

**WASTEWATER STREAM
CHARACTERIZATION FOR
TA 54**

**at
Los Alamos National Laboratory**

ENVIRONMENTAL STUDY

CHARACTERIZATION REPORT # 77



15341

NT DIVISION

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

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WASTEWATER STREAM
CHARACTERIZATION FOR
TA 54, ALL BUILDINGS

ENVIRONMENTAL STUDY

prepared for:
THE LOS ALAMOS NATIONAL LABORATORY
Los Alamos, New Mexico

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EXECUTIVE SUMMARY

Buildings 2, 8, 10, 11, 12, 17, 20, 22, 23, 25, 31, 32, 33, 34, 35, 36, 37, 38, 39, 46, 48, 49, 50, 51, 52, 55, 58, 60, 62, 64, 68, 69, 70, 76, 77, 79, 81, 82, 92, 93, 94, 111, 117, 144, 145, 146, 154, 155, 156, 157, 161, 174, 175, 176, 177, 178, 185, 210, 211, 221, 1001, 1002, 1003, 1004, 1005, 1009, 1014 and 1015 were visited to document all drain piping and building outfalls and to make permitting recommendations. The pipes exiting the building are as follows:

- 1) from 54-10, 54-17, 54-20, 54-23, 54-25, 54-31, 54-32, 54-35, 54-36, 54-46, 54-48, 54-49, 54-50, 54-52, 54-55, 54-58, 54-62, 54-68, 54-69, 54-70, 54-76, 54-77, 54-79, 54-82, 54-92, 54-93, 54-94, 54-144, 54-145, 54-146, 54-154, 54-155, 54-161, 54-174, 54-175, 54-176, 54-177, 54-178, 54-1002 and 54-1015: these buildings have no drains,
- 2) from 54-2: one outfall to septic tank LA-60, one outfall to a radioactive liquid waste storage tank, one outfall to daylight from a water heater pressure relief valve, one outfall to daylight from a back flow preventer and four roof downspouts,
- 3) from 54-8: one trench drain, probably to a dead-end sump,
- 4) from 54-11: one outfall to septic tank LA-60, one outfall to a radioactive liquid waste storage tank and one outfall to daylight from a water heater pressure relief valve,
- 5) from 54-12: one roof downspout,
- 6) from 54-22: one outfall to septic tank SF89034R, one outfall to daylight from a water heater pressure relief valve, one drain from an evaporative cooler and one roof downspout,
- 7) from 54-33: one outfall to a radioactive liquid waste tank,
- 8) from 54-34: one outfall to the sanitary sewage collection system and one drain from an evaporative cooler,
- 9) from 54-37: one outfall to septic tank SF89034R, one outfall to daylight from a water heater pressure relief valve and one drain from an evaporative cooler,

- 10) from 54-38: one outfall to the sanitary sewer collection system, one outfall to a tributary of Canyon Del Buey from an area drain and roof drains, six condensate drains from an air handler, four outfalls to daylight from fire system drains, four roof canales and one roof downspout,
- 11) from 54-39: one outfall to septic tank SF880257, one outfall to daylight from a water heater pressure relief valve, two roof downspouts and five outfalls to daylight from fire system drains,
- 12) from 54-51: one drain from an evaporative cooler,
- 13) from 54-60: one outfall to septic tank SF89034R, one outfall to daylight from a water heater pressure relief valve and one roof downspout,
- 14) from 54-64: one outfall to septic tank SF89034R and one outfall to daylight from a water heater pressure relief valve,
- 15) from 54-81: one roof downspout,
- 16) from 54-111: one roof downspout,
- 17) from 54-117: one outfall to septic tank 54-150, one outfall to daylight from a water heater pressure relief valve, one drain from an evaporative cooler and three roof downspouts,
- 18) from 54-156: one roof downspout,
- 19) from 54-157: one roof downspout,
- 20) from 54-185: one drain from an evaporative cooler and two roof downspouts,
- 21) from 54-210: one drain from an evaporative cooler,
- 22) from 54-211: one drain from an evaporative cooler,
- 23) from 54-221: one drain from an evaporative cooler,
- 24) from 54-1001: one outfall to the sanitary sewage collection system,

- 25) from 54-1003: one outfall to the sanitary sewage collection system,
- 26) from 54-1004: two outfalls to the sanitary sewage collection system,
- 27) from 54-1005: one outfall to the sanitary sewage collection system, one outfall to daylight from a water heater pressure relief valve and one drain from an evaporative cooler,
- 28) from 54-1009: one outfall to the sanitary sewage collection system, one outfall to a radioactive liquid storage tank, one storm water outfall, two roof downspouts, two radioactive liquid storage tank discharge lines, a radioactive liquid storage tank vent and two radioactive liquid storage tank drains.

Recommendations for repiping are provided to permit outfall consolidation to minimize permit maintenance requirements and to bring the facility into compliance with the Laboratory's NPDES permits and Environmental policies. Floor drain plugging and spill containment is recommended where the potential for discharge of pollutants exists.

A waste stream database has been prepared listing wastewater type and flow rate for each outfall.

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1.0 INTRODUCTION

During July and August, 1993, David Scherer of Santa Fe Engineering (SFE) toured buildings 2, 8, 10, 11, 12, 17, 20, 22, 23, 25, 31, 32, 33, 34, 35, 36, 37, 38, 39, 46, 48, 49, 50, 51, 52, 55, 58, 60, 62, 64, 68, 69, 70, 76, 77, 79, 81, 82, 92, 93, 94, 111, 117, 144, 145, 146, 154, 155, 156, 157, 161, 174, 175, 176, 177, 178, 185, 210, 211, 221, 1001, 1002, 1003, 1004, 1005, 1009, 1014 and 1015 at TA-54. The purpose of this study is to identify building drain piping and to characterize the wastewater flows and sources existing at the time of the visit. This report will not reflect any subsequent changes in piping or operation. The Waste Stream Characterization Policy of September 10, 1992 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 application 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 27) from drawings provided by Los Alamos

National Laboratory (LANL) Facilities Engineering Division. The other buildings were visited to insure that no drains exist for 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 schematics. The Solid Waste Stream Characterization conducted by IT Corporation was also reviewed. The National Pollutant Discharge Elimination 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 schematics 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 wastestream characterization.

2.0 FIELD INVESTIGATION

The pipes exiting the building have been assigned Outlet Piping Numbers. 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 pipe number and the unique number for the pipe. The piping exiting the 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 indicates the floor on which the drain is located. The second part has letters that indicate the type of drain (see Table 1). The final part is the unique number for the drain. For example, the first floor drain in the sequence on the basement floor of a building would be labeled BFD1. Similarly, the first Roof Drain in a sequence would be identified as RD1.

The functions of each pipe exiting from the buildings are listed in Appendix 1, Tables 2 through 28, with an abbreviations list in Table 1. Table 29 in Appendix 1 contains recommendation information that is not specific to individual drains. Appendix 2 contains the wastestream characterization database output, listing wastewater source, flow rates and periodicity information for each outfall drain. Completed EPA forms are in Appendix 3 for the appropriate outfalls. Appendix 4 provides dye study information. Flow schematics of the drains from each building are attached in Appendix 5 as Figures 2 through 27. Figure 1 of Appendix 5 is a site plan of TA-54.

3.0 RECOMMENDATIONS FOR BUILDINGS WITH NO DRAINS

Buildings 54-10, 17, 20, 23, 25, 31, 32, 35, 36, 46, 48, 49, 50, 52, 55, 58, 62, 68, 69, 70, 76, 77, 79, 82, 92, 93, 94, 144, 145, 146, 154, 155, 161, 174, 175, 176, 177, 178, 1002 and 1015 have no drains and/or no sources for flows. These buildings are transportainers, storage sheds or tension support buildings. Building 54-79 is used to store herbicides and secondary containment should be provided for the herbicides. No other changes or permits are recommended. No EPA forms were prepared.

4.0 RECOMMENDATIONS FOR BUILDING 54-2

Building 54-2 contains a compactor and a machine shop. Table 2 is a list of drains to the outfalls for building 54-2 and Figure 2 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

4.1 Outfall 54-2-OPN-1

This outfall is from sanitary facilities and discharges to septic tank LA-60/54-16. This outfall includes flows from a floor drain, a lavatory, a sink drain, a toilet and a urinal. No changes or permits are recommended. No EPA forms were prepared.

4.2 Outfall 54-2-OPN-2

This outfall is from three floor drains and discharges to radioactive liquid waste (RLW) storage tank 54-17, which is pumped out and treated at the TA-50 waste treatment plant. Floor drain, 1FD2, receives floor washings from the machine shop. Floor drain, 1FD3, receives flow from an evaporative cooler. It is recommended that the drain be repiped outside the

building and covered under a Notice of Intent to Discharge (NOI) and that the floor drain be plugged. Floor drain, 1FD4, receives flow from the secondary containment surrounding the compactor. No permitting is recommended and no EPA forms were prepared.

4.3 Outfall 54-2-OPN-3

This outfall is from a back flow preventer (BFP) and discharges to daylight. It is recommended that it be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

4.4 Outfall 54-2-OPN-4

This outfall is from a water heater pressure relief valve (PRV) and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

4.5 Outfalls 54-2-OPN-5, 54-2-OPN-6, 54-2-OPN-7 and 54-2-OPN-8

These outfalls are storm water from roof downspouts and discharge to daylight. No changes or permits are recommended. No EPA forms were prepared.

5.0 RECOMMENDATIONS FOR BUILDING 54-8

Building 54-8 is used for storage. There is one sump that is designated 1TD1 in Figure 3. It is suspected that this is a dead-end sump but this could not be confirmed because the sump was full of standing water, believed to be rain water entering under the roll-up door. It is recommended that the user verify if the sump contains a drain and, if so, it is recommended that the drain be plugged. No permitting is recommended and no EPA forms were prepared.

6.0 RECOMMENDATIONS FOR BUILDING 54-11

Building 54-11 houses offices and change rooms. Table 3 is a list of drains to the outfalls for building 54-11 and Figure 4 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

6.1 Outfall 54-11-OPN-1

This outfall is from sanitary facilities and discharges to septic tank LA-60/54-16. This outfall includes flows from floor drains (2), lavatories (2), toilets (2), a urinal and a water fountain. No changes or permits are recommended. No EPA forms were prepared.

6.2 Outfall 54-11-OPN-2

This outfall discharges to radioactive liquid storage tank 54-17. This outfall includes flows from floor drains (2), a sink drain, showers (2) and a washing machine. No changes or permits are recommended. No EPA forms were prepared.

6.3 Outfall 54-11-OPN-3

This outfall is from a water heater PRV and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

7.0 RECOMMENDATIONS FOR BUILDING 54-12

Building 54-12 is a break room. Table 4 is a list of drains to the outfall for building 54-12 and Figure 5 is a schematic of the piping. Outfall 54-12-OPN-1 is a roof downspout. No changes or permits are recommended. No EPA forms were prepared.

8.0 RECOMMENDATIONS FOR BUILDING 54-22

Building 54-22 houses administrative offices for Area G. Table 5 is a list of drains to the outfalls for building 54-22 and Figure 6 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

8.1 Outfall 54-22-OPN-1

This outfall is from sanitary facilities and is believed to discharge to septic tank SF89034R/54-80. This outfall includes flows from lavatories (2), sink drains (2), showers (2), toilets (2), a urinal and a water fountain. Multiple attempts were made to verify the location of discharge for this outfall by dye testing. The dye could not be seen, due to the configuration of the inlet pipe, when the septic tank was full. It is recommended that the user verify the discharge location. No permitting is recommended and no EPA forms were prepared.

8.2 Outfall 54-22-OPN-2

This outfall is from a water heater PRV and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

8.3 Outfall 54-22-OPN-3

This outfall is a drain from an evaporative cooler and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

8.4 Outfall 54-22-OPN-4

This outfall is storm water from a roof downspout and discharges to daylight. No changes or permits are recommended. No EPA forms were prepared.

9.0 RECOMMENDATIONS FOR BUILDING 54-33

Building 54-33 was the transuranic waste (TRU) drum preparation facility. It is now used for storage. Table 6 is a list of drains to the outfalls for building 54-33 and Figure 7 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-33-OPN-1 is from floor drains (4) and a trench drain and discharges to an RLW tank. Room 100B is used for the storage of batteries and it is recommended that secondary containment be placed around the batteries. No permitting is recommended and no EPA forms were prepared.

10.0 RECOMMENDATIONS FOR BUILDING 54-34

Building 54-34 is a transportable office building. Table 7 is a list of drains to the outfalls for building 54-34 and Figure 8 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

10.1 Outfall 54-34-OPN-1

This outfall is from sanitary facilities and flows into the TA-54 sanitary sewer system. The sanitary facilities that flow into this outfall include a janitor's floor sink, lavatories (2), a sink drain, toilets (2), a urinal and a water fountain. No changes or permits are recommended. No EPA forms were prepared.

10.2 Outfalls 54-34-OPN-2

This outfall is a drain from an evaporative cooler and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

11.0 RECOMMENDATIONS FOR BUILDING 54-37

Building 54-37 a transportable office building which houses administrative offices for Area L. Table 8 is a list of drains to the outfalls for building 54-37 and Figure 9 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

11.1 Outfalls 54-37-OPN-1

This outfall is from sanitary facilities and discharges to septic tank SF89034R/54-80. This outfall includes flows from a lavatory and a toilet. Septic tank SF89034R serves four buildings and it is believed to be inadequate for the volume of flow it receives. It is recommended that the sanitary lines to this septic tank be repiped to the sanitary sewer consolidation system. This could be accomplished by piping the sanitary facilities to the lift station located near building 54-1009. The septic system should then be decommissioned according to the

EM-8 septic tank management plan. No permitting is recommended. No EPA forms were prepared.

11.2 Outfalls 54-37-OPN-2

This outfall is from a water heater PRV and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

11.3 Outfalls 54-37-OPN-3

This outfall is a drain from an evaporative cooler and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

12.0 RECOMMENDATIONS FOR BUILDING 54-38

Building 54-38 is the transuranic waste nondestructive analysis/ nondestructive examination (NDA/NDE) facility. Table 9 is a list of drains to the outfalls for building 54-38 and Figure 10 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

12.1 Outfall 54-38-OPN-1

This outfall is from sanitary facilities and flows to the TA-54 sanitary sewer system. The sanitary facilities that flow into this outfall include floor drains (3), a floor sink, a water fountain, lavatories (4), toilets (3) and a urinal. No changes or permits are recommended. No EPA forms were prepared.

12.2 Outfall 54-38-OPN-2

This outfall is from an area drain, a trench drain and four roof drains and discharges to daylight to a tributary of Canyon Del Buey. The trench drain has an isolation valve, that is closed and locked, that prevents any flow from the trench from being discharged. The area in which the trench drain is located is now being used as an office and storage area. It is recommended that the trench drain be plugged. No permitting is recommended and no EPA forms were prepared.

12.3 Outfalls 54-38-OPN-3, 54-38-OPN-4, 54-38-OPN-5, 54-38-OPN-6, 54-38-OPN-7 and 54-38-OPN-8

These outfalls are condensate drains from an air handler and discharge to daylight. They should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

12.4 Outfalls 54-38-OPN-9, 54-38-OPN-10, 54-38-OPN-11 and 54-38-OPN-12

These outfalls are from fire system drains and discharge to daylight. They should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

12.5 Outfalls 54-38-OPN-13, 54-38-OPN-14, 54-38-OPN-15, 54-38-OPN-16 and 54-38-OPN-17

These outfalls are storm water from four roof canales and a roof downspout and discharge to daylight. No changes or permits are recommended. No EPA forms were prepared.

13.0 RECOMMENDATIONS FOR BUILDING 54-39

Building 54-39 is the polychlorinated biphenyl (PCB) waste storage facility. Table 10 is a list of drains to the outfalls for building 54-39 and Figure 11 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

13.1 Outfall 54-39-OPN-1

This outfall is from sanitary facilities and discharges to septic tank SF880257/54-43. This outfall includes flows from a floor sink, a lavatory, a shower, a toilet and a water fountain. The water to the water fountain has been shut off. It is recommended that the water fountain be removed. No permitting is recommended and no EPA forms were prepared.

13.2 Outfall 54-39-OPN-2

This outfall is from a water heater PRV and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

13.3 Outfalls 54-39-OPN-3 and 54-39-OPN-4

These outfalls are storm water from roof downspouts and discharge to daylight. No changes or permits are recommended. No EPA forms were prepared.

13.4 Outfalls 54-39-OPN-5, 54-39-OPN-6, 54-39-OPN-7, 54-39-OPN-8 and 54-39-OPN-9

These outfalls are from fire system drains and discharge to daylight. They should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

14.0 RECOMMENDATIONS FOR BUILDING 54-51

Building 54-51 is an office trailer. Table 11 is a list of the drains to the outfalls for building 54-51 and Figure 9 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-51-OPN-1 is a drain from an evaporative cooler and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

15.0 RECOMMENDATIONS FOR BUILDING 54-60

Building 54-60 is an office trailer. Table 12 is a list of the drains to the outfalls for building 54-60 and Figure 9 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

15.1 Outfall 54-60-OPN-1

This outfall is from sanitary facilities and discharges to septic tank SF89034R/54-80. This outfall includes flows from a lavatory, sink drains (2) and a toilet. No changes or permits are recommended. No EPA forms were prepared.

15.2 Outfall 54-60-OPN-2

This outfall is from a water heater PRV and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

15.3 Outfall 54-60-OPN-3

This outfall is storm water from a roof downspout and discharges to daylight. No changes or permits are recommended. No EPA forms were prepared.

16.0 RECOMMENDATIONS FOR BUILDING 54-64

Building 54-64 is an office trailer. Table 13 is a list of the drains to the outfalls for building 54-64 and Figure 9 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

16.1 Outfall 54-64-OPN-1

This outfall is from sanitary facilities and is believed to discharge to septic tank SF89034R/54-80. This outfall includes flows from lavatories (2), toilets (3) and a urinal. Multiple attempts were made to verify the location of discharge for this outfall by dye testing. The dye could not be seen, due to the configuration of the inlet pipe, when the septic tank was full. It is recommended that the user verify the discharge location. No permitting is recommended and no EPA forms were prepared.

16.2 Outfall 54-64-OPN-2

This outfall is from a water heater PRV and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

17.0 RECOMMENDATIONS FOR BUILDING 54-81

Building 54-81 is a drum storage canopy. Table 14 is a list of the drains to the outfalls for building 54-81 and Figure 13 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-81-OPN-1 is storm water from a roof downspout and discharges to daylight. No changes or permits are recommended. No EPA forms were prepared.

18.0 RECOMMENDATIONS FOR BUILDING 54-111

Building 54-111 is a Morgan shed used as an office. Table 15 is a list of the drains to the outfalls for building 54-111 and Figure 14 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-111-OPN-1 is storm water from a roof downspout and discharges to daylight. No changes or permits are recommended. No EPA forms were prepared.

19.0 RECOMMENDATIONS FOR BUILDING 54-117

Building 54-117 is an office trailer. Table 16 is a list of the drains to the outfalls for building 54-117 and Figure 15 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

19.1 Outfall 54-117-OPN-1

This outfall is from sanitary facilities and discharges to septic tank 54-150. This outfall includes flows from a lavatory and a toilet. No changes or permits are recommended. No EPA forms were prepared.

19.2 Outfall 54-117-OPN-2

This outfall is from a water heater PRV and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

19.3 Outfall 54-117-OPN-3

This outfall is a drain from an evaporative cooler and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

19.4 Outfalls 54-117-OPN-4, 54-117-OPN-5 and 54-117-OPN-6

These outfalls are storm water from roof downspouts and discharge to daylight. No changes or permits are recommended. No EPA forms were prepared.

20.0 RECOMMENDATIONS FOR BUILDING 54-156

Building 54-156 is a Morgan shed used for storage. Table 17 is a list of the drains to the outfalls for building 54-156 and Figure 16 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-156-OPN-1 is storm water from a roof downspout and discharges to daylight. No changes or permits are recommended. No EPA forms were prepared.

21.0 RECOMMENDATIONS FOR BUILDING 54-157

Building 54-157 is a Morgan shed used for Area G access control. Table 18 is a list of the drains to the outfalls for building 54-157 and Figure 17 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-157-OPN-1 is storm water from a roof downspout and discharges to daylight. No changes or permits are recommended. No EPA forms were prepared.

22.0 RECOMMENDATIONS FOR BUILDING 54-185

Building 54-185 is an office trailer. Table 19 is a list of the drains to the outfalls for building 54-185 and Figure 18 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

22.1 Outfall 54-185-OPN-1

This outfall is a drain from an evaporative cooler and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

22.2 Outfalls 54-185-OPN-2 and 54-185-OPN-3

These outfalls are storm water from roof downspouts and discharge to daylight. No changes or permits are recommended. No EPA forms were prepared.

23.0 RECOMMENDATIONS FOR BUILDING 54-210

Building 54-210 is an office trailer. Table 20 is a list of the drains to the outfalls for building 54-210 and Figure 19 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-210-OPN-1 is a drain from an evaporative cooler and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

24.0 RECOMMENDATIONS FOR BUILDING 54-211

Building 54-211 is an office trailer. Table 21 is a list of the drains to the outfalls for building 54-211 and Figure 20 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-211-OPN-1 is a drain from an evaporative cooler and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

25.0 RECOMMENDATIONS FOR BUILDING 54-221

Building 54-221 is an office trailer. Table 22 is a list of the drains to the outfalls for building 54-221 and Figure 21 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-221-OPN-1 is a drain from an evaporative cooler and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

26.0 RECOMMENDATIONS FOR BUILDING 54-1001

Building 54-1001 is the animal exposure kiva. Table 23 is a list of the drains to the outfalls for building 54-1001 and Figure 22 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-1001-OPN-1 is from sanitary facilities and discharges to the TA-54 sewage collection system. This outfall includes flows from floor drains (2) and sink drains (3). Floor drain, PFD1, receives discharge from an air compressor tank drain. It is recommended that the drain discharge be containerized. No permitting is recommended and no EPA forms were prepared.

27.0 RECOMMENDATIONS FOR BUILDING 54-1003

Building 54-1003 was a control building and is now used for it's sanitary facilities. Table 24 is a list of the drains to the outfalls for building 54-1003 and Figure 23 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfall 54-1003-OPN-1 is from sanitary facilities and discharges to the TA-54 sewage collection system. This outfall includes flows from a lavatory and a toilet. No changes or permits are recommended. No EPA forms were prepared.

28.0 RECOMMENDATIONS FOR BUILDING 54-1004

Building 54-1004 was once an animal holding facility and is now used as a storage area. Table 25 is a list of the drains to the outfalls for building 54-1004 and Figure 24 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. Outfalls 54-1004-OPN-1 and 54-1004-OPN-2 are from sanitary facilities and discharge to the TA-54 sewage collection system. Outfall 54-1004-OPN-1 includes flows from a floor

drain, a lavatory, sink drains (2) and a toilet. Sink drain 1SD2 has been removed. Outfall 54-1004-OPN-2 receives floor washings from two floor drains. It is recommended that floor drains 1FD2 and 1FD3 be plugged. No permitting is recommended and no EPA forms were prepared.

29.0 RECOMMENDATIONS FOR BUILDING 54-1005

Building 54-1005 is an office trailer. Table 26 is a list of the drains to the outfalls for building 54-1005 and Figure 25 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

29.1 Outfall 54-1005-OPN-1

This outfall is from sanitary facilities and discharges to the TA-54 sewage collection system. This outfall can potentially receive flow from a lavatory and a toilet. At the time of the field visit there was no water connected to these facilities. No changes or permits are recommended. No EPA forms were prepared.

29.2 Outfall 54-1005-OPN-2

This outfall is from a water heater PRV and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

29.3 Outfall 54-1005-OPN-3

This outfall is from a condensate drain from an evaporative cooler and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

30.0 RECOMMENDATIONS FOR BUILDING 54-1009

Building 54-1009 is a mixed waste analysis facility. At the time of the field visits it was still undergoing renovation. Table 27 is a list of the drains to the outfalls for building 54-1009 and Figure 26 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

30.1 Outfall 54-1009-OPN-1

This outfall is from sanitary facilities and discharges to the TA-54 sanitary sewage collection system. This outfall receives flows from a floor drain, a lavatory, a shower, a toilet and a urinal. No changes or permits are recommended. No EPA forms were prepared.

30.2 Outfall 54-1009-OPN-2

This outfall discharges to RLW tanks that are pumped out and treated at the TA-50 treatment plant. This outfall receives flows from laboratory cup drains (5), laboratory sink drains (3), dishwashers (2) and a decontamination shower. No changes or permits are recommended. No EPA forms were prepared.

30.3 Outfall 54-1009-OPN-3

This outfall is from two area drains. The discharge location could not be determined, but it is believed to be a buried pipe in a culvert to the north of the building. It is recommended that the user verify the location of this outfall discharge. No permitting is recommended and no EPA forms were prepared.

30.4 Outfalls 54-1009-OPN-4 and 54-1009-OPN-5

These outfalls are storm water from roof downspouts and discharge to daylight. No changes or permits are recommended. No EPA forms were prepared.

30.5 Outfalls 54-1009-OPN-6 and 54-1009-OPN-7

These outfalls are from the RLW tanks and are the discharge points used to pump out the tanks. No changes or permits are recommended. No EPA forms were prepared.

30.6 Outfall 54-1009-OPN-8

This outfall is a vent from the RLW tanks to the atmosphere. No changes or permits are recommended. No EPA forms were prepared.

30.7 Outfalls 54-1009-OPN-9 and 54-1009-OPN-10

These outfalls are drains from the RLW tanks and discharge to a secondary containment vault. No changes or permits are recommended. No EPA forms were prepared.

31.0 RECOMMENDATIONS FOR BUILDING 54-1014

Building 54-1014 is an office trailer. Table 28 is a list of the drains to the outfalls for building 54-1014 and Figure 27 is a schematic of the piping. The table lists the drains that connect to each outfall pipe and includes recommendations for changes to the drain piping. The discussion below gives the reasoning for the recommendations.

31.1 Outfall 54-1014-OPN-1

This outfall is from sanitary facilities and discharges to the TA-54 sanitary sewage collection system. This outfall receives flows from a lavatory and a toilet. No changes or permits are recommended. No EPA forms were prepared.

31.2 Outfall 54-1014-OPN-2

This outfall is from a water heater PRV and discharges to daylight. It should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

31.3 Outfalls 54-1014-OPN-3 and 54-1014-OPN-4

These outfalls are condensate drains from evaporative coolers and discharge to daylight. They should be covered by an NOI. No permitting is recommended and no EPA forms were prepared.

32.0 CONCLUSION

This document provides the information to characterize buildings 2, 8, 10, 11, 12, 17, 20, 22, 23, 25, 31, 32, 33, 34, 35, 36, 37, 38, 39, 46, 48, 49, 50, 51, 52, 55, 58, 60, 62, 64, 68, 69, 70, 76, 77, 79, 81, 82, 92, 93, 94, 111, 117, 144, 145, 146, 154, 155, 156, 157, 161, 174, 175, 176, 177, 178, 185, 210, 211, 221, 1001, 1002, 1003, 1004, 1005, 1009, 1014 and 1015 at TA-54. Other outlet pipes are as follows:

Buildings with no drains:

- | | | | |
|------------|------------|-------------|-------------|
| 1. 54-10 | 2. 54-17 | 3. 54-20 | 4. 54-23 |
| 5. 54-25 | 6. 54-31 | 7. 54-32 | 8. 54-35 |
| 9. 54-36 | 10. 54-46 | 11. 54-48 | 12. 54-49 |
| 13. 54-50 | 14. 54-52 | 15. 54-55 | 16. 54-58 |
| 17. 54-62 | 18. 54-68 | 19. 54-69 | 20. 54-70 |
| 21. 54-76 | 22. 54-77 | 23. 54-79 | 24. 54-82 |
| 25. 54-92 | 26. 54-93 | 27. 54-94 | 28. 54-144 |
| 29. 54-145 | 30. 54-146 | 31. 54-154 | 32. 54-155 |
| 33. 54-161 | 34. 54-174 | 35. 54-175 | 36. 54-176 |
| 37. 54-177 | 38. 54-178 | 39. 54-1002 | 40. 54-1015 |

Discharges to the SWSC Collection System:

- | | | |
|------------------|------------------|------------------|
| 1. 54-34-OPN-1 | 2. 54-38-OPN-1 | 3. 54-1001-OPN-1 |
| 4. 54-1003-OPN-1 | 5. 54-1004-OPN-1 | 6. 54-1004-OPN-2 |
| 7. 54-1005-OPN-1 | 8. 54-1009-OPN-1 | 9. 54-1014-OPN-1 |

Discharges to septic tanks:

- | | | |
|----------------|-----------------|----------------|
| 1. 54-2-OPN-1 | 2. 54-11-OPN-1 | 3. 54-22-OPN-1 |
| 4. 54-37-OPN-1 | 5. 54-39-OPN-1 | 6. 54-60-OPN-1 |
| 7. 54-64-OPN-1 | 8. 54-117-OPN-1 | |

Discharges from hot water pressure relief valves:

- | | | |
|-------------------|-----------------|------------------|
| 1. 54-2-OPN-4 | 2. 54-11-OPN-3 | 3. 54-22-OPN-2 |
| 4. 54-37-OPN-2 | 5. 54-39-OPN-2 | 6. 54-60-OPN-2 |
| 7. 54-64-OPN-2 | 8. 54-117-OPN-2 | 9. 54-1005-OPN-2 |
| 10. 54-1014-OPN-2 | | |

Discharges of untreated water and condensate drains:

- | | | |
|-------------------|-------------------|-------------------|
| 1. 54-2-OPN-3 | 2. 54-22-OPN-3 | 3. 54-34-OPN-2 |
| 4. 54-37-OPN-3 | 5. 54-38-OPN-3 | 6. 54-38-OPN-4 |
| 7. 54-38-OPN-5 | 8. 54-38-OPN-6 | 9. 54-38-OPN-7 |
| 10. 54-38-OPN-8 | 11. 54-51-OPN-1 | 12. 54-117-OPN-3 |
| 13. 54-185-OPN-1 | 14. 54-210-OPN-1 | 15. 54-211-OPN-1 |
| 16. 54-221-OPN-1 | 17. 54-1005-OPN-3 | 18. 54-1014-OPN-3 |
| 19. 54-1014-OPN-4 | | |

Discharges of storm water:

- | | | |
|-------------------|-------------------|------------------|
| 1. 54-2-OPN-5 | 2. 54-2-OPN-6 | 3. 54-2-OPN-7 |
| 4. 54-2-OPN-8 | 5. 54-12-OPN-1 | 6. 54-22-OPN-4 |
| 7. 54-38-OPN-2 | 8. 54-38-OPN-13 | 9. 54-38-OPN-14 |
| 10. 54-38-OPN-15 | 11. 54-38-OPN-16 | 12. 54-38-OPN-17 |
| 13. 54-39-OPN-3 | 14. 54-39-OPN-4 | 15. 54-60-OPN-3 |
| 16. 54-81-OPN-1 | 17. 54-111-OPN-1 | 18. 54-117-OPN-4 |
| 19. 54-117-OPN-5 | 20. 54-117-OPN-6 | 21. 54-156-OPN-1 |
| 22. 54-157-OPN-1 | 23. 54-185-OPN-2 | 24. 54-185-OPN-3 |
| 25. 54-1009-OPN-4 | 26. 54-1009-OPN-5 | |

Discharges from fire water systems:

- | | | |
|-----------------|-----------------|-----------------|
| 1. 54-38-OPN-9 | 2. 54-38-OPN-10 | 3. 54-38-OPN-11 |
| 4. 54-38-OPN-12 | 5. 54-39-OPN-5 | 6. 54-39-OPN-6 |
| 7. 54-39-OPN-7 | 8. 54-39-OPN-8 | 9. 54-39-OPN-9 |

Discharges to the radioactive liquid waste tanks:

1. 54-2-OPN-2
2. 54-11-OPN-2
3. 54-33-OPN-1
4. 54-1009-OPN-2

Recommended permitting and corrective action items are outlined in Tables 2 through 29 as well as in the above text. Corrective actions should be performed as soon as practicable to minimize the chance of unpermitted discharge of pollutants.

TABLE 1
SUMMARY OF ABBREVIATIONS

ABBREVIATION	MEANING
A/C	AIR CONDITIONING
AD	AREA DRAIN
BFP	BACK FLOW PREVENTER
E/C	EVAPORATIVE COOLER
FD	FLOOR DRAIN
FS	FLOOR SINK
IM	ICE MAKER
LV	LAVATORY
MH	MANHOLE
PRV	PRESSURE RELIEF VALVE
RLW	RADIOACTIVE LIQUID WASTE
RD	ROOF DRAIN
SD	SINK DRAIN
SH	SHOWER
SP	SUMP PUMP
SS	SANITARY SEWER
TL	TOILET
UR	URINAL
WF	WATER FOUNTAIN
WH	WATER HEATER

TABLE 2: TA 54-2 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0002-OPN-1 SEPTIC TANK LA-60	1FD1	RESTROOM	102	NO CHANGE	NO
	1LV1	RESTROOM	102	NO CHANGE	
	1SD1	JANITOR'S CLOSET	101	NO CHANGE	
	1TL1	RESTROOM	102	NO CHANGE	
	1UR1	RESTROOM	102	NO CHANGE	
54-0002-OPN-2 RLW TANK	1FD2	WORKSHOP	100	NO CHANGE	NO
	1FD3	COMPACTOR ROOM	103	PLUG, REPIPE & NOI	
	1FD4	COMPACTOR ROOM	103	NO CHANGE	
54-0002-OPN-3	N/A	BACK FLOW PREVENTER	N/A	NOI	NO
54-0002-OPN-4	N/A	WATER HEATER PRV	N/A	NOI	NO
54-0002-OPN-5	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO
54-0002-OPN-6	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO
54-0002-OPN-7	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO
54-0002-OPN-8	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 3: TA 54-11 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0011-OPN-1 SEPTIC TANK LA-60	1FD1	RESTROOM	104	NO CHANGE	NO
	1FD2	RESTROOM	106	NO CHANGE	
	1LV1	RESTROOM	104	NO CHANGE	
	1LV2	RESTROOM	106	NO CHANGE	
	1TL1	RESTROOM	104	NO CHANGE	
	1TL2	RESTROOM	106	NO CHANGE	
	1UR1	RESTROOM	104	NO CHANGE	
	1WF1	OFFICE	104	NO CHANGE	
54-0011-OPN-2 RLW TANK	1FD3	CHANGE ROOM	102B	NO CHANGE	NO
	1FD4	JANITOR'S CLOSET	102	NO CHANGE	
	1SD1	JANITOR'S CLOSET	102	NO CHANGE	
	1SH1	CHANGE ROOM	102B	NO CHANGE	
	1SH2	CHANGE ROOM	102B	NO CHANGE	
	1WM1	CHANGE ROOM	102B	NO CHANGE	
54-0011-OPN-3	N/A	WATER HEATER PRV	N/A	NOI	NO

TABLE 4: TA 54-12 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0012-OPN-1	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 5: TA 54-22 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0022-OPN-1 SEPTIC TANK SF89034R	1LV1	RESTROOM	108	VERIFY	NO
	1LV2	RESTROOM	102	VERIFY	
	1SD1	JANITOR'S CLOSET	100B	VERIFY	
	1SD2	OFFICE	105	VERIFY	
	1SH1	RESTROOM	108	VERIFY	
	1SH2	RESTROOM	102	VERIFY	
	1SH3	RESTROOM	102	VERIFY	
	1TL1	RESTROOM	108	VERIFY	
	1TL2	RESTROOM	102	VERIFY	
	1UR1	RESTROOM	102	VERIFY	
	1WF1	OFFICE	105	VERIFY	
54-0022-OPN-2	N/A	WATER HEATER PRV	N/A	NOI	NO
54-0022-OPN-3	N/A	EVAPORATIVE COOLER	N/A	NOI	NO
54-0022-OPN-4	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 6: TA 54-33 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0033-OPN-1 RLW	1FD1	BATTERY STORAGE	100B	SECONDARY CONTAIN.	NO
	1FD2	DRUM INSPECTION	100A	NO CHANGE	
	1FD3	MECHANICAL ROOM	105	NO CHANGE	
	1FD4	MECHANICAL ROOM	105	NO CHANGE	
	1TD1	STAGING ROOM	100	NO CHANGE	

TABLE 7: TA 54-34 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0034-OPN-1 SANITARY	1FS1	JANITOR'S CLOSET	100C	NO CHANGE	NO
	1LV1	RESTROOM	103	NO CHANGE	
	1LV2	RESTROOM	101	NO CHANGE	
	1SD1	CORRIDOR	100	NO CHANGE	
	1TL1	RESTROOM	103	NO CHANGE	
	1TL2	RESTROOM	101	NO CHANGE	
	1UR1	RESTROOM	101	NO CHANGE	
	1WF1	CORRIDOR	100	NO CHANGE	
54-0034-OPN-2	1TL1	EVAPORATIVE COOLER	103	NOI	NO

TABLE 8: TA 54-37 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0037-OPN-1 SEPTIC TANK SF89034R	1LV1	RESTROOM	N/A	REPIPE TO SS	NO
	1TL1	RESTROOM	N/A	REPIPE TO SS	
54-0037-OPN-2	N/A	WATER HEATER PRV	N/A	NOI	NO
54-0037-OPN-3	N/A	EVAPORATIVE COOLER	N/A	NOI	NO

TABLE 9: TA 54-38 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0038-OPN-1 SANITARY	1FD1	MECHANICAL ROOM	104	NO CHANGE	NO
	1FS1	MECHANICAL ROOM	104	NO CHANGE	
	1WF1	OFFICE	N/A	NO CHANGE	
	2FD1	RESTROOM	201	NO CHANGE	
	2FD2	RESTROOM	202	NO CHANGE	
	2LV1	RESTROOM	201	NO CHANGE	
	2LV2	RESTROOM	201	NO CHANGE	
	2LV3	RESTROOM	202	NO CHANGE	
	2LV4	RESTROOM	202	NO CHANGE	
	2TL1	RESTROOM	201	NO CHANGE	
	2TL2	RESTROOM	202	NO CHANGE	
	2TL3	RESTROOM	202	NO CHANGE	
2UR1	RESTROOM	201	NO CHANGE		
54-0038-OPN-2 DAYLIGHT	1AD1	LOADING DOCK	EXT	NO CHANGE	NO
	1TD1	OFFICE	N/A	PLUG	
	RD1	ROOF	ROOF	NO CHANGE	
	RD2	ROOF	ROOF	NO CHANGE	
	RD3	ROOF	ROOF	NO CHANGE	
	RD4	ROOF	ROOF	NO CHANGE	
54-0038-OPN-3	N/A	CONDENSATE	ROOF	NOI	NO
54-0038-OPN-4	N/A	CONDENSATE	ROOF	NOI	NO
54-0038-OPN-5	N/A	CONDENSATE	ROOF	NOI	NO
54-0038-OPN-6	N/A	CONDENSATE	ROOF	NOI	NO
54-0038-OPN-7	N/A	CONDENSATE	ROOF	NOI	NO
54-0038-OPN-8	N/A	CONDENSATE	ROOF	NOI	NO
54-0038-OPN-9	N/A	FIRE SYSTEM DRAIN	N/A	NOI	NO
54-0038-OPN-10	N/A	FIRE SYSTEM DRAIN	N/A	NOI	NO
54-0038-OPN-11	N/A	FIRE SYSTEM DRAIN	N/A	NOI	NO
54-0038-OPN-12	N/A	FIRE SYSTEM DRAIN	N/A	NOI	NO
54-0038-OPN-13	N/A	ROOF CANALE	ROOF	NO CHANGE	NO
54-0038-OPN-14	N/A	ROOF CANALE	ROOF	NO CHANGE	NO
54-0038-OPN-15	N/A	ROOF CANALE	ROOF	NO CHANGE	NO
54-0038-OPN-16	N/A	ROOF CANALE	ROOF	NO CHANGE	NO
54-0038-OPN-17	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 10: TA 54-39 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0039-OPN-1 SEPTIC TANK SF880257	IFS1	JANITOR'S CLOSET	104	NO CHANGE	NO
	1LV1	RESTROOM	103	NO CHANGE	
	1SH1	RESTROOM	103	NO CHANGE	
	1TL1	RESTROOM	103	NO CHANGE	
	1WF1	PROCESS ROOM	103	REMOVE	
54-0039-OPN-2	N/A	WATER HEATER PRV	N/A	NOI	NO
54-0039-OPN-3	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO
54-0039-OPN-4	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO
54-0039-OPN-5	N/A	FIRE SYSTEM DRAIN	N/A	NOI	NO
54-0039-OPN-6	N/A	FIRE SYSTEM DRAIN	N/A	NOI	NO
54-0039-OPN-7	N/A	FIRE SYSTEM DRAIN	N/A	NOI	NO
54-0039-OPN-8	N/A	FIRE SYSTEM DRAIN	N/A	NOI	NO
54-0039-OPN-9	N/A	FIRE SYSTEM DRAIN	N/A	NOI	NO

TABLE 11: TA 54-51 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0051-OPN-1	N/A	EVAPORATIVE COOLER	N/A	NOI	NO

TABLE 12: TA 54-60 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0060-OPN-1 SEPTIC TANK SF89034R	1LV1	RESTROOM	N/A	NO CHANGE	NO
	1SD1	RESTROOM	N/A	NO CHANGE	
	1SD2	RESTROOM	N/A	NO CHANGE	
	1TL1	RESTROOM	N/A	NO CHANGE	
54-0060-OPN-2	N/A	WATER HEATER PRV	N/A	NOI	NO
54-0060-OPN-3	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 13: TA 54-64 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0064-OPN-1 SEPTIC TANK SF89034R	1LV1	RESTROOM	107	VERIFY	NO
	1LV2	RESTROOM	103	VERIFY	
	1TL1	RESTROOM	107	VERIFY	
	1TL2	RESTROOM	107	VERIFY	
	1TL3	RESTROOM	103	VERIFY	
	1UR1	RESTROOM	103	VERIFY	
54-0064-OPN-2	N/A	WATER HEATER PRV	N/A	NOI	NO

TABLE 14: TA 54-81 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0081-OPN-1	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 15: TA 54-111 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0111-OPN-1	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 16: TA 54-117 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0117-OPN-1 SEPTIC TANK 54-150	1LV1	RESTROOM	103A	NO CHANGE	NO
	1TL1	RESTROOM	103A	NO CHANGE	
54-0117-OPN-2	N/A	WATER HEATER PRV	N/A	NOI	NO
54-0117-OPN-3	N/A	EVAPORATIVE COOLER	N/A	NOI	NO
54-0117-OPN-4	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO
54-0117-OPN-5	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO
54-0117-OPN-6	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 17: TA 54-156 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0156-OPN-1	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 18: TA 54-157 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0157-OPN-1	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 19: TA 54-185 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0185-OPN-1	N/A	EVAPORATIVE COOLER	N/A	NOI	NO
54-0185-OPN-2	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO
54-0185-OPN-3	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO

TABLE 20: TA 54-210 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0210-OPN-1	N/A	EVAPORATIVE COOLER	N/A	NOI	NO

TABLE 21: TA 54-211 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0211-OPN-1	N/A	EVAPORATIVE COOLER	N/A	NOI	NO

TABLE 22: TA 54-221 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-0221-OPN-1	N/A	EVAPORATIVE COOLER	N/A	NOI	NO

TABLE 23: TA 54-1001 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-1001-OPN-1 SANITARY	1FD1	ANIMAL LABORATORY	N/A	NO CHANGE	NO
	1SD1	ANIMAL LABORATORY	N/A	NO CHANGE	
	1SD2	ANIMAL LABORATORY	N/A	NO CHANGE	
	1SD3	CORRIDOR	N/A	NO CHANGE	
	PFD1	EQUIPMENT ROOM	N/A	CONTAINERIZE	

TABLE 24: TA 54-1003 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-1003-OPN-1 SANITARY	1LV1	RESTROOM	N/A	NO CHANGE	NO
	1TL1	RESTROOM	N/A	NO CHANGE	

TABLE 25: TA 54-1004 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-1004-OPN-1 SANITARY	1FD1	JANITOR'S CLOSET	N/A	NO CHANGE	NO
	1LV1	RESTROOM	N/A	NO CHANGE	
	1SD1	JANITOR'S CLOSET	N/A	NO CHANGE	
	1SD2	STORAGE	N/A	REMOVED	
	1TL1	RESTROOM	N/A	NO CHANGE	
54-1004-OPN-2 SANITARY	1FD2	STORAGE	N/A	PLUG	NO
	1FD3	STORAGE	N/A	PLUG	

TABLE 26: TA 54-1005 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-1005-OPN-1 SANITARY	1LV1	RESTROOM	N/A	NO CHANGE	NO
	1TL1	RESTROOM	N/A	NO CHANGE	
54-1005-OPN-2	N/A	WATER HEATER PRV	N/A	NOI	NO
54-1005-OPN-3	N/A	EVAPORATIVE COOLER	N/A	NOI	NO

TABLE 27: TA 54-1009 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-1009-OPN-1 SANITARY	1FD1	MECHANICAL ROOM	108	NO CHANGE	NO
	1LV1	RESTROOM	108	NO CHANGE	
	1SH1	RESTROOM	108	NO CHANGE	
	1TL1	RESTROOM	108	NO CHANGE	
	1UR1	RESTROOM	108	NO CHANGE	
54-1009-OPN-2 RLW	1CD1	LABORATORY	101	NO CHANGE	NO
	1CD2	LABORATORY	101	NO CHANGE	
	1CD3	LABORATORY	102	NO CHANGE	
	1CD4	LABORATORY	102	NO CHANGE	
	1CD5	LABORATORY	104	NO CHANGE	
	1DW1	LABORATORY	103	NO CHANGE	
	1DW2	LABORATORY	105	NO CHANGE	
	1SD1	LABORATORY	103	NO CHANGE	
	1SD2	LABORATORY	103	NO CHANGE	
	1SD3	CORRIDOR	100	NO CHANGE	
	1SH3	CORRIDOR	100	NO CHANGE	
54-1009-OPN-3	AD1	AREA DRAIN	EXT	VERIFY	NO
	AD2	AREA DRAIN	EXT	VERIFY	
54-1009-OPN-4	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO
54-1009-OPN-5	N/A	ROOF DOWNSPOUT	N/A	NO CHANGE	NO
54-1009-OPN-6	N/A	RLW TANK DISCHARGE	N/A	NO CHANGE	NO
54-1009-OPN-7	N/A	RLW TANK DISCHARGE	N/A	NO CHANGE	NO
54-1009-OPN-8	N/A	RLW TANK VENT	N/A	NO CHANGE	NO
54-1009-OPN-9	N/A	RLW TANK DRAIN	N/A	NO CHANGE	NO
54-1009-OPN-10	N/A	RLW TANK DRAIN	N/A	NO CHANGE	NO

TABLE 28: TA 54-1014 DRAIN SUMMARY

OUTFALL NUMBER	ID NUMBER	ROOM ACTIVITY	ROOM NUMBER	STATUS OR RECOMMENDATIONS	EPA FORM PREPARED
54-1014-OPN-1 SANITARY	1LV1	RESTROOM	N/A	NO CHANGE	NO
	1TL1	RESTROOM	N/A	NO CHANGE	
54-1014-OPN-2	N/A	WATER HEATER PRV	N/A	NOI	NO
54-1014-OPN-3	N/A	EVAPORATIVE COOLER	N/A	NOI	NO
54-1014-OPN-4	N/A	EVAPORATIVE COOLER	N/A	NOI	NO

TABLE 29

NON DRAIN RECOMMENDATIONS

BUILDING NUMBER	ROOM OR LOCATION	RECOMMENDATION
8	SUMP	VERIFY NO DRAIN/PLUG
33	100B	SECONDARY CONTAINMENT FOR BATTERIES
79	STORAGE	SECONDARY CONTAINMENT FOR HERBICIDES
LA 51/51-4	SEPTIC TANK	NOT USED - DECOMMISSION
LA 52/51-9	SEPTIC TANK	NOT USED - DECOMMISSION
LA 61/54-28	SEPTIC TANK	NOT USED - DECOMMISSION
SF 89034R/54-80	SEPTIC TANK	REPIPE SOURCES TO SWSC-DECOMMISSION
SF 880260/54-89	SEPTIC TANK	NOT USED - DECOMMISSION

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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	ROOM DESCRIPTION	FLOW RATE	PERIODICITY	SEASONAL	SOURCE TYPES
54	2	54-0002-OPN-1	ST LA-60	1FD1	102	RESTROOM		5 DAYS A WEEK	No	FLOOR WASHINGS
54	2	54-0002-OPN-1	ST LA-60	1LV1	102	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	2	54-0002-OPN-1	ST LA-60	1SD1	101	JANITOR'S CLOSET		5 DAYS A WEEK	No	CLEAN UP
54	2	54-0002-OPN-1	ST LA-60	1TL1	102	RESTROOM		5 DAYS A WEEK	No	TOILET
54	2	54-0002-OPN-1	ST LA-60	1UR1	102	RESTROOM		5 DAYS A WEEK	No	URINAL
54	2	54-0002-OPN-2	RLW TANK	1FD2	100	WORKSHOP		FLOW IS NIL	No	FLOOR WASHINGS
54	2	54-0002-OPN-2	RLW TANK	1FD3	103	COMPACTOR ROOM		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	2	54-0002-OPN-2	RLW TANK	1FD4	103	COMPACTOR ROOM		FLOW IS NIL	No	COMPACTOR SECONDARY CONTAIN.
54	2	54-0002-OPN-3	DAYLIGHT	N/A	N/A	BACK FLOW PREVENTER		FLOW IS NIL	No	BACK FLOW PREVENTER
54	2	54-0002-OPN-4	DAYLIGHT	N/A	N/A	WATER HEATER PRV		FLOW IS NIL	No	WATER HEATER PRV
54	2	54-0002-OPN-5	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	2	54-0002-OPN-6	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	2	54-0002-OPN-7	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	2	54-0002-OPN-8	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	4	51-0004	ST LA-51	N/A	N/A	SEPTIC TANK		NO FLOW	No	SEPTIC TANK
54	8	54-0008	ND	1TD1	101	STORAGE		FLOW IS NIL	No	FLOOR WASHINGS
54	9	51-0009	ST LA-52	N/A	N/A	SEPTIC TANK		NO FLOW	No	SEPTIC TANK
54	10	54-0010	ND	N/A	N/A	METEOROLOGICAL TOWER		NO FLOW	No	NO DRAINS
54	11	54-0011-OPN-1	ST LA-60	1FD1	104	RESTROOM		FLOW IS NIL	No	FLOOR WASHINGS
54	11	54-0011-OPN-1	ST LA-60	1FD2	106	RESTROOM		FLOW IS NIL	No	FLOOR WASHINGS
54	11	54-0011-OPN-1	ST LA-60	1LV1	104	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	11	54-0011-OPN-1	ST LA-60	1LV2	106	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	11	54-0011-OPN-1	ST LA-60	1TL1	104	RESTROOM		5 DAYS A WEEK	No	TOILET
54	11	54-0011-OPN-1	ST LA-60	1TL2	106	RESTROOM		5 DAYS A WEEK	No	TOILET
54	11	54-0011-OPN-1	ST LA-60	1UR1	104	RESTROOM		5 DAYS A WEEK	No	URINAL
54	11	54-0011-OPN-1	ST LA-60	1WF1	104	OFFICE		5 DAYS A WEEK	No	WATER FOUNTAIN
54	11	54-0011-OPN-2	RLW TANK	1FD3	102B	CHANGE ROOM		FLOW IS NIL	No	FLOOR WASHINGS
54	11	54-0011-OPN-2	RLW TANK	1FD4	102	JANITOR'S CLOSET		FLOW IS NIL	No	FLOOR WASHINGS
54	11	54-0011-OPN-2	RLW TANK	1SD1	102	JANITOR'S CLOSET		5 DAYS A WEEK	No	CLEAN UP
54	11	54-0011-OPN-2	RLW TANK	1SH1	102B	CHANGE ROOM		5 DAYS A WEEK	No	SHOWER
54	11	54-0011-OPN-2	RLW TANK	1SH2	102B	CHANGE ROOM		5 DAYS A WEEK	No	SHOWER
54	11	54-0011-OPN-2	RLW TANK	1WM1	102B	CHANGE ROOM		5 DAYS A WEEK	No	WASHING MACHINE
54	11	54-0011-OPN-3	DAYLIGHT	N/A	N/A	WATER HEATER PRV		FLOW IS NIL	No	WATER HEATER PRV

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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	ROOM DESCRIPTION	FLOW RATE	PERIODICITY	SEASONAL	SOURCE TYPES	
54	12	54-0012-OPN-1	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT					
54	22	54-0022-OPN-1	ST SF89034R	1LV1	108	RESTROOM			MOSTLY SUMMER	Yes	STORM WATER
54	22	54-0022-OPN-1	ST SF89034R	1LV2	102	RESTROOM			5 DAYS A WEEK	No	LAVATORY
54	22	54-0022-OPN-1	ST SF89034R	1SD1	100B	JANITOR'S CLOSET			5 DAYS A WEEK	No	LAVATORY
54	22	54-0022-OPN-1	ST SF89034R	1SD2	105	OFFICE			5 DAYS A WEEK	No	CLEAN UP
54	22	54-0022-OPN-1	ST SF89034R	1SH1	108	RESTROOM			5 DAYS A WEEK	No	DISH WASHING
54	22	54-0022-OPN-1	ST SF89034R	1SH2	102	RESTROOM			5 DAYS A WEEK	No	SHOWER
54	22	54-0022-OPN-1	ST SF89034R	1SH3	102	RESTROOM			5 DAYS A WEEK	No	SHOWER
54	22	54-0022-OPN-1	ST SF89034R	1TL1	108	RESTROOM			5 DAYS A WEEK	No	SHOWER
54	22	54-0022-OPN-1	ST SF89034R	1TL2	102	RESTROOM			5 DAYS A WEEK	No	TOILET
54	22	54-0022-OPN-1	ST SF89034R	1UR1	102	RESTROOM			5 DAYS A WEEK	No	TOILET
54	22	54-0022-OPN-1	ST SF89034R	1WF1	105	OFFICE			5 DAYS A WEEK	No	URINAL
54	22	54-0022-OPN-2	DAYLIGHT	N/A	N/A	WATER HEATER PRV			5 DAYS A WEEK	No	WATER FOUNTAIN
54	22	54-0022-OPN-3	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER			FLOW IS NIL	No	WATER HEATER PRV
54	22	54-0022-OPN-4	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT			FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	25	54-0023	ND	N/A	N/A	VALVE HOUSE			MOSTLY SUMMER	Yes	STORM WATER
54	28	54-0028	ST LA-61	N/A	N/A	SEPTIC TANK			NO FLOW	No	NO DRAINS
54	31	54-0025	ND	N/A	N/A	STORAGE			NO FLOW	No	SEPTIC TANK
54	32	54-0032	ND	N/A	N/A	CONCRETE PAD			NO FLOW	No	NO DRAINS
54	33	54-0033	N/A	N/A	100B	STORAGE			NO FLOW	No	NO DRAINS
54	33	54-0033-OPN-1	RLW TANK	1FD1	100B	DRUM CLEANING			NO FLOW	No	BATTERY STORAGE
54	33	54-0033-OPN-1	RLW TANK	1FD2	100A	DRUM INSPECTION			FLOW IS NIL	No	FLOOR WASHINGS
54	33	54-0033-OPN-1	RLW TANK	1FD3	105	MECHANICAL ROOM			FLOW IS NIL	No	FLOOR WASHINGS
54	33	54-0033-OPN-1	RLW TANK	1FD4	105	MECHANICAL ROOM			FLOW IS NIL	No	FLOOR WASHINGS
54	33	54-0033-OPN-1	RLW TANK	1TD1	100	STAGING ROOM			FLOW IS NIL	No	BACK FLOW PREVENTERS (2)
54	34	54-0034-OPN-1	13S/SWSC	1FS1	100C	JANITOR'S CLOSET			FLOW IS NIL	No	TRENCH DRAIN
54	34	54-0034-OPN-1	13S/SWSC	1LV1	103	RESTROOM			5 DAYS A WEEK	No	CLEAN UP
54	34	54-0034-OPN-1	13S/SWSC	1LV2	101	RESTROOM			5 DAYS A WEEK	No	LAVATORY
54	34	54-0034-OPN-1	13S/SWSC	1SD1	100	CORRIDOR			5 DAYS A WEEK	No	LAVATORY
54	34	54-0034-OPN-1	13S/SWSC	1TL1	103	RESTROOM			5 DAYS A WEEK	No	DISH WASHING
54	34	54-0034-OPN-1	13S/SWSC	1TL2	101	RESTROOM			5 DAYS A WEEK	No	TOILET
54	34	54-0034-OPN-1	13S/SWSC	1UR1	101	RESTROOM			5 DAYS A WEEK	No	TOILET
54	34	54-0034-OPN-1	13S/SWSC	1WF1	100	CORRIDOR			5 DAYS A WEEK	No	URINAL
54	34	54-0034-OPN-1	13S/SWSC	1WF1	100	CORRIDOR			5 DAYS A WEEK	No	WATER FOUNTAIN

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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	ROOM DESCRIPTION	FLOW RATE	PERIODICITY	SEASONAL	SOURCE TYPES
54	34	54-0034-OPN-2	DAYLIGHT	1TL1	103	EVAPORATIVE COOLER				
54	35	54-0035	ND	N/A	N/A	CONCRETE PAD		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	36	54-0036	ND	N/A	N/A	CONCRETE PAD		NO FLOW	No	NO DRAINS
54	37	54-0037-OPN-1	ST SF89034R	1LV1	N/A	RESTROOM		NO FLOW	No	NO DRAINS
54	37	54-0037-OPN-1	ST SF89034R	1TL1	N/A	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	37	54-0037-OPN-2	DAYLIGHT	N/A	N/A	WATER HEATER PRV		5 DAYS A WEEK	No	TOILET
54	37	54-0037-OPN-3	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER		FLOW IS NIL	No	WATER HEATER PRV
54	38	54-0038-OPN-1	13S/SWSC	1FD1	104	MECHANICAL ROOM		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	38	54-0038-OPN-1	13S/SWSC	1FD1	104	MECHANICAL ROOM		FLOW IS NIL	No	BACK FLOW PREVENTERS (2)
54	38	54-0038-OPN-1	13S/SWSC	1FS1	104	MECHANICAL ROOM		FLOW IS NIL	No	WATER HEATER PRV
54	38	54-0038-OPN-1	13S/SWSC	1WF1	N/A	OFFICE		5 DAYS A WEEK	No	CLEAN UP
54	38	54-0038-OPN-1	13S/SWSC	2FD1	201	RESTROOM		5 DAYS A WEEK	No	WATER FOUNTAIN
54	38	54-0038-OPN-1	13S/SWSC	2FD2	202	RESTROOM		FLOW IS NIL	No	FLOOR WASHINGS
54	38	54-0038-OPN-1	13S/SWSC	2LV1	201	RESTROOM		FLOW IS NIL	No	FLOOR WASHINGS
54	38	54-0038-OPN-1	13S/SWSC	2LV2	201	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	38	54-0038-OPN-1	13S/SWSC	2LV3	202	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	38	54-0038-OPN-1	13S/SWSC	2LV4	202	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	38	54-0038-OPN-1	13S/SWSC	2TL1	201	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	38	54-0038-OPN-1	13S/SWSC	2TL2	202	RESTROOM		5 DAYS A WEEK	No	TOILET
54	38	54-0038-OPN-1	13S/SWSC	2TL3	202	RESTROOM		5 DAYS A WEEK	No	TOILET
54	38	54-0038-OPN-1	13S/SWSC	2UR1	201	RESTROOM		5 DAYS A WEEK	No	TOILET
54	38	54-0038-OPN-10	DAYLIGHT	N/A	N/A	FIRE SYSTEM DRAIN		5 DAYS A WEEK	No	URINAL
54	38	54-0038-OPN-11	DAYLIGHT	N/A	N/A	FIRE SYSTEM DRAIN		ANNUAL TESTING	No	FIRE SYSTEM
54	38	54-0038-OPN-12	DAYLIGHT	N/A	N/A	FIRE SYSTEM DRAIN		ANNUAL TESTING	No	FIRE SYSTEM
54	38	54-0038-OPN-13	DAYLIGHT	N/A	ROOF	ROOF CANALE		ANNUAL TESTING	No	FIRE SYSTEM
54	38	54-0038-OPN-14	DAYLIGHT	N/A	ROOF	ROOF CANALE		MOSTLY SUMMER	Yes	STORM WATER
54	38	54-0038-OPN-15	DAYLIGHT	N/A	ROOF	ROOF CANALE		MOSTLY SUMMER	Yes	STORM WATER
54	38	54-0038-OPN-16	DAYLIGHT	N/A	ROOF	ROOF CANALE		MOSTLY SUMMER	Yes	STORM WATER
54	38	54-0038-OPN-17	DAYLIGHT	N/A	ROOF	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	38	54-0038-OPN-2	DAYLIGHT	1AD1	EXT	LOADING DOCK		MOSTLY SUMMER	Yes	STORM WATER
54	38	54-0038-OPN-2	DAYLIGHT	1TD1	N/A	OFFICE		MOSTLY SUMMER	Yes	STORM WATER
54	38	54-0038-OPN-2	DAYLIGHT	RD1	ROOF	ROOF		NO FLOW	No	FLOOR WASHINGS
54	38	54-0038-OPN-2	DAYLIGHT	RD2	ROOF	ROOF		MOSTLY SUMMER	Yes	STORM WATER
54	38	54-0038-OPN-2	DAYLIGHT	RD2	ROOF	ROOF		MOSTLY SUMMER	Yes	STORM WATER

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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	ROOM DESCRIPTION	FLOW RATE	PERIODICITY	SEASONAL	SOURCE TYPES	
54	38	54-0038-OPN-2	DAYLIGHT	RD3	ROOF	ROOF			MOSTLY SUMMER	Yes	STORM WATER
54	38	54-0038-OPN-2	DAYLIGHT	RD4	ROOF	ROOF			MOSTLY SUMMER	Yes	STORM WATER
54	38	54-0038-OPN-3	DAYLIGHT	N/A	ROOF	CONDENSATE DRAIN			FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	38	54-0038-OPN-4	DAYLIGHT	N/A	ROOF	CONDENSATE DRAIN			FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	38	54-0038-OPN-5	DAYLIGHT	N/A	ROOF	CONDENSATE DRAIN			FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	38	54-0038-OPN-6	DAYLIGHT	N/A	ROOF	CONDENSATE DRAIN			FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	38	54-0038-OPN-7	DAYLIGHT	N/A	ROOF	CONDENSATE DRAIN			FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	38	54-0038-OPN-8	DAYLIGHT	N/A	ROOF	CONDENSATE DRAIN			FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	38	54-0038-OPN-9	DAYLIGHT	N/A	N/A	FIRE SYSTEM DRAIN			ANNUAL TESTING	No	FIRE SYSTEM
54	39	54-0039-OPN-1	ST SF880257	1FS1	104	JANITOR'S CLOSET			5 DAYS A WEEK	No	CLEAN UP
54	39	54-0039-OPN-1	ST SF880257	1LV1	103	RESTROOM			5 DAYS A WEEK	No	LAVATORY
54	39	54-0039-OPN-1	ST SF880257	1SH1	103	RESTROOM			5 DAYS A WEEK	No	SHOWER
54	39	54-0039-OPN-1	ST SF880257	1TL1	103	RESTROOM			5 DAYS A WEEK	No	TOILET
54	39	54-0039-OPN-1	ST SF880257	1WF1	103	PROCESS ROOM			NO FLOW	No	NONE
54	39	54-0039-OPN-2	DAYLIGHT	N/A	N/A	WATER HEATER PRV			FLOW IS NIL	No	WATER HEATER PRV
54	39	54-0039-OPN-3	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT			MOSTLY SUMMER	Yes	STORM WATER
54	39	54-0039-OPN-4	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT			MOSTLY SUMMER	Yes	STORM WATER
54	39	54-0039-OPN-5	DAYLIGHT	N/A	N/A	FIRE SYSTEM DRAIN			ANNUAL TESTING	No	FIRE SYSTEM
54	39	54-0039-OPN-6	DAYLIGHT	N/A	N/A	FIRE SYSTEM DRAIN			ANNUAL TESTING	No	FIRE SYSTEM
54	39	54-0039-OPN-7	DAYLIGHT	N/A	N/A	FIRE SYSTEM DRAIN			ANNUAL TESTING	No	FIRE SYSTEM
54	39	54-0039-OPN-8	DAYLIGHT	N/A	N/A	FIRE SYSTEM DRAIN			ANNUAL TESTING	No	FIRE SYSTEM
54	39	54-0039-OPN-9	DAYLIGHT	N/A	N/A	FIRE SYSTEM DRAIN			ANNUAL TESTING	No	FIRE SYSTEM
54	46	54-0046	ND	N/A	N/A	WORKSHOP			NO FLOW	No	NO DRAINS
54	48	54-0048	ND	N/A	N/A	STORAGE			NO FLOW	No	NO DRAINS
54	49	54-0049	ND	N/A	N/A	STORAGE			NO FLOW	No	NO DRAINS
54	50	54-0050	ND	N/A	N/A	STORAGE			NO FLOW	No	NO DRAINS
54	51	54-0051-OPN-1	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER			FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	52	54-0052	ND	N/A	N/A	STORAGE			NO FLOW	No	NO DRAINS
54	55	54-0055	ND	N/A	N/A	OFFICE			NO FLOW	No	NO DRAINS
54	58	54-0058	ND	N/A	N/A	STORAGE			NO FLOW	No	NO DRAINS
54	60	54-0060-OPN-1	ST SF89034R	1LV1	N/A	RESTROOM			5 DAYS A WEEK	No	LAVATORY
54	60	54-0060-OPN-1	ST SF89034R	1SD1	N/A	RESTROOM			5 DAYS A WEEK	No	DISH WASHING
54	60	54-0060-OPN-1	ST SF89034R	1SD2	N/A	RESTROOM			5 DAYS A WEEK	No	DISH WASHING

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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	ROOM DESCRIPTION	FLOW RATE	PERIODICITY	SEASONAL	SOURCE TYPES
54	60	54-0060-OPN-1	ST SF89034R	1TL1	N/A	RESTROOM		5 DAYS A WEEK	No	TOILET
54	60	54-0060-OPN-2	DAYLIGHT	N/A	N/A	WATER HEATER PRV		FLOW IS NIL	No	WATER HEATER PRV
54	60	54-0060-OPN-3	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	62	54-0062	ND	N/A	N/A	CANOPY		NO FLOW	No	NO DRAINS
54	64	54-0064-OPN-1	ST SF89034R	1LV1	107	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	64	54-0064-OPN-1	ST SF89034R	1LV2	103	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	64	54-0064-OPN-1	ST SF89034R	1TL1	107	RESTROOM		5 DAYS A WEEK	No	TOILET
54	64	54-0064-OPN-1	ST SF89034R	1TL2	107	RESTROOM		5 DAYS A WEEK	No	TOILET
54	64	54-0064-OPN-1	ST SF89034R	1TL3	103	RESTROOM		5 DAYS A WEEK	No	TOILET
54	64	54-0064-OPN-1	ST SF89034R	1UR1	103	RESTROOM		5 DAYS A WEEK	No	URINAL
54	64	54-0064-OPN-2	DAYLIGHT	N/A	N/A	WATER HEATER PRV		FLOW IS NIL	No	WATER HEATER PRV
54	68	54-0068	ND	N/A	N/A	HAZARDOUS STORAGE		NO FLOW	No	NO DRAINS
54	69	54-0069	ND	N/A	N/A	FLAMABLE STORAGE		NO FLOW	No	NO DRAINS
54	70	54-0070	ND	N/A	N/A	CHEMICAL STORAGE		NO FLOW	No	NO DRAINS
54	76	54-0076	ND	N/A	N/A	WHEATER STATION		NO FLOW	No	NO DRAINS
54	77	54-0077	ND	N/A	N/A	HAZARDOUS STORAGE		NO FLOW	No	NO DRAINS
54	79	54-0079	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS
54	79	54-0079	ND	N/A	N/A	STORAGE		NO FLOW	No	HERBICIDE STORAGE
54	81	54-0081-OPN-1	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	82	54-0082	ND	N/A	N/A	DRUM CRUSHER SHED		NO FLOW	No	NO DRAINS
54	89	54-0089	ST SF880260	N/A	N/A	SEPTIC TANK		NO FLOW	No	SEPTIC TANK
54	92	54-0092	ND	N/A	N/A	FLAMABLES STORAGE		NO FLOW	No	NO DRAINS
54	93	54-0093	ND	N/A	N/A	MONITORING STATION		NO FLOW	No	NO DRAINS
54	94	54-0094	ND	N/A	N/A	SURVEY STATION		NO FLOW	No	NO DRAINS
54	111	54-0111-OPN-1	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	117	54-0117-OPN-1	ST 54-150	1LV1	103A	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	117	54-0117-OPN-1	ST 54-150	1TL1	103A	RESTROOM		5 DAYS A WEEK	No	TOILET
54	117	54-0117-OPN-2	DAYLIGHT	N/A	N/A	WATER HEATER PRV		FLOW IS NIL	No	WATER HEATER PRV
54	117	54-0117-OPN-3	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	117	54-0117-OPN-4	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	117	54-0117-OPN-5	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	117	54-0117-OPN-6	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	144	54-0144	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS

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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	ROOM DESCRIPTION	FLOW RATE	PERIODICITY	SEASONAL	SOURCE TYPES
54	145	54-0145	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS
54	146	54-0146	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS
54	154	54-0154	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS
54	155	54-0155	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS
54	156	54-0156-OPN-1	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		NO FLOW	No	NO DRAINS
54	157	54-0157-OPN-1	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	161	54-0161	ND	N/A	N/A	STORAGE		MOSTLY SUMMER	Yes	STORM WATER
54	174	54-0174	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS
54	175	54-0175	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS
54	176	54-0176	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS
54	177	54-0177	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS
54	178	54-0178	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS
54	185	54-0185-OPN-1	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER		NO FLOW	No	NO DRAINS
54	185	54-0185-OPN-2	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	185	54-0185-OPN-3	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT		MOSTLY SUMMER	Yes	STORM WATER
54	210	54-0210-OPN-1	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER		MOSTLY SUMMER	Yes	STORM WATER
54	211	54-0211-OPN-1	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	211	54-0211-OPN-1	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	221	54-0221-OPN-1	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	221	54-0221-OPN-1	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	1001	54-1001-OPN-1	13S/SWSC	1FD1	N/A	LABORATORY		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	1001	54-1001-OPN-1	13S/SWSC	1SD1	N/A	LABORATORY		FLOW IS NIL	No	FLOOR WASHINGS
54	1001	54-1001-OPN-1	13S/SWSC	1SD2	N/A	LABORATORY		5 DAYS A WEEK	No	LAB SINK
54	1001	54-1001-OPN-1	13S/SWSC	1SD3	N/A	CORRIDOR		5 DAYS A WEEK	No	LAB SINK
54	1001	54-1001-OPN-1	13S/SWSC	PFD1	N/A	EQUIPMENT ROOM		5 DAYS A WEEK	No	CLEAN UP
54	1002	54-1002	ND	N/A	N/A	FILTER EXHAUST ROOM		FLOW IS NIL	No	AIR COMPRESSOR DRAIN
54	1003	54-1003-OPN-1	13S/SWSC	1LV1	N/A	RESTROOM		NO FLOW	No	NO DRAINS
54	1003	54-1003-OPN-1	13S/SWSC	1TL1	N/A	RESTROOM		5 DAYS A WEEK	No	LAVATORY
54	1004	54-1004-OPN-1	13S/SWSC	1FD1	N/A	JANITOR'S CLOSET		5 DAYS A WEEK	No	TOILET
54	1004	54-1004-OPN-1	13S/SWSC	1LV1	N/A	RESTROOM		FLOW IS NIL	No	FLOOR WASHINGS
54	1004	54-1004-OPN-1	13S/SWSC	1SD1	N/A	JANITOR'S CLOSET		5 DAYS A WEEK	No	LAVATORY
54	1004	54-1004-OPN-1	13S/SWSC	1SD2	N/A	STORAGE		5 DAYS A WEEK	No	CLEAN UP
54	1004	54-1004-OPN-1	13S/SWSC	1TL1	N/A	RESTROOM		NO FLOW	No	NONE
54	1004	54-1004-OPN-1	13S/SWSC	1TL1	N/A	RESTROOM		5 DAYS A WEEK	No	TOILET

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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	ROOM DESCRIPTION	FLOW RATE	PERIODICITY	SEASONAL	SOURCE TYPES	
54	1004	54-1004-OPN-2	13S/SWSC	1FD2	N/A	STORAGE					
54	1004	54-1004-OPN-2	13S/SWSC	1FD3	N/A	STORAGE			FLOW IS NIL	No	FLOOR WASHINGS
54	1005	54-1005-OPN-1	13S/SWSC	1LV1	N/A	RESTROOM			FLOW IS NIL	No	FLOOR WASHINGS
54	1005	54-1005-OPN-1	13S/SWSC	1TL1	N/A	RESTROOM			NO FLOW	No	NONE
54	1005	54-1005-OPN-2	DAYLIGHT	N/A	N/A	WATER HEATER PRV			NO FLOW	No	NONE
54	1005	54-1005-OPN-3	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER			FLOW IS NIL	No	WATER HEATER PRV
54	1009	54-1009-OPN-1	13S/SWSC	1FD1	108	MECHANICAL ROOM			FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	1009	54-1009-OPN-1	13S/SWSC	1FD1	108	MECHANICAL ROOM			FLOW IS NIL	No	BACK FLOW PREVENTER
54	1009	54-1009-OPN-1	13S/SWSC	1LV1	108	RESTROOM			FLOW IS NIL	No	WATER HEATER PRV
54	1009	54-1009-OPN-1	13S/SWSC	1SH1	108	RESTROOM			5 DAYS A WEEK	No	LAVATORY
54	1009	54-1009-OPN-1	13S/SWSC	1TL1	108	RESTROOM			5 DAYS A WEEK	No	SHOWER
54	1009	54-1009-OPN-1	13S/SWSC	1UR1	108	RESTROOM			5 DAYS A WEEK	No	TOILET
54	1009	54-1009-OPN-10	CONTAINMENT	N/A	N/A	RLW TANK DRAIN			5 DAYS A WEEK	No	URINAL
54	1009	54-1009-OPN-2	RLW TANK	1CD1	101	LABORATORY			NO FLOW	No	RLW TANK
54	1009	54-1009-OPN-2	RLW TANK	1CD2	101	LABORATORY			5 DAYS A WEEK	No	LAB CUP DRAIN
54	1009	54-1009-OPN-2	RLW TANK	1CD3	102	LABORATORY			5 DAYS A WEEK	No	LAB CUP DRAIN
54	1009	54-1009-OPN-2	RLW TANK	1CD4	102	LABORATORY			5 DAYS A WEEK	No	LAB CUP DRAIN
54	1009	54-1009-OPN-2	RLW TANK	1CD5	104	LABORATORY			5 DAYS A WEEK	No	LAB CUP DRAIN
54	1009	54-1009-OPN-2	RLW TANK	1DW1	103	LABORATORY			5 DAYS A WEEK	No	LAB CUP DRAIN
54	1009	54-1009-OPN-2	RLW TANK	1DW2	105	LABORATORY			5 DAYS A WEEK	No	DISHWASHER
54	1009	54-1009-OPN-2	RLW TANK	1SD1	103	LABORATORY			5 DAYS A WEEK	No	DISHWASHER
54	1009	54-1009-OPN-2	RLW TANK	1SD2	103	LABORATORY			5 DAYS A WEEK	No	LAB SINK DRAIN
54	1009	54-1009-OPN-2	RLW TANK	1SD3	100	CORRIDOR			5 DAYS A WEEK	No	LAB SINK DRAIN
54	1009	54-1009-OPN-2	RLW TANK	1SH3	100	CORRIDOR			5 DAYS A WEEK	No	CLEAN UP
54	1009	54-1009-OPN-3	DAYLIGHT	AD1	EXT	AREA DRAIN			5 DAYS A WEEK	No	SHOWER
54	1009	54-1009-OPN-3	DAYLIGHT	AD2	EXT	AREA DRAIN			MOSTLY SUMMER	Yes	STORM WATER
54	1009	54-1009-OPN-4	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT			MOSTLY SUMMER	Yes	STORM WATER
54	1009	54-1009-OPN-5	DAYLIGHT	N/A	N/A	ROOF DOWNSPOUT			MOSTLY SUMMER	Yes	STORM WATER
54	1009	54-1009-OPN-6	DAYLIGHT	N/A	N/A	RLW TANK DISCHARGE			MOSTLY SUMMER	Yes	STORM WATER
54	1009	54-1009-OPN-7	DAYLIGHT	N/A	N/A	RLW TANK DISCHARGE			AS NECESSARY	No	RLW TANK
54	1009	54-1009-OPN-8	ATMOSPHERE	N/A	N/A	RLW TANK VENT			AS NECESSARY	No	RLW TANK
54	1009	54-1009-OPN-9	CONTAINMENT	N/A	N/A	RLW TANK DRAIN			NO FLOW	No	NONE
54	1014	54-1014-OPN-1	13S/SWSC	1LV1	N/A	RESTROOM			NO FLOW	No	RLW TANK
									5 DAYS A WEEK	No	LAVATORY

REPORT #

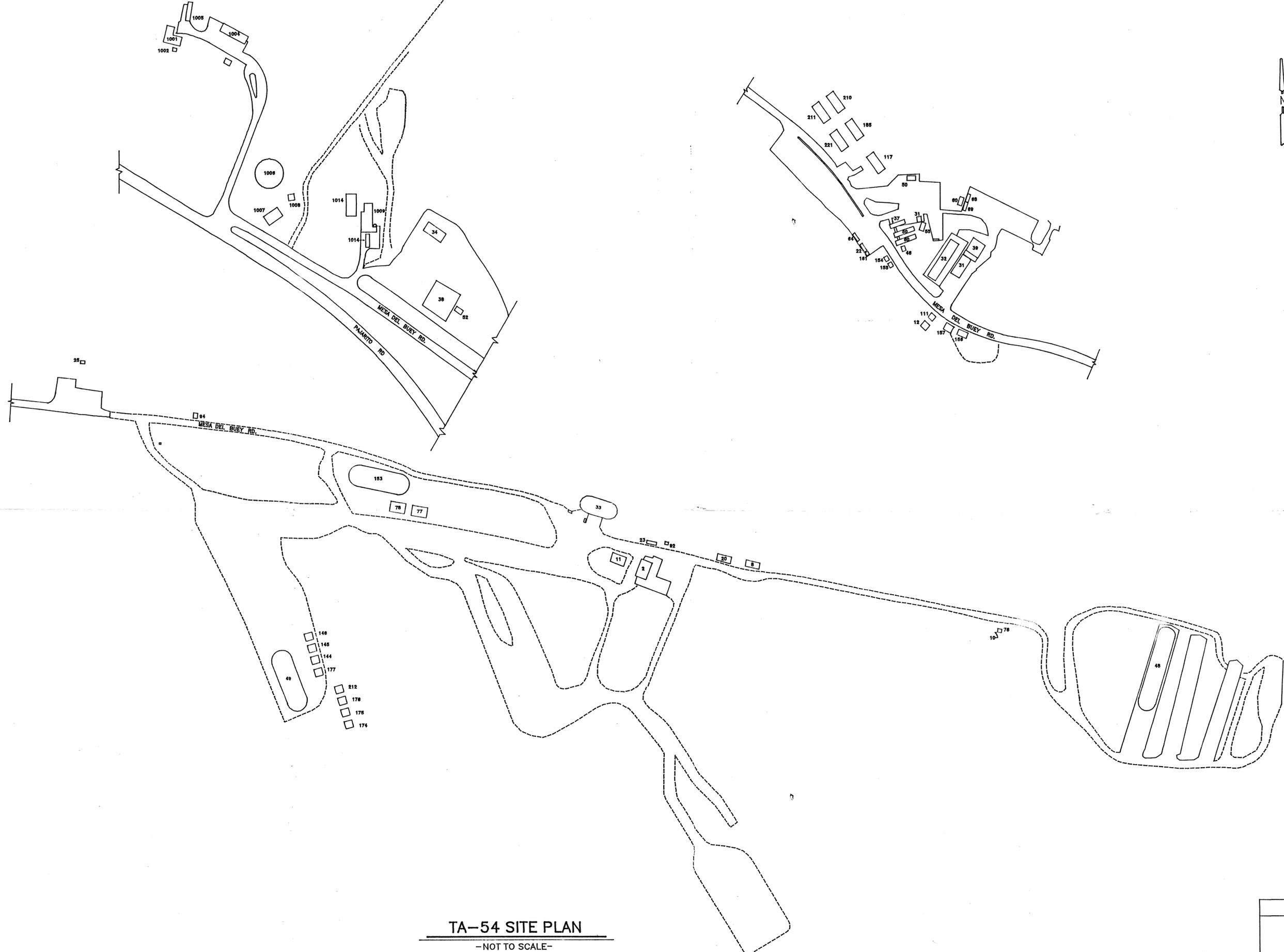
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TA	BLDG	OUTLET PIPING NO	EPA OUTFALL #	DRAIN #	ROOM #	ROOM DESCRIPTION	FLOW RATE	PERIODICITY	SEASONAL	SOURCE TYPES
54	1014	54-1014-OPN-1	13S/SWSC	1TL1	N/A	RESTROOM		5 DAYS A WEEK	No	TOILET
54	1014	54-1014-OPN-2	DAYLIGHT	N/A	N/A	WATER HEATER PRV		FLOW IS NIL	No	WATER HEATER PRV
54	1014	54-1014-OPN-3	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	1014	54-1014-OPN-4	DAYLIGHT	N/A	N/A	EVAPORATIVE COOLER		FLOW IS NIL	No	EVAPORATIVE COOLER DRAIN
54	1015	54-1015	ND	N/A	N/A	STORAGE		NO FLOW	No	NO DRAINS

NO EPA FORMS WERE PREPARED.

DYE STUDY INFORMATION

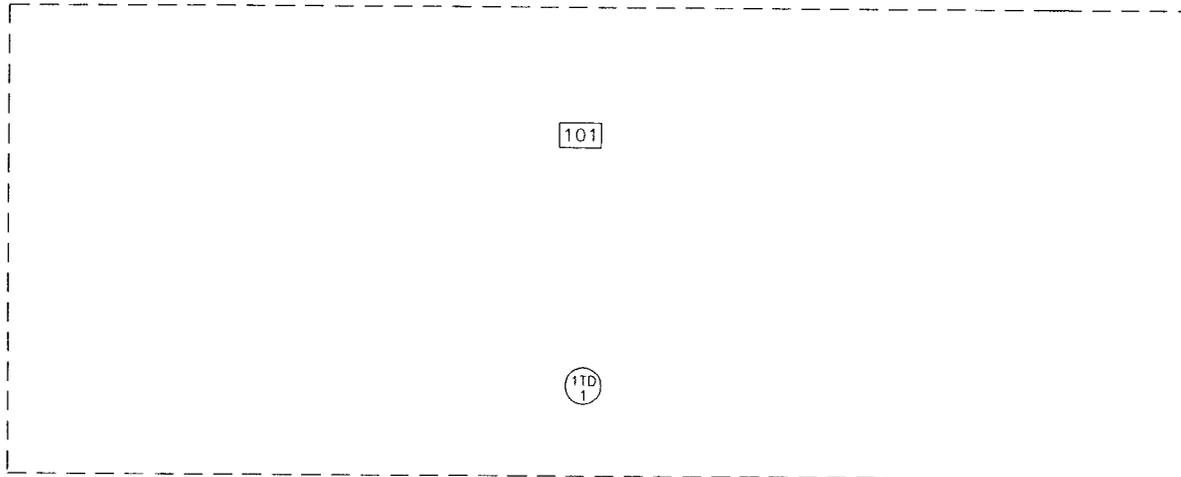
BUILDING NUMBER	DRAIN NUMBER	DID DYE REACH EXPECTED DESTINATION?	COMMENTS
54-2	1SD1	YES	SEPTIC TANK LA-60/54-16
54-2	1TL1	YES	SEPTIC TANK LA-60/54-16
54-11	1TL1	YES	SEPTIC TANK LA-60/54-16
54-11	1TL2	YES	SEPTIC TANK LA-60/54-16
54-11	1SD1	YES	RLW TESTED BY ABSENCE OF DYE IN SS OR DAYLIGHT OUTFALL
54-11	1SH2	YES	RLW TESTED BY ABSENCE OF DYE IN SS OR DAYLIGHT OUTFALL
54-22	1TL2	NO	VERIFY SEPTIC TANK SF89064R/54-80
54-34	1TL1	YES	54-34-OPN-1 SANITARY
54-34	1TL2	YES	54-34-OPN-1 SANITARY
54-37	1TL1	YES	SEPTIC TANK SF89064R/54-80
54-38	2TL1	YES	54-38-OPN-1 SANITARY
54-38	2TL3	YES	54-38-OPN-1 SANITARY
54-39	1TL1	YES	SEPTIC TANK SF880257/54-43
54-60	1TL1	YES	SEPTIC TANK SF89064R/54-80
54-64	1TL3	NO	VERIFY SEPTIC TANK SF89064R/54-80
54-117	1TL1	YES	SEPTIC TANK 54-150
54-1001	1SD1	YES	54-1001-OPN-1 SANITARY
54-1001	1SD3	YES	54-1001-OPN-1 SANITARY
54-1003	1TL1	YES	54-1003-OPN-1 SANITARY
54-1004	1FD1	YES	54-1004-OPN-1 SANITARY
54-1004	1LV1	YES	54-1004-OPN-1 SANITARY
54-1004	1SD1	YES	54-1004-OPN-1 SANITARY
54-1004	1FD3	YES	54-1004-OPN-2 SANITARY
54-1009	1TL1	YES	54-1009-OPN-1 SANITARY
54-1009	1SD1	YES	RLW TESTED BY ABSENCE OF DYE IN SS OR DAYLIGHT OUTFALL
54-1009	1SH2	YES	RLW TESTED BY ABSENCE OF DYE IN SS OR DAYLIGHT OUTFALL
54-1014	1TL1	YES	54-1014-OPN-1 SANITARY



TA-54 SITE PLAN
- NOT TO SCALE -

15341

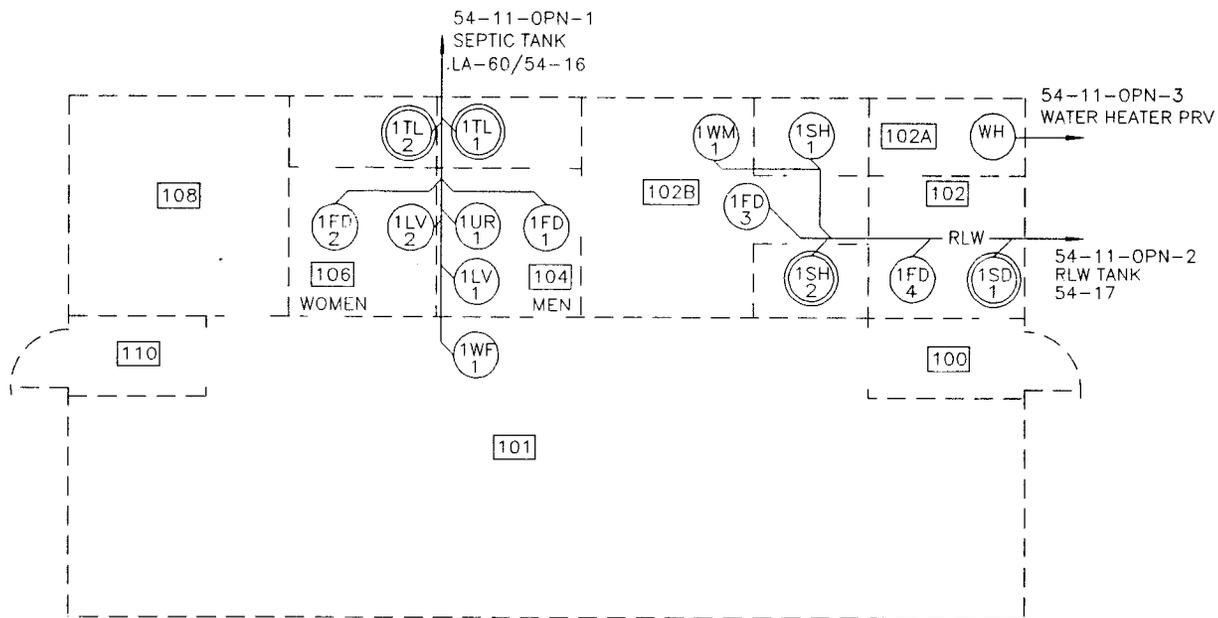
SANTA FE ENGINEERING, LTD.			
TA-54 SITE PLAN	DRAWN	D.R.S.	
	DESIGN	D.H. & G.S.	
	CHECKED	S.C.D.	
	DATE	11-18-93	
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545			SHEET OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
EM-8	11056-77	FIGURE 1	



SYMBOL LEGEND	
TD	TRENCH DRAIN

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA-54-8 DRAIN SCHEMATIC		DRAWN	C.S.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		DATE	7-8-93
SUBMITTED	RECOMMENDED	APPROVED	
		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-77	FIGURE 3	



SYMBOL LEGEND	
FD	FLOOR DRAIN
SD	SINK DRAIN
TL	TOILET
LV	LAVATORY
UR	URINAL
SH	SHOWER
WF	WATER FOUNTAIN
PRV	PRESSURE RELIEF VALVE
WH	WATER HEATER
WM	WASHING MACHINE
RLW	RADIOACTIVE LIQUID WASTE



DYE TESTED DRAIN

NOT TO SCALE

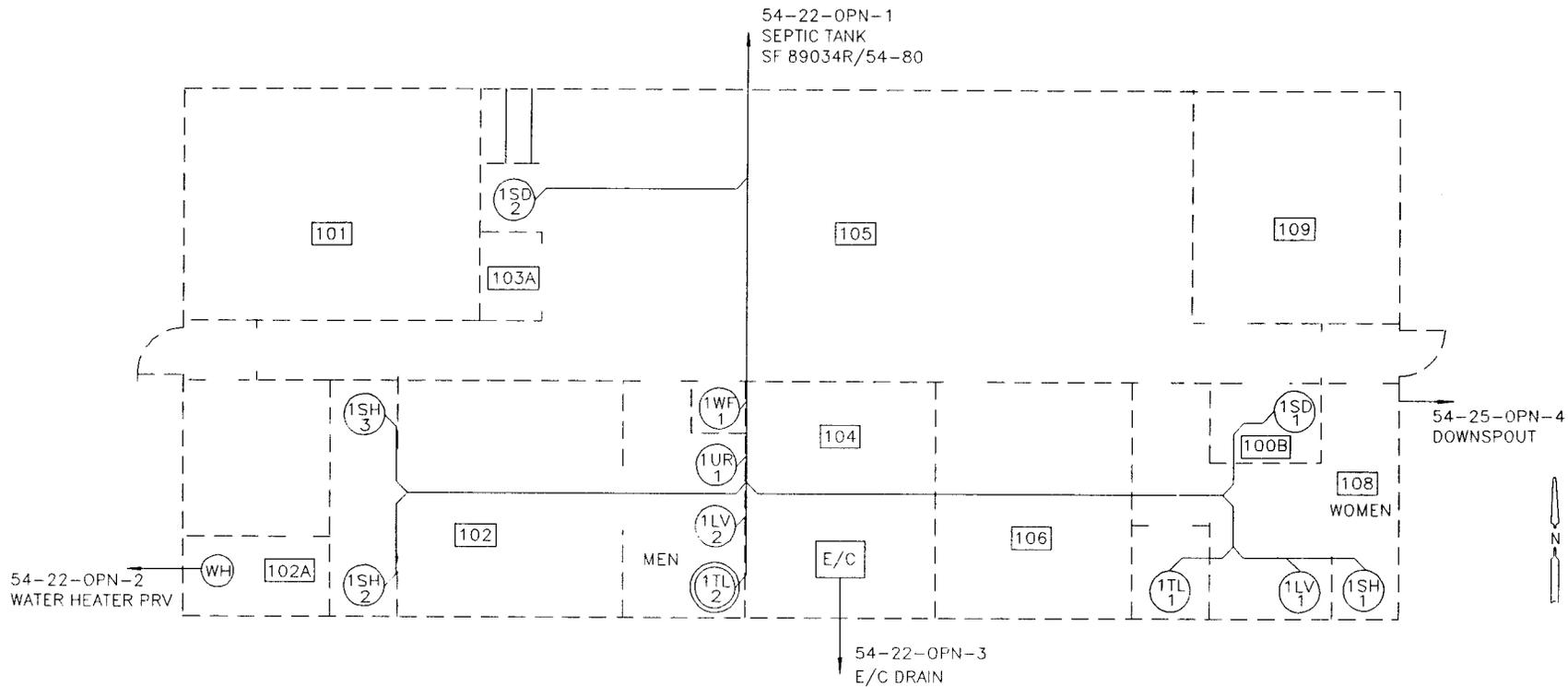
SANTA FE ENGINEERING, LTD.			
TA-54-11 DRAIN SCHEMATIC		DRG. NO.	
		EL. NO.	5.
		CHECKED	C.D.
		DATE	7-8-93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET	OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	
REQUESTING GROUP	11056-77	FIGURE 4	
EM-8			REV.



54-12-OPN-1
DOWNSPOUT



SANTA FE ENGINEERING, LTD.			
TA 54-12 DRAIN SCHEMATIC		DRAWN	DRS
		DESIGN	DRS
		CHECKED	SCD
		RELEASED	
		DATE	9/8/93
SUBMITTED		RECOMMENDED	APPROVED
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET _____ OF _____
CLASSIFICATION		REVIEWER	DATE
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-77	FIGURE 5	



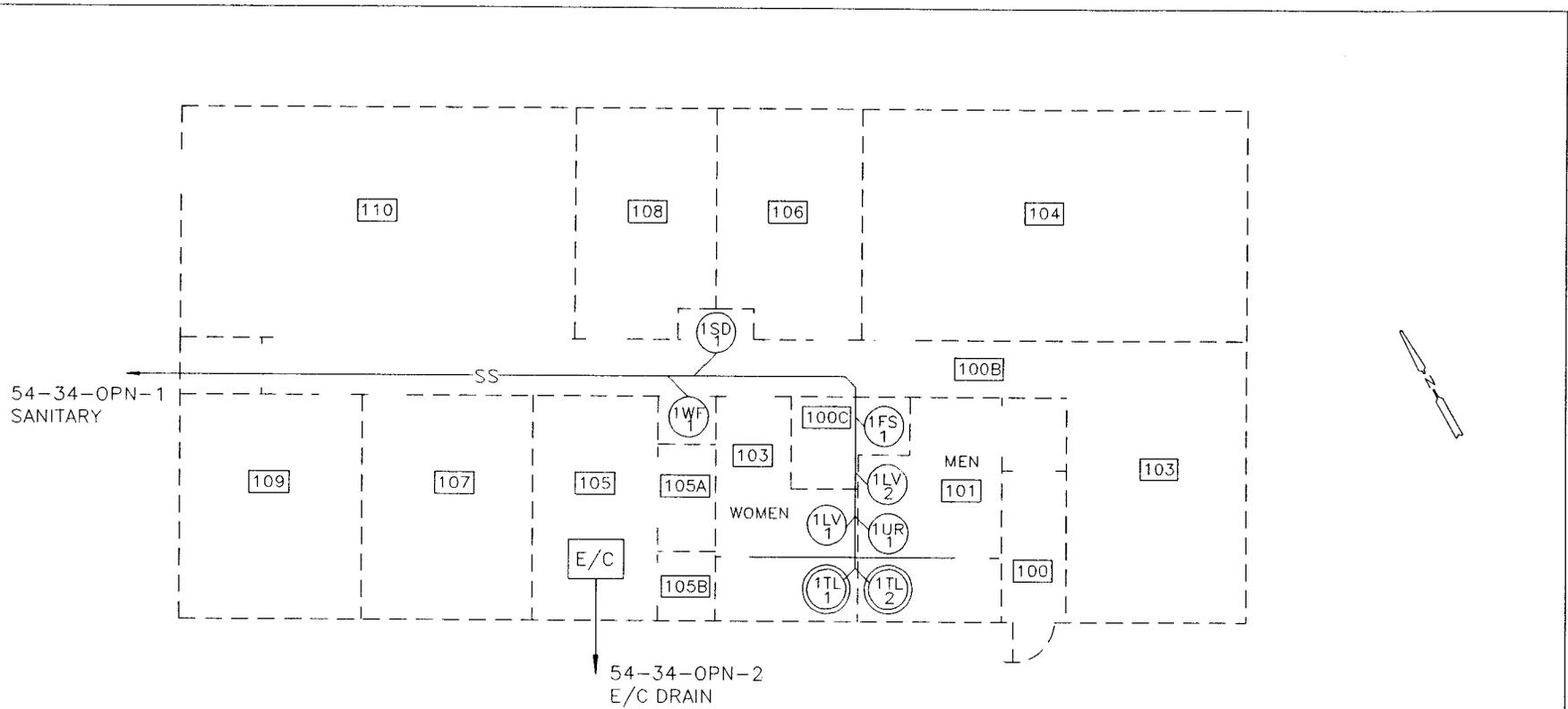
SYMBOL LEGEND	
FD	FLOOR DRAIN
SD	SINK DRAIN
LV	LAVATORY
SH	SHOWER
TL	TOILET
UR	URINAL
WF	WATER FOUNTAIN
WH	WATER HEATER
PRV	PRESSURE RELIEF VALVE
E/C	EVAPORATIVE COOLER



DYE TESTED DRAIN

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA-54-22 DRAIN SCHEMATIC		DRAWN	G.S.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		DATE	7-1-93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	
CLASSIFICATION	REVIEWER	DATE	SHEET OF
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-77	FIGURE 6	

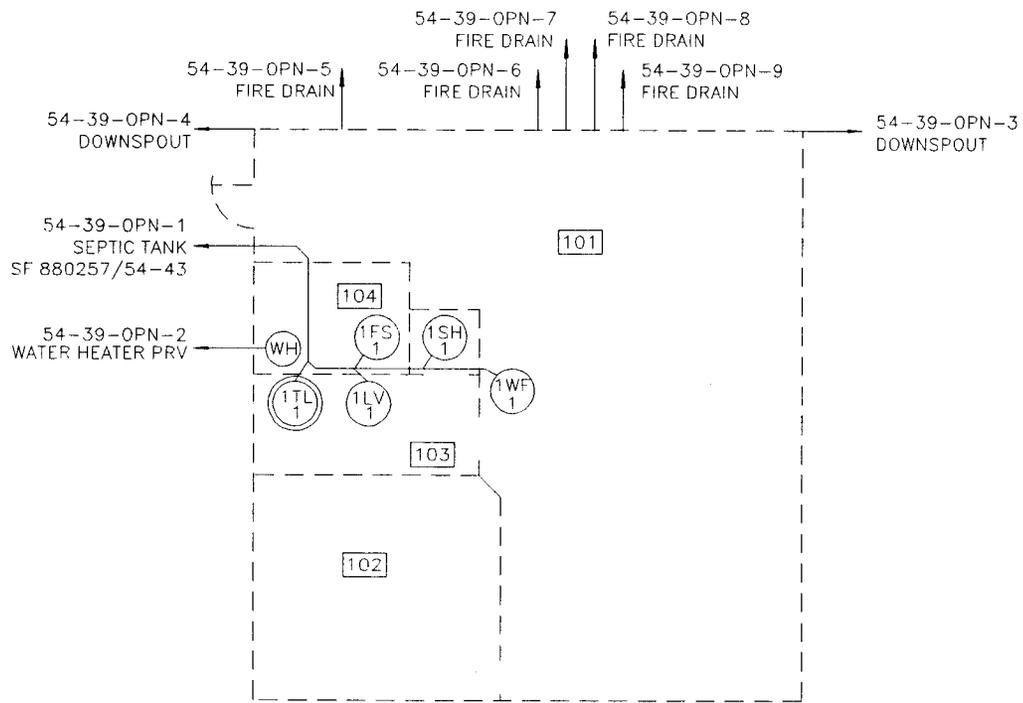


SYMBOL LEGEND	
FS	FLOOR SINK
SD	SINK DRAIN
TL	TOILET
LV	LAVATORY
UR	URINAL
WF	WATER FOUNTAIN
E/C	EVAPORATIVE COOLER
SS	SANITARY SEWER

 DYE TESTED DRAIN

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA-54-34		DRAWN	G.S.
		DESIGN	D.R.S.
DRAIN SCHEMATIC		CHECKED	S.C.D.
		DATE	7-1-93
SUBMITTED	RECOMMENDED	APPROVED	
 Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET	OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	
REQUESTING GROUP	11056-77	FIGURE 8	
EM-8			REV.



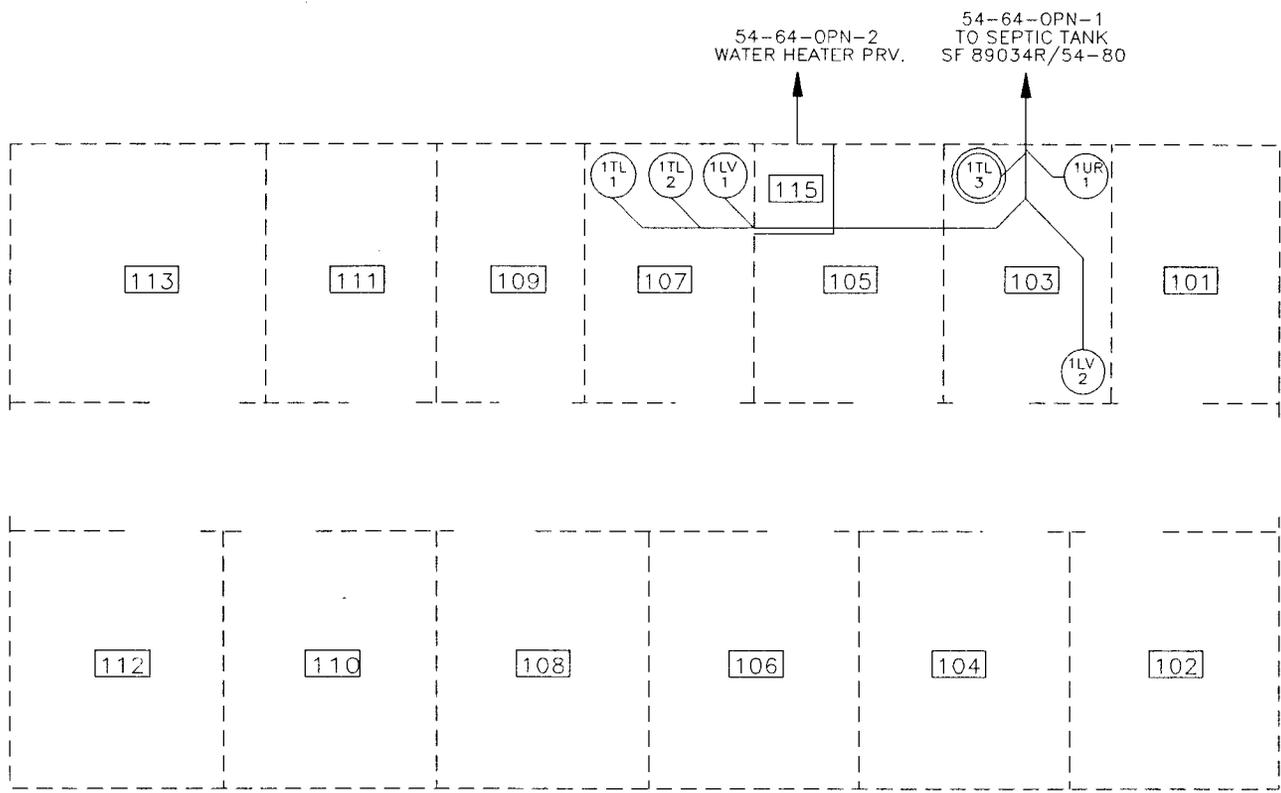
SYMBOL LEGEND	
FS	FLOOR SINK
TL	TOILET
LV	LAVATORY
SH	SHOWER
WF	WATER FOUNTAIN
PRV	PRESSURE RELIEF VALVE
WH	WATER HEATER



DYE TESTED DRAIN

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA-54-39 DRAIN SCHEMATIC		DRAWN	G.S.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		DATE	6-30-93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	
REQUESTING GROUP	11056-77	FIGURE 11	
EM-8		REV	

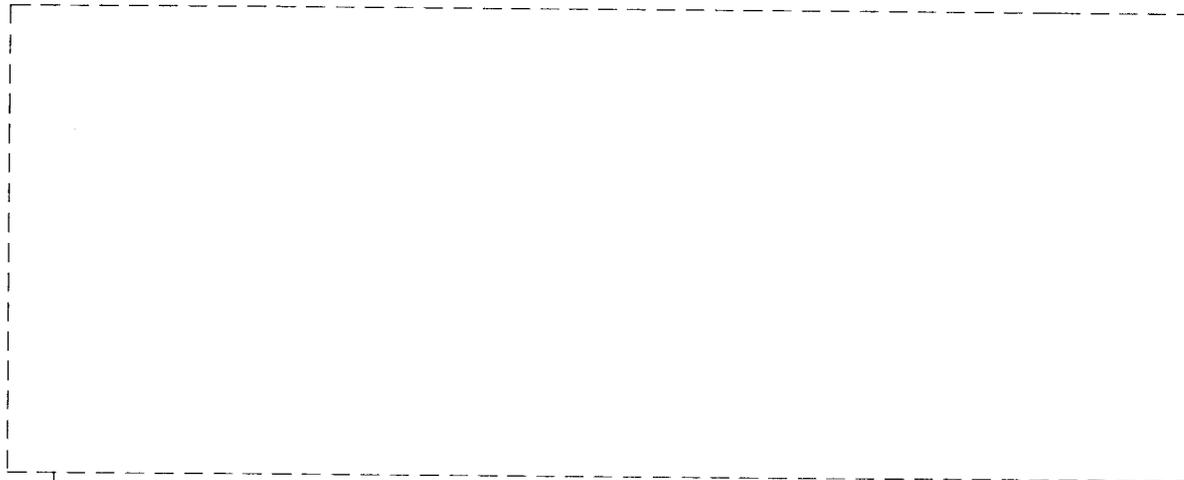


SYMBOL LEGEND	
LV	LAVATORY
TL	TOILET
UR	URNIAL


 DYE TESTED DRAIN

NOT TO SCALE

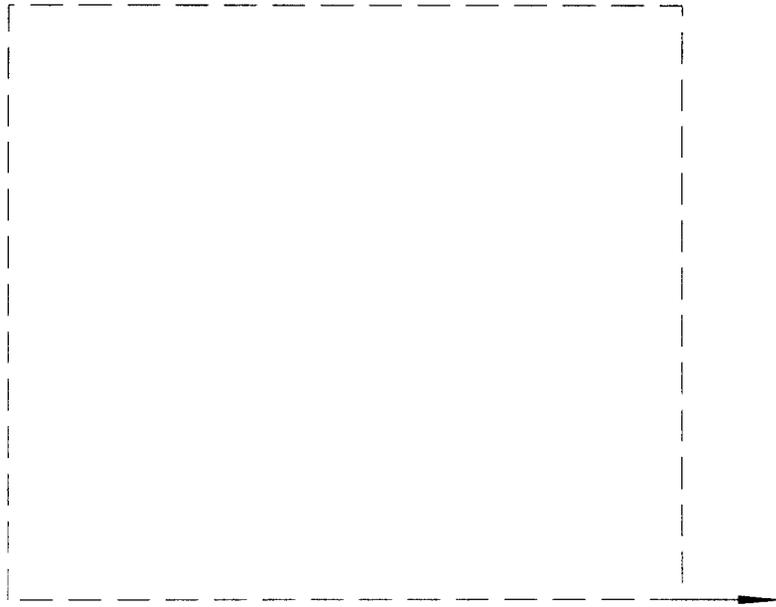
SANTA FE ENGINEERING, LTD.			
TA-54-64		DRAWN	D.A.H.
DRAIN SCHEMATIC		DESIGN	D.R.S.
		CHECKED	S.C.D.
		DATE	8/9/93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-77	FIGURE 12	



54-81-OPN-1
DOWNSPOUT

NOT TO SCALE

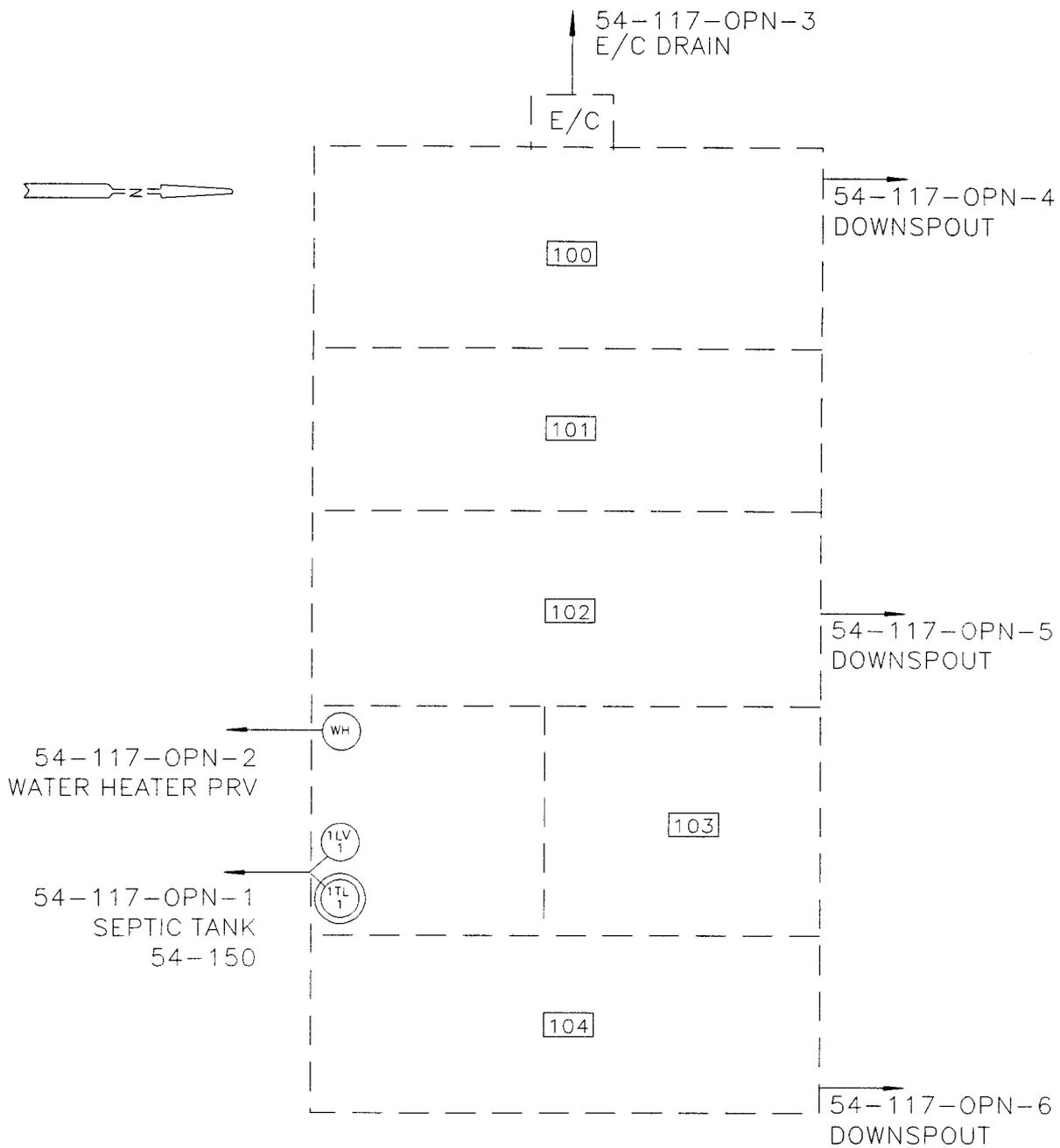
SANTA FE ENGINEERING, LTD.			
TA-54-81		DRAWN	G.S.
DRAIN SCHEMATIC		DESIGN	D.R.S.
		CHECKED	S.C.D.
		DATE	7-6-93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET OF
CLASSIFICATION	REVIEWER	DATE	REV.
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	
REQUESTING GROUP EM-8	11056-77	FIGURE 13	



54-111-OPN-1
DOWNSPOUT

NOT TO SCALE

SANTA FE ENGINEERING, LTD.					
TA 54-111 DRAIN SCHEMATIC		DRAWN	DRS		
		DESIGN	DRS		
		CHECKED	SCD		
		RELEASED			
		DATE	9/8/93		
SUBMITTED		RECOMMENDED		APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET	OF
CLASSIFICATION		REVIEWER		DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.		REV.	
REQUESTING GROUP EM-8	11056-77	FIGURE 14			

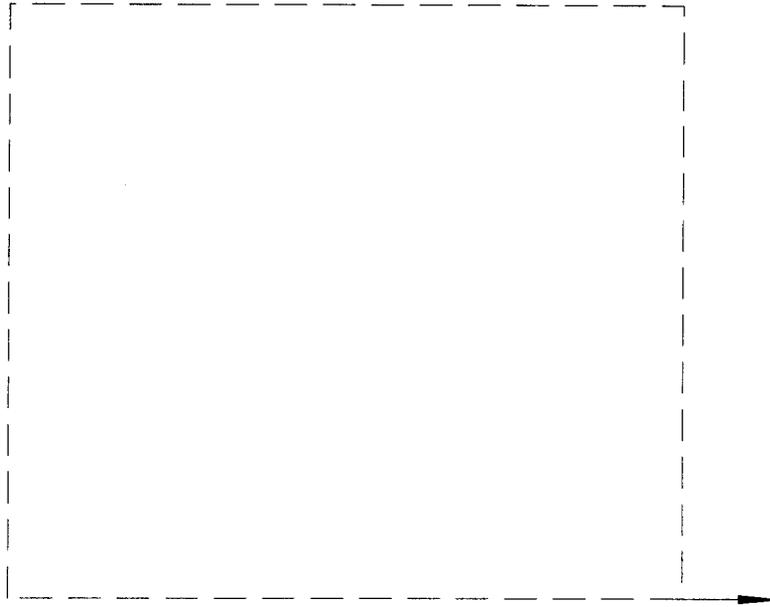


SYMBOL LEGEND	
LV	LAVATORY
TL	TOILET
WH	WATER HEATER
PRV	PRESSURE RELIEF VALVE
E/C	EVAPORATIVE COOLER

⊙ DYE TESTED DRAIN

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA 54-117 DRAIN SCHEMATIC		DRAWN	D.A.H.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		RELEASED	
		DATE	8/5/93
SUBMITTED		RECOMMENDED	APPROVED
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-77	FIGURE 15	



54-156-OPN-1
DOWNSPOUT

NOT TO SCALE

SANTA FE ENGINEERING, LTD.				
TA 54-156 DRAIN SCHEMATIC			DRAWN	DRS
			DESIGN	DRS
			CHECKED	SCD
			RELEASED	
			DATE	9/8/93
SUBMITTED		RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545			SHEET	OF
CLASSIFICATION		REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.		REV.
REQUESTING GROUP EM-8	11056-77	FIGURE 16		

54-157-OPN-1
DOWNSPOUT



SANTA FE ENGINEERING, LTD.

TA 54-157
DRAIN SCHEMATIC

DRAWN	DRS
DESIGN	DRS
CHECKED	SCD
RELEASED	
DATE	9/8/93

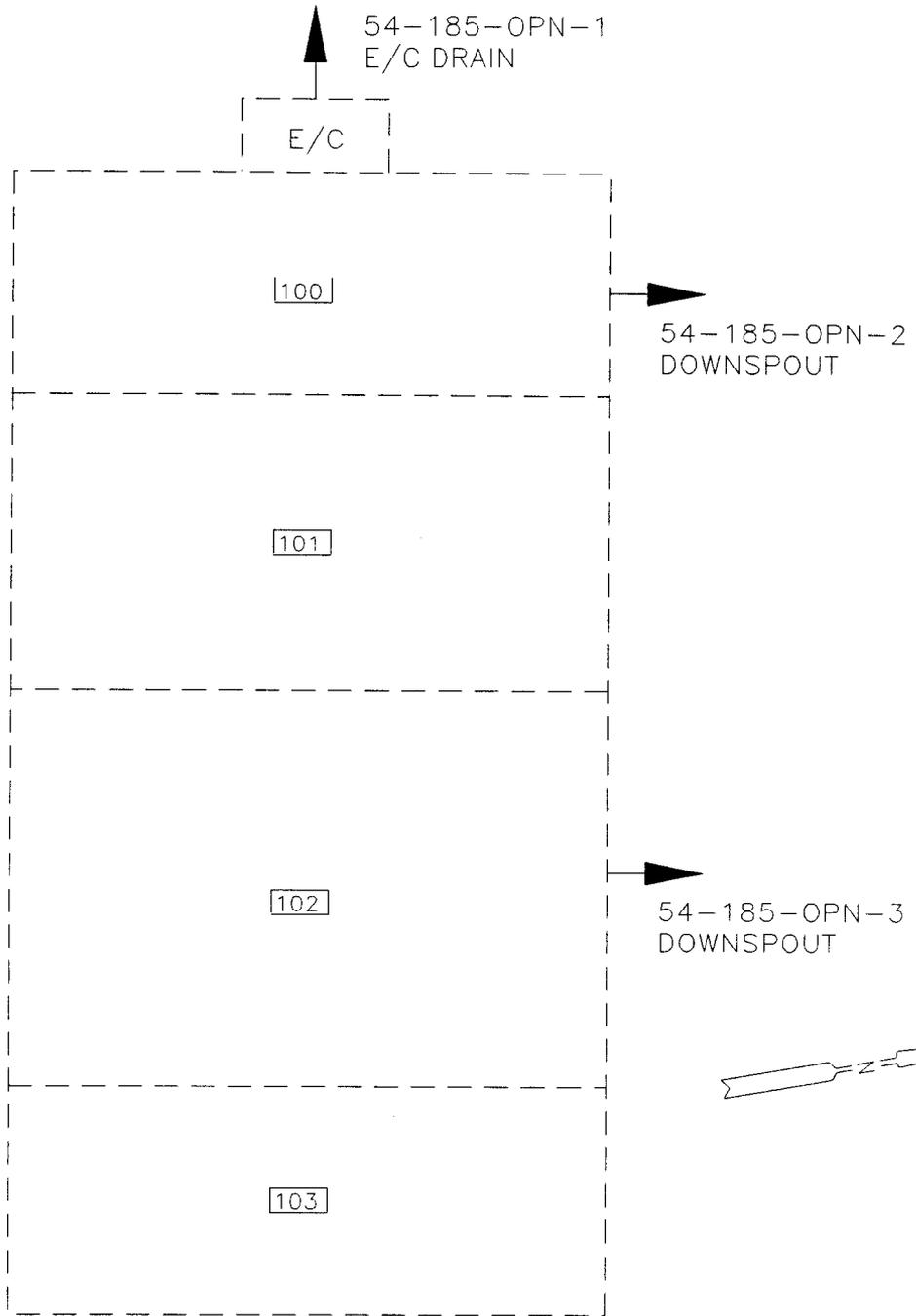
SUBMITTED	RECOMMENDED	APPROVED
-----------	-------------	----------

Los Alamos Los Alamos National Laboratory
Los Alamos, New Mexico 87545

SHEET	OF
-------	----

NOT TO SCALE

CLASSIFICATION	REVIEWER	DATE
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.
REQUESTING GROUP	11056-77	FIGURE 17
EM-8		REV.



SANTA FE ENGINEERING, LTD.			
TA-54-185 DRAIN SCHEMATIC		DRAWN	D.A.H.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		RELEASED	
		DATE	8/5/93
SUBMITTED		RECOMMENDED	
		APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	
		SHEET	OF
CLASSIFICATION		REVIEWER	
REQUESTING DIVISION		DATE	
REQUESTING GROUP		LAB JOB NO.	
EM-8		11056-77	
		DRAWING NO.	
		FIGURE 18	
		REV.	

54-210-OPN-1
E/C DRAIN

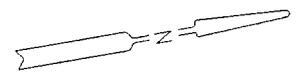
E/C

100

101

102

103



SANTA FE ENGINEERING, LTD.

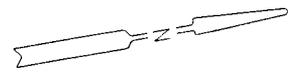
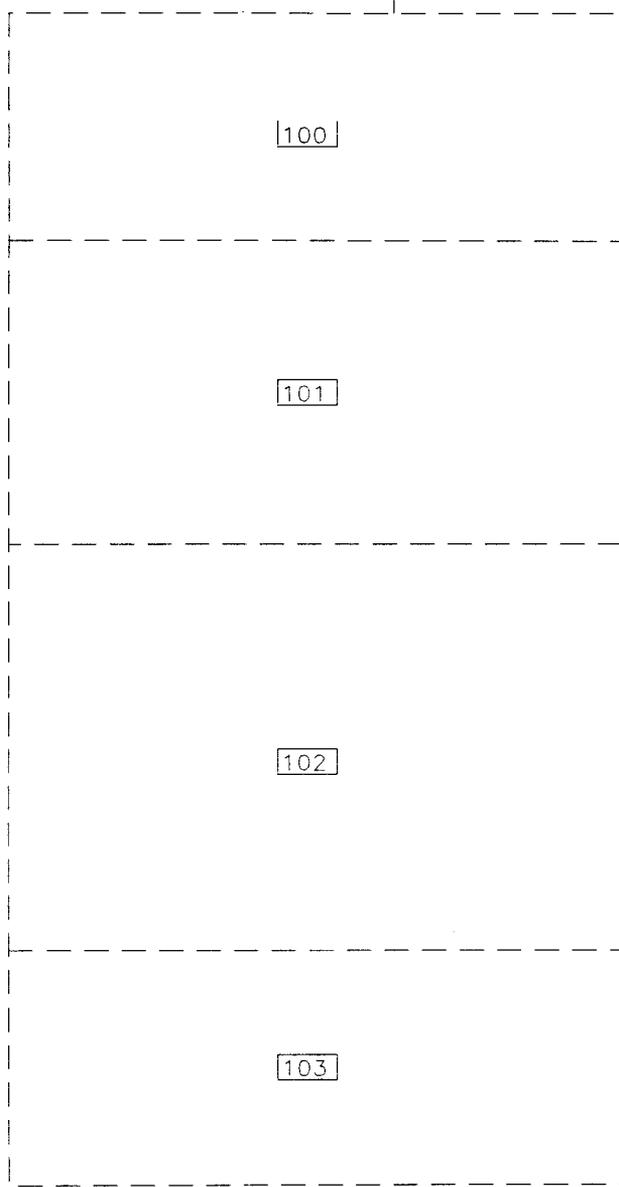
TA-54-210
DRAIN SCHEMATIC

DRAWN	D.A.H.
DESIGN	D.R.S.
CHECKED	S.C.D.
RELEASED	
DATE	8/5/93

SUBMITTED		RECOMMENDED		APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545			SHEET	OF	
CLASSIFICATION	REVIEWER	DATE			
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.		REV.	
REQUESTING GROUP EM-8	11056-77	FIGURE 19			

54-211-OPN-1
E/C DRAIN

E/C

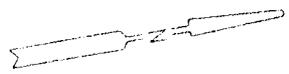
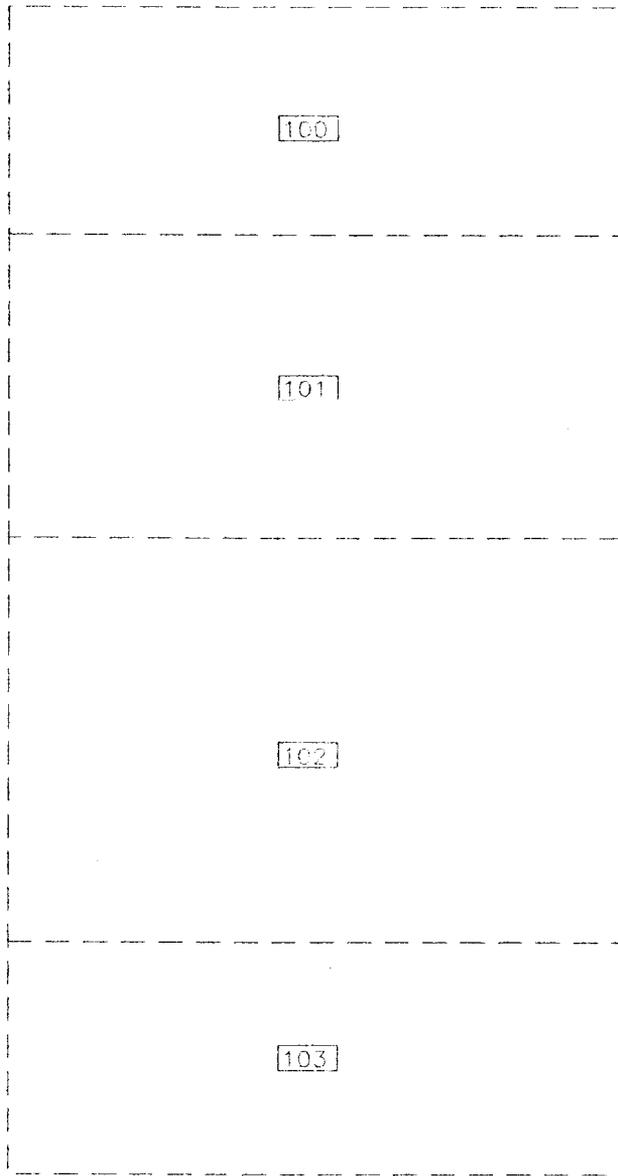


SANTA FE ENGINEERING, LTD.

TA-54-211
DRAIN SCHEMATIC

DRAWN	D.A.H.
DESIGN	D.R.S.
CHECKED	S.C.D.
RELEASED	
DATE	8/5/93

SUBMITTED		RECOMMENDED		APPROVED	
			Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET OF
CLASSIFICATION		REVIEWER		DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.		REV.	
REQUESTING GROUP EM-8	11056-77	FIGURE 20			

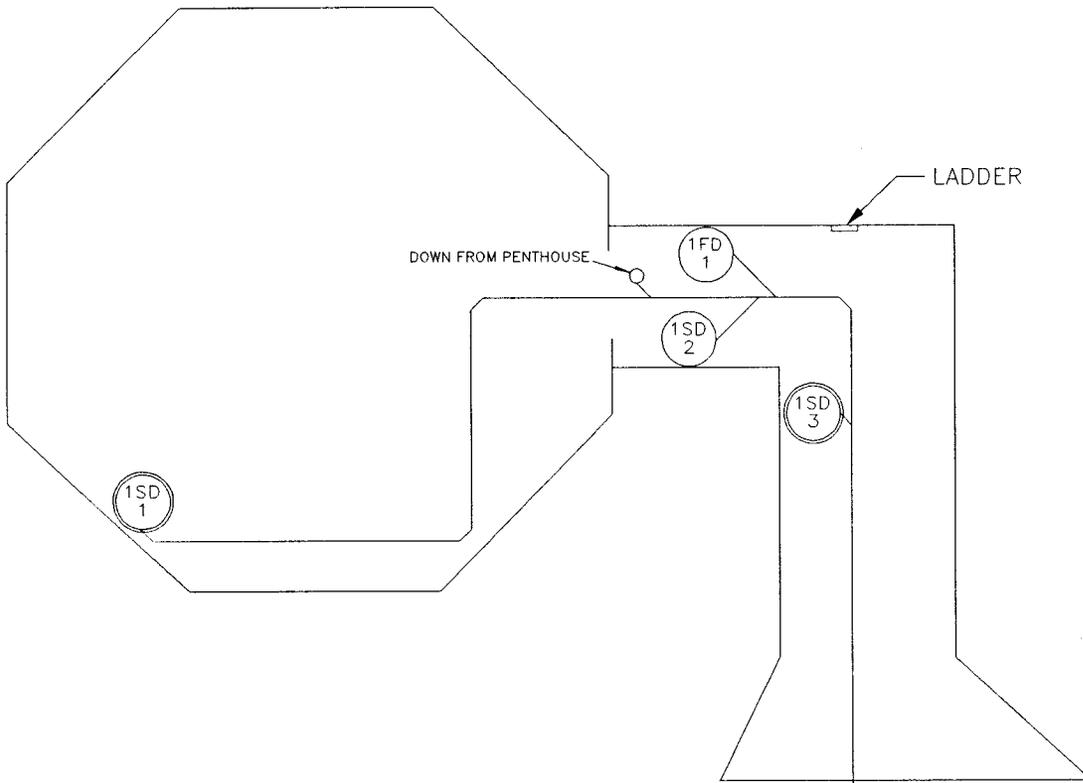


E/C



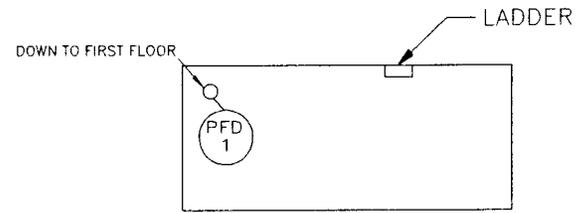
54-221-OPN-1
E/C DRAIN

SANTA FE ENGINEERING, LTD.			
TA-54-221 DRAIN SCHEMATIC		DRAWN D.A.H.	D.R.S.
		DESIGN	S.C.D.
		CHECKED	
		RELEASED	
		DATE	8/5/93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	
		SHEET	OF
CLASSIFICATION		REVIEWER	DATE
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	
REQUESTING GROUP	11056-77	FIGURE 21	
EM-8			REV.



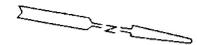
FIRST FLOOR PLAN

NOT TO SCALE



PENTHOUSE FLOOR PLAN

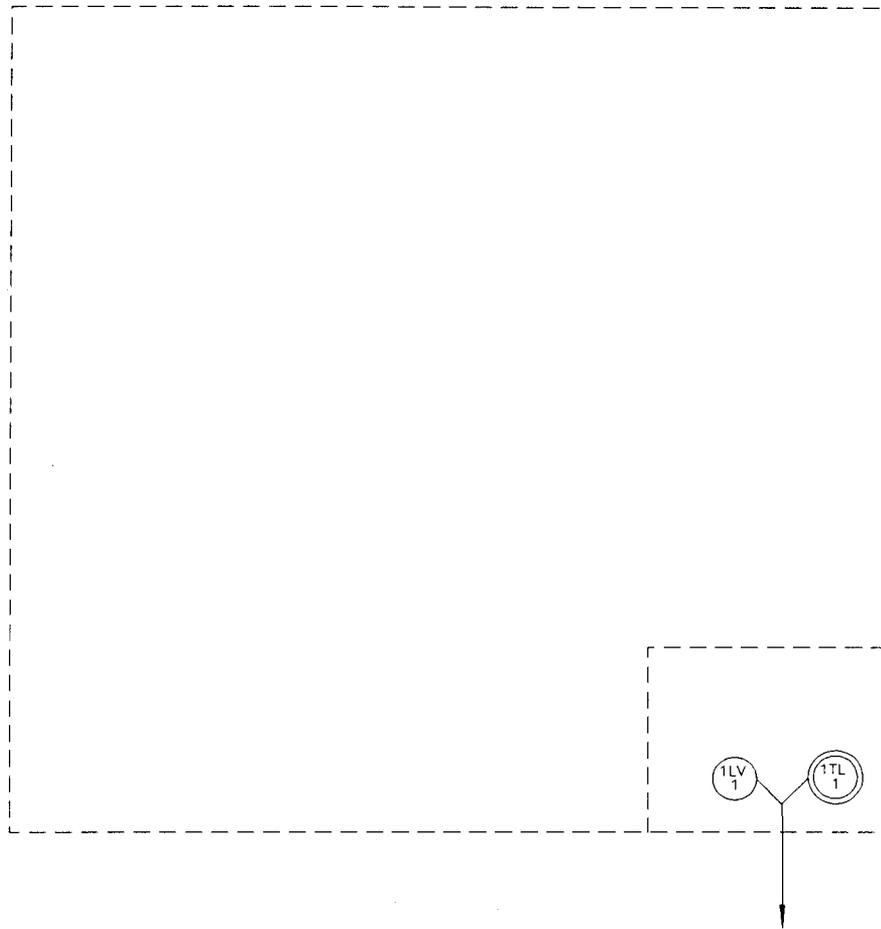
NOT TO SCALE



SYMBOL LEGEND	
FD	FLOOR DRAIN
SD	SINK DRAIN

○ DYE TESTED DRAIN

SANTA FE ENGINEERING, LTD.			
TA-54-1001 DRAIN SCHEMATIC		DRAWN	D.A.H.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		RELEASED	
		DATE	8/13/93
SUBMITTED	RECOMMENDED	APPROVED	
		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	
REQUESTING GROUP EM-8	11056-77	FIGURE 22	
		REV.	



54-1003-OPN-1
SANITARY



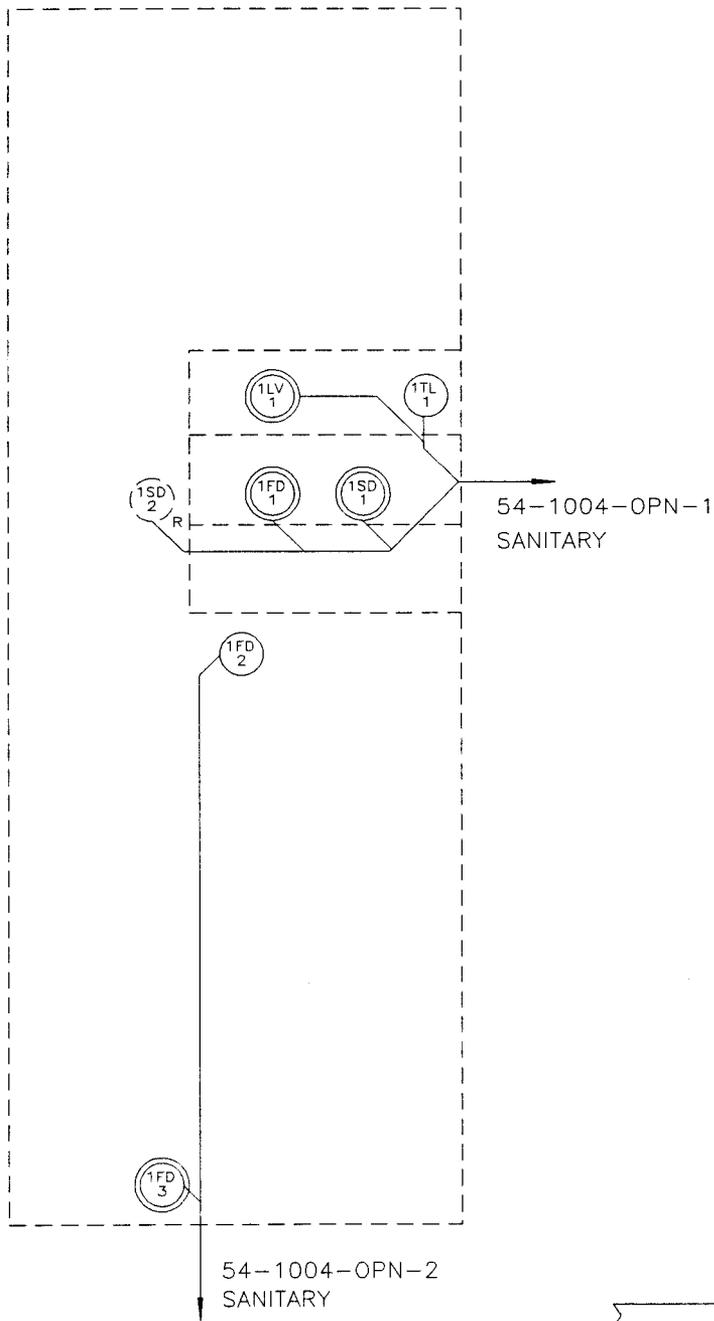
SYMBOL LEGEND	
LV	LAVATORY
TL	TOILET



DENOTES DYE TESTED DRAIN

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA-54-1003 DRAIN SCHEMATIC		DRAWN	D.A.H.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		RELEASED	
		DATE	8/5/93
SUBMITTED		RECOMMENDED	APPROVED
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-77	FIGURE 23	



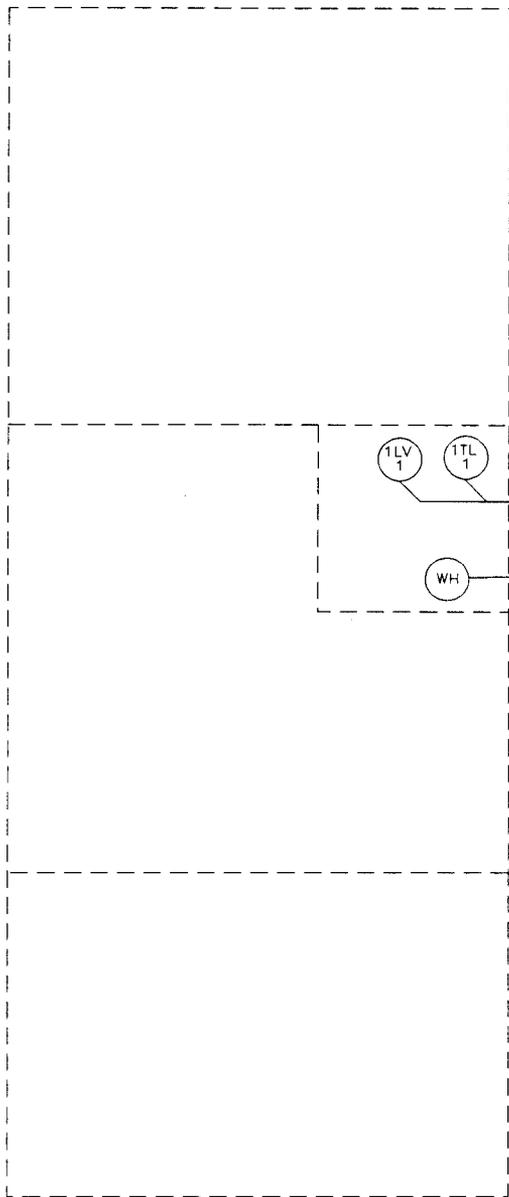
SYMBOL LEGEND	
FD	FLOOR DRAIN
LV	LAVATORY
SD	SINK DRAIN
TL	TOILET



DENOTES DYE TESTED DRAIN
DENOTES REMOVED DRAIN

NOT TO SCALE

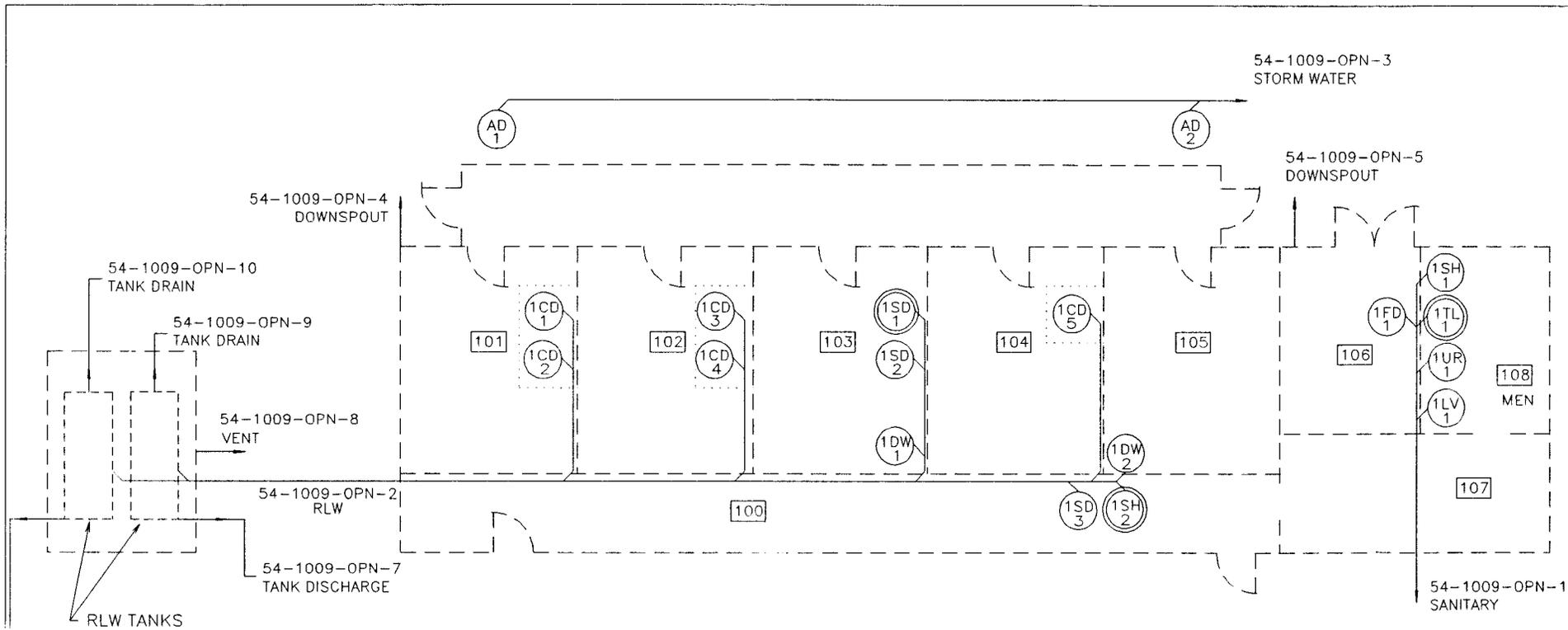
SANTA FE ENGINEERING, LTD.			
TA-54-1004 DRAIN SCHEMATIC		DRAWN	D.A.H.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		RELEASED	
		DATE	8/5/93
SUBMITTED		RECOMMENDED	APPROVED
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	
CLASSIFICATION		REVIEWER	DATE
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	11056-77	FIGURE 24	



SYMBOL LEGEND	
LV	LAVATORY
TL	TOILET
WH	WATER HEATER
E/C	EVAPORATIVE COOLER
PRV	PRESSURE RELIEF VALVE

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA-54-1005 DRAIN SCHEMATIC		DRAWN	D.A.H.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		RELEASED	
		DATE	8/5/93
SUBMITTED		RECOMMENDED	APPROVED
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET OF
CLASSIFICATION		REVIEWER	DATE
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	1056-77	FIGURE 25	



54-1009-OPN-6
TANK DISCHARGE

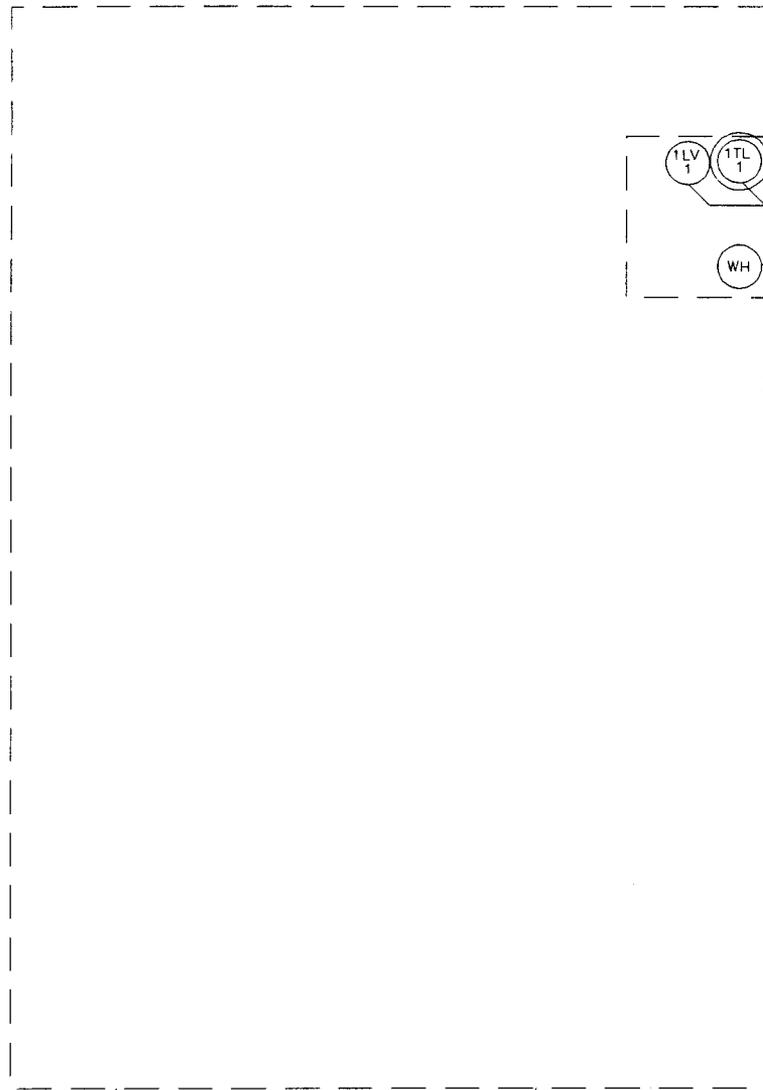
SYMBOL LEGEND	
FD	FLOOR DRAIN
SD	SINK DRAIN
TL	TOILET
LV	LAVATORY
UR	URINAL
SH	SHOWER
CD	CUP DRAIN
RLW	RADIOACTIVE LIQUID WASTE

 DYE TESTED DRAIN



NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA-54-1009		DRAWN	C.S.
DRAIN SCHEMATIC		DESIGN	D.R.S.
		CHECKED	S.C.D.
		DATE	7-1-93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	
REQUESTING GROUP	11056-77	FIGURE 26	
EM-8		REV.	

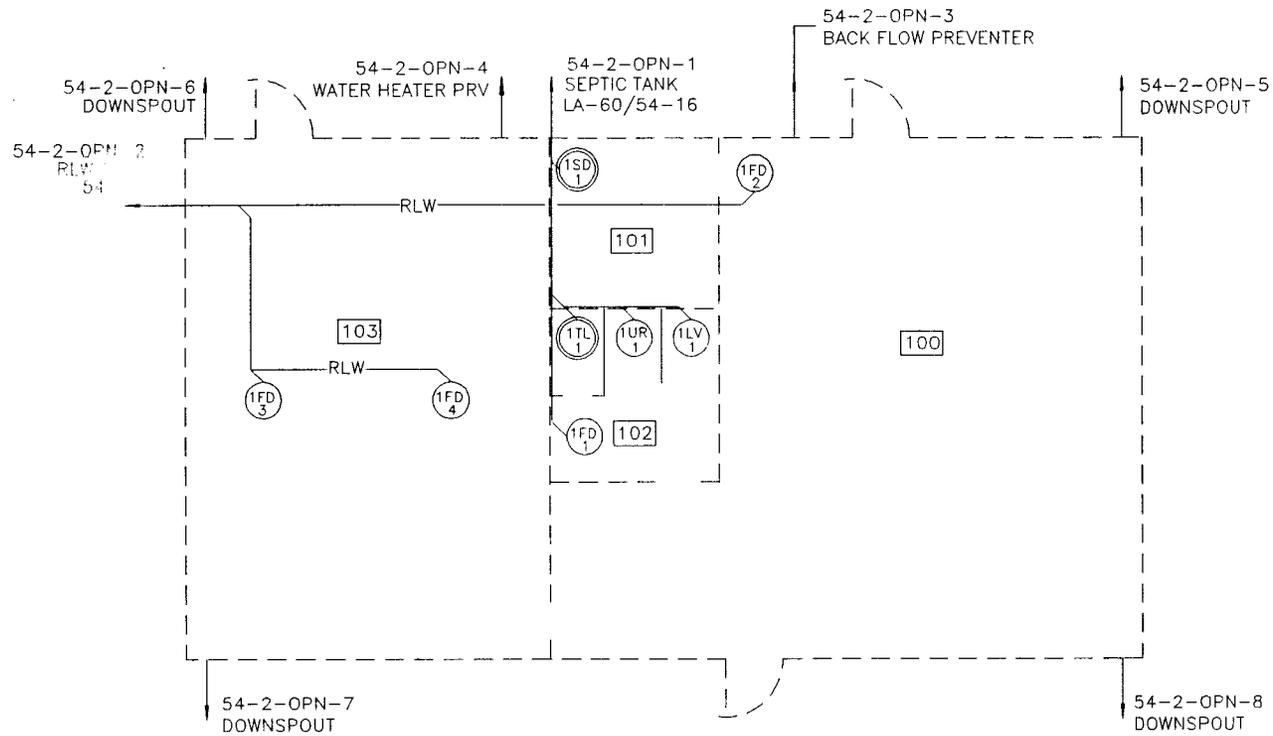


SYMBOL LEGEND	
PRV	PRESSURE RELIEF VALVE
E/C	EVAPORATE COOLER
LV	LAVATORY
TL	TOILET
WH	WATER HEATER

 DYE TESTED DRAIN

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
<h1>TA-54-1014 DRAIN SCHEMATIC</h1>		DRAWN	D.A.H.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		RELEASED	
		DATE	8/5/93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	SHEET OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	DOB NO.	DRAWING NO.	REV.
REQUESTING GROUP EM-8	056-77	FIGURE 27	

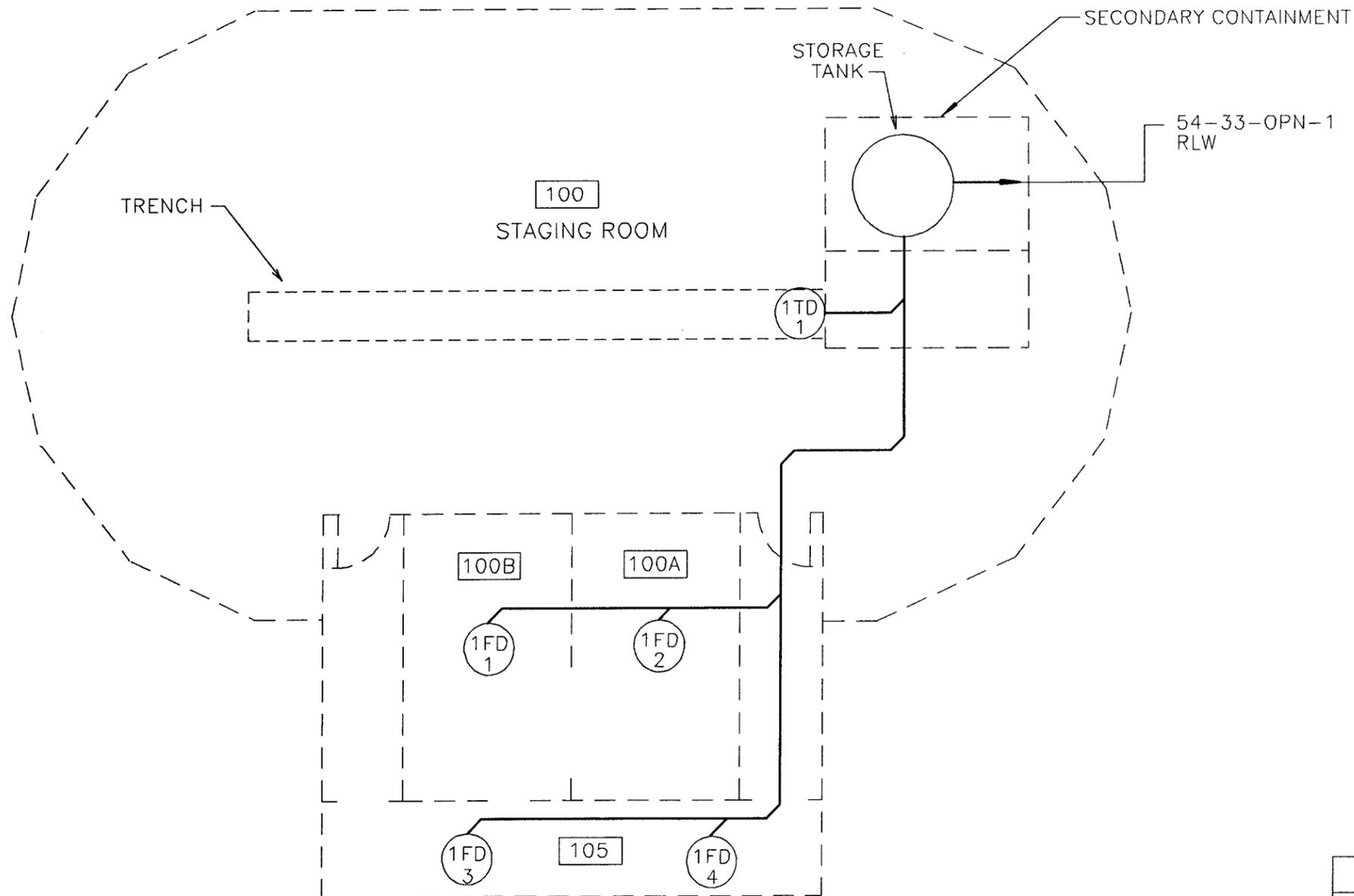


SYMBOL LEGEND	
FD	FLOOR DRAIN
SD	SINK DRAIN
TL	TOILET
LV	LAVATORY
UR	URINAL
PRV	PRESSURE RELIEF VALVE
RLW	RADIOACTIVE LIQUID WASTE

 DYE TESTED DRAIN

NOT TO SCALE

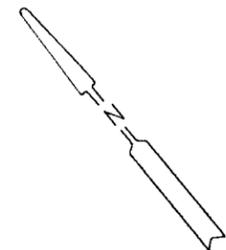
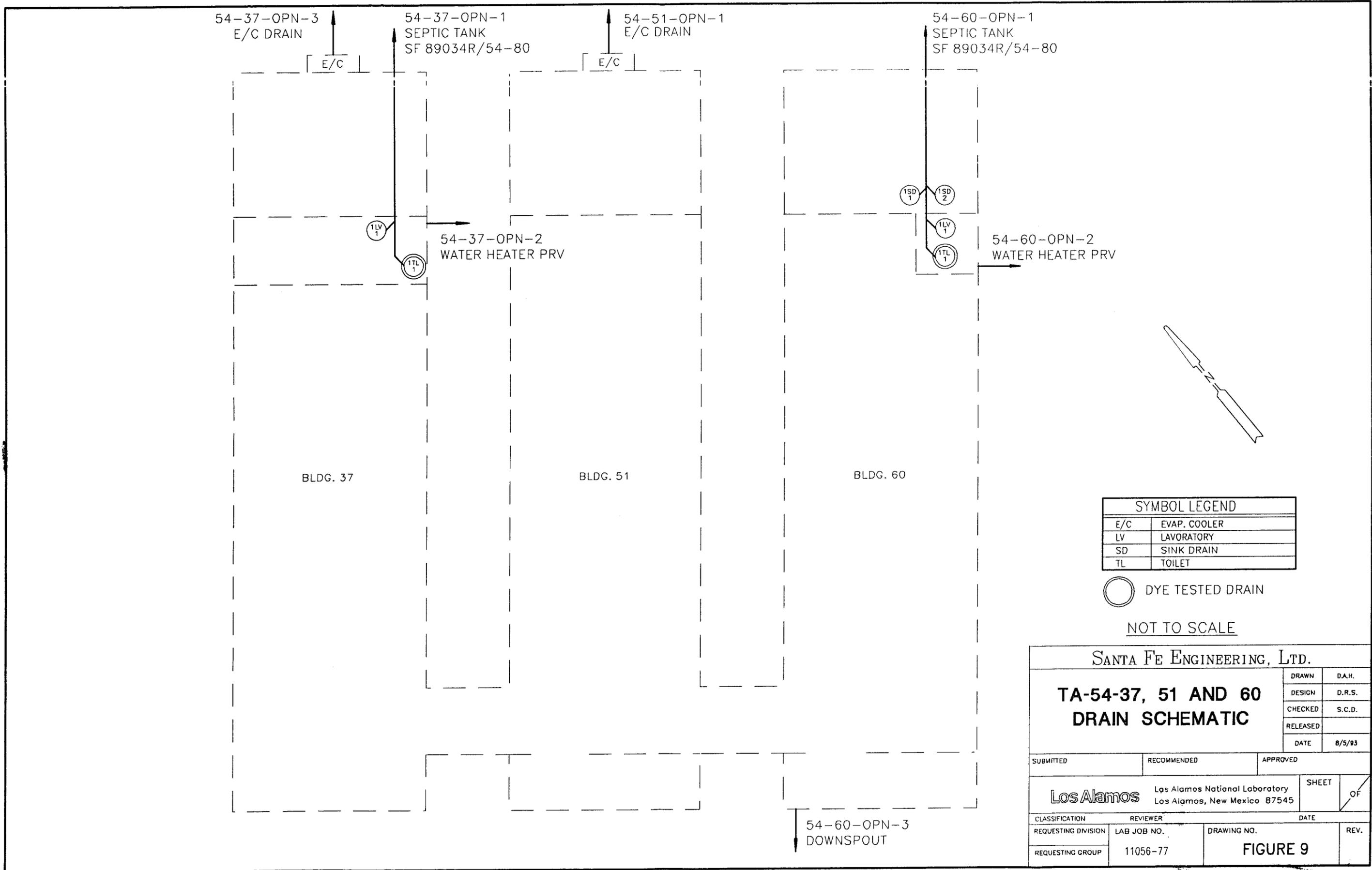
SANTA FE ENGINEERING, LTD.			
TA-54-2 DRAIN SCHEMATIC		DRAWN	G.S.
		DESIGN	L.R.S.
		CHECKED	S.C.D.
		DATE	7-6-93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET	OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-77	FIGURE 2	
EM-8			



SYMBOL LEGEND	
FD	FLOOR DRAIN
TD	TRENCH DRAIN
RLW	RADIOACTIVE LIQUID WASTE

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA-54-33 FLOOR PLAN DRAIN SCHEMATIC		DRAWN	G.S.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		DATE	8-30-93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET	OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-77	FIGURE 7	
EM-8			

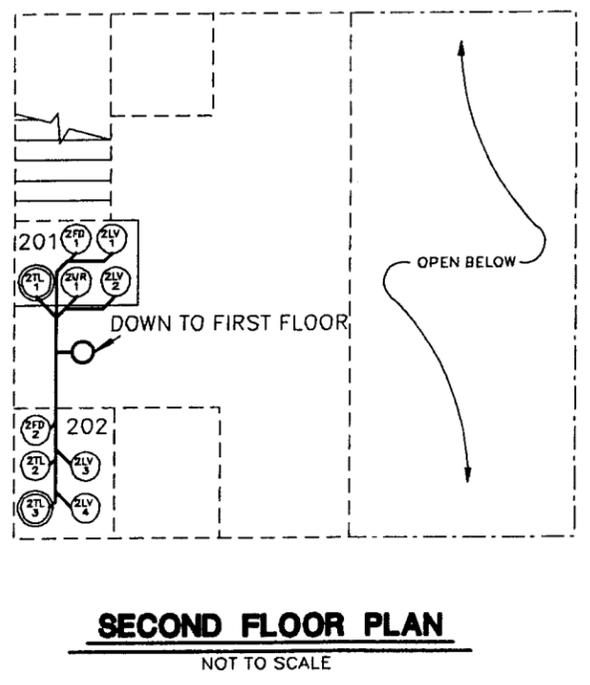
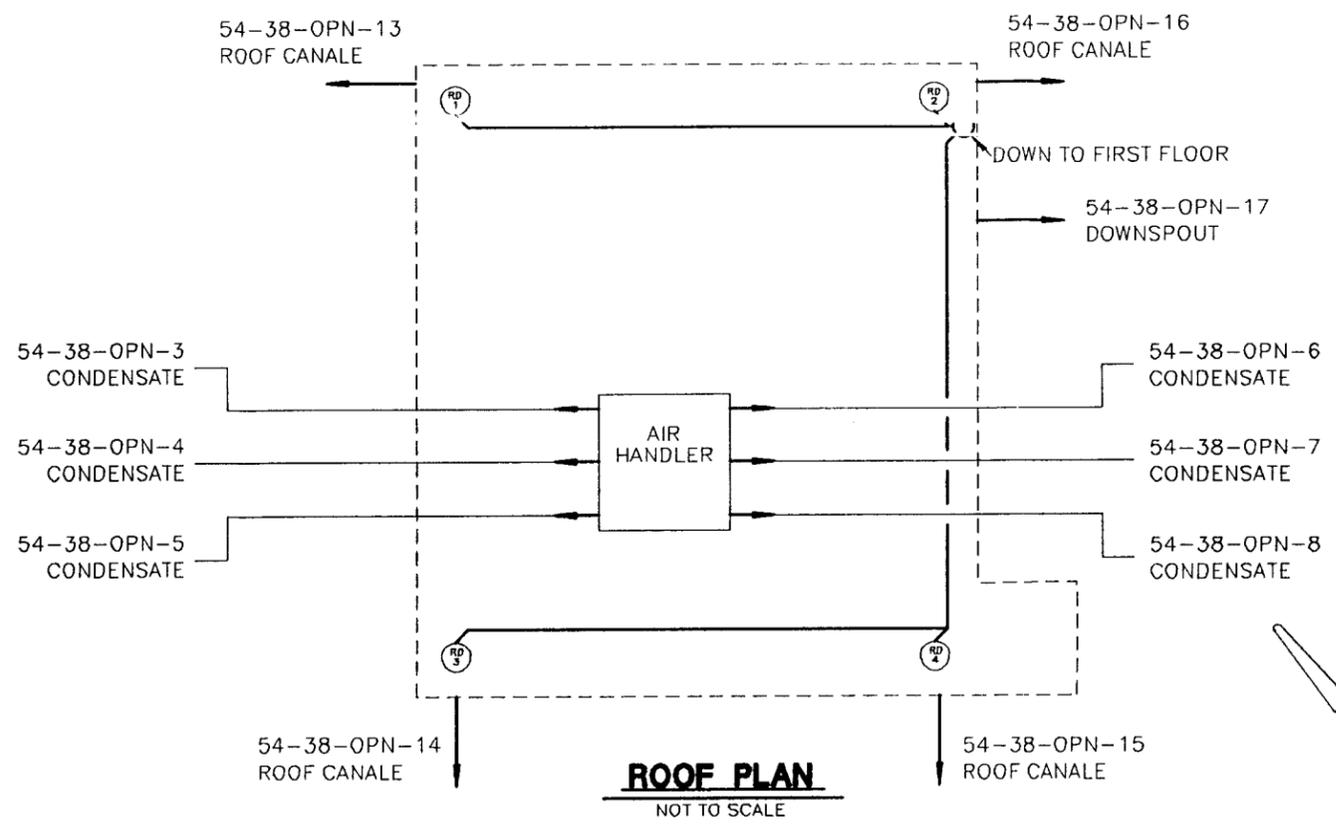
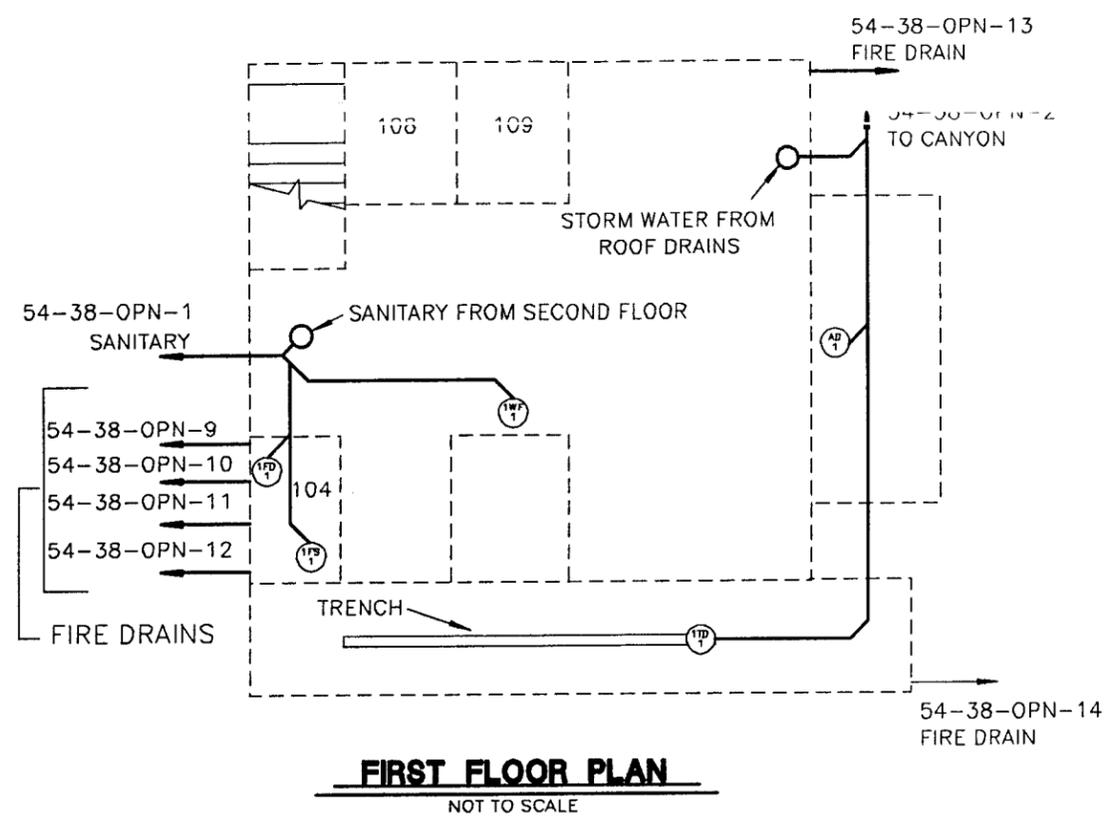


SYMBOL LEGEND	
E/C	EVAP. COOLER
LV	LAVORATORY
SD	SINK DRAIN
TL	TOILET

○ DYE TESTED DRAIN

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA-54-37, 51 AND 60 DRAIN SCHEMATIC		DRAWN	DA.H.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		RELEASED	
		DATE	8/5/93
SUBMITTED	RECOMMENDED	APPROVED	
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REQUESTING GROUP	11056-77	FIGURE 9	



SYMBOL LEGEND	
TD	TRENCH DRAIN
LV	LAVORATORY
FS	FLOOR SINK
TL	TOILET
UR	URINAL

○ DYE TESTED DRAIN

NOT TO SCALE

SANTA FE ENGINEERING, LTD.			
TA-54-38 DRAIN SCHEMATIC		DRAWN	D.A.H.
		DESIGN	D.R.S.
		CHECKED	S.C.D.
		RELEASED	
		DATE	8/5/93
SUBMITTED	RECOMMENDED	APPROVED	
Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545		SHEET	OF
CLASSIFICATION	REVIEWER	DATE	
REQUESTING DIVISION	LAB JOB NO.	DRAWING NO.	REV.
REQUESTING GROUP	11056-77	FIGURE 10	