

**ADDENDUM No. 5**

<b>Project</b>	T.A. Blakelock H.S. Renovations - Phase 1	<b>Project No.</b>	2215A
<b>Location</b>	1160 Rebecca Street, Oakville, Ontario	<b>Date of Issue</b>	2023 04 04
<b>Owner</b>	Halton District School Board	<b>File</b>	2215/7.1.3

This Addendum forms part of the Contract Documents and amends the original Drawings and Specifications, dated 2023 03 16, 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 the bidder to disqualification.

This Consultant Addendum consists of 2 pages + noted attachments.

**A5-1 PROJECT MANUAL SECTION 09 51 23 ACOUSTIC TILE CEILINGS**

- .1 Provide yoke (Armstrong TechZone Yoke or equivalent) as required at floating ceiling panels to achieve ceiling tile and light fixture configuration as shown on reflected ceiling plans.

**A5-2 PROJECT MANUAL SECTION 10 51 13 METAL LOCKERS**

- .1 Revise all Metal Lockers to Sloped Tops.
- .2 Delete requirement for Extra Stock Material.

**A5-3 DRAWING NO. 300 LEVEL 0 REFLECTED CEILING PLANS AND DETAILS (reissued)**

- .1 Replace drawing with the attached Revision No. 3.
- .2 Revisions include the following:
  - .1 Corridor C001 - ACT & Gypsum board ceiling extent.

**A5-4 DRAWING NO. 900 DOOR SCHEDULE AND DOOR & SCREEN TYPES & DETAILS (reissued)**

- .1 Replace drawing with the attached Revision No. 2
- .2 Revisions include the following:
  - .1 Revise Screen 'S06' as shown to accommodate new steel post between door & screen frame as per Structural Addendum No. 1
  - .2 Replace 'GL-01' with 'GL-7' in Screen 'S01'
  - .3 Replace 'FG-C' with 'GL-3'
  - .4 Replace 'FG-E' with 'GL-6'

- .5 Replace 'SG-A' with 'SIG\_CLR-1'
- .6 Door Frame & Screen Schedule - Replace 'FG-C' with 'GL-3' and Replace 'FG-D' with 'GL6'
- .7 Door Frame & Screen Schedule - Revise glazing type to 'GL-6' for Door no. 107, 108, 111

**A5-5 DRAWING NO. 901 DOOR FRAME DETAILS & WINDOW TYPES**

- .1 Replace 'SG-A' with 'SIG-CLR-1'

**A5-6 STRUCTURAL**

- .1 Refer to the attached Structural Addendum No. 1. prepared by Kalos Engineering, dated April 4, 2023.

**A5-7 BIDDER QUESTIONS**

Q1: How many days is the bid validity period?

A1: Revise Bid Expiry Period to 30 days.

Q2: Is it possible to get an extension on this project, we have 5 tenders already closing on the 6ths . Please let me know your thoughts, thank you for your time and consideration.

A2: As the bid closing date is only 2 days away, we cannot extend it.

Q3: Single and double hooks are specified in sections 10 28 13. Please provide location

A3: SC01 GENERAL to provide hooks as shown in Washroom Elevations. Include one Collapsible Single Hook at each toilet partition.

END OF ADDENDUM No. 5



**T.A. BLAKELOCK H.S.  
 RENOVATION**

1160 Rebecca Street, Oakville, ON  
 L6L 1Y9

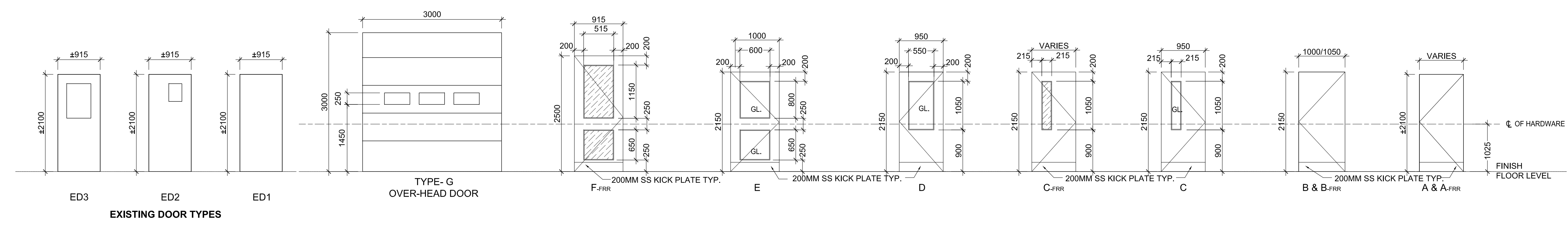


Snyder Architects Inc.  
 260 King St. E. Unit A101, Toronto, ON M5A 4L5  
 Tel: 416.966.5444 Fax: 416.966.4443  
 www.snyderarchitects.ca

Consultants

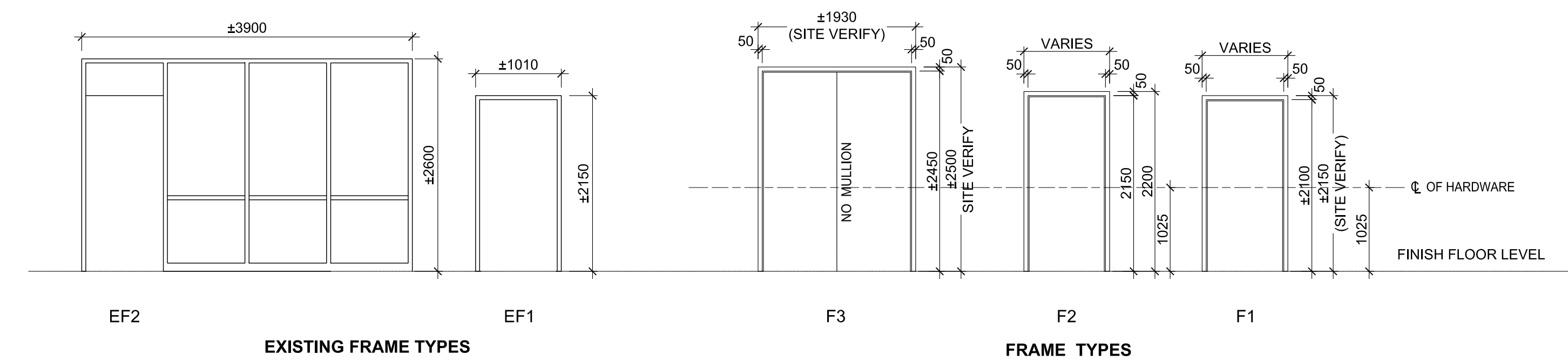
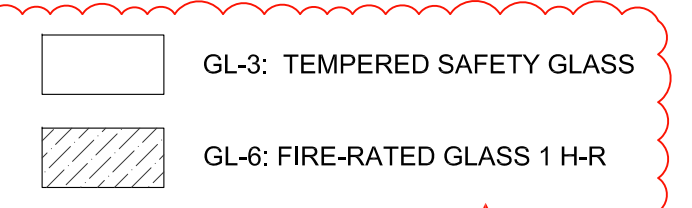
Structural Consultants  
**Kalos Engineering Inc.**  
 875 Main St. W. Unit 3  
 Hamilton, Ontario, L8S 4P9  
 Tel: 905-333-9119

Mechanical and Electrical Consultants  
**EXP**  
 1266 S. Service Rd.  
 Stoney Creek, Ontario, L8E 5R9  
 Tel: 905-525-6069



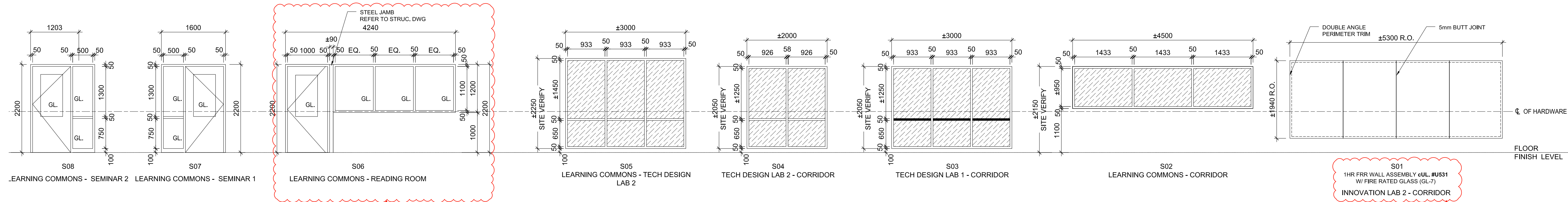
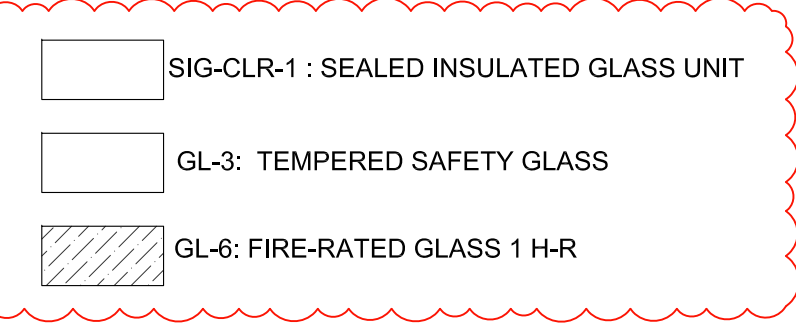
**1 INTERIOR DOOR TYPES**  
 A900 1:50

- NOTES:
- ALL GLAZING ASSEMBLIES WITH SILL BELOW 1070mm FROM FINISHED FLOOR LEVEL, TO BE DESIGNED AS GUARD, PER OBC.
  - ALL INTERIOR DOORS AND SCREENS TO HM & GLAZING TO BE TEMPERED SAFETY GLASS 'GL-3', UNLESS NOTED OTHERWISE.
  - ALL EXTERIOR DOORS AND SCREENS TO BE ALUMINUM & GLAZING TO BE SEALED INSULATED GLASS UNIT 'SIG-CLR-1', UNLESS NOTED OTHERWISE.
  - GLAZING IN FIRE RATED SEPARATIONS TO BE 'GL-6' FIRE-RATED GLASS. REFER TO DOOR SCHEDULE
  - ALL FRAME IN FIRE SEPARATION AREAS TO BE FIRE RATED (FRR)



**2 DOOR FRAME TYPES**  
 A900 1:50

- NOTES:
- ALL GLAZING ASSEMBLIES WITH SILL BELOW 1070mm FROM FINISHED FLOOR LEVEL, TO BE DESIGNED AS GUARD, PER OBC.
  - ALL INTERIOR DOORS AND SCREENS TO HM & GLAZING TO BE TEMPERED SAFETY GLASS 'GL-3', UNLESS NOTED OTHERWISE.
  - ALL EXTERIOR REPLACEMENT GLAZING TO BE SEALED INSULATED GLASS UNIT 'SIG-CLR-1', UNLESS NOTED OTHERWISE.
  - GLAZING IN FIRE RATED SEPARATIONS TO BE 'GL-6' FIRE-RATED GLASS. REFER TO DOOR SCHEDULE
  - ALL FRAME IN FIRE SEPARATION AREAS TO BE FIRE RATED (FRR)



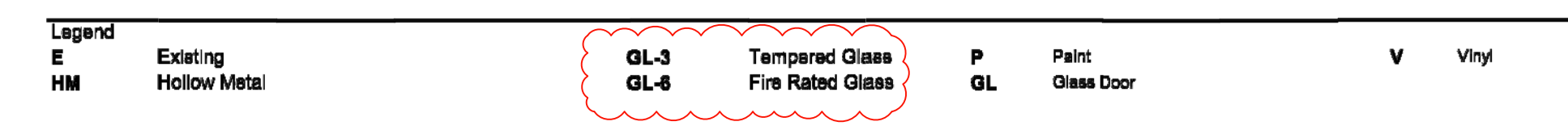
**3 INTERIOR SCREEN TYPES**  
 A900 1:50

**2215A - T A BlakeLock HS Renovation**



DOOR, FRAME & SCREEN SCHEDULE		Date 03/03/2023 Issued for Bids										Revised:		
DOOR No.	LOCATION	DOOR						SCREEN Type	FRAME			FRR (min)	REMARKS	
		Type	Width	Ht	Fin.	Mat.	Glaz.		Type	Jamb Type	Head Size			Fin.
<b>LEVEL 0</b>														
107	S107 INNOVATION LAB 1	C-FRR	915	2000	V		GL-6	EF1			P	45	Refer to Door & Frame Note no. 3	
108	S108 INNOVATION LAB 2	C-FRR	915	2000	V		GL-6	EF1			P	45	Refer to Door & Frame Note no. 3	
E108A	S108 INNOVATION LAB 2	ED1						EF1			P			
108B	S108 INNOVATION LAB 2	OH	3000	3000										
E109	S109 LEARNING COMMONS	ED1						ES	EF2		P		Paint screen frame	
109	S109 LEARNING COMMONS	F-FRR	915x2	2450	P	HM	GL-6	-	F3	D3	P	HM	45	Maintain 1 HRR & Site verify height
109A	S109A READING ROOM	E	1000	2150	P	HM	GL-3	S08	J1		P	HM		
109B	S109B STORAGE	C	950	2150	P	HM	GL-3	-	F2	J1	P	HM		
109C	S109C SEMINAR	D	950	2150	P	HM	GL-3	S07	J1		P	HM		
109D	S109D SEMINAR	D	950	2150	P	HM	GL-3	S08	J1		P	HM		
109E	S109 LEARNING COMMONS	C-FRR	1000	2000	P	HM	GL-6	-	F1	D3	P	HM	45	Maintain 1 HRR & Site verify height
110	S110 TECH DESIGN LAB 1	C-FRR	915	2000	V		GL-6	EF1			P	45	Refer to Door & Frame Note no. 3	
110A	S110 TECH DESIGN LAB 1	C-FRR	915	2000	V		GL-6	EF1			P	45	Refer to Door & Frame Note no. 3	
E110B	S110 TECH DESIGN LAB 1	ED3						EF1			P			
110C	S110 TECH DESIGN LAB 1	OH	3000	3000										
111	S111 TECH DESIGN LAB 2	C-FRR	915	2000	V		GL-6	EF1			P	45	Refer to Door & Frame Note no. 3	
E111A	S111 TECH DESIGN LAB 2	ED1						EF1			P			
E105	W105 ATHLETIC CHANGE RM	ED1						EF1			P			
E105B	W105 ATHLETIC CHANGE RM	ED1						EF1			P			
105A	W105A UNIVERSAL WASHROOM	A-FRR	950	2100	P	HM	-	-	F1	D1	P	HM	45	Maintain 1 HRR, PDO & Site verify ht
108	W108 PHYS. ED. STORAGE RM	C-FRR	1000	2100	P	HM	GL-6	-	F1	D1	P	HM	45	Maintain 1 HRR & Site verify height
E108A	W108A DRAMA STORAGE	ED1						F1			P			
<b>LEVEL 1</b>														
111	W111 UNIVERSAL WASHROOM	A-FRR	950	2100	P	HM	-	-	F1	D2	P	HM	45	Maintain 1 HRR, PDO & Site verify ht
E112	W112 STORAGE	ED2						EF1			P			
E113	W113 BOYS CHANGE ROOM	ED1						EF1			P			
117	W117 PHYS. ED. STORAGE	C-FRR	1000	2100	P	HM	GL-6	-	F1	D2	P	HM	45	Maintain 1 HRR & Site verify height
118	W118 GIRLS CHANGE ROOM	A-FRR	950	2100	P	HM	-	-	F1	D2	P	HM	45	Maintain 1 HRR & Site verify height

- NOTES:
- All HM door frames to have appropriate reinforcing.
  - Provide appropriated transition strip and threshold at flooring change, to meet OBC barrier free requirement.



**DOOR & FRAME NOTES:**

- AS NOTED ALL EXISTING DOORS ARE HM FRAME W/ HM DOOR PANEL.
- PAINT ALL EXISTING DOOR & SCREEN FRAME IN RM S109, S110, S111, W105, W106a & W113.
- SC01 TO INCLUDE INSTALLATION OF CUSTOM PRINTED VINYL WRAP ON EX. DOOR PANELS IN RM S107, S108, S110 & S111 BY WINDOW FILM SYSTEMS. (519-641-7803) CUSTOM GRAPHIC TO BE PRINTED ON 'INFEEL' SOLID COLOUR - SL589. GRAPHIC DESIGN TO BE PROVIDED BY OWNER.

Key Plan N.T.S.



Project North True North

No.	Revisions	Date
2	REISSUED W/ ADDENDUM NO.5	2023 04 04
1	ISSUED FOR BIDS / PERMIT	2023 03 15

General Contractor shall check and verify all dimensions and report all errors and omissions to the Architect. Do not scale the drawings. Drawings shall not be used for construction purposes until issued by the Architect for construction.



Drawing Title:  
**DOOR SCHEDULE AND DOOR & SCREEN TYPES & DETAILS**

Scale: AS NOTED Date: 25/11/2022

Drawn by: MS Checked by:

Job No. Drawing No.

2215A A900



T.A. Blakelock H.S. Renovation – Phase 1  
1160 Rebecca Street, Oakville, Ontario

**STRUCTURAL ADDENDUM No. 1**

April 4, 2023

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The following amendments/clarifications to the Tender Documents are considered to form part of this Tender.

No consideration will be given for extras and/or changes due to the Bidder not being familiar with the contents of this Addendum.

Bidders are to acknowledge this Addendum by signing and enclosing this addendum of this document with their submission.

The following Addendum has been issued to make clarifications, revisions, additions and/or deletions to the various areas of the Request for Tender.

This addendum shall be incorporated in the specifications and drawings and shall form part of the contract documents:

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1. **AMENDMENTS TO DRAWINGS:**

A. Drawing So.01:

- a. Steel stud header and jamb schedule updated.
- b. Submittals notes updated.

B. Drawing S3.00:

- a. Curtain support framing added in Tech Design Lab S110

2. **ATTACHMENTS TO THIS DOCUMENT:**

- N/A

Sincerely,

Per: Elio Haddad, P. Eng.  
Kalos Engineering Inc.

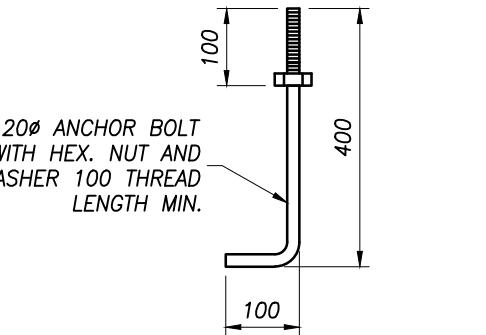
Name of Firm: \_\_\_\_\_

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

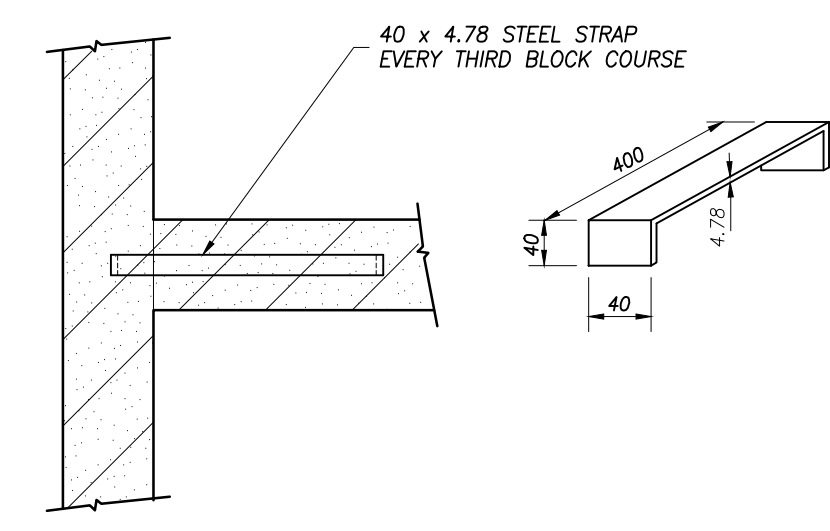
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**Kalos Engineering Inc.**

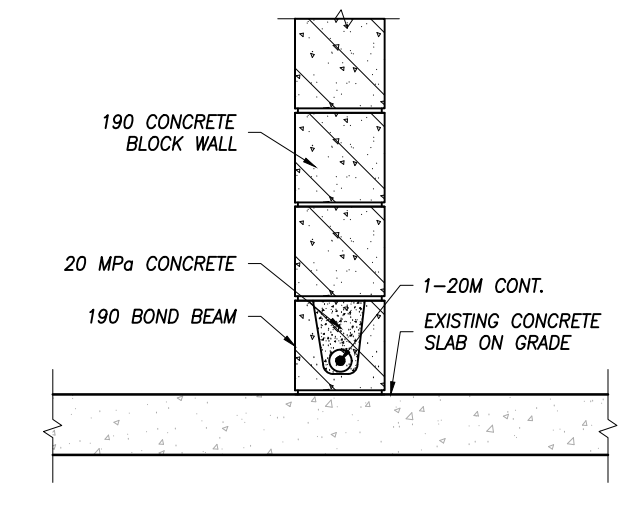
300 York Boulevard, Hamilton Ontario L8R 3K6  
Tel.: (905) 333-9119, E-mail: info@kaloseng.ca



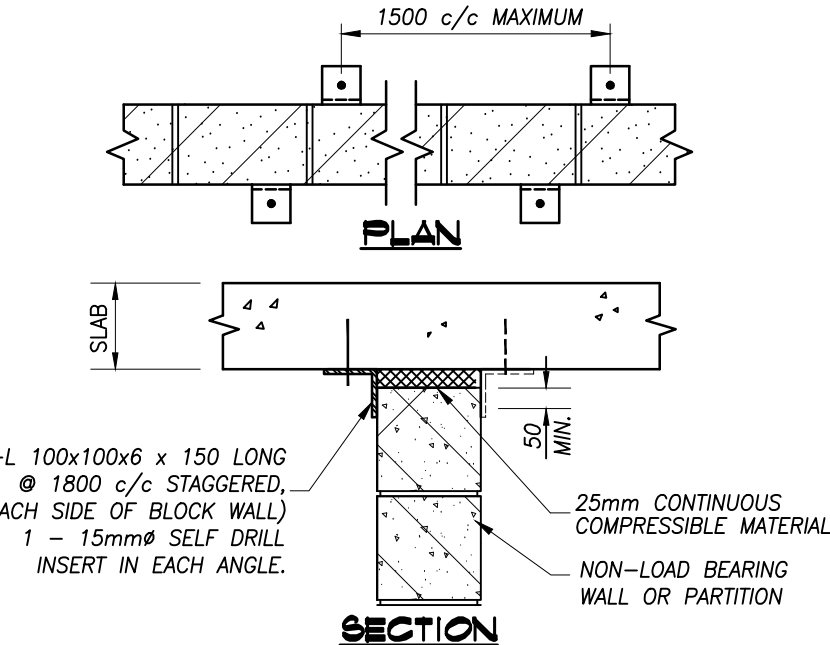
**TYPICAL ANCHOR BOLT DETAIL**  
NOT TO SCALE



**TYPICAL INTERSECTION OF CONCRETE BLOCK WALLS**  
NOT TO SCALE



**BOND BEAM ON SLAB ON GRADE**  
NOT TO SCALE



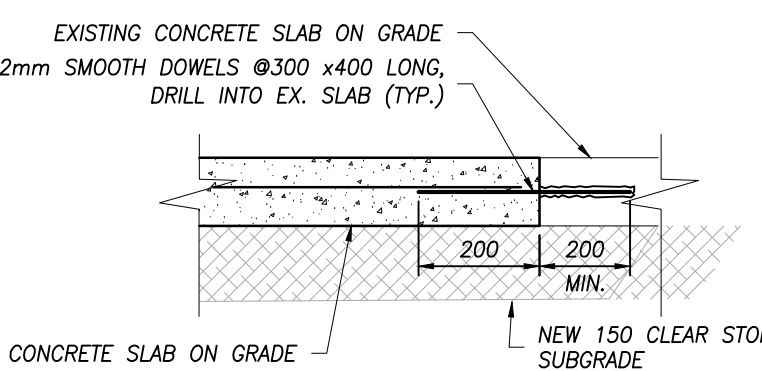
**BRACING OF TOP OF WALL AT UNDERSIDE OF CONCRETE SLAB**  
NOT TO SCALE

**TYPICAL INTERIOR STEEL STUD HEADER & JAMB DETAIL (92mm STUD)**  
NOT TO SCALE

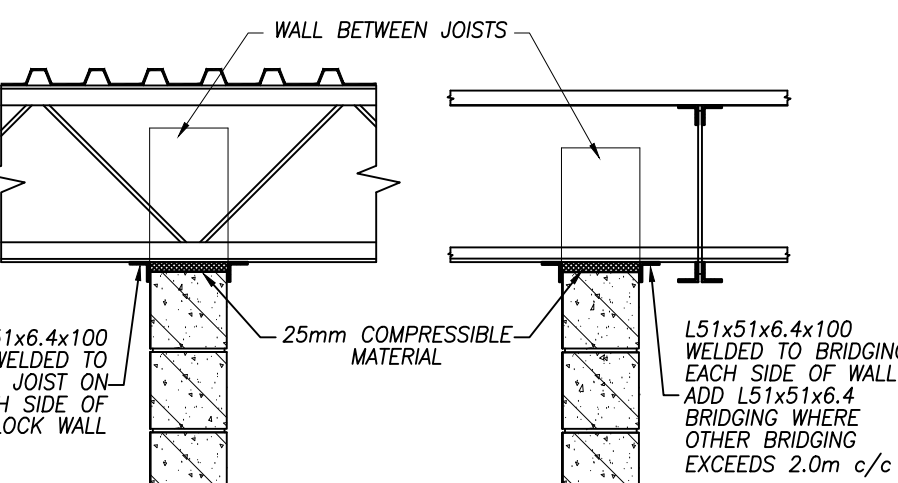
CLEAR SPAN	HEADER SIZE	JAMB
UP TO 1800mm	362RH300-33	362RJ300-68
1801 TO 2000mm	362RH300-43	362RJ300-97
2001 TO 2500mm	362RH300-54	362RJ350-97
2501 TO 3150mm	362RH350-68	362RJ350-97

**TYPICAL INTERIOR STEEL STUD HEADER & JAMB DETAIL (92mm STUD)**  
NOT TO SCALE

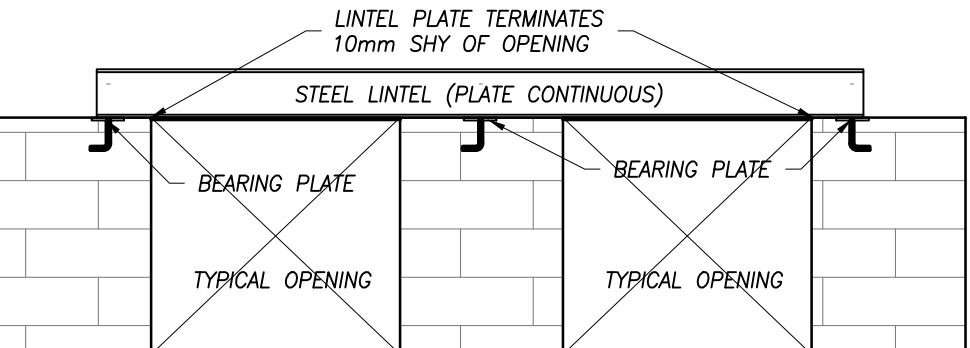
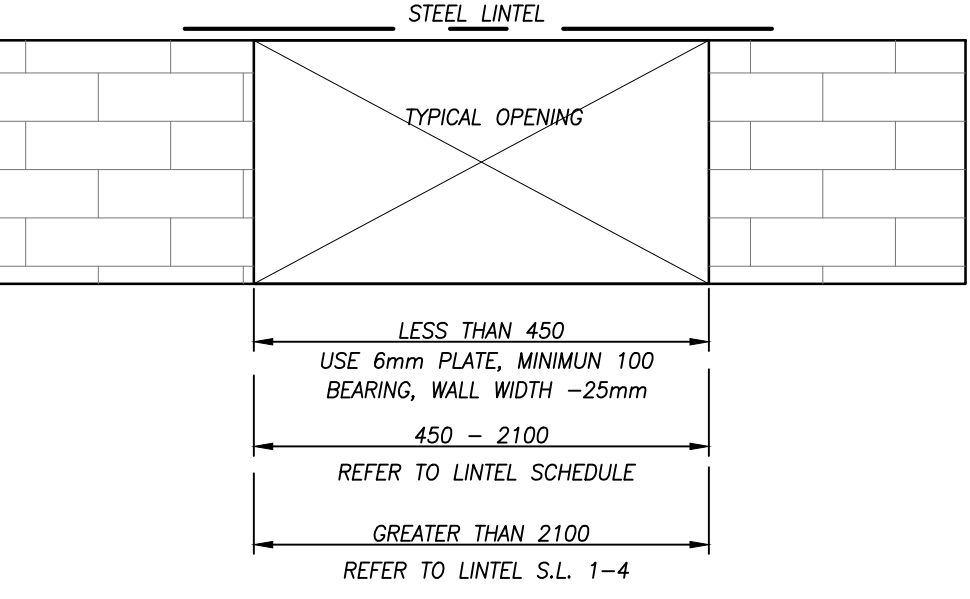
NOTE: PROVIDE BAILEY REDHEADER PRO HEADERS & JAMBS FOR ALL STUD OPENINGS PER THE TABLE PROVIDED



**TYP. SLAB CONNECTION DETAIL**  
NOT TO SCALE



**BRACING OF PARTITION WALLS AT UNDERSIDE OF STEEL JOIST**  
NOT TO SCALE



**TYPICAL STEEL LINTEL DETAIL**  
NOT TO SCALE

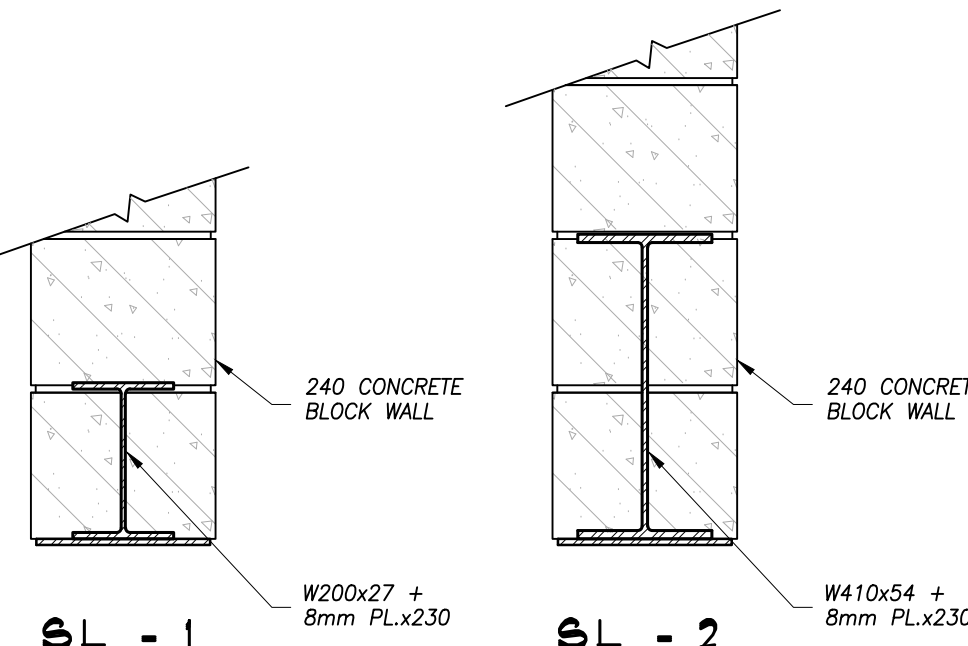
(REFER TO MECHANICAL FOR OPENING SIZE & LOCATIONS FOR LINTELS ABOVE MECH. PENETRATIONS)

CLEAR SPAN	140 WALL	190 WALL
UP TO 1200	2Ls 75x65x8	2Ls 90x90x8
1200 TO 1800	2Ls 90x65x8	2Ls 125x90x8
1800 TO 2100	2Ls 90x65x10	2Ls 150x90x8

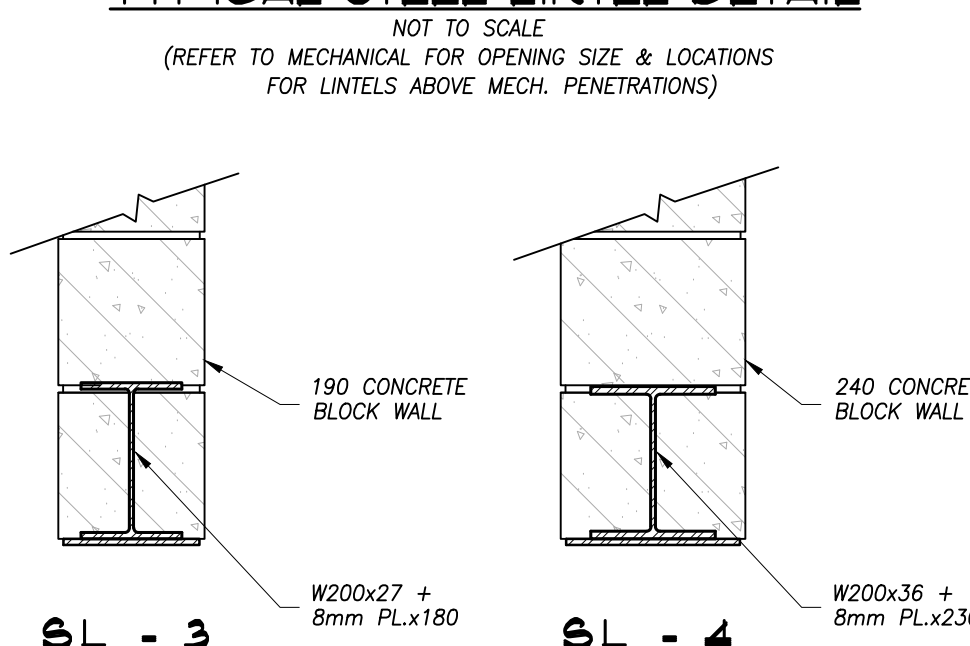
  

CLEAR SPAN	240 WALL	290 WALL
UP TO 1200	2Ls 100x100x8	3Ls 90x90x8
1200 TO 1800	2Ls 150x100x8	3Ls 125x90x8
1800 TO 2100	2Ls 150x100x8	3Ls 150x90x8

FOR LINTELS IN 90 VENEER, USE 1 ANGLE OF THAT NOTED FOR 190 WALL ON SIMILAR SPAN.  
DOUBLE ANGLES TO BE STITCH WELDED BACK TO BACK.



**S.L. - 1**



**S.L. - 4**

**GENERAL NOTES**

- CHECK ALL DIMENSIONS ON THESE DRAWINGS WITH ALL OTHER DRAWINGS, INCLUDING BUT NOT LIMITED TO DRAWINGS PREPARED ARCHITECTURAL, MECHANICAL OR ELECTRICAL CONSULTANTS. REPORT ANY INCONSISTENCIES TO THE ENGINEER PRIOR TO COMMENCING WITH THE WORK. DO NOT SCALE THE DRAWINGS.
- THE DESIGN LIVE LOADS ARE INDICATED ON THE DRAWINGS. RENOVATION LOADS SHALL NOT EXCEED THE DESIGN LOADS.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING AND ANY OTHER TEMPORARY OR PERMANENT MEASURES AS REQUIRED DURING RENOVATION. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORT OF EXISTING OR ADJACENT STRUCTURES AS REQUIRED. ALL BRACING AND SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- REFER TO OTHER CONSULTANTS DRAWINGS FOR DETAILS NOT INDICATED ON THE STRUCTURAL DRAWINGS.
- THE STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS.
- CLARIFY ANY QUERIES WITH THE ENGINEER REGARDING THE INTERPRETATION OF THE DRAWINGS, PRIOR TO THE COMMENCEMENT OF ANY WORK.

**CONCRETE NOTES**

- ALL STRUCTURAL CONCRETE ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD CAN/CSA A23.3. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA STANDARD CAN/CSA A23.1.
- MINIMUM CONCRETE STRENGTH AT 28 DAYS SHALL BE:
  - FOOTINGS 25 MPa TYPE N
  - SLAB ON GRADE 25 MPa TYPE N
  - SLUMP SHALL BE 75mm ± 25mm.
  - AGGREGATE SHALL BE 20mm MAXIMUM.
  - AIR ENTRAINMENT TO BE 6% ± 1% WHEN EXPOSED TO EXTERIOR. CONTRACTOR TO SUBMIT CONCRETE MIX DESIGN FOR REVIEW.
- THE DEFORMED REINFORCING STEEL SHALL CONFORM TO CSA STANDARD C30.18M GRADE 300R FOR STIRRUPS AND TIES AND GRADE 400R FOR ALL OTHER REINFORCING, UNLESS OTHERWISE NOTED. THE REINFORCING LAP LENGTH SHALL BE "CLASS B" IN SPLICES. ALL REINFORCING HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH A23.1.
- WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH CSA G30.5. ALL MESH SHALL BE CHAISED PRIOR TO THE CONCRETE POUR. LIFTING OF THE MESH DURING THE CONCRETE POUR WILL NOT BE PERMITTED. ALL SPLICES SHALL BE A MINIMUM OF TWO CROSS WIRE SPACINGS PLUS 50mm.
- THE REINFORCING COVER FOR CONCRETE SHALL BE:
  - 75mm FOR CONCRETE AGAINST EARTH
  - 40mm FOR FORMED CONCRETE EXPOSED TO EARTH OR WEATHER WHERE THE REINFORCING BAR IS 15M OR SMALLER
  - 50mm FOR FORMED CONCRETE EXPOSED TO EARTH OR WEATHER WHERE THE REINFORCING BAR IS 20M OR LARGER
  - 25mm FOR INTERIOR CONCRETE. ALL CHAIRS, BOLSTERS, SPACERS AND BAR SUPPORTS SHALL BE IN ACCORDANCE WITH A23.1.
- FOOTINGS SHALL BEAR ON NATIVE UNDISTURBED SOIL WITH A MINIMUM BEARING RESISTANCE OF:
  - 100 kPa (SLS)
  - 150 kPa (ULS)

**MASONRY NOTES**

- ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD S304.1. ALL MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA STANDARD A371. ALL MASONRY CONNECTORS, REINFORCING AND TYING SHALL BE IN ACCORDANCE WITH CSA A370. ALL MORTAR AND GROUT SHALL BE IN ACCORDANCE WITH A179.
- ALL CONCRETE BLOCKS SHALL BE NORMAL WEIGHT TYPE H/15/A/M UNLESS OTHERWISE NOTED. MORTAR SHALL BE TYPE S FOR LOADBEARING AND TYPE N FOR NON-LOADBEARING.
- VERTICAL CONTROL JOINTS SHALL BE PROVIDED AT A MAXIMUM SPACING OF 6000mm. REFER TO ARCHITECTURAL DRAWING FOR DETAILS AND LOCATIONS.
- TRIM ALL OPENINGS WITH 2-15M BARS.
- GROUT SHALL CONSIST OF ON ONE PART PORTLAND CEMENT, THREE PARTS SAND (MAXIMUM AGGREGATE SIZE SHALL BE 10mm) WITH WATER TO PROVIDE A MINIMUM 10MPa COMPRESSIVE STRENGTH AT 28 DAYS. SLUMP SHALL BE 200mm TO 250mm.
- ALL CELLS CONTAINING REINFORCING SHALL BE GROUTED SOLID. TWO BLOCK COURSES BELOW BEARING PLATES SHALL BE GROUTED SOLID.
- THE MASONRY SHALL BE CONSTRUCTED EVENLY WITH MAXIMUM LIFTS OF 1200 PER DAY. DO NOT TOOTH AND BOND OR STACK BOND MASONRY. RAKE BACK ENDS OF UNFINISHED WALLS.
- ALL MORTAR JOINTS SHALL BE TOOLED (CONCAVE). A MINIMUM BED JOINT OF 6mm IS REQUIRED FOR THE STARTING COURSE TO A MAXIMUM OF 20mm. THE BED JOINTS SHALL BE 10mm.
- PROVIDE VERTICAL AND HORIZONTAL REINFORCING AS FOLLOWS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
  - 140 CONCRETE BLOCK - 10M VERTICAL AT 600 O.C. & HEAVY DUTY TRUSS TYPE HORIZONTAL REINFORCING EVERY SECOND COURSE.
  - 190 CONCRETE BLOCK - 15M VERTICAL AT 800 O.C. & HEAVY DUTY TRUSS TYPE HORIZONTAL REINFORCING EVERY SECOND COURSE.
  - 240 CONCRETE BLOCK - 20M VERTICAL AT 600 O.C. & HEAVY DUTY TRUSS TYPE HORIZONTAL REINFORCING EVERY COURSE.
- THE HORIZONTAL REINFORCING AT EXTERIOR WALLS SHALL BE GALVANIZED. DO NOT EXTEND HORIZONTAL REINFORCING THROUGH CONTROL JOINTS UNLESS OTHERWISE NOTED.
- PROVIDE A STEEL LINTEL OVER ALL OPENINGS OR RECESSES INCLUDING OPENINGS FOR MECHANICAL AND ELECTRICAL COMPONENTS. ALL EXTERIOR LINTELS TO BE HOT DIP GALVANIZED.
- BUILD THE MASONRY SOLID AROUND ALL BEAM, LINTEL AND JOIST POCKETS. INSTALL BEARING PLATES AT THE SPECIFIED ELEVATION AND GROUT THE PLATE INTO THE WALL A MINIMUM OF 400mm.
- PROVIDE TEMPORARY BRACING AS REQUIRED TO SUPPORT THE MASONRY WALLS IN CONSTRUCTION. PROTECT THE MASONRY WALLS FROM THE ELEMENTS AT ALL TIMES EXCEPT DURING CONSTRUCTION PROGRESS.

**STRUCTURAL STEEL NOTES**

- ALL STRUCTURAL STEEL ELEMENTS, INCLUDING DESIGN OF ELEMENTS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH CAN/CSA S16.
- ALL STRUCTURAL STEEL SHALL CONFORM TO CSA (40.21 (300W) EXCEPT W SECTIONS AND PLATES (40.21 (350W), HSS MEMBERS (40.21 (350W) CLASS C OR ASTM A500 GRADE C, ANCHOR BOLTS ASTM A307, COLD FORMED SECTIONS ASTM A570M GRADE 350W, UNLESS OTHERWISE NOTED, ALL SECTIONS SHALL BE PRIME PAINTED WITH THE SURFACE PREPARATION AND PAINTING PROCEDURES IN ACCORDANCE WITH CAN/CSG 85.10.
- ALL WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA W59. THE STEEL FABRICATOR SHALL BE FULLY QUALIFIED UNDER THE REQUIREMENTS OF THE CANADIAN WELDING BUREAU IN CONFORMANCE WITH CAN/CSA W47.1.
- DESIGN ALL MOMENT AND SHEAR CONNECTIONS FOR THE FULL CAPACITY OF THE SMALLER MEMBER IN THE CONNECTION UNLESS OTHERWISE NOTED.
- PROVIDE MINIMUM BEARING LENGTH OF STEEL MEMBERS AS FOLLOWS:
  - ON MASONRY - 150mm
  - ON STEEL - 90mm
- THE BASE PLATE AND BEARING PLATE GROUT SHALL BE OF THE CEMENTITIOUS NON-SHRINK TYPE.
- DECK SHALL BE EITHER 38mm OR 76mm DEEP IN ACCORDANCE WITH CSA S136 AND SHALL BE FABRICATED FROM ASTM A653 SS GRADE 230 GALVANIZED STEEL WITH A Z775 GALVANNEAL OR Z275 GALVANIZED ZINC COATING. THE MINIMUM NOMINAL STEEL CORE THICKNESS SHALL BE 0.76mm. STEEL DECK SHALL BE FASTENED TO THE SUPPORT STRUCTURE WITH 20mm SPOT WELDS AT NOT MORE THAN 300mm c/c (150mm AT PERIMETER). CLUNG SIDELAPS AT 600mm c/c. ALL WELDS TO BE TOUCHED UP WITH PRIMER. MECHANICAL FASTENERS MAY ONLY BE USED WITH THE PERMISSION OF THE ENGINEER.
- FULLY WELD THE BASE PLATE TO THE COLUMN TO DEVELOP THE ANCHOR BOLTS. PROVIDE CAP PLATES ON ALL COLUMNS. PROVIDE 6mm CAP PLATES ON ALL COLUMNS.
- PROVIDE MINIMUM 175x10x175 BEARING PLATES FOR ALL STRUCTURAL STEEL c/w 2-150 ANCHORS UNLESS OTHERWISE NOTED.
- ALL BOLTS SHALL BE TIGHTENED WITH A SUITABLE TORQUE WRENCH IN ACCORDANCE WITH CSA S16.
- ALL STEEL EXPOSED TO THE EXTERIOR TO BE HOT DIP GALVANIZED.
- ERECT STRUCTURAL STEEL IN ACCORDANCE WITH CSA S16 AND IN CONFORMANCE WITH THE APPROVED SHOP DRAWINGS.

**LIGHT GAUGE STEEL FRAMING NOTES**

- GENERAL**
- THESE NOTES APPLY TO THE STEEL STUD FRAMING COMPONENT OF THE EXTERIOR WALL SYSTEM ONLY.
  - THE DESIGN WIND LOADING IS 1.2kN/m<sup>2</sup> (25 PSF) DETERMINED BY O.B.C. REQUIREMENTS AND CAN-S136. DEFLECTION IS LIMITED TO L/360.
  - THE DESIGN OF FRAMING SYSTEM IS BASED ON PUBLISHED STUD SECTION PROPERTIES BY BAILEY METAL PRODUCTS LIMITED.
- MATERIAL**
- THE MINIMUM BASE METAL THICKNESS FOR ALL METAL WALL COMPONENTS, EXCLUDING COATINGS ARE NOTED ON THE DRAWINGS.
  - STEEL MEETS THE REQUIREMENTS OF A.S.T.M. A653/A653M SS GRADE 33 (230) FOR 1.22mm MATERIAL AND THINNER, AND SS GRADE 50 (340) CLASS 1 FOR 1.52mm MATERIAL AND THICKER.
  - GALVANIZING TO BE HOT-DIP PROCESS, G90 (Z275).
- EXECUTION**
- METHOD OF CONSTRUCTION SHALL BE BY STICK BUILDING ON SITE.
  - CONNECTIONS SHALL BE ACCOMPLISHED BY SELF DRILLING SCREWS AND OTHER FASTENERS AS SHOWN ON THESE DRAWINGS. PENETRATION BEYOND JOINED MATERIALS SHALL BE NOT LESS THAN THREE EXPOSED THREADS. ALL CONNECTORS USED IN ASSEMBLIES SHALL BE OF CORROSION RESISTANT MATERIAL COMPATIBLE WITH GALVANIZED COATINGS WITH A MINIMUM COATING THICKNESS OF 0.039mm ZINC OR CADMIUM PLATES. NO BLACK CONNECTORS WILL BE ACCEPTED. SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.
  - SCREWS COVERED BY SHEATHING MATERIALS SHALL HAVE LOW PROFILE HEADS.
  - WIRE TYING IS NOT PERMITTED IN STRUCTURAL APPLICATIONS.
  - CUTTING OF STEEL FRAMING MEMBERS SHALL BE BY SAW OR SHEAR. NO TORCH OR MANUAL CUTTING IS PERMITTED.
  - SPLICING OF STUDS OR TRACK IS NOT PERMITTED EXCEPT AS NOTED ON DRAWINGS.
  - BRIDGING SHALL BE OF SIZE, SPACING AND TYPE SHOWN ON THE DRAWINGS AND SHALL BE INSTALLED SO AS TO PROVIDE RESISTANCE TO MINOR AXIS BENDING AND ROTATION OF STUDS. PROVIDE BRIDGING AT 1200mm c/c MAXIMUM.
  - TEMPORARY BRACING SHALL BE PROVIDED AND LEFT IN PLACE UNTIL WORK IS PERMANENTLY STABILIZED.
  - STUDS SHALL SEAT INTO TOP AND BOTTOM TRACKS WITH THE GAP BETWEEN THE END OF THE STUD AND WEB OF THE TRACK NOT TO EXCEED 3mm.
  - VERTICAL ALIGNMENT (PLUMBNESS) OF STUDS SHALL BE WITHIN 1/1000 OF THE SPAN.
  - HORIZONTAL ALIGNMENT (LEVELNESS) OF WALLS SHALL BE WITHIN 1/1000 OF THEIR RESPECTIVE LENGTHS.
  - SPACING OF STUDS SHALL BE WITHIN 3mm FROM DESIGN SPACING PROVIDED THAT CUMULATIVE ERROR DOES NOT EXCEED THE REQUIREMENTS OF THE TYINGING MATERIALS.

**SUBMITTALS**

- SUBMIT FOR REVIEW BY THE CONSULTANT, DETAILED SHOP DRAWINGS FOR ALL STRUCTURAL WORK INCLUDING, BUT NOT LIMITED TO: TEMPORARY SHORING, STRUCTURAL STEEL, REINFORCING STEEL & COLD-FORMED STEEL STUD.
- THE SCALE OF THE DRAWINGS SHALL BE SUCH THAT THE DETAILS OF THE STRUCTURAL WORK ARE CLEARLY SHOWN, AND IN NO CASE SMALLER THAN 1:50 (1/4"=1'-0").
- THE STRUCTURAL DRAWINGS SHALL NOT BE REPRODUCED, IN WHOLE OR IN PART, FOR USE AS SHOP DRAWINGS.
- EACH SUBMITTAL SHALL BEAR THE SEAL AND SIGNATURE OF A QUALIFIED PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
- CONTRACTOR SHALL ALLOW FOR A 5 WORKING DAY TURN AROUND TIME FOR STRUCTURAL CONSULTANT TO REVIEW THE SHOP DRAWINGS.

**LOADING SUMMARY DESIGN STANDARDS**

- ONTARIO BUILDING CODE, 2012, PART 4: STRUCTURAL DESIGN
  - CAN/CSA-A23.3-14, DESIGN OF CONCRETE STRUCTURES
  - CAN/CSA-A23.4-16, DESIGN OF PRECAST CONCRETE STRUCTURES
  - CAN/CSA-S304.1-14, MASONRY DESIGN FOR BUILDINGS
  - CAN/CSA-S16-14, LIMIT STATES DESIGN OF STEEL STRUCTURES
  - CAN/CSA-S136-16, DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS
- SNOW, ICE AND RAIN LOADS**
- APPLIED PER OBC, PART 4, SECTION 4.1.6
- IMPORTANCE FACTOR,  $I_s$  0.9 (SLS) 1.15 (ULS)
  - GROUND SNOW LOAD,  $S_g$  1.1 kPa (22.97 PSF)
  - ASSOCIATED RAIN LOAD,  $S_r$  0.4 kPa (8.35 PSF)
  - WIND EXPOSURE FACTOR,  $C_w$  1.47 kPa (30.70 PSF)
  - ROOF SNOW LOAD,  $S_s$  1.47 kPa (30.70 PSF)
  - DRIFT LOADS PER CLAUSE 4.1.6.2.8
  - SLOPE FACTORS PER CLAUSE 4.1.6.2.5 (5) TO (7)
  - ROOF STRUCTURE TO BE DESIGNED IN ACCORDANCE WITH CLAUSE 7.4.10.4(2)

**WIND LOADS**

- APPLIED PER OBC, PART 4, SECTION 4.1.7
- IMPORTANCE FACTOR,  $I_w$  0.7 (SLS) 1.15 (ULS)
  - REFERENCE VELOCITY PRESSURE FOR STRUCTURAL MEMBERS 0.47 kPa 1/50 YEAR PROBABILITY (9.82 PSF)
  - REFERENCE VELOCITY PRESSURE FOR CLADDING & NON-STRUCTURAL MEMBERS 0.36 kPa 1/10 YEAR PROBABILITY (7.5 PSF)
  - GUST FACTORS  $C_g$ :
    - 2.0 FOR WHOLE & MAIN STRUCTURAL MEMBERS
    - 2.5 FOR SMALL ELEMENTS INCLUDING CLADDING
    - 2.0 FOR INTERNAL PRESSURES
  - BUILDING INTERNAL PRESSURE CATEGORY 2 PER NBC 2010 STRUCTURAL COMMENTARY (PART B), COMMENTARY B.

**SEISMIC LOADS**

- APPLIED PER OBC, PART 4, SECTION 4.1.8
- IMPORTANCE FACTOR,  $I_e$  1.3 (ULS)
  - $S_a(0.2)$  0.260
  - $S_a(0.5)$  0.129
  - $S_a(1.0)$  0.062
  - $S_a(2.0)$  0.029
  - PGA 0.167
  - SOIL CLASS (ASSUMED) 1.0

**FLOOR LOADS**

- APPLIED PER OBC, PART 4, TABLE 4.1.5.3
- STAIRS 4.8 kPa (100 PSF)
  - CORRIDORS 4.8 kPa (100 PSF)
  - CLASSROOMS 2.4 kPa (50 PSF)

**SEISMIC SWAY BRACING**

ARTICLE 4.1.8.18(2) OF THE ONTARIO BUILDING CODE NOTES THAT IF THE PRODUCT OF  $I_e \cdot F_a \cdot S_a(0.2)$  IS LESS THAN 0.35, THE REQUIREMENTS NOTED ABOVE NEED NOT APPLY. THESE VALUES ARE EXPLORED BELOW. THIS EXEMPTION IS NOT APPLICABLE TO POST-DISASTER BUILDINGS.

BASED ON THE ABOVE NOTED VALUES, THE PRODUCT OF  $I_e \cdot F_a \cdot S_a(0.2) = 1.3 \cdot 1.0 \cdot 0.260 = 0.338$  IS LESS THAN 0.35, THE REQUIREMENTS NOTED ABOVE NEED NOT APPLY. THESE VALUES ARE EXPLORED BELOW. THIS EXEMPTION IS NOT APPLICABLE TO POST-DISASTER BUILDINGS.

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Project North True North

No.	Revisions	Date
2	ISSUED FOR ADDENDUM NO.1	2023/04/04
1	ISSUED FOR BIDS / PERMIT	2023/03/13
No.	Issue	Date

LICENSED PROFESSIONAL ENGINEER  
E. G. HADDOO  
100210359  
04/04/2023  
PROVINCE OF ONTARIO

Drawing Title:  
**COVER PAGE, GENERAL NOTES & DETAILS**

Scale: AS NOTED Date: APRIL 2023

Drawn by: JRD Checked by: EH

Job No. Drawing No.

2215A S0.01

DRAWINGS CREATED USING INFORMATION FROM EX. DRAWINGS PREPARED BY:  
(1965 ORIGINAL) SHORE & MOFFAT ARCHITECTS PROJECT NO. 230 DATED 1956/02/06  
(1969 ADDITION #2) SHORE & MOFFAT AND PARTNERS. PROJECT NO. 2300 DATED 1969/10/20

