APPENDIX A

DFO REQUEST FOR REVIEW

Request for Review

Please note that Guidance on Submitting a Request for Review is available at the end of this form. This guidance explains the requirements for a Request for Review by DFO under the fish and fish habitat protection provisions of the *Fisheries Act*. All information requested must be provided. If you attach documents to your application with additional information, you must still provide appropriate summaries in the spaces provided on the application document or your application will be considered incomplete.

A) Contact information

Name of Business/Company:

City of Winnipeg

Name of Proponent:

Duane Baker, CET

Mailing address:

Water and Waste Department
110-1199 Pacific Avenue

City/Town:

Winnipeg

Province/Territory:

Manitoba

Postal Code:

R3E 3S8

Tel. No. :

204-986-4289

Fax No.:

Email:

duanebaker@winnipeg.ca

Select additional contact:
Contractor/Agency/Consultant *(if applicable):*

Shaun Moffatt
c/o KGS Group

Mailing address:

3rd Floor - 865 Waverley Street

City/Town:

Winnipeg

Province/Territory:

Manitoba

Postal Code:

R3T 5P4

Tel. No. :

204-318-2054

Fax No.:

204-896-0754

Email:

smoffatt@kgsgroup.com

Is the Proponent the main/primary contact? ○ Yes ◉ No

**All definitions are provided in Section G of the Guidance on Submitting a Request for Review*

If no, please enter information for the primary contact or any additional contact.

Please contact Shaun Moffatt at KGS Group as per Additional Contact information.

B) Description of Project

If your project has a title, please provide it.

Archibald Outfall Renewal and Rehabilitation

Is the project in response to an emergency circumstance*? ○ Yes ◉ No

Does your project involve work in water? ◉ Yes ○ No

If yes, is the work below the High Water Mark*? ◉ Yes ○ No

What are you planning to do? Briefly describe all project components you are proposing in or near water.

The City of Winnipeg has identified that the Archibald Street Outfall located along the Seine River requires repair. The Archibald Street Outfall (City of Winnipeg Asset # S-MA70016004) is a 2600 mm by 2080 mm egg shaped concrete combined sewer outfall that discharges into the Seine River.

While the work is below the High Water Mark, no in water works is expected as the outfall invert is typically above the UWRL (Unregulated Winter River Level).

The purpose of the proposed works is to protect the public and upstream neighborhoods from surface and basement flooding. The outfall is an important and necessary asset of the City of Winnipeg Sewer Management System. The following near water works will be required to complete the outfall repairs:
- Lining the upstream 79 m of 2600x2080mm concrete egg shaped pipe.
- Removal and replacement of intermediate manhole.
- Installation of 0.6 m thick riprap set flush (subcut) to existing bank contours at the pipe outlet.
- Installation of Erosion Control Blankets and Silt Fencing.
- Site Restoration and Revegetation (tree planting, seeding).

How are you planning to do it? Briefly describe the construction materials, methods and equipment that you plan to use.

Construction Schedule
The Archibald Street Outfall works is to be scheduled between January 1 and March 15, 2021 during low flow and water levels. Every reasonable effort will be made to minimize the duration of construction activity and disturbance to the shore at the project location. Site restoration and revegetation will be completed the following spring before June 30, 2021.

Site Access
Site access and works near the river edge will be conducted during low flow (winter) and during frozen ground and ice conditions. Access by fording, if required, is to be restricted to one crossing location, and traffic is to be limited. Minor regrading of the riverbank area may be required for equipment access; it will be performed by excavation only. Under no circumstances will any fill be allowed on the riverbank for equipment access. In general, all excavation shall proceed from the top of bank area down to the bottom so as not to jeopardize riverbank stability. All material excavated shall be disposed of off-site immediately upon excavation. The stockpiling of excavated material at the site will not be allowed. Upon completion of the works, the bank shall be restored to the pre-construction condition and geometry.

Sediment and Erosion Control
Silt fences and erosion control blankets will be used to prevent the release of sediment laden runoff into the river during excavation or other construction activities. These protection measures will be maintained until re-vegetation has been established. Any sediment, sand, or debris introduced to the ice surface shall be removed upon project completion and prior to spring thaw. Effective long term erosion and sediment control measures (e.g. erosion control blankets, sediment barriers, straw mulch, silt fences) will be used to prevent any construction activities from contributing sediment to the water bodies. This includes stabilizing and seeding disturbed areas after

All definitions are provided in Section G of the Guidance on Submitting a Request for Review

construction and ensuring they are reclaimed to vegetation within one growing season. In addition to the above, all work will be performed in accordance with an Environmental Protection Plan approved by the Contract Administrator.

Decanting Existing Water from Pipe (not expected, but if required)
All existing river water from inside the pipe shall be pumped back into the river. The Contractor shall ensure that the pumped water does not have elevated levels of sediment and is directed to an appropriately sized energy dissipating outlet device to prevent bed or bank erosion at the point of discharge into the natural water body. The decanting activities shall be monitored continuously to address the turbidity of the water. Contractor will continuously monitor the pump pressure. Contractor shall cease pumping operation prior to taking in sediment. All sediment material shall then be pumped into a storage tank and is to be disposed of off site. The water withdrawal rates shall not exceed 10% of the instantaneous stream flow at the time. Vacuum unit and pumping systems size, screens, and capacity will be sized according to the Department of Fisheries and Oceans' Freshwater Intake End-of-Pipe Fish Screening Guidelines to prevent debris blockage and fish mortality.

Outfall Pipe Lining Rehabilitation & Manhole Replacement
The upstream 79 m of the concrete outfall pipe is to be rehabilitated using trenchless methods as part of the proposed works. The lining pipe material will be either a Glass-Reinforced Plastic (GRP) Liner or Spiral Wound Liner (Steel Reinforced HDPE liner). This lining process is done by using trenchless methods, therefore the riverbank is not disturbed and bedding/backfill is not required. An excavation will be required to remove and replace the intermediate manhole at mid-bank, however this will be a small shored excavation (approx. 5m by 5m) and will be backfilled with sand and well graded granular material. Lastly, a 600 mm thick riprap blanket will be placed around the pipe outlet to protect the pipe and shoreline against erosion. The riprap is to consist of 300 mm diameter limestone rock, and is to be set flush (subcut) to the existing bank contours above the UWRL.

Construction Equipment Required:
A Loader, Excavator/Backhoe, and Skid Steer will be required for site access, pipe lining, riprap installation and restorations. Other smaller equipment that may be required includes appropriately sized pumps, small hand tools, and generators.

Plans, Maps, and Affected Area:
See attached preliminary drawing (Attachment 1). An updated drawing will be sent prior to construction upon completion of Detailed Design.

Include a site plan (figure/drawing) showing all project components in and near water.

Are details attached? (•) Yes ( ) No

Identify which work categories apply to your project.

- [ ] Aquaculture Operations
- [ ] Aquatic Vegetation Removal
- [ ] Beaches
- [ ] Berms
- [ ] Blasting / Explosives
- [ ] Boat Houses
- [ ] Boat Launches / Ramps
- [ ] Breakwaters
- [ ] Bridges
- [ ] Cable Crossings
- [ ] Causeways
- [ ] Culverts
- [ ] Dams
- [ ] Dewatering / Pumping
- [ ] Docks
- [x] Dredging / Excavation
- [ ] Dykes
- [ ] Fishways / Ladders
- [ ] Log Handling / Dumps
- [ ] Log Removal
- [ ] Moorings
- [ ] Open Water Disposal
- [ ] Piers
- [ ] Riparian Vegetation Removal
- [ ] Seismic Work
- [x] Shoreline Protection
- [ ] Stormwater Management Facilities
- [ ] Surface Water Taking
- [ ] Tailings Impoundment Areas
- [ ] Temporary Structures
- [ ] Turbines
- [ ] Water Control Structures
- [ ] Water Intakes / Fish Screens
- [x] Water Outfalls
- [ ] Watercourse Realignment
- [ ] Weirs

**All definitions are provided in Section G of the Guidance on Submitting a Request for Review*

- [ ] Flow Modification (hydro)
- [ ] Groundwater Extraction
- [ ] Groynes
- [ ] Habitat Restoration
- [ ] Ice Bridges
- [ ] Wharves
- [ ] Wind Power Structures
- [ ] Other Please Specify

Was your project submitted for review to another federal or provincial department or agency? ○ Yes ◉ No

If yes, indicate to whom and associated file number(s).

C) Location of the Project

Coordinates of the proposed project Latitude N Longitude W

OR UTM zone 14 ; 635736.000 Easting

5529169.000 Northing

Include a map clearly indicating the location of the project as well as surrounding features.

Name of Nearest Community (City, Town, Village): Winnipeg

Municipality, District, Township, County, Province: Manitoba

Name of watershed (if applicable): N/A

Name of watercourse(s) or waterbody(ies) near the proposed project: Seine River

Provide detailed directions to access the project site:

The project site is located in Winnipeg, Manitoba. The site can be accessed off of Archibald Street and is located just west of the pump house station.

D) Description of the Aquatic Environment

Identify the predominant type of aquatic habitat where the project will take place.

- ○ Estuary (Estuarine)
- ○ Lake (Lacustrine)
- ◉ On the bank/shore at the interface between land and water (Riparian)
- ○ River or stream (Riverine)
- ○ Salt water (Marine)
- ○ Wetlands (Palustrine)

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Provide a detailed description of biological and physical characteristics of the proposed project site. This description should include information on aquatic species at risk* (https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html), their residence* and critical habitat* if found in the area. An overview of the distribution of aquatic species at risk and the presence of their critical habitat within Canadian waters can be found here http://dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html

The vegetation along the Seine River banks consists of mature deciduous trees, native grasses and shrubs. The project area includes some in-stream vegetation, fallen trees and floating logs within the channel. Bottom substrates are predominantly soft and muddy, with limited cobble and gravel areas containing appropriate nest-building and spawning habitat for bullhead species. Fish species commonly found in the Seine River within the City of Winnipeg include spottail shiner, Johnny darter, fathead minnow, white sucker, brook stickleback and northern pike (Seine River Survey and Restoration Planning Project, Final Report, November 2005). The outfall is located approximately 85 metres upstream from the confluence with the Red River and therefore it is likely that fish utilize habitat in both rivers during their lifetime. As such, fish species common to the Red River, such as walleye, sauger, channel catfish and northern pike, may also be present (NSC 2017). Due to low flows and substrate consisting mainly of fine material with low compaction it is unlikely the project area would be used by key species such as walleye for spawning in the spring. With the proximity to the Red River aquatic species at risk identified in the Red and Seine Rivers include silver chub and bigmouth buffalo. Both of these species are identified as Special Concern under SARA, however, no critical habitat is present near the project area. Additionally, the Mapleleaf mussel has been identified in the the Red and Assiniboine Rivers and their tributaries and is designated as "Threatened" under SARA. The substrate at the project site consists of soft clay and mud and is not considered typical habitat for the species. Additionally, Mapleleaf mussel was not found during a substrate survey completed approximately 350 m upstream associated with the City of Winnipeg Aqueduct crossing. Studies on water quality indicated high nutrient levels and high levels of E. coli, probably the result of livestock operations, lagoon operations and natural conditions upstream. Photographs of the shoreline upstream and downstream of the outfall are provided in Attachment 2.

Include representative photos of affected area (including upstream and downstream area) and clearly identify the location of the project.

E) Potential Effects of the Proposed Project

Have you reviewed the Pathways of Effects (PoE) diagrams (http://www.dfo-mpo.gc.ca/pnw-ppe/pathways-sequences/index-eng.html) that describe the type of cause-effect relationships that apply to your project?

◉ Yes ○ No

If yes, select the PoEs that apply to your project.

- ☐ Addition or removal of aquatic vegetation
- ☐ Change in timing, duration and frequency of flow
- ☐ Cleaning or maintenance of bridges or other structures
- ☐ Dredging
- ☒ Excavation
- ☐ Fish passage issues
- ☐ Grading
- ☐ Marine seismic surveys
- ☐ Organic debris management
- ☐ Placement of marine finfish aquaculture site
- ☒ Placement of material or structures in water
- ☒ Riparian Planting
- ☐ Streamside livestock grazing
- ☐ Structure removal
- ☐ Use of explosives
- ☐ Use of industrial equipment
- ☒ Vegetation Clearing
- ☐ Wastewater management
- ☐ Water extraction

Will there be changes (i.e., alteration) in the fish habitat*? ◉ Yes ○ No ○ Unknown

If yes, provide a description.

The existing vegetation and substrate immediately surrounding the outfall will be removed and replaced with riprap shoreline protection.

Is there likely to be a harmful alteration, disruption or destruction of habitat used by fish? ○ Yes ◉ No ○ Unknown

Is there likely to be destruction or loss of habitat used by fish? ○ Yes ◉ No ○ Unknown

All definitions are provided in Section G of the Guidance on Submitting a Request for Review

What is the footprint (area in square meters) of your project that will take place below the high water mark*?

Approximately 25 sq.m. will be permanently altered by installation of riprap, however, this will all be above the winter ice level and therefore not affect Mapleleaf mussel habitat.

Is your project likely to change water flows or water levels? ○ Yes ◉ No ○ Unknown

If your project includes withdrawing water, provide source, volume, rate and duration.

N/A

If your project includes a water control structure, provide the % of flow reduction.

N/A

If your project includes discharge of water, provide source, volume and rate.

The outfall is the release point for overflows collected by the City of Winnipeg Combined Sewer System, the volume and rate is variable depending on rain storm events and spring melt, typically with no flows in winter.

Will your project cause death of fish? ○ Yes ◉ No ○ Unknown

If yes, how many fish will be killed (for multi-year project, provide average)? What species and lifestages?

What is the time frame of your project?

The construction will start on 01/04/2021 and end by 03/15/2021

If applicable, the operation will start on MM/DD/YYYY and end by MM/DD/YYYY

If applicable, provide schedule for the maintenance

No predetermined maintenance schedule, repair work is conducted on an as required basis.

If applicable, provide schedule for decommissioning

No plans to decommission.

Are there additional effects to fish and fish habitat that will occur outside of the time periods identified above? ○ Yes ◉ No

(If yes, provide details)

Can you follow appropriate Timing Windows (http://www.dfo-mpo.gc.ca/pnw-ppe/timing-periodes/index-eng.html) for all your project activities below the High Water Mark*? ◉ Yes ○ No

(If no, provide explanations.)

Have you considered and incorporated all options for redesigning and relocating your project to avoid negative effects to fish and fish habitat?

◉ Yes ○ No

If yes, describe.

The outfall cannot be redesigned or relocated because of the surrounding infrastructure at the site.

All definitions are provided in Section G of the Guidance on Submitting a Request for Review

Have you consulted DFO's Fish and Fish Habitat Protection Measures Habitat (http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/index- eng.html) to determine which measures apply to your project? (●) Yes ( ) No

Will you be incorporating applicable measures into your project? (●) Yes ( ) No

If yes, identify which ones. If No, identify which ones and provide reasons.

PREVENT THE DEATH OF FISH - No fish will be killed and no explosives used. In water work is scheduled in winter to avoid fish spawning and migration season and to occur during period of low flow.
MAINTAIN FISH PASSAGE - The project will not change flows or water levels and will not obstruct or interfere with the movement and migration of fish.
ENSURE PROPER SEDIMENT CONTROL - An erosion and sediment control plan will be developed and implemented; excavated material will be disposed of off-site immediately upon excavation; silt fences and erosion control blankets will be used to prevent the release of sediment laden runoff into the river during excavation or other construction activities; these protection measures will be maintained until re-vegetation has been re-established; work will be scheduled to avoid weather conditions that may result in high flow volumes and/or increased erosion and sedimentation; monitoring the river for signs of increased sedimentation during construction and taking corrective actions as required; and operating machinery on land in stable dry areas.
PREVENT ENTRY OF DELETERIOUS SUBSTANCES IN WATER - Depositing deleterious substances in the river will be avoided; any sediment, sand, or debris introduced to the ice surface shall be removed upon project completion and prior to spring thaw; a spill response plan will be developed and implemented; an emergency spill kit will be kept on site; work will be stopped and deleterious substances contained to prevent dispersal if spilled; spills of any oil, fuel or other deleterious material will be reported; spills will be cleaned-up and appropriately disposed; machinery on-site will be maintained in a clean condition and free of fluid leaks; washing, refueling and servicing of machinery and fuel storage will be a minimum of 100 m away from the river.

Have you considered whether DFO standards and codes of practice apply to your project? (●) No ( ) Yes

If Yes, include a list.

Have you considered other avoidance and mitigation measures? (●) No ( ) Yes

If Yes, include a list.

Are there any relevant measures that you are unable to incorporate? ( ) Yes (●) No

(If yes, identify which ones.)

What harmful effects to fish and fish habitat do you foresee after taking into account the avoidance and mitigation measures described above?

Permanent alteration of approximately 25 sq.m of shoreline habitat.

Do these include effects on aquatic species at risk*? (●) Yes ( ) No

If yes, please describe, including how many individuals will be harmed, harassed, or otherwise affected by the project, and how?

Mapleleaf mussel, silver chub and bigmouth buffalo are identified as being present in the Red River approximately 85 m downstream of the outfall and bigmouth buffalo is present in the Seine River, however, as the work will be done in the winter and all work is above the ice level no individuals will be affected and there is no critical habitat identified in the area.

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Do these include effects on areas identified as their residence or critical habitat? ○ Yes ◉ No

If yes, please describe

Are there any aquatic invasive species in the vicinity of your project area? ◉ Yes ○ No

(If yes, identify which ones.)

Zebra mussel and spiny water flea are known to be present in the Red River, which is approximately 85 m downstream from the project area on the Seine River.

Does your project aim to, or will it be likely to, effect any of these aquatic invasive species? ○ Yes ◉ No

If yes, how?

F) Signature

I, Shaun Moffatt (print name) certify that the information given on this form is to the best of my knowledge, correct and completed.

Signature

27/02/2020

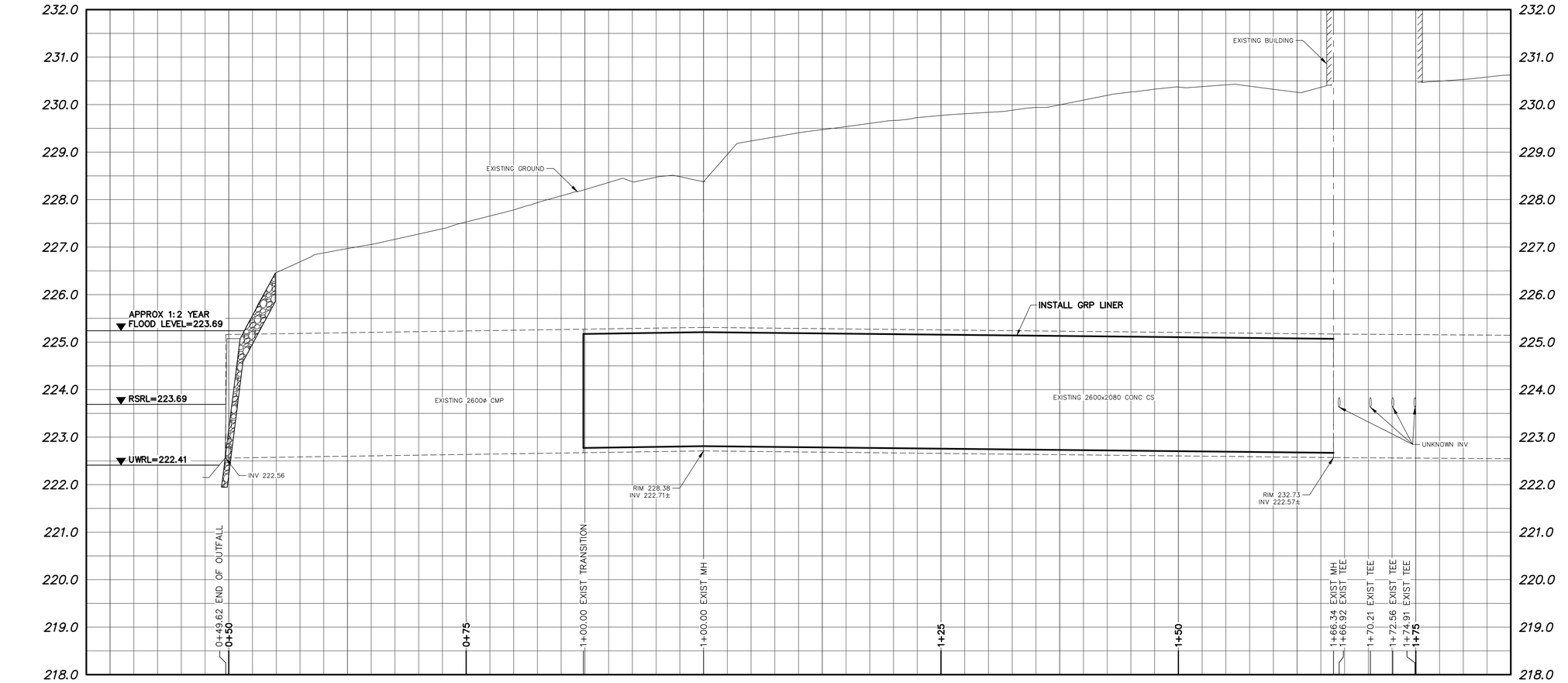
Date

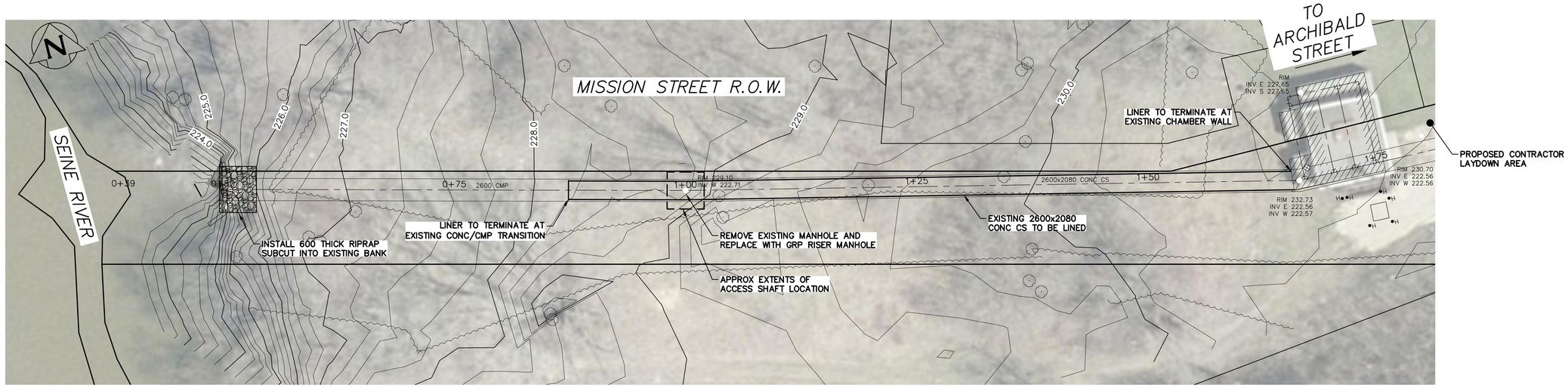
Information about the above-noted proposed work or undertaking is collected by DFO under the authority of the *Fisheries Act* for the purpose of administering the Fish and Fish Habitat protection provisions of the *Fisheries Act*. Personal information will be protected under the provisions of the *Privacy Act* and will be stored in the Personal Information Bank DFO-PPU-680. Under the *Privacy Act*, Individuals have a right to, and on request shall be given access to any personal information about them contained in a personal information bank. Instructions for obtaining personal information are contained in the Government of Canada's Info Source publications available at www.infosource.gc.ca or in Government of Canada offices. Information other than "personal" information may be accessible or protected as required by the provision of the *Access to Information Act*.

**All definitions are provided in Section G of the Guidance on Submitting a Request for Review*

ATTACHMENT 1

KGS GROUP





NOTES;

1. ALL EXCAVATED MATERIAL WITHIN 107.0 OF REGULATED SUMMER RIVER LEVEL (RSRL) MUST BE REMOVED FROM SITE (NO STOCKPILING).
2. CONTRACTOR TO MAINTAIN ACCESS TO THE MISSION FLOOD PUMPING STATION AND SLUICE GATES AT ALL TIMES.
3. CONTRACTOR IS ADVISED THAT CROSS SECTION OF EXISTING 2600x2080 CONC CS VARIES THROUGHOUT.

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.

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

0.0 5.0 10.0 15.0 20.0 25.0

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.

2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.

SEE PROVINCIAL REGULATION 210/72 FOR DETAILS

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.
ELEV.

NO.	REVISIONS	DATE	BY
A	ISSUED FOR REVIEW	2020 01 XX	RBO

KGS GROUP

DESIGNED BY	NGV	CHECKED BY	
DRAWN BY	GEL	APPROVED BY	
SCALE: HORIZONTAL	1:250	RELEASED FOR CONSTRUCTION	
VERTICAL			
DATE	2020 02 26	DATE	

PLOT DATE: 2020 02 26

ENGINEER'S SEAL

CONSULTANT DRAWING NUMBER
LD-XXXX

BID OPPORTUNITY: XXXX-20XX
TENDER NUMBER: 170-2020

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

ARCHIBALD STREET OUTFALL
RENEWAL AND REHABILITATION

ARCHIBALD STREET

OUTFALL (SE-1)
S-MA70016004 AND S-MA70019979

SHEET 3 OF 5

CITY DRAWING NUMBER
LD-XXXX

FILE PATH: U:\FMS\19-0107-015\
FILE NAME: 19-0107-015_PP.dwg

ATTACHMENT 2

KGS GROUP

Photo 1: Looking East towards pump house along existing cleared access to outfall outlet

Photo 2: Looking upstream on east bank of Seine River at outfall outlet showing riparian vegetation to be cleared.

Photo 3: Close-up of outfall showing invert above the winter ice level.