HUMER COLLEGE PHASE 4 BOOK STORE RENOVATION ATA ARCHITECTS 205 HUMBER COLLEGE BLVD ETOBICOKE ON

ISSUED FOR TENDER

05/27/2022

STRUCTURAL DRAWING LIST

SHEET NO	SHEET NAME
S0-00	COVER SHEET
S0-01	GENERAL NOTES
S1-00	BOOK STORE EXISTING FLOOR PLAN
S1-01	BOOK STORE PROPOSED FLOOR PLAN
S1-04	DETAILS & SECTIONS
S1-05	DETAILS & SECTIONS
S1-06	DETAILS & SECTIONS

STRUCTURAL SCOPE OF WORK

- REMOVE EXISTING NON-LOAD BEARING WALL SEE ARCH/STRUCTURAL DWG FOR EXTENT.
- REMOVE DOORS IN EXIST NON-LOAD BEARING BLOCK WALL AND REFILL DOOR OPENING AS MARKED IN ARCH/STRUCTURAL.
- REMOVE THE EXIST CONCRETE STAIRS/STEEL HANDRAILS ALONG GRID ED & EE.
- REMOVE THE EXIST CONCRETE RAMP/STEEL HANDRAIL BETWEEN GRID E11 & E10b
- NEW DOORS OPENINGS IN EXIST BLOCK WALL SEE ARCH/STRUCTURAL DWG FOR LOCATION.
- NEW RAISED FLOOR SEE ARCH/STRUCTURAL DWG FOR EXTENT.
 NEW RAMPS SEE ARCH/STRUCTURAL DWG FOR EXTENT.
- FRAMING FOR NEW ENTERANCE CANOPY/SECURITY SCREEN OF BOOKSTORE.
- FRAMING FOR NEW DISPLAY POD SEE ARCH FOR LAYOUT.
 NEW MECH TRENCH IN SLAB ON GRADE SEE ARCH/MECH DWG FOR
- FRAMING FOR DISPLAY HANGER IN BOOK STORE AREA SEE ARCH FOR LAYOUT





CD-1 PERFORM ALL CONSTRUCTION IN CONFORMANCE WITH THE BUILDING AND DESIGN CODES REFERENCED WITHIN THESE DOCUMENTS. THE PROJECT DOCUMENTS REFER TO THE FOLLOWING CODES AND STANDARDS, UON:

STRUCTURAL REPAIR IS IN ACCORDANCE WITH THE FOLLOWING:

ONTARIO BUILDING CODE 2012 (2019 AMENDMENTS)

THE CURRENT PERFORMANCE LEVEL IS MAINTAINED AND SEISMIC OR OTHER STRUCTURAL EVALUATION AND UPGRADING INCLUDING UPGRADING TO CARRY GRAVITY LOADS IS NOT INCLUDED IN THE SCOPE OF THE PROJECT. TT-S ACCEPTS NO RESPONSIBILITY FOR THE STRUCTURAL ADEQUACY OF THE REMAINDER OF THE EXISTING BUILDING WHICH REMAINS THE RESPONSIBILITY OF THE ORIGINAL STRUCTURAL ENGINEER, NOR FOR POSSIBLE DETRIMENTAL SEISMIC OR OTHER EFFECTS THE REMAINDER OF THE BUILDING MAY HAVE ON THE RENOVATED

RENOVATION OF THE EXISTING BUILDING IS CONSIDERED "BASIC", AS STIPULATED BY PART 11 OF THE ONTARIO BUILDING CODE. MODIFICATIONS TO THE BUILDING STRUCTURE ARE DESIGNED TO MAINTAIN ITS EXISTING PERFORMANCE LEVEL ADEQUACY OF THE BASE BUILDING STRUCTURE REMAINS THE RESPONSIBILITY OF

CONCRETE ELEMENTS ARE DESIGNED PER CSA A23.3-04 – DESIGN OF CONCRETE

CD-2 UNLESS OTHERWISE NOTED, DESIGN LOADS SHOWN IN THIS GENERAL NOTES BELOW ARE SPECIFIED (UNFACTORED) LOADS, APPROPRIATE LOAD FACTORS, PER NBC 2010.

SELF WEIGHT (SWT) IS DUE TO THE WEIGHT OF THE STRUCTURE ITSELF. IT VARIES WITH THE STRUCTURAL SYSTEM, AND INCLUDES CONCRETE TOPPINGS ON STEEL DECK.

BASED ON THE USE AND OCCUPANCY, THE BUILDING IS DESIGNED TO THE REQUIREMENTS

ES-1 EXISTING STRUCTURAL INFORMATION IS BASED UPON MULTIPLE SITE VISITS CONDUCTED BY TT .EXISTING CONDITIONS ARE ASSUMED. SURVEY THE EXISTING STRUCTURE AFTER REMOVING FINISHES AND REPORT ANY VARIATIONS TO TT-S

ES-2 DESIGN OF STRUCTURAL WORKS RELATED TO THE EXISTING BUILDING HAS BEEN CARRIED OUT AS FAR AS PRACTICAL, GIVEN LIMITED AVAILABILITY OF THE EXISTING DRAWINGS AND LIMITED RECORDS OF THE STRUCTURAL MODIFICATIONS LIKELY TO HAVE BEEN MADE THROUGH THE LIFE OF THE BUILDING. MODIFICATIONS TO THE PROPOSED STRUCTURAL REPAIRS AND / OR DETAILS MAY BE REQUIRED IF EXISTING CONDITIONS ARE FOUND TO BE DIFFERENT FROM THOSE ASSUMED AND SHOWN ON

ES-3 TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING STRUCTURES DURING

ES-4 SAFELY STORE ALL STRUCTURAL ELEMENTS AND OTHER PRODUCTS WHICH ARE TO BE

ES-5 REMOVE FROM SITE ALL OTHER STRUCTURAL ELEMENTS AND PRODUCTS WHICH ARE

ES-6 SCHEDULE WORK TO MINIMIZE EFFECT ON THE EXISTING BUILDING OPERATION. USE EQUIPMENT AND PROCEDURES TO MINIMIZE NOISE, DUST AND VIBRATIONS. SUBMIT PROPOSED SCHEDULE FOR REVIEW BY THE CONSULTANT AND THE OWNER.

ES-7 ALL SHORING AND OTHER TEMPORARY WORKS TO BE DESIGNED BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR, LICENSED IN THE PLACE WHERE THE PROJECT IS DRAWINGS SIGNED AND SEALED BY THAT ENGINEER SHOWING DEMOLITION PROCEDURE AND SEQUENCE AND ALL THE NECESSARY SHORING. ES-8 DO NOT ALTER MATERIAL PROPERTIES OF THE STRUCTURAL STEEL WHICH IS TO

ES-9 MAKE GOOD ALL EXISTING WORK DISTURBED BY THE SHORING OPERATIONS. DEMOLITION, EXCAVATION AND OTHER CONSTRUCTION PROCEDURES.

DE-1 THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE MEANS AND METHODS OF DEMOLITION AND THE INTEGRITY AND STABILITY OF THE EXISTING STRUCTURE DURING DEMOLITION UNTIL THE WORK IS COMPLETED. THE CONTRACTOR SHALL PROVIDE SHORING IN REQUIRED LOCATIONS WHERE EXISTING CONSTRUCTION TO REMAIN WILL BE AFFECTED BY DEMOLITION. CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO WHERE THE PROJECT IS

DE-2 THE CONTRACTOR IS REPONSIBLE FOR REPAIRS TO ANY ELEMENTS WHICH ARE TO REMAIN AND THAT HAVE BEEN DAMAGED DURING THE DEMOLITION PROCESS TO THE COMPLETE SATISFACTION OF THE OWNER. THE REPAIRS SHALL BE AT NO EXPENSE TO

DE-3 ALL EXISTING STRUCTURE IS INDICATED FOR REFERENCE ONLY AND IS TO BE FIELD VERIFIED BY THE CONTRACTOR. VERIFY THE EXACT EXTENT OF DEMOLITION AT THE SITE. DETERMINE THE NATURE AND EXTENT OF DEMOLITION THAT WILL BE NECESSARY BY COMPARING THE CONTRACT DOCUMENTS WITH THE EXISTING CONSTRUCTION. IMMEDIATELY NOTIFY THE DESIGN PROFESSIONALS OF ANY

DE-4 THE CONTRACTOR SHALL USE THE STRUCTURAL CONTRACT DOCUMENTS IN CONJUNCTION WITH THE ARCHITECTURAL AND MEP DEMOLITION CONTRACT DOCUMENTS. IN THE EVENT OF CONFLICTS. THE CONTRACTOR SHALL IMMEDIATELY

DE-5 THE CONTRACTOR SHALL USE QUALIFIED, EXPERIENCED PERSONNEL FOR DEMOLITION AND REMOVAL OPERATIONS. PERFORM DEMOLITION AND REMOVAL OPERATIONS IN A CAREFUL AND ORDERLY MANNER TO PREVENT HAZARDS TO PERSONS, DAMAGE TO PROPERTY, AND THE SPREADING OF DUST AND DEBRIS.

DE-6 DO NOT PERMIT PORTIONS OF THE STRUCTURE TO FALL NOR DEBRIS TO DROP EXCEPT BY METHODS WHICH WILL INSURE INTEGRITY OF THE STRUCTURE. DE-7 PRIOR TO THE START OF WORK, VERIFY THAT THE SCOPE OF DEMOLITION INDICATED

ANY MECHANICAL SYSTEM, ELECTRICAL SYSTEM OR UTILITY EMBEDDED IN THE DE-8 DO NOTE REMOVE MORE OF THE EXISTING STRUCTURE THAN INDICATED ON CONTRACT DOCUMENTS. DO NOT DAMAGE, MAR, CUT OR DEFACE THE REMAINING STRUCTURE OR

- DE-9 THE CONTRACTOR SHALL INCLUDE IN HIS BID THE COST OF REMOVING DEMOLISHED MATERIALS FROM THE SITE IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES, AND REGULATIONS.
- DE-10 WHERE NEW OPENINGS IN EXISTING CONCRETE SLABS OR WALLS ARE TO BE CREATED, THE DEMOLITION CONTRACTOR SHALL CORE HOLES AT THE OUTSIDE CORNERS OF THE NEW OPENING PRIOR TO DEMOLITION. SAW-CUT AND DEMOLISH SLAB OR WALL ONLY AFTER THE INSTALLATION OF ALL REQUIRED NEW STRUCTURAL FRAMING AND/OR REINFORCEMENT IN PLAN OR SECTION, UON. SAW-CUTTING SHALL BE STRAIGHT AND SHALL NOT EXTEND INTO EXISTING SLAB OR WALL TO REMAIN NOR BEYOND THE HOLES CORED AT THE CORNERS OF THE NEW OPENING.

CC CAST-IN-PLACE CONCRETE

CC-1 CONCRETE MATERIALS TO BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE, UON:

ELEMENT	COMPRESSIVE STRENGTH (MPa) AT 28 DAYS	EXPOSURE CLASS	
FOR MECH TRENCHES, INTEROR SLAB ON GRADE	25	N SEE NOTE 2	

NOTES: 1. LIMIT NOMINAL MAXIMUM AGGREGATE SIZE TO 10 (3/8") FOR WALLS LESS THAN 200 (8") THICK PROVIDE MINIMUM DOSAGE OF CORROSION INHIBITOR IS 10L/m³ OF 30% SOLUTION OF CALCIUM NITRITE, AS PER CSA-S413. 3. CEMENT TO BE PORTLAND CEMENT TYPE GU UNLESS NOTED OTHERWISE OR REQUIRED BY EXPOSURE CLASS.

- CC-2 CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CSA A23.1. PROVIDE NORMALWEIGHT CONCRETE WITH CURED DENSITY OF 2350 kg/m3 +/- 80 kg/m3. WHERE INDICATED, PROVIDE LIGHTWEIGHT CONCRETE WITH CURED DENSITY OF 1800 kg/m3 +/-50 kg/m3
- CC-3 THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED. THE USE OF RECYCLED CONCRETE IS PROHIBITED. PLACEMENT WITHIN AND CONTACT BETWEEN ALUMINUM ITEMS, INCLUDING ALUMINUM CONDUIT, AND CONCRETE IS PROHIBITED.
- CC-4 ALL CAST-IN-PLACE CONCRETE WILL EXPERIENCE DIFFERING VARIATIONS OF CRACKING. ANY ELEMENT EXPOSED TO DIRECT WEATHER AND/OR TEMPERATURE VARIATIONS DURING CONSTRUCTION OR IN THE FINAL CONDITION IS TO BE TREATED AND REGULARLY MAINTAINED TO PREVENT PROPAGATION OF CRACKS AND WATER PENETRATION. THE CONTRACTOR SHALL DEVELOP A REGULAR MAINTENANCE PROGRAM AND SUBMIT IT TO THE OWNER.
- CC-5 CONTRACTOR AND CONCRETE SUPPLIER TO ENSURE THAT PLASTIC AND HARDENED MIX PROPERTIES MEET SITE REQUIREMENTS FOR PLACING, FINISHING AND THE SPECIFIED PERFORMANCE REQUIREMENTS.
- CC-6 REFER TO CSA A23.1 FOR THE MAXIMUM WATER/CEMENT RATIO. MINIMUM COMPRESSIVE STRENGTH, AIR CONTENT, CURING REQUIREMENTS, CHLORIDE ION PENETRABILITY AND ALTERNATE CEMENT TYPES TO MEET THE REQUIREMENTS FOR THE NOTED EXPOSURE CLASS.
- CC-7 PROTECT CONCRETE FROM FREEZING. DO NOT PLACE CONCRETE AGAINST FROZEN GROUND. USE COLD WEATHER CONCRETING METHODS IN ACCORDANCE WITH CSA-A23.1. PROTECT CONCRETE FROM EXCESSIVE HEAT AND DRYING. USE HOT WEATHER CONCRETING METHODS IN ACCORDANCE WITH CSA-A23.1.
- **<u>RE</u>** <u>CONCRETE REINFORCEMENT</u>
- RE-1 REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES UON:

DEFORMED BARS: EPOXY COATED DEFORMED BARS

WELDED WIRE REINFORCEMENT

CSA G30.18 GRADE 400R (fv = 400MPa) ASTM A615 / A775 ASTM A1064/A1064M (fv = 450MPa) EPOXY COATED WELDED WIRE REINFORCEMENT ASTM A1064 / A884

RE-2 DETAIL REINFORCEMENT BASED ON THE PROJECT REQUIREMENTS, CSA A23.3, UON.

RE-3 WHERE A 90-DEG, 135 – DEG OR 180-DEG HOOK IS GRAPHICALLY INDICATED PROVIDE CORRESPONDING CSA A23.3 STANDARD HOOKS. UON, BARS MARKED CONTINUOUS TO BE TERMINATED IN STANDARD HOOKS AT ENDS, REBAR LENGTHS LISTED ON DRAWINGS DO NOT INCLUDE THE HOOK LENGTH.

- **RE-4 PROVIDE EPOXY COATED REINFORCEMENT AND ACCESSORIES IN AREAS** OF DIRECT EXPOSURE TO THE ENVIRONMENT, CHEMICALS, OR DE-ICING FOR THE AREAS INDICATED ON THE DRAWINGS.
- RE-5 REINFORCEMENT SHALL HAVE CONCRETE PROTECTION PER CSA A23.1. MINIMUM CONCRETE COVER TO REINFORCEMENT CLOSEST TO THE SURFACE TO BE AS FOLLOWS, UNLESS OTHERWISE NOTED.
- FOOTINGS AND PIERS CAST DIRECTLY AGAINST EARTH 75mm FORMED SIDES OF FOOTINGS, PIERS, AND WALLS 40mm SLABS EXPOSED TO CHLORIDES 60mm

<u>MA MASONRY</u>

- MA-1. DESIGN OF MASONRY AND RELATED COMPONENTS SHALL CONFORM TO CSA S304.1; ALL MASONRY CONSTRUCTION SHALL CONFORM TO CSA A371 AND ALL CONNECTORS FOR MASONRY SHALL CONFORM TO CSA \$370.
- MA-2. UNLESS OTHERWISE NOTED ON PLANS. MATERIALS TO BE: HOLLOW BLOCK: CSA A165.1 H/15/A/M
- SOLID BLOCK: CSA A165.1 SF/15/A/M MORTAR: CSA A179 TYPE S, PROPORTIONED BY VOLUME MASONRY GROUT: CSA A179M, 20Pa MINIMUM COMPRESSIVE STRENGTH AT
- 28 DAYS, 200mm SLUMP, MAXIMUM AGGREGATE SIZE 10mm. JOINT REINFORCEMENT: ASTM A1064, TRUSS OR LADDER TYPE EXTERIOR JT REINFORCEMENT: GALVANIZE PER ASTM A153 MASONRY TIES: HOT DIP GALVANIZED
- BRICK: FIRED CLAY BRICK TO CAN/CSA-A82. TYPE X; GRADE EG.; SIZE 215x102.5x65mm
- MA-3. MASONRY CONTRACTOR TO BE A MEMBER OF THE CANADIAN MASONRY CONTRACTORS ASSOCIATION.
- MA-4. UNLESS NOTED OTHERWISE, LAY UNITS IN RUNNING BOND. ALL FACE SHELLS TO BE FULLY BEDDED.
- MA-5. DO NOT USE MORTAR WHERE GROUT IS SPECIFIED.
- MA-6. PROVIDE HOT, COLD AND WET WEATHER PROTECTION AS REQUIRED BY CSA A371.
- MA-7. UNLESS OTHERWISE NOTED, INTERLOCK MASONRY COURSES AT WALL CORNERS.
- MA-8. PROVIDE TEMPORARY BRACING FOR LOAD BEARING MASONRY WALLS UNTIL THE SUPPORTED STRUCTURE, WHICH PROVIDES PERMANENT BRACING, IS COMPLETED.
- MA-9. MOVEMENT JOINTS 1. PROVIDE VERTICAL MOVEMENT JOINTS (MJ) IN LOAD WALLS AT
- LOCATIONS INDICATED ON WALL ELEVATIONS. 2. UNLESS OTHERWISE NOTED ON PLANS, MOVEMENT JOINTS TO BE 12mm
- WIDE. 3. FILL ALL MOVEMENT JOINTS WITH COMPRESSIBLE MATERIAL

SS	STRUCTURAL STEEL				
SS-1	STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS:				
	ROLLED SHAPES AND	CHANNELS:	CAN/CSA-G40.20/G40.21 GRADE 350W OR ASTM A992/A992M GRADE 50 (345 MPa)		
	ANGLES FOR TRUSSE MISCELLANEOUS ANG HOLLOW STRUCTURA	S AND BRACES: GLES: L SECTIONS:	CAN/CSA-G40.20/G40.21 GRADE 300W CAN/CSA-G40.20/G40.21 GRADE 300W ASTM A500 GRADE C		
	SEAMLESS PIPE: PLATES		ASTM A53 GRADE B, TYPE S, MIN YIELD STRENGTH 36 KSI (250 MPa) CAN/CSA-G40.20/G40.21 GRADE 300W		
SS-2	CONNECTION MATERI CONNECTION DESIGN	IAL SHALL CONFORM 1 I:	O THE FOLLOWING MINIMUM REQUIREMENTS OR AS NEEDED FOR		
	ANGLES: WTs: PLATES:	CAN/CSA-G40.20/G40 CAN/CSA-G40.20/G40 CAN/CSA-G40.20/G40	21 GRADE 300W 21 GRADE 350W 21 GRADE 300W		
	BOLTS: NUTS: WASHERS:	ASTM A325M OR A490 ASTM A563 ASTM F436	Μ		
	ANCHOR RODS: HEADED STUDS	CAN/CSA-G40.20/G40. ASTM A108, GRADE 10 19mm DIAMETER LION	21 GRADE 300W)10 THROUGH 1020 HEADED STUD TYPE, Fy = 345 MPa LLENGTHS OF STUDS GIVEN ON DRAWINGS		
	WELD ELECTRODES:	E49XX			
SS-3 SS-4	WHERE NO CAMBER I SPLICES SHALL BE AL	S INDICATED, FABRIC	ATE BEAMS SO THAT ANY NATURAL CAMBER IS UPWARD AFTER ERECTION. ATIONS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS UNLESS		
SS-5	APPROVED OTHERWI	SE BY THE SER IN WR			
00-00	APPLIES TO ALL STEE	EL WITHIN PARKING GA	ARAGE STRUCTURE.		
33-0	THROUGH MAIN MEMI KEPT CLEAN AND OPE	BERS SHALL NOT EXCI EN.	EED 28mm DIA. AND SHALL BE GROUND SMOOTH. THESE DRAINS MUST BE		
SS-7	SHOW ALL COPES, HO ERECTION OR THE W	DLES, OPENINGS AND ORK OF OTHER TRADE	MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ES ON THE SHOP DRAWINGS FOR APPROVAL BY THE DESIGN		
SS-8	FIELD MODIFICATION	OF STRUCTURAL STE	EL IS PROHIBITED WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN		
SS-9	PROFESSIONALS. STEEL USING COMPLE	ETE JOINT PENETRATI	ON GROOVE WELDS THAT FUSE THROUGH THE THICKNESS OF THE		
	FLANGE OR WEB SHA	LL HAVE A MINIMUM C PES WITH A FLANGE T	HARPY V-NOTCH IMPACT TESTING VALUE AS FOLLOWS: HICKNESS EXCEEDING 50mm AND BUILT-UP HEAVY SHAPES WITH PLATES		
	EXCEEDING 50mm B. REGARDLESS OF GIRDERS BRACES	IN THICKNESS: 20 FT- THICKNESS, ALL TRUS	LB @ 70 DEG. F ISES, LATERAL SYSTEM MEMBERS (INCLUDING COLUMNS, WIND DEG. F		
	C. STEEL EXPOSED T D. REGARDLESS OF T	TO TEMPERATURES IN THICKNESS, ALL TRUS	SERVICE BELOW 50 DEG. F: 20 FT-LB @ 40 DEG. F MAX SES, LATERAL SYSTEM MEMBERS (INCLUDING COLUMNS, WIND EMPERATURES IN SERVICE RELOW 50 DEC. F: 30 ET LB @ LAST + 70 DEC. F.		
	40 DEG. F MAX E. WELD METAL: 20 F	T-LB @ MINUS 20 DEG	EMPERATORES IN SERVICE BELOW 50 DEG. F. 50 FT-LB @ LAST + 70 DEG F,		
	F. WELD METAL EXPO FT-LB @ 40 DEG. F G. TESTING IS TO BE I	MAX NACCORDANCE WITH	AES IN SERVICE BELOW 50 DEG. F: 20 FT-LB @ MINUS 20 DEG. F AND 40 ASTM A6/A6M, SUPPLEMENTARY REQUIREMENT S30, CHARPY V-		
	A673 FOR PLATES,	AT ANY PERMITTED L	SHAPES – ALTERNATE CORE LOCATION, AT ROLLED SHAPES AND ASTM OCATIONS.		
	LAST – LOWEST ANTIO TEMPERATURE FOR T	THE PROJECT SITE	IPERATURE. IN ABSENCE OF MORE ACCURATE DATA, THE RECORD LOW		
<u>SC-1</u>	ALL STEEL DETAILS A	CONNECTIONS	ALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CSA S16 AND		
SC-2	THE HANDBOOK OF S	TEEL CONSTRUCTION	REING COMPLETELY DESIGNED ON THE STRUCTURAL DRAWINGS		
00 L	SHALL BE DESIGNED A PROJECT IS LOCATED SPECIFICATION SECT	AND DETAILED BY A PI D. THE DESIGN AND DE IONS.	ROFESSIONAL ENGINEER LICENSED IN THE PROVINCE WHERE THE TAILING SHALL COMPLY WITH ALL APPLICABLE CODES AND		
SC-3	UNLESS OTHERWISE DETAILING OF CONNE	NOTED, DETAILS INDIG	CATED ON DRAWINGS INDICATE GENERAL CRITERIA FOR DESIGN AND DICATED ON DRAWINGS ARE NOT INTENDED TO CONVEY COMPLETE		
	IS OBTAINED THROUG DO NOT SHOW ERECT	GH DESIGNING OF AN I FION AIDS. PROVIDE E	NDIVIDUAL CONNECTION FOR A GIVEN SET OF LOADS. THESE DETAILS RECTION AIDS AS REQUIRED AND REMOVE THEM AFTER WORK IS		
SC-4	SUBMIT CONNECTION	IS NOT SPECIFICALLY	DETAILED ON THE DRAWINGS TO THE SER FOR REVIEW PRIOR TO		
	PROVIDE FULL MOME DRAWINGS PROVIDE	AWINGS. FOR BIDDING NT CAPACITY OF MEM FULL SHEAR CAPACIT	BER (.9 Fy Z) AND WHERE NO VERTICAL SHEAR IS INDICATED ON Y (.54 Fy d tw).		
SC-5	ALTERNATE CONNECTOR FORMA	TIONS TO THOSE SHO ALLY SUBMITS ALTERN	WN ON DRAWINGS WILL ONLY BE CONSIDERED ACCEPTABLE IF IATES AND THE SER APPROVES THE SUBMITTAL.		
SC-6	FOR CONNECTION DE CENTERLINES, UON.	SIGN AND DETAILING,	SET CONNECTION WORK POINT AT INTERSECTION OF MEMBER		
SC-7	DESIGN ALL CONNECTINDICATED ON THE DI	TIONS FOR FORCES IN RAWINGS ARE FACTO	IDICATED ON THE DRAWINGS. CONNECTION DESIGN FORCES RED UON.		
SC-8	USE NO MORE THAN T SKIP ONE SIZE BETWE	TWO BOLT DIAMETERS EEN DIAMETERS. BOL	S, ALL BOLTS OF THE SAME DIAMETER SHALL BE OF THE SAME GRADE, TS TO BE A MINIMUM OF 19mm DIAMETER GRADE A325 OR AS		
SC-9	COORDINATED WITH BEAM CONNECTION D	COMPLETELY DESIGN DESIGN NOTES	ED CONNECTIONS.		
	SEE PLANS AND ELEV IN SCHEDULES.	ATIONS FOR BEAM RE	ACTIONS AND MOMENTS THAT ARE LARGER THAN THE VALUE SHOWN		
	DEVELOP THE LARGE ELEVATIONS.	R OF THE BEAM SHEA	R REACTION SCHEDULED, SHOWN ON PLANS OR SHOWN ON		
	DEVELOP THE LARGE	R OF THE MOMENT SC	HEDULED, SHOWN ON PLANS OR SHOWN ON ELEVATIONS.		
	DEVELOP THE LARGE STEEL BEAM LEGEND	R OF THE AXIAL FORC	E DENOTED AS TF SHOWN ON PLANS OR SHOWN ON ELEVATIONS. SEE		
	ALL BEAM REACTIONS GRAVITY DIRECTION	S, AXIAL FORCES AND WHILE AXIAL FORCES	MOMENTS SHOWN ACT CONCURRENTLY. UON, BEAM REACTIONS ACT IN AND MOMENTS ARE TO BE CONSIDERED REVERSIBLE.		
	WHERE NO AXIAL FOR EQUAL TO 5% OF THE DESIGNING FOR THIS	RCE IS SHOWN, ALL BE FACTORED DEAD LOA MINIMUM AXIAL FORC	AM CONNECTIONS SHALL BE DESIGNED FOR A MINIMUM AXIAL FORCE AD PLUS LIVE LOAD VERTICAL BEAM SHEAR. FOR THE PURPOSES OF E: THE VERTICAL BEAM SHEAR AND CORRESPONDING MINIMUM AXIAL		
	FORCE NEED NOT BE SLOTTED HOLES PAR	CONSIDERED TO ACT ALLEL TO THE AXIAL F	CONCURRENTLY AND BEARING BOLTS IN CONNECTIONS WITH SHORT ORCE ARE PERMITTED.		
	EXCEPT WHERE "SNU DETAILING IS REQUIR	IG TIGHT" INSTALLATIO ED, ALL HIGH STRENG	ON IS SPECIFICALLY PERMITTED ON DRAWINGS OR "SLIP CRITICAL" TH BOLTS SHALL BE INSTALLED AS FULL PRETENSIONED BOLTS.		
	AT A MINIMUM ALL BO HOLES.	LTED MOMENT AND A	XIAL CONNECTION SHALL HAVE PRETENSIONED BOLTS IN STANDARD		
	BOLTED MOMENT CO	NNECTIONS AT CANTI	EVERS AND BACKSPANS SHALL USE SLIP CRITICAL BOLTS.		
	DO NOT USE OVERSIZ DRAWINGS OR APPRO	2ED OR SLOTTED HOLI DVED IN WRITING BY T	ES FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE THE SER.		
SC-10	ALL WELDING SHALL (W47.1, LATEST EDITIO FORCES, THE MINIMU DESIGN DRAWINGS A	CONFORM TO THE RE(DN. ALL WELD SIZES S JM SIZE PER CSA W59, RE CONSIDERED EEE	QUIREMENTS OF THE STRUCTURAL WELDING CODE, CSA W59, S16 AND HALL BE THE LARGER OF THE SIZE REQUIRED BY CONNECTION OR 5mm MINIMUM FILLET WELD UON. ANY WELD SIZES SHOWN ON THE CTIVE WELD SIZES AND SHALL BE INCREASED IN ACCORDANCE WITH		
SC 11	CSA W59 AS REQUIRE	ED BY GAPS OR SKEW	S BETWEEN COMPONENTS.		
SC 10	CUTS AFTER WELD IS		SMOOTH WHERE REQUIRED BY DETAIL.		
SC-12	C-12 WHERE REQUIRED BY DETAIL REMOVE WELD BACK UP BARS AND GRIND SMOOTH AFTER WELD IS COMPLETED.		T SPACING OF 3 TIMES THE BOLT DIAMETER AND A MINIMUM EDGE		
SC-14	DESIGN, DETAIL, FURI	LO. ALOU REFER TO T	FFINEL DE FAILS. FFENERS, CONTINUITY PLATES, DOUBLER PLATES, OR OTHER		
	NECESSARY ADDITIO DRAWINGS ARE BASE	NAL LOCAL STRENGTH D ON MEMBER BEHAV	IENING MEASURES AS REQUIRED. MEMBER SIZES INDICATED ON THE IOR AWAY FROM CONNECTIONS.		
<u>CS</u> CS-1	ALL COLD FORMED STEEL	= FEEL STUDS AND LOIS	T WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE		
<u>(</u>	ALL STEEL TO BE CAL	VANIZED TO THE MIN	AS WELL AS CAN-S136.		
00-2 C 9 9	STEEL FRAMING UNLI	ESS SPECIFIED OTHER	RWISE IN THE PROJECT SPECIFICATIONS.		
00-0	STRUCTURAL DRAWING D	NGS. A PROFESSIONAL R CONNECTIONS IN AC	L ENGINEER RETAINED BY THE CONTRACTOR TO DESIGN AND DETAIL THESE CORDANCE WITH STRUCTURAL DRAWINGS AND SPECIFICATIONS.		
CS-4	DESIGN AND DETAILIN WALLS, PARAPETS,	NG OF NON-LOADBEAR ARTITIONS, FRAMING EFER TO ARCHITECTI	RING COLD FORMED STEEL COMPONENTS (INCLUDING EXTERIOR WIND BEARING FOR SOFFITS AND BULKHEADS, INFILL STUDS, ETC.) IS THE RESPONSIBILITY OF IRAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS		
CS-5	DO NOT CUT HOLES C	DR OTHERWISE MODIF	Y MEMBERS ON SITE WITHOUT THE CONSULTANT'S APPROVAL.		
9 9 J			SCREWS LING FASTENERS SPECIFIED MAY BE SUBSTITUTED WITH AN APPROVED		

CS-6 ALL SCREWS TO BE ITW BUILDEX #10 TEKS SCREWS UNO. FASTENERS SPECIFIED MAY BE SUBSTITUTED WITH AN APPROVED EQUIVALENT SUBJECT TO ENGINEER'S APPROVAL CS-7 MINIMUM GRADE OF STEEL FOR STUDS. TRACKS AND ACCESSORIES SHALL BE AS FOLLOWS

THINNER THAN 18 GAUGE - 228 MPa GREATER THAN 18 GAUGE - 345 MPa





BIM 360://ON1_TO22003.00_Humber College_2020/TO22003.00-Humber College Phase 4_R20.rvt



1 BOOKSTORE PROPOSED PLAN SCALE: 1:100

ilM 360://ON1_TO22003.00_Humber College_2020/TO22003.00-Humber College Phase 4_R20.rvf









SCALE: NOT TO SCALE









- CONSULTANT AND DO NOT CUT BEFORE RECEIVING FURTHER INSTRUCTIONS.

WALL		HEIGHT OF SUPPORTED MASONRY "h"			
THICKNESS	SPAN	h≤1200 (4'-0")	1200 (4'-0") <h ≤ 2600 (8'-4")</h 	2600 (8'-4")≤h ≤ 4800 (16'-0")	DETA
	UP TO 1200 (4'-0")	2-L64x64x6.4	2-L64x64x6.4	2-L64x64x6.4	
	1200 (4'-0") TO 1800 (6'-0")	2-L64x64x6.4	2-L76x64x7.9	L89x64x7.9	
140 (6")	1800 (6'-0") TO 2400 (8'-0")	2-L76x64x7.9	N/A	N/A	
(PVVE/PVVZA)	2400 (8'-0") TO 3000 (10'-0")	2-L89x64x9.5	N/A	N/A	
	3000 (10'-0") TO 3600 (12'-0")	N/A	N/A	N/A	
	UP TO 1200 (4'-0")	2-L89x89x6.4	2-L89x89x6.4	2-L89x89x6.4	
	1200 (4'-0") TO 1800 (6'-0")	2-L89x89x6.4	2-L89x89x6.4	2-L102x89x6.4	
190 (8") (DM(E)	1800 (6'-0") TO 2400 (8'-0")	2-L89x89x6.4	2-L102x89x7.9	2-L127x89x7.9	
(FVVE)	2400 (8'-0") TO 3000 (10'-0")	2-L102x89x7.9	2-L152x89x7.9	2-L152x89x9.5	89
	3000 (10'-0") TO 3600 (12'-0")	2-L127x89x7.9	2-L152x89x9.5	N/A	****











NOTES:

- 1. THE TOTAL SUPERIMPOSED LOAD ON ANY JOIST SHALL NOT EXCEED THE LOADING SHOWN ON THE STRUCTURAL DRAWINGS INCLUDING CONCENTRATED AND UNIFORM LOADS. CONTRACTOR SHALL COORDINATE ALL SUBCONTRACTORS HANGING METHODS, LOCATIONS, AND LOADS WITH LIMITS PROVIDED IN STRUCTURAL DRAWINGS.

- 2. HANGING CONCENTRATED LOADS SHALL BE APPLIED CONCENTRIC TO THE JOIST CHORD.

- 3. MAXIMUM SPECIFIED DROP CEILING LOAD MUST NOT EXCEED = 0.2 kPa. INFORM EOR IF HANGING CEILING LOAD EXCEED THIS LIMIT
- 4. CONCENTRATED LOADS LOCATED WITHIN 75mm OF THE PANEL POINT CAN BE CONSIDERED TO ACT AT THE PANEL POINT.
- 5. FOR CONCENTRATED LOADS THAT DO NOT MEET THE CRITERIA OF NOTES 3 AND 4, PROVIDE JOIST REINFORCEMENT PER THIS DETAIL. TOTAL LOAD APPLIED TO THE JOIST MUST SATISFY NOTE 1.

TYPICAL JOIST REINFORCEMENT AT CONCENTRATED 5 CEILING HANGER LOAD SCALE: NOT TO SCALE

