



Reviewed For Code Compliance By:

D. Banks Wallace

Chief Deputy Fire Marshal

09/24/2018 12:12:56 PM

# Application for Plan Review

Application # F M F W 1809.0002

Date Received: 9.7.18 Received By: djowmsm

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

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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        |              |             |         |       |
|        |       |                       |          |              |             |         |       |
|        |       |                       |          |              |             |         |       |

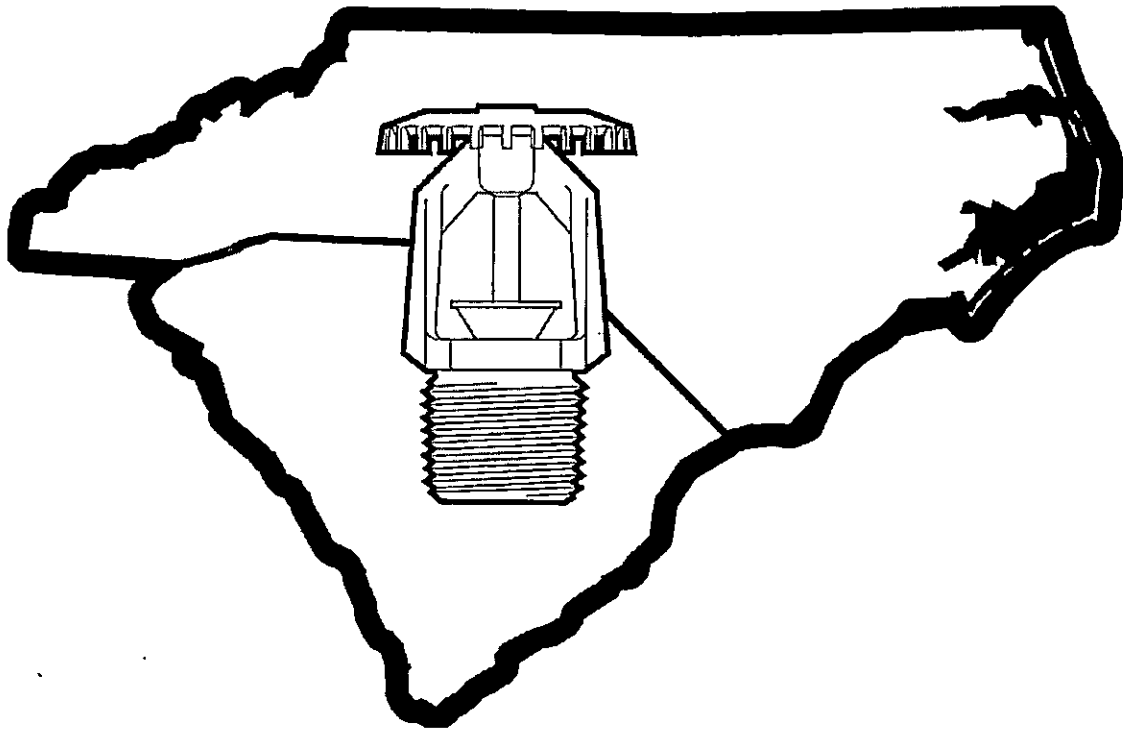
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X PLEASE RETURN (1) COPY OF DRAWINGS MARKED WITH YOUR STAMP OF APPROVAL AND/OR YOUR COMMENTS

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      |               |                  |

N 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  
 L Source of Information - James M. Pleasants  
 Y

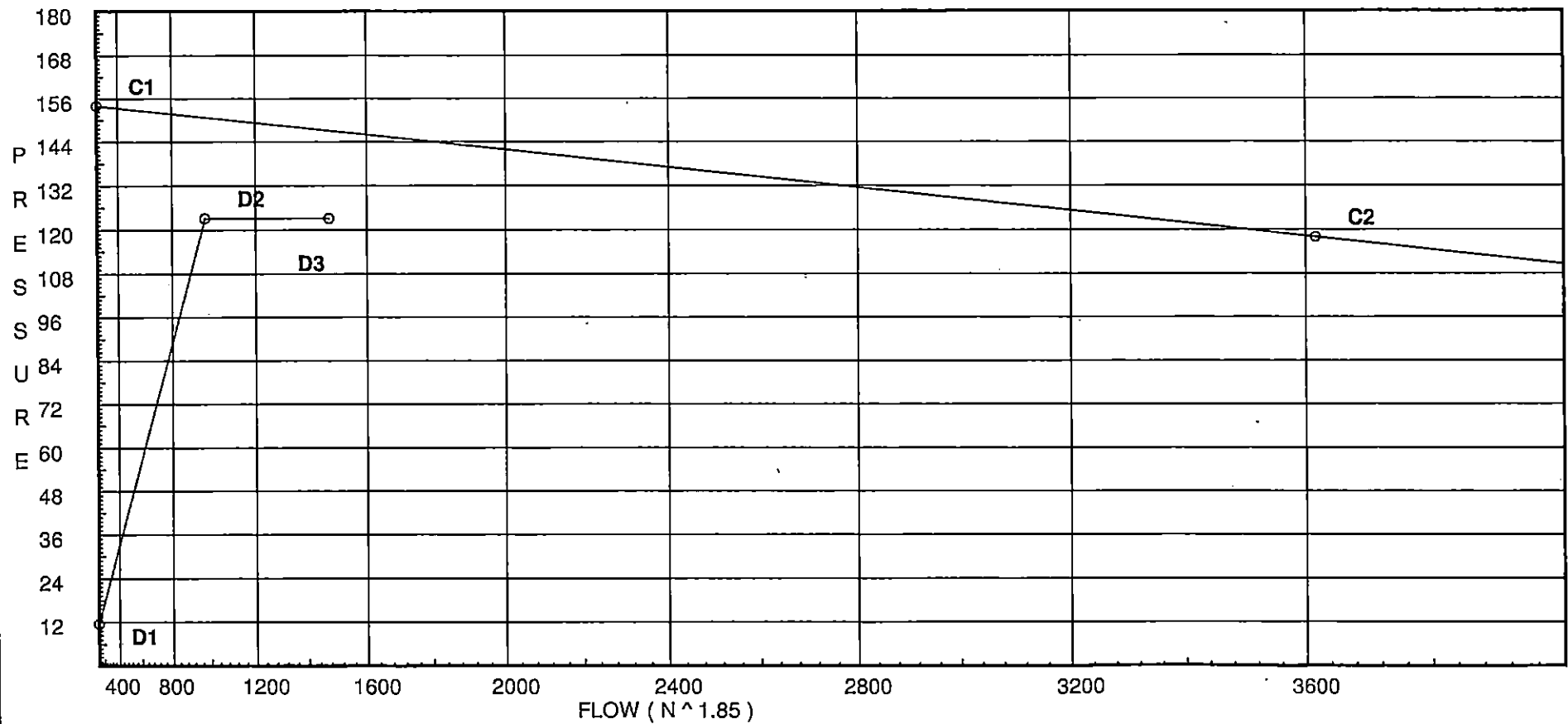
|   |                             |                    |                   |
|---|-----------------------------|--------------------|-------------------|
| C | Commodity Fruit             | Class 1            | Location          |
| O | Storage Ht. 23'             | Area               | Aisle W.          |
| 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               |                    | ( ) Non           |
| O |                             |                    | ( ) Open Shelf    |

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

G  
 E Horizontal Barriers Provided:

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

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*NODE ANALYSIS (cont.)*

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| <i>Node Tag</i> | <i>Elevation</i> | <i>Node Type</i> | <i>Pressure<br/>at Node</i> | <i>Discharge<br/>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                      |                              |              |

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Final Calculations : Hazen-Williams

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

Page 6  
Date 9-5-18

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

Final Calculations : Hazen-Williams

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

Page 7  
Date 9-5-18

| Node1<br>to<br>Node2 | Elev1<br>Elev2   | K<br>Fact | Qa<br>Qt     | Nom<br>Act | Fitting<br>or<br>Eqiv | Len                  | Pipe<br>Ftngs<br>Total       | CFact<br>Pf/Ft | Pt<br>Pe<br>Pf             | ***** | Notes            | ***** |
|----------------------|------------------|-----------|--------------|------------|-----------------------|----------------------|------------------------------|----------------|----------------------------|-------|------------------|-------|
| 10                   |                  |           | 0.0<br>79.48 |            |                       |                      |                              |                | 65.922                     |       | K Factor = 9.79  |       |
| 11A<br>to<br>11      | 27.500<br>34     | 11.20     | 79.71        | 1          | T                     | 5.0<br>0.0<br>0.0    | 6.000<br>5.000<br>11.000     | 120            | 50.656<br>-2.815<br>18.481 |       | Vel = 29.59      |       |
| 11                   |                  |           | 0.0<br>79.71 |            |                       |                      |                              |                | 66.322                     |       | K Factor = 9.79  |       |
| 12A<br>to<br>12      | 27.500<br>34     | 11.20     | 80.17        | 1          | T                     | 5.0<br>0.0<br>0.0    | 6.000<br>5.000<br>11.000     | 120            | 51.241<br>-2.815<br>18.677 |       | Vel = 29.76      |       |
| 12                   |                  |           | 0.0<br>80.17 |            |                       |                      |                              |                | 67.103                     |       | K Factor = 9.79  |       |
| F1<br>to<br>N1       | 33.500<br>33.500 |           | 96.65        | 2.5        | 4T                    | 65.897<br>0.0<br>0.0 | 180.000<br>65.897<br>245.897 | 120            | 78.510<br>0.0<br>6.651     |       | Vel = 5.69       |       |
| N1                   |                  |           | 0.0<br>96.65 |            |                       |                      |                              |                | 85.161                     |       | K Factor = 10.47 |       |
| F2<br>to<br>N2       | 33.500<br>33.500 |           | 95.87        | 2.5        | 4T                    | 65.897<br>0.0<br>0.0 | 180.000<br>65.897<br>245.897 | 120            | 78.614<br>0.0<br>6.551     |       | Vel = 5.64       |       |
| N2                   |                  |           | 0.0<br>95.87 |            |                       |                      |                              |                | 85.165                     |       | K Factor = 10.39 |       |
| F3<br>to<br>N3       | 33.500<br>33.500 |           | 92.52        | 2.5        | 4T                    | 65.897<br>0.0<br>0.0 | 180.000<br>65.897<br>245.897 | 120            | 79.046<br>0.0<br>6.133     |       | Vel = 5.44       |       |
| N3                   |                  |           | 0.0<br>92.52 |            |                       |                      |                              |                | 85.179                     |       | K Factor = 10.02 |       |
| F4<br>to<br>N4       | 33.500<br>33.500 |           | 84.28        | 2.5        | 4T                    | 65.897<br>0.0<br>0.0 | 180.000<br>65.897<br>245.897 | 120            | 80.046<br>0.0<br>5.162     |       | Vel = 4.96       |       |
| N4                   |                  |           | 0.0<br>84.28 |            |                       |                      |                              |                | 85.208                     |       | K Factor = 9.13  |       |
| F5<br>to<br>N5       | 33.500<br>33.500 |           | 77.15        | 2.5        | 4T                    | 65.897<br>0.0<br>0.0 | 180.000<br>65.897<br>245.897 | 120            | 80.872<br>0.0<br>4.383     |       | Vel = 4.54       |       |
| N5                   |                  |           | 0.0<br>77.15 |            |                       |                      |                              |                | 85.255                     |       | K Factor = 8.36  |       |
| F6<br>to<br>N6       | 33.500<br>33.500 |           | 71.51        | 2.5        | 4T                    | 65.897<br>0.0<br>0.0 | 180.000<br>65.897<br>245.897 | 120            | 81.514<br>0.0<br>3.808     |       | Vel = 4.21       |       |
| N6                   |                  |           | 0.0<br>71.51 |            |                       |                      |                              |                | 85.322                     |       | K Factor = 7.74  |       |
| F7<br>to<br>N7       | 33.500<br>33.500 |           | 67.32        | 2.5        | 4T                    | 65.897<br>0.0<br>0.0 | 180.000<br>65.897<br>245.897 | 120            | 82.004<br>0.0<br>3.407     |       | Vel = 3.96       |       |
| N7                   |                  |           | 0.0<br>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<br>to<br>Node2 | Elev1<br>Elev2   | K<br>Fact | Qa<br>Qt        | Nom<br>Act   | Fitting<br>or<br>Eqiv | Len           | Pipe<br>Ftngs<br>Total | CFact<br>Pf/Ft | Pt<br>Pe<br>Pf  | ***** | Notes            | *****       |
|----------------------|------------------|-----------|-----------------|--------------|-----------------------|---------------|------------------------|----------------|-----------------|-------|------------------|-------------|
| F8<br>to<br>N8       | 33.500<br>33.500 |           | 64.56<br>64.56  | 2.5<br>2.635 | 4T                    | 65.897<br>0.0 | 180.000<br>65.897      | 120<br>0.0128  | 82.369<br>0.0   |       |                  | Vel = 3.80  |
| N8                   |                  |           | 0.0<br>64.56    |              |                       |               |                        |                | 85.522          |       | K Factor = 6.98  |             |
| F9<br>to<br>N9       | 33.500<br>33.500 |           | 63.15<br>63.15  | 2.5<br>2.635 | 4T                    | 65.897<br>0.0 | 180.000<br>65.897      | 120<br>0.0123  | 82.630<br>0.0   |       |                  | Vel = 3.72  |
| N9                   |                  |           | 0.0<br>63.15    |              |                       |               |                        |                | 85.656          |       | K Factor = 6.82  |             |
| F10<br>to<br>N10     | 33.500<br>33.500 |           | 62.98<br>62.98  | 2.5<br>2.635 | 4T                    | 65.897<br>0.0 | 180.000<br>65.897      | 120<br>0.0122  | 82.804<br>0.0   |       |                  | Vel = 3.71  |
| N10                  |                  |           | 0.0<br>62.98    |              |                       |               |                        |                | 85.816          |       | K Factor = 6.80  |             |
| F11<br>to<br>N11     | 33.500<br>33.500 |           | 63.91<br>63.91  | 2.5<br>2.635 | 4T                    | 65.897<br>0.0 | 180.000<br>65.897      | 120<br>0.0126  | 82.909<br>0.0   |       |                  | Vel = 3.76  |
| N11                  |                  |           | 0.0<br>63.91    |              |                       |               |                        |                | 86.002          |       | K Factor = 6.89  |             |
| F12<br>to<br>N12     | 33.500<br>33.500 |           | 65.73<br>65.73  | 2.5<br>2.635 | 4T                    | 65.897<br>0.0 | 180.000<br>65.897      | 120<br>0.0133  | 82.960<br>0.0   |       |                  | Vel = 3.87  |
| N12                  |                  |           | 0.0<br>65.73    |              |                       |               |                        |                | 86.219          |       | K Factor = 7.08  |             |
| F13<br>to<br>N13     | 33.5<br>33.500   |           | 68.24<br>68.24  | 2.5<br>2.635 | 4T                    | 65.897<br>0.0 | 180.000<br>65.897      | 120<br>0.0142  | 82.974<br>0.0   |       |                  | Vel = 4.01  |
| N13                  |                  |           | 0.0<br>68.24    |              |                       |               |                        |                | 86.467          |       | K Factor = 7.34  |             |
| 1<br>to<br>F1A       | 34<br>33.500     |           | 85.64<br>85.64  | 2<br>2.157   | 2T                    | 24.613<br>0.0 | 2.000<br>24.613        | 120<br>0.0573  | 76.763<br>0.217 |       |                  | Vel = 7.52  |
| F1A                  |                  |           | 0.0<br>85.64    |              |                       |               |                        |                | 78.505          |       | K Factor = 9.67  |             |
| 2<br>to<br>3         | 34<br>34         |           | 79.20<br>79.2   | 2<br>2.157   |                       | 0.0<br>0.0    | 8.000<br>0.0           | 120<br>0.0495  | 65.444<br>0.0   |       |                  | Vel = 6.95  |
| 3<br>to<br>4         | 34<br>34         |           | 79.43<br>158.63 | 2<br>2.157   |                       | 0.0<br>0.0    | 4.333<br>4.333         | 120<br>0.1793  | 65.840<br>0.0   |       |                  | Vel = 13.93 |
| 4<br>to<br>F1A       | 34<br>33.500     |           | 79.88<br>238.51 | 2<br>2.157   | 2T                    | 24.613<br>0.0 | 6.000<br>24.613        | 120<br>0.3812  | 66.617<br>0.217 |       |                  | Vel = 20.94 |
| F1A                  |                  |           | 0.0<br>238.51   |              |                       |               |                        |                | 78.505          |       | K Factor = 26.92 |             |
| 5<br>to<br>F2A       | 34<br>33.500     |           | 85.71<br>85.71  | 2<br>2.157   | 2T                    | 24.613<br>0.0 | 2.000<br>26.613        | 120<br>0.0574  | 76.876<br>0.217 |       |                  | Vel = 7.53  |

# Final Calculations : Hazen-Williams

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

Page 9  
Date 9-5-18

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

Final Calculations : Hazen-Williams

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

Page 11  
Date 9-5-18

| Node1<br>to<br>Node2 | Elev1<br>Elev2   | K<br>Fact | Qa<br>Qt          | Nom<br>Act  | Fitting<br>or<br>Equiv | Len                                   | Pipe<br>Ftngs<br>Total          | CFact<br>Pf/Ft | Pt<br>Pe<br>Pf              | ***** | Notes             | ***** |
|----------------------|------------------|-----------|-------------------|-------------|------------------------|---------------------------------------|---------------------------------|----------------|-----------------------------|-------|-------------------|-------|
| N8<br>to<br>N9       | 33.500<br>33.500 |           | 64.56<br>649.86   | 6<br>6.357  |                        | 0.0<br>0.0                            | 10.667<br>10.667                | 120<br>0.0126  | 85.522<br>0.134             |       | Vel = 6.57        |       |
| N9<br>to<br>N10      | 33.500<br>33.500 |           | 63.15<br>713.01   | 6<br>6.357  |                        | 0.0<br>0.0                            | 10.667<br>10.667                | 120<br>0.0150  | 85.656<br>0.160             |       | Vel = 7.21        |       |
| N10<br>to<br>N11     | 33.500<br>33.500 |           | 62.99<br>776.0    | 6<br>6.357  |                        | 0.0<br>0.0                            | 10.667<br>10.667                | 120<br>0.0174  | 85.816<br>0.186             |       | Vel = 7.84        |       |
| N11<br>to<br>N12     | 33.500<br>33.500 |           | 63.90<br>839.9    | 6<br>6.357  |                        | 0.0<br>0.0                            | 10.667<br>10.667                | 120<br>0.0203  | 86.002<br>0.217             |       | Vel = 8.49        |       |
| N12<br>to<br>N13     | 33.500<br>33.500 |           | 65.73<br>905.63   | 6<br>6.357  |                        | 0.0<br>0.0                            | 10.667<br>10.667                | 120<br>0.0232  | 86.219<br>0.248             |       | Vel = 9.15        |       |
| N13<br>to<br>TASR    | 33.500<br>33.500 |           | 68.24<br>973.87   | 6<br>6.357  | E                      | 17.603<br>0.0                         | 27.667<br>17.603                | 120<br>0.0266  | 86.467<br>0.0               |       | Vel = 9.84        |       |
| TASR<br>to<br>BASR   | 33.500<br>1      |           | 0.0<br>973.87     | 8<br>8.249  | E<br>Rcr               | 21.141<br>14.094                      | 32.500<br>69.296                | 120<br>0.0075  | 87.673<br>14.076            |       | Vel = 5.85        |       |
| BASR<br>to<br>U1     | 1<br>-3          |           | 0.0<br>973.87     | 8<br>8.27   | E<br>G                 | 28.468<br>6.326                       | 240.000<br>330.148              | 140<br>0.0056  | 102.511<br>1.732            |       | Vel = 5.82        |       |
| U1<br>to<br>TEST     | -3<br>1          | H500      | 500.00<br>1473.87 | 10<br>10.28 | 4E<br>S<br>T<br>18G    | 132.591<br>82.87<br>75.336<br>135.605 | 4100.000<br>426.402<br>4526.402 | 140<br>0.0041  | 106.080<br>-1.732<br>18.784 |       | Vel = 5.70        |       |
| TEST                 |                  |           | 0.0<br>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<br>159<br>169 |
| 1788        | 136         | 10         | 126      | 4           | 2 ½         | 20-11<br>17-14 | 2639 | 106%        | 489   | 243<br>252<br>262 |
| 1786        | 118         | 10         | 108      | 4           | 2 ½         | 30-29<br>30-26 | 3616 | 145%        | 489   | 277<br>286<br>279 |
|             |             |            |          |             |             |                |      |             |       |                   |



## Plan Review, Inspection, and Permit Fees

Application Number : **FMFW1809-0002**

|                             |                                     |   |           |               |
|-----------------------------|-------------------------------------|---|-----------|---------------|
| \$200.00                    | <input type="checkbox"/>            | Explosive Material (90 Days)                                    | \$        | -             |
| \$100.00                    | <input type="checkbox"/>            | Explosive Materials (72 Hours)                                  | \$        | -             |
| \$100.00                    | <input type="checkbox"/>            | Fireworks Public Display  | \$        | -             |
| \$50.00                     | <input type="checkbox"/>            | Final Inspection  | \$        | -             |
| \$35.00 + \$2.00 per device | <input type="checkbox"/>            | Fire Alarm Testing  | \$        | -             |
| \$35.00 + \$2.00 per nozzle | <input type="checkbox"/>            | Fixed Fire Suppression  | \$        | -             |
| \$75.00                     | <input type="checkbox"/>            | Insecticide Fog/Fumigation                                      | \$        | -             |
| \$100.00                    | <input type="checkbox"/>            | Pipe Test/UST/AGST  | \$        | -             |
| \$50.00                     | <input checked="" type="checkbox"/> | Plans up to 5000 sq ft  | \$        | 50.00         |
| \$100.00                    | <input type="checkbox"/>            | Plans 5001 sq ft to 10,000 sq ft                                | \$        | -             |
| \$150.00                    | <input type="checkbox"/>            | Plans 10,001 sq ft to 25,000 sq ft                              | \$        | -             |
| \$250.00                    | <input type="checkbox"/>            | Plans 25,001 sq ft and over                                     | \$        | -             |
| \$35.00 + 2.00 per head     | <input checked="" type="checkbox"/> | Sprinkler Certification Test                                    | \$        | 35.00         |
| \$50.00                     | <input type="checkbox"/>            | Standpipe Testing   | \$        | -             |
| \$50.00                     | <input type="checkbox"/>            | Special Assembly<br>(ie. amusement buildings, carnivals, fairs) | \$        | -             |
| \$75.00                     | <input type="checkbox"/>            | Tents/Canopies/Air Supported Structure                          | \$        | -             |
| \$100.00                    | <input type="checkbox"/>            | Tank Installation (charge for each tank)                        | \$        | -             |
| \$100.00                    | <input type="checkbox"/>            | Tank Removal (charge for each tank)                             | \$        | -             |
|                             | <b>12</b>                           | <b>Total Devices/Heads</b>                                      | \$        | 24.00         |
|                             |                                     | <b>Total Cost</b>   | <b>\$</b> | <b>109.00</b> |

Code Enforcement Official

D. Banks Wallace

9/24/2018





## Fire Marshal Division

September 24, 2018

Mark Ford  
Carolina Fire Protection  
P.O. Box 250  
Dunn, NC 28335

**Re: Food Lion Distribution (Banana Room)  
2940 Arrowhead Rd.  
Dunn, NC 28335**

**Application Number FMFW1809-0002**

Mr. Ford,

Thank you for submitting the sprinkler system plans for the sprinkler alterations. The plans have been carefully reviewed by a qualified code enforcement official to examine for compliance with the North Carolina Fire Prevention Code and all other fire protection regulatory documents. There are some items that were found during the plan review process that need to be addressed before a final inspection of the new facility can be given. These items are outlined and described below.

- **Plan Review Comments to Contractor.**
  - Installation of the sprinkler system shall be per contract specifications and NFPA 20013 edition.
  - Provide an FDC detail on the plans, also, the type and size indicated.
  - Provide hydraulic design data plate, spare sprinklers and wrench cabinet, and approved signage at final inspection per NFPA 13.
- **901.2.1 Statement of Compliance.**
  - Before requesting final approval of the installation, where required by the fire code official, the installing contractor shall furnish a written statement to the fire code official that the subject fire protection system has been installed in accordance with the manufacture's specifications and the appropriate installation standard. Any deviations from the design standards shall be noted and copies of the approvals for such deviations shall be attached to the written statement.



- **903.4 Sprinkler system monitoring and alarms.**
  - All valves controlling the water supply for automatic sprinkler systems and water-flow switches on all sprinkler systems shall be electrically supervised according to the NC State Fire Code.
  
- **901.5 Installation acceptance testing.**
  - All piping and attached appurtenances subjected to system working pressure shall be hydrostatically tested at 200 psi or 50 psi in excess of the system working pressure, whichever is greater, and shall maintain that pressure without loss for 2 hours. This test is required to be witnessed by a representative from the Harnett County Fire Marshal's Office.
  - A contractor's material and test certificate shall be furnished by the trained representative of VSC Fire & Security before approval.
  - A piping and hanger inspection is required before closure of ceiling system(s).
  - A sprinkler final inspection is required at completion of project.
  - **Schedule all inspections with the Fire Marshal's Office.**
  - **(910) 984-4003**
  
- **912.4 Fire Department Connection Signage.**
  - Automatic sprinkler, test connection and standpipe signs to be properly installed.

Thank you again for submitting the plans for the sprinkler up-fits. Please review the plans and adhere to any notes and alterations that were made in addition to the original drawings. These remarks are for the plans that were submitted and its original intent. These remarks do not apply if the original intent changes or what was submitted on the above date changes. If you have any questions, please do not hesitate to call this office.

Sincerely,



D. Banks Wallace  
Chief Deputy Fire Marshal