

FIFA - EAST VSTS CENTENNIAL PARK

BLACKWELL PROJECT 230227
56 Centennial Park Rd, Toronto, ON

ISSUE: ISSUED FOR TENDER
2024-11-20

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NOT FOR CONSTRUCTION

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SEAL:



3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET

MARK	DATE	DESCRIPTION
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ISSUE:
ISSUED FOR TENDER

PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
56 Centennial Park Rd,
Toronto, ON

DRAWN: SG	CHECKED: VC/JC
SCALE: 1 : 1	PROJECT NUMBER: 230227

SHEET TITLE:
COVER PAGE

S000

010000 GENERAL

- 1. CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE 2012, O REG. 332/12, INCLUDING O REG. 88/19, AND ANY APPLICABLE ACTS OF AUTHORITY HAVING JURISDICTION
2. READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH THE SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS.
3. BEFORE PROCEEDING WITH WORK, CHECK ALL THE DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND REPORT DISCREPANCIES TO THE CONSULTANT. DO NOT SCALE THE DRAWINGS.
4. REFER TO THE ARCHITECTURAL AND OTHER DRAWINGS FOR LOCATIONS AND DIMENSIONING OF OPENINGS AND SLEEVES NOT SHOWN ON THE STRUCTURAL DRAWINGS. ASSUME TYPICAL DETAILS APPLY. HOWEVER, OBTAIN THE CONSULTANT'S PRIOR APPROVAL BEFORE INSTALLING OPENINGS, SLEEVES, ETC. WHICH ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
5. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS OF PITS, BASES, SUMPS, TRENCHES, DEPRESSIONS, GROOVES, CURBS, CHAMFERS AND SLOPES NOT SHOWN ON STRUCTURAL DRAWINGS. ADJUST UNDERSIDE ELEVATIONS OF FOOTINGS AS REQUIRED TO AVOID UNDERMINING THE FOOTINGS AND FOUNDATIONS.
6. HORIZONTAL AND VERTICAL DESIGN LOADS ARE NOTED. THEY SHALL NOT BE EXCEEDED DURING CONSTRUCTION.
7. TYPICAL STRUCTURAL DETAILS SHALL GOVERN THE WORK. IF DETAILS DIFFER ON THE DRAWINGS, THE MOST STRINGENT SHALL GOVERN.
8. CONTRACTOR TO PROVIDE AND BE SOLELY RESPONSIBLE FOR ALL TEMPORARY WORKS.
9. THE INFORMATION SHOWN ON STRUCTURAL DRAWINGS PLUS THE REQUIREMENTS OUTLINED IN SPECIFICATIONS REPRESENT THE BUILDING IN ITS FINISHED STATE. CONTRACTOR TO REVIEW THESE REQUIREMENTS AND DETERMINE ALL TEMPORARY WORKS REQUIRED TO COMPLETE THE STRUCTURE PER CONTRACT DOCUMENTS INCLUDING MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, TEMPORARY SHORING AND/OR BRACING, TEMPORARY OPENINGS, EXCAVATION SHORING, ERECTION PROCEDURES, ETC.
10. SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.

010001 DESIGN NOTES

- 1. THE BUILDING IS DESIGNATED AS BELONGING TO THE NORMAL IMPORTANCE CATEGORY, AS DEFINED IN THE OBC 2012.
2. ALL REINFORCED CONCRETE ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD A23.3.
3. ALL STRUCTURAL STEEL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CAN/CSA-S16.
4. ALL STRUCTURAL TIMBER ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD O86.
5. ALL STRUCTURAL MASONRY ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD S304.1.
6. LATERAL FORCES ON STRUCTURAL FRAME
a) THE LATERAL FORCES ARE RESISTED BY THE VERTICAL STEEL BRACING.
b) THE FRAME IS NOT STABLE UNTIL THE LATERAL LOAD RESISTING SYSTEM IS IN PLACE.
c) WIND:
i. THE DESIGN OF THE STRUCTURE FOR WIND IS BASED ON AN HOURLY WIND PRESSURE OF 0.44 kPa (BASED ON 150 YEAR RETURN).
ii. EXPOSURE CONDITION: ROUGH TERRAIN.
iii. THE IMPORTANCE FACTOR, Iw, FOR WIND DESIGN IS 1.0. FOR DEFLECTION ANALYSIS, THE FACTOR IS 0.75.
iv. THE DESIGN WIND FORCES HAVE BEEN CALCULATED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE 2012 AND WITH THE STATIC PROCEDURE DESCRIBED IN THE USER'S GUIDE - NBC 2015 - STRUCTURAL COMMENTARIES (PART 4).
d) EARTHQUAKE:
i. THE DESIGN OF THE STRUCTURE FOR EARTHQUAKE IS BASED ON:
• Ie = 1.0
• SITE CLASS = D
• Sa(0.2) = 0.193
• Sa(0.5) = 0.106
• Sa(1.0) = 0.056
• Sa(2.0) = 0.027
• PGA = 0.124
• Rd Ro = 1.95
• Fa = 1.0
• Fv = 1.0
ii. THE SEISMIC HAZARD INDEX FOR THIS SITE IS:
• IEFaSa(0.2) = 0.193
iii. THE STRUCTURE HAS BEEN DESIGNED FOR:
• N/S DIRECTION
o BASE SHEAR = 280kN
• EW DIRECTION
o BASE SHEAR = 280kN
iv. THE DESIGN EARTHQUAKE FORCES HAVE BEEN CALCULATED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE 2012.
v. THE BUILDING'S STRUCTURAL CONFIGURATION IS DESIGNATED AS REGULAR.
7. LATERAL FORCES ON FOUNDATION WALLS

- a) WALLS RETAINING EARTH ARE DESIGNED TO SAFELY WITHSTAND A HORIZONTAL PRESSURE AT ANY DEPTH (h) GIVEN BY THE EXPRESSION:
P = K (y h + q) WHERE
K IS THE LATERAL EARTH PRESSURE COEFFICIENT (0.5)
P IS THE PRESSURE EXERTED HORIZONTALLY
h IS THE DEPTH BELOW GRADE
y IS THE UNIT WEIGHT OF SOIL (21kN/M3)
q IS THE SURCHARGE ON THE GROUND SURFACE
b) FOUNDATION AND OTHER WALLS RETAINING EARTH HAVE BEEN DESIGNED FOR SURCHARGE OF 4.8 kPa TYPICAL AND 12 kPa ADJACENT SIDEWALKS.
c) THE WALLS HAVE BEEN DESIGNED ASSUMING THAT THERE IS FREE-DRAINING BACKFILL, OR THAT OTHER PROVISIONS HAVE BEEN MADE, SUCH THAT THE WALLS ARE NOT SUBJECT TO HYDROSTATIC PRESSURE.
8. SNOW LOADS ON ROOFS
a) THE ROOFS HAVE BEEN DESIGNED WITH Ss = 1.1 kPa AND Sr = 0.4 kPa.
b) THE IMPORTANCE FACTOR, Is, IS 1.0 FOR ULS AND 0.9 FOR SLS.
c) ADDITIONAL SNOW ACCUMULATIONS ADJACENT TO HIGHER WALLS, ROOFS AND MECHANICAL UNITS ARE INDICATED ON THE DRAWINGS.
9. RAINWATER LOADS ON ROOFS
a) THE ROOFS HAVE BEEN DESIGNED FOR CONTROL FLOW DRAINS MEETING MINIMUM DRAINAGE CRITERIA FOR CASE M2.
10. WIND UPLIFT OF ROOFS
a) ALL ROOF ELEMENTS INCLUDING JOISTS, METAL DECK, AND THEIR CONNECTIONS TO THE STRUCTURE ARE TO BE DESIGNED FOR UPWARD SUCTION DUE TO WIND. THE NET UPWARD DESIGN PRESSURES ARE SHOWN ON THE KEY PLAN BELOW.
11. LIVE AND OTHER LOADS
a) SEE NOTES BELOW FLOOR PLANS.
12. FUTURE EXTENSIONS
a) THE STRUCTURE HAS NOT BEEN DESIGNED FOR ANY FUTURE EXTENSIONS.
13. SERVICEABILITY LIMITS USED IN THE STRUCTURAL DESIGN INCLUDE THE FOLLOWING MAXIMUM DEFLECTION/SPAN RATIOS, UNDER LIVE, SNOW OR WIND LOADING UNLESS OTHERWISE NOTED:
a) FOUNDATION SETTLEMENT
i. TOTAL: 25mm
ii. DIFFERENTIAL, 20mm
b) ROOF DEFLECTION
i. 1:360
ii. 1:180 TOTAL LOAD
iii. 1:180 IMMEDIATE
iv. 1:480 AFTER ATTACHMENT OF NON-STRUCTURAL ELEMENTS
c) PERIMETER BEAMS - AS NOTED ABOVE, BUT NO MORE THAN:
d) 19mm WHERE SUPPORTING CURTAINWALL
e) 25mm ELSEWHERE
f) BEAMS SUPPORTING MASONRY, INCLUDING LINTELS
i. 1:480 < 20mm VERTICAL, 1:600 HORIZONTAL
g) BEAMS SUPPORTING PARTITION - 1:480

- h) BEAMS SUPPORTING MOVABLE PARTITIONS 1:600
i) TRANSFER BEAM - 1/2 THE LIMITS NOTED ABOVE
j) WALL OUT-OF-PLANE DEFLECTION (HORIZONTAL)
i. TYPICAL
• 1:180
• SEISMIC; SAME AS INTERSTOREY DRIFT
ii. SUPPORTING MASONRY VENEER
• 1:360
• SEISMIC; SAME AS INTERSTOREY DRIFT
k) INTERSTOREY DRIFT
i. WIND; H/500
ii. SEISMIC; H/400

030000 CONCRETE

- 1. MATERIALS
a) CONCRETE
i. CONFORM TO THE REQUIREMENTS OF CSA STANDARD A23.1 (LATEST VERSION) AND THE FOLLOWING FOR STRENGTH, SLUMP, WATER-TO-CEMENTING MATERIALS CONTENT AND AIR CONTENT.
ii. FOR NOMINALLY UNREINFORCED CONCRETE: CONFORM TO THE REQUIREMENTS OF CSA STANDARD A438 (LATEST VERSION) AND THE FOLLOWING FOR STRENGTH, SLUMP, WATER-TO-CEMENTING MATERIALS CONTENT AND AIR CONTENT, INCLUDING THE FOLLOWING:
• CONCRETE STRENGTH 20 MPa, INCREASE TO;
o 25 MPa FOR INTERIOR SLABS ON GRADE, UNLESS DAMP PROOFING IS PROVIDED (0.15 mm POLYETHYLENE BELOW THE SLAB, OR EQUAL).
• AIR CONTENT OF 5%-8% WHERE EXPOSED TO FREEZE-THAW, REDUCE TO 3%-6% FOR FOOTINGS.
• MAXIMUM SLUMP OF 100 mm, INCREASE TO 150mm FOR CONVENTIONAL FOUNDATIONS.
iii. NOMINAL MAXIMUM SIZE OF AGGREGATE SHALL BE 20 mm. USE SMALLER AGGREGATES AS APPROPRIATE IN AREAS OF CONGESTED REINFORCING STEEL OR TO IMPROVE WORKABILITY. MODIFY MIX DESIGNS TO SUIT.

Table with 10 columns: CATEGORY, DESCRIPTION, EXPOSURE CLASS PER A23.1, CONCRETE STRENGTH Fc (MPa), DAYS TO DESIGN STRENGTH, MAX. W/C RATIO, AIR CONTENT, BENCHMARK MIX GWP/kg CO2/m³, MAXIMUM GWP/kg CO2/m³, SCOPE. Rows include CM 1A, CM 1B, CM 2, CM 13A, CM 13B, CM 14, and CM 8.

- 1. WHERE AGGREGATES SMALLER THAN 14 mm ARE USED, INCREASE AIR CONTENT BY 1%
2. REINFORCED CONCRETE EXPOSED TO DE-ICING CHEMICALS TO HAVE CORROSION INHIBITOR IN ACCORDANCE WITH SPECIFICATION SECTION 03 30 00.
3. MAX. 25kg CEMENT/αm.
4. SUBMIT (TYPE II OR) TYPE III ENVIRONMENTAL PRODUCT DECLARATION INFORMATION FOR EACH CONCRETE MIX DEMONSTRATING THAT THE GWP IS AT OR BELOW THE TARGETED MAXIMUM GWP. BENCHMARK GLOBAL WARMING POTENTIAL DATA HAS BEEN EXTRACTED FROM THE RMCAO MEMBER INDUSTRY-WIDE EPD DOCUMENT FOR READY-MIXED CONCRETE 2022.
o GWP TARGETS MAY CONSIDER CONCRETE THAT HAS UNDERGONE CARBONATION TREATMENT WITH CARBON DIOXIDE (CO2) DURING MIXING, SUCH THAT POST INDUSTRIAL CO2 IS INJECTED INTO THE CONCRETE AS AN ADMIXTURE AND CHEMICALLY CONVERTED INTO A MINERAL. CONCRETE MIX OPTIMIZATION MAY ADJUST CEMENTITIOUS MATERIALS CONTENT. ACCEPTABLE TECHNOLOGIES: CARBONCURE TECHNOLOGIES.

- b) REINFORCEMENT:
i. EMBODIED CARBON DOCUMENTATION REQUIREMENTS:
• ALL REBAR IS TO BE SOURCED FROM SUPPLIERS THAT PROVIDE A TYPE III ENVIRONMENTAL PRODUCT DECLARATION (EPD)
• SUBMIT TYPE III EPD WITH FIRST ROUND OF SHOP DRAWINGS
• THE MAXIMUM GWP FOR FABRICATED REBAR IS 1000 kg CO2e/1000kg
ii. CONFORM TO THE REQUIREMENTS OF CSA G30-16 FOR CARBON STEEL REINFORCING BARS.
iii. CONFORM TO THE REQUIREMENTS OF ASTM A1064/A1064M FOR WELDED WIRE FABRIC.
iv. REINFORCING BARS SHALL HAVE A MINIMUM YIELD STRENGTH fy = 400 MPa, AND WELDED WIRE FABRIC SHALL HAVE A MINIMUM YIELD STRENGTH OF fy = 388 MPa, SUPPLY IN FLAT SHEETS.
v. WHERE WELDING OF REBAR IS INDICATED, WELDABLE GRADE REBAR SHALL BE USED.

- 2. EXECUTION
a) CONCRETE AND REINFORCEMENT
i. PROVIDE DOWELS TO WALLS AND COLUMNS SIMILAR IN NUMBER, SIZE, AND SPACING TO THE VERTICAL STEEL IN THE WALL OR COLUMN EXCEPT WHEN NOTED OTHERWISE.
ii. CONSTRUCTION JOINTS:
• HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE MADE IN BEAMS OR JOISTS, UNLESS SHOWN OR REVIEWED BY THE CONSULTANT.
• VERTICAL CONSTRUCTION JOINTS MAY BE MADE ONLY AT MID-SPAN OF BEAMS, JOISTS, AND SLABS UNLESS OTHERWISE SHOWN OR DIRECTED AND THEIR LOCATION SHALL BE REVIEWED BY THE CONSULTANT.
• PROVIDE 3x89 KEYS AT CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
iii. NO SLEEVES TO BE PLACED VERTICALLY OR HORIZONTALLY THROUGH BEAMS WITHOUT BEING REVIEWED BY THE CONSULTANT.
iv. NO OPENINGS SHALL BE MADE IN FLAT SLAB COLUMN STRIPS UNLESS SHOWN OR REVIEWED BY THE CONSULTANT.
v. WELDING OF REBAR SHALL BE DONE IN ACCORDANCE WITH CSA W186.
b) CONCRETE COVER TO REINFORCEMENT:
i. CONFORM TO THE REQUIREMENTS OF CSA STANDARD A23.1 (LATEST VERSION) AND THE FOLLOWING FOR COVER TO REINFORCEMENT (mm):
• TYPICAL COVER 40 mm
• CAST AGAINST EARTH - 75 mm
• EXPOSED TO EARTH: 50 mm
c) REINFORCING IN SLAB ON DECK
i. WELDED WIRE MESH REINFORCING IS TO BE CHAIRED AND SECURELY POSITIONED IN THE MIDDLE OF THE COVER SLAB OF ALL SLABS ON COMPOSITE STEEL DECK, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
d) PROTECTION
i. PROTECT CONCRETE EXPOSED TO DE-ICING SALTS IN ACCORDANCE WITH THE FOLLOWING TABLE. REFER TO THE SPECIFICATION FOR SPECIFIC REQUIREMENTS FOR PROTECTION.

Table with 3 columns: CATEGORY, DESCRIPTION, SCOPE. Rows include CP 0, CP 1, CP 2, CP 3, and CP 4.

- e) WATERSTOPS
i. PROVIDE WATERSTOPS AT ALL CONCRETE JOINTS MORE THAN 600 MM BELOW GRADE.
f) ARCHITECTURAL CONCRETE
i. DESIGNATE CONCRETE AS ARCHITECTURALLY EXPOSED IN ACCORDANCE WITH THE ARCHITECTURAL CONCRETE LEGEND ON PLAN. REFER TO THE SPECIFICATION FOR SPECIFIC REQUIREMENTS FOR ARCHITECTURAL CONCRETE (AEC).

050000 STRUCTURAL STEEL

- 1. MATERIALS
a) WIDE FLANGE SHAPES - CONFORM TO THE REQUIREMENTS OF ASTM A992/A992M, Fy=345MPa
b) HSS MEMBERS - CONFORM TO THE REQUIREMENTS OF G40.21 350W CLASS C
i. NOTE THAT ASTM A500 IS NOT AN ACCEPTABLE ALTERNATE FOR HSS MEMBERS WITHOUT REVIEW AND RESIZING (INCREASED SECTION SIZE OR WALL THICKNESS) BY THE CONSULTANT.
ii. HSS PRODUCED TO ASTM A1085 IS AN ACCEPTABLE ALTERNATE TO CSA G40.21 350W CLASS C.
c) CHANNELS AND ANGLES - CONFORM TO THE REQUIREMENTS OF CSA G40.21 GRADE 350W
d) PIPE - ASTM A53/A53M
e) BOLTS, NUTS AND WASHERS - GRADE A325
f) WELDS - CONFORM WITH CSA W59-03
g) HEADED STUD - CONFORM TO CSA W59 APPENDIX H, WITH TENSILE STRENGTH OF 450MPa AND YIELD STRENGTH OF 350MPa
h) ANCHOR RODS - CONFORM TO THE REQUIREMENTS OF CSA G40.21 GRADE 300W UNLESS NOTED OTHERWISE.
i) ALL OTHER - CONFORM TO THE REQUIREMENTS OF CSA G40.21 GRADE 300W
j) STEEL JOISTS - CONFORM TO CAN/CSA-S16-09
k) METAL DECK - CONFORM TO THE REQUIREMENTS OF CAN/CSA-S136-07.
2. EXECUTION
a) PROVIDE A MINIMUM BEARING OF 200 mm FOR ALL STEEL BEAMS BEARING ON MASONRY AND A MINIMUM OF 100 mm ON STRUCTURAL STEEL, UNLESS NOTED OTHERWISE.
b) CENTRE BEARING PLATES UNDER BEAMS, OR AS NOTED.
c) BEARING PLATE DIMENSION GIVEN FIRST INDICATES SIDE PARALLEL TO BEAM WEB.
d) NO STRUCTURAL STEEL SHALL BE CUT WITHOUT THE PERMISSION OF THE CONSULTANT.
e) WHERE COLUMNS ARE STABILIZED BY WALLS PROVIDE COLUMN ANCHORS AT ABUTTING WALLS. PROVIDE TEMPORARY BRACING UNTIL WALLS ARE BUILT TIGHT TO COLUMNS.
f) PROVIDE FRAMING AROUND ALL OPENINGS IN METAL DECK AS SPECIFIED. REFER TO TYPICAL DETAIL 0504 FOR DETAILS. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
g) PROVIDE FULL HEIGHT WEB STIFFENERS AT ALL BEAMS BEARING ON COLUMNS AND ALL BEAMS SUPPORTING COLUMNS. WEB STIFFENERS SHALL BE OF THE SAME SIZE AND THICKNESS AS THE COLUMN FLANGES AND SHALL ALIGN WITH THE FLANGES OF THE SUPPORTING COLUMN.
h) CONNECT BEAMS FOR THE FACTORED REACTIONS INDICATED ON THE DRAWINGS. IF BEAM REACTIONS ARE NOT INDICATED, THE CONNECTIONS SHALL BE DESIGNED FOR ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY OF THE SIMPLE SPAN BEAM FOR THE GIVEN SPAN PRESENTED IN THE CISC HANDBOOK OF STEEL CONSTRUCTION. BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS.
i) STEEL SUPPLIER TO DESIGN AND PROVIDE INTERCONNECTION BETWEEN BUILT UP MEMBERS AS NOTED, OR WHERE NOT NOTED STEEL SUPPLIER IS TO INTERCONNECT AS REQUIRED TO ENSURE ADEQUATE CAPACITY FOR THE DESIGN FORCES SHOWN OR IMPLIED IN THE DRAWINGS.
j) STEEL SUPPLIER TO DESIGN CONNECTIONS OF SINGLE ANGLE MEMBERS FOR THE FORCES SHOWN OR IMPLIED IN THE DRAWINGS, SUCH THAT CONNECTIONS ARE MADE TO THE SAME LEG EACH END BY WELDING OR WITH A MINIMUM OF TWO BOLTS.
k) DESIGNATE STEEL AS ARCHITECTURALLY EXPOSED IN ACCORDANCE WITH THE ARCHITECTURALLY EXPOSED LEGEND ON PLAN. REFER TO THE SPECIFICATION FOR SPECIFIC REQUIREMENTS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AES3).
l) PROTECTION: REFER TO THE SPECIFICATION FOR SPECIFIC REQUIREMENTS FOR ANY COATING SYSTEMS.

053100 STEEL DECKING

- 1. MATERIALS
a) EMBODIED CARBON DOCUMENTATION REQUIREMENTS:
i. ALL REBAR IS TO BE SOURCED FROM SUPPLIERS THAT PROVIDE A TYPE III ENVIRONMENTAL PRODUCT DECLARATION (EPD)
ii. SUBMIT TYPE III EPD WITH FIRST ROUND OF SHOP DRAWINGS
iii. THE MAXIMUM GWP FOR METAL DECK IS 2000 kg CO2e/1000kg
b) STEEL DECKING PER PLAN AND CONFORMING TO CAN/CSA-S136 AND THE FOLLOWING:
i. CSSBI 10M FOR ROOF DECKING.
ii. CSSBI 12M FOR FLOOR DECKING.
c) MINIMUM ZINC COATING OF Z275 FOR EXTERIOR DECKING AND DECKING EXPOSED TO VIEW WITHOUT PAINTED FINISH.
d) MINIMUM ZINC COATING OF ZF75 FOR INTERIOR DECKING NOT EXPOSED TO VIEW AND INTERIOR DECKING WITH FIELD APPLIED PAINT SYSTEM.
e) MINIMUM 1.22mm STEEL CONFORMING TO ABOVE STANDARDS FOR COVER PLATES, CELL CLOSURES, WEB STIFFENERS, EDGE STRIPS AND FLASHINGS.
f) FORM ROOF DECK WITH INTEGRAL RIBS OF A SHAPE TO MATCH EXISTING DECK WHERE REPAIR/REPLACEMENT OF EXISTING DECK IS REQUIRED.
2. EXECUTION
a) DESIGN DECK IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE.
b) DESIGN AND CONNECT METAL EDGE AND CLOSURE STRIPS, METAL SCREEDS, FLASHINGS AND THE LIKE.
c) DESIGN FRAMING FOR 450mm OR SMALLER OPENINGS IN ROOF DECK, AND 300mm OR SMALLER OPENINGS IN FLOOR DECK. REINFORCE OPENINGS OVER 150mm, AS REQUIRED.
d) PLACE SHEETS IN MINIMUM 3 SPAN LENGTHS. BEAR ENDS MINIMUM 50mm.
e) LAP ENDS OF NON-COMPOSITE DECK UNITS A MINIMUM OF 50mm AND ONLY OVER SUPPORTING MEMBERS.
f) AS A MINIMUM, WELD DECK TO SUPPORTS AND PERIMETER ELEMENTS WITH 20mm PUDDLE WELDS AT MAXIMUM 400mm o/c OR EVERY SECOND FLUTE, WHICHEVER IS LESS.
g) AS A MINIMUM, FASTEN SIDE JOINTS OF DECK UNITS BETWEEN SUPPORTS BY CLINCHING AT 600mm INTERVALS OR WITH 25mm LONG WELDS AT 1000mm INTERVALS.
h) PAINT WELDS AND REPAIR DAMAGED COATING WITH GALVAON COATING.
i) DO THE FOLLOWING WHERE DECKING IS EXPOSED TO VIEW:
i. LAP ENDS OF DECK UNITS ONLY OVER SUPPORTING MEMBERS. NO SEAMS ARE PERMITTED WITHIN SPANS.
ii. KEEP DECK FREE OF DIRT, SCALE, FOREIGN MATTER, DENTS OR DEFORMATIONS.
iii. KEEP FUSION WELDS WELL WITHIN THE BEARING WIDTH OF SUPPORTING MEMBERS.
iv. AVOID WELD DAMAGE TO THE DECK OR ITS SUPPORTS.

060000 WOOD

- 1. MATERIALS
a) GLUED-LAMINATED TIMBER
i. CONFORM TO CAN/CSA-O122
ii. SPECIES - SPRUCE-PINE
iii. BENDING STRESS GRADE - 20f-E
iv. COMPRESSION STRESS GRADE - 16c-E
v. TENSION STRESS GRADE - 18t-E
vi. APPEARANCE GRADE - INDUSTRIAL
b) CONNECTIONS
i. ALL WOOD TO WOOD CONNECTIONS OR WOOD TO STEEL CONNECTIONS, UNLESS OTHERWISE NOTED, ARE TO BE THE APPROPRIATE SIMPSON STRONG-TIE HANGER OR APPROVED EQUIVALENT, SIZED FOR THE CONNECTION FORCE AND MEMBER CONFIGURATION INDICATED.
ii. NAILS ARE TO BE COMMON STEEL WIRE NAILS CONFORMING TO THE REQUIREMENTS OF ASTM F1667 OR CSA B111. NAILS SHALL HAVE A MINIMUM DIAMETER (CORRESPONDING TO NAIL LENGTH) AS FOLLOWS: 2.87mm (FOR 57mm/2-1/4" LONG NAILS); 3.25mm (64mm/2-1/2" LONG); 3.66mm (76mm/3" AND 82mm/3-1/4" LONG); 4.88mm (102mm/4" LONG).
• SUBSTITUTION OF THE ABOVE-SPECIFIED NAIL DIAMETERS IS SUBJECT TO APPROVAL BY THE ENGINEER. FOR PART 9 BUILDINGS, NAIL SUBSTITUTION MAY BE PERFORMED IN ACCORDANCE WITH CL. A.9.23.3.1.(2) IN THE APPENDIX OF NBC 2015.
iii. WOOD SCREWS ARE TO CONFORM TO THE REQUIREMENTS OF ASTM B18.6.1. REFER TO CSA O86 FOR DIAMETER AND MINIMUM YIELD STRENGTH INFORMATION.

- iv. ALL NAILS AND SCREWS USED IN AN EXTERIOR APPLICATION OR USED WITH PRESERVATIVE TREATED WOOD SHALL BE APPROPRIATELY COATED WITH A PROTECTIVE COATING COMPATIBLE WITH THE WOOD PRESERVATIVE TREATMENT.
v. BOLTS, NUTS AND WASHERS: ASTM A307 OR SAE J429 GRADE 2.
vi. LAG SCREWS ARE TO CONFORM TO THE REQUIREMENTS OF ASTM B18.2.1
vii. ALL LAG BOLTS, THRU BOLTS AND OTHER HARDWARE TO BE HOT DIPPED GALVANIZED
viii. ALL LAG BOLTS SHALL HAVE SHARP THREADS FOR AT LEAST ONE-HALF THE TOTAL BOLT LENGTH. UP TO 152 mm (6") THREADED LENGTH. LAG BOLT WITH DULL THREADS OR INSUFFICIENT THREADED LENGTH WILL BE REJECTED OUTRIGHT.
ix. UNLESS OTHERWISE APPROVED BY THE CONSULTANT, ALL NAILS ARE TO HAVE FULL ROUND HEADS. CLIPPED HEAD NAILS ARE NOT ACCEPTABLE. NAILS ARE TO BE DRIVEN FLUSH; DO NOT OVERDRIVE NAILS.
2. EXECUTION
a) PROTECT ALL WOOD PRODUCTS FROM DAMAGE AND STAINING DUE TO WETTING AND MOISTURE.
b) PROTECT INSTALLED DECKING AND SHEATHING FROM EXCESSIVE MOISTURE UNTIL FINAL WATERPROOFING IS COMPLETE. ENSURE SURFACES THAT ARE TO RECEIVE FINISHES MEET MANUFACTURERS REQUIREMENTS FOR MAXIMUM MOISTURE CONTENT FOR THE FINISH SPECIFIED.
c) DIMENSION LUMBER WITH SMALLER NOMINAL DIMENSION OF 2 INCHES (-2-BY-1) PRESERVATIVE TREATED FOR EXTERIOR APPLICATIONS SHALL NOT BE INCISED. IF INCISED LUMBER IS TO BE USED, CONFIRM MEMBER SIZES WITH THE ENGINEER PRIOR TO CONSTRUCTION.
d) PROVIDE SIMPSON STRONG-TIE CONNECTORS OR EQUIVALENT AT ALL JOIST TO JOIST, JOIST TO BEAM, AND BEAM TO POST CONNECTIONS UNLESS NOTED OTHERWISE.

310000 FOUNDATIONS

- 1. A SOIL INVESTIGATION HAS BEEN DONE BY GOLDER AS REPORTED IN THEIR SOIL REPORT NO. 02321465GG PREPARED BY ORBIT ENGINEERING, DATED AUGUST 15, 2023 (REVISED APRIL 18, 2024). READ THIS REPORT AND BE THOROUGHLY FAMILIARIZED WITH ITS FINDINGS. THE NEAREST BORE HOLE DATA REPORTED IS APPROXIMATELY 300m AWAY FROM THE PROPOSED SITE. IT IS ASSUMED THAT THE SOIL CAPACITY AT THE SITE IS BETTER OR CONSISTENT WITH THE REPORTED VALUES.
2. FOUND ALL FOOTINGS AND UNDERPINNING ON NATURALLY CONSOLIDATED UNDISTURBED SOIL CAPABLE OF SAFELY SUSTAINING AN ULTIMATE BEARING VALUE OF 225kPa AND AN ALLOWABLE BEARING VALUE OF 150kPa AS A MINIMUM.
3. FOUND FOOTINGS EXPOSED TO FREEZING BELOW THE LEVEL AT WHICH POTENTIAL DAMAGE RESULTING FROM FROST ACTION CAN OCCUR, BUT A MINIMUM OF 1200 mm BELOW FINISHED GRADE, OR 1000 BELOW EXISTING GRADE, WHICHEVER IS LOWER.
4. THE LINE OF SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATIONS OR ALONG STEPPED FOOTINGS SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10. AT STEPS CONSTRUCT LOWER FOOTINGS PRIOR TO CONSTRUCTING HIGHER FOOTINGS.
5. PLACE SLABS ON GRADE ON MATERIAL CAPABLE OF SAFELY SUSTAINING 25kPa WITHOUT SETTLEMENT RELATIVE TO THE BUILDING FOUNDATIONS.
6. REFER TO GEOTECHNICAL REPORT FOR SUBGRADE REQUIREMENTS DIRECTLY BELOW SLAB ON GRADE.
7. DO NOT PLACE BACKFILL AGAINST WALLS RETAINING EARTH (OTHER THAN CANTILEVER WALLS) UNTIL THE FLOOR CONSTRUCTION AT TOP AND BOTTOM OF THE WALLS IS POURED AND HAS ATTAINED 70% OF ITS SPECIFIED STRENGTH.
8. CARRY OUT BACKFILLING AGAINST FOUNDATION WALLS WHERE THERE IS GRADE ON BOTH SIDES IN SUCH A MANNER THAT THE LEVEL OF BACKFILLING ON ONE SIDE OF THE WALL IS NEVER MORE THAN 500 mm DIFFERENT FROM THE LEVEL ON THE OTHER SIDE OF THE WALL.
9. PROVIDE FOOTINGS AS PER TYPICAL DETAIL 0306 FOR ALL LOAD BEARING MASONRY WALLS AND ALL NON-LOAD BEARING MASONRY WALLS THICKER THAN 190 mm. ALL NON-LOAD BEARING MASONRY WALLS 190 mm OR LESS SHALL REST ON A THICKENING OF THE SLAB ON GRADE AS PER THE TYPICAL DETAIL OR AS NOTED ON DRAWINGS.

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Table with columns: MARK, DATE, DESCRIPTION. Includes tender status (ISSUED FOR TENDER) and progress set (PROGRESS SET).

PROJECT NAME: CENTENNIAL PARK

PROJECT ADDRESS: 56 Centennial Park Rd, Toronto, ON

Table with columns: DRAWN: SG, CHECKED: VC/JC, SCALE: PROJECT NUMBER: 230227

SHEET TITLE: GENERAL NOTES

S001

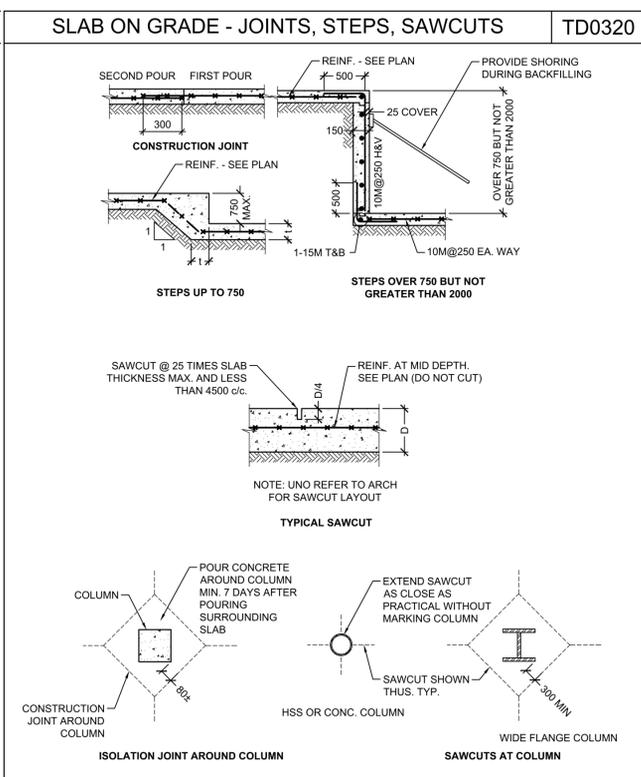
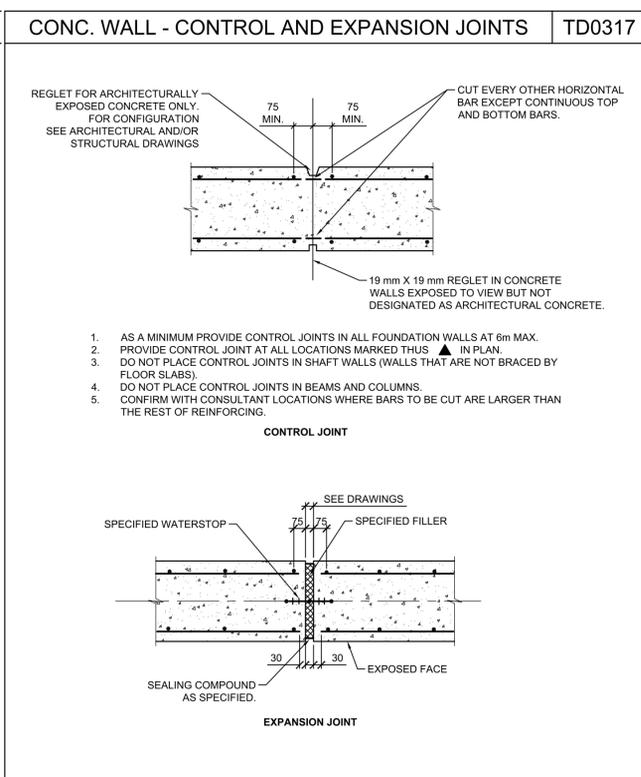
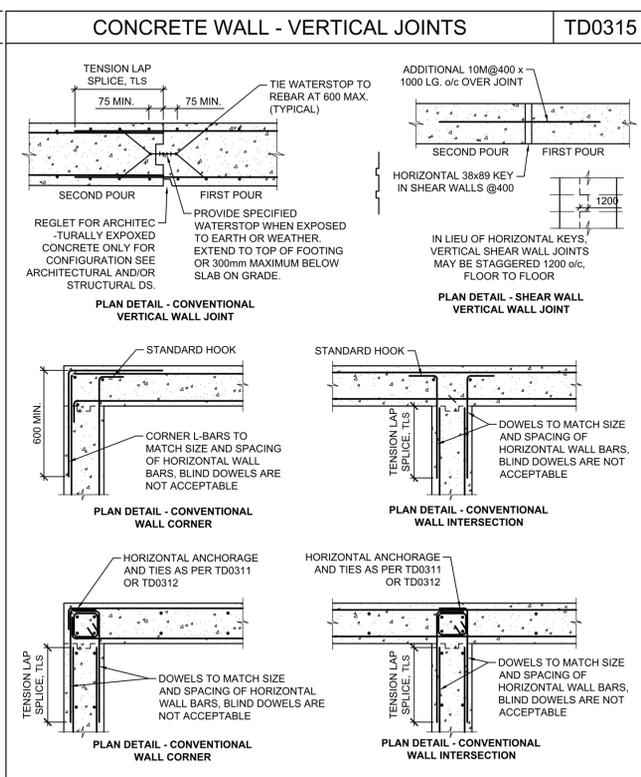
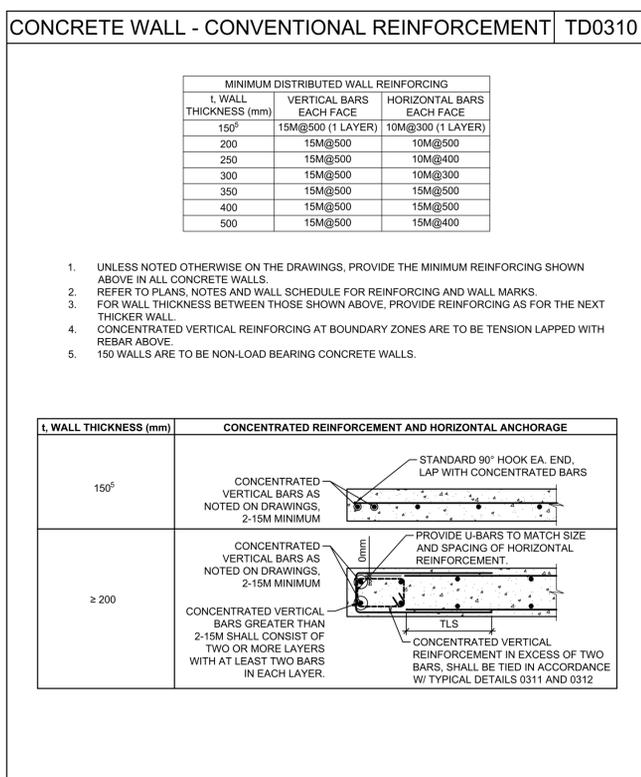
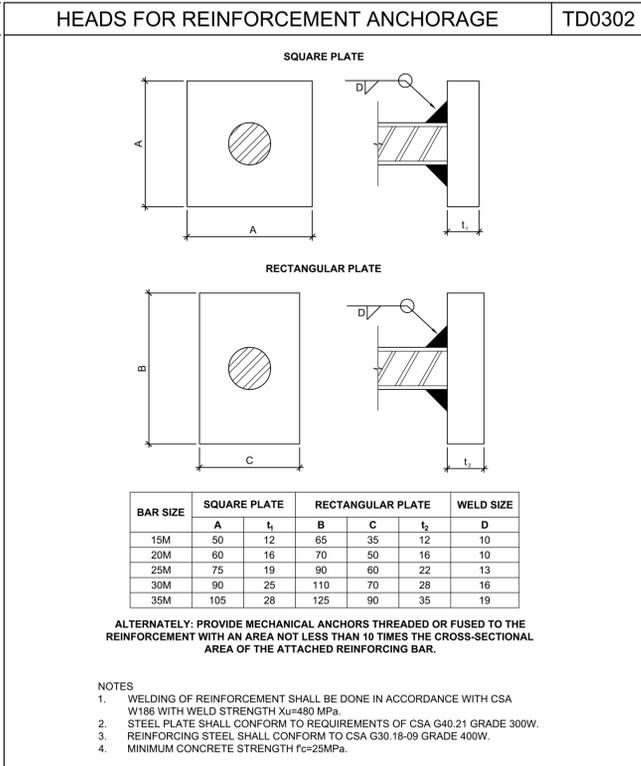
SEAL:



ABBREVIATIONS		TD0001
@	= AT	DS = DRAG STRUT
A BOLT	= ANCHOR BOLT	DWG(S) = DRAWING(S)
ADJ	= ADJUSTABLE	DWL(S) = DOWEL(S)
ALT	= ALTERNATE	EA = EACH
ARCH	= ARCHITECTURAL	EF = EACH FACE
ASL	= ACCUMULATED SNOW LOAD	EW = EACH WAY
B	= BOTTOM	EL = ELEVATION
BEW	= BOTTOM EACH WAY	ELEC = ELECTRICAL
BLL	= BOTTOM LOWER LAYER	ELEV = ELEVATOR
BUL	= BOTTOM UPPER LAYER	E-W = EAST-WEST
BLDG	= BUILDING	EQ = EQUAL
BM	= BEAM	EXIST = EXISTING
BPL, BSPL	= BASE OR BEARING PLATE	EXPJT = EXPANSION JOINT
BSMT	= BASEMENT	EXT = EXTERIOR
c/c, c/c	= CENTRE TO CENTRE	FF = FAR
c/w	= COMPLETE WITH	FDN = FOUNDATION
C	= EPOXY COATED	FIN = FINISHED
Cf, Pf, Af	= FACTORED COMPRESSION OR AXIAL FORCE, kN	FL = FLOOR
CANT	= CANTILEVER	FTG = FOOTING
CFW	= COLD-FORMED STUD WALL	FW = FOUNDATION WALL
CA	= COLUMN ABOVE	fc = CONCRETE STRENGTH, MPa
CB	= COLUMN BELOW	GA = GAUGE
CDL	= COMPRESSION DEVELOPMENT LENGTH, mm	GALV = GALVANIZED
CIF	= CONFIRM IN FIELD	GEN = GENERAL
CJ	= CONSTRUCTION JOINT	GL = GLULAM
CLS	= COMPRESSION LAP SPlice, mm	H, HOR = HORIZONTAL
CLT	= CROSS LAMINATED TIMBER	HG = HOT DIP GALVANIZED
CLTW	= CROSS LAMINATED TIMBER WALL	HEF, H EF = HORIZONTAL EACH FACE
COL	= COLUMN	HEE = HOOKED EACH END
COMP	= COMPRESSION	Hf = FACTORED HOR FORCE, kN
CONC	= CONCRETE	HSC = HORIZONTALLY SLOTTED CONNECTION
CONSTR	= CONSTRUCTION	IF = INSIDE FACE
CONT	= CONTINUOUS	INT = INTERIOR
CW	= CONCRETE WALL	J = JOINT
DET	= DETAIL	kN = KILONEWTON
DEV	= DEVELOPMENT	kg = KILOGRAM
DIAG	= DIAGONAL	kNm = KILONEWTON METRES
DIA, Ø	= (BAR) DIAMETER	kN/sq.m = kN PER SQUARE METRE
DIM	= DIMENSION	kN/m = kN PER METRE
DJ	= DOUBLE JOIST	kPa = KILOPASCAL
DL	= DEAD LOAD	
DLH	= DEVELOPMENT LENGTH FOR STANDARD HOOKS, mm	
DO	= DITTO	

ABBREVIATIONS		TD0002
LL	= LIVE LOAD	SIM = SIMILAR
LG	= LONG	SIP = STRUCTURALLY INSULATED PANEL
LLV	= LONG LEG VERTICAL	SL = SNOW LOAD
LLH	= LONG LEG HORIZONTAL	SOG = SLAB ON GRADE
LW	= LIGHT-WOOD WALL	SPECS = SPECIFICATIONS
MC, ▶	= MOMENT CONNECTION	STD = STANDARD
MECH	= MECHANICAL	STRUCT = STRUCTURAL
MEW	= MIDDLE EACH WAY	SW = SHEAR WALL OR STUD WALL
MEZZ	= MEZZANINE	T = TOP
MID	= MIDDLE	TD = TYPICAL DETAIL
MISC	= MISCELLANEOUS	TDL = TENSION DEVELOPMENT LENGTH, mm
ML	= MIDDLE LAYER	T/O, TOS = TOP OF SLAB
MOM	= MOMENT	TEN = TENSION
m	= METRE, METRIC	TEW = TOP EACH WAY
MPa	= MEGAPASCAL	TMF = FACTORED TORSIONAL MOMENT, kNm
MW	= MASONRY WALL	Tf = FACTORED TENSION FORCE, kN
Mf	= FACTORED MOMENT	TJ = TIE JOIST
Mfx, Mfy	= FACTORED MOMENT ABOUT X-AXIS OR Y-AXIS, kNm	TLL = TOP LOWER LAYER
MFW	= MASONRY FOUNDATION WALL	TUL = TOP UPPER LAYER
MRW	= MASONRY RETAINING WALL	TEMP = TEMPERATURE
N	= NETWORKS	TLS = TENSION LAP SPlice, mm
NF	= NEAR FACE	TYP = TYPICAL
NIC	= NOT IN CONTRACT	UL = UPPER LAYER
NLT	= NAIL LAMINATED TIMBER	U/N, UNO = UNLESS NOTED OTHERWISE
N-S	= NORTH-SOUTH	U/S = UNDERSIDE
NTS	= NOT TO SCALE	Vf = FACTORED SHEAR OR VERTICAL FORCE, kN
OF	= OUTSIDE FACE	V, VERT = VERTICAL
OVSJ	= OPEN WEB STEEL JOISTS	VEF, V EF = VERTICAL EACH FACE
OPEN	= OPENING	VB = VERTICAL BRACE/BRACING
PL	= PLATE	VSC = VERTICALLY SLOTTED CONNECTION
PC	= PRECAST	WPL = WALL PLATE
PROJ	= PROJECTION	WW = WOOD WALL
R	= REACTION	WWF = WELDED WIRE FABRIC
RAD	= RADIUS	WWM = WELDED WIRE MESH
REF	= REFERENCE	W, w/ = WITH
REINF	= REINFORCE, REINFORCEMENT	wd, wl = UNIFORMLY DISTRIBUTED LOADS
REQ'D	= REQUIRED	
REV	= REVISION, REVISED	
Rf	= FACTORED REACTION FORCE, kN	
r/w, RW	= REINFORCED WITH	
RW	= RETAINING WALL	
SECT	= SECTION	
SDF	= STEP DOWN FOOTING	

REINFORCEMENT DEVELOPMENT LENGTHS		TD0301
TABLE 1 - TENSION DEVELOPMENT LENGTH, TDL (mm) ^{1,2,3}		TABLE 4 - COMPRESSION DEVELOPMENT LENGTH, CDL (mm)
BAR SIZE	f_c	BAR SIZE
10M	20 MPa 300 25 MPa 300 30 MPa 300 35 MPa 300 40 MPa 300 45 MPa 300	10M
15M	480 300 540 300 600 300 660 300 720 300	15M
20M	640 360 720 360 800 360 880 360 960 360	20M
25M	1010 450 1120 450 1230 450 1340 450 1450 450	25M
30M	1210 540 1330 540 1450 540 1570 540 1690 540	30M
35M	1410 630 1540 630 1670 630 1800 630 1930 630	35M
45M	1820 810 1960 810 2100 810 2240 810 2380 810	45M
55M	2220 990 2370 990 2520 990 2670 990 2820 990	55M
TABLE 2 - TENSION LAP SPlice (CLASS B) LENGTH, TLS (mm) ^{1,2,3}		TABLE 5 - COMPRESSION LAP SPlice LENGTH, CLS (mm)
BAR SIZE	f_c	BAR SIZE
10M	20 MPa 380 25 MPa 340 30 MPa 315 35 MPa 300 40 MPa 300 45 MPa 300	10M
15M	630 360 700 360 770 360 840 360 910 360	15M
20M	840 450 930 450 1020 450 1110 450 1200 450	20M
25M	1315 540 1430 540 1550 540 1670 540 1790 540	25M
30M	1575 630 1700 630 1830 630 1950 630 2070 630	30M
35M	1940 720 2070 720 2200 720 2330 720 2460 720	35M
45M	2520 900 2670 900 2820 900 2970 900 3120 900	45M
55M	3120 1080 3290 1080 3460 1080 3630 1080 3800 1080	55M
TABLE 3 - DEVELOPMENT LENGTH FOR STANDARD HOOKS, DLH (mm) ^{2,3,4}		TABLE 6 - DIMENSIONS FOR STANDARD HOOKS, (mm) ^{5,6}
BAR SIZE	f_c	BAR SIZE
10M	20 MPa 220 25 MPa 200 30 MPa 180 35 MPa 170 40 MPa 160 45 MPa 150	10M
15M	340 270 370 270 400 270 430 270 460 270	15M
20M	450 330 490 330 530 330 570 330 610 330	20M
25M	560 400 600 400 640 400 680 400 720 400	25M
30M	670 470 710 470 750 470 790 470 830 470	30M
35M	780 540 820 540 860 540 900 540 940 540	35M
45M	1010 630 1050 630 1090 630 1130 630 1170 630	45M
55M	1230 720 1280 720 1330 720 1380 720 1430 720	55M



3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET
MARK	DATE	DESCRIPTION
ISSUE:		
ISSUED FOR TENDER		
PROJECT NAME:		
CENTENNIAL PARK		
PROJECT ADDRESS:		
56 Centennial Park Rd, Toronto, ON		
DRAWN:		
VC/JC		
SCALE:		
PROJECT NUMBER:		
230227		
SHEET TITLE:		
TYPICAL DETAILS		
S002		

SLABS ON GRADE - STAIR & PARTITION THICKENING TD0321

STAIR STRINGER
REFER TO PLAN FOR SLAB ON GRADE REINFORCEMENT

STEEL STAIRS SUPPORTED ON GRADE
HORIZONTAL LENGTH OF STAIR RUN NOT TO EXCEED 8m ($W_{SL,S} < 20kN/m$) WHERE SPACING OF STRINGERS IS: GREATER THAN 1.2m: PROVIDE (2)-15M T&B GREATER THAN 2m: TREAT EACH STRINGER AS POST SHOWN BELOW

CONCRETE STAIRS SUPPORTED ON GRADE
HORIZONTAL LENGTH OF STAIR RUN NOT TO EXCEED 3.6m ($W_{SL,S} < 20kN/m$)

SLAB THICKENING UNDER STAIR POSTS SUPPORTED AT GRADE
MAXIMUM TRIBUTARY AREA OF 5m² ($P_{SL,S} < 25 kN$)

SLAB THICKENING UNDER 140mm AND 190mm NON-LOAD BEARING WALLS
FOR WALLS REINFORCED NOT MORE THAN 1200mm c/c. NOT TALLER THAN 8m ($W_{SL,S} < 20kN/m$)

FROST SLAB TD0323

PROVIDE 3mm PREFINISHED ALUMINUM SILL FLASHING OR SIM. TO PROTECT INSULATION UNLESS SHOWN OTHERWISE BY ARCH.

EXTEND FOUNDATION WALL INSULATION PAST FROST SLAB

DOOR SWING +200mm

3-15M T+B

PROVIDE INTERMEDIATE WALLS @ 4000c/c MAX. WHERE TOTAL WIDTH OF FROST SLAB EXCEEDS 4000mm

150 FROST SLAB r/w 15M@300 BEW

EXTERIOR GRADE, REFER TO ARCH

SLOPE AWAY, 2% MIN.

100 VOID BENEATH SLAB

15M@300 H&V

150

15M@300 DOWELS

1-15M CONT.

1200 MIN. OR MATCH U/S OF ADJACENT FTGS

SECTION VIEW

REFER TO DWGS FOR FOUNDATION WALL

NOTES:

- IF DOOR SWING IS >2000mm, REFER TO PLAN FOR FROST SLAB REINFORCING.
- FROST SLABS APPLY TO ALL OUTWARD DOOR SWINGS ON PROJECT, UNO.
- RAISE TOP OF FROST SLAB TO BE FLUSH WITH INSIDE SLAB ELEVATION IF DESIRED AND AS NOTED ON DRAWINGS, REFER TO LANDSCAPE AND ARCHITECTURAL.
- REFER TO SOIL REPORT FOR DEPTH OF FROST SLAB WALLS/FOOTINGS.

NON-LOAD-BEARING (PARTITION) MASONRY WALLS TD0402

DOWEL TO MATCH VERT. REINF. IN WALL

NON-LOAD BEARING WALL ABOVE

SLAB ON GRADE

2-15M (U.N.O.)

400 (U.N.O.)

ON SLAB ON GRADE

DOWEL TO MATCH VERT. REINF. IN WALL

NON-LOAD BEARING WALL ABOVE

PACK FLUTES WITH NON-SHRINK GROUT

COMPOSITE METAL DECK

ON COMPOSITE CONCRETE ON METAL DECK

DOWEL TO MATCH VERT. REINF. IN WALL

NON-LOAD BEARING WALL ABOVE

GROUT SOLID PER HOLLOWCORE/PRECAST SUPPLIER

CONC. SLAB

ON REINFORCED CONCRETE SLAB

ON HOLLOWCORE/PRECAST SLAB

MINIMUM REINFORCING
REFER TO SECTION 010001 IN THE GENERAL NOTES FOR THE SEISMIC HAZARD INDEX.

WHERE SEISMIC HAZARD INDEX, $0.35 \leq I_e F_a S_a(0.2) < 0.75$

WALL THICKNESS	VERTICAL	HORIZONTAL (LADDER-TYPE JOINT REINFORCING)
140	15M@1800 o/c	2-3.66@600 o/c
190	20M@2400 o/c	2-3.66@600 o/c
240	20M@2400 o/c	2-3.66@600 o/c
290	25M@2400 o/c	2-3.66@600 o/c

WHERE SEISMIC HAZARD INDEX, $I_e F_a S_a(0.2) \geq 0.75$

WALL THICKNESS	VERTICAL	HORIZONTAL (LADDER-TYPE JOINT REINFORCING + BOND BEAM)
140	15M@1200 o/c	2-3.66@400 o/c
190	15M@1200 o/c	2-4.76@400 o/c
240	15M@1200 o/c	2-3.66@600 o/c + 1-15M BOND BEAM @ 2400
290	15M@800 o/c	2-4.76@600 o/c + 1-15M BOND BEAM @ 2400

NOTES:

- UN-REINFORCED NON-LOAD BEARING MASONRY WALLS PERMITTED ONLY WHERE $I_e F_a S_a(0.2) < 0.35$.
- MAX SPAN FOR NON-LOAD BEARING MASONRY WALLS IS 361 FOR INTERIOR WALLS AND 201 FOR EXTERIOR WALLS. MAX SPAN IS THE LESSER OF (a) THE VERTICAL DISTANCE BETWEEN LATERAL SUPPORTS OR (b) THE HORIZONTAL DISTANCE BETWEEN WALLS/RETURNS.
- FOR ALL WALLS WHERE HORIZONTAL DISTANCE BETWEEN WALLS/RETURNS EXCEEDS THE MAX VALUES ABOVE OR WHERE ONE OR BOTH ENDS IS NOT SUPPORTED, LATERAL SUPPORT AT TOP OF WALL IS REQUIRED. REFER TO TD0410.
- VERTICAL REINFORCING SHOWN IS MINIMUM REQUIRED. SEE PLAN FOR MORE DETAILS.
- REFER TO TD0401 FURTHER REQUIREMENTS AND TO TD0407 FOR MOVEMENT JOINT REQUIREMENTS.

LINTELS FOR NON-LOAD BEARING MASONRY WALLS TD0404

WALL THICKNESS	UP TO 1200 CLEAR SPAN	OVER 1200 BUT NOT MORE THAN 1800 CLEAR SPAN	OVER 1800 BUT NOT MORE THAN 2400 CLEAR SPAN
90 (VENEER)	L89X89X6.4	L102X89X7.9	L127X89X7.9
140 SOLID	2-L89X64X6.4	2-L89X64X7.9	NOT APPLICABLE
190 SOLID	2-L89X89X6.4	2-L102X89X7.9	2-L127X89X7.9
240 SOLID	2-102X102X6.4	2-L102X102X7.9	2-L152X102X7.9
290 SOLID	3-L89X89X6.4	3-L102X89X7.9	3-L127X89X7.9

MOVEMENT JOINT, ONE OR BOTH SIDES. SEE NOTE 8.

STEEL LINTEL PER SCHEDULE ABOVE.

PROVIDE FULLY GROUTED OR SOLID MASONRY FULL HEIGHT WHERE PIER IS LESS THAN 600 mm WIDE.

200 MIN BEARING

400 MIN

CLEAR SPAN

PIER

REINFORCING AS SHOWN ON PLAN OR DETAILS. OFFSET TO CLEAR END OF LINTEL TYP.

FULLY GROUTED OR SOLID MASONRY FOR BEARING SHOWN THUS.

NOTES:

- LINTELS DESCRIBED ON THIS TYPICAL DETAIL ARE FOR NON-LOAD BEARING WALLS. FOR LINTELS IN LOAD BEARING WALLS REFER TO THE STRUCTURAL PLANS.
- PROVIDE STEEL PACKING PLATES UNDER THE ENDS OF LINTELS AS REQUIRED TO ENSURE EVEN BEARING. CONNECT BACK TO BACK DOUBLE ANGLES USING 16 mm Ø BOLTS AT 450 mm o/c OR BY WELDING ANGLES TOP AND BOTTOM USING 6 mm BY 50 mm LONG WELDS SPACED AT 450 mm o/c. LOCATE FIRST AND LAST FASTENERS NO MORE THAN 75 mm FROM END OF LINTEL.
- PROVIDE 200 mm MINIMUM LENGTH OF BEARING AT EACH END, REFER TO FIGURE ABOVE.
- WHERE LINTELS ABUT CONCRETE COLUMNS OR WALLS (MIN. THICKNESS 150 mm) OR STEEL FRAMING MEMBERS, PROVIDE L127X89X7.9 (LV) SEAT ANGLES WITH LENGTH TO MATCH THE LINTEL WIDTH (MIN. 115 mm LONG). ANCHOR TO CONCRETE WITH 2-16mmØ HILTI KWIK BOLT 3 ANCHORS OR WELD TO STEEL FOR $V_f = 15 kN$.
- LINTELS IN EXTERIOR WALLS EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED.
- VERTICAL MOVEMENT JOINTS SHALL NOT BE LOCATED IN LINE WITH WALL OPENINGS. REFER TO TD0407 FOR MOVEMENT JOINTS IN MASONRY WALLS. REFER TO TD0407 FOR ADDITIONAL HORIZ. REINF. REQUIRED.
- SOME OPENINGS IN NON-LOAD BEARING WALLS MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZES AND LOCATIONS OF OPENINGS NOT SHOWN.

SEAL:



LATERAL SUPPORT - FULL HEIGHT PARTITION TD0410

BOND BEAM AT TOP OF WALL, TYP ALL WALL TYPES. REFER TO TD0401

GAP FILLED WITH COMPRESSIBLE MATERIAL

ANCHOR TO SLAB WITH 2-Ø EXPANSION ANCHORS

GAP FILLED WITH COMPRESSIBLE MATERIAL

ANCHOR TO SLAB WITH 2-Ø EXPANSION ANCHORS

CLIP FABRICATED FROM 12GA PLATE OR USE MANUFACTURED EQUIVALENT

176x76x4.8 x150LG.

ANCHOR TO SLAB WITH 2-Ø EXPANSION ANCHORS

PROVIDE CLIPS FOR BLOCK TIES @ 400 o/c WELDED TO WEB OF BEAM

ANCHOR TO SIDE OF STEEL BEAM

NO BOND BEAM REQUIRED IF CLIP ANGLE SPACED AT 800 c/c OR LESS

10M BAR x 600 LG. GROUTED SOLID INTO BLOCK

DO NOT GROUT CLIP ANGLE INTO BLOCK

CLIP ANGLE L76x76x4.8 x150 LG STAGGERED @ 600 c/c

L127x76x6.4 CLIP ANGLE x 75 LG c/w 12x50 VERT. SLOTTED HOLE. SPACE AT 800 c/c

ANCHOR TO U/S OF STEEL BEAM CONCEALED FROM VIEW

ANCHOR TO U/S OF STEEL BEAM EXPOSED TO VIEW

NOTES:

- LATERAL SUPPORT OF "FULL HEIGHT" MASONRY PARTITIONS REFERS TO WHERE PARTITION WALLS EXTEND UP TO THE UNDERSIDE OF FRAMING, DECK OR SLABS AS SHOWN.
- PROVIDE TOP LATERAL SUPPORTS FOR ALL MASONRY WALLS WHEN SPACING BETWEEN RETURN WALLS EXCEEDS 201 FOR EXTERIOR WALLS, AND 361 FOR INTERIOR PARTITIONS.
- SPACING OF LATERAL SUPPORTS SHALL NOT EXCEED 1200 o/c.
- GAP BETWEEN MASONRY WALL AND STRUCTURE TO BE 25mm MIN. BUT NO LESS THAN:
 - CLEAR SPAN DIVIDED BY 360 FOR CONCRETE SLAB.
 - CLEAR SPAN DIVIDED BY 180 FOR STRUCTURAL STEEL (BEAMS, TRUSSES).

LATERAL SUPPORT - PARTIAL HEIGHT PARTITION TD0411

H. REFER TO TABLE 1

C150x12 SPANNING BETWEEN FRAMING MEMBERS, $R_f = 10 kN$, MAX 3000 LENGTH, CONNECT TO DECK FOR $H_f = 3.8 kN$

HANGER AND BRACE @ 1800 o/c. PER TABLE 1, C/T = 7.5 kN, MAX 600 FROM END OF PARTITION

250x100x6 x 150 LG. BENT PLATE c/w VERTICALLY SLOTTED CONNECTION w/ 190 HILTI HY-270 ANCHOR

6.4mm x 150 LG. BENT PLATE

140-240 PARTIAL HEIGHT MASONRY PARTITION, TOP COURSE BOND BEAM r/w CONT. 1-15M

6mm STIFFENERS AS SHOWN

CHANNEL CAN BE OMITTED WHERE HANGER IS SUPPORTED BY BEAM/JOIST AND BRACE CONNECTS INTO ADJACENT BEAM TOP FLANGE OR JOIST TOP CHORD

ALTERNATE TOP CONNECTION WITHOUT CHANNEL

250x250x6 CAST-IN-PLACE c/w 4-19Ø NELSON STUDS

ALTERNATE TOP CONNECTION TO SLAB ABOVE

TABLE 1 - HANGER AND BRACE

H. HEIGHT (mm)	ANGLE SIZE
<600	L51x51x4.8
600-1500	L64x64x6.4
1500-2400	L102x102x6.4

NOTES:

- LATERAL SUPPORT OF "PARTIAL HEIGHT" MASONRY PARTITIONS REFERS TO WHERE PARTITION WALLS EXTEND UP TO THE CEILING, BUT DO NOT EXTEND UP TO THE UNDERSIDE OF FRAMING, DECK OR SLABS. WHERE POSSIBLE, UNO. EXTEND MASONRY PARTITIONS UP "FULL HEIGHT" AND REFER TO TD0410.
- THIS DETAIL HAS BEEN DESIGNED FOR AN INTERIOR PRESSURE OF 0.5 kPa.
- "PARTIAL HEIGHT" WALLS ARE NOT PERMISSIBLE WHERE $I_e F_a S_a(0.2) \geq 0.35$. NOTIFY THE STRUCTURAL CONSULTANT AND EXTEND ALL MASONRY PARTITIONS TO BE "FULL HEIGHT" AND FOLLOW TD0410.
- REFER TO ARCHITECTURAL FOR EXTENTS OF PARTIAL HEIGHT MASONRY PARTITIONS.
- IF MAX DIMENSIONS ARE EXCEEDED, NOTIFY THE STRUCTURAL CONSULTANT FOR ADDITIONAL REQUIREMENTS.
- BRACE IS TO BE WELDED, OR CONNECTED BY A MINIMUM OF 2 BOLTS.
- CONTRACTOR TO COORDINATE LATERAL SUPPORTS WITH VARIOUS SUB-TRADES AS REQUIRED.

ANCHOR ROD AND BASEPLATE TD0501

LOCAL DATUM

NUT AND WASHER, REFER TO NOTE #4 BELOW

BASEPLATE AS NOTED

TOP OF CONCRETE BASE

MIN. 100 THREADS

50 NON-SHRINK GROUT UNO

ANCHOR BOLTS AS NOTED ON COLUMN SCHEDULE. PROVIDE 4-19Ø x 400 LG PLUS 75mm HOOK WITH 100mm THREAD MIN.

REFER TO TD0502 FOR ANCHOR ROD WITH END PLATE

NOTES:

- TYPICAL MINIMUM EDGE DISTANCE FROM CENTRE OF HOLE TO EDGE OF THE PLATE TO BE THE GREATER OF 38 mm OR 1.5x HOLE DIAMETER.
- THE BASE PLATE DIMENSION GIVEN FIRST IS PARALLEL TO THE COLUMN WEB, OR TO THE LONG DIMENSION OF THE COLUMN, IF THE COLUMN IS SQUARE OR ROUND, THE DIMENSION GIVEN FIRST IS PARALLEL TO THE NORTH-SOUTH AXIS.
- CONNECT COLUMN TO THE BASE PLATE FOR BASE REACTIONS NOTED IN THE COLUMN SCHEDULE.
- IF USED, OVERSIZED ANCHOR ROD HOLES ARE TO BE MAX 1.75x ANCHOR ROD DIAMETER, UNLESS OTHERWISE APPROVED. PROVIDE A 8 mm THICK RECTANGULAR OR CIRCULAR PLATE WASHER WITH STANDARD HOLE SIZE AND WELD ALL AROUND TO THE BASE PLATE FOLLOWING INSTALLATION. PROVIDE A DETAIL FOR REVIEW PRIOR TO FABRICATION

ANCHOR ROD WITH END PLATE TD0502

REFER TO TD0501 FOR NUT, WASHER, BASEPLATE AND GROUT ASSEMBLY

ANCHOR ROD OVERALL LENGTH AS NOTED

SQUARE END PLATE OR

SQUARE END PLATE WITH HOLE

MIN 1 THREAD PROJECTION

OPTIONAL END PLATE DETAIL FOR 38 mm Ø ROD AND SMALLER

ROD Ø	PLATE DIMENSION			WELD
	A	B	C	
19 (3/4")	60	13	10	
25 (1")	75	16	13	
32 (1 1/4")	95	19	17	
38 (1 1/2")	115	22	21	
45 (1 3/4")	135	25	24	
52 (2")	150	29	27	

NOTES:

- WELDING SHALL BE DONE IN ACCORDANCE WITH CSA W59 WITH WELD STRENGTH $X_u = 480$ MPa.
- STEEL ROD AND PLATE SHALL CONFORM TO REQUIREMENTS OF CSA G40.21 GRADE 300W.
- MINIMUM CONCRETE STRENGTH f_{c25} MPa.

3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET

MARK	DATE	DESCRIPTION
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ISSUED FOR TENDER

PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG
SCALE: PROJECT NUMBER: 230227

CHECKED: VC/JC

SHEET TITLE:
TYPICAL DETAILS

CANTILEVERED BEAM CONNECTION TD0503

PLAN VIEW

SECTION A

SECTION B

SECTION C

NOTES:

- WHERE NOT NOTED, PROVIDE (2L) - L152x152x13 BRACES AND BRACING TIES.
- AT COLUMN LOCATIONS, CONNECT FOR THE GREATER OF THE BEAM AND THE COLUMN HORIZONTAL BRACE FORCE.
- WHERE THE PERPENDICULAR MEMBER IS AN OWSJ, PROVIDE A KNEE BRACE DESIGNED FOR THE GREATER OF THE BEAM AND THE COLUMN HORIZONTAL BRACE FORCES.
- HORIZONTAL BRACE FORCES ARE NOTED IN THE DRAWINGS. WHERE NOT NOTED, PROVIDE:
 - BRACE FORCES AT COLUMNS ARE TO BE FOR $H_f = 0.02 \cdot C_f$ (WHERE C_f IS THE COLUMN FORCE NOTED IN THE COLUMN SCHEDULE)
 - BRACE FORCES AT BEAMS ARE TO BE FOR $H_f = 0.02 \cdot M_r / d$ (WHERE M_r IS THE MOMENT CAPACITY OF THE BEAM)

LATERAL SUPPORT - GLAZING/PARTITIONS TD0504

H, HEIGHT (mm)	ANGLE SIZE
<600	L51x51x4.8
600-1500	L64x64x6.4
1500-2400	L102x102x6.4

ALTERNATE TOP CONNECTION WITHOUT CHANNEL

ALTERNATE TOP CONNECTION TO SLAB ABOVE

ALTERNATE BOTTOM CONNECTION FOR LIGHTWEIGHT STEEL STUD PARTITION

NOTES:

- PROVIDE LATERAL SUPPORTS AS SHOWN AT TOP OF ALL "PARTIAL HEIGHT" INTERIOR PARTITIONS OR GLAZING NOT ACTING AS GUARDS, TERMINATED BELOW THE UNDERSIDE OF DECK OR SLAB ABOVE.
- THIS DETAIL HAS BEEN DESIGNED FOR AN INTERIOR PRESSURE OF 0.5 kPa.
- REFER TO ARCHITECTURAL FOR EXTENTS OF PARTITIONS AND GLAZING.
- IF MAX DIMENSIONS ARE EXCEEDED, NOTIFY THE STRUCTURAL CONSULTANT FOR ADDITIONAL REQUIREMENTS.
- BRACE IS TO BE WELDED, OR CONNECTED BY A MINIMUM OF 2 BOLTS.
- CONTRACTOR TO COORDINATE LATERAL SUPPORTS WITH VARIOUS SUB-TRADES AS REQUIRED.

FRAMING - ROOFTOP UNITS TD0510

FRAMING FOR ROOFTOP MECHANICAL UNITS

FRAMING FOR ROOFTOP UNITS

NOTES:

- UNLESS SHOWN OTHERWISE ON PLAN, PROVIDE C150x12 SPANNING BETWEEN BEAMS OR JOISTS EACH SIDE OF ROOFTOP UNIT, AS WELL AS AT EACH END, IN THE MANNER INDICATED ABOVE. CHANNELS TO BE LOCATED DIRECTLY UNDER CURBS SUPPORTING UNIT. OMIT CHANNEL IF CURB IS DIRECTLY OVER A BEAM OR JOIST.
- PROVIDE C100x8 TO SUPPORT EDGES OF DECK AT OPENINGS IN THE MANNER INDICATED ABOVE. IF THE DECK UNDER THE ENTIRE UNIT IS TO BE OMITTED, THE C100x8 FRAMING CAN BE DELETED.
- CONNECT C150x12 TO SUPPORTING BEAMS OR JOISTS FOR A MINIMUM WORKING LOAD OF 9 kN OR 1/2 OF THE WEIGHT OF THE UNIT PLUS 5 kN, WHICHEVER IS MORE. CONNECT WITHOUT DAMAGING THE SUPPORTING STEEL.
- CONNECT C100x8 TO SUPPORTS FOR A MINIMUM WORKING LOAD OF 5 kN.
- COORDINATE LOCATION AND SIZE OF UNIT AND OPENINGS, AND LOCATION OF STEEL FRAMING WITH THE MECHANICAL CONSULTANT AND/OR MECHANICAL CONTRACTOR AND THE STRUCTURAL CONSULTANT.
- WHERE EXISTING BEAMS OR JOISTS ARE SUPPORTING C150x12 MEMBERS, REINFORCE AS REQUIRED. REFER TO TD0511 FOR CONNECTION TO JOISTS AS REQUIRED.

FRAMING - OWSJ AND DECK TD0511

DETAIL AT JOIST (TWO OPTIONS SHOWN)

DETAIL AT DECK

NOTES:

- DECK DESIGN BY SUPPLIER, FASTEN TO FRAMING SUPPORT MEMBER FOR LOAD ON DIAPHRAGM SHEAR FORCE DRAWINGS, NOT LESS THAN 2.3 kN/m.

FRAMING - WEB OPENINGS TD0512

REINFORCING MARK	REINFORCING TOP & BOTTOM	d	b	L	WELD SIZE
A	2-L51x51x9.5	300	300	200	8
B	10x40 PL, EACH SIDE	200	500	150	5

PROVIDE OPENINGS IN WEBS OF STEEL BEAMS WHERE SHOWN THUS ON PLAN:

PROVIDE OPENINGS IN WEBS OF OPEN WEB STEEL JOISTS WHERE SHOWN THUS ON PLAN:

NOTES:

- COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS FOR EXACT LOCATION OF OPENING. CONFIRM CLEAR OPENING WITH MECHANICAL PRIOR TO FABRICATING JOIST.
- UNLESS OTHERWISE NOTED, OPENINGS ARE TO BE CENTRED ON THE DEPTH OF THE JOIST.
- OPENINGS ARE TO BE DESIGNED AND FABRICATED BY THE MANUFACTURER OF THE JOIST. NO JOIST WEB ELEMENTS ARE TO BE CUT IN THE FIELD.

ROOF ANCHORS - STEEL FRAMING TD0520

NOTE: FOR BEAMS SUPPORTING ANCHORS WITH $b < 133$ INCREASE TO BEAM FROM NEXT SIZE GROUP WITH EQUAL OR GREATER AREA WITH EQUAL OR GREATER TORQUE (E.G. W200x22 → W200X27)

NOTES:

- REFER TO ARCHITECTURAL DRAWINGS FOR QUANTITY AND LOCATIONS.
- SEE ARCHITECTURAL DRAWINGS FOR THERMAL BREAK. CONNECT FOR FULL CAPACITY.
- IN EXISTING STRUCTURES, LOCATE ROOF ANCHORS BETWEEN JOISTS OR BEAMS AND SUPPORT ON HSS FRAMING AS SHOWN IN LOWER DETAIL.
- STRUCTURAL STEEL OUTSIDE OF BUILDING ENVELOPE TO BE HOT DIPPED GALVANIZED.

ROOF ANCHOR - OWSJ TD0521

NOTES:

- REFER TO ARCHITECTURAL DRAWINGS FOR QUANTITY AND LOCATIONS.
- SEE ARCHITECTURAL DRAWINGS FOR THERMAL BREAK. CONNECT FOR FULL CAPACITY.
- LOCATE ROOF ANCHORS BETWEEN JOISTS. ROOF ANCHOR MAY BE LOCATED AT ANY POINT ON THE HSS FRAME.
- COORDINATE REACTIONS ACTING AT EACH PANEL POINT w/ JOIST MANUFACTURER.
- REINFORCE EXISTING JOISTS AS REQUIRED PER TYPICAL DETAIL TD0540.
- STRUCTURAL STEEL OUTSIDE OF BUILDING ENVELOPE TO BE HOT DIPPED GALVANIZED.

METAL DECK - FRAMING DETAILS TD0530

CLOSURE ANGLE AND SHEAR TRANSFER

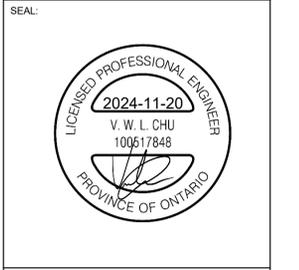
CLOSURE ANGLE SPLICE

CHANGE IN SPAN DIRECTION OF DECK

STEEL BEAM PARALLEL TO DECK

NOTES:

- WHEN THE JOIST FRAME ONTO BEAM FROM ONE SIDE ONLY, CENTRE JOIST SHOE OVER BEAM CENTRE LINE.
- OFFSET JOISTS IF BEAM FLANGE IS LESS THAN 130 WIDE.



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230227

SHEET TITLE:
TYPICAL DETAILS

METAL DECK - OPENINGS TD0531

OPENINGS IN METAL DECK

REFER TO TD0530 FOR CONT. CLOSURE ANGLE AROUND ALL OPENINGS, TYP. UNO.

REFER TO TD0530 FOR CONT. CLOSURE ANGLE AROUND ALL OPENINGS OR PROVIDE DECK MANUFACTURER RECOMMENDED POUR STOP CONT. AROUND OPENING, TYP. UNO.

EDGE OF DECK DETAILS

NOTES:

- OPENINGS UP TO 150mm SQUARE OR IN DIAMETER AND SPACED A MINIMUM 300mm CLEAR FROM ADJACENT OPENINGS DO NOT REQUIRE REINFORCING.
- OPENINGS LARGER THAN 150mm, BUT NOT EXCEEDING 450mm IN ROOF DECK OR 300mm IN FLOOR DECK, ARE TO BE REINFORCED BY THE METAL DECK SUPPLIER AS REQUIRED.
- OPENINGS LARGER THAN 450mm IN ROOF DECK OR 300mm IN FLOOR DECK, BUT NOT EXCEEDING 1200mm SQUARE, ARE TO BE REINFORCED AS SHOWN, UNLESS NOTED OTHERWISE ON PLAN.
- CONNECT FRAMING FOR A MINIMUM END REACTION OF 10 kN.
- WHERE EXISTING BEAMS OR JOISTS ARE SUPPORTING C150x12 MEMBERS, REINFORCE AS REQUIRED. REFER TO TD0511 FOR CONNECTION TO JOISTS AS REQUIRED.

FOOTINGS FOR CONCRETE COLUMNS TD3102

NOTES:

- REFER TO COLUMN AND FOOTING SCHEDULE FOR SIZING AND REINFORCEMENT.
- REFER TO TD0301 FOR COMPRESSION DEVELOPMENT (CDL) AND COMPRESSION LAP SPLICE (CLS).
- IF D1 IS LESS THAN THE TENSION DEVELOPMENT LENGTH FOR THE SPECIFIED BAR (REFER TO TD0301) PROVIDE STANDARD HOOK.

FOOTINGS AND BASES FOR STEEL COLUMNS TD3103

NOTE:

- REFER TO COLUMN AND FOOTING SCHEDULE FOR SIZING AND REINFORCEMENT OF CAP AND FOOTING
- IF D1 IS LESS THAN THE TENSION DEVELOPMENT LENGTH FOR THE SPECIFIED BAR (REFER TO TD0301), PROVIDE STANDARD HOOK.
- THE ARRANGEMENT IN CAPS AS PER TD0331 OR TABLE 25 AND 25A IN REINFORCING STEEL MANUAL OF STANDARD PRACTICE (RSIC).
- INCREASE CAP HEIGHT AND DROP FOOTING TO ACCOMMODATE ANCHOR BOLT LENGTH.

WALL FOOTINGS TD3104

TYPICAL STEPPING DETAIL FOR STRIP FOOTINGS MARKED SDF (STEP DOWN FOOTING) ON PLAN

PIPES CROSSING BENEATH CONT. WALL FOOTINGS

NOTES:

- WHEN 'B' EXCEEDS 2000 mm FOOTING SHALL BE STEPPED DOWN FROM BOTH SIDES
- PROVIDE PVC SLEEVE, ID 100mm LARGER THAN SERVICE PIPE. FILL GAP WITH FIBERGLASS, WRAP WITH GEOTEXTILE TO PREVENT FINE SOIL FROM ENTERING.
- BACKFILL WITH LEAN MIX CONC. WHERE EXCAVATION RUNS ACROSS AND UNDER THE LINE OF FOOTING

STEEL COLUMN SUPPORTING WOOD BEAMS TD0641

BEAM FRAMING TO SIDE OF COLUMN

NOTES:

- CONNECTIONS TO BE DESIGNED FOR FORCES SHOWN ON BEAM SCHEDULE BY A STEEL SUPPLIER/DESIGNER. ASSUME EVEN BEARING AT SUPPORT.
- CONNECTIONS SHOWN FOR INTENT. ACTUAL CONDITIONS MAY VARY.
- DETAILS APPLY TO SAWN LUMBER AND ENGINEERED LUMBER BEAMS WITH MIN 7/8" DEPTH AND MAXIMUM 7" WIDTH.
- DETAILS APPLY TO STEEL HSS COLUMNS WITH MINIMUM 3" DIMENSION.
- MAXIMUM WIND UPLIFT FOR 12-2.5" NAILS: 8kN.
- FOR STEEL COLUMNS INSIDE EXTERIOR WALLS, DRILL 1/2" HOLES @ 12" ON ONE FACE OF COLUMN, FILL COLUMN WITH EXPANDABLE INSULATION. KEEP 12" AWAY FROM ANY CONNECTIONS.

GLULAM - BEAM PENETRATIONS TD0643

TYPICAL HOLES:

- HOLE DIAMETER TO NOT EXCEED 38mm OR 1/10, WHICHEVER IS LESS
- MAXIMUM NUMBER OF HOLES IN A SINGLE BEAM SHALL BE LESS THAN L/1.5m
- ALL HOLES TO BE ROUND AND NEATLY CUT WITH A HOLE SAW OR ROUTER AND TEMPLATE.
- NO OPENINGS WITHIN 150mm OF THE EDGE OF A CONCENTRATED LOAD APPLIED TO THE TOP OR FACE OF THE GLULAM BEAM
- ALL HOLES TO BE FIRE STOPPED TO PREVENT CHARRING ON THE INTERIOR OF THE HOLE

LARGE OPENINGS:

- REFER TO PLANS FOR OPENING DIMENSIONS AND LOCATIONS.
- DO NOT CUT LARGE OPENINGS NOT SHOWN ON PLAN WITHOUT THE WRITTEN CONSENT OF THE CONSULTANT.
- ALL LARGE OPENINGS TO BE SHOP FABRICATED WITH A CNC MACHINE OR ROUTER AND TEMPLATE. ALL EDGES ARE TO BE SMOOTH, NO OVERCUTS PERMITTED, RECTANGULAR OPENINGS TO HAVE A CORNER RADIUS OF 20mm OR GREATER WHERE THE OPENING IS LESS THAN 200mm IN HEIGHT AND A RADIUS OF 40mm OR GREATER WHERE THE OPENING IS GREATER THAN 200mm IN HEIGHT.
- GLULAM SUPPLIER TO DESIGN REINFORCEMENT AROUND OPENINGS FOR THE INTERNAL BEAM FORCES NOTED ON PLAN AS REQUIRED.
- ALL OPENINGS TO BE FIRE STOPPED TO PREVENT CHARRING ON THE INTERIOR OF THE OPENING

MASS TIMBER - CHAR DEPTH TD0670

TYPE	CHAR DEPTH (mm)														
	45				60				90				120		
	Xc,n	Xc,0	Xl,RT	Xc,n	Xc,0	Xl,RT	Xc,n	Xc,0	Xl,RT	Xc,n	Xc,0	Xl,RT	Xc,n	Xc,0	Xl,RT
GLULAM	31.5	29.3	7	42	39.0	7	63	58.5	7	84	78.0	7			
SOLID TIMBER/PLANK DECKING	36	29.3	7	48	39.0	7	72	58.5	7	96	78.0	7			
CROSS LAMINATED TIMBER (CLT)	36	29.3	7	48	39.0	7	72	58.5	7	96	78.0	7			
STRUCTURAL COMPOSITE LUMBER (SCL)	31.5	29.3	7	42	39.0	7	63	58.5	7	84	78.0	7			

NOTES:

- CHAR DEPTH DETERMINED ACCORDING TO CSA 086 ANNEX B, REFER TO THE STANDARD FOR ADDITIONAL INFORMATION.
- REFER TO ARCHITECTURAL DRAWINGS FOR THE REQUIRED FIRE RESISTANCE RATING (FRR).
- Rc,0 & Rt ARE CORNER RADII IN mm. CORNER RADII CAN BE NEGLECTED IF Xc,n IS USED IN PLACE OF Xc,0.
- IF THE CHAR LAYER DEPTH REACHES THE DEPTH OF THE FIRST BOND LINE OF A CLT MEMBER FOR THE DESIRED FRR, THE NOTIONAL CHARRING RATE Xc,n SHALL BE USED IN PLACE OF Xc,0.
- CHAR DEPTH IS REDUCED BY ENCAPSULATION WITH GYPSUM BOARD. REFER TO ARCHITECTURAL DRAWINGS FOR THE EXTENT AND AMOUNT OF ENCAPSULATION. WHERE TIMBER IS ENCAPSULATED, THE FRR USED TO DETERMINE THE CHAR DEPTH MAY BE REDUCED AS FOLLOWS:
 - 15 MINUTES WHEN ONE LAYER OF 12.7mm TYPE X GYPSUM BOARD IS USED
 - 30 MINUTES WHERE ONE LAYER OF 15.9mm TYPE X GYPSUM BOARD IS USED
 - 60 MINUTES WHERE TWO LAYERS OF 15.9mm TYPE X GYPSUM BOARD IS USED
 - 60 MINUTES WHERE TWO LAYERS OF 12.7mm TYPE X GYPSUM BOARDS ARE APPLIED TO CLT
- CHAR DEPTH DOES NOT APPLY TO TIMBER STRUCTURES ACHIEVING A 45 MINUTE FRR THROUGH THE HEAVY TIMBER PROVISIONS OF THE NBCC (3.1.4.6)

CONCRETE WALL - CROSSTIES FOR VERTICAL REINFORCEMENT TD0310A

TABLE 1:

WALL THICKNESS t (mm)	SPACING OF VERTICAL BARS IN WALLS WHERE CROSSTIES ARE REQUIRED, x (mm)				
	10M	15M	20M	25M	35M
200	<200	<400	<600		
250	<160	<320	<480		
300	<140	<270	<400		
350	<120	<230	<350		
400	<100	<200	<300		
500	<80	<160	<240		
600	<70	<140	<200		

TABLE 2:

WALL THICKNESS t (mm)	MAXIMUM SPACING OF 10M CROSSTIES IN WALLS WHERE CROSSTIES ARE REQUIRED FOR VERTICAL BARS, s (mm)				
	10M	15M	20M	25M	35M
200	190	200	200	200	200
250	190	250	250	250	250
300	190	260	300	300	300
350	190	260	320	350	350
400	190	260	320	400	400
500	190	260	320	410	480
600	190	260	320	410	550

NOTE: FOR CONCRETE COMPRESSIVE STRENGTHS EXCEEDING 50 MPa, THE TIE SPACING IN THE ABOVE TABLE SHALL BE MULTIPLIED BY 0.75

SEAL:



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S005



CONCRETE WALL - OPENINGS TD0314

CLASS B TENSION LAP - ALL CONCENTRATED VERTICAL BARS. TYP. U/N

REFER TO DRAWING FOR JAMB REINF. PROVIDE MINIMUM AS PER TD0310

HOOK BARS INTO SLAB

CONCENTRATED VERTICAL BARS AS NOTED ON DRAWINGS, REFER TO TD0310, TD0311 AND TD0312

PROVIDE U BARS TO MATCH VERTICAL REINF. AND A MINIMUM OF 10M@250

EXTEND CONC. REINF. ONE FLOOR BELOW OFFSET IN WALL, TYP.

2-20M @ SLAB LEVEL U/N

2-20M

1000

1000

3-20M, U/N

1. REFER TO TD0310, TD0311 AND TD0312 FOR TIE ARRANGEMENT AT CONCENTRATED REINFORCING.

2. CONFORM TO TD0311 OR TD0312 FOR ADDITIONAL TIES.

3. DO NOT CRANK VERTICAL BARS.

1-15Mx1500L.G. FOR UP TO 200 WALLS. 1-15M EACH FACE FOR WALLS OVER 200. HOOK AS NECESSARY.

EDGE OF WALL

P, MIN PIER WIDTH

DISPLACE VERT. AND HORIZ. REINF. INTERRUPTED BY OPENING TO EITHER SIDE OF OPENING

ADD REINF. SAME SIZE AS DISPLACED BARS TO MAINTAIN A MAX BAR SPACING OF 400mm OR 2 TIMES THE WALL THICKNESS, WHICHEVER IS LESS HOOK BARS AT OPENING.

WALL TYPE	W. WIDTH	H. HEIGHT	P, MIN PIER WIDTH
CONVENTIONAL OR FOUNDATION WALL	1200 MAX	1200 MAX	GREATER OF 600 OR OPENING WIDTH
SHEAR WALL	LESSER OF 400 OR 10% SHEAR WALL LENGTH	H. HEIGHT	GREATER OF 600 OR CONCENTRATED END ZONE

1. REFER TO TD0311 OR TD0312 FOR LENGTH OF SHEAR WALL CONCENTRATED END ZONE.

CONCRETE WALL - HORIZONTAL JOINTS TD0316

1-15 CONT.

600 MIN.

38x89 KEY IN WALLS 250mm THICK OR GREATER.

38x89 KEY TYP.

600 MIN.

100 MIN.

PROVIDE DOWELS BOTH SIDES WHERE SLAB CONTINUES OVER WALL.

PROVIDE SPECIFIED WATERSTOP IN ALL HORIZONTAL JOINTS MORE THAN 600mm BELOW GRADE.

REGLET FOR ARCHITECTURALLY EXPOSED CONCRETE ONLY FOR CONFIGURATION SEE ARCH. AND/OR STRUCTURAL DRAWINGS.

SECTION DETAIL AT TOP OF WALL/GRADE BEAM

HORIZONTAL JOINT

15M@400 DOWELS TO FLOOR SLAB UNLESS NOTED OTHERWISE ON DRAWINGS

THIRD POUR

SECOND POUR

FIRST POUR

DOWELS AS INDICATED (PROVIDE 15M@500 MIN.)

75 MIN.

75 MIN.

HORIZONTAL JOINTS AT SLAB

CONCRETE COLUMNS - REINFORCEMENT (Rd=1.5) TD0330

VERTICAL BAR SIZE	SL, 10M TIE SPACING
15M	250
20M	320
25M	400
≥ 30M	480

1. MAXIMUM TIE SPACING SL SHALL NOT EXCEED THE MINIMUM COLUMN DIMENSION.

NO ADD'L TIES REQ'D AT CRANKED VERTICALS IF TOTALLY WITHIN SLAB OR DROP ON ALL FOUR SIDES

PROJECT BARS EQUAL IN AREA TO VERTICAL REINFORCING IN COLUMN ABOVE UNLESS OTHERWISE NOTED IN COLUMN SCHEDULE. AREA OF VERTICAL REINFORCEMENT IN EXCESS OF THIS NEED PROJECT ONLY A DISTANCE "DL" ABOVE BOTTOM OF CAPITAL, SLAB OR SHALLOWEST BEAM.

75 MAX FOR CRANKED SPLICE

OVER 75

100

100

150 MAX THROUGH BEAM-COL. JOINT (2 MIN). NOT REQ'D FOR JOINTS w/ BEAMS ALL 4 SIDES.

3 SETS OF TIES @ 50 C/C WHEREVER VERTICAL BARS CRANK. IF NO VERTICAL BARS CRANK PROVIDE TIES AS PER DETAIL TO THE RIGHT.

SLOPE NOT TO BE STEEPER THAN 6 TO 1

CONSTRUCTION JOINT

NOTES:

- REFER TO TD0301 FOR COMPRESSION LAP SPLICE, CLS.
- PROVIDE MECHANICAL SPLICES FOR ALL 4S AND 5S BARS. UNLESS OTHERWISE NOTED ON COLUMN SCHEDULE. PROVIDE COMPRESSION SPLICES EXCEPT THE FOUR CORNER BARS SHALL HAVE FULL TENSION SPLICES.
- SL = TIE SPACING AS PER COLUMN SCHEDULE, BUT NOT MORE THAN TABLE ABOVE.
- PROVIDE CROSS TIES AS PER REINFORCING STEEL MANUAL OF STANDARD PRACTICE (RSIC) APPENDIX TABLE 25A+25B OR TD0332.
- IF THE SPACING WITHIN REGION WHERE VERTICALS ARE CRANKED EXCEEDS SL/2, ADD TIES TO MAINTAIN SPACING OF SL/2.
- 10M DOWELS SAME NUMBER AS VERTICAL COLUMN REINFORCEMENT UNLESS NOTED OTHERWISE ON COLUMN SCHEDULE. PLACE IN SAME LAYER AS BEAM OR SLAB TOP STEEL IN CORRESPONDING DIRECTION. CAN BE PLACED STRAIGHT AND BENT INTO SLAB. THESE BARS ARE NOT REQUIRED WHERE COLUMN VERTICALS CAN PROJECT AT LEAST DISTANCE "DL" INTO CAPITAL OR BEAM.

CONCRETE COLUMN - TIE ARRANGEMENT TD0332

4 BARS

6 BARS

8 BARS

10 BARS

12 BARS

14 BARS

16 BARS

NARROW COLUMNS

NARROW CORNER COLUMNS

ROUND COLUMNS

135° HOOK, TYP. (ALTERNATIVELY LAP WELD TIE)

NOTES:

- TIE VERTICALS WITH TIES SHOWN DASHED WHEN "X" IS OVER 150 mm.
- MINIMUM CLEAR DISTANCE BETWEEN VERTICAL BARS:
 - 1.4 TIMES VERTICAL BAR DIAMETER.
 - 1.4 TIMES THE MAX. SIZE OF COURSE AGGREGATE.
 - 30 mm.
- SEE DRAWINGS FOR OTHER TIE ARRANGEMENTS.
- WHEN SEISMIC HAZARD INDEX, IeFaSa(0.2), IS LESS THAN 0.35 SINGLE TIES WITH ONE 90° AND ONE 135° HOOK MAY BE USED PROVIDED THE 90° HOOK IS MIN. 100mm LONG AND SUCCESSIVE TIES ENGAGING THE SAME BARS ARE ALTERNATED END FOR END. FOR SEISMIC HAZARD INDEX OF 0.35 AND HIGHER, ALL TIES MUST BE ENCLOSED LOOPS.
- TIE SPACING AS PER TABLE 25 AND 25A OF REINFORCING STEEL MANUAL OF STANDARD PRACTICE, OR TD0330 OR TD0331.

FOOTING ADJACENT TO EXCAVATION TD3101

300 MIN.

LINE OF EXCAVATION MAINTAIN STABLE SLOPE

ADJUST FOOTING ELEVATIONS SHOWN ON DRAWINGS IF NECESSARY TO MAINTAIN THE MAX. 7 TO 10 SLOPE BETWEEN FOOTINGS AND ADJACENT EXCAVATIONS FOR DRAINS OR OTHER ITEMS

RELATION TO ADJACENT FOOTINGS AND EXCAVATIONS

LEAN MIX CONC.

U/S FOOTING ELEV. AS PER PLAN

LOWER SERVICE PIPE

RELATION TO SERVICES

NOTES:

- WHERE MECH SERVICES UNDERMINE PAD FOOTINGS, EXTEND EXCAVATION BELOW SLOPE OF REPOSE AND RAISE GRADE WITH EITHER LEAN MIX, ENGINEERED FILL (IF APPLICABLE) OR OVERPOUR FOOTING.
- DO NOT PLACE SERVICE PIPES UNDER PAD FOOTINGS.
- THE PROVISIONS NOTED ABOVE REGARDING THE PERMISSIBLE SOIL SLOPES ARE BASED ON THE STRUCTURAL REQUIREMENTS ONLY. CONTRACTORS ARE RESPONSIBLE FOR FOLLOWING ALL MINISTRY OF LABOUR REQUIREMENTS RELATED TO EXCAVATIONS AND TRENCHING.

WOOD FRAMING - SUPPORTING STEEL BEAMS TD0603

PROVIDE SOLID BLOCKING BETWEEN JOISTS

CONTINUOUS 2x4 OR 2x6 TO SUIT. BOLT TO BEAM WITH 12Ø BOLTS @ 800 c/c ALTERNATING SIDES

TIMBER JOISTS

TIMBER JOISTS

STEEL BEAM

TOE-NAIL JOIST TO NAILER W/ 2-64mm (2-2") NAILS PER JOIST.

STANDARD DETAIL

ALTERNATE DETAIL WHERE THE STANDARD WOOD STRIP IS NOT ACCEPTABLE

STEEL BEAM SUPPORTING JOISTS ON TOP FLANGE

CONTINUOUS 2x RIPPED TO FIT. BOLT TO BEAM WITH 12Ø BOLTS @ 800 c/c ALTERNATING SIDES

TIMBER JOISTS CUT TO SUIT BEAM

TIMBER JOISTS CUT TO SUIT BEAM

JOIST HANGERS CHAMFER

STEEL BEAM + CONTINUOUS 8mm (5/16") PLATE PROJECTING 60mm (2 1/2") BEYOND FLANGE TO SUPPORT JOISTS

38mm (2") BLOCKING BETWEEN EXIST. JOISTS IN CONTACT WITH TOP FLANGE OF BEAM. BOLT TO BEAM AND NAILED TO JOISTS EACH SIDE

CONTINUOUS LEDGER BOARD THICKNESS TO SUIT FLANGE OF BEAM. BOLT TO BEAM WITH 12mm Ø BOLTS @ 800 c/c

STEEL BEAM AT OR BELOW LEVEL OF SUPPORTING JOISTS

CONTINUOUS 2x RIPPED TO FIT. BOLT TO BEAM WITH 12Ø BOLTS @ 800 c/c ALTERNATING SIDES

DIMENSION LUMBER CUT FLUSH WITH EDGE OF SUPPORTING MEMBER

TOP-HUNG HANGER SUPPLIED BY MANUFACTURER

JOIST

WEB STIFFENERS AS REQUIRED BY MANUFACTURER

1/2" 10-16D NAILS

NOTES:

- WHERE BEAMS ARE BEING INSTALLED TO SUPPORT EXISTING JOISTS AND ANY OTHER LOADS ABOVE, UNTIL THE NEW BEAM IS INSTALLED AND PROPERLY SUPPORTED.
- SEE PLANS AND/OR SECTIONS FOR SIZES OF JOISTS AND BEAMS.

ROOF ANCHORS - STEEL FRAMING TD0520

22 kN ULTIMATE LOAD ANY DIRECTION

ROOF ANCHOR ASSEMBLY BY OTHERS TYP.

OPTIONAL THERMAL BREAK. REFER TO NOTE #2 TYP.

LINE OF ROOFING FOR CONTEXT ONLY

700 MAX

16 STIFFENER PL EA SIDE TYP.

CONNECT FOR Mf = 15.5 kN.m Vf = 12 kN Tf = 22 kN

2500 c/c MAX.

C150x12 OR AS NOTED ON PLAN.

b ≥ 133

NOTE: FOR BEAMS SUPPORTING ANCHORS WITH b < 133 INCREASE TO BEAM FROM NEXT SIZE GROUP WITH EQUAL OR GREATER VALUE FOR Ix (EG. W200x22 → W200x27)

22 kN ULTIMATE LOAD ANY DIRECTION

90 OD MIN.

700 MAX

COPE ENDS AS REQUIRED

CONNECT EA. END FOR Vf = 12 kN Tf = 22 kN Tt = 15.4 kN.m (TORSION)

HSS 152x152x8.0 FRAME BETWEEN ROOF BEAMS OR JOISTS

NOTES:

- REFER TO ARCHITECTURAL DRAWINGS FOR QUANTITY AND LOCATIONS.
- SEE ARCHITECTURAL DRAWINGS FOR THERMAL BREAK. CONNECT FOR FULL CAPACITY.
- IN EXISTING STRUCTURES, LOCATE ROOF ANCHORS BETWEEN JOISTS OR BEAMS AND SUPPORT ON HSS FRAMING AS SHOWN IN LOWER DETAIL.
- STRUCTURAL STEEL OUTSIDE OF BUILDING ENVELOPE TO BE HOT DIPPED GALVANIZED.

3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET
MARK	DATE	DESCRIPTION

ISSUED FOR TENDER

PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG	CHECKED: VC/JC
SCALE:	PROJECT NUMBER: 230227

SHEET TITLE:
TYPICAL DETAILS

SEAL:



MARK	DATE	DESCRIPTION
3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET

ISSUE:
ISSUED FOR TENDER

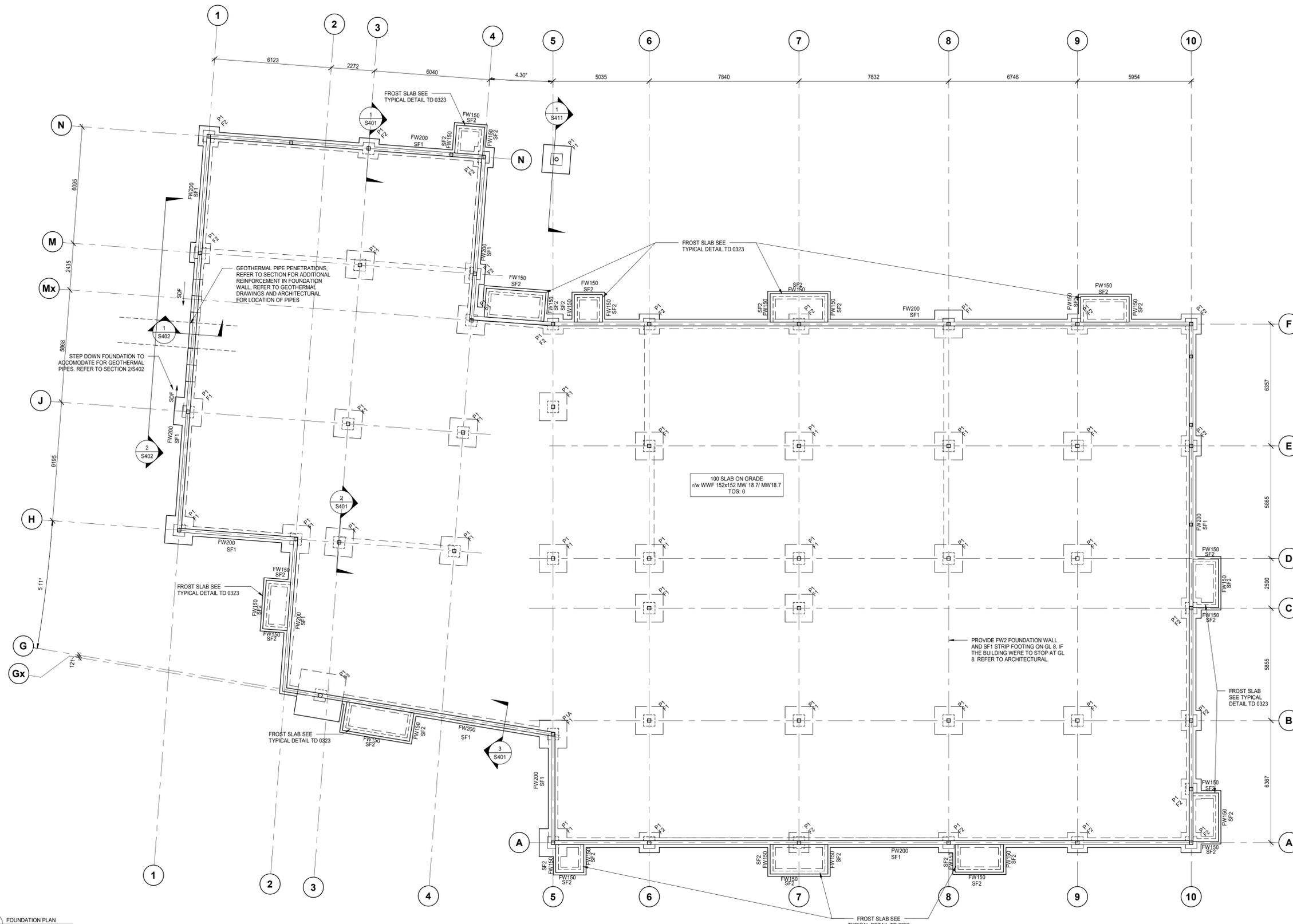
PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG	CHECKED: VC/JC
SCALE: As indicated	PROJECT NUMBER: 230227

SHEET TITLE:
FOUNDATION PLAN

S101



1 FOUNDATION PLAN
S101 1:100

- NOTES:
- GROUND FLOOR DATUM ELEVATION, 0.00m. REFER TO ARCHITECTURAL FOR GEODETIC ELEVATION.
 - WHERE CROSSED AND NOTED THE LOCAL DATUM FOR RAISED OR LOWERED AREAS ARE GIVEN RELATIVE TO THE GROUND FLOOR DATUM.
 - WHERE CROSSED AND NOTED, SLAB DEPRESSIONS OR LOCALLY RAISED AREAS ARE GIVEN RELATIVE TO THE GROUND FLOOR DATUM.
 - REFER TO THE GENERAL NOTES FOR DESIGN ULS AND SLS BEARING CAPACITIES.
 - FOUND FOOTINGS AT A MINIMUM OF 1200mm BELOW FINISHED GRADE WHERE EXPOSED TO FROST, AND FOUND ALL FOOTINGS AT A MINIMUM OF 1000mm BELOW EXISTING GRADE, WHICHEVER IS LOWER. BEARING ELEVATIONS ARE TO BE VERIFIED IN FIELD BY THE GEOTECHNICAL CONSULTANT.
 - MAINTAIN A MIN. 7V:10H SLOPE BETWEEN FOOTINGS, REFER TO TYPICAL DETAILS FOR MORE INFORMATION.
 - CENTRE ALL FOOTINGS AND CAPS ON THE GRID LINES UNLESS NOTED OTHERWISE.
 - PROVIDE CONTROL JOINTS IN ALL FOUNDATION WALLS AS PER TD0317. COORDINATE CONTROL JOINT LOCATIONS WITH ARCHITECTURAL.
 - REFER TO DRAWING S-001 FOR GENERAL NOTES.
 - REFER TO DRAWING S-001 TO S-006 FOR TYPICAL DETAILS.
 - REFER TO DRAWING S-201 FOR COLUMN SCHEDULE.
 - REFER TO DRAWING S-201 FOR BEAM SCHEDULE.

STRIP FOOTING SCHEDULE					
MARK	DIMENSIONS (mm)			REINFORCEMENT	REMARKS
	WIDTH	DEPTH			
SF1	500	300		3-15 B CONT.	
SF2	400	300		2-15 B CONT.	

SPREAD FOOTING SCHEDULE					
MARK	DIMENSIONS (mm)			REINFORCEMENT	REMARKS
	LENGTH	WIDTH	DEPTH		
F1	1450	1450	300	5-15M BEW	HOOKEED BOTH ENDS
F2	1050	1050	300	4-15M BEW	HOOKEED BOTH ENDS
F3	2400	2400	550	8-20M BEW	HOOKEED BOTH ENDS

WALL SCHEDULE				
MARK	THICKNESS	REINFORCEMENT		REMARKS
		VERTICAL	HORIZONTAL	
FW150	150			REFER TO TYPICAL DETAIL 0323 FOR DETAILS
FW200	200	15M@400 VEF	10M@400 HEF	

CONCRETE PIER SCHEDULE				
MARK	DIMENSIONS	REINFORCEMENT		REMARKS
		VERTICAL	TIE	
P1	600x600	12-30M	10M@250	PROVIDE (2) 10M@50 AT TOP OF PIER
P1A	600x600	12-20M	15M@250	PROVIDE (2) 15M@50 AT TOP OF PIER

SEAL:



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MARK	DATE	DESCRIPTION
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ISSUE:
ISSUED FOR TENDER

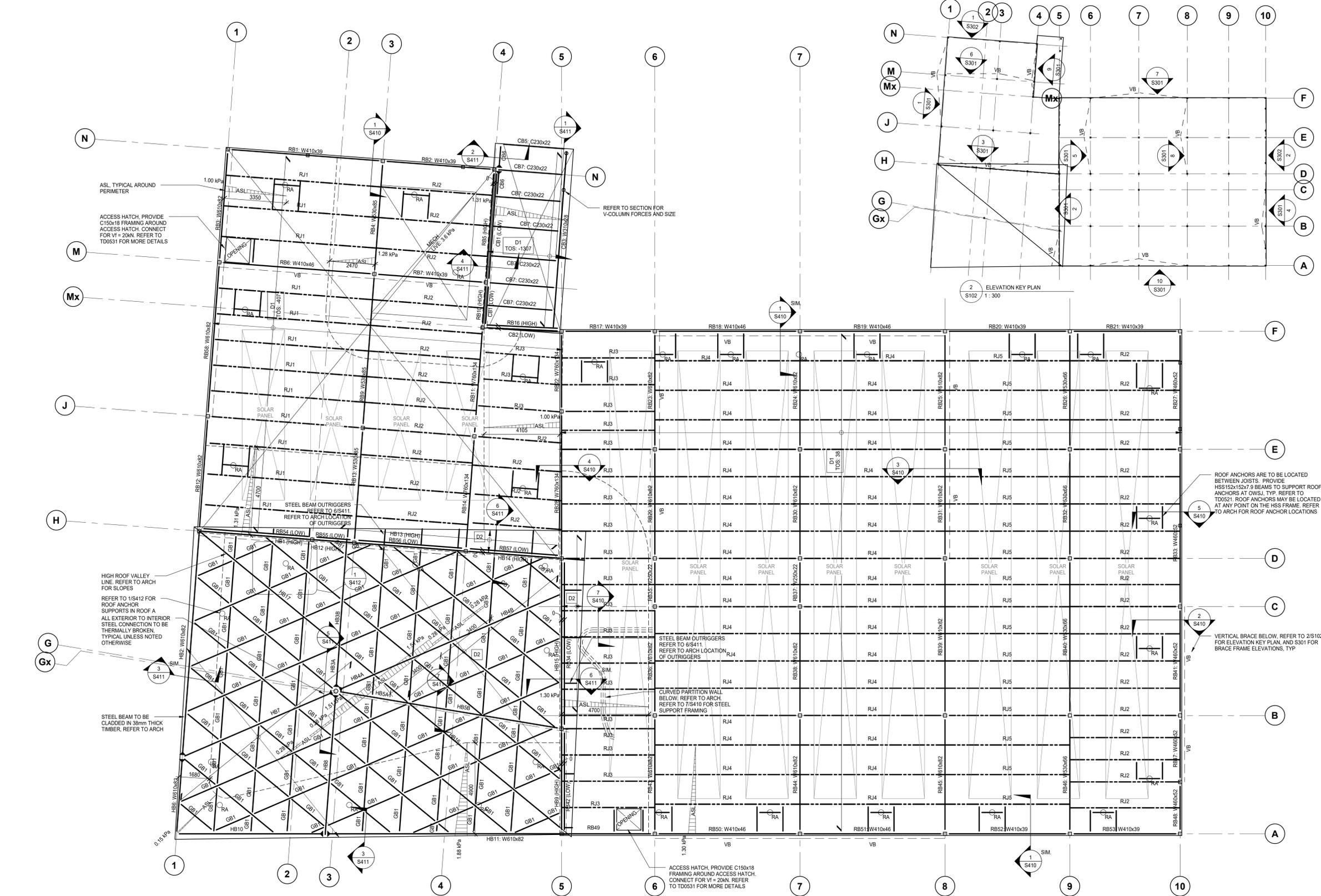
PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG	CHECKED: VC/JC
SCALE: As indicated	PROJECT NUMBER: 230227

SHEET TITLE:
**ROOF FRAMING
PLAN**

S102



1 ROOF FRAMING PLAN
S102 1:100

- NOTES:
- ROOF DATUM IS 4.455m ABOVE THE GROUND FLOOR DATUM EXCEPT AS CROSSED AND NOTED.
 - THE ROOF DATUM REPRESENTS THE UNDERSIDE OF METAL DECK AT ITS HIGHEST POINTS. THE ROOF SLOPES. REFER TO ARCHITECTURAL DRAWINGS FOR THE SLOPES.
 - ROOF LOADS USED IN THE DESIGN:
SNOW: 1.28 kPa (ETOBICOKE)
MECH SCREENS TO BE RAISED 600 FOR SCOURING. NO ASL SNOW AT SOLAR PANELS. 2.24 kPa
- ROOF DEAD LOAD:
- | | |
|-----------------------|----------|
| ROOFING | 0.20 kPa |
| INSULATION | 0.20 kPa |
| STRUCTURE SELF-WEIGHT | 0.50 kPa |
| ME | 0.30 kPa |
| SUSPENDED | 0.30 kPa |
| ADDITIONAL ALLOWANCE | 0.20 kPa |
| ROOF TOTAL | 1.70 kPa |
- SOLAR PV: 0.75 kPa
- REFER TO DRAWING S-001 FOR GENERAL NOTES.
 - REFER TO DRAWING S-002 - S-006 FOR TYPICAL DETAILS.
 - REFER TO DRAWING S-201 FOR COLUMN SCHEDULE.
 - REFER TO DRAWING S-201 FOR BEAM SCHEDULE.

ARCHITECTURALLY EXPOSED STRUCTURAL STEEL LEGEND:

AESS 1 - ALL STEEL COLUMNS IN LOBBY EXPOSED TO VIEW.

AESS 1 - ALL STEEL COLUMNS ALONG GL H ADJACENT TO MASONRY WALLS.

AESS 2 - ALL STEEL COLUMNS IN WARM UP / LOUNGE.

AESS 3 - ALL STEEL MEMBERS AT THE UPPER CEILING IN THE WARM UP / LOUNGE

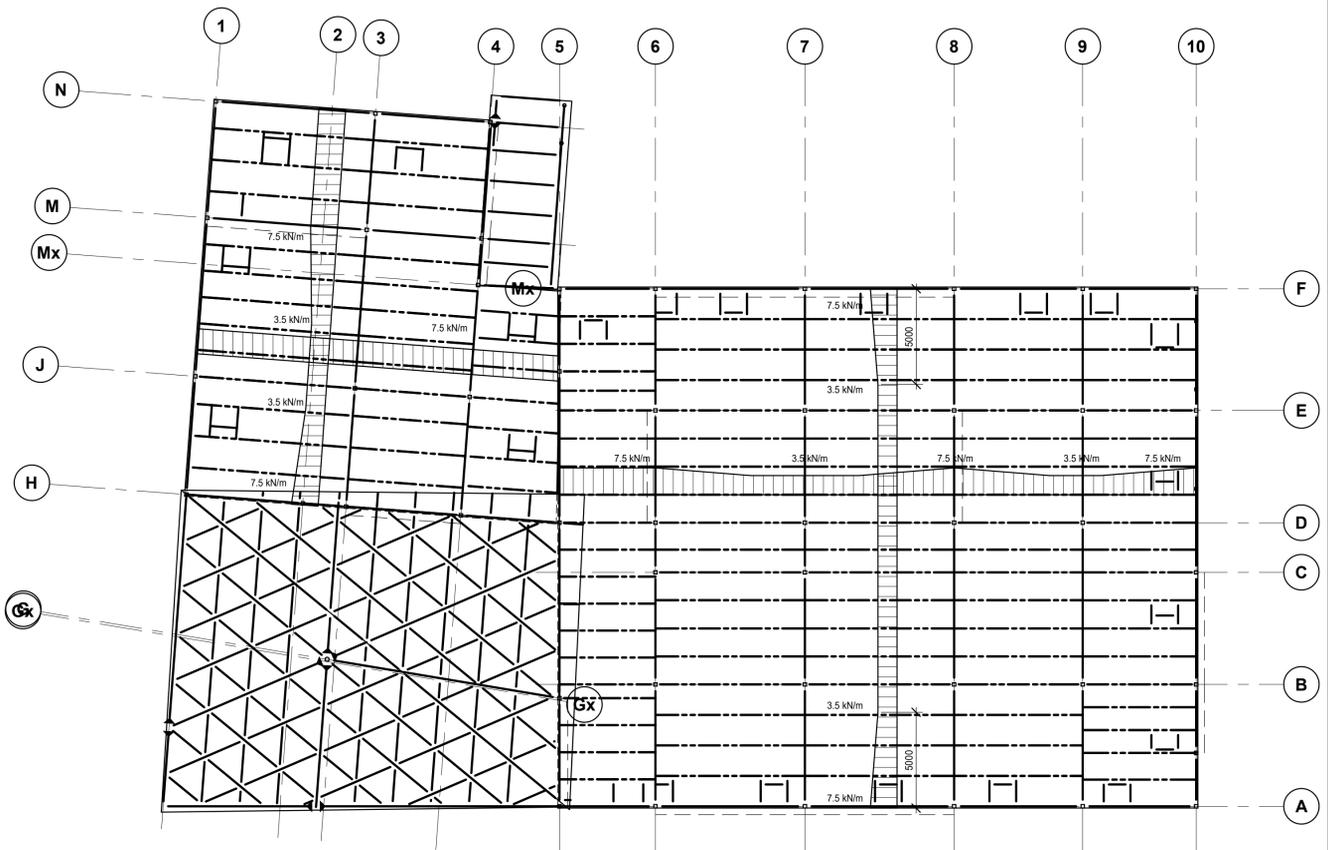
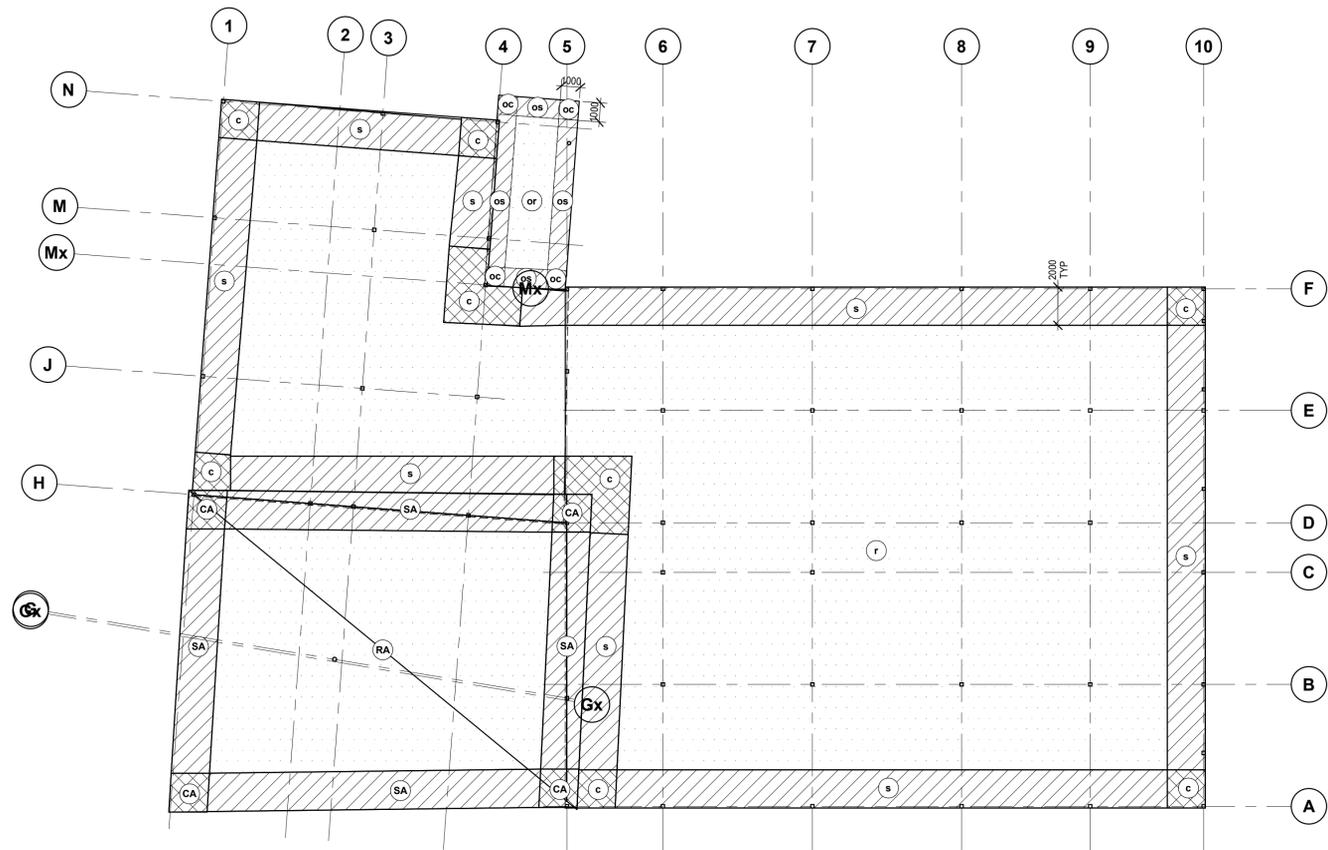
ARCHITECTURALLY EXPOSED CONCRETE LEGEND:

AEC 1 - CONCRETE SLAB ON GRADE AT LOBBY, MAIN CORRIDOR, STORAGE AREA, EPOXY FLOORS. REFER TO ARCH

NOTE: REFER TO THE SPECIFICATIONS FOR DETAILED REQUIREMENTS.

DECK SCHEDULE			
MARK	DESCRIPTION	PLYWOOD PANEL	REMARKS
D1	38 METAL DECK		
D2	38 SPF DECKING	9.5mm OSB PANEL W. 2.52Ø x 2-1/4" NAILS @100mm O.C.	MIN. THICKNESS 0.91mm, TRIPLE SPAN SELECT GRADE DECK PLANKS, DECKING TO HAVE MIN. 2 SPAN CHORD MEMBERS ON EITHER EDGE W. #2 - 4Ø x 3.5" NAILS @ 200mm O.C.

SEAL:



1 WIND UPLIFT DIAGRAM
S103 1:175

- NOTES:
- PRESSURES SHOWN ARE UNFACTORED DESIGN UPLIFT PRESSURES IN kPa FOR THE DESIGN OF JOISTS AND METAL DECK AND THEIR CONNECTIONS.
 - UPLIFT PRESSURES SHOWN HAVE BEEN REDUCED FOR THE EFFECT OF DEAD LOADS.
 - PRESSURES ARE INCLUSIVE OF INTERNAL PRESSURE.

NET UPLIFT PRESSURES [kPa] - ROOF B AND C:

ZONE ELEMENT	r	s	c	or	os	oc
JOISTS	0.52	0.77	0.86	0.56	0.56	0.12
DECK	0.83	1.10	1.96	0.80	0.80	1.41

NET UPLIFT PRESSURES [kPa] - ROOF A:

ZONE ELEMENT	RA	SA	CA	DRA	DSA	DCA
JOISTS	0.89	1.28	1.87	0	0.98	2.08
DECK	1.09	1.47	2.06	0.18	1.17	2.27

2 SHEAR FORCE DIAGRAM
S103 1:175

- NOTES:
- SHEAR FORCES SHOWN ARE FACTORED (ULS DESIGN FORCES IN kN/m FOR THE DESIGN OF METAL DECK AND ASSOCIATED CONNECTIONS).
 - MECHANICAL FASTENERS HAVE BEEN ASSUMED WITH AN $R_{wRo} = 1.95$. IF WELDED CONNECTIONS ARE TO BE USED, THE FACTORED FORCES MUST BE INCREASED 1.5 TIMES BASED ON AN $R_{wRo} = 1.3$.

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PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
56 Centennial Park Rd,
Toronto, ON

DRAWN: SG	CHECKED: VC/JC
SCALE: As indicated	PROJECT NUMBER: 230227

SHEET TITLE:
KEY PLANS

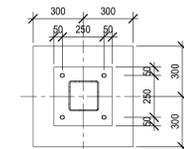
SEAL:



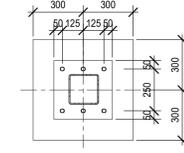
COLUMN SCHEDULE																				
T/O ROOF-A																			T/O ROOF-A	
9300																			9300	
T/O ROOF-C																			T/O ROOF-C	
4555 T/O CANOPY																			4555 T/O CANOPY	
3450	HSS178x178x6.4 Pf=171kN	HSS178x178x6.4 Pf=173kN	HSS178x178x6.4 Pf=173kN	HSS178x178x6.4 Pf=193kN	HSS178x178x6.4 Pf=170kN	HSS178x178x6.4 Pf=90kN	HSS178x178x6.4 Pf=90kN	HSS178x178x6.4 Pf=330kN	HSS178x178x6.4 Pf=380kN	HSS178x178x6.4 Pf=425kN	HSS178x178x6.4 Pf=370kN	HSS178x178x6.4 Pf=105kN	HSS178x178x6.4 Pf=220kN	HSS178x178x6.4 Pf=260kN	HSS178x178x6.4 Pf=205kN	HSS178x178x6.4 Pf=270kN	HSS178x178x6.4 Pf=220kN	HSS178x178x6.4 Pf=260kN	HSS178x178x6.4 Pf=118kN	HSS178x178x6.4 Pf=370kN
GROUND FLOOR																			GROUND FLOOR	
0	BPL1 SLS: P=77kN ULS: Pf=171kN	BPL2 SLS: P=105kN ULS: Pf=195kN VF=59kN	BPL1 SLS: P=90kN ULS: Pf=170kN	BPL2 SLS: P=115kN ULS: Pf=215kN VF=59kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=90kN ULS: Pf=170kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=45kN ULS: Pf=90kN	BPL2 SLS: P=45kN ULS: Pf=90kN VF=55kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=164kN ULS: Pf=330kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=200kN ULS: Pf=390kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=229kN ULS: Pf=425kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=115kN ULS: Pf=220kN	BPL1 SLS: P=58kN ULS: Pf=105kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=115kN ULS: Pf=220kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=140kN ULS: Pf=260kN	BPL2 SLS: P=110kN ULS: Pf=205kN VF=55kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=150kN ULS: Pf=270kN	BPL2 SLS: P=140kN ULS: Pf=270kN VF=80kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=140kN ULS: Pf=260kN	BPL2 SLS: P=360kN ULS: Pf=471kN VF=80kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=198kN ULS: Pf=370kN
Column Locations	A-5	A-6	A-7	A-8	A-9	A-10	A(2792)-10	B-6	B-7	B-8	B-9	B-10	C-6	C-7	C-10	D-5	D-6	D-7	D-8	D-9

COLUMN SCHEDULE																				
T/O ROOF-A																			T/O ROOF-A	
9300																			9300	
T/O ROOF-C																			T/O ROOF-C	
4555 T/O CANOPY																			4555 T/O CANOPY	
3450	HSS178x178x6.4 Pf=240kN	HSS178x178x6.4 Pf=220kN	HSS178x178x6.4 Pf=380kN	HSS178x178x6.4 Pf=250kN	HSS178x178x6.4 Pf=310kN	HSS178x178x6.4 Pf=180kN	HSS178x178x6.4 Pf=260kN	HSS178x178x6.4 Pf=180kN	HSS178x178x6.4 Pf=170kN	HSS178x178x6.4 Pf=190kN	HSS178x178x6.4 Pf=170kN	HSS178x178x6.4 Pf=80kN	HSS219x9.5 Pf=125kN	HSS178x178x6.4 Pf=300kN	HSS178x178x6.4 Pf=200kN	HSS178x178x6.4 Pf=150kN	HSS178x178x6.4 Pf=150kN	HSS178x178x6.4 Pf=210kN	HSS178x178x6.4 Pf=40kN	HSS178x178x6.4 Pf=410kN
GROUND FLOOR																			GROUND FLOOR	
0	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=130kN ULS: Pf=240kN	BPL1 SLS: P=115kN ULS: Pf=220kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=200kN ULS: Pf=380kN	BPL1 SLS: P=130kN ULS: Pf=250kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=165kN ULS: Pf=310kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=95kN ULS: Pf=180kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=130kN ULS: Pf=260kN	BPL3 SLS: P=130kN ULS: Pf=245kN VF=80kN	BPL1 SLS: P=90kN ULS: Pf=170kN	BPL3 SLS: P=145kN ULS: Pf=270kN VF=85kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=90kN ULS: Pf=170kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=40kN ULS: Pf=80kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=78kN ULS: Pf=1235kN	BPL2 SLS: P=170kN ULS: Pf=300kN	350x350x19 (4) 250x400 ANCHORS WITH 50x50x13 PL HEAD SLS: P=100kN ULS: Pf=200kN VF=40kN	BPL1 SLS: P=75kN ULS: Pf=150kN VF=10kN	BPL1 SLS: P=75kN ULS: Pf=150kN VF=38kN	BPL2 SLS: P=140kN ULS: Pf=250kN VF=55kN	350x350x19 (4) 250x400 ANCHORS WITH 50x50x13 PL HEAD SLS: P=144kN ULS: Pf=270kN VF=50kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=118kN ULS: Pf=410kN
Column Locations	E(2042)-5	E-6	E-7	E-8	E-9	E-10	F-5	F-6	F-7	F-8	F-9	F-10	G-3(-390)	G-5	H-1	H-2	H-3	H-4	J-1	J-3

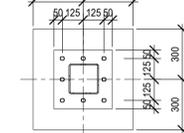
COLUMN SCHEDULE									
T/O ROOF-A									T/O ROOF-A
9300									9300
T/O ROOF-C									T/O ROOF-C
4555 T/O CANOPY									4555 T/O CANOPY
3450	HSS178x178x6.4 Pf=240kN	HSS178x178x6.4 Pf=190kN	HSS178x178x6.4 Pf=320kN	HSS178x178x6.4 Pf=150kN	HSS178x178x6.4 Pf=100kN	HSS178x178x6.4 Pf=180kN	HSS178x178x6.4 Pf=160kN	HSS178x178x6.4 Pf=260kN	
GROUND FLOOR									GROUND FLOOR
0	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=130kN ULS: Pf=240kN	350x350x19 (4) 250x400 ANCHORS WITH 50x50x13 PL HEAD SLS: P=125kN ULS: Pf=235kN VF=85kN	BPL1 SLS: P=155kN ULS: Pf=320kN	BPL2 SLS: P=75kN ULS: Pf=150kN VF=90kN	350x350x19 (4) 250x400 ANCHORS WITH 50x50x13 PL HEAD SLS: P=75kN ULS: Pf=140kN VF=50kN	350x350x16 (4) 190 x 400 HOOKED ANCHORS SLS: P=96kN ULS: Pf=180kN	BPL2 SLS: P=90kN ULS: Pf=180kN VF=40kN	BPL2 SLS: P=130kN ULS: Pf=284kN VF=20kN	
Column Locations	J-4	M-1	M-3	M-4	N-1	N-3	N-4	Mx-4	



BPL1
350x350x19
(4) 200 x 450 LONG ANCHOR BOLTS
c/w 60x60x13 END PLATE



BPL2
350x350x25
(8) 200 x 450 LONG ANCHOR BOLTS
c/w 60x60x13 END PLATE



BPL3
350x350x25
(8) 200 x 450 LONG ANCHOR BOLTS
c/w 60x60x13 END PLATE

- STEEL COLUMN SCHEDULE NOTES:**
- CENTRE COLUMNS, CAPS AND FOOTINGS ON GRIDS UNLESS NOTED OTHERWISE.
 - COLUMNS AND PIERS ARE ORIENTED AS SHOWN ON PLAN.
 - COLUMN FORCES INDICATED ARE FACTORED IN MN AND BENDING MOMENTS (IF APPLICABLE) ARE FACTORED IN MN-m, UNLESS NOTED OTHERWISE.
 - UPLIFT (TENSION) FORCES ARE PRESENTED IN BRACKETS BESIDE THE ASSOCIATED COMPRESSION FORCE, IF APPLICABLE. UPLIFT FORCES ARE FACTORED IN MN UNLESS NOTED OTHERWISE.
 - WHERE MOMENTS OR SHEAR FORCES ARE PRESENTED SINGULARLY, THE MOMENT/SHEAR FORCE IS IN THE STRONG DIRECTION. IF THE COLUMN IS SQUARE, THE MOMENT/SHEAR FORCE IS IN BOTH DIRECTIONS UNLESS NOTED OTHERWISE.
 - WHERE MOMENTS OR SHEARS ARE PRESENTED ABOUT TWO AXES, THE FIRST MOMENT/SHEAR FORCE IS IN THE STRONG DIRECTION AND THE SECOND IN THE WEAK DIRECTION. IF THE COLUMN IS SQUARE, THE FIRST MOMENT/SHEAR FORCE IS PARALLEL TO THE NORTH-SOUTH DIRECTION.
 - REFER TO TD3103 UNLESS NOTED OTHERWISE.
 - PROVIDE 4-19 DIAM. HOOKED ANCHOR BOLTS AS PER TD3103 UNLESS NOTED OTHERWISE.
 - WHERE HEADED ANCHOR RODS ARE SPECIFIED REFER TO TD0502.

- LEGEND:**
- COLUMN TAG:**
- W310x97 — COLUMN SECTION
 - Pf=600kN(200kN) — AXIAL COMPRESSION FORCE (TENSION IN BRACKETS, IF APPLICABLE)
 - M=100kNm(60kNm) — BENDING MOMENT(S) (REFER TO NOTES)
 - TM=50kNm — TORSIONAL MOMENTS
 - COMMENTS — COLUMN-SPECIFIC COMMENTS (IF APPLICABLE)
- BASE TAG(S):**
- 400x400x25 — BASE PLATE (REFER TO BASE PLATE SCHEDULE, IF APPLICABLE)
 - 4-190 400 LG. — ANCHOR RODS
 - SLS P=120kN(700kN) — SLS (UNFACTORED) AXIAL REACTION (UPLIFT IN BRACKETS, IF APPLICABLE)
 - ULS Pf=200kN(1000kN) — ULS (FACTORED) AXIAL REACTION (UPLIFT IN BRACKETS, IF APPLICABLE)
 - Vf=200kN/100kN — ULS (FACTORED) SHEAR REACTION(S), IF APPLICABLE (REFER TO NOTES)
 - M=130kNm/100kNm — ULS (FACTORED) BENDING MOMENT REACTION(S), IF APPLICABLE (REFER TO NOTES)
 - TM=50kNm — ULS (FACTORED) TORSIONAL MOMENT REACTION, IF APPLICABLE
- PIER SIZE:**
- 600x750 — PIER SIZE
 - 12-20M V — VERTICAL REINFORCING
 - 10M@300 TIES — HORIZONTAL TIES

- TYPICAL BASE PLATE:**
-
- NOTES:**
- as TYPICAL MINIMUM EDGE DISTANCE FROM CENTRE OF HOLE TO EDGE OF THE PLATE TO BE THE GREATER OF 38mm OR 1.5x HOLE DIAMETER.
 - THE BASE PLATE DIMENSION GIVEN FIRST IS PARALLEL TO THE COLUMN WEB, OR TO THE LONG DIMENSION OF THE COLUMN, IF THE COLUMN IS SQUARE OR ROUND, THE DIMENSION GIVEN FIRST IS PARALLEL TO THE NORTH-SOUTH AXIS.
 - CONNECT COLUMN TO THE BASE PLATE FOR BASE REACTIONS NOTED IN THE COLUMN SCHEDULE.
 - IF USED, OVERSIZED ANCHOR ROD HOLES ARE TO BE MAX 1.75x ANCHOR ROD DIAMETER, UNLESS OTHERWISE APPROVED. PROVIDE A 8mm THICK RECTANGULAR OR CIRCULAR PLATE WASHER WITH STANDARD HOLE SIZE AND WELD ALL AROUND TO THE BASE PLATE FOLLOWING INSTALLATION PROVIDE A DETAIL FOR REVIEW PRIOR TO FABRICATION.

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PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG	CHECKED: VC/JC
SCALE: As indicated	PROJECT NUMBER: 230227

SHEET TITLE:
COLUMN SCHEDULE

ROOF STEEL BEAM SCHEDULE				
MARK	SIZE	REACTIONS		REMARKS
		LEFT END	RIGHT END	
RB1	W410x39	25 kN	25 kN	
RB2	W410x39	25 kN	25 kN	
RB3	C150x19	100 kN	100 kN	
RB3	W610x82	100 kN	100 kN	
RB4	W530x85	160 kN	160 kN	
RB5	W460x52	70 kN	70 kN	
RB6	W410x46	45 kN	45 kN	
RB7	W410x39	45 kN	45 kN	
RB9	W530x85	250 kN	250 kN	
RB10	W460x52	40 kN	40 kN	
RB11	W760x134	140 kN	140 kN	
RB12	W610x82	100 kN	100 kN	
RB13	W530x85	165 kN	165 kN	
RB14	W760x134	130 kN	130 kN	
RB16	W410x39	50 kN	50 kN	
RB17	W410x39	25 kN	25 kN	
RB18	W410x46	25 kN	25 kN	
RB19	W410x46	25 kN	25 kN	
RB20	W410x39	25 kN	25 kN	
RB21	W410x39	25 kN	25 kN	
RB22	W760x134	115 kN	115 kN	
RB23	W610x82	155 kN	155 kN	
RB24	W610x82	190 kN	190 kN	
RB25	W610x82	190 kN	190 kN	
RB26	W530x66	155 kN	155 kN	
RB27	W460x52	75 kN	75 kN	
RB28	W760x134	150 kN	150 kN	
RB29	W610x82	145 kN	145 kN	
RB30	W610x82	175 kN	175 kN	
RB31	W610x82	175 kN	175 kN	
RB32	W530x66	140 kN	140 kN	
RB33	W460x52	100 kN	100 kN	
RB34	W410x39	105 kN	105 kN	
RB35	W250x22	80 kN	80 kN	
RB36	W610x82	150 kN	150 kN	
RB37	W250x22	85 kN	85 kN	
RB38	W610x82	175 kN	175 kN	
RB39	W610x82	235 kN	230 kN	
RB40	W530x66	205 kN	205 kN	
RB41	W460x52	70 kN	70 kN	
RB42	W310x28	75 kN	75 kN	
RB43	C150x19	155 kN	155 kN	
RB43	W610x82	155 kN	155 kN	
RB44	W610x82	190 kN	190 kN	
RB45	W610x82	190 kN	190 kN	
RB46	W530x66	155 kN	155 kN	
RB47	W460x52	40 kN	40 kN	
RB48	W460x52	40 kN	40 kN	
RB49	W410x39	25 kN	25 kN	
RB50	W410x46	25 kN	25 kN	
RB51	W410x46	25 kN	25 kN	
RB52	W410x39	25 kN	25 kN	
RB53	W410x39	25 kN	25 kN	
RB54	W410x39	25 kN	25 kN	
RB55	W410x39	25 kN	25 kN	
RB56	W410x39	25 kN	25 kN	
RB57	W410x39	25 kN	25 kN	
RB58	W610x82	140 kN	140 kN	

HIGH BEAM STEEL BEAM SCHEDULE				
MARK	SIZE	REACTIONS		REMARKS
		LEFT END	RIGHT END	
HB1	W410x39	70 kN	70 kN	Tmf(L)=16 kN-m Tmf(R)=16 kN-m Cf=100 kN Tf=100 kN
HB2	W610x82	110 kN	110 kN	M(L)=320 kN-m Cf=140 kN Tf=140 kN
HB3A	WWF530x320	340 kN	340 kN	M(L)=1550 kN-m M(R)=830 kN-m Cf=200 kN Tf=200 kN ; SEE DETAIL 3/S102
HB3B	WWF530x320	340 kN	200 kN	M(L)=830 kN-m Cf=280 kN Tf=280 kN ; SEE DETAIL 3/S102
HB4A	WWF530x320	410 kN	410 kN	M(L)=1620 kN-m M(R)=750 kN-m Cf=310 kN Tf=310 kN ; SEE DETAIL 3/S102
HB4B	WWF530x320	410 kN	250 kN	M(L)=750 kN-m Cf=450 kN Tf=450 kN ; SEE DETAIL 3/S102
HB5A	WWF530x320	280 kN	280 kN	M(L)=735 kN-m Cf=100 kN Tf=100 kN ; SEE DETAIL 3/S102
HB5B	WWF530x320	280 kN	280 kN	M(L)=735 kN-m Cf=50 kN Tf=50 kN ; SEE DETAIL 3/S102
HB6	W610x82	55 kN	100 kN	M(R)=320 kN-m Cf=30 kN Tf=30 kN
HB7	WWF530x320	140 kN	250 kN	M(R)=1620 kN-m Cf=225 kN Tf=225 kN ; SEE DETAIL 3/S102
HB8	WWF530x320	170 kN	420 kN	M(R)=1550 kN-m Cf=315 kN Tf=315 kN ; SEE DETAIL 3/S102
HB9	W610x82	100 kN	100 kN	Tmf(L)=32 kN-m Tmf(R)=32 kN-m Cf=220 kN Tf=220 kN
HB10	W610x82	50 kN	50 kN	Cf=75 kN Tf=75 kN
HB11	W610x82	100 kN	100 kN	Cf=225 kN Tf=225 kN
HB12	W410x39	105 kN	185 kN	Tmf(L)=16 kN-m Tmf(R)=16 kN-m Cf=100 kN Tf=100 kN
HB13	W410x39	85 kN	85 kN	Tmf(L)=16 kN-m Tmf(R)=16 kN-m Cf=100 kN Tf=100 kN
HB14	W410x39	65 kN	65 kN	Tmf(L)=16 kN-m Tmf(R)=16 kN-m Cf=100 kN Tf=100 kN
HB15	W610x82	210 kN	310 kN	Tmf(L)=32 kN-m Tmf(R)=32 kN-m Cf=150 kN Tf=150 kN
HB16	W530x66	160 kN	160 kN	
HB17	W530x66	160 kN	160 kN	

CANOPY STEEL BEAM SCHEDULE				
MARK	SIZE	REACTIONS		REMARKS
		LEFT END	RIGHT END	
CB1	W310x28	40 kN	40 kN	
CB2	W310x28	20 kN	20 kN	
CB3	W310x28	50 kN	50 kN	
CB5	C230x22	20 kN	20 kN	
CB6	W310x28	15 kN	15 kN	Mf = 20.5kN.m
CB7	C230x22	20 kN	20 kN	

OPEN WEB STEEL JOIST SCHEDULE					
JOIST MARK	JOIST DEPTH	MAX OWSJ SPACING (mm)	OWSJ MINIMUM MOMENTS OF INERTIA (mm ⁴)		REMARKS
			1600	1900	
RJ1	750 OWSJ	1600	621x10 ⁶		
RJ2	550 OWSJ	1600	190x10 ⁶		
RJ3	350 OWSJ	1600	142x10 ⁶		
RJ4	750 OWSJ	1600	436x10 ⁶		
RJ5	600 OWSJ	1600	292x10 ⁶		

TIMBER BEAM SCHEDULE - ROOF PLAN								
MARK	SIZE	REACTIONS		MIN. BEARING LENGTH		Kd FACTOR		REMARKS
		L. END	R. END	L. END	R. END	L. END	R. END	
GB1	315x342 20f-E SPP GLULAM	45 kN	45 kN	38	38	1	1	

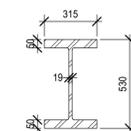
STEEL BEAM SCHEDULE NOTES:

- LEFT AND RIGHT ENDS OF BEAMS ARE DEFINED BY THE ORIENTATION OF THE BEAM MARK ON PLAN.
- WHERE A BEAM MARK IS INDICATED WITH THE SUFFIX "R" ON PLAN THE REACTIONS ARE TO APPLY AT THE OPPOSITE ENDS.
- REACTIONS GIVEN ARE FACTORED FORCES. REACTIONS WITHIN BRACKETS DENOTE FACTORED UPLIFT FORCES.
- BEARING PLATE DIMENSION GIVEN FIRST IS PARALLEL TO THE BEAM WEB.
- DESIGN CONNECTIONS FOR AXIAL COMPRESSION (C), AXIAL TENSION (T), STRONG-AXIS MOMENT (M), TORSIONAL MOMENT (Tmf) OR OUT OF PLANE HORIZONTAL FORCE (H) SHOWN IN THE REMARKS COLUMN. IN ADDITION TO THE VERTICAL SHEAR PROVIDED IN THE REACTION COLUMN. THE (L) OR (R) SHOWN NEXT TO THE FORCE INDICATE THE LEFT OR RIGHT END, RESPECTIVELY.
- CAMBERS ARE IN mm. WHERE NO CAMBER IS INDICATED, REFER TO THE SPECIFICATION AND CSA S16.
- "F" INDICATES FLUSH MOUNTED CAST IN PLACE PLATE.

HIGH BEAM STEEL BEAM NOTES:

- ALL STEEL BEAMS TO BE CLADDED WITH 38mm MAX TIMBER. REFER TO ARCH.
- ALL STEEL BEAM TO COME WITH MIN. 25mm NAILERS. REFER TO 6/S410.
- ALL STEEL BEAM EXPOSED TO WEATHER TO BE HOT DIPPED GALVANIZED.
- REFER TO ARCH FOR ROOF SLOPES.

WELDED WIDE FLANGE (WWF) SHAPES:



1 WWF 530x320
S202 1 : 20

SEAL:



3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET

MARK	DATE	DESCRIPTION

ISSUE:
ISSUED FOR TENDER

PROJECT NAME:
CENTENNIAL PARK

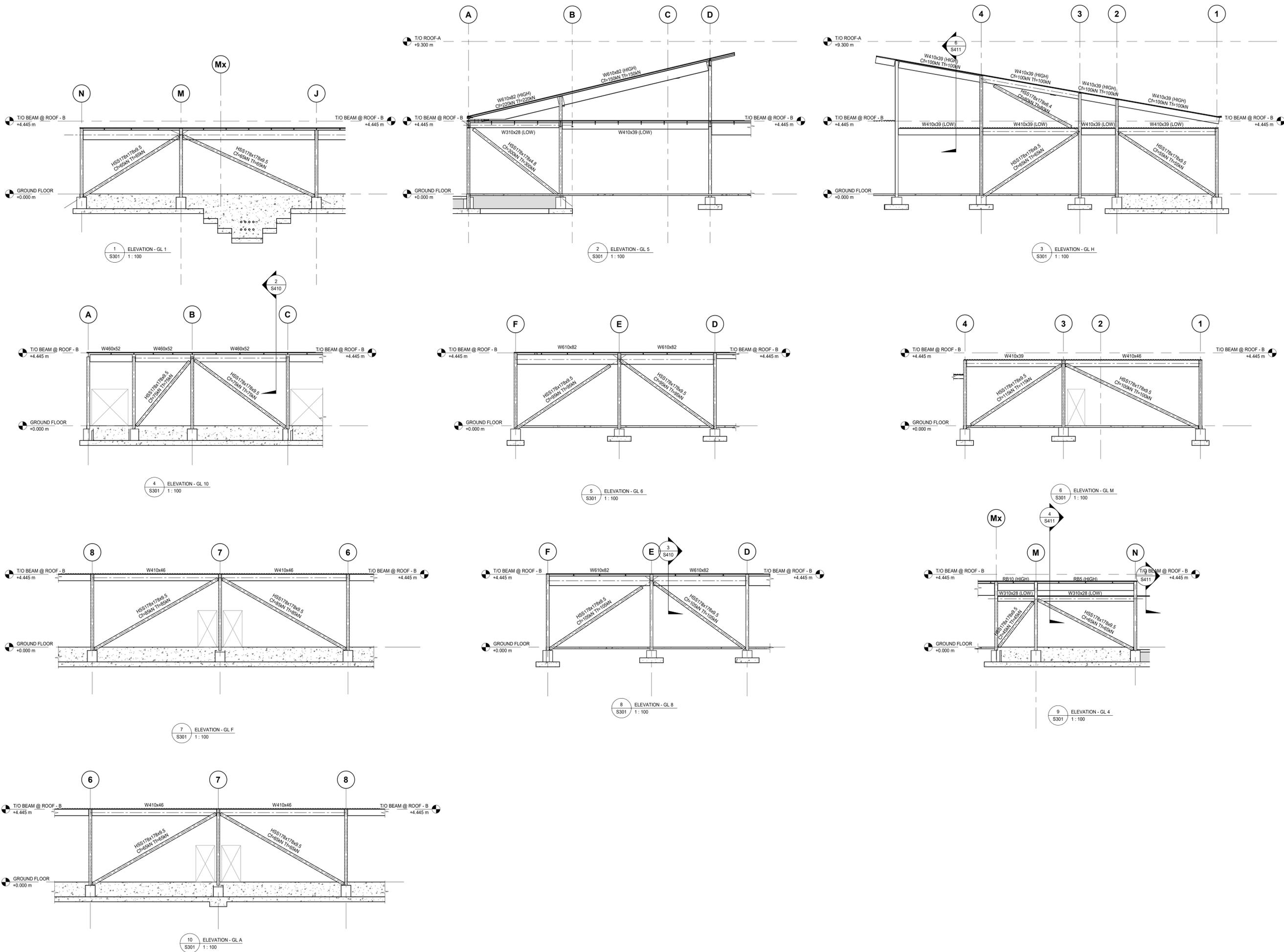
PROJECT ADDRESS:
56 Centennial Park Rd,
Toronto, ON

DRAWN: SG	CHECKED: VC/JC
SCALE: As indicated	PROJECT NUMBER: 230227

SHEET TITLE:
BEAM SCHEDULE

S202

SEAL:



3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET
MARK	DATE	DESCRIPTION

ISSUE:
ISSUED FOR TENDER

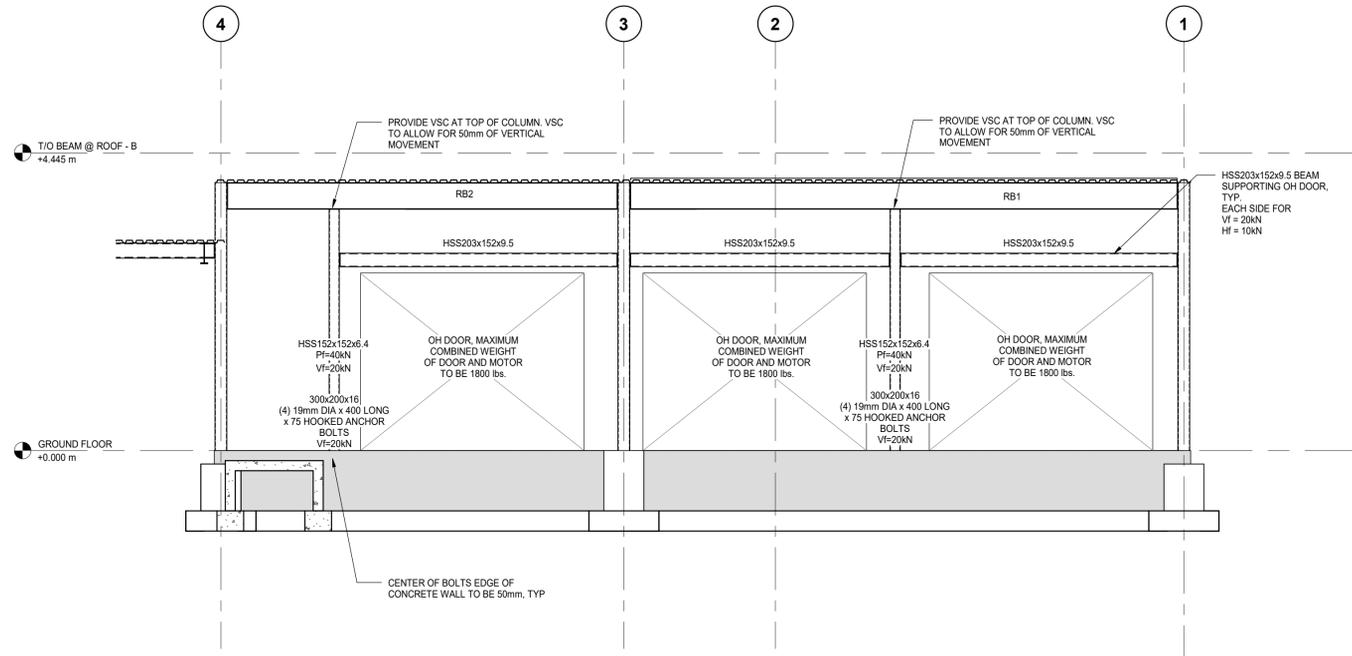
PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

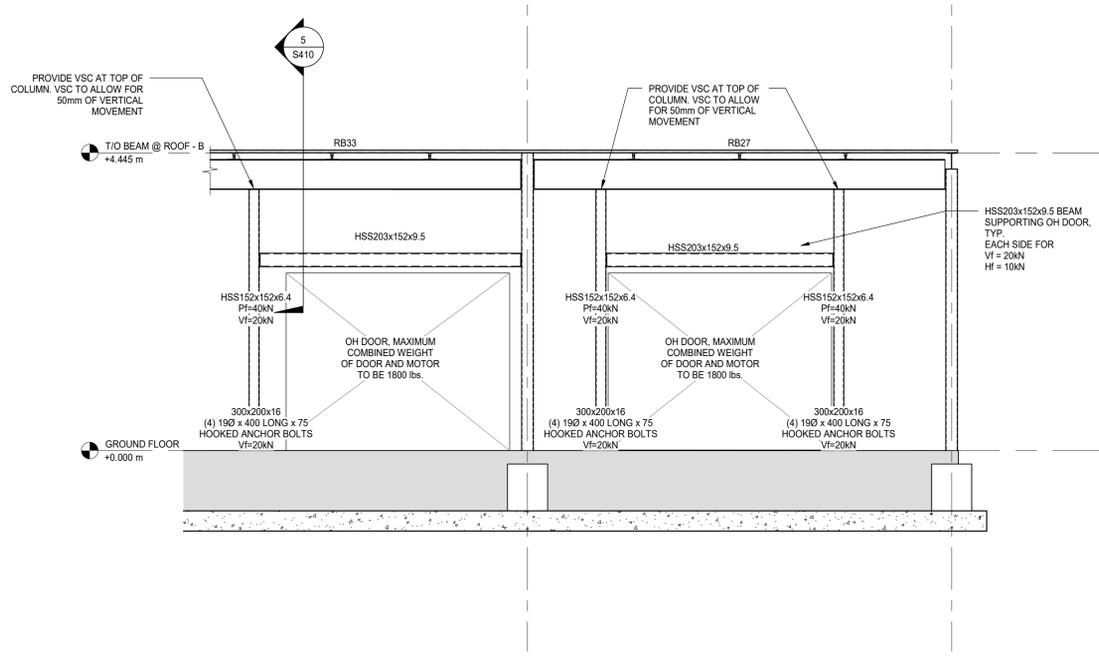
DRAWN: SG	CHECKED: VC/JC
SCALE: 1 : 100	PROJECT NUMBER: 230227

SHEET TITLE:
ELEVATIONS

S301



1 ELEVATION - GL N
S302 1:50



2 ELEVATION - GL 10 OH DOOR
S302 1:50

SEAL:



3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET

MARK	DATE	DESCRIPTION
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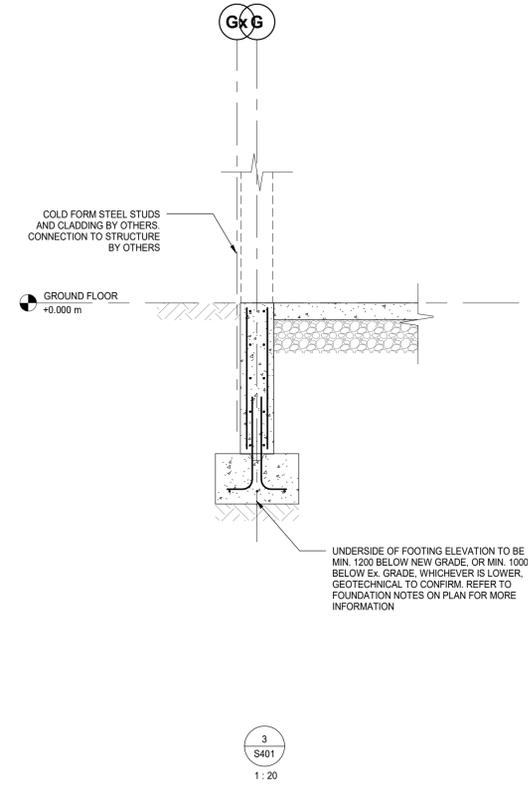
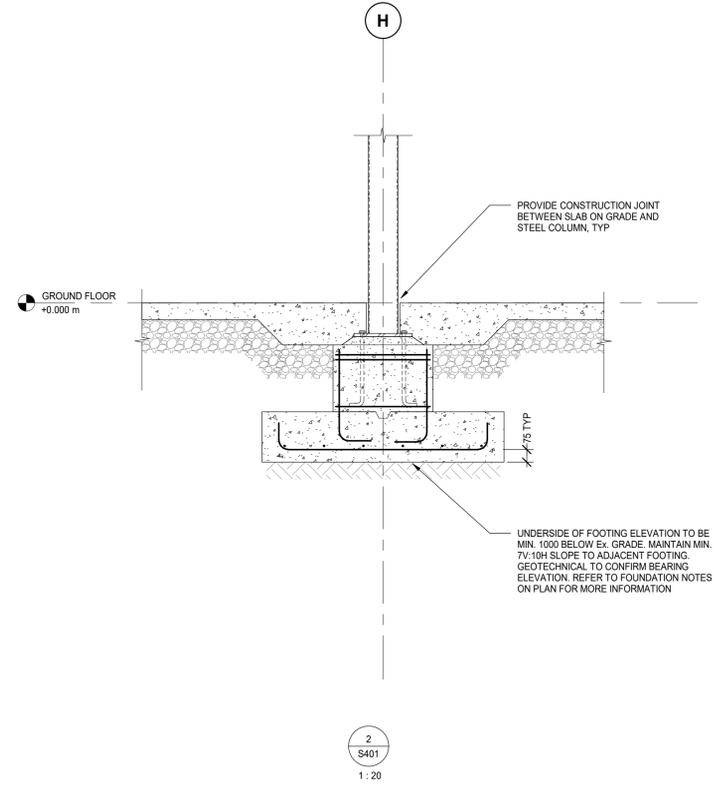
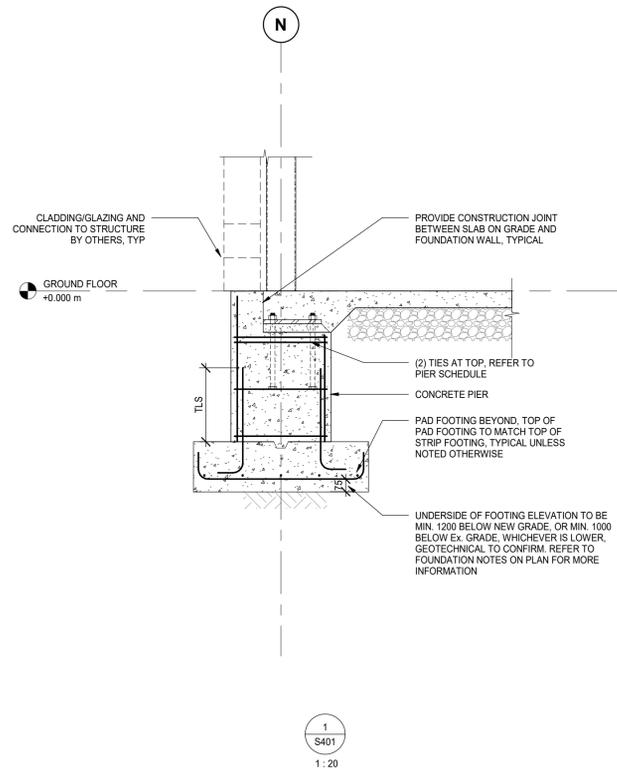
ISSUE:
ISSUED FOR TENDER

PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG	CHECKED: VC/JC
SCALE: 1 : 50	PROJECT NUMBER: 230227

SHEET TITLE:
ELEVATIONS



SEAL:



3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET

MARK	DATE	DESCRIPTION
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ISSUE:
ISSUED FOR TENDER

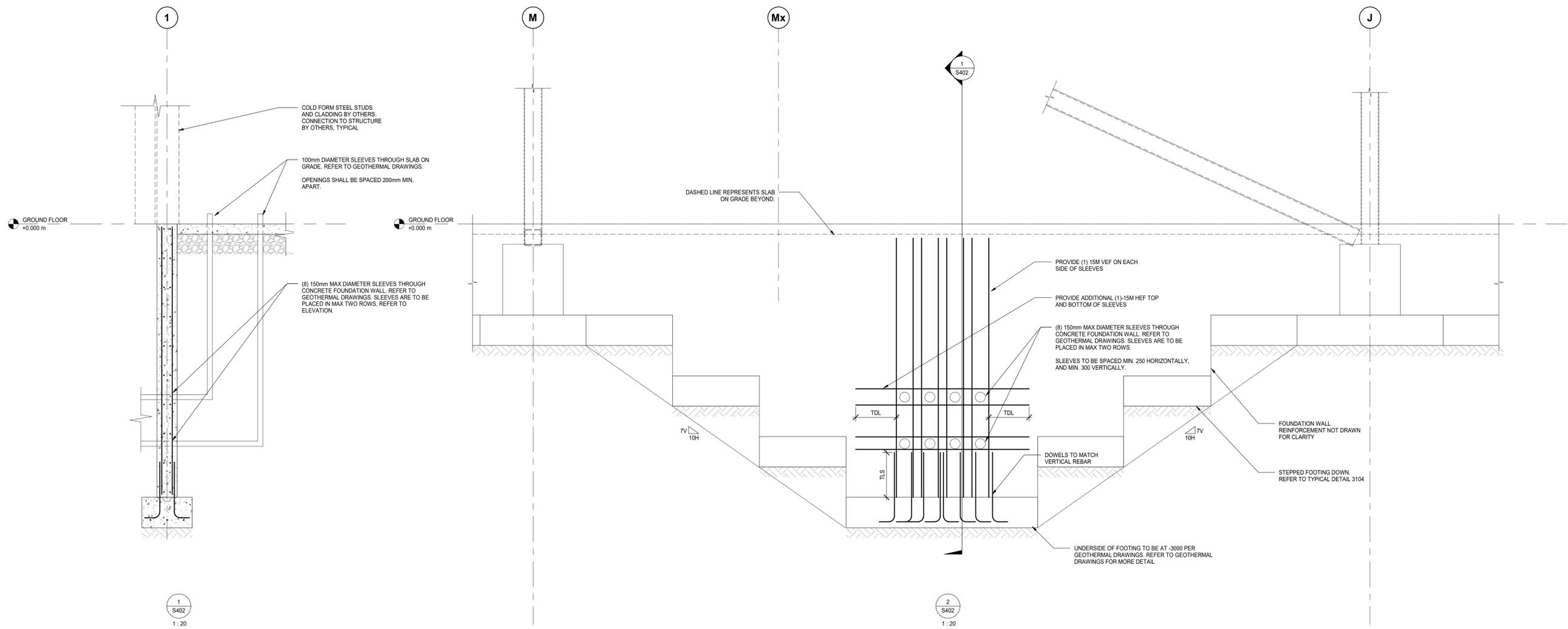
PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG	CHECKED: VC/JC
SCALE: 1 : 20	PROJECT NUMBER: 230227

SHEET TITLE:
**FOUNDATION
SECTIONS**

S401



SEAL:



3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET

MARK	DATE	DESCRIPTION
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ISSUE:
ISSUED FOR TENDER

PROJECT NAME:
CENTENNIAL PARK

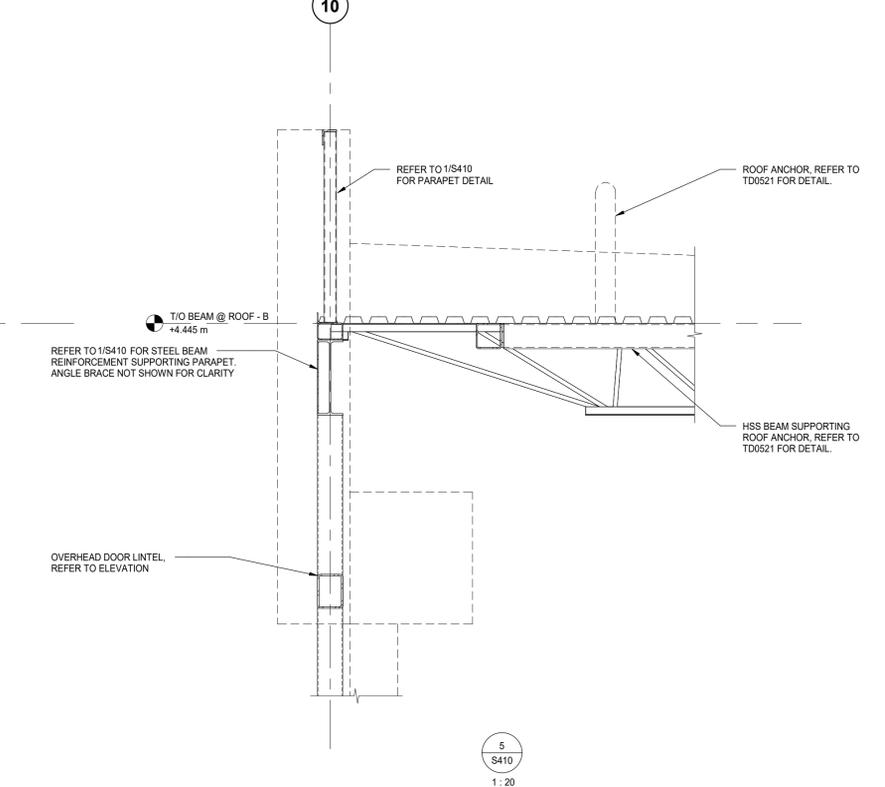
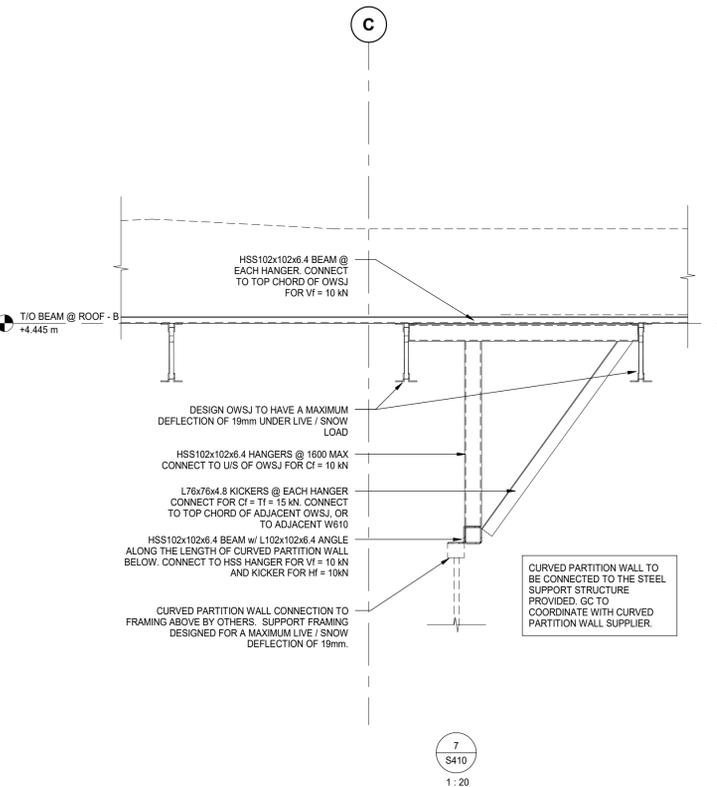
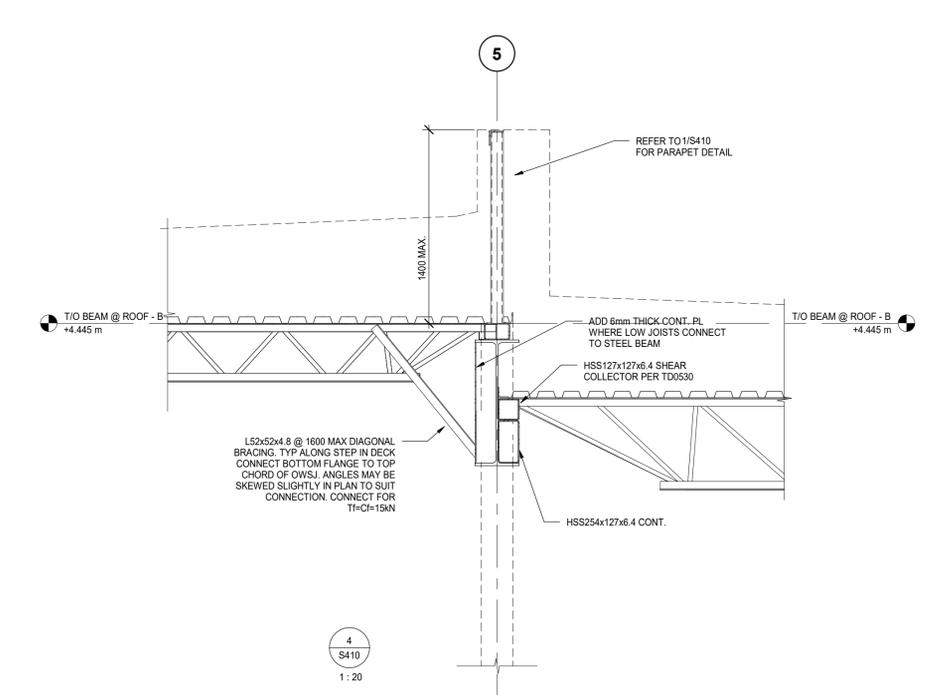
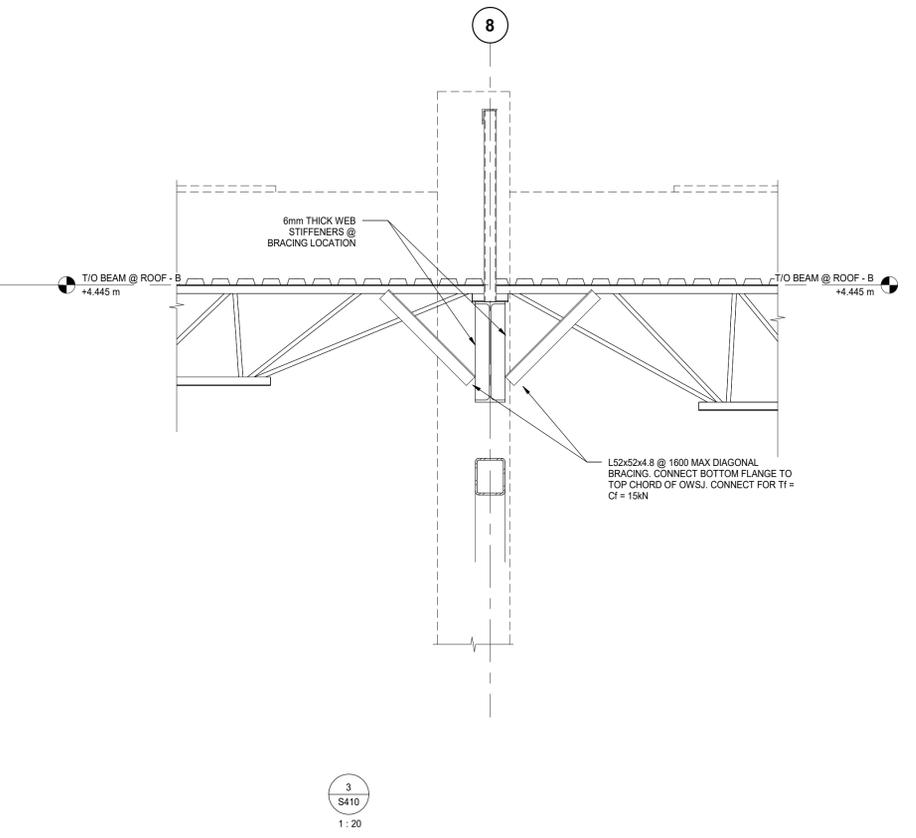
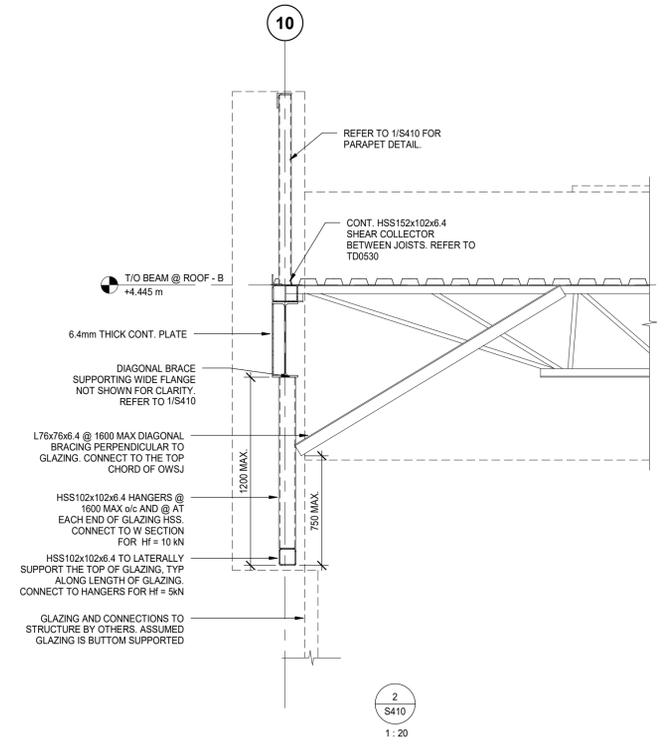
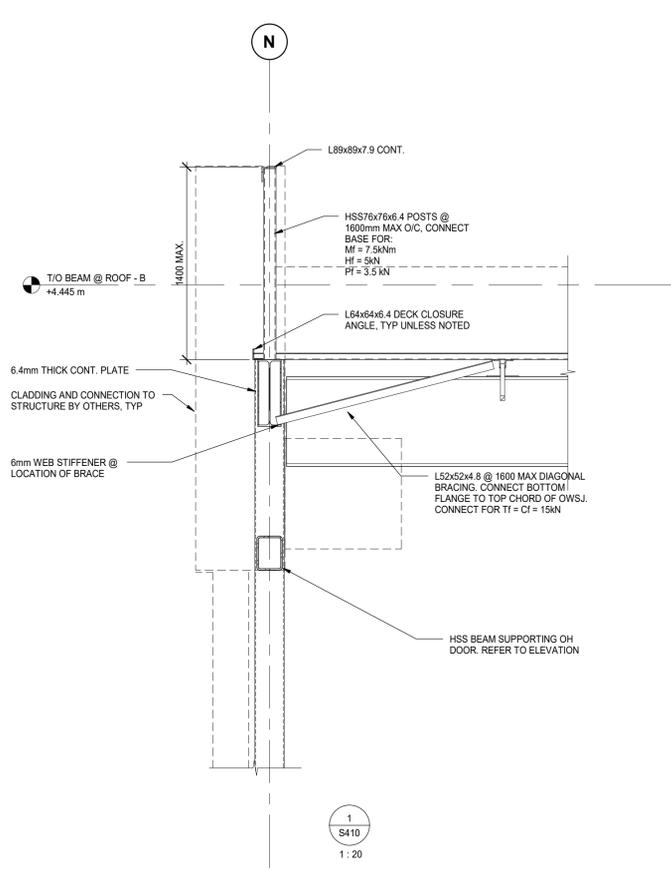
PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG	CHECKED: VC/JC
SCALE: 1 : 20	PROJECT NUMBER: 230227

SHEET TITLE:
FOUNDATION SECTIONS

S402

SEAL:



3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET

MARK	DATE	DESCRIPTION
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ISSUE:
ISSUED FOR TENDER

PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG	CHECKED: VC/JC
SCALE: 1 : 20	PROJECT NUMBER: 230227

SHEET TITLE:
ROOF SECTIONS

S410



MARK	DATE	DESCRIPTION
3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET

ISSUE:
ISSUED FOR TENDER

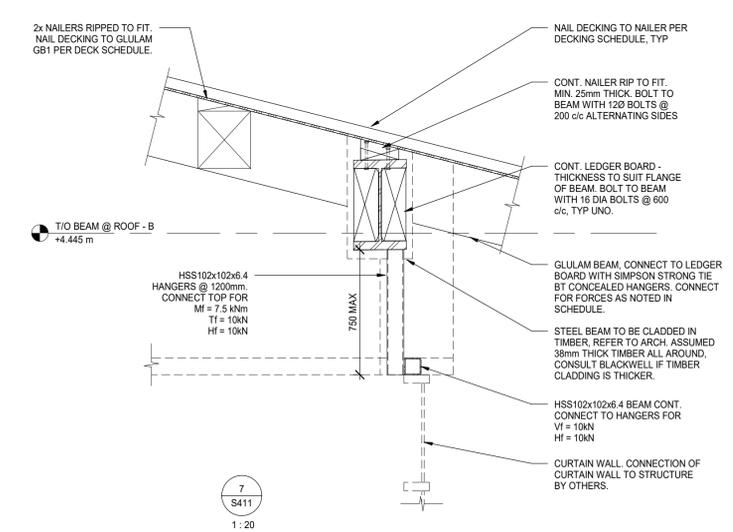
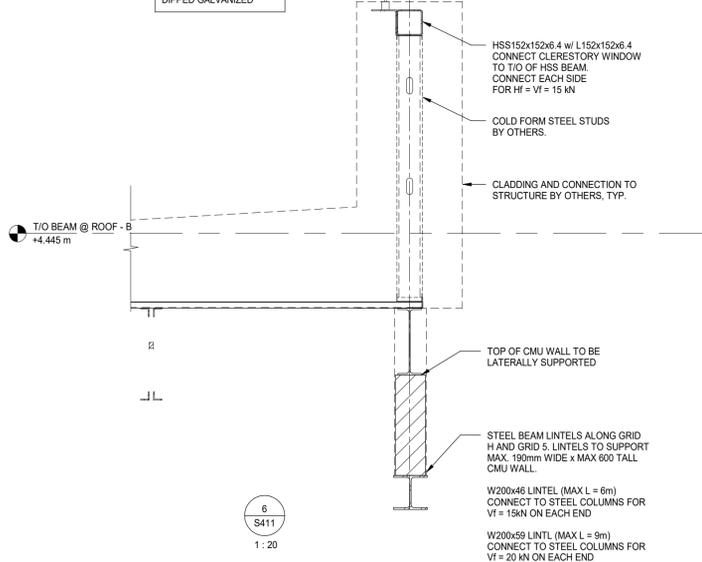
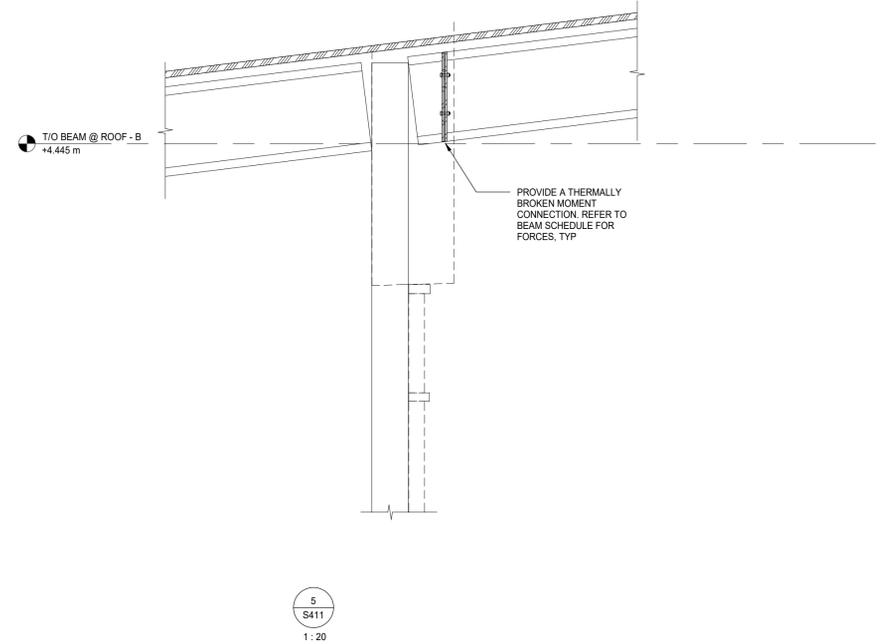
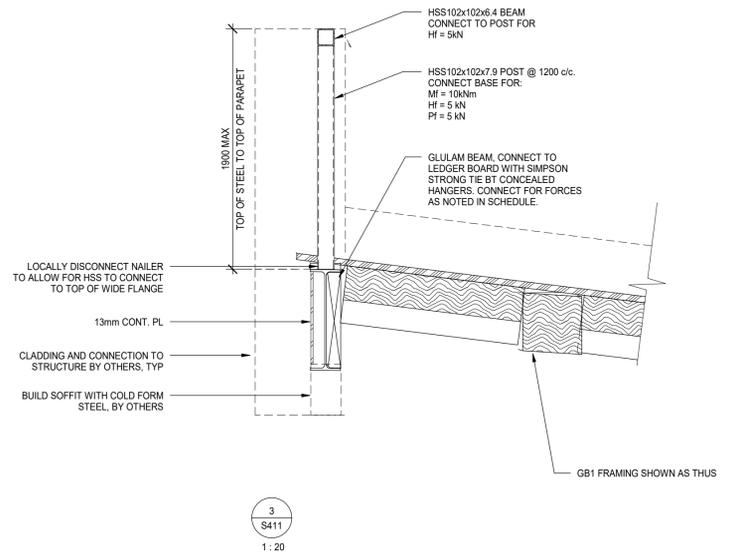
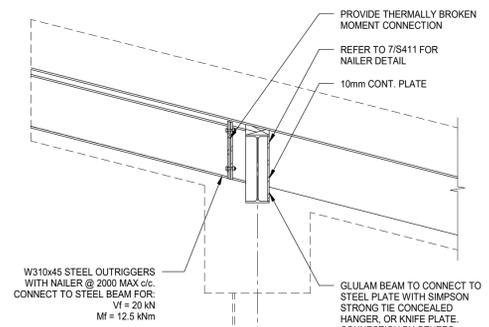
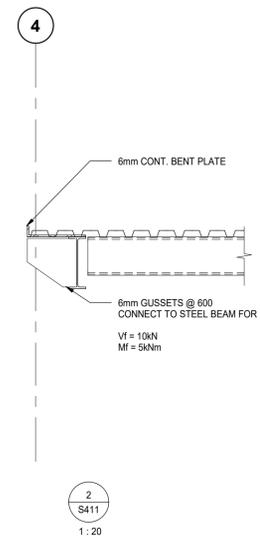
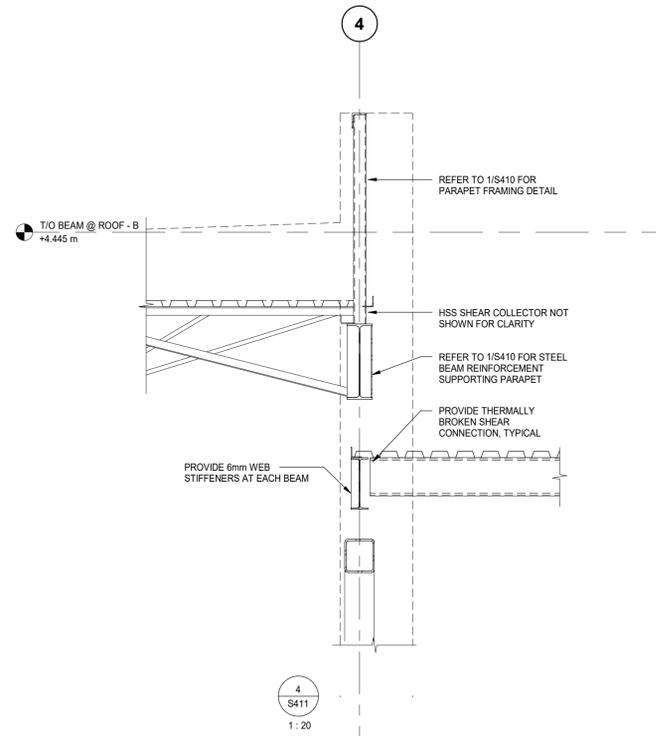
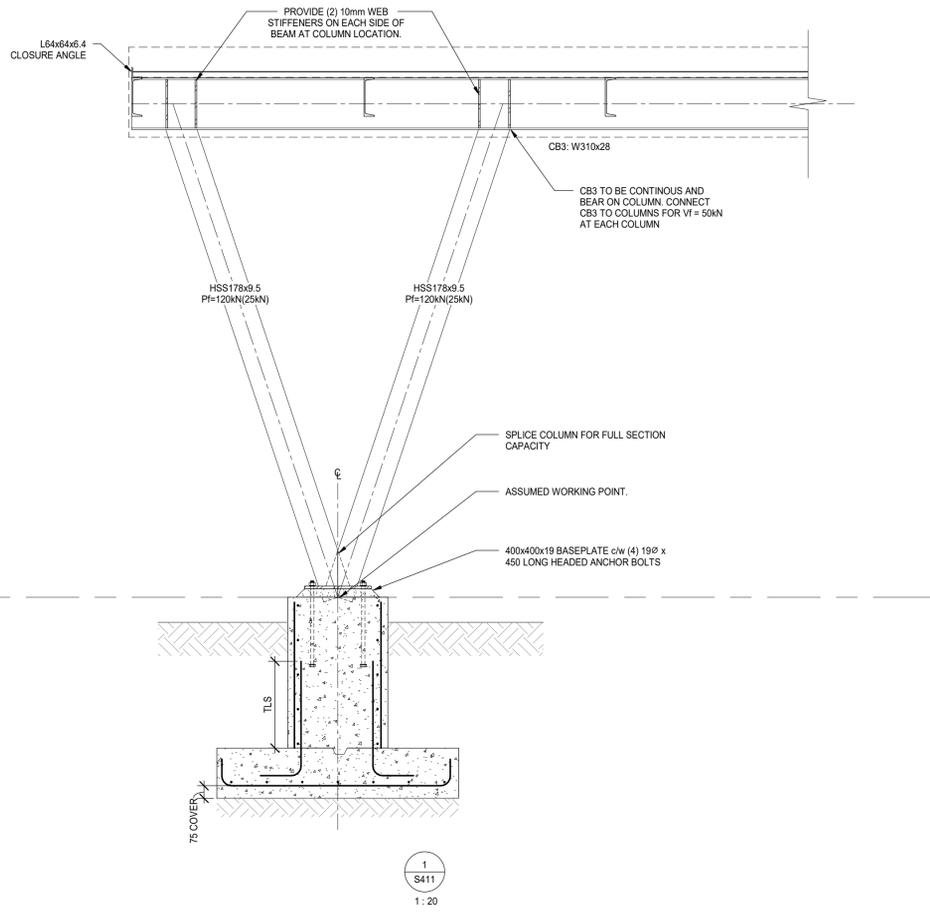
PROJECT NAME:
CENTENNIAL PARK

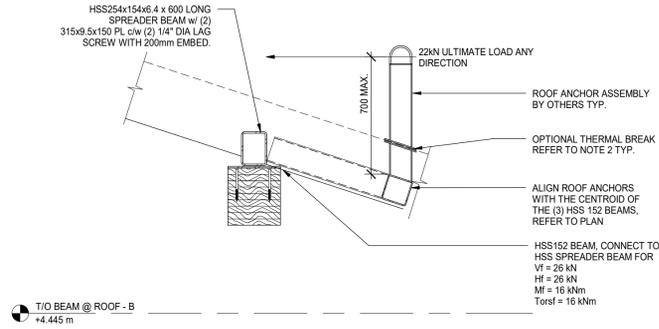
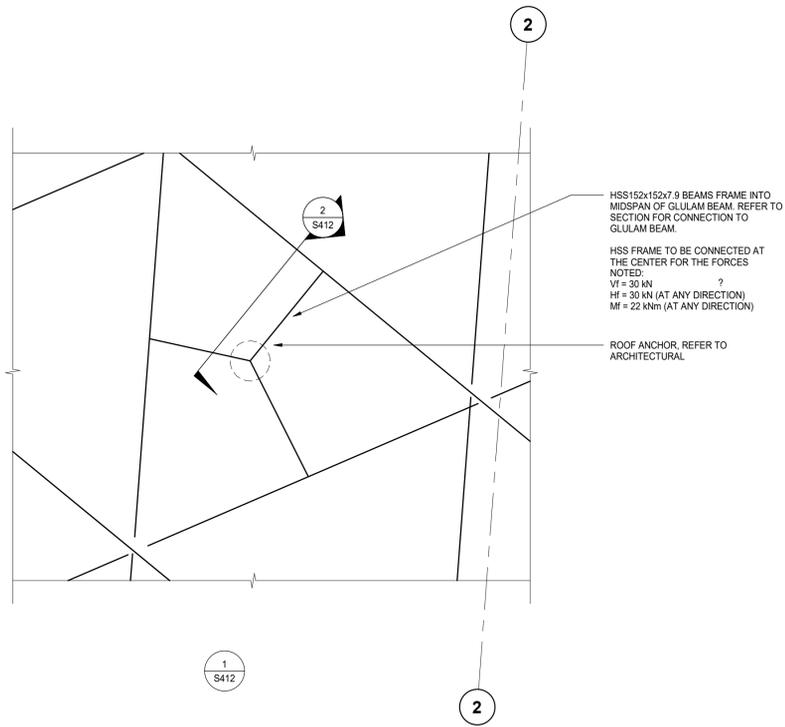
PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG	CHECKED: VC/JC
SCALE: 1 : 20	PROJECT NUMBER: 230227

SHEET TITLE:
ROOF SECTION

S411





SEAL:



3	2024-11-20	ISSUED FOR TENDER
2	2024-10-18	ISSUED FOR TENDER REVIEW
1	2024-10-04	PROGRESS SET

MARK	DATE	DESCRIPTION
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ISSUE:
ISSUED FOR TENDER

PROJECT NAME:
CENTENNIAL PARK

PROJECT ADDRESS:
**56 Centennial Park Rd,
Toronto, ON**

DRAWN: SG	CHECKED: VC/JC
SCALE: 1 : 20	PROJECT NUMBER: 230227

SHEET TITLE:
ROOF SECTION

S412