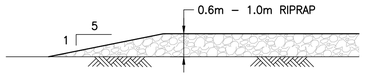
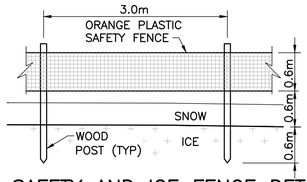


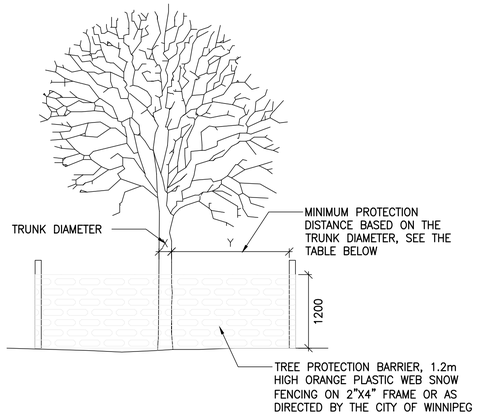

## RIPRAP TERMINATION DETAIL (U/S AND D/S)

SCALE: N.T.S.




## SAFETY AND ICE FENCE DETAIL

NTS (ALSO FOR AQUEDUCT)




| TREE PROTECTION ZONES | |
|---|---|
| X= TRUNK DIAMETER | Y= MINIMUM PROTECTION DISTANCE REQUIRED |
| <10CM | 2.0m |
| 11–40CM | 2.4m |
| 41–50CM | 3.0m |
| 51–60CM | 3.6m |
| 61–70CM | 4.2m |
| 71–80CM | 4.8m |
| 81–90CM | 5.4m |
| 91–100CM+ | 6.0m |

TRUNK DIAMETER ARE MEASURED AT BREAST HEIGHT AT 1.4 METRES ABOVE GROUND
TREE PROTECTION ZONE DISTANCES ARE TO BE MEASURED FROM THE OUTSIDE EDGE OF THE TREE BASE TOWARDS THE DRIP LINE.

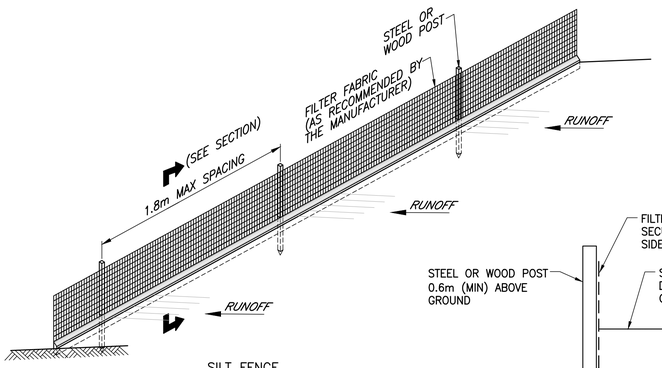
NOTE:
STRAP MATURE TREE TRUNKS WITH 25 X150 X 2400 WOOD PLANKS. SMALLER TREES SHALL BE SIMILARLY PROTECTED USING APPROPRIATE SIZED WOOD PLANKS.
DO NOT STOCKPILE MATERIALS AND SOIL OR PARK VEHICLES AND EQUIPMENT ON BOULEVARDS WITHIN 2.0 METRES OF TREES.
EXCAVATIONS SHALL BE CARRIED OUT IN A MANNER TO MINIMIZE DAMAGE TO EXISTING ROOT SYSTEM. WHERE ROOTS MUST BE CUT TO FACILITATE AN EXCAVATION THEY SHALL BE NEATLY PRUNE AT THE FACE OF THE EXCAVATION.
WORK ON SITE SHALL BE CARRIED OUT IN A MANNER TO MINIMIZE DAMAGE TO EXISTING TREE BRANCHES. WHERE DAMAGE TO TREE BRANCHES DOES OCCUR, THE CONTRACTOR SHALL NEATLY PRUNE THE DAMAGED BRANCH.

## CITY OF WINNIPEG TREE PROTECTION STANDARDS

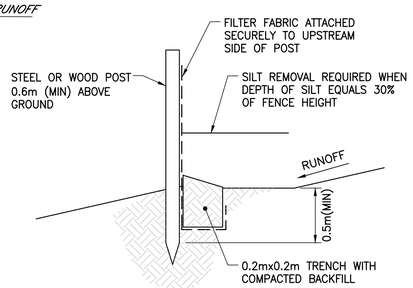
SCALE: 1:50

### NOTES:

1. LOCATION AND EXTENT OF EROSION PROTECTION MEASURES TO BE DETERMINED IN THE FIELD BY THE CONTRACT ADMINISTRATOR.
2. STRAW WATTLE INSTALLATION REQUIRED PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"–5" (75–125MM) DEEP, DUG ON CONTOUR. RUNOFF NOT ALLOWED TO RUN UNDER OR AROUND ROLL.



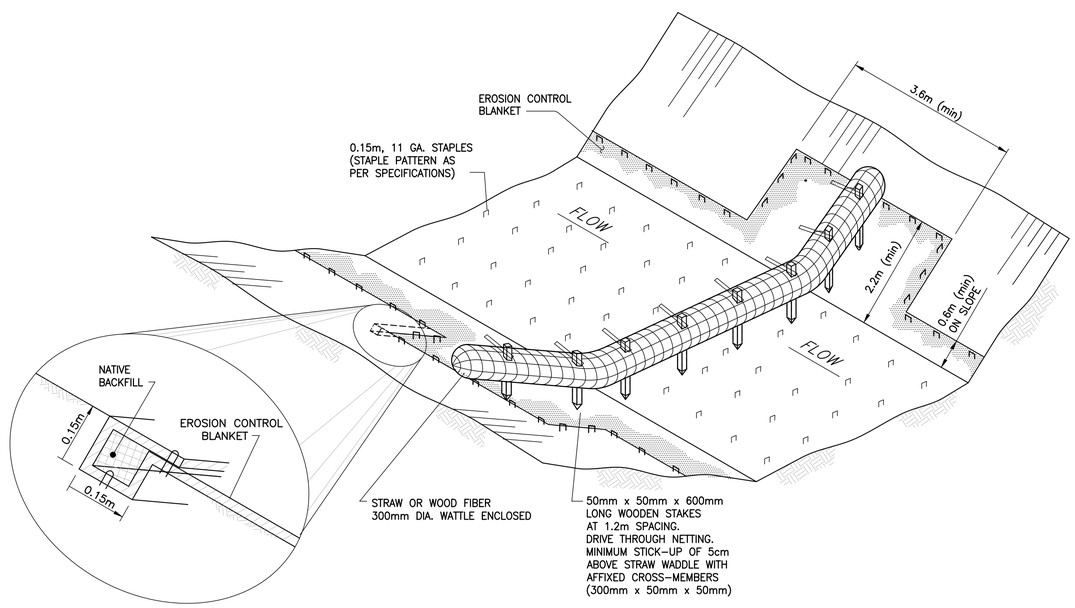

SILT FENCE
ISOMETRIC DETAIL




SECTION

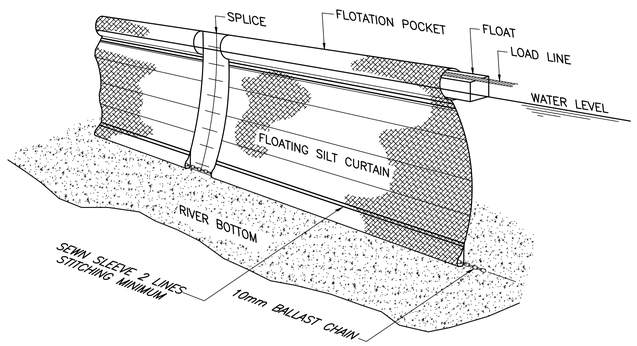
## EROSION PROTECTION DETAIL

SCALE: N.T.S.




## TYPICAL STRAW WATTLE AND EROSION CONTROL BLANKET DETAIL

SCALE: N.T.S. (SEE NOTE 2)




## TYPICAL CONSTRUCTION OF A TURBIDITY CURTAIN

SCALE: N.T.S.

## METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

### PROPERTY LIMITS DELINEATION

DELINEATION OF PROPERTY LIMITS AS SHOWN ON THIS DWG DOES NOT REPRESENT A "LEGAL SURVEY". KGS GROUP MAKES NO REPRESENTATION OR WARRANTY AS TO THE ACCURACY OF PROPERTY LIMITS DELINEATED ON THIS DWG, NOR ON THE DIMENSIONAL ACCURACY OF DWG FEATURES RELATIVE TO THOSE PROPERTY LIMITS.

### WARNING

1. NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2. TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
3. SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
KGS Group
No. 245

| EXISTING | LEGEND–PLAN | PROPOSED | EXISTING | LEGEND–PLAN | PROPOSED | EXISTING | LEGEND–PROFILE | PROPOSED |
|---|---|---|---|---|---|---|---|---|
| 300 LDS | LAND DRAINAGE SEWER | 300 LDS | — × — × — | FENCE | | | | |
| 250 WWS | WASTE WATER SEWER | 250 WWS | | TEST HOLE | | | | |
| — · · · — | GAS | | | GUY WIRE | | | | |
| — — — — | HYDRO | | | LIGHT STANDARD | | | | |
| — · · — | M.T.S. | | | BACK OF CURB | | | | |
| 150 WM | WATERMAIN | 150 WM | | CONCRETE | | | ℄ PROFILE | |
| | HYDRANT | | | ASPHALT | | | EDGE OF ALLEY LHS | |
| | VALVE | | | SIDEWALK | | | EDGE OF ALLEY RHS | |
| | MANHOLE | | | PROPERTY LINE | | | N/W LANE ℙ | |
| | CATCH BASIN | | | SURVEY BAR | | | S/E MEDIAN ℙ | |
| | CURB INLET | | | GEODETIC BENCHMARK | | LHS/BHS | GARAGE/PARKING SLAB | |
| | POLES T–MTS H–HYDRO | | 231.33 | ELEVATION | 232.231 | | WINDOW/DOOR SILL | |

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE — DATE

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M. KGS_BASE
ELEV. 249.221

| NO. | REVISIONS | DATE | BY |
|---|---|---|---|
| 0 | ISSUED FOR TENDER | 20/10/05 | BPA |

KGS GROUP

| | | | |
|---|---|---|---|
| DESIGNED BY | CMR | CHECKED BY | BPA |
| DRAWN BY | PwD | APPROVED BY | BPA |
| HOR. SCALE: VERTICAL: | AS NOTED | RELEASED FOR CONSTRUCTION: | |
| DATE | | DATE | |

ENGINEER'S SEAL

CONSULTANT DRAWING NO.
CG–09

Winnipeg

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PROJECT TITLE
WELLINGTON CRESCENT RIVERBANK, PATH AND ROADWAY PROJECT

SLOPE STABILIZATION WORKS

EROSION CONTROL MEASURES

SHEET 18 OF 69
COMPUTER FILE NAME 18–0107–011_CG–09
CITY DRAWING NUMBER P–3536–18

Filename: R:\Projects\2018\18-0107-011\Dwg\Geo\18-0107-011_CG-09 – Tab:RevO Plotted By: PDeffner 20/10/05 [Mon 11:32am]
A1 (841x594) / PLOT SCALE: 1:1