



**CONESTOGA-ROVERS  
& ASSOCIATES**

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[www.CRAworld.com](http://www.CRAworld.com)

September 4, 2013

Reference No. 058502

Mr. Nate Nemani  
U.S. Environmental Protection Agency, Region 5  
Waste Management Division  
77 West Jackson Blvd., LU-9J  
Chicago, IL 60604-3590

Dear Mr. Nemani:

Re: Construction Completion - Stabilization of the Primary Settling Basins  
Saginaw Nodular Industrial Land, 2100 Veterans Memorial Parkway, Saginaw, MI  
USEPA ID No. MID 041 793 340

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The following letter summarizes the work completed on the stabilization of the primary settling basins (PSBs) at the Saginaw Nodular Industrial Land (Site) in Saginaw, Michigan. The work was completed in accordance with Conestoga-Rovers and Associates (CRA), Site Stabilization Work Plan for Closure of Four Primary Settling Basins, dated July 2012 (Work Plan), which was approved via e-mail by the United States Environment Protection Agency (U.S. EPA) on September 18, 2012.

## **BACKGROUND**

The four PSBs are part of the former wastewater treatment plant (WWTP) which was built in 1976 to treat the effluent water from the former Grey Iron Plant. Operation of the former WWTP ceased in 2010, upon completion of the new treatment facility at the General Motors (GM) Saginaw Metal Casting Operations (SMCO) facility. Figure 1 presents a Site Plan. Each PSB consisted of an inlet structure at the southwest end and an outlet structure at the northeast end.

## **CLOSURE OF FOUR PRIMARY SETTLING BASINS**

The following sections present the details of the work completed to stabilize the PSBs in accordance with the approved Work Plan.



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### **CONTRACTOR PROCUREMENT**

A contractor was selected through a competitive bid process. The contractor awarded the contract is OSHA 29 CFR 1910.120 qualified.

### **HEALTH AND SAFETY PLAN**

A Health and Safety Plan (HASP) was prepared by the contractor in accordance with the work plan.

### **PERMITTING**

On November 8, 2012 a Soil Erosion and Sedimentation Control Permit (No. 3196) from the County of Saginaw was obtained (Attachment A).

### **MOBILIZATION AND SITE PREPARATION**

The contractor mobilized to the Site during the week of November 26, 2012 to initiate work.

### **REMOVAL OF EXISTING STRUCTURES**

Water located in the PSBs was pumped and discharged directly into the secondary pond. Dewatering occurred when needed.

Vegetation in the PSBs were cut to ground surface and removed. The vegetation was chipped and stockpiled near the classified sand pile. The vegetation stockpile was later used as cover grading material for the former classified sand area.

The concrete headwall structures were saw-cut at approximately 4 feet (ft) below final grade and left in place. The remaining structures locations are shown on Figure 2. Utilities associated with the primary settling basins were also removed and recycled. Twenty gravel train semi-trailer loads (approximately 50 tons per train load) of broken concrete were hauled to Bond Crushed Concrete, a concrete recycling facility located in Bay City, Michigan. Approximately 18,300 pounds of steel were hauled to Rifkin Scrap Iron and Metal Co., a metal recycling company located in Saginaw, Michigan.



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Materials not able to be recycled (fiberglass) were disposed of at Waste Management's Whitefeather disposal facility in accordance with state law. The materials were removed from the PSBs by the week of December 17, 2013.

### **BACKFILLING**

After the PSBs were prepared, they were backfilled with classified sand, which was initiated on December 14, 2012, up to 2 ft below the top of the PSBs. The 2 ft below top of PSBs criteria was verified with the GPS in the dozer at the time of backfilling. The classified sand was excavated and hauled from an existing stockpile located in IU I. The entire stockpile of classified sand which equated to approximately 45,000 cubic yards was used to fill the four PSBs. The movement of classified sand was completed during the week of December 31, 2012.

Clay fill was excavated and hauled from the existing clay stockpile in IU I and placed on top of the classified sand to establish a minimum of 2 ft cover over the classified sand. The minimum of 2 ft cover was verified with the GPS in the dozer at the time of operation. The clay was compacted as it was placed with the bull dozer as well as a minimum of three passes by a sheep's foot compactor. Approximately 23,500 cubic yards of clay was used to cover the classified sand in the PSBs and bring them up to the proposed grades. Excavation, movement and compaction of the clay fill were completed the week of January 7, 2013.

### **SITE RESTORATION**

The source of the topsoil placed over the PSBs and former classified sand area was a former farm field, located at I75 and M81, that has since been developed as a Flying J service station. The topsoil was visually inspected for impacts and deemed acceptable prior to being utilized at the Site. Excavation and movement of topsoil was initiated during the week of February 17, 2013. Approximately 6,250 cubic yards of topsoil was placed over the PSBs and the former classified sand area, which resulted in a minimum of 3 inches of topsoil. The thickness was confirmed by oversight staff a day after the top soil was placed in field. The PSBs were graded to ensure no pooling would occur and runoff water would flow towards the secondary pond. The grades were verified with the GPS in the dozer at the time of final grading.

In order to stabilize and prevent erosion, hydroseed (MDOT roadside seed mix) and straw was placed on the PSBs area, the former classified sand pile area, and the area of the clay pile from which material was removed. Hydroseed was applied the week of June 23, 2013. Attachment B presents a photo log of the construction. To date the soil erosion and sediment control permit is



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yet to be closed; however, a Site meeting is being scheduled for September with the County of Saginaw with the goal that the permit can be closed.

### CONCLUSION

The stabilization of the PSBs was completed in accordance with the approved Work Plan.

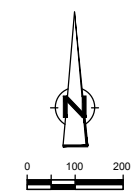
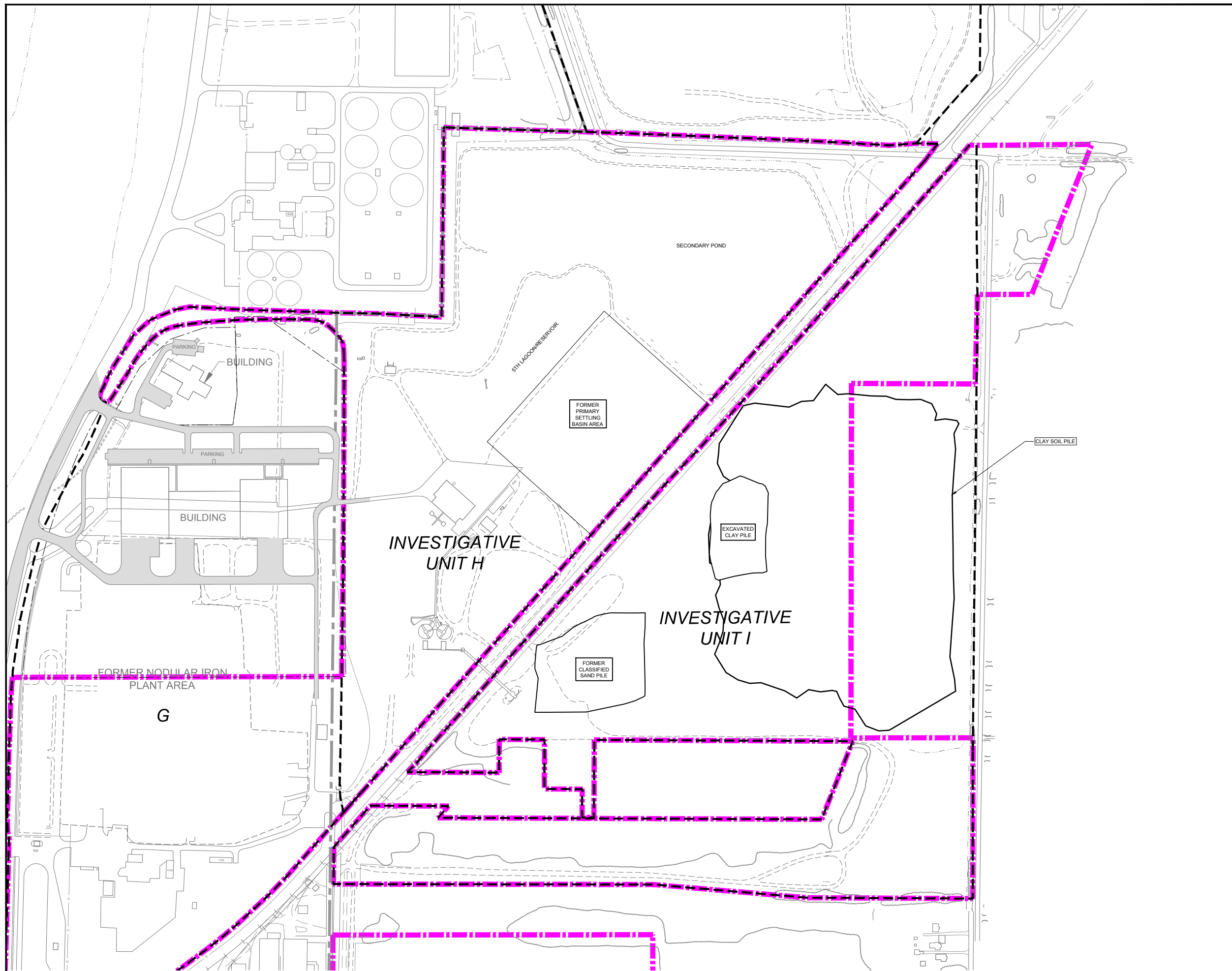
Should you have any questions, please do not hesitate to call.

Yours truly,

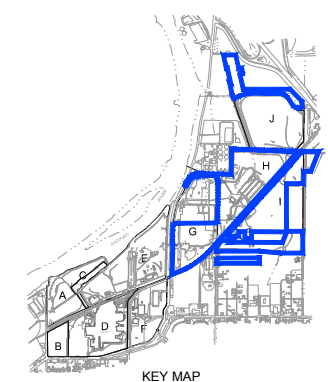
CONESTOGA-ROVERS & ASSOCIATES

Michael R. Tomka, P.E.

JEP/kf/15



- LEGEND**
- INVESTIGATIVE UNIT BOUNDARY
  - - - RACER PROPERTY
  - ..... APPROXIMATE CONTOUR ELEVATION FOR FORMER LAGOON AREA



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

**REVITALIZING AUTO COMMUNITES  
 ENVIRONMENTAL RESPONSE**  
 SAGINAW, MICHIGAN  
 SITE PLAN



Source Reference:  
 MICHIGAN STATE PLANE SOUTH, NAD 83 USING INTERNATIONAL FEET, NGVD 88  
 SPICER SURVEY, OCTOBER 2009; WILCOX, DRAINAGE IMPROVEMENTS.

Project Manager: I.R.	Reviewed By: M.T.	Date: AUGUST 2013
Scale: 1:200	Project N <sup>o</sup> : 58502-T02	Report N <sup>o</sup> : NEMA015 Drawing N <sup>o</sup> : figure 1

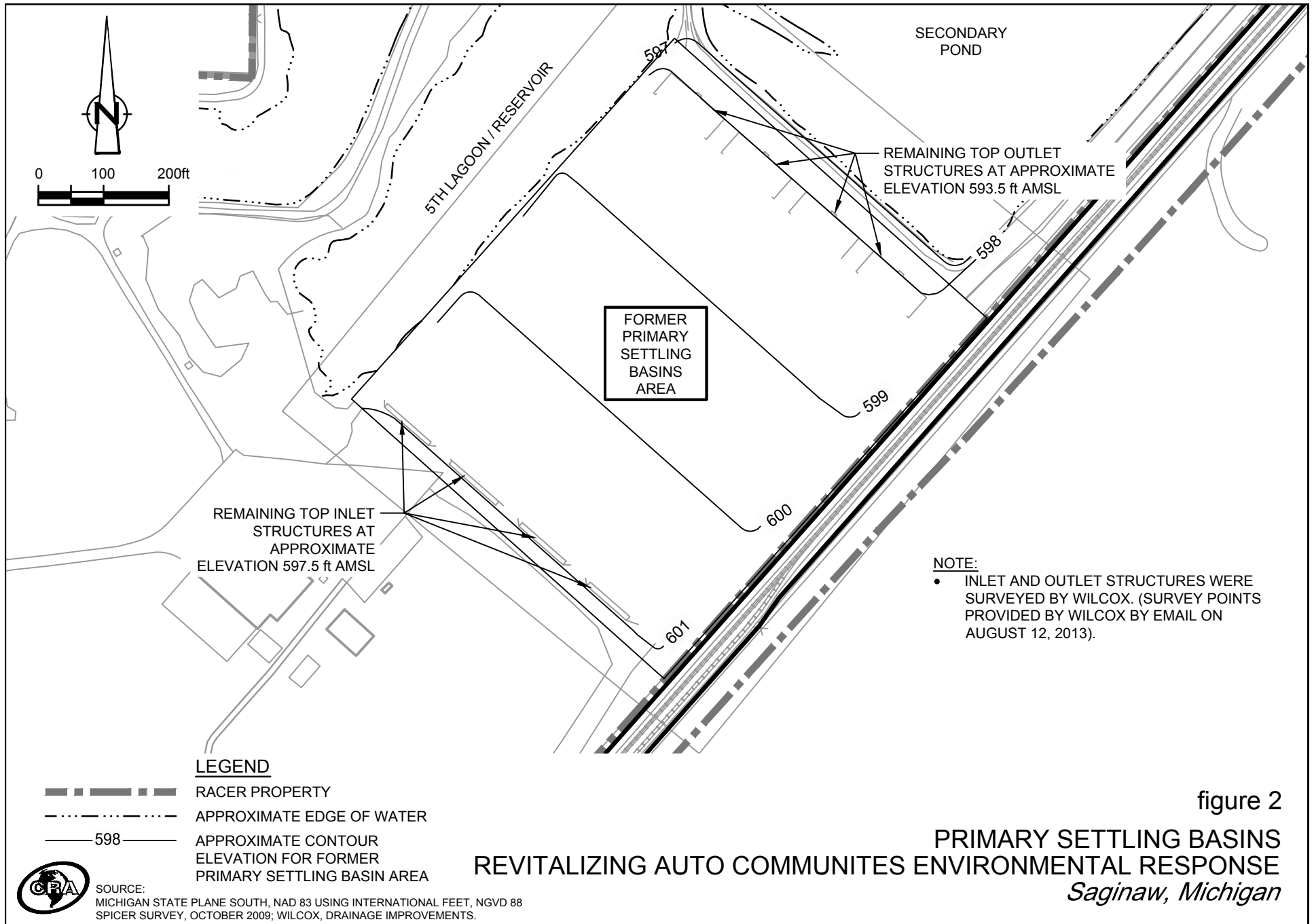


figure 2

**PRIMARY SETTLING BASINS**  
**REVITALIZING AUTO COMMUNITES ENVIRONMENTAL RESPONSE**  
*Saginaw, Michigan*



SOURCE:  
 MICHIGAN STATE PLANE SOUTH, NAD 83 USING INTERNATIONAL FEET, NGVD 88  
 SPICER SURVEY, OCTOBER 2009; WILCOX, DRAINAGE IMPROVEMENTS.

ATTACHMENT A  
SOIL EROSION AND SEDIMENT CONTROL PERMIT



## COUNTY OF SAGINAW

### SOIL EROSION AND SEDIMENTATION CONTROL PERMIT

(Issued under the authority of Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended)

<b>Permittee:</b>	Racer Trust	<b>Permit No:</b>	3196
<b>Address:</b>	2930 Ecorse Rd Ypsilanti, MI 48198 (313) 486-2908 Attn: David Favero	<b>Issued:</b>	November 8, 2012
		<b>Expires:</b>	November 7, 2013
		<b>Extended:</b>	
<b>On-Site Responsible Person:</b>	Michael Yenior	<b>Telephone No:</b>	(989) 835-7771
<b>Company:</b>	Fisher Companies 614 Jefferson Ave., P.O. Box 1787 Midland, MI 48641		(989) 615-9789

**Permitted Activity:** All demolition, fill, grading, seeding and above ground construction to fill settling ponds, cap and seed, with appurtenances, at former Nodular Iron Treatment Plant, as shown on plans prepared by applicant. 15.0 Acre(s)

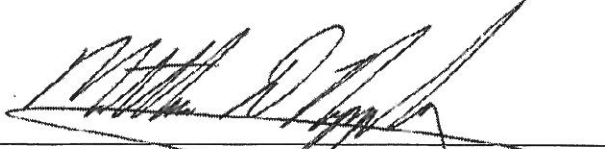
**Project Location:** Town: 13N Range: 5E Sections: 8

**City or Township:** Buena Vista Township  
**Address:**

NOV 18 2012

#### Permit Conditions:

1. The permitted activity shall be completed in accordance with the approved plans and specifications, and the attached general and specific conditions.
2. This permit does not waive the necessity for obtaining all other required federal, state, or local permits.
3. Permittee shall notify the permitting agency within one week after completing the permitted activity or one week prior to the permit expiration date, which ever comes first.

  
Matthew D. Rappley  
Saginaw County Public Works Commissioner

(989) 790-5258  
Telephone Number

**THIS PERMIT MUST BE POSTED AT THE PROJECT SITE.**

## GENERAL CONDITIONS

In accordance with Rule 1709 promulgated under the authority of Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and in addition to the information on the attached plan(s) and special conditions, the following general conditions apply to the earth change authorized by this permit:

- X Design, construct, and complete the earth change in a manner that limits the exposed area of disturbed land for the shortest period of time.
- X Remove sediment caused by accelerated soil erosion from runoff water before it leaves the site of the earth change.
- X Temporary or permanent control measures shall be designed and installed to convey water around, through, or from the earth change at a non-erosive velocity.
- X Install temporary soil erosion and sedimentation control measures before or upon commencement of the earth change activity and maintain the measures on a daily basis. Remove temporary soil erosion and sedimentation control measures after permanent soil erosion measures are in place and the area is stabilized. (Stabilized means the establishment of vegetation or the proper placement, grading, or covering of soil to ensure its resistance to soil erosion, sliding, or other earth movement.)
- X Complete permanent soil erosion control measures for the earth change within five calendar days after final grading or upon completion of the final earth change. If it is not possible to permanently stabilize the earth change, then maintain temporary soil erosion and sedimentation control measures until permanent soil erosion control measures are in place and the area is stabilized.

## SPECIFIC CONDITIONS

- Seeding of disturbed areas.
- Temporary erosion control measures to be maintained by contractor.
- Permanent erosion control measures to be maintained by owner.

ATTACHMENT B

PHOTO LOG



PHOTO 1: PRIMARY SETTLING BASIN 3 - LOOKING SOUTHWEST (7/18/2012)



PHOTO 2: PRIMARY SETTLING BASIN 4 - LOOKING SOUTHWEST (07/18/2012)

SITE PHOTOGRAPHS  
PRIMARY SETTLING BASIN CLOSURE – BEFORE BACKFILLING  
NODULAR INDUSTRIAL LAND  
**SAGINAW, MI**



PHOTO 3: PRIMARY SETTLING BASIN 3 - LOOKING SOUTHWEST (12/4/2012)



PHOTO 4: PRIMARY SETTLING BASIN 4 - LOOKING SOUTHWEST (12/4/2012)

SITE PHOTOGRAPHS  
PRIMARY SETTLING BASIN CLOSURE – PRIOR TO INITIATION OF CLOSURE  
NODULAR INDUSTRIAL LAND  
**SAGINAW, MI**



PHOTO 5: PRIMARY SETTLING BASIN 3 - LOOKING SOUTHWEST (12/12/2012)



PHOTO 6: PRIMARY SETTLING BASIN 4 - LOOKING SOUTHWEST (12/12/2012)

SITE PHOTOGRAPHS  
PRIMARY SETTLING BASIN CLOSURE – INLET/OUTLET DEMOLITION  
NODULAR INDUSTRIAL LAND  
**SAGINAW, MI**



PHOTO 7: PRIMARY SETTLING BASIN 3 - LOOKING SOUTHWEST (01/07/2013)



PHOTO 8: PRIMARY SETTLING BASIN 4 - LOOKING SOUTHWEST (01/07/2013)

SITE PHOTOGRAPHS  
PRIMARY SETTLING BASIN CLOSURE – PLACEMENT OF CLAY  
NODULAR INDUSTRIAL LAND  
**SAGINAW, MI**



PHOTO 9: PRIMARY SETTLING BASINS - LOOKING SOUTHWEST (02/06/2013)



PHOTO 10: PRIMARY SETTLING BASINS – TOPSOIL (06/03/2013)

SITE PHOTOGRAPHS  
PRIMARY SETTLING BASIN CLOSURE  
NODULAR INDUSTRIAL LAND  
**SAGINAW, MI**



PHOTO 11: PRIMARY SETTLING BASINS - SEEDING (06/20/2013)



PHOTO 12: PRIMARY SETTLING BASINS - VEGETATION (06/20/2013)

SITE PHOTOGRAPHS  
PRIMARY SETTLING BASIN CLOSURE  
NODULAR INDUSTRIAL LAND  
**SAGINAW, MI**



PHOTO 13: PRIMARY SETTLING BASINS - VEGETATED (09/04/2013)



PHOTO 14: CLASSIFIED SAND PILE - VEGETATION (09/04/2013)

SITE PHOTOGRAPHS  
PRIMARY SETTLING BASIN CLOSURE  
NODULAR INDUSTRIAL LAND  
**SAGINAW, MI**



PHOTO 15: CLAY PILE - VEGETATED (09/04/2013)

SITE PHOTOGRAPHS  
PRIMARY SETTLING BASIN CLOSURE  
NODULAR INDUSTRIAL LAND  
**SAGINAW, MI**