

ROOF REPLACEMENT 2012

**SUDETEN HALL & VISITOR'S CENTRE
1901 ALASKA HWY.
DAWSON CREEK, BC**



JUNE, 2012

TABLE OF CONTENTS

	<u>Page</u>
1. Table of contents	1
2. Invitation to Tender	2
3. Special Instructions	3
4. Instructions to Bidders	4-6
5. Tender form – including:	7-11
List of Subcontractors & References	9
Proof of Site Visit	11
6. General Instructions	12-14
7. Technical Specifications	15-19
8. Roof Plans & Details	
Ridge Vent Detail	
Endwall Vent Detail	
Roof Plan	

**INVITATION TO TENDER – ROOF REPLACEMENT
SUDETEN HALL & PIONEER VILLAGE ENTRANCE BUILDING
TENDER NO. 2012-19**

The City of Dawson Creek (the owner) invites bids for the replacement of the roof of the Sudeten Hall and Pioneer Village Entrance Building located at 1901 Alaska Highway, Dawson Creek, BC.

Sealed Bids clearly marked with:

Tender No. 2012-19
Sudeten Hall & Pioneer Village Entrance Building Roof Replacement

Will be received no later than:

Thursday, August 9, 2012 at 2:00 PM Local Time

To the attention of: Brenda Ginter, Director of Corporate Administration,
10105 – 12A Street, Dawson Creek, BC V1G 3V7.

Copies of the tender specifications are available from:

Northern BC Construction Association:
3851 – 18th Avenue
Prince George, BC V2N 1B1
Tel: (250) 563-1744
Fax: (250) 563-1107
E-mail: planroom@nbcca.bc.ca

AND

BC BID at www.bcbid.gov.bc.ca
City of Dawson Creek website:
www.dawsoncreek.ca

Unless alternate arrangements have been made prior to, there is a mandatory site inspection meeting scheduled for Wednesday July 11, 2012, at 10:00 AM at the Sudeten Hall & Pioneer Village Entrance Building, 1901 – Alaska Hwy, Dawson Creek, BC. Meet at the main entrance on the north side.

Owner Representative/Site Inspection Contact:

Duncan Redfean
Deputy Director of Community Services
10105 – 12A Street
Dawson Creek, BC
V1G 3V7
Phone: 250-782-3683
Fax: 250 -782-3203

Technical Inquiries/Roofing Consultant:

Mel Hoffart RRO
Topside Consulting (2004) Ltd.
1717 – 93rd Ave.
Dawson Creek, BC
V1G 1E7
Phone: 250-782-6878
Fax: 250-782-6828
Cell 780 - 518-6106
Email: mel@topsideconsulting.ca

ISSUE DATE: June 29, 2012

SPECIAL INSTRUCTIONS

1. One complete set of tender form documents must be completed and returned, with bid bond, consent of surety and COR enclosed.
2. Specifications shown are considered to be minimum specifications required. The specifications as defined do not relieve the supplier of the responsibility for the construction suitable for the service intended. The project must comply with all related manufacturing, operational, and safety standards established by municipal, provincial, and federal governing bodies. Any discrepancy between the specifications attached hereto and the foregoing shall be brought to the attention of the City of Dawson Creek in the response.
3. All warranty coverage is specified herein. Warranty period and coverage to commence on the date of completion as evidenced by release of holdback.
4. All prices are to be F.O.B. worksite, and must include all applicable taxes. Firm prices only will be considered and the City will assume prices tendered to be firm for acceptance within 30 days, unless otherwise specified by the tenderer in the space provided on the tender summary.
5. The City reserves the right to waive any formalities, or informalities in, or reject any or all tenders or to accept the tender deemed most favourable in the interest of the City of Dawson Creek. The lowest or any tender may not necessarily be accepted.
6. **Tenders shall not be withdrawn, modified, or explained after receipt by the City unless such withdrawal, modification or explanation is made in writing, and sent by facsimile to (250) 782-3203, and received by the City before the time and date specified for the closing of tenders.**
7. Tenders are to be submitted as specified in the Invitation to Bid and on the bid forms provided.
8. It is the responsibility of the bidder to ensure any addenda are downloaded, reviewed, and included in their bid. Any addenda issued will be posted to the City website, BC Bid, and the Northern BC Construction Association.

INSTRUCTIONS TO BIDDERS

Bids entitled to consideration shall be made in accordance with the following instructions:

1. TENDER DOCUMENTS

Tender Documents shall consist of all enclosed pages including:

- a) Bid Form pages
- b) These instructions and specifications
- c) Drawings – Roof Plans & Details

2. EXAMINATION OF SITE & DOCUMENTS

Before submitting a bid, the bidder must:

- a) Carefully examine Tender Documents.
- b) Visit the Site of Work, and obtain the signature of the Owner or his authorized representative.
- c) Be fully informed of the existing conditions, critical dimensions and limitations.
- d) Rely entirely upon one's own judgement in making a proposal
- e) Include in the bid, a sum sufficient to cover all items required by the Tender.

3. INTERPRETATION

ALL questions regarding drawings and the specifications shall be addressed to the Owner Representative in writing. They will be answered by Addenda posted to the City website, BC Bid, and Northern BC Construction Association. Questions received less than seven (7) days before bid opening cannot be answered. Neither the Owner nor the consultant will be responsible for oral interpretations. All Addenda issued during the time of bidding will be incorporated into the Tender.

4. SUBSTITUTIONS

Reference to the Tender documents to specific manufacturer's products or to trade names is for the purpose of establishing the standards of quality. Such references are not intended to apply restrictions and Bidders may apply to the Owner's Representative for approval of the substitute materials or items other than those specified. Request for approval shall be submitted in ample time to permit consideration and in no case less than seven (7) business days before Tenders close. The Owner's Representative reserves final approval.

5. ORAL, FAX AND TELEGRAPHIC BIDS

Oral, fax, e-mail or telegraphic bids will not be considered. Fax and electronic communication will only be considered if received before bid opening and when amending a bid previously submitted on Bid Form. Fax and e-mails shall be time and date stamped, and must show the increase or decrease only in words and figures and the names of subcontractors affected.

6. REJECTION OF BIDS

The Owner reserves the right to reject any or all bids. The lowest or any bid will not necessarily be accepted. Bids will be opened in public at the time set.

7. SUBMISSION REQUIREMENTS:

Submit as follows:

- a) Tender Form, without alteration, as contained herein.
- b) Do not include any recapitulation of the work to be done.
- c) Fill all spaces in form, sign in longhand and, in the case of a company, the corporate seal shall be affixed.
- d) Fill in and attach complete list of proposed subcontractors, suppliers, references, & personnel.
- e) Bids will be received no later than 2:00 pm local time on August 9, 2012.

8. ACCEPTABLE EQUIVALENT SYSTEMS

Equivalent Systems, other than those which are provided for in the Specifications, must be submitted seven (7) days prior to the closing date for approval. Approval must be granted in writing from the Owner or his designate.

Application for acceptance of 'alternate' or 'equal' status by a supplier implies a realization that he must adjust his material and/or methods and/or systems as necessary to be fully compatible and interfaced with all other sections of the Tender.

9. BID BOND

Each tender shall also be accompanied by either a certified cheque or a bid bond in the amount of ten percent (10%) of the tender price which binds the Tenderer and the Surety.

BIDS ACCOMPANIED BY BID BONDS NOT IN THE PRESCRIBED FORM MAY BE REJECTED.

10. PERFORMANCE AND PAYMENT BONDS

- a) The Principal and the Surety will furnish a Performance Bond and Labour and Material Payment Bond each in the amount of fifty (50%) per cent of the total amount of the Contract Price. Bonds or a certified cheque must be delivered within ten (10) days after the award of the contract to the successful bidder and the Surety must be then approved by the Owner. The Bonds must be in the form prescribed.
- b) No monies shall be paid to the Contractor until after the required Bond Documentation is in the Owner's possession. Verification will be by the Roofing Consultant.

11. SAFETY PREQUALIFICATION

This Contractor is to conduct all work to the highest standard of safety. Contractor is to submit to owner, before execution of contract can commence, a letter of good standing from Worksafe BC. The latest requirements of the Worksafe BC and Occupational Health and Safety will be strictly enforced. A detailed safety plan is to be submitted to the Owner prior to commencement of work. Safety plans shall include but not be limited to:

- a) Company Safety Orientation Policy.
- b) Daily pre-work Hazard Assessment Plan.

12. INSURANCE

Before execution of contract can commence, contractor is to submit to owner, proof of liability insurance to cover both Public Liability and Property damage in an amount not less than Five Million Dollars (\$5,000,000.00), with a deductible to paid for by the roofing contractor, not to exceed Five Thousand Dollars (\$5000.00). This insurance shall not have clauses limiting coverage for water ingress damage, or damage resulting from heat application of materials. The insurance policy is to be approved by Owner's Representative.

13. GUARANTEE

Upon completion of the contract, the Roofing Contractor shall provide: A Two (2) Year Corporate Materials and Workmanship guarantee; and A Ten (10) Year Membrane Manufacturers Total System Guarantee covering all new materials and workmanship; to the Owner. Cost of the Guarantees is to be included in the Tender Price. See General Instructions, Item 15 Quality Control.

14. NO CLAIM FOR COMPENSATION

Except as expressly and specifically permitted in these Instructions to Bidders, no Bidder shall have any claim for an compensation of any kind whatsoever, as a result of participating in the Tender, and by submitting a bid, each Bidder shall be deemed to have agreed that they have no claim.

15. CITY OF DAWSON CREEK PURCHASING POLICY

Notwithstanding any of the aforementioned or preceding terms, the City of Dawson Creek Purchasing Policy will apply where and when applicable in addition to the Agreement on Internal Trade (AIT) and the Trade, Investment and Labour Mobility Agreement (TILMA) a partnership between the Government of British Columbia and the Government of Alberta.

TENDER NO. 2012-19 TENDER FORM

**ROOF REPLACEMENTS UDETEN HALL & PIONEER VILLAGE ENTRANCE BUILDING,
1901 ALASKA HIGHWAY, DAWSON CREEK, BC.**

Bidders are reminded to complete the pricing section shown below in order to be considered.

Name of Firm Bidding: _____

Legal Status: Corporation Partnership Sole Ownership

Authorized Signature: _____ Print Name: _____

Address: _____

City: _____ Postal Code: _____

Phone #: _____ Fax #: _____

E-Mail Address: _____

Witnessed by: _____
Name Signature

To furnish and deliver all materials, to provide all necessary equipment and to do and perform all work in accordance with these Specifications and Drawings for the above named works.

The undersigned **BIDDER**, having carefully examined the Tender Documents and the locality of the proposed work, and having full knowledge of the work required and of the materials to be furnished and used, hereby agrees to provide all necessary materials, supervision, labour, and equipment to perform and complete all work and fulfil everything that is set forth in strict accordance with the Tender Documents and Addendums numbered # ____, # ____, # ____, for the prices stated in this Tender Form.

LUMP SUM PRICE* SUDETEN HALL	
Applicable taxes	
Total	

LUMP SUM PRICE* PIONEER VILLAGE ENTRANCE BUILDING	
Applicable taxes	
Total	

***Price shall include all shipping, permits and fees, with applicable taxes shown separately. It is the intention of the Owner to complete both buildings; however, in the event that all bids exceed the allocated budget for the project, the City reserves the right to award a contract for only one building.**

TENDER FORM (PAGE 2)

Contractors must include in the price above a \$5,000.00 (plus HST) contingency fund for roof deck repairs. The following unit prices will apply to these repairs.

- Lead foreman/journeyman - \$_____ per hour
- TQ journey person - \$_____ per hour
- TQ apprentice - \$_____ per hour
- Crew truck - \$_____ per day (includes fuel for in town)
- Dump truck/ Bin Rental - \$_____ per day

Except as expressly and specifically permitted in these Instructions to Bidders, no Bidder shall have any claim for any compensation of any kind whatsoever, as a result of participating in the Invitation to Tender, and by submitting a bid, each bidder shall be deemed to have agreed that is has no claim.

The undersigned has carefully examined the Contract Documents for the City of Dawson Creek Tender No. 2012-19.

Company Representative (signature)

X _____

Name/Title: _____ Date: _____

The undersigned also agrees:

1. That payment for the work done will be made on the basis of the actual progress measured and assessed by the Consultant and the prices shown on the Tender Form which shall be compensation in full for the work done under the terms of the Contract.
2. The Tenderer has no Rights of Claim against the owner or his Representatives in any way whatsoever in the event that this or any Tender is not accepted and/or contract entered into.
3. That this Tender is made without any connection, knowledge, comparison of figures or arrangements with any other company, firm or person making a Tender for the same work; and that no person or firm other than the Tenderer whose signature is affixed below has any interest in the Tender or in the proposed Contract.
4. That this tender is irrevocable for thirty (30) days after closing time.

TENDER FORM (PAGE 3)

5. Within ten (10) days from the date of “Notice of Award” of this tender, to furnish the City with the following: 1) a Contract Performance Bond from an acceptable Surety Company in the amount of fifty percent (50%) of the total Contract amount covering the faithful performance of the Contract. 2) A Labour and Material Bond in the amount of fifty percent (50%) of the total Contract amount. 3) Proof of Liability Insurance as per #11 in Instructions to Bidders. 4) A letter of good standing from Worksafe BC. Whereupon, these documents are accepted by the owner, the contractor shall execute a Contract with the Owner.
6. That the contractor is to commence and actively proceed with the work within 30 days of September 1, 2012, and to complete all work as specified herein, achieving Total Performance within 60 days.
7. To do all extra work not reasonably inferable from the specifications or drawings, only if called for in writing by the Consultant, and the compensation for said extra is agreed upon in writing by both the City and the contractor prior to commencement of work.
8. In no circumstances will a bidder who is not awarded the contract pursue any claim against the Owner in connection with anything done or not done before, as part of the contract award.
9. The acceptance of this tender by the Owner shall be made only by a notice in writing from the owner addressed to the successful tenderer at the address given in the Tender Form, and if the Contract Documents are so worded the tender may be accepted either in whole or for any part of the project on which the Tender is made.
10. The Contractor will be required to purchase a valid City of Dawson Creek Business Licence and maintain this licence until the project is completed.

**LIST OF SUBCONTRACTORS
(TENDER FORM PAGE 4)**

We have listed below the names of the subcontractors whom we will be employing on the items of work listed. No further subcontractors will be employed without the written approval of the Consultant to a request made in writing by the Contractor.

<u>SUBCONTRACTOR</u>	<u>ADDRESS</u>	<u>WORK TO BE DONE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

REFERENCES

List contact names, phone numbers and project names in which the Contractor has provided similar services within the last two years.

<u>Project & Location</u>	<u>Contact Person</u>	<u>Phone No.</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

The successful bidder must have a proven history of being capable to perform the necessary work both safely and to quality standards.

Tenders will only be considered from bidders that have proven capabilities to perform this type of work to the satisfaction of the Owner.

**PROOF OF ATTENDANCE AT MANDATORY SITE VISIT
(TENDER FORM PAGE 5)**

The following is to be filled out and signed by the Owner's representative. The Contractor's representative must familiarize himself with the work to be done; job site conditions; measurements; access to roof areas etc. This will involve inspection of each and every roof area.

Date of mandatory site inspection: **Wednesday July 11, 2012 at 10:00 AM**

Contractor name: _____

Signature of Contractor Representative: _____

Signature of Owner's Representative: _____

****TO BE ENCLOSED WITH TENDER****

GENERAL INSTRUCTIONS

1. PERMITS, REGULATIONS

The Contractor shall obtain permits, pay all fees therefore, and comply with all Provincial, Municipal and other legal regulations and by-laws applicable to the work. If no local regulations exist, comply with the latest revision of the National Building Codes of Canada.

2. EXISTING FEATURES

The location of existing features has been determined from available records, but is not guaranteed. The location of all such features shall be investigated and verified in the field by the Contractor.

3. PROTECTION OF PUBLIC FACILITIES

Protect existing road, paving, buildings, finished surfaces, equipment, trees, utilities, heating, lighting, and power and telephone services during the work. Make good, repair or replace any damage to Owner's approval.

4. WORKER/SUBCONTRACTOR SAFETY

The Contractor shall, as part of the Site Safety Plan, for the duration of the Work of this Contract, be considered "prime contractor" as under Section 118 and 119 of Part of the *Workers Compensation Act* of BC and regulation 20.3 of Worksafe BC and as such will:

- a) do everything that is reasonably practicable to establish and maintain a system or process to ensure compliance with Worksafe BC regulations, as required to ensure the health and safety of all persons at the "work site".
- b) direct all workers and subcontractors and any other persons at the "work site" on safety related matters regardless of:
 - .1 whether or not any contractual relationship exists between the Contractor and any of these entities, and
 - .2 whether or not such entities have been specifically identified in this Contract.

5. WORK AREAS

Provide, maintain and remove upon completion, hoardings, barriers and warning signs for the protection of workmen and the public as required and approved by the Owner or the Authority having jurisdiction. All the necessary precautions shall be taken to protect the public at all times. **No hoisting or lowering of roofing materials will be permitted in areas accessible to the public or the Owners employees. All of this work will be executed in a safe manner inside of a barrier set up prior to work commencing as agreed upon with the Owner and Contractor.** Conform to all Worksafe BC regulations.

6. MATERIALS

All materials shall be new unless specific approval has been given by the Owner's Representative for any component.

7. CLIMATIC CONDITIONS

Provide protection at all times against weather so as to maintain work, material, and equipment and property free from injury or damage and as necessary to ensure work is carried out expeditiously in accordance with agreed time schedule and completion date.

8. PARKING

Parking for workers employed on the site shall be restricted to the area assigned for the purpose by the Owner or Authority having jurisdiction.

9. PROGRESS SCHEDULE

Submit to the Owner's Representative prior to the award of the contract, an application schedule, satisfactory to all parties. Schedule to indicate commencement of the contract, progress and planned date of completion. All work must be coordinated in such a manner as to be continuous to completion.

10. CO-OPERATION

The Contractor and Sub-contractor shall read the Specifications for all trades, properly, to acquaint themselves with the nature of the work. Cooperation between trades is required to coordinate the work and prevent delay.

11. DEMOLITION

It is to be distinctly understood that the Contractor will be held responsible for the work of the Sub-contractors and to see that they carry out the provisions of the contract. All demolished material to be carefully contained and removed by chutes or other approved means from roof surfaces in order of procedure listed generally.

Demolished material to be deposited in dust-tight containers and removed from site as soon as possible. Container locations will be as per "#5 Work Areas" above. Keep all general areas clean at all times.

12. PROCEDURE

All roof areas to be made water-tight as soon as possible before proceeding. No roof membrane area is to be removed which is greater in area that can be made water-tight under climatic conditions existing at the time.

13. ACCESS TO WORK

Access to building roofs and the exact means of access, are to be confirmed by the Owner or his representative at the required site visit.

Contractor shall ensure that the work is carried out in such a manner as to ensure there is minimal interference with proper functioning of the facilities. Noise levels must be kept to acceptable levels during business hours. All safety concerns of the Owner will be immediately addressed by the Contractor.

14. PROTECTION & CLEANUP OF PROPERTY

This Contractor shall provide protection to the property under this contract and the surrounding properties and public areas, from damages resulting from his work, particularly during the removal of any of the existing roofs. All damages caused by this Contractor shall be made good by him at no cost to the Owner or other parties.

This Contractor shall maintain the site in as clean a condition as possible during his work, to the satisfaction of the Consultant. The contractor shall remove from this site, and the surrounding properties, any debris from his work on a daily basis. Failure to do this will result in the cleaning and removal being executed by the Owner and the cost then deducted from the amount owing the Contractor.

15. QUALITY CONTROL

On-site Inspector is to be Topside Consulting (2004) Ltd. working in conjunction with representatives from the City of Dawson Creek.

16. QUALIFICATIONS OF TENDER

Tenders will be accepted only from those Roofing Contractors who are authorized to carry on business in the Province of British Columbia and who have qualified Roofing Tradesmen.

17. INSURANCE

The successful tenderer shall provide proof that he is covered by Public Liability and Property Damage Insurance, to at least Five Million (\$5,000,000.00) Dollars, with all deductibles not to exceed Five Thousand (\$5000.00) Dollars and all deductibles to be paid for by Roofing Contractor. The Insurance Policy to be submitted for approval by the Owner's Representative with the signed copies of contract

18. COMMENCEMENT OF WORK

Contractor may commence work on the roof as soon as possible, with a mutually agreeable time arranged with the City, after signing of contracts.

19. UTILITIES & FACILITIES

The Contractor shall make provisions for sanitary facilities, telephone, and domestic power. Access to one or more of these requirements can be given by the owner, but must be agreed upon prior to commencement of work.

TECHNICAL SPECIFICATIONS

PART 1 - GENERAL

1.1 SCOPE OF WORK

- 1.1.1 This contractor shall furnish all labour, materials, and equipment necessary to:
- remove and dispose of all roofing materials, flashings, etc., as required to complete the work to specifications.
 - install new wood blocking, scuppers, protrusion flashings, insulation, membrane, sheet metal flashings, etc. as required by the written specifications, roof plans, membrane manufacturers requirements, and details enclosed.
 - inspect the remaining insulation/substrate or deck. Any and all deterioration found in the above is to be reported to the Consultant. All necessary repairs are to be reported to and approved by the Owner.
 - This contractor shall provide a roofing/sheet metal crew, employed by the contractor, that is made up of a minimum of Sixty (60%) per cent qualified trades people; such trades persons to have past experience applying the products specified.

1.2 REFERENCE STANDARDS

- 1.2.1 Do roofing work to applicable standards, as detailed by the ARCA Roofing Practices Manual and the membrane manufacturer's Roofer's Guide, and as herein after specified.
- 1.2.2 CGSB 37-GP-56M, "Membrane, Modified, Bituminous Prefabricated and Reinforced for Roofing.

1.3 AREAS OF WORK (Refer to Roof Plan Drawing)

- 1.3.1 **All roof areas:** Remove existing cedar roofing, flashings, and roof membrane to expose wood roof deck. Install new flashings, ice and waterstop, roof underlayment, and asphalt shingles as specified herein. Remove and replace all eavestrough and downpipes as specified herein.

1.4 PRODUCT DELIVERY, STORAGE & HANDLING

- 1.4.1 Deliver and store all materials in their original containers in undamaged condition, sealed with labels intact, having manufacturer's name, brand, weight, CSA and other references to accepted standards clearly shown.
- 1.4.2 Protect all materials from weather. In particular, insulations and roofing membranes must be kept absolutely dry and only as much removed from storage as can be applied and made watertight in the same day and under the prevailing weather conditions.

TECHNICAL SPECIFICATIONS

PART 1 - GENERAL

1.5 PRODUCT DELIVERY, STORAGE & HANDLING

- 1.5.1 The building space underneath the roof areas covered by this specification will be utilized for concurrent and ongoing operations. These operations shall not be interrupted by the contractor unless prior written approval is received from the Owner (see General Instructions, Items 3, 13 & 14).
- 1.5.2 All electrical and mechanical disconnects will be by the Contractor for electrical lines, antennas and mechanical units as required to facilitate this work. The Contractor will advise Owner a minimum of 48 hours prior to disconnects being required and also the approximate duration of the disconnect.
- 1.5.3 Environmental Requirements:
 - 1.5.3.1 No installation work shall be performed during rainy or inclement weather.
- 1.5.4 Protection:
 - 1.5.4.1 The roofing assembly shall be sealed in a watertight manner on the same day it is installed.
 - 1.5.4.2 Exercise extreme care to avoid spilling roofing material on exposed finished surfaces. All costs of correction for spills, debris, and damage to the building or the grounds shall be borne by the roofing contractor.

PART 2 – PRODUCTS

2.1 MATERIALS

- 2.1.1 **Ice & waterstop membrane:** Shall be self-adhesive SBS modified bitumen membrane, with silicone or paper release film on the under-face, conforming to ASTM 1970, as evaluated under CCMC report 12413-R. Standard of Acceptance: Armourgard Ice & Water Protector by IKO, Lastobond by Soprema.
- 2.1.2 **Shingle underlayment:** shall be a synthetic underlayment having a woven polypropylene or polyolefin core, and non-slip surface; UV stabilized to withstand sun for 3 months minimum; with tear strength as per ASTM D4533 at 40 lbs minimum. Standard of Acceptance: Titanium UDL 30 by Interwrap; Tri-flex Xtreme by Grace; and Synthetic roof underlayment by GREENGUARD.
- 2.1.3 **Roofing shingles:** shall be a 50 year plus warranty shingle, having a mat of polyester and/or fibreglass; SBS modified asphalt for the entire shingle; conforming to CAN/CSA A123.5M90; meets or exceeds UL2218 Class 4 Impact resistance; and having a laminate design with a 110 mph wind warranty. Standard of Acceptance: Legacy by Malarkey, Natural Wood.
- 2.1.4 **Passive Exhaust Roof Vents:** shall be a low-profile rectangular design having a minimum of 50 free sq. inches each, colour weatherwood or equivalent. Standard of Acceptance: Duraflo Square top vent.
- 2.1.5 **Undereave Intake Vents:** shall be heavy-duty aluminium, white, louvered and screened, 12" X 4", 18 free sq. inches minimum each. Standard of Acceptance: Undereave vent by AirVent Inc; Undereave vent by Lomanco.

TECHNICAL SPECIFICATIONS

2.1 MATERIALS (cont'd)

2.1.6 **Fasteners for wood blocking:** Screws for wood blocking shall be #8 by 3" climacoat deck screws having pullout values for 1-1/4" penetration of 645 lbs. Standard for Acceptance: Dec-King Exterior Wood screws by Buildex.

2.1.7 **Exposed Fasteners for flashing:** Shall be #14 self-drilling weatherhead screws having a neoprene & steel washer under the hex head to seal the screw hole from weather infiltration and of sufficient length to penetrate the wood to a minimum depth of 1".

2.1.8 **Plumbing Vent Flashings:** Shall be Neoprene rubber flashings sized to fit the pipe with a minimum 4" flange around the base of the cone.

2.1.9 **Base Membrane Flashing (flammable substrates):** Shall be self-adhesive SBS modified bitumen membrane, with silicone release plastic film on the under-face and thermofusible plastic film on the top face, conforming to CGBS 37-GP-56-9th Draft. Standard for Acceptance: Sopraflash Flam Stick or Armourbond Flash. Primer requirement: as recommended by the membrane manufacturer.

2.1.10 **Membrane Cap Sheet:** shall be SBS modified bitumen, slate granular coated, colour Charcoal Grey, having a 180 gm/sq. metre polyester mat reinforcement, meeting requirements of CAN/CGBS 37.56-M-99th Draft. Standard of acceptance: Sopralene Flam 180 granular by Soprema , & TP180 Cap by IKO.

2.1.11 **Wood Products:** To be construction grade spruce or fir, free of deterioration. Plywood sheathing (*not OSB*) for roof decks and walls, shall be construction grade spruce. Exposed sleepers shall be PWF pressure treated lumber.

2.1.12 **Metal Flashing:**

1) for Valleys, Step, Endwall, and Ridgevent; shall be 24 gauge prefinished galvanized iron with G90 designation zinc coating; and be pre-finished with 70% PVDF (polyvinylidene fluoride) coil coated, Kynar 500/Hylar 5000 flouorocarbon resin for all applications; passing the ASTM D3361 and ASTM G53 accelerated weathering tests with a chalk rating of 8 or better. Colour: Slate Grey.

2) For drip edge, gable edge, eavestroughs and open trough downpipes; shall be 26 gauge prefinished galvanized iron with an SMP finish; Colour – Melchers Green.

2.1.13 **Exterior sealant:** Shall be industrial grade exterior caulking. Standard of Acceptance: Tremco 555 or Sika flex.

2.1.14 **Exhaust vent screening:** Shall be 22 ga. galvanized perforated screening having: 1/16" (.062") diameter holes, on 1/8" (.125") staggered offset pattern, with a net 22% open area. Standard of Acceptance: Perforated galvanized screen by Accurate Screen Ltd. (Calgary & Vancouver)

TECHNICAL SPECIFICATIONS

PART 3 – EXECUTION

3.1 ROOF APPLICATION

1. Remove and dispose of existing cedar roofing to expose wood deck. Any required deck repair, in order to eliminate defective boards and sheathing, and present a smooth and straight surface for the new roof, must be approved prior to commencing the repair by the owner.
2. Over plywood roof deck install self-adhesive ice & waterstop membrane on all areas of the Entrance Building, and a minimum of 6' up from the eaves on the Sudeten Hall. This material shall also be installed under step flashing and endwall flashing running a minimum of 6" up the wall. If the valleys are to have torch applied cap sheet, then the peel & stick base sheet must be a minimum of 6' wide in the valleys with the 3" lap centred in the valley bottom, and ice and waterstop underlayment lapped over the base sheet a minimum of 6"
3. Install metal drip edge and gable edge, both with a 1.5" face, over I&W membrane and synthetic underlayment, sealed down with mastic; **opening the returned edge ends to slide edges of drip one into the other, and reclamp together. Install a strip of ice & waterstop sealing over the flange of the eaves drip edge and onto the primary I&W membrane.**
4. Install starter course shingles, 3 tab, SBS modified shingles, with granule face up; top edge to outside edge of roof, and overhang eave and gable 1" to 1 ½ "; a minimum offset from first row of 6".
5. Laminate shingles to be installed with a minimum of six (6) roofing nails per shingle, located as per manufacturers specifications. No staples permitted.
6. Valleys can use either metal valley flashing in a "W" fabrication, a minimum of 3' wide; or a two-ply SBS membrane, where the self-adhered base sheet would replace the 6' wide install of ice & waterstop membrane, and the 3' wide cap sheet would be torch applied to the base, centred in the valley. A maximum of 9" of either flashing will be exposed at the valley eaves line, the valley peak will have minimum exposure of 3". End laps and fastener installation as per ARCA specifications.
7. All plumbing neoprene flashings, and B-vent chimney flashings, to be replaced. All skylight flashings, curb flashings, and firewall flashings to removed, and replaced, ensuring they meet existing RCABC specifications. When flashings are installed ensure ice and waterstop membrane is placed on the wood deck and a minimum of 6" vertically up the curb or wall. All step flashings to have counter flashing over vertical face and tucked up under siding a minimum of 1"
8. Remove every other 2x6 eaves block found between the rafters on the eaves of the Sudeten Hall. Fabricate metal flanges on the louvered vents, to fill the hole completely, and have a 1" flange to facilitate fastening of the unit to the rafters and underside of the deck, all from 26 ga. white metal to match. Before installation of the unit ensure the airflow at the rafter space is adequate by pushing insulation back in or weighting down the edge.
9. Custom fabricate the ridge vent and endwall vent flashings as per drawing and install as marked on roof plan.

**TECHNICAL SPECIFICATIONS
PART 3 – EXECUTION (CONTINUED)**

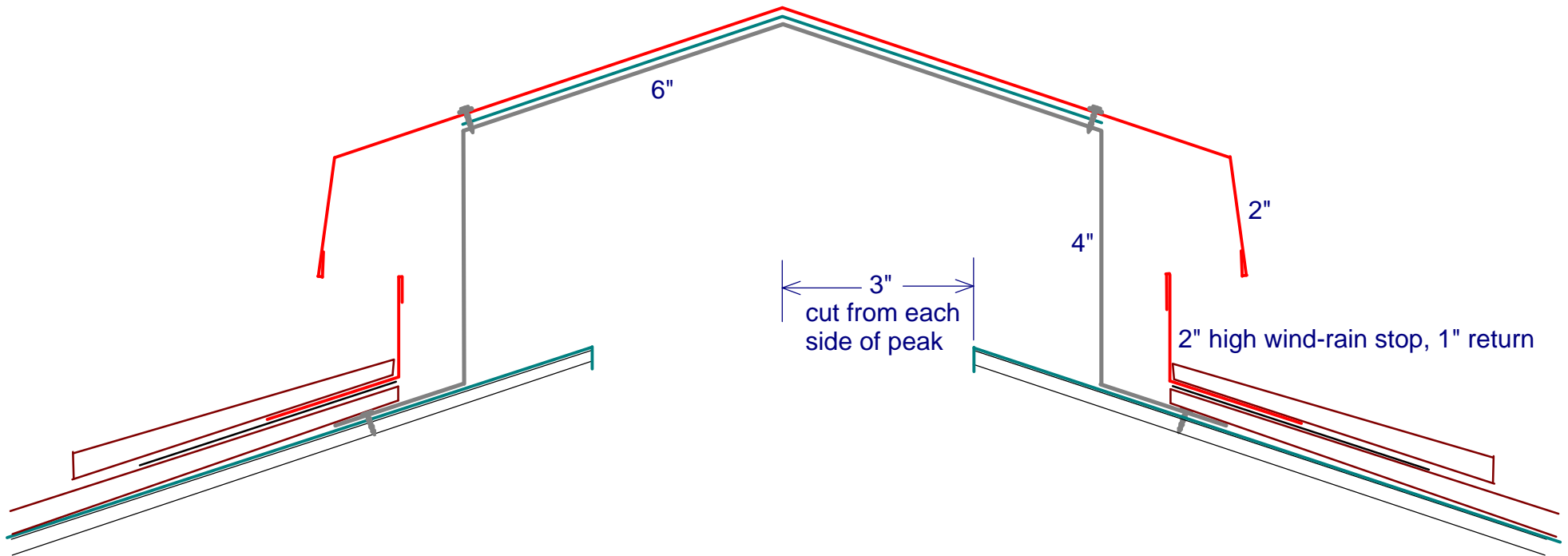
3.2 SHEET METAL APPLICATION

1. Sheet metal flashing shall be installed over the completed membrane as required to complete the project and as detailed on drawings. Install all metal flashings in accordance with RCABC Minimum Standards and as per specifications below. When in conflict, the stronger standard shall prevail.
2. All exposed edges of flashings shall be hemmed to form a drip edge.
3. All metal ridge vents to be joined by "S" locks: lap joints will be permitted on drip edge, gable edge, and valley flashing only. **All flashings require screw type fasteners, the use of nails will be not be permitted.**
4. All metal flashings shall be pre-finished material to a colour as per specification.

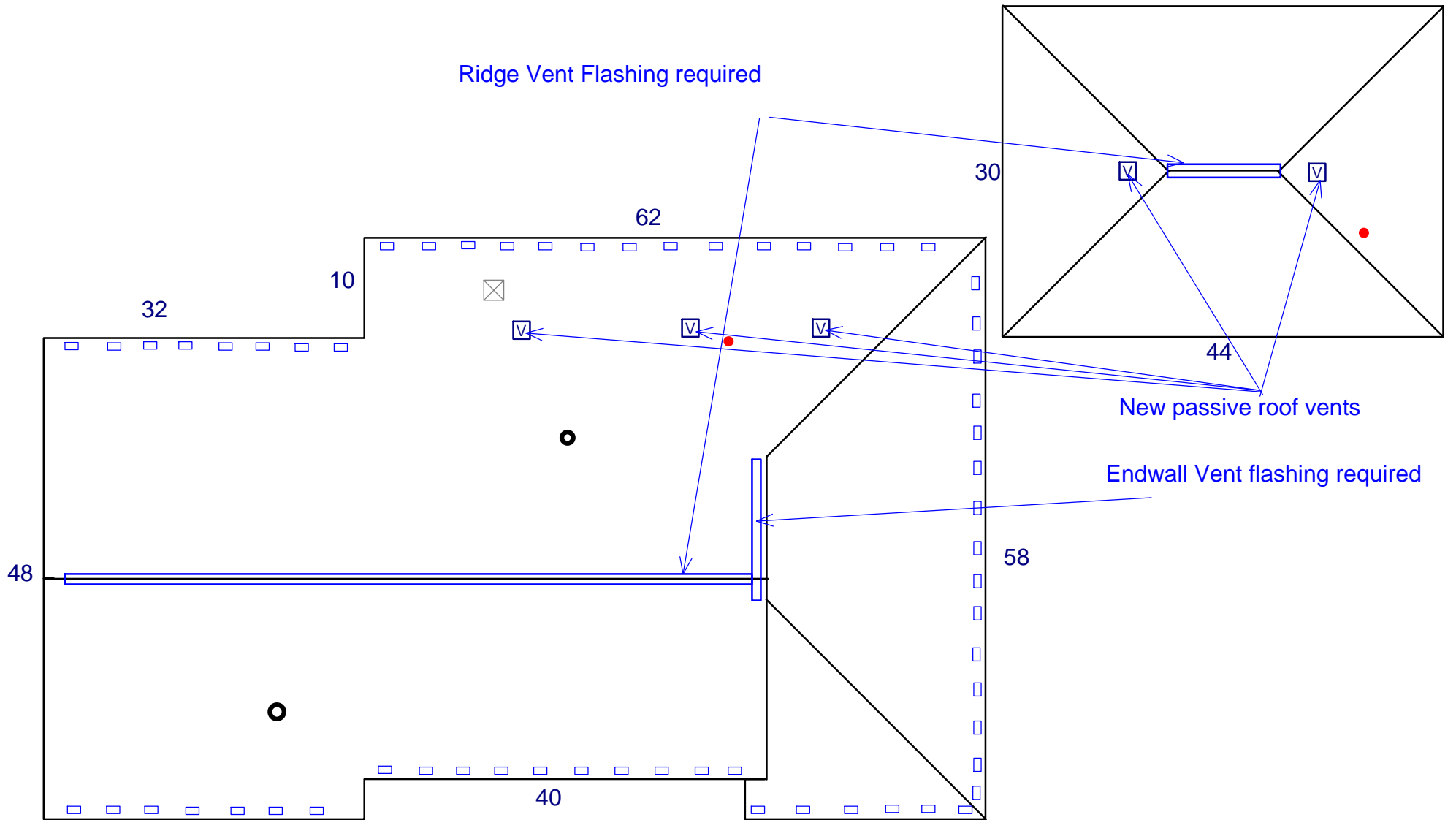
3.3 INSPECTION, TESTING & GUARANTEE

1. Inspection to be carried out by Topside Consulting (2004) Ltd. Upon completion of the contract, the Contractor shall provide a Ten (10) Year RCABC RoofStar Guarantee to the Owner, as well as a 50-year Shingle Manufacturers Guarantee.
2. Advise City of Dawson Creek & Topside Consulting (2004) Ltd. of start of work, a minimum of five (5) business days prior to commencement of project.

*****END OF SECTION*****



Legend	Design Authority	Project	Building Owner	Roofer	Submitted by:	Drawing
- Laminate shingles - SBS self stick mem. - Perf.-Galv. screen - OSB roof deck - 24ga. Kynar Slate Grey -#14 x 1.25" hex head painted screw -#12 pancake head	Topside Consulting (2004) Ltd. 1717 - 93rd Ave. Dawson Creek, BC V1G 1E7 Phone: 250-782-6878 Fax: 250-782-6828 Cell: 780-518-6106 mel@topsideconsulting.ca	2012 Roof Replacement Sudeten Hall & Pioneer Village	City of Dawson Creek 10105 - 12A Street Dawson Creek, BC		Mel Hoffart Reference	Ridge Vent Detail Date June 2012



Legend	Design Authority	Project	Building Owner	Roofer	Submitted by:	Drawing			
	Topside Consulting (2004) Ltd. 1717 - 93rd Ave. Dawson Creek, BC V1G 1E7 Phone: 250-782-6878 Fax: 250-782-6828 mel@topsideconsulting.ca	Sudeten Hall & Pioneer Village Entrance Bldg. 1901 Alaska Hwy, Dawson Creek, BC	City of Dawson Creek 10105 - 12A St. Dawson Creek, BC V1G 3V7		Mel Hoffart	Roof Plan			
								Not to Scale	June 2012