

GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS FOR BUILDING PRIOR TO COMMENCEMENT OF WORK AND NOTIFY DEPARTMENTAL REPRESENTATIVE OF ANY DISCREPANCIES.
- STRUCTURAL DRAWINGS SHOW THE COMPLETED PROJECT. THEY DO NOT SHOW COMPONENTS WHICH MAY BE NECESSARY FOR CONSTRUCTION SAFETY. CONTRACTOR IS RESPONSIBLE FOR SAFETY ON AND ABOUT THE JOB SITE DURING CONSTRUCTION.
- CONTRACTOR TO ENSURE THAT ALL WORK IS CARRIED OUT BY THE RULES AND CUSTOMS OF THE BEST TRADE PRACTICES AND THEIR SPECIFICATIONS BY SKILLED TRADES PEOPLE KNOWLEDGEABLE OF THE TYPE OF CONSTRUCTION. THEY ARE TO BE PROPERLY EQUIPPED AND SUPERVISED.
- NOTIFY DEPARTMENTAL REPRESENTATIVE 1 WEEK IN ADVANCE FOR CONSTRUCTION REVIEW OF THE STRUCTURAL PORTION OF THE BUILDING AS SHOWN ON THE STRUCTURAL DRAWINGS IN ACCORDANCE WITH DIVISION C PART 2 OF THE NATIONAL BUILDING CODE OF CANADA 2010.
- SEE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR SLEEVES, INSERTS, ETC. TO BE ENCASED IN CONCRETE.
- THESE STRUCTURAL DRAWINGS DO NOT INCLUDE DETAILS FOR BUILDING ENVELOPE, WATER PROOFING AND DRAINAGE. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND CIVIL ENGINEERING DRAWINGS AS APPROPRIATE.
- STRUCTURAL DESIGN DATA
 - ENGINEER OF RECORD: RANDAL EMERY, P.ENG.
 - DESIGN CODE - NATIONAL BUILDING CODE OF CANADA 2010 - PART 4.

DESIGN PARAMETERS	STEWART			
BUILDING IMPORTANCE CATEGORY	NORMAL			
SNOW LOAD PARAMETERS				
Ss = 7.9 kPa	Sr = 0.80 kPa Is [ULS] = 1.0 Is [SLS] = 0.9			
WIND LOAD PARAMETERS				
q50 = 0.36 kPa	Iw [ULS] = 1.0 Iw [SLS] = 0.75			
SEISMIC PARAMETERS				
Sa(0.2) = 0.3 Sa(0.5) = 0.19 Sa(1.0) = 0.11 Sa(2.0) = 0.063	PGA = 0.15			
le = 1.0				
SITE CLASS: C (SEE GEOTECHNICAL REPORT)				
DESIGN LOADS				
GRAVITY				
	SNOW (kPa)	LIVE (kPa)	DEAD (kPa)	PARTITION (kPa)
ROOF	7.12 + ACCUMULATION	1.00 MIN	SELF-WT	-
CORRIDORS/EXITS	-	4.80	SELF-WT	-
MAIN FLOOR	-	4.80	SELF-WT	1.00

FOUNDATION NOTES

- FOOTINGS HAVE BEEN DESIGNED FOR A SERVICEABILITY LIMIT STATE (SLS) SOIL BEARING RESISTANCE OF 250kPa AND AN ULTIMATE LIMIT STATE (ULS) SOIL BEARING RESISTANCE OF 400kPa IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY STANTEC CONSULTING LTD., DATED JANUARY 23, 2014. FOOTINGS TO BEAR ON EXISTING BLAST ROCK OR ENGINEERED FILL AS DESCRIBED IN THE GEOTECHNICAL REPORT.

GRID LOCATION	DEAD LOAD	LIVE LOAD	SNOW LOAD	WIND UPLIFT
A-1 C-1	26kN	42kN	62kN	15kN
A-7&20-1	52kN	84kN	124kN	20kN
A-2 C-2	26kN	42kN	180kN	15kN
A-7&20-2	52kN	84kN	180kN	20kN
A-3&35-2 A-11&05-2	35kN	84kN	-	-
A-3 C-3	26kN	42kN	90kN	15kN
A-3&35-3	52kN	84kN	180kN	20kN
B-3&1118 D-3&1118	30kN	-	205kN	35kN
B-5 D-5	12kN	-	75kN	4kN
ALONG S	7kN/m	-	47kN/m	2kN/m

- FOUNDATIONS HAVE BEEN DESIGNED FOR THE FOLLOWING LATERAL LOADS (SHEAR) FROM THE SUPERSTRUCTURE:

GRID LOCATION	SEISMIC (FACTORED)	WIND (SPECIFIED)
1 & 3	130kN	25kN
A & C	95kN	20kN
B & D	35kN	10kN
ALONG S (OUT OF PLANE)	15kN/m	3kN/m
4 & 5	75kN	15kN

- THE DESIGN AND DETAILING OF THE SUPERSTRUCTURE, INCLUDING ANCHORAGE TO THE FOUNDATIONS, IS THE RESPONSIBILITY OF THE CONTRACTOR. ANCHOR BOLTS, BASE PLATES, CONNECTION PLATES, EMBEDDED COMPONENTS, ETC. TO BE COORDINATED WITH THE FOUNDATIONS.
- REVISIONS TO THE FOUNDATIONS TO ACCOMMODATE THE SUPERSTRUCTURE DESIGN TO BE INCLUDED IN THE BID PRICE.
- SUBMIT SUPERSTRUCTURE SHOP DRAWINGS, FOUNDATION ANCHORAGE DETAILS AND DESIGN LOADS IMPOSED ON THE FOUNDATIONS TO THE DEPARTMENTAL REPRESENTATIVE FOR REVIEW.
- BEARING SURFACES MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO FOOTING CONCRETE BEING PLACED. WSP IS NOT RESPONSIBLE FOR CONFIRMING BEARING CAPACITIES OF SOILS.
- REFER TO GEOTECHNICAL REPORT FOR OTHER SPECIFIC DESIGN REQUIREMENTS FOR FOOTINGS, SOIL SLOPES, FROST PROTECTION, MINIMUM COVER, ETC.
- FOUNDATIONS TO BE DAMP PROOFED AND INSULATED AS PER SPECIFICATIONS.
- UNLESS OTHERWISE SHOWN, CENTER FOOTINGS UNDER COLUMNS AND WALLS.
- DOWELS AND ANCHOR BOLTS SHALL BE PLACED BEFORE CONCRETE IS PLACED. USE TEMPLATES TO ENSURE CORRECT PLACEMENT OF DOWELS.
- PROVIDE 50mm [2"] GROUND SEAL UNDER FOOTINGS WHERE REQUIRED BY SOIL CONDITIONS.
- FOR GROUND ELEVATIONS AND DRAINAGE SLOPES, SEE ARCHITECTURAL AND CIVIL DRAWINGS.
- VARY FOOTING ELEVATIONS WHERE REQUIRED IN ACCORDANCE WITH DETAIL FOR "TYPICAL STEPPED FOOTING", SHOWN ON DRAWINGS.
- FOOTINGS MAY HAVE TO BE COVERED TO ACCOMMODATE MECHANICAL OR ELECTRICAL SERVICES. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ELEVATIONS OF SAME. DO NOT UNDERMINE FOOTINGS BY EXCAVATIONS FOR SERVICES, PITS, ETC.
- FOOTINGS ELEVATIONS, IF SHOWN, ARE FOR BIDDING PURPOSES ONLY. ARE NOT FINAL, AND MAY VARY ACCORDING TO SITE CONDITIONS. ALL FOOTINGS MUST BE TAKEN TO A BEARING LAYER APPROVED BY THE GEOTECHNICAL ENGINEER.
- PROTECT BEARING SURFACES FROM FREEZING BEFORE AND AFTER FOOTINGS ARE POURED.
- SUB-BASE DESIGN OF SOIL UNDER THE SLAB ON GRADE TO BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

CONCRETE AND REINFORCING NOTES

- CONCRETE TO BE READY MIX CONCRETE CONFORMING TO THE CURRENT STANDARD CSA A23.1/A23.2. CEMENT TO BE TYPE 60 OR SUB-HYDRAULIC CEMENT CONFORMING TO CSA A3000. USE ADMIXTURES ONLY WITH WRITTEN APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE.

LOCATION	28 DAY COMPRESSIVE STRENGTH (MPa)
FOOTINGS	25
FOUNDATION WALLS & PIERS	35
PAVEMENTS, SIDEWALKS, CURBS & GUTTERS	32
GROUND SEAL SLAB ON GRADE	25

- CONCRETE PROTECTION ON PRINCIPAL REINFORCING SHALL BE AS FOLLOWS:

SURFACES PLACED IN CONTACT WITH GROUND:	75mm [3"]
FORMED SURFACES EXPOSED TO GROUND OR WEATHER:	50mm [2"]
COLUMNS:	50mm [2"]
COLUMN TIES:	40mm [1 1/2"]

- A CSA CERTIFIED MATERIALS TESTING LABORATORY SHALL BE APPOINTED TO REVIEW CONCRETE MIXES AND TO GATHER AND TEST CONCRETE CYLINDERS. TESTING LABORATORY TO BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. COSTS OF TESTING TO BE PAID BY CONTRACTOR. COPIES OF TEST RESULTS TO BE SENT TO THE DEPARTMENTAL REPRESENTATIVE AND CONTRACTOR.
 - A SUFFICIENT NUMBER OF TESTS SHALL BE MADE TO ENSURE A UNIFORM SLUMP OF CONCRETE. A SLUMP TEST SHALL BE MADE WITH EVERY STRENGTH TEST AND EVERY SECOND OR THIRD AIR TEST.
 - AN AIR CONTENT DETERMINATION SHALL BE MADE WITH EVERY STRENGTH TEST.
 - NOT LESS THAN ONE STRENGTH TEST (SET OF THREE CYLINDERS) SHALL BE MADE FOR EACH 100 CUBIC METERS OF CONCRETE PLACED, AND IN NO CASE SHALL THERE BE FEWER THAN ONE TEST FOR EACH CLASS OF CONCRETE PLACED ON ANY ONE DAY, AS DESIGNATED BY THE OWNER. WHEN HIGH-PERFORMANCE OR HIGH-STRENGTH CONCRETE IS INVOLVED, OR WHERE STRUCTURAL REQUIREMENTS ARE CRITICAL, THE OWNER MAY REQUIRE A HIGHER FREQUENCY OF TESTING, WHICH SHALL BE DEFINED IN THE CONTRACT DOCUMENTS.

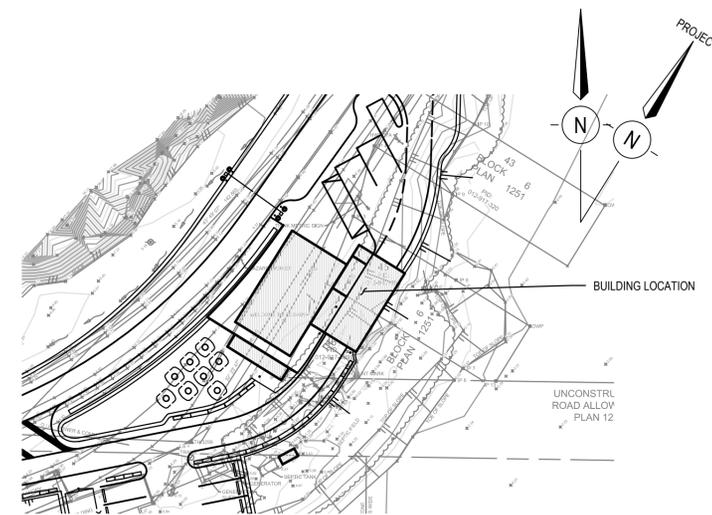
- UNLESS OTHERWISE SHOWN AND ON DESIGNATED SHEARWALLS, ALL CONCRETE WALLS TO BE REINFORCED AS FOLLOWS:

150mm [6"] WALLS:	15M VERT @ 450 [18"]	+ 15M HORIZ @ 450 [18"]
200mm [8"] WALLS:	15M VERT @ 500 [20"]	+ 15M HORIZ @ 500 [20"]
250mm [10"] WALLS:	15M VERT @ 500 [20"]	EACH FACE
300mm [12"] WALLS:	15M HORIZ @ 500 [20"] EACH FACE	+ 15M VERT @ 500 [20"] EACH FACE
	+ 15M HORIZ @ 500 [20"] EACH FACE	

- SINGLE CURTAIN WALL REINFORCING SHALL BE CENTERED IN WALLS UNLESS OTHERWISE SHOWN.
- HORIZONTAL WALL REINFORCING SHALL BE CONTINUOUS AROUND CORNERS AND HOOKED AT WALL INTERSECTIONS. ADD 2-15M CONT AT TOPS AND ENDS OF WALLS. UNLESS OTHERWISE NOTED, HOOK AND LAP LENGTHS AS FOLLOWS:

BAR SIZE	VERT LAP	HORZ LAP	HOOK LENGTH
10M	430mm [17"]	500mm [20"]	180mm [7"]
15M	600mm [24"]	800mm [32"]	250mm [10"]
20M	750mm [30"]	1000mm [40"]	300mm [12"]
25M	1200mm [48"]	1550mm [60"]	400mm [16"]
30M	1450mm [57"]	1850mm [72"]	600mm [24"]

- ADD 2-15M PARALLEL TO EACH SIDE OF OPENINGS IN WALLS AND SLABS, EXTENDING 600mm [24"] BEYOND CORNERS UNLESS OTHERWISE SHOWN.
- REINFORCING SHALL BE PLACED AND BENT IN ACCORDANCE WITH CSA A23.1.
- REINFORCING BARS SHALL BE ACCURATELY PLACED, ADEQUATELY SUPPORTED, AND SECURED AGAINST DISPLACEMENT PRIOR TO PLACING OF CONCRETE.
- ALL COLUMN TIES SHALL HAVE 135 DEGREE HOOKS UNLESS OTHERWISE NOTED.
- STEEL REINFORCING PLACER SHALL BE PRESENT DURING ALL CONCRETE POURS TO ENSURE THAT THE REINFORCING STEEL REMAINS IN THE CORRECT POSITIONS.
- UNLESS OTHERWISE NOTED, SLAB REINFORCING NOT TO BE CUT AT PLUMBING, DUCTS, OR AROUND OTHER OPENINGS. SPREAD REINFORCING AROUND OPENINGS.
- FOR ADHESIVE SET REINFORCING BAR SUBMIT ADHESIVE SYSTEM TO DEPARTMENTAL REPRESENTATIVE FOR APPROVAL. INSTALL STRICTLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- FOR ADHESIVE SET THREADED ANCHORS SUBMIT ADHESIVE SYSTEM TO DEPARTMENTAL REPRESENTATIVE FOR APPROVAL. INSTALL STRICTLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- REINFORCING STEEL WITHIN 3000mm [10'-0"] OF ELECTRICAL TRANSFORMERS TO BE EPOXY COATED.
- ALL CONCRETE IS TO BE VIBRATED.

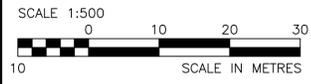


SITE PLAN
1:500

- ABBREVIATIONS:**
- AB - ANCHOR BOLT
 - ALT - ALTERNATE
 - APPROX - APPROXIMATELY
 - ARCH - ARCHITECT
 - BOT - BOTTOM
 - BLDG - BUILDING
 - BM - BEAM
 - BP - BASE PL
 - BS - BOTH SIDES
 - CIP - CAST IN PLACE
 - CCJ - CRACK CONTROL JOINT
 - CJ - CONSTRUCTION JOINT
 - COL - COLUMN
 - CP - COMPLETE PENETRATION WELD
 - DWG - DRAWING
 - (E) - EXISTING
 - EF - EACH FACE
 - EL - ELEVATION
 - ELEV - ELEVATION
 - EW - EACH WAY
 - FTG - FOOTING
 - FS - FAR SIDE
 - GALV - GALVANIZED
 - HORIZ - HORIZONTAL
 - OWSJ - OPEN WEB STEEL JOIST
 - LG - LONG
 - MAX - MAXIMUM
 - MIN - MINIMUM
 - NS - NEAR SIDE
 - NTS - NOT TO SCALE
 - OC - ON CENTER
 - R/W - REINFORCE WITH
 - REINF - REINFORCEMENT
 - SF - STEP FOOTING
 - SOG - SLAB ON GRADE
 - STD - STANDARD
 - TOC - TOP OF CONCRETE
 - TOF - TOP OF FOOTING
 - TOS - TOP OF STEEL
 - TYP - TYPICAL
 - UN - UNLESS NOTED
 - UNO - UNLESS NOTED OTHERWISE
 - UIS - UNDERSIDE
 - VB - VAPOUR BARRIER
 - VERT - VERTICAL



PROJECT: 121-19597-05



Revision/	Description/Description	Date/Date
5		
4		
3	ISSUED FOR TENDER	15/05/08
2	ISSUED FOR 90% REVIEW	15/03/17
1	ISSUED FOR 90% REVIEW	15/01/30
0	ISSUED FOR 60% REVIEW	14/12/10

Client/client
CANADA BORDER SERVICES AGENCY

Project title/Titre du projet
STEWART PORT OF ENTRY REDEVELOPMENT STEWART, B.C.

Consultant Signature Only
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Regional Manager, Architectural and Engineering Services
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Drawing title/Titre du dessin
GENERAL NOTES AND SITE PLAN

Project No./No. du projet R.071365.001	Sheet/Feuille S-001 1 OF 3	Revision no./La Révision no. 3
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