

BLOCK 702 LOT 11 ADDRESS (SITE) _____ PERMIT NO. 2271-91
RECEIVED

DEC 2 1991



CONSTRUCTION PERMIT APPLICATION

DIV. OF INSPECTION
Apply and comply with Sections I, II, III (optional), IV, VI and VII

I. IDENTIFICATION

1. Proposed Work-site at: WHAT'S COOKIN 249 Chambersbridge Rd
2. Name of Owner in Fee: WHAT'S COOKIN Tel. ()
Address 249 Chambers Bridge Rd Bricktown 08723
street municipality zip code
3. Ownership in Fee: Public _____ Private _____
4. Principal Contractor: Fire + Safety Systems Tel. () 715-0505
Address 122 SO. Main St Clearflore NJ
License No. OR, if new home, Builder Reg. No. _____ Exp. Date _____
Federal Emp. No. _____ Social Security No. _____
5. Architect or Engineer _____ Tel. ()
Address _____
6. Responsible Person Joe In Charge of Work Tel. () 715-0505

V. FEE SUMMARY (for office use only)

		Update	Update
1. Building	\$ <u>30</u>		
2. Electrical			
3. Plumbing			
4. Fire Protection	<u>103</u>		
5. Other <u>Suppression</u>			
6. Subtotal	\$ <u>133</u>		
7. Less 20% for State Plan Review	<u>5</u>		
8. Subtotal	\$		
9. DCA Training Fee			
10. Subtotal	\$		
11. Cert. of Occupancy	<u>20</u>		
12. Other			
13. TOTAL	\$ <u>158</u>		

VI. BUILDING/SITE CHARACTERISTICS

	(office use only)
1. Number of Stories	
2. Height of Structure	ft.
3. Area—Largest Floor	sq. ft.
4. Building Area—All Floors	sq. ft.
5. Volume of Structure	cu. ft.
6. Construction Classification	
7. Total Land Area Disturbed	sq. ft.
8. Flood Hazard Zone	
9. Base Flood Elevation	ft.
10. Wetlands yes	sq. ft.
no	
11. Fire Grading	
12. Max. Live Load	
13. Max. Occupancy Load	

II. PROPOSED WORK

1. ☐ Minor Work (single trade)
2. ☐ Small Job (\$5,000 and no prior approvals)
3. ☐ New Building
4. ☐ Addition
5. ☐ Alteration
6. ☒ Fire Protection
7. ☐ Plumbing
8. ☐ Electrical
9. ☐ Asbestos Abatement
10. ☐ Demolition

TOTAL COSTS

Est. Cost

4000.00

fire hood & suppression

OPTIONAL (for office use only)

Plans Rec'd By	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates Approval	Rejection	Re-viewer
<u>WP</u>	<u>12/21/91</u>		<u>12-10-91</u>	<u>WLC</u>	<u>12/13/91</u>		<u>RA</u>
		<u>12-5-91</u>	<u>12-5-91</u>		<u>12/13/91</u>		<u>JE</u>

III. DO YOU WANT: (optional) 1. ☐ Partial Releases 2. ☐ Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. ☐ Elevators/Escalators/Lifts/
Dumbwaiters/Moving Walks
2. ☐ High Pressure Boilers
3. ☐ Pressure Vessels
4. ☐ Refrigeration Systems
5. ☐ Cross-Connections/Backflow Preventers
6. ☐ Hazardous Uses/Places of Assembly
7. ☐ Sprinklers
8. ☐ Smoke Control Systems in Open Wells
9. ☐ Underground Storage Tanks

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL

1. ☐ Hotels (R-1)
2. ☐ Multi-Family (R-2)
3. ☐ Two-Family (R-3) BOCA
4. ☐ Two-Family (R-4) CABO
5. ☐ One-Family (R-3) BOCA
6. ☐ One-Family (R-4) CABO

No of dwelling units:

Before Construction _____
After Construction _____
Net gain or loss _____

B. NON-RESIDENTIAL

1. State Specific Use: DELI ONLY
2. Use Group: RESTAURANT
3. Change in Use Group, Indicate Former: TABLE

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. () I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. () I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(e)1.vii:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. () I further certify that I will perform or supervise the following work:

C.1. () Building C.2. () Fire Protection
I further certify that I will perform the following work:
C.3. () Electrical C.4. () Plumbing

- D. () I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION

(to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:32-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

() Check if contractor.

Agent Name Fire + Safety Systems

Address 122 So. Main St

Ocean Grove NJ 07754

Telephone () 775-0505

Signature _____ Date 12-2-91

OFFICE DATE RECEIVED: _____

VIII. PRIOR APPROVALS CHECKLIST (office use only)	LOCAL APPROVAL		COUNTY APPROVAL		REGIONAL APPROVAL		STATE APPROVAL		COMMENTS
	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	
☐ Planning Board									
☐ Zoning Board									
☐ Sewer Authority									
☐ Water Authority									
☐ Fire Department									
☐ Police Department									
☐ Health Department									
☐ Soil Conservation									
☐ N.J. Dept. of Community Affairs									
☐ N.J. Department of Transportation									
☐ N.J. Dept. of Environmental Protect.									
☐ Utility Dig No.									
☒ Other Zoning	JK	12/6/91	retail store						
☐			no section						
☐									

IX. SUBCODES AND SPECIAL REGULATIONS APPLICABLE (office use only—optional)

Name of Code & Edition	Name of Code & Edition	Other
Building _____	Energy _____	
Electrical _____	Barrier Free _____	
Plumbing _____	Flood Hazard _____	
Fire Protection _____	As Built Elevation Cert. _____	
Mechanical _____	Other _____	

X. CERTIFICATES ISSUED (office use only)

CERTIFICATE ISSUED	DATE EXPIRED
☐ Temporary Certificate of Occupancy	No. _____
☐ Temporary Certificate of Occupancy	No. _____
☐ Continued Certificate of Occupancy	No. _____
☐ Certificate of Occupancy	No. _____
☐ Certificate of Approval	No. _____
☐ None	



CONSTRUCTION PERMIT

Date Issued

Control #

Permit #

12/10/91

2271-91

IDENTIFICATION Block

Lot

Work Site Location

Contractor

Address

Owner in Fee

Address

Tele. ()

Lic. No. or Bldrs. Reg. No.

Exp. Date

Federal Emp. No.

or Social Security No.

is hereby granted permission to perform the following work:

[X] BUILDING [] PLUMBING [] OTHER
[] ELECTRICAL [X] FIRE PROTECTION

DESCRIPTION OF WORK:

fire Road - suppression

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$

U.C.C. Form F-170A

CONSTRUCTION OFFICIAL

1 WHITE - OFFICE

2 CANARY - TAX ASSESSOR

3 PINK - JACKET

4 GOLD - APPLICANT

PAYMENTS (Office Use Only)

Building	30.00	2271#	0.00
Plumbing	BLCK		
Electrical	702 #		
Fire Protection	103.00		0.00
Other	PIC 5.00 11 #		
Other	BUILDING		0.00
DCA Training Fee	FIRE		103.00
Cert. of Occ.	20 PLAN RW		5.00
Other	C/O		0.00
Total	158.00 TOTAL		158.00
Check No.	546 CHECK		158.00
Cash			
Collected By:	DC		



Date Received
Date Issued 12/15/91
Control #
Permit # 027191

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 702 Lot 11
Work Site Location 249 Chamberlaine
Owner in Fee Walter Cooking
Address 249 Chamberlaine Blvd
Tele. () Quinn H. G
Contractor First Step Systems
Address 132 S. Maryland
Tele. () Deen Stone, Inc.
Lic. No. or Bldrs. Reg. No. _____
Federal Emp. No. _____ or Social Security No. _____

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial	INSPECTIONS	Failure	Failure	Approval	Dates (Month/Day)	Initial
☐ No Plans Req.			Type:					
☒ All	12-10-91	WLG	Footings					
☐ Footing			Foundation					
☐ Foundation			Slab					
☐ Frame			Frame					
☐ Other			Insulation					
Joint Plan Review Required:			Finishes:					
☐ Elec. ☐ Plumb. ☐ Fire			Energy					
SUBCODE APPROVAL			Mechanical					
☒ CO ☐ CO ☐ CO			ICC					
Date:			Other					
Approved By:	12/15/91		Final					

B. BUILDING CHARACTERISTICS

Use Group Present _____ Proposed _____
Constr. Class Present _____ Proposed _____
No. of Stories _____
Height of Structure _____ Ft.
Area—Largest Floor _____ Sq. Ft.
Total Bldg. Area/All Floors _____ Sq. Ft.
Volume of Structure _____ Cu. Ft.
Total Land Area Disturbed _____ Sq. Ft.

Est. Cost of Bldg. Work:
1. New Bldg. \$ _____
2. Alteration \$ _____
3. Total (1+2) \$ _____

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Signature _____

D. TECHNICAL SITE DATA
DESCRIPTION OF WORK

Free suspension ~ Wood

TYPE OF WORK:

- ☐ New Building
- ☐ Addition
- ☐ Alteration
- ☐ Roofing
- ☐ Siding
- ☐ Other _____
- ☐ Demolition
- ☐ Miscellaneous
- ☐ Fence _____ Height _____ Sq. Ft.
- ☐ Sign _____ Sq. Ft.
- ☐ Pool
- ☐ Elevator
- ☐ Asbestos Abatement
- ☐ Other _____

(Office Use Only)

FEE

Paid ☐ Check # _____ Minimum Fee \$ _____
Collected by: _____ TOTAL FEE \$ _____

Administrative Surcharge \$ _____
1. While=Inspector Copy
2. Canary=Office Copy
3. Pink=Office Copy
4. Gold=Applicant Copy



Date Received
Date Issued 12/12/91
Control #
Permit # 227151

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 702 Lot 11
Work Site Location 349 Chambers Bridge
Owner in Fee 101 West Oakline
Address 349 Chambers Bridge BL
Tele. () Quinn N. G
Contractor Ying D. H. & Sons
Address 122 S. Main St.
Te. () Quinn N. G
Lic. No. or Bldrs. Reg. No. Q
Federal Emp. No. or Social Security No.

JOB SUMMARY (Office Use Only)

PLAN REVIEW	Date	Initial	INSPECTIONS	Failure	Failure	Approval	Initial
☐ No Plans Req.			Type:				
☒ All	12.11.91	Wk	Footing				
☐ Foundation			Foundation				
☐ Slab			Slab				
☐ Frame			Frame				
☐ Other			Insulation				
Joint Plan Review Required:			Finishes:				
☐ Elec. ☐ Plumb. ☐ Fire			Energy				
SUBCODE APPROVAL			Mechanical				
☐ CO ☐ CCO ☐ CA			TCO				
Date:			Other				
Approved By:			Final				

B. BUILDING CHARACTERISTICS

Use Group Present Proposed
Constr. Class Present Proposed
No. of Stories
Height of Structure Ft.
Area—Largest Floor Sq. Ft.
Total Bldg. Area/All Floors Sq. Ft.
Volume of Structure Cu. Ft.
Total Land Area Disturbed Sq. Ft.

Est. Cost of Bldg. Work:
1. New Bldg. \$
2. Alteration \$
3. Total (1+2) \$

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Signature

D. TECHNICAL SITE DATA
DESCRIPTION OF WORK

Free suspension ~ Wood

TYPE OF WORK:

- ☐ New Building
- ☐ Addition
- ☐ Alteration
- ☐ Roofing
- ☐ Sliding
- ☐ Other
- ☐ Demolition
- ☐ Miscellaneous
- ☐ Fence
- ☐ Sign
- ☐ Pool
- ☐ Elevator
- ☐ Asbestos Abatement
- ☐ Other

(Office Use Only)
FEE

Paid ☐ Check #	Administrative Surcharge	\$
Collected by:	Minimum Fee	\$
	TOTAL FEE	\$

244 5955



**FIRE PROTECTION
SUBCODE
TECHNICAL SECTION**



Date Received
Date Issued 12/12/91
Control #
Permit # 2271-91

**A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANG-
ING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.**

Block 702
Work Site Location Robert's Cookin 1849 Chambersbridge Rd

Owner in Fee ROHAT'S COOKIN
Address 1849 Chambers Bridge Rd

Contractor Fire + Safety Systems

Address 102 SO Main ST

Tele. () 775-0505

Lic. No. NT 06723

Federal Emp. No. NT 07756

or Social Security No. NT 07756

B. FIRE PROTECTION CHARACTERISTICS

Use Group Present Rest Proposed Rest Text with

Constr. Class. Present Proposed Rest Complex

Heating Systems Existing

Type: Gas Oil Electrical Solar

Location: Other

Total Est. Cost of Fire Prot. Work \$ 4000.00 [] Other _____

JOB SUMMARY (Office Use Only)	
PLAN REVIEW:	INSPECTIONS:
[] No Plans Required	Type: _____
[] Bldg. [] Plumb. [] Elec.	Suppression Test <u>12-11-91</u>
[X] Fire Plans Approved	Fire Alarm Test _____
Date: <u>12-5-91</u>	Smoke Test _____
Approved by: <u>[Signature]</u>	Mechanical _____
SUBCODE APPROVAL:	TCO _____
[] CO [] CCO [] CA	Other _____
Date: <u>12-13-91</u>	Other _____
Approved by: <u>[Signature]</u>	Other _____

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

[Signature]
SIGNATURE

D. TECHNICAL SITE DATA

Description of Work Suppression

Water Supply Source _____

Method of Valve Supervision _____

Local Alarm Supervision _____

Central Supervision _____

Proprietary Supervision _____

Flammable Liquid Storage Tanks _____

Combustible Liquid Storage Tanks _____

L.P.G. Storage Tanks _____

L.N.G. Storage Tanks _____

Wet Sprinkler Heads _____

Dry Sprinkler Heads _____

TOTAL _____

Smoke Detectors _____

Heat Detectors _____

TOTAL _____

Stand Pipes _____

Kitchen Hood Exhaust Systems _____

Pre-Engineered Systems _____

CO₂ Suppression _____

Halon Suppression _____

Foam Suppression _____

Dry Chemical _____

Wet Chemical _____

Gas or Oil Fired Appliance _____

OTHER [Signature] _____

Administrative Surcharge \$ _____

Paid [] Check # _____

Minimum Fee \$ _____

Collected by _____

TOTAL FEE \$ 723

Number _____

() Capacity _____ Fuel _____
() Capacity _____ Fuel _____
() Capacity _____ Fuel _____
() Capacity _____ Fuel _____

FEE (Office Use Only)

12-11-91 - Not Ready for 1 Leg Test no appl.
for Test. Re Snap for Fri 12-13-91 100
Penalty \$20 for not being ready for

12-13-91 Snap Test Syst. with 1 Leg Longline with 100
Close Violation Character for



FIRE & SAFETY SYSTEMS CO.

122 South Main Street
Ocean Grove, NJ 07756
(201) 775-0505

CERTIFICATE OF INSPECTION

FSS

For the semi-annual service of the Pleasant Hill Fire System Protective

Alarm, Duct and Cooking Equipment

Completed on 12-13-91

EXPIRATION DATE 12-13-92

For the premises Libby's Cooking

Located at 849 Wharves Bridge Rd Beth VT

All work done in accordance with N.F.P.A. regulations and all authorities having jurisdiction.

FIRE & SAFETY SYSTEMS CO.

By [Signature]

TOWNSHIP OF BRICK

OCEAN COUNTY, NEW JERSEY
401 CHAMBERS BRIDGE ROAD, BRICK, N.J. 08723



Stevan J. Zboyan, Mayor

Township Council:
Thomas G. Maiorine, President
Albert Chrobocinski
Andrew R. Ciesla
Helen Fayad
Lee Hartman
Warren H. Wolf
David W. Wolfe

Department of Engineering

Municipal Engineer
(908) 477-3000, Ext. 273

December 4, 1991

Fire & Safety Systems
Attn: Joe
122 South Main Street
Ocean Grove, N.J. 07756

RE: Block 702, Lot 11
249 Chambers Bridge Road
Proposed "What's Cookin" Restaurant

Dear Joe:

Your application for zoning approval for a construction permit for a restaurant on the referenced property is denied for the following reasons:

- 1) The actual lot owner's name and address is not on the application.
- 2) Under Section 190-240 of the Township Code, no construction permit may be issued for a change of use unless a site plan, or an exemption, is first approved by the Planning Board.

Attached is an application form for a site plan exemption, which must be submitted by the owner of the property.

Please feel free to contact this office for any additional information or assistance.

Very truly yours,

Sean Kinnevy

Sean Kinnevy
Zoning Officer

SK/kb

cc: Arthur J. Cierzo, Construction Official
Division of Inspections
Planning Board

RECEIVED

DEC 4 1991

DIV. OF INSPECTION

Not a restaurant
Deti Only

TOWNSHIP OF BRICK

OCEAN COUNTY, NEW JERSEY
401 CHAMBERS BRIDGE ROAD, BRICK, N.J. 08723



Stevan J. Zboyan, Mayor

Township Council:
Thomas G. Majorine, President
Albert Chrobocinski
Andrew R. Ciesla
Helen Fayad
Lee Hartman
Warren H. Wolf
David W. Wolfe

Department of Engineering

Municipal Engineer
(908) 477-3000, Ext. 273

December 6, 1991

Pat Elias
970 President Avenue
Toms River, N.J. 08753

RE: Block 702, Lot 11
249 Chambers Bridge Road

Dear Mr. Elias:

Zoning approval is hereby granted for construction permit to use part of the building on the referenced property for a retail food store/take out deli.

No customer seating or on-site consumption is permitted unless first approved by the Planning Board. No sign may be erected without first obtaining a sign permit. Banners, flags, balloons, and streamers are permitted only for seven days of a grand opening.

The maximum penalty for zoning violations is \$1,000 per day. Thank you for your anticipated cooperation.

Very truly yours,

Sean Kinnevy
Zoning Officer

SK/kb

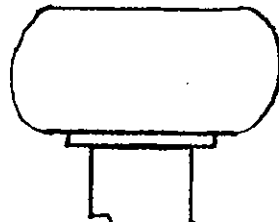
cc: Arthur Cierzo, Construction Official
Division of Inspections
Brick Town Group



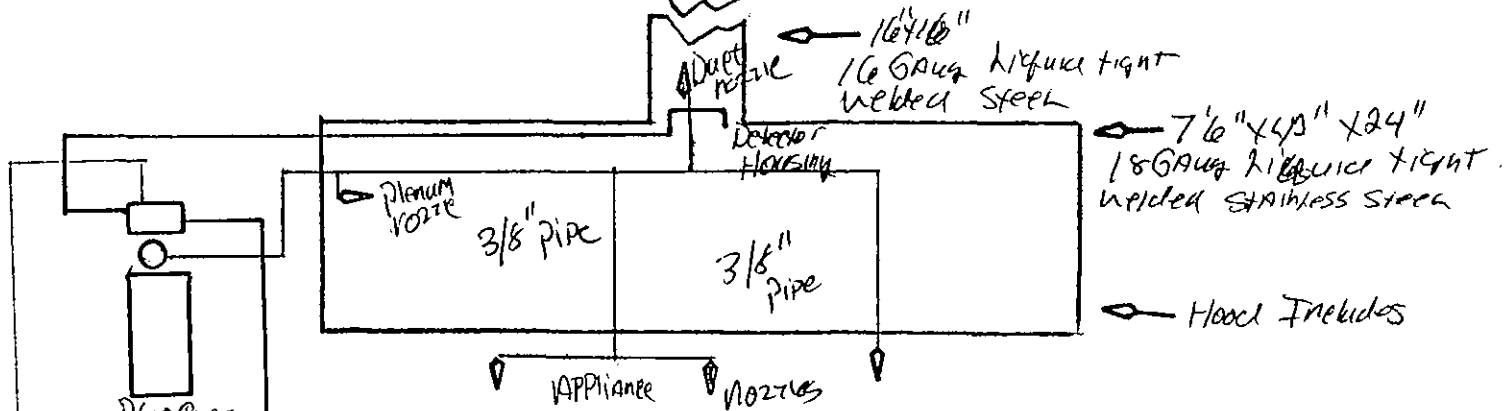
FSS

12-2-91

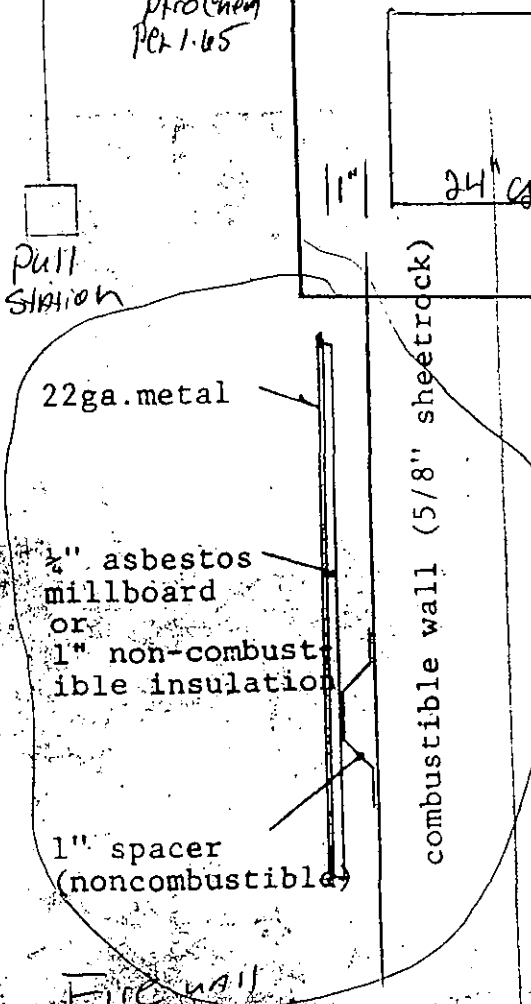
Whays Cookin
249 Chambers Bridge RD
Bricktown NJ 08723
Block 702 Lot 11



Air is EXHAUSTED 40"
ABOVE ROOF minimum
← 2400 CFM Fan



BRICK TOWNSHIP	
Plan Review	Class Date By
Zoning	
Plumbing	
Building	12-10-91
Fire	12-5-91
Energy	
Electrical	



Must give
Test Plan
When Completed

Hood, Duct, Fire wall and
Fire System Are guaranteed
to be installed to meet
All BOCA Building Codes
and NFPA 17A+96

[Signature]

CHAPTER III

PIPING REQUIREMENTS

Pyro Chem Automatic Restaurant Systems permit a variety of unbalanced piping configurations. Piping for the PCL-165/275/550 systems are intended to be very simple and straight forward. There are no flow diverters or restrictors used in the system.

NOTE

The only acceptable types of piping which can be used with the PCL-165/275/550 is black pipe, chrome plated pipe, or stainless steel pipe. Galvanized pipe cannot be used.

The PCL-165/275/550 systems have been developed using a system of flow points. Each system has a maximum of:

- I. PCL-165 — 6 flow points
- II. PCL-275 — 10 flow points.
- III. PCL-550 — 20 flow points.

Pyro Chem uses a flow point system to permit maximum flexibility in piping. Each nozzle has a flow point rating as follows:

NL-D (Duct Nozzle) 3 flow points
 NL-P (Plenum/Duct Nozzle) 1 flow point
 NL-A (Appliance/Plenum Nozzle) 1 flow point
 NL-R (Radiant Charbroiler Nozzle) 1 flow point
 NL-UB (Upright Broiler Nozzle) ½ flow point

MAXIMUM NOZZLE USAGE ON SYSTEM

Nozzle	Application	MAXIMUM NUMBER		
		PCL-165	PCL-275	PCL-550
NL-A	Appliance	6	10	20
	Plenum	6	10	20
NL-P	Plenum	6	5	18
	Duct	6	10	18
NL-D	Duct	2	3	6
NL-UB	Upright Broiler	6 pair	10 pair	16 pair
NL-R	Radiant Charbroiler	6	10	20

To further simplify piping, the Pyro Chem PCL-165/275/550 systems do not restrict piping runs to specific lengths and quantity of fittings. Instead, limits are placed on pipe lengths in terms of actual length of pipe and equivalent length of fittings. All pipe fittings develop a pressure loss which can be equated to the loss through a specific length of straight pipe. This loss is the equivalent length of the fitting. The equivalent length of fitting is always added to the total pipe length to determine the equivalent length of the branch. Table 3-1 illustrates the equivalent of pipe fittings used in PCL-165/275/550 systems.

Table 3-1. Pipe Fitting Equivalent Length in Feet

PIPE SIZE	45° ELBOW	90° ELBOW	TEE FLOW THROUGH	TEE SIDE OUTLET	UNION OR COUPLINGS
3/8	0.6	1.3	0.8	2.7	0.3
½	0.8	1.7	1.0	3.4	0.4
¾	1.0	2.2	1.4	4.5	0.5

Pyro Chem PCL-165/275/550 piping is broken down into a main supply line and branch lines. Branch lines can further be defined as duct branch, plenum and appliance branch.

A. MAIN SUPPLY LINE —

1. PCL-165 — The main supply line is the run of ¾" pipe from the cylinder to the hazard area. In general, this will be a straight line run using tees to "branch" off the main. Limitations on main supply line piping for the PCL-165 are shown in Table 3-2.

Table 3-2. Piping Limitations for PCL 165

SECTION	PIPE DIAM	MAX. FLOW POINTS	MAX. LENGTHS		MIN. LENGTHS		MAX. VERT. RISE
			FEET LINEAR	FEET EQUIV.	FEET LINEAR	FEET EQUIV.	
Main Supply Line	3/8"	6	30	47	3	7	12'

See Figure 3-1 for acceptable configurations

NOTE

The maximum length of the main supply line between the first branch tee and the last branch tee is 20 feet.

2. PCL-275 — The main supply line is the run of 1/2" pipe from the cylinder to the hazard area. In general, this will be a straight line run using tees to "branch" off the main. Limitations on main supply line piping for the PCL-275 are shown in Table 3-3.

Table 3-3. Piping Limitations for PCL-275

SECTION	PIPE DIAM.	MAX. FLOW POINTS	MAX. LENGTHS		MIN. LENGTHS		MAX. VERT. RISE
			FEET LINEAR	FEET EQUIV.	FEET LINEAR	FEET EQUIV.	
Main Supply Line	½"	10	50	75	3	7	12'

See Figure 3-2 for acceptable configurations

NOTE

The maximum length of the main supply line between the first branch tee and the last branch tee is 20 feet.

3. PCL-550 — The main supply line is the run of ½" and ¾" pipe from the cylinder to the hazard area which must supply a minimum of eleven (11) flow points with the PCL-550 system. The ¾" diameter pipe section is used to supply from the cylinder to the first ten flow points required. The main supply is then reduced to ½" diameter pipe and will supply from one to ten additional flow points as required to protect the needs of the hazard for a maximum of twenty flow points. In general, this will be a straight line run using tees to "branch" off the main. Limitations on main supply line piping are shown in Table 3-4.

The main supply line when used with the PCL-550 for balanced split systems will utilize the ¾" diameter pipe to supply from the cylinder to the tee which splits the system to each separate hazard area. The ¾" diameter pipe is not permitted to have any branch lines in this application. The pipe run extending from each side of the tee is reduced to ½" diameter pipe from which each side will supply a maximum of ten flow points. Each side must be balanced within one flow point and not more than a ± 10 percent imbalance on piping run. Limitations on main supply line piping are shown in Table 3-5.

NOTE

The PCL-550 is only to be utilized in excess of ten flow points. If the total of flow points is below ten, a PCL-275 or PCL-165 system should be used.

Table 3-4. Piping Limitations for PCL-550

SECTION	PIPE DIAM.	MAX. FLOW POINTS	Straight Line		Supply Line		MAX. VERT. RISE
			MAX. LENGTHS FEET	MIN. LENGTHS FEET	MAX. LENGTHS FEET	MIN. LENGTHS FEET	
Main Supply Line	¾"	10	31	80	3	7	12'
	½"	10	22	40	—	—	

See Figure 3-3 for acceptable configurations

NOTE

The ¾" diameter pipe section is used to supply from the cylinder to the first ten flow points required. The main supply is then reduced to ½" diameter pipe and will supply from one to ten additional flow points as required to protect the needs of the hazard for a maximum of twenty flow points. The maximum length of the main supply line between the first branch tee and the last branch tee is 42 feet.

Table 3-5. Piping Limitations for PCL-550
Balanced Split System Piping
± 10 Percent

SECTION	PIPE DIAM.	MAX. FLOW POINTS	MAX. LENGTHS		MIN. LENGTHS		MAX. VERT. RISE
			FEET LINEAR	FEET EQUIV.	FEET LINEAR	FEET EQUIV.	
Main Supply Line							
Before Split	¾"	0	21	35	3	7	12'
After Split	½"	20	40	74	—	—	

See Figure 3-4 for acceptable configurations

NOTE

The main supply line when used with the PCL-550 for balanced split systems will utilize the ¾" diameter pipe to supply from the cylinder to the tee which splits the system to each separate hazard area. The ¾" diameter pipe is not permitted to have any branch lines in this application. The pipe run extending from each side of the tee is reduced to ½" diameter pipe from which each side will supply a maximum of ten flow points. Each side must be balanced within one flow point and not more than a ± 10 percent imbalance on piping run. The maximum length of the main supply line between the first branch tee and the last branch tee is 18 feet.

B. DUCT BRANCH LINE — The duct branch line is the run of 3/8" pipe which connects the duct nozzles to the main supply line. A single duct branch line can supply six flow points when utilizing the NL-D nozzle. A single duct branch can supply two flow points when utilizing the NL-P nozzle. The piping limitations specified in Table 3-6 apply to the PCL-165, PCL-275 and PCL-550 for the duct branch line.

Table 3-6. Duct Branch Piping Limitation

SECTION	PIPE DIAM.	MAX. FLOW POINTS PER BRANCH	MAX. LENGTH		MIN. LENGTH		MAX. VERT. RISE
			FEET LINEAR	FEET EQUIV.	FEET LINEAR	FEET EQUIV.	
Duct Branch Line	3/8"	6 2	8	20	0	0	4'

NOTE

* A single duct branch line can supply six flow points when utilizing the NL-D nozzle. A single duct branch can supply two flow points when utilizing the NL-P nozzle.

C. PLENUM BRANCH LINE — The plenum branch line is the run of 3/8" pipe which connects the main supply line to the plenum nozzles. Only one flow point per branch is permitted. The piping limitations specified in Table 3-7 apply to PCL-165, PCL-275 and PCL-550 for plenum branch line.

Table 3-7. Plenum Branch Piping Limitations

SECTION	PIPE DIAM.	MAX. FLOW POINTS PER BRANCH	MAX. LENGTH		MIN. LENGTH		MAX. VERT. RISE
			FEET LINEAR	FEET EQUIV.	FEET LINEAR	FEET EQUIV.	
Plenum Branch Line	3/8"	1	8	20	0	0	4'

D. APPLIANCE BRANCH LINE — The appliance line is the piping which connects the main supply line to the appliance nozzle. This will be 3/8" diameter pipe and can support up to four flow points. The piping limitation specified in Table 3-8 apply to the PCL-165, PCL-275 and PCL-550 for the appliance branch line.

Table 3-8. Appliance Branch Piping Limitation

SECTION	PIPE DIAM.	MAX. FLOW POINTS PER BRANCH	MAX. LENGTH		MIN. LENGTH		MAX. VERT. RISE
			FEET LINEAR	FEET EQUIV.	FEET LINEAR	FEET EQUIV.	
Appliance Branch Line	3/8"	4	15	25	0	0	4'

NOTE:

Special piping restrictions apply to each system along with the piping limitations previously mentioned as follows:

1. **PCL-165**

- Total of all duct, plenum and appliance branch piping is not to exceed 30 linear feet.
- Total of duct, plenum and appliance branch pipe and fittings is not to exceed 52 equivalent feet.

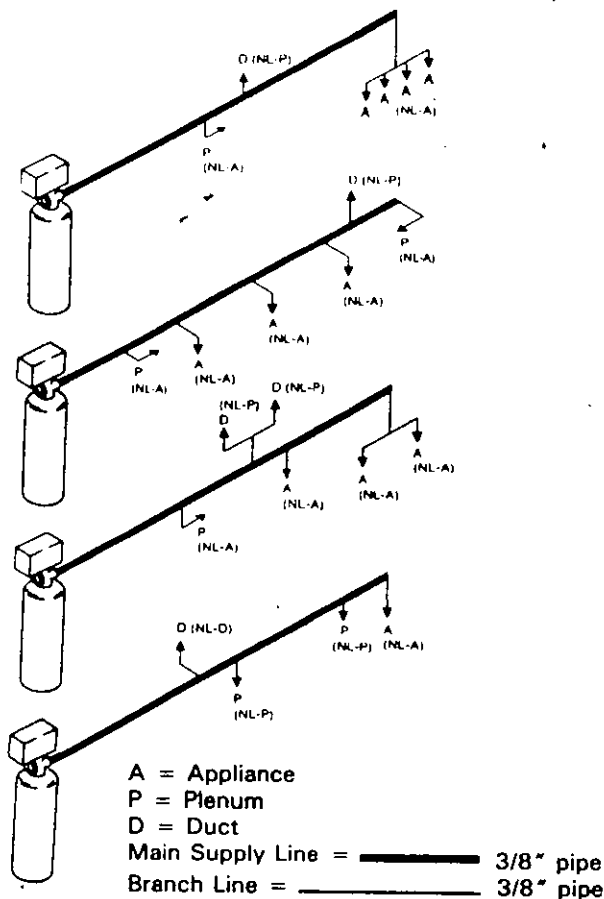
2. **PCL-275**

- Total of all duct, plenum and appliance branch piping is not to exceed 50 linear feet.
- Total of duct, plenum and appliance branch pipe and fittings is not to exceed 70 equivalent feet.

3. **PCL-550**

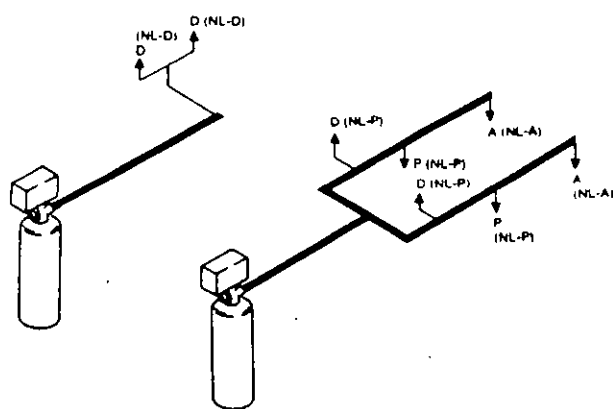
- Total of all duct, plenum and appliance branch piping is not to exceed 75 linear feet.
- Total of duct, plenum and appliance branch pipe and fitting is not to exceed 130 equivalent feet.

Examples of acceptable piping arrangements for the PCL-165 are shown in Figure 3-1. This is not a complete list of all possible configurations. Others will be acceptable provided they conform to the limitations shown in Chapter III.



NOTE

Distance from first branch to last cannot exceed 20 feet of 3/8" pipe.

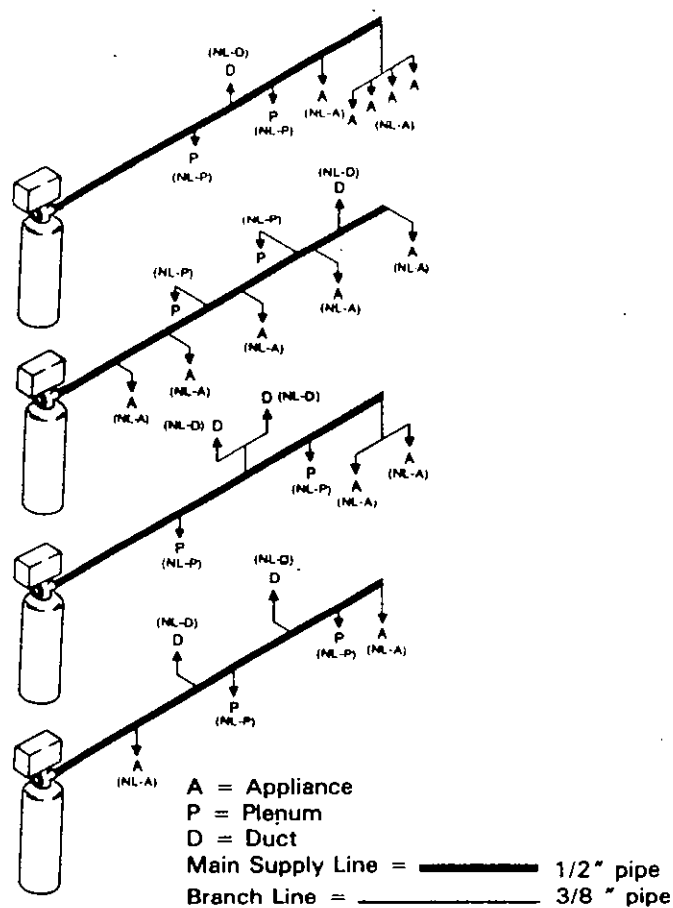


NOTE

In split piping systems the entire main supply line, including both sides of the split, cannot exceed the length limitations shown in Chapter III. In addition, the supply line must be balanced to within $\pm 10\%$ on either side of the tee. The difference in flow points on each side of the tee split cannot exceed one flow point.

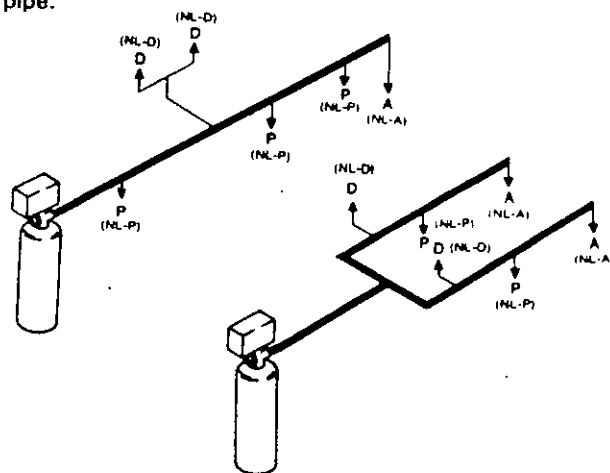
Figure 3-1. Acceptable Examples of Piping for PCL-165

Examples of acceptable piping arrangements for the PCL-275 are shown in Figure 3-2. This is not a complete list of all possible configurations. Others will be acceptable provided they conform to the limitations shown in Chapter III.



NOTE

Distance from first branch to last cannot exceed 20 feet of 1/2" pipe.



NOTE

In split piping systems the entire main supply line, including both sides of the split, cannot exceed the length limitations shown in Chapter III. In addition, the supply line must be balanced to within $\pm 10\%$ on either side of the tee. The difference in flow points on each side of the tee split cannot exceed one flow point.

Figure 3-2. Acceptable Examples of Piping for PCL-275