

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING DEPARTMENT

PERMIT

Please Read Application And Notes, If Any, Attached

PERMIT ISSUED

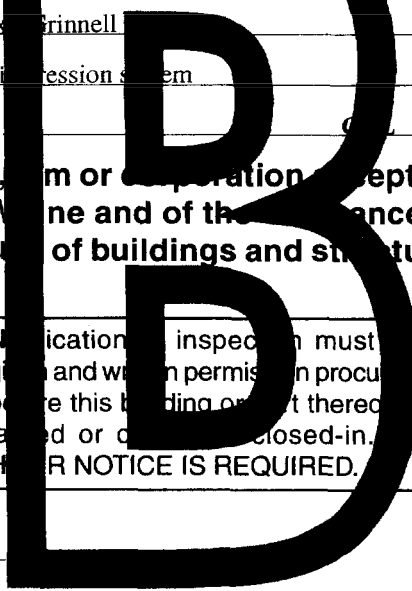
Permit Number: 041828

DEC 21 2004

CITY OF PORTLAND

This is to certify that Northeast Realty Inc/Simplex Grinnell
 has permission to commercial space with fire suppression system
 AT 92 Oak St City of Portland 037 A011001

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.



Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and work on permit must be completed before this building or part thereof is opened or closed-in. **HEAVY NOTICE IS REQUIRED.**

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. [Signature]
 Health Dept. _____
 Appeal Board _____
 Other _____
 Department Name _____

[Signature] 12/21/04
 Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 04-1828	Issue Date: PERMIT ISSUED DEC 21 2004	CBL: 037 A011001
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(Location of Construction): 92 Oak St	Owner Name: Northeast Realty Inc	Owner Address: 567 Congress St	Phone: 699-2207
Business Name:	Contractor Name: Simplex / Grinnell	Contractor Address: 20 Thomas Drive Westbrook	Phone: 207-8426440
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	Zone: B-3
Past Use: commercial space	Proposed Use: commercial space with fire suppression system	Permit Fee: \$273.00	Cost of Work: \$27,386.00
		CEO District: 1	INSPECTION: Use Group: N/A Type: 12/21/04
		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	Signature: <i>[Signature]</i>
		Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)	
		Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	
		Signature: _____ Date: _____	

Permit Taken By: jharris	Date Applied For: 12/14/2004	Zoning Approval		
<ol style="list-style-type: none"> This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building permits do not include plumbing, septic or electrical work. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.. 	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> date: <i>OK 12/16/04</i>	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied date: _____	Historic Preservation <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied date: _____	

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 04-1828	Date Applied For: 12/14/2004	CBL: 037 A011001
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Location of Construction: 92 Oak St	Owner Name: Northeast Realty Inc	Owner Address: 567 Congress St	Phone: () 699-2207
Business Name:	Contractor Name: Simplex / Grinnell	Contractor Address: 20 Thomas Drive Westbrook	Phone: (207) 842-6440
Lessee/Buyer's Name	Phone:	Permit Type: Fire Suppression System	

commercial space with fire suppression system

commercial space with fire suppression system

Dept: Zoning **Status:** Approved **Reviewer:** Marge Schmuckal **Approval Date:** 12/16/2004**Note:** **Ok to Issue:** **Dept:** Building **Status:** Approved **Reviewer:** Mike Nugent **Approval Date:** 12/21/2004**Note:** **Ok to Issue:** **Dept:** Fire **Status:** Approved with Conditions **Reviewer:** Lt. MacDougal **Approval Date:** 12/20/2004**Note:** **Ok to Issue:**

1) the suppression system shall be tested and the results submitted to the Portland Fire Department

All Purpose Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>OAK ST.</u>		
Total Square Footage of Proposed Structure <u>984 SQ. FT.</u>		Square Footage of Lot
Tax Assessor's Chart, Block & Lot Chart# Block# Lot#	Owner: <u>PINE TREE NETWORKS</u>	Telephone: <u>699-2207</u> <u>3012</u>
Lessee/Buyer's Name (If Applicable) <u>BRIAN FEJEDELEM</u>	Applicant name, address & telephone: <u>GREG. TOBIAS (C)</u> <u>20 THOMAS DR.</u> <u>WESTBROOK, ME 071-8406</u>	Cost Of Work: \$ <u>27,386.00</u> Fee: \$ <u>273</u> <u>45 DUCT</u>

Current use: COMPUTER SERVER (ISP)

If the location is currently vacant, what was prior use: _____

Approximately how long has it been vacant: _____

Proposed use: UNCHANGED

Project description: CLEAN AGENT FIRE SUPPRESSION SYS. INSTALLATION

Contractor's name, address & telephone: SIMPLEX GRINNELL
20 THOMAS DR., WESTBROOK, ME.

Who should we contact when the permit is ready: BRIAN HOFFMAN 842-6440
X 215

Mailing address: _____

We will contact you by phone when the permit is ready. You must come in and pick up the permit and review the requirements before starting any work, with a Plan Reviewer. A stop work order will be issued and a \$100.00 fee if any work starts before the permit is picked up. PHONE: 842-6440 X 215

IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APPROVE THIS PERMIT.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant: <u>Gregory A. Tobias</u>	Date: <u>8 DEC 04</u>
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This is NOT a permit, you may not commence ANY work until the permit is issued. If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall

tyco

**Fire &
security**

SimplexGrinnell

SimplexGrinnell LP
20 Thomas Drive
Westbrook, ME 04092

Ph: 207-842-6440
F: 207-842-6439
www.simplexgrinnell.com

Pine Tree Networks

FM-200 SYSTEM

SERVER ROOM

Owner: Pine Tree Networks
Location: 92 Oak St., Portland, ME 04104
Protected Space: Computer room; 7734 cu-ft. & 2678 cu. Ft.
System Type: Total flooding, automatic 24VDC electric per NFPA 2001 & 72
Manufacturer: Kidde Fenwal
System Design: Temperature: controlled, @ 70 degrees F.
Minimum design concentration: 6.25%
Actual design concentration: 6.558% for main room
Kidde-Fenwal "ECS" flow calc program, version 3.00, (UL ref.
#EX 4674, FMRC file P.I. 3009421)
Enclosure Integrity: All present or future cable penetrations must be sealed to maintain enclosure integrity.
Alarms: System includes 3 local horn-strobe alarm indicators
Parts:

1	90-100351-001-350lb, FM-200 cylinder
330	90-190000-001-lbs., FM-200 agent
1	283899- 2" flex hose
1	281866-cylinder strap
1	486536, 3PDT Pressure Switch
1	48650001-24 VDC control head
1	870652-Lever operated control head
2	90-194016-344- 1 1/2" nozzle,
1	90-194016-332- 1 1/4" nozzle, 130 deg.
2	06-231865-739-warning sign
1	84-322001-001-Scorpio control panel
3	71-550000-001-photoelectric smoke detector
3	70-510000-001-ionization smoke detector
6	70-501000-005-Relay Bases 2WRB
2	84-100007-002-Pull station-DPST
2	84-100009-001- Surface back box
2	87375202-Abortstation w/ back box
3	75-000015-002-Multi tone 15/75 strobe
1	90-fm200M-011- Systems owner manual



Simplex Grinnell

20 Thomas Dr
Westbrook, ME 04092
United States

Phone: 207-799-4360
ECS Series - KID3.02

UL: EX4674 FM: PI 3009421

Project: FM-200 system for Server/Data room

File Name: C:\Program Files\Kidde-Fenwal\ECS Series KID302\Projects\pinetree portland.FLC

Calculation Date/Time: Monday, November 29, 2004, 9:01:01 AM

Consolidated Report

Customer Information

Company Name: Pine Tree Networks

Address: 92 Oak St

Portland, Me 04101

Phone: 207-699-2207

Contact: Brian Fejedelem

Title: Director

Project Data

Project Name: FM-200 system for Server/Data room

Designer: BH

Number: 055084

Account:

Location: 1ST FLOOR

Description:

Consolidated Report Enclosure Information

Elevation: 0 R (relative to sea level)
Atmospheric Correction Factor: 1

Enclosure Number: 1
Name: server room
Enclosure Temperature...
Minimum: 70 F
Maximum: 74 F
Maximum Concentration: 6.611 %
Design Concentration...
Adjusted: 6.558 %
Minimum: 6.250 %
Minimum Agent Required: 233.7 lbs
Width: 0.0 ft
Length: 0.0 ft
Height: 0.0 ft

Volume: 0.0 cubic ft
Non-permeable: 0.0 cubic R

Total Volume: 7734.0 cubic ft
Adjusted Agent Required: 246.0 lbs
Number of Nozzles: 2

Consolidated Report Enclosure Information

Elevation: 0 R (relative to sea level)
Atmospheric Correction Factor: 1

Enclosure Number: 2
Name: panel room
Enclosure Temperature...
Minimum: 70 F
Maximum: 74 F
Maximum Concentration: 6.525 %
Design Concentration...
Adjusted: 6.470 %
Minimum: 6.250 %
Minimum Agent Required: 80.9 lbs
Width: 0.0 ft
Length: 0.0 ft
Height: 0.0 ft

Volume: 0.0 cubic ft
Non-permeable: 0.0 cubic R

Total Volume: 2678.0 cubic ft
Adjusted Agent Required: 84.0 lbs
Number of Nozzles: 1

Consolidated Report Agent Information

Agent: FM-200/ Propellant N2
(FM-200 is a Trademark of Great Lakes Chemical Corp.)

Adjusted Agent Required: **330.0 lbs**
 Container Name: 350 lb Cylinder
 Container Part Number: **90-100350-001**
 Number of Main Containers: 1
 Number of Reserve Containers: 0
 Manifold: No Manifold

Pipe Take Off Direction: Horizontal
 Agent Per Container: **330.0 lbs**
 Fill Density: 66.0 lbs / cubic R
 Container Empty Weight: 201.0 lbs
 Weight, All Containers + Agent: **531.0 lbs**
 Floor Area Per Container: 1.40 square ft
 Floor Loading Per Container: **379 lbs / square ft**

Pipe Network

Part 1 - Pipe Description	Start	End	Type	Diameter	Pipe Length	Elevation
Main Cyl. X 1	0	1		2 in	4.26 R	4.26 ft
flex Hose	1	2		2 in	2.58 R	1.58 R
Pipe	2	3	40T	2 in	5.73 ft	5.73 ft
Pipe	3	4	407	2 in	3.44 ft	0.00 ft
Pipe	4	5	40T	2 in	1.00 ft	0.00 R
Pipe	5	6	40T	2 in	9.44 ft	0.00 R
Pipe	6	7	40T	2 in	5.00 ft	0.00 ft
Pipe	7	8	40T	2 in	2.44 ft	0.00 ft
Pipe	8	9	40T	1-1/4 in	9.00 R	0.00 ft
Pipe/E1-N1	9	10	40T	1-1/4 in	0.22 ft	-0.22 a
Pipe	8	11	40T	1-1/4 in	9.00 R	0.00 ft
Pipe/E1-N2	11	12	40T	1-1/4 in	0.22 A	-0.22 a

Consolidated Report

Part 1 - Pipe

Description	Start	End	Type	Diameter	Pipe Length	Elevation
Pipe	6	13	40T	1-114 in	8.50 ft	0.00 R
Pipe	13	14	40T	1-114 in	15.00 ft	0.00 ft
Pipe	14	15	40T	1-1/4 in	2.00 ft	0.00 ft
Pipe/E2-N1	15	16	40T	1-1/4 in	0.22 ft	-0.22 ft

Part 2 - Equivalent Length

Start	End	90	45	Thru	Side	Union	Other	Added	Total
0	1	0	0	0	0	0		0.00 ft	50.0 ft
1	2	1	0	0	0	0	2in Flx 90	0.00 ft	15.0 R
2	3	0	0	0	0	0		0.00 R	5.7 R
3	4	1	0	0	0	0		0.00 ft	8.9 ft
4	5	1	0	0	0	0		0.00 ft	6.5 ft
5	6	1	0	0	0	0		0.00 R	14.9 ft
6	7	0	0	1	0	0		0.00 ft	8.5 ft
7	8	1	0	0	0	0		0.00 ft	7.9 ft
8	9	0	0	0	1	0		0.00 ft	16.5 ft
9	10	1	0	0	0	0		0.00 ft	3.9 ft
8	11	0	0	0	1	0		0.00 R	16.5 ft
11	12	1	0	0	0	0		0.00 R	3.9 ft
6	13	0	0	0	1	0		0.00 ft	16.0 ft
13	14	1	0	0	0	0		0.00 ft	18.7 R
14	15	1	0	0	0	0		0.00 ft	5.7 ft
15	16	1	0	0	0	0		0.00 ft	3.9 ft

Part 3 - Nozzles

Start	End	Flow	Name	Size	Type	Nozzle Area
0	1	330.0 lbs				
1	2	330.0 lbs				
2	3	330.0 lbs				
3	4	330.0 lbs				
4	5	330.0 lbs				
5	6	330.0 lbs				
6	7	246.0 lbs				
7	8	246.0 lbs				

Part 3 - Nozzles

Start	End	Flow	Name	Size	Type	Nozzle Area
8	9	123.0 lbs				
9	10	123.0 lbs	E1-N1	1-1/4 in	180"	0.7884 square in
8	11	123.0 lbs				
11	12	123.0 lbs	E1-N2	1-1/4 in	180"	0.7884 square in
6	13	84.0 lbs				
13	14	84.0 lbs				
14	15	84.0 lbs				
15	16	84.0 lbs	E2-N1	1-1/4 in	180"	0.7254 square in

Parts Information

Total Agent Required: 330.0 lbs
 Container Name: 350 lb Cylinder (Part: 90-100350-001)
 Number Of Containers: 1

Nozzle	Type	Nozzle Area	Part Number
E1-N1	180"	0.7884 square in	90-194016-344
E1-N2	180"	0.7884 square in	90-194016-344
E2-N1	180°	0.7254 square in	90-194016-332

Pipe:	Type	Diameter	Length
	40T	1-1/4 in	44.16 ft
	40T	2 in	27.05 ft

'Other' Items:
 1 - 2 in. Flex Hose - 90" Bend (Part: 283899)

List of 90 degree elbows:
 5 - 1-1/4 in
 4 - 2 in

List of Tees:
 2 - 2 in

System Acceptance

Consolidated Report

System Discharge Time: 10.0 seconds
 Percent Agent In Pipe: 33.1%
 Percent Agent Before First Tee: 16.4%
 Enclosure Number: 1
 Enclosure Name: server room
 Minimum Design Concentration: 6.250%
 Adjusted Design Concentration: 6.558%
 Predicted Concentration: **6.543%**
 Maximum Expected Agent Concentration: 6.594% (At 74 F)

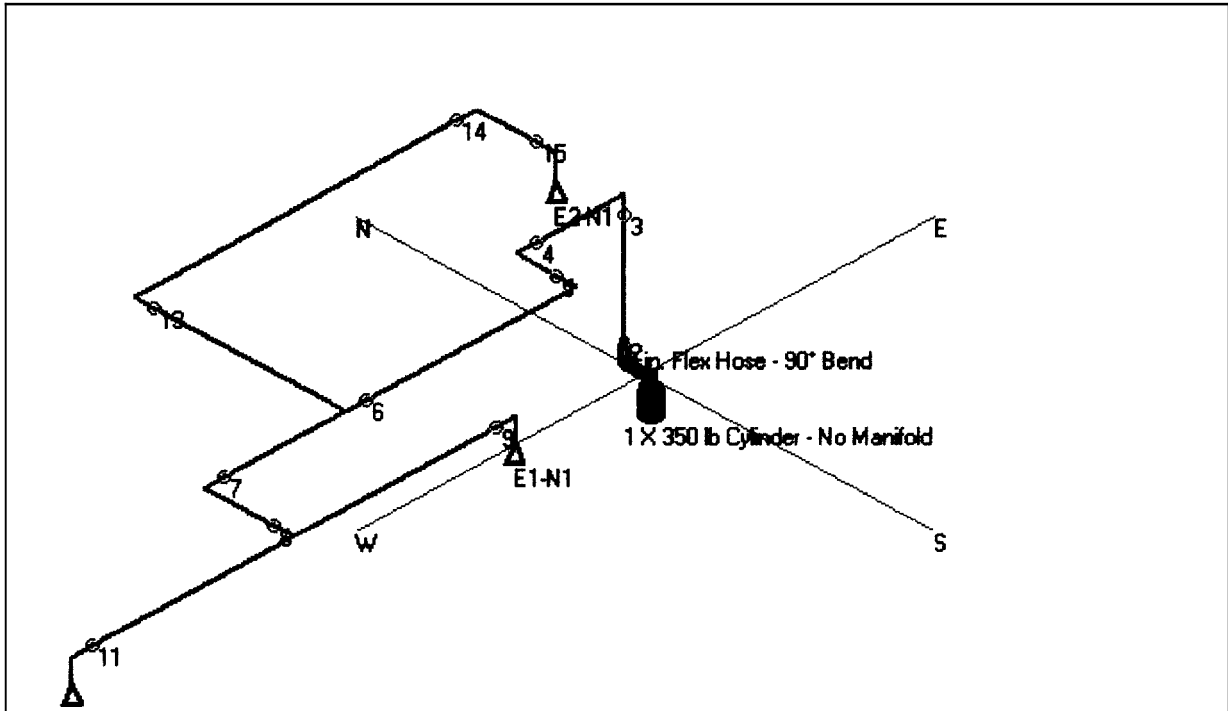
Nozzle	Minimum Agent Required	Adjusted Agent Required	Predicted Agent Delivered	Nozzle Pressure (Average)
E1-N1	116.9 lbs	123.0 lbs	122.7 lbs	97 psig
E1-N2	116.9 lbs	123.0 lbs	122.7 lbs	97 psig

Enclosure Number: 2
 Enclosure Name: panel room
 Minimum Design Concentration: 6.250%
 Adjusted Design Concentration: 6.470%
 Predicted Concentration: 6.521%
 Maximum Expected Agent Concentration: **6.572%** (At 74 F)

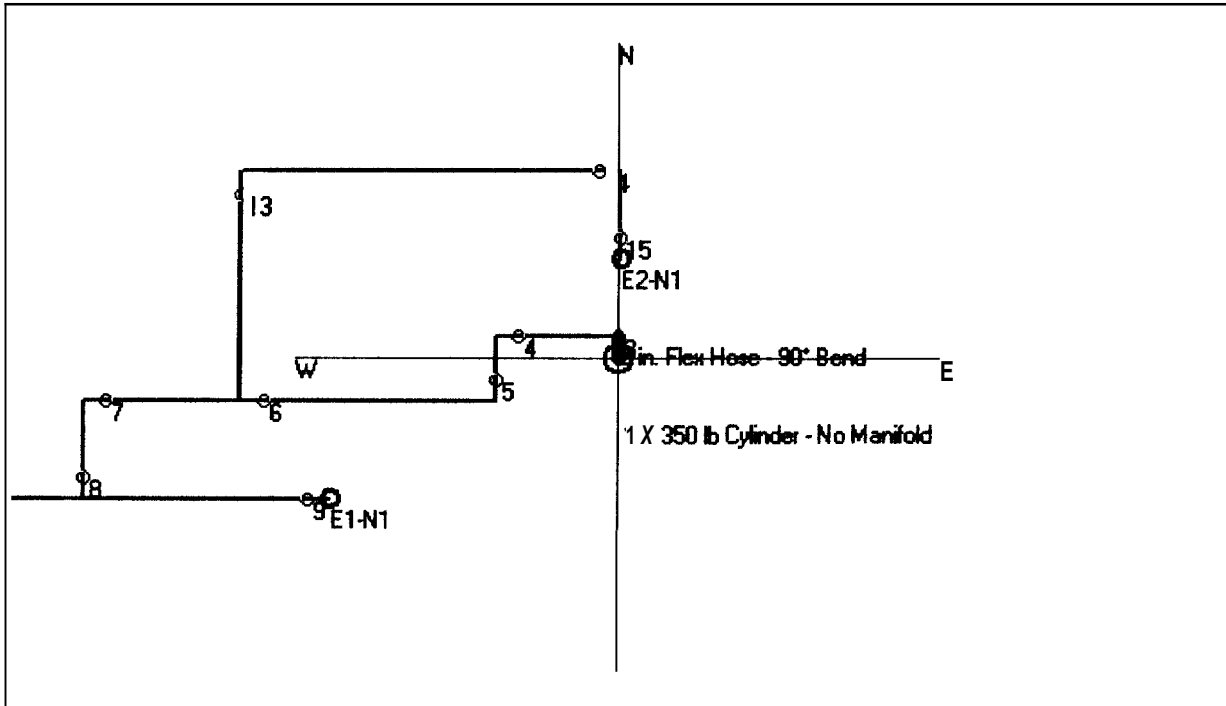
Nozzle	Minimum Agent Required	Adjusted Agent Required	Predicted Agent Delivered	Nozzle Pressure (Average)
E2-N1	80.9 lbs	84.0 lbs	84.6 lbs	91 psig

Consolidated Report

Standard Isometric View

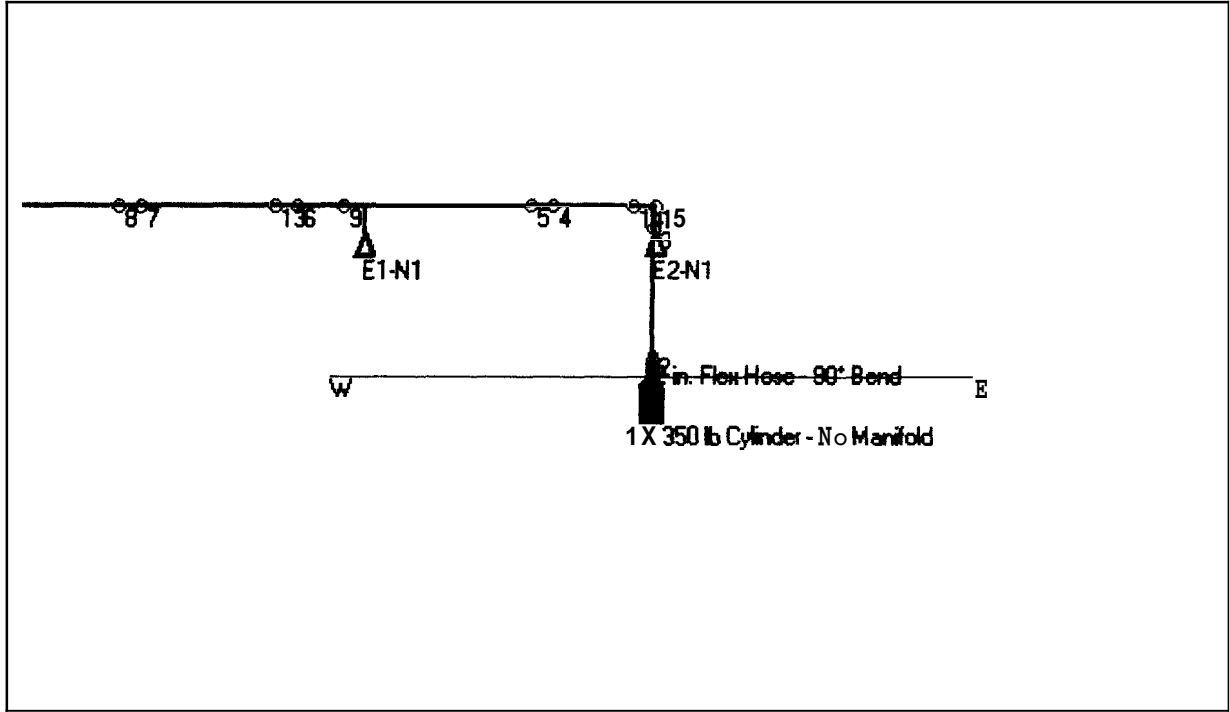


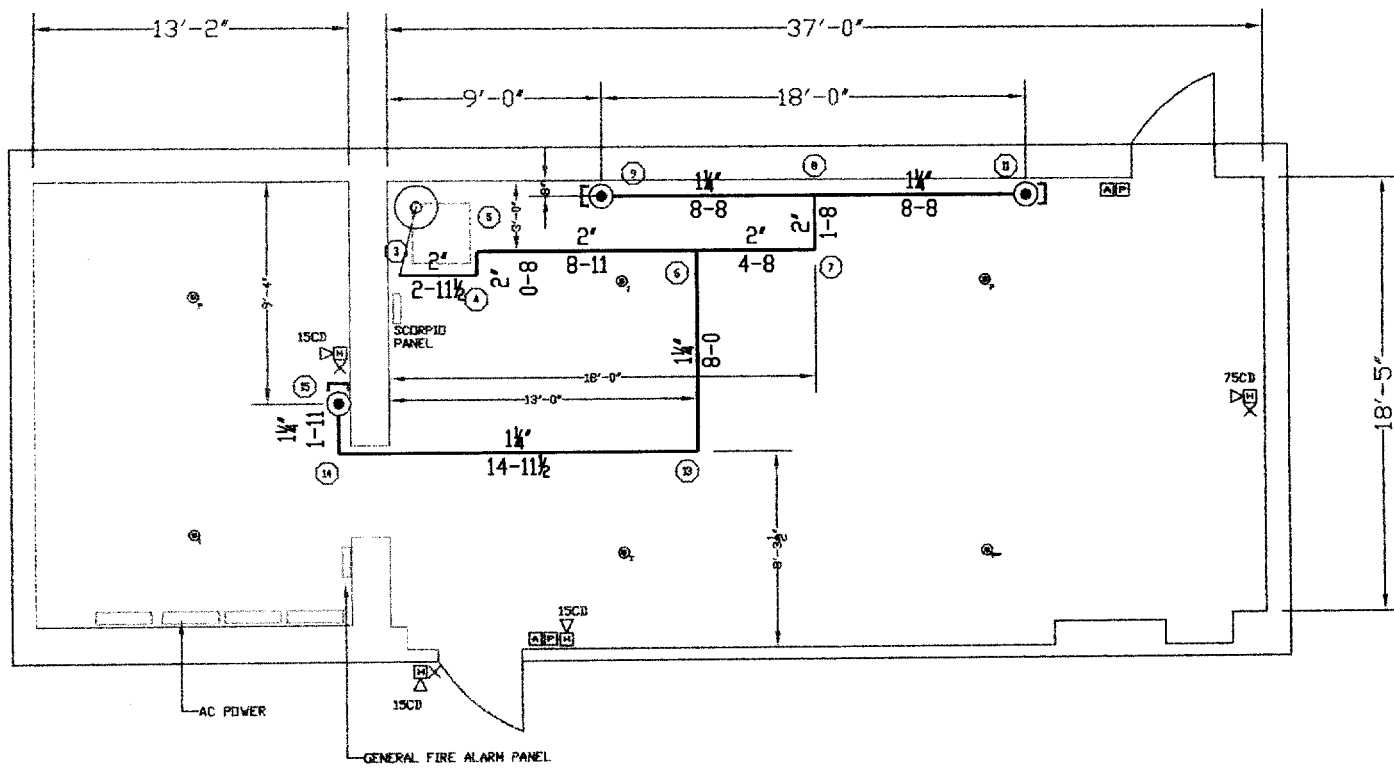
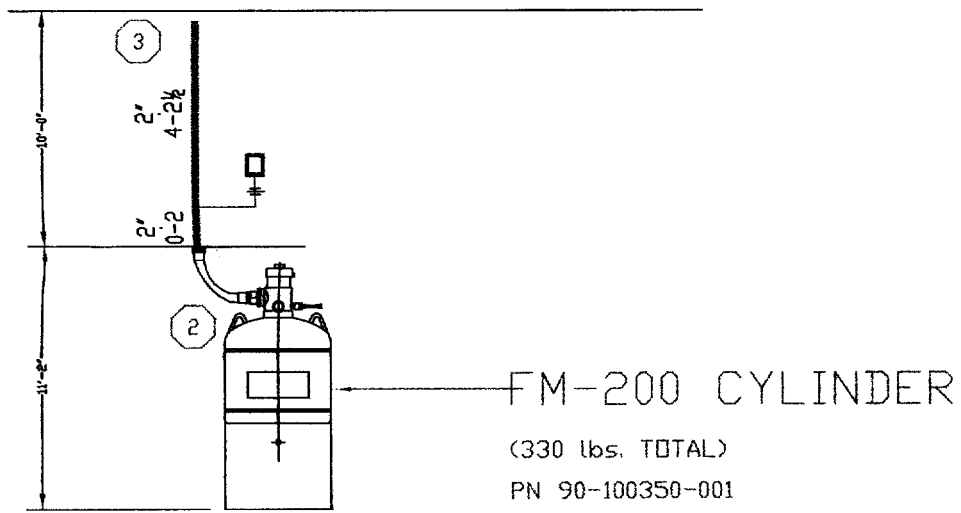
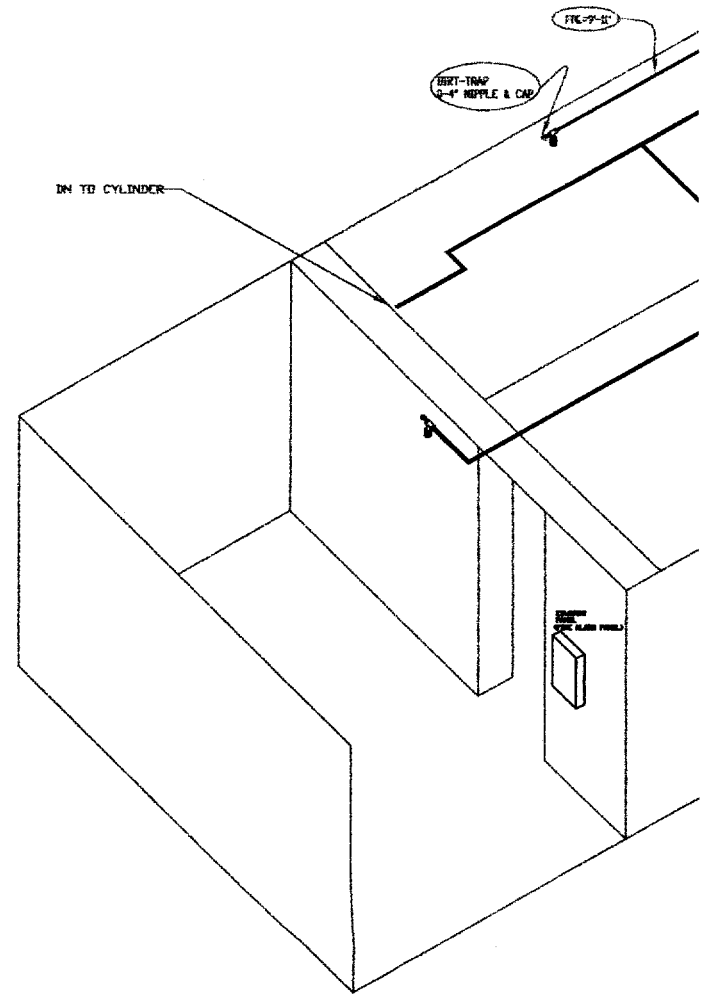
Standard Plan View



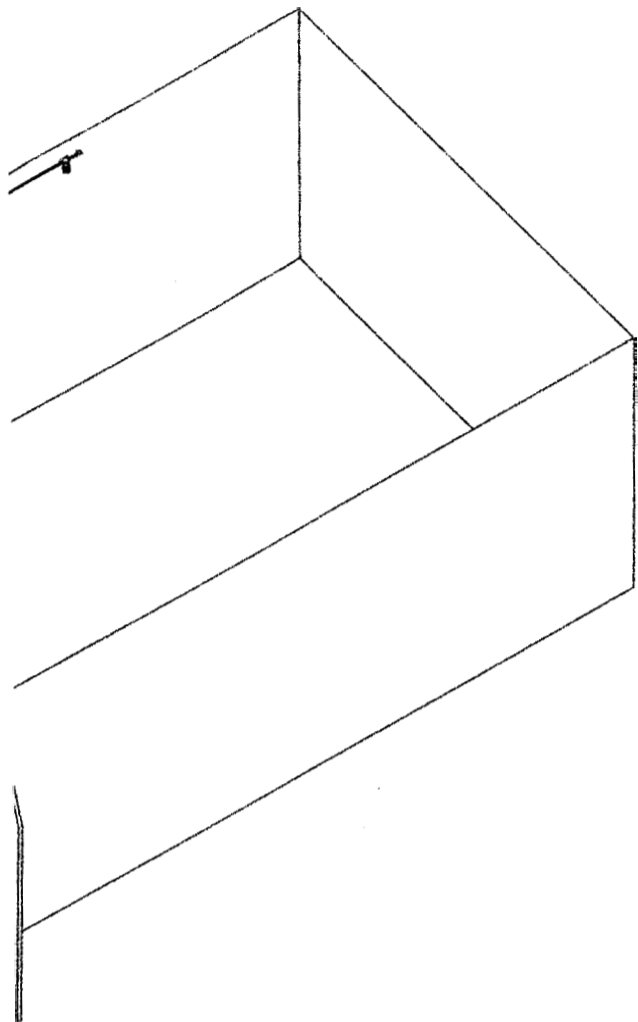
Consolidated Report

Standard Elevation View

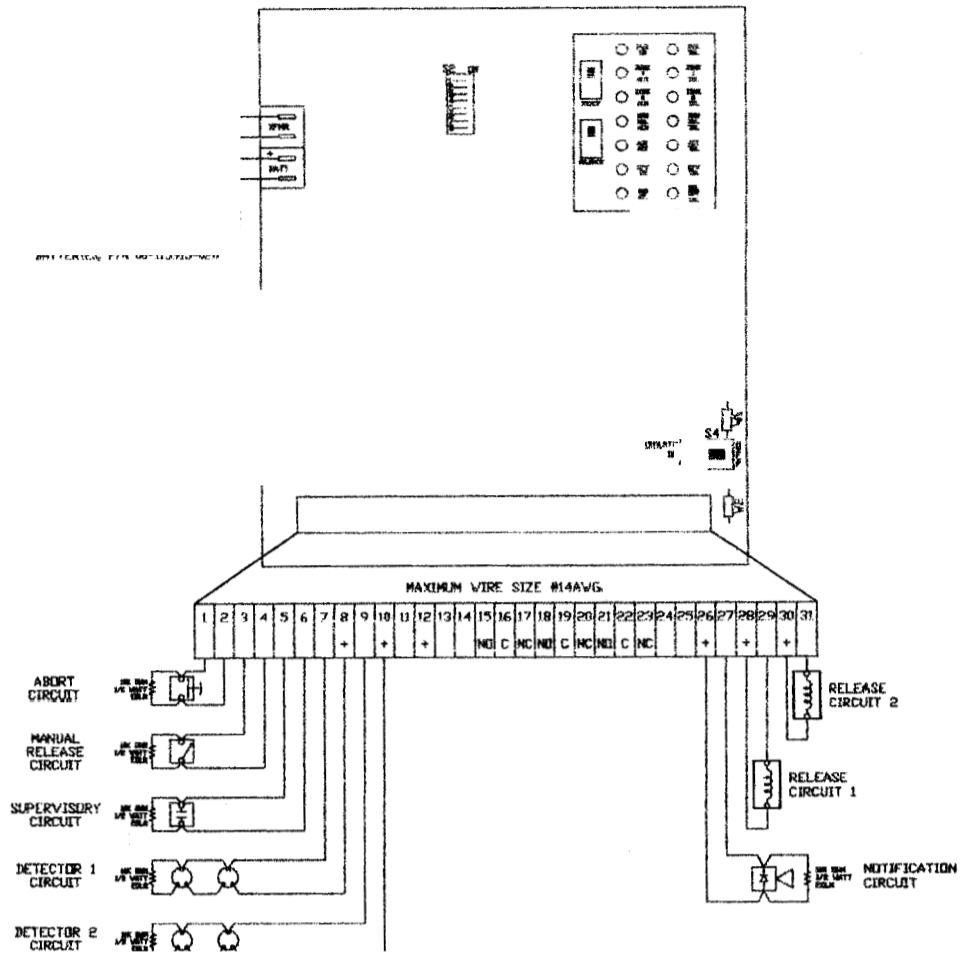




PLAN VIEW
 SCALE 1/8"=1'-0"



ISOMETRIC VIEW
SCALE 1/8"=1'-0"



GENERAL NOTES:

ALL PIPE SHALL BE 9'-11" FFL

ALL WALLS ARE GYPSUM BOARD.

SCORPIO PANEL SHALL BE CONTROL PANEL

CEILING IS GYPSUM BOARD,

ALL PIPING WILL BE EXPOSED @ 0'-8" BELOW CEILING

SYSTEM PIPING WILL BE SECURED BY 3/8" FM-PLATES

SIMPLEXGRINNELL WILL RUN A.C. POWER TO SCURPIC PANEL.

SIMPLEXGRINNELL SHALL CONNECT SCORPIO TO EDWARDS PANEL (MAIN BLDG FIRE ALARM),

SIMPLEXGRINNELL SHALL PROVIDE HVAC SHUT-DOWN THAT IN RODUCES OUTSIDE AIR INTO PROTECTED AREA,

LEGEND

- PHOTOELECTRIC DETECTOR
- IONIZATION DETECTOR
- STROBE WARNING LIGHT/ALARM HORN
- NODE POINT
- ABORT SWITCH
- MANUAL PULL STATION

Simplogrinnell EXECUTIVE OFFICES - HOUSTON, TEXAS, USA LOCAL OFFICE: WESTBROOK, ME.	SYSTEM INFO SYSTEM NAME/NO. SYSTEM TYPE VALVE SIZE SYSTEM AREA				CONTRACT NAME: PINE TREE NETWORKS 92 OAK ST. PORTLAND, ME.				SCALE: 1/4"=1'-0"	
	APPROVALS <input type="checkbox"/> OUT IN <input type="checkbox"/> OUT IN <input type="checkbox"/> OUT IN				CONTRACT WITH: KIDDE FM-200				DRAWN BY: B.H.	
REVISIONS				DESCRIPTION:				CHECKED BY:		
REAL AREA NAME/NO. HAZARD CLASSIFICATION DENSITY GPM/SQ.FT. AREA OF APPLIC. HOSE ALLOW. SQ. FT. /NO. TOTAL SYSTEM REQUIREMENTS GPM PSI AT				HYDRAULIC DESIGN DATA				THESE PLANS PREPARED AT WESTBROOK, ME.		
SEE CALC SHEETS				CONTRACT NO:				DATE: JANUARY 2005		