

CONSTRUCTION NOTES

SITE ACCESS

CONTRACTOR TO CONFIRM SITE ACCESS WITH CONTRACT ADMINISTRATOR AND REPAIR ALL DAMAGE TO PRECONSTRUCTION CONDITION AT NO FURTHER COST TO THE CITY.

SHORELINE PREPARATION

DEADFALL IS TO BE REMOVED FROM THE SITE AND IF POSSIBLE SOME OF THE DEADFALL MAY BE RELOCATED ONSITE AT THE DISCRETION OF THE CONTRACT ADMINISTRATOR. RE-GRADING AND LEVELING SHALL TAKE PLACE ALONG THE LOWER BANK AREA BETWEEN THE ELEVATION OF 225.0 m, AND TOP OF RIP-RAP AS REQUIRED FOR PLACEMENT. RE-GRADING AND LEVELING IS REQUIRED IN ORDER TO PROVIDE A RELATIVELY UNIFORM SURFACE FOR ROCK PLACEMENT. REMOVAL OF SOIL ALONG THE LOWER BANK IS NOT REQUIRED UNLESS CONSIDERED NECESSARY TO ENSURE A STABLE PLATFORM FOR PLACEMENT OF THE RIP-RAP AND EQUIPMENT.

SAFETY FENCE

ERECTION OF A SAFETY FENCE IS REQUIRED AND MUST BE AT LEAST 1.2 m IN HEIGHT, INTERNATIONAL ORANGE, AND EXTEND AROUND THE SITE AT THE LOWER BANK AREA SUCH THAT NO PERSONS CAN ACCESS THE WORK AREA FROM THE RIVER WITHOUT REMOVAL OR DISTURBANCE TO THE FENCE. THE SAFETY FENCE SHALL INCLUDE SIGNAGE INDICATING THE DANGER OF THIN ICE, STANDARDS AND METHOD OF FASTENING THE FENCE SHALL BE IN ACCORDANCE WITH THE WINNIPEG POLICE DEPARTMENT.

RIP-RAP (ESTIMATED 100 TONNES)

THE ROCK TO BE USED AS RIP-RAP SHALL CONSIST OF CLEAN FREE DRAINING MATERIAL, AND CONTAIN NO ORGANIC ROOTS, SILTS, CLAY OR ANY OTHER DELETERIOUS MATERIAL THAT WOULD DETRACT FROM THE STRENGTH AND DRAINAGE CHARACTERISTICS OF CLEAN ROCKFILL. THE ROCK SHALL BE DURABLE, COMPRISED OF HIGH QUALITY DURABLE WHITE QUARRIED LIMESTONE/DOLOMITE. CONTRACT ADMINISTRATOR SHALL EXAMINE THE ROCK FOR APPROVAL PRIOR TO PLACEMENT. THE ROCKFILL SHALL HAVE A MAXIMUM SIZE OF 450 mm IN DIAMETER, A MINIMUM DIAMETER OF 200 mm, AND AN AVERAGE SIZE (D50) 300 mm. THE ROCKFILL SHALL HAVE A MAXIMUM ABSORPTION OF 2.5% (ASTM C 127). NO ROCKFILL WILL BE PERMITTED WITHOUT PROVIDING THE SOURCE AND SUPPLIER. ACCEPTANCE OF THE ROCK WILL BE PROVIDED UPON COMPLETION OF AN INSPECTION BY THE CONTRACT ADMINISTRATOR. AT THE DISCRETION OF THE CONTRACT ADMINISTRATOR TESTING WILL BE PERFORMED ON SAMPLES. THE COST OF THE TESTS WILL BE PAID FOR BY THE CITY, UNLESS MORE THAN TWO (2) TESTS ARE REQUIRED DUE TO POOR ROCK QUALITY, THEN THE COST WILL BE BORNE BY THE CONTRACTOR.

RIP-RAP PLACEMENT

THE ROCKFILL FOR THE RIP RAP SHALL BE PUSHED OR ROLLED INTO PLACE IN SUCH A MANNER THAT SEGREGATION DOES NOT OCCUR, AND THAT THE LARGER ROCKS ARE UNIFORMLY DISTRIBUTED WITH THE SMALLER ROCKS. HAND PLACING AND LEVELING MAY BE REQUIRED AND SHALL BE DONE ON AN AS REQUIRED BASIS IN ORDER TO PRODUCE A UNIFORM SURFACE. THE SHAPE AND DIMENSIONS OF THE RIP-RAP ARE SHOWN ON DRAWINGS, AND FINAL APPROVAL OF THE ABOVE WILL BE PROVIDED BY ENG-TECH. FINAL ELEVATIONS AND THICKNESSES SHALL BE WITHIN 0.1 m OF THE DIMENSIONS AND THICKNESS SHOWN ON THE DRAWINGS.

PLACEMENT OF THE ROCK BELOW THE RIVER ICE LEVEL SHALL BE COMPLETED WITH THE USE OF EQUIPMENT CAPABLE OF PLACING AND LEVELING THE ROCK TO THE THICKNESS AND SHAPE SHOWN ON THE DRAWINGS. ALL ICE SHALL BE REMOVED FROM THE SHORELINE SO AS NOT TO BECOME TRAPPED UNDER THE ROCK. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURING SAFE CONDITIONS ALONG ANY OPEN WATER, AND THE ERECTION OF A FENCE IN AREAS OF OPEN WATER AS REQUIRED BY LAW.

SURVEY AND PLACEMENT FOR OF THE FISHING PLAZA AND CANOE LAUNCH

THE LOCATION OF THE PILES SHALL BE FIELD FIT BY THE CONTRACT ADMINISTRATOR PRIOR TO CONSTRUCTION. THE CONSTRUCTOR WILL BE RESPONSIBLE TO ENSURE THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE DRAWINGS. PILE DETAILS ARE SHOWN ON THE DRAWINGS.

PAVING STONES AND SUBGRADE

COMPACTION OF THE SUBGRADE TO A MINIMUM OF 98% OF STANDARD PROCTOR DENSITY IS TO BE FOLLOWED BY THE PLACEMENT OF MIRAGRID 5XT GEOTEXTILE WITH A MINIMUM DOWN SLOPE OVERLAP OF 300 mm AND 300mm TURN-UP AGAINST ALL GRADE BEAMS. GEOTEXTILE IS TO BE FOLLOWED BY PLACEMENT OF 200 mm OF GRANULAR A-BASE COMPACTED IN 100 mm LIFTS TO 100% OF STANDARD PROCTOR DENSITY. AFTER PLACEMENT OF GRANULAR A-BASE, A SECOND LAYER OF GEOTEXTILE IS TO BE INSTALLED IN THE SAME MANNER OUTLINED ABOVE, FOLLOWED BY 25 mm OF CONCRETE SAND, AND PAVING STONES. PAVING STONES SHALL BE 8 cm THICK HOLLAND STONES PLACED IN A HERRINGBONE PATTERN, COLOUR "OLD TOWN".

GRANULAR MATERIAL

THE GRANULAR MATERIAL TO BE USED IN THE CONSTRUCTION SHALL CONSIST OF GRANULAR A-BASE, AND SHALL NOT CONTAIN ORGANIC ROOTS, OR MORE THAN 8% SILT AND CLAY, OR ANY OTHER DELETERIOUS MATERIAL THAT WOULD DETRACT FROM THE STRENGTH CHARACTERISTICS OF THE STRUCTURE. COMPACTION OF GRANULAR MATERIAL SHALL BE TO 100% MAXIMUM DRY DENSITY. ENG-TECH SHALL EXAMINE THE MATERIAL FOR APPROVAL PRIOR TO PLACEMENT. NO MATERIAL WILL BE PERMITTED WITHOUT PROVIDING THE SOURCE AND SUPPLIER. ACCEPTANCE OF THE MATERIAL WILL BE PROVIDED UPON COMPLETION OF AN INSPECTION BY ENG-TECH. AT THE DISCRETION OF THE CONTRACT ADMINISTRATOR, TESTING WILL BE PERFORMED ON SAMPLES. THE COST OF TESTS WILL BE PAID FOR BY THE CITY, UNLESS MORE THAN TWO (2) TESTS ARE REQUIRED DUE TO POOR MATERIAL QUALITY, IN WHICH CASE THE ADDITIONAL COSTS WILL BE CHARGED TO THE CONTRACTOR.

CONCRETE

CONCRETE FOR THE GRADE BEAMS AND STRUCTURAL SLAB SHALL BE 30 MPa, NORMAL TYPE 10 CEMENT, 20 mm MAXIMUM AGGREGATE SIZE, WITH A WATER CEMENTING RATIO OF 0.58 (MAX), AND A 5-8% AIR CONTENT. HOARDING AND HEATING IS TO BE COMPLETED IN ACCORDANCE WITH CSA. A MIN. OF 70% OF THE DEIGN STRENGTH MUST BE OBTAINED PRIOR TO THE TEMPERATURE BEING REDUCED BELOW 10 °C, AND THE HOARDING AND HEATING REMOVED IN ACCORDANCE WITH CSA.

HELIX PILES

PILES ARE TO BE EMBEDDED 150 mm INTO GRADE BEAMS AND 25 mm INTO CONCRETE SLAB VERTICALLY +/- 2 DEGREES. STEEL SURFACE ARE TO BE ROUGHENED PRIOR TO POURING OF CONCRETE. THE INSTALL TORQUE IS EXPECTED TO BE 35.0 kN PER m, WITH A MINIMUM OF 30.0 kN PER m. STRUCTURAL STEEL MEMBERS SHALL CONSIST OF NEW MATERIAL ONLY, AND CONFORM TO CSA S16.1-01 (LIMIT STATE DESIGN). PIPE SHAFT SHALL COMPLY WITH ASTM A252 GRADE 2 OR 3 STEEL PIPE, SEAMLESS OR STRAIGHT WELDED. HELIX PLATES SHALL CONFORM WITH ASTM A36 OR CSA G40.21 44W (300W) HOT ROLLED STRUCTURAL STEEL PLATE. WELDING TO CONFORM TO CSA W47.1. WELD TENSILE STRENGTH TO BE 480 MPa. ALL WELDS TO BE 7.9 mm FILLET WELDS UNLESS OTHERWISE NOTED. FABRICATION SHALL BE CARRIED OUT IN ACCORDANCE WITH STANDARD PRACTICES AND ALL APPLICABLE CODES. ABOVE DESIGN AND COMPONENTS SHALL CONFORM TO THE LATEST ADDITION OF THE N.B.C. AND APPLICABLE BUILDING CODES. REMOVE DRIVE HOLES PRIOR TO SPLICING ON ADDITIONAL SECTIONS.

SITE CLEAN-UP

SITE CLEAN-UP CONSISTS OF RESTORING THE SITE TO NEAR PRE-CONSTRUCTION CONDITIONS AS DIRECTED BY THE CONTRACT ADMINISTRATOR. SITE ACCESS ON CITY LAND IS TO BE RESTORED TO THE SATISFACTION OF THE CITY OF WINNIPEG AT NO FURTHER COST TO THE CITY.

MATERIALS

SILT FENCE

A SILT FENCE SHALL BE PLACED AROUND THE OUTER EDGE OF THE CONSTRUCTION AREA TO PREVENT SILT FROM MIGRATING DOWNSTREAM. THE SILT FENCE SHALL EXTEND FROM THE WATER SURFACE TO THE BOTTOM OF THE CHANNEL AND BE SECURED TO PREVENT MOVEMENT. THE SILT FENCE SHALL BE REMOVED UPON COMPLETION OF THE WORK ALONG THE SHORELINES.

STENLOG

DURING AND POST CONSTRUCTION A 200 mm THICK LAYER OF STENLOG SHALL BE PLACED BETWEEN THE CONSTRUCTION AREA (TOP OF RIP-RAP) AND THE RIVER TO PREVENT SOIL PARTICLES FROM MIGRATING INTO THE RIVER.

SEEDING/SODDING RESTORATION

SEE LANDSCAPE PLANNING L-1 FOR SEEDING/SODDING RESTORATION.

BOAT RAMP PADS

INSTALL 3 BOAT RAMP PADS BY BARKMAN CONCRETE ITEM No. 45-8400 AS PER MANUFACTURES RECOMMENDATIONS.

ARMOUR TILE (DETECTABLE GUIDANCE SYSTEM)

USE 100 mm WIDE STRIP TILES. ARMOUR TILE TO BE EMBEDDED 24 mm INTO CONCRETE AT THE LOCATION AS SHOWN IN DRAWING G-2 IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS.



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PROJECT:

RIVERBANK ASSESSMENT,
BOURKEVALE C.C. RIVER ACCESS/
CANOE LAUNCH, WINNIPEG, MB

DWG DESCRIPTION:
CONSTRUCTION NOTES

SCALE:

N/A

DRAWN BY:

ATK

DATE:

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G-7

REV.:

R-1