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From:  
Christi Kiker

Date:  
November 3, 2015

ARCADIS Project No.:  
B0064607.2015

Subject:  
*DRAFT* Sewer Bulkheading Summary  
Pontiac North Campus.

DRAFT

This memorandum was prepared by Arcadis of Michigan, LLC (Arcadis) on behalf of Revitalizing Automotive Communities Environmental Response Trust (RACER) to summarize bulkheading activities at the Pontiac North Campus Site (Site) in Pontiac, Michigan. In March 2012, HM Environmental Services (HM) began the storm sewer bulkheading work at the Site. This work took place in three separate areas: the former Building 14 slab; three storm sewer access points around the Storm Water Detention Facility on Montcalm Street; and the toe drain pump station located on the north side of Montcalm Street. This project was completed in approximately 3 weeks.

The goal of this work was to cut off storm water flow from the RACER-owned portions of the Site to the Storm Water Detention Facility (Duck Pond) and redirect flow from Montcalm Street to the City of Pontiac's main 84-inch diameter storm sewer line. Arcadis staff daily reports and a photo log are included as **Attachments 1** and **2**, respectively. Below is a summary of the work completed in the three areas.

### **Former Building 14 Slab**

A total of ten storm sewer inlets located on and around the Former Building 14 slab were removed and capped with a concrete cookie. The ten storm sewer inlets were ST11D, ST11B, ST12A, ST326, ST8, ST8A, ST1205, ST2106, ST1207 and ST121. Four additional storm inlets were also targeted to be capped

but were either covered by the existing soil pile or previously damaged or removed during demolition activities at the Site. These four inlets were ST11A, ST11E, ST325 and ST324.

Four of the storm inlets were located within the concrete slab. These inlets included ST12A, ST11B, ST326 and ST121. The concrete around these inlets was broken up with the use of a hydraulic hammer attached to a backhoe. The broken concrete was removed and the metal surface inlets were taken off to expose a flat surface of the inlet riser. A joint sealer was placed on the flat surface of the riser and a concrete cookie was installed on top of the riser sealing off the inlet at the four locations. The concrete was gathered and transported off site by HM. The void around the former inlets where the concrete was removed was filled with crushed limestone.

The other six storm water inlets were located off the slab in areas surrounded by soil. These inlets included ST8A, ST1205, ST2106, ST2107, ST8 and ST11D. The same method as above was used to seal off these inlets. These sealed inlets were covered with the surrounding soil after they were capped.

One bulkhead was constructed in the 66-inch diameter storm water main at ST8A. The bulkhead was built approximately 10 feet south of the junction of a 30-inch diameter storm line. A drain pipe was installed at the bottom of the bulkhead and left uncapped until after the concrete fully cured. After a 28-day cure time, HM capped the drain pipe.

#### **Storm Water Detention Facility (Duck Pond)**

Three bulkheads were constructed in the storm sewer lines in the Duck Pond area. The three bulkheads were constructed north of storm water inlet ST4, Junction Chamber No.1 and Junction Chamber No.2. The bulkhead north of ST4 was constructed approximately 10 feet north of the inlet structure within the 84-inch diameter storm main.

At Junction Chamber No.1, a bulkhead was constructed within the diversion channel that routed storm water coming from the north to the Duck Pond. The bulkhead was constructed to stop the flow of storm water into the facility and reroute it to the City of Pontiac 84-inch storm water main. The original bulkhead that routed storm water from the City of Pontiac 84-inch diameter storm water main to the Duck Pond on the south side of Junction Chamber No. 1 was removed.

At Junction Chamber No.2, a bulkhead was constructed to stop the flow of treated water leaving the Duck Pond and discharging into the City of Pontiac 84-inch diameter storm water main. A drain pipe was installed at the bottom of the bulkhead and left uncapped until after GM finished decommissioning activities. Per RACER request, a gate valve was installed in the open position on the discharge side of the drain pipe at this bulkhead only for potential future draining of the Duck Pond.

#### **Toe Drain Pump Station north of Montcalm Street**

Five concrete plugs were installed in five drain lines located within the toe drain pump station vault located north of Montcalm Street. The plugs were put in place to stop the flow of water into and out of the pump station vault.

After the drain lines were plugged, water began to infiltrate into the vault through cracks and around the sleeves surrounding the drain lines. HM mobilized a vacuum truck, removed the water from the vault, and punched four holes in the bottom of the vault to help allow water to drain.

A catch basin located approximately 100 feet east of the corner of Montcalm Street and Saginaw Street on the USPS-leased property was also plugged. One pipe coming from the west was plugged with concrete and the catch basin itself was filled with concrete above the other two pipes coming from the north and east.

### **Summary**

A total of ten storm sewer inlets were sealed and capped to stop water from draining into the 84-inch storm water main. Four concrete bulkheads were installed to stop the flow of storm water into the Duck Pond and to restore the original flow of storm water to the City of Pontiac storm water main from Montcalm Street to the south. Five concrete plugs were placed in the pipes entering the toe drain pump station vault north of Montcalm Street. All work was conducted in accordance with the engineered construction documents provided by Arcadis.

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# ATTACHMENT 1

Daily Reports

# DRAFT





Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors CONTRACT: B0064607.2011 REPORT NO: 1

LOCATION: Pontiac, MI DAY: Monday DATE: 03/5/ 12

CONTRACTOR: HM Environmental Services, Inc RPR/ENGINEER: M.A.S.

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS						OFF. ROUTING	
Temp AM	25	Dry	x	Superintendent	1	Ironworker		Plumber		PM	
Temp PM	25	Wet		Laborer	8	Mason		Millwright		PE	
Wind MPH	15	Frozen		Operators		Painter		Sheet Metal		CM	
Dry		Sand		Carpenter		Electrician		Trucker		Struct	
Rain		Clay		Finisher		Flagger				Mech.	
Snow	X	Rock								Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
Others: Vac Truck

**SUBCONTRACTORS:** HM Environmental Services

**WORK COMPLETED:**

- Walked with HM on the former building 14 slab and confirmed the storm sewer inlets that will be capped. Four inlets could not be found and one is located on the GM property.
- HM and a GPR company on site to GPR for utilities around the storm sewer inlets to be dug up and capped.
- Once GPR was completed HM started digging up the storm sewer inlets and placing the concrete cookies on them. A joint sealer was laid down before the concrete cookie was placed.
- A vac truck was used to pump water out of the pump station along Montcalm.
- HM entered storm inlet N0.4 and started taking measurements for the form to be built.

**COMMENTS:**

On-site at 0745 AM  
Off site at 1600 AM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors CONTRACT: B0064607.2011 REPORT NO: 1

LOCATION: Pontiac, MI DAY: Tuesday DATE: 03/6/ 12

CONTRACTOR: HM Environmental Services, Inc RPR/ENGINEER: M.A.S.

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS									OFF. ROUTING	
Temp AM	25	Dry	x	Superintendent	F	1	Ironworker	F		Plumber	F		PM	
Temp PM	45	Wet		Laborer		7	Mason			Millwright			PE	
Wind MPH	15	Frozen		Operators			Painter			Sheet Metal			CM	
Dry		Sand		Carpenter			Electrician			Trucker			Struct	
Rain		Clay		Finisher			Flagger						Mech.	
Snow	X	Rock											Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  1 Road Grader  Compactor

Others: Vac Truck

**SUBCONTRACTORS:** HM Environmental Services

**WORK COMPLETED:**

- Broke out concrete around storm sewer inlets on the former Building 14 slab.
- Finished installing the concrete cookies on the storm water inlets on the former Building 14 slab.
- Worked in the storm sewer inlet across from the storm water treatment plant along Montcalm Rd. Drilled holes and power washed the area where the form will be placed. Prepared side walls for the forms.
- Worked on plugging the pipes located in the pump station. All pipes were filled with hydraulic cement and concrete. The pressure relief pipes were left open to reduce the pressure on the hardening concrete. Pipes will be capped once concrete is set.

**COMMENTS:**

On-site at 0745 AM  
Off site at 1645 AM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors CONTRACT: B0064607.2012 REPORT NO: 5

LOCATION: Pontiac, MI DAY: Wednesday DATE: 3/7/ 12

CONTRACTOR: HM Environmental Services, Inc RPR/ENGINEER: M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS						OFF. ROUTING	
Temp AM	50	Dry	X	Superintendent	1	Ironworker		Plumber		PM	
Temp PM	64	Wet		Laborer	4	Mason		Millwright		PE	
Wind MPH	25	Frozen		Operators		Painter		Sheet Metal		CM	
Dry	X	Sand		Carpenter		Electrician		Trucker	1	Struct	
Rain		Clay		Finisher		Flagger				Mech.	
Snow		Rock								Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
Others: Vac-Truck,

**SUBCONTRACTORS:**

**WORK COMPLETED:**

Sheet Struc. 5  
 HM Crew removes valve on the 10" PVC forcemain and install blind flange. Pipes previously plugged with concrete on 3/6/12 inside pump station vault. Two pin holes are spraying water back into vault, crew places Quikrete hydraulic cement. This stops pinholes leaks, but new ones sprout in new areas. Also leaking around pipe sleeve used to slide PVC through vault wall on East side of vault.

Sheet Struc. 1  
 Crew begins installation of bulkhead forms on upstream side of Stm. MH. #4 84", storm line. To upsize drain pipe in bulkhead to 4", as the 2-inch pipe originally shown can't drain enough water in storm line.

**COMMENTS:**  
On-site at 8:30 AM  
Off site at 3:40 PM

BY: Mark A. Stoffan



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors

CONTRACT: B0064607.2012

REPORT NO: 6

LOCATION: Pontiac, MI

DAY: Monday

DATE: 3/12/ 12

CONTRACTOR: HM Environmental Services, Inc

RPR/ENGINEER:

M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS						OFF. ROUTING				
Temp AM	50	Dry		Superintendent	1		Ironworker			Plumber			PM	
Temp PM	45	Wet	x	Laborer		5	Mason			Millwright			PE	
Wind MPH	5	Frozen		Operators			Painter			Sheet Metal			CM	
Dry		Sand		Carpenter			Electrician			Trucker			Struct	
Rain	x	Clay		Finisher			Flagger						Mech.	
Snow		Rock											Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
 Others:

**SUBCONTRACTORS:**

**WORK COMPLETED:**

- Throughout the morning and mid afternoon HM continued to build the form for the bulkhead in storm sewer N0.4 (across from Water Treatment Building) M. Mathiak took photos of the sacrificial form structure before the downstream side was constructed.
- HM finished building the form in storm sewer N0. 4 and moved to storm sewer ST8A in the former Building 14 area. HM power washed, cleaned and prepared the area in the storm sewer were the form will be built.

**COMMENTS:**

On-site at 07:45 AM  
Off site at 16:30 PM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors

CONTRACT: B0064607.2012

REPORT NO: 7

LOCATION: Pontiac, MI

DAY: Tuesday

DATE: 3/13/ 12

CONTRACTOR: HM Environmental Services, Inc

RPR/ENGINEER:

M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS									OFF. ROUTING	
Temp AM	50	Dry	x	Superintendent	1		Ironworker			Plumber			PM	
Temp PM	63	Wet		Laborer		6	Mason			Millwright			PE	
Wind MPH	15	Frozen		Operators			Painter			Sheet Metal			CM	
Dry	x	Sand		Carpenter			Electrician			Trucker			Struct	
Rain		Clay		Finisher			Flagger						Mech.	
Snow		Rock											Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
 Others:

**SUBCONTRACTORS:**

**WORK COMPLETED:**

- HM drilled holes in the 72 inch storm sewer at ST8A in preparation of the rebar placement. HM also worked on building the wood form for the bulkhead and placing it in the storm sewer. HM completed building the downstream portion of the form.
- HM removed the concrete cookie from the rectangular shaped storm sewer inlet on the former building 14 slab. HM built a form around the storm inlet and filled the form with concrete. This will allow the cookie to sit level and give it a proper seal.

**COMMENTS:**

On-site at 07:45 AM  
 Off site at 16:45 PM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors

CONTRACT: B0064607.2012

REPORT NO: 8

LOCATION: Pontiac, MI

DAY: Wednesday

DATE: 3/14/ 12

CONTRACTOR: HM Environmental Services, Inc

RPR/ENGINEER: M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS									OFF. ROUTING	
Temp AM	50	Dry	x	Superintendent	1		Ironworker			Plumber			PM	
Temp PM	65	Wet		Laborer		4	Mason			Millwright			PE	
Wind MPH	5	Frozen		Operators			Painter			Sheet Metal			CM	
Dry	x	Sand		Carpenter			Electrician			Trucker			Struct	
Rain		Clay		Finisher			Flagger						Mech.	
Snow		Rock											Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
 Others:

**SUBCONTRACTORS:**

**WORK COMPLETED:**

- HM continued working on building the bulkhead form in the ST8A storm sewer inlet. HM completed building the sacrificial form (downstream side) in the morning. M. Mathiak took photos of this portion of the form.
- HM started to build the front portion off the form.

**COMMENTS:**

On-site at 07:45 AM  
Off site at 16:30 PM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors

CONTRACT: B0064607.2012

REPORT NO: 9

LOCATION: Pontiac, MI

DAY: Thursday

DATE: 3/15/ 12

CONTRACTOR: HM Environmental Services, Inc

RPR/ENGINEER:

M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS									OFF. ROUTING	
Temp AM	50	Dry	x	Superintendent	F	1	Ironworker	F		Plumber	F		PM	
Temp PM	65	Wet		Laborer		6	Mason			Millwright			PE	
Wind MPH	5	Frozen		Operators			Painter			Sheet Metal			CM	
Dry	x	Sand		Carpenter			Electrician			Trucker		1	Struct	
Rain		Clay		Finisher			Flagger						Mech.	
Snow		Rock											Elect.	

**OPERATING EQUIPMENT:** Vac Truck

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
 Others:

**SUBCONTRACTORS:**

**WORK COMPLETED:**

- HM completed building the bulkhead form in storm inlet ST8A.
- HM placed a concrete plug in the catch basin located on the corner of Montcalm and Saginaw. The plug was put in the pipe coming in from the west. Once the pipe was plugged concrete was poured into the catch basin filling it above the three pipes exiting the basin.
- In the afternoon HM started to build the bulkhead form in Junction Chamber N0. 1

**COMMENTS:**

On-site at 07:45 AM  
Off site at 16:30 PM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors

CONTRACT: B0064607.2012

REPORT NO: 10

LOCATION: Pontiac, MI

DAY: Friday

DATE: 3/16/ 12

CONTRACTOR: HM Environmental Services, Inc

RPR/ENGINEER:

M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS							OFF. ROUTING			
Temp AM	50	Dry	x	Superintendent	1		Ironworker			Plumber			PM	
Temp PM	65	Wet		Laborer		4	Mason			Millwright			PE	
Wind MPH	5	Frozen		Operators			Painter			Sheet Metal			CM	
Dry	x	Sand		Carpenter			Electrician			Trucker			Struct	
Rain		Clay		Finisher			Flagger						Mech.	
Snow		Rock											Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
 Others:

**SUBCONTRACTORS:**

**WORK COMPLETED:**

- HM continued to build the bulkhead in junction chamber NO. 1.

DRAFT

**COMMENTS:**

On-site at 07:45 AM  
 Off site at 16:30 PM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors

CONTRACT: B0064607.2012

REPORT NO: 12

LOCATION: Pontiac, MI

DAY: Tuesday

DATE: 3/20/ 12

CONTRACTOR: HM Environmental Services, Inc

RPR/ENGINEER: M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS							OFF. ROUTING			
Temp AM	50	Dry	x	Superintendent	1		Ironworker			Plumber			PM	
Temp PM	80	Wet		Laborer		5	Mason			Millwright			PE	
Wind MPH	5	Frozen		Operators			Painter			Sheet Metal			CM	
Dry	x	Sand		Carpenter			Electrician			Trucker			Struct	
Rain		Clay		Finisher			Flagger						Mech.	
Snow		Rock											Elect.	

**OPERATING EQUIPMENT:**

Loader     Dozer     Crane     Backhoe     Road Grader     Compactor   
 Others:

**SUBCONTRACTORS:**

**WORK COMPLETED:**

- HM finished building the bulkhead form in junction chamber NO. 1.
- HM started building the bulkhead form in junction chamber NO. 2.

**COMMENTS:**

On-site at 07:45 AM  
Off site at 16:30 PM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors

CONTRACT: B0064607.2012

REPORT NO: 11

LOCATION: Pontiac, MI

DAY: Monday

DATE: 3/19/ 12

CONTRACTOR: HM Environmental Services, Inc

RPR/ENGINEER:

M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS									OFF. ROUTING	
Temp AM	50	Dry	x	Superintendent	F		Ironworker	F		Plumber	F		PM	
Temp PM	75	Wet		Laborer		7	Mason			Millwright			PE	
Wind MPH	5	Frozen		Operators			Painter			Sheet Metal			CM	
Dry	x	Sand		Carpenter			Electrician			Trucker			Struct	
Rain		Clay		Finisher			Flagger						Mech.	
Snow		Rock											Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
 Others:

**SUBCONTRACTORS:**

**WORK COMPLETED:**

- HM continued to build the bulkhead in junction chamber N0.1.
- Second crew stated to clean and grind the area in Junction Chamber N0. 2 were the bulkhead will be built.

DRAFT

**COMMENTS:**

On-site at 07:45 AM  
Off site at 16:30 PM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors

CONTRACT: B0064607.2012

REPORT NO: 13

LOCATION: Pontiac, MI

DAY: Wednesday

DATE: 3/21/ 12

CONTRACTOR: HM Environmental Services, Inc

RPR/ENGINEER: M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS									OFF. ROUTING	
Temp AM	50	Dry	x	Superintendent	1		Ironworker			Plumber			PM	
Temp PM	80	Wet		Laborer		5	Mason			Millwright			PE	
Wind MPH	5	Frozen		Operators			Painter			Sheet Metal			CM	
Dry	x	Sand		Carpenter			Electrician			Trucker			Struct	
Rain		Clay		Finisher			Flagger						Mech.	
Snow		Rock											Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
 Others:

**SUBCONTRACTORS:**

**WORK COMPLETED:**

- HM finished building the bulkhead form in junction chamber NO. 2. M. Mathiak took photos of the form.

DRAFT

**COMMENTS:**

On-site at 07:45 AM  
Off site at 16:00 PM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors

CONTRACT: B0064607.2012

REPORT NO: 15

LOCATION: Pontiac, MI

DAY: Thursday

DATE: 3/23/ 12

CONTRACTOR: HM Environmental Services, Inc

RPR/ENGINEER:

M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS									OFF. ROUTING	
Temp AM	50	Dry	x	Superintendent	F	1	Ironworker	F		Plumber	F		PM	
Temp PM	80	Wet		Laborer		6	Mason			Millwright			PE	
Wind MPH	5	Frozen		Operators			Painter			Sheet Metal			CM	
Dry	x	Sand		Carpenter			Electrician			Trucker			Struct	
Rain		Clay		Finisher			Flagger						Mech.	
Snow		Rock											Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
 Others:

**SUBCONTRACTORS:**

**WORK COMPLETED:**

- HM removed the top two boards from each of the four forms and placed mortar in the areas where there were gaps in the concrete.

DRAFT

**COMMENTS:**

On-site at 07:45 AM  
Off site at 16:30 PM

BY: M. Mathiak



Infrastructure, environment, facilities

DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors

CONTRACT: B0064607.2012

REPORT NO: 14

LOCATION: Pontiac, MI

DAY: Thursday

DATE: 3/22/ 12

CONTRACTOR: HM Environmental Services, Inc

RPR/ENGINEER:

M.A.S./M.M

Table with columns: WEATHER, SITE CONDITIONS, WORK FORCE INCLUDING SUB-CONTRACTORS, OFF. ROUTING. Includes rows for Temp AM/PM, Wind MPH, and various worker roles like Superintendent, Laborer, Ironworker, etc.

OPERATING EQUIPMENT:

Loader [ ] Dozer [ ] Crane [ ] Backhoe [ ] Road Grader [ ] Compactor [ ]
Others: Concrete truck, Concrete pumping truck

SUBCONTRACTORS:

WORK COMPLETED:

- HM has a concrete truck and a concrete pumping truck onsite to start filling the forms with concrete.
HM filled all four forms with concrete. HM started with Junction Chamber No.2, moved to Junction Chamber No. 1, Storm sewer No.4 and then ST8A. All four forms were filled with concrete and a vibrator was used to make sure all the voids in the form were filled.

COMMENTS:

On-site at 07:45 AM
Off site at 16:30 PM

BY: M. Mathiak



Infrastructure, environment, facilities

### DAILY CONSTRUCTION REPORT

PROJECT: Racer Trust, General Motors CONTRACT: B0064607.2012 REPORT NO: 16

LOCATION: Pontiac, MI DAY: Thursday DATE: 3/27/ 12

CONTRACTOR: HM Environmental Services, Inc RPR/ENGINEER: M.A.S./M.M

WEATHER		SITE CONDITIONS		WORK FORCE INCLUDING SUB-CONTRACTORS									OFF. ROUTING	
Temp AM	35	Dry	x	Superintendent	1		Ironworker			Plumber			PM	
Temp PM	50	Wet		Laborer		6	Mason			Millwright			PE	
Wind MPH	10	Frozen		Operators			Painter			Sheet Metal			CM	
Dry	x	Sand		Carpenter			Electrician			Trucker			Struct	
Rain		Clay		Finisher			Flagger						Mech.	
Snow		Rock											Elect.	

**OPERATING EQUIPMENT:**

Loader  Dozer  Crane  Backhoe  Road Grader  Compactor   
Others: Vac Truck

**SUBCONTRACTORS:**

**WORK COMPLETED:**

- HM removed the water from pump station along Montcalm St with the use of a vac truck. Once the water was removed HM used a jack hammer and punched four holes in the floor of the vault from east to west.
- HM removed the pump that was located in the shed at the pump station.
- HM loaded the concrete that was broken out on the 14 slab to install the storm inlet caps into a roll of container. The roll off was taken offsite for disposal.
- HM installed a gate valve on the discharge side of the drain pipe in Junction Chamber No.1.
- HM cleaned up the work sites and finished the scope of work.

**COMMENTS:**

On-site at 07:45 AM  
Off site at 16:00 PM

BY: M. Mathiak

# ATTACHMENT 2

Photo Log

# DRAFT



Pontiac North Campus Sewer Bulk heading Project



Photo 1: Concrete cookie placed on storm sewer inlet



Photo 2: South east side of pump station vault prior to plugs

Pontiac North Campus Sewer Bulk heading Project



Photo 3: North east side of pump station prior to plugs. Water flowing from pipe.



Photo 4: North west side of pump station prior to plug with water flowing from pipe.

Pontiac North Campus Sewer Bulk heading Project



Photo 5: Storm sewer inlet to be capped is rectangular shape.



Photo 6: North west side of pump station pipe plugged.

Pontiac North Campus Sewer Bulk heading Project



Photo 7: West side of pump station pipe plugged



Photo 8: West side of pump station piped plugged and capped.

Pontiac North Campus Sewer Bulk heading Project



Photo 9: Sacrificial form built in storm sewer No. 4



Photo 10: Sacrificial form built in storm sewer No. 4

Pontiac North Campus Sewer Bulk heading Project



Photo 11: Rectangular shaped storm inlet with concrete base pored.



Photo 12: Concrete cookie placed on rectangular shaped storm inlet.

Pontiac North Campus Sewer Bulk heading Project



Photo 13: Form inside ST8A



Photo 14: Downstream section of form inside ST8A

Pontiac North Campus Sewer Bulk heading Project



Photo 15: Downstream section of form inside ST8A



Photo 16: Water coming into ST8A from a pipe on the east side of the storm main.

Pontiac North Campus Sewer Bulk heading Project



Photo 17: North side of the bulkhead form at ST8A

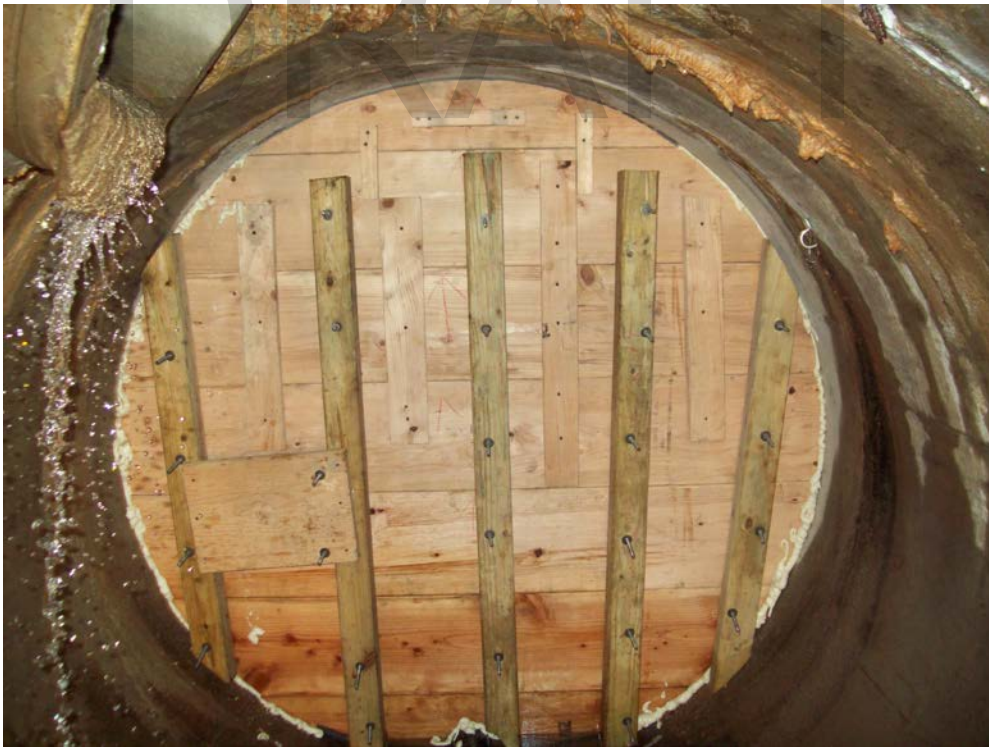


Photo 18: North side of the bulkhead form at ST8A

Pontiac North Campus Sewer Bulk heading Project



Photo 19: Filled in catch basin at corner of Montcalm and Saginaw



Photo 20: Sacrificial Form Junction Chamber No.1

Pontiac North Campus Sewer Bulk heading Project



Photo 21: Sacrificial Form Junction Chamber No.1



Photo 22: Sacrificial Form Junction Chamber No.1

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Photo 23: Upstream side of form in Junction Chamber No.1



Photo 24: Sacrificial side of form junction chamber No. 2

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Photo 25: Sacrificial side of form junction chamber No. 2



Photo 26: Completed form junction chamber No. 2