

Pictorial Directory & Hazard Analysis of **CONFINED SPACES**

in SC Department of Administration Buildings

(Listed Alphabetically by Building Name)

F - Z



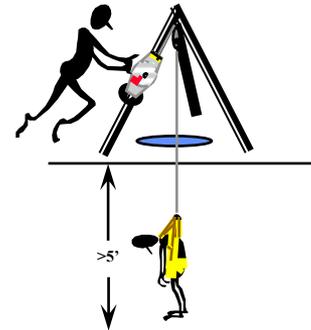
Safety Program

Revised as of
July 2015

Permit Required Confined Space Entry

REQUIRES:

- **Permit** From Your Supervisor
- **Rescue Equipment**
- **Attendant** - 1 Per Each Entrant



Confined Space Rescue Equipment
Located in FM Back Shop
See [Kurt Patrick](#) 518-5417



**Gas Monitor
REQUIRED**
To Take Continuous
Atmospheric Readings
For ALL Types of
Confined Spaces

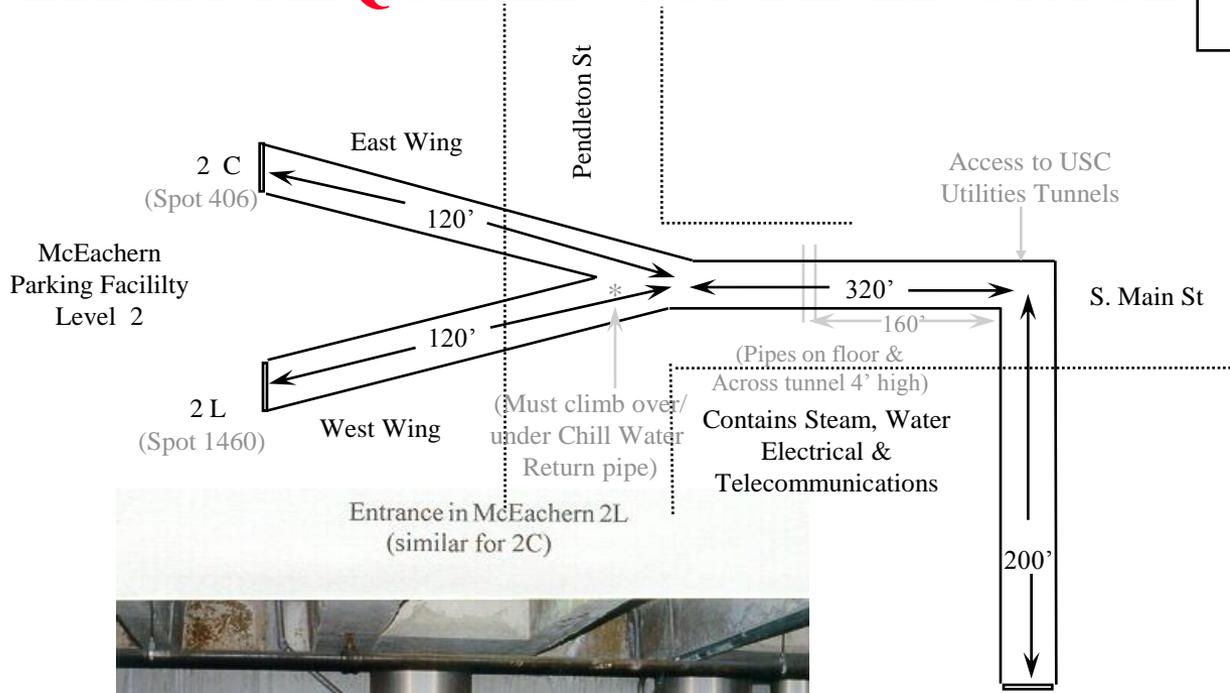
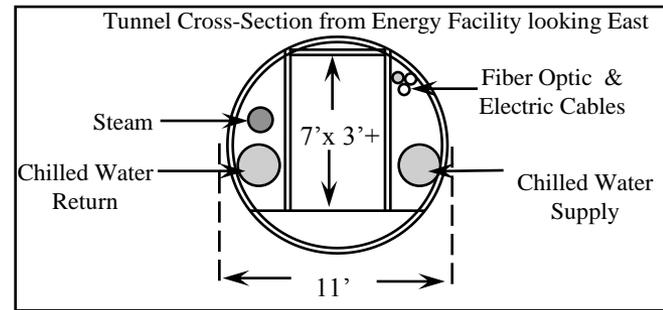
Questions: Call
Bernie Lee, Safety
737-2315

FM ENERGY FACILITY

Bldg 100410, 1121 College St

TUNNEL to McEACHERN PARKING FACILITY

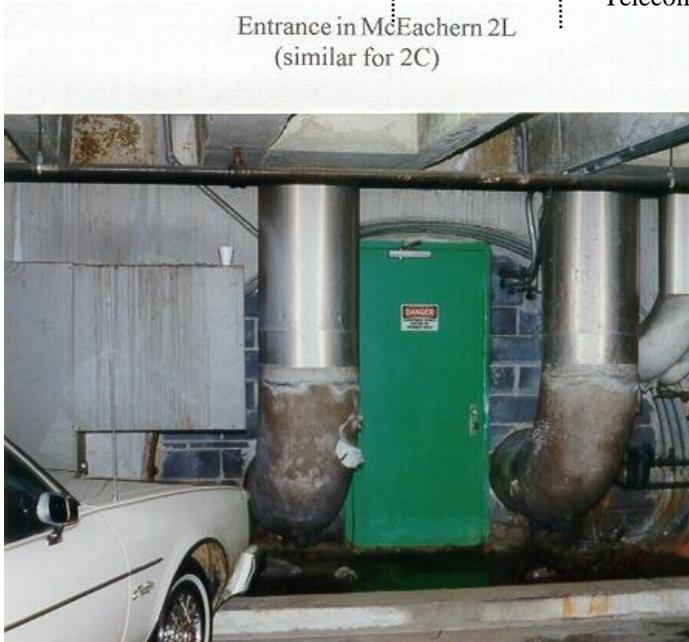
PERMIT REQUIRED CONFINED SPACE



CAUTION

Nextel phone/radios only work part way through the tunnel

Obtain radios from FM Building Systems that allow an Attendant at either end of the tunnel to maintain positive contact with the Entrant through the entire length of the tunnel.



FM Energy Facility Basement Entrance

Updated: Oct 2009

CONFINED SPACES SURVEY

Job Safety Analysis Worksheet

Tunnel between McEachern &

Title of Job/Operation State Complex Energy Facility Date 6/96 & 9/27/96 No. _____

Position/Title(s) of Person(s) Who Do Job _____ Name of Employee Observed _____

Analysis Made By Bernie Lee

Department Building Systems

Section Facilities Management

Analysis Approved by Confined Space Committee

Sequence of Basic Job Steps	Potential Accidents or Hazards	Recommended Safe Job Procedures
1. Enter tunnel	E- Lack O ₂ /gases	Take air samples prior to entry
	FS- Slip/Trip	Wear appropriate work shoes
2. Conduct work	E- Lack O ₂ /gases	Take air samples during entry
	E- Electrical/Heat	Use LOTO prior to entry; take water & rest breaks A/R; wear appropriate PPE
	FS- Slip/Trip	Wear appropriate work shoes
	CW- Water/Steam	Use LOTO prior to entry; Hot Work Permit & Emergency evacuation procedures
3. Exiting	SA- Pipes (at "Y")	Install steps across pipe
	E, FS, CW, SA	(see above)
	CI- Doors locked from outside tunnel	Change locks so keys not needed for escape

Struck By (SB)
Struck Against (SA)
Contacted By (CB)
Contact With (CW)

Caught On (CO)
Caught In (CI)
Caught Between (CBT)
Fall to Same Level (FS)

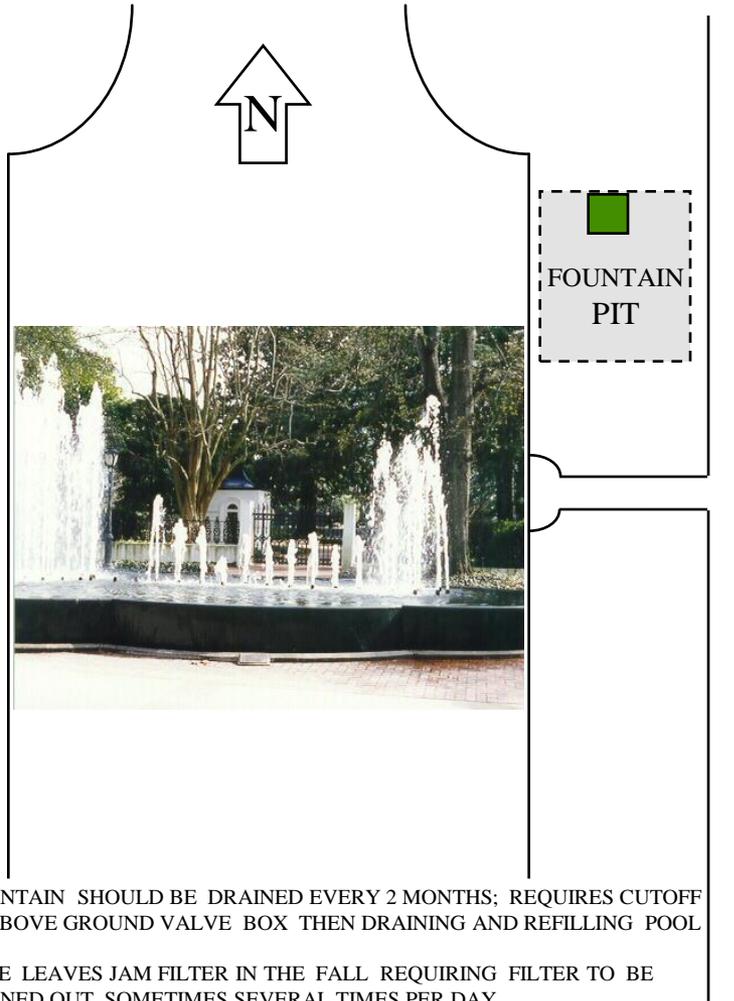
Fall to Below (FB)
Overexertion (OE)
Exposure (E)

Governor's Mansion

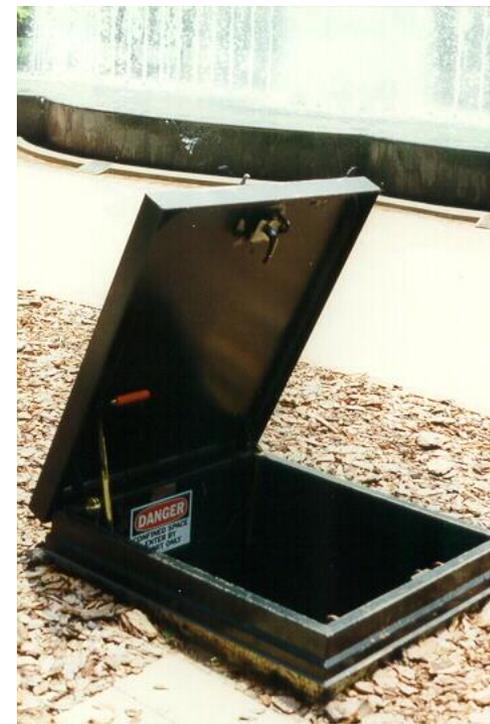
Bldg 800038, 800 Richland St

Fountain Pit

Non-Permit Confined Space



- FOUNTAIN SHOULD BE DRAINED EVERY 2 MONTHS; REQUIRES CUTOFF AT ABOVE GROUND VALVE BOX THEN DRAINING AND REFILLING POOL
- TREE LEAVES JAM FILTER IN THE FALL REQUIRING FILTER TO BE CLEANED OUT, SOMETIMES SEVERAL TIMES PER DAY
- ALL OTHER OPERATIONS ARE BY CONTRACTOR



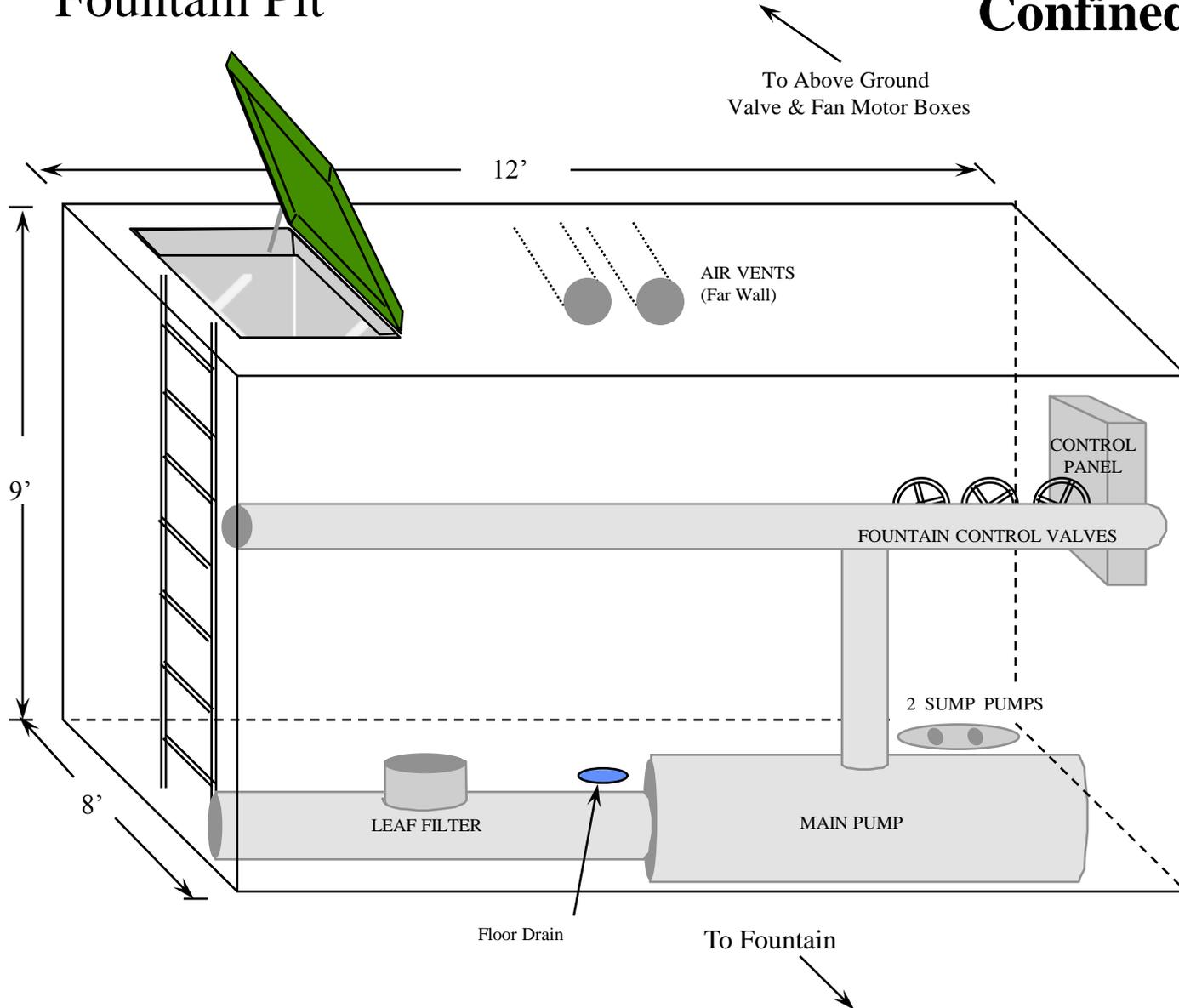
Note: Chemical Containers Removed 1998

Governor's Mansion

Bldg 800038, 800 Richland St

Fountain Pit

Non-Permit Confined Space

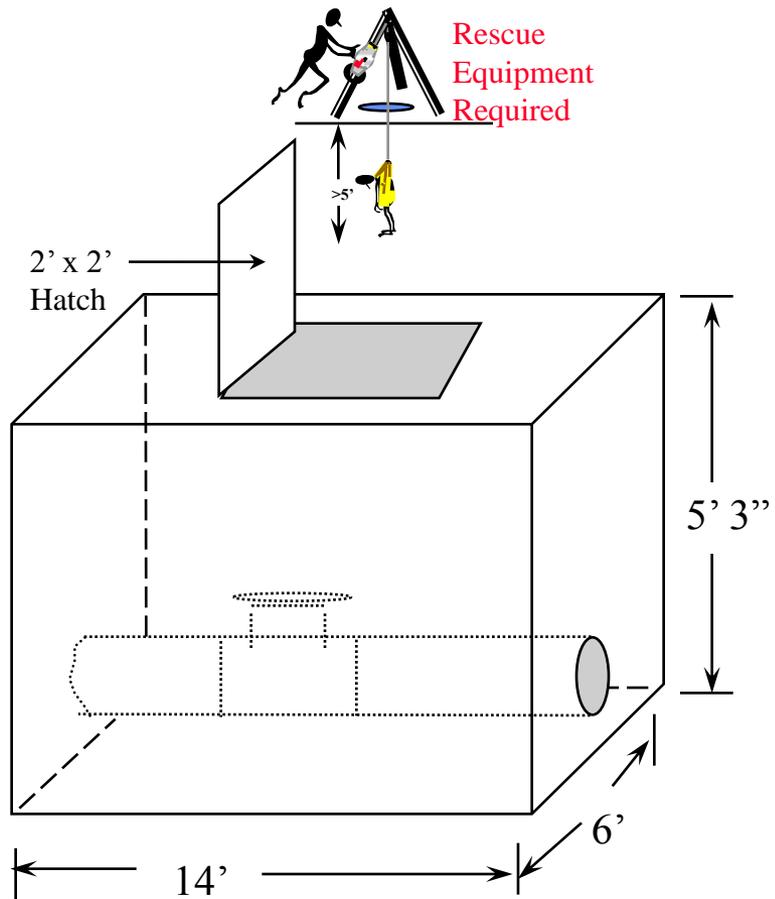


GRESSETTE-COLLINS

(SC RETIREMENT)

Bldg 110713, 202 Arbor Lake Drive
BACKFLOW PREVENTER PIT

PERMIT REQUIRED
CONFINED SPACE

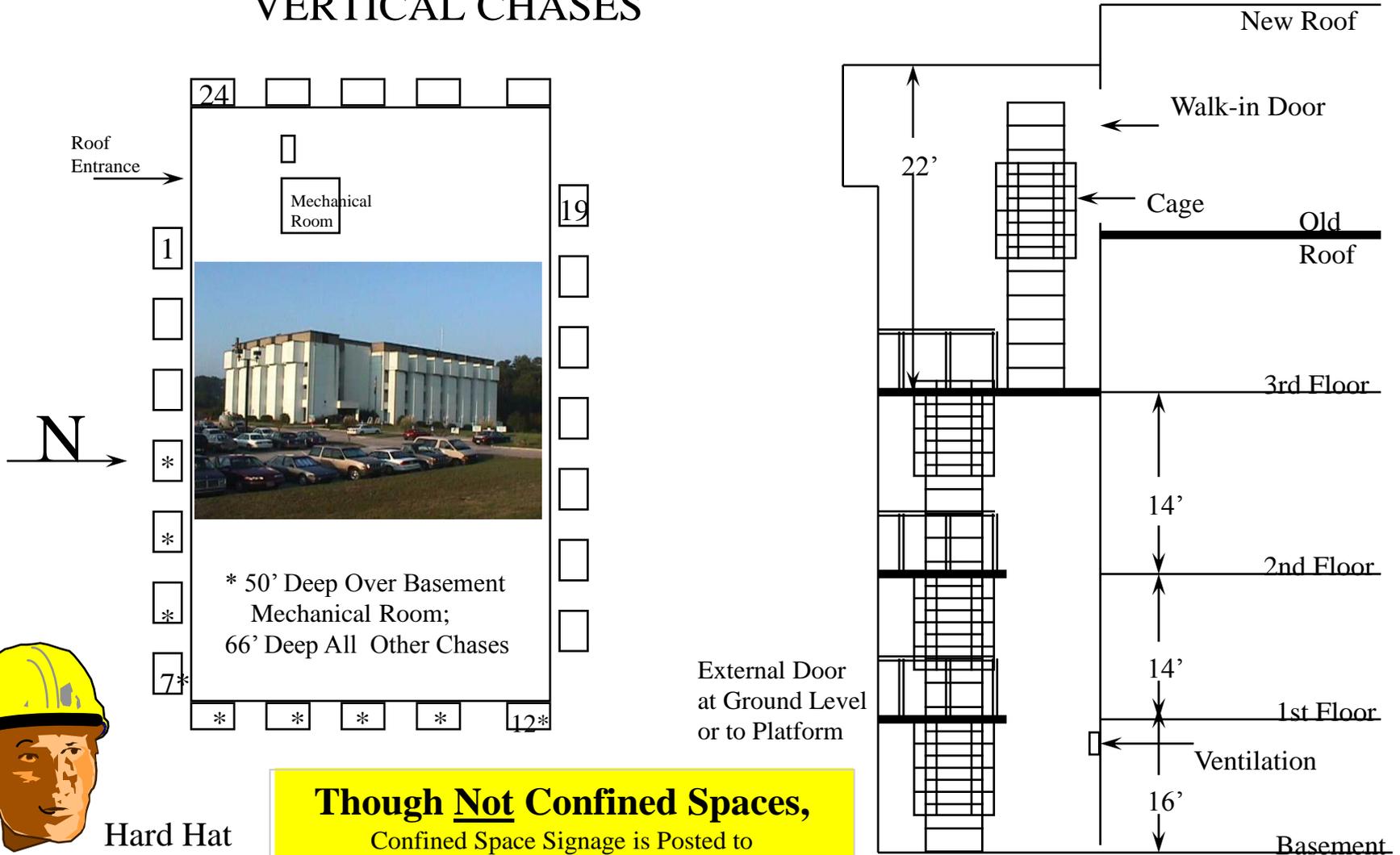


Located at Building's Northeast corner

HAYNE LABORATORY BLDG (DHEC)

Bldg 100414, 8231 Parklane Rd

VERTICAL CHASES



Hard Hat
Recommended

Though Not Confined Spaces,

Confined Space Signage is Posted to

**Require Use of Multi-Gas
Monitor (due to gas lines)**

CONFINED SPACES SURVEY

Job Safety Analysis Worksheet

Title of Job/Operation Hayne Bldg- Vertical Chases (24) Date 7/94, 7/95, 3/96, 6/98 & 6/03 No. _____

Position/Title(s) of Person(s) Who Do Job _____ Name of Employee Observed _____

_____ Analysis Made By Bernie Lee

Department Building Systems

Section Facilities Management

Analysis Approved by Confined Space Committee

Sequence of Basic Job Steps	Potential Accidents or Hazards	Recommended Safe Job Procedures
1. Prepare to enter	FB- Climb over ventilation ducts	Provide stairs/cross-overs when able
	FS- Slip/Trip on gravel & equipment	Use caution
	SA- HVAC ducts w/ sharp corners	Use caution
2. Enter chase	E- Water, gas, electrical	Use LOTO prior to entry; use observer, air sampling, constant communication, i.e.
		Alternate Confined Space Procedures
3. Conduct work	FB- Reach for valves/controls	Guardrails on platforms at each level
	SB- Falling objects	Wear hard hat
	SA- Pipes/Equipment	Light installed at every level
	FB- Work not at platform	Use fall restraint/ladder
	E- Water, gas, electrical	Use LOTO; continuous air sampling
4. Exiting	(All of above)	(All of above)

Struck By (SB)
Struck Against (SA)
Contacted By (CB)
Contact With (CW)

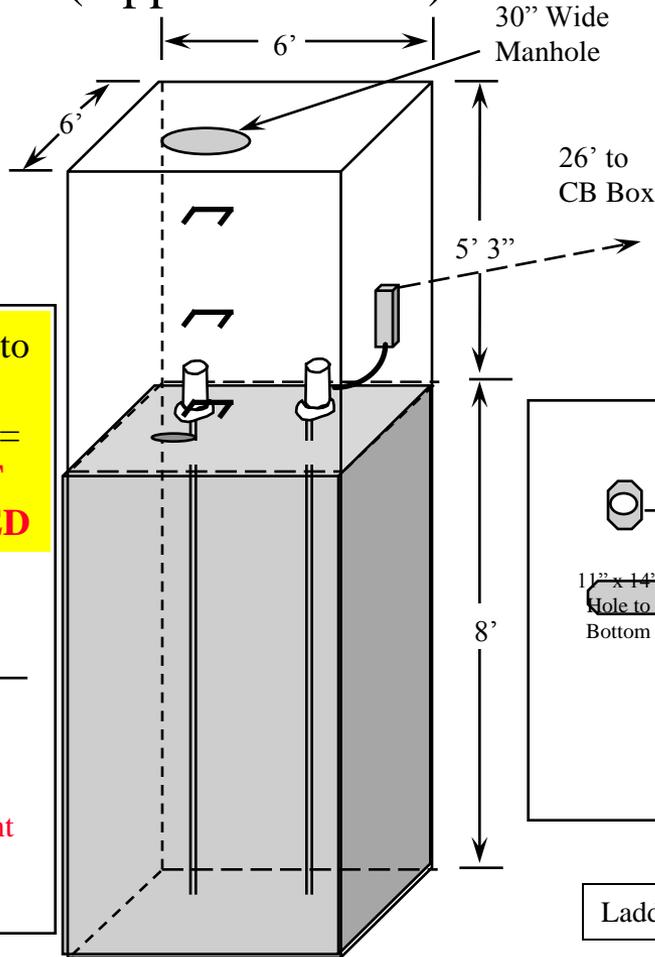
Caught On (CO)
Caught In (CI)
Caught Between (CBT)
Fall to Same Level (FS)

Fall to Below (FB)
Overexertion (OE)
Exposure (E)

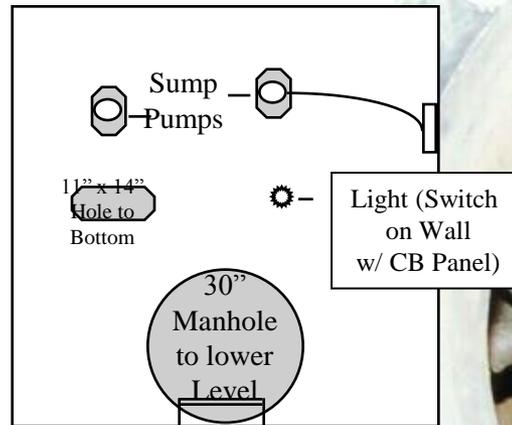
McEachern Parking Facility

Bldg 100289, 1201 Pendleton St
Sump Pump at 3D/E/F (Parking Spot 1032)

NON-PERMIT CONFINED SPACE (Upper Chamber)



All Entries to
Bottom
Chamber =
**PERMIT
REQUIRED**



Ladder = 3 Fixed Rungs



CONFINED SPACES SURVEY

Job Safety Analysis Worksheet

Title of Job/Operation McEachern Sump Pump 3L Date 10/14/96 No. _____

Position/Title(s) of Person(s) Who Do Job _____ Name of Employee Observed _____

_____ Analysis Made By Bernie Lee

Department Building Systems

Section Facilities Management

Analysis Approved by Confined Space Committee

Sequence of Basic Job Steps	Potential Accidents or Hazards	Recommended Safe Job Procedures
1. Prepare to Enter	SB- Vehicle traffic	Cordon off Manhole w/ vehicle/cones
	OE- Lifting Manhole cover	<50 Lbs; use lever/proper lifting techniques
2. Enter manhole	FB- 5' 3"	Fixed ladder installed; use proper climbing
	E- Gases/Lack of O ₂	Take air samples prior to entry
3. Conduct Work	E- Gases/Lack of O ₂	Take continuous air samples during entry
	CB- Flood waters	Exit if pump can not handle volume
	CW- Electrical	Use LOTO (CB box on wall) prior to entry
	FS- Slip/Trip (water, pipes, equipment)	Wear work boots & be aware of equipment
4. Exiting	SA- Pipes/equipment	Be aware of location
	FB	Fixed ladder installed; use proper climbing
5. Close Up	FB/SB	Close cover; keep feet/hands away
	OE- Lifting pit cover(s)	<50 Lbs; use lever/proper lifting techniques

Struck By (SB)
Struck Against (SA)
Contacted By (CB)
Contact With (CW)

Caught On (CO)
Caught In (CI)
Caught Between (CBT)
Fall to Same Level (FS)

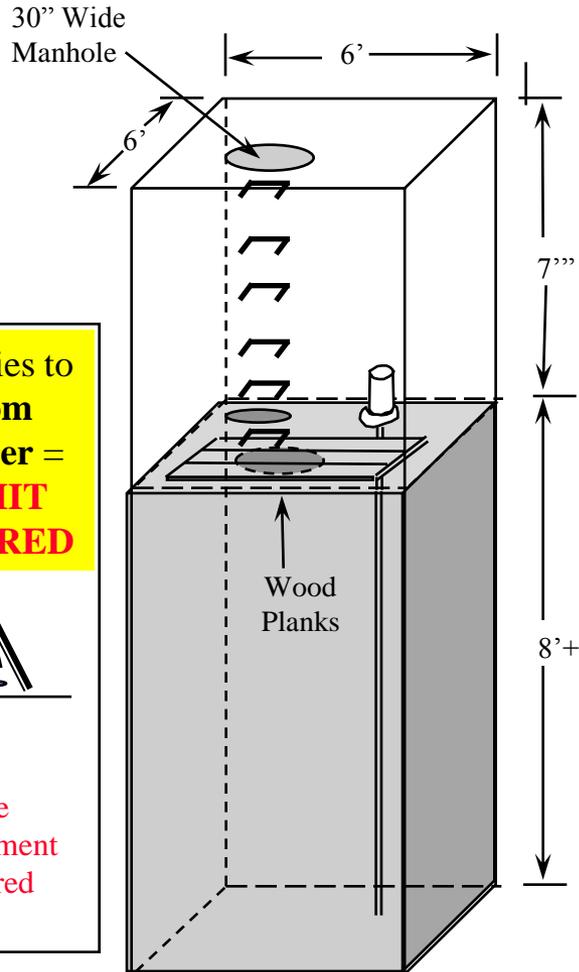
Fall to Below (FB)
Overexertion (OE)
Exposure (E)

McEachern Parking Facility

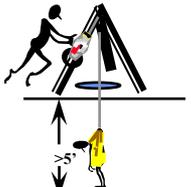
Bldg 100289, 1201 Pendleton St

Sump Pump at 3L (Parking Spots 1668 & 1704)

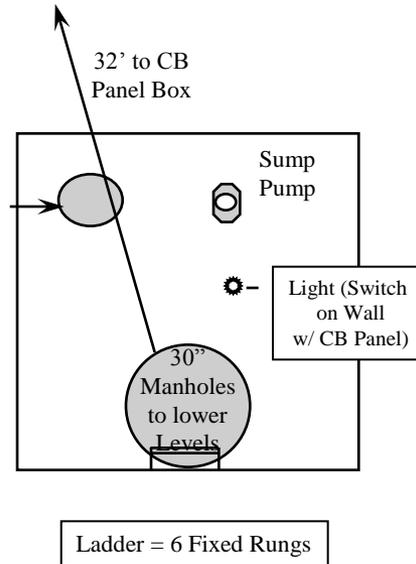
NON-PERMIT CONFINED SPACE (Upper Chamber)



All Entries to
Bottom
Chamber =
**PERMIT
REQUIRED**



Rescue
Equipment
Required



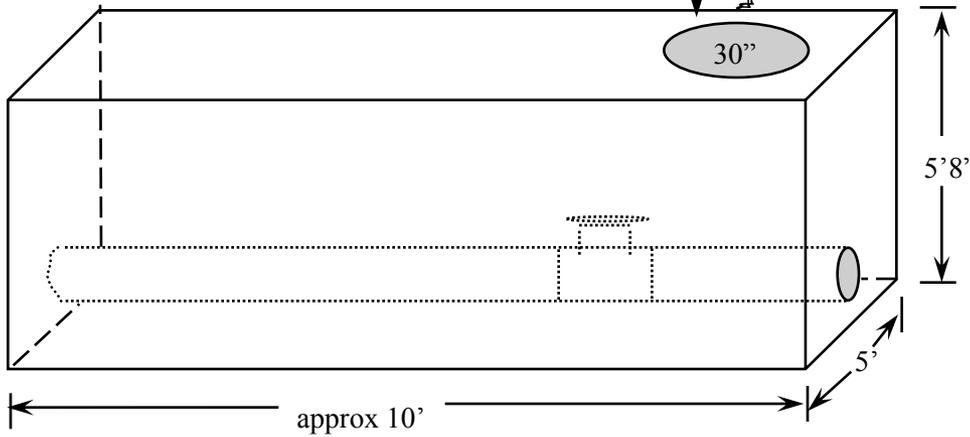
Lockout-Tagout

MILLS-JARRETT

Bldg 110707, 2100 Bull St

BACKFLOW PREVENTER PIT

PERMIT REQUIRED
CONFINED SPACE



At Southwest corner of Jarrett Bldg
Parking Lot next to Calhoun St. fence

CONFINED SPACES SURVEY

Job Safety Analysis Worksheet

Title of Job/Operation Mills-Jarrett Backflow Pit Date 3/96 & 9/30/96 No. _____

Position/Title(s) of Person(s) Who Do Job _____ Name of Employee Observed _____

_____ Analysis Made By Bernie Lee

Department Building Systems

Section Facilities Management Analysis Approved by Confined Space Committee

Sequence of Basic Job Steps	Potential Accidents or Hazards	Recommended Safe Job Procedures
1. Prepare to Enter	OE- Lifting Manhole cover	<50 Lbs; use lever/proper lifting techniques
2. Enter manhole	FB- 5' 8"	Need ladder; use proper climbing techniques
	E- Lack of O ₂	Take air samples prior to entry
3. Conduct Work	E- Lack of O ₂	Take continuous air samples during entry
	CW- Flood waters	Use LOTO prior to entry
	FS- Slip/Trip (water, pipes)	Wear work boots & be aware of pipes
	SA- Pipes /low ceiling	Be aware of location; portable lighting
4. Exiting	FB	Fixed ladder installed; use proper climbing
5. Close Up	FB/SB	Close cover; keep feet/hands away
	OE- Lifting pit cover(s)	<50 Lbs; use proper lifting techniques

Struck By (SB)
Struck Against (SA)
Contacted By (CB)
Contact With (CW)

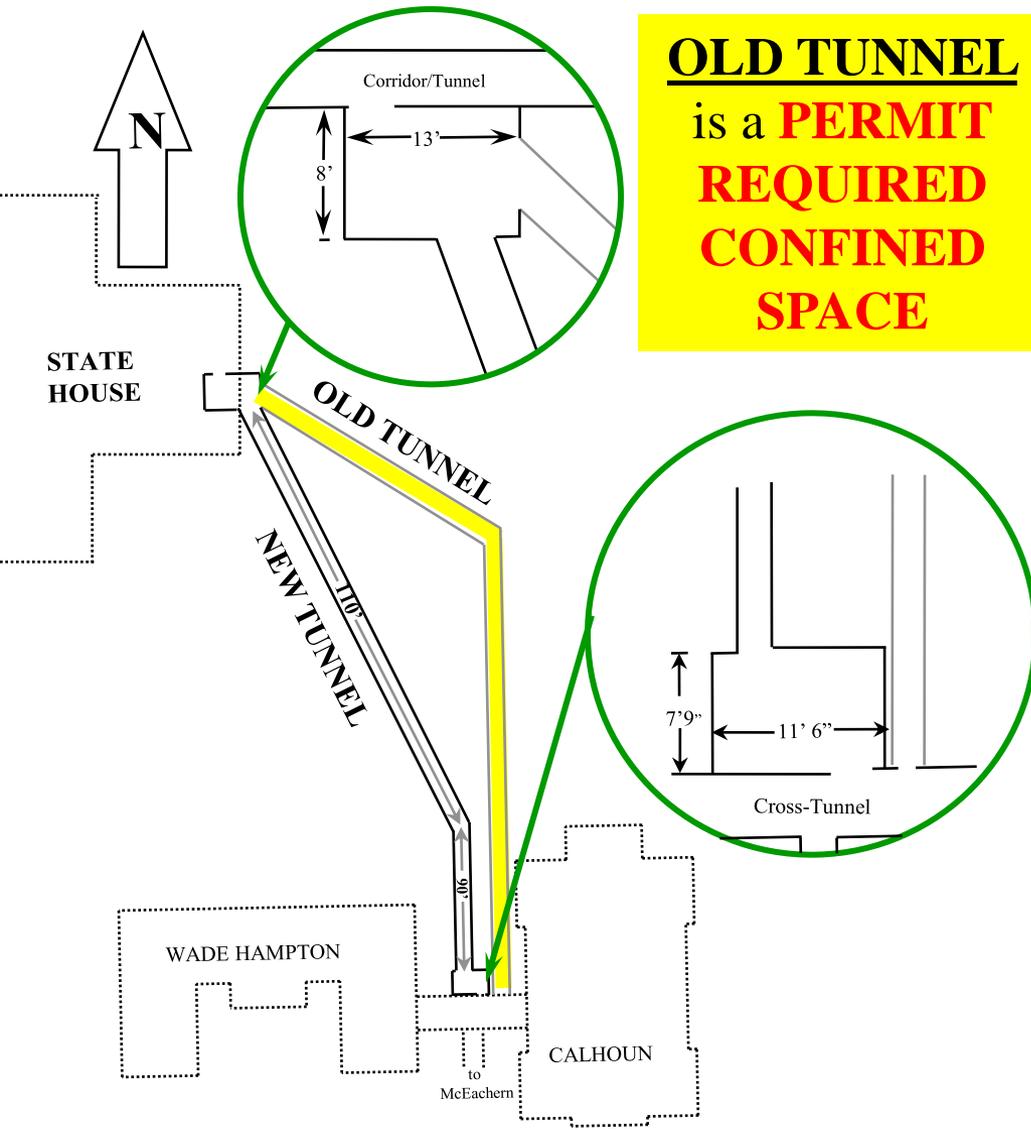
Caught On (CO)
Caught In (CI)
Caught Between (CBT)
Fall to Same Level (FS)

Fall to Below (FB)
Overexertion (OE)
Exposure (E)

STATEHOUSE BLDG

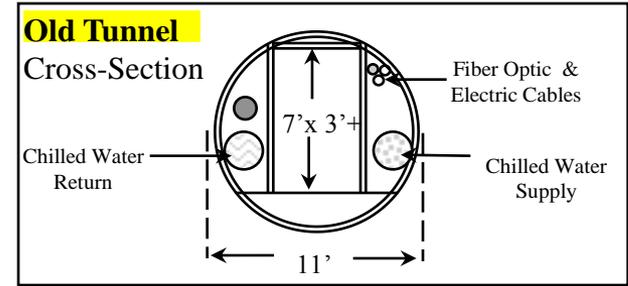
Bldg 107892, 1100 Gervais St

TUNNELS TO WADE HAMPTON BLDG

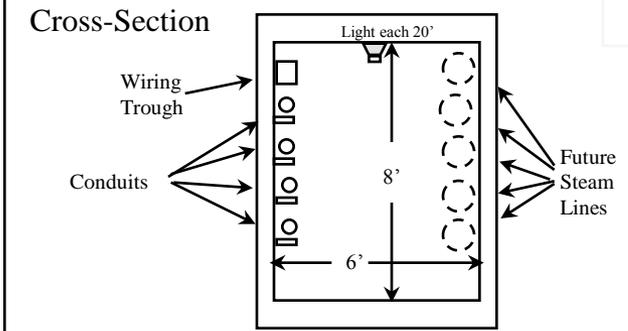


OLD TUNNEL

is a **PERMIT REQUIRED CONFINED SPACE**



New Tunnel - Not a Confined Space



CONFINED SPACES SURVEY

Job Safety Analysis Worksheet

Tunnel between Calhoun/Hampton

Title of Job/Operation Bldg. & State House Date 6/98 No.

Position/Title(s) of Person(s) Who Do Job Name of Employee Observed

 Analysis Made By Bernie Lee

Department Building Systems

Section Facilities Management Analysis Approved by

Sequence of Basic Job Steps	Potential Accidents or Hazards	Recommended Safe Job Procedures
1. Enter tunnel	E- Lack O ₂ /gases	Take air samples prior to entry
	FS- Slip/Trip	Wear appropriate work shoes
2. Conduct work	E- Lack O ₂ /gases	Take air samples during entry
	E- Electrical/Heat	Use LOTO prior to entry; take water & rest breaks A/R; wear appropriate PPE
	FS- Slip/Trip	Wear appropriate work shoes
	CW- Water/Steam	Use LOTO prior to entry; Hot Work Permit & Emergency evacuation procedures
3. Exiting	SA- Pipes (at "Y")	Install steps across pipe
	E, FS, CW, SA	(see above)
	CI- Doors locked from outside tunnel	Have locks not need keys for escape

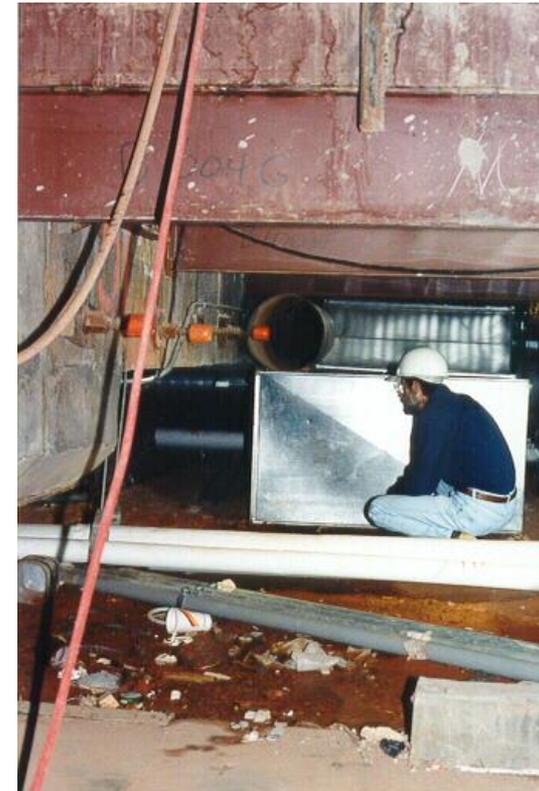
Struck By (SB)
Struck Against (SA)
Contacted By (CB)
Contact With (CW)

Caught On (CO)
Caught In (CI)
Caught Between (CBT)
Fall to Same Level (FS)

Fall to Below (FB)
Overexertion (OE)
Exposure (E)

STATEHOUSE BLDG

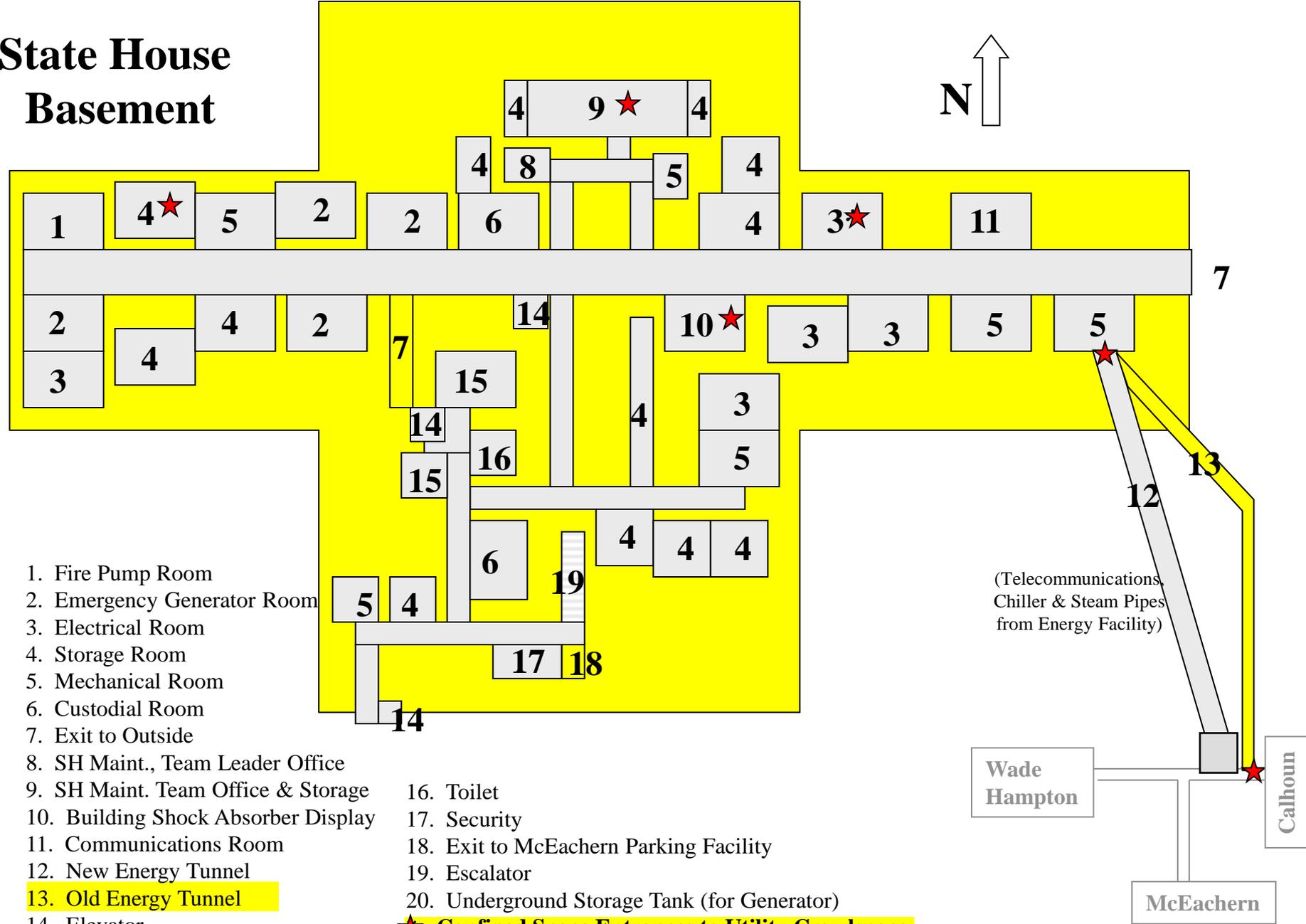
Bldg 107892, 1100 Gervais St
UTILITY SPACE



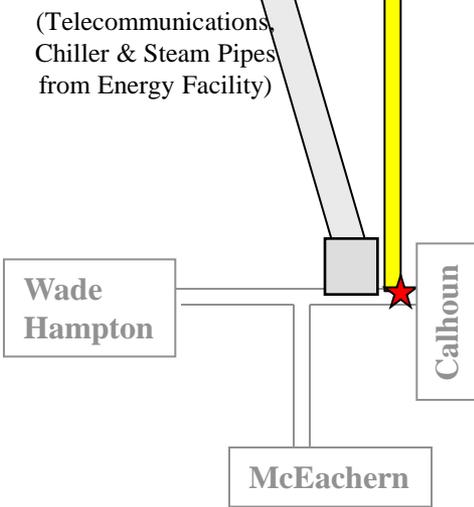
Underneath the entire State House is a utility space. There is an entrance in the central basement and each of the wings. The space is as high as 6' but other areas require crawling under/over ducts, conduit and pipes.



State House Basement



- 1. Fire Pump Room
 - 2. Emergency Generator Room
 - 3. Electrical Room
 - 4. Storage Room
 - 5. Mechanical Room
 - 6. Custodial Room
 - 7. Exit to Outside
 - 8. SH Maint., Team Leader Office
 - 9. SH Maint. Team Office & Storage
 - 10. Building Shock Absorber Display
 - 11. Communications Room
 - 12. New Energy Tunnel
 - 13. Old Energy Tunnel
 - 14. Elevator
 - 15. Elevator Mechanical Room
 - 16. Toilet
 - 17. Security
 - 18. Exit to McEachern Parking Facility
 - 19. Escalator
 - 20. Underground Storage Tank (for Generator)
- ★ - Confined Space Entrances to Utility Crawlspace**

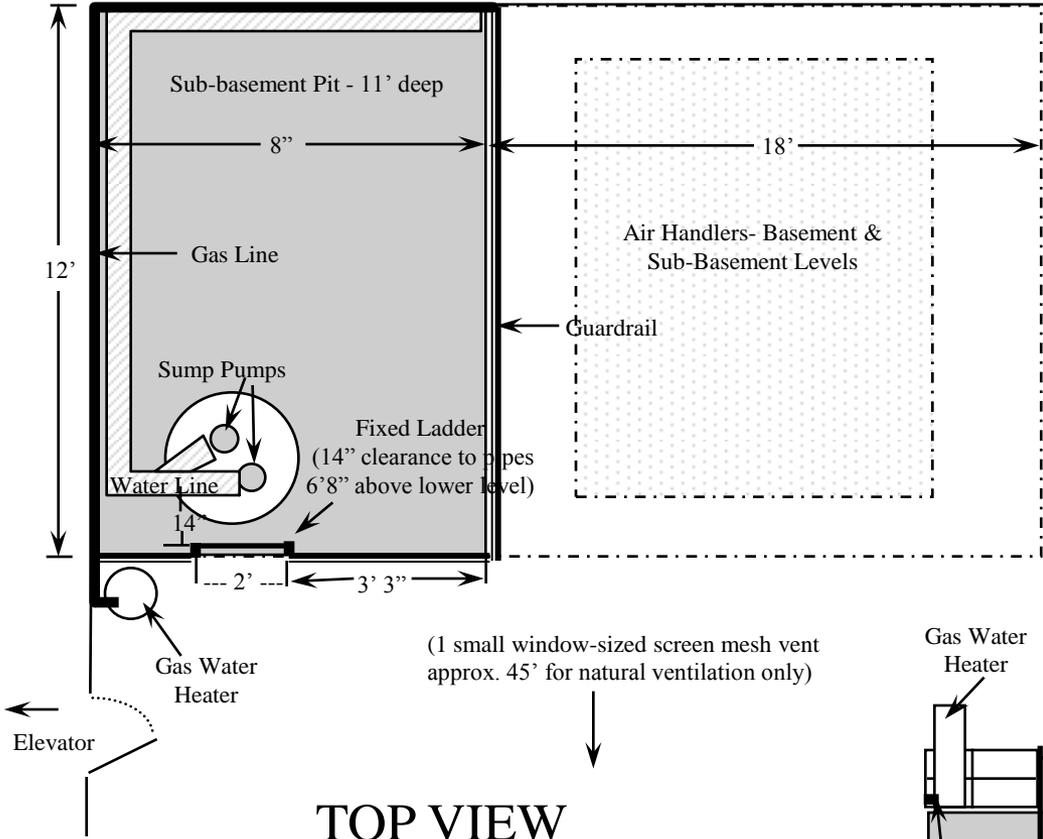


STATE LIBRARY BLDG

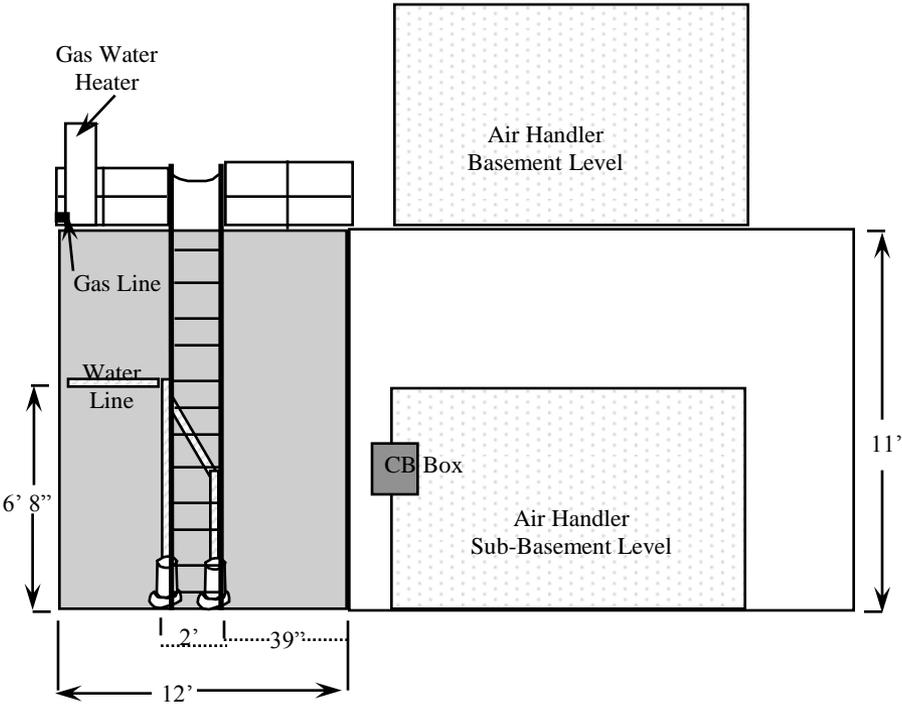
Bldg 100412, 1500 Senate St

MECHANICAL ROOM (BASEMENT) PIT

Non-Permit Confined Space



TOP VIEW

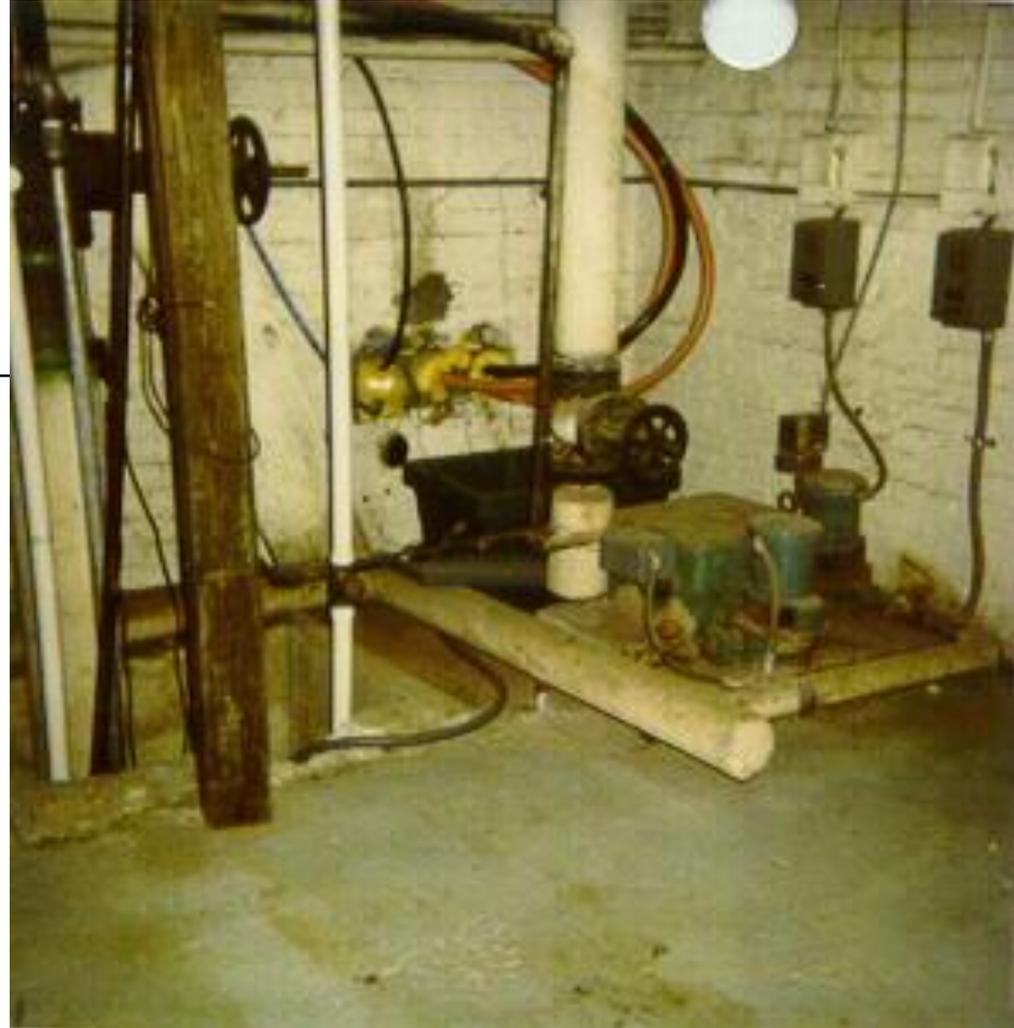
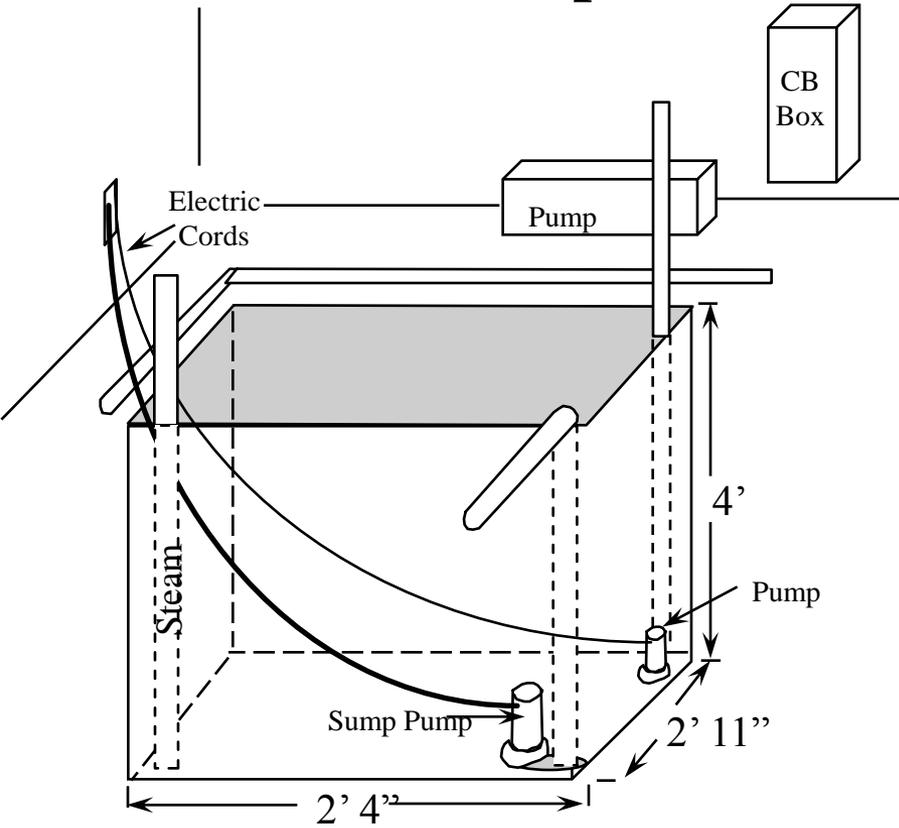


SIDE VIEW

SUMTER ST BLDG

Bldg, 104178, 1026 Sumter St
(BASEMENT) PIT

Non-Permit Confined Space



CONFINED SPACES SURVEY

Job Safety Analysis Worksheet

Title of Job/Operation 1026 Sumter St (Basement) Pit Date 10/11/96 No. _____

Position/Title(s) of Person(s) Who Do Job _____ Name of Employee Observed _____

_____ Analysis Made By Bernie Lee

Department Building Systems

Section Facilities Management Analysis Approved by Confined Space Committee

Sequence of Basic Job Steps	Potential Accidents or Hazards	Recommended Safe Job Procedures
1. Enter	FB- 4'	Need a ladder
2. Conduct Work	CW- Hot Water/Steam/Electricity	LOTO: PPE (gloves, long sleeves/apron)
	SA- Pipes	Be aware of location
3. Exiting	FB	Need a ladder

Struck By (SB)
 Struck Against (SA)
 Contacted By (CB)
 Contact With (CW)

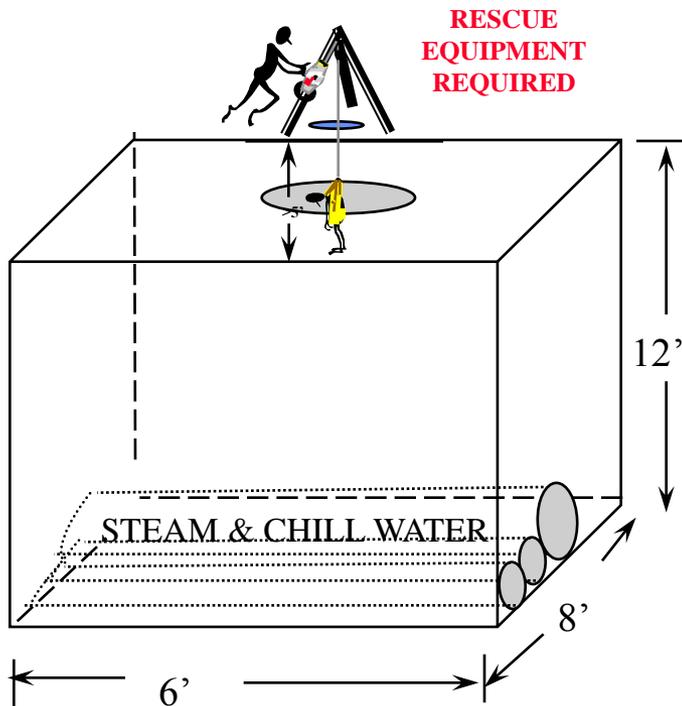
Caught On (CO)
 Caught In (CI)
 Caught Between (CBT)
 Fall to Same Level (FS)

Fall to Below (FB)
 Overexertion (OE)
 Exposure (E)

SUPREME COURT

Bldg 100393, 1231 Gervais St
BACKFLOW PREVENTER PIT

PERMIT REQUIRED
CONFINED SPACE

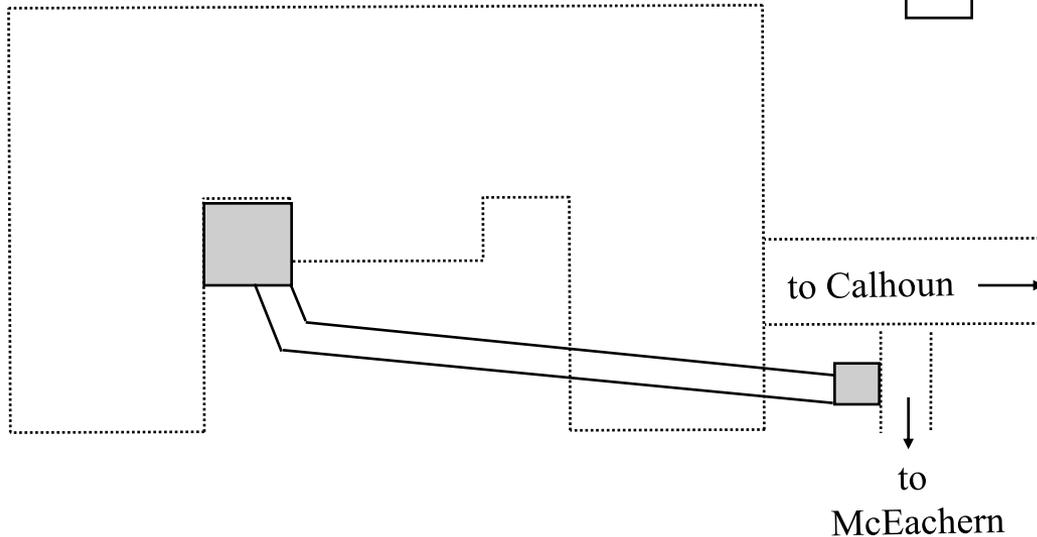


Located on Southwest corner in driveway

WADE HAMPTON BLDG

Bldg 100300, 1200 Senate St
TUNNEL

**PERMIT REQUIRED
CONFINED SPACE**



Located Between the Basement's
West Mechanical Room and the
Parking Garage Connector Corridor



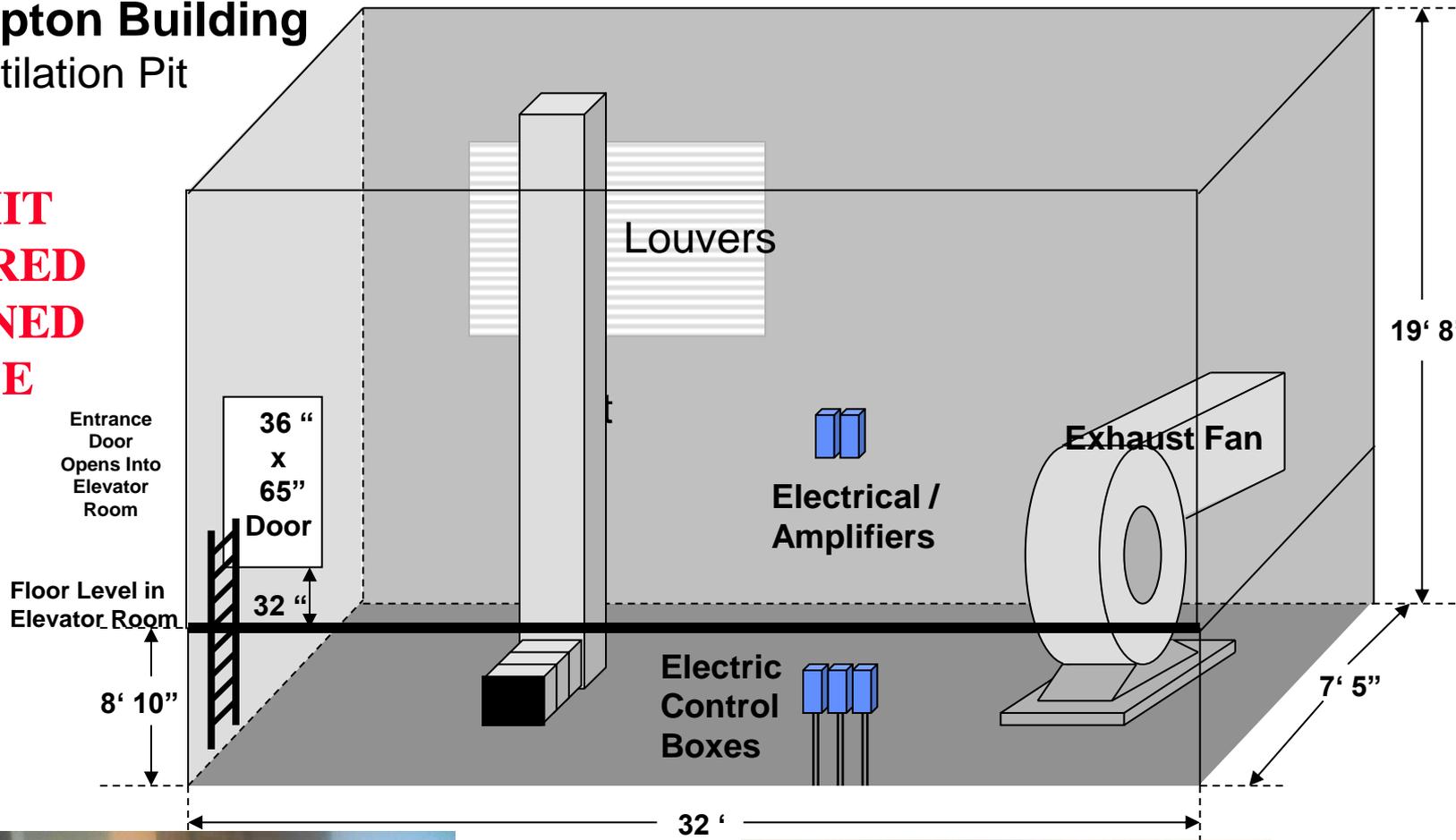
Steam, Electrical,
Telecommunications

Wade Hampton Building

Elevator Ventilation Pit

West Side

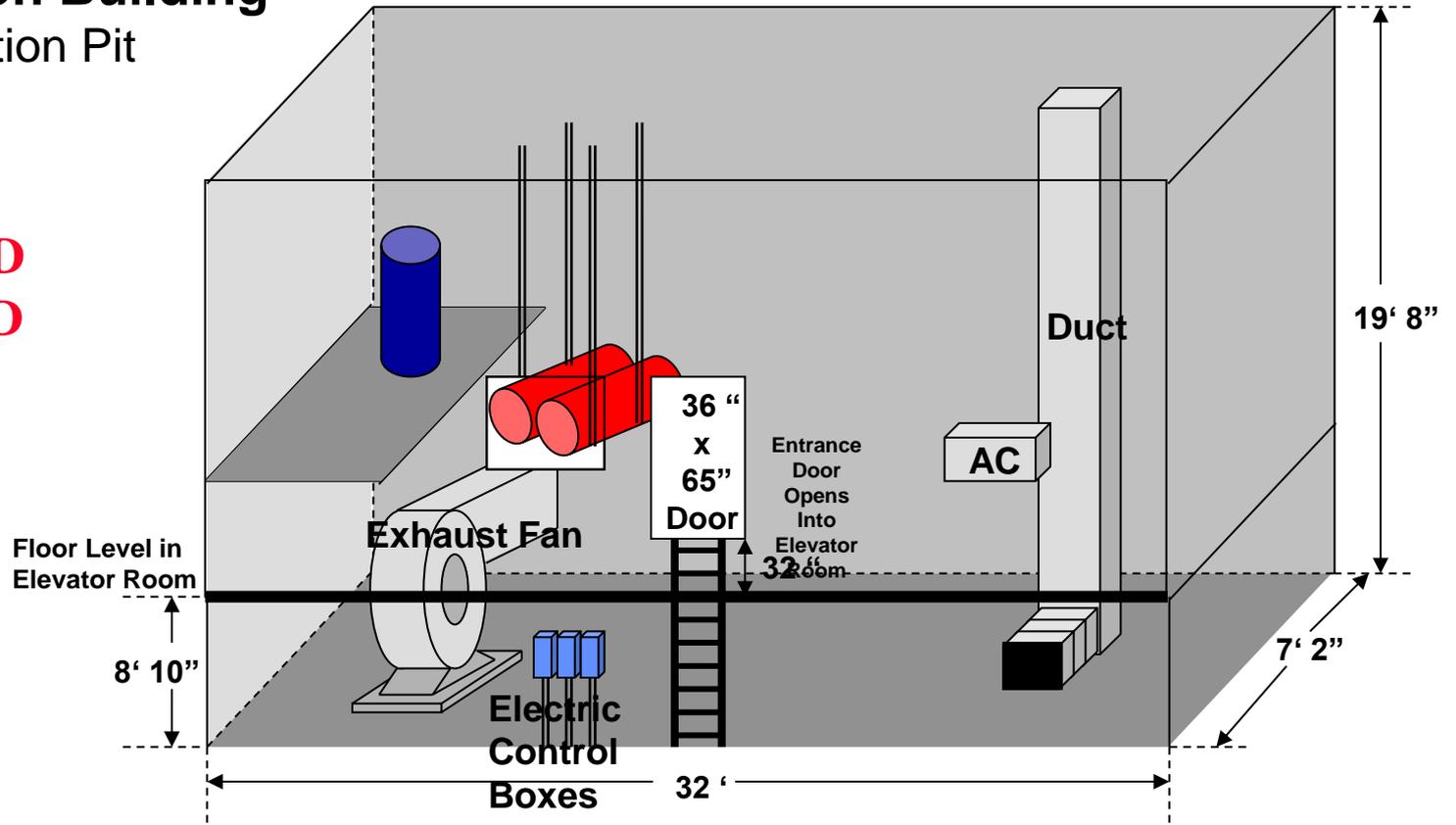
**PERMIT
REQUIRED
CONFINED
SPACE**



Wade Hampton Building

Elevator Ventilation Pit
East Side

**PERMIT
REQUIRED
CONFINED
SPACE**



CONFINED SPACES SURVEY

Job Safety Analysis Worksheet

Wade Hampton Penthouse

Title of Job/Operation Ventilation Pits – East & West Date 2/26/09 No. _____

Position/Title(s) of Person(s) Who Do Job _____ Name of Employee Observed _____

_____ Analysis Made By Bernie Lee & JP Gouffray

Department _____

Section Facilities Management Analysis Approved by FM Safety Committee

Sequence of Basic Job Steps	Potential Accidents or Hazards	Recommended Safe Job Procedures
1. Enter	FB- 9' Confined Space	Proper Climbing Technique; Tools & Equipment Lowered; Gas Monitor
2. Conduct Work	CW- Electricity, Unguarded Fan Motor & Pulley Belt	LOTO; PPE (gloves, safety glasses); Attendant Warning/Situational Awareness
3. Exiting	FB – 9'	Proper Climbing Technique; Tools & Equipment Pulled Up

Struck By (SB)
Struck Against (SA)
Contacted By (CB)
Contact With (CW)

Caught On (CO)
Caught In (CI)
Caught Between (CBT)
Fall to Same Level (FS)

Fall to Below (FB)
Overexertion (OE)
Exposure (E)

The End

**Questions: Call
Bernie Lee, Safety
737-2315**