICAL SPECIFICATIONS

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SECTION 01010

SUMMARY OF WORK

PART 1 -GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. The work covered by these specifications comprises, in general, the furnishing of all labor, equipment, materials, and performing all operations to construct the project for the City of Lake Worth as described and specified further in the Technical Specifications and as shown on the Contract Drawings.
- B. Except as specifically noted, the Contractor shall provide and pay for:
 - 1 Labor, materials, tools, construction equipment, and machinery.
 - 2 Water and utilities required for construction.
 - 3 Other facilities and services necessary for proper execution and completion of the work.
- C. The Contractor shall comply with all codes, ordinances, rules, regulations, orders and other legal requirements of the City of Lake Worth.

1.02 DESIGN STANDARDS

- A. All work shall be governed by and shall conform to the City of Lake Worth Public Services Standard Details (latest edition), and the Florida Building Code (latest edition).

1.03 SILTATION AND BANK EROSION

- A. The Contractor shall take adequate precautions to minimize siltation and bank erosion in the vicinity of canals or ditches, in discharging well point systems or during other construction activities.

1.04 STORAGE OF MATERIALS

- A. Suitable storage facilities shall be furnished by the Contractor. All materials, supplies and equipment intended for use in the work shall be suitably stored by the Contractor to prevent damage from exposure, admixture with foreign substances, or vandalism or other cause. The Engineer will refuse to accept, or sample for testing, materials, supplies or equipment that have been improperly stored, as determined by the Engineer.
- B. Materials found unfit for use shall not be incorporated in the work and shall immediately be removed from the construction or storage site. Delivered materials shall be stored in manner acceptable to the Engineer before any payment for same will be made. Materials strung out along the line of construction will not be allowed unless the materials will be installed within one week from the time of unloading and stringing out.

1.05 PRESERVATION OF PROPERTY

- A. The Contractor shall preserve from damage all property along the line of the work, or which is in the vicinity of or is in any way affected by the work, the removal or destruction of which is not called for by the plans. Wherever such property is damaged due to the activities of the Contractor, it shall be immediately restored to its original condition by the Contractor at no cost to the Owner.
- B. In case of failure on the part of the Contractor to restore such property, or make good such damage for injury, the Owner may, after 48 hours notice to the Contractor, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary and the cost thereof will be deducted from any monies due or which may become due the Contractor under this contract.

1.06 CLEAN UP

- A. The Contractor shall keep the construction site free of rubbish and other materials and restore to their original conditions those portions of the site not designated for the alteration by the Contract Documents. Clean up and restoration shall be accomplished on a continuing basis throughout the contract period and in such a manner as to maintain a minimum of nuisance and interference to the general public and residents in the vicinity of the work.
- B. The Contractor shall also remove, when no longer needed, all temporary structures and equipment used in his operation. It is the intent of this specification that the construction areas and those other areas not designated for alteration by the Contract Documents shall be immediately restored to original condition as upon completion of the project.

1.07 PUBLIC SAFETY AND CONVENIENCE

- A. The Contractor shall at all times so conduct his work as to ensure the least possible obstruction to traffic, or inconvenience to the general public and residents in the vicinity of the work. No road or street shall be closed to the public, except with the permission of the Engineer and other jurisdictional governmental authority, if any. Fire hydrants on or adjacent to the work shall be kept accessible. Provisions shall be made by the Contractor to ensure public access to sidewalks, public telephones, and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches. No open excavation shall be left overnight except during road closing. All open excavation within the roadway shall be backfilled and a temporary asphalt patch applied prior to darkness each day. A cold asphalt patch is acceptable.

1.08 SAFETY AND OSHA COMPLIANCE

- A. The Contractor shall comply in all respects with all Federal, State and Local safety and health regulations. Copies of the Federal regulations may be obtained from the U.S. Department of Labor, Occupation Safety and Health Administration (OSHA), Washington, DC 20210 or their regional offices.
- B. The Contractor shall comply in all respects with the applicable Workman's Compensation Law.

1.09 CONTRACTOR'S USE OF PREMISES

- A. Coordinate use of premises under direction of Engineer.
- B. Assume full responsibility for the protection and safekeeping of equipment and materials stored on the site.
- C. Move any stored Products, under Contractor's control, which interfere with operations of the Owner or separate Contractor.

PART 2 -PRODUCTS – NOT USED.

PART 3 -EXECUTION – NOT USED.

END OF SECTION

SECTION 01019

GENERAL REQUIREMENTS

PART 1 -GENERAL

1.01 EXISTING UTILITIES AND STRUCTURES:

The existing utilities and facilities shown have been located from the Owner's and other records. Guaranties are not made that all existing facilities are shown or that those shown are entirely accurate. The Contractor will assure himself of any utilities, structures or facilities prior to performing any Work. Prior to the start of Work, the Contractor will request the Owner to advise him of the location of their facilities in the vicinity and will notify the Engineer of any deviation between existing conditions and the drawings. The Contractor will assume liability for damages sustained or costs incurred because of his operations in the vicinity of existing utilities or structures. The Contractor will be solely responsible for the protection and maintenance of existing utilities to provide uninterrupted service to commercial and residential customers.

Existing utilities and facilities shall be located prior to commencement of each task.

It shall be the Contractor's responsibility to contact utility companies and call SUNSHINE at (800) 432-4770 at least 72 hours before starting construction so maintenance personnel can locate and protect facilities, if required by the utility company.

1.02 PRESERVING WATER QUALITY:

The Contractor will exercise extreme care to minimize degradation of water quality at the site. All necessary provisions will be taken to insure compliance with the water quality standards of the State of Florida.

The Contractor will take steps to collect and dispose of all sewage that leaks and/or spills during the performance of this contract. Any leakage or spillage will be cleaned up to the satisfaction of the Department of Environmental Protection.

1.03 PROTECTION OF EXISTING AND ADJACENT PROPERTIES:

Unless indicated otherwise, all shrubbery, paved streets and walks, fences and walls, adjacent structures and equipment will be fully protected against damage during each stage of the project. Any damage by the Contractor will be fully restored to original condition.

1.04 RESTORATION OF DAMAGED SURFACES, STRUCTURES AND PROPERTY:

Where pavement, trees, shrubbery, fences or other property or surface structures not designated as pay items, have been damaged, removed or disturbed by the Contractor, whether deliberately or through failure to carry out the requirements of the Contract Documents, state laws, municipal ordinances or the specific direction of the Engineer, or through failure to employ usual and reasonable safeguards, such property and surface structures will be replaced or repaired at the expense of the Contractor to a condition equal to that before Work began within a time frame approved by the Engineer.

1.05 SUBSTITUTIONS:

For substitution of products in place of those specified, bidder must submit shop drawings and

technical data at least seven (7) calendar days prior to the Bid Opening date to substantiate "an approved equal" by the City, except specified items followed by the words "no substitution".

Submit five copies of request for substitution. Include in request:

1. Complete Data substantiating compliance of proposed substitution with Contract Documents.
2. For Products:
 - a. Product identification, including manufacturer's name and address.
 - b. Manufacturers' literature: 1) Product description. 2) Performance and test data. 3) Reference standards.
 - c. Samples.
 - d. Name and address of similar projects on which product was used, and date of installation.
3. For construction methods:
 - a. Detailed description of proposed method.
 - b. Drawings illustrating methods.
4. Itemized comparison of proposed substitution with product or method specified.
5. Data relating to changes in construction schedule.
6. Relation to separate contracts.
7. Accurate cost data on proposed substitution in comparison with product or method specified.

1.06 CONSTRUCTION WATER:

The Contractor will be responsible for making application for hydrant meters with backflow preventers. The City will install necessary connections and backflow preventers at locations needed by the Contractor and approved by the Engineer. Maintenance of such is the responsibility of the Contractor. All associated fees will be paid by Contractor.

Construction water will be paid for by the Contractor. In an event that damage to these facilities occurs, the Contractor will be responsible for all costs associated with their replacement at the City's standard rate.

1.07 SANITARY FACILITIES:

If necessary, the Contractor shall provide temporary restroom facilities for field crews. Location of such facilities will be subject to the approval of the City. Existing City/Residence facilities are not available for use by the Contractor.

1.08 WORKING HOURS:

All work on this contract shall be conducted during normal working hours according to City code on weekdays. No work shall be performed on weekends or City observed holidays. Inspection services needed beyond normal working hours will be paid for by the Contractor.

1.09 ASSEMBLIES OR UNITS:

Where the Contractor is required to furnish and install an assembly or unit, the Contractor shall furnish all component parts as required by the manufacturer of the unit.

1.10 ACCESS TO THE WORK SITE:

The Contractor may use only the roads and/or easements designated by the Owner for access to the work locations. The Contractor shall be responsible for maintaining, protecting and restoring the routes to the satisfaction of the Owner and Engineer.

1.11 SECURITY:

The Contractor shall be fully responsible for the safety and security of the construction area including any temporary measures required to maintain its protection. The Contractor will be responsible for any damages or theft incurred to his tools, equipment, machinery, and new work in-place that has not yet been fully accepted by the City.

1.12 TRENCH SAFETY ACT:

All work shall conform to the Florida Trench Safety Act. Contractor shall include in his price the cost of conforming to the Trench Safety Act.

1.13 PRECONSTRUCTION CONFERENCE/PROJECT PROGRESS MEETING:

- A. Before the Contractor starts the work, a conference will be held to establish procedures for handling Shop Drawings and other submittals, and to establish procedures for processing Applications for Payment, and to establish a working understanding among the parties as to the work.
- B. At each project progress meeting, the Contractor shall develop and submit for approval a progress schedule and phasing plan demonstrating complete fulfillment of all contract requirements including all activities of subcontractors, equipment vendors and suppliers. An updated schedule shall be submitted with each pay request.

1.14 TESTS:

Tests and analyses which are called for in the Specifications and/or Drawings (concrete, bacteriological, pressure and leakage, etc.) are to be performed by an Independent Testing Laboratory. Contractor shall include in his price the cost of performing required tests and analyses.

1.15 REMOVAL OF ALL TEMPORARY FACILITIES & RESTORATION OF SITE:

Upon completion of the work, it shall be the responsibility of the Contractor to remove all temporary facilities including, but not limited to, pumps, fences, signs, temporary power, materials or other debris. The site, adjacent properties, and Owner facilities shall be restored to their original condition.

~~1.16 VIDEOTAPING:~~

~~At least one (1) week prior to start of construction, the Contractor shall televise all areas where construction is to take place, including existing surface conditions within the project limits. Such video tapes shall be provided to the Engineer before construction commences. The CD shall serve as a record~~

~~of the existing conditions for disputes arising from restoration, and should therefore be taken along the line of construction at sufficient detail as necessary to clearly depict details of existing conditions.~~

~~The Contractor shall be responsible for providing the necessary equipment for the viewing of the video tapes at the Engineer's office for the duration of the project. All CDs shall be indexed and catalogued in such a manner that each photographed area is readily identifiable and shall also indicate the date and time (hour, minutes & seconds) on which the photograph was made. The Contractor shall also televise any unusual conditions encountered during construction that are not already a matter of photographic record. In any area where existing conditions cannot be determined by means of video tapes, the area shall be restored, as approved by the Engineer, at the Contractor's expense. All CDs shall become the property of the Owner.~~

~~The Contractor will be responsible for any repairs required as a result of construction in performance of this Contract. The Contractor will submit two (2) copies of the CD to the Engineer of Record prior to the start of construction.~~

1.17 SALVAGED MATERIAL:

Any existing equipment or material which is removed or replaced as a result of construction under this project may be designated as salvage by the City and, if so, shall be removed, cleaned, and delivered to the site in a protected place specified by the City. Any equipment or material not worthy of salvaging, as directed by the City, shall be disposed of by the Contractor at a suitable location. Upon request of the Engineer, Contractor shall submit evidence of proper disposal.

1.18 PROVISION FOR THE CONTROL OF DUST:

The Contractor shall comply with the City Ordinances regarding control of dust. The Contractor shall take the necessary steps to prevent objectionable blowing or drifting of dust, sand, and other debris where the construction occurs in residential, commercial, or other developed areas.

Extreme precautions shall be taken during construction to minimize the amount of dust created. Wetting the site or other means, as directed by the City, may be required for control of dirt.

1.19 NOISE CONTROL:

The Contractor shall comply with the City Ordinances regarding noise control. The Contractor shall make every effort to minimize noises caused by his operations. Equipment shall be equipped with hospital-grade silencers or mufflers designed to operate with the least possible noise.

1.20 OBSTRUCTION:

A. The attention of the Contractor is drawn to the fact that during excavation at the project site, the possibility exists of the Contractor encountering various utilities (water, chemical, electrical, gas, or other) not shown on the drawings. The Contractor shall exercise extreme care before and during excavation to locate and flag these lines so as to avoid damage to the existing lines. Should damage occur to an existing line, the Contractor shall repair the line at no cost to the City.

B. It is the responsibility of the Contractor to ensure that all utility or other poles, the stability of which may be endangered by the close proximity of excavation, are temporarily stayed in position while the work proceeds in the vicinity of the pole and that the utility or other companies concerned be given reasonable advance notice of any such excavation by the Contractor.

1.21 CLEAN-UP:

The Contractor shall maintain the site of the work in a neat condition. The Contractor shall remove all excess materials, excess excavated materials and all debris resulting from his operations within a time frame approved by the Engineer.

1.22 VISITS TO SITE BY OWNER'S REPRESENTATIVE:

The Owner's representative will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the Contract Documents.

The Owner's representative's efforts will be directed toward providing for the Owner a greater degree of confidence that the completed work will conform to the drawings and these specifications. On the basis of such visits and on-site observations, the Owner's representative will keep the Owner informed of the progress of the work and will endeavor to guard the Owner against defects and deficiencies in the work.

1.23 LIMITATIONS ON OWNER'S REPRESENTATIVE RESPONSIBILITIES:

- A. Neither the Owner's representative's authority to act under these specifications and drawings or elsewhere in other documents nor any decision made by the Owner's representative in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the Owner's representative to the Contractor, any sub-Contractor, any manufacturer, fabricator, supplier or distributor, or any of their agents or employees or any other person performing any of the work.
- B. The Owner's representative shall not be responsible to the Contractor's means, methods, techniques, sequences or procedures of construction, or safety precautions and programs incident thereto, and the Owner's representative shall not be responsible for the Contractor's failure to perform the work in accordance with the drawings and these specifications.
- C. The Owner's representative shall not be responsible for the acts or omissions of the Contractor or of any sub-Contractors, or of any other persons at the site or otherwise performing any of the work.

1.24 WARRANTY:

The Contractor shall be responsible for defects in materials (including latent defects) or workmanship for a period of one (1) year after the date of final acceptance of the project by the Owner. Such defects include, but are not limited to, any settlement noted in backfill, fill, or in structures built over the backfill or fill during the warranty period in accordance with the GENERAL CONDITIONS and will be considered to be caused by improper compaction methods and shall be corrected by the Contractor at no cost to the Owner. Structures damaged by settlement shall be restored to their original condition by the Contractor at no cost to the Owner.

The Contractor shall furnish factory warranties on all equipment furnished for the performance and completion of the project against defects in materials and/or workmanship. The factory warranty shall become effective on the date of delivery and acceptance by the Owner. In the event of any defects in materials or workmanship, the Contractor shall replace said equipment at no cost to the Owner.

PART 2 -PRODUCTS -Not Used.

PART 3 -EXECUTION -Not Used.

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

BASE BID – BASIS OF PAYMENT

PART 1 -GENERAL

1.01 BASIS FOR PAYMENTS

A. The various major items of Work will be paid for in the lump sum allowance or unit cost amounts listed in the Schedule of Bid Items. All bid items shall include all labor, equipment, materials and testing as specified to construct the item, completed, tested and accepted. Attached is a description of the Work listed in the Schedule of Bid Items (B3) and is not intended to be complete and all-inclusive of the required work items. The Work shall include all miscellaneous and ancillary items necessary to construct a complete and functional Project.

1.02 SCHEDULE OF VALUES

A. The descriptions below generally outline the scope of work required for those elements of the Work to be paid for under each lump sum or unit cost item listed in the Schedule of Bid Items. The Contractor shall submit a schedule of values.

1.03 BREAKDOWN OF BASE BID

- A. Where the Schedule of Bid Items show quantities, these quantities are primarily shown for bid evaluation purposes, and are believed to be reasonably accurate.
- B. In the event that the actual quantity of material installed exceeds the quantity shown, the CONTRACTOR will be paid the unit price shown for the quantity of the value shown on the bid breakdown.
- C. A credit will be similarly provided to the City by the CONTRACTOR for quantities less than those shown on the bid breakdown.

1.04 PAYMENTS

A. Shall be in accordance with the provisions of the GENERAL CONDITIONS.

1.05 DEFECT ASSESSMENT:

A. Replace the Work, or portions of the Work, not conforming to specified requirements.

1.06 NON-PAYMENT FOR REJECTED PRODUCTS:

- A. Payment will not be made for any of the following:
 - 1 Products wasted or disposed of in a manner that is not acceptable.
 - 2 Products determined as unacceptable before or after placement.
 - 3 Products not completely unloaded from the transporting vehicle.
 - 4 Products placed beyond the lines and levels of the required Work.
 - 5 Products remaining on hand after completion of the Work.
 - 6 Loading, hauling and disposing of rejected Products.
 - 7 Used Products and Materials

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION

BASE BID -BASIS OF PAYMENT

GENERAL CONDITIONS

3.01 SITE MOBILIZATION/GENERAL REQUIREMENTS (Bid Item 1)

- A. Payment for mobilization/general requirements will be made at the contract lump sum (LS) price bid for the item, which price shall be full compensation for all materials, labor, equipment, tools and all other incidentals necessary to complete this item. This item also includes all costs for mobilization, bonds, insurance, scheduling, temporary facilities, utilities, demobilization and all other costs required to complete the work, tested and accepted, which are not included in other bid items. Includes all required mobilizations for all items. The Contractor shall provide a full detailed breakdown of this item in his schedule of values.
- B. Payment item for mobilization/general requirements shall not exceed five percent (5%) of the contract price and shall be paid in increments in proportion to the total work completed.

3.02 EROSION CONTROL (Bid Item 2)

- A. National Pollutant Discharge Elimination System (NPDES). This bid item will be paid for on a lump sum (LS) basis and will include all labor, equipment, materials, and transportation by the contractor to comply with the NPDES program throughout the project including, but not limited to, installation of erosion control devices, filing all necessary notices, field installations, maintaining logs and reports and corrective actions. This bid item amount will be paid in increments and prorated evenly throughout the project.

SITWORK

3.03 REMOVE/HAULOFF TOP 2" OF TOP MATERIAL AT ASPHALT MILLINGS PARKING AREA (Bid Item 3)

- A. This item shall be paid on a square yard (SY) basis. The Contractor's price shall include full compensation for all labor, materials and equipment required for removal of all vegetation and fill within the limits of the project to a depth of 2" as indicated on the plans. The existing materials shall be completely removed and shall be properly disposed of off-site at no additional cost to the Owner. This bid item amount will be paid in increments in proportion to the total work completed.
- B. This work shall include, but not be limited to, clearing, grubbing, scalping, excavating, hedges, shrubs, removal and disposal of existing vegetation and debris within the limits of the right-of-way, except such objects that are to remain or are to be removed in accordance with other sections of the contract documents.

3.04 2" ASPHALT MILLINGS PARKING AREA (SPREAD AND COMPACTED) (Bid Item 4)

- A. Payment for the 2" thick asphalt millings parking area as indicated on the plans and details shall be made at the contract unit price per square yard (SY) of millings installed and accepted. The contract unit price shall include compensation for all labor, material, and equipment required to install the millings in accordance with the plans and specifications. The contract unit price shall also include subgrade compaction and all other miscellaneous work required to complete the work in accordance with the City of Lake Worth specifications.
- B. Payment shall be made for asphalt millings installed per the plans and specifications.

3.05 ADA PARKING STALL AND ACCESS AISLE W/ TRUNCATED DOME SURFACE (Bid Item 5)

- A. Payment for the 6" thick concrete ADA parking stall and access aisle as indicated on the plans and details shall be made at the contract unit price per lump sum (LS) installed and accepted. The contract unit price shall include compensation for all labor, material, and equipment required to install the concrete in accordance with the plans and specifications. The contract unit price shall also include subgrade compaction, forming, pouring, concrete placement, finishing, striping, signage, ADA truncated dome surface and all other miscellaneous work required to complete the work in accordance with the City of Lake Worth specifications.
- B. Payment shall be made for concrete constructed or replaced by authorization of the City PROJECT MANAGER. Any concrete that is broken incidental to construction shall be replaced at the Contractor's expense.

3.06 5' CONCRETE SIDEWALK (4") (Bid Item 6)

- A. Payment for the 4" thick concrete sidewalk as indicated on the plans and details shall be made at the contract unit price per square foot (SF) of concrete sidewalk installed and accepted. The contract unit price shall include compensation for all labor, material, and equipment required to install the concrete in accordance with the plans and specifications. The contract unit price shall also include subgrade compaction and all other miscellaneous work required to complete the work in accordance with the City of Lake Worth specifications.
- B. Payment shall be made for concrete constructed or replaced by authorization of the City PROJECT MANAGER. Any concrete that is broken incidental to construction shall be replaced at the Contractor's expense.

3.07 4" CONCRETE SLAB (26'X22') (Bid Item 7)

- A. Payment for the 4" thick concrete slab as indicated on the plans and details shall be made at the contract unit price per square foot (SF) of concrete installed and accepted. The contract unit price shall include compensation for all labor, material, and equipment required to install the concrete in accordance with the plans and specifications. The contract unit price shall also include subgrade compaction and all other miscellaneous work required to complete the work in accordance with the City of Lake Worth specifications.
- B. Payment shall be made for concrete constructed or replaced by authorization of the City PROJECT MANAGER. Any concrete that is broken incidental to construction shall be replaced at the Contractor's expense.
- C. The concrete slab shall be poured around the posts for the pavilion shelter and separated by use of expansion joint material approved by the City.

3.08 24' x 20' STEEL FRAME PAVILION W/ FOOTERS (Bid Item 8)

- A. Payment for this item shall be made on a lump sum (LS) basis for the steel frame pavilion with footings installed and accepted per the plans and specifications. The lump sum bid price for this item shall be full compensation for all labor, materials and equipment required for a complete steel frame pavilion constructed per the manufacturer's specifications and per all applicable building codes.
- B. Steel frame pavilion shall be manufactured by Porter Corporation, Poligon Park Architecture, or approved equal. The pavilion shall be a rectangle steel framed shelter and installed per manufacturer's specifications and recommendations, and in accordance with the latest edition of the Florida Building Code.

3.09 BENCHES WITH TABLES (Bid Item 9)

- A. Payment for this item shall be made on a unit price per each (EA) basis. The unit price bid for this item shall be full compensation for all labor, materials and equipment required for the furnishing and installation of the tables and benches per the plans and specifications. Tables shall be affixed to the concrete slab with ½" x 4" stainless steel concrete anchors.
- B. Benches shall be manufactured by Kay Park Recreation, or approved equal, model PSPT6TP (Portable Perforated Table).

3.10 BAHIA SODDING (Bid Item 10)

- A. Payment for this item shall be made on a unit price per square yard (SY) basis. The unit price bid for this item shall be full compensation for all labor, materials and equipment required for soil preparation and sod placement in accordance with the drawings and specifications. The unit price bid for this item shall include all watering, raking and cleanup of site area after application.

3.11 SPLIT RAIL WOOD FENCE (Bid Item 11)

- A. Payment for this item shall be made on a unit price per linear foot (LF) basis. The unit price bid for this item shall be full compensation for all labor, materials and equipment required for the installation and placement of split rail wood fence in accordance with the drawings and specifications. The unit price bid for this item shall include all materials, layout, labor and equipment for a complete installation. The fence is to match existing split rail fencing on-site.

3.12 SANDBLAST AND RE-COAT EXISTING PAVILION STRUCTURE (Bid Item 10)

- A. Payment for this item shall be made on a lump sum (LS) basis. The lump sum price bid for this item shall be full compensation for all labor, materials and equipment required for the removal of the existing surface rust and steel coating, preparation of the steel framing for new paint, and recoating the framing with Sherwin Williams Pro Industrial Urethane Alkyd Enamel coating, or approved equal.

ALLOWANCES

3.13 PERMIT FEES ALLOWANCE (Bid Item 13)

- A. The CONTRACTOR will be required to furnish documentation evidencing permit fee expenditures charged to the allowance account prior to the release of funds by the City. Furthermore, the CONTRACTOR shall obtain written pre-approval by the City's PROJECT MANAGER before the expenditure of these funds. No contractor markup will be allowed on the permit fees.
- B. The allowance accounts are not for use by the CONTRACTOR to cover shortfalls in the CONTRACTOR'S lump sum bid amount.
- C. All uncommitted allowance funds will be returned to the City, per the contract, at the substantial completion of the project via deductive change order.

3.14 UNFORESEEN CONDITIONS ALLOWANCE (Bid Item 14)

- A. The contractor may encounter unforeseen conditions on the project. This allowance account is used to fund these conditions with prior written approval by the City. Prior to the work being performed, the Contractor must receive written authorization from the City that it may proceed with the additional work. The contractor shall submit a proposal for the additional work and it must be approved by the City.
- B. The allowance accounts are not for use by the CONTRACTOR to cover shortfalls in the CONTRACTOR'S lump sum bid amount.
- C. All uncommitted allowance funds will be returned to the City, per the contract, at the substantial completion of the project via deductive change order.

SECTION 01041

PROJECT COORDINATION

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Engineer will coordinate the work between Prime Contractors as required.
- B. The Contractor shall:
 - 1 Coordinate work of his employees and subcontractors.
 - 2 Expedite his work to assure compliance with schedules.
 - 3 Coordinate his work with work by Owner.
 - 4 Comply with orders and instructions of Engineer.

1.02 RELATED REQUIREMENTS

- A. Section 01152: Application for Payment.
- B. Section 01200: Project Meetings.
- C. Section 01310: Construction Schedules.
- D. Section 01340: Shop Drawings, Product Data and Samples.
- E. Section 01501: Construction Facilities and Temporary Controls.
- F. Section 01700: Project Closeout.

1.03 CONSTRUCTION ORGANIZATION AND START-UP

- A. Engineer shall establish on-site lines of authority and communications:
 - 1. Schedule and conduct pre-construction meeting and progress meetings as specified in Section 01200.
 - 2. Establish procedures for:
 - a. Submittals
 - b. Reports and records
 - c. Recommendations
 - d. Coordination of drawings
 - e. Schedules
 - f. Resolution of conflicts
 - 3. Interpret Contract Documents:
 - a. Transmit written interpretations to Contractors and to other concerned parties.
 - 4. Assist in obtaining permits and approvals:
 - a. Verify that contractor[s] and subcontractors have obtained inspections for work and for temporary facilities.

5. Control the use of Site:
 - a. Allocate space for Contractor's use for field offices, sheds, and work and storage areas.
6. Inspection and Testing:
 - a. Inspect work to assure performance in accord with requirements of Contract Documents.
 - b. Administer special testing and inspections of suspect Work.
 - c. Reject Work which does not comply with requirements of Contract Documents.

1.04 CONTRACTOR'S DUTIES

A. Construction Schedules:

1. Prepare a detailed schedule of basic operations.
 2. Monitor schedules as work progresses:
 - a. Identify potential variances between scheduled and probable completion dates of each phase.
 - b. Recommend to Owner adjustments in schedule to meet required completion dates.
 - c. Document changes in schedule; submit to Owner, Engineer and to involved subcontractors.
 3. Observe work of each subcontractor to monitor compliance with schedule.
 - a. Verify that labor and equipment are adequate for the work and the schedule.
 - b. Verify that product procurement schedules are adequate.
 - c. Verify that product deliveries are adequate to maintain schedule.
 - d. Report noncompliance to Engineer, with recommendation for changes.
- ##### B. Process Shop Drawings, Product Data and Samples:
1. Prior to submittal to Engineer, review for compliance with Contract Documents:
 - a. Field dimensions and clearance dimensions.
 - b. Relation to available space.
 - c. Effect of any changes on the work of any subcontractor.
- ##### C. Prepare Coordination Drawings as required to resolve conflicts and to assure coordination of the work of the subcontractors or the work effected by the subcontractors, or the work effected by special equipment requirements.
1. Submit to Engineer.
 2. Reproduce and distribute copies to concerned parties after Engineer review.

- D. Maintain Reports and Records at Job Site, available to Engineer and Owner.
 - 1. Daily log of progress of work.
 - 2. Records
 - a. Contracts
 - b. Purchase orders
 - c. Materials and equipment records
 - d. Applicable handbooks, codes and standards
 - 3. Maintain file of record documents

1.05 CONTRACTOR'S CLOSE-OUT DUTIES

- A. At completion of Work, conduct an inspection to assure that:
 - 1 Specified cleaning has been accomplished.
 - 2 Temporary facilities have been removed from site.
- B. Substantial Completion:
 - 1 Conduct an inspection to develop a list of Work to be completed or corrected.
 - 2 Assist Engineer in inspection.
 - 3 Supervise correction and completion of work of subcontractors.

1.06 ENGINEER'S CLOSE-OUT DUTIES

- A. Final Completion:
 - 1. When Contractor determines that Work is finally complete, conduct an inspection to verify completion of Work.
- B. Administration of Contract closeout:
 - 1 Receive and review contractor's final submittals.
 - 2 Transmit to Owner with recommendations for action.

PART 2 -PRODUCTS -Not Used.

PART 3 -EXECUTION -Not Used.

END OF SECTION

SECTION 01045

CUTTING AND PATCHING

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor shall be responsible for all cutting, fitting and patching, including related excavation and backfill, required to complete the Work or to:
- 1 Make its several parts fit together properly.
 - 2 Uncover portions of the Work to provide for installation of ill-timed work.
 - 3 Remove and replace defective work.
 - 4 Remove and replace work not conforming to requirement of Contract Documents.
 - 5 Remove samples of installed work as specified for testing.
 - 6 Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01640: Products and Substitutions.
- C. Section 02225: Excavation, Backfill and Compaction.
- ~~D. Section 02610: Pipe and Fittings.~~
- ~~E. Section 03400: Precast Manholes, Inlets, Valves and Wetwells.~~

1.03 SUBMITTALS

- A. Submit a written request to Engineer well in advance of executing and cutting or alteration which affects:
- 1 Work of the Owner or any separate contractor.
 - 2 Structural value or integrity of any element of the project.
 - 3 Integrity or effectiveness of weather-exposed or moisture-resistant element or systems.
 - 4 Efficiency, operational life, maintenance or safety of operational elements.
 - 5 Visual qualities of sight-exposed elements.
- B. Request shall include:
1. Identification of the Project.
 2. Description of affected work.
 3. The necessity for cutting, alteration or excavation.
4. Effect on work of Owner or any separate contractor, or on structural or weatherproof integrity of Project.
5. Description of proposed work:
- a. Scope of cutting, patching, alteration, or excavation.
 - b. Trades who will execute the work.
 - c. Products proposed to be used.
 - d. Extent of refinishing to be done.
6. Alternative to cutting and patching.

7. Cost proposal, when applicable.
8. Written permission of any separate contractor whose work will be affected.

- C. Should conditions of Work or the schedule indicate a change of products from original installation, contractor shall submit request for substitution as specified in Section 01640
– Products and Substitutions.
- D. Submit written notice to Engineer designating the date and the time the Work will be uncovered.

PART 2 -PRODUCTS

2.01 MATERIALS

- A. Comply with specifications and standards for each specific product involved.

PART 3 -EXECUTION

3.01 INSPECTION

- A. Inspect existing conditions of Project, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering work, inspect conditions affecting installation of Products, or performance of work.
- C. Report unsatisfactory or questionable conditions to Engineer in writing; do not proceed with work until Engineer has provided further instructions.

3.02 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of work.
- B. Provide devices and methods to protect other portions of Project from damage.
- C. Provide protection from elements for that portion of the Project which may be exposed by cutting and patching work, and maintain excavations free from water.

3.03 PERFORMANCE

- A. Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs.
- B. Execute excavating and backfilling by methods which will prevent settlement or damage to other work.
- C. Employ original Installer or Fabricator to perform cutting and patching for:
 - 1 Weather-exposed or moisture-resistant elements.
 - 2 Sight-exposed finished surfaces.
- D. Execute fittings and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- E. Restore work which has been cut or removed; install new products to provide completed work in accord with requirements of Contract documents.
- F. Fit work airtight to pipes, sleeves, ducts, conduit or other penetrations through surfaces.
- G. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes;
 - 1 For continuous surfaces, refinish to nearest intersection.
 - 2 For an assembly, refinish entire unit.

END OF SECTION

SECTION 01050

FIELD ENGINEERING

PART 1 -GENERAL

1.01 WORK INCLUDED:

- A. This section covers all work required for the verification of preconstruction conditions, layout of proposed utility improvements, quality control and data gathering for the preparation of post-construction record drawings.

1.02 SUBMITTALS:

- A. Submit name, address and telephone number of Florida Registered Land Surveyor before starting work.
- B. Submit copies of all post-construction record drawings and certificate signed by the approved Florida Registered Land Surveyor indicating that the elevations and locations of the work are as the work was constructed.

1.03 DEFINITIONS:

- A. Location: "As-Built" location station, offset distance and direction relative to the existing construction baseline.
- B. Elevation: "As-Built" elevation relative to the National Geodetic Vertical Datum of 1929 (NGVD).

1.04 QUALITY ASSURANCE:

- A. Land surveyor employed shall be registered in the State of Florida and acceptable to the City.
- B. Where applicable, employ a professional engineer of the discipline required for specific source on project, licensed in the State of Florida.

1.05 PROJECT RECORD DOCUMENTS DATA:

- A. Conform to the requirements in Section 01720 Record Drawings.
- B. Submit final record drawings prior to final pay application at completion of project as specified in Section 01700 – Contract Closeout.
- C. Provide in tabular form, based on the obtained applicable field data, the final "As-Built" quantities for the project. "As-Built" quantities shall be referenced to the schedule of bid items and their units of measure as indicated in the Contractor's bid.

PART 2 -PRODUCTS – Not used

PART 3 -EXECUTION

3.01 EXAMINATION:

- A. Verify locations of survey control points prior to starting work. Promptly notify Engineer of any discrepancies discovered.

3.02 SURVEY REFERENCE POINTS:

- A. Protect survey control points prior to starting site work; preserve permanent reference points during construction. Make no changes without prior written notice to the City.
- B. Promptly report to the City the loss or destruction of any reference point or relocation required because of changes in grades or other reasons. Replace dislocated survey control points based on original survey control.
- C. Provide affidavit from approved Florida Registered Surveyor that all survey control points were re-established following completion of construction.

3.03 SURVEY REQUIREMENTS:

- A. The Engineer will furnish Contractor with horizontal and vertical control information. Responsibility for construction of the Work to correct dimensions, alignment and grade shall be the Contractor's. Additional control points, as applicable, shall be provided for and established by surveyor.
- B. Establish and define all baselines. Provide necessary stationing along baseline. All ends and intersections of baselines shall be tied to a minimum of two permanent features.
- C. Establish locations of right-of-way lines and property lines as applicable and locations and elevations of proposed improvements. Locate and lay out by instrumentation and similar appropriate means:
 - 1 All utility improvements including locations and elevation.
 - 2 Pipeline deflections/conflicts.
 - 3 The locations and elevations as applicable to valves, fitting, services and connections to existing utilities.
 - 4 Alignment and cross section of roadway, driveway and sidewalk restorations. As applicable, roadways, driveways and sidewalks shall be reconstructed to existing horizontal and vertical dimensions, unless shown otherwise.
- D. Periodically verify layouts by same means indicated above.
- E. As-built information of all utilities installed within the limits of pavement must be obtained prior to initial backfilling of trench.

3.04 SURVEYS FOR MEASUREMENT AND PAYMENT:

- A. Final project record drawings with "as-built" information of the installed utility systems and all bid quantities shall be submitted and approved by the City's representative prior to application for final payment.

- B. "As-Built" quantity data shall be presented in tabular form and reference the schedule of bid items and their respective units of measure as given in the contract documents.
- C. "As-Built" information shall be used by the Contractor to prepare his final statement of accounts as specified in Section 01700 – Contract Closeout.
- D. Current "as-built" information shall be available for the City's use for evaluation of partial pay requests.

END OF SECTION SECTION 01065

PERMITS AND FEES

PART 1 -GENERAL

- 1.01 Unless otherwise specified, the contractor shall obtain and pay for any permits and licenses related to his work as provided for in the general conditions, except as otherwise provided herein. The contractor shall obtain all required city permits including, but not limited to, right-of-way permits prior to starting construction.
- 1.02 All permits obtained by the City are included in the bid package. A copy of the permits shall be posted at the site at all times during construction. The Contractor shall be responsible for familiarizing himself with the permits and shall abide by the permit conditions at all times.
- 1.03 Work shall be conducted, and shall result in construction of the improvements of this project, in full accordance with the conditions of the permits granted for the project.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION – Not used.

END OF SECTION SECTION 01068

DEFINITIONS AND STANDARDS

PART 1 -GENERAL

1.01 DEFINITIONS:

A. Except as specifically defined otherwise, the following definitions supplement definitions of the Contract, General Conditions, Supplementary Conditions, and other general contract documents, and apply to the work.

1. Owner: **City of Lake Worth**

2. General Requirements: Provision of Division 1 sections of these specifications.

3. Indicated: Shown on drawings by notes, graphics or schedules, or written into other portions of Contract Documents. Terms such as "shown," "noted," "Scheduled," and "Specified" have same meaning as "indicated," and are used to assist the reader in locating particular information.

4. Directed, Requested, Approved, Accepted, etc.: These terms imply "by the Engineer," unless otherwise indicated.

5. Approved by the Engineer: In no case releases Contractor from responsibility to fulfill requirements of Contract Documents.

6. Project Site: Space available to Contractor at location of project, either exclusively or to be shared with separate contractors, for performance of the work.

7. Furnish: Supply and deliver to project site, ready for unloading, unpacking, assembly, installation, and similar subsequent requirements.

8. Install: Operations at project site, including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar requirements.

9. Provide: Furnish and install, complete and ready for intended use.

10. Engineer: Engineer of Record

11. Installer: Entity (firm or person) engaged to install work, by Contractor, subcontractor, or sub-subcontractor. Installers are required to be skilled in work they are engaged to install.

12. Specification Text Format: Underscoring facilitates scan reading, or other meaning. Imperative language is directed at contractor, unless otherwise noted.

13. Overlapping/Conflicting Requirements: Most stringent (generally) language written directly into Contract Documents is to be used. Overlapping/conflicting requirements do not indicate that a less stringent requirement might be acceptable. Refer uncertainties to Engineer for decision before proceeding.

14. Where optional requirements are specified in a parallel manner option is intended to be Contractor's unless otherwise indicated.

15. Minimum Requirements: Indicated requirements are for a specific minimum acceptable level of

quality/quantity, as recognized in the industry. Actual work must comply (within specified tolerances), or may exceed minimums within reasonable limits. Refer uncertainties to Architect/Engineer before proceeding.

16. Abbreviations, Plural Words: Abbreviations, where not defined in Contract Documents, will be interpreted to mean the normal construction industry terminology, determined by recognized grammatical rules, by the Engineer. Plural words will be interpreted as singular and singular words will be interpreted as plural where applicable for context of Contract Documents.

17. Testing Laboratory: An independent entity engaged for the project to provide inspections, tests, interpretations, reports, and similar services.

1.02 STANDARDS AND REGULATIONS:

- A. Industry Standards: Applicable standards of construction industry have same force and effect on performance of the work as if copied directly into Contract Documents or bound and published herewith. Standards referenced in Contract Documents or in governing regulations have precedence over non-referenced standards, insofar as different standards may contain overlapping or conflicting requirements. Comply with standards in effect as of date of Contract Documents, unless otherwise indicated.
- B. Abbreviations: Where abbreviations or acronym are used in Contract Documents, they mean the well recognized name of entity in building construction industry. Refer uncertainties to Engineer before proceeding.
- C. Trade Union Jurisdictions: Maintain current information on jurisdiction matters, regulations, actions, and pending actions; and administer/supervise performance of work in a manner which will minimize possibility of dispute, conflicts, delays, claims, or losses.
- D. Trades: Except as otherwise indicated, the use of titles such as "carpentry" in specification text, implies neither that the work must be performed by an accredited or unionized tradesperson of corresponding generic name (such as "carpenter"), nor that specified requirement apply exclusively to work by tradesperson of that corresponding generic name.

PART 2 -PRODUCTS -Not Used.

PART 3 -EXECUTION -Not Used.

END OF SECTION SECTION 01090

REFERENCE STANDARDS

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED

A. Abbreviations and acronyms used in Contract Documents to identify reference standards.

1.02 QUALITY ASSURANCE

A. Application: When a standard is specified by reference, comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents, or applicable codes establish stricter standards.

B. Publication Date: The publication in effect on the date of issue of the Contract Documents, except when a specified publication date is specified.

1.03 ABBREVIATIONS, NAMES AND ADDRESSES OF ORGANIZATIONS

A. Obtain copies of referenced standards direct from the publication source when needed for proper performance of the Work, or when required for submittal by the Contract Documents.

AASHTO American Association of State Highway and Transportation Officials 444 North Capitol Street, N.W., Suite 249 Washington, D.C. 20001

ACI American Concrete Institute Box 9094 Farmington Hills, MI 48333-9094

AISC American Institute of Steel Construction One East Wacker Drive, Suite 700 Chicago, IL 60601-1802

AISI American Iron and Steel Institute 25 Massachusetts Ave., N.W., Suite 800. Washington, D.C. 20001

ANSI American National Standards Institute 25 West 43rd Street, 4th Floor New York, N.Y. 10036

ASHRAE American Society of Heating, Refrigeration and Air-Conditioning Engineers 1791 Tullie Circle, N.E. Atlanta, GA 33029

ASME American Society of Mechanical Engineers Three
Park Avenue New York, N.Y. 10016-5990

ASTM ASTM International 100 Barr Harbor Drive, West
Conshohocken, PA 19428-2959

AWWA American Water Works Association 6666 W.
Quincy Avenue Denver, CO 80235

AWS American Welding Society 550 N.W. LeJeune
Road Miami, FL 33126

CRSI Concrete Reinforcing Steel Institute 933 North
Plum Grove Road Schaumburg, IL 60173-4758

FM Factory Mutual 270 Central Avenue Johnston, RI
02919-4949

FS Federal Specification General Services
Administration Specifications and Consumer
Information Distribution Section (WFSIS)
Washington Navy Yard, Bldg. 197 Washington,
D.C. 20407

IEEE Institute of Electrical and Electronics Engineers
Standards Association 501 Hoes Lane, Third Floor
Piscataway, NJ 08855

MIL Military Specification Naval Publications and
Forms Center 5801 Tabor Avenue Philadelphia,
PA 19120

NEMA National Electrical Manufacturer's Association
1300 North 17th Street, Suite 1752 Rosslyn, VA
22209

NFPA National Fire Protection Association 1
Battymarch Park Quincy, Massachusetts 02169-
7471

NIST	National Institute of Standards and Technology 100 Bureau Drive, Stop 2100 Gaithersberg, MD 20899-2100
PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 60077
PCI	Prestressed Concrete Institute 20 West Adams Street, #2100 Chicago, IL 60606
PS	Product Standard U.S. Department of Commerce Washington, D.C. 20203
SDI	Steel Deck Institute P.O. Box 25 Fox River Grove, IL 60021
SJI	Steel Joist Institute 234 W. Cheves Street Florence, SC 29501
SMA	CNA Sheet Metal and Air Conditioning Contractors' National Association 4201 Lafayette Center Drive Chantilly, VA 20151-1219
UL	Underwriter's Laboratories, Inc. 333 Pfingsten Road Northbrook, IL 60062-2096

- B. When no reference is made to a code, standard, or specification, the standard specifications of the ASTM, the ANSI, the ASME, the IEEE, or the NEMA shall govern.
- C. Contractor shall, when required, furnish evidence satisfactory to the Engineer that materials and methods are in accordance with such standards where so specified.
- D. In the event any questions arise as to the application of these standards or codes, copies shall be supplied on site by the Contractor.

PART 2 -PRODUCTS -Not used.

PART 3 -EXECUTION -Not used.

END OF SECTION

SECTION 01110

ENVIRONMENTAL PROTECTION PROCEDURES

PART 1 -GENERAL

1.01 SCOPE OF WORK

- A. The work covered by this Section consists of furnishing all labor, materials and equipment and performing all work required for the prevention of environmental pollution in conformance with applicable laws and regulations, during and as the result of construction operations under this Contract. For the purpose of this Specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and/or recreational purposes.
- B. The control of environmental pollution requires consideration of air, water and land, and involves management of noise and solid waste, as well as other pollutants.
- C. Schedule and conduct all work in a manner that will minimize the erosion of soils in the area of the work. Provide erosion control measures such as diversion channels, sedimentation or filtration systems, berms, staked hay bales, seeding, mulching or other special surface treatments as are required to prevent silting and muddying of streams, rivers, impoundments, lakes, etc. All erosion control measures shall be in place in an area prior to any construction activity in that area.
- D. These Specifications are intended to ensure that construction is achieved with a minimum of disturbance to the existing ecological balance between a water resource and its surroundings.
- E. These are general guidelines. It is the CONTRACTOR's responsibility to determine the specific construction techniques to meet these guidelines.

1.02 APPLICABLE REGULATIONS

- A. Comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.

1.03 NOTIFICATIONS

- A. The ENGINEER will notify the CONTRACTOR in writing of any non-compliance with the foregoing provisions or of any environmentally objectionable acts and corrective action to be taken. State or local agencies responsible for verification of certain aspects of the environmental protection requirements shall notify the CONTRACTOR in writing, through the ENGINEER, of any non-compliance with State or local requirements. The CONTRACTOR shall, after receipt of such notice from the ENGINEER or from the regulatory agency through the ENGINEER, immediately take corrective action. Such notice, when delivered to the CONTRACTOR or his authorized representative at the site of the Work, shall be deemed sufficient for the purpose. If the CONTRACTOR fails or refuses to comply promptly, the OWNER may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the CONTRACTOR unless it is later determined that the CONTRACTOR was in compliance.

1.04 IMPLEMENTATION

- A. Prior to commencement of the Work, meet with the ENGINEER to develop mutual understandings relative to compliance with this provision and administration of the environmental pollution control program.
- B. Remove temporary environmental control features, when approved by the ENGINEER and incorporate permanent control features into the project at the earliest practicable time.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION

3.01 EROSION CONTROL

- A. Provide positive means of erosion control such as shallow ditches around construction to carry off surface water. Erosion control measures, such as siltation basins, hay check dams, mulching, jute netting and other equivalent techniques, shall be used as appropriate. Flow of surface water into excavated areas shall be prevented. Ditches around construction areas shall also be used to carry away water resulting from dewatering of excavated areas. At the completion of the work, ditches shall be backfilled and the ground surface restored to its original condition.

3.02 PROTECTION OF SURFACE WATERS

- A. Care shall be taken to prevent, or reduce to a minimum, any damage to any surface water from pollution by debris, sediment or other material, or from the manipulation of equipment and/or materials in or near such surface waters. Water that has been used for washing or processing, or that contains oils or sediments that will reduce the quality of the surface water, shall not be directly returned to the surface water. Such waters will be diverted through a settling basin or filter before being directed into the surface waters.
- B. The CONTRACTOR shall not discharge water from testing operations directly into any surface water.
- C. All preventative measures shall be taken to avoid spillage of petroleum products and other pollutants. In the event of any spillage, prompt remedial action shall be taken in accordance with a contingency action plan approved by the OWNER. CONTRACTOR shall submit two copies of approved contingency plans to the ENGINEER

3.03 PROTECTION OF LAND RESOURCES

- A. Land resources within the project boundaries and outside the limits of permanent work shall be restored to a condition, after completion of construction, that will appear to be natural and not detract from the appearance of the project. Confine all construction activities to areas shown on the Drawings.

- B. Outside of areas requiring earthwork for the construction of the new facilities, the CONTRACTOR shall not deface, injure, or destroy trees or shrubs, nor remove or cut them without prior approval. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorage unless specifically authorized by the ENGINEER. Where such special emergency use is permitted, first wrap the trunk with a sufficient thickness of burlap or rags over which softwood cleats shall be tied before any rope, cable, or wire is placed. The CONTRACTOR shall in any event be responsible for any damage resulting from such use.
- C. Where trees may possibly be defaced, bruised, injured, or otherwise damaged by the CONTRACTOR's equipment, dumping or other operations, protect such trees by placing boards, planks, or poles around them. Monuments and markers shall be protected similarly before beginning operations near them.
- D. Any trees or other landscape feature scarred or damaged by the CONTRACTOR's equipment or operations shall be restored as nearly as possible to its original condition. The ENGINEER will decide what method of restoration shall be used and whether damaged trees shall be treated and healed or removed and disposed of.
- 1 All scars made on trees by equipment, construction operations, or by the removal of limbs larger than 1-inch in diameter shall be coated as soon as possible with an approved tree wound dressing. All trimming or pruning shall be performed in an approved manner by experienced workmen with saws or pruning shears. Tree trimming with axes will not be permitted.
 - 2 Climbing ropes shall be used where necessary for safety. Trees that are to remain, either within or outside established clearing limits, that are subsequently damaged by the CONTRACTOR and are beyond saving in the opinion of the ENGINEER, shall be immediately removed and replaced.
- E. The locations of the CONTRACTOR's storage and other construction buildings, required temporarily in the performance of the Work, shall be cleared as portions of the job site or areas to be cleared as shown on the Drawings and shall require written approval of the ENGINEER and shall not be within wetlands or floodplains. The preservation of the landscape shall be an imperative consideration in the selection of all sites and in the construction of buildings. Drawings showing storage facilities shall be submitted for approval of the ENGINEER
- F. If the CONTRACTOR proposes to construct temporary roads or embankments and excavations for plant and/or work areas, he shall submit the following for approval at least ten-days prior to scheduled start of such temporary work:
- 1 A layout of all temporary roads, excavations and embankments to be constructed within the work area.
 - 2 Details of temporary road construction.
 - 3 Drawings and cross sections of proposed embankments and their foundations, including a description of proposed materials.

4 A landscaping drawing showing the proposed restoration of the area. Removal of any trees and shrubs outside the limits of existing clearing area shall be indicated. The drawing shall also indicate location of required guard posts or barriers required to control vehicular traffic passing close to trees and shrubs to be maintained undamaged. The drawing shall provide for the obliteration of construction scars as such and shall provide for a natural appearing final condition of the area. Modification of the CONTRACTOR's approved drawings shall be made only with the written approval of the ENGINEER. No unauthorized road construction, excavation or embankment construction including disposal areas will be permitted.

- G. Remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess waste materials, or any other vestiges of construction as directed by the ENGINEER. It is anticipated that excavation, filling and plowing of roadways will be required to restore the area to near natural conditions which will permit the growth of vegetation thereon.
- H. All debris and excess material will be disposed of outside wetland or floodplain areas in an environmentally sound manner.

3.04 PROTECTION OF AIR QUALITY

- A. Burning -The use of burning at the project site for the disposal of refuse and debris will not be permitted.
- B. Dust Control -The CONTRACTOR will be required to maintain all excavations, embankments, stockpiles, access roads, plant sites, waste areas, borrow areas and all other work areas within or without the project boundaries free from dust which could cause the standards for air pollution to be exceeded and which would cause a hazard or nuisance to others.
- C. An approved method of stabilization consisting of sprinkling or other similar methods will be permitted to control dust. The use of petroleum products is prohibited. The use of chlorides may be permitted with approval from the ENGINEER.
- D. Sprinkling, to be approved, must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the CONTRACTOR must have sufficient competent equipment on the job to accomplish this if sprinkling is used. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs, as determined by the ENGINEER.

3.05 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

- A. During the life of this Contract, maintain all facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created.

3.06 NOISE CONTROL

- A. The CONTRACTOR shall make every effort to minimize noises caused by his/her operations. Equipment shall be equipped with silencers or mufflers designed to operate with the least possible noise in compliance with State and Federal regulations.

END OF SECTION SECTION 01152

APPLICATION FOR PAYMENT

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit Applications for Payment to Engineer in accordance with the schedule established by Conditions of the Contract and herein.

1.02 RELATED REQUIREMENTS

- A. Agreement Between Owner and Contractor: Lump Sum and Unit Price.
- B. Conditions of the Contract: Progress Payments, Retainage and Final Payment.
- C. Section 01025: Measure and Payment.
- D. Section 01153: Change Order Procedures.
- E. Section 01370: Schedule of Values.
- F. Section 01700: Project Closeout.

1.03 FORMAT AND DATA REQUIRED

- A. Submit applications in the form required by Owner, with itemized data typed on 8-1/2 inch x 11 inch white paper continuation sheets.
- B. Provide itemized data on continuation sheet:
 - 1. Format, schedules, line items and values: Those of the Schedule of Values accepted by Engineer.
- C. Provide signed and sealed "As-Builts" by Surveyor with each pay request.

1.04 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Application Form:
 - 1 Fill in required information, including that for Change Orders executed prior to date of submittal of application.
 - 2 Fill in summary of dollar values to agree with respective totals indicated on continuation sheets.
 - 3 Execute certification with signature of a responsible officer of Contract firm.
- B. Continuation Sheets:
 - 1. Fill in total list of all scheduled component items of Work, with item number and scheduled dollar value for each item.
 - 2. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.
 - a. Round off values to nearest dollar, or as specified for Schedule of Values.
 - 3. List each Change Order executed prior to date of submission at the end of the continuation sheets.

- a. List by Change Order Number, and description, as for an original component item of work.

1.05 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the Owner or the Engineer requires substantiating data, Contractor shall submit suitable information, with a cover letter identifying:

1. Project
 2. Application number and date.
 3. Detailed list of enclosures.
 4. For stored products:
 - a. Item number and identification as shown on application.
 - b. Description of specific material.
- B. Submit one copy of data and cover letter for each copy of application.

1.06 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in Application form as specified for progress payments.
- B. Use continuation sheet for presenting the final statement of accounting as specified in Section 01700 -Project Closeout.

1.07 SUBMITTAL PROCEDURE

- A. Submit Applications for Payment to Engineer at the times stipulated.
- B. Number: Four (4) copies of Application.
- C. When Engineer finds Application properly completed and correct, he will transmit certificate for payment to Owner, with copy to Contractor.

PART 2 -PRODUCTS -Not used.

PART 3 -EXECUTION -Not used. END OF SECTION

SECTION 01153

CHANGE ORDER PROCEDURES

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDE

- A. Promptly implement Change Order Procedures
 - 1 Provide full written data required to evaluate changes.
 - 2 Maintain detailed records of work done on a time-and-material/force account basis.
 - 3 Provide full documentation to Engineer on request.
- B. Designate in writing the member of Contractor's organization:
 - 1 Who is authorized to accept changes in the Work.
 - 2 Who is responsible for informing others in the contractor's employ of the authorization of changes in the Work.
- C. Owner will designate in writing the person who is authorized to execute Change Orders.

1.02 RELATED REQUIREMENTS

- A. Agreement: The amount of established unit prices.
- B. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.
- C. Terms and Conditions of the Contract (See GC 42 of the General Conditions and Terms):
 - 1 Methods of determining cost or credit to Owner resulting from changes in Work made on a time-and-materials basis.
 - 2 Contractor's claims for additional costs.
- D. Section 01025: Measurement and Payment
- E. Section 01152: Application for Payment
- F. Section 01300: Submittals
- G. Section 01310: Construction Schedules
- H. Section 01640: Products and Substitutions
- I. Section 01700: Project Closeout
- J. Section 01720: Record Documents

1.03 DEFINITIONS

- A. Change Order: See General Conditions and Supplementary Conditions.
- B. Construction Change Authorization: A written order to the Contractor, signed by Owner and Engineer, which amends the Contract Documents as described, and authorizes Contractor to proceed with a change which affects the Contract Sum or the Contract Time, for inclusion in a subsequent Change Order.
- C. Field Order: A written order, instructions, or interpretations, signed by Engineer making minor changes in the Work not involving a change in Contract Sum or Contract Time.

1.04 PRELIMINARY PROCEDURES

- A. Owner or Engineer may initiate changes by submitting a proposal Request to Contractor. Request will include the following:
 - 1 Detailed description of the Change, Products, and location of the change in the Project.
 - 2 Supplementary or revised Drawings and Specifications.
 - 3 The projected time span for making the change, and a specific statement as to whether overtime work is, or is not, authorized.
 - 4 A specific period of time during which the requested price will be considered valid.
 - 5 Such request is for information only, and is not an instruction to execute the changes, nor to stop work in progress.
- B. Contractor may initiate changes by submitting a written notice to Engineer, containing:
 - 1 Description of the proposed changes
 - 2 Statement of the reason for making the changes.
 - 3 Statement of the effect on the Contract Sum and the Contract Time.
 - 4 Statement of the effect on the work of separate contractors.
 - 5 Documentation supporting any changes in Contract Sum or Contract Time, as appropriate.

1.05 CONSTRUCTION CHANGE AUTHORIZATION

- A. In lieu of Proposal Request, Engineer may issue a "Construction Change Directive" (CCD) for Contractor to proceed with a change for subsequent inclusion in a Change Order.
- B. Authorization will describe changes in the work, both additions and deletions, with attachments of revised Contract Documents to define details of the change and will designate the method of determining any change in the Contract Sum and any change in Contract Time.
- C. Owner and Engineer will sign and date the CCD as authorization for the Contractor to proceed with the Changes.
- D. Contractor shall sign and date the Construction Change Authorization to indicate agreement with the terms therein.

1.06 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow Engineer to evaluate the quotation.
- B. On request, provide additional data to support time and cost computation including the following:
 - 1 Labor required.
 - 2 Equipment required.
 - 3 Products required:
 - 4 Recommended source of purchase and unit cost.
 - 5 Quantities required.
 - 6 Taxes, insurance bonds.
 - 7 Credit for work deleted from Contract, similarly documented.
 - 8 Overhead and profit.
 - 9 Justification for any change in Contract Time.
- C. Support each claim for additional costs, and for work done on a time-and-material / force account basis, with documentation as required for a lump sum proposal, plus the following additional information:
 - 1. Name of the Owner's authorization agent who ordered the work, and date of the order.
 - 2. Dates and time work performed, and by whom.
 - 3. Time record, summary of hours worked, and hourly rates paid.
 - 4. Receipts and invoices for:
 - a. Equipment used, listing dates and times of use.
 - b. Products used, listing quantities.
 - c. Subcontracts.
 - 5. Document requests for substitutions for Products as specified in Section 01640.

1.07 PREPARATION OF CHANGE ORDERS

- A. Engineer will prepare each Change Order.
- B. Form: Change Order format provided in the Contract Documents.
- C. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of change.
- D. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

1.08 LUMP SUM / FIXED PRICE CHANGE ORDER

- A. Content of Change Orders will be based on either:

- B. Engineer's Proposal Request and Contractor's responsible Proposal as mutually agreed upon between Owner and Contractor.
- C. Contractor's Proposal for a change, as recommended by Engineer.
- D. Owner and Engineer will sign and date the Change Order as authorization for the contractor to proceed with the changes.
- E. Contractor shall sign and date the Change Order to indicate agreement with the terms therein.

1.09 UNIT PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either:
 - 1 Engineer definition of the scope of the required changes.
 - 2 Contractor's Proposal for a change, as recommended by Engineer.
 - 3 Survey of completed work
- B. The amount of the unit prices shall be:
 - 1 Those stated in the Agreement.
 - 2 Those mutually agreed upon between Owner and Contractor.
- C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
 - 1 Owner and Engineer will sign and date the Change Order as authorization for Contractor to proceed with the changes.
 - 2 Contractor shall sign and date the Change Order to indicate agreement with the terms therein.
- D. When quantities of the items cannot be determined prior to start of the work:
 - 1 Engineer or Owner will issue a Change Order directing Contractor to proceed with the change on the basis of unit prices, and will cite the applicable unit prices.
 - 2 At completion of the change, Engineer will determine the cost of such work based on the unit prices and quantities used.
 - 3 Contractor shall submit documentation to establish the number of units of each item and any claims for a change in Contract Time.
 - 4 Engineer will sign and date a second Change Order to establish the change in Contract Sum and in Contract Time.
 - 5 Owner and Contractor will sign and date the second Change Order to indicate their agreement with the terms therein.

1.10 TIME AND MATERIAL/FORCE ACCOUNT CHANGE ORDER/ CONSTRUCTION CHANGE AUTHORIZATION

- A. Engineer and Owner will issue a Construction Change Authorization directing Contractor to proceed with the changes.
- B. At completion of the change, Contractor shall submit itemized accounting and supporting data as provided in the Article "Documentation of Proposals and Claims" of this Section.

C. Engineer will determine the allowable cost for such work, as provided in General Conditions and Supplementary Conditions.

D. Engineer will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.

E. Owner and Contractor will sign and date the Change Order to indicate their agreement therewith.

1.11 CORRELATION WITH CONTRACTOR'S SUBMITTALS

A. Contractor shall periodically revise Schedule of Values and Request for Payment forms to record each change as a separate item of Work, and to record the adjusted Contract Sum.

B. Contractor shall periodically revise the Construction Schedule to reflect each change in Contract Time.

1. Revise sub-schedules to show changes for other items of work affected by the changes.

C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION -Not Used.

END OF SECTION SECTION 01200

PROJECT MEETINGS

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The ENGINEER shall schedule and administer pre-construction meetings, periodic progress meetings, and specially called meetings throughout progress of the Work.
1. Prepare agenda for meetings.
 2. Distribute written notice of each meeting four days in advance of meeting date.
 3. Make physical arrangements for meetings.
 4. Preside at meetings.
 5. Record the minutes; include significant proceedings and decisions.
 6. Reproduce and distribute copies of minutes within ten (10) working days after each meeting.
 - a. To participants in the meeting.
 - b. To parties affected by decisions made at the meeting.
- B. Representatives of CONTRACTORS, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
- C. The CONTRACTOR shall attend meetings to ascertain that work is expedited and consistent with Contract Documents and construction schedules.

1.02 RELATED REQUIREMENTS

- A. Section 00100: Instructions to Bidders.
- B. Section 01310: Construction Schedules.
- C. Section 01300: Submittals.
- D. Section 01720: Record Drawings

1.03 PRE-CONSTRUCTION MEETING

- A. Schedule a preconstruction meeting no later than 15 days after date of Notice to Award.
- B. Location: A central site, convenient for all parties, designated by the OWNER.
- C. Attendance:
- 1 OWNER's Representative.
 - 2 ENGINEER and his professional consultants, if any.
 - 3 Resident Project Representative.
 - 4 CONTRACTOR's Superintendent.
 - 5 Major Subcontractors.
 - 6 Major suppliers.
 - 7 Utilities
 - 8 Others as appropriate.

D. Suggested Agenda:

1. Distribution and discussion of:

- a. List of major subcontractors and suppliers.
- b. Projected Construction Schedules.

2. Critical work sequencing.

3. Major equipment deliveries and priorities.

4. Project Coordination.

- a. Designation of responsible personnel.

5. Procedures and processing of:

- a. Field decisions.
- b. Proposal requests.
- c. Submittals.
- d. On-going "As-Built" Surveys
- e. Change Orders.
- f. Applications for Payment.

6. Adequacy of distribution of Contract Documents.

7. Procedures for maintaining Record Documents.

8. Use of premises:

- a. Office, work and storage areas.
- b. OWNER's requirements.

9. Construction facilities, controls and construction aids.

10. Temporary utilities.

11. Safety and first-aid procedures.

12. Security procedures

13. Housekeeping procedures.

14. Miscellaneous

1.04 PROGRESS MEETINGS

- A. Schedule regular periodic progress meetings. The progress meetings will be held every 14 days with the first meeting 14 days after the pre-construction meeting or 14 days after the date of Notice to Proceed.
- B. Hold additional meetings as required by progress of the Work.
- C. Location of the meetings: Public Services Department Conference Room
- D. Attendance:
 - 1 OWNER'S representatives.
 - 2 ENGINEER, and his professional consultants as needed.
 - 3 Subcontractors as appropriate to the agenda.
 - 4 Suppliers as appropriate to the agenda.
 - 5 Others as appropriate.
- E. Suggested Agenda:
 - 1. Review and approval of minutes of previous meeting.
 - 2. Review of work progress since previous meeting.
 - 3. Field observations, problems, and conflicts.
 - 4. Problems which impede Construction Schedule.
 - 5. Review of off-site fabrication, delivery schedules.
 - 6. Corrective measures and procedures to regain projected schedule.
 - 7. Revisions to Construction Schedule.
 - 8. Progress, schedule, during succeeding work period.
 - 9. Coordination of schedules.
 - 10. Review submittal schedules; expedite as required.
 - 11. Maintenance of quality standards.
 - 12. Pending changes and substitutions.
 - 13. Review proposed changes for:
 - a. Effect on Construction Schedule and on completion date.
 - b. Effect on other contracts of the Project.
 - 14. Review of As-Builts, if requested by the Engineer.
 - 15. Other business.
 - 16. Construction schedule.
 - 17. Critical/long lead items.

F. The CONTRACTOR is to attend progress meetings and is to study previous meeting minutes and current agenda items in order to be prepared to discuss pertinent topics, such as deliveries of materials and equipment, progress of the Work, etc.

G. The CONTRACTOR is to provide a current submittal log at each progress meeting in accordance with Section 01300.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION -Not used.

END OF SECTION SECTION 01300

SUBMITTALS

PART 1 -GENERAL

1.01 DESCRIPTION OF REQUIREMENTS:

- A. The types of submittals controlled by these general requirements include shop drawings, procedure manuals, samples and miscellaneous work-related submittals. The individual submittal requirements are specified herein and in applicable sections for each unit of work.

1.02 GENERAL SUBMITTAL REQUIREMENTS:

A. Coordination and Sequencing:

1. The Contractor shall coordinate preparation and processing of submittals with the performance of the work so that the work will not be delayed by submittals. The Contractor shall coordinate and sequence different categories of submittals for the same work, and for interfacing units of work, so that one will not be delayed for coordination with another. No extension of time will be allowed because of failure to properly coordinate and sequence submittals.

B. Preparation of Submittal:

1. Provide permanent marking on each submittal to identify project, date, Contractor, subcontractor, submittal name and similar information to distinguish it from other submittals. Each submittal shall clearly state where the item is to be installed. Package each submittal appropriately for transmittal and handling. Submittals which are received from sources other than through the Contractor's office will be returned without action. All results of testing by independent labs or agencies shall be submitted to the Engineer. This shall include both passing and failing tests.

1.03 SPECIFIC CATEGORY SUBMITTAL REQUIREMENTS:

- A. Except as otherwise indicated in individual work sections, comply with general requirements specified herein for each indicated category of submittal.

1.04 SHOP DRAWINGS AND SAMPLES:

- A. As soon as practicable and within thirty (30) days after the date of execution of the Contract, the Contractor, in conformance with the conditions of the contract, shall submit to the Engineer for approval, four (4) copies (in addition to those copies necessary for his own requirements) of the shop drawings.
- B. Shop drawings submitted to the Engineer for his review, shall first be checked and approved by the Contractor, as indicated by a "Checked" stamp marked "Approved" on each copy of the shop drawing. Shop drawings received without the Contractor's "Checked and Approved" stamp will be returned without further action.

C. Shop drawings shall be submitted, but not be limited to, the following:

1. Pipe and Fittings (all types & materials)
2. Concrete Mix Design
3. Maintenance of Traffic Plan
4. Asphalt Design
5. Testing Lab and Procedures
6. Precast Manholes & Inlets
7. Coating Systems
8. Grating and Manhole Covers
9. Valves (all types & materials)
10. Street Light Poles, Fixtures, and Conduits (N/A)
11. Decorative Pavers and Split Face Blocks (N/A)
12. Traffic signs

D. Product Data:

1 Collect required data into one submittal for each unit of work or system; and mark each copy to show which choices and options are applicable to the project. Include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and special coordination requirements. Maintain one set of product data for each submittal at the project site, available for reference by the Engineer. For purposes of this submittal, manufacturer's fabrication drawings shall be synonymous with shop drawings.

2 The Contractor shall not submit product data, or allow its use on the project, until compliance with requirements of the Contract Documents has been confirmed. Submittal is for information and record use only, unless otherwise indicated.

1.05 DOCUMENTS:

A. Maintain at the job site one copy of all drawings, specifications; addenda; approved shop drawings; change orders; field orders; other contract modifications; and other approved documents submitted by the Contractor in compliance with various sections of the specifications. Each of these Project Record Documents shall be clearly marked "Project Record Copy" and maintained in good condition; available at all times for review by the Engineer and not used for construction purposes.

1.06 BOND AND COMPLETED OPERATION INSURANCE:

A. Prior to final payment, the Contractor shall submit proof that bonds and completed operations insurance are in effect as required by the GENERAL CONDITIONS.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION -Not used.

END OF SECTION SECTION 01310

CONSTRUCTION SCHEDULES

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Promptly after award of the Contract and within ten (10) days after the effective date of the Agreement, prepare and submit to the ENGINEER estimated construction progress schedules for the Work, with subschedules of related activities which are essential to its progress.
- B. Submit revised progress schedules on a monthly basis.
- C. No partial payments shall be approved by the ENGINEER until there is an approved construction progress schedule on hand.
- D. The CONTRACTOR shall designate an authorized representative of his firm who shall be responsible for development and maintenance of the schedule and of progress and payment reports. This representative of the CONTRACTOR shall have direct project control and complete authority to act on behalf of the CONTRACTOR in fulfilling the commitments of the CONTRACTOR's schedule.

1.02 RELATED REQUIREMENTS

- A. Section 12: Standard General Conditions of the Construction Contract.
- B. Section 01010: Summary of Work.
- C. Section 01200: Project Meetings.
- D. Section 01300: Submittals.

1.03 FORM OF SCHEDULES

- A. Prepare schedules in the form of a horizontal bar chart or critical path method.
 - 1 Provide separate horizontal bar for each trade or operation within each structure or item.
 - 2 Horizontal time scale: In weeks from start of construction and identify the first work day of each month.
 - 3 Scale and spacing: To allow space for notations and future revisions.
 - 4 Minimum sheet size: 24 x 36 inches.
- B. Format of listings: The chronological order of the start of each item of work for each structure.

C. Identification of listings: By major specification section numbers as applicable and structure.

1.04 CONTENT OF SCHEDULES

A. Construction Progress Schedule:

- 1 Show the complete sequence of construction by activity.
- 2 Show the dates for the beginning of, and completion of, each major element of construction in no more than a two-week increment scale.
- 3 Show projected percentage of completion for each item, as of the first day of each month.
- 4 Show projected dollar cash flow requirements for each month of construction.

B. Submittals Schedule for Shop Drawings, and Samples in accordance with Section 01300. Show:

- 1 The dates for CONTRACTOR's submittals.
- 2 The dates submittals will be required for OWNER-furnished products, if applicable.
- 3 The dates approved submittals will be required from the ENGINEER.

C. A typewritten list of all long lead items (equipment, materials, etc.)

1.05 PROGRESS REVISIONS

A. Indicate progress of each activity to date of submission.

B. Show changes occurring since previous submission of schedule:

- 1 Major changes in scope.
- 2 Activities modified since previous submission.
- 3 Revised projections of progress and completion.
- 4 Other identifiable changes.

C. Provide a narrative report as needed to define:

- 1 Problem areas, anticipated delays, and the impact on the schedule.
- 2 Corrective action recommended, and its effect.
- 3 The effect of changes on schedules of other prime CONTRACTORS.

1.06 SUBMISSIONS

A. Submit initial schedules to the ENGINEER within 10 days after the effective date of the Agreement.

- 1 The ENGINEER will review schedules and return review copy within 21 days after receipt.
- 2 If required, resubmit within 7 days after return of review copy.

- B. Submit revised monthly progress schedules with that month's application for payment.
- C. Submit five (5) opaque reproductions.

1.07 DISTRIBUTION

- A. Distribute copies of the reviewed schedules to:
 - 1 ENGINEER.
 - 2 Job site file.
 - 3 Subcontractors.
 - 4 Other concerned parties.
 - 5 OWNER (two copies).
- B. Instruct recipients to report promptly to the CONTRACTOR, in writing, any problems anticipated by the projections shown in the schedules.

PART 2 -PRODUCTS -Not used.

PART 3 -EXECUTION

3.01 RESPONSIBILITY FOR SCHEDULE COMPLIANCE

- A. The CONTRACTOR agrees that whenever it becomes apparent from the current monthly schedule that delays to the critical path have resulted, and hence, that the contract completion date will not be met or when so directed by the ENGINEER, he will take some or all of the following actions at no additional cost to the OWNER, submitting to the ENGINEER for approval, a written statement of the steps he intends to take to remove or arrest the delay to the critical path in the approved schedule.
 - 1 Increased construction manpower in such quantities and crafts as will substantially eliminate, in the judgment of the ENGINEER, the backlog of work.
 - 2 Increase the number of working hours per shift, shifts per working days per week, the amount of construction equipment, or any combination of the foregoing, sufficiently to substantially eliminate, in the judgment of the ENGINEER, the backlog of work.
 - 3 Reschedule activities to achieve maximum practical concurrency of accomplishment of activities, and comply with the revised schedule.
 - 4 Costs incurred by the OWNER arising from such lengthening of hours, including furnishing of Inspectors, shall be the CONTRACTOR's responsibility and shall be deducted from monies due him. Failure of the CONTRACTOR to comply with the requirements of the ENGINEER may be grounds for determination by the OWNER that the CONTRACTOR is not proceeding at such rates as will ensure completion within the specified time and may result in the termination of the right of the CONTRACTOR to continue the work.

3.02 ADJUSTMENT OF CONTRACT SCHEDULE AND COMPLETION TIME

- A. If the CONTRACTOR desires to make changes in his method of operating which affect the approved schedule, he shall notify the ENGINEER in writing stating what changes are proposed and the reason for the change. If the ENGINEER approves these changes, the CONTRACTOR shall revise and submit for approval, without additional cost to the OWNER, all of the affected portion of the schedule. The schedule shall be adjusted by the CONTRACTOR only after prior approval of his proposed changes by the ENGINEER.
- B. Adjustments may consist of changing portions of the activity sequence and/or activity durations, division of approved activities, or other adjustments as may be approved by the ENGINEER. The addition of extraneous, non-working activities and/or activities which add unapproved restraints to the schedule shall not be approved.
- C. If the completion of any activity, whether or not critical, falls more than 100 percent behind its approved duration, the CONTRACTOR shall submit for approval a schedule adjustment showing each such activity divided into two activities reflecting completed versus uncompleted work.
- D. Shop drawings which are not approved on the first submittal or within the scheduled time shall be immediately rescheduled, as well as pipelines and tanks which do not pass leak tests.
- E. The contract completion time will be adjusted only for causes specified in this contract. In the event the CONTRACTOR requests an extension of any contract completion date, he shall furnish such justification and supporting evidence as the ENGINEER may deem necessary for a determination as to whether the CONTRACTOR is entitled to an extension of time under the provisions of this contract. ENGINEER will, after receipt of such justification and supporting evidence make findings of fact and will advise the CONTRACTOR in writing thereof. If the ENGINEER finds that the CONTRACTOR is entitled to any extension of any contract completion date under the provisions of this contract, the ENGINEER's determination as to the total number of days extension shall be based upon the currently approved schedule and on all data relevant to the extension. Such data shall be included in the next monthly updating of the schedule. The CONTRACTOR acknowledges and agrees that actual delays in activities which, according to the schedule, do not affect any contract completion date shown by the critical path in the schedule do not have any effect on the contract completion date or dates, and therefore, will not be the basis for a change therein.
- F. From time to time it may be necessary for the contract schedule and/or completion time to be adjusted by the ENGINEER to reflect the effects of job conditions, weather, technical difficulties, strikes, unavoidable delays on the part of the OWNER or his representatives, and other unforeseeable conditions which may indicate schedule adjustments and/or completion time extension. Under such conditions, the CONTRACTOR shall reschedule the work and/or contract completion time to reflect the changed conditions, and the CONTRACTOR shall revise his schedule accordingly. No additional compensation shall be made to the CONTRACTOR for such schedule changes except for unavoidable overall contract time extensions beyond the actual completion of all unaffected work in the contract, in which case the CONTRACTOR shall take all possible action to minimize any time extension and any additional cost to the OWNER. It is specifically pointed out that the use of available float time in the schedule may be used by the OWNER as defined by the ENGINEER, as well as by the CONTRACTOR. Float time is defined as the amount of time between the early start date, and the late start date, or the early finish date and the late finish date, of any of the activities in the schedule.

G. The OWNER controls the float time in the approved schedule and, therefore, without obligation to extend either the overall completion date or any intermediate completion dates set out in the schedule, the OWNER may initiate changes to the contract work that absorb float time only. OWNER-initiated changes that affect the critical path on the approved schedule shall be the sole grounds for extending (or contracting) said completion dates. CONTRACTOR initiated changes that encroach on the float time identified in the approved schedule may be accomplished with the OWNER's concurrence. Such changes, however, shall give way to OWNER-initiated changes competing for the same float time.

3.03 COORDINATING SCHEDULES WITH OTHER CONTRACT SCHEDULES

A. Where work is to be performed under this contract concurrently with and/or contingent upon work performed on the same facilities or area under other contracts, the CONTRACTOR's schedule shall be coordinated with the schedules of the other contracts. The CONTRACTOR shall obtain the schedules of the other appropriate contracts from the ENGINEER for the preparation and updating of his schedule and shall make the required changes in his schedule when indicated by changes in corresponding schedules.

END OF SECTION SECTION 01340

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit Shop Drawings, Product Data and Samples required by Contract Documents.

1.02 RELATED REQUIREMENTS

- A. Definitions and Additional Responsibilities of Parties: Conditions of the Contract.
- B. Section 01700: Project Closeout.

1.03 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and thorough manner.
 - 1. Details shall be identified by reference of sheet and detail or schedule.
- B. Minimum sheet size: 8½ X 11 inches.

1.04 PRODUCT DATA

- A. Preparation
 - 1 Clearly mark each copy to identify pertinent products or models.
 - 2 Show performance characteristics and capacities.
 - 3 Show dimensions and clearances required.
 - 4 Show wiring or piping diagrams and controls.
- B. Manufacturer's standard schematic drawings and diagrams:
 - 1 Modify drawings and diagrams by deleting information which is not applicable to the work.
 - 2 Supplement standard information to provide information specifically applicable to the work.

1.05 CONTRACTOR RESPONSIBILITIES

- A. Review Shop Drawings, Product Data and Samples prior to submission.

- B. Determine and verify:
 - 1 Field measurements.
 - 2 Field construction criteria.
 - 3 Catalog numbers and similar data.
 - 4 Conformance with specifications.
- C. Coordinate each submittal with requirements of the Work and of the Contract Documents.
- D. Notify the Engineer in writing, at time of submission, of any deviations in the submittals from requirements of the contract Documents.
- E. Begin no fabrication or work that requires approved submittals until return of submittals by Engineer

1.06 SUBMISSION REQUIREMENTS

- A. Make submittals in such sequence as to cause no delay in the work.
- B. Number of submittals required:
 - 1 Shop Drawings and Product Data: Submit four (4) copies.
 - 2 Samples: Submit the quantity stated in each specification section.
- C. Submittals shall contain:
 - 1. The date of submission and the dates of any previous submissions.
 - 2. The Project title and number.
 - 3. Contract identification.
 - 4. The names of:
 - a. Contractor
 - b. Supplier
 - c. Manufacturer
 - 5. Identification of the product, with the specification section number.
 - 6. Field dimensions, clearly identified as such.
 - 7. Relation to adjacent or critical features of the work or materials.
 - 8. Applicable standards, such as ASTM or Federal specification numbers.
 - 9. Identifications of deviations from Contract Documents.
 - 10. Identification of revisions on resubmittals.
 - 11. An 8-inch X 3.5-inch blank space for Contractor and Engineer stamps.
 - 12. CONTRACTOR'S stamp initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria and coordination of the information within the submittal with requirements of the Work and of Contract Documents.

1.07 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals noted by the Engineer and resubmit unless otherwise noted.
- B. Shop Drawings and Product Data:
 - 1 Revise initial drawings or data, and resubmit as specified for the initial submittal.
 - 2 Indicate any changes which have been made other than those suggested by the Engineer.
- C. Samples: Submit new samples as required for initial submittal.

1.08 ENGINEER'S DUTIES

- A. Distribute reviewed copies of submittals to City.
- B. Review submittals within 30 days or in accord with schedule.
- C. Affix stamp and initials or signature, and indicate status of submittal.
- D. Return submittals to Contractor for distribution, or resubmission.
- E. Review initial submittals and one resubmittal. Resubmittals that cannot be approved will be returned. Additional resubmittals will be reviewed by the Engineer, and costs for time and materials for reviewing resubmittals will be back charged by the Engineer to the Contractor.

PART 2 -**PRODUCTS** – Not used.

PART 3 -**EXECUTION** -Not used.

END OF SECTION SECTION 01370

SCHEDULE OF VALUES

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit to the Engineer a Schedule of Values allocated to the various portions of the Work, within ten days after award of contract.
 - B. Upon the request of the Engineer, support the values with data which will substantiate their correctness.
 - C. The Schedule of Values, unless objected to by the Engineer, shall be used only as the basis for the Contractor's Applications for Payment.
 - D. Related Requirements in Other Parts of the Contract Documents.
- 1 Agreement
 - 2 General Conditions
 - 3 Supplemental General Conditions

1.02 RELATED REQUIREMENTS

- A. Section 01025: Measurement and Payment
- B. Section 01152: Application for Payment
- C. Section 01600: Material, Equipment and Products.

1.03 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Type schedule on 8-1/2-inch X 11-inch white paper; Contractor's standard forms and automated printout will be considered for approval by Engineer upon Contractors request. Identify schedule with:
 - 1 Title of Project, location and (City, County, Owner) Project Number and Purchase Order Number.
 - 2 Engineer and Engineer's Project number.
 - 3 Name and Address of Contractor.
 - 4 Date of Submission.
- B. Schedule shall list the installed value of the component parts of the Work, in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. Follow the table of contents of these Specifications as the format for listing component items.
 - 1. Identify each line item with the number and title of the respective major section of the specifications.
- D. For each major line item list sub-values of:

- 1 Major products or operations under the item.
- 2 Contract conditions, such as: bonds, insurance premiums, job mobilization, construction facilities and temporary controls.

E. For the various portions of the Work:

1. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
2. For items on which progress payments will be requested for stored materials, break down the value into:
 - a. The cost of the materials, delivered and unloaded, with taxes paid.
 - b. The total installed value.

F. The sum of all values listed in the schedule shall equal the total Contract Sum.

1.04 SUBSCHEDULE OF UNIT MATERIAL VALUES

A. Submit a subschedule of unit costs and quantities for:

- 1 Products specified under a unit cost allowance in Section 01018.
- 2 Products on which progress payments will be requested for stored products.

B. The form of submittal shall parallel that of the Schedule of Values, with each item identified the same as the line item in the Schedule of Values.

C. The unit quantity for bulk materials shall include an allowance for normal waste.

D. The unit values for the materials shall be broken down into:

- 1 Cost of the material, delivered and unloaded at the site, with taxes paid.
- 2 Installation costs, including Contractor's
- 3 Overhead and profit.

E. The installed unit value multiplied by the quantity listed shall equal the cost of that item in the Schedule of Values.

PART 2 -PRODUCTS – Not Used.

PART 3 -EXECUTION – Not used.

END OF SECTION SECTION 01380

CONSTRUCTION PHOTOGRAPHS

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Employ competent photographer to take construction record photographs periodically during course of the Work.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work
- B. Section 01025: Measurement and Payment
- C. Section 01152: Application for Payment
- D. Section 01700: Project Closeout.

1.03 PHOTOGRAPHY REQUIRED

- A. Provide a pre-and post-construction video tape showing the project area (both sides of the street, complete length of the project).
- B. Provide photographs taken on cutoff date for each scheduled Application for Payment.
- C. Views and Quantities Required:
 - 1 At each specified time, photograph Project from six to ten different views, as approved by Engineer.
 - 2 Provide 8 x 10 inch prints of each view. Two (2) copies of each print shall be provided.
 - 3 Provide two copies of a VHS video tape or DVD recording.

1.04 COSTS OF PHOTOGRAPHY

- A. Pay costs for specified photography and prints.
- B. Parties requiring additional photography or prints will pay photographer directly.

PART 2 -PRODUCTS

2.01 PRINTS

- A. Color:
 - 1 Paper; Single weight, neutral black image tone, white base.
 - 2 Finish: Smooth surface, glossy.

- B. Identify each print on back, listing:
- 1 Name of Project.
 - 2 Orientation of view.
 - 3 Date and time or exposure.
 - 4 Name and address of photographer.
 - 5 Photographer's numbered identification of exposure.

PART 3 -EXECUTION

3.01 COLOR AUDIO VIDEO TAPING OF CONSTRUCTION AREA

- A. Prior to beginning any construction, the Contractor shall prepare a color audio videotape of all the areas to be affected by construction (HIGH Density, VHS or DVD format).
- B. The audio video taping shall be done within the one-week period prior to placement of materials or equipment on the construction area and furnished one week prior to the start of construction. The audio video taping shall be done with a City Representative present.
- C. To preclude the possibility of tampering or editing in any manner, all video recordings shall, by electronic means, generate and display continuously and simultaneously on the screen digital information to include the date and time of recording. The time information shall consist of hours, minutes and seconds, separated by colons (i.e., 10:35:18).
- D. The audio video tape shall consist of one video and one audio track which shall be recorded simultaneously. All tracks shall consist of original live recordings and thus shall not be copies of other audio and video recordings. The audio track shall contain the narrative commentary.
- E. The rate of speed in the general direction of travel of the conveyance used during taping shall be controlled to provide a usable image. Panning rates and zoom-in, zoom-out rates shall be controlled sufficiently such that playback will produce clarity of the object viewed.
- F. All taping shall be done during times of good visibility. No taping shall be done during period of visible precipitation, unless otherwise authorized by the City.
- G. The City shall have the authority to designate what areas may be omitted or added for audio video coverage.
- H. When conventional wheeled vehicles are used, the distance from the camera lens to the ground shall not be less than eight feet to insure perspective.
- I. In some instances, audio videotape coverage will be required in areas not accessible by conventional wheeled vehicles. Such coverage shall be obtained by walking or special conveyance by the City.
- J. Areas covered shall include offsite roadways that will be subjected to heavy usage such as for haul routes or delivery of heavy components or equipment.

3.02 TECHNIQUE

- A. Factual presentation
- B. Correct exposure and focus.
- 1 High resolution and sharpness.
- 2 Maximum depth-of-field.
- 3 Minimum distortion.

3.03 VIEWS REQUIRED

- A. Photograph from locations to adequately illustrate condition of construction and state of progress.
- 1 At successive periods of photography, take at least one photograph from the same overall view as previously.
- 2 Consult with engineer at each period of photography for instructions concerning views required.

3.04 DELIVERY OF PRINTS

- A. Deliver prints to Engineer with monthly Pay Application.

END OF SECTION SECTION 01410

TESTING LABORATORY SERVICES

PART 1 -GENERAL

1.01 SELECTION AND PAYMENT:

- A. Contractor shall employ and pay for services of an independent testing laboratory to perform all specified inspection and testing. City to approve the testing laboratory.
- B. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform work in accordance with requirements of Contract Documents.

1.02 CONTRACTOR SUBMITTALS:

- A. Prior to start of work, submit testing laboratory name, address, telephone number, and responsible officer to the Engineer.

1.03 LABORATORY RESPONSIBILITIES:

- A. Samples to be taken by laboratory.
- B. Provide qualified personnel at site. Cooperate with Engineer and Contractor in performance of services.
- C. Perform specified inspection, sampling, and testing of Products in accordance with specified standards.
- D. Ascertain compliance of materials and mixes with requirements of Contract Documents.
- E. Promptly notify Engineer and Contractor of observed irregularities or nonconformance of work or products.

1.04 LABORATORY REPORTS:

- A. After each inspection and test, promptly submit two certified copies of laboratory report to both the Engineer and the Contractor.
- B. Include:
 - 1. Date issued,
 - 2. Project title and number,
 - 3. Name of inspector,
 - 4. Date and time of sampling or inspection,
 - 5. Identification of product and Specifications Section,
 - 6. Location in the Project,
 - 7. Type of inspection or test,
 - 8. Date of test,
 - 9. Results of tests,
 - 10. Conformance with Contract Documents.

C. When requested by Engineer, provide interpretation of test results.

1.05 LIMITS ON TESTING LABORATORY AUTHORITY:

A. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.

B. Laboratory may not approve or accept any portion of the Work.

C. Laboratory may not assume any duties of Contractor.

D. Laboratory has no authority to stop the Work.

1.06 CONTRACTOR RESPONSIBILITIES:

A. Cooperate with laboratory personnel, and provide access to the work and to manufacturer's facilities.

B. Provide incidental labor and facilities to provide access to work to be tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, storage, and curing of test samples.

C. Notify laboratory 24 hours prior to expected time for operations requiring inspection and testing services.

D. Pay costs of testing laboratory services.

1.07 SCHEDULE OF INSPECTIONS AND TESTS:

A. See individual sections of the specifications for required inspection and testing.

B. Testing locations to be approved by the Engineer or Engineer's representative.

PART 2 -PRODUCTS – Not Used.

PART 3 -EXECUTION – Not used.

END OF SECTION SECTION 01450

ENVIRONMENTAL PROTECTION

PART 1 -GENERAL

1.01 SECTION INCLUDES:

- A. Requirements for prevention of environmental pollution and damage as the result of construction operations under this contract.

1.02 SYSTEM DESCRIPTION:

- A. Environmental pollution and damage are defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic, cultural, and/or historical purposes.
- B. The control of environmental pollution and damage requires consideration of air, water, and land, and includes management of visual esthetics, noise, solid waste, radiant energy and radioactive materials, as well as other pollutants.

1.03 QUALITY ASSURANCE:

- A. Establish and maintain quality control for environmental protection of all items set forth herein.
- B. Record on daily quality control reports or attachments thereto, any problems in complying with laws, regulations and ordinances, and corrective actions taken.
- C. Comply with all requirements under the terms and conditions set out in all permit(s) obtained by the Owner.
- D. The Owner's Representative will notify the Contractor in writing of any observed noncompliance with the Federal, State, or local laws or regulations, permits and other elements of the Environmental Protection Plan.
 - 1 After receipt of such notice, inform the Owner's Representative of proposed corrective action and take such action as may be approved.
 - 2 Failure to comply promptly will be grounds for suspension of the work.
 - 3 No time extensions shall be granted or costs or damages allowed for any such suspension.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION

3.01 PROTECTION OF ENVIRONMENTAL RESOURCES:

- A. Protect the environmental resources within the project boundaries and those affected outside the limits of permanent work during the entire period of this contract. Confine activities to areas defined by the drawings and specifications.

- B. Disposal of Waste:
 - 1 Dispose of solid wastes (excluding clearing debris), in containers, which are emptied on a regular schedule. All handling and disposal shall be conducted to prevent contamination.
 - 2 Transport all solid waste off property and dispose of it in compliance with Federal, State and local requirements for solid waste disposal.
 - 3 Store chemical waste in corrosion resistant containers, removed from the work area and disposed of in accordance with Federal, State and local regulations.
 - 4 Discarded materials other than those, which can be included in the solid waste category, shall be handled as directed by the Owner's Representative.

- C. Under no circumstances shall the Contractor discharge any sewage into the storm system or on the ground. The Contractor shall prepare a contingency plan to dispose of the sewage should the by-pass pumping system fail. Previous methods included the use of tankers to transport the sewage to a different part of the system. The Contractor should also consider re-flooding the wet well. However, no additional payment will be made for clean up and restoration of work already completed.

3.02 PROTECTION OF WATER RESOURCES:

- A. Keep construction activities under surveillance, management and control to avoid pollution of surface and ground waters. Contractor to acquire all permits and pay for all associated permit fees necessary for disposal of discharge water into waterways that require turbidity screens.

- B. Monitor all water areas affected by construction activities.

- C. Grade site to drain. Maintain excavations free of water. Provide, operate and maintain pumping equipment. If required, the Contractor shall be responsible for obtaining all applicable South Florida Water Management District dewatering permits and pay for all associated permit fees.

- D. Protect site from puddling or running water.

3.03 PROTECTION OF FISH AND WILDLIFE RESOURCES:

- A. Keep construction activities under surveillance, management and control, to minimize interference with, disturbance to, and damage of fish and wildlife.

END OF SECTION SECTION 01490

CONSTRUCTION CONSIDERATIONS

PART 1 -GENERAL

1.01 HYDRAULIC UPLIFT ON STRUCTURES:

- A. The Contractor shall be completely responsible for any pipelines, sanitary manholes, or similar structures that may become buoyant during the construction operations due to the ground water or floods and before the structure is put into operation. Should there be any possibility of buoyance of a structure, the Contractor shall take the necessary steps to prevent its buoyance. Damage to any structures due to floating or flooding shall be repaired or the structures replaced at the Contractor's expense.

1.02 RELOCATIONS:

- A. The Contractor shall be responsible for the relocation of structures, including but not limited to, light poles, sign poles, fences, piping, conduits and drains that interfere with the positioning of the Work as set out on the Drawings. Unless a pay item is specifically called for in the Schedule of Values, the cost of all such relocations shall be included in the bid and shall not result in any additional cost to the Owner.

1.03 SUBSURFACE INVESTIGATIONS:

- A. The Contractor shall be responsible for having determined to his satisfaction, prior to his bid submittal, the nature and location of the work, the conformation of the ground, the character and quality of the substrata, the types and quantity of materials to be encountered, the nature of the groundwater condition, the character of equipment and facilities required preliminary to and during the performance of the work, the general and local conditions and all other matters which can in any way affect the work under this Contract. The prices established for the work to be done shall reflect all costs pertaining to the work. Any claims for extras based on the substrata or groundwater table conditions will be disallowed.

1.04 OBSTRUCTIONS:

- A. All water pipes, storm drains, sanitary sewers, force mains, or other pipe, telephone or power cables or conduits and all other obstructions, whether or not shown, shall be protected and temporarily supported across utility line excavations. The Contractor shall be responsible for any damage to any such pipes, conduits, or structures. Approximate locations of known water, sanitary, raw water, drainage, power and telephone installations along route of new force main pipeline or in the vicinity of new work are shown, but must be verified in the field by the Contractor before beginning any excavation. The Contractor shall uncover these pipes, ducts, cables, etc., carefully, by hand if necessary, prior to installing new pipeline or structures. Any discrepancies or differences found shall be brought to the attention of the Engineer in order that necessary changes may be made to permit installation of new work. These conditions are supplemental to general requirements elsewhere in the Contract Documents.

1.05 SITE CONDITIONS:

A. The Contractor acknowledges that he has investigated prior to submitting his bid and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, canal stages, tides, water tables or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the work. The Contractor further acknowledges that he has satisfied himself as to the character, quality of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, or any contiguous site, as well as from information presented by the Drawings and Specifications made a part of this Contract, or any other information made available to him prior his bid submittal. Any failure by the Contractor to acquaint himself with the available information will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work. The Owner assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Owner.

1.06 PROTECTION OF PROPERTY:

A. The Contractor shall protect all property that may be affected by his work or operations. The location and extent of underground and covered facilities are not guaranteed and the Contractor is cautioned to proceed with care in order to prevent the undermining or damage to existing structures, piping, or facilities.

B. When City water is being used, the supply source shall be protected against contamination in accordance with existing codes and regulations.

C. In the event any of the Contractor's activities were to disrupt or endanger any facilities, he shall at his own expense make all necessary repairs or replacements necessary to correct the situation to the satisfaction of the Engineer. Such work shall progress continuously to completion on a 24-hour per day, seven workday basis. The Contractor shall be responsible for the services of repair crews on call 24 hours per day for emergencies that arise involving work under this Contract.

1.07 WORK ADJACENT TO LAKE WORTH UTILITIES (LWU) FACILITIES:

A. The attention of the Contractor is drawn to existing Lake Worth Utilities overhead and underground facilities are located in the construction area. The Contractor shall protect all existing power transmission and distribution facilities throughout the period of construction and shall contact the offices of the City at least 72 hours prior to the start of any construction.

B. It is full and complete responsibility of the Contractor to determine the exact location of all overhead and underground power transmission and distribution facilities in the area of the Works whether or not they are indicated on the Drawings.

1.08 WORK ADJACENT TO AT&T TELECOMMUNICATIONS FACILITIES:

A. The attention of the Contractor is drawn to the existing overhead and underground telecommunications facilities are located in the construction area. The Contractor shall protect all existing telecommunications facilities throughout the construction of the project and shall contact the appropriate telecommunications offices at least 72 hours prior to the start of construction.

- B. It is full and complete responsibility of the Contractor to determine the exact location of all overhead and underground telecommunications facilities in the area of the Works whether or not they are indicated on the Drawings.

1.09 WORK ADJACENT TO FLORIDA PUBLIC UTILITIES COMPANY (FPU) FACILITIES:

- A. The attention of the Contractor is drawn to the existing underground natural gas lines are located in the construction area. The Contractor shall protect all existing natural gas pipelines throughout the construction of the project and shall contact the appropriate natural gas offices at least 72 hours prior to the start of construction.
- B. It is full and complete responsibility of the Contractor to determine the exact location of all underground natural gas lines in the area of the Works whether or not they are indicated on the Drawings.

1.10 WORK ADJACENT TO CABLE TV (CATV) FACILITIES:

- A. The attention of the Contractor is drawn to the existing overhead and buried CATV lines are located in the construction area. The Contractor shall protect all existing overhead and buried CATV throughout the construction of the project and shall contact the appropriate cable TV offices at least 72 hours prior to the start of construction.
- B. It is full and complete responsibility of the Contractor to determine the exact location of all overhead and underground CATV in the area of the Works whether or not they are indicated on the Drawings.

1.11 WORK ADJACENT TO PALM BEACH COUNTY TRAFFIC OPERATIONS FACILITIES:

- A. The attention of the Contractor is drawn to the existing buried Palm Beach County Traffic Operations lines are located in the construction area. The Contractor shall protect all existing buried traffic cables throughout the construction of the project and shall contact the Palm Beach County Traffic Department at least 72 hours prior to the start of construction.
- B. It is full and complete responsibility of the Contractor to determine the exact location of all underground traffic cables in the area of the Works whether or not they are indicated on the Drawings.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION – Not used.

END OF SECTION 01501

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 -GENERAL

1.01 SECTION INCLUDES:

- A. Temporary Utilities: Electricity, lighting, telephone service and sanitary facilities.
- B. Temporary Controls: Barriers, enclosures and fencing, protection of the Work and water control.
- C. Construction Facilities: Access roads, parking, progress cleaning, project signage and temporary buildings.

1.02 RELATED SECTIONS:

- A. Section 01570 –Maintenance of Traffic.

1.03 TEMPORARY ELECTRICITY:

- A. Cost: By Contractor; provide and pay for any required temporary power service.

1.04 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES:

- A. Provide and maintain lighting for construction operations as necessary.

1.05 TEMPORARY VENTILATION:

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity and to prevent accumulation of dust, fumes, vapors or gases.

1.06 TELEPHONE SERVICE:

- A. Provide, maintain and pay for telephone service to field office, if required, at time of project mobilization.

1.07 TEMPORARY SANITARY FACILITIES:

- A. Provide and maintain required temporary restroom facilities and enclosures for field crews.

1.08 BARRIERS:

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations maintaining access to public rights-of-way and existing buildings and driveways. Maintain access to fire hydrants.

B. Provide protection for vegetation designated to remain. Replace damaged plant life.

C. Protect vehicular traffic, stored materials, site and structures from damage.

1.09 FENCING:

A. Construction: At Contractor's option, construct temporary commercial grade chain link fence 6 foot high. Contractor is responsible for cost of any construction fencing.

1.10 WATER CONTROL:

A. Grade site to drain. Maintain excavations free of water. Provide, operate and maintain pumping equipment. Contractor responsible for obtaining any required South Florida Water Management District dewatering permits.

B. Protect site from puddling or running water.

1.11 TEMPORARY BYPASSING FACILITIES:

A. Contractor to provide all pumps, labor and materials required to bypass the flow of sewage during sanitary sewer main replacement and manhole work.

B. Contractor to provide all pumps, labor and materials required to bypass the flow of storm water during drainage system replacement and installation work.

1.12 PROTECTION OF INSTALLED WORK:

A. Protect installed Work and provide special protection where specified in individual specification sections.

B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

1.13 SECURITY:

A. Provide security and facilities to protect Work, existing facilities and Owner's operations from unauthorized entry, vandalism or theft.

1.14 PROGRESS CLEANING AND WASTE REMOVAL:

A. Maintain areas free of waste materials, debris and rubbish. Maintain site in a clean and orderly condition.

B. Collect and remove waste materials, debris and rubbish from site daily and dispose off-site.

1.15 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS:

A. Remove temporary utilities, equipment, facilities and materials prior to Substantial Completion inspection.

B. Clean and repair damage caused by installation or use of temporary work.

C. Restore existing (and permanent) facilities used during construction to original condition.

1.16 TEMPORARY WATER SERVICES:

A. Responsibility shall be upon the contractor to provide and maintain, at his own expense, an adequate supply of water for his use for construction and domestic consumption, and to install and maintain necessary supply connections and piping for same, but only at such locations and in such manner as may be approved by the Owner. Before final acceptance, temporary connections and piping installed by the Contractor shall be removed in a manner satisfactory to the Owner.

The Contractor shall request through the City of Lake Worth Utilities, Customer Service facility a 3" hydrant meter, which shall be installed with a backflow preventer attached.

The method of request is to have an authorized agent come to the Utilities Customer Service office with the proper adjustable hydrant wrench, make out a hydrant meter permit, have said permit hand-delivered to Utilities Customer Service, located on the first floor of City Annex Building, 414 Lake Ave, Lake Worth, FL 33460 with a \$500.00 deposit and a mailing address. This must be done at least two days prior to the need to use the hydrant meter. This 3" hydrant meter will be billed monthly at a minimum rate of \$65.00 plus water usage at the current rates schedule. These costs are subject to change by City Commission Resolution.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION – Not used.

END OF SECTION 01540

SECURITY AND PROTECTION

PART 1 -GENERAL

1.01 DESCRIPTION:

- A. Requirements: This section specified minimum requirements of temporary provisions for security and protection is the Contractor's sole responsibility, and is not limited to the minimums established by the requirements hereof. Except as otherwise indicated, the use of alternative security and protection methods of facilities, equivalent to those specified, is the Contractor's option. The work of this section is defined to exclude required insurance coverage, performance/payment bonds, first aid requirements, general supervision, quality control, damage surveys, enclosure of completed work and stored materials, inspections and test of the work, instruction to Owner's personnel and similar recognized protection/security provision, which are, nevertheless, specified in other parts of the contract documents, if required.
- B. The types of security and protection facilities and services required for the entire project include, but are not limited to, the following:
- 1 Barricades, warning signs, lights.
 - 2 Security enclosure and lockup of work.
 - 3 Personnel security program.
 - 4 Environmental protection.

1.02 QUALITY ASSURANCE:

- A. Regulations: Comply with governing regulations for the installation and operation of security and protection facilities, including the rules and recommendations of fire and building departments, police, rescue squad's watchman services and similar local organizations and companies.

1.03 JOB CONDITIONS:

- A. Scheduled Uses: Provide security and protection at the times first needed at the site; and maintain, expand and modify the facilities as needed throughout the construction period.
- B. Conditions of Use: Use security and protection facilities and services in a safe, sanitary, lawful and publicly acceptable manner, which will not interfere unduly with performance of the work nor result in other deleterious effects.

1.04 MATERIALS OF SECURITY AND PROTECTION FACILITIES:

- A. General: For use in security and protection facilities, provide either new or used materials and equipment, which are in substantially undamaged and serviceable conditions. Provide types and quality levels which are recognized in the construction industry as suitable for the intended use in each application.

1.05 INSTALLATION OF SECURITY/PROTECTION FACILITIES:

- A. General: Use qualified tradesmen for the installation of security and protection facilities. Locate facilities where they will serve the total project construction work adequately, and result in a minimum interference with performance of the work. Relocate, modify and extend facilities as required during the course of the work, to properly accommodate the entire work of the project. Provide and maintain a reasonably neat and uniform appearance in security and protection facilities, acceptable to the Owner.

1.06 BARRICADES, WARNING SIGNS AND LIGHTS:

- A. General: Comply with recognized standards and code requirements for the erection of substantial and structurally adequate barricades wherever needed to prevent accidents and losses. Paint with appropriate colors, graphics and warning signs and inform personnel at the site, and the general public where exposure exists of the hazard being projected. Provide lighting where appropriate and needed for the recognition of the facility, including flashing red lights where appropriate.
- B. Storage: Where materials and equipment must be temporarily stored, prior to and during construction, and are of substantial value or attractive for possible theft, provide secure lockup and enforce strict discipline in connection with the timing of installation and release of materials, so that the opportunity for theft and vandalism is minimized.

1.07 ENVIRONMENTAL PROTECTION:

- A. General: Provide protection facilities, operate temporary facilities, conduct construction activities and enforce strict discipline for personnel at the project site in ways and by methods which comply with environmental protection regulations, and which will minimize the possibility that the air, waterways and subsoil might be contaminated or polluted, or that other undesirable and deleterious effects might result from performance of the work at the project site. Avoid the use of tools and equipment which produce harmful noise; and restrict the use of noise-making tools and equipment to the hours of use which will minimize noise complaints by persons or residents near the project.

1.08 TERMINATION AND REMOVAL:

- A. General: Maintain protection and security facilities and services in good operating condition through the time and use and until the completion and use of permanent work makes each temporary service unnecessary, or until the Owner's occupancy has replaced the need for the service or until its discontinuation has been otherwise authorized. Remove each facility promptly after its use has been terminated. Complete or restore permanent work which may have been delayed or otherwise affected by the temporary facility. Replace work which cannot be satisfactorily restored. Except as otherwise indicated, the materials and equipment of temporary security and protection facilities remain the property of the Contractor.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION – Not used.

END OF SECTION 01570

MAINTENANCE OF TRAFFIC

PART 1 -GENERAL

1.01 DESCRIPTION:

- A. Provide all labor, material and services to perform all operations required for the maintenance and protection of vehicular and pedestrian traffic in conformance to all applicable F.D.O.T. laws and regulation and subject to approval and permits by City, Palm Beach County (if applicable), and F.D.O.T. (if applicable).

1.02 SUBMITTAL:

- A. Submit Traffic Control Plans and Construction Schedule to the City, Palm Beach County (if applicable), and the F.D.O.T. (If applicable) for review and approval at least 30 days prior to the start of construction.

1.03 SIGNS AND DEVICES:

- A. Traffic Control and Informational Signs.
- B. Traffic Cones and Drums, and Lights.
- C. Flagman Equipment.

1.04 CONSTRUCTION PARKING CONTROL:

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles and Owner's operations.

1.05 FLAGPERSONS:

- A. Provide trained and equipped flagpersons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

1.06 LIGHTS:

- A. Use lights during hours of low visibility to delineate traffic lanes and to guide traffic.

1.07 TRAFFIC SIGNS AND DEVICES:

- A. At approaches to site and on site, install at crossroads, detours, parking areas, and elsewhere as needed, to direct construction and affected public traffic. The contractor shall submit traffic control through work zone plans based on F.D.O.T. Roadway and Traffic Design Standards, 2013 Edition; Index No. 604 for work within intersections, and F.D.O.T. Index No. 603 and 605 for work requiring the closure of a traffic lane.

- B. At approaches to activities on or near sidewalks and elsewhere as needed, to notify affected non-motorized public traffic the closure of sidewalks, the contractor shall submit traffic control through work zone plans based on F.D.O.T. Roadway and Traffic Design Standards, 2013 Edition, Index No. 660.
- C. Relocate as Work progresses, to maintain effective traffic control.

1.08 REMOVAL:

- A. Remove equipment and devices when no longer required.
- B. Repair damage caused by installation.

1.09 SPECIFICATIONS BY REFERENCE:

- A. State of Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Section 102, 2013 Edition.
- B. State of Florida Manual of Traffic Control and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations.
- C. The Manual of Uniform Traffic Control Devices, latest edition.

1.10 SPECIFIC TRAFFIC CONTROL:

- A. Contractor shall maintain through traffic on all public roads at all times unless stated otherwise herein.
- B. Contractor shall maintain access to all vehicular driveways (public or private) at all times. Contractor shall backfill and install temporary rock base as necessary in order to provide safe and functional access to all driveways.
- C. Contractor shall coordinate with the Police and Fire Departments for whom the Contractor will provide satisfactory access at all times.
- D. Contractor shall maintain, at the minimum, one travel lane, each direction, when performing work within the Palm Beach County Right-of-Way.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION

3.01 EXECUTION:

- A. The Contractor shall arrange his work to cause minimum disturbance to normal pedestrian and vehicular traffic; and shall be held responsible for providing and maintaining suitable means of access (including emergencies) to all public and private properties during all stages of the construction.

- B. If it becomes necessary to block off an entire street to vehicular traffic during construction (other than for an emergency situation), the Contractor must contact the City for approval prior to completely blocking off the street.

END OF SECTION

SECTION 01600

EQUIPMENT AND MATERIALS

PART 1 -GENERAL

- 1.01 SUMMARY: THIS SECTION INCLUDES GENERAL REQUIREMENTS FOR EQUIPMENT AND MATERIAL TRANSPORTATION AND HANDLING, DELIVERY, STORAGE, AND PROTECTION OF CONTRACTOR AND CITY -FURNISHED EQUIPMENT AND MATERIALS.
- A. RELATED WORK:
1. SUBSTITUTIONS: Section 38 General Conditions. The contractor shall comply with the contract documents and the City's Approved Materials List (AML).
 2. SUBMITTALS: Section 01300.
- 1.02 DEFINITIONS: DEFINITIONS USED IN THIS PARAGRAPH ARE NOT INTENDED TO NEGATE THE MEANING OF OTHER TERMS USED IN THE CONTRACT DOCUMENTS, INCLUDING SUCH TERMS AS "SYSTEMS," "STRUCTURE," "FINISHES," "ACCESSORIES," "FURNISHINGS," "SPECIAL CONSTRUCTION," AND SIMILAR TERMS. SUCH TERMS ARE SELF-EXPLANATORY AND HAVE RECOGNIZED MEANINGS IN THE CONSTRUCTION INDUSTRY.
- A. PRODUCTS: Items purchased for incorporation in the Work, regardless of whether they were specifically purchased for the Project or taken from the previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and other terms of similar intent.
- B. EQUIPMENT: A product with operational or non-operational parts, regardless of whether motorized, manually operated, or fixed. Equipment may require service connections such as wiring or piping.
- C. MATERIALS: Products that must be substantially cut, shaped, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form parts of Work.
- 1.03 QUALITY ASSURANCE:
- A. EQUIPMENT AND MATERIAL INCORPORATED INTO THE WORK: Provide products that comply with the requirements of the Contract Documents, undamaged, and unless otherwise indicated, unused at the time of installation. Provide products that are complete with all accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and for the intended use and effect.
- B. STANDARD PRODUCTS: Where they are available and comply with Specifications, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- C. CONTINUED AVAILABILITY: Where, because of the nature of its application, the City is likely to need replacement parts or additional amounts of a product at a later date, either for maintenance and repair or replacement, provide standard products for which the manufacturer has published assurances that the products and its parts are likely to be available to the City at a later date.

1. Conform to applicable Specifications, codes, standards, and regulatory agencies.
2. Comply with size, make, type, and quality specified, or as specifically approved in writing by the Engineer.
3. Manufactured and Fabricated Products:
 - a. Design, fabricate, and assemble in accordance with the best engineering and shop practices.
 - b. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
 - c. Equipment and Materials shall be suitable for service conditions intended.
 - d. Equipment capacities, sizes, and dimensions indicated or specified shall be adhered to unless variations are specifically approved in writing.
 - e. Provide labels and nameplates where required by regulatory agencies or to state identification and essential operating data.
 - f. Two or more items of the same kind shall be identical, supplied by the same manufacturer.
4. Do not use equipment and material for any purpose other than that for which it is designed or is specified.

D. SOURCE LIMITATIONS To the fullest extent possible, provide products of the same kind from a single source.

E. IDENTIFICATION: Each item of equipment shall have permanently affixed to it a label or tag with its equipment number designated in this contract. Marker shall be stainless steel and shall be located so as to be easily visible.

1.04 TRANSPORTATION AND SHIPMENT:

A. SHIPMENT PREPARATION: Contractor shall require manufacturers and suppliers to prepare Equipment and Materials for shipment in a manner to facilitate unloading and handling, and to protect against damage or unnecessary exposure in transit and storage, for contractor supplied equipment. Provisions for protection shall include the following:

- 1 Crates or other suitable packaging materials.
- 2 Covers and other means to prevent corrosion, moisture damage, mechanical injury, and accumulation of dirt in motors, electrical equipment, and machinery.
- 3 Suitable rust-preventive compound on exposed machined surfaces and unpainted iron and steel.
- 4 Grease packing or oil lubrication in all bearings and similar items.
- 5 Precast concrete components shall be transported, lifted and stored as specified by the precast supplier. Precast supplier shall provide written instructions to the Contractor as to the above. Contractor shall provide a copy to City.

B. MARKING: Each item of Equipment and Material shall be tagged or marked as identified in the delivery schedule or on Submittals. Complete packing lists and bills of material shall be included with each shipment. Each piece of every item need not be marked separately, provided that all pieces of each item are packed or bundled together and the packages or bundles are properly tagged or marked.

1.05 DELIVERY, STORAGE AND HANDLING:

A. DELIVERY:

1. Arrange deliveries of Equipment and Materials in accordance with construction schedules, in ample time to facilitate inspection prior to installation, and to avoid delay of the Work.
2. Deliver, store and handle Equipment and Materials in accordance with manufacturer's recommendations using means and methods that will prevent damage, deterioration, and loss, including theft.
3. Control delivery schedules to minimize long term storage at the site and to prevent overcrowding of construction spaces. In particular, coordinate delivery and installation to ensure minimum holding or storage times for items known or recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other sources of loss.
4. Avoid conflict with Work of City or other contractors.
5. Deliver Equipment and Materials to the site in manufacturer's sealed containers or other packaging system with identifying labels and instructions for handling, storing, unpacking, protecting, and installing.
6. Mark deliveries of component parts of equipment to identify the equipment, to permit easy accumulation of parts, and to facilitate inspection and measurement of quantity or counting of units.
7. Immediately on delivery, inspect shipment to assure:
 - a. Product complies with requirements of Contract Documents and reviewed Submittals.
 - b. Quantities are correct.
 - c. Containers and packages are intact, labels are legible.
 - d. Equipment and Materials are properly protected and undamaged.

B. STORAGE:

1. Store Equipment and Materials immediately on delivery, and protect until completion of the Work. Store in accordance with manufacturer's instructions with seals and labels intact and legible.
2. Store Equipment and Materials in a manner that will not endanger the supporting construction.
3. Store Equipment and Materials that are subject to damage by elements in weather tight enclosures.
4. Maintain temperature and humidity within ranges required by manufacturer.
5. Protect motors, electrical equipment, plumbing fixtures, and machinery of all kinds against corrosion, moisture deteriorations, mechanical injury, and accumulation of dirt or other foreign matter.
6. Protect exposed-machined surfaces and unpainted iron and steel as necessary with suitable rust-preventive compounds.
7. Protect bearings and similar items with grease packing or oil lubrication.
8. Handle and store steel plate, sheet metal, and similar items in a manner to prevent deformation.

9. Exterior Storage:
 - a. Provide substantial platforms, blocking, or skids to support fabricated products aboveground; and to prevent soiling or staining. Cover products subject to discoloration or deterioration from exposure to the elements, with impervious sheet coverings. Provide adequate ventilation to avoid condensation.
 - b. Store loose granular materials on solid surface areas to prevent mixing with foreign matter.
 - c. Provide surface drainage to prevent flow or ponding of rainwater.
10. Equipment and Materials shall not show any pitting, rust, decay, or other deleterious effects of storage prior to final acceptance of Work.
11. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and free from damage or deterioration.

C. HANDLING:

- 1 Provide equipment and personnel necessary, to unload and handle Equipment and Materials, by methods to prevent damage or soiling to Equipment and Materials, or packaging.
- 2 Handle by methods to prevent bending or overstressing. Where lifting points are designated, lift components only at those points.
- 3 Provide additional protection to surrounding surfaces as necessary to prevent damage.

D. MAINTENANCE OF STORAGE:

- 1 Inspect stored Equipment and Materials on a scheduled basis.
- 2 Verify that storage facilities comply with manufacturer's product storage requirements, including environmental conditions continually maintained.
- 3 Verify that surfaces of products exposed to elements are not adversely affected; that any weathering of finishes is acceptable under requirements of Contract Documents.
- 4 For mechanical and electrical equipment in long-term storage, provide manufacturers service instructions to accompany each item, with notice of enclosed instructions on exterior of package. Service Equipment on a regularly scheduled basis.

E. PROTECTION AFTER INSTALLATION: Provide substantial coverings as necessary to protect installed Equipment and Materials from damage from subsequent construction operations. Remove when no longer needed or as specified.

1.06 EXISTING EQUIPMENT AND MATERIALS:

A. EQUIPMENT AND MATERIALS TO BE REUSED: For Equipment and Materials specifically indicated or specified to be reused in the Work, use special care in removal, handling, storage, and reinstallation to assure proper function in the completed Work. Arrange for transportation, storage and handling of products which require off site storage, restoration, or renovation and pay all costs for such Work. Contractor may at his option, furnish and install new items in lieu of those specified to be reused. Remove, relocate and reinstall the following Equipment and Materials:

1. Traffic signs and posts.

B. EQUIPMENT AND MATERIALS NOT TO BE REUSED: The following Equipment and Materials to be removed shall remain City's property and are not to be reused in the Work. Remove from its location, prepare for handling and storage, and deliver to City.

1. As indicated on the Drawings.

C. Equipment and Materials designated to be removed but not reused or delivered to City, shall become the property of the Contractor and shall be removed from the site.

PART 2 -PRODUCTS

2.01 PRODUCTS AND MANUFACTURERS:

A. Specified in each applicable Section of Specifications, construction plans and the City's Approved Materials List (AML.)

2.02 PRODUCT SELECTION AND SUBSTITUTIONS:

A. Specified in Instructions to Bidders and General Conditions.

PART 3 -EXECUTION

3.01 MANUFACTURERS INSTRUCTIONS:

A. INSTALLATION:

1 When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions if not a part of Submittals, containers, or packaging to parties involved in the installation, including a copy to the City.

2 Maintain one complete set of instructions at the job site during installation and until completion.

3 Handle, install, connect, clean, condition, and adjust products in accordance with such instructions and in conformance with specified requirements. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Engineer for further instructions.

4 Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents, or approved in writing by manufacturer and the City.

5 Accurately locate and align with other Work, and anchor Equipment and Materials securely in place except as required for proper movement and performance.

6 Clean and protect exposed surfaces as necessary to ensure freedom from damage and deterioration at time of acceptance.

END OF SECTION 01610

DELIVERY, STORAGE AND HANDLING

PART 1 -GENERAL

1.01 GENERAL:

- A. This Section specifies the general requirements for the delivery, handling, storage and protection for all items required in the construction of the work. Specific requirements, if any, are specified with the related item.

1.02 TRANSPORTATION AND DELIVERY:

- A. Transport and handle items in accordance with manufacturer's instructions.
- B. Schedule delivery to reduce long-term on-site storage prior to installation and/or operation. Under no circumstances shall equipment be delivered to the site more than one month prior to installation without written authorization from the Engineer.
- C. Coordinate delivery with installation to ensure minimum holding time for items that are hazardous, flammable, easily damaged or sensitive to deterioration.
- D. Deliver products to the site in manufacturer's original sealed containers or other packing systems, complete with instructions for handling, storing, unpacking, protecting and installing.
- E. All items delivered to the site shall be unloaded and placed in a manner which will not hamper the Contractor's normal construction operation or those of subcontractors and other contractors and will not interfere with the flow of necessary traffic.
- F. Provide necessary equipment and personnel to unload all items delivered to the site.
- G. Promptly inspect shipment to assure that products comply with requirements, quantities are correct, and items are undamaged. For items furnished by others (i.e. Owner, other Contractors), perform inspection in the presence of the Engineer or Engineer's representative. Notify Engineer verbally, and in writing, of any problems.

1.03 STORAGE AND PROTECTION:

- A. Store and protect products in accordance with the manufacturer's instructions, with seals and labels intact and legible. Storage instruction shall be studied by the Contractor and reviewed with the engineer by him. Instruction shall be carefully followed and a written record of this kept by the Contractor. Arrange storage to permit access for inspection.
- B. Store loose granular materials on solid flat surface in a well-drained area. Prevent mixing with foreign matter.
- C. Cement and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All structural, miscellaneous and reinforcing steel shall be stored off the ground or otherwise to prevent accumulation of dirt or grease, and in a position to prevent accumulations of standing water and to minimize rusting. Beams shall be stored with the webs vertical. Pre-cast concrete shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in a manner to reduce breakage, cracking and spalling to a minimum.

PART 2 -PRODUCTS – Not used.

PART 3 -EXECUTION – Not used.

END OF SECTION 01640

PRODUCTS AND SUBSTITUTIONS

PART 1 -GENERAL

1.01 PRODUCTS' LIST:

- A. Within 10 days after commencement date of Contract, submit to Engineer two copies of a complete list of all products proposed to be used, with name of the manufacturer and the installing subcontractor. Tabulate list by each specification section.
- B. For products specified under reference standards, include with listing of each product:
 - 1. Name and address of manufacturer.
 - 2. Trade name.
 - 3. Model or catalog designation.
 - 4. Manufacturer's data:
 - a. Performance and test data.
 - b. Reference standards.
- C. Contractor's Option: For products specified only by reference standards, select any product meeting that standard. For products specified by naming several products or manufacturers, select any one of the products or manufacturers names, which complies with the specifications.

1.02 SUBSTITUTIONS:

- A. For a period of 10 days after commencement date of Contract, Engineer may consider written requests from Contractor for substitution of approved products.
- B. Conditions: Refer to Supplementary Conditions. Requests by Contractor will be considered when reasonable, timely, fully documented and qualifying under one or more of the following circumstances:
 - 1 Related to an "or equal" or similar provision in contract documents.
 - 2 Required product cannot be supplied in time for compliance with Contract Time Requirements.
 - 3 Required product is not acceptable to governing authority, or determined to be non-compatible, or cannot be properly coordinated, warranted or insured or has other recognized disability as certified by Contractor.
 - 4 Substantial advantage is offered Owner after deducting offsetting disadvantages including delays, additional compensation to Engineer for redesign, investigation, evaluation and other necessary services and similar considerations.
- C. Submit a separate request for each product, three copies of each submittal, to include the following:
 - 1. Complete data substantiating compliance of proposed substitution with Contract Documents.

- a. Product identification, including manufacturer name and address.
 - b. Manufacturer's literature including product description, performance and test data and reference standards.
 - c. Samples where appropriate and/or requested.
 - d. Name and address of two similar projects on which product was used successfully in a similar application.
 - e. Detailed description of proposed construction method.
 - f. Drawings illustrating construction method.
- 1 Itemized comparison of proposed substitution with product or method specified.
 - 2 Date relating to changes in construction schedule; any change in the contract time; effect on other trades.
 - 3 Accurate cost data on proposed substitution in comparison with product or method specified, including a proposal of the net change in the contract sum.

D. The Engineer will be the sole judge of the acceptability of the proposed substitution.

E. In making request for substitution Contractor represents:

- 1 He has personally investigated proposed product or method, and determined that it is equal or superior in all respects to that specified.
- 2 He will provide the same warranties, guarantees or bonds for the substitution as for the product or method specified herein.
- 3 He will coordinate the installation of an accepted substitution into the Work, and make such other changes as may be required to make the Work complete in all respects.
- 4 He waives the right to claims for additional costs related to the substitution which may subsequently become apparent and waives all rights to additional payment and time which may subsequently be necessitated, by failure of the substitution to perform as specified, and for the required Work to make corrections thereof.
- 5 Cost data is complete and includes all related costs under his contract.

F. Substitutions will not be considered if:

- 1 They are indicated or implied on shop drawings or project data submittals without formal request submitted in accordance with the Contract Documents.
- 2 Acceptance will require revision of the Contract Documents.

G. After date bids are reviewed, approval of substitutions shall be governed by change order procedure.

1.03 PROCEDURAL REQUIREMENTS:

- A. General Limitations: Where possible, provide entire required quantity of each generic product, material or equipment from a single source; and, where not possible to do so, match separate products as closely as possible. To extend selection process is under Contractor's control, provide compatible products, materials and equipment. Where available and complying with requirements, provide standard products which have been used previously and successfully in similar applications, and which are recommended by manufacturers for applications indicated.

PART 2 -PRODUCTS – Not used. **PART 3 -EXECUTION** – Not used.

END OF SECTION

SECTION 01700

PROJECT CLOSEOUT

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED:

- A. Closeout procedures, final cleaning, project record documents, system demonstration, warranties and bonds.
- B. Closeout includes the general requirements near the end of the Contract Time in preparation for final acceptance, final payment, normal termination of the Contract, beneficial use by the Owner, and similar actions evidencing completion of the Work.

1.02 RELATED REQUIREMENTS:

- A. Section 01010: Summary of Work.
- B. Section 01050: Field Engineering.
- C. Section 01500: Construction Considerations.

1.03 CLOSEOUT PROCEDURES:

- A. Comply with procedures stated in the General Conditions and Supplemental General Conditions of the Contract Documents for issuance of the Certificate of Substantial Completion and the Certificate of Final Completion.
- B. When the Contractor considers that the Work has reached final completion, submit written certification that the Contract Documents have been reviewed, the Work has been thoroughly inspected, and that the Work is considered to be completed in accordance with the Contract Documents and is ready for inspection by the Engineer.
- C. In addition to submittals required by the conditions of the Contract, provide all other submittals required by the Owner, other governing authorities or regulatory agencies, and submit to the Engineer a final statement of accounting giving the total adjusted Contract Sum, previous payments, and the sum remaining due.
- D. The Engineer will issue a final change order reflecting approved adjustments to the Contract Sum not previously made by Change Order.

1.04 SUBSTANTIAL COMPLETION:

- A. When the Contractor considers the Work to be substantially complete, the Contractor will submit to the Engineer, or the Owner, as applicable:
 - 1 A written notice that the Work, or a designated portion thereof, is substantially complete.
 - 2 Special guarantees, warranties, workmanship bonds, maintenance agreements and similar documents.
 - 3 Occupancy permits, operating certificates, test certificates and similar releases enabling the Owner's full and unrestricted use of the work and access to services and utilities.
 - 4 Record drawings, maintenance manuals, project photographs, property survey and similar record information.
 - 5 Tools, spare parts, extra stocks of materials and similar physical items to the Owner.

6 Certification that all site temporary facilities and services, along with construction equipment, mock-ups and similar elements have been removed from the site and that all repairs, touch-ups and restorations of marred exposed finishes have been completed.

B. Within a reasonable time after receipt of such notice, the Engineer will make an inspection to determine the status of completion.

C. Should the Engineer determine that the Work is not substantially complete:

- 1 The Engineer will promptly notify the Contractor in writing, giving the reasons therefore.
- 2 The Contractor will remedy the deficiencies in the Work, and send a second written notice of substantial completion to the Engineer.
- 3 The Engineer will then re-inspect the Work.

D. When the Engineer finds that the Work is substantially complete, it will:

- 1 Prepare and deliver to the Owner a tentative Certificate of Substantial Completion, with a tentative list of items to be completed or corrected before final payment.
- 2 After consideration of any objections made by the Owner as provided in the General Conditions, and when the Engineer considers the Work substantially complete, it will execute and deliver to the Owner and the Contractor a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

1.05 FINAL SUBMITTALS

A. The following submittals, as applicable, are required prior to finalizing the Contract:

- 1 Final shop drawings (N/A)
- 2 Record drawings

B. All guarantees, bonds, certifications, licenses, and affidavits required for work and equipment must be filed with the Engineer.

1.06 RELEASE OF LIENS OR CLAIMS:

A. Satisfactory evidence of release or waiver of all liens or claims must be submitted to the Owner prior to finalizing the Contract.

1.07 FINAL INSPECTION:

A. When the Contractor considers the Work complete, it will submit written certification that:

- 1 The Contract Documents have been reviewed.
- 2 The Work has been inspected for compliance with the Contract Documents.
- 3 The Work has been completed in accordance with the Contract Documents.
- 4 The Work is in every way completed and ready for final inspection.

- B. The Engineer will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.
- C. Should the Engineer consider that the Work is incomplete or defective:
 - 1 The Engineer will promptly notify the Contractor in writing, listing the incomplete or defective work.
 - 2 The Contractor will take immediate steps to remedy the stated deficiencies, and send a second written certification to the Engineer that the Work is complete.
 - 3 The Engineer will re-inspect the work.
 - 4 When the Engineer finds that the Work is acceptable under the Contract Documents, it shall request the Contractor to make close-out submittals.

1.08 RE-INSPECTION FEES:

- A. Should the Engineer perform re-inspections due to the failure of the Work to comply with the claims of status of completion made by the Contractor:
 - 1 The Contractor will compensate the Engineer for such additional services.
 - 2 The Owner will deduct the costs of such additional compensation from the final payment to the Contractor.

1.09 CONTRACTOR'S CLOSE-OUT SUBMITTALS TO THE ENGINEER:

- A. Project record drawings.
 - 1 Record documentation of work on private properties
 - 2 Statement of Satisfaction from Property Owner of each and all private properties
- B. For work performed on private properties:
 - 1 Record documentation of work for each and all private properties
 - 2 Statement of Satisfaction from Property Owner of each and all private properties
- C. Contractor's affidavit of payment of debts and claims:
 - 1. Contractor's release or waiver of liens.
- D. Separate releases or waivers of liens for subcontractors, suppliers and others that have filed lien rights against property of the Owner in accordance with Section 713.06 Florida Statutes, together with a list of those parties.
- E. Final payment request with Consent of Surety for Final Payment and the Contractor's Certification of Final Completion.
- F. Certified copy of the Engineer's final punch-list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance.

1.10 FINAL ADJUSTMENT OF ACCOUNTS:

- A. Submit a final statement of accounting to the Engineer. The statement will reflect all approved adjustments to the Contract Sum, including:
 - 1. The original Contract Sum.
 - 2. Additions and deductions resulting from:
 - a. Approved Change Orders.
 - b. Allowances.
 - c. Unit Prices.
 - d. Deductions for uncorrected Work.
 - e. Deductions for liquidated damages.
 - f. Deductions for re-inspection payments.
 - g. Deductions for re-testing due to failed tests.
 - h. Other adjustments.
 - 3. Total Contract Sum, as adjusted.
 - 4. Previous payments.
 - 5. Sum remaining due.
- B. The Engineer will prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Order.

1.11 FINAL CLEANING:

- A. Perform prior to final inspection.
- B. Clean the site, sweep paved areas, rake clean other surfaces.
- C. Remove waste and surplus materials, rubbish and construction facilities from the project site and dispose of in a lawful manner.
- D. Remove stains, petrochemical spills and other foreign deposits.
- E. Except as otherwise indicated or requested by the Owner, remove temporary protection devices and facilities installed during the course of the Work to protect previously completed Work during the remainder of the construction period.
- F. Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at the site or bury debris or excess materials, or discharge volatile or other harmful or dangerous materials into the environment.
- G. Where extra materials of value remain after completion of the Work, dispose of or store such materials for use by the Owner as indicated in these Specifications.

1.12 PROJECT RECORD DOCUMENTS:

- A. Conform to Section 01720 Record Drawings.

1.13 WARRANTIES AND BONDS:

- A. Provide duplicate, signed, notarized originals. Execute Contractor's submittals and assemble documents executed by subcontractors, suppliers and manufacturers. Provide table of contents and assemble in binder with durable plastic cover.
- B. Submit material prior to final application for payment. For equipment put into use with Owner's permission during construction, submit within 10 days after first operation. For items of Work delayed materially beyond the date of Substantial Completion, provide updated submittals within 10 days after acceptance, listing the date of acceptance as the start of the warranty period.

1.14 FINAL APPLICATION FOR PAYMENT:

- A. The Contractor will submit the Final Application for Payment in accordance with the procedures and requirements stated in the General Conditions.

1.15 FINAL CERTIFICATE FOR PAYMENT:

- A. The Engineer will process the Final Application for Payment in accordance with the provisions of the General Conditions.

1.16 POST-CONSTRUCTION INSPECTION:

- A. Prior to expiration of one year from the date of Substantial Completion, the Engineer will make a visual inspection of the Project in company with the Owner and the Contractor to determine whether correction of Work is required, in accordance with the provisions of the General Conditions.
- B. The Engineer will promptly notify the Contractor, in writing, of any observed defects or deficiencies in the work.
- C. The Contractor shall immediately undertake all work required to remedy defects and repair the work to the satisfaction of the Engineer and the Owner.

PART 2 -PRODUCTS

2.01 ACCESSORIES:

- A. Furnish to the Owner, upon acceptance of equipment, all accessories required to place each item of equipment in full operation.
- B. Accessory items include, but are not limited to, adequate oil and grease as required for first lubrication of equipment (after field testing), light bulbs, fuses, hydrant wrenches, valve keys, handwheels, chain operators, special tools, and other items as required for initial operation.

PART 3 -EXECUTION – Not used.

END OF SECTION 01720

DEMOLITION AND RENOVATION

PART 1 -GENERAL

1.01 SCOPE OF WORK:

- A. Furnish all labor, materials, equipment, and incidentals required for demolition, renovation, removal and disposal work as shown on the Contract Drawings and as specified herein.
- B. Included, but not limited to, are demolition and removals of existing materials, equipment, or work necessary to install the new work as shown on the Contract Drawings and as specified herein. Demolition includes structural concrete, foundations, walls, doors, windows, structural steel, metals, roofs, masonry, attachments, appurtenances, piping, electrical and mechanical equipment, paving, curbs, walks, fencing, and other existing facilities.
- C. Demolitions and removals which may be specified under other Sections shall conform to the requirements of this Section.
- D. Where applicable, these specifications call attention to certain activities necessary to maintain and facilitate continuous operation of existing facilities during and immediately following construction and do not necessarily cover all of the required activities. The CONTRACTOR shall exercise due concern for existing facilities operation and shall direct all his activities toward maintaining continuous operation and minimization of operation.

1.02 SUBMITTALS:

- A. Submit to the ENGINEER as per Section 01300 for approval, six copies of proposed schedule of intended operations for demolition of any existing facilities prior to the start of work. Include in the schedule the coordination of shutoff, capping and continuation of utility services as required.
- B. Provide a detailed sequence of demolition and removal work to ensure the uninterrupted operation of the Owner's facilities.
- C. Before the start of demolition work, all modifications necessary to bypass the affected structure will be completed. Actual work will not begin until the ENGINEER has inspected, reviewed, and authorized the start of the demolition work, in writing.
- D. The above procedure must be followed for each individual demolition operation.

1.03 CONDITION OF STRUCTURES:

- A. The OWNER and the ENGINEER assume no responsibility for the actual condition of any structures to be demolished or modified.
- B. Conditions existing at the time of inspection for bidding purposes will be maintained by the OWNER insofar as practicable. However, variations within a structure may occur prior to the start of demolition work.

1.04 RULES AND REGULATIONS:

- A. The CONTRACTOR shall determine the applicability and file notifications to the appropriate agencies with regard to demolition work that requires clearances for asbestos containing material (ACMs) handling or any other materials requiring special management. It should be noted that, in any demolition event, notifications must be filed in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAPS) as described in 40 CFR Part 61, Subpart M and Chapter 62-204 of the Florida Administrative Code (FAC).
- B. No building or structure, or any part thereof, shall be demolished until an application has been filed by the CONTRACTOR with the appropriate Building Department and a permit issued. Any fee for this permit shall be the CONTRACTOR'S responsibility.

1.05 DISPOSAL OF MATERIAL:

- A. Where directed by the ENGINEER, salvageable material and equipment shall become the property of the OWNER. The CONTRACTOR shall dismantle all such items to a size that can be readily handled, clean and store on or adjacent to the site in a protected place specified by the ENGINEER, or loaded onto trucks provided by the CONTRACTOR.
- B. The OWNER will select the material and items of equipment that shall remain the property of the OWNER and which shall be stored where directed.
- C. Materials and items of equipment not selected for retention by the OWNER shall become the CONTRACTOR'S property and must be removed from the site and properly disposed of.
- D. Concrete, concrete block and excess bricks shall be disposed of as specified below.
- E. The storage or sale of removed items will not be allowed on the site.

1.06 TRAFFIC AND ACCESS:

- A. Conduct demolition and the removal of equipment and debris to ensure minimum interference with occupied or used facilities.
- B. Special attention is directed towards maintaining safe and convenient access to any existing facilities by personnel and vehicles.
- C. Do not close or obstruct accesses to used facilities without permission from the ENGINEER. Provide alternate routes around closed or obstructed access ways.

1.07 PROTECTION:

- A. Conduct operations to minimize damage by falling debris or other causes to adjacent facilities. Provide interior and exterior shoring, bracing, or support to prevent the movement, settlement or collapse of structures to be demolished and adjacent facilities to remain.
- B. Exercise precautions for fire prevention. Acceptable fire extinguishing apparatus shall be available at all times in areas where demolition work is being performed using burning torches. Burning of demolition debris shall not be permitted on or near the site.

1.08 DAMAGE:

- A. Promptly repair damage caused to adjacent facilities by demolition operations as directed by the ENGINEER and at no cost to the OWNER. Repairs shall be made to a condition equal or better than that which existed prior to construction.

1.09 UTILITIES:

- A. Maintain existing utilities in service and protect against damage during demolition operations.
- B. Do not interrupt existing utilities serving occupied or used facilities, except when authorized by the ENGINEER. Provide temporary services acceptable to the ENGINEER during interruptions to existing utilities.
- C. The CONTRACTOR shall assist the OWNER in shutting off utilities required for the performance of demolition operations.
- D. The CONTRACTOR shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in connection with the discontinuance or interruption of all utilities or services under the jurisdiction of the public and private utility companies.
- E. All utilities being abandoned shall be disconnected and terminated at the service mains in conformance with the requirements of the utility companies or the municipality owning or controlling them.

1.10 REMOVAL OF EXISTING PROCESS EQUIPMENT, PIPING AND APPURTENANCES:

- A. Subject to the constraints of maintaining the existing facilities in operation and prior to demolition, existing process equipment, non-buried valving, piping and appurtenances not necessary for the operation of the new facilities shall be removed.
- B. All equipment, piping and appurtenances shall be cleaned, flushed and drained. Equipment to be retained by the OWNER, as previously specified, shall be dismantled sufficiently and thoroughly cleaned and drained. All valves shall be left open. All discontinued piping shall be capped and sleeves and openings remaining after removal of the existing equipment, piping, and appurtenances shall be plugged and sealed as shown on the Drawings and as directed by the ENGINEER.

1.11 DEMOLITION:

- A. Demolition shall be performed to the limits shown on the Drawings or, if items to be demolished extend below or beyond said limits, then demolition shall be performed at no additional cost to the owner so as to satisfactorily achieve the intent of the drawings and specifications.
- B. Wet down work during demolition operations to prevent dust from arising. Provide protection from inclement weather for materials, equipment, and personnel located in partially dismantled structures.
- C. Existing, below grade slabs to be abandoned but not demolished shall have holes cut to allow for positive drainage and the prevention of flotation.

- D. Remove all existing work as indicated on the Drawings or as required and prepare adjoining areas for installation of the proposed work or for blocking up and filling in of existing openings.
- E. All demolition debris shall become the property of the CONTRACTOR and shall be removed from the site and disposed off the site in conformance with all applicable laws and regulations. Demolition debris shall not be used for fill or backfill.
- F. Blasting or the use of explosives will not be allowed for demolition work.
- G. CONTRACTOR shall remove from the site all debris resulting from the demolition operations as it accumulates. Upon completion of the work, all materials, equipment, waste and debris of every sort shall be removed and the premises shall be left clean, neat and orderly.

1.12 MISCELLANEOUS CONCRETE SLABS AND SIDEWALKS:

- A. Remove miscellaneous concrete slabs and sidewalks where shown on the Drawings or where necessary for the construction of new structures or modifications of existing structures. All concrete sidewalks and curbing not required after the new work is constructed shall be removed and disposed of as specified hereinbefore.

PART 2 -PRODUCTS -Not Used.

PART 3 -EXECUTION -Not Used.

END OF SECTION 02100

CLEARING AND GRUBBING

PART 1 -GENERAL

1.01 SCOPE OF WORK:

- A. Work under this section of the specifications includes clearing and grubbing as necessary for the construction and the disposal of materials and debris resulting from the clearing and grubbing operations, and the replacement of ornamentals damaged on or removed from abutting property. The Contractor is expected to visit the site of the work and determine for himself from visual inspection the extent of clearing and grubbing that is necessary for his operations.

1.02 DOT STANDARD SPECIFICATIONS:

- A. Unless otherwise specified herein, all work under this section shall conform with Florida DOT Standard Specifications, Section 110 -Clearing and Grubbing.

1.03 CLEARING:

- A. Clear and remove obstructions within the City's right-of-way only as required to provide adequate work space to accomplish the specified construction. Clearing consists of the removal of all trees, living or dead, stumps, down timber, brush, rubbish and all other objectionable debris from the area to be cleared unless indicated otherwise. The removal of trees or permanent structures within the aforementioned areas will be done only as indicated on drawings. Should the removal of valuable trees or shrubs be required, this work is to be done in cooperation with the City in order that they may be replanted, if so desired. Protect other trees and shrubs which are to remain from damage during the construction period.

1.04 GRUBBING:

- A. Grubbing will be performed where required, including, but not limited to, areas where fill will be placed, structures erected, or where other installations are required. It shall include the complete removal of all obstructions resting on or protruding from the surface of the existing ground to a depth of eighteen inches (18") below finished grade or surface of ground. Holes caused by grubbing operations shall be filled to the level of adjacent ground. Where excavation is done, all stumps, roots and deleterious material thereby exposed must be removed to a depth of eighteen inches (18") minimum below the excavated surface.

1.05 PRIVATE PROPERTY:

- A. Where working room is restricted, the contractor must provide protection for privately owned trees, shrubs, and structures bordering the right-of-way. The contractor shall take full responsibility for any damage done to private property.

1.06 DAMAGES:

- A. The contractor shall replace with plants of a like size and type in growing conditions, all grass, shrubbery, plants and other ornamental plants or planting on abutting private property which he removed or damaged due to his construction operations.

PART 2 -PRODUCTS -Not Used.

PART 3 -EXECUTION -Not Used. END OF SECTION

SITE GRADING

PART 1 -GENERAL

1.01 WORK INCLUDED

- A. Remove topsoil and stockpile on site for later use.
- B. Excavate sub-soil and reform to grades, contours and levels.
- C. Excavate or fill for roadways, walks, curbs, gutters, parking areas, landscaped areas and as shown on the Drawings.

1.02 RELATED WORK

- A. Section 02100: Clearing and Grubbing.
- B. Section 02225: Trenching, Backfilling and Compacting.
- C. Section 02260: Finish Grading.
- D. Section 02510: Asphaltic Concrete Paving.

1.03 EXISTING CONDITIONS

- A. Known underground, surface and aerial utility lines, and buried objects are based on best available data and indicated on the Drawings. Contractor shall verify all locations.

1.04 PROTECTION

- A. Protect trees, shrubs and lawns and other features remaining as part of final landscaping.
- B. Protect bench marks, and existing structures, fences, roads, sidewalks, paving and curbs against damage from equipment and vehicular traffic.
- C. Protect aerial, surface, or underground utility lines or appurtenances which are to remain.
- D. Repair any damage, at no cost to Owner.

PART 2 -PRODUCTS

2.01 MATERIALS

- A. Excavated fill material: Soil free from roots, rocks larger than 3-inches, and building debris.
- B. Additional fill material: Shall be approved by the Engineer.

PART 3 -EXECUTION

3.01 PREPARATION

- A. Establish and identify required lines, levels, contours and datum.
- B. Maintain bench marks, monuments, and other reference points. Re-establish if disturbed or destroyed, at no cost to Owner.
- C. Before start of grading, establish the location and extent of utilities in the work areas. Notify utilities to remove and relocate lines which are in the way of construction.
- D. Maintain, protect, reroute or extend as required existing utilities to remain which pass through the work area.

3.02 REMOVAL OF TOPSOIL

- A. Topsoil of horticultural value shall be stripped from areas of construction under this contract and stockpiled in area designated by Engineer. Said material shall be stockpiled separately from fill material.
- B. Do not permit topsoil to be mixed with subsoil
- C. Do not strip topsoil when wet.
- D. Do not drive heavy equipment over stockpiled topsoil.

3.03 ROUGH GRADING

- A. Rough grade site to required levels, profiles, contours and elevations ready for finish grading and surface treatment. Maintain the following:
 - 1 Sodded areas: 4 1/2 inches below finished grade elevation.
 - 2 Seeded areas: 6 inches below finished grade.
 - 3 Paved areas: 18 inches below finished grade elevations.
 - 4 Shrub beds: 24 inches below finished grade elevations.
 - 5 Flower beds: 18 inches below finished grade elevations.
 - 6 Concrete sidewalks: 8 inches below finished grade elevations.
- B. Prior to placing fill material over undisturbed subsoil, scarify surface to depth of 6 inches.

3.04 SURPLUS MATERIAL

- A. Remove surplus materials from site.
- B. Dispose of surplus material at no cost to Owner.

END OF SECTION 02225

EXCAVATION, BACKFILL, AND COMPACTION

PART 1 -GENERAL

1.01 SCOPE OF WORK:

- A. The extent of trenching, backfill and compacting is shown on the drawings and/or specified. This section includes furnishing equipment, labor and material, and performing all operations necessary and incidental to perform the required work.

1.02 APPLICABLE CODES, STANDARDS AND SPECIFICATIONS:

- A. American Association of State Highway and Transportation Officials (AASHTO).
- B. Florida Department of Transportation "Standard Specifications for Road and Bridge Construction," Sections 120 and 125, 2013 Edition.
- C. Florida Trench Safety Act (90-96), CS/HB 3183.
- D. Underground Facility Damage Prevention and Safety Act (FS556).

1.03 TRENCH SAFETY SYSTEM:

- A. The Contractor shall follow the provisions of the "Florida Trench Safety Act", which incorporates OSHA Standards 29CFR's 1926.650, Subpart P as the State's trench safety standards. Trench excavation exceeding 5 feet in depth shall have an adequate safety system consisting of sheeting and shoring, suitable trench box, or other suitable system meeting the requirements of the Act.
- B. Contact Sunshine at 1-800-432-4770 or 811.
- C. The Contractor shall be solely responsible for making all excavations in a safe manner. Provide appropriate measures to retain side slopes to ensure that persons working in or near the excavation are protected.

PART 2 -PRODUCTS

2.01 CONSTRUCTION WATER:

- A. Conform to Section 01019 GENERAL REQUIREMENTS.

PART 3 -EXECUTION

3.01 CLEARING OF THE SITE AND PREPARATION OF RIGHT-OF-WAYS:

- A. Conform to Section 02100 CLEARING AND GRUBBING.

3.02 DISPOSAL OF CLEARED MATERIAL:

- A. Conform to Section 02100 CLEARING AND GRUBBING.

3.03 OBSTRUCTIONS:

- A. This item refers to obstructions which may be removed and do not require replacement. Remove obstructions within the trench area or adjacent thereto without additional compensation. Obstructions of such include, but are not limited to, tree roots, stumps, abandoned piling, buildings and concrete structures, logs, and debris of all types without additional compensation. The Engineer may, if requested, make changes in the trench alignment to avoid major obstructions, if such alignment changes can be made, within the easement or right-of-way without adversely affecting the intended function of the facility, at no additional cost to the Owner.
- B. Dispose of obstructions removed from the excavation in accordance with Section 02100 CLEARING AND GRUBBING.

3.04 PROTECTION OF EXISTING UTILITIES AND STRUCTURES:

- A. Conform to Section 01019 GENERAL REQUIREMENTS.

3.05 TRENCH EXCAVATION:

- A. The Contractor shall perform all aspects of excavation, of every description, and of whatever substance encountered to the dimensions and depths indicated on the drawings or as necessary. Excavation shall be unclassified regardless of material encountered. Unless otherwise indicated, excavation shall be by open cut.

No separate payment for excavation as such shall be made. The cost thereof shall be included in the unit prices of pipe installation.

The Contractor shall make their own estimate of the kind and extent of the various materials which will be encountered in the excavation. Undercutting will not be permitted, except when ordered by the Engineer.

- B. Where it is necessary to trim branches for equipment clearance, all severed root ends or cuts to branches over 3" diameter shall be treated with an asphalt base pruning paint. Backfill over exposed roots as soon as possible.
- C. Except in rock-and-water-bearing earth, mechanical excavation shall be limited to four inches above the elevation of the pipe invert. All additional excavation shall be made manually. Excavation in rock shall be made by a method approved by the Engineer.

3.06 SHORING, SHEETING AND BRACING:

- A. The Contractor shall provide all trench and structural bracing, shoring, or sheeting necessary to construct and protect the excavation from damage to existing utilities of all types, roadways, structures, and private property, and as required for the safety of the public, and employees.
- B. Increase trench widths accordingly by the thickness of the sheeting. Maintain sheeting in place until the pipe has been placed and backfilled at the pipe zone.

- C. Sheeting shall be removed by the Contractor during backfilling operations in a manner that will not damage the pipe or permit voids in the backfill.
- D. If approved by the Engineer, sheeting can be left in place. The top of such sheeting left in place shall be cut off at a minimum elevation of 2.5 ft. below finished grade.
- E. All sheeting, shoring and bracing of trenches shall conform to the safety requirements of the Trench Safety Act and to the Federal, State or local public agency having jurisdiction.

3.07 DEWATERING:

- A. Conform to Section 02401 DEWATERING.

3.08 DISPOSAL OF REMOVED WATER:

- A. Water pumped from the trench or other excavation shall be disposed of in storm sewers having adequate capacity, canals or suitable disposal pits as approved by the Engineer. The Contractor is responsible for acquiring all permits required to discharge the water and shall protect waterways from turbidity during the dewatering operation. In areas where adequate disposal sites are not available, partially backfilled trenches may be used for water disposal only when the Contractor's plan for trench disposal is approved in writing by the Engineer. The Contractor's plan shall include temporary culverts, barricades and other protective measures to prevent damage to property or injury to any person or persons.
- B. Dispose of the water in a manner to prevent flooding of streets and damage to adjacent property. Drainage of trench water through the pipeline under construction is prohibited.
- C. Engines driving dewatering pumps shall be equipped with residential type mufflers.

3.09 TRENCH WIDTH:

- A. The minimum width of the trench shall be equal to the outside diameter of the pipe at the joint plus 12 in. each side of pipe for sheeted trench, with the maximum width of trench, measured at the top of the pipe, not to exceed the outside pipe diameter, plus the appropriate sloped trench wall to meet OSHA requirements, unless otherwise shown on the drawings.
- B. Confine trench widths to dedicated rights-of-way, unless construction easements have been obtained from the effected property Owners.
- C. Trench walls shall be maintained vertical from the bottom of the trench to a line measured at the top of the pipe. From the top of the pipe to the surface the trench walls shall be as vertical as possible under soil condition.

3.10 OPEN TRENCH:

- A. The extent of open trench shall be limited so that there is no more than 100 feet of open trench in advance of the pipe laying operation.
- B. Pipe trenches across roadways and driveways shall be backfilled as soon as pipe is installed. Where, in the opinion of the Engineer, adequate detour facilities are not available, no trench shall be left open across a roadway or commercial property driveway where adequate detour routes are not available for a period in excess of 30 minutes, or as directed by the governing authority.

- C. All open trenches shall be protected by the Contractor with barriers, warning devices and traffic control devices, which shall be kept in the correct position, properly directed and clearly visible at all times.
- D. All open trenches shall be backfilled at the end of the day and protected with appropriate signage, reflective tapes and devices. The barrier, warning and traffic control devices, as conformed to F.D.O.T. rules and regulations, shall be suitably lighted at all times.

3.11 LOCATION OF EXCAVATED MATERIALS:

- A. Excavated materials suitable for backfill shall be piled in an orderly manner at a sufficient distance from the trench to avoid overloading and to prevent slides or cave-ins.
- B. Place the excavated material only within the construction easement, right-of-way or approved working area. Do not obstruct any private driveways or public traveled roadways, streets, sidewalks, or driveways. Conform to all Federal, State and local codes governing the safe loading of all trenches with excavated material.

3.12 BOULDER REMOVAL:

- A. Where encountered in the trench bed, all rocks, stones, boulders or concrete, having any dimension larger than permitted to be used for backfill in the paragraph entitled "TRENCH BACKFILL" of these specifications, shall be excavated to a depth of 8" below the bottom of the pipe and shall be removed from the site and disposed of by the Contractor. All undercut trench excavation shall be backfilled and tamped with materials as specified in the following paragraphs entitled "UNSTABLE SUBGRADE".
- B. Where bell and spigot pipe is used, the 8 inch cushion shall be maintained under the bell as well as under the straight portion of the pipe.

3.13 UNSTABLE SUBGRADE:

- A. All pipe and other structures shall be provided with a stable foundation; any material which, by reason of kind or condition, is not or cannot be made stable by drainage or compaction shall be removed or replaced.
- B. In the event that an unstable material is encountered at or below the excavation depth specified and/or shown on the drawings, the Engineer shall be notified. Such material shall be removed and replaced with suitable material.
- C. For the purpose of this specification, muck, peat, and other highly organic soils shall be considered to be unstable material. In addition, any soil which is or might become wet to such a degree that its moisture content is equal to or greater than 90% of its liquid limit will have to be specifically approved by the Engineer with regard to stability or shall be considered to be unstable material requiring removal and replacement.
- D. If muck is encountered, it shall be completely removed in accordance with F.D.O.T. Roadway and Traffic Design Standard Index 500.

3.14 OVERDEPTH EXCAVATION:

- A. Where unauthorized excavation occurs, the bottom of the excavation shall be brought up to the proper excavation elevation utilizing suitable and properly compacted backfill material at no additional expense to the Owner.

3.15 DISPOSAL OF EXCESS EXCAVATED MATERIAL AND DEBRIS:

- A. The Contractor, at his own expense, shall dispose of all excavated materials not suitable for backfill at an appropriate legal site.

3.16 OTHER STRUCTURES:

- A. Excavation shall be carried to the depths indicated and shall conform to the shape of the structure with sufficient allowance for setting forms, inspection, and proper performance of the work.

3.17 TRENCH BACKFILL:

A. MATERIAL:

- 1. Backfill material shall be excavated material, predominately sandy material and essentially free of rock, stones, organic material, asphaltic concrete, clay, concrete, boulders and other deleterious material.

- a. Pipe Embedment:

- The backfill material required for placement around the pipe and to a depth of 1 foot above the top of the pipe shall consist of clean, fine to medium sand or a mixture of sand, shell or crushed rock with a maximum size of 3/4" and not more than 10 percent passing the U.S. Standard Number 200 sieve, properly graded and mixed so that fine grain material from the side walls of the trench or backfill above the embedment will not migrate into the backfill material.

- b. Above Pipe Embedment:

- The backfill material used to bring the trench to final subgrade from a depth of 1 foot above the top of the pipe shall consist of sand or a mixture of clean mineral soils with no particle size larger than 3-1/2".

- c. Additional Fill:

- If sufficient suitable backfill material is not available from the excavation, additional fill meeting the above requirements shall be provided and paid for by the Contractor.

B. BACKFILL OPERATION:

- 1. Trench:

- a. The pipe trench shall be backfilled immediately after the pipe is laid, unless other protection for the pipe line is provided. Backfill materials shall be selected, deposited and compacted so as to eliminate the possibility of lateral displacement of the pipe.

- 2. Under Pipe:

- a. The bedding surface for the pipe shall provide a firm foundation of uniform density throughout the entire length of the pipe. The pipe shall be carefully bedded in soil foundation that has been accurately shaped and rounded to conform to the lowest 1/3 of the outside circular portion of the pipe for its entire

length, and when necessary, shall be tamped to secure uniform, firm support.

b. Where bell and spigot pipe is used, the bell holes shall be deep enough to ensure that the bell does not bear on the bottom of the excavation, and shall not be excessively wide in the longitudinal direction of the pipe.

3. Over Pipe:

a. From the centerline of the pipe, fittings and appurtenances, to an elevation two feet above the top of the pipe, the trench shall be backfilled by hand or by approved mechanical methods.

b. Backfilling material shall be deposited in the trench for its full width on each side of the pipe and appurtenances. Backfilling shall be carried out simultaneously on both sides of the pipe.

c. Do not push backfill into the trench in such a way as to permit free fall of the material until at least 2 feet of cover is provided over the top of the pipe. Under no circumstances allow sharp, heavy pieces of material to drop directly onto the pipe or the tamped material around the pipe.

C. COMPACTION EQUIPMENT:

1 Compaction equipment shall be of suitable type and adequate to obtain the amount of compaction specified. Compaction equipment shall be operated in strict accordance with the manufacturer's instructions and recommendations and shall be maintained in such condition that it will deliver the manufacturer's rated compactive effort.

2 Hydro-compaction (puddling) of the backfill material will not be permitted.

D. PLACING AND COMPACTION:

1 The backfill material placed around the pipe to final subgrade, shall be compacted to a density of not less than 98% the maximum dry density as determined by of AASHTO Method T-180.

2 The fill lift thickness shall be uniformly compacted and restricted to 8 inches maximum. Particular care shall be taken to insure that the backfill at the haunch is free from voids and is properly compacted.

E. COMPACTION TESTS:

1 The Engineer may at any time instruct the Contractor to partially excavate a previously backfilled trench or temporarily backfilling of a short section of the trench for the purpose of obtaining measurements of the density of the backfill.

2 The cost of the partial excavation and restoration of the backfill will be paid for by the Contractor.

3 The City will pay for the proctors and density tests. Any test failures will be paid by the Contractor.

4 Proctor and density tests shall be taken along the pipe, and at locations of manholes, inlets, and valves. The location, depth, and number of the tests shall be as selected by the Engineer. Maximum intervals between tests shall be 300 feet.

F. STRUCTURAL ELEMENTS:

- 1 Backfill adjacent to structural elements shall be placed, as far as practical, as the adjacent structural elements have been completed and accepted. Backfilling against concrete shall be done only when approved.
- 2 Compaction adjacent to structural elements shall be performed by the means of a self propelled, hand led vibratory compactor. The compactor shall impart a dynamic force of not less than 7000 pounds.

G. MISCELLANEOUS:

Backfilling and compacting around meter boxes, valve boxes, manholes, storm inlets, and other structures shall be accomplished in the same manner as the connected pipe. Extreme care shall be used in backfilling well point holes to prevent voids and settlement. If necessary, the holes should be plugged with a flowable fill, such plugging to be at the expense of the Contractor.

3.18 MAINTENANCE OF AREA UNDER CONSTRUCTION:

- A. As specified in this section, the Contractor shall keep the pipe laying operation as close to the excavation operation as possible during the execution of the work. Construction activity within this work area shall include all phases of the pipe laying operations including dewatering equipment, excavation, pipe laying, backfilling of trenches and the completion of the restored base construction as specified. No open trench will be left unprotected overnight or on weekends.
- B. This maintenance shall include, but not be limited to, the addition of crushed rock backfill material or temporary asphalt pavement in paved areas to keep the surface of backfilled trenches reasonably smooth, free from ruts and potholes and suitable for normal traffic flow.
- C. No additional payment will be made for the maintenance of the trench backfill prior to completion of the work outlined above.

3.19 RESTORATION OF SURFACE IMPROVEMENTS:

A. GENERAL:

- 1 All surface improvements on public or private property which have been damaged or removed during excavation or any of the other Contractor's operation or other various construction activities shall be restored to conditions equal to or better than conditions existing prior to beginning work.
- 2 These surface improvements include, but are not limited to, grass plots, sod, shrubbery, ornamental trees, signs, fences, mailboxes and other improvements on public or private property.
- 3 Road shoulders, alleys and driveways of shell, limerock, stabilized soil or gravel, where disturbed, shall be restored with like materials as removed. There shall be no mixing of unlike materials. The disturbed area shall be replaced with the appropriate materials to a minimum depth to restore it to a condition equal to or better than conditions existing prior to beginning work.
- 4 Roadways other than paved streets, where disturbed, shall be replaced with like materials to a minimum compacted thickness of twelve (12) inches. There shall be no mixing of unlike materials. These roadways shall be compacted to a minimum of 98% of the maximum dry density as determined by AASHTO Method T-180.
- 5 No additional cost for replacement of roadways other than paved streets will be allowed by the Owner.

B. PAVEMENT, CURB AND SIDEWALK REMOVAL:

1 Cut all bituminous and concrete pavements, regardless of the thickness, and all curbs and sidewalks, prior to excavation of the trenches with an approved pavement saw, hydro hammer, or approved pavement cutter. Unless otherwise indicated on the Plans, the width of the pavement cut shall be at least equal to the required width of the trench at ground surface.

2 Replacement concrete sidewalks shall be restored with a new modular panel, and the old panels shall be completely removed. No partial panels will be accepted.

3 Pavement and concrete materials removed shall be hauled from the site and not used for trench backfill.

4 The Contractor shall remove pavements as part of the trench excavation. The material from permanent pavement removal shall be carefully separated from trench excavation material and disposed of by the Contractor.

3.20 WARRANTY:

A. In conformance with Section 01019 GENERAL REQUIREMENTS.

END OF SECTION 02230

FINISH GRADING

PART 1 -GENERAL

1.01 WORK INCLUDED

- A. The Contractor shall, under this Section, supply, place, compact and roll finish grade materials prior to landscaping work.
- B. Finish grade sub-soil.
- C. Cut out areas to receive stabilizing base course materials for paving and sidewalks.
- D. Place, finish grade and compact topsoil.

1.02 RELATED WORK

- A. Section 02211: Site Grading.
- B. Section 02225: Excavation, Backfill and Compaction.
- C. Section 02934: Sodding.

1.03 PROTECTION

- A. The Contractor shall prevent damage to existing fencing, trees, landscaping, natural features, bench marks, pavement, utility lines, and sprinkler system. Correct damage at no cost to the Owner.

PART 2 -PRODUCTS

2.01 MATERIALS

- A. Topsoil shall be friable loam free from subsoil, roots, grass, excessive amount of weeds, stones and foreign matter; acidity range (ph) of 5.5 to 7.5; containing a minimum of 4 percent and a maximum of 25 percent organic matter. (Use topsoil stockpiled on site if conforming to these requirements, or as directed by the Engineer.)

PART 3 -EXECUTION

3.01 SUB-SOIL PREPARATION

- A. Rough grade sub-soil systematically to allow for a maximum amount of natural settlement and compaction. Eliminate uneven areas and low spots. Remove debris, roots, branches, stones, etc., in excess of 2 inches in size. Remove sub-soil which has been contaminated with petroleum products.

- B. Cut out areas, to sub-grade elevation, which are to receive stabilizing base for paving and sidewalks.
- C. Bring sub-soil to required levels, profiles and contours. Make changes in grade gradual. Blend slopes in to level areas.
- D. Slope grade away from building minimum 4 inches in 10 feet (unless indicated otherwise on Drawings).

3.02 PLACING TOPSOIL

- A. Place topsoil in area where seeding, sodding and planting is to be performed. Place to the following minimum depths, up to finished grade elevations:
 - 1 6-inches for seeded areas.
 - 2 4 1/2-inches for sodded areas.
 - 3 24-inches for shrub beds.
 - 4 18-inches for flower beds.
- B. Use topsoil in relatively dry state. Place during dry weather.
- C. Fine grade topsoil eliminating rough and low areas to ensure positive drainage. Maintain levels, profiles and contours of sub-grades.
- D. Remove stones, roots, grass, weeds, debris and other foreign material while spreading.
- E. Manually spread topsoil around trees, plants, buildings and other structures to prevent damage which may be caused by grading equipment.
- F. Lightly compact placed topsoil.

3.03 SURPLUS MATERIAL

- A. Remove surplus sub-soil and topsoil from site.

PART 4 -LEAVE STOCKPILE AREAS AND ENTIRE JOB SITE CLEAN AND RAKED, READY TO RECEIVE LANDSCAPING.

END OF SECTION 02271