



Memorandum

August 1, 2018

To: Keith Noble, MDEQ Ref. No.: 058502-T02

From: *J.E.P.*
John-Eric Pardys/kf/33 Tel: 519-340-4316

cc: Dave Favero

Subject: NPDES Permit MI0059042 – Part I, Section A. 1. F. – Secondary Pond Discharge Control Measures

The following memorandum has been prepared by GHD on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust to address the requirements in NPDES Permit MI0059042 – Part I, Section A. 1.f. Secondary Pond Discharge Control Measures at RACER's Nodular Industrial Land, Saginaw, MI.

To date, RACER has been able to lower the water level in the Secondary Pond by discharging passively through an outfall pipe, then reduced the level in the pond further by pumping water, as approved by MDEQ on August 26, 2016.

RACER proposes to use the same discharge control measures as implemented in 2016 to pump the water but minimize the disturbance of sediment and the sediment entering the discharge. RACER proposes to utilize a pump (up to 90 horsepower, powered by a generator) which will hang from the center of a welded tripod mount with a square base that will rest on the floor of a pontoon boat (see Attachment A for photographs of the previous setup). A hole will be cut in the center of the pontoon boat to allow the pump to be lowered in to the water. The pontoon boat will be positioned and anchored in the deepest part of the pond (depth of approximately 573.2 feet above mean sea level (ft AMSL) (Figure 1). A flexible 6-inch diameter discharge hose, covered with a turbidity curtain to keep it afloat, will run from the top of the pump to the existing outfall pipe. With this set-up, the intake for the pump will be maintained at the surface of the water, thereby, minimizing disturbance to and discharge of sediments. As the water level approaches the top of the sediment, a smaller pump (up to 50 horsepower, powered by a generator) may be utilized with a 4-inch diameter discharge hose, to further minimize any disturbance to sediments. No equipment will come into contact with the sediment. The pumped water will be discharged through the Outfall 21 and/or Outfall 24 pipes installed through the berm and onto riprap before entering the ditch.

Figure 1 presents a plan and profile of the proposed set-up for discharge to Outfall 21. A similar set-up will be used for discharge to Outfall 24, however, the pontoon boat and pump may be re-positioned depending on field conditions. Monitoring will continue to be completed daily in accordance with the NPDES permit. In accordance with the NPDES permit, allowable daily levels for turbidity and total suspended solids (TSS) are 160 NTU and 70 milligrams per liter (mg/L), respectively. RACER proposes to pro-actively stop discharging



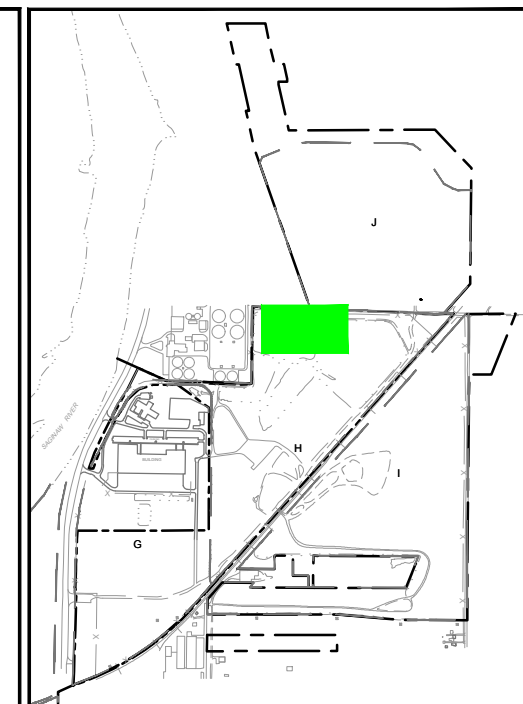
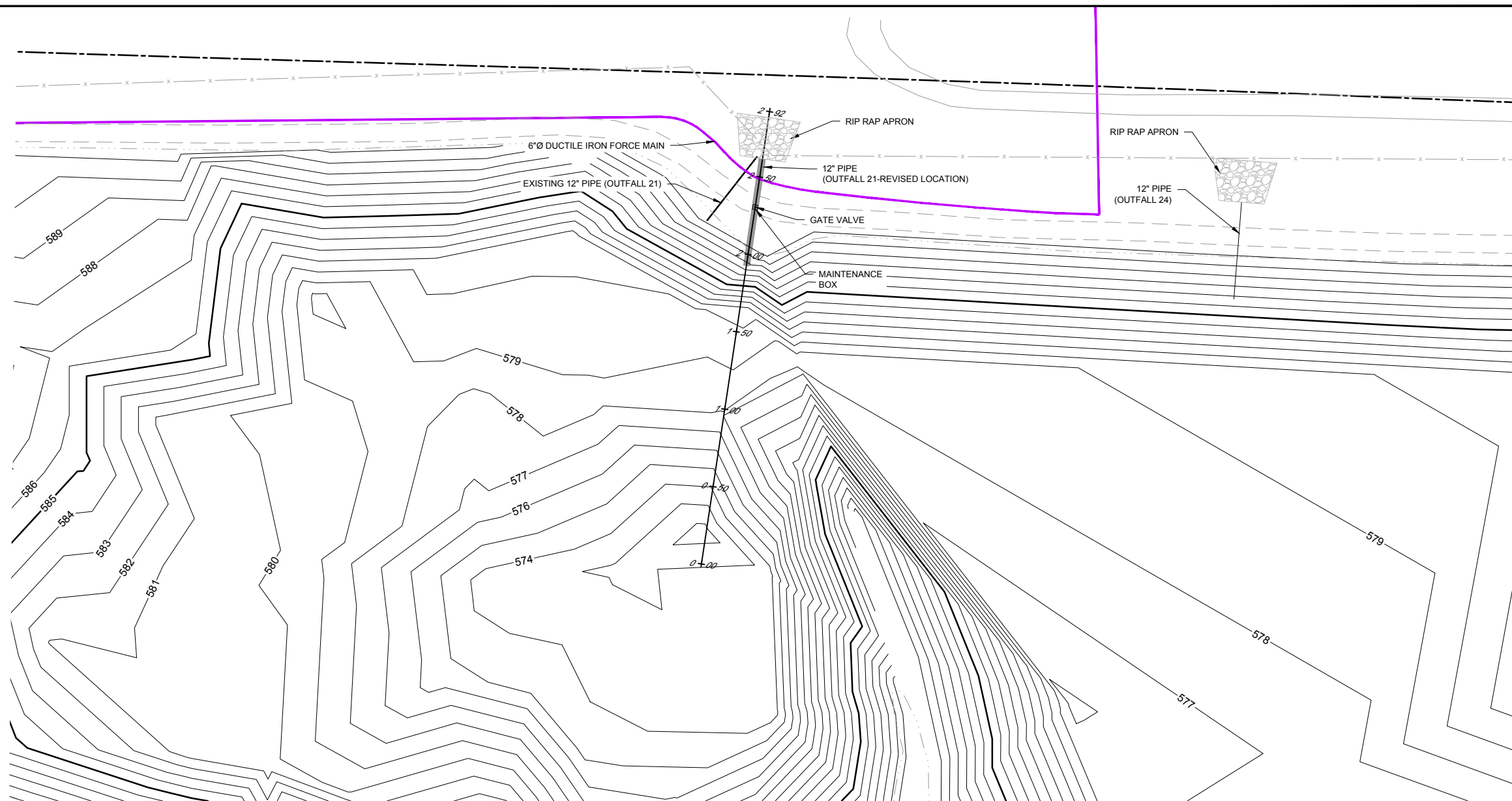
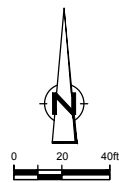
and re-evaluate the discharge set-up, if the turbidity or TSS readings reach the maximum monthly average limits of 80 NTU and 35 mg/L, respectively.

If the discharge set-up requires alterations in order to limit the turbidity or TSS readings (sediment disturbance and discharge) during pumping, RACER proposes the following two options, whose use will be determined based on conditions encountered in the field:

Option 1- Placement of a large basket (with pre-drilled holes) in the deepest area of the Secondary Pond, surrounded by large rocks and filter fabric. Pumping would occur from inside the basket, with the rocks and fabric providing filtration to limit the turbidity and TSS of the discharge water.

Option 2- Installation of a temporary well casing (with pre-drilled holes) in the deepest area of the Secondary Pond, surrounded by a gravel and sand pack. Pumping would occur from inside the well casing, with the gravel/sand pack providing filtration to limit the turbidity and TSS of the discharge water.

Should you have any questions, please do not hesitate to contact us.



KEY PLAN
SCALE: 1" = 1,000'

LEGEND
— 590 — SEDIMENT CONTOUR

NOTE:
100-YEAR FLOODPLAIN ELEVATION AT THIS LOCATION ON THE SAGINAW RIVER IS 589.3 FEET NGVD29.

SOURCES:
2015 SURVEY OF OUTFALL 21 AREA BY GHD;
2016 SURVEY OF SEDIMENT SAMPLES BY NORMANDEAU ASSOCIATES, INC.

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

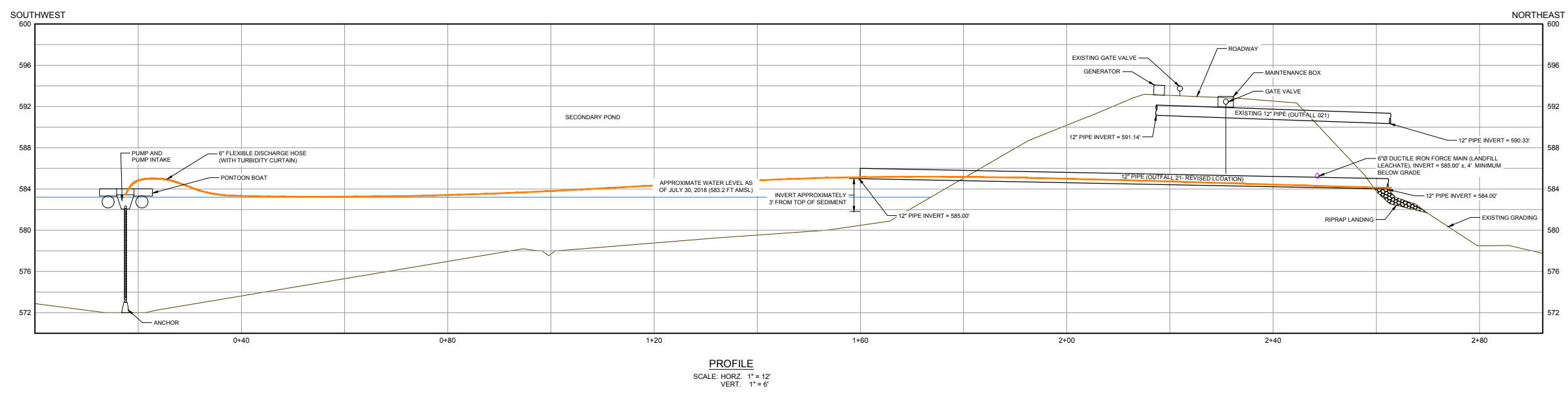
RACER TRUST
SAGINAW NODULAR INDUSTRIAL LAND
SAGINAW, MICHIGAN

OUTFALL 21 PROFILE



Source Reference:

Project Manager: MT	Reviewed By: JEP	Date: JULY 2018
Scale: AS SHOWN	Project No: 58502-T02	Report No: MEMO033
		Drawing No: figure 1



PROFILE
SCALE: HORIZ. 1" = 12'
VERT. 1" = 6'

Attachment A







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