

Application for Plan Review

Application # F M F W 1809.0002

Date Received: 9.7.18 Received By: djohnson

Name of Project: FOOD LION DISTRIBUTION (BANANA ROOM)

Physical Address of Project: 2940 ARROWHEAD RD.
DUNN NC

Plans Submitted By: MARK FORD

Project Phone: (910) - 892.1700

Contact Person/Address: _____

Contact Phone: (910) - 892.1700 () - -

Contractor's Name/Info: CAROLINA FIRE PROTECTION, INC.
P.O. Box 250
DUNN, N.C. 28335

Contractor's Phone: (910) - 892.1700

- Plans that are submitted will be reviewed as quickly as possible with an average time of review between 7-10 working days.
- Status checks may be conducted on plan reviews by visiting the website <http://hteweb.harnett.org/Click2GovBP/Index.jsp> or by calling the Harnett County Central Permitting Office (910-893-7525, Option #2), or the Harnett County Fire Marshal's Office (910-893-7580).
- Approved plans must be picked up from the Central Permitting Office and all fees paid before any required inspections can be conducted.

Carolina Fire Protection

4055 Hodges Chapel Road
Dunn, N.C. 28334
Phone #(910)-892-1700
Fax #(910)-892-7322

Transmittal Letter

This correspondence may contain confidential information intended for the use of the individual or entity to whom it is addressed. If the reader is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination or copying is strictly prohibited.

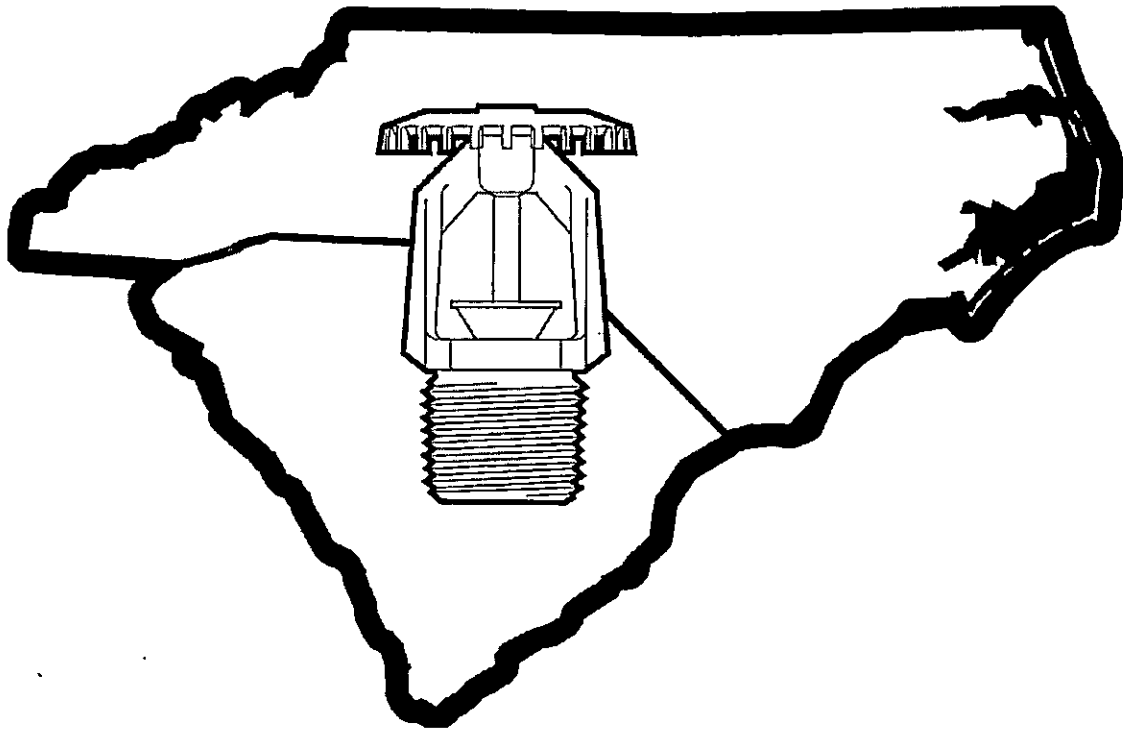
Date September 6, 2018
To Central Permitting
108 E. Front Street
Lillington, NC 27546
Attention Plan Review
From Mark Ford / Wayne Dunn
Subject Food Lion Distribution Center (Banana Room)
Dunn, NC

# SETS	PAGES	DESCRIPTION	APPROVAL	FOR YOUR USE	INFORMATION	RECORDS	OTHER
3	FP-1	Sprinkler Drawings	X				
1		Hydraulic Calculation	X				
1		Permit Application	X				

MAILED X FED EX UPS HAND DELIVERED

X PLEASE RETURN (1) COPY OF DRAWINGS MARKED WITH YOUR STAMP OF APPROVAL AND/OR YOUR COMMENTS

REMARKS:



Carolina Fire Protection, Inc.
4055 Hodges Chapel Road
P.O. Box 250 (28335)
Dunn, NC 28334
910-892-1700

Job Name : Food Lion (Banana Room)
Building : BANANA ROOM
Location : DUNN, NC
System :
Contract : 181289
Data File : FOOD LION BANANA ROOM-tmp.wxf

Hydraulic Design Information Sheet

Name - FOOD LION Date - 9-5-18
 Location - DUNN, NC
 Building - BANANA ROOM System No. -
 Contractor - CAROLINA FIRE PROTECTION, INC. Contract No. - 18I289
 Calculated By - M.FORD Drawing No. -
 Construction: () Combustible (X) Non-Combustible Ceiling Height - 27'-6"
 Occupancy - Banana Ripening Room Class 1 Commodity

S () NFPA 13 () Lt. Haz. Ord.Haz.Gp. () 1 () 2 () 3 () Ex.Haz.
 Y () NFPA 231 () NFPA 231C () Figure Curve
 S Other Factory Mutual
 T Specific Ruling Data sheet 8-9 table 7 Made By Date
 E

M	Area of Sprinkler Operation	- 12 heads	System Type	Sprinkler/Nozzle
	Density	- 50 PSI	(X) Wet	Make Reliable
D	Area Per Sprinkler	- 100	() Dry	Model Pendent
E	Elevation at Highest Outlet	- 27.500	() Deluge	Size 3/4"
S	Hose Allowance - Inside	- 100	() Preaction	K-Factor 11.2
I	Rack Sprinkler Allowance	- n/a	() Other	Temp.Rat.155
G	Hose Allowance - Outside	- 400		

Note

Calculation Flow Required - 1473.86 Press Required - 123.132 test
 Summary C-Factor Used: 120 Overhead 140 Underground

W	Water Flow Test:	Pump Data:	Tank or Reservoir:
A	Date of Test - 8-8-17		Cap. -
T	Time of Test -	Rated Cap.- 2500	Elev.-
E	Static Press - 154	@ Press - 125	
R	Residual Press - 118	Elev. -	Well
	Flow - 3616		Proof Flow
S	Elevation - 0		

U Location - Pump Test

P Source of Information - James M. Pleasants

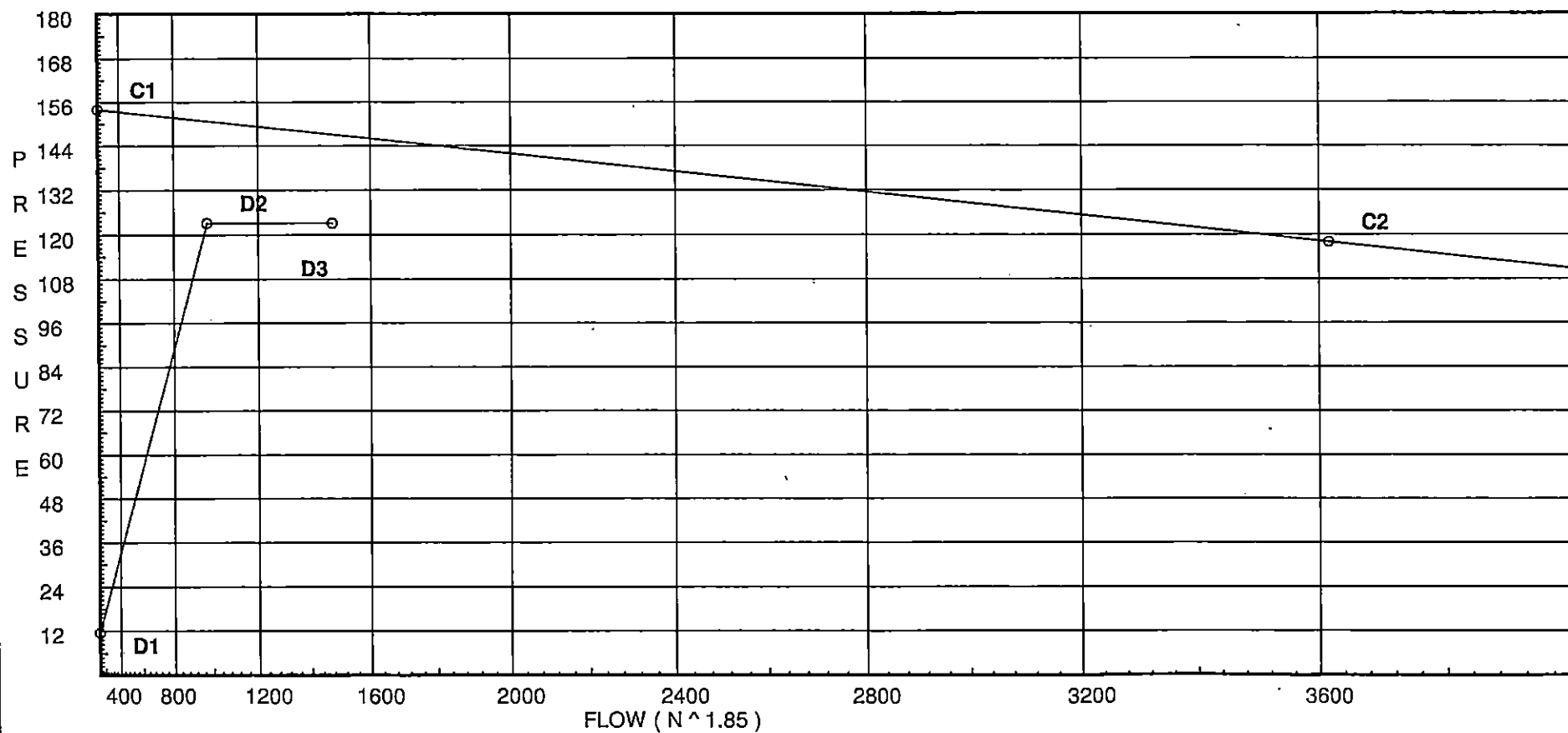
C	Commodity Fruit	Class 1	Location
O	Storage Ht. 23'	Area	Aisle W.
M	Storage Method: Solid Piled	% Palletized	% Rack
M	() Single Row	() Conven. Pallet	() Auto. Storage
S	() Double Row	() Slave Pallet	() Solid Shelf
T	(X) Mult. Row		() Open Shelf
A			
O			
C			

R	K	Flue Spacing	Clearance:Storage to Ceiling
A		Longitudinal	Transverse

G Horizontal Barriers Provided:
 E

City Water Supply:
 C1 - Static Pressure : 154
 C2 - Residual Pressure: 118
 C2 - Residual Flow : 3616

Demand:
 D1 - Elevation : 11.477
 D2 - System Flow : 973.87
 D2 - System Pressure : 123.132
 Hose (Demand) : 500
 D3 - System Demand : 1473.87
 Safety Margin : 24.025



Fittings Used Summary

Carolina Fire Protection, Inc.
Food Lion (Banana Room)

Page 3
Date 9-5-18

Fitting Legend		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16	18	20	24
Abbrev.	Name																				
B	NFPA 13 Butterfly Valve	0	0	0	0	0	6	7	10	0	12	9	10	12	19	21	0	0	0	0	0
E	NFPA 13 90° Standard Elbow	1	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
G	NFPA 13 Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
Rcr	Reliable G/CVE Riser Ck							7	7		10		16	29							
S	NFPA 13 Swing Check	0	0	5	7	9	11	14	16	19	22	27	32	45	55	65					
T	NFPA 13 90° Flow thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121

Units Summary

Diameter Units Inches
Length Units Feet
Flow Units US Gallons per Minute
Pressure Units Pounds per Square Inch

Note: Fitting Legend provides equivalent pipe lengths for fittings types of various diameters. Equivalent lengths shown are standard for actual diameters of Sched 40 pipe and CFactors of 120 except as noted with *. The fittings marked with a * show equivalent lengths values supplied by manufacturers based on specific pipe diameters and CFactors and they require no adjustment. All values for fittings not marked with a * will be adjusted in the calculation for CFactors of other than 120 and diameters other than Sched 40 per NFPA.

Flow Summary - NFPA

Carolina Fire Protection, Inc.
Food Lion (Banana Room)

Page 4
Date 9-5-18

SUPPLY ANALYSIS

<i>Node at Source</i>	<i>Static Pressure</i>	<i>Residual Pressure</i>	<i>Flow</i>	<i>Available Pressure</i>	<i>Total Demand</i>	<i>Required Pressure</i>
TEST	154.0	118	3616.0	147.157	1473.87	123.132

NODE ANALYSIS

<i>Node Tag</i>	<i>Elevation</i>	<i>Node Type</i>	<i>Pressure at Node</i>	<i>Discharge at Node</i>	<i>Notes</i>
1A	27.5	11.2	58.47	85.64	
2A	27.5	11.2	50.0	79.2	
3A	27.5	11.2	50.3	79.43	
4A	27.5	11.2	50.88	79.89	
5A	27.5	11.2	58.56	85.71	
6A	27.5	11.2	50.07	79.25	
7A	27.5	11.2	50.37	79.49	
8A	27.5	11.2	50.95	79.95	
9A	27.5	11.2	58.89	85.95	
10A	27.5	11.2	50.36	79.48	
11A	27.5	11.2	50.66	79.71	
12A	27.5	11.2	51.24	80.17	
F1	33.5		78.51		
F2	33.5		78.61		
F3	33.5		79.05		
F4	33.5		80.05		
F5	33.5		80.87		
F6	33.5		81.51		
F7	33.5		82.0		
F8	33.5		82.37		
F9	33.5		82.63		
F10	33.5		82.8		
F11	33.5		82.91		
F12	33.5		82.96		
F13	33.5		82.97		
1	34.0		76.76		
2	34.0		65.44		
3	34.0		65.84		
4	34.0		66.62		
5	34.0		76.88		
6	34.0		65.54		
7	34.0		65.94		
8	34.0		66.72		
9	34.0		77.32		
10	34.0		65.92		
11	34.0		66.32		
12	34.0		67.1		
F1A	33.5		78.5		
F2A	33.5		78.62		
F3A	33.5		79.07		
N1	33.5		85.16		
N2	33.5		85.16		

Flow Summary - NFPA

Carolina Fire Protection, Inc.
Food Lion (Banana Room)

Page 5
Date 9-5-18

NODE ANALYSIS (cont.)

<i>Node Tag</i>	<i>Elevation</i>	<i>Node Type</i>	<i>Pressure at Node</i>	<i>Discharge at Node</i>	<i>Notes</i>
N3	33.5		85.18		
N4	33.5		85.21		
N5	33.5		85.26		
N6	33.5		85.32		
N7	33.5		85.41		
N8	33.5		85.52		
N9	33.5		85.66		
N10	33.5		85.82		
N11	33.5		86.0		
N12	33.5		86.22		
N13	33.5		86.47		
TASR	33.5		87.67		
BASR	1.0		102.51		
U1	-3.0		106.08	500.0	
TEST	1.0		123.13		

Final Calculations : Hazen-Williams

Carolina Fire Protection, Inc.
Food Lion (Banana Room)

Page 6
Date 9-5-18

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
1A to 1	27.500 34	11.20	85.64 85.64	1 1.049	T	5.0 0.0 0.0	6.000 5.000 11.000	120 -2.815 1.9185	58.474 -2.815 21.104		Vel = 31.79	
1			0.0 85.64						76.763		K Factor = 9.77	
2A to 2	27.500 34	11.20	79.20 79.2	1 1.049	T	5.0 0.0 0.0	6.000 5.000 11.000	120 -2.815 1.6599	50.000 -2.815 18.259		Vel = 29.40	
2			0.0 79.20						65.444		K Factor = 9.79	
3A to 3	27.500 34	11.20	79.43 79.43	1 1.049	T	5.0 0.0 0.0	6.000 5.000 11.000	120 -2.815 1.6689	50.297 -2.815 18.358		Vel = 29.49	
3			0.0 79.43						65.840		K Factor = 9.79	
4A to 4	27.500 34	11.20	79.89 79.89	1 1.049	T	5.0 0.0 0.0	6.000 5.000 11.000	120 -2.815 1.6868	50.877 -2.815 18.555		Vel = 29.66	
4			0.0 79.89						66.617		K Factor = 9.79	
5A to 5	27.500 34	11.20	85.71 85.71	1 1.049	T	5.0 0.0 0.0	6.000 5.000 11.000	120 -2.815 1.9211	58.559 -2.815 21.132		Vel = 31.82	
5			0.0 85.71						76.876		K Factor = 9.78	
6A to 6	27.500 34	11.20	79.25 79.25	1 1.049	T	5.0 0.0 0.0	6.000 5.000 11.000	120 -2.815 1.6622	50.073 -2.815 18.284		Vel = 29.42	
6			0.0 79.25						65.542		K Factor = 9.79	
7A to 7	27.500 34	11.20	79.49 79.49	1 1.049	T	5.0 0.0 0.0	6.000 5.000 11.000	120 -2.815 1.6713	50.370 -2.815 18.384		Vel = 29.51	
7			0.0 79.49						65.939		K Factor = 9.79	
8A to 8	27.500 34	11.20	79.95 79.95	1 1.049	T	5.0 0.0 0.0	6.000 5.000 11.000	120 -2.815 1.6891	50.952 -2.815 18.580		Vel = 29.68	
8			0.0 79.95						66.717		K Factor = 9.79	
9A to 9	27.500 34	11.20	85.95 85.95	1 1.049	T	5.0 0.0 0.0	6.000 5.000 11.000	120 -2.815 1.9311	58.889 -2.815 21.242		Vel = 31.91	
9			0.0 85.95						77.316		K Factor = 9.77	
10A to 10	27.500 34	11.20	79.48 79.48	1 1.049	T	5.0 0.0 0.0	6.000 5.000 11.000	120 -2.815 1.6708	50.358 -2.815 18.379		Vel = 29.51	

Final Calculations : Hazen-Williams

Carolina Fire Protection, Inc.
Food Lion (Banana Room)

Page 7
Date 9-5-18

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
10			0.0 79.48						65.922		K Factor = 9.79	
11A to 11	27.500 34	11.20	79.71	1	T	5.0 0.0 0.0	6.000 5.000 11.000	120	50.656 -2.815 18.481		Vel = 29.59	
11			0.0 79.71						66.322		K Factor = 9.79	
12A to 12	27.500 34	11.20	80.17	1	T	5.0 0.0 0.0	6.000 5.000 11.000	120	51.241 -2.815 18.677		Vel = 29.76	
12			0.0 80.17						67.103		K Factor = 9.79	
F1 to N1	33.500 33.500		96.65	2.5	4T	65.897 0.0 0.0	180.000 65.897 245.897	120	78.510 0.0 6.651		Vel = 5.69	
N1			0.0 96.65						85.161		K Factor = 10.47	
F2 to N2	33.500 33.500		95.87	2.5	4T	65.897 0.0 0.0	180.000 65.897 245.897	120	78.614 0.0 6.551		Vel = 5.64	
N2			0.0 95.87						85.165		K Factor = 10.39	
F3 to N3	33.500 33.500		92.52	2.5	4T	65.897 0.0 0.0	180.000 65.897 245.897	120	79.046 0.0 6.133		Vel = 5.44	
N3			0.0 92.52						85.179		K Factor = 10.02	
F4 to N4	33.500 33.500		84.28	2.5	4T	65.897 0.0 0.0	180.000 65.897 245.897	120	80.046 0.0 5.162		Vel = 4.96	
N4			0.0 84.28						85.208		K Factor = 9.13	
F5 to N5	33.500 33.500		77.15	2.5	4T	65.897 0.0 0.0	180.000 65.897 245.897	120	80.872 0.0 4.383		Vel = 4.54	
N5			0.0 77.15						85.255		K Factor = 8.36	
F6 to N6	33.500 33.500		71.51	2.5	4T	65.897 0.0 0.0	180.000 65.897 245.897	120	81.514 0.0 3.808		Vel = 4.21	
N6			0.0 71.51						85.322		K Factor = 7.74	
F7 to N7	33.500 33.500		67.32	2.5	4T	65.897 0.0 0.0	180.000 65.897 245.897	120	82.004 0.0 3.407		Vel = 3.96	
N7			0.0 67.32						85.411		K Factor = 7.28	

Final Calculations : Hazen-Williams

Carolina Fire Protection, Inc.
Food Lion (Banana Room)

Page 8
Date 9-5-18

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
F8 to N8	33.500 33.500		64.56 64.56	2.5 2.635	4T	65.897 0.0	180.000 65.897	120 0.0128	82.369 0.0			Vel = 3.80
N8			0.0 64.56						85.522		K Factor = 6.98	
F9 to N9	33.500 33.500		63.15 63.15	2.5 2.635	4T	65.897 0.0	180.000 65.897	120 0.0123	82.630 0.0			Vel = 3.72
N9			0.0 63.15						85.656		K Factor = 6.82	
F10 to N10	33.500 33.500		62.98 62.98	2.5 2.635	4T	65.897 0.0	180.000 65.897	120 0.0122	82.804 0.0			Vel = 3.71
N10			0.0 62.98						85.816		K Factor = 6.80	
F11 to N11	33.500 33.500		63.91 63.91	2.5 2.635	4T	65.897 0.0	180.000 65.897	120 0.0126	82.909 0.0			Vel = 3.76
N11			0.0 63.91						86.002		K Factor = 6.89	
F12 to N12	33.500 33.500		65.73 65.73	2.5 2.635	4T	65.897 0.0	180.000 65.897	120 0.0133	82.960 0.0			Vel = 3.87
N12			0.0 65.73						86.219		K Factor = 7.08	
F13 to N13	33.5 33.500		68.24 68.24	2.5 2.635	4T	65.897 0.0	180.000 65.897	120 0.0142	82.974 0.0			Vel = 4.01
N13			0.0 68.24						86.467		K Factor = 7.34	
1 to F1A	34 33.500		85.64 85.64	2 2.157	2T	24.613 0.0	2.000 24.613	120 0.0573	76.763 0.217			Vel = 7.52
F1A			0.0 85.64						78.505		K Factor = 9.67	
2 to 3	34 34		79.20 79.2	2 2.157		0.0 0.0	8.000 0.0	120 0.0495	65.444 0.0			Vel = 6.95
3 to 4	34 34		79.43 158.63	2 2.157		0.0 0.0	4.333 4.333	120 0.1793	65.840 0.0			Vel = 13.93
4 to F1A	34 33.500		79.88 238.51	2 2.157	2T	24.613 0.0	6.000 24.613	120 0.3812	66.617 0.217			Vel = 20.94
F1A			0.0 238.51						78.505		K Factor = 26.92	
5 to F2A	34 33.500		85.71 85.71	2 2.157	2T	24.613 0.0	2.000 26.613	120 0.0574	76.876 0.217			Vel = 7.53

Final Calculations : Hazen-Williams

Carolina Fire Protection, Inc.
Food Lion (Banana Room)

Page 9
Date 9-5-18

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
			0.0									
F2A			85.71						78.620		K Factor =	9.67
6	34		79.25	2		0.0	8.000	120	65.542			
to						0.0	0.0		0.0			
7	34		79.25	2.157		0.0	8.000	0.0496	0.397		Vel =	6.96
7	34		79.49	2		0.0	4.333	120	65.939			
to						0.0	0.0		0.0			
8	34		158.74	2.157		0.0	4.333	0.1796	0.778		Vel =	13.94
8	34		79.95	2	2T	24.613	6.000	120	66.717			
to						0.0	24.613		0.217			
F2A	33.500		238.69	2.157		0.0	30.613	0.3817	11.686		Vel =	20.96
			0.0									
F2A			238.69						78.620		K Factor =	26.92
9	34		85.95	2	2T	24.613	2.000	120	77.316			
to						0.0	24.613		0.217			
F3A	33.500		85.95	2.157		0.0	26.613	0.0577	1.535		Vel =	7.55
			0.0									
F3A			85.95						79.068		K Factor =	9.67
10	34		79.48	2		0.0	8.000	120	65.922			
to						0.0	0.0		0.0			
11	34		79.48	2.157		0.0	8.000	0.0500	0.400		Vel =	6.98
11	34		79.71	2		0.0	4.333	120	66.322			
to						0.0	0.0		0.0			
12	34		159.19	2.157		0.0	4.333	0.1802	0.781		Vel =	13.98
12	34		80.18	2	2T	24.613	6.000	120	67.103			
to						0.0	24.613		0.217			
F3A	33.500		239.37	2.157		0.0	30.613	0.3838	11.748		Vel =	21.02
			0.0									
F3A			239.37						79.068		K Factor =	26.92
F1	33.500		-96.65	4		0.0	2.083	120	78.510			
to						0.0	0.0		0.0			
F1A	33.500		-96.65	4.26		0.0	2.083	-0.0024	-0.005		Vel =	2.18
F1A	33.500		324.15	4		0.0	8.583	120	78.505			
to						0.0	0.0		0.0			
F2	33.5		227.5	4.26		0.0	8.583	0.0127	0.109		Vel =	5.12
F2	33.500		-95.86	4		0.0	1.417	120	78.614			
to						0.0	0.0		0.0			
F2A	33.500		131.64	4.26		0.0	1.417	0.0042	0.006		Vel =	2.96
F2A	33.500		324.39	4		0.0	9.250	120	78.620			
to						0.0	0.0		0.0			
F3	33.5		456.03	4.26		0.0	9.250	0.0461	0.426		Vel =	10.27
F3	33.500		-92.51	4		0.0	0.750	120	79.046			
to						0.0	0.0		0.0			
F3A	33.500		363.52	4.26		0.0	0.750	0.0293	0.022		Vel =	8.18
F3A	33.500		325.31	4		0.0	9.917	120	79.068			
to						0.0	0.0		0.0			
F4	33.5		688.83	4.26		0.0	9.917	0.0986	0.978		Vel =	15.51

Final Calculations : Hazen-Williams

Carolina Fire Protection, Inc.
Food Lion (Banana Room)

Page 10
Date 9-5-18

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
F4 to F5	33.5 33.5		-84.28 604.55	4 4.26		0.0 0.0	10.667 0.0	120 0.0774	80.046 0.0			
											Vel = 13.61	
F5 to F6	33.5 33.5		-77.15 527.4	4 4.26		0.0 0.0	10.667 0.0	120 0.0602	80.872 0.0			
											Vel = 11.87	
F6 to F7	33.5 33.5		-71.51 455.89	4 4.26		0.0 0.0	10.667 0.0	120 0.0459	81.514 0.0			
											Vel = 10.26	
F7 to F8	33.5 33.5		-67.32 388.57	4 4.26		0.0 0.0	10.667 0.0	120 0.0342	82.004 0.0			
											Vel = 8.75	
F8 to F9	33.5 33.5		-64.56 324.01	4 4.26		0.0 0.0	10.667 0.0	120 0.0245	82.369 0.0			
											Vel = 7.29	
F9 to F10	33.5 33.5		-63.15 260.86	4 4.26		0.0 0.0	10.667 0.0	120 0.0163	82.630 0.0			
											Vel = 5.87	
F10 to F11	33.5 33.5		-62.99 197.87	4 4.26		0.0 0.0	10.667 0.0	120 0.0098	82.804 0.0			
											Vel = 4.45	
F11 to F12	33.5 33.5		-63.90 133.97	4 4.26		0.0 0.0	10.667 0.0	120 0.0048	82.909 0.0			
											Vel = 3.02	
F12 to F13	33.5 33.5		-65.73 68.24	4 4.26		0.0 0.0	10.667 0.0	120 0.0013	82.960 0.0			
											Vel = 1.54	
F13			0.0 68.24						82.974		K Factor = 7.49	
N1 to N2	33.500 33.500		96.65 96.65	6 6.357		0.0 0.0	10.667 0.0	120 0.0004	85.161 0.0			
											Vel = 0.98	
N2 to N3	33.500 33.500		95.87 192.52	6 6.357		0.0 0.0	10.667 0.0	120 0.0013	85.165 0.0			
											Vel = 1.95	
N3 to N4	33.500 33.500		92.52 285.04	6 6.357		0.0 0.0	10.667 0.0	120 0.0027	85.179 0.0			
											Vel = 2.88	
N4 to N5	33.500 33.500		84.28 369.32	6 6.357		0.0 0.0	10.667 0.0	120 0.0044	85.208 0.0			
											Vel = 3.73	
N5 to N6	33.500 33.500		77.15 446.47	6 6.357		0.0 0.0	10.667 0.0	120 0.0063	85.255 0.0			
											Vel = 4.51	
N6 to N7	33.500 33.500		71.51 517.98	6 6.357		0.0 0.0	10.667 0.0	120 0.0083	85.322 0.0			
											Vel = 5.24	
N7 to N8	33.500 33.500		67.32 585.3	6 6.357		0.0 0.0	10.667 0.0	120 0.0104	85.411 0.0			
											Vel = 5.92	

Final Calculations : Hazen-Williams

Carolina Fire Protection, Inc.
Food Lion (Banana Room)

Page 11
Date 9-5-18

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Equiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	*****	Notes	*****
N8 to N9	33.500 33.500		64.56 649.86	6 6.357		0.0 0.0	10.667 10.667	120 0.0126	85.522 0.134		Vel = 6.57	
N9 to N10	33.500 33.500		63.15 713.01	6 6.357		0.0 0.0	10.667 10.667	120 0.0150	85.656 0.160		Vel = 7.21	
N10 to N11	33.500 33.500		62.99 776.0	6 6.357		0.0 0.0	10.667 10.667	120 0.0174	85.816 0.186		Vel = 7.84	
N11 to N12	33.500 33.500		63.90 839.9	6 6.357		0.0 0.0	10.667 10.667	120 0.0203	86.002 0.217		Vel = 8.49	
N12 to N13	33.500 33.500		65.73 905.63	6 6.357		0.0 0.0	10.667 10.667	120 0.0232	86.219 0.248		Vel = 9.15	
N13 to TASR	33.500 33.500		68.24 973.87	6 6.357	E	17.603 0.0	27.667 17.603	120 0.0266	86.467 0.0		Vel = 9.84	
TASR to BASR	33.500 1		0.0 973.87	8 8.249	E Rcr	21.141 14.094	32.500 69.296	120 0.0075	87.673 14.076		Vel = 5.85	
BASR to U1	1 -3		0.0 973.87	8 8.27	E G	28.468 6.326	240.000 330.148	140 0.0056	102.511 1.732		Vel = 5.82	
U1 to TEST	-3 1	H500	500.00 1473.87	10 10.28	4E S T 18G	132.591 82.87 75.336 135.605	4100.000 426.402 4526.402	140 0.0041	106.080 -1.732 18.784		Vel = 5.70	
TEST			0.0 1473.87						123.132		K Factor = 132.82	

JAMES M. PLEASANTS CO., INC.
PO BOX 1027
HICKORY, NC 28603
(800) 866-7867

JOB NAME: FOODLION WHSE.
LOCATION: 2940 ARROWHEAD ROAD DUNN, N.C.

DATE: 8/18/17
TESTED BY: DANNY BENNETT

PUMP MANUFACTURER: ITT-AC
MODEL NUMBER: 10X8X17F
SERIAL NUMBER: 14-071155

RATED GPM: 2500
RATED PSI: 125
RATED RPM: 1785

ELECTRIC MOTOR MANUFACTURER: WEG
FRAME SIZE: 445TS **PHASE:** 3
SERIAL NO: 1024527

RATED HP: 250 **RPM:** 1780
HERTZ: 60 **VOLTS:** 460
F.L. AMPS: 273 **S.F.** 1.15

DIESEL ENGINE MFG:
MODEL NUMBER:
SERIAL NUMBER:

RATED HP: **RPM:**
VOLTAGE:
GROUND: NEG POS

CONTROL MANUFACTURER: FIRETROL

MODEL NO.: FTA1800-AM250B
SERIAL NO.: 1138685-01RE

JOCKEY PUMP MANUFACTURER: GOULDS

MODEL NO.: 3SV18GG4F20
SERIAL NO.: 5 H.P.

JP CONTROLLER MANUFACTURER: FIRETROL

MODEL NO.: FTA550F-AG005B-B
SERIAL NO.: 1121444-01RE

SPEED (RPM)	DISCH. PSI.	SUCT. PSI.	NET PSI.	NO. NOZZLES	SIZE NOZZLE	PITOT PSI.	GPM	PERC. RATED	VOLTS	AMPS
1793	154	12	142	CHURN	0	0	0	0	489	162 159 169
1788	136	10	126	4	2 ½	20-11 17-14	2639	106%	489	243 252 262
1786	118	10	108	4	2 ½	30-29 30-26	3616	145%	489	277 286 279