

| | B.M ELE | | | DESIGNED BY DRAWN BY | GCL JLD | | ENGINEER'S SEAL ORIGINAL STAMPED BY G.C. LOEPPKY DECEMBER 17, 2014 Member 24656 | ENGINEER'S SEAL ORIGINAL STAMPED BY K.G. WILLIS DECEMBER 17, 2014 Member 33036 | Winnipeg THE CI WATER | TY OF W and waste | VINNIPEG DEPARTMENT |
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| CIN rrization | | | | APPROVED BY | MBL | DILLON CONSULTING | | | BRIDGE OVER THE FALCON RIVER DIVERSION & ASSOCIATED ROADWORKS | | CITY DRAWING NUMBER SHEET 05 OF 13 |
| DEC. 17/14 | 0 NO. | ISSUED FOR TENDER 14/12/17 REVISIONS DATE | GCL BY | HOR. SCALE VERTICAL DATE | .E 2014/12/17 | RELEASED FOR CONSTRUCTION DATE | CONSULTANT PRC 13-8 | ROJECT NUMBER | ABUTMENT AND PILE DETAILS | | CONSULTANT DRAWING NUMBER |

- NOTES: 1. PILE SPACING SHALL BE MEASURED AT THE UNDERSIDE OF THE ABUTMENT SEAT.
- 2. ALL PILES SHALL BE PROVIDED WITH STEEL PILE TIPS PRIOR TO INSTALLATION.
- 3. AFTER DRIVING, THE STEEL PILES SHALL BE LOCATED WITHIN 50 mm OF THE LOCATIONS SHOWN ON THE DRAWINGS.
- 4. STEEL H-PILES SHALL CONFORM TO CAN/CSA-G40.20M/G40.21M-04, GRADE 350W. PILE TIP REINFORCING PLATES SHALL CONFORM TO CAN/CSA-G40.20M/G40.21M-04, GRADE 300W.
- 5. ABUTMENT PILE LOADS (FACTORED): • DEAD LOAD (DL) = 100kN • LIVE LOAD (LL) = 300kN • DL + LL = 400kN • MAXIMUM (ULS COMB #1) = 400kN • CAPACITY = 1000kN
- 6. STEEL PILES SHALL BE DRIVEN TO REFUSAL AS END BEARING PILES, AS DETERMINED BY THE CONTRACT ADMINISTRATOR.
- 7. THE PILE DESIGN IS BASED ON THE ASSUMPTION THAT THERE WILL BE NO DISTURBANCES DUE TO THE EXCAVATIONS OR ANY OTHER REASONS TO THE GROUND WITHIN 1.0 m OF ANY PILE. IF SUCH DISTURBANCES ARE REQUIRED THE DESIGN ENGINEER SHALL BE NOTIFIED PRIOR TO THE DISTURBANCES SO THAT ANY POTENTIAL IMPACT TO THE PILE DESIGN CAN BE EVALUATED AND MODIFICATIONS CAN BE MADE TO THE PILE DESIGN AS REQUIRED.
- 8. SUPPLY MAXIMUM LENGTHS OF PILES TO MINIMIZE FIELD SPLICING DURING INSTALLATION.
- 9. IF FIELD SPLICES ARE REQUIRED THEY SHALL BE MOMENT SPLICES AS SHOWN.
- 10. FIELD SPLICES SHALL BE LOCATED SUCH THAT NO MORE THAN 50% OF THE PILES ARE SPLICED AT THE SAME ELEVATION.
- 11. PILE ENDS TO BE SPLICED SHALL BE FLAMED CUT USING A STEEL GUIDE TO OBTAIN A SQUARE AND EVEN CUT. BEVEL CUT SHALL BE MADE AT 45°. SPLICE PLATES SHALL BE WELDED TO THE UPPER PILE BEFORE POSITIONING. THE UPPER PILE SHALL BE POSITION ON AND THE SPLICE PLATES WELDED TO THE LOWER PILE. BUTT WELDS SHALL THE BE MADE.
- 12. ALL WELDING SHALL BE PERFORMED TO C.S.A. W59 BY QUALIFIED WELDERS WITH VALID "S" CLASSIFICATION CLASS "H" CERTIFICATES ISSUED BY THE CANADIAN WELDING BUREAU.
- 13. WHEN THE AIR TEMPERATURE IS BELOW 0°C ALL MATERIALS TO BE WELDED SHALL BE PREHEATED TO 100°C FOR A DISTANCE OF 80 mm BEYOND THE WELD AND SHALL BE SHELTERED FROM THE WIND.
- 14. WHEN THE AIR TEMPERATURE IS BELOW -18°C WELDING WILL NOT BE PERMITTED UNLESS SUITABLE HOARDING APPROVED BY THE ENGINEER IS PROVIDED.



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