GENERAL NOTES AND DETAILS

GENERAL INFORMATION

ALL THE DRAWINGS AND DESIGN IS BASED ON THE ONTARIO BUILDING CODE 2012 AND TABLE 1.3.1.2.

THE CONTRACTOR IS TO BE FAMILIAR WITH ALL SECTIONS OF THE SPECIFICATIONS BEFORE COMMENCING ANY PART OF THE WORK. THESE DRAWINGS AND SPECIFICATIONS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS OF ALL

OTHER DISCIPLINES.

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS WITH THE LATEST ISSUE OF THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS, REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

PROVIDE DETAILED SHOP DRAWINGS OF CONCRETE REINFORCEMENT.

PROVIDE DETAILED SHOP DRAWINGS STAMPED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO TO THE ENGINEER FOURTEEN DAYS PRIOR TO FABRICATION OF STRUCTURAL STEEL, OPEN WEB STEEL JOISTS AND METAL DECK.

SHOP DRAWING REVIEW BY THE ENGINEER IS SOLELY TO ASCERTAIN CONFORMANCE TO THE GENERAL DESIGN CONCEPT. RESPONSIBILITY FOR APPROVAL OF DETAIL DESIGN INHERENT IN SHOP DRAWINGS RESTS WITH THE CONTRACTOR AND REVIEW BY THE ENGINEER SHALL NOT IMPLY SUCH APPROVAL. REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS OR FOR PROPER COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

STRUCTURAL STEEL

STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION IS TO CONFORM TO THE REQUIREMENTS OF CSA - S16-09, CSA - S136, THE CANADIAN INSTITUTE OF STEEL CONSTRUCTION (CISC) "CODE OF STANDARD PRACTICE FOR BUILDINGS" AND "STEEL JOIST FACTS"

STRUCTURAL STEEL SHALL COMPLY WITH CSA - S16.1 UNLESS OTHERWISE NOTED.

ITEM	APPLICABLE SPECIFICATIONS
ROLLED SECTIONS	G40.21 - 350W
HSS (TUBE) SECTIONS	ASTM A500 - CLASS C - F_y= 50 ksi
CONNECTION BOLTS	A325 (BEARING TYPE)
ANCHOR BOLTS	A307

STEEL TO BE FABRICATED AND ERECTED BY A SHOP CERTIFIED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA W47.1 DO NOT SPLICE CONTINUOUS MEMBERS WITHOUT SPECIFIED APPROVAL OF THE ENGINEER.

WELDING TO CONFORM TO CSA W59 - 13. WELDERS TO BE QUALIFIED TO CSA W47.1.

PREPARE SURFACES OF ALL STRUCTURAL STEEL AND JOISTS ACCORDING TO SSPC SP 3. APPLY ONE COAT OF PRIMER CONFORMING TO CISC 1-73A

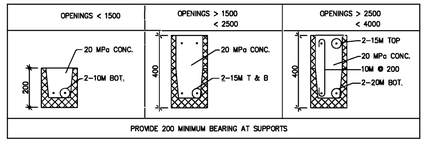
ABBREVIATIONS

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED IN THESE @NOTES AND DRAWINGS:

	AT (SPACE C/C)	mm	MILLIMETERS
ARCH	ARCHITECTURE	MAX	MAXIMUM
B	BOTTOM	MECH	MECHANICAL
C/C	CENTRE TO CENTRE	NF	NEAR FACE
CL	CENTRE LINE	NTS	NOT TO SCALE
CONT	CONTINOUS	OF	OUTSIDE FACE
EA	EACH	PL	PLATE
EE	EACH END	T	TOP
EF	EACH FACE	TOJ	TOP OF JOIST
EW	EACH WAY	TOS	TOP OF STEEL
EL	ELEVATION	TYP	TYPICAL
FF	FAR FACE	U/N	UNLESS NOTED
H	HORIZONTAL	UL	UPPER LAYER
IF	INSIDE FACE	BL	BOTTOM LAYER
LL	LOWER FACE	V	VERTICAL
	METERS	U/S	UNDERSIDE

MASONRY LINTELS

CONCRETE BLOCK LINTELS (NON-LOAD BEARING WALLS)



FOUNDATION

BEARING: ALL FOOTINGS TO BEAR ON UNDISTURBED SOIL WITH DESIGN BEARING CAPACITY:
FOOTING PADS: 120 kPa (SLS); 200 kPa (ULS)
STRIP FOOTING: 120 kPa (SLS); 200 kPa (ULS)

ACCORDING TO SOIL REPORT NO. PG4777-LET.01 DATED December 28, 2018 and REPORT NO. PG3957-1R DATED March 27, 2017 BY Paterson Group Inc.

BEARING CAPACITY MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO POURING THE FOOTING PADS.

FROST COVER: (FINISHED GRADE TO U/S FOOTING) PROVIDE 1500 mm MIN. FROST COVER U/N OR PROVIDE EQUIVALENT PROTECTION USING POLYSTYRENE INSULATION APPROVED BY GEOTECHNICAL ENGINEER.

COMPLY WITH ALL PROVINCIAL AND MUNICIPAL TRENCHING AND EXCAVATION SAFETY REGULATIONS CONFORM TO ONTARIO BUILDING CODE AND CANADIAN CONSTRUCTION SAFETY CODE.

REFER TO THE SOIL REPORT FOR THE BACK FILLING AND PREPARATION OF THE SUB GRADE FOR THE SLAB ON GRADE.

UNLESS OTHERWISE OUTLINED IN SOIL REPORT DO NOT EXCAVATE BELOW A LINE EXTENDING DOWNWARD FROM ANY BEARING STRATA AT A SLOPE OF 1 VERTICAL TO 2 HORIZONTAL. ADJUST FOOTINGS AND TRENCH ELEVATIONS TO MEET THIS REQUIREMENT.

MASONRY

ALL MASONRY WORK SHALL COMPLY WITH CAN/CSA - A370 AND A371 UNLESS NOTED.

MINIMUM CONCRETE BLOCK UNIT STRENGTH (NET AREA) 15.0 MPa
MORTAR TYPE 'S' f_c = 12.4 MPa
GROUT STRENGTH f_c = 20.0 MPa

MINIMUM MASONRY REINFORCEMENT (UNLESS OTHERWISE NOTED)

WALL THICKNESS	LOAD BEARING	NON-LOAD BEARING
140 mm	HORIZ. SMR @ 200 OR HDMR @ 300 (ALTERNATE 200 & 400) VERT. 1 - 15M @ 800	SMR @ 400 1 - 10M @ 1000
190 mm	HORIZ. HDMR @ 200 VERT. 2 - 10M @ 1000	HDMR @ 400 OR SMR @ 300 1 - 15M @ 1200
240 mm	HORIZ. HDMR @ 200 VERT 2 - 15M @ 1200	HDMR @ 400 1 - 15M @ 1200
290 mm	HORIZ. HDMR @ 200 VERT. 2 - 15M @ 1000	HDMR @ 300 (ALTERNATE 200 & 400) 1 - 15M @ 1000

SMR IS GALVANIZED STANDARD LADDER TYPE MASONRY REINFORCEMENT WITH 2 - #9 Ga. (3.66 mm) SIDE RODS (TOTAL AREA 21 mm^2) HDRM IS GALVANIZED LADDER TYPE HEAVY DUTY MASONRY REINFORCEMENT WITH 2 - #6 Ga. (4.76 mm) SIDE RODS (TOTAL AREA 35.6 mm^2)

PROVIDE ENGINEERED LATERAL BRACING FOR TEMPORARY SUPPORT OF ALL LOAD BEARING MASONRY WALLS UNTIL, ROOF STEEL FRAMING IS WELDED IN PLACE.

VERTICAL BARS SHALL BE CONTINUOUS, LAPPED ONLY AT FLOORS OR HIGH LIFT CLEANOUT PORTS, DOWELED INTO SUPPORTS AND GROUTED INTO CLEAR VERTICAL BLOCK CORES SEALED ALL AROUND WITH MORTAR. PROVIDE CLEANOUT PORT AT BOTTOM OF EACH GROUTED CORE.

DO NOT CLOSE PORT OR PLACE GROUT UNTIL CORE AND STEEL HAVE BEEN INSPECTED.

PROVIDE 2 - 10M (MIN.) GROUTED LOW WEB BOND BEAM AT TOP OF REINFORCED WALLS. EXTEND VERTICAL BARS TO TOP OF BOND BEAM. PROVIDE METAL LATH STRIP UNDER BOND BEAMS BETWEEN GROUTED CORES TO RETAIN BOND BEAM GROUT.

PROVIDE APPROVED LATERAL SUPPORT TOP AND BOTTOM OF MASONRY PANELS AT GROUTED CORE LOCATIONS OR AT 2000 mm MAXIMUM SPACING WHERE NO VERTICAL REINFORCEMENT IS REQUIRED: ALSO AT SIDES OF MASONRY PANELS AT 4 TIMES THE WALL THICKNESS.

PROVIDE VERTICAL REINFORCEMENT BARS IN GROUTED CORES AT SIDES OF ALL OPENINGS AND END OF WALLS / CONSTRUCTION JOINTS.

CONCRETE

CONCRETE WORK SHALL COMPLY WITH CLAUSE 14 - CAN - A23.1 UNLESS OTHERWISE NOTED.

SUBMIT FOR REVIEW THE PROPOSED MIX DESIGN FOR EACH CLASS OF CONCRETE TO BE USED.

CONCRETE STRENGTHS	f_c (MPa)	MAX W/C RATIO	CLASS OF EXPOSURE
EXTERIOR FOOTINGS & WALLS CONCRETE EXPOSED TO CHLORIDES AND FREEZING & THAWING	25 32	0.55 0.45	F2 C2
INTERIOR FOOTINGS, WALLS, SLABS,	25	0.55	N
SLABS ON GRADE	25	0.50	N

CONCRETE EXPOSED TO FREEZE AND THAWING SHOULD BE AIR-ENTRAINED ACCORDING TO CSA A23.1.
CONCRETE COVER (CLEAR TO REINFORCEMENT)

U/S FOOTINGS (AGAINST SOIL)	75 mm
U/S FOOTINGS (NOT AGAINST SOIL)	50 mm
WALLS (AGAINST SOIL)	50 mm
WALLS (NOT AGAINST SOIL)	40 mm
PIERS (TO TIES)	40 mm
FOOTINGS (SIDES & TOP)	40 mm

SLAB ON GRADE:
- PROVIDE 150mm MIN. CRUSHED STONE AND COMPACRED SUB-GRADE UNDER SLABS ON GRADE AS PER GEOTECH. REPORT
- PROVIDE APPROVED PRE-FORMED KEYED CONTROL JOINTS OR SAW CUT (WITHIN 1 DAY). CUT 1/3 DEPTH OF SLAB AND FILL JOINT WITH APPROVED MASTIC JOINT FILLER OR CEMENT PASTE. REFER ARCHITECTURAL DRAWINGS FOR PATERN.
- SAW CUTS SHALL BE SPACED AS PER DRAWINGS OR 30 TIMES THE SLAB THICKNESS. E/WAY
- BREAK BOND AT SURFACES OF CONTACT WITH OTHER CONCRETE (USE ASPHALT WATERPROOFING, HEAVY DUTY POLYETHYLENE OR SAND LAYER)

REINFORCING STEEL

DETAIL AND PLACE REINFORCING STEEL IN ACCORDANCE WITH REINFORCING STEEL MANUAL OF STANDARD PRACTICES - RSIO - LATEST EDITION AND CAN3 - A23.1 UNLESS OTHERWISE NOTED.

REINFORCING STEEL TO CONFORM TO CSA - G30.18 - M92, GRADE 400.

WELDED WIRE MESH TO CONFORM TO CSA - G30.5.

FORMWORK MATERIALS TO BE SPRUCE SHEATHING TO CSA - 0151 - M FOR UNEXPOSED WORK, HIGH DENSITY OVERLAID ONE SIDE TO CSA - 0121 FOR EXPOSED WORK. LUMBER TO CSA - 0141 - M, NAILS, SPIKES, AND STAPLES TO CSA - B111.

CURE AND PROTECT FRESHLY PLACED CONCRETE IN ACCORDANCE WITH CLAUSE 21 OF CSA/CAN3 - A23.1 - M. ALL SLABS ON GRADE TO RECEIVE A MACHINE TROWELLED FINISH.

CONCRETE TESTING TO BE PERFORMED IN ACCORDANCE WITH CSA/CAN3 - A23.1 - M.

NON-FERROUS GROUT: PRE-MIXED. NON-SHRINK, MASTER BUILDERS 713 OR APPROVED EQUIVALENT, MINIMUM 35 MPa COMPRESSIVE STRENGTH.

WELDING OF REINFORCING STEEL TO CONFORM TO CSA W186

DESIGN LOAD DATA

DEAD LOAD

ROOFING = 0.5 kPa
BEAMS = 0.2 kPa
FRAMING, DRYWALL, ELECTRICAL, ETC. = 0.4 kPa
TOTAL = 1.1 kPa

LIVE LOAD

ROOF = 1.0 kPa
GROUND = 4.8 kPa

SNOW LOAD

S_s = 2.40 kPa
S_r = 0.40 kPa
I_s = 1.0 (ULS); 0.9 (SLS) (IMPORTANCE FACTOR)
C_b = 0.8; C_w = 1.0; C_s = 1.0 (SLIPPERY ROOF); C_a = 1.0
S_{ULS} = $I_s[S_s(C_bC_wC_sC_a) + S_r]$ = 2.32 kPa
S_{SLS} = $I_s[S_s(C_bC_wC_sC_a) + S_r]$ = 2.09 kPa

WIND LOAD

q_{10} = 0.32 kPa (REFERENCE VELOCITY PRESSURE 1 IN 10 YEARS)
q_{50} = 0.41 kPa (REFERENCE VELOCITY PRESSURE 1 IN 50 YEARS)
C_e = $(h/10)^{0.2}$ = $(5.51\ m / 10)^{0.2}$ = 0.9 (EXPOSURE FACTOR - OPEN TERRAIN)
C_g = 2.0 (EXTERNAL GUST FACTOR)
C_p = -0.5 to 0.8 (EXTERNAL PRESSURE COEFFICIENT)
C_{gi} = 2.0 (INTERNAL GUST FACTOR)
C_{pi} = -0.45 to 0.3 (INTERNAL PRESSURE COEFFICIENT - CATEGORY 2)
I_w = 1.0 (ULS); 0.75 (SLS) (IMPORTANCE FACTOR)

SEISMIC LOADING

SFRS: CONVENTIONAL CONSTRUCTION OF MOMENT AND BRACED FRAMES

M_v	= 1.0 (HIGHER MODE FACTOR)	$S_a(0.2)$	= 0.64
R_d	= 1.5 (DUCTILITY FACTOR)	$S_a(0.5)$	= 0.31
R_o	= 1.3 (OVER-STRENGTH FACTOR)	$S_a(1.0)$	= 0.14
I_E	= 1.0 (IMPORTANCE FACTOR)	$S_a(2.0)$	= 0.046
W	= BUILDING SEISMIC WEIGHT	PGA	= 0.32

SITE CLASS = 'C' (REFER TO SOILS REPORT)
F_a = 1.0
F_v = 1.0
Bx = 1.0 (Torsional Sensitivity)

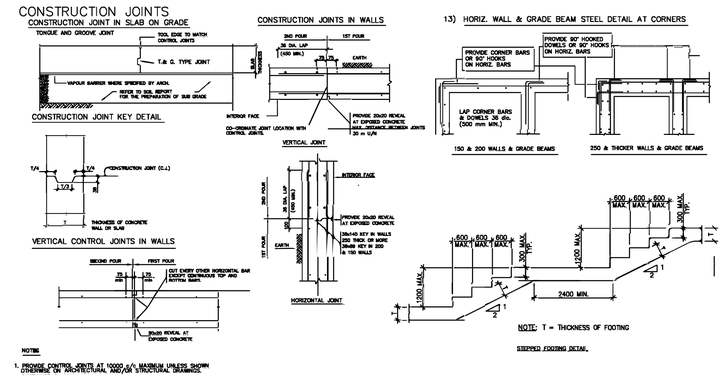
STRUCTURAL IRREGULARITIES - TABLE 4.1.8.6 OBC 2012

TYPE	IRREGULARITY DESCRIPTION	YES	NO
1	VERTICAL STIFFNESS IRREGULARITY	O	●
2	MASS IRREGULARITY	O	●
3	VERTICAL GEOMETRY IRREGULARITY	O	●
4	IN-PLANE DISCONTINUITY IN VERT. LATERAL FORCE RESISTING ELEMENT	O	●
5	OUT OF PLANE OFFSET	O	●
6	WEAK STORY	O	●
7	TORSIONAL SENSITIVITY	O	●
8	NON-ORTHOGONAL SYSTEMS	O	●

OBC 2012 4.1.8.11. EQUIVALENT STATIC FORCE PROCEDURE

$SFRS_{N-S}$ = 'CONVENTIONAL BRACED FRAME'
$SFRS_{E-W/N-S}$ = 'CONVENTIONAL MOMENT FRAME'
$T_{a,N-S}$ = 0.025(5.51m)= 0.14 s
$T_{a,E-W/N-S}$ = $0.085(5.51m)^{3/4}$= 0.31 s
$S(T_{a,N-S})$ = 0.64
$S(T_{a,E-W})$ = 0.52
V_{N-S} = $S(T_{a,N-S})M_vI_EW / (R_dR_o)$ = (0.64)(1.0)(1.0)(W) / (1.5x1.3) = 0.33(W)
V_{E-W} = $S(T_{a,E-W})M_vI_EW / (R_dR_o)$ = (0.52)(1.0)(1.0)(W) / (1.5x1.3) = 0.27(W)
$V_{N-S\ \&\ E-W}$ = $S(2.0)M_vI_EW / (R_dR_o)$ = (0.64)(1.0)(1.0)(W) / (1.5x1.3) = 0.33(W)
$V_{MAX,N-S\ \&\ E-W}$ = $\frac{2}{3}S(2.0)I_EW / (R_dR_o)$ = $\frac{2}{3}$(0.64)(1.0)(W) / (1.5x1.3) = 0.22(W) GOVERNS

W = 240,000 LBF = 1070 kN
$V_{N-S\ \&\ E-W}$ = (0.22)(1070 kN) = 235 kN



WOOD CONSTRUCTION

VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.

ROOF SHEATHINGS: U/NOTED OTHERWISE, 16MM SOFTWOOD OR DOUGLAS FIR PLYWOOD SHEATHING. TO BE UNLOCKED DIAPHRAGM WITH 64MM COMMON NAILS AT 100MM O.C. PLACED AT PANEL EDGES TO BE H-CLIPPED AND 150MM O.C. AT INTERMEDIATE SUPPORT.

ALL WOOD FRAMING TO BE SPF. NO.2 OR BETTER, SURFACE DRY AT 19% MOISTURE CONTENT U/NOTED.

WOOD TRUSSES, BRIDGING AND BRACING DESIGN SHALL CONFORM TO CAN/CSA 086-09 FOR ENGINEERING DESIGN IN WOOD-LIMIT STATES DESIGN. DESIGN AND DETAIL ANCHORAGE FOR WIND UPLIFT FORCES IN ACCORDANCE WITH ONTARIO BUILDING CODE REQUIREMENTS.

MAXIMUM DEFLECTION UNDER TOTAL LOAD SHALL NOT EXCEED L/240 OF THE SPAN AND IT SHALL NOT EXCEED L/360 OF SPAN UNDER LIVE LOAD FOR ALL ROOF AND FLOOR COMPONENTS.

SAWN LUMBER SHALL CONFORM TO CAN/CSA 086 AND SHALL IDENTIFY LUMBER BY OFFICIAL GRADE MARKS.

TRUSS SHOP DRAWINGS SHALL BE SINGLE SOURCE AND SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN AND LICENCE TO PRACTICE IN ONTARIO.

SUBMIT DESIGN BRIEFS AND SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION OF TRUSSES.

HOIST TRUSSES INTO POSITION IN ACCORDANCE WITH DESIGN DRAWINGS.

PROVIDE TEMPORARY HORIZONTAL CROSS BRACING TO HOLD TRUSSES PLUMB AND IN A SAFE CONDITION UNTIL PERMANENT BRACING INSTALLED

INSTALL PERMANENT BRACING AND RELATED COMPONENT AS PER TPIC INSTALLATION GUIDELINES PRIOR TO APPLICATION OF LOAD TO TRUSSES.

DO NOT CUT OR REMOVE ANY TRUSS MEMBERS.

FASTENINGS SHALL CONFORM TO O.B.C. REG. 350/06 SECTION 9.23.3.

NAILS SHALL BE ZINC COATED CONFORMING TO CSA B11.

FRAMING ANCHORS SHALL BE 18 GAUGE ZINC COATED SHEET STEEL CONFORMING TO CSA STANDARDS.

EACH TRUSS TO BE ANCHORED TO WOOD PLATES AND SHEATHINGS WITH TENSION ANCHORS BY SIMPSON OR EQUAL.

SHOP DRAWING REQUIREMENTS
SHOP DRAWING FOR TRUSSES AND PRE-ENGINEERED WOOD ELEMENTS (I-JOIST AND LAMINATED PRODUCTS) SHALL BE STAMPED BY AN ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO AND SHALL DETAIL ALL SIZES, SPACINGS, BRIDGINGS, BLOCKINGS, HANGERS, UPLIFT CLIPS, ETC. FASTENERS AND CONNECTOR TYPES, SIZES AND LOCATIONS ARE TO BE NOTED ON THE DRAWINGS. ALL ELEMENTS/CONNECTORS ARE TO BE DESIGNED IN ACCORDANCE WITH O.B.C. REG. 350/06.

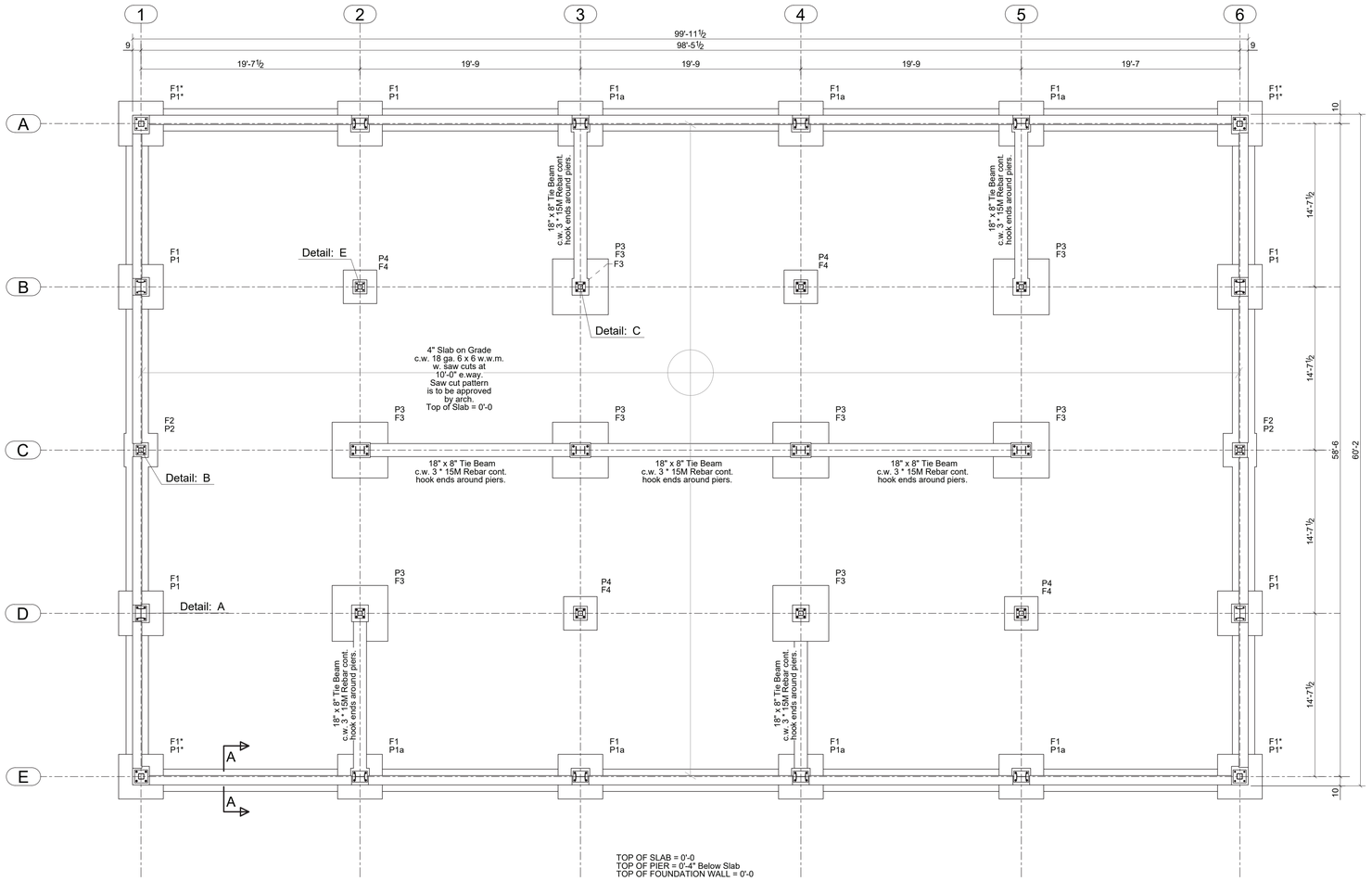
ALL LVL MUST BE 2.0E 3100FB UNLESS NOTED OTHERWISE.

HARDIE SHINGLE TO BE ATTACHED USING STAINLESS STEEL SCREWS.

LICENSED PROFESSIONAL ENGINEER
G. D. BOWMAN
Nov 20/18
PROVINCE OF ONTARIO

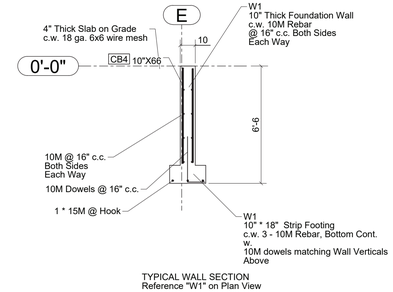
REV	DESCRIPTION	DATE (mm/dd/yyyy)
3	Revision	08/30/2019
2	Revision	06/27/2019
1	Revision	08/23/2018
0	For Review Only	08/17/2018

DESCRIPTION	General Notes		
PROJECT NAME	Greely Village Cente - Block 63 Retail Building		
DRAWN BY		JOB No. 180724	DRG No. S000
DATE DRAWN	08/17/2018		



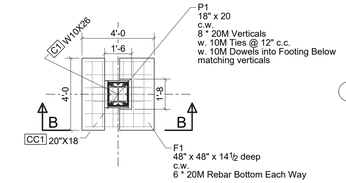
TOP OF SLAB = 0'-0
TOP OF PIER = 0'-4" Below Slab
TOP OF FOUNDATION WALL = 0'-0

PLAN AT EL. +0'



TYPICAL WALL SECTION
Reference "W1" on Plan View

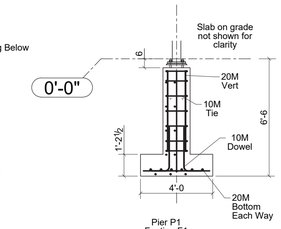
A - A



Pier P1 & P1a
Footing F1
Typical Detail

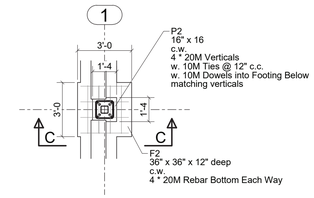
** Note **
Pier "P1a
20" x 18" (note rotated 90 degrees)
All other information matches P1

Detail: A



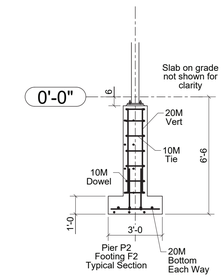
Pier P1
Footing F1
Typical Section

B - B



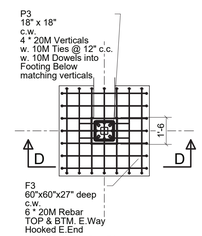
Pier P2
Footing F2
Typical Detail

Detail: B



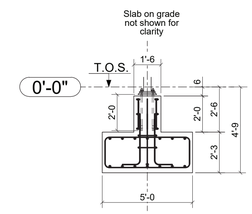
Pier P2
Footing F2
Typical Section

C - C



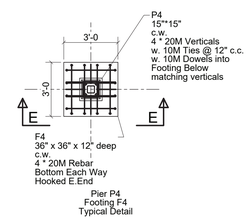
Pier P3
Footing F3
Typical Detail

Detail: C



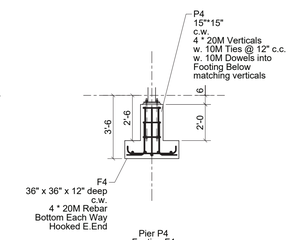
Pier P3
Footing F3
Typical Section

D - D



Pier P4
Footing F4
Typical Detail

Detail: E



Pier P4
Footing F4
Typical Section

E - E

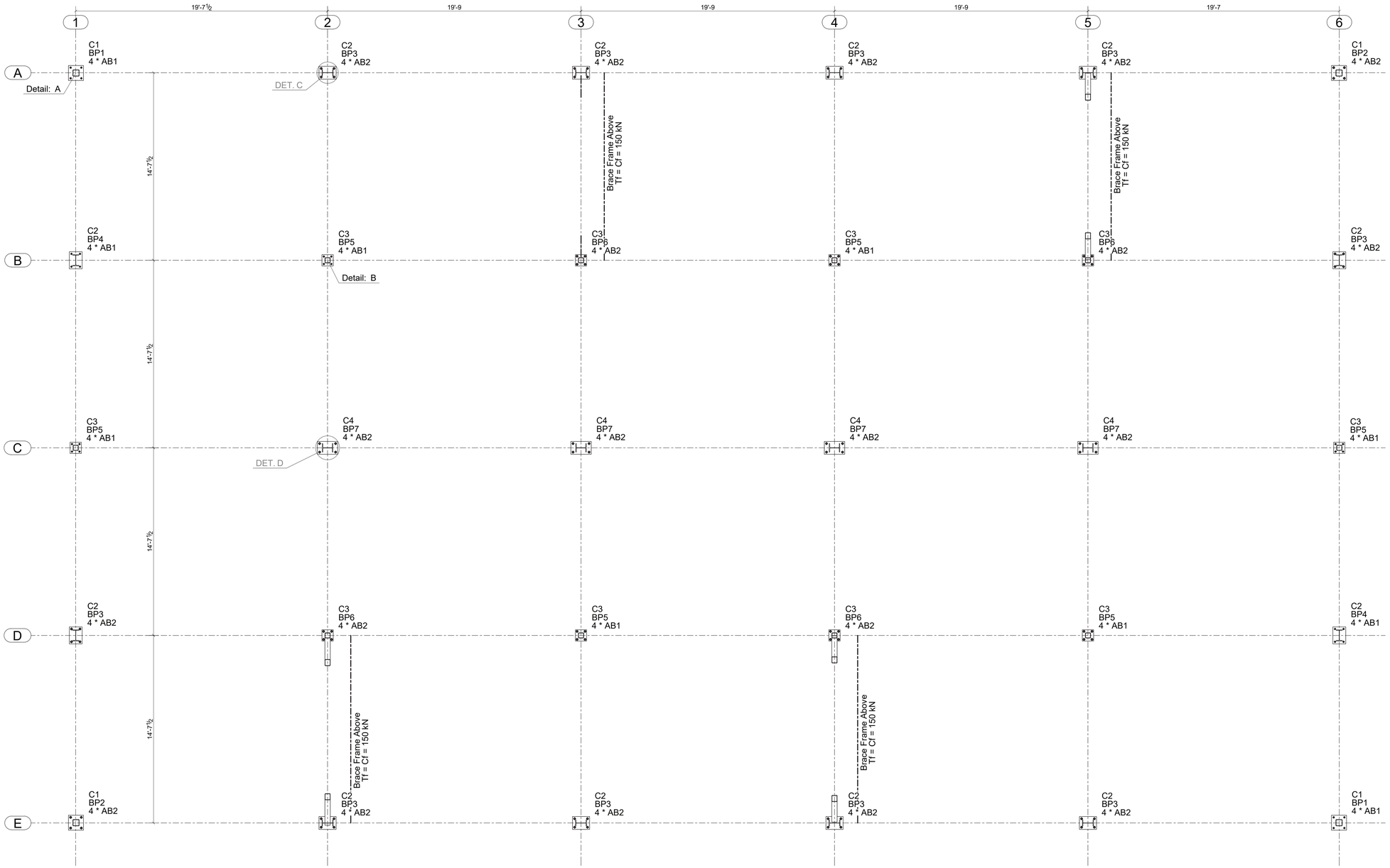
REV	DESCRIPTION	DATE
1	Revised - For Permit	08/23/2018
0	For Review Only	07/27/2018

Sunset Lakes

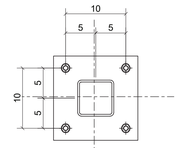
Bowman Steel Management Inc.
252-2378 Holly Lane
Ottawa, Ontario, K1V 7P1
gord.bowman@gmail.com

DESCRIPTION	Foundation Drawing		
PROJECT NAME	Greely Village Centre - Block 63 Retail Building		
DRAWN BY		JOB No.	DRG No.
DATE DRAWN	08/23/2018	180724	S100

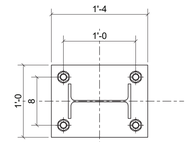
Tekla Structures



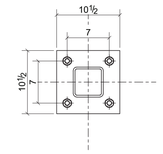
PLAN AT EL. +0'



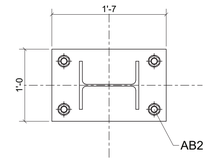
BP1 & BP2
Anchor Bolt Layout
Detail: A



BP3 & BP4
Anchor Bolt Layout
Detail: C



BP5 & BP6
Anchor Bolt Layout
Detail: B



BP7
Anchor Bolt Layout
Detail: D

Anchor Bolts

AB1
= ¾" dia. A307 Anchor rod.
c.w. nut washer
24" embedment into pier below.

AB2
= 1" dia. A307 Anchor rod.
c.w. nut washer
24" embedment into pier below.

Base Plates

BP1
PL¾x14"x1'-2" lg
w. 4 * AB1's (Ref: Detail A)
BP2
PL1"x14x1'-2" lg
w. 4 * AB2's (Ref: Detail A)
BP3
PL1"x12x1'-4" lg
w. 4 * AB2's (Ref: Detail C)
BP4
PL¾"x12x1'-4" lg
w. 4 * AB1's (Ref: Detail C)

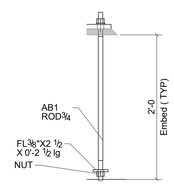
BP5
PL¾x10½x10½ lg
w. 4 * AB1's (Ref: Detail B)
BP6
PL1"x10½x10½ lg
w. 4 * AB2's (Ref: Detail B)
BP7
PL1"x12x1'-7" lg
w. 4 * AB2's (Ref: Detail D)

Columns

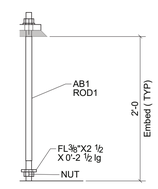
C1
HSS6x6x5/16
C2
W10x26
C3
HSS5x5x5/16
C4
W10x39

Top of Columns
C1 to C4 = 12'-0" above S.O.G.

U.S. of Base Plate
C1 to C4 = 5" below S.O.G
(allow for 1" grout (typical))



Anchor Rod - AB1
TYPICAL SECTION
B - B



Anchor Rod - AB2
TYPICAL SECTION
C - C

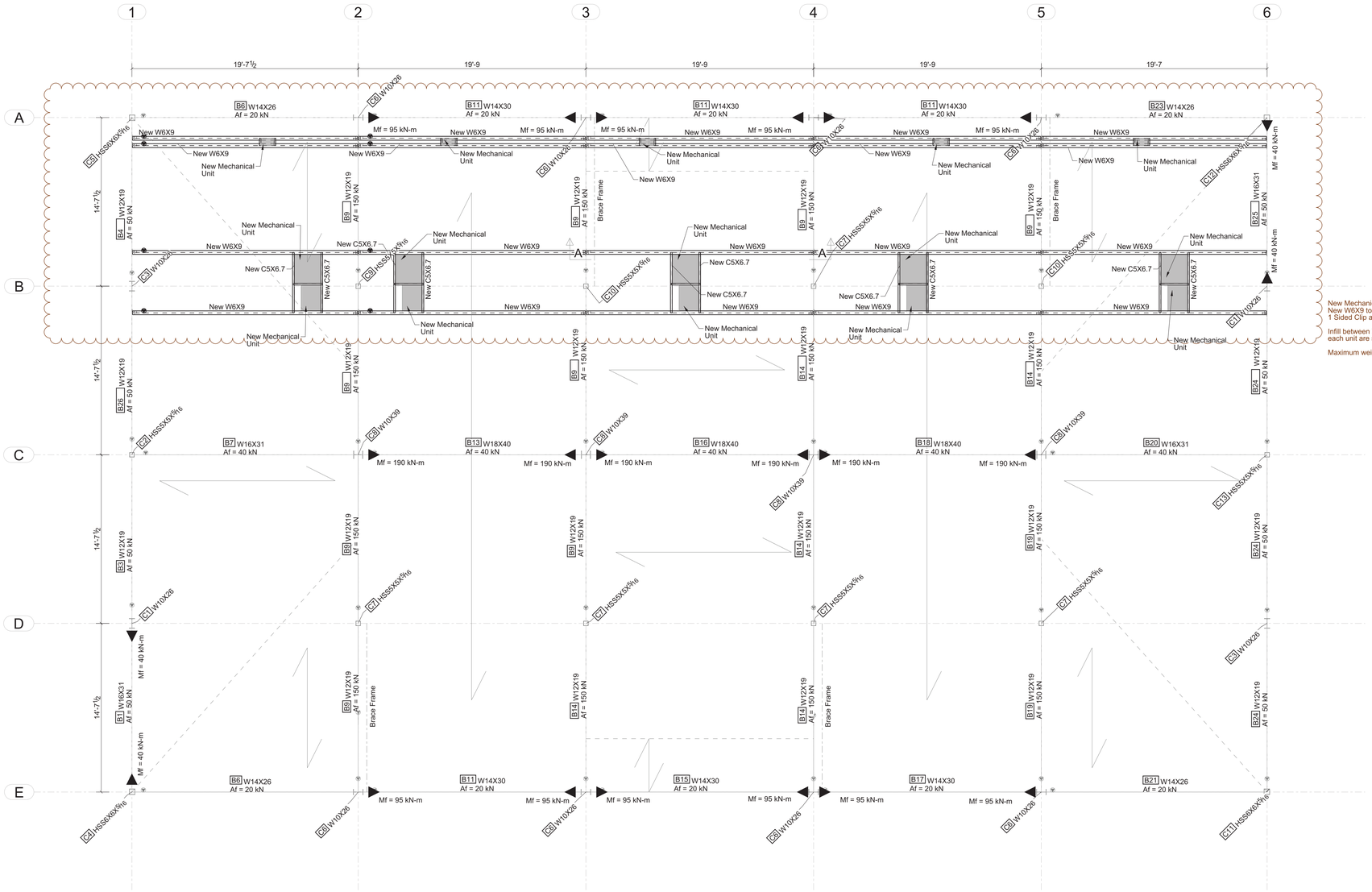
REV	DESCRIPTION	DATE
1	Revised - For Permit	08/23/2018
0	For Review Only	07/27/2018

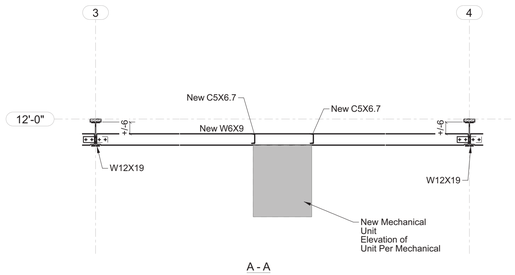
Sunset Lakes

Bowman Steel Management Inc.
252-2378 Holly Lane
Ottawa, Ontario, K1V 7P1
gord.bowman@gmail.com

DESCRIPTION	Column Layout and Base Plate Details		
PROJECT NAME	Greely Village Centre - Block 63 Retail Building		
DRAWN BY		JOB No.	DRG No.
DATE DRAWN	08/17/2018	180724	S200

Tekla Structures





A - A

2

New Mechanical Supports
New W6X9 to be connected to Structure with
1 Sided Clip angle Connection

Infill between W6's with C5x6.7 Channels to ensure all corners of each unit are supported.

Maximum weight of mechanical = 600 lbs.

Top of Steel = 11'-10½ above Slab
Wood Trusses above Steel Members by others
(Not shown for Clarity)
Ensure all Steel Beams have 9/16 dia. holes @ 36" c.c. for 2x6 nailer.

Note: Axial and Moment forces must be multiplied by 1.5x for connection design

Note: ½" thick plywood min. c.w. 10d nails @ 3" max Along all framing members and panel edges

Denotes Wood Truss Direction above Roof Steel.

PLAN AT EL. +12'

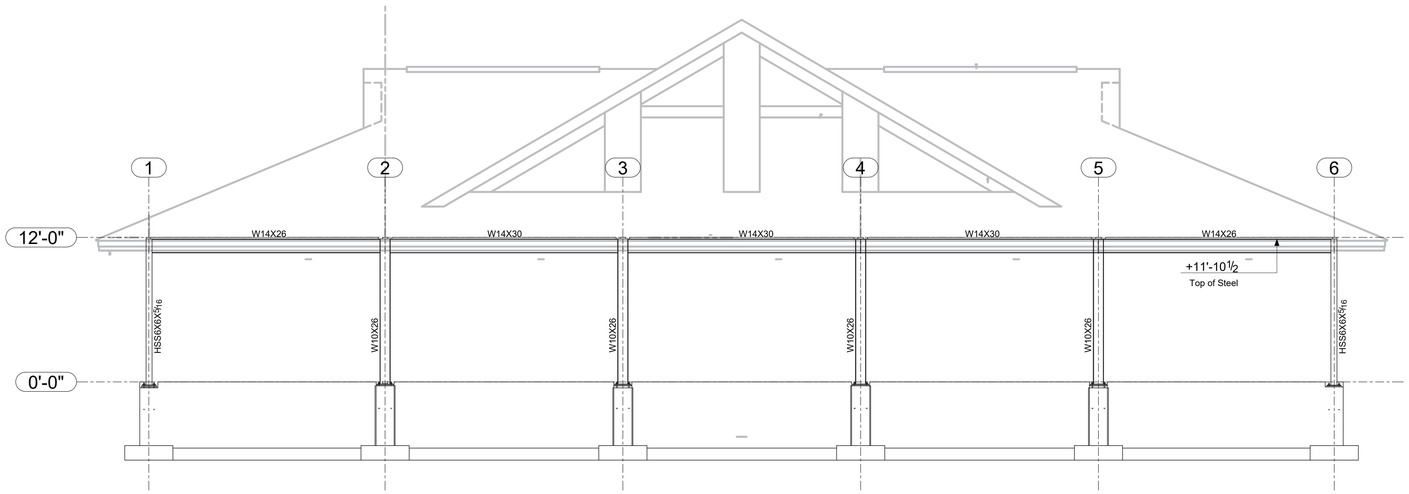
LICENSED PROFESSIONAL ENGINEER
G. D. BOWMAN
PROVINCE OF ONTARIO

REV	DESCRIPTION	DATE
4	Revised - For Permit	11/12/2019
3	Mechanical Unit Support Steel Added	08/30/2019
2	Revised - For Permit	06/27/2019
1	Revised - For Permit	08/23/2018
0	For Review Only	07/27/2018

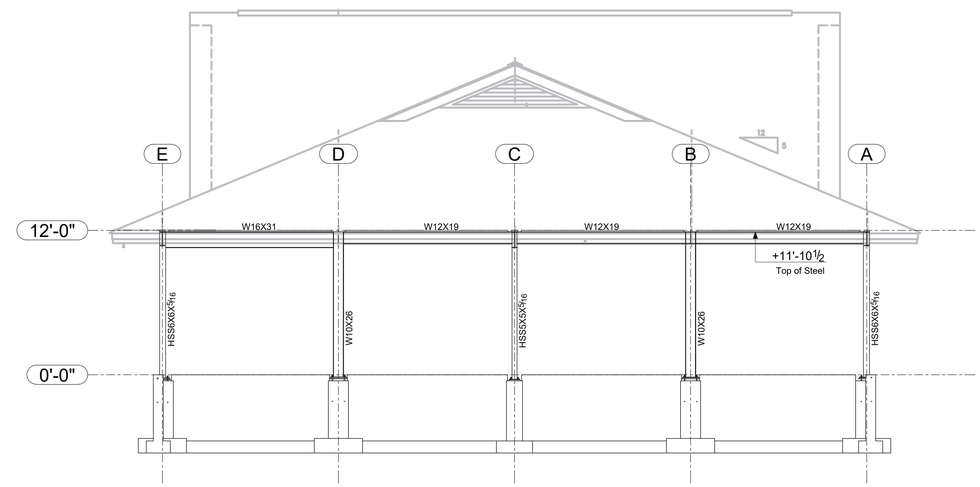
Sunset Lakes

DESCRIPTION	New Steel at 12'-0"		
PROJECT NAME	Greely Village Centre - Block 63 Retail Building		
DRAWN BY		JOB No.	DRG No.
DATE DRAWN	07/26/2018	180724	S201

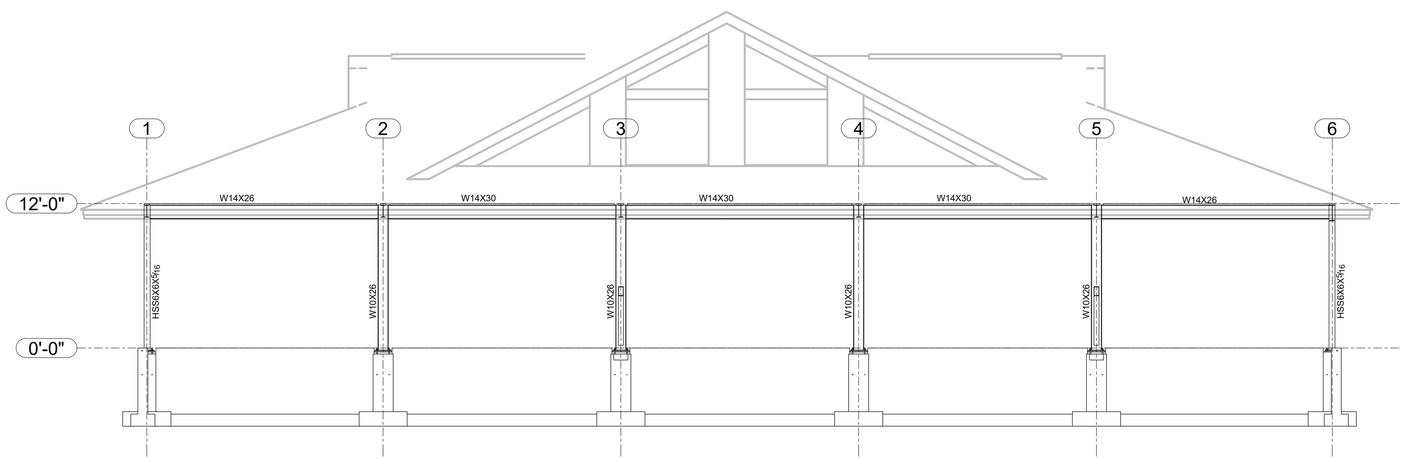
Tekla Structures



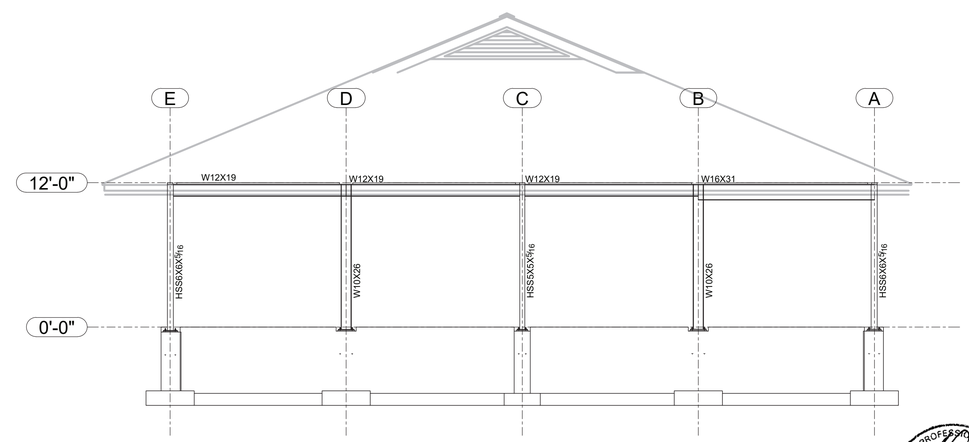
ELEVATION ON GRID E



ELEVATION ON GRID 1



ELEVATION ON GRID A



ELEVATION ON GRID 6

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REV	DESCRIPTION	DATE
1	Revised - For Permit	08/23/2018
0	For Review Only	07/27/2018

Sunset Lakes

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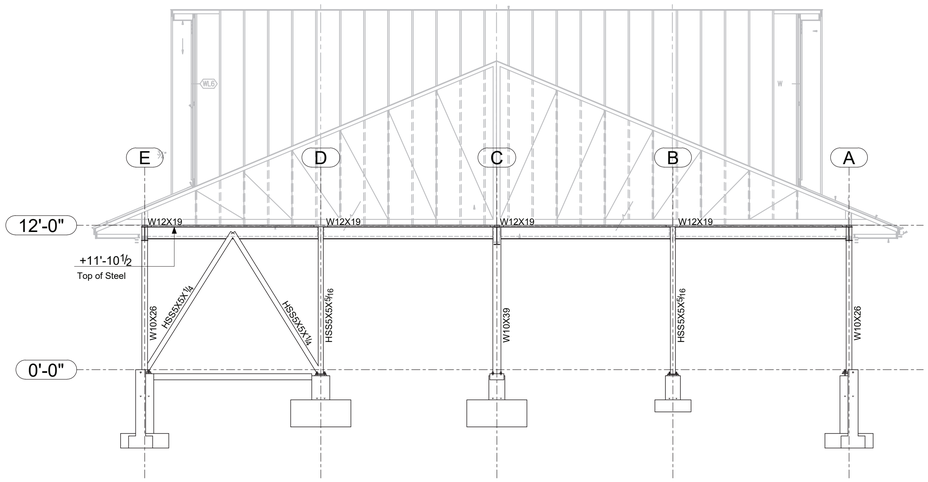
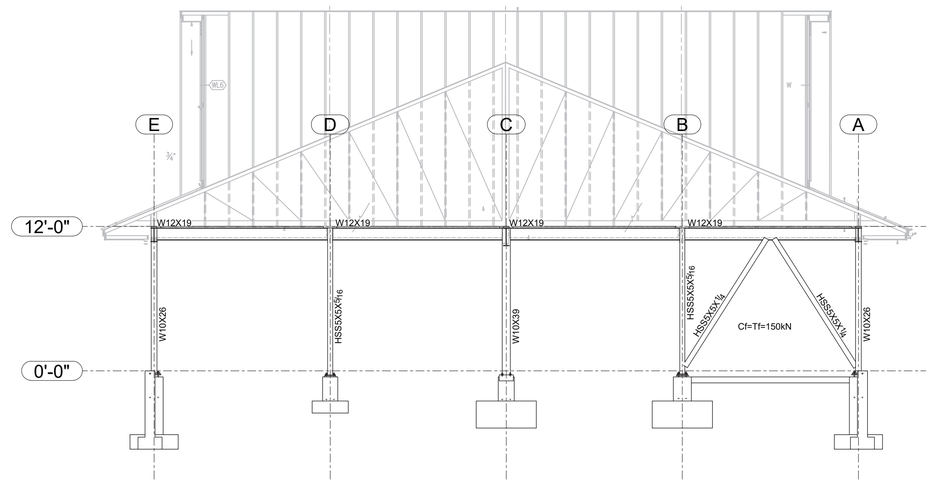
DESCRIPTION	Elevations At Perimeter		
PROJECT NAME	Greely Village Centre - Block 63 Retail Building		
DRAWN BY		JOB No.	DRG No.
DATE DRAWN	08/23/2018	180724	S300

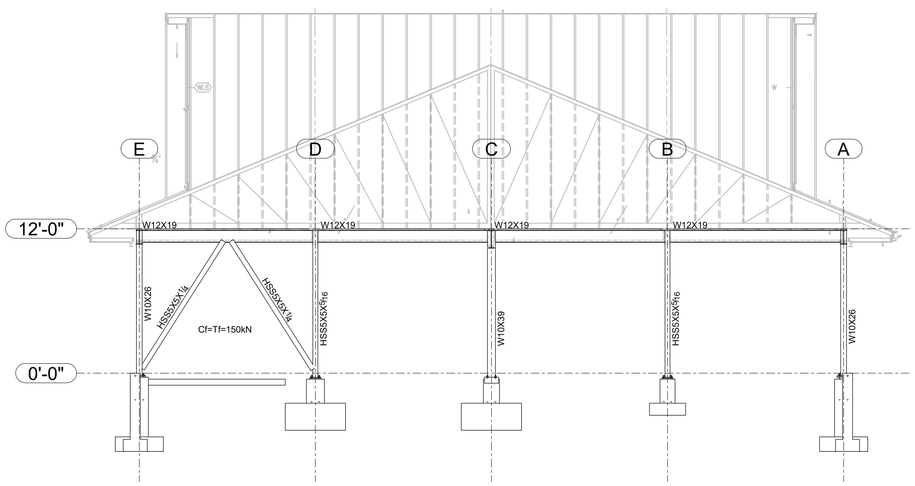
Tekla Structures



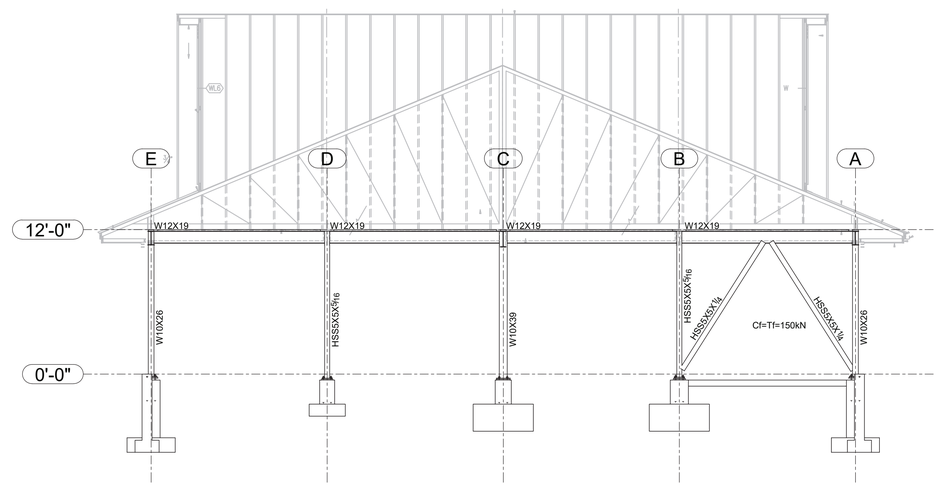
ELEVATION ON GRID 2



ELEVATION ON GRID 3



ELEVATION ON GRID 4



ELEVATION ON GRID 5

LICENSED PROFESSIONAL ENGINEER
G. D. BOWMAN
PROVINCE OF ONTARIO

REV	DESCRIPTION	DATE
1	Revised - For Permit	08/23/2018
0	For Review Only	07/27/2018

Sunset Lakes

Bowman Steel Management Inc.
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DESCRIPTION	Elevations At Brace Frames		
PROJECT NAME	Greely Village Centre - Block 63 Retail Building		
DRAWN BY		JOB No.	DRG No.
DATE DRAWN	08/23/2018	180724	S301

Tekla Structures