Contact Person	Terry Herrman	**Revision**	14
Document	Plan 46300.001	**Effective Date**	4/1/2016
		Review Date	4/1/2019

Ames Laboratory Emergency Plan

The Ames Laboratory Emergency Plan describes the overall Emergency Management Program. It establishes and documents the roles and responsibilities for emergency planning, emergency preparedness and emergency response activities. It contains information of importance to all employees at the Laboratory who are expected to respond to emergency conditions.

All Emergency Team members and their alternates and support team members are expected to be familiar with its content.

Comments and questions regarding this procedure should be directed to:

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- **Approved by:** Chief Research Officer (Duane Johnson)
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- **Approved by:** Laboratory Director (Adam Schwartz)

The official approval record for this document is maintained in the Training and Documents Office, 105 TASF.

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1.0 REVISION/REVIEW INFORMATION

This document will be reviewed in its entirety every three years at a minimum and contact information will be updated annually or as needed.

2.0 INTRODUCTION

2.1 Purpose

The purpose of the Ames Laboratory Emergency Plan is:

- To establish and document how emergency management will be carried out in order to minimize the impact of unusual situations that might threaten, disrupt, or adversely influence effective operations, and to provide for the protection of personnel and physical assets during an emergency.
- To assign responsibilities and summarize actions necessary under emergency conditions.
- To comply with all applicable requirements of the Department of Energy (DOE) Order 151.1C Comprehensive Emergency Management System.

2.2 Scope

This plan encompasses the types of Operational Emergencies (not Energy or Continuity of Government) that may be encountered in day-to-day operations and those of national scope affecting the Laboratory. The Ames Laboratory hazards survey identified a wide range of emergencies and concluded based on past history as well as a threat analysis that natural phenomena (tornadoes, blizzards, and ice storms) and structural fires were the most likely types of emergencies to affect the Laboratory's operations. A thorough hazard assessment of the site concluded the hazard classification level is '**LOW**' (i.e., those which present minor on-site and negligible off-site impacts to people or the environment). The analysis found no releases that exceeded protective action guides or emergency response planning guidelines. Hazardous materials do not exceed threshold planning quantities. As a result, Ames Laboratory meets the criteria of a Base Program under DOE O151.1C and has developed its Emergency Management Program to meet the requirements for a Base Program.

Ames Laboratory is situated on the Iowa State University campus with a four-lane city street passing through its leased space. Therefore, any release of material is considered to be 'off site' when it is exhausted through a stack, enters a drain, or vents through a window. In spite of this limited site boundary, based on the hazards survey and the fact that hazardous materials are limited to laboratory scale quantities, the hazards survey has concluded the credible emergencies at this site will not reach the alert level. Spills of oil or hazardous materials may occur throughout the Laboratory; however, these incidents are considered primarily environmental and personnel safety concerns rather than emergency conditions. Therefore, emergency preparedness and planning at Ames Laboratory will be conducted as an Operational Emergency Base Program that will not reach an Alert Level Operational Emergency. One of the responsibilities of the Ames Laboratory Safety Review Committee (SRC) and the Environment Safety Health & Assurance (ESH&A) Office will be to ensure hazardous chemicals are kept at quantities that can be "easily and safely manipulated by one person" [see 29 CFR 1910.1450(b)].

The plan boundaries are the Ames Laboratory lease lines (see Section 2.4, Site Description). Planning for emergency operations will cover all Ames Laboratory facilities within the lease lines.

2.3 Concept of Operation

The concept of operation is shown in the Emergency Response Organizational Chart (see Section 3). This is temporary for emergencies only and supersedes normal organizational channels of supervision as shown on the Ames Laboratory Organizational Chart. Due to the low hazard level at Ames Laboratory, and the fact that off-site fire, medical, and police response are less than ten minutes away, Ames Laboratory's concept of operations relies heavily on off-site responders for fire, medical, and security response. The in-house Ames Laboratory emergency team is made up of individuals specializing in their areas of expertise, such as chemical hygiene, environmental specialist, plant protection, and industrial safety personnel, in order to leverage their normal duties and training in the event of an emergency. The emergency team responds to minor emergencies that don't require off-site assistance, and also provides assistance and expertise to off-site responders during emergencies that require off-site assistance. The Ames Laboratory Incident Commander provides direction and oversight of the emergency team for all in-house response. The Ames Laboratory Incident Commander acts as the liaison to the Incident Commander for off-site responders on emergencies that require off-site assistance. Off-site responders are notified directly, as per Memoranda of Understanding (MOUs) (see Section 4.7 and the Appendix), or through Iowa State University (ISU) Public Safety via Mutual Aid agreements.

The following are general relative priorities for utilization of available resources during emergency situations. Depending upon actual conditions and circumstances, supervisors and emergency team leaders are authorized to establish different local priorities for immediate action when, in their judgment, reordered priorities be in the best interest of all concerned.

1) Provide for personnel health and safety
    a. Care for injured personnel. Prevent further injuries.
    b. Control and protection of personnel.
2) Protection of critical and essential records or reports, excluding routine and administrative papers.
3) Protection of critical or major items of scientific equipment.
4) Protection of general equipment and critical supplies.
5) Protection of buildings, utilities, and other physical structures.
6) Protection of all other facilities, equipment and records; including grounds, routine files and records, routine supplies, personal items, minor equipment, etc.

This concept of operations is based upon Ames Laboratory's self-assessment and hazards survey. Since the hazards survey is the key to the emergency plan response level, the hazards survey will be reviewed and updated every three years.

2.4 Site Description

The Ames Laboratory is a government-owned, contractor-operated national laboratory of the United States Department of Energy's Office of Science (DOE-SC). Iowa State University (ISU) is the contractor and the Ames Laboratory is physically located on ISU's campus. The Ames Laboratory conducts no classified research; there is no classified information on the site, and no classified information will be received on-site.
Ames Laboratory operates in government-owned buildings that are located on approximately 10 acres of ISU land leased to the Federal Government on a long-term (99 year) basis. The Laboratory occupies approximately 340,968 gross square feet (gsf) in government-owned buildings. Over 70% of this space is contained in 3 major research-use buildings built between 1949 and 1960. An office-use building (less than 15% of total) was built in 1994 which consolidated most administrative and support functions into one location for improved efficiency and to allow space in other buildings to be redirected to research activities. The Sensitive Instrument Facility (SIF) was completed in 2016 and is used to operate high valued state-of-the-art equipment such as electron and scanning probe microscopes. The balance of the space is contained in several small auxiliary buildings constructed primarily during the 1960s. These buildings provide space for support functions such as storage, records handling and storage, material receiving areas, warehouse functions and shop facilities. The Laboratory is so closely integrated into the ISU campus that ISU provides and maintains the site-wide infrastructure (e.g. heating plant, chilling plant, roads, etc.). In addition to space in the federally-owned buildings, the Laboratory also utilizes space in ISU-owned buildings adjacent to the main site for research activities.

Ames Laboratory is approximately 30 miles north of Des Moines, Iowa's capital city. The site is relatively flat and is located well above the flood plain. The climate is typical Midwestern. Natural phenomena such as tornadoes, thunderstorms, and blizzards are the greatest hazard. A major rail line forms the northern boundary of the site; Interstate 35 and U.S. Highway 30 are both within a few miles. The City of Ames provides electricity. Other utilities, such as phones, domestic and chilled water, and steam are provided through the University physical plant. If the city has an extended electrical outage, the Laboratory can be switched over and supplied by the University. The Laboratory also has standby generators to maintain lighting and other essential functions.

The Laboratory's diverse research projects fall within several program areas. Typically, the research utilizes bench-top equipment and instrumentation and small quantities of chemicals or hazardous materials.

DOE O151.1C describes an Emergency Planning Zone (EPZ) as ***"the geographic area surrounding the site/facility for which special planning and preparedness actions are taken or need to be taken to reduce or minimize the impact to onsite personnel and public health and safety in the event of an Operational Emergency involving hazardous materials".*** Since the hazards survey indicates that credible emergencies at the Ames Laboratory are limited to the facilities themselves (i.e., no off-site impact to people or the environment) no formal emergency planning zones (EPZs) are required. However, the plan boundaries for planning purposes coincide with the lease lines (see the Appendix for the site plan). "On site," as used in this plan, refers to the area within these lease lines.

3.0 DEFINITIONS

The following definitions apply to the planning activities described in this document. (*This list of definitions was originally reproduced in part from DOE 5500.1B, Attachment 2.*)

Accident: A deviation from normal operations or activities associated with a hazard, which has the potential to result in an emergency.

Activity: A DOE supervised action within the DOE mandate.

Agency: Any organization that acts in the place of a government and by its authority (e.g., the Federal Emergency Management Agency is an agency of the Federal Government).

Alert: An emergency class within the Operational and Energy categories of emergency. Within the Operational Emergency category, an Alert represents events in progress or having occurred which involve an actual or potential substantial reduction for the level of facility safety and protection. Any environmental release of hazardous materials is expected to be limited to small fractions of the appropriate Protective Action Guideline (PAG) or Emergency Response Planning Guideline (ERPG) on site. During an Energy Emergency, an Alert represents an event, which has occurred or is in progress that is noteworthy; the potential impacts are not expected to be serious; and a negligible long-term supply impact is anticipated.

Appraise: The formal process by which external or oversight organizations evaluate the ability of an organization or facility to comply with DOE and other applicable regulations, orders, plans, and procedures.

Assess: The internal process by which an organization evaluates its ability to comply with DOE and other applicable regulations, orders, plans, and procedures conducted within a single, cognizant Program Office.

Category of Emergency: One of the three types of emergencies: Operational, Energy, and Continuity of Government (COG). The purpose of these groups is to further divide emergencies by the cause of the occurrence.

Condition: Any as-found state, whether or not resulting from an event, which may have adverse safety, health, quality assurance, security, operational, or environmental implications.

Consequence: The result or effect (especially projected doses or dose rates) of a release of radioactive or hazardous materials to the environment.

Consequence Assessment: The evaluation and interpretation of radiological or other hazardous materials measurements and other information to provide a basis for decision making.

Contractor: A non-Federal party to a DOE contract, engaging in activities or operations involving hazards which could potentially affect the health and safety of employees, the

public, or the quality of the environment.

Corrective Actions: Those measures taken to terminate or mitigate the consequence of an emergency at or near the source of the emergency.

DOE Field Element: DOE operations offices and, where applicable, DOE area offices subordinate to an operations office.

Drill: A supervised, hands-on instruction period intended to test, develop, and/or maintain a specific emergency response capability. A drill is often a component of an exercise.

Emergency: An emergency is the most serious event and consists of any unwanted operational, civil, natural-phenomenon, or security occurrence, which could endanger or adversely affect people, property, or the environment.

Emergency Class: A subset under the categories of emergency (Operational, Energy, Continuity of Government). The class further differentiates an emergency by the degree of severity, depending on the actual or potential consequence of the emergency situation. For the Operational and Energy Emergency subcategories, the classes are Alert, Site Area Emergency, and General Emergency. For the Continuity of Government (COG) subcategory, the three classes are Crisis Monitoring, Emergency Response, and Recover and Reconstitution.

Emergency Management: The development, coordination, and direction of planning, preparedness, and readiness assurance activities.

Emergency Operations Center (EOC): A central facility from which management and support personnel carry out coordinated emergency response activities. The emergency operations center may be a dedicated facility or office, conference room, or other predesignated location having appropriate communications and informational materials to carry out the assigned emergency response mission and located, where possible, in a secure and protected location.

Emergency Operations Facility (EOF): A center established to coordinate the flow of technical information from the on-site Emergency Response Organization. It is typically in the EOF that accident assessment activities are coordinated among federal, state, local, and other participating personnel.

Emergency Plan: A brief, clear, and concise description of the overall emergency organization, designation of responsibilities, and procedures, including notifications, involved in coping with any or all aspects of a potential credible emergency.

Emergency Planning: The development and preparation of emergency plans and procedures and the identification of necessary personnel and resources to provide an effective response.

Emergency Planning Zone (EPZ): A geographic area surrounding a specific DOE facility for which special planning and preparedness efforts are carried out to ensure that prompt and effective protective actions can be taken to reduce or minimize the impact to on-site personnel, public health and safety, and the environment in the event of an Operational Emergency.

Emergency Preparedness: The training of personnel, acquisition, and maintenance of resources and exercising of the plans, procedures, personnel, and resources essential for emergency response.

Emergency Readiness Assurance Plan (ERAP): A plan to ensure that emergency plans, implementing procedures, and resources are adequate and sufficiently exercised and evaluated.

Emergency Response: The implementation of planning and preparedness during an emergency involving the effective decisions, actions, and application of resources that must be accomplished to mitigate consequences and recover from an emergency.

Emergency Response Organization (ERO): The designated group(s) of personnel responsible for coping with and minimizing or mitigating the effects of any emergency.

Emergency Response Planning Guidelines (ERPGs): A hazardous material personnel exposure level or range which, when exceeded by a short term or acute exposure, will cause irreversible or other serious health effects in humans. The ERPGs are approved by a committee of the American Industrial Hygiene Association, and are presented in the American Industrial Hygiene Association's Emergency Response Planning Guidelines Series by AIHA Emergency Response Planning Committee, published by the American Industrial Hygiene Association, Akron, Ohio, 1988 - present.

Energy Emergency: A category of emergencies involving a condition or a potential condition affecting the supply of energy or the energy infrastructure with significant potential impact on the national economy or security, defense preparedness, and/or health and safety.

Event: Any real-time occurrence or significant deviation from planned or expected behavior that could endanger or adversely affect people, property, or the environment.

Exercise: A scheduled and planned large-scale activity that tests the integrated capability and most aspects of the emergency management program associated with a particular DOE facility.

Facility: Any equipment, structure, system, process, or activity that fulfills a specific purpose. Examples include storage areas, research laboratories, administrative and service/support facilities.

Full Participation Exercise: An exercise for a particular DOE- or contractor-operated facility which demonstrates the integrated response capability of the facility emergency response organization, the DOE Program Office elements (both HQ and Field Element)

with responsibilities for emergency response, along with those regional federal, state, tribal, and local government agencies and private support organizations which elect to participate.

General Emergency: One of the classes of emergencies in the Operational and Energy Emergency categories. Within the category of Operational Emergency, a General Emergency represents events which are in progress or have occurred that involve actual or imminent catastrophic failure of facility safety systems with potential for loss of confinement integrity, catastrophic degradation of facility protection systems, or catastrophic failure in safety or protection systems threatening the integrity of a weapon or test devise which could lead to substantial off-site impacts. Any environmental release of hazardous materials can reasonably be expected to exceed the appropriate PAG or ERPG exposure levels off site. Within the category of Energy Emergency, a General Emergency is an event, which has occurred that has major energy supply impacts. Examples of such events are a major electrical energy system outage affecting consumers in more than two states or an earthquake affecting the United States or a U.S. territory that measures over 7.1 on the Richter scale.

Hazard: A process, condition, or asset which has the potential to adversely impact the health and safety of personnel, the public, the environment, or national security. Hazards are divided into three classes:

- **Low:** Hazards, which present minor on-site and negligible off-site impacts to people, the environment, or national security.
- **Moderate:** Hazards, which represent considerable potential on-site impacts to the people or the environment, but, at most, only minor off-site impacts to people, the environment, or national security.
- **High:** Hazards with the potential for on-site and off-site impacts to large numbers of persons or with the potential for major impacts to the environment or national security.

Hazardous Materials: A hazardous material is any item or agent (biological, chemical, physical) which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors. Hazardous materials are defined and regulated in the United States primarily by laws and regulations administered by the U.S. Environmental Protection Agency (EPA), the U.S. Occupational Safety and Health Administration (OSHA), the U.S. Department of Transportation (DOT), and the U.S. Nuclear Regulatory Commission (NRC). Each has its own definition of a "hazardous material."

OSHA's definition includes any substance or chemical that is a "health hazard" or "physical hazard," including: chemicals that are carcinogens, toxic agents, irritants, corrosives, sensitizers; agents which act on the hematopoietic system; agents that damage the lungs, skin, eyes, or mucous membranes; chemicals that are combustible, explosive, flammable, oxidizers, pyrophorics, unstable-reactive or water-reactive; and chemicals which in the course of normal handling, use, or storage may produce or release dusts, gases, fumes, vapors, mists or smoke which may have any of the previously mentioned characteristics. (Full definitions can be found at 29 Code of Federal Regulations (CFR) 1910.1200.)

Incident: Any deviation from normal operations or activities that has the potential to

result in an emergency. An incident usually refers to a malevolent act.

Joint Information Center (JIC): A centralized facility where organizations responding to an emergency coordinate the release of accurate and timely information to the public and the media and provide a central source for all instructions. A JIC is operated cooperatively by all responding levels of federal, state, tribal, and local governments and organizations and the involved facility.

Off Normal Occurrence: An abnormal or unplanned event or condition, as described in DOE O232.2 Admin Chg 1, that adversely affects, potentially affects, or is indicative of degradation in the safety, security, environmental or health protection performance, or operations of a facility.

Offsite: The area beyond the boundaries (lease lines) of the site. For the main campus site, this means that anything that goes out a window or up the stack is offsite.

Onsite: The facility/site area over which the Lead Federal Agency has access control authority. The on-site area includes any area within the lease lines.

Operation: A DOE process aimed at a specific result or product within the DOE mandate.

Operational Emergency: One of the three categories of emergencies. Operational Emergencies are significant accidents, incidents, events, or natural phenomena, which seriously degrade the safety or security of DOE facilities. Operational Emergencies apply to DOE reactors and other DOE facilities (nuclear and non-nuclear) involved with hazardous materials; DOE- controlled nuclear weapons, components, or test devices; DOE safeguards and security events; and transportation accidents involving hazardous material.

Protective Action: Physical measures, such as evacuation or sheltering, taken to prevent potential health hazards resulting from a release of hazardous materials to the environment from adversely affecting employees or the off-site population.

Radiological Assistance Program (RAP): A DOE program which provides for radiological assistance to Federal, state, tribal and major Nuclear Regulatory Commission licensees in the event of an incident involving radioactive materials.

Recovery: Actions taken after a plant has been brought to a stable or shutdown condition to return the plant to normal operation.

Re-Entry: The temporary, short-term readmission of persons in to a restricted zone to perform some essential task.

Reportable Occurrence: Events or conditions to be reported in accordance with the criteria defined in DOE O232.2 Admin Chg 1. Emergencies, Unusual Occurrences, and Off-Normal Occurrences are Reportable Occurrences.

Safety Analysis: A documented process to systematically identify the hazards of a DOE operation; to describe and analyze the adequacy of the measures taken to eliminate, control, or mitigate identified hazards; and to analyze and evaluate potential accidents and their associated risks.

Site: The area over which DOE has access control authority. This includes any area that has been designated as a National Security Area.

Site Area Emergency: One of the classes of Emergency in the Operational and Energy categories. Within the context of an Operational Emergency, a Site Area Emergency represents events which are in progress or have occurred involving actual or likely major failure(s) of facility safety or safeguards systems needed for the protection of on-site personnel, the public health and safety, the environment, or national security. Any environmental releases of hazardous materials are not expected to exceed the appropriate PAG or ERPG exposure levels off site. Within the Energy Emergency category, a Site Area Emergency represents an event in which a substantial supply impact is anticipated.

Technical Support Center (TSC): The technical support center is a center for technical evaluation of the environment, safety, and health implications of an emergency. The center also recommends protective or mitigative measures to the emergency operations center.

Unusual Occurrence: An unusual or unplanned event, as defined by DOE O232.2 Admin Chg 1, having programmatic significance such that it adversely affects, or potentially affects, the performance, schedule, reliability, security, or safety of a facility.

4.0 ACRONYMS

The following acronyms apply to the planning activities described in this document and elsewhere in DOE O151.1C and related Orders and Guides.

AD-1 Director of the Office of Administration and Human Resource Management
AEOC Alternate Emergency Operations Center
ARG Accident Response Group

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
CFR Code of Federal Regulations
COG Continuity of Government

DBA Design Basis Accident
DEO Director of Emergency Operations
DOE U.S. Department of Energy

EA Environmental Assessment
EAL Emergency Action Level
EH-1 Assistant Secretary for Environment, Safety, and Health

EIA Energy Information Administration
EIS Environmental Impact Statement
EM Office of Environmental Restoration and Waste Management

EM-1 Director of the Office of Environmental Restoration and Waste Management

EMAC Emergency Management Advisory Committee
EMG Emergency Management Guide
EMS Emergency Management System
EMT Emergency Management Team
EOC Emergency Operations Center
EOF Emergency Operations Facility
EPA U.S. Environmental Protection Agency
EPCRA Emergency Planning and Community Right-to-Know Act
EPZ Emergency Planning Zone
ERAP Emergency Readiness Assurance Plan
ERO Emergency Response Organization
ERPG Emergency Response Planning Guideline

FEMA Federal Emergency Management Agency
FR Federal Register
FRERP Federal Radiological Emergency Response Plan
FRMAC Federal Radiological Monitoring and Assessment Center
FRMAP Federal Radiological Monitoring and Assessment Plan
FRPCC Federal Radiological Preparedness Coordinating Committee

GC-1 General Counsel

HQ Headquarters

IE-1 Assistant Secretary for International Affairs and Energy Emergencies
IE-20 Deputy Assistant Secretary for Energy Emergencies

JIC Joint Information Center
JNACC Joint Nuclear Accident Coordination Center

LFA Lead Federal Agency
LOA Letter of Agreement

MOA Memoranda of Agreement
MOU Memoranda of Understanding

NCA National Command Authority
NCP National Contingency Plan

NEMT National Emergency Management Team

NM Nuclear Materials
NRC U.S. Nuclear Regulatory Commission
NRT National Response Team
NS-1 Director of the Office of Nuclear Safety

OCC Off-site Communications Center

OE-1 Office of Emergency Planning and Operations
OE-10 Office of Emergency Preparedness and Response
OEMT Operational Emergency Management Team
OPR Office of Primary Responsibility

PA-1 Director of the Office of Public Affairs
PAG Protective Action Guide
PE-1 Director of the Office of Policy, Planning and Analysis
P.L. Public Law
PM Program Manager

PSO Program Secretarial Officer

RAP Radiological Assistance Program
RAT Radiological Assistance Team
RCRA Resource Conservation and Recovery Act
REAC/TS Radiological Emergency Assistance Center/Training Site
REMT Regional Emergency Management Team

SC Office of Science (Department of Energy)
SEN Secretary of Energy Notice

TRADE Training Resources and Data Exchange

TSC Technical Support Center
TSDF Treatment, Storage and Disposal Facilities
TSS Transportation Safeguards System

USC United States Code

5.0 EMERGENCY RESPONSE ORGANIZATION

5.1 Organization Structure

The mission and responsibilities of the emergency response organization are to provide an organizational structure with the authority to take action in the event of an emergency, to provide maximum protection and safety for personnel and physical assets during emergency conditions, and to provide for the smooth transition back to normal operations. The emergency organizational structure is very similar to the non-emergency structure in that every effort is made to ensure emergency team assignments take maximum advantage of an employee's non-emergency duties and training. Likewise, the lines of authority for the emergency organization are very similar to the lines of authority for the non-emergency organization (see Organizational Chart).

Policy responsibility and succession of command.

1. Director
2. Deputy Director
3. Chief Operations Officer
4. Chief Research Officer

The Emergency Coordinator is the individual designated by the Director to oversee and coordinate the Emergency Management Program. The Incident Commander directs emergency response efforts of the Ames Laboratory during an emergency event. The following groups will be organized to assist in the emergency response:

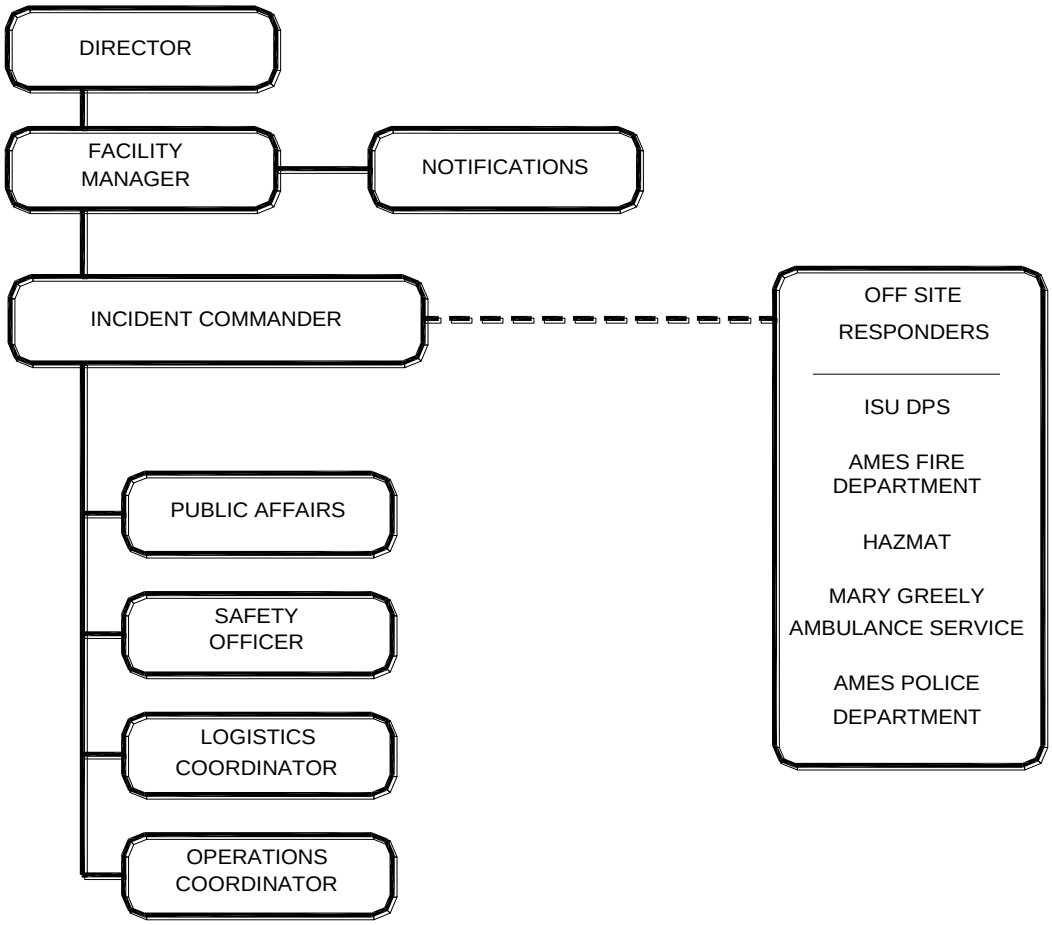
- Operations
- Safety
- Logistics
- Public Affairs

The Ames Fire Department, ISU Department of Public Safety, Ames Police Department, and Mary Greeley Medical Service (as required) will provide Off-site response.

The following policy applies during emergency situations:
NOTE: Emergencies are designated by the Director, Facility Manager, Incident Commander, or their alternates. When an emergency has been declared, the following provisions apply:

1. The Plant Protection Section Officer on Post 1 duty will temporarily coordinate necessary actions and secure the early presence of the Incident Commander.
2. Appointed area alternates will act in succession until leaders are present.
3. For all other assigned positions, the alternate in succession will assume charge. The Incident Commander may make temporary assignment of any qualified individual to initiate necessary immediate action. The type and scope of emergency event will determine size and scope of the emergency response organization involved.
4. If the emergency warrants, the Director, Facility Manager, Incident Commander or their alternates will activate the Emergency Operations Center (EOC). (Emergency Plan Implementation Procedure) ***NOTE:*** The primary EOC is located in G40 TASF. If this EOC is not operational, the alternate EOC located in the 158 Metals Development Building will be activated, and emergency team members will be notified via radios, public address system, and/or phone.

Ames Laboratory
Emergency Response Organization



5.2 Emergency Direction and Control

Ames Laboratory Emergency Team Assignments and Chain of Command

LAB DIRECTOR CHAIN OF COMMAND

Director	**Laboratory Director**
First Alternate	Deputy Director
Second Alternate	Chief Operations Officer
Third Alternate	Chief Research Officer

EMERGENCY TEAM ASSIGNMENTS

Facility Manager	**Chief Operations Officer**
First Alternate	Facilities & Engineering Services (FES) Manager
Second Alternate	Environment, Safety, Health & Assurance (ESH&A) Manager
Incident Commander	**FES Assistant Manager**
First Alternate	FES Plant Engineer
Second Alternate	ESH&A Manager
Third Alternate	FES Manager
Operations Coordinator	**FES Plant Engineer**
First Alternate	FES Maintenance Shops Manager
Second Alternate	FES Engineering Technician
Safety/Planning Officer	**ESH&A Industrial Safety Specialist**
First Alternate	ESH&A Fire Safety Officer
Second Alternate	ESH&A Health Physics Technician
Third Alternate	ESH&A Industrial Hygienist
Logistics Coordinator	**ESH&A Radiation Safety Officer**
First Alternate	FES Engineering Technician
Second Alternate	FES Engineer
Public Affairs	**Public Affairs Manager**
First Alternate	Communications Specialist
Second Alternate	Communications Specialist

The following functions are performed by the sub-organizations or individuals noted:

• Event categorization	Event Categorization Team
• Notification	Facility Manager
• Administrative support	Facility Manager
• Management and decision making	Incident Commander
• Control of on-site emergency activities	Incident Commander
• Activate on-site response	Incident Commander
• Coordinate on-site response	Incident Commander
• Activate off-site response	Incident Commander
• Coordination with off-site responders	Incident Commander
• Protective action recommendations	Incident Commander/Safety Officer
• Consequence assessment	Safety Officer
• Protective actions	Safety Officer
• Communications	Logistics Coordinator
• Public Information	Public Affairs Team Leader
• Safeguards and security	Plant Protection
• Medical support	Off-site Responders

5.3 Emergency Management Operations

5.3.1 Ames Laboratory Director

The Ames Laboratory Director is responsible for assigning personnel to the emergency team and pre-authorizing their actions to mitigate or respond to an emergency. In the event of an emergency, the Director has delegated decision-making authority, as well as coordination and control responsibility, to the Facility Manager and the Incident Commander. The Director has also given "standing approval" to evacuate a building in the event of a bomb-threat. ***NOTE:*** The Director must approve any decision not to evacuate for a bomb-threat, as well as approving re-entry into an area that has been evacuated and suffered substantial damage from an explosion, fire, or weather-related event. (The Incident Commander can authorize re-entry into an area that was evacuated as a precautionary measure if no substantial damage has occurred.) In the event of a fatality or life threatening injury, the Director must approve the use of names in the public release of information after off-site officials have released the information. If evacuations are long term, the Director will approve closure of a building or the Lab and sending people home.

5.3.2 Facility Manager

The Facility Manager is responsible for all off-site notifications (see Section 6, Event Reporting Program). Event categorization and emergency classification will be determined by the Event Categorization Team or the Incident Commander with input from the emergency team in time-critical situations. The Facility Manager must also approve all information that is released by the Public Affairs team. The Facility Manager is in command of the EOC whenever the Incident Commander is not present.

5.3.3 Emergency Coordinator

The Emergency Coordinator is responsible for coordinating the overall Emergency Management Program of the Ames Laboratory. This includes planning, preparedness

and emergency response. The Emergency Coordinator is responsible for the Ames Laboratory Emergency Plan, Emergency Readiness and Assurance Plans (ERAP), and drills and exercises. The Emergency Coordinator is also a member of the Story County Local Emergency Planning Committee (LEPC).

5.3.4 Incident Commander

The Incident Commander has been authorized by the Director to have decision-making authority, as well as coordination and control responsibility in the event of an emergency. The Incident Commander directs and commands all Ames Laboratory emergency response, and coordinates and assists the emergency response of all off-site responders (ISU Department of Public Safety, Ames Fire and Police Department, Mary Greeley Ambulance). In addition to being responsible for the emergency response (i.e., protecting personnel health and safety, critical records and equipment, and the building and physical plant), the Incident Commander is also responsible for keeping the Facility Manager fully informed and appraised of the situation so that the Facility Manager can make the appropriate off-site notifications. The Incident Commander is responsible for declaring an emergency, activating the EOC (Emergency Plan Implementation Procedure), emergency response, and emergency termination. If an incident's complexity changes or a more qualified person is available (or legally required) to assume command, then command will be transferred according to Incident Command System guidelines. The Ames Laboratory Incident Commander retains the responsibility of directing and assisting with the coordination of any and all Ames Laboratory efforts.

5.3.5 Operations Coordinator

The Operations Coordinator has in-line responsibility for coordinating and supporting the on-scene emergency response activities. Tasks may include the following:

- Scene control and security.
- Oversee and verify evacuations.
- Provide facility infrastructure information and control; e.g., shut down electrical power or adjust ventilation.
- Mobilize, coordinate and provide emergency response with in-house resources.
- Assist in emergency communications.
- Coordinate personnel accountability.
- Support off-site responders, directing them to the scene, providing facility specific information, mobilizing in-house resources, and giving assistance.
- Keep Incident Commander and EOC updated on status of the scene.
- Secure areas, systems, and contents for recovery and follow-up investigation.
- Request additional outside assistance as needed; e.g., request structural engineer to assess a structure.
- Provide assistance for return to normal operations.

To accomplish this function, the Operations Coordinator will make extensive use of the Plant Protection Section and Facilities & Engineering Services group and the resources that are available to those departments as part of their normal functions.

5.3.6 Safety Officer

As the individual in charge of the Incident Command System, the Incident Commander will designate a Safety Officer who is knowledgeable in the operations being implemented at the emergency response site, with specific responsibility to identify and evaluate hazards and to provide direction with respect to the safety of operations for the emergency at hand. The Safety Officer is responsible for ensuring the safety of the entire Ames Laboratory Emergency Team and coordinating safety information with the off-site responders. The Incident Commander will evaluate information provided by the Safety Officer prior to making a decision to enter a potentially hazardous environment. If emergency response activities are judged to be immediately dangerous to life and health, the Safety Officer shall have the authority to suspend those activities immediately. The Safety Officer shall then immediately inform the Incident Commander of the situation. The Ames Laboratory Safety Officer will work with the Safety Officer of off-site personnel to provide as much information as possible regarding site hazards and conditions but will not assume responsibility for decisions and actions of off-site responders.

5.3.7 Logistics Coordinator

The Logistics Coordinator/Team is responsible for providing adequate communications for all emergencies, maintaining a current status board, and logging events and activities in order to document the incident. Logistics is also responsible for assisting the Facility Manager making the off-site notifications (including ISU, Story County, and DOE) using preformatted messages whenever possible. Tasks include:

- Notifying the emergency team members of an event, mobilizing the in-house response.
- Communicating requests for assistance to off-site emergency responders.
- Providing adequate communications for all participants in emergencies.
- Notify occupants of emergency actions; e.g., evacuation or relocations.
- Maintain a log of the event and key activities commensurate with the severity and complexity of the event.
- Maintain information on the current status of the event.
- Provide information and updates on the event and status to the emergency team.
- Control and/or restrict use of communication channels to ensure priority emergency communications.
- Acquire information from other sources to assist the emergency team when possible.
- Provide information on hazard inventory, personnel lists, safety coordinators, and room occupants to on-scene response personnel.
- Maintain incident documentation for use in recovery, follow-up and response evaluation.

To accomplish these tasks, the Logistics Coordinator will utilize the Plant Protection Section, Logistics Coordinator alternates, and other ESH&A and Facilities & Engineering (FES) staff as needed.

5.3.8 Public Affairs

The Public Affairs team is responsible for the proper dissemination of information regarding the event, including press releases and contact with personnel in the Public Affairs and Intergovernmental Relations office at the Integrated Support Center, Office of Science (SC)-Chicago Service Center. Prior approval of the Facility Manager is required for all press releases. If there are fatalities or life threatening injuries, off-site officials will have responsibility for notification of families and release of names. Subsequently, the Director must approve the use of names in any public release of information.

5.3.9 In-house Technical Support Resources

Additional in-house resources are utilized by the emergency team to provide technical assistance depending on the nature of the incident.

- The spill response team will provide assistance in characterizing, containing, and cleaning up spills that do not require full response in accordance with the Waste Management Contingency Plan.
- The Industrial Hygienist from ESH&A will provide assistance regarding biohazards and chemical exposure. Backup support is available from ISU Environment Health & Safety (EH&S).
- The Radiation Safety Officer and Health Physics technicians will assist with radiation incidents by providing surveying, characterization, containment and decontamination support.
- The Computer Protection Program Manager, Information Systems Manager and staff will provide assistance with computer security, data and system protection, and recovery operation.
- The Manager of Safeguards and Security and the Plant Protection Section personnel will assist with security issues including assessing security risks and evaluating and recommending security condition responses.
- Personnel from the Occupational Medicine Department may be utilized to support the emergency response activities, provide on-site care for injured personnel, utilize in-house resources to assist off-site responders, and provide input to the emergency team.
- The Manager of Materials and Transportation is a resource for transportation related events, either in-house or commercial carrier. The spill response team will provide additional support regarding spills.

6.0 OFF-SITE RESPONSE INTERFACES

6.1 Overview

Ames Laboratory does not have the resources or the need to establish their own fire and police departments. The headquarters for ISU's Department of Public Safety is one block away from the Ames Laboratory campus buildings, and the response time from the Ames Fire Department, Mary Greeley Ambulance, and Ames Police Department are all ten minutes or less. Ames Laboratory has benefited from an excellent relationship with these off-site response agencies (see Section 4.7, Memoranda of Understanding, and the Appendix). Ames Laboratory relies on off-site responders for medical emergencies through Mary Greeley Medical Center Paramedic Service. In the event of a fatality or life threatening injury, Ames Laboratory will assist off-site officials to contact family, but will

not assume responsibility for it. Ames Laboratory relies on off-site responders for fire, hazardous material incidents, and confined space rescues through the Ames Fire Department. Ames Laboratory relies on off-site responders for security incidents through the ISU Department of Public Safety and Ames Police Department. Ames Laboratory has a Memorandum of Understanding with the Ames Fire Department, ISU Department of Public Safety and Mary Greeley Medical Center. Mutual Aid agreements of these organizations provide a relationship with the Ames Police Department, Story County Sheriff's Department, Story County Emergency Management Agency, and the State of Iowa Emergency Management Agency. The Ames Site Office of the Department of Energy will also provide assistance in the event of an emergency.

6.1.1 Initiation of Emergency Response

1) All emergencies (i.e., requests for off-site emergency services), except spills, are reported by dialing 911, from a campus phone or mobile phone. ISU DPS dispatch answers the 911 calls from campus phones. Chemical spills should continue to be reported by notifying the Plant Protection Section (PPS) guard desk (4-5511 or 4-3483).
2) ISU DPS Dispatch will activate off-site responders and notify Ames Lab PPS of the emergency call.
3) The Plant Protection Section notifies the Ames Laboratory Incident Commander and on-site responders.

6.2 Other Federal Agencies

Ames Laboratory considers the Federal Emergency Management Agency (FEMA), the U.S. Department of Transportation (DOT) and the Environmental Protection Agency (EPA) as resources for emergency planning and Ames Lab will engage these Federal agencies if and when appropriate or necessary.

6.3 State Government

There are no state emergency plans that impact Ames Laboratory. We do have access to the State Emergency Management Agency through Mutual Aid agreements with the Story County Emergency Management Agency.

6.4 Local Organizations

There are no memoranda of agreements or understanding with other local organizations. However, through the Emergency Coordinator's membership on the Local Emergency Planning Committee (LEPC), informal "good neighbor policy" agreements to share resources and training with local organizations have been established.

6.5 Tribal Organizations

There are no memoranda of agreements or understanding with tribal organizations, of which there are none within our county, nor do any tribal organizations have a role in our emergency response.

6.6 Private Organizations

There are no memoranda of agreements or understanding with private organizations, nor do any private organizations have a role in our emergency response.

6.7 Memoranda of Understanding

The Ames Laboratory Memoranda of Understanding (MOU) agreements are listed in the Appendix. Points of contact are listed in the off-site notification list. The MOU are issued by the Emergency Coordinator on behalf of Ames Laboratory for the services specified in the agreement. The service is initiated via a phone call per the procedure in Section 4.1 above. The MOU are in effect on the date issued until canceled in writing by either party; however the MOU will be reviewed and updated as required on a three-year basis with the plan.

7.0 OPERATIONAL EMERGENCY EVENT CLASS

7.1 Definitions

DOE has three types of emergencies: 1) operational 2) energy and 3) Continuity of Government (COG). Operational emergencies are the only ones that will apply to the Ames Laboratory site. Operational emergencies are major unplanned or abnormal events or conditions that: involve or affect DOE/NNSA facilities and activities by causing or having the potential to cause serious health safety or environmental impacts; require resources from outside the immediate/affected area or local event scene to supplement the initial response; and, require time-urgent notifications to initiate response activities at locations beyond the event scene. Such emergencies represent, cause, or have the potential to cause the events or conditions described below.

Incidents that can be controlled by employees or maintenance personnel in the immediate/affected facility or area are not operational emergencies. Incidents that do not pose a significant hazard to safety, health, and/or the environment and that do not require a time-urgent response are not operational emergencies. Less severe events are reported through the process described in DOE O 231.1B Chg 1, *Environment, Safety, and Health Reporting,* dated 11-28-2012.

7.1.1 Operational Emergency (No hazardous material release)

Operational emergencies are significant accidents, incidents, events, or natural phenomena not involving hazardous material release, which have, or potentially can, seriously degrade the safety or security of DOE facilities. Events in this category include fires/explosions that cause structural damage, natural phenomenon that cause structural damage, terrorist/malevolent attacks, or mass casualty events.

7.2 Criteria for Emergencies

The general criteria for emergency declaration are listed in Section 5.1. Based on the hazards and the credible scenarios, specific criteria for declaring an emergency are listed below.

7.2.1 Operational Emergency not requiring further classification:

- A fire/explosion that causes structural damage to a facility.
- A weather related incident that causes structural damages (e.g., tornado).
- A criminal action involving terrorist activity or mass casualties.

7.2.2 Operational Emergency requiring further classification:

Any hazardous material spill/release that mobilizes the Hazardous Material Response Team. ***Note:*** An event, which would mobilize the hazmat team, would not necessarily meet the criteria for an ALERT level emergency declaration (as defined by DOE O 151.1C, Chapter V). However, this criterion will be used to provide a conservative threshold. No operations within the facility have been identified that could reach even ALERT level conditions.

7.3 Emergency Action Levels

Emergency Action Levels (EALs) are specifically applicable to hazardous material operational emergencies such as Site, Area, or General Emergencies. The results of the Ames Laboratory hazard assessment indicates that credible emergencies are in the low hazard class, which is below the alert level, so no emergency action levels are required at this site. The Emergency Coordinator is responsible for determining the classification and action level which, based on the results of hazards assessments, has a low probability of reaching the ALERT level.

8.0 NOTIFICATION AND COMMUNICATIONS

8.1 Notification

8.1.1 Off-site Response Notifications

The Plant Protection Section (PPS) office in G34 TASF is the normal focal point for emergencies since this is where the Ames Laboratory emergency telephone number, 4-3483, rings in. This number is monitored 24 hours/day, 7 days/week. If Lab personnel need off-site emergency assistance (e.g., ambulance) they should call 911. Personnel contact PPS at 4-3483 for spills or other requests needing in-house response.

If initial notification comes to PPS, such as a radio call or fire alarm, the PPS Officer will dial 911, which puts them in contact with ISU Department of Public Safety. ISU will then dial the county 911 to activate off-site response and dispatch an ISU Police Officer to the scene. ***NOTE:*** If for any reason contact cannot be made with ISU Public Safety, the officer will contact off-site responders directly, using the emergency cellular phone if necessary, to ensure prompt response to any emergencies. Specific points of contact are listed in the off-site notification list (Emergency Plan Implementation Procedure). However, due to the unique nature of our interrelationship with ISU and off-site responders, the primary notification protocol required in the event of an emergency is a standard 911 call either over the ISU phone system or the outside phone system, both of which are capable of receiving notification on a 24-hour basis. Secondary notification of other agencies such as Story County Emergency Management Agency or State of Iowa Department of Natural Resources will be done depending on the nature and severity of the event. The Ames Site Office has established a required notification for emergencies of two hours, either via telephone or pager. The Facility Manager is responsible for making all required notifications to the Ames Site Office in a timely manner. There are no classified notifications at the Ames Laboratory site. ***NOTE:*** If the call is for an odor complaint with no visible smoke, or if the caller is not sure whether or not there is a problem, the PPS Officer should verify the situation if possible prior to initiating the 911 call.

8.1.2 On-site Response Notifications

AFTER placing the 911 call, the PPS Officer will notify the Ames Laboratory Incident

Commander (day or night) and report the situation. In the event of a spill, the officer will also notify the Spill Response Team. In all other emergencies, the Incident Commander will contact the in-house responders as necessary. Once the Incident Commander has made an emergency declaration, all additional calls for off-site assistance should come from or be approved by the Ames Laboratory Incident Commander. The Incident Commander also has the responsibility to ensure that the Facility Manager has the necessary information to make the required notifications, including occurrence reporting requirements and emergency notifications (see Section 6.3, General Criteria). Incidents requiring immediate employee response, such as evacuation for fire or spills and sheltering for tornadoes will be announced by the PPS Officer over the public address system which is on standby power.

8.1.3 DOE Field and HQ EOC Notifications

The Ames Site Office Manager, in conjunction with the SC Integrated Support Center, if needed, will decide when and if the DOE Field and/or HQ EOCs should be notified of non-emergency events. DOE Field and HQ EOC will be notified of emergencies and occurrences in accordance with the following table:

DOE Occurrence Reporting/Emergency Notifications Summary

Category	DOE Oral Notification	Time Limit	Written Report	Comments
Non-reportable event	Notification is not mandated, but FYI call to Ames Site Office.	No mandated time but ASAP during working hours	Not required	Events evaluated but not reportable Notification by Occurrence Reporting Officer
SC4* Some Impact	Ames Site Office & HQ EOC for some types	2 hours	Required, Short form only	Notification by Occurrence Reporting Officer
SC3 Minor Impact	Ames Site Office & HQ EOC for some types	2 hours	Required	Notification by Occurrence Reporting Officer
SC2 Moderate Impact	Ames Site Office & HQ EOC for some types	2 hours	Required	Notification by Occurrence Reporting Officer
SC1 Significant Impact	Ames Site Office & HQ EOC	2 hours	Required	Notification by Occurrence Reporting Officer
Operational Emergency -Health and Safety -Environmental -Safeguards & Sec. -Offsite Transp.	HQ-EOC (emergency) Ames Site Office Manager	Within 30 minutes of declaration of emergency	Required	No hazardous material release e.g. fire/explosion w/ structural damage, terrorist/malevolent action, tornado strike w/ structural damage, off-site accident evacuating lab, mass casualty event Notification by Facility Manager

* DOE Occurrence Reporting Significance Categories (SC) as defined per DOE O232.2

8.2 Communications

The primary means of communication during emergencies are the ISU campus telephone system and the two-way radio system. If the campus phones are not in service, notification should be via cellular phone (which allows direct 911 dialing without going through the ISU Department of Public Safety) or radio to ISU DPS. The primary means of notifying building occupants is the public address system and the building fire alarm system. Both systems are serviced regularly. The public address system is tested daily. The fire alarms are dedicated to the emergency management system, but the public address system is used daily for non-emergency notifications. Back-up equipment includes one cellular phone (kept in G34 TASF and dedicated to emergency use), two multi-channel VHF hand-held (5 Watt) multi-channel transceivers capable of accessing outside phone lines and direct radio contact with ISU DPS.

8.2.1 Public Address System

The public address system serves TASF, Wilhelm Hall, Spedding Hall, Metals Development, Craft Shops, Warehouse, Maintenance Garage, and the Records Storage Building (formerly the Computer Garage). Paging stations are located in the Protection Section Control Center G34 TASF (Base-2), and 158B Metals Development (Base-3).

8.2.2 Additional Information Monitoring Sources

AM-FM Radio
Broadcast Television
National Weather Service Radio
Internet Access

8.2.3 Primary Radio Equipment:

VHF-FM equipment, 110-watt base station unit with five remote control consoles:

- Frequency – 164.275 KIJ552 Main Base frequency (Call Sign KIJ -552)
- Frequency – 164.325 KIJ552 Facilities frequency (Call Sign KIJ -552)
- Frequency – 164.375 KRF-248 ESH&A (Call sign KRF-248)
- Control consoles located in:
  - Base 1 - G40 TASF
  - Base 2 - G34 TASF
  - Base 3 - 158 Metals Development
  - Base 4 - Campus Warehouse
  - Base 5 - B3 Metals Development
- Hand-held Units
  Hand-held radios are a primary means of communication between the incident scene and the EOC. Staff from ESH&A and FES are the predominate in-house personnel involved with emergency response. They carry and use them in their day-to-day activities. Spare radios are available at the EOC to assign to others as needed.

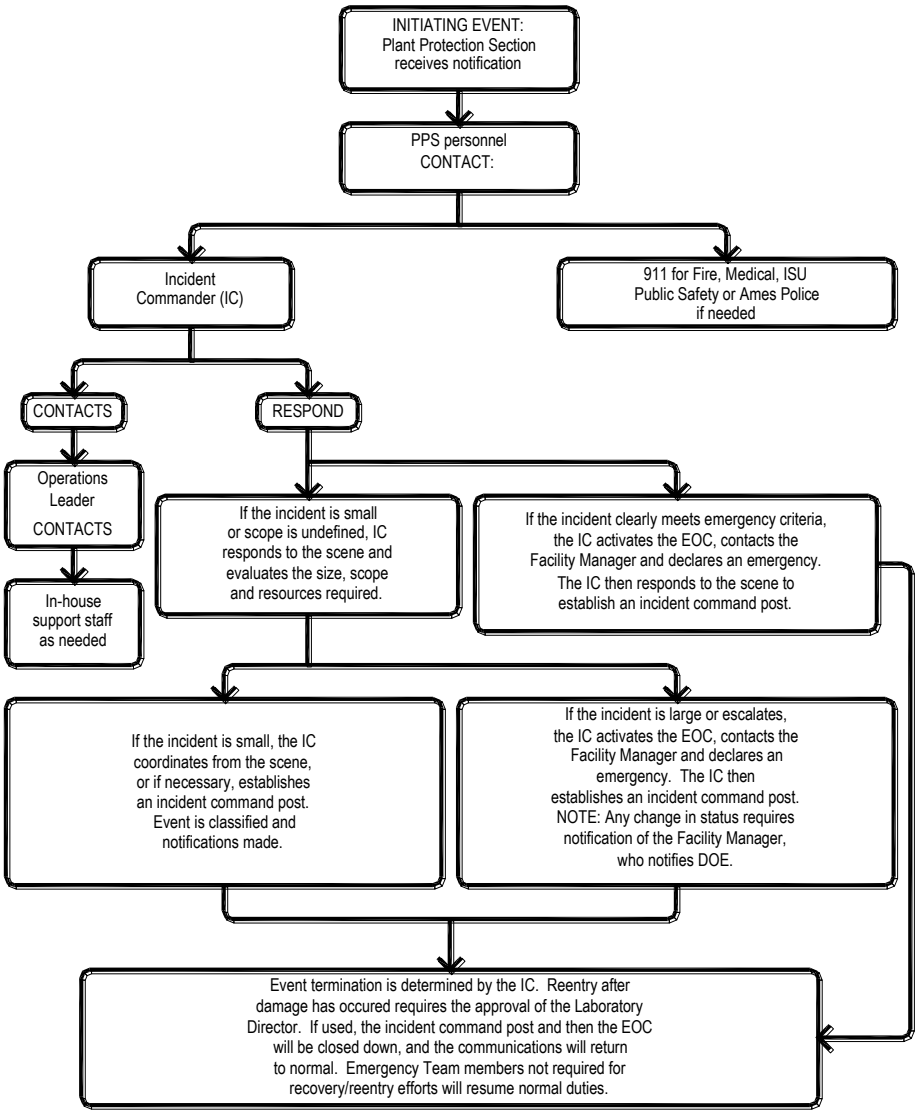
8.3 General Criteria

DOE Order O232.2 Occurrence Reporting and Processing of Operations Information

The Ames Laboratory Director has designated the Facility Manager (or alternate) as having the responsibility for Occurrence Reporting at Ames Laboratory. The Facility Manager is responsible for categorizing, reporting, investigating, and correcting abnormal events and conditions within Ames Laboratory. The Facility Manager has authority to impose physical changes to Ames Laboratory facilities as required to correct the abnormal event. It is the Facility Manager's responsibility to ensure the requirements for DOE Order O232.2 Occurrence Reporting are properly carried out (Event Reporting Program).

Categorization of Reportable Occurrences shall be made as soon as practical and should be made within two hours of identification. If categorization is not clear, the occurrence shall be initially categorized at the higher level being considered and DOE notified in accordance with the O232.2 order. The categories of Reportable Occurrences are listed in the chart in Section 6.1.

9.0 CONSEQUENCE ASSESSMENT



9.1 Consequence Determination

Based on the results of the facility hazards survey, as well as input from the chemical inventory information, Safety Review Committee (SRC), and the ESH&A chemical, radiological and hygiene specialists, it has been determined the potential consequences of a release of hazardous materials from any one credible event would not result in off-site exposures above the allowable guidelines. Our worst case scenario would be one of the major buildings fully engulfed in fire; a scenario that is not likely since there are sprinkler systems in all the buildings. This would likely result in a smoke plume, composed primarily of the building materials such as roofing, insulation, etc., which could drift over the campus, but would not likely affect ground level exposures. In the event of such an occurrence, local wind speed and direction would be monitored to keep the local fire department and ISU Department of Public Safety informed of any changes

in the consequence determination so that appropriate measures may be taken. The Safety Officer would be the primary person responsible for evaluating and updating the consequence determination during an emergency or continuing situation.

9.2 Coordination

Due to the relatively low level of risk at our site, which is based on the negligible risk of off-site impact from emergencies, the level of coordination required with other Federal, state, and local organizations is limited to:

- Timely Ames Site Office, SC Integrated Support Center and HQ notification of the event.
- County Emergency Management Agency notification (they in turn will notify the state EMA)
- Local coordination with ISU Department of Public Safety, Ames Fire Department, and Ames Police

10.0 PROTECTIVE ACTIONS

10.1 Protective Action Guides and Emergency Response Action Guidelines

Based on our credible emergencies below the alert level (especially our negligible quantities of radiological material), formal Protective Action Guides (PAGs) and Emergency Response Planning Guidelines (ERPGs) are not required at this site and, therefore, no provisions have been made (other than our Memoranda of Understanding and Mutual Aid agreements with off-site responders) for the protection of off-site populations. However, in the event of certain emergencies, protective actions for on-site populations will be taken.

10.1.1 Building Fire/Explosion Evacuation

In the event of a fire or explosion in any Ames Laboratory building, including ISU rented space, the building fire alarm will be used to notify the occupants and initiate the evacuation.

1. Evacuate immediately, checking your area as you leave to ensure everyone is out.
2. Proceed to the nearest assembly point (your group's relocation area) OUTSIDE the affected building.
3. Assist anyone who does not know the way to the assembly point.
4. Report to your supervisor or your group's accountability coordinator.
5. Report the absence of anyone not accounted for, as well as the areas you checked on your way out, to your supervisor or your group’s accountability coordinator.
6. DO NOT leave the assembly point/relocation area until told to do so by your supervisor.

10.1.2 Weather-related Sheltering:

In the event of a tornado or severe thunderstorm warning, notification will be provided via public address system (see the Emergency Plan Implementation Procedure).

1. Evacuate immediately, checking your area as you leave to ensure everyone is out.
2. Proceed to your group's shelter relocation area, generally the basement.
3. Assist anyone who does not know the way to the shelter area.

4. Report to your supervisor or your group's accountability coordinator.
5. Report the absence of anyone not accounted for, as well as the areas you checked on your way out, to your supervisor or your group's accountability coordinator.
6. DO NOT leave the shelter area until told to do so by your supervisor.

Refer to Emergency Weather Procedures and Fire Procedures in the Emergency Plan Implementation Procedure, for more detailed information on the process for implementing these protective actions, and for ensuring that these actions are timely, communicated, safe, and complete.

10.2 Records

Logistics, in conjunction with the Safety Officer and the Incident Commander, is responsible for maintaining an accurate log of the events of the emergency. The Ames Laboratory Occupational Medicine department will work with off-site medical personnel for any needed medical information. Individual employee medical information will be kept confidential and stored with the employee's medical file. Emergency response related information will be stored by the Emergency Coordinator for a period of five years.

10.3 Personnel Accountability

The diverse nature of employment resulting from joint ISU appointments makes uniform personnel accountability challenging at this site. Therefore, the ES&H Program Manual and General Employee Training require each group to establish their own accountability procedure, including designating a person to be responsible for conducting the group's accountability procedure and designating relocation and shelter areas. Each group is also responsible for the evacuation and accountability of any visitors. Visitors may also be required to attend training on emergency protective actions. Relocation and accountability procedures are checked at least twice a year during the weather-related drill and the fire drill, as well as during any actual fire alarms or weather-related emergencies, which require sheltering.

10.4 Emergency Planning Zones (EPZs)

Since off-site releases are a negligible threat, the emergency planning zone is limited to just the Ames Laboratory facilities.

10.5 Communication

Due to the relatively low level of risk at our site, which is based on the negligible risk of off-site impact from emergencies, the level of communication required with other Federal, state, and local organizations is limited to:

- Timely Ames Site Office, SC Integrated Support Center and HQ notification of the event.
- County Emergency Management Agency notification (they in turn will notify the state EMA)
- Local coordination with ISU Department of Public Safety, Ames Fire Department, and Ames Police.

10.6 Termination/Re-entry

The Incident Commander determines when an emergency has been terminated and when protective actions can be lifted or modified. For a building fire or explosion, the event is terminated when the fire department and Incident Commander have determined the alarm to be false or the fire is extinguished and the building can be reoccupied. ***NOTE:*** In the event of an evacuation due to a bomb threat, or an event with significant structural damage, the Director must authorize re-entering the affected building(s). For weather-related sheltering, the event is terminated when the Incident Commander verifies that the warning has expired, and that no damage has occurred to the site. The public address system will be used to notify building occupants of a lifting or modification of protective actions during sheltering, and radio communication to people securing the entrances will be used to notify them during evacuations.

10.7 Shutdown of Operations

Ames Laboratory does not operate any major single-use facilities. Shutdown of the general laboratory operations is not anticipated unless a general threat from terrorist activity is received or a major off-site event affects a large portion of the campus. In such cases, the director would authorize such an action and notification would be made by public address announcement. Short term shutdown of operations requires no special operational response. An example of this is shutdown of the laboratory for severe winter weather. In the event that there is a long term shutdown of operations, the Continuity of Operations Plan (COOP) is used. This plan addresses the Contractor Requirements Document of DOE Order 150.1A, Continuity Programs. The goal of the plan is to maintain the ability to perform Ames Laboratory essential functions for an extended period of time when normal operations are not possible. The objectives include:

- Assigning and describing roles and responsibilities associated with the Ames Laboratory continuity of operations program to ensure the availability of essential staff, facilities, equipment, vital records, and other assets;
- Reducing and mitigating disruptions to operations;
- Achieving a timely and orderly recovery from an emergency and resume normal activities; and
- Documenting preparedness and response planning for epidemic and pandemic events.

10.8 Continuity of Business and Network Services

Ames Laboratory Continuity of Operations Plan (COOP) provides an overview of the Laboratory's program to address the requirements contained in DOE Order 150.1A, Continuity Programs. This plan is closely coordinated with the Emergency Management Program.

Business and network services are increasingly critical to Laboratory Operations. Extensive efforts go into protecting these assets. The Laboratory's Contingency Plan for Business and Network Infrastructure/Services provides an assessment of the potential risks and contingency plans that will enable the Laboratory to recover and restore normal operations as quickly and efficiently as possible.

The Ames Laboratory Vital Records Plan documents how the Laboratory complies with the requirements of DOE O 243.2, Vital Records. The purpose of the plan is to provide a process for the identification, protection and retrieval of vital records in order to ensure

access to records required for continuity of operations during and/or after an emergency event.

11.0 MEDICAL SUPPORT

11.1 System

The Laboratory will utilize the Emergency Medical System (EMS) provided through Mary Greeley Medical Center (MGMC) as the primary source of emergency medical support. This service is available 24 hours a day and response times are very good. Victims may be treated by EMS personnel on site, transported to Mary Greeley Medical Center for treatment, or referred to a Level I Trauma Center (verified by the American College of Surgeons) at Iowa Health System Hospitals approximately 30 miles away. Transport is available via Life Flight air ambulance if needed. The Ames Laboratory Occupational Medicine Department is available as an in-house technical support resource, but is not staffed or equipped to provide emergency medical support 24 hours a day. They may be utilized to support the emergency response activities, provide on-site care for injured personnel, utilize in-house resources to assist off-site responders, and provide input to the emergency team. Ames firefighters are first responders and carry medical equipment on their trucks.

Any patient medical information that needs to be shared between Ames Laboratory and Emergency Medical Services will be done by Occupational Medicine personnel with the appropriate Mary Greeley Medical Center personnel, in accordance with applicable privacy and data security laws and regulations.

11.2 Resources

11.2.1 Mary Greeley Medical Center

- A 220-bed regional referral center located in Ames, Iowa within 10 minutes of Ames Laboratory facilities.
- Medical staff of more than 150 physicians offering more than 50 specialties and subspecialties
- Emergency Department is staffed 24 hours a day to provide specialized emergency care. Board certified physicians and staff are trained in advanced cardiac life support and trauma care.
- Ambulance service provides a paramedic service 24 hours a day that includes three advanced life support ambulances. Paramedic staff are trained as Paramedic Specialists.

11.2.2 Occupational Medicine Department (In-house Technical Support Resource)

- Medical examination and treatment rooms, medical offices, record storage, and administrative support space totaling approximately 1,500 square feet.
- One physician available only part-time during normal working hours.
- Other staff, available during normal working hours includes 1 nursing supervisor and 2 RNs.

11.3 Transport and Evacuation

Injured personnel will be transported utilizing the MGMC Ambulance service by activation of the Emergency Medical Service (EMS). Typically transport will be to MGMC. Medical personnel may recommend referral to a Level I Trauma Center at Iowa Health System Hospitals approximately 30 miles away. Transport is available via Life Flight air ambulance if needed.

If injured personnel also have chemical or radioactive contamination, decontamination will be done on site to the extent possible consistent with the needed medical care of the patient. In-house technical support resource personnel will be utilized to assist in the efforts by providing material information, surveying, characterization, containment, and decontamination support. Ames Fire Department Hazardous Materials Team would be involved in any incident beyond the capability of the in-house resources. Transportation will be done by ambulance with contamination containment precautions.

11.4 Agreements

Ames Laboratory has memoranda of understanding with the ISU Department of Public Safety, Ames Fire Department (first responders, hazmat team), and Mary Greeley Medical Center (ambulance paramedic service and emergency medical treatment).

11.5 Communication

Ames Laboratory operates within the ISU, Ames and Story County 911 system for emergency medical communications. Requests for emergency medical support are made by dialing 911 as described in Section 4. In the event that phones are unavailable, the emergency medical response can be obtained by PPS officers via radio phone or by direct radio contact with ISU dispatch.

12.0 TERMINATION AND RECOVERY

12.1 Emergency Termination or Downgrade

The Incident Commander is responsible for downgrading or terminating an emergency, based on input from the emergency team, especially the Safety Officer and Operations Coordinator, in-house technical support personnel, and off-site responders. The following criteria will guide the decision:

- The conditions creating the emergency condition have been controlled.
- Injured personnel have been cared for.
- There are no indications of secondary events that would initiate another emergency condition.
- All emergency notifications have been made.
- Affected areas, operations, or facilities are secured for recovery operations.

Facility credible emergencies are fire/explosion and weather-related emergencies, such as tornadoes. For a fire/explosion, the emergency conditions are controlled when the Fire Department and Incident Commander have determined the fire to be extinguished and the undamaged portion of the building ready to be reoccupied. For weather-related incidents, the emergency conditions are controlled when the storm is over and it is determined the damage to be stabilized adequately to allow the safe movement of personnel out of the shelter areas. ***NOTE:*** The Director must approve the re-entry into a building, which has incurred structural damage by fire/explosion or weather. For an

event involving the hazmat team, the emergency conditions are controlled when the hazmat team is demobilizing.

Termination of the emergency condition will be coordinated with the offsite emergency responders, State and local agencies and organizations involved in the event and DOE in accordance with the notification procedures in the Emergency Plan Implementation Procedure.

12.2 Evaluation and Reporting

After the event is terminated, emergency team members will be debriefed, log information will be collected, and evaluation of the event and the response will be done. Information and input will be sought from off-site responders. The Emergency Coordinator is responsible for generating a written report of emergency response activities. Non-emergency events will be reported through the Event Reporting Program.

Causal analysis will be done in accordance with the policies and procedures contained in Event Reporting Program.

Serious deficiencies will be identified and tracked through the Ames Laboratory Corrective Action Tracking System (ALCATS).

12.3 Recovery

As soon as an assessment can be made of the damaged or affected areas, the Manager of Facilities & Engineering Services will develop a recovery plan to restore the facility and utilities to a safe, pre-emergency condition. The recovery phase will be considered complete when the damaged areas have been stabilized to the point where normal operations can resume in surrounding areas, even though the affected areas may still be under restoration.

13.0 PUBLIC INFORMATION

13.1 Public Information Organization

13.1.1 Mission or Purpose

Ames Laboratory operates under the Freedom of Information Act (FOIA), the Privacy Act, and the Iowa Public Records Law (Iowa Code Chapter 22), and releases information in conformance with established DOE and ISU information policies, except for information classified for national security purposes or otherwise legally prohibited from release. The Public Affairs and Information Office is responsible for providing accurate and timely information to the public. During an event requiring activation of the Emergency Operations Center (EOC), the Public Affairs team would be present to carry out the public information function in conjunction with the Ames Site Office and the SC Integrated Support Center office of Public Affairs and Intergovernmental Relations. The emergency press center in TASF (or as designated by the Public Affairs team leader) can be activated to assist with media relations. Procedures to be used by the Public Affairs team during an emergency are described below and in the Ames Laboratory Public Affairs Emergency Plan.

- Provide accurate, complete, and timely information to on-site personnel; DOE; Federal, state, and local officials; media; and the public during and concerning an incident or emergency.

- Appropriately review and clear all information with the Facility Manager before it is released.
- Photographic/video records to document the incident and for Public Information's use.

13.1.2 Resources/Limitations

Public Affairs team leader is supported by members of the Public Affairs and Information Office.

13.1.3 Preparedness

- Obtain and process information appropriately as emergency operations progress.
- Release factual information, as it becomes available.
- Minimize the opportunity for rumors or incomplete or false information.
- Provide for free movement of news media representatives in the affected areas, restricting their movement only as much as necessary to maintain physical security of the Laboratory, the physical safety of the representatives themselves, and the orderly functioning of emergency teams working at the scene.

13.1.4 Mitigation

- Notify the Public Affairs and Intergovernmental Relations office at the SC Integrated Support Center, and University Relations of the emergency.
- Designate and activate the Public Affairs press center.
- If TASF must be vacated because of the incident or emergency, designate an alternate site for the Public Affairs press center.
- Verify availability of staff and appropriate equipment and supplies.
- Contact photographers and assure availability and readiness.

13.1.5 Response

- Activate Public Affairs Emergency Plan.
- Keep the Public Affairs and Intergovernmental Relations office at the SC Integrated Support Center updated concerning incident or emergency.
- Release information as it becomes available.
- Keep abreast of emergency response activities for inclusion in news releases.
- Assist reporters in obtaining appropriate information.
- Ensure photographers are appropriately documenting the incident or accident.

13.1.6 Recovery

- Deactivate Public Affairs press center.
- Continue releasing information and providing assistance to the media, appropriate to the emergency or as necessary to return to normal. Continue photographing/videotaping as necessary.
- Provide follow-up information dictated by the nature of emergency.

NOTE: For more detailed information see the Ames Laboratory Public Affairs Emergency Plan.

14.0 EMERGENCY FACILITIES AND EQUIPMENT

14.1 Emergency Facilities

14.1.1 Emergency Operations Center (EOC)

Unless otherwise directed by the Incident Commander, the Ames Laboratory EOC is designated as G34/G40 TASF.

14.1.2 Alternate Emergency Operations Center (AEOC)

Alternate EOC locations include:
158 Metals Development (Base-3)
Campus Warehouse (Base-4)

14.1.3 Technical Support Center (TSC)

Not applicable.

14.1.4 Public Affairs Press Center

The Office of Public Affairs and Information Press Center and Joint Information Center is located in 112 TASF.

14.1.5 Off-site Communications Center (OCC)

The need for an off-site communications center is extremely remote, but in the event that it was necessary, we would exercise our mutual aid agreement with Story County and use the county EOC/Communication Center.

14.1.6 Decontamination Facilities

In the unlikely event that decontamination facilities are needed, they would be provided at the scene as much as possible and at the MGMC's Emergency Department for those individuals who are injured. Decontamination showers are also available in ISU facilities.

14.1.7 Medical Facilities

The Occupational Medicine Department is located in G11 TASF. (See Section 9, Medical Support.)

14.1.8 Security Control Centers

Ames Laboratory does not operate any secure facilities, nor work with any classified material. However, in the event that a security control center was deemed necessary, it would be designated as Base 2 in G34 TASF.

14.2 Emergency Equipment

14.2.1 Communications Equipment

See Section 6, Notification and Communications

14.2.2 Heavy Construction Equipment

The Laboratory has three forklifts, a front-end loader, a skid-loader, one stake-bed truck with a lift bed, and one pick-up trucks. Other emergency-related items include jackhammers, quickie saws, drills, and other standard construction and maintenance equipment. This equipment and the operators are maintained for normal operations and can be mobilized for exclusive emergency response by the Operations Coordinator.

When not in use, the equipment is stored at the Mechanical Maintenance Building.

14.2.3 Decontamination Equipment

Radiological decontamination equipment consists of mops, buckets, wringers, rags and soaps commonly used in normal custodial activities. The Laboratory is well equipped on each floor, with additional supplies available through Ames Lab Stores, ISU Central Stores, and off-site vendors.

14.2.4 Alarm Equipment

The Laboratory is equipped with a central station monitored 24 hours/day by Laboratory security officers. The central station monitors fire detection points, manual pull stations for notification, sprinkler flow alarms, change-of-state door alarms, and tour stations. An alarm annunciation can be initiated in major buildings from the central station.

14.2.5 Rescue Equipment

The Ames Laboratory does not maintain an in-house rescue team, but relies on off-site responders for rescue. The Laboratory does maintain a tripod/fall arrest/retrieval device system for Confined Space Entry (CSE) for use in self-rescue or remote extractions.

14.2.6. Personal Protective Equipment

Personal Protective Equipment available at the Laboratory or through ISU Central Stores includes safety glasses, goggles, and face shields; hearing protection devices; safety shoes; protective coveralls; and various types/styles of gloves. Respiratory protection devices are available through the Ames Laboratory ESH&A.

14.2.7 Gas and Liquid Monitoring Equipment

The Laboratory has three four-gas CSE monitors, a Hewlett-Packard gas chromatograph-mass spectrometer, a Miran IR analyzer, an assortment of sample tubes and mechanical pumps (manual and battery-powered), and a commercial identification kit.

14.2.8 Damage Containment Equipment

See item 2 above

14.2.9 Fire Fighting Equipment

Firefighting at Ames Laboratory is strictly limited to the use of fire extinguishers. Approximately 650 fire extinguishers are located throughout the Ames Laboratory. This includes approximately 70 spare extinguishers maintained in Spedding Hall to be used for replacement.

14.2.10 Emergency Power Equipment

Standby power is provided to all Ames Laboratory buildings by diesel generators located in Wilhelm Hall. The central station alarm equipment and some computer systems are also equipped with uninterruptible power systems (UPS). Emergency lighting is provided through battery-powered emergency lights.

14.2.11 Logistic Support Equipment (maps, plans, etc.)

Maps and plans for logistics support are located in the EOC. Complete building plans, including mechanical and electrical drawings are located in Facilities Services, 158 Metals Development.

15.0 TRAINING

15.1 Training Requirements

Due to the low hazard level at the Ames Laboratory site, combined with the fact that Ames Laboratory relies heavily on off-site responders for medical, fire, and security emergencies, the training requirements of the emergency team are targeted. They primarily consist of an orientation to emergency management at the Ames Laboratory, and task-specific training required for an employee's normal daily duties and responsibilities. (Emergency team assignments are made based on the employee's normal daily duties and responsibilities; i.e., the Public Information Team is made up of Public Affairs employees; the Spill Response Team is made up of ESH&A employees; etc.).

15.2 Training Courses

All Ames Laboratory employees and associates shall complete the following institutional training courses:

15.2.1 General Employee Training (AL-001)

The Laboratory's Training Program provides employees with the training necessary for the safe and productive completion of their work responsibilities. A primary emphasis is placed on the fulfillment of ESH&A training requirements. General Employee Training (GET) is a mandatory training course for all Ames Laboratory employees and associates and provides an understanding of the Laboratory's organization structure, policies and procedures, general safety policies and covers several other ESH&A aspects. A segment of GET provides an introduction to the Ames Laboratory Emergency Preparedness Program, as well as information on emergency reporting, fire safety, threatening weather response, evacuation and accountability practices.

15.2.2 Emergency Awareness Training (AL-002)

Ames Laboratory employees and associates are also provided with mandatory Emergency Awareness Training. Safety Coordinators or designees are charged with the responsibility of administering this one-on-one training. Furthermore, all employees and associates receive an annual retraining memo, which refreshes them on emergency awareness.

Designated Emergency Response Personnel may also complete the following courses:

15.2.3 Emergency Team Training (AL-165)

Team leaders and alternates will complete Ames Laboratory Emergency Management Training. This training includes both an initial training session and annual refresher training.

15.2.4 Spill Response Team

The Spill Response Team shall all complete the training specified in the Waste Management Contingency Plan.

15.2.5 Incident Commander

The Incident Commander shall complete:

- Hazardous Waste Operations & Emergency Response - 24 hour initial training with 8-hour annual refresher (AL-027)
- BBP Exposure Control Plan Training (AL-035)
- Waste Management Contingency Plan Training (AL-140)

15.3 Off-site Personnel

Subcontractors, vendors, and visitors who are on site regularly or for extended periods of time are also required to complete Ames Laboratory General Employee Training or visitor training as directed by the Procedure for Visitor Training or the Subcontractor (On-Site) Oversight Procedure.

15.4 Recordkeeping

The Training and Documents Office will record training, which is required solely for an employee's emergency team assignment, with the exception of the records for the annual drills and exercises, which will be kept by the Emergency Coordinator.

16.0 DRILLS AND EXERCISES

16.1 Drills and Exercises

DOE O151.1C, Comprehensive Emergency Management System, states the following requirements for exercises in an Operational Emergency Base Program:

(1) At a minimum, each site/facility shall conduct building evacuation exercises consistent with Federal regulations [e.g., 41 CFR §102-74.360, local ordinances, or National Fire Protection Association Standards. Exercises shall be conducted as often as needed to ensure that employees are able to safely evacuate their work area.

(2) For each site or facility, as applicable, the organization responsible for communications with DOE Headquarters, SC Integrated Support Center, SC Ames Site Office, and off-site agencies shall test communications systems at least annually or as often as needed to ensure that communications systems are operational.

In accordance with the requirements and the low level of risk at the site, the following set of drills and exercises will be conducted annually:

- Winter: Annual Communications Test
- Spring: Tornado/Severe Weather Drill
- Summer: Emergency Plan Tabletop Drill or Exercise
- Fall: Fire Drill

The tornado and fire drills will evaluate proper building notification, evacuation, relocation, and accountability. The winter drill will be aimed at identifying concerns, which can be tested in the summer exercise. Our intent is to keep the scope of the exercises commensurate with risk. In other words, we will not plan on full off-site participation more often than perhaps every five years. In addition, any unplanned events, such as fire alarms and actual weather-related emergencies, will be used to

generate ideas and objectives for future drills as well as developing lessons learned. Actual responses which include significant interaction with off-site responders may be used in lieu of planned exercises.

16.2 Off-site Coordination

The Ames Site Office will be kept informed of our drill and exercise schedule, as will off-site responders on any exercise with potential off-site impact. The level of participation will be commensurate with the risks associated with our facility, and the aspect of the emergency plan that is being evaluated by the drill or exercise.

17.0 EMERGENCY MANAGEMENT PROGRAM ADMINISTRATION

17.1 Emergency Management Program Coordinator

The Emergency Coordinator is designated by the Laboratory Director to be the Emergency Management Program Administrator at Ames Laboratory. The Emergency Coordinator is assisted and supported in these activities by the team leaders and Emergency Response Operations team members. Responsibilities will include:

- Coordinating preparation and recommending approval, publication, distribution, and updating of planning documents.
- Planning and conducting emergency drills and exercises in coordination with the Emergency Coordinator which include required fire alarm drills, tornado warning drills, and other exercises which will cause activation of the Emergency Plan and appropriate emergency response efforts.
- Defining training needs and delegating implementation of training programs to appropriate emergency leaders whose members have capabilities, interests, and knowledge useful in planning or executing emergency actions.
- Reviewing and evaluating the final report, prepared by the Emergency Coordinator, of any training exercises or emergency action.
- Coordinating with other committees responsible for related emergency planning documents such as the Public Affairs Plan, the Waste Management Contingency Plan, and the Safeguards and Security Plan.

17.2 Administrative Policy for Emergency Planning Documents

The Emergency Plan is a controlled document, in accordance with Ames Laboratory's Standard Operating Document (SOD). It is recorded and documented by ESH&A, who use a record database to ensure that annual updates are completed as scheduled.

Scope and distribution of documents is as follows: The Emergency Plan is distributed to the Director, Deputy Director, Chief Operations Officer, Chief Research Officer, Leaders and Alternates on Emergency Teams, lead people on each In-House Technical Resource group, Off-site Responders, ISU Environmental Health and Safety, and Ames Site Office and SC Integrated Support Center (Chicago office).

Each page will be numbered, and the plan will be loose-leaf in a three-ring binder to facilitate updates.

The Emergency Plan Implementation Procedure provides much more specific details on the practices and procedures for emergency preparedness including phone numbers,

checklists, call lists, and preformatted announcements. This procedure will be a separate document rather than an appendix. In this way, the information that is more likely to change can be updated more easily. It will be controlled and distributed the same way as the Emergency Plan.

If the Emergency Plan or the Implementation Procedure is reviewed and does not require changes, the documents will not be reissued just to change the dates. The review will be documented and filed to establish that the review was done.

17.3 Self-assessment

The Emergency Coordinator will direct an annual self-assessment of the Emergency Preparedness Program. The assessment includes an update of contact information in the Emergency Plan Implementation Procedure. The Emergency Plan Implementation Procedure contains a checklist of items to be incorporated into the assessment.

Validation of the annual self-assessment will be done by the ESH&A Office. The Training and Document Office also provides oversight of the Emergency Plan document through their document control process, training recordkeeping and through their Emergency Awareness Employee Training program.

17.4 General Criteria: Administrative Policies on Absences for Emergency Response Team

The Incident Commander and each response leader and/or alternate should inform others on the team of their unavailability or absence. Other team members should coordinate their activities so that at least one member is available. Supervisors will cooperate in minimizing the scheduled absence of more than one of the leaders or alternates of any assigned team. Team members should personally advise the team leader or Emergency Coordinator of anticipated extended absence or non-effectiveness of any key member due to disability, retirement, or leave of absence.

17.5 Tracking Deficiencies and Corrective Actions

The Ames Laboratory Corrective Action Tracking System (ALCATS) will be used to track all findings and deficiencies in emergency preparedness and to document and verify corrections.

APPENDIX A
Site Plan and Building Floor Plan

See PDF in CyBox. This Appendix will be added in to the document when we save as a PDF.

APPENDIX B
Memoranda of Understanding

March 1, 2016

Mr. Shawn Bayouth, Fire Chief
City of Ames Fire Department
1300 Burnett
Ames, IA 50010

Dear Chief Bayouth:

Subject: Memorandum of Understanding of the Ames Laboratory with the City of Ames Fire Department

This letter documents the understanding of the Ames Laboratory with regard to the services of the Ames Fire Department. Ames Laboratory understands that this letter is not an amendment to the original agreement between the Ames Fire Department and Iowa State University for fire protection.

It is the Ames Laboratory's expectation that the Ames Fire Department (AFD) will provide fire and Hazardous Material (Hazmat) Team services for the Ames Laboratory facilities located on the main campus and at the Applied Sciences Center site in accordance with the agreement between the City of Ames and the Board of Regents, State of Iowa for fire services at Iowa State University. The Laboratory understands that the services of the Hazmat Team (Ames or Des Moines Hazmat Team) may incur additional costs. Ames Laboratory understands that the Ames Fire Department will not provide clean up services for hazardous materials release. Any cleanup required would be the responsibility of the Ames Laboratory.

1. Floor plans for covered areas will be furnished by Ames Laboratory to the Fire Department.

2. Tours of the Ames Laboratory facilities will be offered, as deemed advisable, by Ames Laboratory personnel to the Fire Department personnel. It is expected that these tours will acquaint Fire Department personnel with Ames Laboratory facilities and any special problem areas. It is also expected that Fire Department personnel will use their expertise to recommend improvements, which make fire fighting more efficient and safe and reduce the risk of fire in the facility.

3. Ames Laboratory's standard operating procedure upon receiving a fire alarm is to immediately request a fire department response by calling 911 (ISU DPS Dispatch). This prevents valuable time being lost while verifying the alarm. Ames Laboratory personnel may investigate the source of the alarm to provide additional information to the AFD in route, but Ames Laboratory personnel will not silence bells or reoccupy the building until the AFD arrives and concurs with the actions.

4. Ames Laboratory personnel will provide information on hazards, materials, equipment, and people involved at the fire scene as required by Iowa Code 89B, "Public Safety/Emergency Response Right to Know," and EPA regulations concerning Emergency Planning and Notification, SARA, 40 CFR Part 355.

5. Some areas of the Ames Laboratory may require special or specific fire suppression techniques. For these areas, consultation will take place with the Fire Department personnel and these areas will be identified.

6. If there has been a known release of radioactivity resulting in contamination, the Fire Department will be notified and Health Physics personnel of the Ames Laboratory will provide assistance.

7. Ames Laboratory will work with the AFD to participate in emergency drills and exercises to improve coordination and working relationships.

The Laboratory is committed to a cooperative relationship with the Ames Fire Department to enhance the safety of the public, the Laboratory and emergency response personnel.

Sincerely,

T. Herrman

Terry Herrman
Emergency Coordinator
Ames Laboratory

Terry Herrman

From: Shawn Bayouth <sbayouth@city.ames.ia.us>
Sent: Thursday, March 31, 2016 3:16 PM
To: Terry Herrman
Subject: Re: Memorandum of Understanding with Ames Laboratory

Hi Terry,

Thanks for the e-mail and for keeping the MOU current!

Yes, I can confirm that, to the best of my knowledge, this understanding is still in place and these services are currently maintained between Ames Fire Department and the Ames Laboratory. I can also confirm that Ames Fire Department maintains an agreement with Mary Greeley Medical Center to provide paramedic services and transportation when necessary.

Thanks!
Shawn

-----"Terry Herrman" <herrman@ameslab.gov> wrote: -----
To: "'Shawn Bayouth'" <sbayouth@cityofames.org>
From: "Terry Herrman" <herrman@ameslab.gov>
Date: 03/31/2016 08:03AM
Subject: Memorandum of Understanding with Ames Laboratory

Dear Shawn,

As Emergency Coordinator for the Ames Laboratory, each year I perform a self-assessment of our emergency preparedness. Part of that assessment is to review the Memorandums of Understanding for emergency services, specifically in this case as they relate to fire protection services to the Ames Laboratory on the campus of Iowa State University.

Please confirm that, to the best of your knowledge, this understanding is still in place and these services are currently maintained between your organization and the Ames Laboratory. Can you also please confirm that Ames Fire Department maintains an agreement with Mary Greeley Medical Center to provide paramedic services and transportation when necessary.

I have attached an updated Letter of Understanding of the original agreement for your review. An email confirmation to this correspondence is sufficient for my records. Thank you in advance for your attention to this matter.

1

Best regards,

Terry

Herrman

Emergency

Coordinator

Asst

. Mgr., Facilities & Engineering Services |Ames Laboratory,

D.O.E.

167

Metals Development, Ames, IA 50011-3020 | ph: (515) 294-7896

[attachment "AFD_MOU_20160301.pdf" removed by Shawn Bayouth/COA]

From: Levy, Kevin [mailto:Kevin.Levy@science.doe.gov]
Sent: Tuesday, September 29, 2015 11:20 AM
To: Herrman, Terrance R (herrman@ameslab.gov)
Subject: Mary Greeley Medical Center MOU

Terry,

Last week I believe you had a question for me related to the MOU Ames Lab has with the Mary Greeley Medical Center. While you may still be concerned with the status of direct medical response from the hospital, my assessment 3 years ago suggests that the AFD may maintain its own MOU with the MGMC. If that MOU is still current, then any fire response will carry with it the understanding that MGMC will support them.

Here is the text I wrote 3 years ago that suggests what I stated above:
"All firefighters are First Responder D trained to provide basic life support, and AFD partners with Mary Greeley Medical Center to provide paramedics and transport. "

Best Regards,
Kevin Levy, P.E.
Fire Protection Engineer
U.S. Department of Energy
Office of Science – Integrated Support Center - Chicago Office
Safety and Technical Services
Voice: 630-252-4977

SC-CH Service Excellence Pledge

We pledge to respect and value our partners and customers, communicate responsively and professionally, and build our reputation for delivering excellent professional services with each task performed.

March 31, 2016

Mr. Darin Van Ryswyk, Interim Deputy Director
ISU Department of Public Safety
168 Armory
Ames, IA 50011

Dear Mr. Van Ryswyk:

Subject: Letter of Understanding between Iowa State University's Department of Public Safety and the Ames Laboratory of the U.S. Department of Energy.

This letter updates the Memorandum of Understanding between Iowa State University's Department of Public Safety and Ames Laboratory, U.S. Department of Energy, Iowa State University, Contractor. This letter will be placed in the current Ames Laboratory Emergency Plan. A copy of this Plan will be provided to your office.

1. The Ames Laboratory has a functional, but unarmed, Plant Protection Section (PPS). They provide coverage 7 days a week, 24 hours a day. The principal functions of this patrol group are:
   a. fire watch service,
   b. facility physical security
   c. safety and operational malfunction surveillance
   d. monitoring fire alarm central station and access control central station.

2. Backup or broader security services are sometimes needed to provide a more timely response or, in some cases, a more intense response to situations which may or are suspected to pose a threat to Ames Laboratory facilities or personnel.

3. To satisfy needs indicated in number 2 above, Iowa State University's Department of Public Safety (DPS) will provide the following:
   a. response to requests for assistance requiring the presence of DPS officers either as primary responders or as backup, and
   b. acting as the agent for requesting responses as deemed advisable from the Ames Municipal Police, Story County Sheriff's Department, Iowa State Highway Patrol, and the U.S. Federal Bureau of Investigation.

4. Under some situations, the Ames Laboratory may independently contact the Iowa Department of Public Safety and/or the Federal Bureau of Investigation.

5. Ames Laboratory personnel are directed to dial 911 to report an emergency. Once the ISU dispatcher has initiated the required off-site response, Ames Laboratory PPS will be notified so the in-house response can be initiated. . Likewise, if the situation comes to the attention of the PPS Section, the PPS officers will use 911 to report the emergency situation or request assistance.

6. Ames Laboratory will provide the following:
   a. information regarding any threats or security concerns which the Laboratory is made aware of, and
   b. information regarding hazards on site and emergency planning.
   c. assistance in accessing Lab facilities and cognizant personnel

We will cooperate on drills and training to maximize the benefits to both organizations.

Your confirmation will indicate acceptance of this update and the operational mode described.

Sincerely,

T. Herrman

Terry Herrman
Emergency Coordinator
Ames Laboratory

MARY GREELEY MEDICAL CENTER

1111 DUFF AVENUE, AMES, IA 50010
(515) 239-2011

January 16, 2002

Mark Grootveld
Emergency Coordinator
Ames Laboratory

Dear Mark:

SUBJECT: Memo of understanding of Mary Greeley Medical Center Emergency Medical Services with Ames Laboratory

Mary Greeley Medical Center Emergency Services division is equipped and staffed 24 hours per day 365 days per year with ED physicians, ED nurses and Mobile Intensive Care Services paramedics to respond to the needs of the emergent client presenting from the Ames Laboratory.

Mary Greeley Emergency Department is capable of secondary decontamination and has the resources to manage medical and trauma emergencies in the pre-hospital and hospital setting. We agree to work cooperatively to promote ongoing communication and preparedness activities between our organizations.

Sincerely,

Marilyn Polito, RN
Director of Emergency Health Services

APPENDIX C

SITE PLAN AND BUILDING FLOOR PLANS

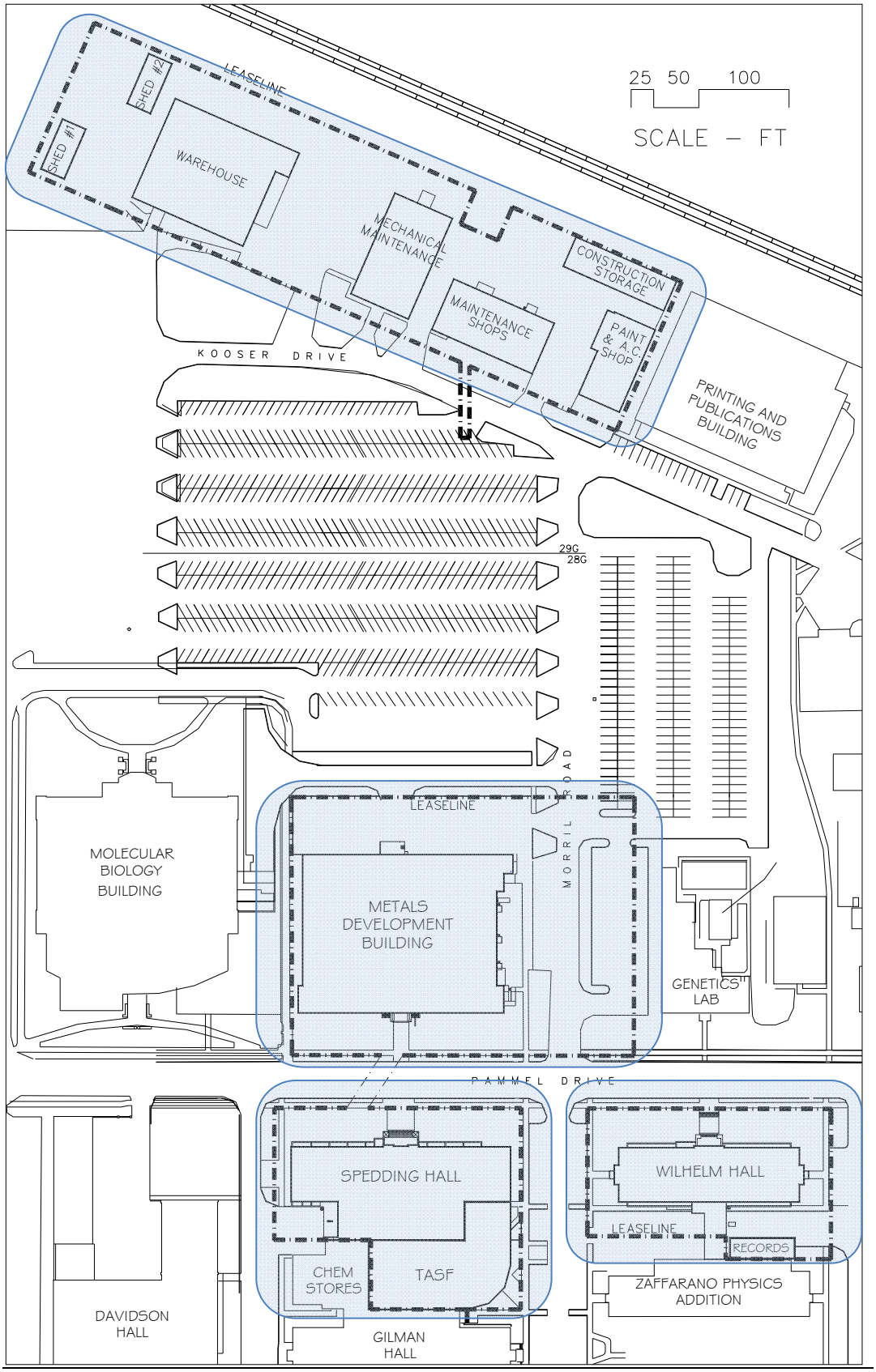
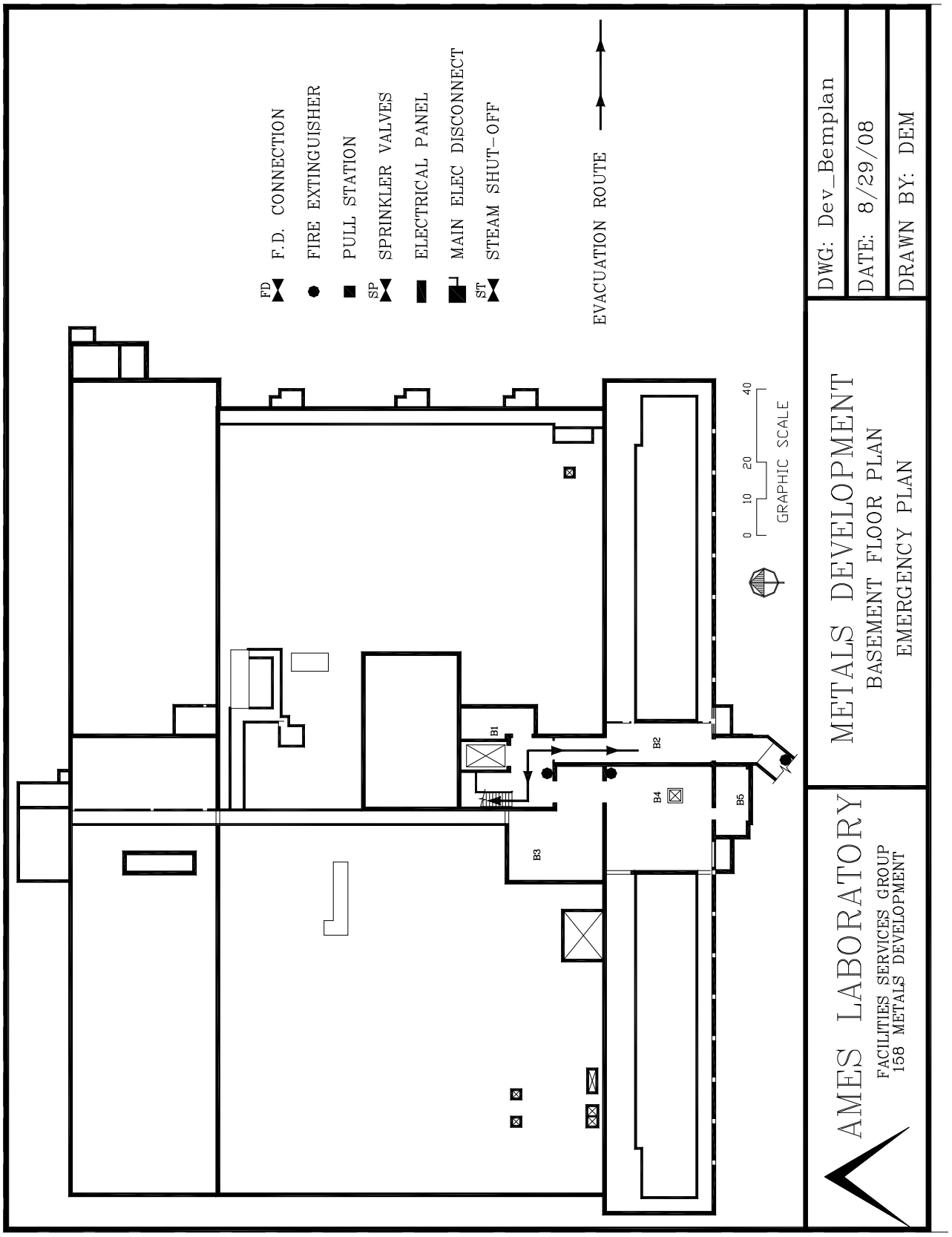


FIGURE 1. Site Map-Ames Laboratory, Iowa State University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B2
B3
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B5
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DATE: 8/29/08
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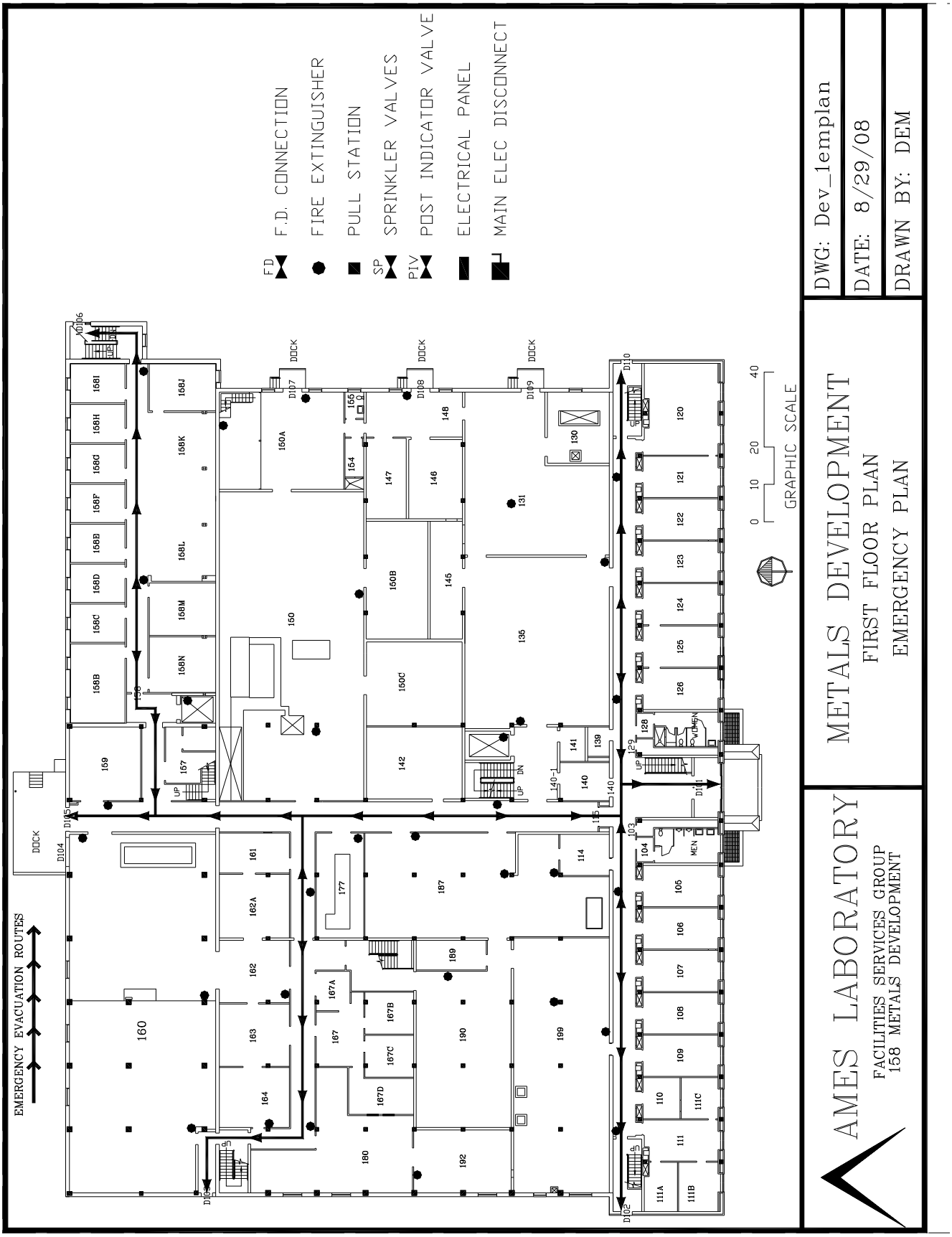
BASEMENT FLOOR PLAN
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT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AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT
GRAPHIC SCALE
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EMERGENCY EVACUATION ROUTES
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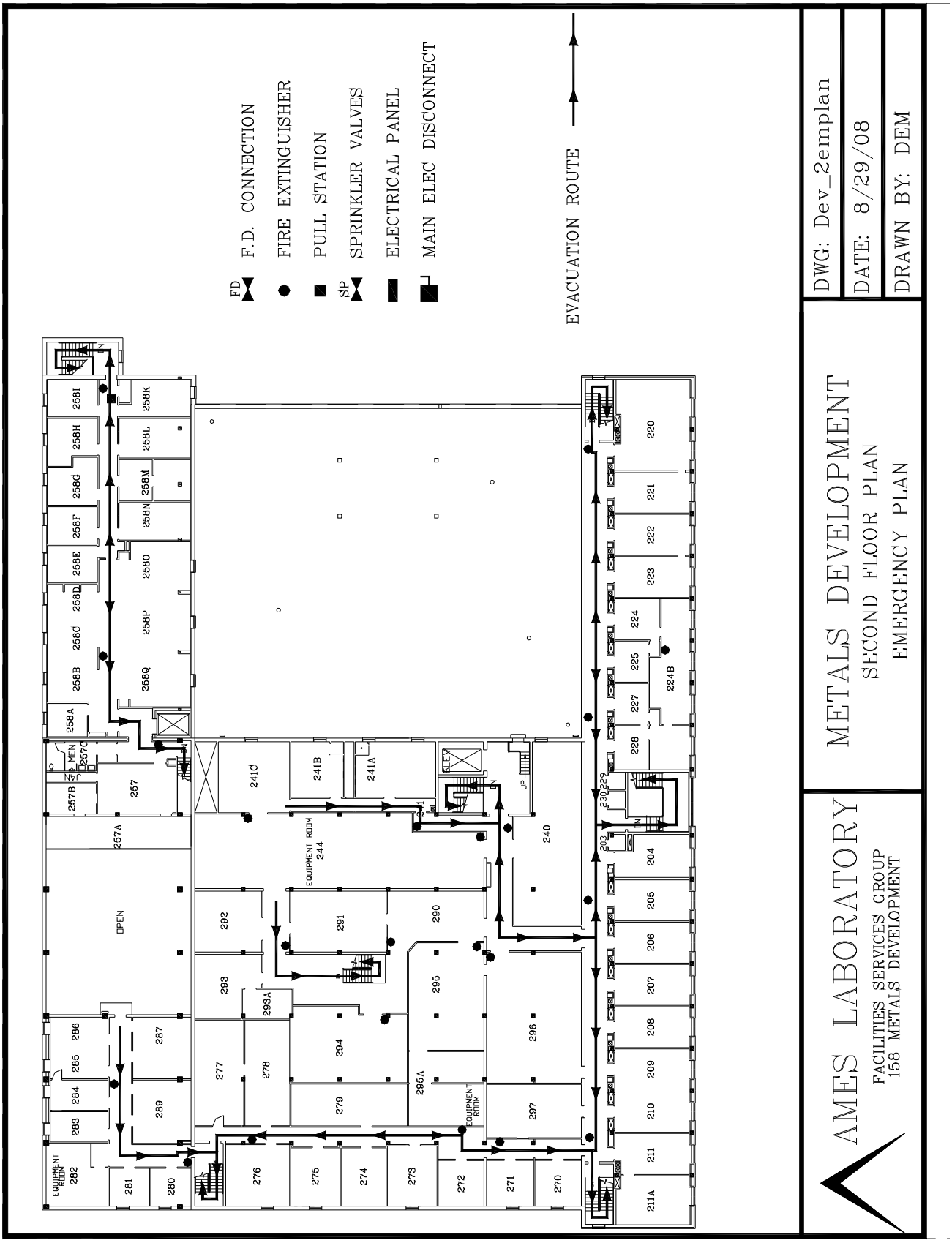
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EMERGENCY PLAN
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FACILITIES SERVICES GROUP
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EQUIPMENT ROOM 244
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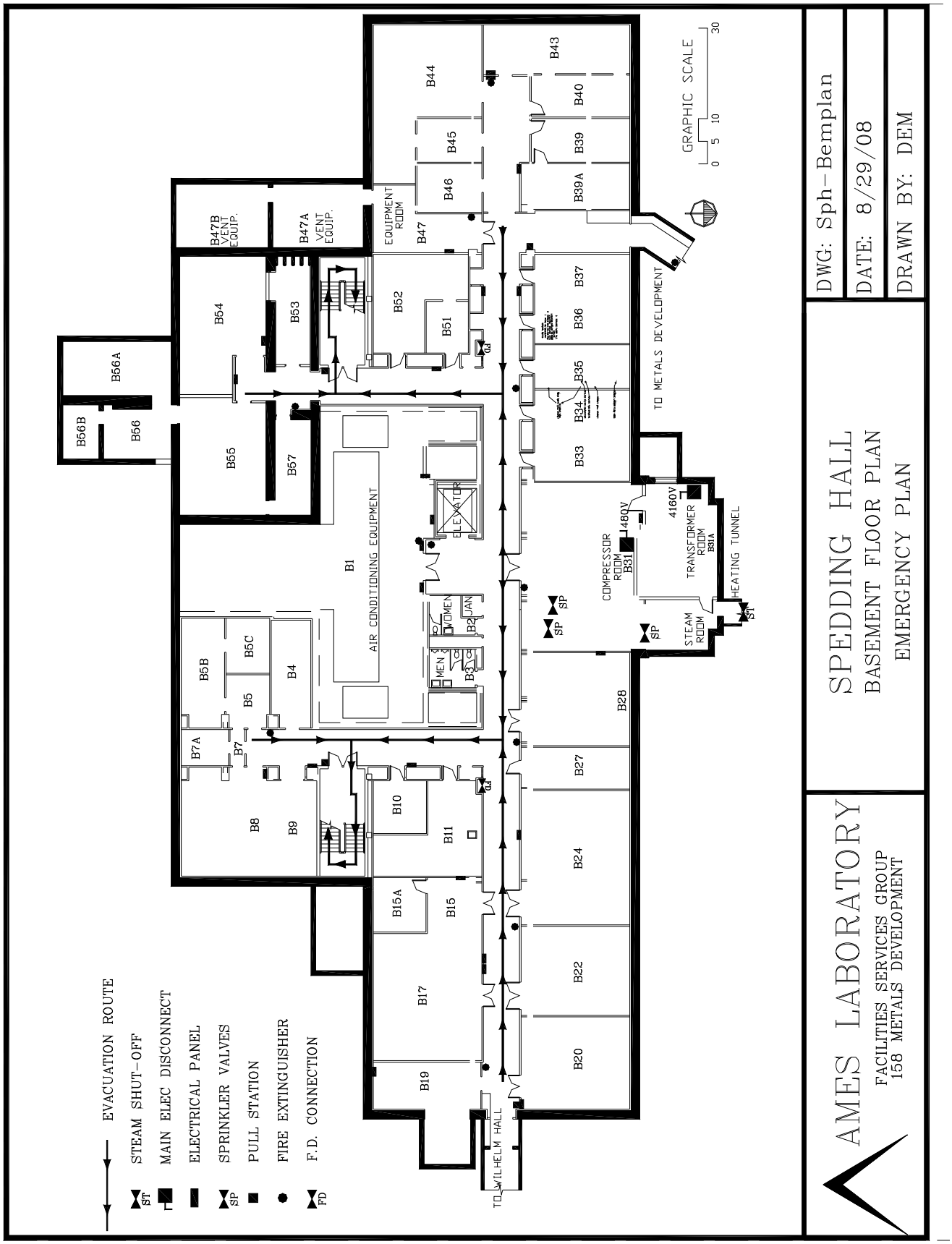
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STEAM SHUT-OFF
MAIN ELEC DISCONNECT
ELECTRICAL PANEL
SPRINKLER VALVES
PULL STATION
FIRE EXTINGUISHER
F.D. CONNECTION
AIR CONDITIONING EQUIPMENT
ELEVATOR
EQUIPMENT ROOM
COMPRESSOR ROOM B31
TRANSFORMER ROOM B31A
4160V
480V
STEAM ROOM
HEATING TUNNEL
TO METALS DEVELOPMENT
TO WILHELM HALL
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B3
B4
B5
B5B
B5C
B7
B7A
B8
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B10
B11
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B15A
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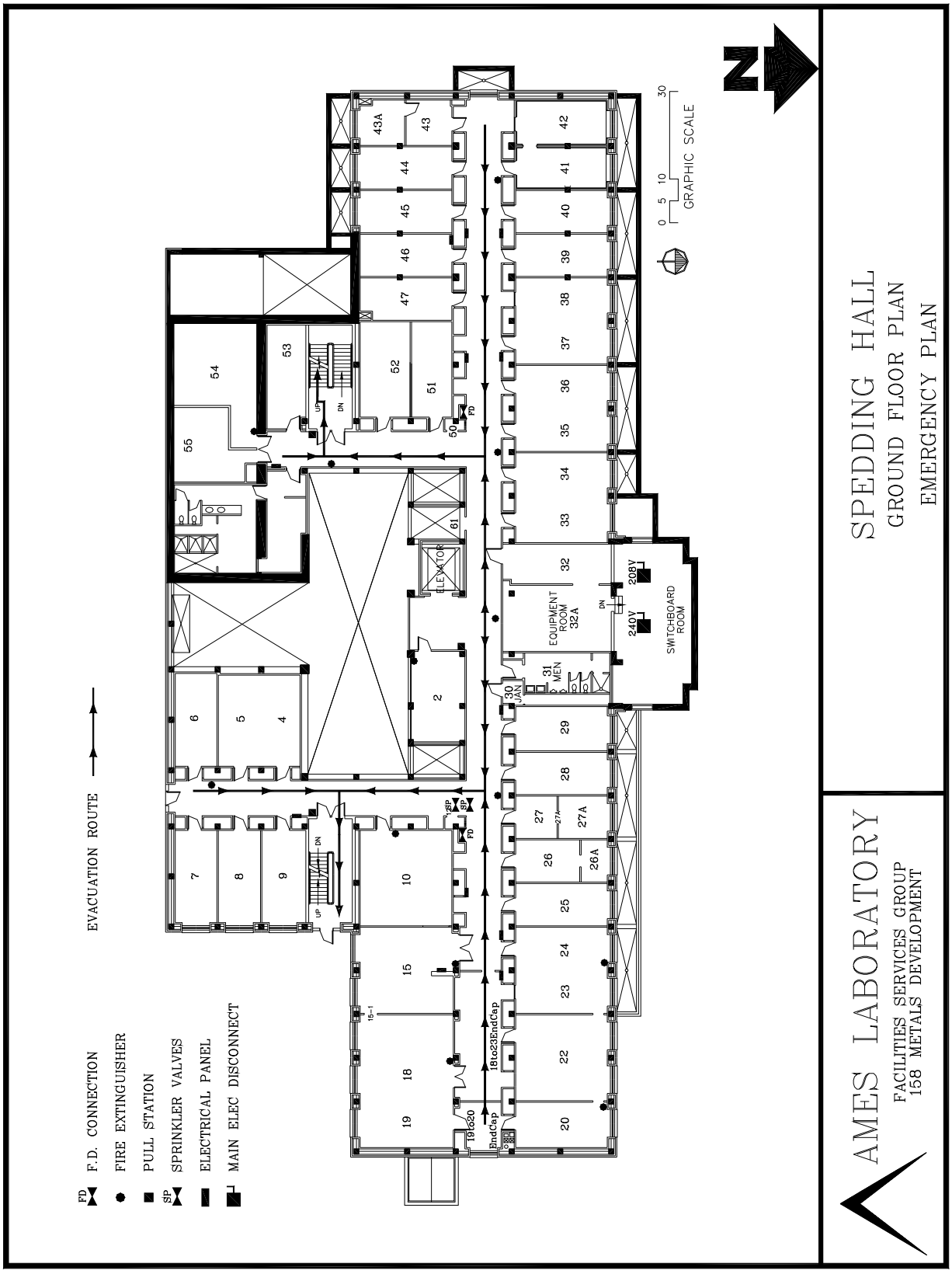
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GROUND FLOOR PLAN
EMERGENCY PLAN
AMES LABORATORY
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GRAPHIC SCALE
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EVACUATION ROUTE
F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SPRINKLER VALVES
ELECTRICAL PANEL
MAIN ELEC DISCONNECT
ELEVATOR
EQUIPMENT ROOM 32A
SWITCHBOARD ROOM
208Y
240Y
MEN
WOMEN
UP
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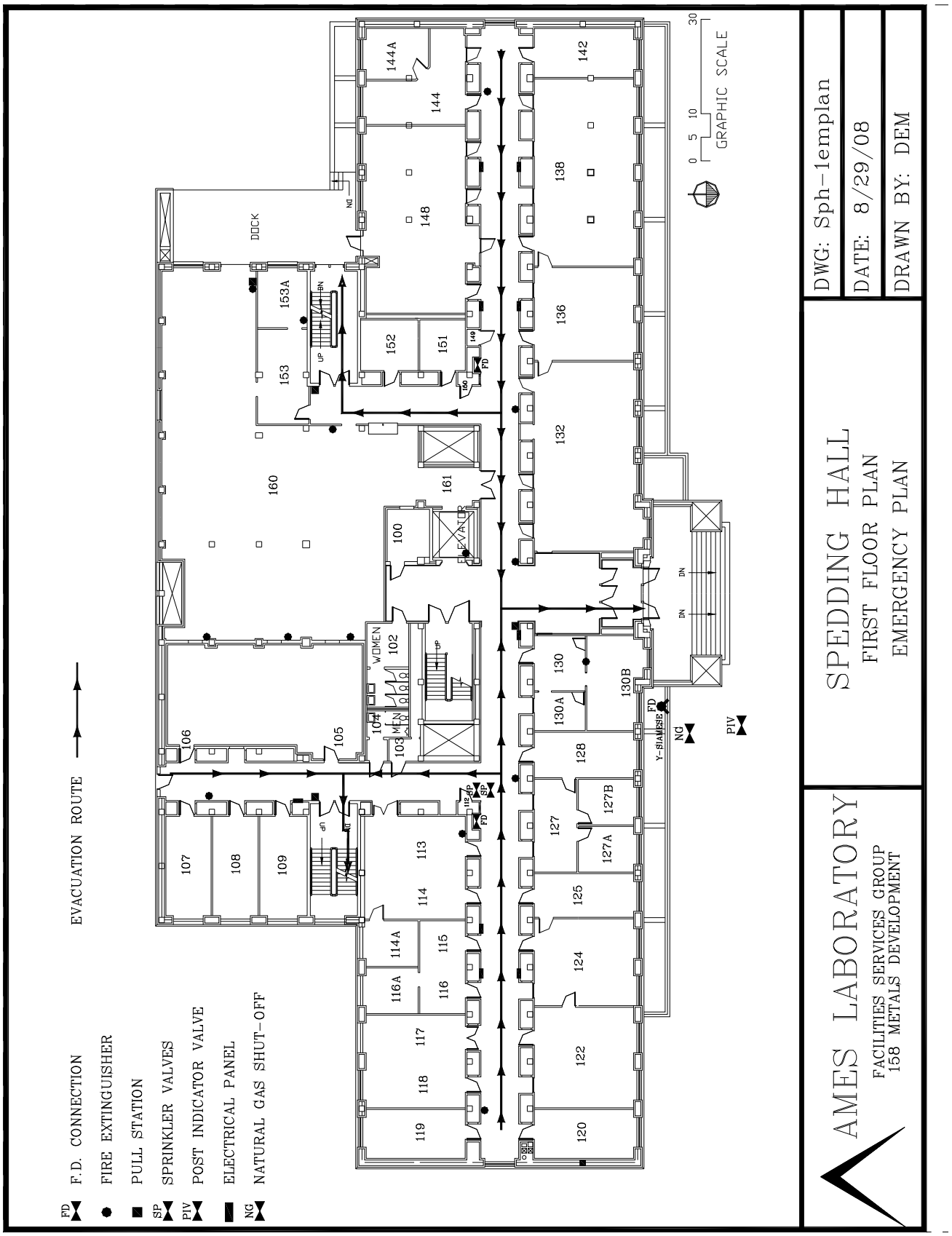
FD
SP
EndCap


SPEDDING HALL
FIRST FLOOR PLAN
EMERGENCY PLAN
DWG: Sph-1emplan
DATE: 8/29/08
DRAWN BY: DEM
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT
GRAPHIC SCALE
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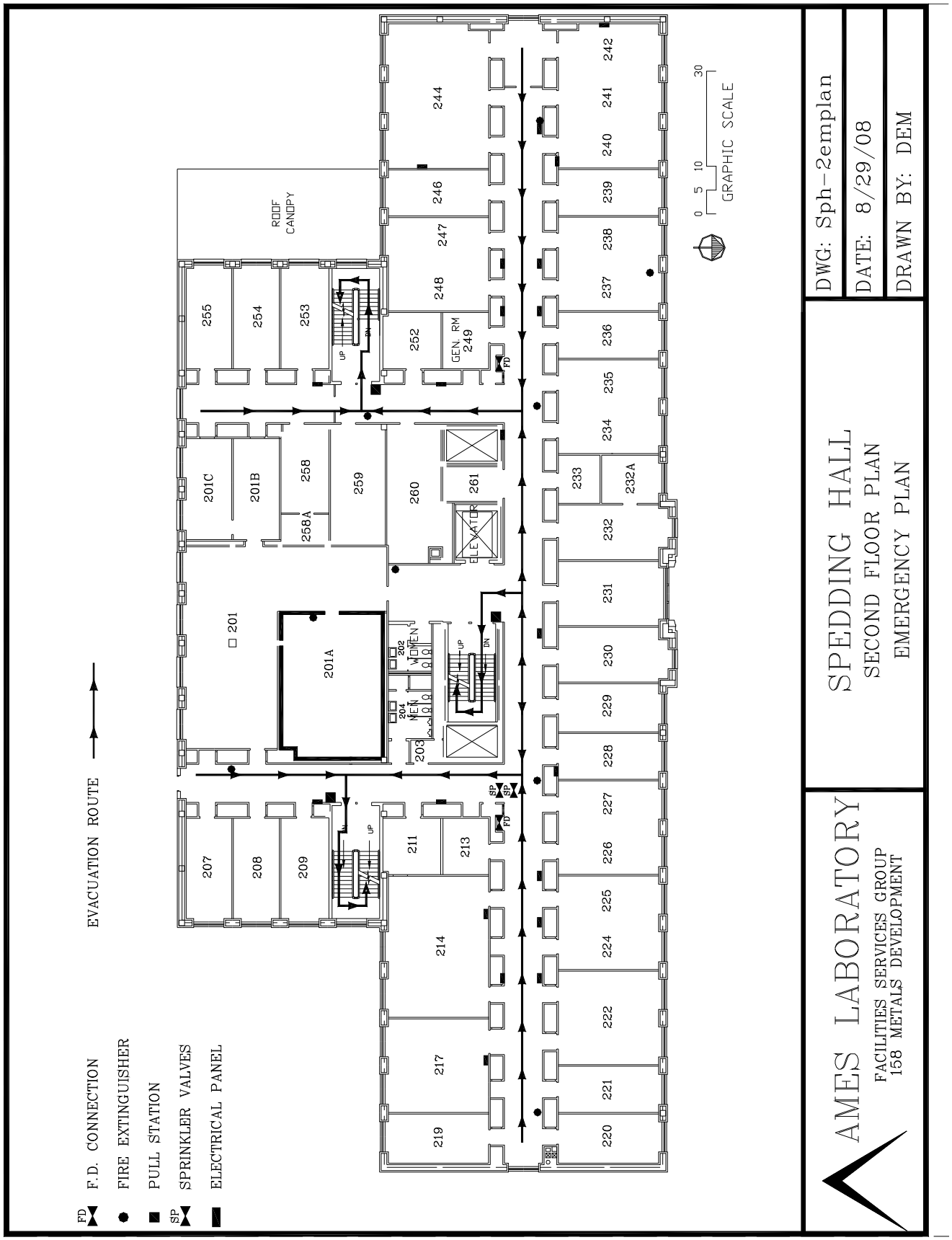
EVACUATION ROUTE
F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SPRINKLER VALVES
POST INDICATOR VALVE
ELECTRICAL PANEL
NATURAL GAS SHUT-OFF
DOCK
WOMEN
MEN
ELEVATOR
Y-SIAMESE


SPEDDING HALL
SECOND FLOOR PLAN
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT
DWG: Sph-2emplan
DATE: 8/29/08
DRAWN BY: DEM
GRAPHIC SCALE
0 5 10 30
EVACUATION ROUTE
F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SPRINKLER VALVES
ELECTRICAL PANEL
ROOF CANOPY
GEN. RM 249
ELEVATOR
WOMEN
MEN
201
201A
201B
201C
202
203
204
207
208
209
211
213
214
217
219
220
221
222
224
225
226
227
228
229
230
231
232
232A
233
234
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236
237
238
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253
254
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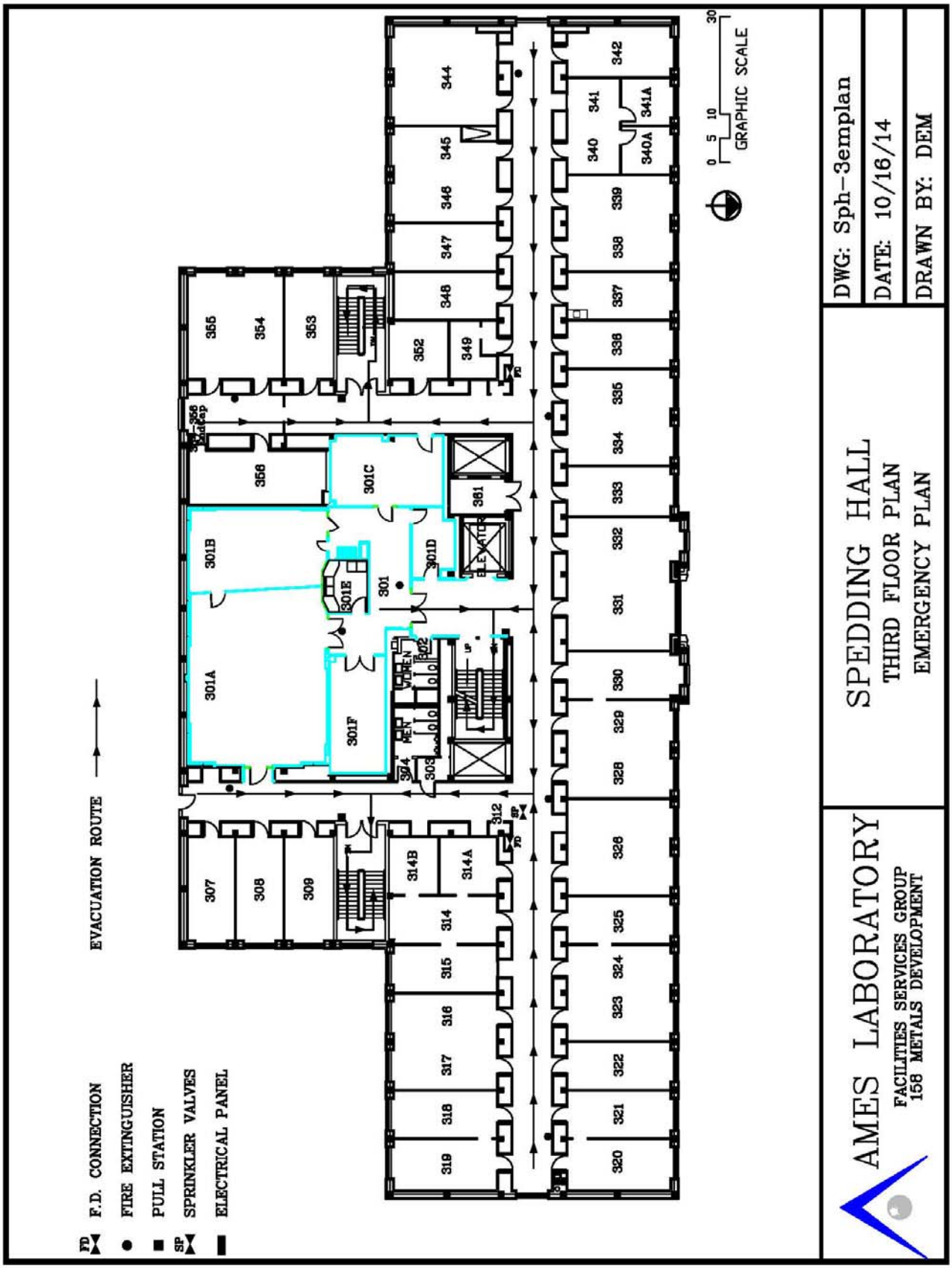
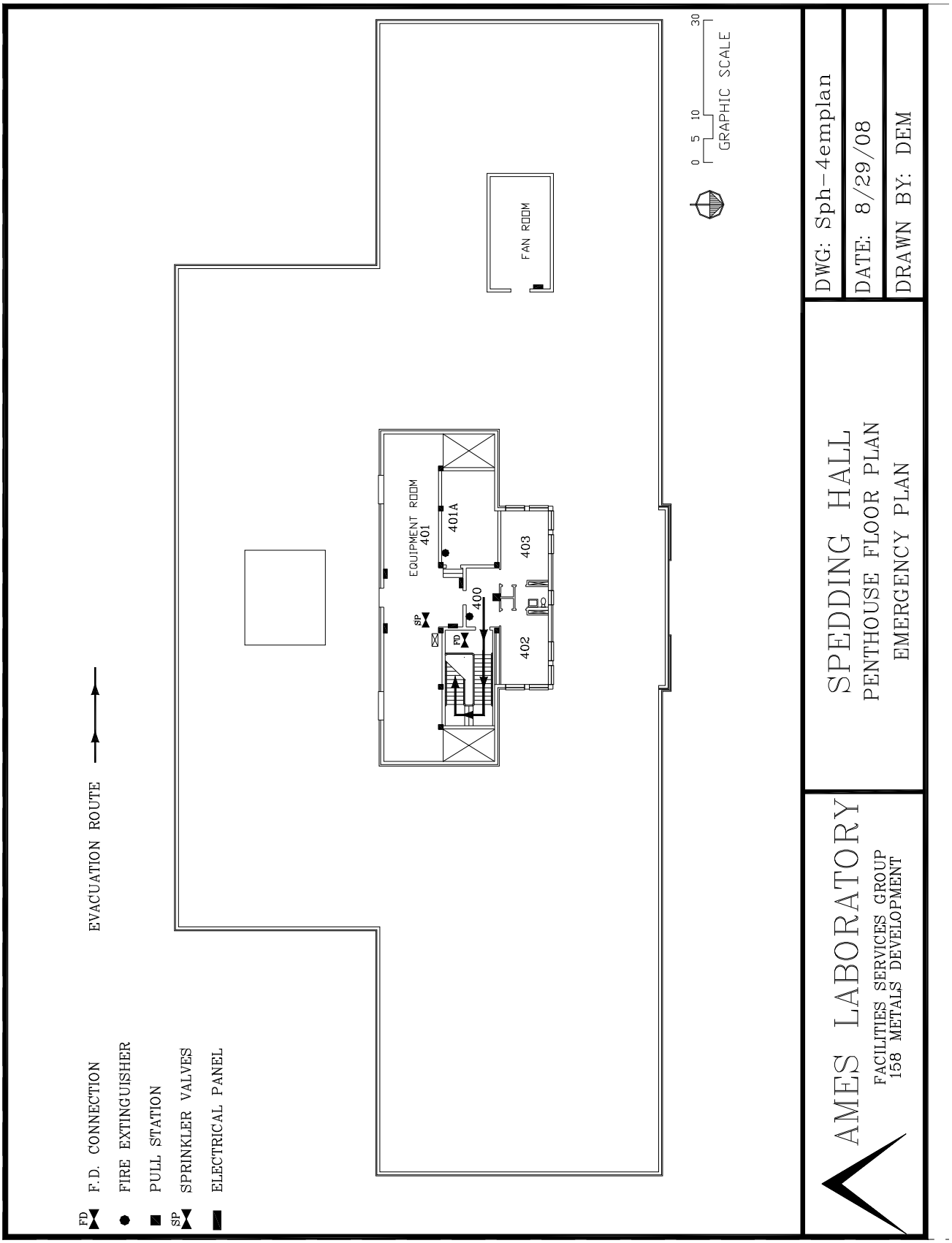
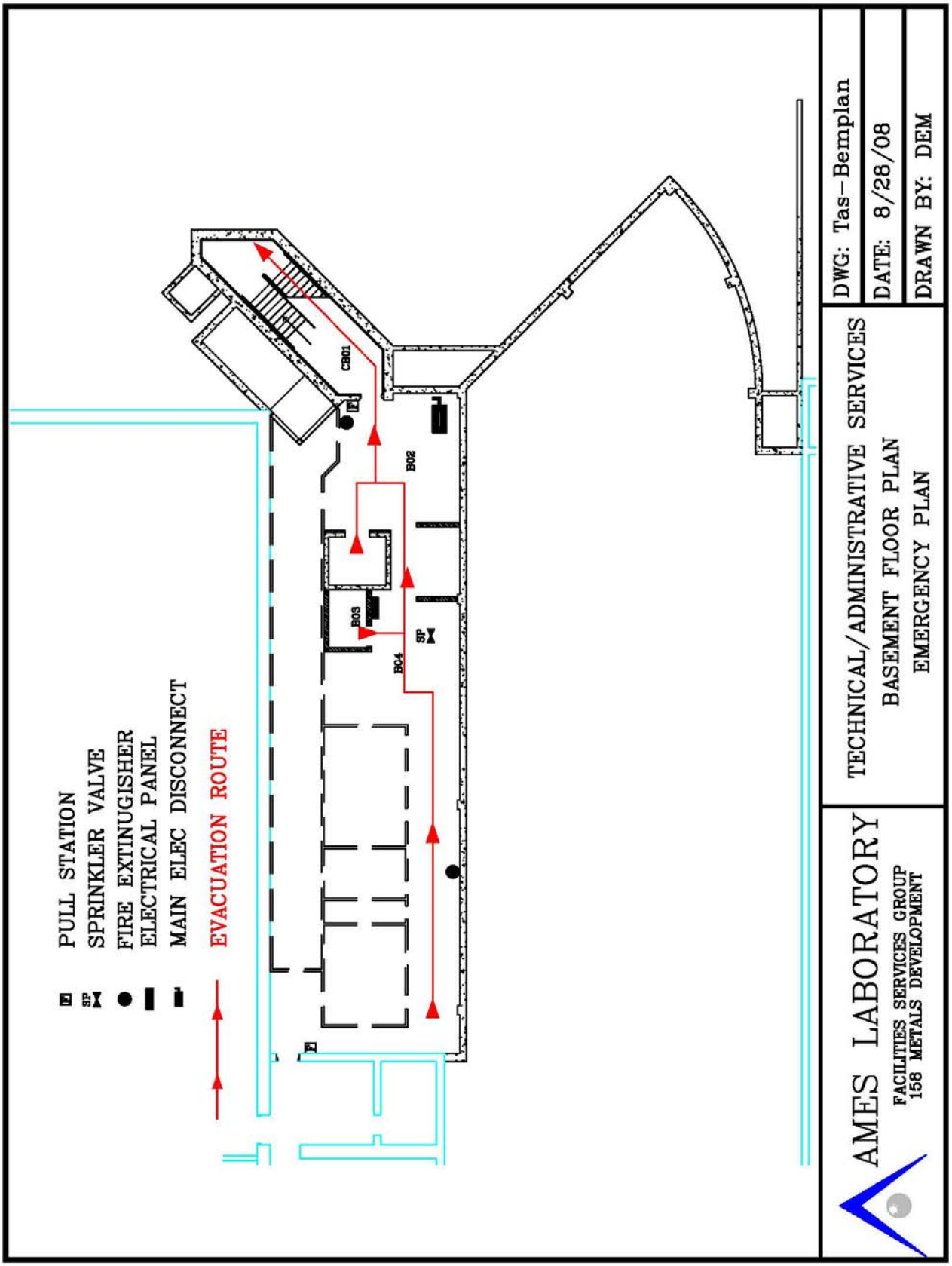
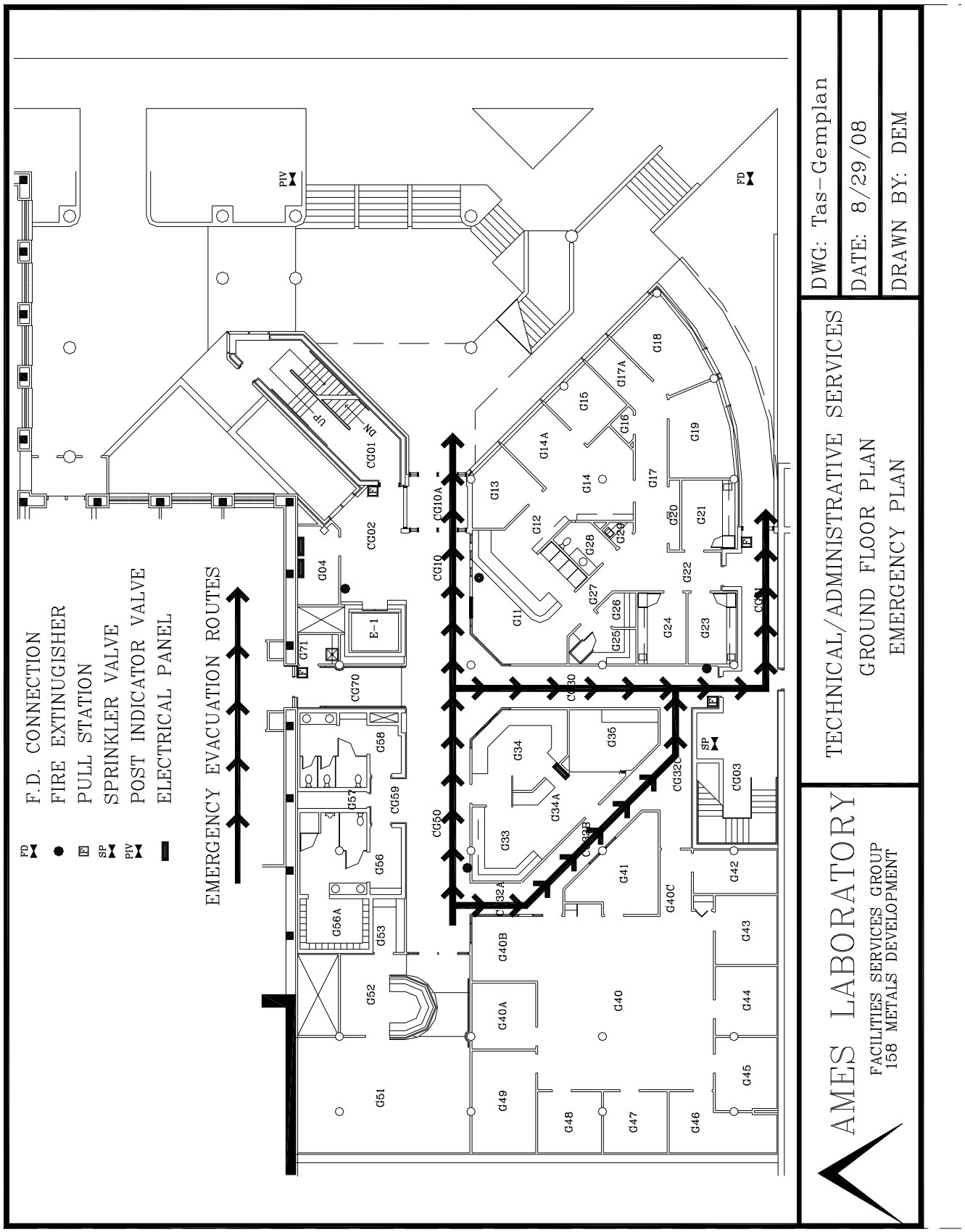
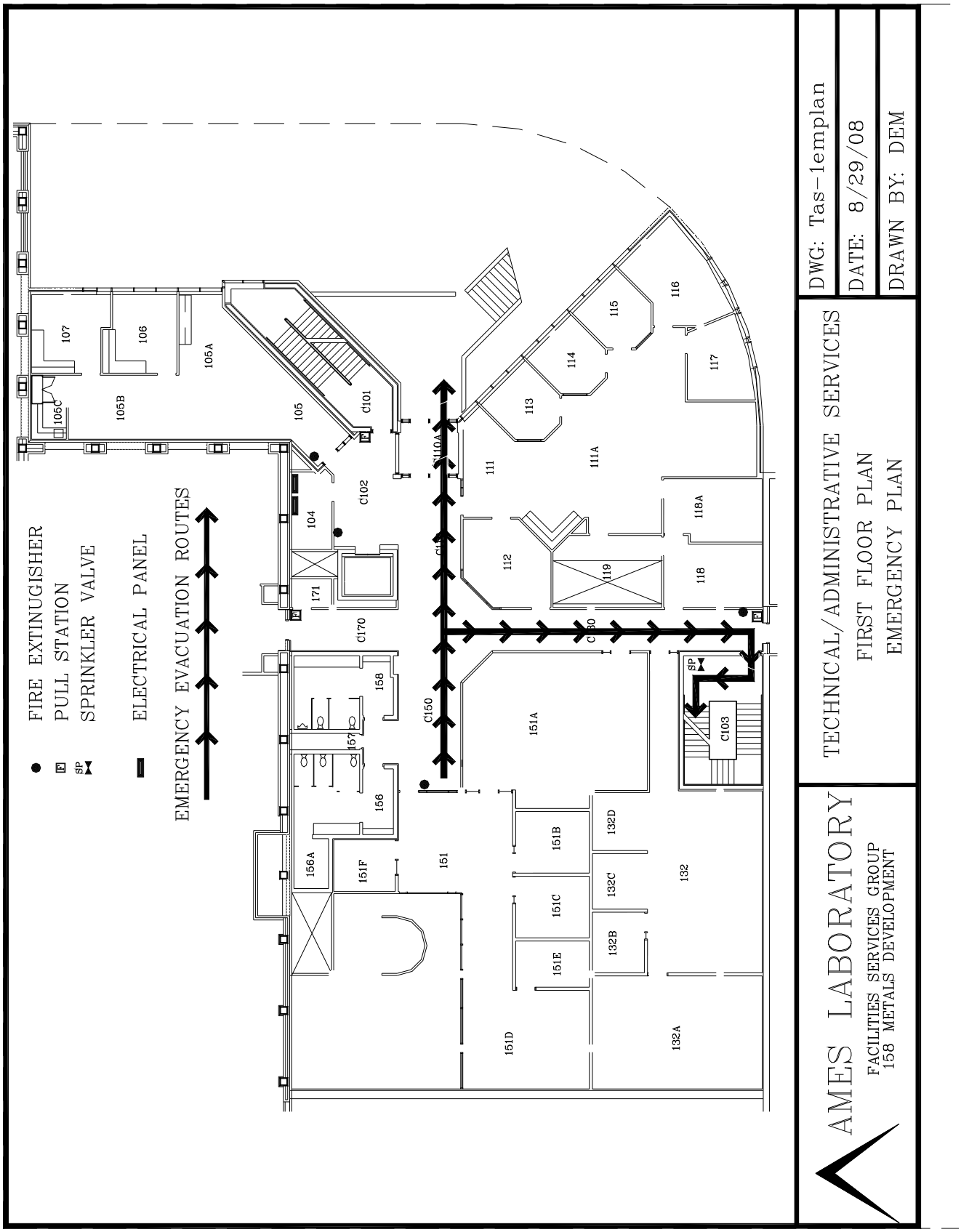
258A
259
260
261
UP
DN
FD
SP

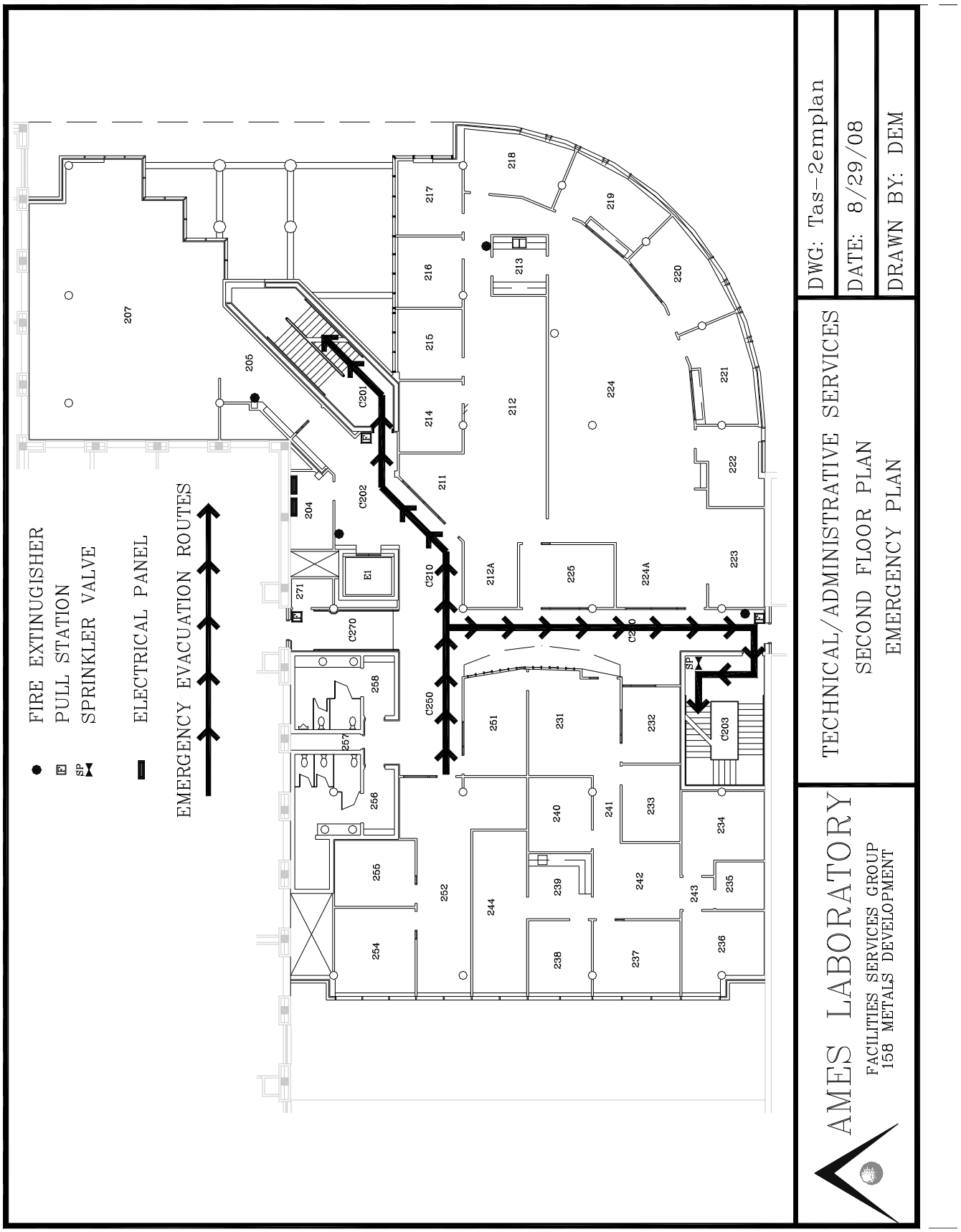

SPEDDING HALL
THIRD FLOOR PLAN
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT
DWG: Sph-3emplan
DATE: 10/16/14
DRAWN BY: DEM
GRAPHIC SCALE
0 5 10 30
EVACUATION ROUTE
F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SPRINKLER VALVES
ELECTRICAL PANEL
ELEVATOR
WOMEN
MEN

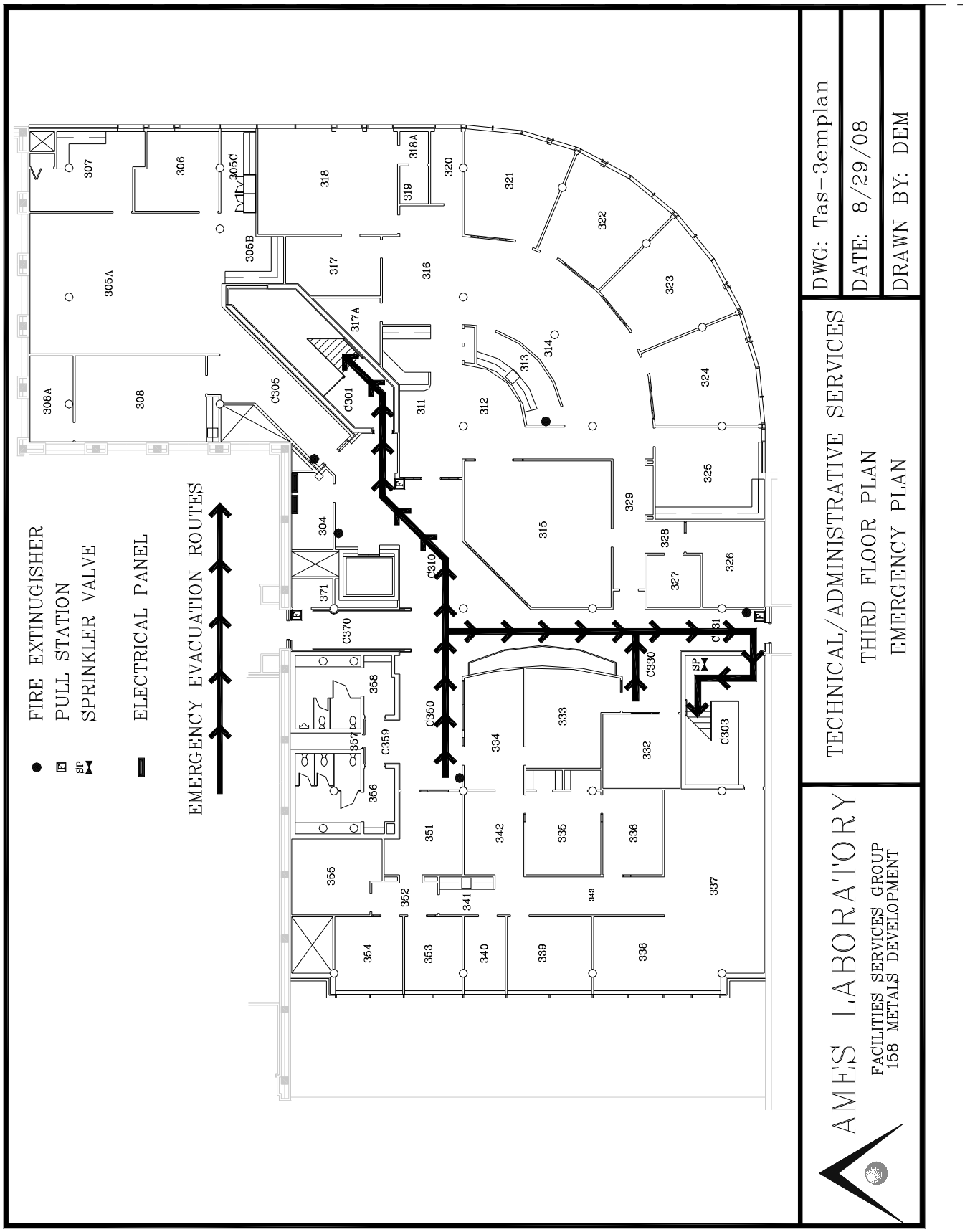

FAN ROOM
EQUIPMENT ROOM
401
401A
403
400
402
SP
FD
GRAPHIC SCALE
0 5 10 30
EVACUATION ROUTE
F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SPRINKLER VALVES
ELECTRICAL PANEL
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT
SPEDDING HALL
PENTHOUSE FLOOR PLAN
EMERGENCY PLAN
DWG: Sph-4emplan
DATE: 8/29/08
DRAWN BY: DEM

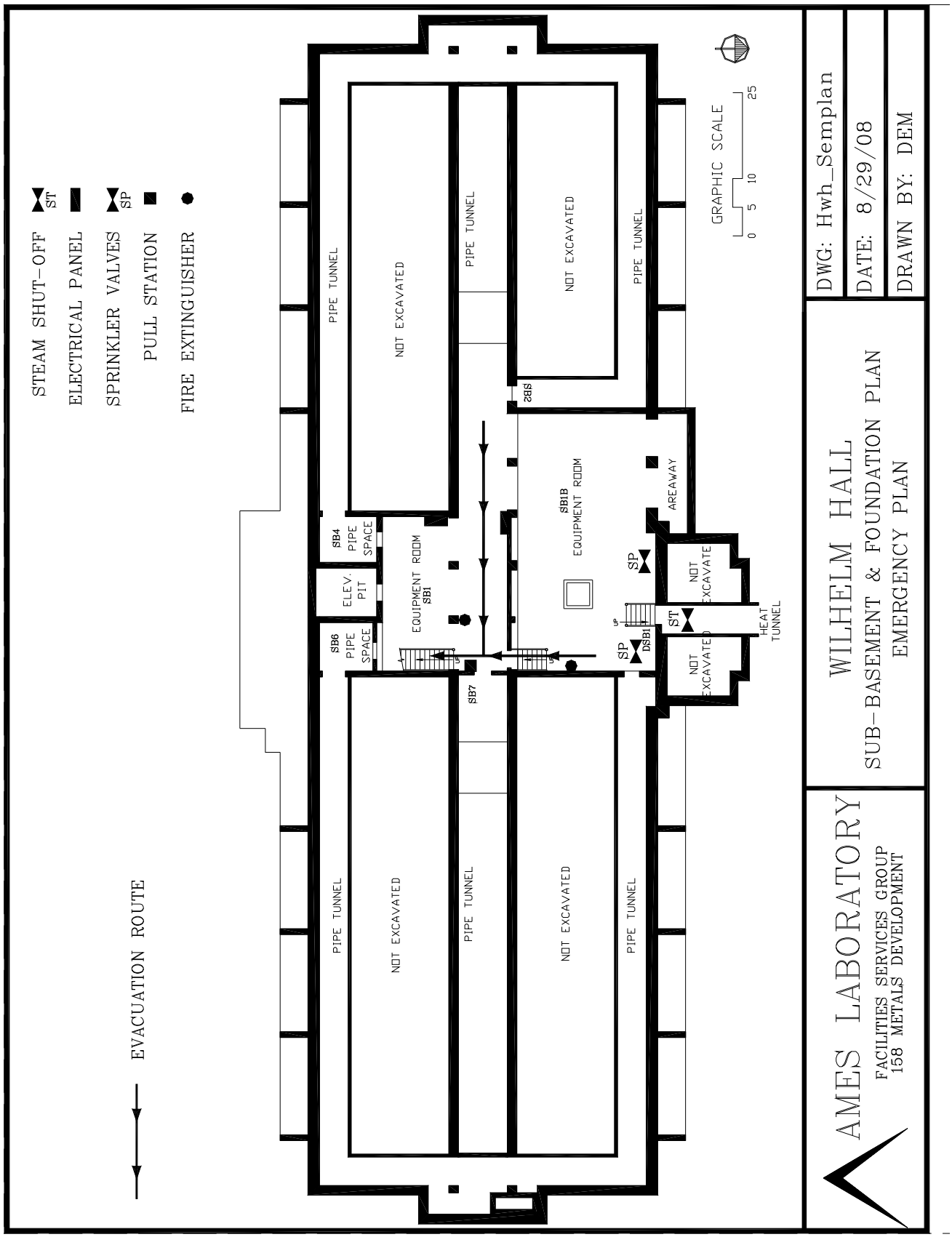

PULL STATION
SPRINKLER VALVE
FIRE EXTINUGISHER
ELECTRICAL PANEL
MAIN ELEC DISCONNECT
EVACUATION ROUTE
CB01
B02
B03
B04
SP
TECHNICAL/ADMINISTRATIVE SERVICES
BASEMENT FLOOR PLAN
EMERGENCY PLAN
DWG: Tas-Bemplan
DATE: 8/28/08
DRAWN BY: DEM
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT

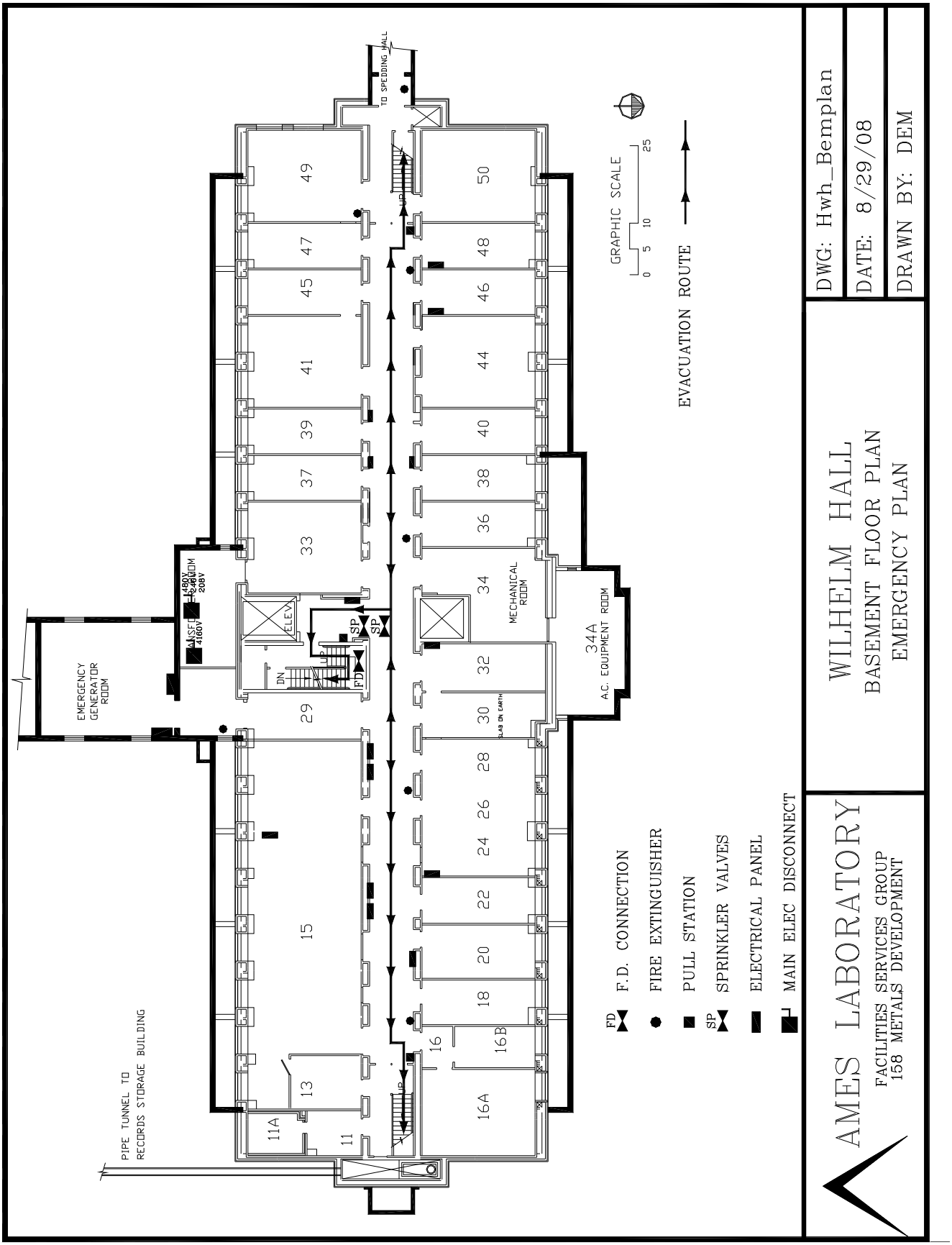

F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SPRINKLER VALVE
POST INDICATOR VALVE
ELECTRICAL PANEL
EMERGENCY EVACUATION ROUTES
DWG: Tas-Gemplan
DATE: 8/29/08
DRAWN BY: DEM
TECHNICAL/ADMINISTRATIVE SERVICES
GROUND FLOOR PLAN
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT

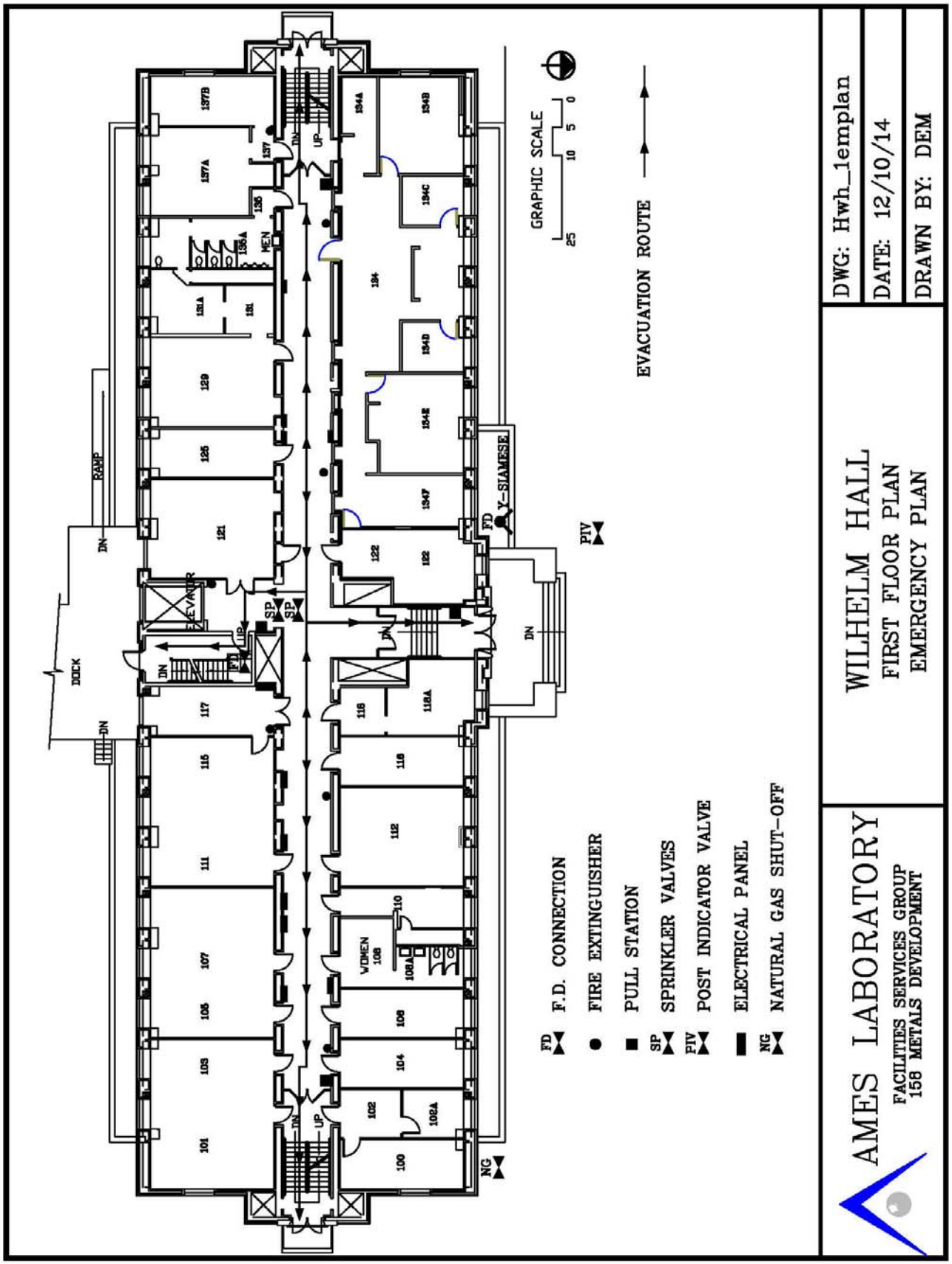

FIRE EXTINUGISHER
PULL STATION
SPRINKLER VALVE
ELECTRICAL PANEL
EMERGENCY EVACUATION ROUTES
TECHNICAL/ADMINISTRATIVE SERVICES
FIRST FLOOR PLAN
EMERGENCY PLAN
DWG: Tas-1emplan
DATE: 8/29/08
DRAWN BY: DEM
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT

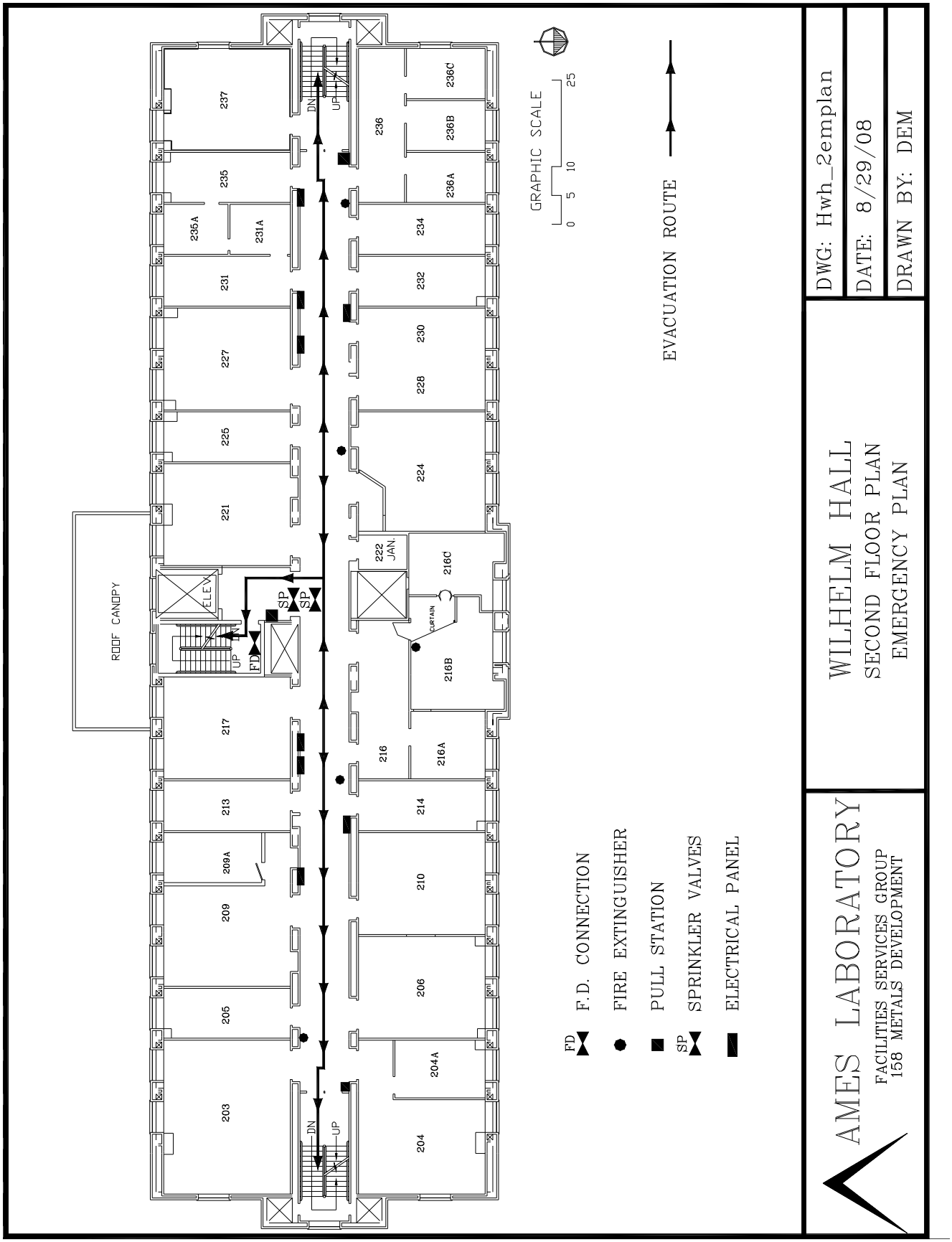

FIRE EXTINUGISHER
PULL STATION
SPRINKLER VALVE
ELECTRICAL PANEL
EMERGENCY EVACUATION ROUTES
TECHNICAL/ADMINISTRATIVE SERVICES
SECOND FLOOR PLAN
EMERGENCY PLAN
DWG: Tas-2emplan
DATE: 8/29/08
DRAWN BY: DEM
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT

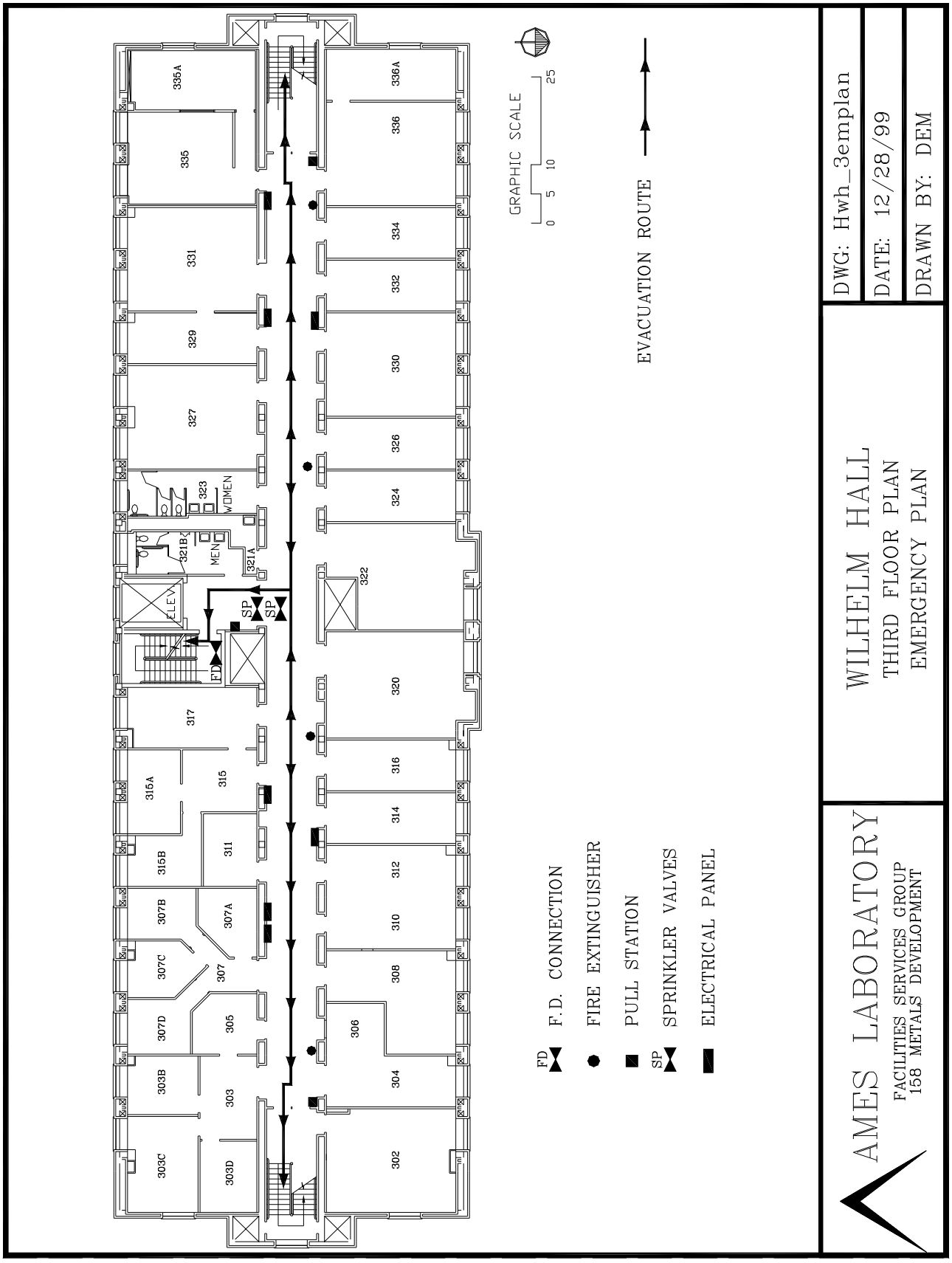

FIRE EXTINUGISHER
PULL STATION
SPRINKLER VALVE
ELECTRICAL PANEL
EMERGENCY EVACUATION ROUTES
TECHNICAL/ADMINISTRATIVE SERVICES
THIRD FLOOR PLAN
EMERGENCY PLAN
DWG: Tas-3emplan
DATE: 8/29/08
DRAWN BY: DEM
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT

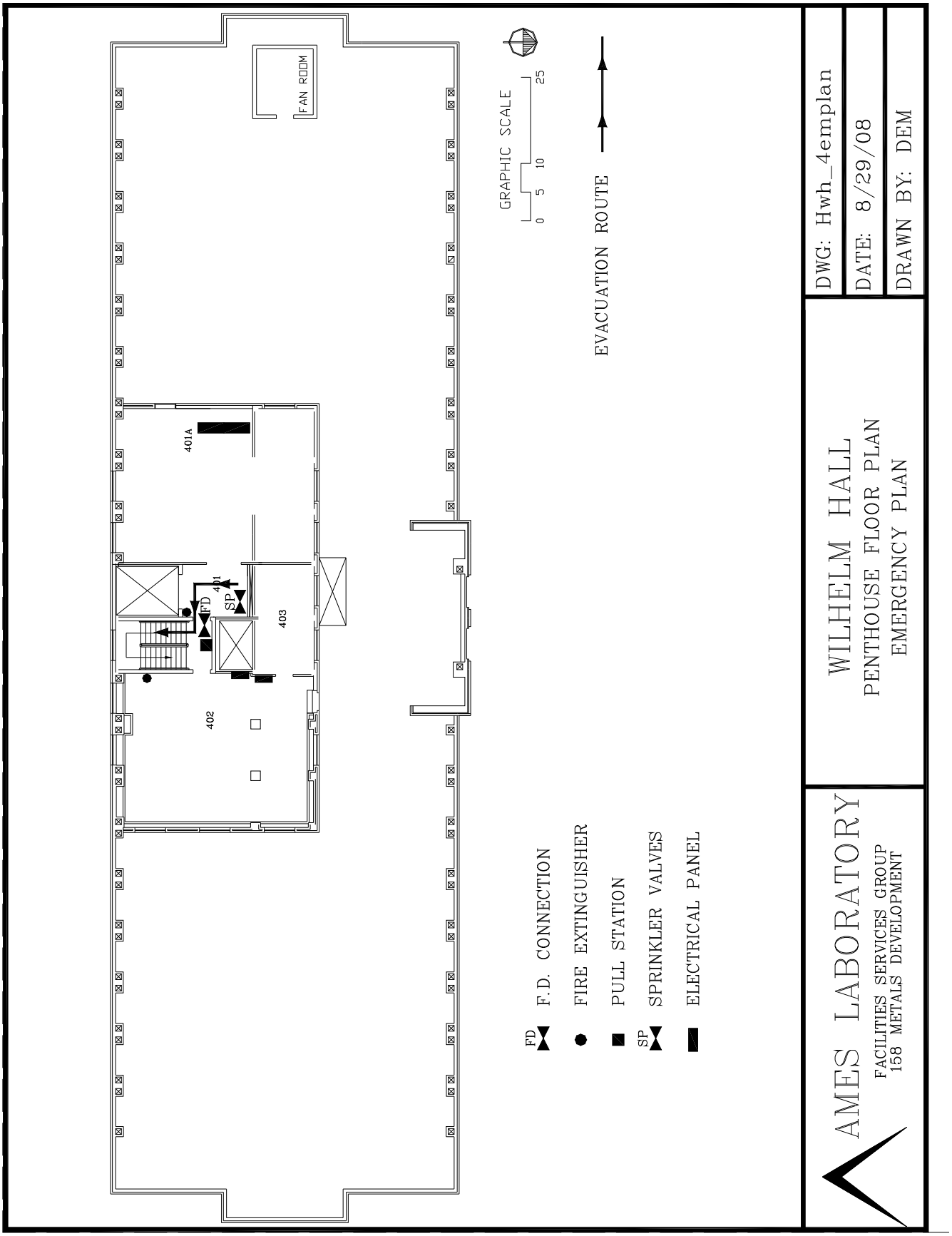

STEAM SHUT-OFF ST
ELECTRICAL PANEL
SPRINKLER VALVES SP
PULL STATION
FIRE EXTINGUISHER
EVACUATION ROUTE
GRAPHIC SCALE
0 5 10 25
PIPE TUNNEL
NOT EXCAVATED
SB4 PIPE SPACE
ELEV. PIT
EQUIPMENT ROOM SB1
SB6 PIPE SPACE
SB7
SB8
SB1B EQUIPMENT ROOM
AREAWAY
DSB1
HEAT TUNNEL
DWG: Hwh_Semplan
DATE: 8/29/08
DRAWN BY: DEM
WILHELM HALL
SUB-BASEMENT & FOUNDATION PLAN
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT

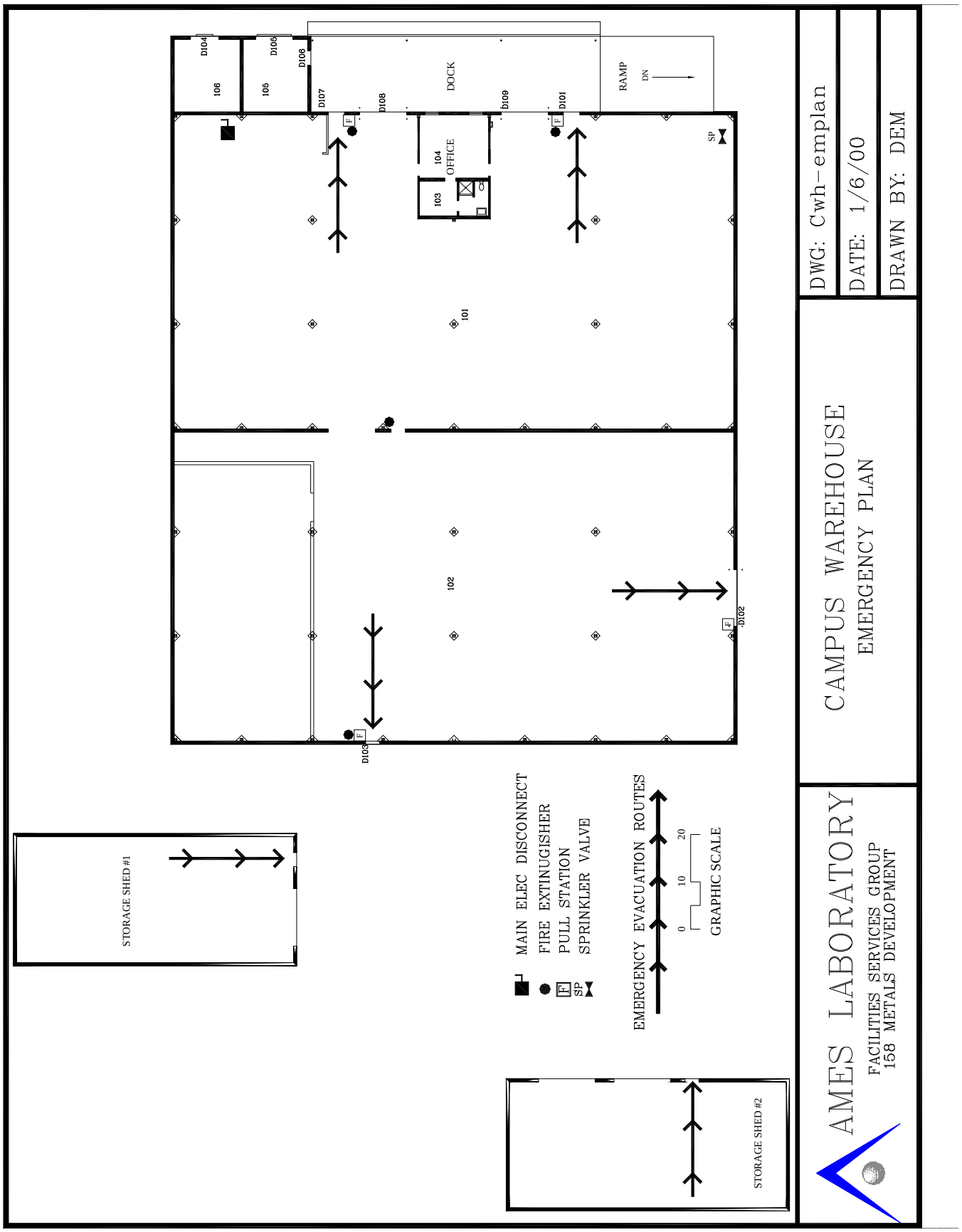

WILHELM HALL
BASEMENT FLOOR PLAN
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT
DWG: Hwh_Bemplan
DATE: 8/29/08
DRAWN BY: DEM
EVACUATION ROUTE
GRAPHIC SCALE
0 5 10 25
F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SPRINKLER VALVES
ELECTRICAL PANEL
MAIN ELEC DISCONNECT
EMERGENCY GENERATOR ROOM
MECHANICAL ROOM
34A
A.C. EQUIPMENT ROOM
ELEV
UP
DN
PIPE TUNNEL TO RECORDS STORAGE BUILDING
TO SPEDDING HALL

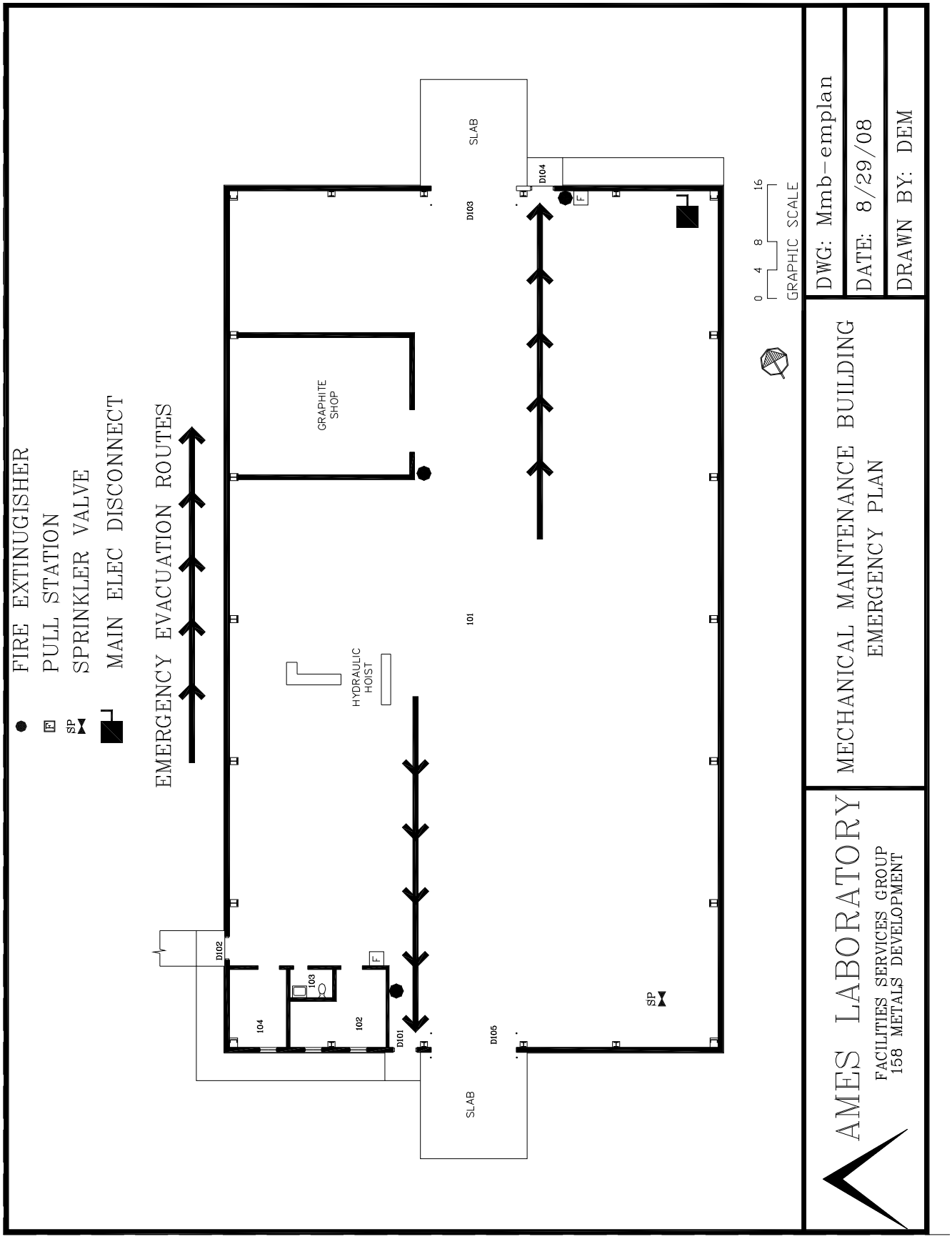

WILHELM HALL
FIRST FLOOR PLAN
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT
DWG: Hwh_1emplan
DATE: 12/10/14
DRAWN BY: DEM
GRAPHIC SCALE
25 10 5 0
EVACUATION ROUTE
FD F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SP SPRINKLER VALVES
PIV POST INDICATOR VALVE
ELECTRICAL PANEL
NG NATURAL GAS SHUT-OFF
Y-SIAMESE
RAMP
DOCK
ELEVATOR
MEN
WOMEN
DN
UP

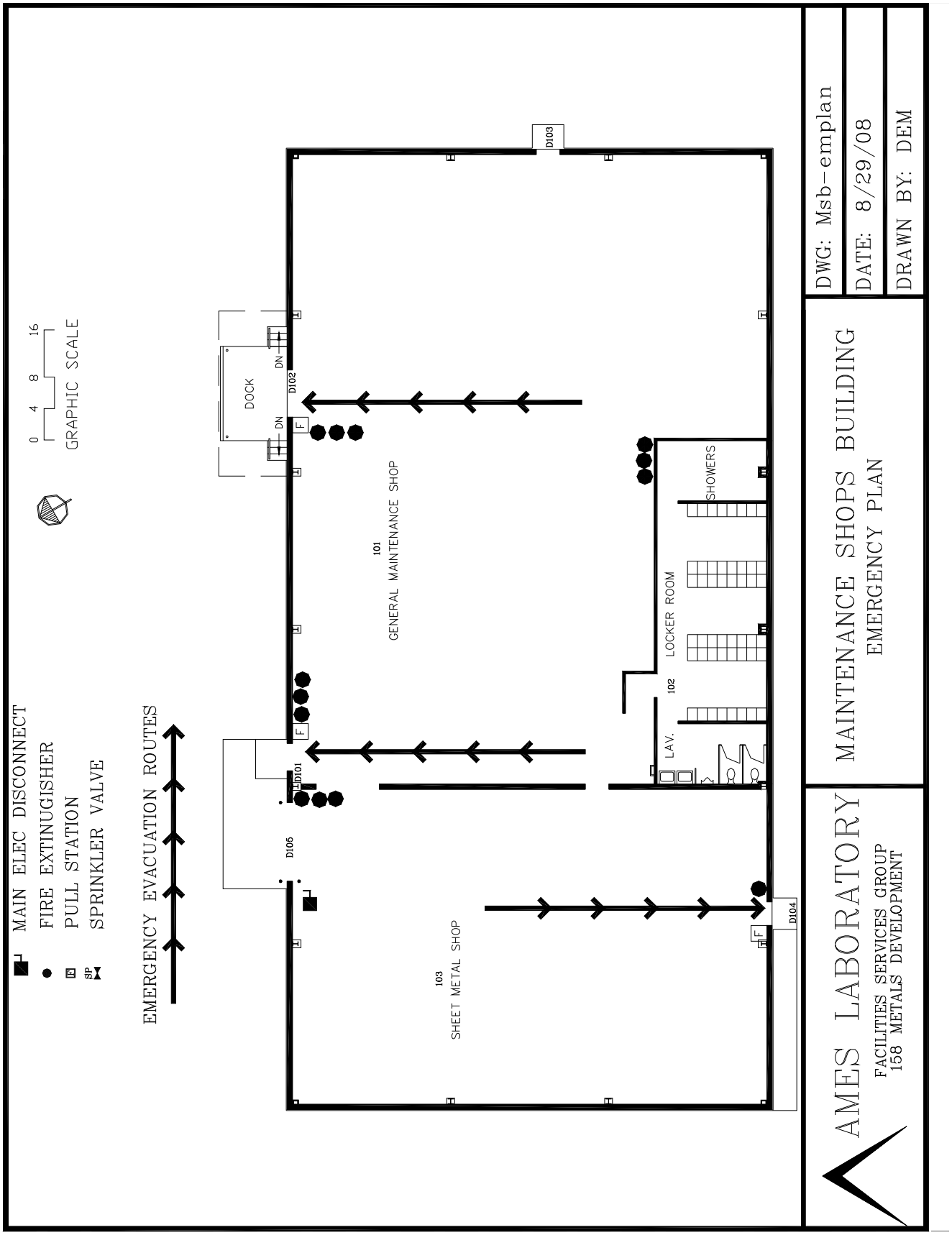

GRAPHIC SCALE
0 5 10 25
EVACUATION ROUTE
F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SPRINKLER VALVES
ELECTRICAL PANEL
ROOF CANOPY
ELEV
DN
UP
FD
SP
CURTAIN
222 JAN.
237
236
236C
236B
236A
235
235A
231A
234
231
232
227
230
228
225
224
221
216C
216B
217
216
216A
213
214
209A
210
209
206
205
204A
203
204
DWG: Hwh_2emplan
DATE: 8/29/08
DRAWN BY: DEM
WILHELM HALL
SECOND FLOOR PLAN
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT

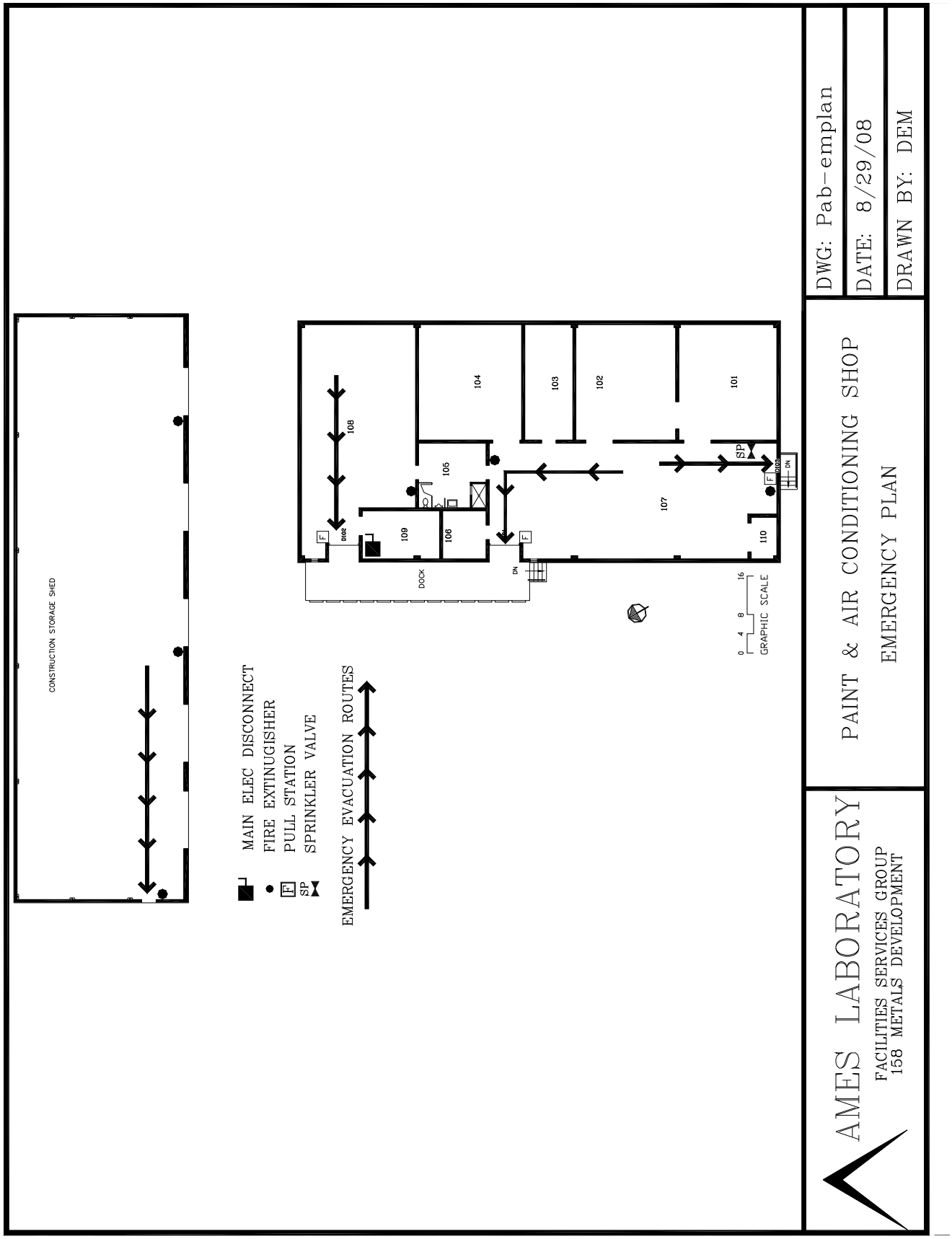

GRAPHIC SCALE
0 5 10 25
EVACUATION ROUTE
FD F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SP SPRINKLER VALVES
ELECTRICAL PANEL
WOMEN
MEN
ELEV
SP
FD
DWG: Hwh_3emplan
DATE: 12/28/99
DRAWN BY: DEM
WILHELM HALL
THIRD FLOOR PLAN
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT

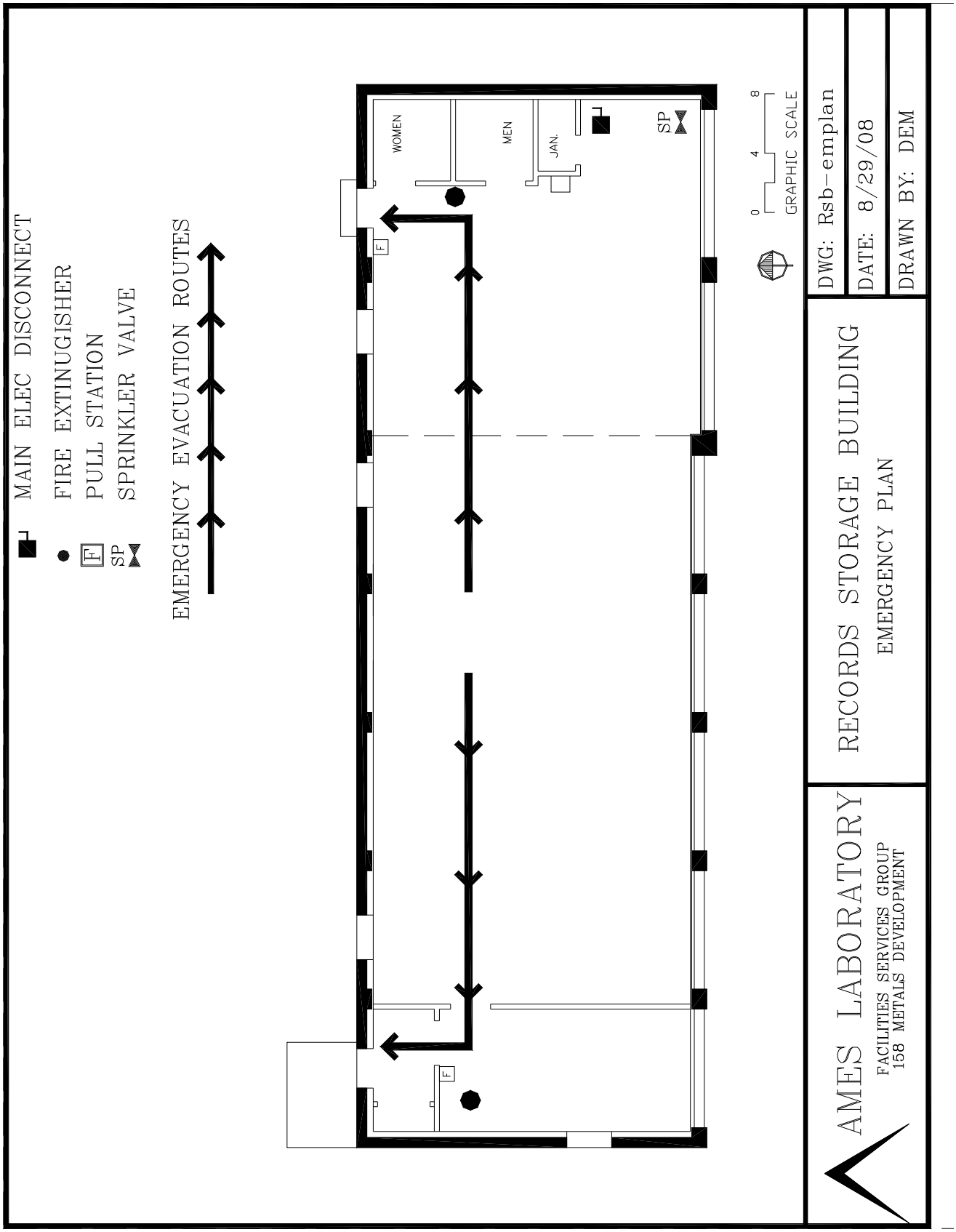

FAN ROOM
401A
401
FD
SP
403
402
GRAPHIC SCALE
0 5 10 25
EVACUATION ROUTE
F.D. CONNECTION
FIRE EXTINGUISHER
PULL STATION
SPRINKLER VALVES
ELECTRICAL PANEL
DWG: Hwh_4emplan
DATE: 8/29/08
DRAWN BY: DEM
WILHELM HALL
PENTHOUSE FLOOR PLAN
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT


D104
D105
D106
106
105
DOCK
RAMP
DN
D107
D108
D109
D101
F
SP
104
OFFICE
103
101
102
D102
D103
STORAGE SHED #1
MAIN ELEC DISCONNECT
FIRE EXTINUGISHER
PULL STATION
SPRINKLER VALVE
EMERGENCY EVACUATION ROUTES
0
10
20
GRAPHIC SCALE
STORAGE SHED #2
DWG: Cwh-emplan
DATE: 1/6/00
DRAWN BY: DEM
CAMPUS WAREHOUSE
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT


FIRE EXTINUGISHER
PULL STATION
SPRINKLER VALVE
MAIN ELEC DISCONNECT
EMERGENCY EVACUATION ROUTES
SLAB
GRAPHITE SHOP
HYDRAULIC HOIST
D101
D102
D103
D104
D105
101
102
103
104
SP
F
0 4 8 16
GRAPHIC SCALE
DWG: Mmb-emplan
DATE: 8/29/08
DRAWN BY: DEM
MECHANICAL MAINTENANCE BUILDING
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT


MAIN ELEC DISCONNECT
FIRE EXTINUGISHER
PULL STATION
SPRINKLER VALVE
EMERGENCY EVACUATION ROUTES
0 4 8 16
GRAPHIC SCALE
DOCK
D102
DN
DN
F
D103
101
GENERAL MAINTENANCE SHOP
SHOWERS
LOCKER ROOM
102
LAV.
D101
D105
103
SHEET METAL SHOP
D104
F
DWG: Msb-emplan
DATE: 8/29/08
DRAWN BY: DEM
MAINTENANCE SHOPS BUILDING
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT


CONSTRUCTION STORAGE SHED
MAIN ELEC DISCONNECT
FIRE EXTINUGISHER
PULL STATION
SPRINKLER VALVE
EMERGENCY EVACUATION ROUTES
104
103
102
101
108
105
107
109
106
110
DOCK
SP
DN
GRAPHIC SCALE
0 4 8 16
DWG: Pab-emplan
DATE: 8/29/08
DRAWN BY: DEM
PAINT & AIR CONDITIONING SHOP
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT


MAIN ELEC DISCONNECT
FIRE EXTINUGISHER
PULL STATION
SPRINKLER VALVE
EMERGENCY EVACUATION ROUTES
WOMEN
MEN
JAN.
SP
F
0
4
8
GRAPHIC SCALE
DWG: Rsb-emplan
DATE: 8/29/08
DRAWN BY: DEM
RECORDS STORAGE BUILDING
EMERGENCY PLAN
AMES LABORATORY
FACILITIES SERVICES GROUP
158 METALS DEVELOPMENT

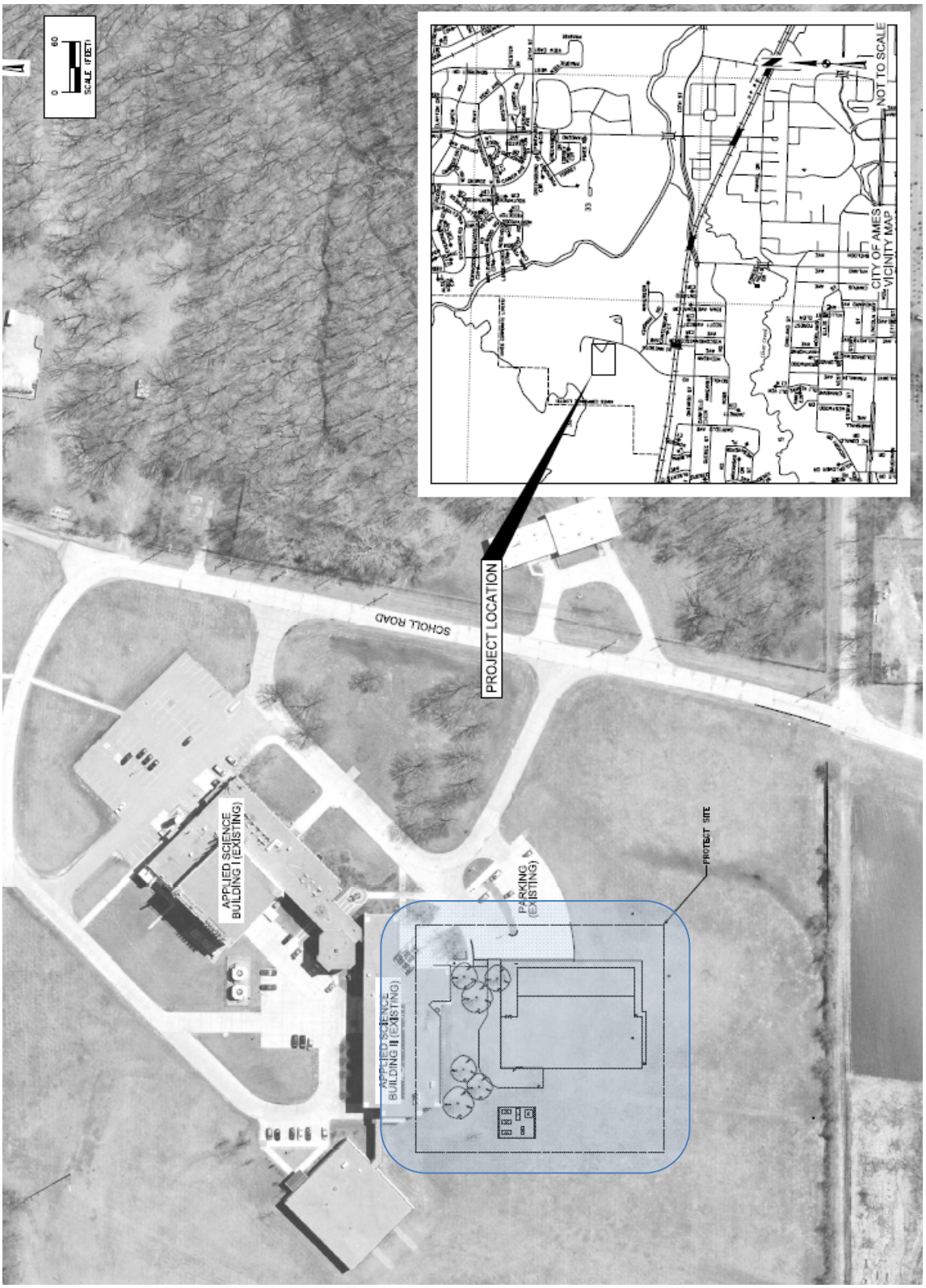


FIGURE 2. Site Map-Sensitive Instrument Facility (SIF), Ames Laboratory, Iowa State University, Applied Sciences Complex

SENSITIVE INSTRUMENT FACILITY