GENERAL FOUNDATION CONSTRUCTION NOTES

1- CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 35 MPa AT 56 DAYS (UNLESS NOTED).
2- REINFORCED CONCRETE CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CSA/CAN3-A23.3.
3- MINIMUM CONCRETE COVER OVER REBAR IN PILE STRUCTURE IS 75mm.
4- POUR CONCRETE PAD ON UNDISTURBED SOIL.
5- BACKFILL SHALL BE SELECTED MATERIAL, WELL COMPACTED IN LAYERS NOT EXCEEDING 300mm.
6- BACKFILL SHALL BE PLACED SO AS TO PREVENT THE ACCUMULATION OF WATER AROUND THE FOUNDATION.
7- EMBEDDED STRUCTURAL ANCHOR STEEL SUPPLIED BY WESTOWER.
8- REINFORCING MATERIAL SHALL BE IN ACCORDANCE WITH CSA G30-12.
9- ALL REBAR TO BE GRADE 400 (UNLESS NOTED).
10- ALL REBAR (HORIZONTAL & VERTICAL) SHALL BE SECURELY WIRE TIED TO PREVENT DISPLACEMENT DURING POURING OF CONCRETE.
11- COLD CONSTRUCTION JOINTS TO BE THOROUGHLY CLEANED & WETTED PRIOR TO SECOND POUR.
12- CONCRETE TO BE MADE FOR S1-EXPOSURE & TYPE 50 CEMENT.

FOUNDATION AND ANCHOR TOLERANCES

ALL TOWERS

1- CONCRETE DIMENSIONS: ±25mm
2- DEPTH OF FOUNDATIONS: PLUS 75mm OR MINUS 0.
3- DRILLED FOUNDATIONS OUT OF PLUMB: 1°
4- REINFORCING STEEL PLACEMENT: ±12mm INCLUDING CONCRETE COVER.
5- PROJECTIONS OF EMBEDMENTS: ±6mm.
6- VERTICAL EMBEDMENTS OUT OF PLUMB: 1°.

SELF-SUPPORT TOWERS

7- FACE SPREAD DIMENSION CENTER TO CENTER OF ANCHOR BOLT CIRCLES: ±2mm PER 1.5M OF FACE SPREAD.
8- MAXIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLTS TO CENTERLINE OF FOUNDATION: 1/24th OF PIER DIAMETER UP TO A MAXIMUM OF 51mm.
9- MAXIMUM DIFFERENCE BETWEEN ANY TWO FOUNDATION ELEVATIONS 51mm.
10- ANCHOR BOLT SPACING: ±2mm.
11- ANCHOR BOLT CIRCLE ORIENTATION: ±0.5°.
12- ANCHOR BOLT CIRCLE DIAMETER: ±2mm.

GUYED TOWERS

13- ANCHOR ELEVATION: 3% OF TOWER HEIGHT ABOVE OR BELOW TOWER BASE. IF ELEVATIONS OF ANCHORS VARY BY MORE THAN 3%, ANCHOR RADIUS IS TO BE CHANGED TO KEEP THE ANCHOR LOCATED ON THE GUY FORCE RESULTANT, CALL WESTOWER FOR ASSISTANCE IF REQUIRED.
14- ANCHOR ALIGNMENT: (PERPENDICULAR TO GUY RADIUS): ±1°.
15- ANCHOR ROD SLOPE: ±1°.
16- ANCHOR ROD ALIGNMENT: TOWARDS TOWER CENTER POINT ±0.25°.
17- GUY ANCHOR HEAD SIDES VERTICAL ±1°.

BAR LIST FOR REINFORCING STEEL

QTY REQ'D	BAR SIZE	TTL BAR LENGTH	TOTAL WEIGHT	TYPE	BENDING DIAGRAM DIM ' A '
				BENT	300, A
234	15M	(SHL) 1565	575	TIE	450 — 150, 150, A — 135° HOOKS BOTH ENDS
86	15M	(GEN. PILE) 1565	211		450
				STIRRUP	A SQUARE — 135° HOOKS BOTH ENDS
16	10M	(GEN. BEAM) 1770	22	STIRRUP	250, 485 — 135° HOOKS BOTH ENDS

STRAIGHT

QTY	SIZE	LENGTH	WEIGHT	QTY	SIZE	LENGTH	WEIGHT
36	20M	(SHL) 10650	903				
12	20M	(GEN. PILE) 11250	318				
14	10M	(GEN. SLAB) 3250	36				
32	15M	(GEN. SLAB) 1374	69				
6	20M	(GEN. BEAM) 3250	46				

METRIC REBAR SIZES & WEIGHTS

SIZE	WEIGHT (kg/m)	DIAMETER (mm)
10M	0.785	11.3
15M	1.570	16.0
20M	2.355	19.5
25M	3.925	25.2
30M	5.495	29.9
35M	7.850	35.7
45M	11.775	43.7
55M	19.625	56.4

IMPERIAL REBAR SIZES & WEIGHTS

SIZE	WEIGHT (lbs/ft)	DIAMETER (in.)
3	0.3755	0.375
4	0.6676	0.500
5	1.043	0.625
6	1.502	0.750
7	2.045	0.875
8	2.670	1.000
9	3.400	1.128
10	4.303	1.270

PROVINCE OF MANITOBA — REGISTERED PROFESSIONAL ENGINEER — K.J. SHREETHA — Member 38153 — Nov. 8, 2016

ISSUE	DESCRIPTION	DATE	BY
A	DRAWING UPDATE	07/11/16	JSG

TITLE: REBAR AND FOUNDATION NOTES

WESTOWER

CUSTOMER: CITY OF WINNIPEG

PROJECT: SITE UPGRADE

SITE: 2230 MAIN STREET, WINNIPEG, MB

DWN BY:	APPR'D:	DATE:	PROJECT No.:	DRAWING No.:
JSG		19/10/16	22-00243	-E06