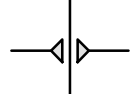
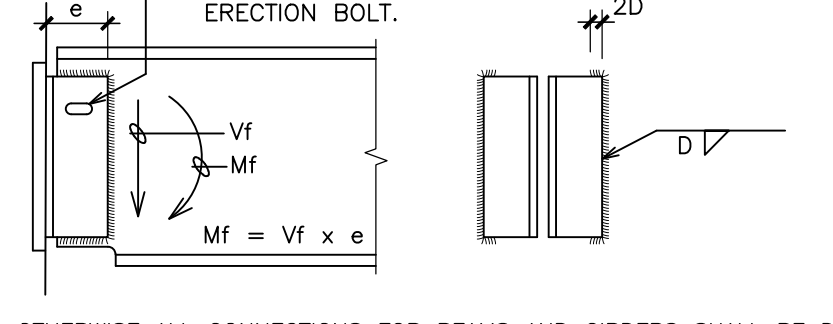
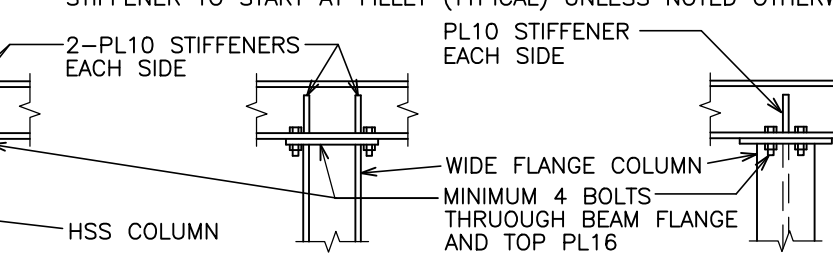


1.0 GENERAL NOTES : (THESE NOTES APPLY TO ALL AREAS OF WORK / ASPECTS OF PROJECT) 1. THESE DRAWINGS ARE TO PROVIDE A SCHEMATIC REPRESENTATION OF THE APPROXIMATE LAYOUT OF THE LOCATION OF THE BUILDING IN THE AREA OF THE WORK. 2. THE CONTRACTOR MUST REVIEW AND CONFIRM THE EXTENT OF EXISTING SITE CONDITIONS THAT WILL AFFECT OR WILL REQUIRE ADJUSTMENT IN ORDER TO COMPLETE THE WORK AS SHOWN ON THE DOCUMENTS PRIOR TO BIDDING. 3. DISCREPANCIES, AMBIGUITIES OR OMISSIONS IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSULTANT IMMEDIATELY. 4. PARTIAL COPIES OF THE ORIGINAL CONSTRUCTION DRAWINGS ARE AVAILABLE FOR VIEWING AND REFERENCE PURPOSES ONLY. DO NOT SCALE FROM THIS DRAWING OR RELY ON ANY DRAWINGS AS ACCURATELY REFLECTING THE AS-BUILT CONDITION. 5. THE EXTENT OF WORK IS AS SHOWN ON THE DRAWINGS. 6. THIS SET OF DRAWINGS DOES NOT INCLUDE COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND AROUND THE JOB SITE DURING CONSTRUCTION, AND FOR DESIGN AND ERECTION OF ALL TEMPORARY STRUCTURES REQUIRED TO COMPLETE THE WORK. 7. THE USE OF THESE DRAWINGS IS LIMITED TO THAT EXTENT IDENTIFIED IN THE REVISIONS COLUMNS. DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED "ISSUED FOR CONSTRUCTION" BY READ JONES CHRISTOFFERSEN LTD. 8. ALL DIMENSIONS TAKEN FROM THE DRAWINGS SHALL BE CHECKED ON SITE PRIOR TO START OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF SUCH MEASUREMENTS AND REPORT TO THE ENGINEER IN WRITING ALL DISCREPANCIES BETWEEN MEASUREMENTS AT BUILDING AND THOSE SHOWN ON DRAWINGS PRIOR TO COMMENCING WORK. 9. THE CONTRACTOR SHALL REVIEW ALL THE DRAWINGS AND CHECK DIMENSIONS BEFORE CONSTRUCTION. REPORT DISCREPANCIES BETWEEN THESE DRAWINGS AND SITE CONDITION TO THE ENGINEER IMMEDIATELY. 10. SECTION MARK SHOWN THUS $\textcircled{S1.1}$ DENOTE SECTION 1 ON DRAWING S1.1. 11. THE DESIGN TEAM'S FIELD SERVICES: THE DESIGN TEAM WILL PROVIDE FIELD SERVICE DURING THE CONSTRUCTION PHASE OF THE WORK TO SATISFY THEMSELVES, BY MEANS OF A RATIONAL SAMPLING PROCEDURE WHICH THE CONTRACTOR'S SOLE DISCRETION CONSIDER NECESSARY, TO DETERMINE THAT THE CONTRACTOR IS CARRYING OUT THAT WORK IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE FIELD SERVICES PROVIDED APPLY ONLY TO THAT WORK SHOWN ON THE REVIEWING PARTY'S DRAWINGS. THE PERFORMANCE OF THE CONTRACT IS NOT THE DESIGN TEAM'S RESPONSIBILITY NOR ARE THE FIELD SERVICES RENDERED FOR THE CONTRACTOR'S BENEFIT. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR QUALITY CONTROL AND PERFORMING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. 12. CONTRACTOR WILL BE RESPONSIBLE TO REPAIR/RESTORE/REPAINT ALL EXISTING FINISHES AND LANDSCAPING DAMAGED AS A RESULT OF CONSTRUCTION OR REMOVED IN ORDER TO ALLOW CONSTRUCTION TO BE UNDERTAKEN. 13. THIS SET OF DRAWINGS ALONG WITH THE SPECIFICATIONS FORM THE CONTRACT DOCUMENTS AND MUST BE READ AND INTERPRETED IN CONJUNCTION WITH ONE ANOTHER. 14. THE CONTRACTOR IS TO LOCATE ALL BURIED SERVICES (I.E. ELECTRICAL, IRRIGATION, ETC.) BELOW GRADE AND PRIOR TO REMOVALS, CARE IS TO BE TAKEN NOT TO DAMAGE SUCH SERVICES DURING REMOVAL. COST OF REPAIRS TO BE PAID THROUGH CONTINGENCY ALLOWANCE PROVIDED THE DAMAGES ARE NOT A RESULT OF CONTRACTOR NEGLIGENCE. 15. THE CONTRACTOR IS TO PROTECT IN PLACE OR TEMPORARILY REMOVE/REINSTATE OR RELOCATE ALL SURFACE MOUNTED FIXTURES (I.E. LIGHTS, SIGNS, DOWNSPOUTS, CONDUIT, ETC.) DURING THE COURSE OF WORK. NO EXTRAS WILL BE ENTERTAINED FOR REMOVAL, RELOCATION, REINSTATEMENT, OR PROTECTION OF VISIBLE SURFACE MOUNTED FIXTURES TO EXECUTE THE WORK. DAMAGE TO SURFACE MOUNTED FIXTURES TO REMAIN WILL BE THE CONTRACTOR'S RESPONSIBILITY. 16. PROVIDE MEANS FOR PROTECTING OCCUPIED AREAS BELOW THE WORK AREA EXTERIOR WALLS AND ROOF FROM WATER AND MEMBRANE LEAKAGE DURING THE REMOVAL AND REINSTALLATION OF THE ROOFING AND WATERPROOFING SYSTEMS. .1 CONTRACTOR TO SUBMIT METHOD OF PROTECTION TO BE USED FOR REVIEW TO THE CONSULTANT PRIOR TO REMOVAL OF EXISTING SYSTEMS. 17. ALL WORK IS TO BE IN ACCORDANCE WITH THE 2024 ONTARIO BUILDING CODE.
2.0 EXISTING CONDITIONS : 1. THIS SET OF DRAWINGS IS BASED ON THE EXISTING DRAWINGS AVAILABLE AT THE TIME OF DESIGN AND LIMITED REVIEW UNDERTAKEN BY THE DESIGN TEAM. NOTIFY THE CONSULTANT OF ANY DISCREPANCIES FOR CLARIFICATION, PRIOR TO UNDERTAKING WORK. WORK UNDERTAKEN BY THE CONTRACTOR WITHOUT SEEKING APPROPRIATE CLARIFICATION MAY BE CONSIDERED DEFICIENT AT THE DESIGN TEAM'S DISCRETION AND THE CONTRACTOR'S RESPONSIBILITY TO CORRECT AT THEIR OWN COST.
3.0 TEMPORARY WORK : 1. THE CONTRACTOR SHALL DESIGN, PROVIDE, ERECT, MAINTAIN, REMOVE AND ASSUME FULL AND SOLE RESPONSIBILITY FOR ALL TEMPORARY WORKS REQUIRED FOR THE SAFE AND COMPLETE EXECUTION OF THE WORKS. 2. IN THE EXECUTION OF THE TEMPORARY WORKS AND FOR THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL MAKE ADEQUATE PROVISION FOR ALL LIKELY CONSTRUCTION LOADING AND PROVIDE SUFFICIENT BRACING AND PROPS TO KEEP THE WORKS IN PLUMB AND ALIGNMENT AND FREE FROM EXCESSIVE DEFLECTION. 3. ACCESS OF HEAVY CONSTRUCTION EQUIPMENT AND ACCUMULATION OF CONSTRUCTION MATERIALS ON THE FLOORS ARE NOT PERMITTED, UNLESS SUCH HAVE BEEN CATERED FOR IN THE CONTRACTOR'S TEMPORARY WORK DESIGN TO THE SATISFACTION OF THE ENGINEER. 4. COSTS OF ALL TEMPORARY WORKS ARE TO BE INCLUDED IN THE CONTRACT PRICE. 5. SUBMIT SHOP DRAWINGS FOR ALL TEMPORARY WORKS FOR REVIEW BEFORE FABRICATION COMMENCES. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO.
4.0 FIELD REVIEW BY READ JONES CHRISTOFFERSEN (RJC) 1. READ JONES CHRISTOFFERSEN (RJC) PROVIDES FIELD REVIEW ONLY FOR THE WORK SHOWN ON THESE DRAWINGS. THIS REVIEW IS NOT A "FULL TIME" REVIEW BUT IS A PERIODIC REVIEW AT THE SOLE DISCRETION OF RJC IN ORDER TO ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS PREPARED BY THE REVIEWING PARTY. FIELD REVIEW BY RJC IS NOT CARRIED OUT FOR THE CONTRACTOR'S BENEFIT, NOR DOES IT MAKE RJC GUARANTORS OF THE CONTRACTOR'S WORK. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO BUILD THE WORK IN CONFORMANCE WITH THE DOCUMENTS. RJC SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB-CONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. 2. PROVIDE 24 HOURS ADVANCE NOTICE OF EACH REQUIRED FIELD REVIEW. FIELD REVIEWS SHALL BE SCHEDULED TO BE CARRIED OUT DURING NORMAL BUSINESS HOURS UNLESS SPECIAL ARRANGEMENTS ARE MADE WITH RJC. 3. THE WORK TO BE REVIEWED SHALL BE GENERALLY COMPLETE.
5.0 SHOP DRAWING REVIEW RESPONSIBILITY : AS PART OF THEIR FIELD SERVICES, RJC WILL REVIEW SHOP DRAWINGS PERTAINING TO WORK SHOWN ON THE REVIEWING PARTY'S DRAWINGS BY MEANS OF APPROPRIATE RATIONAL SAMPLING PROCEDURES AND COMMENT ON THE ACCURACY WITH WHICH THE CONTRACTOR PREPARED THE DRAWINGS. REVIEW OF SHOP DRAWINGS IS FOR THE SOLE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT AND IS NOT AN APPROVAL OF THE DETAIL DESIGN INHERENT IN THE SHOP DRAWINGS. RESPONSIBILITY FOR WHOM SHALL REMAIN WITH THE CONTRACTOR SUBMITTING THEM. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SHOP DRAWINGS OR FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INFORMATION PERTAINING TO THE FABRICATION PROCESS, TECHNIQUES OF CONSTRUCTION AND INSTALLATION, AND FOR COORDINATION OF THE WORK OF ALL SUB-TRADES.
6.0 GENERAL STRUCTURAL NOTES : 1. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, NAILERS, INSERTS, ETC., TO BE ENCASED IN CONCRETE. 2. SEE ARCHITECTURAL AND BUILDING ENVELOPE DRAWINGS FOR FLOOR AND ROOF ELEVATIONS, RECESSES, DRAINAGE SLOPES, ETC. 3. THE GENERAL CONTRACTOR SHALL REVIEW ALL THE DRAWINGS AND CHECK DIMENSIONS BEFORE CONSTRUCTION. REPORT DISCREPANCIES BETWEEN STRUCTURAL AND OTHER DISCIPLINES DRAWINGS FOR CLARIFICATION. 4. DESIGN FORCES INDICATED ON DRAWINGS FOR STRUCTURAL STEEL WORK ARE FACTORED FORCES UNLESS NOTED OTHERWISE. FORCES ARE VERTICAL SHEAR FORCES U.N.O. A. FORCES ----- KN B. MOMENTS ----- KN-M C. LINE LOADS ----- kN/m D. DISTRIBUTED LOADS ----- kPa SEE "GENERAL NOTES -- LOADS" FOR DEFINITIONS AND VALUES OF LIVE LOAD, DEAD LOAD AND SUPERIMPOSED DEAD LOADS. SEE ALSO PLANS FOR OTHER LOAD/FORCE REQUIREMENTS. 5. CONCRETE WORK SHALL CONFORM TO CAN/CSA-A23.1, CAN/CSA-A23.2, CAN/CSA-A23.3 AND REFERENCED DOCUMENTS. 6. STRUCTURAL STEEL WORK SHALL CONFORM TO CAN/CSA-S16 AND REFERENCED DOCUMENTS. 7. FIRE RESISTANCE RATINGS SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PRECISE LOCATION OF REQUIRED FIRE RESISTANCE RATINGS

8. DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION OF RJC. 9. REFER TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATIONS, CONFIGURATIONS, EXTENT, AND SIZES OF ALL CURBS, UPSTANDS, DOWNTURNS, AND FOR OPENINGS THROUGH FLOORS AND WALLS FOR DUCTS, CONDUIT AND PIPING. PROVIDE FOR SAME. 11. DEFINITIONS: A. RJC: READ JONES CHRISTOFFERSEN OR ITS REPRESENTATIVE. B. SPECIALTY STRUCTURAL ENGINEER: A STRUCTURAL ENGINEER REGISTERED AND LICENSED TO PRACTICE BY THE PROFESSIONAL ENGINEERING ASSOCIATION HAVING JURISDICTION IN THE AREA WHERE THE STRUCTURE IS TO BE BUILT AND WHO IS RESPONSIBLE FOR THE DESIGN AND FIELD REVIEW OF: STRUCTURAL ELEMENTS DESIGNED BY THE CONTRACTOR OR SUBCONTRACTORS, SUCH AS OPEN WEB STEEL JOISTS, PRECAST DOUBLE TEES, PRECAST PLANKS, STRUCTURAL STEEL CONNECTIONS, LIGHT WOOD FRAME ROOF TRUSSES, ETC. SECONDARY STRUCTURAL ELEMENTS AND NON-STRUCTURAL ELEMENTS. SEE ALSO "NON-STRUCTURAL ELEMENTS" GENERAL NOTES. C. CONTINUOUS: FULL TENSION SPLICE AND TENSION DEVELOPMENT LENGTH. D. EMBEDMENT: UNLESS NOTED OTHERWISE COMPRESSION EMBEDMENT MEANS A COMPRESSION DEVELOPMENT LENGTH AND TENSION EMBEDMENT MEANS A TENSION DEVELOPMENT LENGTH AS PER CAN/CSA-A23.3 AND AS SHOWN ON THESE GENERAL NOTES DRAWINGS. E. GENERAL CONTRACTOR: FOR THE PURPOSES OF THESE DRAWINGS, THE USE OF THE TERM "CONTRACTOR" OR "GENERAL CONTRACTOR" SHALL REFER TO THE PRIME PERSON OR COMPANY RESPONSIBLE FOR CONSTRUCTION OF THE PROJECT AND THE COORDINATION OF TRADES AND SUBCONTRACTORS. THIS MAY BE THE GENERAL CONTRACTOR, OR A CONSTRUCTION MANAGER.
7.0 DESIGN CODE : 1. THE COMPLETED BASE BUILDING STRUCTURE SHOWN ON THE STRUCTURAL DRAWINGS HAS BEEN DESIGNED IN SUBSTANTIAL ACCORDANCE WITH THE ONTARIO BUILDING CODE 2024 WHICH IS BASED ON THE NATIONAL BUILDING CODE OF CANADA 2020.
8.0 DESIGN LOADS : 1. SPECIFIED UNIFORM LOADS kPa (SEE ALSO PLANS) LIVE LOAD SUPERIMPOSED DEAD LOAD (S.D.L.) A. FIRST AND SECOND FLOORS, INCLUDING MAIN FLOOR OF HERITAGE HOUSE 4.8 1.6 B. 3RD FLOOR, INTERIOR ----- 2.4 0.6 C. ROOF (PLUS SNOW DRIFT LOADING ON PLANS)----- 1.12 0.5 D. STAIRS & CORRIDORS ----- 4.8 -- CONTRACTORS CONSTRUCTION LOADS MUST NOT EXCEED THE ABOVE DESIGN LOADS. DESIGN LOADS MAY ONLY BE APPLIED AFTER CONCRETE REACHES ITS DESIGN STRENGTH. SUPERIMPOSED DEAD LOADS (S.D.L.) ARE NON-STRUCTURE DEAD LOADS DUE TO ARCHITECTURAL TOPPINGS, FINISHES, PARTITIONS, ROOFING MATERIALS, PAVERS, SOIL, ETC. STRUCTURAL DEAD LOADS (D.L.) ARE DUE TO THE WEIGHT OF THE STRUCTURE ITSELF, THEY VARY WITH THE STRUCTURAL SYSTEM AND INCLUDE CONCRETE TOPPINGS ON STEEL DECK. 2. WIND UPLIFT LOADS ON STEEL ROOFS SHALL BE 1 kPa NET FACTORED UNLESS NOTED OTHERWISE. 3. CONTRACTOR IS RESPONSIBLE FOR MATERIAL TESTING TO ESTABLISH SOIL BEARING CAPACITY. MINIMUM 192 kPa U.N.O.
9.0 GENERAL SCOPE OF STRUCTURAL WORK : 1. IN GENERAL, THE STRUCTURAL SCOPE OF WORK INCLUDES THE RENOVATION OF THE BUILDING AT 1635 DUNDAS STREET EAST, WHITBY, ONTARIO. 2. IN PARTICULAR, THE STRUCTURAL WORK, BRIEFLY DESCRIBED BELOW, INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, THE FOLLOWING: .1 DESIGN, INSTALLATION, AND MAINTENANCE OF SHORING AS NECESSARY TO COMPLETE THE WORK, INCLUDING PREPARATION AND SUBMISSION OF SHORING SHOP DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. .2 LOCALIZED TRENCING OF EXISTING SLAB ON GRADE TO FACILITATE MECHANICAL SERVICES INSTALLATION BELOW GRADE. .3 LOCALIZED DEMOLITION OF EXISTING OPEN WEB STEEL JOISTS AT NEW ANCHOR LOCATION. .4 INSTALLATION OF NEW BEAMS AT NEW ANCHOR LOCATIONS. .5 INSTALLATION OF NEW ROOF ANCHORS AS INDICATED ON THE DRAWINGS. .6 REPAIR ALL AREAS DAMAGED BY CONSTRUCTION ACTIVITY. SPECIFICALLY, THE CONTRACTOR SHALL REPAIR ALL DAMAGE RESULTING FROM THE CONSTRUCTION TO THE SATISFACTION OF THE CONSULTANT INCLUDING REPAINTING SURFACES IN ACCORDANCE WITH THESE SPECIFICATIONS WHICH HAVE BEEN DAMAGED. .7 FINAL CLEANING OF STRUCTURE, FIXTURES, PIPING, ETC., AND THE DISPOSAL OF ALL WASTE PRODUCTS AND/ OR DEBRIS GENERATED BY THE CONSTRUCTION ACTIVITY AS WELL AS ANY MATERIAL PRESENT IN THE WORK AREA PRIOR TO THE COMMENCEMENT OF THE WORK. THE AREAS REQUIRING CLEANING SHALL CONSIST OF ALL AREAS AFFECTED BY THE WORK.
10. RENOVATIONS : 1. THE CONTRACT DOCUMENTS ARE BASED ON ASSUMED AS-BUILT DIMENSIONS FOR THE EXISTING BUILDING STRUCTURE AND ASSUMPTIONS IN ACCORDANCE WITH DETAILING AND PLACING PRACTICE. THESE ASSUMPTIONS MAY VARY FROM THE ACTUAL ON-SITE CONDITIONS. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE CONSULTANT OF ANY ACTUAL VARIATIONS FROM THE ASSUMED CONDITIONS. 2. MINOR MODIFICATIONS TO SUIT TOLERANCES OF +/- 50mm WILL BE REQUIRED TO THE WORK INDICATED IN THESE DRAWINGS TO REFLECT ACTUAL SITE CONDITIONS. THE CONTRACTOR WILL COOPERATE WITH THE CONSULTANT AND RJC IN THIS REGARD. MINOR MODIFICATIONS WILL BECOME THE RESPONSIBILITY OF THE CONTRACTOR AND WILL NOT RESULT IN A CHANGE IN THE CONTRACT PRICE. 3. ENSURE THAT ALL NECESSARY JOB DIMENSIONS ARE TAKEN AND ALL TRADES ARE COORDINATED FOR THE PROPER EXECUTION OF THE WORK. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF SUCH DIMENSIONS, AND FOR COORDINATION. 4. PRIOR TO FABRICATION OF ANY STRUCTURAL MEMBERS, THE CONTRACTOR SHALL COMPLETE THIS SITE REVIEW OF CRITICAL "TIE-IN" DIMENSIONS AND CONFIRM ALL DIMENSIONS TO ENSURE PROPER FIT OF NEW WORK TO EXISTING. REPORT ANY DISCREPANCIES TO RJC PRIOR TO STARTING WORK. 5. COMMENCEMENT OF CONSTRUCTION OR ANY PART THEREOF CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND MEANS DIMENSIONS AND ELEVATIONS HAVE BEEN CONSIDERED, VERIFIED AND ARE ACCEPTABLE. 6. ANY OPENINGS THAT ARE NOT SHOWN OR INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE REPORTED TO RJC FOR REVIEW. THESE OPENINGS MAY NOT BE ALLOWED, MAY HAVE TO BE MOVED, OR MAY REQUIRE ADDITIONAL STRUCTURAL WORK AND DETAILING. DO NOT PROCEED WITH THESE OPENINGS WITHOUT WRITTEN PERMISSION FROM RJC. 7. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, THE CORING OR CUTTING OF OPENINGS AND HOLES SHOWN ON THE STRUCTURAL DRAWINGS THROUGH THE EXISTING STRUCTURE SHALL NOT CUT ANY REINFORCING BARS. THE CONTRACTOR SHALL LOCATE THE LOCATION, SIZE, LENGTH, ORIENTATION AND POSITION OF EXISTING REINFORCING AND PROVIDE RJC WITH HARD COPIES OF SUCH FOR OUR REVIEW IN THE VICINITY OF THE HOLES AND SLEEVES TO BE CUT OR CORED, AND THE HOLES AND SLEEVES SHALL BE LOCATED TO AVOID CUTTING OF REINFORCING BARS. WHERE THIS IS NOT POSSIBLE, IT SHALL BE REPORTED TO RJC FOR REVIEW. 8. NEW OPENINGS TO BE CUT THROUGH EXISTING FLOOR SLAB OR WALLS SHALL BE CLEARLY MARKED OUT BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY RJC ONCE THE MARKING OUT HAS BEEN COMPLETED SO THAT RJC CAN REVIEW THE PROPOSED LOCATION OF ALL NEW OPENINGS. DO NOT PROCEED WITH CUTTING OF NEW OPENINGS WITHOUT THE APPROVAL OF RJC. 9. UNLESS NOTED OTHERWISE ON THE DRAWINGS NEW STRAIGHT SIZED OPENINGS THROUGH EXISTING SLABS AND WALLS SHALL BE SAWCUT WITH NO OVERCUTS. USE CORED HOLES AT THE CORNERS. JACKHAMMERING SHALL NOT BE PERMITTED. REFER TO THE DETAILS AND PROCEDURES INDICATED ON THE STRUCTURAL DRAWINGS FOR THE NEW OPENINGS. ALTERNATES TO THE ABOVE PROCEDURES MUST BE REVIEWED BY RJC PRIOR TO THE START OF DEMOLITION OR CONSTRUCTION. 10. UNLESS NOTED OTHERWISE AT ALL LOCATIONS WHERE NEW CONCRETE WILL BE IN CONTACT WITH EXISTING CONCRETE SURFACE IS TO BE COMPACTED, THE EXISTING CONCRETE SHALL BE COMPLETELY CLEANED AND ROUGHENED BY BUSH HAMMERING, (OR APPROVED EQUAL) TO AN AMPLITUDE OF 6mm. 11. CONNECTIONS FOR NEW STRUCTURAL STEEL FRAMING TO EXISTING STRUCTURAL STEEL SHALL BE ACHIEVED THROUGH WELDED CONNECTIONS UNLESS OTHERWISE NOTED. 12. CONTRACTOR TO ENSURE THAT UNDERGROUND OR IN-SLAB SERVICES ARE NOT DAMAGED THROUGH DEMOLITION, SAWCUTTING, HOLE AUGURING, OR OTHER CONSTRUCTION ACTIVITIES. SCAN OR X-RAY SLABS AND NOTIFY RJC FOR REVIEW PRIOR TO CORING. DO NOT CORE WITHOUT WRITTEN APPROVAL. EXCAVATION NEAR BURIED SERVICES SHALL BE HAND DIGGING ONLY. 13. FASTENING TO EXISTING MATERIALS: UNLESS NOTED OTHERWISE, THE FOLLOWING REQUIREMENTS APPLY TO ALL CONNECTIONS BETWEEN EXISTING AND NEW MATERIALS: A. USE ONLY PRODUCTS AS SPECIFIED UNLESS ALTERNATES HAVE BEEN PRE-APPROVED BY RJC IN WRITING. B. ON SITE TRAINING -- THE CONTRACTOR SHALL RETAIN A MANUFACTURER'S REPRESENTATIVE TO PROVIDE ON-SITE ANCHOR INSTALLATION TRAINING FOR ALL PROPRIETARY PRODUCTS SPECIFIED. THE CONTRACTOR'S PERSONNEL MUST BE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS. C.

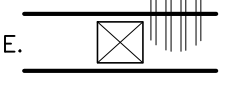
C. THE CONTRACTOR IS TO RETAIN A THIRD PARTY MATERIALS TESTING AGENCY EXPERIENCED WITH THE INSTALLATION OF ANCHORS TO PROVIDE AN ON-GOING SERVICE OF ON-SITE QUALITY CONTROL REVIEWS TO ENSURE THAT ANCHORS ARE BEING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED SPECIFICATIONS AND INSTALLATION PROCEDURES. QUALITY ASSURANCE REPORTS FROM THE TESTING AGENCY ARE TO BE SUBMITTED TO RJC AFTER EACH SITE VISIT. AT THE END OF THE PROJECT, THE TESTING AGENCY IS TO PROVIDE A LETTER SIGNED BY A REGISTERED ENGINEER STATING THAT THE GENERAL INSTALLATION OF ANCHORS FOR THE PROJECT IS IN ACCORDANCE WITH THE RECOMMENDED INSTALLATION PRACTICE AS SPECIFIED BY THE MANUFACTURER. D. A REPRESENTATIVE SAMPLE OF ANCHORS IS TO BE TESTED FOR EACH TYPE OF ANCHOR SPECIFIED. TESTING SHALL BE CARRIED OUT BY A TESTING AGENCY APPOINTED AND PAID FOR BY THE OWNER. ANCHORS WHICH FAIL THE LOAD TEST SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S COST. IF THE FAILURE RATE EXCEEDS 1 IN 10 FOR A TYPE OF ANCHORS, ALL ANCHORS ARE TO BE TESTED. E. SEE ALSO CONCRETE ANCHOR NOTE. 14. DRILL AND SITE MEASURE BOLT HOLES IN EXISTING STRUCTURE PRIOR TO FABRICATING STEEL CONNECTION PLATES. BOLT HOLES MAY HAVE TO BE MOVED FROM WHAT IS SHOWN ON THE DRAWINGS TO AVOID CUTTING EXISTING REINFORCING OR TO AVOID OTHER SITE CONDITIONS. SITE MODIFICATION OF STEEL CONNECTION PLATES WILL NOT BE ACCEPTED WITHOUT THE PRIOR APPROVAL OF RJC.
11. SHORING NOTES : 1. PROVIDE SHORING BELOW ALL SUSPENDED SLABS BEING REPAIRED AT THROUGH-SLAB REPAIR LOCATIONS OR WHERE AFFECTING THE BASE BUILDING STRUCTURE IS REQUIRED TO EXECUTED THE WORK A MINIMUM OF 2 LEVELS OF SHORING TO BE PROVIDED, OR TO--GRADE. 12. INSPECTION AND TESTING : 1. THE OWNER WILL ENGAGE AND PAY FOR THE SERVICES OF A WELDING ENGINEER AND A TESTING AGENCY. 2. SUBMIT CERTIFIED RESULTS OF TESTING IN ACCORDANCE WITH CAN3-G40.20 PROPERLY CORRELATED TO THE ELEMENTS BEING FABRICATED TO THE CONSULTANT FOR REVIEW. 3. ALLOW FREE ACCESS TO ALL PARTS OF THE WORKS FOR THE PURPOSES OF INSPECTION AT ALL TIMES. 4. FOR THE PURPOSE OF BIDDING, ASSUME ALL WELDS WILL BE EXAMINED BY A NON-DESTRUCTIVE METHOD. 5. THE ENGINEER MAY REJECT AT ANY TIME DURING THE PROGRESS OF THE WORK A PIECE OF 5. MATERIAL FOR ANY MEMBER WHICH HE MAY FIND DEFECTIVE OR NOT IN ACCORDANCE WITH THE DETAILED DRAWINGS. THIS MATERIAL MAY BE REJECTED NOT-STANDING ANY PREVIOUS ACCEPTANCE AND COMPONENTS SO REJECTED SHALL BE REPLACED AT NO EXPENSE TO THE OWNER. IN CASE OF DISPUTE, THE DECISION OF THE ENGINEER SHALL BE FINAL.
13. NON-STRUCTURAL ELEMENTS : 1. "NON-STRUCTURAL" OR "SECONDARY STRUCTURAL" ELEMENTS ARE NOT PART OF THE STRUCTURAL DESIGN SHOWN ON THESE DRAWINGS. SUCH ELEMENTS ARE NOT TO BE DETAILLED AND DETAILED IN THE FIELD BY OTHERS. THEY APPEAR ON DRAWINGS OTHER THAN THESE DRAWINGS OF READ JONES CHRISTOFFERSEN LTD., WHERE STRUCTURAL ENGINEERING RESPONSIBILITY IS REQUIRED FOR THESE ELEMENTS, THIS SHALL BE PROVIDED BY SPECIALTY STRUCTURAL ENGINEERS, WHO SHALL ALSO PROVIDE ANY LETTERS REQUIRED BY BUILDING PERMIT AUTHORITIES. 2. EXAMPLES OF NON-STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO: A. ARCHITECTURAL COMPONENTS SUCH AS GUARDRAILS, HANDRAILS, FLAG POSTS, CANOPIES, CEILING, MILLWORK, ETC. B. LANDSCAPE ELEMENTS SUCH AS BENCHES, LIGHT POSTS, PLANTERS, ETC. C. CLADDING, GLAZING, WINDOW MULLIONS, INTERIOR STUD WALLS AND EXTERIOR STUD WALLS. D. ARCHITECTURAL PRECAST, PRECAST CLADDING. E. SKYLIGHTS. F. MECHANICAL AND ELECTRICAL EQUIPMENT, COMPONENTS, AND THEIR ATTACHMENT DETAILS. G. WINDOW WASHING EQUIPMENT AND ITS ATTACHMENTS. H. ESCALATORS, ELEVATORS, AND CONVEYING SYSTEMS. I. GLASS BLOCK AND ITS ATTACHMENTS. J. BRICK OR BLOCK VENEERS AND THEIR ATTACHMENTS. K. NON-LOAD BEARING MASONRY. L. NON-STRUCTURAL CONCRETE TOPPINGS. 3. SHOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS WHICH MAY AFFECT THE PRIMARY STRUCTURAL SYSTEM SHALL BE SUBMITTED TO READ JONES CHRISTOFFERSEN LTD. THESE DRAWINGS WILL BE REVIEWED ONLY FOR THE EFFECT OF THE ELEMENT ON THE PRIMARY STRUCTURAL SYSTEM. 4. FOR STONE OR MASONRY CLADDING, SEISMIC FORCES MAY GOVERN. 5. THE DESIGN WIND LOAD TO BE USED FOR INTERIOR STUDS AND PARTITIONS IS 5 PSF (UNFACTORED) UNLESS NOTED OTHERWISE. 6. THE DESIGN WIND LOADS TO BE USED FOR GLAZING, EXTERIOR STUDS AND EXTERIOR CLADDING ARE SHOWN BELOW. LOADS ARE UNFACTORED (SPECIFIED). THE LOADS ARE BASED ON Iw = 1.0 FOR ULTIMATE LIMIT STATES. MULTIPLY TABLE VALUES BY Iw = 0.75 FOR SERVICEABILITY LIMIT STATES. HEIGHT ABOVE STREET (m) INWARD PRESSURE (kPa) OUTWARD PRESSURE (kPa) OUTWARD PRESSURE AT CORNER (kPa) 8.03 1.03 0.93 1.18 CORNER PRESSURES ARE TO BE TAKEN AT A DISTANCE OF 0.8m IN EACH DIRECTION FROM EACH CORNER OF THE BUILDING. 7. THE MAXIMUM ALLOWABLE DEFLECTIONS FOR GLAZING, STUDS, PARTITIONS AND CLADDING UNDER THE WIND LOADS SHOWN ABOVE SHALL MEET THE ARCHITECTURAL SPECIFICATIONS, THE NATIONAL BUILDING CODE AND THE MANUFACTURER'S SPECIFICATIONS. IN NO CASE SHALL THE DEFLECTIONS EXCEED THE FOLLOWING: A. ELEMENTS SUPPORTING BRICK VENEER ----- L/360, MAX. 25mm B. ELEMENTS SUPPORTING PRECAST PANELS OR STUCCO ----- L/360, MAX. 25mm C. ELEMENTS SUPPORTING WOOD SIDING, METAL SIDING OR EXTERIOR INSULATION -- L/180, MAX. 25mm D. ELEMENTS SUPPORTING GLAZING ----- L/180, MAX. 25mm
14. STRUCTURAL STEEL : 1. STRUCTURAL STEEL SECTIONS SHALL BE NEW AND CONFORM TO THE FOLLOWING: A. WIDE FLANGE BEAMS AND WWF SECTIONS ----- CSA G40.21 350W B. MISCELLANEOUS ROLLED SECTIONS (EXCEPT WIDE FLANGES) -- CSA G40.21 300W C. HOLLOW STRUCTURAL SECTIONS (CLASS C U.N.O.) ----- CSA G40.21 350W D. ROLLED PLATES ----- CSA G40.21 300W E. BOLTS (SEE PLANS AND DETAILS) ----- ASTM A325 OR ASTM A490 F. STRUCTURAL STEEL ANCHOR RODS (U.N.O.) ----- ASTM F1554 GRADE 36 MINIMUM G. REINFORCING BAR ANCHOR BOLTS ----- CAN/CSA-630.1BR, GRADE 400 2. DESIGN FORCES INDICATED ON DRAWINGS FOR STRUCTURAL STEEL WORK ARE FACTORED FORCES UNLESS NOTED OTHERWISE. FORCES ARE VERTICAL SHEAR FORCES U.N.O. METRIC A. FORCES ----- kN B. MOMENTS ----- kN-m C. LINE LOADS ----- kN/m D. DISTRIBUTED LOADS ----- kPa SEE "STRUCTURAL GENERAL NOTES -- DESIGN LOADS" FOR DEFINITIONS AND VALUES OF LIVE LOAD, DEAD LOAD AND SUPERIMPOSED DEAD LOAD. SEE ALSO PLANS FOR OTHER LOAD/FORCE REQUIREMENTS. 3. ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR UNLESS NOTED OTHERWISE. ALL BEAM CONNECTIONS TO BE STANDARD FRAME BEAM CONNECTIONS OR EQUIVALENT, UNLESS NOTED OTHERWISE. 4. SHOP DRAWINGS SHALL BE PREPARED UNDER THE DIRECTION OF A SPECIALTY STRUCTURAL ENGINEER. FOR THOSE CONNECTIONS AND COMPONENTS DESIGNED BY THE FABRICATOR, THIS ENGINEER OR THEIR REPRESENTATIVE SHALL VISIT THE SITE TO REVIEW IN PLACE THE CONNECTIONS AND COMPONENTS DESIGNED BY THIS ENGINEER TO SATISFY THEMSELVES THAT THESE CONNECTIONS AND COMPONENTS COMPLY WITH THEIR DESIGN ON THE SHOP DRAWINGS. THIS ENGINEER SHALL PROVIDE A LETTER TO RJC TO THIS EFFECT. THIS ENGINEER SHALL ALSO PROVIDE SEALED SKETCHES FOR ALL FIELD MODIFICATIONS MADE TO THEIR DESIGN. 5. PRIOR TO SUBMITTING SHOP DRAWINGS THE CONTRACTOR SHALL NOTIFY RJC IN WRITING THAT THE FABRICATOR IS CERTIFIED TO A MINIMUM OF DIVISION 2 OF CSA W47.1. 6. DRAWINGS OF COMPONENTS AND CONNECTIONS DESIGNED BY THE FABRICATOR'S SPECIALTY STRUCTURAL ENGINEER SHALL BE SIGNED AND SEALED BY THIS ENGINEER OR A LETTER SHALL BE SUBMITTED AT THE END OF SHOP DRAWING PRODUCTION SIGNED AND SEALED BY THIS ENGINEER, IDENTIFYING WHAT WAS DESIGNED AND LISTING THE FINAL DRAWINGS WITH DATES AND REVISION NUMBERS. 7. CONNECTIONS AND SPLICES NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUESTED BY THE FABRICATOR MUST BE ACCEPTABLE TO RJC AND DETAILED ON THE SHOP DRAWINGS. TESTING OF THESE CONNECTIONS SHALL BE AT THE DISCRETION OF RJC AND TO THE CONTRACTORS ACCOUNT. 8. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO START OF STEEL FABRICATION. 9. FABRICATION, ERECTION, STRUCTURAL DESIGN, AND DETAILING OF ALL STEEL SHALL BE IN ACCORDANCE WITH CAN/CSA-S16. 10. FILLET WELDS SHALL BE 5mm MINIMUM U.N.O.

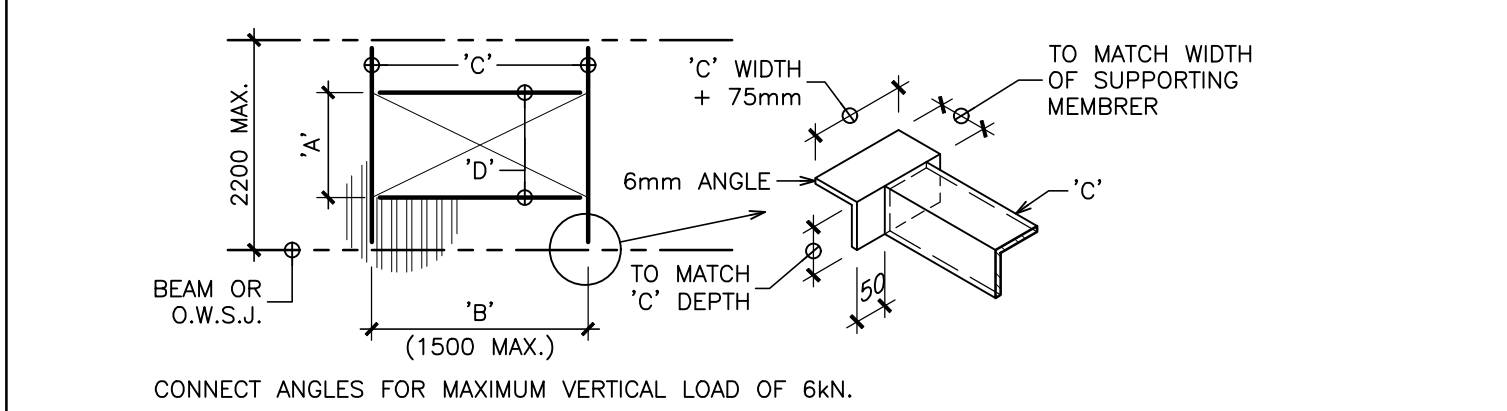
11. BOLTS SHALL BE A325 6mm Ø MINIMUM U.N.O. 12. BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS IN EACH CONNECTED PIECE AND BE DESIGNED AS BEARING CONNECTIONS, U.N.O. 13. ALL WELDED HEADED STUDS AND WELDED DEFORMED BAR ANCHORS SHALL BE INSTALLED AS PER THE MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS OR SHOP FILLET WELDED. ANY FIELD FILLET WELDED DEFORMED BARS OR STUDS WILL BE REJECTED. SEE PLANS, SECTIONS, DETAILS, AND SCHEDULES FOR LOCATIONS ETC., THE CONTRACTOR SHALL CO-ORDINATE THE DESIGN, SUPPLY, AND INSTALLATION OF ALL STUDS AND ANCHORS, INCLUDING, BUT NOT LIMITED TO STUDS AND DEFORMED BAR ANCHORS ON COMPOSITE BEAMS, DRAG STRUTS, EMBEDDED PLATES, ETC. 14. UNLESS NOTED OTHERWISE, COLUMN CAP PLATES SHALL BE 16 mm THICK AND COLUMN BASE PLATES SHALL BE 20mm MINIMUM THICK. 15. PROVIDE 6mm CAP PLATES FOR ALL HSS MEMBERS U.N.O. 16. CONNECTION DETAILS SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE ALTERED BY THE CONTRACTOR WITHOUT WRITTEN APPROVAL FROM READ JONES CHRISTOFFERSEN LTD. 17. THIS SYMBOL: OR 
18. FRAME ROOF AND FLOOR OPENINGS GREATER THAN 450mm IN ACCORDANCE WITH THE DETAILS IN THE GENERAL NOTES UNLESS NOTED OTHERWISE ON THE PLANS. 19. UNLESS NOTED OTHERWISE ON THE PLANS, REFER TO THE DETAILS IN THE GENERAL NOTES FOR FRAMING FOR SUPPORT OF ROOF TOP MECHANICAL EQUIPMENT. 20. STEEL TO BE EXPOSED IN FINISHED WORK SHALL BE CLEANED, PREPARED, PRIMED AND PAINTED IN ACCORDANCE WITH CSA STANDARD S16 AND THE ARCHITECTURAL DRAWINGS AND PAINTING SPECIFICATION. 21. DESIGN DRAWINGS INCLUDE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. SEE ALSO ARCHITECTURAL DRAWINGS FOR ROOF AND FLOOR ELEVATIONS, ROOF SLOPES, EDGE DETAILS, AND ADDITIONAL DIMENSIONS AND DETAILS. WHERE ELEVATIONS, ROOF SLOPES, ETC., ARE SHOWN ON THE STRUCTURAL DRAWINGS, THEY MUST BE CONFIRMED WITH THE ARCHITECTURAL DRAWINGS. 22. UNLESS NOTED OTHERWISE, DO NOT OVERSIZE HOLES IN STEEL TO FIT ANY ANCHOR LOCATIONS, FOR COLUMN BASE PLATE HOLES, UNLESS NOTED OTHERWISE ON DRAWINGS. FOLLOW STANDARD PRACTICE WHICH IS TO USE SLIGHTLY OVERSIZED HOLES. USE 6mm OVERSIZED HOLE DIAMETER FOR COLUMN ANCHOR RODS UP TO AND INCLUDING 27mm DIAMETER, AND 12mm OVERSIZED HOLE DIAMETER FOR COLUMN ANCHOR RODS GREATER THAN 27mm DIAMETER. 23. STEEL SHALL BE PREPARED AND FINISHED IN ACCORDANCE WITH CSA S16 AND THE ARCHITECTURAL DRAWINGS AND PAINTING SPECIFICATIONS WHICH MAY INCLUDE ADDITIONAL CLEANING AND PRIMING REQUIREMENTS. 24. ALL STRUCTURAL STEEL OUTSIDE OF THE BUILDING ENVELOPE TO BE HOT-DIP GALVANIZED UNLESS NOTED OTHERWISE. 25. UNLESS NOTED OTHERWISE, CAST-IN-PLACE ANCHOR RODS FOR COLUMN BASES TO HAVE PLACEMENT TOLERANCE PER CSA A23.1 AND CISC CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL. ANCHOR ROD HOLE SIZES IN STEEL PLATES NOT TO EXCEED DIAMETER OF FASTENER + 6mm. 26. UNLESS NOTED OTHERWISE, HOLE SIZES IN STEEL PLATES FOR POST-INSTALLED ANCHORS NOT TO EXCEED DIAMETER OF FASTENER + 3mm. 27. GENERAL SEISMIC REQUIREMENTS A. WHERE CONNECTION FORCES ARE NOT SHOWN ON THE DRAWINGS, THE CONNECTION DESIGN SHALL SATISFY THE REQUIREMENTS OF CSA S16 -- CLAUSE 27. B. STEEL IN THE ENERGY DISSIPATION SYSTEM SHALL SATISFY THE LIMITS OF Fy, Fu, AND CHARPY V-NOTCH IMPACT REQUIREMENTS AS NOTED IN CSA S16 -- CLAUSE 27.1.5. C. WELDS AND WELD MATERIAL SHALL SATISFY CSA S16 -- CLAUSE 27.1.5.3 (CHARPY REQUIREMENTS). D. BOLTED CONNECTIONS SHALL SATISFY CSA S16 -- CLAUSE 27.1.6. 28. UNLESS NOTED, BEAM AND GIRDER CONNECTIONS TO EMBEDDED PLATES SHALL BE DOUBLE ANGLE FRAMING CONNECTIONS WELDED TO THE BEAM WEB THUS: 
22. UNLESS NOTED OTHERWISE ALL CONNECTIONS FOR BEAMS AND GIRDERS SHALL BE DESIGNED FOR A SHEAR BASED ON THE MEMBER'S FULL MOMENT RESISTANCE CAPACITY RELATED TO A UNIFORM LOAD ON A SIMPLE SUPPORTED SPAN. 23. TOP FLANGES OF BEAMS TO BE FREE OF ALL PAINT, DIRTY, HEAVY RUST, MILL SCALE, SAND AND OTHER MATERIALS WHICH WILL INTERFERE WITH WELDING OF STUD SHEAR CONNECTIONS AND STEEL DECK TO BEAMS. 24. BEAMS NOTED AS COMPOSITE ON THE DRAWINGS REQUIRE STUD SHEAR CONNECTIONS. SEE ALSO SHEAR CONNECTOR NOTES. SEE ALSO PLANS, SECTION DETAILS, AND SCHEDULES FOR STUDS SHOWN ON BEAMS/GIRDERS/DAG-STRUTS ETC. OTHER THAN COMPOSITE BEAMS. 25. UNLESS NOTED OTHERWISE WHERE BEAMS SIT OVER COLUMNS, PROVIDE FULL HEIGHT, FULL WIDTH PL10 STIFFENERS EACH SIDE OVER COLUMN. 
15. STEEL DECK : 1. STEEL DECKING SHALL CONFORM TO CAN/CSA-S136. 2. STEEL DECKING SHALL CONFORM TO CSSBI SPECIFICATION 10M MINIMUM GRADE 230 ZINC COATED STRUCTURAL QUALITY STEEL FOR ROOF AND FLOOR DECK. BASE STEEL NOMINAL THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUM REQUIREMENTS ONLY. 3. INTERIOR EXPOSURE DECK SHALL BE ZINC COATED WIPE COAT ZF075 FOR FLOORS AND FOR ROOFS. EXTERIOR EXPOSURE DECK SHALL BE Z275 ZINC COATED UNLESS NOTED OTHERWISE. 4. FOR DECKS WITH CONCRETE TOPPING, SEE ALSO "STEEL DECK (WITH CONCRETE TOPPING)" NOTES. 5. STEEL DECKING SHALL BE INSTALLED SUCH THAT SHEETS ARE SET FOR A MINIMUM OF THREE SPANS CONTINUOUS UNLESS NOTED OTHERWISE. LAPS OF DECKING SHALL BE LIMITED OR DETAILED TO PREVENT UNDUE VERTICAL DEFORMATIONS AT THE END OF THE DECK DUE TO END ROTATIONS. 6. SEE DRAWINGS FOR DECK THICKNESSES OR DESIGN LOADS. 7. WHERE DECK IS CALLED UP ON THE DRAWINGS, ALTERNATES MUST BE THE SAME DEPTH, BE EQUIVALENT FOR DEFLECTIONS, VERTICAL LOAD, AND SHEAR CAPACITY, AND BE PRE-APPROVED. 8. SUBMIT SHOP DRAWINGS INDICATING THE DECK SPANS, THICKNESSES, PROFILES, AND DETAILS. WHERE THE DECK THICKNESSES AND CONNECTIONS ARE NOT SHOWN ON THE DRAWINGS, THE FABRICATOR SHALL DESIGN THE DECK AND CONNECTIONS FOR THE VERTICAL LOADS AND THE SHEAR/DIAPHRAGM LOADS NOTED ON THE DRAWINGS AND HAVE THE SHOP DRAWINGS SEALED BY THE CONTRACTOR'S SPECIALTY STRUCTURAL ENGINEER. 9. FASTENINGS -- MINIMUM REQUIREMENTS UNLESS NOTED OTHERWISE ON DRAWINGS: A. SIDE LAPS MECHANICALLY FASTENED (CLINCHED) AT NOT MORE THAN 400mm O/C. B. 20mm Ø FUSION WELDS AT DECK SUPPORTS SHALL BE AT 400mm O/C ALONG SIDE EDGES AND AT EVERY FLUTE. 10. REMOVE WATER BETWEEN THE DECK AND SUPPORTING STEEL BEFORE WELDING DECK. 11. IF NOT SHOWN OTHERWISE, ALL EDGES OF STEEL DECKING SHALL BE SUPPORTED ON CONTINUOUS ANGLE L76x76x4.8. 12. SEE ALSO MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR ALL OPENINGS IN DECK. 13. STEEL DECK TO BE DESIGNED FOR A MINIMUM DIAPHRAGM SHEAR OF 4.9 kN/m, U.N.O.

contractor shall be responsible for checking and verifying all levels and dimensions and shall report all discrepancies to the architect and obtain clarification prior to commencing work. Not for construction unless stamped by the architect and issued for such purpose. NOTE: The Region of Durham assumes no responsibility for the accuracy of existing services as indicated on this drawing. DO NOT SCALE DRAWINGS		
PRIME CONSULTANT		
 Creative Thinking Practical Results  Read Jones Christoffersen Ltd. Engineers rjc.ca 100 University Avenue, North Tower, Suite 400 Toronto, ON M5J 1Y6 Canada tel: 416-877-0335 fax: 416-877-1427		
DESIGN BY:	B.T.	
DRAWN BY:	S.S.	
CHECKED BY:	B.T.	
APPROVED BY:	B.T.	
SCALE:	As indicated	
DATE:	2025-09-18	
CONSULTANT PROJECT NO.	TOR.137374.0007	
ISSUE DATE:	ISSUE DATE	
2	2025-09-18	IFT
1	2025-07-17	ISSUED FOR BUILDING PERMIT
NO.	DATE	DESCRIPTION
SEAL:		
PROJECT NORTH		
 THE REGIONAL MUNICIPALITY OF DURHAM WORKS DEPARTMENT DESIGN, CONSTRUCTION & ASSET MANAGEMENT		
PROJECT:		
PHASE 2 RENOVATIONS		
1635 DUNDAS STREET EAST WHITBY, ONTARIO		
SHEET TITLE:		
STRUCTURAL GENERAL NOTES AND SPECIFICATIONS		
PROPERTY NO. RP-W-42	FACILITY CODE SS-W-02	
FACILITIES PROJECT NO. SS-W-02-23-01	CONTRACT NO. RFP-1048-2025	
SHEET NO.		
S0.1		

- 1.0 OPEN WEB STEEL JOISTS :**
- OPEN WEB STEEL JOISTS (O.W.S.J.) SHALL CONFORM TO CAN/CSA-S16.
 - DESIGN OF O.W.S.J. SHALL CONFORM TO CLAUSE 16 OF CAN/CSA-S16 (LIMIT STATES DESIGN OF STEEL STRUCTURES) AND CAN/CSA-S136 (DESIGN OF LIGHT GAUGE STEEL STRUCTURAL MEMBERS), BASED ON THE LOADINGS INDICATED ON THE DRAWINGS AND LISTED BELOW.
 - O.W.S.J. SHALL BE DESIGNED FOR THE LOADS SHOWN ON THE DRAWINGS.
 - IN ADDITION TO THE POINT LOADS CALLED FOR ON THE DRAWINGS AND IN THE GOVERNING BUILDING CODE, DESIGN O.W.S.J. FOR A 1.8 kN FACTORED ADDITIONAL POINT LOAD AT ANY LOCATION ON TOP CHORD AND BOTTOM CHORD (INCLUDING THE EFFECTS OF LOCAL BENDING) CONCURRENT WITH OTHER DESIGN LOADS. OVER MECHANICAL AREAS THE DESIGN LOADS SHALL BE 4.5 kN FACTORED. THE ADDITIONAL POINT LOADS ON EACH CHORD NEED NOT BE APPLIED CONCURRENTLY WITH EACH OTHER.
 - UNLESS NOTED OTHERWISE LIVE LOAD DEFLECTION SHALL NOT EXCEED 1/360 OF THE SPAN.
 - CAMBER ALL O.W.S.J. FOR DEAD LOAD PLUS 1/2 LIVE LOAD UNLESS OTHERWISE NOTED. PROVIDE A MINIMUM CAMBER OF 12 mm.
 - DESIGN AND PROVIDE O.W.S.J. BRIDGING IN ACCORDANCE WITH CAN/CSA-S16 UNLESS OTHERWISE INDICATED ON THE DRAWINGS. REFER TO THE DRAWINGS FOR AREAS OF NON-TYPICAL O.W.S.J. BRIDGING AND BRACING.
 - SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO START OF O.W.S.J. FABRICATION. SHOP DRAWINGS SHALL BEAR THE SEAL OF THE SPECIALTY STRUCTURAL ENGINEER WHO IS RESPONSIBLE FOR THE DESIGN OF THE O.W.S.J. REFER TO THE SPECIFICATIONS.
 - ALL O.W.S.J. TO HAVE BUILDING SERVICES PASS THROUGH THEM. WEB MEMBERS OF ADJACENT O.W.S.J. TO LINE UP TO ACCOMMODATE CONTINUOUS PENETRATION OF SERVICES.
 - WELDING SHALL CONFORM TO CSA W59.
 - O.W.S.J. SHALL BE UNPRIMED, CLEANED AND SHALL RECEIVE FIREPROOFING COATING, UNLESS NOTED OTHERWISE.
 - O.W.S.J. TO BE EXPOSED IN FINISHED WORK SHALL BE PAINTED WITH SHOP PRIMER MEETING THE REQUIREMENTS OF CAN/CSA-S16. CLEANING, PREPARATION OF STEEL AND THE PAINT PRODUCT SHALL BE COMPATIBLE WITH REQUIREMENTS OF FINISHED PAINTING AS SPECIFIED IN ARCHITECTURAL FINISHES. REFER TO THE SPECIFICATIONS.
 - BOTTOM CHORD EXTENSIONS (B.C.E.) ARE EXTENSIONS OF THE BOTTOM CHORD WHICH TRANSMIT A 6.4kN AXIAL FORCE TO EITHER A COLUMN, BEAM BOTTOM FLANGE, JOIST GIRDER BOTTOM CHORD OR WALL. THE EXTENSION MAY BE EITHER FLAT OR SLOPED.

2.0 TYPICAL FRAMING AROUND OPENINGS IN STEEL DECK WITHOUT CONCRETE TOPPING - U.N.O. :

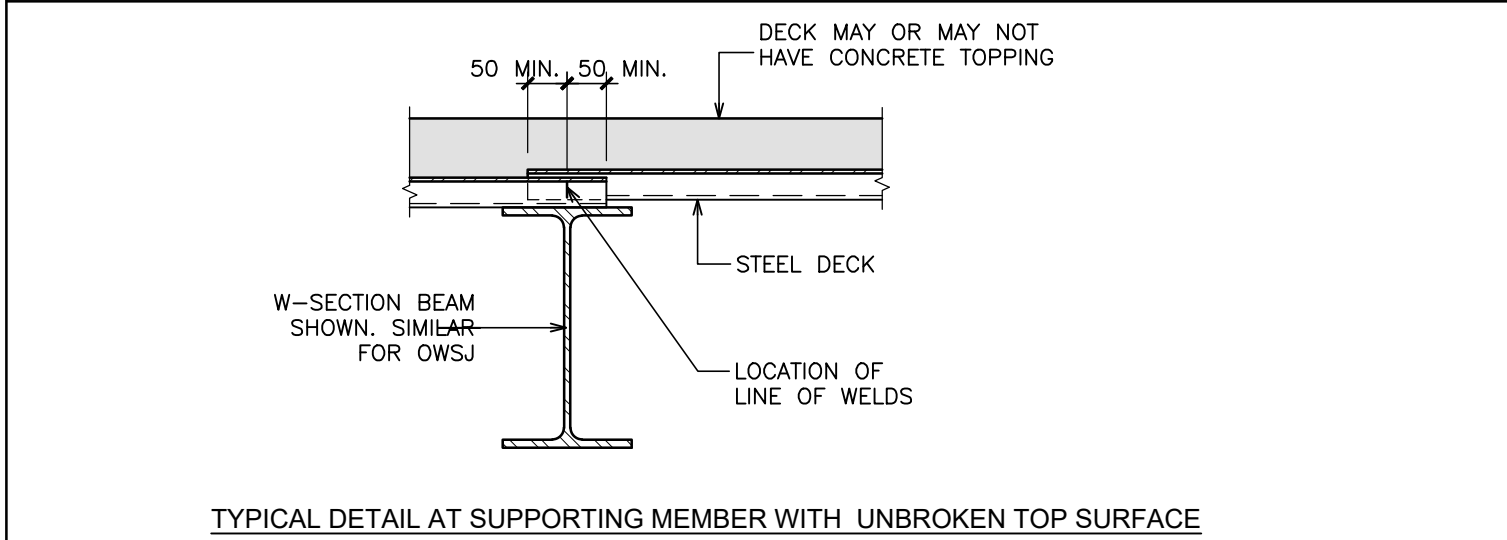
- SEE ALSO MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR ALL OPENINGS IN DECK.
- U.N.O. REINFORCE OPENINGS WITHOUT MECHANICAL UNITS BETWEEN 150mm TO 450mm MAXIMUM DIMENSION WITH L76x76x4.8 x 1200mm LONG, WELD TO EVERY FLUTE. I.E. 
- TYPICAL DETAILS FOR SMALL MECHANICAL UNITS AND/OR OPENINGS IN DECK UNLESS NOTED OTHERWISE ON PLANS AND DETAILS:



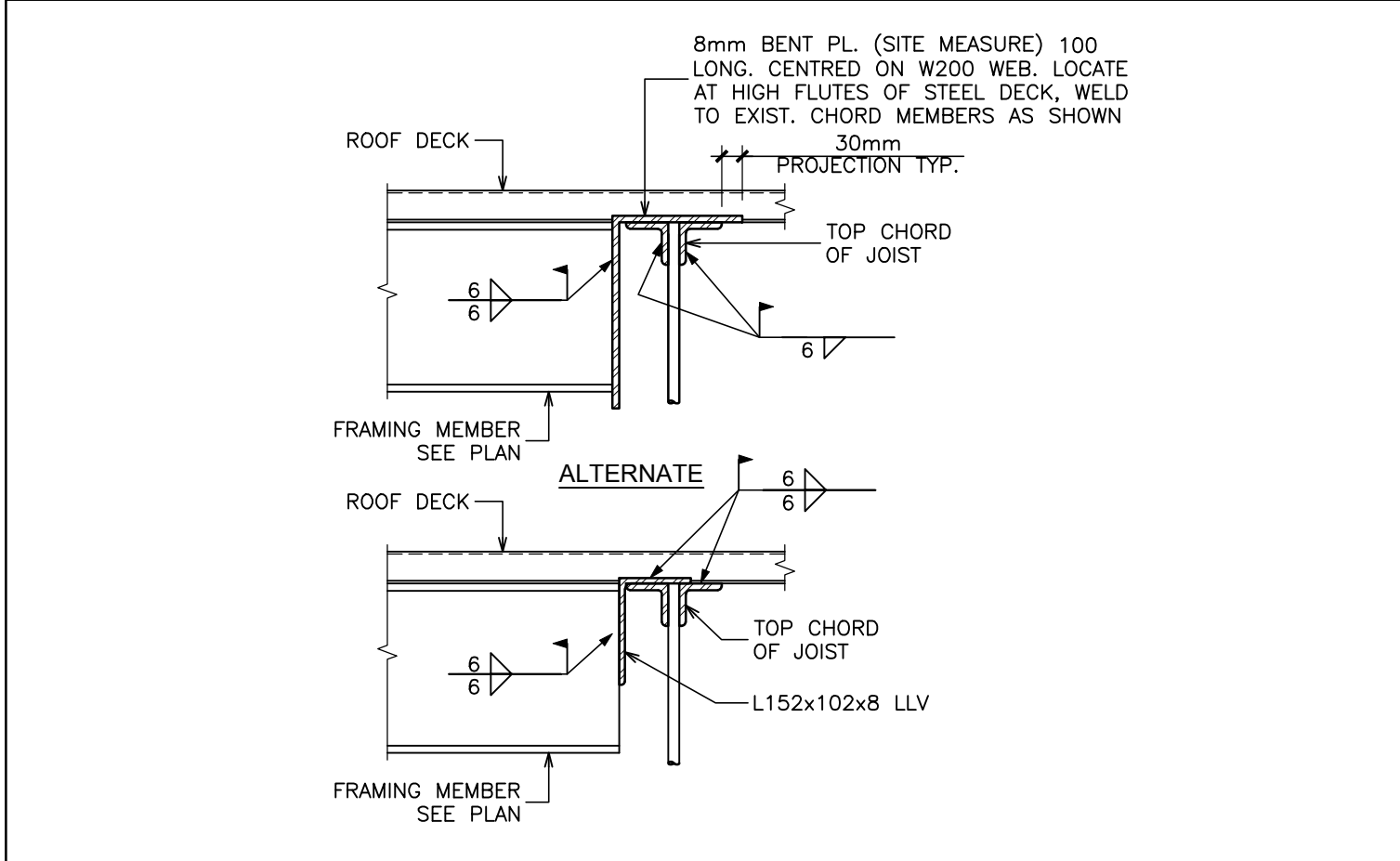
MECH UNIT OR OPENING SIZE A x B'	ANGLE 'C'	ANGLE 'D'	MECHANICAL UNIT WEIGHT (SPECIFIED)
150 x 150 TO 450 x 450	L76x76x6.4	L76x76x4.8	.025 kN TO 1.0 kN
450 x 450 TO 1500 x 1500	L102x102x6.4	L76x76x4.8	NO UNIT
450 x 450 TO 1500 x 1500	L102x102x6.4	L76x76x6.4	LESS THAN OR EQUAL TO 2 kN (1500mm MAX. HIGH)
450 x 900 TO 1500 x 1500	L102x102x6.4	L102x102x6.4	LESS THAN OR EQUAL TO 2 kN (1500mm MAX. HIGH)

- WHERE AN OPENING IN DECK IS UNDER A MECHANICAL UNIT AND IS SMALLER THAN THE FRAMING REQUIRED TO SUPPORT THE MECHANICAL UNIT, REINFORCE THE OPENING WITH L76x76x4.8 ON ALL FOUR SIDES SPANNING BETWEEN THE MECHANICAL UNIT SUPPORT MEMBERS. SEE NOTE 3, PLANS AND DETAILS FOR MECHANICAL UNIT SUPPORT FRAMING.

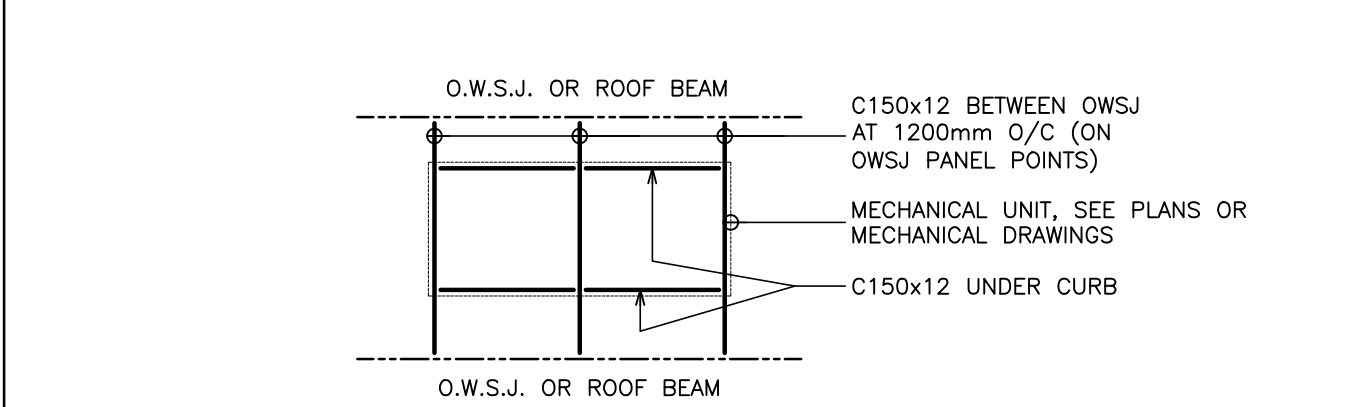
3.0 STEEL DECK LAP OVER SUPPORTING MEMBERS :



4.0 BEAM TO JOIST CONNECTION DETAIL :



5.0 TYPICAL MECHANICAL ROOF TOP UNIT SUPPORT :



- NOTES:**
- SEE MECHANICAL DRAWINGS FOR SEISMIC RESTRAINT OF MECHANICAL EQUIPMENT.
 - FOR MECHANICAL DUCT OPENINGS SEE "STEEL DECK WITHOUT CONCRETE TOPPING NOTES".

6.0 CONCRETE :

- CONCRETE IS SPECIFIED AS PER THE "PERFORMANCE" ALTERNATE AS OUTLINED IN CSA A23.1. CONCRETE IS TO BE CAST-IN-PLACE. THE USE OF SHOTCRETE FOR ANY ELEMENTS REQUIRES APPROVAL BY THE ENGINEER. ANY COSTS ASSOCIATED WITH CHANGES TO BE MADE TO THE CONTRACT DOCUMENTS TO ACCOMMODATE SHOTCRETE, AS WELL AS ANY ADDITIONAL TESTING IS TO BE PAID FOR BY THE CONTRACTOR.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR WORKING WITH THE CONCRETE SUPPLIER TO ENSURE THAT THE PLASTIC AND HARDENED MIX PROPERTIES MEET SITE REQUIREMENTS FOR PLACING, FINISHING, AND THE OWNERS' SPECIFIED PERFORMANCE REQUIREMENTS. THE GENERAL CONTRACTOR SHALL MEET THE DOCUMENTATION AND QUALITY CONTROL REQUIREMENTS OUTLINED UNDER THE "PERFORMANCE" ALTERNATE OF TABLE 5 OF CAN/CSA-A23.
- THE SUPPLIER SHALL MEET ALL CERTIFICATION AND DOCUMENTATION REQUIREMENTS AS OUTLINED UNDER THE "PERFORMANCE" ALTERNATE OF TABLE 5 OF A23.
- THE CONCRETE SUPPLIER SHALL BE CERTIFIED BY THE READY MIXED CONCRETE ASSOCIATION OF ONTARIO.
- PORTLAND CEMENT SHALL BE TYPE GU UNLESS NOTED OTHERWISE.
- CONCRETE SHALL HAVE A UNIT WEIGHT OF 23±1 kN/m³ (145±5 PCF) UNLESS NOTED OTHERWISE.
- CONCRETE PROPERTIES:

GENERAL			
ELEMENT	COMPRESSIVE STRENGTH (MPa) 28 DAY U.N.O.	EXPOSURE CLASS	COMMENTS
SLAB-ON-GRADE, FOOTINGS, CONCRETE SLAB REPAIRS (INTERIOR)	35 MPa	C-1	.
EXTERIOR CONCRETE ELEMENTS (SIDEWALKS, CURBS), RETAINING WALLS, STAIRS	35 MPa	C-1	SILICA FUME MODIFIED

- MAXIMUM WATER/CEMENT RATIO AND AIR CONTENT TO MEET THE REQUIREMENTS FOR THE EXPOSURE CLASS AS OUTLINED IN TABLE 2, 4 AND 20 OF CAN/CSA-A23.
- AT THE REQUEST OF THE OWNER, THE SUPPLIER WILL FURNISH TEST DATA RESULTS FOR EACH PROPOSED MIX DESIGN DEMONSTRATING THAT THEY MEET THE STRENGTH, DURABILITY, AND SHRINKAGE REQUIREMENTS SPECIFIED.
- CURING OF CONCRETE TO MEET THE REQUIREMENTS OF SPECIFICATION SECTION 03 01 30. NEW SLABS AND TOPPINGS ARE TO BE WELL CURED FOR MINIMUM 10 DAYS.
- ALL BOTTOM EDGES OF EXPOSED SLABS AND BEAMS, AS WELL AS EDGES OF WALLS AND COLUMNS, TO BE CHAMFERED 20mm x 20mm. ALL TOP EDGES OF EXPOSED SLABS, BEAMS, UPSTANDS AND STAIRS TO BE TOOLED UNLESS NOTED OTHERWISE. SEE ALSO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR OTHER FINISH REQUIREMENTS.
- NO CALCIUM CHLORIDE IS PERMITTED, IN ANY FORM, IN ANY CONCRETE MIX WITHOUT THE EXPRESS WRITTEN CONSENT OF READ JONES CHRISTOFFERSEN LTD.
- CURING AND PROTECTION OF CONCRETE FOR HOT, COLD OR DRY WEATHER IS TO BE AS PER CLAUSES 7.4.1.8 AND 7.4.2 OF CAN/CSA-A23 AS A MINIMUM.
- THE CONCRETE PROPERTIES USED IN DESIGN ARE BASED ON 19mm AGGREGATE, UNLESS NOTED OTHERWISE. ALL LOCATIONS FOR CONCRETE MIX DESIGNS WITH AGGREGATE SIZE SMALLER THAN 19mm PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. ANY INCREASE IN REQUIRED CONCRETE STRENGTH OR INCREASE IN QUANTITY OF REINFORCEMENT DUE TO PROPOSED USE OF CONCRETE MIX WITH AGGREGATE SIZE SMALLER THAN 19mm IS TO BE PAID FOR BY THE CONTRACTOR.
- RECYCLED AGGREGATE IS NOT TO BE USED WITHOUT WRITTEN APPROVAL BY THE ENGINEER.
- SLUMP AND AIR CONTENT TO BE PER SPECIFICATION SECTION 03 01 30.

7.0 CONCRETE TOPPING NOTES (ON STEEL DECK) :

- ALL CONCRETE TOPPING ON STEEL DECK WHICH IS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE STRUCTURAL CONCRETE TOPPING. TOPPING OR COVER SLAB THICKNESSES SHOWN ARE MEASURED FROM TOP OF DECK. TOTAL THICKNESS IS MEASURED FROM BOTTOM OF DECK TO TOP OF COVER SLAB.
- CONCRETE IS TO BE WELL VIBRATED, ESPECIALLY AT COLUMNS AND AROUND EMBEDDED METAL.
- ALL POUR JOINT LOCATIONS SHALL BE PRE-APPROVED. EXCEPT AT SLAB EDGES AND EXPANSION JOINTS, POUR JOINTS SHALL GENERALLY BE AT LOCATIONS WHICH ARE AT THE MID-SPAN OF BOTH BEAM AND DECK.
- SCREEDING SHALL CONFORM TO CAMBERS IN STRUCTURAL STEEL, TO MAINTAIN THE REQUIRED CONCRETE THICKNESSES. HOWEVER, ALLOWANCE SHOULD BE MADE FOR ADDITIONAL CONCRETE REQUIRED DUE TO STEEL DECK DEFLECTION AND STRUCTURAL STEEL TOLERANCES.
- ALL CONCRETE TOPPING SHALL BE REINFORCED. WHERE NO REINFORCING IS SHOWN ON THE DRAWINGS, USE THE FOLLOWING:
65mm COVER SLAB – WWR 152x152 – MW9.1 x MW9.1
75mm COVER SLAB – WWR 152x152 – MW11.1 x MW11.1
90mm COVER SLAB – WWR 152x152 – MW13.3 x MW13.3
100mm COVER SLAB – WWR 152x152 – MW16.0 x MW16.0 OR 10M @ 400 EACH WAY (25mm COVER FROM TOP)
- WELDED WIRE REINFORCEMENT SHALL BE SUPPORTED 25mm ABOVE STEEL DECK. LAP WIRE REINFORCEMENT A MINIMUM OF 2 CROSS WIRES + 50mm.
- U.N.O. PROVIDE 15M1000 @ 300mm ADDITIONAL TOP REINFORCING CENTERED OVER ALL SUPPORTS WHERE THE STEEL DECK IS NOT A CONTINUOUS SHEET. THIS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING LOCATIONS:
 - AT SUPPORTS WHERE THE DECK IS LAPPED.
 - AT SUPPORTS WHERE THE DECK CHANGES DIRECTION.
 - AT SUPPORTS WHERE CHANGES IN DECK ELEVATION OCCUR.
 - AT SUPPORTS WHERE THE CONCRETE TOPPING MEETS A FORMED CONCRETE SLAB.
- U.N.O. PROVIDE 15M1500 @ 500mm ADDITIONAL TOP REINFORCING CENTERED OVER ALL INTERIOR GIRDERS.
- AT ALL OPENINGS GREATER THAN 150mm, REINFORCE EACH SIDE OF THE OPENING WITH REINFORCING BARS, SEE ALSO STANDARD DETAIL AND FLOOR PLANS.
- OPENINGS SMALLER THAN 150mm X 150mm WHICH ARE CLOSER THAN 600mm SPACING SHALL HAVE 2-15M1500 PLACED BETWEEN THEM.
- ALL REINFORCING, TOP AND BOTTOM, SHALL BE CHAIRED, U.N.O.
- AT ALL RE-ENTRANT CORNERS OF BUILDING PERIMETER, PROVIDE 2-15M1500 ALONG EACH EDGE EXTENDING 600mm BEYOND THE CORNER.
- CONDUITS AND PIPES ARE NOT ALLOWED IN THE CONCRETE TOPPING ON TOP OF STEEL DECK UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
- PROVIDE SHEET METAL OR BENT STEEL CLOSURES AT EXTENTS OF CONCRETE TOPPING AS REQUIRED.
- WHERE CONCRETE TOPPING ON METAL DECK IS INDICATED TO BE COATED BY WATERPROOFING MEMBRANE, PROVIDE PERFORATED METAL DECK.

- ALL CONCRETE TOPPING SHALL BE REINFORCED. WHERE NO REINFORCING IS SHOWN ON THE DRAWINGS, USE THE FOLLOWING:
65mm COVER SLAB – WWR 152x152 – MW9.1 x MW9.1
75mm COVER SLAB – WWR 152x152 – MW11.1 x MW11.1
90mm COVER SLAB – WWR 152x152 – MW13.3 x MW13.3
100mm COVER SLAB – WWR 152x152 – MW16.0 x MW16.0 OR 10M @ 400 EACH WAY (25mm COVER FROM TOP)
- WELDED WIRE REINFORCEMENT SHALL BE SUPPORTED 25mm ABOVE STEEL DECK. LAP WIRE REINFORCEMENT A MINIMUM OF 2 CROSS WIRES + 50mm.
- U.N.O. PROVIDE 15M1000 @ 300mm ADDITIONAL TOP REINFORCING CENTERED OVER ALL SUPPORTS WHERE THE STEEL DECK IS NOT A CONTINUOUS SHEET. THIS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING LOCATIONS:
 - AT SUPPORTS WHERE THE DECK IS LAPPED.
 - AT SUPPORTS WHERE THE DECK CHANGES DIRECTION.
 - AT SUPPORTS WHERE CHANGES IN DECK ELEVATION OCCUR.
 - AT SUPPORTS WHERE THE CONCRETE TOPPING MEETS A FORMED CONCRETE SLAB.
- U.N.O. PROVIDE 15M1500 @ 500mm ADDITIONAL TOP REINFORCING CENTERED OVER ALL INTERIOR GIRDERS.
- AT ALL OPENINGS GREATER THAN 150mm, REINFORCE EACH SIDE OF THE OPENING WITH REINFORCING BARS, SEE ALSO STANDARD DETAIL AND FLOOR PLANS.
- OPENINGS SMALLER THAN 150mm x 150mm WHICH ARE CLOSER THAN 600mm SPACING SHALL HAVE 2-15M1500 PLACED BETWEEN THEM.
- ALL REINFORCING, TOP AND BOTTOM, SHALL BE CHAIRED, U.N.O.
- AT ALL RE-ENTRANT CORNERS OF BUILDING PERIMETER, PROVIDE 2-15M1500 ALONG EACH EDGE EXTENDING 600mm BEYOND THE CORNER.
- CONDUITS AND PIPES ARE NOT ALLOWED IN THE CONCRETE TOPPING ON TOP OF STEEL DECK UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
- PROVIDE SHEET METAL OR BENT STEEL CLOSURES AT EXTENTS OF CONCRETE TOPPING AS REQUIRED.
- WHERE CONCRETE TOPPING ON METAL DECK IS INDICATED TO BE COATED BY WATERPROOFING MEMBRANE, PROVIDE PERFORATED METAL DECK.

8.0 CONCRETE REINFORCEMENT :

- REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS:
A. 10M AND LARGER (U.N.O.) – CSA G30.18 GRADE 400R
B. WELDED WIRE REINFORCEMENT – CSA G30.5 GRADE 400
C. ALL REINFORCING THAT WILL BE WELDED OR IS PART OF THE SEISMIC RESISTING ELEMENTS: REINFORCING FOR SHEAR WALLS, HEADERS AND ZONES (INCLUDING ZONE TIES AND HEADER TIES/STIRRUPS) AND MOMENT FRAME COLUMNS AND BEAMS (INCLUDING COLUMN TIES AND BEAM STIRRUPS). – ASTM A775M AND ASTM D3963
D. EPOXY REINFORCING – GALVANIZED REBAR
(NOTE: CSA G30.18 W GRADES MAY BE SUBSTITUTED FOR CSA G30.18 R GRADES)
- UNLESS OTHERWISE NOTED CONCRETE COVER TO REINFORCEMENT SHALL BE:
A. FIRE RATINGS:

ELEMENT	FIRE RATINGS	
	0-2 HOURS	3 HOURS
BEAMS, GIRDERS, COLUMNS, FORMED PILES (TO TIES OR STIRRUPS)	40mm	40mm
SLABS AND SLAB BANDS, STIRRUPS IN SLAB BANDS, ZONE TIES, NON-RETAINING WALLS	25mm (30M = 30mm)	35mm

- NOTES:**
- LARGEST COVER REQUIRED GOVERNS. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATINGS.
- DESIGNATION OF REINFORCING BARS:
A. BARS SHOWN THUS _____ IN BOTTOM OF BEAMS OR SLABS OR IN FAR FACE OF WALL
BARS SHOWN THUS _____ IN TOP OF BEAMS AND SLABS OR IN NEAR FACE OF WALL
B. STRAIGHT BARS: E.G 6-10M4200 MEANS 6-10M BARS 4200 LONG.
E.G 15M3800 + 15M3200 ALT. @ 300 MEANS 1-15M3800 BAR THEN 1-15M3200 BAR SPACED 300 AWAY
BENT BARS: E.G 13-A20M4000 MEANS 13-20M BARS 4000 H.I.E. 180°.
E.G 3-C25M3000 MEANS 3-25M BARS 3000 LONG H.I.E. 90°.
(NOTE: BENT BAR LENGTHS INCLUDE HOOK DIMENSION)
 - DO NOT SUBSTITUTE DEFORMED WIRE FOR REINFORCING BARS WITHOUT PRIOR APPROVAL OF THE RJC.
 - SUPPORT REINFORCING WITH CHAIRS, ACCESSORIES, OR REINFORCING BARS AS REQUIRED. BARS USED AS SUPPORT BARS SHALL BE CONSIDERED AS ACCESSORIES
 - PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN CONCRETE COVER AS SPECIFIED. ALL SUPPORTS AND BARS MUST BE TIED TOGETHER TO MAINTAIN REINFORCING STEEL SECURELY IN PLACE DURING CONCRETE PLACEMENT.
 - TESTING OF REINFORCING STEEL SHALL CONFORM TO THE SPECIFICATIONS.

CONCRETE STRENGTH	FUNCTION	REBAR DESIGNATION					
		10M	15M	20M	25M	30M	35M
20 MPa	EMBEDMENT	325	485	645	1010	1210	1410
	(SPUCE)	(420)	(630)	(840)	(1310)	(1570)	(1835)
25 MPa	EMBEDMENT	300	435	580	900	1080	1260
	(SPUCE)	(390)	(565)	(750)	(1170)	(1405)	(1640)
30 MPa	EMBEDMENT	300	395	530	825	990	1155
	(SPUCE)	(390)	(515)	(685)	(1070)	(1285)	(1500)
35 MPa	EMBEDMENT	300	370	490	765	915	1065
	(SPUCE)	(390)	(475)	(635)	(900)	(1190)	(1385)

CASE 2 CONDITIONS

- TENSION EMBEDMENT AND SPICE LENGTHS CONFORMING TO CAN/CSA-A23.3-04 TABLE 12.1 (0.6k₁k₂k₃k₄f_yd_b/f_c) ARE TO BE AS PER THE FOLLOWING TABLE FOR MEMBERS NOT SATISFYING CASE 1 CONDITIONS AS SET OUT ABOVE. FOR EXAMPLE:
- ONE WAY SLAB TOP BARS (SEE TOP BAR NOTE).
 - SLAB BAND BOTTOM BARS.
 - BARS (EXCLUDING THE SPUCE) SPACED CLOSER TOGETHER THAN 2 BAR DIAMETERS.
 - STIRRUPS IN BEAMS, GIRDERS AND TRANSFER SLABS.
 - SEE ALSO NOTES ON TOP BARS AND EPOXY COATED REINFORCEMENT.

CONCRETE STRENGTH	FUNCTION	REBAR DESIGNATION					
		10M	15M	20M	25M	30M	35M
20 MPa	EMBEDMENT	430	645	860	1345	1610	1880
	(SPUCE)	(560)	(840)	(1120)	(1745)	(2095)	(2445)
25 MPa	EMBEDMENT	385	580	770	1200	1440	1680
	(SPUCE)	(500)	(750)	(1000)	(1560)	(1875)	(2185)
30 MPa	EMBEDMENT	355	530	705	1100	1315	1535
	(SPUCE)	(460)	(685)	(915)	(1425)	(1710)	(1995)
35 MPa	EMBEDMENT	325	490	650	1015	1220	1420
	(SPUCE)	(425)	(635)	(845)	(1320)	(1585)	(1850)

- NOTES:**
- "TOP BAR" VALUES ARE 1.3 TIMES THE ABOVE LENGTHS. "TOP BAR" APPLIES TO HORIZONTAL REINFORCEMENT CAST WITH 300mm OR MORE OF CONCRETE BELOW THE BAR.
 - INCREASE THESE TABLE LENGTHS BY 1.5 TIMES FOR EPOXY COATED REINFORCEMENT. INCREASE THESE TABLE LENGTHS BY 1.7 TIMES FOR EPOXY COATED TOP REINFORCEMENT.

9.0 CONCRETE ANCHORS :

- EXCEPT WHERE INDICATED ON THE DRAWINGS, ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI (CANADA) LTD. CONTACT HILTI AT (800) 363-4458 FOR PRODUCT RELATED QUESTIONS.
 - "EPOXY ANCHOR" MEANS A:
 - HIT-HY 200 SAFE SET SYSTEM OR HIT-HY 200 FOR FAST CURE APPLICATIONS.
 - HIT-RE 500 OR HIT-RE 500 SD ADHESIVE ANCHOR FOR SLOW CURE APPLICATION.
 - "SCREENED EPOXY ANCHOR" MEANS A "HIT HY 70 ADHESIVE ANCHOR".
 - "KWIK BOLT" MEANS A "KWIK BOLT TZ OR KWIK BOLT 3 EXPANSION ANCHOR", TO BE SELECTED BASED ON APPLICATION REQUIREMENTS.
 - "HSL" MEANS AN "HSL HEAVY-DUTY EXPANSION ANCHOR".
- ANCHOR CAPACITY USED IN DESIGN IS BASED ON GUIDELINES PUBLISHED BY HILTI. ALTERNATE FASTENING SYSTEMS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. ALTERNATE ADHESIVE ANCHORS MUST BE EQUAL CONSIDERING LOAD RESISTANCE, IN SERVICE AND INSTALLATION TEMPERATURE, AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS, CREEP TESTING, SEISMIC TESTING, AND APPROPRIATE ON SITE TRAINING.
- INSTALL AS PER THE MANUFACTURER'S SPECIFICATION. WEDGE ANCHORS TO HAVE HOLES CLEANED WITH HIGH PRESSURE AIR BLAST. ADHESIVE (EPOXY) ANCHORS TO HAVE HOLES WELL CLEANED WITH HIGH PRESSURE AIR BLAST FOLLOWED BY BRUSHING THEN HIGH PRESSURE AIR BLAST. USE STEEL WIRE BRUSH ON CONCRETE AND NYLON BRUSH ON MASONRY.
- OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE HILTI PROFI SYSTEM.
- ON-SITE TRAINING AND REVIEW BY HILTI:**
THE CONTRACTOR SHALL RETAIN A HILTI REPRESENTATIVE TO PROVIDE ON-SITE ANCHOR INSTALLATION TRAINING FOR ALL OF THE HILTI PRODUCTS SPECIFIED. THE CONTRACTORS PERSONNEL MUST BE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS. LETTERS OF TRAINING FOR OF INSTALLERS TO BE SUBMITTED TO RJC.
THE CONTRACTOR IS TO RETAIN AN INDEPENDENT TESTING AGENCY TO PROVIDE AN ON-GOING SERVICE OF ON-SITE QUALITY CONTROL REVIEWS TO ENSURE THAT ANCHORS ARE BEING INSTALLED IN ACCORDANCE TO HILTI (CANADA) LIMITED'S SPECIFICATIONS. QUALITY ASSURANCE REPORTS FROM THE HILTI REPRESENTATIVE ARE TO BE SUBMITTED TO RJC AFTER EACH SITE VISIT.
A REPRESENTATIVE SAMPLE OF ANCHORS ARE TO BE TESTED FOR EACH TYPE OF ANCHOR SPECIFIED. ANCHORS WHICH FAIL THE LOAD TEST SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S COST.
- TESTING OF EPOXY ANCHORS:**
PROVIDE TESTING OF EPOXY ANCHORS BY THE PROJECT MATERIALS CONSULTANT / TESTING AGENCY AS FOLLOWS:
 - PROOF LOAD TEST 10% OF EPOXY ANCHORS TO MANUFACTURER'S SPECIFIED CAPACITY.
 - RANDOMLY SELECT 2% OF EPOXY ANCHORS (3 MINIMUM) FOR TESTING TO FAILURE. CONTRACTOR TO REPLACE ANCHORS AT CONTRACTOR'S COST.
 - THE ABOVE TESTING IS PAID FOR BY THE OWNER. THE FOLLOWING TESTING IS PAID FOR BY THE CONTRACTOR:
 - IF ANY PROOF LOAD TEST FAILS, TEST 100% OF ANCHORS.
 - IF ANY ANCHORS ARE FOUND TO BE INSTALLED WITHOUT COMPLETE EPOXY OR ARE EMBEDDED LESS THAN 90% OF THE DEPTH SHOWN ON THE DRAWINGS, THEN PROOF LOAD TEST 100% OF THE ANCHORS.
 - PROVIDE FULL TIME FIELD REVIEW OF ALL REPAIRS BY MATERIALS CONSULTANT / TESTING AGENCY.
- THE TESTING AGENCY IS TO PROVIDE A TESTING AND REPAIR REPORT SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OR TERRITORY WHERE THE WORK IS DONE.
- ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
- DO NOT CUT REINFORCING BARS TO INSTALL ANCHORS UNLESS THE STRUCTURAL DRAWINGS SPECIFICALLY NOTE FOR A PARTICULAR DETAIL THAT THE REINFORCING BARS IN THE CONCRETE CAN BE CUT.
- EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF CONCRETE ANCHORS, BY HILTI RERROSCAN, HILTI PS 1000, GPR, X-RAY, CHIPPING OR OTHER MEANS, BEFORE ANY HOLES ARE DRILLED.
- WHEN ANCHORS ARE USED TO ATTACH STRUCTURAL STEEL, THE CONTRACTOR SHALL USE A TEMPLATE TO LOCATE THE ANCHOR HOLES. IF THIS IS NOT DONE, THEN UPON COMPLETION OF ANCHOR INSTALLATION, THE CONTRACTOR SHALL PREPARE TEMPLATES OF THE AS-BUILT ANCHOR POSITIONS. THE CONTRACTOR SHALL REFER TO THESE TEMPLATES FOR THE FABRICATION OF THE STEEL STRUCTURE.
AT LOCATIONS OF INTERFERENCE BETWEEN CONCRETE ANCHORS AND EXISTING REINFORCEMENT, ADJUST THE LOCATION OF ANCHORS AS REQUIRED TO AVOID CUTTING REINFORCEMENT. SUBMIT A PROPOSED ANCHOR LAYOUT TO RJC FOR REVIEW AND APPROVAL BEFORE INSTALLING ANCHORS.
- DO NOT OVERSIZE HOLES IN STEEL MATERIAL TO FIT ANCHOR LOCATIONS EXCEPT FOR COLUMN BASE PLATE HOLES WHICH ARE FABRICATED SLIGHTLY OVERSIZED AS PER STANDARD PRACTICE.

10. EMBEDMENT / DEVELOPMENT LENGTHS AND SPICE LENGTHS :

- BASED ON CAN/CSA-A23.3
- WHERE EMBEDMENT OR SPICES ARE DIMENSIONED ON THE DRAWINGS, SUCH DIMENSION SHALL APPLY.
- WHERE THE DRAWINGS INDICATE A COMPRESSION EMBEDMENT, IT IS A COMPRESSION EMBEDMENT LENGTH AND IT SHALL BE AS NOTED BELOW.
- WHERE THE DRAWINGS INDICATE A TENSION EMBEDMENT, IT IS A TENSION EMBEDMENT LENGTH AND SHALL BE AS NOTED BELOW.
- WHERE NO EMBEDMENT OR EMBEDMENT TYPE IS CALLED FOR ON THESE DRAWINGS, IT SHALL BE A TENSION EMBEDMENT, EXCEPT FOR COLUMNS WHICH SHALL BE A COMPRESSION EMBEDMENT.
- WHERE NO SPUCE OR SPUCE TYPE IS CALLED FOR ON THESE DRAWINGS, IT SHALL BE A TENSION SPUCE, EXCEPT FOR COLUMNS WHICH SHALL BE A COMPRESSION SPUCE.
- IN TABLES BELOW, EMBEDMENT LENGTHS ARE SHOWN WITHOUT BRACKETS, AND SPICE LENGTHS ARE SHOWN IN BRACKETS. ALL LENGTHS ARE FOR F_y = 400 MPa REBAR. FOR F_y=500 MULTIPLY VALUES IN TABLES BELOW BY 1.25.
- ALL TENSION SPICE LENGTHS ARE CLASS "B" (1.3gd).
- COMPRESSION EMBEDMENT AND SPICE LENGTHS**
- COMPRESSION EMBEDMENT REFERS TO THE LENGTH REQUIRED TO PROVIDE THE "COMPRESSION DEVELOPMENT LENGTH" AS DEFINED IN CAN/CSA-A23.3-04 CLAUSE 12.3.2.
 - SPICE LENGTH REFERS TO THE MINIMUM LAP LENGTH REQUIRED FOR A COMPRESSION SPUCE AS DEFINED IN CAN/CSA-A23.3-04 CLAUSE 12.16.1.

CONCRETE STRENGTH	FUNCTION	REBAR DESIGNATION					
		10M	15M	20M	25M	30M	35M
20 MPa	EMBEDMENT	215	325	430	430	645	755
	(SPUCE)	(300)	(440)	(585)	(585)	(880)	(1025)
25 MPa	EMBEDMENT	200	290	385	385	580	675
	(SPUCE)	(300)	(440)	(585)	(585)	(880)	(1025)
30 MPa & GREATER	EMBEDMENT	200	265	355	355	530	620
	(SPUCE)	(300)	(440)	(585)	(585)	(880)	(1025)

TENSION EMBEDMENT AND SPICE LENGTHS

- TENSION EMBEDMENT REFERS TO THE LENGTH REQUIRED TO PROVIDE A "TENSION DEVELOPMENT LENGTH" AS DEFINED IN CAN/CSA-A23.3-04 CLAUSE 12.2.3.
- SPICE LENGTH REFERS TO THE MINIMUM LAP LENGTH REQUIRED FOR A CLASS 'B' TENSION SPUCE (1.3gd) AS PER CAN/CSA-A23.3-04 CLAUSE 12.15.

CASE 1 CONDITIONS

- TENSION EMBEDMENT AND SPICE LENGTHS CONFORMING TO CAN/CSA-A23.3-04 TABLE 12.1 (0.45k₁k₂k₃k₄f_yd_b/f_c) ARE TO BE AS PER THE FOLLOWING TABLE FOR:
- COLUMNS.
 - BEAM AND GIRDER TOP AND BOTTOM BARS.
 - SLAB BAND TOP BARS.
 - TWO WAY SLAB TOP AND BOTTOM BARS.
 - ONE WAY SLAB BOTTOM BARS.
 - WALL HORIZONTAL AND VERTICAL DISTRIBUTED REINFORCING.
 - SEE ALSO NOTES ON TOP BARS AND EPOXY COATED REINFORCEMENT.
 - MEMBERS WHICH DO NOT SATISFY THE ABOVE CONDITIONS SHALL HAVE TENSION EMBEDMENTS AND SPICES AS PER CASE 2 TABLE BELOW.

NOTE: This drawing is the property of the architect and may not be reproduced or used without the expressed consent of the architect. The contractor shall be responsible for checking and verifying all levels and dimensions and shall report all discrepancies to the architect and obtain clarification prior to commencing work. Not for construction unless stamped by the architect and issued for such purpose.

NOTE: The Region of Durham assumes no responsibility for the accuracy of existing services as indicated on this drawing.

DO NOT SCALE DRAWINGS

PRIME CONSULTANT

rjc Creative Thinking Practical Results

Read Jones Christoffersen Ltd.
Engineers
rjc.ca
100 University Avenue,
North Tower, Suite 400
Toronto, ON M5J 1V6 Canada
Tel: 416-977-0338
Fax: 416-977-1427

DESIGN BY: B.T.

DRAWN BY: S.S.

CHECKED BY: B.T.

APPROVED BY: B.T.

SCALE: As indicated

DATE: 2025-09-18

CONSULTANT PROJECT NO. TOR.137374.0007

ISSUE DATE: ISSUE DATE

2	2025-09-18	IFT
1	2025-07	

PRIME CONSULTANT



Riad Jones Christoffersen Ltd.
Engineers
rjc.ca
100 University Avenue,
North Tower, Suite 400
Toronto, ON M5J 1V6 Canada
Tel: 416-977-5535
Fax: 416-977-1427

DESIGN BY:	B.T.
DRAWN BY:	S.S.
CHECKED BY:	B.T.
APPROVED BY:	B.T.
SCALE:	As indicated
DATE:	2025-09-18
CONSULTANT PROJECT NO.	TOR.137374.0007

ISSUE DATE:	ISSUE DATE
2	2025-09-18 IFT
1	2025-07-17 ISSUED FOR BUILDING PERMIT

NO.	DATE	DESCRIPTION
-----	------	-------------

SEAL:	PROJECT NORTH



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION &
ASSET MANAGEMENT

PROJECT:
PHASE 2 RENOVATIONS

1635 DUNDAS STREET EAST
WHITBY, ONTARIO

SHEET TITLE:

STRUCTURAL FIRST FLOOR RENOVATION PLAN

PROPERTY NO. RP-W-42	FACILITY CODE SS-W-02
FACILITIES PROJECT NO. SS-W-02-23-01	CONTRACT NO. RFP-1048-2025

SHEET NO.
S1.1

LEGEND:

	AREA OF WORK
	EXISTING 250mm CONCRETE BLOCK FOUNDATION WALLS ON STRIP FOOTING
	EXISTING MASS STONE FOUNDATION WALLS

RENOVATION NOTES:

- REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ELEVATIONS, AND FINISH REQUIREMENTS.
- COORDINATE THE REQUIREMENTS OF THE STRUCTURAL WORK WITH THE ARCHITECTURAL, BUILDING ENVELOPE, MECHANICAL, AND ELECTRICAL DRAWINGS. REPORT ANY DISCREPANCIES PRIOR TO UNDERTAKING THE WORK FOR CLARIFICATION.
- REVIEW THE EFFECT OF DEMOLITION WITH RJC PRIOR TO COMMENCING THE WORK.
- CONTRACTOR SHALL DESIGN, INSTALL, AND MAINTAIN ALL TEMPORARY WORKS AND SHORING AS REQUIRED TO CARRY OUT THE WORK. SUBMIT SHOP DRAWINGS SEALED BY THE CONTRACTOR'S SPECIALTY ENGINEER FOR REVIEW, PRIOR TO INSTALLATION.
- CONTRACTOR SHALL VERIFY ON SITE ALL CRITICAL AS-BUILT DIMENSIONS AND ELEVATIONS FOR ALL NEW STRUCTURAL ELEMENTS, PRIOR TO SUBMITTING SHOP DRAWINGS.
- SCAN OR X-RAY STRUCTURAL CONCRETE ELEMENTS TO LOCATE ALL EMBEDDED ITEMS (I.E.: REBAR, CONDUIT, ETC.) PRIOR TO CORING OR DRILLING. NOTIFY RJC 24 HOURS IN ADVANCE TO REVIEW PROPOSED CORE OR DRILL HOLE LOCATIONS. DO NOT SEVER EMBEDDED ITEMS TO REMAIN WITHOUT WRITTEN PERMISSION FROM RJC.
- DO NOT CUT OR MODIFY EXISTING STRUCTURAL MEMBERS WITHOUT WRITTEN AUTHORIZATION FROM RJC.
- CONTRACTOR SHALL MAKE PROVISIONS TO REMOVE AND REINSTATE ALL ARCHITECTURAL FINISHES, BRICK VENEER, AND EXISTING SERVICES REQUIRED TO CARRY OUT THE STRUCTURAL WORK. COORDINATE WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS, AND MAKE NOTE OF AFFECTED FINISHES DURING PRE-BID WALKTHROUGH.
- OBTAIN UTILITY LOCATES PRIOR TO EXCAVATION. DO NOT DAMAGE EXISTING SERVICES TO REMAIN.
- REFER TO DETAIL 1/S2.1 FOR TYPICAL SLAB-ON-GRADE TRENCHING REPAIR. COORDINATE EXTENTS OF SLAB-ON-GRADE TRENCHING LAYOUTS WITH MECHANICAL DRAWINGS FOR NEW BELOW-GRADE SERVICES.
- REFER TO SPECIFICATION SECTION 04 22 00 FOR CONCRETE MASONRY UNIT BLOCK INSTALLATION REQUIREMENTS.
- PERFORM ADDITIONAL LOCALIZED CMU BLOCK REPLACEMENTS PER DETAIL 8/S2.1 AS DIRECTED BY THE CONSULTANT. INCLUDE FOR UP TO 100 UNITS OF CMU BLOCK REPLACEMENTS.

LINTELS

OVER ALL OPENINGS IN MASONRY WALLS PROVIDE THE FOLLOWING LINTELS, UNLESS OTHERWISE SHOWN.

STEEL LINTELS

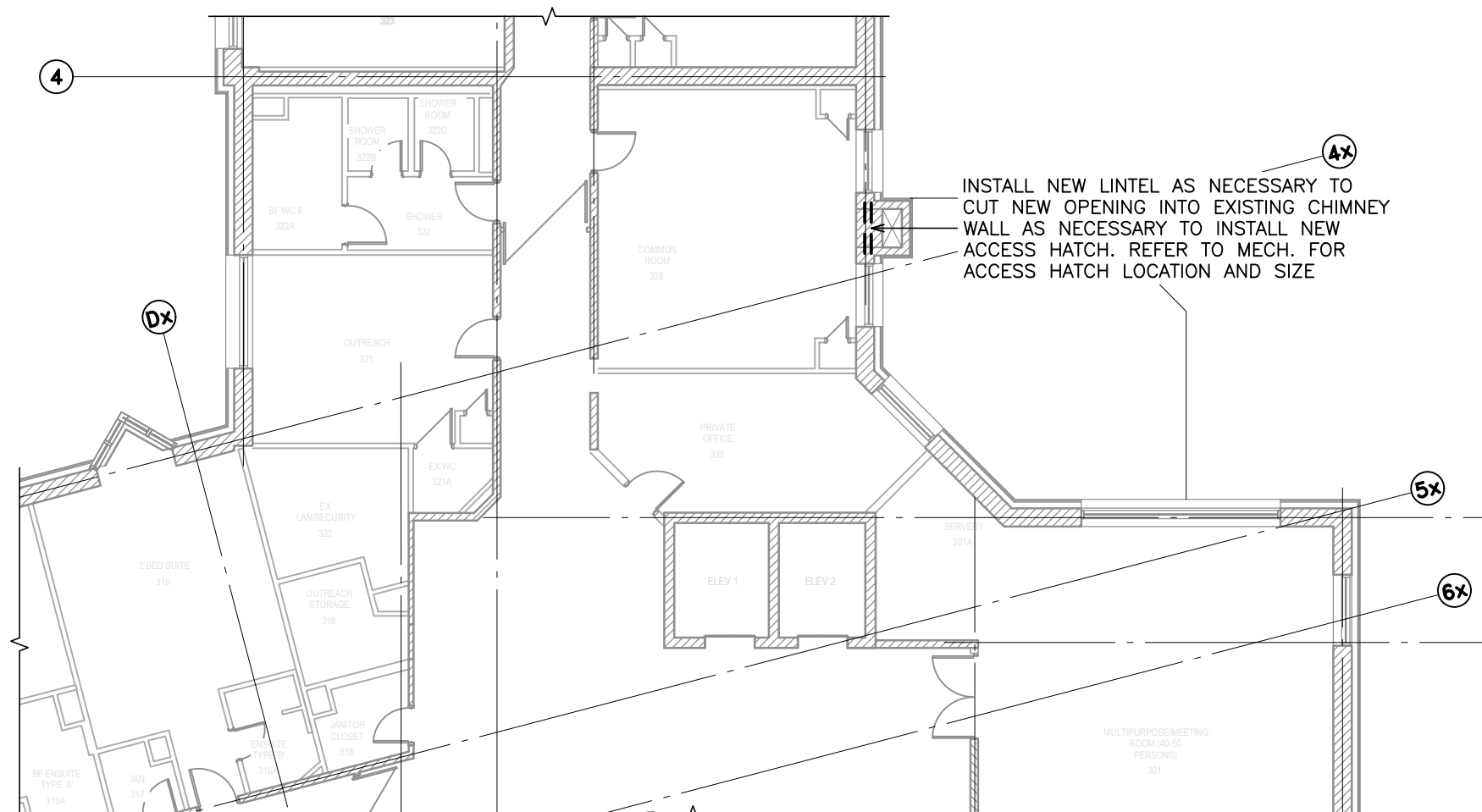
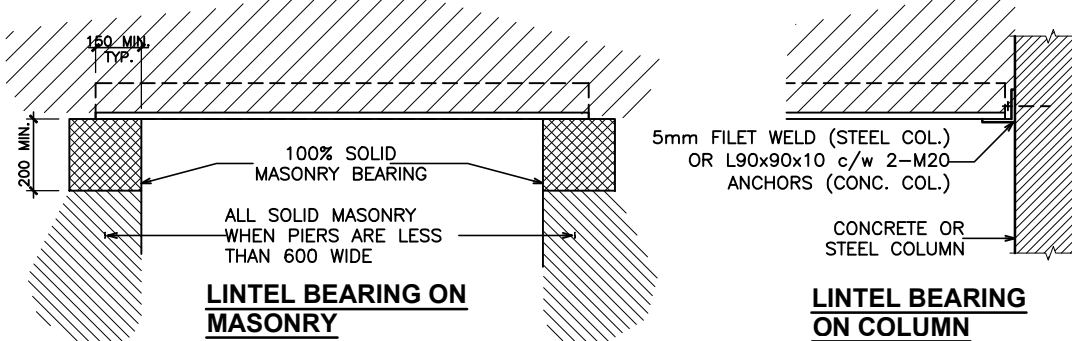
CLEAR SPAN mm	140mm WALL	190mm WALL	240mm WALL	290mm WALL
UP TO 1200	2 - L64x64x6.4	2 - L89x89x7.9	L89x89x7.9 + L127x89x7.9LLV	3-L89x89x7.9
1201 TO 1800	2 - L89x64x6.4LLV	2 - L127x89x7.9LLV	L127x89x7.9LLV + L127x127x7.9	3-L127x89x7.9 LLV
1800 TO 2400		2 - L127x89x9.5LLV	L127x89x9.5LLV + L127x127x9.5	3-L127x89x9.5 LLV
2401 TO 3000	2 - L89x64x9.5LLV	2 - L152x89x9.5LLV	L152x89x9.5LLV + L127x127x9.5	3-L152x89x9.5 LLV

BLOCK WYTHES

FOR EACH 100mm LENGTH OF WALL

CLEAR SPAN mm	SIZE
UP TO 1200	L 89x89x7.9
1201 TO 1800	L 127x89x7.9 (LLV)
1800 TO 2400	L 152x89x7.9 (LLV)

- WELD BACK TO BACK ANGLES TOGETHER TOP AND BOTTOM WITH 5mm FILLET 50mm LONG AT 450mm MAXIMUM CENTERS.
- MINIMUM BEARING FOR STEEL LINTELS SHALL BE 150mm AND BLOCK LINTELS SHALL BE 200mm.
- FOR WALLS OVER 300mm THICK ADD ONE ANGLE FOR EACH ADDITIONAL 100mm OF WALL THICKNESS OR PORTION THEREOF.
- FOR LINTELS ABUTTING STEEL COLUMNS, CONC WALL OR COLUMNS PROVIDE L90x90x10 SHELF ANGLE.
- ALL STEEL LINTELS AND SHELF ANGLES IN THE EXTERIOR MASONRY SHALL BE HOT DIP GALVANIZED.



NOTE: The Region of Durham assumes no responsibility for the accuracy of existing services as indicated on this drawing.

DO NOT SCALE DRAWINGS



Read Jones Christoffersen Ltd.
Engineers
rjc.ca

100 University Avenue,
North Tower, Suite 400
Toronto, ON M5J 1V8 Canada
tel 416-977-5335
fax 416-977-1427

ISSUE DATE:		ISSUE DATE
2	2025-09-18	IFT
1	2025-07-17	ISSUED FOR BUILDING PERMIT

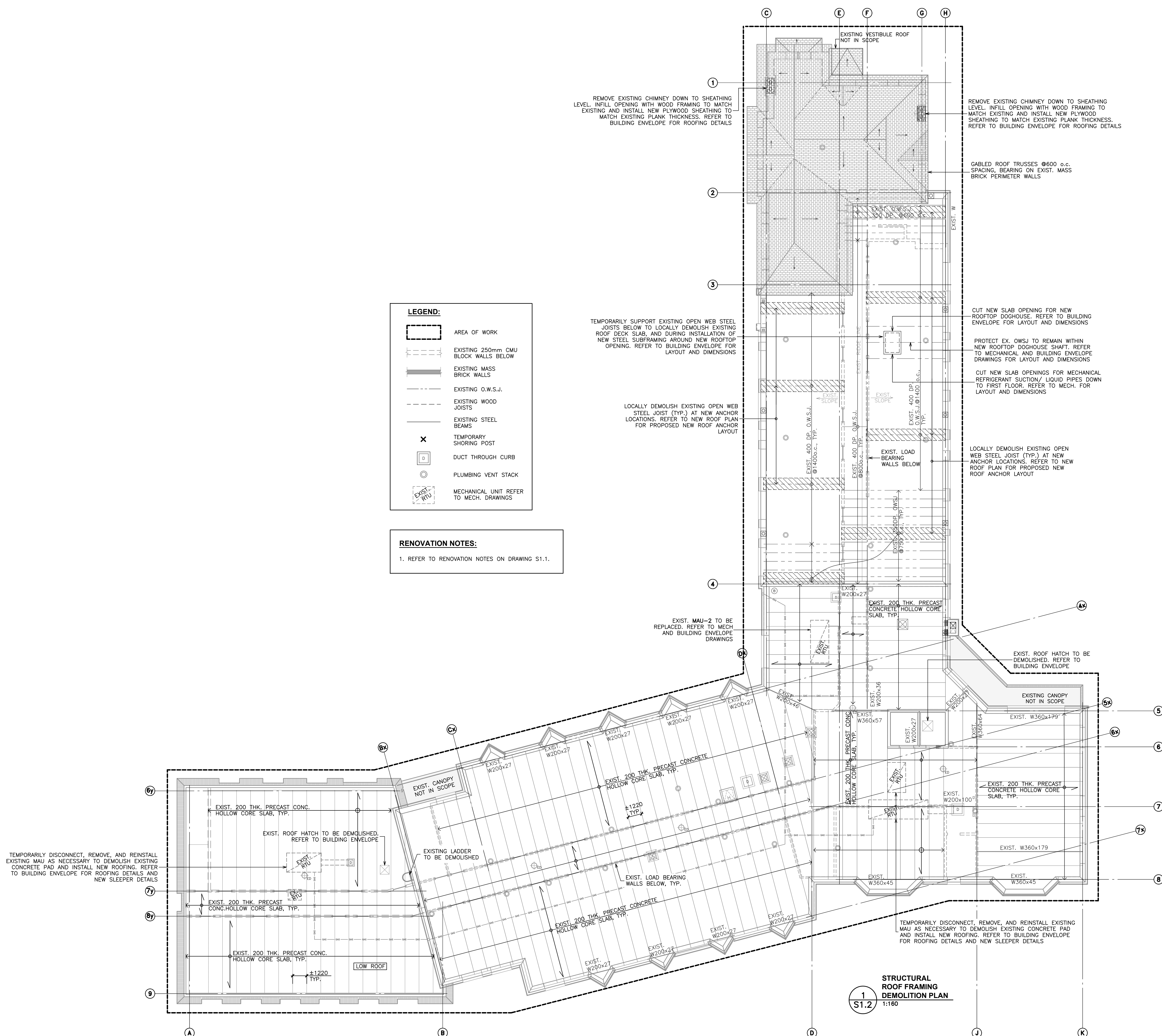
SEAL:	PROJECT NORTH
	



PROJECT:
PHASE 2 RENOVATIONS

STRUCTURAL ROOF FRAMING DEMOLITION PLAN

S1.2



NOTE: The Region of Durham assumes no responsibility for the accuracy of existing services as indicated on this drawing.

DO NOT SCALE DRAWINGS

 **Read Jones Christoffersen Ltd.**
Engineers
rjc.ca

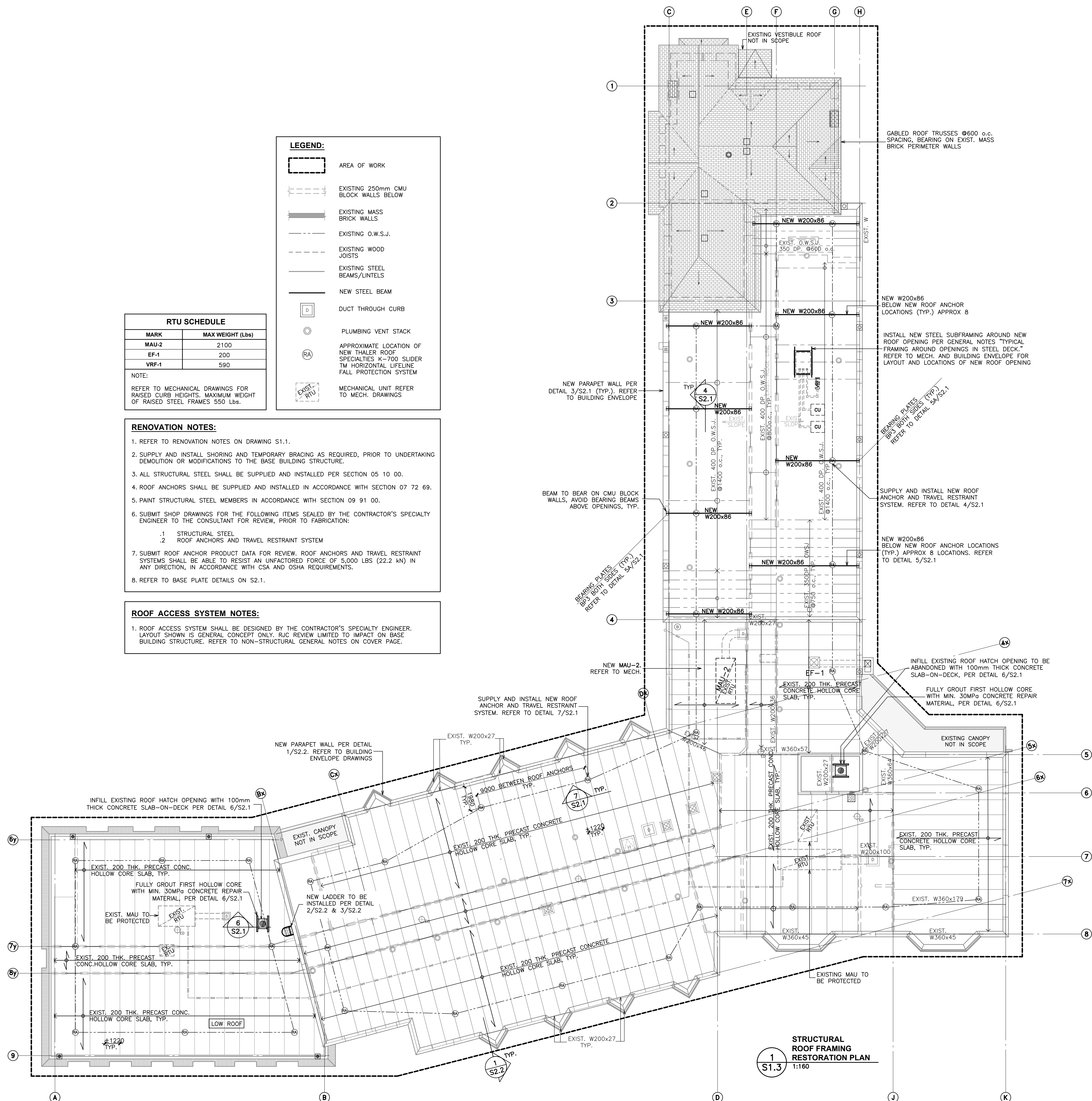
100 University Avenue,
North Tower, Suite 400
Toronto, ON M5J 1V6 Canada
tel 416-977-5335
fax 416-977-1427

ISSUE DATE:		ISSUE DATE
2	2025-09-18	IFT
1	2025-07-17	ISSUED FOR BUILDING PERMIT

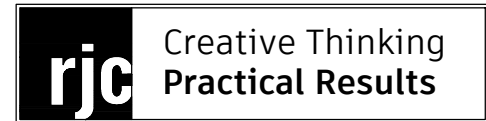
NO.	DATE	DESCRIPTION
-----	------	-------------



S1.3



PRIME CONSULTANT



Riad Jones Christoffersen Ltd.
Engineers
rjc.ca
100 University Avenue,
North Tower, Suite 400
Toronto, ON M5J 1V6 Canada
tel. 416-977-5535
fax 416-977-1427

DESIGN BY:	B.T.
DRAWN BY:	S.S.
CHECKED BY:	B.T.
APPROVED BY:	B.T.
SCALE:	As indicated
DATE:	2025-09-18
CONSULTANT PROJECT NO.	TOR.137374.0007

ISSUE DATE:	ISSUE DATE
2	2025-09-18 IFT
1	2025-07-17 ISSUED FOR BUILDING PERMIT

NO.	DATE	DESCRIPTION
-----	------	-------------

SEAL:	PROJECT NORTH
-------	---------------



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION &
ASSET MANAGEMENT

PROJECT:
PHASE 2 RENOVATIONS

1635 DUNDAS STREET EAST
WHITBY, ONTARIO

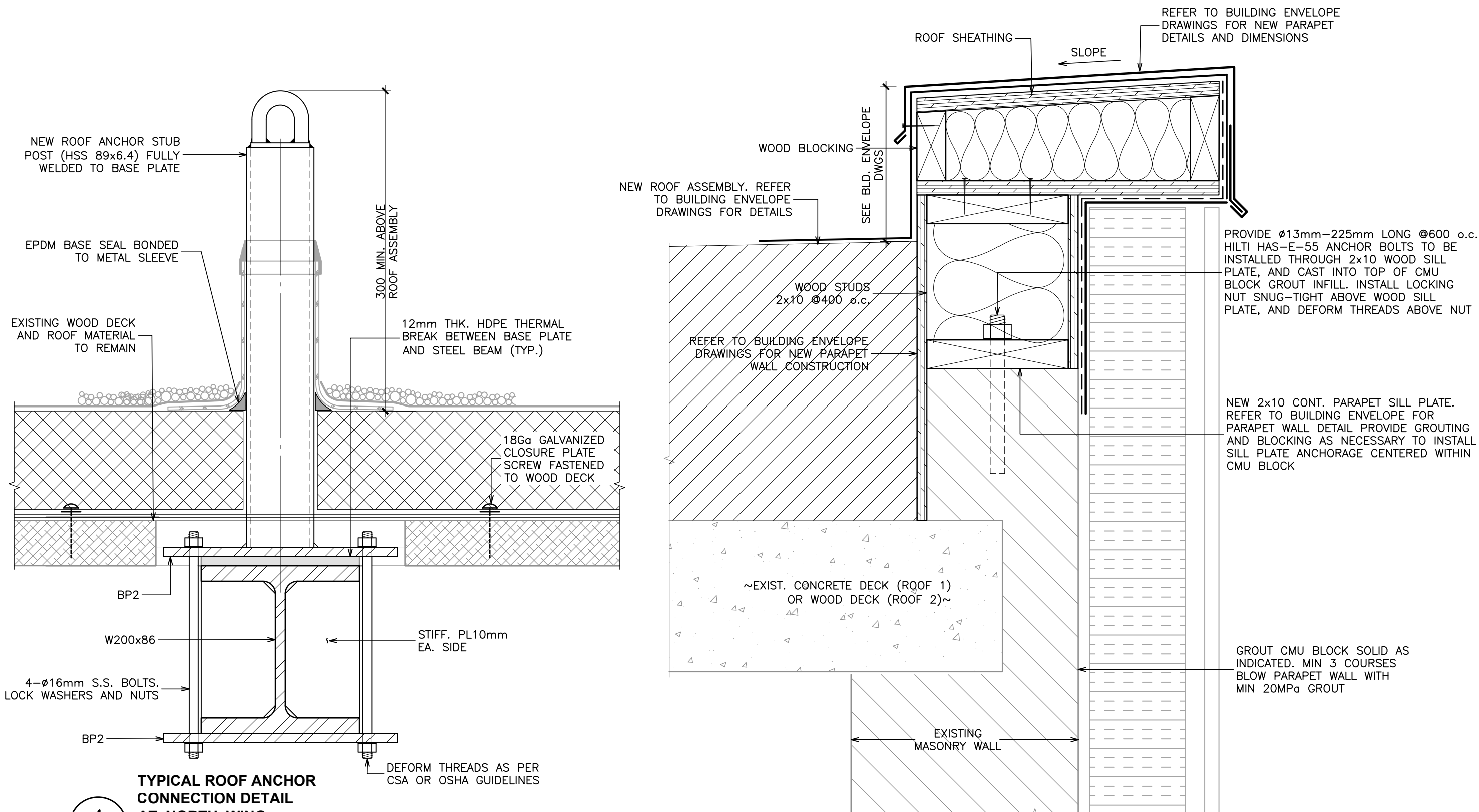
SHEET TITLE:

STRUCTURAL SECTIONS AND DETAILS

PROPERTY NO. RP-W-42	FACILITY CODE SS-W-02
FACILITIES PROJECT NO. SS-W-02-23-01	CONTRACT NO. RFP-1048-2025

SHEET NO.

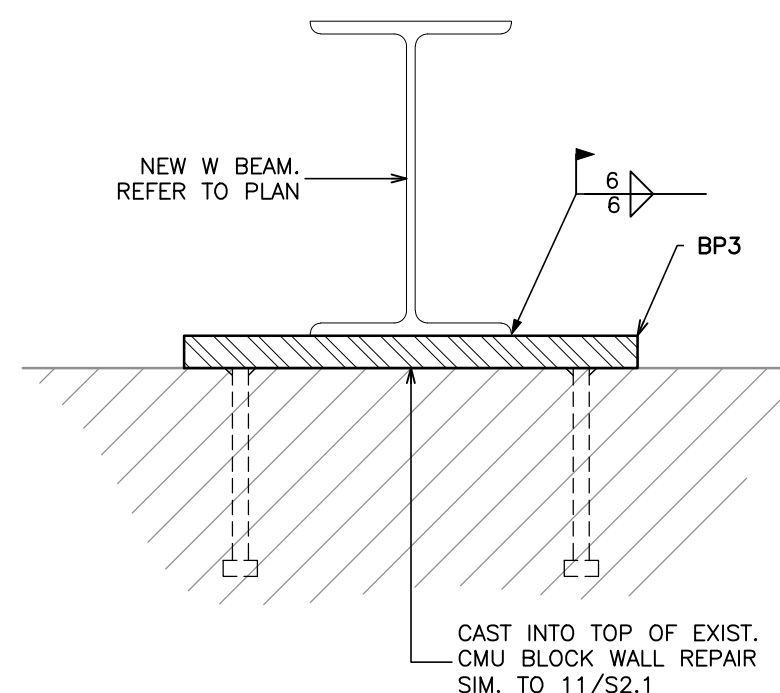
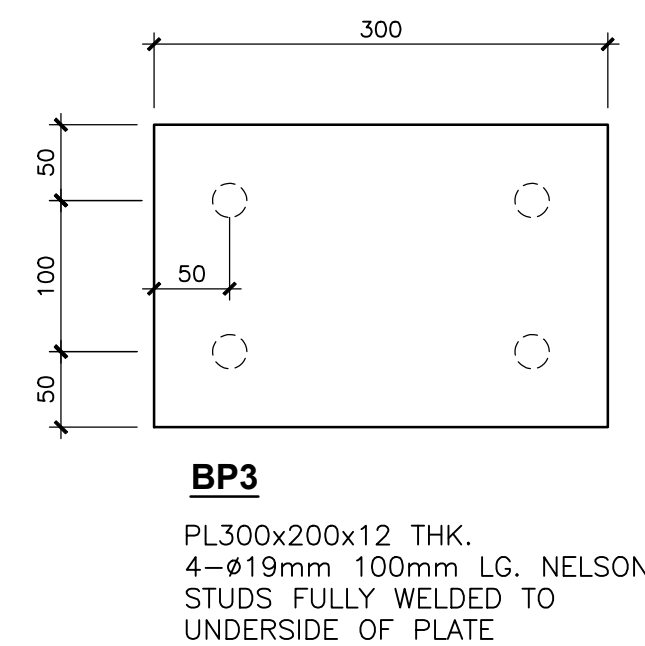
S2.1



NOTE:

- COORDINATE PARAPET WALL ANCHORAGE DETAIL BASED ON AS-BUILT CONDITIONS AND RELEVANT BUILDING ENVELOPE PARAPET WALL CONSTRUCTION DETAIL. PERFORM DETAIL 3/S2.1 WHERE CONCRETE SLAB-ON-DECK OR WOOD DECK IS PRESENT.

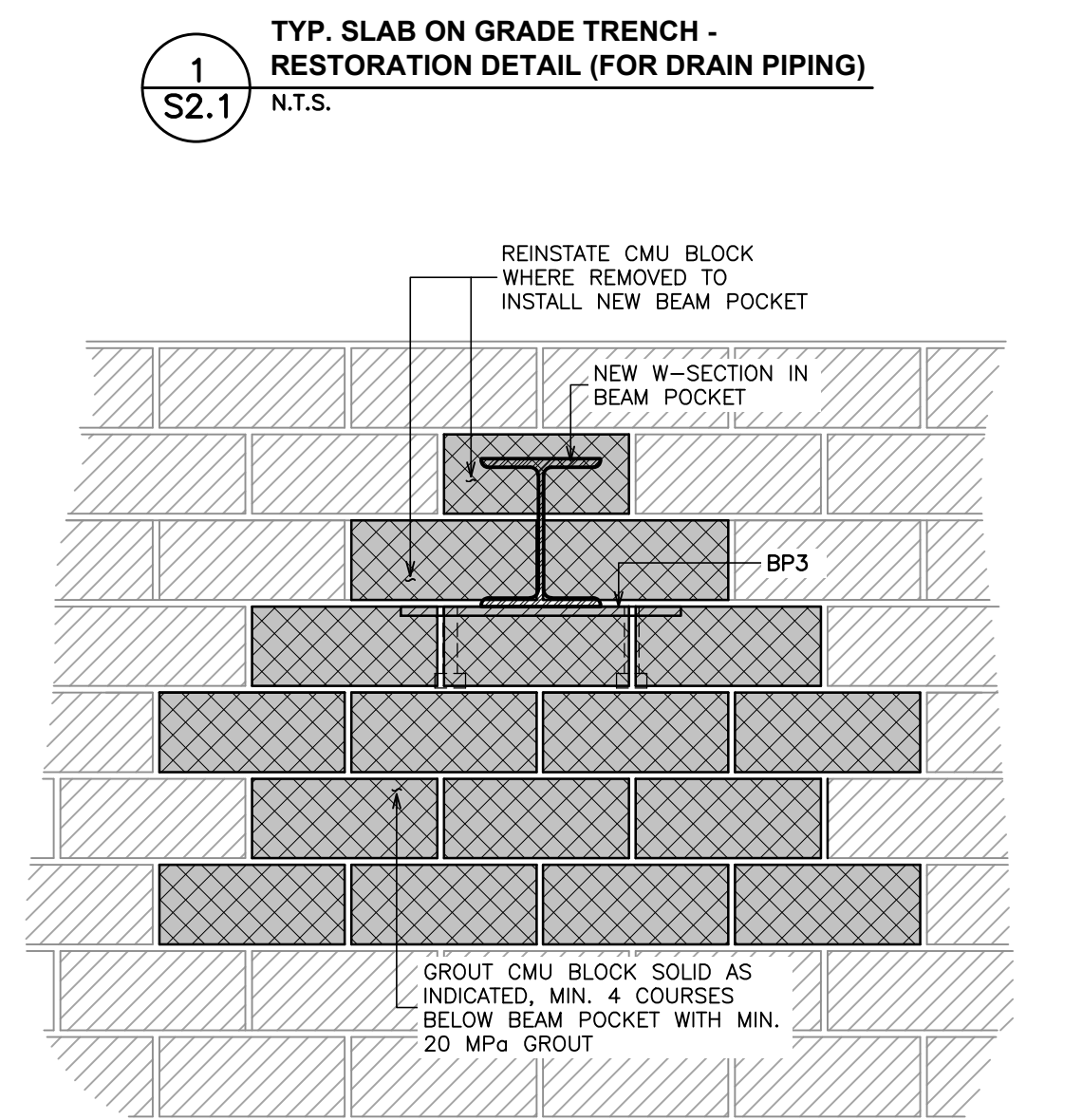
3 S2.1 PARAPET WALL DETAIL 1:5



1 S2.1 TYP. SLAB ON GRADE TRENCH - RESTORATION DETAIL (FOR DRAIN PIPING) N.T.S.

NOTE:

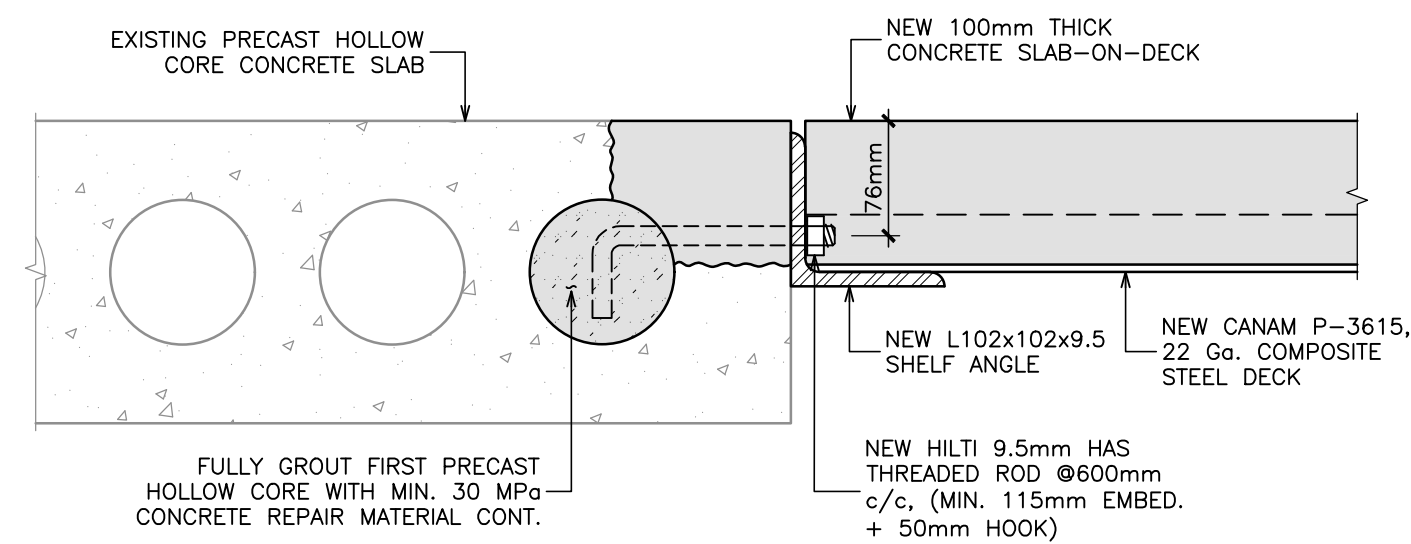
- PROVIDE SAWCUT CONTROL JOINTS IN NEW SECTION OF SLAB TO MATCH EXISTING JOINTS ON ADJACENT SLAB SURFACE.



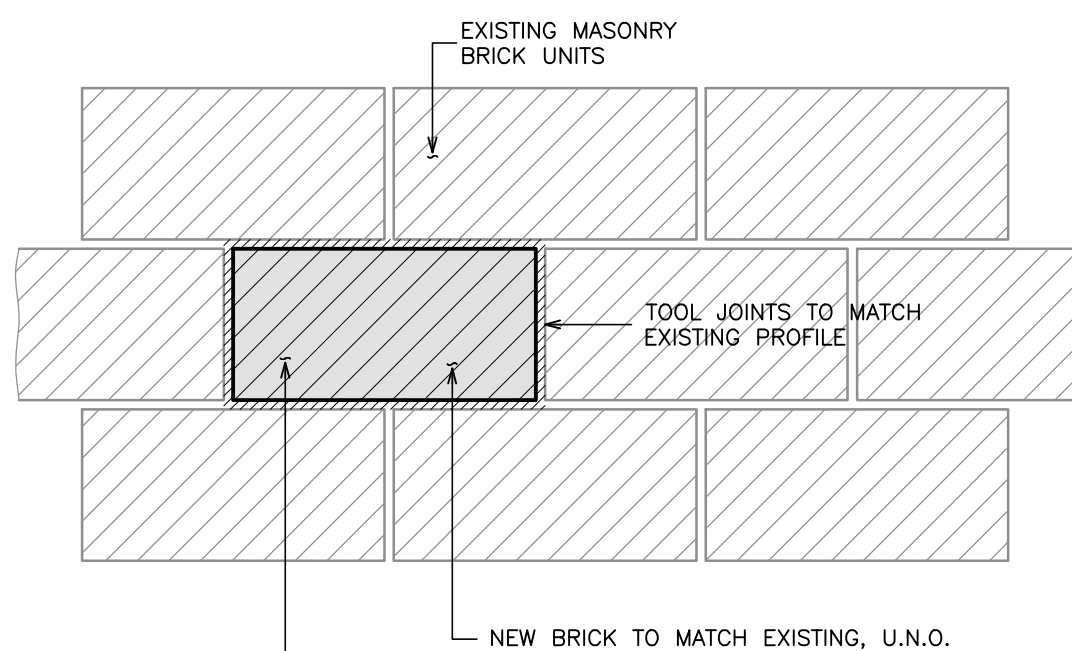
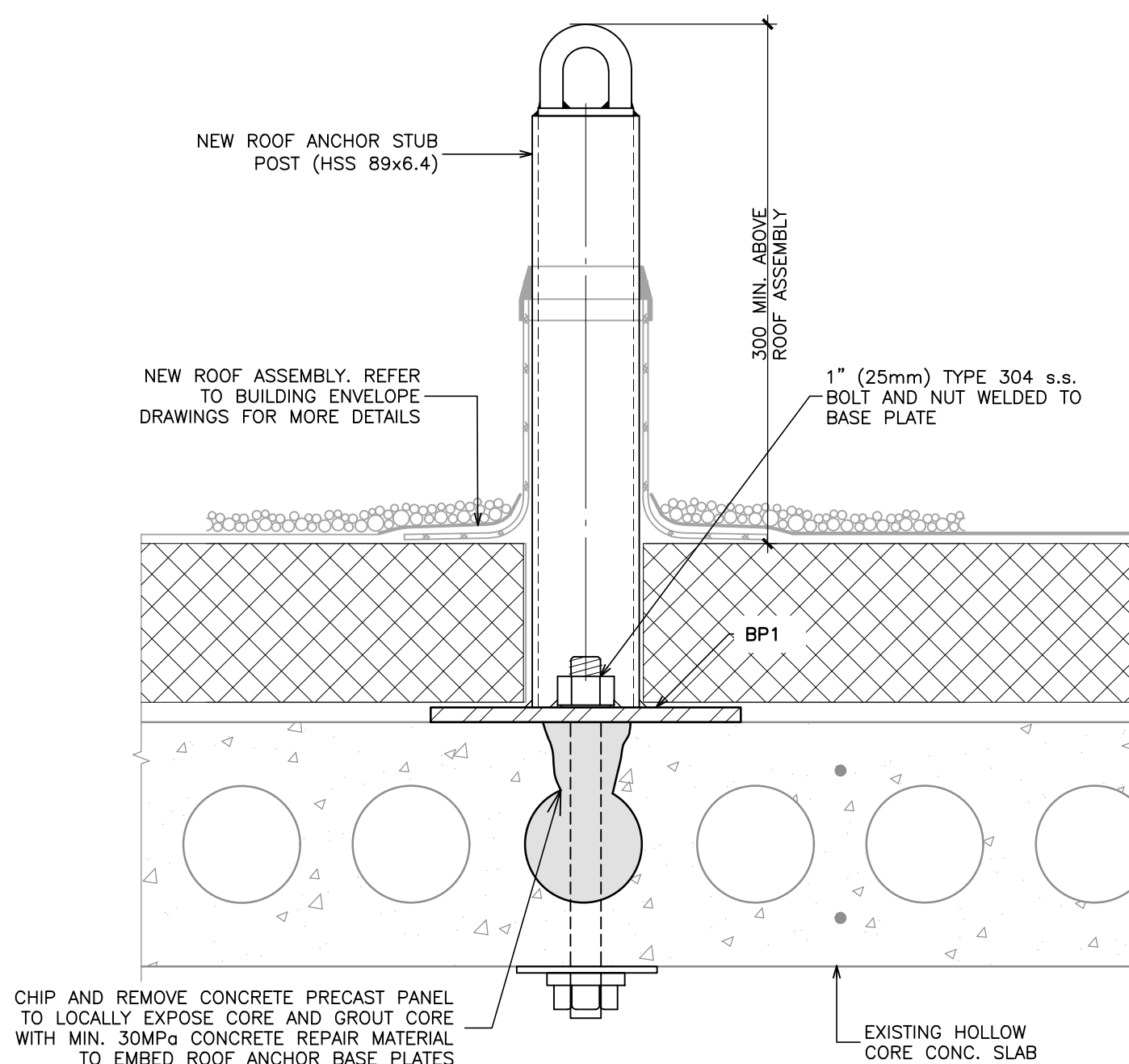
NOTE:

- PROVIDE TEMPORARY SHORING AS REQUIRED TO SUPPORT CMU WALL DURING BEAM POCKET INSTALLATION. SUBMIT SHORING SHOP DRAWINGS STAMPED BY A LICENSED PROFESSIONAL ENGINEER IN THE PROVINCE OF ONTARIO.

5 S2.1 TYPICAL CMU WALL GROUTING AT NEW BEAM POCKET 1:10

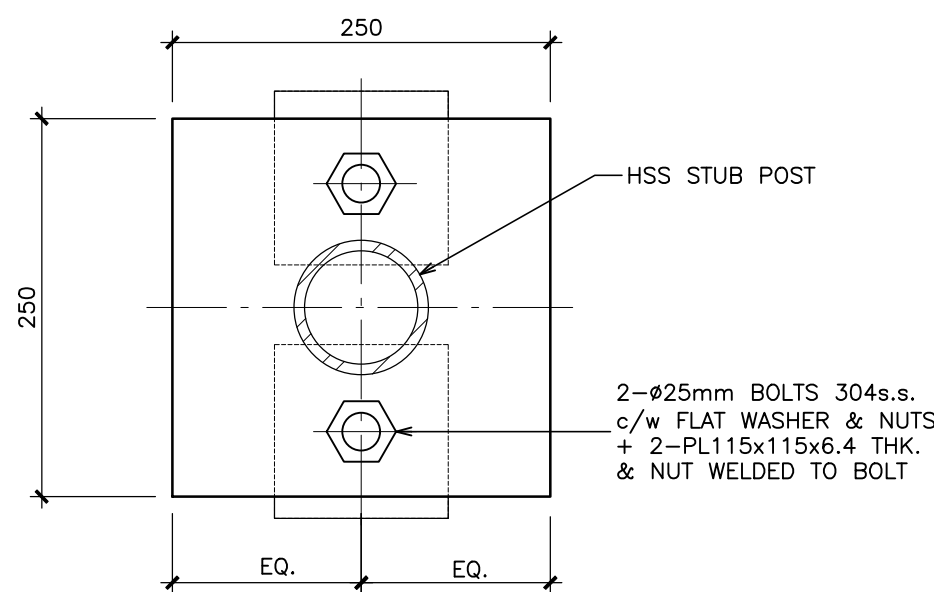


6 S2.1 TYPICAL HATCH OPENING INFILL CONNECTION DETAIL N.T.S.



8 S2.1 BRICK REPLACEMENT DETAIL N.T.S.

REMOVE AND REPLACE ALL DAMAGED, CRACKED AND DETERIORATED MASONRY BLOCK UNITS. UNIT IS TO BE REMOVED INCLUDING ALL MORTAR. LOCATION TO BE CLEANED, A NEW MORTAR BED APPLIED AND NEW UNIT INSTALLED. SLIDE INTO PLACE WITH A COMPLETE MORTAR INSTALLATION AROUND UNIT



BP1 PL250x250x12 THK. 2-Ø25mm BOLTS 304SS c/w FLAT WASHER & NUTS + 2-PL115x115x6.4 THK. & NUT WELDED TO BOLT

NOTE: This drawing is the property of the architect and may not be reproduced or used without the expressed consent of the architect. The contractor shall be responsible for checking and verifying all levels and dimensions and shall report all discrepancies to the architect and obtain clarification prior to commencing work. Not for construction unless stamped by the architect and issued for such purpose.

NOTE: The Region of Durham assumes no responsibility for the accuracy of existing services as indicated on this drawing.

DO NOT SCALE DRAWINGS

PRIME CONSULTANT



Road Jones Christoffersen Ltd.
Engineers
rjc.ca
100 University Avenue,
North Tower, Suite 400
Toronto, ON M5J 1V6 Canada
tel. 416-977-5535
fax 416-977-1427

DESIGN BY:	B.T.
DRAWN BY:	S.S.
CHECKED BY:	B.T.
APPROVED BY:	B.T.
SCALE:	As indicated
DATE:	2025-09-18
CONSULTANT PROJECT NO.	TOR.137374.0007

ISSUE DATE:	ISSUE DATE
2	2025-09-18 IFT
1	2025-07-17 ISSUED FOR BUILDING PERMIT

NO.	DATE	DESCRIPTION
-----	------	-------------

SEAL:	PROJECT NORTH
-------	---------------



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION &
ASSET MANAGEMENT

PROJECT:
PHASE 2 RENOVATIONS

1635 DUNDAS STREET EAST
WHITBY, ONTARIO

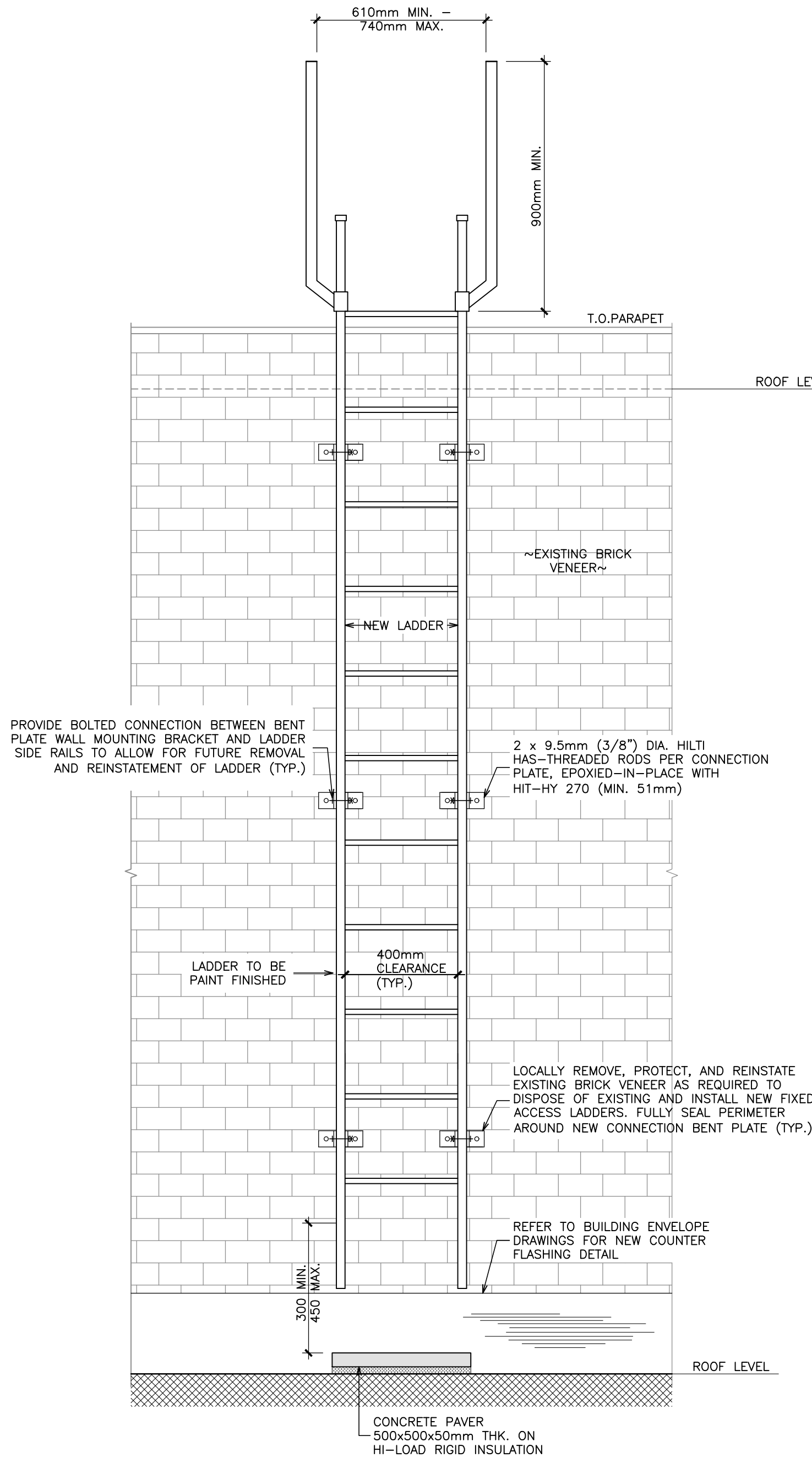
SHEET TITLE:

STRUCTURAL SECTIONS AND DETAILS

PROPERTY NO. RP-W-42	FACILITY CODE SS-W-02
FACILITIES PROJECT NO. SS-W-02-23-01	CONTRACT NO. RFP-1048-2025

SHEET NO.

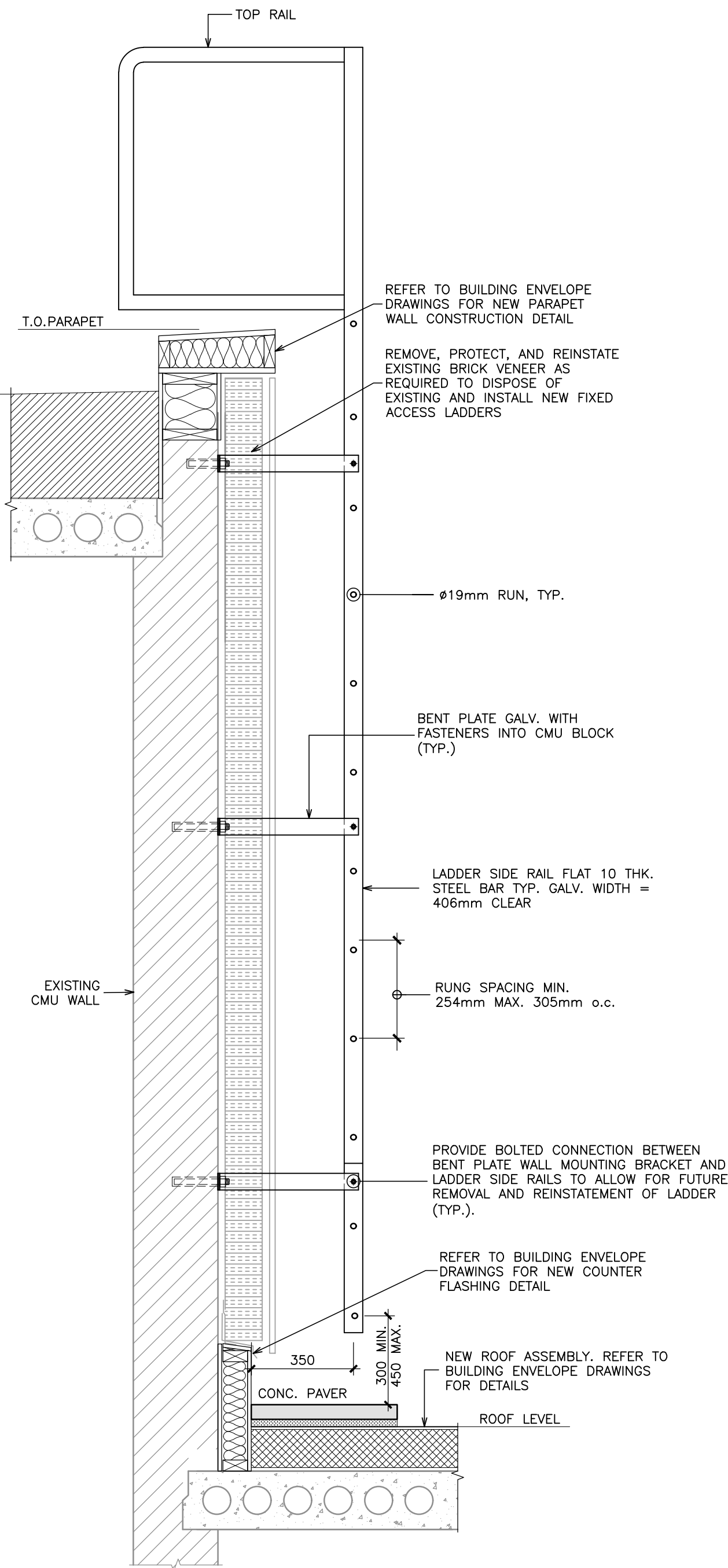
S2.2



NOTES:

- REPLACE EXISTING CMU BLOCKS DAMAGED DURING REMOVALS OF EXISTING FIXED ROOF ACCESS LADDER ANCHORAGE (TYP.).
- SUBMIT FIXED ACCESS LADDER SHOP DRAWINGS SEALED BY THE CONTRACTOR'S SPECIALTY ENGINEER PRIOR TO FABRICATION.

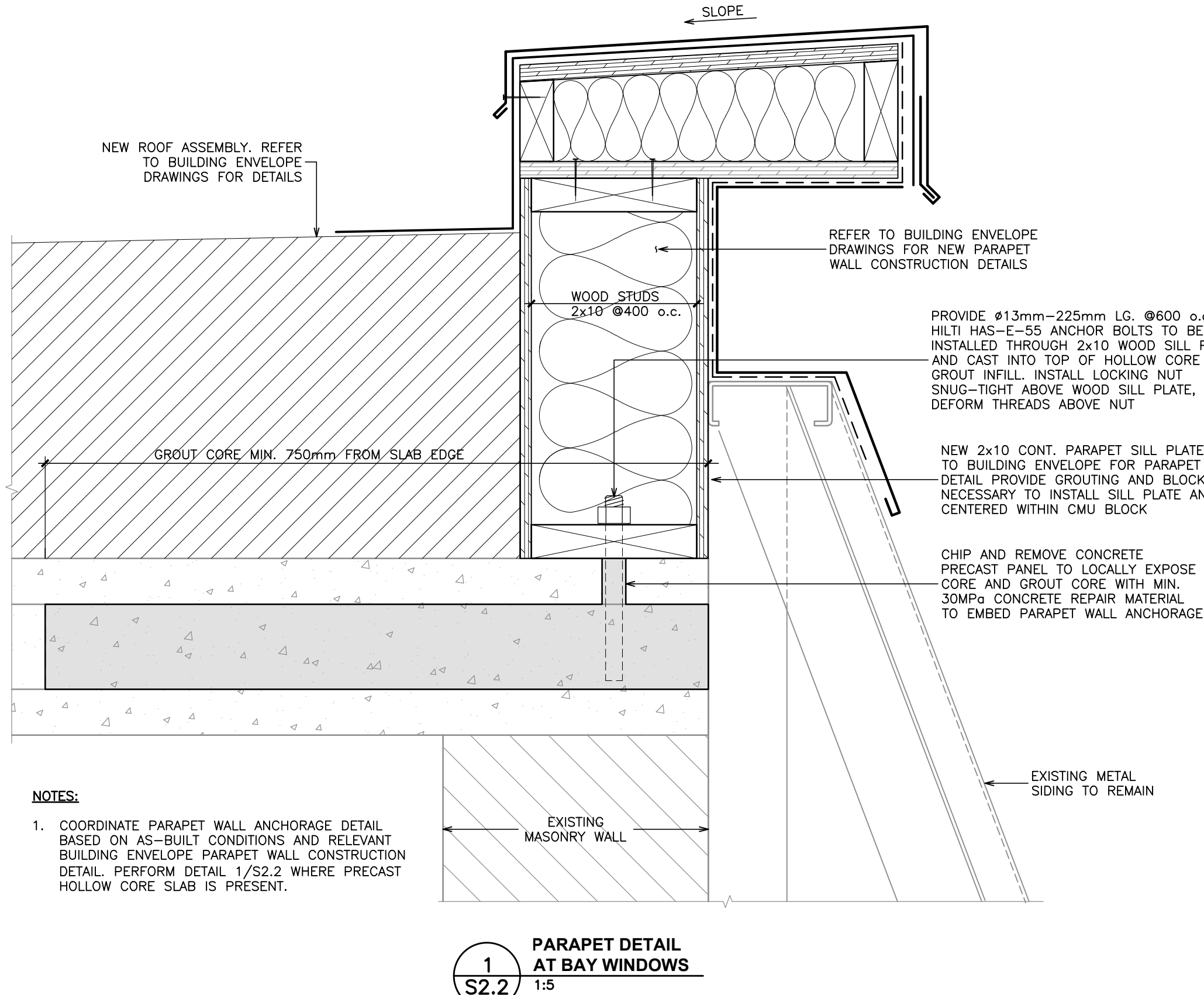
2
S2.2 **TYPICAL LADDER PART ELEVATION**
1:15



NOTES:

- NEW FIXED ACCESS LADDERS SHALL BE DESIGNED IN ACCORDANCE WITH OSHA REQUIREMENTS.
- PROVIDE SAFETY CAGE FOR LADDERS THAT EXTEND OVER 5.0 METERS IN ACCORDANCE WITH OSHA REQUIREMENTS.
- SIDE RAILS SHALL EXTEND MINIMUM 0.9m ABOVE UPPER ROOF ELEVATION.
- REFER TO BUILDING ENVELOPE DRAWINGS FOR APPROX. ROOF-TO-ROOF ELEVATION DISTANCES FOR NEW FIXED ROOF ACCESS LADDER LOCATIONS. CONTRACTOR SHALL VERIFY ELEVATIONS AND DIMENSIONS ON-SITE PRIOR TO SUBMITTING SHOP DRAWINGS.
- SUBMIT FIXED ACCESS LADDER SHOP DRAWINGS SEALED BY THE CONTRACTOR'S SPECIALTY ENGINEER PRIOR TO FABRICATION.
- ALL CONNECTIONS TO BE SHOP WELDED BEFORE GALVANIZATION OR BOLTED.
- LADDER SIDE RAIL BOLTED CONNECTIONS TO WALL MOUNTING BRACKETS SHALL BE DESIGNED TO ALLOW FOR FUTURE REMOVAL AND REINSTATEMENT OF LADDER.

2
S2.2 **NEW TYPICAL FIXED ROOF ACCESS LADDER MOUNTING ELEVATION**
1:15



NOTES:

- COORDINATE PARAPET WALL ANCHORAGE DETAIL BASED ON AS-BUILT CONDITIONS AND RELEVANT BUILDING ENVELOPE PARAPET WALL CONSTRUCTION DETAIL. PERFORM DETAIL 1/S2.2 WHERE PRECAST HOLLOW CORE SLAB IS PRESENT.

NOTE: This drawing is the property of the architect and may not be reproduced or used without the expressed consent of the architect. The contractor shall be responsible for checking and verifying all levels and dimensions and shall report all discrepancies to the architect and obtain clarification prior to commencing work. Not for construction unless stamped by the architect and issued for such purpose.

NOTE: The Region of Durham assumes no responsibility for the accuracy of existing services as indicated on this drawing.

DONOT SCALE DRAWINGS

PRIME CONSULTANT



DESIGN BY:	A.M.
DRAWN BY:	S.S.
CHECKED BY:	A.M.
APPROVED BY:	A.M.
SCALE:	As indicated
DATE:	2025-08-19
CONSULTANT PROJECT NO.	TOR.137374.0007

ISSUE DATE:	ISSUE DATE
2	2025-09-18 IFT
1	2025-07-17 ISSUED FOR BUILDING PERMIT

NO.	DATE	DESCRIPTION
-----	------	-------------

SEAL:

PROJECT NORTH



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROJECT:
PHASE 2 RENOVATIONS

1635 DUNDAS STREET EAST
WHITBY, ONTARIO

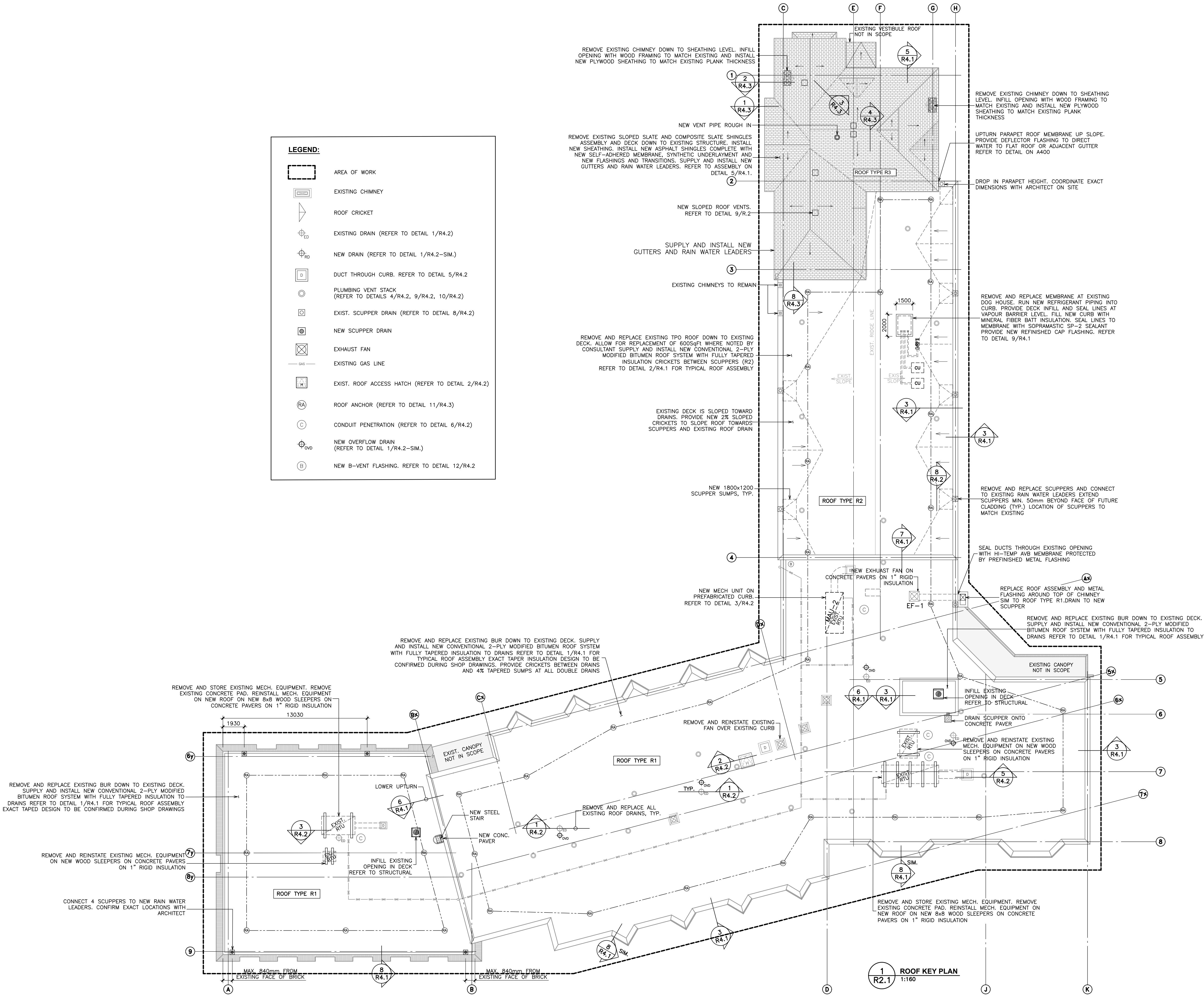
SHEET TITLE:

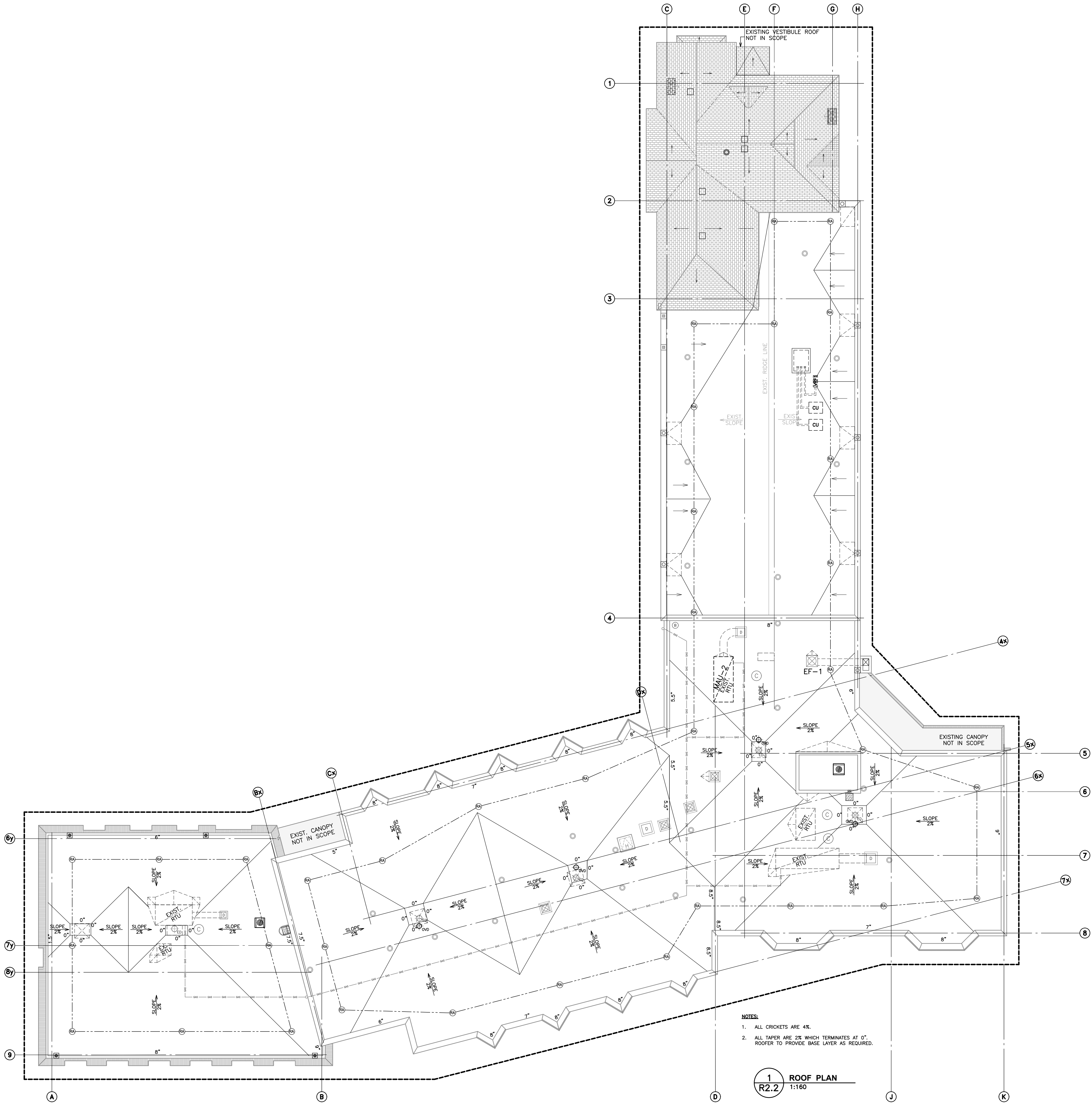
RESTORATION ROOF KEY PLAN

PROPERTY NO. RP-W-42	FACILITY CODE SS-W-02
FACILITIES PROJECT NO. SS-W-02-23-01	CONTRACT NO. RFP-1048-2025

SHEET NO.

R2.1





NOTE: This drawing is the property of the architect and may not be reproduced or used without the expressed consent of the architect. The contractor shall be responsible for checking and verifying all levels and dimensions and shall report all discrepancies to the architect and obtain clarification prior to commencing work. Not for construction unless stamped by the architect and issued for such purpose.

NOTE: The Region of Durham assumes no responsibility for the accuracy of existing services as indicated on this drawing.

DO NOT SCALE DRAWINGS

PRIME CONSULTANT

Read Jones Christoffersen Ltd.
Engineers
rjc.ca
100 University Avenue,
North Tower, Suite 400
Toronto, ON M5J 1V6 Canada
Tel: 416-977-5335
Fax: 416-977-1427

DESIGN BY:	A.M.
DRAWN BY:	S.S.
CHECKED BY:	A.M.
APPROVED BY:	A.M.
SCALE:	As indicated
DATE:	2025-08-19
CONSULTANT PROJECT NO.	TOR.137374.0007

ISSUE DATE:	ISSUE DATE
2	2025-09-18 IFT
1	2025-07-17 ISSUED FOR BUILDING PERMIT

NO.	DATE	DESCRIPTION
-----	------	-------------

SEAL:

THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROJECT:

PHASE 2 RENOVATIONS

1635 DUNDAS STREET EAST
WHITBY, ONTARIO

SHEET TITLE:

**RESTORATION
NEW ROOF INSULATION**

PROPERTY NO. RP-W-42	FACILITY CODE SS-W-02
FACILITIES PROJECT NO. SS-W-02-23-01	CONTRACT NO. RFP-1048-2025

SHEET NO.

R2.2

NOTE: The Region of Durham assumes no responsibility for the accuracy of existing services as indicated on this drawing.

DO NOT SCALE DRAWINGS

rjc Creative Thinking
Practical Results

DESIGN BY:	A.M.
DRAWN BY:	S.S.
CHECKED BY:	A.M.
APPROVED BY:	A.M.
SCALE:	As indicated
DATE:	2025-08-19
CONSULTANT PROJECT NO.	TOR.13/374.0007

NO.	DATE	DESCRIPTION
-----	------	-------------

PROJECT NORTH



PROJECT:

PHASE 2 RENOVATIONS

RESTORATION SECTIONS AND DETAILS

SHEET NO.

NOTES:

1. REMOVE AND DISPOSE OF EXISTING 2-PLY MODBIT ROOF ASSEMBLY AND MEMBRANE FLASHINGS. REPLACE ANY MOISTURE DAMAGED CURB COMPONENTS

NOTES:

1. REMOVE AND DISPOSE OF EXISTING 2-PLY MODBIT ROOF ASSEMBLY AND MEMBRANE FLASHINGS. REPLACE ANY MOISTURE DAMAGED CURB COMPONENTS.

3 PARAPET DETAIL
R4.1 1:5



NOTE: This drawing is the property of the architect and may not be reproduced or used without the expressed consent of the architect. The contractor shall be responsible for checking and verifying all levels and dimensions and shall report all discrepancies to the architect and obtain clarification prior to commencing work. Not for construction unless stamped by the architect and issued for such purpose.

NOTE: The Region of Durham assumes no responsibility for the accuracy of existing services as indicated on this drawing.
DO NOT SCALE DRAWINGS

PRIME CONSULTANT



Ronald Jones Christoffersen Ltd.
Engineers
rjc.ca
100 University Avenue
North Tower, Suite 400
Toronto, ON M5S 1V6 Canada
tel: 416-977-5335
fax: 416-977-1427

DESIGN BY:	A.M.
DRAWN BY:	S.S.
CHECKED BY:	A.M.
APPROVED BY:	A.M.
SCALE:	As indicated
DATE:	2025-08-19
CONSULTANT PROJECT NO.	TOR.137374.0007

ISSUE DATE:	ISSUE DATE
2	2025-09-18 IFT
1	2025-07-17 ISSUED FOR BUILDING PERMIT

NO.	DATE	DESCRIPTION
-----	------	-------------

SEAL:	PROJECT NORTH
-------	---------------



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION &
ASSET MANAGEMENT

PROJECT:
PHASE 2 RENOVATIONS

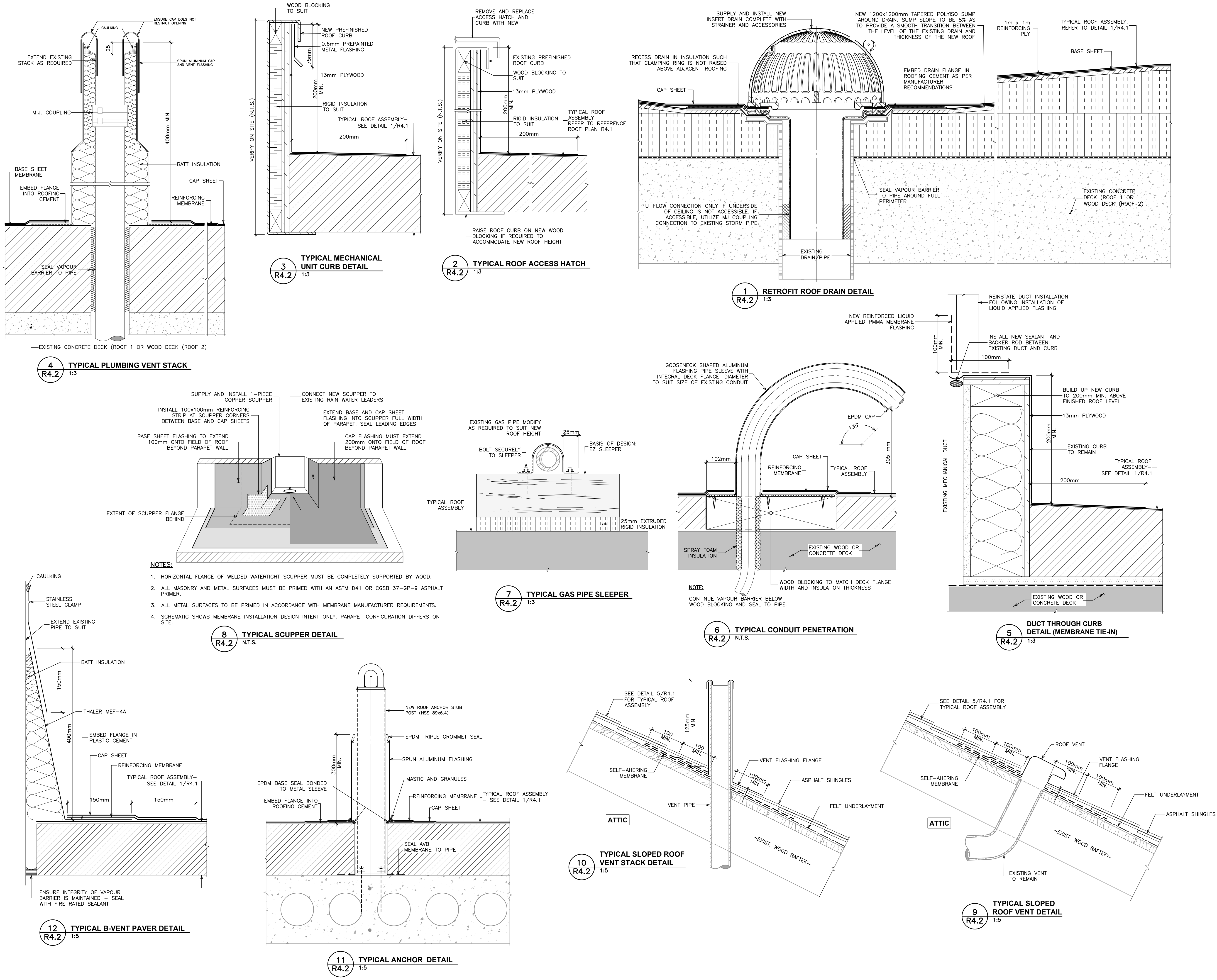
1635 DUNDAS STREET EAST
WHITBY, ONTARIO

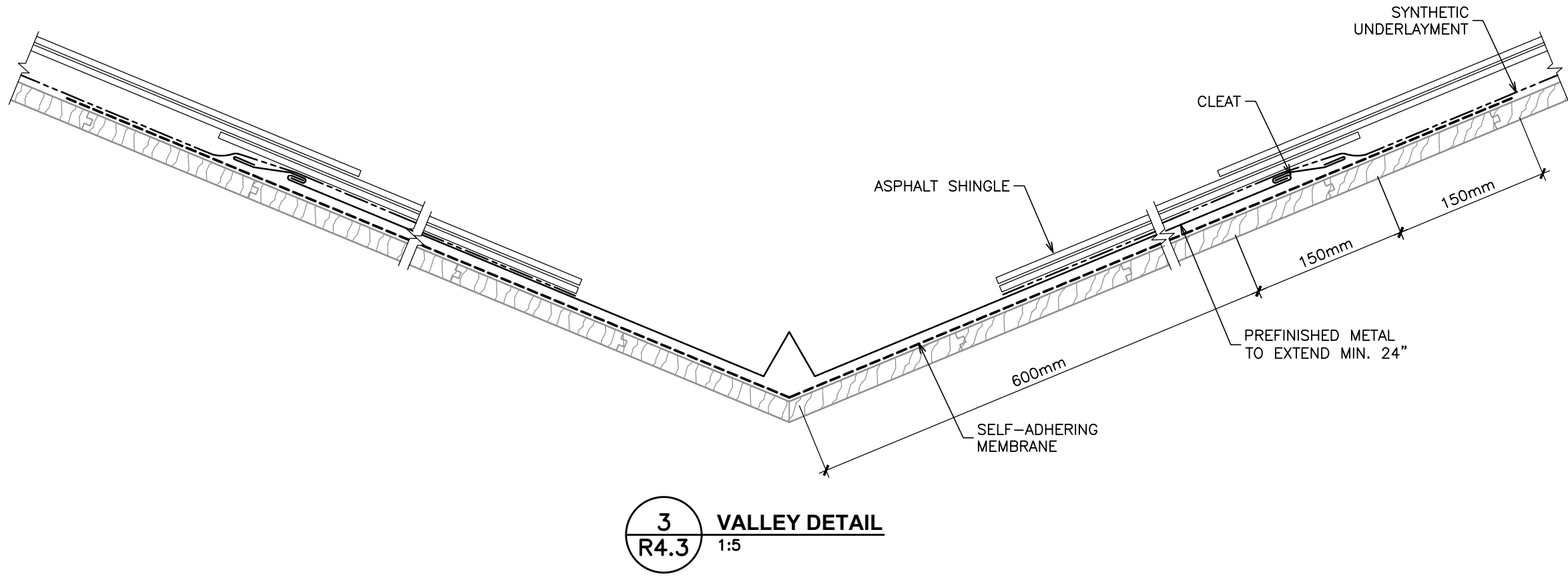
SHEET TITLE:

RESTORATION SECTIONS AND DETAILS

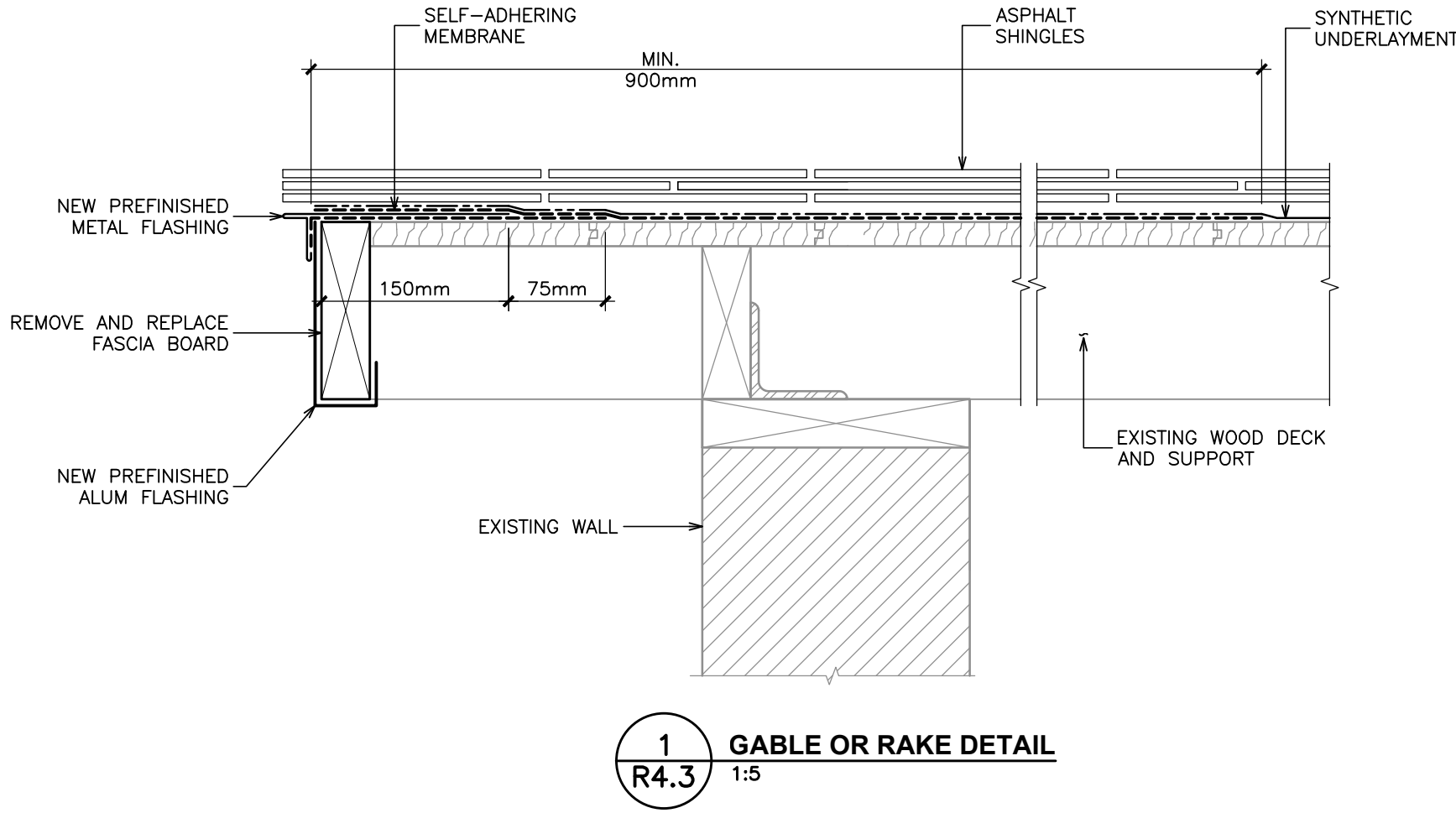
PROPERTY NO. RP-W-42	FACILITY CODE SS-W-02
FACILITIES PROJECT NO. SS-W-02-23-01	CONTRACT NO. RFP-1048-2025

SHEET NO.
R4.2

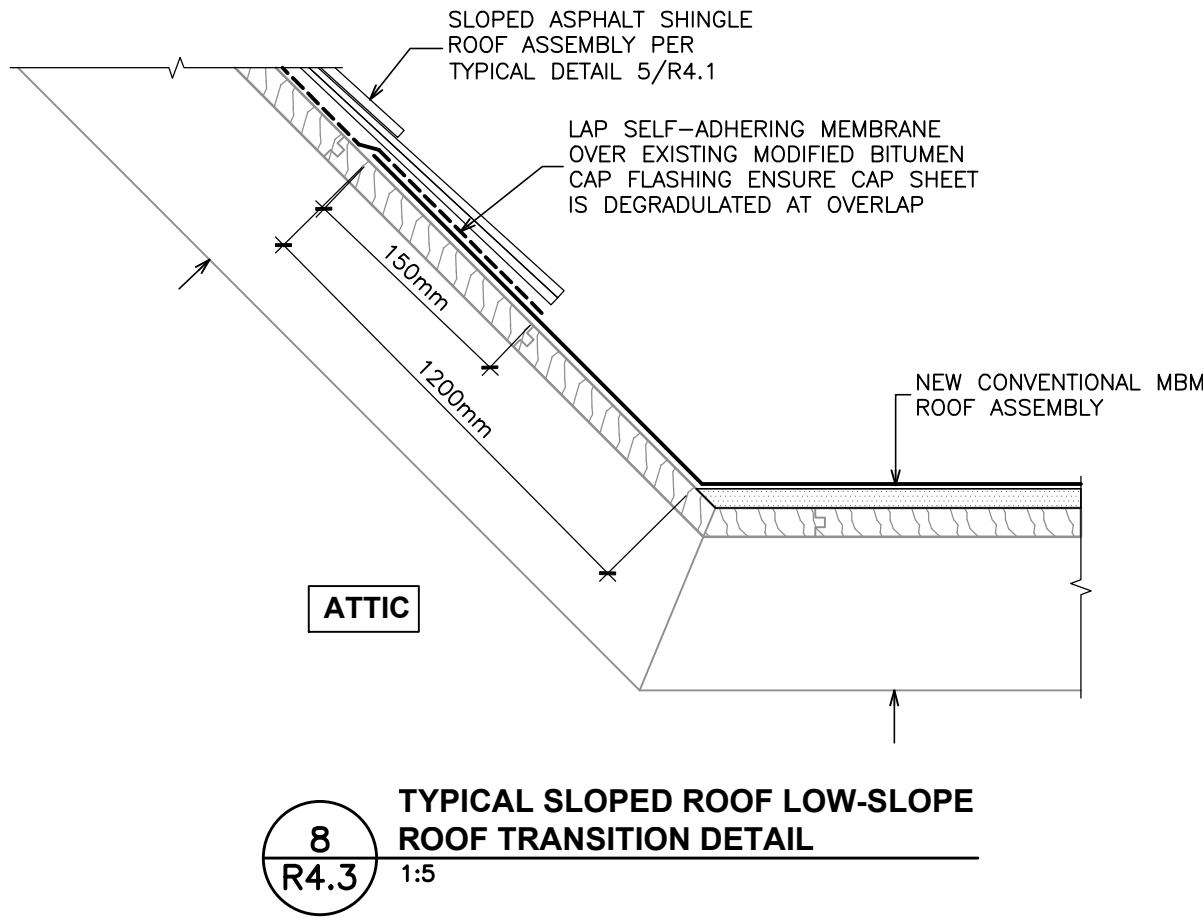




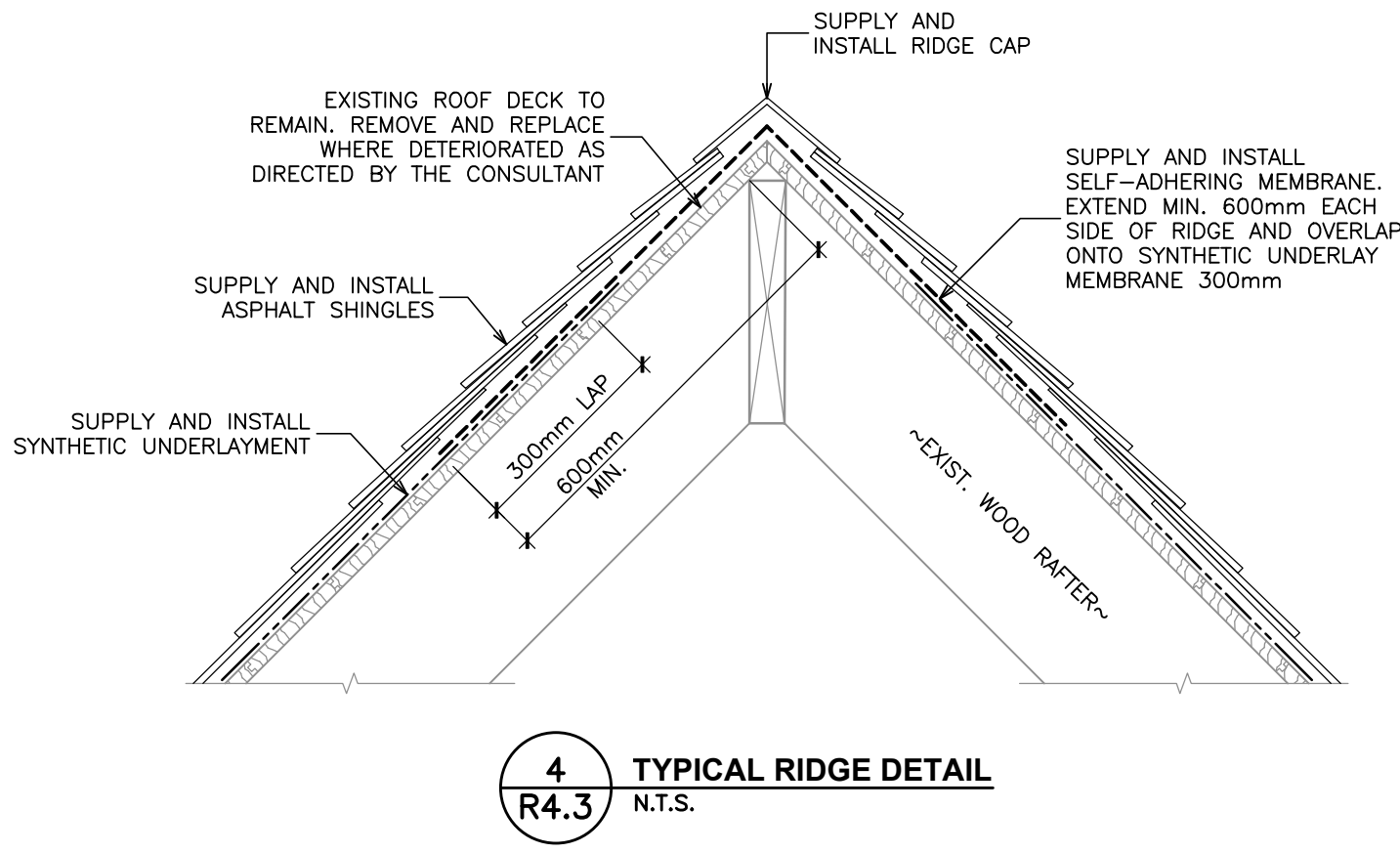
3 VALLEY DETAIL
R4.3 1:5



1 GABLE OR RAKE DETAIL
R4.3 1:5



8 TYPICAL SLOPED ROOF LOW-SLOPE ROOF TRANSITION DETAIL
R4.3 1:5



4 TYPICAL RIDGE DETAIL
R4.3 N.T.S.

NOTE: This drawing is the property of the architect and may not be reproduced or used without the expressed consent of the architect. The contractor shall be responsible for checking and verifying all levels and dimensions and shall report all discrepancies to the architect and obtain clarification prior to commencing work. Not for construction unless stamped by the architect and issued for such purpose.

NOTE: The Region of Durham assumes no responsibility for the accuracy of existing services as indicated on this drawing.

DO NOT SCALE DRAWINGS

PRIME CONSULTANT



Read Jones Christoffersen Ltd.
Engineers
rjc.ca
100 University Avenue
North Tower, Suite 400
Toronto, ON M5J 1Y6 Canada
tel: 416-977-5335
fax: 416-977-1427

DESIGN BY:	A.M.
DRAWN BY:	S.S.
CHECKED BY:	A.M.
APPROVED BY:	A.M.
SCALE:	As indicated
DATE:	2025-08-19
CONSULTANT PROJECT NO.	TOR.137374.0007

ISSUE DATE:	ISSUE DATE
2	2025-09-18 IFT
1	2025-07-17 ISSUED FOR BUILDING PERMIT

NO.	DATE	DESCRIPTION
-----	------	-------------

SEAL:	PROJECT NORTH
-------	---------------



THE REGIONAL MUNICIPALITY OF DURHAM

WORKS DEPARTMENT
DESIGN, CONSTRUCTION & ASSET MANAGEMENT

PROJECT:
PHASE 2 RENOVATIONS

1635 DUNDAS STREET EAST
WHITBY, ONTARIO

SHEET TITLE:

RESTORATION SECTIONS AND DETAILS

PROPERTY NO. RP-W-42	FACILITY CODE SS-W-02
FACILITIES PROJECT NO. SS-W-02-23-01	CONTRACT NO. RFP-1048-2025

SHEET NO.

R4.3