

**WASTEWATER STREAM
CHARACTERIZATION FOR
TA 53-1, 40, 70, 415, 416,
420, 421, 428, 450, 452, 454,
515, 524, 526, 605, 733, 809,
813, 815 AND 845
at
Los Alamos National Laboratory**

ENVIRONMENTAL STUDY

CHARACTERIZATION REPORT # 29



REVISION NO.	<u>1</u>
REVISION DATE:	<u>11/93</u>
COPY NO.	<u>6</u>
ISSUED TO:	_____

Los Alamos

ENVIRONMENTAL MANAGEMENT DIVISION
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

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WASTEWATER STREAM

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**TA-53-1, 40, 70, 415, 416,
420, 421, 428, 450, 452,
454, 515, 524, 526, 605,
733, 809, 813, 815 AND 845**

ENVIRONMENTAL STUDY

Prepared for:

**THE LOS ALAMOS NATIONAL LABORATORY
Los Alamos, New Mexico**

under subcontract 9-XG8-2874P-1

by:

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MARCH 1992

UPDATED PER EM-8 COMMENTS NOVEMBER, 1993

EXECUTIVE SUMMARY

Buildings 1, 40, 70, 415, 416, 420, 421, 428, 450, 52, 454, 515, 524, 526, 605, 733, 809, 813, 815 and 845 in TA-53 were visited to document all drain piping and to make permitting recommendations. The pipes exiting the buildings are as follows:

- 1) from building 53-1: four outfalls to sanitary sewer, six storm water outfalls, five discharges of fire water, four vacuum pump vents, one tunnel vent, one capped gas line, two natural gas PRV vents, one treated cooling water, one steam vent, one air conditioning condensate drain, one steam boiler PRV, two outfalls to and from a neutralization tank, one pumped radioactive liquid waste outfall,
- 2) from 53-40: one outfall to sanitary sewer,
- 3) from 53-70: one storm water outfall,
- 4) from 53-526: one outfall to sanitary sewer and one overflow drain from an evaporative cooler.
- 5) from 53-415, 416, 420, 421, 428, 450, 452, 515, 524, 605, 733, 809, 813, 815 and 845: no drains and
- 6) from 53-454 sanitary drains with no water source or sewer connection.

No revised EPA forms are included. Recommendations for repiping are provided to permit outfall consolidation to minimize EPA permit maintenance requirements and avoid possible permit requirements.

A waste stream database has been prepared listing waste source and flow rate for applicable outfalls.

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1.0 INTRODUCTION

During January and February, 1992, Stephen C. Diamond of Santa Fe Engineering (SFE) toured buildings 1, 40, 70, 415, 416, 420, 421, 428, 450, 452, 454, 515, 524, 526, 605, 733, 809, 813, 815 and 845 of TA-53 with Mike Barnes and Terry Weisgerber of MP-1. The purpose of this study is to identify the building drain piping and to characterize the wastewater flows and sources at the time of the visit. This report will not reflect any subsequent changes in piping or operation. The Wastewater Stream Characterization Policy of September 10, 1993 was followed for this study. The following tasks were performed for this purpose:

1. Building drains and all piping exiting the building were identified and laid out in schematic form;
2. Wastewater sources were identified at each drain and the wastewater was characterized according to flow rate and quality. The location of outfalls and their potential sources of discharge were determined. Potential pollutants were also noted;
3. Permit applications for discharges of clean water were not prepared since these discharges do not require permitting at this time and
4. Potential problems were identified and recommendations were made for repiping, floor drain plugging and spill containment where deemed appropriate.

The field investigation proceeded by verifying drain schematic drawings prepared by SFE for the appropriate buildings (Figures 2 through 7) from drawings provided by

Los Alamos National Laboratory (LANL) Facilities Engineering Division. The other buildings were visited to insure that no drains exist in the buildings. The following process was used to define drain piping and characterize the wastewater streams:

1. Laboratory engineering drawings were used to prepare the SFE drain piping schematic. The Solid Waste Stream Characterization conducted by IT Corporation was also reviewed. The National Pollutant Discharge System (NPDES) Permit, the 1990 NPDES Permit Application submitted by Los Alamos National Laboratory (LANL) in September, 1990, the latest Federal Facilities Compliance Agreement (FFCA) between the Department of Energy (DOE) and the Environmental Protection Agency (EPA) and the Administrative Order (AO) Docket Number VI-92-1306 issued by EPA to the University of California were used for reference;
2. SFE verified drain piping by dye checking and
3. A site visit was performed to verify the SFE drain schematic and to identify potential outfall pipes exiting the building. The visit entailed a room by room inspection of wastewater sources and drains. Interviews with site personnel were conducted to assist in waste stream characterization.

2.0 FIELD INVESTIGATION

Pipes exiting each building have been assigned an Outlet Piping Number. The four part number, sequentially, identifies the Technical Area where the pipe is located, the building from which the pipe discharges, the letters OPN to indicate that it is an outlet piping number and the unique number for the pipe. The piping exiting each building will be labeled for easy identification in the future.

Each drain has a unique identification number. Each number consists of three parts. The first part is the floor the drain is located on. The second part has letters that indicate the drain type (abbreviations used are summarized in Table 6 of Appendix 1). The final part is a unique number for each drain. For example, floor drain numbering on the first floor would start with 1FD1. Roof drains do not have the number identifying the floor location, such as RD1 for Roof Drain 1.

The function of each pipe exiting from the buildings are listed in Appendix 1 in Tables 1 through 5, with an abbreviations list in Table 6. Appendix 2 contains the wastestream characterization database output, listing wastewater source, flow rates and periodicity information for each outfall drain. Appendix 4 provides information about the dye study of building drains. Flow schematics of the drains from each building are attached in Appendix 5 as Figures 2 through 7.

3.0 RECOMMENDATIONS FOR BUILDING 53-1

Building 53-1 is the main office facility for the LAMPF area. It includes offices, visitors services, auditorium, cafeteria and the nuclear chemistry lab wing. Figures 2 and 3 show drain schematics for 53-1. The discussion below gives recommendations and reasoning for the changes.

3.1 Outfall 53-1-OPN-1

This outfall consists of four separate discharges from the building to the site sanitary sewer system. The four separate outfalls join together just prior to entering the sanitary sewer manhole on the east side of the building. Each outfall is discussed separately below.

3.2 Outfall 53-1-OPN-1A

This outfall discharges to the site sanitary sewer system and serves building 53-1 wings A and B. These sources are from offices, the auditorium and the cafeteria. Drains to this outfall include toilets, lavatories, urinals, sinks, water fountains, a cup drain and a floor sink. The floor sink, 1FS1, receives discharge from the cafeteria sink, a dishwasher, a warming table and condensate from a refrigerator. The cup drain, 1CD3, receives condensate drainage from the cafeteria ice machine. It is recommended that a grease-trap be installed downstream of 1FS1. No permitting is recommended for this outfall and no EPA forms have been prepared.

3.3 Outfall 53-1-OPN-1B

This outfall goes to the site sanitary sewer system and serves wing C of building 53-1. This area consists of offices, electronic labs, storage, shops, a clean room and

mechanical rooms. Drains to this outfall include water fountains, sinks, cup drains, floor drains, toilets, lavatories, a urinal, showers and exterior area drains in basement level air intake wells. The area drains BAD1 through BAD4 receive storm water through the open steel grates at ground level. It is recommended that these be repiped to a storm water discharge to daylight. Sink drain 1SD18, located in room C149, is indirectly plumbed to the sanitary system via a Pyrex glass drain line that discharges to floor drain BFD6 in the basement fan room. No piping change is recommended as this is not a radioactive liquid waste (RLW) sink but it is suggested that the Pyrex waste line in the fan room be labeled as "SANITARY WASTE ONLY". Cup drains 1CD1 and 1CD2 were also tied to this line but have been removed. Sink drain 1SD16 receives occasional once-through, non-contact cooling water discharge from an electronics lab equipment heat exchanger in Room C151. Currently Laboratory policy regarding this type of water use requires that a recommendation be made to convert this once-through cooling to a closed-loop recirculating cooling system. Sink drain 1SD15 is located in a laboratory that is labeled as a controlled area and it is recommended that this drain be repiped to the RLW system. The basement floor sink, BFS1, receives blowdown of treated water from the air washer in the fan room. No change is recommended. Basement floor drain BFD10, in the fan room, receives discharge from two air compressor automatic drains, one air dryer, one air filter and one compressed air oil/water separator. There are significant deposits of oil in and around this drain. It is recommended that both air compressors be enclosed in secondary containment and that the two automatic drains, the air filter discharge and the compressed air oil/water separator discharge be routed to a separate container for disposal. Basement floor drains BFD5, BFD6 and BFD9 receive condensate drainage from air-conditioning coils and air handlers. BFD9 also receives discharge from a backflow

preventer (BFP). No changes are recommended. BFD8 receives discharge from a water heater pressure relief valve (PRV). No change is recommended. BFD7 receives no direct discharge, but is located in the vicinity of a large chiller. Secondary containment is recommended for the chiller. BFD3 and BFD4 are located in the wing C basement boiler room. BFD3 receives discharge from two water heater tank drains and two water heater PRV's. BFD4 receives two treated boiler blow downs, two boiler PRV's and discharge from one BFP. Sink drain BSD1 receives condensate from the basement clean room dehumidifier. No changes are recommended for BFD3, BFD4 or BSD1. Floor drain BFD1 receives discharge from two BFP's, one fire system drain, one pump drain and one abandoned pipe. No changes are recommended for BFD1. No permitting is recommended. No EPA forms have been completed.

3.4 Outfall 53-1-OPN-1C

This outfall goes to the site sanitary sewer system and serves the south portion of wing D, the nuclear chemistry wing. Drains to this outfall include water fountains, toilets, lavatories, urinals, a sink, a floor sink, floor drains and exterior area drains. The exterior area drains, BAD5 and BAD6, are located in basement level air intake wells. These drains receive storm water through the open steel grates at grade level. It is recommended that these drains be repiped to a storm water discharge to daylight. Basement floor drains BFD11, BFD12, BFD13 and BFD14 are located in the wing D mechanical room. The room has six pumps, a large chiller and two air handlers. BFD12 receives piped water from two BFP's and one chiller drain. Oil is evident on the floor, in the vicinity of BFD11, BFD12 and BFD13 and around the pumps and chiller. It is recommended that secondary containment be installed around the pumps and the chiller. Basement floor sink BFS7 is located in the

wing D boiler room. It receives discharge from two BFP's, four boiler drains and one water heater PRV. No changes are recommended. No EPA permitting is recommended. No forms have been prepared.

3.5 Outfall 53-1-OPN-1D

This outfall goes to the site sanitary sewer system and serves the north portion of wing D. Drains connected to this outfall include a water fountain, sinks, toilets, a urinal, a lavatory, a shower, cup drains, floor drains, floor sinks and an emergency shower. Basement floor drain BFD15 was not found but is believed to be located under a large number of storage cabinets. Basement floor sink BFS5 receives discharge from one fire suppression system test line and one fire system drain. No change is recommended. Floor sink BFS3 receives discharge from the vacuum systems. These discharges include once-through cooling lines from two vacuum pumps, one vacuum tank drain line, one vacuum tank vent line and two potable water overflow lines from air gaps. All of these discharges can be considered potentially radioactive contaminated except the two airgap overflow drains. It is recommended that the vacuum tank drain and vent lines be rerouted to the RLW tanks located approximately 10 feet away. Current Laboratory policies regarding "once-through" water systems such as the vacuum pump sealing/cooling system requires that either the pumps be changed to a non water seal type or the once-through water system be changed to a closed-loop recirculating system. Cup drains 1CD6, 1CD8, 1CD10, 1CD15, 1CD16, 1CD17, 1CD18, 1CD19 and sink drain 1SD21 are all located in "controlled" areas. It is recommended that these drains be repiped to the building RLW system. Floor sink BFS2 receives discharge from one deionized water tank drain, one steam boiler PRV, one steam condensate sump drain, two steam boiler drains (untreated) and one valved bypass pumped

discharge from the RLW tanks. The RLW discharge line (bypass) is scheduled to be removed as part of a work order to remove the caustic soda neutralization tank (see 3.25 and 3.27). Therefore, no recommendation for changes is made, but removal of this bypass line should be verified. No permitting is recommended. No EPA forms have been completed.

3.6 Outfalls 53-1-OPN-2, 53-1-OPN-3, 53-1-OPN-4, 53-1-OPN-5, 53-1-OPN-6 and 53-1-OPN-7

These outfalls to daylight drain storm water. No permitting or changes are recommended. No EPA forms have been prepared.

3.7 Outfall 53-1-OPN-8

This discharge is from an abandoned exhaust vent from a vacuum pump that was removed. The piping is terminated on the inside of the building in room C112. The pipe should be removed and the wall opening plugged. No EPA forms were prepared.

3.8 Outfalls 53-1-OPN-9, 53-1-OPN-11, 53-1-OPN-12, 53-1-OPN-15, 53-1-OPN-17 and 53-1-OPN-24

These discharges to daylight are from the fire water system. Discharge is infrequent and it is recommended that the discharges be included under a Notice of Intent (NOI) to Discharge. No changes are recommended. No EPA forms have been prepared.

3.9 Outfall 53-1-OPN-10

This is a goose neck air vent for utility tunnel ventilation under wing C. No liquid discharge is anticipated. No

changes or permitting are recommended. No EPA forms were completed.

3.10 Outfall 53-1-OPN-13

This is a capped gas line stub from below grade. Future use of this line is unknown but appears to be abandoned. It is recommended that this line be marked and left in place. No permitting is recommended. No EPA forms have been prepared.

3.11 Outfall 53-1-OPN-14

This outfall to daylight is a condensate drain line for an air conditioning unit. The unit is located outside adjacent to the outfall pipe. This outfall should be included in an NOI. No changes are recommended. No EPA forms have been prepared.

3.12 Outfall 53-1-OPN-16

This discharge to the basement level air intake well is treated cooling water discharge from the basement air washer of wing C. It is recommended that this line be rerouted to the basement to the sanitary sewer via floor sink, BFS1. Note: The area drains in the air intake wells currently drain to the sanitary sewer. However, it is being recommended that these storm water drains be repiped. No permitting is recommended. No EPA forms have been prepared.

3.13 Outfalls 53-1-OPN-18, 53-1-OPN-19 and 53-1-OPN-20

These pipes are vents from vacuum pumps located in a wing D laboratory. No changes or permitting are recommended. No EPA forms have been completed.

3.14 Outfall 53-1-OPN-21

This pipe is a goose neck vapor vent from the caustic soda neutralization tank located in the wing D basement adjacent to the RLW holding tanks. The neutralization tank is scheduled for removal and it is recommended that this pipe be removed also. No permitting is recommended. No EPA forms have been completed.

3.15 Outfall 53-1-OPN-22

This outfall is from the RLW holding tanks in the basement of wing D. Contaminated waste is transferred to a tank truck via this outfall and transported to the LANL waste treatment facility at TA-21. Drains feeding to this outfall, via the RLW holding tanks BNT1 and BNT2, include cup drains, sinks, an emergency eye wash/shower drain, an area drain and a floor sink. The floor sink, BFS4, has been permanently plugged and the sink, BSD2, has been removed. The area drain, 1AD6, is located at the exterior pad where the waste transport truck loads. Any spills are piped back to the holding tanks BNT1 and BNT2. This area drain has a removable plug that prevents storm water entering the RLW system. It is removed only during waste loading operations. The emergency drain, 1ED1, also receives condensate discharge from a small ice machine located in the controlled radioactive space of wing D. The only change recommended is that the lock on the valve be repaired or replaced to provide positive locking. No permitting is recommended. No EPA forms have been prepared.

3.16 Outfall 53-1-OPN-23

This pipe is to the caustic neutralization tank scheduled for removal. This pipe should be removed when the tank is

removed. No permitting is recommended. No EPA forms have been completed.

3.17 Outfalls 53-1-OPN-25 and 53-1-OPN-26

These pipes are natural gas PRV vapor vents originating at a gas PRV on a steam boiler located in a basement mechanical room (Room D2A). The vent lines exits the building in the basement level air intake well and continues up through the well grille to above roof. No changes or permitting are recommended. No EPA forms have been prepared.

3.18 Outfall 53-1-OPN-27

This outfall is a combined PRV discharge from two steam boilers in the basement. It is recommended that this pipe be rerouted to discharge at the basement floor sink BFS7 in the mechanical room. No permitting is recommended. No EPA forms have been prepared.

4.0 RECOMMENDATIONS FOR BUILDING 53-40

This building contains Los Alamos Meson Physics Facility (LAMPF) user offices, a corridor and two rest rooms. Table 2 in Appendix 1 lists the single outfall to the sanitary sewer system and applicable drains. Figure 4 in Appendix 5 shows a schematic of the building drain system. Outfall 53-40-OPN-1 discharges to the site sanitary sewer system at a manhole on the north side of the building. Drains contributing to this outfall include toilets, lavatories, a sink and a water fountain. No changes or permitting are recommended for this outfall. No EPA forms have been completed.

5.0 RECOMMENDATIONS FOR BUILDING 53-70

Building 70 is the cable vault building at the 115 KV substation north of building 53-1. This structure is administered by Johnson Control, Inc. (JCI). This is an unoccupied structure and the below grade vault contains only electrical power cabling. A single floor sump with a sump pump is located in the vault with discharge to above grade. Entrance to the vault requires a confined space entry permit. Verification of the sump pump was obtained by interviewing Mr. Duane Nizio of ENG-5, the TA-53 site electrical engineer. Mr. Nizio confirmed the presence of the single sump pump and the contents of the vault. Table 3 of Appendix 1 shows the single point outfall summary and Figure 5 of Appendix 5 is a schematic of the building and drain. Outfall 53-70-OPN-1 is the pumped discharge of the vault sump pump, 1SP1. The outfall is a goose neck located to the south of the building adjacent to the enclosing fence. The sump pump only discharges storm water that may enter the below grade vault under flood conditions. It is recommended that this occasional discharge be included in a general Laboratory Notice of Intent (NOI) to discharge. No permitting is recommended. No EPA forms have been prepared.

6.0 RECOMMENDATIONS FOR BUILDING 53-454

Building 53-454 is a small office trailer (converted mobile home) located at the rear parking area of building 53-1. This structure has lavatories (2), toilets (2), sink drain (1) and a shower (shower/tub combination). There are no water sources to this structure and the sewer line is not connected to the site sanitary sewer system, therefore, none of these drains can be used. It is recommended that these drains be removed. No permitting is recommended and no EPA forms were prepared.

7.0 RECOMMENDATIONS FOR BUILDING 53-526

Building 53-526 is the Occupation Medical Facility for TA-53. The structure houses offices, exam rooms, waiting area and rest rooms. Table 5 of Appendix 1 lists the two outfalls and the contributing drains. Figure 7 of Appendix 5 is a schematic representation of the building and the outfalls.

7.1 OUTFALL 53-526-OPN-1

This outfall connects to the site sanitary sewer system at a manhole on the north side. Drains contributing to this outfall include sinks, a toilet, a lavatory, a shower and a water fountain. No changes or permitting are recommended. No EPA forms have been completed.

7.2 Outfall 53-526-OPN-2

This outfall is an overflow drain from a rooftop evaporative cooling unit. Discharge is infrequent. No changes are recommended. This outfall should be included in an NOI. No EPA forms have been prepared.

8.0 RECOMMENDATIONS FOR BUILDINGS 53-415, 416, 420, 421, 428, 450, 452, 515, 524, 605, 733, 809, 813, 815 AND 845

These buildings do not have any drains or water sources. No changes or permitting are recommended. No EPA forms were completed.

9.0 CONCLUSION

This document provides the information to characterize the buildings 1, 40, 70, 415, 416, 420, 421, 428, 450, 452, 454, 515, 524, 526, 605, 733, 809, 813, 815, and 845 at TA-53.

None of the outfalls associated with the buildings listed above require EPA permits. No forms have been prepared.

Building without drains:

- | | | | |
|------------|------------|------------|------------|
| 1. 53-415 | 2. 53-416 | 3. 53-420 | 4. 53-421 |
| 5. 53-428 | 6. 53-450 | 7. 53-452 | 8. 53-515 |
| 9. 53-524 | 10. 53-605 | 11. 53-733 | 12. 53-809 |
| 13. 53-813 | 14. 53-815 | 15. 53-845 | |

Buildings without water sources:

1. 53-454

Discharges to the TA-53 Sanitary Sewer Collection System:

- | | | |
|----------------|----------------|-----------------|
| 1. 53-1-OPN-1A | 2. 53-1-OPN-1B | 3. 53-1-OPN-1C |
| 4. 53-1-OPN-1D | 5. 53-40-OPN-1 | 6. 53-526-OPN-1 |

Storm water discharges:

- | | | |
|---------------|---------------|---------------|
| 1. 53-1-OPN-2 | 2. 53-1-OPN-3 | 3. 53-1-OPN-4 |
| 4. 53-1-OPN-5 | 5. 53-1-OPN-6 | 6. 53-1-OPN-7 |

Discharge of fire water:

- | | | |
|----------------|----------------|----------------|
| 1. 53-1-OPN-9 | 2. 53-1-OPN-11 | 3. 53-1-OPN-12 |
| 4. 53-1-OPN-15 | 5. 53-1-OPN-24 | |

Discharges from vacuum pump exhausts:

1. 53-1-OPN-8
2. 53-1-OPN-19
3. 53-1-OPN-20
4. 53-1-OPN-18

Vapor vents:

1. 53-1-OPN-10
2. 53-1-OPN-17
3. 53-1-OPN-21
3. 53-1-OPN-25
3. 53-1-OPN-26
4. 53-1-OPN-27

Discharge of treated cooling water:

1. 53-1-OPN-16 (to sanitary sewer)

Miscellaneous Discharges:

1. 53-1-OPN-13
2. 53-1-OPN-14
3. 53-1-OPN-23
4. 53-526-OPN-2

Discharge pumped to transport truck:

1. 53-1-OPN-22 (RLW)

Corrective action recommendations are discussed in above and in Tables 1-5 in Appendix 1. These corrections should be performed as soon as practicable to minimize the chance of unpermitted discharge of pollutants.

TABLE 1: TA 53-1 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-1-OPN-1A SAN SEWER	1CD3	ICE MACHINE	B108	NO CHANGE	NO
	1FS1	KITCHEN	B108	GREASE TRAP	
	1LV4	RESTROOM	A156	NO CHANGE	
	1LV5	RESTROOM	A156	NO CHANGE	
	1LV6	RESTROOM	A150	NO CHANGE	
	1LV7	RESTROOM	A150	NO CHANGE	
	1LV8	RESTROOM	A150	NO CHANGE	
	1SD19	JAN. CLOSET	A152	NO CHANGE	
	1TL4	RESTROOM	A156	NO CHANGE	
	1TL5	RESTROOM	A156	NO CHANGE	
	1TL6	RESTROOM	A150	NO CHANGE	
	1TL7	RESTROOM	A150	NO CHANGE	
	1TL8	RESTROOM	A150	NO CHANGE	
	1UR2	RESTROOM	A150	NO CHANGE	
	1UR3	RESTROOM	A150	NO CHANGE	
	1WF3	LOBBY	B102	NO CHANGE	
	1WF4	CORRIDOR	A100B	NO CHANGE	
	1WF5	CORRIDOR	A100C	NO CHANGE	
	2LV1	RESTROOM	A242	NO CHANGE	
	2LV2	RESTROOM	A242	NO CHANGE	
	2LV3	RESTROOM	A242	NO CHANGE	
	2LV4	RESTROOM	A248	NO CHANGE	
	2LV5	RESTROOM	A248	NO CHANGE	
	2SD1	CONF ROOM	A294	NO CHANGE	
	2SD2	JAN. CLOSET	A244	NO CHANGE	
	2SD3	CORRIDOR	A200A	NO CHANGE	
	2TL1	RESTROOM	A242	NO CHANGE	
	2TL2	RESTROOM	A242	NO CHANGE	
	2TL3	RESTROOM	A242	NO CHANGE	
	2TL4	RESTROOM	A248	NO CHANGE	
	2TL5	RESTROOM	A248	NO CHANGE	
	2UR1	RESTROOM	A242	NO CHANGE	
	2UR2	RESTROOM	A242	NO CHANGE	
2WF1	CORRIDOR	A200C	NO CHANGE		
2WF2	CORRIDOR	A200D	NO CHANGE		

TABLE 1: TA 53-1 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-1-OPN-1B SAN SEWER	BAD1	AIR INTAKE WELL	EXT	REPIPE	NO
	BAD2	AIR INTAKE WELL	EXT	REPIPE	
	BAD3	AIR INTAKE WELL	EXT	REPIPE	
	BAD4	AIR INTAKE WELL	EXT	REPIPE	
	BFD1	STORAGE	C BSMT	NO CHANGE	
	BFD2	TELE. RM.	C17	NO CHANGE	
	BFD3	BOILER RM.	C15	NO CHANGE	
	BFD4	BOILER RM.	C15	NO CHANGE	
	BFD5	FAN ROOM	C3	NO CHANGE	
	BFD6	FAN ROOM	C3	LABEL	
	BFD7	FAN ROOM	C3	CONTAIN CHILL	
	BFD8	FAN ROOM	C3	NO CHANGE	
	BFD9	FAN ROOM	C3	NO CHANGE	
	BFD10	FAN ROOM	C3	CONTAINERIZE	
	BFS1	FAN ROOM	C3	NO CHANGE	
	BSD1	BSMT. CORRIDOR	C BSMT	NO CHANGE	
	1CD1	LABORATORY	C149	REMOVED	
	1CD2	LABORATORY	C149	REMOVED	
	1FD1	LIGHT PIPE SHOP	C114	PLUG	
	1FD2	CORRIDOR	C100B	NO CHANGE	
	1LV1	RESTROOM	C113	NO CHANGE	
	1LV2	RESTROOM	C115	NO CHANGE	
	1LV3	RESTROOM	C115	NO CHANGE	
	1SD1	LIGHT PIPE SHOP	C114	REMOVED	
	1SD2	LIGHT PIPE SHOP	C114	NO CHANGE	
	1SD3	JAN CLOSET	C111	NO CHANGE	
	1SD4	OFFICE	C104	NO CHANGE	
	1SD5	ELECTRONICS LAB	C121	NO CHANGE	
	1SD6	ELECTRONICS LAB	C105	NO CHANGE	
	1SD7	ELECTRONICS LAB	C123	NO CHANGE	
	1SD8	ELECTRONICS LAB	C101	NO CHANGE	
	1SD9	ES & H LIBRARY	C156	REMOVED	
1SD10	ES & H LIBRARY	C156	REMOVED		
1SD11	ELECTRONICS LAB	C129	NO CHANGE		
1SD12	ELECTRONICS LAB	C155	NO CHANGE		
1SD13	ELECTRONICS LAB	C131	NO CHANGE		
1SD14	ELECTRONICS LAB	C153	NO CHANGE		
1SD15	RAD LABORATORY	C133	REPIPE TO RLW		
1SD16	ELECTRONICS LAB	C151	RECIRC COOL		

TABLE 1: TA 53-1 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-1-OPN-1B CONT	1SD17	ELECTRONICS LAB	C139	NO CHANGE	NO
	1SD18	ELECTRONICS LAB	C149	LABEL	
	1SH1	RESTROOM	C115	NO CHANGE	
	1SH2	RESTROOM	C115	NO CHANGE	
	1TL1	RESTROOM	C115	NO CHANGE	
	1TL2	RESTROOM	C115	NO CHANGE	
	1TL3	RESTROOM	C113	NO CHANGE	
	1UR1	RESTROOM	C115	NO CHANGE	
	1WF1	CORRIDOR	C100C	NO CHANGE	
	1WF2	CORRIDOR	C100E	NO CHANGE	
53-1-OPN-1C SAN SEWER	BAD5	AIR INTAKE WELL	EXT	REPIPE	NO
	BAD6	AIR INTAKE WELL	EXT	REPIPE	
	BFD11	BSMT MECH RM.	D2	CONTAIN PUMP	
	BFD12	BSMT MECH RM.	D2	CONTAIN CHILL	
	BFD13	BSMT MECH RM.	D2	CONTAIN PUMP	
	BFD14	BSMT MECH RM.	D2	NO CHANGE	
	BFS7	BSMT MECH RM.	D2A	NO CHANGE	
	1LV9	RESTROOM	D129	NO CHANGE	
	1LV10	RESTROOM	D129	NO CHANGE	
	1LV11	RESTROOM	D129	NO CHANGE	
	1LV12	RESTROOM	D101	NO CHANGE	
	1LV13	RESTROOM	D101	NO CHANGE	
	1LV14	RESTROOM	D101	NO CHANGE	
	1SD20	JANITOR CLOSET	N/A	NO CHANGE	
	1TL9	RESTROOM	D101	NO CHANGE	
	1TL10	RESTROOM	D101	NO CHANGE	
	1TL11	RESTROOM	D129	NO CHANGE	
	1TL12	RESTROOM	D129	NO CHANGE	
	1TL13	RESTROOM	D129	NO CHANGE	
	1UR4	RESTROOM	D101	NO CHANGE	
	1UR5	RESTROOM	D101	NO CHANGE	
	1WF6	CORRIDOR	D100	NO CHANGE	
	1WF7	CORRIDOR	D100	NO CHANGE	

TABLE 1: TA 53-1 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-1-OPN-1D SAN SEWER	BFD15	STORAGE	D3	NO CHANGE	NO
	BFD16	STORAGE	D3	NO CHANGE	
	BFS2	BSMT MECH RM.	D7	REPIPE	
	BFS3	BSMT MECH RM.	D7	REPIPE	
	BFS5	STORAGE RM.	D3	NO CHANGE	
	BFS6	BSMT MECH RM.	D7	NO CHANGE	
	1CD6	RAD LAB	D123	REPIPE TO RLW	
	1CD8	RAD LAB	D125	REPIPE TO RLW	
	1CD10	RAD LAB	D125	REPIPE TO RLW	
	1CD15	RAD LAB	D126	REPIPE TO RLW	
	1CD16	RAD LAB	D126	REPIPE TO RLW	
	1CD17	RAD LAB	D124	REPIPE TO RLW	
	1CD18	RAD LAB	D124	REPIPE TO RLW	
	1CD19	RAD LAB	D123	REPIPE TO RLW	
	1LV15	RESTROOM	D119A	NO CHANGE	
	1LV16	RESTROOM	D119	NO CHANGE	
	1LV17	RESTROOM	D121	NO CHANGE	
	PFD1	PENTHOUSE FAN	ROOF	NO CHANGE	
	1SD21	RAD LAB	D115	REPIPE TO RLW	
	1SD22	COFFEE BAR	N/A	NO CHANGE	
	1SD23	JANITOR CLOSET	D119B	NO CHANGE	
	1SH3	RESTROOM	D119	NO CHANGE	
	1TL14	RESTROOM	D119A	NO CHANGE	
	1TL15	RESTROOM	D121	NO CHANGE	
	1UR6	RESTROOM	D121	NO CHANGE	
	1WF8	CORRIDOR	D100B	NO CHANGE	
53-1-OPN-2 STORM	RD10	ROOF DRAINAGE	ROOF	NO CHANGE	NO
	RD11	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD12	ROOF DRAINAGE	ROOF	NO CHANGE	
53-1-OPN-3 STORM	1AD1	AREA DRAINAGE	EXT	NO CHANGE	NO
	RD1	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD2	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD3	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD4	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD5	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD6	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD7	ROOF DRAINAGE	ROOF	NO CHANGE	

TABLE 1: TA 53-1 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-1-OPN-4 STORM	1AD2	AREA DRAINAGE	EXT	NO CHANGE	NO
	1AD3	AREA DRAINAGE	EXT	NO CHANGE	
	1AD4	AREA DRAINAGE	EXT	NO CHANGE	
	RD8	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD9	ROOF DRAINAGE	ROOF	NO CHANGE	
53-1-OPN-5 STORM	RD14	ROOF DRAINAGE	ROOF	NO CHANGE	NO
	RD15	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD16	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD17	ROOF DRAINAGE	ROOF	NO CHANGE	
53-1-OPN-6 STORM	RD18	ROOF DRAINAGE	ROOF	NO CHANGE	NO
	RD19	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD20	ROOF DRAINAGE	ROOF	NO CHANGE	
	RD21	ROOF DRAINAGE	ROOF	NO CHANGE	
53-1-OPN-7 STORM	1AD5	AREA DRAINAGE	EXT	NO CHANGE	NO
	RD13	ROOF DRAINAGE	ROOF	NO CHANGE	
53-1-OPN-8		VP AIR DISCH STUB	C114	REMOVE	NO
53-1-OPN-9		FIRE TEST DISCH	C114	NOI	NO
53-1-OPN-10		UTILITY TUNNEL VE	N/A	NO CHANGE	NO
53-1-OPN-11		FIRE TEST DISCH	A294	NOI	NO
53-1-OPN-12		FIRE TEST DISCH	B105	NOI	NO
53-1-OPN-13		NAT. GAS STUB	EXT	NO CHANGE	NO
53-1-OPN-14		A/C CONDENSATE	C122	NOI	NO
53-1-OPN-15		FIRE TEST DISCH	C3	NOI	NO
53-1-OPN-16		AIR WASHER DISCH	C3	REPIPE	NO
53-1-OPN-17		STM. VAPOR VENT	D2	NO CHANGE	NO
53-1-OPN-18		VP AIR DISCH	D107	NO CHANGE	NO
53-1-OPN-19		VP AIR DISCH	D107	NO CHANGE	NO
53-1-OPN-20		VP AIR DISCH	D113	NO CHANGE	NO
53-1-OPN-21		TANK VENT	D7	TO BE REMOVED	NO
53-1-OPN-22 RLW	1AD6	EXT. LOADING PAD	EXT	TEMP PLUG	NO
	BFS4	EM. SHOWER DRAIN	D7	PLUGGED	
	BNT1	ACID WASTE TANK	D7	NO CHANGE	
	BNT2	ACID WASTE TANK	D7	NO CHANGE	
	1CD4	RAD LAB	D123	NO CHANGE	
	1CD5	RAD LAB	D123	NO CHANGE	
	1CD7	RAD LAB	D125	NO CHANGE	
	1CD9	RAD LAB	D125	NO CHANGE	

TABLE 1: TA 53-1 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-1-OPN-22 RLW CONT	1CD11	RAD LAB	D124	NO CHANGE	NO
	1CD12	RAD LAB	D124	NO CHANGE	
	1CD13	RAD LAB	D126	NO CHANGE	
	1CD14	RAD LAB	D126	NO CHANGE	
	1ED1	RAD LAB CORR.	D100E	NO CHANGE	
	1SD24	RAD LAB	D123	NO CHANGE	
	1SD25	RAD LAB	D123	NO CHANGE	
	1SD26	RAD LAB	D125	NO CHANGE	
	1SD27	RAD LAB	D125	NO CHANGE	
	1SD28	RAD LAB	D124	NO CHANGE	
	1SD29	RAD LAB	D124	NO CHANGE	
	1SD30	RAD LAB	D126	NO CHANGE	
	1SD31	RAD LAB	D126	NO CHANGE	
53-1-OPN-23		INTO NEUT TANK	D7	TO BE REMOVED	NO
53-1-OPN-24		FIRE TEST DISCH	D3	NOI	NO
53-1-OPN-25		NAT GAS PRV	D2A	NO CHANGE	NO
53-1-OPN-26		NAT GAS PRV	D2A	NO CHANGE	NO
53-1-OPN-27		STM. BOILER PRV	D2A	REPIPE	NO

TABLE 2: TA 53-40 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-40-OPN-1 SANITARY	1LV1	RESTROOM	116	NO CHANGE	NO
	1LV2	RESTROOM	115	NO CHANGE	
	1SD1	JANITOR CLOSET	117	NO CHANGE	
	1TL1	RESTROOM	116	NO CHANGE	
	1TL2	RESTROOM	115	NO CHANGE	
	1WF1	CORRIDOR	113	NO CHANGE	

TABLE 3: TA 53-70 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY		STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
53-70-OPN-1	1SP1	CABLE VAULT	N/A	NOI	NO

TABLE 4 : TA 53-454 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
NONE NOT CONNECTED	1LV1	RESTROOM	N/A	REMOVE	NO
	1LV2	RESTROOM	N/A	REMOVE	
	1SD1	FORMER KITCHEN	N/A	REMOVE	
	1SH1	RESTROOM	N/A	REMOVE	
	1TL1	RESTROOM	N/A	REMOVE	
	1TL2	RESTROOM	N/A	REMOVE	

TABLE 5 : TA 53-526 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	RECOMMENDATIONS	EPA FORM PREPARED
53-526-OPN-1 SANITARY	1LV1	RESTROOM	107	NO CHANGE	NO
	1SD1	EXAM ROOM	104A	NO CHANGE	
	1SD2	EXAM ROOM	103	NO CHANGE	
	1SD3	JAN. CLOSET	100A	NO CHANGE	
	1SD4	EXAM ROOM	109	NO CHANGE	
	1SD5	CORRIDOR	100	NO CHANGE	
	1SD6	EXAM ROOM	106A	NO CHANGE	
	1SH1	RESTROOM	107	NO CHANGE	
	1TL1	RESTROOM	107	NO CHANGE	
	1WF1	CORRIDOR	100	NO CHANGE	
53-526-OPN-2		EVAP COOLER	ROOF	NOI	NO

TABLE 6
SUMMARY OF ABBREVIATIONS

ABBREVIATION	MEANING
A/C	AIR CONDITIONING
AD	AREA DRAIN
BFP	BACK FLOW PREVENTER
EC	EVAPORATIVE COOLER
ED	EYE WASH DRAIN
FD	FLOOR DRAIN
FS	FLOOR SINK
IM	ICE MAKER
LV	LAVATORY
MH	MANHOLE
NT	WASTE TANK
PRV	PRESSURE RELIEF VALVE
R	REMOVED
(R)	RISER
RLW	RADIOACTIVE LIQUID WASTE
RD	ROOF DRAIN
SD	SINK DRAIN
SH	SHOWER
SP	SUMP PUMP
SS	SANITARY SEWER
TBR	TO BE REMOVED
TL	TOILET
UR	URINAL
WF	WATER FOUNTAIN
WH	WATER HEATER

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	FLOW	RATE	PERIODICITY	SEASONAL	SOURCE TYPES
53	1	53-1-OPN-01A	13S	1CD03	B108	CAFETERIA				5 DAYS PER WEEK	No	ICE MACHINE
53	1	53-1-OPN-01A	13S	1FS01	B108	CAFETERIA				5 DAYS PER WEEK	No	KITCHEN EQUIPMENT
53	1	53-1-OPN-01A	13S	1LV04	A156	RESTROOM				5 DAYS PER WEEK	No	HAND WASHINGS
53	1	53-1-OPN-01A	13S	1LV05	A156	RESTROOM				5 DAYS PER WEEK	No	HAND WASHINGS
53	1	53-1-OPN-01A	13S	1LV06	A150	RESTROOM				5 DAYS PER WEEK	No	HAND WASHING
53	1	53-1-OPN-01A	13S	1LV07	A150	RESTROOM				5 DAYS PER WEEK	No	HAND WASHING
53	1	53-1-OPN-01A	13S	1LV08	A150	RESTROOM				5 DAYS PER WEEK	No	HAND WASHINGS
53	1	53-1-OPN-01A	13S	1SD19	A152	JANITOR'S CLOSET				5 DAYS PER WEEK	No	GEN. CLEANING
53	1	53-1-OPN-01A	13S	1TL04	A156	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01A	13S	1TL05	A156	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01A	13S	1TL06	A150	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01A	13S	1TL07	A150	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01A	13S	1TL08	A150	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01A	13S	1UR02	A150	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	1	53-1-OPN-01A	13S	1UR03	A150	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	1	53-1-OPN-01A	13S	1WF03	B102	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	1	53-1-OPN-01A	13S	1WF04	A100B	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	1	53-1-OPN-01A	13S	1WF05	A100C	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	1	53-1-OPN-01A	13S	2LV01	A242	RESTROOM				5 DAYS PER WEEK	No	HAND WASHING
53	1	53-1-OPN-01A	13S	2LV02	A242	RESTROOM				5 DAYS PER WEEK	No	HAND WASHING
53	1	53-1-OPN-01A	13S	2LV03	A242	RESTROOM				5 DAYS PER WEEK	No	HAND WASHING
53	1	53-1-OPN-01A	13S	2LV04	A248	RESTROOM				5 DAYS PER WEEK	No	HAND WASHING
53	1	53-1-OPN-01A	13S	2LV05	A248	RESTROOM				5 DAYS PER WEEK	No	HAND WASHING
53	1	53-1-OPN-01A	13S	2SD01	A294	CORRIDOR				5 DAYS PER WEEK	No	BAR SINK
53	1	53-1-OPN-01A	13S	2SD02	A244	JANITOR CLOSET				5 DAYS PER WEEK	No	GEN. CLEANING
53	1	53-1-OPN-01A	13S	2SD03	A200A	CONFERENCE RM.				5 DAYS PER WEEK	No	COFFEE BAR
53	1	53-1-OPN-01A	13S	2TL01	A242	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01A	13S	2TL02	A242	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01A	13S	2TL03	A242	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01A	13S	2TL04	A248	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01A	13S	2TL05	A248	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01A	13S	2UR01	A242	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	1	53-1-OPN-01A	13S	2UR02	A242	RESTROOM				5 DAYS PER WEEK	No	URINAL

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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	1	53-1-OPN-01A	13S	2WF01	A200C	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	1	53-1-OPN-01A	13S	2WF02	A200D	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	1	53-1-OPN-01B	13S	1CD01	C149	LABORATORY				NO FLOW	No	REMOVED
53	1	53-1-OPN-01B	13S	1CD02	C149	LABORATORY				NO FLOW	No	REMOVED
53	1	53-1-OPN-01B	13S	1FD01	C114	LIGHT PIPE SHOP				FLOW IS NIL	No	FLOOR WASHINGS
53	1	53-1-OPN-01B	13S	1FD02	C100B	CORRIDOR				5 DAYS PER WEEK	No	FLOOR WASH
53	1	53-1-OPN-01B	13S	1LV01	C113	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01B	13S	1LV02	C115	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01B	13S	1LV03	C115	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01B	13S	1SD01	C114	LIGHT PIPE SHOP				NO FLOW	No	REMOVED
53	1	53-1-OPN-01B	13S	1SD02	C114	LIGHT PIPE SHOP				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD03	C111	JANITORS CLOSET				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD04	C104	OFFICE				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD05	C121	ELECTRONICS LAB				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD06	C105	ELECTRONICS LAB				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD07	C123	ELECTRONICS LAB				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD08	C101	ELECTRONICS LAB				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD09	C156	E S & H LIBRARY				5 DAYS PER WEEK	No	REMOVED
53	1	53-1-OPN-01B	13S	1SD10	C156	E S & H LIBRARY				5 DAYS PER WEEK	No	REMOVED
53	1	53-1-OPN-01B	13S	1SD11	C129	ELECTRONICS LAB				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD12	C155	ELECTRONICS LAB				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD13	C131	ELECTRONICS LAB				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD14	C153	ELECTRONICS LAB				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD15	C133	RAD LABORATORY				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD16	C151	ELECTRONICS LAB				5 DAYS PER WEEK	No	NON-CONTACT COOLING
53	1	53-1-OPN-01B	13S	1SD17	C139	ELECTRONICS LAB				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SD18	C149	ELECTRONICS LAB				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01B	13S	1SH01	C115	RESTROOM				5 DAYS PER WEEK	No	SHOWER
53	1	53-1-OPN-01B	13S	1SH02	C115	RESTROOM				5 DAYS PER WEEK	No	SHOWER
53	1	53-1-OPN-01B	13S	1TL01	C115	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01B	13S	1TL02	C115	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01B	13S	1TL03	C113	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01B	13S	1UR01	C115	RESTROOM				5 DAYS PER WEEK	No	URINAL

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	1	53-1-OPN-01B	13S	1WF01	C100C	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	1	53-1-OPN-01B	13S	1WF02	C100E	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	1	53-1-OPN-01B	13S	BAD01	EXT	AIR INTAKE WELL				MOSTLY SUMMER	Yes	STORM WATER
53	1	53-1-OPN-01B	13S	BAD02	EXT	AIR INTAKE WELL				MOSTLY SUMMER	Yes	STORM WATER
53	1	53-1-OPN-01B	13S	BAD03	EXT	AIR INTAKE WELL				MOSTLY SUMMER	Yes	STORM WATER
53	1	53-1-OPN-01B	13S	BAD04	EXT	AIR INTAKE WELL				MOSTLY SUMMER	Yes	STORM WATER
53	1	53-1-OPN-01B	13S	BFD01	C BSMT	STORAGE				5 DAYS PER WEEK	No	FLOOR WASH
53	1	53-1-OPN-01B	13S	BFD02	C17	TELE. ROOM				5 DAYS PER WEEK	No	FLOOR WASH
53	1	53-1-OPN-01B	13S	BFD03	C15	BOILER ROOM				FLOW IS NIL	No	POTABLE WATER
53	1	53-1-OPN-01B	13S	BFD04	C15	MECHANICAL RM.				FLOW IS NIL	No	BOILER BD & POTABLE WATER
53	1	53-1-OPN-01B	13S	BFD05	C3	FAN ROOM				MOSTLY SUMMER	Yes	A/C CONDENSATE
53	1	53-1-OPN-01B	13S	BFD06	C3	FAN ROOM				MOSTLY SUMMER	Yes	A/C CONDENSATE
53	1	53-1-OPN-01B	13S	BFD07	C3	MECHANICAL RM.				MOSTLY SUMMER	Yes	CHILLER DRAIN
53	1	53-1-OPN-01B	13S	BFD08	C3	FAN ROOM				FLOW IS NIL	No	WTR. HEATER PRV
53	1	53-1-OPN-01B	13S	BFD09	C3	FAN ROOM				MOSTLY SUMMER	Yes	A/C CONDENSATE
53	1	53-1-OPN-01B	13S	BFD10	C3	FAN ROOM				FLOW IS NIL	No	AIR COMP. DISCH.
53	1	53-1-OPN-01B	13S	BFS01	C3	FAN ROOM				DATA NOT RECORDED	No	AIR WASHER BLOWDOWN
53	1	53-1-OPN-01B	13S	BSD01	C BSMT	CORRIDOR				FLOW IS NIL	No	HUMIDIFIER DRAIN
53	1	53-1-OPN-01C	13S	1LV09	D129	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01C	13S	1LV10	D129	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01C	13S	1LV11	D129	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01C	13S	1LV12	D101	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01C	13S	1LV13	D101	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01C	13S	1LV14	D101	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01C	13S	1SD20	N/A	JANITOR CLOSET				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01C	13S	1TL09	D101	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01C	13S	1TL10	D101	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01C	13S	1TL11	D129	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01C	13S	1TL12	D129	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01C	13S	1TL13	D129	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01C	13S	1UR04	D101	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	1	53-1-OPN-01C	13S	1UR05	D101	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	1	53-1-OPN-01C	13S	1WF06	D100	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	1	53-1-OPN-01C	13S	1WF07	D100	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	1	53-1-OPN-01C	13S	BAD05	EXT	AIR INTAKE WELL				MOSTLY SUMMER	Yes	STORM WATER
53	1	53-1-OPN-01C	13S	BAD06	EXT	AIR INTAKE WELL				MOSTLY SUMMER	Yes	STORM WATER
53	1	53-1-OPN-01C	13S	BFD11	D2	MECHANICAL ROOM				5 DAY SPER WEEK	No	FLOOR DRAINAGE
53	1	53-1-OPN-01C	13S	BFD12	D2	MECHANICAL ROOM				FLOW IS NIL	No	CHILLER DRAIN & BFP'S
53	1	53-1-OPN-01C	13S	BFD13	D2	MECHANICAL ROOM				5 DAYS PER WEEK	No	FLOOR DRAINAGE
53	1	53-1-OPN-01C	13S	BFD14	D2	MECHANICAL ROOM				5 DAYS PER WEEK	No	FLOOR DRAINAGE
53	1	53-1-OPN-01C	13S	BFS07	D2A	MECHANICAL RM.				FLOW IS NIL	No	BOILER DRAINS & POTABLE WATER
53	1	53-1-OPN-01D	13S	1CD06	D123	RAD LABORATORY				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01D	13S	1CD08	D125	RAD LABORATORY				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01D	13S	1CD10	D125	RAD LABORATORY				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01D	13S	1CD15	D126	RAD LABORATORY				5 DAY SPER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01D	13S	1CD16	D126	RAD LABORATORY				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01D	13S	1CD17	D124	RAD LABORATORY				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01D	13S	1CD18	D124	RAD LABORATORY				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01D	13S	1CD19	D123	RAD LABORATORY				5 DAYS PER WEEK	No	CLEAN-UP
53	1	53-1-OPN-01D	13S	1LV15	D119A	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01D	13S	1LV16	D119	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01D	13S	1LV17	D121	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	1	53-1-OPN-01D	13S	1SD21	D115	RAD LABORATORY				5 DAYS PER WEEK	No	HAND WASHINGS
53	1	53-1-OPN-01D	13S	1SD22	N/A	COFFEE BAR				5 DAYS PER WEEK	No	DISH WASHINGS
53	1	53-1-OPN-01D	13S	1SD23	D119B	JANITOR CLOSET				5 DAYS PER WEEK	No	MOP WATER
53	1	53-1-OPN-01D	13S	1SH03	D119	RESTROOM				5 DAYS PER WEEK	No	SHOWER
53	1	53-1-OPN-01D	13S	1TL14	D119A	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01D	13S	1TL15	D121	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	1	53-1-OPN-01D	13S	1UR06	D121	RESTROOM				5 DAYS PER WEEK	No	URINAL
53	1	53-1-OPN-01D	13S	1WF08	D100B	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	1	53-1-OPN-01D	13S	BFD15	D3	STORAGE				5 DAYS PER WEEK	No	FLOOR WASH
53	1	53-1-OPN-01D	13S	BFD16	D3	STORAGE				5 DAYS PER WEEK	No	FLOOR WASH
53	1	53-1-OPN-01D	13S	BFS02	D7	MECHANICAL ROOM				FLOW IS NIL	No	DI WATER, STEAM CONDENSATE
53	1	53-1-OPN-01D	13S	BFS02	D7	MECHANICAL ROOM				NO FLOW	No	ACID WASTE BYPASS
53	1	53-1-OPN-01D	13S	BFS02	D7	MECHANICAL ROOM				FLOW IS NIL	No	BOILER DRAIN
53	1	53-1-OPN-01D	13S	BFS03	D7	MECHANICAL ROOM				5 DAYS PER WEEK	No	POTABLE WATER & VAC PUMP DRAIN

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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	FLOW	RATE	PERIODICITY		SOURCE TYPES
											SEASONAL	
53	1	53-1-OPN-01D	13S	BFS05	D3	STORAGE				ANNUAL TEST	No	FIRE WATER
53	1	53-1-OPN-01D	13S	BFS06	D7	MECHANICAL ROOM				FLOW IS NIL	No	WATER HEATER
53	1	53-1-OPN-01D	13S	PFD01	ROOF	PENTHOUSE FAN ROOM				FLOW IS NIL	No	FLOOR DRAINAGE
53	1	53-1-OPN-02	DAYLIGHT	RD10	ROOF	ROOF				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-02	DAYLIGHT	RD11	ROOF	ROOF				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-02	DAYLIGHT	RD12	ROOF	ROOF				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-03	DAYLIGHT	1AD01	EXT	EXTERIOR AREA				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-03	DAYLIGHT	RD01	ROOF	ROOF				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-03	DAYLIGHT	RD02	ROOF	ROOF				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-03	DAYLIGHT	RD03	ROOF	ROOF				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-03	DAYLIGHT	RD04	ROOF	ROOF				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-03	DAYLIGHT	RD05	ROOF	ROOF				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-03	DAYLIGHT	RD06	ROOF	ROOF				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-03	DAYLIGHT	RD07	ROOF	ROOF				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-04	DAYLIGHT	1AD02	EXT	AREA DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-04	DAYLIGHT	1AD03	EXT	AREA DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-04	DAYLIGHT	1AD04	EXT	AREA DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-04	DAYLIGHT	RD08	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-04	DAYLIGHT	RD09	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-05	DAYLIGHT	RD14	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-05	DAYLIGHT	RD15	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-05	DAYLIGHT	RD16	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-05	DAYLIGHT	RD17	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-06	DAYLIGHT	RD18	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-06	DAYLIGHT	RD19	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-06	DAYLIGHT	RD20	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-06	DAYLIGHT	RD21	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-07	DAYLIGHT	1AD05	EXT	AREA DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-07	DAYLIGHT	RD13	ROOF	ROOF DRAINAGE				MOSTLY SUMMERS	Yes	STORM WATER
53	1	53-1-OPN-08	N/A	N/A	C114	LIGHT PIPE SHOP				NO FLOW	No	REMOVED VAC. PUMP AIR DIS
53	1	53-1-OPN-09	DAYLIGHT	N/A	C114	FIRE SUPPRESSION SYS.				ANNUAL TESTING	No	FIRE TEST DISCH.
53	1	53-1-OPN-10	N/A	N/A	N/A	UTILITY TUNNEL AIR VENT				NO LIQUIDS	No	AIR VENT
53	1	53-1-OPN-11	DAYLIGHT	N/A	A294	FIRE SUPPRESSION SYS.				ANNUAL TESTING	No	FIRE TEST DISCH.

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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	1	53-1-OPN-12	DAYLIGHT	N/A	B105	FIRE SUPPRESSION SYS.				ANNUAL TESTING	No	FIRE TEST DISCH.
53	1	53-1-OPN-13	N/A	N/A	EXT	BASEMENT				NO FLOW	No	CAPPED NAT. GAS STUB
53	1	53-1-OPN-14	DAYLIGHT	N/A	C122	OFFICE				MOSTLY SUMMERS	Yes	ROOM A/C UNIT CONDENSATE
53	1	53-1-OPN-15	DAYLIGHT	N/A	C3	FIRE SUPPRESSION SYS.				ANNUAL TESTING	No	FIRE TEST DISCH.
53	1	53-1-OPN-16	N/A	N/A	C3	FAN ROOM				METERED	No	AIR WASHER BLOWDOWN
53	1	53-1-OPN-17	DAYLIGHT	N/A	D2	RAD LABORATORY				NO LIQUIDS	No	STEAM VAPOR VENT
53	1	53-1-OPN-18	N/A	N/A	D107	RAD LABORATORY				NO LIQUIDS	No	VAC PUMP AIR DISCH.
53	1	53-1-OPN-19	N/A	N/A	D107	RAD LABORATORY				NO LIQUIDS	No	VAC PUMP AIR DISCH.
53	1	53-1-OPN-20	N/A	N/A	D113	RAD LABORATORY				NO LIQUIDS	No	VAC PUMP AIR DISCH.
53	1	53-1-OPN-21	N/A	N/A	D7	NEUTRALIZATION STOR TANK				TO BE REMOVED	No	CAUSTIC TANK VENT (VAPOR)
53	1	53-1-OPN-22	N/A	1AD06	EXT	ACID WASTE LOADING PAD				TRUCK LOADING OVER FIL	No	WASTE SPILL WHILE LOADING
53	1	53-1-OPN-22	N/A	1CD04	D123	RAD LABORATORY				5 DAYS PER WEEK	No	RAD LAB PROCESS
53	1	53-1-OPN-22	N/A	1CD05	D123	RAD LABORATORY				5 DAYS PER WEEK	No	RAD LAB PROCESS
53	1	53-1-OPN-22	N/A	1CD07	D125	RAD LABORATORY				5 DAYS PER WEEK	No	RAD LAB PROCESS
53	1	53-1-OPN-22	N/A	1CD09	D125	RAD LABORATORY				5 DAYS PER WEEK	No	RAD LAB PROCESS
53	1	53-1-OPN-22	N/A	1CD11	D124	RAD LABORATORY				5 DAY SPER WEEK	No	RAD LAB PROCESS
53	1	53-1-OPN-22	N/A	1CD12	D124	RAD LABORATORY				5 DAYS PER WEEK	No	RAD LAB PROCESS
53	1	53-1-OPN-22	N/A	1CD13	D126	RAD LABORATORY				5 DAYS PER WEEK	No	RAD LAB PROCESS
53	1	53-1-OPN-22	N/A	1CD14	D126	RAD LABORATORY				5 DAYS PER WEEK	No	RAD LAB PROCESS
53	1	53-1-OPN-22	N/A	1ED01	D100E	RAD LAB. CORRIDOR				FLOW IS NIL	No	EMER SHWR. & ICE MACH CON
53	1	53-1-OPN-22	N/A	1SD24	D123	RAD LABORATORY				5 DAYS PER WEEK	No	RAD. LAB CLEAN-UP
53	1	53-1-OPN-22	N/A	1SD25	D123	RAD LABORATORY				5 DAYS PER WEEK	No	RAD. LAB CLEAN-UP
53	1	53-1-OPN-22	N/A	1SD26	D125	RAD LABORATORY				5 DAYS PER WEEK	No	RAD. LAB CLEAN-UP
53	1	53-1-OPN-22	N/A	1SD27	D125	RAD LABORATORY				5 DAYS PER WEEK	No	RAD. LAB CLEAN-UP
53	1	53-1-OPN-22	N/A	1SD28	D124	RAD LABORATORY				5 DAYS PER WEEK	No	RAD. LAB CLEAN-UP
53	1	53-1-OPN-22	N/A	1SD29	D124	RAD LABORATORY				5 DAYS PER WEEK	No	RAD. LAB CLEAN-UP
53	1	53-1-OPN-22	N/A	1SD30	D126	RAD LABORATORY				5 DAYS PER WEEK	No	RAD. LAB CLEAN-UP
53	1	53-1-OPN-22	N/A	1SD31	D126	RAD LABORATORY				5 DAYS PER WEEK	No	RAD. LAB CLEAN-UP
53	1	53-1-OPN-22	N/A	BFS04	D7	EMERGENCY SHOWER DRAIN				NO FLOW	No	PLUGGED
53	1	53-1-OPN-22	N/A	BFS04	D7	ACID WASTE LOADING PAD				NO FLOW	No	PLUGGED
53	1	53-1-OPN-22	N/A	BNT01	D7	ACID WASTE STORAGE TANK				UNLOADED BY TRUCK	No	HOLDING TANK
53	1	53-1-OPN-22	N/A	BNT02	D7	ACID WASTE STORAGE TANK				UNLOADED BY TRUCK	No	HOLDING TANK
53	1	53-1-OPN-23	N/A	N/A	D7	NEUT. CAUSTIC STOR. TANK				TO BE REMOVED	No	SUPPLY FEED TO CAUSTIC TA

TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	1	53-1-OPN-24	DAYLIGHT	N/A	D3	FIRE SUPPRESSION SYS.				ANNUAL TESTING	No	FIRE TEST DISCH.
53	1	53-1-OPN-25	N/A	N/A	D2A	MECHANICAL ROOM				NO LIQUIDS	No	NAT. GAS PRV VENT
53	1	53-1-OPN-26	N/A	N/A	D2A	MECHANICAL ROOM				NO LIQUIDS	No	NAT. GAS PRV VENT
53	1	53-1-OPN-27	DAYLIGHT	N/A	D2A	MECHANICAL ROOM				NO LIQUIDS	No	STM. BOILER PRV
53	40	53-40-OPN-1	13S	1LV01	116	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	40	53-40-OPN-1	13S	1LV02	115	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	40	53-40-OPN-1	13S	1SD01	117	JANITOR CLOSET				5 DAYS PER WEEK	No	CLEAN-UP
53	40	53-40-OPN-1	13S	1TL01	116	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	40	53-40-OPN-1	13S	1TL02	115	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	40	53-40-OPN-1	13S	1WF01	113	CORRIDOR				5 DAYS PER WEEK	No	CORRIDOR
53	70	53-70-OPN-1	DAYLIGHT	1SP01	N/A	CABLE VAULT (115 KV)				FLOOD CONDITION ONLY	No	STORM WATER
53	415	53-415	N/A	N/A	N/A	OFFICE TRAILER				NO FLOW	No	NONE
53	416	53-416	N/A	N/A	N/A	OFFICE TRAILER				NO FLOW	No	NONE
53	420	53-420	N/A	N/A	N/A	OFFICE TRAILER				NO FLOW	No	NONE
53	421	53-421	N/A	N/A	N/A	OFFICE TRAILER				NO FLOW	No	NONE
53	428	53-428	N/A	N/A	N/A	OFFICE TRAILER				NO FLOW	No	NONE
53	450	53-450	N/A	N/A	N/A	OFFICE TRAILER				NO FLOW	No	DRAINS WITH NO WATER SUPPLY
53	452	53-452	N/A	N/A	N/A	OFFICE TRAILER				NO FLOW	No	NONE
53	454	53-454	N/A	1LV1	N/A	RESTROOM				NO FLOW	No	NONE
53	454	53-454	N/A	1LV2	N/A	RESTROOM				NO FLOW	No	NONE
53	454	53-454	N/A	1SD1	N/A	RESTROOM				NO FLOW	No	NONE
53	454	53-454	N/A	1SH1	N/A	RESTROOM				NO FLOW	No	NONE
53	454	53-454	N/A	1TL1	N/A	RESTROOM				NO FLOW	No	NONE
53	454	53-454	N/A	1TL2	N/A	RESTROOM				NO FLOW	No	NONE
53	454	53-454	N/A	N/A	N/A	OFFICE TRAILER				NO FLOW	No	DRAINS WITH NO WATER SUPPLY
53	515	53-515	N/A	N/A	N/A	OFFICE TRAILER				NO FLOW	No	NONE
53	524	53-524	N/A	N/A	N/A	OFFICE TRAILER				NO FLOW	No	NONE
53	526	53-526-OPN-1	13S	1LV01	107	RESTROOM				5 DAYS PER WEEK	No	HAND WASH
53	526	53-526-OPN-1	13S	1SD01	104A	EXAM ROOM (MEDICAL)				5 DAYS PER WEEK	No	HAND WASH
53	526	53-526-OPN-1	13S	1SD02	103	EXAM ROOM (MEDICAL)				5 DAYS PER WEEK	No	HAND WASH
53	526	53-526-OPN-1	13S	1SD03	100A	EXAM ROOM (MEDICAL)				5 DAYS PER WEEK	No	HAND WASH
53	526	53-526-OPN-1	13S	1SD04	109	EXAM ROOM (MEDICAL)				5 DAYS PER WEEK	No	HAND WASH
53	526	53-526-OPN-1	13S	1SD05	100	JANITOR CLOSET				5 DAYS PER WEEK	No	CLEAN-UP

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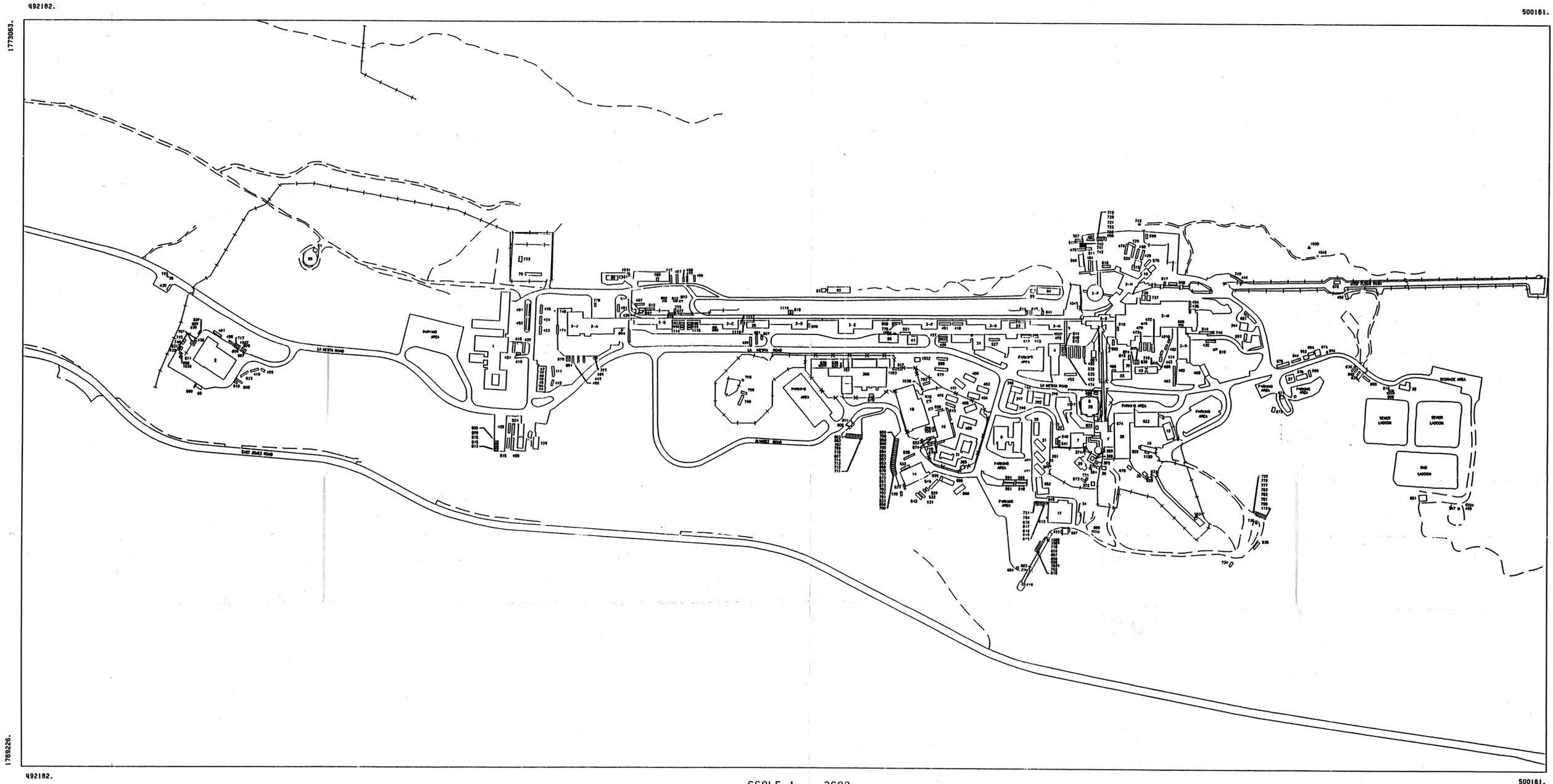
TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	DESCRIPTION	ROOM	RATE	FLOW	PERIODICITY	SEASONAL	SOURCE TYPES
53	526	53-526-OPN-1	13S	1SD06	106A	CORRIDOR				5 DAYS PER WEEK	No	HAND WASH
53	526	53-526-OPN-1	13S	1SH01	107	RESTROOM				5 DAYS PER WEEK	No	SHOWER
53	526	53-526-OPN-1	13S	1TL01	107	RESTROOM				5 DAYS PER WEEK	No	TOILET
53	526	53-526-OPN-1	13S	1WF01	100	CORRIDOR				5 DAYS PER WEEK	No	WATER FOUNTAIN
53	526	53-526-OPN-2	DAYLIGHT	N/A	ROOF	EVAPORATIVE COOLER				5 DAYS PER WEEK	No	COOLING WATER
53	605	53-605	N/A	N/A	N/A	TRANSPORTAINER				NO FLOW	No	NONE
53	733	53-733	N/A	N/A	N/A	STORAGE SHED				NO FLOW	No	NONE
53	809	53-809	N/A	N/A	N/A	TRANSPORTAINER				NO FLOW	No	NONE
53	813	53-813	N/A	N/A	N/A	TRANSPORTAINER				NO FLOW	No	NONE
53	815	53-815	N/A	N/A	N/A	TRANSPORTAINER				NO FLOW	No	NONE
53	845	53-845	N/A	N/A	N/A	TRANSPORTAINER				NO FLOW	No	NONE

NO EPA FORMS WERE PREPARED.

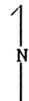
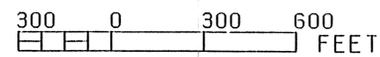
DYE STUDY INFORMATION

BUILDING NUMBER	DRAIN NUMBER	DID DYE REACH EXPECTED DESTINATION?	COMMENTS
53-1	1LV8	YES	OPN-1A (SANITARY)
53-1	1FS1	YES	OPN-1A (SANITARY)
53-1	2LV3	YES	OPN-1A (SANITARY)
53-1	1SD18	YES	OPN-1B VIA BFD6 (SAN)
53-1	1SD16	YES	OPN-1B (SANITARY)
53-1	1SD3	YES	OPN-1B (SANITARY)
53-1	BFS1	YES	OPN-1B (SANITARY)
53-1	BFD4	YES	OPN-1B (SANITARY)
53-1	BAD2	YES	OPN-1B (SANITARY)
53-1	BSD1	YES	OPN-1B (SANITARY)
53-1	BFD13	YES	OPN-1C (SANITARY)
53-1	BFS7	YES	OPN-1C (SANITARY)
53-1	1LV14	YES	OPN-1C (SANITARY)
53-1	BFS2	YES	OPN-1D (SANITARY)
53-1	BFS3	YES	OPN-1D (SANITARY)
53-1	1SD22	YES	OPN-1D (SANITARY)
53-1	1LV15	YES	OPN-1D (SANITARY)
53-1	1CD3	YES	OPN-1D (SANITARY)
53-1	1SD24	YES (WATER ONLY)	OPN-22 (BNT1,2)
53-1	1SD25	YES (WATER ONLY)	OPN-22 (BNT1,2)
53-40	1SD1	YES	OPN-1 (SANITARY)
53-526	1SD1	YES	OPN-1 (SANITARY)

TA-53

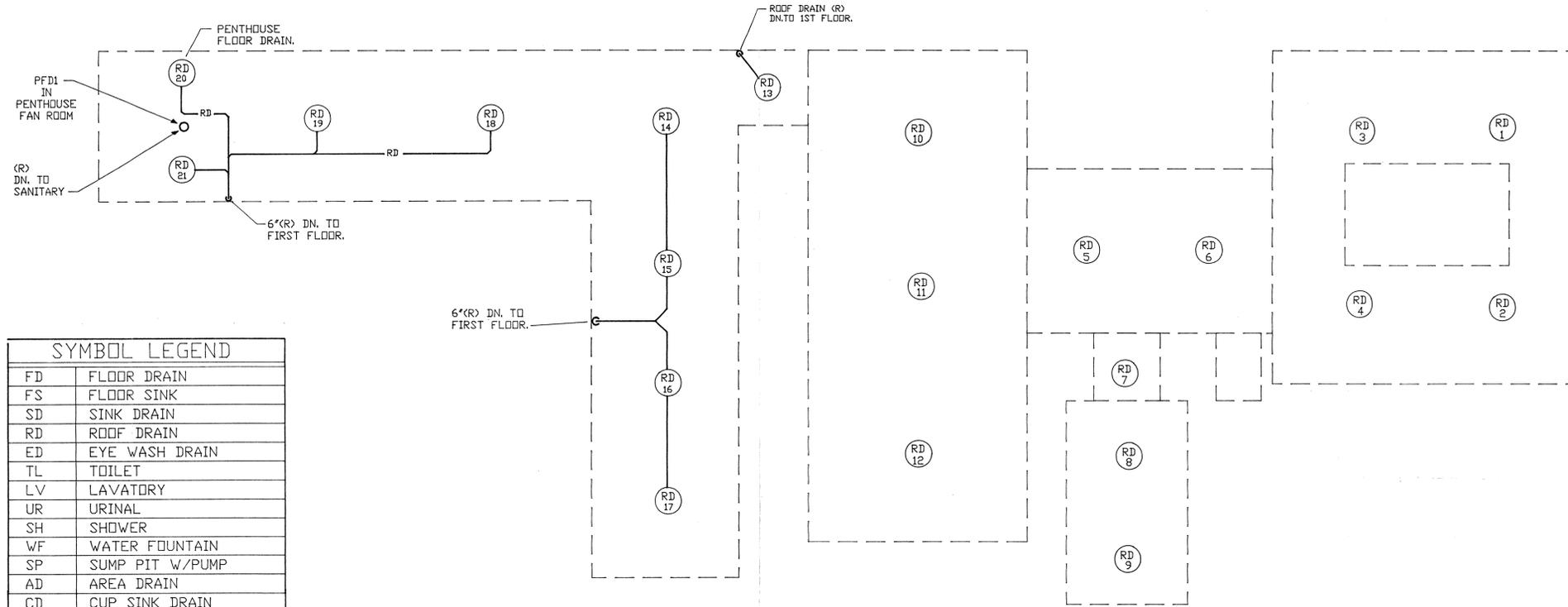


SCALE 1: 3600.



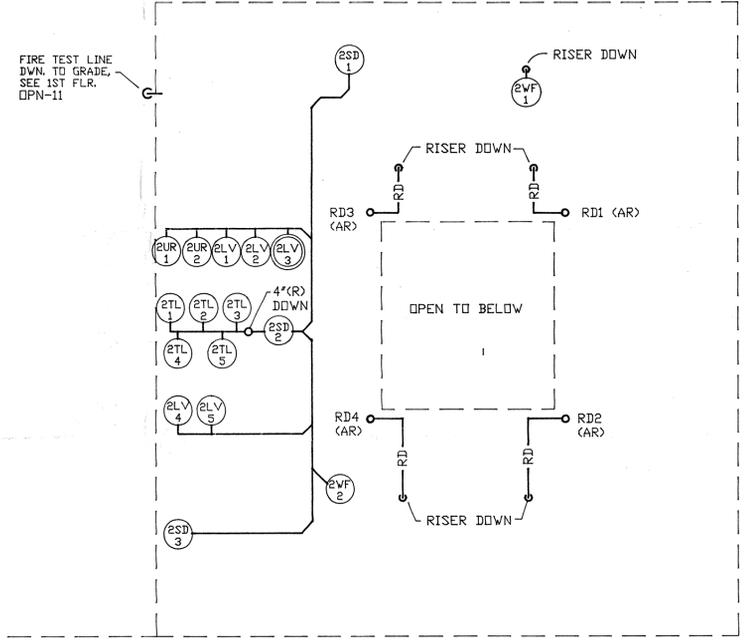
15189-B

TA-53 SITE PLAN		DRAWN	
		DESIGN	
		CHECKED	
		DATE	4-28-92
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET	1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NDL	DRAWING NDL	REV.
REQUESTING GROUP	11056-29	FIGURE 1	
EM-8			



SYMBOL LEGEND	
FD	FLOOR DRAIN
FS	FLOOR SINK
SD	SINK DRAIN
RD	ROOF DRAIN
ED	EYE WASH DRAIN
TL	TOILET
LV	LAVATORY
UR	URINAL
SH	SHOWER
WF	WATER FOUNTAIN
SP	SUMP PIT W/PUMP
AD	AREA DRAIN
CD	CUP SINK DRAIN
(R)	PIPE RISER (VERTICAL)
(AR)	ABOVE ROOF
R	REMOVED

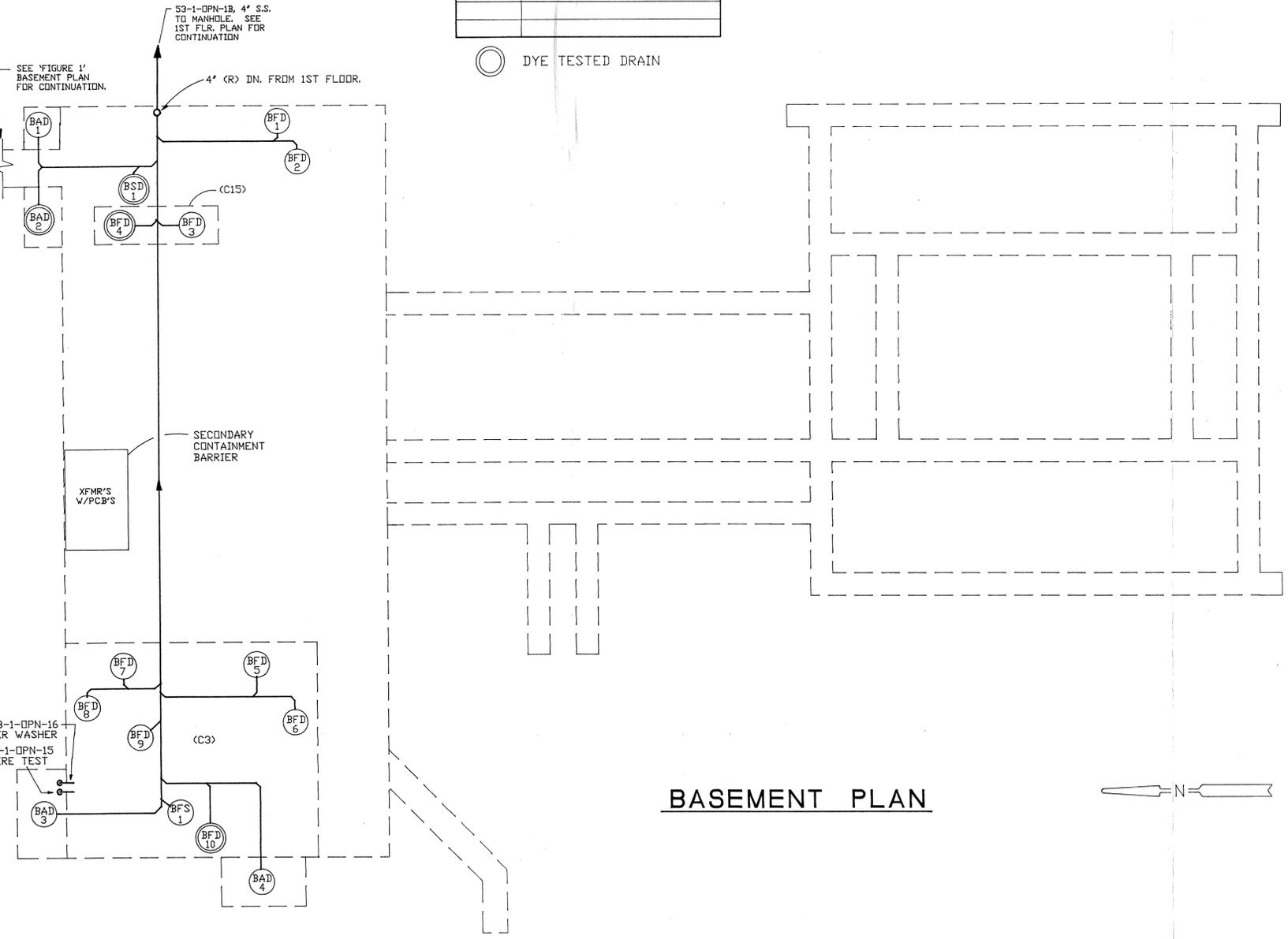
ROOF PLAN



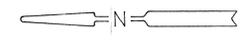
SECOND FLOOR PLAN

NOTES:
 1. THIS DRAIN SCHEMATIC WAS DRAWN USING L.A.N.L. DRAWINGS: C-50516, C-50518, C-50796, C-51245, C-51274, C-51279, C-51281, C-51181, C-56816, C-56817, C-56818, C-56804, C-56837, C-56841, C-56842, C-56843, C-56845, C-67601, C-67602, C-67603, C-67626, C-67627, C-67628, C-67629, R-1863, R-1864, R-1829, R-R-4428, R-4429, AND SITE VISITS.

○ DYE TESTED DRAIN

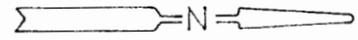
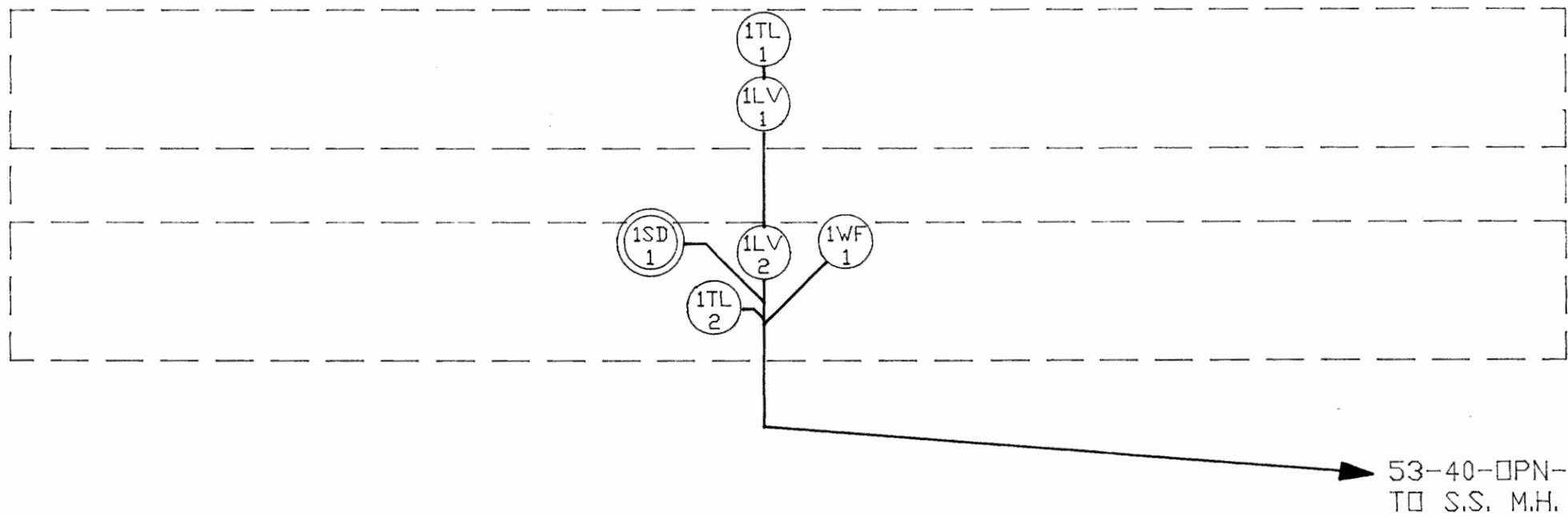


BASEMENT PLAN



15189-A

SANTA FE ENGINEERING, LTD.			
TA 53-1 DRAIN SCHEMATIC		DRAWN M.E.W.	DESIGN S.C.D.
		CHECKED P.E.B.	DATE 2-13-92
CLASSIFICATION	REVIEWER	DATE	APPROVED
REQUESTING DIVISION EM-8	LAB JOB NO. 11056-29	DRAWING NO. FIGURE 3	REVISIONS 2 OF 2

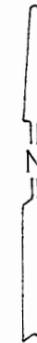
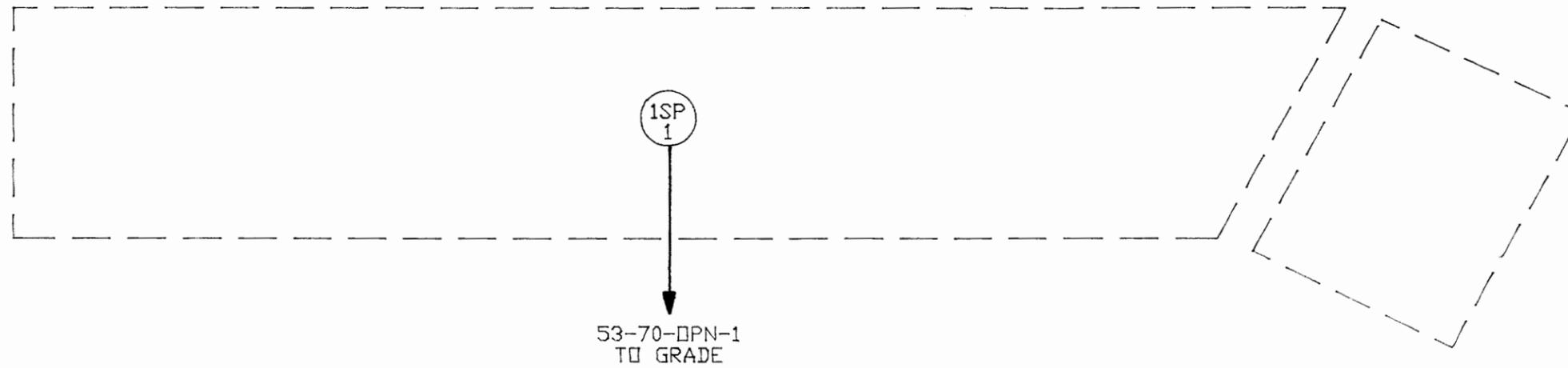


SYMBOL LEGEND	
LV	LAVATORY
TL	TOILET
SD	SINK DRAIN
WF	WATER FOUNTAIN

 DYE TESTED DRAIN

- NOTES:
1. THIS SCHEMATIC WAS DERIVED FROM SITE VISIT.

SANTA FE ENGINEERING, LTD.			
TA 53-40 DRAIN SCHEMATIC		DRAWN	M.E.W.
		DESIGN	S.C.D.
		CHECKED	P.E.B.
		DATE	2-13-92
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET	1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-29	FIGURE 4	

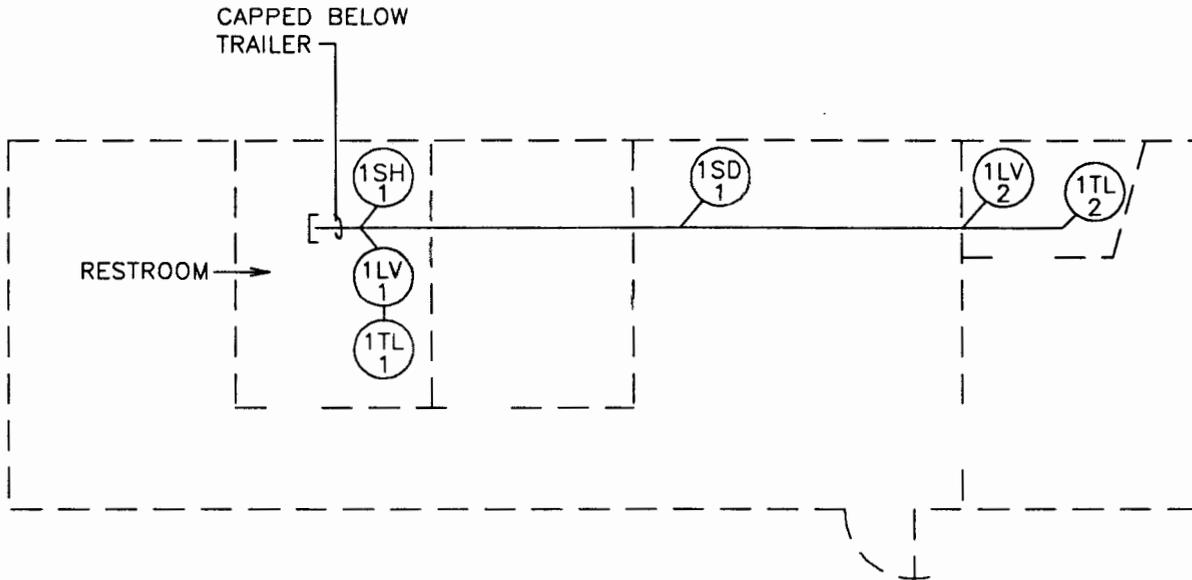


SYMBOL LEGEND	
SP	SUMP PIT W/PUMP

NOTES:
 1. THIS SCHEMATIC WAS DERIVED FROM SITE VISIT.

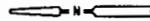
SANTA FE ENGINEERING, LTD.			
TA 53-70 DRAIN SCHEMATIC	DRAWN	M.E.W.	
	DESIGN	S.C.D.	
	CHECKED	P.E.B.	
	DATE	2-13-92	
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET	1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-29	FIGURE 5	

THIS STRUCTURE HAS DRAINS BUT NO OUTFALLS.



TA-53-454

- NOT TO SCALE -



SYMBOL LEGEND

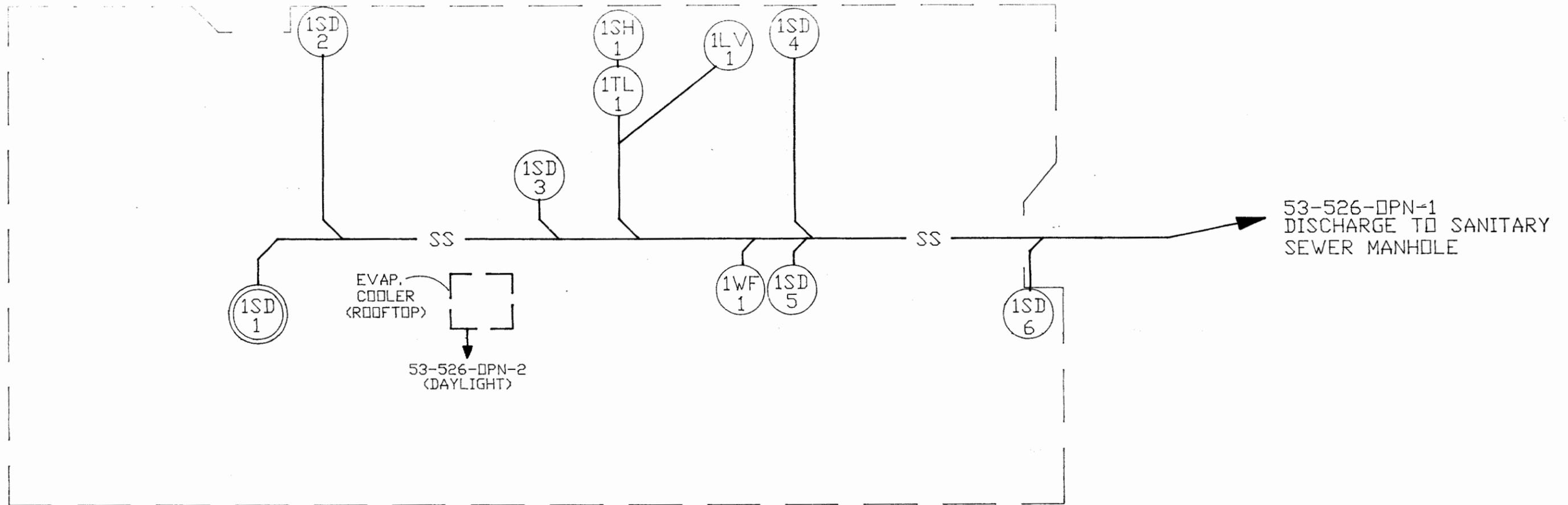
LV	LAVATORY
SD	SINK DRAIN
SH	SHOWER
TL	TOILET

NOTES:

1. THERE IS NO WATER SOURCE TO THIS OFFICE TRAILER.
2. THE SANITARY PIPING IS CAPPED OFF BELOW THE FLOOR. THERE IS NO CONNECTION TO THE SANITARY SEWER.
3. THERE ARE NO ROOM NUMBERS.

SANTA FE ENGINEERING, LTD.

TA-53-454 DRAIN SCHEMATIC		DRAWN	G.S.
		DESIGN	S.C.D.
		CHECKED	S.C.D.
		DATE	11-30-93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	
CLASSIFICATION		REVIEWER	DATE
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-29	FIGURE 6	
EM-8			



FIRST FLOOR PLAN

SYMBOL LEGEND	
LV	LAVATORY
SD	SINK DRAIN
SH	SHOWER
—SS—	SANITARY SEWER PIPE
TL	TOILET
WF	WATER FOUNTAIN

⊙ DYE TESTED DRAIN



NOTES:

1. THIS SCHEMATIC DRAWING DERIVED FROM SITE VISIT.

SANTA FE ENGINEERING, LTD.			
TA-53-526 DRAIN SCHEMATIC		DRAWN	M.E.W.
		DESIGN	S.C.D.
		CHECKED	P.E.B.
		DATE	2-13-93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET	1 OF 1
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-29	FIGURE 7	
EM-8			