RNP PROJECT NUMBER 21524
RNP ENGINEERING LTD - 10851 ATHABASCA DRIVE, RICHMOND B.C., V7A 4Z7
TEL: 604-241-3142
EGBC # 1000495

BRONZE HORSE SCULPTURE - FOUNDATION - Botanical Garden - UBC
A:

2) The design and details of the anchors for the sculpture are by others.
3) The contractor shall verify all existing and new dimensions and site conditions prior to commencement of any work. Report any discrepancies to RNP Engineering Ltd.
4) The contractor shall co-ordinate the work of all other sub-trades and consultants, and shall check the compatibility of all structural drawings and other consultant and trades and shop drawings before commencing any work.
5) The contractor shall ensure that all other services are installed per UBC requirements and be in accordance with all other authorities having jurisdiction.
6) The structural engineer is responsible for temporary bracing, shores and diaphragms for the structure during construction.
7) The structural engineer shall verify all requirements are installed per UBC, Emanuel & B.C. and all other authorities having jurisdiction.
8) Revisions to UBC (The revisions shall only be the generalised result of all amendments and permits required).

B:

DESIGN BASIS

C:

GEOTECHNICAL DATA
Serviceability Limit State (SLS) soil bearing pressure = 120 kPa (2500 PSF)

D:

DESIGN LOADS
Climatic Data (Vancouver (Granville and 41 Avenue), B.C.
Live Load = Not applicable
Snow Load: Ss = 40 PSF (1.9 kPa), Sr = 6.3 PSF (0.3 kPa), Is = 0.8
Wind: q 1/10 = 7.31 (0.35 kPa), q 1/50 = 9.40 PSF (0.45 kPa), Iw = 0.8
Seismic: PGA = 0.375, PGV = 0.563, Ie = 0.8
Sa(0.2) = 0.863, Sa(0.5) = 0.765, Sa(1.0) = 0.432, Sa(2.0) = 0.261, Sa(5.0) = 0.081, Sa(10.0) = 0.029

E:

CONCRETE
1) Place and protect all concrete in accordance with CAN3-A23.1-M. Employ cold weather and hot weather requirements when necessary.
2) Concrete shall be as follows:
   Min Compressive Strength @ 28 days = 25 MPa
   Max. Aggregate: 20 mm (3/4"
   Slump: 100 mm (4"
   Air content: 3.6%
3) All work shall be in accordance with CSA A23.1.- Concrete shall be protected from all harmful effects during construction.
4) Cement shall conform to CSA A5, type (10) normal Portland cement.
5) Calcium chloride shall not be used as an admixture in any concrete.
6) Before placing concrete, the contractor shall ensure that all reinforcement, anchors, dowels, anchor bolts, inserts etc. are in place and check with all other trades to ensure their requirements are met.
7) Notify the structural engineer a minimum of 48 hours (2 business days) for field reviews before any concrete pour.

F:

REINFORCEMENT
1) Rebar shall be deformed bars and shall conform to CSA G30.12, latest edition. Grade 400 for 10M and larger bars.
2) Reinforcing steel shall conform to CSA A23.3 unless noted otherwise. Fabricate reinforcing to CSA CAN3-A23.1-M.
3) Concrete cover to reinforcing shall be as follows (unless noted otherwise):
   - Formed surface exposed to weather or in contact with ground = 2" (50 mm)
   - Placed against soil = 3" (75 mm)
4) Bar splices are not permitted unless noted on the structural drawings. Lap bars as noted on RNP drawings.
5) Anchors for the sculpture by others.

ANCHOR DESIGN FORCES (UNFACTORED)

1) V = ±650 lbs (PER EACH LEG)
2) TEQ / C = ±2300 lbs (PER EACH LEG)
3) DEAD LOAD (GROSS) = ±500 lbs (PER EACH LEG)

15/10/21
RN
AS NOTED
S-01