

HILLSBOROUGH COUNTY SHERIFF'S OFFICE

Sheriff David Gee



Tampa, FL

Request for Proposal No. 21-13

BID TITLE:

Orient Road Jail Roof Renovations



November 20, 2013

Office of the Comptroller
2008 E. 8th Avenue
Tampa, FL 33605

Janice Wilder, Buyer
(813) 247-8029
jwilder@hcsso.tampa.fl.us



David Gee, Sheriff
HILLSBOROUGH COUNTY

INSTRUCTIONS TO PROPOSERS

Included herein are General Terms and Provisions (Part A); the Special Provisions (Part B); the Technical Specifications (Part C), and the Proposal Response (Part D), which together with all attachments, constitute the entire "Proposal Package". Said package must be the basis upon which all proposals are offered and the same (the entire package) must be kept together and returned, intact, by the time and at the place herein specified. The proposer must manually sign the General Terms and Provisions (Part A) and Proposal Response (Part D). Any questions concerning this proposal package should be directed to the buyer whose name appears above.

When awarded, the proposal package becomes the "**Contract Document**". The Proposer's signature on the proposal constitutes Proposer's agreement to the terms therein. **READ THE ENTIRE PROPOSAL CAREFULLY BEFORE SIGNING.**

NOTICE TO BIDDERS

WHEN SUBMITTING A SEALED BID, ENSURE THE SEALED ENVELOPE IS CLEARLY MARKED AS A BID DOCUMENT. THIS IDENTIFICATION SHOULD INCLUDE THE BID NUMBER, BID TITLE AND DATE DUE ON THE OUTSIDE OF THE ENVELOPE.

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LETTER OF INTENT

REQUEST FOR PROPOSAL NO. 21-13

The undersigned acknowledges the General Terms and Provisions of the Proposal and intends to respond to the Proposal for the Hillsborough County Sheriff's Office. We understand that any changes, clarification and addenda to the Proposal will be promptly communicated to the individual authorized below to receive this information.

NAME

COMPANY NAME

ADDRESS

TELEPHONE NUMBER

FAX NUMBER

EMAIL ADDRESS

THE FOLLOWING REPRESENTATIVE(S) ARE AUTHORIZED TO ATTEND THE PRE-PROPOSAL CONFERENCE

** _____

** _____

** _____

**NOTE: THIS FORM SHOULD BE SENT IMMEDIATELY TO THE BUYER LISTED ON THE FRONT OF THIS DOCUMENT AT FAX NUMBER (813) 242-1826 or jwilder@hcsotampa.fl.us .

HILLSBOROUGH COUNTY SHERIFF'S OFFICE
2008 E 8th Avenue
Tampa, Florida 33605

VENDOR NAME: _____

SUBJECT: Request for Proposal Number 21-13

BID TITLE: Orient Road Jail Roofing Renovations

OPENING DATE & TIME **January 8, 2014 3:00 PM EST**

PLACE: Sheriff's Operation Center
2008 E 8th Avenue, Room #125
Tampa, FL 33605

Proposal Responses will be received until the time and date shown.

MANDATORY ON SITE PRE-PROPOSAL CONFERENCE: Wednesday December 18, 2013 10:00 AM EST

Obtain Visitor Pass at front lobby desk. Gather to await group escort. Do not bring cigarettes or cell phones.

PLACE: Orient Road Jail
1201 Orient Road
Tampa, Florida 33619

PART A - GENERAL TERMS AND PROVISIONS:

1. Proposal Responses: Must be contained in a SEALED envelope addressed to: David Gee, Sheriff, 2008 E 8th Avenue Room #125, Tampa, Florida 33605. To prevent inadvertent opening, the Proposal Response must be marked as a BID DOCUMENT (including the bid number) on the outside of the envelope.

If our specifications, when included in our Request for Proposal (RFP), are not returned with your Proposal Response, and no specific reference is made to them in your response, it will be assumed that all specifications will be met. When material, sketches, cuts, descriptive literature, vendor's or manufacturer's specifications which accompany the proposal contain information that can be construed or is intended to be a deviation from our specifications, such deviation must be specifically referenced in your Proposal Response.

2. The responsibility for getting the Proposal Response to the Hillsborough County Sheriff's Office (HCSO) on or before the stated time and date will be solely and strictly the responsibility of the Proposer. The Sheriff will in no way be responsible for delays caused by the United States Postal Service or a delay caused by any other occurrence, or any other method of delivery. The Proposer shall be responsible for reading very carefully and understanding completely the requirements in the specifications. Proposal Responses will not be accepted after the time specified for receipt. Such Proposal Responses shall be returned to the vendor unopened with the notation "This Proposal Response Was Received after the Time Designated for the Receipt and Opening of Proposals".
3. On-Line Documents: The HCSO is publishing documents on its web page <http://www.hcso.tampa.fl.us> for the convenience of vendors wanting to do business with the Sheriff and to save tax dollars. This service is public record and the Sheriff is responsible only for documents as published. Any modifications or alterations to the original document language may be cause for rejection of a Proposal Response.
4. All questions regarding this RFP shall be submitted by E-mail to Janice Wilder, Buyer, jwilder@hcso.tampa.fl.us. All submitted questions will be answered and posted publically on the HCSO web page <http://www.hcso.tampa.fl.us> under the purchasing tab and then clicking on the appropriate year and bid number.
5. Time for Consideration: Proposer warrants by virtue of providing a Proposal Response, the prices quoted in his proposal will be good for an evaluation period of forty-five calendar days from the date of Proposal Response opening unless otherwise stated. Proposers will not be allowed to withdraw or modify their Proposal Response after the opening time and date.

6. Prices: All Proposal Responses submitted must show the net proposal price after any and all discounts allowable have been deducted. Proposal price(s) is/are to be F.O.B. Destination. State sales tax and federal excise taxes shall not be included as the Sheriff's Office is tax-exempt for materials sold directly to them. The Sheriff will issue exemption certificates to the successful Proposer when requested.

The Proposer's attention is directed to the fact that the tax laws of the State of Florida, including but not limited to Chapter 212, Florida Statutes, apply to this RFP matter and that all applicable taxes and fees shall be deemed to have been included in the Proposer's proposal as part of his materials cost, when applicable.

7. Condition of Materials & Packaging: it is understood and agreed that any item offered or shipped on this RFP shall be NEW and in FIRST CLASS CONDITION, that all containers shall be new and suitable for storage or shipment and that prices include standard commercial packaging for the items shipped.
8. Claims: The successful Proposer will immediately replace missing or damaged items and will be responsible for making any and all claims against carriers.
9. When to Make Delivery: Deliveries resulting from this RFP are to be made during the normal working hours of the Sheriff's Office. It is the Proposer's responsibility to obtain this information.
10. Manufacturer's Name: Any manufacturers' names, trade names, brand names information and/or catalog numbers used herein are for purpose of description, reference, and establishing general quality levels. Such references are not intended to be restrictive and products of any manufacturer may be offered if they are approved as equals. The determination as to whether any alternate product or service is or is not equal shall be made by the Sheriff's Office and such determination shall be final and binding upon all Proposers.
11. Information and Descriptive Literature: Proposer must furnish all information requested in the RFP. If specified, each Proposer must submit cuts, sketches, descriptive literature and/or complete specifications covering the products offered. Reference to literature submitted with a previous RFP will not satisfy this provision. Proposal Responses that do not comply with these requirements will be subject to rejection.
12. Proposal Submittal Costs: Submittal of a Proposal Response is solely at the cost of the Proposer and the Sheriff's Office in no way is liable or obligates itself for any cost accrued to the Proposer in coming up with the RFP Submittal.
13. No Proposal Response: If the receipt of this request for proposal is not acknowledged, Proposer's name may be removed from the HCSO vendors mailing list.
14. Compliance with Occupational Safety and Health Act: Proposer certifies that all material, equipment, etc., contained in this Proposal Response meets all O.S.H.A. requirements.
15. Public Entity Crimes: Pursuant to Florida Statute 287.132 and 287.133, effective July 1, 1989, the Hillsborough County Sheriff, as a public entity, may not accept any bid or proposal from, award any contract to, or transact any business in excess of the threshold amount provided in Section 287.017, F.S., for Category Two (currently \$25,000) with any person or affiliate on the convicted vendor list for a period of 36 months from the date that person or affiliate was placed on the convicted vendor list unless that person or affiliate has been removed from the list pursuant to Section 287.133 (3)(f), Florida Statute. If you submit a bid or proposal in response to this request, you are certifying that Florida Statute 287.132 and 287.133 does not restrict your submission.
16. The awarded vendor or contractor agrees to comply with Florida Statute 119.0701 regarding maintenance and provision of access to all public records generated by this contract with the Hillsborough County Sheriff's Office.
17. Acceptance and Rejection: The HCSO reserves the right to reject any or all Proposal Responses, for cause, to waive irregularities, if any, in any Proposal Response, and to accept the Proposal or Proposals which in the judgment of the Sheriff is in the best interest of Hillsborough County. The HCSO reserves the right to evaluate, add and/or reject any items from any RFP options or resulting contract(s) when deemed to be in the best interest of the HCSO.

18. Disputes: Any prospective Proposer who disputes the reasonableness or appropriateness of the notice of award, or notice of rejection, for any or all proposals will submit a notice of protest in writing within 72 hours (excluding official holidays, Saturdays and Sundays) to the HCSO Purchasing Department by registered mail. The Purchasing Department will have five working days upon receipt of this notice to meet and consider the dispute as written. At that time additional information and/or meeting from the Proposer may be requested to gain further clarification of the issues. Upon completion of this review process the Purchasing Department will make a recommendation to the Comptroller.

After review of the Purchasing Department recommendation and the dispute notice, the Comptroller may concur with the recommendation or arrive at a separate decision. The decision of the Comptroller will be communicated to the Proposer in writing. This decision and the basis upon which it was made will be communicated within 5 working days following the receipt of the recommendation from the Purchasing Department. A single appeal of the Comptroller's decision is available by submitting a notice in writing within 72 hours (excluding official holidays, Saturdays and Sundays) requesting a Management review of the decision

19. It is important that Proposer visit sites where services, if applicable, are to be provided to familiarize himself with the scope of the effort required.

20. Specifications are attached.

DAVID GEE, SHERIFF
HILLSBOROUGH COUNTY, FLORIDA

- Signature on File -

By _____
Christina R. Porter, CPA
Office of the Comptroller

20. General Terms and Provisions outlined above are acknowledged. Our Proposal Response is attached.

Company Name Date

Print Name/Title

SIGNATURE _____

1. **IN GENERAL**

The purpose of this Request for Proposal is to allow the Hillsborough County Sheriff's Office (HCSO) to competitively secure the services of a qualified contractor to provide the material, equipment, tools and labor necessary for roof renovations and repairs to the Orient Road Jail, located at 1201 Orient Road, Tampa, Florida 33619.

2. **SCOPE OF WORK**

The Project consists of the installation of a PVC roof recovery system on approximately 364,000 square feet (SF) plus total removal and replacement of existing roof on approximately 520 SF (Areas 3G and SB. Refer to Drawings).

It is anticipated the Work will be released in three nearly equal phases, depending on the total cost. Release of Work will coincide with the availability of funds. Each phase will exhaust the current budget. Proposal prices will be presented by building, as per the Drawings. Buildings will then be grouped in the most efficient way for the contractor's completion of the Work and to stay within the initial budget. Notices to Proceed will be issued based on the area identified for each phase of Work. The Time for Completion will be noted in the Notice to Proceed. Time is of the essence however, and it is expected that each phase shall take no longer than ninety (90) to one hundred twenty (120) days.

It is possible that the release of funds may postpone stages two or three for a period of nine to twelve months from award. The awarded vendor will be expected to hold the pricing for one year from award. Any request to increase the original quoted amount must be presented to the Project Manager in writing and be accompanied by evidence from suppliers or manufacturer's that the contractor's costs for materials has increased over five percent from the time of the original proposal. No escalations for labor or fuel will be considered.

As an alternative to pricing by building, Proposers may submit a price per square foot for recovery system or replacement. Allowance items would also then be priced by unit measure which shall hold to completion of the project unless an escalation is pre-approved.

For further details refer to PART C - TECHNICAL SPECIFICATIONS and DRAWINGS posted to the HCSO purchasing website as a separate document.

3. **CONTRACTOR QUALIFICATIONS**

Proposers may be required to furnish evidence in writing that they maintain permanent places of business and have adequate equipment, finances and personnel to furnish the item or service offered satisfactorily and expeditiously. The HCSO reserves the right to inspect the proposer's place of business and equipment prior to award of any contract, for determining ability to meet terms and conditions as set forth herein.

Proposers shall have engaged in business in the Hillsborough County area for a period of not less than five (5) years, or provide evidence that the Project Manager and Superintendent assigned to this project have a minimum of five years experience in work of similar scope and size. The Project Manager or other key personnel must have a minimum of 2 years experience in successfully installing the same or similar materials and must be certified or acknowledged by the roofing materials manufacturer as an authorized installer of the primary roofing products. Resumes of key personnel and References for completed projects of similar scope and size shall be included in your proposal response.

The attached IRS W9 form must be returned with your Proposal Response along with copies of Hillsborough County Business Tax Receipt or other local government license to do business. Current Certificates of Insurance for Liability and Workers Compensation must also be included along with copies professional licenses.

4. **MANDATORY PRE-PROPOSAL CONFERENCE**

All interested parties are required to attend the mandatory pre-proposal conference (see date and location on page 5). At this time the Sheriff's representative(s) will be available to answer questions relative to this Proposal. Any

suggested modifications may be presented in writing or discussed with the Sheriff's representative(s) at this meeting and may be considered by said representative(s) as possible amendments to the Proposal.

5. EXAMINATION OF SITE

Proposers shall visit the site and familiarize themselves with existing conditions as to the nature and scope of the work required. The submission of a Proposal Response will be construed as evidence that such an examination has been made. Any materials and/or labor not reflected in the drawings or specifications, required for completion of the work, shall be submitted with the Proposal Response. Later claims for labor, equipment or materials required, will not be allowed. **The mandatory pre-proposal conference will be held on site affording the opportunity for site survey at that time.**

6. PROPOSAL PACKAGE

Proposers shall submit the required RFP documents and any additional literature in quadruplicate - one (1) original and three (3) photo copies, each marked appropriately. Proposals should be prepared simply and economically, providing a straightforward, concise description of Vendor's abilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness, clarity of content and evidence of a precise understanding of the Owner's needs and Scope of Work.

Any specification or statement containing the word "must", "shall, or "will" are mandatory. The vendor is required to meet the intent of the mandatory specifications in order to be eligible for consideration and to continue in the evaluation process. Failure on the part of the proposer to respond to specific requirements detailed in the RFP may be basis for disqualification of the proposal. Decisions regarding compliance with the intent of any mandatory specification shall be at the sole discretion of the evaluation committee. All sections of the proposal should be included with the Proposal Response.

7. EVALUATION OF PROPOSALS

An Evaluation Committee comprised of a minimum of three persons assigned by the Division Commander and including the Project Manager will independently review all proposals for adherence to technical specifications. Part C – Technical Specifications will identify any persons or firms participating in the project which might be called upon to support the evaluation committee but who will not be a scoring committee member. Any Proposal Response not meeting technical specifications will be rejected.

The Buyer will act as the contact person between the evaluation committee and the proposers. **Absolutely NO contact shall be made by the vendor with any member of the evaluation committee.** Violation may result in rejection of the bid. The Buyer named above is the sole contact for any and all inquiries after this RFP has been released. The Buyer will also review the proposals to determine if each proposer is Responsible and Responsive by completing a check list of required items. If the Buyer questions eligibility on these factors, a written explanation will be presented to the Comptroller who shall have final determination as to the Responsible and Responsive qualifications. Any proposal not including all the required documents or information as listed in Part D - Proposal Response may be rejected.

The Evaluation committee will evaluate all proposals from responsive and responsible Proposers meeting technical specifications based on the following criteria, listed in order of importance and indicating maximum points allowed.

A. Cost of goods and services	50
B. Overall Approach and Plan for Completion of Project	30
C. Experience of key personnel & Company Overview	10
D. References of Past Performance	10

Total 100

Each committee member will independently read and score all eligible proposals. Any clarifications requested by a committee member will be presented to the Proposer through the Buyer. Evaluation committee members will submit their scores and comments to the Buyer who will complete a scoring matrix indicating the group's collective ranking of each Proposer in descending order from the highest scored.

As a secondary scoring method, Committee members shall rank each proposal as their first, second, third etc. choice. A proposer will get 1 point for being ranked first, two points for being ranked second etc.

Following the independent scoring the committee members will meet with the Buyer who will present the tabulated scores. Open discussion of the results and the proposals among the committee members will result in one of the following actions:

- 1) Short list of proposers who may be asked to respond to a written set of clarification questions or to prepare for an interview or presentation
- 2) Short list of proposers that will be presented with a written request for a Best and Final Offer
- 3) Consensus of opinion and recommendation for Award.

Each price proposal will be awarded points based on the following formula for all proposers who attained the minimum acceptable score only:

$$\frac{\text{Lowest price of all proposals}}{\text{Price of Proposal being evaluated}} \times (50 \text{ maximum points}) = \text{Price Score}$$

Vendors must score a minimum of 70% of the total technical points possible to qualify for further evaluation. In this case, the total technical points equal 50 (30+10+10). The minimum qualifying score would be 70% of 50 points or a technical score of 35.

The Evaluation Committee's final recommendation will be submitted by the Buyer through the chain of command to the Chief Deputy acting on behalf of the Sheriff who will have the final decision as to the Award.

8. BEST AND FINAL OFFER

The HCSO reserves the right to request a Best and Final Offer (BAFO) to any or all proposers. A BAFO may be requested as an optional step in the selection process. Useful situations include but are not limited to the following: no single response addresses all the specifications; the cost submitted by all proposers is too high; the scores of two or more proposers are very close after the evaluation process; all proposers submitted responses that are unclear or deficient in one or more areas.

The evaluation committee determines if the BAFO process will be conducted and who will receive the solicitation. All or any number of proposers may be solicited, but only those proposer(s) most likely to be awarded a contract are to be included. The evaluation committee will develop the aspects of the proposal to be addressed in the BAFO. They may ask for enhancements of core components of the RFP but will maintain the integrity of the original scope of work.

Best and Final solicitations will be made in writing. Proposers may be asked to provide additional clarification to specific sections of their response, or to rework their proposal content or pricing. Information will be given as to how the BAFO will be evaluated. The HCSO will not identify either the current rank of any proposers or the lowest costs proposed until after the evaluation of the each BAFO submitted. If a proposer does not wish to submit a BAFO offer they may submit a written response stating their response remains as originally submitted.

The buyer will be responsible for all communication to and from proposers regarding the BAFO solicitation. All responses must be returned to the buyer. Proposers may also be requested to make an oral presentation to the evaluation committee. The written BAFO solicitation will include submission requirements and a deadline date and time by which the BAFO must be returned to the buyer.

At the option of the HCSO this negotiation process with the highest ranked Proposers may continue until a satisfactory contract is successfully negotiated.

9. AWARD

Award shall be made to the best responsive and responsible Proposer offering the best value service or commodity as deemed suitable for use by the HCSO by the Sheriff following his review of the recommendations of the Evaluation Committee.

In the event two (2) or more Proposers have submitted the best proposal, preference may be given in the award in the following order. First, to the Proposer who has his/her principal place of business in Hillsborough County; second, to the Proposer who has a place of business in Hillsborough County; and, third, if the Proposers involved in the "tie proposal" situation are all located inside/outside Hillsborough County, the toss of a coin will be used to break the tie.

Award or No Award notifications will be sent to all Proposers. RFP results will be available at our web site <http://www.hcso.tampa.fl.us>, on the Purchasing Page. If you do not have internet access, and would like a copy of the RFP results, contact the Purchasing Office at (813) 247-8029.

10. INFORMATION PRIVACY

It is understood and agreed upon by the Proposer in submitting a Proposal that the HCSO has the right to withhold all information regarding this procurement **until after contract award**, including but not limited to: the number of proposals received; competitive technical information; competitive price information; and the HCSO evaluation concerns about competing Proposals. Information releasable after award is subject to the disclosure requirements of the Florida Public Records Act. Proposers are enjoined from discussing or disclosing the content of any proposal with competing Proposers during the evaluation and negotiation process.

11. CONTRACT DOCUMENT

The contract between David Gee, Sheriff, Hillsborough County and the contractor shall consist of: (1) the Request for Proposal and any amendments thereto and (2) the contractor's proposal submitted in response to the Request for Proposal. The HCSO reserves the right to clarify any contractual relationship in writing with the contractor, and such written clarification shall govern in case of conflict with the applicable requirements stated in the Request for Proposal or the contractor's responsive proposal. In all other matters not affected by the written clarification, if any, the Request for Proposal and all amendments thereto shall govern. The Proposer is cautioned that his proposal shall be subject to acceptance without further clarification.

To the extent that a provision of the contract is contrary to the Constitution or laws of Florida, or of the United States, the provision shall be void and unenforceable. However, the balance of the contract shall remain in force between the parties.

12. ADDITION / DELETION

The HCSO reserves the right to add or delete any items from this RFP or resulting contract(s) when deemed to be in the best interest of the HCSO. Award shall be made on an all or none basis.

13. CONTRACTUAL OBLIGATIONS

The successful Proposer may not sublet or subcontract any the contractual obligations concerning this RFP matter except as provided for in the written contract between the HCSO and contractor. This statement does not prohibit subcontracting of the work but does prohibit subcontracting overall management obligations pertaining to the work and requires the contractor to retain ultimate liability for all contractual obligations.

13. DEFAULT

The contract may be cancelled or annulled by the Hillsborough County Sheriff's Comptroller in whole or in part by written notice of default to the contractor upon non-performance or violation of contract terms. An award may be made to the next best responsive and responsible Proposer, or articles specified may be purchased on the open market similar to those so terminated. Failure of the contractor to deliver materials or services within the time stipulated in this specification, unless extended in writing by the Office of the Comptroller, shall constitute contract default. Contractors who default on contracts may be removed from the HCSO vendor mailing list for future contracts at the discretion of the Comptroller.

14. CANCELLATION

When deemed to be in the best interest of the HCSO, any contract(s) resulting from this specification may be canceled by the following means:

- a. Ten (10) calendar days written notice with cause, or;
- b. Thirty (30) calendar days written notice without cause.

If it becomes necessary to terminate the agreement/contract without cause, all services and/or materials provided through the date of receipt of written notice of cancellation may be invoiced to the HCSO and will be considered for payment providing documentation of said expenses are forwarded with the request for payment.

15. NEXT BEST PROPOSER

In the event of a default by the awarded vendor, the HCSO reserves the right to utilize the next best Proposer as the new contractor. In the event of this occurrence, the next best Proposer shall be required to provide the proposal items at the prices as contained on their proposal for this specification for the remainder on the award period.

16. PRECEDENCE

It is the intent of the Contract Documents to describe the total Work to be constructed. The Contract Documents are complimentary. What is called for by one is as binding as if called for by all. If the contractor finds a conflict, error, or discrepancy in the Contract Documents, he will call it to the buyer's attention in writing before proceeding with the Work. The buyer will respond with a written clarification based on the Project Manager's response. Any delays associated with the clarification will be considered for time extensions only, but no damages for delay will be allowed.

In resolving such conflicts, errors, and discrepancies, the Contract Documents shall be given preference in terms of the most stringent requirements as determined by the Project Manager. Enforcement of the most stringent requirements will be at the Sheriff's option. Figure dimensions on the Drawings (when provided) shall govern over scale dimensions, and the detailed Drawings shall govern over general Drawings. Any work that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not it is specifically called for. Work, materials, or equipment described in words which so applied have a well-known technical or trade meaning shall be deemed to refer to such recognized standards. In case of conflict, the more stringent requirements shall take precedence.

Clarifications and interpretations of the Contract Documents shall be issued by the buyer. The Contract Documents will be governed by the laws of the State of Florida.

17. PROCESSING CHANGE ORDERS

Any changes which result in an increase or decrease in the accepted proposal amount must be processed as a Change Order to the Contract. This will include but not be limited to changes in the design requested by the HCSO, or any additions or deletions caused by unforeseen circumstances or requirements by government agencies. Any such changes will not invalidate this Contract. The time for project completion and/or the project cost will be adjusted accordingly. Change orders will be numbered in sequence and dated.

Change Order requests will be submitted in writing and shall include the HCSO or contractor's detail of the design changes or circumstances surrounding the request and the contractor's written quote representing an increase, decrease or no change to the Contract Sum. The resulting Change Order Request will be submitted by the contractor to the Project Manager for approval.

Any changes in the Contract Sum will be reflected on an amended Purchase Order as approved by the Comptroller in response to the appropriate requisition approved by the Division Commander. A copy of the amended Purchase Order will be provided to the contractor.

Failure to follow change order instructions will result in the HCSO refusal to pay a change to the Contract Sum.
Requests for estimates for possible changes are not to be considered Change Orders or authorization to proceed with the proposed changes. Requests from the HCSO for quotes regarding new work not included in the original scope will not constitute a Change Order to this contract.

18. PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

A. Bond Requirements: The HCSO shall, prior to the execution of the Contract, require the contractor to furnish bonds covering the faithful performance of the Contract and the payment of all obligations arising there under in such form and amount as listed hereunder. Premiums for Bonds shall be paid by the contractor.

The Surety Company shall be licensed to transact surety business in Florida, shall be certified to issue the total amount of the bond on any one risk, and shall be otherwise acceptable to the HCSO.

- B. Time of Delivery and Form of Bonds: The successful contractor shall deliver the required bonds to the HCSO no later than the date of execution of the Contract.

"Performance and Payment Bond" shall be for 100% of the Contract sum on behalf of the Hillsborough County Sheriff. The bonds shall be written on the Surety Company's standard form. The contractor shall require the Attorney-In-Fact who executes the required bonds on behalf of the Surety Company to affix to the bond a certified and current copy of his Power of Attorney, indicating monetary limit of such power.

- C. Alternative Forms of Security: In lieu of the bond required by this section, the contractor may file with the HCSO, an alternative form of security which shall be in the form of cash, money order, certified check, cashier's check, or irrevocable letter of credit. Such alternative forms of security shall be for the same purpose and shall be subject to the same conditions as those applicable to the bond required by this section. The determination of the value of such alternative forms of security shall be made by the HCSO.
- D. Release of Bonds: Bonds will be released after all conditions of the Contract have been met, final acceptance has been given and all inspections have been satisfied and a statement of warranty and release of lien has been issued.

19. CERTIFICATE OF INSURANCE

- A. The contractor shall not commence any work in connection with this Contract until he has obtained all the following types of insurance and such insurance has been approved by the HCSO, nor shall the contractor allow any subcontractor to commence work on his sub-contract until all similar insurance required of the subcontractor has been so obtained and approved. All insurance policies shall be with insurers qualified and licensed to conduct business in Florida.
- B. Worker's Compensation Insurance The contractor shall take out and maintain during the life of this Contract, Worker's Compensation Insurance for all of his employees connected with the work of this project and, in case any work is sublet, the contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all the latter's employees unless such employees are covered by the protection afforded by the contractor. Such insurance shall comply fully with the Florida Worker's Compensation Law. In case any hazardous work under this contract at the site of the project is not protected under the Worker's Compensation statute, the contractor shall provide, and cause each subcontractor to provide, adequate insurance satisfactory to the HCSO for the protection of his employees not otherwise protected.
- C. Contractor's Public Liability and Property Damage Insurance The contractor shall take out and maintain during the life of this Contract, Comprehensive General Liability Insurance and Comprehensive Automobile Liability Insurance and shall protect him from claims for damage for personal injury, including accidental death, as well as claims for property damage which may arise from operations under this Contract whether such operations be by himself or by anyone directly or indirectly employed by himself, and the amounts of such insurance shall be the minimum limits as follows:
- Comprehensive General Liability: \$500,000 bodily injury and property damage combined single limit.
 - Automobile: \$500,000 bodily injury and property damage combined single limit.

20. PROJECT MANAGEMENT

The HCSO Project Manager for this job is Don Riek, phone 813-247-8482. All Work accomplished for this project will be scheduled, reviewed and approved by the Project Manager or his designated personnel. Any consultant contracted by the HCSO and specifically involved in the planning, design or execution of the project will hereinafter be referred to as "Architect/Engineer" and is in some cases, as noted, equally qualified to review and approve Work. All work schedules, deliveries, personnel changes, etc. will be coordinated with the HCSO Project Manager or Site Superintendent.

21. PRECONSTRUCTION CONFERENCE

Prior to the start of construction, a joint meeting shall be held with representatives of all prime contractors, HCSO staff, and other invited parties or government agencies which may be affected by or have jurisdiction over the project. This meeting is intended to introduce the various key personnel from each organization and to discuss the start of construction, order of work, labor and legal requirements, insurance requirements, names of the major

subcontractors, method of payment, shop drawing requirements, protection of existing facilities, and other pertinent items associated with the project.

22. MEASUREMENTS AND DIMENSIONS

Before ordering materials or doing work which is dependent for proper size, or installation upon coordination with site conditions, the contractor shall verify all dimensions at the site and shall be responsible for the correctness of same. No consideration will be given any claim based on the difference between the actual dimensions and those indicated on the drawings. Any discrepancies between the drawings and/or specifications and the existing conditions shall be referred to the HCSO for adjustments before any work is commenced

23. PRE-QUALIFICATION OF SUBCONTRACTORS, VENDORS, AND SUPPLIERS

All employees and/or subcontractors of the contractor which will work in a Hillsborough County Facility or on a Hillsborough County property will be required to have a background clearance by the HCSO prior to beginning work. Authorized contractor personnel will be required to wear a picture ID provided by the contractor which must be worn at all times while on the facility. All employees must comply with Sheriff's written policy and procedures relating to security. The contractor shall be required to provide a work crew list giving all personnel names and changes as they occur. Background checks require seventy-two hours notice.

The contractor agrees, within seven (7) calendar days of receipt of a written request from the HCSO, to promptly remove and replace any subcontractors employed or retained by the Contract, whom the HCSO shall request in writing to be removed with or without cause. If the HCSO requires the removal of any subcontractor, the contractor shall submit a substitute acceptable to the HCSO, and the Contract Price may be increased or decreased by the reasonable difference in costs associated with such substitution, providing proof of increase or decrease is provided. If the HCSO request was made without cause an appropriate Change Order will be issued.

24. CONTRACTOR'S RESPONSIBILITIES

A. Supervision and Superintendence: The contractor will supervise and direct the Work efficiently and with his best skill and attention. He will be solely responsible for the means, methods, techniques, sequences, and procedures of construction unless specifically addressed in the Contract Documents. The contractor will be responsible for seeing that the finished Work complies accurately with the Contract Documents. The contractor will cooperate with and be responsible for coordination of the Work with other contractors and/or utilities at the site.

The contractor will keep on the Work location at all times during its progress a competent, resident Superintendent who shall not be replaced without written notice to the Project Manager, except under extraordinary circumstances. The Superintendent will be the contractor's representative at the site and shall have authority to act on behalf of the contractor. All communications given to the Superintendent shall be as binding as if given to the contractor.

B. Security within the Detention Facility: Proposers must be mindful that performing the Work in a detention facility will place stringent requirements on both personnel authorized to be on site and the logistics of tool and material handling. Background checks will be performed on all contractor and sub-contractor personnel who will enter the facility. An authorized personnel list will be issued by the HCSO. Seventy-two hour notice is required to add new personnel to the list. Authorized contractor personnel will enter and exit through a check point and will be required to present picture identification (Driver's License is sufficient but contractor may wish to provide their staff with picture ID's which can be visible at all times). Contractor personnel will always be under escort of Detention Maintenance Bureau personnel or a Detention Deputy.

Tools and equipment entering the facility must be accounted for on a daily basis. Pocket knives or other small tools sometimes carried by an individual are not allowed. Cell phones are not allowed except as pre-approved by the Project Manager and shall be limited to supervisory staff. Two way radios are allowed. Tools and equipment not in use must be secured at all times in a gang box. Equipment that will not fit in a gang box must also be disabled and secured when not in use, whether inside or outside the jail perimeter. A master inventory of tools and equipment entering and leaving the facility will be maintained.

There are inmate recreation areas outside of the housing units that will be open to roof. Though there is no access to the roof from these areas it is conceivable that tools or materials could be dropped either purposely or accidentally from the roof into the recreation area. Therefore, every effort must be made to secure materials

and debris to avoid blowing or falling into any area that may be accessed by inmates. Immediate notice must be made to the escort if any contractor staff is aware of any such occurrence.

All Sheriff's Office facilities are Tobacco Free. No form of tobacco or tobacco use is allowed on the jail property. This includes but is not limited to cigarettes, cigars, chewing tobacco, dipping tobacco and electronic cigarettes.

- C. Labor, Materials, and Equipment: The contractor will provide and pay for competent, suitable, qualified personnel to assess the site, lay out the Work and perform construction as required by the Contract Documents. The contractor/Superintendent will at all times maintain good discipline and order on the site.

The contractor shall pay for all labor, equipment, tools, materials and services required to complete the Work as described in the Contract Document to include but not limited, building permits, notice of commencements, underground piping permits, electrical, mechanical, plumbing, and other governmental fees, licenses and inspections necessary for the proper completion of the Work. The contractor will be responsible for any re-inspection costs or fines imposed by Local, State, or Federal agencies.

All materials and equipment will be new and of good quality, except as otherwise provided in the Contract Documents (Part C - Technical Specifications). If required by the buyer, the contractor will furnish satisfactory evidence as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, or processors, except as otherwise provided in the Contract Documents.

The contractor shall coordinate all work and work of suppliers and subcontractors with Sheriff's Site Superintendent, to maintain the required construction sequence and to ensure timely completion of work stages. The contractor must be present on site to receive any and all delivery of their equipment and materials.

- D. Substitute Materials or Equipment: If the contractor wishes to furnish or use a proposed substitute, he will, after the award of the Contract, make written application to the Project Manager for approval of such substitute, certifying in writing that the proposed substitute will perform adequately the duties imposed by the general design, be similar and of equal substance or quality to that specified, and be suited to the same use and capable of performing the same function as that specified. No substitute shall be ordered or installed without the prior written approval of the HCSO, who shall be the sole judge of acceptability. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign, delays and claims of other contractors affected by the resulting change, all of which shall be considered by the HCSO in evaluating the proposed substitute. Approval of any change in costs or schedule as result of acceptance of the substitute by the HCSO will be by Change Order.

- E. Concerning Subcontractors: The contractor will be fully responsible for all acts and omissions of his subcontractors and of persons directly or indirectly employed by them and of persons for whose acts any of them may be liable to the same extent as if they were employed by him. Nothing in the Contract Documents shall create any contractual relationship between any subcontractor and the HCSO or any obligation on the part of the HCSO to pay or to see to the payment of any monies due any subcontractor, except as may otherwise be required by law. The HCSO may furnish to any subcontractor, to the extent practicable, evidence of amounts paid to the contractor for specific Work done.

The divisions and sections of the Technical Specifications and the identifications of any Drawings shall not control the contractor in dividing Work among subcontractors or delineating the Work to be performed by any specific trade. **The contractor agrees to bind specifically every subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of the HCSO.**

All work performed for the contractor by a subcontractor shall be pursuant to an appropriate written agreement between the contractor and the subcontractor which shall contain provisions that waive all rights the contracting parties may have against one another for damages caused by fire or other perils covered by insurance, except such rights as they may have to the proceeds of such insurance held by the HCSO as trustee. The contractor will pay each subcontractor an appropriate amount determined by value of the Work, of any insurance monies received by the contractor under this insurance.

- F. Patent Fees and Royalties: The contractor will pay all license fees and royalties and assume all costs incident to the use of any invention, design, process, or device which is the subject of patent rights or copyrights held by others.
- G. Permits: All required building and other permits shall be obtained before beginning construction. Unless otherwise noted in Part C - Technical Specifications, the contractor will secure and pay for all building permits, licenses or drawings, and will pay all governmental charges and inspections fees which are applicable and necessary for the execution of the Work at the time of his Proposal Response. In addition, but not limited to, the contractor will be responsible for re-inspections, fines, notice of commencement, underground piping, building, electrical, mechanical and structural permits. Upon completion of the project the contractor shall request and pay for the Certificate of Completion/Occupancy. Any delays associated with the permitting process will be considered for time extensions only and no damages or additional compensation for delay will be allowed. The contractor shall be on site during all scheduled permit inspections.
- H. Laws and Regulations: The contractor will give notices and comply with all laws, ordinances, rules, codes and regulations applicable to the Work. If the contractor observes that any of the Contract Documents are contradictory to such laws, rules, and regulations, he will notify the HCSO promptly in writing. Any necessary changes will then be adjusted by an appropriate Change Order. If the contractor performs any Work that he knows or should have known to the contrary of such laws, ordinances, rules, codes, and regulations and without such notice to the HCSO, he will bear all related costs.
- I. Use of Premises: The contractor will confine his equipment, the storage of materials and equipment, and the operations of his workers to the areas permitted by law, ordinances, permits, or the requirement of the Contract Documents. He shall not unreasonably encumber the premises with materials and equipment. Any loss or damage to the contractor's or any subcontractor's equipment is solely at the risk of the contractor.

The contractor shall take care in working near existing areas to protect them from damage. The contractor shall be responsible for any damage to existing areas and will repair such damage, at his expense, to the HCSO satisfaction.

The contractor shall keep the project site and surrounding area free from waste materials and rubbish which results from his work on the project. Removal, hauling and disposal of rubbish and waste materials shall be the responsibility of the contractor or as stipulated in the Technical Specifications contained in the Construction Site Drawings.

The contractor shall be held responsible for all damages resulting from his, or his subcontractors, errors, omissions or negligence in the performance of the Work of the Contract Documents.

The contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall the contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger them.

The contractor shall schedule and perform the Work in such a manner as to result in the least possible disruption to the normal operations of on-site Sheriff's activities. The contractor and subcontractor shall coordinate his work activities with the Project Manager to maintain the required construction sequence, and schedule.

The contractor or subcontractors will not have any form of contact with the inmate trustees working at the facility. Trustees are identified by wearing blue and orange uniforms. Any incidental contact with the inmate trustees will be reported to the Site Superintendent for HCSO.

- J. Work Safety: The contractor will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The contractor will comply with all applicable laws, ordinances, rules, codes regulations, and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss. He will take all necessary precautions for the safety of and will provide necessary protection to prevent damage, injury, or loss to:
- All employees on the Work site and other persons who may be affected by it;
 - All the Work and all materials or equipment to be incorporated, whether in storage on or off the site;

- Other property at the site or adjacent to it, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation, or replacement in the course of construction.

Job site safety is the contractor's responsibility. Appropriate first aid facilities and supplies shall be kept and maintained by the contractor at the site of the Work. In addition, all employees of the contractor and its subcontractors shall be provided with, and required to use, personal protective and life saving equipment as set forth in Subpart E of the OSHA Standards for Construction (29 CFR 1926).

During the performance of the Work, contractor shall erect and maintain temporary protective barriers and take all other necessary precautions and place proper guards and warning signs for the prevention of accidents. The contractor shall erect and maintain suitable and sufficient lights and other signals as required.

The contractor will notify HCSO of adjacent property and utilities when execution of Work may affect them prior to start of work. All damage, injury, or loss to any property caused directly or indirectly, in whole or in part by the contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable will be remedied by the contractor.

- K. Emergencies: In emergencies affecting the safety of persons, the Work or property at the site or adjacent thereto, the contractor, without special instructions or authorization from the Project Manager if time or circumstances do not permit, is obligated to prevent threatened damage, injury, or loss. The contractor will give the Project Manager written notice that the emergency provision has been invoked and shall state the reasons therefore within twenty four (24) hours of the incident. If the contractor believes the emergency resulted in additional Work, a claim for a Change Order is permissible.

The contractor shall immediately notify the Project Manager of all events involving personal injuries to any person on the site, whether or not such person was engaged in the construction of the Project, and shall file a written report on such person(s) and any other event resulting in property damage of any amount within five (5) days of the occurrence.

- L. Clean Up: The contractor will maintain the premises from accumulations of waste materials, rubbish, and other debris resulting from the Work on a daily basis or as required. At the completion of the Work, he will remove all waste materials, rubbish and debris from the premises as well as all tools, construction equipment machinery, and surplus materials and will leave the site clean and ready for occupancy by the HCSO. In addition to any other rights available to the HCSO under this Contract, the contractor's failure to maintain the site may result in withholding of any amounts due contractor. The contractor will restore to original condition those portions of the site not designated for alteration by the Contract Documents.
- M. Chemicals: The contractor shall be aware of the air intakes on the roof which ventilate all areas of the windowless jail facility and take precautions to prevent the spread of vapors, gases, mists, fumes or solids thru the ventilation system that would cause any kind of physical irritation or illness to persons exposed. Any use of such chemicals or substances or procedures that may produce such must be cleared by the Project Manager prior to use to allow appropriate shut down of air intakes.

If chemicals are used during project construction or furnished for project operation, whether defoliant, herbicide, pesticide, disinfectant, polymer, epoxy, reactant or of other classification, they shall be as approved by the U.S. Environmental Protection Agency or the U.S. Department of Agriculture. Use of all such chemicals and disposal of residues shall be in strict accordance with the printed instructions of the manufacturer.

25. APPROPRIATIONS OF FUNDS

The Hillsborough County Sheriff, as an entity of Government, is subject to the appropriation of funds by the Hillsborough County Board of County Commissioners in an amount sufficient to allow continuation of its performance in accordance with the terms and conditions of any contract entered into as a result of this request for each and every fiscal year following the fiscal year in which this contract is executed and entered into and for which the contract shall remain in effect. The HCSO shall, upon receipt of notice that sufficient funds are not available to continue its full and faithful performance under the contract, provide prompt written notice of such event and effective thirty (30) calendar days after the giving of such notice, or upon the expiration of the period of time for

which funds were appropriated, whichever occurs first, be thereafter released of all further obligations in any way related to such contract.

26. COMPLETION OF WORK AND LIQUIDATED DAMAGES

The Contractor hereby agrees to commence work on this project within 14 days after Notice to Proceed. Should material availability prevent this from occurring, the undersigned shall provide written evidence from material suppliers indicating reason for delay and anticipated date of delivery. In such case, commencement shall be within 7 days of delivery of materials. The contractor shall prosecute Work diligently and shall complete the entire Work as described in the Notice to Proceed and be ready for use not later than Ninety (90) to One Hundred Twenty (120) calendar days or less (as indicated in the Notice to Proceed) from the Notice to Proceed. Failure to complete the Work in the time stated shall result in an assessment as liquidated damages of \$250.00 for each calendar day this Work remains incomplete. Deduction will be made from contractor's final pay.

The contractor's attention is directed to the fact that it is likely to rain on occasion during the life of this contract. The contractor should expect a substantial number of days that he will be unable to work due to rain and/or wet conditions. It is the contractor's responsibility to schedule his work so that lost time for rain and/or wet conditions is made up. No additional time shall be granted to the contractor for rain and/or wet conditions. However, if there is any time extension required for unforeseen conditions or unfavorable weather days, the CONTRACTOR is required to submit proper documentation to Project Manager for time extension consideration.

27. WARRANTIES

- A. Provide manufacturer's standard 20 Year Guarantee with single source and no monetary limitation, where the manufacturer agrees to repair or replace components in the roofing system, which cause a leak due to a failure in materials or workmanship.
- B. Provide Contractors standard warranty for a period of 3 years where the Contractor agrees to repair or replace components in the roofing system, which cause a leak due to a failure in materials or workmanship.
 - 1. The contractor warrants and guarantees that all materials and equipment will be new unless otherwise specified and that all work will be of good quality, performed in a workmanlike manner, free from faults or defects, and in accordance with the requirements of the Contract Documents and any inspections, tests, or approvals referred to below. All unsatisfactory Work, all faulty Work and all Work not conforming to the requirements of the Contract Documents or such inspections, tests, approvals, or all applicable building construction and safety requirements shall be considered defective. Notice of all defects shall be given to the contractor by the Project Manager. All defective Work, whether or not in place, may be rejected, corrected, or accepted as provided in Paragraph 29, D.
 - 2. If the Contract Documents, laws, ordinances, rules, regulations or order of any public authority having jurisdiction require any Work to specifically be inspected, tested, or approved by someone other than the contractor, the contractor will give the Project Manager timely notice of readiness therefore. The testing firm(s) if assigned by the HCSO to this project and all such inspections, tests, or approvals provided for by the HCSO shall be identified in writing by the Project Manager to the contractor. All other inspections, tests or approvals shall be at the contractor's expense including additional expenses for inspection and tests required as a result of delays by the contractor or hours worked beyond 40 hours in a work week. For all required inspections, tests, and approvals on any Work prepared, performed, of assembled away from the site, the contractor will furnish the Project Manager with the required Certificates of Inspection, testing, or approval. All such tests will be in accordance with the methods prescribed by the American Society for Testing and Materials or such other applicable organizations as may be required by law or the Contract Documents. Materials or Work in place that fail to pass acceptability tests shall be retested at the direction of the Project Manager and at the contractor's expense. If any such Work required to be inspected, tested, or approved is covered without written approval of the Project Manager, it shall be, if requested by the Project Manager, uncovered for observation in accordance with Paragraph 29, a.4 and a.5. The rates charged the contractor pursuant to this paragraph shall be agreed upon in writing prior to testing.
 - 3. Neither observations by the Project Manager or inspections, tests, or approvals by persons other than the contractor shall relieve the contractor of his obligations to perform the Work in accordance with the requirements on the Contract Document.

4. If any work is covered contrary to the request of the Project Manager, the Work shall, if requested by the Project Manager, be uncovered for observation and replaced at the contractor's expense.
 5. If any Work has been covered which the Project Manager has not specifically requested to observe, or if the Project Manager considers it necessary or advisable that covered Work be inspected or tested by other, the contractor, by written request, will uncover, expose, or otherwise make available for observation inspection, or testing that portion of the Work in question, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective, the contractor will bear the expense of such uncovering, exposure, observation, inspection, testing, and satisfactory reconstruction. If, however, such Work is not found to be defective, the contractor will be allowed an increase in the Contract price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, inspection, testing, and reconstruction, if he makes a claim.
- B. When directed by the Project Manager, the contractor will promptly, without cost to the HCSO and as specified by the Project Manager, either correct the defective Work whether fabricated, installed, or completed, or remove it from the site and replace it with non-defective Work. If the contractor does not correct such defective Work or remove and replace such defective Work within a reasonable time, all as specified in a written notice from the Project Manager, the HCSO, after seven (7) days, may have the deficiency corrected. All direct and indirect costs of such correction shall be paid by the contractor or deducted from payment to the contractor. The contractor will also bear the expense of making good all Work of others destroyed or damaged by correction, removal, or replacement of this defective work.
 - C. During the warranted period, the contractor will restore or remove and replace warranted work to its original specified condition in the event of failure. He will restore or remove and replace other work which has been damaged by failure of warranted work, or which must be removed and replaced to gain access to warranted work. Cost of restoration or removal and replacement is the obligation of the contractor. Upon restoration or removal and replacement of the warranted work which has failed, contractor will reinstate the warranty by issuing an addendum to the original warranty for at least the remaining warranted period, but for no less than half of the original warranted period.
 - D. If, instead of requiring correction or removal and replacement of defective Work, the HCSO prefers to accept it, the HCSO may do so. In such case, if acceptance occurs prior to approval of final payment, a Change Order shall be executed by incorporating the necessary revisions in the Contract Documents, including an appropriate reduction in the Contract Sum. If the acceptance occurs after approval, the contractor shall pay an appropriate sum to compensate for the defective Work to the HCSO.

28. INDEMNIFICATION

The contractor will indemnify and hold harmless the HCSO and its employees and agents from and against all liabilities, claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting from the performance of its Work, provided that any such liability, claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting there from and (b) is cause in whole or in part by an act or omission of the contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, whether or not it is caused in whole or in part by a party indemnified hereunder.

In any and all claims against the HCSO or any of its agents or employees by any employee of the contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under the previous paragraph shall not be limited in any way as to the amount or type of damages, compensation or benefits payable by or for the contractor or any subcontractor under workmen's compensation acts, disability benefit acts, or other employee benefit acts.

The contractor will indemnify and hold harmless the HCSO and anyone directly or indirectly employed by it from and against all claims, damages, losses, and expenses (including attorney's fees) arising out of any infringement of patent rights of copyrights held by others and shall defend all such claims in connection with any alleged infringement of such rights.

With respect to and in consideration for the indemnifications provided by the contractor in paragraph 28, the HCSO agrees to pay to the contractor \$50.00, the sufficiency and receipt of which is hereby acknowledged.

29. CLOSEOUT

Upon receipt of the request from the contractor, the Project Manager shall review the Work for substantial completion and create a punch list of deficiencies to be corrected by the contractor. When the Project Manager determines the contractor has adequately addressed the punch list, provided copies of all inspections or evidence of other compliance with governmental requirements, completed demobilization and satisfactory site cleanup, provided executed lien releases and all warranty information and documentation, a Certificate of Completion will be issued. Warranty/Guarantee periods will commence at the issuance of the Certificate of Completion.

31. INVOICING AND PAYMENTS

Contractors are asked to invoice the HCSO in duplicate for Work as completed. At a minimum, an invoice shall show the Work site address, description of Work completed or list of goods received, and the Purchase Order number. Applications for payment will be required for partial payments or progress payments and are acceptable in lieu of an invoice if numbered. All applications for partial payment shall be accompanied by a schedule of values and indicate the percentage of work completed as of the application date.

All progress payments will be subject to ten percent (10%) retainer. Approval for payment of the final invoice and release of the retainer shall be subsequent to the final Project inspection and acceptance by the Project Manager. The retained amount should ***not*** be included on the final invoice but should be requested separately.

It is a requirement of the HCSO to have the Project Manager review and approve all applications for payment and invoices prior to the HCSO remitting payment.

Applications for payment should be accompanied by Waivers of Lien from the contractor, all subcontractors and any and all suppliers of equipment and materials. Payments may not be considered without these documents.

Invoices should be addressed to: Hillsborough County Sheriff's Office
Accounts Payable
P.O. Box 3371
Tampa, FL 33601

Timely payment of invoices is incumbent upon the HCSO and in no case shall payment exceed forty-five (45) calendar days from date of receipt of a properly approved application/invoice as provided by State Statute. However, every effort will be made to process application quickly. HCSO policy is to make payment within thirty (30) days.

Payments may be withheld because of any of the following conditions: 1) Defective work not corrected. 2) Failure of the contractor to make payments to subcontractors or for materials, labor, equipment or services. 3) Continued failure to perform the Work in accordance with the terms and conditions set forth in this Agreement. 4) Legal or other claims by third parties relating to the work performed under the Contract Documents.

32. EXCEPTIONS TO PROPOSAL

All proposal submittals must clearly state with specific detail all deviations to the requirements imposed upon the Proposer by the General Terms and Provisions (Part A), the Special Provisions (Part B) and the Technical Specifications (Part C). Such deviations should be stated upon the Proposal Response (Part D) or appended thereto. Proposers are hereby advised that the Hillsborough County Sheriff will only consider proposals that meet the specifications and other requirements imposed upon them by this proposal package. In instances, where an exception is stated upon the Proposal Response (Part D), said proposal will be subject to rejection by the Hillsborough County Sheriff in recognition of the fact that said proposal does not meet the exact requirements imposed upon the Proposer by the General Terms and Provisions (Part A), the Special Provisions (Part B) and the Technical Specifications, (Part C).

The technical specifications of this RFP are written on behalf of the HCSO by CMC Design Group, Inc. AA0003637. CMC Design Group will serve as the Architect/Engineer on behalf of the HCSO for the duration of this project or until otherwise indicated. CMC may also be called upon to provide technical support to the evaluation committee but will not be a scoring committee member.

SECTION 01100 - SUMMARY OF WORK

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the RFP Contract, including Contractual Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 PROJECT DESCRIPTION

- A. Project/Work Identification:

- 1. The General overall description of the Work of the Contract for the:

ROOF RENOVATIONS TO
HILLSBOROUGH COUNTY SHERIFF’S OFFICE ORIENT ROAD JAIL
1201 Orient Road
Tampa, Florida 33619

can be summarized for purposes of administration and payment in the manner of project segments as follows:

- 2. The Project consists of the installation of a PVC roof recovery system on approximately 364,000 SF of roof area plus total removal of the existing EPDM (**ethylene propylene diene monomer**) roof system on approximately 520 SF (Areas 3G and SB) down to the structural concrete roof (Refer to Drawings).

- B. Single-Ply Roof Recovery System: (All areas except 3G and SB)

- 1. Remove all existing EPDM flashing membrane, sheet metal flashings, overflow scuppers, expansion joints and roof accessory items.
- 2. Remove and replace any damaged or deteriorated wood nailers.
- 3. Remove abandoned roof penetrations and repair structural concrete roof deck with steel plating in thicknesses to provide for no deflection within the deck opening. Roof penetrations to be removed and openings to be patched are not shown on roof plans and will be flagged for removal.
- 4. Slice through existing EPDM single-ply field membrane in grid pattern leaving in place. Frequency to be determined by Manufacturer.
- 5. Mechanically attach (RhinoBond®) new 1/2” Securock gypsum recovery board through the existing roof membrane and rigid board insulations to the structural concrete roof deck.
- 6. Install 60 MIL Rhinobond® heat welded attached PVC single-ply membrane, flashing membranes, sheet metal flashings, overflow scuppers, expansion joints and all roof accessory items to provide a complete roof system as indicated on the Contract Drawings.

7. At roof drains, replace all clamping rings and hardware, re-tap existing drain bowls as necessary for new hardware and re-use existing drain strainers.

C. Re-Roofing (Roof Areas 3G and SB only):

1. Remove all existing EPDM single-ply roof membrane, flashing membrane, sheet metal flashings, overflow scuppers, expansion joints, roof accessory items and rigid board insulations to the existing structural concrete roof deck as indicated on the Contract Drawings.
2. Remove and replace any damaged or deteriorated wood nailers.
3. Remove abandoned roof penetrations as indicated and repair structural concrete roof deck with steel plating in thicknesses to provide for no deflection within the deck opening. Roof penetrations to be removed and openings to be patched are not shown on roof plans and will be flagged for removal.
4. Install new 1/4" per foot tapered polyisocyanurate insulation and 1/2" Securock sheathing board. Mechanically attach (RhinoBond®) all layers to structural concrete roof deck.
5. Install new 60 MIL RhinoBond® heat welded attached PVC single-ply membrane, flashing membranes, sheet metal flashings, overflow scuppers, expansion joints and all roof accessory items to provide a complete roof system as indicated on the Contract Drawings.
6. At roof drains, replace all clamping rings and hardware, re-tap existing drain bowls as necessary for new hardware and re-use existing drain strainers.

D. Selective Demolition:

1. Roof Areas 1C, 1D, 3A, 3D, 3I, 5D, 5E, 6F, 8A, 8D, 8F, 9G, 10G, 12E, 13A, NA and SH – Remove isolated areas of wet substrate material as noted on the Roof Plans. Replace with new dry 1/4" per foot tapered polyisocyanurate insulation prior to installing new fully adhered 60 MIL PVC single-ply roof recovery system.
2. Remove all abandoned penetrations. Mechanically attach a minimum 16 gauge steel plate over the now created opening within the structural concrete deck. Plate to extend 6" past opening on all sides. Roof penetrations to be removed and openings to be patched are not shown on roof plans and will be flagged for removal.

1.3 CONTRACTOR USE OF PREMISES (See Part B, Paragraph H)

- A. Limit use of the premises to construction activities within areas indicated; allow for any Owner occupancy, and use by the public.
1. Contractor and its personnel shall abide by all Orient Road Jail (ORJ) Security and access requirements including; inspection and inventory control of all tools and materials necessary to perform the work of this Contract. Specific Security requirements will explained at the Mandatory Pre-Bid Conference by ORJ personnel.
 2. Minimize any disruption to all operating areas, including parking areas.
 - a. Existing systems shall remain in operation during the construction period, excluding times required for installation of new work. Schedule and coordinate all times of interrupted service with the HCSO Project Manager.
 - b. Schedule and coordinate with the ORJ, any shut down or disruption to public services or any existing systems a minimum of 72 hours (3 business days excluding weekends and holidays) in advance.

3. Provide all temporary directional signage, safety, and barricading as required by ORJ.
 - a. Submit a plan indicating signage, safety, and barricading, at the pre-construction meeting.
 - b. Directional signing at the access gate and or along the delivery route to the storage area or work site shall be as directed by ORJ.
 4. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed or accessed by the contractors personnel.
 5. Access to Site shall be as directed by ORJ. Do not permit any unauthorized construction personnel or traffic on the site. Provide for traffic control to and from the various construction areas. Immediately clean-up any debris deposited along the access road as a result of construction traffic.
 - a. Keep driveways and entrances serving the premises clear and available to the Owner, their employees at all times, and the public. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
 6. All material orders for delivery to the site will use as a delivery address the access point at the Contractor's storage site.
 - a. Delivery of materials and removal of demolished and discarded materials shall be scheduled as follows: Coordinate with Site Superintendent to allow for the least possible disruption of the facilities normal operations.
 - b. Schedule and coordinate all deliveries and removal of debris between the hours of 7:00 AM and 3:00 PM each day of the workweek.
 7. The limits of construction material storage areas, equipment storage areas, and parking areas shall be as directed by ORJ. Erect and maintain suitable fencing, marking and warning devices suitable for both day/night use to delineate the perimeter of all such areas.
- B. Use of the Existing Building: Maintain the existing building in a weathertight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period. Housekeeping shall be maintained throughout each workday at ground and roof levels to ensure wind blown objects, construction debris, etc., does not occur. Ground level cleanup with in restricted areas to be coordinated with ORJ.

1.4 OWNER OCCUPANCY

- A. Full Owner Occupancy: The Owner and the public will occupy the site and existing building and adjacent facilities (outside the limits of the construction area) during the entire construction period. Cooperate with the Owner during construction operations to minimize conflicts, facilitate occupancy usage, and protect persons and property in the project area during the entire construction period. Perform the Work so as not to interfere with the Owner's operations.
 1. Unless otherwise directed by the Owner, work shall be scheduled between the hours of 7:00 AM until 6:00 PM each day.

1.5 LAWS, PERMITS, AND REGULATIONS

- A. Comply with all applicable laws, ordinances, regulations and code requirements.

- B. Obtain and pay for all license and permits.
- C. Abide by ORJ safety and security regulations and procedures relative to access to, and work in, Jail Operations Areas and secured facilities.
- D. Comply with Hillsborough County Sheriff Office's insurance requirements.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01100

SECTION 01210 – ALLOWANCES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contractual Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements governing Contingency Allowances.
- B. All applicable allowances are listed in Paragraph 3.3 below and on page 83 Proposal Response.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise the Owner and Architect of the date when the final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At the Owner’s request, obtain proposals for each allowance item for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by the Architect from the designated supplier(s).

1.4 SUBMITTALS

- A. General: Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
 - 1. Submit invoices or delivery slips to show the actual quantities of materials delivered to the site for use in fulfillment of each allowance.

1.5 CONTINGENCY ALLOWANCES

- A. Use the Contingency Allowance only as directed for the Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. The Contractor's related costs for products and equipment ordered by the Owner under the contingency allowance include delivery, installation, taxes, insurance, equipment rental, and similar costs.
- C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs but not overhead and profit margins which shall be included in the Contractor’s Base Bid.

1.6 UNUSED ALLOWANCES

- A. At Project closeout, credit all unused allowance monies to the Owner by Change Order.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly upon delivery for damage or defects. Report findings shall be submitted to the Owner in writing.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Remove and replace damaged or deteriorated wood blocking, nailers, etc. Allowance included within the Base Bid Amount shall be 5,000 board feet.
- B. Remove and replace damaged or deteriorated existing tapered rigid roof insulation board with new tapered polyisocyanurate insulation. Allowance included within the Base Bid Amount shall be 2,500 SF.
- C. Provide new roof drain screens where deteriorated or damaged. Allowance included within the Base Bid Amount shall be 25 roof drain screens.

END OF SECTION 01210

SECTION 1290 – SCHEDULE OF VALUES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including Contractual Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes: Schedule of Values.
 - 1. When requested by the Owner, support values given with substantiating data.
 - 2. Use Schedule of Values only as a basis for the Applications for Payment.
- B. Time Coordination: In coordination of initial submittals and other administrative startup activities, submit Schedule of Values to the Owner at the earliest feasible date, but in no case later than seven days before initial payment request is to be submitted.

1.3 FORM OF SUBMITTAL

- A. Use AIA Document G-703 Continuation Sheet, Current Edition.
- B. Use Part D, Proposal Response as a basis for format.
- C. Identify each line with number and title as listed in Table of Contents of the Project Manual.

1.4 PREPARING AND SUBMITTING SCHEDULE OF VALUES

- A. Prepare Schedule of Values, in coordination with Progress Schedule. Correlate line items with other administrative schedules and forms required for the Work, including progress schedule, payment request form, listing of subcontractors, schedule of allowances, listing of products and principal suppliers and fabricators, and schedule of submittals.
- B. Provide breakdown of Contract Sum in sufficient detail to facilitate continued evaluation of payment requests and progress reports. Breakdown amounts of major cost items of more than \$20,000 into several line items. Round off to nearest whole dollar, but with total equal to Contract Sum.
- C. Submit 3 copies of the Schedule of Values to the Owner.
- D. Arrange schedule with columns to indicate generic name of item, related Specification Sections; subcontractor, supplier, manufacturer, or fabricator; change orders which have affected value; dollar value of item, and percentage of Contract Sum to nearest one-hundredth percent and adjusted to total 100%.
- E. Margins of Cost:
 - 1. Show line items of indirect costs, and margins on actual costs, only to extent such items will be individually listed in payment requests.
 - 2. Establish each item in Schedule of Values and in payment requests to be complete with total expenses and proportionate share of general overhead and profit margin.
 - 3. Major cost items, which are not directly cost of actual work-in-place, such as distinct temporary facilities, may be either shown as line items in Schedule of Values or distributed as general overhead expense.

F. Break down installed cost into:

1. Cost of product, delivered and unloaded at Jobsite with taxes paid.
2. Total installed cost, with overhead and profit.

1.5 SUBSCHEDULE OF UNIT MATERIAL VALUE

- A. Submit a subschedule of unit costs and quantities for products that progress payments will be requested for stored materials.
- B. The form of submittal shall parallel that of the Schedule of Values, with each item identified the same as the line item in the Schedule of Values.
- C. The unit quantity for bulk materials shall include an allowance for normal waste.
- D. The unit values for the materials: the cost of the material including taxes, delivered and unloaded at the Site.
- E. The installed unit value multiplied by the quantity listed shall equal the cost of that item in the Schedule of Values.

1.6 REVIEW AND RESUBMITTAL

- A. After review by the Architect, revise and resubmit Schedule (and Schedule of Material Value) as required.
- B. Resubmit revised Schedule in same manner.
- C. Update and resubmit the Schedule of Values when Change Orders affect the listing and when actual performance of Work involves necessary changes of substance to values previously listed.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01290

SECTION 01310 – PROJECT MEETINGS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contractual Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings, including, but not limited to, the following:
 - 1. Job coordination meetings (JCMs).
 - 2. Preconstruction/pre-installation conferences.

1.3 PROGRESS MEETINGS

- A. General: Conduct JCMs at the Project Site, or at an alternate location designated by the Owner, on a bi-weekly basis.
 - 1. The Owner may request additional JCMs or may require the Contractor to increase the frequency of JCM's, to once-a-week, depending upon project progress. Additional meetings or changes in meeting frequency, as directed by the Owner, shall not affect the cost of the original Contract.
- B. Attendees: In addition to the Owner, each subcontractor, material manufacturer or other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda:
 - 1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Discuss whether schedule revisions are required to insure that current and subsequent activities will be completed within the Contract Time.
 - 2. Contractors Look Ahead: Contractor shall present and distribute a 2 week look ahead schedule during the "Schedule" portion of the meeting.
 - 3. Review the present and future needs of each entity present, including such items as:
 - a. Interface requirements.
 - b. Time.
 - c. Sequences.
 - d. Deliveries.
 - e. Off-site fabrication problems.
 - f. Access.
 - g. Site utilization.

- h. Submittals.
 - i. Requests for information (RFI).
 - j. Non-compliance notices.
 - k. Temporary facilities and services.
 - l. Hours of work.
 - m. Resource allocation.
 - n. Hazards and risks.
 - o. Housekeeping.
 - p. Quality and work standards.
 - q. Safety issues.
 - r. Change orders.
 - s. Documentation of information for payment requests.
- D. Reporting: Copies of minutes of each meeting will be distributed to each attendee and to those parties who were scheduled but unable to attend.
 - E. Schedule Updating: Refer to Section 01330, 1.4 Scheduling.
 - F. As-Built Documents: Review progress of as-built documents for all disciplines of work.

1.3 PRECONSTRUCTION/PREINSTALLATION CONFERENCES

- A. General: Where required by the Owner or by individual specification sections, conduct preconstruction conferences at the Project Site before startup of construction activities.
- B. Attendees: The Installer and representatives of manufacturers and fabricators involved in the installation, shall attend the meeting. Advise the Owner of scheduled meeting dates.
 - 1. Review the progress of other construction activities and preparations for the particular activity under consideration at each preconstruction conference, including, but not limited to, the following:
 - a. Contract documents.
 - b. Options.
 - c. Shop drawings, product data, and quality control samples.
 - d. Coordination requirements.
 - e. Time schedules.
 - f. Weather limitations.

- g. Manufacturer's recommendations.
 - h. Warranty requirements.
 - i. Governing regulations.
 - j. Inspecting and testing requirements.
 - k. Recording requirements.
 - l. Protection.
 - m. Related change notices.
 - n. Purchases.
 - o. Deliveries.
 - p. Possible conflicts.
 - q. Compatibility problems.
 - r. Acceptability of substrates.
 - s. Temporary facilities.
 - t. Space and access limitations.
 - u. Safety.
 - v. Required performance results.
2. Record significant discussions of each conference, and the approved schedule. Promptly distribute a typewritten copy of the record of the meeting to all attendees.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01310

SECTION 01330 – SUBMITTALS

PART 1 – GENERAL

1.1 SUMMARY

- A. This Section includes administrative requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.

1.2 RELATED DOCUMENTS

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

1.3 SUBMITTAL PROCEDURE

- A. General: The Contractor is responsible for providing the submittals to the Architect. These submittals must be accepted in writing prior to commencement of work. One (1) original copy of the submittals must be submitted to the Architect for review. The submittals will then be returned to the Contractor with comments. Final submittals will require written responses to all Construction Document submittal comments. The submittals shall then be submitted in quadruplicate in 1 complete package. Partial or incomplete Submittals will be returned to the Contractor. All submittals shall be listed on the Submittal Transmittal Form provided by the Architect. Each of the 4 copies shall be bound in a 3 ring binder with tabs for each submittal item.
- B. Processing Time: Allow enough time for submittal review, including time for re-submittals, as follows. Time for review shall commence on Architect's receipt of submittal.
 - 1. Initial Review: Allow 7 work days for initial review of submittals.
 - 2. Allow 7 work days for processing each re-submittal.
 - 3. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- C. Identification: Submit in a labeled 3 ring binder with tabs for each identification number.
- D. Deviations: Highlight, encircle or otherwise identify deviations from the Contract Documents on submittals and provide letter describing in detail any proposed changes, substitutions, or deviations from the project or manufacturer's specifications. A written explanation of why substitutions should be considered is required and shall be included under the appropriate tab.
- E. Transmittal: Package submittals appropriately for transmittal and handling using a transmittal form. Architect will discard submittals received from sources other than Contractor.
 - 1. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
- F. Use for Construction: Use only final submittals with mark indicating action taken by Architect in connection with construction.

1.4 SCHEDULE OF SUBMITTALS

- A. The following submittal items shall be submitted in a three ring binder with tabs for each submittal item to meet the requirements specified herein:
1. Emergency contact list including mobile and home numbers of key Contractor personnel, and office and mobile numbers of key Owner and Architect personnel.
 2. Work schedule indicating start date, crew size, production rate, anticipated completion date, etc.
 3. Sample Application for Payment including Schedule of Values. Immediately after execution and delivery of the Contract, and before the first partial payment is submitted, the Contractor shall submit to the Owner through the Architect the following:
 - a. An Application for Payment on AIA G702.
 - b. A schedule of values on AIA G703 Continuation Sheet consisting of a detailed breakdown of the Contract amount showing separate figures for labor and materials. The work listed under the various sections and subsections of the Specifications shall serve as the format for preparation of the following:
 4. Copy of State Roofing License.
 5. Copies of applicable State licenses of all Subcontractors.
 6. Copy of Certificate of Insurance (Workers Compensation, Public Liability and Property Damage) with Owner named as additionally insured.
 7. Copy of Certificate of Insurance for all Subcontractors with Owner named as additionally insured.
 8. Copy of Performance and Payment Bonds.
 9. Copy of Construction Permit.
 10. Roofing Manufacturer's Acknowledgement Form.
 11. Copy of all warranties.
 12. Letter describing in detail any proposed changes, substitutions, or deviations from the project or manufacturer's specifications. A written explanation of why substitutions should be considered is required.
 13. Shop drawings.
 14. Rough Carpentry for Roofing.
 15. Thermoplastic PVC Single-Ply Roofing.
 16. Flashing and Sheet Metal
 17. Sealants.
 18. Existing damaged/dysfunctional components documentation (videotape, photographs, etc.) including but not limited to; asphalt spills, windows, walls, sidewalks, paving, ceilings, etc. Lack of submission prior to commencement of work indicates Contractor has discovered no existing damaged components and takes responsibility for any damages caused by operations.
 19. Complete list of materials with Material Safety Data Sheets (MSDS).

PART 2 – PRODUCTS

2.1 SUBMITTALS

- A. General: Prepare and submit Submittals required herein and by individual Specification Sections.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Manufacturer's catalog cuts.
 - e. Compliance with recognized trade association standards.
 - f. Compliance with recognized testing agency standards.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Include the following information, as applicable:
 - a. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Shop work manufacturing instructions.
 - f. Templates and patterns.
 - g. Schedules.
 - h. Notation of coordination requirements.
 - i. Notation of dimensions established by field measurement.
 - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2" X 11" but no larger than 30" X 40".
- D. Samples: Prepare physical units of materials or products, including the following:

1. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from the same material to be used for the Work, cured and finished in manner specified, and physically identical with the product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 2. Submit 3 sets of Samples. Architect will retain 2 Sample sets; remainder will be returned.
 3. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Architect's sample where so indicated. Attach label on unexposed side.
 4. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
 5. Disposition: Maintain sets of approved Samples at Project Site, available for quality control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
- E. Contractor's Construction Schedule: Comply with requirements in Division 1.
- F. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of Architects and owners, and other information specified.
- G. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- H. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.
- I. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.
- J. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- K. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
- L. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- M. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- N. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address and telephone number of manufacturer.

- O. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.

PART 3 – EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal, check for compliance with the Contract Documents and note corrections and field dimensions prior to submitting to Architect.

3.2 ARCHITECT'S ACTION

- A. Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal item with an action stamp and will mark stamp appropriately to indicate action taken, as follows:

1. Accepted.
2. Accepted as Noted.
3. No Action Required.
4. Review/Resubmit.
5. Rejected/Resubmit.
6. Not Subject to Review.

- B. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION 01330

SECTION 01400 – QUALITY CONTROL SERVICES

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. This Section includes administrative and procedural requirements for quality assurance and quality control.
2. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - a. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - b. Specified tests, inspections, and related actions do not limit Contractor's quality control procedures that facilitate compliance with the Contract Document requirements.
 - c. Requirements for Contractor to provide quality control services required by Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.2 RELATED DOCUMENTS

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

1.3 DEFINITIONS

- A. **Quality Assurance Services:** Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.
- B. **Quality Control Services:** Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements.
- C. **Testing Agency:** An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

1.4 DELEGATED DESIGN

- A. **Performance and Design Criteria:** Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

1.5 SUBMITTALS

- A. **Permits, Licenses, and Certificates:** For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.6 QUALITY ASSURANCE

- A. It is the intent under this contract that workmanship shall be of the best quality consistent with the materials and construction methods specified. The presence or absence of the Owner's or Architect's representative shall in no way relieve the Contractor of his responsibility to furnish materials and construction in full compliance with the drawings and specifications. The Owner and/or Architect shall have the authority to judge the quality and require replacement of unacceptable work or personnel at any time.
- B. All contractors shall cooperate in the execution of their work and shall plan their work in such manners as to avoid conflicting schedules or delay of work. If any part of a contractor's work depends upon the work of another contractor, defects, which may affect that work, shall be reported to the Architect in order that prompt inspection may be made and defects corrected. Commencement of work by a contractor where such condition exists will constitute acceptance of the other Contractor's work as being satisfactory in all respects to receive the work commenced, except defects, which may later develop. The Architect shall be the judge of quality of work. Work of all trades under this contract shall be closely coordinated in such a manner as to obtain the best possible workmanship for the entire project. All components of the work shall be installed in accordance with the best practices of the particular trade. The Contractor is responsible to advise the Owner sufficiently in advance of operations to allow for assignment of personnel.
- C. Materials or methods described by words which, when applied, have a well-known technical or trade meaning will be held to refer to such recognized standard. Standard specifications or manufacturer's literature, when referenced, shall be of the latest revision or printing unless otherwise stated, and are intended to establish the minimum requirements acceptable.
- D. All materials shall be new, all materials and workmanship shall be in every respect in accordance with the best modern practice. Should the contract drawings, specifications or directions of the Architect admit of a reasonable doubt regarding what is required or permissible, and should they fail to state the quality of and work, the interpretation which requires the best quality of work is to be followed. The Owner and/or the Architect shall have the authority to judge the quality and require replacement of unacceptable work or personnel.
- E. When special makes or grades of material which are normally packaged by the supplier or manufacturer are specified or accepted, such materials shall be delivered to the site in original packages or containers with seals unbroken and labels intact and shall not be opened until inspected and approved by the Architect. Contractor shall notify the Architect prior to such material's delivery.
- F. The Contractor's Foreman or Superintendent to maintain one (1) complete set of the contract documents and approved submittals on the Jobsite.
- G. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
 - 1. Acceptable Contractor: Have a minimum of 2 years experience in successfully installing the same or similar materials and be certified in writing by the roofing materials manufacturer to install the primary roofing products.
 - 2. Be recognized in the commercial roofing industry.
 - 3. Have a minimum of 5 years experience in installing roofing systems under the same firm name as that submitting the bid and certified by the Manufacturer. If requested, submit a copy of firm's Articles of Incorporation to verify years in business. Also all crew workers on site are to be experienced and have a working knowledge of the system being installed.
 - 4. Principals of the firm to have a minimum of 10 years experience in the estimating, supervision, management and administration of a contracting firm engaged in the application of roofing systems involving removal of the existing roofing systems.

5. Installers shall be licensed in the state of Florida for the type and dollar amount of work contemplated by these Contract Documents.

6. Never filed bankruptcy or filed for protection from creditors.

7. At any time during the construction and completion of work covered by these Specifications, if the conduct of any workman of the various crafts be determined unsuitable or a nuisance to the Owner or Architect, or if the workman becomes incompetent or detrimental to the work, the Contractor shall order such party removed immediately from the grounds with the person not returning at any time during the course of work on the project.

8. Have an Experience Modification Rate (EMR) of 0.9 or less when averaged over the last 3 years.

9. Be able to provide a 90 minute response travel time from their closest office to the Project Site.

10. During the performance of any work by the Contractor or subcontractors, the Contractor shall provide for the entire length of the project a full time onsite superintendent/representative meeting the following requirements:

- a. For the purpose of these Specifications the designation “superintendent” is hereby defined as the individual present on the Jobsite at all times while work is being performed, and whose primary responsibility is to supervise and direct the performance of the Work.
- b. The superintendent shall be in attendance at the project site at all times during the progress of the work and his duties as superintendent shall be limited to this project only. The superintendent shall supervise and instruct workmen without engaging in the work process. Should the superintendent be absent temporarily from the project at any time, he shall designate a competent foreman to assume duties. During the superintendent’s absence the foreman shall not engage in the work process but shall supervise and instruct only. Likewise, any communications given to the foreman shall be as binding as if given to the Contractor.
- c. It shall be the superintendent’s responsibility to communicate all matters pertaining to the Work with the Owner and/or Architect. In case of emergency or safety, superintendent shall communicate directly with the Owner and/or Architect. No decisions regarding changes in the Work will be made without the Owner’s knowledge.
- d. Decision making authority and ability.
- e. Able to demonstrate knowledge of roofing systems being installed.
- f. Employed by the Contractor at least 6 months prior to project commencement.
- g. Owner and Architect approval.
- h. No later than 10 days prior to the pre-roofing conference, Contractor shall provide the Owner, in writing, the names of the proposed project manager, job superintendent, and foreman for approval. If he so determines, the Owner, without giving cause, may request an additional name, or names, be submitted for approval. The Owner will notify the Contractor of his acceptance at least 48 hours prior to the pre-roofing conference.

Once approved, the superintendent will not be changed except with the consent of the Owner unless either prove to be unsatisfactory to the Owner or Contractor, or cease to be in the Contractor’s employment.

Promotion, transfer, or reorganization within the company will not be an acceptable cause for reassignment of the superintendent.

The superintendent shall have had a minimum of 5 year continuous experience as a job superintendent.

- H. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
- I. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E548 and that specializes in types of tests and inspections to be performed.
- J. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- K. Factory Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

1.7 QUALITY CONTROL

- A. The authorized representatives and agents of Owner shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records.
- B. Owner Responsibilities: Where quality control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
 - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of the types of testing and inspecting they are engaged to perform.
 - 2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.
- C. Contractor's Responsibilities:
 - 1. Repair and protection of work and materials are Contractor's responsibility.
 - 2. Should any work or materials not conform to requirements of the Specifications or become damaged during the progress of the work, such work or materials shall be removed and replaced, together with any work disarranged by such alterations, at any time before completion and acceptance of the project. All such work shall be done at the expense of the Contractor.
 - 3. Contractor will coordinate documents with manufacturer and perform such testing, reporting, and communication incidental to provisions of the warranty procedures.
 - 4. Inclement Weather:
 - a. In the event of temporary suspension of work as during inclement weather, the Contractor will protect its work and materials against damage or injury from weather. If, in the opinion of the Architect, any work or materials have been damaged by reason of failure of the Contractor to protect its work, such materials shall be removed and replaced at the expense of the Contractor.
 - b. During inclement weather and temporary suspension of work, the Contractor shall inspect the facility no later than 9:00 AM each day for leaks and perform temporary repairs if necessary. Inspections shall be made daily during extended periods of inclement weather. Upon arrival at the facility, Superintendent shall immediately inform the Owner of his presence and purpose.

- c. Should inclement weather occur after normal business hours Friday, Saturday, Sunday or holidays, Contractor shall make arrangements with the Owner to provide access to the building to inspect for leaks.
- D. **Manufacturer's Field Services:** During construction and until substantial completion, manufacturer's representative shall perform no less than bi-weekly assurance site visits to ensure materials are being properly installed and as required to obtain the specified warranty.
 - 1. The first site visit shall be performed within the first 3 days of roofing operations. Subsequent visits shall be on a bi-weekly schedule.
 - 2. Coordinate all site visits with Architect. Submit reports of findings within one week of inspection. Payment applications will be rejected until applicable reports are received.
 - 3. Inspections to be performed by an employee of the selected manufacturer that is assigned full time to their technical services department. Sales personnel will not be acceptable for this function and may result in rejection of the roof area installed that does not fulfill this requirement.
 - 4. Manufacturer's final inspections shall be performed in conjunction with the Architect and or Project Manager in attendance.
- E. **Special Tests and Inspections:** Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.
 - 1. Testing agency will notify Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
 - 2. Testing agency will submit a certified written report of each test, inspection, and similar quality control service to Architect with copy to Contractor and to authorities having jurisdiction.
 - 3. Testing agency will submit a final report of special tests and inspections at Final Acceptance, which includes a list of unresolved deficiencies.
 - 4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 - 5. Testing agency will retest and re-inspect corrected work.
- F. **Retesting/Re-Inspecting:** Regardless of whether original tests or inspections were Contractor's responsibility, provide quality control services, including retesting and re-inspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 REPAIR AND PROTECTION

- A. **General:** On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
- B. Protect construction exposed by or for quality control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality control services.

END OF SECTION 01400

SECTION 01500 – TEMPORARY FACILITIES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contractual Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, maintenance of traffic, security and protection.
- B. Temporary utilities which may be required include but are not limited to:
 - 1. Temporary electric power and light.
 - 2. Telephone service.
 - 3. Temporary project identification sign; all other signs are prohibited.
 - 4. Drinking water.
 - 5. Sanitary facilities.
- C. Temporary construction and support facilities which may be required include but are not limited to:
 - 1. Storage sheds.
 - 2. Temporary enclosures including demising walls.
 - 3. Waste disposal services.
 - 4. Construction aids and miscellaneous services and facilities.
 - 5. Storm and sanitary sewer.
 - 6. Fuel tanks larger than 15 gallons.
- D. Temporary construction and support facilities, Contractor's option:
 - 1. Field office.
 - a. Temporary field offices will be allowed on the Construction Site upon Owner's approval.
- E. Security and protection facilities which may be required include but are not limited to:
 - 1. Temporary fire protection.
 - 2. Barricades, warning signs, lights.
 - 3. Sidewalk bridge or enclosure fence for the site.
 - 4. Environmental protection.

1.3 SUBMITTALS

- A. Temporary Utilities: Maintain reports of tests, inspections, meter readings and similar procedures performed on temporary utilities for review by the Owner.
- B. Implementation and Termination Schedule: Submit a schedule indicating implementation and termination of each temporary utility within 15 days of the date established for commencement of the Work.
- C. Maintenance of Traffic Plan: Submit a "Maintenance of Traffic Plan" within 15 days of the date established for commencement of work requiring maintenance of traffic.
- D. Demising Wall Plan: Submit a plan at the pre-construction meeting indicating the location, construction, and extent of demising walls. Include connection details indicating method of installation, attachment, etc.

1.4 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to:
 - 1. Building Code requirements.
 - 2. Health and safety regulations.
 - 3. Utility company regulations.
 - 4. Police, Fire Department and Rescue Squad rules.
 - 5. Environmental protection regulations.
- B. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations," ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."
 - 1. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared jointly by AGC and ASC, for industry recommendations.
 - 2. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA 70).
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.5 PROJECT CONDITIONS

- A. Temporary Utilities: Prepare a schedule indicating dates for implementation and termination of each temporary utility.
- B. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.
- C. HVAC Shutdown: Coordinate with the Owner concerning shutdown of HVAC and return air systems in Project work areas.

1. In addition to the installation of demising walls, and providing air filtration specified, shutdown the return air systems in each area where construction/demolition activities are underway. Reestablish the return air systems when work has been completed.
2. Provide temporary HVAC systems to maintain the existing level of service during the shutdown period.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Lumber and Plywood: Comply with requirements in Section 06100 "Rough Carpentry for Roofing."
- B. Tarpaulins: Provide waterproof, fire-resistant, UL labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures provide translucent nylon reinforced laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.
- C. Water: Provide potable water meeting the requirement of the local health authorities.

2.2 EQUIPMENT

- A. General: Provide new equipment or previously used equipment in serviceable condition suitable for use intended.
- B. Electrical Outlets: Provide properly configured NEMA polarized outlets to prevent insertion of 110-120 volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.
- C. Electrical Power Cords: Provide grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas where construction activities are in progress. Eliminate trip hazards.
- D. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- E. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to the type of fuel being consumed.
- F. Temporary Toilet Units: Provide self-contained single-occupant toilet units of the chemical type, properly vented and fully enclosed with a glass fiber reinforced polyester shell.
- G. First Aid Supplies: Comply with governing regulations.
- H. Fire Extinguishers: Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures.
 1. Comply with NFPA 10 and 241 for classification, extinguishing agent and size required by location and class of fire exposure.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Relocate and modify facilities as required.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Engage the appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment; comply with the company's recommendations.
 - 1. Arrange with the utility company and the Owner for a time when service can be interrupted, where necessary, to make connections for temporary services.
 - 2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
 - 3. Cost or use charges for temporary facilities are not chargeable to the Owner or the Architect(s), and will not be accepted as a basis of claims for a Change Order.
- B. Water Service: Install water service and distribution piping of sizes and pressures adequate for construction.
 - 1. Provide a backflow prevention device.
- C. Temporary Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period.
- D. Temporary Lighting: Whenever overhead floor or roof deck has been installed, provide temporary lighting with local switching.
 - 1. Install and operate temporary lighting that will fulfill security and protection requirements, without operating the entire system, and will provide adequate illumination for construction operations and traffic conditions.
- E. Temporary Telephones: Provide temporary telephone service for personnel engaged in construction activities, throughout the construction period.

3.3 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

- A. General: Locate field offices, storage sheds, sanitary facilities and other temporary construction and support facilities as indicated.
 - 1. Maintain temporary construction and support facilities until near Final Acceptance. Remove prior to Final Acceptance. Personnel remaining after removal will be permitted to use permanent facilities, under conditions acceptable to the Owner.
 - 2. Provide non-combustible construction for offices, shops and sheds located within the construction area, or within 30 feet of building lines. Comply with requirements of NFPA 241.
- B. Temporary Heat: Provide temporary heat required by construction activities, for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
- C. Heating Facilities: Except where use of the permanent system is authorized, provide vented self-contained LP gas or fuel oil heaters with individual space thermostatic control.
 - 1. Use of gasoline-burning space heaters, open flame, or salamander type heating units is prohibited.

- D. Storage and Fabrication Sheds: Install storage and fabrication sheds, sized, furnished and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on the site.
- E. Sanitary Facilities: Sanitary facilities include temporary toilets, wash facilities and drinking water fixtures. Comply with local health authorities for the administration of these facilities.
 - 1. Provide toilet tissue, paper towels, paper cups and similar disposable materials for each facility. Provide covered waste containers for used material.
- F. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy. Use of pit-type privies will not be permitted.
- G. Wash Facilities: Install wash facilities supplied with potable water at convenient locations for personnel involved in handling materials that require wash-up for a healthy and sanitary condition. Dispose of drainage properly. Supply cleaning compounds appropriate for each condition.
- H. Drinking Water Accommodations: Provide drinking water accommodations as necessary, including paper supply.
- I. Temporary Enclosures - Demising Walls: Provide temporary enclosure for protection of construction in progress from public view and foul weather.
- J. Project Identification/Construction Company Identification Sign: Prepare project identification sign of the size indicated; install sign where indicated to inform the public and persons seeking entrance to the Project. Securely attach, as required, to demising wall. Install sign at commencement of construction and remove upon completion.
 - 1. Size: 2-1/2' X 5' with 4" radius corners.
 - 2. Quality Assurance: Engage an experienced sign painter to apply graphics.
 - 3. Location: Locate on demising wall.
 - 4. Graphic Description: Information shall include the Contractor, Architect, and Architect(s) name, project name, and completion date.
 - a.Type Style: Frutiger 55 or Helvetica Medium.
 - b.Color: Jetport Brown background with white lettering.
 - c.Quantity: One (1) sign per project.
- K. Collection and Disposal of Waste: Collect waste from construction areas daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 degrees F (27 degrees C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner.
 - 1. The Contractor shall not use the Owner's waste disposal systems.
 - 2. The Owner will not provide waste disposal services.
- L. Fuel tanks larger than 15 gallons.
 - 1. All Equipment

- a. The Contractor will follow the guidance provided with regard to all equipment used on the work site. All equipment with Aboveground Storage Tanks (AST's) fuel tanks that have a capacity of 15 gallons or more but less than 550 gallons will adhere to the following guidelines. Equipment with tanks that have a capacity of 550 and more gallons will adhere to Florida Administrative Code 62-761.
- b. Each piece of equipment with a tank capacity of 15 gallons or more will be required to have secondary containment. The capacity of the secondary containment will be 110% of the tank. As a minimum, five sheets of 10 MIL visqueen will be used to line the secondary containment. The visqueen will overlap the outside walls of the secondary containment a minimum of 24". Install a single sheet of puncture resistant neoprene of 1/4" thick as a liner in the secondary containment or concrete containment.
- c. The secondary containment will be checked on a periodic basis and the fluid buildup will be disposed accordingly. Visible sheen will indicate contaminated water and will be disposed on in accordance with Florida Administrative Code (FAC) 62-777.
- d. Mobile storage tanks that meet the criteria of FAC 62-677 are exempt from these procedures.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. General: Except for use of permanent fire protection as soon as available, do not change over from use of temporary security and protection facilities to permanent facilities until Substantial Completion, or longer as requested by the Architect(s).
- B. Temporary Fire Protection: Install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers," and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations."
 - 1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than 1 extinguisher on each floor at or near each usable stairwell.
 - 2. Store combustible materials in containers in fire-safe locations.
 - 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, exitways and other access routes for fighting fires.
 - 4. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.
- C. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- D. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result. Avoid use of tools and equipment which produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.

3.5 OPERATION, TERMINATION AND REMOVAL

- A. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by the elements.

- B. Termination and Removal: Unless the Architect(s) requests that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than Final Acceptance. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
1. Materials and facilities that constitute temporary facilities are property of the Contractor.
 2. Prior to Final Acceptance, clean and renovate permanent facilities that have been used during the construction period, including but not limited to:
 - a. Repair of any and all damages to existing materials or finishes. Repair shall be complete and made to the satisfaction of Owner at no additional cost.
 - b. Replace air filters and clean inside of ductwork and housings.
 - c. Replace significantly work parts and parts that have been subject to unusual operating conditions.
 - d. Replace lamps that are burned out or noticeably dimmed by substantial hours of use.

END OF SECTION 01500

SECTION 01740 – FINAL CLEANING AND PROTECTIONS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contractual Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes: final cleaning at Substantial Completion.
- B. Environmental Requirements: Conduct cleaning and waste-disposal operations in compliance with local laws and ordinances. Comply fully with federal and local environmental and antipollution regulations.
 - 1. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains.
 - 2. Burning or burying of debris, rubbish, or other waste material on the premises is not permitted.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of the material to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 – EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final-cleaning operations. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from a commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
- B. Cleaning Operations: Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for the entire Project or a portion of the Project.
 - 1. Clean the Project Site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and foreign substances.
 - 2. Sweep paved areas clean. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - 3. Remove petrochemical spills, stains, and other foreign deposits.
 - 4. Remove tools, construction equipment, machinery, and surplus material from the site.
 - 5. Clean exposed exterior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - 6. Remove labels that are not permanent labels.

7. Touchup and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 8. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 9. Remove debris and surface dust from limited access spaces, including roofs, equipment vaults and similar spaces.
 10. Leave the Project clean and ready for occupancy.
- C. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during the remainder of the construction period.
- D. Compliance: Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the site and dispose of lawfully.
1. Where extra materials of value remain after completion of associated Work, they become the Owner's property. Dispose of these materials as directed by the Owner.
 2. The Contractor shall not dispose of debris or waste materials on the Owner's property without the prior approval of the Owner.
- E. Maintenance: Provide maintenance on completed construction as frequently as necessary through the remainder of the construction period.

3.2 PROTECTIONS

- A. General: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
1. Excessive static or dynamic loading.
 2. Excessive internal or external pressures.
 3. Excessively high or low temperatures.
 4. Thermal shock.
 5. Excessively high or low humidity.
 6. Water or ice.
 7. Solvents.
 8. Chemicals.
 9. Light.
 10. Puncture.
 11. Abrasion.

12. Heavy traffic.
13. Soiling, staining, and corrosion.
14. Bacteria.
15. Rodent and insect infestation.
16. Combustion.
17. Electrical current.
18. Improper lubrication.
19. Unusual wear or other misuse.
20. Contact between incompatible materials.
21. Destructive testing.
22. Misalignment.
23. Excessive weathering.
24. Unprotected storage.
25. Improper shipping or handling.
26. Theft.
27. Protection of landscaping, shrubbery, etc., from damage.

END OF SECTION 01740

SECTION 01770 – PROJECT CLOSEOUT

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - a. Inspection Procedures.
 - b. Project Record Documents.
 - c. Warranties.

1.2 RELATED DOCUMENTS

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

1.3 SUBSTANTIAL COMPLETION

- A. The Contractor shall submit written certification to the Architect that the Project is substantially complete along with the following:

1. Prepare a list of items to be completed and corrected (Contractor’s punch list), the value of items on the list, and reasons why the Work is not complete.
2. Terminate and remove temporary facilities from Project Site, along with mockups, construction tools, and similar elements.
3. Complete final cleaning requirements, including touchup painting.
4. Touchup and otherwise repair and restore marred exposed finishes to eliminate visual defects.

- B. Punch List Inspection: On receipt of substantial completion certification, the Architect will make a punch list inspection within 7 days after receipt of certification.

1. A punch list of items will be prepared for correction and completion before the Final Inspection. The Contractor shall complete the punch list items within 15 days of the punch list inspection.
2. Should the Architect consider the Work not substantially complete, he will immediately notify the Contractor, in writing, stating the reasons. The Contractor shall complete the Work and send a second written notice to the Architect, certifying the Project is substantially complete, at which time the Architect will reinspect the Work.
3. Should the Architect consider the Work substantially complete, he will prepare and issue the list of items to be completed or corrected (punch list).

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:

1. Submit a final Application for Payment.
 2. Submit signed copy of Architect's inspection list of items to be completed or corrected (punch list). The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Final Inspection: The submission of the signed punch list constitutes as written request for final inspection for acceptance. On receipt of request, Architect along with the Owner will conduct a final inspection within 7 days of receipt of certification.
1. Should the Architect consider that the Work is finally complete in accordance with requirements of the Contract Documents, he will request the Contractor to make Project Closeout Submittals.
 2. Should the Architect consider that the Work is not finally complete, he will notify the Contractor, in writing, stating the reasons.
 3. The Contractor shall take immediate steps to remedy the stated deficiencies, and send a second written notice to the Architect certifying that the Work is complete, at which time the Architect will re-inspect the Work.

1.5 PROJECT RECORD DOCUMENTS

- A. General: Do not use Project Record Documents for construction purposes. Protect Project Record Documents from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.
1. The Contractor shall submit all required record documents and warranties within 30 days of the punch list inspection.
- B. Record Drawings: Maintain and submit 1 set of blue or black-line white prints of Contract Drawings and Shop Drawings.
1. Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that cannot be readily identified and recorded later.
 - b. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 2. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.
 3. Note Change Order numbers and similar identification where applicable.
 4. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location. Organize into manageable sets; bind each set with durable paper cover sheets. Include identification on cover sheets.

- C. Record Specifications: Submit one (1) copy of Project's Specifications, including addenda and contract modifications. Mark copy to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Note related Change Orders and Record Drawings, where applicable.

- D. Miscellaneous Record Submittals: Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference. The following items shall be submitted, not limited to:
 - 1. Completed and signed Architect's Punch List.
 - 2. Copy of Manufacturer's Final Inspection Report.
 - 3. Lightning Protection Master Label "C" Certification

1.6 WARRANTIES

- A. Thermoplastic PVC Single Ply Roofing System warranty as outlined in Section 07540.
- B. Contractor's 3 year warranty on their company letterhead.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01770

SECTION 01910 – SELECTIVE SITE DEMOLITION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contractual Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies requirements for the following Scope of Work:
 - 1. Removal and disposal of roof insulation and removal of existing EPDM single-ply roof membrane and membrane flashing, removal and disposal of sheet metal flashings, etc., in preparation for new roofing membrane system Roof Areas 3G and SB.
 - 2. Removal and disposal of select roof insulation and existing EPDM single-ply roof membrane and membrane flashing, etc., in preparation for new roofing membrane system on all other roof areas as indicated on the building roof plans.
- B. Remove, disconnect, dispose of abandoned penetrations and repair existing structural concrete roof deck.

1.3 SPECIAL JOB CONDITIONS

- A. Contractor shall remove only as much existing roofing membrane and membrane flashings that can be 100% replaced and made 100% watertight in the same working day including roof flashings.

1.4 SUBMITTALS

- A. The Contractor shall submit a sufficiently detailed removal plan to the Owner which includes the following:
 - 1. Outline plan for the removal, transportation and disposal of the existing roofing materials including abandoned roof penetrations and associated materials.
 - 2. Location of dumpsters, cranes, hoists, trash chutes and other temporary equipment required for selective demolition.
 - 3. Methods for interior and exterior protection (including landscaping) and cleanup during removal of existing roofing materials as required.
 - 4. Protection plan of new roof membrane assembly.

1.5 REMOVAL AND DISPOSAL EQUIPMENT

- A. Wheelbarrows, carts and buggies used on roofs to transport debris to chutes, cranes or other equipment shall be limited to 3/8 cubic yard capacity.
- B. Provide cranes or hoists to remove debris and transport materials from and onto the roof. Secure materials properly during all lifting operations and transport debris from the roof directly into approved debris containers. Protect wall surfaces with tarps secured to exterior walls immediately adjacent to or under the area of hoisting or other lifting modes of operation.
- C. The use of motorized equipment such as “Bobcats”, etc., is prohibited on all roof surfaces.

PART 2 – MATERIALS (Not Used)

PART 3 – EXECUTION (Not Used)

3.1 GENERAL

- A. During the removal of existing roofing, roof related materials, etc., the Contractor shall report in writing to the Owner areas of damaged, deteriorated or otherwise unsuitable structural deck or framing components discovered. Do not cover or remove unacceptable deck or framing areas until reviewed by the Owner and provide temporary waterproof covering until such time the Owner and Architect can review such conditions.

3.2 REMOVAL OF MATERIALS

- A. Roof Areas 3G and SB - Remove and replace complete roof systems down to structural concrete deck and replace with new 1/4" per foot tapered polyisocyanurate insulation and 1/2" Securock roof cover board simultaneously mechanically fastened. Install complete fully adhered 60 mil PVC single-ply roof system and associated flashings, sheet metal and accessory items. Replace roof drain clamping rings, strainers and hardware.
- B. Roof Areas 1C, 1D, 3A, 3D, 3I, 5D, 5E, 6F, 8A, 8D, 8F, 9G, 10G, 12E, 13A, NA and SH – Remove isolated areas of wet substrate material as noted on the Roof Plans. Replace with new dry 1/4" per foot tapered polyisocyanurate insulation prior to installing new fully adhered 60 MIL PVC single-ply roof recovery system.
- C. Remove all abandoned roof penetrations. Roof penetrations to be removed and openings to be patched are not shown on roof plans and will be flagged for removal. Mechanically attach a minimum 16 gauge steel plate over the now (newly) created opening within the structural concrete deck. Plate to extend 6" past opening on all sides.
- D. Roof Area 14A – Remove existing lightning protection components as required to install new fully adhered 60 MIL PVC single-ply roof recovery system. Replace existing lightning protection components per local, state and national codes and recertify system upon completion per Owner's requirements.
- E. Remove and dispose of existing sheet metal edge details, counter flashings, etc., as required to perform the specified work.
- F. Remove and dispose of deteriorated perimeter wood blocking, nailers and plywood discovered during demolition.
- G. Remove and dispose of abandoned equipment, pipe and conduit penetrations as specified. Coordinate removals with the OWNER as required to accommodate building tenants so as not to interfere with building operations.
- H. Temporarily disconnect existing rooftop mechanical equipment and vents as required to perform the specified work. Removal and reinstallation of all powered mechanical units shall be performed by a licensed contractor. Coordinate all work with the Owner.

3.3 CLEANUP AND DISPOSAL

- A. Upon completing the work of this Section, leave site in clean condition satisfactory to the Owner on a daily basis per the Division 1 requirements. Cleanup shall include disposal of all items and material not required to remain property. Dispose of debris in accordance with applicable regulations set forth by local, State and Federal requirements including transporting debris to approved landfill.

END OF SECTION 01910

SECTION 06100 – ROUGH CARPENTRY FOR ROOFING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Specific conditions and other Division 1 Specification Sections apply to this Section.

1.2 SUMMARY

- A. This Section specifies requirements for roof related rough carpentry for the following:
 - 1. Remove and replace deteriorated or otherwise damaged wood blocking, nailers, plywood, etc., with new materials of the same dimension.
 - 2. Re-secure all existing wood blocking, nailers, plywood, etc., as required utilizing fasteners, fastener spacing, etc., in accordance with Factory Mutual (FM) Property Loss Prevention Data Sheets 1-49 (latest edition). Maximum on center (OC) spacing shall be 12” OC.
 - 3. All wood shall be factory pressure treated with preservative compatible with the new membrane roof assembly.

1.3 SUBMITTALS

- A. Submit shop drawings depicting on center fastener spacing, fastener type, etc., for all roofing and sheet metal new and existing rough carpentry attachment or reattachment in accordance with FM Data Sheets 1-49. Provide excerpts of FM Data Sheets 1-49 as attachment to shop drawings with indications of project specific attachment, spacing, fastener type and fastener length.
- B. Submit Material Safety Data Sheet (MSDS).
- C. Submit roof membrane manufacturer’s written acceptance of all wood products and intended use for the specified roof membrane assembly.
- D. Submit wood manufacturer’s technical data sheets for all products listed in Part 2 including, but not limited to the following:
 - 1. Wood preservative treatment from chemical treatment manufacturer.
 - 2. Copies of warranties from chemical treatment manufacturers for each type of treatment.
 - 3. Provide manufacturers’ certificates certifying products meet or exceed specified requirements.

1.4 QUALITY ASSURANCE

- A. Lumber grading agencies and abbreviations for quality assurance on this project include the following:
 - 1. American Wood Preservative Association (AWPA).
 - 2. Northeastern Lumber Manufacturers Association (NELMA).
 - 3. National Lumber Grades Authority (NLGA).
 - 4. Southern Pine Inspection Bureau (SPIB).

5. West Coast Lumber Inspection Bureau (WCLIB).
6. Western Wood Products Association (WWPA).
7. American Lumber Standards Committee (ALSC).
8. American Plywood Association (APA)

PART 2 – PRODUCTS

2.1 DIMENSION LUMBER

- A. Provide dimension lumber (1 X 6, 2 X 4, 2 X 6, 2 X 8 or as required) with maximum moisture content of 19% (dry weight basis) of No. 1 grade in accordance with SPIB Grading Rules.
 1. Douglas Fir.
 2. Southern Yellow Pine.
 3. Spruce Pine
- B. All roof related rough carpentry woodwork shall be factory pressure treated and fully compatible with the specified new roof membrane assembly. Pressure treatment of wood shall be with Wolman Salts per AWPA standards for ground contact. Wood preservative (pressure treatment) shall be AWPC Treatment C1 and AWPB Standard LP-2 using waterborne preservative with 0.25% retainage.

2.2 PLYWOOD

- A. Unless otherwise indicated, plywood shall be 3/4” or 5/8” thick APA rated, CDX, pressure preservative treated as required. Match existing plywood thickness.

2.3 FASTENERS

- A. Provide Type 316 stainless steel fasteners of sufficient size to penetrate into various substrates as follows:
 1. Plywood-to-Concrete or Masonry – Provide flat head “Tapcon” stainless steel screws 2” long, 1/4” diameter shank.
 2. Wood-to-Wood Connections – Provide stainless steel 3” common nails with annular or ring shank.
 3. Wood Blocking-to-Concrete or Masonry – Provide concrete/masonry stainless steel No. 14 screws minimum 1/4” diameter shank of sufficient length to penetrate substrates a minimum of 1-1/2”. Provide depth gauge stop on drill motor to avoid over-drilling and over-penetrating of substrates.
 4. Wood Blocking-to-Steel Roof Deck and Steel Frames – Provide stainless steel “Olympic” self tapping No. 14 screws minimum 1/4” diameter shank of sufficient length to penetrate top flutes of steel roof deck or steel frames minimum 1”, maximum 1-1/4”.

2.4 SEPARATOR FELT

- A. Provide 1 layer of #30 felt for placement between new wood blocking, nailers, curbs, etc., and steel roof deck and other ferrous metals as well as aluminum conforming to ASTM Standard D 226, Type II organic saturated.

PART 3 – EXECUTION

3.1 INSTALLATION

A. General:

1. Inspect existing wood blocking, nailers, plywood, etc., and refasten as required to ensure positive attachment, eliminate rocking, etc., and to ensure minimum 12" OC staggered spacing without splitting wood members.
2. Remove materials with defects that may hamper the quality of work and pieces/units too small to fabricate work with minimum joints.
3. Attach woodwork to substrates in strict accordance with FM Data Sheets 1-49.
4. Place woodwork as required to provide true/straight lines that are level and square. All wood members shall be plumb, true, square and tightly fitted and cut with 24" minimum staggered joints. All wood members shall be minimum 4'-0" long.
5. Countersink nails, fasteners, bolts, etc., as required. Pre-drill as required to prevent splitting of wood. Provide depth gauge stop on drill motors to avoid over-drilling and over-penetrating of substrates.
6. Fastener Schedule:
 - a. Pressure Treated Wood Blocking to Steel Roof Deck up to 16 Gauge Deck Thickness – "Olympic 3-5/8" stainless steel flat head wood blocking screw long enough for 1-1/4" penetration. Place screws 1'-0" on center maximum with staggered pattern.
 - b. Pressure Treated Wood Blocking to Steel Roof Deck 16 Gauge Deck Thickness up to 1/4" Thick Steel Framing – "Olympic" stainless steel screw with minimum 1/4" diameter X 20 long enough for 1-1/4" penetration. Place screws 1'-0" on center maximum with staggered pattern.
 - c. Pressure Treated Plywood to Precast Concrete or Masonry – Provide flat head "Tapcon" stainless screws 2" long, 1/4" diameter shank.
 - d. Pressure Treated Wood Blocking-to-Structural Concrete or Precast Concrete – Stainless steel "Tapcon" minimum 1/4" diameter shank flat head screw long enough for 1-1/4" penetration. Place screws 1'-0" OC center maximum with staggered pattern.
 - e. Pressure Treated Wood Blocking-to-Wood Blocking – 12d nails stainless steel with annular or ring shank placed 4" on center maximum spacing installed in 2 staggered rows.

B. Nailers and Blocking:

1. Install all members true, level and plumb correctly fastened and positioned.
2. Provide where shown on the Drawings or as required to successfully perform the specified work.
3. Countersink bolts and nuts with washers flush with surfaces unless otherwise shown.
4. Provide tight connections between members. Where wood members are doubled or stacked, joints between layers shall be staggered 24" minimum and ends shall be adequately nailed/spiked to each other and onto adjoining or bearing members. Pre-drill wood members as required to avoid splitting. Wood members which have split shall be replaced.

END OF SECTION 06100

SECTION 07540 – THERMOPLASTIC PVC SINGLE-PLY ROOFING

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Thermoplastic Single-Ply Roofing
2. Insulation

B. Related Sections:

1. Section 06100 - Rough Carpentry for Roofing
2. Section 07620 - Flashing and Sheet Metal
3. Section 07920 - Sealants

1.2 SCOPE - RECOVER

- A. Slice Existing EPDM Membrane into 10' X 10' grids or as otherwise recommended by new roof membrane manufacturer.
- B. Attach 1/2" Securock recover board over existing membrane and insulation with Drill-Tec™ HD (#14) fasteners and 3" XHD RhinoBond® PVC plates into concrete substrate.
- C. Weld 60 MIL new PVC members to RhinoBond® plates.

1.3 REFERENCES

- A. Factory Mutual (FM Global) - Approval Guide.
- B. Underwriters Laboratories (UL) - Roofing Systems and Materials Guide (TGFU R1306).
- C. American Society for Testing and Materials (ASTM) - Annual Book of ASTM Standards.
- D. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - Architectural Sheet Metal Manual.
- E. National Roofing Contractors Association (NRCA).
- F. American Society of Civil Engineers (ASCE).

1.4 DEFINITIONS

- A. Roofing Terminology: Refer to ASTM D1079 and the glossary of the NRCA Roofing and Waterproofing Manual for definitions of roofing terms related to this Section.

1.5 PERFORMANCE REQUIREMENTS

- A. Provide an installed roofing membrane and base flashing system that does not permit the passage of water, and will withstand the design pressures calculated in accordance with the most current revision of ASCE 7.
- B. Roof membrane manufacturer shall provide all primary roofing materials that are physically and chemically compatible when installed in accordance with manufacturers current application requirements.

1.6 SUBMITTALS

- A. Product Data: Provide product data sheets for each type of product indicated in this Section.
- B. Shop Drawings: Provide manufacturers standard details and approved shop drawings for the roof system specified.
- C. Samples: Provide samples of insulations, fasteners, membrane materials and accessories for verification of quality.
- D. Certificates: Installer shall provide written documentation from the manufacturer of their authorization to install the roof system, and eligibility to obtain the warranty specified in this section.

1.7 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer shall provide a roofing system that meets or exceeds all criteria listed in this section.
- B. Installer's Qualifications:
 - 1. Installer shall be classified as a Master or Master Select contractor as defined and certified by Manufacturer.
- C. Source Limitations: All components listed in this Section shall be provided by a single manufacturer or approved by the primary roofing manufacturer.
- D. Final Inspection:
 - 1. Manufacturer's representative shall provide at a minimum; bi-weekly interim inspections and a comprehensive final inspection after completion of the roof system. All application errors must be addressed and final punch list completed.

1.8 PRE-INSTALLATION CONFERENCE

- A. Prior to scheduled commencement of the roofing installation and associated work, conduct a meeting at the project site with the installer, architect, owner, manufacturer's representative and any other persons directly involved with the performance of the work. The installer shall record conference discussions to include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party. The main purpose of this meeting is to review foreseeable methods and procedures related to roofing work.

1.9 REGULATORY REQUIREMENTS

- A. All work shall be performed in a safe, professional manner, conforming to all Federal, State and local codes.
- B. Exterior Fire Test Exposure: Provide a roofing system that will achieve an UL rating for roof slopes indicated. UL Class A.

1.10 DELIVERY, STORAGE AND HANDLING

- A. Deliver all roofing materials to the site in original containers, with factory seals intact. All products are to carry either the manufacturer's label.
- B. Store all pail goods in their original undamaged containers in a clean, dry location within their specified temperature range.

- C. Do not expose materials to moisture in any form before, during, or after delivery to the Site. Reject delivery of materials that show evidence of contact with moisture.
- D. Remove manufacturer supplied plastic covers from materials provided with such. Use “breathable” type covers such as canvas tarpaulins to allow venting and protection from weather and moisture. Cover and protect materials at the end of each work day. Do not remove any protective tarpaulins until immediately before the material will be installed.
- E. Materials shall be stored above 55°F (12.6°C) a minimum of 24 hours prior to application.

1.11 PROJECT CONDITIONS

- A. Environmental Requirements and Restrictions:
 - 1. Proceed with roofing only when existing and forecasted weather conditions permit.
 - 2. Make sure the RhinoBond® tool is set up properly for the ambient temperatures present.
- B. Weather:
 - 1. Proceed with roofing only when existing and forecasted weather conditions permit.
 - 2. Ambient temperatures must be above 45°F (7.2°C) when applying water based adhesives.

1.12 WARRANTY

- A. Provide manufacturer’s standard 20 Year Guarantee with single source and no monetary limitation, where the manufacturer agrees to repair or replace components in the roofing system, which cause a leak due to a failure in materials or workmanship.
- B. Provide Contractors standard warranty for a period of 3 years where the Contractor agrees to repair or replace components in the roofing system, which cause a leak due to a failure in materials or workmanship.

PART 2 – PRODUCTS

2.1 ACCEPTABLE MANUFACTURER

- A. Basis of Design - GAF Specification P-RB-R-I -60-XXK - GAF Materials Corporation - 1361 Alps Road, Wayne, NJ 07470.
- B. Or approved equal.

2.2 TAPERED POLYISOCYANURATE INSULATION

- A. Tapered insulation shall be a polyisocyanurate foam core with factory applied glass fiber reinforced cellulosic felt facers on the top and bottom with a compressive strength of 20 PSI in accordance with ASTM C289, Type II, Class I, Grade 2.
 - 1. Board Thickness: Minimum 1-1/2”.

2.3 ROOF BOARD

- A. Underlayment or overlayment board with a water-resistant and silicone treated gypsum core with glass fiber facers embedded on both sides. USG Securock Roof Board, distributed by GAF.
 - 1. Board Thickness: 1/2”.

2.4 MEMBRANE MATERIALS

- A. A smooth type, polyester scrim reinforced PVC XK membrane with a nominal 0.060" (60 MILS) thickness, for use as a single-ply roofing membrane. Meets or exceeds the minimum requirements of ASTM D4434. EverGuard® PVC XK 60 MIL single-ply roofing membrane by GAF.
 - 1. Color: White.

2.5 FLASHING MATERIALS

- A. A smooth type, polyester scrim reinforced PVC membrane with a nominal 0.060" (60 MILS) thickness, for use as a flashing membrane. Meets or exceeds the minimum requirements of ASTM D4434. Color to match field membrane. EverGuard® PVC XK 60 MIL single-ply roofing membrane by GAF.
- B. A smooth type, unreinforced thermoplastic PVC membrane for use as an alternative flashing/reinforcing material for penetrations and corners. 0.055" (55 MILS) nominal thickness, EverGuard® PVC UN-55 Detail Flashing Membrane, by GAF.
- C. An 8" (20 CM) wide smooth type, polyester scrim reinforced PVC membrane strip for use as a cover strip over coated metal and stripping-in coated metal flanges and general repairs: 0.040" (40 MILS) nominal thickness, EverGuard® Reinforced PVC Flashing Strips, by GAF.
- D. 25 gauge steel with 0.023" thick PVC based film. Factory supplied in sheets and required for fabrication into metal gravel stop and drip edge profiles, metal base and curb flashings, sealant pans, and scupper sleeves. Sheet size 4' X 10', sheet weight 47 LBS, EverGuard® PVC Coated Metal, by GAF.

2.6 ADHESIVES, SEALANTS and PRIMERS

- A. Solvent-based Bonding Adhesive: Solvent based rubberized adhesive for use with EverGuard® PVC membranes, EverGuard Bonding Adhesive, by GAF.
- B. One-part polyurethane sealant suitable for sealing the upper lip of exposed termination bars and penetrations, and around clamping rings. Meets or exceeds ASTM C920-87, Type S, Grade NS, Class 25, EverGuard® Caulking by GAF.
- C. One-part butyl based high viscosity sealant suitable for sealing between flashing membrane and substrate surface behind exposed termination bars and for sealing between roofing membrane and drain flange. EverGuard® Water Block by GAF.
- D. 100% solids epoxy based 2-part sealant suitable for filling sealant pans at irregularly-shaped penetrations. Epoxy is part A. Polyamide is part B. EverGuard® 2-Part Pourable Sealant by GAF.

2.7 ACCESSORIES

- A. Mechanical fasteners for securing of insulation, roofing and flashing materials as specified. Required fastener type determined by type of substrate and requisite attachment. Drill-Tec™ fasteners by GAF.
 - 1. Drill-Tec™ Heavy-Duty Roofing Fastener.
 - 2. Drill-Tec™ PVC XHD RhinoBond® Insulation Plate.
- B. Extruded aluminum termination bar with angled lip caulk receiver and lower leg bulb stiffener. Pre-punched slotted holes at 6" on center (OC). 3/4" X 10' with 0.090" cross section, EverGuard® Lip Termination Bar by GAF.
- C. 0.075" thick molded PVC membrane sized to accommodate most common pipe and conduits, (1" to 6" diameter pipes), including square tube. Hot-air welded directly to EverGuard® PVC membrane, supplied with stainless steel clamping rings, EverGuard® PVC Preformed Vent Boots by GAF.

- D. 0.075" thick molded PVC membrane designed to accommodate both inside and outside corners of base and curb flashing. Hot-air welds directly to EverGuard® PVC membrane. Size 4" X 4" with 4" flange, EverGuard® PVC Preformed Corners by GAF.
- E. 1/8" thick extruded and embossed PVC roll 30" X 50', heat welds directly to roofing membrane. Unique herringbone traction surface, safety yellow or gray in color, EverGuard® PVC Walkway Rolls by GAF.
- F. Other fasteners and metal accessory items shall be stainless steel unless noted otherwise.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify that the surfaces and site conditions are ready to receive work.
- B. Verify that the deck is supported and secured.
- C. Verify that the deck is clean and smooth, free of depressions, waves, or projections, and properly sloped to drains, valleys, eaves, scuppers or gutters.
- D. Verify that all roof openings or penetrations through the roof are solidly set, and that all flashings are tapered.

3.2 SUBSTRATE PREPARATION

- A. Recover:
 - 1. Suitable roofs for recover shall be free of dust, dirt, debris, and any contaminants that may adversely affect the performance of the new roof. Areas of substantial deck deflection or membrane imperfections shall be corrected prior to installing any new roofing.
 - 2. Existing substrates and insulation (if applicable) must be dry over the majority of the roof area. Wet or deteriorated areas of insulation and substrate must be removed and replaced with new materials. When adhering insulation or new roofing directly to the existing roof surface, the existing roof system components must be well attached to each other and their substrate.
 - 3. All applicable code requirements must be met for recover over an existing roofing system.

3.3 INSTALLATION – GENERAL

- A. Install GAF EverGuard® PVC roofing system according to all current application requirements in addition to those listed in this Section.
- B. GAF EverGuard® PVC Specification #: P-RB-R-I-60 XK.
- C. Start the application of membrane plies at the low point of the roof or at the drains, so that the flow of water is over or parallel to, but never against the laps.
- D. Overlay/recover boards may be installed using all full-size overlay boards in a non-staggered manner. These overlay/recover board include gypsum (Securock).
- E. Roof Areas 3G, SB and Areas of Selective Demolition – Remove existing roof membrane, membrane flashings, sheet metal and all other accessory items down to the structural concrete deck. Install new 1/4" per foot tapered polyisocyanurate (1-1/2" minimum), new 1/2" Securock cover board and new 60 MIL PVC single-ply roof membrane, membrane flashings, sheet metal and all other accessory items.
- F. Do not install any more insulation than will be completely waterproofed each day.

- G. Do not align seams with rows of plates, as the step-down that is created will cause an incomplete weld of the RhinoBond® plate.
- H. Do not straddle plates over insulation joints, as the gaps will create an incomplete weld of the RhinoBond® plate.
- I. Use the appropriate length and type of Drill-Tec™ Fastener for the structural deck. See manufacturer’s guidelines for the RhinoBond® Attachment Table.
- J. EverGuard® RhinoBond® plates are different in type and color. TPO plates are a yellow/green, while the PVC plates are black in color. The appropriate plate must be used with the appropriate membranes.
- K. Mechanical attachment for Roof Zones 1, 2 and 3:
 - 1. Roof areas have three distinct areas or zones. They are corners (either inside or outside), roof perimeter, and the field of the roof. Each of these areas has their own attachment rates.
 - 2. These zones or areas have to be determined before the insulation, cover or overlay board’s fasteners are installed. A building’s perimeter edges and corner areas or zones are determined by the height and width and other conditions referenced by ASCE 7 and FM 1-29.
 - 3. Contractor shall provide fastener pull testing performed and fastening patterns calculated by a State of Florida licensed structural engineer based on the results of the pull tests and the requirements of ASCE 7.
- L. Securing the EverGuard® RhinoBond® Plate and Fastener:
 - 1. Fasten into concrete substrate with Drill-Tec™ HD #14 fasteners and RhinoBond® PVC XHD plates, in accordance with GAF application recommendations.
 - 2. For Zone 1, fasteners shall be placed in 24” X 24” grid “(8 per 4 X 8 board). For Zone 2, 15 fasteners per board and Zone 3, 20 fasteners per board or as otherwise required by the structural engineering evaluation.
 - 3. Fasteners must be tight enough that the EverGuard® RhinoBond® Plate does not turn or rock.
 - 5. Over-driven fasteners that distort the face or top of the plate must be removed and discarded. A new EverGuard® RhinoBond® Plate and Fastener must be reinstalled next to the original, but not into the same space and hole.
 - 5. Under driven or “high fasteners” must be re-driven to proper depth.
 - 6. When installation of RhinoBond® Plates and Fasteners are complete, the area should be blown or broomed clean to remove any dirt or debris from the substrate surface or contaminates from the plate’s bonding surface. This is critical so as not to puncture the membrane from beneath or to impair the welding of the membrane to the EverGuard® RhinoBond® Plate.
 - 7. Bond the plates to the roof cover using the RhinoBond® bonding tool in accordance with GAF requirements.

3.4 MEMBRANE PLACEMENT

- A. Place roof membrane so that wrinkles and buckles are not formed. Any wrinkles or buckles must be removed from the sheet prior to permanent securement.
- B. Full-width rolls shall be installed in the field and perimeter regions of the roof.

- C. Overlap full roof membrane sheets a minimum of 3” for side and end laps.
- D. Install membrane so that the lap runs across the roof slope and lapped toward the drainage points if possible.
- E. All exposed sheet corners shall be rounded a minimum of 1”.

3.5 INDUCTION WELDING OF THE EVERGUARD® MEMBRANE

A. Equipment:

1. RhinoBond® Portable Bonding Machine (a minimum of 2 machines is recommended per project).
2. Minimum 5000-watt, continuous generator per 2 RhinoBond® Portable Bonding Machines.
3. 100’ maximum length, #12 minimum gauge electrical cords.
4. 6 cooling clamps (stand-up magnets that put pressure on the newly welded plate).
5. Pliers.
6. Heavy-duty plunger.
7. Lumber crayon.

B. Equipment Settings:

1. **IMPORTANT:** As with any electrical tool, it is imperative that the tool receive the recommended amount of current for its proper operation. Damage could result from overload (surge) as well as a low voltage situation. No other electrical devices shall be run at the same time as the RhinoBond® Portable Bonding Machines.
2. The RhinoBond® tool must be adjusted to achieve the maximum bond strength with most roofing membranes between 0° and 120°F.

C. Calibration of the Machine:

1. The user must adjust the RhinoBond® tool to achieve maximum bond strength with EverGuard® roofing membranes from 0° to 120°F ambient temperatures. The tool leaves the factory set to deliver an optimal weld with most membranes at 70°F when set to an energy level of “0”. The energy level must be adjusted up (+1, +2, etc.) when temperatures are below 70°F, and down (-1, -2 etc.) when temperatures are above 70°F. These adjustments can be made by using the up/down arrow keys next to the display window on the machine.
2. In an area adjacent to the day’s work, lay out 5 EverGuard® RhinoBond® Plates 10” apart and cover them with a fresh piece of field membrane approximately 18” X 5’.
3. Locate the plates under the membrane by dragging your foot across the surface of the membrane. After locating the RhinoBond® Plate, center the machine’s red location circle directly over the plate.
4. Determine an initial setting based on the ambient temperature. Remember that 70°F is a “0” energy setting on the display. On a 110°F day in Phoenix, Arizona your initial energy setting may be “2” or “3”.

5. Weld the first plate at your initial energy setting and immediately place the cooling clamp onto the plate and mark the setting with the lumber crayon. Increase the energy setting using the “up” arrow on the machine by a unit of 1. Weld the second plate to the right of the first plate; mark the setting in crayon and put the second cooling clamp on the plate. Increase by another unit of 1 and weld the third plate. Repeat this process for the next two plates – installing them to the left of your first weld – except reduce the energy setting by a unit of 1 from your original setting each time. From left to right, your set of plates will be marked as follows (on a 70°F day): -2, -1, 0, 1, 2.
6. Let the membrane over the plates cool to ambient temperature and fold the membrane over exposing the RhinoBond® Plates. Standing on the membrane, use your pliers to grip the plate and pull the plate from the test material, delaminating the plate from the membrane in the process.
7. Three (3) distinct types of bonds are probable, and are as follows: Full bond, an even and consistent weld of the membrane to the plate. The plate will also leave an impression in the membrane. This is a spec installation. Uneven/incomplete weld of the plate to the membrane. Cause of failure may be energy source set too low, machine not centered over the plate completely, or the plate may be over-driven. This would be a complete or partial hit of the plate. Remember, a full concentration of heat applied to the plate is needed to achieve a spec weld.

3.6 FLASHINGS

- A. All penetrations must be at least 24” (61 CM) from curbs, walls, and edges to provide adequate space for proper flashing.
- B. Flash all perimeter, curb, and penetration conditions with coated metal, membrane flashing, and flashing accessories as appropriate to the site condition.
- C. All coated metal and membrane flashing corners shall be reinforced with preformed corners or non-reinforced membrane.
- D. Hot-air weld all flashing membranes, accessories, and coated metal. A minimum 2” wide (hand welder) weld is required.
- E. Non-coated metal edge details must be installed in accordance with current EverGuard® construction details and requirements.
- F. All 20 year EverGuard® systems require the use of coated metal edges where applicable. Bonding adhesive and/or cover tape is not acceptable.
- G. Coated Metal Flashings:
 1. Coated metal flashings shall be formed in accordance with current EverGuard® construction details and SMACNA guidelines.
 2. Coated metal sections used for roof edging, base flashing and coping shall be butted together with a 1/4” gap to allow for expansion and contraction. Hot-air weld a 6” wide reinforced membrane flashing strip to both sides of the joint, with approximately 1” on either side of the joint left unwelded to allow for expansion and contraction. 2” wide aluminum tape can be installed over the joint as a bond-breaker, to prevent welding in this area.
 3. Coated metal used for sealant pans, scupper inserts, corners of roof edging, base flashing and coping shall be overlapped or provided with separate metal pieces to create a continuous flange condition, and pop-riveted securely. Hot-air weld a 6” wide reinforced membrane flashing strip over all seams that will not be sealed during subsequent flashing installation.

4. Provide a 1/2" hem for all exposed metal edges to provide corrosion protection and edge reinforcement for improved durability.
5. Provide a 1/2" hem for all metal flange edges whenever possible to prevent wearing of the roofing and flashing membranes at the flange edge.
6. Coated metal flashings shall be nailed to treated wood nailers or otherwise mechanically attached to the roof deck, wall or curb substrates, in accordance with construction detail requirements.

H. Reinforced Membrane Flashings:

1. The thickness of the flashing membrane shall be the same as the thickness of the roofing membrane.
2. Membrane flashing shall be installed fully adhered to the substrate surface in accordance with "Construction Detail Requirements".
3. Where flashings are to be fully adhered, apply bonding adhesive at a rate resulting in 60 SF/gallon of finished roofing material for solvent-based bonding adhesives, and at a rate of 125 SF/gallon of finished roofing material for water-borne bonding adhesive. Apply bonding adhesive to both the underside of the membrane and the substrate surface at 120 SF/gallon (Solvent Based) and 250 SF/ gallon (Water Based). A greater quantity of bonding adhesive may be required based upon the substrate surface condition. The bonding adhesive must be allowed to dry until tacky to the touch before flashing membrane application.
4. Apply the adhesive only when outside temperature is above 40°F. Recommended minimum application temperature is 50°F to allow for easier adhesive application.
5. The membrane flashing shall be carefully positioned prior to application to avoid wrinkles and buckles.

I. Unreinforced Membrane Flashings:

1. Unreinforced membrane is used to field-fabricate penetration or reinforcement flashings in locations where preformed corners and pipe boots cannot be properly installed.
2. Penetration flashings constructed of un-reinforced membrane are typically installed in 2 sections, a horizontal piece that extends onto the roofing membrane and a vertical piece that extends up the penetration. The 2 pieces are overlapped and hot-air welded together.
3. The unreinforced membrane flashing shall be adhered to the penetration surface. Apply bonding adhesive at a rate resulting in 60 SF/gallon of finished roofing material for solvent-based bonding adhesives, and at a rate of 125 SF/gallon of finished roofing material for water-borne bonding adhesive. Apply bonding adhesive to both the underside of the membrane and the substrate surface at 120 SF/gallon (Solvent Based) and 250 SF/gallon (Water Based). A greater quantity of bonding adhesive may be required based upon the substrate surface condition. The bonding adhesive must be allowed to dry until tacky to the touch before flashing membrane application.

J. Roof Edges:

1. Roof edge flashings are applicable for gravel stop and drip edge conditions as well as for exterior edges of parapet walls.
2. Flash roof edges with metal flanges nailed 4" OC to pressure-treated wood nailers. Where required, hot-air weld roof membrane to coated metal flanges.

3. When the fascia width exceeds 4", coated metal roof edging must be attached with a continuous cleat to secure the lower fascia edge. The cleat must be secured to the building no less than 12" OC.
4. Alternatively, roof edges may be flashed with a 2-piece snap-on fascia system, adhering the roof membrane to a metal cant and face nailing the membrane 8" OC center prior to installing a snap-on fascia.
5. Flash roof edge scuppers with a coated metal insert that is mechanically attached to the roof edge and integrated as a part of the metal edging.

K. Parapet and Building Walls:

1. Flash walls with EverGuard® PVC membrane adhered to the substrate with bonding adhesive, loose applied (Less than 18" in height) or with coated metal flashing nailed 4" OC to pressure treated wood nailers.
2. Secure membrane flashing at the top edge with a termination bar. Water Block shall be applied between the wall surface and membrane flashing underneath all exposed termination bars. Exposed termination bars shall be mechanically fastened 8" OC; termination bars that are counter flashed shall be fastened 12" OC.
3. Roof membrane must be mechanically attached along the base of walls with screws and plates (deck securement) or screws and inverted termination bar (wall securement) at the following rate: 12" OC.
4. All coated metal wall flashings and loose applied membrane flashings must be provided with separate metal counterflashings, or metal copings.
5. Metal counterflashings may be optional with fully adhered flashings depending on guarantee requirements. Exposed termination bars must be sealed with EverGuard® caulking.
6. Flash wall scuppers with a coated metal insert that is mechanically attached to the wall and integrated as part of the wall flashing.

L. Curbs and Ducts:

1. Flash curbs and ducts with EverGuard® PVC membrane adhered to the curb substrate with bonding adhesive, loose applied (Less than 18" in height) or with coated metal flashing nailed 4" on center to pressure-treated wood nailers.
2. Secure membrane flashing at the top edge with a termination bar. Water Block shall be applied between the curb/duct surface and membrane flashing underneath all termination bars. Exposed termination bars shall be mechanically fastened every 8" OC; termination bars that are counter flashed shall be fastened 12" OC.
3. Roof membrane must be mechanically attached along the base of walls with screws and plates (deck securement) or screws and inverted termination bar (wall securement) at the following rate: 12" OC.
4. All coated metal curb flashings and loose applied membrane flashings must be provided with separate metal counterflashings, or metal copings.
5. Metal counterflashings may be optional with fully adhered flashings depending on guarantee requirements. Exposed termination bars must be sealed with EverGuard® caulking.

M. Roof Drains:

1. Roof drains must be fitted with new compression type clamping rings and hardware. Existing bowls and strainer baskets are to be re-used.
2. Roof drains must be provided with a minimum 36" X 36" sump. Slope of tapered insulation within the sump shall not exceed 4" in 12".
3. Extend the roofing membrane over the drain opening. Locate the drain and cut a hole in the roofing membrane directly over the drain opening. Provide a 1/2" of membrane flap extending past the drain flange into the drain opening. Punch holes through the roofing membrane at drain bolt locations.
4. For cast iron and aluminum drains, the roofing membrane must be set in a full bed of water block on the drain flange prior to securement with the compression clamping ring. Typical water block application is one (1) 10.5 OZ cartridge per drain.
5. Lap seams shall not be located within the sump area. Where lap seams will be located within the sump area, a separate roof membrane drain flashing a minimum of 12" larger than the sump area must be installed. The roof membrane shall be mechanically attached 12" OC around the drain with screws and plates. The separate roof drain flashing shall be heat welded to the roof membrane beyond the screws and plates, extended over the drain flange, and secured as above.
6. Tighten the drain compression ring in place.

3.7 TRAFFIC PROTECTION

- A. Install walkway pads/rolls at all roof access locations and other designated locations including roof-mounted equipment work locations and areas of repeated rooftop traffic.
- B. Walkway pads must be spaced 2" apart to allow for drainage between the pads.
- C. Walkway pads/rolls shall be hot-air-welded to the roof membrane surface continuously around the perimeter of the pad/roll.

3.8 ROOF PROTECTION

- A. Protect all partially and fully completed roofing work from other trades until completion.
- B. Whenever possible, stage materials in such a manner that foot traffic is minimized over completed roof areas.
- C. When it is not possible to stage materials away from locations where partial or complete installation has taken place, temporary walkways and platforms shall be installed in order to protect all completed roof areas from traffic and point loading during the application process.
- D. Temporary tie-ins shall be installed at the end of each workday and removed prior to commencement of work the following day.

3.9 FIELD QUALITY CONTROL

- A. Check the quality of plate welds with a heavy-duty plunger. Set the plunger beside the plate and pull up to see if the weld holds the plate. Cut a small slit in the plunger head to remove the vacuum pressure.

3.10 CLEANUP

- A. All work areas are to be kept clean, clear and free of debris at all times.

- B. Do not allow trash, waste, or debris to collect on the roof. These items shall be removed from the roof on a daily basis.
- C. All tools and unused materials must be collected at the end of each workday and stored properly off of the finished roof surface and protected from exposure to the elements.
- D. Dispose of or recycle all trash and excess material in a manner conforming to current EPA regulations and local laws.
- E. Properly clean the finished roof surface after completion, and make sure the drains and gutters are not clogged.
- F. Clean and restore all damaged surfaces to their original condition.

END OF SECTION 07540

SECTION 07620 – FLASHING AND SHEET METAL

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, Including Contractual Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies requirements for the following scope of work:
 - 1. Install new perimeter sheet metal flashings, copings and related components at locations shown on the Contract Drawings and as required to properly terminate the roof membrane system.
 - 2. Perform minor repairs to metal roofing.

1.3 SUBMITTALS

- A. Submit color sample charts for coated metal color selection.
- B. Submit 3 samples, 6" X 6", of each type and thickness of sheet metal to be used in the construction.
- C. Submit shop drawings including dimensions, of each sheet metal detail.
- D. Submit manufacturer's literature for each accessory item in Part 2 of this Section.

PART 2 – PRODUCTS

2.1 SHEET METAL AND PREFORMED FLASHINGS

- A. Stainless Steel: Shall conform to ASTM A167 Type 304, 2D finish, 24 gauge thickness.
- B. 24 Gauge steel with .040" thick PVC film coating as supplied by membrane roofing manufacturer.

2.2 ACCESSORIES

- A. Accessories, including but not limited to nails, screws and clip strips, shall be stainless steel and completely compatible with surrounding metal so as to prevent galvanic corrosion.
- B. Flux shall conform to ASTM B32 Specifications.
- C. Solder shall be 50% block tin and 50% pig lead manufactured for use with stainless steel.
- D. Flux cleaner shall be washing soda solution –5% to 10%.
- E. Sheet metal to wood blocking connections shall be completed with 12d annual ring shank stainless steel nails, minimum 1-1/2" long.
- F. Sheet metal and wood blocking to concrete connections shall be completed with 1/4" diameter, "Tapcon" stainless steel concrete/masonry screws of sufficient length to penetrate the substrate 1-1/4" minimum.

- G. Exposed fasteners for re-securing existing mechanical unit covers and for securing sheet metal to sheet metal shall be Number 10, stainless steel sheet metal screws, 1" long. Fasteners shall be equipped with metal backed neoprene washers.
- H. Sealants for sheet metal flashings shall be as specified in Section 07920.
- I. Draw bands shall be worm gear clamps, stainless steel, 1/2" wide, with adjustable screw.
- J. Provide 1" butyl sealant tape as recommended by the roof membrane manufacturer.

2.3 FABRICATION SCHEDULE

- A. Sheet Metal Edge Detail or Other Flashing Exposed to Public View – Shall be 24 gauge Steel with .040" Factory PVC film coating as supplied by membrane roofing manufacture or Stainless Steel and shall conform to ASTM A167 Type 304, 2D finish, 24 gauge thickness as indicated on the Contract Drawings.
- B. Sheet Metal Skirt Flashing, Non-Exposed to Public View – 24 gauge stainless steel.
- C. Transition Flashing on Roof Mounted Curbs – 24 gauge stainless steel.

PART 3 – EXECUTION

3.1 GENERAL

- A. Fabrication of sheet metal items shall conform to "Architectural Sheet Metal Manual" by SMACNA (latest edition).
- B. Edge metal and termination flashing shall be pre-fabricated in 1-piece sections with minimum lengths of 2' in each dimension from the corner whenever possible.
- C. Whenever 1-piece construction is not possible, solderable metals shall utilize interlocked, crimped, and fully soldered seams and joints.
- D. Seams and joints of non-solderable metals shall be interlocked and completely filled with sealant or epoxy seam sealer.
- E. Provide sheet metal closure components at transitions to rising walls and similar changes in plane for edge metal and other termination flashings. Closures shall be fully crimped and sealed to continuous blind nailed cleats.
- G. Comply with Military Specification MIL-S-6872B entitled, "General Specifications for Soldering Process" when forming soldered joints. Use conduction soldering methods. Areas to be joined shall be cleaned of oil, grease, pencil marks, paint, dirt or other foreign substances. Remove burrs using files, grinding stones or other methods. Hold parts in place using clamps, jigs and supports or by self-fixturing. If parts are tack-soldered to hold them in place, the area of tack-soldering shall be reworked into the final soldering. Parts cannot be allowed to move during the soldering process.
- H. Flux shall be applied to surfaces that are to receive solder. Flux-cored solder shall not be used. Flux shall be fluid when heated and effective in removing and excluding oxides and other impurities from the joint. Flux should be readily displaced by the molten solder.
- I. Areas to be joined shall be heated above the liquous temperature of the solder. To deliver maximum heat, the copper bit of the soldering iron shall be applied at the right angle so that the flat side of the iron's bit provides maximum contact area. Solder shall be applied to the joint and not the bit of the iron. Allow solder to flow in place to provide a minimum 1-inch final width of solder over the joint. Joint shall not be disturbed until it has been allowed to completely cool. After soldering, completely remove flux and acid by washing and scrubbing with a neutralizing agent.

- J. Sheet metal flashings shall be shop fabricated prior to delivery to site. Breaks, bends and hems shall be uniform, clean, straight lines.

3.2 HOOK STRIPS/CLEATS

- A. Hook strips shall be formed with a 3” face and a 3/4” kick, bent out at a 30° angle to the face (or wall).
- B. Secure continuous hook strips to substrate with the specified fasteners spaced at 6” on center (OC).
- C. Provide 1/4” joints between hook strip/cleat sections.

3.3 SHEET METAL TRANSITION CLOSURES

- A. Provide 1-piece transition with a minimum of 4” vertically up the wall and 6” horizontally along the termination flashing (edge, parapet coping, etc.) at sheet metal to vertical wall transitions. Form a hemmed 45E, 3/4” sealant pocket to receive sealant.
- B. Secure horizontal segment of flashing transition as specified and detailed. Secure vertical segment to previously installed continuous cleat by crimping open hem to cleat. Provide a bead of sealant along the sheet metal to wall interface.
- C. Provide sheet metal enclosure transition flashing at rooftop equipment curbs as indicated on the Drawings.

3.4 EDGE METAL

- A. Secure continuous hook strips with the appropriate fasteners as previously specified.
- B. Fabricate new edge metal and backer plates to the dimensions indicated in the detail drawings.

3.5 COUNTERFLASHINGS

- A. Fabricate new counterflashing to the dimensions and shapes shown on the detail drawings and as specified herein.
- B. Secure counterflashing to the substrate fasteners spaced at 8” on center and a minimum of 3 fasteners per length of counterflashing. Install full bead of specified sealant above exterior edge of counterflashing. Minimum length of counterflashing shall be 24” unless restricted by distance.

3.6 SKIRT FLASHING

- A. Fabricate flashings to the configurations shown on the detail drawings fastened 12” OC.

3.7 SEALANT BUTYL TAPE

- A. Provide 1” sealant butyl tape approved by the roof membrane manufacturer at locations in which exposed sheet metal fasteners penetrate the roofing membrane. Sealant butyl tape shall be placed between the sheet metal flashing and the roof membrane along the sheet metal fastener penetrations.

END OF SECTION 07620

SECTION 07920 – SEALANTS

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Provide labor, materials, equipment, incidentals, etc., as required to apply new elastomeric sealants and backer rods; prepare substrates; apply new primer (if required), backer rod, bond breaker tape as indicated in this Specification and as required by job conditions to provide complete watertight integrity of all sheet metal components associated with roofing renovation. Work of this Section includes, but is not limited to, the following:
 - a. Providing required submittals.
 - b. Testing of joint substrates for new sealant adhesion and need for primer.
 - c. Cleaning and priming of all sealant substrates for new sealant installation as required and recommended by the sealant manufacturer.
 - d. Appropriate sizing and placement of new backer rod and bond breaker tape (where required) in all locations where new sealants are to be installed.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM D2240 - 05(2010): Standard Test Method for Rubber Property - Durometer Hardness.
2. ASTM D412 - 06a(2013): Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension.
3. ASTM D903 - 98(2010): Standard Test Method for Peel or Stripping Strength of Adhesive Bonds.
4. ASTM D2203 - 01(2011): Standard Test Method for Staining from Sealants.
5. ASTM E1399 / E1399M - 97(2013)e1): Standard Test Method for Cyclic Movement and Measuring the Minimum and Maximum Joint Widths of Architectural Joint Systems.
6. ASTM C603 - 04(2008): Standard Test Method for Extrusion Rate and Application Life of Elastomeric Sealants.
7. ASTM C510 - 05a(2011): Standard Test Method for Staining and Color Change of Single- or Multicomponent Joint Sealants.

B. Federal Specifications:

1. TT-S-00230C: for 1-component building sealants.
2. TT-S-00227E: for multi-component building sealants.

C. Flat Glass Marketing Association (FGMA):

1. FGMA “Glazing Manual” (latest edition).
2. FGMA “Sealant Manual” (latest edition).

D. Architectural Aluminum Manufacturers Association (AAMA):

1. AAMA 2200-01 - Voluntary Specifications and Test Methods for Sealants.

1.3 SYSTEM DESCRIPTION

A. Design Requirements:

1. Provide watertight joints, construction transitions and penetrations in all new sheet metal work associated with roofing renovation. All sealant work shall be performed in strict accordance with sealant manufacturer's published surface preparation and application recommendations.

1.4 SUBMITTALS

A. Product Data:

1. Product manufacturer's specifications, recommendations and installation instructions for sealant, backing and associated materials.
2. Manufacturer's published data and letter of certification stating each material complies with requirements and is acceptable for intended application.
3. Complete instructions for handling, storage and protection of each product.

B. Samples:

1. Submit samples, in triplicate, of cured sealant color samples and of manufacturer's published data.
2. Submit samples, in triplicate, of each type of joint backup 6" long, of each size required.

C. Certification:

1. Submit published recommendations by the manufacturer to support the selection of, and compatibility of, the various related materials with respect to the type of joint for which each material is intended.

D. Shop Drawings:

1. Submit manufacturer's descriptive literature indicating materials and installation instructions.
2. If required by the Owner's Representative, provide supplementary shop details of joints, joint sizes and joint sealant methods as necessary for typical and special conditions encountered on this project.

E. Sealant Adhesion and Staining Tests:

1. Submit sealant manufacturer's job mockup reports for exterior sealant adhesion to all relevant substrates and stain test results. Test reports must show that exterior sealant has excellent adhesion to substrates and that neither sealant nor primer will cause staining when applied in the appropriate sequence.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Arrange for manufacturer's technical representative to be onsite to advise installer of proper procedures and precautions for the use of the materials. The sealant manufacturer shall be required to conduct the necessary site inspections throughout the course of construction as required to provide the specified warranty. Each such site visit shall include a written report on the manufacturer's letterhead specifically addressing acceptance of substrates, surface preparation, priming, sealant profile and sealant adhesion. Provide copies of field reports to the Owner's Representative within 1 week from time of site visit.
2. Perform and record field adhesion "pull tests" throughout the course of renovation construction. Provide copies of same throughout construction with manufacturer's written approval to the Owner's Representative.

B. Contractor Qualifications:

1. Work performed under this Section shall be by a single installer regularly engaged in sealant installation and waterproofing with minimum 5 years successful, demonstrated experience in installation of similar sealant application and restoration for commercial and industrial projects.
2. Installer shall be approved by the manufacturer, in writing, for installation of their products as well as the specified warranty.

C. General Performance:

1. Joint sealants are required to establish and maintain waterproof continuous seals on a permanent basis, within recognized limitations of wear and aging as indicated for each application. Failure of installed sealers to comply with this requirement will be recognized as failure of materials and workmanship.

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

A. General:

1. Provide primary materials from the products of one manufacturer.
2. Provide secondary materials as required or recommended by primary materials manufacturer.
3. Deliver materials to jobsite with packages intact with labels identifying manufacturer, product name and lot numbers, when appropriate, and expiration dates.
4. Store materials in accordance with manufacturer's recommendations, copies of which will be furnished to the Owner's Representative.

1.7 SITE CONDITIONS

- A. Comply with manufacturer's recommended minimum and maximum installation temperatures.
- B. Do not proceed with installation of new sealants during unfavorable weather conditions.
- C. Keep building work areas watertight during all phases of renovation, especially when weather is unfavorable or threatening, in order that interior finishes are not damaged. If any existing building components are damaged or altered due to contractor action, they shall be repaired or replaced with like materials and workmanship to the satisfaction of the Owner.

1.8 SEQUENCING AND SCHEDULING

- A. Coordinate each portion of this work with related Sections of this Specification and the Architect.

- B. Coordinate with manufacturer's requirements for correct sizing, selection and installation of building sealants with respect to joint movements and construction material temperatures for this project.
- C. Contractor shall conduct sealant renovation operations in such a manner so as not to interfere with, or disturb the building occupants, and so as to provide minimum disturbance to normal facility activities.
- D. Access to the job site shall be as directed by the Architect.
- E. Placement of materials, scaffolding and other equipment must be coordinated and approved by the Architect prior to the commencement of any work, and also during the various phases of construction.

1.9 WARRANTY

- A. **Manufacturer Warranty:** Provide a written warranty from the manufacturer against defective materials for the maximum period offered by the manufacturer completion and final acceptance of the Work. Material related defects shall be corrected at no expense to the Owner during the warranty period.
- B. **Contractor Warranty:** Provide a written warranty against leaks agreeing to repair failures in material and workmanship for a minimum period of 3 years after completion and final acceptance of the Work. Defects shall be corrected at no expense to the Owner during the warranty period.
- C. All warranties shall be transferable upon exchange of property ownership.
- D. Failures of installed sealants include the following:
 - 1. Adhesive or cohesive failure of sealant.
 - 2. Surface crazing greater than 3 MILS in depth.
 - 3. Staining of adjacent surfaces from sealers.
 - 4. Caulking or color change on surface.
 - 5. Change in "Shore A" Durometer hardness (5 second reading) of sealant of more than 15% of 7 day value.
 - 6. Displacement of joint fillers.

PART 2 – PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Materials manufactured by the following manufacturers are acceptable provided it complies with the contract documents.
 - 1. Polyurethane Sealant:
 - a. BASF Sonolastic NP 1(Basis of Design)
- B. Comparable materials by other manufacturers may be considered when requested in writing prior to bidding. No substitute will be considered approved unless confirmed in writing by the Owner's Representative.

2.2 MATERIALS

- A. Polyurethane Sealant:

1. Type: Building sealant shall be one component polyurethane rubber formulation capable of obtaining strong, durable bond strength to building substrates.
2. Use: For sealing new sheet metal components associated with roofing renovation at subject project.
3. Color: Owner's choice from manufacturer's standard color line.
4. Physical Properties:

<u>Property</u>	<u>Initial Requirement</u>	<u>Test Method</u>
Hardness, Shore A	25-30	ASTM C 661
Tensile Strength	350 PSI	ASTM D 412
Movement Capability	+/-35%	ASTM C 719

5. Approvals: Must meet adhesion and stain testing requirements, as well as compatibility to applied surfaces.
6. Acceptable Products:
 - a. BASF Sonolastic NP 1 (Basis of Design)

B. Primer:

1. As recommended or required by sealant manufacturer for substrates specified.

C. Backer Rod:

1. Type: Closed cell polyethylene (non-gassing) or as otherwise recommended or required by the sealant manufacturer for specified substrates.
2. Installation: Sized and shaped to control depth of sealant and to provide 20% to 50% compression upon insertion.

D. Bond Breaker Tape:

1. Type: Pressure sensitive adhesive polyethylene tape as recommended by sealant manufacturer.
2. Use: At all locations where sufficient joint cavities do not exist for proper installation of backer rod.
3. Thickness: 0.006" (6 MIL).
4. Width: As required for application (typically 1/4" minimum).
5. Elongation: 400%.
6. Acceptable Product: "#40 Bond Breaker Tape" as manufactured by VALLEY INDUSTRIAL PRODUCTS, Halesite, New York, (516) 385-9300.

E. Miscellaneous Materials:

1. Joint Cleaner: Clear, clean solvent-type cleaners, as recommends or required by the sealant manufacturer. Cleaning solvents may include denatured alcohol, xylene, toluene or MEK.
2. Shop Cloths: Use shop cloths or clean, lint-free rags for joint cleaning operations.

3. Masking Tape: Pressure sensitive adhesive paper tape.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Examine all surfaces to ensure they have been properly prepared and report all conditions not acceptable to Architect.
- B. Examine joints and surfaces to receive sealant for defects which would adversely affect execution of work and report such defects to Architect.
- C. Do not start work until conditions are satisfactory.
- D. Adhesion and stain tests will be conducted by sealant manufacturer's representative(s) prior to commencement of work to verify the sealant will perform satisfactorily.

3.2 PREPARATION

- A. Access to the jobsite shall be as directed by the Owner.
- B. Contractor shall protect all building and ground level surfaces from falling debris, splatter, etc., due to the work being conducted. Protection of automobiles shall also be included in project scope. Trash shall not be stockpiled at the jobsite and shall be promptly removed from the project.
- C. Air compressors may be used at this project but strict attention must be given to the mufflers, noise baffles, placement of equipment and operating hours. These conditions must be coordinated and approved by the Owner or his representative prior to commencement of any work. Air compressors shall not spew contaminants or any oil from the compressor, which are mixed in with expelled air.
- D. Existing Sealants:
 1. Cut out and remove all existing sealants.
 2. Remove and discard existing backer rods, bond breaker tapes, etc., at all sealant renovation areas.
 3. The Contractor shall coordinate demolition and reconstruction efforts so that, in regard to ongoing renovation, only as much sealant is removed each day as exposed joint shoulders may be properly cleaned and prepared to receive specified sealant by the end of the same working period.
 4. Do not stockpile debris at the Project Site. Promptly remove all such materials from the Jobsite.
- E. Joint Surfaces:
 1. Thoroughly clean joint surfaces which are to receive new sealant, removing all foreign matter, dust, oil, grease, water, surface dirt, old sealant and existing paint or primer. Examine all surfaces to ensure they have been properly prepared and report all conditions not acceptable to Owner's Representative.
 2. Clean joint shoulders where necessary by disk sanding or mechanical abrading as required to provide a clean, sound base surface for sealant adhesion. Each surface should be thoroughly cleaned to adequately remove all traces of original sealant application.
 3. Remove all loose particles, residual dust or other foreign substances by blowing out joints with oil free compressed air prior to application of primer and/or sealant.

4. All metallic surfaces must be cleaned using a solvent that leaves no residue, such as denatured alcohol, toluene or xylene. Use clean, lint-free white cloths for cleaning with solvent and drying. Do not allow solvent to air dry without wiping.
5. Mask areas adjacent to joints as required to protect adjacent surfaces. Clean areas protected with masking tape with solvent after removal of tape and do not allow solvent to air dry without wiping.

F. Primer:

1. Prime surface, where required, with primer as recommended by sealant manufacturer.
2. Apply primer with a clean, dry, lint-free cloth. Do not dilute materials. Flooding of the substrate surface with primer shall be avoided. Confine primer to areas of sealant bond only, using masking tape if necessary.

G. Backer Rod:

1. Sealant backer rod shall be of minimum diameter 25% greater than the joint width. Backer rod shall be installed with a blunt instrument and any punctured rod shall be removed and replaced with a new backer rod. Do not twist rod while installing.
2. Backer rod shall be used to control depth of sealant which shall be not less than 1/4" nor greater than 1/2", measured to the extreme exterior face of the backer rod.
3. Backer rod shall be installed so that sealant depth is half the joint width, unless unusual field conditions are encountered.
4. Do not leave gaps between ends of backer rods.
5. Where backer rods must be interrupted or terminate for any reason, use bond breaker tape.

3.3 APPLICATION

A. General:

1. Comply with sealant manufacturer's requirements for correct sizing, selection and installation of their respective products with respect to joint movements and construction material temperatures for this project.
2. Under no conditions are new sealant applications to be made onto defective or non-conforming substrates.

B. Joint Sealant Installation:

1. Methods:

- a. Apply sealants using cartridge-type caulking guns, bulk-loading guns or air pressure equipment following the manufacturer's written instructions.
- b. Apply sealants in a continuous operation in such a manner as to eliminate air voids throughout the entire joint cross-section.
- c. Sealant shall not be used beyond the recommended shelf life.

2. Finishing:

- a. Tool or strike the sealant joint using a light pressure to spread sealant material against backup material as well as the joint surface.
- b. Complete tooling within ten minutes of sealant application and before skin forms. Do not use soaps, oils and/or alcohols as tooling aids.
- c. If masking materials are used, remove immediately after tooling the sealant.

3.4 FIELD QUALITY CONTROL

A. General:

1. Contractor shall maintain or exceed levels of workmanship and material acceptability in regard to surface preparation, cleaning and sealant application as established by the field mockup.
2. Contractor shall employ trained, skilled and experienced craftsmen for all phases of the work, throughout the duration of sealant renovation work.
3. Contractor shall make provision to assist and coordinate daily inspections of the work by the Owner's Representative.

B. Field Adhesion Tests of Sealants:

1. After work commences, sealant contractor shall periodically check sealants in place for adhesion, using methods recommended by sealant manufacturer. Promptly replace any sealant which fails to develop proper adhesion or which fails to cure.
2. Record all field test results and job conditions and submit to Architect and manufacturer. Records should state name of person administering test, climatic conditions, test procedures, date of test, exact test location and test results.

3.5 ADJUSTING AND CLEANING

- A. The surface of materials adjacent to the joints where sealant was applied shall be cleaned free of excess sealant or other soiling due to sealing operations. The surfaces shall be cleaned as work progresses.
- B. On non-porous surfaces, excess sealant should be scraped from the surface and the remainder should be cleaned with xylene or mineral spirits before the sealant cures.
- C. On porous surfaces, excess sealant should be allowed to cure and then be removed by abrasion or other mechanical means.
- D. Leave finished work in neat, clean condition with no evidence of spillovers onto adjacent surfaces. All exterior surfaces of glazing shall be thoroughly cleaned at project conclusion.

3.6 PROTECTION

A. Completed Work:

1. The sealed joint should not be disturbed for at least 48 hours.

B. Adjacent Surfaces:

1. Protect adjacent surfaces from damage. Soiled or ruined adjacent surfaces (including automobiles) shall be repaired to the satisfaction of the Owner at no additional expense.

END OF SECTION 07920

2. PROPOSAL RESPONSE – PRICE (Evaluation Criteria A – 50 pts)

RFP No. 21-13

Company Name: _____

The undersigned has carefully examined the proposal package and all conditions affecting the cost of the commodity/service required by the Hillsborough County Sheriff's Office.

The undersigned certifies that any exceptions to the proposal specifications are noted on the attached exceptions form. All specifications not noted thereon are as requested. The undersigned also understands that any exceptions presented after the award, may be cause for cancellation of award.

We hereby propose to furnish the commodity/services described herein in accordance with the proposal package, except as noted on attached exceptions form:

A. Price by Building

- | | | | |
|-------------------|----------|---------------------|----------|
| 1. Housing Unit 1 | \$ _____ | 10. Building 10 | \$ _____ |
| 2. Housing Unit 2 | \$ _____ | 11. Building 11 | \$ _____ |
| 3. Housing Unit 3 | \$ _____ | 12. Building 12 | \$ _____ |
| 4. Housing Unit 4 | \$ _____ | 13. Building 13 | \$ _____ |
| 5. Housing Unit 5 | \$ _____ | 14. Building 14 | \$ _____ |
| 6. Housing Unit 6 | \$ _____ | 15. North Connector | \$ _____ |
| 7. Building 7 | \$ _____ | 16. South Connector | \$ _____ |
| 8. Building 8 | \$ _____ | 17. West Connector | \$ _____ |
| 9. Building 9 | \$ _____ | | |

BASE BID TOTAL (SUM OF ABOVE BUILDING PRICES) \$ _____

B. Allowances and Unit Prices: Include in the Base Bid the Contingency Allowance and Quantity Allowances as specified in Section 01210. Unit prices quoted and accepted shall apply throughout the duration of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the scope of the work all in accordance with the Contract Documents.

1. Remove and replace damaged or deteriorated wood blocking, nailers, etc.
Allowance included within the Base Bid Amount shall be 5,000 board feet.
\$ _____ per Board Foot
2. Remove and replace damaged or deteriorated existing tapered rigid roof insulation board with new tapered polysiocyanurate insulation. Allowance included within the Base Bid Amount shall be 2,500 SF.
\$ _____ per Square Foot
3. Provide new roof drain strainers where deteriorated or damaged. Allowance included within the Base Bid Amount shall be 25 roof drain screens.
\$ _____ each

C. Alternate No.1 – Add to the Base Bid the costs to upgrade to 80 MIL \$ _____

D. Alternate No.2 – Unit of Measure - Pricing Option

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| 1. Price per square foot for PVC recovery system – approximately 364,000 SF
(Actual square footage per area to be confirmed by Architect) | a. 60 mil \$ _____/SF |
| | b. 80 mil \$ _____/SF |
| 2. Price per square foot for remove and replace – approximately 520 SF | a. 60 mil \$ _____/SF |
| | b. 80 mil \$ _____/SF |
| 3. Price per board foot for replacement of damaged wood blocking, nailers etc. | \$ _____ BF |
| 4. Price per square foot for replacement of damaged existing roof insulation
board with new tapered polysiocyanurate insulation. | \$ _____ SF |
| 5. Price each to replace roof drain strainers | \$ _____ EA |

E. Manufacture & Primary Roofing Product Name:

(One Manufacturer Only)

F. Document Checklist – May not be inclusive of all mandatory documents

- Entire RFP. One original and three copies (Signatures required Parts A and D).
- Any Addendums or Amendments (Signatures as required)
- Completed Part D including references, project approach & planning, subcontractor list, product descriptions/literature, resumes, financials, signature page.
- Certificates of Insurance, W9 and Business Tax Receipt
- Professional Licenses
- Manufacturer product and warranty literature/ MSDS/Submissions as required
- Manufacturer authorized installer or proof of manufacturer training

COMPANY NAME: _____

PHYSICAL ADDRESS: _____

REMIT TO ADDRESS IF DIFFERENT THAN ABOVE:

COMPANY PHONE: _____ FAX NO. _____

TAX ID NO. _____ Corporation _____ Sole Proprietor _____ Other 1099 _____

PROJECT MANAGER _____ EMAIL _____

PROJECT MANAGER CELL PHONE: _____

ACCOUNTING CONTACT: _____ EMAIL _____

OUR COMPANY HAS BEEN IN BUSINESS UNDER ITS PRESENT NAME SINCE: _____

At this present time we understand all requirements and state that as a serious Proposer we will comply with all the stipulations included in the RFP package.

The above named Proposer affirms and declares:

1. That the Proposer is of lawful age and that no other person, firm or corporation has any interest in this proposal or in the contract proposed to be entered into;
2. That this proposal is made without any understanding, agreement, or connection with any other person, firm or corporation making a proposal for the same purpose, and is in all respects fair and without collusion or fraud;
3. That the Proposer is not in arrears to Hillsborough County or the Sheriff upon debt or contract and is not a defaulter, as surety or otherwise, upon any obligation to the Sheriff;
4. That no officer or employee or person whose salary is payable in whole or in part from the County Treasury is interested or shall become interested, directly or indirectly, surety or otherwise in this proposal, in the performance of the contract, in the supplies, materials, equipment, and work or labor to which they relate, or in any portion of the profits thereof.

The undersigned agrees that this proposal shall remain open for an evaluation period of forty-five (45) calendar days following the opening of proposals.

Respectfully submitted,

PLEASE PRINT-

By _____

Title _____

Date _____

Signature _____

B. SUBCONTRACTORS LIST, TO INCLUDE ALL SUPPLIERS OF MATERIALS
(Attach additional pages as required)

RFP 21-13

1.	Firm name	_____
	Mailing Address	_____
	Phone	_____
	Contact	_____
2.	Firm name	_____
	Mailing Address	_____
	Phone	_____
	Contact	_____
3.	Firm name	_____
	Mailing Address	_____
	Phone	_____
	Contact	_____
4.	Firm name	_____
	Mailing Address	_____
	Phone	_____
	Contact	_____
5.	Firm name	_____
	Mailing Address	_____
	Phone	_____
	Contact	_____
6.	Firm name	_____
	Mailing Address	_____
	Phone	_____
	Contact	_____

4. **REFERENCES** (Evaluation Criteria C – 10 points) Use this form to provide a list of a minimum of three references of past performance on projects of a similar size and scope of work.

1. Business Name _____
Project Name or Description _____
Contact Person & Title _____
Telephone _____
Email Address _____

2. Business Name _____
Project Name or Description _____
Contact Person & Title _____
Telephone _____
Email Address _____

3. Business Name _____
Project Name or Description _____
Contact Person & Title _____
Telephone _____
Email Address _____

4. Business Name _____
Project Name or Description _____
Contact Person & Title _____
Telephone _____
Email Address _____

5. Business Name _____
Project Name or Description _____
Contact Person & Title _____
Telephone _____
Email Address _____

Request for Taxpayer Identification Number and Certification

**Give Form to the
requester. Do not
send to the IRS.**

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

Part I Taxpayer Identification Number (TIN)

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

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

Social security number								
Employer identification number								

Part II Certification

Under penalties of perjury, I certify that:

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

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

Sign Here	Signature of U.S. person ▶ _____	Date ▶ _____
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General Instructions

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

Purpose of Form

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

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

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

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

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

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

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

**REQUEST FOR PROPOSAL 21-13
Orient Road Jail Roofing Renovations
PROPOSAL EVALUATION**

Firm Name _____

<u>I. EVALUATION CRITERIA</u>	<u>MAXIMUM POINTS</u>	<u>SCORE</u>
A. Cost of goods & services	50	_____
B. Overall Approach & Plan for Completion of Project	30	_____
C. Experience of Key Personnel & Company Overview	10	_____
D. References of Past Performance	10	_____

TOTAL SCORE _____

II. RANK: Assign a Rank to this Proposer in the order you would select with 1 being your first choice: _____

III. GENERAL COMMENTS - Positive or Negative - in regard to criteria scoring:

- A. _____

- B. _____

- C. _____

- D. _____

- E. _____

III. Request to BUYER to CLARIFY the following points in the Proposal Response:

Evaluator's Signature: _____ Date: _____

Below is an example of the information required on your Proposal Package.
You may use this as a label if you wish. The outside label of your shipping package
MUST indicate a bid document is enclosed.



DAVID GEE, SHERIFF
2008 E. 8TH AVE
TAMPA FL 33605

ATTN: PURCHASING x 8034

PROPOSAL SUBMITTAL

BID/ PROPOSAL # RFP 21-13 ORJ Roofing Renovations

PROPOSAL SUBMITTED BY:

OPENING DATE/TIME: JANUARY 8, 2014 3:00 PM