



ADA COUNTY PROCUREMENT

200 West Front Street
Boise, Idaho 83702-7300

DATE: August 14, 2018
TO: All Plan Holders
FROM: Ada County Procurement
NO. OF PAGES: 38

Bid 18083 Expo Idaho Large Animal Barn Roof Replacement and Structural Repairs Project

BIDS DUE: August 20, 2018 by 4:00 p.m. local time
Ada County Procurement, 200 W. Front St., Rm. 2210, Boise, ID 83702

ADDENDUM NO. 2

NOTICE TO BIDDERS:

1. This addendum shall be considered part of the documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original documents, this addendum shall govern and take precedence.
2. Bidders are hereby notified that they shall make any necessary adjustment in their estimates on account of this addendum. It will be construed that each bid is submitted with full knowledge of all modifications and supplemental data specified herein.
3. **Bidders must acknowledge in their bids that all addenda have been received or the bid may be deemed non-responsive.**

Please See Attached:

- Questions received by the August 8, 2018 4:00 p.m. local time cut-off
- Clarifications:
 - Revised Instructions to Bidders - Paragraph 2, 12, and 15
 - Revised Bidder's Bid Form
 - Revised Exhibit A: Sample Construction Contract
 - Revised Technical Specifications: Section 075423 – Thermoplastic-Polyolefin (TPO) Roofing
 - Revised Drawings
 - Roof Level Plan Large Animal Barn – A131
 - Large Animal Barn Details – A132

- Sheet E 3.0 Roof Drain Heat Trace Detail - The heat tape should go around the perimeter of the roof drain – see attached detail
 - Substitution Requests – no roof substitutions for PVC material have been approved
- August 6, 2018 Mandatory Pre-Bid Meeting Sign-In Sheets

Questions received by the August 8, 2018 4:00 p.m. local time cut-off:

1. Please clarify the insulation assembly (i.e. Class A, different thicknesses of insulation, cover-boards, etc.).

[Answer: There is to be no insulation on this project.](#)

2. No insulation requirements are noted on the prints. Please provide insulation requirements for the storm pipe leaders.

[Answer: Rainwater Conductors: Provide 1/2" thick, mineral fiber insulation with PVC fitting covers and vapor retarder. Roof Drain Bodies: Provide 1" thick, mineral fiber insulation with foil and paper jacket and vapor retarder.](#)

3. Can alternates be used for the roof drain assemblies?

[Answer: Yes, if it provides the same function.](#)

4. Will there be any activities occurring at Expo Idaho during construction?

[Answer: No, it will only be used for storage.](#)

5. Is the large animal barn a heated building?

[Answer: No, it is an open-air building.](#)

6. Are there drains and/or overflows?

[Answer: Yes.](#)

7. The specifications state a combination unit of drains/overflows. Is that what Ada County would like?

[Answer: Yes. That is what exists as well.](#)

8. Are all the lights in the fascia being replaced? Is there anything happening with the fascia?

[Answer: Lights in the fascia and the fascia itself are existing to remain.](#)

9. Existing Down spout leaders are a mixture of galvanized round tube, ABS, and cast iron pipe. Most of the leaders are galvanized round tube that has exterior damage with rust holes. Prints state to reconnect to existing - cannot provide proper connection with warrantee on galvanized round tube. Please provide proper course of action. We suggest replacing all galvanized round tube piping with cast iron pipe. Other pipe materials will be able to reconnect and carry a proper warrantee.

[Answer: Provide Alternate to replace all Galvanized Round tube leaders with galvanized and reconnect to existing.](#)

10. How old is the existing roof?

[Answer: At least 20 years. Exact age is unknown. Existing roof is to be removed to existing plywood deck.](#)

11. What is the existing insulation on the roof?

[Answer: There is no existing insulation on the roof. All existing roofing material is to be removed to plywood deck.](#)

12. Regarding the walk pads around the rooftop, does that include the ceiling fans?
[Answer: Yes.](#)
13. There seems to be more power requirement than is available. Have the engineer clarify the breakers.
[Answer: Utilization of GFEP breakers in lieu of GF Pro Controller is approved. See item 22.](#)
14. Will the roof drains be on the parapet?
[Answer: No, to be installed on roof.](#)
15. Is the fascia or the soffit being replaced?
[Answer: No, only the coping.](#)
16. How many layers of material of the roof are to be removed?
[Answer: There are two layers and both are to be removed.](#)
17. What are the existing roof layers made out of?
[Answer: The original roof was built-up roofing with a mineral cap and overlaid with a single-ply membrane.](#)
18. Is there enough power available for the heat tape?
[Answer: Yes, when considering that the heat tape will only be utilized in the winter when the ventilation units are off – there will not be a demand issue.](#)
19. What is going to happen with the electrical and plumbing/piping regarding the trusses?
[Answer: The electrical and plumbing will need to be temporarily disconnected.](#)
20. Are the vents and rooftop mechanical equipment on curbs?
[Answer: All major equipment on roof is mounted on curbs.](#)
21. **Sheet E2.0R – Keynote #1** - We would like to delete the GF Pro Controller and provide the GFI breakers in the panel as indicated in Keynote #2. Controllers are not needed on self-regulating heat tape. Is this allowed?
[Answer: Utilization of GFEP breakers in lieu of GF Pro Controller is approved.](#)
22. **Sheet E2.0R - Keynote #3** - The parapet wall heights vary and there are locations where the can will have to be below the 18” requirement, per the detail notes on E3.0. Can we stub up the power for the heat tapes through the roof approximately four feet from the parapet wall - all the boxes will be stem mounted at 18” above the roof? Attaching conduit and boxes to the parapet walls will cause more holes for future leaks.
[Answer: Stubbing power up through the roof to 18” above roof in lieu of attaching to the parapet is approved.](#)
23. **Key Note #3** states new 3" overflow downspout to daylight as high as possible. Please provide a detail with desired location.
[Answer: Roof drain to be mounted on roof. Roof leader to penetrate roof and immediately elbow to drain away from building.](#)

24. Water and gas lines run primarily inside of joists throughout the East side of the building. This may prevent the installation of new joists to be replaced in unknown areas. We suggest plumbing removal and reinstallation to be performed and billed on a time and material basis, due to unknown joist replacements.

[Answer: All utilities, water, gas, electric, etc. need to be temporarily disconnected and reinstalled after new trusses are in place.](#)

25. Flush all roof drains with high pressure water jetting of galvanized round tube is ill advised, this will further damage rusted out piping. Please advise an action of cleaning of all rain leaders.

[Answer: Flush all roof drains with low pressure water and clean to confirm that there are no clogged drains.](#)

INSTRUCTIONS TO BIDDERS

BID 18083 EXPO IDAHO LARGE ANIMAL BARN ROOF REPLACEMENT AND STRUCTURAL REPAIRS PROJECT

Amendments:

2. **Bids.**

e. The forms must be completely filled out in ink or typewriting with signature in long hand, and the completed forms shall be without interlineations, alterations, or erasure. Forms shall contain no recapitulation of the work to be done. Bid amounts shall be written out and in figures. The Total Bid amount shall include an Owner's Contingency Allowance of One Hundred Ten Thousand and 00/100 Dollars (\$110,000.00) added to the Base Bid. Said Contingency Allowance is to be used as directed by the Architect for Owner's purposes, and only by Change Orders that indicate the amounts to be charged to the Contingency Allowance. Any and all unused amounts remaining from the Contingency Allowance upon completion of the Project shall be credited to the Owner by deductive Change Order. Bidders shall also include on Bidder's Bid Form, the total cost of roofing materials by square/ linear feet, together with the cost of 20 cast iron drain leaders. A per unit cost for the replacement of any additional drain leaders (including labor costs) must also be submitted. (The need for replacement of additional drain leaders will be determined during construction.) Please note that Bidders have the option to characterize their bids for materials as "Trade Secret" information, subject to the provisions of 2.j. herein. In case of a discrepancy between written statement and figures, the written statement shall govern.

12. **Basis of Recommendation.** Ada County Procurement will recommend the Construction Contract be awarded to the responsive Bidder submitting the lowest Total Base Bid Amount.

15. **Time of Starting and Completion.** The Owner estimates issuing a Notice to Proceed on or about **September 5, 2018.** The Owner is seeking to purchase the materials for the Project from FY18 funds. The successful Bidder is requested to place an order for materials needed to complete the Project, in the amount of its Materials Bid, as set forth in the Bidder's Bid Form. Such order should be placed and a Payment Request made by Contractor no later than September 20, 2018. A renewal of the Construction Contract will be required for payment of the remainder of the Contract Price from FY19 funds. Substantial Completion of the Work is required no later than **December 7, 2018.** Final Completion of the Work is required no later than **December 14, 2018.** The Bidder is referred to Article VI of the Construction Contract for definitions of Substantial Completion and Final Completion. Owner reserves the right to adjust these times as provided in the Construction Contract. The Contractor will have access to the Project site early mornings, nights and weekends, and subject to local noise ordinances, Owner is flexible as to when Project work is performed. The Contractor is responsible for coordinating its work schedule with Ada County Operations and the Director of Expo Idaho.

BIDDER'S BID FORM

BID 18083

PROJECT: Expo Idaho Large Animal Barn Roof Replacement and Structural Repairs Project

NAME OF BIDDER: _____

CONTACT NAME: _____

ADDRESS: _____

EMAIL: _____

PHONE NUMBER: _____

TO: Ada County Procurement, 200 West Front Street, Room 2210, Boise, Idaho 83702

1. **Scope of Work.** The undersigned, having familiarized itself with the local conditions affecting the cost of the Work, and with the Contract Documents, including the Invitation to Bid, Instructions to Bidders, Fixed Price Construction Contract Between Owner and Contractor (“Construction Contract”), Drawings and Specifications, and addenda, and exhibits issued and attached to the Specifications on file in the office of Ada County Procurement located at 200 West Front Street, Room 2210, Boise, Idaho 83702, does hereby propose to perform everything required to be performed, to provide and furnish all the labor, materials, necessary tools, expendable equipment, and all utility and transportation services necessary to perform, and to complete in a workmanlike manner all of the work required by the Contract Documents in connection with the construction of the Project, all in accordance with the Project Manual entitled “*Bid 18083 Expo Idaho Large Animal Barn Roof Replacement and Structural Repairs Project*” published on July 27, 2018, including addenda, if any, as follows:

Base Bid Amount:

\$ _____

(Figures)

_____ Dollars

(Written Amount)

Materials Bid Amount:

The amount (to be included in Base Bid Amount) that represents total cost of roofing materials, as itemized in Separate Unit Pricing below including 20 drain leaders:

\$ _____

(Figures)

_____ Dollars

(Written Amount)

Please state whether Bidder considers the Materials Bid Amount as stated above to be Trade Secret information:

yes ___ no ___

Owner's Contingency Allowance:

\$ 110,000.00 _____

(Figures)

One Hundred Ten Thousand and no/100 _____ Dollars

(Written Amount)

Total Base Bid Amount:

(Base Bid Amount & Owner's Contingency Allowance)

\$ _____

(Figures)

_____ Dollars

(Written Amount)

Separate Unit Pricing for Materials Bid:

(Note: Individual item pricing in this category will not be considered in the Bid decision process.)

Item No.	Description of Work	Unit	\$/Unit	Total
1.	Single ply roofing material \$/SF	SF		
2.	Tapered Insulation board (1/4" per foot) \$/SF	SF		
3.	Coverboard \$/SF	SF		
4.	Metal Parapet Coping \$/LF	LF		
5.	20 Cast Iron Drain Leaders	Per Drain Leader		

Cost of Replacing Any Additional Drain Leaders (including labor costs) per Drain Leader:

\$ _____ per drain leader
(Figures)

_____ Dollars per drain leader
(Written Amount)

2. **Addenda.** Contractor hereby expressly acknowledges receipt of the following addendum (addenda) to the Contract Documents:

- # 1 Dated _____
- # 2 Dated _____
- # 3 Dated _____

3. **Time of Completion.** The undersigned agrees to commence work on the Project in compliance with the Notice to Proceed and to complete the Project in accordance with the Contract Documents and Project Schedule.

4. **Right to Reject Bids.** In submitting this Bid, it is understood that the right is reserved by the Owner to reject any and all bids. It is agreed that this Bid may not be withdrawn for a period of thirty (30) days from the opening thereof.

5. **Compliance with Instructions to Bidders.** Bidder has read and understands the Instructions to Bidders and agrees to comply therewith.

6. **Subcontractors.** The undersigned proposes to use the specialty and other subcontractors listed in Exhibit A. Failure to list each subcontractor's name, address, value, and license number called for on this Bidder's Bid form will result in a non-responsive Bid.

7. **Bid Security.** Accompanying this Bid is a (Certified Check) (Cashier Check) (Cash) (Bid Bond) in the amount of _____ Dollars (\$_____) which is five percent (5%) of the **Total Bid Amount** (Base Bid Amount and Owner's Contingency Allowance) payable to Ada County. The bid security is in place for Ada County's protection. It is agreed the bid security will be forfeited to Ada County if the undersigned fails to execute the Fixed Price Construction Contract and other Contract Documents as set forth in the Project Manual, and furnish the required performance, and labor, and material payment bonds as specified in the Instructions to Bidders.

Attach documents evidencing authority to sign per section 7(a) or 7(b) of the Instructions to Bidders.

IF SOLE PROPRIETOR OR PARTNERSHIP

IN WITNESS WHEREOF the undersigned has set his (its) hand this _____ day of _____, 2018.

Name of Firm:

Address:

By:

(Signature)

(Email)

(Printed Name)

(Title)

IDAHO PUBLIC WORKS LICENSE NO. _____

Attach documents evidencing authority to sign per section 7(c) of the Instructions to Bidders.

IF CORPORATION

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed by its duly authorized officer this _____ day of _____, 2018.

Name of Corporation:

Address:

By:

(Signature)

(Email)

(Printed Name)

(Title)

ATTEST:

Secretary of Corporation (Signature)

Secretary of Corporation (Printed Name)

IDAHO PUBLIC WORKS LICENSE NO. _____

If not an authorized manager or member of LLC, attach a document evidencing authority to sign per section 7(d) of the Instructions to Bidders.

IF LLC

IN WITNESS WHEREOF the undersigned has set his (its) hand this _____ day of _____, 2018.

Name of Firm:

Address:

By:

(Signature)

(Email)

(Printed Name)

(Title)

IDAHO PUBLIC WORKS LICENSE NO. _____

EXHIBIT A

SUBCONTRACTORS

The Bidder certifies that the following subcontracting firms or businesses will be awarded subcontracts for portions of the Work in the event that the Bidder is awarded the Contract. Bidder represents that it will make substitutions only in compliance with Idaho Code § 67-2310(3). Bidder may enter “N/A” if the work of the particular subcontractor trade is not required or will be self-performed. Bidder must be appropriately licensed for any work self-performed.

Bidder may use additional sheets to provide this information, if required.

SUBCONTRACTORS

1. _____
Subcontractor: Plumbing _____

Address _____

Amount of Contract _____ Public Works License Number _____

2. _____
Subcontractor: Electrical _____

Address _____

Amount of Contract _____ Public Works License Number _____

3. _____
Subcontractor: HVAC _____

Address _____

Amount of Contract _____ Public Works License Number _____

4. _____
Subcontractor: Fire/Sprinkler _____

Address _____

Amount of Contract _____ Public Works License Number _____

5.

Subcontractor:

Address

Amount of Contract

Public Works License Number

Addendum #2

Amendments to:

**FIXED PRICE CONSTRUCTION CONTRACT
BETWEEN OWNER AND CONTRACTOR**

**NCLC DOCUMENT 10
1994 EDITION
(MODIFIED)**

THIS FIXED PRICE CONSTRUCTION CONTRACT BETWEEN OWNER AND CONTRACTOR (“Construction Contract”) is made and entered into by and between Ada County, a duly formed and existing county pursuant to the laws and Constitution of the State of Idaho, (“Owner”) and _____ (“Contractor”). This Construction Contract shall be effective on the date executed by the last party and shall end on September 30, 2018. Thereafter, this Construction Contract is subject to renewal, by written agreement between the Contractor and Owner, to commence on October 1, 2018, until Final Completion of the Work.

This Construction Contract is for the construction of a project identified as: Expo Idaho Large Animal Barn Roof Replacement and Structural Repairs Project (“Project”).

NOW, THEREFORE, in consideration of the mutual promises, covenants, and agreements stated herein, and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the parties agree:

**ARTICLE I.
DOCUMENTS INCORPORATED BY REFERENCE**

The Contract Documents include the Construction Contract, the plans and specifications for the Project identified thereon as such, plus the following (if any) to the extent these documents do not conflict with the Construction Contract (together the “Contract Documents”): _____

_____, all of which are hereby incorporated herein by reference and made a part hereof. Change Orders issued hereafter, and any other amendments executed by the Owner and the Contractor, shall become and be a part of the Contract Documents. Documents not included or expressly contemplated in this Article do not, and shall not, form any part of the Contract Documents.

**ARTICLE II.
REPRESENTATIONS AND WARRANTIES OF THE CONTRACTOR**

In order to induce the Owner to execute this Construction Contract and recognizing that the Owner is relying thereon, the Contractor, by executing this Construction Contract, makes the following express representations to the Owner:

A. The Contractor is fully qualified to act as the Contractor for the Project and has, and shall maintain, any and all licenses, permits, or other authorizations necessary to act as the Contractor for, and to construct, the Project;

B. The Contractor has become familiar with the Project site and the local conditions under which the Project is to be constructed and operated;

C. The Contractor represents it has received, reviewed, compared, studied, and carefully examined all of the Contract Documents and has found them in all respects to be complete, accurate, adequate, consistent, coordinated, and sufficient for construction. Such review, comparison, study, and examination shall be a warranty that the Contract Documents are complete and the Project is buildable as described except as reported. Reported errors, inconsistencies, or omissions shall constitute a claim pursuant to Article XIII hereof, if appropriate;

D. The Contractor warrants that the Contract Time is a reasonable period for performing the work.

E. The Contractor warrants that the individual executing this Construction Contract is duly authorized to execute and deliver this Construction Contract on behalf of Contractor in accordance with duly adopted organizational documents or contracts and, if appropriate, a resolution of the Contractor's business entity, and that this Construction Contract is binding upon said entity in accordance with its terms.

ARTICLE III. INTENT AND INTERPRETATION

A. The Contract Documents, as described herein, constitute the entire and exclusive agreements between the parties with reference to the Project, and said Contract Documents supersede any and all prior discussions, communications, representations, understandings, negotiations, or agreements;

B. Anything that may be required, implied, or inferred by the Contract Documents, shall be provided by the Contractor for the Contract Price;

C. Nothing contained in this Construction Contract shall create, nor be interpreted to create, privity or any other relationship whatsoever between the Owner and any person except the Contractor;

D. When a word, term, or phrase is used in the Contract Documents, it shall be interpreted or construed first, as defined herein; second, if not defined, according to its generally

accepted meaning in the construction industry; and third, if there is no generally accepted meaning in the construction industry, according to its common and customary usage;

E. The words “include,” “includes,” or “including,” as used in the Contract Documents, shall be deemed to be followed by the phrase “without limitation;”

F. The specification herein of any act, failure, refusal, omission, event, occurrence, or condition as constituting a material breach of the Contract Documents shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence, or condition shall be deemed not to constitute a material breach of the Contract Documents;

G. The Contractor shall have a continuing duty to read, examine, review, compare, and contrast each of the Contract Documents, shop drawings, and other submittals and shall give written notice to the Owner and the Architect of any conflict, ambiguity, error, or omission which the Contractor may find with respect to these documents before proceeding with the affected work. Reported errors, inconsistencies, or omissions shall constitute a claim pursuant to Article XIII hereof, if appropriate.

The express or implied approval by the Owner or the Architect of any shop drawings or other submittals shall not relieve the Contractor of the continuing duties imposed hereby, nor shall any such approval be evidence of the Contractor’s compliance with the Contract Documents. The Owner has requested the Architect to only prepare documents for the Project, including the plans and specifications for the Project, which are accurate, adequate, consistent, coordinated, and sufficient for construction. **HOWEVER, THE OWNER MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO THE CONTRACTOR CONCERNING SUCH DOCUMENTS.** The Contractor again hereby acknowledges and represents that it has received, reviewed, and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated, and sufficient for construction, and that the Contractor has not, does not, and will not rely upon any representations or warranties by the Owner concerning such documents, as no such representations or warranties have been or are hereby made;

H. In the event of any conflict, discrepancy, or inconsistency among any of the Contract Documents, the following shall control:

1. As between figures given on plans and scaled measurements, the figures shall govern;
2. As between large scale plans and small scale plans, the large scale plans shall govern;
3. As between plans and specifications, the requirements of the specifications shall govern;
4. As between the Instructions to Bidders and plans and specifications, the Instructions to Bidders shall govern;

5. As between the Construction Contract and other Contract Documents, the Construction Contract shall govern.

**ARTICLE IV.
OWNERSHIP OF THE CONTRACT DOCUMENTS**

The Contract Documents, and each of them, as well as any other documents furnished by the Owner, shall remain the property of the Owner. The Contractor shall have the right to keep one (1) copy of the Contract Documents upon completion of the Project; provided, however, that in no event shall the Contractor use, or permit to be used, any portion or all of such Contract Documents on other projects without the Owner's prior written authorization.

**ARTICLE V.
CONTRACTOR'S PERFORMANCE**

The Contractor shall perform all of the work required, implied, or reasonably inferable from the Contract Documents including, but not limited to, the following:

- A. Construction of the Project;
- B. The furnishing of any required surety bonds and insurance;
- C. The provision or furnishing, and prompt payment therefor, of labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, fuel, heat, light, cooling, or other utilities required for construction and all necessary building permits and other permits required for the construction of the Project;
- D. The creation and submission to the Owner of detailed and comprehensive as-built drawings depicting all as-built construction. Said as-built drawings shall be submitted to the Owner upon Final Completion of the Project, and receipt of same by the Owner shall be a condition precedent to final payment to the Contractor.

**ARTICLE VI.
TIME FOR CONTRACTOR'S PERFORMANCE**

- A. The Contractor shall order all or some portion of the materials and supplies necessary for the performance of the Work upon issuance of the Notice to Proceed, following the Architect and/or Owner's approval of the materials and supplies so ordered, and shall make a Payment Request, pursuant to Article VII, for said materials and supplies no later than September 20, 2018, in the amount of \$ ____, which represents the total cost of materials, as stated in Bidder's Bid Form, submitted to response to Bid 18083, with the exception that Owner and Contractor agree that the replacement of additional drain leaders may also be required, to be determined during construction of Project, with the cost of any such additional drain leaders to be determined by the per unit cost, as stated in Bidder's Bid Form. To the extent this Construction Contract is renewed pursuant to the terms of this

Construction Contract, the Contractor will diligently continue its performance to and until Final Completion of the Project. The Contractor shall accomplish Substantial Completion of the Project no later than December 7, 2018;

B. The Contractor shall pay the Owner the sum of two hundred fifty dollars (\$250.00) per day for each and every calendar day of unexcused delay in achieving Substantial Completion beyond the time allowed herein for Substantial Completion. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the Owner, estimated at the time of executing this Construction Contract. When the Owner reasonably believes that Substantial Completion will be inexcusably delayed, the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Substantial Completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages;

C. The term "Substantial Completion," as used herein, shall mean that point at which, as certified in writing by the Architect, the Owner has received a Certificate of Occupancy (if applicable), and the Project is at a level of completion in strict compliance with the Contract Documents such that the Owner or its designee can enjoy beneficial use or occupancy and can use or operate it in all respects for its intended purpose. Partial use or occupancy of the Project shall not result in the Project being deemed substantially complete, and such partial use or occupancy shall not be evidence of Substantial Completion;

D. Contractor shall achieve Final Completion no later than December 14, 2018;

E. Contractor shall pay the Owner the sum of two hundred fifty dollars (\$250.00) per day for each and every calendar day of unexcused delay in achieving Final Completion beyond the date set forth herein for Final Completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the Owner, estimated at or before the time of executing this Construction Contract. When the Owner reasonably believes that Final Completion will be inexcusably delayed, the Owner shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the Owner to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Final Completion, or any part thereof, for which the Owner has withheld payment, the Owner shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages;

F. All limitations of time set forth herein are material and are of the essence of the Contract Documents.

**ARTICLE VII.
FIXED PRICE AND CONTRACT PAYMENTS**

A. The Owner shall pay, and the Contractor shall accept, as full and complete payment for the Contractor's timely performance of its obligations hereunder the fixed price of Dollars (\$_____). Contractor and Owner acknowledge that the Project is being completed during two (2) fiscal years, and that, subject to the renewal provisions and the restrictions of Art VIII section 3 or the Idaho Constitution, payment by Owner for all or some portion of the materials and supplies ordered by Contractor for completion of the Project, in the amount of \$_____, will be made in the fiscal year ending September 30, 2018. To the extent this Construction Contract is renewed, pursuant to the terms contained herein, the balance of the Contract Price will be paid in the fiscal year commencing on October 1, 2018. Contract Price must be submitted as written Requests for Payment under Article XIII;

B. The Contract Price includes an Owner's Contingency Allowance of One Hundred Ten Thousand and 00/100 Dollars (\$110,000.00). Said Contingency Allowance is to be used as directed by the Architect for Owner's purposes, and only by Change Orders that indicate the amounts to be charged to the Contingency Allowance. Any and all unused amounts remaining from the Contingency Allowance upon completion of the Project shall be credited to the Owner by deductive Change Order.

C. Within seven (7) calendar days of the effective date hereof, the Contractor shall prepare and present to the Owner and the Architect the Contractor's Schedule of Values apportioning the Contract Price among the different elements of the Project for purposes of periodic and final payment. Said Schedule of Values must include the cost of Contractor's materials and supplies to be ordered for completion of the Project, as stated in Contractor's Bid in Bid 18083. The Contractor's Schedule of Values shall be presented in whatever format, with such detail, and backed up with whatever supporting information the Architect or the Owner requests. The Contractor shall not imbalance its Schedule of Values nor artificially inflate any element thereof. The violation of this provision by the Contractor shall constitute a material breach of the Contract Documents. The Contractor's Schedule of Values will be utilized for the Contractor's Payment Requests but shall only be so utilized after it has been acknowledged in writing by the Architect and the Owner;

D. The Owner shall pay the Contract Price to the Contractor in accordance with the procedures set forth in this paragraph, with the exception that a Payment Request for all or some portion of the materials and supplies ordered by Contractor for the performance of the Work , in the amount of \$_____ must be received no later than September 20, 2018.

Thereafter, on or before the 25th day of each month after commencement of performance, but no more frequently than once monthly, the Contractor may submit a Payment Request for the period ending the 25th day of the month. Said Payment Request shall be in such format and include whatever supporting information as may be required by the Architect, the Owner, or both. Therein, the Contractor may request payment for ninety-five percent (95%) of that part of the Contract Price allocated on the Schedule of Values to Contract requirements to the date of the Payment Request properly provided, labor, materials, and equipment properly incorporated in the Project, and materials or equipment necessary for the Project and properly stored at the Project site (or elsewhere if off-site storage is approved in writing by the Owner), less the total amount of previous payments received from the Owner. Any payment on account of stored materials or equipment will be subject to the Contractor providing written proof that the Owner has

SECTION 075423 - THERMOPLASTIC-POLYOLEFIN (TPO) ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Adhered thermoplastic polyolefin (TPO) roofing system.
2. Mechanically fastened, thermoplastic polyolefin (TPO) roofing system.
3. Loosely laid and ballasted, thermoplastic polyolefin (TPO) roofing system.
4. Substrate board.
5. Roof insulation.
6. Cover board.
7. Walkways.

1.2 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. For insulation and roof system component fasteners, include copy of FM Approvals' RoofNav listing.

B. the following:

1. Layout and thickness of insulation.
2. Base flashings and membrane termination details.
3. Flashing details at penetrations.
4. Tapered insulation layout, thickness, and slopes.
5. Roof plan showing orientation of steel roof deck and orientation of roof membrane, fastening spacings, and patterns for mechanically fastened roofing system.
6. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
7. Tie-in with adjoining air barrier.

C. Samples: For the following products:

1. Roof membrane and flashings, of color required.
2. Aggregate ballast in gradation and color required.
3. Walkway pads or rolls, of color required.

- D. Wind Uplift Resistance Submittal: For roofing system, indicating compliance with wind uplift performance requirements.

1.4 INFORMATIONAL SUBMITTALS

A. Manufacturer Certificates:

1. Performance Requirement Certificate: Signed by roof membrane manufacturer, certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 - a. Submit evidence of compliance with performance requirements.
2. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty.

B. Product Test Reports: For roof membrane and insulation, for tests performed by a qualified testing agency, indicating compliance with specified requirements.

C. Research reports.

D. Field Test Reports:

1. Concrete internal relative humidity test reports.
2. Fastener-pullout test results and manufacturer's revised requirements for fastener patterns.

E. Field quality-control reports.

F. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

B. Certified statement from existing roof membrane manufacturer stating that existing roof warranty has not been affected by Work performed under this Section.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.

B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Accelerated Weathering: Roof membrane shall withstand 2000 hours of exposure when tested according to ASTM G152, ASTM G154, or ASTM G155.
- B. Impact Resistance: Roof membrane shall resist impact damage when tested according to ASTM D3746, ASTM D4272, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.
- A. Roofing System Design: Tested by a qualified testing agency to resist the following uplift pressures: equivalent to FM Global 1-90 fastening pattern.
- B. Energy Star Listing: Roofing system shall be listed on the DOE's ENERGY STAR "Roof Products Qualified Product List" for low slope roof products.
- C. Energy Performance: Roofing system shall have an initial solar reflectance of not less than .83 and an emissivity of not less than .90 when tested according to CRRC-1.
- D. Exterior Fire-Test Exposure: ASTM E108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- E. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.

2.2 THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

- A. TPO Sheet: ASTM D6878/D6878M, internally fabric- or scrim-reinforced, fabric-backed TPO sheet.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Carlisle SynTec Incorporated.
 - b. Firestone Building Products.
 - c. GAF.
 - d. Johns Manville; a Berkshire Hathaway company.
 - e. Versico Roofing Systems.
 2. Thickness: 60 mils (1.5 mm), nominal.
 3. Exposed Face Color: White.

2.3 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with other roofing components.

1. Adhesive and Sealants: Comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: Manufacturer's standard unreinforced TPO sheet flashing, 55 mils (1.4 mm) thick, minimum, of same color as TPO sheet.
- C. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer.
- D. Bonding Adhesive: Manufacturer's standard, water based.
- E. Slip Sheet: ASTM D2178/D2178M, Type IV; glass fiber; asphalt-impregnated felt.
- F. Slip Sheet: Manufacturer's standard, of thickness required for application.
- G. Metal Termination Bars: Manufacturer's standard, predrilled stainless steel or aluminum bars, approximately 1 by 1/8 inch (25 by 3 mm) thick; with anchors.
- H. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roofing components to substrate, and acceptable to roofing system manufacturer.
- I. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

2.4 SUBSTRATE BOARDS

- A. Substrate Board: ASTM C1177/C1177M, glass-mat, water-resistant gypsum board or ASTM C1278/C1278M, fiber-reinforced gypsum board.
 1. Thickness: 1/2 inch (13 mm) thick.
 2. Surface Finish: Factory primed.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening substrate board to roof deck.

2.5 ROOF INSULATION

- A. Tapered Insulation: Provide factory-tapered insulation boards.
- B. Material: Extruded-Polystyrene Board Insulation: ASTM C578, Type IV, 1.45-lb/cu. ft. (23-kg/cu. m) minimum density, 25-psi (173-kPa) minimum compressive strength.
 1. Minimum Thickness: 1/4 inch (6.35 mm).
 2. Slope:
 - a. Saddles and Crickets: 1/2 inch per foot (1:24) unless otherwise indicated on Drawings.

2.6 INSULATION ACCESSORIES

- A. Fasteners: Factory-coated steel fasteners with metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- B. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
 - 1. Modified asphaltic, asbestos-free, cold-applied adhesive.
 - 2. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.
 - 3. Full-spread, spray-applied, low-rise, two-component urethane adhesive.
- C. Cover Board: ASTM C1177/C1177M, glass-mat, water-resistant gypsum board or ASTM C1278/C1278M fiber-reinforced gypsum board.
 - 1. Thickness: 1/2 inch (13 mm).
 - 2. Surface Finish: Unprimed.

2.7 WALKWAYS

- A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads or rolls, approximately 3/16 inch (5 mm) thick and acceptable to roofing system manufacturer.
 - 1. Size: Approximately 36 by 60 inches (914 by 1524 mm).
 - 2. Color: Contrasting with roof membrane.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
 - 1. Verify that minimum concrete drying period recommended by roofing system manufacturer has passed.
 - 2. Verify that concrete substrate is visibly dry and free of moisture, and that minimum concrete internal relative humidity is not more than 75 percent, or as recommended by roofing system manufacturer, when tested according to ASTM F2170.
 - a. Test Frequency: One test probe per each 1000 sq. ft. (93 sq. m), or portion thereof, of roof deck, with not less than three tests probes.
 - b. Submit test reports within 24 hours after performing tests.
 - 3. Verify that concrete-curing compounds that will impair adhesion of roofing components to roof deck have been removed.
 - 4. Verify that joints in precast concrete roof decks have been grouted flush with top of concrete.

3.2 PREPARATION

- A. Perform fastener-pullout tests according to roof system manufacturer's written instructions.
 - 1. Submit test result within 24 hours after performing tests.
 - a. Include manufacturer's requirements for any revision to previously submitted fastener patterns required to achieve specified wind uplift requirements.

3.3 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions, FM Approvals' RoofNav assembly requirements, and FM Global Property Loss Prevention Data Sheet 1-29.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at end of workday or when rain is forecast. Remove and discard temporary seals before beginning Work on adjoining roofing.
- C. Install roof membrane and auxiliary materials to tie in to existing roofing to maintain weathertightness of transition and to not void warranty for existing roofing system.

3.4 SUBSTRATE BOARD INSTALLATION

- A. Install substrate board with long joints in continuous straight lines, with end joints staggered not less than 24 inches (610 mm) in adjacent rows.
 - 1. At steel roof decks, install substrate board at right angle to flutes of deck.
 - a. Locate end joints over crests of steel roof deck.
 - 2. Tightly butt substrate boards together.
 - 3. Cut substrate board to fit tight around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - 4. Fasten substrate board to top flanges of steel deck according to recommendations in FM Approvals' RoofNav assembly requirements and FM Global Property Loss Prevention Data Sheet 1-29 for specified Windstorm Resistance Classification.
 - 5. Fasten substrate board to top flanges of steel deck to resist uplift pressure at corners, perimeter, and field of roof according to roofing system manufacturers' written instructions.
 - 6. Loosely lay substrate board over roof deck.

3.5 INSULATION INSTALLATION

- A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at end of workday.
- B. Comply with roofing system and roof insulation manufacturer's written instructions for installing roof insulation.

C. Installation Over Wood Decking:

1. Mechanically fasten slip sheet to roof deck using mechanical fasteners specifically designed and sized for fastening slip sheet to wood decks.
 - a. Fasten slip sheet to resist specified uplift pressure at corners, perimeter, and field of roof.
2. Install base layer of insulation with joints staggered not less than 24 inches (610 mm) in adjacent rows.
 - a. Where installing composite and noncomposite insulation in two or more layers, install noncomposite board insulation for bottom layer and intermediate layers, if applicable, and install composite board insulation for top layer.
 - b. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - c. Make joints between adjacent insulation boards not more than 1/4 inch (6 mm) in width.
 - d. At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches (610 mm).
 - 1) Trim insulation so that water flow is unrestricted.
 - e. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
 - f. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
 - g. Loosely lay base layer of insulation units over substrate.
3. Mechanically attach base layer of insulation and substrate board using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to wood decks.
 - a. Fasten insulation according to requirements in FM Approvals' RoofNav for specified Windstorm Resistance Classification.
 - b. Fasten insulation to resist specified uplift pressure at corners, perimeter, and field of roof.
4. Install upper layers of tapered insulation with joints of each layer offset not less than 12 inches (305 mm) from previous layer of insulation.
 - a. Staggered end joints within each layer not less than 24 inches (610 mm) in adjacent rows.
 - b. Install with long joints continuous and with end joints staggered not less than 12 inches (305 mm) in adjacent rows.
 - c. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - d. Make joints between adjacent insulation boards not more than 1/4 inch (6 mm) in width.
 - e. At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches (610 mm).
 - 1) Trim insulation so that water flow is unrestricted.

- f. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
- g. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
- h. Loosely lay each layer of insulation units over substrate.
- i. Adhere each layer of insulation to substrate using adhesive according to FM Approvals' RoofNav assembly requirements and FM Global Property Loss Prevention Data Sheet 1-29 for specified Windstorm Resistance Classification, as follows:
 - 1) Set each layer of insulation in a solid mopping of hot roofing asphalt, applied within plus or minus 25 deg F (14 deg C) of equiviscous temperature.
 - 2) Set each layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
 - 3) Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.

3.6 INSTALLATION OF COVER BOARDS

- A. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches (150 mm) in each direction.
 - 1. Trim cover board neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - 2. At internal roof drains, conform to slope of drain sump.
 - a. Trim cover board so that water flow is unrestricted.
 - 3. Cut and fit cover board tight to nailers, projections, and penetrations.
 - 4. Loosely lay cover board over substrate.
 - 5. Adhere cover board to substrate using adhesive according to FM Approvals' RoofNav assembly requirements and FM Global Property Loss Prevention Data Sheet 1-29 for specified Windstorm Resistance Classification, as follows:
 - a. Set cover board in a solid mopping of hot roofing asphalt, applied within plus or minus 25 deg F (14 deg C) of equiviscous temperature.
 - b. Set cover board in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
 - c. Set cover board in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- B. Install slip sheet over cover board and beneath roof membrane.

3.7 MECHANICALLY FASTENED ROOFING INSTALLATION

- A. Mechanically fasten roof membrane over area to receive roofing according to roofing system manufacturer's written instructions.

- B. Unroll roof membrane and allow to relax before installing.
- C. For in-splice attachment, install roof membrane with long dimension perpendicular to steel roof deck flutes.
- D. Start installation of roofing in presence of roofing system manufacturer's technical personnel and Owners testing and inspection agency.
- E. Accurately align roof membrane, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- F. Mechanically fasten or adhere roof membrane securely at terminations, penetrations, and perimeter of roofing.
- G. Apply roof membrane with side laps shingled with slope of roof deck where possible.
- H. In-Seam Attachment: Secure one edge of TPO sheet using fastening plates or metal battens centered within seam, and mechanically fasten TPO sheet to roof deck.
- I. Seams: Clean seam areas, overlap roof membrane, and hot-air weld side and end laps of roof membrane and sheet flashings to ensure a watertight seam installation.
 - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of roof membrane and flashing sheet.
 - 2. Verify field strength of seams a minimum of twice daily, and repair seam sample areas.
 - 3. Repair tears, voids, and lapped seams in roof membrane that do not comply with requirements.
- J. Spread sealant bed over deck-drain flange at roof drains, and securely seal roof membrane in place with clamping ring.

3.8 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.9 WALKWAY INSTALLATION

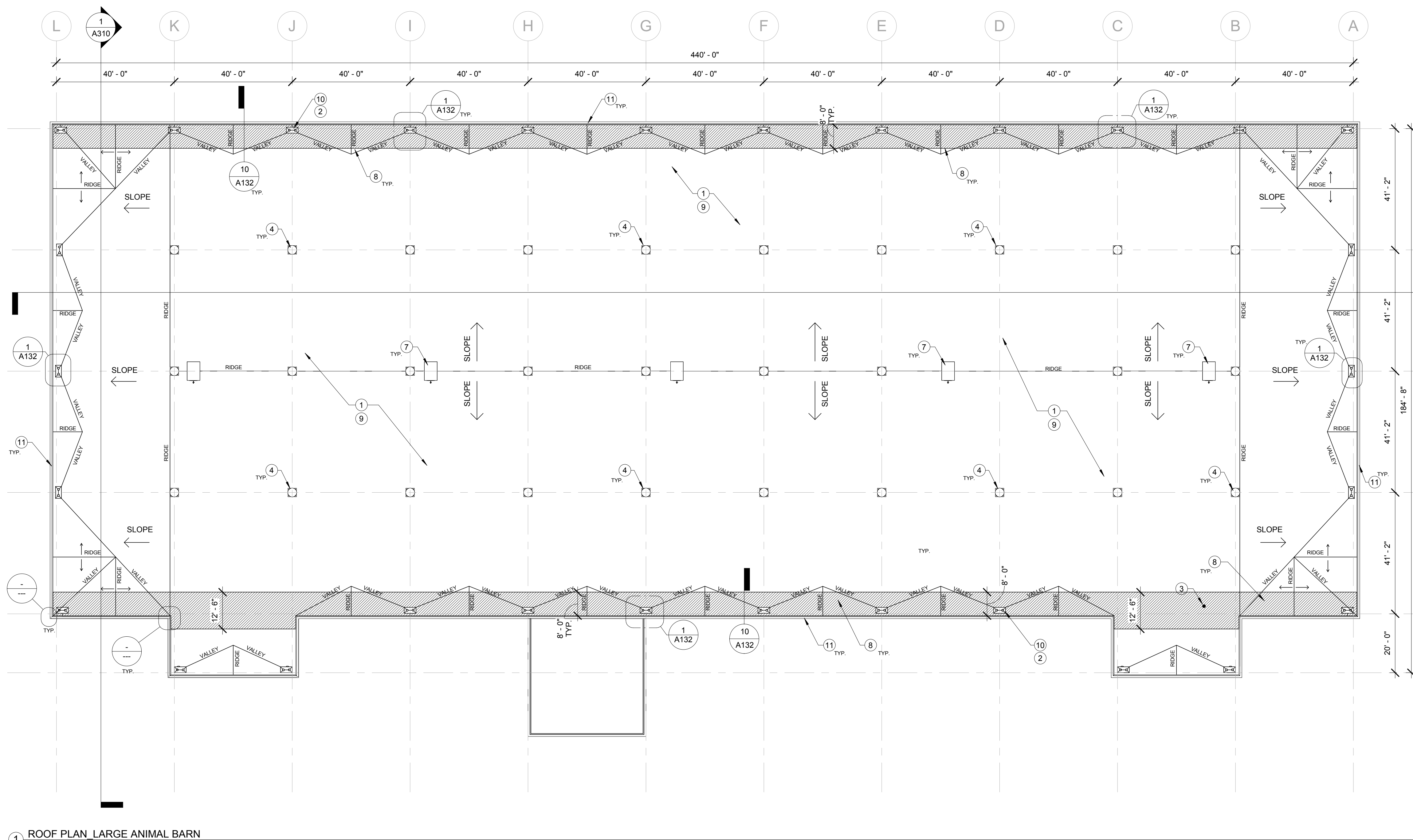
A. Flexible Walkways:

1. Install flexible walkways at the following locations:
 - a. Retain one or more subparagraphs below. Revise to suit Project.
 - b. Perimeter of each rooftop unit.
 - c. Between each rooftop unit location, creating a continuous path connecting rooftop unit locations.
 - d. Between each roof hatch and each rooftop unit location or path connecting rooftop unit locations.
 - e. Top and bottom of each roof access ladder.
 - f. Between each roof access ladder and each rooftop unit location or path connecting rooftop unit locations.
 - g. Locations indicated on Drawings.
 - h. As required by roof membrane manufacturer's warranty requirements.
2. Provide 6-inch (76-mm) clearance between adjoining pads.
3. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

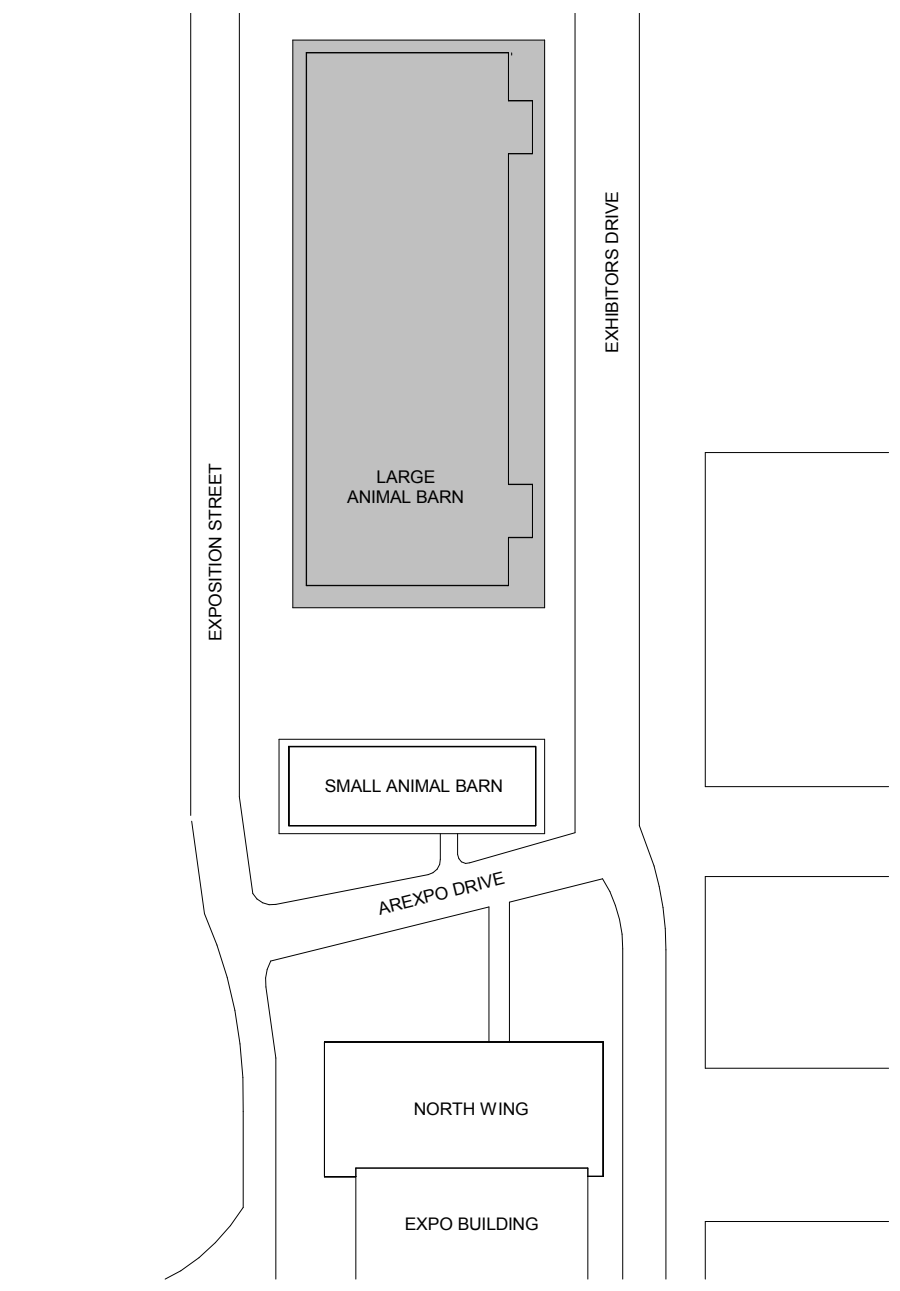
3.10 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing system, inspect roofing system for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075423



1 ROOF PLAN LARGE ANIMAL BARN
1" = 20'-0"



SITE PLAN
1" = 160'-0"

LEGEND:
 REPLACE ROOF DECK. SEE STRUCTURAL.

- KEY NOTES: #**
- EXISTING ROOFING REMOVED TO EXISTING PLYWOOD DECK.
 - EXISTING ROOF DRAIN TO BE REMOVED. SEE MECHANICAL.
 - EXISTING VENT THROUGH ROOF (VTR) TO REMAIN.
 - EXISTING MECHANICAL UNIT CURB TO REMAIN.
 - REMOVE EXISTING PLYWOOD DECKING AND REPLACE TO 4" FROM PARAPET. SEE STRUCTURAL.
 - REMOVE EXISTING METAL COPING.
 - EXISTING ROOF MONITOR TO REMAIN.
 - SLOPE CRICKET AT 1/4" PER FOOT. TYPICAL AT ALL CRICKETS.
 - SINGLE PLY ROOF MEMBRANE OVER COVERBOARD. SEE DETAIL 6/A132.
 - ROOF DRAIN AND OVERFLOW. SEE MECHANICAL.
 - 24 GA PREFINISHED METAL COPING CAP.


GENERAL NOTES ROOF DEMOLITION:

- UPON REMOVAL OF THE EXISTING ROOFING MATERIALS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT TO INSPECT THE CONDITION OF THE EXISTING ROOF DECKING. ALL AREAS DEEMED DEFICIENT BY THE ARCHITECT SHALL BE REMOVED, REPLACED OR REPAIRED. IF DAMAGED AREAS ARE UNANTICIPATED THE CONTRACTOR SHALL PREPARE AN ESTIMATE TO COMPLETE THE WORK FOR THE OWNERS APPROVAL.
- COMPLETELY REMOVE AND DISPOSE OF ALL EXISTING METAL FASCIA AND COPING INCLUDING EXTENDER PLATES, CLEATS, GRAVEL STOP, CLIPS AND ALL DEVICES USED TO SECURE THE FASCIA AND COPING IN PLACE.
- FLUSH ALL ROOF DRAINS THOROUGHLY USING HIGH PRESSURE WATER JETTING. SNAKE EACH DRAIN AND SCOPE FOR DAMAGE PRIOR TO BEGINNING DEMOLITION WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO MECHANICALLY SNAKE ANY CLOGGED OR SLOW DRAINING PIPING AND SHALL PROVIDE THE ARCHITECT WITH A REPORT UPON VERIFYING THAT ALL DRAINS ARE OPERATIONAL. DURING THE SCOPE OF WORK THE CONTRACTOR SHALL PROTECT THE DRAIN PIPING TO PREVENT DAMAGE AND DEBRIS FROM ENTERING THE EXPOSED PIPING.
- COMPLETELY REMOVE AND DISPOSE OF EXISTING DRAIN BODY, MASTIC, WATER CUT-OFF, SUMP AND VERIFY CONDITION OF THE EXISTING PIPING, JOINTS AND FITTINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ANY DAMAGED OR LEAKING FITTING UP TO 10'-0" FROM THE FLOOR PENETRATION. PREPARE BOWL FOR NEW RETROFIT DRAIN BODY. IF NECESSARY, CONTRACTOR SHALL ACCESS THROUGH CEILING BELOW AND PROVIDE 36"X36" ACCESS PANEL (TAPED, SPACKLER AND PANTED AT ALL EDGES) FOR FUTURE USE BY OWNER.
- PRIOR TO ANY ROOFING DEMOLITION THE CONTRACTOR SHALL WALK THE ROOF AND VERIFY THE HEIGHTS OF ALL MECHANICAL EQUIPMENT ROOF CURBS AND PLUMBING VENT STACKS INDICATED TO REMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE TO EXTEND THE CURBS, PIPING AND ELECTRICAL CONDUIT, ETC. AS NEEDED TO COMPENSATE A MINIMUM OF 8" ABOVE ROOF SURFACE. ANY NON-WORKING EQUIPMENT SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR IT WILL BE ASSUMED THAT ALL EQUIPMENT IS IN GOOD OPERATING CONDITION PRIOR TO THE WORK STARTING.
- THE CONTRACTOR SHALL TEMPORARILY DISCONNECT ALL EXISTING ROOF MOUNTED ELECTRICAL AND MECHANICAL EQUIPMENT AS REQUIRED TO REMOVE THE EXISTING ROOFING, WHETHER INDICATED ON THE DRAWINGS OR NOT. ITEMS INCLUDE BUT ARE NOT LIMITED TO CONDUIT, BOXES AND VERTICALLY MOUNTED DEVICES AND LIGHT FIXTURES. UPON COMPLETION OF THE ELECTRICAL AND MECHANICAL EQUIPMENT SHALL BE RE-INSTALLED. THE CONTRACTOR SHALL HAVE A LICENSED ELECTRICIAN RE-CONNECT AND EXTEND AS REQUIRED ALL ELECTRICAL AND MECHANICAL CONNECTIONS TO ENSURE PROPER WORKING ORDER.
- WHERE EXISTING ABANDONED / OBSOLETE ROOF PENETRATIONS ARE CALLED TO BE REMOVED THE CONTRACTOR SHALL COMPLETELY REMOVE ALL BLOCKING, CURBS, FASTENERS, RAILS AND DEVICES USED TO SECURE THE CURBS IN PLACE. UPON REMOVAL THE OPENING SHALL BE IN FILLED USING CONSTRUCTION SIMILAR TO THE ADJACENT AREA.
- WHERE EXISTING OBSOLETE ELECTRICAL / PIPE PENETRATIONS ARE CALLED TO BE REMOVED THE CONTRACTOR SHALL CUT BACK THE EXISTING CONDUIT AND PIPING ONE FOOT BELOW THE ROOF DECK AND SAFE OFF ALL WIRING. COMPLETELY REMOVE AND DISPOSE OF EXISTING PITCH POCKET AND FLASHINGS.
- WHERE EXISTING ROOF MOUNTED GAS PIPING IS CALLED TO REMAIN THE CONTRACTOR SHALL SCRAPE, PRIME AND PAINT ALL PIPING YELLOW.
- WHERE EXISTING ROOF MOUNTED ELECTRICAL CONDUIT IS CALLED TO REMAIN THE CONTRACTOR SHALL SCRAPE, PRIME AND PAINT ALL GALVANIZED SECTIONS WITH A RUST INHIBITING TWO PART PRIMER, COLOR GREY.
- COMPLETELY REMOVE AND DISPOSE OF EXISTING ROOF LADDERS INCLUDING LADDER SUPPORTS AND ALL DEVICES USED TO SECURE THE LADDER IN PLACE.

GENERAL NOTES ROOF PLAN:

- COORDINATE INSTALLATION OF ROOFING WITH OTHER TRADES. REPORT ANY CONFLICTS WITH ITEMS INSTALLED BY OTHER TRADES TO ARCHITECT.
- ALL ROOF CURBS FOR NEW ROOFTOP EXHAUST FANS, HVAC UNITS AND CONDENSING UNITS SHALL HAVE CURB HEIGHTS THAT WILL ALLOW FOR A MINIMUM OF 8" BASE FLASHING HEIGHTS FOR THE ROOF SYSTEM.
- ALL PLUMBING VENTS SHALL EXTEND ABOVE THE FINISHED SURFACE OF THE ROOF SYSTEM AS REQUIRED TO PROVIDE FOR A MINIMUM OF 8" BASE FLASHING. PROVIDE FLASHING AROUND VENTS AND ROOF PENETRATIONS PER ROOFING MANUFACTURER RECOMMENDATIONS.
- PROVIDE 36" WIDE WALK PADS AROUND PERIMETER OF ALL MECHANICAL EQUIPMENT. PROVIDE 36" WIDE WALK PADS AROUND ALL ROOF HATCHES & 72"X72" PADS AT LADDERS.
- NORTH** NOTED OTHERWISE - PROVIDE FIRESTONE UNI-CLAD KYNAR 500/HYLAR 5000 PRE-FINISHED GALVALUME STEEL (24 GA) ARCHITECTURE SHEET AND COIL FOR ALL COPINGS, FLASHING & TRIM PIECES. SUBMIT STANDARD COLOR SELECTION TO ARCHITECT FOR APPROVAL. FIELD PAINT METAL ONLY AS REQUIRED OR NOTED. ALL CLEATS TO BE CONTINUOUS.
- ALL GUTTERS TO BE PREFINISHED SMACNA APPROVED 'K' STYLE CONTINUOUS ALUMINUM GUTTERS SIZED FOR QUANTITY OF WATER FLOW. PROVIDE STAINLESS STEEL SCREENS FOR GUTTERS. UNO PROVIDE HEAT CABLE IN GUTTER. UNO SUBMIT STANDARD COLOR SELECTION TO ARCHITECT FOR APPROVAL. SEE EXTERIOR ELEVATIONS OR ROOF PLAN FOR LOCATIONS.
- ALL DOWNSPOUTS TO BE PRE-FINISHED SMACNA APPROVED RECTANGULAR ALUMINUM DOWNSPOUT SIZED FOR QUANTITY OF WATER FLOW. PROVIDE ALUMINUM ATTACHMENT CLIPS AT MAX 4' INTERVALS. UNO PROVIDE HEAT CABLE IN DOWNSPOUT AND EXTEND INTO GROUND. UNO SUBMIT STANDARD COLOR SELECTION TO ARCHITECT FOR APPROVAL. SEE EXTERIOR ELEVATIONS OR ROOF PLAN FOR LOCATIONS.
- PROVIDE PAINTED 4" TALL CAST ALUM. DOWNSPOUT BOOTS @ ALL DOWN SPOUTS, TIE INTO SUB-GRADE DRAINAGE, RE: CIVIL.
- TAPERED INSULATION TO BE 1/4" PER FOOT MIN SLOPE TO DRAIN. ROOF PLAN SHOWS TAPERED INSULATION FOR GRAPHIC REPRESENTATION ONLY. CONTRACTOR TO VERIFY INSULATION REQUIRED TO SLOPE PRIOR TO MEMBRANE INSULATION.
- PROVIDE TAPERED INSULATION CRICKETS 1/4" PER FOOT MIN. SLOPE @ HIGH SIDE OF ALL MECHANICAL UNITS AND ROOF HATCHES, TO SHED WATER AROUND AND MAINTAIN POSITIVE ROOF DRAINAGE.
- VERIFY ELEVATION OF ROOF DRAIN RELATIVE TO OVERFLOW SCUPPER PRIOR TO INSTALLATION OF SCUPPER
- PROVIDE SELF-ADHERING VAPOR RETARDER BETWEEN DECK AND INSULATION. SEE DETAILS. UNO PROVIDE CARLISLE AIR & VAPOR BARRIER TR725. PROVIDE AIR TIGHT SEAL AROUND ALL DECK PENETRATIONS AND DECK PERIMETER PRIOR TO INSTALLING VAPOR BARRIER.
- ALL WOOD NAILER AND BLOCKING TO BE TREATED. SECURE NAILERS PER FM GLOBAL 1-49 PERIMETER FLASHING REQUIREMENTS.
- INSTALL MANUFACTURE'S RECOMMENDED PRESSURE-SENSITIVE RUSS STRIP ALONG ENTIRE ROOF PERIMETER AND AT PERIMETER OF ALL ROOF CURBS.
- WHEN APPLICABLE - UNLESS NOTED OTHERWISE, USE CDX PLYWOOD FOR EXTERIOR APPLICATIONS AND BCD PLYWOOD FOR INTERIOR APPLICATIONS.

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CONSULTANT:
 PROJECT INFORMATION:
 PROJECT NAME:
EXPO IDAHO LARGE ANIMAL BARN ROOF REPLACEMENT AND STRUCTURAL REPAIRS
 5610 GLENWOOD AVE.
 BOISE, ID 83714

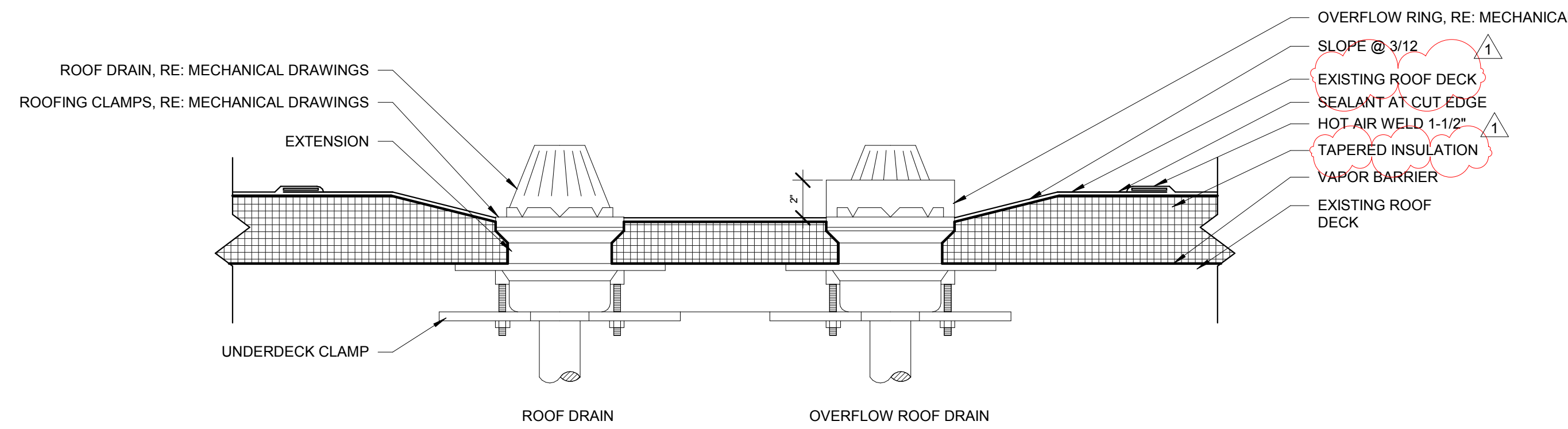
REVISIONS:

MARK	DATE	DESCRIPTION
1	08.13.2018	ADDENDUM #2

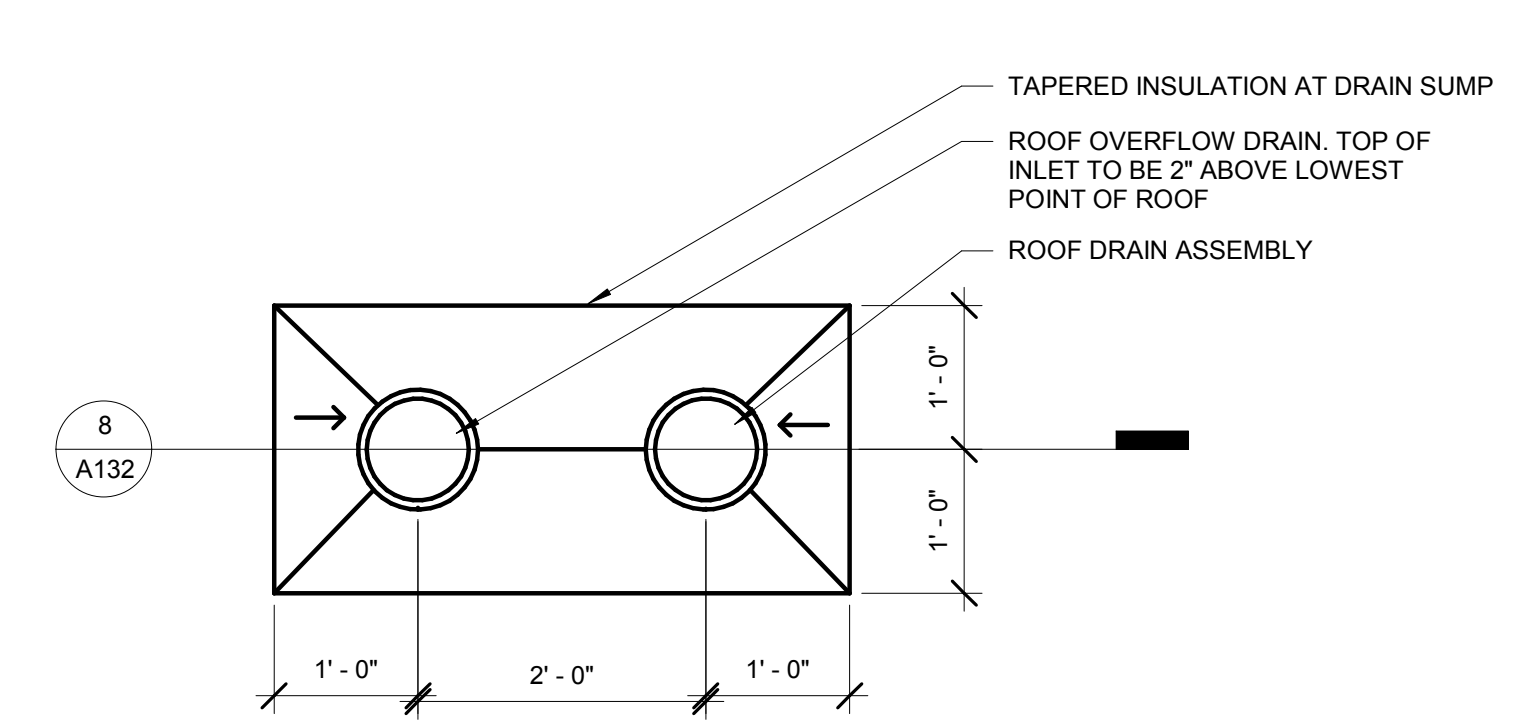
PROJECT PHASE	CONSTRUCTION DOCUMENTS
PROJECT NUMBER	17-123
SHEET NAME:	

ROOF LEVEL PLAN LARGE ANIMAL BARN

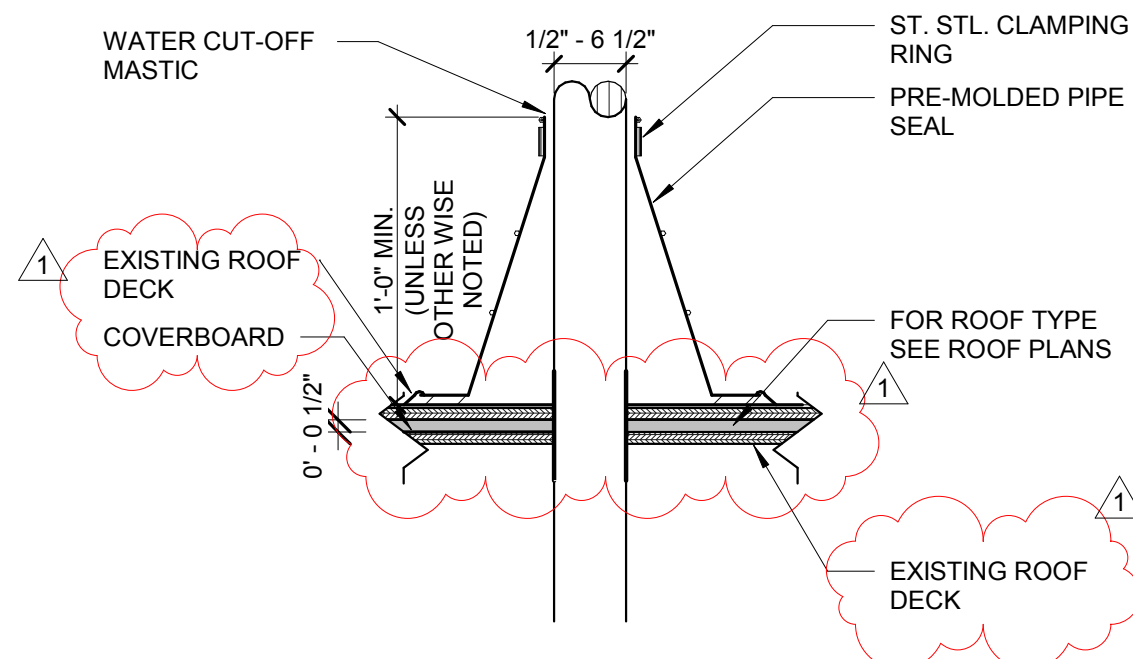
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A131



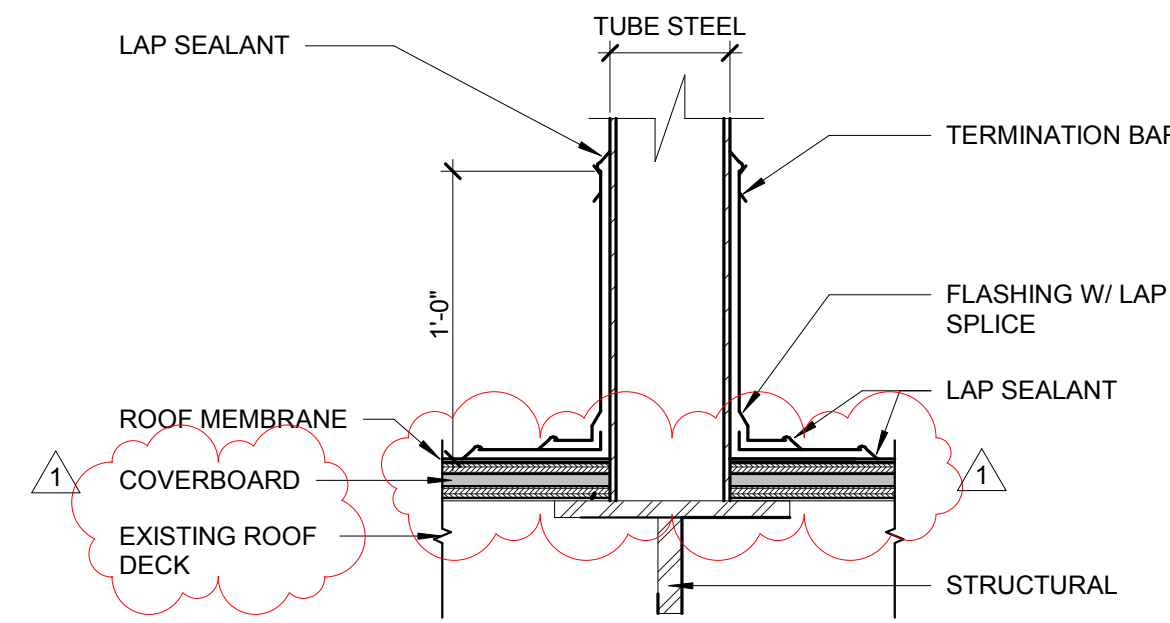
8 ROOF DRAIN AND OVERFLOW DRAIN SECTION
1 1/2" = 1'-0"



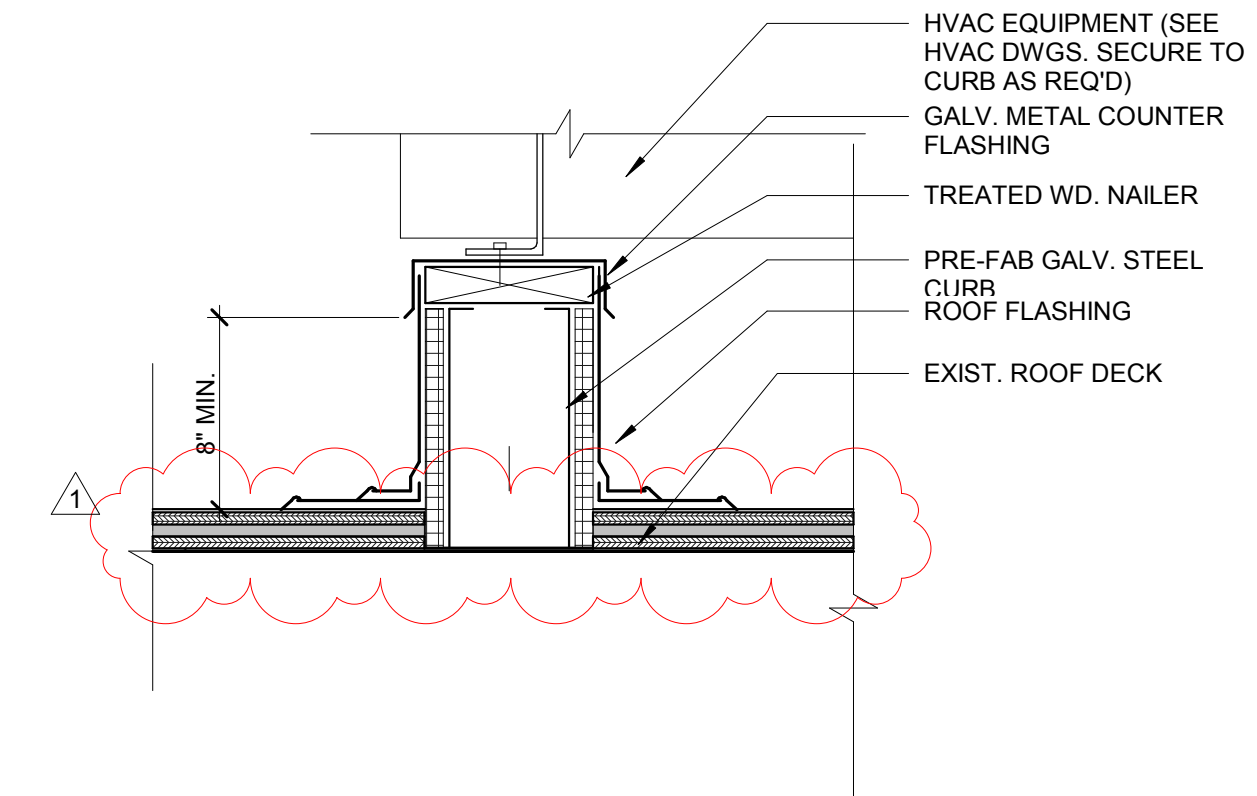
1 DOUBLE ROOF DRAIN
3/4" = 1'-0"



9 SMALL PIPE SECTION
1 1/2" = 1'-0"

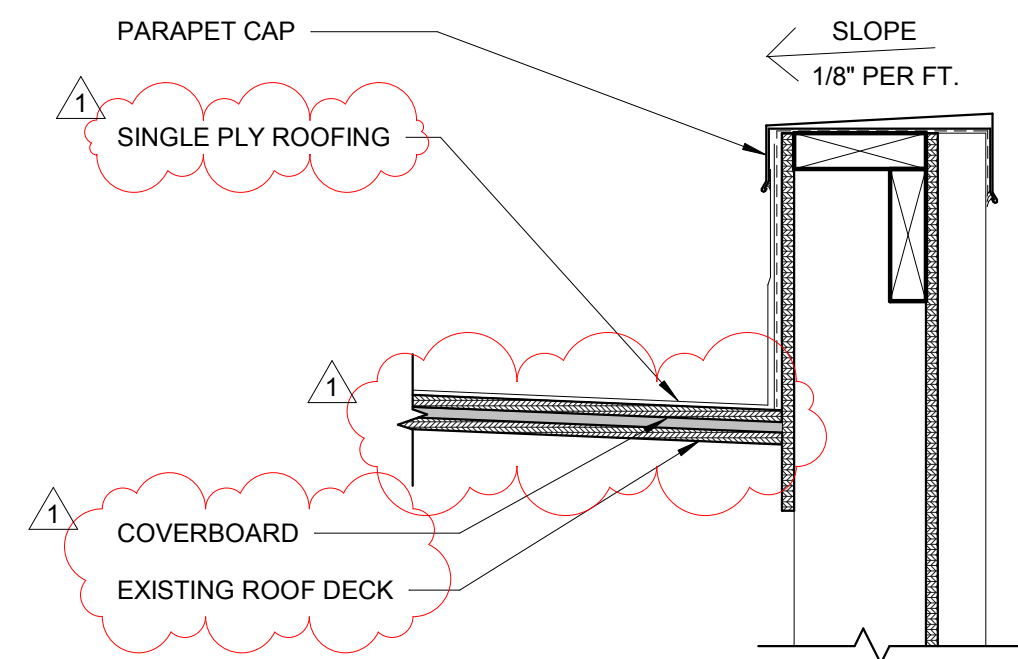


5 COLUMN PENETRATION (NOT USED)
1 1/2" = 1'-0"

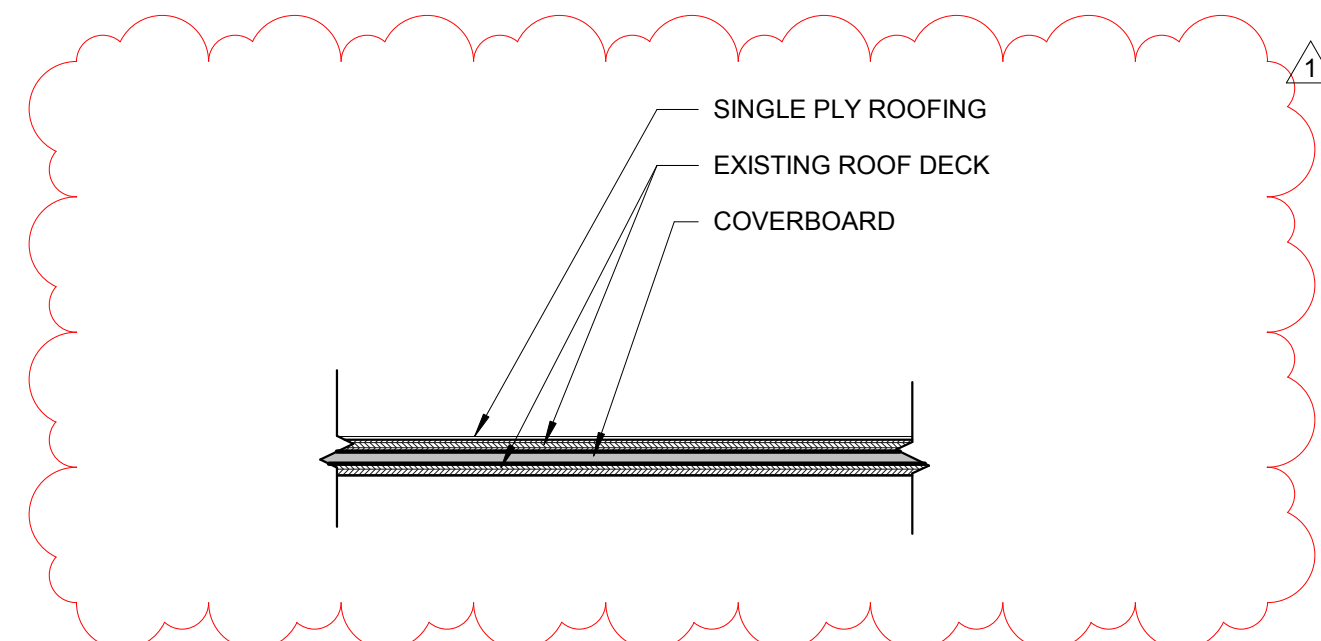


NOTE:
1. FOR LENGTH OF CURB, COORDINATE W/ EQUIPMENT

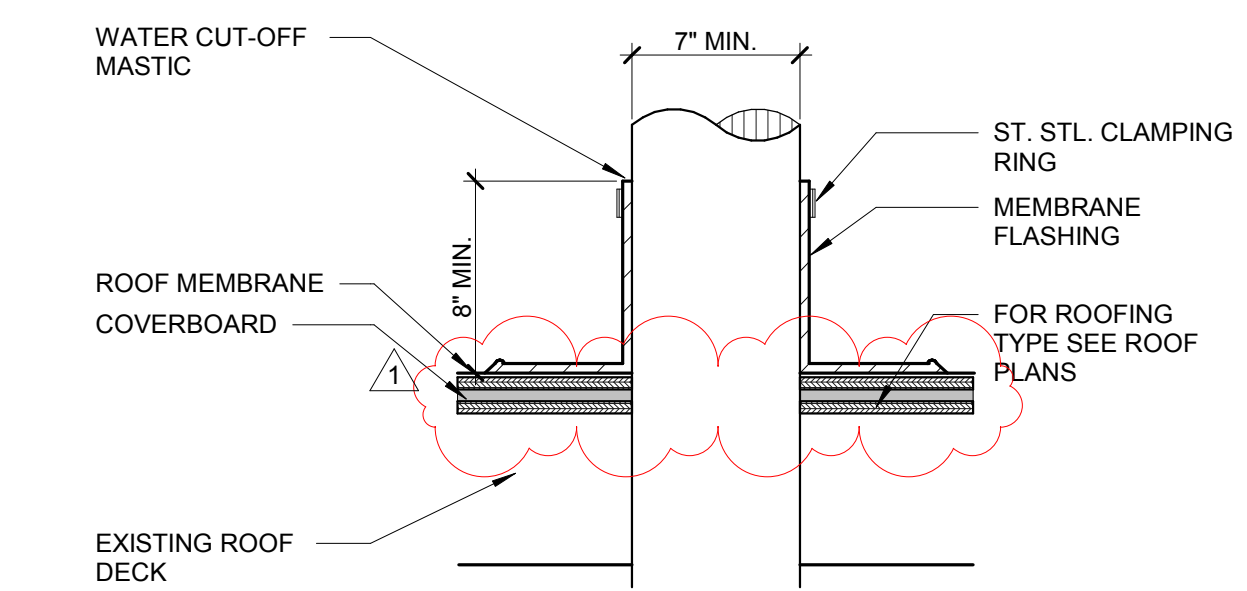
2 PRE-FAB CURB DETAIL
1 1/2" = 1'-0"



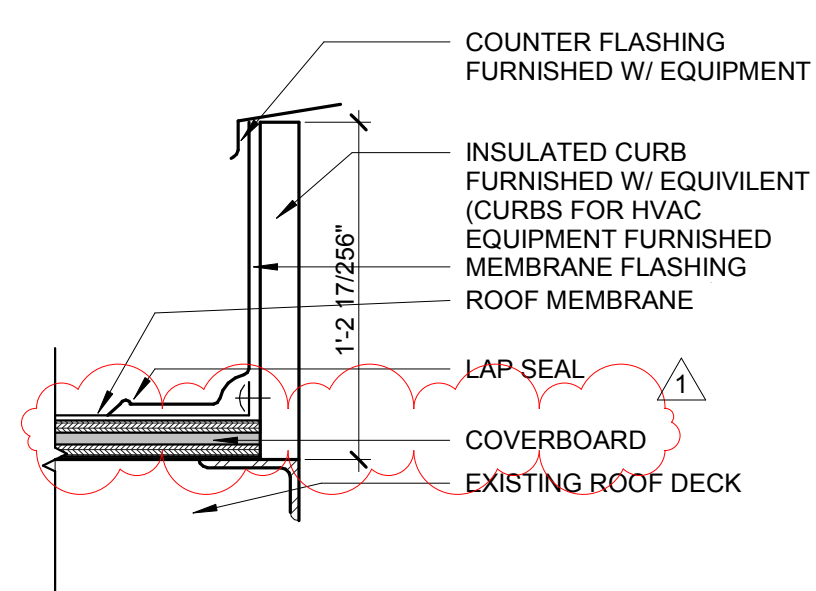
10 ROOF PARAPET
1 1/2" = 1'-0"



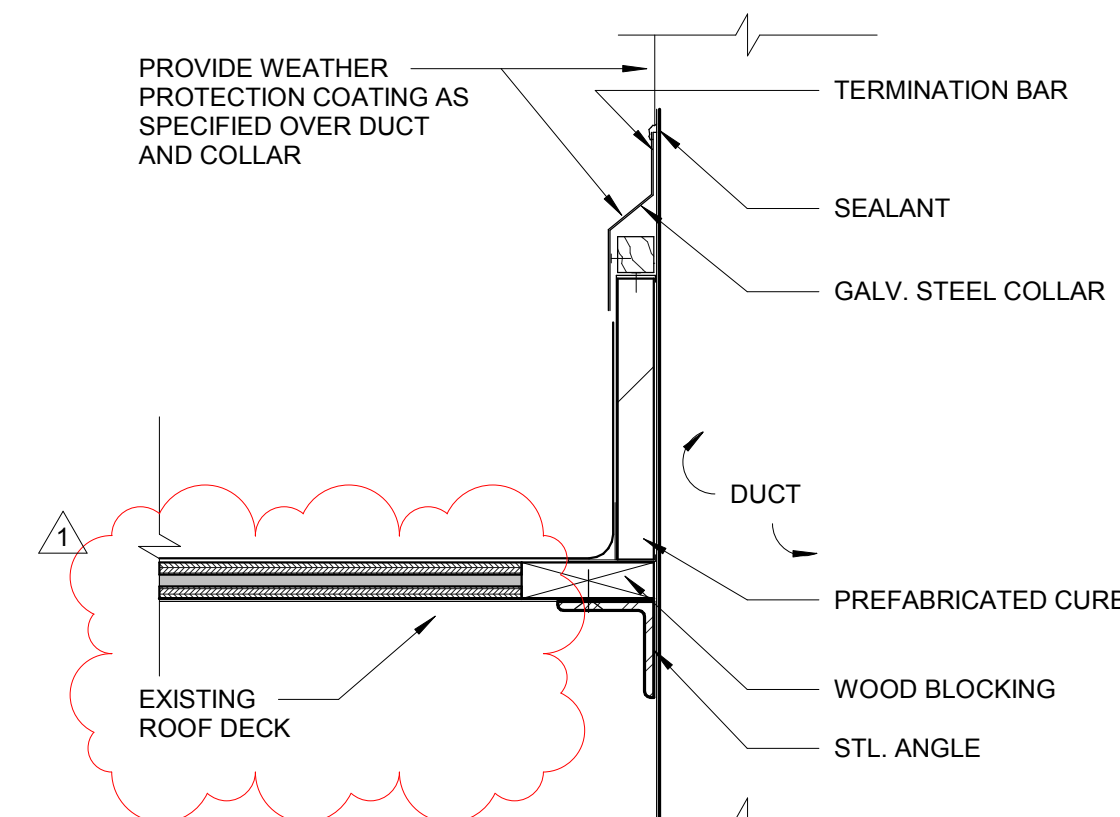
6 TYPICAL ROOF SECTION
1 1/2" = 1'-0"



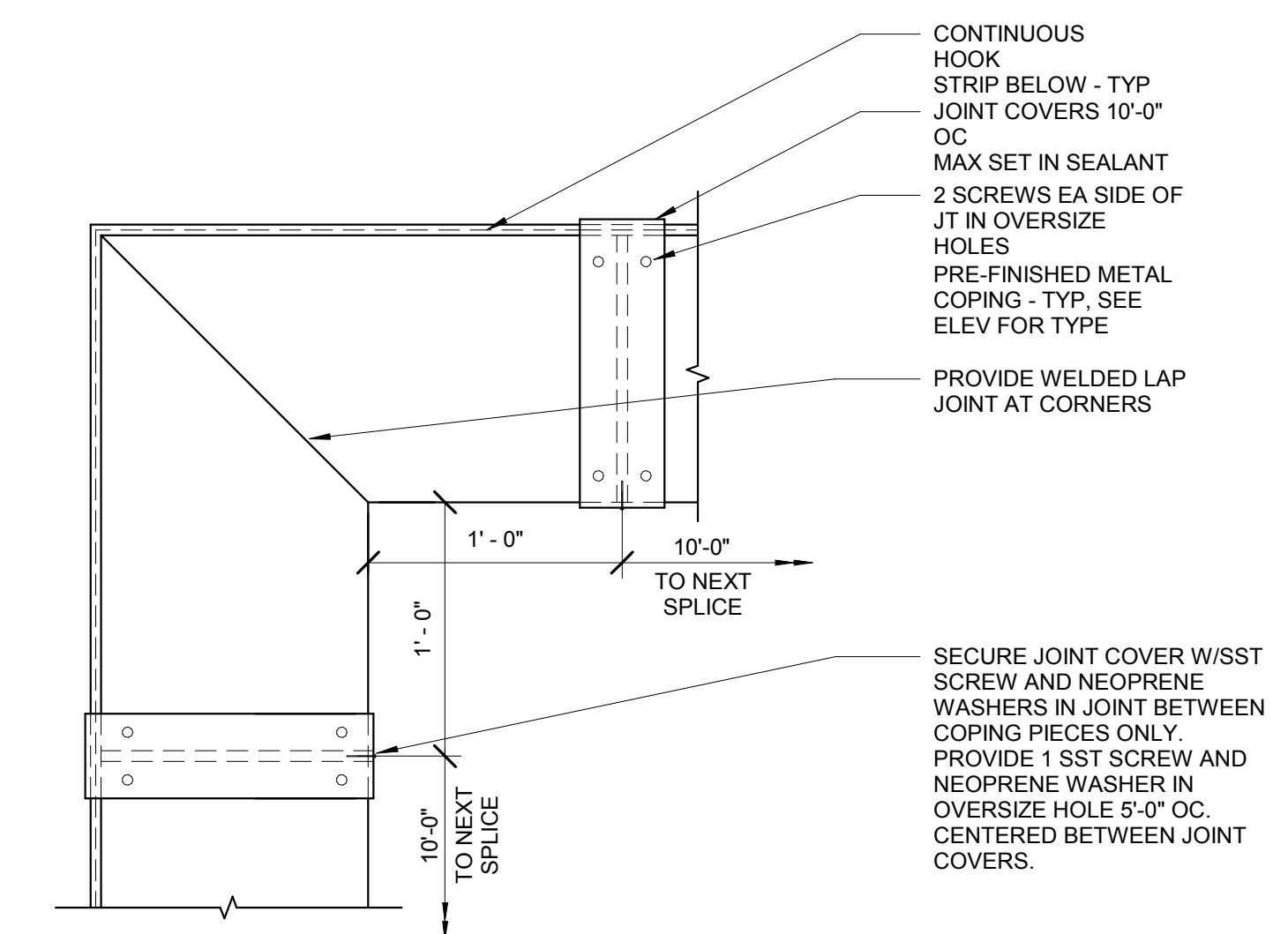
3 LARGE PIPE SECTION
1 1/2" = 1'-0"



11 EQUIPMENT CURB SECTION
1 1/2" = 1'-0"



7 PRE-FAB CURB DETAIL
1 1/2" = 1'-0"



4 TYPICAL CORNER COPING DETAIL
1 1/2" = 1'-0"

ARCHITECT:

COLE ARCHITECTS

COLE ARCHITECTS | 1008 W Main St
Boise, ID 83702 | (208) 345-1800
colearchitects.net

STAMP:

LICENSED ARCHITECT AR-2560

MATTHEW HUMPHREY
STATE OF IDAHO

CONSULTANT:

PROJECT INFORMATION:

PROJECT NAME:

EXPO IDAHO LARGE ANIMAL BARN ROOF REPLACEMENT AND STRUCTURAL REPAIRS
5610 GLENWOOD AVE.
BOISE, ID 83714

REVISIONS:

MARK	DATE	DESCRIPTION
1	08.13.2018	ADDENDUM #2

PROJECT PHASE CONSTRUCTION DOCUMENTS

PROJECT NUMBER 17-123

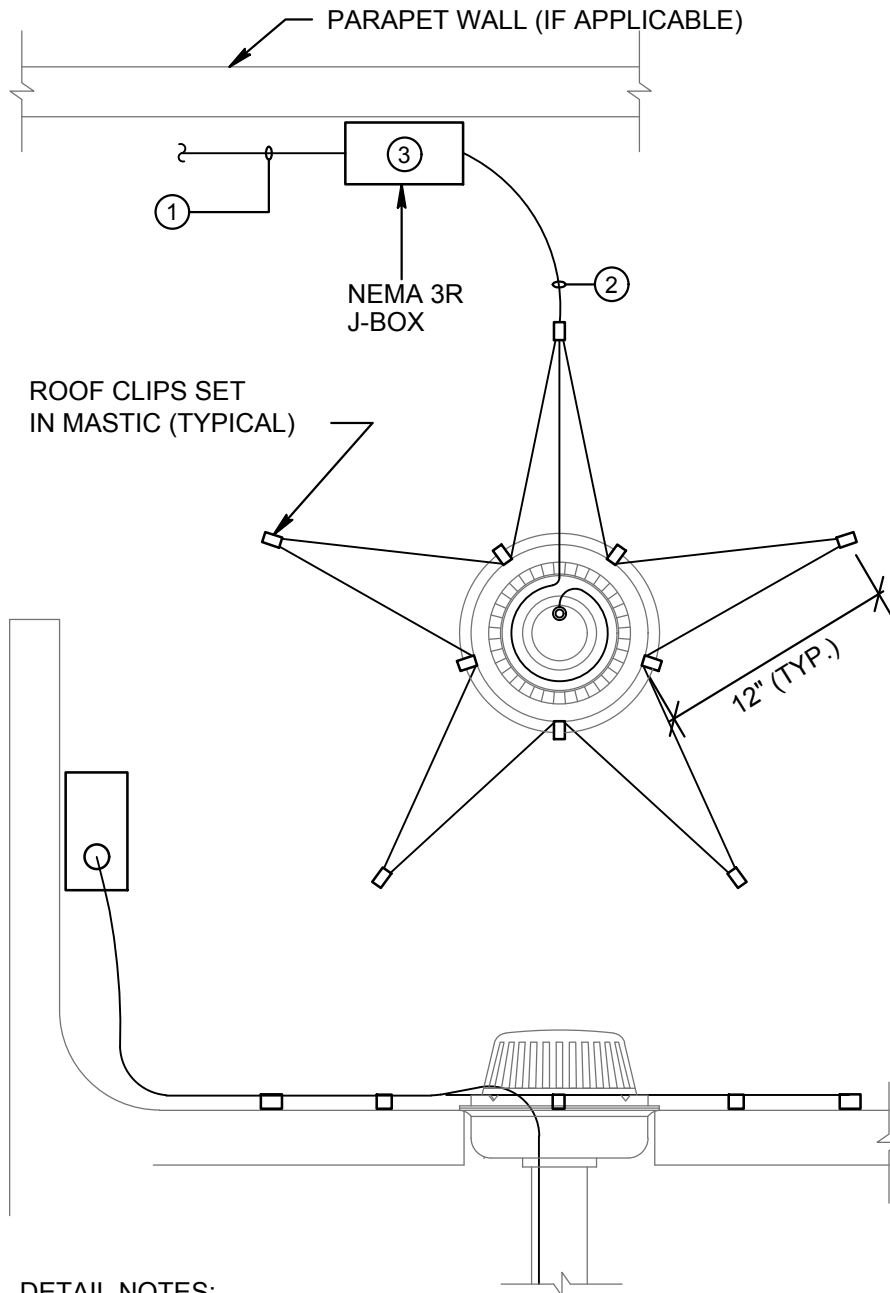
SHEET NAME:

LARGE ANIMAL BARN DETAILS

SHEET NUMBER:

A132

07.27.2018



- 1 HEAT TRACE BRANCH CIRCUIT; BREAKER SHALL BE GFCI TYPE SET TO 30mA AT CIRCUIT DESIGNATION AS INDICATED ON DRAWING.
- 2 PROVIDE 12W/FT, SELF REGULATING HEAT TAPE, RAYCHEM GM SERIES OR EQUAL. PROVIDE APPROX. 11'-0" IN A STAR PATTERN (PLUS LENGTH FROM J-BOX TO START OF STAR PATTERN AS REQUIRED) AROUND ROOF DRAIN AND EXTEND INSIDE ROOF DRAIN TO 4'-0" BEYOND ROOF DRAIN. PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
- 3 MOUNT J-BOX AT +18" ABOVE ROOF ON PARAPET WALL OR STEM MOUNT AT +18" ABOVE ROOF IF NO PARAPET WALL IS AVAILABLE.

ROOF DRAIN HEAT TRACE DETAIL

PRE-BID MEETING SIGN-IN SHEET

Project: Bid 18083 Expo Idaho Large Animal Barn Roof Replacement and Structural Repairs Project

Date: 8/6/18 Time: 2:00 p.m.

MANDATORY Yes No

PLEASE PRINT LEGIBLY: All attendees must sign in, including all Ada County employees in attendance.

NAME		COMPANY	PHONE NO.	FAX NO.
			EMAIL	
Name	Roger Steek	Company Dwyhee Heating	Phone 208-871-7925 Email rogers@dwyyheehating.com	Fax
Name	JARED PERKINS	Company NATIONS ROOF-MTX	Phone 208-322-2474 Email K.TOLLEY@NATIONSROOF.COM	Fax
Name	Gary Louks	Company Dwyhee Heating	Phone 208-871-7904 Email Gary@Dwyheeheating.com	Fax
Name	William M. Gray	Company Parrish Assoc.	Phone 208-523-1122 Email WKMCG@MSMO.COM	Fax
Name	Jacob Nuttall	Company kdu county	Phone	Fax
Name	Nancy Werdeles	Company ACPD	Phone	Fax
Name	Seth Vanwassenhove	Company Lee Electric	Phone (208) 869-2957 Email seth@leeelectric.com	Fax
Name	Matt HUFFED	Company Cole Architects	Phone 208 345.1300 Email matt@colearchitects.net	Fax
Name	Tom Poramus	Company Modern Roofing	Phone 208-322-2500 Email tdoramus@qtr180.com	Fax 208-322-2543

PRE-BID MEETING SIGN-IN SHEET

Project: Bid 18083 Expo Idaho Large Animal Barn Roof Replacement and Structural Repairs Project

Date: 8/6/18 Time: 2:00 p.m.

MANDATORY Yes No

PLEASE PRINT LEGIBLY: All attendees must sign in, including all Ada County employees in attendance.

NAME		COMPANY	PHONE NO.	FAX NO.
NAME		COMPANY	EMAIL	
Name	Galen McCoy	Company	Phone 376-1901 Email galen@coverdaleplumbing.com	Fax
Name	Joe Everson	Company	Phone 519-838-8633 Email jeff@attantroofing.com	Fax
Name	Brian Ellway	Company	Phone 208-938-6000 Email bellway@wbthc.com	Fax 208-938-6069
Name	Magnum Kincaid	Company	Phone 208-871-6344 Email magnum@kincaidco.com	Fax
Name	Bob Batista	Company	Phone	Fax
Name	Joe Everson for Jeff Sitton	Company	Phone 509-838-8633 Email jsitton@roofspokane.com	Fax
Name	Scott Williams	Company	Phone 208-287-7105 Email spwilli@adaweb.net	Fax 208-287-7109
Name	Gary Johnson	Company	Phone 208-866-2527 Email gsjohnson@adaweb.net	Fax
Name	Bob Perkins	Company	Phone	Fax

PRE-BID MEETING SIGN-IN SHEET

Project: Bid 18083 Expo Idaho Large Animal Barn Roof Replacement and Structural Repairs Project

Date: 8/6/18 Time: 2:00 p.m.

MANDATORY Yes No

PLEASE PRINT LEGIBLY: All attendees must sign in, including all Ada County employees in attendance.

NAME		COMPANY	PHONE NO.	FAX NO.
			EMAIL	
Name	Doug Cox	Company Ada County	Phone 208 861-0684 Email dcox@adaweek.net	Fax
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Name	Nick Drake	Company DRAKE MECHANICALS	Phone 208-939-6714 Email NICK.D@DRAKEMECH.COM	Fax
Name	Eric Costello	Company PROTECH ROOFING	Phone 208-889-6774 Email ERIC.COSTELLO@PROTECHROOFING.US	Fax 889-3970
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Name	Mike Roman	Company Roman-Roots Inc.	Phone 208-362-6822 Email FRANK@ROMAN-ROOTS.COM	Fax
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