



Project Manual

For Re-roofing of

City of Bartow
Main Fire Station
110 E. Church St.
Bartow, FL 33830

BID NUMBER: PW2020-21-004

Issue Date: Wednesday, January 27, 2021

Mandatory Pre-Bid Meeting: Monday, February 15, 2021 at 10:00 a.m. (EDT)

Bid Opening: Monday, March 1, 2021 at 2:00 p.m. (EDT)

**Meetings will be held in the Commission Chambers of Bartow City Hall
450 N. Wilson Avenue
Bartow, FL 33830**

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STATEMENT OF POLICY AND INTENT

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NOTE: The work to be performed under this specification shall include but is not limited to the following: Attend necessary job meetings and furnish competent and full time non-working superintendent, experienced roof mechanics, all materials, tools, and equipment necessary to complete, in an acceptable manner, the roof installation in accordance with this specification. Comply with the latest written application instructions of the manufacturer of the primary roofing products. In addition, application practice shall comply with requirements and recommendations of the National Roofing Contractors Association, or material manufacturer, whichever is more stringent.

It is the explicit intent of this Project Manual and the specifications herein to establish the minimum criteria for materials and workmanship necessary to achieve the following performance goals: 1) A new waterproof, weatherproof roof system, 2) Low slope roof systems shall provide positive drainage with no ponding water, including coal-tar pitch roof systems, 3) All materials and work necessary to comply with 2020 Florida Building Codes (with amendment) including, but not limited to roofing, mechanical, plumbing and electrical, 4) All materials and work necessary for the issuance of the guarantees and warranties required by the Project Manual and contract documents.

CITY OF BARTOW
BID NOTICE

Notice is hereby given that SEALED BIDS, one (1) original and two (2) copies will be received by the City of Bartow, Attn: Deborah King-Purchasing Department, 450 N. Wilson Avenue, Bartow, Florida 33830 up to **2:00 p.m. (EDT)** on Monday, **Monday, March 1, 2021** to be opened thereafter and publicly read in the Commission Chambers located at Bartow City Hall, 450 N. Wilson Avenue, Bartow, Florida 33830.

There will be a **Mandatory Pre-Bid Meeting at 10:00 a.m. (EDT)** on **Monday, February 15, 2021**, in the Commission Chambers located at Bartow City Hall, 450 N. Wilson Ave., Bartow, FL 33830. Only those in attendance will be allowed to submit a proposal. **A complete “printed” Project Manual is mandatory at the pre-bid meeting.**

Scope of Work: Full and complete roof replacement down to clean smooth deck, repair/replace any questionable Gypsum and metal deck to meet current Code requirements at a minimum. Remove and replace all existing flashing, with Johns Manville approved Flashing material and designs to match unless otherwise directed. *Please refer to project manual for complete Scope of Work*

All proposals must be securely sealed in an envelope and clearly marked on the outside with the date, time and name of the bid along with bidders name and address. The City of Bartow will not be responsible for bids opened before the specified time due to envelopes that are not properly addressed and/or unmarked as instructed in this notice.

Bid documents may be obtained from the City of Bartow’s website at www.cityofbartow.net, Additional Specification books generated by the Consultant, Knopf & Associates, Inc. can be provided with a written request to Mr. Kyle Knopf, kknopf@knopfassociates.com at a cost of \$40.00 per CD or \$50.00 per printed Manual.

All questions pertaining to this project shall be submitted in writing via email to Deborah King in the City of Bartow’s Purchasing Department at dking.purchasing@cityofbartow.net. **Questions are not to be submitted directly to Knopf & Associates.**

The City of Bartow reserves the right to reject any or all bids in whole or part and/or to accept or reject any items in the bid and waive any informality. The City of Bartow is an Equal Employment Opportunity Employer; all qualified applicants will receive consideration for employment without regard to race, color, creed, religion, sex, age, handicap, disability, ancestry, national origin, marital status, or any other basis prohibited by applicable law. Small businesses including minority, woman and service-disabled veterans are encouraged to participate.

Re-Roofing the City of Bartow’s Main Fire Station
per Specifications

Legal Ad
Bid #PW2020-21-004
The Lakeland Ledger
Saturday, January 30, 2021
Saturday, February 6, 2021

INVITATION TO BID

Gentlemen:

You are invited to submit bids on the above referenced project per our Specification hereby attached. Sealed bids are to be received by the City of Bartow **no later than 2:00 pm (EDT), on Monday, March 1, 2021**.

Submit Bids to:

City of Bartow
c/o: Deborah King
450 N. Wilson Ave.
Bartow, FL 33830
863-534-0141
dking.purchasing@cityofbartow.net

Sealed bids must be submitted on the Bid Form enclosed. All bids must be submitted in writing/duplicate; no verbal/faxed bids will be accepted.

A Pre-Bid Conference will be held at: **Bartow City Hall**
Commission Chambers
450 N. Wilson Ave.
Bartow, FL 33830

On: **Monday, February 15, 2021 at 10:00 a.m. (EDT)**

With a Site Visit to follow at: **City of Bartow**
Main Fire Station
110 E. Church St.
Bartow, FL 33830
Parking Lot (East)

A complete “printed” Project Manual is mandatory at Pre-Bid meeting.

This conference is mandatory, bids submitted by non-attendees will not be considered. Please advise this office of your intent to bid/not bid, no later than 24 hrs. before the Pre-Bid meeting.

Thank you,

Kyle G. Knopf
President 18-114

SCOPE OF WORK

Full and complete roof replacement down to clean smooth deck, repair/replace any questionable Gypsum and metal deck to meet current Code requirements at a minimum. Remove and replace all existing flashing, with Johns Manville approved Flashing material and designs to match unless otherwise directed.

All material to be removed from site daily and discarded at a licensed landfill.

New roofing shall be a Johns Manville or equal system per attached Specification. All roofing shall be Florida Bldg. Code compliant and provide positive drainage, no ponding water, a Manufacturer 20 Year NDL with Wind Ryder of 130 MPH is requested pursuant to Add Alternate #1.

Contractor to supply all permitting, engineering any secondary documents for project.

Contractor to cut base of existing concrete wall panels to allow proper flashing installation and provide any engineering that may be required, panel attachment shall not be compromised.

Contractor to remove existing drains and fill in voids in deck. City of Bartow shall employ the roofing Contractor to include capping drainpipes off under the roof deck. (Coordinated with Roof contractor)

Contractor to install new box gutters at all roof edges. All work shall be completed in a manner that does not interfere with the function of the Emergency Services. (Vehicle Access)

As an Add alternate the following items shall be Quoted:

Add Alternate 1) Provide the cost to upgrade the roof flashing metals and materials to provide a Wind Ryder of 130 Mph. This cost should only cover the additional cost for material and metal, base bid should cover standard flashing and Warranty cost.

Add Alternate 2) Provide cost for solid Fiberglass Corrim Door assemblies and frames, shortened to accommodate new flashing heights.

Add Alternate 3) Provide Pricing to manufacture and install as well as provide necessary sealants at wall panel closure, vertical joints. Inserts to match existing Bronze Aluminum partially in place

Add Alternate 4) Provide cost to remove second story concrete wall panels and replace with stucco, color, and texture to be like color and smooth finish of existing walls.

Approximately 70 Sqs.

LEGAL DESCRIPTION

**HUGHES ADD DB E PG 323 S5/6 T30 R25 BLK 5 LOTS 1 TO 7 & 10 TO 14 & 30 FT VACATED STREET
LYING EAST OF LOTS 10 TO 14**

NOTE: The work to be performed under this specification shall include but is not limited to the following: Attend necessary job meetings, and furnish competent and full time non-working superintendent, experienced roof mechanics, all materials, tools and equipment necessary to complete, in an acceptable manner, the roof installation in accordance with this specification. Comply with the latest written application instructions of the manufacturer of the primary roofing products. In addition, application practice shall comply with requirements and recommendations of the National Roofing Contractors Association or material manufacturer, whichever is more stringent.

DEFINITIONS:

For the purpose of these Contract Documents, the following shall apply:

Shall hereinafter be referred to as "Owner"

City of Bartow
Attn: Russell Martin
450 N. Wilson Avenue
Bartow, FL 33830

Shall hereinafter be referred to as "Owner's Representative"

Knopf & Associates, Inc.
Kyle G. Knopf
3965 Investment Lane, A9
Riviera Beach, FL 33404
561-582-7700
kknopf@knopfassociates.com

Shall be Owner's Site Contact

Mr. Russ Martin
City of Bartow
450 N. Wilson Avenue
Bartow, FL 33830
863-534-0122
rmartin.pw@cityofbartow.net

REROOF BID PROPOSAL FORM

Job: City of Bartow-Main Fire Station

Job Address: 110 E. Church St., Bartow, FL 33830

Due Date and Time: _____

Bidder's Name: _____

Address _____

Telephone: _____ Fax: _____

Send to:

Gentlemen:

Having carefully examined the project specifications and details dated **7/20/2020**, the site of the work, and conditions affecting the work, including having all questions concerning the demolition, disposal, deck repairs, and reroofing work to be performed answered, I, the Undersigned, hereby submit the following proposal.

1. BID: The undersigned hereby proposes to furnish all labor, permits, materials, services, and incidentals, and to perform all repairs and related work necessary for the completion of the project as specified, and provide a quality, reliable, leak-free and functional installation in strict accordance with the Project Specifications, for the following sum:

Knopf & Associates, Inc.
Re: City of Bartow-Main Fire Station
Reroof Bid Proposal Form
Page 2 of 3

LUMP SUM BID: _____
ALTERNATE BID: 1) Provide the cost to upgrade the roof flashing metals and materials to provide a Wind Ryder of 130 MPH. This cost should only cover the additional cost for material and metal, base bid should cover standard flashing cost. ADD \$ _____
ALTERNATE BID: 2) Provide cost for solid Fiberglass Corrim Door assemblies and frames, shortened to accommodate new flashing heights. ADD \$ _____
ALTERNATE BID: 3) Provide Pricing to manufacture and install as well as provide necessary sealants at wall panel closure inserts to match existing Bronze aluminum partially in place. ADD \$ _____
ALTERNATE BID: 4) Provide cost to remove second story concrete wall panels and replace with stucco, color, and texture to be like color and smooth finish to match existing. ADD \$ _____

NUMBER OF SQUARES INCLUDED (ROOF AREA): _____

UNIT PRICING: _____

GYPSUM DECK: Replacement: _____ Sq.Ft. _____

100% PAYMENT & PERFORMANCE BOND: ADD _____

2. I FURTHER acknowledge receipt of Addenda(s) No. _____

RECEIVED MEETING MINUTES: _____

3. TIME SEQUENCE: State the approximate number of working days until the project can be started after receipt of notification to proceed. The working days are Monday through Friday, when the weather is such as not to hamper normal roofing procedures. Assume notifications of award within 30 days of bid return date.

DAYS TO START: _____

DAYS TO COMPLETE: _____

State the maximum number of working days to complete the project.

SUBCONTRACTOR LIST:

Knopf & Associates, Inc.
Re: City of Bartow-Main Fire Station
Reroof Bid Proposal Form
Page 3 of 3

BIDDER: _____
Legal Name of Firm or Corporation

BY: _____
Name Signature

TITLE: _____

STATE OR COUNTY CERTIFICATE OF COMPETENCY NO.: _____

If a Corporation:

NOTARIZE: _____
Corporate Secretary

STATE OF FLORIDA
COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____ 2021 A.D.

Notary Public
State of Florida

My Commission Expires: _____

**CONTRACTOR PROJECT WARRANTY
FOR ROOFING, FLASHING AND SHEET METAL**

Whereas (Roofing Contractor) _____

of (Address) _____

Email _____ Contact# _____

herein called for "Roofing Contractor", has performed roofing, flashing, and sheet metal and associated ("work") on following project:

Owner: _____

Address: _____

Name and Type of Building: _____

Address: _____

Area of Work: _____ square feet: Date of Acceptance: _____

Contractor Warranty Period: **Five Years** Date of Expiration: _____

Manufacturer Name: _____ Date: _____

Guarantee/Warranty Contact Info: _____

Guarantee/Warranty Number: _____ (If Applicable)

AND WHEREAS Roofing Contractor has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period.

NOW THEREFORE Roofing Contractor hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work, and as are necessary to maintain said work in watertight condition.

This Warranty is made subject to the following terms and conditions.

1) Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by: a) lightning; b) wind storm; c) fire; d) work by other trades; e) failure of deck substrate including cracking, settlement, excessive deflection, deterioration, and decomposition. When work has been damaged by any of the foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Contractor, and until cost expense

thereof has been paid by Owner or by another responsible party so designated.

2) The Roofing Contractor is responsible for damage to work covered by this Warranty, and is liable for consequential damages during construction, and five (5) year after date of acceptance to building or building contents, resulting from leaks due to, faults or defects of work.

3) The Owner shall promptly notify Roofing Contractor within 48 hours of observed, known, or suspected leaks, defect or deterioration. The Contractor shall guarantee to respond to all notification within twenty-four (24) hours and to make all such repairs as deemed necessary to correct said leaks or defects to a condition satisfactory to Owner. Repairs shall be made by workmen in the current employment of the Contractor. Subcontracting of repair work is not permitted.

4) This Warranty is recognized to be the only Warranty of Roofing Contractor on said work, and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to him in cases of roofing failures. Specifically, this Warranty shall not operate to relieve Roofing Contractor of responsibility of performance of original work in accordance with requirements of the Contract Documents.

IN WITNESS THEREOF, this instrument has been duly executed

this _____ day of _____, 2021.

Officers Signature

(Roofing Contractor) (Seal)

(Witness)

END OF SECTION

CONTRACTOR'S FINAL AFFIDAVIT
Florida Statutes 713.06 (3) (d)
Page 2 of 2

IN WITNESS WHEREOF, I have set my hand seal unto this instrument this _____ day of _____, 2021.

COMPANY: _____

WITNESS: By: _____

WITNESS: Title: _____

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledge before me this _____ day of _____, 2021,

By _____, as _____ of _____
(Name) (Title) (Company)

who is personally known to me or who has produced _____ as
Identification and who did/did not take an oath.

My Commission Expires:

Notary Public, State of Florida

CONTRACTOR'S FINAL WAIVER OF LIEN

KNOW ALL MEN BY THESE PRESENTS:

That the undersigned _____, _____, of _____
(Name) (Title) (Company)

for and in consideration of the full payment to it from the Owner, _____, of the entire amount due to it from the Owner _____, receipt of which is hereby acknowledged on account of labor, material and services heretofore and hereafter performed as evidenced by the final contractor's requisition to the Owner dated _____, 2021, hereby releases, waives and quit claims to _____, Owner, any and all liens, lien rights, claims or demands of any kind whatsoever which the undersigned now has or might have against the improvements and real estate legally described as:

The undersigned acknowledges and certifies that:

- a) this is a Final Waiver of all Lien rights which the undersigned has against the premises described herein, for all labor, material and services heretofore and hereafter performed including all extras and change orders.
- b) the undersigned has the right and authority to execute this Final Waiver and Release.
- c) all laborers employed by the undersigned through the date stated above have been paid in full.
- d) all suppliers and sub-contractors to the undersigned who may have furnished labor, material, and services for the undersigned in connection with the construction of improvements upon the aforesaid premises have been paid in full.

The undersigned acknowledges that, under Florida Statutes, the Contractor, Owner, and other parties have a right to rely upon this Final Waiver and Release of Lien and that making any false statement shall constitute perjury and punishment can be made in accordance with the provisions of the laws of the State of Florida.

IN WITNESS WHEREOF, I have set my hand seal unto this instrument this _____ day of _____, 2021.

WITNESS:

COMPANY:

BY: _____

TITLE: _____

STATE OF FLORIDA

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 2021, by _____, as _____ of _____ who is
(Name) (Title) (Company)
personally known to me or who has produced _____
as identification and who did/did not take an oath.

My Commission Expires: _____

Notary Public, State of Florida

GENERAL CONDITIONS

1.01 PUBLIC SAFETY / CONVENIENCE

A. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in conjunction with the contract work and providing any additional safety items that arise in direct connection with this project.

B. The Contractor shall at all times conduct his work so as to ensure the least possible obstruction to traffic and inconvenience to the occupants, general public, and the residents in the vicinity of the work, and to insure the protection of persons and property in a manner satisfactory to the Owner and proper governmental authority. All local, state, and national laws, ordinances, rules and regulations pertaining to the kind, use and loading of all apparatus, equipment, and material shall be complied with as well as all other reasonable precautions required by the Owner, Owners Agent or Representative to ensure safe working conditions.

C. Contractor shall provide all necessary training, supervision and safety equipment as necessary to comply fully with the latest Department of Labor, Occupational Safety & Health Administration (O.S.H.A.) safety requirements per the most recent Federal Register.

D. Due to the roof height, landscaping and overall project complexity, the successful contractor shall provide O.S.H.A. approved eave level scaffolding to protect employees, buildings, landscape, residents, guests and any other person requiring access.

2.01 WARNING SIGNS AND BARRICADES

A. The Contractor shall erect and maintain as required by the conditions and progress of the contract, all necessary safeguards for safety and protection. The Contractor shall notify the owner of adjacent utilities and properties when prosecution of the contract may affect those items.

B. The Contractor shall provide adequate signs, fences, barricades, signal lights and/or watchmen, and shall take all necessary precautions for the protection of the work force and safety of the public, site employees & his crew & supervisor. Said warning and protection devices shall comply with the requirements of the governing agencies involved.

C. The Contractor has sole responsibility for the proper construction of the project and is solely responsible for the safety or adequacy of any equipment, building components, scaffolding, sheeting, bracing, forms, or other work aids, and supervising the work. Construction review or inspection by the Owner shall not relieve the Contractor of the above responsibilities.

3.01 STORAGE AND HANDLING

A. All materials shall be delivered to the job site in original containers bearing the manufacturer's name, compliance, and applicable approvals. All materials shall be stored in a dry

area with waterproof coverings, and shall be kept dry at all times prior to application. Store all roll goods on end on clean platforms. Do not use flattened rolls or rolls with ends damaged.

B. All materials exposed to water or damaged during handling shall be removed from the job site. No materials shall be used after they become wet or damaged. Unacceptable materials identified and marked by Knopf & Associates, will be immediately removed by the Contractor.

4.01 PROTECTION OF BUILDING AND PROPERTY

A. Contractor will note that these buildings are occupied, and care shall be taken to protect occupants and vehicles. Contractor will be responsible for taking all precautions necessary to protect the buildings, contents, customers, and occupants from damage or injury from the operation, and from water entering the buildings during this re-roofing project. The Contractor agrees to hold the Owner, Owners Agent or Representative harmless of all claims that may occur against the Owner, Representative resulting from this operation.

NOTE: Protective Products, 2860-D Buford Highway, Duluth, GA 30096-3499, 1-800-789-6633 offers varied carpet, vinyl, ceramic and concrete adhesive runners for foot traffic.

B. Prior to starting work, the Contractor shall obtain approval from the Owner for location of work operations at ground level, such as materials storage, hoisting, dumping, etc. The Contractor shall confine his apparatus and storage of materials and operation of his workmen to those areas approved by the Owner, Owners Agent or Representative.

C. Any additional land and access thereto required for temporary construction procedure, or facilities for storage of materials shall be procured and provided by the Contractor with no liability to the Owner, Owners Agent or Representative.

D. The Contractor will be responsible for repair of any damage to grounds landscaping, building, building contents, and roof area.

E. The Contractor shall remove on a continuous daily basis, all trash resulting from the roofing operation. The grounds surrounding the building shall be policed for wrappers, felts, or other materials daily.

F. It is the responsibility of the Contractor to meet all local, state, and federal requirements for removing and disposing of all materials to a licensed landfill.

4.02. HURRICANE PREPAREDNESS

In the event the project geographic location comes under a tropical storm watch, tropical storm warning or within hurricane projected path, it is the sole responsibility of roof contractor to secure the site and building roof areas of all materials and equipment (pertinent to your contract), regardless of action or non-action by suppliers or subcontractors working on said project on roof contractors behalf.

Should damages occur it is the sole responsibility of roof contractor to take all steps necessary to document damage, clean-up debris, secure site immediately and effect immediate repairs. Roof contractor shall also immediately notify both his insurance carrier and local agent of said claims, and achieve a claim assignment reference number.

Additionally the securement of project is covered by **Florida Building Code, 2020 Edition, Chapter 33**, Safeguards during construction.

5.01 ROOF TOP EQUIPMENT

A. The operation of gas powered roof top equipment or the setting of kettles on the roof is strictly forbidden unless the contractor requests and receives specific permission prior to project commencement. Depending on the equipment type and weight Knopf & Associates reserves the right to require the contractor to provide Engineering studies and certification the structure can sustain said loading. The Engineering Certification shall be signed by a licensed Structural Engineer properly licensed and insured to practice within the State of Florida. All costs for said certification shall be the contractor's responsibility Contractor shall also provide fire protection at all powered equipment on roof or ground. **Proper size and quantity of fire protection required. Minimum 20 lb. extinguishers to be used.**

6.01 LEGAL NOTICE

A. The Contractor shall notify all governing agencies and all concerned utility companies a minimum of forty-eight hours prior to the start of construction. Additional notification shall be given by the Contractor to all the above mentioned parties a minimum of forty-eight hours prior to crossing, connecting to, or working in the vicinity of any right-of-way utility owned or controlled by any of the concerned parties.

7.01 SECURITY

A. The Contractor shall comply with Owner's security regulations and requirements for site access and clearance. The Contractor shall provide a list of all project employees (including subcontractors) with social security numbers. The Contractor's personnel shall wear badges, caps, or other identification if required by the Owner, Representative.

B. Access to facility interiors shall be strictly limited to the Contractor's non-working foreman for project coordination, leak control, and other specific purposes approved by the Owner.

8.01 SUBMITTALS

A. The Contractor's bid for the complete job as specified is to be submitted on the Bid Proposal form attached. **Two** executed original copies of the Bid Proposal form are to be returned to **City of Bartow, Attn: Deborah King, 450 N. Wilson Avenue, Bartow, FL 33830.**

B. Upon notice of contract award, the Contractor is to **submit 4 copies** of manufacturer's data sheets and shop drawings to Knopf & Associates, Inc. indicating that all materials furnished for this work will meet the requirements of this section. Deviations from named products shall be so indicated in this list. Obtain approval for any deviations prior to initiating work.

1. **Submittals are due ten (10) days prior to the Pre-Construction meeting.** No work will be permitted until submittals have been made and approved by Knopf & Associates, Inc. Any products, methods, shop drawing, or details not submitted will be per the Project Manual or per Knopf & Associates direction.

Physical product samples are required for aggregates and other generic items.

CAUTION: Scheduling/production delays due to late submittals will not relieve the contractor from the completion terms of the contract documents.

C. Upon completion of work, and before final payment and in addition to the roofing Manufacturer's Warranty, the Contractor will furnish to the Owner a five (5) year written warranty covering workmanship and materials on roofing installation. This warranty shall cover all materials as well as agreeing to make prompt repairs within 24 hours to any and all leaks when reported by Owner. **The Contractor will also agree, in writing, to make an inspection, with the Owner's Representative, no later than three months prior to the expiration of this guarantee/warranty. All Warranty/Guarantee deficiencies noted at this inspection will be repaired by the Contractor at no cost to the Owner.**

D. The roofing materials manufacturer's current specification manual shall be considered a portion of these specifications. Submittal of a bid by the Contractor shall be considered evidence that the Contractor is familiar with the Material Manufacturer's Manual and Requirements, also are current and in good standing as an installer for the selected manufacturer.

E. Materials Safety Data Sheets on all products used on this project must be included with Manufacturer's data during the product submittal process.

9.01 PERMITS AND LICENSES

A. The Contractor shall procure, record, and pay for permits, Notice of Commencement, licenses and any fees or tests necessary for the execution of work. The Contractor shall give all notices and comply with all Federal, State and local laws, ordinances, and regulations, in any manner affecting the conduct of the work, and all such orders and decrees as exist or may be enacted over the work, and shall defend, indemnify, and hold harmless the owner against any claim or liability arising from, or based on, the violation of any such law, ordinance, regulation order, or decree, whether by himself, his employee, or subcontractors. **The Florida Building Code 2020 Edition** with current protocols) shall be the pertinent code.

10.01 SUB-CONTRACTORS

- A. The use of subcontractors for secondary support work is acceptable, assuming the subcontractors are listed by company name and submitted to the Owner and Knopf & Associates, Inc. for approval. All subcontractors shall be fully licensed, insured and established firms within the appropriate jurisdiction and when necessary secure their own permits for work to be performed.
- B. The Contractor shall list by company name, on the bid form, any and all intended subcontractors, whose services are incorporated into the base bid amount.
- C. Regardless of contract to the contrary, any subcontractor employed by the contractor shall be bound by any and all terms set forth within this Project Manual, AIA Contract or other written document pertinent to satisfactory completion of this Project. **(Knopf & Associates requires proof of Licensure and Insurance for any and all Subcontractors). SEE NOTE 3 INSURANCE SECTION 13.01.**

11.01 INSPECTION

- A. Knopf & Associates, Inc. shall be employed as an inspector to represent the Owner during the application of this roof. All questions which arise during bidding/construction shall be directed in writing to Knopf & Associates, Inc. for reply.
- B. Test cuts may be made to determine quality and quantity of materials and workmanship. Test cuts are to be repaired by Contractor at no cost to the Owner.
- C. The Contractor shall provide safe and adequate access to all portions of the work, for the Owner and Knopf & Associates, Inc. at all times.

12.01 REIMBURSEMENT OF CONSULTANT FEES/EXPENSES

Should the completion of this Contract be delayed beyond the specified or adjusted time limit, the Roof contractor shall reimburse the Owner for all expenses of Roof Consultant incurred by Owner during the period between said specified or adjusted time and the actual date of final completion. All such expenses for Roof Consulting and Inspection incurred by Owner will be charges to the Roof contractor and be deducted from payments due Roof contractor as provided by this contract and General Conditions. Said expenses shall be further defined as representative costs. All such expenses shall be separate from and in addition to any Liquidated Damages as provided for herein.

13.01 INSURANCE

- A. The Contractor shall purchase and maintain property insurance upon the entire work at the site, to the full insurable value thereof. Such insurance shall be in a company against which the Owner has no reasonable objection. This insurance shall include the interests of the Owner, the

Contractor, Subcontractors and Sub-subcontractors in the work and shall insure against the perils of fire and extend coverage and shall include "all risk" insurance for physical loss or damage including, without duplication of coverage, theft, vandalism, and malicious mischief.

B. All insurance carriers shall be duly licensed to operate within the State of Florida jurisdiction.

C. The Contractor shall provide written notification to the Owner of the cancellation or expiration of any insurance required by this Section 17.1 of AIA A104-2017. The Contractor shall provide such written notice within five (5) business days of the date the Contractor is first aware of the cancellation or expiration, or is first aware that the cancellation or expiration is threatened or otherwise may occur, whichever comes first.

D. The Owner shall provide written notification to the Contractor of the cancellation or expiration of any insurance required by Section 17.2 and 17.2.2 of AIA A104-2017. The owner shall provide such written notice within five (5) business days of the date the Owner is first aware of the cancellation or expiration, or is first aware that the cancellation or expiration is threatened or otherwise may occur, whichever comes first.

Insurance Coverage:

1.	Workmens Compensation	Statutory Limits of State of Fla.
2.	Employers Liability	2,000,000

Commercial General Liability:

3.	Bodily Injury	2,000,000
4.	Personal Injury	2,000,000
5.	Property Damage	2,000,000
6.	Products & Completed Operations	2,000,000

Business Auto Liability:

7.	Bodily Injury	2,000,000 each person, each occurrence
8.	Property Damage	2,000,000 single limit

Workmen's Compensation and Liability Certificates will be required and issued in the name of the Owner, and that all insurance contains provisions for at least ten days written notice to Owner prior to cancellation.

This insurance shall apply on a direct primary basis for all insured parties. Any deductible shall be for the account of Contractor.

NOTE 1:

THE CONTRACTOR SHALL FURNISH ADDITIONAL CERTIFICATES OF INSURANCE LISTING KNOFF & ASSOCIATES, INC., THE OWNERS REPRESENTATIVE, AS ADDITIONALLY INSURED.

NOTE 2:

ALL INSURANCE CERTIFICATES SHALL BE ORIGINAL AND ISSUED BY THE CONTRACTORS INSURANCE AGENT.

NOTE 3:

THE USE OF EMPLOYEE LEASING COMPANIES BY PRIMARY ROOF CONTRACTOR OR APPROVED SUB CONTRACTOR SHALL STRICTLY BE PROHIBITED. ALL EMPLOYEES SHALL BE COVERED BY WORKERS COMPENSATION INSURANCE, ISSUED TO THE ROOF CONTRACTOR OF RECORD, OR ANY OF ITS APPROVED SUBCONTRACTORS.

14.01 TERMS OF PAYMENT

A. Payment will be made monthly. Request for payment is to be submitted on the AIA Payment Request Forms G702, G703, no later than the 25th day of each month reflecting the work completed and materials properly stored on the job site. Payment of approved Requisition will be made on the 10th day of each month following each said requisition. A retention of ten (10%)percent will be withheld until this project is satisfactorily completed, including correction of punch list defects, and the Contractor has provided final releases of liens and warranties to the Owner. **If contractor wishes to modify payment terms, they shall submit terms in writing with bid package. Owner reserves the right to accept or deny.**

15.01 PARTIAL RELEASE OF LIENS

A. Partial release of liens will be required prior to payment of monthly requisitions. All releases shall be in the full amount of monies paid to each supplier and subcontractor. The term "for Ten (10) dollars and all other considerations" is unacceptable.

16.01 FINAL RELEASE OF LIENS

A. The Contractor shall deliver to the Owner a final Contractor's affidavit and complete "final" release of all liens or claims arising out of this contract before any retained percentages or the final request for payment is paid.

B. If any lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner such amounts as the Owner may have been compelled to pay in discharging

such liens or claims, including all costs and reasonable attorney' fees.

C. Final release of liens shall be for full product value. The term “for Ten (10) dollars and all other considerations” is unacceptable.

17.01 ACCEPTANCE AND FINAL PAYMENT

A. Upon completion of all work in accordance with the terms of the Contract Documents, the Contractor shall submit to Knopf & Associates, Inc. the following items for review:

1. A signed Contractor's Affidavit on a form acceptable to the Owner.
2. Release of Liens as described above.
3. Waiver of Liens from all suppliers and subcontractors indicating that all debts incurred have been paid in full.
4. Written copy of Knopf & Associates Inc. five (5) year warranty executed by an officer of the company and notarized.
5. Executed copy of Manufacturer's Warranty.
6. Proof of final inspection by building department.

18.01 SPECIAL REQUIREMENTS

A. Once the work has begun the Contractor agrees to fully man the job with a capable crew(s) and all materials and equipment necessary for continuous production, weather permitting. Contractor shall be responsible for any costs or damages incurred by the owner through the contractor's failure to fully man, or equip this project.

B. The Owner shall have the option to designate the areas that are to be roofed first.

C. The Contractor shall discharge the work using multiple crews and a **FULL TIME ENGLISH SPEAKING non-working foreman** to ensure continued progression throughout the Project duration. **Foreman to have a complete specification package on site at ALL times and be physically capable of accessing all structures to perform continuous daily overview of the project.**

D. On projects with multiple buildings, (4 or more) contractor shall provide at a minimum two (2) full time non-working foremen, with responsibility for oversight divided equally.

E. The Contractor agrees that the Owner shall have the right to retain this bid for a period of

30 days from date of receiving bids, and guarantees the amount set forth therein for that period of time.

F. The Owner assumes no obligation to enter into an agreement for this work.

G. It is understood and agreed that the Owner reserves the right to award this contract to his best interests, to reject any or all bids, to waive any formalities in bidding, and to hold all bids for the guarantee period.

H. The Contractor is to state in his proposal the number of days he will require before work can be started after being notified of award, and the number of days required to do the entire project.

I. All correspondences, pay requests, submittals, change orders etc., must be submitted to and approved by Knopf & Associates, Inc. prior to payment being made.

J. Wood Replacement Tally is to be provided with each pay request. A Wood Replacement Tally sheet is attached to this section as well as provided for your use inside the back cover of this Project Manual. If contractor wishes to utilize an alternate form it must be submitted with submittals.

19.01 EMPLOYEE CONDUCT

A. The Contractor shall at all times be responsible for the conduct and discipline of his employees and/or any subcontractors or persons employed by the subcontractors. All workmen must have sufficient knowledge, skill and experience to perform properly the work assigned to them.

B. Any foreman or workman employed by the Contractor or subcontractor who in the opinion of the Owner's Representative does not perform his work in a skillful manner, or appears to be incompetent or act in a disorderly or intemperate manner shall at the written request of the Owner or verbal direction by the Owner's Representative be immediately removed from the job site and shall not be employed again in any portion of the work without the expressed written approval of the Owner or the Owner's Representative.

20.01 CLEANING

A. Clean all areas where finished surfaces are soiled as a result of work on this project.

B. Repair or replace defaced or disfigured finished caused by work during the course of the project.

C. Repair/cleaning to roadway and staging areas from debris or oils relating to project. All areas shall be specifically documented prior to use by contractor. Failure to do so shall result in the contractor being responsible for damages.

21.01 PORTABLE TOILET

A. Prior to job commencement and continuing until final completion, including Punch List work, Contractor shall provide on-site portable toilet facilities for workman. Contractor shall also schedule twice-weekly (minimum) service calls to empty and cleanse portable toilet unit. Employees are not to use tenant facilities, landscape or roof top for rest rooms. **Crew members quantity of required portable units varies per on-site daily.**

22.01 PAYMENT & PERFORMANCE BONDS

A. The successful bidder shall provide as an alternate price quote, to his base bid, a 100% Payment & Performance Bond in full value of the contract amount along with approved extras. This bond shall be provided on AIA - A312 Payment & Performance Bond forms included in this Project Manual. Documents including verbiage of conditional are not acceptable.

B. The Owner further agrees to reimburse Contractor for purchase of said Bond at direct invoice costs only. No mark-up of pricing is allowed, invoice shall be supplied to owner for direct payment prior to project start, bond documents are required before work commences.

C. Said Bond shall be issued by an Insurance Company Licensed to Underwrite in the **State of Florida** and shall be issued in form acceptable to the owner.

D. Said Bond, if required, shall be issued prior to commencing work and shall remain in full effect during the execution of contract work. The Contractor or Insurance Company may not cancel said Bond without serving a minimum sixty (60) day written notice to the owner.

E. Said Bond shall be for a one (1) year period commencing upon issuance and continuing until one calendar year later.

Should contractual warranty/guarantee terms require additional coverage, this coverage shall not be binding unless contractor, owner, and bonding surety agree in a written rider and additional reasonable premium is paid.

F. Should cancellation occur; the Contractor agrees to immediately provide replacement Surety in form acceptable to owner at no additional cost to owner.

23.01 LIQUIDATED DAMAGES

A. The Contractor shall be subject to liquidated damages of **\$500.00** per normal workday for delays extending completion of said roof installation beyond the contractors projected time allotment. The amount of accrued damages will be deducted from the contract sum.

B. Adjustments to the projected time will be allowed for inclement weather only, assuming the contractor notifies Knopf & Associates Inc. office via FAX, **prior** to the end of each lost day

and reasons for delay are substantiated by Knopf & Associates, Inc., and approved. Delay requests shall be documented but shall only become valid per contract via approved AIA Change Order form.

C. Special Condition - Work Delays - In accordance with Article 13 of AIA Contract Document A104-2017, or articles related to project timing in an Owner provided contract document, the contractor shall be responsible for notifying the Owners Representative (Knopf & Associates, Inc.) of any and all work delays on a daily basis. Failure to do so may result in denial of extension of project completion date.

Particular note should be taken when reporting weather related delays.

Weather related delays will be accepted based only on actual weather conditions at the project site as of the date/time for which the delay is requested. No delays will be authorized based solely on weather forecasts.

Other delays such as material delivery delays, stop work orders, delays by other trades, etc., may arise. These delays must also be reported to the Owners representative on a daily basis.

All delays or work stoppages must be reported in writing, (faxed documents are acceptable), verbal requests for time extensions will not be accepted.

For your convenience, a form for reporting work delays is provided, next page.

END OF SECTION

PROJECT DELAY REQUEST FORM

Date Requested: _____ Request # _____

_____ (Contractor) was unable to perform work as scheduled on

_____ (Date) at _____ (Name of Project)
for the following reason:

WEATHER Rain _____ Wind _____ Other _____
(Explain)

DELAY BY OTHER TRADE:

(Name, Trade, Explain Circumstances)

MATERIALS:

Delivery Delay _____
Shortage _____

OTHER

Based on Contract terms, contractor requests extension of the contract term, or adjusted number of days to complete project equivalent to this delay

Total Contract term (Total Days) _____

Previously Approved Number of Days
(Per approved delay requests) _____

Current # of days requested for approval _____

Approved _____ (Signature)
(Knopf & Associates, Inc.)

(Date)

Denied _____ (Signature)
(Knopf & Associates, Inc.)

(Date)

(Reason)

SECTION 01000 INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS.

The term Bidder means one who submits a Bid directly to Owner, as distinct from a sub-bidder, who submits a bid to a Bidder. The term Successful Bidder means the lowest, qualified, responsible and responsive Bidder to whom Owner (on the basis of Owners evaluation as hereinafter provided) makes an award. The term Bidding Documents includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

2. COPIES OF BIDDING DOCUMENTS.

2.1. Complete sets of the Bidding Documents may be obtained from Consultant (unless another issuing office is designated in the Advertisement or Invitation to Bid). Additional Specification books generated by Knopf & Associates, Inc. can be provided with written request at a cost of **\$40.00 per CD, \$50.00 per printed Manual.**

2.2. Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Consultant assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.3. Owner and Consultant in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDERS.

3.1 Each Bid must be accompanied by evidence of Bidders Authorization to do business in State of Florida as required to complete the Work.

3.2 Each must be accompanied by a completed Pre-Qualification form.

3.3 To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit within three days of Owners request, written evidence such as financial data, previous experience, present commitments and other such data as may be reasonably specifically requested by Owner or otherwise required in Contract Documents.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE.

4.1. It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work, (c) consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the work, (d) study and carefully correlate Bidders observations with the Contract Documents, and (e) notify

Consultant of all conflicts, errors or discrepancies in the Contract Documents.

4.2. Reference is made to Division 1: General Requirements of the Specifications for the identification of:

4.2.1. Those reports of explorations and tests of subsurface conditions at the site which have been utilized by Consultant in preparation of the Contract Documents.

4.2.2. Those drawings of physical conditions in or relating to existing surface and subsurface conditions (except Underground Facilities) which are at or contiguous to the site which have been utilized by Consultant in preparation of the Contract Documents.

4.2.3. Copies of such reports and drawings (referred to above), if not attached to the Specifications or added on the Drawings, will be made available by Owner to any Bidder on request. Those reports and drawings are not a part of the Contract Documents. Bidder may not rely upon the accuracy of the nontechnical data, interpretations or opinions contained in those reports and drawings. Bidder may not rely on the completeness of those reports and drawings for the purposes of bidding or construction. Bidder may rely on any technical data contained in those reports and drawings specifically referenced in Division 1: General Requirements as technical data that can be relied on.

4.3. Before submitting a Bid, each Bidder will, at Bidders own expense, be responsible to make or obtain such examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (surface and subsurface) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the work and which Bidder deems necessary to determine its Bid for performing and furnishing the work in accordance with the time, price and other terms and conditions of the Contract Documents.

4.4. On request in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.

4.5. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents or will be established at the Pre-Construction meeting. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents.

4.6. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and

detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

5. INTERPRETATIONS AND ADDENDA.

5.1. All questions about the meaning or intent of the Contract Documents are to be directed to Consultant. Interpretations or clarifications considered necessary by Consultant in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by issuing office as having received the Bidding Documents. Questions received less than three days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5.2. Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner or Consultant.

6. BID SECURITY. (None Required)

6.1. This space left intentionally blank.

6.2. This space left intentionally blank.

7. CONTRACT TIME.

The numbers of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Time) are set forth in the Bid Form and the Agreement. If Contract Times are left blank in the Bid Form, the time for Substantial Completion and final completion are to be set forth by Bidder in the Bid and will be included in the Agreement. The times will be taken into consideration by Owner during the evaluation of Bids, and it will be necessary for the Successful Bidder to satisfy Owner of Bidders ability to achieve Substantial Completion and final completion within the times designated in the Bid.

8. LIQUIDATED DAMAGES.

Provisions for liquidated damages, if any, are set forth in the General Conditions and the Agreement.

9. SUBSTITUTE OR EQUAL ITEMS.

The contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications unless Bidder provides sufficient data to demonstrate alternate is equivalent to that specified prior to submitting Bid.

10. SUBCONTRACTORS, SUPPLIERS AND OTHERS.

10.1. If the Bid Form or Specifications require (or if Owner requests after Bids are received) the identity of certain Subcontractors, Suppliers and other persons and organizations (including those who are to furnish the principal items of material and equipment) to be submitted to Owner in advance of the specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within seven days after the Bid opening (or seven days after request by Owner) submit to Owner a list of all such Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person or organization if requested by Owner. Subcontractors shall be required to meet Contractors liability insurance requirements as established by the General and Supplementary Conditions or be listed as an additional insured on the apparent Successful Bidders policy. If Owner or Consultant after due investigation has reasonable objection to any proposed Subcontractor, Supplier, other person or organization, either may before the Notice of Award is given request the apparent Successful Bidder to submit an acceptable substitute without an increase in Bid price. If apparent Successful Bidder declines to make any such substitution, Owner may award the contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers and other persons and organizations. The declining to make requested substitutions will not constitute grounds for sacrificing the Bid security of any Bidder. Any Subcontractor, Supplier, other person or organization listed and to whom Owner or Consultant does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Consultant subject to revocation of such acceptance after the Effective Date of the Agreement.

10.2. No Contractor shall be required to employ any Subcontractor, Supplier, other person or Organization against whom Contractor has reasonable objection.

11. BID FORM.

11.1. The Bid Form is included with the Bidding Documents; additional copies may be obtained from Consultant (or the issuing office).

11.2 All blanks on the Bid Form must be completed in ink or by typewriter.

11.3. Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.

11.4. Bids by partnerships must be executed in the partnership name and signed by a general partner whose title must appear under the signature and the official address of the partnership must be shown below the signature.

11.5 All Names must be typed or printed below the signature.

11.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).

11.7 The address and telephone number for communication regarding the Bid must be shown.

12. SUBMISSION OF BIDS.

Bids shall be submitted at the time and place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of the Bidder and accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other delivery system the sealed envelope shall be enclosed in a separate envelope with the notation **BID ENCLOSED FOR (City of Bartow-Main Fire Station) TO BE OPENED (insert date and time)** on the face of it.

13. MODIFICATION AND WITHDRAWAL OF BIDS.

13.1. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

13.2. If within twenty-four hours after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

14. OPENING OF BIDS.

Bids will be opened privately as indicated in the Invitation to Bid.

15. BIDS TO REMAIN SUBJECT TO ACCEPTANCE.

All bids will remain subject to acceptance for 30 days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid.

16. AWARD OF CONTRACT.

16.1. Owner reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsive, unbalanced or conditional Bids. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make and award to the Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner.

16.2. In evaluating Bids, Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as

may be requested in the Bid Form or prior to the Notice of Award.

16.3. Owner may consider the qualifications and experience of Subcontractors, Suppliers and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions (or as requested by Owner after the Bids are received). Owner also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

16.4. Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owners satisfaction within the prescribed time.

16.5. If the contract is to be awarded, it will be awarded to the lowest Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project.

17. CONTRACT SECURITY. (May be required at option of Owner)

Paragraph 5.1 of the General Conditions and the Supplementary Conditions set Forth Owners requirements as to performance and payment Bonds. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by the required performance and payment Bonds.

18. SIGNING OF AGREEMENT.

When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached.

Within 5 days thereafter Contractor shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner with the required Bonds.

END OF SECTION 01000

SECTION 01300 SUBMITTALS

PART I GENERAL

1.01 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.02 Summary

- A. This Section includes administrative and procedural requirements for submittals required for the performance of the Work, including the following:
 - 1. Contractors Project Schedule (Updated with each Pay Request)
 - 2. Daily Work Reports
 - 3. Shop Drawings
 - 4. Product Data
 - 5. Samples
 - 6. Quality Assurance Submittals
- B. Administrative Submittals: Submittals include but are not limited to, the following:
 - 1. Permits
 - 2. Performance and Payment Bonds
 - 3. Insurance Certificates
 - 4. Applications for Payment
 - 5. Subcontractor List

1.03 Procedures

- A. Processing: To avoid delays, allow sufficient time for submittal review including time for resubmittals.
 - 1. Allow ten (10) days for review and resubmittal.
 - 2. No extension of Contract Time will be authorized because of failure to transmit submittals sufficiently in advance of the Work to permit processing.
- B. Submittal Preparation:
 - 1. Provide a Title Page for each submittal package
 - 2. Include the following information on the Title Page:
 - a. Project Name

- b. Date
 - c. Name and Address of Consultant
 - d. Name and Address of Contractor
 - e. Table of Contents
- 3. Include the following information (if appropriate) for each item listed in the Table of Contents:
 - a. Item Identification
 - b. Name of Manufacturer
 - c. Name of Sub-contractor
 - d. Name of Supplier
 - e. Number and Title of appropriate Specification Section
 - f. Drawing Number and Detail References, as appropriate
- 4. Submittal Transmittal: Package submittals appropriately for handling and transport. Attach a Letter of Transmittal to each submittal package.
 - a. Record relevant information and request for data on the transmittal letter. Record deviations from the Contract Specifications, including variations and limitations. Include Contractors certification that information complies with Contract Document requirements.

1.04 Contractors Schedule

- A. Bar-Chart Schedule: Prepare a horizontal bar-chart type work schedule. Submit prior to the Pre-Construction Meeting.
 - 1. Provide a separate time bar for each significant construction activity. Use the same activities list on the Schedule of Values.
 - 2. Secure time commitments for performing critical elements of the Work from sub-contractors and suppliers. Show each activity on the chart.
 - 3. Indicate Substantial Completion on the schedule.
- B. Distribution: Print and distribute copies to the Owner, Consultant, subcontractors, suppliers and other parties required to comply with scheduled dates.
 - 1. When revisions are made redistribute to the same parties. Delete parties who have completed their assigned task.
- C. Schedule updating: Revise the schedule after each event or activity where revisions have been recognized or made.

1.05 Daily Work Reports

- A. Prepare a daily work report recording the following information and submit copies to the Consultant on a weekly basis.
 - 1. Number of personnel at site
 - 2. Sub-contractors at site
 - 3. General weather conditions
 - 4. Accidents and unusual events

5. Stoppages, shortages, delays and losses
6. Orders and request of governing authorities
7. Portions of work completed

1.06 Shop Drawings

- A. Submit newly prepared information drawn to scale. Highlight, encircle or otherwise indicate deviations from the Project Manual. Reproduction of Contract Documents or Standard information is not a shop drawing.
- B. Shop Drawings include fabrication and installation drawings, templates and similar drawings. Include the following information:
 1. Dimensions
 2. Identification of products and materials
 3. Compliance with specified standards
 4. Sheet Size: Submit drawings on sheets at least 8 1/2 by 11 inches.
 5. Do not use Shop Drawings without final approval

1.07 Product Data

- A. Group Product Data into elements of each system. Include product information and manufacturers installation instructions.
 1. Mark each copy to show applicable choices and options. Where more than one product is shown, mark appropriate items.
 2. Submittals: Submit 4 copies of each required submittal for review. The Consultant will retain one and return the other marked with action taken and corrections or modifications required.
 - a. Unless rejected, the corrected or modified submittal may serve as the final document.
 3. Furnish the required number of copies of the final submittal package for distribution.
 - a. Provide one final copy of approved submittals to the job site superintendent, prior to starting the Work.
 - b. Do not permit use of unmarked submittals.

1.08 Samples

- A. Samples of aggregates, generic materials and other items deemed necessary by the Consultant may be required.
- B. Refer to the Specification Sections for sample requirements.
- C. The Consultant will review and return preliminary samples indicating acceptance.
- D. Maintain sets of Samples at the site for quality comparison throughout the Project.

1.09 Review Actions

- A. Where action and return is required, the Consultant will review each submittal,

mark to indicate action taken, and return promptly.

1. Compliance with specified characteristics is the Contractors responsibility.
- B. Action Stamp: The Consultant will stamp each Submittal with a uniform, action stamp. The Consultant will mark the stamp to indicate the action taken as follows:
1. Final Unrestricted Release: No Exceptions Taken the Work covered by the submittal may proceed provided it complies with the requirements of the Contract Documents. Final payment depends on that compliance.
 2. Final But Restricted Release: Make Corrections Noted the Work covered by the submittal may proceed provided it complies with the notations or corrections on the submittal and the requirements of the Contract Documents. Final payment depends on that compliance.
 3. Returned for Resubmittal: Rejected or Revise and Resubmit do not proceed with the Work covered by the submittal, including purchasing, fabrication, delivery or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain approved action mark.
 - a. Do not use, or allow others to use, submittals marked for resubmittal.

END OF SECTION 01300

**SECTION 01700
CONTRACT CLOSEOUT**

PART I GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout including but not limited to, the following:

- 1. Contractor Project Warranty for Roofing, Flashing and Sheet Metal.
- 2. Contractor's Final Affidavit.
- 3. Contractor's Final Waiver of Lien.
- 4. Waiver of Liens from all Suppliers and Subcontractors.
- 5. Executed Copy of Manufacturer's Warranty.
- 6. Proof of Final Inspection by Building Department.
- 7. Removal of Portable Toilet.
- 8. Final Cleaning of Job Site.

1.03 Substantial Completion:

- A. The Contractor shall submit a list of items remaining to be completed at such time as the Work is Substantially Complete in accordance with the contract documents and the Owner can use it for the use for which it was intended. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the contract documents.
- B. The Owners Agent (the Roofing Consultant) shall thereupon promptly make a final inspection with the Contractor of the Work and will determine the accuracy of the list of items to be completed or corrected, as modified during the inspection, and certify in writing the achievement of Substantial Completion.
- C. Warranty periods shall begin on the Date of Substantial Completion unless prior dates have been established for acceptance in which case warranties shall commence on such prior dates.

1.04 Closeout Documents:

- A. Prior to receiving final payment the Contractor shall submit:

- 1. Satisfactory evidence to the Owner of the payment or satisfaction of all

payroll; subcontracts; bills for materials; equipment, and other indebtedness in connection with the Work for which the Owner or his property might be liable or subject to liens; and consent of surety, if any, to final payment.

2. Manufacturers warranties and Contractors warranties as set forth in the Project Manual.
3. Maintenance Manual outlining periodic maintenance and inspection requirements.
4. All permits and evidence of final inspections by appropriate building officials and Manufacturers Representatives, if required.
5. Contractors Final Affidavit.

1.05 Final Cleaning:

A. Cleaning

1. Discontinue and remove temporary facilities, construction tools and similar items.
2. Complete final cleanup requirements including touchup painting.
3. Clean site, including landscape areas, of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits.
4. Remove temporary protection and facilities installed for protection of the Work during construction.
5. Touch up and otherwise repair and restore marred, exposed finishes.

- B. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.

1.06 Inspection Procedures:

- A. On receipt of a request for inspection, the Consultant will either proceed with the inspection or advise the Contractor of unfilled requirements. The Consultant will prepare the Certificate of Substantial Completion following inspection or advise the Contractor of work that must be completed or corrected before the certificate will be issued.

1. The Consultant will repeat inspection when requested and assure that the Work is substantially complete.
2. Results of the completed inspection will form the basis of requirements for final acceptance.

1.07 Final Acceptance:

- A. Prior to requesting final inspection for certification of final acceptance and final payment, complete the following: (list exceptions in the request)
 - 1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted.
 - 2. Submit a statement that each item of the Consultants final inspection has been completed or resolved for acceptance; this list shall be endorsed and dated by the Consultant.
 - 3. Submit consent of surety to final payment.
 - 4. Submit a final liquidated damages settlement statement.

1.08 Final Payment:

- A. Following notice by the Contractor of completion or correction of any items identified in Section 1.06, an inspection to verify completion or correction of such items shall be made promptly, together with the Contractor, by the Owners Agent, who made the inspection provided in Section 1.06. Upon determination on such inspection that all corrections listed have been accomplished, final payment shall be made to the Contractor of the entire unpaid balance of the contract sum or of the amount determined by the Owners agent, subject to further arbitration, if the parties do not agree upon the amount of the balance due.
- B. If the contractor is unable to get LIEN WAIVERS from all unpaid subcontractors and suppliers, the owner can pay those subcontractors or suppliers directly. Direct payments can be made to anyone who has given a NOTICE TO OWNER or anyone listed in the Contractors Final Affidavit. In order to pay subcontractors or suppliers directly, the owner must give the contractor ten (10) days written notice of his intent to do so.
- C. If there are CONDITIONAL LIEN WAIVERS from some of the subcontractors or suppliers who are listed in the Contractors Final Affidavit, the Owner should confirm the amount due with the Contractor and then pay that bill directly.
- D. The Contractor will be paid the balance due after deducting any payments made directly to subcontractors or suppliers.
- E. If there are insufficient funds left in the Contract to pay everyone in full, the Owner must make pro rata payments in accordance with the priorities established in the **Florida Lien Law. (Section 713.06 Liens of persons in privity; proper payments).**

END OF SECTION 01700

SECTION 05313
STEEL ROOF DECK

PART 1 GENERAL:

1.1 SECTION INCLUDES

- A. Steel Roof Deck.
- B. Closures and Fillers.
- C. Fastening of Deck.
- D. Contractor to verify deck type.

1.2 RELATED SECTIONS

- A. Section 03300 - Cast-In-Place Concrete.
- B. Section 05120 - Structural Steel.
- C. Section 07220 - Roof and Deck Insulation.
- D. Section 07500 - Membrane Roofing.
- E. Section 07600 - Sheet Metal Flashing.

1.3 REFERENCES

- A. ASTM A 611 - Standard Specification for Steel, Sheet Carbon, Cold-Rolled, Structural Quality.
- B. ASTM A 653/A 653M - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-iron Alloy coated (Galvannealed) by the Hot-Dip Process.
- C. ASTM A 924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot- Dip Process.
- D. AWS D1.3 - Structural Welding Code - Sheet Steel; American Welding Society.
- E. Fire Resistance Directory; Underwriters Laboratories Inc. (UL).
- F. SDI 29 - Steel Deck Institute Design Manual for Composite Decks, Form Decks, Roof Decks, and Cellular Metal Floor, Deck with Electrical Distribution; Steel Deck Institute, Inc. (SDI).
- G. SDI DDM02 - Diaphragm Design Manual; Steel Deck Institute, Inc. (SDI).
- H. SDI Manual of Construction with Steel Deck; Steel Deck Institute, Inc.
- I. Specification for the Design of Cold-Formed Steel Structural Members; American Iron and Steel Institute (AISI).

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data:
 - 1. Submit for each type of decking specified, including dimensions of individual components, profiles, and finishes.
 - 2. Mechanical fasteners: Test reports from a qualified independent testing agency evidencing compliance with requirements based on comprehensive

testing.

- C. Shop Drawings: Show location of deck units, anchorage details, sump pans, cut openings and accessories, and other information required for a thorough review.
- D. Product Certificates: Signed by the manufacturer of the steel deck, certifying the supplied products comply with specified requirements.
- E. Welder Certificates.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Member of the Steel Deck Institute.
- B. Codes and Standards: Comply with applicable provisions of the following specifications:
 - 1. American Iron and Steel Institute (AISI).
 - 2. American Welding Society (ANSI/AWS D1.3 Structural Welding Code/Sheet Steel).
 - 3. Steel Deck Institute (SDI).
- C. Each welder shall have satisfactorily passed A.W.S. Qualification tests for welding processes involved, and if applicable, shall have undergone recertification.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Protect steel deck from corrosion, deformation, and other damage during delivery, storage and handling.
- B. If ground storage is needed, store deck bundles off the ground, with one end elevated to provide drainage.
Protect bundles against condensation with a ventilated waterproof covering. Stack bundles so there is no danger of tipping, sliding, rolling, shifting or material damage. Check bundles periodically for tightness, and retighten as necessary so wind cannot loosen sheets.
- C. Place deck bundles on the building frame near a main supporting beam at a column or wall. Do not place bundles on unbolted frames or on unattached or unbridged joists. Ensure that the structural frame is properly braced to receive the bundles.

PART 2 PRODUCTS:

2.1 MANUFACTURER

- A. Provide products fabricated by United Steel Deck, Inc.: 14 Harmich Rd. South, Plainfield, NJ 07080. Telephone: 908-277-1617 or 800-631-1215
Fax: 908-277-1619.

2.2 MATERIALS

- A. Steel Roof Deck: Provide the following type; with depth, design thickness, and design configuration in accordance with the requirements of the SDI.
 - 1. Intermediate rib (Type F).
 - 2. Wide rib (Type B).
 - 3. Deep rib (Type N).
 - 4. Long span (Types J and H).
 - 5. Depth: TBD.
 - 6. Design thickness: TBD gage.
 - 7. Depth and gage: As indicated on the drawings.
- B. Sheet Steel for Galvanized Roof Deck and Accessories: ASTM A 653 Structural Quality, Grade 33 (230 MPa) or higher. Galvanizing: ASTM A 924 with a minimum coating class of G-90 as defined in A 653.
- C. Sheet steel for prime-painted roof deck and accessories shall conform to ASTM A 611 with a minimum yield strength of 33 ksi (230 MPa). Steel deck shall have a coat of manufacturer's standard shop primer paint.
- D. Where fire resistance rated assemblies are required, provide UL-listed units. Identify steel deck bundles with labels bearing the UL mark.
 - 1. UL Design Number: To be determined by contractor.
 - 2. UL Design Number: As indicated on the drawings.

2.3 ACCESSORIES

- A. Furnish ridge and valley plates, flat plates at change of deck direction, and sump pans, as shown on plans to provide a finished surface for the application of roof insulation and roof covering.

PART 3 EXECUTION:

3.1 EXAMINATION

- A. Examine support framing and field conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work of this section.

3.2 PREPARATION

- A. Place deck in accordance with approved placement plans.
- B. Locate deck bundles to prevent overloading of support members.

3.3 INSTALLATION, GENERAL

- A. Do not use deck units as a working platform or storage area until units are permanently attached in position.
- B. Do not impose construction loads that exceed load carrying capacity of deck.
- C. Install deck panels and accessories according to Steel Deck Institute specifications

and recommendations, SDI Manual of Construction with Steel Deck, and in accordance with the placement plans and requirements of this Section.

- D. Place deck panels on structural supports and adjust to final position with ends lapped or butted over structural supports with a minimum end lapped or butted over structural supports with a minimum end bearing of 1.5 inches (40 mm). Attach the deck panels firmly to the supports immediately after placement in order to form a safe working platform.
- E. Cut and neatly fit deck and accessories at skew conditions, around openings, and at other work projecting through or adjacent to the decking.
- F. Do not cut unscheduled openings through the deck without the approval of the Architect; reinforce openings as directed.

3.4 ATTACHMENT

- A. Anchor deck units to steel supporting members by approved mechanical fasteners. (Engineering Required)
 - 1. Arc spot puddle welds shall be 5/8 inch (15 mm) minimum visible diameter with the attachment pattern shown on placement drawings.
 - 2. Mechanical fasteners, either powder actuated, pneumatically driven, or self-drilling screws may be used in lieu of welding, provided product data has been submitted and approved.
- B. Side lap attachment: Fasten side laps of deck units with spans greater than 5 feet (1.5 m) at mid span or 36" (1 m) intervals, whichever distance is smaller, or as shown on design drawings using one of the following methods:
 - 1. #10 self-drilling screws.
 - 2. Crimp or button punching.
 - 3. Arc spot puddle welds 5/8 inch (15 mm) minimum visible diameter or 1 inch (25 mm) long arc seam or fillet weld.
- C. Perimeter Edge Attachment: Fasten perimeter edges of deck units at minimum 36 inches (1 m) intervals or as shown on design drawings using one of the following methods:
 - 1. Arc spot puddle welds 5/8 inch (15 mm) minimum visible diameter or 1 inch (25 mm) long arc seam or fillet weld.
 - 2. Mechanical fasteners, either powder actuated, pneumatically driven or self-drilling screws may be used in lieu of welding, providing product data has been submitted and approved.
- D. Anchor accessories to supporting members by arc spot welds or self-drilling screws at 12 inches (13 mm) maximum intervals or as shown on design drawings.

3.5 REPAIRS

- A. Before placement of roof insulation and roof covering:
 - 1. Inspect the deck for tears, dents, or other damage that may prevent the deck

- from action as a structural roof base.
2. Repair tears, dents, or other damage.
 3. Obtain the approval of the Roof Consultant.

END OF SECTION 05313

SECTION 06100 ROUGH CARPENTRY

PART I GENERAL

1.01 Scope of Work

The work required consists of all carpentry work and related items necessary to complete the work described in this section.

1.02 Work Included

Without restricting the volume or generality of the above "Scope", the work to be performed under this section shall include, but is not limited to the following:

- A. Gypsum Deck Perimeter Wood Blocking

PART II PRODUCTS

2.01 General

A. The type and location of the various kinds and thickness of wood products to be used is Specified hereinafter; however, where wood is indicated on drawings and kind or type is not specified or noted, product is to be No.1 Grade pressure treated.

B. All Carpentry and millwork and materials shall meet the requirements of applicable portions of Standards listed below.

- 1) - American Plywood Association - APA
- 2) - American Society for Testing Materials - ASTM
- 3) - Architectural Woodwork Institute - A.W. I.
- 4) - American Wood Preservers Institute - AWPI
- 5) - National Forest Products Association - NFPA
- 6) - Douglas Fir Plywood Association - DFPA
- 7) - National Fire Protection Association - NFPA
- 8) - Southern Building Code Congress International - SBCCI
- 9) - Southern Pine Inspection Bureau - SPIB
- 10) - Western Wood Products Association - WWPA
- 11) - National Lumber Manufacturers Association - NLMA
- 12) - Underwriters Laboratories - UL

2.02 Materials

A. Framing, blocking and bracing that will remain hidden in the building shall be Grade Marked Number 2 KD Southern Yellow Pine, Construction Grade Douglas Fir, Hem/Fir of SPF which has been fire retardant treated or pressure treated.

B. Blocking and bracing that is permanent shall be similar to other framing lumber in grade and moisture content.

C. All framing and blocking lumber being replaced or used on the exterior shall be Southern Yellow Pine pressure treated with one of the following preservatives for protection from decay and termite attack.

- 1) - Pentachlorophenol
- 2) - Zinc Chloride
- 3) - Zinc-Meta Arsenate
- 4) - Wolman Salts with Arsenic Content
- 5) - Chromated Zinc Chloride

D. Materials specified as pressure treated shall meet the requirements of AWPA standards P5, C1, C2, C3, C4, C5, C9, C14, C16, C18, and C23. Materials shall be treated to a net retention of .25 lbs. per cubic foot for "above ground contact use".

E. Acceptable products are as follows:

Hoover Treated Wood Products - Dixie CCA

Koppers - Wolman CCA

Osmose Wood Preserving, Inc. - Flame Proof LHC or approved submitted product.

F. All framing lumber shall be free from any warp that cannot be corrected by mechanical attachment and shall be S4S.

G. All framing lumber shall be thoroughly air-dried and shall possess moisture content under 19 percent.

H. Fasteners shall be minimum common hot dipped galvanized nails, sized as follows:

- 1) Sub-fascia/fascia - 16d ring shank hot dipped galvanized nails - all 2 x lumber, 8d ring shank hot dipped galvanized nails - all 1 x and trim pieces.
- 2) For all other hidden attachments, including roof membrane, hot dipped galvanized nails.

NOTE: Electro Plated or Galvanized products not acceptable.

- 3) Screws of sufficient length to penetrate into metal.

2.03 Installation

A. Replace all deteriorated plywood decking at roof as necessary to achieve a suitable surface to receive new roof system and/or stucco veneer surface. If questionable it will be the judgment of the onsite foreman for replacement.

B. Renail all existing plywood sheathing in an acceptable pattern per the latest Florida

END OF SECTION 06100

SPECIAL CONDITIONS ROOF DECK

Bidders and successful contractor(s) shall realize that in reroof projects the possibility of deteriorated/potentially dangerous deck, structural components or other conditions may exist which may not be detected or disclosed during project review, Specification production, Pre-Bid and Pre-Construction meetings.

Assuming this condition is found it will be incumbent upon roof contractor to notify appropriate parties, **especially Roof Consultant**, a dangerous condition exists, and then it will be dealt with via unit pricing and change orders, unless otherwise provided for in specifications and contract documents.

Should deteriorated/dangerous decking be discovered, roof contractor shall immediately become responsible to take every precaution necessary to secure area upon discovery, up to and through reconstruction, to prevent weather intrusion, fall or other **"Life Safety"** hazards for any persons (crew, supervisors, owners, consultants, engineers or public inspectors), who find it necessary to access site.

Knopf & Associates, Inc.
3965 Investment Lane, A9
Riviera Beach, FL 33404

Contractor: _____

Project: City of Bartow-Main Fire Station

Wood Replacement Tally Sheet

Date							Stucco/Paint

Wood Replacement			
Item	Quantity	Amount	Sub-Total
Total			

Change Order # _____

Pay Request # _____

**SECTION 075216 - STYRENE-BUTADIENE-STYRENE (SBS)
MODIFIED BITUMINOUS MEMBRANE ROOFING**

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Torch applied SBS-modified bituminous membrane roofing.
- B. Adhered cover board.
- C. Mechanically fastened tapered roof insulation system.

1.2 RELATED SECTIONS

- A. Division 05 Section "Steel Decking" for steel roof deck.
- B. Division 06 Section "Miscellaneous Rough Carpentry" for wood nailers, cants, curbs, and blocking.
- C. Division 07 Section "Sheet Metal Flashing and Trim" for metal roof penetration flashings, flashings, and counter flashings.
- D. Division 22 Section "Storm Drainage Piping Specialties" for roof drains.

1.3 REFERENCES

- A. Roofing Terminology: Refer to the following publications for definitions of roofing work related terms in this Section:
 - 1. ASTM D 1079 "Standard Terminology Relating to Roofing and Waterproofing."
 - 2. Glossary of NRCA's "The NRCA Roofing and Waterproofing Manual."
 - 3. Roof Consultants Institute "Glossary of Building Envelope Terms."
- B. Sheet Metal Terminology and Techniques: SMACNA "Architectural Sheet Metal Manual."

1.4 DESIGN CRITERIA

- A. General: Installed roofing membrane system shall remain watertight; and resist specified wind uplift pressures, thermally induced movement, and exposure to weather without failure.

- B. Material Compatibility: Roofing materials shall be compatible with one another under conditions of service and application required, as demonstrated by roofing system manufacturer based on testing and field experience.
- C. Installer shall comply with current code requirements based on authority having jurisdiction.
- D. Wind Uplift Performance: Roofing system shall be identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist wind uplift pressure calculated in accordance with ASCE 7.
 - 1. Assembly Basis of Design: FBC
 - a. Listing/Report: FL17013-R8
 - b. System: S-AM-14
 - c. Maximum Design Pressure: -60 psf
- E. Fire-Test-Response Characteristics: Provide roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, FMG, or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
 - 1. Exterior Fire-Test Exposure: Class A; ASTM E 108, for application and roof slopes indicated.

1.5 SUBMITTALS

- A. Product Data: Manufacturer's data sheets for each product to be provided.
- B. Detail Drawings: Provide roofing system plans, elevations, sections, details, and details of attachment to other Work, including:
 - 1. Base flashings and membrane terminations.
 - 2. Tapered insulation, including slopes.
 - 3. Crickets, saddles, and tapered edge strips, including slopes.
 - 4. Insulation fastening and adhesive patterns.
- C. Verification Samples: Provide for each product specified.
- D. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing system.
- E. Maintenance Data: Refer to Johns Manville's latest published documents on www.JM.com.
- F. Guarantees: Provide manufacturer's current guarantee specimen.

- G. Prior to beginning the work of this section, roofing sub-contractor shall provide a copy of the final System Assembly Letter issued by Johns Manville Roofing Systems indicating that the products and system to be installed shall be eligible to receive the specified manufacturer's guarantee when installed by a certified JM contractor in accordance with our application requirements, inspected and approved by a JM Technical Representative.
- H. Prior to roofing system installation, roofing sub-contractor shall provide a copy of the Guarantee Application Confirmation document issued by Johns Manville Roofing Systems indicating that the project has been reviewed for eligibility to receive the specified guarantee and registered.
 - 1. "Knopf & Associates" shall be listed as the Specifier/Consultant of record in the appropriate fields on the Guarantee Application Confirmation.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive the specified manufacturer's guarantee.
- B. Manufacturer Qualifications: Qualified manufacturer that has UL listing and Florida Product Approval for roofing system identical to that used for this Project.
- C. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 329.
- D. Test Reports:
 - 1. Roof drain and leader test or submit plumber's verification.
 - 2. Roof deck fastener pullout test.
- E. Source Limitations: Obtain all components from the single source roofing manufacturer guaranteeing the roofing system. All products used in the system shall be labeled by the single source roofing manufacturer issuing the guarantee.
- F. Provide evidence of CERTA training for any installer of torch-applied modified bitumen membrane. Copies of certifications are required prior to award and shall be maintained on the jobsite for inspection at any time.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storage.

- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

1.8 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when current and forecasted weather conditions permit roofing system to be installed in accordance with manufacturer's written instructions and guarantee requirements.

1.9 GUARANTEE

- A. Provide manufacturer's system guarantee equal to Johns Manville's Peak Advantage No Dollar Limit Roofing System Guarantee.
 - 1. Single-Source special guarantee includes roofing plies, base flashings, liquid applied flashing, roofing membrane accessories, granule surfaced roofing membrane, roof insulation, fasteners, cover board, walkway products, manufacturer's expansion joints, manufacturer's edge metal products, and other single-source components of roofing system marketed by the manufacturer.
 - 2. Guarantee Period: 20 years from date of Substantial Completion.
 - 3. Contractor is required to list "Knopf & Associates" as the Specifier/Consultant of record in the appropriate fields ("Specifier Account") when applying for the manufacturer's warranty.
 - 4. Provide alternate cost for 130 MPH Wind Ryder.
- B. Installer's Guarantee: Submit roofing Installer's guarantee, signed by Installer, covering Work of this Section, including all components of roofing system, for the following guarantee period:
 - 1. Guarantee Period: Two years from date of Substantial Completion.
- C. Existing Guarantees: Guarantees on existing building elements should not be affected by scope of work.
 - 1. Installer is responsible for coordinating with building owner's representative to verify compliance.

PART 2 - PRODUCTS

2.1 BASE PLY SHEET AND CAP-SHEET MATERIALS

- A. Roofing Membrane Base Ply Sheet: ASTM D 6164, Grade S, Type I, polyester-reinforced, SBS-modified asphalt sheet; smooth surfaced; suitable for application method specified. Basis of Design: [DynaWeld 180 S Base Sheet](#)
- B. Roofing Membrane Cap Sheet: ASTM D 6164, Grade G, Type I, polyester-reinforced, SBS-modified asphalt sheet; granular surfaced; suitable for application method specified. Basis of Design: [DynaWeld Cap 180 FR](#)

2.2 FLASHING SHEET MATERIALS

- A. Backer Sheet: ASTM D 6164, Grade S, Type I, polyester-reinforced, SBS-modified asphalt sheet; smooth surfaced; suitable for application method specified. Basis of Design: [DynaWeld 180 S Base Sheet](#)
- B. Flashing Sheet: ASTM D 6164, Grade G, Type I, polyester-reinforced, SBS-modified asphalt sheet; granular surfaced; suitable for application method specified. Basis of Design: [DynaWeld Cap 180 FR](#)
- C. Liquid Applied Flashing: A liquid and fabric reinforced flashing system created with a stitch bonded polyester scrim and a two-component, moisture cured, elastomeric, liquid applied flashing material, consisting of an asphalt extended urethane base material and an activator. Basis of Design: [PermaFlash System](#)

2.3 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with built-up roofing.
- B. Asphalt Primer: ASTM D 41. Basis of Design: [Asphalt Primer](#)
- C. Cold-Applied Flashing Adhesive: Roofing system manufacturer's asphalt-based, one-part, asphalt-based, trowel-grade mastic, cold-applied adhesive specially formulated for compatibility and use with flashing applications. Basis of Design: [MBR Utility Cement](#)
- D. Mastic Sealant: As required by Johns Manville.
- E. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening roofing membrane components to substrate, tested by manufacturer for required pullout strength, and provided by the roofing system manufacturer. Basis of Design: [High Load Fasteners and Plates](#)

- F. Roofing Granules: Ceramic-coated roofing granules matching specified cap sheet, provided by roofing system manufacturer. [Roofing Granules](#)
- G. Miscellaneous Accessories: Provide miscellaneous accessories recommended by roofing system manufacturer.

2.4 WALKWAYS

- A. Walkway Pads: Mineral-granule-surfaced, reinforced modified asphalt composition, slip-resisting pads, manufactured as a traffic pad for foot traffic provided by roofing system manufacturer, with a pad size of 32 inch x 32 inch. Basis of Design: [DynaTred Walkway](#)
- B. Provide two (2) minimum Walkpads outside each roof access door.

2.5 COVER BOARD

- A. Gypsum Board: ASTM C 1278, non-faced, gypsum and cellulose fiber substrate, 1/2 inch (13 mm) thick. Basis of Design: [JM Securock Gypsum-Fiber Roof Board](#)

2.6 ROOF INSULATION

- A. General: Provide preformed roof insulation boards that comply with requirements and referenced standards, selected from manufacturer's standard sizes and of thicknesses indicated.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2 (20 psi), Basis of Design: [ENRGY 3](#)
 - 1. Provide insulation package with minimum thickness: 1.5" inch minimum.
 - 2. Minimum Long-Term Thermal Resistance (LTTR): 5.7 per inch.
 - a. Determined in accordance with CAN/ULC S770 at 75°F (24°C)

2.7 TAPERED INSULATION

- A. Tapered Insulation: ASTM C 1289, Type II, Class 1, Grade 2 (20 psi), provide factory-tapered insulation boards fabricated to slope of 1/4 inch per 12 inches (1:48), unless otherwise indicated. Basis of Design: [Tapered ENRGY 3](#)

2.8 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatible with membrane roofing.

- B. Provide factory preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated. Basis of Design: [DiamondBack Pre-Cut Crickets](#), [DiamondBack Pre-Cut Miters](#), [Tapered Fesco Edge Strip](#)
- C. Fasteners: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening roof insulation to substrate, and furnished by roofing system manufacturer. Basis of Design: [High Load Fasteners and Plates](#)
- D. Urethane Adhesive: Manufacturer's two component polyurethane adhesive formulated to adhere insulation to substrate. Basis of Design: [JM Two-Part Urethane Insulation Adhesive \(UIA\)](#)
- E. Insulation Cant Strips: ASTM C 728, perlite insulation board. Basis of Design: [FesCant Plus](#)
- F. Wood Nailer Strips: Comply with requirements in Division 06 Section "Miscellaneous Rough Carpentry."

2.9 EDGE METAL COMPONENTS

- A. (Optional) Fascia System: Manufacturer's factory fabricated fascia consisting of a base piece and a snap-on cover. Provide product from single-source roofing system supplier that is included in the No Dollar Limit guarantee. Basis of Design: [Presto-Tite Fascia](#)
- B. Shop-Fabricated Edge Metal: Custom-fabricated edge metal meeting the criterion of ANSI/SPRI ES-1. Must be approved by manufacturer technical representative. Minimum requirements:
 - 1. Steel: 20 gauge minimum, fastened 6 inches on center.
 - 2. Stainless Steel 20 gauge fastened 6 inches on center.
- C. Metal Flashing Sheet: Metal flashing sheet is specified in Division 07 Section "Sheet Metal Flashing and Trim."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions for compliance with the requirements affecting performance of roofing system.
 - 1. General:

- a. Verify that roof openings and penetrations are in place and set and braced and that roof drains are securely clamped in place.
 - b. Verify that wood cants, blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
- 2. Steel Decks:
 - a. Verify that surface plane flatness and fastening of steel roof deck complies with requirements in Division 05 Section "Steel Decking."
- 3. Ensure general rigidity and proper slope for drainage.
- 4. Verify that deck is securely fastened with no projecting fasteners and with no adjacent units more than 1/16 inch (1.6 mm) out of plane relative to adjoining deck.
- B. Unacceptable panels should be brought to the attention of the General Contractor and Project Owner's Representative and shall be corrected prior to installation of roofing system.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean and remove from substrate sharp projections, dust, debris, moisture, and other substances detrimental to roofing installation in accordance with roofing system manufacturer's written instructions.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction.
- C. If applicable, prime surface of deck with asphalt primer at a rate recommended by roofing manufacturer and allow primer to dry.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 RE-ROOF PREPARATION

- A. Remove all roofing membrane, surfacing, coverboards, insulation, fasteners, asphalt, pitch, adhesives, etc.
 - 1. Remove an area no larger than can be re-roofed in one day.
- B. Tear out all base flashings, counterflashings, pitch pans, pipe flashings, vents and like components necessary for application of new membrane.
- C. Remove abandoned equipment curbs, skylights, smoke hatches, and penetrations.

1. Install decking to match existing as directed by Owner's Representative.
- D. Raise (disconnect by licensed craftsmen, if necessary) all HVAC units and other equipment supported by curbs to conform with the following:
 1. Modify curbs as required to provide a minimum 8" base flashing height measured from the surface of the new membrane to the top of the flashing membrane.
 2. Secure of flashing and install new metal counterflashing prior to re-installation of unit.
 3. Perimeter nailers shall be elevated to match elevation of new roof insulation.
- E. Immediately remove all debris from roof surface. Demolished roof system may not be stored on the roof surface.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

3.4 INSULATION INSTALLATION

- A. Coordinate installation of roof system components so insulation and cover board are not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with roofing system manufacturer's written instructions for installation of roof insulation and cover board.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install insulation boards with long joints in a continuous straight line. Joints should be staggered between rows, abutting edges and ends per manufacturer's written instructions. Fill gaps exceeding 1/4 inch (6 mm) with like material.
- E. Install 2 or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches (150 mm) in each direction.
- F. Trim surface of insulation boards where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- G. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.
- H. Loose Laid Insulation with Top Insulation Layer Mechanically Fastened: Loose lay insulation with staggered joints and secure top layer of insulation to deck using mechanical fasteners designed and sized for fastening specified board-type to deck type.
 1. Fasten top layer to resist uplift pressure at corners, perimeter, and field of roof.
- I. Proceed with installation only after unsatisfactory conditions have been corrected.

3.5 COVER BOARD INSTALLATION

- A. Coordinate installing membrane roofing system components so cover board is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with membrane roofing system manufacturer's written instructions for installing roof cover board.
- C. Install cover board with long joints in a continuous straight line. Joints should be staggered between rows, abutting edges and ends per manufacturer's written instructions. Fill gaps exceeding 1/4 inch (6 mm) with cover board.
 - 1. Cut and fit cover board within 1/4 inch (6 mm) of nailers, projections, and penetrations.
- D. Trim surface of cover board where necessary at roof drains so completed surface is flush and does not restrict flow of water.
 - 1. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.
- E. Adhered Cover Board: Adhere cover board to substrate as follows:
 - 1. Install in a two-part urethane adhesive according to roofing system manufacturer's instruction.
 - 2. Install to resist uplift pressure at corners, perimeter, and field of roof.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

3.6 ROOFING MEMBRANE INSTALLATION, GENERAL

- A. Install roofing membrane in accordance with roofing system manufacturer's written instructions, applicable recommendations of the roofing manufacturer and requirements in this Section.
- B. Cooperate with testing and inspecting agencies engaged or required to perform services for installing roofing system.
- C. Where roof slope exceeds 1/2 inch per 12 inches (1:24), contact the membrane manufacturer for installation instructions regarding installation direction and backnailing.
- D. Coordinate installing roofing system so insulation and other components of the roofing membrane system not permanently exposed are not subjected to precipitation or left uncovered at the end of the workday or when rain is imminent.
 - 1. Provide tie-offs at end of each day's work to cover exposed roofing membrane sheets and insulation.

2. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system.
 3. Remove and discard temporary seals before beginning work on adjoining roofing.
- E. Substrate-Joint Penetrations: Prevent roofing asphalt from penetrating substrate joints, entering building, or damaging roofing system components or adjacent building construction.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

3.7 SBS-MODIFIED BITUMINOUS MEMBRANE INSTALLATION

- A. Install one modified bituminous roofing membrane base ply sheet and one cap sheet according to roofing manufacturer's written instructions, starting at low point of roofing system. Extend roofing membrane sheets over and terminate beyond cants, with the following installation method:
1. Unroll roofing membrane sheets and allow them to relax for minimum time period required by manufacturer.
 2. Heat weld modified bituminous roofing membrane sheets to substrate according to roofing system manufacturer's instruction.
- B. Laps: Accurately align roofing membrane sheets, without stretching, and maintain uniform side and end laps. Stagger end laps. Completely bond and seal laps, leaving no voids.
1. Repair tears and voids in laps and lapped seams not completely sealed.
 2. Apply roofing granules to cover exuded bead at laps while bead is hot.
- C. Install roofing membrane sheets so side and end laps shed water.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.8 FLASHING AND STRIPPING INSTALLATION

- A. Install base flashing over cant strips and other sloping and vertical surfaces, at roof edges, and at penetrations through roof, and secure to substrates according to roofing system manufacturer's written instructions and as follows:
1. Prime substrates with asphalt primer if required by roofing system manufacturer.
 2. Backer Sheet Application: Mechanically fasten backer sheet to walls or parapets.
 3. Backer Sheet Application: Install backer sheet and heat weld to substrate as required by roofing system manufacturer.
 4. Flashing Sheet Application: Heat weld flashing sheet to substrate as required by roofing system manufacturer.

- B. Extend base flashing up walls or parapets a minimum of 8 inches (200 mm) above roofing membrane and 4 inches (100 mm) onto field of roofing membrane.
- C. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing.
 - 1. Seal top termination of base flashing with a strip of glass-fiber fabric set in MBR Flashing cement.
- D. Roof Drains: Flash drain using liquid applied flashing (PermaFlash) system. Clamp roofing membrane, flashing, and stripping into roof-drain clamping ring.
 - 1. Install stripping according to roofing system manufacturer's written instructions.
- E. Flash all penetrations using liquid applied flashing (PermaFlash) system.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

3.9 WALKPAD INSTALLATION

- A. Walkway Pads: Install walkway pads using units of size indicated or, if not indicated, of manufacturer's standard size according to walkway pad manufacturer's written instructions.
 - 1. Sweep away loose aggregate surfacing and set walkway pads in additional cold applied adhesive.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Two (2) Pads at access doors and at location for access to upper roof by ladder. Provide pads at both roof levels, both sides.

3.10 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform roof tests and inspections and to prepare test reports.
- B. Final Roof Inspection: Arrange for roofing system manufacturer's Registered Roof Observer (RRO) to inspect roofing installation on completion and submit report to Architect.
 - 1. Notify Architect or Owner 48 hours in advance of date and time of inspection.
- C. Repair or remove and replace components of roofing system where test results or inspections indicate that they do not comply with specified requirements.

- D. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.11 PROTECTION AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075216

SECTION 07600
SHEET METAL FLASHING AND TRIM

PART 1 GENERAL:

1.01 Scope of Work: The work required consists of all sheet metal work and related items necessary to complete the work described in this section.

A. Work Included: Without restricting the volume or generality of the above "scope", the work to be performed under this section shall include but is not limited to, the following:

1. All necessary additions and replacement of wood blocking and nailers
2. All pitch pans and/or cups and other miscellaneous metal flashings required for pipes, conduits, and other items piercing the roof.
3. Perimeter Metal
4. Counter - Flashings
5. Roof Jacks & Vents
6. Door Sill Pans
7. Alternate - Sill Pans for New Access Doors

PART II PRODUCTS:

2.01 General: The type and locations of the various kinds, gauges, thicknesses and finishes of sheet metal to be used is specified hereinafter, however, where sheet metal is indicated on drawings and kind or type of metal is not definitely specified or noted, minimum 20ga 316L Stainless Steel shall be provided. All sheet metal perimeter flashings are to be provided and installed in accordance with RAS-111 Table 2

A. Lead Flashings:

1. Shall be minimum 2-1/2 lb. common desilverized pig lead preformed pipe flashings.

B. Fasteners:

1. Wood screws, annular threaded nails, self-topping screws, self-locking rivet and bolts, and other suitable fasteners designed to withstand design loads.
2. Exposed Fasteners: Dome-headed, gasketed, matching color of sheet metal by means of factory-applied coating. (Stainless Steel)
3. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws, gasketed, with domed hex washer head. (Stainless Steel)
4. Blind Fasteners: High-strength aluminum or Stainless Steel rivets.

C. Sealants:

1. Shall be a gun grade, non-sag, one component urethane sealant, ASTM C-920-86, type S, grade NS, Tremco DyMonic or approved equal.

D. Solder for Copper:

1. ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead.

E. Solder for Lead-Coated Copper:

1. ASTM B 32, Grade Sn60, 60 percent tin and 40 percent lead.

F. Solder for Stainless Steel:

1. ASTM B 32, Grade Sn60, with acid flux of type recommended by Stainless Steel sheet

manufacturer.

PART III. EXECUTION:

3.01 General Requirements:

- A. Proper Surfaces: Surfaces to which sheet metal is to be applied shall be even, smooth, sound, thoroughly clean and dry, and free from all defects that might affect the application.
- B. Materials to be Built-in: Materials which are to be built-in by other trades shall be delivered in time to avoid delays to construction progress.
- C. Accessories: All accessories or other items essential to the completeness of the sheet metal installation, though not specifically shown or specified, shall be provided. All such items, unless otherwise shown on the drawings or specified, shall be of the same kind of materials as the item to which applied. Nails, screws and bolts shall be the types best suited for the purpose intended and shall be of a composition that is compatible with the metal to which it will contact.
- D. Dissimilar Materials: Where sheet metal abuts or members into adjacent dissimilar materials, the juncture shall be executed in a manner that will prevent electrolysis between the two materials.
- E. Workmanship: Except as otherwise shown on drawings or specified, the workmanship, method of forming joints, anchoring, cleating, provisions for expansion, etc. shall conform to the standard details and recommendations of SMACNA in effect on the date of this specification.

3.02 Flashings:

A. Flashing Around Vent Pipes:

- 1. All vent pipes passing through the roof shall be flashed with 2.2 lb. sheet lead. Flashing shall not be less than 4" on the roof and shall extend up pipe and turn down inside the vent, one (1) inch, modified target to be installed, and all voids filled with PermaFlash.

*****Notes:** All vent pipes shall extend above new roof surface a minimum of 8". Contractor to provide no hub type connector with schedule 40 PVC piping where necessary to achieve 8" height. *** Use of Tubos pipe extensions is acceptable.

B. Wall Base Flashing / Two Piece Counter Flashing - Replace all existing counter flashing. New metals shall be fabricated from 22ga Type 316/317 Stainless Steel. Mount new countertop receiver to wall face and nail at 6" o.c. Strip to wall with 4" fabric, set in roof cement, where covered by membrane.

Install metal counter into receiver and lock into place with pop rivets at 12" o.c.

C. Termination Bar: All termination bars shall be 1/8 inch thick x 1.25 inch wide aluminum bar fastened at 8 inches on center at all vertical terminations of membrane flashing.

D. Provide 7" Box Gutters on all roof edges downspout location per plan.

E. Provide 316L Stainless Steel Door Sill Pans set to drain to exterior and installed in one piece welded/soldered at all joints.

3.03 Provide new Stainless Steel Eave Drip, Hi-stop Eave Drip at lower Canopy roof as required

to stop water runoff with wide face dimensions to cover all wood blocking, by a minimum 1" onto existing stucco veneer. Lock all face metals onto a 20ga Stainless Steel face cleat set against wall in a continuous 3/8" diameter sealant bead.

3.04 Warranty:

- A. Upon completion of the sheet metal work, the sheet metal sub-contractor shall furnish to the Owner a written Five (5) Year Sheet Metal Flashing Warranty, stating that the sheet metal flashing installation will be watertight and maintained so as to remain leak-free and that he will furnish the necessary materials and labor, at no additional cost to the Owner, to maintain the sheet metal flashing to be leak-free and to replace any defective sheet metal flashing work to the satisfaction of the Owner and Owner's Representative during the Five (5) Year Warranty period.

END OF SECTION 07600

CORRIM Company

Florida Building Code (FBC)



In accordance with a continuing program of product research and development, CORRIM Company reserves the right to change design and/or details of its products without notice. All details, drawings, and dimensions are accurate for estimating purposes at the time of publication. Specific Information for job details and drawings should be obtained from CORRIM Company offices or distributors.

CORRIM Company

Corrosion Immune Fiberglass Doors & Frames

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(920) 231-2000 FAX (920) 231-2238

Internet Address:
www.corrim.com

E-mail Address:
info@corrim.com

TECHNICAL FACT SHEET

70-16

2014 (5th Edition) Florida Building Code (FBC) **CORRIM Company** High Velocity Hurricane Zone (HVHZ) and +/- 70 PSF

DOORS AND FRAMES:

File Number	FL14311.R2
Door Size	<ul style="list-style-type: none"> 48" x 96" maximum single or 96" x 96" pair (UL 30-90 single only)
Handing/Swing	<ul style="list-style-type: none"> Must be out swing doors for valid FBC label – RHR or LHR
Finishes	<ul style="list-style-type: none"> Gelcoat, Polyurethane or Primed
Fire Ratings	<ul style="list-style-type: none"> UL 20, 30, 45, 60 or 90 minute labels (UL 30-90 single only)
Cores	<ul style="list-style-type: none"> Balsa (non-rated) or Mineral (rated)
Face Sheets	<ul style="list-style-type: none"> Choice of Smooth, Pebble or Woodgrain
Edges	<ul style="list-style-type: none"> Lock edges beveled 1/8" in 2"
Lites (non-UL rated)	<ul style="list-style-type: none"> 34 3/4" x 74 3/4" maximum visible lite 7/16" Hurricane laminated glass – glass and glazing by Corrim Rabbeted Vision Lite
Lites (UL 20-90)	<ul style="list-style-type: none"> 100 square inch maximum visible lite (UL 20-90) #110 metal vision frame, galvanized or stainless steel 1/4" Wirelite NT glass with 3/8" exterior Lexan overlay – glass and glazing by Corrim
Louvers	<ul style="list-style-type: none"> Not Allowed
Frame Profile	<ul style="list-style-type: none"> Standard 5-3/4" x 2" Modified up to 12" x 2" (available on UL20 or non-rated only) 4" Header (available on UL20 or non-rated only)
Anchors	<ul style="list-style-type: none"> Regular or Concealed Existing (masonry or wood), T-strap or Wire
Single Transom Lite	<ul style="list-style-type: none"> Maximum Height (Outside Frame): 124 3/4" (2" header) or 126 3/4" (4" header)
Frame System*	<ul style="list-style-type: none"> 93 1/2" x 23" maximum visible lite Requires 7/16" Hurricane laminated glass and glazing by others
Single Sidelite Frame System*	<ul style="list-style-type: none"> Maximum Width (Outside Frame): 126 1/2" 23" x 93 3/4" maximum visible lite Requires 7/16" Hurricane laminated glass and glazing by others
Hardware	<ul style="list-style-type: none"> Hardware must be FBC approved for +/- 70 PSF (minimum) and HVHZ Must include a Panic Threshold Must have 2 point latching. Approved configurations include: <ul style="list-style-type: none"> Cylinder or mortise lockset with separate deadlock Mortise lockset with deadbolt function Mortise exit with deadbolt function or separate deadlock Rim exit with separate deadlock Engineering review for site specific approval for following latching configurations: <ul style="list-style-type: none"> Surface vertical rod exit (single or pairs) Deadlock only (mortise or cylindrical) Pairs must have surface bolts at top and bottom of both leaves – flushbolts not allowed <p>Note: SB's not required with SVR's</p>

FIXED WINDOW FRAMES:

File Number	FL12574.R2
Size	<p>Maximum Size (Outside Dimensions):</p> <ul style="list-style-type: none"> 102" x 48" with one vertical mullion 72" x 36" 55" x 48"
Finishes	<ul style="list-style-type: none"> Gelcoat, Polyurethane or Primed
Fire Rating	<ul style="list-style-type: none"> Not Available
Frame Profile	<ul style="list-style-type: none"> Standard 5-3/4" x 2" Modified up to 12" x 2" 2" Mullion 4" Header
Anchors	<ul style="list-style-type: none"> Regular or Concealed Existing (masonry or wood), T-strap or Wire
Glazing	<ul style="list-style-type: none"> Requires 7/16" Hurricane laminated glass and glazing by others

* Configuration can not have both a transom and a sidelite in the same opening. Non-fire rated only available.

Door and frame systems and fixed window frames are large missile impact and forced entry resistant. They do not require impact resistant shutters.

The systems described herein has been designed and tested in accordance with the 2010 Florida Building Code, for use within and outside the High Velocity Hurricane Zone. Single door systems have been tested per ASTM E330, E283, E331, E1886, E1996 and TAS 201, 202 and 203 standards. Double door systems have been tested per ASTM E330, E1886, E1996 and TAS 201, 202 and 203 standards. Fixed window frames have been tested per ASTM E330, E283, E331, E1886, E1996, E1300 and TAS 201, 202 and 203 standards.

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For more information please visit www.corrim.com or www.floridabuilding.org

SECTION 221319
SANITARY WASTE & VENT SPECIALTIES (Vent Pipe Extensions)

PART 1 - GENERAL

1.1 SECTION INCLUDES

1. Plumbing vent pipe extension fittings.

1.2 RELATED SECTIONS

1. Division 07 Section "Preparation for Re-Roofing" for general requirements for preparation for building re-roofing including coordination of related plumbing and mechanical work.
2. Division 22 Section "Sanitary Waste and Vent Piping" for general requirements for waste and vent piping.

1.3 REFERENCES

A. ASTM International (ASTM):

1. ASTM C 920 - Specification for Elastomeric Joint Sealants.
2. ASTM D 2564 - Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems.
3. ASTM D 2665 - Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings.
4. ASTM F 656 - Standard Specification for Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings.

B. International Association of Plumbing and Mechanical Officials (IAPMO):

1. Universal Plumbing Code (UPC US and Canada) approvals.

C. National Roofing Contractors Association (NRCA):

1. NRCA Roofing Manual, Latest Edition.

D. NSF International (NSF):

1. NSF/ANSI 14 - Plastics Piping Systems Components and Related Materials.

1.4 ACTION SUBMITTALS

- A. Product Data:** For plumbing vent pipe extensions, indicating mounting and securing requirements and extended heights required.

- B. Shop Drawings: Submit annotated copy of roof plan indicating locations of plumbing vents requiring pipe extensions, based upon Contractor's field verification of existing conditions and requirements of applicable plumbing code.

1.5 INFORMATION SUBMITTALS

- A. Manufacturer's Certificate: On roofing membrane manufacturer's letterhead, accepting use of proposed sealant in contact with roofing membrane.

1.6 QUALITY ASSURANCE

- A. Comply with NSF/ANSI 14, "Plastics Piping Systems Components and Related Materials," for plastic piping components.
- B. Comply with flashing requirements shown in NRCA Roofing Manual.

PART 2 - PRODUCTS

2.1 MANUFACTURES

- A. Basis-of-Design Product: Subject to compliance with requirements, provide sanitary vent pipe extensions manufactured by Tubos, Inc., Clearwater, FL: Phone: (727) 504-0633 info@tubos.biz.

2.2 MATERIALS

- A. Solid-Wall PVC Pipe: ASTM D 2665, drain, waste, and vent.
- B. Sealant: Single-Component, Nonsag, Urethane Joint Sealant: ASTM C 920, Type S, Grade NS Class 25, for Use NT, and acceptable to roofing membrane Manufacturer.

2.3 PLUMBING VENT PIPE EXTENSION

- A. Roof Vent Pipe Extension: Solid-wall PVC fitting consisting of pipe and splice sleeve inserts, configured for insertion and sealing to existing plumbing vent piping, sized to fit inside diameter of plumbing vent piping, enabling extension of piping to field-determined height.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine each plumbing vent piping location to determine required plumbing vent pipe extensions based upon minimum finished height requirements and measured existing conditions. Indicate plumbing vent pipe extensions on shop drawings.

1. Examine existing plumbing vent piping conditions and determine whether flashing reuse is acceptable or whether replacement of flashing is required. Indicate flashing replacement locations on shop drawings.

3.2 PREPARATION

- A. Remove existing flashing from plumbing vent piping to extent required to enable installation of new plumbing vent pipe extensions and completion of flashings.
- B. Clean plumbing vent piping to ensure that joint surfaces are clean, dry, and free from contamination including dirt, oils, grease, tar, wax, rust, and other substances that may inhibit adhesive or sealant performance.

3.3 INSTALLATION OF PLUMBING VENT PIPE EXTENSIONS

- A. Insert end of plumbing vent pipe extension into existing plumbing vent piping.
 1. Verify circumference of existing plumbing vent piping and plumbing vent pipe extension are appropriate to achieve secure, rigid installation.
 2. Mark plumbing vent pipe extension at required height above finished roof surface level, and cut to required length.
 3. Apply adhesive or sealant to plumbing vent piping as appropriate to existing pipe material and plumbing vent pipe extension, and mate plumbing vent pipe extension to existing piping. Apply adequate adhesive or sealant to achieve secure, rigid installation.
- B. Flashing: Comply with primary roofing material manufacturer's published recommendations for installation of approved pipe flashings. Match existing flashing materials unless otherwise directed.

3.4 CLEANING AND PROTECTION

- A. Repair or replace defective work, including loose plumbing vent extensions, or unsecured flashings or flashings that are not weathertight.

END OF SECTION 221319

ERRATA SHEET

City of Bartow-Main Fire Station
Project Manual Title

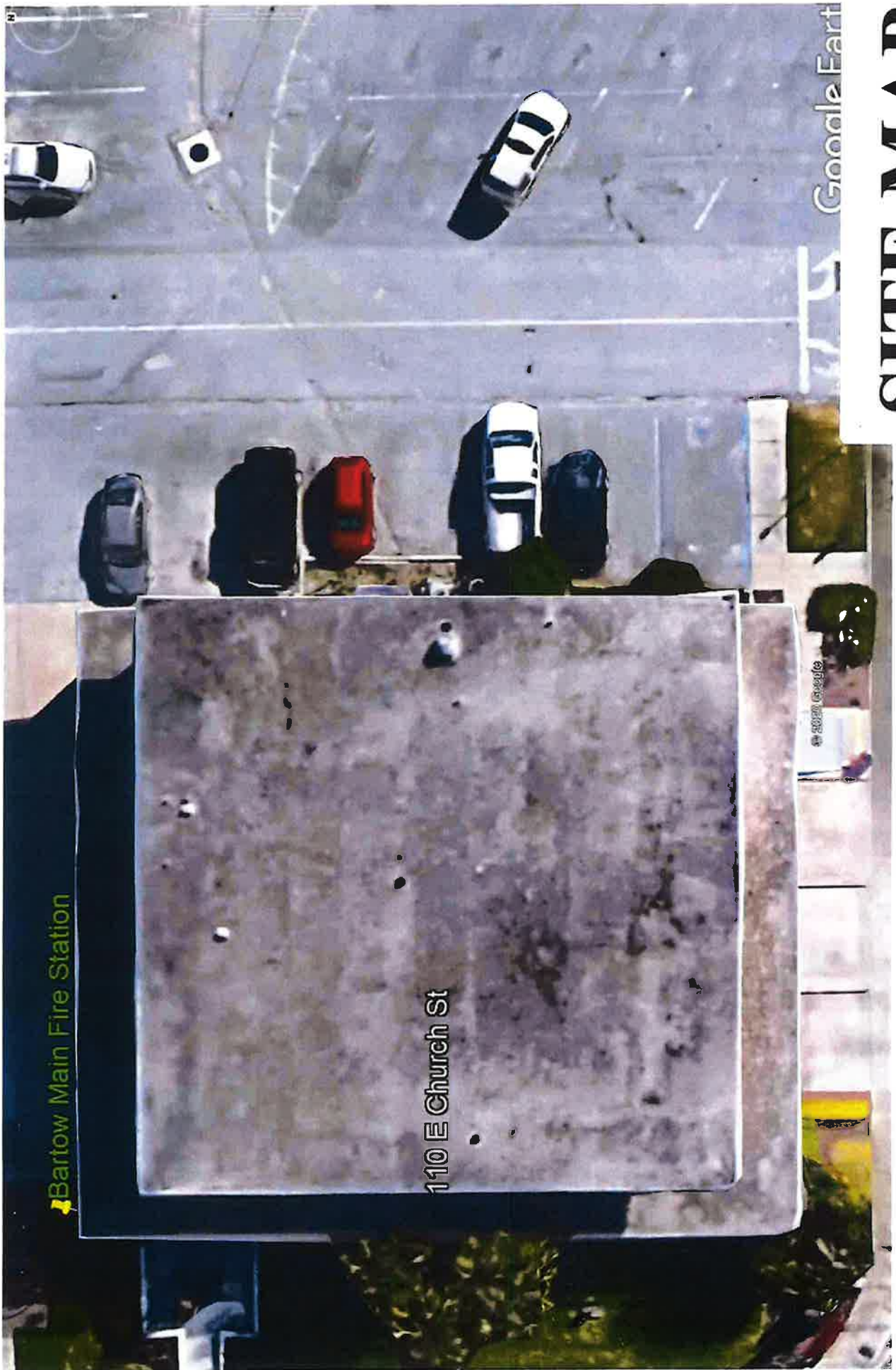
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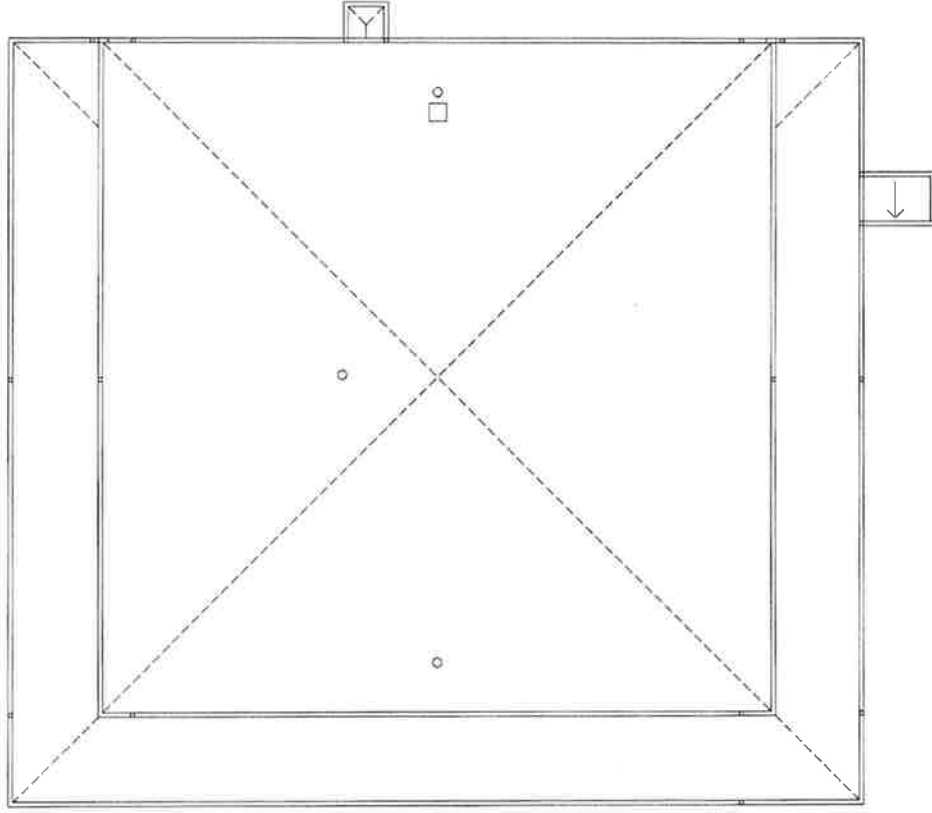
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SITE MAP

- 1) ELIMINATE DRAINS
- 2) ADD TAPER
- 3) ADD GUTTERS

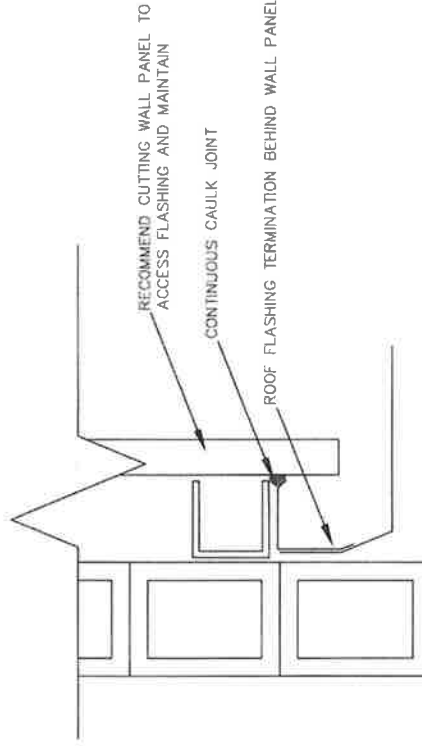
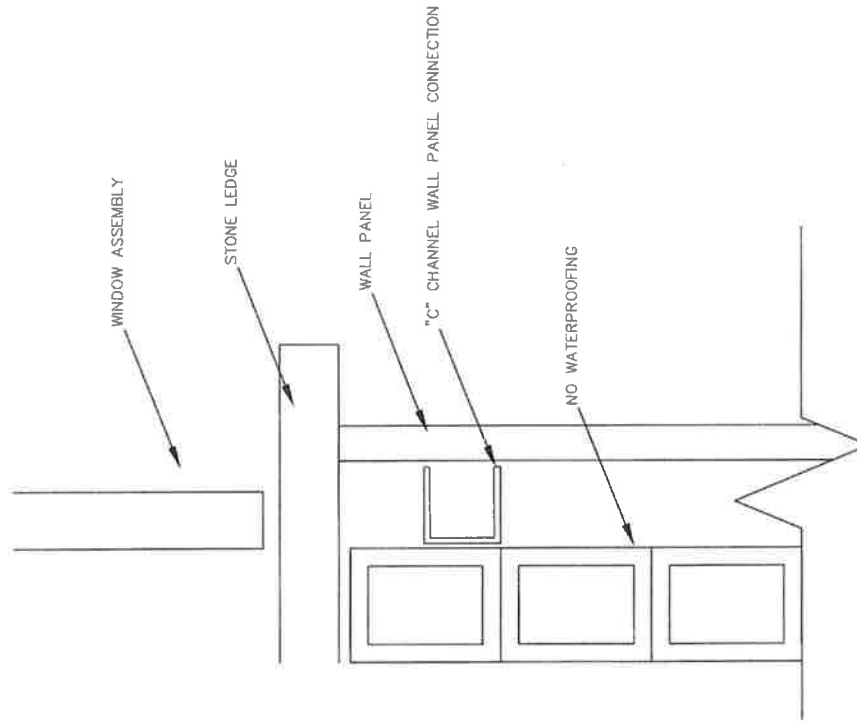


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NOTE:
CONTRACTORS SHALL FIELD
VERIFY ALL DIMENSIONS.

KNOFF & ASSOCIATES
ROOFING CONSULTANTS

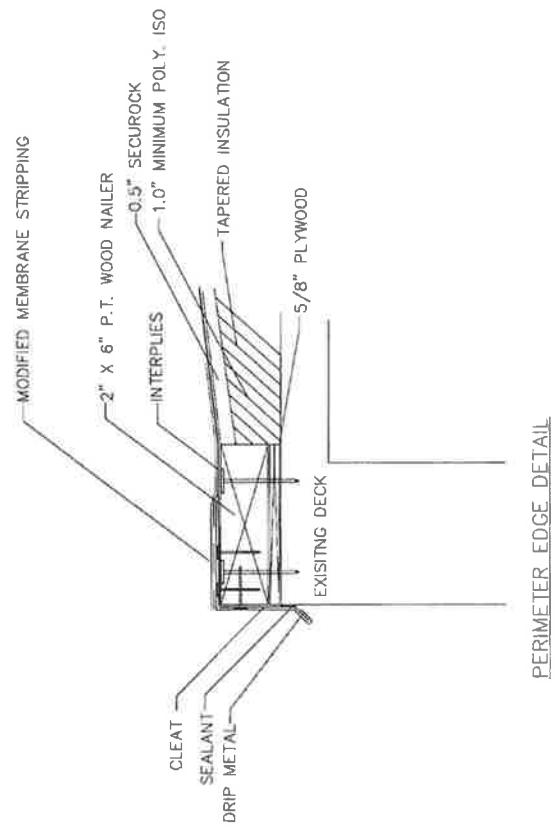
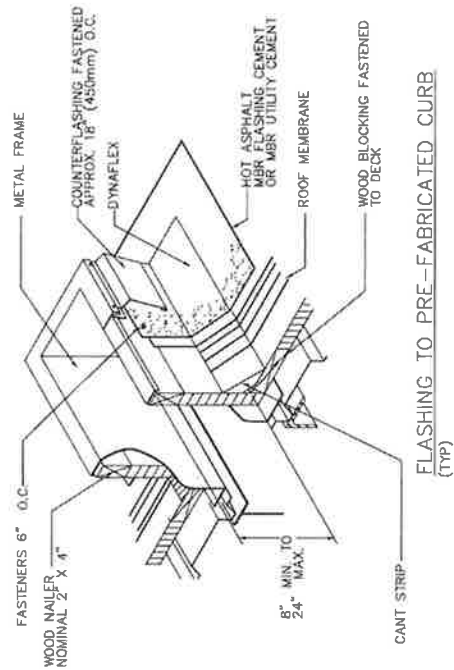
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NOTE:
CONTRACTORS SHALL FIELD
VERIFY ALL DIMENSIONS.

KNOPF & ASSOCIATES ROOFING CONSULTANTS

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KNOPF & ASSOCIATES

ROOFING CONSULTANTS

TITLE: CITY OF BARTOW FIRE STATION #1
BARTOW, FLORIDA

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