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After recording return to:

Murray City Corporation 10 East 4800 South Murray, UT 84107

APN:

14145717 B: 11441 P: 634 Total Pages: 54 08/28/2023 10:53 AM By: dsalazar Fees: \$0.00 Rashelle Hobbs, Recorder, Salt Lake County, Utah	
Return To MURRAY CITY 10 E 4800 S MURRAY, UT 84107	
THE 4500 S MURKHY, UT 8410/	

Permit Number:	
Map & Parcel Number: Par	rcel ID: 2205376011
Project Name & Address:	ICO Murray - Phase 1 // Murray Square Apartments
	853 East 4680 South, Murray City, Utah 84117

STORM WATER INSPECTION AND MAINTENANCE AGREEMENT

THIS STORM WATER INSPECTION AND MAINTENANCE AGREEMENT ("Agreement"), made and entered into by and between MURRAY CITY CORPORATION, 5025 South State Street, Murray, Utah ("City"), and 900 Fast Try Place, LLC and its heirs, successors, or assigns ("Owner"), is made effective as of the date of execution by City (Effective Date).

RECITALS

- A. City is required by federal and state surface water quality regulations and its National Pollutant Discharge Elimination System (NPDES) permit to prevent surface water quality degradation from development or redevelopment activities within its jurisdiction, and City has adopted storm water quality regulations which are contained in Chapter 13.52 of the Murray City Municipal Code, the Storm Water Management Ordinance ("Ordinance").
- B. Under the Ordinance, City has the authority to inspect private storm water management facilities within the City and to order corrective actions to private storm water management facilities which are necessary to maintain properly the storm water management facilities within the City.
- C. The Ordinance requires that private storm water management facilities be maintained by the real property owner, and a maintenance agreement must be executed as a condition of development plan approval.

- D. Owner is the owner of certain real property located in Murray City, Salt Lake County, Utah, and more particularly described in **Exhibit A**, attached hereto (the "Premises").
- E. Owner has submitted for approval by City an application and Site Plan or Subdivision Plat (the "Plan") in order to make improvements to the Premises which require the construction and installation of storm water management facilities ("Facilities") pursuant to the Ordinance.
- F. Owner has constructed or will construct on-site Facilities on the Premises which comply with the planning and technical requirements of the Ordinance, the Murray City Storm Drain Guidance Manual ("BMP manual") and the regulations of the State of Utah.
- G. City and Owner are entering into this Agreement for the purpose of providing for the perpetual maintenance, repair and care of the Facilities.

NOW, THEREFORE, for and in consideration of the City's approval of the Facilities and issuance of an occupancy permit to the Owner and in further consideration of the mutual promises and covenants hereinafter contained, the Parties agree as follows:

AGREEMENT

- 1. This Agreement includes the following exhibits which are incorporated by reference herein:
 - a. Exhibit A: Legal Description of Premises.
- b. Exhibit B: Plan shows an accurate location of each storm sewer management practice included in the Maintenance and Repair Plan and shows maintenance easements that will ensure access to the site for purposes of inspection, maintenance and repair.
- c. <u>Exhibit C</u>: Maintenance and Repair Plan prescribes those activities that must be carried out to maintain compliance with this Agreement.
- 2. Owner covenants that the Facilities constructed or to be constructed on the Premises have been or shall be constructed by Owner in accordance with the plans and specifications in the Plan and that the Facilities comply or will comply with all the requirements of the Ordinance, BMP manual and the regulations of the State of Utah. Responsibility for the adequacy and design and construction of the Facilities rests solely with Owner. The signing of this Agreement shall not be construed as approval of the design or the construction details of the Facilities.
- 3. Owner agrees to maintain the Facilities identified in **Exhibit B** in good operating condition and to pay the costs of operation and maintenance of the Facilities. The maintenance of the Facilities shall be in accordance with all applicable City and State requirements and regulations, and shall include but not be limited to the following:

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- a. an annual inspection by a qualified inspector who will submit a written report ("Report") of the inspection to the engineering services division ("Division"), for the purpose of describing the condition of the Facilities, documenting maintenance and report needs and ensure compliance with the purpose and requirements of the Ordinance; the Report shall be due on the anniversary date of this Agreement, and shall have been performed within two months prior to the Report's due date. The Report shall state the site name and address, the Owner's name, the inspection date, the inspector's name and qualifications, and shall describe any deficiencies and required maintenance on the Facilities.
- b. the remediation of any deficiencies identified by the annual inspection. A supplementary report on such remediation shall be due, and remediation and maintenance needs addressed, in a timely manner, on a schedule to be determined by the Division.
- c. the removal of silt, litter, and other debris, the cutting of grass, grass cuttings, and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, and inlets and drainage pipes and any other Facilities.
- d. all additional maintenance and all other repairs and improvements consistent with the needs and standards outlined in the BMP manual to keep the Facilities operating in an efficient, safe, and sanitary manner.
- e. If it is later determined that the City's NPDES permit clearly directs Owner or the City to manage the Facilities differently than specified in the Maintenance and Repair Plan, the direction of the NPDES permit shall overrule the provisions of the Maintenance and Repair Plan.
- 4. Owner hereby grants to the City the right of ingress, egress and access to enter the Premises at reasonable times and in a reasonable manner for the purpose of inspecting, operating, installing, constructing, reconstructing, maintaining or repairing the Facilities. Owner hereby grants the City the right to install and maintain equipment to monitor or test the performance of the Facilities for quality and quantity upon reasonable notice to Owner.
- 5. In the event that Owner fails to inspect, report on, or properly maintain the Facilities within the specified time limits, the City may enter upon the Premises and take whatever steps it deems necessary to maintain the Facilities. It is understood that the City is under no obligation to maintain the Facilities and this Agreement shall not be construed to impose such an obligation on the City. If such maintenance is performed, Owner shall reimburse City for the costs of such maintenance within ten (10) days of written notice by City to Owner. Any amounts unpaid by Owner to City following this time shall be recorded as liens against the Premises.
- 6. a. Owner and Owner's heirs, administrators, executors, assigns, and any other successor in interest shall indemnify and hold the City harmless from any and all

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damages, accidents, casualties, occurrences, claims or attorney's fees which might arise or be asserted, in whole or in part, against the City from the construction, presence, existence, or maintenance of the Facilities by Owner or City.

- b. In the event a claim is asserted against the City, its agents, or employees, City shall notify Owner and City shall defend at Owner's expense any suit based on such claim. If any judgment or claims shall be allowed against City, its agents, or its employees, Owner shall pay all costs and expenses in connection therewith.
- 7. No waiver of any provision of this Agreement shall affect the right of any party thereafter to enforce such provision or to exercise any right or remedy available to it in the event of any other default.
- 8. It is the intent of this Agreement to ensure the proper maintenance of the Facilities by Owner. However, this Agreement shall not be deemed to create or affect any additional liability of any party for damage alleged to result from or be caused by storm sewer management.
- 9. This Agreement shall be recorded with the Salt Lake County Recorder's Office and shall constitute a covenant running with the land, and shall be binding on the Owner, its administrators, executors, assigns, heirs, and any other successors in interest.

10. Owner has designated: Name: Tim Mayers

Address: 3401 N. Center St. #275

Lehi, Ut 84043

Telephone Number: 901-407-6822

Email: Finm @ icomangement: com

to serve as the responsible individual for execution of the responsibilities of this Agreement. The Owner shall inform the City regarding any change in the designee responsible or the contact address or telephone number of the designee.

- 11. The designation in paragraph 10 above does not relieve the Owner of responsibility for fulfilling the provisions of this Agreement.
- 12. If applicable, Owner agrees that for the Facilities to be maintained by a property owner association, deed restrictions and covenants for the subdivision or other development will include mandatory membership in the property owner's association responsible for providing maintenance of the Facilities, will require the association to maintain the Facilities, will prohibit termination of this covenant by unilateral action of the association, and provide for unpaid dues or assessments to constitute a lien upon the property of an Owner upon recording a notice of non-payment.
- 13. Upon acceptance by a grantee of all or part of the Premises shown in **Exhibit A** along with the assumption by the grantee in writing of the Owner's responsibilities as set

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forth in this Agreement, the previous Owner shall be released from any further obligation upon the provision of this Agreement with respect to that portion of the Premises conveyed. Documentation of such transfer of responsibility must be transmitted to City at: Murray City Corporation, Attention Engineering Division, 4646 South 500 West, Murray, Utah 84107. Such assumption of responsibility must be in the form of a new agreement between City and the new Owner assuming responsibility.

IN WITNESS WHEREOF, this Agreement is executed to be effective as of the Effective Date.

Effective

ATTEST:

MURRAY CITY CORPORATION

Brooke Smith, City Recorder Lawa Bown Dynuny

STATE OF UTAH

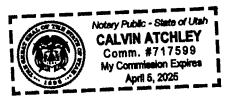
COUNTY OF SALT LAKE)

: ss.

On the 21 day of August, 2023, personally appeared before me, the undersigned notary public in and for the County of Salt Lake, State of Utah, Brett A. Hales and Laura Bown who acknowledged to me that they are the Mayor and City Recorder, respectively, of MURRAY CITY CORPORATION, A Utah municipal corporation and political subdivision and signed it freely and voluntarily and in

behalf of said municipal corporation for the purposes mentioned herein.

Deputy



Approved as to form:

City Attorney's Office

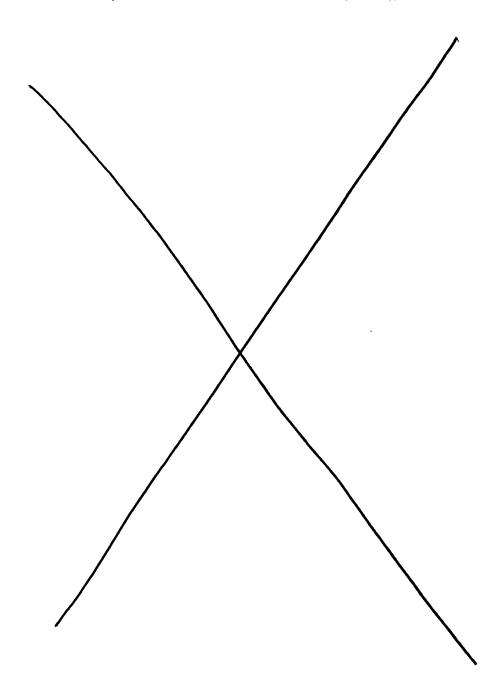
Calvin Notary Public

Approved as to content:

Name:

Title: KKINGERION INSPECTOR

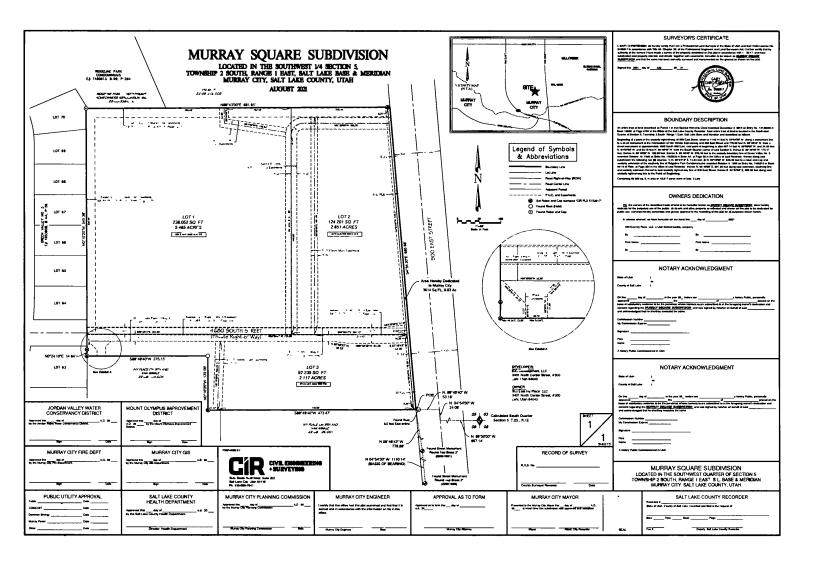
<u>EXHIBIT B</u> (Attach Site Plan/Subdivision Plat ("Plan"))



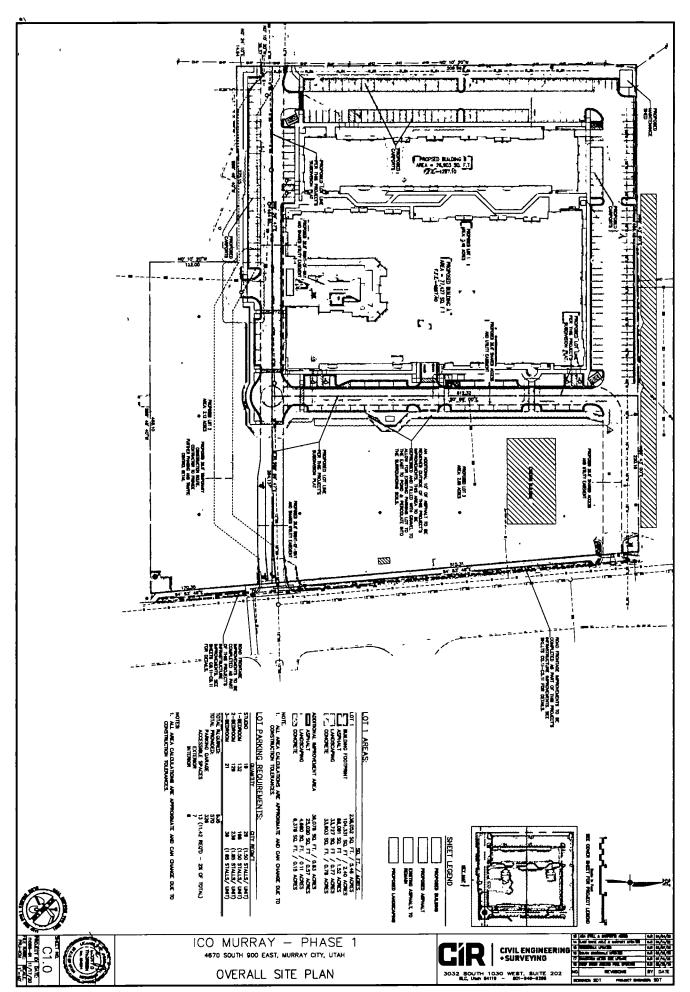
Date: <u>7/26/2023</u>	Soo East Fry Place, LLC BY: June Steeling Manger Name: Jamis G. Seeling, Manager Title: Manager
STATE OF UTAH) OTAN : ss. COUNTY OF SALT LAKE) On the 26 day of 10	, 20 <u>73</u> personally appeared before me, the
undersigned notary public in and	acknowledged to me that he/she signed it freely and tioned therein.
COMM. EXP. 08-20-2023	Notary Public
STATE OF UTAH) : ss. COUNTY OF SALT LAKE)	
undersigned notary public in and , who ackn	, 20, personally appeared before me, the differ the County of Salt Lake, State of Utah, owledged to me that he/she is a of gned it freely and voluntarily and in behalf of said ourposes mentioned herein.
	Notary Public

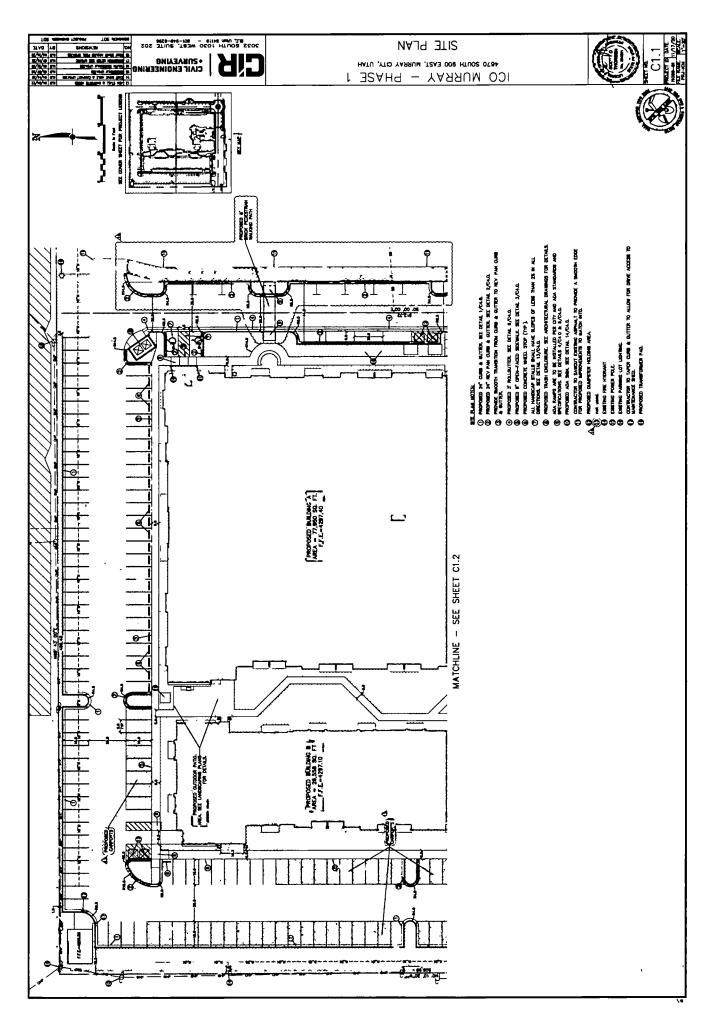
<u>EXHIBIT A</u> (Attach Legal Description)

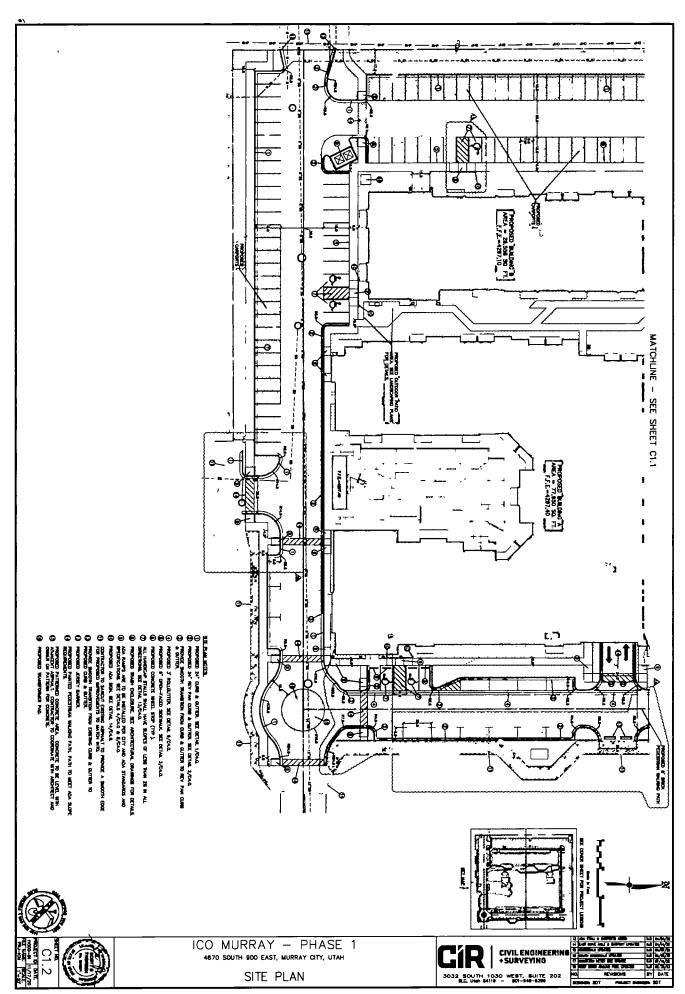
Property Legal Description:		
All of Lot 1, Murray Square Subdivision.		
Contains 5.465 acres.		

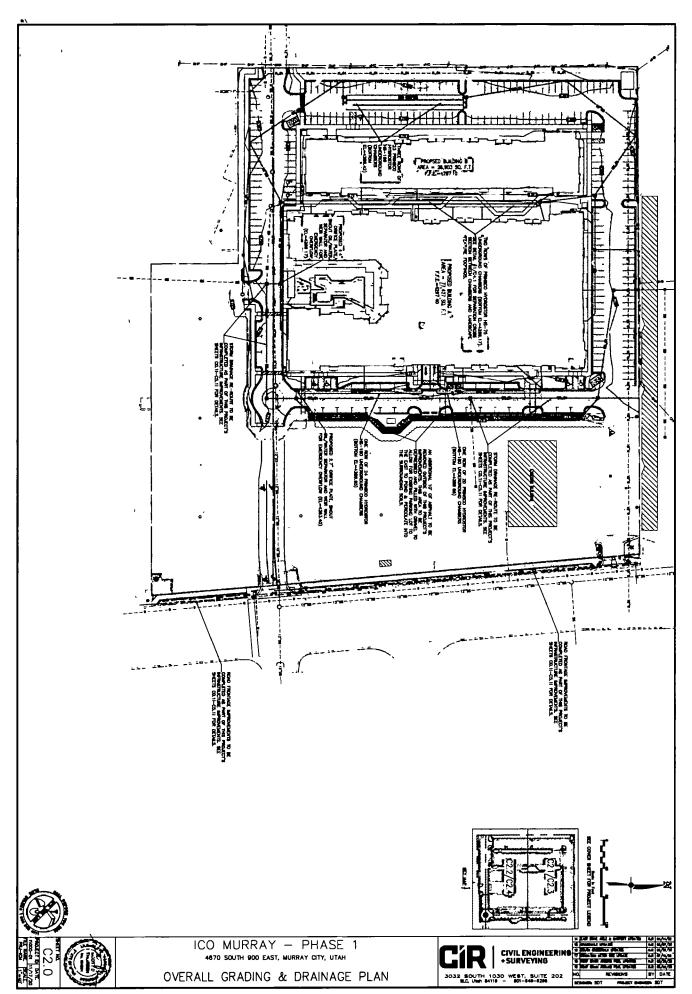


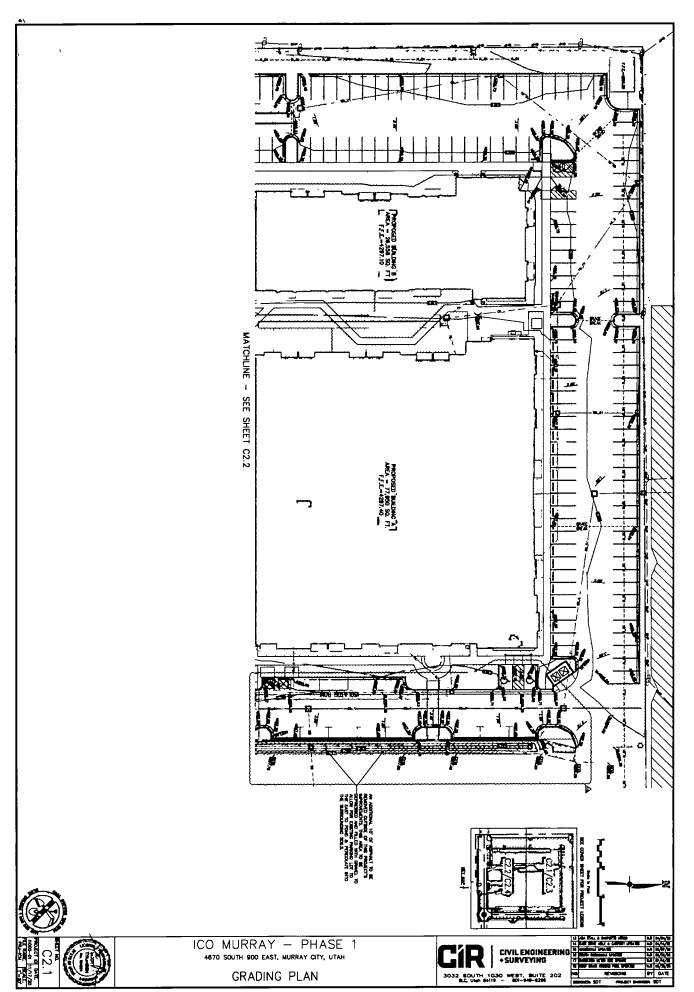
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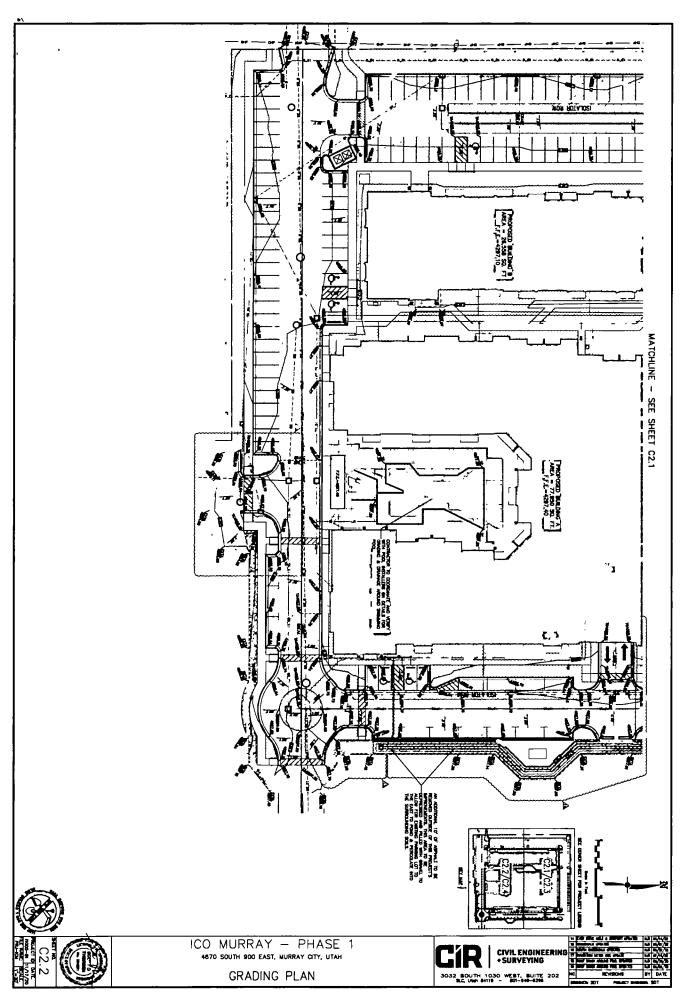


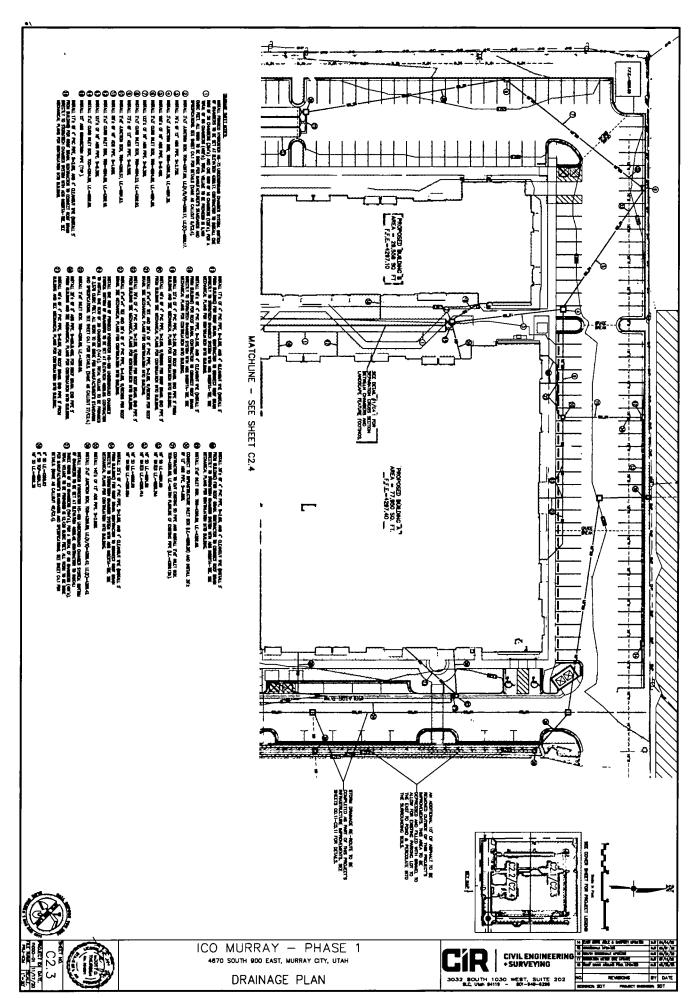


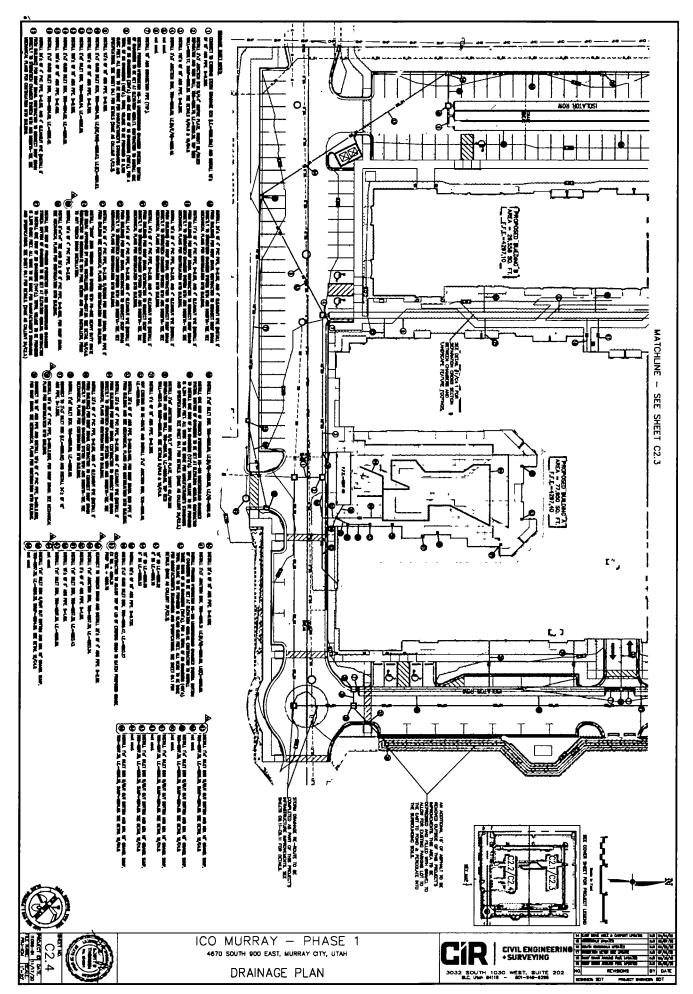


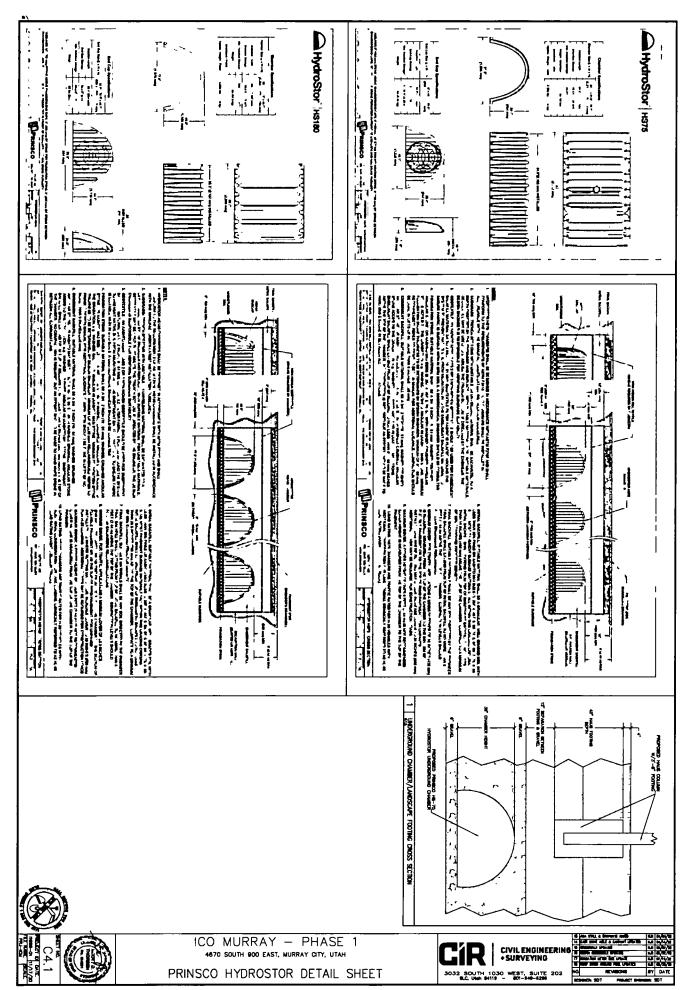


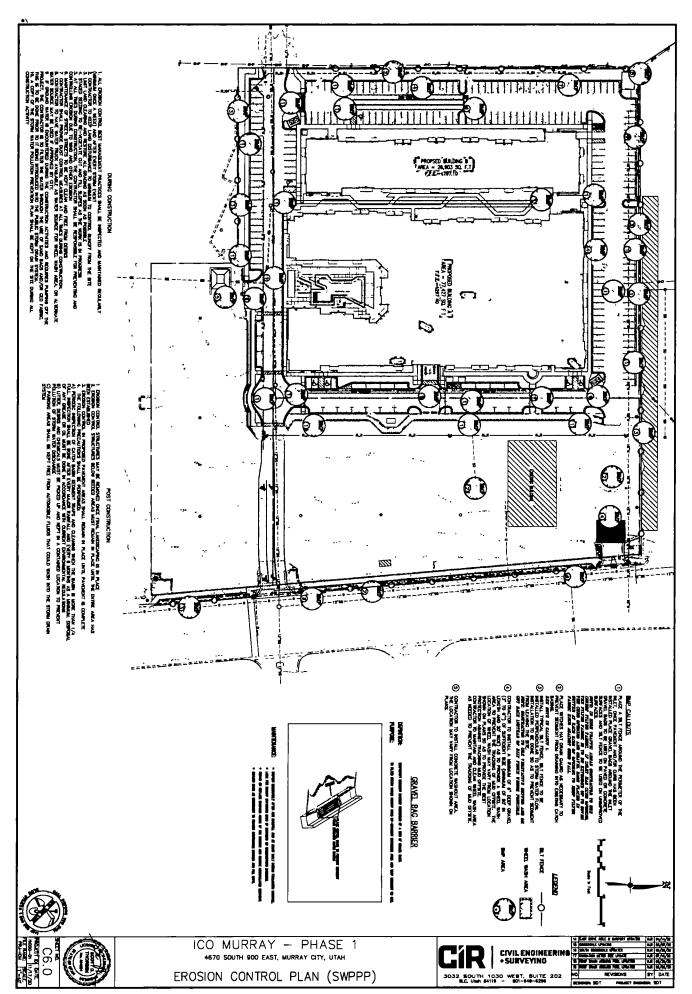


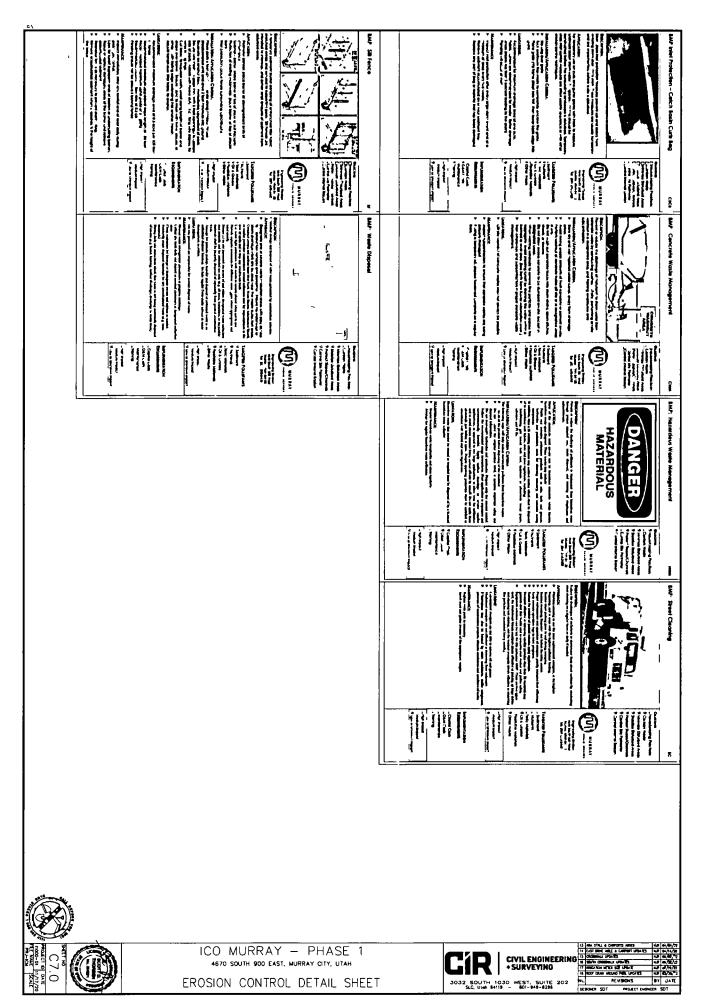


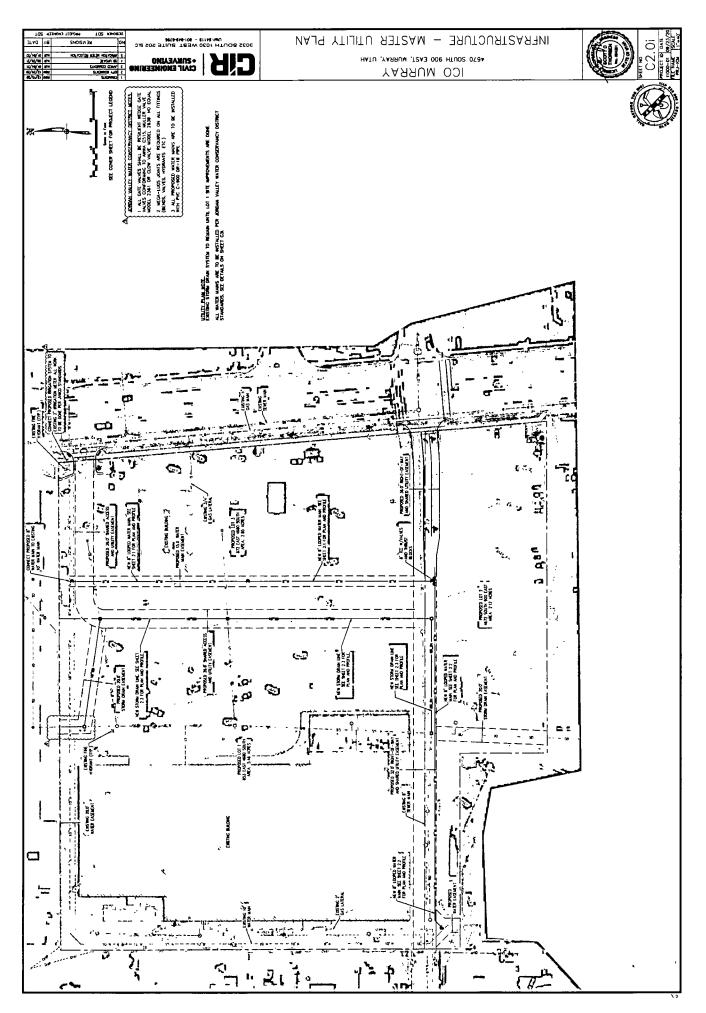


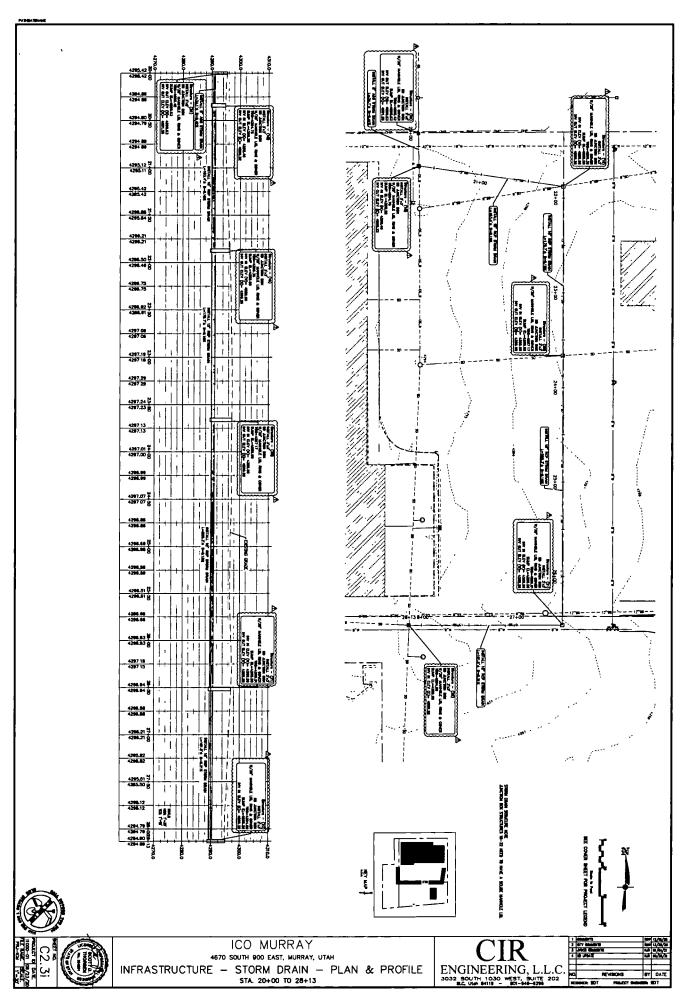


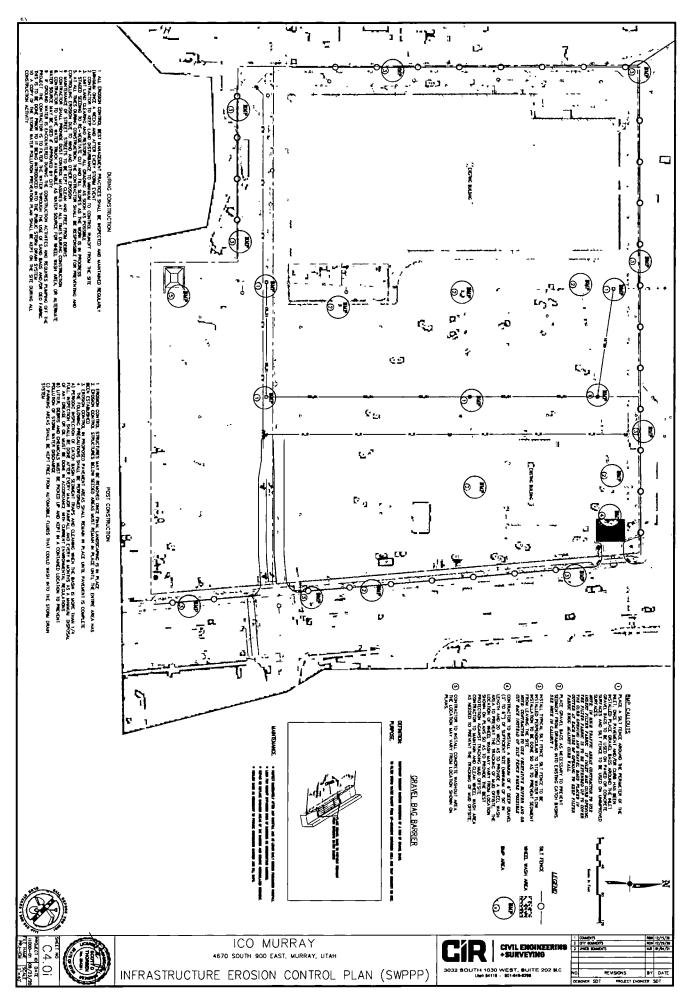












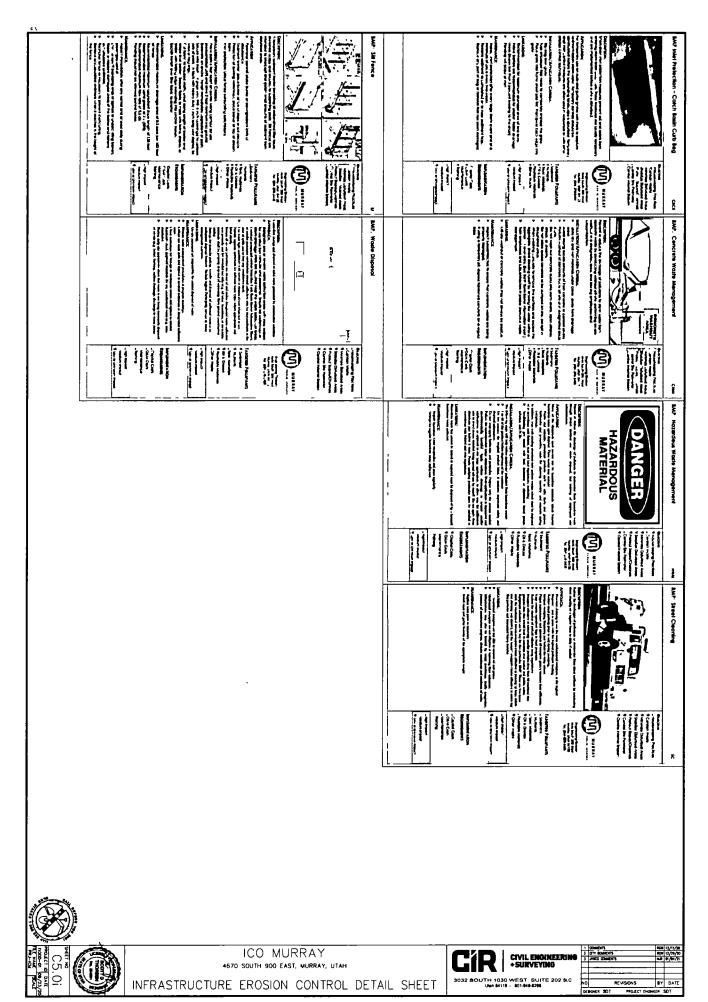


EXHIBIT C
(Attach Maintenance and Repair Plan)

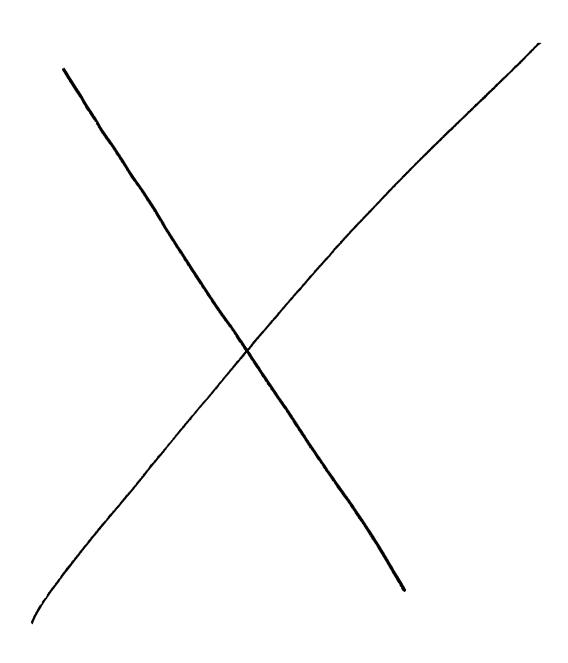


EXHIBIT C

Long-Term Stormwater Management Plan

for:

Murray Square Apartments 863 East 4680 South Murray City, Utah 84117

PURPOSE AND RESPONSIBILTY

As required by the Clean Water Act and resultant local regulations, including Murray City Municipal Separate Storm Sewer Systems (MS4) Permit, those who develop land are required to build and maintain systems to minimize litter and contaminants in stormwater runoff that pollute waters of the State.

This Long-Term Stormwater Management Plan (LTSWMP) describes the systems, operations and the minimum standard operating procedures (SOPs) necessary to manage pollutants originating from or generated on this property. Any activities or site operations at this property that contaminate water entering the City's stormwater system, groundwater and generate loose litter must be prohibited, unless SOPs are written to manage those activities or operations, and amended into this LTSWMP.

The Jordan River is impaired contains a TMDL 303d list of the following: Temperature, E. coli, Benthic Invertebrate Assessment. The LTSWMP is aimed at addressing these impairments in addition to all other pollutants that can be generated by this property.

CONTENTS

SECTION 1: SITE DESCRIPTION, USE AND IMPACT

SECTION 2: TRAINING

SECTION 3: RECORDKEEPING SECTION 4 APPENDICES

SECTION 1: SITE DESCRIPTION, USE AND IMPACT

The site's infrastructure is limited at controlling and containing pollutants. If managed improperly, pollutants can damage nearby bodies of water such as the Jordan River. This LTSWMP includes standard operations procedures (SOP)s that are intended to compensate for the pollution containment limitations of our site infrastructure and direct our maintenance operations to responsibly manage our grounds.

Parking, Sidewalk and flatwork

Any sediment, leaves, debris, spilt fluids or other waste that collects on our parking lots and sidewalks will be carried by runoff to our storm drain inlets. This waste material will settle in the underground chamber systems and possibly contaminate the subsurface soils. Also solid and dissolved urban pollutants in excess runoff can pass through our system ultimately polluting Jordan River. Use the Pavement Sweeping and Pavement Washing SOP to manage urban pollutants that collect on our pavements.

Landscaping

Our landscape operations can result in grass clippings, sticks, branches, dirt, mulch, fertilizers, pesticides and other pollutants to fall or be left on our paved areas. This waste material will settle in the underground chamber systems. The dissolved urban pollutants in our runoff can pass through our storm drain system and ultimately pollute the Jordan River. The primary pollutant impairing the Jordan River is organic material so it is vital that our paved areas with direct connection to the City storm drain systems remain clean of landscape debris. Use our Landscape Maintenance SOP to prevent this potential pollution source from affecting the Jordan River.

Flood and Water Quality Control System

The storm drain inlets around the site direct all runoff to the underground chamber systems, located on the West, middle and East sides of the site. These chambers are designed to detain 100-year storm event with weir walls for emergency overflow. A snout oil/water separator is used for water quality but is susceptible to bypass during larger storm events and the dissolved pollutants will pass through and harm the Jordan river. The underground chamber system will hold water that can breed mosquitoes. It is important to regularly maintain this system to protect the Jordan River and prevent mosquito breeding. Use our Storm Drain Maintenance SOP to manage the storm drain system properly,

Waste Management

The site has 6 dumpsters with lids that are intended to prevent debris from littering the site and liquids from being carried away with the stormwater. Lids will also prevent the lightweight trash carried off by wind. Any waste left outside the dumpster can be carried by or leach into stormwater runoff. Good waste management systems, if managed improperly, can become the source of the very pollution that they were intended to control. Use our Waste Management SOP to control and manage the solid waste we generate.

Utility System

Our roof top utility system is exposed to our roof drains which drain into the sites underground chamber system. This heating and air conditioner unit contains oils and other chemicals that can harm the Jordan River if allowed to drain off the property. Liquids and other waste generated by maintenance of this system can be appropriately managed by our Spill Containment and Cleanup SOP.

Snow and Ice Removal Management

Salt is a necessary pollutant and is vital to ensuring a safe parking and pedestrian walkways. However, the snow removal operations if improperly managed will increase our salt impact to our own vegetation and local water resources. Use our Snow and Ice Removal SOP to minimize our salt impact.

SECTION 2: TRAINING

Ensure that all employees and maintenance contractors know and understand the SOPs specifically written to manage and maintain the property. Maintenance contractors must use the stronger of their Company and the LTSWMP SOPs. File all training records in Appendix C.

SECTION 3: RECORDKEEPING

Maintain records of operation and maintenance activities in accordance with SOPs. Mail a copy of the record to Murray City Stormwater Division annually.

Standard Operating Procedures (SOPs)

Pavement Sweeping

General:

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

1. Purpose and Selection:

- Reduce stormwater pollution by sweeping and removing pollutants that will be carried to the detention ponds and City stormwater systems during stormwater runoff.
- b) The sweeper is intended for removing material that collect on pavements by use and the natural degradation of pavements, ie. material that collect, drop from vehicles and the natural erosion and breaking up of pavements.

2. Regular Procedure:

- a) Remain aware of debris and sweep minor debris is needed by hand.
- b) Generally sweeping machinery should be used during autumn when leaf fall is heavy and early spring after winter thaw. Sometimes sweeping machinery will be necessary when accumulations are spread over a large area of the pavement.

4. Disposal Procedure:

- a) Service contractor dispose at licensed facilities
- b) Dispose of hand collected material in dumpsters

5. Training:

a) Annually and at hire

Landscape Maintenance

General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

Rule: Prevent any solids, liquids or any light weight material from being carried away from the construction or maintenance envelop by wind or water.

1. Application:

a) This SOP should provide sufficient direction for many of the general landscaping operations, e.g., fertilizer and pesticide applications, mowing, weeding, tree trimming, digging, sprinkler repairs, varying landscape cover management, etc.

2. Maintenance Procedure:

- a) Grooming
 - Lawn Mowing Immediately following operation sweep or blow clippings onto vegetated ground.
 - Fertilizer Operation Prevent overspray. Sweep or blow fertilizer onto vegetated ground immediately following operation.
 - Pesticide Operations Prevent overspray, use spot treatment, sweep or blow dry pesticide onto vegetated ground immediately following operation.
- b) Remove or contain all erodible or loose material prior forecast wind and precipitation events, before any non-stormwater will pass through and over the project site and at end of work period. Light weight debris and landscape materials can require immediately attention when wind expected.
- c) Landscape project materials and waste can usually be contained or controlled by operational best management practices.
 - Operational; including but not limited to:
 - > Strategic staging of materials eliminating exposure, such as not staging on pavement
 - Avoiding multiple day staging of landscaping backfill and spoil on pavements
 - > Haul off spoil as generated or daily
 - > Scheduling work when weather forecast are clear.

d) Cleanup:

- Use dry cleanup methods, e.g. square nose shovel and broom and it is usually sufficient when no more material can be swept onto the square nosed shovel.
- Power blowing tools

3. Waste Disposal:

a) Dispose of waste according to General Waste Management SOP, unless superseded by specific SOPs for the operation.

4. Equipment:

- a) Tools sufficient for proper containment of pollutants and cleanup.
- b) Push broom and square blade shovel should be a minimum.

5. Training:

- a) Annually and at hire
- b) Landscape Service Contractors must have equal or better SOPs.

Waste Management

General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

1. Application:

a) This SOP is intended for all Staff, intended for the proper disposal of common everyday waste.

2. Waste Collection Devices (Exposed units):

The site contains 7 dumpsters for waste management containment.

3. Waste Disposal Restrictions for all waste Scheduled for the Trans-Jordan Landfill:

- a) Generally most waste generated at this property, and waste from spill and clean up operations can be disposed in our dumpsters under the conditions listed in this SOP. Unless other disposal requirements are specifically identified by the product SDS or otherwise specified in other SOPs.
- b) Know the facility disposal requirements and restrictions. It should not be assumed that all waste disposed in collection devices will be disposed at the Trans-Jordan Landfill.
- c) Review Trans-Jordan Landfill regulations for additional restrictions and understand what waste is prohibited in the Trans-Jordan Landfill. Ensure the SDS and Trans-Jordan Landfill regulations are not contradictory.

Generally the waste prohibited by the Trans-Jordan Landfill is:

- ➤ Liquid:
 - paint
 - pesticides/fertilizers
 - oil (all types)
 - antifreeze
 - batteries
 - liquid chemicals
 - etc.

(Generally, all the above hazardous waste when involved in minor spill cleanup operations can be disposed in covered dumpsters and our waste bays, if the liquid is contained in absorbent material, e.g. sand, dirt, loose absorbent, pads, booms etc., and transformed or dried such that it will not

drip. This is not intended for whole sale disposal of out dated or spent liquid hazardous waste. When disposal of out dated or spent liquid is needed or for questions of how to dispose of other waste, contact the Salt Lake County Health Department (SLCo HD) for instructions and locations, 801-468-3862).

4. Waste Disposal Required for Salt Lake Valley Landfill or other:

- a) Generally for waste not accepted by the Trans-Jordan Landfill.
- b) Follow SDS for disposal requirements. Review Salt Lake Valley Landfill regulations for additional restrictions and understand what waste is prohibited in the Salt Lake Valley Landfill. Ensure the SDS and Salt Lake Valley Landfill regulations are not contradictory

General rules are:

- Get approval prior to delivery.
- Transport waste in secure leak proof containers that are clearly labeled.
- c) Lookup and follow disposal procedures for disposal of waste at other EPA approved sites, the SLCo HD # is a good resource, 385-468-3862

5. General Staff Maintenance Practices:

- a) Prevent dumpsters and receptacles from becoming a pollution source by:
 - 1. Closing lids
 - 2. Reposition tipped receptacles upright.
 - 3. Clean up any loose trash or bags that are outside the dumpster.
 - 4. Report full or leaking and unsecured dumpsters and receptacles to the company provider or repair it in house. Determine source liquids and prevent them.
 - 5. Report any eminent pollutant hazard related to dumpsters and receptacles to the owner.

6. Training:

a) Annually and at hire

Storm Drain Maintenance

General:

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

1. System:

- a) The water quality device on this property is called a snout. It is designed to trap pollutants that float and heavier sediments. However it does not trap pollutants that dissolve in water and it is susceptible to scour during intense storm events.
- b) If maintained regularly this type of system can work well unless future regulations require pollutants that dissolve in water to be contained also.

2. Procedure:

- a) Inspect for need:
 - 1. Schedule cleaning for boxes and pipe that contain 2" or more of sediment and debris.
 - 2. Remove debris by vacuum operated machinery.
 - 3. When accumulations are mostly floating debris this material can be removed with a net.
 - 4. Inspect standing water for mosquito larvae and contact the South Salt Valley Mosquito Abatement District when necessary.

3. Disposal Procedure:

- a) Dispose of waste collected by machinery at regulated facilities.
- b) Floating materials and floating absorbent materials may be disposed in dumpster when dried out. Dry dirt and slurry may also be disposed in the dumpster.
- c) Disposal of hazardous waste
 - Dispose of hazardous waste at regulated disposal facilities, see Waste Management and Spill Control SOP
- d) Disposal of waste collected from sanitary sewer device at regulated facilities.

3. Training:

a) Annually and at hire

Pavement Washing

General:

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

1. Procedure:

- a) Prevent waste fluids and any detergents if used from entering storm drain system. The following methods are acceptable for this operation.
 - Dam the inlet using a boom material that seals itself to the pavement and pick up the wastewater with shop-vacuum or absorbent materials.
 - Collect wastewater with shop-vacuum simultaneous with the washing operation.
 - Collect wastewater with vacuum truck or trailer simultaneous with the washing operation.
- b) This procedure must not used to clean the initial spills. First apply the Spill Containment and cleanup SOP.

2. Disposal Procedure:

- a) Small volumes can usually be drained to the local sanitary sewer. Contact the Mount Olympus Improvement District.
- b) Large volumes must be disposed at regulated facilities.

2. Pavement Cleaning Frequency:

a) There is no regular pavement washing regimen. Pavement washing is determined by conditions that warrant it, including but not limited to: prevention of slick or other hazardous conditions or restore acceptable appearance of pavements.

3. Training:

a) Annually and at hire

Snow and Ice Removal Management

General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

1. Application:

a) Parking and sidewalk winter management operations.

2. De-Icing Procedure:

- a) Do not store or allow salt or equivalent to be stored on outside paved surfaces.
- b) Minimize salt use by varying salt amounts relative to hazard potential.
- c) Sweep excessive piles left by the spreader.
- d) Watch forecast and adjust salt amounts when warm ups are expected the same day.

3. Training:

- a) Annually and at hire.
- b) Require snow and ice service contractors to follow the stronger this SOP and their company SOPs.

General Construction Maintenance

General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

Rule: Prevent any solids, *liquids or any light weight material from being carried away from the construction or maintenance envelop by wind or water.

*liquids - including culinary water and irrigation water that are polluted with material

that will damage the environment.

1. Application:

a) This SOP should provide sufficient direction for many of the general operations, e.g., building maintenance, curb/sidewalk/flatwork, overlay/patching, landscape renovations, misc. maintenance/repairs, etc.

2. Construction Procedure:

- a) Remove or contain all erodible or loose material prior forecast wind and precipitation events or before non-stormwater will pass through the project site. For light weight debris maintenance can require immediately attention for wind events and many times daily maintenance or as needed for precipitation or nonstormwater events.
- b) Project materials and waste can be contained or controlled by operational or structural best management practices.
 - Operational; including but not limited to:
 - Strategic staging of materials eliminating exposure, such as not staging on pavement
 - > Avoiding multiple day staging of backfill and spoil
 - > Haul off spoil as generated or daily
 - Schedule work during clear forecast
 - Structural; including but not limited to:
 - ➤ Inlet protection, e.g. wattles, filter fabric, drop inlet bags, boards, planks
 - > Gutter dams, e.g. wattles, sandbags, dirt dams
 - > Boundary containment, e.g. wattles, silt fence
 - > Dust control, e.g. water hose,
 - ➤ Waste control, e.g. construction solid or liquid waste containment, dumpster, receptacles

- c) Inspection often to insure the structural best management practices are in good operating condition and at least prior to the workday end. Promptly repair damaged best management practices achieving effective containment.
- d) Cleanup:
 - Use dry cleanup methods, e.g. square nose shove and broom.
 - Wet methods are allowed if wastewater is prevented from entering the stormwater system, e.g. wet/dry vacuum, disposal to our landscaped areas.
- e) Cleanup Standard:
 - When a broom and a square nosed shovel cannot pick any appreciable amount of material.

3. Waste Disposal:

- a) Dispose of waste according to General Waste Management SOP, unless superseded by specific SOPs for the operation.
- b) Never discharge waste material to storm drains

4. Equipment:

- a) Tools sufficient for proper containment of pollutants and cleanup.
- b) Push broom and square blade shovel should be a minimum.

5. Training:

b) Annually and at hire.

Spill Control

General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

1. Rational:

a) All properties are susceptible to spills whether it is a result of operations or by customers. Insufficient response, inadequate containment materials and improper spill cleanup methods will result in pollutants in our waterways. Once the pollutants reach our storm drain system, or even the detention pond, they are difficult and expensive to remove.

2. Containment Procedure:

- a) Priority is to dam and contain flowing spills.
- b) Use spill kits booms if available or use any material available; including but not limited to, nearby sand, dirt, landscaping materials, etc.
- c) Hazardous or unknown waste material spills
 - Critical Emergency constitutes large quantities of flowing uncontained liquid
 that will affect areas with people or reach storm drain systems. Generally
 burst or tipped tanks. Call HAZMAT, DWQ, SLVHD, City.
 Also report spills to DWQ of quantities of 25 gallons and more and when the
 spill of lesser quantity causes a sheen on downstream water bodies whether it
 is contained or not.
 - 2. Minor Emergency constitutes a spill that has reached a storm drain but is no longer flowing. Call SLVHD, City
 - 3. Spills that are contained on the surface and do not meet the criteria for Critical and minor emergencies may be managed by the responsible implementation of this SOP.
 - 4. Contact Numbers:

HAZMAT - 911 DWQ - 801-231-1769, 801-536-4123, 801-536-4300 SLVHD - 801-580-6681 City - 801-254-0704

3. Cleanup Procedure:

- a) NEVER WASH SPILLS TO THE STORM DRAIN SYSTEMS.
- b) Clean per SDS requirements but generally most spills can be cleaned up according to the following:

- Absorb liquid spills with spill kit absorbent material, sand or dirt until liquid is sufficiently converted to solid material.
- Remove immediately using dry cleanup methods, e.g. broom and shovel, or vacuum operations.
- Cleanup with water and detergents may also be necessary depending on the spilled material. However, the waste from this operation must be vacuumed or effectively picked up by dry methods. See Pavement Washing SOP.
- Repeat process when residue material remains.

4. DISPOSAL:

- a) Follow SDS requirements but usually most spills can be disposed per the following b. & c.
- b) Generally most spills absorbed into solid forms can be disposed to the dumpster and receptacles. Follow Waste Management SOP.
- c) Generally Liquid waste from surface cleansing processes may be disposed to the sanitary sewer system after the following conditions have been met:
 - Dry cleanup methods have been used to remove the bulk of the spill and disposed per the Waste Management SOP.
 - The liquid waste amounts are small and diluted with water. This is intended for spill cleanup waste only and never for the disposal of unused or spent liquids.

5. Documentation:

a) Document all spills in Appendix C.

6. SDS sheets:

a) SDS Manual is filed in break room.

7. Materials:

a) Generally sand or dirt will work for most cleanup operations and for containment. However, it is the responsibility of the owner to select the absorbent materials and cleanup methods that are required by the SDS Manuals for chemicals used by the company.

8. Training:

a) Annually and at hire.



Introduction

Prinsco's HydroStor chamber systems provide a solution to effectively manage and store stormwater runoff utilizing a pipe manifold system to distribute the stormwater to rows of chambers and end caps. As stormwater flows to the chamber system, it carries sediment and debris that tend to collect within the system. Given that chambers are an open bottom system it is essential to capture the sediment and debris before it enters the chamber rows with the use of a pre-treatment device.

Pre-Treatment System Devices

The use of a pre-treatment unit is recommended for all HydroStor chamber systems as debris and sediment buildup in the system will clog the stone void space under the chambers. If the stone becomes clogged with sediment, the storage performance and service life of the system will be compromised. A pre-treatment unit is designed to capture a majority of sediment and debris before it is able to enter the entire chamber system. Therefore, the maintenance and cleaning of the system will be limited to only the pre-treatment and not the entire chamber system. It is crucial to ensure that the pre-treatment device(s) are maintained regularly. For chamber systems, there are two options for a pre-treatment device: a Stormwater Quality Unit (SWQU) or a sediment row.

Sediment Row

One option available for HydroStor chamber systems, which can be used in conjunction with a SWQU or by itself, is a sediment row. The sediment row consists of a series of chambers installed directly on top of two layers of woven geotextile. The geotextile serves as a filter and prevents the sediment from clogging the bedding stone. The specified geotextile is also durable enough to withstand cleaning and maintenance procedures using water jet technology. The sediment row will typically be located in the first row of chambers and connected to the control structure(s). This connection is made with a short stub of 18: (450 mm) pipe for HS75 chambers or 24" (600 mm) pipe for HS180 chambers and will be the point of access for cleaning and maintenance procedures. A 24" (600 mm) connection to HS75 chambers is possible, but a pipe adapter will be required to make the connection to the end cap.

Inspection Ports

Inspection ports are not required for the entire chamber system but may be installed to monitor the sediment levels, particularly in the sediment row. Inspection ports are typically 4"-8" (100-200 mm) PVC risers and are to be installed in the valley between the corrugations on the HS180 chambers or in the circular cut out point at the center of HS75 chambers.

Initial System Inspection

An initial inspection of the pre-treatment device should be performed before the chamber system is put into operation. It is best to create an Inspection and Maintenance log sheet at this time. The Inspection and Maintenance Log Sheet can be found at the end of this technical note. Included with the log sheet should be a layout of the system and/or pre-treatment devices with the invert elevations at the inspection ports prior to sediment accumulation. Initial measurements can be taken with a stadia rod or other measurement techniques. These measurements will allow for future sediment height measurements to be taken from outside of the system, eliminating the need for a manned entrance.



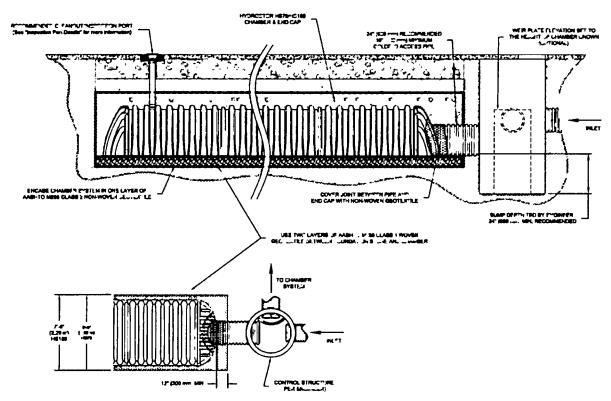


Figure 1: Chamber Sediment Row

Inspection Frequency

Inspection frequency will vary based on the system design and requirements. A system inspection schedule should be developed for each individual system, with the industry standard being a minimum of once per year. After the inspection schedule is established for the system, it should be tracked on the Inspection and Maintenance Log Sheet.

During the first year of operation, more frequent inspections should be done due to construction activities. Construction sediment and debris loading can be minimized if the Stormwater Pollution Prevention Plan (SWPP) for the construction site is followed. After the first year of operation, the rate at which the pretreatment system collects soil/pollutants will be heavily dependent on the site activities. During winter months, in geographical areas where sand is applied to road surfaces, systems may see increased sediment loading. Other increased loading areas are present with vehicle or equipment wash-down areas.



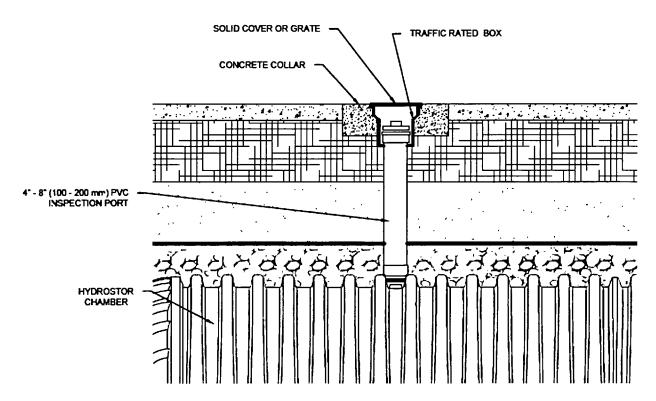


Figure 2: Inspection Ports for Chamber System

Inspection for a sediment row can either be done through an inspection port or by examining the chamber row through the upstream control structure. During inspections, elevations of sediment height should be taken from each riser, cleanout, or inspection port. These elevations should be recorded on the Inspection and Maintenance Log Sheet. During the inspection, personnel should be looking for blockages to inlet or outlet stubs or any other evidence of system malfunction.

Maintenance Frequency

Cleaning frequency will vary for each pre-treatment device based on the system design. It is at the sole discretion of the inspector to determine if or when the device will require cleaning. The following are recommendations of when the device should be cleaned:

- If the system is experiencing an unusual amount of silt and soil build up, the pre-treatment device should be investigated and/or cleaned.
- If the chamber sediment row reaches a sediment height between 1"-3" (25-76 mm), the inspector should recommend cleaning.
- If the system reaches a sediment height greater than 3" (76 mm) in the chamber sediment row, the system should be cleaned at the soonest opportunity.

System Cleaning

The most common method of cleaning is done by using a vacuum truck. For the sediment row, a high-pressure nozzle with rear facing jets is used to direct the sediment and debris to the inlet control structure where it can then be vacuumed out. Care needs to be taken to ensure damage to the geotextile fabric does not occur when removing sediment and debris.



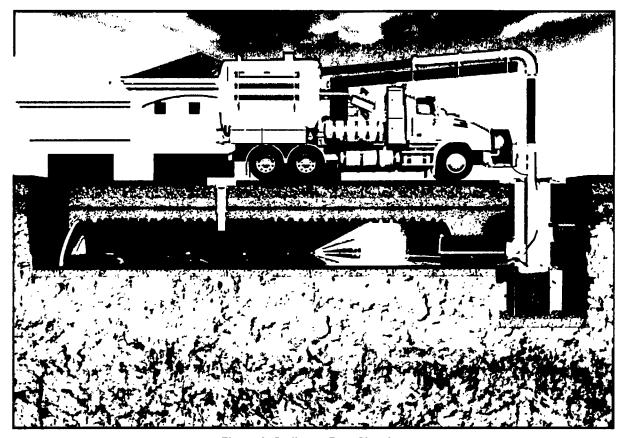


Figure 3: Sediment Row Cleaning

Before the system is cleaned, the following considerations should be made:

- The system will be much easier to clean when there is little to no flow into the system and when the system does not have any standing water. For this reason, system cleaning should be scheduled around dry weather.
- Before cleaning begins, all outlet stubs should be blocked off. This includes the outlet from the
 diversion structure to the chamber system. If this is not done, sediment loading could back up or
 plug downstream pipelines adding to cleaning expenses. This is also done to prevent any of the
 debris or pollutants from washing into downstream waterways.
- When beginning the cleaning process, all upstream pipelines and pre-treatment units should be cleaned first.

Safety

Before entering a retention or detention system, ensure all OSHA and local safety regulations are being followed. Only personnel with appropriate confined space permits and personal protective equipment should be allowed to enter the system.

Material Disposal

After the maintenance and cleaning, dispose of sediment, as directed, in accordance with local regulations. Water and sediment from cleanout procedures should not be dumped into a sanitary sewer. In some locations, proper disposal of sediments from the sediment row can be compared to the disposal of sediments from manholes or catch basins.



Table 1: Example Inspection & Maintenance Log Sheet

			Inspection	& Maintenar	nce Log She	et			
Type of System: HS	180 Chambers	with SWQU 8	Sediment R	ow	Location: N	Minneapolis, I	ИN		
Notes/Comments:	Contact owner when sediment level reaches 8" (203 mm) or outlet stub is restricted. Scheduled cleaning should be done through SB's JET/VAC								
Ports / Cleanouts	/ Manholes	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8
Initial Inspection									
Date:	Invert Depth	84" (2134 mm)	84" (2134 mm)	86" (2184 mm)	87" (2210 mm)	88" (2235 mm)	89" (2261 mm)	90" (2286 mm)	91" (2311 mm)
3/10/13	Sediment Depth	 -							
	Inspector Name:	Inspector 1		Maintenance Performed/Notes:					
Inspection and Mai	ntenance								
Date:	Depth to Sediment	81" (2057 mm)	81" (2057 mm)	81" (2057 mm)	82" (2083 mm)	84" (2134 mm)	84" (2134 mm)	85" (2159 mm)	85" (2159 mm)
8/10/13	Sediment Depth	3" (76 mm)	3" (76 mm)	5" (127 mm)	5" (127 mm)	4" (102 mm)	5" (127 mm)	5" (127 mm)	6" (152 mm)
	Inspector Name:	Inspector 2		Maintenance Performed/Notes:		excess amounts of sediment, upon further inspection pre-treatment unit was full			
Date:	Depth to Sediment								
	Sediment Depth								
	Inspector Name:			i .	enance ed/Notes:				
Date:	Depth to Sediment								
	Sediment Depth								
	Inspector Name:				enance ed/Notes:				

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			Inspection &	& Maintenan	ce Log She	et			
Type of System:					Location.				
Notes/Comments:		1	1	1			,	γ	 -
Ports / Cleanouts	/ Manholes	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8
Initial Inspection	Γ	1	1	I		T .	T	T	т
Date:	Invert Depth	ļ -				-		ļ	
	Sediment Depth								
	Inspector Name:	Inspe	ector 1	Mainte Performe					
Inspection and Mai	ntenance								
Date:	Depth to Sediment								
	Sediment Depth							,	
	Inspector Name:			Mainte Performe					
Date:	Depth to Sediment								
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Date:	Depth to Sediment								
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	Inspector Name:			Mainte Performe					,
Date:	Depth to Sediment								
	Sediment Depth								
	Inspector Name:			Mainte Performe					



Inspection & Maintenance Log Sheet									
Type of System:					Location:				
Notes/Comments:				· · · · · · · · · · · · · · · · · · ·				,	
Ports / Cleanouts	/ Manholes	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8
Initial Inspection					,	,	· · · · ·		,
Date:	Invert Depth			,					
	Sediment Depth							****	
	Inspector Name:	Inspe	ector 1		enance ed/Notes:				
Inspection and Mai	ntenance								
Date:	Depth to Sediment								
	Sediment Depth								
	Inspector Name:				enance ed/Notes:				
Date:	Depth to Sediment								
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	Inspector Name:			Mainte Performe	enance ed/Notes:				
Date:	Depth to Sediment								-
	Sediment Depth								
	Inspector Name:				enance ed/Notes:				
Date:	Depth to Sediment	-					-		
	Sediment Depth			_					
	Inspector Name:				enance ed/Notes:				,
Date:	Depth to Sediment								
	Sediment Depth								
	Inspector Name:		T		enance ed/Notes:		r.	Т	
Date:	Depth to Sediment								
	Sediment Depth								
	Inspector Name:			Mainte Performe	enance ed/Notes:				

PLAN RECORDKEEPING DOCUMENTS

MAINTENANCE/INSPECTION SCHEDULE

Frequency	Site Infrastructure.
M	Parking Pavement
Q	Dumpsters
S	Underground Chamber Systems
S	Orifice Plates and Snout Oil/Water Separators
S	Landscaping
M	Storm Drain Inlets

Inspection Frequency Key: A=annual, Q=Quarterly, M=monthly, W=weekly, S=following appreciable storm event,

RECORD INSPECTIONS IN THE MAINTENANCE LOG

Inspection Means: Either; Traditional walk through, Awareness/Observation, and during regular maintenance operations while noting efficiencies/inefficiencies/concerns found, etc.

MAINTENANCE LOG

Date	Maintenance Performed/Spill Events. Perform Maintenance per SOPs	Observation Notes, including but not limited to, Inspection results, Observations, System Performance (effectiveness/inefficiencies), SOP Usefulness, Concerns, Necessary Changes	Initials
		-	

Annual Summary of L ISWMP effectiveness, inefficiencies, problems, necessary changes etc.

Annual SOP Training Log per Section 2

SOP	Trainer	Employee Name / Maintenance Contractor Co	Date
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-			
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-			
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