TOWER STEEL BUILDINGS LP BUILDING - PORT PERRY

FO# 26321

Building 2 of 2



T&Z Consulting Services, LLC

Ontario CofA No. 100521725

8 Easy Street Port Perry, ON L9L 1B2



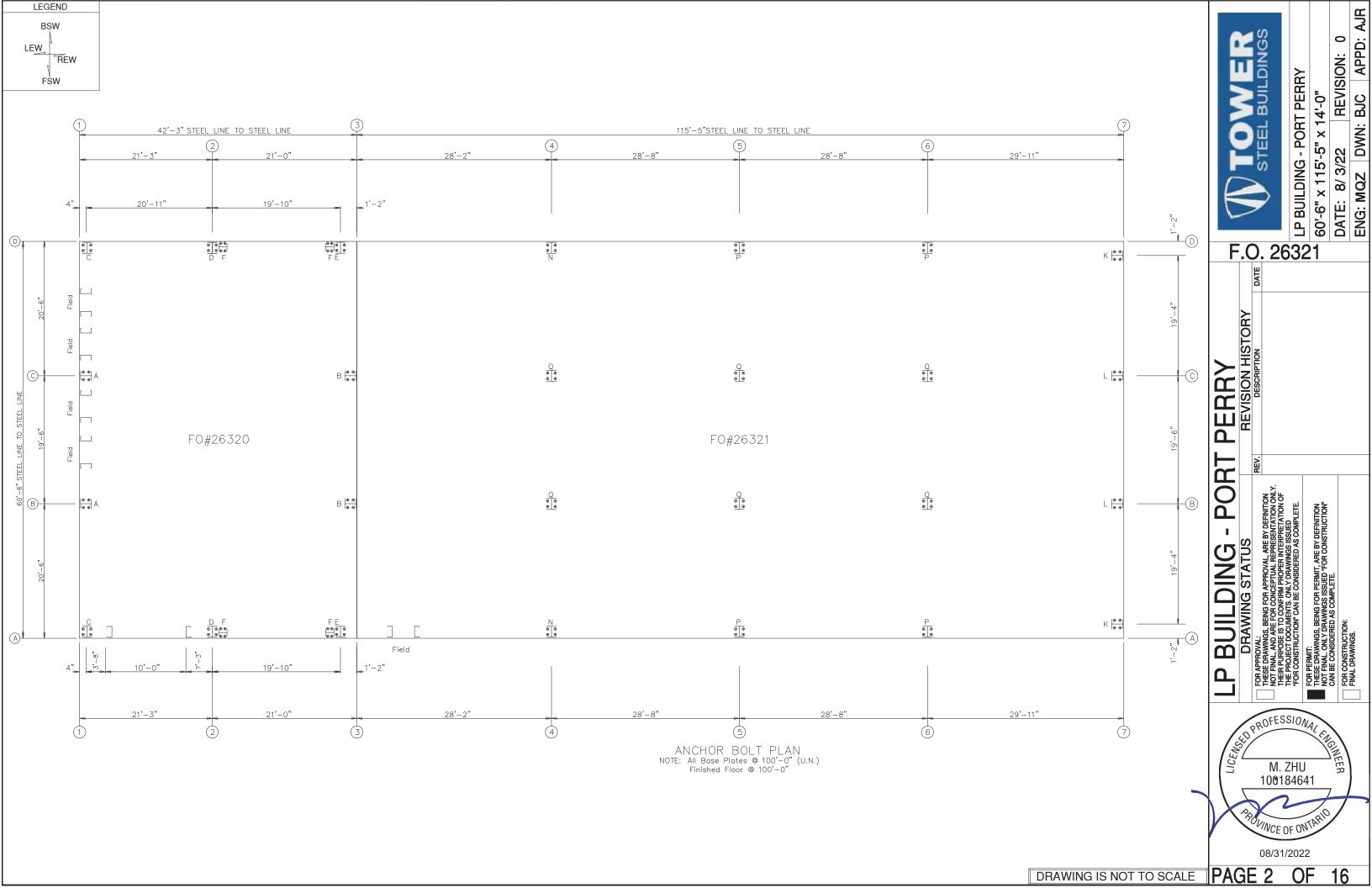
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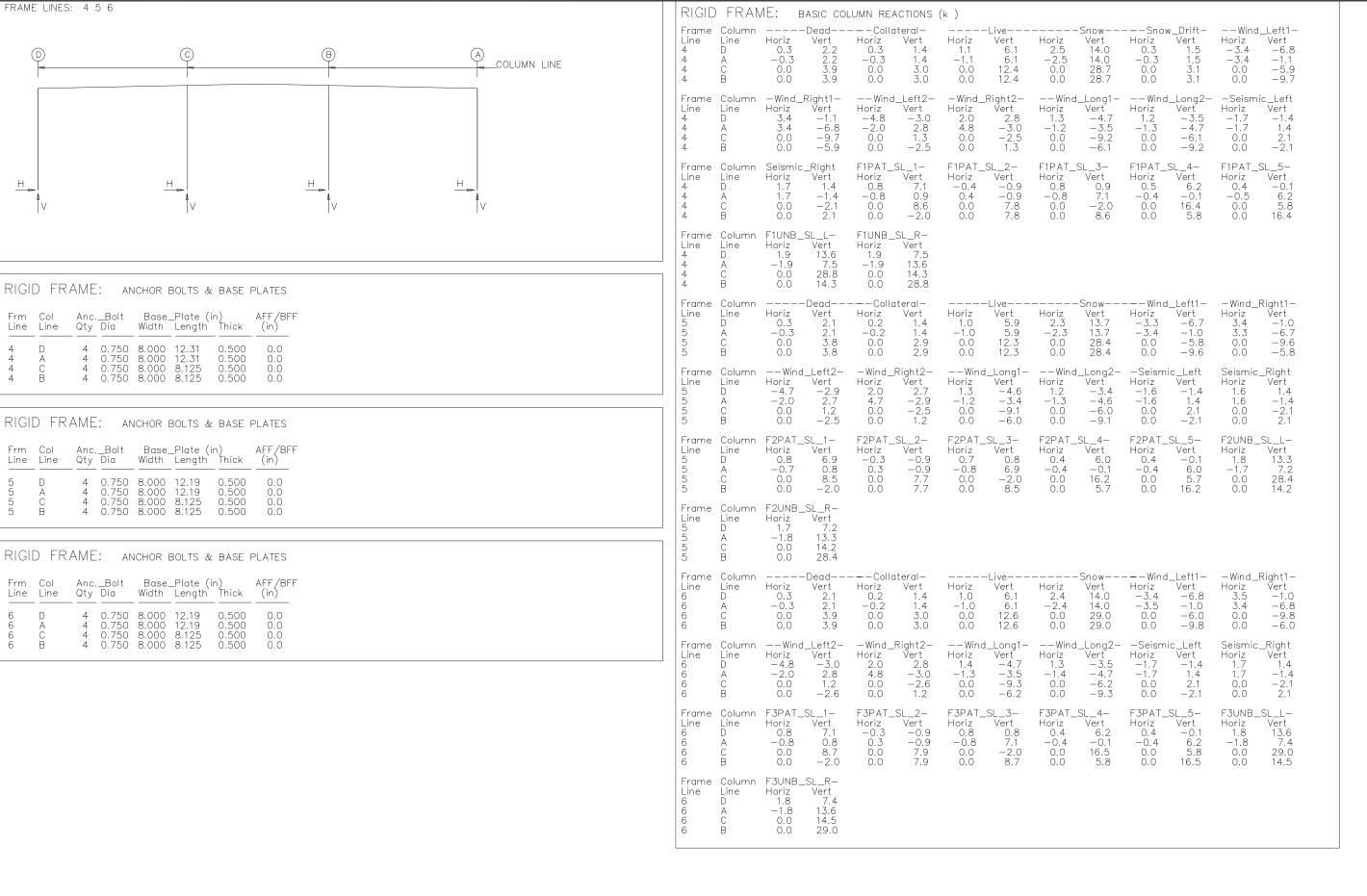
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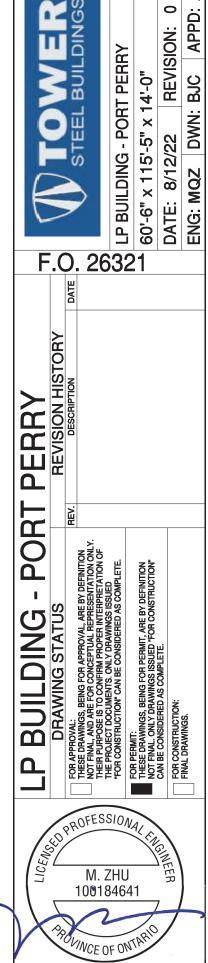
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GENERAL	MATERIALS	ASTM DESIGNATION	MINIMUM YIELD	MATERIALS	ASTM DESIGNATION	N MINIMUM YIELD			ď
All materials included in the Metal Building System are in accordance with the manufacturer's standard materials and details unless otherwise specified on the order documents. (MBMA 2018 Metal Building Systems Manual, Part IV, Section 2.1)	Hot-Rolled Mill Sections	A 36, A 572, A 992	Fy = 36 ksi and/or 50 ksi	Roof and Wall Sheeting	A 792, Gr. 50 Class A 792, Gr. 80	1 Fy = 50 ksi Fy = 80 ksi		ı (C)	A B
DESIGN RESPONSIBILITY	Structural Steel Plates	s A 572, A 1011	Fy = 55 ksi	Mild Steel Bolts	A 307	Fy = 36 ksi	0.	SS	0 :-
The manufacturer is responsible only for the structural design of the Metal Building System it sells to the purchaser / customer. Neither the manufacturer nor the manufacturer's engineer is the design professional or engineer of record for the construction project. The manufacturer is not responsible for the design of any component or materials not sold by it, or their interface and connection with Metal Building System unless such design responsibility is specifically required by the	Structural Steel Bars	A 572 or A 529	Fy = 55 ksi	High Strength Bolt	F3125: A 325-N A 490-N	Fy = 92 or 81 ksi N/A			PERRY -0" REVISION:
order documents. (MBMA 2018 Metal Building Systems Manual, Part IV, Section 3.1)	Cold Formed Light Gauge Shapes	A 653 Gr. 55	Fy = 55 ksi	Anchor Rods (If supplied)	A 36	Fy = 36 ksi	3	B	교 이 빛 등
FOUNDATION DESIGN AND ANCHOR BOLTS	Cable Bracing	A 475, EHS	N/A	Pipe and Hollow Structural Sections	A 500 Gr. B	Fy = 42 ksi, 46 ksi		ᆸ	
The manufacturer is not responsible for the design, materials, and workmanship of the foundation. The anchor bolt plans prepared by the manufacturer are intended to show only the anchor bolt location, diameter (based on ASTM A36 bolts), and quantity required to connect the Metal Building System to the foundation. (MBMA 2018 Metal Building Systems	Rod Bracing	A 36	Fy = 36 ksi					STE	ا إن الأراح ا إن الأراح
Manual, Part IV, Section 3.2.2). It is the responsibility of the end customer to ensure that adequate provisions are made for specifying bolt embedment, bearing angles, tie rods, and / or associated items embedded in the concrete foundation, as well as foundation design based on the loads imposed by the Metal Building System, or other imposed loads, and the bearing capacity of the soil and other conditions of the building site. (MBMA 2018 Metal Building Systems Manual, Part IV, Section 3.2.2) U.SAnchor bolts shall be accurately set to a tolerance of +/- 1/8 in both elevation and location (AISC Code of Standard Practice for Steel Buildings and Bridges). Canada -Anchor bolts shall be accurately set in accordance with CISC Code of Standard Practice, June 2008, Clause 7.7.1	moderate amounts are a normal part Buildings and Brid	minor misfits by the of reaming, chipping to ferection and an alges, April 14, 2010, Building Systems Ma	ne use of drift p ng, and cutting, re not subject to Section 7.14; CK	and the replace o claim. (AISC Co SC Code of Stand	components into lament of minor shoote of Standard Pr	ortages of material actice for Steel	E	Š	LP BUILDING 60'-6" x 115'- DATE: 8/12// FNG: MOZ
ADJACENT EXISTING BUILDINGS			DRAWING DI	SCREPANCIES			F.	0.26	321
The manufacturer does not investigate the influence of the Metal Building System on adjacent existing buildings or structures. The end customer assures that such buildings and structures are adequate to resist snow loads or other conditions as a result of the presence of the Metal Building System. (MBMA 2018 Metal Building Systems Manual, Part IV, Section 3.2.5)	manufacturers stee 14, 2010, Section 3	ancies between the el plans govern. (AI 3.3; CISC Code of St Part IV, Section 3.1).	SC Code of Stan	dard Practice fo	r Steel Buildings a:	nd Bridges, April		DATE	
All structural members of the Metal Building System not fabricated of corrosion resistant material or protected by corrosion resistant coating are painted with one coat of shop primer. All surfaces to receive shop primer are cleaned of loose rust, loose mill scale and other foreign matter by using, as a minimum the hand tool cleaning method SSPC-SP2 (Steel Manual, Structures Painting Council) prior to painting. The coat of shop primer is intended to protect the steel framing for only a short period of exposure to ordinary atmospheric conditions. Shop-primed steel should be placed on blocking to prevent contact with the ground, and so positioned as to minimize water holding pockets, dust, mud an other contamination of the primer film. Repairs of damage to primed surfaces and or removal of foreign material due to improper field storage or site conditions are not the responsibility of the manufacturer. (CISC Code of Standard Practice, June 2008, Clause 6.8; (MBMA 2018 Metal Building Systems Manual, Part IV, Section 4.2.4). ERECTION-GENERAL	own leased, charter material shall be responsible for co builder. The manu The manufacturer considered as bein However, the manufacture via the manufacturent		ufacturers carrie conveyance shall builder chooses pplicable govern ility for damage eliver on the re- are between 8a e held responsib	l constitute delito use its own, ment regulations or loss ceases quired date. The m - 12pm (mor le for circumstationly honor claims	very to builder, an or private carrier, s. All charges shall upon delivery of she manufacturers truning) and 12pm — nces beyond our const that were approves	d thereafter, such it shall be solely be borne by the hipment to carrier. lick is not 5pm (afternoon). ontrol. For deliveries yed by the customer	ERRY	DESCRI	
The erector, by entering into contract to erect the building, holds itself out as skilled in the erection of Metal Building Systems and is responsible for complying with all applicable local, federal, and state construction and safety regulations including OSHA regulations as well as any applicable requirements of local, national, or international union rules or practices. (CISC Code of Standard Practice, June 2008, Clause 7.2; (MBMA 2018 Metal Building System Manual, Part IV, Section 6.9). The erector shall erect the Metal Building System in accordance with the erection drawings, the Erection and Detail Manual (February 2012), and / or the Seam-Lok Technical - Erection manual (May 2012) as furnished by the manufacturer. The aforementioned erection information is intended to illustrate the layout of the framing members, provide the associated connection details, and suggests sequence of erection. It is not intended to specify any particular method of erection to be followed by the erector. The erector remains solely responsible for the safety and appropriateness of all techniques and methods utilized by its crews in the erection of the Metal Building System. The erector is responsible for supplying any safety devices such as scaffolds, runways, nets, et, which may be required to safely erect the Metal Building System. (MBMA 2018 Metal Building Systems Manual, Part IV, Section 6.9) The manufacturer expressly disclaims any responsibility for injury to persons in the course	The purchaser /cu purchaser/customer customer service shortages. If any Concealed shortage following time fragof truck loads used.	ustomer should maler must note on the department immediatem is damaged, notes must be reported mes (date from recomment).	carrier. The mass SHOR ke an inspection he freight bill are ately; otherwise, note on the bill d to the manufaction of first delegation.	TAGES upon arrival of y missing item(s the manufactur of lading and filecturers custome every), based on	all building composes) and notify the recannot be held e a claim with the er service departments the project shipments.	onents. The manufacturers responsible for any efficient within the ent size, i.e., number	- PORT P	BY DEFINITION SENTATION ONLY. IPPRETATION OF SSUED	ONSIDERED AS COMPLETE. ERMIT, ARE BY DEFINITION UED "FOR CONSTRUCTION" ETE.
of erection or for damages to the product itself. Field erection of a Pre-Engineered Metal Building, as in all construction projects, involves hazards to persons within the area of the construction and risk of damage to the property itself. Only experienced persons who are skilled and qualified in the erection of Metal Building Systems should be permitted to field-erect a building due to the hazards of this construction activity. The manufacturer is not responsible for the erection of the Metal Building System, the supply of any tools or equipment, or any other field work. The manufacturer provides no field supervision for the erection of the structure nor does the manufacturer perform any intermediate or final inspections of the Metal Building System during or after erection.	manufacturer of faresponsible for prowill be done in a MANUFACTURERS Al	timely manner. IF PPROVAL, HE DOES S	le for contacting and correspond with verbal app THE BUILDER PR SO AT HIS OWN 1	ing cost estimat roval to proceed OCEEDS WITH COI RISK. The manufa	es. The manufactur with appropriate f RRECTIVE WORK WITH acturer shall not b	rer will be Tield corrections. This HOUT THE	UILDING	BEING FOR APPROVAL, E FOR CONCEPTUAL RE TO CONFIRM PROPER II	CAN BE CO NG FOR PI INGS ISS IS COMPL
The erector shall furnish temporary guys and bracing where needed for squaring, plumbing, and securing the structural framing against loads, such as wind loads acting on the exposed framing as well as loads due to erection equipment and erection operation, but not including loads resulting from the performance of work by others. Bracing furnished by the manufacturer for the Metal Building System cannot be assumed to be adequate during erection. Temporary supports such as temporary guys, braces, false work, cribbing, or other elements required for the erection operation will be determined, erected, and installed by the erector. (AISC Code of Standard Practice for Steel Buildings and Bridges, April 14, 2010, Section 7.10.3; CISC Code of Standard Practices, June, 2008, Clause 1.5; MBMA 2018 Metal Buildings System Manual, Part IV, Section 6.2.1.5).	By acceptance of the invoice amoun	the materials of set the within the time p	INVOIC rvices set forth period specified	or payment with E PAYMENT in the invoice, ton the invoice.	in 30 days of the	occurrence. omer agrees to pay	LP BU	FOR APPROVAL: THESE DRAWINGS, NOT FINAL, AND AR THEIR PURPOSE IS	"FOR CONSTRUCTION" FOR PERMIT: THESE DRAWINGS, BEIL NOT FINAL, ONLY DRAW CAN BE CONSIDERED A FOR CONSTRUCTION: FINAL DRAWINGS.
U.S.; Erection tolerances are those set forth in AISC code of standard practice except individual members are considered, plumb, level and aligned if the deviation does not exceed 1:500. (AISC Code of Standard Practice for Steel Buildings and Bridges April 14, 2010 Section 7.13.1; MBMA 2018 Metal Building Systems Manual, Part IV, Section 6.8) Canada; Erection tolerances are those set forth in CISC Code of Standard Practice except individual members are considered plumb, level and aligned if the deviation does not exceed 1:500. (CISC Handbook of Steel Construction, Tenth Edition, Second Revised Printing, Part 1, Clause 29.3; MBMA 2018 Metal Building Systems Manual, Part IV, Section 6.8)	The manufacturer good job site prac manufacturer, the the job site. The times. Accident procedures. The manufactures. The manufactures are procedures.	is committed to metices and a commit manufacturer high erector should followerevention practices nanufacturer also retion concerning fed	SAFETY In anufacturing a tment to safety ly recommends we all local, state should be imple ecommends daily	PROCEDURES quality product to by the erector a the erector prov e, and federal he mented and each meetings to dis	are beyond the corride good, safe workealth and safety re h employee should scuss erection safe	ntrol of the king conditions on gulations at all know emergency ty procedures. For		M. Z 10018	HU
BOLT TIGHTENING The proper tightening and inspection of all fasteners is the responsibility of the erector (Reference RCSC for structural joints using high strength bolts; August 1, 2014). All high strength (ASTM F3125, A325, A490) bolts and nuts must be tightened by the "turn-of-the-nut" method unless otherwise specified by the end customer in the contract documents. Inspection of high strength bolt and nut installation by other than the erector must also be specified in the contract documents and the erector is responsible for ensuring that the installation procedures are	and health admini	istration (osha).		ment of Labor and Health Ad ion Avenue, N.W. DC 20210 a.gov		apational Salety		OVINCE OF	ONTARIO
compatible prior to the start of erection (CISC Handbook of Steel Construction, Tenth Edition, Second Revised Printing, Part 1, Clause 23.8.2), (MBMA 2018 Metal Building Systems Manual, Part IV, Section 6.9).	The manufacturer	shall not be respor le safety regulations	nsible for person s and material h	al injury or propandling and inst	perty damage as a tallation recommen	result of failure to dations.	PAG	08/31/2 E 1	OF 16







AUR

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08/31/2022

FND W	VALI	_ COL	JMN:	BASIC CO	DLUMN R	EACTION	IS (k)							Wind
Line l 7 / 7 E	Col Line A B C D	Dead Vert 1.2 2.2 2.2 1.2	Collat Vert 0.8 1.5 1.5 0.8	Live Vert 3.4 6.2 6.2 3.4	Snow Vert 7.8 14.4 14.4 7.8	Wind_ Horz 0.0 -2.9 0.0 0.0	Left1 Vert -3.5 -8.0 -2.3 -2.1	Wind_ Horz 0.0 0.0 2.9 0.0	_Right1 Vert -2.1 -2.3 -8.0 -3.5	Wind_ Horz 0.0 -2.9 0.0 0.0	Left2 Vert -1.4 -4.4 1.3 -0.1	Wind_ Horz 0.0 0.0 2.9 0.0	Right2 Vert -0.1 1.3 -4.4 -1.4	Press Horz -0.8 -1.6 -1.6 -0.8
Line l	Col Line A B C	Wind Suct Horz 0.5 1.0 0.5	Wind Long1 Vert -3.5 -6.4 -6.4 -3.5	Wind Long2 Vert -3.5 -6.4 -6.4 -3.5	Seis_ Horz 0.0 -1.8 0.0 0.0	Left Vert 0.0 -1.2 1.2 0.0	0.0	ght Vert 0.0 1.2 -1.2 0.0	E2UNB_ Horz 0.0 0.0 0.0 0.0	_SL_L- Vert 7.8 13.5 8.1 3.9	E2UNB_ Horz 0.0 0.0 0.0 0.0	_SL_R- Vert 3.9 8.1 13.5 7.8		

ANCHOR BOLT SUMMARY

	Qty	Locate	(in)	Туре
$_{\oplus}^{\oplus}$	32 48	Endwall Frame	3/4" 3/4"	

BUILDING BRACING REACTIONS

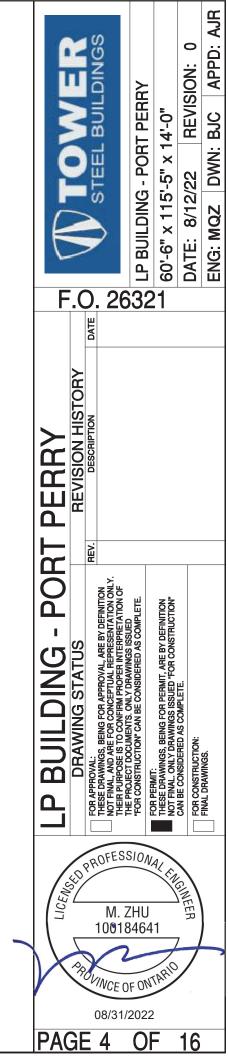
Reactions in plane of wall # Reactions(k) Panel_Shear									
Loc Line Line	Horz Vert Horz Vert Wind Seis Note								
F_SW A Braced R_EW 7 B,C	by Adjacent by Adjacent Bracing, see EW reactions by Adjacent								
(a)Wind bent in bay									

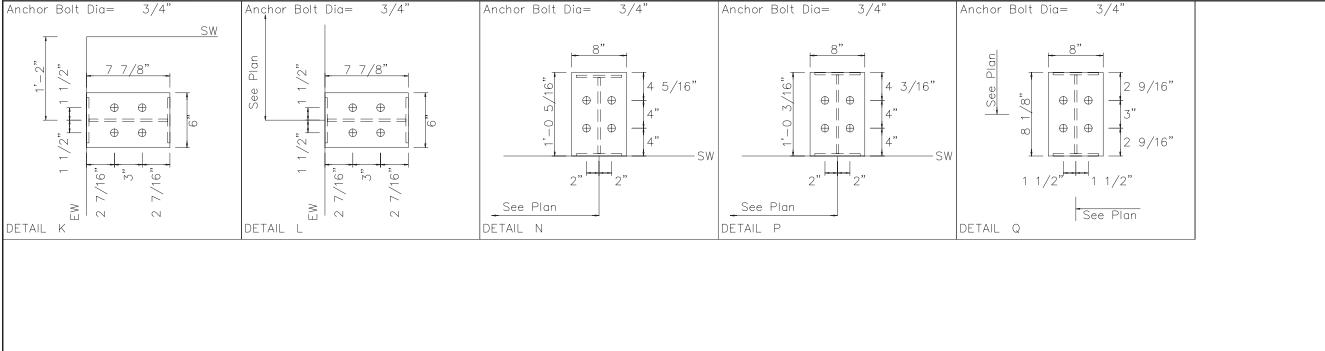
END	WALL	COL	_UMN:	ANC	HOR BOL	TS & B	ASE PLATES
Frm Line	Col Line	Anc. Qty	_Bolt Dia	Base_ Width	_Plate (ii Length	n) Thick	AFF/BFF (in)
7	Α	4	0.750	6.000	7.875	0.375	0.0
7	В	4	0.750	6.000	7.875	0.375	0.0
7	С	4	0.750	6.000	7.875	0.375	0.0
7	D	4	0.750	6.000	7.875	0.375	0.0

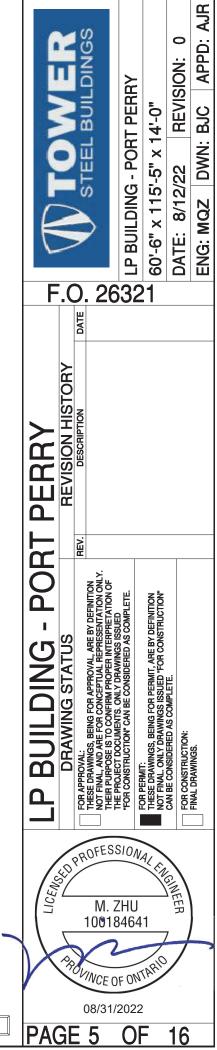
DESIGN INFORMATION

- All loading conditions are examined and only the maximum / minimum H or V and the corresponding H or V are reported.
- 2. Positive reactions are shown in the sketch. Foundation loads are in opposite directions.
- 3. Bracing reactions are in the plane of the brace with the H pointing away from the braced bay. The vertical reaction is downward.
- 4. Building reactions are based on the following building data:

DESIGN CRITERIA		SEISMIC CRITER	IA 	DEFLECTION LIMITS		
Width (ft) Length (ft) Roof Slope (rise/12) Building Code Local Code (State/Prov) Dead Load (psf) Collateral Load (psf) Roof Live Load (psf) Frame Live Load (psf)	= 60.5 = 116.92 = 14 = 0.25:12	Seismic Importance Risk Category	= 1.00 = II - Normal	ENDWALL COLUMN L/ 180 ENDWALL RAFTER (Live) L/ 180		
Local Code (State/Prov)	= ONBC 12 W/	Mapped Spectral Response	Accelerations = 0.144	ENDWALL RAFTER (Wind)		
Dead Load (psf) Collateral Load (psf) Roof Live Load (psf) Frame Live Load (psf)	= 5.310 = 5.00 = 21.00 = 21.00	Sa (0.5) Sa (1.0) Sa (2.0) Sa (5.0) Sa (10.0)	= 0.091 = 0.053 = 0.027 = 0.0067 = 0.0028	WALL GIRTS L/90 PURLIN (LIVE) L/180 PURLIN (WIND)		
Snow: Grown Snow Load (psf) Snow Importance Associated Rain Load (psf) Wind Exposure Factor Slippery Roof Roof Snow Load (psf)	= 50.16 = 1.0000 = 8.36 = 1.00 = N = 48.49	Site Class Base Shear Expanded Formula = S(Longitudinal Base Shear Transverse Base Shear	= D Ta)*Mv*le*W/(Rd*Ro) (k) =13.15 (k) =11.71	L/ 180 WALL PANEL L/ 90 ROOF PANEL (Live) L/ 180 ROOF PANEL (Wind) L/ 120		
Wind: Wind (1/50) (psf) Risk Category Importance — Wind Wind Exposure Enclosure Classification				Main Frame (Horiz) H / 60 Main Frame (Vert) L / 180 WIND BRACING H / 60 Main Frame (Crane) H / 100		
——Internal Pressure Coefficients— Pressure Suction	= 0.30	Response Modification Frame FSW BSW	Factors = 1.5 = 1.5	Main Frame (Seismic) H/ 40 SEISMIC BRACING H/ 40		
———Components & Cladding—— Design Pressure: Pressure (psf) Suction (psf)		BSW	= 1.5	PARTÍTION COLUMN L/ 120 PARTÍTION GIRT L/ 120 PARTÍTION PANEL		
Equivalent Static Force Procedure) .			L/ 120		







DRAWING IS NOT TO SCALE

