

Halton District School Board

Addendum No. 1

RFT 21-134 Renovations – Burlington Central HS

The following, issued by the Halton District School Board April 23, 2021, shall be incorporated in the specifications and shall form part of the proposal document for the above.

ATTACHED:

1. Addendum # 1 as drafted by Snyder Architects (77 pages)

RECEIPT OF ADDENDA MUST BE ACKNOWLEDGED ON THE FORM OF TENDER.

PAGE 1 OF 78 END OF ADDENDUM 1



ADDENDUM No. I

Project	Burlington Central High School Renovations	Date of Issue	Apr 22, 2021
Project No.	2005	File	7.1.03Addenda
Owner	Halton District School Board	Contract(s)	All contracts

This Addendum forms part of the Contract Documents and amends the original Drawings and Specifications, as noted below.

Ensure all parties submitting bids are aware of all items included in this Addendum. Read, interpret and coordinate the items contained herein with the Contract Documents and include all related costs as part of the Bid Price. **Acknowledge receipt of this Addendum by inserting its number on the Bid Form**. Failure to do so may subject bidder to disqualification.

This Addendum consists of 1 page + noted attachments

1	Refer to the attached Fishburn Addendum 1. This Addendum describes the original roofing replacement work anticipated in May 2019.
2	Refer to the attached Fishburn Addendum 2. This Addendum describes the revised roofing replacement work required under this project. It describes the roofing work that is being deleted and/or modified from the original scope of work described in Fishburn Addendum 1.

END OF ADDENDUM #1

ADDENDUM



ADDENDUM NO.: 1 DATE: Apr21, 2020

PROJECT NO.: BD20061

PROJECT NAME: Burlington Central H.S.

* * * * * * * * * * * * *

GENERAL CONDITIONS OF THE CONTRACT AND INSTRUCTIONS TO BIDDERS ARE PART OF THIS ADDENDUM.

* * * * * * * * * * * * *

Refer to attached Construction Specifications prepared by Fishburn Building Sciences Group, dated May 30, 2019, and which includes specifications and drawings describing the roofing replacement work.

END OF ADDENDUM

CONSTRUCTION SPECIFICATIONS



SPECIFICATION FOR ROOF REPLACEMENT

ISSUED FOR TENDER: May 30, 2019 FISHBURN PROJECT: BD19018

HALTON DISTRICT SCHOOL BOARD Burlington Central High School 1433 Baldwin Street, Burlington, Ontario



FISHBURN BUILDING SCIENCES GROUP INC., 15391 STEELES AVENUE, HORNBY, ONTARIO LOP 1E0, TEL: 905-878-1282 FAX: 905-878-2147

Burlington Central H.S.	TABLE OF CONTENTS	SECTION 00000
1433 Baldwin Street		PROJECT BD19018
Burlington, Ontario		MAY 2019

Drawings and specifications are the property of **Fishburn Building Sciences Group Inc.** and protected by copyright. The drawings are to be used only for the project shown. The specifications are not to be copied or used for any purpose without the written approval of the Consultant.

Specification Division	Section Page:	Pages
	01011 Summary of Work 1	1
	Certificate of Roofing Warranty	2
	Certificate of Completion	1
Specification	Fishburn Roof Construction Guide, 13th Edition as amended by the Summary of Work	

Index of Drawings

Roof Plans

Number	Title	Date
1	Roof Plan	May 2019
2	Tapered Plan	May 2019
3	Detail Plan	May 2019

Architectural Drawings

Drawing Number	Title	Date
1	Parapet Detail	May 2019
1A	Parapet Detail	May 2019
1B	Eave Detail	May 2019
1C	Eave Detail	May 2019
2	Wall Reglet Detail	May 2019
2A	Wall Detail	May 2019
2B	Wall Detail	May 2019
2C	Wall Detail	May 2019
2D	Wall Detail	May 2019
2E	Wall Detail	May 2019
2F	Wall Detail	May 2019
2G	Wall Detail	May 2019
2H	Window Sill/Wall Detail	May 2019
21	Wall Detail	May 2019
3	Roof Joint Detail	May 2019
3A	Roof Joint at Chimney Detail	May 2019
3B	Expansion Joint Detail	May 2019
3C	Tie in Detail	May 2019
4	Curb Detail	May 2019
4A	Capped Curb Detail	May 2019
4B	Hatch Detail	May 2019
4C	Duct Curb Detail	May 2019
4D	Solid Curb Removal Detail	May 2019
4E	Curb Detail	May 2019
4F	Wood/Deck Closure Detail	May 2019
4G	Metal Curb Detail	May 2019
4H	Duct Curb Detail	May 2019
41	Steel Deck Closure	May 2019
5	Drain Detail (Existing Location)	May 2019
5A	Drain Detail (New Location)	May 2019
5B	Scupper Detail	May 2019
5C	Downspout Detail (New Location)	May 2019
6	Vent Stack Detail	May 2019
6A	Sleeve and Collar Detail	May 2019
7	Post Detail	May 2019

Burlington Central H.S. 1433 Baldwin Street Burlington, Ontario	TABLE OF CONTENTS	SECTION 00000 PROJECT BD19018 MAY 2019
8 8A 9 10 11 12 13	Concrete Paver Detail Unit on Pavers Detail Service Line Support Detail Metal Flashing Detail Condenser Support Detail Service Lines Detail Duct Support Detail	May 2019 May 2019 May 2019 May 2019 May 2019 May 2019 May 2019
<u>Appendix</u>		Pages
Appendix A	00310 Form of Tender – Roofing	2

SECTION 01011 PROJECT BD18053 MAY 2019

DIVISION 1 - GENERAL

1.1 General

- .1 This section summarizes the re-roofing work to be completed under the Contract. Additional requirements may be specified in individual sections of the specifications or shown on the drawings. All work to be completed in accordance with Division 1 and 2 and applicable sections of the 13th Edition of the Fishburn Building Sciences Group Inc. Roof Construction Guide.
- .2 When specific Sections of the Roof Construction Guide are referenced in the Summary of Work, it is the Contractor's responsibility to verify that the reference is consistent with the drawings and specifications.
- .3 The reference sections to be complied with may be included in the body text of the Summary of Work or shown in the right hand margin.
- .4 If the Contractor has any questions as to the intent or interpretation of the Summary of Work, Specifications, Drawings or Details, a written request for clarification should be made to the Owner/Consultant. The interpretation of the Documents, which appear to be in conflict, is at the sole discretion of the Owner /Consultant.
- .5 The Contractor must execute work in accordance with the Contract, Summary of Work, the Roof Construction Guide, Drawings and Details.
- In addition to the General Conditions provided in Fishburn Building Sciences Group Inc.'s Roof Construction Guide, the Architect's document includes a separate set of Owner's General Conditions. All such additional conditions are an integral part of the Contract. If any discrepancy is found between the Owner's General Conditions and those provided in the Roof Construction Guide, the more stringent requirements shall apply.
- .7 The General Contractor shall act as the prime Contractor for the project, and shall be solely responsible for the means, methods, techniques, sequences, and procedures used in the performance and for the coordination of various parts of the work. The Roofing Contractor shall coordinate with other subcontractors for mechanical, electrical and asbestos work as required to complete work as specified.
- .8 Execute work in accordance with the Contract Documents, which shall govern the work specified herein.
- .9 Provide plant, labour, materials and applicable taxes for the renovation work set out, including all related roofing, insulation, drains, flashings, mechanical, electrical and carpentry work in accordance with drawings, details and specifications.
- .10 The Contractor must comply with latest recommended guidelines for the implementation of WHMIS. Ensure labels and data sheets for all specified materials are available on site for review and posting. Provide an electronic copy of all MSDS sheets and WHIMIS information, including electronic links to manufacturers' websites, immediately following award of contract.
- .11 Provide incidental items that are not specified or shown but are required by implications or references to make a complete and watertight assembly.
- .12 The Contractor must comply with the guidelines regarding set-up and protection restrictions and requirements, including the use of odour suppressing kettles.
- .13 The following description of various roof section work requirements are intended to be complete, but shall be read in conjunction with the subsequent divisions of this specification, the Roof Plan(s) and details. In the event of any discrepancy, the more stringent requirements shall apply.
 - .1 Roofing Contractor must coordinate with subtrades to verify location of electrical and mechanical services below or within the deck and/or roofing system to ensure no damage occurs during securement of the roofing system to the structure. Any damages incurred will be the responsibility of the Contractors completing the work.

- .2 Contractor is to provide the Owner with twenty-four (24) hours notice prior to disconnecting or shutting down any equipment and services, for approval. If required, arrangements must be made to complete work after hours or on weekends to ensure no disruption of the Owner's operations or schedule.
- .3 Monitor fumes and air control on a regular basis to ensure no disruptions inside the building. Contractor to fabricate and temporarily install extensions to air intakes and protect all building openings to prevent fumes from entering the building. These installations must be suitable as not to interrupt Owner's schedule and be fixed in place to protect the vents from wind and precipitation. In the event that fumes entering into the buildings cannot be prevented, notify the Owner and Consultant to arrange for the completion of work after hours or on weekends.
- .4 Contractor is responsible for restoring all interior finishes to original condition upon completion of roofing, mechanical, electrical and asbestos work.
- .5 Contractor to provide a minimum 2400 mm (8'-0") high enclosure around the work set-up area that will remain upright for the duration of the Contract. Remove hoarding after completion of work. Refer to Section 01500 in the Roof Construction Guide.
- Contractor is responsible for submitting a safety policy or procedure for his forces and all sub trades to the Owner prior to starting work. Comply with latest edition of the Board's Health and Safety Procedures. Safety inspection reports will be required in accordance with the Roof Construction Guide, Section 01545 and paragraph 1.1.7.
- .7 Contractor is responsible to ensure all roof drains are operational and are in good working condition. Roofing and Plumbing Contractors are responsible for unplugging existing drains, and ensuring all drains are operational overnight.
- .8 The successful Roofing Contractor must coordinate with the subtrades when asbestos abatement procedures will be required to complete mechanical/electrical or roofing alterations in the ceiling assembly.
- .9 When mechanical alterations/upgrades are being completed coordinate work with other trades to maintain work schedule.

1.2 Conflict within Documents

- .1 In the event of a conflict, Contract Documents will govern in the following order:
 - .1 The Contract
 - .2 Summary of Work
 - .3 Roof Construction Guide
 - .4 Drawings/Details
 - .5 Large scale drawings over small-scale drawings
 - .6 Later drawings over earlier drawings

1.3 Existing Roof Construction

- .1 Information on existing construction should be used as a guideline only. The Contractor is responsible to confirm existing measurements, construction and site conditions.
- .2 The Contractor can make no claim against the Owner or Consultant for the correctness or completeness of information provided.
- .3 Refer to Roof Plan for roof assemblies.

1.4 **Submittals** Section 01300

- General requirements and procedures for Submittals are specified in Section .1 01300 of the Roof Construction Guide. Additional requirements may be specified in other sections.
- .2 Provide the following Submittals:
 - With Tender .1

.1	Proof of insurance (original copy)	Section 00100
.2	WSIB statement	Section 00100

.2 Prior to Construction

.1	Work schedule	Section 01001
.2	Shop drawings	Section 01340
.3	Material list	Section 01340
.4	Material samples	Section 01340
.5	Samples	Section 01340
.6	Insurance policy	Section 01545
.7	Health and safety policy	Section 01545
.8	WHMIS data sheets	Section 01545

During Construction .3

.7

.1	Mock ups	Section 01340
.2	Bitumen temperature reports	Section 01400
.3	Ground/roof level safety check list	Section 01400
.4	Cut test samples	Section 01400
.5	Hot work and safety permit	
.6	Material labels	Section 01400

- Pull test results .8 **Damaged Deck Plan**
 - .1 Provide Roof Plan showing extent of damaged deck replaced to be added to the Contract per Unit Prices quoted on the Form of Tender.
- .9 **Build Up Low Points Plan**
 - Provide Roof Plan showing areas of ponding built up with membrane and asphalt and asphalt and gravel to be added to the Contract per Unit Prices quoted on the Form of Tender.
- .10 Replaced Vermiculite Plan
 - .1 Provide Roof Plan showing areas of vermiculite fill replaced where found damaged or wet to be added to the Contract per Unit Prices quoted on the Form of Tender.
- Post Construction .4

.1	Specified warranties	Section 01300
.2	As constructed drawings	Section 01720

Section 06101

SECTION 01011 PROJECT BD18053 MAY 2019

.3 Insurance Section 01300

- .1 Maintain for the duration of the Contract and provide with the Tender prior to the award of the Contract proof of coverage for Comprehensive General Liability; an Automobile or Fleet Policy and Non-owned Automobile Policy.
- .2 The Policy limits will be a minimum: Comprehensive General Liability \$5,000,000 Liability Non-owner Automobile and Automobile \$2,000,000 (inclusive coverage).
- .3 The Halton District School Board and Fishburn Building Sciences Group Inc. are to be named as coinsured. No changes can be made to the policy without first notifying the coinsured parties.

.4 Warranty Section 01300

- .1 Provide the following warranty:
 - .1 Two (2)-year warranty. Sample of form enclosed.
- .5 Shop Drawings

Section 01340

- .1 Provide shop drawings for the following:
 - .1 Tapered Insulation for roof drain sumps and crickets.
 - .2 Plumbing runs for new drain as required.
- .6 Product Data Section 03140
 - .1 Submit Product Data, if required, for materials intended for use on this Project.
- .7 Material List Section 03140
 - .1 Submit a list of materials for intended for use on this project as required by the Roof Construction Guide.
- .8 Mock-ups: Section 03140
 - .1 Provide a mockup for the following:
 - .1 Air seals and wood blocking
 - .2 Metal flashings/ through wall flashings
 - .3 Curbs
- .9 Removal of Samples for Testing:

Section 01400

- .1 Retain the services of Global Laboratories and Research Corporation (Global) (905-878-8993) to obtain samples of roofing.
- .2 Conform to the requirements for cut test samples as specified in the RCG.
- .3 Provide samples of Work to testing laboratory for finger print analysis of specified material and verification of installed Work.
- .4 Remove one (1) sample for Roof Section 'L' and 'K' two (2) samples each for Roof Sections 'P' and 'Q'. Samples to be removed where directed by Global, with their location identified on a Roof Plan.

1.5 Water Test Section 01400

.1 Complete water testing before installation of insulation over vapour barrier and gravel over BUR membrane to determine low points. Correct as directed on site by Consultant per Unit Prices quoted on Form of Tender.

1.6 Storage Section 01500

.1 Provide weather-tight trailers for storage of materials, tools and equipment which are subject to damage by weather.

1.7 Salvage materials and/or equipment

Section 01600

- .1 Salvage existing materials and equipment intended for re-use and reset at conclusion of the project.
- .2 **Make good** damage caused by their removal.

1.8 Mechanical/Electrical/Plumbing

Section 01600

- .1 Coordinate with General Contractor's sub trades to remove, close off, alter, all electrical, mechanical and plumbing work required to facilitate the work of this Contract.
- On Roof Sections K, Q and Canopy1 coordinate with plumber to connect new drains and plumbing to existing drainage system to Code.
- .3 All electrical, mechanical, plumbing and interior finishes are to be completed by General Contractor and/or General Contractor's sub trades and carried in their Base Bid.

1.9 New Roof Construction

Refer to Roof Plan for roof assemblies.

<u>DIVISION 2 – SITEWORK, REMOVAL AND SUBSTRATE PREPARATION</u>

2.1 General Section 02075

.1 Conform to the requirements and procedures for Sitework, Removal and Substrate Preparation. Additional information may be provided on the Drawings.

2.2 Removal and Disposal

Section 02075

- .1 Power vacuum the roof surface free of all loose gravel prior to removal of existing roofing system. Contact Brian Speck at RoofVac at 905-791-0415 or 416-991-0415 (cell) or approved equal.
- .2 On Roof Section 'Q' remove and dispose of existing solid curbs, equipment and cap adjacent duct curbs to Details.
- On Roof Section 'P' remove existing roof assembly including vermiculite fill and vapour barrier to expose existing wood deck. Make good existing surfaces prior to installing new roof assembly noted on Roof Plan 1. On Roof Sections 'L' and 'Q' remove existing roof assembly to the vapour barrier over the vermiculite fill. Take precaution not to damage vapour barrier. Repair with #15 Felt and Type III asphalt if damaged to keep watertight. **Make good** existing surfaces. Where vermiculite fill feels soft or damaged, complete moisture tests and remove wet and damaged vermiculite to extent required and replace with matching thickness of fibreboard insulation set in asphalt. Where required also replace vermiculite underlay and deck if required to match existing. Provide unit prices on Form of Tender to adjust Contract price for the amount of work completed. Clean surfaces with a vacuum to ensure roof surface is free of all debris.
- On Roof Section 'K' remove existing roof assembly to expose the deck and on Canopy 1 remove existing roof assembly to expose the vapour barrier.

- .5 Check wood deck and report to Architect/Consultant for direction if repairs are required due to damage or rot.
- .6 In compliance with the Roof Plan Drawings and the Details, remove and discard existing rooftop equipment, flashings and materials not scheduled for re-use or salvage.
- .7 **Make good** existing surfaces affected by the Work.
- .8 Dispose of material off site as per regulatory requirements.
- .9 Maintain existing conduits and service lines at existing elevations and operational in current locations. Work around, move, raise, lower, modify and adjust lines to facilitate new roof installation. Take precautions not to damage service lines and notify Contractor/Consultant if damage occurs to initiate immediate repairs. Remove and dispose of service lines which Owner confirms are unused.

2.3 Advise Consultant/Owner

.1 Advise Consultant/Owner of any areas of damaged, wet or soft vermiculite, wood deck or thermal barrier. Following review proceed to replace/repair damaged areas as directed and as specified in the RCG. Contract to be adjusted for unit prices on Form of Tender.

2.4 Repair/Replace Damaged Wood Deck (Roof Sections J, K, L and P)

Section 02075

- .1 At locations where the existing wood deck is found to show evidence of dry rot or is damaged, remove and dispose of all areas of unsound decking and **make good** with new decking to match existing materials and finish. If required, notify Owner/Consultant to retain Engineer to provide assessment where structural integrity is of concern and Shop Drawings for remedial work.
- .2 Provide a Unit Price on the Form of Tender to be used to adjust the Contract price based on quantity of work completed.

2.5 Repair Damaged Membrane and Thermal Barrier (Roof Section Q)

Section 02075

.1 Provide Unit Price on the Form of Tender to repair damaged membrane and thermal barrier to be added to the Contract for the quantity of work completed as directed on site.

2.6 Clean and Paint Areas of Corrosion (Roof Section Q)

Section 02075

.1 Provide a Unit Price on the Form of Tender for cleaning and painting areas of corroded metal deck to be used as an extra to adjust the Contract price for the quantity completed.

2.7 Repair/Replace Damaged or Wet Vermiculite (Roof Sections Q and L)

.1 Provide a Unit Price on the Form of Tender for replacing damaged or wet vermiculite with tapered insulation to match original slope and thickness to be used as an extra to adjust the Contract price for the quantity completed.

DIVISION 6 – ROUGH CARPENTRY

6.1 General Section 06101

.1 Requirements and procedures for Rough Carpentry are specified in the Roof Construction Guide.

- .2 Roofing Contractor to complete all carpentry work as required to facilitate the work of this Contract as follows:
 - .1 Where shown, leave existing wood blocking in place and install additional new blocking to Details. Secure loose wood to sound conditions as required (loose fascia).
 - .2 Install, remove or replace wood blocking to specifications and drawings where found damaged or rotten. Document quantity completed for pricing purposes.
 - .3 Use galvanized fasteners for all work.
 - .4 Raise low curbs to Details.
 - .5 Replace damaged or rotten wood decking to match original where noted by Consultant if required. Complete work to Engineering Shop Drawings.

DIVISION 7 – CONVENTIONAL BUILT UP AND MODIFIED BITUMINOUS ROOFING

7.1 Vapour Barriers and Air Seals

Section 07500

- .1 Install vapour barriers and air seals as specified and as shown on the Drawings and Roof Plan.
- .2 Install 2-ply No. 15 felt over existing vapour barrier and Dens Deck Prime installed in continuous coat of Type III asphalt.
- .3 <u>Air Seals:</u> Unless otherwise specified in Section 06101, provide air seals at roof perimeters, openings, pipe penetrations and drains or extend the bitumen vapour barrier as applicable. Lap vapour barrier onto air seal as shown on the Drawings.

7.2 Insulation Section 07500

- .1 Base Insulation:
 - .1 Install Polyisocyanurate insulation (inorganic facer) in single or multiple layers as shown on Details and Roof Plan. Install in solid coat of Type III asphalt or mechanically secured as shown on Plan.
 - .2 The maximum board size shall be factory cut to 1200 mm x 1200 mm (4' x 4').
- .1 Tapered Drain Sumps and Tapered Crickets:
 - .1 Install tapered drain sumps and crickets to design intent and thickness as specified and as shown on the Tapered Plan. Install in solid coat of Type III asphalt.
- .2 Polystyrene Extruded Foam Board:
 - .1 Install polystyrene extruded foam board under concrete pavers and over curbs where shown as specified and as shown on the Drawings.
 - .2 Thickness 50 mm (2") or as otherwise shown on the Drawings.
- .3 Spray-In-Place Urethane (for Metal Sleeves):
 - .1 Install spray-in-place urethane foam insulation as specified and as shown on the Drawings.

.5 Batt Insulation (for Metal Sleeves):

.1 Install mineral wool batt insulation for metal sleeves as specified and as shown on the Drawings.

7.3 Separation Membrane

Section 07500

.1 Install 1-ply 95 gm/m² modified bituminous base sheet set in Type III asphalt as specified and as shown on the Drawings.

7.4 Coverboard Section 07500

- .1 Install 25 mm high density asphalt impregnated fibreboard or high density perlite coverboard over the base insulation set in solid coat of Type III asphalt.
- .2 Offset all joints of boards as specified.

7.5 Fasteners Section 07500

- .1 <u>Pressure Treated Wood:</u> Use minimum No. 304 stainless steel fasteners.
- .2 Pull-Out Tests: The type of fastener may be subject to results of pull out tests.

7.6 Roof Membrane Section 07500

- .1 Construct the roof membrane shown on the Roof Plan as specified and as shown on the Drawings. Membrane to consist of 1-ply 95 gm/m² modified bitumen base sheet plus 3-ply Type IV glass felt set in Type II asphalt.
- .2 Unless otherwise shown on the Drawings, seal all points of termination with a continuous layer of modified sealant and/or liquid membrane sealant, as shown on the Details.
- .3 If overnight tie-ins are specified to be left in place and used as a water cut-off, fabricate with a minimum 2-ply of asphalt saturated cotton fabric in asphalt.

7.7 Membrane Flashings

Section 07500

- .1 Construct membrane flashings at parapets, walls, curbs and joints shown on the Roof Plan as specified and as shown on the Drawings.
- .2 Roof flashings to consist of 1-ply 180 gm/m² modified bituminous base sheet set in Type III asphalt plus 1-ply 250 gm/m² modified bituminous cap sheet torched in place.
- Over flammable surfaces only install 1-ply 160 gm/m² modified bituminous base sheet self-adhered then torch-apply 180 gm/m² plus 250 gm/m² sheets.
- .4 Carry membrane up all walls, curbs, joints, etc., to points shown on the Drawings.
- .5 Seal all points of termination with a continuous layer of roofing sealant as shown on the Details.

7.8 Re-pour Low Points in Finished Roof Surface

Section 07500

- .1 Prior to the application of the insulation and bitumen and aggregate surfacing, and in addition to areas specified to be re-poured as part of the built-up roofing system, flood the roof over the finished membrane surface and confirm with the Consultant locations and quantities of roof area which pond more than 6 mm (1/4") of water.
- .2 Corrective measures on bituminous roof membranes shall include the installation of an additional layer of Type II asphalt to build up any low points.

- .3 When bitumen is used to build up low points, reinforce with a layer of Type IV glass felt for every 6 mm (1/4") thickness of bitumen, to a maximum of 19mm (3/4") thickness.
- .4 Provide a Unit Price as shown on the Form of Tender for additional bitumen and felt to adjust the Contract price based on the actual quantity of work completed and paid from the allowance.

7.9 Bitumen and Aggregate Surfacing

Section 07500

- .1 Install Type II asphalt and aggregate surfacing as specified and as shown on the Drawings.
- .2 In addition to areas specified to be double-poured as part of the built-up roofing system, provide a double pour of specified asphalt and aggregate at locations where ponding depth is beyond 6 mm (0.25") but no more than 19 mm (0.75").
- .3 Provide a Unit Price as shown on the Form of Tender to clean and double pour bitumen and aggregate surfacing to adjust the Contract price based on the actual quantity of work completed and paid from the allowance.

7.10 New Copper Drains At Existing Drain Locations

Section 07500

- .1 Where shown on the Drawings, replace existing drains with new copper drains by Altra Metal Industries Inc.: Model "G-CBD-CR-X-SS" as specified in Sections 07500 and 15100 and to the Drawings.
- .2 Size of new drains to match existing.
- .3 Provide control flow weirs where applicable to match existing.
- .4 Install sloped insulation sumps around drain as shown on the Drawings.
- .5 Coordinate with General Contractor's plumbing sub trade to mechanically connect drain, insulate drain on the building interior, install new pipe insulation and **make good** existing pipe insulation affected by the work to Section 15100.
- .6 **Make good** surfaces disturbed by the Work.
- .7 Cost of work to be carried in the Base Bid.

7.11 New Copper Drains at New Locations (Roof Sections Q, K and Canopy 1)

Section 07500

- .1 Install new copper roof drain by Altra Metal Industries Inc.: Model "G-CBD-CR-X-SS" at new location as specified and as shown on the Drawings. Roofing Contractor to provide new opening in deck.
- .2 New roof drains shall be 75 mm (3").
- .3 Coordinate with General Contractor's plumbing sub trade to install new 75 mm (3.0") plumbing pipe to Code and connection to existing drainage system as shown on Drawings.
- .4 Plumbing subtrade to insulate drain on the building interior for 1200 mm (4'0").
- .5 Plumbing subtrade to **make good** existing pipe insulation and surfaces disturbed by the Work.
- 6 Cost of work to be carried in the Base Bid.

7.12 Plumbing, Mechanical, Electrical and Miscellaneous Roof Penetrations

Section 07500

.1 Roofing Contractor to supply and install new drains, flashings and sleeves at plumbing, mechanical, electrical and miscellaneous roof penetrations as specified and as shown on the Drawings.

- .2 Insulate all stacks and sleeves unless otherwise shown on the Drawings. Insulate with loosely packed mineral wool insulation unless two-part polyurethane foam is shown on the Details.
- .3 Seal the opening between the top of the flashing and the pipe with polyurethane sealant unless otherwise shown on the Drawings.
- .4 On vent pipes install vandal proof cap as shown on the Drawings.

7.13 Concrete Pavers

Section 07500

- .1 Install concrete pavers as specified at all roof access points and supports as specified and/or shown on the Drawings.
- .2 Provide new pavers for service lines and equipment supports where existing is found damaged.

7.14 Metal Flashings

Section 07620

- .1 Work of this Section includes the supply and installation of metal flashing related to Roofing.
- .2 Complete all metal flashing to the requirements and procedures for metal flashing as specified and shown on the Drawings as required to facilitate the Work of this Contract.
- .3 Work of this Section also includes sealing joints in flashings as flashing is being installed, sealing existing wall reglets where they are to be re-used, and sealing open sheet metal joints at locations shown on the Drawings.
- .4 Install 24 gauge pre-finished 8000 Series metal.

7.15 Sealants

Section 07900

- .1 Work of this Section includes the supply and installation of Sealants related to Roofing.
- .2 Complete all Sealant Work to the requirements and procedures for Sealants as specified and shown on the Drawings as required to facilitate the Work of this Contract.
- .3 Work of this Section includes:
 - .1 Supply and install sealants in all joints, reglet joints, "S" lock joints, raised lock seams, metal flashings, vent stack flashings, metal sleeves, rain collars, chimney sleeves, fastening bars, conduits, internal stacks and at all other locations where sealants are required or shown on the Drawings to provide a complete and finished system by reference or implication.
 - .2 Supply and install firestop sealant to ULC at mechanical penetrations in firewalls, and as shown on the Drawings.
- .3 Work of this Section also includes sealing reglet joints and open sheet metal joints at locations not otherwise covered under Section 07620.
- .4 Complete all Sealant Work as specified and shown on the Drawings as required to facilitate the Work of this Contract.

SUMMARY OF WORK

SECTION 01011 PROJECT BD18053 MAY 2019

7.16 Plumbing and Drainage

Section 15100

- .1 Roofing Contractor to supply and install roof drains, scuppers and downpipes. Roofing contractor to coordinate with General Contractors plumbing sub trade for new deck opening, plumbing connections, pipe insulation and wrap to specified requirements and Details.
- .2 Cost of plumbing work and interior finishes to be carried in the Base Bid.

END OF SECTION 01011

FORM OF WARRANTY ISSUED BY FISHBURN BUILDING SCIENCES GROUP INC.

CERTIFICATE OF ROOFING WARRANTY

This form of Warranty is provided by the Consultant, Fishburn Building Sciences Group Inc., and is recommended as the form of warranty to be entered into between the Roofing Contractor and the Owner as outlined in the Contract documents.

OWNER: HALTON DISTRICT SCHOOL BOARD PROJECT NO: BD19018

BUILDING: BURLINGTON CENTRAL H.S. ROOFING CONTRACTOR:

LOCATION: 1433 BALDWIN STREET, BURLINGTON, ON CERTIFICATE NO:

TYPE OF ROOFING SYSTEM: CONVENTIONAL BUR DATE OF COMPLETION:

APPROXIMATE ROOF AREA: 17,700 SQ.FT. EXPIRY DATE:

DATE OF OWNERS ACCEPTANCE: OWNERS SIGNATURE:

Know all persons by these present, that we,			in
consideration of payment in full of our account for services rendered	hereby warrant all labor an	d materials used in the co	enstruction or
1 3			
repair of the roof for a period of TWO (2) YEARS from the date on	the Certificate of Completic	on of the project identified	l above.

The roof or repair work completed is hereby warranted to be watertight, in a good maintenance condition, free of defects including but not limited to: failure to stay in place, splits, fastener back out, shrinkage, blistering, ridging, delamination or deterioration of the roof surfacing or other defects that would negatively impact on the performance of the roof and or flashing system other than normal surface weathering. The Contractor shall forthwith upon receipt of notice by the Owner or his representative return to the site at their expense to affect any necessary repair or replacement to correct any such defect, including subsurface moisture damage within the two year period.

Any repairs or replacement shall be completed subject to acceptance by the Owner and be completed under the terms and conditions of the original contract documents, specifications and drawings.

In providing this warranty, the Contractor verifies that the work has been completed in strict compliance with the Building Code, regulatory requirements, specifications, drawings, details and recommendations of the manufacturer for the materials installed.

This Warranty is made with further special Conditions as follows:

- A. The Owner shall notify the Contractor immediately in writing, should any defects occur. The Contractor shall correct water leakage into the roofing system or building within 48 hours of date of receipt of notice. Such repairs are to be scheduled during regular working hours. In the event the Contractor cannot affect repair of water leakage within 48 hours, the Owner or his representative may affect necessary emergency repair at the cost of the Contractor. All other defects shall be repaired as arranged and confirmed between the parties, allowing a reasonable time to affect the repairs.
- **B.** The Contractor shall reimburse the Owner and/or Consultant for all fees and expenses that result from the investigation, testing, re-inspection and repair of defects in the work or work not completed in accordance with the contract documents.
- Nothing in this Warranty except negligence in effecting repairs as stated herein shall be construed to render the Contractor liable in any respect for any damage to said building or any contents hereof.

- **D.** The Warranty shall become invalid if any work or changes are affected to the roofing system or structure affecting the performance of the system without the prior written approval of the Warrantor other than temporary repairs affected by the parties as described in Paragraph "A".
- E. No responsibility or liability shall be assumed in respect to damage and/or defects caused by violent phenomena of the laments such as gales, hurricanes, tornadoes, lightning, etc., or failure of any building component found to effect the performance of the system other than those installed by the Contractor.
- F. 30-days prior to the expiry of this Warranty the Contractor shall notify the Owner in writing of the lapsing of the Warranty. An inspection of the roof shall be made by the Contractor, accompanied by the Owner or his representative if desired, to ascertain the condition of the roof, flashings and roof surfacing. If the site conditions at the time of the scheduled inspection do not allow for a proper evaluation of the roof's condition then the inspection may be postponed until such conditions occur. If this is the case, the Contractor agrees to extend the warranty until the inspection is complete. All deficiencies then noted shall be repaired in the manner previously indicated within 15 days of such inspection or as soon as weather permits in the event of inclement weather.
- G. All condition, liabilities or Warranties not expressly stated herein are not to be implied. In witness whereof, the parties hereto have caused this instrument to be executed by their duly authorized officers this

Contractor:	
Address:	
Telephone:	
Officer:	
Title of Officer:	
Signature:	



Certificate of Completion

This form is provided by Fishburn Building Sciences Group Inc. (the Consultant) for signature by the Contractor.

OWNER: HALTON DISTRICT SCHOOL BOARD PROJECT NO: BD19018

BUILDING: BURLINGTON CENTRAL H.S. ROOFING CONTRACTOR:

LOCATION: 1433 BALDWIN STREET, BURLINGTON, ON CERTIFICATE NO:

TYPE OF ROOFING SYSTEM: CONVENTIONAL BUR

DATE OF COMPLETION:

APPROXIMATE ROOF AREA: 17,700 SQ.FT.

General Description of Work:

- 1. Replacement of Roof Sections 'K', 'L', 'P' and 'Q' and new roofs on Roof Sections 'W' and 'X' as per Fishburn Building Sciences Group Inc. Specification and Details dated May 2019.
- 2. The Contractor hereby certifies that all work has been completed in strict compliance with the contract documents, plans, specifications, building code, regulation requirements and Manufacturer's recommendations for the materials installed.
- 3. The Contractor, in signing this certificate, confirms that all deficiencies in the work have been corrected and agrees to reimburse the Consultant and/or Client for all fees and expenses that result from the investigation, testing, re-inspection and correction of defects in the work or work not completed in accordance with the contract documents.
- 4. The Contractor also certifies that all suppliers and/or subcontractors that could otherwise have cause to register a lien against the property on which work was performed have been paid in full.

Contractor:		
	Name	
	Street Address	
	City, Province, Postal Code	
Telephone:		Fax:
Name:		Title:
Signature:		Date:

PLEASE SIGN, DATE AND FORWARD TO FISHBURN BUILDING SCIENCES GROUP INC. at: 15391 Steeles Avenue, Hornby, Ontario LOP 1E0 Tel: 905-878-1282, Fax: 905-878-2147, Email: fishburn@fishburn.ca

APPENDIX A FORM OF TENDER - ROOFING

SECTION 00310 PROJECT BD19018 MAY 2019

BASE PRICES

ITEM	ROOF SECTION	DESCRIPTION	BASE BID	H.S.T.	TOTAL
1	L, P, Q, W, X, Canopy 1	Price to install/replace roofs to Specification and Drawings.	\$	\$	\$
2	L, P, Q, W, X, Canopy 1	Price for vacuuming roofs (including bins).	\$	\$	\$
3	L, P, Q, W, X, Canopy 1	Removal and testing of samples.	\$3,570.00	\$464.10	\$4,034.10
4	L, P, Q, W, X, Canopy 1	Allowance to complete water tests and buildup of low points of roofing per Unit Prices (Items 12 – 13 below).	\$5,000.00	\$650.00	\$5,650.00
5	L, P, Q, W, X, Canopy 1	Allowance to test and replace vermiculate for water damage.	\$5,000.00	\$650.00	\$5,650.00
6		Complete all work as one Lump Sum Price. (Items 1 – 5).	\$	\$	\$

UNIT PRICES (To be used to adjust the Contract Price)

ITEM	ROOF SECTION	DESCRIPTION	ı	BASE BID	H.S.T.	TOTAL
7	L, P, K	Price to replace damaged wood deck (if required).	\$	/m²	\$ /m²	\$ /m²
8	Q	Price to clean and paint areas of corroded metal deck (if required).	\$	/m²	\$ /m²	\$ /m²
9	Q	Price to remove and replace existing damaged membrane and thermal barrier to match existing (if required).	\$	/m²	\$ /m²	\$ /m²
10	Q	Price to install new drain, sump and 7.6 m (25 ft.) of plumbing to connect to existing drainage system (if required).	\$	/ea	\$ /ea	\$ /ea
11	Q	Price to install additional insulated drainage pipe (if required).	\$	/m	\$ /m	\$ /m
12	L, P, Q, K	Price to build up low points of roof with additional felt and asphalt.	\$	/m²	\$ /m²	\$ /m²
13	L, P, Q, K	Price to build up low points of roof with additional gravel and asphalt.	\$	/m²	\$ /m²	\$ /m²
14	L, P, Q	Price to replace damaged or wet vermiculite with tapered insulation to match original slope and thickness.	\$	/m²	\$ /m²	\$ /m²

Authorized Signature and Date		

Burlington Central H.S. 1433 Baldwin Street Burlington, Ontario

APPENDIX A FORM OF TENDER - ROOFING

SECTION 00310 PROJECT BD19018 MAY 2019

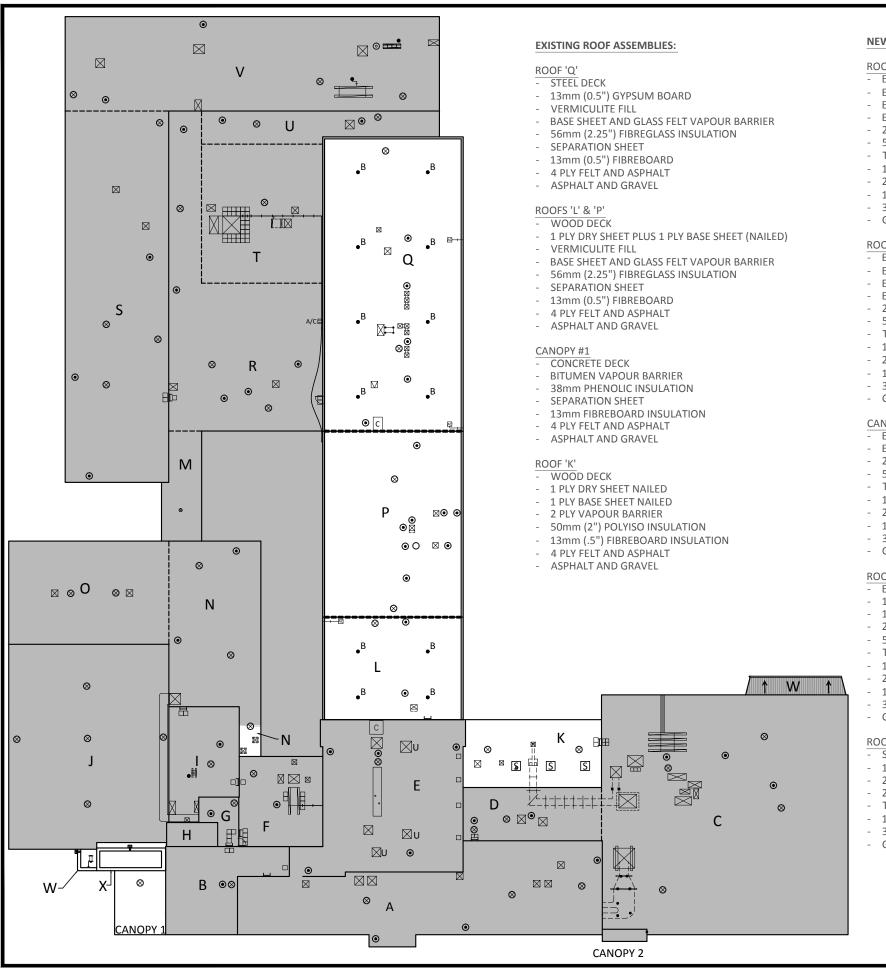
LABOUR HOURLY RATES

1. The following is a list of labour rates for the trades listed. These rates will be used for calculating credits or extras to the Contract as a result of Change Orders which may be issued during the duration of the Contract.

2. I/We agree that these labour rates shall prevail for the duration of the Contract.

Description		Site Time			Shop Time	
•	Week Day	Saturday	Sunday	Week Day	Saturday	Sunday
Superintendent						
Foreman						
Roofer						
General Labour						
Plumber						
Carpenter						
Electrician						
Sheet Metal Fabricator						
Trucking						
Fire Watch						
Contractor Quality Control Inspection						
Other						

Provide the following information that could impact the a	award of the Contract.	
Name of Superintendent	Years of Experience	_
Name of Foreman	Years of Experience	
Name of Safety Coordinator	Years of Experience	
Name of Fire Watch	Years of Experience	
Name of Contractor Quality Control Inspector	Years of Experience	
Start Date	, 2019	
Number of roofing days anticipated		
Number of sheet metal days anticipated		
Total number of days to complete work of this Contract		
Finish Date:	, 2019	
	Authorized Signature and Date	



NEW ROOF ASSEMBLIES:

ROOF 'Q

- EXISTING STEEL DECK
- EXISTING 13mm (0.5") GYPSUM BOARD
- EXISTING VERMICULITE FILL
- EXISTING BASE SHEET AND GLASS FELT VAPOUR BARRIER
- 2 PLY #15 FELT IN TYPE III ASPHALT
- 50mm POLYISOCYANURATE INSULATION MECHANICALLY SECURED
- TAPERED INSULATION AS SHOWN ON TAPERED PLAN IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE III ASPHALT
- 25mm COVERBOARD IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE II ASPHALT
- 3 PLY TYPE IV GLASS FELT IN TYPE II ASPHALT
- GRAVEL IN TYPE II ASPHALT

ROOFS 'L'

- EXISTING WOOD DECK
- EXISTING 1 PLY DRY SHEET PLUS 1 PLY BASE SHEET (NAILED)
- EXISTING VERMICULITE FILL
- EXISTING BASE SHEET AND GLASS FELT VAPOUR BARRIER
- 2 PLY #15 FELT IN TYPE III ASPHALT
- 50mm POLYISOCYANURATE INSULATION MECHANICALLY SECURED
- TAPERED INSULATION AS PER TAPERED PLAN IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE III ASPHALT
- 25mm COVERBOARD IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE II ASPHALT
- 3 PLY TYPE IV GLASS FELT IN TYPE II ASPHALT
- CDAVELIAL TYDE II ACDIIALT
- GRAVEL IN TYPE II ASPHALT

CANOPY #1

- EXISTING CONCRETE DECK
- EXISTING BITUMEN VAPOUR BARRIER
- 2 PLY #15 FELT AND TYPE III ASPHALT
- 50mm POLYISOCYANURATE INSULATION IN TYPE III ASPHALT
- TAPERED INSULATION IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE 3 ASPHALT
- 25mm FIBREBOARD INSULATION IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE II ASPHALT
- 3 PLY TYPE 4 GLASS FELT IN TYPE II ASPHALT
- GRAVEL IN TYPE II ASPHALT

ROOF 'K' & 'P'

- EXISTING WOOD DECK
- 1 PLY DRY SHEET NAILED
- 1 PLY BASE SHEET NAILED
- 2 PLY #15 FELT AND TYPE III ASPHALT
- 50mm (2") POLYISO INSULATION IN TYPE III ASPHALT
- TAPERED INSULATION IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE III ASPHALT - 25mm FIBREBOARD INSULATION IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE II ASPHALT
- 3 PLY TYPE 4 GLASS FELT IN TYPE II ASPHALT
- GRAVEL AND TYPE II ASPHALT

ROOF 'W' AND 'X'

- STEEL DECK
- 13mm DENS DECK PRIME (SECURED)
- 2 PLIES # 15 FELT INSULATION IN TYPE III ASPHALT
- 2 LAYERS 75mm POLYISOCYANURATE INSULATION IN TYPE III ASPHALT
- TAPERED CRICKETS IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE III ASPHALT
- 3 PLY TYPE 4 GLASS FELT IN TYPE II ASPHALT
- GRAVEL IN TYPE II ASPHALT



THIS DRAWING IS THE PROPERTY OF FISHBURN BUILDING SCIENCES GROUP INC. AND PROTECTED BY COPYRIGHT. THE DRAWING IS TO BE USED ONLY FOR THE PROJECT SHOWN. THE DRAWING IS NOT TO BE COPIED OR USED FOR ANY PURPOSE WITHOUT THE APPROVAL OF THE CONSULTANT.

INFORMATION ON EXISTING CONSTRUCTION AND SERVICES SHALL BE USED AS A GUIDELINE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE EXISTING MEASUREMENTS AND CONDITIONS.

ALL ROOF PROJECTIONS, OPENINGS AND EQUIPMENT LOCATIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY ALL LOCATIONS AND SIZES ON SITE FOR CONSTRUCTION AND ESTIMATING PURPOSES. NOTIFY CONSULTANT OF ANY OMISSIONS OR UNUSUAL CIRCUMSTANCES.

AREAS OF TAPERED INSULATION ARE REPRESENTATION ONLY. THE CONTRACTOR AND THE MANUFACTURER ARE TO VERIFY ALL DIMENSIONS AND MEASUREMENTS AND PROVIDE SHOP DRAWINGS TO SUIT SITE CONDITIONS.



1	FOR TENDER	30/05/1
NO.	DESCRIPTION	DATE
	REVISIONS	



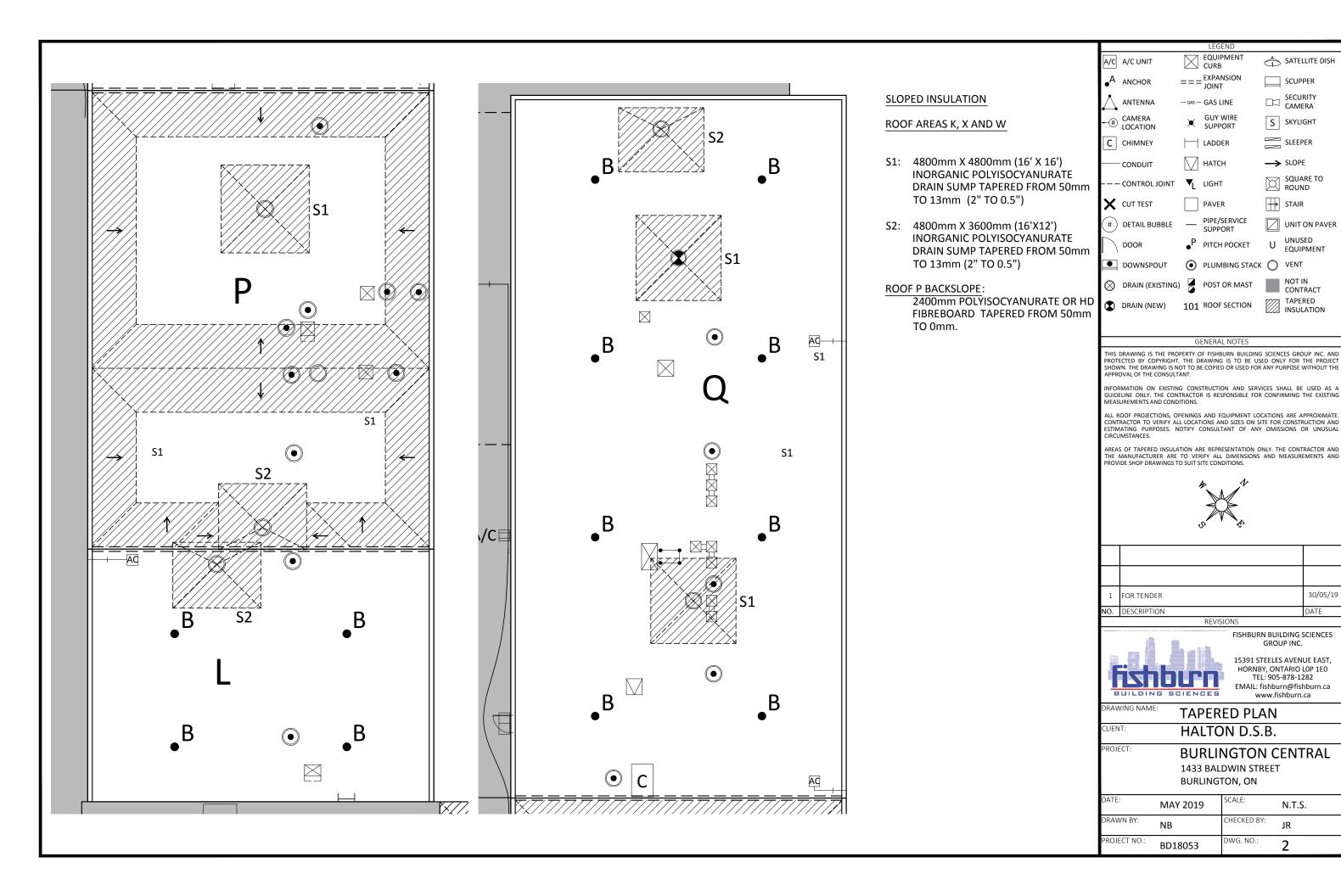
RAWING NAME

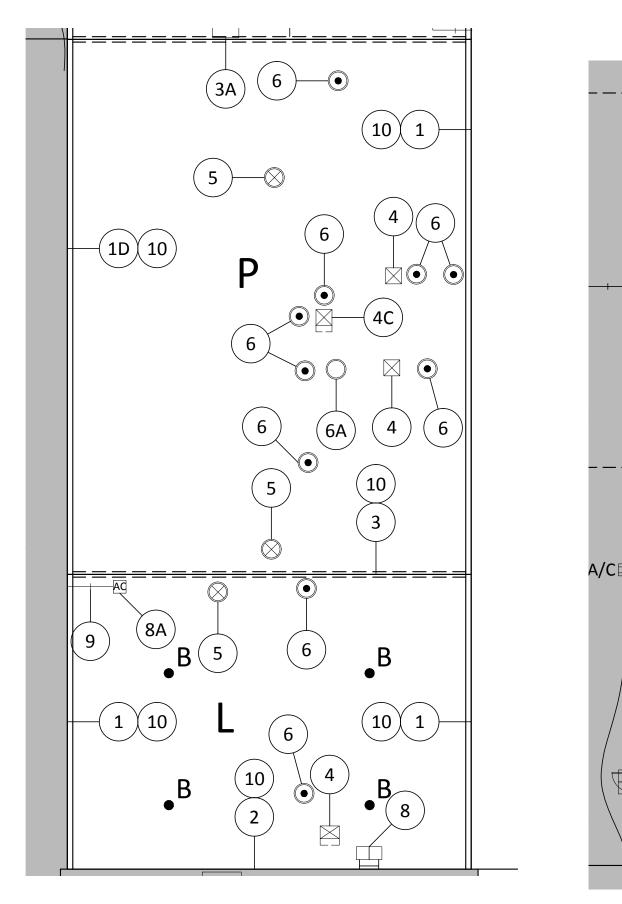
FISHBURN BUILDING SCIENCES GROUP INC.

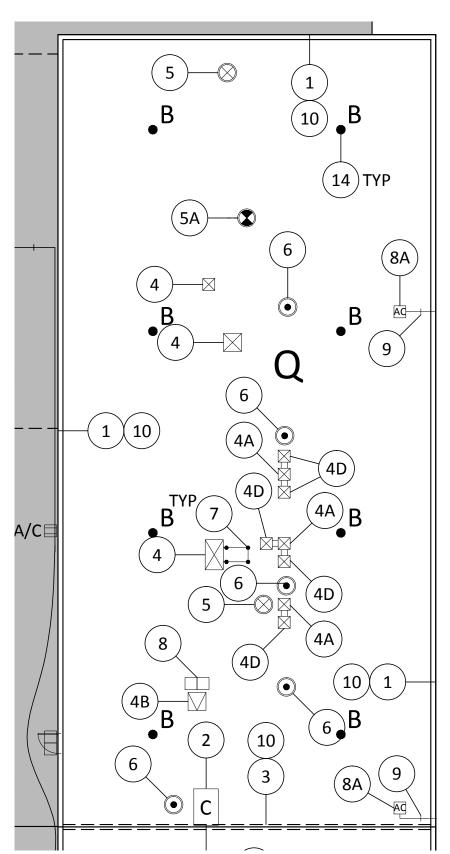
15391 STEELES AVENUE EAST, HORNBY, ONTARIO LOP 1E0 TEL: 905-878-1282 EMAIL: fishburn@fishburn.ca www.fishburn.ca

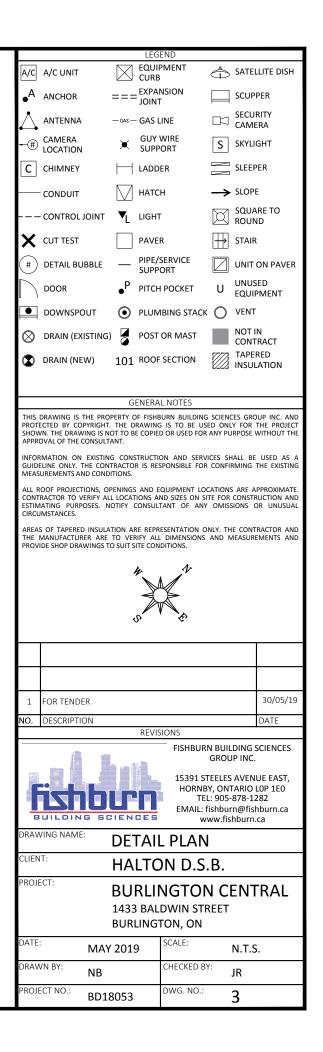
DNAWING NAW	ROOF	PLAN	
CLIENT:	HALTO	ON D.S.	B.
PROJECT:	_	DWIN STR	I CENTRAL EET
DATE:	MAY 2019	SCALE:	N.T.S.

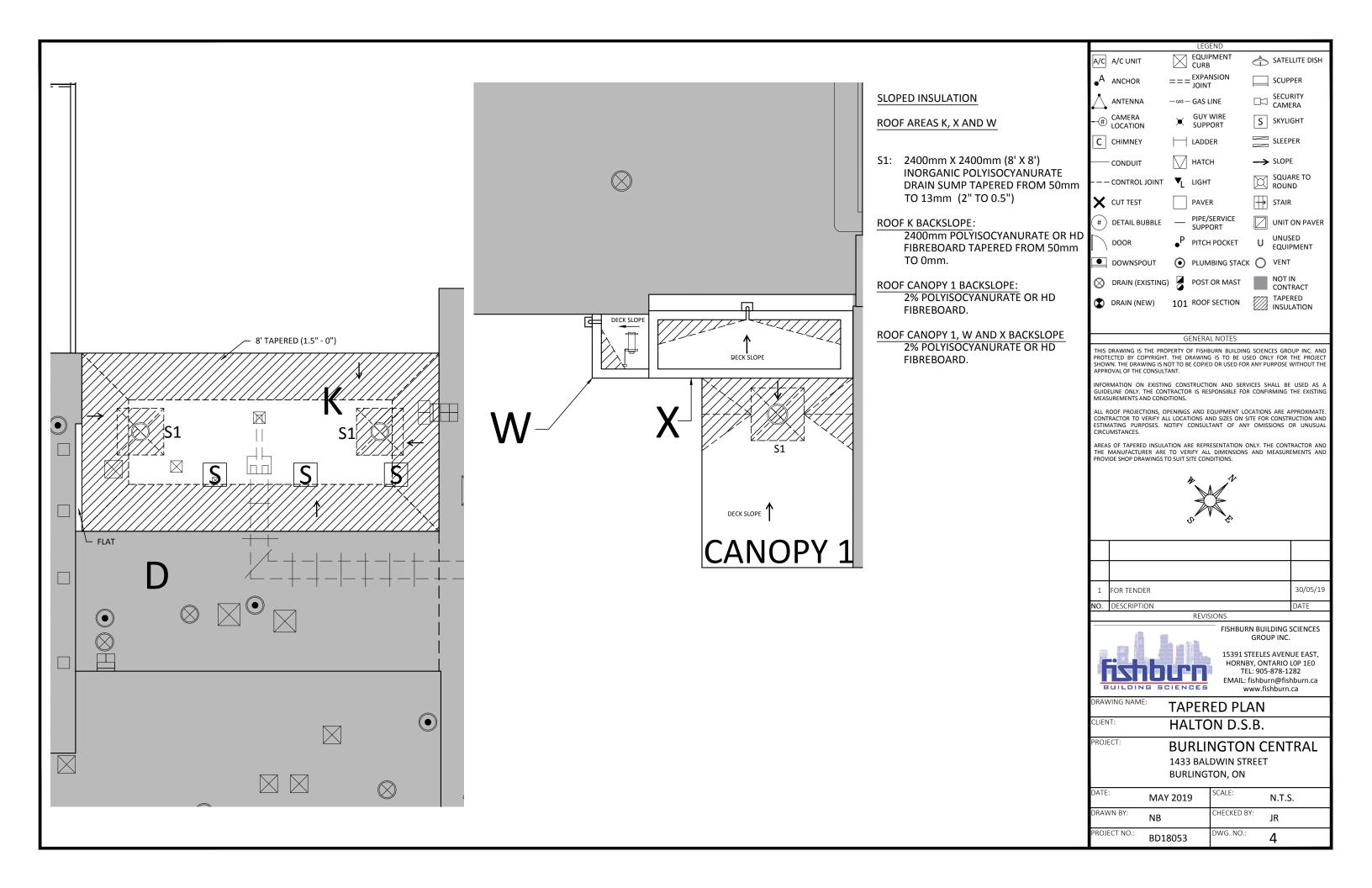
DATE:	MAY 2019	SCALE:	N.T.S.
DRAWN BY:	NB	CHECKED BY:	JR
PROJECT NO.:	BD18053	DWG. NO.:	1

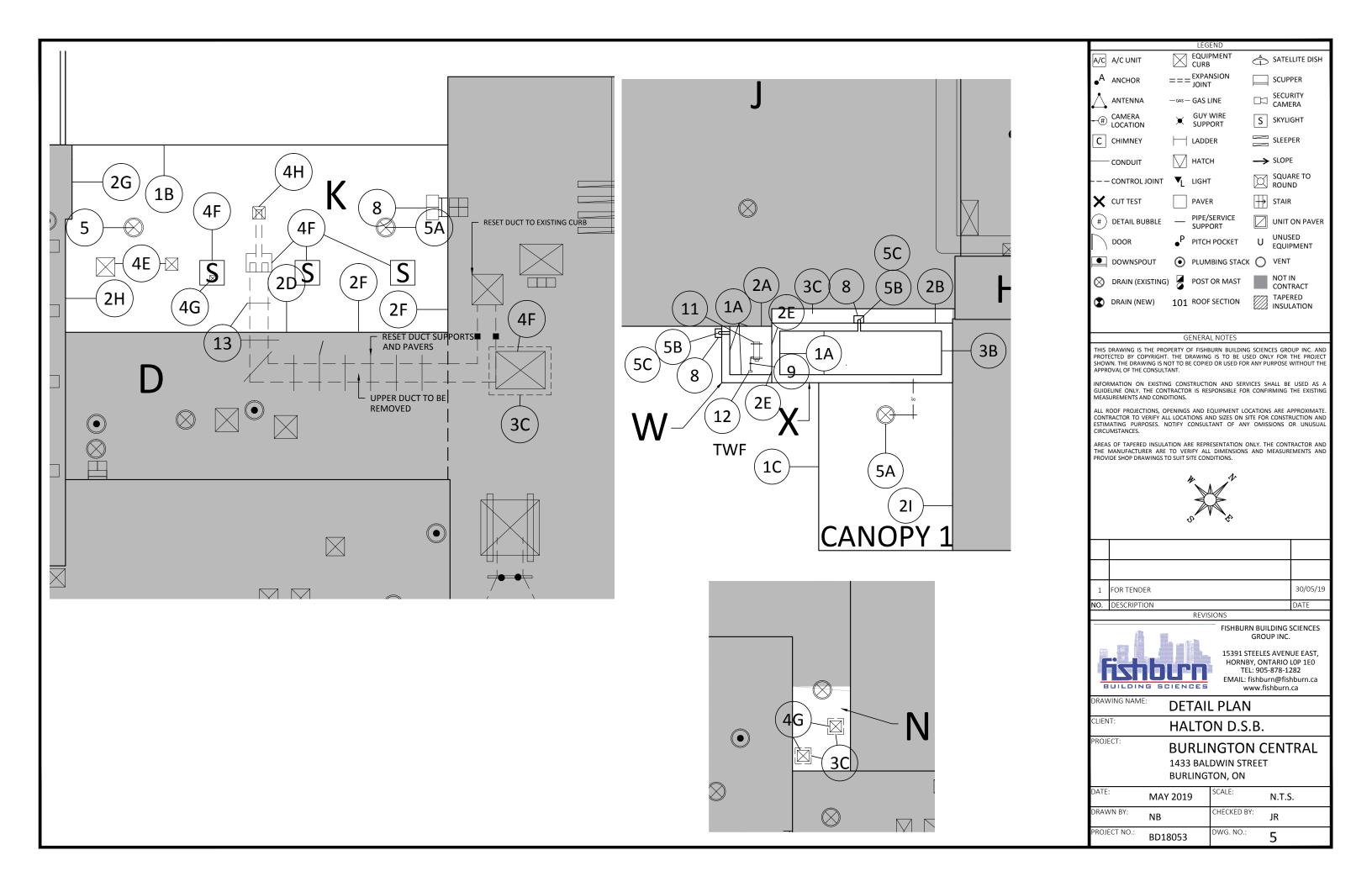


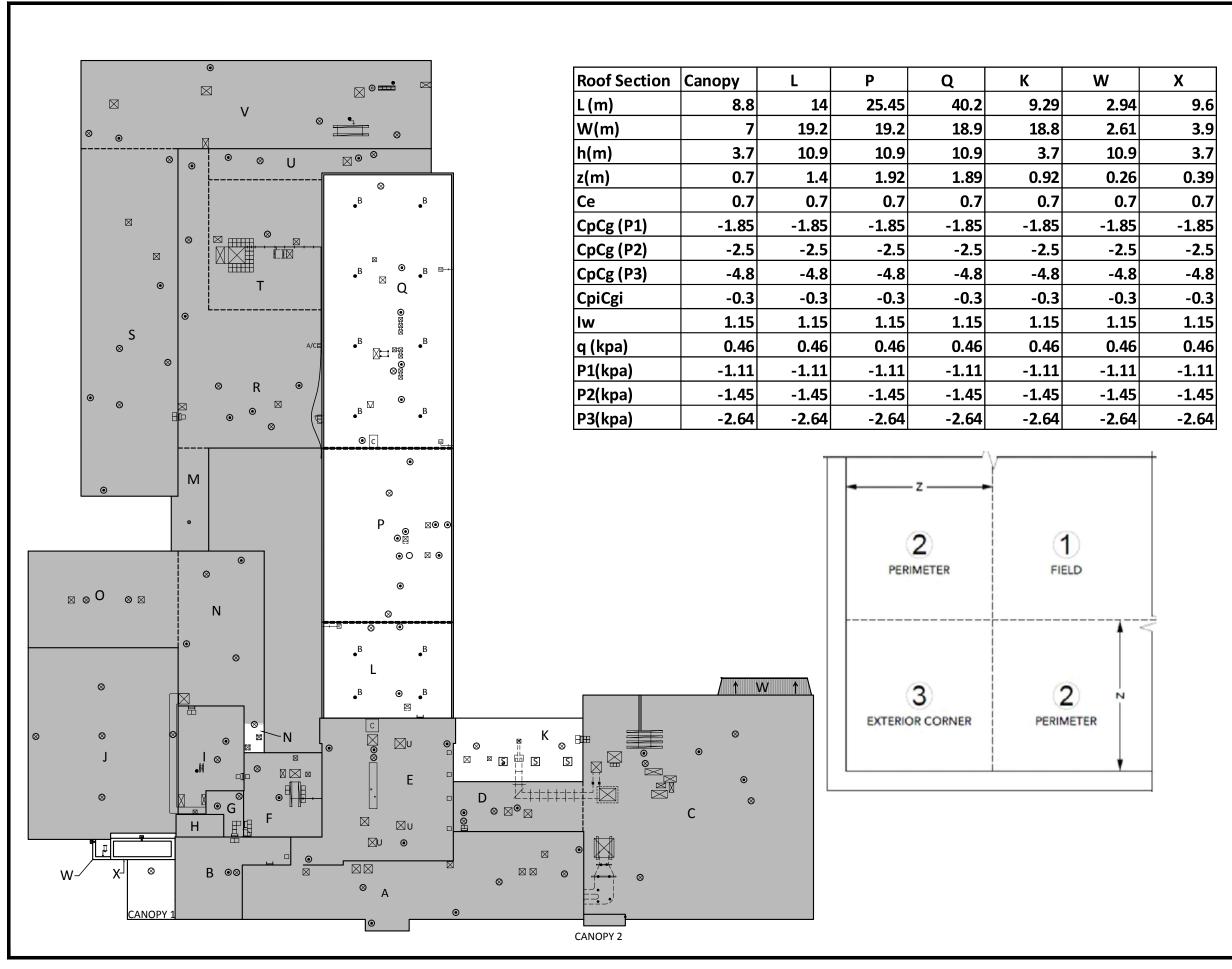


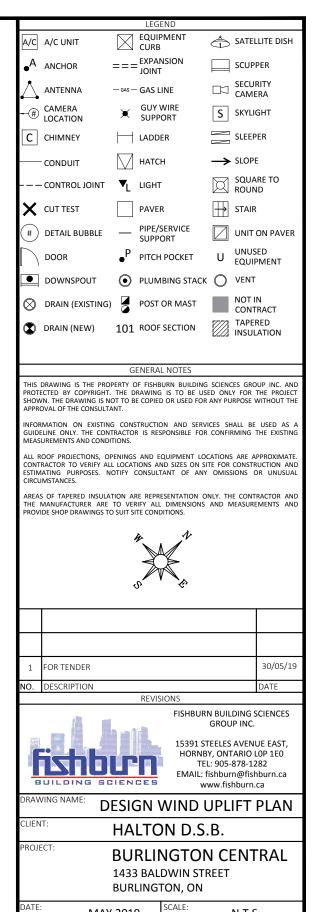












MAY 2019

BD18053

NB

DRAWN BY:

PROJECT NO.:

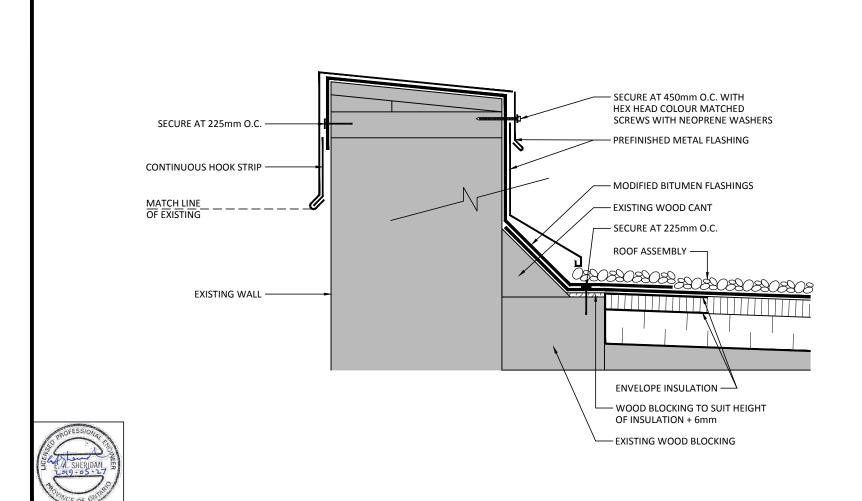
N.T.S.

JR

6

CHECKED BY:

DWG. NO.:





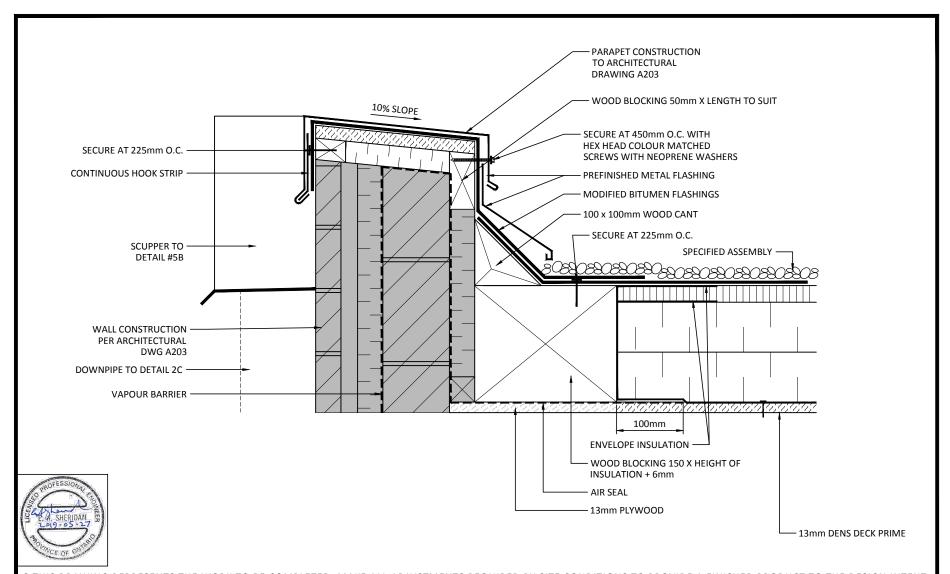
CLIENT: HALTON D.S.B.

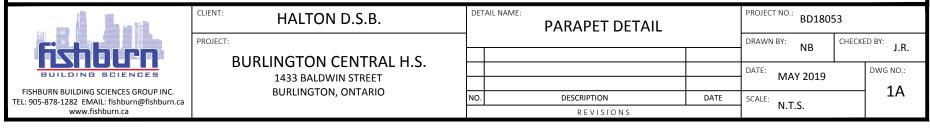
PROJECT:

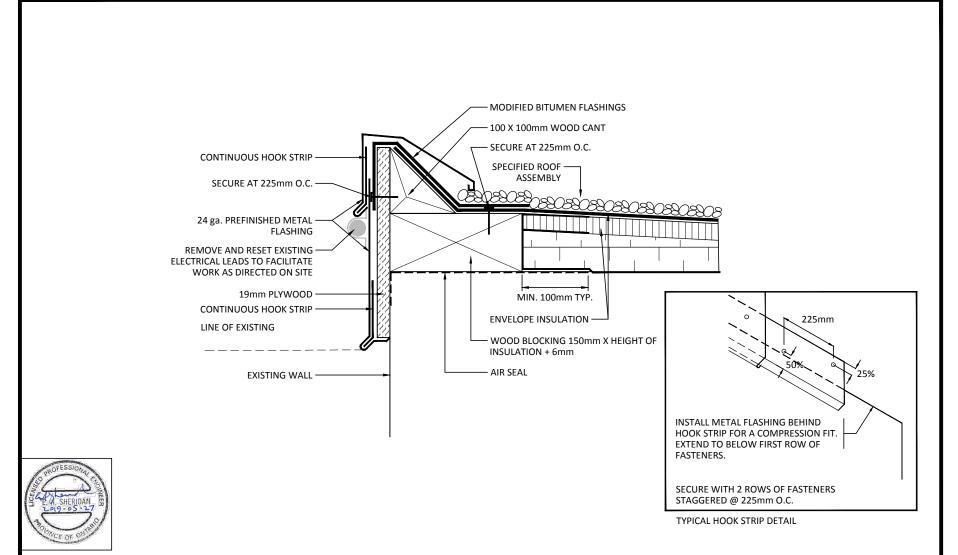
BURLINGTON CENTRAL H.S.

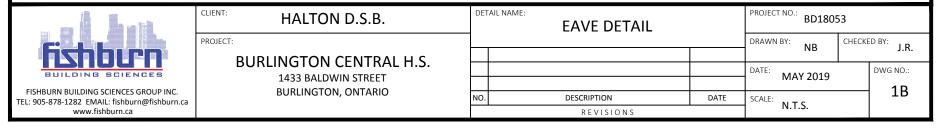
1433 BALDWIN STREET BURLINGTON, ONTARIO

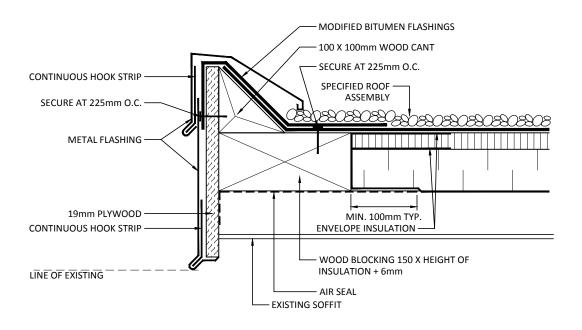
DETAIL NAME: PARAPET DETAIL			PROJECT NO.: BD18053				
			DRAWN	BY:	A.M.	CHECKE	D BY: J.R.
			DATE:	N 1 A	Y 2019		DWG NO.:
				IVIA	1 2019		1
NO.	DESCRIPTION	DATE	SCALE:	NT	۲		1 1
	R E V I S I O N S			N.T.	.3.		

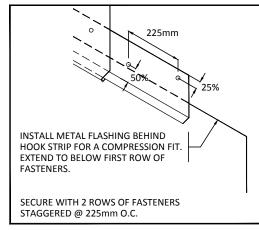














TYPICAL HOOK STRIP DETAIL



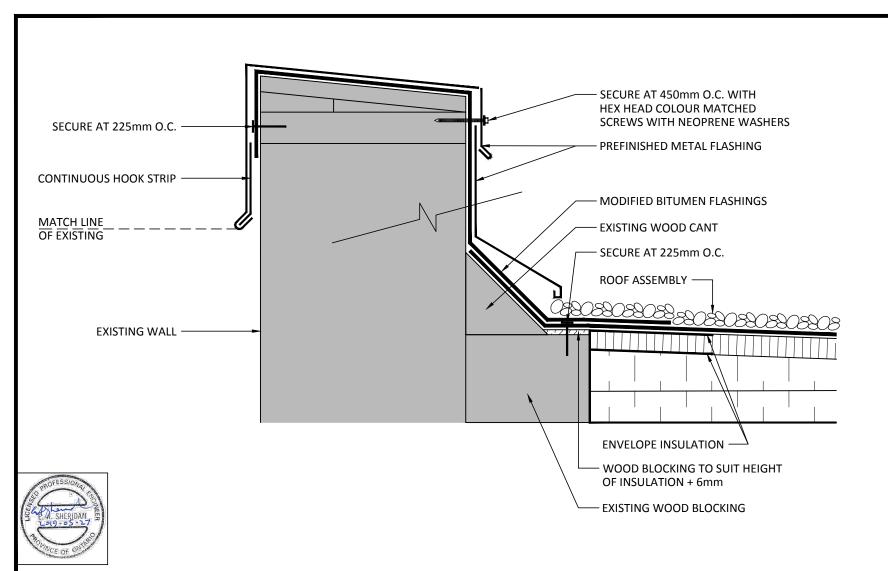
CLIENT: HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

1433 BALDWIN STREET BURLINGTON, ONTARIO

DETAIL NAME: EAVE DETAIL		PROJECT NO.: BD18053			
D		DRAWN BY: NB	CHECKE	D BY:	
			140		3.11.
			DATE: MAY 2019		DWG NO.:
			IVIAT 2019		1C
NO.	DESCRIPTION	DATE	SCALE: N.T.S.		10
	REVISIONS		N.1.5.		





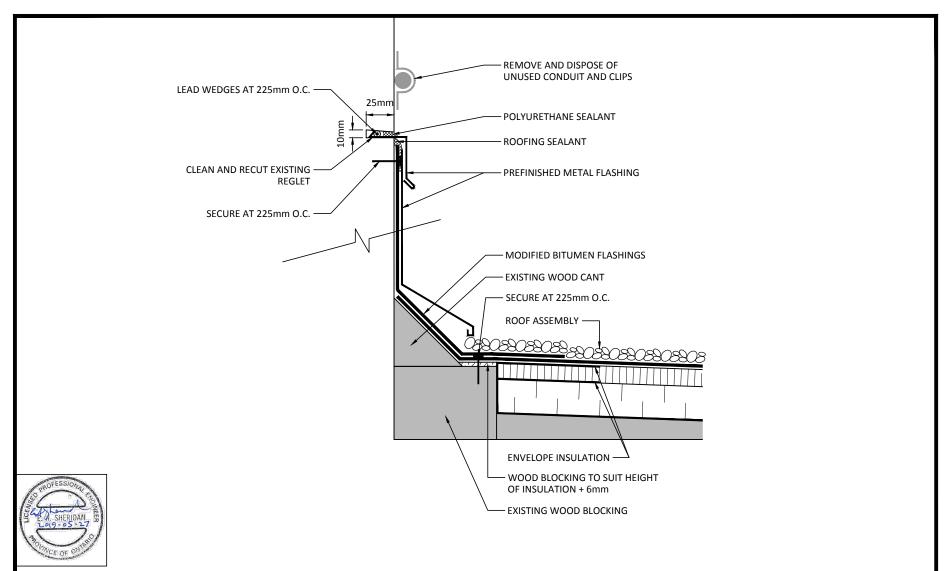
CLIENT: HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

1433 BALDWIN STREET BURLINGTON, ONTARIO

DETAIL NAME: PARAPET DETAIL			PROJECT NO.: BD18053			
		I	DRAWN	BY: A.M.	CHECKE	J.R.
			DATE:	MAY 2019		DWG NO.:
NO.	DESCRIPTION	DATE	SCALE:			1D
REVISIONS			N.T.S.			





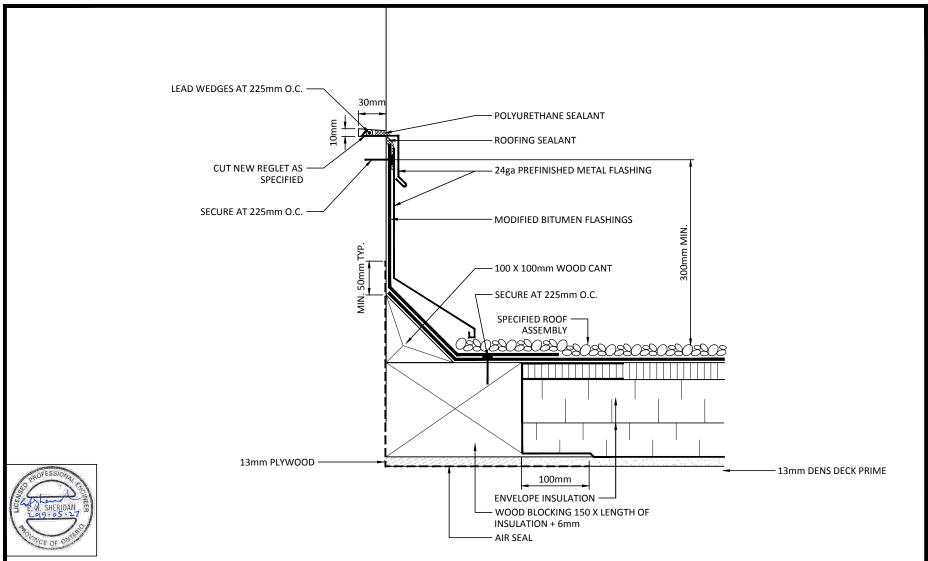
CLIENT: HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

1433 BALDWIN STREET BURLINGTON, ONTARIO

DETAIL NAME: WALL REGLET DETAIL			PROJECT NO.: BD18053				
			DRAWN	BY:	A.M.	CHECKE	J.R.
			DATE:	ΜΔ	Y 2019		DWG NO.:
NO.	DESCRIPTION	DATE	SCALE:				2
	REVISIONS		N.T.S.				





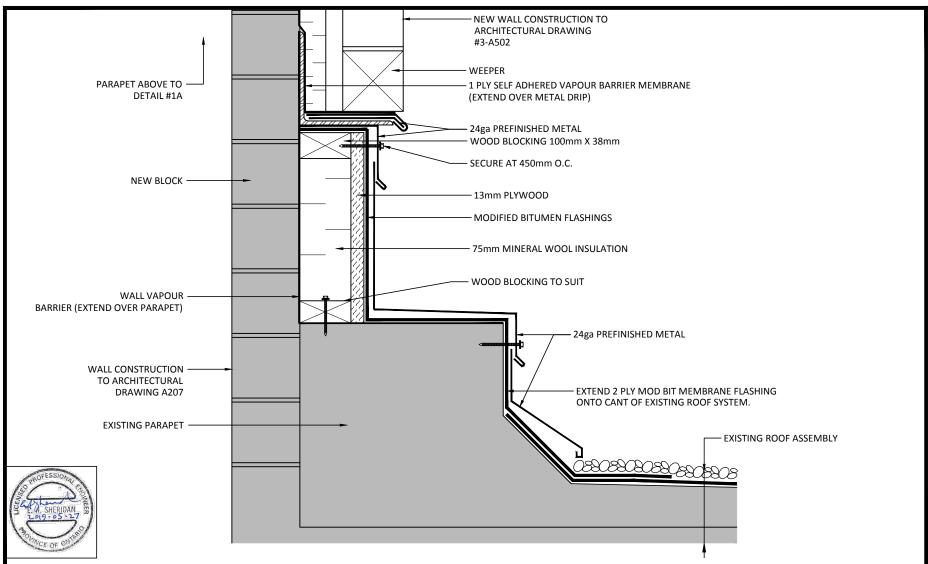
CLIENT: HALTON D.S.B.

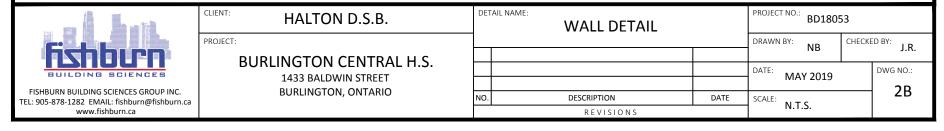
PROJECT:

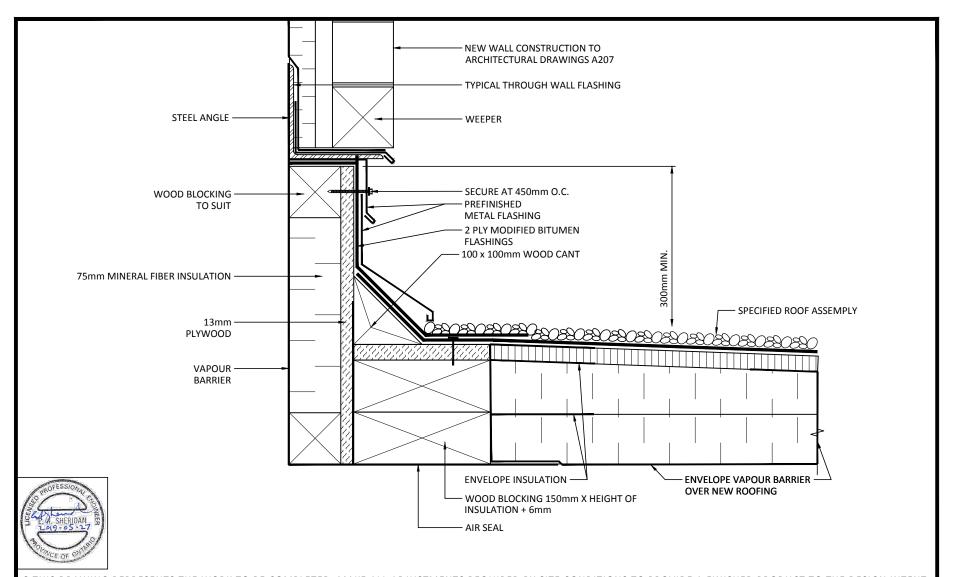
BURLINGTON CENTRAL H.S.

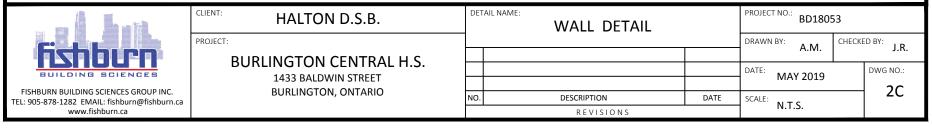
1433 BALDWIN STREET BURLINGTON, ONTARIO

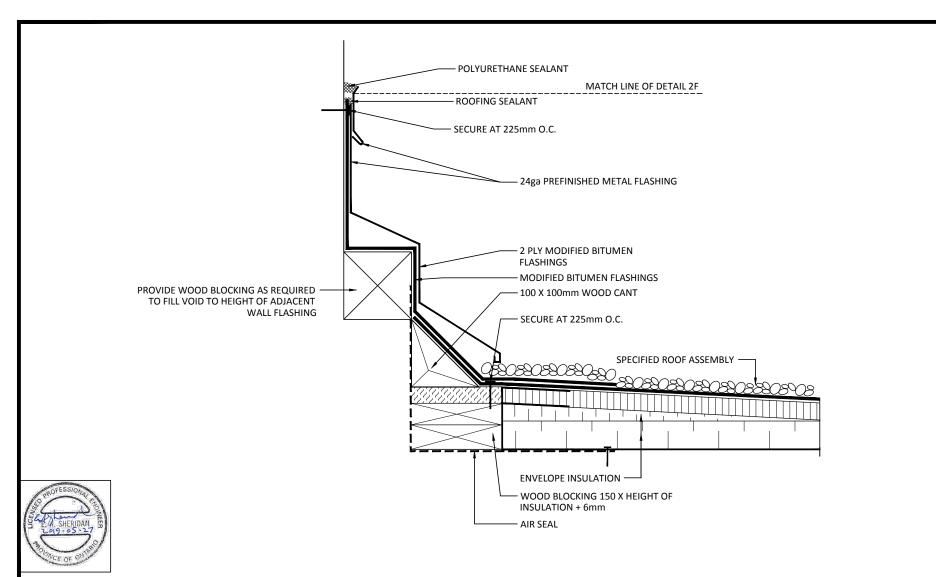
DETAIL NAME: WALL DETAIL			PROJECT NO.: BD18053			
			DRAWN BY: NB	CHECKED BY: J.R.		
			110	3.1		
			DATE: MAY 2019	DWG NO.:		
			IVIAT 2019	2A		
NO.	DESCRIPTION	DATE	SCALE: N.T.S.	ZA		
	REVISIONS		IN.1.5.			











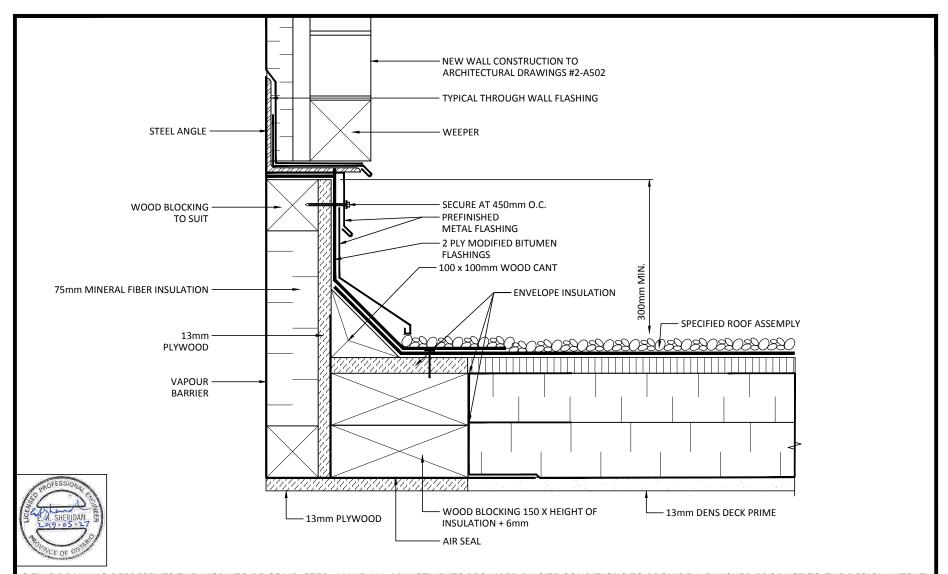


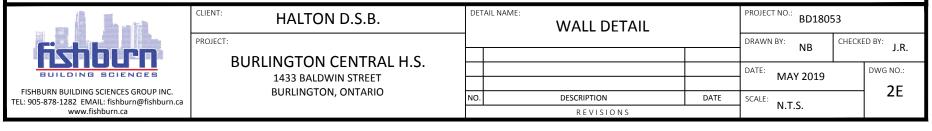
CLIENT: HALTON D.S.B.

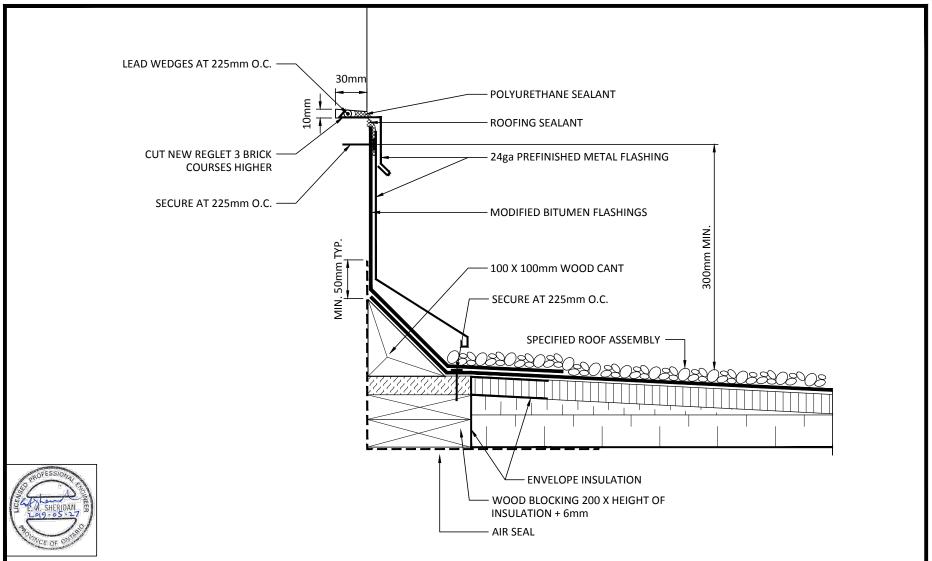
PROJECT:

BURLINGTON CENTRAL H.S.

DET	AIL NAME: WALL DETAIL		PROJEC	T NO.: BD180 5	53	
			DRAWN	I BY: NB	CHECKED BY: J.R.	
			DATE:			DWG NO.:
				MAY 2019		2D
NO.	NO. DESCRIPTION		SCALE:	N.T.S.		20
R E V I S I O N S				IV. 1.3.		







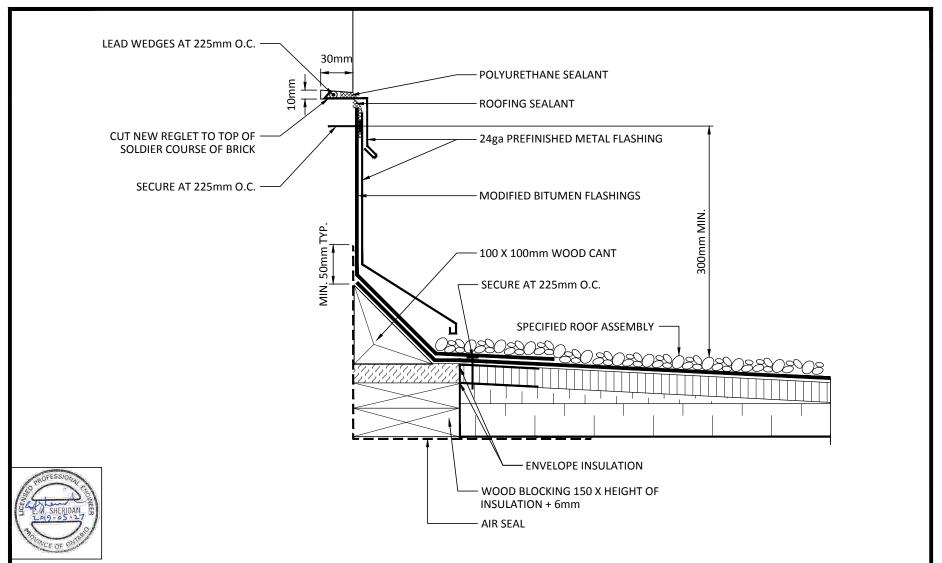


CLIENT: HALTON D.S.B.

PROJECT:

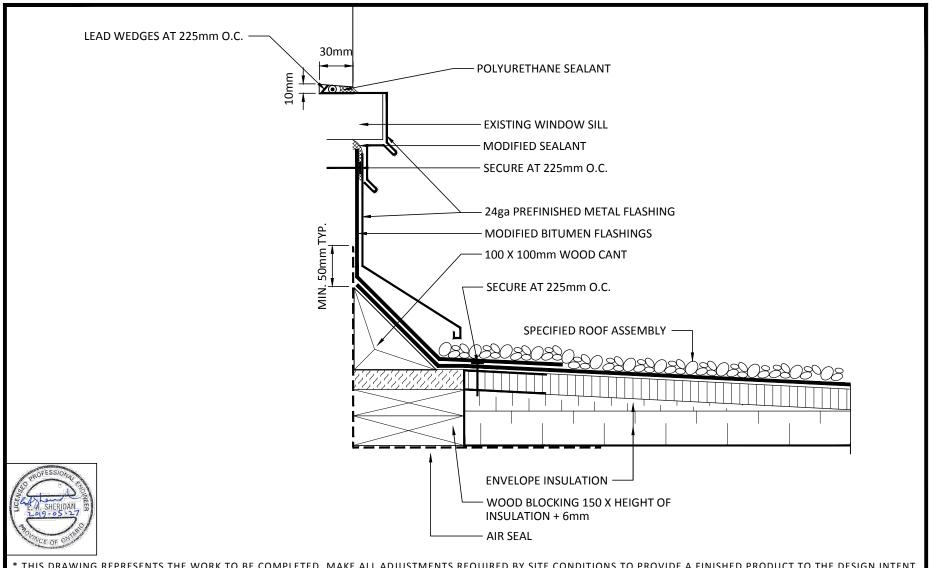
BURLINGTON CENTRAL H.S.

DETAIL NAME: WALL DETAIL			PROJECT NO.: BD18053				
			DRAWN BY: NB	CHECKE	ED BY: J.R.		
			DATE: MAY 2019		DWG NO.:		
			IVIAT 2019		2F		
NO.	DESCRIPTION	DATE	SCALE: N.T.S.		ZF		
	REVISIONS		N.1.5.				





HALTON D.S.B.	DET	DETAIL NAME: WALL DETAIL			PROJECT NO.: BD18053		53		
			<u> </u>		DRAWN	BY: NB	CHECKE	D BY: J.R.	
LINGTON CENTRAL H.S. 1433 BALDWIN STREET					DATE:	MAY 2019		DWG NO.:	
BURLINGTON, ONTARIO	NO.	2552212712		2.75		WIAT 2019		2G	
BONEINGTON, ONTAINO		DESCRIPTIO R E V I S	SIONS	DATE	SCALE:	N.T.S.		20	



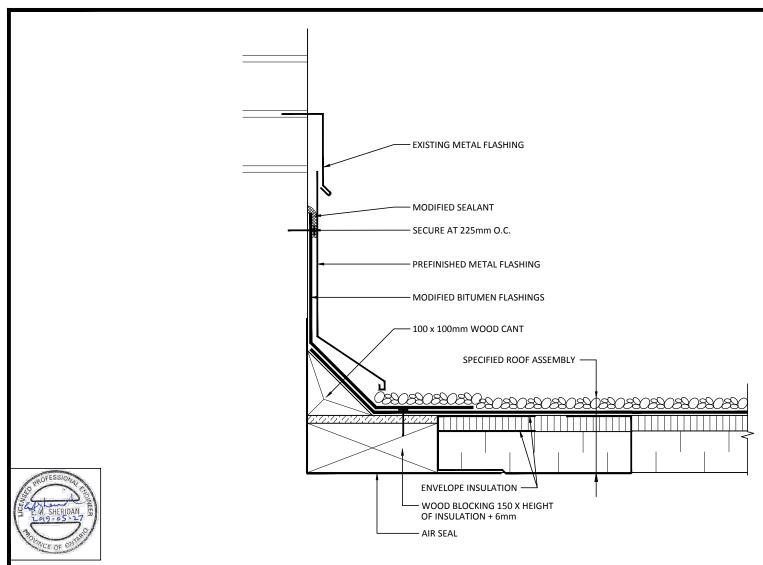


CLIENT: HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

DETAIL NAME: WINDOW SILL/WALL DETAIL			PROJECT					
	· ·			DRAWN BY:		CHECKE	ED BY: J.R.	
			DATE: MAY 2019				DWG NO.:	
							2H	
NO.	DESCRIPTION	DATE	SCALE: N.T.C			20		
	REVISIONS		N.T.S.					



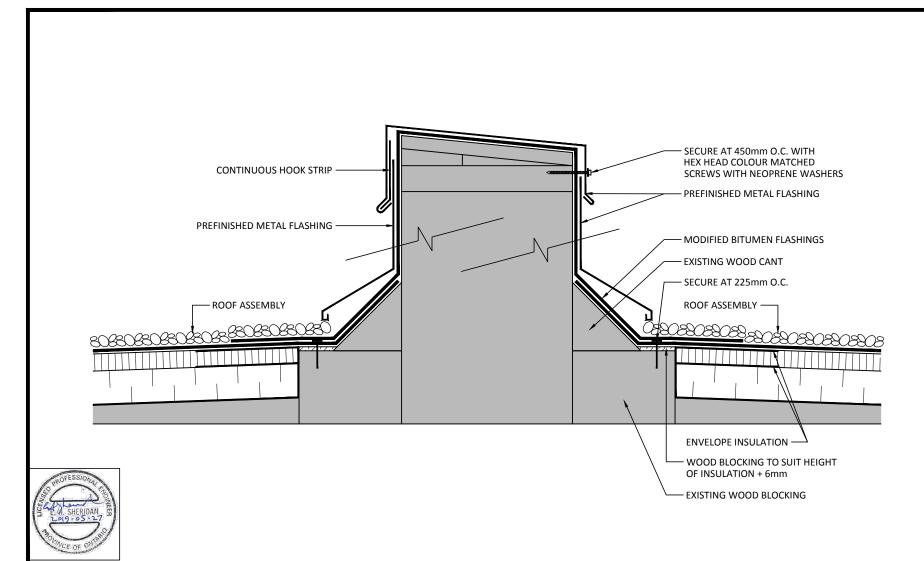


HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

DET	AIL NAME: WALL DETAIL	PROJECT NO.: BD18053				
			DRAWN BY: NB	CHECKE	J.R.	
			DATE: MAY 2019		DWG NO.:	
NO.	DESCRIPTION	DATE	SCALE:		21	
	R E V I S I O N S		N.T.S.			



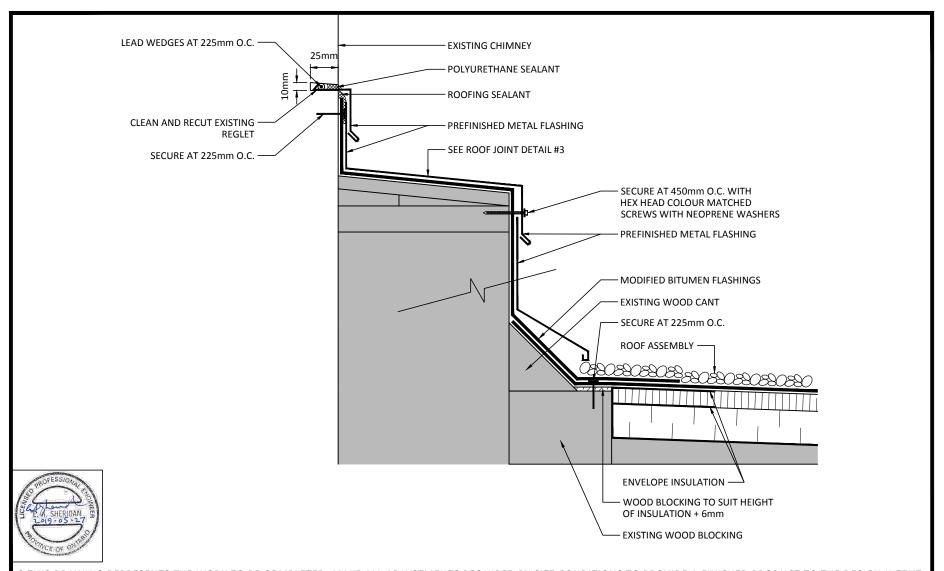


HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

DETAIL NAME: ROOF JOINT DETAIL				PROJEC	TNO.: BD180	053			
			DRAWN	I BY: A.M.	CHECK	ED BY: J.R.			
					71.141.		J.IV.		
				DATE: MAY 2019 SCALE: N.T.S.			DWG NO.:		
							2		
NO.		DESCRIPTION	DATE) 3		
	-	REVISIONS	•]	IV. I . 3.				



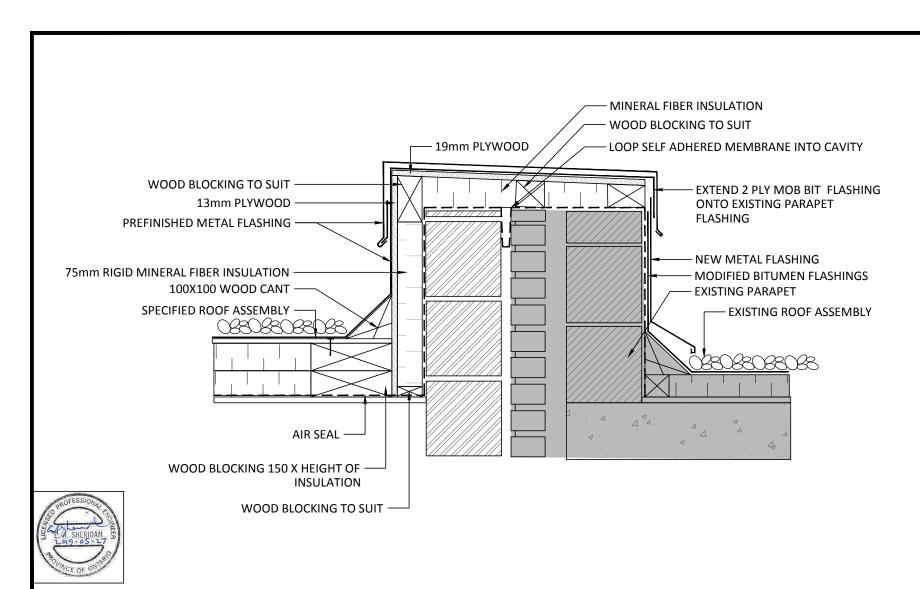


CLIENT: HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

	DETAIL NAME: ROOF JOINT AT CHIMNEY DETAIL			T NO.: BD180	53	
		DRAWN	BY: A.M.	CHECK	ED BY:	
			DATE: MAY 2019 SCALE: N.T.S.			DWG NO.:
						3A
NO.	DESCRIPTION	DATE) SA
	REVISIONS			IV. I . S.		





HALTON D.S.B.

PROJECT:

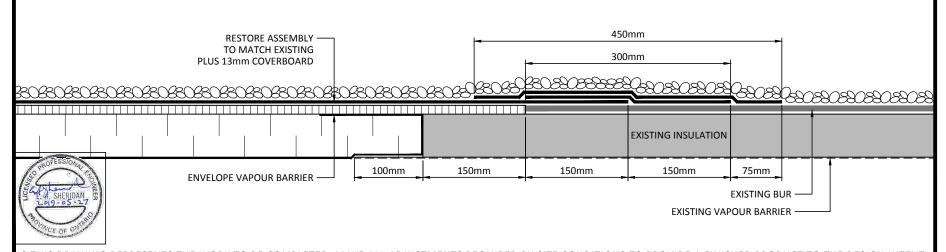
BURLINGTON CENTRAL H.S.

DET	DETAIL NAME: EXPANSION JOINT DETAIL			PROJECT NO.: BD18053			
			DRAWN	BY: NB	CHECKE	J.R.	
\dashv			DATE: MAY 2019 SCALE: N.T.S.			DWG NO.:	
\neg							
NO.	DESCRIPTION	DATE				3B	
	R E V I S I O N S			IV. 1.3.			

TIE-IN NOTES:

- 1. AT LOCATIONS SPECIFIED, SHOWN OR AS OTHERWISE REQUIRED, PREPARE BITUMEN MEMBRANE FOR REPAIR BY REMOVING GRAVEL AND BITUMEN. POUR A MINIMUM OF 600mm ON EITHER SIDE OF THE PROPOSED TIE-IN AREA.
- 2. LEAVE FELTS FREE OF GRAVEL AND CLEAN OFF DUST AND DEBRIS. DISPOSE OF CHIPPINGS AND DEBRIS AWAY FROM SITE.
- 3. TORCH EXPOSED MEMBRANE TO FLOW BITUMEN TO AN EVEN BLACK SURFACE PRIOR TO REPAIR TO IMPROVE ADHESION AT POINTS OF CONTACT.
- 4. REPAIR ALL DAMAGED ROOFING CAUSED BY THIS OPERATION WITH MATERIAL AND FINISH TO MATCH THE ORIGINAL.

- 5. INSTALL NEW VAPOUR BARRIER OVERLAPPING EXISTING MINIMUM 100mm EACH SIDE.
- 6. RESTORE INSULATION WITH MATCHING THICKNESS OF POLYISOCYANURATE INSULATION, INSTALL ADDITIONAL 13mm FIBREBOARD TO BRING ASSEMBLY EVEN WITH SURFACE OF EXISTING MEMBRANE. RESTORE MEMBRANE WITH NEW 4 PLY B.U.R. USING TYPE II ASPHALT. CARRY THE FOUR PLIES OF FELT ONTO THE EXISTING MEMBRANE 150mm. INSTALL TWO ADDITIONAL PLIES OF FIBREGLASS FELT OVER SPLICE JOINT.
- 7. PROVIDE NEW BITUMEN AND GRAVEL POUR.



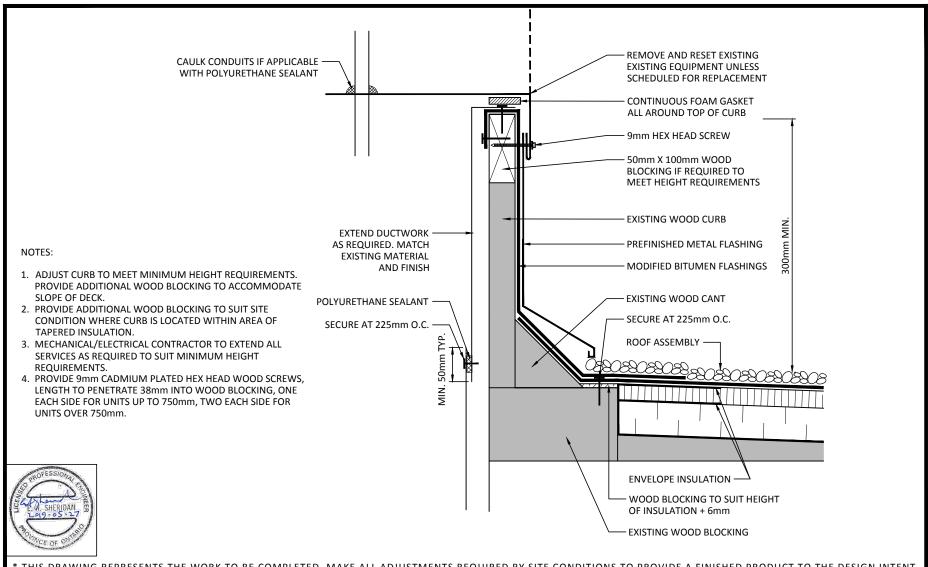
* THIS DRAWING REPRESENTS THE WORK TO BE COMPLETED. MAKE ALL ADJUSTMENTS REQUIRED BY SITE CONDITIONS TO PROVIDE A FINISHED PRODUCT TO THE DESIGN INTENT. REFER TO SPECIFICATIONS FOR MATERIAL SUPPLY AND INSTALLATION PROCEDURES. PROVIDE MOCK-UP FOR REVIEW PRIOR TO CONSTRUCTION



HALTON D.S.B.

BURLINGTON CENTRAL H.S.

DETAIL NAME: TIE-IN DETAIL			PROJECT NO.: BD18053				
			DRAWN B	Y: A.M.	CHECKE	ED BY: J.R.	
			DATE: MAY 2019			DWG NO.:	
			'	VIA 1 2013		30	
NO.	DESCRIPTION	DATE	SCALE: N.T.S.			ا عد	
	R E V I S I O N S		'	N.1.5.			

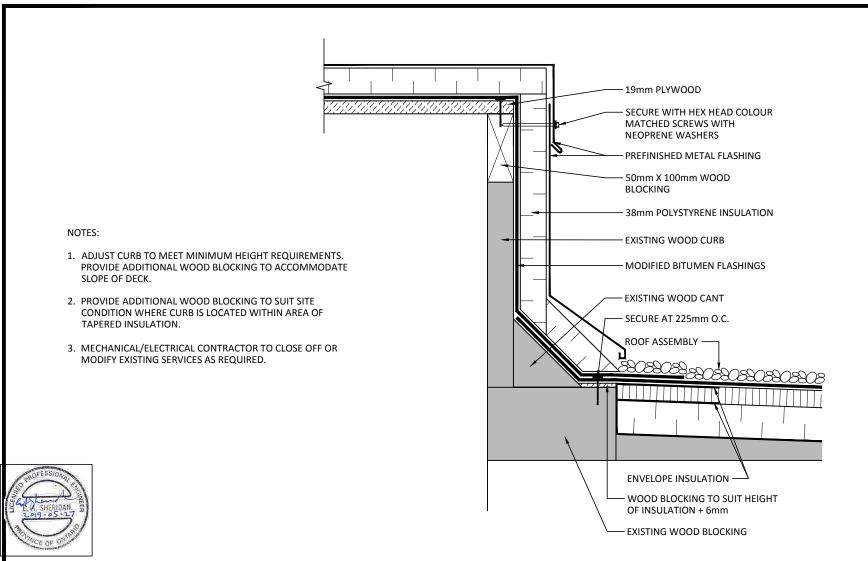




HALTON D.S.B.

BURLINGTON CENTRAL H.S.

DETAIL NAME: CURB DETAIL			PROJECT	BD1805	53		
			DRAWN	BY: A.M.	CHECK	J.R.	
			DATE:	MAY 2019		DWG NO.:	
NO. DESCRIPTION DATE		DATE	SCALE:			4	
REVISIONS				N.T.S.			



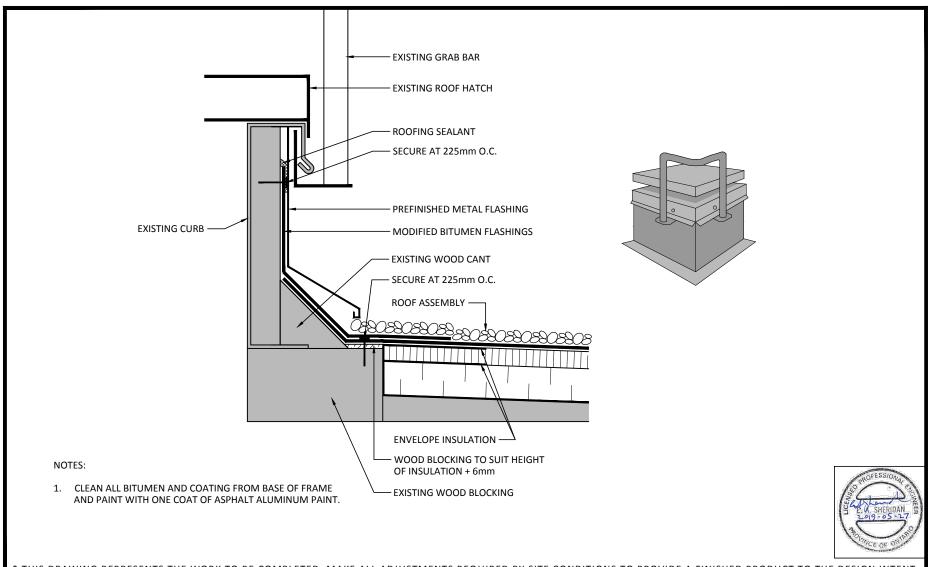


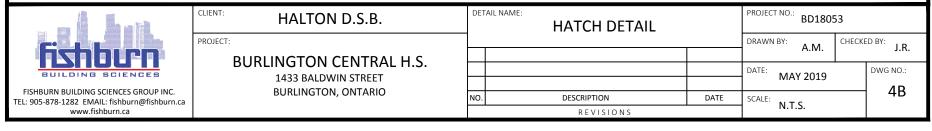
CLIENT: HALTON D.S.B.

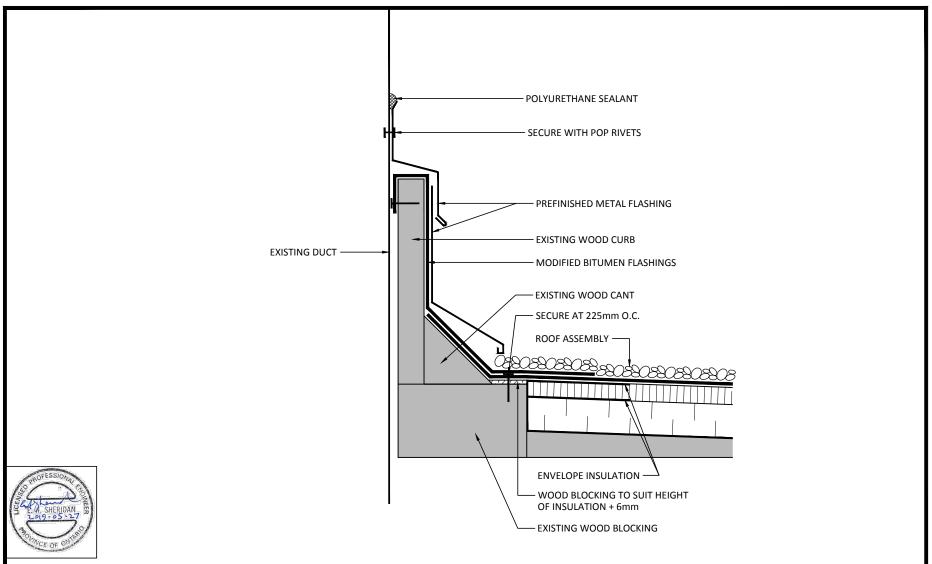
PROJECT:

BURLINGTON CENTRAL H.S.

DET	DETAIL NAME: CAPPED CURB DETAIL			FNO.: BD180 !	53		
			DRAWN	BY: A.M.	CHECK	ED BY:	
						, , , , , , , , , , , , , , , , , , , ,	
			DATE: MAY 2019			DWG NO.:	
						4A	
NO.	DESCRIPTION	PTION DATE		NTC		4 A	
REVISIONS				N.T.S.			







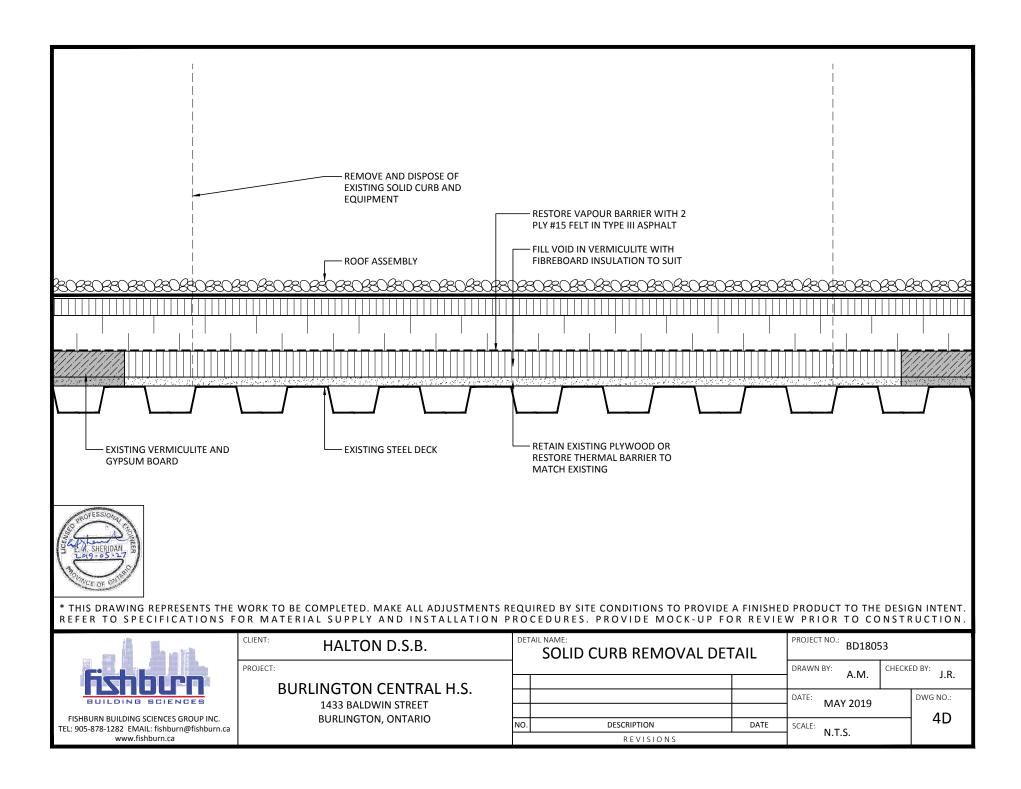


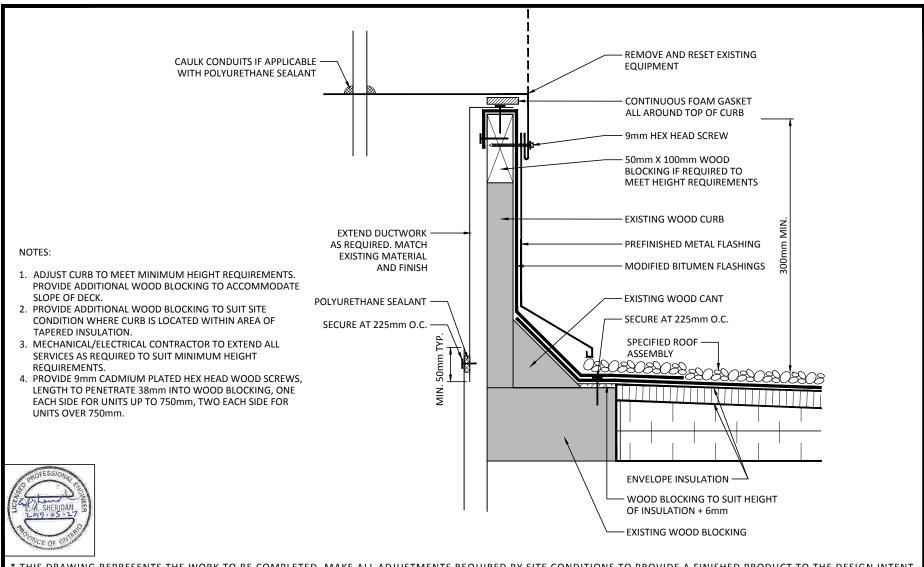
CLIENT: HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

DUCT CURB DETAIL				PROJEC	T NO.: BD180 5	53		
		ı	DRAWN	BY: A.M.	CHECKED BY: J.R			
							• • • • • • • • • • • • • • • • • • • •	
				DATE: MAY 2019 SCALE: N.T.S.			DWG NO.:	
							1	
NO.	DESCRIPT	ION	DATE				40	
	REV	ISIONS			11.1.3.			





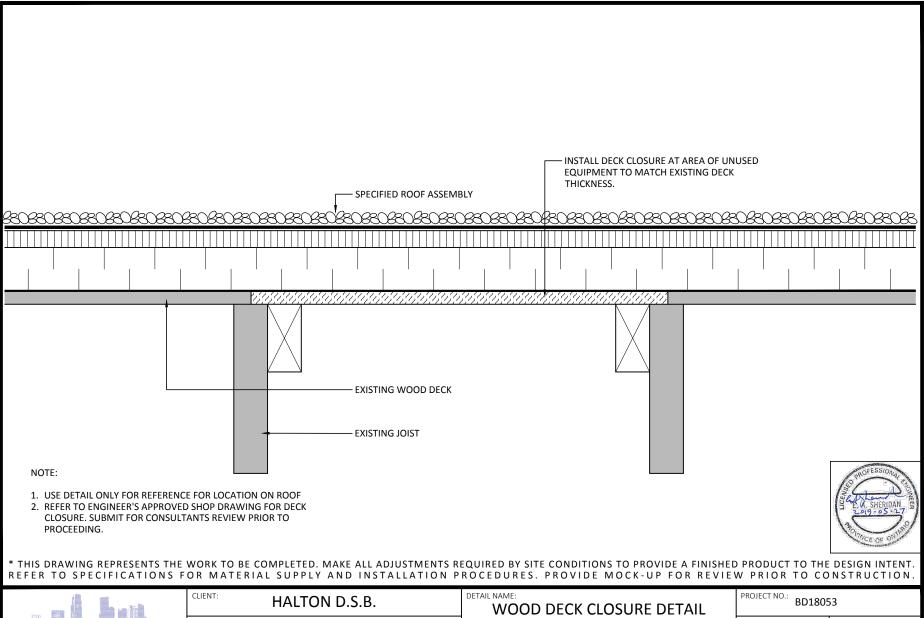


CLIENT: HALTON D.S.B.

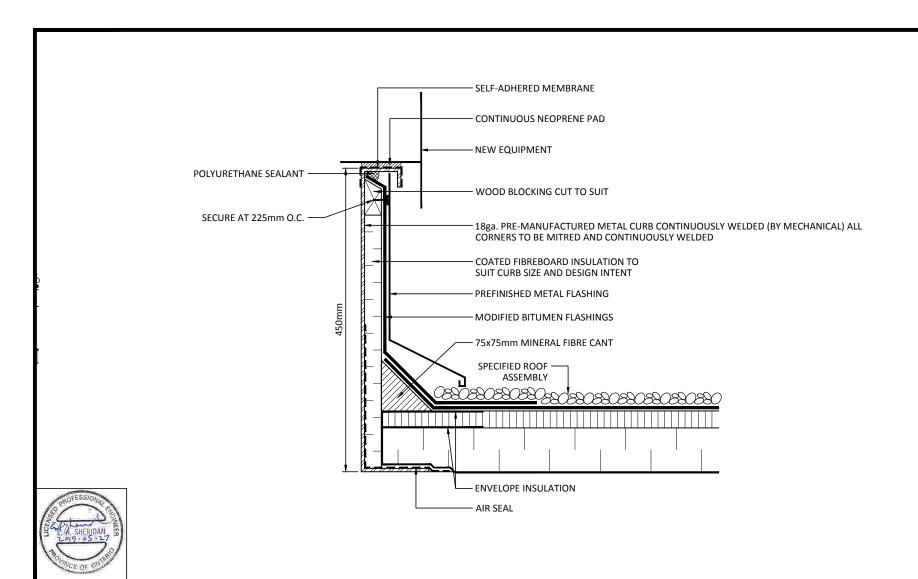
PROJECT:

BURLINGTON CENTRAL H.S.

	CURB DETAIL		PROJECT				
				DRAWN	RAWN BY: NB		J.R.
				DATE:	MAY 2019		DWG NO.:
					141741 2015		4F
	NO.	DESCRIPTION	DATE	SCALE:	N.T.S.		75
		R E V I S I O N S			IV. 1.3.		



PROJECT: DRAWN BY: CHECKED BY: J.R. **BURLINGTON CENTRAL H.S.** DATE: DWG NO.: **1433 BALDWIN STREET** MAY 2019 4F FISHBURN BUILDING SCIENCES GROUP INC. **BURLINGTON, ONTARIO** NO. DESCRIPTION SCALE: TEL: 905-878-1282 EMAIL: fishburn@fishburn.ca N.T.S. www.fishburn.ca REVISIONS



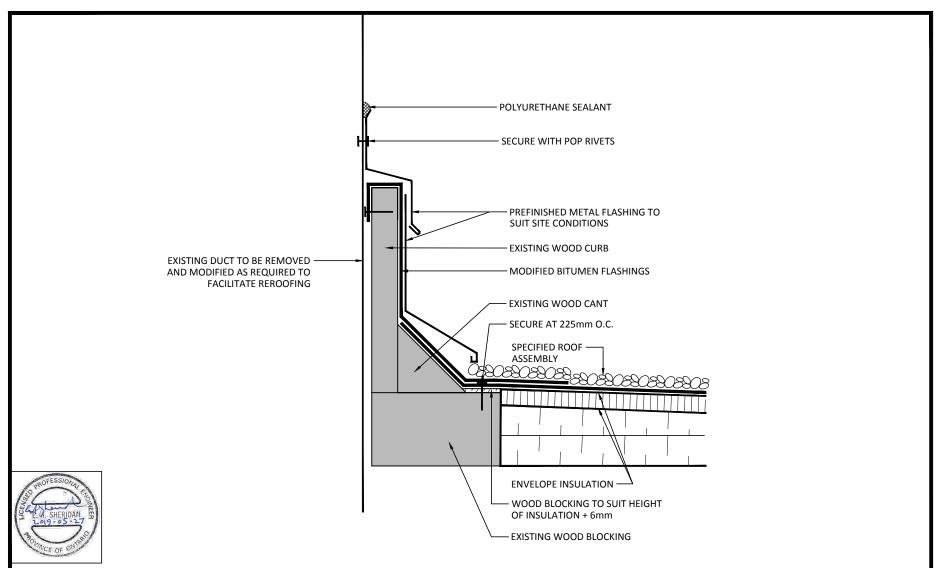


CLIENT: HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

DETAIL NAME: METAL CURB DETAIL		PROJECT NO.: BD18053			
			DRAWN BY: NB	CHECKE	D BY:
			DATE: MAY 2019		DWG NO.:
			IVIAT 2019		4G
NO.	DESCRIPTION	DATE	SCALE: N.T.S.		46
	R E V I S I O N S		IN.1.5.		



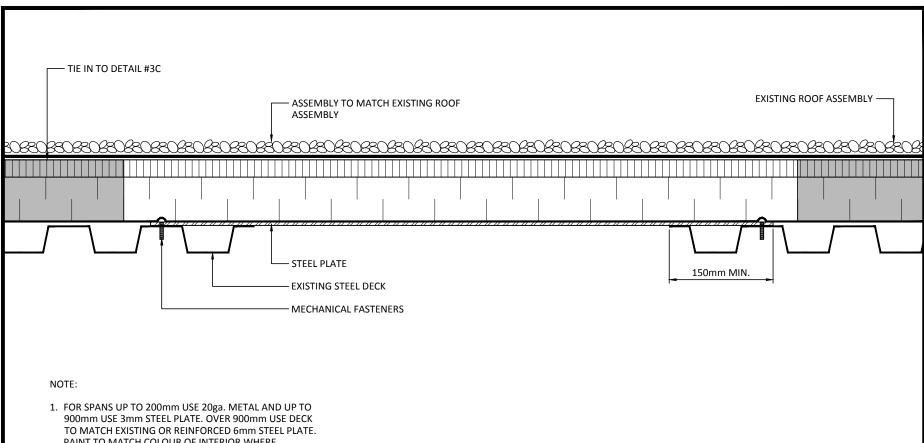


CLIENT: HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

DUCT CURB DETAIL		PROJECT NO.: BD18053					
				DRAWN BY:	R	CHECKE	D BY:
							J.11.
				DATE: MAY 2	010		DWG NO.:
				IVIATZ	.019		4H
NO.		DESCRIPTION	DATE	SCALE: N.T.C			40
		R E V I S I O N S		N.T.S.			



PAINT TO MATCH COLOUR OF INTERIOR WHERE EXPOSED.



* THIS DRAWING REPRESENTS THE WORK TO BE COMPLETED. MAKE ALL ADJUSTMENTS REQUIRED BY SITE CONDITIONS TO PROVIDE A FINISHED PRODUCT TO THE DESIGN INTENT. REFER TO SPECIFICATIONS FOR MATERIAL SUPPLY AND INSTALLATION PROCEDURES. PROVIDE MOCK-UP FOR REVIEW PRIOR TO CONSTRUCTION.

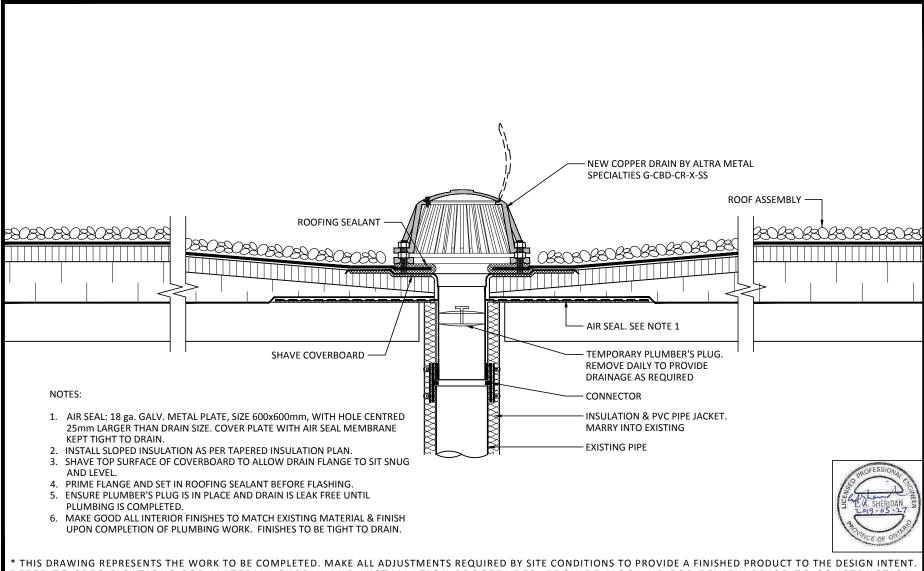


CLIENT: HALTON D.S.B.

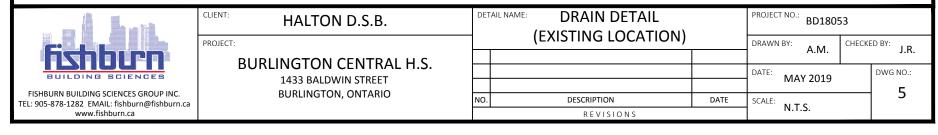
PROJECT:

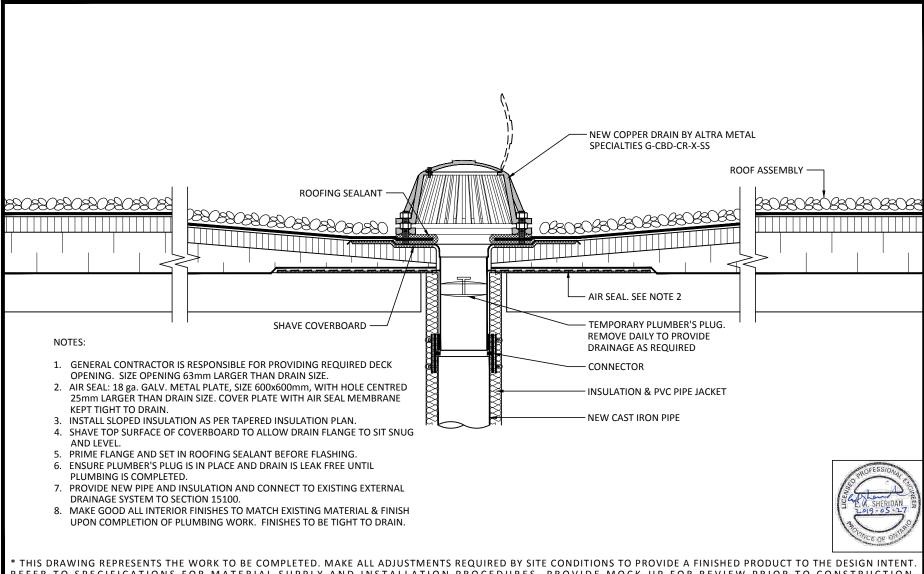
BURLINGTON CENTRAL H.S.

DETAIL NAME: STEEL DECK CLOSURE DETAIL				TNO.: BD180 !	53	
			DRAWN	I BY: NB	CHECK	J.R.
			DATE:	MAY 2019		DWG NO.:
NO.	DESCRIPTION	DATE	SCALE:			41
	REVISIONS		DOMEE.	N.T.S.		

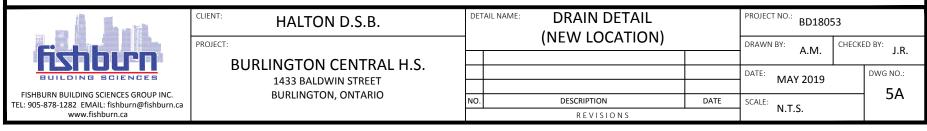


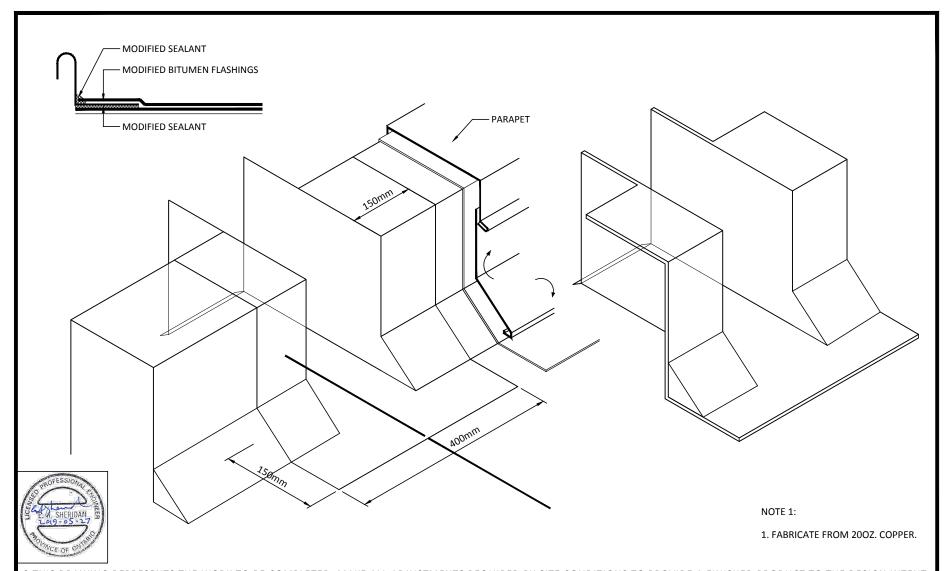
REFER TO SPECIFICATIONS FOR MATERIAL SUPPLY AND INSTALLATION PROCEDURES. PROVIDE MOCK-UP FOR REVIEW PRIOR TO CONSTRUCTION





REFER TO SPECIFICATIONS FOR MATERIAL SUPPLY AND INSTALLATION PROCEDURES. PROVIDE MOCK-UP FOR REVIEW PRIOR TO CONSTRUCTION





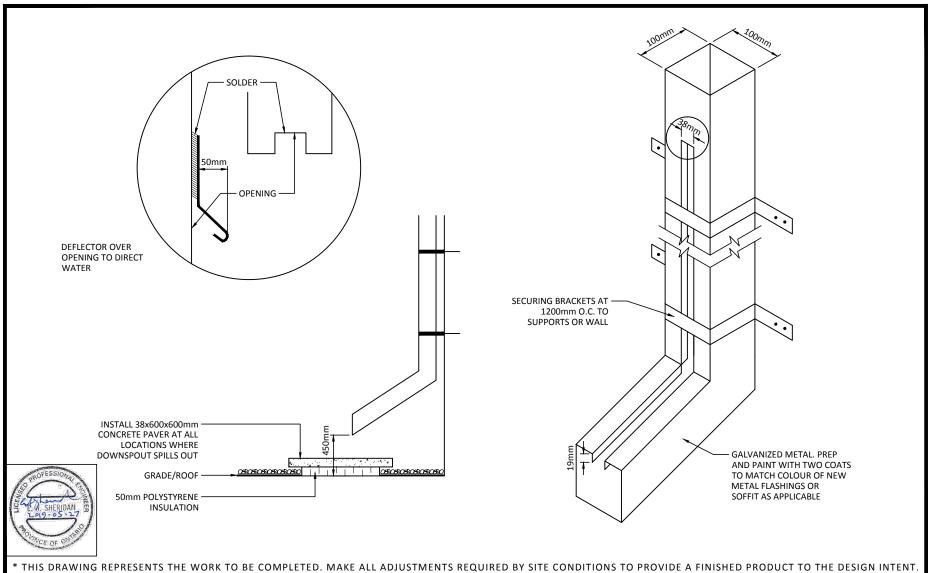


HALTON D.S.B.

PROJECT:

BURLINGTON CENTRAL H.S.

	SCUPPER DETAIL		PROJECT	NO.: BD1805	53		
				DRAWN BY: NB		CHECKED BY: J.R.	
				DATE:	MAY 2019		DWG NO.:
							5B
	NO.	DESCRIPTION REVISIONS	DATE	SCALE:	N.T.S.		



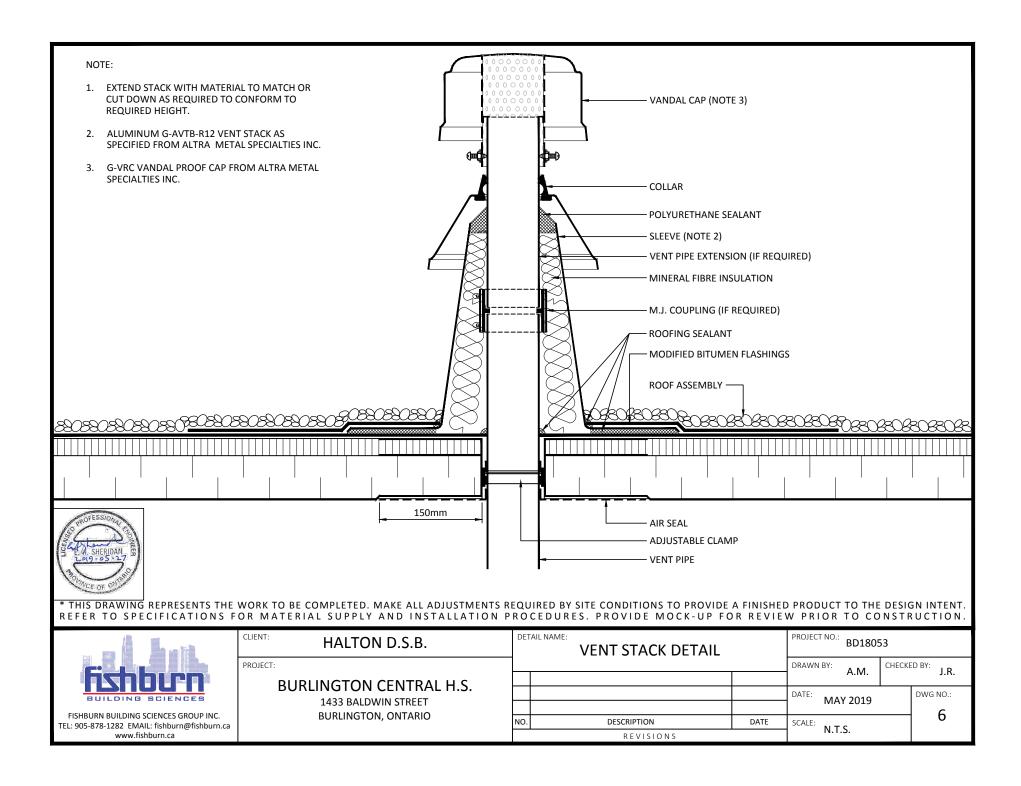


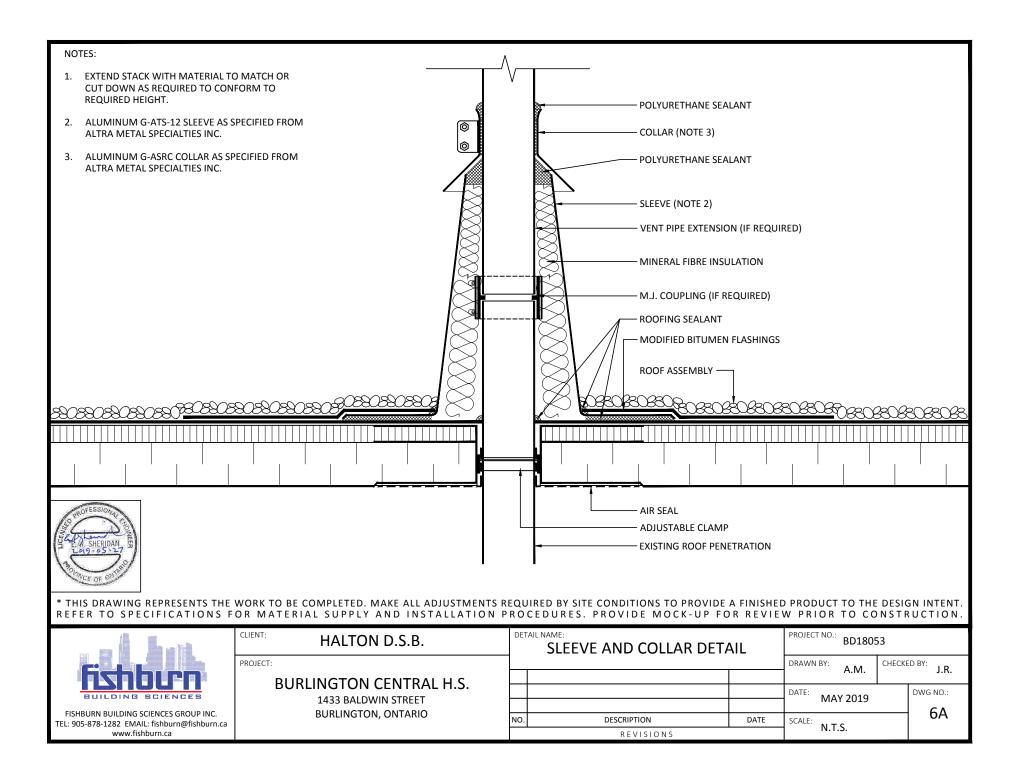
HALTON D.S.B.

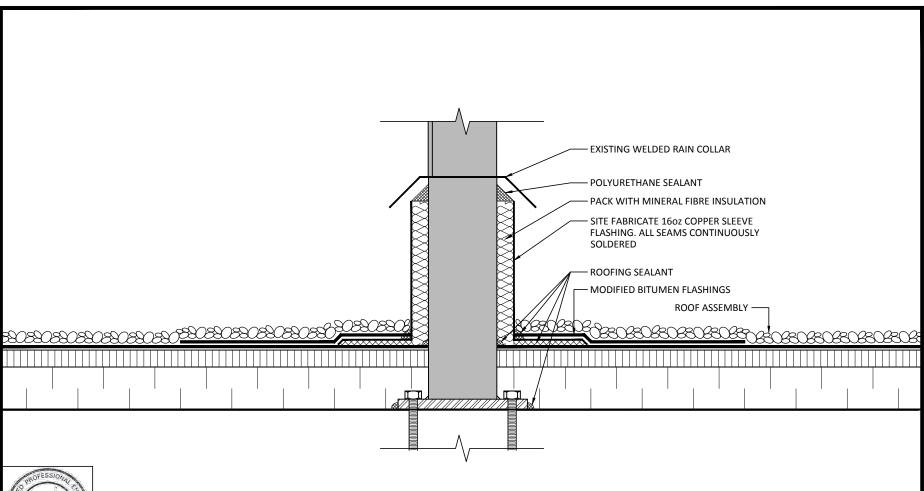
PROJECT:

BURLINGTON CENTRAL H.S.

DOWNSPOUT DETAIL		PROJEC				
			DRAWN	BY: NB	CHECKE	D BY:
				110		J.IV.
			DATE:	MAY 2019		DWG NO.:
				WIAT 2019		5C
NO.	DESCRIPTION	DATE	SCALE:	N.T.S.		3C
	REVISIONS]	N.1.5.		











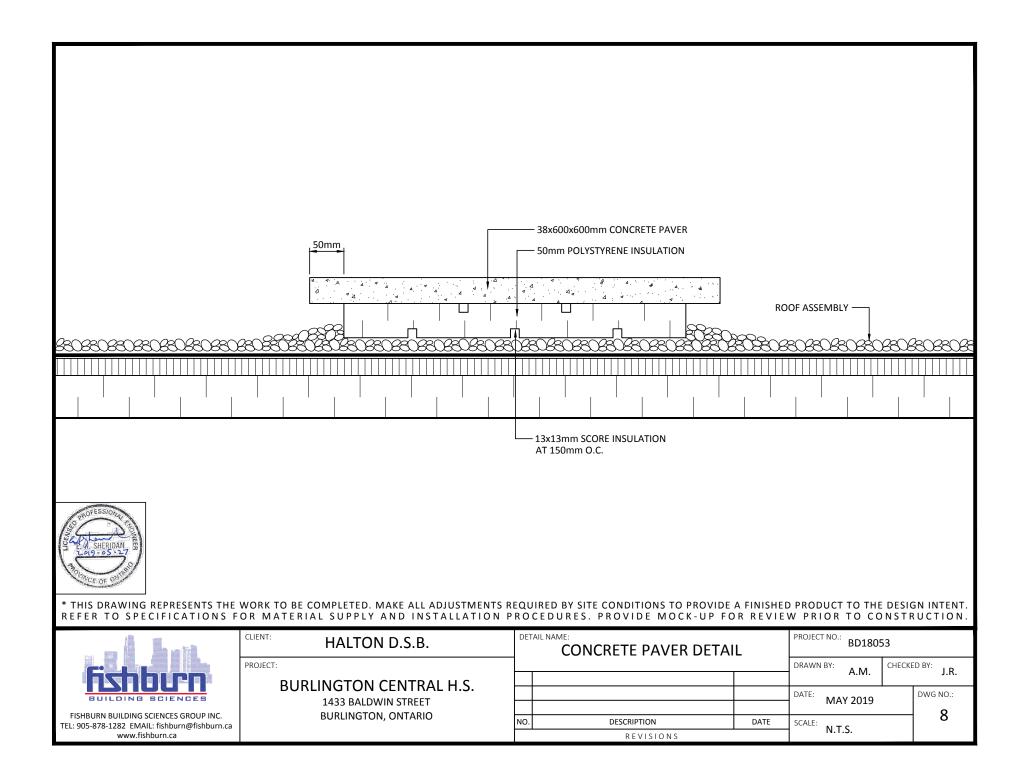
www.fishburn.ca

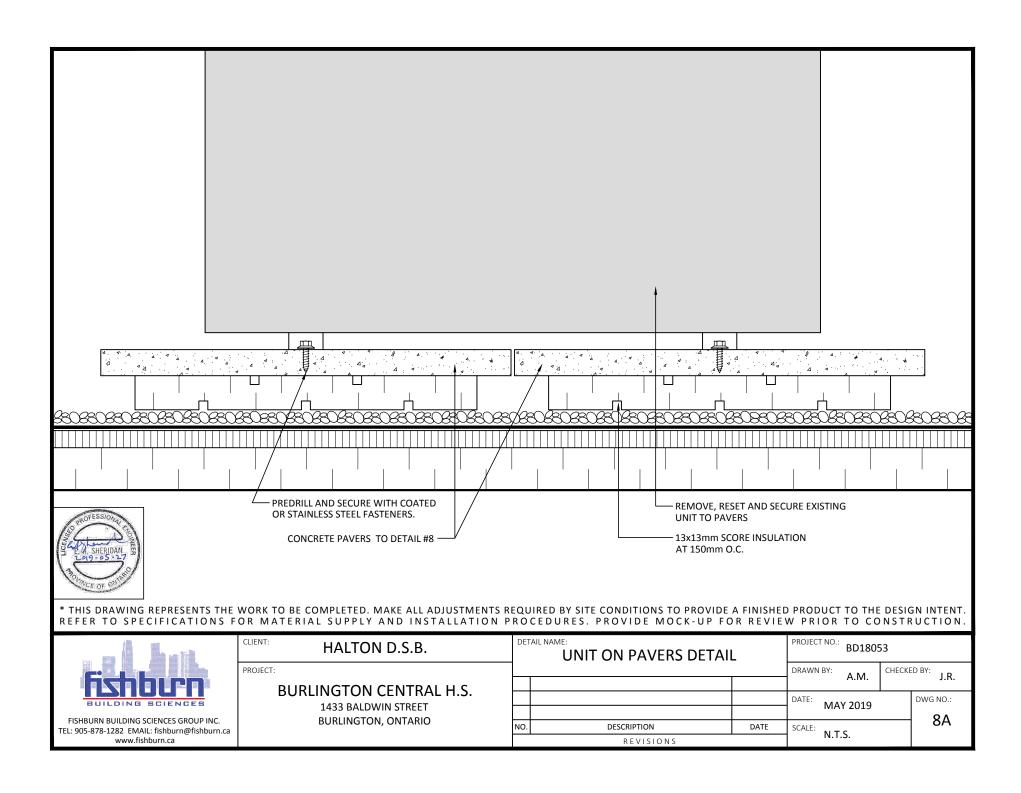
CLIENT: HALTON D.S.B.

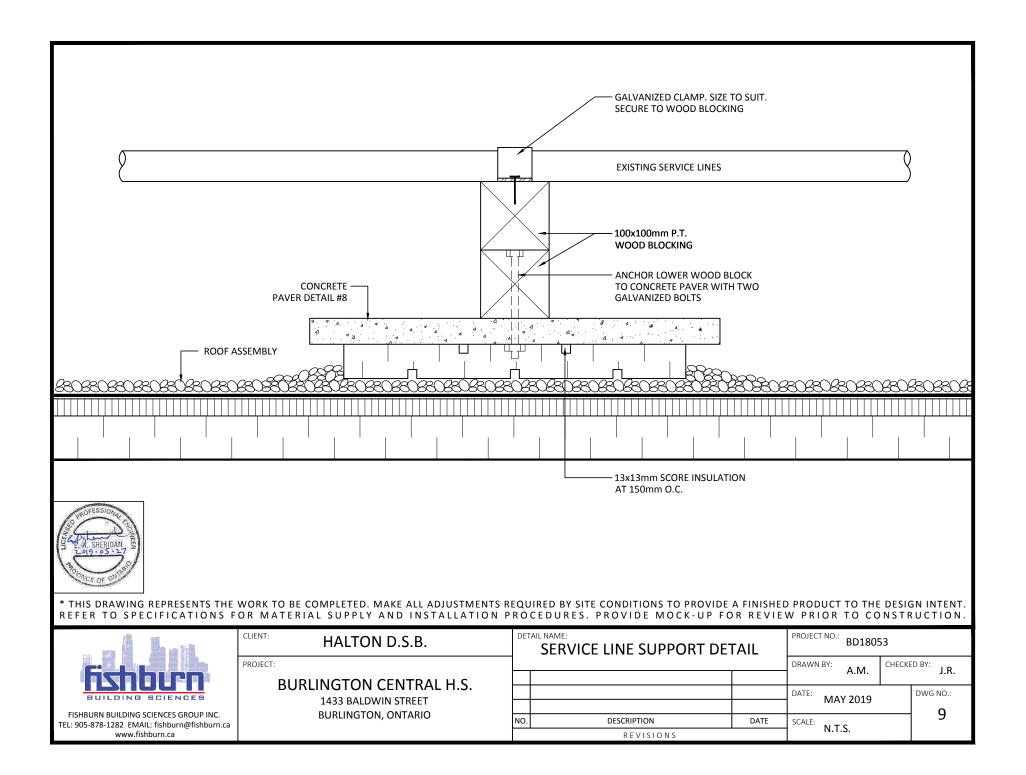
PROJECT:

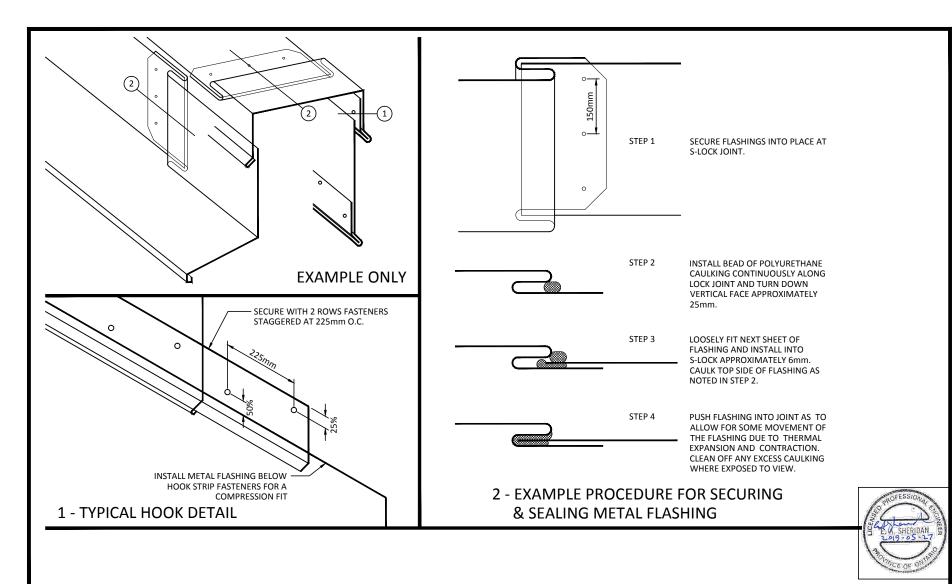
BURLINGTON CENTRAL H.S.

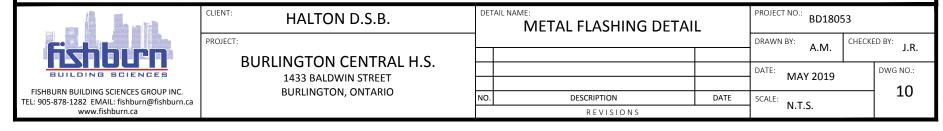
DETAIL NAME: POST DETAIL		PROJECT NO	PROJECT NO.: BD18053			
			DRAWN BY:	A.M.	CHECK	D BY:
				A.IVI.		J.IV.
			DATE: NA	AY 2019		DWG NO.:
			IVI	41 2015		_
NO.	DESCRIPTION	DATE	SCALE:	T.S.		,
	REVISIONS	•] IN.	1.3.		



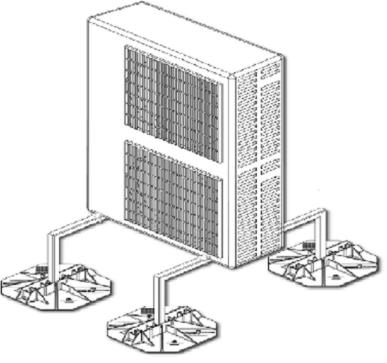












NOTE:

PROVIDE SUPPORT SYSTEM AS SPECIFIED BY MECHANICAL DIVISION. PROVIDE MANUFACTURER'S SHOP DRAWING FOR REVIEW PRIOR TO INSTALLATION.



* THIS DRAWING REPRESENTS THE WORK TO BE COMPLETED. MAKE ALL ADJUSTMENTS REQUIRED BY SITE CONDITIONS TO PROVIDE A FINISHED PRODUCT TO THE DESIGN INTENT. REFER TO SPECIFICATIONS FOR MATERIAL SUPPLY AND INSTALLATION PROCEDURES. PROVIDE MOCK-UP FOR REVIEW PRIOR TO CONSTRUCTION.



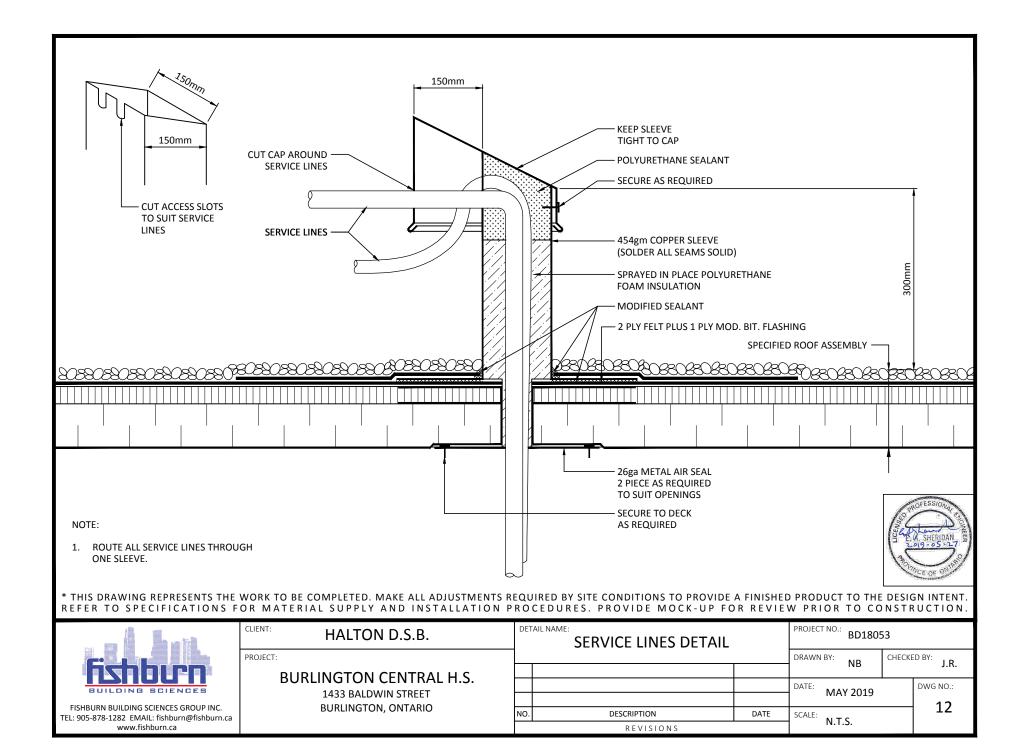
www.fishburn.ca

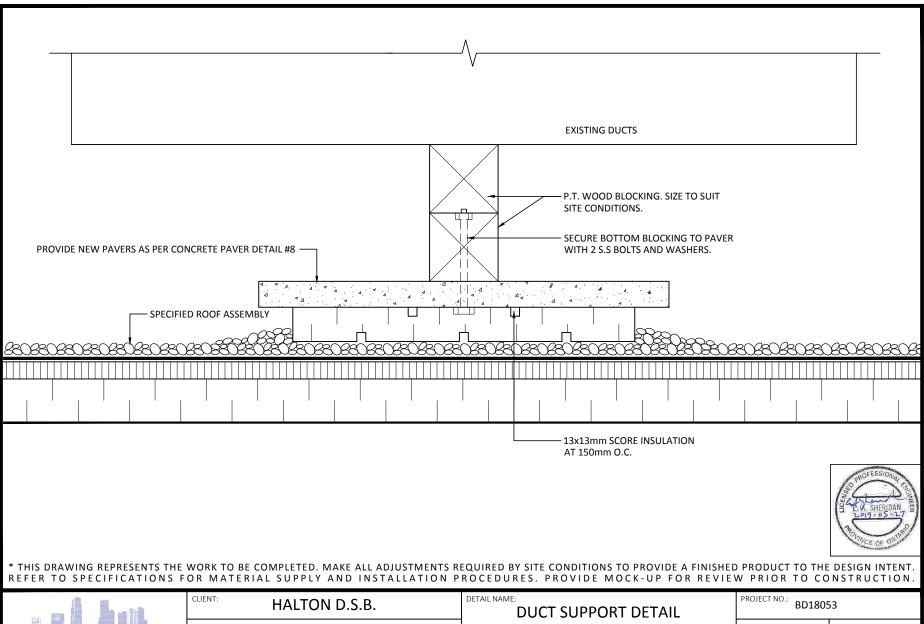
CLIENT: HALTON D.S.B.

PROJECT:

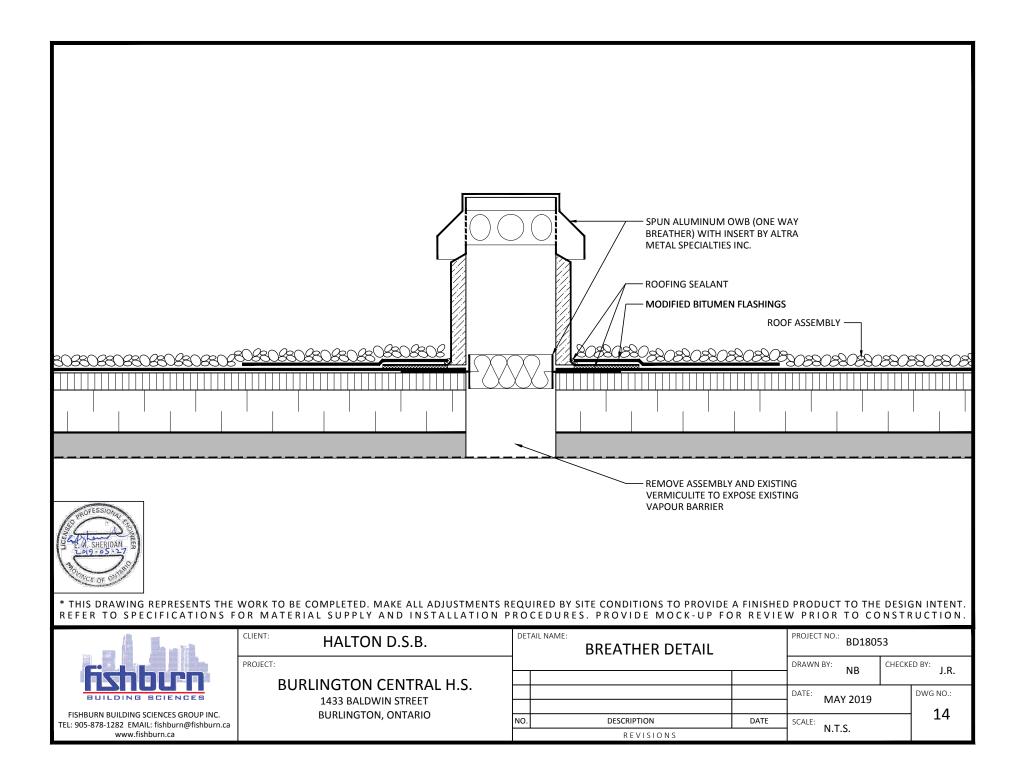
BURLINGTON CENTRAL H.S.

DE	CONDENSER SUPPORT DETAIL		PROJEC	F NO.: BD180 5	53	
		ı	DRAWN	BY: NB	CHECK	D BY:
			DATE:	MAY 2019		DWG NO.:
				WIAT 2019		11
NO.	DESCRIPTION	DATE	SCALE: N.T.S.		1 11	
	REVISIONS		1	IV. I . S.		





PROJECT: DRAWN BY: CHECKED BY: J.R. **BURLINGTON CENTRAL H.S.** DATE: DWG NO.: MAY 2019 **1433 BALDWIN STREET** 13 FISHBURN BUILDING SCIENCES GROUP INC. **BURLINGTON, ONTARIO** NO. DESCRIPTION SCALE: TEL: 905-878-1282 EMAIL: fishburn@fishburn.ca N.T.S. www.fishburn.ca REVISIONS



ADDENDUM



ADDENDUM NO.: 2 DATE: Apr22, 2020

PROJECT NO.: BD20061

PROJECT NAME: Burlington Central H.S.

* * * * * * * * * * * * *

THIS ADDENDUM MODIFIES THE WORK DESCRIBED IN FISHBURN ADDENDUM 1.

GENERAL CONDITIONS OF THE CONTRACT AND INSTRUCTIONS TO BIDDERS ARE PART OF THIS ADDENDUM.

* * * * * * * * * * * * *

All work in Fishburn Addendum 1 is part of this bid with the exception of the following:

- All work related to the replacement of mechanical equipment on Roof Section 'N'.
- 2. All work related to the roof installation on the elevator addition (Roof Sections 'W' and 'X') including roof replacement of Canopy 1, and tie-in to Roof Sections 'B' and 'J'.
- 3. All work on Roof Section 'K' is to be completed per specification and drawings. Three (3) skylights were removed and new decking installed in 2019 including the installation of a new roof curb within the most westerly skylight closure.
- 4. Install new condensing units #1, #2, #3 and #4 and exhaust fan EF-1 on Roof Sections 'A', 'N' and 'R' in 2021 per attached revised Roof Plan and to details shown and new Detail #15 attached. Complete all work in conjunction with mechanical/electrical and structural drawings for Section 'A', Phase 1; Section 'N', Phase 2; and Section 'R', Phase 2.
- 5. See attached revised Table of Contents.
- 6. See attached revised Roof Plan #1 showing added mechanical work and courtyard.
- 7. See attached revised Roof Plan #6 showing courtyard.

END OF ADDENDUM

Fishburn Building Sciences Group Inc., 15391 Steeles Avenue, Hornby, Ontario L0P 1E0 Tel: 905-878-1282 Toll Free: 888-969-9970 Fax: 905-878-2147 Email: fishburn@fishburn.ca

Burlington Central H.S.	TABLE OF CONTENTS	SECTION 00000
1433 Baldwin Street	ADDENDUM #2 (REVISED)	PROJECT BD19018
Burlington, Ontario	,	MAY 2019

Drawings and specifications are the property of **Fishburn Building Sciences Group Inc.** and protected by copyright. The drawings are to be used only for the project shown. The specifications are not to be copied or used for any purpose without the written approval of the Consultant.

Specification Division	Section	ages
	01011 Summary of Work	11
	Certificate of Roofing Warranty	2
	Certificate of Completion	1
Specification	Fishburn Roof Construction Guide, 13th Edition as amended by the Summary of Work	

Index of Drawings

Roof Plans

Number	Title	Date
1	Roof Plan	May 2019
2	Tapered Plan	May 2019
3	Detail Plan	May 2019

Architectural Drawings

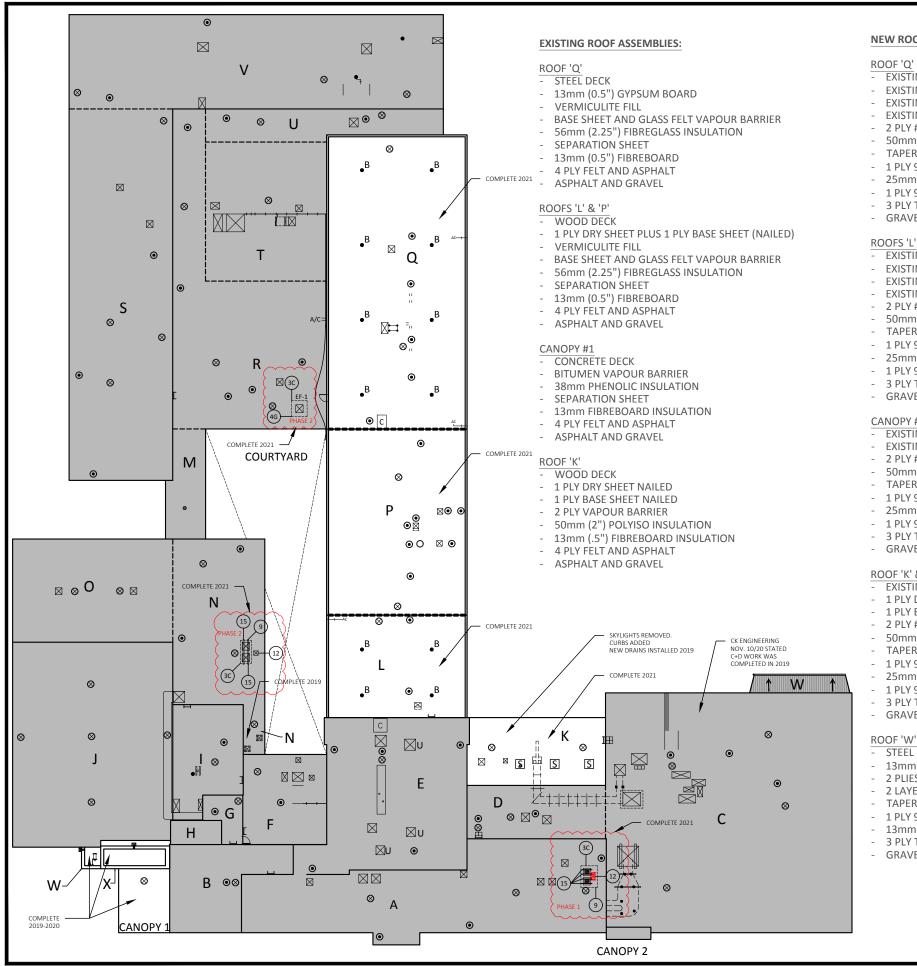
Drawing Number	Title	Date
1	Parapet Detail	May 2019
1A	Parapet Detail	May 2019
1B	Eave Detail	May 2019
1C	Eave Detail	May 2019
2	Wall Reglet Detail	May 2019
2A	Wall Detail	May 2019
2B	Wall Detail	May 2019
2C	Wall Detail	May 2019
2D	Wall Detail	May 2019
2E	Wall Detail	May 2019
2F	Wall Detail	May 2019
2G	Wall Detail	May 2019
2H	Window Sill/Wall Detail	May 2019
21	Wall Detail	May 2019
3	Roof Joint Detail	May 2019
3A	Roof Joint at Chimney Detail	May 2019
3B	Expansion Joint Detail	May 2019
3C	Tie in Detail	May 2019
4	Curb Detail	May 2019
4A	Capped Curb Detail	May 2019
4B	Hatch Detail	May 2019
4C	Duct Curb Detail	May 2019
4D	Solid Curb Removal Detail	May 2019
4E	Curb Detail	May 2019
4F	Wood/Deck Closure Detail	May 2019
4G	Metal Curb Detail	May 2019
4H	Duct Curb Detail	May 2019
41	Steel Deck Closure	May 2019
5	Drain Detail (Existing Location)	May 2019
5A	Drain Detail (New Location)	May 2019
5B	Scupper Detail	May 2019
5C	Downspout Detail (New Location)	May 2019
6	Vent Stack Detail	May 2019
6A	Sleeve and Collar Detail	May 2019
7	Post Detail	May 2019

Burlington Central H.S. 1433 Baldwin Street Burlington, Ontario	TABLE OF CONTENTS ADDENDUM #2 (REVISED)	SECTION 00000 PROJECT BD19018 MAY 2019
8 8A 9 10 11 12 13	Concrete Paver Detail Unit on Pavers Detail Service Line Support Detail Metal Flashing Detail Condenser Support Detail Service Lines Detail Duct Support Detail Breather Detail	May 2019 May 2019 May 2019 May 2019 May 2019 May 2019 May 2019 November 2020

<u>Appendix</u> Pages

Appendix A 00310 Form of Tender – Roofing

2



NEW ROOF ASSEMBLIES:

- EXISTING STEEL DECK
- EXISTING 13mm (0.5") GYPSUM BOARD
- EXISTING VERMICULITE FILL
- EXISTING BASE SHEET AND GLASS FELT VAPOUR BARRIER
- 2 PLY #15 FELT IN TYPE III ASPHALT
- 50mm POLYISOCYANURATE INSULATION MECHANICALLY SECURED
- TAPERED INSULATION AS SHOWN ON TAPERED PLAN IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE III ASPHALT
- 25mm COVERBOARD IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE II ASPHALT
- 3 PLY TYPE IV GLASS FELT IN TYPE II ASPHALT
- GRAVEL IN TYPE II ASPHALT

- EXISTING WOOD DECK
- EXISTING 1 PLY DRY SHEET PLUS 1 PLY BASE SHEET (NAILED)
- EXISTING VERMICULITE FILL
- EXISTING BASE SHEET AND GLASS FELT VAPOUR BARRIER
- 2 PLY #15 FELT IN TYPE III ASPHALT
- 50mm POLYISOCYANURATE INSULATION MECHANICALLY SECURED
- TAPERED INSULATION AS PER TAPERED PLAN IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE III ASPHALT
- 25mm COVERBOARD IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE II ASPHALT
- 3 PLY TYPE IV GLASS FELT IN TYPE II ASPHALT
- GRAVEL IN TYPE II ASPHALT

CANOPY #1

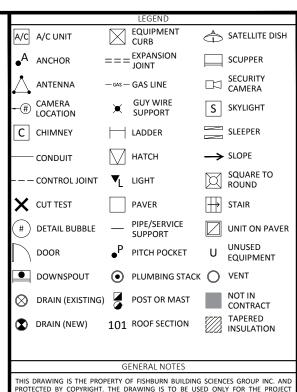
- EXISTING CONCRETE DECK
- EXISTING BITUMEN VAPOUR BARRIER
- 2 PLY #15 FELT AND TYPE III ASPHALT
- 50mm POLYISOCYANURATE INSULATION IN TYPE III ASPHALT
- TAPERED INSULATION IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE 3 ASPHALT
- 25mm FIBREBOARD INSULATION IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE II ASPHALT
- 3 PLY TYPE 4 GLASS FELT IN TYPE II ASPHALT
- GRAVEL IN TYPE II ASPHALT

ROOF 'K' & 'P'

- EXISTING WOOD DECK
- 1 PLY DRY SHEET NAILED
- 1 PLY BASE SHEET NAILED
- 2 PLY #15 FELT AND TYPE III ASPHALT
- 50mm (2") POLYISO INSULATION IN TYPE III ASPHALT
- TAPERED INSULATION IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE III ASPHALT
- 25mm FIBREBOARD INSULATION IN TYPE III ASPHALT - 1 PLY 95gm/m2 BASE SHEET IN TYPE II ASPHALT
- 3 PLY TYPE 4 GLASS FELT IN TYPE II ASPHALT
- GRAVEL AND TYPE II ASPHALT

ROOF 'W' AND 'X'

- STEEL DECK
- 13mm DENS DECK PRIME (SECURED)
- 2 PLIES # 15 FELT INSULATION IN TYPE III ASPHALT
- 2 LAYERS 75mm POLYISOCYANURATE INSULATION IN TYPE III ASPHALT
- TAPERED CRICKETS IN TYPE III ASPHALT
- 1 PLY 95gm/m2 BASE SHEET IN TYPE III ASPHALT
- 13mm FIBERBOARD
- 3 PLY TYPE 4 GLASS FELT IN TYPE II ASPHALT
- GRAVEL IN TYPE II ASPHALT



PROTECTED BY COPYRIGHT. THE DRAWING IS TO BE USED ONLY FOR THE PROJECT SHOWN. THE DRAWING IS NOT TO BE COPIED OR USED FOR ANY PURPOSE WITHOUT THE APPROVAL OF THE CONSULTANT

INFORMATION ON EXISTING CONSTRUCTION AND SERVICES SHALL BE USED AS A GUIDELINE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE EXISTING MEASUREMENTS AND CONDITIONS.

ALL ROOF PROJECTIONS, OPENINGS AND EQUIPMENT LOCATIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY ALL LOCATIONS AND SIZES ON SITE FOR CONSTRUCTION AND ESTIMATING PURPOSES. NOTIFY CONSULTANT OF ANY OMISSIONS OR UNUSUAL

AREAS OF TAPERED INSULATION ARE REPRESENTATION ONLY. THE CONTRACTOR AND THE MANUFACTURER ARE TO VERIFY ALL DIMENSIONS AND MEASUREMENTS AND PROVIDE SHOP DRAWINGS TO SUIT SITE CONDITIONS.



FOR CONSTRUCTION	10/07/19	
FOR TENDER	30/05/1	
DESCRIPTION	DATE	
REVISIONS		
	FOR TENDER DESCRIPTION	



RAWING NAME

FISHBURN BUILDING SCIENCES GROUP INC.

15391 STEELES AVENUE EAST, HORNBY, ONTARIO LOP 1E0 TEL: 905-878-1282 EMAIL: fishburn@fishburn.ca www.fishburn.ca

ROOF PLAN (REVISED) CLIENT: HALTON D.S.B. ROJECT: **BURLINGTON CENTRAL** 1433 BALDWIN STREET BURLINGTON, ON

DATE:	NOV 2020	SCALE:	N.T.S.
DRAWN BY:	NB	CHECKED BY:	JR
PROJECT NO.:	BD20037	DWG. NO.:	1

