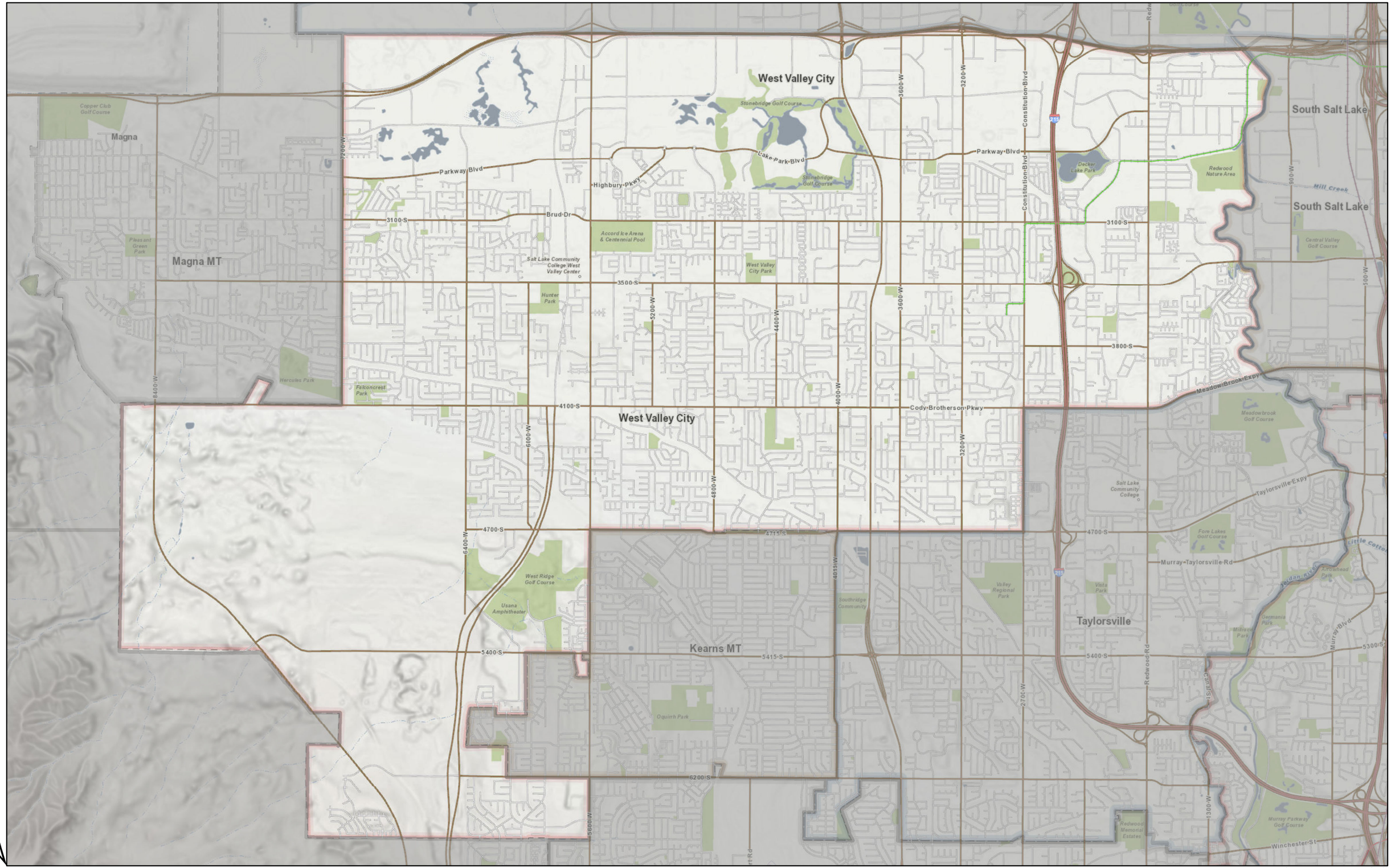
Appendix A

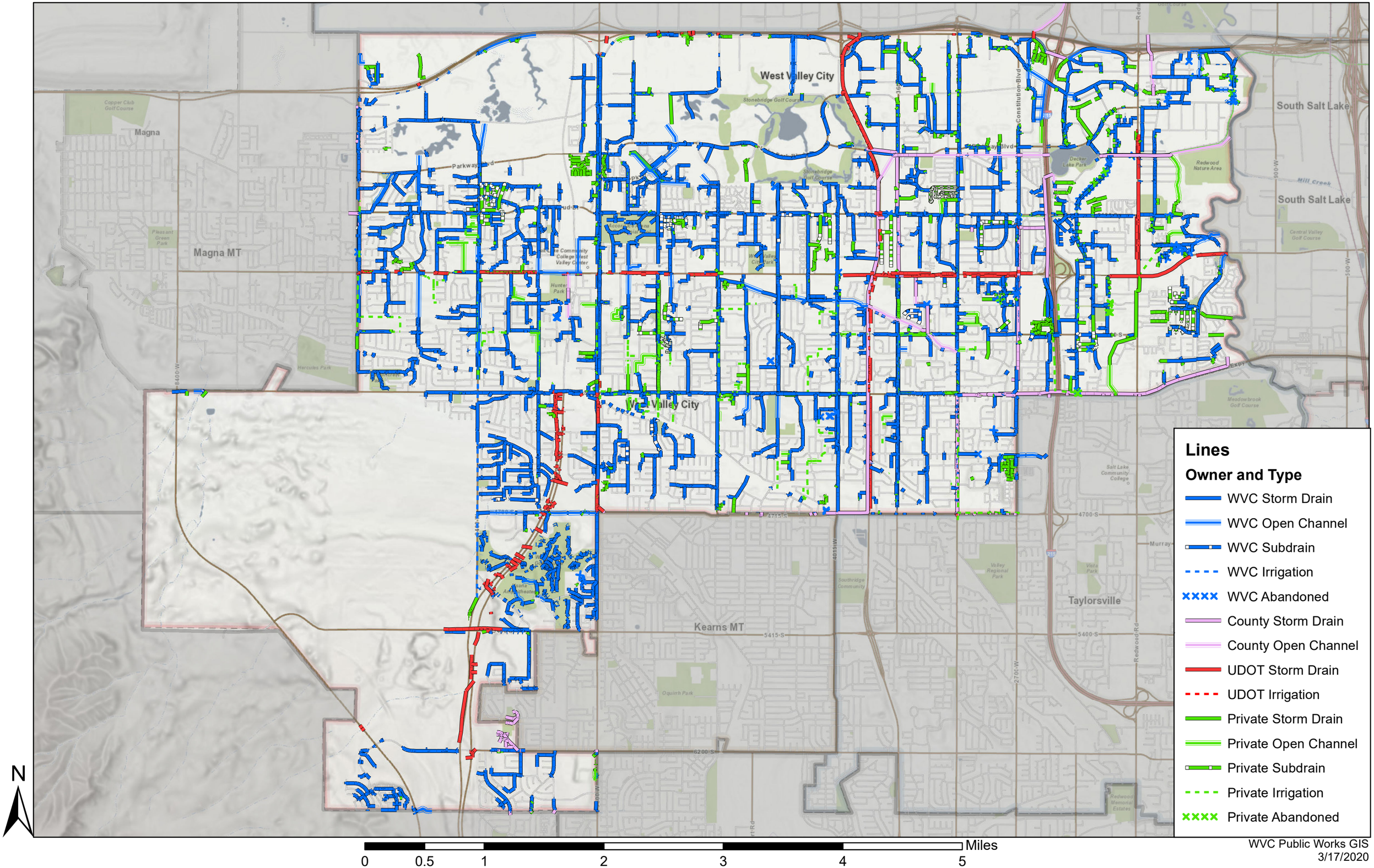
Maps

West Valley City



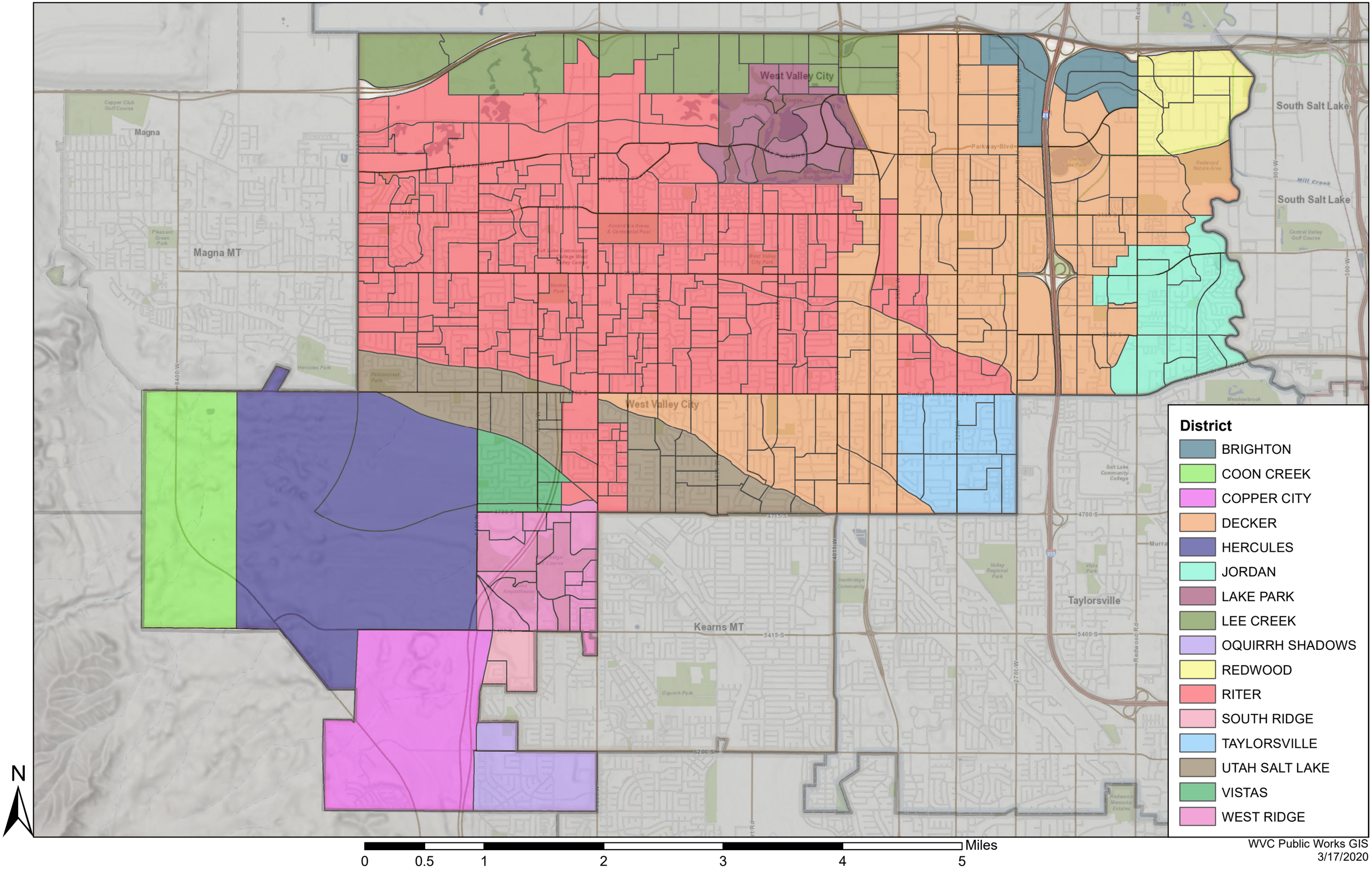
WVC Public Works GIS
3/24/2020

West Valley City Stormwater Network



WVC Public Works GIS
3/17/2020

West Valley City Stormwater Districts



WVC Public Works GIS
3/17/2020

About Content Legend

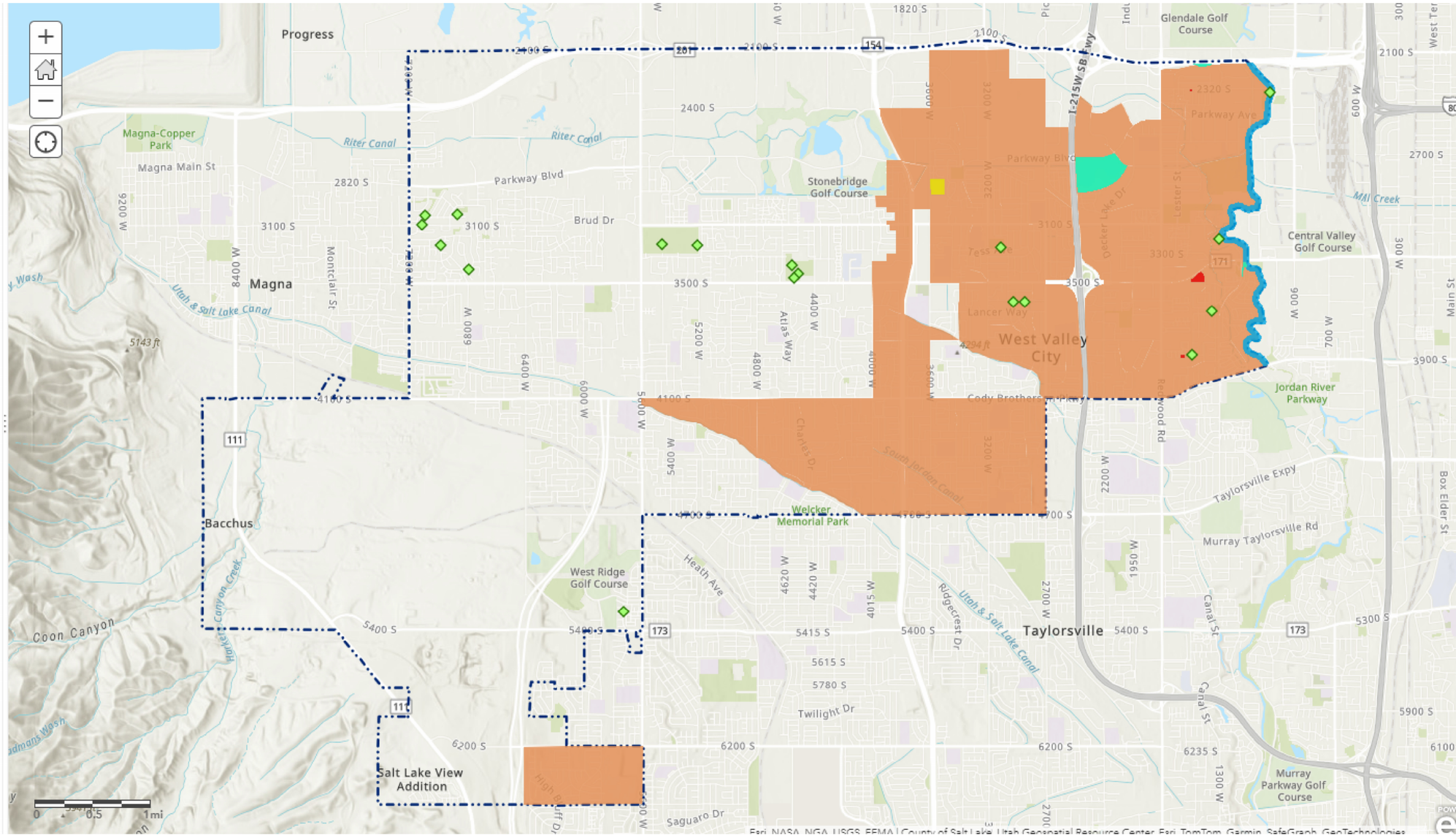
Legend

Pet Waste Dispensers

PotentialEColiSources

- PONDS / LAKES
- SEPTIC
- HIGH PRIORITY FACILITY
- JORDAN RIVER / HOMELESS CAMPS

Jordan River Basin Area

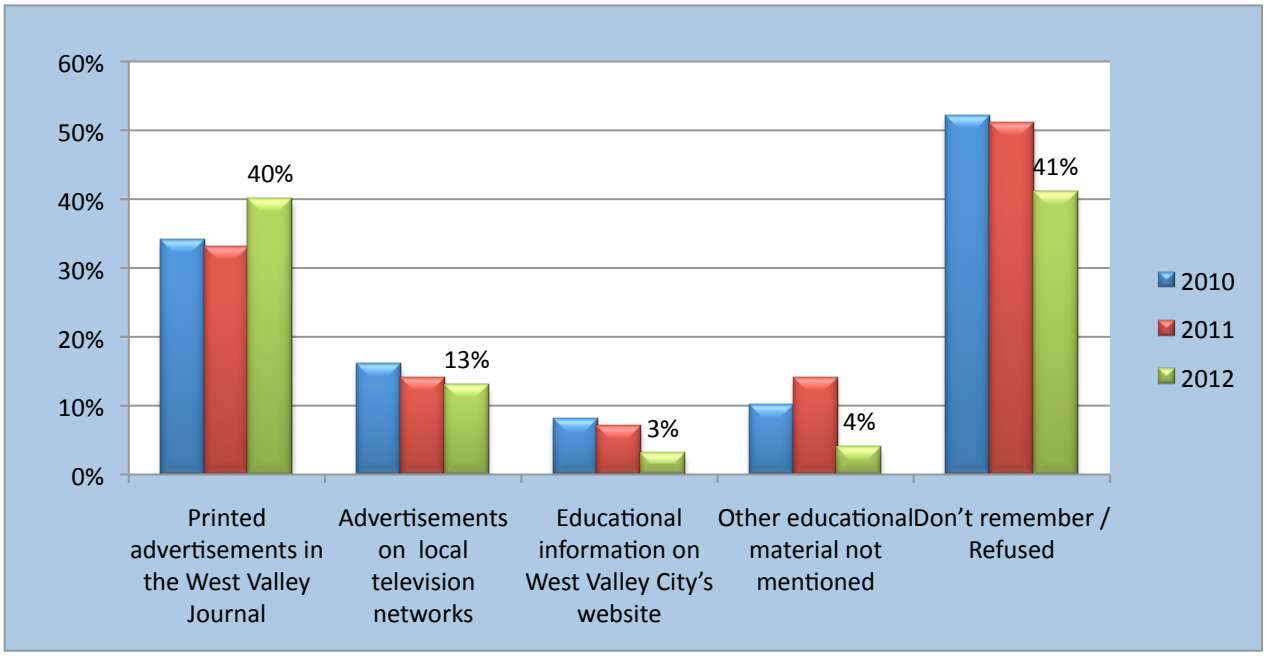


Appendix B

Public Education and Outreach

Q38. West Valley City uses a portion of stormwater fees collected to educate the public. In the past year, have you seen any of the following stormwater education pieces?

	2010	2011	2012
Printed advertisements in the West Valley Journal	34%	33%	**40%**
Advertisements on local television networks	16%	14%	**26%**
Educational information on West Valley City's website	8%	7%	**3%**
Other educational material not mentioned	10%	14%	**4%**
Don't remember / Refused	52%	51%	**41%**



What is stormwater?

Stormwater is any precipitation that falls from the sky including rain, hail, and snow.

SAFE TO GO DOWN THE STORM DRAIN

Rain

Snow

Melting Ice

NOT SAFE TO GO DOWN THE STORM DRAIN

Fertilizer or Pesticide

Grass Clippings

Pet Waste

Oil or Other Leaking Vehicle Fluids

Soapy Water From Washing Vehicles

www.wvc-ut.gov/stormwater

WVC public works

Help Prevent Storm Water Pollution

Household hazardous wastes and fluids are harmful to the environment and should be stored and disposed of properly to prevent storm water pollution. These items include paints, pesticides, antifreeze, oil, fuels, vehicle batteries and yard care chemicals.

Store Chemicals Properly

Follow any instructions for use and storage provided on product labels carefully to prevent any accidents at home and to reduce the risk of chemicals leaking, mixing with other chemicals, igniting, or posing other hazards. Never store hazardous products in food containers; keep them in their original containers and never remove labels.

Dispose of Chemicals Properly

It is dangerous to dispose of these items in your garbage can or down sewers, and it is illegal to abandon them or pour them in gutters, storm drains, or waterways. Instead, take them to a Household Hazardous Waste collection site. Call 385-468-3906 or visit https://slco.org/landfill for disposal locations.

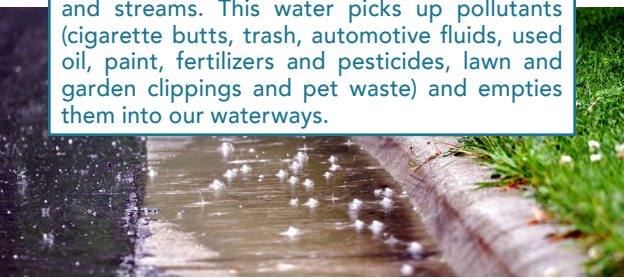
If You See Illegal Dumping...

To report a spill or an illegal discharge into the storm drain, please call 801-509-2005.

wvc-ut.gov/stormwater

What is storm water?

Storm water is water from streets, parking lots, driveways and yards that is carried through the storm drain system and collects in lakes, rivers and streams. This water picks up pollutants (cigarette butts, trash, automotive fluids, used oil, paint, fertilizers and pesticides, lawn and garden clippings and pet waste) and empties them into our waterways.

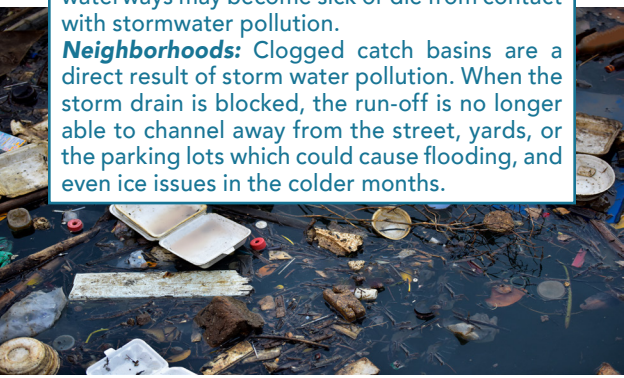


What are the effects of storm water pollution?

Health: Stormwater pollution can pose a serious health risk to people due to pesticides, bacteria, and chemicals that is washed from our city streets and into the stormwater.

Environment: Plants and animals living along waterways may become sick or die from contact with stormwater pollution.

Neighborhoods: Clogged catch basins are a direct result of storm water pollution. When the storm drain is blocked, the run-off is no longer able to channel away from the street, yards, or the parking lots which could cause flooding, and even ice issues in the colder months.



How can I prevent storm water pollution?

You can prevent storm water pollution by being mindful of what you put in the storm drain system. This includes properly storing and disposing of your household hazard waste and preventing contaminants like chemicals, yard waste, and pet waste from getting into the storm drain system. You can also let us know if you see illegal dumping or contamination by calling 801-509-2005.

wvc-ut.gov/stormwater

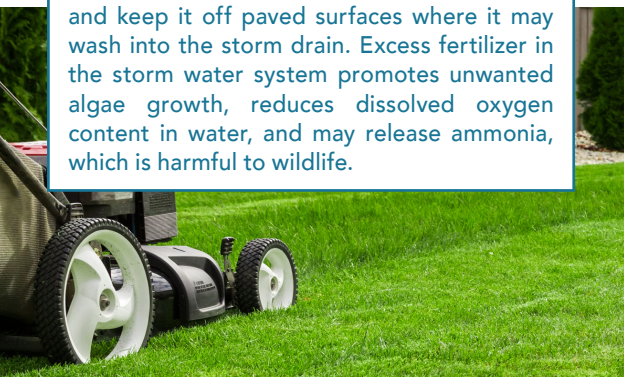
Help Prevent Storm Water Pollution

Wash Your Car Responsibly

Washing your car at home can send detergents and other contaminants through the storm drain system. Instead, take your car to a commercial car wash, where the dirty water is recycled, preventing the contaminants from entering the storm water system. If you do choose to wash your car at home, wash it on a lawn or gravel driveway - the soil will filter out most pollutants.

Keep Grass Clippings and Fertilizer on the Lawn

Sweep up your grass clippings or mulch them back into the lawn; never put them in the gutter or streets. Fertilize only when needed, and keep it off paved surfaces where it may wash into the storm drain. Excess fertilizer in the storm water system promotes unwanted algae growth, reduces dissolved oxygen content in water, and may release ammonia, which is harmful to wildlife.



Pick Up After Your Pet

Pick up your pet's waste and prevent it from being carried into the storm drain. Pet waste is full of bacteria that is harmful to people.

wvc-ut.gov/stormwater

WEST VALLEY CITY
Storm Water Utility

We all live downstream! Keep our waterways clean and healthy by being mindful of what you put in the storm drain system.

- ✗ CHEMICALS
- ✗ YARD WASTE
- ✗ PET WASTE

Report illegal dumping or contamination by calling 801-509-2005.

UNITY • PRIDE • PROGRESS • WEST VALLEY CITY, UTAH •

wvc-ut.gov/stormwater

PREVENT
STORMWATER
POLLUTION
Store chemicals properly.
Dispose of chemicals properly.
Call 801-509-2005 to report illegal dumping or contamination.
wvc-ut.gov/stormwater
UNITY • PRIDE • PROGRESS
WEST VALLEY CITY, UTAH

PREVENT
STORM WATER
POLLUTION
Wash your car responsibly.
Keep grass clippings and fertilizer on the lawn.
Pick up after your pet.
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wvc-ut.gov/stormwater
UNITY • PRIDE • PROGRESS
WEST VALLEY CITY, UTAH

Appendix C

IDDE

West Valley City Storm Water Enforcement Personnel
Sanitary Sewer Response Plan – TBID
Sanitary Sewer Response Plan – Kearns ID
Sanitary Sewer Response Plan – GHID
Sanitary Sewer Response Plan – Magna Water

WEST VALLEY CITY
Unity Pride Progress

Public Works Administration

MEMO

TO: Eric Bunderson, City Attorney
FROM: Daniel Johnson, P.E., Public Works Director

CC: Coby Wilson, P.E., City Engineer
Brad Taylor, P.E., Assistant City Engineer

DATE: March 7, 2024

RE: STORM WATER AND FUGITIVE DUST ENFORCEMENT

Please find listed below, Public Works personnel I designate to have authorization to enforce West Valley City's Storm Water Ordinance, as well as Section 24-23-101, Fugitive Dust Health Ordinance.

1. Robert Zito
2. Randy Peterson
3. Ryan Ramirez
4. Michael Ferguson
5. Brad Taylor
6. Roger Rappleye
7. Tim Bleazard
8. Matthew Marquis
9. Jordan Melton
10. Brennan Brown

SANITARY SEWER MANAGEMENT PLAN (SSMP) FOR

MAGNA WATER DISTRICT

Prepared by

As of September 2016

SANITARY SEWER MANAGEMENT PLAN (SSMP) FOR MAGNA WATER DISTRICT

Prepared by

September 2016

Magna Water District

8600 West 2711 South

Magna, Utah 84044

(801) 250-2118

Version Date November 23, 2016

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Chapter 1 - Sanitary Sewer Management Plan

Introduction

Magna Water District is a public entity established in Utah under the Utah State Code. The District was established in 1949 and provides sewage collection and/or treatment to the Magna Township and small portions of West Valley City and Northwest Salt Lake City. This Sewer System Management Plan (SSMP) manual has been established to provide a plan and schedule to properly manage, operate, and maintain all parts of the sewer collection system to reduce and prevent SSOs, as well as minimize impacts of any SSOs that occur. The Management for this entity recognizes the responsibility it has to operate the sewer system in an environmentally and fiscally responsible manner. As such, this manual will cover aspects of the collection system program necessary to provide such an operation. This manual may refer to other programs or ordinances and by reference may incorporate these programs into this manual.

Definitions

The following definitions are to be used in conjunction with those found in Utah Administrative Code R317. The following terms have the meaning as set forth:

1) "BMP" means "best management practice".
2) "CCTV" means "closed circuit television.
3) "CIP" means a "Capital Improvement Plan".
4) "DWQ" means "the Utah Division of Water Quality".
5) "FOG" means "fats, oils and grease". This is also referred to as a Grease Oil and Sand Program(GOSI).
6) "I/I" means "infiltration and inflow".
7) "Permittee" means a federal or state agency, municipality, county, district, and other political subdivision [public entity] of the state that owns or operates a sewer collection system or who is in direct responsible charge for operation and maintenance of the sewer collection system. When two separate federal or state agency, municipality, county, district, and other political subdivision of the state are interconnected, each shall be considered a separate Permittee.
8) "SECAP" means "System Evaluation and Capacity Assurance Plan".
9) "Sewer Collection System" means a system for the collection and conveyance of wastewaters or sewage from domestic, industrial and commercial sources. The Sewer Collection System does not include sewer laterals under the ownership and control of an owner of real property, private sewer systems owned and operated by an owner of real property, and systems that collect and convey stormwater exclusively.

10) “SORP” means “Sewer Overflow Response Plan”
11) "SSMP" means "Sewer System Management Plan".
12) "SSO" means "sanitary sewer overflow", the escape of wastewater or pollutants from, or beyond the intended or designed containment of a sewer collection system.
13) "Class 1 SSO" (Significant SSO) means a SSO or backup that is not caused by a private lateral obstruction or problem that:
    a) affects more than five private structures;
    b) affects one or more public, commercial or industrial structure(s);
    c) may result in a public health risk to the general public;
    d) has a spill volume that exceeds 5,000 gallons, excluding those in single private structures; or
    e) discharges to Waters of the State of Utah.
14) "Class 2 SSO" (Non Significant SSO) means a SSO or backup that is not caused by a private lateral obstruction or problem that does not meet the Class 1 SSO criteria.
15) "USMP" means the "Utah Sewer Management Program".

General SSO Requirements

The following general requirements for SSO’s are stipulated in R317-801 and are included here as general information.

1) *The permittee shall take all feasible steps to eliminate SSOs to include:*
    a) *Properly managing, operating, and maintaining all parts of the sewer collection system;*
    b) *training system operators;*
    c) *allocating adequate resources for the operation, maintenance, and repair of its sewer collection system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures in accordance with generally acceptable accounting practices; and,*
    d) *providing adequate capacity to convey base flows and peak flows, including flows related to normal wet weather events. Capacity shall meet or exceed the design criteria of R317-3.*
2) *SSOs shall be reported in accordance with the requirements below.*
3) *When an SSO occurs, the permittee shall take all feasible steps to:*
    a) *control, contain, or limit the volume of untreated or partially treated wastewater discharged;*
    b) *terminate the discharge;*
    c) *recover as much of the wastewater discharged as possible for proper disposal, including any wash down water; and,*
    d) *mitigate the impacts of the SSO.*

SSO Reporting Requirements

R317-801 stipulates when and how SSO's are reported. Following are those reporting requirements as of 04/23/2012.

SSO REPORTING. SSOs shall be reported as follows:

1) *A Class 1 SSO shall be reported orally within 24 hrs and with a written report submitted to the DWQ within five calendar days. Class 1 SSO's shall be included in the annual USMP report.*
2) *Class 2 SSOs shall be reported on an annual basis in the USMP annual report.*

ANNUAL REPORT. A permittee shall submit to DWQ a USMP annual operating report covering information for the previous calendar year by April 15 of the following year.

Sewer Use Ordinance

Magna Water District has a sewer use ordinance that has been adopted by the governing body. This ordinance contains the following items as stipulated by Utah State Code R317-801:

1. Prohibition on unauthorized discharges,
2. Requirement that sewers be constructed and maintained in accordance with R317-3,
3. Ensures access or easements for maintenance, inspections and repairs,
4. Has the ability to limit debris which obstruct or inhibit the flow in sewers such as foreign objects or grease and oil,
5. Allows for the inspection of industrial users, and
6. Provides for enforcement of ordinance or rules violations.

The following elements are included in this SSMP:

- General Information
- Operations and Maintenance Program
- Sewer Design Standards
- Sanitary Sewer Overflow Response Plan
- Grease, Oil and Sand Interceptor Management Program
- System Evaluation and Capacity Assurance Plan
- SSMP Monitoring and Measurement Plan
- Sewer System Mapping Program
- Basement Backup Program
- No Fault Sewage Backup Claims Program

This program is intended to be a guidance document and is not intended to be part of a regulatory requirement. As such, failure to strictly comply with documentation requirements is, in and of themselves, not a failure of the program's effectiveness. Documentation failures are intended to be identified during system self-audits and will be addressed as training opportunities. Significant system failures will be followed up with corrective action plans. This corrective action process will be implemented by all individuals involved in the SSMP program. Not all District employees will necessarily be involved in the collection system operations. As such, not all employees will receive program training. Finally, although not a part of this SSMP program, the District is an active participant in the Blue Stakes of Utah Utility Notification system. This system, regulated under title 54-8A of the Utah State Code, stipulates utility notification of all underground operators when excavation takes place. The intent of this regulation is to minimize damage to underground facilities. The District has a responsibility to mark their underground sewer facilities when notified an excavation is going to take place. Participation in the Blue Stakes program further enhances the protection of the collection system and reduces SSO's.

Chapter 2 - SSMP – General Information

This Sanitary Sewer Management Plan was adopted by governing board on _____.

The responsible representative(s), position and phone number for the District with regard to this SSMP is/are:

Name	Position	Phone Number
Terry Pollock	District Manager	(801) 250-2118
Clint Dilley	District Engineer	(801) 250-2118
Steve Williams	Wastewater Operations Manager	(801) 250-2118
Raymond Mondragon	Collection System Lead & Pretreatment Coordinator	(801) 250-2118
Leisle Fitzgerald	Controller	(801) 250-2118

Description of Roles and Responsibilities

The following positions have the described responsibility for implementation and management of the specific measures as described in the SSMP.

Manager

The Manager is responsible for overall management of the sanitary sewer collection system. Responsibilities include working with governance to assure sufficient budget is allocated to implement the SSMP, maintenance of the SSMP documentation, development of a capital improvement program and general supervision of all staff.

Engineer

The Engineer is responsible for the development and maintenance of collection system design standards, maintenance of collection system mapping and maintenance of the SECAP program.

Wastewater Operations Manager (Superintendent)

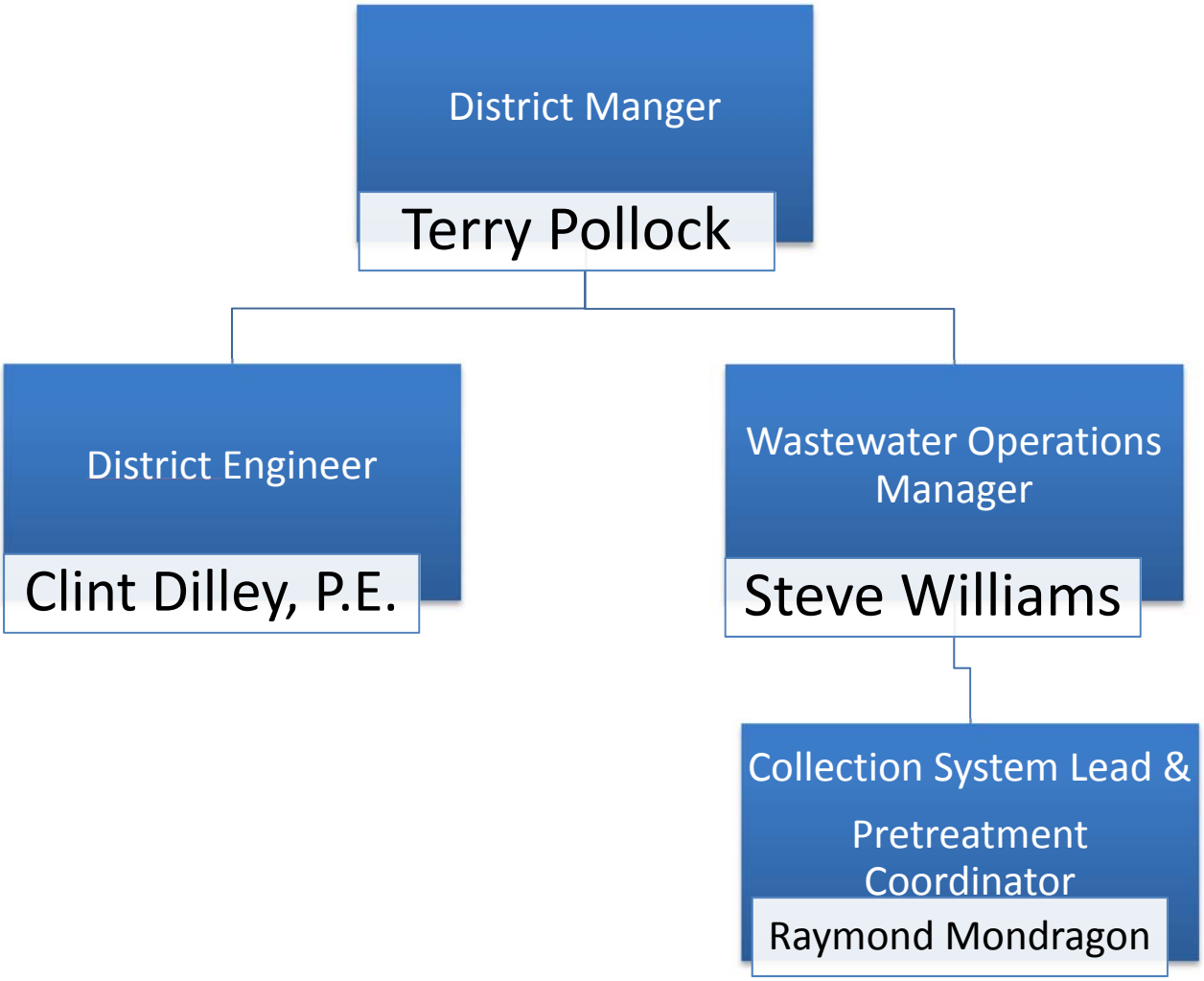
The Wastewater Operations Manager is responsible for daily implementation of the SSMP. This includes maintenance activities, compliance with SORP requirements, and monitoring and measurement reporting requirements.

Pretreatment Program Coordinator

This individual is responsible for implementation of the pretreatment program including the fats oil and grease program.

Organization Chart

Below is the organization chart associated with the SSMP:



Chapter 3 - Operations and Maintenance Program

Magna Water District has established this sanitary sewer system operations and maintenance program to ensure proper system operations, to minimize any basement backups or SSOs, and to provide for replacement, refurbishment, or repair of damaged or deteriorated piping systems. The combined maintenance program should insure that the environment and health of the public are protected at a reasonable cost for the end users. To this end, the following areas are described and included in this maintenance program:

- System Mapping
- System Cleaning
- System CCTV Inspection
- Manhole Inspection
- Defect Reporting
- Damage Assessment

System Mapping

An up to date map is essential for effective system operations. The District has assigned the mapping responsibility to the engineer who will prepare and maintain current mapping for the entire sanitary sewer system. Mapping may be maintained on either paper or in a graphical information system (GIS) or a combination of both. Current mapping is available at the following locations:

Magna Water District

2711 South 8600 West

Magna, Utah 84044

Should any employee identify an error in the mapping, they should document the error on a defect report and give it to the engineer.

System Cleaning

Sanitary sewer system cleaning is accomplished through various means and methods. The District has established a goal to clean the entire system every three years. Based on experience over the past 20 years, this frequency significantly reduces the number of basement backups, controls grease problems and flushes any bellies in the system. In addition The District has a listing of identified hot spots which are maintained at a higher frequency. Systems which may have roots are mechanically rodded or hydraulically cut out and areas where restaurants are close together are hydraulically flushed with a high pressure jet truck. The following methods are employed to provide system cleaning:

Magna Water District: Hydraulic Cleaning

Chemical Root Control

Chemical FOG Control

Cleaning records are maintained at Magna Water District WWTP Administration Building: 7764 West 2100 South, Magna Utah, 84044. Contractors are required to provide cleaning records associated with their work. Cleaning history may also be entered into the GIS; however, this is not always necessary. Should the cleaning process identify a serious defect, the problem should be reported on a Defect Report Form. The Wastewater Operations Manager should be given the defect reports for further action. The defect report should be specific as to location and type of problem. A copy of the Defect Report Form is included at the end of this narrative section. A summary of cleaning activities shall be prepared annually by the Wastewater Operations Manager or designee. This summary will normally be presented to Magna Water District Board of Trustees.

System CCTV Inspection

Closed Circuit TV inspections of the sanitary sewer system are used to assess pipe condition and identify problems or possible future failures which need current attention. The CCTV process also identifies the piping condition to allow for replacement prior to failure. Generally the District will conduct CCTV inspection with [its own staff, contractor or both]. Inspections of the system will occur every 10 years. This inspection frequency is based on the pipe aging process. As such, once the system has been inspected completely, change usually occurs gradually. CCTV will also be employed when a systems operation or capacity is questioned or when an SSO occurs. Any defects identified during the CCTV process should be reported on a Defect Report Form and the form should be given to the Wastewater Operations Manager for possible repairs. Documentation of CCTV activities will be maintained at Magna Water District WWTP Administration Building: 7764 West 2100 South Magna Utah, 84044. When contractors

are employed to inspect the sanitary sewer system they will be required to submit records for their work. The Wastewater Operations Manager will prepare an annual summary of CCTV inspections completed for that calendar year.

Manhole Inspection

The District schedules annual inspection of the sanitary sewer manholes (M/H). The M/H inspection involves the identification of foreign objects and surcharging that may be present. Crews inspecting the manholes will be given maps by the District Engineer who will monitor the progress and completeness of the inspection process. When a potential defect is identified the manhole should be flagged. Flagged manholes should be checked by an operator within several days to determine further action. If, during the inspection process, the inspection crew believes a problem is imminent, they should immediately cease inspecting and inform the Wastewater Operations Manager of the problem. A cleaning crew should be dispatched immediately to ensure correct system operations. All inspection records should be retained for documentation of work performed.

Defect Reporting

Defect Reports generated through the cleaning, CCTV inspection, pump station inspection or manhole inspection programs will be prioritized for correction by the Wastewater Operations Manager and General Manager. Any defects which have the potential for catastrophic failure and thus create a sanitary sewer overflow should be evaluated immediately and discussed with the General Manager and the Wastewater Operations Manager for repair. Repair methods may include:

Spot Excavation Repairs

Spot Band Repairs

Segment Excavation Replacements

Segment Lining

Manhole Rehabilitation

When a defect is not flagged for immediate repair, it should be considered for placement on the “hot spot” list. This will allow for vigilant maintenance to ensure failure and a subsequent sanitary sewer overflow do not take place. Defect reports should be used in the Budget process to determine what financial allocation should be made in the next Budget year. The Wastewater Operations Manager should include outstanding defects in the annual report.

Collection System Damage

Collection damage may occur as a result of multiple factors, some identified as a result of inspection activities and some identified as a result of damage by third parties such as contractors.

Damage Identification

The identification of system damage which may result in an SSO or basement backup is important to prevent environmental, public health, or economic harm. Identification of damage may be from either internal activities or external activities.

Internal activities which may result in the identification of damage include the following:

1. Collections Maintenance Activities
2. CCTV Inspection Activities
3. Manhole Inspection Activities

These three activities are discussed in this Maintenance Program and the identification of damage will result in the generation of a Defect Report. Generally, damage identification is an iterative and continuous process.

External activities which identify damages include:

1. Contractor Notification of Damage
2. Directional Drilling Notification of Damage
3. Public Damage Complaints

All three of these notifications generally require immediate response. Staff should respond and evaluate the seriousness of the damage and the effect on the environment. Damages which include a release to the environment should be handled in accordance with the SORP. Damages which cause a basement backup should trigger the Basement Backup program. Damages which remain in the trench should be de minimis and do not require more action than the repair of the damage.

Whatever the cause of collection system damage, the response should be expeditious to prevent environmental or economic harm. District staff should

consider all damages an emergency until it is shown by inspection to be a lower priority.

Damage Response Actions

When damages occur in the collection system, the following actions help define the path staff should take. These action plans are not inclusive of all options available but are indicative of the types of response that may be taken.

Stable Damage

Inspection activities may show a system damage which has been there for an extended period of time. Such damage may not require immediate action but may be postponed for a period of time. When stable damage is identified and not acted upon immediately, a defect report should be prepared. If such a defect is identified and repaired immediately, a defect report is not needed. An example of stable damage could be a major crack in a pipeline or a severely misaligned lateral connection where infiltration is occurring.

Unstable Damage

Unstable damage is damage which has a high likely hood that failure will occur in the near future. Such damage may be a broken pipe with exposed soil or a line which has complete crown corrosion. In these cases, action should be taken as soon as there is a time, a contractor, materials and other necessary resources available. When such unstable damage is identified, if possible, consideration should be given to trenchless repairs which may be able to be completed quicker than standard excavation. Immediately after identification the Manager should be contacted to review and take care of budget considerations.

Immediate Damage

When a contractor or others damage a collection line such that the line is no longer capable of functioning as a sewer, this immediate damage must be handled expeditiously. Such damage allows untreated wastewater to pool in the excavation site, spill into the environment or possibly backup into a basement. Under such conditions priority should be given to an immediate repair. Since excavation damage may be a result of contractor negligence or it could be a failure of the District to adequately protect the line by appropriately following the Damages to Underground Utilities

Statute 54-8A, priority should be given to effecting a repair and not to determining the eventual responsible party.

As can be determined from the above action plans, priority should always be preventing SSO's and attendant environmental damage, to prevent basement backups and financial impacts, and to prevent public health issues.

MAGNA WATER DISTRICT
Sanitary Sewer System Defect Report

Date: _____

Time: _____

Location of Defect: _____

Identified by: _____

Description of Defect: _____

_____

_____

_____

_____

_____

Urgency of Needed Corrective Action:

Immediate Action Required: ☐

Repair or Correct Soon: ☐

Problem Stable: ☐

No Immediate Action Needed: ☐

Recommended Remedial Action: _____

_____

_____

_____

_____

Chapter 4 - Sewer Design Standards

Where not otherwise addressed in Division 4 of Magna Water District's Culinary Water and/or Sanitary Sewer System Extension Agreement referenced within, the District has adopted the Utah Administrative Code R317-3, as their standard for sanitary sewer design.

DIVISION 4: Sanitary Sewer System Design

04000 GENERAL

1. SCOPE:
    a. Includes But Not limited To -
        1) Furnish all labor, materials and equipment necessary for the sanitary sewer extensions as described herein or shown on the drawings to include:
        2) sewer mains; manholes; connections; laterals; cleanouts; etc.

04100 PIPEWORKS

PRODUCTS

1. CONCRETE SEWER PIPE:
    a. Non-Reinforced Concrete Sewer Pipe will not be allowed.
    b. Reinforced Concrete Sewer Pipe and Fittings shall conform to ASTM C76, Reinforced Concrete Culvert, Storm Drain and Sewer Pipe, Class III, Class IV or Class V as designated on the drawings.
    c. Joints shall be bell and spigot type with O-ring rubber gaskets and conform to ASTM C443, Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets. The requirements of ASTM C443 shall govern joint design, in case of conflict, for pipe otherwise meeting requirements of ASTM C14 or ASTM C76. Gaskets shall not be used if older than one year or if they have evident defects such as porosity, blisters, pitting or other imperfections. The joint shall be designed to provide for self-centering and when assembled, to compress the gasket to form a water tight seal.
    d. Cement shall be Type V, sulfate resistant, ASTM C150, Portland Cement.
    e. All pipe, fittings and accessories shall be new, shaped true to form with smooth, surfaces free of honeycomb and as manufactured or recommended by the pipe supplier. Any deformation or irregularity which could hamper flow through the pipe shall not be acceptable. Damaged or cracked ends which would prevent making a satisfactory joint will be rejected.
    f. Each section of pipe shall be clearly marked to show the class, date of manufacture, name or trademark of the manufacturer.
    g. All fittings shall be of the same type class as the abutting pipe sections, except where otherwise shown on the drawings.
        1) Wyes and tees shall be factory-fabricated and tested for strength and watertightness.
    h. Factory Testing. In addition to inspection and testing otherwise required by the ASTM Standards specified herein, the following test shall be performed by the manufacturer. Test methods, procedures and equipment shall be in accordance with ASTM C-497, Methods of Testing

Concrete Pipe or Tile. Test results shall meet applicable requirements of ASTM C14, ASTM C76 and ASTM C443.

1) External Load Crushing Strength. The pipe shall be tested for external load crushing strength, reporting the 0.01 inch crack strength.
2) Hydrostatic Test. Hydrostatic test of gasketed pipe shall be made on two sections of jointed pipe, in both straight alignment and maximum deflected position.
3) Concrete Compressive Strength. All pipe shall be tested for concrete compressive strength by crushing tests of cores cut from the pipe.
4) Certification. Pipe manufacturer shall furnish the District certificates of all test results. The certificates and pipe shall be so marked that the test results can be readily identified with the pipe supplied. The "Certificates of Test" shall be received by the District prior to the installation of any pipe covered by the certificates.

2. POLYVINYL CHLORIDE (PVC) SEWER PIPE:
    a. All PVC pipe and fittings shall be suitable for use as gravity sewer conduit, meet or exceed all of the requirements of the latest revisions of ASTM Specification D 3034 "Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings," have provisions made for contraction and expansion at each joint with a rubber ring, and be constructed with integral wall bell-and-spigot, push-on type joints.
    b. Pipe shall have a minimum SDR of 35 or better.
    c. Pipe shall show no signs of structural damage, splitting, cracking, or breaking at a minimum deflection of 30%, and as designated in the appropriate ASTM Specification.
    d. Pipe and fittings shall be homogeneous throughout and free from visible cracks, extrusion defects, holes foreign inclusions or other injurious defects, and as commercially practical be uniform in color, opacity, density, and other physical properties.
    e. Fittings: All fittings and accessories shall be as manufactured and furnished by the pipe supplier or approved equal, and shall have bell and spigot configurations compatible with that of the pipe, and be manufactured of the same materials as the pipe to which they attach. Fittings shall be the extruded type; fabricated fittings are not acceptable.
    f. Joints: The pipe and fittings shall be furnished with push-on type bell and spigot ends for joining with a solid, uniform cross-sectional rubber gasket as the sealing element. The rubber gasket shall meet the requirements of ASTM 3212. The bell shall consist of an integral wall section with the rubber gasket factory assembled and securely locked in to prevent displacement. The critical sealing dimensions of the bell, spigot and gasket shall be in accordance with the manufacturer's standard dimensions and tolerances. The gasket shall provide an adequate

compressive force against the sealing surfaces of the bell and spigot so as to effect a positive seal under all combinations of the joint tolerances. The gasket shall be the only element depended upon to make the joint flexible and watertight. Solvent welded joints will not be allowed unless written approval is obtained from the Engineer prior to welding the joint.

g. Pipe Tests: The pipe manufacturer shall furnish samples of pipe selected and conduct test that verify the pipe complies with the specified ASTM Standards. A typical joint assembly shall be subjected to a qualifying laboratory test of both internal hydrostatic pressure and internal vacuum or external pressure to confirm proper joint design and performance and is not intended to be used as a Quality Control Test for each joint.
   In addition, the rubber gasket joint shall show no signs of leakage when tested as follows:
   1) Internal Hydrostatic Pressure Test. The assembly shall also be subjected to pressure of 25 ft. hd. or 10.8 PSIG for 10 minutes without leakage.
   2) Internal Vacuum or External Pressure Test. The assembly shall also be subjected to pressure of 25 ft. Hd. Or 10.8 PSIG for 10 minutes without leakage.
   3) Pipe in Concentric Alignment. The assembly in concentric alignment shall be subjected to the test conditions of (1) and (2) without leakage.
   4) Pipe in Angularly Deflected position. After completing the test in (3) the assembly shall be deflected angularly to the maximum amount recommended by the manufacturer and subjected to the test conditions of (1) and (2) without leakage.
   5) Pipe in Offset Deflected Position. The joint assembly shall be deflected to maximum offset deflection recommended by the manufacturer and be subjected to these conditions described in (1) and (2) without leakage.

h. Pipe manufacturer shall furnish District certificates of all tests. The certificates and pipe shall be so marked that the test results can readily be identified with the pipe tested. The "Certificates of Tests" shall be received by the District prior to the installation of any of the pipe covered by the certificates.

i. Each pipe shall be clearly marked at 5 foot intervals to show the manufacturer's name or trademark, nominal pipe size, ASTM Designation, PSM, or PSP and have the material designation "PVC". All fittings shall be marked in a similar manner.

3. DUCTILE IRON, BELL & SPIGOT:
   a. Use ductile iron pipe when minimum cover and is less than 5 feet.
   b. Use ductile iron pipe when clearance from water line is less than minimum horizontal and/or vertical requirements.
   C. Pipe shall be class 50.

EXECUTION

1. Lay pipe in accordance with manufacturer's instructions and requirements specified elsewhere.

2. Install prefabricated wye branches in trunk line for existing and future service lines at locations designated on the drawing(s) or directed by Engineer/Inspector. Rotate 22-1/2° or 45° elbow in direction of flow at proper grade.

3. Extend service lines (laterals) from 4 inch or 6 inch wye branch placed in the trunk sewer to a location designated by the Engineer/Inspector to 15 feet into the property line to be served or at the edge of permanent easement. Laterals shall be laid at a uniform grade and alignment, free from of adverse grade and at a minimum slope of 1/4 inch per foot unless noted otherwise or approved by the Engineer/Inspector, and in no case less than 1/8 inch per foot.

4. Furnish and install a permanent marker embedded in the top of the concrete curb at the end of each service connection line. Where concrete curb is not in place when service line is laid, provide 2"X4"X10' wood temporary marker.

5. Install manholes and cleanouts where shown on drawing(s) in accordance with the District's Typical Details and as follows:
    a. The top of concrete cone section or flat slab top shall be a maximum of 12 inches below final surface elevation, unless otherwise directed by the Engineer/Inspector.
    b. In locations where the final surface is not in place at the time of manhole construction but surface grade has been established, locate and remove the frame and cover from the top section. Precast concrete risers or cast iron rings (not to exceed 2-6 inch rings) shall then be used to set top of manhole frame and cover flush with top of final surface.
    c. Frames and covers of manholes which are constructed in areas where final surface is existing shall be set with top of frame and cover flush with existing surface at time of manhole construction using precast concrete grade rings (not to exceed (2) 6-inch grade rings).
    d. After frame and cover have been set to final grade, cement grout around grade rings from top section to trim of frame and place and finish concrete collar as detailed.
    e. Provide flexible joint or coupling to manholes of the same size as the pipe per manufacturer's recommendations.

6. Clearance between sewer and culinary water lines shall comply to Utah's Division of Drinking Water and Division of Water Quality Standards.

7. TESTING: Furnish all labor tools, and equipment necessary to perform one of the following tests on all pipes and manholes including laterals and/or service stubs. The methods and equipment used shall be mutually determined by Inspector/Engineer and Contractor prior to any testing. Areas between successive manholes shall be tested. If the test fails, the leak shall be repaired and retested until compliance with the testing standards is met. The testing shall be done in the presence of the Inspector/Engineer and the following criteria shall be met:

   a. An infiltration test is required when pipeline is below the groundwater level. The amount of water leaking into the pipe shall be measured and shall not exceed the following maximums:

Type of Pipe	Allowable Infiltration - Gal./Day per Inch Diameter per Mile of Pipe
PVC	10
Concrete	100

   c. A low-pressure air test shall be performed on the pipe and manholes (by an independent testing agency of the Contractor or supplier). The section of pipe between successive manholes shall be sealed with plugs. One of the plugs shall have and orifice in order to pressurized the line. A second orifice in the plug shall be used for constantly reading the internal pressure of the pipe. This orifice shall be continuously connected to a pressure gauge with a range of 0 to 10 psi with an accuracy of + or - 0.04 psi. Pressurize the line under test to approximately 4 psi and then shut off the air supply and allow pressure to stabilize for 2 minutes. After the pressure has been stabilized, the air shall be disconnected and the timing shall be begin. The time of the test in minutes is as follows:

Type of Pipe	Time of Test in Minutes
PVC	# of inches in Pipe Diameter
Concrete	# of inches in Pipe Diameter divided by two

   The maximum allowable pressure drop during the specified time period shall be 1.0 psi.

I. VIDEO INSPECTION: The District shall perform a video camera inspection after the Contractor has completed flushing and testing of the main to verify it has been sufficiently cleaned and is in acceptable condition. The Contractor shall resolve any concerns or problems identified by the District during the video inspection.

04200 MANHOLES

PRECAST CONCRETE MANHOLE

Precast concrete manholes shall be constructed in accordance with the design, size, details, and at the locations indicated on the plans and specified herein. The manholes shall be constructed of precast eccentric or concentric manhole units.

Precast manholes shall conform to the size, shape, form and details indicated on the Developer's approved plans. Concrete for the precast manhole units shall be Class D concrete and shall conform to the provisions of DIVISION 5. The precast cylinder units, the precast concrete taper sections and precast eccentric flat top sections shall meet the strength requirements for ASTM C 478 "Precast Reinforced Concrete Manhole Risers and Tops." Design and manufacture shall be based on H-20 loading. The contractor shall submit shop drawings of the proposed precast manhole for the project.

All joints shall use a profile type joint design. Excavation and backfill shall be done in accordance with these Specifications. Each manhole section shall be set perfectly plumb. Sections of various heights shall be used in order to bring the top of the manhole ring and cover to the required elevation.

Manhole bases shall be constructed of Class A concrete to the dimensions indicated on the plans. Said concrete bases shall be formed and concrete placed on undisturbed soil and/or on aggregate base course compacted to 95 percent of maximum density. That portion of the base above the invert elevation of the pipe shall be formed to provide a smooth channel section as indicated on the plans. The forms shall be checked for accuracy of dimensions and relative smoothness prior to placing concrete for the base. Channels shall vary uniformly in size and shape from inlet to outlet if required. The manhole base concrete shall be placed as one monolithic unit.

Manhole frame and cover sets of the type, size, and quality as specified in the STANDARD DETAILS shall be installed at the locations indicated.

The elevations at which manhole frames and covers shall be set shall conform to the requirements set forth on the plans. Where the cover is in existing pavement or in the traveled way of the existing road shoulder, the cover shall be placed flush with the existing surface. Where the structure is outside the limits of the traveled shoulder but not in the roadside ditch, the cover shall be placed 1/10-foot or more above the existing ground surface. Where the manhole structure falls in the existing roadside ditch or right of way, the manhole cover shall be placed approximately 12 inches above the existing

ground surface. Manhole frames shall be set at the required grade and shall be securely set in the place provided herein, covers shall be installed and all necessary cleaning and scraping of foreign material from the frames and covers shall be accomplished to assure proper fit.

Pipe stubs shall be furnished and installed at manholes at the locations indicated on the Plans. All stubs shall be plugged.

All pipe and fittings, including installation and manholes shall conform to the provisions of the specifications of the designated pipe and fittings.

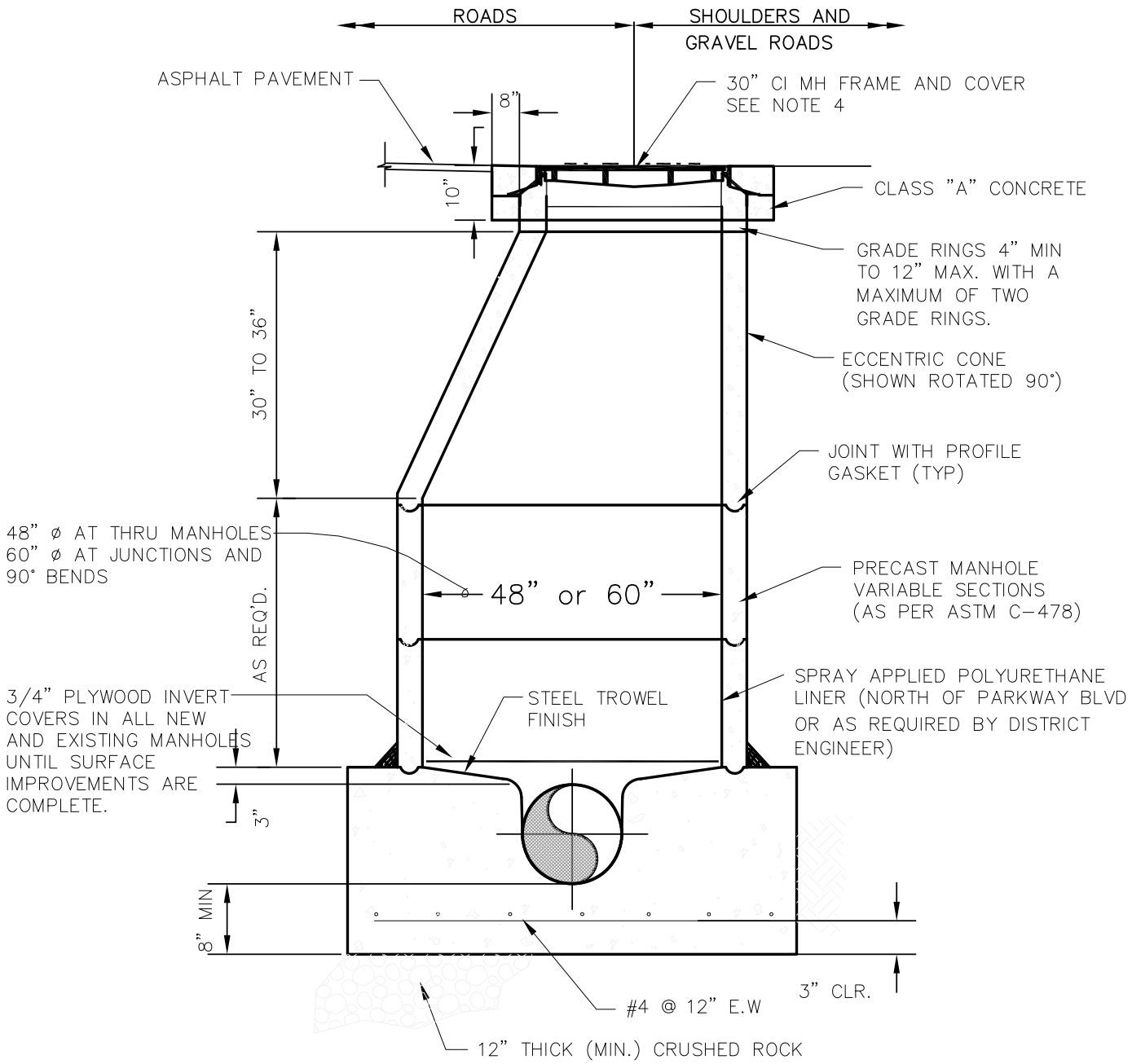
It is the intent of the Specifications that manholes and appurtenances be as watertight and free from infiltration or exfiltration as possible. The adequacy of manholes and appurtenances as to water tightness shall be determined by filling the manhole with water. When testing of the manholes is ordered, said test may be made in connection with the hydrostatic test of the sanitary sewer. Any evidence of leakage as a result of testing shall be repaired at the sole expense of the Developer. Any leaking following backfill shall also be repaired at the sole expense of the Developer.

Pipeline connections to existing manholes shall require matching the elevation of the top of the new inlet pipe to the top of the existing inlet pipe.

Manholes shall be provided without manhole steps to limit unauthorized entry into manhole without proper safety protocols in place.

All manholes north of Parkway Boulevard (2700 South to 2820 South) or as determined by the District Engineer shall be lined with a spray applied polyurethane lining system to prevent concrete corrosion from hydrogen sulfide gas attack. System shall be SPRAYROQ Spraywall Polyurethane Manhole Rehabilitation System or approved equal.

**End of Division 4*



NOTES:

1. LOCATE MANHOLE COVER ON DOWNSTREAM SIDE OF MANHOLE SET MANHOLE FRAME IN GROUT.
2. ALL JOINTS TO BE WATER TIGHT. EXTRA GROUTING & SEALING MAY BE REQUIRED BELOW WATER TABLE.
3. MANHOLE BASE AND 1ST SECTION OF MANHOLE TO BE FABRICATED AS AN INTEGRAL UNIT.
4. RING & COVER TO EXTEND 12" ABOVE FINISH GRADE FOR NONTRAVELED AREA. MATCH FINISHED ROADWAY GRADE IN TRAVELLED AREAS.
5. FLEXIBLE PIPE JOINTS AT ALL CONNECTIONS TO BE T-LOCK OR RUBBER BOOT.

PRECAST MANHOLE DETAIL

N.T.S.

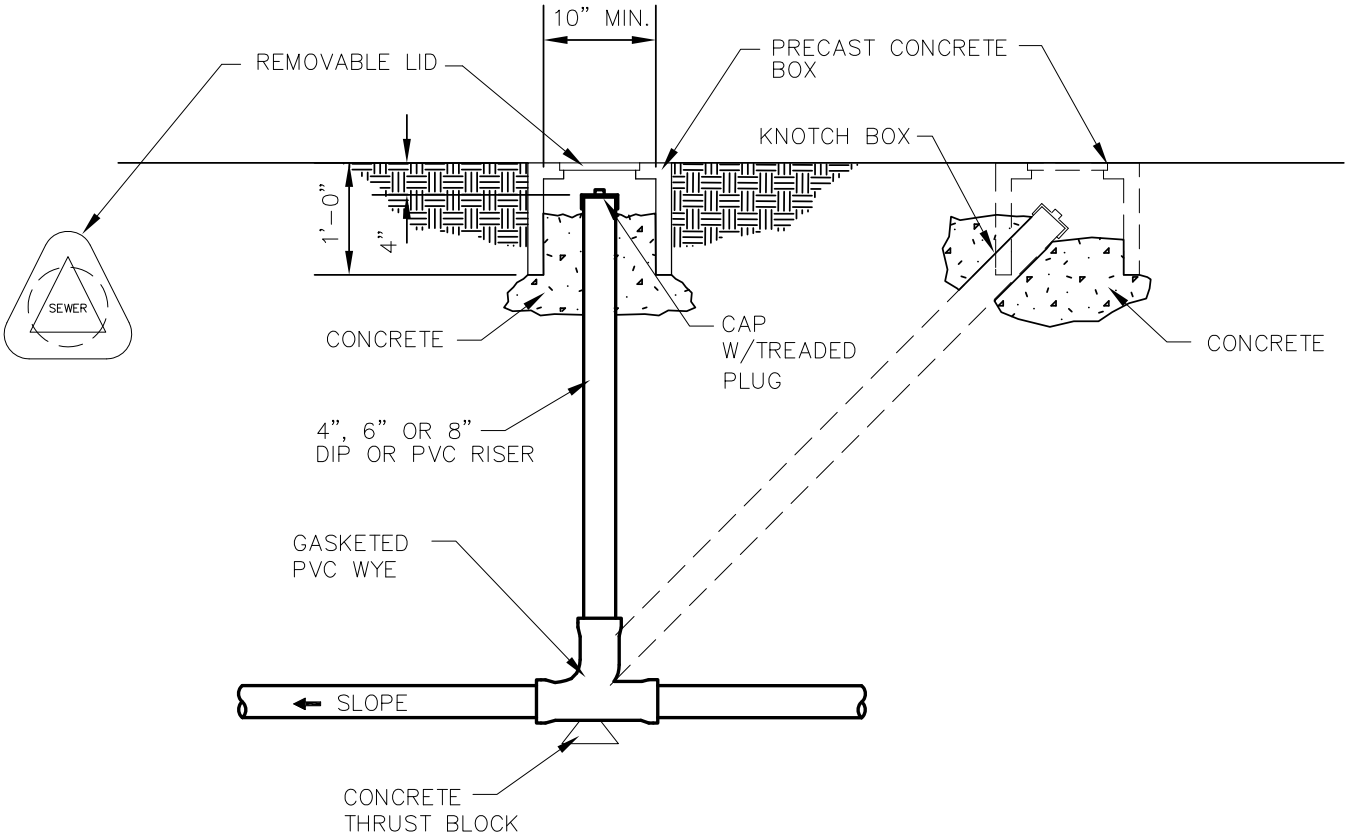
MAGNA WATER DISTRICT
2711 SOUTH 8600 WEST
P.O.BOX 303
MAGNA, UTAH 84044-303
(801) 250-2118

STANDARD MANHOLE DETAIL

DEPARTMENT: ENGINEERING

STANDARD DETAIL: 2

REVISION: MAY 2016



A — SEWER CLEANOUT

– N.T.S.

2711 SOUTH 8600 WEST
P.O.BOX 303
MAGNA, UTAH 84044-303
(801) 250-2118

SEWER CLEANOUT

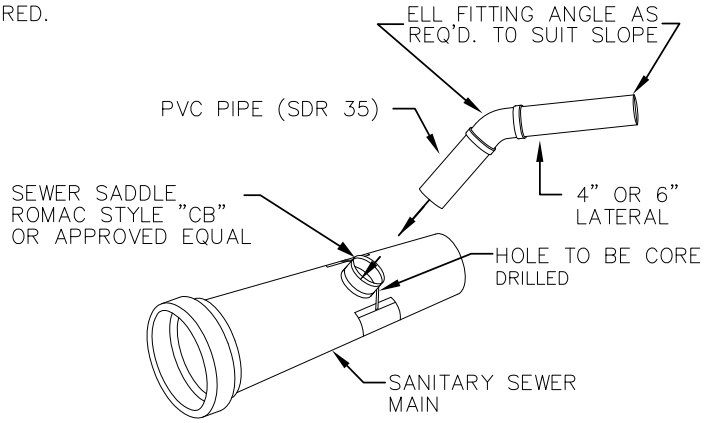
DEPARTMENT: ENGINEERING

STANDARD DETAIL: 3

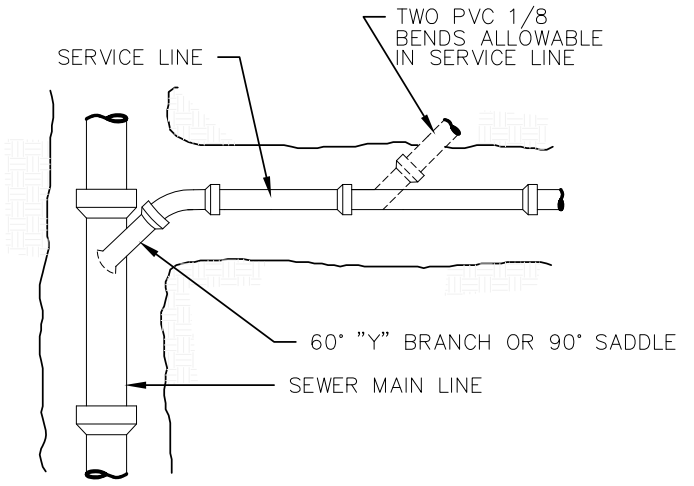
REVISION: MAY 2016

NOTES:

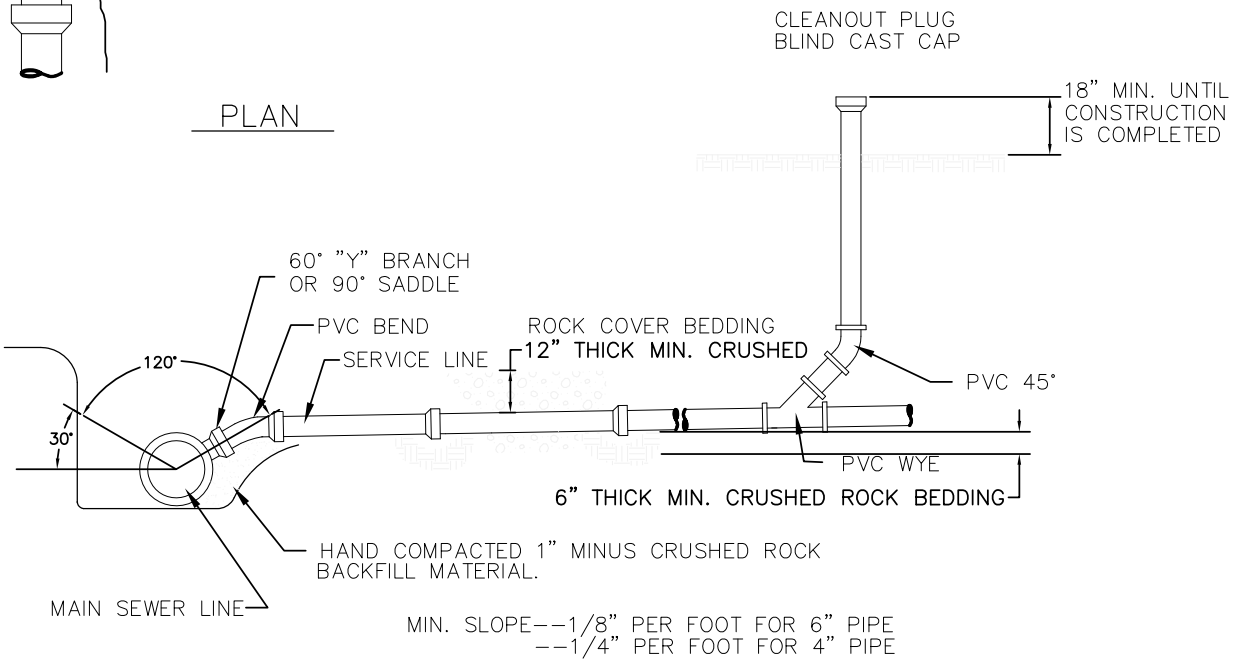
1. CLEANOUTS WILL BE REQUIRED WHERE SERVICE LATERALS EXCEED 50' FROM BUILDING TO PROPERTY LINE AND WHERE DEEMED NECESSARY BY THE INSPECTOR
2. CONNECTIONS TO EXISTING MAINS SHALL BE SEWER SADDLE TYPE MACHINE CORE DRILLED AND GASKETED.
3. PREFERRED ARRANGEMENT: CENTERLINE OF WYE BRANCH TO BE PLACED IN UPPER THIRD OF MAIN.
4. CONCRETE THRUST BLOCKING ON ALL BENDS REQUIRED.



SADDLE DETAIL

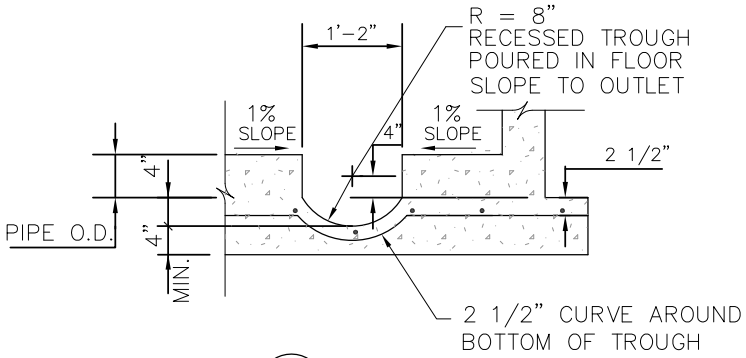


PLAN

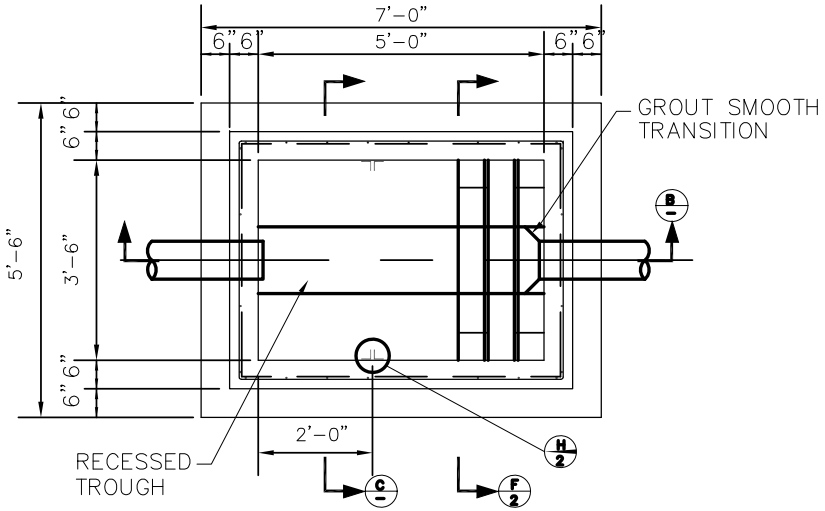


ELEVATION

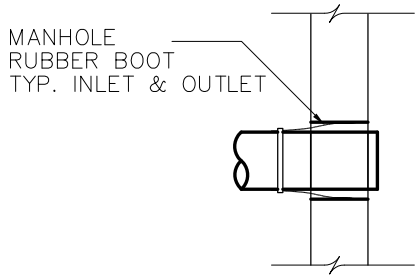
MAGNA WATER DISTRICT 2711 SOUTH 8600 WEST P.O.BOX 303 MAGNA, UTAH 84044-303 (801) 250-2118	SEWER SERVICE LATERAL	DEPARTMENT ENGINEERING	
		STANDARD DETAIL 4	REVISION MAY 2016



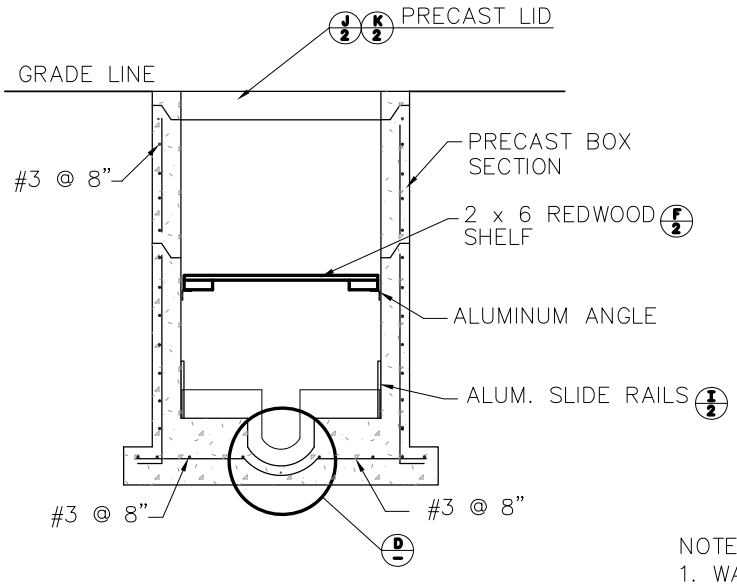
D / – SECTION
N.T.S.



A / – SAMPLE BOX PLAN
N.T.S.



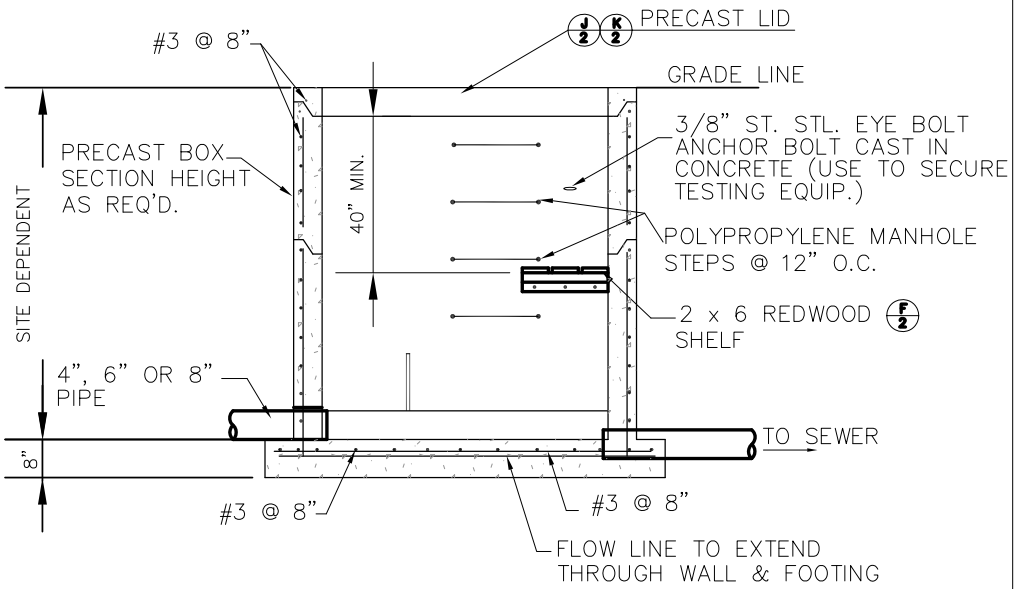
E / – RUBBER BOOT
N.T.S.



C / – SECTION
N.T.S.

NOTES:

1. WALLS & FLOOR POURED MONOLITHIC
2. USE MASTIC AT PRECAST JOINTS.
3. ALL JOINTS TO BE WATER TIGHT.

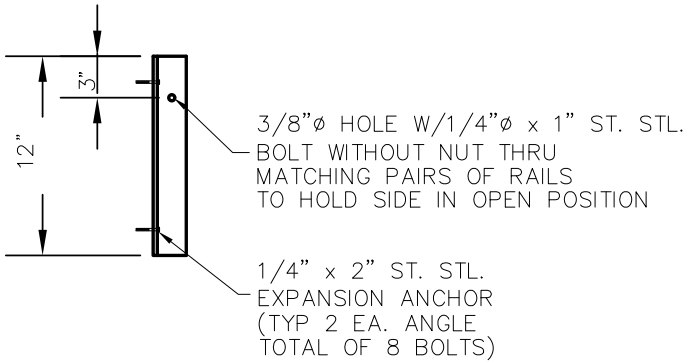


B / – SECTION
N.T.S.

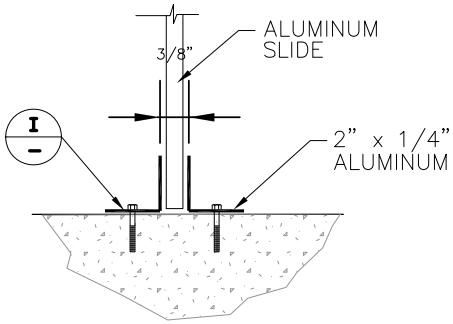
MAGNA WATER DISTRICT
2711 SOUTH 8600 WEST
P.O.BOX 303
MAGNA, UTAH 84044-303
(801) 250-2118

SAMPLE VAULT

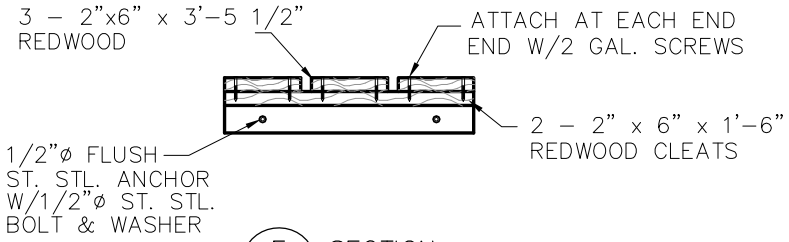
DEPARTMENT		
ENGINEERING		
STANDARD DETAIL	REVISION	DRAWING NO.
15	MAY 2016	1 OF 2



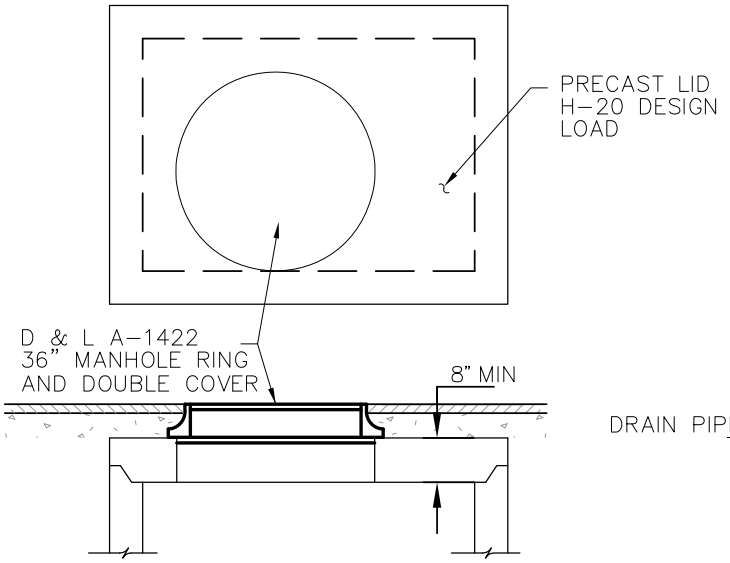
I / 1 ALUMINUM SLIDE RAILS
N.T.S. (TYP OF 4)



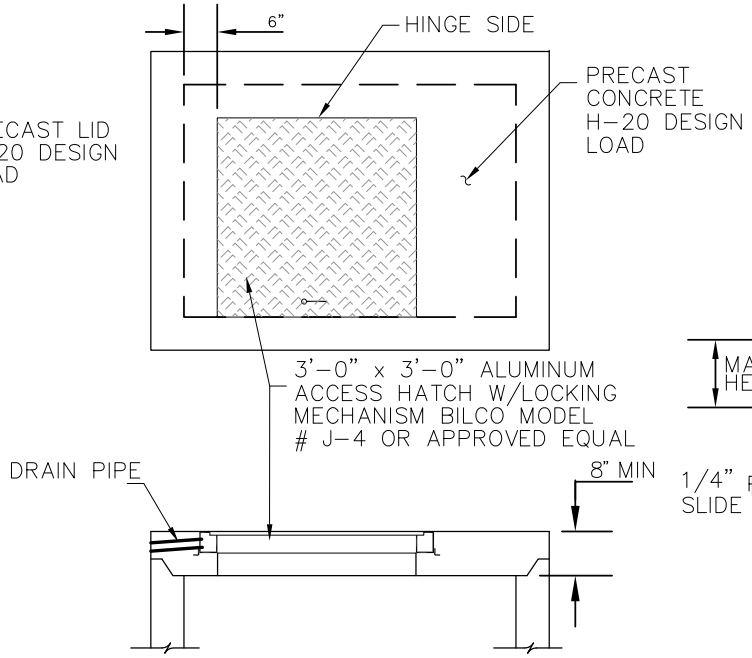
H / 1 DETAIL
N.T.S.



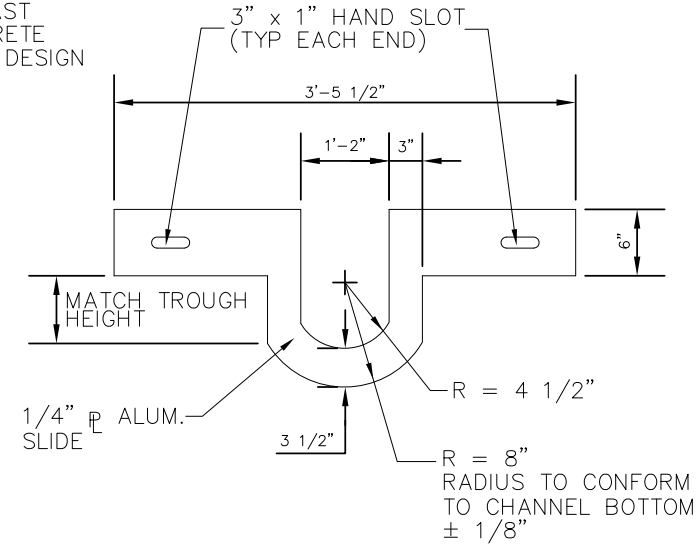
F / 1 SECTION
N.T.S.



J / 1 TRAVELED LID
N.T.S.

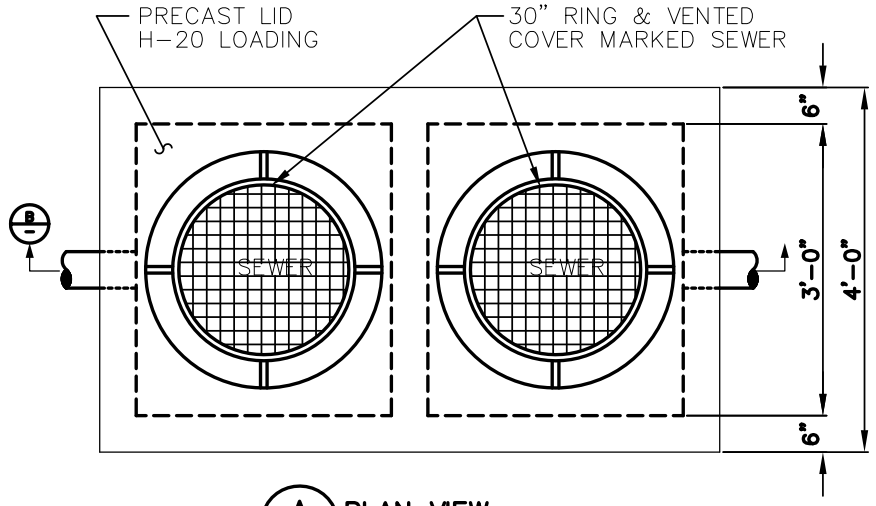


K / 1 NON TRAVELED LID
N.T.S.

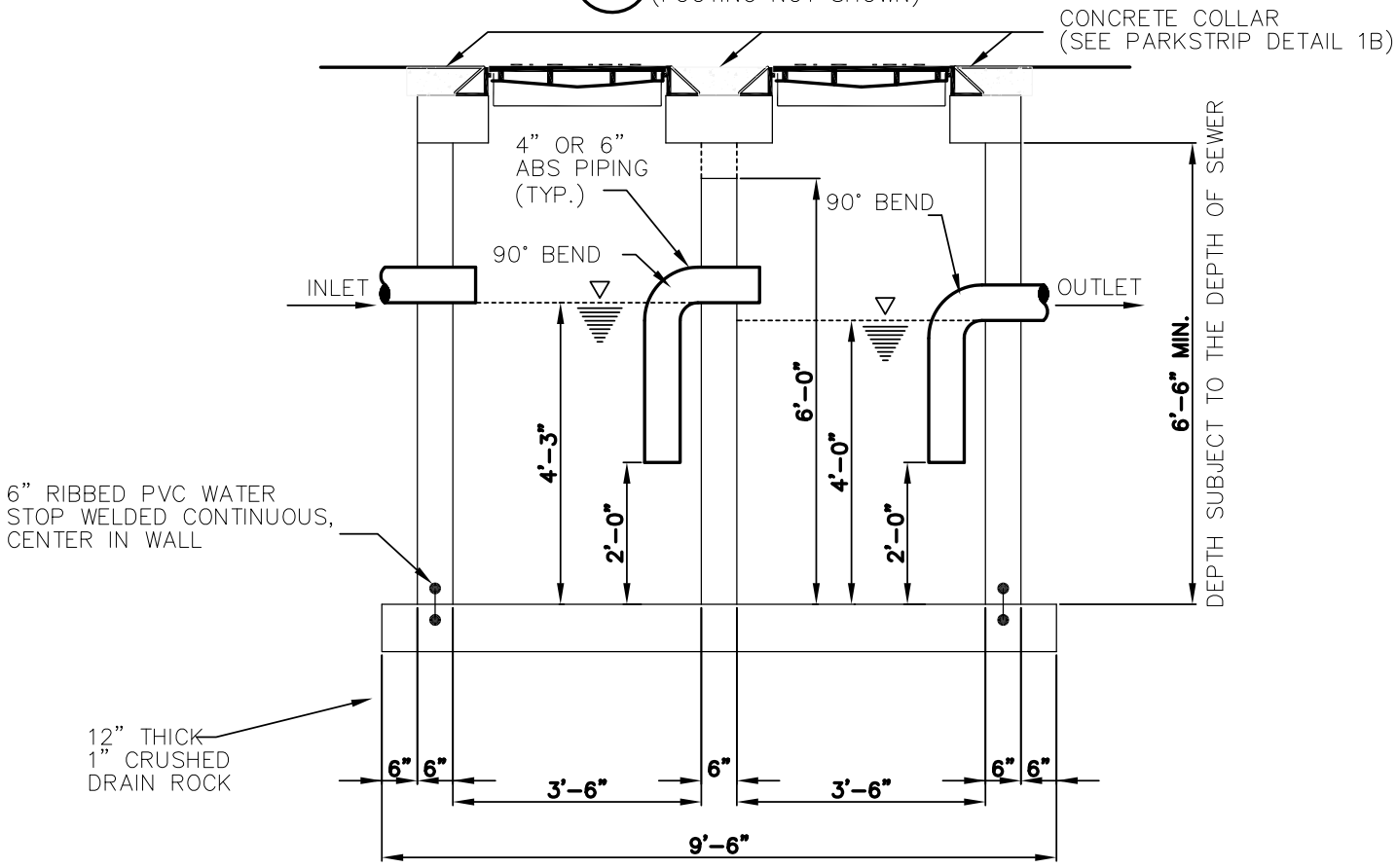


G / 1 ALUMINUM SLIDE
N.T.S.

MAGNA WATER DISTRICT 2711 SOUTH 8600 WEST P.O.BOX 303 MAGNA, UTAH 84044-303 (801) 250-2118	SAMPLE VAULT	DEPARTMENT ENGINEERING	
		STANDARD DETAIL 15	REVISION MAY 2016	DRAWING NO. 2 OF 2



A PLAN VIEW
(FOOTING NOT SHOWN)



B SECTION

PRECAST BOX DESIGN CRITERIA

1) H-20 LOADING.
2) WALLS SUBJECT TO SUBMERGENCE DEPTH OF 8 FEET.
3) NO HORIZONTAL JOINTS THROUGH THE PIPE OPENINGS.
4) WATERSTOP AT WALL/FLOOR JOINTS.

OIL & GREASE SEPARATOR

800 TO 1000 GALLON CAPACITY

MAGNA WATER DISTRICT
2711 SOUTH 8600 WEST
P.O.BOX 303
MAGNA, UTAH 84044-303
(801) 250-2118

OIL & GREASE SEPARATOR

DEPARTMENT: ENGINEERING

STANDARD DETAIL: 16

REVISION: MAY 2016

Chapter 5 - Sanitary Sewer Overflow Action Plan

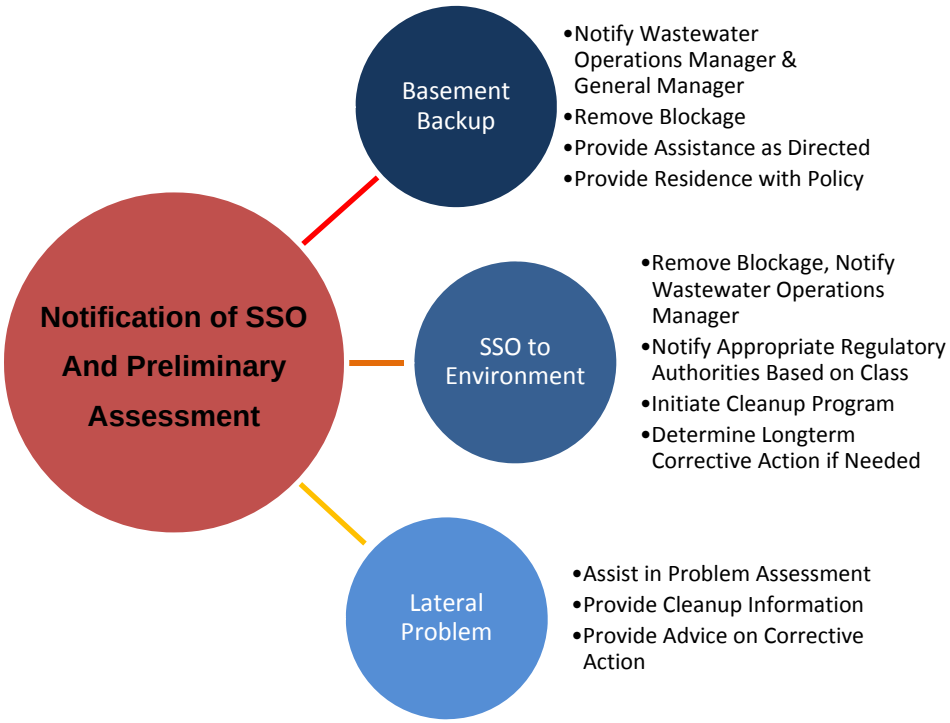
Whenever sanitary sewage leave the confines of the piping system, immediate action is necessary to prevent environmental, public health or financial damage from occurring. In addition, quick action is normally needed to mitigate damage which may have already occurred. For the purpose of this section, the following are part of the emergency action plan.

1. Basement backups
2. Sanitary sewer overflows
3. Sanitary sewer breaks which remain in the trench
4. Sewer lateral backups

All of the above conditions are likely to cause some damage. Each should be treated as an emergency, and corrective actions taken in accordance with Magna Water District directions. Items 1 & 2 above should be reported immediately based on whether they constitute a Class 1 or Class 2 SSO. As stated in the definition section of the SSMP Introduction, a Class 1 SSO is an overflow which affects more than five private structures; affects a public, commercial or industrial structure; results in a significant public health risk; has a spill volume more than 5,000 gallons; or has reached Waters of the State. All other overflows are Class 2 SSO's. All Class 1 SSO's should be reported immediately. Class 2 SSO's should be documented and reported in the annual SSMP report and included in the Municipal Wastewater Planning Program submitted to the State. Item 3 may be reported to the local health department if, in the opinion of the responsible staff member there is potential for a public health issue. An example of where a public health issue may be present is when an excavator breaks both a sewer and a water line in the same trench. In such cases, the local health department representatives should be contacted and the situation explained. If the health representative requests further action on the part of the District, staff should try and comply. If, in the opinion of the responsible staff member, the health department request is unreasonable, The Manager should be immediately notified. Care should always be taken to error on the side of protecting public health over financial considerations. When a basement backup occurs, the staff member responding should follow the Basement Backup Program procedures. Lateral backups, while the responsibility of the property owner, should also be treated as serious problems. Care should be taken to provide advice to the property owner in such cases, but the property owner is ultimately the decision maker about what actions should be taken.

Response Activities

There are specific steps that should be followed once a notification is received that an overflow may be occurring. The following figure outlines actions that could be taken when the District receives notice that a possible overflow has or is occurring.



General Notification Procedure

When a Class 1 SSO occurs specific notification requirement are needed. In such cases the following Notification procedure should be followed and documented. Failure to comply with notification requirements is a violation of R317-801.

Agency Notification Requirements

Both the State of Utah Division of Water Quality and the local health department should be immediately notified when an overflow is occurring. Others that may require notification include local water suppliers, affected property owners and notification may be required to Utah Division of Emergency Response and Remediation if hazardous materials are involved. The initial notification must be given within 24 hours. However, attempts should be made to notify them as soon as possible so they can observe the problem and the extent of the issue while the problem is happening. A notification form is provided to document notification activities. After an SSO has taken place and the cleanup has been done, a written report of the event should be submitted to the State DEQ within five days (unless waived). This report should be specific and should be

inclusive of all work completed. If possible the report should also include a description of follow-up actions such as modeling or problem corrections that has or will take place.

Public Notification

When an SSO occurs and the extent of the overflow is significant and the damage cannot be contained, the public may be notified through proper communication channels. Should the District need to provide notification it could include press releases to the local news agencies, publication in an area paper, and leaflets delivered to home owners or citizens in the area of the SSO. Notification should be sufficient to insure that the public health is protected. When and if Federal laws are passed concerning notification requirements, these legal requirements are incorporated by reference in this document. In general, notification requirements should increase as the extent of the overflow increases.

Overflow Cleanup

When an overflow happens, care should be taken to clean up the environment to the extent feasible based on technology, good science and financial capabilities. Cleanup could include removal of contaminated water and soil saturated with wastewater and toilet paper, disinfection of standing water with environmentally adequate chemicals or partitioning of the affected area from the public until natural soil microbes reduce the hazard. Cleanup is usually specific to the affected area and may differ from season to season. As such, this guide does not include specific details about cleanup. The responsible staff member in conjunction with the State DEQ, the local health department and the owner of real property should direct activities in such a manner that they are all satisfied with the overall outcomes. If, during the cleaning process, the responsible staff member believes the State or the County is requesting excessive actions, the Manager should be contacted.

Corrective Action

All SSO's should be followed up with an analysis as to cause and possible corrective actions. An SSO which is the result of grease or root plug may be placed on the preventative maintenance list for more frequent cleaning. Serious or repetitive plugging problems may require the reconstruction of the sewer lines. An overflow that results from inadequate capacity should be followed by additional system modeling and either flow reduction or capacity increase. If a significant or unusual weather condition caused flooding which was introduced to the sanitary sewer system incorrectly, the corrective action may include working with other agencies to try and rectify the cross connection from the storm sewer to the sanitary sewer or from home drainage systems and sump pumps. Finally, should a problem be such that it is not anticipated to reoccur, no further action may be needed.

Magna Water District

Basement Backup Remediation Policy

Based on the District's Sanitary Sewer Overflow Action Plan the following list of actions and emergency contacts shall be used as a guide to help home owners understand the actions that the District will take in the event of a basement backup.

- Remove blockage from sewer lateral
- The District will contact clean up company
- The District will file a claim with their insurance company to assess the backup

Emergency Contact List

Contact	Title	Phone Number
Raymond Mondragon	Collection System Lead	(801) 250-2118
Steve Williams	Wastewater Operation Manager	(801) 250-2118
Leisle Fitzgerald	Controller	(801) 250-2118
Clint Dilley	District Engineer	(801) 250-2118
Terry Pollock	General Manager	(801) 250-2118

Chapter 6 - Log of Contact with Other Agencies/People

A Copy of Magna Water District's Log of Contact with Other Agencies/People can be found on page 6-2

Magna Water District
Log of Contact with Other Agencies/People

Location of SSO:_____ **Date of SSO:** _____

Agency	Phone Number	Contact Made Yes/No	Time	Remarks
Utah DWQ	(801) 536-4300 or (801) 231-1769			
Salt Lake County Health Department	(385) 468-4100			
Utah DERR	(801) 536-4123			
Unified Police Department: Magna Station	(801) 250-1474			
Unified Fire Authority: Emergency Management	(801) 743-7111			
Magna Water District	(801) 250-2118			
US EPA Region VIII	Consult with DWQ			

Other Contacts:

Contact Made With	Phone Number	Contact Made Yes/No	Time	Remarks
Delta Disaster Services	(801) 841-3232			

Chapter 7 - Grease, Oil and Sand Management Program

Purpose:

The purpose of this program is to provide for the control and management of grease, oil and sand discharges to the District collection system. This program will provide a means to reduce interference with the collection system operation and pass through at the treatment plant.

Regulatory Authority:

Regulatory authority to implement this program is found in the Code of Federal Regulations in 40 CFR 403, General Pretreatment Regulations. State authority for the program is given in the Utah Administrative Code R317-8-8, Pretreatment. Local Authority Magna Water District Administrative Rules and Regulations 15.2.14, Grease, Oil and Sand Interceptors as referenced below.

15.2.14 Grease, Oil and Sand Interceptors

15.2.14.1 From and after the effective date of this regulation, grease, oil, and sand interceptors, as described by the Utah Plumbing Code, shall be required, both for any new or old business where its building is newly constructed, added to, or refurbished to the extent that a building permit is required under law, for any food processing or preparation establishment, or any other uses for the proper handling of liquid wastes containing grease, or any flammable waste, sand and other harmful ingredients; except that such interceptor shall not be required for dwelling units. All interceptors shall be of a type and capacity approved by the POTW Manager according to plans on file in the POTW's office, and shall be located as to be readily accessible for cleaning by User and inspection by POTW employees

15.2.14.2 All grease, oil, and sand interceptors shall be constructed of impervious materials capable of withstanding abrupt and extreme changes in temperature. They shall be of substantial construction, water tight and equipped with easily removable covers which, when bolted in place, shall be gas and water tight.

The interceptors shall include: a minimum of two chambers, sequenced to hydraulically flow through each chamber; piping and bends to dissipate flow energy/velocity to ensure settling of sand and other settle able particles; dissipaters to prevent scouring of accumulated floatables on the liquid surface; access hatches to each chamber; sized per manufacturers

recommendations based upon anticipated “maximum” flow through the interceptor.

15.2.14.3 Where installed, all grease, oil, and sand interceptors shall be maintained by the User at his sole expense, in continuous efficient operation at all times.

15.2.14.4 The User shall keep all manifests, receipts, invoices, and other related records of all cleaning, maintenance, grease removal of/from the grease interceptor, disposal carrier and disposal site location for no less than three (3) years. The User shall, upon request, make the manifests, receipts, invoices, and other related records available to any POTW representative, or inspector. These records should include:

(1) A log book of grease interceptor, grease trap or grease control device cleaning and maintenance practices;

(2) A record of Best Management Practices being implemented, including employee training;

(3) Records of sampling data and sludge height monitoring for oils and solids accumulation in the grease interceptors in each of the two chambers. (Note: accumulation depths in the first chamber should be higher than the second chamber. Accumulation of large quantities in the second chamber gives indication that the interceptor is undersized and potentially not intercepting all material adequately);

(4) Records of any spills and/or cleaning of the lateral or sewer system.

15.2.14.5 No User shall discharge wastewater from the grease, oil and sand interceptor into the POTW that exceeds 50 mg/L for oil and grease (vegetable or animal based) as set forth in the ADDENDUM E – CONTROLLED LIMITED POLLUTANTS and ADDENDUM F – CONTROLLED ADMISSABLE POLLUTANTS. Petroleum based oil and grease discharges are not allowed.

15.2.14.6 The User shall immediately notify the District of any discharge, accidental or otherwise, from the grease, oil and sand interceptor exceeding the limits of any pollutant as set forth in ADDENDUM E – CONTROLLED LIMITED POLLUTANTS or ADDENDUM F – CONTROLLED ADMISSABLE POLLUTANTS. The District shall immediately review the source, nature and extent of the discharge and document the required corrective action(s).

15.2.14.7 When a User's discharge from the grease, oil, and sand interceptor causes an obstruction or damage, or because of the nature of the discharge, toxic pollutants increase the costs for managing the effluent or the sludge of the POTW, the User shall pay for all costs associated with the discharge including but not limited to investigation, inspection, sampling, testing, cleaning, professional engineering and attorney fees, court costs, penalties, fines and any other District overhead and expenses.

15.2.14.8 It shall be a violation of the Rules and Regulations for any User to modify an interceptor without consent from the POTW, falsify maintenance or design records, or fail to provide maintenance or design records when requested by the District. Any person violating the provisions herein shall be liable for any expense, loss or damage caused by the POTW by reason of violation, including the increased costs, if any, for managing effluent or sludge, when such increases are the result of the User's discharge of toxic pollutants. The POTW Manager shall add such charge to the discharger's treatment charge.

15.2.14.9 In the event a food processing or preparation establishment installs or has installed a grease, oil, and sand interceptor pursuant to this section, said User shall not be compelled to install a monitoring facility or equipment as set forth in Section 15.5.4 of this regulation.

15.2.14.10 In the event that it is found the interceptor installed is not working adequately, due to larger flows being delivered to the unit than designed, the District may require the interceptor be replaced with a unit designed to match actual flows and loading.

Chapter 8 - System Evaluation and Capacity Assurance Plan

Magna Water District believes that one of the keys to preventing sanitary sewer overflows is to evaluate system capacity and to monitor flows throughout the system in order to ensure that capacities are not exceeded. Should a collection sub-system exceed the capacity of the pipes, the system will be immediately re-evaluated and corrective action taken.

The District has an active Sanitary Sewer Impact Fee Facility Plan (IFFP) located at their office that shall act as the District's SECAP. The District's Sanitary Sewer IFFP includes the followings.

1. Initial Capacity Modeling and Master Planning
2. Surcharge Flow Analysis
3. Re-evaluation Modeling and Analysis
4. Capacity Increase Evaluation and Implementation

The District will continually evaluate their system and update the IFFP as necessary to continue an adequate level of service throughout the District.

A copy of the District's IFFP can be reviewed at the Magna Water District Office: 8600 West 2711 South, Magna UT 84044.

Chapter 9 - SSMP Monitoring and Measurement Plan

The purpose of this plan is to provide appropriate monitoring and measurement of the effectiveness of the SSMP in its entirety.

Records Maintenance

Magna Water District intends to maintain appropriate records on operations and maintenance of the sanitary sewer system to validate compliance with this SSMP. However, failure to meet standards set by State DWQ or other regulatory agency during an inspection does not constitute a violation of the SSMP. Rather, deficiencies identified during inspections should be viewed as an opportunity for improvement.

Operations Records

Operations records that should be maintained include the following:

- Daily cleaning records
- CCTV inspections records
- Manhole inspection records
- Hot spot maintenance list
- Spot repairs
- Major repairs
- System capacity information
- SSO or basement backup records including notification documents to appropriate agencies (call logs, etc.)
- Capital Improvement Plan

Records will be maintained by the District in a central location. Records may be maintained either on an electronic record or as a paper record. The extent of the record should be sufficient to demonstrate the activity recorded was completed appropriately.

Performance Measurement (Internal Audit)

Periodically, but not less than annually, the District should assess and audit the effectiveness of the elements of this SSMP. All elements should be reviewed for effectiveness as well as all records should be reviewed for completeness. An internal audit report should be prepared preferably annually but no less than once every five years which comments on the following:

- Success of the operations and maintenance program
- Success of other SSMP elements
- Adequacy of the SECAP evaluations

- Discussion of SSO's and the effectiveness of the response to the event including corrective action
- Review of Defect reports and adequacy of response to eliminate such defects
- Opportunities for improvement in the SSMP or in SSO response and remediation

The annual audit report need not be extensive or long. It should, however be sufficient to document compliance with the standards set in the SSMP. The audit reports should be maintained in accordance with the District's records retention schedule.

SSMP Updates

When a plan deficiency is identified though an audit, inspection or plan review, and the deficiency requires an SSMP update, the plan may be updated at the discretion of the District Manager. SSMP updates should be recorded in a revision index maintained by the Wastewater Operations Manager.

SSO Evaluation and Analysis

At least annually in the internal audit and more frequently as needed, the District will evaluate SSO trends based on frequency, location and volume. Trend evaluation will be empirical unless a large number occur sufficient to make a statistical analysis viable. If a trend is identified, a corrective action may be appropriate.

Public Communication and Outreach

The District will reach out to the public about the development, implementation and performance of the SSMP. This communication may be accomplished by any of the following methods:

- Public hearings
- Public meetings
- Newsletters
- Direct mailing
- Leaflets
- Other effective methods

The District will accept comments, either written or verbal and will review such comments for applicability. Public interest may be difficult to generate, but should be sought, non-the-less.

Chapter 10 - SANITARY SEWER SYSTEM MAPPING

Magna Water District keeps sewer line records in two ways. One is the as-built drawings of all developments including utility drawings showing pipe size, material type and location. The drawings also include sewer line clean out locations and elevations, sewer manhole locations and elevations and invert-in and invert-out elevations.

Two is the District computer based mapping system. The District's Sanitary Sewer System is analyzed by the computer model AutoCAD Storm and Sanitary Analysis 2012. The model contains all of the piping of the distribution system and the outfall to the treatment plant. Pipe sizes, lengths and roughness are entered into the model. In the model pipes are joined to each other by manholes. The wastewater flows of the users of the Sanitary Sewer System are applied to the manhole closest to the location of the user's property. In the model, wastewater flows through the piping network is performed by the Kinematic Wave or Hydrodynamic routing methods.

Chapter 11 - Basement Backup Program

Basement backups are a serious impact on a home or business owner. As such, all reasonable efforts should be taken to prevent such backups from occurring. Sewer system backups are the result of several system problems. Such problems may include any one or a combination of the following:

1. Laterals serving real properties are owned by the property owner and lateral maintenance is their responsibility. Roots, low points, structural failure, and grease are primary problems lateral owners face.
2. Backups caused by main line plugs are usually caused by roots, grease, low points, foreign objects and contractor negligence.
3. Piping system structural damage may cause basement backups. Such structural problems include age or deterioration damage, installation damage, excavation damage and trenchless technology damage.
4. Excess flow problems may surcharge a piping system and cause backups into homes. Excess flows usually occur when major storm waters inflow into sanitary sewers. Sanitary sewers are not designed for such flow. In addition, some homeowners may illegally connect foundation drains and sump pumps to the sanitary sewer system.

Basement Backup Response

When the District is notified about a basement backup, staff will log the complaint in a complaint log. The person receiving the call may log the backup complaint or may ask administrative staff to document the complaint.

All backup complaints shall be investigated by staff. If the investigation determines that the case of the backup is only in the lateral, staff may offer technical information but should not take responsibility for cleanup or subsequent restoration.

When it is determined that the basement backup is the result of a mainline problem, the District will follow the policy approved by its governing authority. A copy of this policy should be given to the home owner. It should be noted that all action the District takes are on a no-fault basis. The District does not accept liability nor does it waive its governmental immunity.

Backup Prevention Design Standard

The District promotes system designs which minimize backups and insure proper operations. To this end the District has a design standard for all system construction. In addition, the District complies with state design standards contained in R317-3. Finally for laterals, the following policy applies:

Policy on the Installation of Backflow Valves

Reference Regulatory Documents:

The following regulations are referenced in the establishment of this policy:

- Utah Code Title 15A-2-103(c). This code section adopts the 2009 edition of the International Plumbing Code.
- The 2009 International Plumbing Code, section 715 Sewage Backflow.

Magna Water District Policy:

- The State of Utah has adopted the International Plumbing Code(IPC) as its plumbing building standard;
- Magna Water District uses the IPC as their statute for plumbing construction and installation;
- And the IPC requires the installation of a sewage backwater valve "where the overflow rim of the lowest plumbing fixtures are below the next upstream manhole in the public sewer."

Therefore, for new construction, the District requires the installation of backwater valves as stipulated by the IPC already propagated for all new construction.

NOTIFICATION OF SEWER BLOCKAGE OR BACKUP FOR MAGNA WATER DISTRICT	
Description of blockage or backup	
Date of blockage	
Estimate time of blockage	
Response time to clear blockage	
Cause of sewer blockage	
Number of residences/business impacted by sewer blockage	
Notification of government agencies.	☐ DEQ ☐ Health Department ☐ Other
Note: Use below in the event District becomes noncompliant due to failure to notify government agency(s) of sewer blockage, backup, or discharge	
Description of Non-Compliance	
Period of Non-Compliance (within 24 hours)	
Expected time of Non-Compliance will Continue	
Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance	
Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.	

Chapter 12 - NO-FAULT SEWAGE BACKUP CLAIMS PROGRAM

The purpose of this program is to assist in the cleanup of real and personal property, and/or compensate persons for the loss of real or personal property, destroyed or damaged as the result of a backup of Magna Water District facilities, regardless of fault, within the restrictions, limitations and other provisions of this policy.

Cleanup of Real and Personal Property:

(A) The Controller may, in accordance with the District's standard procurement procedures, engage the services of one or more cleanup contractors to perform cleanup services at the direction of the General Manager on an as-needed basis.

(B) Upon discovering backup described in this Policy, a property owner should immediately notify the District of such event.

(C) Upon notification of the occurrence of the event, the Controller may contact a cleanup contractor under contract with the District's pursuant to subsection (A) above, and direct the cleanup contractor to perform all cleanup work at the premises, in accordance with established cleanup criteria.

(D) In the event the property owner engages the services of a cleanup contractor prior to notifying the District of the event, the District may reimburse the property owner for actual expenses incurred by the property owner, but only up to the amount the District would have paid its own cleanup contractor under subsection (C) above.

(E) In the event any real or personal property cannot, in the reasonable judgment of the District, be restored to its pre-event condition, in accordance with the cleanup criteria, the District may pay to the property owner the estimated fair market value (not the replacement value) at the time of the event, of such real or personal property, with the exception that carpet and major appliances will be replaced with new like-kind items.

(F) In no event will the District pay, or reimburse the property owner for the payment of special or consequential damages.

Establishment of Cleanup Criteria:

The General Manager may, from time to time, establish cleanup criteria which will govern the District's cleanup and payment responsibilities under this Policy. In establishing such cleanup criteria, the General Manager may give due consideration to generally available health guidelines, recommendations from governmental and

academic experts, and other sources of guidance reasonably deemed by the General Manager to be balanced, unbiased, and protective of health and safety.

Application - Time Limitations:

Any request for reimbursement of cleanup expenses under this policy, or payment of fair market value, may be made by filing a written application in such form as prescribed by the District. Such application must be submitted to the District within thirty (30) days after the occurrence of the event.

Qualification for Assistance:

An application or request for assistance or payment under this Policy may qualify only if the District after due inquiry or investigation makes an affirmative determination that the event was the result of a backup of District facilities, and that none of the following circumstances apply:

(A) The loss was caused by either an act or omission of the property owner, the property owner's agent, or a member of the property owner's family or business;

(B) The property owner failed to file a claim hereunder in a timely manner, or failed to comply with any other procedural requirements of this Policy;

(C) The loss is the result of intentional or negligent acts of third parties; or

(D) The loss is wholly covered by private insurance.

Reduction in Assistance:

The District may limit any assistance, or reduce any payment, under this Policy based upon any of the following:

(A) The property owner did not act responsibly to prevent, avoid or minimize the loss;

(B) The property owner is unable to fully substantiate or document the extent of the loss;

(C) The loss is partially covered by private insurance.

Payment Does Not Imply Liability:

Any assistance or payment made under this Policy shall not be construed as, and does not imply, an admission of negligence or responsibility on the part of the District for any damage or loss. Any assistance or payment made under this Policy is strictly voluntary

on the part of the District to facilitate risk-sharing amongst non-governmental property owners in the District.. This Policy shall not in any way supersede, change or abrogate the state government immunity act, Utah Code Annotated, section 63-30-1 et seq., as amended, or its successor, and its application to the District, or establish in any person a right to sue the District under this Policy. Any assistance or payment made under this Policy and accepted shall constitute a full and complete release of any and all claims against the District, its officers, employees and agents arising from the incident.

Budget Expenditures:

The District authorizes a fund from which amounts may be drawn to make the foregoing assistance or payments. Such fund may be established from the ordinary rate structure of the District.

Claims from Other Governmental Agencies:

Notwithstanding any other provisions of this Policy, no application shall be accepted from the United States or any of its agencies, the State of Utah or any political subdivision.

Granger-Hunter Improvement District
Culinary Water and Sanitary Sewer

2888 South 3600 West
P.O. Box 701110
West Valley City, Utah 84170
Telephone: (801) 968-3551
Fax: (801) 968-5467
Web: www.ghid.org

Sanitary Sewer Overflow Response Plan

Prepared By:

Granger-Hunter Improvement District
Wastewater Department

Prepared For:

Granger-Hunter Improvement District
Wastewater Department

Granger-Hunter Improvement District
Sanitary Sewer Overflow Response Plan
Revision Log

By	Comments	Date
Brad Paxman	Miscellaneous revisions to incorporate into Sanitary Sewer Management Plan	July 21, 2014

Granger-Hunter Improvement District
Sanitary Sewer Overflow Response Plan

Approved On:_____

Sewer System Owner:

Granger-Hunter Improvement District
2888 South 3600 West
P.O. Box 701110
West Valley City, Utah 84170
Telephone: (801) 968-3551
Fax: (801) 968-5467
Web: www.ghid.org

Contact Persons:

Clint Jensen, CEO, General Manager
801-968-3551

Joel Johnson, Director of Wastewater Systems
801-968-3551

Regulatory Agency To Report Sewer Overflow:

Utah Department of Environmental Quality

Ms. Jennifer Robinson
Utah Sewer Management Plan Coordinator
Utah Division of Water Quality
195 North 1950 West
Salt Lake City, Utah 84116
Telephone: 801-536-4383
Fax: 801-536-4301
E-mail: jenrobinson@utah.gov
Website: www.waterquality.utah.gov

Salt Lake County Health Department

Salt Lake Valley Health Department
788 East Woodoak Lane (5380 South)
Murray, Utah 84107
Telephone: 385-468-3862
Fax: 385-468-3863
24-Hour No.: 801-580-6681
Website: www.slvhealth.org

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I. INTRODUCTION

Whenever sanitary sewage leave the confines of the piping system, immediate action is necessary to prevent environmental, public health or financial damage from occurring. In addition, quick action in normally needed to mitigate damage which may have already occurred. For the purpose of this section, the following are part of the emergency action plan.

1. Basement backups
2. Sanitary sewer overflows
3. Sanitary sewer breaks which remain in the trench
4. Sewer lateral backups

All of the above conditions are likely to cause some damage. Each should be treated as an emergency, and corrective actions taken in accordance with Granger-Hunter Improvement District directions. Items 1 and 2 above should be reported immediately based on whether they constitute a Class 1 or Class 2 SSO.

1. A Class 1 SSO (Significant SSO) means a SSO or backup that is not caused by a private lateral obstruction or problem that:

    a. affects more than five private structures;
    b. affects one or more public, commercial or industrial structure(s);
    c. may result in a public health risk to the general public;
    d. has a spill volume that exceeds 5,000 gallons, excluding those in single private structures; or
    e. discharges to Waters of the State of Utah.

2. A Class 2 SSO (Non-Significant SSO) means a SSO or backup that is not caused by a private lateral obstruction or problem that does not meet the Class 1 SSO criteria.

All Class 1 SSO's should be reported immediately. Class 2 SSO's should be documented and reported in the annual SSMP report and included in the Municipal Wastewater Planning Program submitted to the State. Item 3 may be reported to the local health department if, in the opinion of the responsible staff member there is potential for a public health issue.

An example of where a public health issue may be present is when an excavator breaks both a sewer and a water line in the same trench. In such cases, the local health department representatives should be contacted and the situation explained. If the health representative requests further action on the part of the District, staff should try and comply. If, in the opinion of the responsible staff member, the health department request is unreasonable, The Manager should be immediately notified. Care should always be taken to error on the side of protecting public health over financial considerations. When a basement backup occurs, the staff member responding should follow the Basement Backup Program procedures. Lateral backups, while the responsibility of the property owner, should also be treated as serious problems. Care should be taken to provide advice to the property owner in such cases, but the property owner is ultimately the decision maker about what actions should be taken.

II. GENERAL

The Sewer Overflow Response Plan (SORP) is designed to ensure that every report of a sewage overflow incident is immediately dispatched to the appropriate Granger-Hunter Improvement District Sewer Department personnel for confirmation. Quick response will minimize the effects of the overflow with respect to impacts on public health, beneficial uses and water quality of surface waters and on customer service. The SORP further includes provisions to ensure safety pursuant to the directions provided by the Utah Department of Environmental Quality (UDEQ) and that notification and reporting is made to the Salt Lake Valley Health Department (SLVHD) when applicable. For purposes of this SORP, "confirmed sewage spill" is also sometimes referred to as "sewer overflow," "overflow," or "SSO."

A. Objectives

The primary objective of the SORP is to protect public health and the environment, satisfy regulatory agencies and waste discharge permit conditions which address procedures for managing sewer overflows, and minimize risk of enforcement actions against the Granger-Hunter Improvement District, sewer system owner.

Additional objectives of the SORP are as follows:

- Protect collection system personnel and wastewater treatment plant;
- Protect the collection system, wastewater treatment facilities, and all appurtenances; and
- Protect private and public property beyond the collection and treatment facilities.

B. Organization of Plan

The key elements of the SORP are addressed individually as follows:

Section III - Overflow Response Procedure
Section IV - Public Advisory Procedure
Section V - Regulatory Agency Notification Procedure
Section VI - Maintenance of SORP
Section VII - Appendices

III. OVERFLOW RESPONSE PROCEDURE

The Overflow Response Procedure presents a strategy for the Granger-Hunter Improvement District Sewer Department to mobilize labor, materials, tools and equipment to correct or repair any condition, which may cause or contribute to an unpermitted discharge. The plan considers a wide range of potential system failures that could create an overflow to surface waters, land or buildings.

A. Receipt of Information Regarding an SSO

An overflow may be detected by District employees or by others. The Granger-Hunter Improvement District is responsible to act based on received phone calls or reports on possible sewage overflow from the wastewater disposal system, and to provide immediate response to investigate and/or correct reported sewer overflow.

Generally, telephone calls from the public reporting possible sewer overflows are received at the public offices identified in Appendix D.

1. The telephone operator obtains all relevant information available regarding the overflow including:

    a. Time and date call was received;
    b. Specific location;
    c. Description of problem;
    d. Time possible overflow was noticed by the caller;
    e. Caller's name and phone number;
    f. Observations of the caller; and
    g. Other relevant information that will enable the District Sewer Department, to quickly locate, assess and stop the overflow.

    The telephone operator records initial information in the Sewage Overflow Report (Ref. Appendix A) and notifies District Sewer Department.

2. The District Sewer Department dispatches sewer maintenance personnel to confirm the

overflow. Until verified, the report of a possible spill will not be referred to as a "sewer overflow."

The District Sewer Department completes the Sewage Overflow Report (Appendix A) within 24 hours of the sewer overflow confirmation and provides the information orally to the UDEQ.

B. Dispatch of Sewer Maintenance Personnel to Site of Sewer Overflow

Failure of any element within the wastewater disposal system that threatens to cause or causes a SSO must trigger an immediate response to isolate and correct the problem. Personnel and equipment must be available to respond to any SSO locations. Additional maintenance personnel shall be "on call" in the event extra manpower is needed. Summary of Sewer Overflow Action Plan is included in Appendix C.

1. Dispatching Maintenance Personnel

- When the Granger-Hunter Improvement District receives notification of a potential sewer overflow outlined in Section A, Granger-Hunter Improvement District Sewer Department dispatches maintenance personnel with appropriate resources as required.

2. Maintenance Personnel Instructions

- Dispatch maintenance personnel by telephone or radio. Assign and appropriate personnel, materials, supplies and equipment needed.

- The telephone operator must verify that the entire message has been received and acknowledged by the maintenance personnel who were dispatched. All personnel being dispatched to the site of an SSO proceed immediately to the site of the overflow. Report any delays or conflicts in assignments immediately for resolution.

- In all cases response maintenance personnel report their findings, including possible damage to private and public property, to the District Sewer Department Manager immediately upon making their investigation. If the District Sewer Department Manager has not received findings from the field crew within one (1) hour the District Sewer Department Manager contacts the response maintenance personnel to determine the status of the investigation.

3. Additional Resources

The District Sewer Department Manager receives and conveys to appropriate parties requests for additional personnel, material, supplies, and equipment for maintenance personnel working at the site of a sewer overflow.

4. Preliminary Assessment of Damage to Private and Public Property

The District maintenance personnel shall use discretion in their actions as reasonably as they can. They must be aware that the Granger-Hunter Improvement District could face increased liability for any further damages inflicted to private property during such assistance. The District maintenance personnel shall not enter private property for purposes of assessing damage unless authorized by the District Sewer Department Manager. The District maintenance personnel shall take appropriate still photographs and/or video footage; if possible, of the sewer overflow impacted area in order to thoroughly document the nature and extent of impacts. Retain photographs for filing with the Overflow Report.

5. Field Supervision and Inspection

- The District Sewer Department Manager visits the site of the sewer overflow to ensure that provisions of this Overflow Response Plan and other directives are met.

- The District Sewer Department Manager is responsible for verbally notifying UDEQ and SLVHD within the specified time and submitting the Overflow Report to UDEQ.

6. Coordination with Hazardous Material Response

- Upon arrival at the scene of a sewer overflow, should a suspicious substance (e.g., oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor (e.g., gasoline) not common to the sewer system be detected, the District sewer maintenance crew shall immediately contact the District Sewer Department Manager for guidance before taking further action.

- Should the District Sewer Department Manager determine the need to alert the hazardous material response team, the maintenance personnel awaits the contracted hazardous waste team response.

- Contact the UDEQ 24 Hour Emergency Phone Number for Incident Spills at 1-801-536-4123.

- Upon arrival of the hazardous material response team, the District sewer maintenance personnel takes direction from the person with the lead authority of that team. Only when that authority determines it is safe and appropriate for the District sewer maintenance personnel to proceed under the SORP with the containment, clean-up activities and correction.

C. Overflow Correction, Containment, and Clean-Up

This section describes specific actions to be performed by the District sewer maintenance personnel during a SSO.

The objectives of these actions are:

- To protect public health, environment and property from sewage overflows and restore surrounding area back to normal as soon as possible;

- To establish perimeters and control zones with appropriate traffic cones and barricades, vehicles or use of natural topography (e.g., hills, berms);

- To promptly notify the regulatory agency with preliminary overflow information and potential impacts;

- To contain the sewer overflow to the maximum extent possible including preventing the discharge of sewage into surface waters; and

- To minimize the Granger-Hunter Improvement District's exposure to any regulatory agency penalties and fines.

Under most circumstances, the Granger-Hunter Improvement District can handle all response actions with its own maintenance forces. They have the skills and experience to respond rapidly and in the most appropriate manner. An important issue with respect to an emergency response

is to ensure that the temporary actions necessary to divert flows and repair the problem do not produce a problem elsewhere in the system.

Circumstances may arise when the Granger-Hunter Improvement District could benefit from the support of private-sector construction assistance. This may be true in the case of large diameter pipes buried to depths requiring sheet piling and dewatering should excavation be required. The Granger-Hunter Improvement District may also choose to use private contractors for open excavation operations that might exceed one day to complete.

1. Responsibilities of District Sewer Maintenance Personnel Upon Arrival

   It is the responsibility of the first personnel who arrive at the site of a sewer overflow to protect the health and safety of the public by mitigating the impact of the overflow to the maximum extent possible. Should the overflow not be the responsibility of The Granger-Hunter Improvement District but there is imminent danger to public health, public or private property, or to the quality of waters of the state, then the District Sewer Department Manager takes prudent emergency action until the responsible party assumes responsibility and provides actions.

   Upon arrival at a SSO, the District sewer maintenance personnel performs the following:

   - Determines the cause of the overflow, e.g. sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc.;
   - Identifies and requests assistance or additional resources to correct the overflow or to assist in determination of its cause;
   - Takes immediate steps to stop the overflow, e.g. relieves pipeline blockage, manually operates pump station controls, repairs pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off of private property into the public right-of-way); and
   - Requests additional personnel, materials, supplies, or equipment that will expedite and minimize the impact of the overflow.

2. Initial Measures for Containment

   Initiate measures to contain the overflowing sewage and recover where possible sewage which has already been discharged, minimizing impact to public health or the environment.

   - Determine the immediate destination of the overflow, e.g. storm drain, street curb gutter, body of water, stream bed, etc.;
   - Identify and request the necessary materials and equipment to contain or isolate the overflow, if not readily available; and
   - Take immediate steps to contain the overflow, e.g., block or bag storm drains, recover through vacuum truck, divert into downstream manhole, etc.

3. Additional Measures Under Potentially Prolonged Overflow Conditions

   In the event of a prolonged sewer line blockage or a sewer line collapse, set up a portable by-pass pumping operation around the obstruction.

- Take appropriate measures to determine the proper size and number of pumps required to effectively handle the sewage flow.

- Implement continuous or periodic monitoring of the by-pass pumping operation as required.

- Address regulatory agency issues in conjunction with emergency repairs.

4. Cleanup

Clean sewer overflow sites thoroughly after an overflow. No readily identified residue (e.g., sewage solids, papers, rags, plastics, and rubber products) is to remain.

- Whenever possible digital photos should be taken of the area before and after cleanup.

- Where practical, thoroughly flush the area and clean of any sewage or wash-down water. Solids and debris are to be flushed, swept, raked, picked-up, and transported for proper disposal.

- Secure the overflow area to prevent contact by members of the public until the site has been thoroughly cleaned.

- Where appropriate, disinfect and deodorize the overflow site.

- Where sewage has resulted in ponding, pump the pond dry and dispose of the residue in accordance with applicable regulations and policies.

- If a ponded area contains sewage, which cannot be pumped dry, it may be treated with bleach. If sewage has discharged into a body of water that may contain fish or other aquatic life, do not use bleach. Contact the UDEQ for specific instructions.

D. Sewage Overflow Report

The Sewer Overflow Report in Appendix A contains information which is required to be reported to UDEQ and possibly to SLVHD depending upon the nature of the spill.

If the overflow will affect bathing areas during the bathing season, or public drinking water intakes, the District shall notify the UDEQ contact person and the SLVHD contact person orally.

The District Sewer Department Manager completes a Sewer Overflow Report (Appendix A). The District Sewer Department Manager promptly notifies the District Office and UDEQ when the overflow is eliminated. Information regarding the sewer overflow includes the following:

- Determination if the sewage overflow had reached surface waters, i.e., all overflows where sewage was observed running to surface waters, or there was obvious indication (e.g. sewage residue) that sewage flowed to surface waters; and

- Determination that the sewage overflow had not reached surface waters by describing conditions at the sewage overflow, which support this determination.

- Determination of the start time of the sewer overflow by one of the following methods:

  a. Date and time information received and/or reported to have begun and later substantiated by District sewer maintenance personnel;

b. Visual observation;

- Determination of the stop time of the sewer overflow by one of the following methods:

  a. When the blockage is cleared or flow is controlled or contained; or

  b. The arrival time of the District sewer maintenance personnel, if the overflow stopped between the time it was reported and the time of arrival.

- Visual observations

  An estimation of the rate of sewer overflow in gallons per minute (GPM) by one of the following criteria:

  a. Direct observations of the overflow; or

  b. Measurement of actual overflow rate from the sewer main.

- Determination of the volume of the sewer overflow

- Photographs of the event, when possible.

- Assessment of any damage to the exterior areas of public/private property. District sewer maintenance personnel shall not enter private property for purposes of estimating damage to structures, floor and wall coverings, and other personal property without authorization from the District Sewer Department Manager.

E. Customer Satisfaction

The District Sewer Department Manager follows up in person or by telephone with the entity who was reporting the overflow. The cause of the overflow and its resolution will be disclosed.

IV. PUBLIC ADVISORY PROCEDURE

This section describes the actions the Granger-Hunter Improvement District will take, in cooperation with the UDEQ and/or SLVHD, to limit public access to areas potentially impacted by unpermitted discharges of pollutants to surface water bodies from the wastewater collection system.

A. Temporary Signage

The Granger-Hunter Improvement District has primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces that result from uncontrolled wastewater discharges from its facilities. The postings do not necessarily prohibit use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination.

The District Sewer Department Manager and General Manager (following consultation with the UDEQ) determine if posting of a confirmed overflow is necessary.

B. Other Public Notification

Should the posting of surface water bodies or ground surfaces subjected to a sewer overflow be deemed necessary by the District Sewer Department, the District Sewer Department Manager and General Manager (following consultation with the UDEQ) determines the need for further public notification.

V. REGULATORY AGENCY NOTIFICATION PLAN

The Regulatory Agency Notification Plan establishes procedures, which the Granger-Hunter Improvement District follows to provide formal notice to the UDEQ as necessary in the event of a SSO.

Agency notifications will be performed in parallel with other internal notifications. Internal notification and mobilization of District sewer maintenance personnel are established in Section III - Overflow Response Procedure.

Using data supplied during the verification process and updates from the maintenance personnel, the District Sewer Department Manager prepares initial and final Overflow Reports. Initial report will be provided orally to the UDEQ and if necessary the local health department within 24 hours from the time the District became aware of the SSO. If the overflow will affect bathing areas during the bathing season, or public drinking water intakes, the District shall notify the UDEQ contact person and the SLVHD contact person orally, within two hours of becoming aware of the discharge

Prepare and provide final report to the regulatory agency within five (5) days after the District becomes aware of the overflow. Submit by mail. The District Sewer Department Manager is responsible for meeting the notification requirement. The District Sewer Department Manager prepares written notification to the appropriate regulatory agency of any confirmed overflows. The District Sewer Department Manager signs these notifications. The UDEQ contact person may waive the written report requirement on a case-by-case basis if the oral report was received within the required time frame. Regardless of other notifications, a Report of Noncompliance form is required to be submitted with the monthly Discharge Monitoring Report.

A. Immediate Notification

If the overflow will affect bathing areas during the bathing season, or public drinking water intakes, the District shall notify the UDEQ contact person and the SLVHD contact person orally, within two hours of becoming aware of the discharge.

Transmit the initial and any updated Sewer Overflow Report to:

- Ms. Jennifer Robinson
  Utah Sewer Management Plan Coordinator
  Utah Division of Water Quality
  195 North 1950 West
  Salt Lake City, Utah 84116
  Telephone: 801-536-4383
  Fax: 801-536-4301
  E-mail: jenrobinson@utah.gov
  Website: www.waterquality.utah.gov

B. Secondary Notification

District Sewer Department Manager may contact other agencies, as necessary, as well as other interested and possibly impacted parties.

VI. MAINTENANCE OF SORP

The SORP will be reviewed on an annual basis. Possible amendments can include:

- Change in procedures
- Change in contact personnel
- Changes due to regulatory requirements

APPENDICES

Appendix A - Sanitary Sewer Overflow Report Form

Appendix B - Sewer Overflow Notice Plan Flow Chart

Appendix C - Sewer Overflow Response Tracking Protocol

Appendix D - List of Public Offices to Report Overflow

Appendix E - Suggested Criteria for Demonstrating How a Sewer Overflow was Unavoidable

Appendix F - Measures to Avoid Sewer Overflow

Appendix G - Overflow Descriptions and Required Notifications

Appendix A
SANITARY SEWER OVERFLOW REPORT FORM

1. General Information

a. Sanitary System ID No. 61

b. Name of collection system: _____

c. Authorized representative filing this form:

Name: _____

Title: _____

E-mail Address: _____

d. Type of filing report:

□ Initial

□ Final

e. Date of filing report:

□ Initial _____

□ Final _____

2. Oral Reporting of Overflow, Bypass or Upset

All releases of untreated or partially treated sewage require 24-hour oral notification except those that require 2-hour oral notification.

a. Overflow requiring 2-hour notification.

□ Impact or closure of bathing area

□ Impact or closure of public drinking water intake

□ Results in fish kills

□ Other: _____

b. Overflow requiring 24-hour notification.

□ Gravity sewer manhole

□ Pump station

□ Treatment plant bypass

□ Other

c. Oral report to UDEQ contact person.

Name: _____

Phone Number: _____

E-mail Address: _____

UDEQ Office: _____

Date of phone notification: _____

d. Oral report to local Health Department contact person.

Name: _____

Phone Number: _____

E-mail Address: _____

UDEQ Office: _____

Date of phone notification: _____

3. Overflow Location and Description

a. Location

City: _____

Address: _____

b. Discharge Location:

- □ Directly to receiving ground water
- □ Ground
- □ Receiving water via storm drain
- □ Building

c. Type of overflow

- □ Gravity sewer manhole
- □ Pump station
- □ Bypass at treatment plant
- □ Other _____

4. Time of Overflow/Bypass Incident

When did the incident begin? Date: _____

Was the overflow/bypass event ongoing at the time of report: □ Yes □ No

If yes, how long is the incident expected to continue? _____

If no, when did event end? Date: _____ Time: _____

5. General Information about Overflow at this Location

a. Estimated volume of overflow released at time of report: _____

b. Method of estimating volume: _____

c. Estimated total volume of overflow released at end of incident: _____

d. Were digital photos taken: □ Yes □ No

e. Corrective measures taken:

- □ No action
- □ Removed blockage
- □ Repair pump station
- □ Other: _____

f. Cause of overflow/bypass (select all those that apply):

- □ Rain
- □ Snow melt
- □ High ground water
- □ Other excessive flow
- □ Sewer system blockage or collapse
- □ Pump /lift station failure
- □ Other: _____

g. Additional comment: _____

FIVE DAY WRITTEN INCIDENT REPORT

Complete the first five sections of this notification form and use the space below to include any additional information regarding the overflow. Include any steps taken or planned to prevent a recurrence. Submit this form to the regional UDEQ office within five days of becoming aware of the incident.

_____

_____

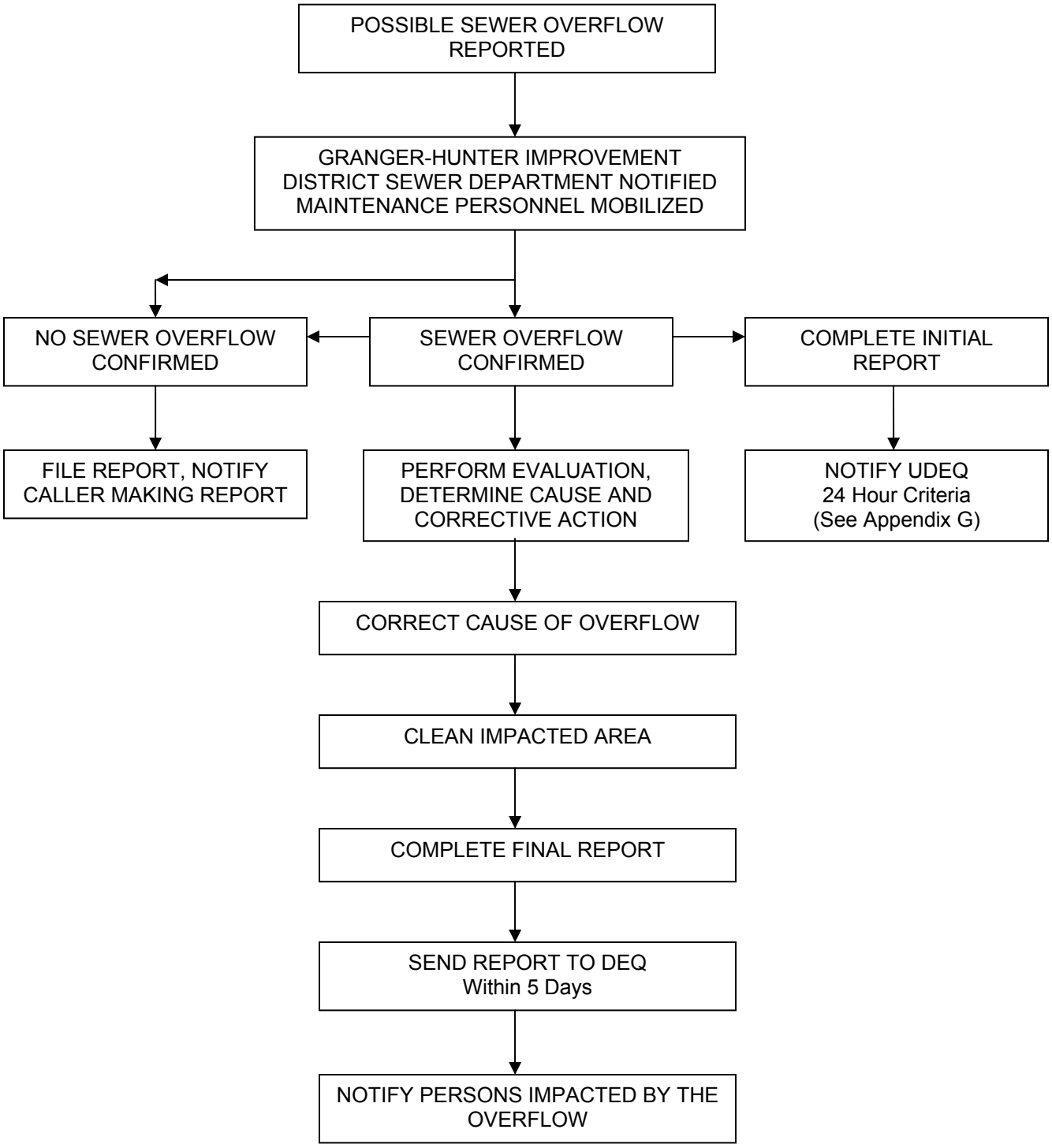
_____

_____

_____

_____

Appendix B
SEWER OVERFLOW NOTICE PLAN FLOW CHART - GRANGER-HUNTER IMPROVEMENT DISTRICT WASTEWATER DISPOSAL SYSTEM



Appendix C
SEWER OVERFLOW (SSO) RESPONSE TRACKING PROTOCOL GRANGER-HUNTER IMPROVEMENT DISTRICT WASTEWATER DISPOSAL SYSTEM

Step	Event
1.	Report of possible SSO received by a telephone operator.
2.	Telephone Operator enters received information into Sewer Overflow Report.
3.	Telephone Operator contacts District Sewer Department, which then deploys maintenance personnel to confirm reported SSO.
4.	Maintenance personnel reports back to the District Sewer Department Manager reporting significance of the overflow.
5.	District Sewer Department Manager completes initial Overflow Report. If the overflow will affect bathing areas during the bathing season, or public drinking water intakes, the District shall notify the UDEQ contact person and the SLVHD contact person orally, within 24 hours of becoming aware of the discharge.
6.	Within 5 days the Granger-Hunter Improvement District Sewer Department Manager prepares final Overflow Report. Report is mailed to UDEQ.
7.	Data from Overflow Report are entered into a permanent record on file at the District Sewer Department.
8.	Attach Report of Noncompliance to Discharge Monitoring Report.

Appendix D
LIST OF PUBLIC OFFICES TO REPORT OVERFLOW - GRANGER-HUNTER IMPROVEMENT DISTRICT WASTEWATER DISPOSAL SYSTEM

Contact Name	Telephone
Granger-Hunter Improvement District Office	801-968-3551
Granger-Hunter Improvement District Sewer Department	801-968-3551
Utah Department of Environmental Quality	801-536-4100
Salt Lake Valley Health Department	801-313-6696
West Valley City Public Works Department	801-963-3448

Appendix E
SUGGESTED CRITERIA FOR DEMONSTRATING HOW A SEWER OVERFLOW WAS UNAVOIDABLE - GRANGER-HUNTER IMPROVEMENT DISTRICT WASTEWATER DISPOSAL SYSTEM

SSO's can be demonstrated as unavoidable by showing the discharge meets each of the criteria 1 through 5.

1. The discharge resulted from a temporary, exceptional incident that was either:

   A. Necessary to prevent loss of life, personal injury, or severe property damage

   B. Beyond the reasonable control of the operator. Incidents beyond the reasonable control of the operator would include:

      - Exceptional acts of nature;
      - Third party actions that could not be reasonably prevented, including vandalism that could not be avoided by reasonable measures;
      - Blockages that could not be avoided by reasonable measures;
      - Unforeseeable sudden structural, mechanical, or electrical failure that could not be avoided by reasonable measures.

2. The discharge had no feasible alternative.

3. The discharge was not caused by any of the following;

   A. Operational error,

   B. Improperly designed or constructed collection system facilities,

   C. Inadequate collection system facilities or components,

   D. The lack of appropriate preventive maintenance, or

   E. Careless or improper oversight

4. Steps to stop the discharge, address the source of the problem, and mitigate potential impacts from the discharge were taken as soon as possible after becoming aware of the release.

Appendix F
MEASURES TO AVOID SEWER OVERFLOW GRANGER-HUNTER IMPROVEMENT DISTRICT WASTEWATER DISPOSAL SYSTEM

A. Proper Collection System Maintenance and Operations Program

- Cleaning of pipes (grease, roots deposits)
- Sealing or maintenance for deteriorating sewers
- Remediation of poor/substandard construction (short term)
- Sewer replacement or rehabilitation program (long term)
- Proper maintenance and operations of pump stations
- Inspection of private laterals

B. New Wastewater Disposal System Construction

- Use latest technology and standards in constructing new wastewater disposal system improvements
- Perform proper construction inspection/quality assurance procedures

Appendix G
OVERFLOW DESCRIPTIONS AND REQUIRED NOTIFICATION

Overflows Requiring 24-Hour Notification

- A Class 1 SSO (Significant SSO)
- A Class 2 SSO (Non-Significant SSO)

Regulatory Agency To Report Sewer Overflow:

Utah Department of Environmental Quality

Ms. Jennifer Robinson
Utah Sewer Management Plan Coordinator
Utah Division of Water Quality
195 North 1950 West
Salt Lake City, Utah 84116
Telephone: 801-536-4383
Fax: 801-536-4301
E-mail: jenrobinson@utah.gov
Website: www.waterquality.utah.gov

Salt Lake County Health Department

Salt Lake Valley Health Department
788 East Woodoak Lane (5380 South)
Murray, Utah 84107
Telephone: 385-468-3862
Fax: 385-468-3863
24-Hour No.: 801-580-6681
Website: www.slvhealth.org

SANITARY SEWER MANAGEMENT PLAN

May 2018

Kearns Improvement District

Operating, managing, and maintaining the KID sewer system in an environmentally and fiscally responsible manner since 1957

Sanitary Sewer Management Plan

KEARNS IMPROVEMENT DISTRICT

INTRODUCTION

The Kearns Improvement District is a local district political subdivision established in Utah under the Utah State Code. The Kearns Improvement District was established in 1957 and provides sewage collection to the customers within the Kearns Metro Township, and portions of West Jordan City, West Valley City, and Taylorsville City. This Sewer System Management Plan (SSMP) manual has been established to provide a plan and schedule to properly manage, operate, and maintain all parts of the sewer collection system to reduce and prevent SSOs, as well as minimize impacts of any SSOs that occur. The Management for this entity recognizes the responsibility it has to operate the sewer system in an environmentally and fiscally responsible manner. As such, this manual will cover aspects of the collection system program necessary to manage the sanitary sewer. This manual may refer to other programs or ordinances and by reference may incorporate these programs into this manual.

DEFINITIONS

The following definitions are to be used in conjunction with those found in Utah Administrative Code R317. The following terms have the meaning as set forth:

(1) "BMP" means "best management practice".

(2) "CCTV" means "closed circuit television.

(3) "CIP" means a "Capital Improvement Plan".

(4) "DWQ" means "the Utah Division of Water Quality".

(5) "FOG" means "fats, oils and grease". This is also referred to as a Grease Oil and Sand Program(GOSI).

(6) "I/I" means "infiltration and inflow".

(7) "Permittee" means a federal or state agency, municipality, county, district, and other political subdivision of the state that owns or operates a sewer collection system or who is in direct responsible charge for operation and maintenance of the sewer collection system. When two separate federal or state agency, municipality, county, district, and other political subdivision of the state are interconnected, each shall be considered a separate Permittee.

(8) "SECAP" means "System Evaluation and Capacity Assurance Plan".

(9) "Sewer Collection System" means a system for the collection and conveyance of wastewaters or sewage from domestic, industrial and commercial sources. The Sewer Collection System does not include sewer laterals under the ownership and control of an owner of real property, private sewer systems owned and operated by an owner of real property, and systems that collect and convey storm water exclusively.

(10) “SORP” means “Sewer Overflow Response Plan”

(11) "SSMP" means "Sewer System Management Plan".

(12) "SSO" means "sanitary sewer overflow", the escape of wastewater or pollutants from, or beyond, the intended or designed containment of a sewer collection system.

(13) "Class 1 SSO" (Significant SSO) means a SSO or backup that is not caused by a private lateral obstruction or problem that:

(a) affects more than five private structures;

(b) affects one or more public, commercial or industrial structure(s);

(c) may result in a public health risk to the general public;

(d) has a spill volume that exceeds 5,000 gallons, excluding those in single private structures; or

(e) discharges to Waters of the State of Utah.

(14) "Class 2 SSO" (Non-Significant SSO) means a SSO or backup that is not caused by a private lateral obstruction or problem that does not meet the Class 1 SSO criteria.

(15) "USMP" means the "Utah Sewer Management Program".

GENERAL SSO REQUIREMENTS

The following general requirements for SSO’s are stipulated in R317-801 and are included here as general information.

1) The permittee shall take all feasible steps to eliminate SSOs to include:

(a) Properly managing, operating, and maintaining all parts of the sewer collection system;

(b) Training system operators;

(c) allocating adequate resources for the operation, maintenance, and repair of its sewer collection system, by establishing a proper rate structure, accounting mechanisms, and

auditing procedures to ensure an adequate measure of revenues and expenditures in accordance with generally acceptable accounting practices; and,

(d) Providing adequate capacity to convey base flows and peak flows, including flows related to normal wet weather events. Capacity shall meet or exceed the design criteria of R317-3.

(2) SSOs shall be reported in accordance with the requirements below.

(3) When an SSO occurs, the permittee shall take all feasible steps to:

(a) control, contain, or limit the volume of untreated or partially treated wastewater discharged;

(b) terminate the discharge;

(c) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water; and,

(d) mitigate the impacts of the SSO.

SSO Reporting Requirements

R317-801 stipulates when and how SSO's are reported. Following are those reporting requirements as of 04/23/2012.

SSO REPORTING. SSOs shall be reported as follows:

(1) A Class 1 SSO shall be reported orally within 24 hours and with a written report submitted to the DWQ within five calendar days. Class 1 SSO's shall be included in the annual USMP report.

(2) Class 2 SSOs shall be reported on an annual basis in the USMP annual report.

ANNUAL REPORT. A permittee shall submit to DWQ a USMP annual operating report covering information for the previous calendar year by April 15 of the following year.

Sewer Use Ordinance

Kearns Improvement District has sewer use regulations that have been adopted by the Kearns Improvement District Board of Trustees. These regulations contain the following items as stipulated by Utah State Code R317-801:

1. Prohibition on unauthorized discharges
2. Requirement that sewers be constructed and maintained in accordance with approved standards
3. Ensures access or easements for maintenance, inspections and repairs

4. Has the ability to limit debris which obstruct or inhibit the flow in sewers such as foreign objects or grease and oil. Requires compliance with pretreatment
5. Allows for the inspection of industrial users
6. Provides for enforcement of ordinance or rules violations

The following elements are included in this SSMP:

- General Information
- Operations and Maintenance Program
- Sewer Design Standards
- Sanitary Sewer Overflow Response Plan
- Grease, Oil and Sand Interceptor Management Program
- System Evaluation and Capacity Assurance Plan
- SSMP Monitoring and Measurement Plan
- Sewer System Mapping Program
- Basement Backup Program
- No Fault Sewage Backup Claims Program

This program is intended to be a guidance document and is not intended to be part of a regulatory requirement. As such, failure to strictly comply with documentation requirements is, in and of themselves, not a failure of the program's effectiveness.

Documentation failures are intended to be identified during system self-audits and will be addressed as training opportunities. Significant system failures will be followed up with corrective action plans. This corrective action process will be implemented by all individuals involved in the SSMP program. Not all Kearns Improvement District employees will necessarily be involved in the collection system operation(s). As such, not all employees will receive program training. Finally, although not a part of this SSMP program, Kearns Improvement District is an active participant in the Blue Stakes of Utah Utility Notification system (Blue Stakes). This system, regulated under title 54-8A of the Utah State Code, stipulates utility notification of all underground operators when excavation takes place. The intent of this regulation is to minimize damage to underground facilities. Kearns Improvement District has a responsibility to mark their underground sewer facilities when notified an excavation is going to take place. Participation in the Blue Stakes program further enhances the protection of the collection system and reduces SSO's.

Kearns Improvement District
SSMP – General Information

This Sanitary Sewer Management Plan was adopted by Kearns Improvement District Board of Trustees on May 8, 2018. The responsible representatives, position, and phone number for the Kearns Improvement District with regard to this SSMP are:

Pamela Gill - General Manager	801-968-1011 ext. 215
F. Greg Anderson, P.E. - Public Works Director	801-968-1011 ext. 225
Robert Lutz, Operations & Maintenance Manager	801-968-1011 ext. 230
Blake Anderson, Engineering Manager	801-968-1011 ext. 235
Jon Crawford, Construction Manager	801-968-1011 ext. 237

Board of Trustees

Greg Christensen - Chairman

Jeff Monson- Vice Chairman

Cheryle A. Hatch - Clerk

Description of Roles and Responsibilities

The following positions have the described responsibility for implementation and management of the specific measures as described in the SSMP.

General Manager

The General Manager is responsible for overall management of the sanitary sewer collection system. Responsibilities include working with governance to assure sufficient budget is allocated to implement the SSMP, maintenance of the SSMP documentation, development of a capital improvement program, and general supervision of all staff.

Public Works Director

The Public Works Director directs and oversees the public works division and the managers related to the planning, organizing, and directing the development and maintenance of collection

system design standards, maintenance of the collection system mapping, and maintenance of the SECAP program.

Operations & Maintenance Manager

This individual is responsible for daily implementation of the SSMP. This includes maintenance activities, compliance with SORP requirements, and monitoring and measurement reporting requirements.

Engineering Manager

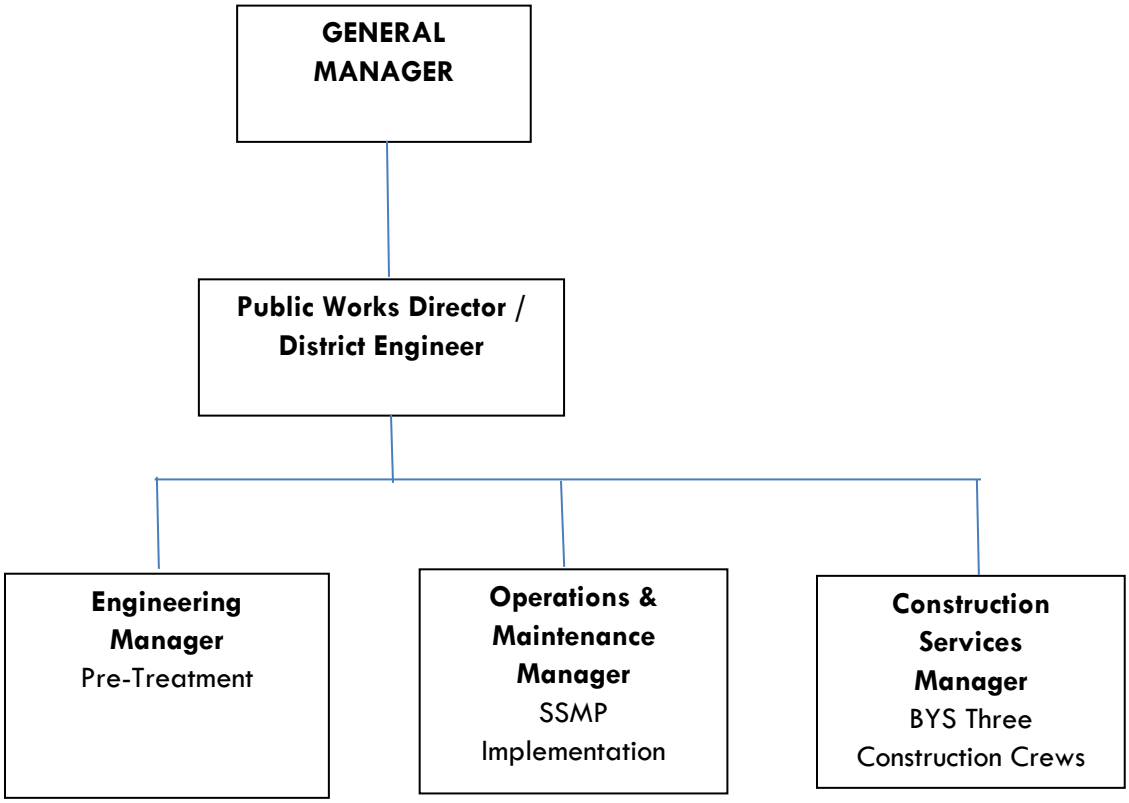
This individual is responsible for implementation of the pretreatment program including the fats, oil and grease program.

Construction Manager

This individual is responsible for the ongoing sewer main & lateral rehabilitation and replacement project.

Organization Chart

Below is the organization chart associated with the SSMP:



Kearns Improvement District
Operations and Maintenance Program

Kearns Improvement District has established this sanitary sewer system operations and maintenance program to ensure proper system operations, to minimize any basement backups or SSOs, and to provide for replacement, refurbishment, or repair of damaged or deteriorated piping systems. The combined maintenance program should ensure that the environment and health of the public are protected at a reasonable cost for the end users. To this end, the following areas are described and included in this maintenance program:

- System Mapping
- System Cleaning
- CCTV Inspection
- Manhole Inspection
- Defect Reporting
- Damage Assessment

System Mapping

An up to date map is essential for effective system operations. Kearns Improvement District has assigned the mapping responsibility to the GIS & Mapping Technician who will prepare and maintain current mapping for the entire sanitary sewer system. Mapping may be maintained on either paper or in a graphical information system (GIS) or a combination of both. Current mapping is available at the following location:

Kearns Improvement District Main Office
5350 West 5400 South
Kearns, Utah

Should any employee identify an error in the mapping, they should document the error on a defect report and give it to the GIS & Mapping Technician.

System Cleaning

Sanitary sewer system cleaning is accomplished through various means and methods. Kearns Improvement District has established a goal to clean the entire system every two years. Based on experience over the past 20 years, this frequency significantly reduces the number of basement backups, controls grease problems and flushes any bellies in the system. In addition, Kearns Improvement District has a listing of identified hot spots which are maintained at a higher frequency. Systems which may have roots are mechanically rodded, hydraulically cut out, or chemically treated, and areas where

restaurants are close together are hydraulically flushed with a high pressure jet truck. The following methods are employed to provide system cleaning:

Kearns Improvement District Hydraulic Cleaning

Kearns Improvement District Mechanical Rodding

Kearns Improvement District Chemical Root Control

Chemical FOG Control

Cleaning records are maintained at the Operations and Maintenance office of the Kearns Improvement District. Contractors are required to provide cleaning records associated with their work. Cleaning history may also be entered into the GIS; however, this is not always necessary. Should the cleaning process identify a serious defect, the problem should be reported on a Work Order Form. The Operations and Maintenance Manager should be given the work order for further action. The work order should be specific as to location and type of problem. A copy of the work order is included at the end of this narrative section. A summary of cleaning activities shall be prepared on a regular basis by the Operations and Maintenance Manager or designee. This summary will normally be presented to the Public Works Director, the General Manager, and the Board of Trustees for consideration and review.

System CCTV Inspection

Closed Circuit TV inspections of the sanitary sewer system are used to assess pipe condition and identify problems or possible future failures which need current attention. The CCTV process also identifies the piping condition to allow for replacement prior to failure. Generally, the Kearns Improvement District will conduct CCTV inspection with designated staff and equipment. Inspections of the system will occur every 5 years. This inspection frequency is based on the pipe aging process. As such, once the system has been inspected completely, change usually occurs gradually. CCTV will also be employed when a systems operation or capacity is questioned or when an SSO occurs. Any defects identified during the CCTV process should be reported on a work order form and the form should be given to the Operations and Maintenance Manager for possible repairs. Documentation of CCTV activities will be maintained at the Operations & Maintenance Division office. When contractors are employed to inspect the sanitary sewer system they will be required to submit records for their work. The Operations and Maintenance Manager will prepare an annual summary of CCTV completed for that calendar year.

Manhole Inspection

The Kearns Improvement District inspects the sewer manholes in conjunction with the cleaning and flushing of the sewer mains. The M/H inspection involves the identification of foreign objects and surcharging that may be present. Crews inspecting the manholes are given maps by the Operations and Maintenance Manager who will monitor the progress and completeness of the inspection process. When a potential defect is identified the manhole should be flagged. Flagged manholes should be checked by

an operator within a reasonable amount of time to determine further action. If, during the inspection process, the inspection crew believes a problem is imminent, they should immediately cease inspecting and inform the Operations and Maintenance Manager of the problem. A cleaning crew should be dispatched immediately to ensure correct system operations. All inspection records should be retained for documentation of work performed.

Work Orders

Work orders generated through the cleaning, CCTV inspection, or manhole inspection programs will be prioritized for correction by the Operations and Maintenance Manager. Any defects which have the potential for catastrophic failure and thus create a sanitary sewer overflow should be evaluated immediately and discussed with the maintenance crew leaders for repair. Repair methods may include:

- Spot Excavation Repairs
- Spot Band Repairs
- Segment Excavation Replacements
- Segment Lining
- Manhole Rehabilitation

When a defect is not flagged for immediate repair, it should be considered for placement on the "hot spot" list. This will allow for vigilant maintenance to ensure failure and a subsequent sanitary sewer overflow do not take place. Work orders reporting the defect should be used in the budget process to determine what financial allocation should be made in the next budget year. The Public Works Director should include outstanding defects in on-going reports.

Collection System Damage

Collection damage may occur as a result of multiple factors, some identified as a result of inspection activities and some identified as a result of damage by third parties such as contractors.

Damage Identification

The identification of system damage which may result in an SSO or basement backup is important to prevent environmental, public health, or economic harm. Identification of damage may be from either internal activities or external activities.

Internal activities which may result in the identification of damage include the following:

1. Collections Maintenance Activities
2. CCTV Inspection Activities
3. Manhole Inspection Activities

These three activities are discussed in this Maintenance Program and the identification of damage will result in the generation of a Defect Report. Generally, damage identification is an iterative and continuous process. External activities which identify damages include:

1. Contractor Notification of Damage
2. Directional Drilling Notification of Damage
3. Public Damage Complaints

All three of these notifications generally require immediate response. Staff should respond and evaluate the seriousness of the damage and the effect on the environment. Damages which include a release to the environment should be handled in accordance with the SORP. Damages which cause a basement backup should trigger the Basement Backup program. Damages which remain in the trench do not require more action than the repair of the damage.
Whatever the cause of collection system damage, the response should be expeditious to prevent environmental or economic harm. District staff should consider all damages an emergency until it is shown by inspection to be a lower priority.

Damage Response Actions

When damages occur in the collection system, the following actions help define the path staff should take. These action plans are not inclusive of all options available but are indicative of the types of response that may be taken.

Stable Damage

Inspection activities may show a system damage which has been there for an extended period of time. Such damage may not require immediate action but may be postponed for a period of time. When stable damage is identified and not acted upon immediately, a defect report should be prepared. If such a defect is identified and repaired immediately, a defect report is not needed. An example of stable damage could be a major crack in a pipeline or a severely misaligned lateral connection where infiltration is occurring.

Unstable Damage

Unstable damage is damage which has a high likelihood that failure will occur in the near future. Such damage may be a broken pipe with exposed soil or a line which has complete crown corrosion. In these cases, action should be taken as soon as there is time, a contractor, materials and other necessary resources available. When such unstable damage is identified, if possible, consideration should be given to trenchless repairs which may be able to be completed quicker than standard excavation. Immediately after identification, the Manager should be contacted to review and take care of budget considerations.

Immediate Damage

When a contractor or others damage a collection line such that the line is no longer capable of functioning as a sewer, this immediate damage must be handled expeditiously. Such damage allows untreated wastewater to pool in the excavation site, spill into the environment or possibly backup into a basement. Under such conditions, priority should be given to an immediate repair. Since excavation damage may be a result of contractor negligence or it could be a failure of the Kearns Improvement District to adequately protect the line by appropriately following the Damages to Underground Utilities Statute 54-8**A**, priority should be given to affecting a repair and not to determining the eventual responsible party.

As can be determined from the above action plans, priority should always be preventing SSO's and attendant environmental damage, to prevent basement backups and financial impacts, and to prevent public health issues.

Kearns Improvement District
Sewer Design Standards

Referenced in this section are the sanitary sewer design standards for the Kearns Improvement District. These design standards are intended to be used in conjunction with Utah Administrative Code R317-3. Where a conflict exists between these two standards, the Administrative Code shall prevail.

The Kearns Improvement District Standards are available online for review at the following address.

http://kearnsid.org/engspecs.PDF

Public Works/Engineering Specifications

Kearns Improvement District
Sanitary Sewer Overflow Action Plan

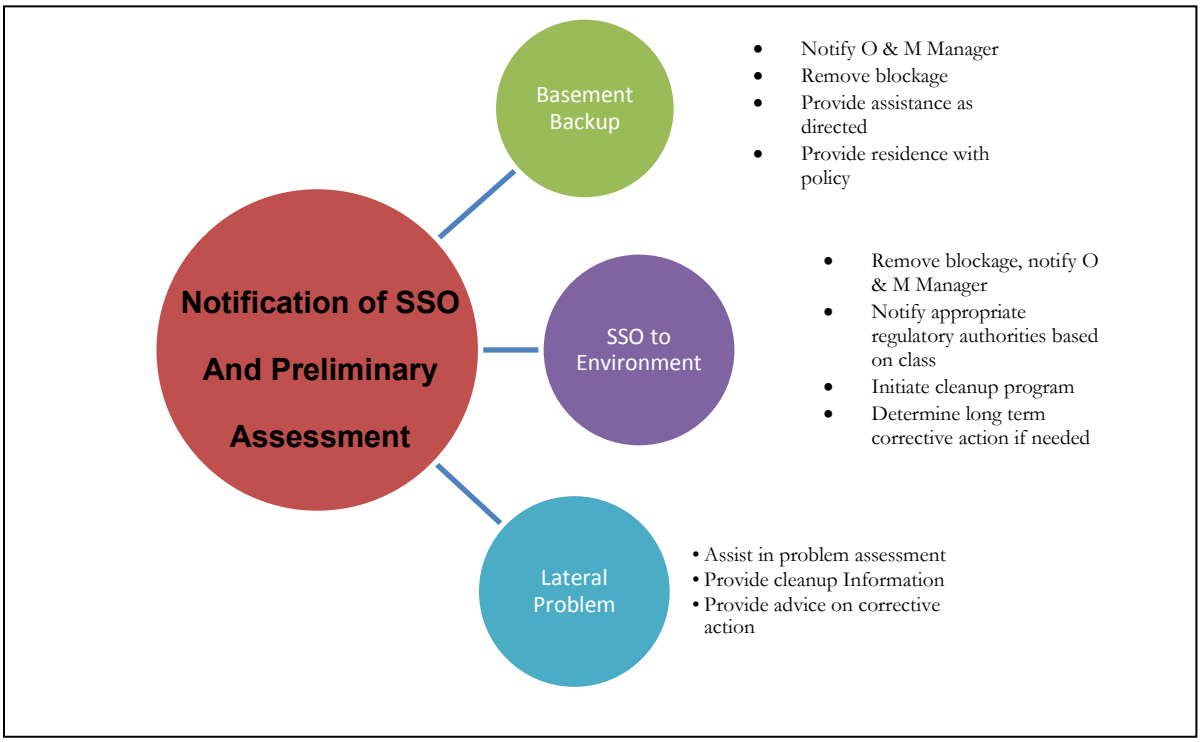
Whenever sanitary sewage leaves the confines of the piping system, immediate action is necessary to prevent environmental, public health, or financial damage from occurring. In addition, quick action is normally needed to mitigate damage which may have already occurred. For the purpose of this section, the following are part of the emergency action plan.

1. Basement backups
2. Sanitary sewer overflows
3. Sanitary sewer breaks which remain in the trench
4. Sewer lateral backups

All of the above conditions are likely to cause some damage. Each should be treated as an emergency and corrective actions taken in accordance with Kearns Improvement District directions. Items 1 & 2 above should be reported immediately based on whether they constitute a Class 1 or Class 2 SSO. As stated in the definition section of the SSMP Introduction, a Class 1 SSO is an overflow which affects more than five private structures; affects a public, commercial or industrial structure; results in a significant public health risk; has spill volume more than 5,000 gallons; or has reached Waters of the State. All other overflows are Class 2 SSO's. All Class 1 SSO's should be reported immediately. Class 2 SSO's should be documented and reported in the annual SSMP report and included in the Municipal Wastewater Planning Program submitted to the State. Item 3 may be reported to the local health department if, in the opinion of the responsible staff members, there is potential for a public health issue. An example of where a public health issue may be present is when an excavator breaks both a sewer and a water line in the same trench. In such cases, the local health department representatives should be contacted, and the situation explained. If the health representative requests further action on the part of the Kearns Improvement District, staff should try and comply. If, in the opinion of the responsible staff member, the health department request is unreasonable, the Manager should be immediately notified. Care should always be taken to err on the side of protecting public health over financial considerations. When a basement backup occurs, the staff member responding should follow the Basement Backup Program procedures. Lateral backups, while the responsibility of the property owner, should also be treated as serious problems. Care should be taken to provide advice to the property owner in such cases, but the property owner is ultimately the decision maker about what actions should be taken.

Response Activities

There are specific steps that should be followed, once a notification is received that an overflow may be occurring. The following figure outlines actions that could be taken when the Kearns Improvement District receives notice that a possible overflow has or is occurring.



General Notification Procedure

When a Class 1 SSO occurs, specific notification requirements are needed. In such cases, the following notification procedure should be followed and documented. Failure to comply with notification requirements is a violation of R317-8

Agency Notification Requirements

Both the State of Utah Division of Water Quality and the local health department should be immediately notified when an overflow is occurring. Others that may require notification include local water suppliers, affected property owners, and notification may be required to Utah Division of Emergency Response and Remediation if hazardous materials are involved. The initial notification must be given within 24 hours. However, attempts should be made to notify them as soon as possible so they can observe the problem and the extent of the issue while the problem is happening. A notification form is provided to document notification activities. After an SSO has taken place and the cleanup has been done, a written report of the event should be submitted to the State DEQ within five days (unless waived). This report should be specific and should be inclusive of all work completed. If possible, the report should also include a description of follow-up actions such as modeling or problem corrections that has or will take place.

Public Notification

When an SSO occurs, and the extent of the overflow is significant, and the damage cannot be contained, the public may be notified through proper communication channels. Normally the local health department will coordinate such notification. Should the Kearns Improvement District need to provide notification, it could include press releases to the local news agencies, publication in an area paper, and leaflets delivered to home owners or citizens in the area of the SSO. Notification should be sufficient to ensure that the public health is protected. When and if Federal laws are passed concerning notification requirements, these legal requirements are incorporated by reference in this document. In general, notification requirements should increase as the extent of the overflow increases.

Overflow Cleanup

When an overflow happens, care should be taken to clean up the environment to the extent feasible based on technology, good science and financial capabilities. Cleanup could include removal of contaminated water and soil saturated with wastewater and toilet paper, disinfection of standing water with environmentally adequate chemicals, or partitioning of the affected area from the public until natural soil microbes reduce the hazard. Cleanup is usually specific to the affected area and may differ from season to season. As such, this guide does not include specific details about cleanup. The responsible staff member in conjunction with the State DEQ, the local health department, and the owner of real property, should direct activities in such a manner that they are all satisfied with the overall outcomes. If, during the cleaning process, the responsible staff member believes the State, or the local health department, is requesting excessive actions, the Manager should be contacted.

Corrective Action

All SSO's should be followed up with an analysis as to cause and possible corrective actions. An SSO which is the result of grease or root plug may be placed on the preventative maintenance list for more frequent cleaning. Serious or repetitive plugging problems may require the reconstruction of the sewer lines. An overflow that results from inadequate capacity should be followed by additional system modeling and either flow reduction or capacity increase. If a significant or unusual weather condition caused flooding

which was introduced to the sanitary sewer system incorrectly, the corrective action may include working with other agencies to try and rectify the cross connection from the storm sewer to the sanitary sewer or from home drainage systems and sump pumps. Finally, should a problem be such that it is not anticipated to reoccur, no further action may be needed.

Kearns Improvement District
Grease, Oil and Sand Management Program

Purpose

The purpose of this program is to provide for the control and management of grease, oil and sand discharges to the District collection system. This program will provide a means to reduce interference with the collection system operation and pass through at the treatment plant.

Regulatory Authority

Regulatory authority to implement this program is found in the Code of Federal Regulations in 40 CFR 403, General Pretreatment Regulations. State authority for the program is given in the Utah Administrative Code R317-8-8, Pretreatment. Local authority is found in the Kearns Improvement District Engineering & Construction Specification Section 3.3.10.

Program Implementation

This program shall be implemented in such a manner as to minimize the impact on businesses which may be affected by this program. In all cases the Kearns Improvement District will maintain a uniform decision-making process. Kearns Improvement District shall allow for appeals of program requirements in accordance with the appeal process approved by Kearns Improvement District. The following steps detail the procedure that Kearns Improvement District personnel shall follow in implementing this program.

Evaluation

The Kearns Improvement District staff will evaluate an industrial user (IU) discharge to determine if grease, oil or sand management is required at the following events:

1. During the engineering plan review process.
2. When the collection line in front of the business is CCTV inspected as part of the sanitary sewer system preventative maintenance program.
3. When a downstream sanitary sewer pipeline plugs due to oil, grease or sand.

No further action will be taken if it is determined that no potential exists for significant enrichment of the wastewater with grease, oil or sand. Enrichment is defined as a discharge with greater volume or concentration of grease, oil or sand than that discharged from a typical residential connection. For oil and grease, the typical residential discharge has less than 100 mg/L of oil and grease for any sample taken. Greater concentrations would be enrichment. Also, a significant buildup of oil and grease in the lateral would indicate enrichment. Sand and dirt are not typically discharged from a residential connection. Any potential for sand or dirt discharge would be enrichment.

Implementation

IU's which are determined to enrich or have the potential to enrich the wastewater with grease, oil, or sand will be required to develop a management plan in accordance with the following tracks:

Track 1

This track is available for IU's which exist at the time of program implementation. However, not all existing IU's may be permitted to use it. Determination will be made on a case by case basis. IU's on this track will be permitted to pay a contractor to clean the main sewer line from their place of business to the nearest trunk line, upon notifying the Kearns Improvement District. A trunk line is any sewer line which has an inside diameter of eighteen inches or larger or has been classified as a trunk line by the Kearns Improvement District. Cleaning frequency will be determined by inspections performed by the Kearns Improvement District.

Track 2

This track requires the IU to install and maintain a grease, oil and/or sand trap on their premises. Quarterly cleaning reports may be required at the discretion of the Kearns Improvement District. The Kearns Improvement District shall inspect the grease trap on a periodical basis. Should the testing reveal grease and oil the IU will be ordered to return to compliance immediately. A re-inspection will be done within thirty days, if the trap has not been cleaned, a fine will be assessed to the IU. The IU will also be ordered to return to compliance immediately. Retesting will be done within thirty days, if the trap has not been cleaned and a cleaning report submitted, another fine will be assessed.

By following the steps discussed above, the Kearns Improvement District hopes to maintain a collection system free from excessive backups and a treatment plant in compliance with UPDES discharge conditions.

List of Acceptable Entities That Recycle Oil and Grease

The following list of grease and oil recyclers should be given to all IU's who operate a grease trap. This list may not be all inclusive. Other recyclers may be used if it can be shown that they discharge the waste appropriately.

Recycler	Phone Number	Address
Renegade Oil	801-973-7912	1141 S. 3200 W, SLC, Utah 84104
Emerald Services	801-973-4131	2450 S. 800 W, SLC, Utah 84119

Kearns Improvement District
System Evaluation and Capacity Assurance Plan

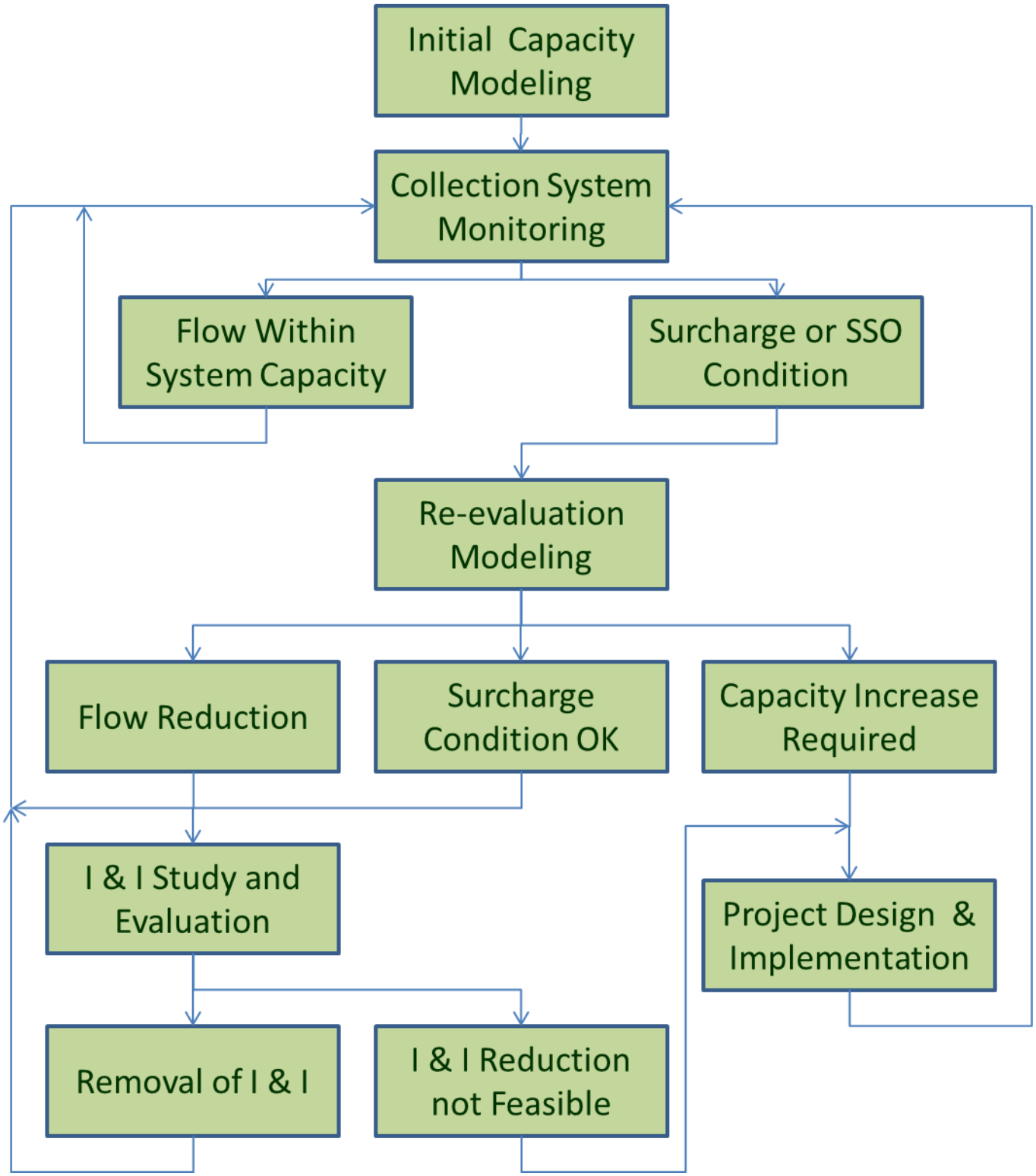
The Kearns Improvement District believes that one of the keys to preventing sanitary sewer overflows is to evaluate system capacity and to monitor flows throughout the system in order to ensure that capacities are not exceeded. Should a collection sub-system exceed the capacity of the pipes, the system will be immediately re-evaluated, and corrective action taken. The following elements are all part of the Kearns Improvement District SECAP program.

1. Initial Capacity Modeling and Master Planning
2. Flow Monitoring
3. Surcharge Flow Analysis
4. Re-evaluation Modeling and Analysis
5. Flow Reduction Evaluation and Implementation
6. Capacity Increase Evaluation and Implementation

The actual implementation process associated with each of the elements above, is shown in the SECAP Flow Chart on the next page. This flow chart process forms the backbone of the SECAP.

Initial Capacity Evaluation

The Kearns Improvement District has performed an analysis and modeling of each critical subsystem contained within its collection system. Subsystems are segregated based on the branching of the collection system. Trunk lines and collector lines are evaluated until the system reaches a point where less than 400 residential dwelling unit equivalents (RE) are upstream of that point in the system. The 400 RE point was chosen based on the minimum slope requirements of the State of Utah. An 8-inch pipe constructed on minimum slope will carry the flow from 400 RE based on 3.2 persons per dwelling unit, 75 gpcd and a peaking factor of 4. The RE equivalent is based on typical Utah information and assumes the peaking factor will account for a reasonable amount of inflow and infiltration. If an area is known to have, or flow metering identifies, a significant amount of inflow and infiltration, additional evaluation will be needed. In these areas the capacity of an 8-inch pipe system may be significantly reduced below 400 RE.



SECAP Flow Chart

In addition to developing an equivalent flow for a residential unit, consideration should also be given to time of concentration in the collection system. Based on typical diurnal flow patterns, if the transit time in the branch system is less than 2 hours, time of concentration can be ignored.

Flow Monitoring

The Kearns Improvement District conducts visual inspection of all sewer lines as part of their flushing and video logging activities associated with the maintenance program. Flow metering of the overall influent system is performed prior to entering the Central Valley Water Reclamation Facility.

Surcharge Flow Analysis

If any collection subsystem is identified as having any of the following problems the system will be evaluated to determine future action. These problems are:

1. Sanitary sewer overflow to the environment
2. Sanitary sewer break remaining in the trench
3. Basement backup
4. Observed subsystem surcharging

The flow evaluation may result in multiple conclusions, some of which may require further action. Possible conclusions and their further actions are listed below. This list is not inclusive, nor does it require the specific actions detailed. These are given as possible examples and will be used by the Operations & Maintenance Manager to determine correct future action.

Flow Reduction Evaluation

Should excessive flows be identified during the surcharge analysis, the solution may be to proceed with an inflow and infiltration study with the ultimate goal of reducing flows. These flow reductions may be achieved by reconstruction of specific areas, internal spot repairs, removing illegal storm water or sump pump connections from homes or storm water systems, and system grouting. Tools used in flow reduction may include extensive in-line camera inspection, smoke testing, dye testing, and increased inspection or flow monitoring.

Foreign Objects or Obstructions

There are multiple foreign objects which may be found in sewers. These may include objects knocked into sewers during construction, illegally placed in sewer manholes, roots, grease and soaps, bellies in piping systems, etc. Each of these problems should be found during the backup investigation and a plan developed to ensure the problem does not re-occur. Types of action may include increased cleaning frequency, spot repairs, greater pretreatment activity, lining of pipes, and other corrective actions which resolve the problem.

Allowable Surcharging

Some piping systems may be able to accept surcharges without creating problems. Such systems may be deep, and surcharging occurs below the level of basements or manhole rims, or they may be in areas where there are no connections. In such cases the resolution of the observed surcharge may just be additional monitoring.

Revised System Modeling

Where piping system problems cannot be resolved in a less expensive way, the system may be further modeled to determine upgrade needs. Modeling should include known flow information and future projections. Since the system has been shown to have problems, further modeling should be more conservative in flow projections. Revised modeling should follow the guide lines given next.

Re-evaluation Modeling and Analysis

When a subsystem needs demonstrate unresolvable problems by less costly means, the subsystem should be re-modeled and required action determined. Revised modeling may show that flow reduction may still be viable, or it may show that the system can allow current surcharge conditions. Most likely, however, the modeling will normally form the basis for construction to enlarge the subsystem capacity. Modeling should be done either by

1. Kearns Improvement District staff using commercially available software
2. Kearns Improvement District staff using spreadsheet models
3. Engineering firms using available software or spreadsheets.

It is important to insure the modeling is comprehensive and includes all the potential flow sources. While the current area zoning and land use planning should be used in the model development, care should be taken to discuss possible changes with appropriate officials. Where possible zoning changes appear likely, the model should be re-run with the revised zoning alternatives. Once a resolution has been selected, the resulting project should be placed on the capital improvement plan (CIP).

Capacity Increase Evaluation and Implementation

The capacity evaluation should be expedited based on the impact of the problem on the environment and the possible repeat of the overflow/backup/surcharging. Details on prioritization are given in the next section. Systems requiring additional capacity should be engineered for expansion by qualified staff or engineering consultants. Project design should be based on acceptable engineering standards and should comply with State of Utah regulations found in R317-3. Easements should be obtained, where needed, and the design should include an analysis of other utilities in the vicinity. Design review should be done by the applicable regulatory agency, as appropriate. A design report should be prepared for each project. Where appropriate, the subsystem modeling may be substituted for the design report. Finalized projects should be placed on the CIP.

System Improvement Prioritization

The priority for improvement should follow the following general guidelines:

High Priority Projects

When there is significant potential for sanitary sewer overflows, or frequent basement backups, the improvement should be considered a high priority and any available budget should be allocated to the project.

Medium Priority Projects

Where the problem is infrequent, and the possibility exists that it may not repeat in the near future, the priority for correction is medium. Medium priority projects may be delayed until appropriate budget is available, or the priority is adjusted to high priority. Should an SSO or basement backup repeat in the same area, the priority should be immediately revised.

Low Priority Projects

If the observed problem is infrequent, there is possibility that it may not repeat in the near future and the possibility that increased flow in the subsystem is low, the correct priority is low. Low priority projects will be placed in the budget process and evaluated against other needs. These projects will eventually be completed, but the work is not prioritized above system and equipment needs.

Capital Improvement Plan

The CIP is part of the Kearns Improvement District's budgeting process to ensure sufficient revenue to address identified weaknesses in the sanitary sewer system. Items which have been identified as needing a structural fix are placed on the CIP list and the cost for each estimated. Sources of funding are identified for all high priority projects so that SSO's or other failures do not re-occur. Forecasts of available funding for medium and low priority projects are made to facilitate future revenue needs.

Kearns Improvement District
Sanitary Sewer System Mapping

The Kearns Improvement District Mapping system is maintained and updated by a computer based GIS system.

Kearns Improvement District
Basement Backup Program

Basement backups are a serious impact on a home or business owner. As such, all reasonable efforts should be taken to prevent such backups from occurring. Sewer system backups are the result of several system problems. Such problems include any one or a combination of the following:

1. Laterals serving real properties are owned by the property owner and lateral maintenance is their responsibility. Roots, low points, structural failure, and grease are primary problems lateral owners face.
2. Backups caused by main line plugs are usually caused by roots, grease, low points, foreign objects and contractor negligence.
3. Piping system structural damage may cause basement backups. Such structural problems include age or deterioration damage, installation damage, excavation damage and trenchless technology damage.
4. Excess flow problems may surcharge a piping system and cause backups into homes. Excess flows usually occur when major storm waters inflow into sanitary sewers. Sanitary sewers are not designed for such flow. In addition, some homeowners may illegally connect foundation drains and sump pumps to the sanitary sewer system.

Basement Backup Response

When the Kearns Improvement District is notified about a basement backup, staff will log the complaint in a complaint log. The person receiving the call may log the backup complaint or may ask administrative staff to document the complaint.

All backup complaints shall be investigated by staff. If the investigation determines that the cause of the backup is only in the lateral, staff may offer technical information but should not take responsibility for cleanup or subsequent restoration.

When it is determined that the basement backup is the result of a mainline problem, Kearns Improvement District will follow the policy approved by its governing authority. A copy of this policy should be given to the home owner. It should be noted that all action the Kearns Improvement District takes is on a no-fault basis. Kearns Improvement District does not accept liability, nor does it waive its governmental immunity.

Backup Prevention Design Standard

The Kearns Improvement District promotes system designs which minimize backups and insure proper operations. To this end, the Kearns Improvement District has a design standard for all system construction. In addition, the Kearns Improvement District complies with state design standards contained in R317-3. Finally, for laterals, the following policy applies:

Policy on the Installation of Backflow Valves

Reference Regulatory Documents

The following regulations are referenced in the establishment of this policy: Utah Code Title 15A-2-103(c). This code section adopts the latest edition of the International Plumbing Code, and the Sewage Backflow section.

Kearns Improvement District Policy

- The State of Utah has adopted the International Plumbing Code(IPC) as its plumbing building standard;
- And the IPC requires the installation of a sewage backwater valve "where the overflow rim of the lowest plumbing fixtures are below the next upstream manhole in the public sewer."

  Therefore, for new construction, the Kearns Improvement District requires the installation of backwater valves as stipulated by the IPC already propagated for all new construction.

Kearns Improvement District
No-Fault Sewage Backup Claims Program

The Kearns Improvement District does participate in a no-fault sewage backup claims program.

Sanitary Sewer Management Plan

KEARNS IMPROVEMENT DISTRICT

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TAYLORSVILLE-BENNION IMPROVEMENT DISTRICT

Sanitary Sewer Management Plan

for the Utah Sewer Management Program (USMP)

Prepared By:
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Taylorsville-Bennion Improvement District

Revision index

This document may be revised and updated as the sewer management policies of Taylorsville-Bennion Improvement District evolve and are refined. Revisions are noted in the table below:

Revision Index Table

Revision	Date	Summary of Revisions
Original Document	October 11, 2013	
Revision	December 17, 2013	
Revisions	January 2015	Addition of Mainline and Lateral Definitions
Revisions	April 2015	Modified definition of Private Sewer Main
Adoption	April 16, 2015	Adopted by Board
Revisions	January 2020	5 Year Audit / Update

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1.0 INTRODUCTION

Taylorsville-Bennion Improvement District (TBID) is an independent water and sewer improvement district established under the laws of Salt Lake County in 1957. TBID provides sewage collection for the City of Taylorsville and parts of West Valley City and parts of unincorporated Salt Lake County. This Sewer System Management Plan (SSMP) manual has been established to provide a plan and schedule to properly manage, operate, and maintain all parts of the sewer collection system to reduce and prevent sanitary sewer overflows (SSOs), as well as minimize impacts of any SSOs that occur. The TBID management recognizes the responsibility it has to operate the sewer system in an environmentally and fiscally responsible manner. As such, this manual will cover aspects of the collection system program necessary to provide such an operation. This manual may refer to other programs or rules and regulations and by reference may incorporate these programs into this manual.

1.1 Definitions

The following definitions are to be used in conjunction with those found in Utah Administrative Code R317. The following terms have the meaning as set forth:

(1) "BMP" means "best management practice".
(2) "CCTV" means "closed circuit television.
(3) "CIP" means "Capital Improvement Plan".
(4) “DERR” means the “Department of Environmental Response and Remediation”
(5) "DWQ" means "the Utah Division of Water Quality".
(6) "FOG" means "fats, oils and grease".
(7) “GOSI” refers to a “Grease Oil and Sand Program”.
(8) "I/I" means "infiltration and inflow".
(9) “Lateral” means any sewer line conveying the wastewater of a user from a residence building or other structure to a District “mainline” sewer, including direct connections to District sewer where permitted by the District. “
(10) "Permittee" means a federal or state agency, municipality, county, district, and other political subdivision [public entity] of the state that owns or operates a sewer collection system or who is in direct responsible charge for operation and maintenance of the sewer collection system. When two separate federal or state agencies, municipality, county, district, and other political subdivision of the state are interconnected, each shall be considered a separate Permittee.
(11) “Private Sewer Main” A sewer line not located in a public way or an easement granted to the District and a sewer serving at least one property or a group of properties with agreement for common maintenance of sewer facilities.
(12) "SECAP" means "System Evaluation and Capacity Assurance Plan".
(13) "Sewer Collection System" means a system for the collection and conveyance of wastewaters or sewage from domestic, industrial and commercial sources. The Sewer Collection System does not include sewer laterals under the

ownership and control of an owner of real property, private sewer systems owned and operated by an owner of real property, and systems that collect and convey stormwater exclusively.

(14) "SORP" means "Sewer Overflow Response Plan"

(15) "SSMP" means "Sewer System Management Plan".

(16) "SSO" means "sanitary sewer overflow", the escape of wastewater or pollutants from, or beyond the intended or designed containment of a sewer collection system.

(17) "Class 1 SSO" (Significant SSO) means a SSO or backup that is not caused by a private lateral obstruction or problem that:
   (a) affects more than five private structures;
   (b) affects one or more public, commercial or industrial structure(s);
   (c) may result in a public health risk to the general public;
   (d) has a spill volume that exceeds 5,000 gallons, excluding those in single private structures; or
   (e) discharges to Waters of the State of Utah.

(18) "Class 2 SSO" (Non-Significant SSO) means a SSO or backup that is not caused by a private lateral obstruction or problem that does not meet the Class 1 SSO criteria.

(19) "USMP" means the "Utah Sewer Management Program".

1.2 General SSO Requirements

The following general requirements for SSOs are stipulated in Utah Administrative Code R317-801 and are included here as general information.

1) The permittee shall take all feasible steps to eliminate SSOs to include:

(a) properly managing, operating, and maintaining all parts of the sewer collection system;

(b) training system operators;

(c) allocating adequate resources for the operation, maintenance, and repair of its sewer collection system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures in accordance with generally acceptable accounting practices; and,

(d) providing adequate capacity to convey base flows and peak flows, including flows related to normal wet weather events. Capacity shall meet or exceed the design criteria of R317-3.

(2) SSOs shall be reported in accordance with the requirements below.

(3) When an SSO occurs, the permittee shall take all feasible steps to:

(a) control, contain, or limit the volume of untreated or partially treated wastewater discharged;

(b) terminate the discharge;

(c) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water; and,

(d) mitigate the impacts of the SSO.

1.3 SSO Reporting Requirement

Utah Administrative Code R317-801 stipulates when and how SSOs are reported. Following are those reporting requirements as of 10/1/2019.

SSO REPORTING. SSOs shall be reported as follows:

(1) A Class 1 SSO shall be reported orally within 24 hrs and with a written report submitted to the DWQ within five calendar days. Class 1 SSOs shall be included in the annual USMP report.

(2) Class 2 SSOs shall be reported on an annual basis in the USMP annual report.

ANNUAL REPORT. A permittee shall submit to DWQ a USMP annual operating report covering information for the previous calendar year by April 15 of the following year. The annual report TBID submits to the DWQ is called the Municipal Wastewater Planning Program (MWPP) Annual Report.

1.4 Sewer Use Rules and Regulations

TBID has Wastewater Control rules and regulations, standard details, and specifications and design requirments adopted by the governing body. These rules and standards contain the following items as stipulated by Utah Administrative Code R317-801:

1. Prohibition on unauthorized discharges,
2. Requirement that sewers be constructed and maintained in accordance with R317-3,
3. Ensures access or easements for maintenance, inspections and repairs,
4. Has the ability to limit debris which obstruct or inhibit the flow in sewers such as foreign objects or grease and oil,
5. Requires compliance with pretreatment program
6. Allows for the inspection of industrial users, and
7. Provides for enforcement of rules and regulations.

The following elements are included in this SSMP:

- General Information
- Operations and Maintenance Program
- Sewer Design Standards
- Sanitary Sewer Overflow Response Plan
- Grease, Oil and Sand Interceptor Management Program
- System Evaluation and Capacity Assurance Plan
- SSMP Monitoring and Measurement Plan
- Basement Backup Program
- DWQ Reporting Requirements

This program is intended to be a guidance document and is not intended to be part of a regulatory requirement. As such, failure to strictly comply with documentation requirements is, in and of themselves, not a failure of the program's effectiveness.

Documentation omissions are intended to be identified during system self-audits and will be addressed as training opportunities. Significant system failures will be followed up with corrective action plans. This corrective action process will be implemented by all individuals involved in the SSMP program. Not all TBID employees will necessarily be involved in the collection system operations. As such, not all employees will receive program training. Finally, although not a part of this SSMP program, TBID is an active participant in the Blue Stakes of Utah Utility Notification system. This system, regulated under title 54-8A of the Utah Administrative Code, stipulates utility notification of all underground operators when excavation takes place. The intent of this regulation is to minimize damage to underground facilities. TBID has a responsibility to mark their underground sewer facilities when notified that an excavation is going to take place. Participation in the Blue Stakes program further enhances the protection of the collection system and reduces SSO potential.

2.0 SSMP – GENERAL INFORMATION

This Sanitary Sewer Management Plan was adopted by the TBID Board of Trustees on _____April 16, 2015_____.

The responsible representatives, positions and phone numbers for Taylorsville-Bennion Improvement District with regard to this SSMP are:

Company Contact – (general information):

Shawn Robinson, Director of Operations and Maintenance
(801) 968-9081 (office)
(801) 580-6175 (cell)
shawn@tbid.org

Primary Emergency Contact:

Tom Gordon, Sewer Department Supervisor
(801) 968-9081 (office)
(801) 230-5208 (cell)
tom@tbid.org

Secondary Emergency Contact:

Jack Hutcheon, Assistant Sewer Department Supervisor
(801) 968-9081 (office)
(801) 557-2541 (cell)
jack@tbid.org

After-Hours Emergency Contact:

(801) 968-9081 (will forward to answering service)
(801) 560-4933 (after-hours cell phone)
(801) 483-3454 (answering service)

Engineer:

Tammy North, District Engineer
(801) 968-9081 (office)
(801) 560-4944 (cell)
tnorth@tbid.org

Description of Roles and Responsibilities

The following positions have the described responsibility for implementation and management of the specific measures as described in the SSMP:

General Manager. This individual is responsible for overall management of the sanitary sewer collection system. Responsibilities include working with the TBID Board of Trustees to assure sufficient budget is allocated to implement the SSMP, development of a capital improvement program and general supervision of all staff.

Director of Engineering and Development. The individual is responsible for the development and maintenance of collection system design standards, design of new sewer system infrastructure and maintenance of the SECAP program. This individual is responsible for oversight and coordination with the following: GIS Coordinator and GIS Specialist, Inspector, Legal, and CVWRF Pretreatment Coordinator.

Director of Operations and Maintenance. This individual is responsible for oversight and coordination with the following: Sewer Department Supervisor, System Controls Supervisor. Responsibilities also include adherence to the established budget and oversight of SSMP documentation.

GIS Coordinator / GIS Specialist. These individuals are responsible for collection and maintenance of sewer system mapping and any other GIS-related efforts.

Legal. The District legal counsel is responsible to provide legal review as required.

Inspector. The duties of the inspector include construction inspection for new sewer infrastructure as well as repairs to the sewer system, to ensure that construction is completed as required in the project plans and specifications as applicable and that the TBID standards are met.

Systems Controls Supervisor. This individual is responsible to coordinate lift station maintenance, SCADA system maintenance and fleet maintenance.

Sewer Department Supervisor. This individual is responsible for daily implementation of the SSMP. This includes maintenance activities, compliance with SORP requirements, coordination of the monitoring, measurement and reporting requirements, oversight of the FOG program and cost recovery program, and answering customer complaints.

Assistant Sewer Department Supervisor. This individual is responsible to assist the Sewer Department Supervisor with his/her responsibilities and to act as the Sewer Department Supervisor in their absence. This individual is also responsible to oversee Crews.

Crew 1. The responsibilities of Crew 1 include preventative maintenance in the system, sampling for the cost recovery program, CCTV inspection of sewer lines, flow monitoring, and filling in where needed to keep the other two crews going.

Crew 2. The responsibilities of Crew 2 include preventative maintenance of hot spots in the system and CCTV inspection of the sewer line hot spots.

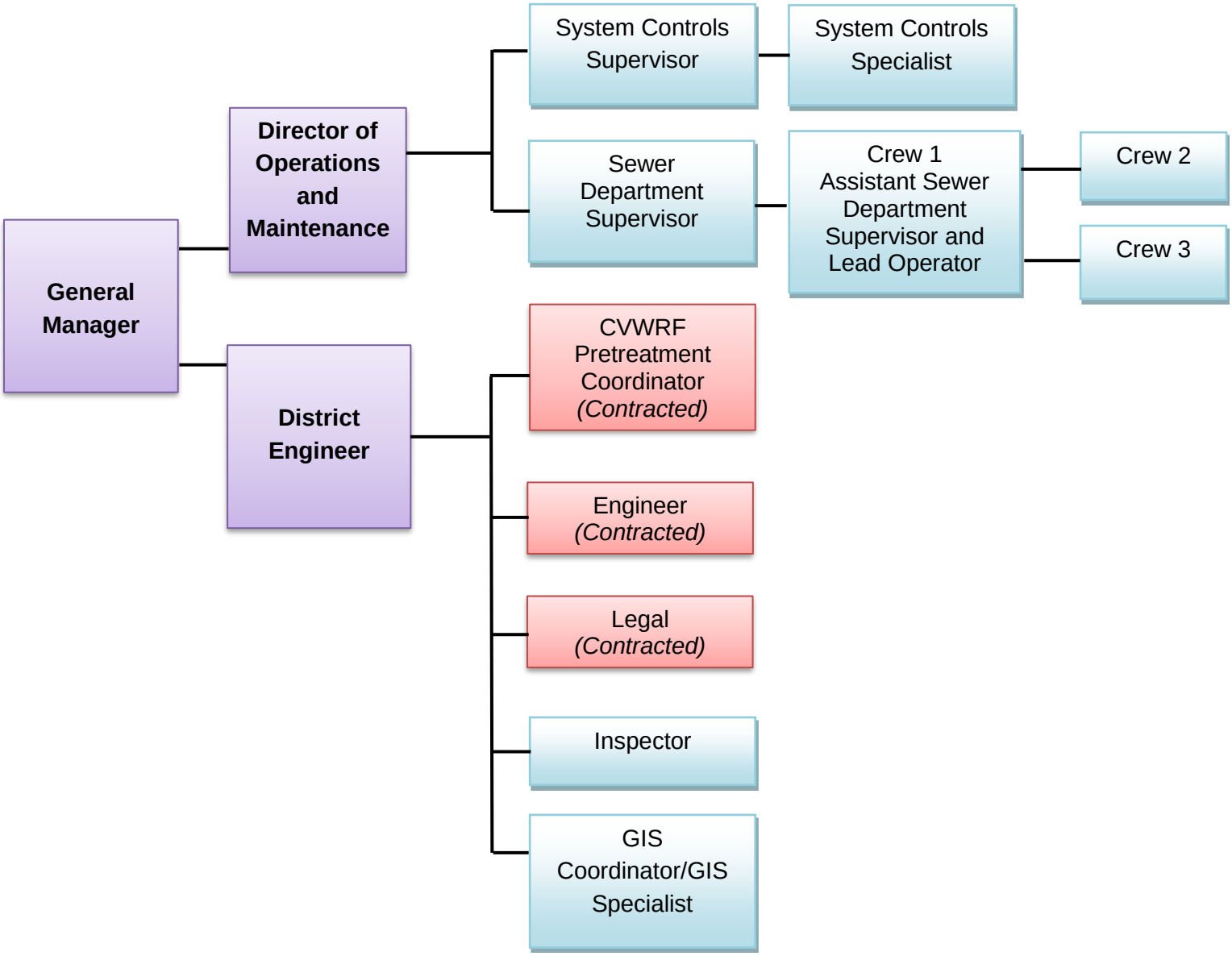
Crew 3. Crew 3 is primarily responsible for CCTV inspection of sewer lines and sewer manhole inspection.

CVWRF Pretreatment Coordinator. This individual, part of the Central Valley Water Reclamation Facility (CVWRF) staff, is responsible for coordination and implementation of the CVWRF pretreatment program.

2.1 Organization Chart

Below is the organization chart associated with the implementation of the TBID sewer system.

Figure 1 – SSMP Organization Chart



3.0 OPERATIONS AND MAINTENANCE PROGRAM

TBID has established this sanitary sewer system operations and maintenance program to ensure proper system operations, to minimize any basement backups or SSOs, and to provide for replacement, refurbishment, or repair of damaged or deteriorated piping systems. The combined maintenance program will ensure that the environment and health of the public are protected at a reasonable cost for the end users. To this end, the following areas are described and included in this maintenance program:

- System Mapping
- System CCTV Inspection
- System Cleaning
- Pump Station/Pressure Lines Inspection
- Critical Equipment List
- Manhole Inspection
- Defect Reporting
- Damage Assessment

3.1 System Mapping

An up-to-date map is essential for effective system operations. TBID maintains mapping in graphical information system (GIS) and a paper copy. When new sewer infrastructure is constructed, the Engineer generates as-built drawings in both paper and electronic versions, which are primarily kept at the District offices. The electronic versions are linked to the GIS system and are thus available to the sewer crews while in the field. The GIS Coordinator is responsible for maintaining the GIS mapping, which is synced to the field laptops used by sewer crews on a weekly basis.

Should any employee identify an error in the mapping, they will document the error on a paper copy and give it to the GIS Coordinator. Sewer system changes, repairs and inaccuracies are typically red-lined on a hard copy and given to the GIS Coordinator who then is responsible to update the GIS.

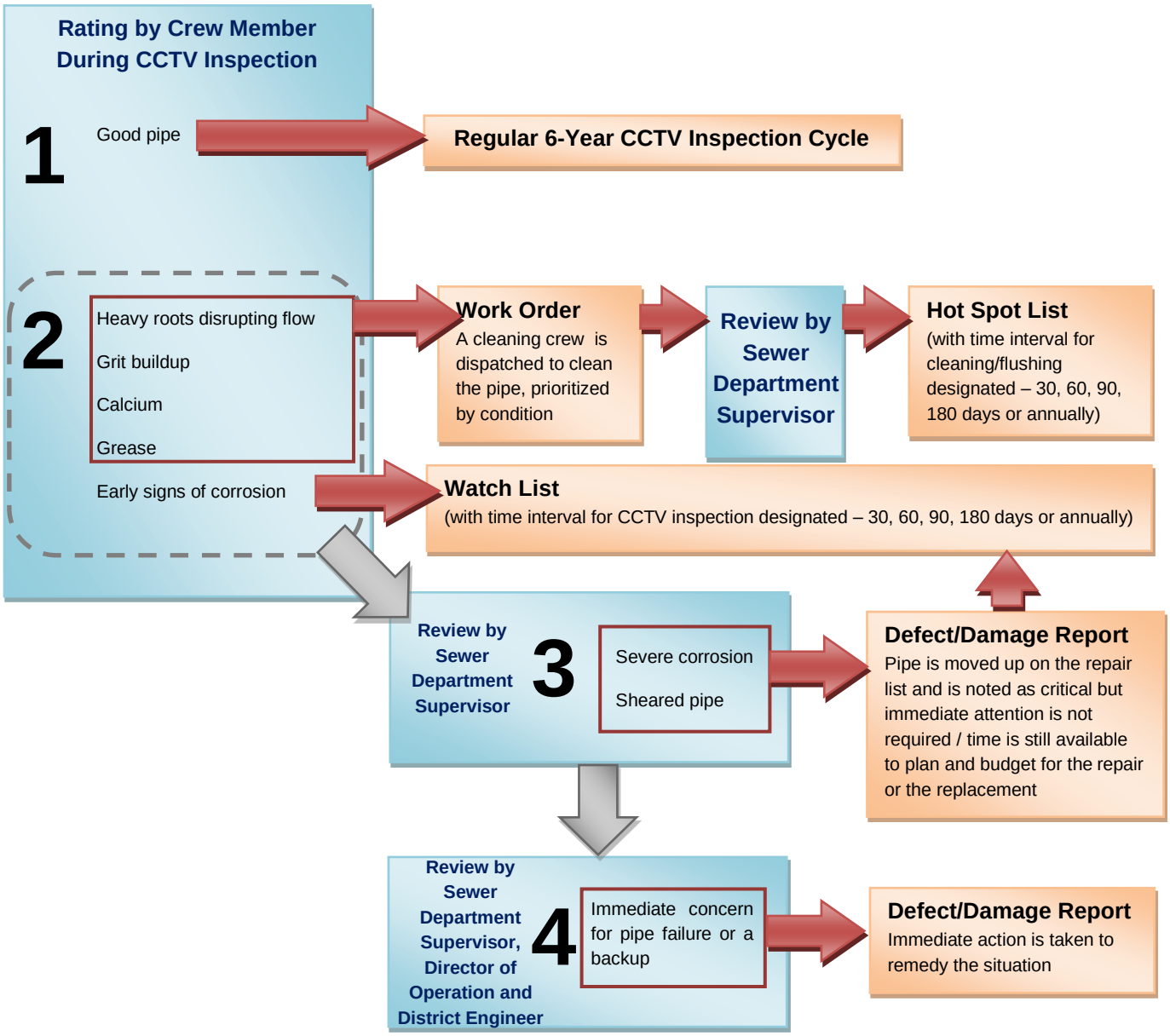
3.2 System CCTV Inspection

Closed Circuit TV inspections of the sanitary sewer system are used to assess pipe condition rating and identify lines that need to be cleaned. Generally, TBID will conduct CCTV inspection of lines less than 8” – 12” in diameter with its own staff, which represents approximately 85% of the system, and contract out inspection of lines 15” in diameter and larger. TBID does have the capability to inspect 15” and larger lines. The District typically performs CCTV inspection over the entire system in a period of 6 years, with a goal to move to a 4 to 5 year interval. “Hot spots” are CCTV inspected on an annual basis and sometimes more frequently to determine if the

maintenance approach is effective and/or to check up on its condition. The District conducts CCTV inspection every day and records the areas that have been inspected in the GIS system. Digital records are kept of all inspections.

A designated sewer crew employee inspects each line and gives it a rating according to the table below. For lines that have been CCTV inspected by a contractor, a digital record is submitted to the District and reviewed by the Sewer Supervisor.

Figure 2 – CCTV Inspection Rating System



If a line is determined to need cleaning due to heavy roots, grit building, calcium, grease or any other reason, such as nearby construction or a dumping situation, a work order (see Appendix C – Work Order Form) is generated during the CCTV inspection process. The lines needing work orders are reviewed by the Sewer Department Supervisor, who may elect to place a line with a roots or grease problem on the hot spot list so that it will receive regularly scheduled maintenance (as indicated above). When more serious damage is found by the sewer crew, such as sheared pipe or severe corrosion, the Sewer Department Supervisor will evaluate whether it should be designated as a "3" or "4" and generate a Defect/Damage Report (see Appendix D – Defect/Damage Report) for immediate action to remedy the situation or budget for it in the coming years.

The District maintains key statistical indicators to make sure that the amount of pipe inspected and cleaned aligns with the District's goals. These key indicators are assessed monthly by the Sewer Department Supervisor and reviewed by the Director of Operations and Maintenance and the General Manager.

Because the District maintains the CCTV records in a GIS/database format, a report of CCTV activities is easily generated each year for inclusion in the SECAP and SSMP reports.

3.3 System Cleaning

Historically, TBID cleaned the system line by line on a regular schedule, whether it needed it or not. After 25 years of this, it was determined that this was not the most effective method. In the last 15 years, TBID has instead taken the approach of systematically conducting CCTV inspection of the entire system, line by line, and then just cleaning the areas that need it. This has proven to be a more effective use of resources and results in a cleaner system.

Hot spots that are identified during CCTV inspection are assigned a cleaning interval, based on their condition and history – 30, 60, 90, 180 days or annually. The hot spots typically consist of areas associated with roots, grease and low spots where grit tends to accumulate.

TBID cleans 8" – 12" lines with their own staff and contracts out the cleaning of 15" and larger lines. TBID does have the ability to clean 15" and larger lines. Cleaning methods include hydraulic flushing and root saws. Chemical root control is also used. Each year a chemical root control company is contracted by TBID to come and treat any lines the crews designated with root problems. The sewer system cleaning activities are recorded in the TBID GIS system.

3.4 Pump Station/Pressure Line Inspection

TBID has two pump stations within their system. The pump stations are maintained daily by operators, including cleaning, greasing motors and couplings, and general observation that everything is running smoothly. If a problem is encountered that cannot be corrected by the operator, the Sewer Supervisor, System Controls Supervisor or System Controls Specialist is contacted to rectify the situation.

TBID has just 800 lineal feet of pressure line in this system. Included in this inspection is a visual observation of the pressure line alignment in order to insure there are no leaks.

If a problem occurs and has the potential to cause a sanitary sewer overflow, immediate action should be taken to ensure no overflow occurs. If a potential leak is identified the Sewer Department Supervisor should be notified immediatly for further action. An evaluation will be made to determine if there is an actual leak and appropriate action taken.

3.5 Critical Equipment List

The System Controls Supervisor has compiled a list of all the critical components needed to keep the 39th and Barrington Park lift stations operational. TBID has purchased spare parts or equipment for any item it has deemed critical to keep the sewer lift stations operational. The list is kept and updated by the System Controls Supervisor.

Figure 3 – Critical Equipment List

Equipment	Company	Phone Number and Notes
Generator	Wheeler Machinery	801-978-1571
50 HP TU Motor	Lakeside	Lavar Parish 630-837-5640
Parmax 9000 Gear Drive	Lakeside	Lavar Parish 630-837-5640
Coneay Upper Bearing	Lakeside	Lavar Parish 630-837-5640
Coneay Lower Bearing	Lakeside	Lavar Parish 630-837-5640
Tsurumi Pump Barrington Park	Lakeside	Lavar Parish 630-837-5640
PLC and Electrical Work	ID Electric	Lance Weeks 801-599-7790 Doug Edwards 801-455-8639
Crane Service	Wagstaff Crane	801-277-3820
Crane Service	Ivans Crane	435-671-2380

Construction Services	Corrio Construction	Brian White 801-864-4908

3.6 Manhole Inspection

Manhole inspection is conducted in conjunction with CCTV sewer line inspection on a 6-year system-wide inspection schedule. The manholes are inspected for surcharge and foreign objects/debris. Manholes are also evaluated for deterioration and overall condition of the structure, grade rings, loose brick, and general structural integrity as well as corrosion and condition of coatings. A manhole inspection form is completed for each manhole (see Appendix B – Manhole Inspection Form and Rating System). When a problem with a manhole is identified, a work order form is filled out and given to the Sewer Department Supervisor. All inspection records are retained for documentation of work performed in the GIS system. A manhole rehabilitation program was started in 2017 by the District. Manholes found with severe deterioration of the concrete walls are placed on a list. When the Sewer Department Supervisor determines enough manholes are available to be rehabilitated a contractor is hired to coat the inside of the manholes with an epoxy type coating.

3.7 Defect Reporting

Defect reporting is accomplished through the CCTV inspection rating system described in Figure 2 on page 10. As previously explained, items designated as a “2” in the rating system are placed on the hot spot list or watch list for more vigilant maintenance. For items designated as a “3” or “4”, the Sewer Department Supervisor prioritizes these items and makes recommendations to management to address immediately or in the coming years. Repair methods may include:

- Spot excavation repairs
- Spot band repairs
- Segment excavation replacements
- Segment lining
- Manhole rehabilitation

Unless additional capacity is needed, segment lining is generally the recommended repair. Each year, defect reports are used in the budget process to determine what financial allocation will be made in the next budget year. The District maintains a 20-year plan that earmarks funds for repairs and defects to ensure that there are adequate funds available in the future to make the corrections that are needed.

3.8 Collection System Damage

Collection damage may occur as a result of multiple factors, some identified as a result of inspection activities and some identified as a result of damage by third parties such as contractors. In such a case, the third party will be liable for costs resulting from the damage.

3.8.1 Damage Identification

The identification of system damage which may result in an SSO or basement backup is important to prevent environmental, public health, or economic harm. Identification of damage may be from either internal activities or external activities.

Internal activities which may result in the identification of damage include the following:

1. Collections maintenance activities
2. CCTV inspection activities
3. Manhole inspection activities

These three activities are discussed in this Maintenance Program and the identification of damage will result in the generation of a work order. Generally, damage identification is an iterative and continuous process.

External activities which identify damages include:

1. Contractor notification of damage
2. Directional drilling notification of damage
3. Public damage notifications

These notifications require immediate response. Staff should respond and evaluate the seriousness of the damage and the effect on the environment.

- Damages which include a release to the environment should be handled in accordance with the SORP.
- Damages which cause a basement backup should trigger the Basement Backup program.
- Damages which occur and remain in the trench should be minimal and do not require more action than a repair.

Whatever the cause of collection system damage, the response should be expeditious to prevent environmental or economic harm. District staff should consider all damages an emergency until it is shown by inspection to be a lower priority.

3.8.2 Damage Response Actions

When damages occur in the collection system, the following actions help define the path staff should take. These action plans are not inclusive of all options available but are indicative of the types of response that may be taken.

Stable Damage. Inspection activities may show a system damage which has been there for an extended period of time. Such damage may not require immediate action but may be postponed for a period of time. When stable damage is identified and not acted upon immediately, a defect report should be prepared. If such a defect is identified and repaired immediately, a defect report is not needed. An example of stable damage could be a major crack in a pipeline or a severely misaligned lateral connection where infiltration is occurring.

Unstable Damage. Unstable damage is damage which has a high likelihood that failure will occur in the near future. Such damage may be a broken pipe with exposed soil or a line which has complete crown corrosion. In these cases, action should be taken as soon as there is a time, a contractor, materials and other necessary resources available. When such unstable damage is identified, if possible, consideration should be given to trenchless repairs which may be able to be completed more quickly than standard excavation. Immediately after identification, the Sewer Supervisor should be notified.

Immediate Damage. Immediate damage is damage to a line that is no longer capable of functioning as a sewer line and must be handled immediately. Such damage allows untreated wastewater to pool in the excavation site, spill into the environment or possibly back up into a basement. Under such conditions priority will be given to an immediate repair. Since excavation damage may be a result of contractor negligence or it could be an oversight by TBID to adequately protect the line by appropriately following the Damages to Underground Utilities Statute 54-8A, priority should be given to effecting a repair and not to determining the eventual responsible party.

As is evidenced from the above action plans, priority should always be preventing SSOs and attendant environmental damage, to prevent basement backups and financial impacts, and to prevent public health issues.

4.0 SEWER DESIGN STANDARDS

Included in Appendix A are the sanitary sewer design standards for TBID. These design standards are intended to be used in conjunction with Utah Administrative Code R317-3. Where a conflict exists between these two standards, the Administrative Code shall prevail. These Sanitary Sewer designs may be updated from time to time. For the most up to date Sewer Design Standards refer to the TBID website at www.tbid.org.

5.0 SEWER OVERFLOW RESPONSE PLAN

Whenever sanitary sewage leaves the confines of the piping system, immediate action is necessary to prevent environmental, public health or financial damage from occurring. In addition, quick action is normally needed to mitigate damage which may have already occurred. For the purpose of this section, the following are part of the emergency action plan.

- Basement backups
- Sanitary sewer overflows
- Sanitary sewer breaks which remain in the trench
- Sewer lateral backups

All of the above conditions are likely to cause some damage. Each should be treated as an emergency, and corrective actions taken in accordance with TBID directions.

Basement backups and sanitary sewer overflows should be reported immediately based on whether they constitute a Class 1 or Class 2 SSO. As stated in the definition section of the SSMP Introduction, a Class 1 SSO is an overflow which affects more than five private structures; affects a public, commercial or industrial structure; results in a significant public health risk; has a spill volume more than 5,000 gallons; or has reached Waters of the State. All other overflows are Class 2 SSOs. All Class 1 SSOs should be reported immediately. Class 2 SSOs should be documented and reported in the annual SSMP report and included in the "Municipal Wastewater Planning Program Annual Report" submitted to the State.

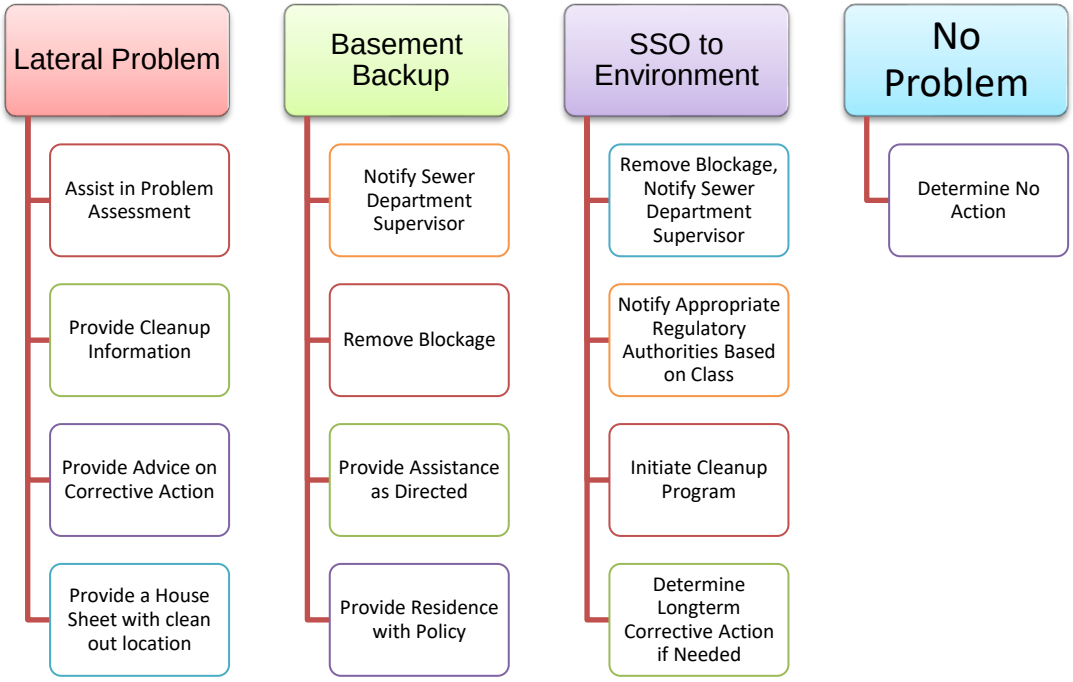
Sanitary sewer breaks which remain in the trench may be reported to the local health department if, in the opinion of the responsible staff member, there is potential for a public health issue. An example of where a public health issue may be present is when an excavator breaks both a sewer and a water line in the same trench. In such cases, the local health department representatives should be contacted and the situation explained. If the health representative requests further action on the part of the TBID, staff should try to comply. If, in the opinion of the responsible staff member, the health department request is unreasonable, management should be immediately notified. Care should always be taken to error on the side of protecting public health over financial considerations. When a basement backup occurs, the staff member responding should follow the "Basement Backup Program" procedures.

Lateral backups, while the responsibility of the property owner, should also be treated as serious problems. Care should be taken to provide advice to the property owner in such cases, but the property owner is ultimately the decision maker regarding what action should be taken.

5.1 Response Activities

There are specific steps that should be followed once a notification is received of an overflow. The following figure outlines actions that could be taken by a sewer crew when TBID receives notice that a possible overflow has or is occurring.

Figure 4 – Action Taken By Sewer Crew upon Notification of SSO



When a Class 1 SSO occurs, specific notification requirements are needed. In such cases the following notification procedure should be followed and documented. Failure to comply with notification requirements is a violation of Utah Administrative Code R317-801.

5.2 Agency Notification Requirements

Both the State of Utah Division of Water Quality and the local health department should be immediately notified when an overflow is occurring. Others that may require notification include local water suppliers and affected property owners. Notification may be required to Utah Division of Emergency Response and Remediation if hazardous materials are involved. The initial notification must be given within 24 hours, however, attempts should be made to notify them as soon as possible. A notification form is provided on page 20 to document notification activities. After an SSO has occurred and cleanup completed, a written report of the event should be submitted to the State DEQ within five days (unless waived). This report should be specific and

should be inclusive of all work completed. If possible, the report should also include a description of follow-up actions such as modeling or problem corrections that has or will take place.

5.3 Public Notification

When an SSO occurs and the extent of the overflow is significant and the damage cannot be contained, the public may be notified through proper communication channels. Normally the local health department will coordinate such notification. Should management of TBID need to provide notification, it could include press releases, publication in an area paper, and leaflets delivered to homeowners or citizens in the area of the SSO. Notification should be sufficient to ensure that the public health is protected. When and if federal laws are passed concerning notification requirements, these legal requirements are incorporated by reference in this document. In general, notification requirements should increase as the extent of the overflow increases.

5.4 Overflow Cleanup

When an overflow occurs, care should be taken to clean up the environment to the extent feasible based on available technology. Cleanup could include removal of contaminated water and soil saturated with wastewater and toilet paper, disinfection of standing water with environmentally adequate chemicals or partitioning of the affected area from the public until natural soil microbes reduce the hazard. Cleanup is usually specific to the affected area and may differ from season to season. As such, this guide does not include specific details about cleanup. The responsible staff member in conjunction with the State DEQ, the local health department and the owner of real property should direct activities in such a manner that they are all satisfied with the overall outcomes. If, during the cleaning process, the responsible staff member believes the State or the County is requesting excessive actions, the Director of Operations and Maintenance should be contacted.

5.5 Corrective Action

All SSOs should be followed up with an analysis as to cause and possible corrective actions. An SSO which is the result of grease or root plug may be placed on the hot spot list for more frequent cleaning. Serious or repetitive plugging problems may require the reconstruction of the sewer lines. An overflow that results from inadequate capacity should be followed by additional system modeling and either flow reduction or capacity increase. If a significant or unusual weather condition caused flooding to be inadvertently introduced into the sanitary sewer system, the corrective action may include working with other agencies to try to rectify the problem. Finally, if a problem is not anticipated to reoccur, no further action may be needed.

Table 1 –SORP Log of Contact with Other Agencies/People

Location of SSO:_____ Date of SSO: _____

Agency	**Phone Number**	**Contact Made** (Yes/No)	**Time**	**Remarks**
Utah DWQ	(801) 536-4300			
Salt Lake Valley Health Department	(385) 468-8888 (24-hour hotline)			
Utah DERR Environmental Incidents	801-536-4123			
Unified Police Department	(801) 743-7000 (non-emergency)			
Unified Fire Authority	(801) 743-7200 (non-emergency)			
Applicable Water Agency				
US EPA Region VIII	Consult with DWQ			

Other Contacts:

Contact Made With:	**Phone Number**	**Contact Made** (Yes/No)	**Time**	**Remarks**

6.0 GREASE, OIL AND SAND MANAGEMENT PROGRAM

6.1 Purpose

The purpose of this program is to provide for the control and management of grease, oil and sand discharges for two reasons: first, so it can pass through the Central Valley Water Reclamation Facility (CVWRF) treatment plant without disruption and secondly, and to reduce interference or blockages with the TBID collection system operation.

6.2 Regulatory Authority:

Regulatory authority to implement this program is found in the Code of Federal Regulations in 40 CFR 403, General Pretreatment Regulations. State authority for the program is given in the Utah Administrative Code R317-8-8, Pretreatment.

6.3 Central Valley Water Reclamation Facility

Wastewater from TBID is collected and treated by Central Valley Water Reclamation Facility (CVWRF). CVWRF is responsible for the implementation of the approved Pretreatment Program. The CVWRF Pretreatment Coordinator, in coordination with the TBID District Engineer and TBID Sewer Supervisor, performs the following:

- Reviews new development in categorical industries and may make special pre-treatment requests.
- Periodically conducts a windshield survey of the District to ensure that all establishments in categorical industries are accounted for in the Pretreatment Program.

Due to CVWRF's capacity to handle fats, oils, grease and sand at the treatment facility, limits have not been imposed due to treatment limitations.

- CVWRF does surcharge TBID for total suspended solid, biochemical oxygen demand, and oil and grease.
- TBID passes that cost on to users who have excessive limits to minimize wear and tear on the system.
- TBID requires Pretreatment in accordance with the Central Valley Pretreatment Coordinator and Building and Plumbing Code.

6.4 Reduce Interference with Collection System Operation

TBID is responsible to ensure that there are no blockages or flow restrictions within their infrastructure that are caused by fats, oil and grease. TBID uses the Cost Recovery Program as an enforcement mechanism. As part of this program, the biochemical oxygen demand (BOD) and total suspended solids (TSS) of wastewater from commercial and industrial establishments are sampled and monitored. They are assessed a fee based on the BOD and TSS levels beyond

those of an average residence. The increased fee for higher levels of BOD and TSS serve as incentive for establishments to reduce the grease, oil and fat in their wastewater.

6.4.1 Cost Recovery Program Implementation:

As stated in the District's Wastewater Rules and Regulations, industrial and other users who discharge conventional pollutants may be subject to the imposition of surcharges and require monitoring to determine the appropriate cost recovery charges.

6.5 List of Acceptable Entities That Recycle Oil and Grease

The Utah Department of Environmental Quality (DEQ) maintains a list of entities that collect used oil. This list is available to all users who operate a grease trap. To find a used oil collection center nearest you, call the Utah Department of Health Used Oil Hotline Phone Number: 1-800-458-0145. Additionally, the Salt Lake County Health Department and Utah DEQ websites contain valuable information on used oil and its disposal:

www.slcohealth.org/programs/waterqualhazwaste/solidHazWaste/usedOil.html

www.hazardouswaste.utah.gov/Used_Oil_Section/UsedOilSection.htm

Figure 5 – List of entities that collect used oil

Company Name	Used Oil Permit #	Phone #
Rock Canyon Oil, LLC (801) 756-2000	UOP-0123	(801) 756-2000
Tri-State Oil Reclaimers Inc.	UOP-0135	(307) 349-0116
Thermo Fluids Inc.	UOP-0010	(253) 278-4110
Safety-Kleen Systems Inc.	UOP-0050	(801) 975-0742
Clean Harbors Environmental Services Inc.	UOP-0091	(801) 750-4080
Emerald Services Inc.	UOP-0084	(801) 596-4801
Sump And Trap Cleaning Inc.	UOP-0042	(801) 595-8151

7.0 SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

TBID believes that one of the keys to preventing sanitary sewer overflows is to evaluate system capacity and to monitor flows throughout the system in order to ensure that capacities are not exceeded. TBID's philosophy and practice has been to design the system with capacity such that surcharging has been a rarity over the past 50+ years. The following elements are all part of TBID's SECAP program:

1. Master Planning and Capacity Evaluation
2. Flow Monitoring
3. Surcharge Flow Analysis
4. System Improvement Prioritization
5. Capital Improvement Plan

7.1 Master Planning and Capacity Evaluation

TBID maintains a Sewer Master Plan that assesses existing and future capacity and recommends upgrades to the sewer system. Updates to the master plan contain an analysis of flow monitoring data, verification of flows, modeling of the sewer system, comparison to the field data from the previous master plan, and prediction of future flows due to development or redevelopment. Based on this, future deficiencies are identified and projects to correct the deficiencies are recommended.

The projects recommended in the Sewer Master Plan are prioritized and scheduled by year in the TBID 20-Year Plan that is updated annually. Capital funds are set aside to complete the recommended projects each year.

Periodically, a detailed study of a portion of the sewer system is completed as the need arises. This could be in response to proposed new development or to assess in greater detail a deficiency identified in the Sewer Master Plan. Such a study may include flow monitoring, field survey to verify pipe sizes and slopes, prediction of future flows, flow modeling, recommended solutions, and cost estimates.

Systems requiring additional capacity are designed for expansion based on acceptable engineering standards which comply with State of Utah regulations found in R317-3. Easements are obtained where needed and the design includes an analysis of other utilities in the vicinity that may be affected. Design review is done by the applicable regulatory agency, as appropriate.

7.2 Flow Monitoring

In the past, TBID has periodically monitored flows as part of master plan updating or a detailed study of a portion of the sewer system. The District will continue to monitor flows at various

locations throughout the system. Flow monitoring data will be used to assess capacity and to establish peak flow rates and peaking factors at different points in the system.

7.3 Surcharge Flow Analysis

If any collection subsystem is identified as having any of the following problems the system will be evaluated to determine future action. These problems are:

1. Sanitary Sewer Overflow to the Environment
2. Sanitary Sewer Break Remaining in the Trench
3. Basement Backup
4. Observed System Surcharging

Surcharges are rare in TBID's system, through continued monitoring and surveying to identify potential problems and correct them well in advance of ever reaching surcharge conditions. However, if a surcharge were to occur, a flow evaluation would be conducted. Possible conclusions and their further action are listed below. This list is not inclusive nor does it require the specific action detailed. These are given as possible examples and will be used by management to determine corrective action. If the appropriate action is determined to be a capacity increase, the project will be placed on the CIP list.

7.3.1 Flow Reduction Evaluation

Should excessive flows be identified during the surcharge analysis, the solution may be to proceed with an inflow and infiltration study with the ultimate goal of reducing flows. These flow reductions may be achieved by reconstruction of specific areas, internal spot repairs, removing illegal storm water or sump pump connections from homes or storm water systems, and system grouting. Tools used in flow reduction may include extensive in line camera inspection, smoke testing, dye testing, and increased inspection or flow monitoring. It should be noted, however, that even though inflow and infiltration is certainly a reality to some extent within TBID's system, it has not been a critical problem.

7.3.2 Foreign Objects or Obstructions

There are multiple foreign objects or obstructions which may be found in sewers. These may include objects knocked into sewers during construction, illegally placed in sewer manholes, roots, grease and soaps, bellies in piping systems, etc. Each of these problems should be found during the investigation and a plan developed to ensure the problem does not reoccur. Types of action may include increased cleaning frequency, spot repairs, greater pretreatment activity, lining of pipes, and other corrective actions which resolve the problem.

7.3.3 Allowable Surcharging

Some piping systems may be able to accept surcharges without creating problems. Such systems may be deep and surcharging occurs below the level of basements or manhole rims, or they may be in areas where there are no connections. In such cases the resolution of the observed surcharge may just be additional monitoring.

7.3.4 Revised System Modeling

Where piping system problems cannot be resolved in a less expensive way, the system may be further modeled to determine upgrade needs. Modeling should include known flow information and future projections.

7.4 System Improvement Prioritization

As mentioned previously, sewer projects are prioritized in TBID's 20-Year Plan, which is updated annually. The priority for improvement should follow the following general guidelines:

7.4.1 High Priority Projects

When there is significant potential for sanitary sewer overflows, or frequent basement backups, the improvement should be considered a high priority and funds allocated immediately to the project.

7.4.2 Medium Priority Projects

Where the problem is infrequent and the possibility exists that it may not repeat in the near future, the priority for correction is medium. Medium priority projects may be scheduled when sufficient budget is available. Should an SSO or basement backup repeat in the same area, the priority should be reclassified to high priority.

7.4.3 Low Priority Projects

Low priority projects are those that are infrequent, have a possibility to not repeat in the near future and the increased flow in the system is minimal. Low priority projects will be placed in the budget process and evaluated against other needs.

7.5 Capital Improvement Plan

The CIP is part of the TBID's budgeting process to insure sufficient revenue to address identified weaknesses in the sanitary sewer system. Items which have been identified as needing repair or replacement are placed on the CIP list and the cost for each estimated. Sources of funding should be identified for all high priority projects so that SSOs and other deficiencies do not re-occur. Forecasts of available funding for medium and low priority projects should be made to facilitate future revenue needs.

8.0 BASEMENT BACKUP PROGRAM

Basement backups are a serious impact on a home or business owner. As such, all reasonable efforts should be taken to prevent such backups from occurring. Sewer system backups are the result of several system problems. Such problems include any one or a combination of the following:

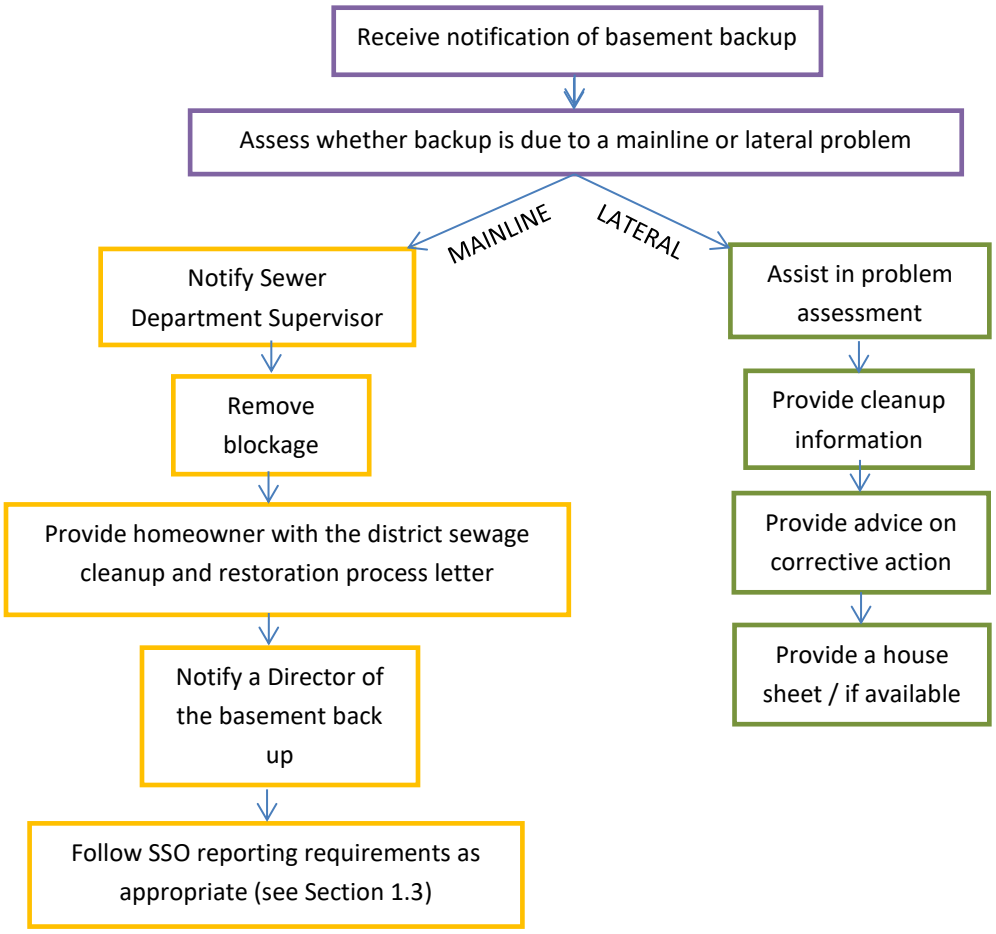
1. Laterals serving real properties are owned by the property owner and lateral maintenance is their responsibility. Roots, low points, structural failure, and grease are primary problems lateral owners face.
2. Backups caused by main line plugs are usually caused by roots, grease, low points, foreign objects and contractor negligence.
3. Piping system structural damage may cause basement backups. Such structural problems include deterioration, installation, excavation and trenchless technology damage.
4. Excess flow problems may surcharge a piping system and cause backups into homes. Excess flows usually occur when major storm waters enter into sanitary sewers not designed for such flow. In addition, some homeowners may illegally connect foundation drains and sump pumps to the sanitary sewer system.

8.1 Basement Backup Response

When TBID is notified about a basement backup, staff will record the complaint on the customer account, then generate a work order and/or contact sewer department.

All complaints of backup shall be investigated. If the investigation determines that the cause of the backup is only in the lateral of the homeowner or business, staff may offer technical information to the effected party but should not take responsibility for cleanup or subsequent restoration.

Figure 6 – Action Taken by Sewer Crew upon Notification of Basement Backup



When it is determined that the basement backup is the result of a mainline problem, TBID will remove the blockage and follow the policy approved by its governing authority. The homeowner or business will be provided with the District Sewage Cleanup and Restoration Process Letter (see Appendix G -- Sewage Cleanup and Restoration Process Letter). It should be noted that all action TBID takes are on a no-fault basis. TBID does not accept liability nor does it waive its governmental immunity.

8.2 Backup Prevention Design Standard

TBID promotes system designs which minimize backups and insure proper operations. To this end TBID has a design standard for all system construction. In addition, TBID complies with state design standards contained in Utah Administrative Code R317-3. For laterals, the following

policy applies: a lateral is considered homeowner's property and is their responsibility to maintain it to the point where it connects to the district's sewer.

8.3 Policy on the Installation of Backflow Valves

8.3.1 Reference Regulatory Documents:

Taylorsville City is the enforcing entity for installation of backflow valves. The following regulations are referenced in the establishment of this policy:

- Utah Code Title 15A-2-103(c). This code section adopts the current edition of the International Plumbing Code.
- The 2018 International Plumbing Code, section 715 Sewage Backflow.

8.3.2 Taylorsville City Policy:

- The State of Utah has adopted the International Plumbing Code (IPC) as its plumbing building standard;
- City of Taylorsville use the IPC as their statute for plumbing construction and installation;
- And the IPC requires the installation of a sewage backwater valve "where the overflow rim of the lowest plumbing fixtures are below the next upstream manhole in the public sewer."

Therefore, for new construction, Taylorsville City requires the installation of backwater valves as stipulated by the IPC already propagated for all new construction.

8.4 No-Fault Sewage Backup Claims Program

TBID adopted a No-Fault Utility Claims Policy. The policy is included herein in Appendix E and may be modified as needed.

9.0 SSMP MONITORING AND MEASUREMENT PLAN

9.1 Purpose:

The purpose of this plan is to provide appropriate monitoring and measurement of the effectiveness of the SSMP in its entirety.

9.2 Records Maintenance

TBID intends to maintain appropriate records on operations and maintenance of the sanitary sewer system to validate compliance with this SSMP. However, failure to meet standards set by State DWQ or other regulatory agency during an inspection does not constitute a violation of the SSMP. Rather, deficiencies identified during inspections should be viewed as an opportunity for improvement.

9.3 Operations Records

Operations records that should be maintained include the following:

- Daily cleaning records
- CCTV inspections records
- Manhole inspection records
- Hot spot maintenance list
- Spot repairs
- Major repairs
- System capacity information
- SSO or basement backup records including notification documents to appropriate agencies (call logs, etc.)
- Capital Improvement Plan

Records will be maintained by the Sewer Department Supervisor in a central location. Records may be maintained either on an electronic record or as a paper record. The extent of the record should be sufficient to demonstrate the activity recorded was completed appropriately.

9.4 Performance Measurement (Internal Audit)

An internal audit report should be prepared annually which comments on the following:

- Success of the operations and maintenance program
- Success of other SSMP elements
- Adequacy of the SECAP evaluations
- Discussion of SSOs and the effectiveness of the response to the event including corrective action
- Review of Defect reports and adequacy of response to eliminate such defects
- Opportunities for improvement in the SSMP or in SSO response and remediation

The annual audit report need not be extensive or long. It should, however be sufficient to document compliance with the standards set in the SSMP. The audit reports should be maintained in accordance with TBID's records retention schedule.

9.5 SSMP Updates

When a plan deficiency is identified through an audit, inspection or plan review, and the deficiency requires an SSMP update, the plan may be updated at the discretion of the District management. SSMP updates should be recorded in a revision index on page ii of this document.

9.6 SSO Evaluation and Analysis

At least annually in the internal audit and more frequently as needed, TBID will evaluate SSO trends based on frequency, location and volume.

9.7 Public Communication and Outreach

TBID may reach out to the public about the development, implementation and performance of the SSMP. This communication may be accomplished by any of the following methods:

- Public hearings
- Public meetings
- Newsletters
- Direct mailing
- Leaflets
- Other effective methods
- District website

TBID will accept comments, either written or verbal and will review such comments for applicability. Public interest may be difficult to generate, but should be sought, none-the-less.

10.0 DWQ REPORTING REQUIREMENTS

In Utah Administrative Code R317-801-4, it states that a permittee shall submit to DWQ a USMP annual operating report covering information for the previous calendar year by April 15 of the following year. It is the understanding of the District that this report is required to contain a brief summary of collection system activities, changes, improvements and all leaks, spills, fish kills or other “adverse incidents” or any other violation of the Utah Clean Water Act.

TBID uses the Municipal Wastewater Planning Program (MWPP) Annual Report to fulfill this requirement. TBID also fills out and reviews an SSMP Annual Operating Report for its own records.

APPENDIX A:
Sewer Design Standards

APPENDIX B:

TV Survey Report and Manhole Inspection Form and Rating System

APPENDIX C:
Work Order Form

APPENDIX D:
Defect/Damage Report

APPENDIX E:

No Fault Utility Claims Policy

APPENDIX F:
Backup Agreement

APPENDIX G:

Sewage Cleanup and Process Restoration Letter

APPENDIX H:

Sewer System Management Plan (SSMP) Annual Operating Report for TBID

APPENDIX I:

Municipal Wastewater Planning Program (MWPP) Annual Report for the DWQ

APPENDIX J:

TBID Wastewater
Rules and Regulations
(Sewer Ordinance)

Appendix D

Construction

WEST VALLEY CITY
Engineering

Development Pre-Construction Meeting Agenda

Date:		Time:	
Project:		Project #:	
Contractor:			
Address:		Phone(s):	

1. Contractor Project Representative: _____
2. 24 Hr. Emergency Contact Number(s): _____
3. City Inspector: _____
4. Assistant City Engineer: _____
5. SWPPP Inspector: _____
6. Street Lights: _____
7. West Valley City Engineering Standards:

   http://www.wvc-ut.gov/1592/West-Valley-City-Engineering-Standards

8. Utility Coordination:
   a. Water and Sewer District:
   b. Utopia:

9. Contractor Submittals:

SUBMITALS REQUIRED 48 HOURS BEFORE CONSTRUCTION BEGINS
WVC APPROVAL REQUIRED

   a. Traffic Control Plan
   b. Materials – **See Engineering Standards Part 6: General Construction Requirements**
      i. Fill Material – Sieve Analysis/Soil Classification/Proctor

ii. Asphalt – Mix Design
iii. Concrete – Mix Design
iv. Storm Drain – Pipes, Boxes, Inlets, Pipe Zone Material (Per APWA 382, or gravel with Geotextile Fabric – See Engineering Standards)

10. Permits:
    a. Right-of-Way Permit – (pwpermits@wvc-ut.gov)
    b. Storm Water Management Permit – Long Term

11. Storm Water Pollution Prevention Plan (SWPPP)
    a. Verify NOI issued from State
    b. Verify WVC Storm Water Management Permit – Construction Period
    c. Identify Contractor Environmental Control Supervisor (ECS)
        i. Name: _____
        ii. Phone: __(_____)_____-_____.
    d. Review SWPPP
    e. UPDES Inspections - UPDES Inspections will take place at a minimum once a month during the active construction progression.
    f. **This is your only warning! Citations will be issued for failure to comply with SWPPP or city ordinance.**

12. Inspection & Testing: **Must schedule 24 hrs. in advance (963-3318).**

13. Contract Plans & Specifications – **Per West Valley City/ APWA Standards**

WE HAVE REVIEWED THE ITEMS OF THE PRECONSTRUCTION MEETING AGENDA AND THEY HAVE BEEN EXPLAINED TO ME BY A WEST VALLEY CITY REPRESENTIVE.

_____ Date:_____

_____ Date:_____

_____ Date:_____

Inspection Scheduling Questions

Note: If contractor is unable to answer all questions listed below, no inspection shall be scheduled.

1. **Project Name** (This should include: Subdivisions, Developments, Permits, and City Projects).
2. **Contractor Company Name and Phone Number.**
3. **Name and phone number of person scheduling the inspection** (this person must be the responsible party at the jobsite).
4. **Type of Inspection** Concrete pour, compaction testing, subgrade deflection testing, storm drain pipe placement, trench backfill i.e. sewer, water, storm drain – mainline or lateral.
5. **Location of inspection site.**
6. **Permit Number (if applicable). (Example: PGEX 3201) Permit Number must be accompanied by all the information listed above!**

   Remember: All inspections required a 24 hour notice and cancellations require notification (801-963-3318)

WEST VALLEY CITY
Engineering

Attendance Roll

Pre-Construction Meeting

Date:		Time:	
Project:			

PLEASE PRINT

Representative Name	Company	EMAIL	Phone(s) & Fax

Appendix E

Long Term Management

RSW/RSI Certifications
Storm Water permit via online portal, https://pllportal.wvc-ut.gov/portal
Inspections available by request via Cityworks

Certified

under the direction of

The Utah Chapter of the American Public Works Association

and the

Utah Storm Water Committee

in coordination with the

State of Utah Department of Environmental Quality, Division of Water Quality

Ryan Ramirez

has passed the competency examination, and met all further requirements, to qualify as a

Registered Storm Water Inspector

M. Scott Bird, USWAC Chair

Jun 30, 2026

Expires

Certified

under the direction of

The Utah Chapter of the American Public Works Association

and the

Utah Storm Water Committee

in coordination with the

State of Utah Department of Environmental Quality, Division of Water Quality

Randall Petersen

has passed the competency examination, and met all further requirements,
to qualify as a

Registered Storm Water Inspector

M. Scott Bird, USWAC Chair

Jun 30, 2026

Expires

Certified

under the direction of

The Utah Chapter of the American Public Works Association

and the

Utah Storm Water Committee

in coordination with the

State of Utah Department of Environmental Quality, Division of Water Quality

Tim Bleazard

has passed the competency examination, and met all further requirements,
to qualify as a

Registered SWPPP Writer

M. Scott Bird, USWAC Chair

Sep 30, 2025

Expires

Certificate of Completion

RSW-RSR Certificate

for

MICHAEL FERGUSON

Presented by Registered Storm Water
August 13, 2025

Expires August 13, 2027

Appendix F

Good Housekeeping

West Valley City
Public Works Project Storm Water Quality Evaluation

Date: _____

Project Name: _____

Project Number: _____

Design Engineer: _____

Project Description:

Is the project within a watershed that is 303(d) listed? _____

If yes:

Name of receiving water(s): _____

Listed Impairment(s): _____

Does the watershed have an approved TMDL? _____

If yes:

Approved TMDL(s): _____

Project Information

Type of Project (New Construction, Reconstruction, Drainage): _____

Area of Land Disturbance (ac): _____

Subsurface Information

Depth to Groundwater (ft): _____ Historical High Depth to Groundwater if known (ft): _____ Source: _____ Groundwater Contamination at Site? _____	**Soil Information** Infiltration Rate (in/hr): _____ Hydrologic Soil Group: _____ Source: _____ Soil Contamination at Site: _____

Drinking Water Within Drinking Water Source Protection Zone? _____	**Additional Relevant Site Information:**

West Valley City
Public Works Project Storm Water Quality Evaluation

Structural Control Evaluation:

Structural Control:	Used on project?	Comments:
Rainwater harvest and reuse		
Rain Garden		
Bioretention Cell		
Bioswale		
Vegetated Strip or Swale		
Tree Box Filter		
Infiltration Basin		
Infiltration Trench		
Dry Well		
Underground Infiltration Galleries		
Minimize impervious area		
Preserve natural areas undisturbed		
Reduce directly connected impervious area		
Hydrodynamic separator		
Baffled Vault Systems		
Sediment Traps		
Drop Inlet Insert		
Trash Rack		
Revegetation or Soil Stabilization		
Oil and Suspended Pollutant Removal		
Pervious Pavement		

West Valley City Public Works Department - Evaluation of Existing Flood Control Facilities	
Existing Structural Controls Evaluation	**Potential Water Quality Changes (evaluated 2019)**
Riter Canal Detention Basin	Create Bioswale to treat low flows
Highbury Riter Canal control structure and lakes	Trash Removal improvements
Granger Elementary Detention Basin	Trash Removal improvements
Holder Drive Detention Basin	Improve sediment removal and installation of low water use landscape to eliminate need for sod maintenance.
Meadowlands Detention Basin	Constructed settling pond and bio swale. Additional improvements after UDOT expansion of pond.
4100 South 6000 West Detention Basin	Improve infiltration basin (doesn't drain quickly)
Terrace Ridge Park Detention Basin	Continue maintenance of Hydro dynamic separator
Vistas Detention Basin (6000 West 4300)	Continue removal of trash. Installed low water plants.
Westview Park Detention Basin	Improve sediment removal
Cottonwood Pond	Cleanup project and wetland planting project performed. Continue maintenance.
Sugar Plum/Hunter Village Detention Basin	Trash Removal improvements
Metro Park Pond	Designed pond improvements. Not built due to lack of funding.
Decker Lake (Salt Lake County Flood Control Facility)	
Back Nine Desilting Structure	Potential CMP Failure
Desilting Structure - 4400 West 2900 South	
Desilting Structure - 4500 West 2900 South	

City Owned or Operated Facilities

City Buildings

- ✓ City Hall – 3600 S. Constitution Blvd.
- ✓ Fire Stations
  - Station 71 – 4160 South 6400 West
  - Station 72 – 4100 South 4314 West
  - Station 73 – 2834 South 2700 West (including training facility)
  - Station 74 – 5545 West 3100 South
  - Station 75 – 3660 South 1950 West
  - Station 76 – 5372 Upper Ridge Road
- ✓ Public Safety/Justice Court Building – 3575 S. Market St.
- ✓ Harman Home – 4090 South 3600 West
- ✓ Utah Cultural Celebration Center – 1355 West 3100 South
- ✓ Family Fitness Center – 5415 West 3100 South
  - Centennial Pool
- ✓ Animal Shelter/Housing Authority – 4522 West 3500 South
- ✓ Public Safety Storage Yard – 5900 West 5400 South
- ✓ USANA Amphitheatre Parking Lots – 5150 South 6055 West
- ✓ West Sub Station – 5300 West 3100 South
- ✓ West Valley City Courts – 3590 Constitution Blvd
- ✓ Parks Operations Facility – 6750 West Parkway Blvd
- ✓ Public Works Operations Facility – 2805 South 3600 West
- ✓ Police Department Headquarters – 3577 South Market Street
- ✓ Fairbourne Station Parking Structure – 3500 South Market Street

City Owned Buildings Operated by Others These are also (Operated by City Employees)

- ✓ The Maverik Center – 3200 S. Decker Lake Dr.
- ✓ Harman Hall– 3333 S. Decker Lake Dr.

Golf Courses

- ✓ Stonebridge – 4415 Links Dr.
- ✓ West Ridge – 5055 S. Westridge Blvd.

City Parks

Back Nine Park 4105 West 3010 South	Kings Pointe Park 1330 West Rothchild Dr. (3665 South)
Bridle Farms Park 6690 W. Hunter View Dr.	Maple Meadows Park 2520 West 3380 South
Centennial Park 5405 West 3100 South	Meadow Lands Park 3350 South 5800 West
City Park 4500 West 3500 South	Parkway Park 3405 West Parkway Blvd. (2700 South)

Country Meadows Park 4175 West 3980 South	Peachwood Park 3510 West 3965 South
Fairbourne Station Promenade Park 2905 W Lehman Ave.	Scottsdale Park 3755 West 3100 South
Falcon Crest Park 4055 South 7060 West	Sugar Plum Park 3755 West 2900 South
Fassio Farm Park 3720 South 5200 West	Terrace Ridge Park 6260 W. Terrace Ridge Dr. (4365 South)
Fox Tail Park 6880 W. Terrace Ridge Dr. (3045 South)	Trailblazer Park 3164 S. Trailblazer Cove (6675 South)
Glenn Weaver Memorial 6380 Cape Ridge Lane	Trax Plaza 2753 West 3600 West
Grand Vista Park 4534 South 6000 West	Utah Cultural Celebration Center Park 1355 West 3100 South
Hunter Ridge Park 4383 South 5710 West	West View Park 6050 West 4100 South
Hunter Village Park 6985 W. Hunter Valley Dr. (3215 South)	Wheatland Park 4266 South 3680 West
Hunter Village Trailhead Park 3410 S. Hunter View Dr	Woodledge Park 5210 West 4310 South
Ironwood Park 4565 South Early Duke St. (5080 West)	Utah Veterans Memorial Park 3234 South Cultural Center Drive

Trails Maintained by West Valley City

- Hunter Village I Trail – 6750 West 3500 South
- Hunter Village II Trail – 3410 S. Hunter View Dr.
- Hunter Village IV Trail – 6830 West 3100 South
- Sugar Plum Farms I Trail – 7200 West 2940 South
- Sugar Plum Village II Trail – 3755 West 2900 South
- Mountain View Corridor Trail
- Cross Towne Trail
-

Other Open Spaces

- 6200 South Streetscape – 5881 West – 6441 West
- 2700 West 4100 South Intersection
- 3900 South Entrance Sign Area – 1176 West 3900 South
- 2200 South and Bangerter Entrance Sign
- Interstate 215 and 3500 South Exit – Northeast Quadrant
- 3500 South 2200 West Streetscape
- Hunter Village Phase 18 Frontage – 2700 S. Hunter Crest Dr.
- SR-201 and Redwood Road Interchange
- SR-201 and Bangerter Highway Interchange
- City Center Court Islands
-

<u>Storm Water Controls</u>

- Cottonwood Pond – 1200 West 3300 South
- Granger Elementary Basin – 2200 West 3700 South
- Holden Basin – 5120 West 4100 South
- Sugar Plum/Hunter Village Basin – 6950 West 2700 South
- Meadowland Basin – 5990 West 3000 South
- Metro Pond – 1400 West 2200 South
- Vistas Basin – 6000 West 4400 South
- Dalmatian Drive Desilting Structure
- Riter Structure
- Terrace Ridge Orifice Plate Outfall
- Back Nine Desilting Structure
- Lake Park Outfall
    - Desilting Structure - 4400 West 2900 South
    - Desilting Structure - 4500 West 2900 South

Pollutant Potential Assessment of City Owned Facilities

				Potential Pollutants			
City Owned or Operated Facilities	**Location**	**Department Responsible**	**Division Responsible**	**Trash**	**Parking Lot Runoff**	**Onsite Landscape Maintenance**	**Fueling**
City Hall – 3600 S. Constitution Blvd.		Public Works	Facilities	1	1	1	
Fire Station 71 – 4160 South 6400 West		Public Works	Facilities	1	1	1	
Fire Station 72 – 4100 South 4314 West		Public Works	Facilities	1	1	1	
Fire Station 73 – 2834 South 2700 West (including training facility)		Public Works	Facilities	1	1	1	
Fire Station 74 – 5545 West 3100 South		Public Works	Facilities	1	1	1	
Fire Station 75 – 3660 South 1950 West		Public Works	Facilities	1	1	1	
Fire Station 76 – 5372 Upper Ridge Road		Public Works	Facilities	1	1	1	
Public Safety/Justice Court Building – 3575 S. Market St.		Public Works	Facilities	1	1	1	
Harman Home – 4090 South 3600 West		Parks		1	1	1	
Utah Cultural Celebration Center – 1355 West 3100 South		Public Works/Pa	Facilities	1	1	1	
Family Fitness Center – 5415 West 3100 South				1	1	1	
Centennial Outdoor Pool - 5355 W 3100 South		Parks	Parks	1	1	1	
Animal Shelter/Housing Authority – 4522 West 3500 South		Parks	Parks	1	1	1	
Public Safety Storage Yard – 5900 West 5400 South				1	1	1	
USANA Amphitheatre Parking Lots – 5150 South 6055 West				1	1	1	
West Sub Station – 5300 West 3100 South				1	1	1	
West Valley City Courts – 3590 Constitution Blvd				1	1	1	
Parks Operations Facility – 6750 West Parkway Blvd				1	1	1	1
Public Works Operations Facility – 2805 South 3600 West		Public Works	Operations	1	1	1	1
Police Department Headquarters – 3577 South Market Street				1	1	1	
Fairbourne Station Parking Structure – 3500 South Market Street				1	1	1	
City Owned - Operated by Others							
The Maverik Center – 3200 S. Decker Lake Dr.				1	1	1	
Harman Hall– 3333 S. Decker Lake Dr.				1	1	1	
Golf Courses							
Stonebridge – 4415 Links Dr.		Parks	Golf	1	1	1	1
West Ridge – 5055 S. Westridge Blvd.		Parks	Golf	1	1	1	1
Back Nine Park	4105 West 3010 South	Parks		1	1	1	
Bridle Farms Park	6690 W. Hunter View Dr.	Parks		1	1	1	
Centennial Park	5405 West 3100 South	Parks		1	1	1	
City Park	4500 West 3500 South	Parks		1	1	1	
Country Meadows Park	4175 West 3980 South	Parks		1	1	1	
Fairbourne Station Promenade Park	2905 W Lehman Ave.	Parks		1	1	1	
Falcon Crest Park	4055 South 7060 West	Parks		1	1	1	
Fassio Farm Park	3720 South 5200 West	Parks		1	1	1	
Fox Tail Park	6880 W. Terrace Ridge Dr. (3045 South)	Parks		1	1	1	
Glenn Weaver Memorial	6380 Cape Ridge Lane	Parks		1	1	1	
Grand Vista Park	4534 South 6000 West	Parks		1	1	1	
Hunter Ridge Park	4383 South 5710 West	Parks		1	1	1	
Hunter Village Park	6985 W. Hunter Valley Dr. (3215 South)	Parks		1	1	1	
Hunter Village Trailhead Park	3410 S. Hunter View Dr	Parks		1	1	1	
Ironwood Park	4565 South Early Duke St. (5080 West)	Parks		1	1	1	
Kings Pointe Park	1330 West Rothchild Dr. (3665 South)	Parks		1	1	1	
Maple Meadows Park	2520 West 3380 South	Parks		1	1	1	
Meadow Lands Park	3350 South 5800 West	Parks		1	1	1	
Parkway Park	3405 West Parkway Blvd. (2700 South)	Parks		1	1	1	
Peachwood Park	3510 West 3965 South	Parks		1	1	1	
Scottsdale Park	3755 West 3100 South	Parks		1	1	1	
Sugar Plum Park	3755 West 2900 South	Parks		1	1	1	
Terrace Ridge Park	6260 W. Terrace Ridge Dr. (4365 South)	Parks		1	1	1	
Trailblazer Park	3164 S. Trailblazer Cove (6675 South)	Parks		1	1	1	
Trax Plaza	2753 West 3600 West	Parks		1	1	1	
Utah Cultural Celebration Center Park	1355 West 3100 South	Parks		1	1	1	
West View Park	6050 West 4100 South	Parks		1	1	1	

Wheatland Park	4266 South 3680 West	Parks		1	1	1	
Willow Wood Park	3730 South 3375 West	Parks		1	1	1	
Woodledge Park	5210 West 4310 South	Parks		1	1	1	
Trails							
Hunter Village I Trail – 6750 West 3500 South		Parks		1		1	
Hunter Village II Trail – 3410 S. Hunter View Dr.		Parks		1		1	
Hunter Village IV Trail – 6830 West 3100 South		Parks		1		1	
Sugar Plum Farms I Trail – 7200 West 2940 South		Parks		1		1	
Sugar Plum Village II Trail – 3755 West 2900 South		Parks		1		1	
Mountain View Corridor Trail		Parks		1		1	
Cross Towne Trail		Parks		1		1	
Open Space							
6200 South Streetscape – 5881 West – 6441 West		Parks		1		1	
2700 West 4100 South Intersection		Parks		1		1	
3900 South Entrance Sign Area – 1176 West 3900 South		Parks		1		1	
2200 South and Bangerter Entrance Sign		Parks		1		1	
Interstate 215 and 3500 South Exit – Northeast Quadrant		Parks		1		1	
3500 South 2200 West Streetscape		Parks		1		1	
Hunter Village Phase 18 Frontage – 2700 S. Hunter Crest Dr.		Parks		1		1	
SR-201 and Redwood Road Interchange		Parks		1		1	
SR-201 and Bangerter Highway Interchange		Parks		1		1	
City Center Court Islands		Parks		1		1	
Storm Water Controls							
Cottonwood Pond – 1200 West 3300 South				1			
Granger Elementary Basin – 2200 West 3700 South				1			
Holder Drive Basin – 5120 West 4100 South				1		1	
Sugar Plum/Hunter Village Basin – 6950 West 2700 South				1		1	
Meadowland Basin – 5990 West 3000 South				1		1	
Metro Pond – 1400 West 2200 South				1		1	
Vistas Basin – 6000 West 4400 South				1		1	
Dalmatian Drive Desilting Structure				1		1	
Riter Structure and Riter Detention Basin				1		1	
Terrace Ridge Orifice Plate Outfall				1			
Back Nine Desilting Structure				1		1	
Lake Park Outfall				1			
Desilting Structure - 4400 West 2900 South				1			
Desilting Structure - 4500 West 2900 South				1			

Paint	Herbicides/ Pesticides Storage	Landscape Equipment Maintenance	Petroleum Products	Vehicle Fluids	Salt Storage	Sediment	Municipal SW Operations	Fire Fighting Training Activites	Stormwater Detention Park	Total Score	Distance to Sensitive Waters
										3	
										3	
										3	
						1		1		5	0.5-1.0 miles
										3	
										3	
										3	
										3	
										3	
										3	*0-0.25 miles*
										3	
										3	
1										4	
										3	
										3	
										3	
										3	
1	1	1	1	1		1	1	1		12	*0-0.25 miles*
1	1	1	1	1	1	1	1	1		13	2+ miles
										3	
										3	
										3	
										3	
1	1	1	1	1		1				10	*0-0.25 miles*
1	1	1	1	1		1			1	11	2+ miles
										3	
										3	
									1	4	
										3	
										3	
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									1	3	
									1	3	
						1				3	
						1			1	4	
						1				2	
						1				3	
						1				2	
						1				2	
						1				2	

Retrofit Plan 2020-2025

City Owned Facilities																			
Description	Land Use		Proximity to Waterbody		Status of Waterbody		Hydrologic condition of receiving waterbody		Proximity to sensitive ecosystem		Total 16-19 High, 12-15 M-H, 9-11 Med, 5-8 L-M, 0-5 Low	Potential Risk Ranking	Best-suited control measure	Other potential control measures	Other planned improvements	Schedule of Planned Improvements		Grand Total	Ranking
Public Works Maintenance Yard	Industrial	9	1-2 miles	2	Impaired (DL)	3	Open water, year round	3	1-2 miles		17	High	Covered Storage	Secondary Containment	New Construction	2020	5	22	1
New Parks Maintenance Yard	Industrial	9	1-2 miles	2	Impaired (DL)	3	Open water, year round	3	1-2 miles		17	High	Covered Storage	Secondary Containment	New Construction	2020	3	20	2
Maverik Center	Commercial	4	< .5 miles	3	Impaired (DL)	3	Open water, year round	3	< .5 miles		13	Med-High	Oil-Water Separators	Parking Lot LID	Parking Lot Resurfacing	2022-23	3	16	3
Cultural Celebration Center	Commercial	3	< .5 miles	3	Impaired (JR)	3	Open water, year round	3	< .5 miles		12	Med-High	Oil-Water Separators	Parking Lot LID	None	2024-25	1	13	4
City Hall	Office	1	1-2 miles	2	Impaired (DL)	3	Open water, year round	3	1-2 miles		9	Medium	Oil-Water Separators	Parking Lot LID	Interior Remodel	2025+	3	12	5
Fire Station 75	Light Industrial	2	1-2 miles	2	Impaired (DL)	3	Open water, year round	3	1-2 miles		10	Medium	Oil-Water Separators	Parking Lot LID	Roof repairs	2025+	1	11	6

DL = Decker Lake
JR = Jordan River

SAFETY DATA SHEET SDS: TAGINATOR®

Section 1—Identification

Product Identifier: TAGINATOR®

Product Use: Graffiti Remover Liquid for Masonry Surfaces.

Manufacturer's Name: Equipment Trade Service Co. Inc.

Address: 20 East Winona Avenue Norwood, PA 19074 USA

24 Hour Emergency Telephone: ChemTel 800-255-3924
General Telephone: 1-610-583-7657 8 AM— 4 PM EST. M—F
Website: www.etscompany.com

Section 2—Hazard's Identification

Classifications: Skin Corrosion Category 1B, Eye Damage Category 1, Acute Toxicity—Oral Category 4, Flammable Liquid Category 3 (Although will not sustain flame, See notes sections 5 & 9)
Symbols: Corrosion, Flame **Signal Word:** Danger
Hazard Statement: Causes severe skin burns and eye damage. Harmful if swallowed.
Flammable liquid and vapor (Although will not sustain flame, See notes sections 5 & 9)
Precautionary Statements:
Prevention: Wash hands and skin thoroughly after handling. Wear eye and face protection. Wear Protective liquid proof gloves and clothing. Do not eat, drink or smoke when using this product. Do not breathe mist or spray. Keep only in original plastic container. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Use explosion proof electrical/ventilating/lighting/equipment/ Use only non sparking tools. Take precautionary measures against static discharge.
Response: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If swallowed: Rinse mouth. Do not induce vomiting. Immediately call a poison center / doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower. Wash contaminated clothing before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Storage: Store locked up.
Disposal: Dispose of contents / container in accordance with local, state, federal and international regulations.
Environmental: Biodegradable

NFPA Rating:
0=Safe, 4=Danger; Health (Blue) 2 Flame (Red) 1 React (Yellow) 0 Special (White) Alk

Section 3—Composition / Information on Ingredients

Component	CAS#	% By Weight
Propylene glycol methyl ether acetate	108-65-6	1—5
Potassium Hydroxide	1310-58-3	5—10

In compliance with OSHA HCS and UN GHS, Trade Secret / Confidential business information has been omitted.

Section 4—First Aid Measures

Inhalation: Unusual Exposure to mist will irritate respiratory system. Move Person to fresh air and keep comfortable.
Eyes: Contact will cause burns. Continually flush with water. Remove contact lenses if present and easy to do and seek medical attention.
Skin: Contact will cause skin irritation or burning. Remove contaminated clothing, flush skin with water for 15 minutes. Wash contaminated clothing before reuse.
Ingestion: Swallowing will cause burning to mouth, throat and digestive system. Corrosive if swallowed, wash mouth, seek immediate medical attention. Call poison Control. Do not induce vomiting unless directed to do so by medical personnel.

Always seek medical attention if complications develop.

Section 5—Fire Fighting Measures

Note: Product will not sustain combustion, burning or flame per ASTM D4206
Suitable Extinguishing Media: C02, Dry Chemical, Foam, Water Spray
Unsuitable Extinguishing Media: None Known
Unusual Fire & Explosion Hazards: May produce toxic fumes of carbon monoxide if burning. Empty containers may contain residue. Do not pressurize, cut, heat, or expose containers to flame.
Special Protection & Procedures: Cool fire-exposed containers. Do not enter confined fire space without proper protective equipment including NIOSH approved self-contained breathing apparatus.

Section 6—Accidental Release Measures

Personal Precautions: Keep unnecessary people away; isolate area and deny entry. Stay upwind. Do not eat, drink or smoke while cleaning up.
(Also see section 8).

Protective Equipment: EYES: Chemical Safety goggles and or face shield **SKIN:** Gloves, Nitrile or PVC, waterproof boots, waterproof clothing. Keep personal water rinse near by **RESPIRATORY:** Chemical mist respirator in poorly ventilated areas.

Emergency Procedures: Use appropriate safety equipment. Eliminate sources of ignition. Collect and contain all spill with absorbent material for disposal. Cover drains. Contain large spills and pump into suitable tank for disposal.

Waste Disposal methods: Obey all local, state and federal regulations.

Section 7—Handling and Storage

Precautions & Conditions for Safe Handling: Do not get in eyes, on skin or on clothing. Keep container closed when not in use. Do not mix with other chemicals. Avoid breathing mist. No eating, drinking or smoking. Wash hands after use. Store in a well ventilated place. Keep cool. Do not store near open flame or heat. Do not store near incompatible materials. Do not take internally. Transfer material only to approved, properly labeled containers. KEEP OUT OF REACH OF CHILDREN.

Incompatible Materials: Strong acids, alkalies and oxidizers.

Section 8— Exposure Controls/ Personal Protection

Exposure Limits	OSHA PEL	ACGIH TLV	Other
Propylene glycol methyl ether acetate	Not Available	Not Available	Not Known
Potassium Hydroxide	Not Listed	2 mg/ m3	Not Known

Ventilation: Local & mechanical recommended
Personal protective equipment (PPE): EYES: Chemical Safety goggles and or face shield **SKIN:** Gloves, Nitrile or PVC, waterproof boots, waterproof clothing. Keep personal water rinse near by **RESPIRATORY:** Chemical mist respirator in poorly ventilated areas.

SDS: TAGINATOR®

Section 9—Physical and Chemical Properties

Appearance / Color: Liquid, Reddish Brown
Odor: Fresh and clean scented
pH: High Alkaline & Solvent blend
Melting Point: Does Not Apply
Freezing Point: Less than –10Degrees F.
Boiling Point: Not Available
Flash Point: 112.1 Degrees F. Small Scale closed cup ASTM D3278. **Note:** Product will not sustain combustion, burning or flame per ASTM D4206, therefore ships not flammable.
Evaporation Rate: Not Available
Lower Flammable Limit: Not Available
Upper Flammable Limit: Not Available
Vapor Pressure: Not Available
Vapor Density: Not Available
Relative Density / Specific Gravity: 1.088 gm/ml
Solubility(ies): Complete in water
Partition Coefficient: n-octanol/water: Not Available
Auto-ignition Temperature: Not Available
Decomposition Temperature: Not Available
Viscosity: Thin Liquid
V.O.C Content: Less than 30% (by weight)

Section 10—Stability and Reactivity

Reactivity: Not available / none known
Chemical Stability: No decomposition, if handled and stored according to specifications.

Possibility of hazardous reactions: Avoid incompatible materials.

Conditions to avoid: Heat, sparks, flame.

Materials to avoid: Strong acids, oxidizers, Aluminum and other alloys.

Hazardous decomposition products: May produce toxic fumes of carbon monoxide if burning. Empty containers may contain residue. Do not pressurize, cut, heat, or expose containers to flame.

Section 11—Toxicological Information

Signs and symptoms of overexposure:

Acute Effects:
Inhalation: Exposure to mist will irritate or burn respiratory system.
Eyes: Contact will cause burns.
Skin: Contact will cause skin irritation or burning.
Ingestion: Swallowing will cause burning to mouth, throat and digestive system.
Target Organ Effects: None are known
Chronic Effects: None are known
Carcinogenicity: None are known
Germ Cell Mutagenicity: None are known
Reproductive Toxicity: None are known

Medical Conditions Aggravated by Exposure: None are known

Section 12—Ecological Information

Persistence and degradability: All components contained in the product are classified as "readily biodegradable". This product is expected to be inherently biodegradable.

Bio-accumulative potential: There is no evidence to suggest bioaccumulation will occur.

Section 13—Disposal Considerations

Obey all local, state, federal and international regulations.

Section 14—Transportation Information

U.S. Department of Transportation (DOT)

UN/NA Number: UN1760
Proper Shipping Name: UN1760, Corrosive Liquid, N.O.S., (potassium Hydroxide), 8, PGII
Hazard Class: 8 (Corrosive)
Packing Group: II
Labels Required: Corrosive

U.S. / Canada Emergency Response Guide #: 154

International Maritime Organizations (IMDG)

UN/NA Number: UN1760
Proper Shipping Name: UN1760, Corrosive Liquid, N.O.S., (potassium Hydroxide), 8, PGII
Hazard Class: 8 (Corrosive)
Packing Group: II
Labels Required: Corrosive

Section 15—Regulatory Information

[WHMIS Classification]:

[OSHA]:

[SERA]:

[TSCA]:

Section 16— Other Information

Date SDS Prepared: May 1st 2015 **Revised:** May 1st 2018
The information in this SDS was obtained from sourced which we believe to be reliable. However, the information is provided without any warranty, expressed or implied. We do not assume responsibility and expressly disclaim liability for loss, damage or expense rising out of, or in any way connected with the handling, storage, use or disposal of the product. This SDS may not be applicable if the product is used as a component of another product.

Prepared in accordance with the OSHA Hazard Communication Standard (HCS) to conform with the United Nations (UN) Globally Harmonized System of Classification and Labeling of Chemical (GHS)

High Priority Grates (cleaned on rainy days)

6950 West Parkway BLVD. ((Hunter Village Basin)-2grates
1200 West Beaver Pond (3300 S)
3000 South 5990 West (Meadowlands Basin)-2 grates
Back Nine 4000 West Wendy Ave. (2920 South) (Lake Park)
4400 West 2900 South (Lake Park)
4500 West 2900 South (Lake Park)
7080 West Dalmatian Drive (3045 south)
Metro Park (2200 S 1300 W) -2 grates
3394 South Timeron Drive (5980 West) in field
6800 West 3500 South
6600 West 2550 South

Hydrodynamic Separators (cleaned annually)

Market Street 3500 South
3800 West south frontage road

Siphons (cleaned annually)

4100 south 4000 west
3500 South 5200 West
3100 South 4400 West

Pet Waste Signs in West Valley City Parks

Centennial Park

One sign on east side of west softball quad (Pet Waste Station)

One sign on south east of east softball quad (Pet Waste Station)

Promenade Park

One sign on west side of park on sidewalk on the south side of Lehman Ave

One sign on east side of park on sidewalk on the south side of Lehman Ave

One sign on south side of park, just west of scale

EXHIBIT A

West Valley City Parks & Recreation, Park Maintenance
2729 S 6750 W
West Valley City, Utah 84128

Parcel #14-27-203-017-000

EXHIBIT B

STORMWATER POLLUTION PREVENTION PLAN

for:

West Valley City Parks & Recreation, Park Maintenance
2729 S 6750 W
West Valley City, Utah 84128

Parcel #14-27-203-017-000

PURPOSE AND RESPONSIBILTY

As required by the Clean Water Act and resultant local regulations, including West Valley 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 Stormwater Pollution Prevention Plan (SWPPP) 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 and generate loose litter must be prohibited, unless SOPs are written to manage those activities or operations and amended into this SWPPP.

The Riter Canal is impaired but does not have a TMDL. The SWPPP 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 infrastructure at our site is limited at controlling and containing pollutants and our operations if managed improperly can contaminate the environment. This SWPPP 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 swept up and deposited in our solid waste/sweeping containment bin, anything that isn't swept up will be carried by runoff to our storm drain inlets. This waste material will settle in our storm drain system increasing maintenance cost and solid and dissolved waste in our runoff is contained in our system which includes a series of sediment catch boxes, COB/OW and a Detention Basin before entering the adjoining wetlands. If they get past our onsite containment, they can ultimately make it to the Riter Canal. Maintenance involves regular sweeping of our pavements and cleaning of our storm drain system when necessary. See Pavement Maintenance Operations SOP

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 our storm drain system increasing maintenance cost and solid and dissolved waste in our runoff can pass through our storm drain system ultimately polluting Riter Canal. The primary pollutant impairing the Riter Canal 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. Refer to Landscape Maintenance Operations SOPs.

Storm Drain System

The storm drain catch basins with higher risk of contaminates direct all runoff to a COB/OWS and detention basin in the NW corner of the property. This stormwater treatment unit that is designed to allow sediment to settle and allow water to flow through the ground and out through an outfall to the north end of the pond. This device is able to be bypassed during large storm events and the dissolved pollutants will pass through and harm the Riter Canal. Also, our stormwater treatment system has the potential to hold water at times which could provide an environment for mosquitos to breed. It is important to regularly maintain this system to protect the Riter Canal and prevent mosquito breeding. Use our Storm Drain Maintenance Operations SOP to manage our storm drain system responsibly.

Waste Management

There is a 30 yard open top dumpster that is used for large items. Debris is to be kept under the top rim of the dumpster to prevent any risk of debris being blown out due to

wind. 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 Operations SOP to control and manage the solid waste we generate.

Utility System

Our roof top and ground level utility system are exposed to our roof drains and parking lot drain boxes which drain to our pavements. These heating and air conditioner units contains oils and other chemicals that can harm the Riter Canal if allowed to drain off our property. Liquids and other waste generated by maintenance of this system can be appropriately managed by our Spill Response and Control 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. All Ice Melt products are to be stored inside preventing any pollution caused by wind, rain and snow. Use our Snow and Ice Removal Management SOP to minimize our salt impact.

Vehicle and Equipment Storage

Equipment storage if not properly managed has the potential of allowing runoff to pollute the stormwater system and allow harmful contaminants to enter the Riter Canal. Debris and runoff from our equipment and storage areas are managed by our Equipment and Storage SOP.

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 SWPPP SOPs. Training is to be done annually and at the time of hire. Training summary and attendance log to be kept in the SWPPP binder and forwarded to the Storm Water Maintenance Supervisor.

SECTION 3: RECORDKEEPING

Maintain records of operation and maintenance activities in accordance with SOPs. Inspection records will be kept on Cityworks database.

SECTION 4: APPENDICES

Appendix A- Site Drawings and Details
Appendix B- SOPs
Appendix C- Recordkeeping Documents
Appendix D- Supporting Documents

APPENDIX A – SITE DRAWINGS AND DETAILS

Properties Maintained by West Valley City – Park Maintenance Division
Park Maintenance Division - Contact List
Park Maintenance Facility Site Map
Map of nearby Riter Canal and Wetlands
Grading Plan
Site Plan
Utility Plan
Floor Drains in Parks Facilities
Pet Waste Signs in West Valley City Parks
Drawing – Floor Drains and Pet Stations at Centennial Park
Drawing – Floor Drains at City Park
Drawing – Floor Drains at Parkway Park
Drawing – Floor Drains at West View Park
Drawing – Floor Drains at Fairbourne Station Promenade Park

Properties Maintained by West Valley City – Park Maintenance Division

Park Maintenance Facility - 2729 S 6750 W

City Parks
Back Nine Park - 4105 West 3010 South
Bridle Farms Park - 6690 W. Hunter View Dr.
Centennial Park - 5405 West 3100 South
City Park - 4500 West 3500 South
Country Meadows Park - 4175 West 3980 South
Diamond Summit Trailhead Park– 6482 Mount Adams Dr.
Fairbourne Station Promenade Park - 2905 W Lehman Ave.
Falcon Crest Park - 4055 South 7060 West
Fassio Farm Park - 3720 South 5200 West
Fox Tail Park - 6880 W. Terrace Ridge Dr. (3045 South)
Hunter Ridge Park - 4383 South 5710 West
Hunter Village Park - 6985 W. Hunter Valley Dr. (3215 South)
Hunter Village Trailhead Park - 3410 S. Hunter View Dr.
Grand Vistas Park – 4534 S 600 W
Greater Southridge Trailhead Park – 5706 S Woodview Dr.
Ironwood Park - 4565 South Early Duke St. (5080 West)
Kings Pointe Park - 1330 West Rothchild Dr. (3665 South)
Maple Meadows Park - 2520 West 3380 South
Meadow Lands Park - 3350 South 5800 West
Parkway Park - 3405 West Parkway Blvd. (2700 South)
Peachwood Park - 3510 West 3965 South
Scottsdale Park - 3755 West 3100 South
Sugar Plum Park - 3755 West 2900 South
Terrace Ridge Park - 6260 W. Terrace Ridge Dr. (4365 South)
Trailblazer Park - 3164 S. Trailblazer Cove (6675 South)
Trax Plaza - 2753 West 3600 South
West View Park - 6050 West 4100 South
Wheatland Park - 4266 South 3680 West
Woodledge Park - 5210 West 4310 South

Trails Maintained by West Valley City
Hunter Village I Trail – 6750 West 3500 South
Hunter Village II Trail – 3410 S. Hunter View Dr.
Hunter Village IV Trail – 6830 West 3100 South
Mountain View Corridor Trail – 4100 S to 7000 S
Sugar Plum Farms I Trail – 7200 West 2940 South
Sugar Plum Village II Trail – 3755 West 2900 South

Other Open Spaces
6200 South Streetscape – 5881 West – 6441 West
3900 South Entrance Sign Area – 1176 West 3900 South
2200 South and Bangerter Entrance Sign
Interstate 215 and 3500 South Exit – Northeast Quadrant
3500 South 2200 West Streetscape
Hunter Village Phase 18 Frontage – 2700 S. Hunter Crest Dr.
SR-201 and Redwood Road Interchange
SR-201 and Bangerter Highway Interchange
City Center Court Islands

Contact List

West Valley City Parks and Recreation
5415 W 3100 S
West Valley City, Utah 84120

Park Director
Nancy Day (801) 955-4009

Assistant Director
Jason Erekson (801) 955-4006

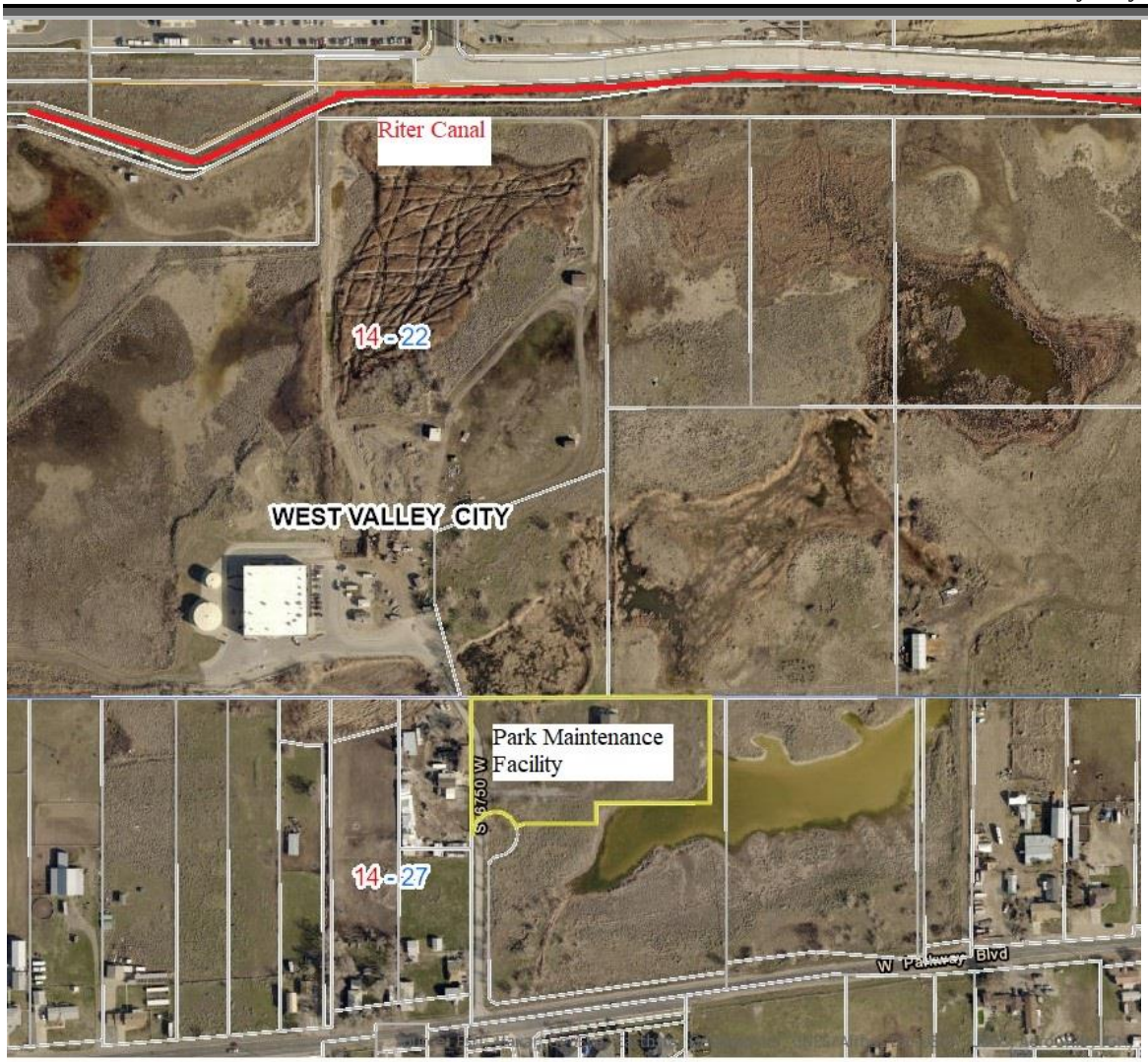
West Valley City Parks Maintenance Department
2729 S 6750 W
West Valley City, Utah 84128

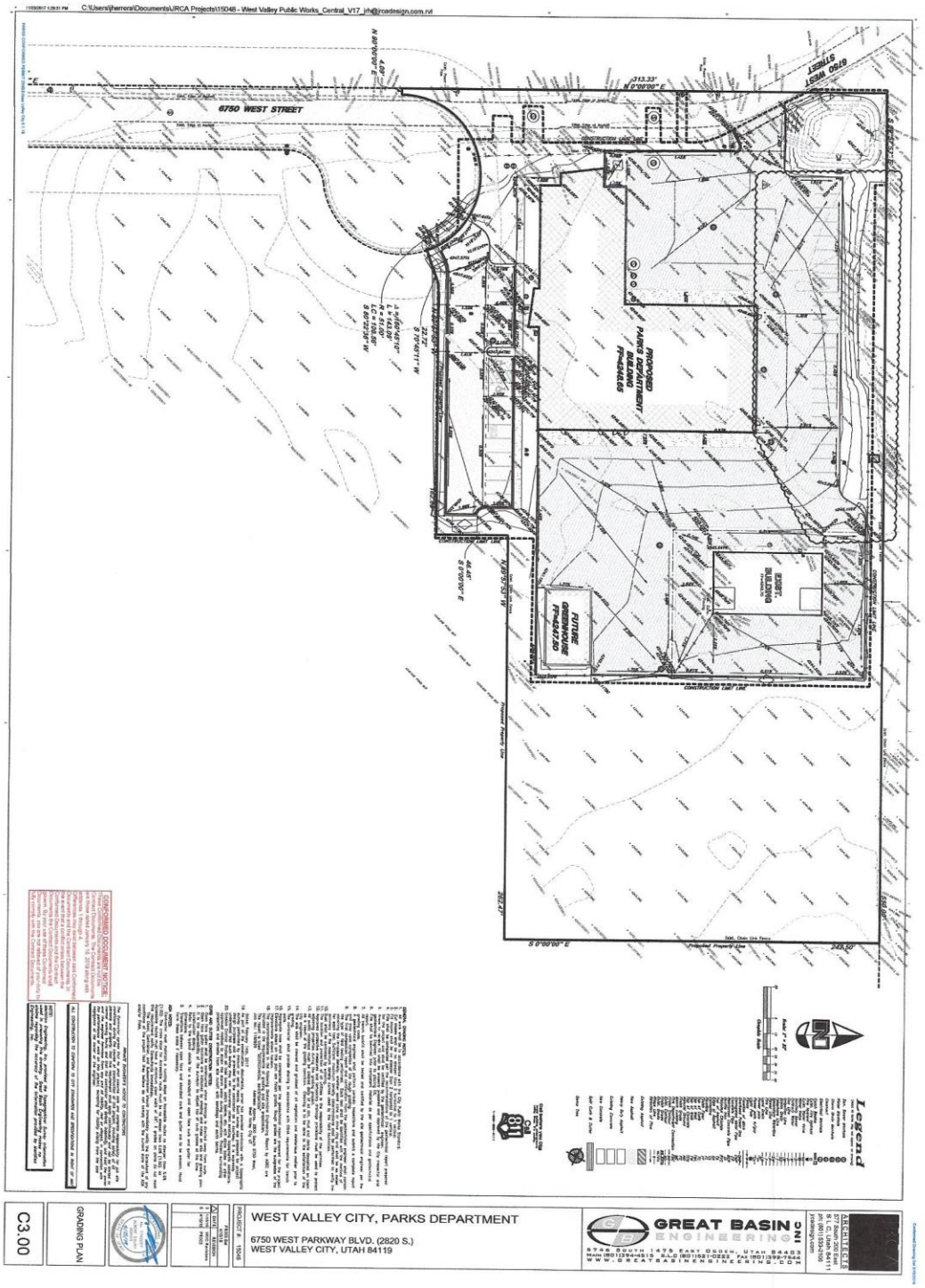
Parks Superintendent
Kent Jensen (801) 509-1934

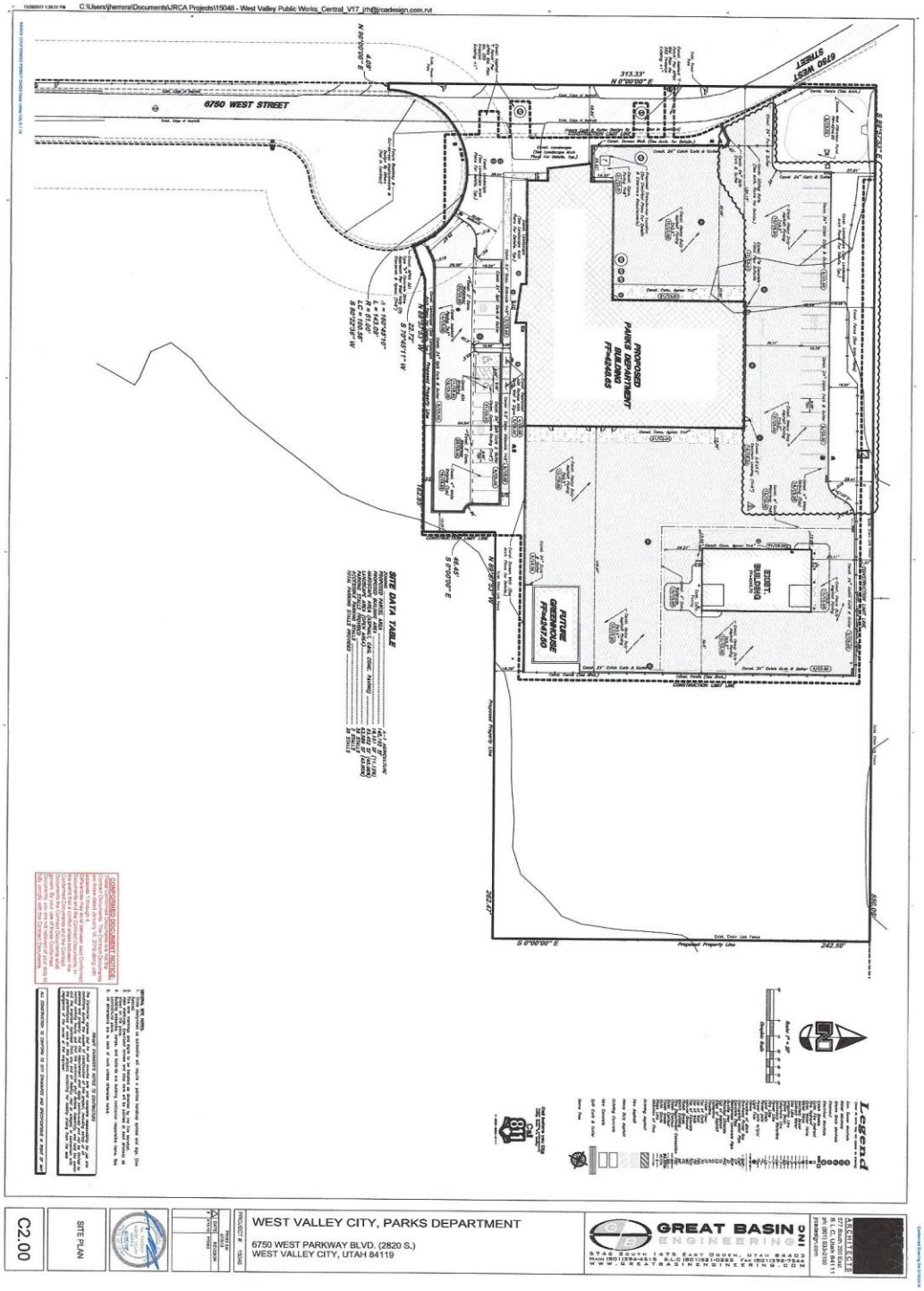
Facilities Supervisor
Lynn Erickson (801) 509-1937

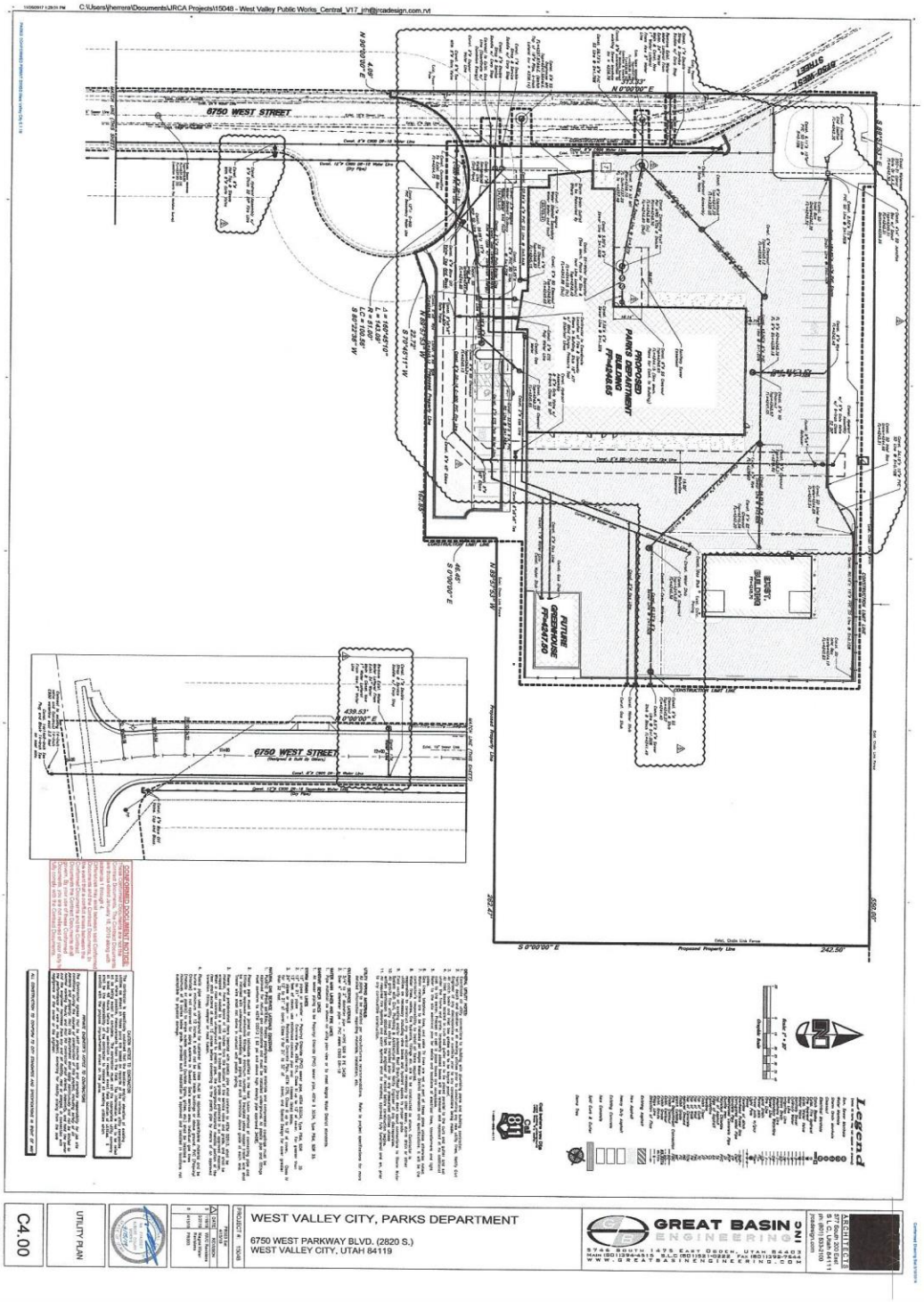
Irrigation Supervisor
Dustin Bushnell (801) 509-1933

Outflow to Riter Canal & Wetlands
Detention Basin
Inlets
COB OWS
Catch Basin
Catch Basin
Offices
Vehicle Maintenance and Cleaning Inside Building
Catch Basin
Inlet Box
Catch Basin
Storm Water Flow
Equipment Storage Building
Chemical Storage Inside
Paint Storage Inside
Storm Water Flow
Catch Basin
Equipment and Material Storage Inside
Gas Storage Inside
30 Yd Dumpster
Catch Basin
Property Boundary


Riter Canal
14 - 22
WEST VALLEY CITY
Park Maintenance Facility
S 3750 W
14 - 27
W Parkway Blvd


6750 WEST STREET
6750 WEST STREET
PROPOSED PARKS DEPARTMENT BUILDING FF=4436.65
FUTURE BUILDING FF=4437.00
EXISTING BUILDING
CONCRETE TILT UP
Legend
CONSTRUCTION DOCUMENT NOTICE
WEST VALLEY CITY, PARKS DEPARTMENT
6750 WEST PARKWAY BLVD. (2820 S.)
WEST VALLEY CITY, UTAH 84119
GREAT BASIN ENGINEERING
GRADING PLAN
C3.00


6750 WEST STREET
6790 WEST STREET
PROPOSED PARKS DEPARTMENT BUILDING FF=4246.65
FUTURE GREENHOUSE FF=4241.50
EXIST. BUILDING
SITE DATA TABLE
Legend
WEST VALLEY CITY, PARKS DEPARTMENT
6750 WEST PARKWAY BLVD. (2820 S.)
WEST VALLEY CITY, UTAH 84119
GREAT BASIN ENGINEERING
SITE PLAN
C2.00


6750 WEST STREET
PROPOSED PARKS DEPARTMENT BUILDING FA-04-05
FUTURE GREENHOUSE FA-04-07-00
FUTURE BUILDING
Legend
WEST VALLEY CITY, PARKS DEPARTMENT
6750 WEST PARKWAY BLVD. (2820 S.)
WEST VALLEY CITY, UTAH 84119
GREAT BASIN ENGINEERING
UTILITY PLAN
C4.00

Floor Drains in Parks Facilities

Centennial Park

West Softball Quad

One in storage room

Three in snack bar

One in each restroom stall

West Pavilion

One in each storage room

One in handicapped restroom

Channel drain in front of each restroom stall

East Pavilion

Channel drain in front of each restroom stall

East Softball Quad

One in storage room

Three in snack bar

One in each restroom stall

City Park

One in men's restroom

One in women's restroom

One in storage room

Parkway Park

One in each restroom stall

One in storage room

West View Park

One in handicapped restroom

One under hand washing station

One in storage room

Fairbourne Station Promenade Park

Four drains in the restroom complex

Pet Waste Signs in West Valley City Parks

Centennial Park

One sign on east side of west softball quad (Pet Waste Station)

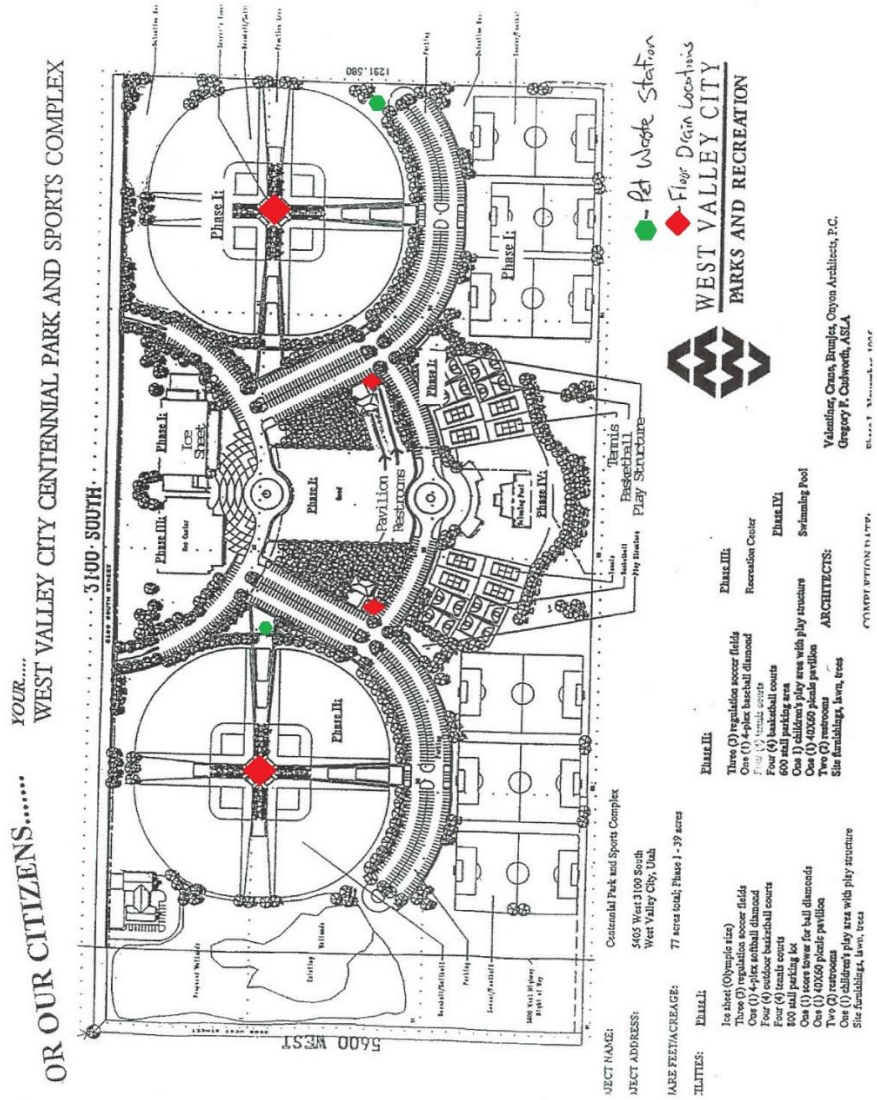
One sign on south east of east softball quad (Pet Waste Station)

Promenade Park

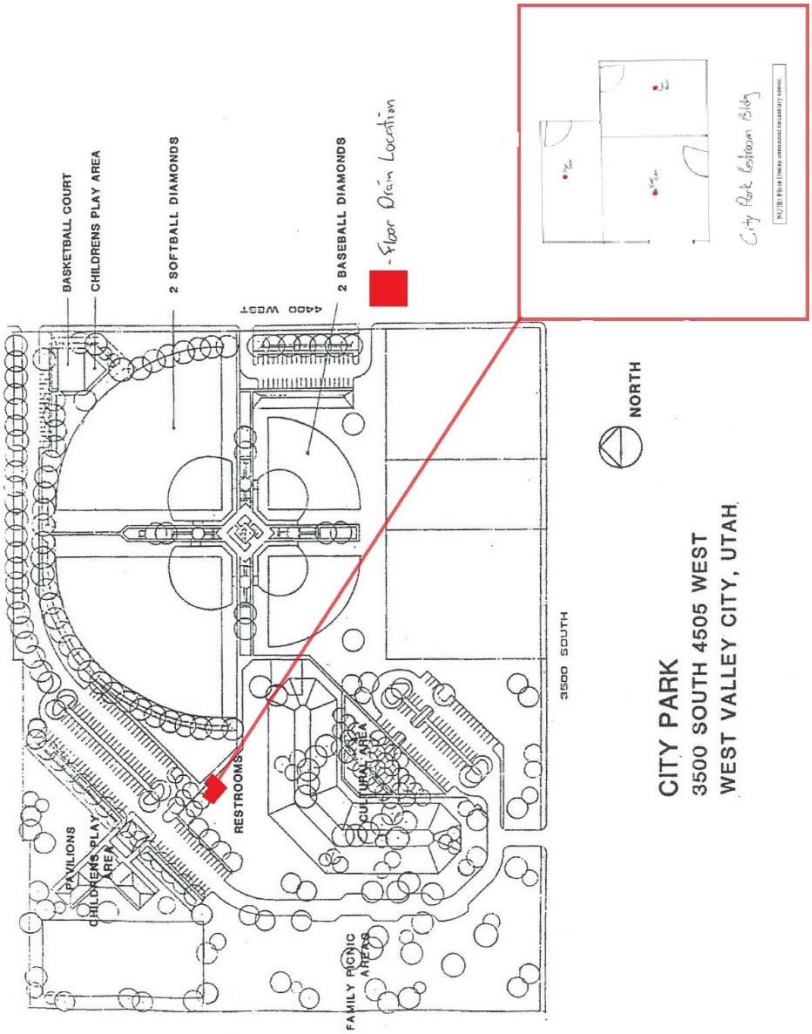
One sign on west side of park on sidewalk on the south side of Lehman Ave

One sign on east side of park on sidewalk on the south side of Lehman Ave

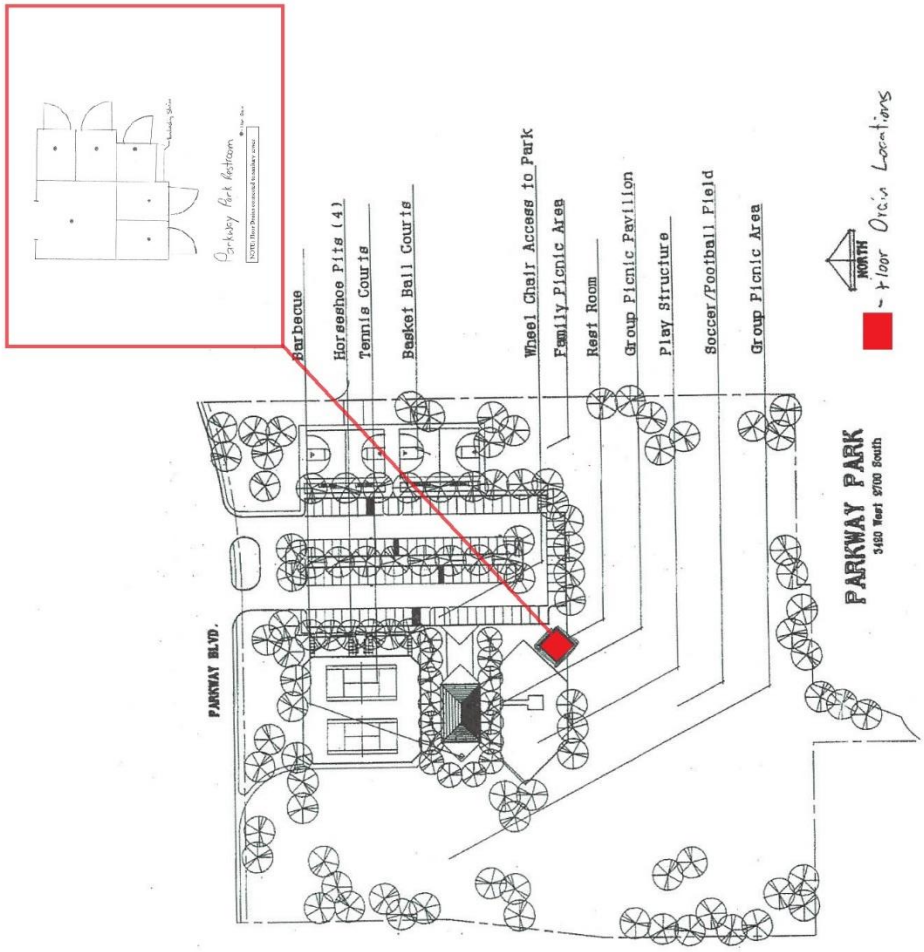
One sign on south side of park, just west of scale



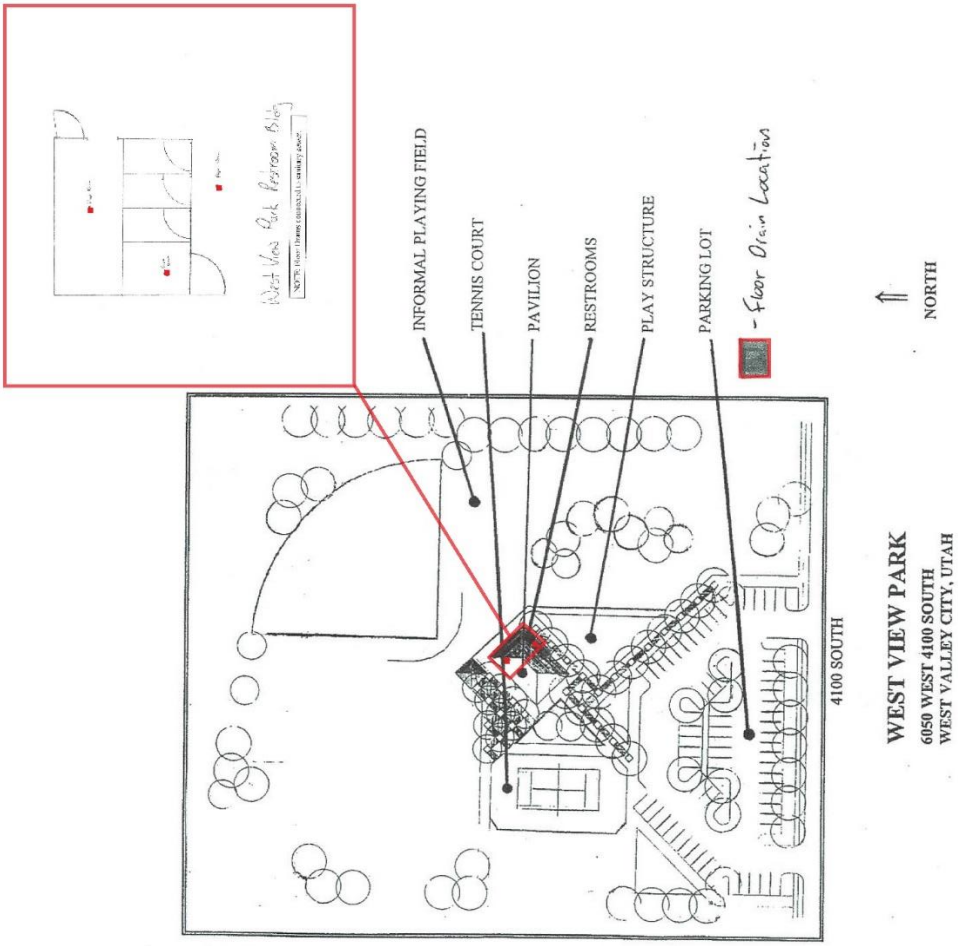
NOTE: Floor Drains connected to sanitary sewer.



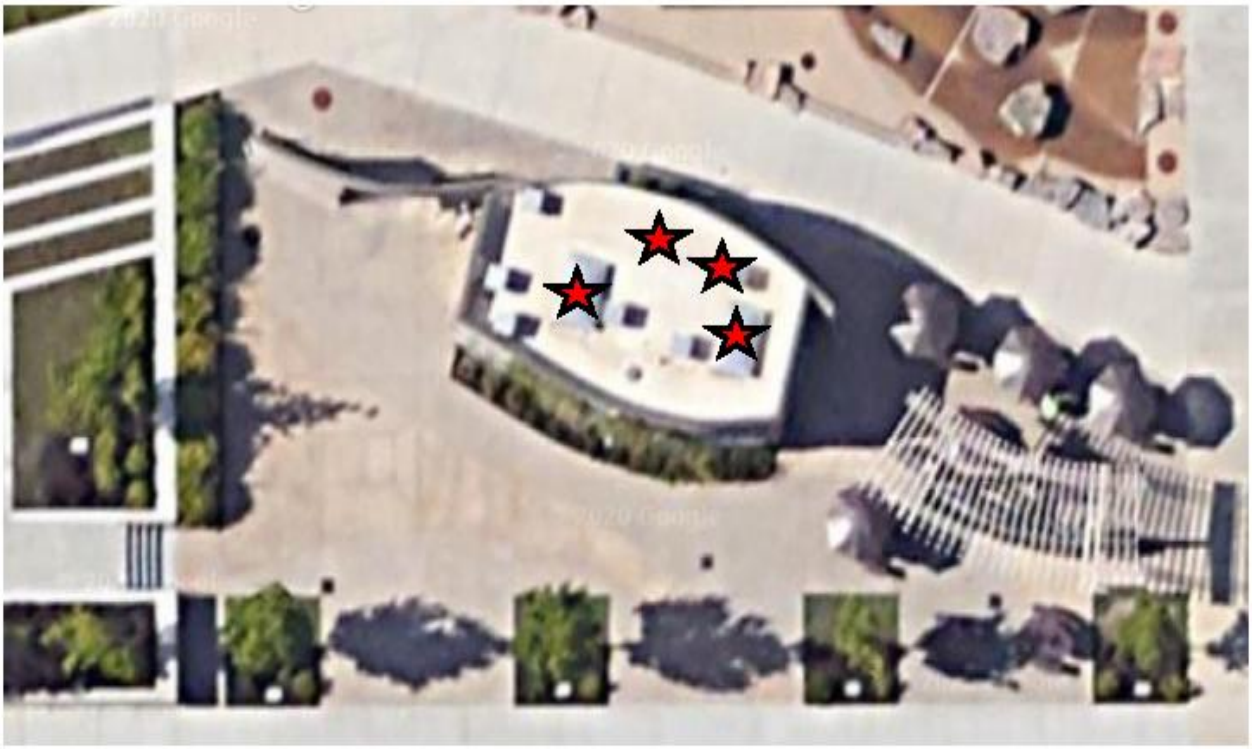
CITY PARK
3500 SOUTH 4505 WEST
WEST VALLEY CITY, UTAH



NOTE: Floor Drains connected to sanitary sewer.



NOTE: Floor Drains connected to sanitary sewer.



Location of floor drains at Promenade ★

APPENDIX B – SOPs

Park Maintenance Facility SOPs / BMPs

- Pavement Maintenance Operations
- Landscape Maintenance Operations
- Waste Management Operations
- Storm Drain Maintenance Operations
- Pavement Washing Operations
- Snow and Ice Removal Management
- General Construction Maintenance
- Spill Response and Control
- Equipment / Landscape Material Storage

Park and Open Space Maintenance - BMPs / SOPs

- Lawn Maintenance
  - Mowing
  - String Trimming
  - Edging
  - Debris Blowing
- Vehicle / Equipment Maintenance and Storage
- Vehicle and Equipment Refueling Procedures
- Vehicle and Equipment Cleaning
- Power Washing and Cleaning
- Use Procedures for Pesticides, Herbicides, and Fertilizers
  - Granular Applications
  - Liquid Applications
  - Chemical Storage
- Waste and Trash Management
- Cleaning of Garbage Containers
- Sweeping Parking Lots and Roads
- Spill Prevention and clean up procedures
  - Materials and Waste Handling and Storage
  - Spill kits
  - Gasoline or Diesel Spills
  - Hydraulic Spills
  - Granular Spills
  - Liquid Spills
  - Fuel Spills
- Pet Waste Disposal
- Storm Water Training & Inspections
- Cold Weather Operations
- Right of Way Maintenance
- Municipally-Sponsored Events

Park Maintenance - Facility SOPs / BMPs

Pavement Maintenance Operations

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:

a) Reduce stormwater pollution by sweeping and removing pollutants that will be carried to City stormwater systems during stormwater runoff or by non-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.
c) Manage outside activities that leave waste or drain pollutants to our pavements. Do not allow activities that allow detergents or other pollutants to be wash into storm drain systems.

4. Disposal Procedure:

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

5. Training:

a) Annually and at hire

Landscape Maintenance Operations

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 lightweight 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 Operations

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):

a) The site contains a 30-yard waste container.

3. Waste Disposal Restrictions for all waste Scheduled for the Salt Lake County Landfill:

a) Generally, most waste generated at this property, and waste from spill and clean-up operations can be disposed in our dumpster 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 Salt Lake County Landfill.
c) Review Salt Lake County Landfill regulations for additional restrictions and understand what waste is prohibited in the Salt Lake County Landfill. Ensure the SDS and Salt Lake County Landfill regulations are not contradictory.

Generally, the waste prohibited by the Salt Lake County 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 wholesale disposal of outdated or spent liquid hazardous waste. When disposal of outdated or spent liquid is needed or for questions of how to dispose of other waste, contact the Salt Lake County Health Department (SLCoHD) for instructions and locations, (385)468-4100.

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

a) Generally, for waste not accepted by the Salt Lake Valley Solid Waste landfill.
b) Follow SDS for disposal requirements. Review Salt Lake County Solid Waste regulations for additional restrictions and understand what waste is prohibited in the Salt Lake Valley Solid Waste 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 Salt Lake Valley Solid Waste landfill is a good resource, (385)468-6370.

5. General Staff Maintenance Practices:

a) Prevent dumpsters and receptacles from becoming a pollution source by:
    1. Closing lids
    2. Do not over fill dumpsters.
    3. Reposition tipped receptacles upright.
    4. Report full or leaking and unsecured dumpsters and receptacles to the company provider or repair it in house. Determine source liquids and prevent it.
    5. Report any eminent pollutant hazard related to dumpsters and receptacles to the owner.

6. Training:

a) Annually and at hire

Storm Drain Maintenance Operations

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) Inspect for need:
   1. Schedule cleaning for boxes and pipe that contain 2" or more of sediment and debris.
   2. Remove debris by vacuum WVC Public Works 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 MAGNA MOSQUITO ABATEMENT DISTRICT when necessary at (801) 250-7765.

2. 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
   1. 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 Operations

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 WVC Public Works Sweeper/Vacuum truck simultaneous with the washing operation.

b) This procedure must not be 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.
b) Large volumes must be disposed at WVC Public Works regulated facility.

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 warmups are expected the same day.

3. Training:

a) Annually and at hire.

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 lightweight 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 non-stormwater 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 Response and 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 to 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, SALT LAKE CO HEALTH DEPARTMENT, WVC STORMWATER MGMT.
    - Minor Emergency constitutes a spill that has reached a storm drain but is no longer flowing. Call SALT LAKE CO HEALTH DEPARTMENT, WVC STORMWATER MGMT.
    - 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.
    - Contact Numbers:
        - HAZMAT - 911
        - DWQ – 801-536-4300
        - SALT LAKE COUNTY HEALTH DEPT. – 385-486-4100
        - STORMWATER MGMT. - WEST VALLEY CITY – 801-509-2005

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 copy room.

7. Materials:

a) Generally, sand or dirt will work for most clean-up 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.

Equipment / Landscape Material Storage

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 to routine operations must be amended in this SOP.

1) **Equipment and Material**
   a) All equipment and materials must be stored in such a manner to prevent contamination to the storm water system.
   b) When possible, store indoors away from wind and rain. If needed, cover with a tarp or other impermeable covering to prevent deterioration and the possibility of contaminated runoff.
   c) Inspect frequently for leaks, deterioration or other possible pollutants.
2) **Salt Equipment Storage**
   a) Salt insert sanders and plows will be stored under cover at the Red Barn or Tin Shed when not installed on the trucks. This area will be deep cleaned as a part of the semi-annual deep cleaning schedule.
3) **Fuel Station/Tank Area**
   a) This site does not have a fueling station/tank at this time. Fuel used onsite is stored inside the storage building in approved fuel storage cabinets.
4) **Equipment Washout**
   a) All vehicle and equipment washing is to be performed at the Public Works Facility Wash Out Bay or a commercial car wash. When cleaning mowing equipment, it is to be done inside the maintenance shop where loose material is promptly swept up thrown into the trash.
5) **Management of Mulch, Sand and other Large Particulates:**
   a) Playground mulch is stored at the Tin Shed and then distributed to the various playgrounds. Mulch piles are placed in an area that is bordered by concrete k-rails so that is not a threat to storm water contamination.
   b) All bagged materials must be stored indoors whenever possible. If they must be stored outdoors, place them under a cover.
   c) All dry materials stored outside should be covered and have secondary containment.
   d) Place materials as far from storm drains as possible.
   e) Clean up any spills, leaks or discharges promptly.
6) **Paints and Solvents:**
   a) These are stored inside the shop facility in a dedicated room.
   b) Any spills on or off site are cleaned up with the appropriate measures.

Park Maintenance BMPs / SOPs

Objective: Onsite management of mowing, trimming, edging, debris removal and fertilizer and pesticide applications to provide a safe working environment and pollution free parks.

Lawn Maintenance

Mowing

- Read manual if available and become familiar with machine safety.
- Watch safety/training videos.
- Inspect mower before operating. Ensure all guards and shields are in place. Check for loose bolts/nuts and tighten if necessary. Do not make repairs or adjustment to mower while engine is running, unless owner's manual states otherwise.
- Eye and ear protection is provided and is requires that it be worn while operating any type of power equipment.
- Check the mower for presence of an enclosed canopy for head protection or ensure proper head protection be used.
- Check fluid levels before starting daily work and after lunch.
- Check area to be mowed and remove all trash, papers, bottles, rocks and other debris.
- When mowing: always make two to three passes around the outside, discharging clippings to the inside of the property being mowed.
- Always maintain a safe operating distance from people, at least 40 feet. If people are using the area you are mowing, mow around them, maintaining a safe distance, or ask them to move. **Always discharge clippings away from people.**
- After mowing, blow all grass clippings from walks and ensure curbs and gutters are cleaned of all grass clippings and dirt.
- Avoid hitting and damaging objects with mower by maintaining a safe distance between objects and mower. Be especially careful not to hit trees.
- When transporting, always ensure mower is fastened securely to trailer with chains and/or straps. Apply parking brake properly.
- Exercise extra care while mowing on slopes. Wear seat belts and ensure all safety systems are in place. Avoid sudden starts and stops on slopes. Do not park on slopes.
- Always refuel safely, follow refueling SOPs.
- Have a complete functioning spill kit available in the event of a spill.

String Trimming Procedures

Before Using:

- Check string trimmer to ensure all guards and safety devices are properly installed and are not broken
- Ensure all bolts, screws and fasteners are tight
- Check fuel level
- Check trimmer line
- Report any broken, missing or loose parts so they can be fixed before use

During Use:

- Safety glasses and ear plugs are required
- Wear long pants or suitable leg protection (such as chaps)
- Areas to be trimmed: curbs, gutters, sidewalks, parking lots, flower and shrub beds, and tree rings.
- Try to trim such that clippings are thrown onto grass and not into flower beds, walks and gutters
- Stay at least 3" from trees, for trees with overgrown tree rings, unless approved by Parks Forester or appropriate supervisor
- String trimmers throw rocks and other debris, ensure the area your are trimming is free of trash, rocks or debris
- Exercise extreme caution when trimming around vehicles
- Do not string trim around other people
- Do not scalp the grass with string trimmer
- Edges should be squared off, not scalloped
- Follow refueling procedures when refueling
- If you have any questions, please ask appropriate supervisor

Edging Procedures

Before Using:

- Make sure you know whether the edger has a two stroke or four stroke engine. Use mixed fuel for two stroke edger. Use regular fuel for four stroke edger.
- Check edger to ensure all guards and safety devices are properly installed and are not broken
- Ensure all bolts, screws and fasteners are tight.
- Check fuel level and add as needed following refueling procedures
- Check oil level, if applicable.
- Check edger blade for wear and change if worn.
- Report any broken, missing or loose parts so they can be fixed before use.

During Use:

- Safety glasses and ear plugs are required.
- Stay behind machine.
- Set blade depth to cut the edge between ¼ to ¾ of an inch deep.

- Stay next to sidewalks and curbs, trying to grind as little of the concrete as possible.
- Stop blade when changing from one area to another.
- Exercise extreme caution when edging around vehicles.
- Watch for sprinkler heads, do not cut them.
- Edges should be squared off to 90 degrees.
- Check blade for wear, replace when needed.
- Make sure edger is shut off before performing maintenance or repairs.
- Follow refueling procedures when refueling.
- If you have any questions, please ask appropriate supervisor.

Debris Blowing Procedure

Before Using:

- Check blower to ensure all guards and safety devices are properly installed and are not broken.
- Ensure all bolt, screws and fasteners are tight.
- Check fuel level and add as needed following refueling procedures.
- Report any broken, missing or loose parts so they can be fixed before use.

During Use:

- Safety glasses and ear plugs are required.
- Blow debris from sidewalks, cart paths, jogging paths, parking lots, and curb and gutters
- Blow grass clippings and other green waste back onto turf.
- Pick up garbage.
- Ensure curb and gutters are clean to prevent any debris from entering the storm drain system.
- Exercise extreme caution when blowing around vehicles.
- Do not blow debris at people.
- Make sure blower is shut off before performing maintenance or repairs.
- Follow refueling procedures when refueling.
- If you have any questions, please ask appropriate supervisor.

Vehicle / Equipment Maintenance and Storage

- Inspect parking areas for stains/leaks on a regular basis.
- Provide drip pans or adsorbents for leaking vehicles.
- Whenever possible, store vehicles inside where floor drains have been connected to sanitary sewer system.
- When inside storage is not available, Vehicles and equipment will be parked in the approved designated areas.
- Maintain vehicles to prevent leaks as much as possible.
- Address any known leaks or drips as soon as possible. When a leak is detected a drip pan will be placed under the leaking vehicle to collect the drip.
- If any leaks are discovered, a drip pan will be used to collect the fluids and vehicle will be scheduled for repairs.
- Clean up all spills using dry methods.
- Never store leaking vehicles over a storm drain.
- Visually check equipment to ensure all safety equipment is functional.
- Check for leaks i.e. hydraulic, cooling, engine fluids or fuel daily.
- Read all applicable service manuals and develop service plans to ensure all service parts are replaced as to date and hours on the equipment.
- Make sure all hoses and related equipment are replaced when required by the service manual to reduce spills.
- Dispose of all fluids in a manner not to pollute storm water drainage or sewer system.
- In the event of a spill the machine is to be put on a trailer and brought to the shop for repair. Prevent spilling the contaminant on the ground during transport. Unless the leak can be repaired in the field.
- Any leaks that are spilled on the asphalt will be cleaned up with dry absorbent; the dry absorbent will be swept up and disposed of in the garbage.

Vehicle and Equipment Refueling Procedures

In areas with a fuel pump:

- Park next to appropriate pump
- Turn off engine
- While equipment is being refueled, stay where you can see nozzle.
- If a spill occurs, spread appropriate spill containment material (located by pumps) to soak up the spill, and then dispose of properly.
- If spill occurs fill out spill report and turn in to supervisor.

If refueling in a park or on a golf course using a gas can:

- If possible, get to a hard surface such as a parking lot, sidewalk or cart path.
- Turn off engine. Allow the engine to cool for a few minutes. Never fill a hot engine.
- Use caution while refueling to ensure fuel does not spill.

- If spill occurs, spread appropriate spill containment (pad or calcined clay, located on the equipment or transport vehicle), and clean up as required.
- If spill occurs fill out spill report and turn in to supervisor.

Vehicle and Equipment Cleaning

- Vehicles and equipment are to be washed on approved wash areas only. Approved areas are at the Public Works approved wash out area or a commercial wash facility that empties to the sanitary sewer system.
- Washed vehicles or equipment is never to be washed where water could enter the storm drain system or open water.

Power Washing and Cleaning

- Wastewater from power washing must not be allowed to enter the storm sewer system and must be disposed properly.
- Power washing combined with proper wastewater collection can prevent or reduce fine-grained sediment particles, anti-freeze, oil, paint, or trash from polluting stormwater.
- When services are contracted, this written procedure should be provided to the contractor so they have the proper operational procedures. In addition, the contract should specify that the contractor is responsible for abiding by all applicable municipal, state, and federal codes, laws, and regulations.
- Use dry methods for surface pre-cleaning, such as using sorbent material on small oil spots and sweeping up trash, debris, dirt, and used sorbent before power washing;
  Minimize the amount of water used during power washing activities; and
- Avoid using cleaning products that contain hazardous substances (e.g., hydrofluoric acid, muriatic acid, sodium hydroxide, bleach) that can turn wastewater into hazardous waste.
- Train employees who perform power washing activities on this written procedure. Information regarding how to avoid and report spills will be presented during the training.

Use Procedures for Pesticides, Herbicides, and Fertilizers

It is important to properly store, handle, apply, and clean up all fertilizers, herbicides, pesticides, and other landscaping chemicals. These chemicals can cause water pollution. Excessive fertilizer application can also contribute to algae blooms and deplete oxygen from waterways. When services are contracted, this written procedure should be provided to the contractor, so they have the proper operational procedures. In addition, the contract should specify that the contractor is responsible for abiding by all applicable municipal, state, and federal codes, laws, and regulations.

Granular Application

- Read and understand all labels, and application instructions
- Ensure spreading device is calibrated or adjusted correctly
- Apply to desired area at proper rates
- Any product that is spread onto pavement by accident should be swept or blown back onto treated area where possible, if it is not possible, proceed to step five
- If a spill occurs:
    - Clean up spills by sweeping, or blowing product into a pile and collecting
    - Use on another property when possible.
    - Notify your supervisor
    - Fill out a spill reporting form after the clean-up process
    - Forms are in the SWPPP binder.

Liquid Applications

- Read and understand all labels and all application instructions
- Ensure application device is calibrated, adjusted, and operating properly
- Fill tanks in the field whenever possible
- When installing chemicals into holding tank, use caution to avoid spilling
- Apply to desired areas at proper rates
- Try to empty spray tanks by the end of each day to prevent the need to store mixed chemicals (this does not apply to fertilizer injectors)
    - If a spill occurs follow proper cleaning procedures using mats, absorbent material, and waddles to prevent spreading.
    - Dispose of absorbent material properly according to the label.
    - Notify your supervisor and fill out a spill reporting form.
    - Forms are in the SWPPP binder

Chemical Storage

- All fertilizer and pesticide containers are in a designated area and in accordance with the storage requirements listed on the label.
- Fertilizers and pesticides are only to be used as directed on product label. The label is the law.
- Liquid Formulations are to be stored on containment bins to contain any size leaks.
- Granular formulations are to be swept and removed off paths and roadways after application to prevent contamination of the stormwater system.
- Never apply a product to adjacent waterways unless product label indicates that it is safe to do so.
- Fertilizer and pesticide applicators will be licensed or supervised directly by a licensed applicator.
- In the event of a spill, the affected area will be cleaned and treated as the label of the formulation requires.

Waste and Trash Management

- Trash cans in parks are to be emptied weekly.
- Parks and open spaces are to be policed for debris on a regular basis to prevent trash and debris from entering the storm water system.
- Trash cans must be kept clean and in good working condition. Trash containers must be kept upright, and lids must be kept closed to prevent trash from moving into the storm water systems.

Cleaning of Garbage Containers

- Garbage containers are to be washed out on an appropriate wash pad.
- Wash water is to be treated before entering sewer system.
- Wash water is never allowed to drain into storm drains

Sweeping Parking Lots and Roads

The sweeping of streets and parking lots gives the Parks an overall clean appearance, and aids in helping reduce traffic accidents and air pollution caused by fine dust particles. Street sweeping can prevent pollutants such as sediment particles, organics, oil, grease, trash, road salt, and trace metals from entering and plugging the storm sewer system. When services are contracted, this written procedure should be provided to the contractor so they have the proper operational procedures. In addition, the contract should specify that the contractor is responsible for abiding by all applicable municipal, state, and federal codes, laws, and regulations.

- Sweeping is performed by WVC Public works and is scheduled with the adjoining streets and neighborhoods.
- Schedule additional sweepings, as needed.
- Construction conducted by the County where there is temporary storage of construction materials like dirt, sand, and road base along the roadway
- Special events (e.g., street fairs, art shows, and parades) where additional debris is likely to have accumulated
- Grass cutting, including and mowing, trimming, and edging – make sure that all debris created from maintenance of lawns, medians and open spaces is either blown back into the existing landscape with a handheld or back pack blower or swept up by hand and disposed of properly (i.e., not in the street or parking lot)
- Landscape planting
- After heavy rainstorms in which sediment is present on the streets
- After snows melt where large course sediments and garbage have been left behind.

Spill Prevention and clean up procedures

Materials and Waste Handling and Storage

- If possible, liquid or hazardous materials should be handled, used, stored, repackage and transferred indoors or under cover.
- Deliveries of bulk liquids should be supervised. Down gradient storm drain inlets
- should be covered during deliveries.
- Cover and contain containers, materials and wastes.
- Keep all containers closed unless adding or removing materials.

Spill Kits

- Spill kits are located at the Park Maintenance Facility and in the trucks dedicated to mowing and spraying.
- Inspections of spill kit and re-supplying is done monthly.

Gasoline or Diesel Spills

- Immediately stop
- Turn off engine
- Remove kit contents immediately put on latex gloves
- Assess nature of spill. Gasoline, diesel, oil, or anti-freeze.
- Act quickly but safely, use absorbent pads and rolls to surround and contain spill.
- Contact Supervisor for appropriate pan, bucket, etc. to stop spill from reaching the Stormwater system.
- Dispose and decontaminate the area using containment bag in the kit and in
- compliance with local state and federal regulations.
- If necessary, decontaminate the spill site, personnel and equipment.
- Fill out the spill reporting form file with your supervisor

Hydraulic spill

- Immediately stop
- Turn off engine
- Remove kit contents immediately put on latex gloves
- Assess nature of spill.
- Act quickly but safely, use absorbent pads and rolls to surround and contain spill.
- Contact Supervisor for appropriate pan, bucket, etc. to stop spill from reaching the containment pads.
- If spill reaches soil dig up affected area. Dispose of soil appropriately.

Granular Spill

- Clean up spills by sweeping, or blowing product into a pile and collecting
- Use on another property when possible
- Notify your supervisor
- Fill out a spill reporting after the cleanup process

Liquid Spill

- Follow proper cleaning procedures using mats, absorbent material, and waddles to prevent spreading
- Dispose of properly
- Notify your supervisor
- Fill out a spill reporting form after the cleanup process

Fuel Spills

- Put waddles around storm drain**s**
- Cover storm drain
- Use absorbent pads and or calcified clay or other absorbent
- Dispose of absorbent properly

Pet Waste Disposal

- Adopt and enforce ordinances that require pet owners to clean up pet wastes and use leashes in public areas.
- If public off-leash areas are designated, make sure they are clearly defined. Avoid designating public off-leash areas near streams and water bodies.
- Whenever practical and cost effective, install dispensers for pet waste bags and provide disposal containers at locations such as trail heads or parks where pet waste has been a problem. Provide signs with instructions for proper cleanup and disposal.
- Check parks and trails for pet waste as needed.
- Remove all pet waste; provide temporary storage in a covered waste container and dispose of properly. Preferred method of disposal is at a solid waste disposal facility.
- Document problem areas for possible increased enforcement and/or public education signs.

Storm Water Training & Inspections

- Pollution preventions training for all park personnel will be performed annually. This training will also be part of orientation of new employees as well as rehired seasonal employees.
- Employees are supervised to ensure compliance.
- Sites are inspected Monthly, Semi-Annually and Annually by qualified personnel.
- SWPPP binder will be kept in the copy room accessible to all employees.

Cold Weather Operations

- Inspect plows, trucks and equipment for leaks before use.
- Never push snow into catch basins or inlets where it will obstruct stormwater flow.
- Use ice melt products sparingly and as directed.
- Sweep up spills to prevent stormwater contamination.

Right of Way Maintenance

- ROW maintenance uses the Landscape SOPs previously listed.
- Inspect and report any damage or compromise to ROW areas promptly.
- Do not attempt to clean up any unidentified or possibly hazardous materials found on or around the ROW areas during maintenance; notify supervisor immediately upon discovery of hazardous materials.
- Always wear proper PPE while working in ROW areas.
- Follow labels for all fertilizer, herbicides and pesticides that are used in ROW areas.

Municipally Sponsored Events

Large outdoor festivals and events operated and controlled by the City have the potential to impact stormwater quality. Potential contaminants may include trash, septage and organics. Large events must meet the following criteria: adequate restroom facilities, trash receptacles and drinking water. Events must be properly permitted by the City and where needed, the County.

Trash Collection and Removal

Provide adequate trash receptacles for vendors and guests
Monitor and respond to leaking waste containers
Empty trash receptacles to prevent overflow
S

APPENDIX C – PLAN RECORDKEEPING DOCUMENTS

MAINTENANCE/INSPECTION SCHEDULE

Frequency	Site Infrastructure.
M	Full site inspection done by Superintendent or Facilities Supervisor. Records on Cityworks.
B	Full site inspection done by Superintendent or Facilities Supervisor, Storm Water Maintenance Supervisor and Engineering Storm Water Inspector. Records on Cityworks.
A	Observe outfall from site and take water sample to check for oil/solid pollutants. Records on Cityworks.

Inspection Frequency Key: A=annual, Q=Quarterly, M=monthly, W=weekly, S=following appreciable storm event, U=Unique infrastructure specific (specify)

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.

STANDARD OPERATING PROCEDURE **PARKS MAINTENANCE DIVISION** **ACTIVITY:** **MONTHLY OPERATIONS AND MAINTENANCE SITE INSPECTION**		**ISSUE DATE:** MM/DD/YYYY
APPROVED BY: _____ Department Director or Division Head		
PERMIT REQUIREMENT SUMMARY: X.X.X.X.X Summary of Activity	**TARGETED POLLUTANTS OR HAZARDS:**	

A. PURPOSE/DESCRIPTION:

1. Provide comprehensive visual inspection for high-priority city owned facilities. Record monthly the observations made, with a full UPDES report done annually.

B. WORK PROCEDURES:

1. Walk through the entire outside maintenance areas and look for any evidence of the following:
   a. Any oil/contaminants present on the ground from the equipment.
   b. Trash/debris around site that should be in swept up
   c. Drainage swell free of debris
   d. Floatables/silt in the catch basins
   e. Housekeeping issues needing attention

C. CREW MEMBERS INVOLVED:

1. 1 Crew Member

D. EQUIPMENT (IF APPLICABLE):

1. Personal Protective Equipment:
   a. Safety shoes, safety glasses, hard hat (if necessary)

E. EQUIPMENT CLEANUP PROCEDURES:

1. If any equipment is used, it will be washed in the designated Equipment Wash Out Area which has two drain boxes that drain into the sanitary sewer

F. FORMS AND DOCUMENTATION:

1. All records will be kept on Cityworks

	STANDARD OPERATING PROCEDURE **PARK MAINTENANCE DIVISION** **ACTIVITY:** **SEMI-ANNUAL OPERATIONS AND MAINTENANCE SITE INSPECTION**		**ISSUE DATE:** MM/DD/YYYY
APPROVED BY: _____ Department Director or Division Head			
PERMIT REQUIREMENT SUMMARY: X.X.X.X.X Summary of Activity		**TARGETED POLLUTANTS OR HAZARDS:**	

A. PURPOSE/DESCRIPTION:

1. Provide comprehensive visual inspection for high-priority city owned facilities.

B. WORK PROCEDURES:

1. Walk through the entire outside maintenance areas and look for any evidence of the following:
   a. Any oil/contaminants present on the ground from the equipment
   b. Trash/debris around site that should be in swept up
   c. Drainage swell free of debris
   d. Floatables/silt in the catch basins
   e. Housekeeping issues
   f. Make sure all garbage container lids are closed
   g. Floor dry bins needing absorbent by the fuel pumps
   h. Inspect and Maintenance COB/OWS
   i. Inspect spill kits

C. CREW MEMBERS INVOLVED:

1. 1 Crew Member

D. EQUIPMENT (IF APPLICABLE):

1. Personal Protective Equipment:
   a) Safety shoes
   b) Hard hat (if necessary)

E. EQUIPMENT CLEANUP PROCEDURES:

1. If any equipment is used, it will be washed in the designated Equipment Wash Out Area which has two drain boxes that drain into the sanitary sewer

F. FORMS AND DOCUMENTATION:

1. All records will be kept on Cityworks

	STANDARD OPERATING PROCEDURE **PARK MAINTENANCE DIVISION** **ACTIVITY:** **ANNUAL OPERAIONS and MAINTENANCE SITE INSPECTION**		**ISSUE DATE:** MM/DD/YYYY
APPROVED BY: _____ Department Director or Division Head			
PERMIT REQUIREMENT SUMMARY: X.X.X.X.X Summary of Activity		**TARGETED POLLUTANTS OR HAZARDS:**	

A. PURPOSE/DESCRIPTION:

1. Provide comprehensive visual inspection for high-priority city owned facilities.

B. WORK PROCEDURES:

1. Walk through the entire outside maintenance areas and look for any evidence of the following:
   a. Any oil/contaminants present on the ground from the equipment.
   b. Trash/debris around site that should be in swept up
   c. Drainage swell free of debris
   d. Floatables/silt in the catch basins
   e. Inspect spill kits
   f. Make sure all garbage container lids are closed.
   g. Inspect housekeeping
   h. Visually observe the quality of the storm water discharge from site during the first half hour of a measurable storm. Document color, floatables, smells, contaminant sheen (if present)

C. CREW MEMBERS INVOLVED:

1. 1 Crew Member

D. EQUIPMENT (IF APPLICABLE):

1. Personal Protective Equipment:
   a) Safety shoes
   b) Hard hat (if necessary)
   c) Rubber gloves

E. EQUIPMENT CLEANUP PROCEDURES:

1. If any equipment is used, it will be washed in the designated Equipment Wash Out Area which has two drain boxes that drain into the sanitary sewer

F. FORMS AND DOCUMENTATION:

1. All records will be kept on Cityworks

SMALL NON HAZARDOUS SPILL CLEAN-UP REPORTING FORM

Your Name_____

Your division_____

Address of spill_____

Was the spill caused by a city vehicle? If so V I D #_____

Was the spill caused by a citizen/employee_____

Describe the spill_____

_____

_____

Can you identify the material of the spill? _____YES NO (Circle one)

_____

Did the spill go into the storm drain?_____YES NO (Circle one)

_____

About how much was spilled?_____

How did you contain the spill?_____

_____

How did you clean up the spill?_____

_____

How did you dispose of the spilled material?_____

_____

How did you notice the spill?_____

_____

What kind of surface was it on?_____

Date and Time the spill was cleaned up?_____

SPILL LOG
STORM WATER POLLUTION PREVENTION PLAN
WEST VALLEY CITY
PARKS AND GOLF COURSES

DATE	LOCATION	WHAT SPILLED	PROPERLY CONTAINED & CLEANED	MANAGER NOTIFIED

STORM WATER POLLUTION PREVENTION TRAINING
WEST VALLEY CITY
PARK MAINTENANCE DIVISON

Date	Name	Location	Type

MAINTENANCE LOG

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

West Valley City
Parks and Recreation Department
Parks and Golf Courses Maintenance

Objective: On site management of potential pollutants as they relate to storm water contamination.

Table of Contents:

Section 1: Storm water protection plan
Section 2: Lists of parks and golf courses and maps
Section 3: Standard Operating Procedures
Section 4: Description and frequency of tasks
Section 5: Spill prevention plan and clean up procedures
Section 6: Forms used for reporting and logging incidents

Parks and Recreation
Golf Courses and Parks
Storm Water Management Plan (2020)

Objective: On site management of potential pollutants as they relate to storm water contamination.

Items of Concern:

1. Parking Lots
2. Maintenance Facility Parking Lots
3. Fertilizer and Pesticide Management
4. Disposal Food and Beverage Oils
5. Disposal of Engine Oils
6. Management of Grass clippings, Sand, and other Large Particulates.
7. Gasoline and Diesel
8. Waste Disposal
9. Training and Records

1) Parking Lots: Storm Water is collected in boxes throughout the Parking Areas. These are cleaned on a regular basis and or included a fabric cover to collect clippings and Parking lot residue.

2) Maintenance Facility Parking Lots: The Storm Water collected in these lots is in the same collection system as the Parking Lots. However, these lots are swept due to the amount of material in the lots associated with grounds maintenance. Fabric covers maybe employed in these areas.

3) Fertilizer and Pesticide Management: All Fertilizer and Pesticides used on the Golf Courses and Parks are stored in the Maintenance Facilities designated fertilizer and chemical storage room/area. Spill containment pallets are used for the following items: Granular and Liquid Fertilizers, Herbicides (selective and non-selective), Granular and Liquid Fungicides, all Paints (excluding Aerosols). Liquid spills are cleaned with sawdust and/or spill absorbents. Granular spills are collected and used on the golf course for turf grass nutritional purposes.

4) Disposal of Food and Beverage Oils: Used oils are contained in 55 Gallon Drums on spill containments pallets and collected by Emerald Recycling Company on an as-needed basis.

5) Disposal on Engine Oil: Used oil is collected in the Maintenance Facilities in 55-gallon drums which are recycled by Emerald Recycling Company on an as-needed basis. Spills are cleaned with sawdust and oil absorbent materials.

6) Management of Grass Clipping, Sand and other Large Particulates: The wash areas for all Maintenance Equipment are designed containment areas, channeling all wash water and other materials into a holding tank or onto turf. West Valley City Public Works Dept. will empty tank on a regular schedule, estimated at biweekly.

7) Gasoline and Diesel: Spill containment is managed in two ways.

A. Golf Course Fuel tanks are of the Convolute type. This is a fuel tank within a containment tank. Containment 100%.
B. The redundant system is a fuel area containing the tanks. A concrete curb wall surrounds the fueling area; containment is a second 100%. For spills outside of the fueling area a drum of absorbent is kept and maintained at the fueling center at all times.

8) Waste Disposal: Solid waste disposal is contracted with Waste Management. Used oil disposal is recycled with Emerald Recycling Company. Clippings from mowers are primarily not collected on the golf course or in Parks. Collected clippings are recycled for mulch around trees and other woody plants.

9) Employee Training and Records: Monthly safety/operational meetings are held with the maintenance staff. These meetings concern aspects of safety, water management, customer relations, materials handling, and other BMP's concerning the golf course maintenance operations. Attendance and subjects are recorded in the golf course SWPPP and inspected by storm water inspectors on a quarterly basis. The Public Works dept. conducts these inspections.
Weekly observations/inspections of areas are conducted and recorded. These forms are part of the SWPPP on-site.

Contact List

West Valley City Parks Department
2855 S. 3600 W.
West Valley City, Utah 84119

Parks Superintendent
Kent Jensen (801) 509-1934

The Ridge Golf Club
5055 W. Westridge Blvd.
West Valley City, Utah 84118

Golf Course Superintendent
Robert Winter 801-509-2313

Head Golf Professional
Bryan Abney (801) 509-1965

Food and Beverage Manager
Jeremy Erkilla 801 957-9000

Stonebridge Golf Course
4415 Links Dr.
West Valley City, Utah 84120

Golf Course Superintendent
Matt Isbell 801 509-1961

Head Golf Professional
Clark Garso 801 957-9000

Food and Beverage Manager
Jeremy Erkilla 801 957-9000

The Ridge Golf Club

5055 W. Westridge Blvd.
West Valley City, Utah 84118

The Ridge is an 18-hole golf course that sits on approximately 200 acres with 120 acres of maintained turf, the remaining acreage consisting of lakes, streams, and native grass areas.

- The Ridge Clubhouse is approximately 12,000 sq. feet. This includes a pro shop, café, full-size kitchen, large banquet area, offices, men's and women's restrooms, and a golf cart storage area.

- The Ridge Maintenance building is located at 5335 South Ridge Village Drive. It is an 8000 square foot building with three offices, men's and women's bathrooms with showers, a break room, a chemical storage room, mechanical room, and grinding room.

- There are 2 small restrooms on the course.

- The Driving Range building with men's and women's bathrooms, storage, and ball wash area

- The pumphouse near 6400 West is used for irrigating the golf course.

Ridge Maintenance floor drain locations
All floor drains go to sewer system

1. Women's Restroom
2. Men's Restroom
3. Mechanical Room
4. Main Shop, North and South Sides

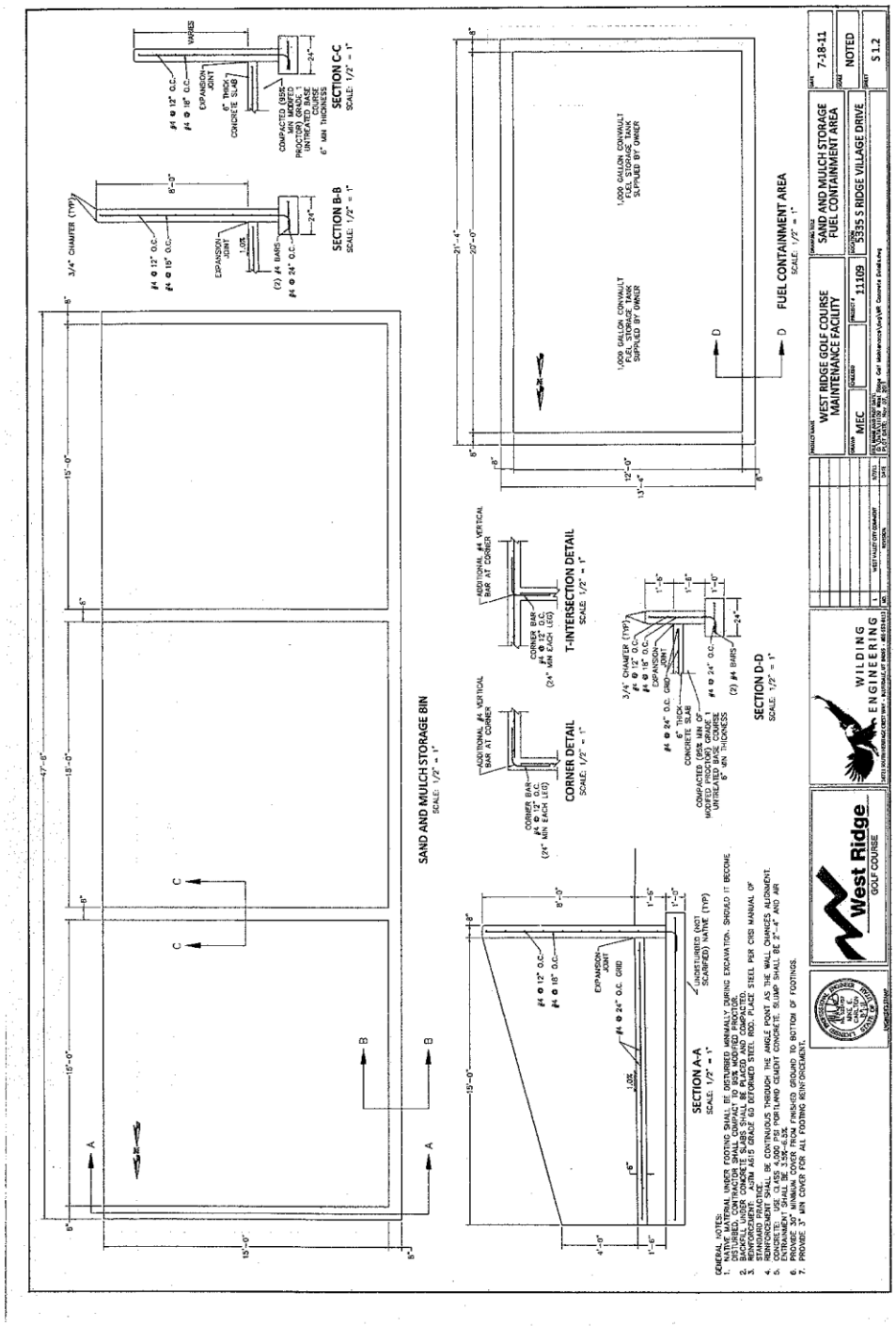
Restrooms located on golf course

1. All 3 restrooms have floor drains in the men's and women's bathrooms.
2. The driving range building has an additional floor drain in ball washing area.

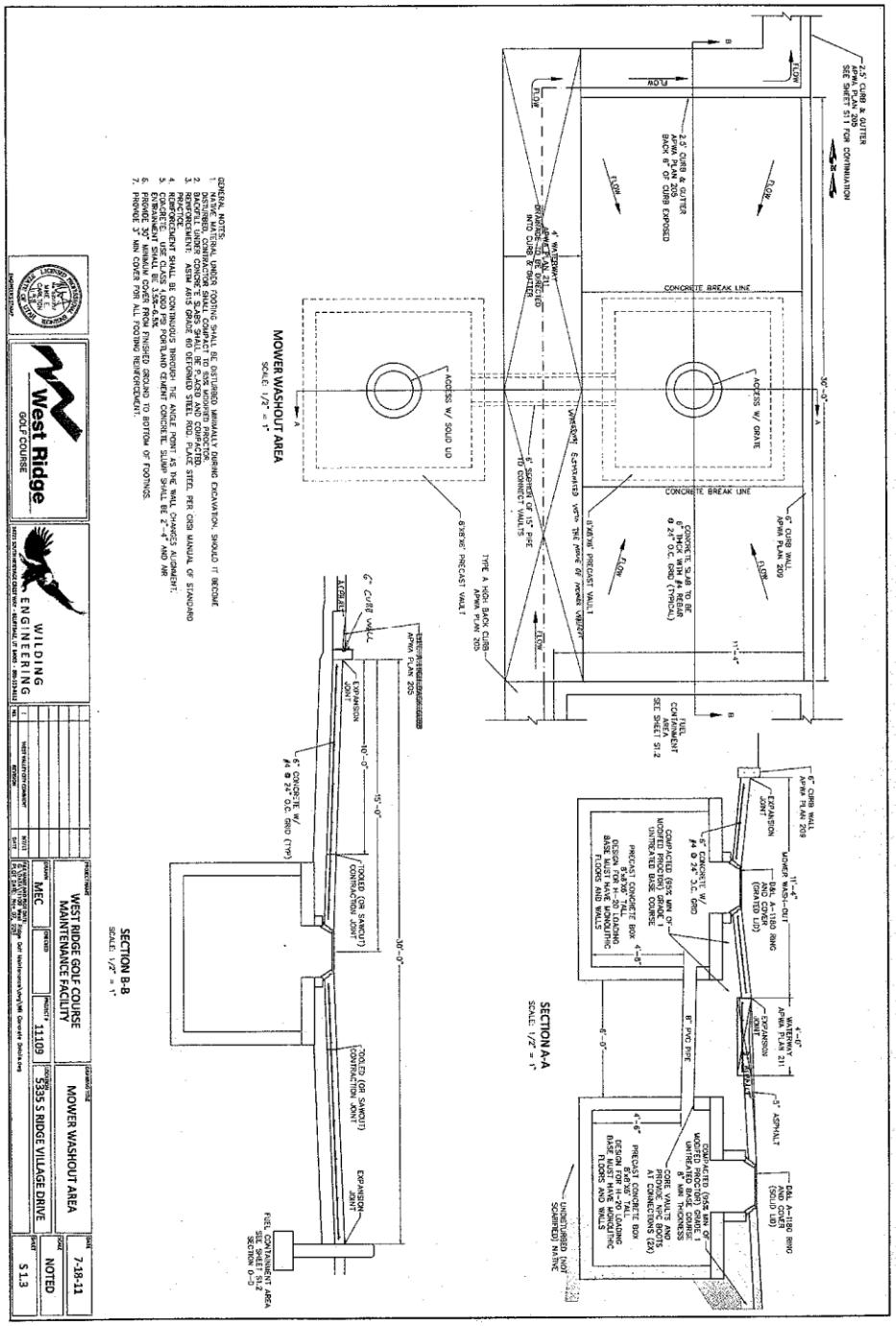
Ridge Storm Drains

1. Maintenance Parking lot
2. West Ridge Boulevard
3. 5600 West Overflow
4. Clubhouse Parking lot
5. 6400 West inlet
6. Mountain View Corridor inlet

The Ridge Golf Club



Ridge Maintenance Material Containment



Ridge Maintenance Washout Area

West Valley City
Parks and Recreation
Best Management Practices
Standard Operating Procedures

Objective: Onsite management of mowing, trimming, edging, debris removal and fertilizer and pesticide applications to provide a safe working environment and pollution free parks and golf courses.

Storm Water Training & Inspections

- Pollution preventions training for all parks personnel will be performed annually during the month of February. This training will also be part of orientation of new employees as well as rehired seasonal employees.
- Employees are supervised to ensure compliance.
- Sites are inspected weekly by qualified personnel.

Lawn Maintenance Activities

- Read manual if available. Become familiar with machine safety.

- Watch safety/training videos.

- Inspect mower before operating. Ensure all guards and shields are in place. Check for loose bolts/nuts and tighten if necessary. Do not make repairs or adjustment to mower while engine is running, unless owner's manual states otherwise.

- Eye and ear protection is provided and is requires that it be worn while operating any type of power equipment.

- Check the mower for presence of an enclosed canopy for head protection or ensure proper head protection be used.

- Check fluid levels before starting daily work and after lunch.

- Check area to be mowed and remove all trash, papers, bottles, rocks and other debris.

- When mowing, always make two to three passes around the outside, discharging clippings to the inside of the property being mowed.

- Always maintain a safe operating distance from people, at least 40 feet. If people are using the area you are mowing, mow around them, maintaining a safe distance, or ask them to move. **Always discharge clippings away from people.**

- After mowing, blow all grass clippings from walks and ensure curbs and gutters are cleaned of all grass clippings and dirt.

- Avoid hitting and damaging objects with mower by maintaining a safe distance between objects and mower. Be especially careful not to hit trees.

- When transporting, always ensure mower is fastened securely to trailer with chains and/or straps. Apply parking brake properly.

- Exercise extra care while mowing on slopes. Wear seat belts and ensure all safety systems are in place. Avoid sudden starts and stops on slopes. Do not park on slopes.

- Always refuel safely, follow refueling SOPs.

- Check for presence of a complete functioning spill kit

Edging procedure

- Before using:
    - Make sure you know whether edger is two stroke or four stroke
    - Check edger to ensure all guards and safety devices are properly installed and are not broken
    - Ensure all bolt, screws and fasteners are tight
    - Check fuel level and add as needed following refueling procedures
        - Use mixed fuel for two stroke edger
        - Use regular fuel for four stroke edger
    - Check oil level, if applicable
    - Check edger blade wear
    - Report any broken, missing or loose parts so they can be fixed before use
- During Use:
    - Safety glasses and ear plugs are required
    - Stay behind machine
    - Set blade depth to cut the edge between ¼ to ¾ of an inch deep
    - Stay next to sidewalks and curbs, trying to grind as little of the concrete as possible
    - Stop blade when changing from one area to another
    - Exercise extreme caution when edging around vehicles
    - Watch for sprinkler heads, do not cut them
    - Edges should be squared off to 90 degrees
    - Check blade for wear, replace when needed
    - Make sure edger is shut off before performing maintenance or repairs
    - Follow refueling procedures when refueling

- If you have any questions, please ask appropriate supervisor

Debris blowing procedure

- Before using:
    - Check blower to ensure all guards and safety devices are properly installed and are not broken
    - Ensure all bolt, screws and fasteners are tight
    - Check fuel level and add as needed following refueling procedures
    - Report any broken, missing or loose parts so they can be fixed before use
- During Use:
    - Safety glasses and ear plugs are required
    - Blow debris from sidewalks, cart paths, jogging paths, parking lots, and curb and gutters
        - Blow grass clippings and other green waste back onto turf
        - Pick up garbage
        - Ensure curb and gutters are clean to prevent any debris from entering the storm drain system
    - Exercise extreme caution when blowing around vehicles
    - Do not blow debris at people
    - Make sure blower is shut off before performing maintenance or repairs
    - Follow refueling procedures when refueling
- If you have any questions, please ask appropriate supervisor

Equipment Maintenance Activities

- Visually check equipment to ensure all safety equipment is functional.
- Check for leaks i.e. hydraulic, cooling, engine fluids or fuel daily.
- Read all applicable service manuals and develop service plans to ensure all service parts are replaced as to date and hours on the equipment.
- Make sure all hoses and related equipment are replaced when required by the service manual to reduce spills.
- Dispose of all fluids in a manner not to pollute storm water drainage or sewer system.
- Check that each applicable machine has a complete spill response kit.
- In the event of a spill the machine is to be put on a trailer and brought in to the repair shop rather spilling a containment on the ground all the way in. Unless the leak can be repaired in the field.

Vehicle and Equipment Cleaning

- Vehicles and equipment are to be washed on approved wash areas.

- Washed vehicles or equipment is never to be washed where water could enter the storm drain system or open water.

Chemical/Material Storage

- All fertilizer and pesticide containers are in designated area and in containment bins.
- Fertilizers and pesticides are to be used correctly as to the direction on product label.
- Liquid Formulations have containment bins to contain any size leaks.
- Granular formulations are to be swept and removed off paths and roadways.
- Never apply a product to adjacent waterways unless product label indicates that it is safe to do so.
- Fertilizer and pesticide applicators will be licensed or supervised directly by a licensed applicator.
- In the event of a spill the effected will be cleaned-treated as the label of the particular formulation requires.

Refueling Procedure

In areas with a fuel pump:

- Park next to appropriate pump
- Turn off engine
- While equipment is being refueled, stay where you can see nozzle.
- If a spill occurs, spread appropriate spill containment (located by pumps) to soak op the spill, and then dispose of properly.
- If spill occurs fill out spill report and turn in to supervisor

If refueling in a park or on a golf course using a gas can:

- If possible get to a hard surface such as a parking lot, sidewalk or cart path.
- Turn off engine.
- Use caution while refueling to ensure fuel does not spill.
- If spill occurs, spread appropriate spill containment (pad or calcined clay, located on the equipment or transport vehicle), and clean up as required.
- If spill occurs fill out spill report and turn in to supervisor.

Cleaning of garbage containers

- Garbage containers are to be washed out on an appropriate wash pad.

- Wash water is to be treated before entering sewer system.
- Wash water is never allowed to drain into storm drains

Proper Sediment/Erosion control

- Silt fences are to be employed to prevent soil from running into adjacent waterways during projects and when bare soil is present.

GOLF COURSE ACTIVITES

Description of Task	
Equipment maintenance	Daily
Irrigation Maintenance	Daily
Mowing	
Greens, Mowing	Daily
Greens, Verticut	Bi-weekly
Greens, Topdress	Monthly
Tees, Mowing	Daily
Tees, Topdress	Monthly
Fairways, Mowing	Daily
Fairways, Topdress	Annually
Roughs, Mowing	Daily
Golf Course Setup	
Cut Cups	Daily
Move Tee Markers	Daily
Trash, Ball Washers, Restrooms	Daily
Bunkers, Rake	Daily
Bunkers, Trim	Quarterly/as needed
Bunkers, Install Sand	Annually
Fertilization	
Greens	Quarterly/as needed
Tees	Quarterly
Fairways	Quarterly
Rough	Quarterly
Native Grass Areas	Never
Spraying	
Greens	As needed
Tees	As needed
Fairways	As needed

Roughs	As needed
Trees	As needed
Watering trees	As needed

Spill Prevention plan and clean up procedures

Spill Prevention - Materials and Waste Handling and Storage

- If possible, liquid or hazardous materials should be handled, used, stored, re-package and transferred indoors or under cover.
- Deliveries of bulk liquids should be supervised. Down gradient storm drain inlets should be covered during deliveries.
- Cover and contain containers, materials and wastes.
- Keep all containers closed unless adding or removing materials.

Spill Kit Maintenance

- Spill kits are located at the following locations: _WVC Parks Building, Westridge Maintenance Building and Stonebridge Maintenance Building and on/in equipment.
- Inspections of spill kit and re-supplying is done monthly

Gasoline or Diesel Spills

- Immediately stop
- Turn off engine
- Remove kit contents immediately put on latex gloves
- Assess nature of spill. Gasoline, diesel, oil, or anti-freeze
- Act quickly but safely, use absorbent pads and rolls to surround and contain spill.
- Contact Supervisor for appropriate pan, bucket, etc. to stop spill from reaching the containment pads.
- Dispose and decontaminate the area using containment bag in the kit and in compliance with local state and federal regulations. If necessary, decontaminate the spill site, personnel and equipment.
- Fill out the spill reporting form file with your supervisor

Hydraulic spill

- Immediately stop
- Turn off engine
- Remove kit contents immediately put on latex gloves
- Assess nature of spill.
- Act quickly but safely, use absorbent pads and rolls to surround and contain spill.
- Contact Supervisor for appropriate pan, bucket, etc. to stop spill from reaching the containment pads.
- If spill reaches soil dig up affected area. Dispose of soil appropriately.

Chemical spill

Granular application

- Clean up spills by sweeping, or blowing product into a pile and collecting
- Use on another property when possible
- Notify your supervisor
- Fill out a spill reporting after the clean up process

Liquid Spill

- Follow proper cleaning procedures using mats, absorbent material, and waddles to prevent spreading
- Dispose of properly
- Notify your supervisor
- Fill out a spill reporting form after the clean up process

Gas Storage tank leak

- Put waddles around storm drain**s**
- Cover storm drain
- Use absorbent pads and or calcified clay or other absorbent
- Dispose of absorbent properly

Spill Reporting Form
Storm Water Pollution Prevention Plan
West Valley City
Park Maintenance Division

Date _____ Person Reporting Spill _____

Spill Location _____

Action(s) Taken _____

_____

_____

- - - -

SPILL LOG
STORM WATER POLLUTION PREVENTION PLAN
WEST VALLEY CITY
PARKS AND GOLF COURSES

DATE	LOCATION	WHAT SPILLED	PROPERLY CONTAINED & CLEANED	MANAGER NOTIFIED

STORM WATER POLLUTION PREVENTION TRAINING
WEST VALLEY CITY
PARK MAINTENANCE DIVISON

Date	Name	Location	Type

Water Activities	
Date	Activity

West Valley City
Parks and Recreation Department
Parks and Golf Courses Maintenance

Objective: On site management of potential pollutants as they relate to storm water contamination.

Table of Contents:

Section 1: Storm water protection plan
Section 2: Lists of parks and golf courses and maps
Section 3: Standard Operating Procedures
Section 4: Description and frequency of tasks
Section 5: Spill prevention plan and clean up procedures
Section 6: Forms used for reporting and logging incidents

Parks and Recreation
Golf Courses and Parks
Storm Water Management Plan

Objective: On site management of potential pollutants as they relate to storm water contamination.

Items of Concern:

1. Parking Lots
2. Maintenance Facility Parking Lots
3. Fertilizer and Pesticide Management
4. Disposal Food and Beverage Oils
5. Disposal of Engine Oils
6. Management of Grass clippings, Sand, and other Large Particulates.
7. Gasoline and Diesel
8. Waste Disposal
9. Training and Records

1) Parking Lots: Storm Water is collected in boxes throughout the Parking Areas. These are cleaned on a regular basis and or included a fabric cover to collect clippings and Parking lot residue.

2) Maintenance Facility Parking Lots: The Storm Water collected in these lots is in the same collection system as the Parking Lots. However, these lots are swept due to the amount of material in the lots associated with grounds maintenance. Fabric covers maybe employed in these areas.

3) Fertilizer and Pesticide Management: All Fertilizer and Pesticides used on the Golf Courses and Parks are stored in the Maintenance Facilities designated fertilizer and chemical storage room/area. Spill containment pallets are used for the following items: Granular and Liquid Fertilizers, Herbicides (selective and non-selective), Granular and Liquid Fungicides, all Paints (excluding Aerosols). Liquid spills are cleaned with sawdust and/or spill absorbents. Granular spills are collected and used on the golf course for turf grass nutritional purposes.

4) Disposal of Food and Beverage Oils: Used oils are contained in 55 Gallon Drums on spill containments pallets and collected by Emerald Recycling Company on an as-needed basis.

5) Disposal on Engine Oil: Used oil is collected in the Maintenance Facilities in 55 gallon drums which are recycled by Emerald Recycling Company on an as-needed basis. Spills are cleaned with sawdust and oil absorbent materials.

6) Management of Grass Clipping, Sand and other Large Particulates: The wash areas for all Maintenance Equipment are designed containment areas, channeling all wash water and other materials into a holding tank or onto turf. West Valley City Public Works Dept. will empty tank on a regular schedule, estimated at bi weekly.

7) Gasoline and Diesel: Spill containment is managed in two ways.

A. Golf Course Fuel tanks are of the Convolute type. This is a fuel tank within a containment tank. Containment 100%.
B. The redundant system is a fuel area containing the tanks. A concrete curb wall surrounds the fueling area; containment is a second 100%. For spills outside of the fueling area a drum of absorbent is kept and maintained at the fueling center at all times.

8) Waste Disposal: Solid waste disposal is contracted with Waste Management. Used oil disposal is recycled with Emerald Recycling Company. Clippings from mowers are primarily not collected on the golf course or in Parks. Collected clippings are recycled for mulch around trees and other woody plants.

9) Employee Training and Records: Monthly safety/operational meetings are held with the maintenance staff. These meetings concern aspects of safety, water management, customer relations, materials handling, and other BMP's concerning the golf course maintenance operations. Attendance and subjects are recorded in the golf course SWPPP and inspected by storm water inspectors on a quarterly basis. The Public Works dept. conducts these inspections. Weekly observations/inspections of areas are conducted and recorded. These forms are part of the SWPPP on-site.

Storm Water Pollution Prevention Team Members and Resonsibilities
Stonebridge Golf Course

Name	Title	Description of Responsibilities
Matt Isbell	Golf Course Superintendent	Responsiible for all of the grounds department's materials, equipment and SWPPP compliance. Ensures that all chemicals, pesticides, herbicides and fertilizers are stored and dispensed in the correct manner. Maintains records on emploee certification and conducts job specific training with all golf course maintenance employees.
NA	Equipment Manager	Equipment Manager is charge of SWPPP compliance for equipment dept. Maintains inventory records and material disposal records for products such as: used batteries, used tires, oil, coolant, and hydraulic fluids. Also responsible for all housekeeping practices at the fleet facility.
Clark Garso	Head Golf Course Professional	Responsible for all of the Operations department's materials, equipment and SWPPP compliance. Ensures that all chemicals, cleaners, etc. are stored and dispensed in the correct manner. Maintains records on emploee certification and conducts job specific training with all golf course operations employees. Responsible for maintenance and cleaning of golf carts and disposal records for products such as: used batteries, used tires, oil, coolant, and hydraulic fluids. Responsible for all housekeeping practices at the pro shop.
Jeremy Erkilla	Food and Beverage Manager	Responsible for all of the Food and Beverage materials, equipment and SWPPP compliance. Ensures that all chemicals, cleaners, and cooking oils are stored and dispensed in the correct manner. Maintains records on emploee certification and conducts job specific training with all golf course maintenance employees. Responsible for all housekeeping practices in the café.

Contact List

Stonebridge Golf Course
4415 Links Dr.
West Valley City, Utah 84120

Golf Course Maintenance Superintendent
Matt Isbell 801 509-1961

Head Golf Professional
Clark Garso 801 957-9000

Food and Beverage Manager
Jeremy Erkilla 801 957-9000

Stonebridge Golf Course

4415 W. Links Drive
West Valley City, Utah 84120

Stonebridge is a 27 hole golf course. It sits on approximately 250 acres but has 180 acres of maintained turf and landscape beds. The excess area is lakes, canals and riparian areas.

- Stonebridge has 12,000 sq. ft clubhouse. This includes a proshop, café, full size kitchen, large banquet area, offices, and men's and ladies restrooms including locker rooms and golf cart storage area.
- Stonebridge Maintenance Building is located across Links Dr from Clubhouse. It is a 5000 sq. foot building that has 2 offices, break room, 2 restrooms, shower room, storage area, grinding room and pesticide storage room.
- Pumphouse #1 sits in clubhouse parking lot, this pumphouse generates water that goes in to canal system.
- Pumphouse #2 is across Lake Park Lake south east of the clubhouse. This pumphouse is for irrigating the golf course.
- 3 small restrooms on golf course

Stonebridge Maintenance Building
All floor drains go to sewer system

1. Ladies Restroom
2. Shower Room
3. Mens restroom
4. Main Shop South side in middle
5. Main Shop North side in middle

Restrooms located on golf course

1. Southwest restrooms have a floor drain in all three rooms.
2. South central restrooms have a floor drain all rooms.
3. Southeast restrooms have a floor drain in all three rooms

Stonebridge Storm Drains

1. 2 storm drains Maintenance/parking lot over flow
2. 1 Southeast corner
3. 1 Southwest corner
4. 1 Northeast corner
5. 1 North West corner
6. 1 West side middle
7. 1 East side middle

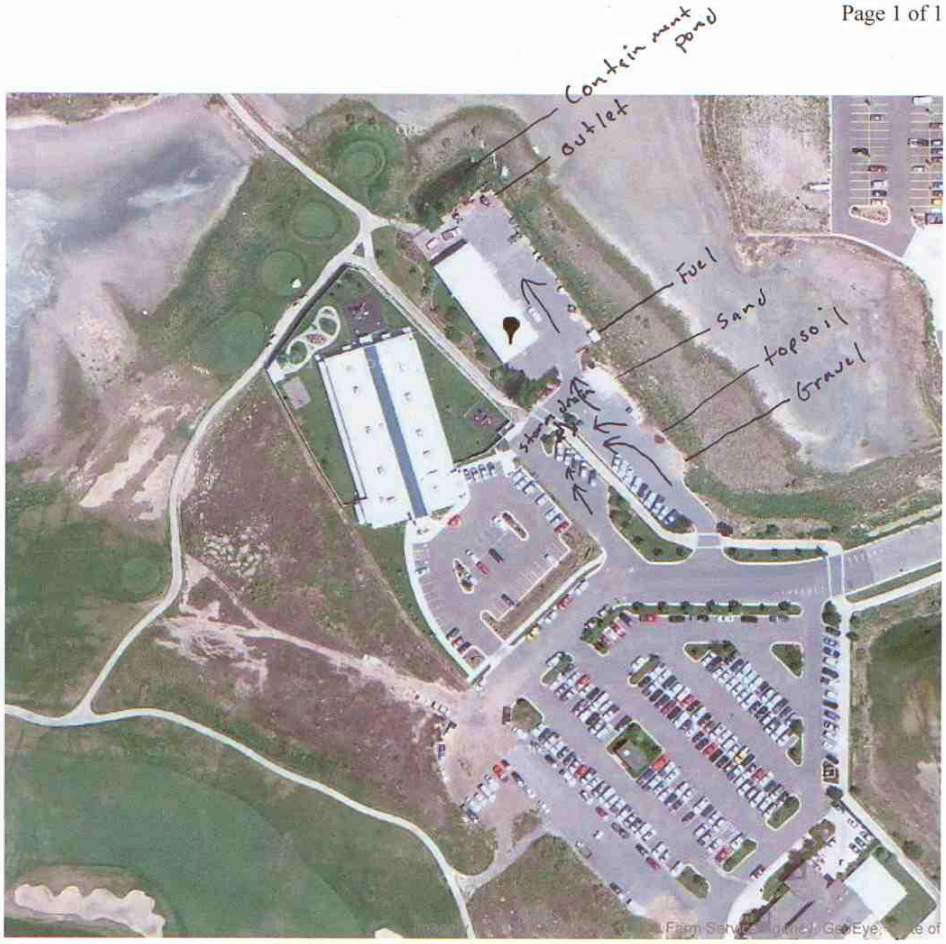
STONEBRIDGE GOLF COURSE

Stonebridge Golf Club

Legend

1. Maintenance Building
2. Pumphouse #1
3. Pumphouse #2
4. Southeast restroom
5. Central restroom
6. Southwest restroom

STONEBRIDGE MAINTENANCE BUILDING


Contain ment pond
outlet
Fuel
Sand
topsoil
Gravel

Mower Wash Area

100% Camera: 1,648 m 40°43'13"N 111°59'57"W 1,291 m

https://earth.google.com/web/@40.72008866,-111.99804679,1289.61132011a,358.32067974d,35y,359.80765742h,0t,0r 1/1

Stonebridge Golf Club
Best Management Practices
Standard Operating Procedures

Objective: Onsite management of mowing, trimming, edging, debris removal and fertilizer and pesticide applications to provide a safe working environment and pollution free parks and golf courses.

Storm Water Training & Inspections

- Pollution preventions training for all parks personnel will be performed annually during the month of February. This training will also be part of orientation of new employees as well as rehired seasonal employees.
- Employees are supervised to ensure compliance.
- Sites are inspected weekly by qualified personnel.

Lawn Maintenance Activities

- Read manual if available. Become familiar with machine safety.

- Watch safety/training videos.

- Inspect mower before operating. Ensure all guards and shields are in place. Check for loose bolts/nuts and tighten if necessary. Do not make repairs or adjustment to mower while engine is running, unless owner's manual states otherwise.

- Eye and ear protection is provided and is requires that it be worn while operating any type of power equipment.

- Check the mower for presence of an enclosed canopy for head protection or ensure proper head protection be used.

- Check fluid levels before starting daily work and after lunch.

- Check area to be mowed and remove all trash, papers, bottles, rocks and other debris.

- When mowing: always make two to three passes around the outside, discharging clippings to the inside of the property being mowed.

- Always maintain a safe operating distance from people, at least 40 feet. If people are using the area you are mowing, mow around them, maintaining a safe distance, or ask them to move. **Always discharge clippings away from people.**

- After mowing, blow all grass clippings from walks and ensure curbs and gutters are cleaned of all grass clippings and dirt.

- Avoid hitting and damaging objects with mower by maintaining a safe distance between objects and mower. Be especially careful not to hit trees.

- When transporting, always ensure mower is fastened securely to trailer with chains and/or straps. Apply parking brake properly.

- Exercise extra care while mowing on slopes. Wear seat belts and ensure all safety systems are in place. Avoid sudden starts and stops on slopes. Do not park on slopes.

- Always refuel safely, follow refueling SOPs.

- Check for presence of a complete functioning spill kit

Edging procedure

- Before using:
    - Make sure you know whether edger is two stroke or four stroke
    - Check edger to ensure all guards and safety devices are properly installed and are not broken
    - Ensure all bolt, screws and fasteners are tight
    - Check fuel level and add as needed following refueling procedures
        - Use mixed fuel for two stroke edger
        - Use regular fuel for four stroke edger
    - Check oil level, if applicable
    - Check edger blade wear
    - Report any broken, missing or loose parts so they can be fixed before use
- During Use:
    - Safety glasses and ear plugs are required
    - Stay behind machine
    - Set blade depth to cut the edge between ¼ to ¾ of an inch deep
    - Stay next to sidewalks and curbs, trying to grind as little of the concrete as possible
    - Stop blade when changing from one area to another
    - Exercise extreme caution when edging around vehicles
    - Watch for sprinkler heads, do not cut them
    - Edges should be squared off to 90 degrees
    - Check blade for wear, replace when needed
    - Make sure edger is shut off before performing maintenance or repairs
    - Follow refueling procedures when refueling
- If you have any questions, please ask appropriate supervisor

Debris blowing procedure

- Before using:
  - Check blower to ensure all guards and safety devices are properly installed and are not broken
  - Ensure all bolt, screws and fasteners are tight
  - Check fuel level and add as needed following refueling procedures
  - Report any broken, missing or loose parts so they can be fixed before use
- During Use:
  - Safety glasses and ear plugs are required
  - Blow debris from sidewalks, cart paths, jogging paths, parking lots, and curb and gutters
    - Blow grass clippings and other green waste back onto turf
    - Pick up garbage
    - Ensure curb and gutters are clean to prevent any debris from entering the storm drain system
  - Exercise extreme caution when blowing around vehicles
  - Do not blow debris at people
  - Make sure blower is shut off before performing maintenance or repairs
  - Follow refueling procedures when refueling
- If you have any questions, please ask appropriate supervisor

Equipment maintenance activities

- Visually check equipment to ensure all safety equipment is functional.
- Check for leaks i.e. hydraulic, cooling, engine fluids or fuel daily.
- Read all applicable service manuals and develop service plans to ensure all service parts are replaced as to date and hours on the equipment.
- Make sure all hoses and related equipment are replaced when required by the service manual to reduce spills.
- Dispose of all fluids in a manner not to pollute storm water drainage or sewer system.
- Check that each applicable machine has a complete spill response kit.
- In the event of a spill the machine is to be put on a trailer and brought in to the repair shop rather spilling a containment on the ground all the way in. Unless the leak can be repaired in the field.

Vehicle and Equipment Cleaning

- Vehicles and equipment are to be washed on grassed driving range tee.

- Washed vehicles or equipment is never to be washed where water could enter the storm drain system or open water.

Chemical/Material Storage

- All fertilizer and pesticide containers are in designated area and in containment bins.
- Fertilizers and pesticides are to be used correctly as to the direction on product label.
- Liquid Formulations have containment bins to contain any size leaks.
- Granular formulations are to be swept and removed off paths and roadways.
- Never apply a product to adjacent waterways unless product label indicates that it is safe to do so.
- Fertilizer and pesticide applicators will be licensed or supervised directly by a licensed applicator.
- In the event of a spill the effected will be cleaned-treated as the label of the particular formulation requires.

Refueling Procedure

In areas with a fuel pump:

- Park next to appropriate pump
- Turn off engine
- While equipment is being refueled, stay where you can see nozzle.
- If a spill occurs, spread appropriate spill containment (located by pumps) to soak op the spill, and then dispose of properly.
- If spill occurs fill out spill report and turn in to supervisor

If refueling in a park or on a golf course using a gas can:

- If possible get to a hard surface such as a parking lot, sidewalk or cart path.
- Turn off engine.
- Use caution while refueling to ensure fuel does not spill.
- If spill occurs, spread appropriate spill containment (pad or calcined clay, located on the equipment or transport vehicle), and clean up as required.
- If spill occurs fill out spill report and turn in to supervisor.

Cleaning of garbage containers

- Garbage containers are to be washed out on an appropriate wash pad.
- Wash water is to be treated before entering sewer system.
- Wash water is never allowed to drain into storm drains

Proper Sediment/Erosion control

- Silt fences are to be employed to prevent soil from running into adjacent waterways during projects and when bare soil is present.

GOLF COURSE ACTIVITES

Description of Task

Equipment maintenance	Daily
Irrigation Maintenance	Daily

Mowing

Greens, Mowing	Daily
Greens, Verticut	Bi-weekly
Greens, Topdress	Monthly
Tees, Mowing	Daily
Tees, Topdress	Monthly
Fairways, Mowing	Daily
Fairways, Topdress	Annually
Roughs, Mowing	Daily

Golf Course Setup

Cut Cups	Daily
Move Tee Markers	Daily
Trash, Ball Washers, Restrooms	Daily
Bunkers, Rake	Daily
Bunkers, Trim	Quarterly/as-needed
Bunkers, Install Sand	Annually

Fertilization

Greens	Quarterly/as-needed
Tees	Quarterly
Fairways	Quarterly
Rough	Quarterly
Native Grass Areas	Never

Spraying

Greens	As-needed
Tees	As-needed
Fairways	As-needed
Roughs	As-needed
Trees	As-needed
Watering trees	As-needed

Spill Prevention plan and clean up procedures

Spill Prevention - Materials and Waste Handling and Storage

- If possible, liquid or hazardous materials should be handled, used, stored, re-package and transferred indoors or under cover.
- Deliveries of bulk liquids should be supervised. Down gradient storm drain inlets should be covered during deliveries.
- Cover and contain containers, materials and wastes.
- Keep all containers closed unless adding or removing materials.

Spill Kit Maintenance

- Spill kits are located at the following locations: _WVC Parks Building, Westridge Maintenance Building and Stonebridge Maintenance Building and on/in equipment.
- Inspections of spill kit and re-supplying is done monthly

Gasoline or Diesel Spills

- Immediately stop
- Turn off engine
- Remove kit contents immediately put on latex gloves
- Assess nature of spill. Gasoline, diesel, oil, or anti-freeze
- Act quickly but safely, use absorbent pads and rolls to surround and contain spill.
- Contact Supervisor for appropriate pan, bucket, etc. to stop spill from reaching the containment pads.
- Dispose and decontaminate the area using containment bag in the kit and in compliance with local state and federal regulations. If necessary decontaminate the spill site, personnel and equipment.
- Fill out the spill reporting form file with your supervisor

Hydraulic spill

- Immediately stop
- Turn off engine
- Remove kit contents immediately put on latex gloves
- Assess nature of spill.
- Act quickly but safely, use absorbent pads and rolls to surround and contain spill.
- Contact Supervisor for appropriate pan, bucket, etc. to stop spill from reaching the containment pads.
- If spill reaches soil dig up affected area. Dispose of soil appropriately.

Chemical spill

Granular application

- Clean up spills by sweeping, or blowing product into a pile and collecting
- Use on another property when possible
- Notify your supervisor
- Fill out a spill reporting after the clean up process

Liquid Spill

- Follow proper cleaning procedures using mats, absorbent material, and waddles to prevent spreading
- Dispose of properly
- Notify your supervisor
- Fill out a spill reporting form after the clean up process

Gas Storage tank leak

- Put waddles around storm drain**s**
- Cover storm drain
- Use absorbent pads and or calcified clay or other absorbent
- Dispose of absorbent properly

Spill Reporting Form
Storm Water Pollution Prevention Plan
West Valley City
Park Maintenance Division

Date _____ Person Reporting Spill _____

Spill Location _____

Action(s) Taken _____

_____

_____

- - - -

SPILL LOG
STORM WATER POLLUTION PREVENTION PLAN
WEST VALLEY CITY
PARKS AND GOLF COURSES

DATE	LOCATION	WHAT SPILLED	PROPERLY CONTAINED & CLEANED	MANAGER NOTIFIED

STORM WATER POLLUTION PREVENTION TRAINING
WEST VALLEY CITY
PARK MAINTENANCE DIVISON

Date	Name	Location	Type

Storm water Check List

Check Drains sand	Check Sand Bags	Check for containers outside	check spill kits	date

EXHIBIT A

Parcel Number 15-29-202-015-0000

EXHIBIT B

Stormwater Pollution Prevention Plan

for:

West Valley City Public Works, Operations and Fleet Maintenance Facility
2805 S 3600 W
West Valley City, Utah 84119

PURPOSE AND RESPONSIBILTY

As required by the Clean Water Act and resultant local regulations, including West Valley 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 Stormwater Pollution Prevention Plan (SWPPP) 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 and generate loose litter must be prohibited, unless SOPs are written to manage those activities or operations, and amended into this SWPPP.

The Jordan River is impaired but does not have a TMDL. The SWPPP 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 infrastructure at our site is limited at controlling and containing pollutants and our operations if managed improperly can contaminate the environment. This SWPPP 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 swept up and deposited in our solid waste/sweeping containment bin, anything that isn't swept up will be carried by runoff to our storm drain inlets. This waste material will settle in our storm drain system increasing maintenance cost and solid and dissolved waste in our runoff is contained in our system which includes a series of sediment catch boxes and a retention pond before entering a split box with flow control to stop any missed contaminants before leaving our site. If they get past our onsite containment, they can ultimately make it to the Jordan River. Maintenance involves regular sweeping of our pavements and cleaning of our storm drain system when necessary.

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 our storm drain system increasing maintenance cost and solid and dissolved waste in our runoff can pass through our storm drain system ultimately polluting 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.

Storm Drain System

The storm drain inlets with higher risk of contaminates direct all runoff to a detention pond and through a stormwater treatment unit that is designed to allow all floatable material to stay on the surface of the detention basin and allow water to flow through the ground and out through an outfall which can be closed in case of a hazardous spill. This device is able to be bypassed during large storm events and the dissolved pollutants will pass through and harm the Jordan River. Also our stormwater treatment system has the potential to hold water at times which could provide an environment for mosquitos to breed. It is important to regularly maintain this system to protect the Jordan River and prevent mosquito breeding. Use our Storm Drain Maintenance SOP manage our storm drain system responsibly.

Waste Management

Our 6-yard dumpster and trash receptacles with lids are intended to prevent precipitation exposure minimizing liquids that can leak to pavements and from haul trucks.. Lids will also prevent the lightweight trash carried off by wind. There is an additional 30 yard open top dumpster that is used for large items. Debris will be kept under the top rim of the dumpster to prevent any risk of debris being blown out due to wind. Good waste management systems, if managed improperly, can become the source of the very pollution that they were intended to control.

Our sweepings containment bin is used for large objects which do not fit in our standard dumpster. This bin has 8 foot high concrete walls, a roof overhead and a containment bump to minimize and hopefully prevent any pollution caused by wind and/or rain.

Utility System

Our roof top and ground level utility system are exposed to our roof drains and parking lot drain boxes which drain to our pavements. These heating and air conditioner units contains oils and other chemicals that can harm the Jordan River if allowed to drain off our property. Liquids and other waste generated by maintenance of this system can be appropriately managed by our Spill Response/Containment 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.

This containment bin has a metal roof and can hold a maximum of 2000 tons of salt used for de-icing roads. The area directly in front of this containment bin is swept daily (weather permitting).

Equipment / Outside Storage

c

Slurry Operations Containment Area

This area is located along the South wall of the property. This area is where a tank trailer with a capacity of 4,100 gallons used for slurry oil, an extra thick wall tank with a capacity of 3,000 gallons used for Aluminum Sulfate are stored. This area is bedded with a gravel filter which absorbs and contains any spilled products. This area also has a containment bump in the front of it as a second line of defense to contain any runoff.

Asphalt Equipment Washout Containment Bin (Hydrocarbon Bin)

This containment bin is located along the South wall of the property. This area is used for washing all asphalt and slurry equipment. The floor of this bin drains to a box in the Southwest corner of the containment bin which drains to the sanitary sewer. The drain box grate is protected by either oil absorbent socks or gravel bags. The floor is covered with a gravel filter which absorbs any oil and asphalt material. This gravel filter media is hauled away and disposed of as per SOP when necessary. This containment bin has 8 foot high concrete walls and a metal roof to protect from wind/rain runoff.

Slurry Sand Containment Area

This area is located along the South wall of the property. It has 8 foot high concrete walls. Sand will be kept pushed within containment area to prevent water runoff.

Salt Equipment Storage Racks

There are two locations where salt insert sanders and plows will be stored. A hanging rack directly South of the Salt Containment Bin will be used for 5 salter/plow combos. The second location of hanging racks will be directly South of the Fuel Tank. This hanging rack will be used for 8 salter/plow combos. This area will be deep cleaned as a part of the semi-annual deep cleaning schedule.

Fuel Station/Tank Area

This facility has three fuel pumps which have 2 dispensers per pump. One pump for gasoline and two pumps for diesel. This fuel station is covered. These pumps are owned and maintained by West Valley City. The fuel tank is an above ground unit which holds 10,900 gallons of diesel fuel and 10,900 gallons of gasoline. The fuel tank is located along the East wall of the property and is surrounded by 3 concrete walls and has bollards placed in front of the unit to protect it from vehicles/equipment. A bin filled with absorbent is placed at each fuel pump. The absorbent bin contents are checked by the Storm Water Maintenance Supervisor at least once a month as part of the monthly site inspection.

All reported spills are recorded on Cityworks and cleaned up as per our Spill Response/Containment SOP.

Sweepings/Vactor Solids Containment Bin

This area is located along the South wall of the property. It has 8 foot high concrete wall, a metal roof and a containment bump to minimize any wind/rain runoff pollution. The contents of this bin are results from our street sweepings program. Once bin is full, the contents are then loaded into dump trucks and hauled off to the landfill for disposal. A copy of all weight receipts from sweepings hauled are kept by the Storm Water Maintenance Supervisor. These actions are covered with each activity SOP's.

Equipment Washout/Dewatering Area

This area is located along the South wall of the property. It has 8 foot high concrete walls and a metal roof to minimize any wind/rain runoff. The floor of this area slopes to the back and into two drain boxes which go to the sanitary sewer. The grates in this area are protected by gravel socks to only allow water to drain. There are 4 yard hydrants and a large water fill valve used for cleaning equipment. This area will be swept daily, weather permitting. These actions are covered with each activity SOP's.

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 SWPPP SOPs. Training is to be done annually along with our Snow Removal training. Training summary and attendance log to be kept by Storm Water Maintenance Supervisor.

SECTION 3: RECORDKEEPING

All maintenance records will be kept on our Cityworks database.

SECTION 4: APPENDICES

Appendix A- Site Drawings and Details
Appendix B- SOPs

APPENDIX A – SITE DRAWINGS AND DETAILS

MAINTENANCE/INSPECTION SCHEDULE

Frequency	Site Infrastructure.
M	Full site inspection done by Storm Water Maintenance Supervisor. Records on Cityworks.
B	Full site inspection done by Storm Water Maintenance Supervisor and Engineering Storm Water Inspector. Records on Citworks
A	Observe outfall from site and take water sample to check for oil/solid pollutants. Records on Cityworks.
S	Inspection of Salt Brine Containment Area and water sample taken to determine if it is safe to be drained. Records on Cityworks.

Inspection Frequency Key: A=annual, B=bi-annually, M=monthly, S=following appreciable storm event, U=Unique infrastructure specific (specify)

RECORD INSPECTIONS IN THE MAINTENANCE LOG

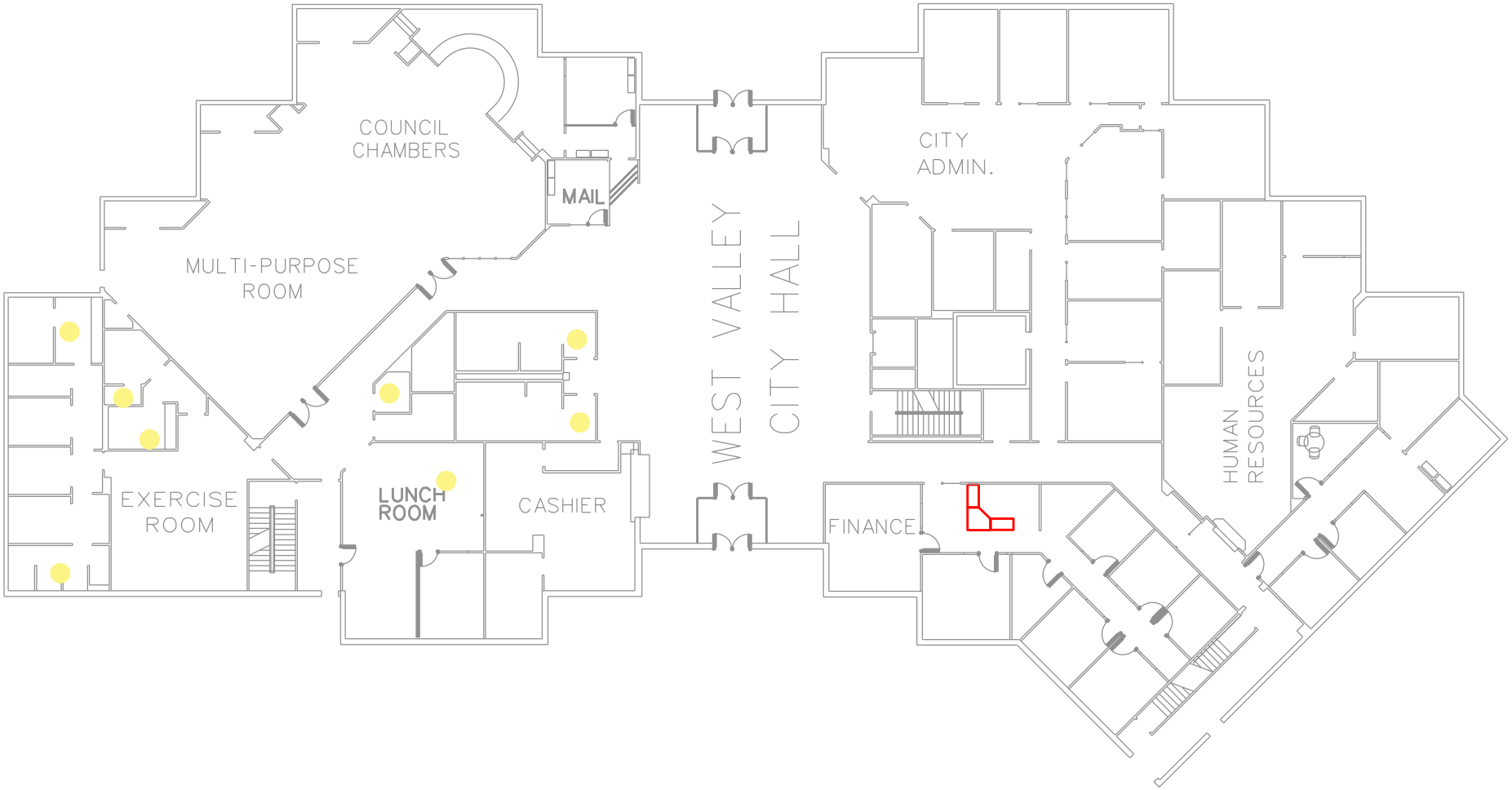
Inspection Means: Either; Traditional walk through, Awareness/Observation, and during regular maintenance operations while noting efficiencies/inefficiencies/concerns found, etc. All maintenance records/inspections are kept on our Cityworks database.

MAINTENANCE LOG

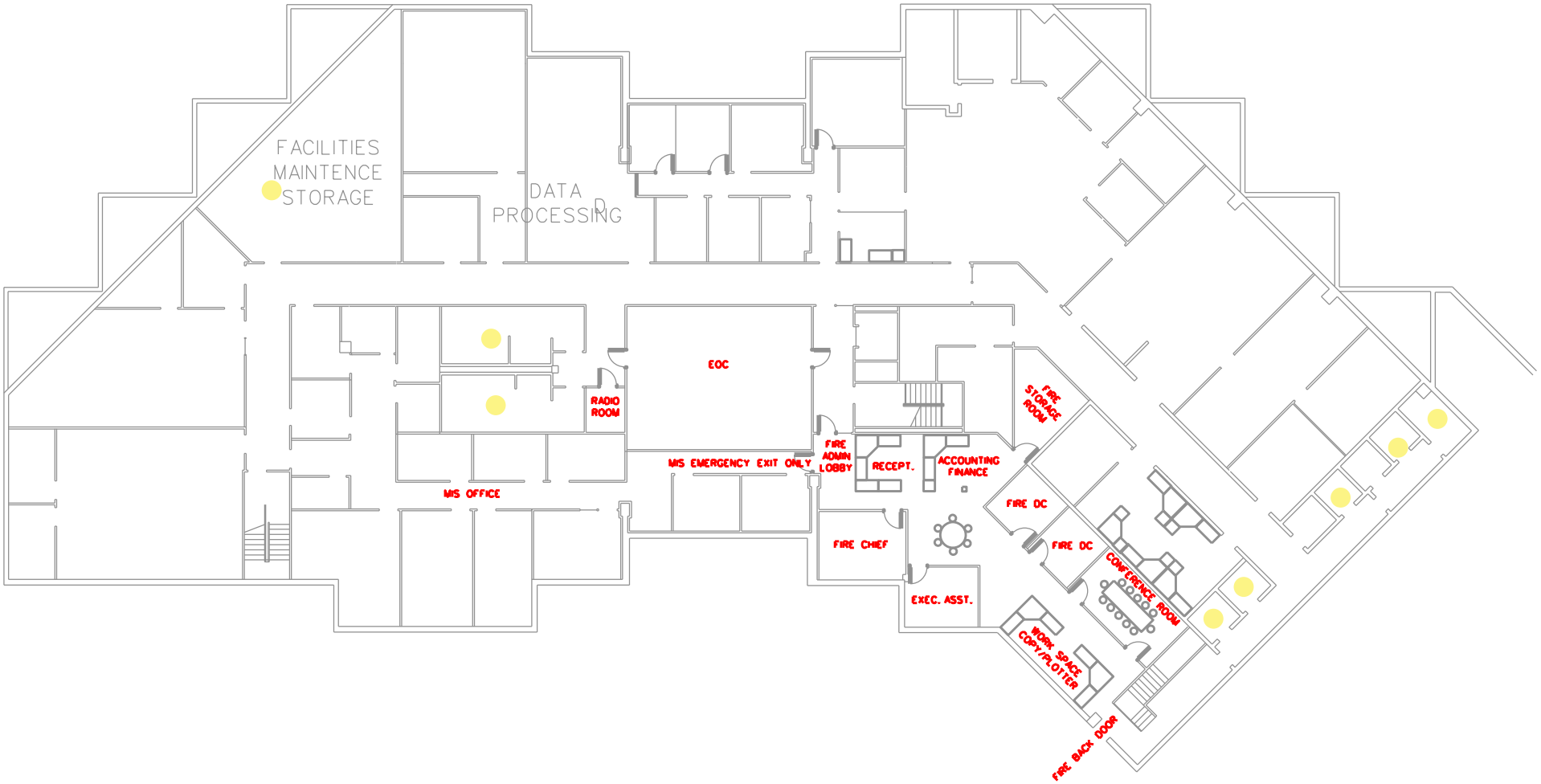
All Maintenance records are kept on our Cityworks database.

TRAINING LOG

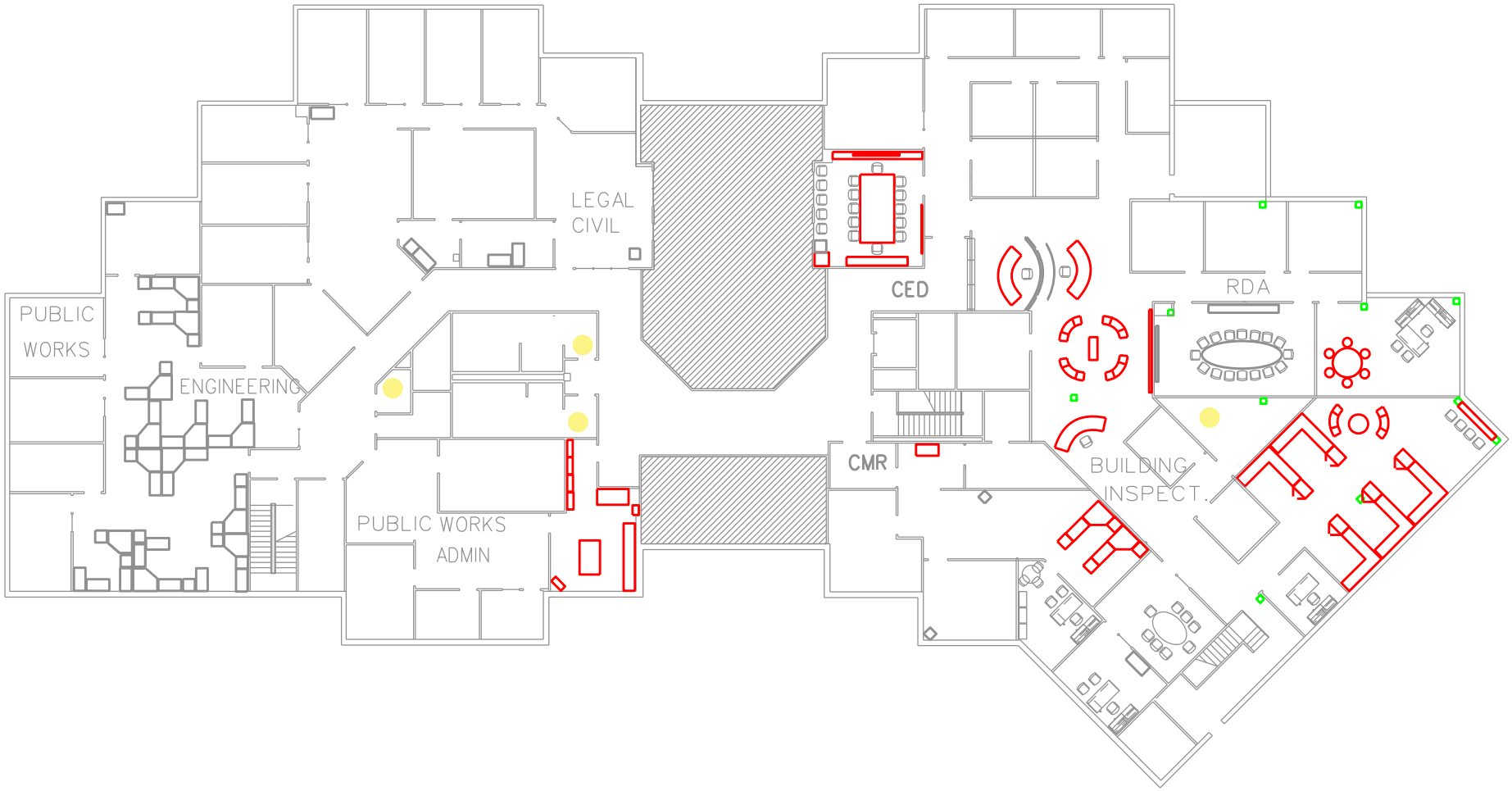
A summary of training topics as well as attendance log for annual training will be kept with Storm Water Maintenance Supervisor.


COUNCIL CHAMBERS
MAIL
MULTI-PURPOSE ROOM
EXERCISE ROOM
LUNCH ROOM
CASHIER
WEST VALLEY CITY HALL
CITY ADMIN.
FINANCE
HUMAN RESOURCES

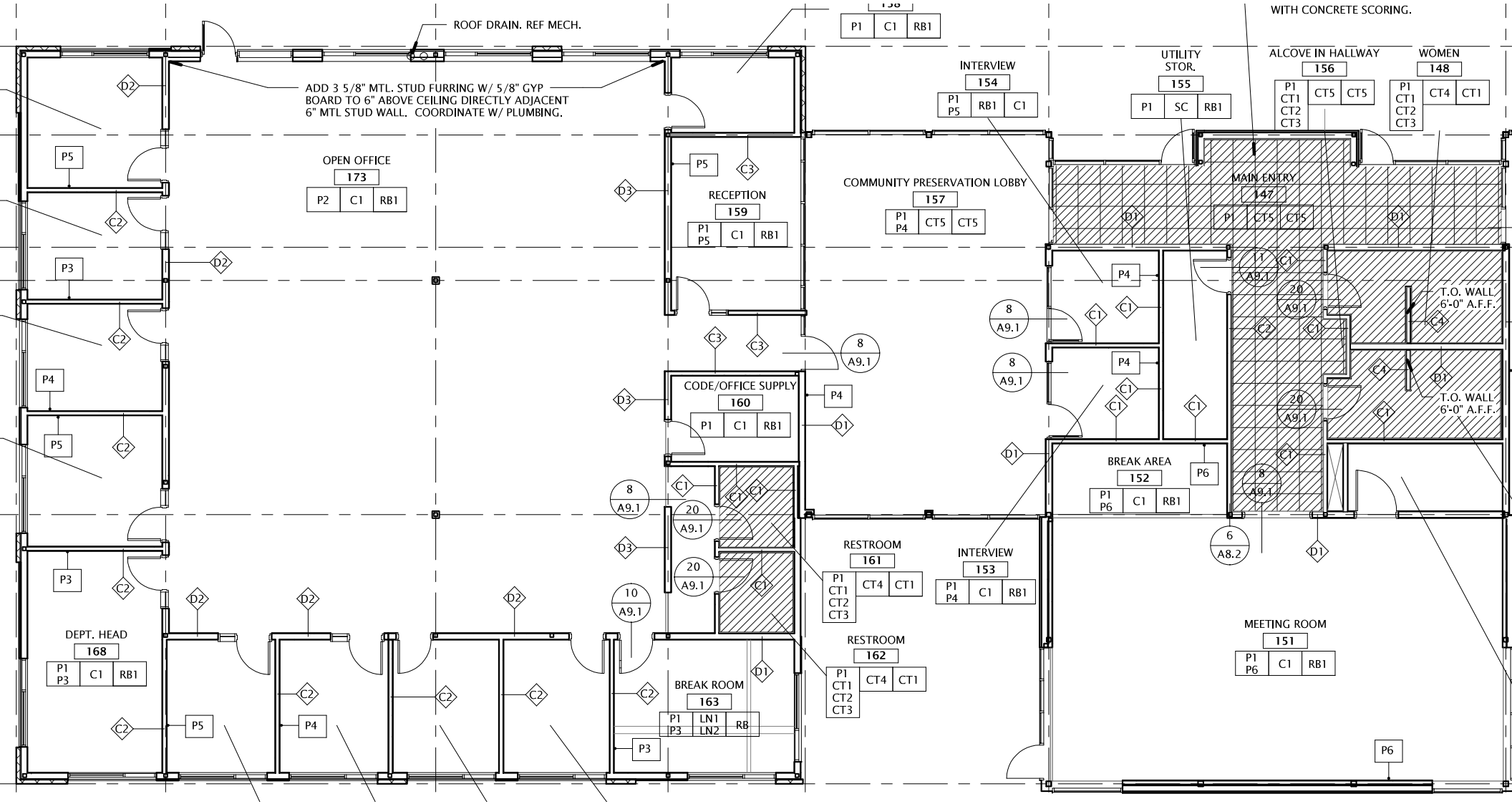
MAIN FLOOR

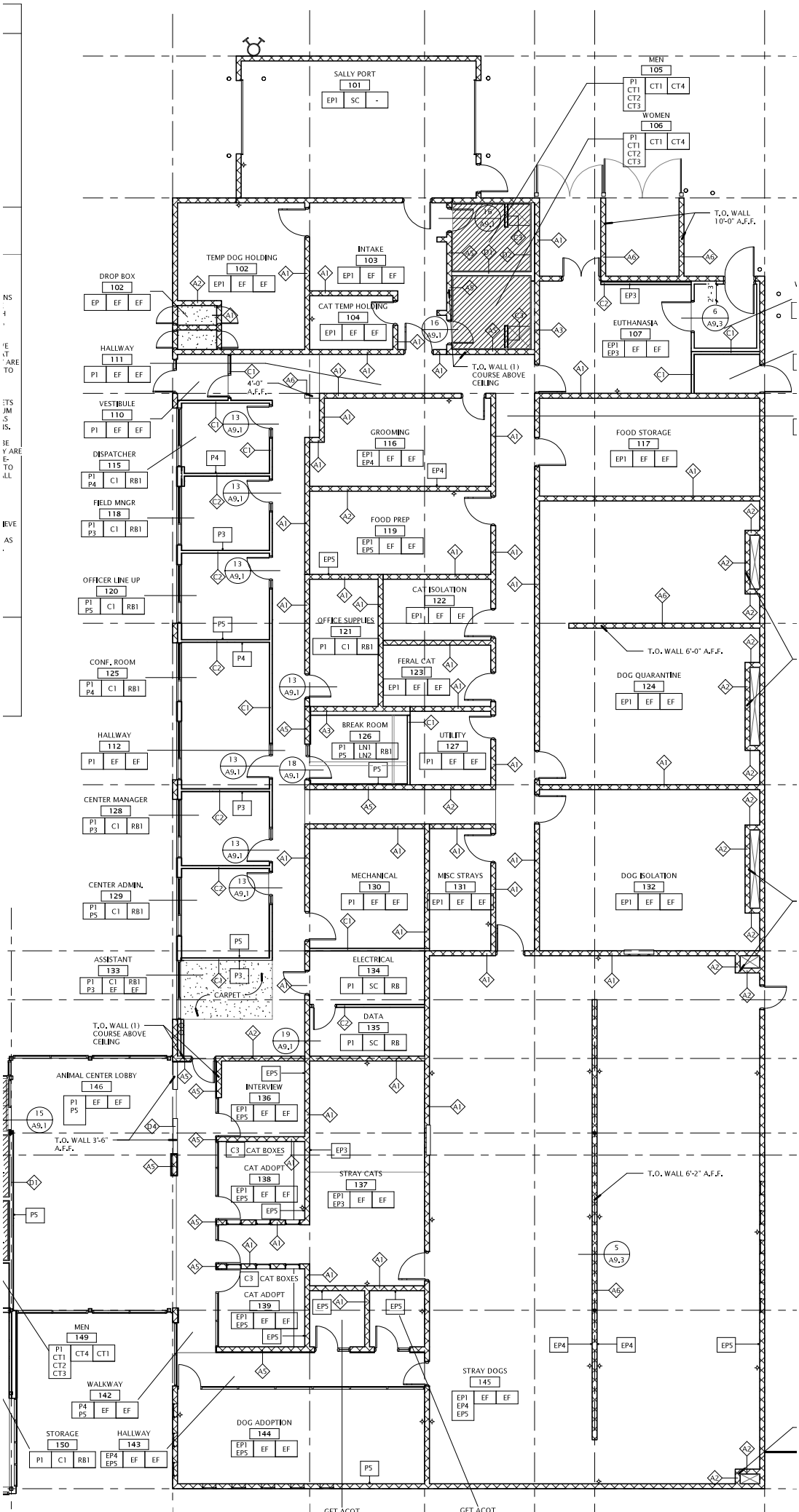

FACILITIES
MAINTENCE
STORAGE
DATA
PROCESSING
EOC
RADIO
ROOM
MIS OFFICE
MIS EMERGENCY EXIT ONLY
FIRE
ADMIN
LOBBY
RECEPT.
ACCOUNTING
FINANCE
FIRE
STORAGE
ROOM
FIRE DC
FIRE DC
FIRE CHIEF
EXEC. ASST.
CONFERENCE ROOM
WORK SPACE
COPY/PLOTTER
FIRE BACK DOOR

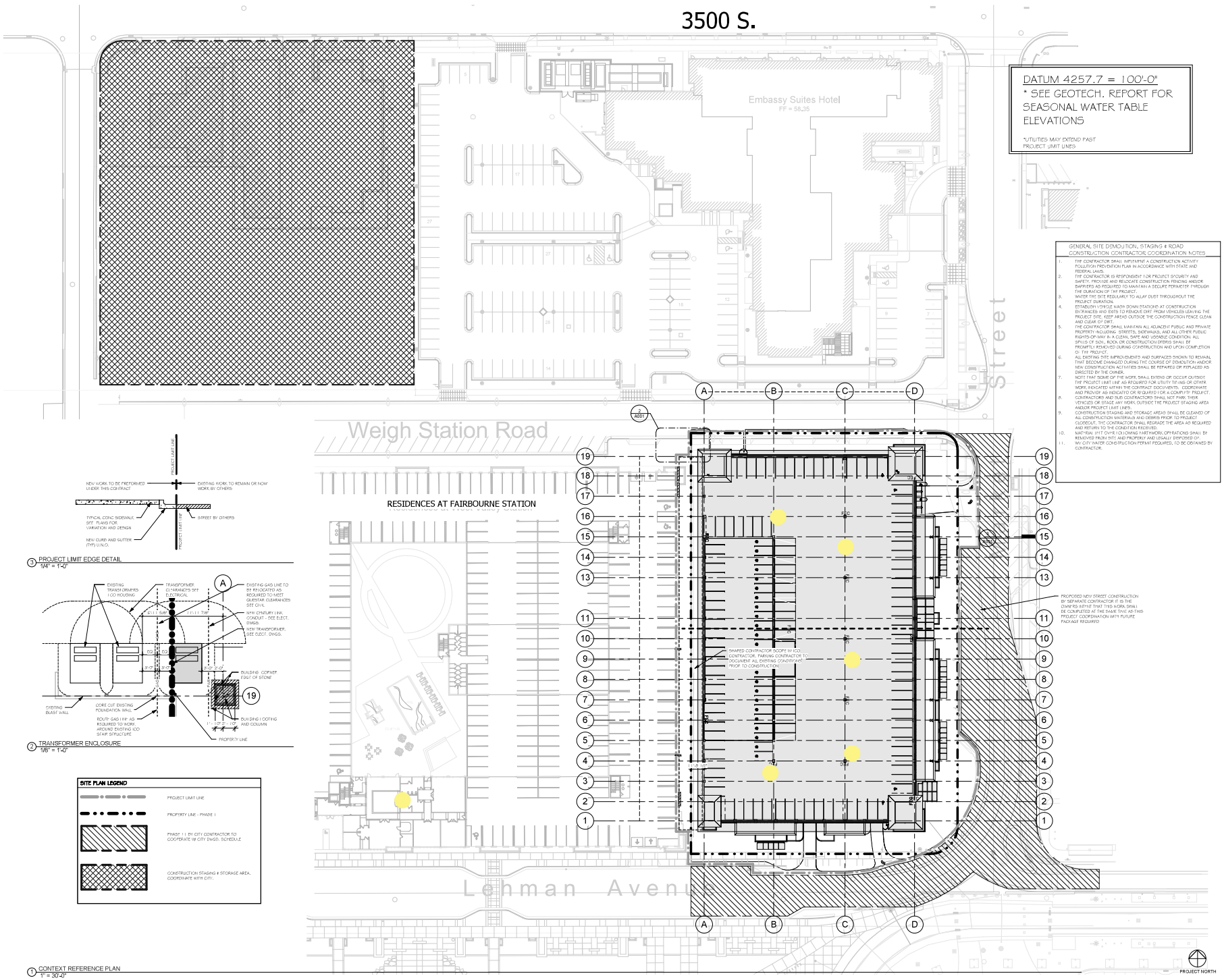
BASEMENT



SECOND FLOOR


ROOF DRAIN. REF MECH.
ADD 3 5/8" MTL. STUD FURRING W/ 5/8" GYP BOARD TO 6" ABOVE CEILING DIRECTLY ADJACENT 6" MTL STUD WALL. COORDINATE W/ PLUMBING.
OPEN OFFICE
173
P2 C1 RB1
RECEPTION
159
P1 P5 C1 RB1
CODE/OFFICE SUPPLY
160
P1 C1 RB1
DEPT. HEAD
168
P1 P3 C1 RB1
BREAK ROOM
163
P1 P3 LN1 LN2 RB
RESTROOM
161
P1 CT1 CT2 CT3 CT4 CT1
RESTROOM
162
P1 CT1 CT2 CT3 CT4 CT1
COMMUNITY PRESERVATION LOBBY
157
P1 P4 CT5 CT5
INTERVIEW
154
P1 P5 RB1 C1
INTERVIEW
153
P1 P4 C1 RB1
BREAK AREA
152
P1 P6 C1 RB1
MEETING ROOM
151
P1 P6 C1 RB1
UTILITY STOR.
155
P1 SC RB1
ALCOVE IN HALLWAY
156
P1 CT1 CT2 CT3 CT5 CT5
WOMEN
148
P1 CT1 CT2 CT3 CT4 CT1
MAIN ENTRY
147
P1 CT5 CT5
WITH CONCRETE SCORING.
T.O. WALL 6'-0" A.F.F.
T.O. WALL 6'-0" A.F.F.


SALLY PORT
101
EP1 SC -
MEN
105
P1 CT1 CT2 CT3 CT1 CT4
WOMEN
106
P1 CT1 CT2 CT3 CT1 CT4
T.O. WALL 10'-0" A.F.F.
TEMP DOG HOLDING
102
EP1 EF EF
INTAKE
103
EP1 EF EF
DROP BOX
102
EP EF EF
CAT TEMP HOLDING
104
EP1 EF EF
EUTHANASIA
107
EP1 EP3 EF EF
HALLWAY
111
P1 EF EF
T.O. WALL (1) COURSE ABOVE CEILING
4'-0" A.F.F.
VESTIBULE
110
P1 EF EF
GROOMING
116
EP1 EP4 EF EF
FOOD STORAGE
117
EP1 EF EF
DISPATCHER
115
P1 P4 C1 RB1
FIELD MNGR
118
P1 P3 C1 RB1
FOOD PREP
119
EP1 EP5 EF EF
OFFICER LINE UP
120
P1 P5 C1 RB1
CAT ISOLATION
122
EP1 EF EF
OFFICE SUPPLIES
121
P1 C1 RB1
T.O. WALL 6'-0" A.F.F.
CONF. ROOM
125
P1 P4 C1 RB1
FERAL CAT
123
EP1 EF EF
DOG QUARANTINE
124
EP1 EF EF
HALLWAY
112
P1 EF EF
BREAK ROOM
126
P1 P5 LN1 LN2 RB1
UTILITY
127
P1 EF EF
CENTER MANAGER
128
P1 P3 C1 RB1
MECHANICAL
130
P1 EF EF
MISC STRAYS
131
EP1 EF EF
DOG ISOLATION
132
EP1 EF EF
CENTER ADMIN.
129
P1 P5 C1 RB1
ELECTRICAL
134
P1 SC RB
ASSISTANT
133
P1 P3 C1 EF RB1 EF
CARPET
DATA
135
P1 SC RB
T.O. WALL (1) COURSE ABOVE CEILING
ANIMAL CENTER LOBBY
146
P1 P5 EF EF
INTERVIEW
136
EP1 EP5 EF EF
T.O. WALL 3'-6" A.F.F.
C3 CAT BOXES
CAT ADOPT
138
EP1 EP5 EF EF
STRAY CATS
137
EP1 EP3 EF EF
T.O. WALL 6'-2" A.F.F.
C3 CAT BOXES
CAT ADOPT
139
EP1 EP5 EF EF
MEN
149
P1 CT1 CT2 CT3 CT4 CT1
WALKWAY
142
P4 P5 EF EF
STRAY DOGS
145
EP1 EP4 EP5 EF EF
STORAGE
150
P1 C1 RB1
HALLWAY
143
EP4 EP5 EF EF
DOG ADOPTION
144
EP1 EP5 EF EF
GET ACOT
GET ACOT



DATUM 4257.7 = 100'-0"
* SEE GEOTECH. REPORT FOR SEASONAL WATER TABLE ELEVATIONS

*UTILITIES MAY EXTEND PAST PROJECT LIMIT LINES

GENERAL SITE DEMOLITION, STAGING & ROAD CONSTRUCTION CONTRACTOR COORDINATION NOTES

1. THE CONTRACTOR SHALL IMPLEMENT A CONSTRUCTION ACTIVITY POLLUTION PREVENTION PLAN IN ACCORDANCE WITH STATE AND FEDERAL LAWS.
2. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SECURITY AND SAFETY. PROVIDE AND RELOCATE CONSTRUCTION FENCING AND/OR BARRIERS AS REQUIRED TO MAINTAIN A SECURE PERIMETER THROUGH THE DURATION OF THE PROJECT.
3. WATER THE SITE REGULARLY TO ALLAY DUST THROUGHOUT THE PROJECT DURATION.
4. ESTABLISH VEHICLE WASH DOWN STATIONS AT CONSTRUCTION ENTRANCES AND EXITS TO REMOVE DIRT FROM VEHICLES LEAVING THE PROJECT SITE. KEEP AREAS OUTSIDE THE CONSTRUCTION FENCE CLEAN AND CLEAR OF DIRT.
5. THE CONTRACTOR SHALL MAINTAIN ALL ADJACENT PUBLIC AND PRIVATE PROPERTY INCLUDING STREETS, SIDEWALKS, AND ALL OTHER PUBLIC RIGHTS-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT.
6. ALL EXISTING SITE IMPROVEMENTS AND SURFACES SHOWN TO REMAIN THAT BECOME DAMAGED DURING THE COURSE OF DEMOLITION AND/OR NEW CONSTRUCTION ACTIVITIES SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE OWNER.
7. NOTE THAT SOME OF THE WORK SHALL EXTEND OR OCCUR OUTSIDE THE PROJECT LIMIT LINE AS REQUIRED FOR UTILITY TIE-INS OR OTHER WORK INDICATED WITHIN THE CONTRACT DOCUMENTS. COORDINATE AND PROVIDE AS INDICATED OR REQUIRED FOR A COMPLETE PROJECT. CONTRACTORS AND SUB CONTRACTORS SHALL NOT PARK THEIR VEHICLES OR STAGE ANY WORK OUTSIDE THE PROJECT STAGING AREA AND/OR PROJECT LIMIT LINES.
8. CONSTRUCTION STAGING AND STORAGE AREAS SHALL BE CLEANED OF ALL CONSTRUCTION MATERIALS AND DEBRIS PRIOR TO PROJECT CLOSEOUT. THE CONTRACTOR SHALL REGRADE THE AREA AS REQUIRED AND RETURN TO THE CONDITION RECEIVED.
9. MATERIAL LEFT OVER FROM LONING FARTHWORK OPERATIONS SHALL BE REMOVED FROM SITE AND PROPERLY AND LEGALLY DISPOSED OF.
10. WV CITY WATER CONSTRUCTION PERMIT REQUIRED, TO BE OBTAINED BY CONTRACTOR.

PROPOSED NEW STREET CONSTRUCTION BY SEPARATE CONTRACTOR IT IS THE OWNER'S INTENT THAT THIS WORK SHALL BE COMPLETED AT THE SAME TIME AS THIS PROJECT COORDINATION WITH FUTURE PACKAGE REQUIRED

SHARED CONTRACTOR SCOPE W ICO CONTRACTOR, PARKING CONTRACTOR TO DOCUMENT ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION

3 PROJECT LIMIT EDGE DETAIL
1/4" = 1'-0"

2 TRANSFORMER ENCLOSURE
1/8" = 1'-0"

SITE PLAN LEGEND

- PROJECT LIMIT LINE
- PROPERTY LINE - PHASE 1
- PHASE 1 1 BY CITY CONTRACTOR TO COOPERATE W CITY DWGS. SCHEDULE
- CONSTRUCTION STAGING & STORAGE AREA, COORDINATE WITH CITY.

1 CONTEXT REFERENCE PLAN
1" = 30'-0"

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

PROJECT SITE PLAN AND LIMITS

Date OCTOBER 30 2017

A001

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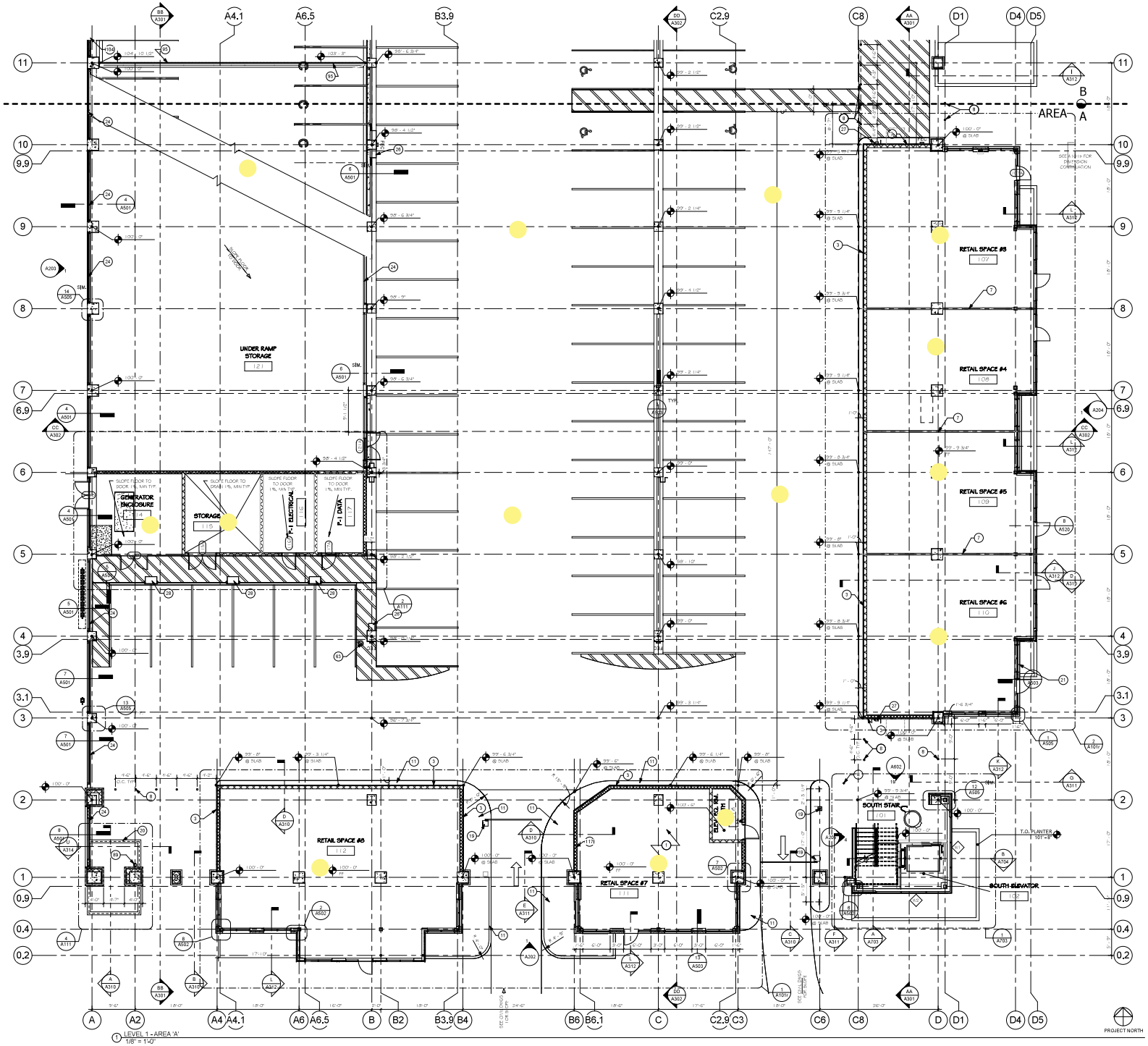


1 LEVEL 1 - AREA 'A'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 100'-0" = 4257.72
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE AG SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE P-1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION, AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES. SEE AG SHEETS FOR DETAILS OF COLORS, DBL LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. F-2 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GYPCRAM + 4" STRUCTURAL SLAB)

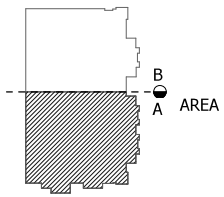
KEYNOTE LEGEND

#	NOTE
	RETAIL SPACES TO HAVE 4" DRAINAGE FILL, PREP TO RECEIVE FUTURE 4" CONCRETE SLAB ON GRADE
3	2" EIFS PROVIDE VERTICAL CONTROL JOINTS AT 18'-0" CTR'S LOCATED AT ALL GRIDS
7	FUTURE TENANT DIVISION WALL (NOT IN CONTRACT)
8	BOLLARD, PAINT ENTIRE BOLLARD INCLUDING BASE PLATE SEE DETAIL 1/DA9A01 - FOR SLAB ON GRADE & STRUCTURAL FOR EMBED REQUIREMENTS IN POST TENSIONED SLABS
11	CONCRETE CURB, 6" ABOVE SLAB WALL
19	FUTURE PARKING CONTROL EQUIPMENT - COORDINATE WITH ELECTRICAL FOR CONDUIT IN THIS LOCATION
D2	CONCRETE PLANTER, SEE LANDSCAPE DETAIL LA.L501
E1	RAISED CONCRETE CURB (TYP) W/ PLANTER TOP
E4	DECORATIVE TRUSS SYSTEM, SEE DETAIL 6/A9A01 AND 4/A9A01
G5	PIPE GUARD, SEE DETAIL 1/LA.501
G7	EMERGENCY PHONE
G8	PEDESTAL MOUNTED ELECTRIC VEHICLE CHARGING STATION
K3	FLOOR DRAIN SEE PLUMBING DRAWINGS, SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS
P2	PIPING PIPE, SEE FIRE SAFETY DRAWINGS. CONTRACTOR TO COORDINATE ALL DECK AND BEAM PENETRATIONS WITH STRUCTURAL
R5	CP TRAFFIC RATED SEALANT JOINT WITH BACKER ROD @ TRANSITION FROM C.I.P. SLAB TO P.T. SLAB COORDINATE WITH STRUCTURAL D1 (9/S202)
T.O.1	CAST IN PLACE CONCRETE SITE WALL
T.P.	

FLOOR PLAN LEGEND

- NEW WALLS. SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE. SEE SPECS FOR PREPARATION AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL, NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-241-109-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

eda

#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 01 FLOOR PLAN - AREA 'A'

Date OCTOBER 30 2017

A101a

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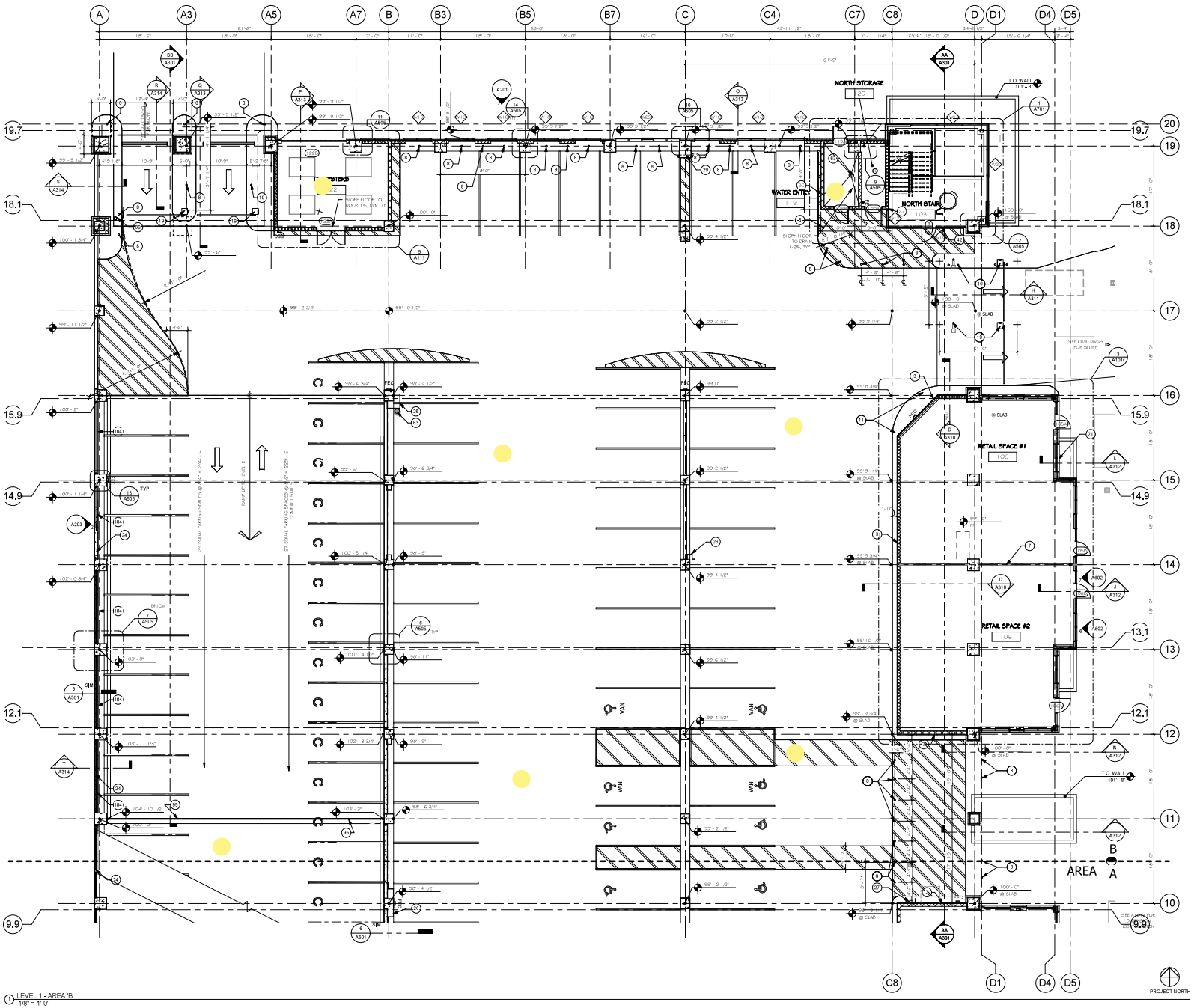


1 LEVEL 1 - AREA 'B'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION FOUNATION FLR'V. 1'00'-0" = 4257.7'0
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE A6 SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE "1" GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION, AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL PIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES SEE A6 SHEETS FOR DETAILS OF COLORS, JOB LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. F.F. SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL FT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GEOFOAM + 4" STRUCTURAL SLAB)

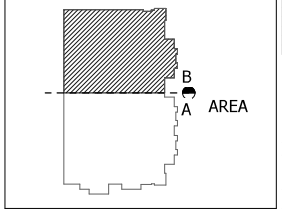
KEYNOTE LEGEND

#	NOTE
5	EFIFS PROVIDE VERTICAL CONTROL JOINTS AT 1'8'-0" CTRS LOCATED AT ALL GRIDS
7	FUTURE TENANT DIVISION WALL (NOT IN CONTRACT)
9	BOLLARD, PAINT FINISH: BOLLARD INCLUDING BASE: PLATE 3FH (FT-AN) (GASO). FOR SLAB ON GRADE & STRUCTURAL FOR HEIDO REQUIREMENTS IN POST TENSIONED SLABS
11	CONCRETE CURB, 6" ABOVE SLAB MIN.
19	FUTURE PARKING CONTROL EQUIPMENT. COORDINATE WITH ELECTRICAL FOR CONDUIT IN THIS LOCATION
21	FADED CONCRETE CURB LEVEL W/ PLANTER TOP
24	DECORATIVE FENCE SYSTEM. SEE DETAIL (2/A501) AND 4/A501
26	FIRE GUARD. SEE DETAIL 1 (1)/A-501.
27	EMERGENCY PHONE
29	WALL MOUNTED ELECTRIC VEHICLE CHARGING STATION
32	CURTAIN WALL SYSTEM. SEE WINDOW TYPES
43	FLOOR DRAIN SEE PLUMBING DRAWINGS, SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS (1/1) SHEET FOR SLOPING REQUIREMENTS
89	STAND PIPE. SEE FIRE SAFETY DRAWINGS. CONTRACTOR TO COORDINATE ALL DECK AND BEAM PENETRATIONS WITH STRUCTURAL
95	2" TRAFFIC RATED SEALANT JOINT WITH BACKER ROD @ TRANSITION FROM C.I.P. SLAB TO P.T. SLAB COORDINATE WITH STRUCTURAL (D/L/H 5/C2)
104	CAST IN PLACE CONCRETE SITE WALL

FLOOR PLAN LEGEND

- NEW WALLS. SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE. SURFACE SPE SPECS FOR PREPARATING AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-2411-09-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

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PROJECT ARCHITECT GB
PROJECT MANAGER JP
ARCHITECT PROJECT # 213069-1
OWNER PROJECT # --

Description	Date

LEVEL 01 FLOOR PLAN - AREA 'B'

Date OCTOBER 30 2017

A101b

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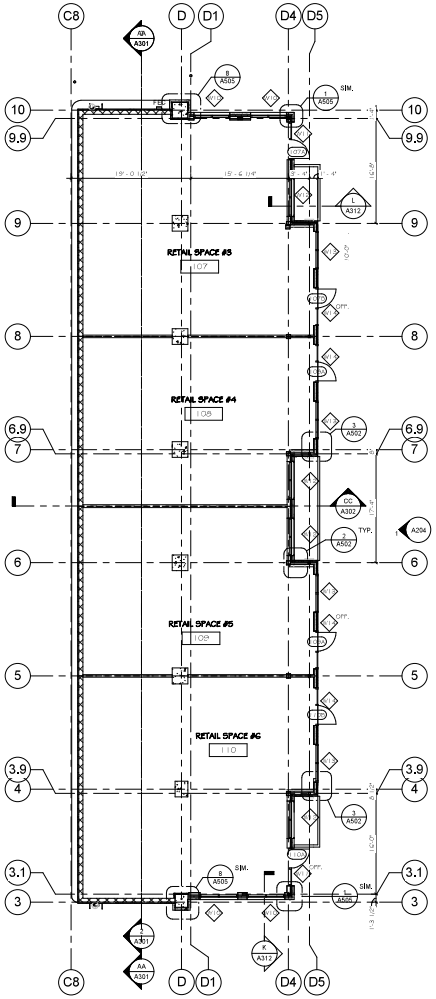
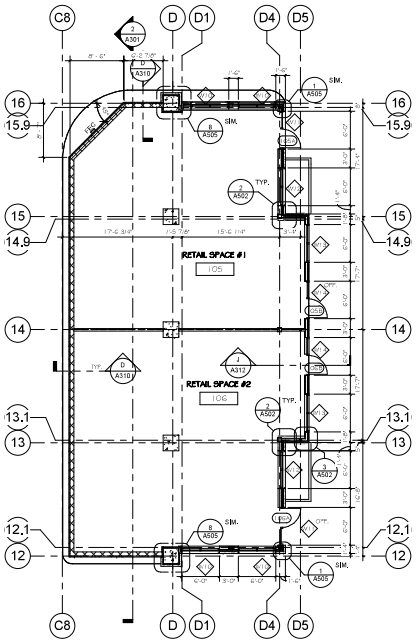
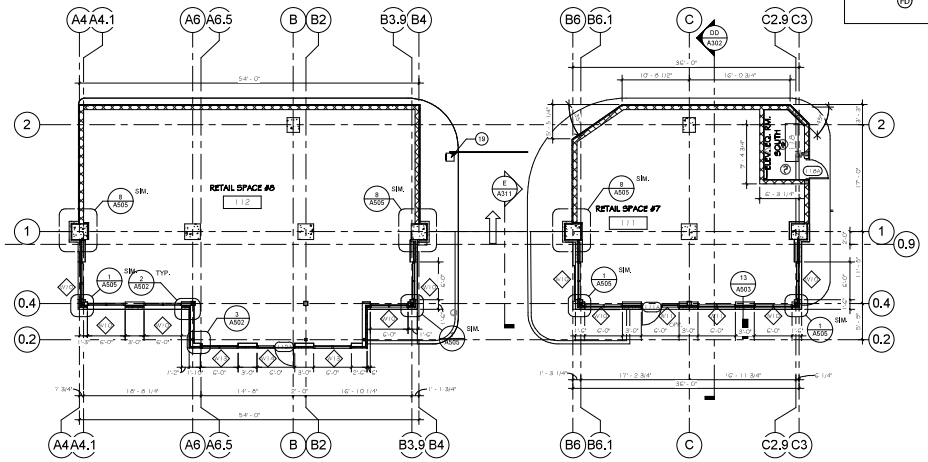


2 ENLARGED RETAIL PLAN
1/8" = 1'-0"



3 ENLARGED RETAIL PLAN
1/8" = 1'-0"



1 ENLARGED RETAIL PLAN
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 1.00'=4257.70
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE AS SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE P1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-1". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION, AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES. SFT AS SHEETS FOR DETAILS OF COLORS, DIM. LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. P-T SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GEOFOAM + 4" STRUCTURAL SLAB)

KEYNOTE LEGEND	
#	NOTE
19	FUTURE PARKING CONTROL EQUIPMENT. COORDINATE WITH ELECTRICAL FOR CONDUIT IN THIS LOCATION.

FLOOR PLAN LEGEND

	NEW WALLS. SEE WALL TYPES.
FEC	SURFACE MOUNTED FIRE EXTINGUISHER CABINET
	TYPICAL DIAGONAL STRIPING SEE AS SHEETS.
	TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND TWO APPLICATION
	RETAIL PERIMETER BELOW
C	DENOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE
FD	FLOOR DRAIN

STATE OF UTAH
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97-241-109-0301
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UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

	Description	Date

LEVEL 01 FLOOR PLAN - RETAIL

Date OCTOBER 30 2017

A101r

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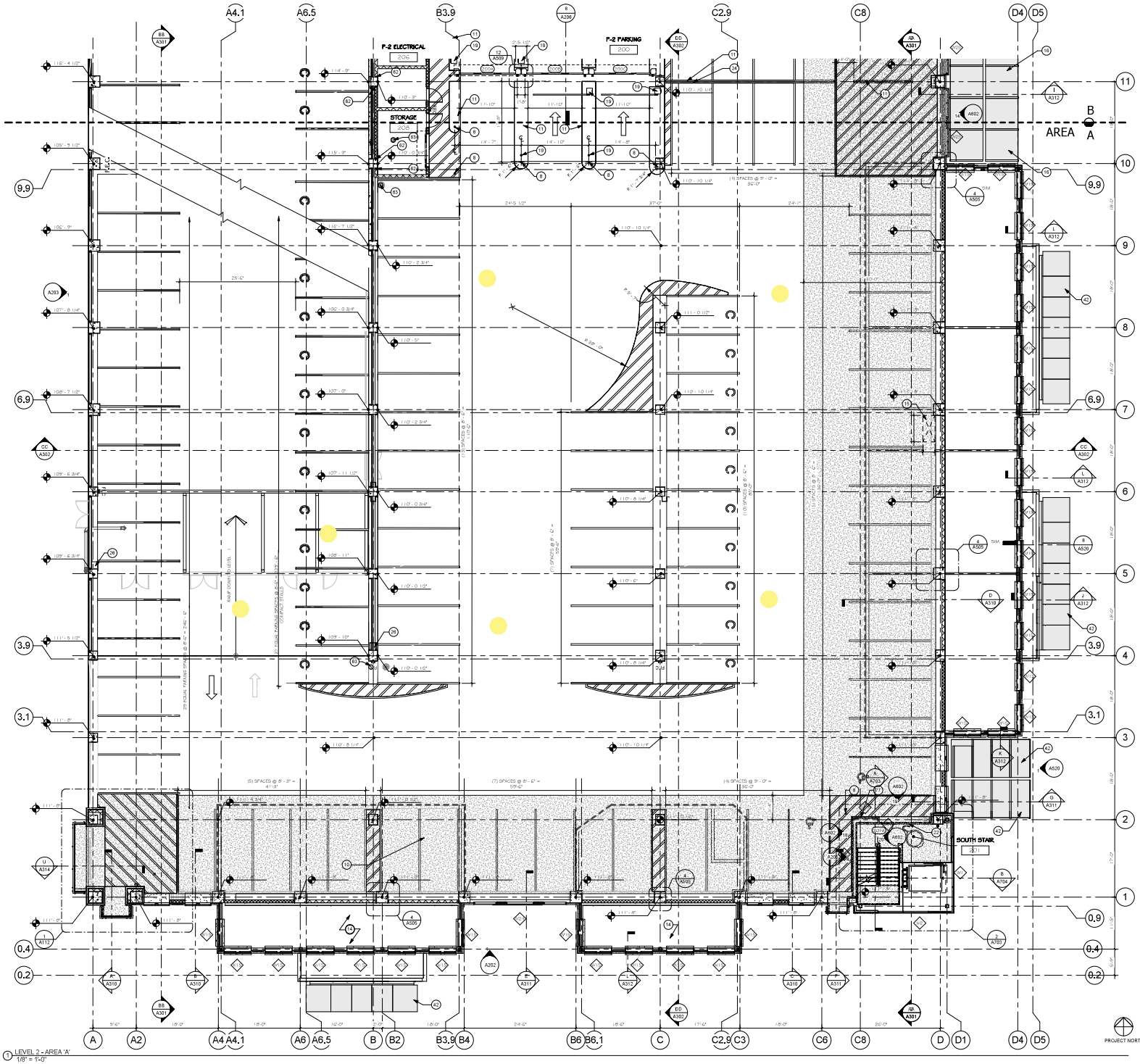


1 LEVEL 2 - AREA 'A'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 100'-0" = 4257.77'
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE A6 SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE F1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION, AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES. SEE A6 SHEETS FOR DETAILS OF COLORS, DBL LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. F-2 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GEOFOAM + 4" STRUCTURAL SLAB)

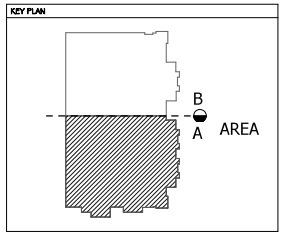
KEYNOTE LEGEND

#	NOTE
8	BOLLARD, PAINT ENTIRE BOLLARD INCLUDING BASE PLATE SEE DETAIL 1/DA501 FOR SLAB ON GRADE & STRUCTURAL FOR EMBED REQUIREMENTS IN POST TENSIONED SLABS
10	TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
11	CONCRETE CURB, 6" ABOVE SLAB MIN.
14	RETAIL BELOW
15	FUTURE BLOCKOUT GREASE EXHAUST. REFERENCE STRUCTURAL (6) #4 WITH CONCRETE TO MATCH SLAB DESIGN
16	OVERHEAD GLASS CANOPY AND STRUCTURAL SUPPORT. SEE SHEET A111
19	FUTURE PARKING CONTROL EQUIPMENT. COORDINATE WITH ELECTRICAL FOR CONDUIT IN THIS LOCATION
D2	SLAB EDGE
E4	DECORATIVE FINISH SYSTEM. SEE DETAIL 6/A5401 AND 4/A5401
G5	PIPE GUARD. SEE DETAIL 1/DA501
K5	CURTAIN WALL SYSTEM. SEE WINDOW TYPES
K2	5" GAP BETWEEN WALL AND CONC COLUMN CAULK COLUMN BOTH SIDES FULL LENGTH TO STRUCTURE ABOVE
K3	FLOOR DRAIN SEE PLUMBING DRAWINGS. SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS
P7	SCHEDULED GLAZING

FLOOR PLAN LEGEND

- NEW WALLS. SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-241-109-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 02 FLOOR PLAN - AREA 'A'

Date OCTOBER 30 2017

A102a

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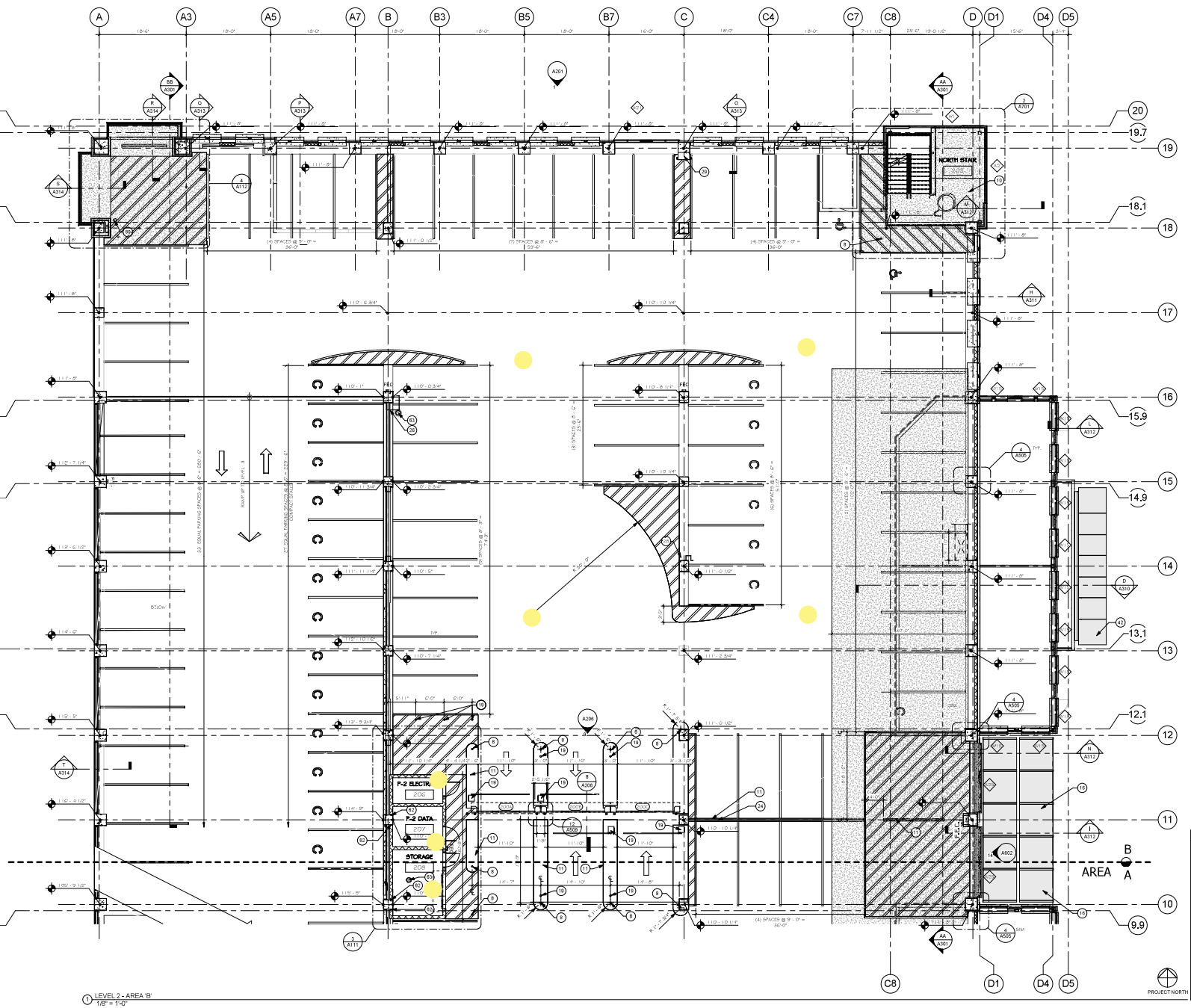


1 LEVEL 2 - AREA 'B'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 100'-0" = 4257.70
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE AG SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE P-1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION, AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL STRIPING ON PLAN IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES SEE AG SHEETS FOR DETAILS OF COLORS, DRIVE LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. F-2 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" SITCRAM + 4" STRUCTURAL SLAB)

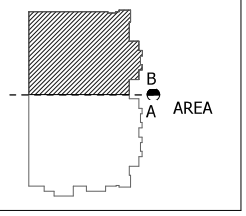
KEYNOTE LEGEND

#	NOTE
8	BOLLARD, PAINT ENTIRE BOLLARD INCLUDING BASE PLATE SEE DETAIL 1/DA501 FOR SLAB ON GRADE + STRUCTURAL FOR EMBED REQUIREMENTS IN POST TENSIONED SLABS
10	TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
11	CONCRETE CURB, 12" ABOVE SLAB MIN.
12	OVERHEAD GLASS CANOPY AND STRUCTURAL SUPPORT, SEE SHEET A111
19	FUTURE PARKING CONTROL EQUIPMENT, COORDINATE WITH ELECTRICAL FOR CONDUIT IN THIS LOCATION
24	DECORATIVE FENCE SYSTEM, SEE DETAIL 6/A501 AND 4/A501
26	PIPE GUARD, SEE DETAIL 11/A501
29	WALL MOUNTED ELECTRIC VEHICLE CHARGING STATION
42	CURTAIN WALL SYSTEM, SEE WINDOW TYPES
62	3" GAP BETWEEN WALL AND CONC COLUMN CAULK COLUMN BOTH SIDES FULL LENGTH TO STRUCTURE ABOVE
63	FLOOR DRAIN SEE PLUMBING DRAWINGS, SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS
69	STAND PIPE, SEE FIRE SAFETY DRAWINGS, CONTRACTOR TO COORDINATE ALL DECK AND BEAM PENETRATIONS WITH STRUCTURAL

FLOOR PLAN LEGEND

- NEW WALLS, SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-2411-109-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

eda

#9 EXCHANGE PLACE
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F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 02 FLOOR PLAN - AREA 'B'

Date OCTOBER 30 2017

A102b

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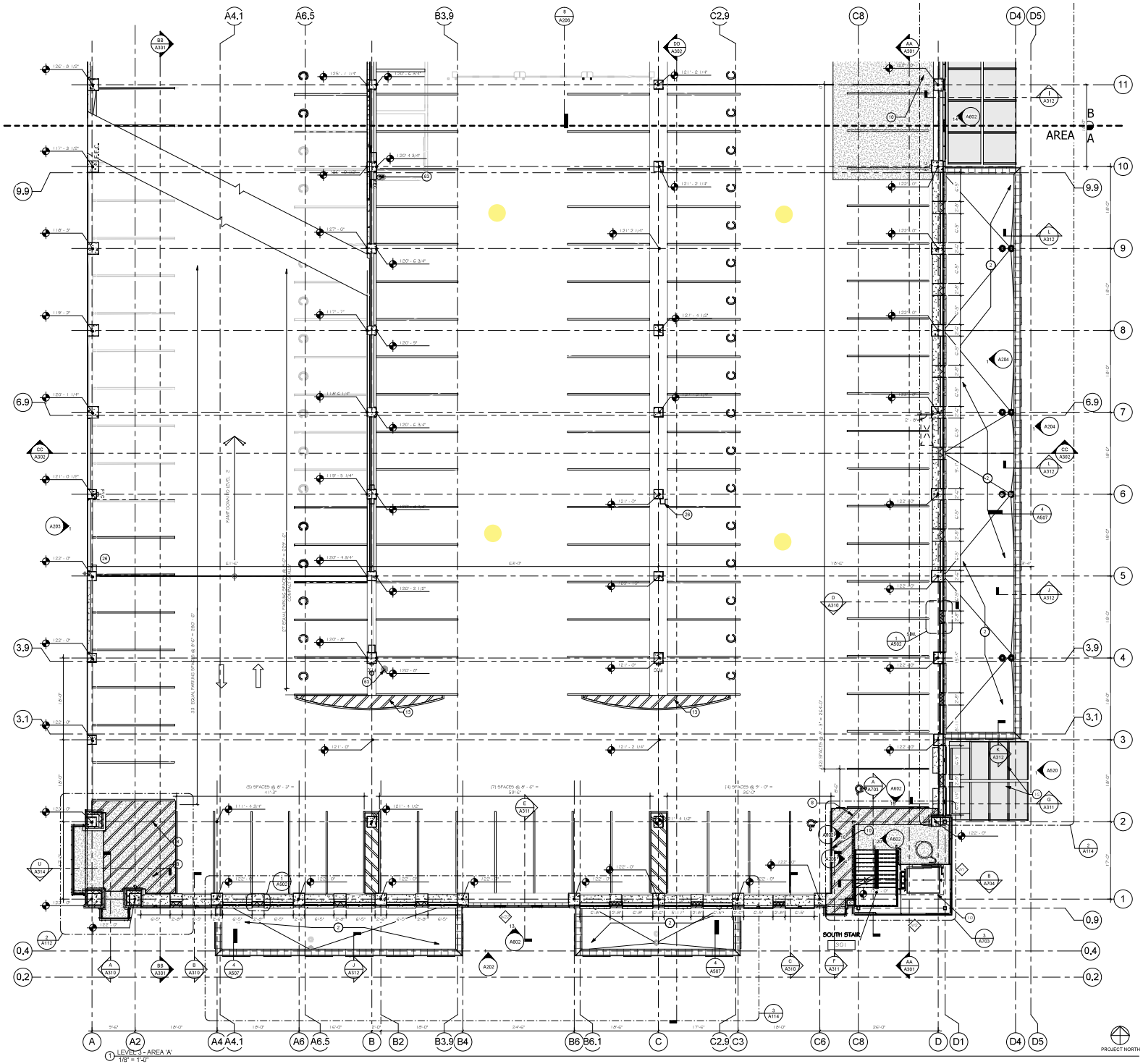


FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 1000'-0" = 4257.70'
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE AG SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE F1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION, AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES SEE AG SHEETS FOR DETAILS OF COLORS, DBL LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. F-2 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GEOFOAM + 4" STRUCTURAL SLAB)

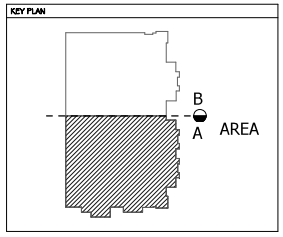
KEYNOTE LEGEND

#	NOTE
9	ROOF BELOW. SEE ROOF PLANS ON SHEET A107
9	ISOLATED, PAINT ENTIRE ISOLATED INCLUDING EMBED PLATE (SEE DETAIL 1/0A5501 FOR SLAB ON GRADE & STRUCTURAL FOR IMBED REQUIREMENTS IN POST TENSIONED SLABS)
10	TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PREPARATION AND FINAL APPLICATION
13	TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
26	PIPE GUARD. SEE DETAIL 1/0A5501
63	FLOOR DRAIN SEE PLUMBING DRAWINGS. SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS

FLOOR PLAN LEGEND

- NEW WALLS. SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PREPARATION AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-241-09-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

eda

#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 03 FLOOR PLAN - AREA 'A'

Date OCTOBER 30 2017

A103a

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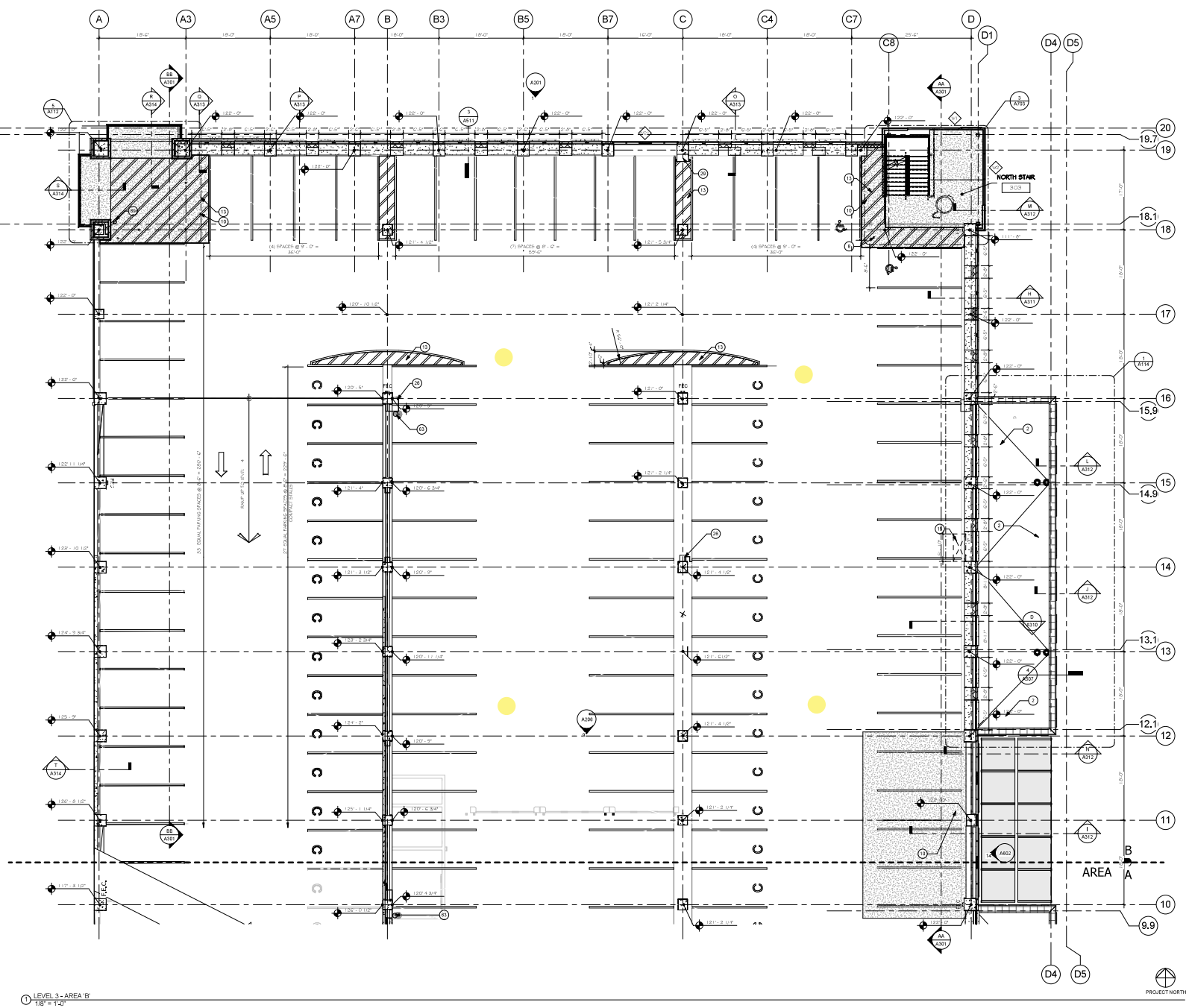


1 LEVEL 3 - AREA 'B'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 100'-0" = 4257.70'
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE AG SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE FIRST GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION, AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES SEE AG SHEETS FOR DETAILS OF COLORS, DBL LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. F.F. SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" SCORDAM + 4" STRUCTURAL SLAB)

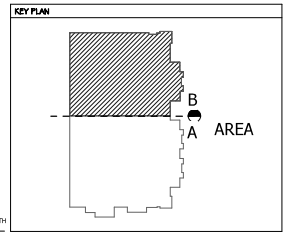
KEYNOTE LEGEND

#	NOTE
5	ROOF BELOW. SEE ROOF PLANS ON SHEET A107
9	ISOLATED, PAINT ENTIRE ISOLATED INCLUDING BASE PLATE SEE DETAIL 1/0A501 FOR SLAB ON GRADE & STRUCTURAL FOR IMBED REQUIREMENTS IN POST TENSIONED SLABS
10	TRAFFIC COATING APPLIED TO CONCRETE. BUILD AS SHP SPECS I OR PRETREATING AND FINAL APPLICATION
13	TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
15	FUTURE BI-DIRECTOUT GREASE EXHAUST. REFERENCE STRUCTURAL DET. #1 WITH CONCRETE TO MATCH SLAB DESIGN
E6	PPT GUARD. SPT DETAIL 11/A501
E9	WALL MOUNTED ELECTRIC VEHICLE CHARGING STATION
C3	FLOOR DRAIN EMT PLUMBING DRAINAGE. SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS
S9	STAND PIPE. SPT FIRE SAFETY DRAWINGS. CONTRACTOR TO COORDINATE ALL DECK AND DRAIN PENETRATIONS WITH STRUCTURAL

FLOOR PLAN LEGEND

- NEW WALLS. SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE SHP SPECS FOR PRETREATING AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND. SHP SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-2411-09-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 03 FLOOR PLAN - AREA 'B'

Date OCTOBER 30 2017

A103b

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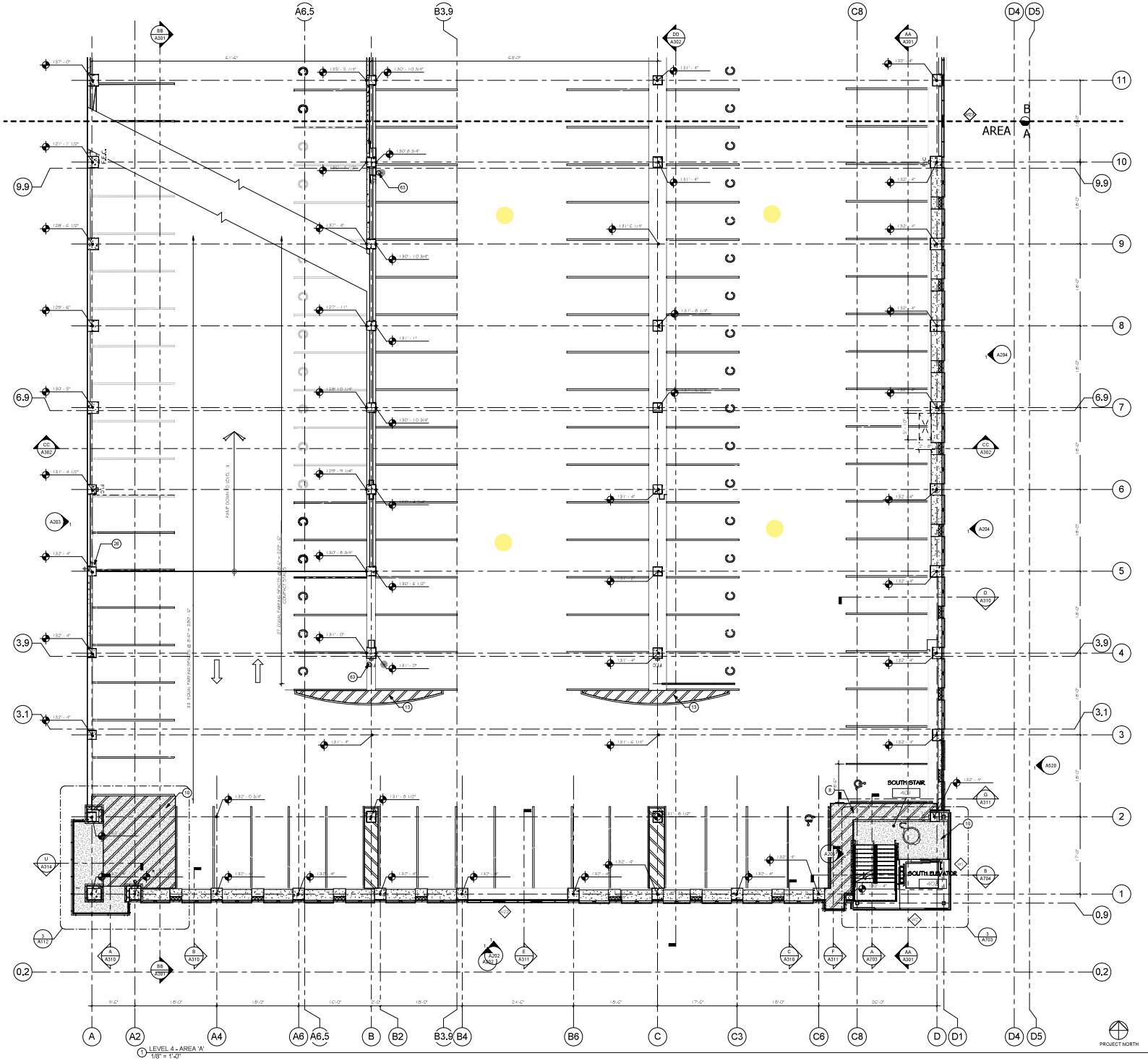

1 LEVEL 4 - AREA 'A'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 100'-0" = 4257.70
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE A6 SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE P1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
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6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
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8. P-7 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GYPCRETE + 4" STRUCTURAL SLAB)

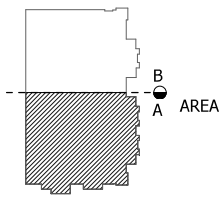
KEYNOTE LEGEND

#	NOTE
8	BOLLARD, PAINT ENTIRE BOLLARD INCLUDING BASE PLATE SEE DETAIL 1/DA5.01 FOR SLAB ON GRADE + STRUCTURAL FOR EMBED REQUIREMENTS IN POST TENSIONED SLABS
10	TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
13	TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
26	PIPE GUARD. SEE DETAIL 1/DA5.01
63	FLOOR DRAIN SET PLUMBING DRAWINGS, SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS

FLOOR PLAN LEGEND

	NEW WALLS. SEE WALL TYPES.
FEC	SURFACE MOUNTED FIRE EXTINGUISHER CABINET
	TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
	TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
	RETAIL PERIMETER BELOW
C	DENOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE
FD	FLOOR DRAIN

KEY PLAN



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PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 04 FLOOR PLAN - AREA 'A'

Date OCTOBER 30 2017

A104a

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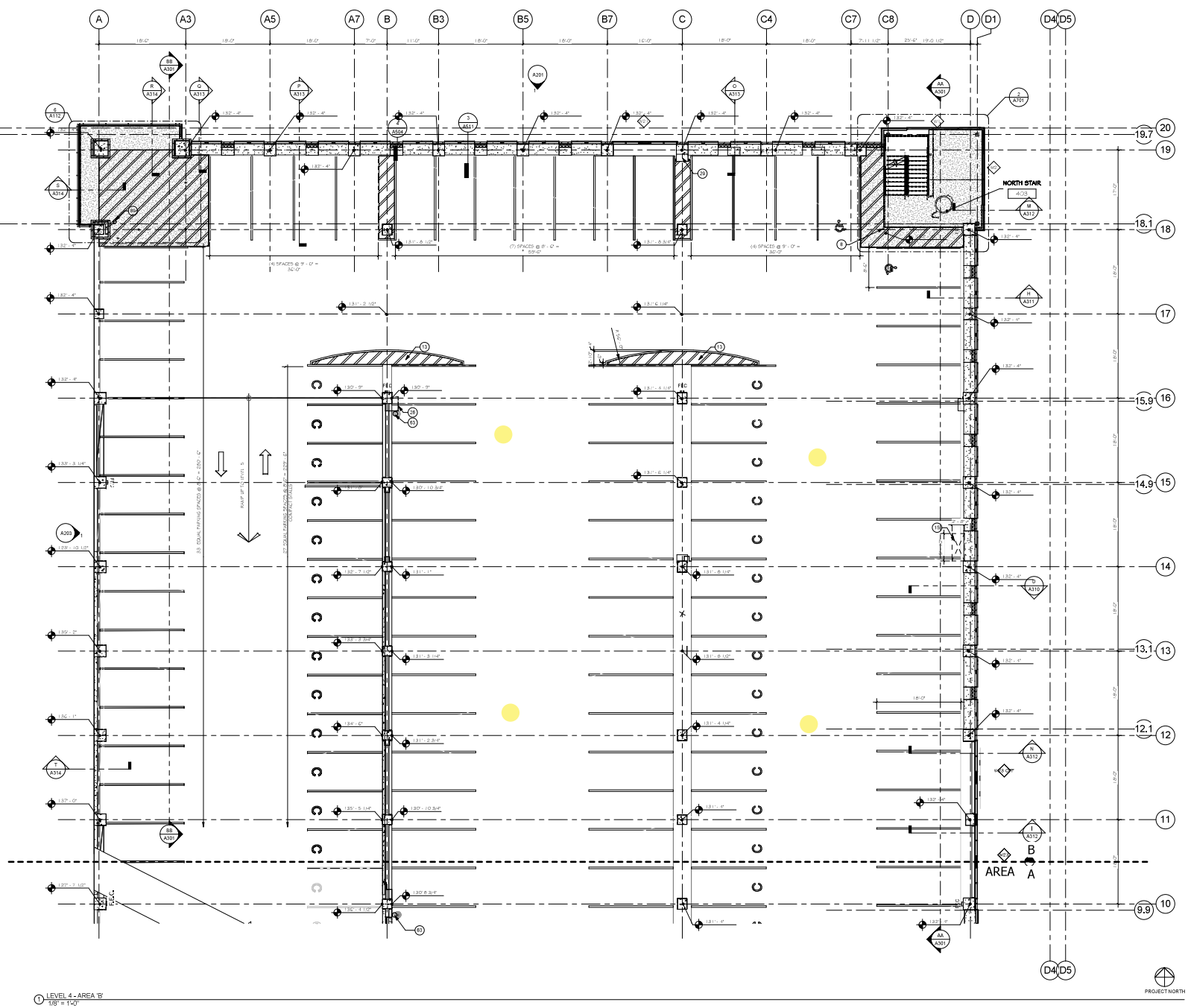


1 LEVEL 4 - AREA 'B'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 100'-0" = 4257.70'
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE A6 SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE F.1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION, AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES. SEE A6 SHEETS FOR DETAILS OF COLORS, DBL LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. F.2 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GEOFOAM + 4" STRUCTURAL SLAB)

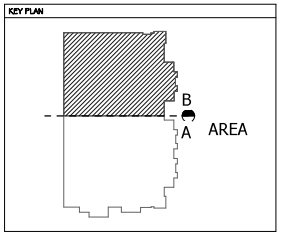
KEYNOTE LEGEND

#	NOTE
8	BOLLARD, PAINT ENTIRE BOLLARD INCLUDING BASE PLATE SEE DETAIL 1/DA501 FOR SLAB ON GRADE + STRUCTURAL FOR EMBED REQUIREMENTS IN POST TENSIONED SLABS
13	TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
15	FUTURE BLOCKOUT GARAGE PARAPET, REINFORCED STRUCTURAL, FILL IN WITH CONCRETE TO MATCH SLAB DESIGN
52	PIPE GUARD, SEE DETAIL 1/DA501
59	WALL MOUNTED ELECTRIC VEHICLE CHARGING STATION
63	FLOOR DRAIN SEE PLUMBING DRAWINGS, SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS
80	STAND PIPE, SEE FIRE SAFETY DRAWINGS, CONTRACTOR TO COORDINATE ALL DECK AND BEAM PENETRATIONS WITH STRUCTURAL

FLOOR PLAN LEGEND

- NEW WALLS, SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PREPARATION AND FINAL APPLICATION
- METAL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL, NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-2411-09-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 04 FLOOR PLAN - AREA 'B'

Date OCTOBER 30 2017

A104b

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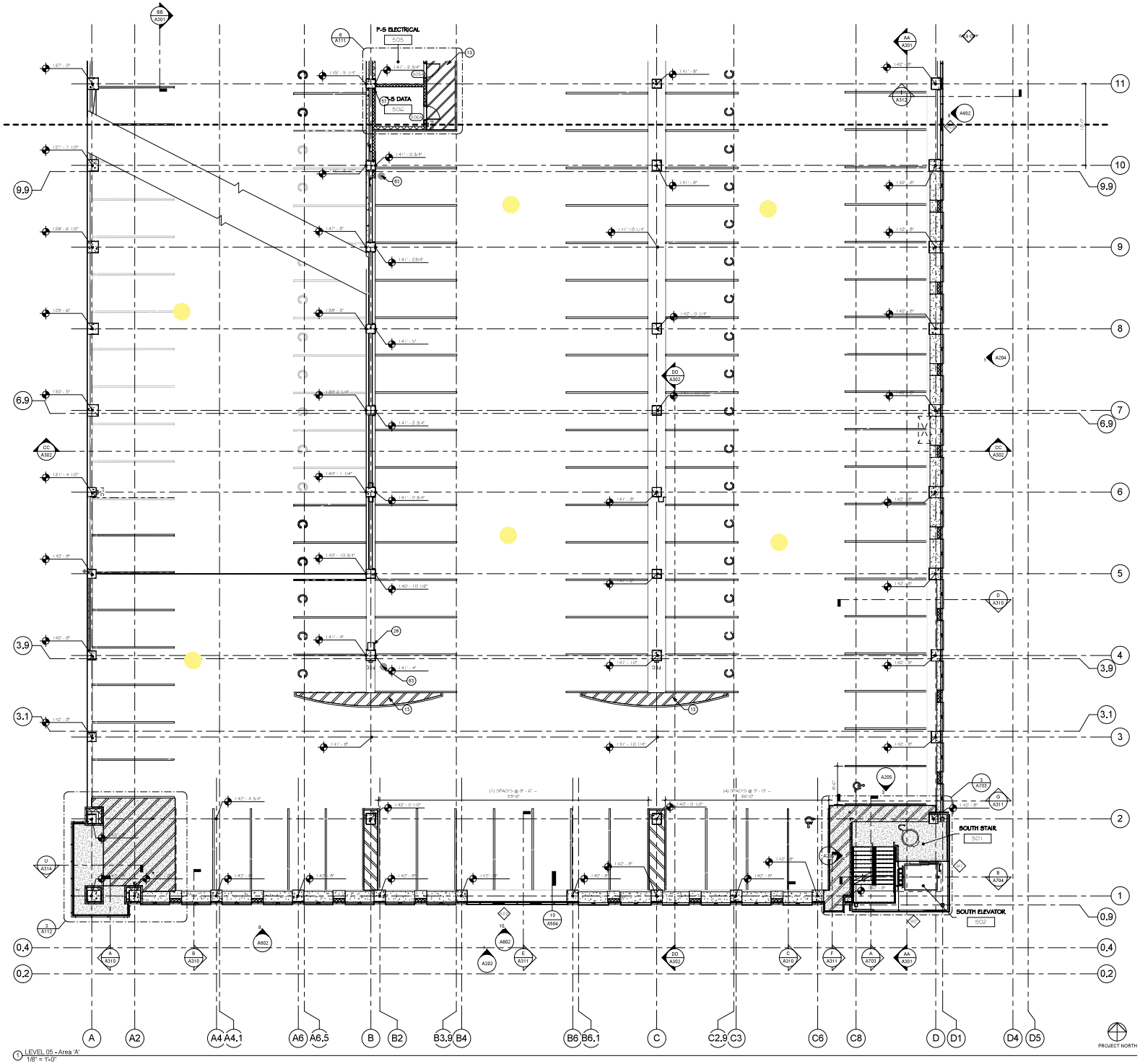


1 LEVEL 05 - Area 'A'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 1 00'-0" = 4257.70
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE AG SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE P1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION, AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES. SEE AG SHEETS FOR DETAILS OF COLORS, DOL LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. P-7 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GEOFOAM + 4" STRUCTURAL SLAB)

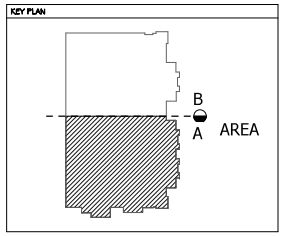
KEYNOTE LEGEND

#	NOTE
L3	TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
G2	PIPE GUARD. SEE DETAIL 1 UA-501.
S1	CALCIUM SILICATE MASONRY UNIT
E3	FLOOR DRAIN SFF PLUMBING DRAWINGS. SLOPE SLAB TO DRAIN SFF SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS

FLOOR PLAN LEGEND

- NEW WALLS. SFF WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE SFF SPECS FOR PRETREATING AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-241-09-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

#9 EXCHANGE PLACE
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PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 05 FLOOR PLAN - AREA 'A'

Date OCTOBER 30 2017

A105a

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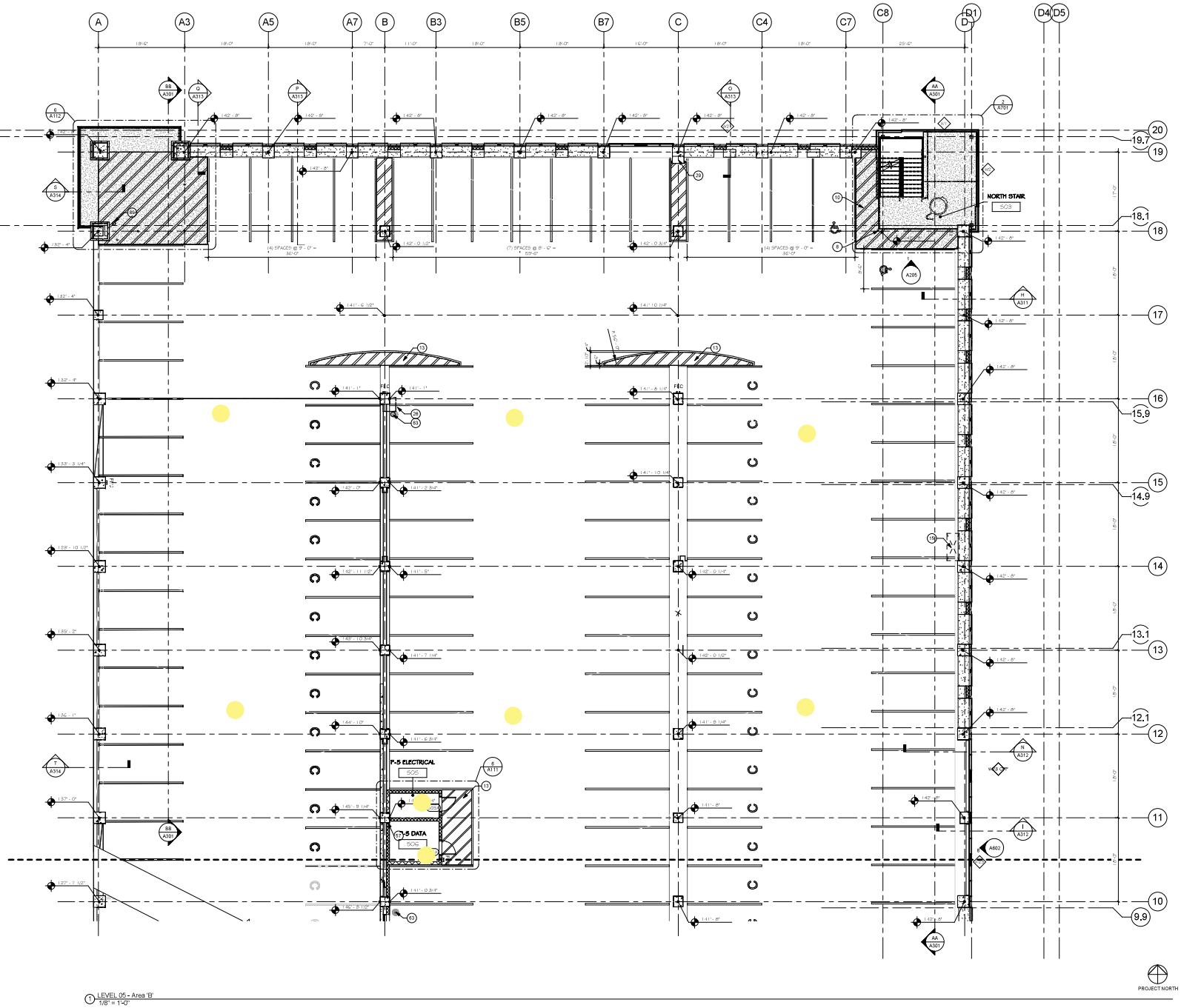


1 LEVEL 05 - Area 'B'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATIONAL ELEV. 1.00'-0" = 4257.70'
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE A6 SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PERIMETER SHIFTS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE P1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE: BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE 3 MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES SEE A6 SHEETS FOR DETAILS OF COLORS, DIA. LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. P-7 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 3.5" HIGHER (1.5" EPOXY ONLY + 4" STRUCTURAL SLAB)

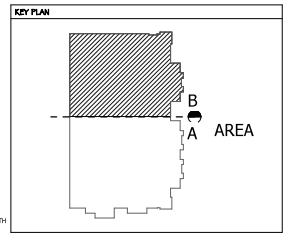
KEYNOTE LEGEND

#	NOTE
B	BOLLARD, PAINT ENTIRE BOLLARD INCLUDING BASE PLATE SEE DETAIL 1/DA501 FOR SLAB ON GRADE + STRUCTURAL FOR EMBED REQUIREMENTS IN POST TENSIONED SLABS
T0	TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
T3	TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
T5	FUTURE BLOCKOUT GRADE EXPANSION. REFERENCE STRUCTURAL. FILL IN WITH CONCRETE TO MATCH SLAB DESIGN
G2	PIPE GUARD. SEE DETAIL 1/DA501
E9	WALL MOUNTED ELECTRIC VEHICLE CHARGING STATION
B7	CALCIUM SILICATE MASONRY UNIT
D1	FLOOR DRAIN SEE PLUMBING DRAWINGS. SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS
S9	STAND PIPE. SEE FIRE SAFETY DRAWINGS. CONTRACTOR TO COORDINATE ALL DECK AND DRAIN PENETRATIONS WITH STRUCTURAL

FLOOR PLAN LEGEND

- NEW WALLS. SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND -SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-2411-09-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 -- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

#9 EXCHANGE PLACE
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O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 05 FLOOR PLAN - AREA 'B'

Date OCTOBER 30 2017

A105b

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1 LEVEL 06 - Area 'A'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 1001'-0" = 4257.70
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE AG SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE P1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE: BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
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6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES.
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES. SEE AG SHEETS FOR DETAILS OF COLORS, SEE LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. P-2 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL FT OR OF STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GEOFOAM + 4" STRUCTURAL SLAB)

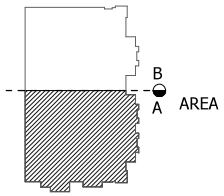
KEYNOTE LEGEND

#	NOTE
13	TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
35	PIPE GUARD. SEE DETAIL 1 / UA-501.
63	FLOOR DRAIN SEE PLUMBING DRAWINGS. SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS

FLOOR PLAN LEGEND

	NEW WALLS. SEE WALL TYPES.
FEC	SURFACE MOUNTED FIRE EXTINGUISHER CABINET
	TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
	TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
	RETAIL PERIMETER BELOW
C	DENOTES COMPACT CAR PARKING STALL NO STRIPING ON GROUND - SEE SIGNAGE PACKAGE FOR SIGNAGE
FD	FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-241-09-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

eda

#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
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O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 06 FLOOR PLAN - AREA 'A'

Date OCTOBER 30 2017

A106a

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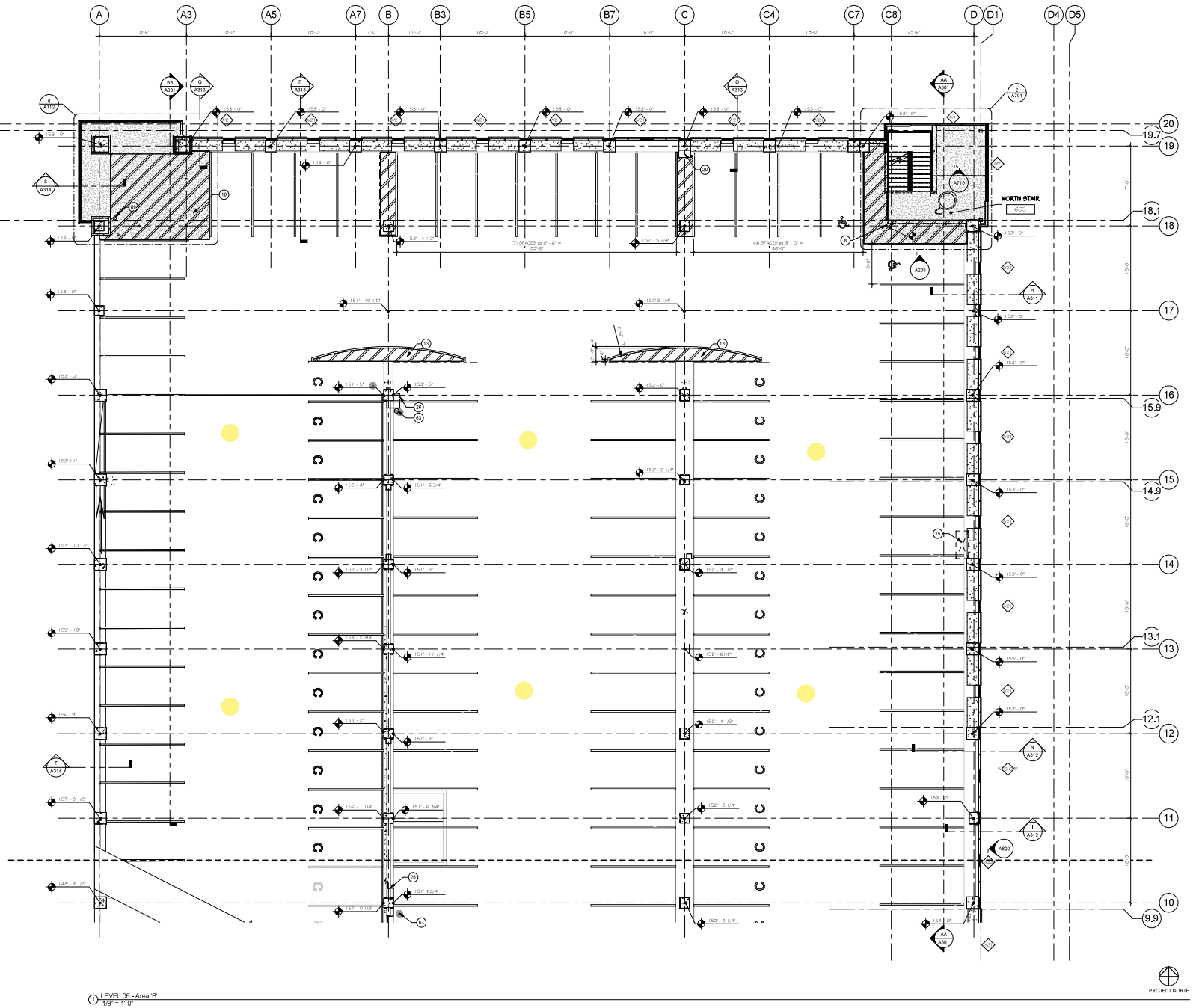

1 LEVEL 06 - Area 'B'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: F.F.V. - 100'-0" = 4257.70
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE AG SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
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6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES.
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES. SEE AG SHEETS FOR DETAILS OF COLORS, DBL LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. F1 IS AS FLUMTOND RH FINISH TOP OF STRUCTURAL FT OR OF STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GEOFOAM + 4" STRUCTURAL SLAB)

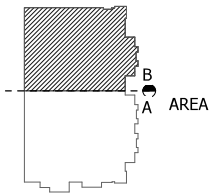
KEYNOTE LEGEND

#	NOTE
8	BOLLARD, PAINT ENTIRE BOLLARD INCLUDING BASE PLATE SEE DETAIL 1/DA501 FOR SLAB ON GRADE + STRUCTURAL FOR EMBED REQUIREMENTS IN POST TENSIONED SLABS
10	TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
13	TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
15	FUTURE BLOCKOUT GRADE EXPANSION. REFERENCE STRUCTURAL. FILL IN WITH CONCRETE TO MATCH SLAB DESIGN
26	PIPE GUARD. SEE DETAIL 1/DA501
29	WALL MOUNTED ELECTRIC VEHICLE CHARGING STATION
63	FLOOR DRAIN SEE PLUMBING DRAWINGS. SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS.
80	STAND PIPE. SEE FIRE SAFETY DRAWINGS. CONTRACTOR TO COORDINATE ALL DECK AND BEAM PENETRATIONS WITH STRUCTURAL.

FLOOR PLAN LEGEND

- NEW WALLS. SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE AG SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-241-109-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 -- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

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SUITE 1100
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O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 06 FLOOR PLAN - AREA 'B'

Date OCTOBER 30 2017

A106b

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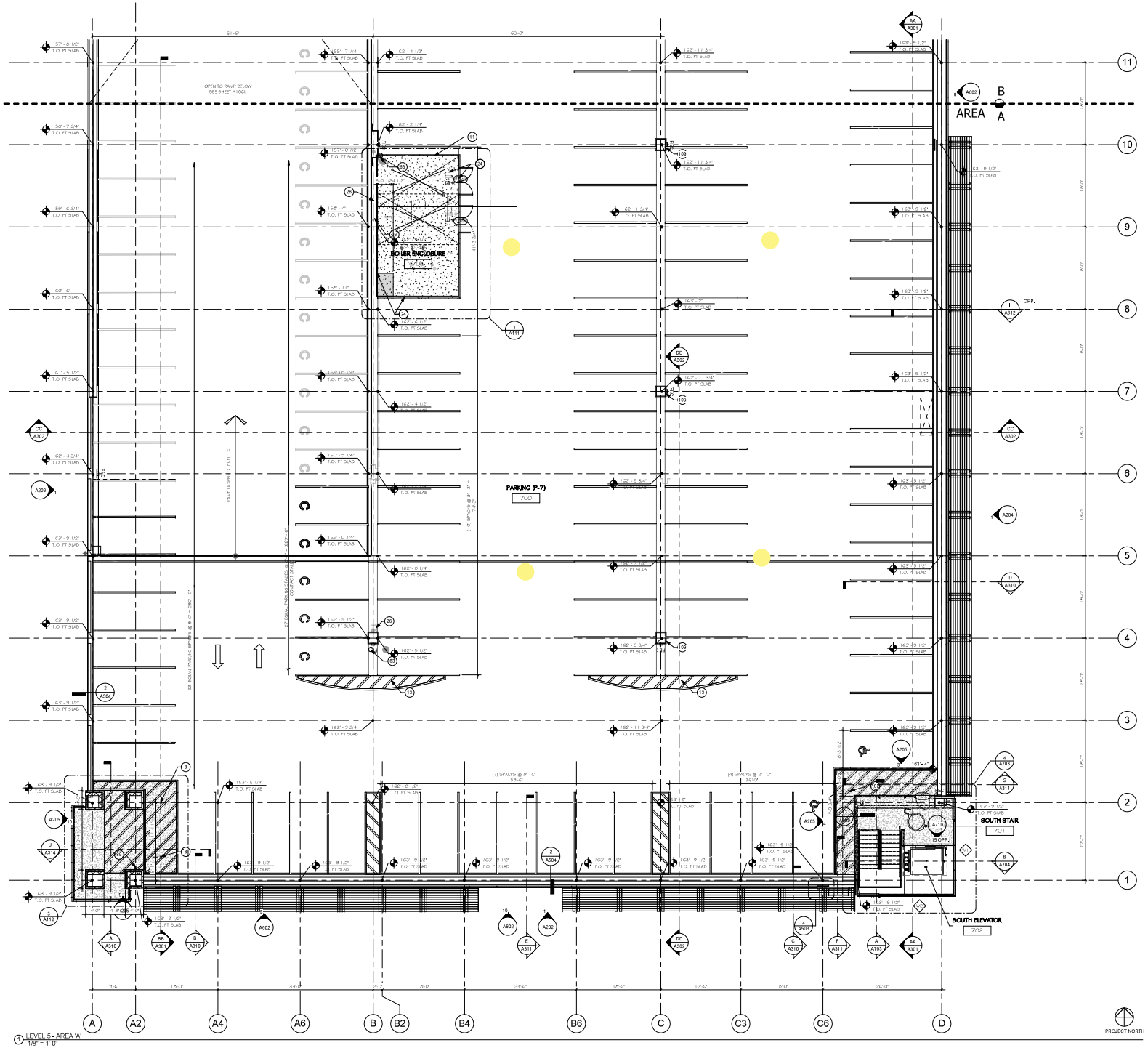

1 LEVEL 5 - AREA 'A'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 1000'-0" = 4257.70'
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE A6 SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
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8. F-7 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GYPCRETE + 4" STRUCTURAL SLAB)

KEYNOTE LEGEND

#	NOTE
B	BOLLARD, PAINT ENTIRE BOLLARD INCLUDING BASE PLATE SEE DETAIL 1/A9A501 FOR SLAB ON GRADE & STRUCTURAL FOR EMBED REQUIREMENTS IN POST TENSIONED SLABS
C1	CONCRETE CURB, 6" ABOVE SLAB MIN.
D	TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
E1	DECORATIVE FENCE SYSTEM, SEE DETAIL 6/A9A501 AND 14/A9A501
G	PIPE GUARD, SEE DETAIL 11/A9A501
F1	FLOOR DRAIN SEE PLUMBING DRAWINGS, SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS
FP	STAND PIPE, SEE FIRE SAFETY DRAWINGS, CONTRACTOR TO COORDINATE ALL DECK AND BEAM PENETRATIONS WITH STRUCTURAL
109	FINISH SPACING/MISTABLE WALL TIE PER CALCULATIONS CALCULATE MASONRY UNIT REQUIREMENTS

FLOOR PLAN LEGEND

NEW WALLS, SEE WALL TYPES.

FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET

TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.

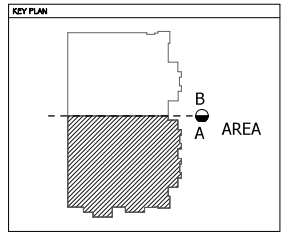
TRAFFIC COATING APPLIED TO CONCRETE SURFACE. SEE SPECS FOR PREPARATION AND FINAL APPLICATION

RETAIL PERIMETER BELOW

C — DENOTES COMPACT CAR PARKING STALL, NO STRIPING ON GROUND. SEE SIGNAGE PACKAGE FOR SIGNAGE

FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-241-09-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

2846 S. LEHMAN AVE.
WEST VALLET CITY, UT, 84119

eda

#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT GB
PROJECT MANAGER JP
ARCHITECT PROJECT # 213069-1
OWNER PROJECT # --

Description	Date

LEVEL 07 FLOOR PLAN - AREA 'A'

Date OCTOBER 30 2017

A107a

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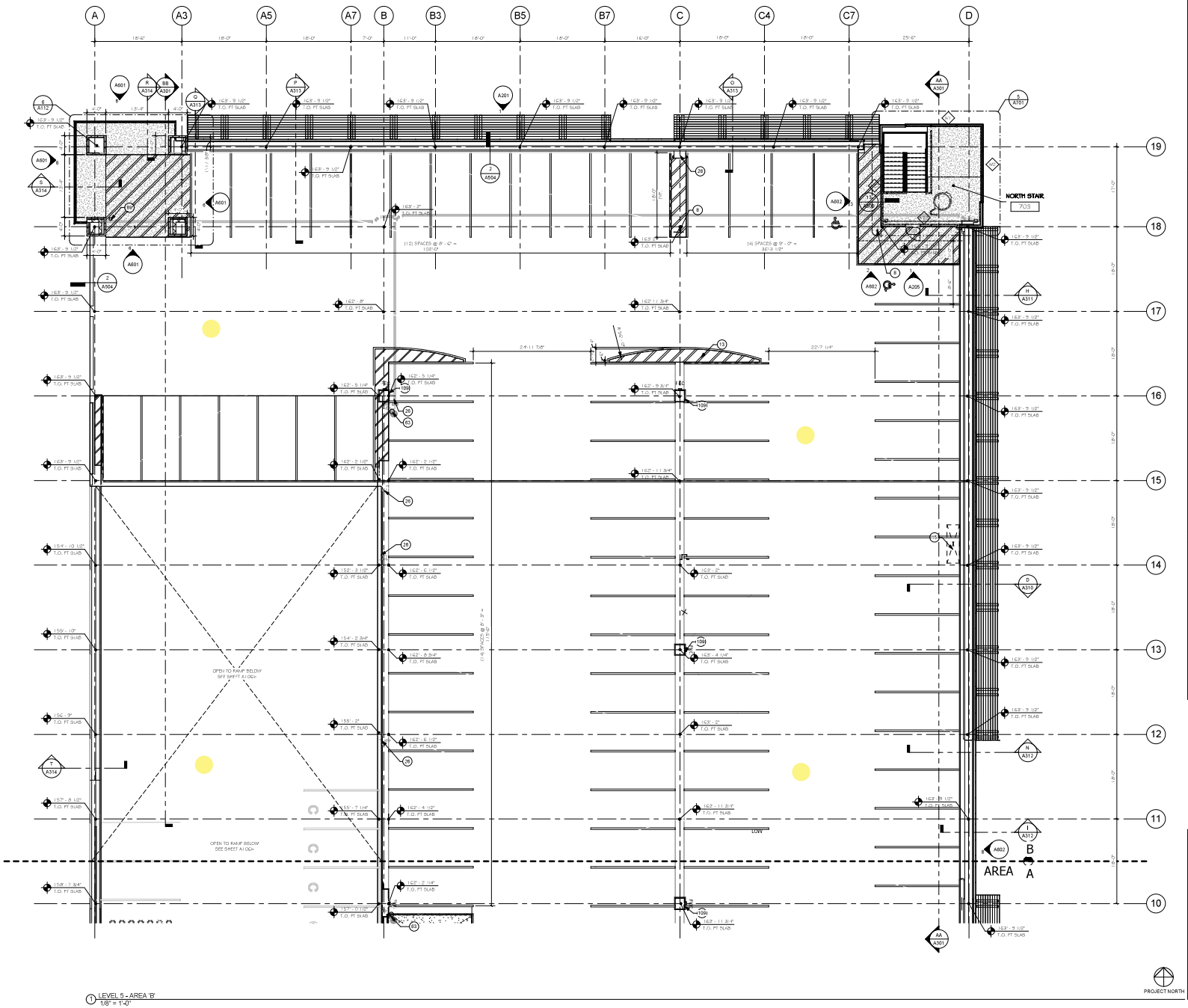


1 LEVEL 5 - AREA 'B'
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DATUM ELEVATION EQUATION: ELEV. 100'-0" = 4257.70
2. TRAFFIC ARROWS SHOWN ON PLANS ARE FOR REFERENCE ONLY. SEE A6 SHEETS FOR PAINTED ARROW GRAPHICS FOR DIRECTIONAL TRAFFIC CIRCULATION.
3. PENETRATIONS THROUGH THE FLOOR SLAB SHALL BE FULLY COORDINATED AND AS SHOWN IN THE DOCUMENTS. ANY PENETRATIONS NOT AS DESIGNED IN THE DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO THE WORK BEING PERFORMED.
4. THE F1 GROUND FLOOR PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 8'-2". THE UPPER LEVELS OF THE PARKING GARAGE SHALL HAVE A CLEAR HEAD HEIGHT OF NOT LESS THAN 7'-2". ALL OVERHEAD BUILDING COMPONENTS INCLUDING BUT NOT LIMITED TO THE BUILDING STRUCTURE, PIPING, CONDUIT, LIGHTING AND SIGNAGE SHALL NOT ENCROACH BELOW THE MINIMUM REQUIRED CLEAR HEAD HEIGHT.
5. PROPOSED NEW STREET AND UTILITY WORK TO BE BUILT BY THE OWNER UNDER SEPARATE CONTRACT. IT IS ANTICIPATED THAT THE NEW ROAD WORK SHALL START CONSTRUCTION THREE MONTHS PRIOR TO THE PARKING GARAGE CONTRACTOR'S DATE OF SUBSTANTIAL COMPLETION, AND SHALL ACHIEVE SUBSTANTIAL COMPLETION AT THE SAME TIME AS THE PARKING GARAGE PROJECT. THIS CONTRACTOR SHALL COORDINATE WITH THE OTHER CONTRACTORS AS REQUIRED AND FOR THE MUTUAL BENEFIT OF THE OWNER.
6. ALL EXPOSED COLUMNS TO RECEIVE A 3/4" CORNER CHAMFER ON ALL 4 SIDES
7. ALL STRIPING ON PLANS IS DIAGRAMMATIC AND REPRESENTS CENTER LINE OF SPACES SEE A6 SHEETS FOR DETAILS OF COLORS, DBL LINE DETAILS AND SPECIFIC THICKNESS OF LINES.
8. F-2 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL PT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GEOFOAM + 4" STRUCTURAL SLAB)

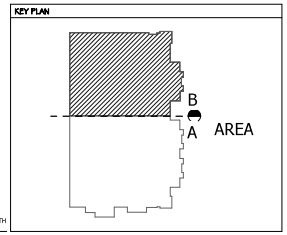
KEYNOTE LEGEND

#	NOTE
B	BOLLARD, PAINT ENTIRE BOLLARD INCLUDING BASE PLATE SEE DETAIL 1/DA501 FOR SLAB ON GRADE & STRUCTURAL FOR EMBED REQUIREMENTS IN POST TENSIONED SLABS
T.D	TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
T.D	FUTURE BLOCKOUT GARAGE PARAPET, REINFORCED STRUCTURAL, FILL IN WITH CONCRETE TO MATCH SLAB DESIGN
GC	PIPE GUARD, SEE DETAIL 1/DA501
EA	PEDESTAL MOUNTED ELECTRIC VEHICLE CHARGING STATION
ED	FLOOR DRAIN SEE PLUMBING DRAWINGS, SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS
SD	STAND PIPE, SEE FIRE SAFETY DRAWINGS, CONCEPTUAL TO COORDINATE ALL DECK AND DRAIN PENETRATIONS WITH STRUCTURAL
LDB	FINGER SPACE/ADJUSTABLE WALL TIE PER CALCIUM SILICATE MASONRY UNIT REQUIREMENTS

FLOOR PLAN LEGEND

- NEW WALLS, SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE A6 SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PREPARATION AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DENOTES COMPACT CAR PARKING STALL, NO STRIPING ON GROUND SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-2411-109-0301
LICENSED ARCHITECT

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PROJECT ARCHITECT	GB
PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

LEVEL 07 FLOOR PLAN - AREA 'B'

Date OCTOBER 30 2017

A107b

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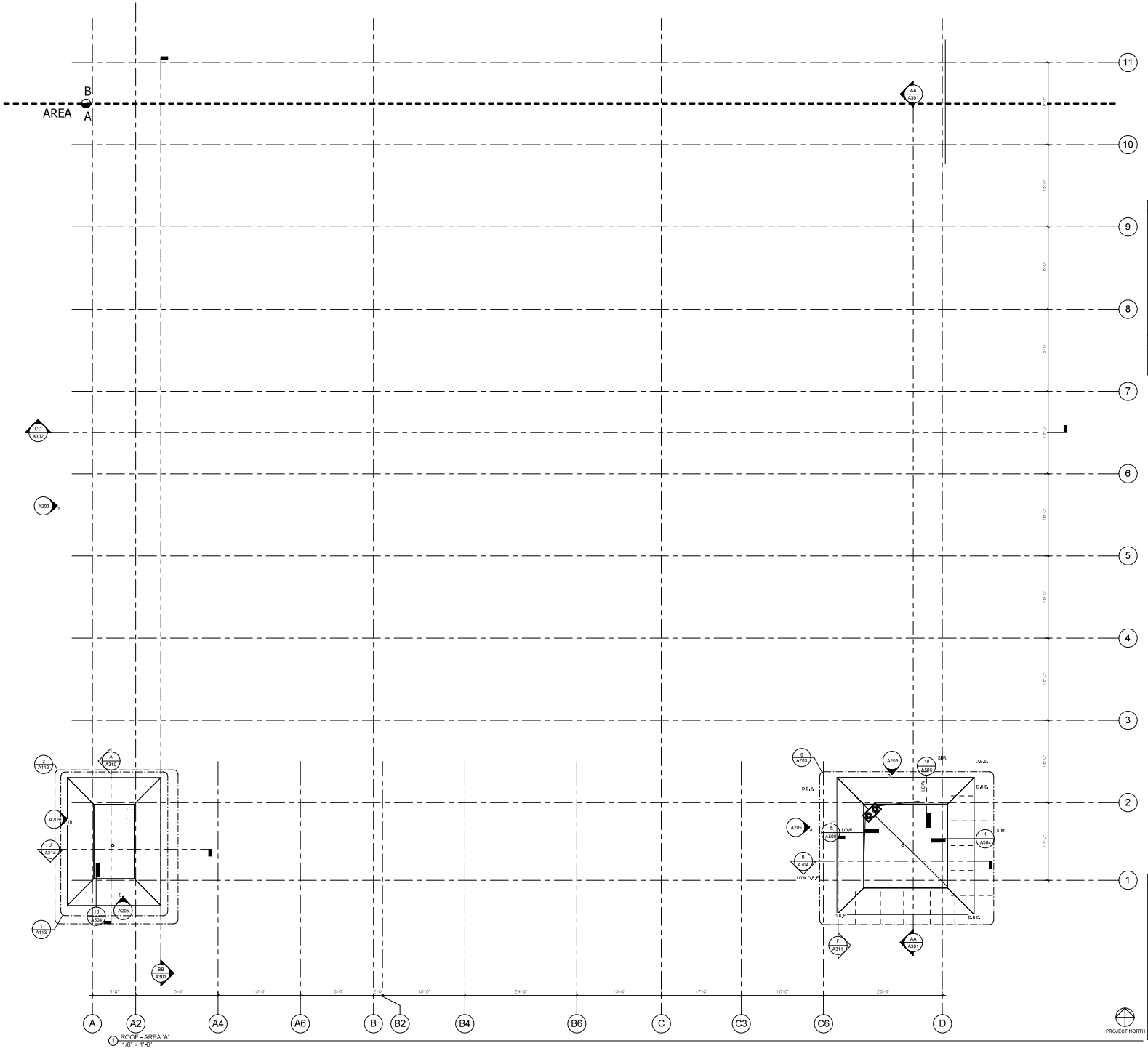


1 ROOF - AREA 'A'
1/8" = 1'-0"

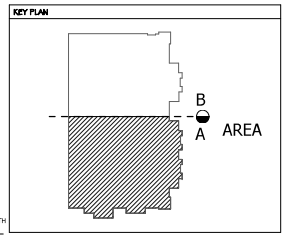
KEYNOTE LEGEND	
#	NOTE

ROOF PLAN GENERAL NOTES

ROOF PLAN LEGEND

SLOPE TO DRAIN — DIRECTION OF SLOPE

KEY PLAN



STATE OF UTAH
THOMAS S. BRENNAN
97-2414-109-0301
LICENSED ARCHITECT

FAIRBOURNE STATION PARKING STRUCTURE-2017 --- BID SET

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PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

	Description	Date

HIGH AND LOW ROOF PLANS - AREA 'A'

Date OCTOBER 30 2017

A110a

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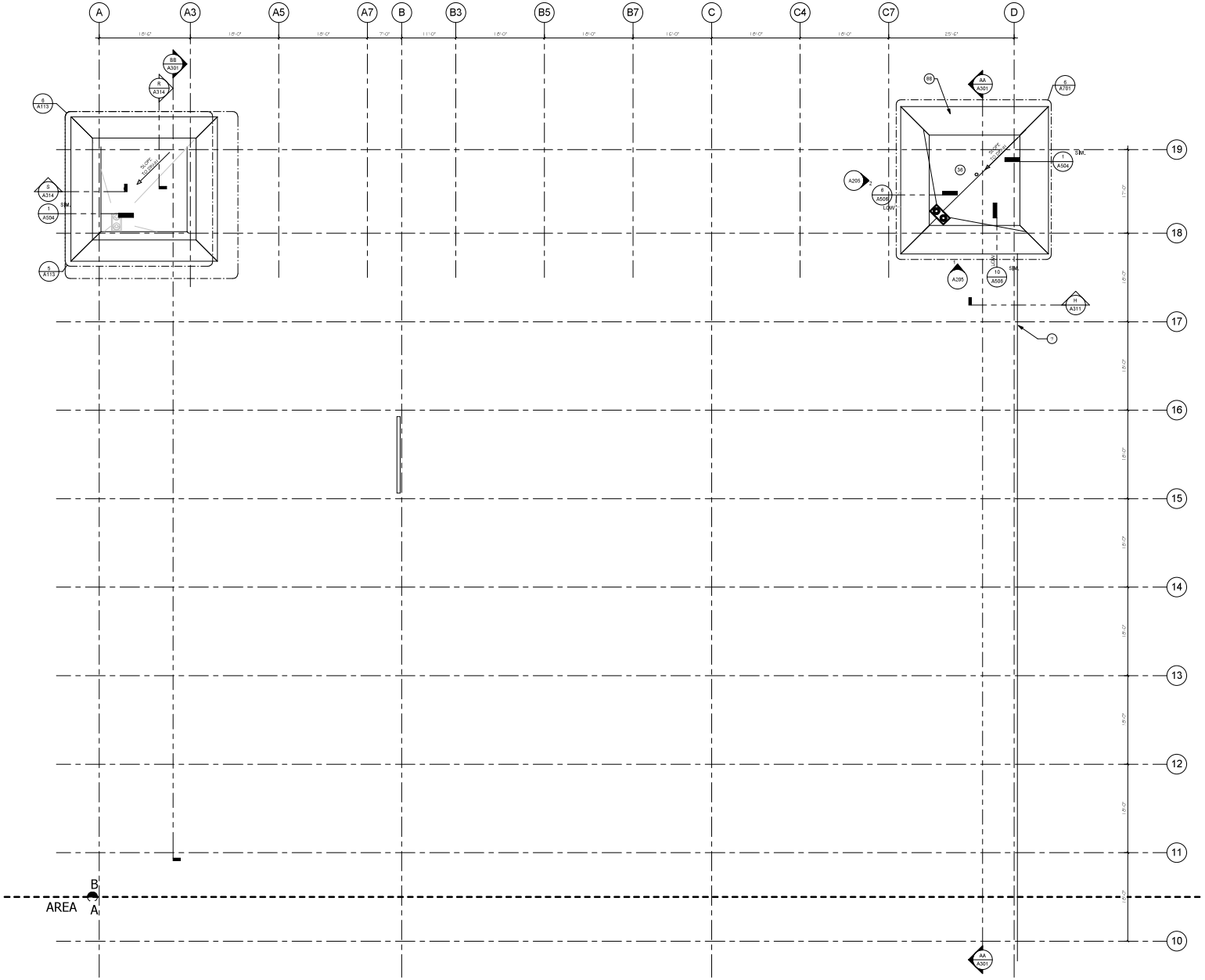


1 ROOF - AREA 'B'
1/8" = 1'-0"

PROJECT NORTH

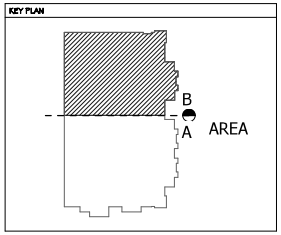
KEYNOTE LEGEND	
#	NOTE
BG	SINGLE PLY ROOF MEMBRANE
BB	PRE FINISHED CELLULAR DECK SOFFIT

ROOF PLAN GENERAL NOTES

ROOF PLAN LEGEND

SLOPE TO DRAIN — DIRECTION OF SLOPE

KEY PLAN



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	Description	Date

HIGH AND LOW ROOF PLANS - AREA 'B'

Date OCTOBER 30 2017

A110b

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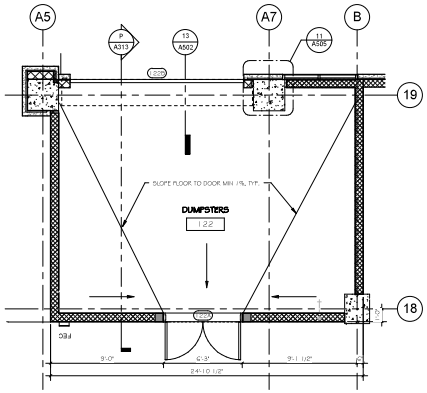
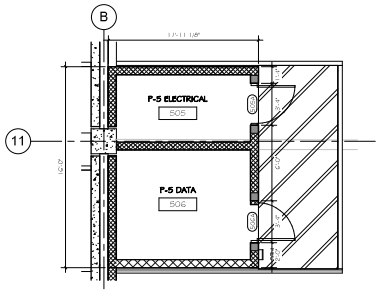
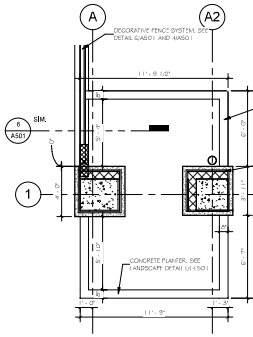


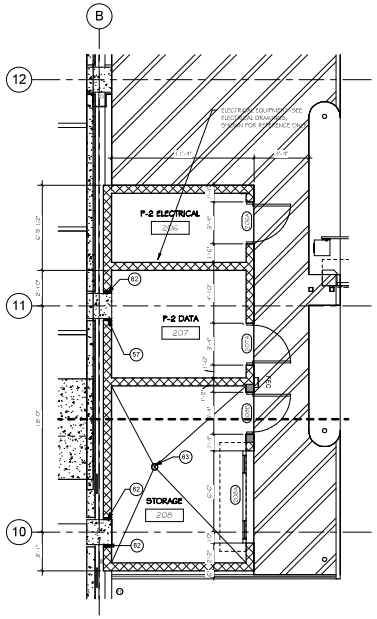
5 ENLARGED TRASH ENCLOSURE PLAN
1/4" = 1'-0"



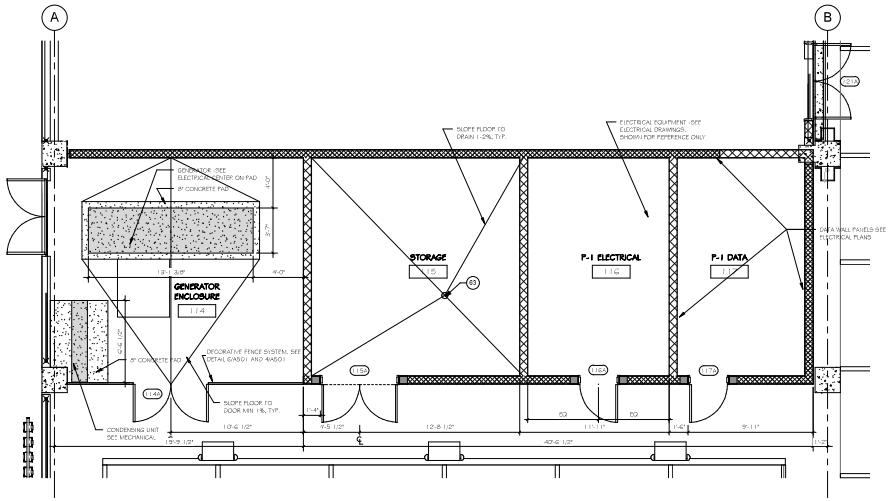
LEVEL 05 DATA & ELECTRICAL ENCLOSURES
6 1/4" = 1'-0"



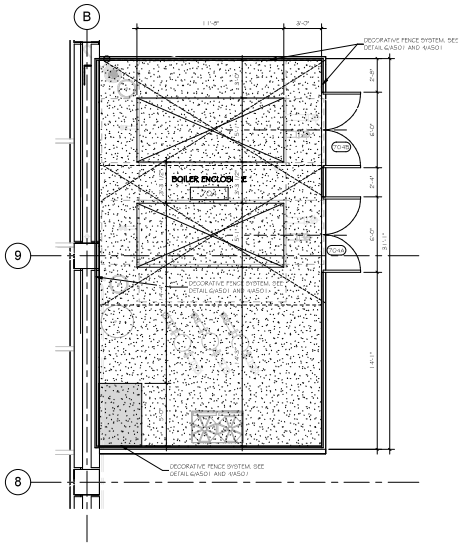
4 ENLARGED PLANTER PLAN
1/4" = 1'-0"



3 Enlarged 2nd Lvl Elec.
1/4" = 1'-0"



2 ENLARGED FIRST LEVEL MECHANICAL ROOMS
1/4" = 1'-0"



1 BOILER ENCLOSURE ENLARGED PLAN
1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

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8. P-7 SLAB ELEVATIONS REFERENCE TOP OF STRUCTURAL FT OR CIP STRUCTURAL SLAB. FINISH SLAB IS 5.5" HIGHER (1.5" GEOFOAM + 4" STRUCTURAL SLAB)

KEYNOTE LEGEND

#	NOTE
L6	TYPICAL STRIPING SEE AS SHEETS
D0	CONCRETE PLANTER. SEE LANDSCAPE DETAIL LL-LS01
D4	DECORATIVE FENCE SYSTEM. SEE DETAIL 6/A501 AND 4/A501
M1	CONCRETE EVALUCULAR. SEE STRUCTURAL
S7	CALCIUM SILICATE MASONRY UNIT
S2	2" GAP BETWEEN WALL AND CONC COLUMN. CAULK COLUMN BOTH SIDES FULL LENGTH TO STRUCTURE ABOVE
S3	FLOOR DRAIN SEE PLUMBING DRAWINGS. SLOPE SLAB TO DRAIN SEE SLAB ELEVATIONS THIS SHEET FOR SLOPING REQUIREMENTS

FLOOR PLAN LEGEND

- NEW WALLS. SEE WALL TYPES.
- FEC — SURFACE MOUNTED FIRE EXTINGUISHER CABINET
- TYPICAL DIAGONAL STRIPING SEE AS SHEETS.
- TRAFFIC COATING APPLIED TO CONCRETE SURFACE SEE SPECS FOR PRETREATING AND FINAL APPLICATION
- RETAIL PERIMETER BELOW
- C — DYNOTES COMPACT CAR PARKING STALL. NO STRIPING ON GROUND -SEE SIGNAGE PACKAGE FOR SIGNAGE
- FD — FLOOR DRAIN

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97-241-109-0301
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PROJECT MANAGER	JP
ARCHITECT PROJECT #	213069-1
OWNER PROJECT #	--

Description	Date

ENLARGED PLANS

Date OCTOBER 30 2017

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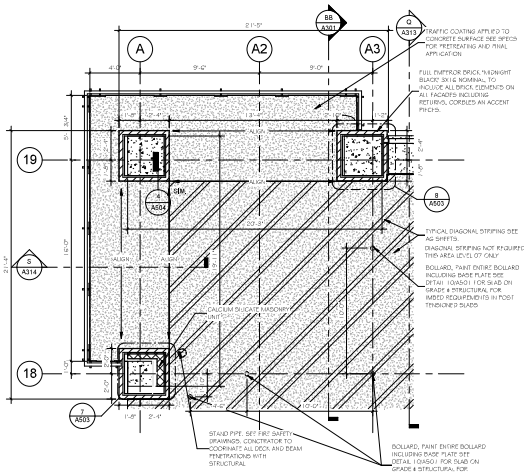
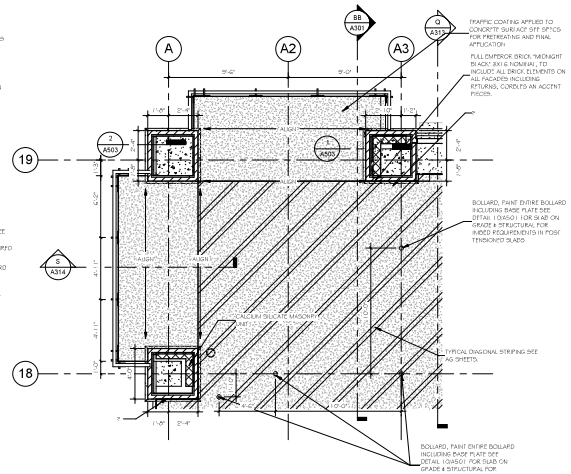
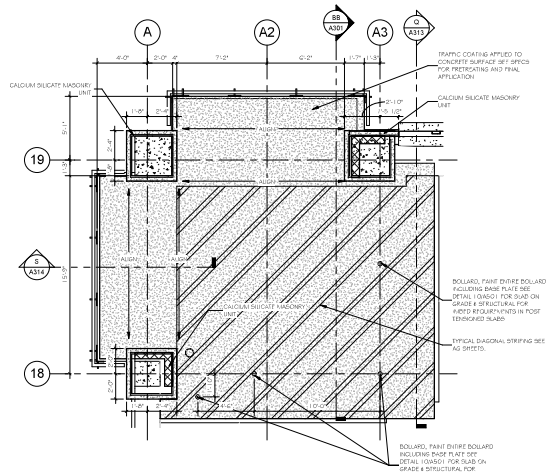


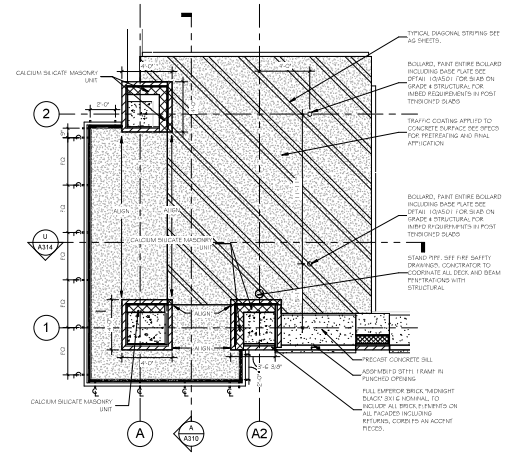
NORTH WEST TOWER LEVELS 04, 05, 06
6 ENLARGED PLAN (07 SIMILAR)
1/4" = 1'-0"



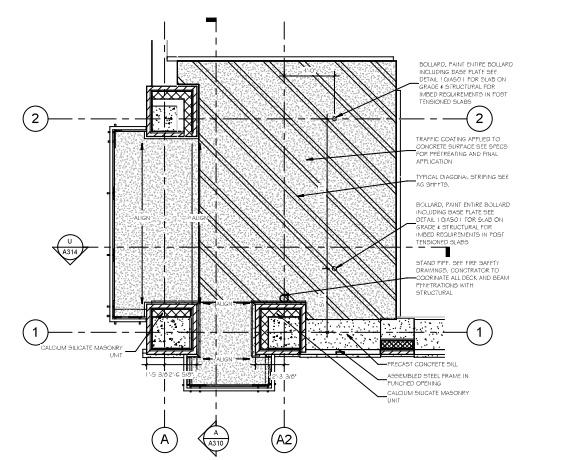
NORTH WEST TOWER LEVEL 03
5 ENLARGED PLAN
1/4" = 1'-0"



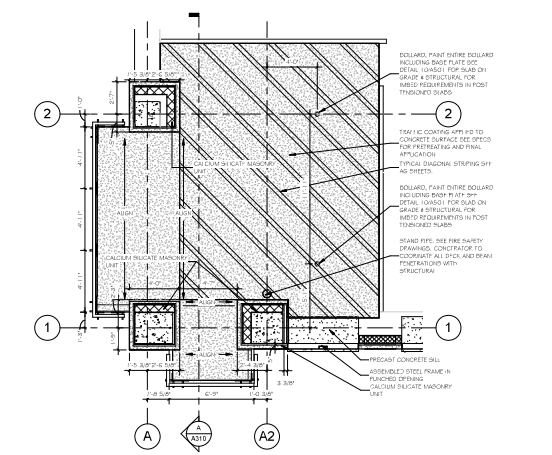
NORTH WEST TOWER LEVEL 02
4 ENLARGED PLAN
1/4" = 1'-0"



SOUTH WEST TOWER LEVELS 04, 05, 06,
3 07 ENLARGED PLAN
1/4" = 1'-0"



SOUTH WEST TOWER LEVEL 03
2 ENLARGED PLAN
1/4" = 1'-0"



SOUTH WEST TOWER LEVEL 02
1 ENLARGED PLAN
1/4" = 1'-0"

STATE OF UTAH
THOMAS S. BRENNAN
97-2411-09-0301
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OWNER PROJECT #	--

Description	Date

ENLARGED TOWER PLANS

Date OCTOBER 30 2017

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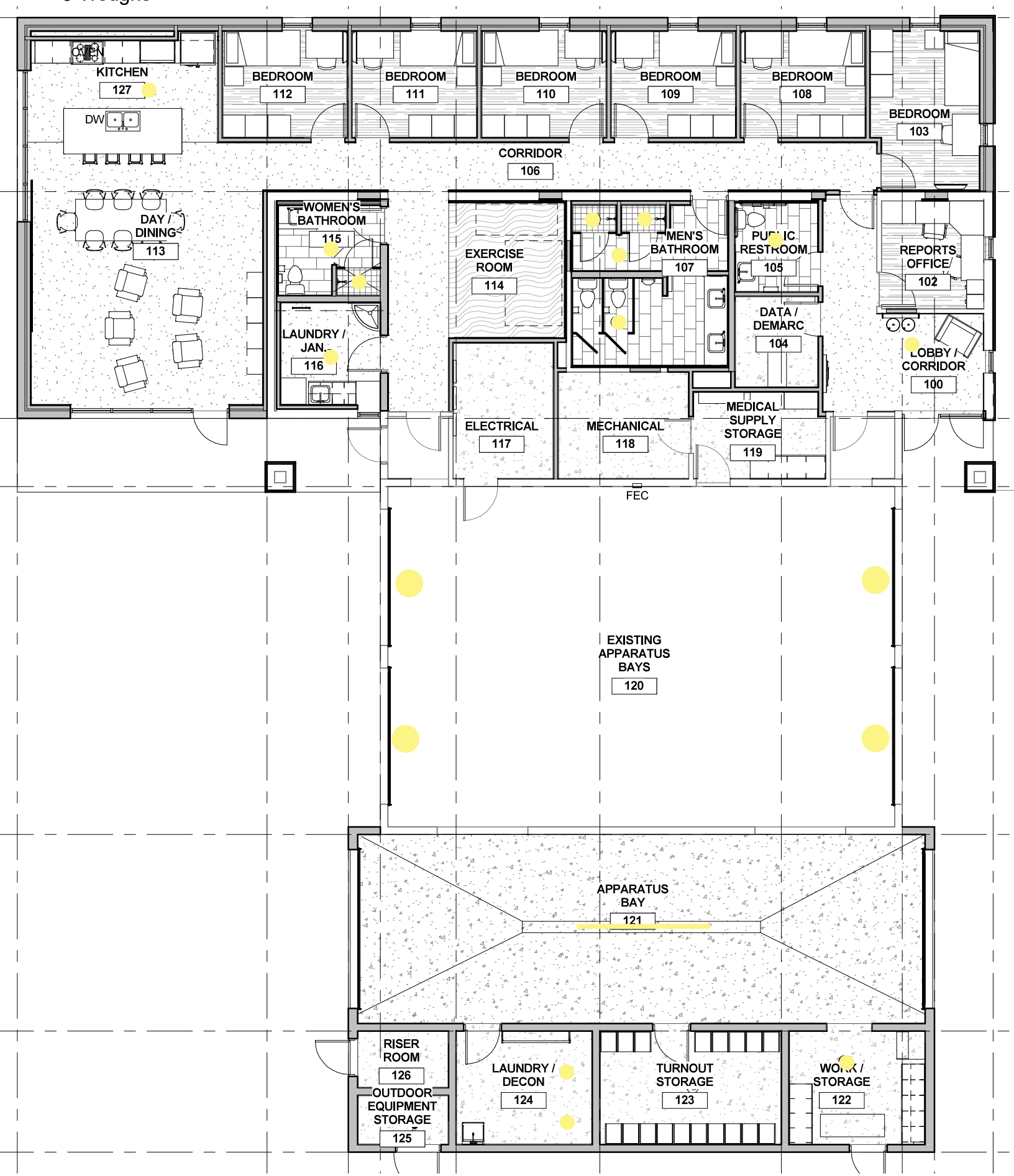
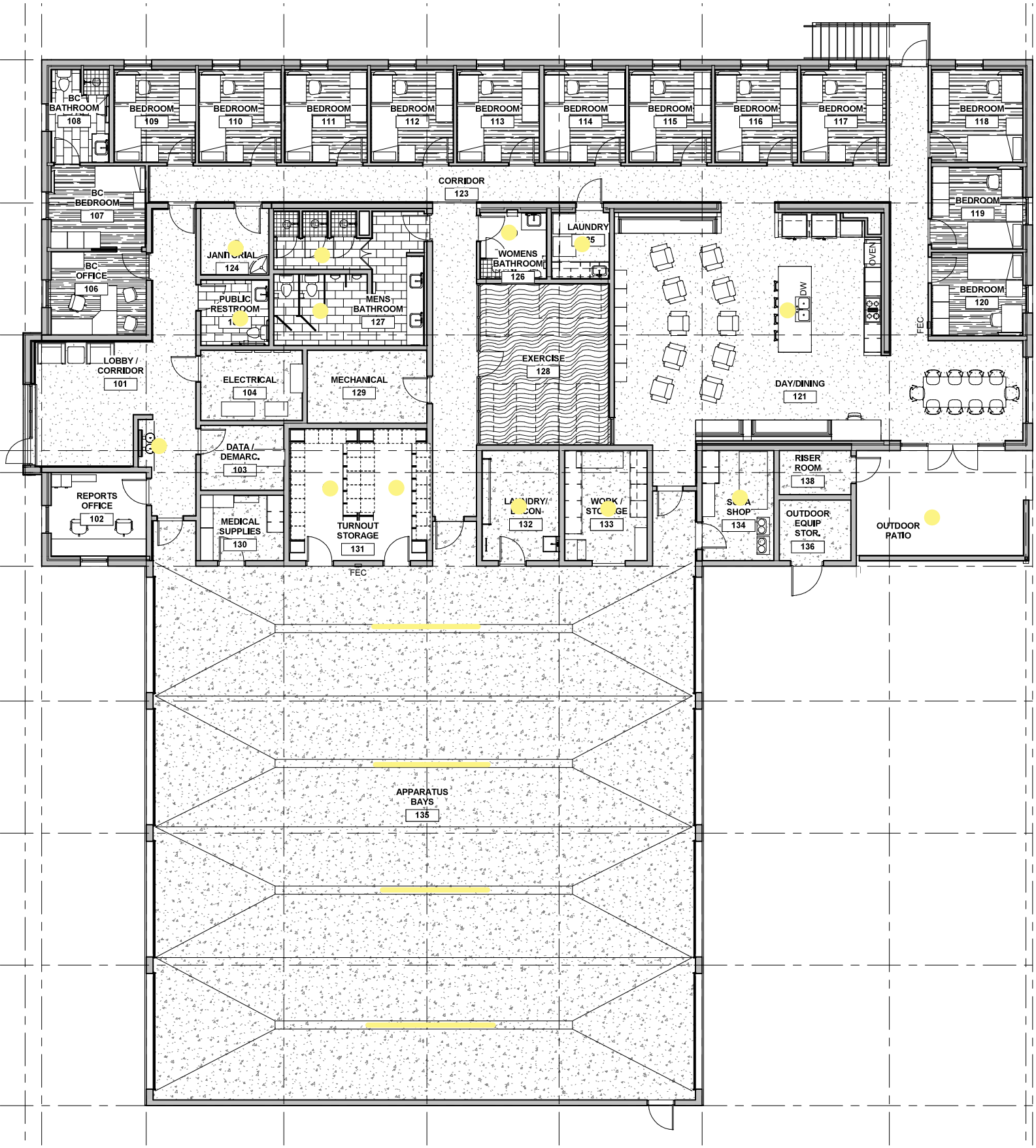
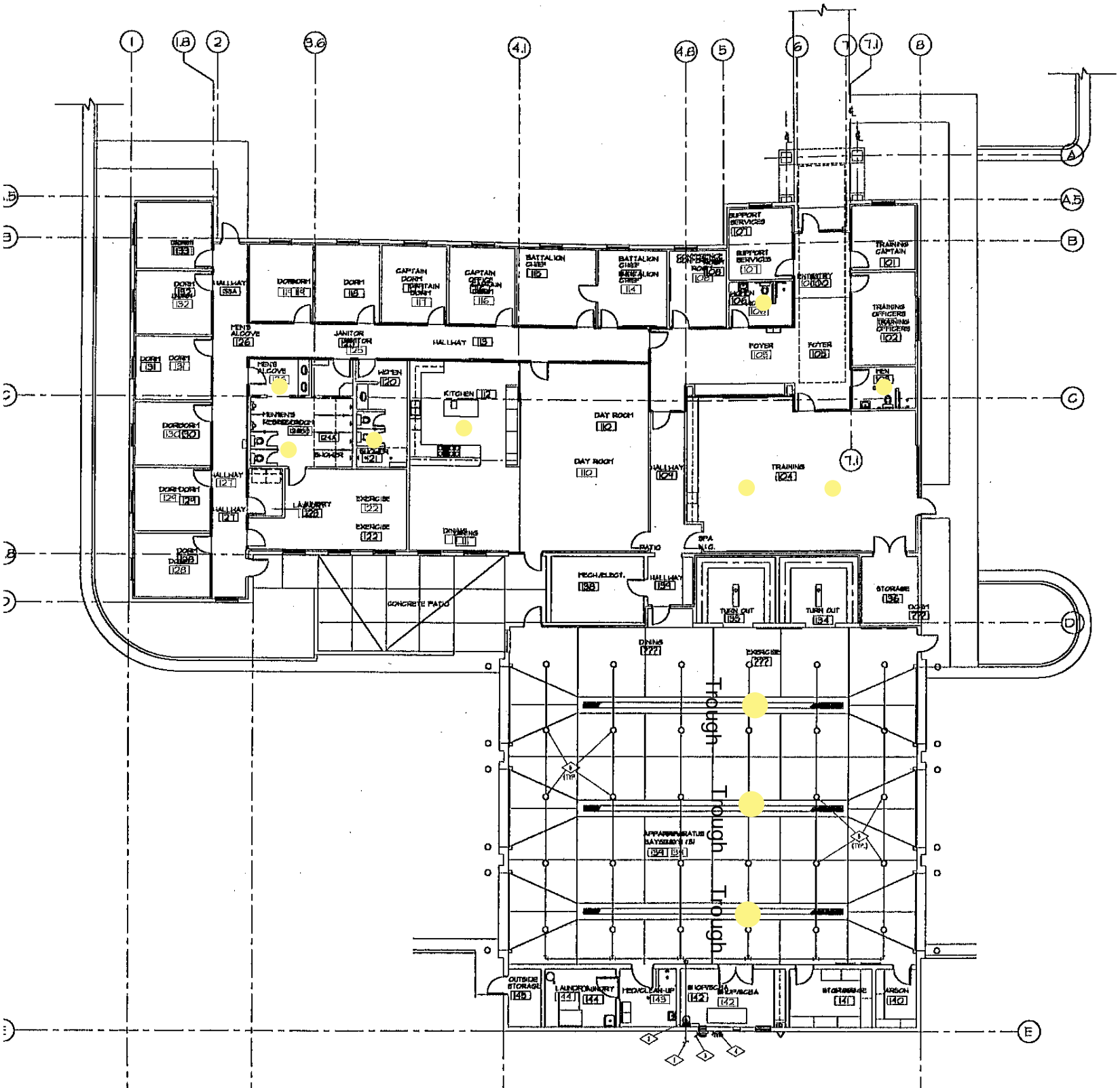
Fire Station #73
3 Floor Drains
3 Troughs

Firestation #71
13 Floor Drains
5 Troughs



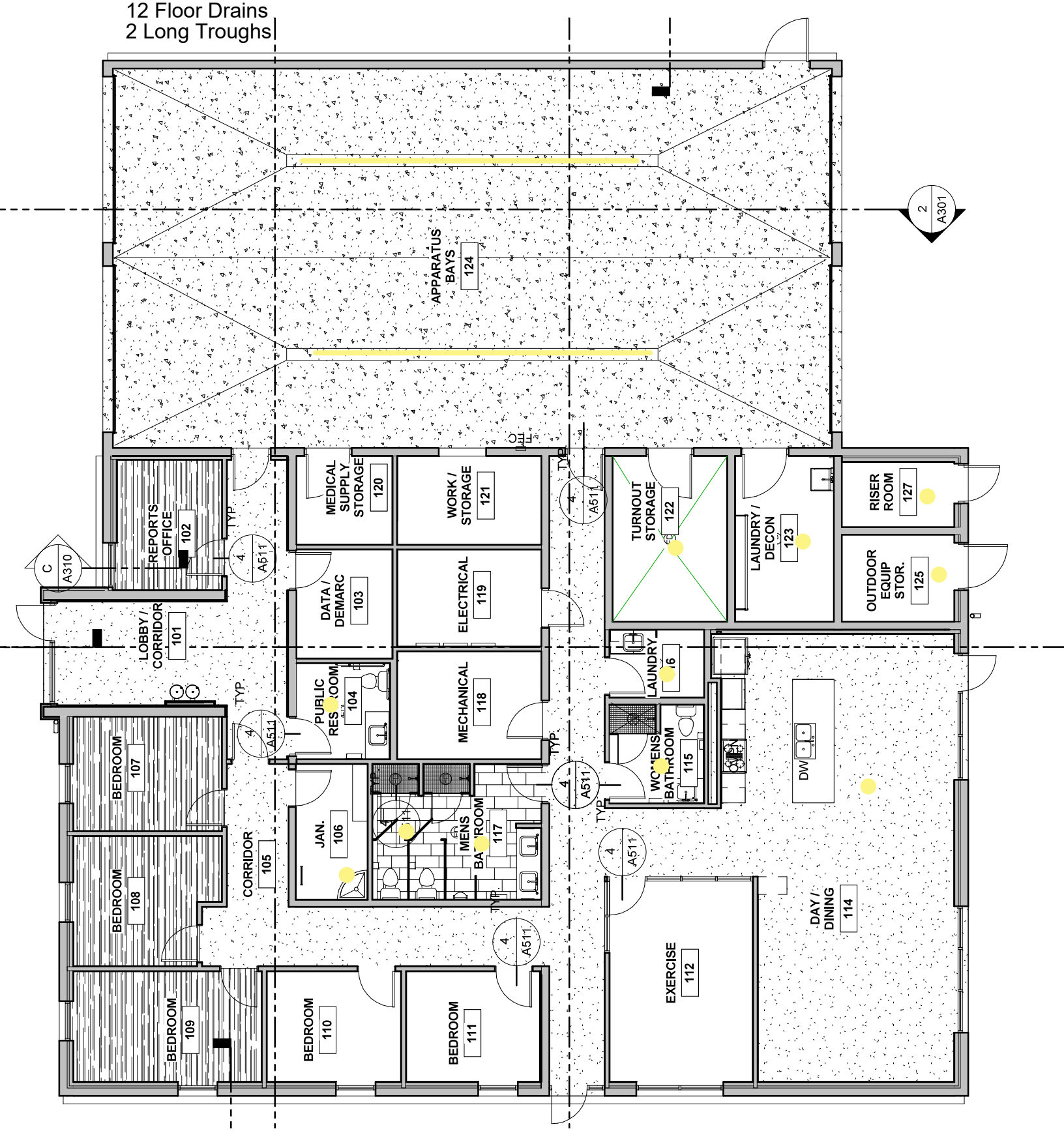
Fire Station #72
16 Drains
4 Troughs



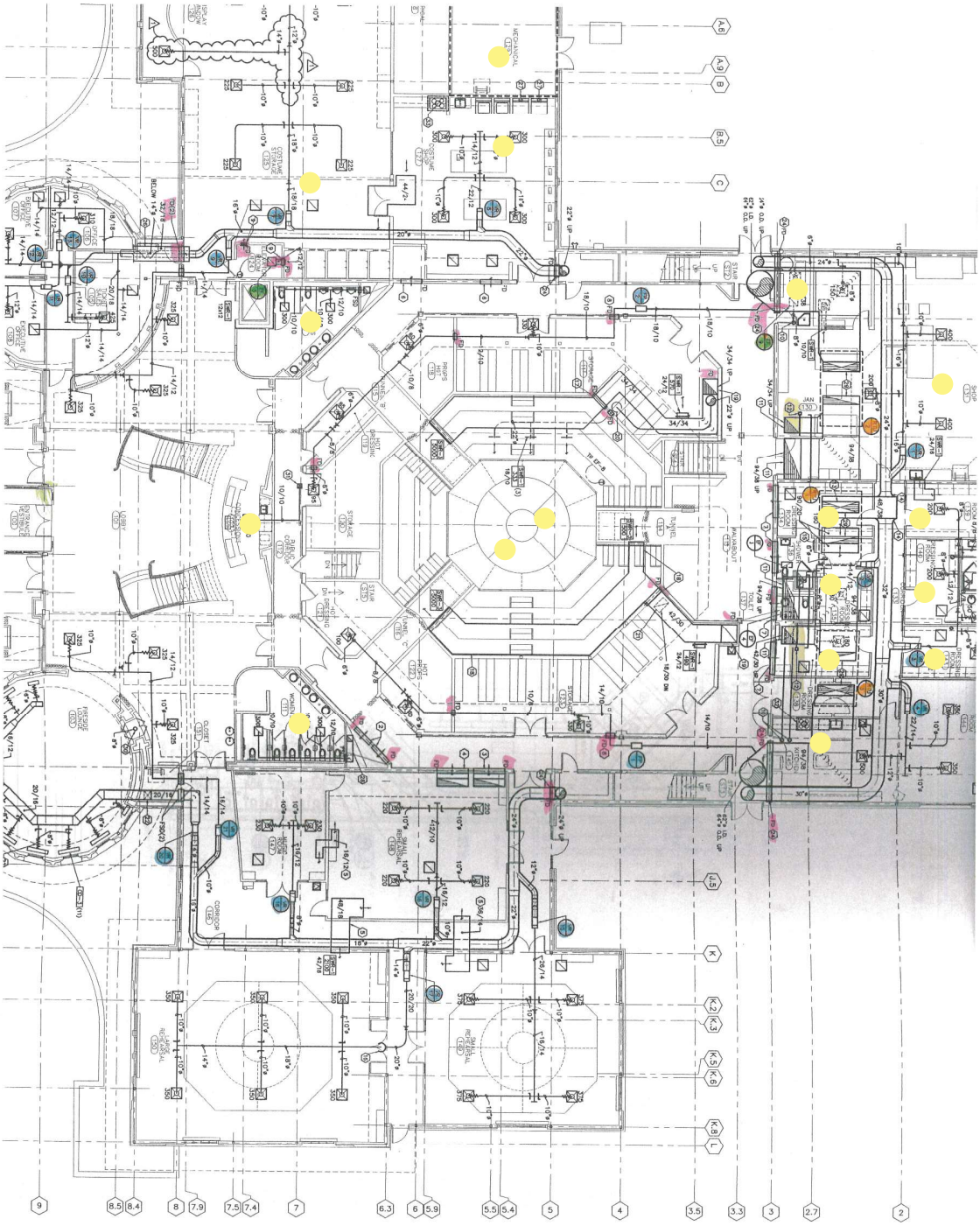

DORM
HALLWAY
DORMORM
DORM
CAPTAIN DORM
CAPTAIN OFFICE
BATTALION CHIEF
SUPPORT SERVICES
TRAINING CAPTAIN
ENTRANCE
TRAINING OFFICERS
MEN'S ALCOVE
JANITOR
HALLWAY
FOYER
MEN
WOMEN
KITCHEN
DAY ROOM
TRAINING
EXERCISE
LAUNDRY
DINING
PATIO
SPA
MECH/ELECT.
TURN OUT
STORAGE
CONCRETE PATIO
Trough
Trough
Trough
OUTSIDE STORAGE
LAUNDRY
MED/CLEAN-UP
SHOP/SCBA
ARSON

Fire Station #76

12 Floor Drains
2 Long Troughs



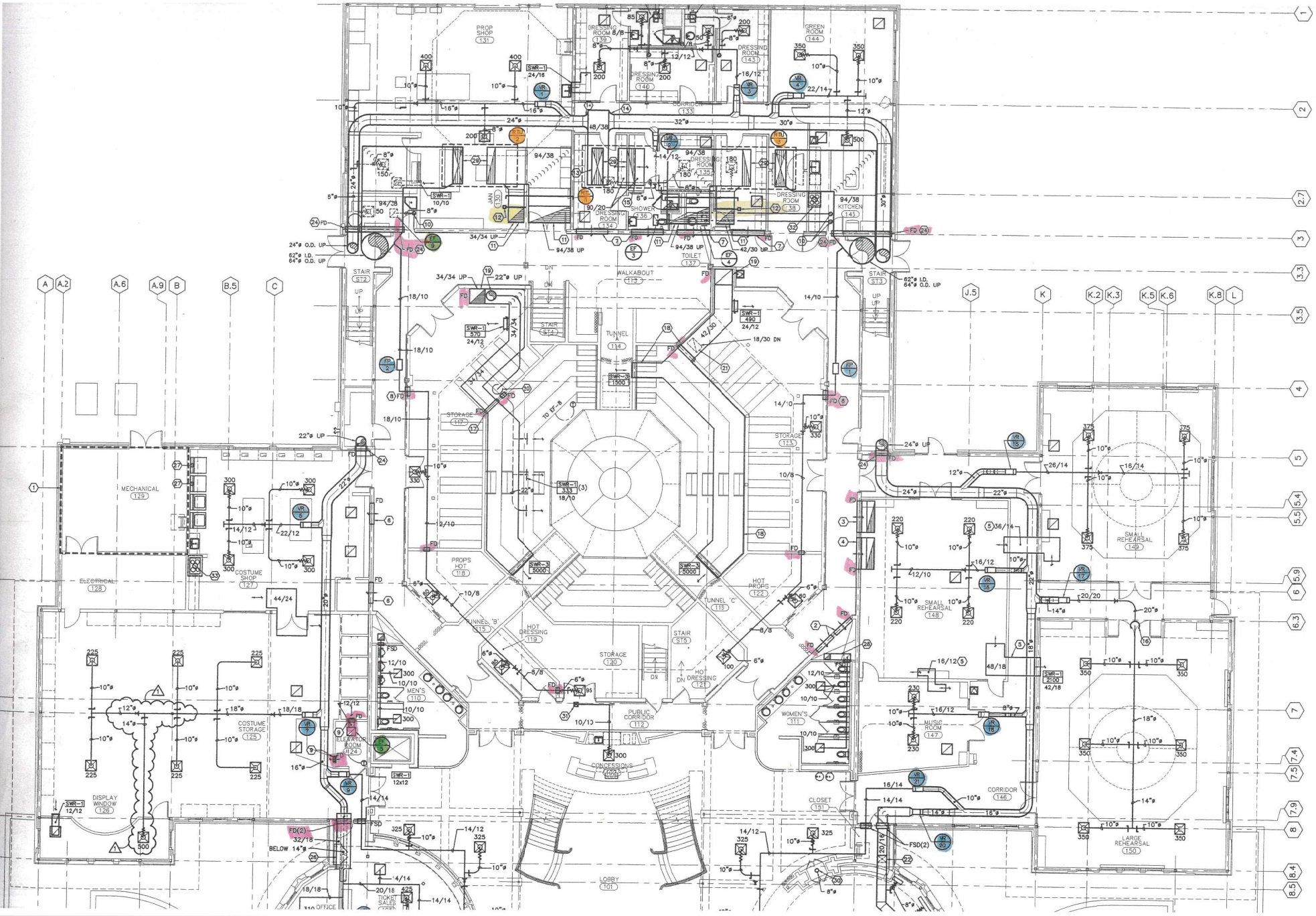
Harman Hall
17 Floor Drains



KEYED NOTES

1. FOR MECHANICAL ROOM LAYOUT REFER TO 1/4" SCALE PLAN SHEET M201.
2. TWO 48"x48" TRANSFER AIR OPENINGS WITH FIRESMOKE DAMPER.
3. 72"x14" TRANSFER AIR DUCT WITH SOUND BOOT AND TYPE "A" FIRE DAMPER.
4. 72"x14" TRANSFER AIR DUCT WITH SOUND BOOT AND TRANSFER AIR GRILLE.
5. 48"x14" RETURN AIR OPENING WITH TYPE "A" FIRE DAMPER.
6. 72"x14" RETURN AIR OPENING WITH TYPE "A" FIRE DAMPER.
7. PROVIDE 1.0 SQ.FT. TRANSFER AIR OPENING WITH TYPE "B" FIRE DAMPER.
8. LOCATE EXHAUST FLUE A MINIMUM 10 FEET FROM ADJACENT BUILDING AIR INTAKES.
9. RUN DUCT THRU ROOF TRUSSES. PROVIDE MATCH SHEET METAL PARTITION AROUND STRUCTURE.
10. MOTORIZED ATC DAMPER.
11. TRANSITION FROM ROOFTOP DISCHARGE OUTLET TO 48"x48".
12. PROVIDE BELL MOUTH FITTING.
13. TRANSITION FROM BELL MOUTH TO RETURN AIR INLET TO SOUND BOOTS AS SHOWN.
14. RISE DUCT TO RUN TIGHT TO STRUCTURE IN SPACE.
15. FLEXIBLE DUCTWORK WITH LINED DUCT. PROVIDE MAGNA SOUND OR EQUAL SOUND BOOTS FOR DUCTS SERVING DUCT SHAFT. SEE DETAIL 5/M201. DUCTS SHALL BE RECTANGULAR, ROUND OR OVAL DUCT SHAPE AND SIZE.
16. PROVIDE FIRE DAMPER AT FLOOR PENETRATION.
17. DROP DUCTWORK DOWN AS SHOWN.
18. TYPE "B" FIRE DAMPER.
19. EXHAUST DUCTS OFF OF BOTTOM OF 48"x20 DUCTS THRU PROVIDE FIRE DAMPER AND BLANKOFF DAMPER. EXHAUST DUCT PENETRATION AND SCREEN AT END OF OPEN DUCT.
20. TRANSITION DUCT UP AND SLOPE TO RUN DUCT OVER OF FLEXIBLE DUCT INTO SIDE OF PLENUM TYP.
21. DIFFUSER PLENUM HEIGHT TO ACCOMMODATE CONNECTION WITH STRUCTURE. COORDINATE LOCATION OF REDIF
22. TYPE "B" FIRE DAMPER.
23. RUN EXHAUST DUCTWORK IN BASEMENT. RUN DUCT AT HIGH AS POSSIBLE IN BASEMENT.
24. RUN DYER VENT TO ROOF CAP. SIZE PER MANUFACTURER RECOMMENDATIONS.
25. TRANSITION DUCT BETWEEN STRUCTURE. COORDINATE CONTINUATION.
26. RUN DUCT UP BETWEEN STRUCTURE. COORDINATE WITH STRUCTURE. PROVIDE SOUND BOOTS.
27. RUN DUCTWORK IN SHAFT. SEE SHEET M102 FOR CONTINUATION.
28. FRESH AIR FLUE. TRANSITION FLUE TO RISE UP SHAFT IN SUPPLY FROM 204. SEE SHEET M102
29. 10/10 DUCT UP. SEE SHEET M102 FOR CONTINUATION.
30. RANGE HOOD VENT TO ROOF. SIZE PER MANUFACTURERS RECOMMENDATIONS.
31. PROVIDE ROOF SCUPPERS AND DOWNSPOUTS. SIZE AND LOCATION ARE TO BE REVISED. SIZE AND LOCATION PER MANUFACTURERS RECOMMENDATIONS.

1. ALL DUCTWORK IS 1000 UNLESS SHOWN AS SUCH OTHERWISE NOTED. ALL DUCTWORK TO BE SHEET METAL. PROVIDE SOUND BOOT PER DETAIL 5/M201.
2. ALL RETURN EXHAUST GRILLES SHOWN AS SUCH ARE TO BE 1000 CFM, ON AS NOTED UNLESS OTHERWISE NOTED.
3. DUCTS AND PIPES SHALL NOT BE RUN ABOVE ELECTRICAL EQUIPMENT. PROVIDE ADEQUATE SPACE FOR ACCESS. ACCESS SPACE IN FRONT OF PANELS 4'-0" WIDE AND 7'-0" HIGH. DUCTS AND PIPES SHALL NOT BE RUN ABOVE ELECTRICAL ROOMS, EXCEPT DUCTS AND PIPES SERVING THE ROOM.
4. ALL DUCTS LOCATIONS OF CEILING DIFFUSERS, GRILLES WITH ARCHITECTURAL REFLECTED CEILING PLAN.
5. REFER TO REHEAT BOX DETAIL 5/M201, 16/M201, & 17/M201.
6. PROVIDE TO FIRE DAMPER IN FIRESMOKE DAMPER DETAIL 7/M201.
7. ALL DUCT DIMENSIONS ARE OUTSIDE DIM. FOR RECTANGULAR DUCTS. INSIDE DIM. FOR ROUND AND OVAL DUCTS UNLESS OTHERWISE NOTED.
8. PROVIDE CEILING ACCESS PANELS AS REQUIRED WHERE DUCTS, PIPES, ETC. ARE LOCATED ABOVE INACCESSIBLE CEILING.
9. ALL DUCT AND FLUE PENETRATIONS THRU 1 HOUR ROOF ASSEMBLY TO BE SEALED WITH 3 SHEET ROCK LAYERS OF 5/8" ROCK AT BOTTOM OF ROOF TRUSSES TO ROOF DECK.
10. RUN EXPOSED DUCTWORK AS HIGH AS POSSIBLE.
11. ALL FIRE DAMPERS ARE TYPE "B" UNLESS OTHERWISE NOTED.
12. ALL DUCTWORK TO BE SHEET METAL EXCEPT FLEXIBLE DUCTS. VANES MUST BE USED.
13. NOT ALL DUCTWORK IS SHOWN. 90° ELBOWS WITH TURNING VANES MUST BE USED.



1. ALL CEILING DIFFUSERS CD-1, CFM AS NOTED. REFER TO DETAIL 1/M
2. ALL CEILING RETURN G SHALL BE RG-1 UNLES PROVIDE SOUND BOOT
3. ALL CEILING EXHAUST SHALL BE EG-1, CFM WISE NOTED.
4. DUCTS AND PIPES SHA PANELS. ALL ELECTRIC ACCESS SPACE IN FRO 6'-6" HIGH. DUCTS AN ELECTRICAL ROOMS, EX THE ROOM.
5. COORDINATE EXACT LO GRILLES WITH ARCHITEC
6. REFER TO REHEAT BOX 17/M501.
7. REFER TO FIRE DAMPER 7/M501.
8. ALL DUCT DIMENSIONS DUCTS. INSIDE DIM. FOR OTHERWISE NOTED.
9. ALL FIRE DAMPERS SHO OTHERWISE NOTED.
10. PROVIDE CEILING ACCES MECHANICAL EQUIPMENT PERS, ETC. ARE LOCATE
11. ALL DUCT AND FLUE PE ASSEMBLY TO BE ENCL FROM SHEET ROCK AT ROOF DECK.
12. RUN EXPOSED DUCTWOR
13. ALL FIRE DAMPERS ARE NOTED.
14. FOR ROUND DUCTWORK NOT BE ACCOMMODATED VANES MUST BE USED.

KEYED

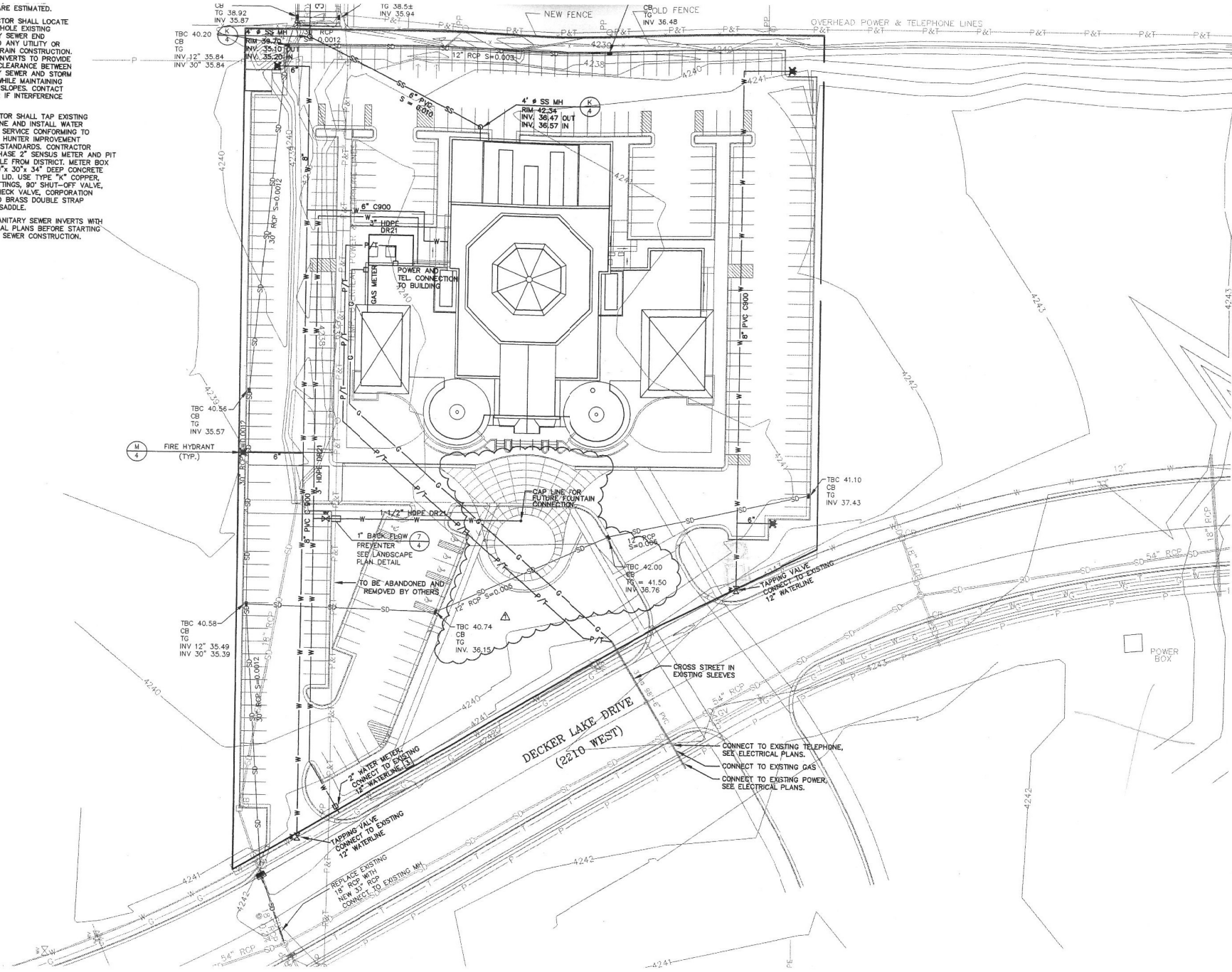
1. FOR MECHANICAL ROO PLAN SHEET M301.
2. TWO 48"x18" TRANSFE DAMPERS.
3. 72"x16" TRANSFER AIR TYPE "A" FIRE DAMPE
4. 72"x16" TRANSFER AIR TYPE "A" FIRE DAMPER
5. TRANSFER AIR DUCT.
6. 48"x16" RETURN AIR O DAMPER.
7. 72"x16" RETURN AIR O DAMPER.
8. TYPE "A" FIRE DAMPER
9. PROVIDE 1.0 SQ. FT. T "B" FIRE DAMPER.
10. LOCATE EXHAUST FLUE ROOFTOP UNIT FRESH
11. RUN DUCT THRU ROOF METAL PARTITION AROU
12. MOTORIZED ATC DAMPE
13. TRANSITION FROM ROO A 48/38 PLENUM.
14. PROVIDE BELL MOUTH
15. TRANSITION FROM ROO SOUND BOOTS AS SHO
16. RISE DUCT TO RUN TIG
17. EXTEND 34/34 DUCT T PLENUM UNDER SEATIN DUCT SHAPE AND SIZE.
18. EXTEND 42/40 DUCT T UNDER SEATING. DUCT SHAPE TO FIT UNDER S
19. PROVIDE FIRE DAMPER
20. DROP DUCT DOWN INTO HIGH AS POSSIBLE IN E
21. EXTEND DUCTS OFF OF SLAB TO PROVIDE TRAN PROVIDE FIRE DAMPER FLOOR PENETRATION AM DUCT.
22. TRANSITION DUCT UP A LOUNGE CEILING. COOR WITH STRUCTURE.
23. DIFFUSER PLENUM HEIG OF FLEXIBLE DUCT INTO
24. TYPE "B" FIRE DAMPER
25. THERMOSTAT FOR BASE BELOW. MOUNT ON ST GRIDS LINES F.4 AND 4
26. RUN RETURN DUCT BET WITH STRUCTURE.
27. RUN DRYER VENT TO R MANUFACTURERS RECOM
28. TRANSITION DUCT IN SH CONTINUATION.

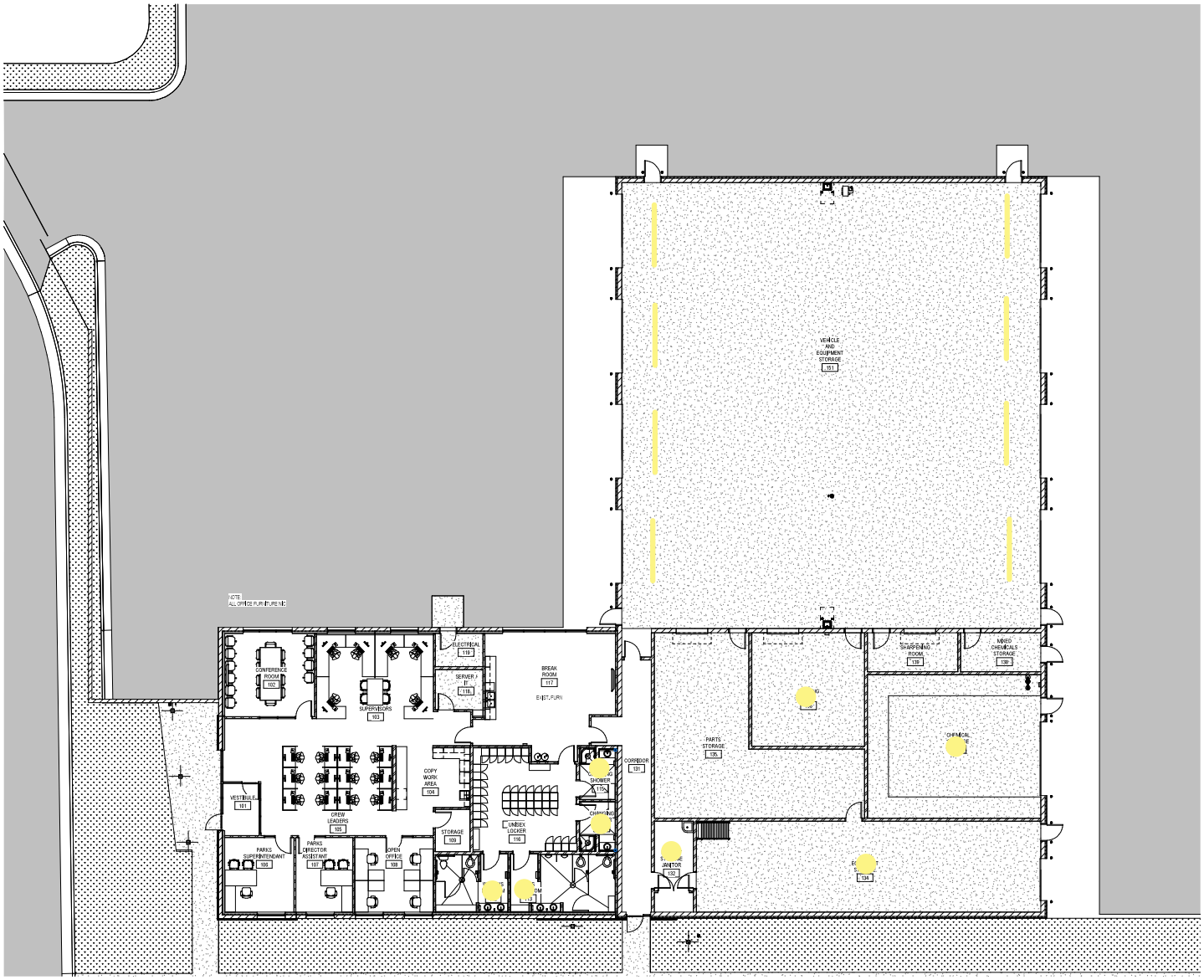
INVERT ARE ESTIMATED.

2. CONTRACTOR SHALL LOCATE AND POTHOLE EXISTING SANITARY SEWER END PRIOR TO ANY UTILITY OR STORM DRAIN CONSTRUCTION. ADJUST INVERTS TO PROVIDE 6" MIN. CLEARANCE BETWEEN SANITARY SEWER AND STORM DRAINS WHILE MAINTAINING MINIMUM SLOPES. CONTACT ENGINEER IF INTERFERENCE EXISTS.

3. CONTRACTOR SHALL TAP EXISTING WATER LINE AND INSTALL WATER METER & SERVICE CONFORMING TO GRANGER HUNTER IMPROVEMENT DISRTICT STANDARDS. CONTRACTOR TO PURCHASE 2" SENSUS METER AND PIT LID MODULE FROM DISTRICT. METER BOX TO BE 30"x 30"x 34" DEEP CONCRETE WITH 30" LID. USE TYPE "K" COPPER, FLARE FITTINGS, 90° SHUT-OFF VALVE, ANGLE CHECK VALVE, CORPORATION STOP AND BRASS DOUBLE STRAP TAPPING SADDLE.

4. VERIFY SANITARY SEWER INVERTS WITH MECHANICAL PLANS BEFORE STARTING SANITARY SEWER CONSTRUCTION.





1 AE131 FURNISHINGS PLAN
SCALE 1/8" = 1'-0"

NORTH

GENERAL NOTES:

1. FURNISHING PLAN HAS BEEN PROVIDED FOR COORDINATION ONLY. FURNISHINGS BY OWNER UNDER OTHER CONTRACT.

KEY NOTES:

CONFORMED DOCUMENT NOTICE:
These Conformed Documents are not the Contract Documents. The Contract Documents are those dated January 16, 2019 along with addenda 1 through 4.
Differences may exist between said Conformed Documents and the Contract Documents. In the event that a conflict arises between the Conformed Documents and the Contract Documents the Contract Documents shall govern. By your use of these Conformed Documents, you are not relieved of your duty to fully comply with the Contract Documents.

Conformed Drawing Set 3/15/2019

JRCA ARCHITECTS
577 South 200 East
S L C, Utah 84111
ph: (801) 533-2100
jrcadesign.com

WEST VALLEY CITY, PARKS DEPARTMENT
6750 WEST PARKWAY BLVD. (2220 S.)
WEST VALLEY CITY, UTAH 84119

PROJECT #: 15048

	DATE	REMARKS
3		CONFORMED DRAWINGS SET 03/15/19
4	01/28/19	CITY REVIEW COMMENTS

LICENSED ARCHITECT
JAMES R. CHILD
No. 120681-0301
STATE OF UTAH

FURNISHINGS PLAN

AE131

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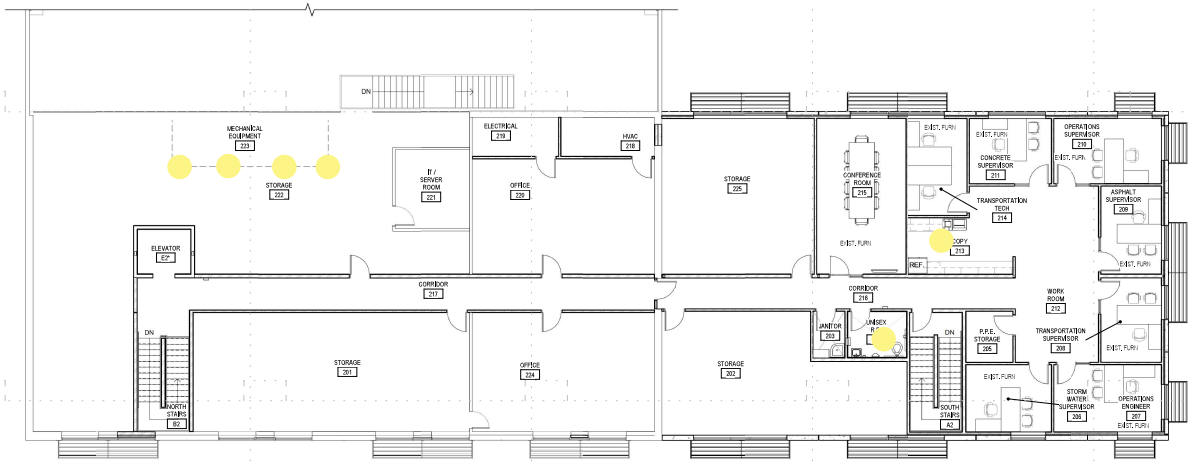
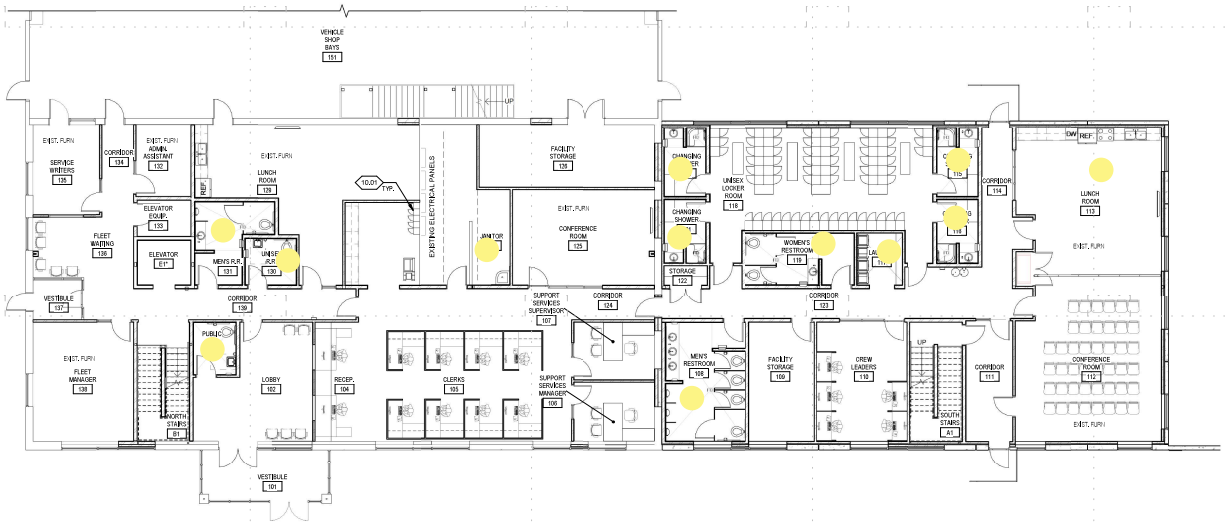


C5 AE131 OFFICES - FURNITURE PLAN - UPPER LEVEL

SCALE 1/8" = 1'-0"



A5 AE131 OFFICES - FURNITURE PLAN - MAIN LEVEL

SCALE 1/8" = 1'-0"

KEY NOTES:

10.01 12" X 12" DOUBLE LOCKER

Public Works Operations Office Space
18 Floor Drains

CONFORMED DOCUMENT NOTICE:
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Conformed Drawing Set 3/15/2019

JRCA ARCHITECTS
577 South 200 East
S L C, Utah 84111
ph: (801) 533-2100
jrcadesign.com

PUBLIC WORKS OFFICE/STORAGE BUILDING

2805 SOUTH 3600 WEST
WEST VALLEY CITY, UTAH 84119

PROJECT #: 15048

CONFORMED DRAWING SET 03/15/19

△	DATE	REVISION

LICENSED ARCHITECT JAMES R. CHILD No. 120681-0301 STATE OF UTAH

OFFICES - FURNISHINGS PLANS

AE131

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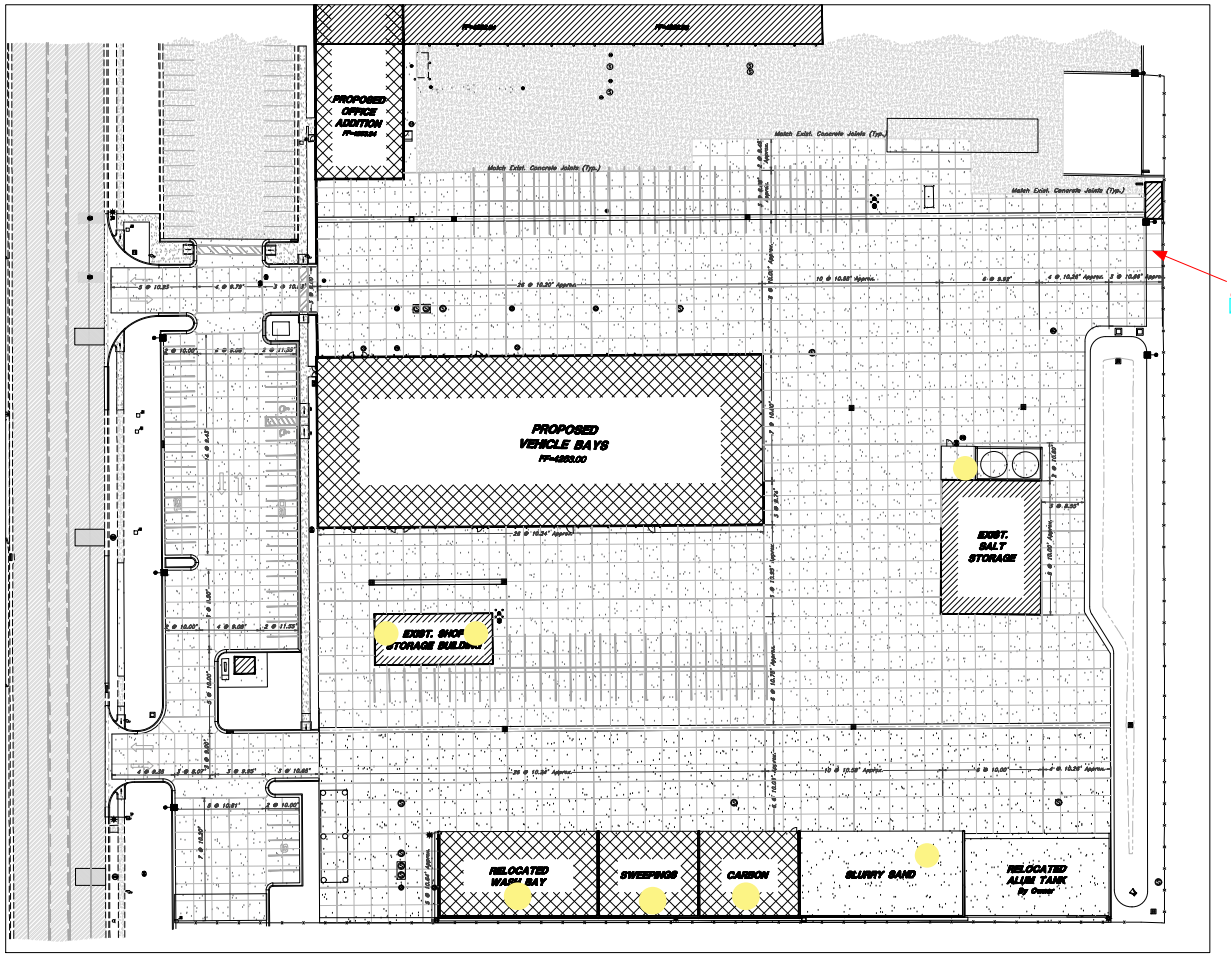
Conformed Drawing Set 3/15/2019



20' landscape setback along entire east edge. See L101 and AS101

Scale 1" = 30'

Graphic Scale

Legend

(Notes: All items may not appear on drawing)

San. Sewer Manhole	
Water Manhole	
Storm Drain Manhole	
Cleanout	
Electrical Manhole	
Catch Basins	
Exist. Fire Hydrant	
Fire Hydrant	
Exist. Water Valve	
Water Valve	
Sanitary Sewer	
Sanitary Sewer	
Gas Line	
Irrigation Line	
Storm Drain	
Telephone Line	
Secondary Waterline	
Fiber Line	
Pipe Line	
Land Drain	
Power pole	
Power pole w/guy	
Light Pole	
Fence	
Flowline of ditch	
Overhead Power line	OHP
Corrugated Metal Pipe	CMP
Concrete Pipe	CP
Reinforced Concrete Pipe	RCP
Nordic Tree	N
Polyvinyl Chloride	PVC
Top of Asphalt	TA
Edge of Asphalt	EA
Centerline	CL
Finish Floor	FF
Top of Curb	TC
Top of Wall	TWL
Top of Walk	TW
Top of Concrete	TCN
Finish Grade	FG
Finish Surface	FS
Match Existing	ME
Fire Department Connection	FDC
Finish Contour	90
Exist. Contour	90
Finish Grade	95.33TA
Exist. Grade	95.73TA
Edge Line	E
Direction of Flow	
Existing Asphalt	
New Asphalt	
Heavy Duty Asphalt	
Existing Concrete	
New Concrete	
Split Curb & Gutter	
Demo Tree	

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
1-800-662-4111

Public Works Operations Facility
4 Floor Drains
3 Troughs

CONFORMED DOCUMENT NOTICE:
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JRCA ARCHITECTS
577 South 200 East
S.L.C, Utah 84111
ph: (801) 533-2100
jrcadesign.com

GREAT BASIN ENGINEERING
5746 South 1475 East Ogden, Utah 84403
Phone: (801) 394-5211 Fax: (801) 394-5244
WWW.GREATBASINENGINEERING.COM

PUBLIC WORKS OFFICE/STORAGE BUILDING
2805 SOUTH 3600 WEST
WEST VALLEY CITY, UTAH
84119

PROJECT #: 15048

Conformed Set 3/15/19

	DATE	REVISION
1	5/30/18	WVC PLAN REVIEW COMMENTS

Professional Engineer No. 5339972 Christian Michaelson State of Utah 8/21/18

CONFORMED SET March 15, 2019

CONCRETE SITE PLAN

C6.00

C6.00 CONCRETE SITE PLAN
SCALE 1" = 30'-0"

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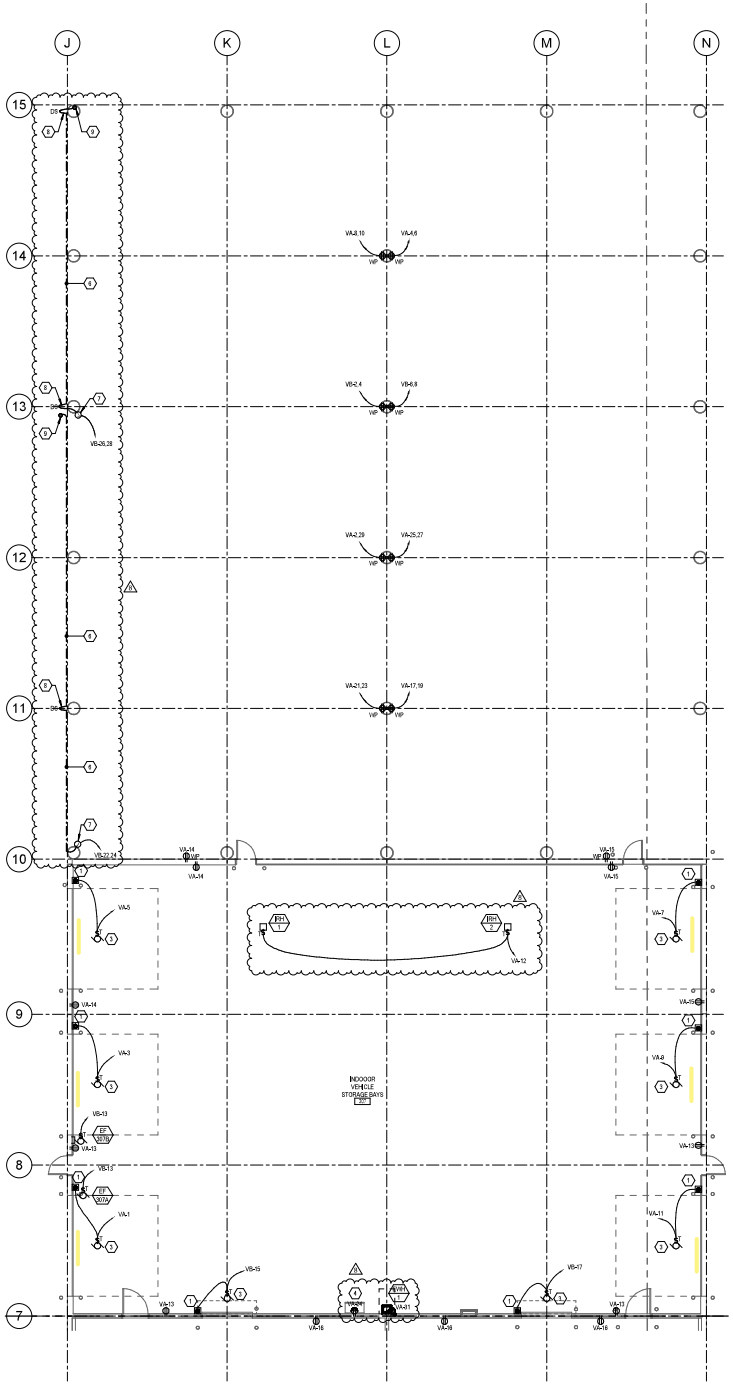
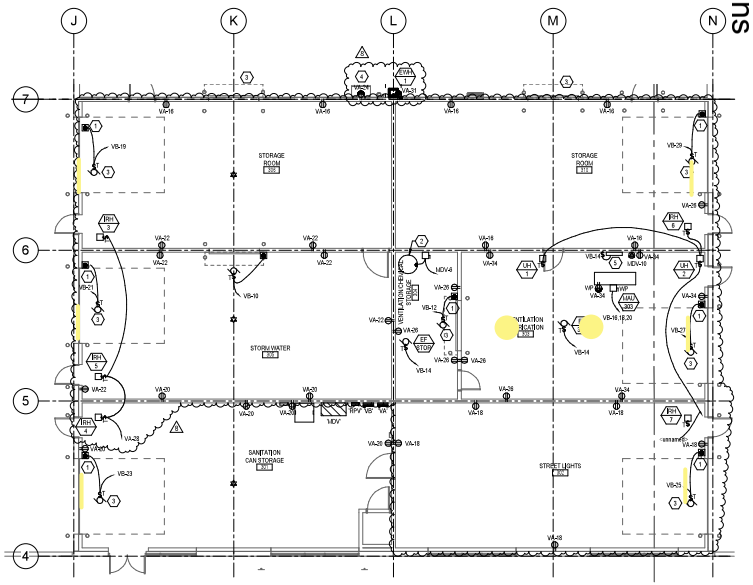
SHEET KEYNOTES

1. INSTALL CONTROL STATION. FURNISHED BY DOOR HARDWARE CONTRACTOR.
2. OWNER FURNISHED AIR COMPRESSOR 5 HP 208V 10- VERIFY ROUGH-IN REQUIREMENTS WITH OWNER.
3. OVER HEAD DOOR PROVIDED BY OTHERS AND WIRED BY DIVISION 26.
4. OWNER FURNISHED ICE MACHINE.
5. 50A-4P NO CONTACTOR WITH 120V COIL MOUNTED IN NEMA 1 ENCLOSURE AT +6'-0". CONTACTOR TO CONTROL CIRCUITS MDV-10 AND VB-14 SERVING EF-303, CONTROL CONTACTOR WITH TOGGLE SWITCH SHOWN.
6. RAYCHEM GM-2XT SELF-REGULATING HEATING CABLE. POWER OUT PUT TO BE 12W/FT.
7. LOCATE JUNCTION BOX TO UNDERSIDE OF STRUCTURE.
8. LOOP CABLE IN DOWN SPOUT. PROVIDE DOWN SPOUT HANGER.
9. PROVIDE END CAP ON END OF RUN.

Public Works Operations Storage
2 Floor Drains
12 Troughs



EAST STORAGE BAY POWER PLAN
SCALE = 1/8" = 1'-0"



WEST STORAGE BAY POWER PLAN
SCALE = 1/8" = 1'-0"

JRCA ARCHITECTS
577 South 200 East
S L C, Utah 84111
ph: (801) 533-2100
jrcadesign.com

WEST VALLEY CITY - PUBLIC WORKS
OFFICE/STORAGE BUILDING
2805 SOUTH 3600 WEST
WEST VALLEY CITY, UTAH 84119

PROJECT #: 15-048

#	DATE	REVISION
	CONFORMED SET 3/14/2019	
E	3/30/20	PR #623

BRENT BICKS STATE OF UTAH PROFESSIONAL ENGINEER
01/12/2018

NOT FOR CONSTRUCTION

STORAGE BAYS POWER PLAN

EP302

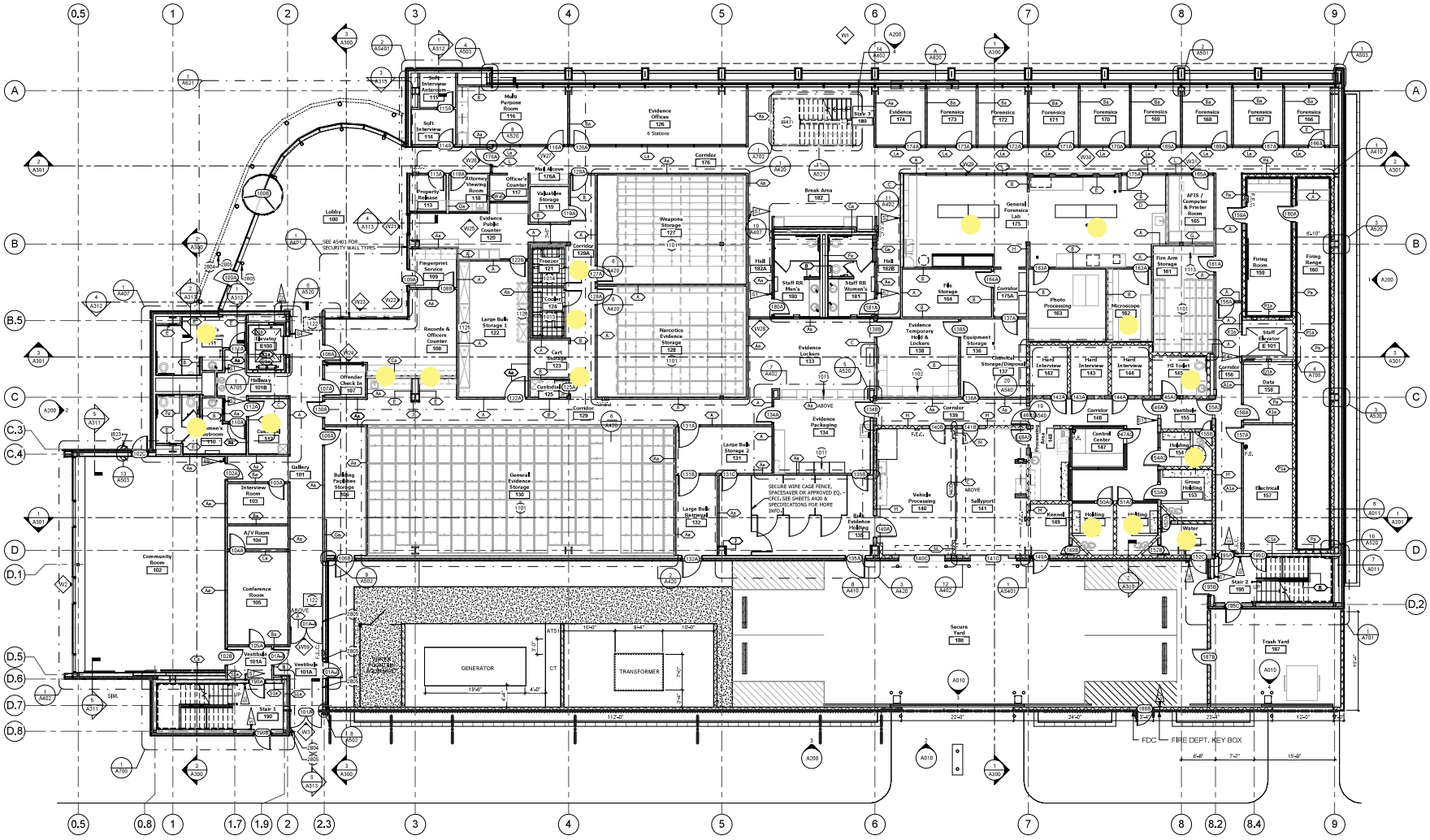
D:\Autodesk\User Files\Revit 2019\16286 West Valley Public Works Elec v19_calvin@bnaconsulting.com.rvt

GENERAL PLAN NOTES

1. SEE SHEET A800 FOR WALL TYPES.
2. SEE SHEET A810 FOR DOOR SCHEDULES
3. SEE SHEET G004 FOR LOCATIONS OF FIRE RATED WALLS.
4. SEE SHEETS AS401, AS800 & AS801 FOR SECURITY WALL LOCATIONS AND DETAILS. SECURITY DOORS, FRAMES, GLAZING, EQUIPMENT, FURNISHINGS, AND DETAILS
5. ALL EXPOSED INTERIOR CMU CORNERS SHALL BE BULLNOSED
6. SEE SHEETS A820 & A821 FOR EXTERIOR WINDOW TYPES.
7. SEE SHEETS A830 & A831 FOR INTERIOR WINDOW TYPES.

KEYED NOTES

823	8'X8' FLUSH MOUNTED ACCESS DOOR, TO MATCH WALL PANEL TYPE 2
947	FRAMED PLATFORM UNDERNEATH STAIR
1011	EVIDENCE DRYING CAB - CFCI, SEE SHEET A420 FOR TYPES AND SIZES
1013	WALK IN COOLER PACKAGED UNIT - CFCI
1014	WALK IN FREEZER PACKAGED UNIT - CFCI
1015	PASS THRU EVIDENCE LOCKERS, SPACESAVER OR APPROVED EQ. - CFCI, SEE SHEET A420 FOR TYPES AND SIZES
1101	HIGH DENSITY STORAGE SPACESAVER OR APPROVED EQ. - CFCI, SEE SHEETS A420 & A421 FOR TYPES & SIZES
1102	FORENSICS LOCKERS, SPACESAVER (OR APPROVED EQ. - CFCI, SEE SHEETS A420 & A421 FOR TYPES & SIZES
1113	TAMBOUR STYLE CABINET FOR AMMUNITION STORAGE, SPACESAVER OR APPROVED EQ. - CFCI
1122	LOCATION FOR FUTURE PASS THRU MAGNETOMETER, OWNER PROVIDED
1123	SECURE WIRE CAGE FENCE. SPACESAVER OR APPROVED EQ. - CFCI. SEE SHEETS A420 & SPECIFICATIONS FOR MORE INFO.
1125	BIKE STORAGE SHELVING. SPACESAVER OR APPROVED EQ. - CFCI, SEE SHEETS A420 & A421 FOR TYPES & SIZES
1126	ADJUSTABLE SHELVING. SPACESAVER OR APPROVED EQ. - CFCI, SEE SHEETS A420 & A421 FOR TYPES & SIZES
2804	CARD READER
2805	DOOR OPERATOR BUTTON



1 LEVEL 1 FLOOR PLAN
1/8" = 1'-0"

NORTH

STATE OF UTAH
THOMAS S. BRENNAN
07-261 07-A301
LICENSED ARCHITECT
8.22.17

WEST VALLEY CITY POLICE HEADQUARTERS

3560 S. MARKET
WEST VALLEY CITY, UT 84119

eda
#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT GP
PROJECT MANAGER SM

EDA PROJECT # 217016

#	Description	Date
	BID SET	09/05/2017

LEVEL 1 FLOOR PLAN

Date 09/05/2017

A101

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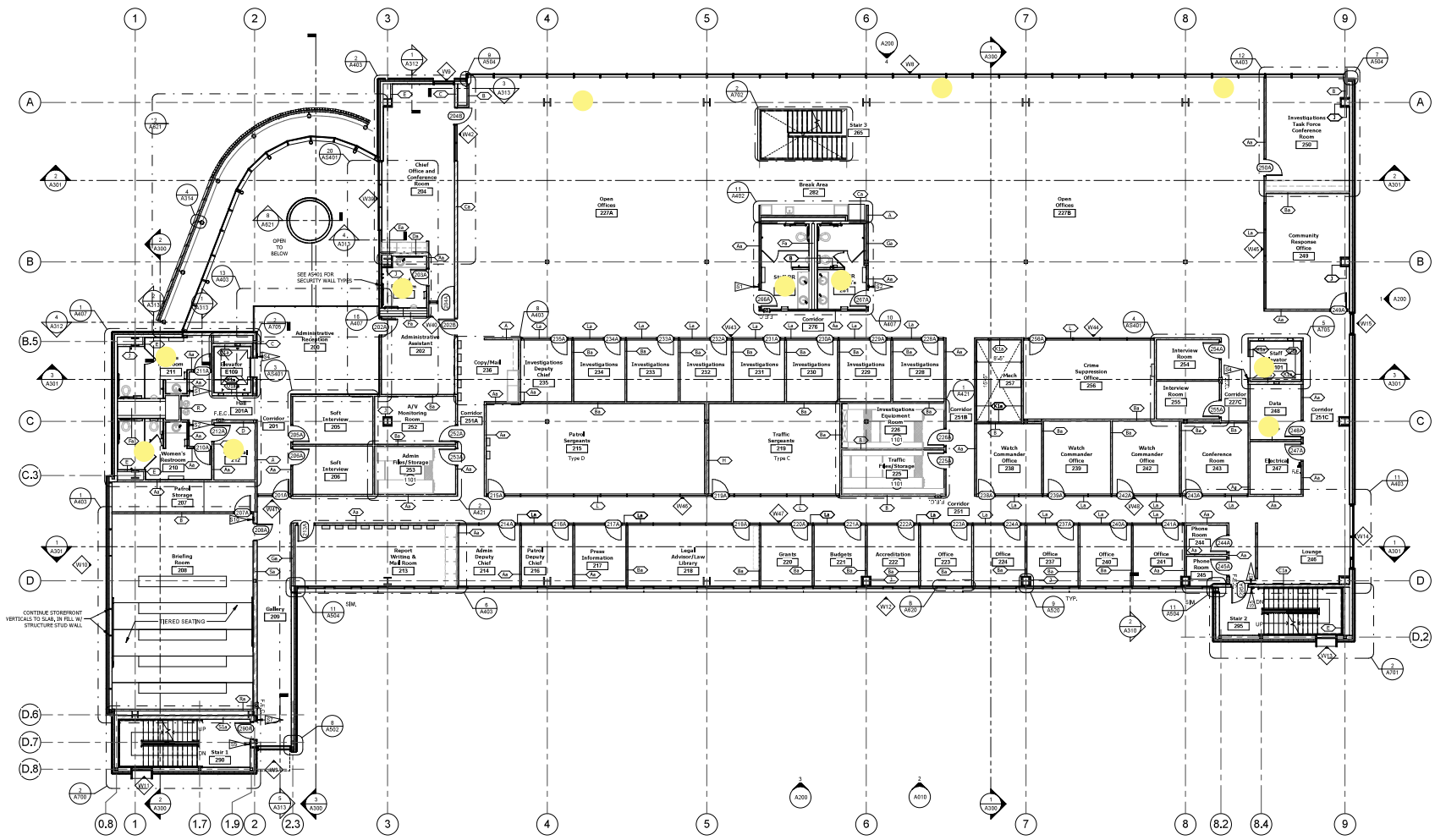
GENERAL PLAN NOTES

1. SEE SHEET A600 FOR WALL TYPES.
2. SEE SHEET A610 FOR DOOR SCHEDULES
3. SEE SHEET G004 FOR LOCATIONS OF FIRE RATED WALLS.
4. SEE SHEETS AS401, AS600 & AS601 FOR SECURITY WALL LOCATIONS AND DETAILS, SECURITY DOORS, FRAMES, GLAZING, EQUIPMENT, FURNISHINGS, AND DETAILS
5. ALL EXPOSED INTERIOR CMU CORNERS SHALL BE BULLNOSED
6. SEE SHEETS A620 & A621 FOR EXTERIOR WINDOW TYPES.
7. SEE SHEETS A630 & A631 FOR INTERIOR WINDOW TYPES.

KEYED NOTES

1101	HIGH DENSITY STORAGE SPACESAVER OR APPROVED EQ. - CFCI. SEE SHEETS A420 & A421 FOR TYPES & SIZES

STATE OF UTAH
THOMAS S. BRENNAN
07-261 Ln-A301
LICENSED ARCHITECT
8.22.17



1 LEVEL 2 FLOOR PLAN
1/8" = 1'-0"

WEST VALLEY CITY POLICE HEADQUARTERS

3560 S. MARKET
WEST VALLEY CITY, UT 84119

eda
#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT	GP
PROJECT MANAGER	SM
EDA PROJECT #	217016

#	Description	Date
	BID SET	09/05/2017

LEVEL 2 FLOOR PLAN

Date 09/05/2017

A102

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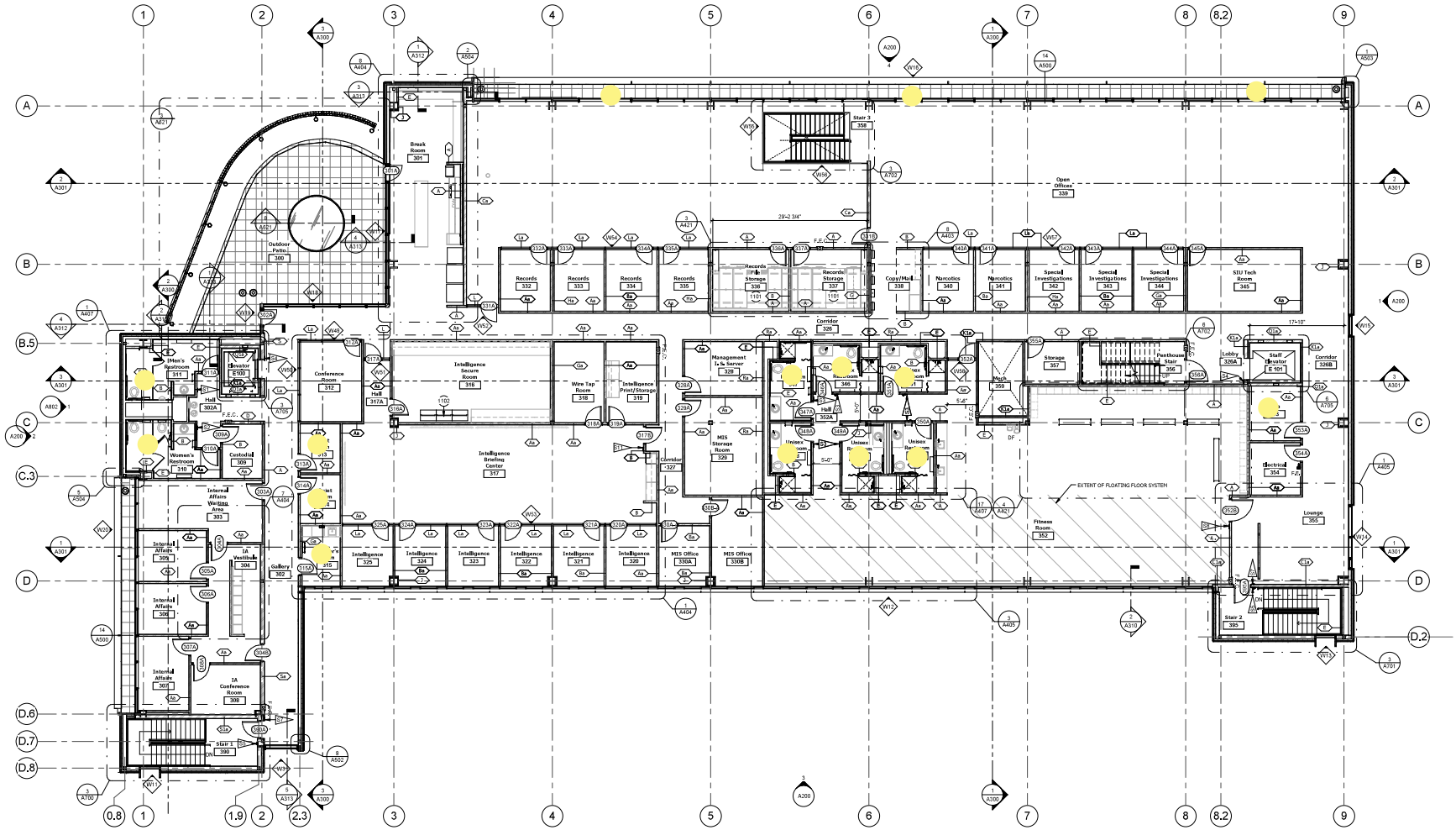
GENERAL PLAN NOTES

1. SEE SHEET A600 FOR WALL TYPES.
2. SEE SHEET A610 FOR DOOR SCHEDULES
3. SEE SHEET G004 FOR LOCATIONS OF FIRE RATED WALLS.
4. SEE SHEETS AS401, AS600 & AS601 FOR SECURITY WALL LOCATIONS AND DETAILS, SECURITY DOORS, FRAMES, GLAZING, EQUIPMENT, FURNISHINGS, AND DETAILS
5. ALL EXPOSED INTERIOR CMU CORNERS SHALL BE BULLNOSED
6. SEE SHEETS A620 & A621 FOR EXTERIOR WINDOW TYPES.
7. SEE SHEETS A630 & A631 FOR INTERIOR WINDOW TYPES.

KEYED NOTES

1101	HIGH DENSITY STORAGE SPACESAVER OR APPROVED EQ. - CFCI, SEE SHEETS A420 & A421 FOR TYPES & SIZES
1102	FORBRICS LOCKERS, SPACESAVER (OR APPROVED EQ. - CFCI, SEE SHEETS A420 & A421 FOR TYPES & SIZES

STATE OF UTAH
THOMAS S. BRENNAN
07-261 KT-A301
LICENSED ARCHITECT
8.22.17



1 LEVEL 3 FLOOR PLAN
1/8" = 1'-0"

WEST VALLEY CITY POLICE HEADQUARTERS

3560 S. MARKET
WEST VALLEY CITY, UT 84119

eda
#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801.531.7600
F: 801.363.3149

PROJECT ARCHITECT GP
PROJECT MANAGER SM

EDA PROJECT # 217016

#	Description	Date
	BID SET	09/05/2017

LEVEL 3 FLOOR PLAN

Date 09/05/2017

A103

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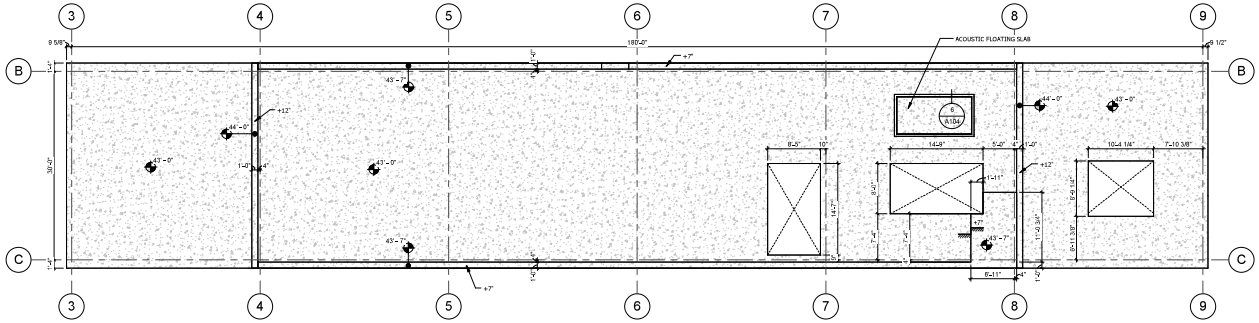
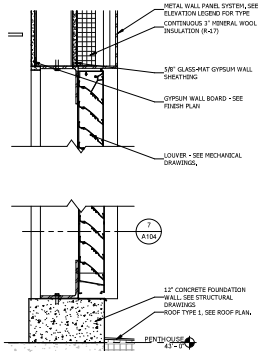


4 Penthouse Slab Plan
1/8" = 1'-0"

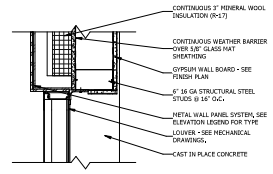
KEYED NOTES

301	CONCRETE SLAB OVER METAL DECK, SEE STRUCTURAL DRAWINGS
315	CAST IN PLACE CONCRETE
316	12" CONCRETE FOUNDATION WALL, SEE STRUCTURAL DRAWINGS
317	CONCRETE FLOATING FLOOR SYSTEM
318	CONCRETE CURB
502	METAL WALL PANEL SYSTEM, SEE ELEVATION LEGEND FOR TYPE
508	6" 16 GA STRUCTURAL STEEL STUDS @ 16" O.C.
511	METAL WALL PANEL PARAPET CAP, TO MATCH TYPE 2 WALL PANEL
614	5/8" GLASS-MAT GYPSUM WALL SHEATHING
702	CONTINUOUS WEATHER BARRIER
703	FULLY ADHERED PVC ROOF SYSTEM WITH R-30 ROOF INSULATION
709	CONTINUOUS 3" MINERAL WOOL INSULATION (R-17)
711	CONTINUOUS WEATHER BARRIER OVER 5/8" GLASS MAT SHEATHING
715	BATT INSULATION
724	ROOF TYPE 1, SEE ROOF PLAN.
726	ROOF TYPE 3, SEE ROOF PLAN.
802	SCHEDULED DOOR
813	LOUVER - SEE MECHANICAL DRAWINGS.
901	GYPSUM WALL BOARD - SEE FINISH PLAN
971	RF5 - TRAFFIC COATING
972	PA1 - PAINT
1020	PERIMETER ISOLATION MATERIAL
1124	SOUND ISOLATED FLOOR CHANNEL SYSTEM

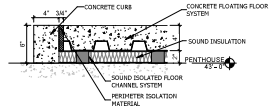
STATE OF UTAH
THOMAS S. BRENNAN
97-261 KNOWN
LICENSED ARCHITECT
8.22.17



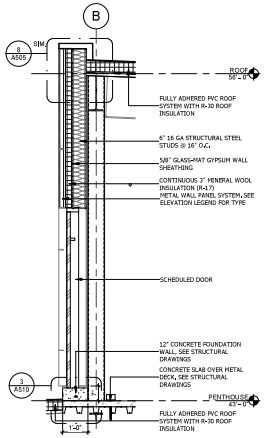
8 PENTHOUSE LOUVER HEAD/SILL DETAIL
1 1/2" = 1'-0"



7 LOUVER JAMB DETAIL
1 1/2" = 1'-0"



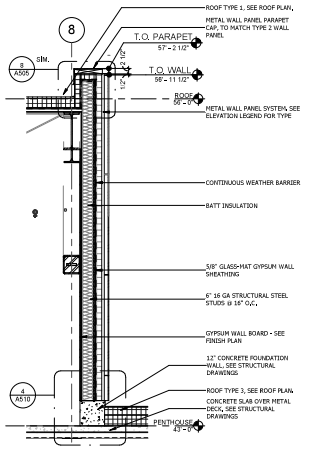
6 CHILLER ISOLATION SLAB DETAIL
1 1/2" = 1'-0"



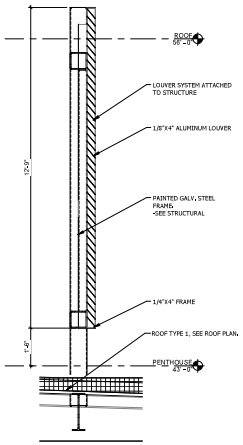
5 WEST WALL SECTION @ PENTHOUSE
1/2" = 1'-0"

WEST VALLEY CITY POLICE HEADQUARTERS

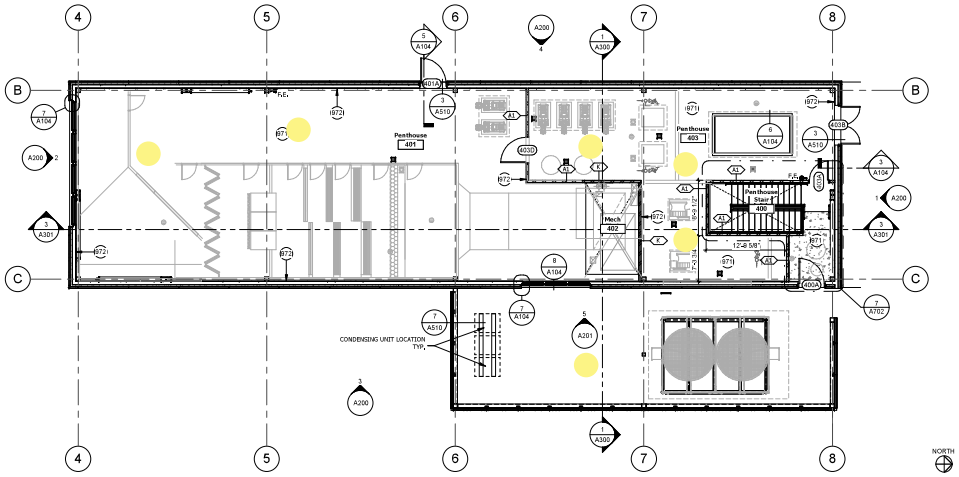
3560 S. MARKET
WEST VALLEY CITY, UT 84119



3 WALL SECTION @ PENTHOUSE
1/2" = 1'-0"



2 ROOFTOP FENESTRATION SECTION
1/2" = 1'-0"



1 Penthouse
1/8" = 1'-0"

eda
#9 EXCHANGE PLACE
SUITE 1100
SALT LAKE CITY
UTAH 84111
O: 801 531 7600
F: 801 363 3149

PROJECT ARCHITECT GP
PROJECT MANAGER SM

EDA PROJECT # 217016

#	Description	Date
	BID SET	09/05/2017

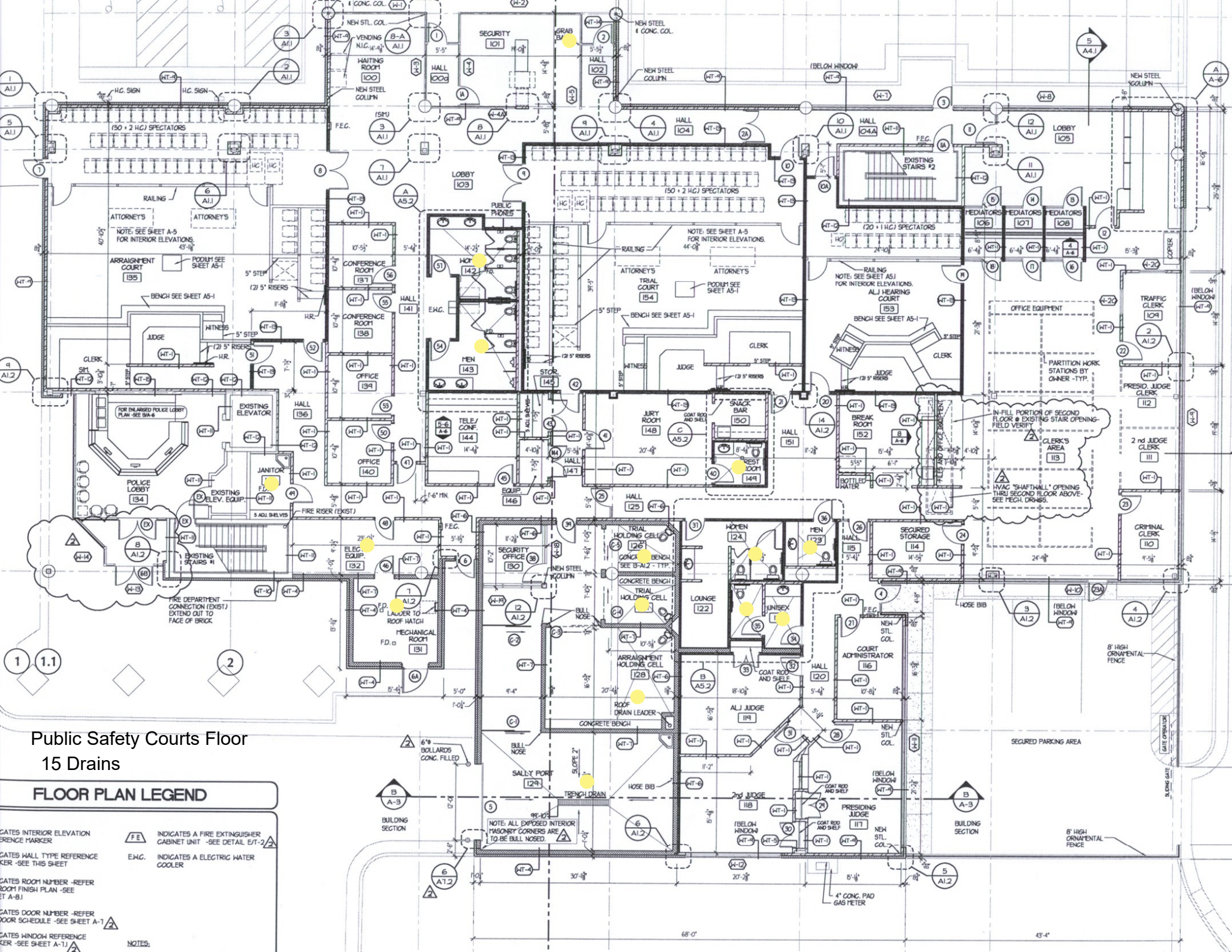
PENTHOUSE PLAN & DETAILS

Date 09/05/2017

A104

© EDA ARCHITECTS, INC. - 2017

9/1/2017 6:09:04 PM



Public Safety Courts Floor
15 Drains

FLOOR PLAN LEGEND

GATES INTERIOR ELEVATION
ERENCE MARKER

GATES WALL TYPE REFERENCE
KER -SEE THIS SHEET

GATES ROOM NUMBER -REFER
ROOM FINISH PLAN -SEE
ET A-8.1

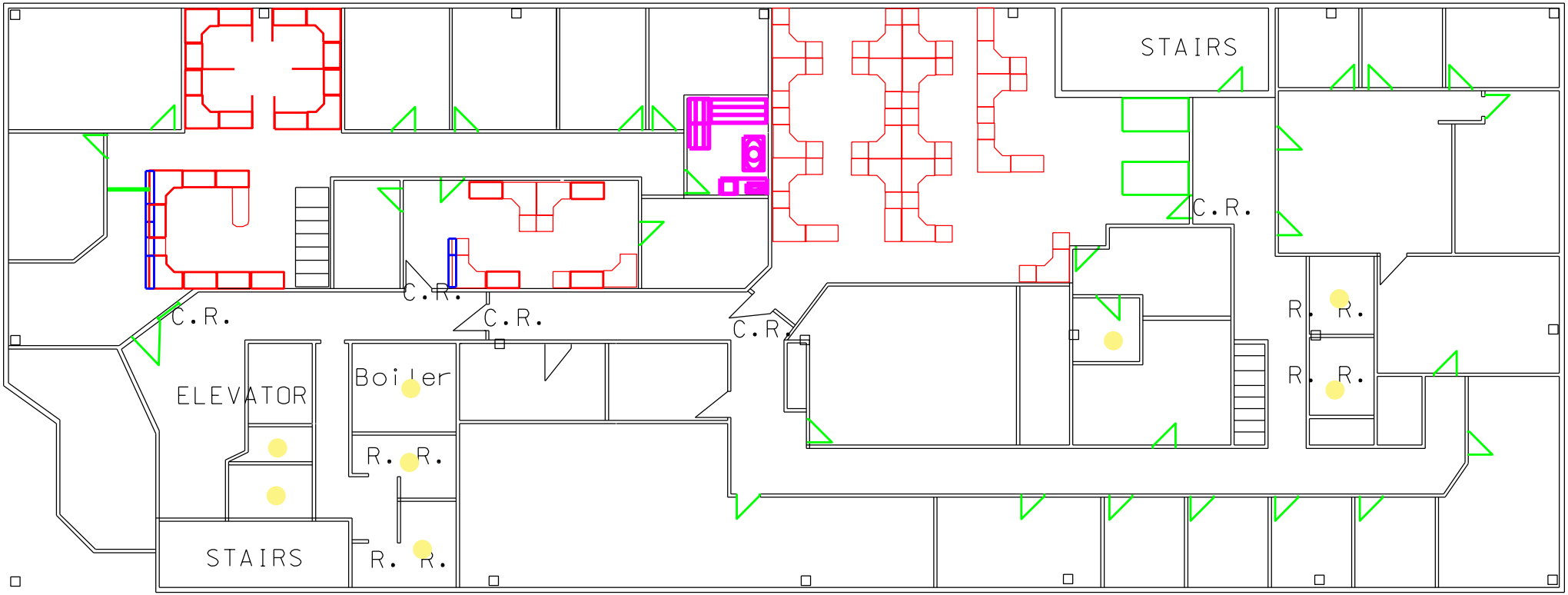
GATES DOOR NUMBER -REFER
DOOR SCHEDULE -SEE SHEET A-7

GATES WINDOW REFERENCE
KER -SEE SHEET A-7.1

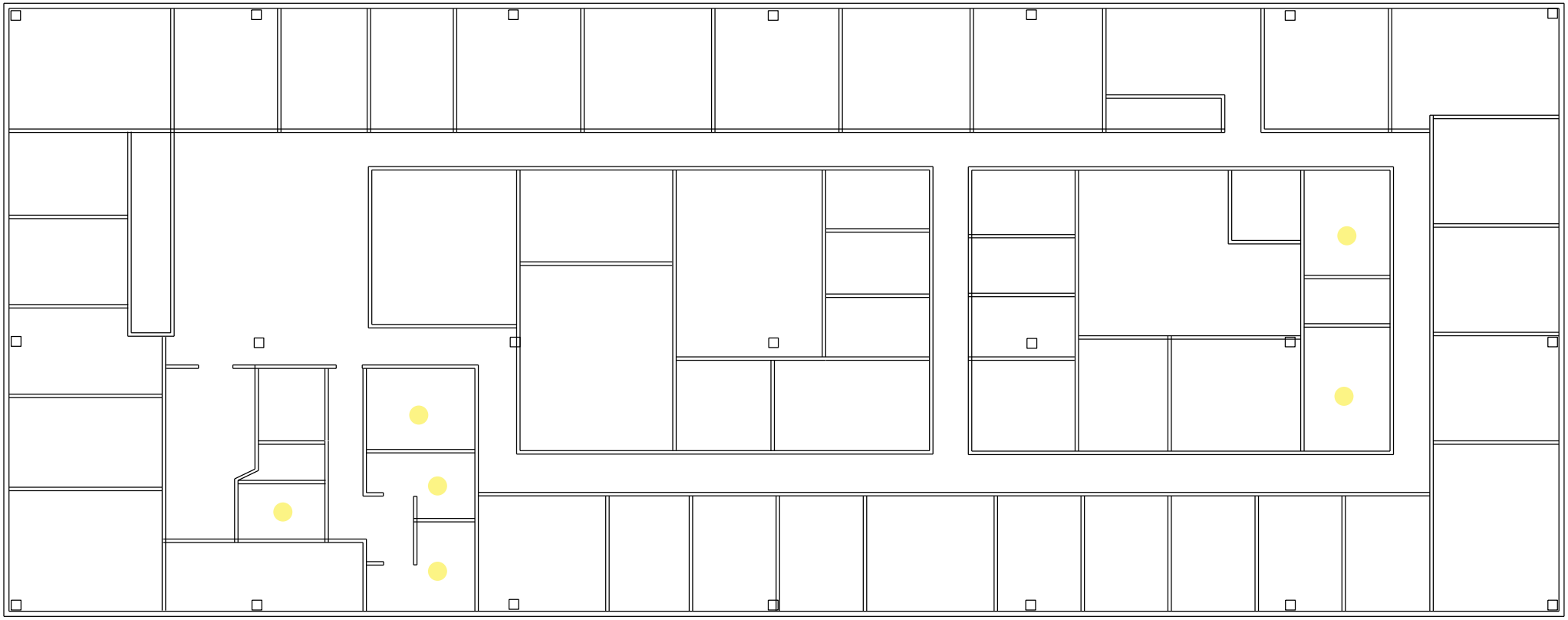
F.E. INDICATES A FIRE EXTINGUISHER CABINET UNIT -SEE DETAIL E/T-2

E.W.C. INDICATES A ELECTRIC WATER COOLER

NOTES:



Public Safety
SECOND FLOOR
8 Floor Drains



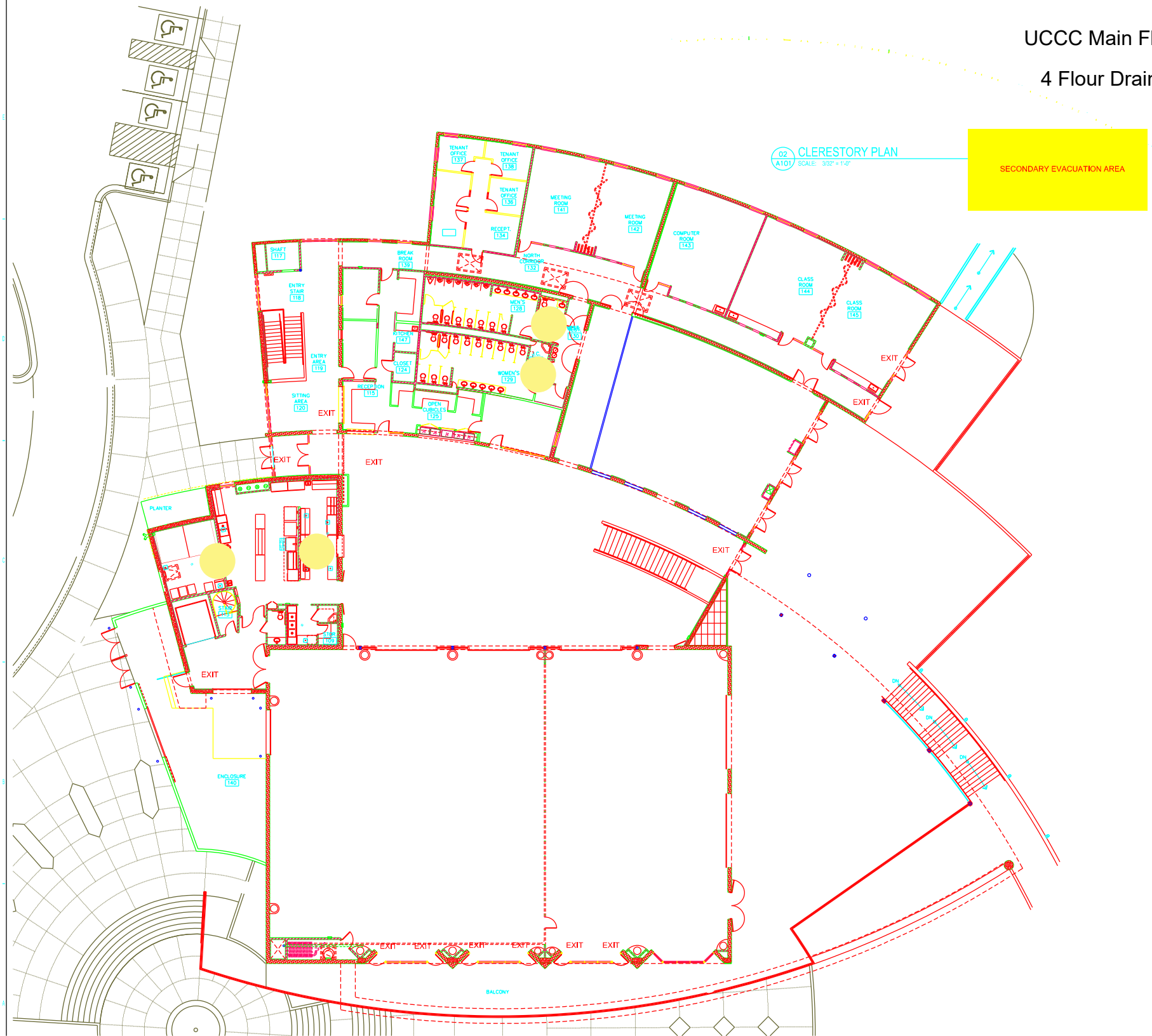
Public Safety

THIRD FLOOR

6 Floor Drains

UCCC Main Floor

4 Flour Drains



UCCC Basement
16 Floor Drains

Appendix G

Standard Operating Procedures (SOP)

WEST VALLEY CITY

PUBLIC WORKS DEPARTMENT

STANDARD OPERATING PROCEDURES

2025

Effective Date: February 10, 2025
Public Works Director Approval:

PUBLIC WORKS DEPARTMENT STANDARD OPERATING PROCEDURES

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Public Works Department Mission – Vision - Values

MISSION STATEMENT

The Public Works Department exists to provide and maintain essential public infrastructure and services, enhancing the quality of life for residents and supporting other city departments.

VISION STATEMENT

WE STRIVE TO:

Earn public trust through the character and competence of our team.

Continuously improve the quality of services delivered to residents.

Prepare the city for a successful future through careful planning.

Foster collaboration across divisions and departments to achieve our collective goals.

Create a workplace that encourages professional growth and inspires pride in service to the community.

CORE VALUES

Safety: Protecting the health and well-being of employees and the public.

Service: Treating all interactions with courtesy and respect.

Financial Stewardship: Managing public funds responsibly and effectively.

Continuous Improvement: Constantly seeking better ways to serve.

Competence: Demonstrating skill and professionalism in all we do.

Hard Work & Dedication: Upholding a strong work ethic.

Integrity: Being trustworthy and accountable in our actions.

Future-Mindedness: Ensuring quality work to maximize asset longevity.

Communication: Keeping stakeholders informed of impacts on them.

Environmental Stewardship: Protecting and preserving natural resources.

Standard Operating Procedures Introduction

This Standard Operating Procedures (SOP) document serves as a guide to the most common processes and practices of operations in various activities in the West Valley City Public Works Department. It is designed to promote safety, consistency, efficiency, and accountability in our work. By following these procedures, we will deliver high-quality services in accordance with our Mission, Vision and Values.

It is expected that these procedures will be used as a training resource by managers, supervisors and crew leaders and will be reviewed regularly and updated as processes are improved.

Minimizing Risk Of Workplace Hazards

HIERARCHY OF CONTROLS

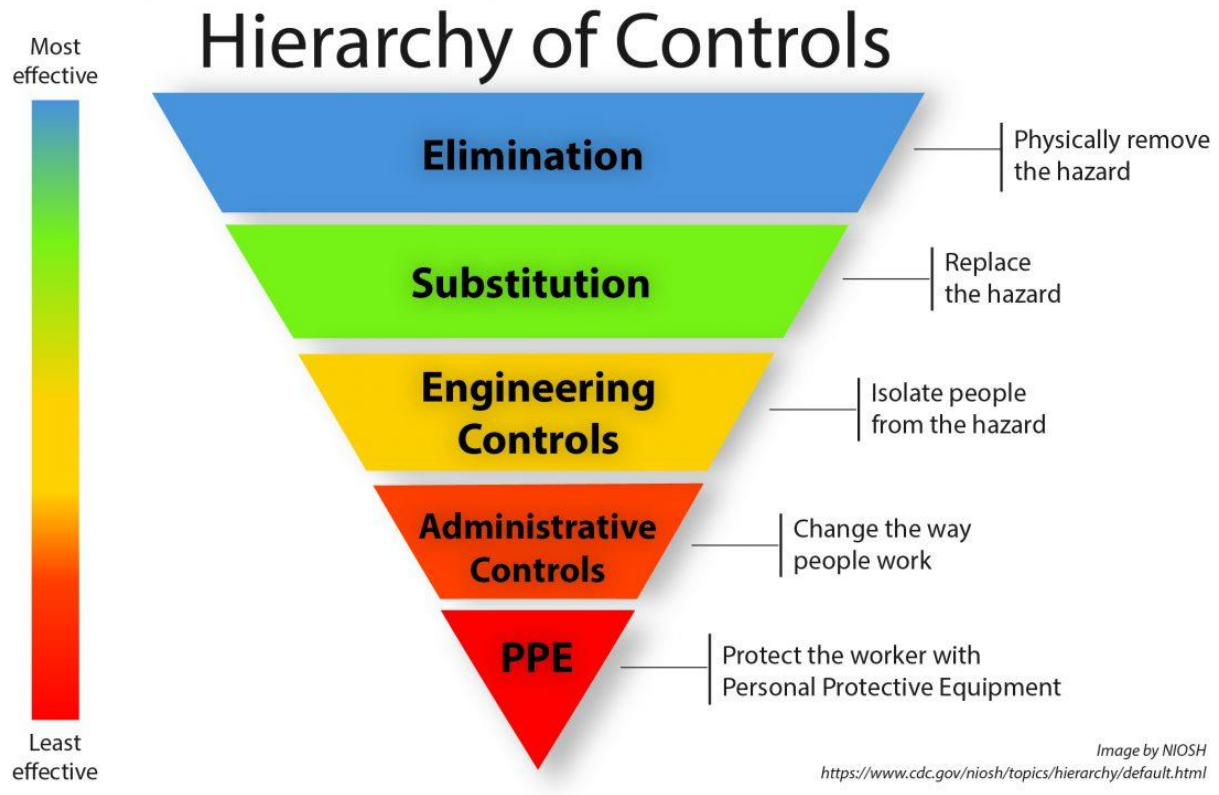
This document is intended to define standard procedures to minimize risk and improve the outcomes of the work that we do. In reviewing workplace incidents, we frequently refer to the CDC Hierarchy of Controls to effectively analyze and manage workplace hazards.

CDC – National Institute for Occupational Safety and Health (NIOSH) – Hierarchy of Controls

Controlling exposures to hazards in the workplace is vital to protecting workers. The hierarchy of controls is a way of determining which actions will best control exposures. The hierarchy of controls has five levels of actions to reduce or remove hazards. The preferred order of action based on general effectiveness is:

1. Elimination – physically remove the hazard
2. Substitution – replace the hazard
3. Engineering controls – isolate people from the hazard
4. Administrative controls – change the way people work
5. Personal protective equipment (PPE) – protect the worker with personal protective equipment

This hierarchy helps lower worker exposures and reduce the risk of illness or injury.



Elimination

Elimination removes the hazard at the source. This could include changing the work process to stop using a toxic chemical, heavy object, or sharp tool. It is the preferred solution to protect workers because no exposure can occur.

Substitution

Substitution is using a safer alternative to the source of the hazard. When considering a substitute, it's important to compare the potential new risks of the substitute to the original risks. This review should consider how the substitute will combine with other agents in the workplace. Effective substitutes reduce the potential for harmful effects and do not create new risks.

Elimination and substitution can be the most difficult actions to adopt into an existing process. These methods are best used at the design or development stage of a work process, place, or tool. At the development stage, elimination and substitution may be the simplest and cheapest option. Another good opportunity to use elimination and substitution is when selecting new equipment or procedures. *Prevention through design* is an approach to proactively include prevention when designing work equipment, tools, operations, and spaces.

Engineering Controls

Engineering controls reduce or prevent hazards from coming into contact with workers. Engineering controls can include modifying equipment or the workspace, using protective barriers, ventilation, and more.

The most effective engineering controls:

- Are part of the original equipment design
- Remove or block the hazard at the source before it comes into contact with the worker
- Prevent users from modifying or interfering with the control
- Need minimal user input for the controls to work
- Operate correctly without interfering with the work process or making the work process more difficult

Engineering controls can cost more upfront than administrative controls or PPE. However, long-term operating costs tend to be lower, especially when protecting multiple workers. In addition, engineering controls can save money in other areas of the work process or facility operation.

Administrative Controls

Administrative controls establish work practices that reduce the duration, frequency, or intensity of exposure to hazards. **This document establishes administrative controls and should be modified from time to time as better ways are developed to do our work.**

Personal Protective Equipment - PPE

PPE is equipment worn to minimize exposure to hazards. Examples of PPE include gloves, safety glasses, hearing protection, hard hats, and respiratory protection. When employees use PPE, employers should implement a PPE program. While elements of the PPE program depend on the work process and the identified PPE, the program should address:

- workplace hazards assessment
- PPE selection and use
- inspection and replacement of damaged or worn-out PPE
- employee training

- program monitoring for continued effectiveness

Employers should not rely on PPE alone to control hazards and should be used as a last resort when other effective control options are available. PPE can be effective, but only when workers use it correctly and consistently. PPE might seem to be less expensive than other controls but can be costly over time.

Personal Protective Equipment (PPE) Program

The safety and well-being of our public works employees is a top priority. To achieve this end, the proper use of Personal Protective Equipment (PPE) is essential. This manual will outline the specific PPE required for various public works tasks, but it is important to remember that PPE is always the last line of defense against hazards. Following safe work practices and using the *Hierarchy of Controls* as discussed in this document whenever possible to minimize risk remain the most effective ways to prevent injuries or incidents.

If an employee sees a need for additional PPE that is not identified in this manual, it is their responsibility to make that request to their supervisor for consideration.

This section will generically discuss the purpose of certain types of PPE. Specific requirements for PPE use will be detailed throughout the manual.

Supervisors and Crew Leaders should regularly conduct hazard assessments to determine the appropriate PPE and when PPE is required.

Fit testing and maintenance of PPE are also crucial for effectiveness of PPE.

PROPER CLOTHING

Public works tasks often involve diverse environments and potential hazards. While PPE plays a crucial role in safeguarding workers, wearing proper clothing is the first line of defense.

This means selecting attire that:

- Provides adequate coverage: Clothing should cover exposed skin to minimize the risk of scratches, abrasions, cuts, or insect bites. Long pants and shirts with sleeves are generally recommended.
- Offers protection from the elements: Consider weather conditions and choose clothing appropriate for the season. This may include rain gear for wet weather, warm layers for cold temperatures, or sun protection clothing for hot weather.
- Does not restrict movement: Clothing should allow for a full range of motion to perform tasks safely and efficiently. Avoid loose-fitting garments or jewelry that could snag on equipment or tools.
- Is made from durable materials: Public works tasks can be demanding on clothing. Choose materials that are strong enough to withstand wear and tear.

HARD HAT

A hard hat should be worn during tasks that involve the risk of head injury from walking into objects or equipment, or impact from falling or flying objects.

REFLECTIVE CLOTHING OR SAFETY VEST

Public works activities often involve work in low-light conditions or near moving vehicles. To ensure the safety of our personnel in these environments, high-visibility clothing is required for specific tasks.

Always wear high-visibility clothing that meets the American National Standards Institute (ANSI) standards for your specific application. This typically involves a reflective safety vest or jacket in a bright color like orange or yellow.

SAFETY GLASSES

Protecting your eyesight is crucial in the work we do. To minimize the risk of eye injuries from flying debris, dust, chemicals, or other hazards, eye protection is mandatory for a variety of tasks and is stated in specific SOPs.

Always wear appropriate eye protection that meets the American National Standards Institute (ANSI) standards for the specific hazard. This may include safety glasses with side shields, goggles, or a full-face shield depending on the task.

GLOVES

To protect your hands from cuts, abrasions, chemicals, and other hazards, wearing gloves is mandatory for a variety of public works tasks.

Always wear the appropriate type of glove for the specific task and hazard. Consider factors like material handling, dexterity required, and desired level of protection.

PROPER FOOTWEAR

For the safety of our personnel, wearing sturdy footwear with proper protection is mandatory for public works tasks that involve potential foot injuries.

The specific type of footwear required will depend on the task and potential hazards. Steel-toed boots offer protection from falling objects and compressions, while slip-resistant soles can prevent falls on wet or uneven surfaces. Refer to SOPs for specific footwear requirements.

HEARING PROTECTION

Protecting your hearing is essential in our public works environment. To minimize the risk of hearing damage from prolonged exposure to loud noises, hearing protection is mandatory for a variety of tasks.

Always wear hearing protection that meets the appropriate Noise Reduction Rating (NRR) for the specific noise level. This typically involves earplugs, earmuffs, or a combination of both, depending on the level of noise reduction needed and desired comfort.

RESPIRATORY PROTECTION

To protect your lungs from harmful dust, particles, or airborne contaminants, respiratory protection may be required for certain public works tasks.

The specific type of respiratory protection needed will depend on the hazard and its severity. This may range from a simple dust mask for basic dust protection to a respirator with specific filters for hazardous materials. Always follow the manufacturer's instructions for proper use and care of the respirator.

Refer to specific SOPs to:

- Identify tasks that require respiratory protection
- Identify the appropriate type of respiratory protection for the specific hazard and options available

Ensure all personnel are properly trained in respiratory PPE use and fit testing procedures.

BODY PROTECTION SUIT

Public works activities sometimes involve potential exposure to hazards that can contaminate clothing or injure the skin. To protect employees from these hazards, body protection suits, or splash suits, are required for specific tasks.

The type of body protection suit chosen will depend on the specific hazard and the level of protection required. Some factors to consider include:

- Material resistance: The suit material should be resistant to the specific liquids, chemicals, or contaminants workers may encounter.
- Durability and tear resistance: The suit should be strong enough to withstand the demands of the task without ripping or tearing.
- Breathability and comfort: Workers may need to wear the suit for extended periods, so breathability and comfort are important factors.

FALL PROTECTION PPE

Preventing falls is essential in certain public works tasks. To minimize the risk of serious injuries from working at heights, fall protection PPE is mandatory for a variety of tasks.

This includes, but is not limited to:

- Working on ladders, scaffolds, or elevated platforms.
- Performing tasks on roofs, bridges, or other structures with a fall hazard.
- Working near unprotected edges, openings, or pits.
- Loading or unloading materials from elevated locations.
- Working in a bucket truck
- Any situation where a fall could result in injury.

The specific fall protection PPE required will depend on the nature of the task and the fall hazard present. Common fall protection equipment includes:

- Full-body harness: This distributes the force of a fall across the body and connects to a secure anchorage point.
- Lanyard: A connecting element that attaches the harness to a secure anchorage point, allowing for some controlled movement while keeping the worker from falling a dangerous distance.
- Anchor point: A structurally sound point that can safely arrest a fall when connected to a harness and lanyard.

Supervisors are responsible for:

- Identifying tasks requiring fall protection PPE.
- Selecting the appropriate fall protection equipment for the specific work environment and hazards.
- Ensuring all personnel working under their direction are properly trained on the safe use and inspection of fall protection equipment.
- Conducting regular inspections of fall protection equipment to ensure its continued integrity.

Following these guidelines will significantly reduce the risk of fall-related injuries for public works personnel and promote a safe work environment at heights.

CONFINED SPACE ENTRY PPE

Confined spaces present unique hazards to public works personnel, and proper safety measures are crucial. Entry into any confined space requires a strict permit process, adherence to a written procedure, and the use of specific PPE. Confined spaces, as defined by OSHA, are permit-required spaces that are:

- Not designed for continuous occupancy
- Large enough for an employee to enter and perform assigned work

- Have limited means for egress (entering or exiting)

Examples of confined spaces in public works tasks could include:

- Sewers and storm drains
- Underground vaults and tunnels
- Storage tanks and vessels
- Tanks, boilers, and silos

The specific PPE requirements for confined space entry will vary depending on the specific hazards present. However, some general PPE considerations include:

- Respiratory protection: This may be necessary due to oxygen deficiency, harmful contaminants, or airborne particulates.
- Fall protection: A harness and lifeline may be required to prevent falls from heights within the confined space.
- Hearing protection: Loud noises from equipment or processes within the confined space may necessitate earplugs or earmuffs.
- Body protection: Depending on the hazards, this could involve coveralls, chemical splash suits, or heat-resistant clothing.

Always follow the established confined space entry procedures for your specific workplace and refer to the Confined Space Entry SOP in this document. These procedures will detail the specific hazards associated with the confined space, the required PPE, and the roles and responsibilities of personnel involved in the entry.

By prioritizing the use of proper PPE and adhering to safe confined space entry procedures, we can significantly reduce the risk of serious injuries or fatalities for our personnel.

SEAT BELTS

Technically, OSHA regulations don't classify seatbelts as PPE. In practice, we treat seatbelts as essential safety equipment. We mandate their use to protect us from injury during work-related travel.

FLOTATION DEVICES

Public works projects sometimes necessitate working near or on water bodies, introducing the risk of falls or accidental immersion. To safeguard personnel in these environments, flotation Personal Protective Equipment (PPE) is mandatory for specific tasks.

While specific tasks that may necessitate flotation PPE may not be defined in this document, flotation PPE may be required in certain circumstances that we may encounter.

The potential exists for us to work around water in emergency situations. We should ask for help from the Fire Department in emergency situations that may be hazardous before putting our employees in dangerous situations.

The type of flotation PPE required will depend on the specific task and the surrounding water conditions.

Common flotation PPE options include:

- Life jackets: These provide buoyancy and support in case of a fall into the water, helping wearers stay afloat.
- Personal flotation devices (PFDs): This is a broader category that encompasses life jackets and other flotation aids, such as inflatable vests or work vests with flotation inserts.

- Floatation coveralls: These offer full-body protection and flotation, particularly useful for extended periods working near or on water.

Supervisors are responsible for:

- Identifying tasks requiring flotation PPE.
- Selecting the appropriate type of flotation PPE for the specific work environment and water conditions.
- Ensuring all personnel working under their direction are properly trained on the safe use and maintenance of flotation PPE.
- Conducting pre-task inspections to ensure flotation PPE is in good condition and properly sized for each worker.

TRAFFIC CONTROL DEVICES

The safety of the public and our workforce is critical during public works activities. To ensure a safe work environment and minimize disruption to traffic flow, the proper use of traffic control devices is mandatory for certain tasks.

The following are circumstances in which traffic control devices are necessary:

- Work occupies or disrupts a portion of the roadway, sidewalk, or shoulder. This includes tasks like trenching, potholing, paving, or any activity that reduces the available space for pedestrians or vehicles.
- Work requires employees to be present near moving traffic.
- Creates a potential hazard for drivers or pedestrians.

By using the appropriate traffic control devices, such as cones, signs, barricades, and pavement markings, we can effectively:

- Alert drivers and pedestrians to the presence of work crews and potential hazards.
- Guide traffic safely around the work zone.
- Minimize congestion and delays for motorists.
- Protect public works personnel from traffic-related accidents.

Supervisors are responsible for ensuring:

- The Manual on Uniform Traffic Control Devices (MUTCD) is followed.
- The appropriate traffic control devices are properly installed and maintained throughout the duration of the project.
- Public works personnel are trained in the proper use and placement of traffic control devices.

Refer to the Traffic Control SOP for guidance.

SOP Writing Instructions:

Below is the template to be used for your division SOPs. Under the section for the appropriate division, insert a "Page Break", copy, and paste the SOP Template text below at the top of the page break. Add information into each section, enter N/A if the section does not apply. Repeat for each Standard Operating Procedure.

Template: Standard Operating Procedure Name

SWMP Requirement: **Yes/No** If Yes, SWMP Section: **0.0.0.0**

Purpose/Description:

- Describe generically the SOP and state purpose.

Work Procedures:

- Describe the work procedures for the SOP.

Crew Members Involved:

- Describe crew members involved and state responsibility for activities if applicable.

Equipment (if applicable):

- Describe any equipment to be used.

Personal Protective Equipment

- State the required PPE for the activity.

Equipment Cleanup Procedures:

- Describe cleanup procedures if applicable.

Forms and Documentation:

- Describe documentation requirements.

SOP Implementation and Training Plan:

- Describe SOP Implementation and Training Plan.

PUBLIC WORKS ADMINISTRATION

After Hours Callout Response

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Instruct on-call personnel how to respond to various call types

WORK PROCEDURES:

- Flooding
  - Respond in person to assess the situation. Call the supervisor if response is warranted.
- Debris in Road
  - Respond in person to assess the situation. If debris can be removed safely without additional resources, then do so. Call the supervisor if additional resources are needed.
- Manhole Problems
  - Respond in person to assess the situation. Resolve the problem if possible. Call the supervisor if additional resources are needed.
- Icy Roads
  - Bring plow and salt spreader to site and address the problem. Call the supervisor if additional resources are needed.
- Accident Cleanup
  - Bring resources requested by Police or Fire Departments. Call the supervisor if additional resources are needed.
- Stop Sign Down
  - Bring a temporary stop sign and sandbags to secure the sign holder.
- Traffic Control Requests
  - Bring resources requested by Police or Fire Departments. Call the supervisor if additional resources are needed.
- Construction or Permit Traffic Control or Other Problem
  - Respond in person to assess the situation. Resolve the problem if possible. Call the supervisor if the situation cannot be easily resolved. The supervisor can call Engineering if necessary.
- Sweeping Requests
  - Bring requested resources to the site and address the situation if possible. Call the supervisor if additional resources are needed.
- Emergency Blue Stakes
  - Review storm drain maps prior to responding to the emergency Blue Stakes request. If no storm drain or any other asset would be at risk of damage from excavation, no response is necessary. If damage potential exists, respond in person and mark location of infrastructure needing protection. Call the supervisor with questions or if additional resources are needed.
- Spill Response-Containment – Illicit Discharge
  - Respond in person to assess the situation. Resolve the problem if possible. Call the supervisor if additional resources are needed.
- Fire Department Assist
  - Respond in person. Aid as requested. Call the supervisor if additional resources are needed.
- Street Light Down
  - Respond in person to assess the situation. Remove the street light from the roadway or sidewalk if it can be done safely. Contact supervisor to engage with street light maintenance workers for additional communication and instructions.

Crew Members Involved:

- Varies

Equipment (if applicable):

- Varies

Personal Protective Equipment

- Varies

Equipment Cleanup Procedures:

- Varies

Forms and Documentation:

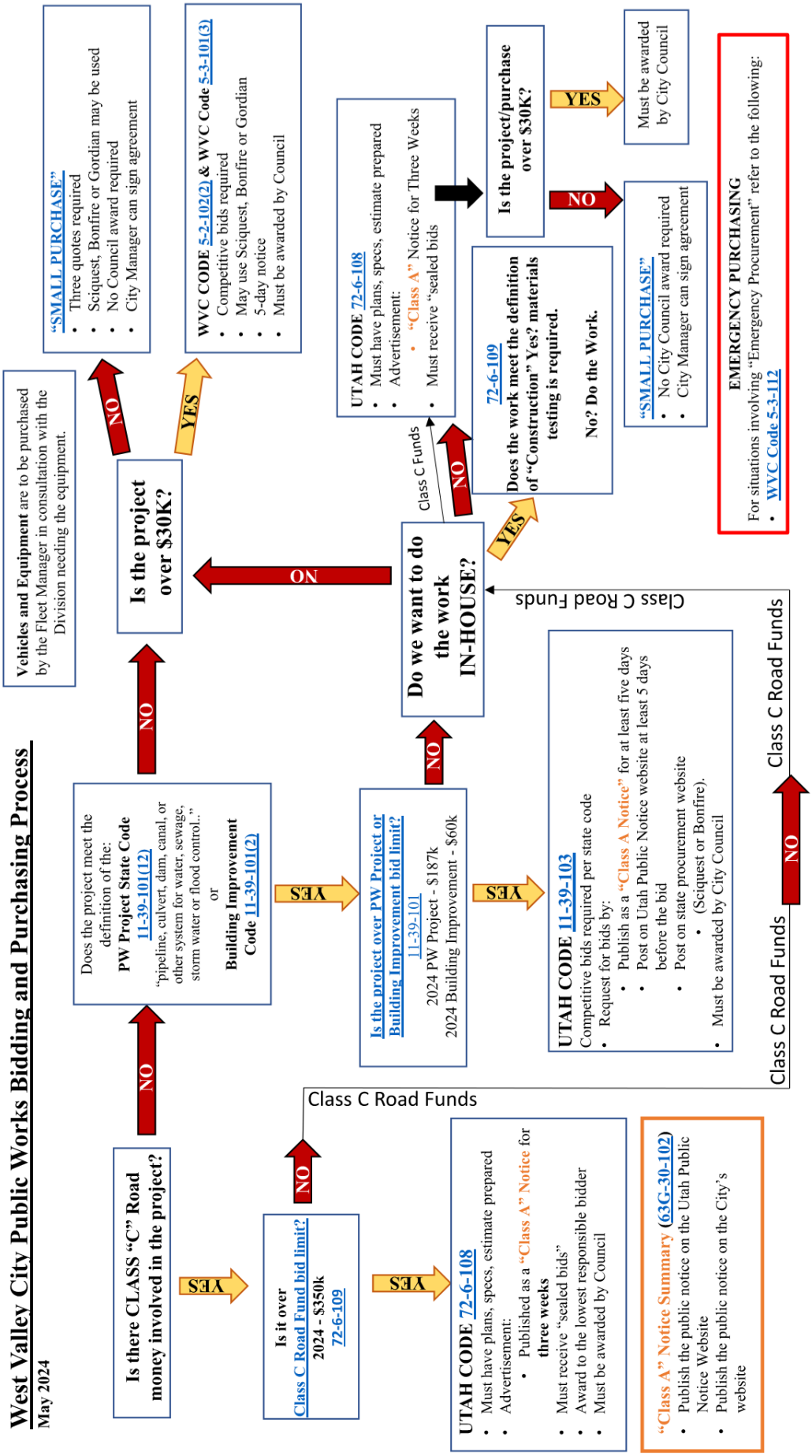
- Document call and response in CityWorks

SOP Implementation and Training Plan:

- The division responsible for after hours call out will train employees prior to their on-call shifts.

Purchasing Process

The flowchart on the following page describes the process required from various laws, ordinances and regulations governing purchasing in public works. The Public Works Department is to make purchases according to the processes described below.


West Valley City Public Works Bidding and Purchasing Process
May 2024
Is there CLASS "C" Road money involved in the project?
YES
NO
Is it over Class C Road Fund bid limit? 2024 - $350k 72-6-109
NO
Class C Road Funds
YES
UTAH CODE 72-6-108
• Must have plans, specs, estimate prepared
• Advertisement:
• Published as a "Class A" Notice for three weeks
• Must receive "sealed bids"
• Award to the lowest responsible bidder
• Must be awarded by Council
"Class A" Notice Summary (63G-30-102)
• Publish the public notice on the Utah Public Notice Website
• Publish the public notice on the City's website
Does the project meet the definition of the: PW Project State Code 11-39-101(12) "pipeline, culvert, dam, canal, or other system for water, sewage, storm water or flood control.." or Building Improvement Code 11-39-101(2)
YES
NO
Is the project over PW Project or Building Improvement bid limit? 11-39-101 2024 PW Project - $187k 2024 Building Improvement - $60k
YES
NO
UTAH CODE 11-39-103
Competitive bids required per state code
• Request for bids by:
• Publish as a "Class A Notice" for at least five days
• Post on Utah Public Notice website at least 5 days before the bid
• Post on state procurement website
• (Sciquest or Bonfire).
• Must be awarded by City Council
Class C Road Funds
NO
Class C Road Funds
Vehicles and Equipment are to be purchased by the Fleet Manager in consultation with the Division needing the equipment.
Is the project over $30K?
NO
"SMALL PURCHASE"
• Three quotes required
• Sciquest, Bonfire or Gordian may be used
• No Council award required
• City Manager can sign agreement
YES
WVC CODE 5-2-102(2) & WVC Code 5-3-101(3)
• Competitive bids required
• May use Sciquest, Bonfire or Gordian
• 5-day notice
• Must be awarded by Council
ON
Do we want to do the work IN-HOUSE?
Class C Funds
NO
UTAH CODE 72-6-108
• Must have plans, specs, estimate prepared
• Advertisement:
• "Class A" Notice for Three Weeks
• Must receive "sealed bids
YES
72-6-109
Does the work meet the definition of "Construction" Yes? materials testing is required.
No? Do the Work.
Is the project/purchase over $30K?
YES
Must be awarded by City Council
NO
"SMALL PURCHASE"
• No City Council award required
• City Manager can sign agreement
EMERGENCY PURCHASING
For situations involving "Emergency Procurement" refer to the following:
• WVC Code 5-3-112

ENGINEERING

Construction Inspection and Field Surveying

SWMP Requirement: **No** If Yes, SWMP Section:

PURPOSE/DESCRIPTION:

- Inspection of construction sites to ensure conformance with WVC Standards and Specifications.
- Obtain survey data in the field.

WORK PROCEDURES:

- Park vehicle legally or behind properly installed traffic control devices.
- Wear a safety vest at all times.
- You must wear a hard hat if there are any active construction activities underway.
- Never enter a confined space without proper training/certification/PPE. Contact PW Stormwater maintenance group for a confined space entry permit.
- Don't use any tools or equipment not designed for the job or that you aren't comfortable with.
- Trench Safety (OSHA Requirements) - Be cautious of all open holes/trenches and ensure that all necessary shoring is in place.
- Have a spotter when collecting survey data within the roadway of striped roads.
- May need message board or "Survey Crew Ahead" sign depending on traffic volumes.
- Avoid accessing travel lanes in low light conditions without proper reflective PPE and traffic control.

CREW MEMBERS INVOLVED:

- Inspector
- Two-person survey crew on striped roadways

EQUIPMENT (IF APPLICABLE): N/A

PERSONAL PROTECTIVE EQUIPMENT

- Hard hat (whenever construction activity is occurring)
- Safety vest
- Proper footwear

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Inspection reports as necessary.

SOP IMPLEMENTATION AND TRAINING PLAN:

The Engineering Construction Manager will train all new inspectors as part of job orientation and will provide annual training to all inspectors.

Storm Water - Construction Oversight Inspections

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.4**

INTRODUCTION:

This SOP was written for West Valley City to meet the requirements of its MS4 Permit and to provide guidance to abide by Utah Code 19-5-108.3. This SOP references the *Construction Site Storm Water Runoff Control* (4.2.4) section of the MS4 Permit. The overarching goal of this SOP is to standardize storm water construction program practices in West Valley City in accordance with requirements for all MS4s in the State of Utah.

From **Utah Code 19-5-108.3:**

"A municipal system shall conduct an oversight inspection[1] through an electronic site inspection[2]. A municipal system may conduct an on-site inspection if the municipal system has a documented reason for justifying an on-site oversight inspection."

To differentiate between the two types of oversight inspections, the terms "onsite oversight" and "electronic oversight" inspection are used.

- "Onsite oversight inspection" is an inspection in which MS4 staff physically visit a construction site to perform an inspection as has been done historically.
- "Electronic oversight inspection" is an offsite inspection of the operator's submitted electronic site inspection report.

Each of these types of oversight inspections will be described in the *During Construction* portion within the *Process* section of this SOP.

PURPOSE/DESCRIPTION:

- The purpose of this SOP is to describe how all West Valley City will conduct inspections for construction sites that require storm water pollution control measures conforming with state law and the MS4 permit. For purposes of this SOP, "operator" means the person responsible for the Storm Water Pollution Prevention Plan (SWPPP) implementation on an applicable construction site.

MS4 PERMIT REQUIREMENTS:

- Oversight Inspection
  - Required to be completed by the MS4 on any construction site that is greater than or equal to one acre or is part of a common plan of development or sale which collectively disturbs land greater than or equal to one acre.
  - MS4 must inspect all phases of construction, including prior to land disturbance, during active construction, and following active construction.

[1] "Oversight inspection" means a construction site inspection performed by the municipal system to assess compliance with the permit. (Utah Code 19-5-108.3(1)(g))

[2] "Electronic site inspection" means geo-located and time-stamped photos taken, evaluated, and submitted electronically by the applicant to the municipal system. (Utah Code 19-5-108.3(1)(e))

    - Oversight inspections are required to be completed monthly for non-priority construction sites and biweekly for priority construction sites.
- Qualified Personnel
    - The oversight inspection must be performed by a "qualified person" as described in the DWQ MS4 Permit.
    - Anyone who has a job duty related to implementing the construction storm water program must receive annual training. New hires must be trained within 60 days of hire.
- Record Retention
    - All MS4s must maintain records for at least five years of all applicable construction project documents which could include:
        - Site plan reviews
        - SWPPPs
        - Inspections
        - Enforcement Actions (notices of violation, stop work orders)

WORK PROCEDURES:

- Pre-construction
    - The MS4 will perform a pre-construction SWPPP review and meeting which at minimum will include:
        - A review of the site design
        - Planned operations at the construction site
        - Planned Best Management Practice(s) (BMPs) during the construction phase
        - Planned long-term storm water run-off BMPs
        - Documentation:
            - SWPPP Review Checklist: Document the SWPPP Review Checklist in Cityworks.
            - Pre-construction Meeting: Document the meeting in Cityworks
    - The MS4 will determine whether the construction site will be identified as priority and receive bi-weekly MS4 oversight inspections.
    - The MS4 must provide the operator with the procedure for notifying the MS4 of their completion of active construction.
    - The MS4 will perform a pre-construction electronic oversight inspection or onsite oversight inspection with the operator(s).
        - This pre-construction inspection must occur before land disturbance and will verify that the operator has placed all site-specific construction BMPs prescribed by the SWPPP.
        - Documentation:
            - Pre-construction inspection: Document the inspection in Cityworks.
    - The operator will submit a Notice of Intent (NOI) through the NeT NPDES eReporting Tool online (NeT) *before* earth disturbing activities.

- During Construction
    - Electronic Oversight Inspection
        - The MS4 will perform their required electronic oversight inspections (at the intervals mentioned in 2.1.c) through access to the Operator's SWPPP and electronic site inspection(s).

        - The operator's report must use geo-located and time-stamped photos of all BMPs implemented at the construction site.
        - All photos must be sufficient to depict that the BMP(s) is meeting its proper function to eliminate or control pollutants on site.
        - The operator's report should show compliance with the Construction General Permit (CGP), Common Plan Permit (CPP) if applicable, and the site specific SWPPP.
            - This includes all documentation regarding corrections taken as a result of the operator's self-inspection.
- Onsite Oversight Inspection
    - An onsite oversight inspection may be warranted under the following conditions:
        - Compliance with the CGP, CPP if applicable, and site specific SWPPP cannot be reasonably determined during an electronic oversight inspection.
        - A perceived or reported threat to water quality that is immediate[3] and/or imminent[4]. Or a reported complaint.
        - Failure to install BMPs prior to land disturbance.
        - Illicit discharge, unknown/unidentified non-storm water discharge, or prohibited discharge per CGP/CPP permits.
        - The operator requests that oversight inspections be performed onsite.
        - Any other oversight inspection step listed below that cannot be fulfilled.
- An oversight inspection, both electronic and onsite, is performed by following these steps:
        - Review the SWPPP
        - Review the SWPPP signage for compliance with the CGP or CPP
            - Placed in a safe, conspicuous, and publicly accessible location near the entrance
            - Includes UPDES permit tracking number, contact information, and method of SWPPP access
        - Review the operator self SWPPP inspection reports
        - Review the entire perimeter and any downgradient areas
        - Review points of vehicle/equipment exit
        - Review any discharge points (keep in mind that these are not always piped inlets)
        - Review all BMPs installed to mitigate or prevent sediment, erosion, and pollution
        - Review all stabilizing areas (especially steep slopes)

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[3] Immediate Threat: A situation where pollutant discharge to state waters is already occurring or is inevitable without urgent corrective action. This refers to a present and active risk that requires immediate attention to prevent or mitigate further contamination.

[4] Imminent Threat: A situation that poses a high likelihood of pollutant discharge to state waters in the near future if corrective actions are not taken. This refers to conditions that suggest a serious risk is developing but has not yet resulted in an actual discharge.

            - Review all pollutant generating activities such as fueling areas, washout areas, etc.
            - Observe all discharges (if prohibited or unauthorized this is an immediate and/or imminent threat to water quality)
            - Observe all conditions that could result in polluted storm water discharge (including sediment in the street/gutter)
            - Determine if any additional sediment, erosion, and/or pollution prevention controls are needed
            - Verify that all the above activities are accounted for and updated in the site's SWPPP and Map
            - Any deficiencies must be noted in the oversight inspection form
    - For oversight inspections, MS4 staff must use the *Oversight Construction Inspection Form* provided by the Division of Water Quality.
        - MS4 staff sends a copy of the oversight inspection to the operator.
        - MS4 staff maintains a record of all oversight inspections in Cityworks.
    - If the storm water BMPs on a construction site are found to be deficient by the MS4 inspector, steps will be taken to address the deficiencies as outlined in the *Enforcement for Construction Sites SOP*.
        - Violations could include:
            - Failure to maintain BMPs
            - Failure to install BMPs
            - An illicit discharge
            - Failure to conduct inspections
            - Failure to update SWPPP
            - Any other CGP and/or CPP requirements that are deficient

- After Construction
    - The operator will request, through NeT, a Notice of Termination (NOT) once these conditions have been met:
        - All temporary storm water control measures have been removed
        - The site has achieved final stabilization
        - All construction materials, waste, and equipment have been removed
        - All potential pollutants and pollution-generating activities have been removed
    - MS4 staff who have 'MS4 Authority' will be notified of the request to approve the operator's NOT via an email notification from NeT.
    - MS4 staff will verify through an electronic oversight inspection (or on-site oversight inspection if applicable described in the *Enforcement for Construction Sites SOP*) if all NOT requirements have been met and approve or deny the NOT submission via NeT.
    - MS4 staff will document the NOT inspection through the State's Storm Water NOT Inspection Form and maintain a record of it in Cityworks.
    - All documents related to each applicable construction site must be retained for five years or until construction is completed, whichever is longer.

CREW MEMBERS INVOLVED:

- Storm Water Inspector(s)

EQUIPMENT (IF APPLICABLE): N/A

PERSONAL PROTECTIVE EQUIPMENT N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Digital Inspection Form on Cityworks

SOP IMPLEMENTATION AND TRAINING PLAN:

- Inspection Staff responsible for enforcement are individually trained on enforcement procedures after they complete the RSI certification. Escalating Enforcement procedures are also discussed frequently in monthly storm water meetings and quarterly staff training.

Storm Water - Enforcement of Construction Site Runoff Control

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.4**

INTRODUCTION:

This SOP was written for West Valley City to meet the requirements of its MS4 Permit and to provide guidance to abide by Utah Code 19-5-108.3. This SOP references the *Construction Site Storm Water Runoff Control* (4.2.4) section of the MS4 Permit. The overarching goal of this SOP is to standardize storm water construction program practices in West Valley City in accordance with requirements for all MS4s in the State of Utah.

Purpose/Description:

- The purpose of this SOP is to describe how MS4s will implement standards from the MS4 Permit in conjunction with Utah State Code 19-5-108.3 in regard to sites that do not comply with their SWPPP and state issued Construction General Permit (CGP) or Common Plan Permit (CPP) if applicable. For purposes of this SOP, "operator" means the person responsible for SWPPP implementation on an applicable construction site.

MS4 PERMIT REQUIREMENTS:

- Enforcement procedures and regulatory authority must be written and documented in the SWMP of each MS4.
    - The procedures of this SOP should be summarized or referenced in the MS4's SWMP which is accessible by the public. Regulatory authority is described in the *Inspections of Permitted Construction Sites SOP*.
- Each MS4 staff with responsibility over the SWPPP program must be trained in proper documentation of inspections, follow-up, and enforcement actions.
    - Documentation of routine maintenance, corrective action, follow-up inspections, and enforcement actions should all be included with the *Oversight Construction Inspection Form* provided by the DWQ.
        - Any communication between the operator and the MS4 should be recorded and retained in Cityworks.
        - Verbal communication alone is not advised. If important communication does occur verbally (such as agreement on BMP improvement, corrective action deadline, etc.) between the operator and the MS4, restating the conversation afterwards via email to the operator is advised so that a record can be retained.

WORK PROCEDURES:

- Oversight Inspections
    - If violations of the CGP/CPP permit are determined after conducting an inspection (electronic or onsite) as identified in the *Storm Water Construction Oversight Inspections SOP*, the MS4 must document each violation on the *Oversight Construction Inspection Form* provided by DWQ as identified in the next step. *If the inspection was conducted onsite, justification for an onsite oversight inspection must be documented on the inspection form*.
- Violation and Follow-up Procedures
    - First Notice of Violation (NOV 1)

- The MS4 must notify the operator of the violation in writing on the *Oversight Construction Inspection Form*. The violation notation at minimum must include:
    - Explanation/Identification of each violation
    - Associated citation from the CGP/CPP
    - Deadline to correct each violation.
        - The deadline to correct violations should be no sooner than 24 hours (immediate threats to water quality), and no later than 7 days (imminent threats to water quality).
- Reinspection
    - The MS4 should perform a follow-up electronic oversight inspection to verify that each violation has been corrected after the deadline given by the MS4.
        - If the follow-up electronic inspection report submitted by the operator is not sufficient for MS4 staff to determine that the violation has been corrected, an onsite oversight inspection may be conducted. *If the inspection was conducted onsite, justification for an onsite oversight inspection must be documented on the inspection form.*
    - If the operator has not corrected the violation(s), the MS4 will notify the operator that the violation hasn't been corrected in writing as described in the next step.

- Second Notice of Violation (NOV 2)
    - The MS4 must notify the operator of the violation in writing on the Construction Oversight Inspection Form. The violation notation at minimum must include:
        - Explanation/Identification of each remaining violation
        - Associated citation from the CGP/CPP
        - Deadline to correct each violation.
            - The deadline to correct violations should be no sooner than 24 hrs (immediate threats to water quality), and no later than 7 days (imminent threats to water quality).
        - Written warning that a stop work order can be issued if the violation is not corrected within the new time period specified by the MS4. (at minimum, another 24 hours)
    - Reinspection
        - The MS4 should perform a follow-up electronic oversight inspection to verify that each violation has been corrected after the deadline within the time period given by the MS4.
            - If the follow-up electronic inspection report submitted by the operator is not sufficient for MS4 staff to determine that the violation has been corrected, an onsite oversight inspection may be conducted. *If the inspection was conducted onsite, justification for an onsite oversight inspection must be documented on the inspection form.*

            - If the operator has not corrected the violation(s), the MS4 will notify the operator that the violation hasn't been corrected in writing as described in the next step.
    - Third Notice of Violation (NOV 3)
        - The MS4 may issue a stop work order until the MS4 performs an oversight inspection to verify that the violation has been corrected or the operator shows the violation has been corrected through an electronic site inspection report.
    - Documentation:
        - The results of all enforcement notices, communications, and inspections (including follow-up or reinspection) must be documented in Cityworks.
- Special Cases
    - The MS4 can issue a stop work order earlier than in the process described above if the MS4 can document that the violation imposes an immediate[5] and/or imminent[6] threat to water quality.
    - The MS4 can correct a violation for the operator, and recoup the costs associated, if the operator refuses to correct the violation and there is imminent significant harm to water quality or the stormwater system.
    - The MS4 cannot issue a stop work order if the violation is a result of a properly installed and maintained BMP per specifications from the preferred BMP list.
    - MS4s are not allowed to issue fines related to oversight of construction sites.

- Communication for enforcement (such as a notice of violation, stop work orders) may be delivered in person, email, or by mail.
- Flow Chart attached.

Crew Members Involved:

- Storm Water Inspector(s). Storm Water Enforcement – Refer to the most current memorandum addressed to the West Valley City Attorney's Office that designates all personnel authorized in the Engineering Division to enforce storm water ordinance.

Forms and Documentation:

- Digital Inspection Form on Cityworks

SOP Implementation and Training Plan:

- Inspection Staff responsible for enforcement are individually trained on enforcement procedures after they complete the RSI certification. Escalating Enforcement procedures are also discussed frequently in monthly storm water meetings and quarterly staff training.

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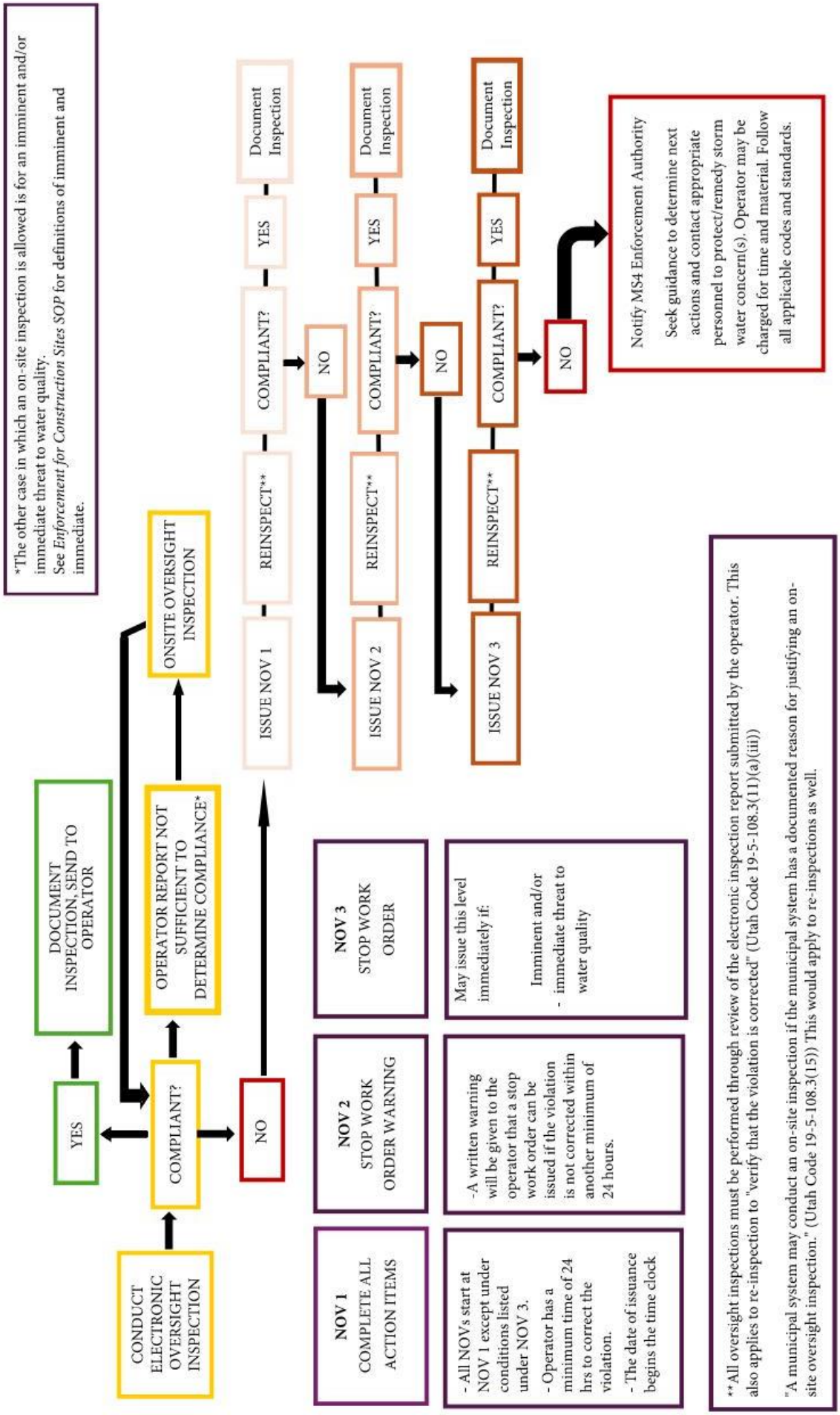
[5] Immediate Threat: A situation where pollutant discharge to state waters is already occurring or is inevitable without urgent corrective action. This refers to a present and active risk that requires immediate attention to prevent or mitigate further contamination.

[6] Imminent Threat: A situation that poses a high likelihood of pollutant discharge to state waters in the near future if corrective actions are not taken. This refers to conditions that suggest a serious risk is developing but has not yet resulted in an actual discharge.

Enforcement for Construction Sites

Flow Chart



Storm Water - Escalating Enforcement - Post-Construction

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.3.2 and 4.2.1.2.1**

PURPOSE/DESCRIPTION:

- Implement SOP for Escalating Enforcement

WORK PROCEDURES:

- Storm Water Enforcement – Refer to the most current memorandum addressed to the West Valley City Attorney's Office that designates all personnel authorized in the Engineering Division to enforce storm water ordinance.
- Administrative Citations – May be written through the Administrative Code Enforcement ("ACE") Hearing Program in Title 10 of the West Valley City Municipal Code. The Engineering Division may issue citations as follows:
    - Verbal warning issued
    - In the event a verbal warning is not warranted (e.g. Illicit Discharge, site operator not present etc.), a written warning may be issued for the first violation in the form of a failed long term inspection letter
- A Violation is defined as a failure to implement or maintain any single post construction BMP or activity which poses a pollution risk to the MS4. One violation may be considered multiple instances of the same offence (i.e. multiple catch basins full of debris can be one offence), or it may be considered for each instance of an offence (i.e. each catch basin full of debris can be one offence). It is at the discretion of the inspector to determine the seriousness of the violation and determine the appropriate number of violations observed. Issue the Notice of Violation per Title 10 and Title 18 of the City Code per procedure:
    - Issue NOV with reference to citation number
    - Issue a deadline of 10 days after date sent for compliance (give the nearest day of the week City Offices are open)
    - Fine of $25.00 / day starts the following day after the 10-day deadline has expired.
    - Track these dates within WVCPW database and take appropriate steps based on compliance or non-compliance. If non-compliance persists, WVCPW may incur the cost to implement the corrective action(s) and recoup, through appropriate legal channels, the cost for completing the work from the violator.
- Case escalated to State of County Health Department for further infractions as necessary.
- In the event a violator refuses to sign the citation or is not present, *the citation is delivered by certified mail to the responsible party's main address.*
- After a citation is delivered or mailed, receipt of payment is the responsibility of the City Attorney's Office. If payment is not received, The City has sole discretion to decide whether to file a civil or criminal case, or both, for a violation.

Note: Citations shall be issued based on frequency and/or duration of infractions. The City reserves the right to take any and all enforcement actions permitted by law in the sole discretion of the City. Nothing in this document shall require the City to begin at a lower level of enforcement.

Crew Members Involved:

- Storm Water Inspector(s) Storm Water Enforcement – Refer to the most current memorandum addressed to the West Valley City Attorney's Office that designates all personnel authorized in the Engineering Division to enforce storm water ordinance.

Equipment (if applicable): N/A

Personal Protective Equipment N/A

Equipment Cleanup Procedures: N/A

Forms and Documentation:

- Digital Inspection Form on Cityworks

SOP Implementation and Training Plan:

- Inspection Staff responsible for enforcement are individually trained on enforcement procedures after they complete the RSI certification. Escalating Enforcement procedures are also discussed frequently in monthly storm water meetings and quarterly staff training.

Storm Water - Tracing the Source of an Elicit Discharge

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.3.4**

PURPOSE/DESCRIPTION:

- Follow a methodical process to properly identify the contaminating source of an illicit discharge. Ideally, several people will be utilized for tracing the discharge to verify the source before the pollutant ceases to be observed.

WORK PROCEDURES:

- Arrive and verify the location where the initial discharge was reported.
- Visually inspect and observe reported discharge.
- Respondents should never enter private property without permission and never put themselves in danger, including entering storm drain structures in any manner or form without proper protective equipment. Refer to Confined Space Entry SOP.
- Utilizing the storm water system map, locate the next structure upstream of the discharge where observations can be made and open manhole lids to visually inspect discharges.
- Observe at the upstream structure if there is non-storm water discharge at that location.
- Repeat Steps as necessary until a structure where the discharge is not present is located.
- If necessary, and as appropriate, the WVCPW will use the mobile video camera, equipment and field tests to verify pollutants and help trace the source of the discharge.
- Where the respondent feels it necessary, a 3rd party lab may be contacted for sampling and testing of samples.
- When a structure observed does not contain evidence of an illicit discharge, one of two things will be determined.
    - The source is no longer producing discharge and may not be further traced. The source may or may not be near this location. Observe surrounding areas or any further indication of the source of the discharge. If none is found, document the findings for future reference.
    - The discharge source should be located between the structure with no evidence of discharge and the next downstream structure. Observe surrounding areas to determine the source. If necessary, utilize video inspection equipment to locate the connection of the illicit discharge.
- As appropriate, follow additional SOP's for next steps (Cease Illicit Discharge, Spill Response Plan and/or Characterize the Nature and/or Threat of the Illicit Discharge).
- Document inspection in Cityworks database.

CREW MEMBERS INVOLVED:

- Stormwater Inspector(s)

PUBLIC WORKS OPERATIONS EQUIPMENT (IF APPLICABLE):

- Camera truck
- Smart phone or Laptop

FORMS AND DOCUMENTATION:

- All calls to the stormwater hotline are logged and documented in SharePoint. Any calls relating to Illicit Discharges are additionally documented in Cityworks and recorded on the GIS map.

SOP IMPLEMENTATION AND TRAINING PLAN:

- IDDE training occurs frequently in quarterly staff meetings.

Storm Water - Characterize The Nature And/Or Threat Of An Illicit Discharge

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.3.5**

PURPOSE/DESCRIPTION:

- To determine the nature of a discharge and if it poses a threat to the safety of the public or human and ecological life. This may be done by visual indicators (e.g. soap suds, discoloration, floating pollutants) and/or analysis (e.g. pH levels, chemicals present, hydrocarbon levels, etc.)

WORK PROCEDURES:

- If the informant of the illicit discharge knows what substance was discharged into the system, further identification may be unnecessary (e.g. paint was dumped into the system). Obtain Safety Data Sheets if available.
- Characterize the nature of the discharge based on visual observation.
- Samples of the discharge are collected, if necessary, and analysis may be completed if appropriate tools are readily available
- If it is a hazardous substance, appropriate hazmat teams will be dispatched and can run necessary tests to determine the nature and extent of a threat the discharge may pose to public safety and life.
- When necessary, labs will be utilized to determine complete composition of substances; however, lab results may take a long time to process. Potential cleanup measures may have already taken place and if lab results indicate any further safety concerns, even after cleanup measures were completed, public notices may be issued as necessary.
- Complete documentation in Cityworks database with the decision process to characterize the discharge, including; steps indicating why a particular method was used, what containment measures were completed, analytical results

CREW MEMBERS INVOLVED:

- Construction and/or storm water inspector(s)

PUBLIC WORKS OPERATIONS EQUIPMENT (IF APPLICABLE): N/A

PERSONAL PROTECTIVE EQUIPMENT N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Digital inspection form in Cityworks database

SOP IMPLEMENTATION AND TRAINING PLAN:

- IDDE training occurs frequently in quarterly staff meetings.

Storm Water - Ceasing Illicit Discharges

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.3.6**

PURPOSE/DESCRIPTION:

- Implement procedures for ceasing illicit discharges.

WORK PROCEDURES:

- If the informant of the illicit discharge knows what substance was discharged into the system, further identification may be unnecessary (e.g. paint was dumped into the system). Obtain Safety Data Sheet if available.
- Characterize the nature of the discharge based on visual observation.
- Samples of the discharge are collected, if necessary, and analysis may be completed if appropriate tools are readily available
- If it is a hazardous substance, appropriate hazmat teams will be dispatched and can run necessary tests to determine the nature and extent of a threat the discharge may pose to public safety and life.
- When necessary, labs will be utilized to determine complete composition of substances; however, lab results may take a long time to process. Potential cleanup measures may have already taken place and if lab results indicate any further safety concerns, even after cleanup measures are completed, public notices may be issued as necessary.
- Complete documentation in Cityworks database with the decision process to characterize the discharge, including; steps indicating why a particular method was used, what containment measures were completed, analytical results
- As necessary, third parties may be called in for clean-up efforts by property owner or WVC and WVC reserves the right to recoup any associated cleanup costs and/or construction costs per WVCMC §18 in order to comply with permit requirements.

CREW MEMBERS INVOLVED:

- Storm Water Inspector(s)

PUBLIC WORKS OPERATIONS EQUIPMENT (IF APPLICABLE): N/A

PERSONAL PROTECTIVE EQUIPMENT N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Digital Inspection Form in Cityworks Database

SOP IMPLEMENTATION AND TRAINING PLAN:

- IDDE training occurs frequently in quarterly staff meetings.

Storm Water - Spill Response Plan And Response Flowchart

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.3.9.1**

Purpose/Description:

- Implement the Spill Response Plan

Work Procedures:

- Initial notification of discharge received
- Observe and investigate the reported discharge per the Tracing the Source of an Illicit Discharge procedure.
- Define the size, location, and content of the spill; its direction and speed of movement; and its hazard or risk to the safety of the public or likelihood of affecting sensitive habitats.
- Contact appropriate authorities as needed from the internal flow sheet based on provided information and/or initial observation for containment and cleanup. The product, if known, may dictate the response. These may include:
    - WVC Public Works storm water personnel
    - WVC Police Department
    - WVC Fire Department– including all unknown hazardous materials
    - Salt Lake County Health Department
    - State of Utah Division of Water Quality
    - Environmental Protection Agency
    - Local wastewater improvement districts (Granger-Hunter Improvement District, Kearns Improvement District, Taylorsville-Bennion Improvement District or Magna Water District)
- Get trained personnel and equipment to the site quickly.
- Ensure the safety of all response personnel and the public.
- Stop the flow from the source, if possible, and prevent ignition, if flammable.
- Contain the spill to a limited area.
- Remove the spilled material using proper techniques for the particular substance.
- Dispose properly of the spilled material after removal.
- Issue citations as appropriate following the Escalating Enforcement SOP
- Complete documentation in Cityworks database
- Follow up as needed where corrective actions are required.

Crew Members Involved:

- Storm water inspector(s)
- Public Works Operations
- Others as necessary

Personal Protective Equipment

- Safety glasses
- Gloves

Forms and Documentation:

- Digital inspection form on Cityworks database

SOP Implementation and Training Plan:

- The Spill Response plan is periodically reviewed and updated as necessary.

The following table provides an easy reference guide to classify the type of spill. This table should be utilized to help identify the proper response procedure.

Classification of Spills

Classification of Spills (all spills will be responded to 24/7)				
Criteria	Level I	Level II	Level III	Level IV
Small Spill	X		X	
Large Spill		X		X
Non-hazardous Material Identified (i.e. engine oil, antifreeze, hydraulic oil)	X	X		
Unknown Material			X	X
Hazardous Material Identified			X	X
WVC Emergency Operation Plan Activated?	No	Not Likely	Maybe	Maybe
Response Leader	WVCPW	WVCFD/Hazmat	WVCFD/Hazmat	WVCFD/Hazmat
Immediate Threat to Life and/or Property?	No	Maybe	Maybe	Likely
Does Spill Pose Liability to WVC?	No	Maybe	Maybe	Maybe
Has Injury Potential for Citizens or Responders?	Low	Maybe	Maybe	Maybe
Potential to Reach State Water Bodies	Low	High	Low	High
City Infrastructure Impaired or Damaged	Unlikely	Maybe	Likely	Likely
Traffic Control Measures Needed?	No	Maybe	Maybe	Likely
Support needed from Additional Agencies/Divisions	Unlikely	Maybe	Maybe	Maybe

Response Type

Different responses will be followed based on the type and amount of material involved in the spill. The next table lists the various types of spills with their corresponding procedures to respond to the spill.

Note: When a traffic accident has occurred where law enforcement and a wrecker have responded, the wrecker driver is responsible for cleanup of these small spills. City sanitation contractors are also required to clean up their spills.

Spill Responses Based on Spill Classification

Spill Response Plan (Each spill will be attended to in the following manner, depnding upon spill classification)				
Action Item	**Level I**	**Level II**	**Level III**	**Level IV**
Lead Agency	WVCPW	WVCFD/Hazmat	WVCFD/Hazmat	WVCFD/Hazmat
WVCPD Dispatched?	No	Possible	Possible	Possible
SLV Health Dept. Dispatched	No	Yes	Yes	Yes
Additional Agencies/Divisions or 3rd Party Contractors Dispatched (as needed)	X	X	X	X
Evaluate Spill and Decide Mitigation Strategy	X	X	X	X
Place Traffic Control Measures (as needed)	WVCPD	WVCPD	WVCPD	WVCPD
Utilize Appropriate Protective	X	X	X	X
Spill Containment	WVCPW	WVCFD/Hazmat	WVCFD/Hazmat	WVCFD/Hazmat
Identify Unknown Substance			X	X
Spill Cleanup (if Responsible Party Known) - WVCPW Monitors Cleanup to Ensure Compliance	Resp. Party (if Qualified)	Resp. Party (if Qualified)	WVCFD/Hazmat	WVCFD/Hazmat
Spill Cleanup Coordination	WVCPW	WVCFD/Hazmat	WVCFD/Hazmat	WVCFD/Hazmat
Sweepers Dispatched	As Needed	As Needed	As Needed	As Needed
Material Disposal (very small spill)	Dumpster		Hazmat	
Material Disposal	WVCPW Containment Area	Hazmat	Hazmat	Hazmat
Who Addresses Media Questions			WVCFD	WVCFD
Document Incident Report	X	X	X	X
Report All Reportable Quantities as Required		X	X	X
Notice of Violation Issued (if responsible party is known)	X	X	X	X
Fines Imposed (where applicable)	X	X	X	X
Follow Up Inspection (when necessary ie. Removal of illicit connections, damage to infrastucture)	X	X	X	X
Costs Recouperated from Responsible Party	X	X	X	X

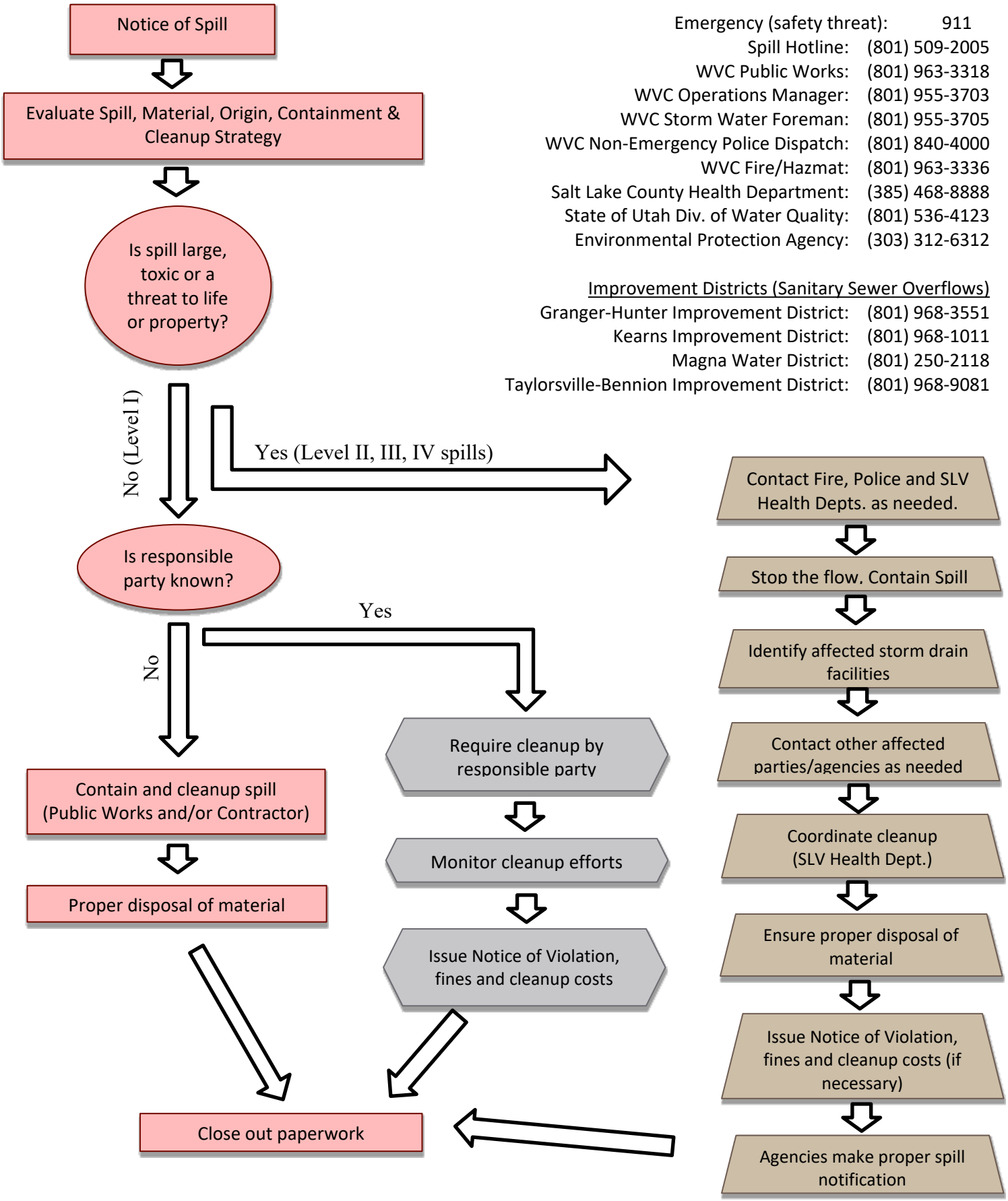
Sanitary Sewer Overflows (SSO)

When SSO's occur, the appropriate wastewater improvement district (listed on flow chart) will be contacted for response and cleanup. If requested or required by the responding district, WVCPW will assist under their direction in providing response support. Additionally, investigative reports will be completed and submitted to the Division of Water Quality with our annual report.

Emergency (safety threat):	911
Spill Hotline:	(801) 509-2005
WVC Public Works:	(801) 963-3318
WVC Operations Manager:	(801) 955-3703
WVC Storm Water Foreman:	(801) 955-3705
WVC Non-Emergency Police Dispatch:	(801) 840-4000
WVC Fire/Hazmat:	(801) 963-3336
Salt Lake County Health Department:	(385) 468-8888
State of Utah Div. of Water Quality:	(801) 536-4123
Environmental Protection Agency:	(303) 312-6312

Improvement Districts (Sanitary Sewer Overflows)

Granger-Hunter Improvement District:	(801) 968-3551
Kearns Improvement District:	(801) 968-1011
Magna Water District:	(801) 250-2118
Taylorsville-Bennion Improvement District:	(801) 968-9081



Storm Water - SWPPP Review And Inspection

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.4.3**

PURPOSE/DESCRIPTION:

- Develop a standard procedure for reviewing and keeping record of active Storm Water Pollution Prevention Plans

WORK PROCEDURES:

- SWPPP is submitted online by the developer through the permit portal https://pllportal.wvc-ut.gov/portal
- The SWPPP is reviewed by the West Valley City Engineering Plan Reviewer using the Storm Water Pollution Prevention Compliance Evaluation Form.
- Identify potential water quality impacts; especially sites that discharge directly into or immediately upstream of water that the state recognizes as impaired.
- WVC Storm Water Management Permit – Construction Period is issued after SWPPP approval
- A pre-construction SWPPP review meeting is held which includes a review of the site design, the planned operations at the construction site, planned BMPs during the construction phase, and the planned BMPs to be used to manage runoff created after development.
- Maintain a copy of SWCP, SWPPP, and Compliance Evaluation Form in WVC database for a minimum of 5 years or until the project is complete, whichever is longer.

CREW MEMBERS INVOLVED:

- SWPPP Reviewer
- Construction Inspector(s)
- Storm Water Inspector(s)

EQUIPMENT (IF APPLICABLE): N/A

PERSONAL PROTECTIVE EQUIPMENT N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- West Valley City Engineering Standards
- Cityworks Database

SOP IMPLEMENTATION AND TRAINING PLAN:

- Plan Review Staff are individually trained. Personnel responsible for reviewing the plans obtain the RSW certification. SWPPP review is frequently discussed in quarterly meetings.

Storm Water - Public Hotline On-Call Response

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.3.9**

PURPOSE/DESCRIPTION:

- Implement SOP for Public Hotline Response (801) 509-2005

WORK PROCEDURES:

- Call is received on 24-hr hotline
- Information regarding the incident is gathered from the phone call.
- Based on information the following SOP procedures are used/followed:
    - Stormwater - Characterize the Nature or Threat of the Illicit Discharge
    - Stormwater - Tracing the Source of Illicit Discharge
    - Stormwater- Ceasing Illicit Discharges
    - Stormwater - Spill Response Plan and Response Flowchart
- Per the Spill Response Plan SOP appropriate authorities are contacted as needed
- Complete Documentation in Cityworks database
- Follow up as needed where corrective actions are required.

CREW MEMBERS INVOLVED:

- Utility Billing Clerks
- Storm water Inspector(s)
- Public Works Operations
- Others as necessary

EQUIPMENT (IF APPLICABLE): N/A

PERSONAL PROTECTIVE EQUIPMENT N/A

EQUIPMENT CLEANUP PROCEDURES:

- Per spill response SOP

FORMS AND DOCUMENTATION:

- Digital Inspection Form on Cityworks Database

SOP IMPLEMENTATION AND TRAINING PLAN:

- Inspection Staff are individually trained by the Storm Water Inspector after they are hired. IDDE training occurs frequently in quarterly staff meetings including on-call response procedures.

FLEET MANAGEMENT

Equipment Repair And Visitors

SWMP Requirement: **Yes** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- A policy to define how customers are to interact with the Fleet Division.
- To establish procedures to ensure the safety and efficiency of all West Valley City employees and others when utilizing the West Valley City Public Works Operations Facility.

WORK PROCEDURES:

- When bringing in a vehicle for service or repairs, drive though carport and back your vehicle into the parking stall to your immediate left (North) of the shop. Employees can enter the facility on the north side of the building.
- Check in with the service manager
    - If the Service Manager is unavailable, please see the Fleet Manager for assistance
    - Service or Fleet manager will advise you to either drop off your vehicle or whether the repairs can be made while you wait.
    - The vehicle will be taken into the shop by fleet employees only.
- If the work can be completed in a short time, visitors can wait for work to be done in the waiting area located outside the Fleet manager's office.
- If the vehicle will take longer than a day, the service manager will contact the employee or another visitor to inform them when the vehicle will be ready to pick up
- AFTER HOURS – fill out request for service form, it is not necessary to leave a key.
    - Back your vehicle in the parking stalls on the north side of building.
    - Leave the request for service form in the drop box near service manager's office door. The box is marked "Night Drop Box".
- When your vehicle is completed, you will receive text, or a call letting you know it's done, and it will be parked on the south side of the shop. If you would like to know what repairs were made to your vehicle, reach out to the service manager to discuss repairs.

CREW MEMBERS INVOLVED:

- Service Manager and Fleet Manager

EQUIPMENT (IF APPLICABLE): N/A

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Request for service, CFA Fleet Software

SOP IMPLEMENTATION AND TRAINING PLAN:

- This should be highlighted in the city's annual training.

Shuttling Vehicles

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- To describe normal procedures for fleet employees to drive vehicles to an outside vendor.

WORK PROCEDURES:

- Get the instructions from the service manager to where you will be going.
- Get in one of the Fleet's trucks to follow the other fleet employee to the location instructed.
- After getting into a fleet truck make sure you have plenty of fuel.
- The driver will need to follow a driver that you will be picking up from an outside vendor.
- When dropping a driver off to pick up a vehicle, make sure you wait to ensure it is ready to go.
- When you get to the desired location back the city vehicle into a parking spot.
- After you have dropped someone off, call back to the service manager to see if anything else needs to be picked up while you're out.
- Follow City policy on cell phone use while driving.
- The fleet employee that goes into the vendor's building make sure you leave the keys and ensure they have the car number and contact information.
- When picking up a vehicle from a vendor always sign the invoice and put the car number on the invoice then bring it back to the service manager

Crew Members Involved:

Two employees

Equipment (if applicable):

- Vehicle
- Cell phone for navigation
- Seat Belt
- Sunglasses

Equipment Cleanup Procedures: N/A

Forms and Documentation:

- Driver's License
- City insurance card

SOP Implementation and Training Plan:

- New employees are trained during the first few weeks where all the suppliers and distributors are located. Employees are required to complete an annual distracted driving course, and the division holds an annual SOP review.

Lifting Vehicles On Two Post Lift

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- A policy to define how to safely lift a vehicle on a two-post lift.

WORK PROCEDURES:

- Pull vehicle into the shop, in between hoist/lift and roll down the driver side window.
- Stop on the floor wheel chock plate.
- Set the hoist arms to line up with the factory lifting pads if the vehicle has them.
- If you're not sure where to place the hoist don't just guess. Ask for the Training Mechanic for assistance.
- Begin to lift the vehicle about 2 feet off the ground then stop. Then rock the vehicle making sure it is positioned safely on the lift and will not fall, then continue lifting the vehicle to the desired working height.

CREW MEMBERS INVOLVED:

- Fleet mechanic. Fleet training mechanic.

EQUIPMENT (IF APPLICABLE):

- Two post vehicle lift.

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Describe SOP Implementation and Training Plan.

Changing Oil

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- A policy to define how to complete standard Light truck/ SUV Oil change.

WORK PROCEDURES:

- Retrieve service request from Service Manager's repair board.
- Gather vehicles information, ICN, miles.
- If the vehicle is an unmarked vehicle check the rear license plate for registration expiration date.
- Turn on all the factory lights including the flasher. Make sure all lights are working properly, replace as needed. Check wiper blades, replace as needed.
- Check all emergency lights. Make sure all the emergency lights are working properly, replace as needed.
- Turn the lights off and turn the vehicle off.
- Sit down at your desk, open a repair order, enter current mileage, Check CFA for necessary repairs, and check for open recalls. Complete oil change reminder decal.
- Open the hood and remove the oil cap, place the cap near the hood latch, fill wash fluid, inspect air filter, and replace as needed. Inspect brake fluid level, check drive belt, do a visual under the hood inspection.
- Follow SOP for *Lifting Vehicles on Two Post Lift*
- If necessary, remove the splash shields from underneath the vehicle.
- Roll the drain pan underneath the vehicle, remove drain plug and loosen oil filter.
- Retrieve the necessary oil filter, air filter, drive belts, etc.
- As the oil is still dripping, visually inspect undercarriage, look for leaks, check tires for tread depth, check brakes, and sway bar links. Next, complete removing the oil filter, always make sure the old oil filter gasket was removed.
- Install new oil filter making sure the new oil filter gasket is lubed with oil.
- Reinstall oil drain plug and splash shields.
- Lower vehicle to chest level, check tire air pressure in all the tires. Check the front end for loose tie rods, steering linkage, and ball joints. If there is repair that needs immediate attention communicate what is needed to the Service Manager before lowering the vehicle.
- Lower vehicle to the ground and remove hoist arms from underneath the vehicle.
- If tires were rotated torque lug nuts.
- Reinstall air filter, add the motor oil, and reinstall oil fill cap.
- Get into the vehicle and start the engine, install oil change reminder decal, and reset the factory oil change reminder. Turn the engine off, check the floor for any leaks.
- Check the oil level, adjust as needed and close the hood.
- Return to your desk to complete the work order in CFA.
- If the customer is waiting, bring the vehicle to the north of the shop, return the key back to the driver of the vehicle. If the customer dropped the vehicle off for service, it needs to be parked on the south side of the shop. Bring the service request and key back into the service manager's office.
- This process should be completed in 25 minutes.
- If tire rotation is needed, it should be completed in 10 minutes.

CREW MEMBERS INVOLVED:

- Service Manager, Fleet Mechanic.

Equipment (if applicable):

- Vehicle lift, Hand tools

Personal Protective Equipment

- Rubber gloves
- Safety glasses

Equipment Cleanup Procedures:

- Clean up any oil spills, drain oil filters for 48 hours, Smash oil filters and recycle.

Forms and Documentation:

- CFA work order, Service Request and oil change check list.

SOP Implementation and Training Plan:

Training will be administered by the training mechanic; an oil change check list will be provided.

Tire Repairs

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- A policy to define how to complete a tire repair.

WORK PROCEDURES:

- Retrieve service request from Service Manager's repair board.
- Pull vehicle into the shop, in between hoist/lift roll down the driver side window and pop the hood.
- Gather vehicles information, ICN, miles.
- Sit down at your desk, open a repair-order, enter current mileage,
- Follow SOP for *Lifting Vehicles on Two Post Lift*
- Inspect all tires for tread depth ensuring that all are above 4/32.
- If all tires are above the minimum 4/32 depth, repair the tire.
- Find the hole in the tire by using soapy water in a stray bottle or in the shop's dunk tank. If the puncture is on the outside ¼ of the tread the tire will need to be replaced
- Once the puncture has been located, clearly mark the puncture with tire crayon then remove the tire from the vehicle. Take the tire needing the repair to the tire machine, remove the Schrader valve from the valve stem, and remove wheel weights from the front of the wheel.
- Break the bead free of the wheel, (make sure when using the bead breaker to stay away from the valve stem and TPS), lube both front and rear beads. Lift the tire and wheel with the tire machines lift system. Lay the tire and wheel on the tire machine turntable, front side up.
- Remove the tire from the wheel.
- Place the tire on the tire spreader.
- Buff the patching area just a little bigger than the patch area. (You may need to increase the size of the puncture by reaming and or drilling to make the large enough to accept the plug part of the plug patch).
- With a clean shop rag apply the buffing solution cleaning the patching area of any oils or rubber left behind from buffing and let it dry.
- Apply tire patch glue, (you can use a heat lamp to set up the glue at a faster rate).
- Remove the backing film from the plug patch.
- Push the plug of plug patch through the hole make sure the patch lays down smooth, roll out the patch until the clear backing comes off.
- Reinstall the tire onto the wheel, air tire up to the desired PSI
- Check the tire to make sure your repair worked.
- Spin balance the tire.
- Reinstall wheel and tire assembly onto the vehicle.
- Lower vehicle to the ground and remove hoist arms from underneath the vehicle.
- Return to your desk to complete the work order in CFA.
- If the customer is waiting, bring the vehicle to the north of the shop, return the key back to the driver of the vehicle. If the customer dropped the vehicle off for service, it needs to be parked on the south side of the shop. Bring the service request and key back into the service manager's office.

CREW MEMBERS INVOLVED:

- One

EQUIPMENT (IF APPLICABLE):

- Air tools, Tire machine, Vehicle lift.

Personal Protective Equipment

- Leather/Rubber gloves
- Hearing protection
- Safety glasses.

Equipment Cleanup Procedures:

- Keep the tire repair area clean and organized, roll up all air hoses.

Forms and Documentation:

- CFA work order, Tire repair check list.

SOP Implementation and Training Plan:

- Training will be provided by the training mechanic; tire repair check list will be provided.

Brake Repair

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- A policy to define how to complete a full-service brake job.

WORK PROCEDURES:

- Pick up service request form from service managers office
- Read the service request to determine if the vehicle will require a test drive to diagnose brake problems.
- Grab the shop key for the number at is on the service request
- With the service request and key in hand walk out to the north side of the fleet shop
- Pull the vehicle into the fleet shop bay door make sure the door is raised to the proper height.
- Place the vehicle in between hoist/lift stopping on the wheel chock plate on the floor roll down the driver side window and pop the hood record the mileage onto the service request turn off the vehicle. Leave the key in the unlocked position so the steering wheel can be turned right and left. Place the shifter in neutral position.
- Exit the vehicle
- With the service request in hand walk over to your desk and start a (CFA) work order adding the miles that were recorded earlier. Check the work order for jobs to due.
- Check brake fluid prior to repair (this can aid in catching potential additional repairs that could be needed. Check for any warning lights on ex, red brake light, ABS light, Traction system warning indicators.
- Follow SOP for *Lifting Vehicles on Two Post Lift*
- Remove hub caps place them on the floor face up.
- Remove all four wheels from the vehicle.
- Turn the wheel to side for access to caliper bolts, slightly release the caliper pistons with a small pry bay or screwdriver pushing against the rotor and the caliper not the pistons itself. If possible, check if caliper is sliding side to side or if it is locked or binding. (Uneven pad wear can be an indication that something is binding so keep this in mind when removing brakes). 4/32 is the minimum brake pad thickness to release a vehicle back into service.
- Unbolt caliper
- Remove caliper hang them from a strut spring and compress the caliper piston(s) using suitable tools to not damage the piston. Doing this first can help the technician determine if there is a problem with the caliper prior to reinstallation. If the dust boot has air trapped that ballons out, take a small pick and put just a pin hole in the boot to allow the air to escape, then walk the boot back into position.
- Unbolt caliper bracket and check caliper slide pins for free movement, binding, etc. remove caliper bracket and set aside.
- Remove brake rotor
- Check hub flange, clean hub flange to ensure flat surface to mate the new rotor on.
- Inspect backing plate, rust, grease that could indicate a wheel bearing failure, proper fit, no missing bolts, etc.
- Prior to installing new rotor clean rotor of any oils or shipping contamination. Install new rotor.
- Clean caliper bracket, replace hardware, make sure no corrosion or brake dust is behind the new hardware.

- Install caliper bracket, check torque of bolts (f-150 183 ft lbs. sedans 122 ft lbs. on the front) rears are similar check service manual to be sure.
- Install new brake pads, use discretion on type of brake pads that are used, spraying a brake quiet or applying a grease maybe necessary.
- Remove, clean, grease caliper slide pins.
- Install brake caliper, check torque of caliper bolts (f-150 27 ft lbs. police sedan 55 ft lbs.) check service manual for torque specs.
- After caliper is installed, the caliper should move side to side on the slide pins freely.
- Lower vehicle to the ground and remove hoist arms from underneath the vehicle.
- Install wheel(s) torque wheel(s)
- Once the vehicle is off the hoist, pump the brake pedal up making sure the brake pedal is solid. Check brake fluid level making sure it is within the normal operating range.
- Road test vehicle, burn in brakes, check for proper operation, noises, etc.
- Park the vehicle on the north side of the Fleet building.
- Return key to its dedicated spot in the key box.

Crew Members Involved:

- Service Manager, Fleet Mechanic.

Equipment (if applicable):

- Vehicle hoist, Impact gun, Wrench's, Brake caliper tool, Socket's, Ratchet, Small pry bay or screwdriver, Brake pad depth gauge. Torgue wrench, Brake quiet spray.

Personal Protective Equipment

- Safety glasses, gloves (leather or rubber)

Equipment Cleanup Procedures:

- After removing the vehicle from the work bay check for any brake fluid that might have leaked onto the floor, cleanup it up with brake cleaner and a shop rag.

Forms and Documentation:

- Complete your (CFA) work order.
- Turn in the service request to the service manager.
- Service Manager will place a call and or text to the customer letting them know that their vehicle is ready to be picked up on the north side of the Fleet building.

SOP Implementation and Training Plan:

- Training plan will be provided by the West Valley Fleet training mechanic.

Washing Vehicles

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.1**

PURPOSE/DESCRIPTION:

- To define how City vehicles are to be washed.

WORK PROCEDURES:

- All vehicles are to be washed in only these locations:
  - The washout bay at the south end of the Public Works maintenance facility on 3600 West
  - Inside buildings with drains connected to the sanitary sewer.
  - Commercial car washes
- Vehicles are never to be washed in a location that drains to the storm drain system.

CREW MEMBERS INVOLVED:

- Any employee assigned to wash vehicles

EQUIPMENT (IF APPLICABLE):

- Washing equipment

PERSONAL PROTECTIVE EQUIPMENT

- Proper clothing

EQUIPMENT CLEANUP PROCEDURES:

- Put away tools and hoses.

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Citywide annual storm water training

Scanning Documents To Onbase

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Filing all vehicle documentation into OnBase

WORK PROCEDURES:

- Open OnBase and log in
- On the Home Tab top bar Select IMPORT
- Drag your scanned image into the blank field
- On the left side you will need to index the fields
- Document Type Group select drop-down box select Public Works Fleet Vehicles
- Document Type select drip-down box select appropriate item for what you want to file
- Enter in Vehicle ICN #, VIN #, Fleet Vehicle Department, License #
- At the bottom click Import
- This will file the current page
- If multiple pages, re-enter the information for the next page
- Continue till all pages are filed

CREW MEMBERS INVOLVED:

- One Employee

EQUIPMENT (IF APPLICABLE):

- Computer, Scanner, OnBase

PERSONAL PROTECTIVE EQUIPMENT N/A
EQUIPMENT CLEANUP PROCEDURES: N/A
FORMS AND DOCUMENTATION: N/A
SOP IMPLEMENTATION AND TRAINING PLAN:

- Training to be completed by Service Manager for 10 filings

Receiving Fuel Into Fuel Master

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Receiving fuel into Fuel Master to ensure fuel tracking, pricing, and maintain fuel levels

WORK PROCEDURES:

- Log into Fuel Master
- Top bar, select Site
- Select West Valley City, select OPEN
- In new window select which fuel you want to receive and click open
- In new window select Inventory Editor
- In new window it will say Error Tank Does Not Exist click Ok
- In new window select Site drop down box and select West Valley City, next select tank drop down box and select the fuel you want to receive. Select Add
- In new box select Delivery, select OK
- In new box enter in Delivery Amount Gallons
- Enter in Unit Price. You must add together the fuel cost and all the applicable fees and divide it by the total gallons to obtain the correct Unit Price. Select OK
- Close Inventory Editor window
- In Tank Id window select Set Tank Product Prices
- In new window enter in new Fuel Base Cost, Hit Tab to update all price levels
- Select OK
- In window Tank ID select Apply then select OK
- In Site ID window repeat all steps to receive the next fuel
- When done close all windows
- On top bar select ONLINE
- In new window select Connect and this will start the Download
- when download is complete two boxes will pop up in the background
- close the first three windows
- In the last window scroll down to see if the download was successful, it will say ok on all lines if an error is present, you must do the download again
- Close window, process is completed
- Stamp invoice with the approved for payment stamp
- Sign, date, blanket po #, write the account number on invoice 10-0000-1512-00000-0000
- Turn in the invoice for payment

CREW MEMBERS INVOLVED:

- One Employee

EQUIPMENT (IF APPLICABLE):

- Computer with Fuel Master program

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be done with the Service Manager, for a minimum of 10 Invoices.

Monthy Fuel Reports

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Reconciliation of monthly fuel transactions to all departments

WORK PROCEDURES:

- Log into Fuel Master
- Select Reports on top bar
- Select customer
- In new window you must change the start date and end date to reflect the month you want to pull reports for
- Change the start time to 12:00:00 a.m. and the end time to 11:59:59 p.m.
- Select the Select all box and click view report, save this report as the month and year into OneDrive under fuel reports
- Unselect the box and now run each customer number individually and save to OneDrive labeling each report with the appropriate dept name.
- After all reports are ran, you must do the Finance Memo, which is found in SharePoint,
- Open SharePoint, select Fuel Finance Memo
- On the bottom bar select the appropriate month
- Using the reports just ran start filling in the Finance Memo with dollars and gallons respectively
- Insert the current gallons in inventory at the bottom, this can be found in Fuel Master select the site on the top bar, in new window select West Valley City then open, in new window it will show current inventory of fuel
- Use the Snip Tool copy and past it on to the Fuel Finance Memo
- Insert all fuel purchases for the month, this can be found in OneDrive under Invoices and the Vendor
- Save a copy of the Fuel Finance Memo into OneDrive
- Send Emails to each department attaching the Fuel Report from OneDrive respectively, cc Eric Madsen on all Emails
- Send Email to Nic Hales, Tod Christiensen, Jim Welch, Dan Johnson, Misty Jenkins, Eric Madsen, Steve Hyde, attaching the Fuel Finance Memo and month report

CREW MEMBERS INVOLVED:

- One employee

EQUIPMENT (IF APPLICABLE):

- Computer with Fuel Master program, OneDrive, SharePoint, Adobe

PERSONAL PROTECTIVE EQUIPMENT N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be done with the Service Manager for a minimum of 5 months

Creating State Fuel Cards

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Obtaining State Fuel Card to get fuel outside of city tanks

WORK PROCEDURES:

- Open MYEKOS state website WWW.MYEKOS.COM and log in.
- Hover over fuel cards icon, hover over cards, select Create Vehicle Card
- In the box stating - The Card, all accounts use drop down and select Corporate, West Valley City
- In the box The Vehicle put in Icn # in the Asset box.
- Description box put the icn # - year make model note all this info goes into description box!!!
- Next line add the year. Next line add the make.
- In the department use the drop-down box and select the appropriate dept.
- Enter in the tank capacity
- Ownership line leave on company
- Product class select what fuel you want
- Accounting line use WEXWESTVALLEYCITY
- In the box The Security, no action needed
- Select CREATE
- Wait for it to process anther screen will pop up, fuel card is created, and the State will mail the card to the shops.

CREW MEMBERS INVOLVED:

- One employee.

EQUIPMENT (IF APPLICABLE):

- Computer with internet access.

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be done with the Service Manager for 10 transactions

Creating City Fuel Cards

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Manage City fuel cards for all City vehicles to fuel at the shops

WORK PROCEDURES:

- Open Fuel Master. Log in.
- Select the vehicle tap at top of screen
- In new window select Add
- In new box add vehicle Icn #, add agency using drop down arrow, add customer ID for correct dept.
- Select product tab, add product 1 unleaded 2 diesel, allotted 100 gal per day, transaction limit reflective of fuel tank size amount for a single fill up
- Select Smart Card tab, check odometer box.
- Select Odometer tab, enter in current miles, change fuel range to 600
- Select General tab, add Vehicle Description example PD – 2023 DODGE DURANGO, add vehicle year, vehicle make.
- When all info is filled out select Encode, a timer will start, and you have 30 seconds to insert a new fuel card chip faced down into the programmer.
- A new window will pop up click ok fuel card is now programmed. Close all windows.
- Top bar, select Online. In new window select Connect, when two windows pop up in the background download is complete fuel card is now ready to be used. Close all windows.

CREW MEMBERS INVOLVED:

- One employee.

EQUIPMENT (IF APPLICABLE):

- Computer with Fuel Master Program, Card programmer

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be done with the Service Manager for 10 transactions

Creating Employee Fuel Pin Number

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- To assign fuel PIN number for all employees for use on City fuel system

WORK PROCEDURES:

- Open MYEKOS website. Log in. Select Fuel Cards, Drivers, Create Driver
- Click on Dice to generate a random Fuel Pin Number
- Fill out Driver Name in all caps First and Last Name
- In Optional Sub Department use drop-down box and select correct dept for new driver
- Select Create
- Open Fuel Master program
- Select User on top bar.
- Select ADD
- Enter in new Fuel Pin you obtained from MYEKOS, enter in Customer ID reflecting the corresponding department, enter first and last name
- Select OK
- Close all windows
- ON top bar select ONLINE, in new window select CONNECT.
- When two windows pop up in the background download is complete
- Close all windows process is completed

CREW MEMBERS INVOLVED:

- One Employee

EQUIPMENT (IF APPLICABLE):

- Computer, Internet, MYEKOS login, Fuel Master Program

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training to be completed with the Service Manager for a min of 10 fuel pins.

Updating Milage On Fuel Card

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Update Fuel Cards to maintain accuracy of milage on vehicles

WORK PROCEDURES:

- Open Fuel Master
- On top bar select Vehicle
- In new window scroll to find the vehicle number you are working with
- Select vehicle then click the OPEN button to the right
- In new box select UPDATE, it will ask to insert card into programmer, chip goes face down
- In pop up box select YES
- Select the Odometer Tab, update the miles in the miles box
- Select the UPDATE box on the right
- When done close all pop-up boxes
- Select ONLINE on the top bar
- In new window select CONNECT
- When complete two boxes will pop up in the background
- Close all windows, process is completed

CREW MEMBERS INVOLVED:

- One Employee

EQUIPMENT (IF APPLICABLE):

- Computer, Fuel Master, Card Terminal.

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training to be done with the Service Manager for 10 updates

Daily Fuel Download

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Daily fuel download to update milage in CFA and track fuel sales.

WORK PROCEDURES:

- Open Fuel Master. Login. Top bar select ONLINE
- In new box select CONNECT
- New window will pop up and start the download
- When two windows pop up in the background the download is completed
- Close the first three windows
- On the last window scroll down and make sure there is no Errors, If Errors are present do the download again, if they all say OK download was successful, Close window
- Open CFA. Login.
- Left side select Fuel Icon, bottom tab select IMPORT
- On the second line third box over make sure it says Preview Only (no post)
- Select the green light top bar, it will import the download, and you will see all the transactions
- Scroll down and write down all the errors, equipment # and miles
- Top grid second row use the drop-down box and change it to Post and Discard Errors
- Select green light to post transactions, bottom box will be blank when competed
- Select the equipment file on the left side
- Click on Equipment then the search glass on the top bar
- In pop up box enter in equipment number from the list of errors, enter, look at the last miles entered and the service date to determine if you want to update the miles you retrieved from the errors list
- Do this to all errors you wrote down
- Select the Fuel Icon on the left side, bottom tab select Current
- Enter in the Equipment number, tab over 4 boxes and enter in the miles you want to update it to
- Do this for all errors you want to update
- Top bar select the save icon disc to update your entries

CREW MEMBERS INVOLVED:

- One Employee

EQUIPMENT (IF APPLICABLE):

- Computer, Fuel Master, CFA, Pen, Notepad.

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training to be completed by Service Manager for 10 downloads.

Running Credit Cards

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Processing payments via credit cards for outside agencies

WORK PROCEDURES:

- Obtain vehicle card from driver
- Obtain work order from CFA, making sure there is 40% parts mark up on all parts, correct labor times, also miles year make model and vin number on workorder.
- Print workorder
- Verify on the card if it is an agency owned vehicle, card will have a C number on the bottom left, or a GSA owned vehicle, card will have a G number on the bottom left
- If a GSA owned vehicle repairs over $100 must be preapproved by calling the number on the back of the card, if under $100 no action needed.
- If an Agency-owned vehicle repairs are over $100 a quote must be sent to agency for prior approval before repairs are made, if under $100 no action needed
- When all info is obtained and correct, call the number on the back of the card
- Follow all prompts, when asked for the driver ID enter 423000 for department owned vehicles, for GSA vehicles enter the six digits on the bottom left of card excluding the letters.
- At the end prompts it will give you a one-time use credit card number, write this number down along with the exp date, three-digit code, and zip code
- Hang up.
- Using the Credit Card Terminal, hit the green button to bring up the screen
- Select the sales icon, enter in the dollar amount, hit green button
- Select the manual input icon bottom left of screen
- Manually input the credit card, exp date, three-digit code, and zip code
- When approved sign Phone Order
- The first print out will be the merchant copy, on the top write what agency it is HSI/ICE, or GSA and keep it for the Daily Reconciliation the next day
- The second copy you will attach to the work order and give it to the driver
- If ATF they will provide a master card for payment, run it on the credit card terminal

CREW MEMBERS INVOLVED:

- One employee.

EQUIPMENT (IF APPLICABLE):

- Computer with CFA program, Credit Card Terminal, Phone.

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be done with the Service Manager for 10 transactions

Daily Credit Card Reconciliation

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- To Reconcile all credit card payments

WORK PROCEDURES:

- Print out Daily Reconciliation sheet
- Obtain daily print out from Credit Card Terminal
- Tape Daily Print Out and previous day transactions to blank sheet of paper
- Fill out Daily Reconciliation sheet with date, credit card transactions, and which agency they are from this can be found at the top of the merchant receipts from the day prior.
- Scan Daily Reconciliation Sheet and all receipts, save to OneDrive, Fleet Admin Assistant, Daily Reconciliation, year, month, date
- Send via Email to Kathy Madden, Jolene Chestnut, Misty Jenkins, Eric Madsen

CREW MEMBERS INVOLVED:

- One Employee.

EQUIPMENT (IF APPLICABLE):

- Computer, Email, Printer, Scanner

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Daily Reconciliation Sheet.

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be done with the Service Manager for 10 Transaction

Ordering Stocked Parts For Inventory

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- To maintain a uniform procedure for inventory control. The parts room inventory stocking, tracking, and reconciliation should follow specific guidelines to ensure workflow remains constant.

WORK PROCEDURES:

- Parts are ordered by the parts specialist
- Run this report at least once daily
- Open CFA and login using your last name and the password NEW
- At top of screen, select Reporting, then select System Reports
- At bottom right of screen, select the Inventory 7 tab
- Select a report: 02 Inventory Re-Order List
- At top left of screen, select Green Light
- At top left of screen, select print
- Order correct quantities from vendors listed
- Print labels for each part using Label Right barcode system
- As parts arrive, write STOCK and use APPROVED FOR PAYMENT stamp on each invoice
- In CFA, open Purchase Order screen
- At top left of screen, select the blank paper icon to create a new purchase order and select OK
- Enter correct vendor
- Ordered and Received by your name
- Enter invoice number under RecvDocNo
- Enter STOCK as Address
- Select parts room 1
- Enter ten-digit part number, quantity (Order Qty and Receive Qty have to match), and price (select Yes to update price if prompted). Save.
- Once in inventory, label and put parts away in correct locations on the shelf
- Keep frequently used parts stocked

CREW MEMBERS INVOLVED:

- Parts Specialist

EQUIPMENT (IF APPLICABLE):

- Computer with CFA program
- Label Right barcode system
- Approved For Payment stamp

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES:

- Must keep inventory room and invoices organized, including parts labeled and separated appropriately

Forms and Documentation:

- Spreadsheet Tracker on SharePoint

SOP Implementation and Training Plan:

- Job shadows the Service Manager for 40 hours, or more if needed
- During this time, they will be trained on the CFA inventory control module
- How to retrieve stocked parts reorder list
- Provided with a cellular device with all Vendor phone numbers and contacts
- Trained on how to process invoices from Vendors
- Trained on the program Label Right to label shelves and all stocked parts
- Trained on how to stock shelves and learn the shelf layouts
- Trained on all vendor websites
- Trained on inventory cycle counts and month end inventory control count.

Ordering Non-Stocked Parts

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- To maintain a uniform procedure for inventory control. The parts room inventory stocking, tracking, and reconciliation should follow specific guidelines to ensure workflow remains constant.

WORK PROCEDURES:

- Parts are ordered by the parts specialist
- Have part number or vehicle information ready and order through vendor.
- Once parts arrive, give them to the mechanic.
- On the invoice, use both the APPROVED FOR PAYMENT stamp with initials, date and PO number as well as the REPAIR ORDER stamp with the vehicle number, repair order number and line number
- In CFA, open Purchase Order screen
- At top left of screen, select the blank paper icon to create a new purchase order and select OK
- Enter correct vendor
- Ordered and Received by your name
- Enter invoice number under RecvDocNo
- Enter vehicle number as Address, repair order number as City and line number as Zip Code
- Select parts room 5
- Enter ten-digit part number (If part number is shorter than ten digits, use zeros at the beginning. If part number is longer than ten digits, only use the first ten digits)
- If part number doesn't exist, open inventory screen, at top left of screen select blank paper icon to create a part number. Enter number in parts room 5 and select OK. Hit F9 on keyboard to unlock screen. Enter a short description of the part. Enter the part number used by the vendor. Enter the vendor's name under Manuf_01 and Vendor_01. Select Each under Qty Type. Save.
- On purchase order screen, enter part number, quantity (Order Qty and Receive Qty have to match), price (select Yes to update price if prompted) and vehicle number. Save.
- On repair order screen, find the correct vehicle/repair order and bill each part to the correct line. Make sure quantities and pricing is correct. Save.

CREW MEMBERS INVOLVED:

- Parts Specialist

EQUIPMENT (IF APPLICABLE):

- Computer with CFA program
- Approved For Payment stamp
- Repair Order stamp

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES:

- Must keep track of arrival times, quantities and ensure parts are being billed to repair order upon receipt

Forms and Documentation:

- Spreadsheet Tracker on SharePoint

SOP Implementation and Training Plan:

- Job shadows the Service Manager for 40 hours, or more if needed
- During this time, they will be trained on the CFA inventory control module
- How to retrieve stocked parts reorder list
- Provided with a cellular device with all Vendor phone numbers and contacts
- Trained on how to process invoices from Vendors
- Trained on the program Label Right to label shelves and all stocked parts
- Trained on how to stock shelves and learn the shelf layouts
- Trained on all vendor websites
- Trained on inventory cycle counts and month end inventory control count.

Inventory Pre-Check

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- To maintain a uniform procedure for inventory control. The parts room inventory stocking, tracking, and reconciliation should follow specific guidelines to ensure workflow remains constant.

WORK PROCEDURES:

- A pre-check is done during the last week of every month
- Inform everyone in the shop prior to starting as a reminder to bill their stocked parts to their work orders
- Open CFA
    - Login using your last name
    - Password is NEW
- At top of screen
    - Select Reporting
    - Select System Reports
- At bottom right of screen
    - Select the Inventory 7 tab
    - Select report 02 ME Inventory ID List Condensed
    - Under Records, select Parts room dropdown to include parts room 05 Non-Stock Items
    - Select OK
    - Under Records, select Binloc dropdown, Edit to Exclude All Records
    - Select shelves individually, starting with A-01 through A-05
    - Select OK
    - At top left of screen, select Green Light
    - At top left of screen select Print.
- Continue to print each shelving group, keeping them in separate stacks
    - Exclude KJL, Shop and Z-100
- Use a clipboard and count one shelf at a time
    - Physically count every single item in inventory
    - Confirm that the quantity matches the report
    - Highlight any discrepancies and set aside until the end
- If anyone needs a part during pre-check, take note of who and quantity so that you can account for the item(s) during your count
- Once everything in inventory is counted, readdress the discrepancies
- Using CFA, track down the problem and solution to each discrepancy until everything is accounted for and corrected

CREW MEMBERS INVOLVED:

- Parts Specialist

EQUIPMENT (IF APPLICABLE):

- Computer with CFA program

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES:

- Must keep track and account for any parts the mechanics need during inventory pre-check

FORMS AND DOCUMENTATION:

- Spreadsheet Tracker on SharePoint

SOP IMPLEMENTATION AND TRAINING PLAN:

- Job shadows the Service Manager for 40 hours, or more if needed
- During this time, they will be trained on the CFA inventory control module
- How to retrieve stocked parts reorder list
- Provided with a cellular device with all Vendor phone numbers and contacts
- Trained on how to process invoices from Vendors
- Trained on the program Label Right to label shelves and all stocked parts
- Trained on how to stock shelves and learn the shelf layouts
- Trained on all vendor websites
- Trained on inventory cycle counts and month end inventory control count.

Inventory Check

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- To maintain a uniform procedure for inventory control. The parts room inventory stocking, tracking, and reconciliation should follow specific guidelines to ensure workflow remains constant.

WORK PROCEDURES:

- Inventory Check is done on the last day of every month
- Inform everyone in the shop prior to starting as a reminder to bill their stocked parts to their work orders and to avoid opening the program until Inventory Check is completed
- Open CFA
    - Login using your last name
    - Password is NEW
- Print the BEFORE report
    - At top of screen, select Reporting
    - Select System Reports
    - At bottom right of screen, select the Inventory 7 tab
    - Select report 02 ME Inventory ID List Condensed
    - Under Records, select Parts room dropdown to exclude parts room 05 Non-Stock Items,
    - Select OK
    - At top left of screen, select Green Light
    - Select Print as Adobe PDF
    - Save in Fleet Admin file under Month and Year End
    - Label as BEFORE with date and save
- Power on the handheld M500 scanning device
    - Plug the scan tool into the handheld device
    - Scroll down to Erase and press Enter
    - Select Data Files
    - Select Program P2
    - Select oldest file to Erase
    - Select Yes
    - Press Exit until screen is back to the Main Menu
    - Select Input
    - Select P2
    - Select New File
    - Enter the date 00/00/0000
    - Select Exit
    - Save
- Scan every barcode on every shelf
    - Double check that the scanner reads each barcode correctly
    - Physically count each item and enter the quantity

- When done scanning
    - Select Exit
    - Select Yes that you are sure
    - Select Yes that you want to Save
    - Select Communications
    - Select Send
    - Select Data Files
    - Select P2
- Plug M500 handheld device into computer
    - Open the M500 Program
    - Select the Receive button with the arrow
    - Select the pi.rcv file
    - Select Save
    - Select Yes to replace
    - Select Receive
- Open CFA
    - At bottom left of screen, select the red checkmark button
    - Select the Import tab
    - Select the Green Light to Go
    - Delete the discrepancies on the list such as blank readings and typos by selecting the line and pressing the Delete key on your keyboard
    - At top left of screen, select the blank paper button and the screens will go from the Import tab to the Current tab and updates the system
    - Select Save two or three times
    - If you close and reopen the screen and it is blank, the upload was successful
- Print the AFTER report
    - Use all the same steps when printing the BEFORE report but label this one the AFTER report
    - Scroll to final page of the report and write down the total dollar amount
    - Compare the reports page by page and highlight any discrepancies. Be sure to highlight the discrepancies on both reports.
    - Using your AFTER report, readdress each discrepancy and physically recount each highlighted item
    - Fix anything you can until all parts are accounted for
    - Run another report to see if we are closer to target total price
- Run one more report with Stock Room 5 included
    - Label as the AFTER report, replacing the report from earlier
    - Send to finance

Crew Members Involved:

- Parts Specialist
- Inventory Manager

Equipment (if applicable):

- Computer with CFA program
- Computer with Adobe Scan/Print/PDF capabilities
- Computer with M500 Program and scanning device

Personal Protective Equipment

- N/A

Equipment Cleanup Procedures:

- Must keep track and account for any parts the mechanics need during inventory check

Forms and Documentation:

- Spreadsheet Tracker on SharePoint

SOP Implementation and Training Plan:

- Job shadows the Service Manager for 40 hours, or more if needed
- During this time, they will be trained on the CFA inventory control module
- How to retrieve stocked parts reorder list
- Provided with a cellular device with all Vendor phone numbers and contacts
- Trained on how to process invoices from Vendors
- Trained on the program Label Right to label shelves and all stocked parts
- Trained on how to stock shelves and learn the shelf layouts
- Trained on all vendor websites
- Trained on inventory cycle counts and month end inventory control count.

Receiving Invoices

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- To maintain a uniform procedure for inventory control. The parts room inventory stocking, tracking, and reconciliation should follow specific guidelines to ensure workflow remains constant.

Work Procedures:

- Every invoice must be filed appropriately and in a timely manner
- If invoice has a vehicle ICN as the PO for the transaction:
    - Stamp with Repair Order stamp
    - Write vehicle ICN, repair order number and line number
    - Stamp with Approved for Payment stamp
    - Initial, date and write down Blanket PO number
    - Open CFA
    - At left side of screen, select the Purchase Order Entry screen button (gears and green arrow)
    - At top left of screen, select the blank paper ic
- If invoice has 1513 as the PO for the transaction:
    - Write STOCK on invoice
    - Stamp with Approved for Payment stamp
    - Initial, date and write down Blanket PO number
- If invoice was paid using a P-Card:
    - Write P-CARD on receipt
    - Write SHOP if used for shop supplies, scan and file
    - Write STOCK if used for inventory parts, then receive, scan and file
    - Write vehicle ICN, repair order number and line number if used for a vehicle, then receive, bill, scan and file
    - Scan and save into Desktop P-Card folders
    - Each month you will reconcile all P-Card transactions and upload receipts into Onbase

Crew Members Involved:

- Parts Specialist

Equipment (if applicable):

- Computer with CFA program
- Approved For Payment stamp
- Repair Order stamp

Personal Protective Equipment: N/A

Equipment Cleanup Procedures:

- Must keep paperwork organized and turn into supervisor daily

Forms and Documentation:

- Spreadsheet Tracker on SharePoint

SOP Implementation and Training Plan:

- Job shadows the Service Manager for 40 hours, or more if needed
- During this time, they will be trained on the CFA inventory control module
- How to retrieve stocked parts reorder list
- Provided with a cellular device with all Vendor phone numbers and contacts
- Trained on how to process invoices from Vendors
- Trained on the program Label Right to label shelves and all stocked parts
- Trained on how to stock shelves and learn the shelf layouts
- Trained on all vendor websites
- Trained on inventory cycle counts and month end inventory control count.

Scanning And Filing Invoices

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- Scanning invoices to send to finance for payment. Filing invoices for future reference.

Work Procedures:

- Place invoices in scanner upside down and backwards
- Open Adobe program
- Select Create, from scanner, grayscale to scan.
- Save PDF as month, day, year Invoices (11-2-24 Invoices)
- Scan Invoices again as JPEG saving as month, day, year Invoices (11-2-24 Invoices)
- Making sure both scans have the same number of pages
- Email the PDF to Shaunna Thompson in Finance for payment and CC Misty Jenkins
- Delete PDF
- Open Pictures file to find the JPEG scans, Open file just scanned to see each invoice
- Open a second window, Open Fleet Admin Assistant, open Invoices
- File Each Invoice into the appropriate vendor file
- When all are filed, delete Jpeg file in Pictures
- Complete

Crew Members Involved:

- One Employee.

Equipment (if applicable):

- Computer, Email, Scanner

Personal Protective Equipment: N/A

Equipment Cleanup Procedures: N/A

Forms and Documentation: N/A

SOP Implementation and Training Plan:

- Training to be completed with the Service Manager for a minimum of 5 Scans.

Creating Purchase Orders In City Suite

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- To generate a purchase order for payment on invoices within City Suite

WORK PROCEDURES:

- Log into City Suite. Select Purchase Orders. Select ADD
- In new screen enter in the Vendor by using the search glass, search Vendor name and select the correct Vendor.
- Enter in Buyer Name by using the drop-down box and selecting correct Buyer Name
- Enter in Department by using the drop-down box this must correspond with the Account number
- In bottom left box enter in the description and Inv #
- Once all info is entered select the Save Go Line-Item Input box at the top of the screen
- In new screen enter in the Unit Price, and the account number you want it paid out of.
- Select Save. Select Return. Select Purchase Order tab in the field.
- When it loads select Propose at the top of the screen
- Write the PO number on the invoice along with the account number and turn it in for payment

CREW MEMBERS INVOLVED:

- One Employee.

EQUIPMENT (IF APPLICABLE):

- Computer, Internet, City Suite Log in

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training to be completed by Service Manager for a minimum of 10 PO's.

Creating Blanket Purchase Orders

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Blanket POs are for high use Vendors, so payments are more fluent

WORK PROCEDURES:

- Open *City Suite*. Select Finance and log in. Select Purchase Orders. Select Add.
- Change PO Type to Blanket Purchase Order using drop-down arrow
- Enter in Vendor by using Search glass, in new box type vendor name then go, select vendor window will close.
- Enter in Buyer name using drop-down arrow
- Enter in dept in the Attention To box using the drop-down arrow select DIVISION 0000
- Check the *Is Blanket* box, this will bring up two more boxes, in these two new boxes enter the spending limit, and the expiration date (06-30-20xx)
- In the description box enter the following as needed, BLANKET PO FOR PARTS AND SERVICE 10-0000-15130-00000-0000
- When all info is added select SAVE on the top bar, then select PROPOSE
- Select Purchase Orders on the left side and repeat for all vendors you want to create a Blanket PO for. NOTE WRITE DOWN PO NUMBER FOR EACH VENDOR AND CREATE A SPREAD SHEET TO REFRENCE TO.

CREW MEMBERS INVOLVED:

- One Employee.

EQUIPMENT (IF APPLICABLE):

- Computer, Internet access, City Suite Access

PERSONAL PROTECTIVE EQUIPMENT N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training to be completed with Service Manager

Month End Closing Reports

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Month end closing procedures by report and department

WORK PROCEDURES:

- CFA, REPORTING, SYSTEM REPORTS
- PHYSICALLY PRINT RISK, WARRANTY, ANY OUTSIDE AGENCIES, MECHANIC ONLY INDIRECT
- PAPERCLIP PAGES
    - HIGHLIGHT RISK REPORT, GO PRINT. WRITE "RISK" ON REPORT
    - HIGHLIGHT WARRANTY REPORT, GO, PRINT. WRITE "WARRANTY" ON REPORT
    - HIGHLIGHT 03 REPAIR TRANSACTION COST SUMMARY REPORT, GO, PRINT.
    - HIGHLIGHT 16 ME 7510 PUBLIC WORKS REPORT, GO, PRINT. WRITE "PUBLIC WORKS" ON REPORT
    - HIGHLIGHT 20 ME 1000 METRO REPORT, GO, PRINT. (OUTSIDE AGENCY)
    - HIGHLIGHT 22 ME 3000 UTOPIA REPORT, GO, PRINT. (OUTSIDE AGENCY)
    - HIGHLIGHT 24 ME 2000 DEA REPORT, GO, PRINT. (OUTSIDE AGENCY)
    - HIGHLIGHT 24 ME 5000 NORTH SALT LAKE REPORT, GO, PRINT. (HERRIMAN, OUTSIDE AGENCY)
    - HIGHLIGHT 24 ME 6000 US MARSHALS REPORT, GO, PRINT. (OUTSIDE AGENCY)
- GSA AND MERCHANTS FLEET: WE DON'T RUN THESE BECAUSE THEY PAY WITH A CARD
    - HIGHLIGHT 25 ME 4000 ATF REPORT, GO, PRINT. (OUTSIDE AGENCY)
    - HIGHLIGHT 31 ME MECHANIC LABOR INDIRECT ONLY REPORT, GO, PRINT. WRITE "INDIRECT"
- NOW PHYSICALLY PRINT ALL OUTSIDE AGENCIES WORK ORDERS
    - OPEN WORK ORDER SCREEN
    - HIGHLIGHT EACH WORK ORDER FOR OUTSIDE AGENCIES: ALL 1'S AND THE 500'S. DON'T DO 111115'S (GSA) OR 111116'S (MERCHANTS FLEET)
    - SELECT PRINTER ICON DROPDOWN BOX, REPAIR ORDER, PRINT
    - RESTACK THEM SO THEY'RE IN ORDER (PRINTED BACKWARDS) THEN PAPERCLIP UTOPIA WORK ORDERS TO THE UTOPIA REPORT, HERRIMAN WORK ORDERS TO THE HERRIMAN REPORT, ETC
- NOW PRINT TO PDF ALL RISK WORK ORDERS
    - REFER TO THE PRINTED REPORT "RISK" AND GO BY UNIT NUMBERS
    - ON ONE SCREEN OPEN FILE FOLDER, FLEET ADMIN, MONTH AND YEAR END REPORTS, YEAR, MONTH, RISK FOLDER
    - ON CFA GO TO FIRST RISK WORK ORDER LISTED ON THE REPORT
    - PRINTER ICON DROPDOWN, REPAIR ORDER, PRINT TO ADOBE PDF, SAVE AS, DELETE EVERYTHING BEFORE THE DASH AND PUT THE UNIT NUMBER, SAVE INTO THE RISK FOLDER THAT'S OPEN ON THE OTHER SCREEN
    - CONTINUE THROUGH ALL UNIT NUMBERS LISTED ON RISK REPORT
- IN DRAWER, PULL OUT A COPY OF "MONTH END REPORTS" PRINTOUT

- ON FILE FOLDER SCREEN, SELECT UP ARROW TO SHOW THE SCREEN WITH BEFORE, AFTER AND RISK. THIS IS WHERE WE WILL BUILD OUR HUGE FILE OF REPORTS
- CLOSE CFA SCREEN
- REPORTING, SYSTEM REPORTS
    - HIGHLIGHT RISK, GO, PRINT TO PDF, SAVE INTO RISK FOLDER, RENAME BEFORE THE DASH "RISK REPORT DECEMBER 2024", SAVE
- CONTINUE TO THE REST OF THE REPORTS
    - HIGHLIGHT WARRANTY, GO, PRINT TO PDF, UP ARROW TO SAVE INTO THE MAIN FILE WE'RE BUILDING FOR THE MONTH, RENAME BEFORE THE DASH "WARRANTY REPORT DECEMBER 2024", SAVE
    - HIGHLIGHT ME MECHANIC LABOR, GO, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH "ME MECHANIC LABOR", SAVE
    - HIGHLIGHT 03 REPAIR TRANSACTION COST SUMMARY, GO, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BY DELETING THE DASH AND BEFORE THE DASH, SAVE
    - ON SAME REPORT SELECT MECHANIC LABOR/VENDOR TABLE (CENTER SCREEN), EXCLUDE ALL, SELECT MECHANIC, GO, PRINT TO PDF, RENAME BEFORE THE DASH MECHANIC FIRST AND LAST NAME, SAVE.
        - DO THIS FOR EACH MECHANIC
        - WATCH FOR/NOTE OVERTIME HOURS
        - FOR TAM SELECT BOTH "TRUONG" AND "TROUNG UP"
        - THERE ARE 8 MECHANICS
        - BREWER KOLTON, CROSLAND NICHOLAS, HART RICHARD, JONES BRYAN, OWEN ROBERT, TRUONG TAM, WARD DAN, WRIGHT KYLE
    - HIGHLIGHT 04 ME ALL DEPT WITH DIRECT AND INDIRECT, GO, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH "ME ALL DEPT W DIRECT & INDIRECT", SAVE
    - HIGHLIGHT 05 ME ALL DEPTS, GO, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH "ME ALL DEPTS INDIRECT LABOR ONLY"
    - HIGHLIGHT 06 ME DIRECT LABOR ONLY FOR BLANK AND GONE DEPTS, GO. THIS REPORT SHOULD ALWAYS BE BLANK OR $0, OTHERWISE FIX ASAP
    - HIGHLIGHT 07 ME DIRECT LABOR ONLY, GO, GO TO FINAL PAGE AND GET DOLLAR AMOUNTS FOR PARTS AND LABOR. WRITE THESE PRICES IN THE CORRECT BOX ON THE PRINTOUT SHEET "MONTH END REPORTS", PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH "ME DIRECT LABOR ONLY ALL DEPTS", SAVE
    - REPORTS 8-12 ARE USUALLY BLANK BUT RUN THEM ANYWAY
        - IF THEY'RE BLANK WRITE ZEROS ON THE PRINTOUT SHEET "MONTH END REPORTS"
    - HIGHLIGHT 13 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH "COMM DEVELOPMENT", SAVE
    - HIGHLIGHT 14 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH "POLICE", SAVE
    - HIGHLIGHT 15 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH "FIRE", SAVE

- HIGHLIGHT 16 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “PUBLIC WORKS”, SAVE
- HIGHLIGHT 17 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “PARKS”, SAVE
- HIGHLIGHT 18 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “STORM WATER”, SAVE
- HIGHLIGHT 18 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “SANITATION”, SAVE
- REPORT 19 IS USUALLY BLANK
- HIGHLIGHT 20 REPORT, GO, GET NUMBERS BUT IGNORE THE MARKUP COLUMN (WE JUST NEED PARTS AND LABOR), WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “METRO”, SAVE
- HIGHLIGHT 21 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “GOLF STONEBRIDGE”, SAVE
- HIGHLIGHT 22 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “UTOPIA”, SAVE
- HIGHLIGHT 23 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “GOLF THE RIDGE”, SAVE
- HIGHLIGHT 24 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “DEA”, SAVE
- HIGHLIGHT 24 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “HERRIMAN”, SAVE
- HIGHLIGHT 24 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “US MARSHALS”, SAVE
- HIGHLIGHT 25 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “ATF”, SAVE
- HIGHLIGHT 26 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “CPP”, SAVE
- HIGHLIGHT 27 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “AMBULANCE”, SAVE
- HIGHLIGHT 24 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “GSA”, SAVE

    - HIGHLIGHT 24 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “MAVERIK CENTER”, SAVE
    - HIGHLIGHT 24 REPORT, GO, GET NUMBERS, WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “MERCHANTS FLEET”, SAVE
    - HIGHLIGHT 28 REPORT, GO, DON’T HAVE TO GET NUMBERS OR WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “ALL OUTSIDE AGENCIES”, SAVE
        - (MARKUP COLUMN IS OUR PROFIT. ADD MARKUP + PARTS = WHAT THEY PAID FOR PARTS)
    - HIGHLIGHT 28 REPORT, GO, DON’T HAVE TO GET NUMBERS OR WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “ME IN HOUSE UPFITTING”, SAVE
    - HIGHLIGHT 29 REPORT, GO, DON’T HAVE TO GET NUMBERS OR WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “ME OUTSIDE UPFITTING”, SAVE
    - HIGHLIGHT 30 REPORT, GO, DON’T HAVE TO GET NUMBERS OR WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “ME MECHANIC LABOR DIRECT ONLY”, SAVE
    - HIGHLIGHT 31 REPORT, GO, DON’T HAVE TO GET NUMBERS OR WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “ME MECHANIC LABOR INDIRECT ONLY”, SAVE
    - HIGHLIGHT 32 REPORT, GO, DON’T HAVE TO GET NUMBERS OR WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “ME AMBULANCE LABOR”, SAVE
    - HIGHLIGHT 33 REPORT, GO, DON’T HAVE TO GET NUMBERS OR WRITE ON PRINTOUT SHEET, PRINT TO PDF, SAVE INTO SAME FILE, RENAME BEFORE THE DASH “ME TRUONG UPFITTING”, SAVE. (THIS IS THE LAST ONE)
- USE THE OLD SCHOOL CALCULATOR TO ADD OUR NUMBERS
    - TURN THE SWITCH TO THE FIRST P
    - ADD ALL PARTS TOTALS ON THE PRINTOUT SHEET. THE TOTAL IN BOX #7 IS THE GOAL
    - PRESS * WHEN DONE ADDING/ IT MATCHES UP
    - PRESS THE RECEIPT BUTTON, TEAR OFF AND WRITE “PARTS” ON RECEIPT
    - PRESS CE TO CLEAR
    - ADD ALL LABOR TOTALS ON THE PRINTOUT SHEET
    - PRESS * WHEN DONE/ IT MATCHES UP
    - PRESS THE RECEIPT BUTTON, TEAR OFF AND WRITE “LABOR” ON RECEIPT
    - STAPLE THE RECEIPTS TO THE TOP LEFT OF THE PRINTOUT SHEET AND SET IT ASIDE
- CFA, TOP OF SCREEN TOOLS DROPDOWN, MONTH END CLOSE, CLICK THE PERIOD CLOSE 3 DOT, GO, OK
- TO MOVE PARTS ROOMS:
    - REPORTING, SYSTEM REPORTS, INVENTORY TAB, 02 ME INVENTORY ID LIST CONDENSED
    - CHANGE TO ONLY PARTS ROOM 5 TO START STOCKING A PART, GO. IF ANYTHING COMES UP, PRINT A PHYSICAL COPY OF THE REPORT

    - CHANGE TO PARTS ROOMS 1 AND 3, EXCLUDE ALL BINS EXCEPT Z100, HIT GO TO REMOVE A PART NUMBER FROM INVENTORY. IF ANYTHING COMES UP, PRINT A PHYSICAL COPY OF THE REPORT
    - CLOSE WINDOWS
    - TOOLS, DATA TABLE UTILITIES, INVENTORY CHANGES TAB, CLICK "CURRENT PART NUMBER" AND SEARCH GLASS, SEARCH PART NUMBER AND UNDER "NEW PARTS ROOM" YOU CAN CHANGE ROOMS
    - IF A PART IS IN 01 AND 05 AND YOU WANT IT OUT OF INVENTORY, IN THE NEW PARTS ROOM DROPDOWN CHANGE TO 05 AND CHANGE A ZERO TO AN "O" UNDER NEW PART NUMBER
    - AFTER MAKING CHANGES HIT GO, THEN OK, WAIT FOR BLUE LINES TO FINISH
    - CLOSE ALL WINDOWS
- ADMIN FEE IS FOR UTOPIA:
    - CFA, OPEN WORK ORDER SCREEN AND PURCHASE ORDER SCREEN
    - ON REPAIR ORDER SCREEN CREATE A NEW REPAIR ORDER:
        - EQUIPMENT # 500000
        - IN REPAIR ORDER NOTES: ADMIN FEE FOR JANUARY 2025
        - REP REASON 10, REP SITE 01, GROUP SYSTEM 12-3001, IN JOB NOTES: ADMIN FEE FOR JANUARY 2025, WORK ACCOUNT 13, MACHANIC WARR, STATUS 03
    - ON PURCHASE ORDER SCREEN CREATE A NEW PURCHASE ORDER:
        - VENDOR NAPA, NAME WARR, ADDRESS 500000
        - RECEIVE IN PARTS ROOM 05, 00ADMINFEE, QTY 1, PRICE 0.01, EQUIPMENT # 500000
    - BILL THE 00ADMINFEE TO THE REPAIR ORDER SCREEN
        - UNDER MARKUP % ENTER 2700000, ENTER, SAVE. (YOU CAN'T SEE THE MARKUP CHANGE WITHOUT GOING TO PRINTER ICON DROPDOWN AND SELECTING REPAIR ORDER)
    - CLOSE WINDOWS
    - SEND GROUP TEXT THAT CFA IS GOOD TO GO
- ON FILE FOLDER SCREEN, BACK OUT TO OPEN THE MONTH END CLOSING QTR REPORTS FILE
- (WE WILL DO MECHANIC HOURS BREAKDOWN AND THE MONTH END TALLY SHEET AND USE THAT INFO TO DO THE QUARTERLY REPORT. THEN WE DO THE PW REPAIR TRANSACTION BREAKDOWN)
- OPEN THE MECHANIC HOURS BREAKDOWN DOCUMENT
    - ON ONE SCREEN HAVE THE MECHANIC HOURS BREAKDOWN DOCUMENT OPEN
    - ON OTHER SCREEN OPEN THE ME MECHANIC LABOR DIRECT ONLY PDF FROM OUR MAIN MONTH FILE
    - ENTER THE MECHANICS DIRECT HOURS INTO THE BREAKDOWN DOCUMENT
        - SCROLL TO THE BOTTOM OF EACH MECHANIC'S NAME ON THE PDF TO GET THEIR TOTAL HOURS (FAR RIGHT)
        - THIS IS WHERE WE NEED TO KNOW OVERTIME HOURS
        - TO DOUBLE CHECK, OPEN EACH MECHANICS REPORT IN OUR MAIN MONTH FILE AND GET THE OVERTIME HOURS
    - ENTER THE MECHANICS INDIRECT HOURS INTO THE BREAKDOWN DOCUMENT

- FOUND ON THE PHYSICAL PRINTOUT OF THE REPORT LABELED “INDIRECT”
- ENTER THE MECHANICS UNACCOUNTED TIME INTO THE BREAKDOWN DOCUMENT
  - COUNT THE NUMBER OF DAYS WE WORKED FOR THE MONTH. EX: 18
  - MULTIPLY BY TEN (HOURS PER DAY). EX: 18 X 10 = 180
  - SUBTRACT THE DIRECT AND THE INDIRECT. EX: 180 – 167.14 – 42 = -29.14
  - ENTER AS +29.14 ON BREAKDOWN DOCUMENT
  - IF SUM IS POSITIVE ON THE CALCULATOR, ENTER IT AS A NEGATIVE
- ENTER THE MECHANICS PTO INTO THE BREAKDOWN DOCUMENT
  - VACATION AND COMP TIME ON THE PHYSICAL PRINTOUT OF THE REPORT LABELED “INDIRECT”
- ENTER THE MECHANICS SHOP CLEANING INTO THE BREAKDOWN DOCUMENT
  - SHOP CLEANING ON PHYSICAL PRINTOUT OF THE REPORT LABELED “INDIRECT”
- ENTER THE MECHANICS SHOP MAINTENANCE INTO THE BREAKDOWN DOCUMENT
  - SHOP MAINTENANCE ON PHYSICAL PRINTOUT OF THE REPORT LABELED “INDIRECT”
- ENTER THE MECHANICS OTHER HOURS INTO THE BREAKDOWN DOCUMENT
  - TRAINING, HOLIDAY, ANYTHING ELSE ON PHYSICAL PRINTOUT OF THE REPORT LABELED “INDIRECT”
- AFTER ALL FIELDS ARE FILLED OUT FOR EACH MECHANIC, PRINT A PHYSICAL COPY OF THE BREAKDOWN DOCUMENT, KEEPING AUTO SAVE OFF
- FILE, SAVE AS, FLEET ADMIN, SAVE INTO THE MAIN FILE WE’RE BUILDING FOR THE MONTH, RENAME: TAKE OUT “CHECKLIST DOC” AND PUT “DECEMBER 2024” AFTER “MECHANIC HOURS BREAKDOWN”, SAVE, OK, TURN AUTO SAVE OFF
- CLOSE DOCUMENT WINDOW, CLOSE PDF ON OTHER SCREEN

- OPEN THE MONTH END TALLY SHEET LOCATED IN THE QTR REPORTS FILE, PUT-ON RIGHT-SIDE SCREEN
  - REFERENCE THE PHYSICAL PRINTOUT OF THE REPAIR TRANSACTION COST SUMMARY REPORT
  - ENTER MONTH DECEMBER 2024
  - ENTER NUMBER OF JOBS COMPLETED, LOCATED ON TOP LEFT OF PRINTOUT REPORT
  - ENTER BILLABLE MAN HOURS, LOCATED TOP OF PRINTOUT REPORT “REGULAR HOURS” (EX: 1414.54)
  - ENTER TOTAL WORKDAYS, COUNT OUR SCHEDULED WORKDAYS FOR THE MONTH (EX:18)
  - POTENTIAL WORK HOURS, TAKE THE NUMBER OF WORKDAYS AND MULTIPLY BY 10 HOURS PER SHIFT AND MULTIPLY BY 8 MECHANICS (EX: 18x10x8=1440)
  - TOTAL TIME OFF, ADD ALL PTO HOURS FROM PRINTOUT SHEET OF THE MECHANIC HOURS BREAKDOWN DOCUMENT (EX: 154)
  - SUBTRACT TOTAL TIME OFF FROM BILLABLE MAN HOURS AND POTENTIAL WORK HOURS (EX: BILLABLE MAN HOURS 1414.51-154=1260.54 AND POTENTIAL WORK HOURS 1440-154=1286)

    - OVERTIME EARNED, GET TOTALS FROM PRINTOUT SHEET OF THE MECHANIC HOURS BREAKDOWN DOCUMENT
    - % OF BILLABLE VS POTENTIAL, DIVIDE BILLABLE MAN HOURS BY POTENTIAL WORK HOURS (EX:1260.54/1286=0.9802=98%)
    - AFTER ALL FIELDS ARE FILLED OUT, PRINT A PHYSICAL COPY OF THE MONTH END TALLY DOCUMENT
    - FILE, SAVE AS, FLEET ADMIN, SAVE INTO THE MAIN FILE WE'RE BUILDING FOR THE MONTH, RENAME: TAKE OUT "CHECKLIST DOC" AND PUT "DECEMBER 2024" AFTER "MONTH END TALLY", SAVE, OK, TURN AUTO SAVE OFF
    - CLOSE DOCUMENT WINDOW
- OPEN THE QUARTERLY REPORT SPREADSHEET
    - LOCATED IN FLEET ADMIN, MONTH AND YEAR END REPORTS, MONTH END CLOSING QTR REPORTS, QUARTERLY REPORTS FILE, CORRECT YEAR
    - REFERENCE THE PHYSICAL PRINTOUTS OF THE MONTH END TALLY DOCUMENT AND THE REPAIR TRANSACTION COST SUMMARY REPORT
    - JOBS COMPLETED, LOCATED ON BOTH SHEETS
    - MAN, HOURS BILLABLE, USE THE ORIGINAL NUMBER/TOTAL BEFORE THE EQUATION
    - POTENTIAL WORK HOURS, USE THE ORIGINAL NUMBER/ TOTAL BEFORE THE EQUATION
    - TOTAL TIME TAKEN OFF, ON MONTH END TALLY SHEET UNDER "TOTAL TIME OFF"
    - OVERTIME, ON THE MONTH END TALLY SHEET
    - %, ON THE MONTH END TALLY SHEET
    - PERFORMANCE INSPECTIONS, ON REPAIR TRANSACTION COST SUMMARY REPORT
    - PROACTIVE/UNSCHEDULED REPAIRS, ON REPAIR TRANSACTION COST SUMMARY REPORT
    - BREAKDOWNS, ON REPAIR TRANSACTION COST SUMMARY REPORT
    - PM'S, ON REPAIR TRANSACTION COST SUMMARY REPORT
    - THIS ONE AUTO SAVES. CLOSE THE SPREADSHEET
- OPEN THE PW REPAIR TRANSACTION BREAKDOWN SPREADSHEET
    - LOCATED IN FLEET ADMIN, MONTH AND YEAR END REPORTS, MONTH END CLOSING QTR REPORTS, PW REPAIR TRANSACTION BREAKDOWN FILE, CORRECT YEAR
    - BOTTOM TABS, ADD NEW TAB, DOUBLE CLICK TO RENAME "DECEMBER 2024"
    - GO TO PREVIOUS MONTH'S TAB, TOP LEFT CORNER CLICK TO HIGHLIGHT EVERYTHING, COPY, PASTE TO CURRENT TAB
    - UPDATE MONTH AND CLEAR ALL VALUES
    - SEARCH EQUIPMENT NUMBER IN CFA, UNDER ENGINE SERIAL NUMBER IT'LL TELL YOU WHAT DEPARTMENT EACH VEHICLE BELONGS TO
    - ON STICKY NOTES, WRITE DOWN EACH DEPARTMENT, PARTS, LABOR AND HOURS FOR EACH VEHICLE
        - SKIP OPERATIONS VEHICLES
    - ALL 999995'S ARE THE MISC PUBLIC WORKS, ENTER VALUES INTO SPREADSHEET
    - ADD ALL VALUES ON THE STICKY NOTES TO GET DEPARTMENT TOTALS

- SANITATION AND STORM WATER ARE LOCATED IN OUR MONTH FILES, NOT THIS PUBLIC WORKS ONE
    - OPEN THE SANITATION PDF, GO TO THE LAST PAGE FOR THE TOTALS
    - OPEN THE STORMWATER PDF, GO TO THE LAST PAGE FOR THE TOTALS
- TO GET OPERATIONS VALUES, USE GRAND TOTALS ON PUBLIC WORKS PRINTOUT. SUBTRACT THE TOTALS LOCATED ON THE SPREADSHEET. THIS WILL GIVE THE OPERATIONS TOTALS
- REFERENCE THE "RISK" PRINTOUT REPORT FOR TOTALS
    - LOOK AT PARTS PRICE ONLY
    - ONLY PUBLIC WORKS VEHICLES (SKIP OTHER DEPARTMENTS LIKE PD ND FIRE)
- REFERENCE THE "WARRANTY" PRINTOUT REPORT FOR TOTALS
- PRINT A PHYSICAL COPY OF THE PW REPAIR TRANSACTION BREAKDOWN SPREADSHEET, UNDER PAGE SETUP CHANGE TO LANDSCAPE
- FILE, SAVE AS, FLEET ADMIN, SAVE INTO THE MAIN FILE WE'RE BUILDING FOR THE MONTH, RENAME: TAKE OUT "2024 2025" AND PUT "DECEMBER 2024" AFTER "PW REPAIR TRANSACTION BREAKDOWN", SAVE
- CLOSE THE SPREADSHEET

- NOW ONTO THE FINANCE MEMO
    - WE DON'T USE THE ONE IN FILES. WE USE THE ONE IN SHAREPOINT
    - REFERENCE THE "RISK" REPORT PRINTOUT, "WARRANTY" REPORT PRINOUT AND "MONTH END CHECKLIST" PRINTOUT
    - OPEN SHAREPOINT, OPEN MONTH END FINANCE MEMO
    - BOTTOM TABS, SELECT MONTH
    - ENTER TODAY'S DATE AT THE TOP OF THE SPREADSHEET
    - ONLY ENTERING PARTS COSTS, USE MONTH END CHECKLIST TO GET PARTS TOTALS, GOING IN ORDER ON THAT SHEET
    - ENTER TOTALS INTO "TOTAL AMOUNT FROM CFA" COLUMN
        - ENTER 0.00 IN BLANK SPOTS ON THIS COLUMN
    - -IN THE WARRANTY COLUMN, ENTERING ONLY PARTS TOTALS FROM THE WARRANTY REPORT PRINTOUT, ORGANIZE AND ADD PARTS VALUES BY DEPARTMENTS
        - -SEARCH ICN'S ON CFA IF NEEDED TO FIGURE OUT DEPARTMENT
        - -DOUBLE CHECK/COMPARE PARTS TOTAL ON WARRANTY REPORT PRINTOUT TO THE TOTAL ON THE SPREADSHEET IN THE WARRANTY COLUMN
    - -IN THE RISK COLUMN, ENTERING ONLY PARTS TOTALS FROM THE RISK REPORT PRINTOUT, ORGANIZE AND ADD PARTS VALUES BY DEPARTMENTS
        - -SEARCH ICN'S ON CFA IF NEEDED TO FIGURE OUT DEPARTMENT
        - -DOUBLE CHECK/COMPARE PARTS TOTAL ON RISK REPORT PRINTOUT TO THE TOTAL ON THE SPREADSHEET IN THE RISK COLUMN
    - -MAKE SURE TO CHECK DEPARTMENTS. AMBULANCE AND FIRE ARE TWO DIFFERENT THINGS!
    - -AT THE BOTTOM OF THE SPREADSHEET, ENTER "DECEMBER 2024" INVENTORY TOTAL
        - -OPEN THE "AFTER REPORT" PDF LOCATED IN THE MONTH FILE, SCROLL TO LAST PAGE AND USE THAT TOTAL

    - -SAVE AS, SAVE A COPY, DELETE NAME AND ENTER “FINANCE MEMO DECEMBER 2024”, CHANGE LOCATION, MORE SAVE LOCATIONS, MY FILES, FLEET ADMIN, MONTH AND YEAR END REPORTS, YEAR, MONTH, SAVE HERE
- -ALL PAPERWORK (BESIDES OUTSIDE AGENCIES) GETS HOLE PUMCHED AND PUT AT THE BACK OF THE WHITE BINDER IN THE BOTTOM LEFT DRAWER
- -NOW TO DO OUTSIDE AGENCY BILLING
    - -BACK OUT OF FILE FOLDER, FLEET ADMIN, BUDGET AND BILLING
    - -STARTING WITH HERRIMAN, OPEN CORRECT SPREADSHEET
    - -BOTTOM SCREEN START A NEW TAB
    - -GO TO PREVIOUS MONTH’S TAB, TOP LEFT CORNER CLICK TO HIGHLIGHT EVERYTHING, COPY, PASTE TO CURRENT TAB
    - -CHANGE TO TODAY’S DATE, CHANGE THE DATE AT COST SUMMARY, CHANGE LABOR HOURS AND COST
    - -REFERENCE THE HERRIMAN REPORT PRINTOUT
    - -ENTER EACH VEHICLE WITH VIN AND TAB TO ENTER THE TOTAL PRICE ON CFA REPAIR ORDER
    - -ENTER ALL THE LISTED CFA REPAIR ORDERS
    - -NOTE: REPAIR TRANSACTION COST DETAIL MARKUP SHEET SHOWS US THE REPAIR ORDERS BY EQUIPMENT NUMBER WITH PART, MARKUP AND LABOR COSTS. THE CFA REPAIR ORDER PRINTOUTS SHOW THE PARTS, MMARKUP AND LABOR AS ONE TOTAL COST
    - -NOTE: COLUMN G IS THE REPAIR ORDERS, COLUMN H IS THE TRANSACTION REPORT
    - -ADD THE TOTAL PARTS AND MARKUP COSTS FROM THE REPAIR TRANSACTION COST DETAIL PRINTOUT SHEET AND ENTER AS THE TOTAL PARTS CHARGES ON THE BILLING SPREADSHEET
        - -IT SHOULD AUTOMATICALLY ADD THE LABOR COST ON THE BILLING SPREADSHEET
    - -MAKE SURE THE PREVIOUS MONTH ISN’T LISTED ANYWHERE ON THE BILLING SPREADSHEET
    - -PRINT A PHYSICAL COPY OF THE BILLING SPREADSHEET
    - -SAVE A COPY TO ONEDRIVE, FLEET ADMIN, OUR MONTH FILE, RENAME: “HERRIMAN BILLING DECEMBER 2024”, SAVE
    - -REPEAT FOR ALL OUTSIDE AGENCIES
        - -ATF, HERRIMAN, METRO, UTOPIA, US MARSHALS, ETC
    - -UTOPIA IS DIFFERENT
        - -DON’T ENTER VIN’S OR VEHICLES, JUST THE TOTALS
        - -ADMIN FEE NEEDS TO BE ENTERED, IT’S LOCATED AT THE TOP OF THE REPAIR TRANSACTION COST REPORT PRINTOUT UNDER PARTS
        - -WHEN ADDING THE PARTS AND MARKUP COST, MAKE SURE TO SUBTRACT THE ADMIN FEE
        - -NOTE: THE TOTAL ON THE SPREADSHEET NEEDS TO EQUAL THE PARTS + MARKUP + LABOR COSTS FROM THE REPAIR TRANSACTION COST DETAIL REPORT PRINTOUT
    - -WHEN FINISHED, FOR EACH AGENCY THROW AWAY THE REPAIR TRANSACTION COST DETAIL REPORT PRINTOUT AND PAPERCLIP THE NEW BILLING SPREADSHEET PRINTOUT TO THE TOP OF THE CFA REPAIR ORDERS
    - -ERIC NEEDS TO SIGN THEM

        - -GIVE ERIC THE TOTAL COST BY OPENING “ALL OUTSIDE AGENCIES” AND ROUGHLY ADD THE TOTALS
    - -SCAN EACH SET OF PAPERS FOR EACH AGENCY AND PRINT TO PDF INTO OUR MONTH FOLDER, SAVE AS “HERRIMAN BILLING BACKUP DECEMBER 2024”
    - -WHEN DONE, STACK PAPERS AND PUT AT THE BACK OF THE INVOICE FOLDER IN THE BOTTOM LEFT DRAWER
- -SENDING REPAIR TRANSACTION COST DETAIL REPORT PDFS VIA EMAIL
    - -REFERENCE THE MONTH END CLOSING DEPARTMENT CONTACT SHEET
    - -CC ERIC ON EVERYTHING
    - -START WITH CPP
        - -NEW EMAIL, SUBJECT LINE “CPP VEHICLE REPAIR TRANSACTION REPORT DECEMBER 2024”
        - -IN BODY, COPY AND PASTE TEXT FROM PREVIOUS MONTH
        - -DRAG AND DROP PDF TO EMAIL, SEND
    - -CONTINUE DOWN THE CONTACT REFERENCE SHEET AND REPEAT STEPS
    - -PARKS, GOLF WEST AND STONEBRIDGE WILL ALL BE IN ONE EMAIL. SUBJECT LINE “PARKS, THE RIDGE, STONEBRIDGE VEHICLE REPAIR TRANSACTION REPORT DECEMBER 2024”
    - -RISK, SUBJECT LINE “RISK VEHICLE REPAIR TRANSACTION REPORT DECEMBER 2024”
        - -SCROLL TO THE TOP OF OUR MONTH FOLDER AND OPEN THE RISK FILE
        - -SELECT THE TOP PDF, HOLD DOWN SHIFT BUTTON, SELECT THE BOTTOM PDF TO DRAG AND DROP ALL AT ONCE
    - -STORMWATER AND PUBLIC WORKS WILL BE IN ONE EMAIL
        - -SUBJECT LINE “PUBLIC WORKS, STORMWATER VEHICLE REPAIR TRANSACTION REPORT DECEMBER 2024”
- -SEND AN EMAIL TO ERIC
    - -SUBJECT LINE “MONTH END TALLY, MECHANIC HOURS BREAKDOWN DECEMBER 2024”
    - -INCLUDE PDFS FOR ALL MECHANIC REPORTS, THE MECHANIC HOURS BREAKDOWN AND THE MONTH END TALLY
- -SEND AN EMAIL TO KATHY MADDEN, CC ERIC
    - -SUBJECT LINE “OUTSIDE BILLINGS DECEMBER 2024”
    - -INCLUDE ALL OUTSIDE AGENCY BILLING SPREADSHEETS AND BILLING BACKUP PDFS
    - -DO NOT ACCIDENTALLY SEND THE REPAIR TRANSACTION COST REPORTS!
- -SEND AN EMAIL TO DAN JOHNSON, CC MISTY AND ERIC
    - -SUBJECT LINE “PW REPAIR TRANSACTION BREAKDOWN DECEMBER 2024”
    - -SEND THE PW REPAIR TRANSACTION SPREADSHEET
- -SEND AN EMAIL TO NICLAS HALES AND TOD CHRISTIANSEN. CC JIM WELCH, DAN JOHNSON, MISTY AND ERIC
    - -SUBJECT LINE “FINANCE MEMO DECEMBER 2024”
    - -INCLUDE THE WARRANTYREPORT PDF, RISK REPORT PDF, AFTER REPORT PDF AND THE FINANCE MEMO SPREADSHEET
    - -IN TEXT BODY JUST WRITE “FINANCE MEMO”
- -SEND AN EMAIL TO ERIC
    - -SUBJECT LINE “ALL OUTSIDE AGENCIES DECEMBER 2024”

    - -INCLUDE ALL OUTSIDE AGENCIES PDF
- DO NOT EMAIL THE BEFORE REPORT, GSA, MERCHANT FLEET, ANY ME REPORTS, OR THE REPAIR TRANSACTION COST SUMMARY

Crew Members Involved:

- Service Manager, Fleet Manager

Equipment (if applicable):

- CFA, SharePoint, Microsoft Excel

Personal Protective Equipment

- N/A

Equipment Cleanup Procedures:

- N/A

Forms and Documentation:

- Fleet Admin Administration folder, SharePoint, CFA

SOP Implementation and Training Plan:

- Service Manager and Fleet Manager need to be present

STREET OPERATIONS

Traffic Control

SWMP Requirement: **No** If Yes, SWMP Section: **0.0.0.0**

Purpose/Description:

- Set up traffic control devices to create a safe work zone

Work Procedures:

- Refer to the Manual on Uniform Traffic Control Devices (MUTCD) for proper signage and device spacing and set-up.
- If dropping a lane always use an advanced warning arrow board display
- If a mobile work zone is required refer to the MUTCD and always use a follow vehicle with an advanced warning arrow board display

Crew Members Involved:

- One to three depending on the scope of the job

Equipment (if applicable):

- One to two trucks
- Advanced warning arrow board display
- Signs and stands
- Cones
- Vertical panels
- Type II or Type III barricades if needed

Personal Protective Equipment

- Safety vest
- Safety glasses
- Gloves
- Safety shoes

Equipment Cleanup Procedures:

- Pick up all traffic control in accordance with the MUTCD to keep traffic and employees safe.
- Put away traffic control, note any damage or repairs needed and turn it in to the Supervisor
- If equipment needs to be cleaned it shall be done in the designated wash bay.

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Shop Storage And Cleaning Procedures

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6**

Purpose/Description:

- To maintain a clean and compliant facility. The Public Works Maintenance Facility is considered to be a "High Priority" facility per the City's Storm Water Management Plan.

Work Procedures:

- Vehicles which are leaking fluids are to be repaired or will be placed inside a building temporarily; otherwise, a containment pan will be used to catch the leak
- Any equipment which stores herbicides and/or pesticides will be parked inside of the building or under covered parking
- All cleaning of the asphalt/slurry equipment will be done in the hydrocarbon bay
- All cleaning of any other equipment will be done in the designated wash area
- Any spill found at the shop storage facility will be logged on Cityworks under spill response inspection

Crew Members Involved:

- One or more employees.

Equipment (if applicable):

- N/A

Personal Protective Equipment

- Safety shoes
- Safety vest
- Safety glasses
- Gloves

Equipment Cleanup Procedures:

- All equipment will be washed in the designated wash areas

Forms and Documentation:

- Describe documentation requirements.

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Street Sweeping

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

PURPOSE/DESCRIPTION:

- Sweep streets to protect storm water and to keep the city clean. The street sweepers are also used to assist the Police Department in cleaning up after car accidents

WORK PROCEDURES:

- Sweeper operators are to be trained on the equipment prior to sweeping alone.
- Check out a sweeping map from the supervisor
- Pre-trip inspection of sweeper required before leaving the yard. Walk around vehicle and inspect for damage or any obstruction that might inhibit work and document on Pre-trip Inspection form
- Fuel up before leaving the yard. Fill up water tanks before leaving the yard.
- Sweep all highlighted streets on designated map.
- Plan work so that sweeping is not done on garbage collection days
- All city facility parking lots are to be swept when the corresponding map is checked out
- All sweeping maps as well as an index to determine trash collection schedule are located at the Public Works Operations Facility
- If any E. coli sources are encountered, notify the supervisor. If E. coli sources are human based, ROW crew will be called upon to clean up.
- If any spill/IDDE is encountered by WVC employees, they are to follow the SOP for Spill Response and Containment

CREW MEMBERS INVOLVED:

- One operator per sweeper

EQUIPMENT (IF APPLICABLE):

- Sweeper

PERSONAL PROTECTIVE EQUIPMENT

- Safety shoes
- Safety vest
- Safety glasses for cleanup at the end of the day
- Gloves
- Proper clothing

EQUIPMENT CLEANUP PROCEDURES:

- Dump all solids from the hopper into the sweepings bin to be hauled to the landfill when necessary
- Proceed to the approved washout area at the Public Works Operations Facility and clean the hopper thoroughly, including the internal screens and pick-up tubes
- Wash the outside of the vehicle, inside of debris hopper and pick up head

FORMS AND DOCUMENTATION:

- Work order for this activity is kept in CityWorks

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead or designated trainer will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Tree Trimming

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- Trim trees that overhang the roadway for the safe use of the right of way by the public

WORK PROCEDURES:

- Distribute tree trimming notices to properties with trees that need to be trimmed at least two weeks before performing work.
- Prior to trimming trees in an area, check with the supervisor for residents that opted to trim their own trees.
- Obtain map for the area to be worked in from the Asphalt Supervisor
- Gather all necessary equipment
- Identify branches that need to be cut. 7 feet above sidewalk, 14 feet above roadway (WVC Code 19-3-101)
- Make sure the work area is clear of hazards and pedestrians
- Safely cut the branch and load branch into chipper and clean up debris on the road
- If any spill/IDDE is encountered by WVC employees, they are to follow the SOP for Spill Response and Containment
- Do not wear loose fitting clothing when operating the chipper or trimming trees.

CREW MEMBERS INVOLVED:

- Two or more employees

EQUIPMENT (IF APPLICABLE):

- F-550 forestry truck
- Chipper
- Chain saws
- Hand tools

PERSONAL PROTECTIVE EQUIPMENT

- Hard hat
- Safety glasses
- Safety vest
- Gloves
- Safety shoes
- Hearing protection

EQUIPMENT CLEANUP PROCEDURES:

- Take tree chippings to the landfill
- Put tools away in the shop
- Spray off and wash equipment in the designated wash bay at the Public Works Operations Facility

FORMS AND DOCUMENTATION:

- Work to be recorded in City Works

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Snow Removal

This SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

PURPOSE/DESCRIPTION:

- To remove snow and ice from city streets

WORK PROCEDURES:

- Refer to the Public Works Department Snow Removal Policy
- Work begins with pre-tripping your assigned truck
- The driver of each truck is responsible for checking the condition of the plow blade on their assigned truck at the beginning and end of each shift.
- Daily paperwork to be filled out with name, date, vehicle ICN, starting mileage, salt used, brine used and ending mileage
- Begin snow removal as soon as snow starts to accumulate on roadway, plowing from the center of the road moving the snow to the side ensuring clear access.
- Use the proper amount of salt by setting the spreader gate and controls at the proper setting for the material being used. You can find those settings on the windshield of the plow truck in the top left corner of the driver's side.
- During ongoing snowfall monitor and clear snow as set forth in the Snow Removal Policy.
- The snow shift supervisor will monitor progress and weather forecasts to determine the proper course of action.
- Refer to Public Works Snow Removal Policy
- If any spill/IDDE is encountered by WVC employees, they are to follow the SOP for Spill Response and Containment

CREW MEMBERS INVOLVED:

- Up to twenty-eight employees
- One driver per truck

EQUIPMENT (IF APPLICABLE):

- Plow trucks
- Front end loader
- Road salt
- Salt brine

PERSONAL PROTECTIVE EQUIPMENT

- Gloves
- Proper clothing
- Heavy coat
- Safety boots
- Safety vest if outside vehicle

EQUIPMENT CLEANUP PROCEDURES:

- Shortly after the storm ends (the next regular shift after storm) and clean-up efforts have concluded, equipment is to be cleaned.
- Dump remaining salt from the truck into salt storage area. Scrape any salt that has collected on the truck in areas that dumping won't allow salt to fall off truck. When the truck is scraped clean of salt, take to clean out area at the Public Works Operations Facility and wash the truck with water in cleanout area **including using the undercarriage wash**. When all trucks are cleaned use a front-

end loader to pick up any bulk salt in clean out area put in salt storage bin. Sweep the clean out area and dump in sweepings bin.

Forms and Documentation:

- Daily work recorded in Cityworks by shift supervisor pulled form the driver's daily work form.

ERSOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. This training also takes place yearly in October. A Crew Lead or experienced plow partner will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Road Salt Storage Clean Up

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

PURPOSE/DESCRIPTION:

- To keep the salt storage area clean and to prevent salt from flowing into the storm drain

WORK PROCEDURES:

- During a snow event keep salt inside the salt storage bin as much as possible.
- When loading a truck, any salt that falls off the truck is to be pushed back into salt bin.
- When the snow event is done and when the weather permits, sweep the loading area with a clean sweeper and dump the salt back into the salt bin

CREW MEMBERS INVOLVED:

- Everyone assigned to a snow removal shift and operated a plow.

EQUIPMENT (IF APPLICABLE):

- Front end loader
- Street sweeper

PERSONAL PROTECTIVE EQUIPMENT

- Gloves
- Proper clothing
- Safety vest
- Safety boots

EQUIPMENT CLEANUP PROCEDURES:

- When the snow event is done, clean all salt trucks and loader in designated cleanup area to prevent salt from entering the storm drain

FORMS AND DOCUMENTATION:

- Procedure is not documented

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.
- A refresher training of all SOP's and where they can be found will take place annually at the end of October during the Snow and IDDE training.

Road Salt Stacking

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Stack salt in the storage bay at the Public Works facility to maximize space and keep salt covered to minimize runoff due to rain and snowstorms.

WORK PROCEDURES:

- Using a front-end loader you will need to do the following.
    - Push salt into the salt storage bay.
    - When pushing salt along the edges of the storage bay, be careful not to slide the loader into the walls
    - Build a ramp out of the salt to maximize space.
    - As you build the ramp be sure to compact each pass of the ramp with the loader to eliminate soft spots in the ramp.
    - Push up the ramp at the end of each day to minimize runoff in the event of rain or snow.
    - Once all the salt ordered has been delivered, push the ramp up so that all salt is under the roof of the storage bay.
    - Call the Supervisor for a sweeper to sweep up any residual salt to minimize runoff.

CREW MEMBERS INVOLVED:

- One Operator
    - Operator is responsible for pre-trip and fueling of the loader used
    - Operator is responsible to collect and turn in salt tickets to Street Operations Manager.

EQUIPMENT (IF APPLICABLE):

- Front-end wheel loader

PERSONAL PROTECTIVE EQUIPMENT

- Gloves
- Proper clothing
- Safety vest
- Safety boots

EQUIPMENT CLEANUP PROCEDURES:

- Wash the loader in the wash bay

FORMS AND DOCUMENTATION:

- Fill out daily paperwork tracking personnel hours and equipment hours. Tracked in CityWorks.

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.
- A refresher training of all SOP's and where they can be found will take place annually at the end of October during the Snow and IDDE training.

Asphalt And Concrete Saw Cutting

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- Using a saw to cut asphalt for the purpose of removing and replacing asphalt.

WORK PROCEDURES:

- Cut 3" to 6" depending on asphalt thickness. Core drill asphalt when necessary to determine thickness. Cut asphalt wide enough for compactor roller drums
- Place any safety signs and devices as needed. Refer to traffic control SOP
- Place storm water pollution prevention devices to protect the storm drain inlets and gutters if potential exists for runoff to enter the storm drain.
- Mark the location for saw cutting. Set up the asphalt saw with the appropriate blade according to the asphalt thickness.
- Wet-cut when possible, to eliminate risk of airborne silica dust
- Coordinate with the street sweepers to clean the street.

CREW MEMBERS INVOLVED:

- Two employees – one saw operator, one helper

EQUIPMENT (IF APPLICABLE):

- Truck. Trailer. Generator.
- Saw and blades. Core drill
- Water tank and pump
- Measuring wheel, Marking paint

PERSONAL PROTECTIVE EQUIPMENT

- Hard hat if dealing with overhead dangers
- Proper footwear - Safety boots
- Hearing protection
- Safety glasses
- Gloves
- Safety vest
- If wet cutting is not an option, a NIOSH approved N-95 respirator (which will filter out 95% of the airborne particles) or a P-100 (which will filter out slightly higher amount), shall be used.
- Traffic Control if needed See Traffic Control SOP

EQUIPMENT CLEANUP PROCEDURES:

- Wash all equipment in the equipment wash area

FORMS AND DOCUMENTATION:

- Daily work orders are recorded and stored in CityWorks.

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Remove And Replace Asphalt

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- Replace failed asphalt pavement with hot mix asphalt

WORK PROCEDURES:

- Place safety devices and signs, reference Traffic Control SOP.
- Place storm water pollution prevention devices to protect the inlet boxes and gutters.
- Refer to the Saw Cutting SOP.
- Use the asphalt zipper to mill the area of the road to be repaired, taking care not to damage surrounding surfaces. Or saw cut the area to be repaired and remove asphalt with a backhoe. Clean out the millings using a skid steer or backhoe and load into dump truck for disposal. Inspect the subgrade for stability, if necessary, compact the subgrade.
- Clean the edges of the existing asphalt.
- Apply a tack coat to the cleaned edges of existing asphalt or concrete to promote adhesion between the new and existing surface.
- Place the first course of HMA and compact it with the roller. Using the laydown machine, place the top layer and prepare the edges. Compact the asphalt matte with the roller.
- When any of the equipment is being used all other personnel will stay clear of the equipment while in operation a minimum of three feet from any moving equipment.
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.
- All members of the crew are responsible for participating in all aspects of the work and clean up procedures.

CREW MEMBERS INVOLVED:

- Six to Eight employees: Truck drivers, backhoe operator, ground workers, laydown machine operator, roller operator, flaggers

EQUIPMENT (IF APPLICABLE):

- Dump Trucks
- Crew Truck (F-550)
- Transport Trailer
- Asphalt Paver
- Asphalt Roller
- Loader
- Zipper
- Backhoe
- Tack Wagon
- Hand tools

PERSONAL PROTECTIVE EQUIPMENT

- Safety glasses
- Safety vest
- Gloves
- Safety shoes
- Hearing protection

- Hard Hat

Equipment Cleanup Procedures:

- Clean the laydown machine and any hand tools in the hydrocarbon bin
- Paver needs to be sprayed down with release agent at the end of every day it is used.
- Paver cleaning and maintenance twice a week.
- Lift asphalt table
- Scrape the buildup of asphalt from around the conveyors, tracks, rollers and the plates underneath the conveyor and motors
- Grease all fittings that take grease

Forms and Documentation:

- Daily work order is recorded in City Works.

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.
- A refresher training of all SOP's and where they can be found will take place annually at the end of October during the Snow and IDDE training.

Pothole Patching

SWMP Requirement: **No** If Yes, SWMP Section: N/A

Purpose/Description:

- Patch potholes in the asphalt surfaces using a cold patch or a hot mastic material

Work Procedures:

- Use safety lights on both trucks.
- 1st truck carries pothole mix, 2nd truck follows pulling advanced warning arrow board acting as safety buffer on all roads staying 30 feet behind 1st truck and increasing follow distance as road speed limit increases.
- Reference Traffic Control SOP.
- Clean the pothole to be filled. Sweep out all debris, shovel up and load into truck for disposal then blow out the hole. If the pothole is wet, use a propane torch to dry the hole.
- Pour the material into the hole and level the material.
- Compact the material with a tamper or wheel roll with the truck.
- If using hot mastic, using hot irons level and smooth out material blending into the existing roadway.
- If using hot mastic allow to cool before opening up to traffic.
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.

Crew Members Involved:

- Two employees or more

Equipment (if applicable):

- Two Trucks
- Early warning trailer
- Shovels
- Tamper
- Pothole mix
- Mastic machine

Personal Protective Equipment

- Safety glasses
- Safety vest
- Gloves
- Safety shoes

Equipment Cleanup Procedures:

- Clean the truck and any tools used in the designated wash area at the Public Works Operations Facility
- If using mastic machine, follow the operating procedures lined out in certification sheet.

Forms and Documentation:

- Daily work order is recorded in Cityworks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.
- A refresher training of all SOP's and where they can be found will take place annually at the end of October during the Snow and IDDE training.

Asphalt Pavement Crack Seal Operations

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- Sealing of cracks in asphalt surface to prevent water infiltration prolonging the life of the pavement

WORK PROCEDURES:

- Start the crack seal machine to heat the product to the proper application temperature (385 degrees Fahrenheit) If it's the first operation of the season this is to be done the day before, once up to temperature shut down and plug in material heaters to keep warm.
- Place any traffic safety devices and signs as needed. Refer to Traffic Control SOP
- Start circulating the product
- Use the air/heat lance to clean/dry the cracks before applying the product
- Apply the product to fill the crack but not leave an abundance of material on the surface
- Allow the product to cool enough so it does not pull up on vehicle tires.
- Use a leaf blower to blow a light coating of dust on top of the product before allowing any traffic to travel on the crack seal
- At the end of the day, reverse the product pump and follow the shut-down procedures on the crack seal machine
- Perform any routine cleaning of the machine
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment

CREW MEMBERS INVOLVED:

- Two to operate the air lance or heat lance
- One driver
- Two applicator wands
- One traffic controller / maintain product level
- Two flaggers when necessary

EQUIPMENT (IF APPLICABLE):

- Flatbed truck with compressor, air/heat lance
- Crack seal machine
- Leaf Blower

PERSONAL PROTECTIVE EQUIPMENT

- Safety boots
- Safety vest
- Safety glasses
- Hard hat
- Gloves
- Respiratory protection
- Hearing protection
- Traffic Control

EQUIPMENT CLEANUP PROCEDURES:

- Clean truck in the washout area at the Public Works Operations Facility
- Clean crack seal machine in the hydrocarbon bay using weed burner and scraper.

Forms and Documentation:

- Daily work orders are documented in CityWorks.

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Slurry Sealing Asphalt Pavements

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Resurfacing streets using slurry seal. Slurry seal is a pavement preservation measure used to protect existing asphalt. The city-wide goal is to slurry seal all secondary streets every 6 years

WORK PROCEDURES:

- Place safety devices and signs.
- Pre-sweep streets 24 hours prior to resurfacing. Sweep street again immediately prior to resurfacing.
- Cover manholes, water valves, survey monuments, storm drain drop inlet grates, etc.
- Spray slurry machines, spreader box, and hand tools with release agent in the hydrocarbon bin.
- Load trucks with water, oil, aluminum sulfate and aggregate. The aggregate is to be loaded in a manner that it does not spill out of the truck and the cover will close freely. Trucks are not to be overloaded.
- Assemble spreader box on site. Apply slurry seal with machines/spreader box and hand tools.
- Light clean up of hand tools and spreader box is performed on site. Final clean up done at yard in hydrocarbon bin.
- Remove covers on manholes, etc. Remove road closures.
- Productivity – 18,000-22,000sq yards/day
- In the event of rain, we will protect the down hill storm drain drop inlet grates, using absorbent socks, pads and booms as needed. Also as needed we will spread dry slurry sand with a bobtail and salt spreader over the freshly coated roads to prevent runoff and tracking

CREW MEMBERS INVOLVED:

- Eight to nine employees: 3 truck drivers, 1 slurry box operator, 2 slurry ground operators, 2 traffic control operators, 1 street sweeper operator

EQUIPMENT (IF APPLICABLE):

- Slurry machine,
- spreader box
- barricade truck
- F-550 crew cab
- shovels
- mops
- squeegees
- brooms
- pressure washers
- toolbox.
- Materials – Water, aluminum sulfate, CQS-1H, Type 3 aggregate

PERSONAL PROTECTIVE EQUIPMENT

- Gloves/rubber gloves
- Safety boots
- Protective washout suits
- Safety glasses
- Safety vest

- Ear plugs

Equipment Cleanup Procedures:

- Use the pressure washer to clean the slurry machines, slurry spreader box and all hand tools in the hydrocarbon bin. Haul any contaminated gravel to the land fill, and replace it with new material as needed

Forms and Documentation:

- Daily work to be recorded in City Works

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Concrete Replacement

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

PURPOSE/DESCRIPTION:

- Replace damaged concrete in the public right of way.

WORK PROCEDURES:

- Call Blue Stakes.
- Place safety devices and signs as needed. Refer to Traffic Control SOP.
- Place storm water pollution prevention devices to protect the inlet boxes and gutters as needed.
- Remove concrete and dispose of it at a recycling facility, Bland Recycling for clean concrete, Construction Waste Management for concrete with roots or other debris.
- Grade the ground and use road base when needed then compact the ground.
- Set the forms.
- Pour the concrete, screed, and finish. Remove the forms. Pick up the safety devices, signs, and BMP's. Record the address of the location and what work was completed.
- Protect the curing concrete with cones. Check curing concrete for vandalism and repair any damage from vandalism.
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.
- During cold weather with freezing temperatures the use of concrete blankets is required.
- If concrete needs to be cut, refer to the saw cutting SOP.

CREW MEMBERS INVOLVED:

- One operator
- One truck driver
- Two laborers

EQUIPMENT (IF APPLICABLE):

- Tool truck
- Dump truck
- Backhoe
- Concrete washout trailer

PERSONAL PROTECTIVE EQUIPMENT

- Safety boots
- Safety vest
- Safety glasses
- Hard hat
- Gloves
- Traffic control if needed
- Hearing protection while backhoe or saw is in operation

EQUIPMENT CLEANUP PROCEDURES:

- Straighten and maintain all equipment and vehicles.
- Dump any debris in the sweepings bin
- Wash, when necessary, in the equipment wash-out area at the Public Works Operations Facility
    - Spray down equipment

- The ready-mix company is to wash out in our portable washout bin which is then transferred to the city shops for clean-up.
- Portable wash out bin is to be dumped out in the sweepings bin in the public works yard and then washed out in the public works wash out bay.

Forms and Documentation:

- Daily work orders are saved in the CityWorks database

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.
- Refresher training will be conducted at the end of October with our annual snow and IDDE training.

Sealing Colored Stamped Concrete

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- To preserve colored and stamped concrete.

WORK PROCEDURES:

- Identify the area that needs to be re-sealed.
- Set up any traffic control devices as needed.
- Identify and protect the inlet boxes and gutters with storm water pollution prevention devices.
- Clean the stamped concrete.
    - Refer to the "Sidewalk Cleaning" SOP for further information on the cleaning procedures.
- Once the surface is dry, spray concrete sealer uniformly across the stamped concrete. If wind causes overspray with sealer, schedule work on another day.
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment

CREW MEMBERS INVOLVED:

- One to two employees

EQUIPMENT (IF APPLICABLE):

- F550
- Cure seal
- Applicator
- Traffic control devices
- BMP's

PERSONAL PROTECTIVE EQUIPMENT

- Gloves
- Safety shoes
- Safety glasses
- Hearing protection
- Proper clothing
- Safety vest

Equipment Cleanup Procedures:

- Disassemble the applicator tip and soak it in solvent in the solvent can until the next application of the sealant. The solvent can be kept in the tool bin of the truck

FORMS AND DOCUMENTATION:

- Daily work order recorded in Cityworks

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Sidewalk Cleaning

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

Purpose/Description:

- Maintain clean sidewalks on main roads

Work Procedures:

- Identify the area to be cleaned
- Set up traffic control devices as needed. See Traffic Control SOP.
- Identify and protect the inlet boxes and gutters using storm water pollution prevention devices
- Sweep the heavily affected areas
- Pressure wash when needed
- Clear weeds, volunteer trees and other vegetation from cracks in concrete
- Coordinate with the street sweepers to sweep the area
- If any spill/IDDE is encountered by WVC employees, they are to follow the SOP for Spill Response and Containment

Crew Members Involved:

- One-two employees

Equipment (if applicable):

- F-550
- Leaf blowers, Broom, Shovels, Litter pickers, Garbage bags
- CAT Skid steer with sweeper attachment

Personal Protective Equipment

- Safety glasses
- Safety vest
- Long pants
- Safety shoes
- Hearing protection
- Gloves

Equipment Cleanup Procedures:

- Clean any equipment in the designated wash area at the Public Works Operations Facility
- All debris and garbage are to be disposed of properly

Forms and Documentation:

- Daily work documented in Cityworks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Bridge Inspection

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- To inspect bridges and make recommendations for bridge maintenance.

WORK PROCEDURES:

- Visual Inspection
  - Examine the bridge superstructure, substructure and deck for signs of deterioration, corrosion, or damage.
  - Inspect the condition of the road surface.
  - Inspect the condition of any joints
  - Inspect the condition of the concrete and sidewalk.
  - Inspect any fences and barriers associated with the bridge.
  - Check the drainage pipes for obstructions and debris.
- Notify the supervisor if any condition is encountered causing concern for public safety or immediate structure failure.

CREW MEMBERS INVOLVED:

- Concrete and asphalt maintenance crews

EQUIPMENT (IF APPLICABLE):

- N/A

PERSONAL PROTECTIVE EQUIPMENT

- Safety boots
- Safety vest
- Traffic control if needed. See Traffic Control SOP

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Document the inspection date
- Document any recommended follow-up action in CityWorks Service Request
- Use form for maintenance recommendations

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Mower/Skid Mower

SWMP Requirement: **No** If Yes, SWMP Section: N/A

Purpose/Description:

- Mow the vegetation in the retention/detention basins and along the right of way

Work Procedures:

- If any E. coli sources are encountered, notify the supervisor. If E. coli sources are human based, ROW crew will be called upon to clean up.
- Place the mower deck approximately 6-10 inches off the ground to avoid unknown obstructions.
- Turn the mower blades on.
- Proceed to mow using caution to identify obstructions that could be damaged by the mower.
- Assess the potential to start a fire from sparks
- Postpone work if the weather is hot and windy and fire risk is high
- Schedule the mowing of dry brush areas to be completed on rainy days, if possible, to minimize fire hazard
- If work must be completed in higher fire hazard weather conditions notify the Fire Department of work and coordinate the use of a water truck. Avoid higher fire hazard weather conditions if possible.
- Keep clear of people, shut down mower and wait for them to pass before continuing.
- If any spill/IDDE is encountered by WVC employee, follow the SOP for Spill Response and Containment.

Crew Members Involved:

- One to two employees

Equipment (if applicable):

- CAT Challenger Mower
- CAT Skid steer mower

Personal Protective Equipment

- Safety glasses
- Safety vest
- Safety shoes
- Gloves
- Hearing protection
- Respiratory protection
- Hard hat

Equipment Cleanup Procedures:

- Check and clean air filter daily
- Blow out engine compartment daily
- Grease every 8-10 hours
- Check track adjustment on skid steer every 20 hours
- Wash machine at the end of use in the designated wash area

Forms and Documentation:

- Fill out daily paperwork that is recorded as a daily work order in Cityworks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Right Of Way Cleanup

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- Clean trash and cut the weeds from the City's rights of way

Work Procedures:

- Pick up trash and haul it away. Secure trash and debris in a way that it will not blow out of the truck
- Cut the weeds down trimming anything that the mower can't get to
- String trimmers can easily throw rocks or other items. Operate weed eater in a manner that is mindful of potential projectiles. Avoid throwing rocks in the direction of traffic, or at buildings or vehicles.
- Trim tree's if necessary and haul off cut material. Follow Tree Trimming SOP.
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.

Crew Members Involved:

- One to two operators
- Three to six seasonal ROW workers

Equipment (if applicable):

- F-550
- String trimmers, Leaf blowers, Pole saw, Litter pickers, Garbage bags

Personal Protective Equipment

- Safety glasses
- Safety vest
- Long pants
- Safety shoes
- Hearing protection
- Gloves

Equipment Cleanup Procedures:

- Clean any equipment in the designated wash area at the Public Works Operations Facility
- All debris and garbage are to be disposed of properly in the dumpster

Forms and Documentation:

- Daily work orders are recorded in Cityworks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.
- A refresher training of all SOP's and where they can be found will take place annually at the end of October during the Snow and IDDE training.

Homeless Encampment Clean Up

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

Purpose/Description:

- Clean up garbage and debris left by homeless.
- This SOP is intended for general guidance and may not be suitable for all situations.

Work Procedures:

- Always coordinate cleanup efforts with and under the direction of the Police Department after the campsite has been cleared of people.
- Supervisor or Crew Lead to assess debris type to determine proper PPE and the scope of each cleanup effort.
- Safely pick up garbage and debris and place it in the back of the truck
- Needles to be picked up with handlers and put into BD Sharps container for disposal
- Empty truck into large dumpsters at the PW yard or haul directly to the landfill.
    - It is preferred that debris is taken directly to the landfill and dumped without additional employee contact with the debris.
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.
- Human waste cleanup procedures to be evaluated by supervisor.
    - The Salt Lake Valley Health Department may be engaged.

Crew Members Involved:

- Two or more
- Police Department

Equipment (if applicable):

- F550
- Transport Trailer
- Skid steer loader
- Hand tools

Personal Protective Equipment

- Safety glasses
- Gloves
- Safety shoes
- Hard hat
- Respiratory protection if warranted
- Body protection suit if warranted

Equipment Cleanup Procedures:

- Dispose of all garbage in the dumpster at PW facility or the Salt Lake Valley Landfill
- Put the tools away
- Spray off equipment in the designated wash bay at the Public Works Operations Facility

Forms and Documentation:

- All work orders are to be recorded in City Works

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Weed Control Spraying

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

Purpose/Description:

- Safely use sprayable chemicals to control weed growth

Work Procedures:

- Place herbicide tank in the back of the pickup truck.
- Strap tank down and plug in electrical connector.
- Read chemical labels and mix to manufacturer's instructions.
- Drive to the area that is to be sprayed.
- Check wind direction/speed and make sure wind is not blowing more than 5 mph and spray where the chemical is not being blown back onto self. If wind is blowing more than 5 mph, reschedule work to another day.
- Spray all chemicals according to Utah Herbicide/Pesticide laws and to chemical manufacturer's instructions.
- If any spill/IDDE is encountered by WVC employees, they are to follow the SOP for Spill Response and Containment

Crew Members Involved:

- Two employees, at least one certified for weed spraying in Utah

Equipment (if applicable):

- Pickup truck with spray tank mounted in bed

Personal Protective Equipment

- Safety glasses
- Safety vest
- Rubber gloves
- Proper clothing
    - Long sleeve shirt
    - Long pants

Equipment Cleanup Procedures:

- Use all chemicals out in the field.
- Wash pickup in designated wash area at the Public Works Operations Facility

Forms and Documentation:

- Herbicide application record to be kept by Supervisor and turned in with CEU's every 2 years for license renewal. All application records and CEUs are kept with the supervisor until the time of renewal of pesticide license.
- All work to be recorded in CityWorks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Phragmites Mitigation

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

Purpose/Description:

- Control invasive phragmite growth on wetland properties with City interests.

Work Procedures:

- Prior to work, verify absence of people in phragmite areas. Coordinate with the Police Department if necessary.
- If any E. coli sources are encountered, notify the supervisor. If E. coli sources are human based, ROW crew will be called upon to clean up.
- Unload the amphibious vehicle from trailer. Drive through phragmites smashing all of them flat using the Marsh Master and the roller chopper attachment. (June-July).
- Using Marsh Master and spray rig attachment spray phragmites (July-September). Mow phragmites (October-April). Revegetation (October-April)
- Cut phragmites along edges out of reach from Marsh Master with brush cutters
- Load amphibious vehicle on trailer and secure with proper restraints.

Crew Members Involved:

- Two employees

Equipment (if applicable):

- F-550 Truck.
- Trailer.
- Marsh Master amphibious vehicle
- Brush cutter

Personal Protective Equipment

- Safety boots
- Safety vest
- Safety glasses
- Hearing protection
- US Coast Guard approved flotation device

Equipment Cleanup Procedures:

- Wash equipment in the designated wash area at the Public Works shop

Forms and Documentation:

- Daily work orders are saved in CityWorks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be reviewed and the employee will be reminded where the SOP's can be found.
- Refresher training will be held at the beginning of phragmite season once per year

UTILITY BILLING - SANITATION

Utility Billing – Cash Drawer Management

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- To ensure the protection of City funds and City employees working with cash and to ensure accurate, secure, and efficient handling of cash transactions by utility billing clerks.

WORK PROCEDURES:

- Each clerk may be assigned a cashbox with a set amount of money and is responsible for money in the cashbox.
- *Remove the cashbox from the safe:* Count your cash to make sure you have the correct amount of cash. If the count is different, count again with another clerk serving as a witness.
    - *Count cash in the drawer at the beginning of the day, before lunch, and before leaving for the day.*
- *Cash drawer*: Money from the cashbox is placed in the tray of the cash drawer.
- *Payment Transaction form*: This form is used for all customers that come in without their bill's payment coupon. If the customer doesn't have their payment coupon fill out a payment transaction form. *Multiple transactions for the same account may be made with one form – note applicable payment sources and amounts. However, when customer is paying on multiple accounts, fill out one transaction form for each account (this is used for scanning and indexing in OnBase).* The following is written on all coupons or transaction forms:
    - Name
    - Address
    - Account Number
    - Phone number.
    - Amount of money received.
    - Method of payment
    - Check number (if applicable)
    - Change amount given (if applicable)
- *Receipt Payment software*: Xpress Bill Pay Receipt Payment software is used to link payment to the correct customer account.
- *Returning Change to Customer*: Change is always counted back to the customer, beginning with the amount the customer spent, and then counting up to the amount of the bill(s) paid with. Care is taken to make sure that the bills and coins returned are the correct amount of change.
- *Till Report:* Print your daily Till Report
- *Counting Assigned Cash:* At the end of a clerk's workday, a different clerk will count the cash - while the clerk the cash is assigned to observes. If a clerk would like to count the cash in their cash drawer alone during the workday they may do so as many times as they choose but will always be counted by another clerk at the end of the day.
- Shortages and overages must be reported to the supervisor.
- *Balance Till with Spreadsheet:* Use the Till Report to fill out the spreadsheet to double check cash balance.

- *Bundling of transactions and payments for the day*: Take the till report and attach it to the cash and checks: then place it in the red envelope inside the safe. This will be used to generate bank deposit.
- *Money is put into the cashbox.* The cashbox is put into the safe before leaving for the day.

Crew Members Involved:

- Utility Billing Clerks

Equipment (if applicable):

- Cash drawer
- Software till report
- Coin sort tray
- Fingertip moistener or grips

Personal Protective Equipment: N/A
Equipment Cleanup Procedures: N/A
Forms and Documentation: N/A
SOP Implementation and Training Plan:

- These procedures are the normal course of daily work for Utility Billing Clerks.
- Monthly throughout the year, training is held about working with the public; handling cash; using software; software methodology; WVC Public Works services; creation of service requests and work orders; etc. This training occurs through group, one on one and webcast meetings. This SOP is also used for the orientation of new employees.

Utility Billing - Communication With the Public

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- The purpose of this SOP is to set expectations for how Utility Billing and Sanitation employees communicate with the public

WORK PROCEDURES:

- *General Services Provided by Public Works Dept and the City*. Utility Billing acts as a call center. Because of this it is important to learn where to direct callers and visitors to get the information that they are seeking – particularly information related to the Public Works Department.
- *Sanitation Service Education*: Answer customers' questions about how the service works, and where they can find additional information on the City's Sanitation Webpage, such as: collection days, what is recyclable, how to use bulky waste services, etc. Share the phone number (801-963-3334) and let them know that they can call with questions Monday – Thursday between the hours of 7:00 am and 6:00 pm. All this information and more is available on our handout information cards.
- *Removal of cans*. Employees are to only remove cans when they are in the street – employees are not authorized to go onto private property without permission of property owner.
- *Recycling education and infraction enforcement.* Employees fill out the "Oops tag" and leave it attached to the can and if warrants have been met, leave a warning letter.
- *Bulky waste education and rule enforcement*. Employees answer questions and leave copies of the Bulky Waste flyer if applicable. The Sanitation Contractor leaves tags listing material that isn't acceptable.
- *Interactions with the public in hostile or peculiar situations*. Employees are required to back away and if applicable call the Police Department for assistance. This includes scavengers, illegal activities, or other usual things or individuals found in a dumpster.
- *Ordinance Violations*. When these are found, the employee will report, take pictures and discuss options with supervisor. Send the issue to the appropriate City department.

CREW MEMBERS INVOLVED:

- Sanitation technician(s)
- Sanitation coordinator
- Utility billing clerks

EQUIPMENT (IF APPLICABLE): N/A

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION: N/A

SOP IMPLEMENTATION AND TRAINING PLAN:

- These procedures are the normal course of interactions with the public in person, by phone, by digital communication, or written word.
- Periodically throughout the year, trainings are held such as: one on one discussions, group meetings, webcast presentations, etc. Staff training also includes interpersonal communication skills, information about services provided by the City and other agencies. Division's SharePoint pages serve as a resource with information and links to help answer questions. This SOP is also used for the orientation of new employees.

Sanitation - Handling Cans At Chemically Condemned Home

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- Define the manner of safely handling potentially contaminated cans from a home declared chemically condemned by the Board of Health.

WORK PROCEDURES:

- Take action after direction from the Police Department and the Health Department.
- The technician puts on protective gloves and a body protection suit.
- The can's lid is taped shut with duct tape.
- Technician rolls the can(s) to lift gate of the sanitation truck. Using the lift gate, can(s) are lifted into back of truck and secured so can(s) won't tip over.
- Garbage can is placed inside a large plastic bag.
- Write Can ID number on the work order.
- The truck is backed up to a dumpster in the Public Works yard and the sealed can is pushed into the dumpster.
- Work order is turned into Utility Billing office where the can(s) are retired from inventory.

CREW MEMBERS INVOLVED:

- Sanitation technician.

EQUIPMENT (IF APPLICABLE):

- Truck's lift gate

PERSONAL PROTECTIVE EQUIPMENT

- Latex or vinyl gloves
- Body protection suit
- Protective eyewear
- Boots

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Cityworks work order

SOP IMPLEMENTATION AND TRAINING PLAN:

- This procedure is used in response to a home that has been declared chemically condemned by the Salt Lake County Board of Health.
- This SOP is reviewed in Sanitation Division's annual "Stormwater and Safety meeting". This SOP is also used for the orientation of new employees.

Sanitation - Handling of Garbage Cans

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- Movement and handling of sanitation cans

WORK PROCEDURES:

- **Unloading cans from manufacturer's delivery**. This involves movement of stacked cans with a forklift and movement of stacks of cans by hand. The forklift is used to place stacks of cans as close as possible in the storage area. Stacks are then pushed by hand to secure the can stacks as close to each other as possible.
- ***Delivery, and pick up sanitation cans* around the city**. Load and unload cans into a delivery truck using the liftgate.
- ***Assembly and repairing of sanitation cans***. This involves using tools to remove parts, affixing new parts, laying down of cans, and picking up cans. When laying down a stack of cans, employee will make sure no one or anything is in the path of the stack to be laid down. Stack is then tipped by hand and allowed to fall to the ground, after which the cans are pulled apart from each other by hand or using a spreader tool.
- ***Salvage processing and loading of cans for recycling.*** This involves unloading damaged cans from a delivery truck and moving them to salvage locations. Useful parts are removed and stored in an organized manner. Parts that cannot be salvaged are loaded in a dumpster for recycling.
- ***Washing sanitation cans***. See "Washing Dirty Sanitation Cans"
- ***Cans around the Public Works Yard***. The cans that are at the gas pumps and outside of buildings need to be exchanged when full with an empty garbage can, and the full cans placed in designated location for Sanitation Contractor to empty.
- ***Moving cans so that they can be emptied by Sanitation Contractor***. This involves unloading often heavy cans from a delivery truck, pulling the cans into a line where they can be emptied by Sanitation Contractor.

CREW MEMBERS INVOLVED:

- Sanitation technician

EQUIPMENT (IF APPLICABLE):

- Use of power and hand tools, such as: drill, hammers of various sizes, reciprocating saw, can spreader, etc.
- Forklift
- Pallet jack
- Truck mounted liftgate

PERSONAL PROTECTIVE EQUIPMENT

- Reflective clothing
- Gloves
- Boots
- Safety glasses
- Use of proper lifting techniques

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Cityworks Work Order Database

SOP Implementation and Training Plan:

- These procedures are the normal course of sanitation daily work.
- Employees maintain a current Operations Forklift Certification (lasts 3 years).
- This SOP is reviewed in Sanitation Division's annual "Stormwater and Safety meeting". Throughout the year, the employees practice moving cans with the forklift to maintain competency to unload stacks of cans from the delivery trailer. This SOP is also used for the orientation of new employees.

Sanitation - Neighborhood Dumpsters

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- Define procedures associated with the Neighborhood Clean Up Program.

WORK PROCEDURES:

- Dumpster Scheduling. The Neighborhood Clean Up Program is scheduled by residents – each dumpster area is only eligible once per year. An employee takes calls and administers the scheduling, explaining of program details, creation of documents needed for citizen notification of when dumpsters will be on-site, creation of documents for Sanitation Contractor scheduling, creation of work orders, and closing of work orders. The employee also coordinates communication with other city entities such as PW Operations or PW Engineering.
- Dumpster Placement. An employee decides the appropriate and safest location for dumpster placement.
- Coordination with Sanitation Contractor for services. An employee maintains a good working relationship with Sanitation Contractor answering questions and coordinating needed work responses.
- Reports violations, misuse, and problems associated with the public making use of the dumpsters.
- Maintaining the dumpster site. An Employee will clean up small amounts of debris. The employee will make arrangements for the cleanup of larger amounts of debris.

CREW MEMBERS INVOLVED:

- Sanitation technicians or supervisor

EQUIPMENT (IF APPLICABLE):

- Dumpster
- Flashing lights on vehicles
- Broom and dustpan
- Floor dry absorbent

PERSONAL PROTECTIVE EQUIPMENT

- Proper clothing
- Safety vest
- Safety glasses
- Boots
- Gloves

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Work order created and updated in Cityworks Database

SOP IMPLEMENTATION AND TRAINING PLAN:

- This SOP is reviewed in Sanitation Division's annual "Stormwater and Safety meeting".
- Annually, the sanitation supervisor holds training with the clerks to refresh knowledge of program particulars and answer questions.
- As the program progresses during the year, we discuss how the program is performing and keep notes on changes to make for the following year. We also accumulate a record of light dumpster loads. At the end of the program year, we assess notes kept and light dumpster loads. Then we

update dumpster quantities per area and change area boundaries as warranted. This SOP is also used for the orientation of new employees.

Sanitation - Spills

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.3.5**

PURPOSE/DESCRIPTION:

- Handling of spills associated with the sanitation program

WORK PROCEDURES:

- Hydraulic leaks from sanitation contractor trucks.
    - For small leaks, an employee will apply floor dry then sweep up the floor dry after it has absorbed the fluid.
    - For large spills, the employee will apply floor dry from their truck, then notify the sanitation contractor of the spill – who will come and apply absorbent material, then sweep up and remove material. An employee will follow up to verify that contractor satisfactorily cleaned up the spill. If there is concern that the spill will get into the storm drain system either by flow or during clean up, access to the storm drain system will be blocked and Engineering's representative will be contacted. The Engineering Division's Illicit Discharge SOP will be followed.
- Unknown liquid leaking from dumpsters. In these instances, an employee will apply floor dry then sweep up the floor dry after it has absorbed the fluid. If there is concern that the spill will get into the storm drain system either by flow or during clean up, the Sanitation crewman uses what they have on-site to block the spill from storm drain system. If additional help or material is needed to protect storm drain system, the Stormwater Supervisor will be contacted to help block access to the storm drain system. The Engineering Stormwater Inspector will be contacted to inspect and document according to the Engineering Illicit Discharge SOP.
- Broken glass around dumpsters. This is swept up manually with a broom and dustpan. Street Operations is asked to send a sweeper truck if the mess gets too large to be cleaned up effectively with a broom.

CREW MEMBERS INVOLVED:

- Sanitation Technician(s)

EQUIPMENT (IF APPLICABLE):

- Traffic cones
- Flashing lights on vehicles
- Broom and dustpan
- Floor dry absorbent

PERSONAL PROTECTIVE EQUIPMENT

- Gloves
- Reflective coat
- Safety glasses
- Boots

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Small spills ae not documented.
- Larger spills will be documented as Engineering SOP dictates.

SOP Implementation and Training Plan:

- This SOP is reviewed in Sanitation Division's annual "Stormwater and Safety meeting".
- As spills occur during the year, we randomly discuss the spill events and assess our SOP's process thoroughness. This SOP is also used for the orientation of new employees.

Sanitation - Washing Dirty Garbage Cans

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.4**

PURPOSE/DESCRIPTION:

- Clean used garbage and recycle cans to make them suitable for distribution to customers

WORK PROCEDURES:

- Cans that need to be washed are loaded onto the sanitation delivery truck and transported to washout bays in the Public Works yard.
- Spray can with soap solution
- Place can on the Cart Blaster and run for an appropriate amount of time.
- Use power washer to spray away debris on the outside of the cans while the Cart Blaster runs.
- The water in the washout bays drain to the sanitary sewer system.

CREW MEMBERS INVOLVED:

- Sanitation technician

EQUIPMENT (IF APPLICABLE):

- Power washer
- Cart Blaster

PERSONAL PROTECTIVE EQUIPMENT

- Waterproof slicker
- Face shield
- Gloves
- Boots
- Protective body suit if desired

EQUIPMENT CLEANUP PROCEDURES:

- Spray down Cart Blaster with power washer.

FORMS AND DOCUMENTATION:

- Cityworks "San Service" work order created to log time spent washing cans.

SOP IMPLEMENTATION AND TRAINING PLAN:

- These procedures are intermittently a normal course of sanitation ongoing daily work.
- Staff meet randomly throughout the year to discuss the cleaning process, equipment, cleaner solution performance, and assess our SOP's process thoroughness to evaluate need(s). This SOP is also used for the orientation of new employees.

Sanitation - Handicap Curbside Assistance Program

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- The Curbside Assistance Program is provided by WVC's Sanitation Services contractor. The program provides special assistance to customers with applicable needs to have their garbage and recycling can(s) brought out curb, emptied, and returned to customer's can storage space.

WORK PROCEDURES:

- Cityworks "**Field Check**" workorder is created.
- An inspection is made to see if the customer still warrants the service. This is conducted once each year. When conducting the seasonal inspections, enter the hours spent in the "education" custom field of the workorder.
- For new customers, a discussion is had with the customer to see if they merit the service.
    - Yes - stickers are applied to can(s). Then enter notes including the following information in the comments section of the workorder and turn the workorder in to Utility Billing Clerks.
        Name
        phone number
        email address (if applicable)
    - No – we politely tell them they will have to take their cans to the curb themselves or by those that live in the home.

CREW MEMBERS INVOLVED:

- Sanitation Technician

EQUIPMENT (IF APPLICABLE):

- City Vehicle

PERSONAL PROTECTIVE EQUIPMENT

- n/a.

EQUIPMENT CLEANUP PROCEDURES:

- n/a.

FORMS AND DOCUMENTATION:

- Cityworks "Field Check" workorder created to track time and work done.

SOP IMPLEMENTATION AND TRAINING PLAN:

- This SOP is also used for the orientation of new employees.
- These procedures are intermittently taught through the normal course of sanitation ongoing daily work.
- Staff coordinates as needed to meet needs of program.

Sanitation - Recycling Inspections

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

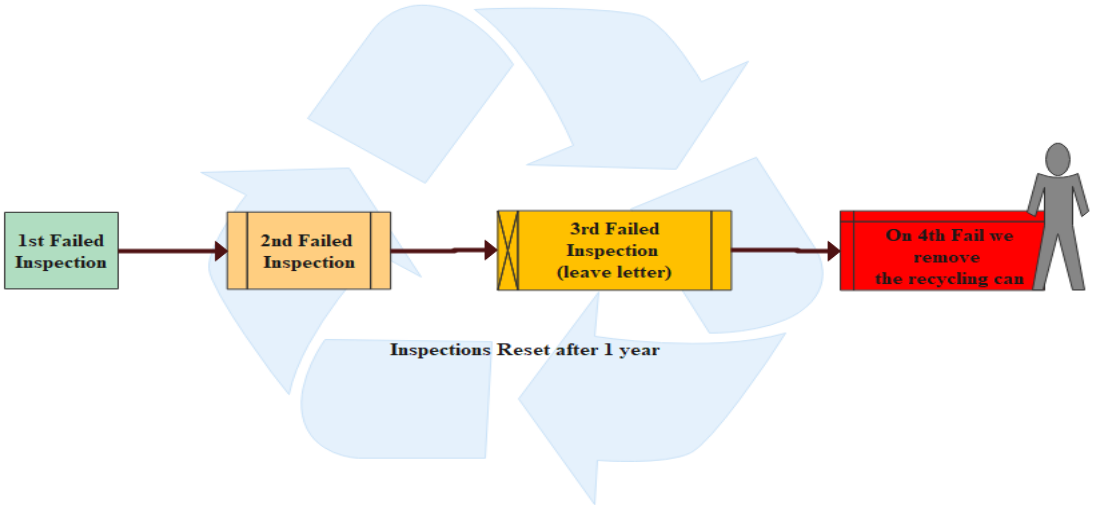
- To describe the process for recycling can inspections to improve the recyclability of materials in the recycling program.

WORK PROCEDURES:

- Curbside recycling pickup service is provided every other week for all residential customers. The schedule is available on the City's "Recycling Service" webpage – see Garbage Collection Schedule. There is also a combined schedule and calendar sheet that can be downloaded from the same webpage. This is updated yearly.
- For cans that don't have the correct type of recycling materials there is an inspection placard that is filled out and attached to the recycling can.
- Cans that fail the recycling material inspection are turned backwards, removed from the street, and have an inspection placard attached. They aren't emptied until they are compliant with recycling rules – see below.

- Cans can only be inspected before the contractor empties the can. Pickup routes are mapped. See your supervisor (routes subject to change at contractor's discretion).

- Inspections are logged into Cityworks Mobile. The inspection is tied to the WVCans GIS feature class and an inspection table. See your supervisor for training on using this application.
- By analyzing the WVCans feature class in Cityworks Mobile you can see how failed inspections have occurred at any location. We follow the progression show below. Namely: 1st and 2nd inspections we just placard the can and pull the can away from the street. 3rd inspection we attach the placard and form letter. 4th inspection we leave a letter that we have taken the can and then take the recycling can back to the Public Works yard – we also create a San-Service workorder and state that we have taken the can (s) including the can(s) ID numbers.



- There will be times when we will not have changed the ownership information in time to reflect new property owners. When there are questions about whether there have been sufficient failed inspections, contact Utility Billing. This is the case regarding rental property also – if there are new tenants at a home, we can reset the failed inspection count.
- Returning **Recycling Cans To Property**
    - Recycling cans are returned by San-Service workorder after one of two requirements have been met.
        - A new property owner or tenant.
        - The supervisor has given approval. This happens after the supervisor has spoken with property owner.

Crew Members Involved:

- Sanitation technician

Equipment (if applicable):

- Can truck with lift gate

Personal Protective Equipment

- Gloves
- Work boots
- Proper clothing

Equipment Cleanup Procedures:

- Truck

Forms and Documentation:

- Cityworks "San Service" workorder created for cans that are removed.

SOP Implementation and Training Plan:

- This SOP is also used for the orientation of new employees.
- In-depth training in what is recyclable and how to use the software and hardware used are held as needed.
- These procedures are intermittently taught through the normal course of sanitation ongoing daily work.
- Staff coordinates as needed to meet needs of program.

Sanitation - Work Order - (San-Service)

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- This workorder is used to repair, replace, deliver, and remove cans. Along with these tasks every workorder is also an inspection – we log all can ids on site that are readily seen.

Work Procedures:

- Utility Billing Clerks create San-Service workorders to address sanitation customer needs.
- Printed workorder are sorted by day and available for pickup in the Utility Billing office. Saved Searches have also been created to all the workorders to be found in Cityworks Mobile.
- Experience has shown that it is easiest to sort workorders into a route order by sorting the paper workorder copy.
- In addition to the work called out on the workorder, is the inventory. There are lines on the printed work order to write down can id's found at the address.
- After the workorders are completed, either in the field or in the office, the Sanitation Technician enters notes related to work performed into the comments sections of the workorder. This includes in a separate comment, the can id's found on site.
- Collected dirty cans are place in Public Works yard for emptying by contractor, in area to be washed, or in area to be broken down for recycling.
- Additional **Procedures for Broken Cans**
- Cans that are still under warranty we want to be able to submit claim for replacement or replacement parts. As of (12/26/2024) all Toter cans that begin with "TG******" are under warranty.
    - Take a picture of the can showing the CanID ("TG******").
    - Take a picture of the can showing the damage, this includes broken parts.
    - If one picture can show both CanID and the damage that is fine.
    - Pictures for other types of cans are not required currently.
    - Upload the picture(s) to OneDrive (see supervisor for path).
        - Rename picture names to include the CanID.
    - Itemize what is damaged on the paper work order by checking the appropriate check box(s) and noting the CanID.

Crew Members Involved:

- Sanitation Technician

Equipment (if applicable):

- Can Truck

Personal Protective Equipment

- Gloves
- Boots
- Hi-Vis Reflective vest or coat

Equipment Cleanup Procedures:

- Cleaning and organizing of the can truck.

Forms and Documentation:

- Cityworks "San Service" workorder.
- Sanitation SharePoint page holds additional information

SOP Implementation and Training Plan:

- This SOP is also used for orientation of new employees.
- These procedures are intermittently taught through the normal course of sanitation ongoing daily work.
- Staff coordinates as needed to meet needs of program.

Sanitation - Work Order – (Bulky Waste Incident)

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- Respond to Bulky Waster incidents that need someone to investigate. Often education is needed. This is conducted through conversations and placards.

Work Procedures:

- Piles of Bulky Waste are inspected for compliance with declared rules and standards. Placard if filled out and secured to Bulky Waste pile.
- See Bulky Waste website for details of what is acceptable.

Crew Members Involved:

- Sanitation Technician

Equipment (if applicable):

- Vehicle

Personal Protective Equipment

- Gloves
- Boots

Equipment Cleanup Procedures:

- n/a.

Forms and Documentation:

- Cityworks "Bulky Waste Incident" workorder.

SOP Implementation and Training Plan:

- This SOP is also used for orientation of new employees.
- These procedures are intermittently taught through the normal course of sanitation ongoing daily work.
- Staff coordinates as needed to meet needs of program.

Sanitation - Work Order - (Field Check)

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- Field Check workorders are primarily used to answer questions that Utility Billing has.

Work Procedures:

- Go to the location called out on the workorder and answer the question(s) asked. Then write down all can'ids seen in Cityworks comments field.
- Return paper workorder to Utility Billing

Crew Members Involved:

- Sanitation Technician

Equipment (if applicable):

- Vehicle

Personal Protective Equipment

- n/a.

Equipment Cleanup Procedures:

- n/a.

Forms and Documentation:

- Cityworks "Field Check" workorder

SOP Implementation and Training Plan:

- This SOP is also used for the orientation of new employees.
- These procedures are intermittently taught through the normal course of sanitation ongoing daily work.
- Staff coordinates as needed to meet needs of program.

TRANSPORTATION & UTILITY OPERATIONS

Transportation - Install Sign

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- Install street signs

Work Procedures:

- Determine the location for the sign. Refer to current MUTCD for guidance and consult with the City Traffic Engineer for clarification
- Call in a blue stakes request
- Hold the anchor where you want the sign and hammer it in enough to hold it in place
- Put the pounder on the adapter and start it on the truck
- Lift the pounder on to the anchor and start pounding it in to about 6-8 inches from level ground
- Put the pounder away in the truck
- Get the sign post out and lean from the ground to the tail gate and set a sign on the post. Get two rivets to put through the holes in the sign and the post. Hammer the rivet in place
- Carry sign assembly to the anchor, slide it in, put rivet through the anchor and the post or use a corner bolt to secure post to anchor. Refer to current MUTCD for guidance on minimum height to bottom of sign.

Crew Members Involved:

- One or two transportation technicians

Equipment (if applicable):

- Truck
- Anchor pounder
- Anchor remover

Personal Protective Equipment

- Safety glasses
- Safety shoes
- Safety vest
- Gloves
- Ear plugs

Equipment Cleanup Procedures:

- Clean up any rivets or other items left over
- Always leave the area and equipment clean

Forms and Documentation:

- Document work order in CityWorks database

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Transportation - Sign Inspection

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- Inspect sign for retro-reflectivity
- All stop/yield signs are inspected annually for retro-reflectivity and visual condition

Work Procedures:

- Document the sign ID number
- Visual: check for graffiti, stickers and vandalism that is obscene or obstructs the sign legend, replace if obscene or obstructed.
- Straiten support if leaning or twisted
- Check for visual obstruction caused by trees and trim if necessary
- Use the retro-reflectometer to measure and document the retro-reflectivity of the background and the legend
    - Background fails:
        - Red, less than 7
        - White, less than 50
        - Yellow, less than 75
    - Legend fails:
        - White, less than 120

Crew Members Involved:

- One or two technicians

Equipment (if applicable):

- Truck
- Retro-reflectometer extension pole
- Retro-reflectometer

Personal Protective Equipment

- Safety Vest
- Gloves

Equipment Cleanup Procedures:

- Make sure the retro reflectometer is put away in its protective case and at the shop the battery is charged

Forms and Documentation:

- Record inspection and work order in CityWorks database

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Transportation - Pavement Marking

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- Apply pavement markings (not including longline striping)

Work Procedures:

- Set up traffic control needed to provide a safe work environment. See Street Operations Traffic Control SOP
- Lay down template
- Apply paint and glass beads on template
- Remove template
- Allow appropriate time to dry per manufacturer's recommendations
- Remove traffic control
- Spill Cleanup
    - If a spill occurs, stop paint from continuing to spill
    - Prevent spill from entering storm drain
    - Apply absorbents as appropriate
    - Apply water necessary to cleanup any paint residue and remove with absorbents

Crew Members Involved:

- Three to five technicians

Equipment (if applicable):

- Paint truck
- Marking templates

Personal Protective Equipment

- Safety Glasses
- Safety Shoes
- Safety vest
- Gloves

Equipment Cleanup Procedures:

- Allow paint residue to dry on templates, remove and dispose of residue per manufacturer's recommendations
- Clean sprayers and other equipment per manufacturer's recommendations

Forms and Documentation:

- Record work in CityWorks
- Spill response incident report (if applicable)

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Transportation - Traffic Study

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- Use of radar or pneumatic tube traffic data collectors for traffic studies

Work Procedures:

- For radar counters:
  - Pick a good location without trees and other obstacles blocking the direction of the radar counter
  - Using large hose clamps, fasten the bracket to the light pole
  - Fasten the counter on the bracket and program according to the manual
  - Let it count for a week checking on it periodically then bring it to the office and download the data
- For pneumatic tube counters:
  - Pick a spot for the setup
  - Put 2 tubes across the road and fasten them 24" apart and on the first side of the road pull the tubes tight and fasten them 24" apart and then tape the middle of the tubes at 24" apart
  - Attach the ends of the tubes to the counter and setup the counter as directed in the manual
  - Stack the unused ends of the tubes neatly onto the ground and then chain the counter to a pole

Crew Members Involved:

- One to two Transportation Technicians

Equipment (if applicable):

- Radar data collector
- Pneumatic tube data collector
- Laptop computer with data collection software and cables

Personal Protective Equipment

- Safety glasses
- Safety shoes
- Safety vest

Equipment Cleanup Procedures: N/A

Forms and Documentation:

- Download the results onto the computer
- Record work in CityWorks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Street Light - Bucket Truck Operation

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- Basic safety operation of the bucket truck

Work Procedures:

- Park the bucket truck so you can easily reach the object you're booming up to work on
- Set the park brake and engage the PTO
- Place cones around the truck
- Lower the stabilizers and use the jack pads if needed
- Engage the boom from the rear bumper
- Put the harness and hard hat on
- Get in the bucket and evaluate your surroundings for any hazards
- Make sure your boom is not extending out in traffic and is not a hazard for cars, buses or semi-trucks

Crew Members Involved:

- One or two crew members

Equipment (if applicable):

- N/A

Personal Protective Equipment

- Safety harness
- Hard hat
- Safety glasses
- Gloves
- Hot gloves
- Safety vest
- Face shield

Equipment Cleanup Procedures:

- Clean out the bed daily, remove any dirt or trash
- Wash the truck regularly, inside and out. Keep the windows clean
- Keep the tool and material bins clean and organized

Forms and Documentation:

- N/A

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Street Light - Remove And Replace Knockdown

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

Purpose/Description:

- Remove and replace damaged or knocked down street light assemblies

Work Procedures:

- Arrive onsite, place cones around the bucket truck
- Take pictures of the blue stake markings
- Choose a spot for the new junction box to be installed
- Throw all your dirt and sod on a tarp
- Dig around and remove the old pole, dig a hole for the new junction box, usually between the pole and sidewalk. Install the new pole and junction box, backfill and compact around both.
- Pull wire up the pole, make up the junction box, set the fixture and wire it up, install the lamp and photocell. Make sure it is working and adjusted properly.
- Clean up all the leftover dirt, return the work site to its original condition.

Crew Members Involved:

- Two or more technicians

Equipment (if applicable):

- Bucket Truck

Personal Protective Equipment

- Safety glasses
- Safety shoes
- Safety vest
- Safety harness
- Gloves/Hot gloves

Equipment Cleanup Procedures: N/A

Forms and Documentation:

- Record in CityWorks database

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Street Light - Repair Overhead Wire

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Repair damaged or fallen overhead street light wire

WORK PROCEDURES:

- Arrive on site and place cones around your truck
- Assess the problem, are wires arching or are they just corroded and separated, or is the wire on the ground and still hot
- If the wire is arcing RMP needs to be called to deenergize the power
- If the wire is reachable, we will need to splice the wire with a splice kit, if we cannot reach it, we need to contact RMP to repair or replace the wire if it goes to a backyard.
- If the wire is on the ground and goes to a backyard, we need to tape up the hot end and secure the wire out of reach of the public and then contact RMP
- If the wire is on the ground and between streetlight poles that are ours (not on a power pole with primary power wires on the pole) we need to deenergize the wire and replace it with new span wire
- If the wire was damaged by tree branches, the tree needs to be trimmed to prevent future damage

CREW MEMBERS INVOLVED:

- One or two technicians

EQUIPMENT (IF APPLICABLE):

- Bucket truck

PERSONAL PROTECTIVE EQUIPMENT

- Safety Glasses
- Safety Shoes
- Safety Vest
- Hot Gloves/Gloves
- Safety Harness
- Hard Hat

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Record work order in Cityworks database

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Street Light - Repair Underground Wire

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- Locate and repair damaged underground street light wire

WORK PROCEDURES:

- Arrive onsite and place cones around the bucket truck
- Get permission from the homeowner/owners to enter the backyard to locate the fault.
- Install a point of disconnect when possible.
- Go up to the fixture and connect the locator to the wires in the fixture, go down and blue stake the wires in the ground, go back up to the fixture and connect the fault locator to the wires, go back down and locate fault in the ground. Go back up and turn off the power to the locator and disconnect the wires.
- Place a tarp down and dig up the faulty wires, repair the wires with a splice kit, reconnect the wires in the fixture and the point of disconnect and verify that the light is working, if it isn't start, the process over and see if there is another fault. If you find multiple faults or a fault under a driveway or RV pad the wire may need to be bored by a contractor.

CREW MEMBERS INVOLVED:

- One or two technicians

EQUIPMENT (IF APPLICABLE):

- Locator
- Hand tools

PERSONAL PROTECTIVE EQUIPMENT

- Safety glasses
- Safety shoes
- Safety vest
- Gloves and or Hot gloves
- Safety harness

EQUIPMENT CLEANUP PROCEDURES:

- Restore disturbed ground to as close to pre disturbance conditions as possible

FORMS AND DOCUMENTATION:

- Record work order in Cityworks database

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Street Light - Inspection

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- Inspection of new street light installations

WORK PROCEDURES:

- Inspect the underground, streetlight pole and fixture, junction boxes, bases and power pedestal to make sure they comply with West Valley City standards and the current NEC electrical code

CREW MEMBERS INVOLVED:

- Street Light Maintenance Supervisor or Street Light Technician III

EQUIPMENT (IF APPLICABLE): N/A

PERSONAL PROTECTIVE EQUIPMENT

- Safety vest
- Safety shoes

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Record work order in Cityworks database.

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Street Light - Tree Trimming From Overhead Power

SWMP Requirement: **No** If Yes, SWMP Section: N/A

PURPOSE/DESCRIPTION:

- Trim tree branches that are or may damage overhead power for street lights.

WORK PROCEDURES:

- Place cones around your truck when arriving on site
- Make sure the area below where you are trimming is clear from people, cars and anything that might be damaged by a falling branch
- Trim trees with caution as to not damage the overhead power wires

CREW MEMBERS INVOLVED:

- One or two technicians

EQUIPMENT (IF APPLICABLE):

- Bucket truck
- Ladder
- Sawzall or extendable chainsaw
- Limb shears

PERSONAL PROTECTIVE EQUIPMENT

- Safety glasses
- Safety shoes
- Safety vest
- Ear plugs
- Gloves
- Safety harness

EQUIPMENT CLEANUP PROCEDURES:

- Remove debris and dispose of it in dumpster or sweeping bin.

FORMS AND DOCUMENTATION:

- Record work order in CityWorks Database

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Site Inspections On High Priority Facilities - Semi-annual comprehensive inspection; annual visual observation

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.5.2 and 4.2.6.5.3**

Purpose/Description:

- Comprehensive visual inspection for high-priority city owned facilities semi-annually, and annual visual observation during the first thirty minutes of a storm event

Work Procedures:

- Semi-annual comprehensive visual inspection: Walk through the entire outside maintenance areas and look for any evidence of the following:
    - Any oil/contaminants present on the ground from the equipment.
    - Trash/debris around site that should be swept up. Close all garbage container lids.
    - Drainage swale free of debris
    - Floatables/silt in the catch basins
    - Sweepings pile needing to be pushed up in sweepings containment bin
    - Salt in need of being pushed up in salt containment bins
    - Floor dry bins needing absorbent by the fuel pumps
    - Brine containment has water present; if present take a pH test and observe if any other contaminates are present before making a log event on City works and draining bin. Vactor can be used to remove water from containment bin and disposed of in washout area (which drains to sanitary sewer) without testing pH in water
    - If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.
- Annual Visual Observation
    - Visually observe the quality of the storm water discharge from site during the first half hour of a measurable storm. Will document color, floatables, smells, contaminant sheen (if present). If contaminants are found, identify source of contaminant and cease discharge.

Crew Members Involved:

- One employee

Equipment (if applicable): N/A

Personal Protective Equipment

- Safety boots

Equipment Cleanup Procedures:

- If any equipment is used it will be washed in the designated equipment wash area

Forms and Documentation:

- All inspection records are saved in the CityWorks database.

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Monthly Inspection Of High Priority Facility

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.5.1**

PURPOSE/DESCRIPTION:

- Provide comprehensive visual inspection for high-priority city owned facilities. Record monthly the observations made, with full UPDES report done annually.

WORK PROCEDURES:

- Walk the entire outside maintenance areas looking for
    - Any oil contaminants present on the ground from equipment
    - Trash/debris around site that should be swept up
    - Drainage swell is free of debris
    - Floatables/silt in the catch basins
    - Sweepings pile needing to be pushed up or hauled to the landfill
    - Salt in need of being pushed up into the salt containment bin
    - Floor dry bins needing absorbent by the fuel station
- If brine containment has water present; take a PH test and observe if any other contaminants are present before making a log event in CityWorks and draining bin. Vactor can be used to remove water from containment bin and disposed of in washout area (which drains to the sanitary sewer) without the need of pH water test.
- If E. coli sources are found and are human based, ROW crew will be called upon to clean up.

CREW MEMBERS INVOLVED:

- One or more employee(s)

EQUIPMENT (IF APPLICABLE): N/A

PERSONAL PROTECTIVE EQUIPMENT

- Safety boots
- Safety vest
- Safety glasses
- Gloves
- Hard hat (if necessary)

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- All records are stored online in the CityWorks database.

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Cleaning Of Desilting Structures

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

Purpose/Description:

- Remove mud from desilting structures to eliminate soils from migrating downstream

Work Procedures:

- Work is to be done every April and October on each desilting structure
- Use the front-end loader to drive down the ramp of the desilting structure and scoop out all mud
- Allow water to drain out of loader bucket
- Load mud into dump truck
- An employee not operating the loader is to act as a spotter through the entire process watching for potential hazards.
- Haul mud to the landfill for disposal
- Clean any mud or debris spilled while loading trucks
- If any E. coli sources are encountered, notify supervisor
- If E. coli sources are human based, ROW crew will be called upon to clean up.
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.

Crew Members Involved:

- One loader operator
- One dump truck driver

Equipment (if applicable):

- Front end loader
- Dump truck

Personal Protective Equipment

- Safety boots
- Safety vest
- Hard hat

Equipment Cleanup Procedures:

- Wash equipment in the designated wash area at the Public Works Operations Facility

Forms and Documentation:

- Weight ticket for disposal of mud is kept with Sweepings Hauled Receipts
- A spreadsheet is updated annually with inspection notes
- Work Order for this activity will be kept in City Works

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Cleaning Storm Drain Grates

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

Purpose/Description:

- Remove debris from storm drain grates to allow water to flow freely into storm drain

Work Procedures:

- Work is usually done on rainy days
- With the use of a pitchfork or shovel, remove all debris from the top of the storm drain grate
- Place debris in the back of a pickup truck
- If any E. coli sources are encountered, notify supervisor
- If E. coli sources are human based, ROW crew will be called upon to clean up.
- Once the truck is full dump debris into the sweepings bin back at the shop to be hauled to the landfill later
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.

Crew Members Involved:

- Two employees

Equipment (if applicable):

- F-550 truck

Personal Protective Equipment

- Safety boots
- Safety vest
- Safety glasses

Equipment Cleanup Procedures:

- Wash equipment in the designated wash area at the Public Works Operations Facility

Forms and Documentation:

- Work orders are stored in the CityWorks database

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Confined Space Entry

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Confined space entry refers to the process of accessing and working within a space that is not designed for continuous human occupancy and has limited or restricted means of entry and exit. These spaces often present potential hazards due to their size, design, and the materials or substances they may contain. Examples of confined spaces include storage tanks, tunnels, pipelines, silos, sewers, and other similar structures.
- The purpose of this SOP is to define procedures to protect the health and safety of employees entering confided spaces.
- Confined Space Entry may be necessary for, but not limited to, the following tasks:
    - Remove/repair SD pumps and/pump mounts
    - Remove debris in SD boxes
    - Clean pump stations with limited access
    - Clean SD boxes that require entry

WORK PROCEDURES:

- Inspect all body harnesses for damage to fabric and stitching
- Inspect hoist for cracks in the frame, cable frayed, support board in good/solid condition
- Verify fall brake is in good working condition
- Verify that air monitoring equipment is within the calibration certification timeline
- Verify that calibration certifications for both air monitors are present
- Inspect air monitoring equipment for damage including condition of tubing
- Call non-emergency VECC number to notify the Fire Department that a Confined Space Entry will be performed during "X" timeframe. 801-840-8000
- Assemble hoist to provide best entry, exit and work zone safety
- All parties (Entry Supervisor, Attendant, Entrant) need to read, understand and sign Confined Space Permit
    - Air monitors and the permit binder is stored in the Storm Water Maintenance Supervisor office when not on site
    - The Entry Supervisor signs off on permit
    - All confined space permits are attached to CityWorks work order
- Entry Supervisor is to instruct everything happening on jobsite. The Attendant is responsible for documentation on the Confined Space Permit. The Entrant(s) is responsible for all work to be performed in the confined space
- Turn on all air monitoring equipment and allow to self-zero before putting tubing into confined space
- Lower air monitoring tubing slowly into confined space, stopping every foot and allowing 10 seconds for monitor to take sample. Different gasses stack upon one another at different levels. You want to ensure the entire atmosphere is safe before allowing anyone to enter
- Document initial air quality levels on Confined Space Permit
- All power sources are to be locked out/tagged out
- Lower the Entrant into the confined space
- Attendant is to continue to document air quality numbers every 5 minutes. Try to keep air monitor tubing close to Entrant without interfering with the work being done.

- Once the work is completed and the Entrant is safely out of confined space, Confined Space permit is closed with all party's acknowledgment.
- Non-emergency VECC is notified that confined space is free and clear and the Fire Department can be released. 801-840-8000
- All the equipment used is to be reinspected for any damage so it can be repaired before its next use.
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.

Crew Members Involved:

- Minimum of 3 people (Entry Supervisor, Confined Space Attendant, Entrant)

Equipment (if applicable):

- Lowering/recovery crane/hoist
- Lowering board (if needed)
- Safety harness
- Air quality monitor
- Sonetics headsets for communication

Personal Protective Equipment

- Hard hat
- Gloves
- Safety boots
- Waterproof waders

Equipment Cleanup Procedures:

- Wash all the equipment to put everything away clean
- Inspect all cables on lowering/recovery crane for fraying or anything that might require repair
- Inspect all harnesses for stitches coming undone, tears in fabric
- Inspect tubing on air quality monitoring equipment for holes, cuts or breaks

Forms and Documentation:

- West Valley City Confined Space Permit
- Permit is scanned and attached to CityWorks work order

SOP Implementation and Training Plan:

- All Storm Water crew members attend a confined space certification training every three years. SOP is reviewed before every confined space entry.

Storm Water - Pipe Repair/Install Trench Safety

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Repair or replace a damaged section of storm drain pipe.
- Do not proceed if the pipe trench is over 5 feet deep. Pipe trenches over 5 feet deep require a trench protective system (extensive sloping, shore boxes) as well as soil testing to determine which system or systems would be best. OSHA 1923.652(a)(1)(iii).

WORK PROCEDURES:

- Trenches under 5 feet but more than 4 feet shall require ladder to be within 25 feet of personnel in trench; OSHA 1926.651(d)
    - Ladder must extend 3 feet past top of trench for ease of egress
- Call in to Bluestakes of Utah with request to dig. Mapping out area for possible utility conflicts.
- Gather necessary parts/materials for repairs.
- Unearth section of pipe to be repaired/replaced.
    - Making sure all spoils are kept 2 feet away from the excavation
- Pipe Repair:
    - Dig underneath the pipe enough to allow pipe wrap material to be installed without getting dirty.
    - Clean exterior of pipe (free from all loose material)
    - Peel back paper from pipe wrap
    - Slide wrap under pipe making sure that the pipe wrap will cover section that needs to be repaired
    - Carefully press the wrap onto pipe keeping wrap tight and sealing all the way around pipe section
    - Tighten hose clamps around the pipe securing the wrap in place (if applicable)
    - If tight and secure wrap has been installed backfill can begin
        - Spoils can be reused if not in ROW
        - If in ROW, road base is to be used as backfill material
        - All backfill is to be compacted in 8” lifts or less
    - Repaired section of pipe can be backfilled with concrete or flow fill
- Replace pipe section:
    - Cut pipe at last known section of good pipe material
    - Using either backhoe or mini-excavator start to remove bad sections of pipe and load pipe/spoils into dump truck
    - Continue to dig out sections of pipe and spoils to determined end point (either a good section of pipe or storm drain box)
    - With the use of a level and transit, determine depth of trench as materials are dug out so all spoils can be removed at one time
    - Once depth has been achieved, place approx. 6” of gravel in bottom of pipe zone
    - Place new pipe on top of gravel making sure the elevations are correct (adding or removing gravel to achieve correct elevation numbers)
    - Once pipe is in final position at correct elevation, place gravel around pipe up to top of pipe
    - Backfill remaining depth of trench with roadbase in 8” lifts or less using either plate compactor or jumping jack compactor.
    - At ending pipe sections use pipe wrap to seal connection or grout into existing storm drain boxes

- Restore final layer with materials that match existing; either asphalt, concrete or landscaping

Crew Members Involved:

- 2 or more employees.

Equipment (if applicable):

- Shovels
- Dig bars
- Mini-excavator (if applicable)
- Backhoe (if applicable)
- Dump truck (if applicable)
- F150-F550

Personal Protective Equipment

- Safety boots
- Hard hat
- Gloves
- Safety glasses
- N95 Respirator (while cutting pipe or concrete)

Equipment Cleanup Procedures:

- Cleaning of all equipment will be done in the designated wash out at the City Shops

Forms and Documentation:

- All work orders will be documented in CityWorks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Ditch Cleaning

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

Purpose/Description:

- Clean ditches of debris to prevent flooding.

Work Procedures:

- Storm drain ditches with City maintenance responsibility are to be inspected annually. See Ditch Inspections SOP.
- If any E. coli sources are encountered, notify supervisor. If E. coli sources are human based, ROW crew will be called upon to clean up.
- Use the backhoe to remove obstructions from the ditch.
- Place debris in the back of a vehicle for disposal.
- Dispose of debris at the landfill or in the sweepings bin at the shop.
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.

Crew Members Involved:

- Two or more employees

Equipment (if applicable):

- Dump truck
- Backhoe
- Pickup truck
- Hand tools

Personal Protective Equipment

- Safety shoes
- Hard hat
- Safety glasses
- Gloves
- Safety vest
- Hearing protection

Equipment Cleanup Procedures:

- Wash equipment in the designated wash area at the Public Works Operations Facility

Forms and Documentation:

- All work order records are maintained in CityWorks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Open Channel Cleaning

SWMP Requirement: **No** If Yes, SWMP Section: N/A

Purpose/Description:

- Clean open channels that that are landscaped with concrete channels in the flow line. This method is used since an excavator and/or backhoe cannot be used.
- Clean open channels where pervious pavement is used in the bottom.
- This work is to be completed every April and October

Work Procedures:

- Use the SOP for Vactor Storm drain cleaning as a guide.
- If any E. coli sources are encountered, notify the supervisor. If E. coli sources are human based, ROW crew will be called upon to clean up.
- One employee will walk along the ditch operating the pickup tube as well as washing mud/debris into pick up tube to be removed
- One employee will be operating a Vactor truck, slowly driving vehicle so work can be performed in the ditch itself.
- Dewatering of Vactor debris body will be performed in the designated equipment wash area at the Public Works Operations Facility (drains to the sanitary sewer).
- Once debris body is dewatered, solids will be dumped into the Sweepings containment bin at the Public Works Operations Facility.
- When debris has fully dried out it will be hauled to the landfill at a later date

Crew Members Involved:

- Minimum of two employees

Equipment (if applicable): N/A

Personal Protective Equipment

- Rubber boots and/or waders
- Safety gloves
- Sonetics or other hearing protection
- Safety glasses or goggles

Equipment Cleanup Procedures:

- All equipment is to be washed in the designated wash area at the Public Works Operations Facility

Forms and Documentation:

- All documentation of work done with be kept on Cityworks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Ditch Inspections

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

Purpose/Description:

- Complete a visual inspection of a ditch with City maintenance responsibilities to determine what level of maintenance is required

Work Procedures:

- Walk length of ditch
- Look for obstructions in water flow area
- If any E.Coli sources are encountered, notify supervisor. If E.Coli sources are human based, ROW crew will be called upon to clean up.
- Look for trees in need of trimming or removal
- Look for weeds in water flow area needing to be trimmed
- Identify equipment access areas
- Determine what type of maintenance is needed
- If any spill/IDDE is encountered by WVC employee, they are to follow the SOP for Spill Response and Containment.

Crew Members Involved:

- One or more employees

Equipment (if applicable):

- Vehicle for transportation

Personal Protective Equipment

- Safety shoes
- Safety vest

Equipment Cleanup Procedures: N/A

Forms and Documentation:

- All records are saved and stored in the CityWorks database

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Spill Response/Containment

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.3.9.1**

PURPOSE/DESCRIPTION:

- To contain and clean up any fluid spills reported to the Operations Division

WORK PROCEDURES:

- Refer to the ***Engineering Division Spill Response SOP***
- The first person to respond will notify Storm Water Supervisor
- Document source, all actions to contain and clean up spill, equipment used, personnel involved in City Works
- Engineering will be responsible for issuing warnings or citations of illicit discharge

CREW MEMBERS INVOLVED:

- One or more

EQUIPMENT (IF APPLICABLE):

- Pickup truck
- Floor dry absorbent (if applicable)
- Oil filter booms (if applicable)
- Absorbent Pads (if applicable)
- Vactor (if applicable)

PERSONAL PROTECTIVE EQUIPMENT

- Safety shoes
- Safety vest
- Safety glasses
- Gloves

EQUIPMENT CLEANUP PROCEDURES:

- Dispose of any solids in sweepings bin (if allowed at the landfill), or approved facility
- Dispose of any liquids in washout area (drains to sanitary sewer) or approved facility
- Wash equipment in the designated washout area

FORMS AND DOCUMENTATION:

- Spills will be documented in CityWorks

SOP IMPLEMENTATION AND TRAINING PLAN:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Storm Drain Inspections

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Inspect Storm Drain system for any of the following:
  - Debris and/or silt
  - To determine if cleaning is necessary
  - Identify bored utility crossings through pipes
  - Illicit discharges into system
  - Track down sources of illicit discharges
  - Illegal connections to system
  - Damage to pipes
  - Damage to drainage boxes
- Help determine location of buried Storm Drain boxes and/or field joints

WORK PROCEDURES:

- Set up traffic control needed to provide a safe work environment. See Street Operations Traffic Control SOP
- Pull up to storm drain box/grate
- Take photo of manhole lid/grate, attach photo to CityWorks inspection
- Remove any debris on grate (if applicable)
- Using manhole lid/grate puller, remove manhole lid and/or grate
- Take photo of inside of box (trying to also show ID tag, if present), attach photo to CityWorks inspection
- Look for evidence of illicit discharge via smell, oil sheen, wall staining, etc.
- Using a long pole, measure the amount of debris in box by percentage of silt trap filled
- If 50% of silt trap is full, it requires cleaning
- Look for/document possible E. coli contaminants
  - If any E. coli sources are encountered, notify supervisor. If E. coli sources are human based, ROW crew will be called upon to clean up.
- Document silt/debris amount, any damage to lid/grate, damage to box structure in CityWorks
- Using pole camera, look down all pipes
- Document any damage, utilities, offset pipe joints, silt or debris in a line inspection in CityWorks
  - Pipes less than 36 inch diameter with 25% of silt or debris present requires cleaning
  - Pipes 36 inches or greater diameter with 10% of silt or debris present require cleaning
- Using a tape measure, field verify pipe size and type
- Use Cues camera to see blockage, damage or pipe condition if pole camera is insufficient
- Document Cues camera findings using Granite Net as well as make a line inspection on CityWorks stating what was found
- Replace manhole lid/grate and proceed to next box
- If any spill/IDDE is encountered by WVC employees, they are to follow the SOP for Spill Response and Containment
- If GIS inventory needs to be corrected or added to, create a Map Edits work order in CityWorks. See Storm Water Utility – Map Edits SOP

CREW MEMBERS INVOLVED:

- Minimum of two employees

Equipment (if applicable):

- F250-F550
- Cues camera cube
- Pole camera
- Manhole lid/grate puller
- Long pole to measure debris depth
- Measuring tape
- Tablet for photos and documentation

Personal Protective Equipment

- Safety boots
- Gloves
- Reflective safety vest

Equipment Cleanup Procedures:

- Any equipment is to be cleaned in the washout area (drains to sanitary sewer).

Forms and Documentation:

- All inspections to be documented on Cityworks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Pump Inspections

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

Purpose/Description:

- Check the condition and function of all storm water pump stations

Work Procedures:

- Check the exterior condition of pump station, document any repairs if necessary
- Unlock control panel and visually inspect all controls
    - Contact an electrician if maintenance is necessary in the control panel
- Unlock and open the top of water vault to visually inspect
- If entry is required in the vault, follow Confined Space Entry SOP
- Check the functionality of all control floats
- Turn all power controls from auto to manual and check water flow at outfall/outlet
- Return all power controls to Auto positions
- Add pump lubrication oil to reservoirs (if necessary)
- Shut and lock control panel
- Shut and lock water vault
    - If any E. coli sources are encountered, notify the supervisor. If E. coli sources are human based, ROW crew will be called upon to clean up.
- If any spill/IDDE is encountered by WVC employees, they are to follow the SOP for Spill Response and Containment

Crew Members Involved:

- Two employees

Equipment (if applicable):

- Vehicle

Personal Protective Equipment

- Safety shoes
- Safety vest
- Safety glasses
- Gloves

Equipment Cleanup Procedures:

- Wash equipment in the designated wash area.

Forms and Documentation:

- Monthly pump logs are kept in City Works or with the Storm Water Supervisor

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Vactor Operations/Storm Drain Cleaning

SWMP Requirement: **Yes** If Yes, SWMP Section: **4.2.6.6.2**

Purpose/Description:

- To remove as much debris as possible to prevent blockages from forming and to improve the water quality in the overall storm water system

Work Procedures:

- Turn on all safety lights and setup traffic control needed to provide a safe work environment. See Street Operations Traffic Control SOP
- Clean and remove storm drain lid/inlet cover
- Clean silt and debris from the bottom of the box
- Jet wash the storm drain line up stream to the next box if the inspection showed that it is needed.
- If entering a storm drain is required follow Confined Space Entry SOP
- If any spill/IDDE is encountered by WVC employees, they are to follow the SOP for Spill Response and Containment

Crew Members Involved:

- Two employees

Equipment (if applicable):

- Vactor
- Manhole lid puller

Personal Protective Equipment

- Safety shoes
- Safety vest
- Safety glasses
- Gloves
- Hard hat
- Hearing protection

Equipment Cleanup Procedures:

- Dewatering of Vactor debris body will be performed in the designated equipment wash area at the Public Works Operations Facility
- Once the debris body is dewatered, dump solids into the sweepings containment bin at the Public Works Operations Facility
- After solids are dumped, return to the equipment wash area to wash debris body and outside of Vactor

Forms and Documentation:

- Work order for this activity will be kept in CityWorks

SOP Implementation and Training Plan:

- Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Storm Water - Map Edits

SWMP Requirement: **No** If Yes, SWMP Section: **N/A**

PURPOSE/DESCRIPTION:

- Document field verified proposed edits to the storm water GIS information.

WORK PROCEDURES:

- Open Stormwater Map Edit work order
- Using the map, click the Redline tool tab
- Select type of asset to redline
- Highlight (redraw) asset(s) to be changed in GIS to match what is observed in the field
- Using the Text field describe the proposed change including size, type of asset
- Click "Save Graphics" tab
- Use original Map Edits work order number in the Activity ID tab
- Address will be used for File Name
- Use the Comments tab to give a description of Pipe material type, Pipe Size, box type and/or any other information for the asset
- Click Attach button

CREW MEMBERS INVOLVED:

- One employee

EQUIPMENT (IF APPLICABLE):

- Computer
- Tablet

PERSONAL PROTECTIVE EQUIPMENT: N/A

EQUIPMENT CLEANUP PROCEDURES: N/A

FORMS AND DOCUMENTATION:

- Map edits are to be done in CityWorks

SOP IMPLEMENTATION AND TRAINING PLAN:

Training will be provided to all employees new to the task as assigned by a supervisor. A Crew Lead will provide the necessary training at which point this SOP will be worked through and the employee will be reminded where the SOP's can be found.

Emergency Response

301.1 PURPOSE AND SCOPE

The purpose of this policy is to ensure a safe and appropriate response to emergencies while maintaining the safety of department members and the public by requiring operators of department vehicles to conform to applicable Utah laws and regulations during an emergency response (Utah Code 41-6a-212).

All West Valley City Fire Department emergency vehicles, including ambulances shall be driven and operated in a safe manner during emergency response and non-emergency driving.

301.1.1 DEFINITIONS

Definitions related to this policy include:

Authorized emergency vehicle – Fire department vehicles and ambulances equipped as required by Utah law (Utah Code 41-6a-102; Utah Code 41-6a-212(1)).

Emergency response - Response to but not returning from any call for service or assistance involving fire, explosion or violent rupture; human rescue; human entrapment; illness or injury; hazardous materials release or threat of contamination; flooding; threatened or actual acts of violence; any explosive, bomb or threatened bombing; any act of terrorism; any natural disaster; or any other circumstance that presents a threat to life-safety or to property (Utah Code 41-6a-212(2)).

301.2 POLICY

It is the policy of the West Valley City Fire Department to appropriately respond to all emergency calls.

301.3 EMERGENCY CALLS

Fire personnel dispatched to an emergency shall proceed immediately, shall continuously operate emergency lighting equipment and shall sound the siren as reasonably necessary (Utah Code 41-6a-1625(4)(d)).

Responding with emergency lights and siren does not relieve personnel of the duty to act as a reasonably prudent emergency vehicle operator under the circumstances and to continue to drive with due regard for the safety of all persons (Utah Code 41-6a-212(7)(a)).

The use of any other warning equipment without a red light and siren does not provide any exemption from the Utah law.

Personnel should only respond with emergency lights and siren when dispatched to an emergency or when circumstances reasonably indicate an emergency response is required.

Personnel not authorized to respond with emergency lights and siren shall observe all traffic laws and proceed without the use of emergency lights and siren.

Ambulance Driving and Operation Procedure

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Driving Practices

301.4 MULTIPLE EMERGENCY VEHICLE RESPONSES

When more than one apparatus responds to an emergency, emergency vehicle operators should remain alert to the presence of other emergency vehicles and exercise due caution. Personnel must further exercise due caution in recognizing that traffic yielding to one emergency vehicle may not expect other emergency vehicles to follow.

301.5 INITIATING AN EMERGENCY RESPONSE

If a Captain believes an emergency response to any call is appropriate, the Captain shall ensure Valley Emergency Communication Center (VECC) is immediately notified.

301.6 RESPONSIBILITIES OF RESPONDING PERSONNEL

Emergency vehicle operators shall exercise sound judgment and care, with due regard for life and property, while operating a vehicle en route to an emergency response.

In addition, emergency vehicle operators should reduce speed at all intersections and should come to a complete stop at all blind street intersections or intersections where there is either a red light, a flashing red light or a stop sign. Emergency vehicle operators should also come to a complete stop at intersections whenever they reasonably believe they cannot account for traffic in approaching lanes or when vehicles have not yielded the right-of-way. After coming to a complete stop, emergency vehicle operators should only proceed when it is safe to do so.

The decision to continue an emergency response is at the discretion of the emergency vehicle operator or Captain. If, in the judgment of either individual, the roadway conditions or traffic congestion do not permit such a response without unreasonable risk, the response may be continued without the use of red lights and siren at the legal speed limit. In such an event, the Captain should ensure Valley Emergency Communication Center (VECC) is promptly notified. Personnel shall also discontinue the emergency response when directed by any supervisor.

301.7 FAILURE OF EMERGENCY EQUIPMENT

If the emergency equipment on the vehicle should fail to operate, the vehicle operator must terminate the emergency response and respond accordingly. In all cases, the Captain shall notify Valley Emergency Communication Center (VECC) of the equipment failure so that another apparatus may be assigned to the emergency response.

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Hazard Communication

1012.1 PURPOSE AND SCOPE

The purpose of this policy is to protect the health and safety of department members who may be occupationally exposed to hazardous chemicals in the workplace.

1012.2 POLICY

It is the policy of the West Valley City Fire Department to develop, implement and maintain a written chemical hazard communication program for members to use as a reference. The program shall minimally describe how department members will receive information and training on the criteria specified for labels and other forms of warning and Safety Data Sheets (SDS) (29 CFR 1910.1200; Utah Code 53-2a-702(6); UAC R614-1-4).

1012.3 PROCEDURE

The Fire Chief or the authorized designee should develop, implement and maintain a written chemical hazard communication program that includes, but is not limited to (29 CFR 1910.1200):

(a) A list of hazardous chemicals known to be present in the workplace. The list may be compiled for the workplace as a whole or for individual work areas.

(b) The methods the Department will use to inform and train members of the hazards of non-routine tasks and the hazards associated with chemicals in unlabeled pipes in member work areas.

(c) The Department shall make the written chemical hazard communication program available, upon request, to members, to their designated representatives and to the National Institute of Occupational Safety and Health (NIOSH).

(d) The Department shall establish a procedure to ensure that each container of a hazardous chemical is labeled, tagged or marked with the following information:

1. Identity of the hazardous chemical
2. Appropriate hazard warnings
3. Name and address of the manufacturer, importer or other responsible party

1012.4 SAFETY DATA SHEETS

The Department shall have an SDS for each hazardous chemical that is in use in the workplace. The SDS concerning a hazardous chemical shall be readily accessible to members and prepared in accordance with 29 CFR 1910.1200(g)(2).

1012.5 TRAINING REQUIREMENTS

See the Hazard Communication Program Training Policy.

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Hazard Communication Program Training

704.1 PURPOSE AND SCOPE

The purpose of this policy is to establish the required training regarding the department's hazard communication program. This policy identifies who must receive training, training content requirements, when additional or supplemental training is required and what record keeping is necessary to comply with state law (29 CFR 1910.1200; Utah Code 53-2a-702; UAC R614-1-4).

704.1.1 DEFINITIONS

Definitions related to this policy include (29 CFR 1910.1200):

Hazardous chemical - Any chemical that is classified as a physical hazard, health hazard, simple asphyxiant, combustible dust, pyrophoric gas or hazard not otherwise classified.

Health hazard - A chemical that is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure), skin corrosion or irritation, serious eye damage or eye irritation, respiratory or skin sensitization, germ cell mutagenicity, carcinogenicity, reproductive toxicity, specific target organ toxicity (single or repeated exposure), or aspiration hazard.

704.2 POLICY

It is the policy of the West Valley City Fire Department, in accordance with the Hazard Communication Policy, to provide members with effective information and training on hazardous chemicals in their work area at the time of their initial assignment and whenever a new hazard is introduced.

704.3 TRAINING REQUIREMENTS

The initial hazard communication program training shall include, but is not limited to, the following topics:

(a) Members shall be informed of any operations in their work area where hazardous chemicals are present.

(b) Members shall be informed of the location and availability of information regarding any hazardous chemicals and Safety Data Sheets (SDS), as required by the state.

(c) Members shall be trained in the methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area.

(d) Members shall be trained in the physical and health hazards of the chemicals in the work area and the measures they can take to protect themselves, including specific procedures the Department has implemented to protect them from exposure to hazardous chemicals. These include appropriate work practices, emergency procedures and personal protective equipment (PPE).

(e) Members shall be provided with an explanation of the labeling system and the SDS, and how they can obtain and use the appropriate hazard information.

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704.4 TRAINING RECORDS

The Training Officer shall be responsible for maintaining records of all hazard communications program training provided to members. Records should include, but are not limited to:

(a) The dates of the training sessions.

(b) A list of the topics or a summary of the content of the training sessions.

(c) The names or other identifiers and job titles of the members who received the training.

(d) The names, certificate numbers and qualifications of persons conducting the training.

The Training Officer should maintain the training records in accordance with established records retention schedules.

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WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Liaison Officer	HM 008
	Rev. 02/09

SCOPE

The Haz-Mat Liaison Officer may be utilized by Command to facilitate communications with the Hazardous Materials Branch, Division, or Group. This position should be created when the hazardous materials operation is complex and/or very hazardous. Since the Haz-Mat Officer may be very involved, such a Liaison Officer will provide another communications link with Command. This link will help maintain the flow of information in a more timely and efficient manner. This Liaison Officer may also be used by Command to provide critical communications between the Haz-Mat Branch, Division, or Group and other Branches and Divisions; to work directly with outside agencies or individuals with special knowledge who need to interact with Haz-Mat personnel.

RESPONSIBILITIES

The primary responsibilities of the Haz-Mat Liaison Officer are:

- Acquire briefings for Command and the Haz-Mat Officer in Charge.
- Understand Command's plan for the incident.
- Understand the plan of the Haz-Mat operation.
- Work with any company officials at the site to assure proper communications with the public
- Assist with Technical Experts who may be called to the incident
- Assist Command with clean-up, company contacts, and instructions at the site
- Monitor radio traffic at the incident.
- Provide face to face communication with Command, the Haz-mat Branch, Division, or Group and any other Branch, Division, or Group as directed.

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Logistics Equipment Support	HM 010
	Rev. 4/09

RESPONSIBILITIES

The primary responsibility of the Equipment Team and Officer is to provide the necessary equipment and materials for the Site Control Team, Research Team, Entry Team, Back-up Team, Decon Team, and Medical Team. Once designated, the Equipment Officer must assign team members in a way that allows each team within the division or group to acquire the necessary state of readiness within a time frame that compliments the sequence of events dictated by the action plan.

HAZ MAT RESPONSE VEHICLE(S)

The Haz-Mat response vehicle(s) shall be checked at the beginning of each shift to insure that all required inventories are accounted for and that all equipment, including computers and monitoring devices, are in the ready state. Any deficiencies in inventory or equipment failures shall be reported to the on duty Haz-Mat Captain for correction. During this check-out, a Haz-Mat technician shall be designated as the Equipment Officer for the shift, and this individual, along with other assigned team members, will be responsible for providing materials and equipment for all teams within the Haz-Mat operation.

ARRIVAL

Upon arriving at the scene, Haz-Mat response vehicles will stage until the Haz-Mat Officer in Charge (Branch or Division) has met with Command. Upon completion of the initial briefing, the Haz-Mat Officer in Charge will direct the Haz-Mat response vehicle(s) to the location where set-up will begin. At that location, the Equipment Officer will begin preparing to support the entire Haz-Mat operation with material and equipment resources.

SET-UP

Prior to being given further direction by the Haz-Mat Officer in Charge, the Equipment Officer will prepare the area for the Research/Communication Team to begin carrying out their assigned functions. From that point, he or she will identify and begin to set-up areas for the Entry Team and Back-up Teams to dress. Each of these areas will be labeled (in coordination with the Site-Control Officer).

DISTRIBUTION

Based upon the Haz-Mat Incident Action Plan and direction from the Haz-Mat Officer in Charge, the Equipment Officer and Team will begin to pull and lay out the protective clothing and

communications equipment for the Entry and Back-up Teams. This will be followed by setting out all required monitoring equipment and devices. Any electronic equipment will be warmed up, checked and calibrated by the Equipment Team prior to use by the Site Control and/or Entry Team members. Based on instructions, the Equipment Officer will also insure that all equipment and materials for spill control have been acquired, checked, and set next to the access control point prior to the Entry Team going on air.

After the needs of Research, Site Control, Entry, and Back-up have been satisfied, the Equipment Officer and Team will begin to supply and equip the Decon and Medical Teams. A dressing area in the Cold Zone will be identified by the Decon Officer, and the Equipment Team will deliver the necessary protective clothing items as well as decon equipment, tools, and supplies to that dressing area. From there, the Equipment Officer will also provide protective clothing, along with necessary plastic to provide exposure protection for all medical personnel and transportation vehicles. These materials should also include garments or materials to place on potentially contaminated patients.

TERMINATION

At the conclusion of the incident, the Equipment Officer is responsible to retrieve all decontaminated equipment and unused materials. As the Haz-Mat vehicles are being readied for service at the close of an incident, a complete inventory will be taken. Any missing items or damaged/ruined equipment shall be replaced based upon availability or report to the Support Services Officer so that replacement can be made.

Hazardous Materials (HAZMAT) Training

705.1 PURPOSE AND SCOPE

The purpose of this policy is to establish training that will meet state requirements regarding the West Valley City Fire Department Hazardous Materials (HAZMAT) response program. This policy identifies the level of training members must receive, when additional or supplemental training is required, and the training records required to meet the requirements of Utah Occupational Safety and Health (UOSH).

705.2 POLICY

It is the policy of the West Valley City Fire Department that any member whose duties include a role in the HAZMAT response program shall receive training to the level at which they are expected to operate in a HAZMAT environment or at an incident involving hazardous materials.

705.3 TRAINING REQUIREMENTS

HAZMAT training shall be based on the duties and functions to be performed by each member. This includes training specific to the Incident Commander (IC), awareness or operations level, and HAZMAT technician (29 CFR 1910.120; UAC R614-1-4).

Competencies required for all new members shall be conveyed to them through training before participating on an incident. Any member who participates or is expected to participate in an emergency response involving HAZMAT shall objectively demonstrate competency in the following areas.

705.3.1 FIRST RESPONDER AWARENESS

First responder awareness level training should be provided to all individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. A member with this level of training should demonstrate competency in the understanding and recognition of a hazardous substance release.

705.3.2 HAZMAT FIRST RESPONDER OPERATIONS (FRO)

First responder operations (FRO) level training should be provided for individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property or the environment from the effects of the release. A member with this level of training is trained to respond in a defensive fashion without actually trying to stop the release. This member's function is to contain the release from a safe distance, keep it from spreading and prevent exposures.

705.3.3 HAZMAT TECHNICIAN

HAZMAT technician level training should be provided to all individuals who respond to releases or potential releases of hazardous substances for the purpose of stopping the release. A member

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with this level of training would assume a more aggressive role by approaching the point of release in order to plug, patch or otherwise stop the release of a hazardous substance.

705.3.4 HAZMAT INCIDENT COMMANDER
HAZMAT IC level training should be provided to all individuals who could be responsible for all decisions relating to the management of a HAZMAT incident.

705.3.5 HAZMAT EMERGENCY RESPONSE PLAN
An emergency response plan shall be developed and implemented to address pre-emergency planning and coordination with additional responders prior to the commencement of emergency response operations. The plan will identify members' roles, lines of authority, and communications for all members. The plan shall be in writing and available for inspection and copying by employees, their representatives, and UOSH personnel (29 CFR 1910.120; UAC R614-1-4).

705.3.6 HAZMAT ANNUAL REFRESHER TRAINING
Members who receive an initial level of training in accordance with this policy shall receive annual refresher training of sufficient and necessary content and duration to maintain their competencies, or shall demonstrate competency in those areas at least yearly (29 CFR 1910.120; UAC R614-1-4).

705.4 BASELINE PHYSICAL FOR HAZMAT TEAM MEMBERS
Members of an organized, designated HAZMAT team shall receive a baseline physical examination. The federal Occupational Safety and Health Administration (OSHA) requires that medical examinations and consultations be made available to members of HAZMAT teams within prescribed time periods. All members of a designated HAZMAT team shall receive medical examinations and consultations on the following schedules (29 CFR 1910.120; UAC R614-1-4):

(a) Prior to assignment

(b) At least once every 12 months

(c) At termination of employment or reassignment to duties not covered by this policy

(d) As soon as possible upon notification that the employee has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards

(e) As soon as possible upon notification that the employee has been injured or exposed above the permissible exposure limits or published exposure levels in an emergency situation

The frequency of a member's examinations may be increased if the examining physician determines that it is medically necessary. Medical examinations should include medical and work history. Emphasis should be placed on any symptoms related to the handling of, or exposure to, hazardous substances or health hazards. Medical examinations should address fitness for duty, especially as it pertains to wearing personal protective equipment under conditions that may

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be encountered on-duty. The content of medical examinations should be made available to the member as determined by the attending physician.

705.4.1 HAZMAT MEDICAL SURVEILLANCE

Members of an organized and designated HAZMAT team shall receive a baseline physical examination and be provided with medical surveillance (29 CFR 1910.120; UAC R614-1-4).

Any emergency response member who exhibits signs or symptoms which may have resulted from exposure to hazardous substances during the course of an emergency incident, either immediately or subsequently, shall be provided with medical consultation.

Accurate records of the medical surveillance required by this policy shall be retained for the duration of the member's employment plus 30 years. This record shall contain at a minimum the following information:

(a) The name and Social Security number of the member.

(b) The physician's written opinions, recommended limitations, and results of examinations and tests.

(c) Any member medical complaints related to exposure to hazardous substances.

(d) A copy of the information provided to the physician by the Department, with the exception of department policies and OSHA standards.

705.5 TRAINING RECORDS

The Training Officer shall be responsible for maintaining records of all HAZMAT training provided to members. Records should include but are not limited to:

(a) Dates of the training sessions.

(b) A list of the topics or a summary of the content of the training sessions.

1. Specific content required by regulation covered
2. Manufacturer's recommendations (as applicable)
3. Manufacturer's operations/service/maintenance manuals (as applicable)

(c) The names or other identifiers and job titles of all members who received the training.

(d) The names, certificate numbers and qualifications of persons conducting the training.

(e) Demonstration that learning took place (e.g., evaluation, quiz, test).

The Training Officer should maintain the training records in accordance with established records retention schedules.

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Hazardous Materials Response

316.1 PURPOSE AND SCOPE

Hazardous materials (HAZMAT) may include toxic, flammable, corrosive, explosive, radioactive or reactive materials; materials that can cause health hazards; or a combination of these materials. The purpose of this policy is to provide a general framework for handling a HAZMAT incident.

316.2 POLICY

It is the policy of the West Valley City Fire Department to protect the safety of the public and responders to HAZMAT incidents and to comply with all applicable state and federal laws during the management and mitigation of all HAZMAT incidents (29 CFR 1910.120; Utah Code 53-2a-702).

316.3 RESPONSIBILITIES

All HAZMAT responses should be managed using the National Incident Management System (NIMS) and the Incident Command System (ICS) in accordance with Utah Division of Emergency Management (DEM) regulations for emergency response and applicable federal laws.

316.3.1 INITIAL ACTIONS

If available, information should be provided by Valley Emergency Communication Center (VECC) to the units responding to a HAZMAT incident including the name and type of the material involved (e.g., hydrochloric acid, corrosive), the size and quantity of the containers involved, the nature of the problem (e.g., spill, leak) and any known dangerous properties of the materials.

The first-arriving unit approaching the incident should use caution, approach from upwind and upgrade of the incident, establish Incident Command and begin a size-up of the situation. The purpose of the size-up by the first-in company is to determine the nature and severity of the HAZMAT incident and formulate an initial Incident Action Plan (IAP). While it may be necessary to take immediate action to make a rescue or evacuate an area, any action should be taken with an awareness of the risk to department personnel and making appropriate use of available protective equipment. It is important to avoid the premature commitment of personnel to potentially hazardous locations. In some cases, isolating the incident and denying entry until more resources arrive may be the safest approach.

In assessing the incident, all available references should be used to determine the hazards that are or potentially could be present. These references may include, but are not limited to, the U.S. Department of Transportation (DOT) Emergency Response Guidebook, the National Institute for Occupational Safety and Health (NIOSH) Pocket Guide to Chemical Hazards, Safety Data Sheets (SDS), HAZMAT business plans, manifests or bills of lading, National Fire Protection Association (NFPA) placards, U.S. DOT placards and United Nations Substance Identification Numbers. Other sources of information may be available, such as the Chemical Transportation Emergency Center (CHEMTREC®), facility personnel, department specialists or manufacturers of the materials involved.

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The hazards presented by a HAZMAT incident may change significantly as the materials interact with other materials, the surrounding environment and the actions taken by responders. Responders should consider site topography, surroundings, other potential hazards and prevailing weather conditions. The initial perimeter established for the incident may need to be expanded to establish the appropriate control zones for the response (e.g., exclusion zone, contamination reduction zone, support zone).

316.4 INCIDENT ACTION PLAN

The primary goal of the IAP will be to protect the safety of the public and responders. The initial IAP should focus on identifying a safe approach for other arriving units, determining the type of hazard and the scope of the incident, isolating the area and denying entry to the public, determining incident-specific personal protective equipment (PPE) and initiating notifications. The initial IAP may be a written document or may be notes kept and controlled by the Incident Commander (IC). The initial IAP should include the following minimum information:

(a) Incident name, agency or unified command and command post location.

(b) Information for responding units on the best route of travel, staging locations and minimum isolation distances to maintain the safety of responding members.

(c) The information available on the products involved or an indication that the products are not yet known.

(d) The incident control objectives and goals.

(e) An incident site safety plan and designation of a Haz mat Incident Safety Officer.

(f) A communications plan including radio frequencies and contact telephone numbers.

When a HAZMAT incident response will be prolonged and will extend beyond an initial operational period, a written IAP should be developed. The written IAP shall utilize standard NIMS/ICS forms that may include, but are not limited to:

- ICS-201 Incident Briefing
- ICS-202 Incident Objectives
- ICS-203 Organizational Assignment List
- ICS-204 Assignment List
- ICS-205 Incident Radio Communications Plan
- ICS-206 Medical Plan
- ICS-207 Incident Organization Chart
- ICS-208 Site Safety and Control Plan

316.5 RESOURCE CONSIDERATIONS

Most HAZMAT incidents will require the IC to request additional resources in order to implement the IAP and safely mitigate the hazard.

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The response to a HAZMAT incident may require a large amount of specialized resources to achieve incident stabilization and return to normal operations. The IC should consider involving:

(a) Specialized HAZMAT teams at the technician and/or specialist levels for assistance with mitigating the release of material. Teams may be operated by local or regional fire agencies, military or private industry.

(b) Specialized operators or contractors to address post-response mitigation, removal, cleanup and required disposal of material.

(c) Local law enforcement for assistance with scene security and evacuation, if necessary.

(d) Activation of local, regional or Utah HAZMAT emergency response teams for assistance.

(e) United States Coast Guard assistance for spills affecting waterways.

(f) Public works and road departments for diking, diversion or other activities.

Resources shall be coordinated using NIMS/ICS as the response is reinforced. It is important that duties assigned to personnel are suitable for their level of training under federal regulations and Utah law. It is also important to consider the limitations of available PPE and the limitations of chemical detection or monitoring equipment on hand when preparing to commit personnel to a potentially hazardous area.

316.6 NOTIFICATIONS

Managing the response to a HAZMAT incident may involve required notifications to various local, regional, state or federal agencies. ICs should consider notifying the following agencies when applicable or required:

(a) The public, media and other affected entities, such as schools and businesses

(b) Adjoining jurisdictions that may be impacted by incident activities

(c) Local and regional elected officials and emergency management personnel

(d) Utah DEM

(e) Utah State Fire Marshal's Office Hazardous Materials Section

(f) Utah Department of Health (UDOH)

(g) Utah Department of Environmental Quality (DEQ)

(h) Utah Department of Transportation (UDOT)

(i) Utah Highway Patrol (UHP)

(j) United States Environmental Protection Agency National Response Center

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WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Mass Decon	HM 013
	Rev. 4/09

INTRODUCTION

The use of the word "Product" in this SOG may also be referring to other sources of potential contamination. "Product" may also include, but is not limited to: Biological, Radiological, Chemical, WMD, and other forms of foreign contamination that can or will cause harm to living organisms or the environment.

This guideline provides the basic philosophy and strategy for situations requiring the decontamination of large numbers of people who have been exposed to or contaminated by the release of hazardous materials. These hazardous materials may be released accidentally in transportation, released from a fixed facility, or other releases of potentially dangerous or lethal chemicals during the commission of a crime or terrorist act. Because of the potential scale of an event this size, it is extremely important that the incident command system be established immediately upon arrival and a strong command structure be maintained to ensure coordinated efforts on the parts of all personnel and agencies involved.

It is important to note, if large gatherings of people have been exposed to a release of potentially lethal products, they need to be brought under control by arriving fire and police units. The potential exists for cross-contamination of response personnel. When entering the scene of these emergencies, it is important that all personnel are protected by the appropriate levels of PPE which may include chemical "splash" protection and SCBA.

FIRST ARRIVING UNIT

The first arriving unit will size-up the situation and establish command. Care must be taken to avoid exposing crews to contamination and secondary devices. If information has been received that a chemical release has occurred, size-up may have to take place from an area away from contamination and evacuees that may be contaminated. Once command has been established and size-up completed, crews can be assigned specific tasks and group or sector assignments given. Examples of assignments may be: "Recon", "Haz-Mat", "Search and Rescue", and "Decon". This SOG will address "Mass-Decon" and it is important to note: "The Incident Commander must use their own judgment and skills when deciding if MASS-DECON is going to be implemented following a product release."

THE ACTION PLAN

Based on the initial size-up and any other information available, the incident commander will formulate an action plan to deal with the situation.

This "Action Plan" must provide for:

- Isolation of the area
- Securing the area (law enforcement)
- Evacuation (are evacuees contaminated?)
- Rescue (are there victims who are savable?)
- Decontamination (How many? What type?)
- Treatment of patients
- Protect exposures (life, environment, property)
- Provide for the safety of all (responders and citizens)

THE HAZMAT DIVISION/GROUP

Once the Haz-Mat group has been established, a mass-decon group must be created. It is important to note: Mass-decon is used for people who must have contaminants rapidly removed from their persons to avoid serious illness or death and to keep the spread of harmful contaminants to a minimum. Care should also be taken to prevent cross-contamination of response personnel during mass-decon. This is achieved by the use of appropriate levels of PPE for those involved in the mass-decon group.

THE HAZMAT DECON GROUP

Decontamination by removing clothes and flushing or showering with water is the most expedient and practical method for mass-casualty decon. Disrobing and showering meets all the purposes and principles of decontamination. Showering is recommended whenever liquid transfer from clothing to skin is suspected or possible. Disrobing should occur prior to showering for chemical agents however, the decision to disrobe should be made by the Incident Commander based on the situation and the type of chemical released. Wetting down casualties as they start to disrobe speeds up the decontamination process and is recommended for decontaminating biological or radiological casualties. However, this process may:

- Force chemical agents through the clothing.
- Decrease the potential capability of directly showing skin afforded by water pressures and dilution.
- Relocate the chemical agent within the actual showering area, thereby increasing the chance of cross-contamination spread by personal contact with the material or showering run-off water.

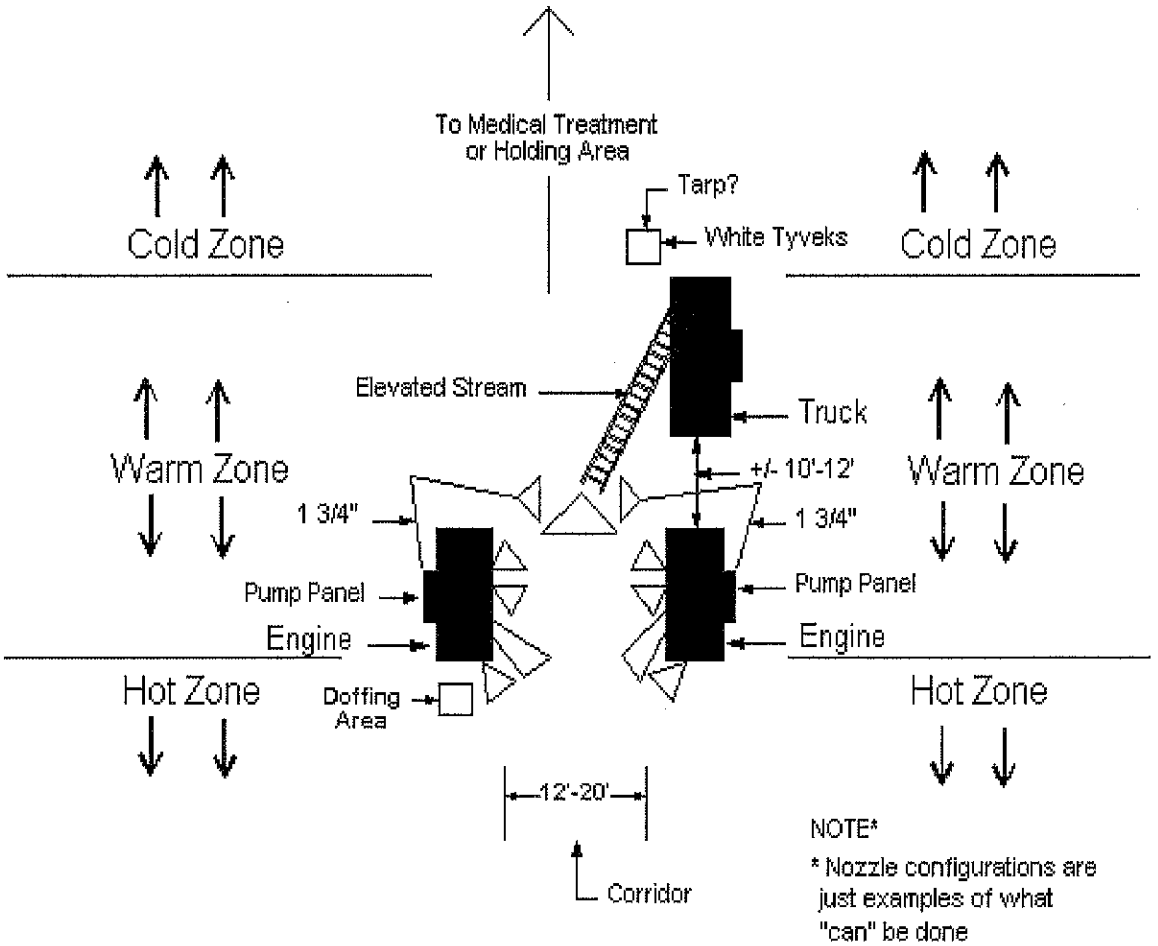
It is recommended that victims remove clothing completely. However, victims unwilling to disrobe should be informed of the potential hazards of remaining in contaminated clothing. Victims should be encouraged to remove as much clothing as possible, proceeding from head to toe. White tyvek coveralls shall be provided for all victims who have been decontaminated. This will provide for modesty protection as well as an identifier of victims who have been through the decontamination process and can proceed to the holding areas or medical treatment areas.

Important note: It is recommended that emergency responders use a high volume of water for mass-decon delivered at a minimum of 60 pounds per square inch (psi). It is also important to note:

certain nozzle will not deliver adequate streams for effective decontamination and you should select nozzles that will deliver appropriate streams and patterns at 60 psi.

THE DECON PLAN (setting up)

HOT AND COLD ZONES



Concurrently with the set-up of the mass-decon corridor, hot and cold zones should be established. The "Hot" zone being on the side where potentially contaminated victims would enter the decon corridor. The "Cold" zone would begin at the point where victims have been decon, dressed in tyvek, and prepared for medical screening or evacuation. All areas between these points would be considered the "Warm" zone being the area of apparatus placement for the establishment of the actual "corridor." These areas should be secured and well marked to prevent access of unauthorized personnel to reduce the risk of cross-contamination of response personnel as well as civilians.

CRIME SCENE?

The individual in charge of the decon corridor should always keep in mind: "He or she may be

dealing with a crime scene!" Keep these things in mind:

- Every action that can or will be taken may be considered evidence.
- The potential for destruction of evidence exists and every step should be taken to preserve evidence.
    a) Does victim clothing need to be individually bagged and tagged?
    b) Are the proper security precautions bring taken to ensure victim and responder safety?
    c) Is proper "documentation" of your actions taking place?
- Mass Decon can be a bit of a walk in order to place it in an area that is safer from secondary devices and have the ability to control run-off.

IMPORTANT NOTES

- The decon group supervisor needs to have a plan in advance on where he or she will send decontaminated victims for shelter. Some of those options are:
    a) Other non-contaminated structures capable of supporting a large influx of people.
    b) Tents
    c) Buses (school buses or Transit Authority buses)
    d) Other forms of shelter that can quickly be mobilized and brought to the scene.
- Use as few personnel as possible to actually run the corridor.
    a) Only one APO (apparatus pump operator) would be required to maintain water flows once the corridor is established and the flow of water begins.
- You may have to shut down some of the "non-pumping" apparatus to limit the amount of carbon monoxide in the corridor.
- Hose-lines will impede the flow of decon water away from the decon corridor. Use cribbing or other tools under the hoses to allow used decon water to flow away from the corridor.
- A minimum of Full PPE and "splash" protection should be worn in the decon area by anyone who is involved. This includes all personnel who are actively involved in decontamination. Security and law enforcement personnel should also don "splash" protection if they are required to work in proximity to the decon corridor.
- All efforts should be made to ensure the dignity of those individuals who need to disrobe. "Privacy corridors" can be established quickly using tarps and other fire apparatus if available.
- Look at drainage when the corridor is established. Try and establish the decon corridor in the higher area where run-off flows perpendicular and away from response personnel and victims.
- Victims may be young, elderly, weak, strong or injured. Remember: What is it going to be like if the temperature outside is 25 degrees and water temperature 45 degrees and you have to tell people to "take off their clothes and walk through a cold shower." Have a plan and have compassion for those who are about to do this too.
- Technicians and non-ambulatory victims will not be taken thru the mass-decon corridor unless ordered by command. Other decontamination corridors will be established for response personnel and non-ambulatory victims.
- The use of (2) engines and (1) truck to establish the mass-decon corridor may not be possible. You may only have one or two pieces of apparatus available to perform mass-decon. "Know your tools and know how they function." Know the purpose of mass-decon" and "Know your capabilities"

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Protection Totes	HM 015
	Rev. 4/09

SCOPE

We respond to a variety of incidents that pose high risk potential to firefighters. This procedure identifies the steps to follow and the use of all the equipment in our chemical protection totes carried on all front-line apparatus.

USAGE OF CHEMICAL PROTECTION TOTES

This guideline shall be put to use whenever chemical protection is warranted in the performance of our duties. The equipment in these totes is for the protection of our personnel, the protection of the public, and the isolation (if necessary) of contaminated areas or victims of a chemical accident, spill, or terrorism related event. The equipment in these totes is listed below:

TOTE CONTENTS

- (4) Yellow (size 6x) Tyvek "Splash" suits - for crew protection over the top of turn-out gear.
- (4) White (size 3x) Tyvek outer garments - for victims who have been decontaminated following possible contamination at any type of chemical, biological, or possible WMD event. They may also be used for medical emergencies where blood borne pathogens may be present and the safety of the crew and emergency responders may be in question. They may also be used as the engine, truck, or other emergency responders see fit at the scene of any emergency.
- (1) box latex gloves
- (1) Roll duct tape - to seal openings on Tyvek outer garments of responders.
- (1) Roll (red) 3" wide isolation flagging - to isolate victims and/or establish "Hot Zones" prior to the arrival of Haz-Mat teams or command staff.
- (1) ERG: DOT's, Emergency Response Guidebook
- (1) NIOSH, Pocket Guide to Chemical Hazards
- (1) Digital photograph of tote's contents for crew reference.

EXAMPLES OF POTENTIAL TOTE USES

- Any suspected hazardous material presence
- Any suspected terrorism (WMD) event
- Any suspected presence of blood borne pathogens
- Any event where isolation of the area is necessitated or suspected
- Where any member of the crew involved sees a necessity for the use of any/all equipment at their disposal.

COMMAND IMPLEMENTATION

Whenever any of the equipment in these totes has been used at the scene of an event or suspected event, first arriving units will inform all other responding units of the potential risks involved. Responding units that are not trained hazardous materials technicians understand they will not be expected to enter potentially contaminated areas, take unnecessary risks, or render safe any potential devices or containers while using this equipment. The items in these totes are for their protection and the protection of the public should a chemical event occurs. Crews will follow all department SOG's regarding response and the necessary steps to take regarding all incidents.

Whenever any equipment in the totes have been used, whoever is in-charge of the crew that day will contact any Haz-Mat team member for immediate restocking and resealing of the tote for any future use.

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Command Considerations	HM 001
	Rev. 12/08

This plan provides a basic philosophy and strategic plan for hazardous materials situations. All West Valley City Fire Department Standard Operating Guidelines, unless superseded by a specific part of this plan, remain in effect for Hazardous Materials incidents.

Hazardous Materials incidents encompass a wide variety of potential situations including fires, spills, transportation accidents, chemical reactions, explosions and similar events. Hazards involved may include toxicity, flammability, radiological exposure, corrosives, explosives, health, and chemical reactions or a combination of factors. This plan provides a general framework for handling a hazardous materials incident, but does not address the specific tactics or control measures for particular incidents.

Every incident presents the potential for exposure to hazardous materials; even the products of combustion of an ordinary fire may present severe hazards to personnel safety.

This procedure is specifically applicable to known hazardous materials incidents, but it does not reduce the need for appropriate safety precautions at every incident. The use of full protective clothing and SCBA as well as special protective clothing and the use of all Standard Operating Procedures on a continuing basis are foundational for this plan.

DISPATCH

The dispatch Center will obtain any and all possible information from the person reporting a hazardous materials incident. The information should, if possible, contain material name and/or type, amount and size of the container(s), problem (leak, spill, fire, etc.), and dangerous properties of the materials as well as the number of persons injured or exposed. The incident taker will remain on the telephone with the caller to obtain additional information after entering the call for dispatch.

Any additional information shall be relayed to responding units after dispatch. This should include the safest approach or best access to the incident if available.

If the call comes from a person with particular knowledge of the hazardous situation, that person should be instructed to meet and direct the arriving units. Dispatch shall relay that person's location and level of knowledge to responding units. The dispatch will dispatch the appropriate Hazardous materials response.

Dispatch will inform units as to the prevailing wind speed and direction from the monitoring station nearest the incident and advise responding units.

FIRST ARRIVING UNIT

The first arriving officer will establish Command and begin a size-up. The first unit must consciously avoid committing itself to a dangerous situation. When approaching, slow down or stop to assess any visible activity taking place. Evaluate effects of wind, topography and location of the situation. Route any other responding companies away from any hazards.

Command should consider establishing level II staging whenever possible for other responding units. Staged companies must be in a safe location, taking into account wind, spill flow, explosion potential and similar factors in any situation. The DOT Guidebook, NFPA reference materials, NIOSH pocket guide, or any other material such as MSDS or shipping papers available should be used to establish a safe distance for staging.

SIZE-UP

Command must make a careful size-up before making a commitment. Such size-up should be based on dispatch information, observation, reconnaissance, and any preplanning that is available. It may be necessary to take immediate action to make a rescue or evacuate an area. This should be attempted only after a risk/benefit analysis is completed. Personnel must take advantage of personal protective equipment in these situations.

The objective of the size-up is to identify the nature and severity of the immediate problem and to gather sufficient information to formulate a valid action plan. Hazardous materials incidents require a cautious and deliberate size-up.

Avoid premature commitment of companies and personnel to potentially hazardous locations. Proceed with caution in evaluating risks before formulating a plan and keep uncommitted companies at a distance. In many cases, evaluation by hazardous materials team members before committing is the safest approach.

Identify a hazardous area based on potential danger, taking into account materials involved, time of day, wind and weather conditions, location of the incident and degree of risk to unprotected personnel. Take immediate action to evacuate and/or rescue persons in critical danger, if possible, providing for safety of rescuers first.

The primary objective is to identify the type of materials involved in the situation, and the hazards presented, before formulating a plan of action. Look for labels, markers, DOT identification numbers, NFPA diamond or shipping papers, etc. Refer to pre-fire plans, and personnel at the scene for additional information (plant management, responsible party, truck drivers, and fire department specialists). Use reference materials carried on apparatus and have dispatch contact other sources for assistance in sizing-up the problem (state agencies, fire department specialists, manufacturers of materials, etc.).

ACTION PLAN

Based on the initial size-up and any information available, Command will formulate an action plan

to deal with the situation.

The Action Plan Must Provide For:

- Isolation of the area (using tape to create zones)
- Securing the area (with PD if possible)
- Evacuation (of cold zone as necessary)
- Rescue victims (while avoiding exposures)
- Treat patients (after initial decon)
- Protect exposures (property/environment)
- Provide for the safety of all (responders and citizens)

Most hazardous materials are intended to be maintained in a safe condition for handling and use through confinement in a container or protective system. The emergency is usually related to the material escaping from the protective container or system and creating a hazard on the exterior. The strategic plan must include a method to control the flow or release, get the hazardous material back into a safe container, neutralize it, allow it to dissipate safely, or coordinate proper disposal.

The specific action plan must identify the hazard control and identify the resources necessary to accomplish this goal. It may be necessary to select one method over another due to the unavailability of a particular resource or to adopt a 'holding action' to wait for needed equipment or supplies.

Avoid committing personnel and equipment prematurely or 'experimenting' with techniques and tactics. Many times it is necessary to evacuate and wait for special equipment or technical help.

As a general policy, the Hazardous Materials Team will respond to any situation where a private contractor is required to clean up hazardous materials.

CONTROL OF HAZARDOUS AREA

A hazardous material incident has two initial zones associated with the scene, similar to a fire. They are the WARM ZONE and the COLD ZONE.

WARM ZONE

The Warm Zone is the area in which personnel are potentially in immediate danger from the hazardous condition. This is established by Command and controlled by the fire department. Access to this area will be rigidly controlled and only personnel with proper protective equipment and an assigned activity will enter. All companies will remain in tact in designated staging areas until assigned. Personnel will be assigned to monitor entry and exit of all personnel from the Warm Zone. The Warm Zone should be geographically described to all responding units, if possible and identified by yellow fire line tape. (A Lobby Control Division or Group will be established to control access to the Warm Zone and maintain an awareness of which personnel are working in the area.)

- Establish a safe perimeter around hazardous area and identify with Hazard Zone tape.
- Request adequate assistance to maintain the perimeter.
- Identify an entrance/exit point and inform Command of its location.

- Coordinate with Haz-Mat Group to identify required level of protection for personnel operating the Hazard Zone.
- Collect/return accountability PASSPORTS of all companies entering/leaving the controlled area.

Restriction of personnel access into the Warm Zone includes not only fire department personnel, but any others who may wish to enter the Warm Zone (Police, press, employees, tow truck drivers, ambulance personnel, etc.). Command is responsible for everyone's safety.

COLD ZONE (EVACUATION ZONE)

The Cold Zone is the larger area surrounding the Warm Zone in which a lesser degree of risk to personnel exists. All civilians would be removed from this area, which is used by fire department personnel to establish a hazardous materials operation. The limits of this zone will be enforced by the police department based on distances and directions established in consultation with Command. The area to be evacuated depends on the nature and the amount of the material and type of risk it presents to unprotected personnel (toxic, explosive, etc.).

In some cases, it is necessary to completely evacuate a radius around the site for a certain distance (i.e., potential explosion). In other cases, it may be advisable to evacuate a path downwind where toxic or flammable vapors may be carried (and control ignition sources in case of flammable vapors).

Reference: Evacuation Group, Police Liaison Officer.

NOTE: When toxic or irritant vapors are being carried downwind, it may be most effective to, (shelter in place), keep everyone indoors with windows and doors closed to prevent contact with material instead of evacuating the area. In these cases, companies will be assigned to patrol the area assisting citizens in shutting down ventilation systems and evacuating persons with susceptibility to respiratory problems.

In all cases, the responsibility for safety of all potentially endangered citizens rests with Command. Once the Hazardous Materials Group has been established, Haz-Mat personnel will define a Hot Zone and re-establish Warm and Cold Zones as needed. These zones will remain in effect for the remainder of the incident unless circumstances dictate further adjustments.

USE OF NON-FIRE DEPARTMENT PERSONNEL

In some cases, it may be advantageous to use non-fire department personnel to evaluate hazards and perform certain functions within their area of expertise. When such personnel are outfitted with breathing apparatus, chemical suits, etc., they must be aware of the functions, limitations and safety precautions necessary in their use. Fire department personnel with the necessary protective equipment must closely monitor and/or accompany such personnel for safety.

BE AWARE THAT COMMAND IS RESPONSIBLE FOR THE SAFETY OF ALL PERSONNEL INVOLVED IN ANY INCIDENT.

COMMAND

At any working hazardous materials incident, Command should be passed to the on-duty Battalion Chief or Shift Commander. Before taking command, this officer should also perform size-up (based on dispatch information, radio traffic, observation, reconnaissance and any available preplanning). Once Command has been transferred, this officer must perform the following on-going functions until the incident has been stabilized:

- Provide for on-going size-up
- Update and adjust the plan as required
- Expand the organization as needed (provide for branches and divisions)
- Establish a hazardous materials branch or division for all working incidents
- Acquire continuing progress reports
- Acquire and coordinate resources (make necessary notifications)
- Make assignments (to achieve goals and support the plan)
- Provide for a safety officer (to continually monitor the scene and provide feedback for Command)
- Consider a separate TAC Channel for Haz-Mat Operations.

During the course of the incident, the Incident Commander (along with the Support Officer) should fill out the appropriate tactical checklists and worksheets so that all applicable considerations can be made and to properly document the response efforts.

Once the incident has been stabilized, the Incident command will identify the requirements for clean-up (based on consultation with City, County, and State rules and regulations). These requirements shall be given to the responsible party and used as the basis for a clean-up plan to be completed by a licensed contractor. Such completion shall be monitored by Fire Prevention.

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Decontamination	HM 012
	Rev. 04/09

INTRODUCTION

The purpose of the Decontamination Procedure is to assure that any potentially harmful or dangerous residues, on persons, equipment or apparatus are confined within the Hot Zone. Decontamination is intended to prevent the spread of contaminants beyond the already contaminated area, including the fire station, the hospital and other environments.

The specific measures required to decontaminate personnel, equipment or apparatus will vary with the contaminant, the circumstances, and the level of contamination. These factors must be considered on a case-by-case basis, within the guidelines described in this procedure.

Command is responsible for assuring that a Decontamination Group is implemented at incidents which involve a potential contamination problem. This sector or team should be assigned to personnel from the Hazardous Materials Team. Decontamination must be integrated into the management plan of the hazardous materials incident. Always consider Metro Decon units and trailers.

The Decontamination Officer is responsible for determining the most appropriate decontamination procedures and managing the decontamination process. This should be done in conjunction with advice from Research and Communications and coordinated with the Hazardous Materials Division Officer.

The initial assessment of decontamination requirements must be based upon the specific needs of the situation. The decontamination process must be appropriately designed for the specific materials involved and the degree and type of exposure encountered. The assessment will require research and may involve consultation with toxicology sources.

THE DECONTAMINATION OFFICER

The Decontamination Officer must assume that all personnel and equipment preparing to leave the Hot Zone are contaminated. Three courses of action are available:

- Confirm no contamination using instruments or investigation based on the nature of the situation.
- Decontaminate as appropriate to the situation and release.
- Retain and package items for removal from the site for disposal or decontamination at a different location.

In all cases, the primary objective must be to avoid contaminating anyone or anything beyond the

Warm Zone. When in doubt, decon all affected personnel, equipment, and apparatus.

THE DECONTAMINATION AREA

The Decontamination Area should be established within the Warm Zone perimeter adjacent to the Entrance/Exit Access Control Point. Personnel, equipment, and apparatus shall not be permitted to leave the Warm Zone without approval from the Decontamination Officer.

The Decontamination Area should provide a corridor leading away from the source of contamination toward the Exit, with stations along the way for the deposit of tools, equipment, protective clothing and other items. Monitoring personnel and equipment should be appropriately placed along the path. A person traveling along the path should experience a decreasing level of contamination along the way. When showers or spray nozzles are used, adequate space must be provided to avoid contamination of other areas or persons. The area where washing and rinsing are taking place must be diked to avoid water running into the clean area of the contamination reduction corridor.

All contaminated items must remain within the perimeter of the Warm Zone until decontaminated or safely packaged for removal. The Hazardous Materials Sector Officer or Decontamination Officer will be responsible for supervising proper removal of these items. Personnel should be assigned to inspect persons and/or equipment before being released from the Decontamination Area. This inspection may be visual or may involve the use of monitoring instruments, when appropriate. It must be assumed that items or persons are contaminated, unless their non-contamination can be confirmed.

DECONTAMINATION AREA PRECAUTIONS

During the decontamination process, all personnel working in the Decontamination Area must be adequately protected from contaminants. The Decontamination Officer will identify and require the appropriate protective equipment. These individuals and their equipment may also require decontamination after use.

Any runoff or residue from decontamination procedures must be contained within the Warm Zone and retained for proper disposal. Contaminated runoff must not be allowed to spread or escape. Diking may be necessary, and should be directed back to the Hot Zone.

PROTECTIVE EQUIPMENT PERSONAL EFFECTS

When feasible, protective clothing and personal effects should be decontaminated and released from the Warm Zone with the individual. If the Decontamination Sector Officer determines this is not feasible, these items will be impounded in the Decontamination Area. Personal effects will be carefully guarded by Decontamination Sector personnel until a determination can be made regarding their final disposition.

THE DECONTAMINATION PROCESS

The Decontamination Process shall consist of two lines. One line shall be utilized for dry decon

while the other line will be for wet decon. A dry decon line should be used when there is minimal risk of contamination to the individual or anyone else, and shall be a line that allows for clothing to be removed and replaced by clean garments. Such a process can be used for individuals indirectly effected by a chemical or biological release, and by individuals working in the Warm Zone that have not handled contaminated people or equipment. A wet decon line should always be used by response personnel working in the Hot Zone on the decon personnel who have handled them.

Decon lines should be established in steps or stages to accommodate the equipment and clothing that must be discarded. They must start at an entrance and end at an exit. As the individual being deconed proceeds toward the exit, the corridor should become cleaner. This contamination reduction corridor should also have a dirty side and a clean side. The dirty side should be used to discard anything that is potentially contaminated while the clean side is used to resupply or redress emergency responders who are returning to the Hot Zone.

SPECIAL CONSIDERATIONS

The normal wet decon process attempts to clean all protective clothing and SCBA's prior to doffing of any ensemble items. Thus, breathing protection and gloves must stay in place until the individual has passed through the wash and rinse phase of decon and is in a dry area.

If a Haz-Mat team member comes out of within contamination inside the protective garment or suit, or if the member is incapacitated, the Decon Officer will have to make a decision. The decision will be whether or not to remove all protection from the responder prior to beginning the wash and rinse phase of decontamination. If the responder is without obvious vital signs, he or she should be removed from all protective clothing, quickly deconed, and treated.
Anytime a responder or victim (of chemical or biological exposure) is incapacitated, they must be placed on a backboard prior to the decon process being started. Sometimes, it may be advisable to setup a second wet decon line to handle those who must be carried in situations of mass decon or the anticipated decon of several non-walking patients. Failure to do so will result in grid lock within the decon process. Such grid lock will overwhelm those providing decontamination and delay medical treatment of patients.

If a responder or victim can only be partially deconed or receives inadequate decontamination efforts, that person should be placed in encapsulation to protect medical personnel. In addition, the Incident Commander should anticipate the possibility of potentially contaminated individuals reaching the medical treatment area. This anticipation should be countered by providing protective clothing for all medical personnel and taking contamination reduction measures for transportation vehicles. Anytime such a possibility exists, Command should notify medical personnel in a timely manner so that they can be properly prepared.

FIRST RESPONDER DECONTAMINATION

At times, first due companies will arrive at the scene of incident and be confronted with the need to provide gross decontamination for a group of victims. Sometimes this group may be relatively small

or it may be the beginning of a mass decontamination effort. Such decontamination must be accomplished, because victims will be suffering from the effects of the exposure and/or there will be a need to reduce the potential for responders to become contaminated.

When a single company of two arrives at the scene of an incident where gross decon is required before a hazardous materials operation can be put in place, the company office will insure that all crew members are in full protective clothing with tape being applied to eliminate openings into or underneath the ensemble. If chemical protective clothing is not available, firefighter protective clothing will have to be utilized.

Tape will be used to create a corridor from the gross decon area to the holding area. Both the decon area and the holding area will also be taped. Every area that is identified with tape will be considered the warm zone. No one will enter the warm zone without the appropriate protective clothing or the highest level of clothing available.

Gross decon will be performed with water only from a standard small attack line with a firefighting nozzle. It will be performed by a firefighter standing outside of the warm zone. The individual being decontaminated will simply be "washed down" and then moved into the holding area. No clothes will be removed unless there is an ability to replace the clothing to recover the victim.

The holding area will be monitored by me or more firefighters in the full protective clothing. They will not enter the holding area unless medical treatment is required by a victim who becomes incapacitated. Once a firefighter enters the warm zone, he or she will remain until they can be properly decontaminated. Any victims that are removed from the holding area to an ambulance or to an indoor facility prior to a more comprehensive decontamination process shall remain inside the ambulance or facility until properly decontaminated. Any ambulance or facility utilized for individuals who have not been decontaminated or who have been inadequately decontaminated, shall be treated as a warm zone until properly decontaminated at the termination of a hazardous materials operation.

DECONTAMINATION SOLUTIONS

Solution A

5% Sodium bicarbonate--5% trisodium phosphate and water. Mix 2 pounds of commercial grade trisodium phosphate and 2 pounds of sodium bicarbonate with 5 gallons of water.

- Good for inorganic acids, metal processing waste, and some solvents and organic compounds such as trichloroethylene, chloroform, and toluene.

Solution B

10% calcium hypochlorite. Mix 4 pounds of calcium hypochlorite with 5 gallons of water.

- Good for heavy metals (mercury, lead, cadmium), pesticides, chlorinated phenols, dioxins, PCB's, cyanides, ammonia, and other non-acidic inorganic wastes.

Solution C

5% trisodium phosphate and water. Mix 2 pounds of trisodium phosphate with 5 gallons of water.

- Used as a general purpose rinse for some solvents and inorganic compounds, oily, greasy, non-specific waste not suspected to be contaminated with pesticides.

Solution D

Mix 1 cup of concentrated HCI into 5 gallons of water (add the acid to the water, **not** the water to the acid.) produces a dilute solution of hypochlorous acid (HCIO), Stir with a wooden or plastic instrument.

- Makes a weak acid solution good for inorganic bases, alkali and caustic wastes.

Solution E

A concentrated solution of detergent and water. Mix into a paste and scrub with a brush, rinse with water.

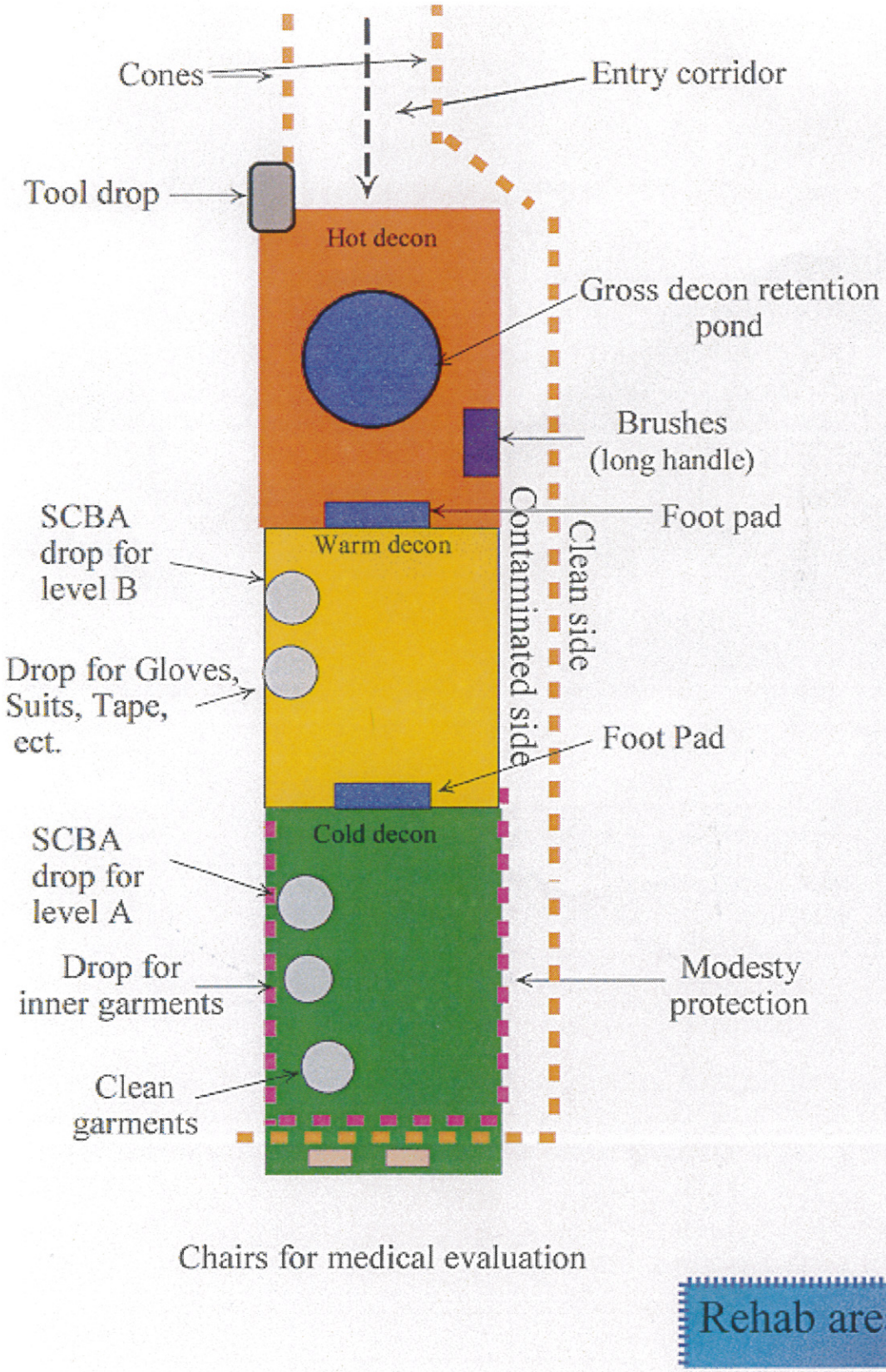
- Good for radioactive materials.

Solution F

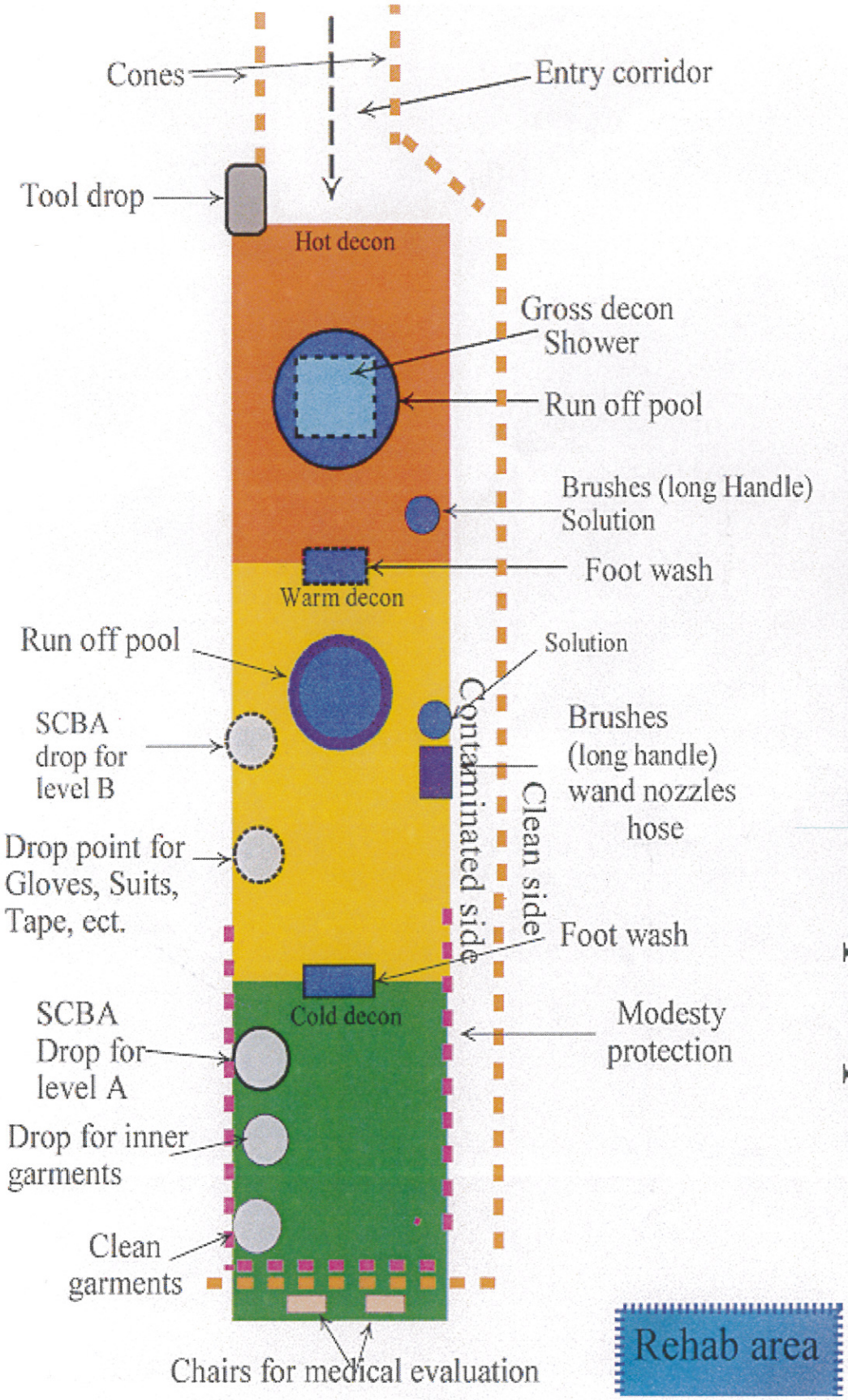
½ cup of household bleach with 5 gallons of water, or ½ cup hydrogen peroxide (3-4%) with 5 gallons of water.

- Good for etiologic materia

Dry Decon team 2 people



Wet Decon team2 people



DECONTAMINATION OVERVIEW

- Decon should obtain a briefing from the Haz-Mat Officer on the current situation and the needs for a Decon Group for the incident.
- Develop and implement a plan for Decon. Look at all equipment and resources which will be needed for the incident.
- Document and track all actions performed.
- Document and log all companies and personnel assigned to the group.
- Advise Haz-Mat of the resources and equipment required for decon to operate.
- Establish a site for the decon process to take place.
- Ensure that the proper level of protection and clothing is being used by personnel working in the Decon Group.
- Establish the corridors which personnel and equipment will take when entering and exiting the decon process. This corridor should be clearly marked.
- Identify all those personnel and equipment that is contaminated and make sure they proceed through decon.
- Provide for the safety and welfare of all personnel working in the Decon Group.
- Supervise the decon process of the incident. Make sure the decon methods used are proper for the situation at hand. Work closely with Operations and Technical Specialists in the area.
- Maintain control of decon. Make sure that no unauthorized people enter the decon corridor. Also make sure that the flow in the decon corridor is consistent with the plan.
- Maintain communications with the Safety officers on the incident. Advise them when decon is set up and ready to be utilized. Also keep track of the personnel entering the Hot Zone.
- Work closely with the Safety Officer and notify them of personnel in the hot zone and the warm zone. This will help accountability while working in potentially dangerous areas.
- Coordinate the transfer of patients from decon to the Medical Treatment area. Advise Command, Haz-Mat, and Medical personnel of potential contamination and what decon has been completed on responders, equipment, tools, and patients.
- Ensure that all contaminated material and runoff is contained and secured in decon. Work with Haz-Mat to properly dispose of all contaminated items during and after the incident.
- Constantly advise Command of the progress and needs of the decon process.
- Maintain checklists, and worksheets on all aspects of the decon process.

WEST VALLEY CITY FIRE DEPARTMENT

Hazardous Materials Decontamination Worksheet

ENTRY TEAM	BACK UP TEAM	RADIO CH(S)

Decontamination Team Accountability

NAME	PC	ON AIR TIME	OFF AIR TIME

Protective Clothing (PC): (TO) Turnouts, (DOTO) Disposable over Turnouts.
A) Level A, B) Level B, C) Level C, D) Level D, P) Proximity.

DECON SOLUTIONS	EQUIPMENT NEEDS

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Division Supervisor	HM 006
	Rev. 02/09

This officer may be a Company Officer or Chief Officer. They may be in command of a branch, division, or group. This officer is responsible for planning, organizing and conducting excursions into a hot zone for the purpose of mitigating a hazardous materials release.

HAZARDOUS MATERIALS DIVISION SUPERVISOR

This officer, assigned by Command to manage or supervise the Hazardous Materials Team members, must direct and coordinate all personnel and activities within the confines of the warm and hot zones. The primary responsibilities of this officer are:

- Planning (with Command and inside the Branch, Division, or Group)
- Establish the appropriate organization units or teams.
  a) Site Control
  b) Research
  c) Communications
  d) Support
  e) Entry
  f) Back-up
  g) Safety
  h) Decon
  i) Medical
  j) Clean-up
- Designate positions
- Give assignments
- Monitor progress
- Coordinate activities
- Communicate with Command and Haz-Mat personnel
- Adjust plan, position, assignments, and resources as necessary
- Terminate operation

DIRECTION/COORDINATION/COMMUNICATION

When the Haz-Mat officer establishes each position to conduct the hazardous materials operation, he or she must consider the span of control at large or complex incidents. If the span is too great, this should lead to the creation of a branch or the separation of Decontamination and Medical from Haz-Mat by making them separate divisions or groups.

A hazardous materials operation potentially requires a large number of qualified technicians. If the required number of qualified emergency response personnel is not available, the Haz-Mat Officer must cause available trained personnel to take on more than one role or position or to change roles or positions as the incident progresses. At times, it may also be necessary to place an officer or a team member with those who are not adequately trained or have the necessary experience. In these situations, all personnel working with the Haz-Mat team must be closely supervised.

For any working hazardous materials incident, the Hazardous Materials Officer must properly designate all areas of activity as well as the required supervisor before the Haz-Mat plan is implemented. Thus, all elements must be in place prior to actions being taken. This includes briefing all officers and team members so that they understand the objectives to be obtained and the tasks to be performed.

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Entry/Back up Team	HM 011
	Rev. 4/09

RESPONSIBILITIES

The Haz-Mat Entry and Back-up Teams are intended to work in the Hot Zone for the purpose of performing reconnaissance, response, monitoring, sampling, and spill mitigation. In order to successfully complete one or more of these assignments or tasks, the Entry and Back-up Teams must be properly prepared to operate in the Hot Zone, closely supervised by experienced officers and tightly supported by other teams or groups within the operation itself. Practical action plans accompanied by strong branch or division wide communications are key elements to the successful mitigation of significant chemical release.

PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment includes fire protective clothing and/or chemical protective clothing along with necessary respiratory protection to eliminate or reduce any potential danger. The Entry and Back-up Teams should have the following types of protective clothing available for use:

- Firefighting turnout coats, boots, and helmets
- Fire resistant gloves and hoods
- Disposable splash protection garments
- Disposable, fully encapsulated, vapor type chemical protective clothing with chemically resistant boots and gloves
- Non-chemical resistant gloves
- Chemical resistant gloves
- Hard hats with face shields
- Chemical resistant boot covers
- Cool vests at 70 degrees F or higher

At oil spills where there is no danger of fire, (based on air monitoring results), entry and back-up team members shall wear a disposable coverall, under gloves and over gloves, and oil-resistant boots or boot covers. No member may participate in spill mitigation activities in station uniforms or street clothing. Any cotton, leather, or other absorbable material that is utilized at such calls shall be discarded after use.

At incidents where there is an actual or potential threat from fire or explosion full firefighting protective clothing or turnout gear must be worn within the Hot Zone to include:

- Bunker pants, coats, boots
- Firefighting helmet with face shield
- Firefighting gloves and hood
- SCBA with face-piece in place

At incidents where there is an actual or potential threat from chemical exposure, chemically resistant clothing must be worn within the Hot Zone to include:

- Flame resistant coveralls
- Chemically resistive garments with hoods
- Chemically resistive boots and/or boot covers
- Chemically resistive gloves

When gloving, an inner glove shall be worn and a gauntlet glove may be worn over outer gloves to provide additional hand protection. At incidents where there is an actual or potential threat from chemical exposure and fire, chemically resistant clothing with firefighting turnout gear shall be worn within the Hot Zone. The chemically protective clothing may be splash protection, vapor tight, depending on the nature of the hazard. At incidents where the risk of chemical exposure is extreme, a fully encapsulated vapor tight protective clothing ensemble shall be worn within the Hot Zone to include:

- Flame resistant coveralls
- Chemically resistant, vapor tight protective garment that includes chemically resistant outer gloves and boots
- Head protection if applicable
- Gauntlet gloves may be worn over outer gloves to provide additional hand protection

There is an exception to this guideline: The protective clothing for the back-up team is usually identical to that of the entry team. If the probability for rescuing the entry team would involve a fire fight, it may be more practical to have the back-up team in firefighter turnouts without chemical protective clothing. Such a decision must be based on the ability of a fire to change the potential chemical exposure for the back-up team or the unlikely possibility of chemical exposure.

RESPIRATORY PROTECTION

The Entry Team and Back-up Team leaders in consultation with the Hazardous Materials Team Leader (i.e. the Hazardous Materials Branch or Division Supervisor) shall determine the type of respiratory protection required within the Hot Zone.

Self-contained breathing apparatus is the required respiratory protection at incidents involving fire and explosion, where there are high concentrations of known hazardous materials or to unknown or uncharacterized materials, at incidents where oxygen concentration is less than 19.5%, and at incidents where there is a real or potential threat of low level radioactivity.
Air purifying full-faced respirators (APRs) can be utilized in the Hot Zone or Warm Zone where there are low concentrations of known materials that can be quantified based on the type of instrumentation available. APRs can only be utilized when the concentration present does not exceed the capacity of the cartridge, and the cartridge is approved for the chemical hazards present. Such cartridges should not be used when the oxygen concentration is below 19.5%, or the concentration present exceeds 50 times the TVL or PEL, or the concentration is at or above the IDLH.

GETTING ORGANIZED

As the Haz-Mat Branch or Division Supervisor is developing an action plan, he or she will conduct a meeting with all team leaders to discuss and refine the plan. When the officer in charge meets with the Entry and Back-up Team Leaders, he or she should have all necessary information from the Research Team so that these questions can be answered:

- What is the purpose of the entry into the Hot Zone (recon, sampling, mitigation, etc.)?
- What PPE is to be worn by both teams?
- What communications equipment and channel(s) are to be used?
- What monitoring equipment is to be utilized?
- What equipment, tools, and materials are needed for the excursion?
- What tasks are to be completed by the Entry Team?
- How many Entry Team members will be needed (the Back-up Team must provide one on one rescue ability)?
- How is the back-up team to be deployed?

Once the Action Plan has been drafted for the specific entry into the Hot Zone, the Entry Team and the Back-up Team should be sent to their designated area to be briefed by their team leaders. Each team should utilize a supervisor who will direct work or actions as opposed to carrying them out. As the teams are being briefed, the Equipment Officer and Equipment Team should bring all required protective clothing and communications equipment to the dressing area. All monitoring equipment, other equipment and tools, and spill control materials shall be delivered to the entrance of the Warm Zone. Personnel should be assigned to the Entry and Back-up Teams to help them dress. They should be supervised by the Equipment Officer and checked by the Safety Officer.

MEDICAL EVALUATION

Prior to dressing Entry or Back-up Team members, each person entering the Hot Zone shall be evaluated by a member from the medical team. This evaluation required vital signs as well as questions to be answered and shall be documented by a form to be filled out on each member. Any abnormal vital signs or negative answers to medical questions shall eliminate ant team member from dressing and entering the Hot Zone. Medical personnel will also provide Entry and Back-up Team personnel with information about the toxic hazards of chemicals that they might be exposed to. Such information shall describe potential signs and symptoms from exposures as early warning signs of protective clothing or equipment failure.

BRIEFINGS

The team supervisors shall brief the Entry or Back-up Teams respectively as in the roles and tasks to be completed for each specific entry made into the Hot Zone. As instructions are being given concerning the details of the initial or draft action plan, team members are encouraged to offer suggestions to improve the plan. Any suggested changes are then given to the Haz-Mat officer in charge for appropriate modifications. During such briefings, each individual team member shall be given assignments that compliment the team efforts inside the Hot Zone.

COMMUNICATIONS

Once the Entry and Back-up Teams have been medically evaluated, briefed, properly dressed, and all equipment and materials put in place, the officer in charge will do a radio check on the assigned channel. After he or she has insured that radio communications with both the Entry and Back-up Team supervisors in tact, the officer in charge should also insure that Site Control, Decontamination, Medical and Safety are also in place, ready to go, and on the appropriate radio channel. After this radio check has been completed, the Haz-Mat officer in charge will notify Command that entry into the Hot Zone is going to proceed.

SAFETY OFFICER

The Safety Officer has several duties related to the Entry and Back-up Teams operating in the Hot Zone. First, he or she is to oversee the medical evaluation and documentation. The Safety Officer will have the final say on who can and cannot work in the Hot Zone. The Safety Officer will also observe the dressing procedure and will check each team member to provide quality control for this important process. During the briefings in which assignments are given to Entry and Back-up Teams, the Safety Officer shall also provide instruction as to the safety practices that he or she wants to be employed in the Hot Zone. There shall be no deviation from the Action Plan or from those safety instructions without the permission of the officer in charge and the Safety Officer. As the Entry and Back-up Teams move into position, the Safety Officer shall also check the Access Control Point to make sure that all personnel entering the Warm Zone are being accounted for. He or she will also monitor all communications in the Warm and Hot Zones in order to alert the officer in charge of any safety concerns. Along with, and in connection with the officer in charge, the Safety Officer has the authority to stop the operation in the Hot Zone and to cause all members to leave the area.

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Hazardous Materials Division	HM 004
	Rev. 1/09

The Hazardous Materials Division is a functional division, which may need to be supported by geographical or other functional divisions. In conjunction with the Incident Commander, the plan and objectives will be put together for the Hazardous Materials Division. Some pre-determined objectives for a Haz-Mat division are:

- Monitor zones
- Rescue victims (remove bodies or mark bodies)
- Stabilize chemical reactions
- Stop leaks and control spills
- Decontaminate people and equipment
- Treat patients
- Supervise cleanup and disposal of hazardous waste (by a qualified contractor)

RESPONSE

During response and based on information from dispatch or the field, Haz-Mat team members will begin the research process. This process will begin the search for chemical information and the review of any available pre-plan or target hazard information on the facility where the chemical accident has occurred. If possible, the Haz-Mat team should acquire a weather report prior to arrival at the incident. Such a report should be compared to actual arrival conditions at the scene. Response of Metro Haz-Mat Teams should be considered.

ARRIVAL

Upon arrival, the Haz-Mat team officer should stage all Haz-Mat apparatus based on all standard operating guidelines. This officer should then report to the Incident Commander to be briefed and to receive directions from the Incident Commander. The briefing (and discussion) should include, but not be limited to, the following factors:

- Nature of accidental spill or release
- Rescue or recovery profile
- Potential for more exposure to employees, responders, and citizens
- Need for further evacuations
- Need for establishing or changing security zones
- Resources at the scene or on the way
- Actions taken by the Incident Commander
- Objectives and tasks for the Haz-Mat team
- Designation of the Haz-Mat Division Supervisor

INITIAL PLANNING AND ORGANIZATION

After leaving the command post, the Haz-Mat Division/Group Officer (as determined by the IC) will proceed to direct the team to the area from which they will establish and operate the Hazardous Materials Division. If this division is to operate within or in conjunction with other divisions, the Haz-Mat division supervisor will communicate and coordinate with these divisions.

Upon arriving in the appropriate area, the Haz-Mat Division Supervisor in conjunction with other team members will formulate an action plan for the division. This plan will address any objectives and tasks that are needed to mitigate the chemical impact of the release or spill.

The Hazardous Materials Division has many areas of activity that need to become part of the organizational approach to the event in order to accomplish identified objectives. Such areas of activity would include:

- Site control (via established zones and security)
- Research (chemicals, processes, facilities, neighboring occupancies)
- Communications (inside/outside the sector)
- Support (protective clothing, monitoring devices, equipment tools, and spill control materials)
- Entry Team
- Back-up Team
- Safety
- Decontamination Team
- Medical Team
- Cleanup and disposal
- Documentation (Site safety plan and incident action plan)

If the incident is large enough, the Hazardous Materials Division should become a branch. At times it is more practical to operate certain activities (i.e., decon and medical) as divisions within the Haz-Mat branch.

After the action plan and organization have been developed for the Haz-Mat team, the Division Supervisor should take the plan to the Incident Commander for approval. It is critical that the Haz-Mat plan fit with the overall plan for the incident. The Haz-Mat group or team should never operate isolated or removed from the rest of the operation. At times it may be necessary for Command to appoint a Liaison Officer for the Hazardous Materials Division. This individual will facilitate communications between Command and the Hazardous Materials Division supervisor. This allows Command to keep abreast of changes within the division so plans can be adjusted and resources properly deployed.

No part of the Haz-Mat action plan should be implemented until all areas of activity are established and ready to proceed. This includes being able to communicate with each other. It is the responsibility of the Haz-Mat division supervisor to coordinate all division activities, and all activities must be monitored by the Safety Officer.

MANAGING THE DIVISION

Site Control Team:
The Site Control Team has the responsibility to establish or re-establish zones based on monitoring the affected area. They are also responsible to establish access points and lobby control for the division. All monitoring must be done in full protective (or chemical) clothing.

Research Team:
The Research Team is responsible for evaluating research material about the chemicals that have created a potentially dangerous situation. A good research effort produces good information and eliminates costly mistakes in judgment or decision making. Such research must have a check and balance system that causes each chemical to undergo cross-referencing so that contradictory data can be identified. As the research identifies the hazardous characteristics of specific chemicals, recommendations can be made as to the protective clothing, monitoring equipment, tools, spill control materials, stabilization methods, and decontamination procedures case is made.

Communications Team:
The Communications Team is responsible for accessing data bases, chemical and toxicology consultants, and outside agencies or private companies. It is also responsible for facilitating communications within the team and with Command.

Support Team:
The Support Team has two basic functions. One function is to provide the current protective clothing and communications equipment for the entry and backup teams. The other function is to provide monitoring devices and any equipment or tools that might be needed for testing, neutralizing, or controlling the spill or leak.

Entry Team and Back-up Team:
The Entry and Back-up Team includes those that will directly work in the Hot Zone or chemical environment plus a back-up team for rescue. All team members that enter of may enter the Hot Zone must be medically evaluated and properly dressed prior to entering potentially hostile surroundings. Entry and Back-up teams should give constant progress reports while in the Hot Zone and will be monitored by lobby control and the Division Safety Officer. If the Entry Team is utilizing an action plan that becomes dysfunctional, they should leave the area, and the plan should be revised. Good communications between the Entry and Back-up team and the Division Supervisor are critical.

Decontamination Team:
The Decontamination Team must be ready to perform decontamination prior to the entry team being allowed to enter a hazardous area. This team should always be in a state of readiness once they have set-up in the Warm Zone. All personnel, patients, and equipment must be decontaminated prior to leaving the Warm Zone. Any equipment or materials that cannot be decontaminated must be left in the Warm Zone to be disposed of as hazardous waste. Any patients who cannot be decontaminated must be packaged so as to contain any contaminated items.

Upon leaving the Warm Zone, personnel should either proceed to the rehab or medical area. The medical treatment area should be manned by paramedics (preferably by those with toxicology training). As patients enter the treatment area, they should be segregated in terms of the seriousness

of their condition. Should any patient pose a contamination threat, all extrication and transportation personnel must be in protective clothing, and hospitals must be notified that they are receiving contaminated patients.

Documentation Team:
This team will be responsible for completing a site safety plan and an incident action plan. They will also be responsible for documenting times the entry teams are on air, entering and exiting the hot zone, and time off air. Post operations, the documentation team will account for all equipment used and submit to administration an itemized list for billing purposes and cost recovery.

SUMMARY

After the emergency has been eliminated, it is the responsibility of Command and the Haz-Mat team to make arrangements for the clean-up, removal, and proper disposal of hazardous waste. The clean-up and disposal of hazardous waste should be undertaken by a reputable, licensed contractor. This reduces exposure potential for responders and reduces the legal liability for the responsible party and the response agencies.

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Officers and Team Leaders	HM 005
	Rev. 02/09

This SOG is a companion guideline to The Hazardous Materials Division (which identifies the operating guidelines for managing a hazardous materials branch, division or group). The intent of this SOG is to describe the responsibilities of each officer or team member who may be assigned to a key group or team at a hazardous materials incident.

HAZARDOUS MATERIALS DIVISION SUPERVISOR

The officer assigned to manage or supervise the Hazardous Materials Branch or Division must direct and coordinate all personnel and activities for the group. The primary responsibilities for this officer are:

- Planning (with Command and inside the branch or division)
- Establishing the appropriate divisions, groups, or teams;
  a) Site Control
  b) Research / Communications
  c) Equipment Support
  d) Entry / Back-up
  e) Decon
  f) Medical
  g) Rehab
  h) Clean-up
- Designating positions and giving assignments
- Monitoring progress
- Coordinating activities
- Communicating with Command and Haz-Mat personnel
- Make necessary adjustments to the plan, assignments, and resources.
- Terminate Division or Branch

SAFETY OFFICER

The Safety Officer is Responsible for the following measures:

- Develop and implement site specific safety plan Haz-Mat operation.
- Insure that all required divisions or groups are in place and functioning prior to start of the operation.
- Monitor all communications within Branch, Division, or Group.
- Insure all personnel entering the Hot Zone have been medically evaluated and properly dressed.
- Make sure that assignments and instructions for personnel entering the Hot Zone or working

in the Warm Zone include safety considerations.

- Record on-air times for all personnel in chemical protective clothing.
- Stop or change any unsafe actions.
- Assist the Division Supervisor with accountability.

LIAISON OFFICER

The Haz-Mat Liaison Officer will be utilized by Command to facilitate communications with the Hazardous Materials Branch, Division or Group. This position should be created when the hazardous materials operation is complex and/or very hazardous. Since the Haz-Mat Officer may be very involved, such a Liaison Officer will provide another communications link with Command that can maintain the flow of information in a timely and efficient manner. This Liaison position may also be used to work directly with outside agencies or individuals with technical experience who need to interact with Haz-Mat personnel.

SITE CONTROL OFFICER

The Site Control Officer is responsible for establishing or re-establishing zones. If zones have already been set up, they may have to be adjusted based upon a better understanding of the relative hazards. If zones have not been set up, they must be put in place. Whenever monitoring equipment or methods can be used to establish zones, such action should be taken. The Site Control Officer is responsible for monitoring and controlling all access points into and out of the Warm Zone and the Hot Zone. No one should be allowed into the Warm Zone without the proper level of protective clothing and an assignment. The Site Control Officer must insure that contaminants do not leave the Warm Zone.

RESEARCH/COMMUNICATIONS OFFICER

The Haz-Mat Research/ Communications Officer and his or her team are responsible for gathering, compiling, coordinating and disseminating all data and information relative to the incident. This data and information will be used within the Haz-Mat branch, division or group for evaluating risks, developing a plan, selecting protective clothing and determining control methods. When providing research support for the Haz-Mat team, the Research Officer will insure that:

- Each chemical is evaluated based on set criteria.
- That more than one reference is used for each individual chemical.
- That the worst case scenario is used when there are contradictions in the information.

The Research and communications functions must be put together to provide the necessary information to all concerned. It is the role of the communications function to disseminate all chemical and chemical process information to the Haz-mat Division Supervisor and Command. Members of the Research/Communications Team or Group may also be involved in providing updates to that information. Finally, the Communications Officer serves as the contact point between other response teams, private industry representatives, environmental agencies and medical advisors.

EQUIPMENT SUPPORT OFFICER

This officer provides for the logistical support of the Haz-Mat Team in the field. This officer or team leader supplies entry and back-up team members with protective clothing, communications equipment, monitoring devices, tools, and spill control materials. This logistical effort also applies to the decon and medical teams in terms of protective clothing, hazardous materials equipment and tools.

ENTRY AND BACK-UP TEAM OFFICER

The Entry Team Officer is the Hot Zone supervisor who directly controls the activities of team members in potentially dangerous situations. As such, this officer is responsible for all offensive and defensive actions to control and mitigate the actual or potential chemical release. This officer must coordinate operations between entry, back-up, medical and decon. He or she may also direct rescue operations within the Hot Zone. In case of an emergency, the task of the Back-up Team is to extract the Entry Team from the Hot Zone. The Back-up Team must be in place when the Entry Team Proceeds into the Hot Zone and will respond to any accident based upon orders from the Haz-Mat Group Officer.

DECONTAMINATION OFFICER

The Decon Officer and Team are responsible for applying decontamination methods to remove all the contaminants prior to anyone or anything leaving the Warm Zone. The Decon Officer is responsible for:

- Determining the proper level of decontamination to be provided.
- Ensure that proper protective clothing is being worn by decon methods.
- Ensure that proper decon procedures are being use by the Decon Team.
- Coordinate decon efforts with the Entry Team Officer and the Medical Officer. The Decon area must be established before anyone enters the Hot Zone.
- Control all personnel entering and leaving the Decon Area.

MEDICAL OFFICER

The Medical Officer and personnel assigned to this group are responsible to monitor all Entry Team and Back-up Team personnel before and after mitigating the hazardous materials release. The Medical Group or Team (like decon) must be in place prior to entry into the Hot Zone. The Medical Officer is responsible for treating the ill, injured, or chemically contaminated civilians or emergency response personnel.

CONCLUSIONS

A hazardous materials operation at the Branch, Division, or Group level requires a large number of qualified emergency response personnel. If the required number of qualified personnel is not available, Haz-Mat Officers and Team members may have to take on more than one role or position or may have to change roles or positions as the incident progresses. At times, it may be necessary to

place a qualified team member or officer with those that are less trained to oversee their activities in support efforts to sustain the activities of the Haz-Mat part of the overall operation. It is extremely important that the Haz-Mat Division Officer properly designate all the required areas of activity and all required supervisors before the Haz-Mat plan is implemented. All officers and team members must be properly informed as to the objectives and tasks they are required to carry out.

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Research	HM 009
	Rev. 4/09

SCOPE

The Haz-Mat Research Team is responsible for gathering, compiling, coordinating, and disseminating all data and information relative to the incident. This data and information will be used within the Haz-Mat Branch, Division, or Group for evaluating risks and developing or adjusting the Incident Action Plan (IAP), including; adjusting Isolation Zones, selecting protective clothing (PPE), determining spill control methods, implementing the decon process, and identifying medical treatment options.

METHODS

The Research Team should use multiple sources to cross-reference and verify information whenever possible. Sources should include; both department and on-line data bases, on- and /or off-site technical advisors and industry representatives, medical experts, private contractors (clean up and disposal, etc.) and other governmental agencies (fire and police departments, FBI, EPA, military, national weather service, et. al.) Information from varying sources does not always agree precisely, and is occasionally contradictory. The Research Team should reconcile small discrepancies favoring the safest and most logical options. Serious or irreconcilable discrepancies should be presented to the Haz-Mat Branch Director for evaluation.

Complex incidents and incidents where life-safety concerns cause "a need to act" put time constraints on the research process. At these times, a rough picture of the hazards involved as well as the necessary PPE and decon processes should be outlined in a timely manner, even as research continues.

TEAM MEMBERS

The Research Team's size will be based on the size and the complexity of the incident as well as the available resources, but should include the Research Officer and the Medical Officer for the Haz-Mat Branch.

RESPONSIBILITIES

The Research Team should take part in the development of the IAP and be prepared to brief Site Control, Decon, Entry Teams, RIT, Medical, Haz-Mat Medical and other Groups with detailed information pertinent to their specific assignments.

The responsibilities of the Research Officer and Team members include:

- Acquire all preliminary information for each product (and processes) identified as involved with the incident and fill out the "Chemical Reference Worksheet" for each product researched.
- Identify the primary hazards of the products (and processes) involved and submit to the Haz-Mat Officer in charge.
- Where leaks are likely to contaminate other material, identify possible affects from their interaction.
- Acquire current weather forecasts and frequently update.
- Acquire building layouts and/or topographical information.
- Make predictions regarding the behavior of the spill or leak based on the physical properties of the product(s) and their interaction with the environment.
- Identify medical concerns, including a timeline for the signs and symptoms of exposure.
- Make recommendations to the Haz-Mat Officer in charge for the following:
  a) Evacuation distances
  b) Size and location of Isolation Zones
  c) Proper levels and types of PPE for all zones
  d) Spill control methods, equipment, tools, and materials
  e) Decon methods
  f) Medical treatment options for exposure to the product(s)
- Assist with the development of the IAP
- Provide detailed, mission specific briefings to the various personnel as directed by the Haz-Mat Officer.
- Act as liaison with the various entities providing research information.
- Maintain all documentation required of the Research Team.

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Safety Officer	HM 007
	Rev. 02/09

SCOPE

The Hazardous Materials Safety Officer is in reality the Support Officer for the Hazardous Materials Officer. Any working hazardous materials incident should have a Safety Officer for the incident and a Safety Officer assigned to the Hazardous Materials Branch, Division, or Group. This officer will assist the officer in charge with all safety considerations during the course of the operation.

RESPONSIBILITIES

The Hazardous Materials Safety Officer is responsible for the following measures:

- Develop and implement a site safety plan for the Haz-Mat operation.
- Insure that all required divisions/groups, and personnel are in place and functioning prior to the start of the operation.
- Monitor all communications within the warm and hot zones.
- Insure that all personnel entering the hot zone have been medically evaluated and properly dressed.
- Make sure that assignments and instructions for personnel entering the hot zone or working in the warm zone include safety considerations.
- Record and monitor on-air times for all personnel in chemical protective clothing.
- Stop or change any unsafe act.
- Assist with accountability of all personnel assigned to the Haz-Mat operation.

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response Special Considerations for First Responders	HM 002
	Rev. 12/08

GENERAL FACTORS TO CONSIDER

Due to the wide variety of situations fire department personnel may encounter in dealing with hazardous materials, these considerations will not attempt to provide specific guidelines on any one individual chemical or situation and are not listed in any priority.

It is important that the first arriving fire department company make every effort to determine what hazardous material(s) is involved, and the amount prior to taking action to stabilize the incident.

Call for additional resources early. The actions taken by Command in the first few minutes of the incident affects the outcome more than any other single factor. Hazardous Materials teams will be needed as well as a number of other fire companies to support site operations. Make a slow, cautious approach to the incident. Entering the scene to make positive identification may be a considerable risk. The danger of explosion, leaking gas and poisoning may be great. Furthermore, any "Knee-jerk" action taken prior to determining the product involved may place firefighters at a considerable safety risk and may further compound the problem.

Transportation emergencies are often more difficult than those at fixed locations. The materials involved may be unknown, warning signs may not be visible or obscured by smoke and debris, the driver may be killed or missing. DOT hazardous materials marking systems are inadequate because some hazardous materials in quantities up to 1,000 lbs., do not require a placard and there may be combinations of products involved with only a "dangerous" label showing. Sometimes only the most evident hazard is identified, while additional hazards are not labeled.

The following items should be considered at any hazardous materials incident. (Not all will be significant at any particular incident.)

- Cooling Containers - Flame Impingement
  a. Obtain adequate water supply, use large GPM hose streams or stung guns.
  b. Apply heavy streams to the vapor space area above the tanks liquid line.
  c. Use unmanned streams.
  d. Use natural barriers to protect personnel.
- Remove Uninvolved Materials
  a. These actions should only be done after a complete site safety plan has been established by Command and the H.I.R.T. Officers.
  b. Move individual containers.
  c. Move tank cars away from flame.
  d. Cool containers before moving.

- Stop the Leak
  a. Use water spray to approach leak.
  b. Close valves when safe to do so.
  c. Do not apply water to chlorine containers - it will make the leak worse.
- Apply Diluting Spray or Neutralizing Agent
  a. Dilute water-soluble liquids, such as ammonia, chlorine, LPG (No water on CL2 tanks).
  b. Use water with caution on some materials.
- Construct Dams, Dikes or Channels
  a. Direct running liquid away from exposures.
  b. Control run off from corrosive or toxic materials.
  c. Use sand or dirt.
  d. Keep product out of sewers, storm systems, canals, or other waterways, etc.
- Remove Ignition Sources
  a. Start down wind.
  b. Eliminate all sources of heat, spark, and friction.
  c. These actions may need to be accomplished in conjunction with the proper technical advice.

Dispatch has a Reference List of personnel and organizations which may be helpful during Hazardous Materials Emergency. These include:

- Fire department personnel with particular experience or knowledge.
- Authorities in charge of landfills and dumps where Hazardous Materials may be disposed.
- Commercial chemical experts with experience in handling and disposing of most common chemicals.
- Pesticide consultants and disposal teams with equipment to clean up agricultural chemical spills.
- Personnel from state and federal regulatory agencies. These personnel should be contacted for incidents involving transportation of Hazardous Materials.
- Railroad information numbers.
- Tank truck companies with de-fueling capability (in case carrier involved in incident has none).
- Radioactivity and military weapons emergency contacts.

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Hazardous Materials Response/Haz-Mat Medical Group	HM 016
	Rev. 6/09

SCOPE

The Haz-Mat Medical Group is responsible for monitoring the medical condition of personnel assigned to the Haz-Mat Branch and providing treatment as needed. Additionally, the group serves as the on-site resource for medical information regarding exposure to the release. As part of their mission, Haz-Mat Medical Group member(s) should be attached to the Research Group to identify medical concerns associated with the hazardous materials release and to assist in the creation of the Incident Action Plan (IAP).

TEAM MEMBERS

The Haz-Mat Medical Group will be led by the Haz-Mat Medical Officer. Additional personnel should be assigned to the group based on the scale of the incident. Assignments could include; Medical Research, Medical Monitoring (of Hot Zone entrants), Haz-Mat Medical Treatment, Haz-Mat Medical Transport, etc.

The Haz-Mat Medical Officer should request the personnel and equipment necessary and create an organizational structure to meet the responsibilities of the Haz-Mat Medical Group.

RESPONSIBILITIES

The responsibilities of the group include:

- Identify the signs and symptoms of exposure (at various levels) to the released product(s), including short and long term complications.
- Identify emergency and long term treatment options for victims of exposure.
- Create Emergency Treatment Plans for treating victims exposed to product.
- Identify other health concerns for responders at the incident. (i.e. cold, dehydration, ice, etc).
- Identify equipment and PPE levels for medical personnel who are treating exposed victims and responders who may not have been through the full decon process prior to treatment.
- Manage and prepare (i.e. "drape") dedicated ambulance(s) and crew(s) for exposed or injured responders who may not have been through the full decon process.
- Assist with the preparation of the IAP.
- Treat and transport exposed or injured response personnel.
- Establish Medical Clearance for entry team members (e.g. acceptable vitals range, unacceptable medications or medical history, etc.) with consideration for environmental conditions and the level of work expected.
- Medically clear entry team members prior to entry.

- Brief Medical Branch, Site Control, Decon, Entry Teams, Rit, Haz-Mat Safety Officer, and other groups, with detailed medical information pertinent to their specific missions (i.e. signs and symptoms of exposure, short and long term complications of exposure, emergency treatment protocols, etc.).
- Monitor the medical condition of entry personnel prior to, during, and immediately after entry into the Hot Zone.
- Contact and brief receiving hospital ER or ED regarding the product, complications of exposure, and decon status of patients.
- Serve as Liaison for all off-site medical experts on the treatment of exposed victims.
- Maintain documentation on emergency personnel and patients.
- Follow up with all exposed West Valley City employees and the designated department Exposure Officer.

Incident Management

300.1 PURPOSE AND SCOPE

The purpose of this policy is to establish operational guidelines for members of the Department to use in the management and mitigation of all-hazards emergency incidents.

300.1.1 DEFINITIONS

Definitions related to this policy include:

All-hazards - An incident, natural or manmade, that warrants action to protect life, property, the environment, and public health or safety, and to minimize disruptions of government, social or economic activities.

300.2 POLICY

It is the policy of the West Valley City Fire Department to utilize the Incident Command System (ICS) or other National Incident Management System (NIMS)-compliant incident management system for managing all emergency incidents. All incident-related activities should be managed in accordance with established ICS/NIMS methods and procedures.

300.3 INCIDENT MANAGEMENT

The Administration Battalion Chief should ensure the Department adopts written ICS/NIMS procedures that are compatible with neighboring jurisdictions. These procedures should be available to members.

Emergency incidents shall be managed utilizing trained and qualified personnel for the specific tactical, supervisory or command level assignments.

Basic Incident Command Procedures

Hazardous Materials Response Command Considerations

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WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Anthrax Tactical Response Plan	HM 018
	Rev.4/09

DESCRIPTION OF AGENT

Anthrax is a highly lethal infection with the bacterium, Bacallus anthracis.

METHOD OF CONTAMINATION

- Cutaneous or skin form, occurs most frequently in hands and forearms, typically by a person working with infected animals or directly exposed to the agent
- Inhalation of the spores, this method would be deliberate. Aerosolized particulate
- Ingestion of insufficiently cooked meat of an infected animal

INCUBATION PERIOD

1-6 days

SIGNS AND SYMPTOMS

Fever, malaise, fatigue, cough, and mind chest discomfort are followed by severe respiratory distress with dyspnea, diaphoresis, strider and cyanosis. Shock and death occur 24-36 hours after the onset of severe symptoms (usually after the respiratory distress onset). In cutaneous anthrax a papule develops, then vesticates, finally developing into a black eschar surrounded by moderate to severe edema. The lesions are usually painless. Without treatment, the disease may progress to septicemia and death with a case fatality rate of 20%. With treatment, fatalities are rare.

TREATMENT

The treatment of anthrax will be completed at a medical facility. Very little can be done with the initial treatment in the field. The field units will need to treat the symptoms as to the normal protocols for the symptom which is present. Medical personnel should where the proper level of protection which is normally used for patient contact. Clinical treatment: High-dose penicillin, ciprofloxacin, or doxycycline should be given. This is not contagious from person to person.

BASIC HAZARDOUS MATERIALS RESPONSE AWARENESS

- Isolate the area and any involved people
- Deny access to anyone except response personnel

- Determine the routes of exposure of the material
- Develop a response plan which includes; level of protection for responders, ability to decontaminate, and medical plans
- Keep everyone calm...

UNIT RESPONSE

- Battalion Chief
- Engine Company
- Haz-Mat Unit
- Police Unit

RESPONSE

Unopened letters or packages with no suspicious markings or indicators:

- This assessment shows that no action by the police or fire department is required. The person who received the letter should be advised that if they are concerned about opening the item they should not do so. It is their right to simply throw the letter away.

Opened letters or packages that contain neither threatening correspondence nor material:

- No response from the fire or police departments is necessary.

Opened letters or packages with material which has spilled out:

- A joint response from both the fire and the police departments will be necessary.
- The room where the package is located should be isolated.
- Complete a hazard and threat assessment to try and determine what is in the package; call or track down where the mail was sent and what it may contain.
- Responders must collect the evidence and send for testing.
- All materials must be screened for chemical and radiological gear for an unknown product. Minimum: splash, gloves, taped respiratory protection with SCBA or filter masks, and eye protection.
- Secure evidence for testing.
- Decontaminate if necessary.
- Notify the State Department of Health
- Notify the FBI

Unopened sealed letters or packages with suspicious markings or indicators:

- Complete a hazard assessment and threat assessment for package
- Radiological monitor
- Explosive device; x-ray package
- Chemical screen
- Operation completed in appropriate level of personnel protective equipment
- Decontaminate if necessary
- Notify the State Department of Health

- Notify the FBI
- Make working Haz-Mat notifications

DECONTAMINATION

People involved in the material, including responders:

- Remove clothing
- Wash with soap and water and place person in white tyvek
- Bag all clothing and material in a bag which is marked with contents, and biohazard

For Objects:

- Do not vacuum the object
- Spray the area with 1:10 solution of household bleach, leave it for five to ten minutes and wipe off

EVIDENCE

It is very important that the evidence be taken in a way to have a high level of results once it is in the lab for analysis:

- DO NOT TAKE ANY EVIDENCE OR PACKAGE BACK TO THE FIRE STATIONS OR POLICE STATIONS. DO NOT LEAVE ANY EVIDENCE AT THE SCENE
- Police department should start the chain of evidence procedures and assure that the evidence is properly handled.
- Do not send unopened letters or packages to the lab. All specimens should be screened for radiological, explosive, and chemical.
- All evidence should be triple bagged and identified with zip lock type bags. Place case number, sample number, and person taking sample on the outside of the bag. Do not use duct tape on the bags.
- Notify the FBI and State Health

NOTIFICATION NUMBERS

FBI..... 579-1400
State Health.....538-6191 or 241-1172

WEST VALLEY CITY FIRE DEPARTMENT
WMD THREAT/HAZARD RISK ASSESSMENT

- ☐ What type of package has been sent, why it is suspicious?
- ☐ Is the package leaking or covered with unknown material?
- ☐ Has the person been threatened? Did the letter or package contain a threat?
- ☐ Has the person been threatened before?
- ☐ Obtain all information available from package;
  - ☐ Return address _____
  - ☐ Postmarking _____
  - ☐ Was the mail expected?
- ☐ Conduct logical checks to determine the validity of the mail.
- ☐ Contact sender, explain what you have, ask for explanation for the substance in the package.
- ☐ Has there been anything happen previously at the residence or business?
- ☐ What does the business do?
- ☐ For additional assistance contact the FBI

NOTES

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Emergency Response to Suspicious Envelopes/Packages/Containers	HM 003
	Rev. 1/09

SCOPE

The first arriving police officer or fire unit will follow these steps when responding to an unidentified or suspicious envelope, package, or container:

- Have dispatch ask caller to meet officer outside at the entrance to the facility or building, without the package.
- Have caller describe suspicious envelope, package, or container.
- Have caller answer questions attached to this protocol. If the answers to the questions indicate that the threat may be real, the officer is to call for assistance. That assistance will include a police supervisor, a fire supervisor, Haz-mat and/or bomb response.
- If the envelope, package, or container has been opened and the described contents indicate a potential threat, the officer is to call for assistance.
- If assistance is being requested, the officer shall give access and staging directions for all responders.
- If evacuation is indicated, the officer shall consult with his or her supervisor prior to initiating such action with the responsible part at the scene.
- Any person or persons that have been potentially exposed to a chemical or biological agent should be kept in an isolated area away from all other employees or citizens.
- The officer should avoid all potential exposures by maintaining the proper distance from the building and from potentially exposed individuals.

WMD THREAT/HAZARD RISK ASSESSMENT

- What type of package has been sent, why is it suspicious?
- Is the package leaking or covered with an unknown material?
- Has the person been threatened, i.e., did letter or package contain a threat?
- Has person threatened before?
- Obtain all information available from package;
    a) Return address
    b) Postmarking_____
    c) Was the mail expected?
- Conduct logical checks to determine the validity of the mail
- Contact sender, explain what you have, ask for explanation for the substance in the package.
- Has anything happened previously at the residence or business?

- What does the business do?
- For additional assistance contact the FBI (801-579-1400)
- For additional assistance contact the Health Department (801-538-6191)

NOTES:

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WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Exposure Control Reporting of Infectious Disease or Chemical Contamination	HM 021
	Rev. 9/08

SCOPE

To outline the reporting procedure for Fire Department firefighters who experience a significant exposure to a potentially infectious biological substance or to toxic chemical substances.

RESPONSIBILITIES

Any biological or chemical exposure that may adversely affect the health of a firefighter while at work must be reported to the Exposure Control Officer. It is the responsibility of the Company Officer that this notification is made and that all required documentation is completed and distributed appropriately. It is the responsibility of the Exposure Control Officer to advise a potentially exposed firefighter, to account for and secure documentation of the exposure, and to track all future testing and treatment for the exposure as determined by the proper medical authority.

OPERATING PROCEDURE

If a firefighter suspects that he/she has been significantly exposed to an infectious agent or toxic chemical, he/she will report suspected exposure to the Company Officer. The Company Officer and Exposure Control Officer will then follow the given algorithm for infectious disease or toxic chemical exposures (see Appendix A).

The Company Officer will assure that the firefighter is notified of and follows the appropriate steps of the algorithm as indicated. Contact with the Exposure Control Officer will be made to help expedite treatment and follow up for the firefighter. The on-duty Battalion Chief will also be notified.

The West Valley City Fire Department Infectious Exposure Form will be completed, and copies will be sent to the on-duty Battalion Chief and the Exposure Control Officer. A copy will be sent by the Battalion Chief to the Operations Chief who will then notify the Administrative Officer, the Personnel Officer, and the Risk Management Officer.

Exposure Report Forms (ERF) <u>must</u> accompany the patient to Work Med or Pioneer Valley Hospital. The **green** copy of the ERF will be retained by the individual making the exposure report. The **pink** copy must accompany the industrial forms when submitted. The **white** copy goes to the Utah State Lab, and the **canary** copy must be sent to the Bureau of Epidemiology (Department of Health). A copy must also be provided for the Exposure Control Officer.

It will be the individual member's responsibility to follow up with the designated facility for any blood draws or treatment following a significant exposure, based on direction from the treating physician and advice from the Exposure Control Officer.

MEDICAL EXPOSURE SEVERITY RATING FOR INFECTIOUS DISEASES

Evaluating the significance of an infectious disease exposure depends on the communication of the details provided by the exposed firefighter and the Exposure Control Officer's use of the severity rating system. Four categories define exposure levels that firefighters may face when treating patients. In all cases, it is assumed that the exposed employee can immediately clean the exposed area of the body. If unable to do so, the severity of the exposure may be upgraded.

Severity Rating Levels

SIGNIFICANT exposure occurs whenever a patient's blood or body fluids, visibly contaminated with blood, contact an employee through percutaneous inoculation, an open wound, non-intact (chapped, abraded, or weeping) skin or mucous membrane. The single most common example is a needle stick.

MODERATE exposure occurs whenever a patient's body fluids contact an employee's mucus membranes. Mouth-to-mouth resuscitation or a patient sneezing / coughing on a firefighter are two examples. However, a patient with active tuberculosis, not on medication, who is coughing represents a significant risk of exposure to any care giver in the same room.

MINIMAL exposure occurs whenever a patient's blood or body fluids contact an employee's intact skin or a patient's intact skin contacts an employee's mucous membranes. For example, a firefighter arrives on the scene without gloves and has a child covered in blood thrust into his hands; or a combative patient grabs a firefighter's mouth.

PROBABLE-NONE occurs whenever a patient's intact skin contacts an employee's intact skin; this represents a low risk of exposure to infectious disease.

Exceptions to the ratings exist, and the employee should always look to protect themselves from these occurrences, one example is measles. Simply entering a room which an infectious measles patient has vacated within the hour represents a significant risk of infection. When doubt exists, consultation with the ECO or department physician should provide guidance for making an informed decision on the severity of a particular exposure.

MEDICAL EXPOSURE SEVERITY RATING FOR TOXIC CHEMICALS

Describing the nature of a toxic chemical exposure is dependant on the accuracy of the information provided by the exposed firefighter to the Exposure Control Officer. Like the infectious disease exposure rating system, the toxic chemical exposure system also uses four categories.

Severity Rating Levels

SIGNIFICANT exposure occurs when the firefighter becomes symptomatic of the exposure within forty-eight hours of the incident.

MODERATE exposure occurs when the firefighter becomes symptomatic of the exposure within two weeks of the incident.

MINIMAL exposure occurs when the firefighter tests positive for a specific chemical exposure, but does not exhibit any acute or delayed symptoms.

PROBABLE exposure occurs when the firefighter is in the presence of a toxic chemical, but does not test positive for any specific chemical and does not exhibit any acute or delayed symptoms.

DOCUMENTATION OF EXPOSURES / DISTRIBUTION OF EXPOSURE FORMS

As indicated by Appendix A (Algorithm for Infectious Disease or Toxic Chemical Exposures), any potential or actual exposure requires the completion of an industrial injury form. A copy of this form must be left with the medical provider, a copy must be sent to Utah Labor commission, a copy must go to Fire Administration, and a copy must go to the employee.

When an infectious disease exposure takes place, the WVCFD Infectious Disease or Toxic Chemical Form must be completed. A copy must be forwarded to the on-duty battalion chief and a copy must go to the department's Exposure Control Officer. The exposed firefighter should also keep a copy.

When an infectious disease exposure takes place, the Emergency Medical Service Provider Exposure Report Form (Form 350 - State of Utah - Labor Commission) must be completed. This form must be distributed in the following manner: A copy to the Labor Commission, a copy to the Utah State Lab (with a blood sample), a copy to the State Bureau of Epidemiology, and a copy to the employee.

APPENDIX A

WEST VALLEY CITY FIRE DEPARTMENT

Algorithm for Infectious Disease or Toxic Chemical Exposures

Exposure Reported to Company Officer

Exposure Control Officer & On-duty Battalion Chief Notified → Notification made to department's Safety Officer

Firefighter Reports to Work Care (Industrial injury forms completed) Or Pioneer Valley Hospital (Industrial injury forms completed)

Forward to the Exposure Control Officer ← Complete WVCFD Infectious Disease & Toxic Chemical Exposure Form → Forward to Battalion Chief

Labor Commission ← Complete Utah Infectious Disease Exposure Report Form → Utah State Lab

(Copy to Exposure Control Officer)

Employee ← → Bureau of Epidemiology

Exposure Control Officer reviews case with exposed firefighter and advises

Exposure Control Officer files hard copies of exposure documents and completes database form for the exposed firefighter

Exposure Control Officer tracks future testing and treatment to insure follow-up for the exposed firefighter

WEST VALLEY CITY FIRE DEPARTMENT

Infectious Disease or Toxic Chemical Exposure Form

To be filled out and returned to the Exposure Control Officer and Battalion Chief
(Not to be used in place of the Utah Exposure Report Form)

Exposed Employee: _____ Rank: _____

SS#: _____ Home Phone: _____

Incident #: _____ Shift: _____ District: _____

Name of Patient: _____ Sex: _____ Age: _____

Address: _____

Suspected or Confirmed Disease or Chemical: _____

Transported to: _____ Transported by: _____

Date of Exposure: _____ Time of Exposure: _____

Type of Incident (auto accident, trauma): _____

If a potential infectious disease, what were you exposed to:

Blood_____ Tears _____ Feces _____ Urine _____ Saliva _____

Sweat _____ Sputum _____ Vomitus _____ Other _____

If a potential toxic chemical, what were you exposed to:

Vapor_____ Liquid_____ Solid_____ Suspected or confirmed chemical_____

What part(s) of your body became exposed; be specific: _____

_____

_____

Did you have any open cuts, sores, rashes that became exposed; be specific: _____

_____

_____

How did exposure occur; be specific: _____

_____

_____

Did you seek medical attention: Yes _____ No _____

Where: _____ Date: _____

Contact Exposure Control Officer: Date: _____ Time: _____

Supervisor's Signature: _____ Date: _____

Employee's Signature: _____ Date: _____

WEST VALLEY CITY FIRE DEPARTMENT

Standard Operating Guidelines

Meth Lab Response	HM 017
	Rev.4/09

SCOPE

Due to the possible complexity of Meth Labs, West Valley City Fire Department requires a Haz-Mat Technician level response.

Possible hazards may include:

- Improvised booby traps or chemicals left intentionally in an unstable state
- Iodine
- Hydrogen Hydroxide
- Sodium Chloride
- Phosphoric Acid
- Acetone
- Isopropyl Alcohol
- Phosphine
- Ammonia
- Kerosene
- Lithium Hydride
- Phosphorus (yellow)
- Hydrogen Cyanide
- Propane

When serving a warrant on a location that may have or recently had a Meth Lab West Valley City Police Department will utilize one or both of the following teams, Special Operations-Narcotics or SWAT. West Valley City Fire Department has tactical medics know as TEMS assigned to the SWAT team. If SWAT is involved there will be a TEMS member available to act as liaison between Fire and Police. **The Narcotics team has members that are nationally trained and certified by the DEA. They will be available to assist the West Valley Fire Department Haz-Mat Team. Meth Labs are crime scenes and are often booby-trapped.**

The possible stages of a Meth Lab are as follows:

- Known operating lab
- Known boxed lab
- High suspicion of lab
- Low suspicion of lab
- Location recently contained a lab

Known Operating Lab:
If a known lab is present, the on-duty Haz-Mat Captain will be notified and arrangements made for possible detection, monitoring and decon procedures. If time allows, West Valley Police will notify the on-duty Battalion Chief and the Haz-Mat Manager with a request that the Haz-Mat Captain attend the SWAT/Special Operations Team Leader briefing.

Known Boxed Lab:
The procedure for a Known Boxed Lab is the same for an operating lab.

High Suspicion of Lab:
The procedure for a High Suspicion of Lab is the same for an operating lab.

Low Suspicion of Lab:
For a location that has a low suspicion of a lab, the TEMS leader will contact Fire Dispatch and request that the West Valley Fire Department be placed on standby. The Haz-Mat team will be on standby at the station for the 15-20 minutes that it takes to serve the warrant and secure the scene. If the time of day permits, the Haz-Mat Captain will be notified of the situation prior to the warrant service.

If decon measures are required, runoff will be contained and the PH level recorded and documented before disposing.

Wastewater Discharge

1201.1 PURPOSE AND SCOPE

The practices detailed in this policy are intended to minimize runoff releases associated with firefighting, fire training, emergency scene spills and discharges, trauma scene waste management and fire facility maintenance activities.

1201.2 POLICY

It is the policy of the West Valley City Fire Department to adhere to local, state and federal regulations established to minimize the adverse impacts to the environment from wastewater discharges by ensuring best management practices for department activities.

1201.3 NON-EMERGENCY ACTIVITIES

1201.3.1 DISCHARGES ASSOCIATED WITH FIRE TRAINING ACTIVITIES

Training activities should be performed in a manner that reduces or prevents discharges to the storm water systems. Occasionally, discharge into the storm water system is unavoidable (e.g., equipment failures). However, the following measures should be implemented to minimize the impact on water quality:

(a) Conduct fire training, where feasible, in facilities where runoff controls that protect the storm drain system have been engineered and built into the facility.

(b) Direct water flows to landscape or greenbelt areas whenever possible.

(c) When flowing water cannot be contained in the landscape areas, survey the area prior to the training exercise to ensure that debris will not enter the storm water system as a result of water flow generated during the drill.

(d) When practicable and necessary, divert flows to the sewer, with the permission of the local sewer agency.

(e) Use fog streams for short durations.

(f) Use lower gallon-per-minute nozzle settings.

(g) Prevent discharge of foam to the storm drain system. If training activities involve the use of foam, block off all potentially affected storm drain inlets with plastic sheeting and sandbags, construct a temporary berm, collect the runoff and discharge to the sanitary sewer after a defoaming agent has been applied.

1201.3.2 VEHICLE AND EQUIPMENT WASHING AND CLEANING

The following should be considered in order to prevent or reduce the discharge of pollutants to the storm drain system from vehicle and equipment washing and cleaning:

(a) Use cleaning methods that employ the minimal use of water, such as a wet chamois or non-water rinse, when applicable.

(b) Limit the use of all cleaning agents and, when feasible, use only water.

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(c) Remove debris from any area or facility that is used for washing and/or cleaning vehicles.

(d) Direct water flows to landscape or green areas, or contain the water on-site and allow it to evaporate and infiltrate whenever it is safe to do so without causing damage or erosion.

(e) Use designated wash areas (preferably covered and bermed) to contain and/or divert the wash water to the sewer, either through the use of a wet-vac or a plumbed sanitary sewer connection.

(f) Use self-contained water recycling systems.

(g) Use off-site commercial washing and steam-cleaning facilities. Prohibit all steam cleaning discharge from entering the storm drain. Direct all steam-cleaning discharge to the sanitary sewer.

1201.3.3 VEHICLE FUELING

(a) The following measures should be taken to reduce the impact to storm water:

1. Protect the fueling area from storm water by installing a canopy.
2. Pave fueling area surfaces with Portland cement concrete (or other equivalent smooth impervious surface) with a 2 percent to 4 percent slope to prevent puddles.
3. Keep perimeter drains clear of debris at all times.
4. If a perimeter drain is not installed, install a berm or graded area to prevent run-off of storm water and spilled liquids.
5. Use a deadend sump to collect spills or install an oil-water separator.
6. Utilize vapor recovery nozzles to help control drips as well as air pollution.
7. Maintain a spill control kit at the refueling site.

(b) When fueling fire vehicles, members should take the following measures to prevent fuel spills and leaks:

1. Avoid fueling during rainy conditions in fuel areas that do not have a canopy.
2. When necessary to refuel during rainy conditions in fueling areas that do not have a canopy, the person refueling shall not leave the fueling area while fuel is flowing from the pump.
3. Avoid topping-off fuel tanks.
4. Use absorbent material on small spills and for general cleaning rather than hosing down an area. Remove the absorbent material promptly and dispose as hazardous waste.

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5. Avoid mobile fueling during non-emergency events if the vehicles and/or equipment can be brought to the refueling facility.

1201.3.4 VEHICLE AND EQUIPMENT MAINTENANCE AND REPAIR

A “dry shop” can help prevent or reduce the discharge of pollutants from vehicle and equipment maintenance as follows:

(a) Conduct vehicle and equipment maintenance in areas where precautions have been taken to prevent spills from entering the storm drain system.

(b) Use dry cleaning methods in maintenance and repair areas unless adequate precautions have been taken to prevent the discharge of wash water to the storm drain.

1201.3.5 HOSE WASHING AND CLEANING

The discharge of pollutants from washing and cleaning fire hoses and equipment may be prevented or reduced by using the following safeguards, as appropriate:

(a) Design new areas or facilities that will be used for washing and/or cleaning fire hoses in a way that prevents wash water or other debris from entering the storm drain or from receiving water that has not been adequately treated.

(b) Direct water flows to landscaped or green areas, or contain the water on-site and allow it to percolate through plant material or the landscape, or to evaporate completely whenever it is safe to do so without causing damage or erosion.

(c) Use designated wash areas (preferably covered and bermed) to contain and/or divert the wash water to the sewer either through the use of a wet-vac or a plumbed sanitary sewer connection.

(d) When cleaning the wash area, use wet mop cleaning methods in small areas, when feasible.

(e) Use methods of cleaning fire hoses that employ the minimal use of water, such as high-pressure spray washers, when applicable.

(f) Consider the use of biodegradable cleaning agents.

1201.3.6 FACILITY MAINTENANCE

Facility maintenance should be conducted as follows:

(a) Use dry cleaning methods (e.g., sweeping) to clean impervious hardscape areas, such as apparatus floors, driveways, patios and walkways. Place debris in receptacles for solid waste disposal.

(b) Maintain landscape areas as required to limit introduction of leaves and other landscape waste into the storm water system.

(c) Monitor and maintain irrigation systems as required to minimize off-site discharge of irrigation run-off.

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(d) Maintain and repair structures using methods that do not result in the release of water, soil or waste into the storm drain system.

1201.3.7 SOLID WASTE AND HAZARDOUS MATERIALS STORAGE AREAS
Solid waste and hazardous materials storage areas should be maintained as follows:

(a) There should be a canopy or roof over solid waste and hazardous materials storage areas.

(b) There should be secondary containment (e.g., a metal or plastic pan with a raised edge) for hazardous materials storage areas.

(c) All trash and solid waste receptacles should have lids. Keep lids closed to prevent contact with rainfall and to ensure containment of waste within the storage area.

1201.4 EMERGENCY ACTIVITIES
It is not always possible to prevent discharge that occurs during emergency firefighting activities (e.g., flows necessary for the protection of life and property). However, when practicable, the following should be considered.

1201.4.1 DISCHARGES ASSOCIATED WITH EMERGENCY FIREFIGHTING ACTIVITIES
To the extent allowed by the circumstances at the scene and without compromising the health and safety of department members or the public, emergency firefighting activities should be performed in a manner that avoids or minimizes discharges to the storm water system, including the following:

- If possible, avoid directing firefighting flows directly on erodible surfaces if run-off will enter receiving waters or storm drains.
- If possible, apply firefighting flows so run-off will flow over vegetated areas prior to entering receiving waters or storm drains.

1201.4.2 TRAUMA SCENE CLEANUP
Trauma scene wastes (e.g., blood, human tissue) may be generated at various types of crime or accident scenes. This type of waste can pose a health risk to those responsible for overseeing and conducting the cleanup. The following procedures should be used when practicable to protect members and prevent any unnecessary discharge of material into the storm drain.

1201.4.3 CLEANUP OF TRAUMA SCENE WASTE ON PUBLIC PROPERTY
The Incident Commander (IC) should be familiar with any City ordinances regarding the cleanup of trauma scene waste on public property.

Decontamination and cleanup operations may include, but are not limited to, the following:

(a) Before proceeding with site cleanup, emergency responders must have the proper personal protective equipment (PPE), adequate supplies of bleach and sufficient water to properly complete the operation. Universal precautions must be utilized during any cleanup operation. Additional information and guidance for cleanup policies

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and procedures for bodily fluids may be obtained by contacting the county health department.

(b) Personnel shall wear gloves when washing or handling contaminated equipment, clothing or other materials. Additional PPE may be necessary if there is the potential for splashing.

(c) The Medical Examiner should remove any human tissue or body parts at the scene of a fatality, following its own policies and procedures. The Medical Examiner will generally not respond to a non-fatal incident for the purpose of human tissue removal.

(d) Human tissue, body parts or blood/bodily fluids in a solid state should not be allowed to enter a storm drain. Tissue found in the storm drain system should be removed to the maximum extent practicable.

(e) The county health department may be contacted, if needed, for consultation or assistance in trauma scene management or questions regarding legal disposition of medical waste.

1201.4.4 SPECIFIC CLEANUP PROCEDURES FOR SMALL SPILLS

(a) West Valley City Fire Department members may decontaminate and then wash down small amounts of human blood/bodily fluids that are still in a liquid state. A small spill is defined as a spill that can be thoroughly and completely disinfected with one gallon of 10 percent chlorine disinfectant. This determination should be made with the understanding that multiple applications may be necessary to accomplish full disinfection.

1. Members shall wear PPE to protect skin, mucus membranes, lungs and clothing from chlorine or trauma scene waste.
2. Members shall apply disinfectant to the liquid biowaste (foam may develop) and let it sit for a minimum of 10 minutes.
3. After 10 minutes, members shall wash down the area using a fire hose or pressurized water extinguisher.

(b) In non-emergency situations and when circumstances permit, members should also:

1. Attempt to move trash or miscellaneous debris from the path of the run-off so no additional or unnecessary material is discharged or carried into the storm drain.
2. If there is a choice between directing the run-off down a storm drain or a sewer, use the sewer.
3. Porous surfaces, such as asphalt, may require multiple repetitions to completely disinfect and thoroughly clean the area.

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1201.4.5 DISCHARGES ASSOCIATED WITH HAZARDOUS MATERIAL SPILLS

The City is the authority with responsibility for coordinating a response to hazardous material spills. The West Valley City Fire Department is a participating agency with specified responsibilities within the jurisdiction. The West Valley City Fire Department operates under a multi-agency Hazardous Materials Response Plan that describes procedures for the allocation of resources and assigns tasks during a hazardous materials release emergency. Fire department and law enforcement members shall respond to hazardous material releases according to response protocols established by each department under oversight of the City.

1201.4.6 NOTIFICATION OF SPILLS, RELEASES AND DISCHARGES

Spills, releases and discharges of pollutants shall be reported by the IC as required by all applicable state and federal laws. In addition, any such spills, releases and illegal discharges with the potential to endanger health, safety or the environment shall be reported by the IC to the Utah Department of Environmental Quality (DEQ) as soon as practicable after discovery. If it is safe to do so, necessary actions shall be taken to contain and minimize the spill, release or discharge.

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