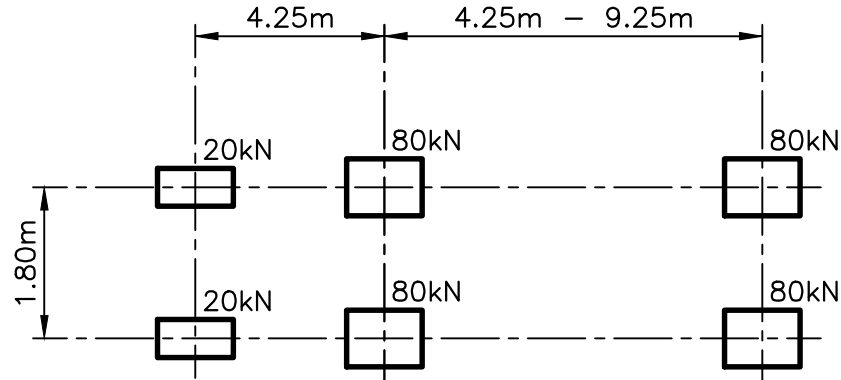


GENERAL NOTES:

- DO NOT SCALE FROM DRAWINGS.
- ALL ELEVATIONS ARE IN METERS AND ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- IT IS RECOMMENDED THAT THE CONTRACTOR VISIT THE SITE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS PRIOR TO COMMENCING THE WORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THE DEPARTMENTAL REPRESENTATIVE IN WRITING OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE PLAN BEFORE STARTING WORK.
- CONTRACTOR TO COORDINATE ALL WORK WITH THE DEPARTMENTAL REPRESENTATIVE AND THE LOCAL HARBOUR AUTHORITY. NO WORK SHALL BE COMPLETED IN SUCH A MANNER AS TO INTERFERE WITH HARBOUR OPERATIONS IN ANY WAY.
- ALL ELEVATIONS REFERENCED ARE TO CHART DATUM. CHART DATUM IS, BY INTERNATIONAL AGREEMENT, A PLANE BELOW WHICH THE TIDE WILL SELDOM FALL. THE CANADIAN HYDROGRAPHIC SERVICE HAS ADOPTED THE PLANE OF LOWEST NORMAL TIDE (L.N.T) AS CHART DATUM. AS THE RISE AND FALL OF TIDES VARIES DAILY, THE CANADIAN TIDE AND CURRENT TABLES, AS ISSUED BY THE CANADIAN HYDROGRAPHIC SERVICE, SHOULD BE CONSULTED FOR TIDAL PREDICTIONS AND OTHER TIDAL INFORMATION RELATING TO THE WORK.
- ELEVATIONS ARE BASED ON SURVEY COMPLETED BY ENGLOBE ON DECEMBER 9th, 2021.
- WATER LEVELS ARE THE PUBLISHED VALUES FOR PETIT CAP ON BIO.GC.CA.
- GEOTECHNICAL INVESTIGATION IS AVAILABLE UPON REQUEST.
- ANY INFORMATION PERTAINING TO SOILS AND ALL BOREHOLE DATA IS FURNISHED BY THE DEPARTMENTAL REPRESENTATIVE AS A MATTER OF INFORMATION ONLY. AND BOREHOLE DATA IS NOT TO BE INTERPRETED AS DESCRIPTIVE OF CONDITIONS AT LOCATIONS OTHER THAN THOSE DESCRIBED BY THE BOREHOLES THEMSELVES.
- ANY STOCKPILING OF MATERIAL ON SITE WILL BE AT A LOCATION COORDINATED WITH THE DEPARTMENTAL REPRESENTATIVE AND THE LOCAL HARBOUR AUTHORITY.
- PROVIDE TEMPORARY SUPPORT FOR THE TIE-RODS AT THREE, APPROXIMATELY EVENLY SPACED, INCREMENTS ALONG THE WIDTH OF THE EXISTING CRIB. TEMPORARY SUPPORTS (OR SUPPORT BLOCKING) SHALL BE PLACED ON TOP OF EXISTING CRIB TIMBERS.

DESIGN NOTES:

- STRUCTURE DESIGNED FOR A 40- YEAR SERVICE LIFE.
- NEW PILES DESIGNED WITH THE ASSUMED CORROSION RATES:
 - 0.2 mm/yr FOR STEEL EXPOSED TO WATER ABOVE EL. -1.00m.
 - 0.18 mm/yr FOR STEEL EXPOSED TO WATER BELOW EL. -1.00m.
 - 0.05 mm/yr FOR STEEL BURIED IN SOIL/ROCK FILL.
- SPECIFIED DESIGN LIVE LOADS:
 - UNIFORM LIVE LOAD OF 15kPa.
 - MS200 TRUCK LOADING.



- TIE RODS SHALL BE INSTALLED AND PRE-TENSIONED TO REMOVE THE SAG IN TIE RODS PRIOR TO BACKFILLING THE STRUCTURE.

PILE NOTES:

- PILED FOUNDATIONS SHALL BE FOUNDED ON BEDROCK.
- PIPE CASINGS SHALL BE ADVANCED INTO BEDROCK, SEATED, CLEANED OUT, AND THE SOCKET DRILLED BEFORE PLACING THE NEW HP-SECTION.
- THE CASINGS SHALL BE FILLED WITH CONCRETE AND REMOVED ONCE PLACEMENT OF CONCRETE IS COMPLETE.
- STEEL CASINGS SHALL BE 610mm DIAMETER BY 9.5mm AND MEET THE REQUIREMENTS OF ASTM A252 GRADE 3 (MOD).
- STEEL PILES SHALL BE HP360X174 AND MEET THE REQUIREMENTS OF CAN/CSA G40.21 - GRADE 350W.
- ALL HP360X174 STEEL PILES SHALL BE PLACED, NOT DRIVEN, THROUGH THE CASING AND INTO THE PILE SOCKET.

CONCRETE NOTES:

- ALL CONCRETE WORK TO BE IN ACCORDANCE WITH CAN/CSA A23.1, CAN/CSA A23.2 AND CAN/CSA A23.3 LATEST EDITIONS.
- CONCRETE SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
 - CEMENT = PORTLAND TYPE GU.
 - CLASS OF EXPOSURE = C-1
 - MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS = 35 MPa
 - 20mm MAX AGGREGATE SIZE.
 - MAX WATER TO CEMENT RATIO = 0.40
 - AIR ENTRAINMENT = 5% - 8%
 - SLUMP AT THE TIME AND POINT OF DISCHARGE = 20-80mm. A REQUIRED INCREASE IN SLUMP MAY ONLY BE ACHIEVED BY THE USE OF ADMIXTURES, NOT WATER. USE OF ADMIXTURES MUST BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
- COVER TO REINFORCING = 75mm UNLESS OTHERWISE NOTED.
- REINFORCING STEEL TO CSA G30.18 (LATEST EDITION) Gr. 400W BLACK STEEL.
- APPLY SELF PENETRATING SILANE SEALER FOR ALL CONCRETE SURFACES.
- CAST IN PLACE CONCRETE SLAB TO HAVE CONTROL JOINTS AND CONSTRUCTION JOINTS AS INDICATED ON THE DRAWINGS.
- REINFORCING LAP SPLICES TO BE CLASS B.
- CONCRETE MIX DESIGN MAY BE MODIFIED TO ACCOMMODATE PUMPING BUT ONLY UPON REVIEW BY THE DEPARTMENTAL REPRESENTATIVE.
- EPOXY GROUT TO BE HILTI HIT-HY 200, O.A.E. WITH ANCHOR EMBEDMENT AS SPECIFIED IN DRAWINGS.

LOAD RESTRICTIONS ON EXISTING STRUCTURE:

- BIDDERS ARE CAUTIONED THAT THE EXISTING STRUCTURES IN THEIR CURRENT CONDITION, ARE OF UNKNOWN CAPACITY.
- DRAWINGS FOR STRUCTURE #402 ARE AVAILABLE UPON REQUEST.

STEEL NOTES:

- STEEL PLATES, CHANNELS, ANGLES, AND ROUND BAR SHALL BE CSA G40.20/G40.21, GRADE 350W.
- HSS SHALL BE ASTM A500, GRADE C, 345W.
- TIE RODS SHALL BE CONTINUOUSLY THREADED BAR MEETING THE REQUIREMENTS OF ASTM A615 (Fy = 517 MPa). THE NUT SHALL BE CAPABLE OF DEVELOPING THE FULL YIELD CAPACITY OF THE BAR.
- WELDING OF TIE RODS IS NOT ACCEPTABLE UNLESS APPROVED BY A DEPARTMENTAL REPRESENTATIVE.
- THREADED ROD: TO ASTM A307, GRADE A.
- STEEL SHEAR STUD CONNECTORS SHALL MEET THE REQUIREMENTS OF ASTM A108 GRADES G10100 TO G10200. ACCEPTABLE STUDS ARE PRODUCED BY NELSON STUD WELDING, CONTINENTAL STUDWELDING LIMITED OR APPROVED EQUAL.
- ALL WELDING SHALL BE COMPLETED IN ACCORDANCE WITH CAN/CSA W59, LATEST EDITION.

