

**GENERAL NOTES**

- CONTRACTOR TO VERIFY ALL DIMENSIONS FOR THE WORK 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 24 HOURS IN ADVANCE FOR CONSTRUCTION REVIEW OF THE WORK AS SHOWN ON THE STRUCTURAL DRAWINGS IN ACCORDANCE.
- STRUCTURAL DESIGN DATA:
  - ENGINEER OF RECORD: RANDALL EMERY, P.ENG.
  - DESIGN CODE - NATIONAL BUILDING CODE OF CANADA 2015 - PART 4.
  - SWITCHGEAR TOTAL WEIGHT = 4550 kg
 SEISMIC PARAMETERS:  
 $S_b (0.2) = 1.3$   
 $C_p = 1.00$   
 $A_x = 2.50$   
 $A_y = 1.00$   
 $PGA = 0.58$   
 $I_e = 1.5$

**FOUNDATION NOTES**

- FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURES OF 100 kN/m<sup>2</sup> TO BE VERIFIED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION. FOOTINGS TO BEAR ON UNDISTURBED NATIVE SOIL OR COMPACTED GRANULAR FILL AS DESCRIBED IN THE GEOTECHNICAL REPORT.
- BEARING SURFACES MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO FOOTING CONCRETE BEING PLACED. DEPARTMENTAL REPRESENTATIVE IS NOT RESPONSIBLE FOR CONFIRMING BEARING CAPACITIES OF SOILS.
- PROTECT BEARING SURFACES FROM FREEZING BEFORE AND AFTER FOOTINGS ARE POURED.

**CONCRETE AND REINFORCING NOTES**

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

LOCATION	28 DAY COMPRESSIVE STRENGTH (MPa)
DUCT BANKS	30
FOUNDATION PAD	35

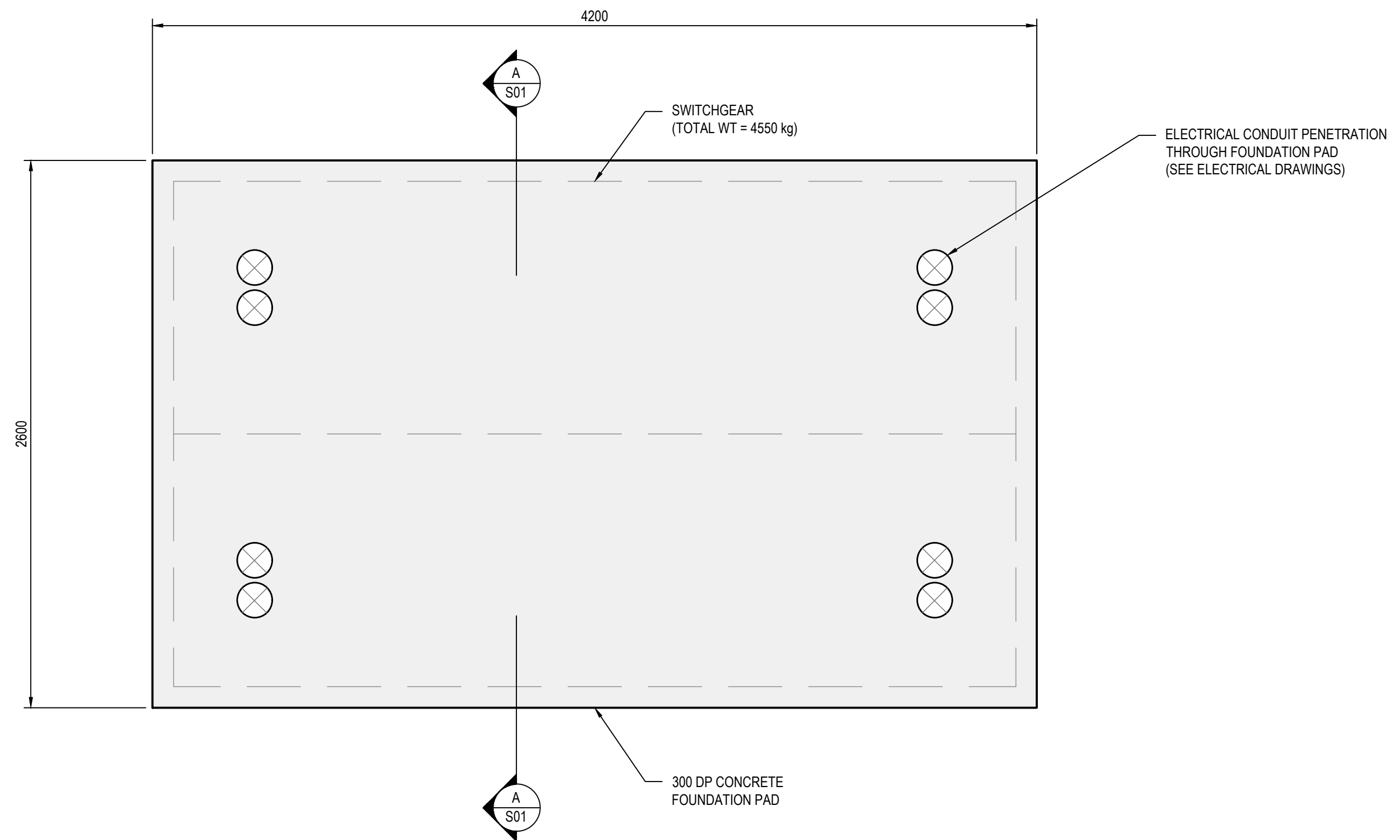
 REFER TO PROJECT SPECIFICATIONS FOR MINIMUM CEMENTITIOUS CONTENT, SLUMP, MAXIMUM AGGREGATE SIZE, CLASS OF EXPOSURE AND OTHER REQUIREMENTS.
- REINFORCEMENT TO BE BILLET STEEL CONFORMING TO THE REQUIREMENTS OF THE FOLLOWING CSA STANDARDS: GRADE 400 ALL REINFORCING UN
- CONCRETE PROTECTION ON PRINCIPAL REINFORCING SHALL BE AS FOLLOWS:
 

SURFACES PLACED IN CONTACT WITH GROUND	75mm [3"]
FORMED SURFACES EXPOSED TO GROUND OR WEATHER	50mm [2"]
- A CSA CERTIFIED MATERIALS TESTING LABORATORY SHALL BE APPOINTED TO REVIEW CONCRETE MIXES AND TO GATHER AND TEST CONCRETE CYLINDERS. COPIES OF TEST RESULTS TO BE SENT TO THE STRUCTURAL ENGINEER 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.
- 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:
 

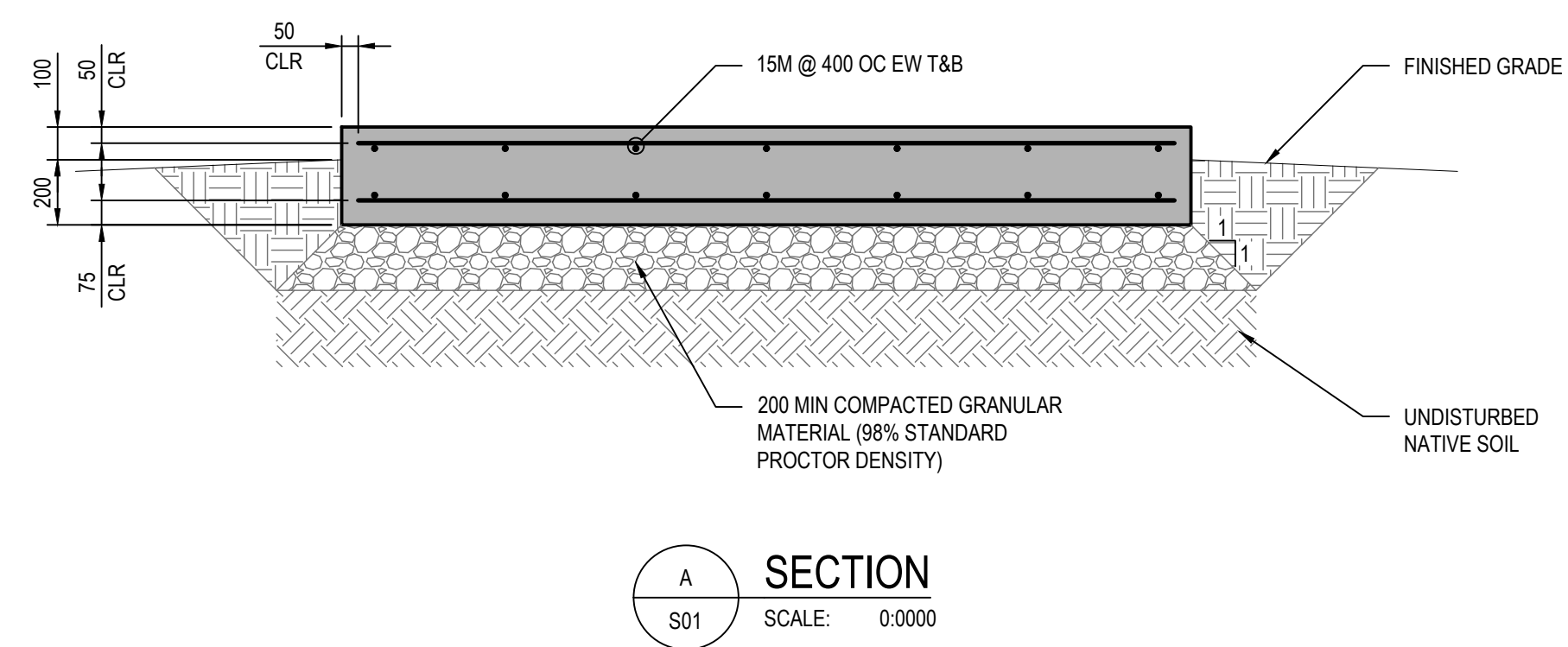
BAR SIZE	VERT LAP	HORL LAP	HOOK LENGTH
10M	430mm [17"]	500mm [20"]	180mm [7"]
15M	600mm [24"]	800mm [32"]	250mm [10"]
- REINFORCING SHALL BE PLACED AND BENT IN ACCORDANCE WITH CSA A23.1.
- REINFORCING BARS SHALL BE ACCURATELY PLACED, ADEQUATELY SUPPORTED, AND SECURED AGAINST DISPLACEMENT PRIOR TO PLACING OF CONCRETE.
- 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.
- ALL CONCRETE IS TO BE VIBRATED.

**ABBREVIATIONS**

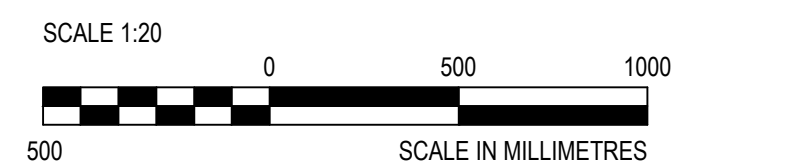
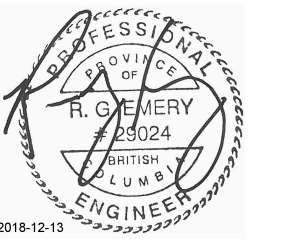
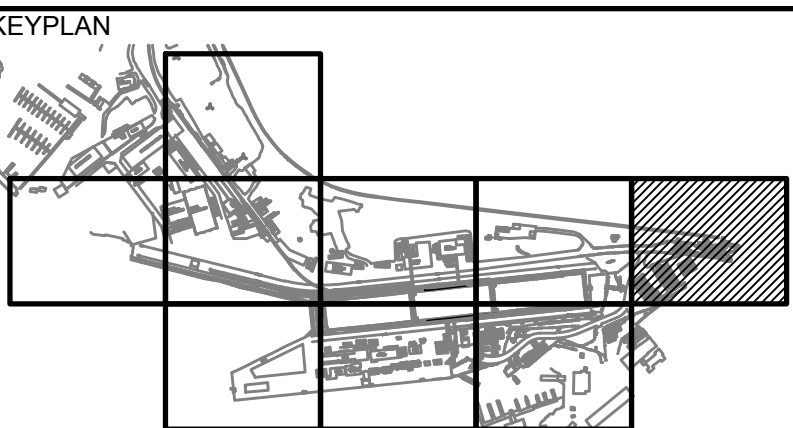
AB	- ANCHOR BOLT
ALT	- ALTERNATE
APPROX	- APPROXIMATELY
ARCH	- ARCHITECT
BOT	- BOTTOM
BLDG	- BUILDING
BS	- BOTH SIDES
CCJ	- CRACK CONTROL JOINT
DWG	- DRAWING
(E)	- EXISTING
EF	- EACH FACE
EL	- ELEVATION
EW	- EACH WAY
FTG	- FOOTING
FS	- FAR SIDE
GALV	- GALVANIZED
HORIZ	- HORIZONTAL
LG	- LONG
MAX	- MAXIMUM
MIN	- MINIMUM
NS	- NEAR SIDE
NTS	- NOT TO SCALE
OC	- ON CENTER
R/W	- REINFORCE WITH
REINF	- REINFORCEMENT
SOG	- SLAB ON GRADE
STD	- STANDARD
TOC	- TOP OF CONCRETE
TOF	- TOP OF FOOTING
TOS	- TOP OF STEEL
TYP	- TYPICAL
UN	- UNLESS NOTED
UIS	- UNDERSIDE
VB	- VAPOUR BARRIER
VERT	- VERTICAL



**FOUNDATION PAD PLAN**  
SCALE: 1:20



**SECTION A-A**  
SCALE: 0.0000



5		
4		
3		
2		
1		
0	ISSUED FOR TENDER	18/12/11

Revision/	Description/Description	Date/Date
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**PUBLIC WORKS AND GOVERNMENT SERVICES CANADA**  
 825 ADMIRALS ROAD  
 VICTORIA, BC

Project title/Titre du projet  
**ESQUIMALT GRAVING DOCK (EGD)  
 REPLACE MAIN DISTRIBUTION LINE (RMDL)**

**B.C. HYDRO (BCH)  
 POINT OF DELIVERY (POD)  
 SWITCHGEAR**

Consultant Signature Box Only

Designed by/Concept par  
 R. EMERY, P.ENG

Drawn by/Dessiné par  
 R.MAR/2018.12.03

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 STEVE WINDL

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 Gestionnaire régionale, Services d'architecture et de génie, TPSGC  
 PREETIPAL PAUL

Drawing title/Titre du dessin  
**GENERAL NOTES  
 SWITCHGEAR PLAN  
 SECTION**

Project No./No. du projet <b>R.090408.001</b>	Sheet/Feuille <b>S01</b> OF 1	Revision no./ La Révision <b>0</b>
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