

Platinum member

DRAWING SCHEDULE				
SHT #	DRAWING TITLE	#	REVISION DATE	
100	DRAWING SCHEDULE	Α	MAY 8/15	
101	GENERAL INFORMATION AND CONFORMANCE	А	MAY 8/15	
102	ANCHOR BOLT PLAN	Α	MAY 8/15	
103	ANCHOR BOLT DETAILS	Α	MAY 8/15	
104	ANCHOR BOLT DETAILS	Α	MAY 8/15	
201	FIRETOWER ELEVATIONS	А	MAY 8/15	
202	FIRETOWER ELEVATIONS	А	MAY 8/15	
401	ROOF PLAN VIEW	Α	MAY 8/15	
501	TOWER 2nd FLOOR	Α	MAY 8/15	
502	TOWER 3rd FLOOR	Α	MAY 8/15	
503	TOWER 4th FLOOR	Α	MAY 8/15	
504	TOWER 5th FLOOR / ROOF	Α	MAY 8/15	
505	WALL MOUNTED RAPPELLING ANCHOR DETAILS	Α	MAY 8/15	
601	FRAMED OPENINGS	Α	MAY 8/15	

CC	NSTRUCTION
DRAWIN	IGS TRANSMITTAL
	JOE KIRCHNER
	(913) 385-3663

SALES ORDER:

ATTENTION:	JOE KIRCHNER	Di	RAWING SET:
PHONE:	(913) 385-3663	Fo	OR INFORMATION:
EMAIL:	joe_kirchner@trainingtowers.com	Fo	OR REVIEW:
		Fo	OR PERMIT:
PREPARED BY:	CARMEN GAGNON	Fo	OR CONSTRUCTION:
ORIGINATOR:	TREVOR VEITCH	PI	EASE RESPOND:
CUSTOMER SERVICE REP:	CHRIS EWASIUK	SE	ENT BY:
PHONE:	(204) 728-1188	E	MAIL:
EMAIL:	cewasiuk@behlen.ca	PI	OF:
		Al	JTOCAD DRAWING:
REGIONAL SALES MANAGER:	N/A	RI	EGULAR MAIL:
PHONE:	N/A	EX	KPRESS POST:
EMAIL:	N/A	Pl	JROLATOR:
		0	THER:
PROJECT MANAGER:	WAYNE DANIELS		
PHONE:	(204) 728-1188		

wdaniels@behlen.ca

MAY 8, 2015

T LLMOL INLOT OND:	^
SENT BY:	
EMAIL:	X
PDF:	Χ
AUTOCAD DRAWING:	Χ
REGULAR MAIL:	
EXPRESS POST:	
PUROLATOR:	

RESPONSE DATE:	MAY 12, 2015	
FOR REVIEW AND RESPON	<u>BE TO DRAWINGS, PLEASE CHECK THE APPROPI</u>	RIATE BOX, SIGN & RETUR
- 001 700 0017		

FUR REV	IEM AND REST	PUNSE TO DRAW	INOS, PLEASE C	MECK THE A	RPROPRIATE DUX	<u>, JION ¢ RE</u>
Fax: 204	1-728-8049 c	or email Customer	⁻ Service Repre	esentative n	oted above.	
			·		Comments:	
☐ Drawir	ıqs Reviewed A	s Is> NO CHANE	ES .			
☐ Drawir	ias Reviewed A	s Is> MODIFY A	S PER MARKUPS			
	_	s Is> MODIFY A		TO FOLLOW		
NOTE:						
Changes ar	nd Modifications	: :				
	xtra charges		Time & Materials	& MAY Affect	t Your Schedule>	TBA
Late Resp	onse:					
	xtra charges	Re: Engineering	Time & Materials	& WILL Affect	t Your Schedule>	TBA
	6:				D - I -	
<u>Customer</u>	<u> Signature:</u>				Date:	

STANDARD DETAILS NOTE:

EMAIL

TRANSMITTAL SENT:

SEE STANDARD DETAIL BOOKLET FOR ALL STANDARD DETAILS. THE DETAILS WITHIN THE BOOKLET COVER A WIDE RANGE OF CIRCUMSTANCES. IF THERE IS A DISCREPANCY BETWEEN THE BOOKLET AND THE CONSTRUCTION DRAWINGS, PLEASE USE THE DETAIL FROM THE CONSTRUCTION DRAWINGS.

FOR CONSTRUCTION

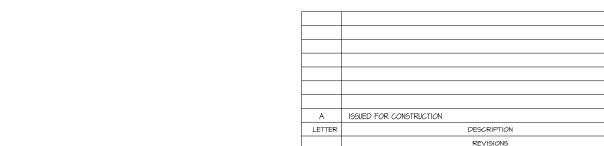
C.G. MAY 8/15 HOUSE ORDER

NAME DATE

|5'-|" \times |8'-6" \times 37'-6" [4597x5639x|1430] TOWER |5'-|" \times |4'-6" \times 9'-4 |/4" [4597x4420x285|] ANNEX

DEALER: WERNER-HERBISON-PADGETT OVERLAND PARK, KANSAS, 66214 FIRETOWER STOMER: Shearwater Fire Training Tower SHEARWATER, NS COMMERCIA BUILDING NAME: FIRE TRAINING SIMULATOR BUILDING JOB SITE: SHEARWATER, NS

Made Strong



CERTIFICATE OF DESIGN AND MANUFACTURING CONFORMANCE TO CSA STANDARD A660-M91

This certificate is to affirm that all components of the Steel Building System described below to be supplied by Behlen Industries LP certified in accordance to CSA Standard A660, have been or will be designed and fabricated in accordance with the following standards to carry the loads and load combinations specified.

I DESCRIPTION

I. DESCRIPTION
Manufacturer's Name and Address
Manufacturer's Certificate No. under CSA-A660
Sales Order Number
Building Size
Building Type
Intended Use and Occupancy
Importance Factor (NBCC CLause 4.1.2.1.(3))
Site Location
Applicable Building Code
Builder's Name and Address

Owner's Name and Address

BEHLEN INDUSTRIES LP; BRANDON, MANITOBA
BEHLEO .
103427
15'-1"x18'-6"x37'-6" [4597x5639x11430] TOWER 15'-1"x14'-6"x9'-4 1/4" [4597x4420x2851] AND
FIRETOWER
UTILITY
NORMAL
SHEARWATER, NS
NBCC 2010
WERNER-HERBISON-PADGETT - OVERLAND PARK, KANSAS, 66214
SHEARWATER FIRE TRAINING TOWER - SHEARWATER, NS

2. DESIGN	STANDARDS		Engineer Initials
CSA SI6, LI	ding Code (NBC) of Canada 2010, Part 4: Structural Design, mit States Design of Steel Structures North American Specification for the Design of Cold Fo Ifly)	ormed Steel Structural Members, dated:dated:	
3. MANUFA	ACTURING STANDARDS		
CSA SI3 (b) Welding CSA SI3 (c) Behlen I and/or (tion has been or will be in accordance with CSA 516 and 36, as applicable. Thas been or will be performed in accordance with CSA 36, as applicable. Industries LP has been certified in accordance with CSA CSA-N55.3 if applicable. Is have been qualified in accordance with CSA CSA-N55.	4-W59 and	BM BM BM
4. PURLIN	STABILITY		

4. PURLIN STABILITY	
Purlin braces are provided in accordance with CSA S136, Clause D3, and Appendix B Clause D3.2.3. In particular, for a standing seam roof supported on movable clips, braces providing lateral support to both top and bottom purlin flanges have been or will be provided. The number of rows is determined by analysis but in no case is less than I for spans up to 7 m (23 ft). Inclusive or less than 2 for spans greater than 7 m (23 ft).	_N/A_
5. LOADS (a) Snow and Rain Loads I-in-50 year ground snow load, Ss, <u>I.9</u> (kPa) I-in-50 year associated rain load, Sr, <u>O.6</u> (kPa) Basic roof snow load factor, Cb, <u>0.80</u> Wind exposure factor, Cw, <u>I.0</u> Importance factor, Is, U.S <u>I.0</u> SLS <u>0.75</u> Roof snow load, S, <u>2.12</u> (kPa)	
Drift load considered (NBS Sub-section 4.1.6.2.8) refer to drawing of specific building Specified rain load, (NBCC. clause 4.1.6.4) , <u>72</u> (mm/hr)	_BM_
(b) Full or Partial Snow Load (l) Applied on any one and any two adjacent spans of continuous purlins (ii) Applied on any one and any two adjacent spans of modular rigid frames with continuous roof beams	N/A N/A
(iii) Applied as described for the building geometry in NBC Part 4 and in the supplement to NBC, Commentary on Snow Loads.	_BM_
(c) Wind Load I-in-50 year reference velocity pressure <u>0.58</u> (kPa) Imortance Factor, Iw, ULS <u>I.O</u> SLS <u>0.75</u> Exposure Factor, Ce, <u>1.03</u>	_BM_
(d) Wind Load Application (i) Applied as per NBC Part 4, Section 4.1.7	

 (i) Applied as per NBC Part 4, Section 4.1.7 (ii) Pressure coefficients as per User's Guide - NBCC 2010 Structural Commentaries (Part 4). Commentary I: Wind Loads, Figures 13 through 112. (iii) Building Internal pressure Category 2 per User's Guide - NBC 2010 Structural Commentaries (Part 4, Commentary I: Wind Loads.) 	<u>BM</u>	
(e) Crane Loads (where applicable)		
Type(top-running) (jih)		
Vertical Impact Factor(%)		
Lateral Factor(%) lateral wheel load(%)		
Longitudinal Factor(%) maximim longitudinal load(%)	_N/A_	
(2)	N1/A	
(f) Mezzanine Live Load <u>4.80 (</u> kPa)	_N/A_	
(g) Seismic Load Applied as per NBC, Part 4, Section 4.1.8 Section 2.1.0.23 Section 2.1.5 Section 2.1.8		
Soil Site Classification D	_BM_	
	(ii) Pressure coefficients as per User's Guide - NBCC 2010 Structural Commentaries (Part 4). Commentary I: Wind Loads, figures I3 through II2. (iii) Building Internal pressure Category 2 per User's Guide - NBC 2010 Structural Commentaries (Part 4, Commentary I: Wind Loads.) (e) Crane Loads (where applicable) Type (top-running) (under-running) (jib) Capacity (tonnes) (tons) Wheel base (m) (ft) Maximum static vertical wheel load (kN) (kips) Vertical impact Factor (%) lateral wheel load (%) Lateral Factor (%) maximim longitudinal load (%) (f) Mezzanine Live Load 4.80 (kPa) (g) Seismic Load Applied as per NBC, Part 4, Section 4.1.8 Sa(0.2) 0.23 Sa(0.5) 0.15 Sa(1.0) 0.05 Sa(2.0) 0.021 Fa 1.30 Fv 1.40 le (UL5) 1.0	(ii) Pressure coefficients as per User's Guide - NBCC 2010 Structural Commentaries (Part 4). Commentary I: Wind Loads, figures 13 through II:2. (iii) Building Internal pressure Category 2 per User's Guide - NBC 2010

(h) Other Live Loads (specify)SNOW DRIFT ACCUMULATION (TOWER) 0.93 kPa SNOW DRIFT ACCUMULATION (ANNEX) 2.28 kPa
(j) Dead Loads Dead load of building components is incorporated in the design. Collateral loads (mechanical, electrical, ceiling, sprinklers, etc.) <u>0.77</u> (kPa) Mezzanine <u>2.73</u> (kPa) (psf) (REFER TO DESIGN LOAD TABLES ON DRAWING 104) Other (specify).

6. GENERAL REVIEW DURING CONSTRUCTION

Applied in accordance with NBC, Part 4, Section 4.1

Behlen Industries LP does not provide general review during construction for regulatory purposes.

7. CERTIFICATION BY ENGINEER

(k) Load Combinations

I<u>B.R. McLARTY</u>, a Professional Engineer registered or licensed to practice in the Province or Territory of <u>NOVA 5COTIA</u>, hereby certify that I have reviewed the design and manufacturing process for the Steel Building System described. I certify that the foregoing statements, initialled by myself, are true.

Signature
Name B.R. McLARTY
TITLESENIOR DESIGN ENGINEER
Affiliation BEHLEN INDUSTRIES LP
Date

GENERAL

THIS DRAWING INCLUDING INFORMATION HEREON, REMAINS
THE PROPERTY OF BEHLEN INDUSTRIES LP. IT IS PROVIDED
SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE
PURCHASE ORDER AND SHALL NOT BE MODIFIED, REPRODUCED
OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR
WRITTEN APPROVAL OF BEHLEN INDUSTRIES LP.

THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE, GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN CONFORMANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION INCLUDING THE PROPER USE OF TEMPORARY BRACING. BEHLEN INDUSTRIES IS NOT RESPONSIBLE FOR ERRORS, OMISSIONS OR DAMAGES INCURRED IN THE ERECTION OF THE COMPONENTS SHOWN ON THIS DRAWING, NOR FOR THE INSPECTION OF ERECTED COMPONENTS TO DETERMINE SAME.

THIS CERTIFICATION AND ENGINEERING SEAL APPLIES ONLY TO PRODUCTS DESIGNED AND FABRICATED BY BEHLEN INDUSTRIES FOR THE LOADING CONDITIONS DESIGNATED ON THESE DRAWINGS. CONCRETE FOUNDATIONS, STEEL COMPONENTS BY OTHERS AND ERECTION SUPERVISION ARE NOT THE RESPONSIBILITIES OF BEHLEN INDUSTRIES OR THE CERTIFYING ENGINEER.

ANCHOR BOLTS

ANCHOR BOLTS ARE NOT FURNISHED AS PART OF THIS BUILDING

ANCHOR BOLT DIAMETERS ARE DETERMINED IN ACCORDANCE WITH CSA STANDARD CAN3-SI6.I USING Fy = 36 KSI. ANCHOR BOLT LENGTHS AND LOAD TRANSFER TO THE FOUNDATION ARE TO BE DETERMINED BY OTHERS.

FOUNDATION MUST BE LEVEL, SQUARE AND SMOOTH. ANCHOR BOLTS MUST BE ACCURATELY PLACED AS SHOWN ON THE DRAWINGS.

THE CONCRETE CROSS SECTIONS SHOW SOME RECOMMENDED MINIMUMS BUT IS NOT MEANT TO BE USED AS A FINAL DESIGN. THE CONCRETE FOUNDATION THAT IS USED IN THIS BUILDING SHOULD BE IN ACCORDANCE WITH LOCAL PRACTICES, AND SATISFY THE LOCAL BUILDING CODES

ALL DIMENSIONS SHOWN ARE TO THE BUILDING CONCRETE LINE

FINISHED FLOOR ELEVATION, UNDERSIDE OF FOOTING CHANNEL AND UNDERSIDE OF BASE PLATE IS 100° -0" UNLESS NOTED

ERECTION

THE ERECTOR MUST PROVIDE SAFE WORKING CONDITIONS AND PRACTICES CONFORMING TO ALL SAFETY REGULATIONS. ALL LIFTING DEVICES ARE TO BE SPECIFICALLY DESIGNED TO LIFT THE VARIOUS BUILDING COMPONENTS. SLINGS AND SPREADER BARS ARE TO BE USED TO PREVENT PERMANENT DEFORMATION OF ALL STRUCTURAL COMPONENTS.

ERECTION SHOULD START AT ONE ENDWALL. ERECT FIRST SIDEWALL PANEL WITH CORNER PANEL, USE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY OF THE PANELS, RAISE FIRST CELLING PANEL AND MISCELLANEOUS ENDWALL PANELS, LEAVING ENDWALL PARTIALLY OPEN TO MINIMIZE WIND PRESSURE. CONTINUE ERECTION, INSTALLING SIDEWALL AND CELLING PANELS, GUSSETS AND STRUTS, ROOF PANELS, BOLTS AND SEALANTS AS SPECIFIED ON THE ERECTION DRAWINGS, AND THE BEHLEN ERECTION PROCEDURES MANUAL.

ENSURE THE STRUCTURE REMAINS PLUMB AND SQUARE. ERECTION TOLERANCES SHALL BE IN ACCORDANCE WITH CAN/CSA-SI6.

ALL PRE PUNCHED HOLES TO BE BOLTED UNLESS OTHERWISE SPECIFIED.

ERECTION OF STRUCTURAL STEEL SHOULD START AT THE SAME ENDWALL. ERECT AND TEMPORARILY SUPPORT FRAMES. USE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY OF THE FRAMES. PLUMB AND SQUARE FRAMES IN ACCORDANCE WITH CAN/CSA-SI6. INSTALL ALL FINAL BRACING.

FASTEN FOOTING CHANNEL OF STUB WALL PANELS TO TOP OF STRUCTURAL STEEL BY PUDDLE WELDING PLATE WASHERS AT 20 1/2" AS SPECIFIED ON THE ERECTION DRAWINGS.

PANEL STORAGE

_N/A

BM

BM

GALVANIZED, ALUMINIZED, AND COLORED MATERIALS ARE SUBJECT TO CORROSION AND DISCOLORATION IF THEY ARE IMPROPERLY STORED. THESE MATERIALS MUST BE KEPT DRY AT ALL TIMES, PROTECTION FROM RAINFALL ALONE IS OFTEN INADEQUATE, HIMID AIR COMBINED WITH TEMPERATURE CHANGES MAY CAUSE CONDENSATION, WHICH CAN CAUSE MOISTURE TO FORM BETWEEN THE PANELS. TO AVOID DAMAGE, THE MATERIALS MUST BE SEPARATED TO ALLOW AIR FLOW ON ALL SURFACES.

BEHLEN INDUSTRIES LP SHALL NOT BE HELD RESPONSIBLE FOR MATERIALS WHICH ARE IMPROPERLY PROTECTED AFTER DELIVERY.

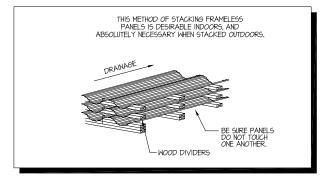
STRUCTURAL BOLTS

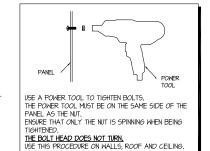
ALL ASTM A325 & A490 BOLTS SHALL BE TIGHTENED USING THE "TURN-OF-NUT" METHOD SPECIFIED IN CAN3-516.1 ALL PRIMARY FRAMING CONNECTION BOLTS SHALL BE BROUGHT TO A "SNUG-TIGHT" CONDITION ENSURING THAT THE CONNECTION PLATES ARE IN FULL CONTACT WITH EACH OTHER. "SNUG-TIGHT" CONDITION IS ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A PERSON USING A SPUD WRENCH, WHEN ALL BOLTS ARE "SNUG-TIGHT" EACH BOLT SHALL THEN BE TIGHTENED ADDITIONALLY BY THE APPLICABLE NUT ROTATION GIVEN IN THE TABLE BELOW, WITH TIGHTENING PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID PART OF THE CONNECTION TO THE FREE EDGES, DURING THE OFFARTION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH.

BOLT LENGTH (MEASURED FROM UNDERSIDE OF THE HEAD TO THE EXTREME END OF POINT) UP TO AND INCLUDING 4 DIAMETERS	<u>TURN</u> 1/3
OVER 4 DIAMETERS AND NOT EXCEEDING 8 DIAMETERS OR 8 INCHES	1/2
EXCEEDING 8 DIAMETERS OR 8 INCHES	2/3

NOTE: NUT ROTATION IS ROTATION RELATIVE TO A BOLT REGARDLESS THE NUT OR BOLT BEING TURNED. TOLERANCE ON ROTATION: 30° OVER OR UNDER.

ALL WALL PANELS ARE 186A 4 1/2 UNLESS NOTED OTHERWISE
ALL ROOF PANELS ARE 136A 1 1/2 UNLESS NOTED OTHERWISE
ALL FLOOR JOISTS ARE 10 C 14 (10" DEEP, 14 6A) UNLESS NOTED OTHERWISE
ALL VERTICALS ARE 4 1/2 C 12 (4 1/2" DEEP, 126A) UNLESS NOTED OTHERWISE
ALL DECKING IS ELITE RIB 246A GALVANIZED UNLESS NOTED OTHERWISE
ALL STAMPED LOUVERS ARE FACTORED INTO DESIGN.





DEFLECTION LIMI	TS
FLOOR/ROOF JOISTS SUPPORT JOISTS ROOF PANELS WALL PANELS BUILDING LATERAL - WIND BUILDING LATERAL - SEISMIC	L/240 L/240 L/240 L/120 H/200 H/60

LETTER

ISSUED FOR CONSTRUCTION

DESCRIPTION

REVISIONS

MATERIAL SPECIFICATIONS

MATERIAL	SPECIFICATION	GRADE	COATING
ROLLED L, S & C SECTIONS	CSA 640.21	44W (300W)	
ROLLED W SECTIONS	CSA 640.21	50W (350W)	
HSS SECTIONS	CSA 640.21 CLASS C	50W (350W)	
	ASTM A500 CLASS C	50	
PIPE SECTIONS	ASTM A53	GRADE B	
PLATE (FLANGES & WEBS)	CSA 640.21 / ASTM	50W (350W)	
	A529, A572, AIOII		
SHOP PRIMER	CGSB 1-GP-40M		
DIAGONAL BRACE ROD	CSA 640.21	44W (300W)	
DIAGONAL BRACE CABLE	ASTM A475	EXTRA HIGH STRENGTH	
CORRUGATED PANELS			
GALVANIZED	ASTM A653 SQ	40 MIN	Z275 ZINC
GALVALUME	ASTM A792 SQ	40 MIN	AZI65 AL. ZINC
PAINTED	ASTM A653 SQ	40 MIN	Z275 ZINC
LIGHT GAUGE SECTIONS	ASTM A653 HSLA-F SQ	33 MIN & 55 CLI	Z275 ZINC
BOLTS LARGER THAN 1/2" P	ASTM A325		
I/2" Φ BOLTS	SAE	5 OR 8.2	ELECTROPLATE ZINC
3/8" Φ BOLTS	AISI CIOI8/1020	2,5 OR 8.2	DT1500 OR JS500
SEALANTS	CGSB 19-GP-14M		

PARTITION WALLS

THE ROOF SYSTEM WILL DEFLECT UNDER LIVE LOAD AND WITH TEMPERATURE VARIANCES.

INTERIOR PARTITION WALLS MUST BE CONSTRUCTED WITH A SUFFICIENT SPACE BETWEEN THE TOP OF WALL AND THE UNDERSIDE OF CEILING SO THAT NO CONTACT IS MADE UNDER MAXIMUM DEFLECTION.
FAILURE TO DO SO WILL CREATE EXCESSIVE STRESSES IN THE ROOF SYSTEM.
CONSULT FACTORY FOR DEFLECTION SPECIFICATIONS AND/OR CONNECTION

FASTENER SCHEDULE									
LOCATION	LOCATION QTY PART NO. DESCRIPTION GRADE/TYPE								
ROOF PANEL	-	999875	PHILLIPS KIT 750 - 3/8" x I I/4" [I0x32]	2	DTI500	GALV.			
WALL PANEL	-	999875250	PHILLIPS KIT 750 - 3/8" x I I/4" [I0x32]	2	DTI500	DARK RED			
CORNER PANEL	-	999875305	PHILLIPS KIT 750 - 3/8" x I I/4" {I0x32]	2	DTI500	STONE GREY			
ACCESSORIES FRAMES RWF WEAR PLATES FLOORS		TS0305121500 TS0250121500 TS0305121500 TS0001121000	TEK SCREM 12-14 x 1 1/2" [38] TEK SCREM 12-14 x 1 1/2" [38] TEK SCREM 12-14 x 1 1/2" [38] TEK SCREM 12-14 x 1" [25]		 	STONE GREY DARK RED STONE GREY GALV.			

ALL FASTENERS LISTED ARE TYPICAL UNLESS NOTED OTHERWISE ON DRAWINGS.

FOR CONSTRUCTION GENERAL

CHECKED BY

MAY 8/15 HOUSE ORDER

DATE

NAME

| 15'-|" X 18'-6" X 37'-6" [4597x5639x11430] TOWER | 15'-|" X 14'-6" X 9'-4 1/4" [4597x4420x2851] ANNEX

GENERAL INFORMATION AND CONFORMANCE

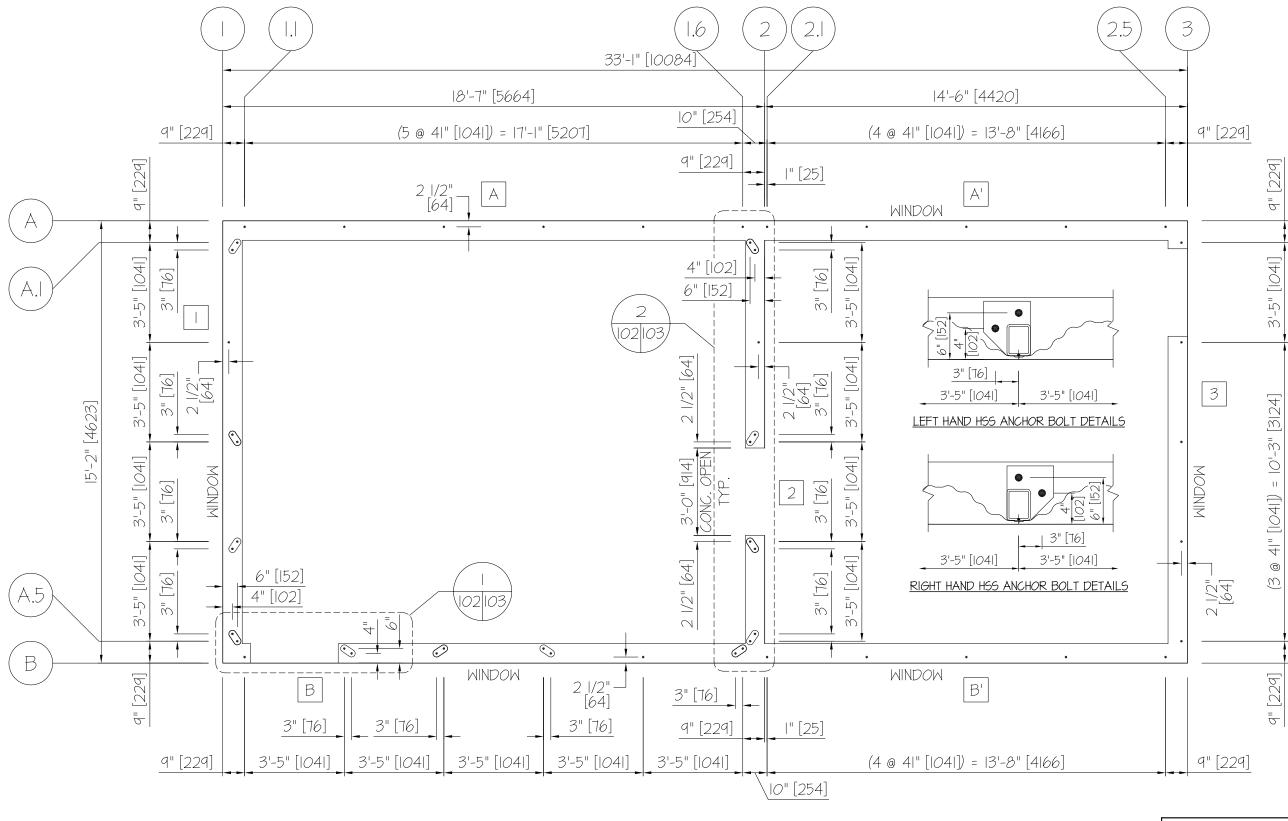
DEALER: WERNER-HERBISON-PADGETT OVERLAND PARK, KANSAS, 66214

CUSTOMER: Shearwater Fire Training Tower SHEARWATER, NS

BUILDING NAME: FIRE TRAINING SIMULATOR



^{*} Initial each true statement. Mark N/A if statement does not apply.



A ~ TYPICAL WALL MARK INDICATOR, SEE SCHEDULE ON SHEET 104

(I.I) ~ TYPICAL GRIDLINE AT 41" INCREMENTS

					15'-
		FOR	CONS	TRUCTION	AN
				BUILDING TYPE: FIRETOWER	DEA
				use. UTILITY	CUS
				DRAWN BY:	BUIL
				CHECKED BY:	
A	ISSUED FOR CONSTRUCTION	TV	MAY 8/15	HOUSE ORDER	
LETTER	DESCRIPTION	NAME	DATE	103427	92
	REVISIONS			100121	60

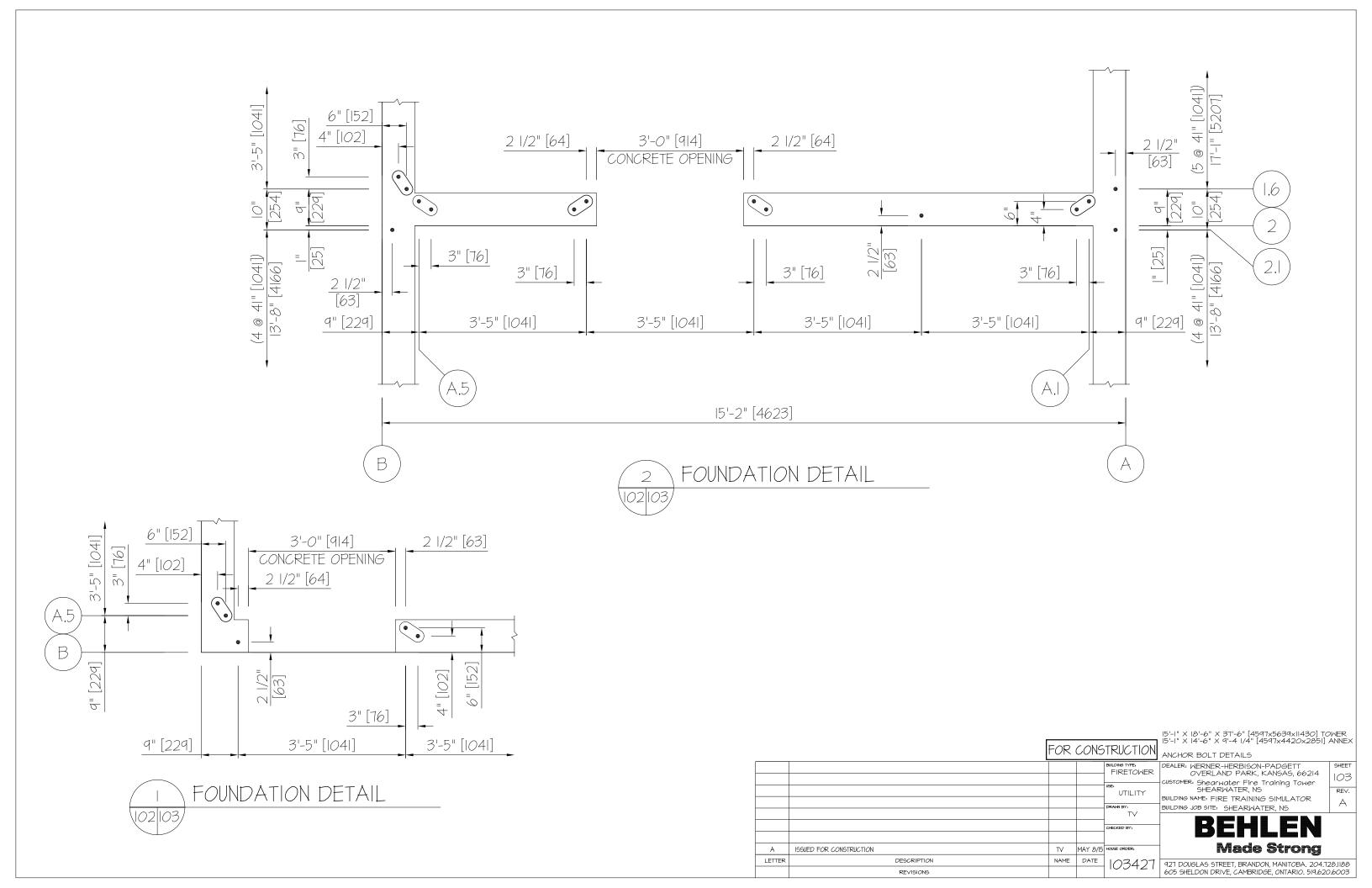
|5'-|" X |8'-6" X 37'-6" [4597x5639x||430] TOWER |5'-|" X |4'-6" X 9'-4 |/4" [4597x4420x2851] ANNEX

ANCHOR BOLT PLAN

DEALER: WERNER-HERBISON-PADGETT OVERLAND PARK, KANSAS, 66214 CUSTOMER: Shearwater Fire Training Tower SHEARWATER, NS

BUILDING NAME: FIRE TRAINING SIMULATOR
BUILDING JOB SITE: SHEARWATER NG

BEHLEN Made Strong



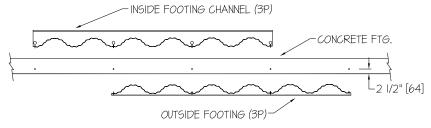
SHEARWATER, NS

DESIGN LOADS	
(NBCC 2010)	
, ,	NDV Naal
IMPORTANCE CATEGO	
SNOW - Ss	1.9 kPa (39.71 PSF)
SNOW - Sr	0.6 kPa (12.54 PSF)
DRIFT SURCHARGE	
TOWER	0.93 kPa (19.45 PSF)
ANNEX	2.28 kPa (47.65 PSF)
WIND - Q1/50	0.58 kPa (12.12 PSF)
WIND EXPOSURE	Open Terrain
SEISMIC - SA(0.2)	0.230
SEISMIC - SA(0.5)	0.150
SEISMIC - SA(I.O)	0.085
SEISMIC - SA(2.0)	0.027
SEISMIC - SITE CLASS	D
ROOF LIVE	4.8 kPa (100 PSF)
FLOOR LIVE	4.8 kPa (100 PSF)
ATTIC LIVE	4.8 kPa (100 PSF)
COLLATERAL	0.24 kPa (5 PSF)
DEAD	0.24 kPa (5 PSF)
4" CONCRETE SLAB	1.85 kPa (38 PSF)
PADGENITE	0.43 kPa (9 PSF)
ROOF PANELS SPAN	N-S
ROOF & FLOOR JOIST	S SPAN E-W

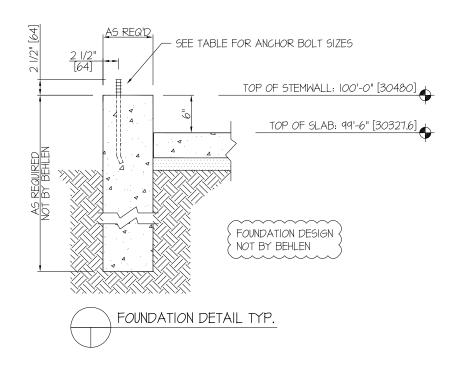
TOWER	
BUILDING SPAN 15'-1" [4597]	
BUILDING LENGTH 18'-6" [5639]	
BUILDING HEIGHT 37'-6" [11430]	
ANNEX	
BUILDING SPAN 15'-1" [4597]	
BUILDING LENGTH 14'-6" [4420]	
BUILDING HEIGHT 9'-4 1/4" [2851]	

WALL	ANCHOR		GRAVITY LOAD (lbs/ft,[kN/m])				SEISMIC SHEAR			CONCENTRATE	ED REACTIONS	
ID	BOLTS	(103/10,	[[<1,1]]	LOAD	LOAD	GRID	DEAD	LIVE	MIND	SEISMIC		
		DEAD	LIVE	(lbs, [kN])	(lbs, [kN])	LINE	(kips, [kN])	(kips, [kN])	(kips, [kN])	(kips, [kN])		
			400	8747	8595	1.1			±10.96 [±48.75]	±13.20 [±58.72]		
A	I" [25]	[3.33]	[5.84]	[38.91]	[38.23]	1.6			±10.96 [±48.75]	±13.20 [±58.72]		
						1.1	0.39 [1.73]	0.68 [3.02]				
		228	400	8747	<i>8</i> 595	1.2	0.39 [1.73]	0.68 [3.02]	±18.27 [±81.27]	±22.00 [±97.86]		
В	I" [25]	[3.33]	[5.84]	[38.91]	[38.23]	1.3	0.39 [1.73]	0.68 [3.02]	±18.27 [±81.27]	±22.00 [±97.86]		
		[5.55]	[3.04]	[50.41]	[50.25]	1.4	0.39 [1.73]	0.68 [3.02]	±18.27 [±81.27]	±22.00 [±97.86]		
						1.6			±18.27 [±81.27]	±22.00 [±97.86]		
Α'	3/4" [19]	144	755			2.2	0.25 [I.II]	1.29 [5.74]				
	J/4 [11]	[2.10] [11.02]				2.3	0.25 [I.II]	1.29 [5.74]				
B'	3/4" [19]	ı" [1a] 144 755				2.2	0.25 [I.II]	1.29 [5.74]				
D	3/4 [11]	[2.10]	[11.02]			2.3	0.25 [I.II]	1.29 [5.74]				
						A.I			±22.44 [±99.82]			
	l" [25]	l" [25] 2 2 37 <i>00</i>	10746	6934	A.3	3.61 [16.06]	6.32 [28.11]	±22.44 [±99.82]	±18.80 [±83.63]			
'	1 [23]	[30.82]	[54.00]	[47.80]	[30.85]	A.4	3.61 [16.06]	6.32 [28.11]		±18.80 [±83.63]		
						A.5				±18.80 [±83.63]		
						A.I			1	±22.00 [±97.86]		
2	l" [25]	1" [25]	2 3	3800	11926	8595	A.3	3.64 [16.19]	6.49 [28.87]	±23.59 [±104.94]		
_	1 [23]	[31.10]	[55.46]	[53.05]	[38.23]	A.4	3.64 [16.19]	6.49 [28.87]		±22.00 [±97.86]		
						A.5			±23.59 [±104.94]	±22.00 [±97.86]		
						A.I	0.03 [0.13]	0.17 [0.76]				
		19	119	1180	899	A.2	0.03 [0.13]	0.17 [0.76]	±1.73 [±7.70]	±1.32 [±5.87]		
3	3/4" [19]	[0.28]	[1.46]	[5.25]	[4.00]	A.3	0.03 [0.13]	0.17 [0.76]	±1.73 [±7.70]	±1.32 [±5.87]		
		[0.20]	[0]	[0.20]	[A.4	0.03 [0.13]	0.17 [0.76]	±1.73 [±7.70]	±1.32 [±5.87]		
						A.5			±1.73 [±7.70]	±1.32 [±5.87]		

- I. ALL GRID LINES INDICATE CONCRETE LINES.
- 2. SHEAR LOADS & UPLIFT REACTIONS HAVE NOT BEEN REDUCED.
- + DOWNWARD, UPLIFT
- 3. SHEAR LOADS MAY REVERSE.



ERECTION NOTE: STAGGER FOOTING CHANNEL AS SHOWN



|" X |8'-6" X 37'-6" [4597x5639x||430] TOWER |" X |4'-6" X 9'-4 |/4" [4597x4420x285|] ANNEX

CHOR BOLT DETAILS

NLER: WERNER-HERBISON-PADGETT OVERLAND PARK, KANSAS, 66214 TOMER: Shearwater Fire Training Tower SHEARWATER, NS UTILITY BUILDING NAME: FIRE TRAINING SIMULATOR BUILDING JOB SITE: SHEARWATER, NS

TV MAY 8/15 HOUSE ORDER.

NAME DATE

Made Strong

103427 927 DOUGLAS STREET, BRANDON, MANITOBA. 204.728.1188 605 SHELDON DRIVE, CAMBRIDGE, ONTARIO. 519.620.6003

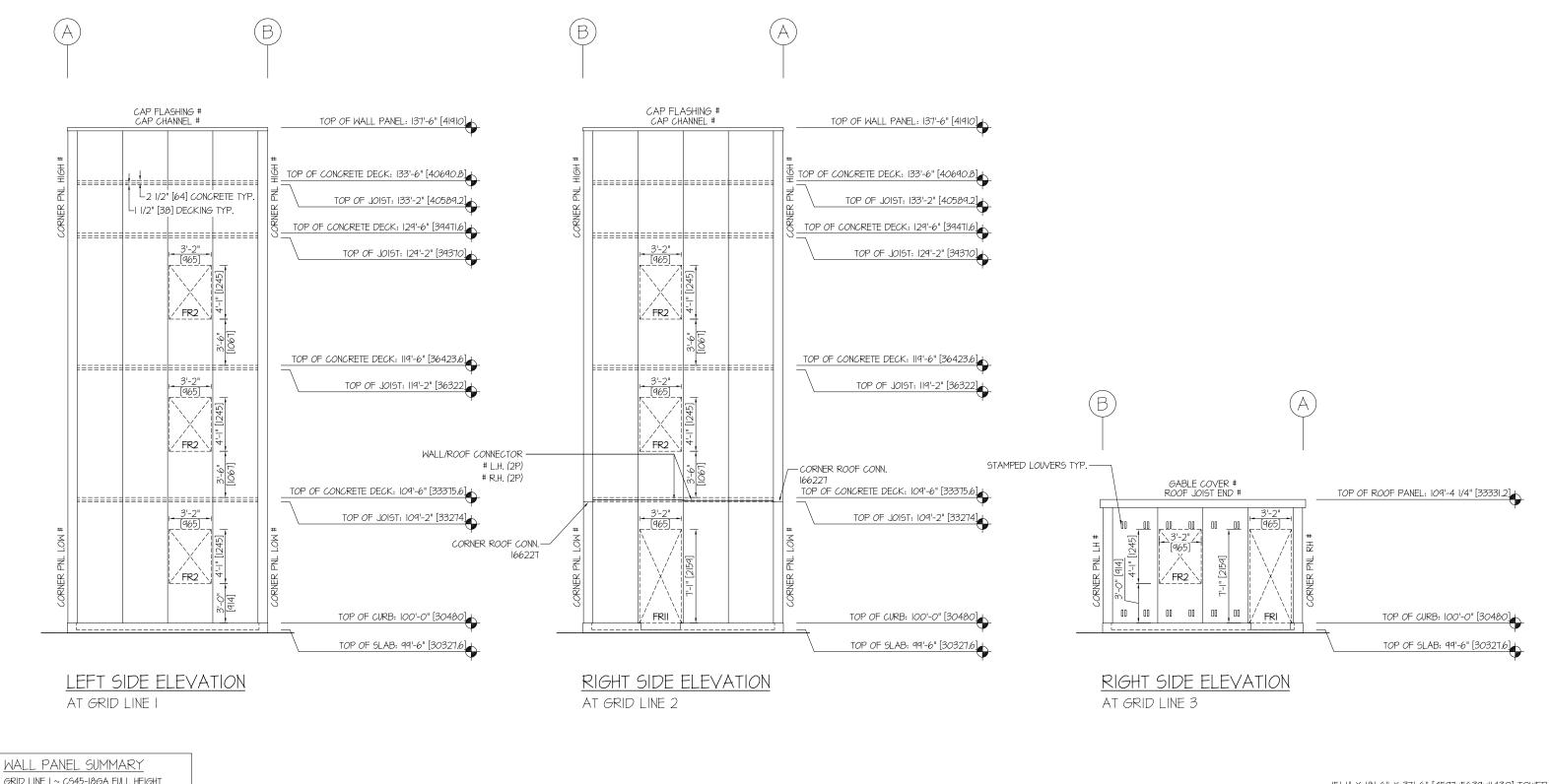
ſ	FOR	CONG	TRUCTION	15'-1" 15'-1"
Į.	IUN	CONS	TRUCTION	ANCH
			BUILDING TYPE: FIRETOWER	DEALE
				CUSTO
			USE:	

DESCRIPTION

REVISIONS

A ISSUED FOR CONSTRUCTION

LETTER



GRID LINE I ~ CS45-I8GA FULL HEIGHT GRID LINE 2 ~ CS45-18GA FULL HEIGHT

GRID LINE 3 ~ CS45-18GA FULL HEIGHT

ALL SIDE WALL, END WALL, RIGIDIZED PANELS, AND WALL FLASHINGS ARE **DARK RED**.

ALL ROOF PANELS ARE <u>GALVANIZED</u>.
ALL GABLE COVERS, BUMPERS, PARAPET CAPS, CORNER PANELS AND FRAMED OPENINGS ARE <u>STONE GREY</u>. 13 WEAR PLATES REQ'D STONE GREY.

STAMPED LOUVERS:

THE TOP OF ALL LOWER STAMPED LOUVERS ARE I'-O" [305] ABOVE THE STEM WALL AND I'-0" [305] ABOVE THE FINISHED FLOOR ELEVATIONS AT ALL UPPER LEVELS. THE TOP OF ALL UPPER STAMPED LOUVERS ARE 7'-8" [2337] ABOVE THE STEM WALL AND 7'-8" [2337] ABOVE THE FINISHED FLOOR ELEVATIONS AT ALL UPPER LEVELS

FOR CONSTRUCTION

FIRETOWER UTILITY C.G. ISSUED FOR CONSTRUCTION MAY 8/15 HOUSE ORDER LETTER DESCRIPTION NAME DATE

REVISIONS

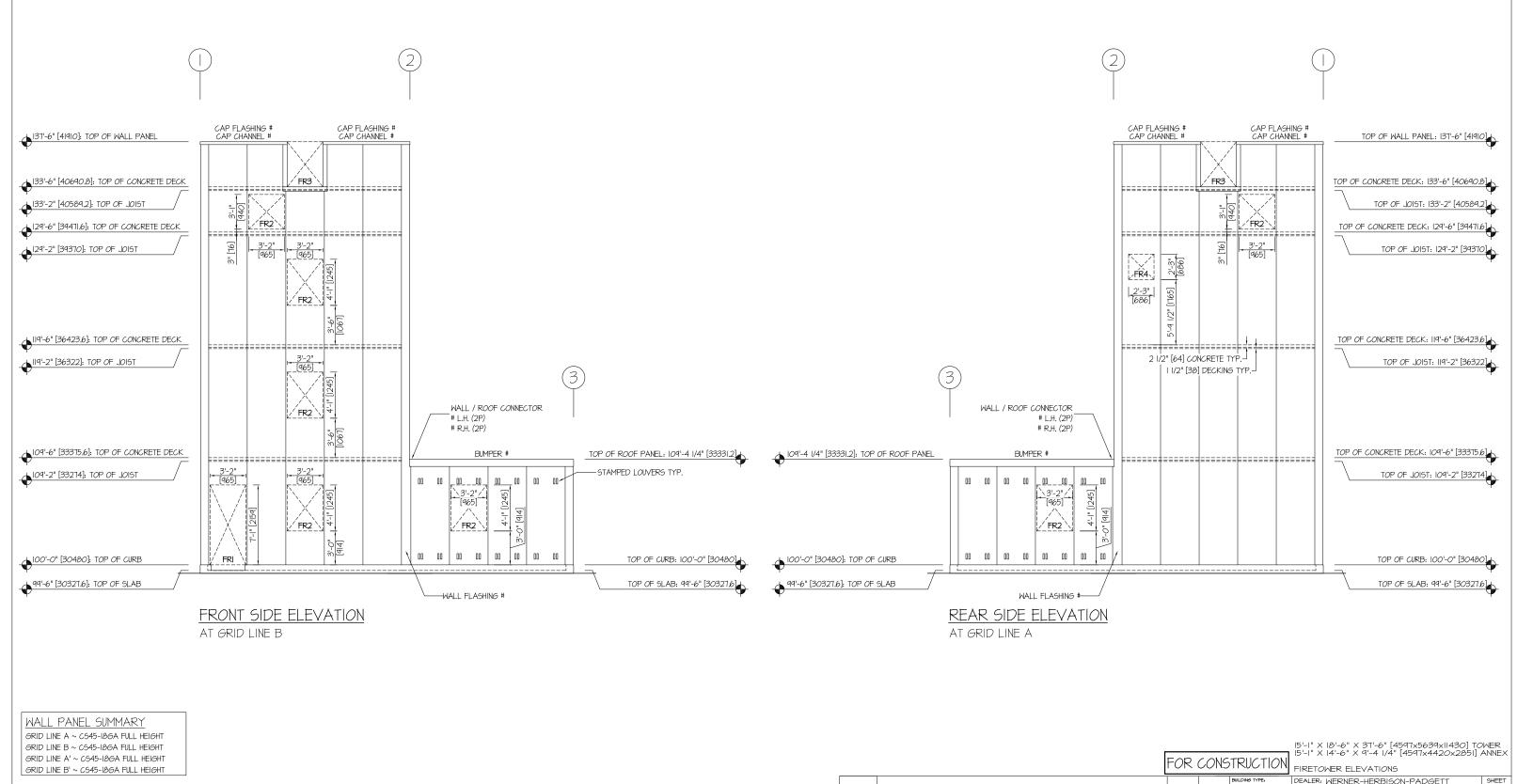
|5'-|" \times |&'-6" \times 37'-6" [4597x5639x||430] TOWER |5'-|" \times |4'-6" \times 9'-4 |/4" [4597x4420x2851] ANNEX

FIRETOWER ELEVATIONS

DEALER: WERNER-HERBISON-PADGETT OVERLAND PARK, KANSAS, 66214 ISTOMER: Shearwater Fire Training Tower SHEARWATER, NS

BUILDING NAME: FIRE TRAINING SIMULATOR BUILDING JOB SITE: SHEARWATER, NS

Made Strong



ALL SIDE WALL, END WALL, RIGIDIZED PANELS, AND WALL FLASHINGS ARE <u>DARK RED</u>.

ALL ROOF PANELS ARE <u>GALVANZED</u>.
ALL GABLE COVERS, BUMPERS, PARAPET CAPS, CORNER PANELS AND FRAMED OPENINGS ARE <u>STONE GREY</u>. 13 WEAR PLATES REQ'D STONE GREY.

STAMPED LOUVERS:

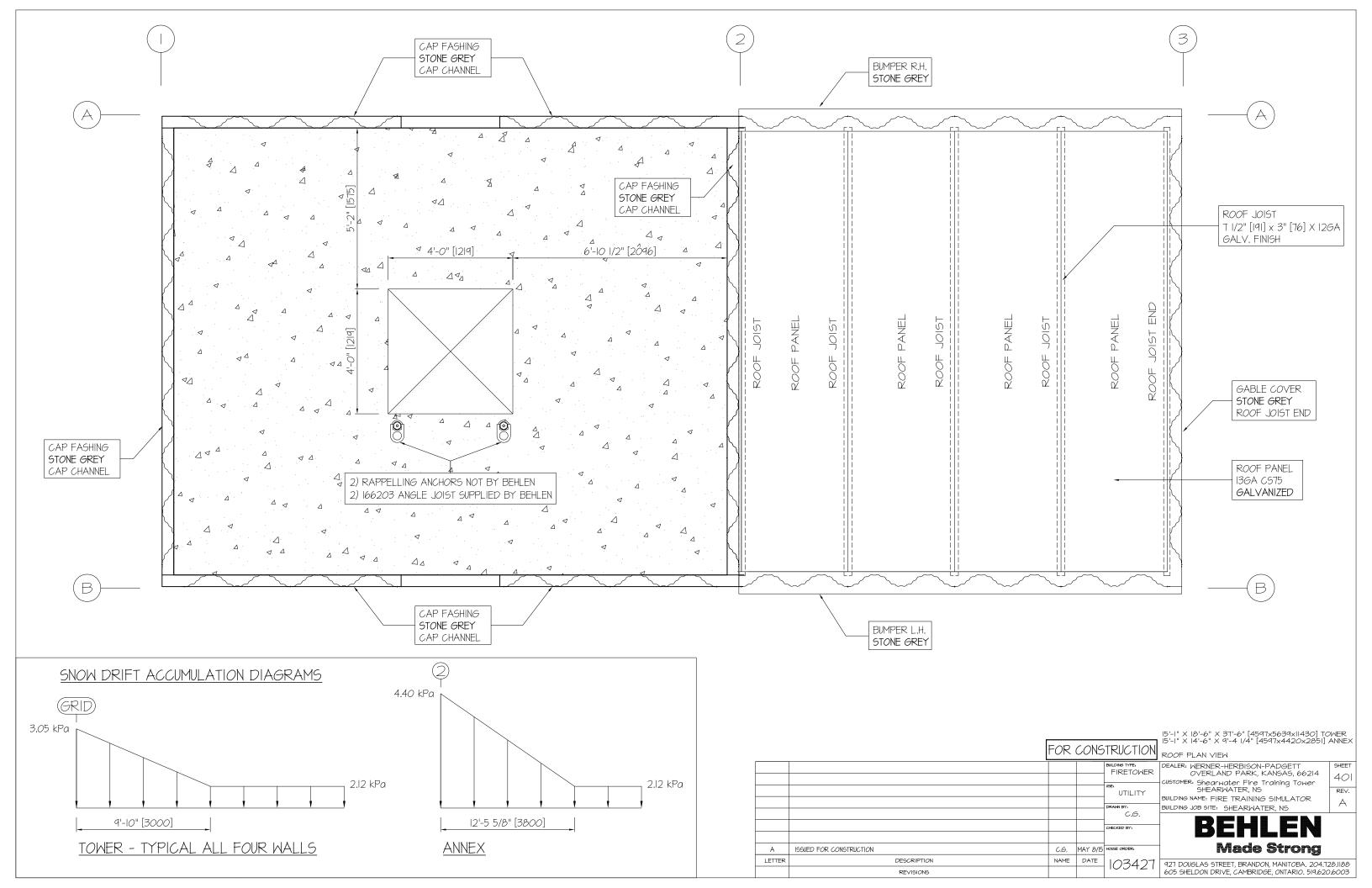
THE TOP OF ALL LOWER STAMPED LOUVERS ARE I'-O" [305] ABOVE THE STEM WALL AND I'-O" [305] ABOVE THE FINISHED FLOOR ELEVATIONS AT ALL UPPER LEVELS. THE TOP OF ALL UPPER STAMPED LOUVERS ARE 7'-8" [2337] ABOVE THE STEM WALL AND 7'-8" [2337] ABOVE THE FINISHED FLOOR ELEVATIONS AT ALL UPPER LEVELS.

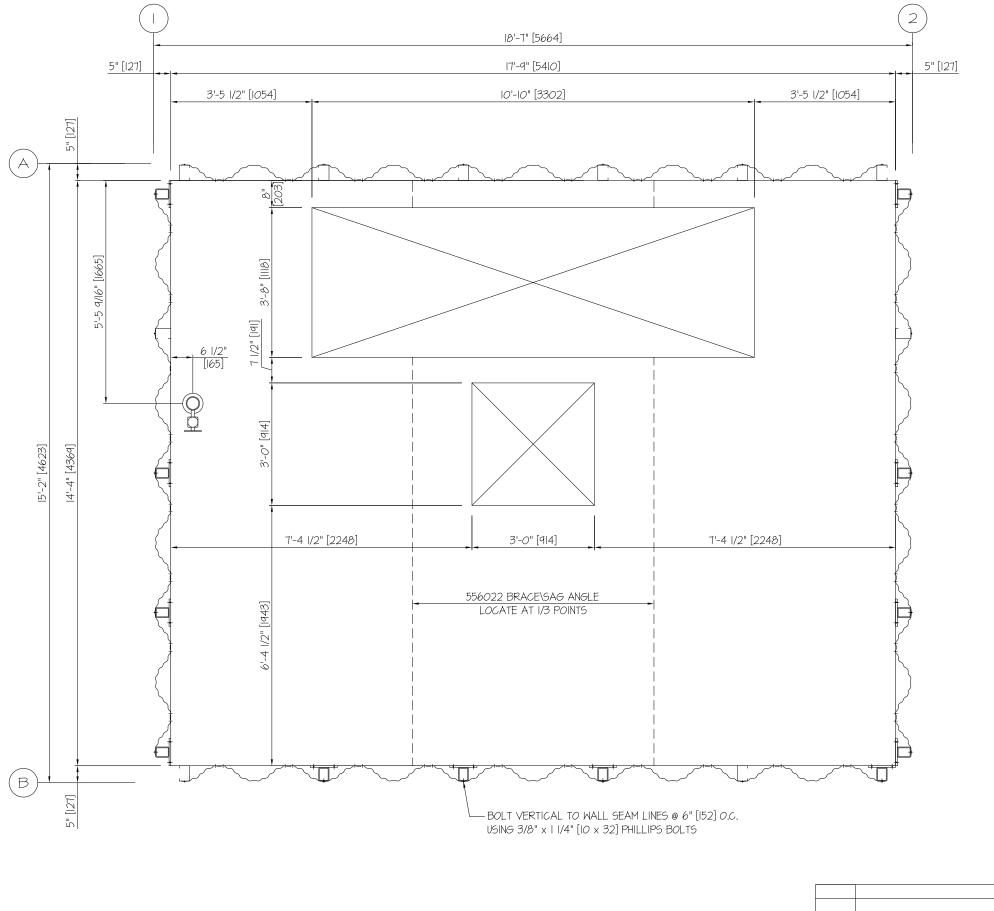
FIRETOWER UTILITY C.G. MAY 8/15 HOUSE ORDER ISSUED FOR CONSTRUCTION DESCRIPTION NAME DATE

DEALER: WERNER-HERBISON-PADGETT OVERLAND PARK, KANSAS, 66214 USTOMER: Shearwater Fire Training Tower SHEARWATER, NS

BUILDING NAME: FIRE TRAINING SIMULATOR BUILDING JOB SITE: SHEARWATER, NS

Made Strong





ELITE RIB DECKING - 246A

36" [914] COVERAGE 1/2"

DECKING NOTE: DECKING SHALL BE FASTENED TO JOISTS WITH A MINIMUM #12 TEK SCREW @ 12" ACROSS THE WIDTH OF THE PANEL AND @ 6" [152] AROUND THE PERIMETER OF THE BUILDING. SIDE LAPS SHALL BE STITCHED @ 12" [305] O.C.

FLASHING NOTE: FLASHING SHALL BE FASTENED TO DECK/JOISTS WITH A MINIMUM #12 TEK SCREW @ 6" [152] O.C.

BRACE ANGLE NOTE: BRACE ANGLE - L | 3/8" x | 3/8" [35 x 35] 12 GA. TWO ROWS AT THIRD POINTS.

FOR CONSTRUCTION

|5'-|" \times |8'-6" \times 37'-6" [4597 \times 5639 \times |1430] TOWER |5'-|" \times |4'-6" \times 9'-4 |/4" [4597 \times 4420 \times 265|] ANNEX

DEALER: WERNER-HERBISON-PADGETT OVERLAND PARK, KANSAS, 66214 STOMER: Shearwater Fire Training Tower SHEARWATER, NS

BUILDING NAME: FIRE TRAINING SIMULATOR BUILDING JOB SITE: SHEARWATER, NS

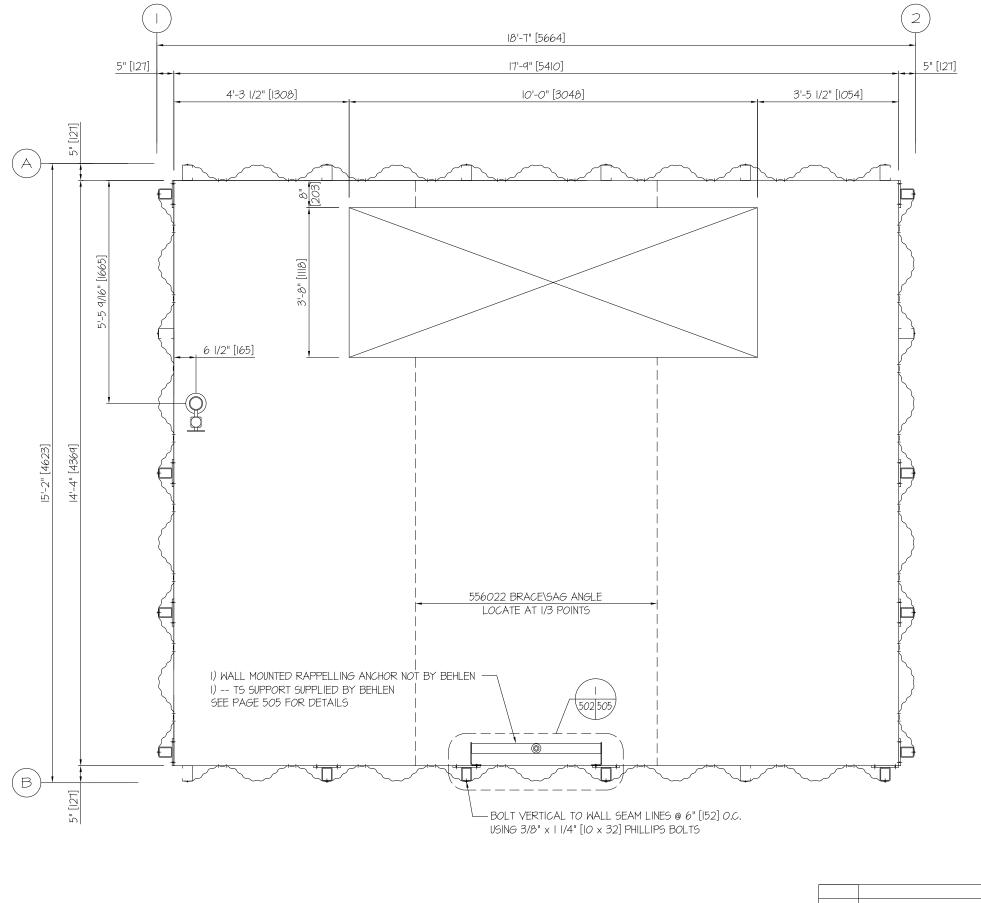
Made Strong

103427 927 DOUGLAS STREET, BRANDON, MANITOBA. 204,728,1188 605 SHELDON DRIVE, CAMBRIDGE, ONTARIO. 519,620,6003

BUILDING TYPE: FIRETOWER UTILITY C.G. A ISSUED FOR CONSTRUCTION C.G. MAY 8/15 HOUSE ORDER. LETTER DESCRIPTION NAME DATE

REVISIONS

DECKING SHALL BE FASTENED TO JOISTS WITH A MINIMUM #12 TEK SCREW @ 3" [76] O.C. ALONG THE LENGTH OF THE THE FLOOR OPENING TYPICAL ON ALL FOUR SIDES



ELITE RIB DECKING - 24GA

36" [914] COVERAGE 1 1/2

DECKING NOTE: DECKING SHALL BE FASTENED TO JOISTS WITH A MINIMUM #12 TEK SCREW @ 12" ACROSS THE WIDTH OF THE PANEL AND @ 6" [152] AROUND THE PERIMETER OF THE BUILDING. SIDE LAPS SHALL BE STITCHED @ 12" [305] O.C.

FLASHING NOTE: FLASHING SHALL BE FASTENED TO DECK/JOISTS WITH A MINIMUM #12 TEK SCREW @ 6" [152] O.C.

BRACE ANGLE NOTE: BRACE ANGLE - L | 3/8" x | 3/8" [35 x 35] 12 GA. TWO ROWS AT THIRD POINTS.

ULTIMATE RAPPELLING LOAD NOT TO EXCEED 3000 LBS [1360 kg] WHEN USING WALL MOUNTED RAPPELLING ANCHÓRS

FOR CONSTRUCTION TOWER 3rd FLOOR

|5'-|" X |8'-6" X 37'-6" [4597x5639x||430] TOWER |5'-|" X |4'-6" X 9'-4 |/4" [4597x4420x285|] ANNEX

PEALER: WERNER-HERBISON-PADGETT OVERLAND PARK, KANSAS, 66214 CUSTOMER: Shearwater Fire Training Tower SHEARWATER, NS

BUILDING NAME: FIRE TRAINING SIMULATOR BUILDING JOB SITE: SHEARWATER, NS

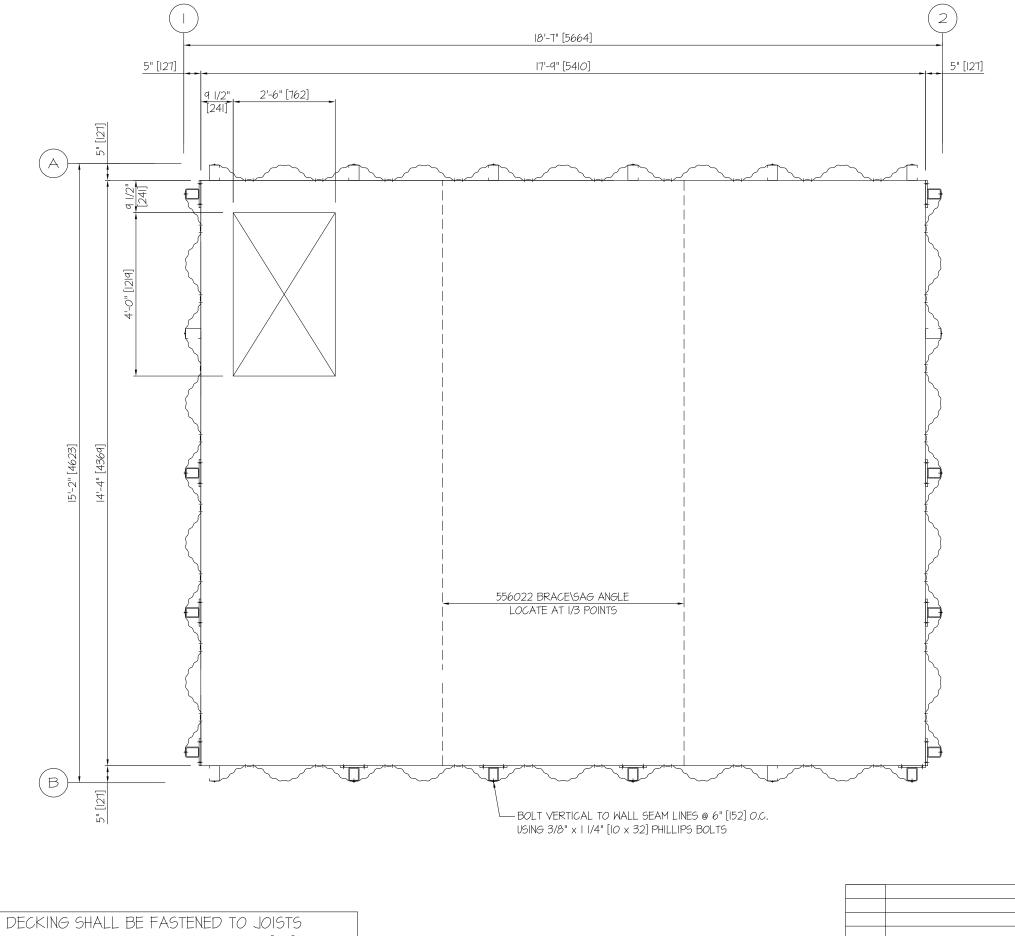
Made Strong

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DECKING SHALL BE FASTENED TO JOISTS WITH A MINIMUM #12 TEK SCREW @ 3" [76] O.C. ALONG THE LENGTH OF THE THE FLOOR OPENING TYPICAL ON ALL FOUR SIDES

				BUILDING TYPE: FIRETOWER	DE,
					CUS
				UTILITY	BUI
					BUI
				C.G.	
				CHECKED BY:	1
Α	ISSUED FOR CONSTRUCTION	C.G.	MAY 8/15	HOUSE ORDER:	
LETTER	DESCRIPTION	NAME	DATE	103427	92

REVISIONS



ELITE RIB DECKING - 24GA

36" [914] COVERAGE

DECKING NOTE: DECKING SHALL BE FASTENED TO JOISTS WITH A MINIMUM #12 TEK SCREW @ 12" ACROSS THE WIDTH OF THE PANEL AND @ 6" [152] AROUND THE PERIMETER OF THE BUILDING. SIDE LAPS SHALL BE STITCHED @ 12" [305] O.C.

FLASHING NOTE: FLASHING SHALL BE FASTENED TO DECK/JOISTS WITH A MINIMUM #12 TEK SCREW @ 6" [152] O.C.

BRACE ANGLE NOTE: BRACE ANGLE - L | 3/8" x | 3/8" [35 x 35] | 2 GA. TWO ROWS AT THIRD POINTS.

FOR CONSTRUCTION

NAME DATE

| 15'-|" X |8'-6" X 37'-6" [4597x5639x|1430] TOWER | 15'-|" X |4'-6" X 9'-4 |/4" [4597x4420x2851] ANNEX

N TOWER 4th FLOOR

DEALER: WERNER-HERBISON-PADGETT
OVERLAND PARK, KANSAS, 66214

USTOMER: Shearwater Fire Training Tower SHEARWATER, NS UILDING NAME: FIRE TRAINING SIMULATOR

BUILDING NAME: FIRE TRAINING SIMULATOR BUILDING JOB SITE: SHEARWATER, NS



103427 927 DOUGLAS STREET, BRANDON, MANITOBA. 204.728.1188 605 SHELDON DRIVE, CAMBRIDGE, ONTARIO. 519.620.6003

DECKING SHALL BE FASTENED TO JOISTS

WITH A MINIMUM #12 TEK SCREW @ 3" [76] O.C.

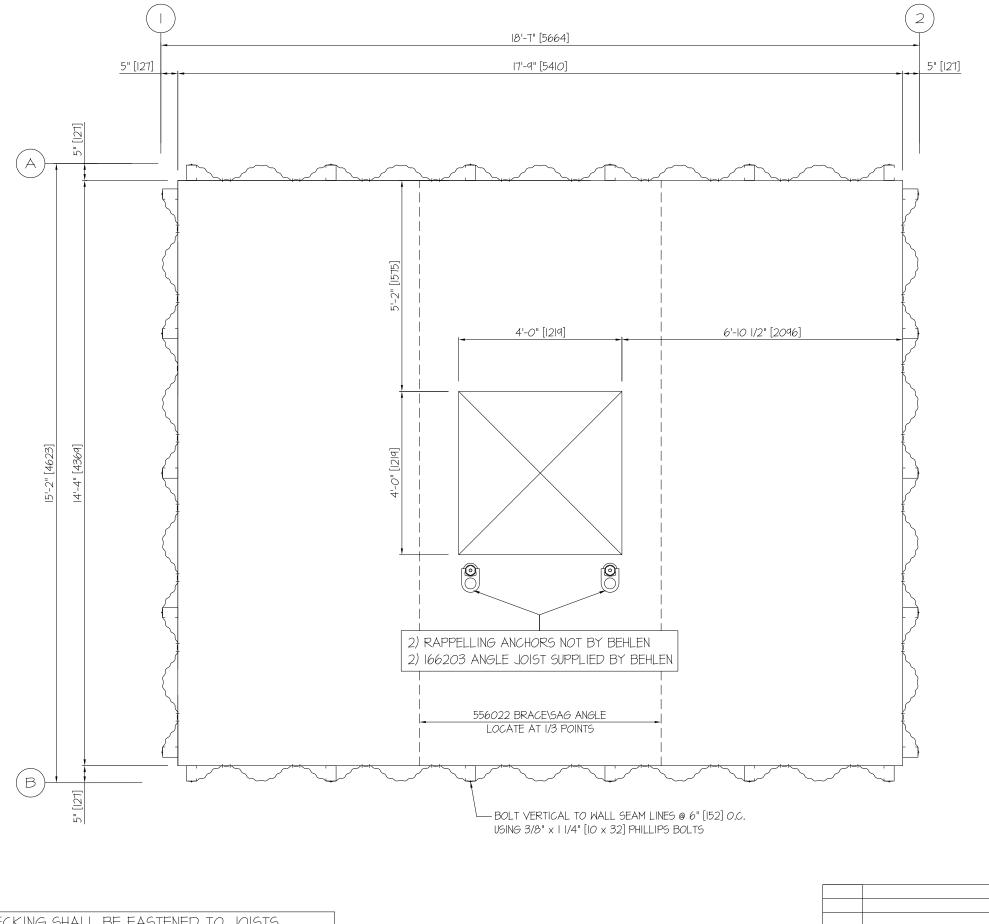
ALONG THE LENGTH OF THE THE FLOOR OPENING

TYPICAL ON ALL FOUR SIDES

DESCRIPTION

REVISIONS

LETTER



ELITE RIB DECKING - 24GA

36" [914] COVERAGE [38]

DECKING NOTE: DECKING SHALL BE FASTENED TO JOISTS WITH A MINIMUM #12 TEK SCREW @ 12" ACROSS THE WIDTH OF THE PANEL AND @ 6" [152] AROUND THE PERIMETER OF THE BUILDING. SIDE LAPS SHALL BE STITCHED @ 12" [305] O.C.

FLASHING NOTE: FLASHING SHALL BE FASTENED TO DECK/JOISTS WITH A MINIMUM #12 TEK SCREW @ 6" [152] O.C.

BRACE ANGLE NOTE: BRACE ANGLE - L | 3/8" x | 3/8" [35 x 35] 12 GA. TWO ROWS AT THIRD POINTS.

FOR CONSTRUCTION TOWER 5th FLOOR / ROOF

|5'-|" X |8'-6" X 37'-6" [4597x5639x||430] TOWER |5'-|" X |4'-6" X 9'-4 |/4" [4597x4420x285|] ANNEX

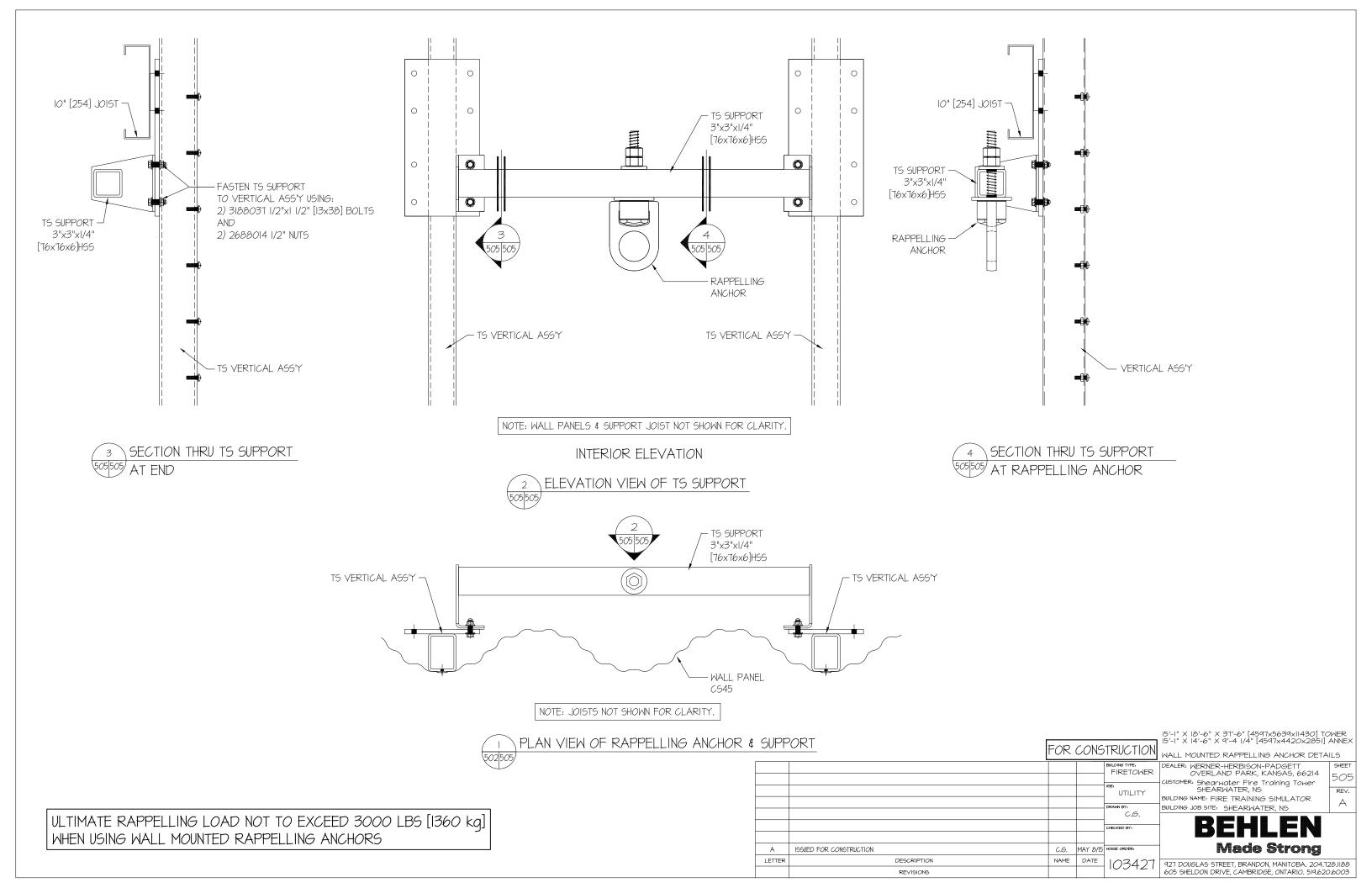
DEALER: WERNER-HERBISON-PADGETT OVERLAND PARK, KANSAS, 66214

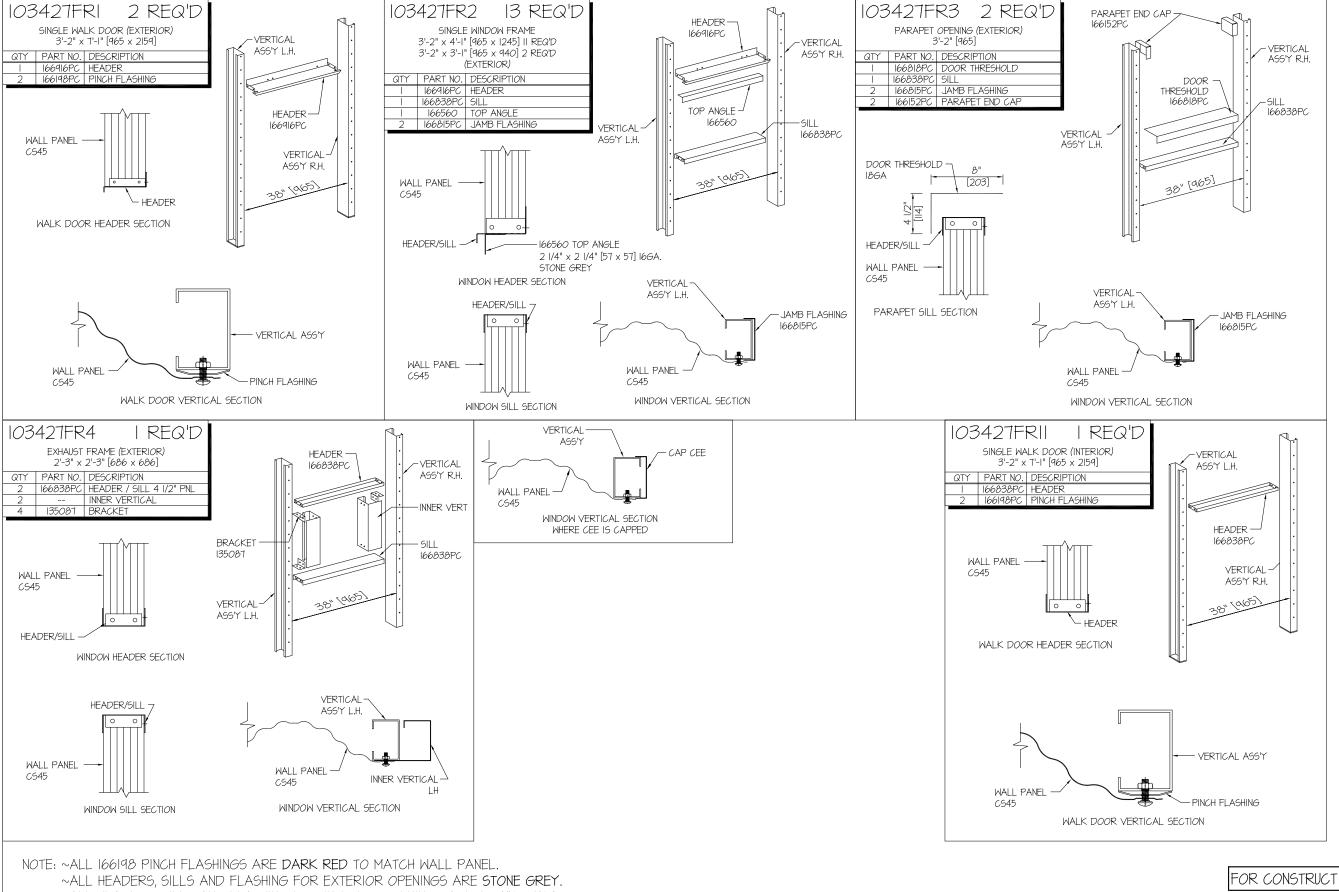
CUSTOMER: Shearwater Fire Training Tower SHEARWATER, NS BUILDING NAME: FIRE TRAINING SIMULATOR BUILDING JOB SITE: SHEARWATER, NS

Made Strong 927 DOUGLAS STREET, BRANDON, MANITOBA. 204.728.1188 605 SHELDON DRIVE, CAMBRIDGE, ONTARIO. 519.620.6003

DECKING SHALL BE FASTENED TO JOISTS WITH A MINIMUM #12 TEK SCREW @ 3" [76] O.C. ALONG THE LENGTH OF THE THE FLOOR OPENING TYPICAL ON ALL FOUR SIDES

				BUILDING TYPE: FIRETOWER	DE
					CU:
				UTILITY	
					BU
				DRAWN BY: C.G.	BU
				CHECKED BY:	ļ
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А	ISSUED FOR CONSTRUCTION	C.G.	MAY 8/15	HOUSE ORDER:	
LETTER	DESCRIPTION	NAME	DATE	103427	9.
	PEV/GIONG			100421	60





~ALL HEADERS, SILLS AND FLASHING FOR INTERIOR OPENINGS ARE STONE GREY.

|5'-|" X |8'-6" X 37'-6" [4597x5639x||430] TOWER |5'-|" X |4'-6" X 9'-4 |/4" [4597x4420x285|] ANNEX

RAMED OPENINGS

PEALER: WERNER-HERBISON-PADGETT OVERLAND PARK, KANSAS, 66214 SUSTOMER: Shearwater Fire Training Tower SHEARWATER, NS BUILDING NAME: FIRE TRAINING SIMULATOR

BUILDING JOB SITE: SHEARWATER, NS

Made Strong

		FOR	CONS	TRUCTION	FR
				BUILDING TYPE: FIRETOWER	DE
				U9E:	CUS
				UTILITY	BUI
				DRAWN BY:	BUI
				C.G.	
				CHECKED BY:	l
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Α	ISSUED FOR CONSTRUCTION	C.G.	MAY 8/15	HOUSE ORDER:	ĺ
LETTER	DESCRIPTION	NAME	DATE	103427	93
	REVISIONS			103721	92 60