



# Chinook's Edge School Division 2023 Roof Replacement Specifications

Cremona School: 206 – 3 Street East, Cremona, Alberta

Delburne Centralized School: 2611 – 18 Street, Delburne, Alberta

Fox Run School: 2 Falcon Ridge Drive, Sylvan Lake, Alberta

Prepared for:

**Chinook's Edge School Division**

March 13, 2023

Pinchin File: 320613.000

*Contractors shall carefully examine and study all of the Contract Documents and shall visit the sites of proposed work in order to satisfy themselves by examination as to all conditions and dimensions.*

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**320613.000 – BSS – 06: Fox Run School – Roof Section 1**

**END OF SECTION**

**Part 1 General**

**1.1 INVITATION**

- .1 Call
  - .1 Ensure offers are signed under seal, executed, and dated and are received by the Owner via email at [jmatichuk@cesd73.ca](mailto:jmatichuk@cesd73.ca) by 2:00pm local time on 11th day of April 2023.
  - .2 Offers will be opened privately on the bid closing day.
  - .3 Amendments to submitted offer will be permitted if received in writing prior to Bid closing and if endorsed by same party or parties who signed and sealed offer.
  - .4 Offers submitted after bid closing will not be accepted and will be left unopened.

**1.2 INTENT**

- .1 Intent of this Bid call is to obtain an offer to perform Work to complete roof replacements located at various schools for Stipulated Price contract, in accordance with Contract Documents.
- .2 Initiate Work within time stated in Section 01 11 00 - Summary of Work.
- .3 Perform Work within time stated in Section 01 11 00 Summary of Work.

**1.3 CONTRACT DOCUMENTS IDENTIFICATION**

- .1 Contract Documents are identified as project number 320613.000 as prepared by Consultant, located at #14, 7471 Edgar Industrial Bend, Red Deer, Alberta T4P 3Z5.

**1.4 CONTRACT/BID DOCUMENTS**

- .1 Agreement Form.
- .2 Definitions:
  - .1 Bid Document: Contract Documents supplemented with Instructions to Bidders, Bid Form, and Bid Supplementary Forms identified.
  - .2 Bid, Offer, or Bidding: act of submitting an offer under seal.
  - .3 Stipulated Bid Price: monetary sum identified in Bid Form as an offer to perform Work.
- .3 Availability
  - .1 Bid Documents may be obtained at office of the Consultant.
  - .2 Electronic versions of Bid Documents can be downloaded at COOLNet.
  - .3 Documents are made available only for purpose of obtaining offers for this project. Their use does not confer license or grant for other purposes.
- .4 Examination
  - .1 Upon receipt of Bid Documents verify that documents are complete.
  - .2 Immediately notify Consultant upon finding discrepancies or omissions in Bid Documents.

.5 Queries/Addenda

- .1 Direct questions to the Consultant by e-mail at [mevanyshyn@pinchin.com](mailto:mevanyshyn@pinchin.com).
- .2 Addenda may be issued during Bid period. Addenda will become part of Contract Documents. Include costs in Stipulated Bid Price.
- .3 Verbal answers are only binding when confirmed by written addenda.
- .4 Clarifications requested by Bidders must be in writing not less than five days before date set for receipt of Bids. Reply will be in form of an addendum. Copy of addendum will be forwarded to known Bidders no later than 3 working days before receipt of Bids.

.6 Product/System Options

- .1 Where Bid Documents stipulate a particular product, substitutions will be considered by the Consultant up to 5 days before receipt of Bids.
- .2 When request to substitute product is made, Consultant may approve substitution and will issue Addendum to known Bidders.
- .3 In submission of substitutions to products specified, Bidders are to include in their Bid, changes required in Work to accommodate such substitutions. Later claim by Bidder for addition to Contract Price as a result of changes in Work necessitated by use of substitutions will not be considered.
- .4 Substituted products will be considered if submitted as an attachment to Bid Form.
- .5 Ensure submission provides sufficient information to enable the Consultant to determine acceptability of such products.
- .6 Provide complete information on required revisions to other work to accommodate each substitution, dollar amount of additions to or reductions from Bid Price, including revisions to other work.
- .7 Provide specified products unless substitutions are submitted as noted and subsequently accepted.

**1.5 SITE ASSESSMENTS**

.1 Site Examination

- .1 Visit project sites and surrounding area before submitting Bid.

.2 **Mandatory Bidders Briefing**

- .1 A mandatory Bidders briefing has been scheduled for 10:00am on 4<sup>th</sup> day of April, 2023 at Fox Run School, 2 Falcon Ridge Drive, Sylvan Lake, Alberta.
- .2 Representatives of Owner and Consultant will be in attendance.
- .3 Information relevant to Bid Documents will be recorded in Addendum and issued to known Bidders.
- .4 Visit to the remaining project sites is to be coordinated by Bidders at their own time. **Call the office of the school to check-in prior to accessing the roof. Access to the roof areas is to be conducted from the exterior via a Contractor provided ladder.**

- Cremona School – 403.637.3856

- Delburne Centralized School – 403.749.3838
- Fox Run School – 403.887.0491

## **1.6 BID SUBMISSION**

- .1 Rules and regulations of Bid Depository, in force on day of Bid submission apply.
- .2 Bid Ineligibility
  - .1 Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, may be declared informal at Owner's discretion.
  - .2 Bids with Bid Forms and enclosures which are improperly prepared may be declared informal at Owner's discretion.
  - .3 Bids that fail to include bonding or insurance requirements may be declared informal at Owner's discretion.
- .3 Submissions
  - .1 Bidders are solely responsible for delivery of their Bids in manner and time prescribed.
  - .2 Submit one copy of executed offer on Bid Forms provided, signed and with corporate seal together with required security in sealed opaque envelope, clearly identified with Bidder's name, project name and Owner's name on outside.
  - .3 Insert closed and sealed Bid Form envelope and requested Bid Bond in opaque envelope and label this envelope as noted above.

## **1.7 BID ENCLOSURES/REQUIREMENTS**

- .1 Agreement to Bond:
  - .1 Submit with Bid Form a 10% Bid Bond, Agreement to Bond, stating that surety providing Bid Bond is willing to supply a 50% Performance and a 50% Labour and Materials Payment Bond specified.
  - .2 Include cost of bonds in Bid Price.
- .2 Performance Assurance
  - .1 Accepted Bidder must provide Performance and Labour and Materials Payment Bond.
  - .2 Include cost of bonds in Bid Price.
- .3 Insurance:
  - .1 Provide signed "Undertaking of Insurance" on standard form provided by insurance company stating intention to provide insurance to Bidder in accordance with insurance requirements of Contract Documents.
- .4 Schedule:
  - .1 Include schedule for completion of Work in Gantt format.

- .2 Bidder, in submitting an offer, accepts time period stated in Contract documents for performing Work. Completion date in Agreement is completion time added to commencement date.
- .3 Bidder, in submitting an offer, agrees to complete Work by date indicated in Contract Documents.
- .5 Evaluation Criteria:
  - .1 Corporate Profile:
    - Include Certificate of Article of Incorporation, Directors listing and years in business.
    - Provide health and safety information including CORE Certificate.
    - Provide resumes of proposed project team.
  - .2 Examples of three projects similar in scope. Prioritize (Chinooks Edge) school division project examples.
  - .3 Innovation & Value-Added Service: Include information regarding any innovation and value added services. (i.e. construction management software, daily site reporting, efficiencies to project)
- .6 Bid Signing
  - .1 Bid Form to be signed under seal by Bidder.
  - .2 A signed copy of all Addenda issued before the Bid closing date.

## 1.8 EVALUATION OF BID

- .1 Criteria to be used by the Owner in evaluating the Bids and awarding the contract are as follows:

Selection Criteria Description	Point Value	X	Rating	Total Score	Comments
Fee Structure	10				
Local Resources	4				
Health and Safety	2				
Scheduling	8				
Past Performance with Chinook's Edge School Division	8				
Innovation & Value Added Service	2				
Qualifications	10				
Total Points	/44		/220		

The following table provides a brief description and relative weight for each of the criteria.

Rating	Description
5	Exceeds Expectations. Bidder clearly understands the requirements. Excellent probability of success.
4	Somewhat exceeds expectations.
3	Meets expectations. Bidder has a good understanding of requirements. Good probability of success.
2	Somewhat meets expectations. Minor weakness or deficiencies. Fair probability of success.
1	Does not meet expectations, or demonstrate understanding of the requirements, low probability of success.
0	Non- compliant. Response indicates complete misunderstanding of the requirements. No probability of success.

## 1.9 OFFER ACCEPTANCE/ REJECTION

- .1 Duration of Offer:
  - .1 Bids to remain open to acceptance, and irrevocable for 30 days after Bid closing date.
- .2 Acceptance of Offer:
  - .1 Owner reserves right to accept or reject any or all offers.
  - .2 After acceptance by Owner, Consultant will issue to successful Bidder, written letter of intent.

## Part 2 Products

### 2.1 NOT USED

- .1 Not Used.

## Part 3 Execution

### 3.1 NOT USED

- .1 Not Used.

**END OF SECTION**



**Part 1            General**

**1.1            BID INFORMATION**

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

Submitted by: \_\_\_\_\_

(name) \_\_\_\_\_

(address) \_\_\_\_\_

To: \_\_\_\_\_  
Chinook's Edge School Division

Project:            2023 Roofing Program – 320613.000

**1.2            OFFER**

- .1        Having examined the Places of The Work and all matters referred to in the Instructions to Bidders and the Contract Documents prepared by Pinchin Ltd., we, the undersigned, hereby offer to enter into a contract using CCDC 2-2020 Contract form, to perform the Work for the price of:

**Breakdown of Prices:**

Roof Replacement – Cremona School Roof Section 2.....\$ \_\_\_\_\_

GST           \$ \_\_\_\_\_

TOTAL       \$ \_\_\_\_\_

Roof Replacement – Delburne Centralized School Roof Section 13.....\$ \_\_\_\_\_

GST           \$ \_\_\_\_\_

TOTAL       \$ \_\_\_\_\_

Roof Replacement – Fox Run School Roof Section 1.....\$ \_\_\_\_\_

GST           \$ \_\_\_\_\_

TOTAL       \$ \_\_\_\_\_

**Note: Separate Contracts will be written for each school. It is not required to bid on each school.**

- .2 We have included herewith, the required Bid Bond as required by the Instruction to Bidders.

### 1.3 ACCEPTANCE

- .1 Refer to Section 00 21 13 - Instructions to Bidders for Conditions of acceptance.
- .2 This offer shall be open to acceptance and is irrevocable for thirty (30) calendar days from the Bid closing date and time.
- .3 If this Bid is accepted by the Owner within the time period stated above, they will:
  - .1 Execute the 'Agreement' within seven (7) days of receipt of the form of execution.
  - .2 Furnish the required bonds within seven (7) days of receipt of the Agreement
  - .3 **Complete the Work by the 30th day of August, 2023.**

### 1.4 APPENDICES

- .1 A list of the Contract Documents is appended hereto and identified as 'Appendix A'.
- .2 A list of Subcontractors is appended hereto and identified as 'Appendix B'.

### 1.5 ADDENDA

- .1 The following Addenda have been received. The modifications to the Contract Documents noted therein have been considered and all costs thereto are included in the Bid Price.
  - .1 Addendum # \_\_\_\_\_ Dated \_\_\_\_\_.
  - .2 Addendum # \_\_\_\_\_ Dated \_\_\_\_\_.
  - .3 Addendum # \_\_\_\_\_ Dated \_\_\_\_\_.
  - .4 Addendum # \_\_\_\_\_ Dated \_\_\_\_\_.

**1.6 BID FORM SIGNATURE(S)**

The Corporate Seal of

\_\_\_\_\_  
(Bidder - please print)

was here-unto affixed in the presence of:

(Seal)

\_\_\_\_\_  
Authorized signing officer

\_\_\_\_\_  
Title

\_\_\_\_\_  
Authorized signing officer

\_\_\_\_\_  
Title

If this Bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture on the appropriate form or forms, as above.

**Appendix A:** The following is the list of **Contract Documents** referred to in the Bid Form submitted by:  
(Bidder) \_\_\_\_\_

(Owner) \_\_\_\_\_

dated \_\_\_\_\_ to which this Appendix is an integral part of the Bid Form.

The list of Contract Documents include the following:

- .1 Documents and Specifications cited in the Table of Contents at the beginning of the Project Manual.
- .2 Drawings List cited at or near the beginning of the package of drawings.
- .3 Addenda issued during the tender period.

**Appendix B - Subcontractors:** The following is the list of Subcontractors referred to in the Bid Form submitted by:

(Bidder) \_\_\_\_\_

(Owner) \_\_\_\_\_

dated \_\_\_\_\_ to which this Appendix is an integral part of the Bid Form.  
The following work will be performed (or provided) by Subcontractors and coordinated by us:

Portion of the Work	Subcontractor's Name

**END OF BID FORM - STIPULATED PRICE DOCUMENT**

**Part 1 General**

**1.1 WORK OF THE PROJECT**

- .1 Work of the Project, of which Work of this Contract is a part, comprises the following:
  - .1 Removal, disposal and replacement of the specified roof systems and related carpentry, sheet metal, sealant, and mechanical work at the Places of Work.
  - .2 This Contract is for the provision of all new Products, labour, equipment and services for the roof replacement at the Places of The Work in accordance with the Contract Documents.

**1.2 PLACES OF WORK OF THIS CONTRACT**

- .1 Cremona School: 206 – 3 Street E, Cremona, Alberta
- .2 Delburne Centralized School: 2611 – 18 Street, Delburne, Alberta
- .3 Fox Run School: 2 Falcon Ridge Drive, Sylvan Lake, Alberta

**1.3 DIVISION OF WORK**

- .1 Division of the Work among Subcontractors and Suppliers is solely Contractor's responsibility. Consultant and Owner assume no responsibility to act as an arbiter to establish subcontract limits between Sections or Divisions of the Work.

**1.4 SPECIFICATIONS LANGUAGE AND STYLE**

- .1 These specifications are written in the imperative mood and in streamlined form. The imperative language is directed to Contractor, unless stated otherwise.
- .2 Complete sentences by reading "shall", " Contractor shall", "shall be", and similar phrases by inference. Where a colon (:) is used within sentences and phrases, read the words "shall be" by inference.
- .3 Fulfill and perform all indicated requirements whether stated imperatively or otherwise.
- .4 When used in the context of a Product, read the word “provide” to mean “supply and install to result in a complete installation ready for its intended use”.

**1.5 DOCUMENTS AT THE SITE**

- .1 Keep the following documents at Place of the Work, stored securely and in good order and available to Owner and Consultant in hard copy or electronic form:
  - .1 Current Contract Documents, including Drawings, Specifications, and addenda.
  - .2 Change Orders, Change Directives, and Supplementary Instructions.
  - .3 Reviewed Shop Drawings, Product data and samples.
  - .4 Manufacturer's certifications.
  - .5 Permits, inspection certificates, and other documents required by authorities having jurisdiction.
  - .6 Material Safety Data Sheets (MSDS) for all controlled Products.

**1.6 CONTRACTOR'S USE OF PREMISES**

- .1 Confine Construction Equipment, Temporary Work, storage of Products, waste products and debris, and all other construction operations to limits required by laws, ordinances, permits, and Contract Documents, whichever is most restrictive. Do not unreasonably encumber Place of the Work.
- .2 Delivery of materials to the Place of Work must be approved in writing by the Owner. Failure to comply will result in materials being removed from the Place of Work at the Contractors expense.
- .3 Materials cannot be delivered to the Place of Work until a maximum of 14 days prior to starting work.
- .4 **Notify the Consultant to conduct a project start-up meeting prior to mobilizing to the Place of Work.**

**Part 2 Products**

**2.1 NOT USED**

- .1 Not used.

**Part 3 Execution**

**3.1 SUMMARY OF WORK**

- .1 The description provided is general only and is not intended as limiting the Scope of Work. Work must be carried out to the full intent of the Contract and in accordance with the Contract Documents.
- .2 Conduct roof replacements at:
  - .1 Cremona School – Roof Section 2;
  - .2 Delburne Centralized School – Roof Section 13, and
  - .3 Fox Run School – Roof Section 1.

**3.2 EXISTING ROOF ASSEMBLIES**

- .1 Cremona School – The existing roof assembly components include but are not limited to:
  - .1 Wood deck (sloped)
  - .2 Felt vapour retarder
  - .3 63.5mm polyisocyanurate
  - .4 12mm wood fibreboard
  - .5 2-ply SBS membrane



- .2 Delburne Centralized School – The existing roof assembly components include but is not limited to:
  - .1 Steel deck (sloped)
  - .2 12.7mm gypsum board
  - .3 2-ply felt vapour retarder
  - .4 100mm expanded polystyrene
  - .5 25mm fibreboard
  - .6 2-ply SBS membrane
- .3 Fox Run School – The existing roof assembly components include but are not limited to:
  - .1 Steel deck (sloped)
  - .2 12.7mm gypsum board
  - .3 Polyethylene vapour retarder
  - .4 127mm expanded polystyrene
  - .5 PVC membrane

### 3.3 NEW ROOF ASSEMBLIES

- .1 Cremona School – Is to include but is not limited to:
  - .1 Existing wood deck (sloped)
  - .2 New fully adhered vapour barrier
  - .3 New fully adhered polyisocyanurate insulation
  - .4 New fully adhered 2-ply SBS modified bitumen roof membrane with factory laminated coverboard and fully adhered cap sheet membrane
- .2 Delburne Centralized School – Is to include but is not limited to:
  - .1 Existing steel deck (sloped)
  - .2 Existing 12.7mm gypsum board
  - .3 New fully adhered vapour barrier
  - .4 New fully adhered polyisocyanurate insulation
  - .5 New fully adhered 2-ply SBS modified bitumen roof membrane with factory laminated coverboard and fully adhered cap sheet membrane
- .3 Fox Run School – Is to include but is not limited to:
  - .1 Existing steel deck (sloped)
  - .2 Existing 12.7mm gypsum board
  - .3 New fully adhered vapour barrier
  - .4 New fully adhered polyisocyanurate insulation
  - .5 New fully adhered 2-ply SBS modified bitumen roof membrane with factory laminated coverboard and fully adhered cap sheet membrane

### 3.4 SCOPE OF WORK

- .1 Disconnect and temporarily relocate all existing mechanical and electrical work including existing conduits, cables, wiring, piping, and similar items to facilitate new roofing work and re-instate to original working condition and in accordance with Contract Documents.
- .2 Remove all existing roof assembly components including membrane, metal flashings, insulation, and vapour retarder to expose the wood deck or existing gypsum board levelling surface. Existing gypsum board levelling surfaces are to be left in place where existing. Consultant to review the condition of the gypsum board.
- .3 Perform complete roof system replacement as indicated on Drawings, and as otherwise specified within the Contract Documents. This work to include the following.
  - .1 Remove and dispose of the existing roofing system including all related flashings, sheet metal counter flashings, sleeves, and all other roofing components to be replaced with new.
  - .2 Build-up existing wooden parapets to a minimum height of 100mm (4") above the finished roof surface in roof areas designated for replacement. Build-up existing roof area dividers and expansion joints to a height of 200mm (8") above the finished roof surface.
  - .3 Curb all existing roof penetrations to a minimum height of 200mm (8") above the finished roof surface.
  - .4 Install new square-to-round conical aluminum plumbing vent pipe curb flashings over stripped in plumbing vent curbs.
  - .5 Remove existing waterproofing gum boxes and replace with new waterproofing doghouse curbs.
  - .6 Disconnect and modify roof top mechanical lines (as required) to provide clearance for the height of the new roof assembly. Install new molded-rubber pipe supports at all roof top service lines as required. Install a loose-laid SBS cap sheet membrane under the supports.
  - .7 Abandoned penetrations are to be deleted and infilled at the deck level.
  - .8 Install new primer and self-adhered vapour retarder to the existing levelling surface.
  - .9 Install self-adhered vapour retarder extensions onto roof deck at all horizontal to vertical transitions to ensure the vapour retarder is continuous and sealed to the new SBS base sheet stripping.
  - .10 Install two layers, 1220mm x 1220mm (4' x 4'), 63.5mm (2.5") in thickness each, coated, glass-faced polyisocyanurate insulation in stripes of low-rise foam adhesive to achieve a minimum R-30 insulating value. Adhesive to be applied in accordance with manufacturer's written installation requirements to meet the wind uplift criteria noted in Section 07 21 13.
  - .11 Install new coated, glass-faced, 1220mm x 1220mm (4' x 4') prefabricated tapered polyisocyanurate sump insulation panels in stripes of adhesive at all roof drain locations.
  - .12 Ensure new insulation panels are walked into foam adhesive and temporarily weighed down to ensure full contact and adhesion, as required, with underlying

substrates.

- .13 Install new drains at existing roof drain locations. New drains to include vandal proof metal drain domes. Modify drain heights as required to accommodate sumps.
- .14 Include for all disconnections, lifting, raising, supporting modifications and reconnections of the existing roof top equipment to allow for removal and installation of roof assembly components. Modify finished level of these components as required.
- .15 Provide new two-ply, modified bitumen roof system over designated areas on the roof surface, in accordance with Section 07 52 00 and applicable Manufacturer's guidelines. Base sheet and cap sheet to be fully adhered.
- .16 Provide all related new sheet metal step flashings, base flashings, fascia, and cap/counter flashings in accordance with Section 07 62 00. Colour selection of new pre-finished flashings to be approved by the Owner prior to fabrication.
- .17 Apply sealants at all locations to achieve watertight seals in accordance with Section 07 92 00.
- .18 Include for all costs for mechanical and electrical work related to roof replacement Scope of Work in accordance with Sections 22 05 00 and 26 05 00.
- .19 Provide a 5-year ARCA Warranty Certificate for all roof replacements and as such crews must be ARCA fire safety trained, including having successfully completed the roofer certification program. Alternatively, non-ARCA bidders must also include proof of fire-safety training, including successful completion of the roofing certification program for crew members, as well as supply a 5-year continuous contract maintenance bond started from the date of Substantial Completion. The bond must come complete with an inspection by Pinchin Ltd. At the 2-year mark. The cost of the bond and inspection are the responsibility of the Contractor and shall be added to the value of the bond. The bond must be responsible for any deficiencies or warranty work following the inspection and the remaining term of the maintenance bond. The bond must be continuous for 5-years
- .20 Work is to be completed during the school's summer break. **Construction start date of July 1, 2023 and construction end date of August 31, 2023.**

**END OF SECTION**

## **Part 1 General**

### **1.1 ADMINISTRATIVE**

- .1 Submit specified submittals to the Consultant for review. Submit with reasonable promptness and in orderly sequence to not cause delay in the Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time or for Product substitutions or other deviations from the Drawings and Specifications.
- .2 Where required by authorities having jurisdiction, provide submittals to such authorities for review and approval.
- .3 Do not proceed with Work affected by a submittal until review is complete.
- .4 Present Shop Drawings, Product data, and samples in SI metric units. Where items or information is not produced in SI Metric units, converted values are acceptable.
- .5 Review submittals, provide verified field measurements where applicable, and affix Contractor's review stamp prior to submission to Consultant. Contractor's review stamp represents that necessary requirements have been determined and verified, and that the submittal has been checked and coordinated with requirements of the Work and Contract Documents.
- .6 Verify field measurements and that affected adjacent work is coordinated.
- .7 Submittals not meeting specified requirements will be returned with comments.
- .8 Do not propose Substitutions or deviations from Contract Documents via Shop Drawing, Product data and sample submittals.

### **1.2 SHOP DRAWINGS AND PRODUCT DATA**

- .1 Indicate Products, methods of construction, and attachment or anchorage, erection diagrams, connections, explanatory notes, and other information necessary for completion of the Work.
- .2 Where Products attach or connect to other Products, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross-references to Drawings, Specifications and other already reviewed Shop Drawings.
- .3 Accompany submittals with a transmittal information including:
  - .1 Date.
  - .2 Contractor's name and address.
  - .3 Identification of each submittal item and quantity.
  - .4 Other pertinent data.
- .4 Product data submittals shall include material safety data sheets (MSDS).
- .5 Where a submittal includes information not applicable to the Work, clearly identify applicable information and strike out non-applicable information.
- .6 Supplement standard information to include details applicable to Project.
- .7 Allow three Working Days for Consultant's review of each submittal.

- .8 If upon Consultant's review no errors or omissions are discovered, or if only minor corrections are required as indicated, submittal will be returned, and fabrication or installation of Work may proceed.
- .9 If upon Consultant's review significant errors or omissions are discovered, a so noted copy will be returned for correction and resubmission. Do not commence fabrication or installation.
- .10 Consultant's notations on submittals are intended to ensure compliance with Contract Documents and are not intended to constitute a change in the Work requiring change to the Contract Price or Contract Time. If Contractor considers any Consultant's notation to be a change in the Work, promptly notify Consultant in writing before proceeding with the Work.
- .11 Resubmit corrected submittals through same procedure indicated above, before any fabrication or installation of the Work proceeds. When resubmitting, notify Consultant in writing of any revisions other than those requested by *Consultant*.

**Part 2 Products**

**2.1 NOT USED**

- .1 Not Used.

**Part 3 Execution**

**3.1 Pre-finished Cap Flashings**

- .1 Submit colour selection chart for parapet cap flashings for approval. During submission note the colour which matches the existing cap flashings.

**3.2 Tapered Insulation**

- .1 Submit tapered insulation shop drawings for approval prior to fabrication.

**END OF SECTION**

**Part 1 General**

**1.1 SUMMARY**

- .1 Section includes descriptions for demolishing, salvaging, recycling and removing site work items identified for removal in whole or in part.

**1.2 RELATED SECTIONS**

- .1 Section 06 08 99 – Rough Carpentry for Minor Works
- .2 Section 07 52 00 – SBS Modified Bitumen Membrane Roofing
- .3 Section 07 62 00 – Sheet Metal Flashing and Trim
- .4 Section 07 92 00 - Sealants

**1.3 DEFINITIONS**

- .1 Selective Demolition: Sequencing demolition activities to allow separation and sorting of selected site materials.
- .2 Hazardous Substances: dangerous substances, dangerous goods, hazardous commodities and hazardous products, including but not limited to: asbestos PCB's, CFC's, HCFC's poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health or wellbeing or environment if handled improperly.

**1.4 ADMINISTRATIVE REQUIREMENTS**

- .1 Coordination: Coordinate with Representative for the material ownership including the following:
  - .1 Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during demolition remain Owner's property:
    - .1 Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.
    - .2 Coordinate with Representative who will establish special procedures for removal and salvage operations.

**1.5 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Action Submittals: Provide, as required, the following submittals before starting any work of this Section:
  - .1 Proposed Dust Control and Noise Control Measures: Submit statement or drawing that indicates measures proposed for use, proposed locations, and proposed time frame for their operation.
- .2 Informational Submittals: Provide the following submittals when requested by the Consultant:

- .1 Qualification Data: Submit information for companies and personnel indicating their capabilities and experience to perform work of this Section including; but not limited to, lists of completed projects with project names and addresses, names and addresses of Consultant, for work of similar complexity and extent.

## **1.6 QUALITY ASSURANCE**

- .1 Regulatory Requirements: ensure Work is performed in compliance with applicable Provincial/Territorial regulations.
- .2 Comply with hauling and disposal regulations of local Authority Having Jurisdiction.

## **1.7 SITE CONDITIONS**

- .1 Environmental protection:
  - .1 Ensure Work does not adversely affect adjacent watercourses, groundwater, and wildlife, or contribute to excess air and noise pollution.
  - .2 Fires and burning of waste or materials is not permitted on site.
  - .3 Burying of rubbish waste materials is not permitted.
  - .4 Disposal of waste of volatile materials including but not limited to, mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into watercourses, storm or sanitary sewers, is not permitted.
  - .5 Ensure proper disposal procedures are maintained throughout the project.
- .2 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with authorities having jurisdiction.
- .3 Protect trees, plants and foliage on site and adjacent properties where indicated.
- .4 Prevent extraneous materials from contaminating air beyond application area, by providing temporary enclosures during demolition work.
- .5 Cover or wet down dry materials and waste to prevent blowing dust and debris. Control dust on all temporary roads.
- .6 Conduct selective site demolition so Owner's operations will not be disrupted:
  - .1 Provide not less than 72 hours' notice to Consultant of activities that will affect operations.
  - .2 Maintain access to existing walkways, exits, and other adjacent occupied or used facilities:
    - .1 Closing or obstructing walkways, exits, or other occupied or used facilities without written permission from Authority Having Jurisdiction is not permitted.
- .7 Consultant assumes no responsibility for Selective Site elements being demolished:
  - .1 Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
  - .2 Before selective site demolition, remove, protect and store salvaged items as directed by Representative:
    - .1 Salvage items as identified by Consultant.
    - .2 Deliver to Owner as directed.

## **1.8 EXISTING CONDITIONS**

- .1 Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work:
  - .1 Hazardous materials will be as defined in the Hazardous Materials Act.
- .2 If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Consultant. Hazardous materials will be removed by Owner under a separate contract or as a change to the Work.
- .3 If material resembling spray or trowel applied asbestos or other substance listed as hazardous be encountered in course of demolition, stop work, take preventative measures, and notify Consultant immediately. Proceed only after receipt of written instructions have been received from Consultant.
- .4 Site elements that will be demolished are based on their condition at time of examination prior to tendering.

## **Part 2 Products**

### **2.1 EQUIPMENT**

- .1 Not applicable.

## **Part 3 Execution**

### **3.1 EXAMINATION**

- .1 Survey existing conditions and correlate with requirements indicated to determine extent of selective site demolition required.
- .2 Consultant does not guaranty that existing conditions are the same as those indicated in Project Record Documents.
- .3 When unanticipated mechanical, electrical, or structural elements are encountered, investigate and measure the nature and extent of the element. Promptly submit a written report to Consultant.
- .4 Verify that hazardous materials have been remediated before proceeding with site demolition operations.

### **3.2 PREPARATION**

- .1 Protection of in-place conditions:
  - .1 Prevent movement, settlement or damage of structures, services, walks, paving, trees, landscaping, adjacent grades, properties, and parts of existing building to remain.
    - .1 Provide bracing, shoring as required.
    - .2 Repair damage caused by demolition as directed by Consultant.
  - .2 Prevent debris from blocking drainage systems, mechanical and electrical systems which must remain in operation.



### **3.3 REMOVAL AND DEMOLITION OPERATIONS**

- .1 Remove items as specified in the Contract Documents.
- .2 Disruption of items designated to remain in place is not permitted.
- .3 Removal of existing roofing components specified:
  - .1 Existing sheet metal flashing and trim, sleeves, membrane and all miscellaneous items not required to remaining as part of the new work.
  - .2 Remove only areas of the existing roofing system which can be watertight on the same day.
  - .3 Ensure that the method of removal does not damage the existing structure, adjacent components or other substrates, which are to remain.
  - .4 Leave existing and new roofing in a watertight condition at the end of each days of work.
- .4 Inform Consultant of any unusual or deteriorated construction revealed during roof removal. Allow Consultant to review conditions prior to roof replacement.
- .5 Leave work in a safe condition so that no part is in danger of toppling or falling at the end of each day's work.
- .6 Do not use hoists or other equipment in a manner that would overload the structure.
- .7 Demolish in a manner to minimize dust. Keep dusty materials wetted.
- .8 Remove existing equipment, services and obstacles where required for refinishing or making good of existing surfaces and replace same as work progresses.

### **3.4 REMOVAL FROM SITE**

- .1 Dispose of debris on a continuous basis. Do not stockpile debris in a manner that would overload the structure. Dispose of demolished materials except where noted otherwise.
- .2 Materials not acceptable for reuse or recycling shall be disposed of at an appropriate and authorized landfill site.
- .3 Cost of transporting to dump site and for dumping of materials, etc., are to be included in the Bid Price.
- .4 Burning of debris or selling of materials on site will not be permitted. Take measures to control dust during disposal operations.
- .5 Provide drop sheets, tarpaulins and other protective devices to minimize damage to interior and exterior.
- .6 Treasure, such as coins, bills, paper of value, and articles of antiquity, discovered during demolition work at the site shall remain property of Owner.

### **3.5 CLEANING**

- .1 Leave Work area clean at end of each day.
- .2 Remove debris, trim surfaces, and leave work site clean, upon completion of Work

- .3      Use cleaning solutions and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.
- .2      Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment.

**END OF SECTION**

**Part 1            General**

**1.1               RELATED SECTIONS**

- .1            Section 02 41 13 – Selective Site Demolition.
- .2            Section 07 52 00 – SBS Modified Bitumen Membrane Roofing
- .3            Section 07 62 00 – Sheet Metal Flashing and Trim
- .4            Section 07 92 00 - Sealants

**1.2               REFERENCE STANDARDS**

- .1            CSA Group (CSA)
  - .1            CAN/CSA-080.1; Specification of Treated Wood
  - .2            CAN/CSA-080.2; Processing and Treatment.
  - .3            CAN/CSA-080.3: Preservative Formulations.
  - .4            CSA-B111; Wire Nails, Spikes and Staples
  - .5            CSA O121-08; Douglas Fir Plywood.
  - .6            CSA O141-05; Softwood Lumber.
  - .7            CSA O151-09; Canadian Softwood Plywood.
  - .8            CSA-O325-07; Construction Sheathing.
  - .9            CSA-O437.0; OSB and Waferboard
- .2            National Building Code – Alberta Edition
- .3            National Fire Code – Alberta Edition
- .4            National Lumber Grades Authority (NLGA)

### **1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for rough carpentry work and include product characteristics, performance criteria, physical size, finish, and limitations.

### **1.4 QUALITY ASSURANCE**

- .1 Lumber identification: by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.
- .2 Plywood identification: by grade mark in accordance with applicable CSA standards.
- .3 Plywood, OSB and wood based composite panel construction sheathing identification: by grademark in accordance with applicable CSA standards.

### **1.5 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials off ground in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect from nicks, scratches, and blemishes.
  - .3 Replace defective or damaged materials with new.
- .4 Do not store products on roof in a manner that may overload the structure.
- .5 Store products away from open flame or ignition sources.
- .6 Do not transport products through the building.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Lumber: unless specified otherwise, softwood, S4S, moisture content 19% or less in accordance with following standards:
  - .1 CSA-O141.
  - .2 NLGA Standard Grading Rules for Canadian Lumber.
  - .3 FSC or SFI certified.
- .2 Furring, blocking, nailing strips, grounds, rough bucks, cants, curbs, fascia backing and sleepers:

- .1 Board sizes: "Standard" or better grade.
- .2 Dimension sizes: "Standard" light framing or better grade.
- .3 Post and timbers sizes: "Standard" or better grade.
- .3 Panel Materials:
  - .1 Douglas fir plywood (DFP): to CSA-O121, standard construction.
    - .1 Urea-formaldehyde free.
  - .2 Canadian softwood plywood (CSP): to CSA-O151, standard construction.
    - .1 Urea-formaldehyde free.
  - .3 Plywood, OSB and wood based composite panels: to CSA-O325.
    - .1 Urea-formaldehyde free.
- .4 Wood Preservative:
  - .1 Surface-applied wood preservative: coloured, or 5% pentachlorophenol solution, water repellent preservative.
  - .2 Pentachlorophenol use is restricted to building components that are in ground contact and subject to decay or insect attack only. Where used, pentachlorophenol-treated wood must be covered with two coats of an appropriate sealer.
  - .3 Structures built with wood treated with pentachlorophenol and inorganic arsenicals must not be used for storing food nor should the wood come in contact with drinking water.

## **2.2 ACCESSORIES**

- .1 Fasteners: to CSA-G164, for exterior work, pressure- preservative treated lumber.
- .2 Wire Nails, Spikes and Staples to CSA B111.
- .3 Bolts: 12.5 mm diameter unless indicated otherwise, complete with nuts and washers.
- .4 Proprietary fasteners: toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs, explosive actuated fastening devices, recommended for purpose by manufacturer.

## **Part 3 Execution**

### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for rough carpentry installation in accordance with manufacturer's written instructions.
  - .1 Inform Consultant of unacceptable conditions immediately upon discovery.
  - .2 Proceed with installation only after unacceptable conditions have been remedied.

### **3.2 INSTALLATION**

- .1 Comply with requirements of Alberta Building Code, supplemented by the following paragraphs:

- .1 Install furring and blocking as required to space-out and support casework, cabinets, wall and ceiling finishes, facings, fascia, soffit, siding and other work as required.
- .2 Install rough bucks, nailers and linings to rough openings as required to provide backing for frames and other work.
- .3 Install wood cants, fascia backing, nailers, curbs and other wood supports as required and secure using galvanized fasteners.
- .4 Install sleepers as indicated.
- .5 Use caution when working with particle board. Use dust collectors and high-quality respirator masks.
- .6 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.
- .7 Countersink bolts where necessary to provide clearance for other work.
- .8 All wood in contact with roofing membranes is to be non-treated.
- .9 All penetrations are to be curbed with new dimensional wood and insulated.
- .10 All curbs to be a minimum height of 200mm (8") above the finished roof surface.
- .11 Install new wood blocking and plywood to parapets wall caps to provide minimum 5% slope back to the field of the roof.
- .12 Install new plywood at the base of high-walls and interior faces of parapets to provide acceptable substrate for the installation of the membrane.
- .13 Abandoned openings smaller than 300mm x 300mm are to be covered with 22 gauge galvanized sheet metal so the metal overlaps the decking on each side 150mm (6"). Secure with screws every 150mm.
- .14 Abandoned openings greater than 300mm x 300mm install decking to match existing profile. Decking to overlap existing decking by 150mm on each side. Secure with screws that penetrate the deck every 25mm.

### **3.3 CLEANING**

- .1 Progress Cleaning. Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment.

**END OF SECTION**

**Part 1 General**

**1.1 RELATED SECTIONS**

- .1 Section 01 11 00 – Summary of Work.
- .2 Section 07 52 00 – Modified Bituminous Membrane Roofing

**1.2 REFERENCE STANDARDS**

- .1 ASTM International (ASTM)
  - .1 ASTM C1289-22, Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
- .2 Underwriters Laboratories of Canada (ULC)
  - .1 CAN/ULC-S704-11, Standard for Thermal Insulation Polyurethane and Polyisocyanurate, Boards, Faced.
- .4 Alberta Roofing Contractors Association (ARCA)
  - .1 ARCA Roofing Specifications Manual.
- .5 Canadian Roofing Contractors Association (CRCA)
  - .1 CRCA Roofing Specifications Manual.
- .6 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
  - .1 Safety Data Sheets (SDS).

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for board insulation and include product characteristics, performance criteria, physical size, finish, and limitations.
- .3 Shop Drawings:
  - .1 Submit to Consultant for review tapered insulation shop drawings, as required.
- .4 Manufacturer's Instructions:
  - .1 Submit manufacturer's installation instructions.

**1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .2 Storage and Handling Requirements:
  - .1 Store materials off ground, in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

- .2 Replace defective or damaged materials with new.
- .3 Store adhesives and waterproofing mastics at a minimum +5°C. Store adhesives and solvent-based mastics at sufficiently high temperatures to ensure ease of application.
- .4 Avoid material overloads that may affect the structural integrity of specific roof areas.
- .5 All materials will be delivered and stored in conformance with the requirements described in the Manufacturer's Manual; they must remain in their original packaging, displaying the manufacturer's name, product name, weight, and reference standards, as well as all other indications or references considered standard.
- .6 Ensure all materials are secured to the roof to prevent wind blow-off.

## **Part 2 Products**

### **2.1 INSULATION**

- .1 Rigid Cellular Polyisocyanurate:
  - .1 Faced: CAN/ULC-S704.
    - .1 Polyisocyanurate: Acrylic-coated and glass fibre reinforced.
    - .2 Shape: flat.
    - .3 Thickness: Two layers of 63.5mm
    - .4 Size: Maximum 1220mm x 1220mm.

## **Part 3 Execution**

### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate are acceptable for board insulation application in accordance with manufacturer's written instructions.
  - .1 Inform Consultant of unacceptable conditions immediately upon discovery.
  - .2 Proceed with installation only after unacceptable conditions have been remedied.
- .2 Roof system to be installed according to applicable standards in the Alberta Roofing Contractors Association (ARCA) and the Canadian Roofing Contractors Association Roofing Specification Manual.

### **3.2 INSTALLATION**

- .1 Install insulation after building substrate materials are dry.
- .2 Install insulation to vapour retarder or additional layers of insulation with adhesive in conformance with the manufacturer's written recommendations to meet the following wind loads:
  - .1 Cremona School
    - .1 End zone width: 2.1m (7')
    - .2 Corner: -3.2 kPa (-68 psf)
    - .3 Edge: -1.7 kPa (-35 psf)



- .4 Field: -1.3 kPa (-27 psf)
- .2 Delburne School
  - .1 End zone width: 2.7m (9')
  - .2 Corner: -3.3 kPa (-69 psf)
  - .3 Edge: -2.0 kPa (-42 psf)
  - .4 Field: -1.5 kPa (-32 psf)
- .3 Fox Run School
  - .1 End zone width: 2.1m (7')
  - .2 Corner: -2.7 kPa (-56 psf)
  - .3 Edge: -1.4 kPa (-29 psf)
  - .4 Field: -1.1 kPa (-23 psf)
- .3 Install insulation to maintain continuity of thermal protection to building elements and spaces.
- .4 Fit insulation tight around electrical boxes, plumbing and heating pipes and ducts, around exterior doors and windows and other protrusions.
- .5 Cut and trim insulation neatly to fit spaces. Butt joints tightly, offset vertical joints. Use only insulation boards free from chipped or broken edges. Use largest possible dimensions to reduce number of joints.
- .6 Do not install insulation boards in a soldier pattern.
- .7 Offset both vertical and horizontal joints minimum 150mm in multiple layer applications.
- .8 Install only as much insulation as can be covered in the same day.

### **3.3 CLEANING**

- .1 Remove and dispose of all debris from roof areas each day.
- .2 Remove all stains, asphalt, caulking or other adhesive from affected surfaces.

**END OF SECTION**

**Part 1 General**

**1.1 RELATED SECTIONS**

- .1 Section 02 41 13 – Selective Site Demolition.
- .2 Section 06 08 99 – Rough Carpentry for Minor Works.
- .3 Section 07 21 13 – Board Insulation.
- .4 Section 07 62 00 – Sheet Metal Flashing and Trim.
- .5 Section 07 92 00 – Sealants.

**1.2 REFERENCE STANDARDS**

- .1 Canadian General Standards Board (CGSB)
  - .1 CGSB 37-GP-56M-80; Membrane, Modified, Bituminous, Prefabricated, and Reinforced for Roofing.
  - .2 CAN/CGSB-51.33-M89, Vapour Barrier Sheet, Excluding Polyethylene, for Use in Building Construction.
- .2 Alberta Roofing Contractors Association (ARCA)
  - .1 CRCA Roofing Specifications Manual.
- .3 Canadian Roofing Contractors Association (CRCA)
  - .1 CRCA Roofing Specifications Manual.
- .4 CSA Group (CSA)
  - .1 CSA A123.21-10, Standard Test Method for the Dynamic Wind Uplift Resistance of Membrane-Roofing Systems.
- .5 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
  - .1 Safety Data Sheets (SDS).

**1.3 ADMINISTRATIVE REQUIREMENTS**

- .1 Convene pre-installation meeting one week prior to beginning waterproofing Work, with roofing contractor's representative and Consultant to:
  - .1 Verify project requirements.
  - .2 Review installation and substrate conditions.
  - .3 Co-ordination with building Owner.
  - .4 Review manufacturer's installation instructions and warranty requirements.
  - .5 Provide documentation noting applicator is a Certified Installer as per the membrane manufacturer.

**1.4 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:

- .1 Provide copy of most recent technical roofing components data sheets describing materials' physical properties and include product characteristics, performance criteria, physical size, finish and limitations.
- .2 Provide copy of WHMIS SDS.
- .3 Provide shop drawings:
  - .1 Provide layout for tapered insulation.

## **1.5 QUALITY ASSURANCE**

- .1 Installer qualifications: company or person specializing in application of modified bituminous roofing systems with 5 years' experience, approved by manufacturer.

## **1.6 DELIVERY, STORAGE, AND HANDLING**

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Storage and Handling Requirements:
  - .1 Safety: comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of asphalt, sealing compounds, primers and caulking materials.
  - .2 Provide and maintain dry, off-ground weatherproof storage.
  - .3 Store rolls of felt and membrane in upright position. Store membrane rolls with salvage edge up.
  - .4 Remove only in quantities required for same day use.
  - .5 Store sealants at +5 degrees C minimum.

## **1.7 SITE CONDITIONS**

- .1 Install roofing on dry deck, free of snow and ice, use only dry materials and apply only during weather that will not introduce moisture into roofing system.
- .2 Follow manufacturer's guideline for minimum temperature applications.

## **1.8 WARRANTY**

- .1 Provide a 5-year ARCA Warranty Certificate for all roof replacements and as such crews must be ARCA fire safety trained, including having successfully completed the roofer certification program. Alternatively, non-ARCA bidders must also include proof of fire-safety training, including successful completion of the roofing certification program for crew members, as well as supply a 5-year continuous contract maintenance bond started from the date of Substantial Completion. The bond must come complete with an inspection by Pinchin Ltd. At the 2-year mark. The cost of the bond and inspection are the responsibility of the Contractor and shall be added to the value of the bond. The bond must be responsible for any deficiencies or warranty work following the inspection and the remaining term of the maintenance bond. The bond must be continuous for 5-years

## **Part 2 Products**

### **2.1 PERFORMANCE CRITERIA**

- .1 Compatibility between components of roofing system is essential. Provide written declaration to the Consultant stating that materials and components, as assembled in system, meet this requirement.
- .2 Roofing System: to CSA A123.21 for wind uplift resistance.

## **2.2 DECK PRIMER**

- .1 Primer composed of SBS synthetic rubbers, adhesion-enhancing resins and volatile solvents. It is used to enhance the adhesion of self-adhesive membranes on various substrates.
- .2 Basis of design: Elastocol Stick by Soprema.

## **2.3 VAPOUR BARRIER**

- .1 Self-adhesive vapour barrier membranes composed of a tri-laminated woven polyethylene facer and SBS modified bitumen. The width of the membrane is 1.14m meters (45") to allow the membrane to fit on the top flute of most structural steel decks. The self-adhesive under face is covered with a silicone release film. Water vapour permeability:  $< 2.5 \text{ ng/Pa.s.m}^2$  ( $< 0.04 \text{ perm}$ )
- .2 Basis of design: SopraVap'R by Soprema.

## **2.4 MEMBRANE**

- .1 Base sheet (insulated roof areas): Board composed of SBS modified bitumen membrane with a non-woven polyester reinforcement, factory-laminated on a semi-rigid asphaltic board. The board measures 0.914m x 2.44m. The top surface is sanded. The membrane side lap is part self-adhesive and part thermofusible.
  - .1 Thickness: 5.4mm
  - .2 In conformance with CGSB 37.56-M
  - .3 Basis of design: 2-1 Soprasmart board sanded by Soprema
- .2 Base sheet membrane flashings
  - .1 Self-adhesive base sheet membrane composed with a polyester and glass composite reinforcement and SBS modified bitumen. The surface is covered with sanded top face and the underface is covered with a release protection film.
  - .2 Basis of design: Sopraply Stick Duo by Soprema
- .3 Cap sheet membrane
  - .1 Self-adhesive high performance cap sheet membrane with a composite reinforcement and SBS modified bitumen. The surface is protected by coloured granules. The underface is covered with a release protection film.
  - .2 Basis of design: Sopraply Stick Traffic Cap by Soprema.
- .4 Cover Strip
  - .1 Membrane cover strip 330mm (13") composed of SBS modified bitumen and a composite reinforcement. The surface and the underface are both sanded. The strip ensures water tightness in the end laps.
  - .2 Basis of design: Sopralap Sanded by Soprema.

## **2.5 ADHESIVE**

- .1 Adhesive for securing overlay board and insulation: Low-rise, two-part urethane adhesive with no solvents, as recommended by manufacturer.

## **Part 3 Execution**

### **3.1 QUALITY OF WORK**

- .1 Do examination, preparation and roofing Work in accordance with Roofing Manufacturer's Specification Manual and Alberta Roofing Contractors Association Roofing Systems Application Standards.
- .2 Do priming in accordance with manufacturers written recommendations.
- .3 The interface of the walls and roof assemblies will be fitted with plywood providing connection point for continuity of air barrier.
- .4 Assembly, component and material connections will be made in consideration of appropriate design loads.

### **3.2 EXAMINATION OF ROOF DECKS**

- .1 Verification of Conditions:
  - .1 Inspect with Consultant deck conditions including parapets, construction joints, roof drains, plumbing vents and ventilation outlets to determine readiness to proceed.
- .2 Evaluation and Assessment:
  - .1 Prior to beginning of work ensure:
    - .1 Decks are firm, straight, smooth, dry, free of snow, ice or frost, and swept clean of dust and debris. Do not use calcium or salt for ice or snow removal.
    - .2 Curbs have been built.
    - .3 Roof drains have been installed at proper elevations relative to finished roof surface.
    - .4 Plywood and lumber nailer plates have been installed to deck, walls and parapets as indicated.
- .3 Do not install roofing materials during rain or snowfall.

### **3.3 PROTECTION OF IN-PLACE CONDITIONS**

- .1 Cover walls, walks and adjacent work where materials hoisted or used.
- .2 Use warning signs and barriers. Maintain in good order until completion of Work.
- .3 Clean off drips and smears of bituminous material immediately.
- .4 Dispose of rainwater off roof and away from face of building until roof drains or hoppers installed and connected.
- .5 Protect roof from traffic and damage.

- .6 At end of each day's work or when stoppage occurs due to inclement weather, provide protection for completed Work and materials out of storage.

### **3.4 DECK SHEATHING**

- .1 Verify, where required, existing gypsum board deck sheathing is in good condition and in acceptable condition to receive the new roof system components.

### **3.5 PRIMING DECK**

- .1 Apply deck primer to deck or gypsum board roofing substrate at the rate recommended by manufacturer.

### **3.6 VAPOUR BARRIER**

- .1 Unroll and relax prior to installation.
- .2 Beginning at the bottom of the slope, without adhering the membrane, unroll onto the substrate for alignment. Do not immediately remove the silicone release sheet.
- .3 Align the roll parallel to the corrugations of the steel deck (where applicable). Make sure the membrane overlaps are supported along their entire length.
- .4 Peel back one end of the silicone release sheet and adhere this part of the membrane to the substrate. Peel back the remaining release sheet at a 45° angle to avoid wrinkles in the membrane.
- .5 If the membrane is not properly aligned, do not try to adjust it. Instead, cut the roll and start again, making sure that it is properly aligned and that it overlaps the end of the misaligned piece by 150mm
- .6 Overlap adjacent membranes by 75mm. Overlap end laps by 150mm (6"). Stagger end laps by at least 300mm (12").
- .7 Ensure the vapour barrier extends up the vertical at parapets and penetrations to a height which will allow the base sheet membrane to tie into the vapour barrier.

### **3.7 CONVENTIONAL MEMBRANE ROOFING (CMR) APPLICATION**

- .1 Insulation: fully adhered, adhesive application:
  - .1 Adhere insulation to vapour barrier using low-rise adhesive.
  - .2 Adhesive spacing will be determined by the results of the wind load reports provided.
  - .3 All the boards must be in perfect connection, without any significant differences in level and must be adhered on all their surfaces completely.
  - .4 Do not install boards in a soldier pattern.
  - .5 All vertical joints between boards of insulation must be staggered minimum 150mm (6").
  - .6 Around the drains, install a pre-fabricated sump.
- .2 Base sheet application:
  - .1 Adhere base sheet and insulation boards using low-rise foam adhesive applied in continuous stripes to meet the following wind up-lift requirements:

- .1 Cremona School
  - .1 End zone width: 2.1m (7')
  - .2 Corner: -3.2 kPa (-68 psf)
  - .3 Edge: -1.7 kPa (-35 psf)
  - .4 Field: -1.3 kPa (-27 psf)
- .2 Delburne School
  - .1 End zone width: 2.7m (9')
  - .2 Corner: -3.3 kPa (-69 psf)
  - .3 Edge: -2.0 kPa (-42 psf)
  - .4 Field: -1.5 kPa (-32 psf)
- .3 Fox Run School
  - .1 End zone width: 2.1m (7')
  - .2 Corner: -2.7 kPa (-56 psf)
  - .3 Edge: -1.4 kPa (-29 psf)
  - .4 Field: -1.1 kPa (-23 psf)
- .2 Temporarily weigh down the base sheet boards to ensure full contact with the substrate.
- .3 Adhere the first part of the self-adhesive side laps using a membrane roller, then heat weld the last part.
- .4 Seal end laps by adhering a 330mm (6") wide protection strip centered over the joint.
- .5 Seal all lap joints of the base sheet by the end of the workday.
- .6 Application to be free of blisters, wrinkles and fishmouths.
- .3 Base sheet flashing application:
  - .1 Apply primer to the substrate at a rate of .25 L/m<sup>2</sup>. Primer should be dry before installation of base sheet flashing.
  - .2 Before applying membranes, always remove the plastic film on the section to be covered if there an overlap (inside corners and field surfaces). For sanded base sheet membranes, apply primer for self-adhered membrane to the area to be covered at the foot of the parapet / projection.
  - .3 Cut off corners at end laps to be covered by the next roll.
  - .4 Overlap side laps along lines provided for this purpose and overlap end laps by 150mm (6"). Stagger end joints by a minimum of 300mm (12").
  - .5 Apply base sheet flashing directly onto substrate by removing silicone release paper. Proceed from top to bottom. Gradually peel back the release film, pressing down on the membrane with an aluminum applicator to ensure good adhesion. Use the aluminum applicator to ensure a perfect transition between the upstand and the field surface. Smooth the entire membrane surface with a roller for full adhesion.
  - .6 Install reinforcing gussets at all inside and outside corners.

- .7 Wrinkles, air pockets or fish mouths are unacceptable and shall be repaired.
- .8 Always seal overlaps at the end of the workday.
- .4 Cap sheet application:
  - .1 The cap sheet must be installed in one-meter wide strips.
  - .2 Each selvedge will overlap the previous one laterally along lines provided for this purpose and will overlap 150mm (6") the field surface. Cap sheet membranes for flashings must be spaced at least 100mm (4") with respect to the cap sheet membranes on the field surface, to avoid areas of excessive membrane thickness.
  - .3 Cut off corners at end laps of areas to be covered by next roll.
  - .4 Use a chalk line to draw a straight line on the field surface 150mm (6") from the flashings and parapets.
  - .5 Apply a coat of self-adhesive membrane primer on the field surface and allow to dry.
  - .6 Position the pre-cut membrane. Remove 150mm (6") of the release film to hold the membrane in place at the top of the flashing.
  - .7 Gradually peel off the remaining release film, pressing down on the membrane with an aluminum applicator to ensure good adhesion. Use the aluminum applicator to ensure a perfect transition between the flashing and the field surface. Smooth the entire membrane surface with a membrane roller for full adhesion.
  - .8 Adhere the first part of the self-adhesive side laps using a membrane roller, then heat weld the last part.
  - .9 Apply adhesive for the first 125mm (5") of the end lap using a steel trowel with 5mm (13/64") notches.
  - .10 Complete application by welding the last 25mm (1") of the overlap to the field surface, using an electric hot air welder and a membrane roller.
  - .11 Apply pressure on the whole surface with a membrane roller to ensure complete and uniform adherence.

### **3.8 CLEANING**

- .1 Remove bituminous markings from finished surfaces.
- .2 In areas where finished surfaces are soiled caused by work of this section, consult manufacturer of surfaces for cleaning advice and complying with their instructions.
- .3 Repair or replace defaced or disfigured finishes caused by work of this section.

**END OF SECTION**



**Part 1 General**

**1.1 RELATED SECTIONS**

- .1 Section 06 08 99 – Rough Carpentry for Minor Works.
- .2 Section 07 52 00 – Modified Bitumen Membrane Roofing.
- .3 Section 07 92 00 – Sealants.

**1.2 REFERENCE STANDARDS**

- .1 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-51.32-M77; Sheathing, Membrane, Breather Type.
- .2 CSA Group (CSA)
  - .1 CSA-B111; Wire Nails, Spikes and Staples.
- .3 Canadian Roofing Contractors Association (CRCA)
  - .1 ARCA Roofing Specifications Manual.

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Samples:
  - .1 Submit colour selection chart for parapet cap flashing.
  - .2 Colour to be approved by the Owner prior to fabrication.

**1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Store products under cover on elevated platforms, protected from weather and construction activities.
- .2 Handle and store flashing materials to prevent creasing, buckling, scratching, or other damage.
- .3 Remove and replace damaged products.

**Part 2 Products**

**2.1 MATERIALS**

- .1 Prefinished steel metal: Galvanized steel, 0.71 mm (24 ga) core nominal thickness, Z275 zinc coating with a prefinished coat.
- .2 Galvanized sheet metal: Galvanized sheet steel, Z275 zinc coating. Thickness as specified or indicated on Drawings.
- .3 Starter Strips: Fabricated from pre-finished steel, 0.87 mm (22ga.) core nominal thickness, Z275 zinc coating. Starter strips to be continuous.
- .4 Banding Strips: 3mm x 25mm aluminum bar.
- .5 Solder: to ASTM B32, lead free.

- .6 Flux: Commercial preparation suitable for materials to be soldered.
- .7 Isolation coating: Alkali resistant bituminous paint.
- .8 Nails: Hot dipped galvanized steel flat head roofing nails to CSA-B111 and of length and thickness to suit application.
- .9 Touch-up paint: As recommended by the pre-finished sheet metal manufacturer.

## **2.2 FABRICATION**

- .1 Shop fabricate flashings and trim in accordance with applicable requirements of SMACNA Architectural Manual, ARCA Manual and in accordance with the Contract Documents. Form sheet metal on bending brake, shaping, trimming and hand seaming on bench.
- .2 Form sections square, true, and accurate to size, free from distortion, oil canning and other defects detrimental to appearance and performance, and to dimensions indicated / required.
- .3 Provide an "S-Lock" joint at all end joints and at all horizontal joints between the cap flashing and the vertical flashing and between the vertical flashing and base counter flashing.
- .4 Hem all exposed edges at least 12 mm (1/2") for appearance and stiffness.
- .5 Miter and form standing seams at all corners. Make allowance for movement at joints.
- .6 Apply isolation coating to metal surfaces to embedded in concrete or mortar joints.
- .7 Where required, metal fascia flashings in greater than 100mm (4") are to be fabricated with a "V" break parallel to the length of the flashing.

## **Part 3 Execution**

### **3.1 INSTALLATION**

- .1 Install cap flashings, counter flashings, starter strips, and other miscellaneous sheet metal work in accordance with the Contract Documents.
- .2 Use concealed fastenings except where approved before installation.
- .3 All sections of parapet cap flashing are to be secured with minimum of two clips installed on the exterior face and one colour matched fastener, complete with neoprene washer, on the interior face.
- .4 Provide continuous banding strips / termination bar along top of membrane flashings where detailed and where membrane flashings terminate at the base of the wall and no other means of mechanical securement is specified or indicated. Fasten banding strips to substrate at a minimum of 150mm (6") on center.
- .5 End joints where adjacent lengths of metal flashing meet shall be made using an "S-lock" joint. This shall be executed by inserting the end of one length in a 25mm (1") deep "S-lock" formed in the end of the adjacent length. Concealed portion of the "S-lock" shall extend 25mm (1") outwards and shall be nailed to substrate. Face nailing of joints is not permitted.

- .6 Ensure fasteners are located a minimum of 300mm (12") above the surface of the roofing membrane, unless otherwise detailed.
- .7 Install surface mounted reglets true and level, and caulk top of reglet with sealant. Insert metal flashing into reglets to form weather tight junction, as per Contract Documents.

**END OF SECTION**

**Part 1 General**

**1.1 RELATED SECTIONS**

- .1 Section 02 41 13 – Selective Demolition
- .2 Section 06 08 99 – Rough Carpentry for Minor Works
- .3 Section 07 52 00 – Modified Bitumen Membrane Roofing
- .4 Section 07 62 00 – Sheet Metal Flashing and Trim

**1.2 REFERENCE STANDARDS**

- .1 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-51.32-M77; Sheathing, Membrane, Breather Type.
- .1 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Safety Data Sheets (SDS).

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for sealants and include product characteristics, performance criteria, physical size, finish and limitations.
  - .2 Manufacturer's product to describe:
    - .1 Sealanting compound.
    - .2 Primers.
    - .3 Sealing compound, each type, including compatibility when different sealants are in contact with each other.
  - .3 Submit 2 copies of WHMIS SDS.

**1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Replace defective or damaged materials with new.

**1.5 SITE CONDITIONS**

- .1 Ambient Conditions:
  - .1 Proceed with installation of joint sealants only when:

- .1 Ambient and substrate temperature conditions are within limits permitted by joint sealant manufacturer or are above 4.4 degrees C.
  - .2 Joint substrates are dry.
  - .3 Conform to manufacturer's recommended temperatures, relative humidity, and substrate moisture content for application and curing of sealants including special conditions governing use.
- .2 Joint-Width Conditions:
  - .1 Proceed with installation of joint sealants only where joint widths are more than those allowed by joint sealant manufacturer for applications indicated.
- .3 Joint-Substrate Conditions:
  - .1 Proceed with installation of joint sealants only after contaminants capable of interfering with adhesion are removed from joint substrates.

## **1.6 ENVIRONMENTAL REQUIREMENTS**

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of Safety Data Sheets (SDS) acceptable to Health Canada.

## **Part 2 Products**

### **2.1 SEALANT MATERIALS**

- .1 Do not use sealants that emits strong odours, contains toxic chemicals or is not certified as mould resistant in air handling units.
- .2 When low toxicity sealants are not possible, confine usage to areas which off gas to exterior, are contained behind air barriers, or are applied several months before occupancy to maximize off gas time.
- .3 Where sealants are qualified with primers use only these primers.

### **2.2 SEALANT MATERIAL DESIGNATIONS**

- .1 Compatibility: All materials in a sealant system shall be compatible with each other and with the substrate.
- .2 Elastomeric Sealants: One-part elastomeric, non-sag urethane based sealant.
- .3 Butyl sealants: Butyl rubber and polyisobutylene blend sealant. Butyl sealant to be compatible with modified bituminous membrane flashings.
- .4 Colour or colours of sealants shall be selected to match the substrate and shall be approved by Consultant.
- .5 Primer: As recommended by the sealant manufacturer to assure adhesion of compound and to prevent staining of substrate materials.
- .6 Joint Backing: Polyethylene, urethane, neoprene or vinyl, extruded foam recommended by the sealant manufacturer. Circular shape with diameter 25% greater than joint width.

- .7 Bond Breaker Tape: Pressure sensitive plastic tape, which will not bond to sealants, as supplied or recommended by the sealant manufacturer.
- .8 Void Filler: Glass fibre insulation with a nominal density of 14 kg/m<sup>3</sup>. Sized for 25% compression.
- .9 Cleaning Material: as recommended by sealant manufacturer.

## **2.3 JOINT CLEANER**

- .1 Non-corrosive and non-staining type, compatible with joint forming materials and sealant in accordance with sealant manufacturer's written recommendations.
- .2 Primer: in accordance with sealant manufacturer's written recommendations.

## **Part 3 Execution**

### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for joint sealants installation in accordance with manufacturer's written instructions.
  - .1 Inform Consultant of unacceptable conditions immediately upon discovery.
  - .2 Proceed with installation only after unacceptable conditions have been remedied.
- .2 Verify, before commencing work, that the joint size, depth and substrate will not adversely affect execution, performance or quality of completed work; and that the joints can be sealed in an acceptable condition by means of preparation specified in this section. Verify site conditions together with sealant manufacturer's representative.
- .3 Defective work resulting from application to unsatisfactory joint conditions will be considered the responsibility of those performing the work of this section.

### **3.2 SURFACE PREPARATION**

- .1 Examine joint sizes and conditions to establish correct depth to width relationship for installation of backup materials and sealants.
- .2 Clean bonding joint surfaces of harmful matter substances including dust, rust, oil grease, and other matter which may impair Work.
- .3 Do not apply sealants to joint surfaces treated with sealer, curing compound, water repellent, or other coatings unless tests have been performed to ensure compatibility of materials. Remove coatings as required.
- .4 Ensure joint surfaces are dry and frost free.
- .5 Prepare surfaces in accordance with manufacturer's directions.

### **3.3 PRIMING**

- .1 Where necessary to prevent staining, mask adjacent surfaces prior to priming and sealing.
- .2 Prime sides of joints in accordance with sealant manufacturer's instructions immediately prior to sealing.

### **3.4 BACKUP MATERIAL**

- .1 Apply bond breaker tape where required to manufacturer's instructions.
- .2 Install joint filler to achieve correct joint depth and shape, with approximately 25% compression.

### **3.5 MIXING**

- .1 Mix materials in strict accordance with sealant manufacturer's instructions.

### **3.6 APPLICATION**

- .1 Sealant:
  - .1 Apply sealant in accordance with manufacturer's written instructions.
  - .2 Mask edges of joint where irregular surface or sensitive joint border exists to provide neat joint.
  - .3 Apply sealant in continuous beads.
  - .4 Apply sealant using gun with proper size nozzle.
  - .5 Use sufficient pressure to fill voids and joints solid.
  - .6 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.
  - .7 Tool exposed surfaces before skinning begins to give slightly concave shape.
  - .8 Remove excess compound promptly as work progresses and upon completion.
- .2 Curing:
  - .1 Cure sealants in accordance with sealant manufacturer's instructions.
  - .2 Do not cover up sealants until proper curing has taken place.

### **3.7 CLEANING**

- .1 Progress Cleaning:
  - .1 Leave Work area clean at end of each day.
  - .2 Clean adjacent surfaces immediately.
  - .3 Remove excess and droppings, using recommended cleaners as work progresses.
  - .4 Remove masking tape after initial set of sealants.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment.

### **3.8 PROTECTION**

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by joint sealants installation.

**END OF SECTION**

**Part 1 General**

**1.1 RELATED SECTIONS**

- .1 Section 07 52 00 – Modified Bituminous Membrane Roofing.

**1.2 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Replace defective or damaged materials with new.

**Part 2 Products**

**2.1 Mechanical**

- .1 Drains: Thaler RD-4A or approved equivalent.
- .2 Plumbing Vents: New, square to round spun aluminum vent stack flashings.
- .3 Service Line Supports: New rubber equipment service line supports complete with unistrut stands.

**Part 3 Execution**

**3.1 GENERAL PROVISIONS**

- .1 All work shall meet the requirements of the Alberta Building Code and in accordance with Contract Documents.
- .2 All mechanical work shall be performed by a qualified tradesperson with a minimum of 5 years related experience.
- .3 Disconnect, modify, raise and re-connect all existing service lines and roof-top units as required to facilitate the installation of the new roofing system. Coordinate disconnects with the Owner / Consultant.



- .4 Install new drains at all existing internal roof drain locations, complete with metal drain domes. Contractor to account for modification of drain heights as required to ensure drains are sumped. Install all related accessories to provide a leak free connection with the existing interior rainwater leaders, and roof membranes.
- .5 Install rubber equipment service line supports under all existing roof top service lines on loose-laid SBS cap sheet protection pads.
- .6 All electrical and mechanical roof top services lines are to be waterproofed with a metal clad doghouse curb. Service lines to exit the vertical face of the curb, minimum 200mm (8") above the finished roof height.
- .7 Ensure all roof drains and interior rainwater leaders are unobstructed and are free flowing.

### **3.2 PROTECTION**

- .1 Protect equipment and systems openings from dirt, dust, and other foreign materials with materials appropriate to system.

**END OF SECTION**

**Part 1 General**

**1.1 RELATED REQUIREMENTS**

- .1 Section 07 52 00 – Modified Bituminous Membrane Roofing.

**1.2 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Replace defective or damaged materials with new.

**Part 2 Products**

**2.1 Mechanical**

- .1 Service Line Supports: New rubber equipment service line supports complete with unistrut stands.

**Part 3 Execution**

**3.1 GENERAL PROVISIONS**

- .1 All work shall meet the requirements of the Alberta Building Code and in accordance with Contract Documents.
- .2 All electrical work shall be performed by a qualified tradesman.
- .3 Install rubber equipment service line supports under all existing roof top service lines on loose-laid SBS cap sheet protection pads.
- .4 All electrical and mechanical roof top services lines are to be waterproofed with a metal clad dog house curb. Service lines to exit the vertical face of the curb, minimum 200mm above the finished roof height.
- .5 Disconnect, modify, raise and re-connect all existing service lines and roof-top units as required to facilitate the installation of the new roofing system. Coordinate disconnects with the Owner / Consultant.

**3.2 PROTECTION**

- .1 Protect equipment and systems openings from dirt, dust, and other foreign materials with materials appropriate to system.

**END OF SECTION**



# LEGEND

**NOTE:**  
ALL MEASUREMENTS ARE APPROXIMATE.  
CONTRACTOR MUST CHECK AND VERIFY ALL  
DIMENSIONS, PENETRATIONS, JOB SITE  
CONDITIONS AND REPORT ANY DISCREPANCIES  
TO THE APPROPRIATE AUTHORITY PRIOR TO  
COMMENCING CONSTRUCTION.

No	Date	Remarks

## CONSULTANT:

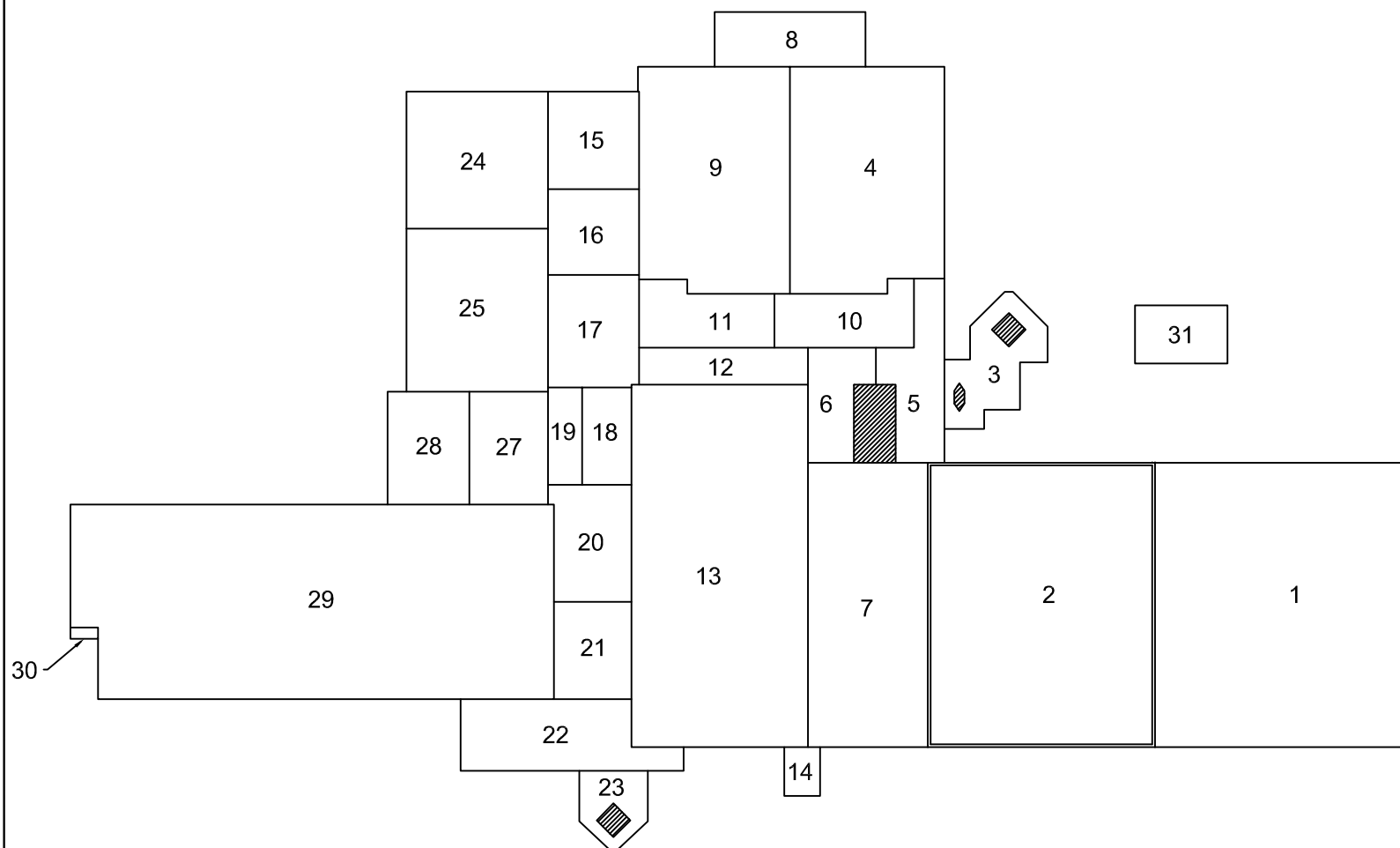


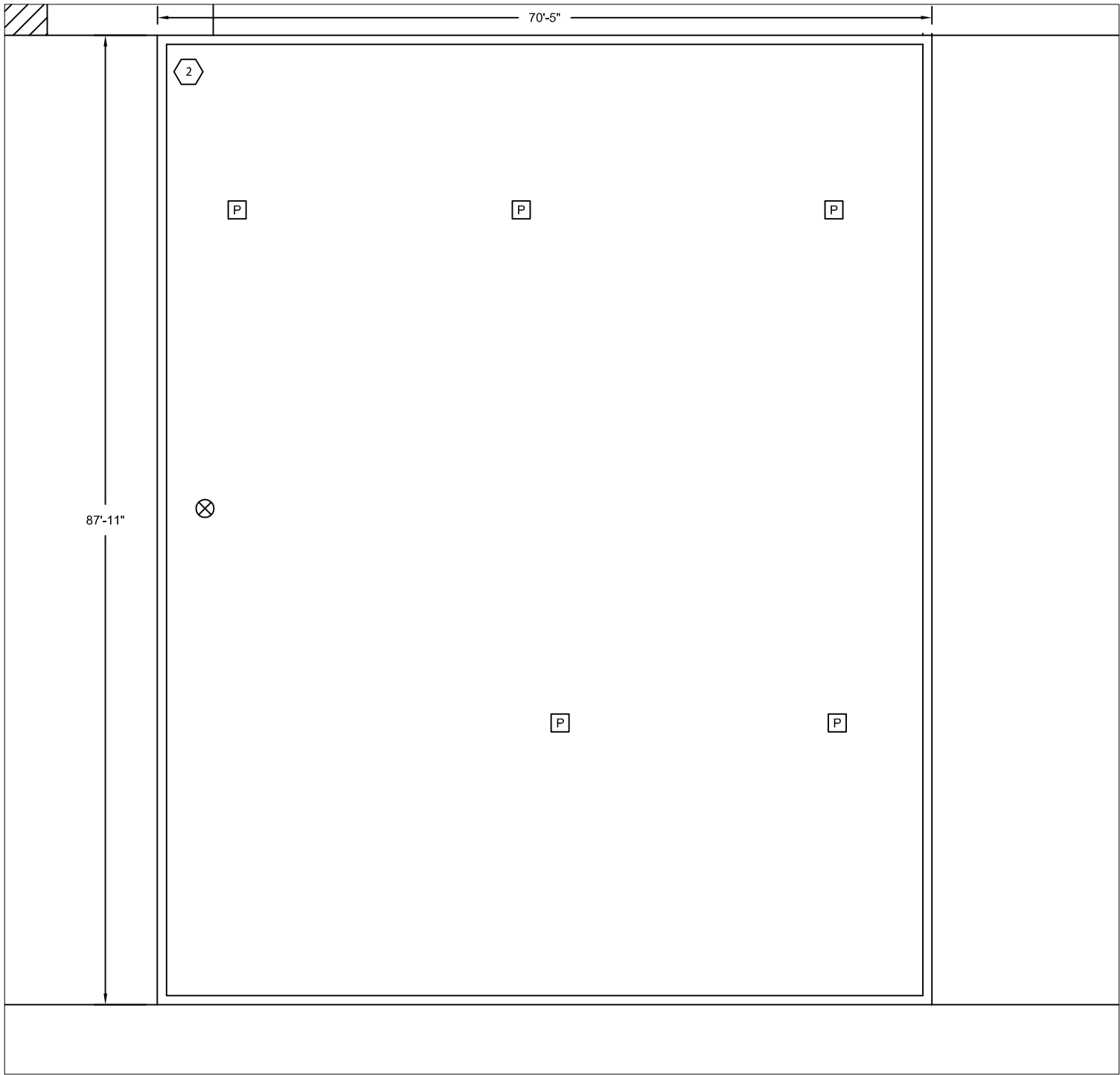
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CREMONA SCHOOL

PROJECT LOCATION
206 - 3 STREET E, CREMONA, AB

DRAWING NAME
ROOF KEY PLAN

PROJECT NO. 320613.000	SCALE NTS
DRAWN BY: MVE	REVIEWED BY: AH
DATE 02.01.2023	DRAWING NO. 320613.000 - BSS - 01





LEGEND

- ROOF SECTION
- EXHAUST FAN
- 'B' VENT
- PLUMBING VENT
- GOOSENECK VENT
- ROOF HATCH
- ROOF TOP UNIT
- ROOF DRAIN
- SCUPPER

NOTE:  
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CONTRACTOR MUST CHECK AND VERIFY ALL  
DIMENSIONS, PENETRATIONS, JOB SITE  
CONDITIONS AND REPORT ANY DISCREPANCIES  
TO THE APPROPRIATE AUTHORITY PRIOR TO  
COMMENCING CONSTRUCTION.

No	Date	Remarks

CONSULTANT:



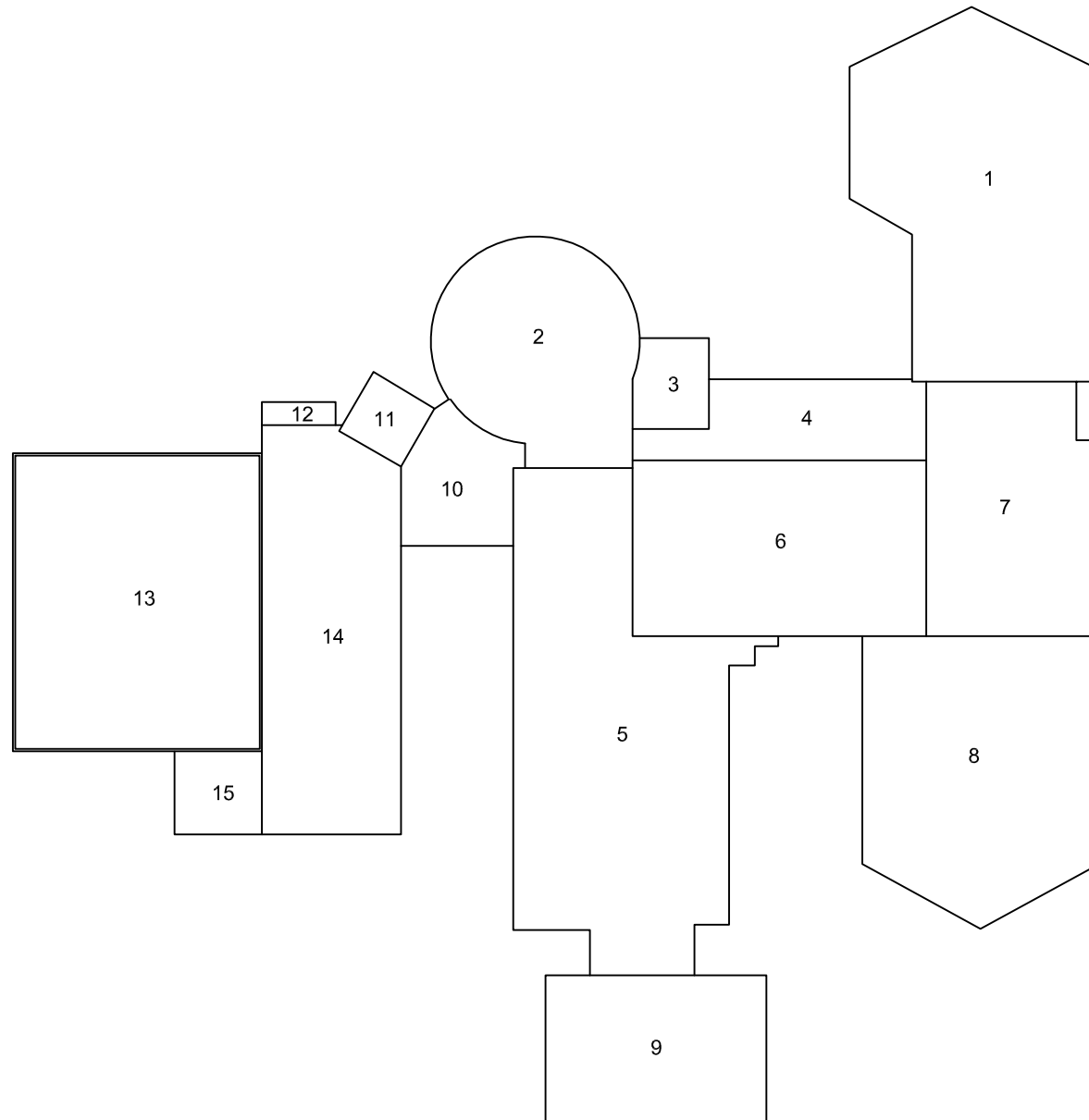
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pinchin.com | 1.855.PINCHIN

PROJECT NAME  
CREMONA SCHOOL

PROJECT LOCATION  
206 - 3 STREET E,  
CREMONA, AB

DRAWING NAME  
ROOF PLAN  
ROOF SECTION 2

PROJECT NO. 320613.000	SCALE NTS
DRAWN BY: MVE	REVIEWED BY: AH
DATE 02.01.2023	DRAWING NO. 320613.000 - BSS - 02



# **LEGEND**

**NOTE:**  
ALL MEASUREMENTS ARE APPROXIMATE.  
CONTRACTOR MUST CHECK AND VERIFY ALL  
DIMENSIONS, PENETRATIONS, JOB SITE  
CONDITIONS AND REPORT ANY DISCREPANCIES  
TO THE APPROPRIATE AUTHORITY PRIOR TO  
COMMENCING CONSTRUCTION.

No	Date	Remarks

## **CONSULTANT:**



#14, 7471 Edgar Ind, Bend, Red Deer AB T4P 3Z5  
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## **PROJECT NAME**

DELBURNE CENTRALIZED SCHOOL

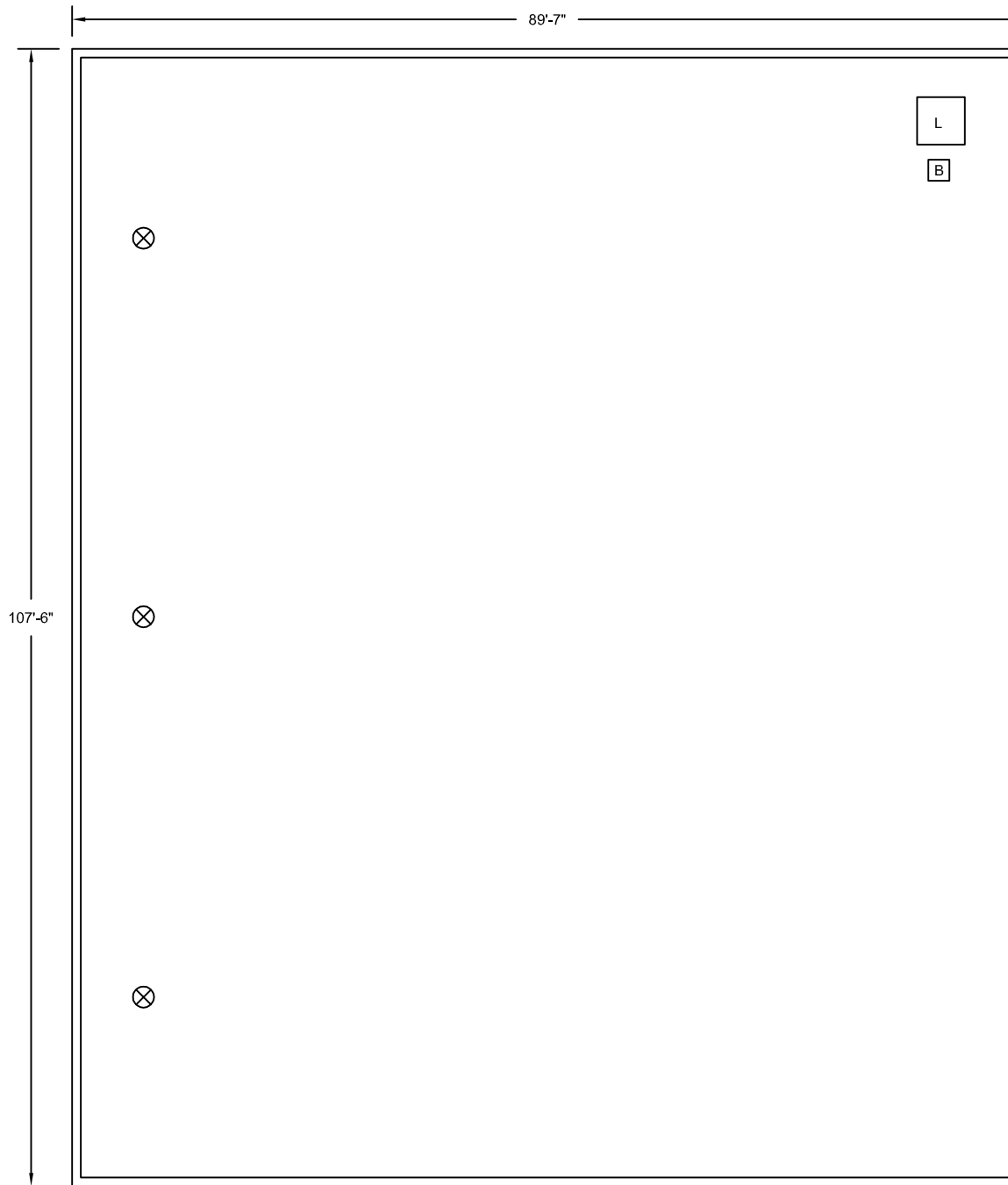
## **PROJECT LOCATION**

2611 - 18 STREET,  
DELBURNE, AB

## **DRAWING NAME**

ROOF KEY PLAN

PROJECT NO. 320613.000	SCALE NTS
DRAWN BY: MVE	REVIEWED BY: AH
DATE 02.01.2023	DRAWING NO. 320613.000 - BSS - 03



LEGEND

- ROOF SECTION
- LOUVER
- 'B' VENT
- ROOF DRAIN

NOTE:  
ALL MEASUREMENTS ARE APPROXIMATE.  
CONTRACTOR MUST CHECK AND VERIFY ALL  
DIMENSIONS, PENETRATIONS, JOB SITE  
CONDITIONS AND REPORT ANY DISCREPANCIES  
TO THE APPROPRIATE AUTHORITY PRIOR TO  
COMMENCING CONSTRUCTION.

No	Date	Remarks

CONSULTANT:

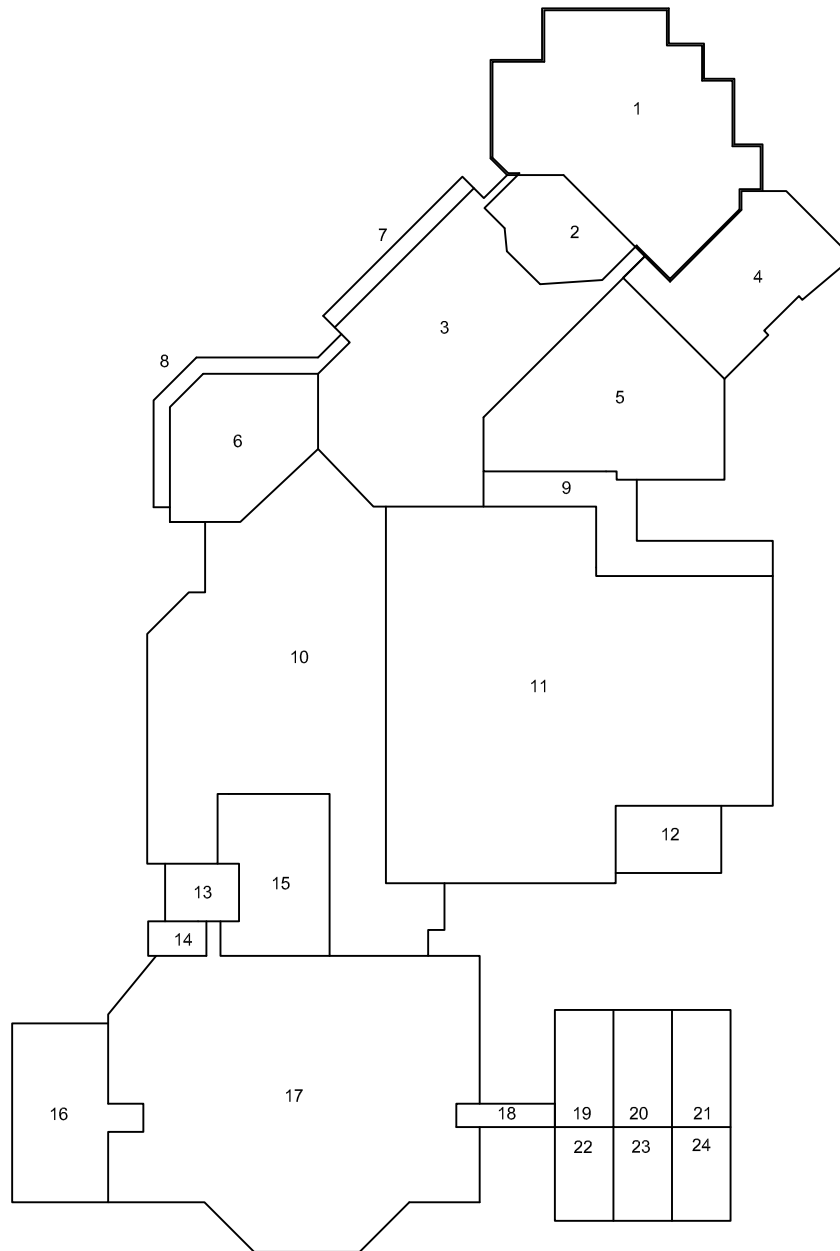
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PROJECT NAME  
DELBURNE CENTRALIZED SCHOOL

PROJECT LOCATION  
2611 - 18 STREET,  
DELBURNE, AB

DRAWING NAME  
ROOF PLAN  
ROOF SECTION 13

PROJECT NO. 320613.000	SCALE NTS
DRAWN BY: MVE	REVIEWED BY: AH
DATE 02.01.2023	DRAWING NO. 320613.000 - BSS - 04



# LEGEND

**NOTE:**  
ALL MEASUREMENTS ARE APPROXIMATE.  
CONTRACTOR MUST CHECK AND VERIFY ALL  
DIMENSIONS, PENETRATIONS, JOB SITE  
CONDITIONS AND REPORT ANY DISCREPANCIES  
TO THE APPROPRIATE AUTHORITY PRIOR TO  
COMMENCING CONSTRUCTION.

No	Date	Remarks

CONSULTANT:



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PROJECT NAME

FOX RUN SCHOOL

PROJECT LOCATION

2 FALCON RIDGE DRIVE,  
SYLVAN LAKE, AB

DRAWING NAME

ROOF KEY PLAN

PROJECT NO.

320613.000

SCALE

NTS

DRAWN BY:

MVE

REVIEWED BY:

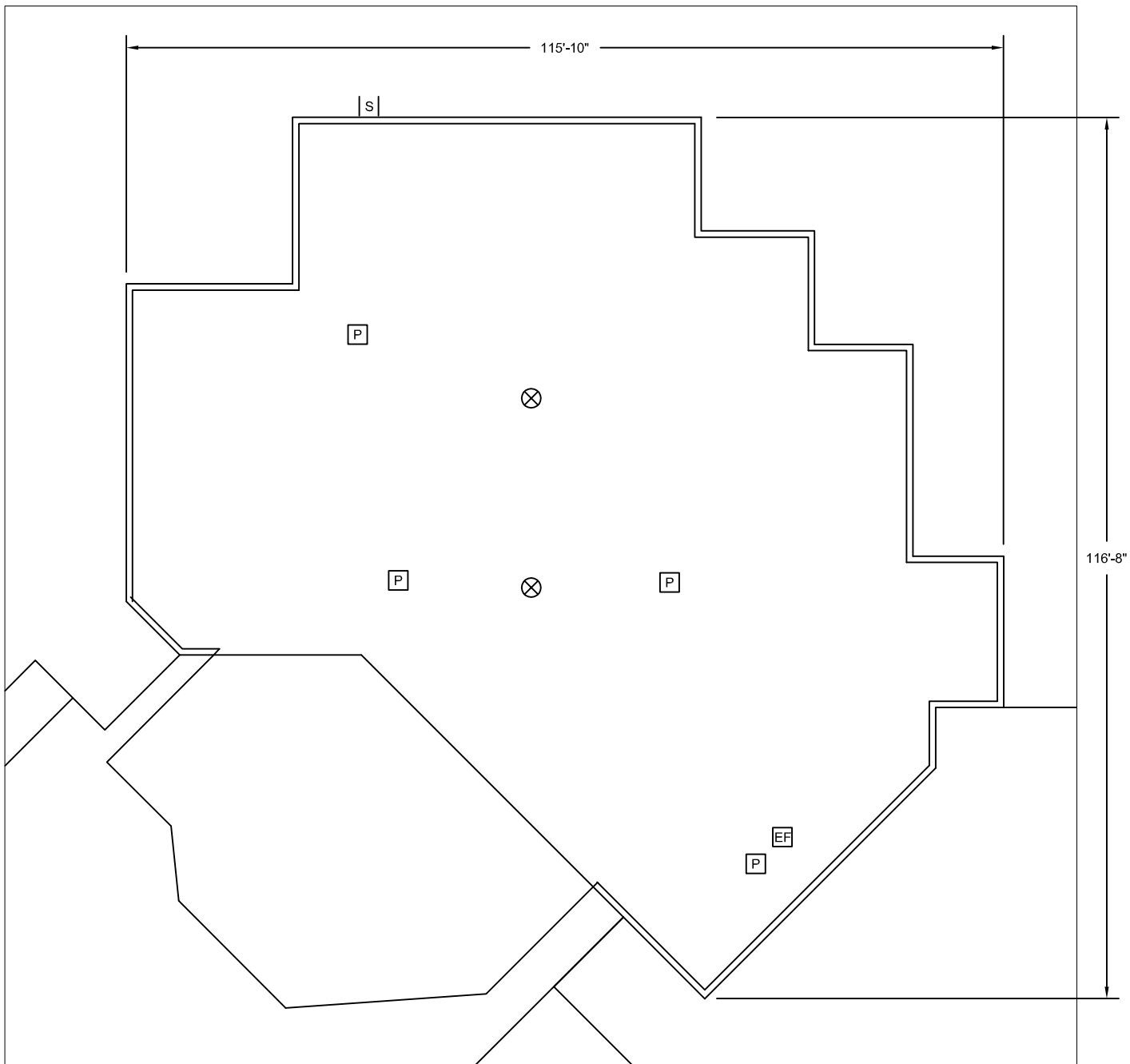
AH

DATE

02.01.2023

DRAWING NO.

320613.000 - BSS - 05



#### LEGEND

- XX ROOF SECTION
- EF EXHAUST FAN
- B 'B' VENT
- P PLUMBING VENT
- G GOOSENECK VENT
- H ROOF HATCH
- X ROOF TOP UNIT
- X ROOF DRAIN
- S SCUPPER

#### NOTE:

ALL MEASUREMENTS ARE APPROXIMATE. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS, PENETRATIONS, JOB SITE CONDITIONS AND REPORT ANY DISCREPANCIES TO THE APPROPRIATE AUTHORITY PRIOR TO COMMENCING CONSTRUCTION.

No	Date	Remarks

#### CONSULTANT:



#### PROJECT NAME

FOX RUN SCHOOL

#### PROJECT LOCATION

2 FALCON RIDGE DRIVE,  
SYLVAN LAKE, AB

#### DRAWING NAME

ROOF PLAN  
ROOF SECTION 1

#### PROJECT NO.

320613.000

#### SCALE

NTS

#### DRAWN BY:

MVE

#### REVIEWED BY:

AH

#### DATE

02.01.2023

#### DRAWING NO.

320613.000 - BSS - 06



## **CONTRACTORS SAFETY PROCEDURES**

### **Health and Safety Procedures Overview**

#### **Safety is a high priority of the Chinook's Edge School Division**

Chinook's Edge School Division (CESD) is committed to conducting all activities in a manner that will protect students, staff, visitors and contractors. Chinook's Edge is committed to its partnership with the Workers Compensation Board (WCB), Alberta Labour (OH&S) and continually enforces safe work practices for their staff and expects the same high standards be carried out from contractors performing work in Division facilities and/or grounds. Contractors shall follow all applicable safety, health and environment regulations, programs, policies, procedures and standards that are in place within and pertaining to all aspects of Chinook's Edge School Division.

These procedures are designed to eliminate and control hazards likely to be encountered by the contractors as well as Chinook's Edge staff, students and visitors. A copy of this document must be accessible to all contractors' employees and must be adhered to at all times. This document was developed by the Chinook's Edge School Division Occupational Health and Safety Committee. If any disputes arise between the Chinook's Edge School Division Contractor Safety Procedures and legislated requirements, the legislated requirements will take precedence.

#### **Objectives**

- To provide information to contractors for specific Chinook's Edge School Division health and safety procedures.
- To provide a safer working environment for staff, students, visitors and contractors.
- To provide a guideline for contractors on the requirements for working safely within Chinook's Edge facilities and/or grounds.

#### **General Safety**

Contractors are required to comply with the Occupational Health and Safety Act, Regulations and Code, Chinook's Edge School Division general safety requirements, and all other applicable Federal, Provincial and/or Municipal Safety requirements, and contractors are responsible for ensuring their employees understand and comply with the same.

Contractors are responsible for conducting a site risk assessment and be knowledgeable with the specific facility emergency evacuation plan, prior to work commencing. This risk assessment is to be submitted to CESD Facilities Department before any work starts on CESD property. There is a form at Facility Services office you can fill out if you are unfamiliar with the procedure. The

contractor is required to conduct a safety orientation with their staff prior to commencement of work ensuring all appropriate emergency and safety procedures are understood.

All practical steps are to be taken by the contractor and their employees to prevent accidents and/or injury to any person entering a work site within Chinook's Edge. The contractor is also responsible for providing all required safety equipment to their employees and visitors to ensure a safe work environment and must operate in a safe manner at all times.

### **Inspections**

Safety inspections of the work site may be conducted by Chinook's Edge School Division at any time and under their own discretion. Where required, a contractor may be asked to make improvements to ensure that proper safety procedures are adhered to and shall be carried out without delay by the contractor. Prior to entering a construction site, Chinook's Edge staff will notify the contractor's site supervisor.

### **Environmental Issues**

Chinook's Edge School Division believes that a healthy environment for staff, students and visitors within its facilities and on its grounds is essential. Contractors are expected to comply with Division and Government Legislated procedures to ensure that environmental issues are taken seriously. In the event that a contractor feels there may be an environmental concern they are to discuss the issue directly with the Chinook's Edge Safety Manager, the designated Facilities liaison and/or the School Principal immediately.

**CONTRACTOR SAFETY PROCEDURES**  
**Actions for the Chinook's Edge School Division**  
**Facility Services Department**

**Before allowing any work to be undertaken by a contractor, the Facilities Department staff in charge of the work will:**

1. Understand and follow all the contractor safety procedures for Chinook's Edge School Division.
2. Check that the contractor holds adequate insurance to cover the work to be undertaken and obtain proof of insurance and WCB coverage when necessary.
3. Check that the contractors have received and signed the "Contractors Safety Procedures" document.
4. Brief the contractors and school Principal on safe working practices as per the Chinook's Edge School Division safety procedures guidelines.
5. Perform regular inspections of the work site to ensure safe working practices are being followed by the contractors. Check that the area is clean and tidy and properly maintained at all times during the work schedule and upon completion of the job. Any discrepancies will be reported and resolved with the contractor immediately. CESD shall also conduct random site inspections and report any deficiencies to the site supervisor or person in charge.
6. Report any safety concerns, accidents or injury that may occur immediately to the Maintenance Department and Occupational Health and Safety Manager to ensure a full investigation is conducted.
7. Conduct tailgate meetings and send a copy of the notes from the meeting to the Chinook's Edge Safety Manager [llonsberry@cesd;73.ca](mailto:llonsberry@cesd;73.ca)
8. The Maintenance Department or School Principal will provide the Contractors with School Safety Plans, Procedures and evacuation rules.
9. The Maintenance Department or School Principal shall maintain a contractor list and keep the Contractors Statement of Compliance, retained for two years and filed with the contract at the school or Facilities Department.

**If there is any doubt regarding the work to be undertaken by the Contractors, this must be clarified before work will be allowed to commence.**

## **CONTRACTORS SAFETY PROCEDURES**

### **Controls and Actions for Contractors**

1. **ALL** approved contractors will be issued with a copy of the “Contractors Safety Procedures” prior to commencement of work.
2. The acceptance statement of these procedures must be signed and returned to the designated Facilities staff member in charge of the job or school principal before commencement of work.
3. For every project undertaken by contractors, there will be a designated Manager or Supervisor employed by Chinook’s Edge who will be responsible for job requirements. All consultation with regards to every aspect of the job in relation to tasks, rules and safety of the work site will be directed to the designated person. Manager or Supervisor may appoint an alternate person as their replacement using their own discretion based on the nature of the work or their absence.
4. All contractors will provide names and contact numbers of the employee(s) in charge of the work to the designated Manager or Supervisor prior to commencement of work.
5. All contractors and their employees must report to the appropriate reception areas within division facilities and sign in and out at all times during work schedules. All employees are to wear clearly identified company identification or Chinook’s Edge identification (supplied by Chinook’s Edge) while on the property.
6. Complete a Hazard Assessment of the required work area prior to the start of work and submit it to CESD Facilities Services department. The use of PPE shall be enforced in accordance with Alberta Labour (OH&S) Act, Regulations and Code and CESD procedures. If Fall Protection is to be worn a Fall Protection Plan must be submitted to CESD Facilities Department.
7. All contractors shall be liable for all damages caused by their employees to division property or equipment and shall provide evidence of valid insurance when requested by Chinook’s Edge.
8. All contractors will be required to conduct an orientation outlining site rules and safety regulations. Such orientation shall be performed before commencement of work. The Director of Facility Services or Designate and CESD Safety Manager may be in attendance at this meeting, if they are available. It is the responsibility of the contractors to ensure that all of their employees working on the site receive the relevant induction.
9. All contractors will conduct at least twice monthly on site or verbal meetings with the Facilities Department liaison and the School Principal to ensure proper communication methods are in place.

10. All contractors will report all accidents or injuries and property damage that may occur on the work site to their employees or any other person(s) immediately to the Chinook's Edge Safety Manager or Facilities Department liaison.
11. All contractors will report any unsafe conditions and/or safety concerns relating to the work site immediately to the Facilities Department liaison, Chinook's Edge Safety Manager and School Principal. The contractors will also ensure that their employees are fully aware of these conditions immediately and may cease operations in that area until the matter is resolved.
12. All contractors will ensure that the work site is properly maintained at all times and is clean and free from all recognized hazards and debris and shall pay particular attention to:
  - a. Walkways and walking surfaces are clear of trip and slip hazards.
  - b. Dust and debris that travels is maintained as much as possible by use of dust barriers.
  - c. Fire hazards are eliminated or controlled (i.e. welding)
  - d. Debris and waste is disposed of properly or stored in a safe area to prevent injury to other people.
  - e. Proper signage is in place to make the public aware of any hazards.
13. All contractors shall ensure that their employees are equipped with proper personal protective equipment (PPE) such as hard hats, hearing protection, eyewear, footwear, fall restraints, etc. and that it is being used and worn in the proper manner. The contractors will also ensure that adequate PPE is made available for outside visitors and enforce the use of the same at all times of entry into the work site. Training on the use, care and maintenance of such equipment will be performed by the contractor when necessary.
14. All contractors are responsible for ensuring that all power tools are in good working condition to avoid any fire hazards. All tools are to be fully disconnected from a power source when unattended and at the end of the day. Security and liability for all tools on site is the sole responsibility of the appropriate contractors.
15. All contractors are responsible for ensuring that mobile and heavy duty equipment is in good working condition and designed for the type of work being performed and is inspected IAW manufactures' recommendations and Alberta Legislation. Contractor's employees are to be certified on operating such equipment to prevent accidents or injury on Chinook's Edge premises. No mobile equipment shall be operated in a manner which places the contractor's employee or others at risk. Keys to all equipment are to be removed at the end of the day and stored in a secure location.
16. All contractors are responsible for ensuring that the work site is left in a safe condition at the end of each working day and obstructions and hazards are clearly marked.

**Note:** For the purposes of this document, contractors may be considered the Prime Contractor, or a Sub Contractors.

**CONTRACTORS SAFETY PROCEDURES  
STATEMENT OF ACCEPTANCE**

**Name of Contractor:** \_\_\_\_\_

**Address of Business:** \_\_\_\_\_

\_\_\_\_\_

**Name of Job Supervisor (s):** \_\_\_\_\_

**Contact Number (s):** \_\_\_\_\_

**Liability Insurance current and attached** Yes: \_\_\_\_\_ No \_\_\_\_\_

**WCB No.:** \_\_\_\_\_ **COR Certificate Number:** \_\_\_\_\_

***PLEASE CONFIRM BY SIGNING AND RETURNING THIS FORM THAT:***

You have received, read and understood and will implement the Safety Procedures for Contractors and will ensure all your employees and other persons contracted by you will do likewise.

You will submit a site hazard assessment prior to work, and a fall protection plan if required.

All your employees and other persons contracted by you, either directly or indirectly, are properly trained in all aspects of the work they are expected to carry out.

You will comply with all statutory and Chinook's Edge School Division requirements for Health and Safety issues.

You will co-operate with local management in maintaining a high standard of health and safety to protect our students, staff and premises from hazards.

**Signed:** \_\_\_\_\_

**For and on behalf of:** \_\_\_\_\_

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

***THIS STATEMENT MUST BE RETURNED NO LATER THAN:*** \_\_\_\_\_

**TO:**

***CHINOOK'S EDGE SCHOOL DIVISION***

***DIRECTOR OF FACILITY SERVICES***

***4404 – 42 STREET***