

**STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER RESOURCES DIVISION**

In the matter of:

ACO-000225
Date Entered: 9-30-14

City of Flint
1101 South Saginaw Street
Flint, Michigan 48502

ACO-000225
_____ /

FIRST AMENDED ADMINISTRATIVE CONSENT ORDER

Administrative Consent Order (Consent Order) **ACO-000225** entered on **May 9, 2014** between the Department of Environmental Quality (DEQ), Water Resources Division (WRD), and the City of Flint is hereby amended as follows. Upon the consent of the parties and by the authority granted to the DEQ by the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, it is hereby **AGREED AND ORDERED**:

COMPLIANCE PROGRAM

Paragraph II.1 of ACO-000225 shall be amended as specified below:

- II.1 Perform the Work in Exhibits B and C or cause it to be performed in accordance to its terms. Exhibit B, revised August 2014, details the management of the compost. Exhibit C, Management Plan, revised August 2014 and its attachments, detail the Operational Plan, Storm Water Runoff Management Plan, Implementation Schedule, Berm Construction and Sampling Plan for the site. These Exhibits and Attachments are incorporated into and enforceable by this Consent Order.

Paragraph II.2 of ACO-000225 shall be amended as specified below:

- II.2.d Analytical results of any samples collected during the quarter in accordance with Section II.4 of this Consent Order.

GENERAL PROVISIONS

All other terms and conditions of **ACO-000225** shall remain in full force and effect and are not altered by this Amended Administrative Consent Order, except as specifically prescribed in this document. The effective date of this Amended Administrative Consent Order shall be the date upon which the chief of the DEQ, WRD signs this document.

Signatories

The undersigned CERTIFY they are fully authorized by the party they represent to enter into this Amended Consent Order to comply by consent and to EXECUTE and LEGALLY BIND that party to it.

DEPARTMENT OF ENVIRONMENTAL QUALITY



William Creal, Chief
Water Resources Division

9-30-14

Date

CITY OF FLINT

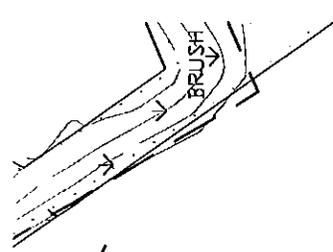


By: Darnell Earley, Emergency Manager
City of Flint

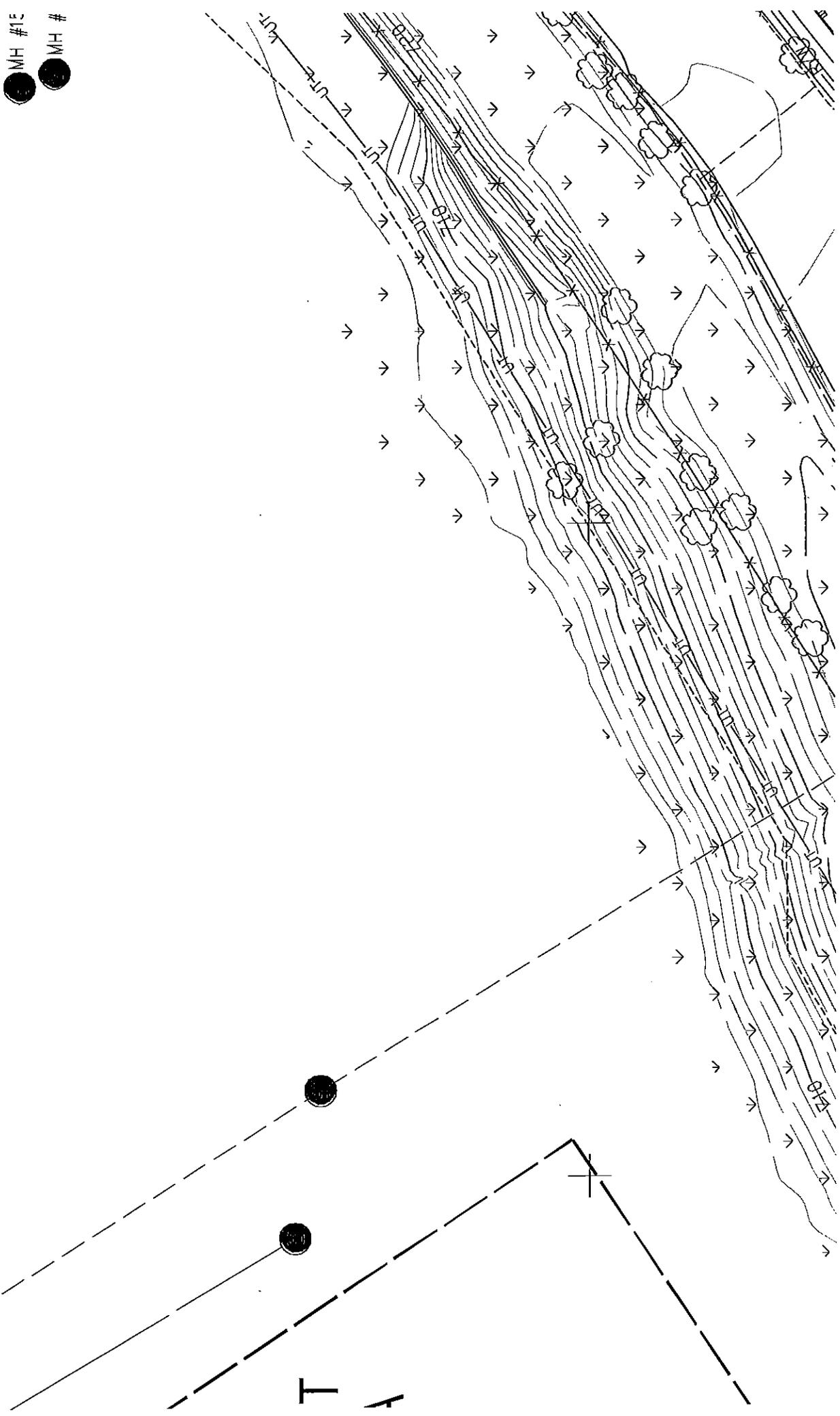
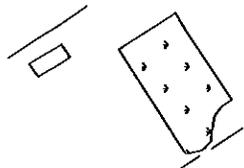
9-12-14

Date

DERIVI SEGMENT 1

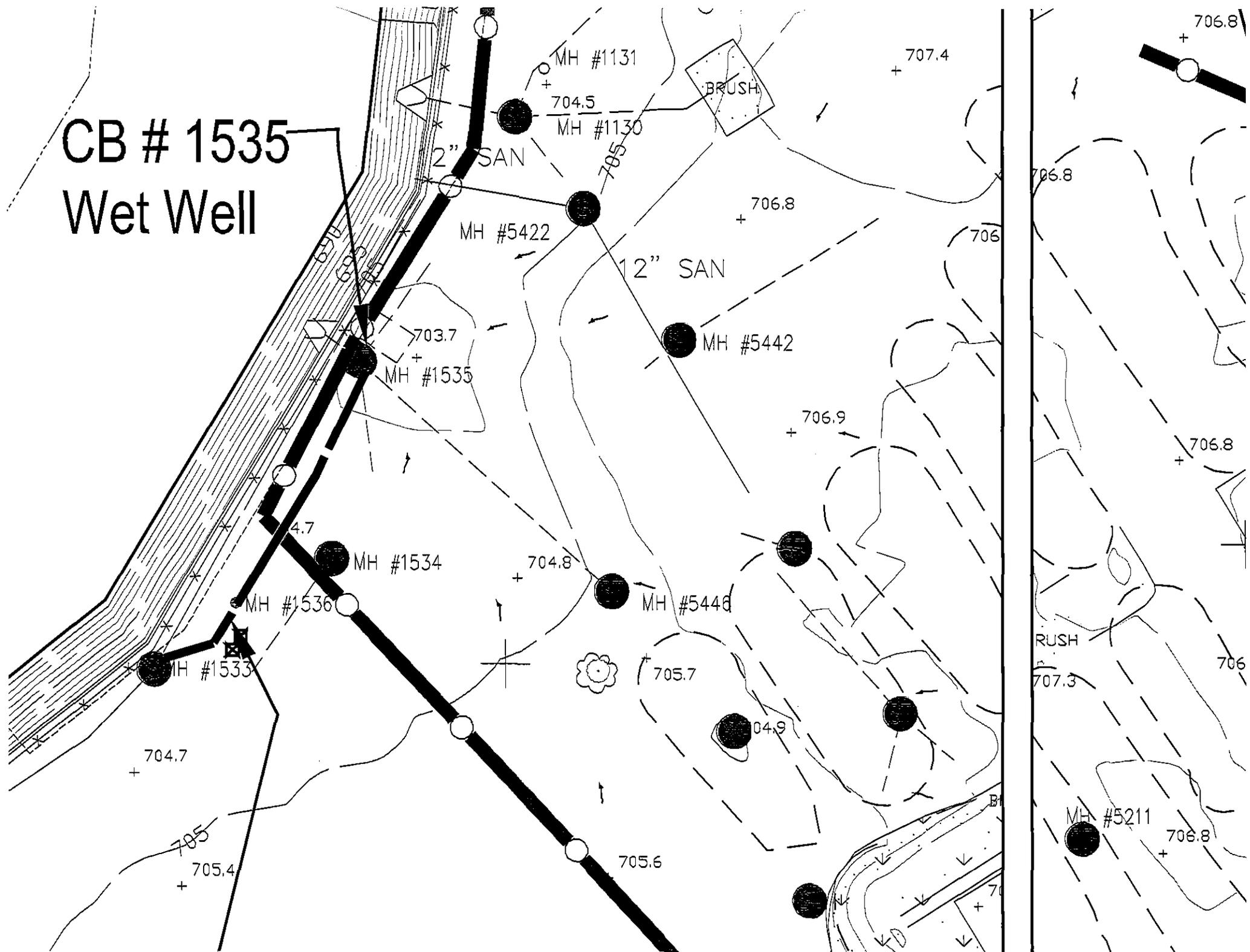


MH #1E
MH #



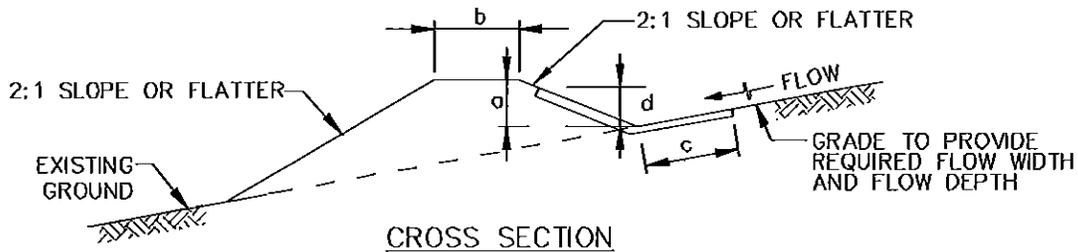
T A

CB # 1535 Wet Well

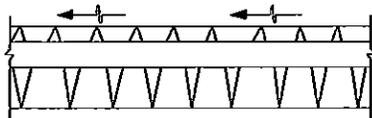


ATTACHMENT 4 - COMPACTED SOIL BERM

STANDARD SYMBOL
A-1
PLACE DESIGNATION (e.g. A-1)
ON FLOW CHANNEL SIDE OF DIKE



CONTINUOUS GRADE
0.5% MIN. TO 10% MAX. SLOPE



PLAN VIEW

DIKE TYPE

A

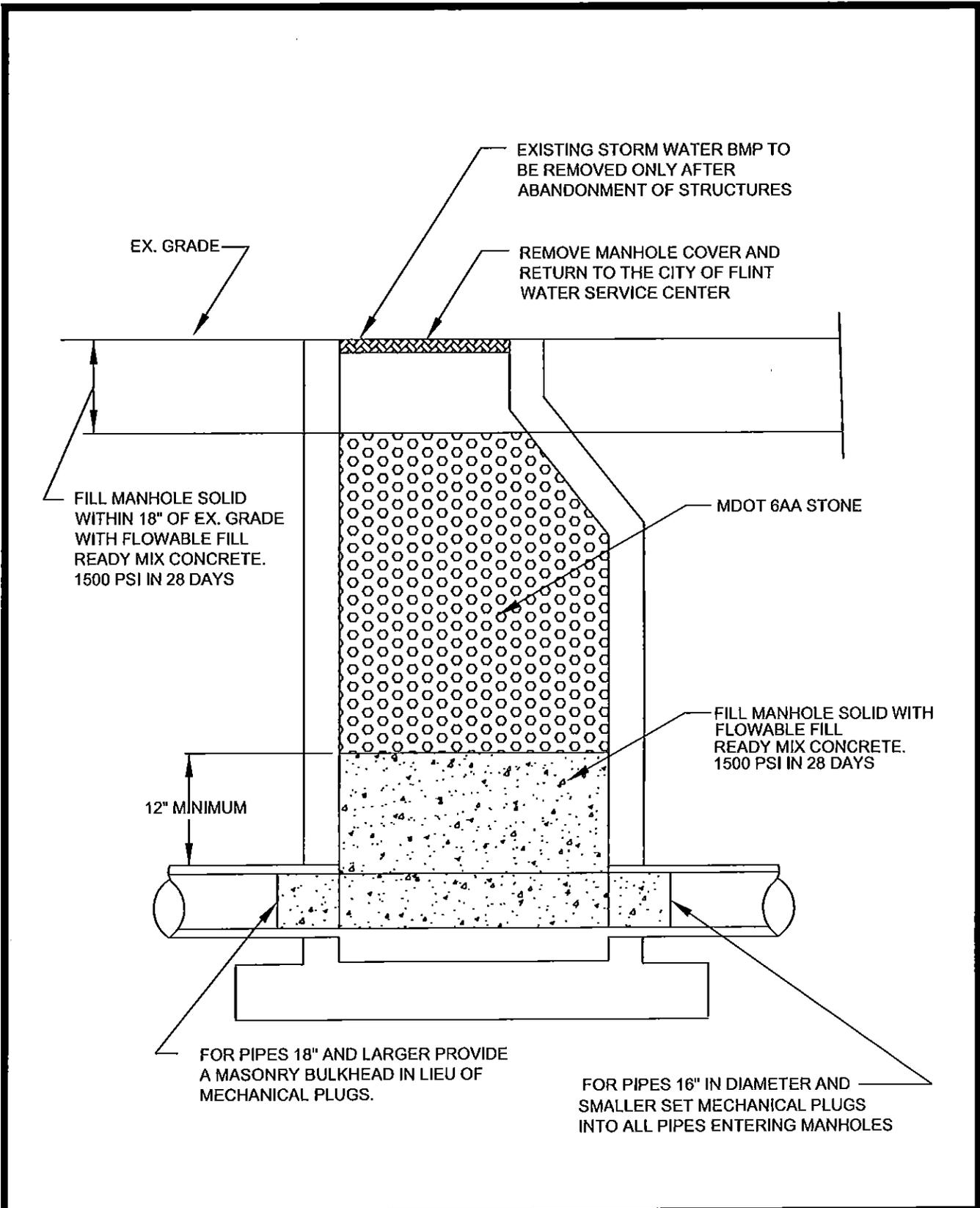
a - DIKE HEIGHT	30 IN MIN.
b - DIKE WIDTH	36 IN MIN.
c - FLOW WIDTH	6 FT MIN.
d - FLOW DEPTH	24 IN MIN.

DIKE EMBANKEMENT STABILIZATION

A-1 SEED WITH STRAW MULCH AND TACK.

CONSTRUCTION SPECIFICATIONS

1. REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDIKE.
2. EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
3. COMPACT FILL TO NO LESS THAN 90% STANDARD PROCTOR ASTM -D698.
4. CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
5. PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
6. STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION.
7. MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP EARTH DIKE AND POINT OF DISCHARGE FREE OF EROSION, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH VEGETATIVE STABILIZATION STATED ABOVE..
8. UPON REMOVAL OF EARTH DIKE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

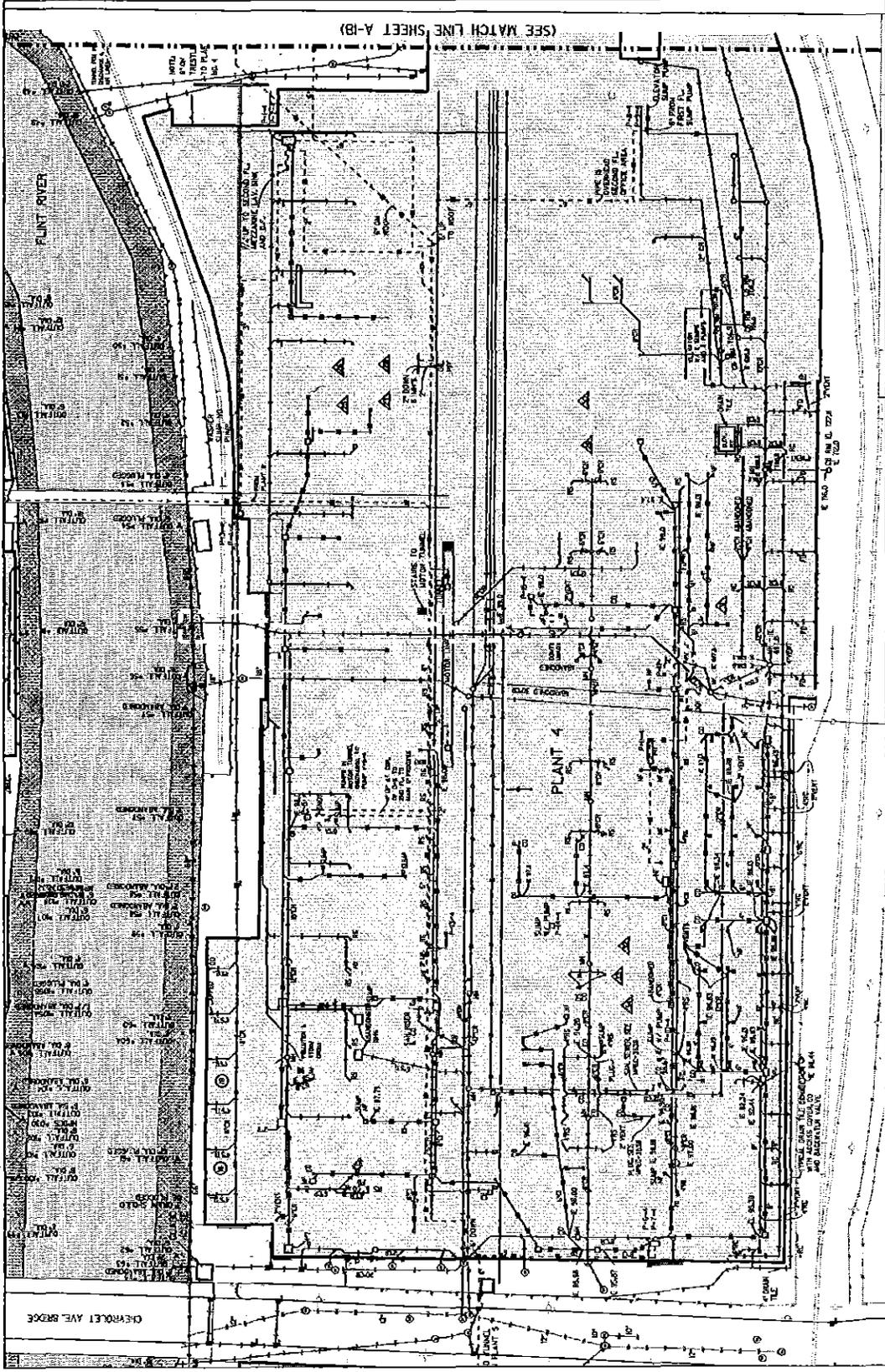


REVISION	DATE	

ATTACHMENT 5
SANITARY/STORM SEWER
MANHOLE
ABANDONMENT



STM TO BE SLIP LINED



PRELIMINARY
NOT FOR
CONSTRUCTION
DATE: 2014, 08 19

FILE NO.	2014 - 02	1
DATE	2014, 08 19	

CIVIL
ATTACHMENT 6
Storm Water Management
CHEVY IN THE HOLE

City of Flint, Michigan
SLIP LINING OF 30" STORM INTERCEPTOR

NO.	DATE	REVISION	BY

NOT TO SCALE

IN CHARGE OF
DESIGNED BY
DRAWN BY

CIA
CIA
CIA

THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CH2M HILL. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF CH2M HILL.

**CHEVY IN THE HOLE (CITH) LEAF COMPOST RUNOFF SAMPLING PLAN
FOR THE CITY OF FLINT'S COMPOSTING OPERATIONS**

This sampling plan for collecting storm water contaminated with the leaf compost leachate has been developed for the MDEQ Administrative Consent Order (ACQ-000225). From past field observations of the surrounding leaf composting areas in CITH parcel B & E, the following sample points have been determined.

Sampling Site Plan

The sample points are old GM/Delphi storm catch basins or manholes that runoff from the surrounding composting operations has been observed discharging into (See attached table and parcel maps).

Compost Leachate Runoff Collection Points

Sample Date: 3/28/2014

Parcel	Item ID	Deg	Min.	Sec.		Time
B	129	43	0	42563	N	11:34
		83	42	21.467	W	
	137	43	0	39.161	N	10:10
		83	42	21.071	W	
	138	43	0	39.817	N	11:06
		83	42	21.565	W	
	142	43	0	37.902	N	10:23
		83	42	20.971	W	
	143	43	0	38.96	N	10:37
		83	42	21.915	W	
	625	43	0	44.844	N	10:01
		83	42	14.424	W	
	633	43	0	42.202	N	10:09
		83	42	15.037	W	
634	43	0	15.020	N	10:16	
	83	42	16.360	W		
E	184	43	0	47.98	N	11:48
		83	42	7.566	W	
	679	43	0	51.319	N	11:56
		83	42	0.429	W	
	672	43	0	49.858	N	N/A
	83	42	0.131	W		

Sample Collection

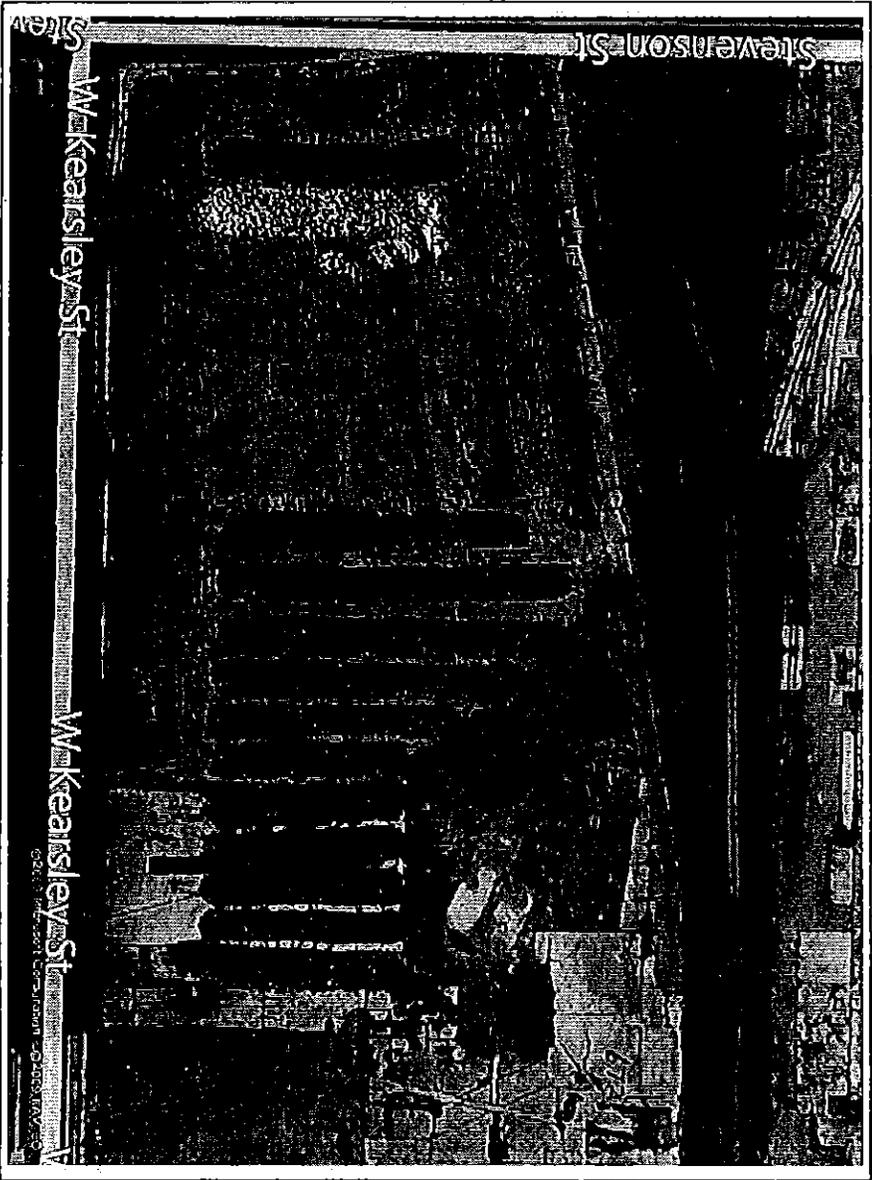
If a rain event (greater than 1 inch in a calendar day) causes observable runoff from the composting operation to discharge to the sample points, a representative sample of the discharge will be collected. Sample collection will be completed upon such observation. A grab sample from each sample point, that has composting leachate discharging into it, will be taken and placed into one composite sample. The following parameters from the MDEQ Administrative Consent Order (ACO-000225) will be collected along with turbidity (see attached field sheet).

1. Michigan 10 Metals: Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Mercury, Selenium, Silver, and Zinc.
2. Carbonaceous Biochemical Oxygen Demand, 5-day (CBODs).
3. Chemical Oxygen Demand (COD).
4. Total Suspended Solids (TSS).
5. Total Dissolved Solids (TDS).
6. Fecal Coliform (Counts 10-1,000,000).
7. Total Phosphorus.
8. Ammonia Nitrogen.
9. PH.
10. Temperature.

All samples will be collected and preserved in accordance with Standard Methods for Examination of Water and Wastewater, 20th Edition. The samples will be chemically analyzed using the approved methodologies found at 40 Code of Federal Regulations (CFR) Part 136.



CH PARCEL B



C1H PARCEL E

City of Flint
 G-4652 Beecher Road
 Flint, MI 48532
 810.766.7210

CIH COMPOST RUNOFF - Field Sheet
CHAIN-OF-CUSTODY RECORD

Facility:
 Chevy in the Hole
 300 N CHEVROLET AVE.
 Parcel B & E

Sampling Location:
 Compose runoff by catch basins 129, 137, 138,
 142, 143, 625, 633, & 634 for parcel B and
 184, & 679 for parcel E.
 672 had no flow.

Date Collected: 3/28/2014
Sampler(s): COF
 TH/TD

<u>Sample Date/Time</u>	<u>Parameter</u>	<u>Preservative</u>	<u>Bottle</u>
Grab Composite 3/28/2014 10:01 am - 12:01 pm	<u>Metals</u> As, Ba, Cd, Cr, Cu, Pb, Hg, Se, Ag, Zn	PH <2 HNO ₃	Plastic 250 ml
	<u>Chemical Oxygen Demand - COD</u>	PH <2 H ₂ SO ₄	Glass 1L
	<u>Total Phosphorus / Ammonia Nitrogen</u>	PH <2 H ₂ SO ₄	Glass 1L
	<u>CBOD5 / TSS</u>	None	Glass 1L
	<u>Fecal Coliform</u>	None	Glass 1L
	<u>Nitrate / Nitrite</u>	None	Glass 500 ml
<u>Sample Date/Time</u>	<u>Parameter - Field</u>	<u>Results</u>	<u>Units</u>
3/28/14 12:01pm	Total Dissolved Solids - TDS	479	mg/L
	PH - Calibrated Buffers 4, 7, & 10 on: 3/28/14 At: 9:15 am	7.1	SU
	Temperature	45.5	° F
	Turbidity	163	NTU
	Conductivity	681	uS

Exhibit B – Revised August 2014

I. Work

- A. Screen (grind or haul away large pieces) the Inventory, including all leaf piles, regardless of their current condition. The material removed by the screening and all associated trash, overs, and debris ("Screened Material") shall be promptly transported off-site for disposal.
- B. The Inventory remaining after screening and grinding shall be placed in rows onsite.
- C. The rows of Inventory shall be managed to optimize and hasten its conversion to compost that is suitable for onsite use for cover and for offsite commercial sale, other use, or disposal. The actions identified in the Management Plan shall be implemented for the management of water from precipitation that falls in the area where the compost process and operations are carried out. This plan includes using composting best management practices. The Management Plan is Exhibit C.
- D. The City is a party to the Subgrant Agreement and other arrangements that require that finished compost be provided as a portion of the match and for likely future matches for anticipated grants. COF may keep at least 18,000 cubic yards of finished compost for use on the site as part of cover for the site.
- E. With respect to the finished compost intended as grant match or for use on the CITH site, such compost shall be placed outside of the bermed designated composting area on the CITH site until it is used for cover on-site, in which case it may be incorporated into cover anywhere on the CITH

site. Appropriate soil erosion/sediment/silt controls shall be placed at such compost storage area until such compost is fully used for cover on-site until such time that the cover is stabilized. In addition, the City will ensure compliance of all activities at the CITH site with any applicable Soil Erosion and Sedimentation Control requirements (Part 91, Soil Erosion and Sedimentation Control of the Natural Resources and Environmental Protection Act (NREPA)), and construction storm water requirements ("Permit-by-Rule", Rule 2190 promulgated under Part 31 of the NREPA)(including obtaining appropriate permits), as necessary in connection with storage, mixing, and placement of the compost as part of the cover at the CITH site.

F. Other than the finished compost to be used for cover on the CITH site, Inventory (some or all of which may be finished compost), including all Screened Material, shall be removed from the CITH site.

G. Schedule

1. The Work shall commence no later than immediately after the DACO is effective, but Work may be commenced by the City prior to that date.

u. All Work shall be completed by August 31, 2015.

Exhibit C - Revised August 2014

Management Plan (Operational Plan and Berm Construction And Storm Water Runoff Management Plan)

Flint- Chevy in the Hole-Operational Plan for Water Management

Site Description:

Chevy in the Hole (CITH) is a 66-acre vacant industrial brownfield that is owned by the City of Flint. As a former factory site, it has approximately 40+ acres of hard impervious surface (asphalt and concrete), and approximately 20+ acres of pervious surface (grass, gravel, sand). There are historic storm/sanitary sewer connections on the site which are evident throughout the site through exposed manhole covers. Through visual inspection, it is evident that surface water on the site is draining through either entry to the storm sewer system, City of Flint sanitary sewer system, or entering the groundwater through infiltration. Surface runoff to the Flint River or Swartz Creek through sheet-flow is minimal because the site is partially walled off from the river and/or graded to prevent that entry route.

Location:

The composting site is located within the Chevy-in-the-Hole area. It is bounded by Swartz Creek on the east, a Norfolk Southern right-of-way to the north, Chevrolet Ave. to the west, and Kearsley Street to the south. The site is bisected by Stevenson Street.

Hydro-geologic Features:

Swartz Creek provides the eastern border to the site and has a water surface elevation of 700.00 feet above sea level. The banks of the drain near the composting site are steep on both sides and channelized. The Flint River provides the northern border to the site and also has a surface elevation of 700.00 feet above sea level.

The site itself sits on a former facility that had paved parking and concrete slab floors. Therefore much of the site has an impermeable and engineered surface that is capable of bearing the weight of both the compost material and the processing equipment.

In addition, there has been substantial planting of trees on the permeable areas of the site that will allow for significant infiltration of surface water as well as a beneficial method of redirecting nutrient rich runoff.

Existing Structures: There are no existing structures on the Flint Compost Site. A small temporary structure has been erected that will provide small tool storage and a location for the site operator to keep site paperwork. It does not have electricity, running water, or phone service.

Natural Buffers: As indicated above, the primary buffers to the site are surface water. The Flint River to the north and Swartz Creek to the east provide some barrier to the site. The balance of the Chevy-in-the-Hole stretches approximately 0.5 miles to the west. On the south, the GM machine and die plant provides a barrier between the composting site and the residential area to the south.

Best Management Practices:

The following table includes the industry standard best management practices that will be employed at the Chevy in the Hole site to mitigate and prevent any adverse effects of storm water runoff.

BMP - Grading Facility Area		
<i>Description:</i> Grading of select portions of the site to encourage proper drainage and to reduce the potential for pooling/ponding of water. Standing water on working surfaces is the leading cause of storm water contamination.	<i>Design Purpose:</i> Prevent accumulation of nutrient rich runoff accumulation.	<i>CITH Operational Considerations:</i> Maintain existing grade on majority of site. Plan to repair grading semi-annually (or as needed) to maintain grade and grade integrity. Focus active composting (windrowing) on appropriately graded areas to prevent pooling.
BMP - Graveling or Paving		
<i>Description:</i> Compact surfaces are best for active composting. Surfaces should maintain drainage, withstand repetitive vehicle loads, and maintain integrity in wet weather conditions.	<i>Design Purpose:</i> Prevent ponding and pooling of water, reduce erosion from runoff, reduce nutrient accumulation, withstand vehicle loads.	<i>CITH Operational Considerations:</i> All areas of the CITH site that are proposed for active composting currently have concrete or similar hard surfacing.
BMP- Sediment Fencing Debris Filter		
<i>Description:</i> Sediment fencing may consist of the following methods and materials: geotextile fabric, straw bales, filter berms, solid berms or wattles.	<i>Design Purpose:</i> Heavy soil particles are retained on the up slope side of the fence and as a result of filtering and through the creation of a small settling basin up slope of the fence through restriction and retardation of the runoff flow.	<i>CITH Operational Consideration:</i> Fencing, filters, and caps will be used as needed to prevent storm water from entering any storm water receptors in areas adjacent to composting operations. The City (as part of their storm water management plan) will install controls to prevent runoff entering into the storm water sewers in the composting area. Covers will be inspected and maintained monthly.

BMP - Reuse of Storm water and Compost Runoff		
<p><u>Description:</u> Under moderate rainfall, the need for large amounts of water in the composting process presents a unique opportunity for storm water reuse as water is reincorporated back into the windrow piles.</p>	<p><u>Design Purpose:</u> To reduce the cost and need for additional water, it is beneficial to reincorporate moderate storm water, where possible, back into the composting process.</p>	<p><u>CITH Operational Consideration:</u> Using a wheeled front-end loader, the site operators will, whenever practical, reincorporate any small pools of standing water that may accumulate after a small to moderate rain event back into the composting piles or windrows.</p>

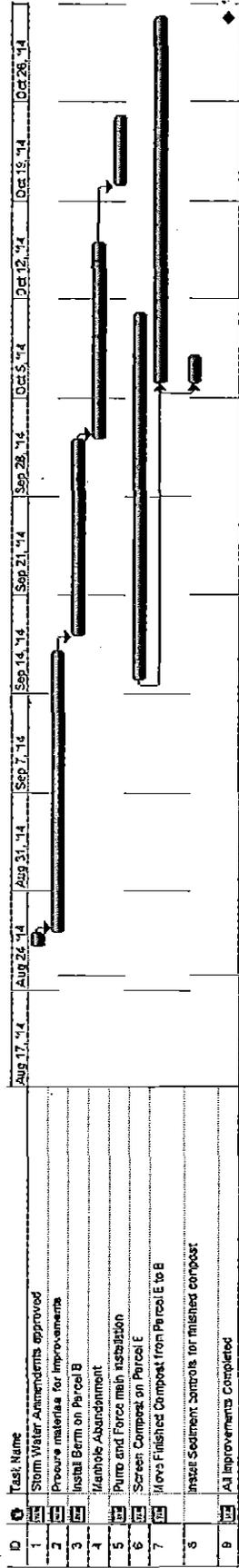
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Summary of Actions

1. Remove stabilized compost from Parcel E to Parcel B and use the composted material as a soil amendment.
2. Remove any active composting piles from Parcel E and incorporate into Parcel B compost operations.
3. Abandon grated catch basins, storm, and sanitary manholes within the drainage shed of Parcel B compost piles as detailed by Attachment 1 and Table 1.
4. Install compacted soil berm to catch and divert storm water from Parcel B compost operations to Catch Basin 1535.
5. Convert Catch Basin 1535 to a pump station/wet well for collection and pumping of storm water to City of Flint sanitary sewer system.
6. Provide additional compacted soil grading at intermediate low areas of composting activities on Parcel B to facilitate storm water runoff to Catch Basin 1535.
7. Provide slip lining of 30" storm sewer located on Parcel B and as detailed on Attachment 6 to prevent specified lateral storm sewers from conveying water to the City of Flint 30" storm sewer that discharges to the Flint River.

Schedule for the proposed amendments is provided below in Figure 1. The sliplining is to be rebid at the request of the USEPA. The sliplining will be completed as soon as practicable after the rebidding is completed and acceptable bids are received.

Figure 1 - Improvement Schedule



Reduced Compost Site Area

As a means to further reduce the amount of runoff that comes from the compost operation area on Parcel B, the City will screen, grind, and then remove piles of compost that are considered "finished". Compost is considered finished once biological activity within the pile has ceased. Internal temperature of the compost pile is a key parameter used to indicate biological activity and identifying when the organic materials within the piles have been stabilized. Temperature testing of the compost piles on Parcel B will be performed to confirm that they have been stabilized and are ready to be used as a soil amendment. As compost piles are finished, they will be relocated to the southern portions of Parcel B and stored in accordance with local storm water and sediment control regulations until the material is used as part of the overall site improvements. The location of the stockpiled soil amendment is provided in Attachment 2.

Parcel E Compost

Composting of the organics on Parcel E has been taking place for several years. Visual inspection of the piles indicates that a majority of the material has been stabilized. Temperature testing will be performed on the piles during the week of August 25, to confirm that stabilization has occurred. In addition, compost from Parcel E will be screened and ground to achieve the appropriate material size and removal of unwanted debris. Compost that has been identified as "finished" will be moved from Parcel E to the south east portion of Parcel B, outside of the existing compost operations for future use as a soil amendment. The location of the stockpiled soil amendment is provided in Attachment 2. Storage of the soil amendment will be in accordance with local storm water and sediment control regulations until the material is used as part of the overall site improvements. Compost that has not been stabilized will be moved to Parcel B and incorporated into the existing compost operations.

Soil Berm Construction

A compacted earthen embankment will be installed to contain and divert storm water runoff to Catch Basin 1535. Catch Basin 1535 will be converted to a pump station as detailed below. Limits of construction are as shown on the Attachments 1 and 3. The soil berm will be constructed to prevent storm water run-off flowing to the Flint River. The berm will be designed to assist in capturing and diverting up to the 24 hour 25 year storm to the storm water wet well and pump station. A typical cross section of the proposed compacted soil berm is detailed in Attachment 4. Soil for the berm will contain a minimum of 50% clay and be compacted in accordance with ASTM D-698 90% of Standard Proctor to provide the strength and permeability to retain the collected storm water while the pumping system is conveying the storm water to the nearby sanitary sewer system. The berm installation and compaction efforts will be overseen for compliance to the engineering documents included in Exhibit C by a Registered Professional Engineer in the State of Michigan. The berm will have the general alignment as detailed on Attachment 1 and 3. Final alignment of the earthen berm shall be determined by utilizing a construction laser level and Owner's representative oversight to insure the intent of the management plan is achieved. Alignment of the berm shall be such that its final placement will be along the high points between manhole tributary areas to divert storm water runoff to Catch Basin 1535. The berm will have a

minimum constructed height of 2.5 feet above existing alignment grade. The length of Berm Sections 1 and 2 as detailed in Attachment 3 are 700 and 300 feet, respectively.

Manhole/Catch Basin Abandonment

As an additional measure to prevent storm water from the compost operations entering the Flint River, specific storm water manholes and catch basins will be abandoned. Existing catch basins that are within the influence of the compost operations and not tributary to Catch Basin 1535 will be abandoned.

Table 1 provides the list of manholes and catch basins that will be improved to prevent storm water from entering them. Catch basins and manholes will be abandoned in accordance with Attachment 5.

Table 1				
Catch Basin Number	Opening Type	Required Action	Utility Type	Comments
1101	Grate	Abandon	Storm	
1118	Manhole	Abandon	Utility	
1120	Manhole	Abandon	Sanitary	Not a conduit to the Flint River
1130	Manhole	Abandon	Utility	
1131	Manhole	Abandon	Storm	
1133	Manhole	Abandon	Storm	
1134	Manhole	Abandon	Sanitary	Not a conduit to the Flint River
1534	Manhole	Abandon	Storm	
1535	Grate	Pump Station	Storm	
1576	Manhole	Abandon	Storm	
1678	Grate	Abandon	Storm	Collection Sump that will need to be vacuumed/pumped out per DEQ requirements
5089	Grate	Abandon	Storm	
5164	Grate	Abandon	Storm	
5211	Grate	Abandon	Storm	
5270	Grate	Abandon	Storm	Collection Sump that will need to be vacuumed/pumped out per DEQ requirements
5286	Grate	Abandon	Storm	
5289	Grate	Abandon	Storm	
5422	Manhole	Abandon	Storm	
5442	Manhole	Abandon	Sanitary	Not a conduit to the Flint River
5446	Manhole	Abandon	Storm	Fill area to facility drainage to next tributary area
5476	Manhole	Abandon	Storm	
5477	Manhole	Abandon	Storm	

Storm Water Pump Station – Existing Catch Basin 1535

Storm water engineering calculations performed by Rowe Professional Services (Rowe) were used to size the pumping capacity of the storm water pump station. Catch Basin 1535 will be improved to manage storm water flows for up to a 24 hour 25 year storm event.

Improvements to the Catch Basin 1535 shall include installing a mechanical gate valve that will be normally closed. In the case of a storm event greater than a 24 hour 25 year event, the gate valve will be

opened to allow for the runoff to enter the Flint River. Use of a valve will prevent overtopping and damage to the compacted earthen berm.

Based a 24 hour 25 year rainfall precipitation total of 4 inches (NRCS, 1995) the site could produce up to 570,000 gallons of runoff. It is estimated that some of the storm water runoff is caught by the existing filter strips which are heavily vegetated and have a porous surface. Filter strips will not be used to accept "process" runoff from the compost area. To handle the runoff that reaches Catch Basin 1535, the pump station capacity shall be no less than 450 gallons per minute. Pump discharge will be directed to sanitary sewer manhole 1533, which is approximately 130 feet from Catch Basin 1535. The connecting sanitary sewers, sanitary pump station, and waste water treatment plant will be able to accept the 24 hour 25 year storm water runoff flows from the compost operation without issue. The force main for the pumping system will be 6 inch diameter SDR 21 or C-900 PVC pipe. The force main will be constructed to insure that, upon completion of pumping cycles, the pipeline completely drains to the sanitary sewer or back to the pump station wet well. Pumping of the wet well will either be accomplished with semi-permanent pump installation or a portable pump. Monitoring of the site will be performed by City Staff. City staff will inspect site improvements once per week and address any necessary maintenance issues such as berm erosion. Additional monitoring by City staff will take place during storm events (more than mild events) to insure that runoff is conveyed to the sanitary sewer and improvements are working as designed. Upon completion of compost activities at the site, the pump station will be abandoned and returned to a storm water outlet for the proposed green space, as needed. The City of Flint Water Pollution Control staff has approved the discharge that be made to the sanitary sewer.

Periodic Pumping/Vacuuming - Manhole 1678

Based on several site walks after rain events and reviews of site topography, the storm water ponds at manhole 1678 and will need to be periodically removed. The tributary area of manhole 1678 is relatively small as compared to the balance of the site and should not generate significant ponding. The area will be inspected routinely by City staff and have storm water removed as necessary. Collected storm water will be discharge to the City's sanitary sewer system and treated at the Flint Water Pollution Control Facility prior to discharge to the Flint River.

Site Grading

To facilitate drainage to the Catch Basin 1535, compacted soil fill will be placed at low lying areas. Soil used for grading areas will contain a minimum of 50% clay and be compacted in accordance with ASTM D-698 90% of Standard Proctor. Installation and compaction efforts shall be overseen for compliance to engineering documents provided in Exhibit C by a Register Professional Engineer in the State of Michigan.

Storm Sewer Slip Lining

A 30 inch diameter storm sewer intersects Parcel B in an east to west direction with its outfall at the south bank of the Flint River. The 30" storm sewer has tributary storm sewers that provide drainage to the southern portion of Parcel B. The alignment of the storm sewer is highlighted in yellow on Attachment 6. The existing 30" interceptor storm sewer from the eastern boundary of Chevy in the Hole to its outfall at the Flint River will be slip lined (subject to the provision on C-4). The intersecting storm sewer connections (laterals) at the point where they connect to the 30" interceptor will not be cut open after the

slip lining procedure is performed. This will prevent storm water from tributary areas from flowing to the Flint River via this particular conduit.