The Great Lakes Construction Co.

TRANSMITTAL
No. 181

925 Laidlaw Ave.
Cincinnati, Ohio 45237

PROJECT: ODOT 150085 HAM 71-1.34

DATE: December 18, 2017

TO: ODOT District 8
505 South SR 741
Lebanon, OH 45036

REF: Dry Standpipe As-Build Drawings
Dry Stand Pipe O&M
Line Item: #118.00 & #119.00

ATTN: Marvin Lennon

WE ARE SENDING		SUBMITTED FOR:		ACTION TAKEN:	
	Shop Drawings		Approval		Approved as Submitted
	Letter	X	Your Use		Approved as Needed
	Prints		As Requested		Returned after Loan
	Change Order		Review and Comment		Resubmit
	Plans			X	Submit
	Samples	**SENT VIA:**			Returned
	Specifications	X	Attached		Returned for Correction
X	Other: LV Transformer O&M		Separate Cover:		Due Date:

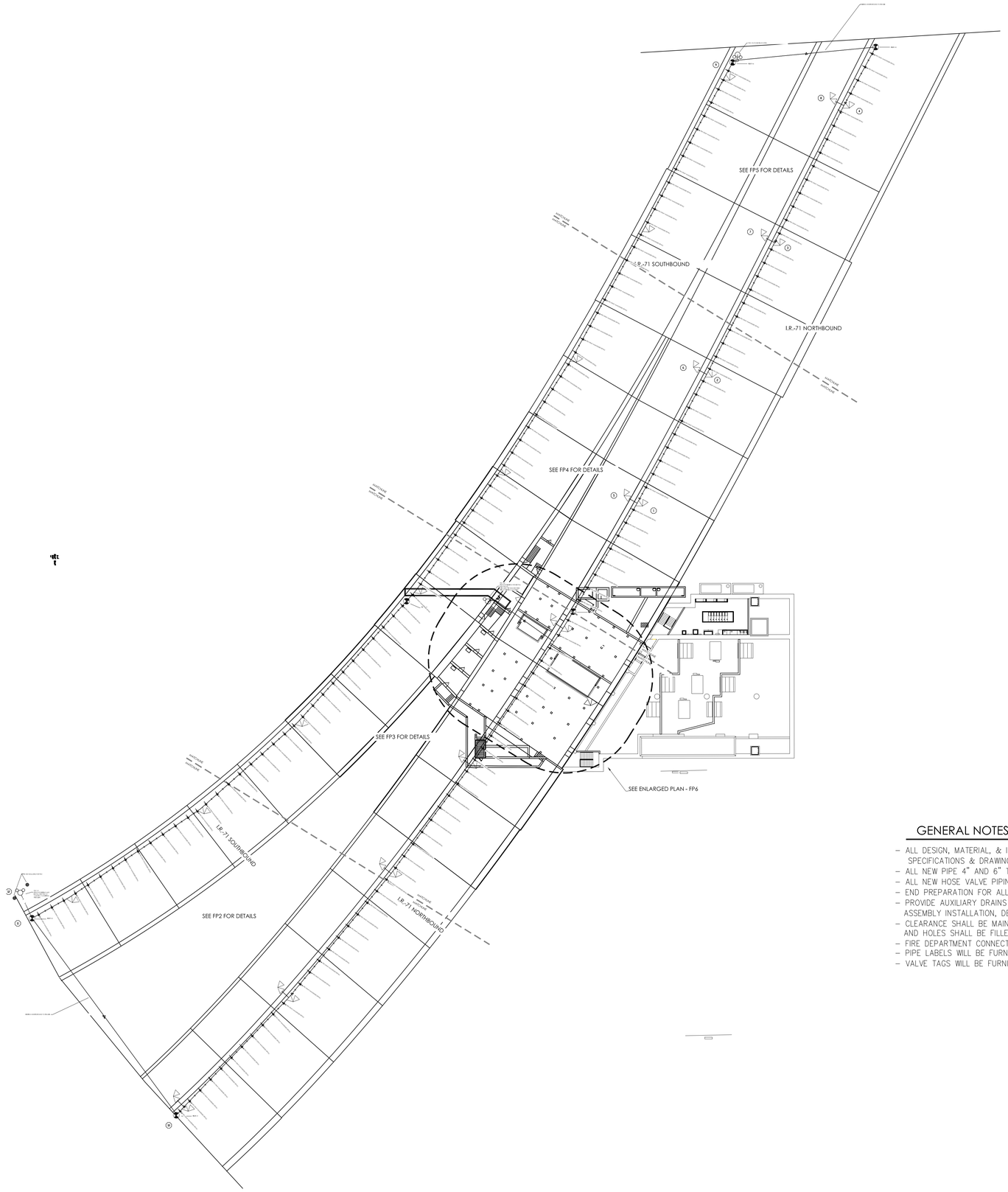
SUBMITTAL	COPIES	DATE	DESCRIPTION
TR85.15-181	1 pdf	12/18/2017	Dry Standpipe As-build Drawings, per sheet 111/555, Section 638.0111, Dry Standpipe O&M, per sheet 114/555, Section 638.0305

REMARKS

CC: Joe Smithson, ODOT D8

Signed: Jacob Elmore

Jacob D. Elmore.



PLAN VIEW OF DRY STANDPIPE
SCALE: 1" = 30'-0"

GENERAL NOTES

- ALL DESIGN, MATERIAL, & INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 14 DESIGN SPECIFICATIONS & DRAWINGS, STATE AND LOCAL BUILDING/FIRE CODES, LOCAL FIRE DEPT AND OWNER'S REP.
- ALL NEW PIPE 4" AND 6" TO BE DUCTILE IRON
- ALL NEW HOSE VALVE PIPING TO BE GALVANIZED.
- END PREPARATION FOR ALL PIPE SHALL BE GROOVED WITH GROOVED FITTINGS
- PROVIDE AUXILIARY DRAINS AT ALL TRAPPED PIPING CONTAINING MORE THAN 5 GALLONS OF TRAPPED WATER – DRAIN ASSEMBLY INSTALLATION, DESIGN, AS INDICATED
- CLEARANCE SHALL BE MAINTAINED AROUND ALL PIPES WHERE PENETRATIONS ARE MADE IN FIRE RATED WALLS OR FLOORS AND HOLES SHALL BE FILLED WITH FIRESTOP MATERIAL
- FIRE DEPARTMENT CONNECTION THREAD TYPE SHALL BE PER RESPONDING AGENCY REQUIREMENTS
- PIPE LABELS WILL BE FURNISHED AND INSTALLED PER SPECIFICATIONS.
- VALVE TAGS WILL BE FURNISHED AND INSTALLED PER SPECIFICATIONS.

AS-BUILT 06-15-17

STATE OF OHIO CERTIFIED
COMPANY: DALMATIAN FIRE, INC. #53-83-1006
DESIGNER: ROBERT TANSY #3073

#3073

QTY	DESIGN DATA
	OCCUPANCY:
	DENSITY: GPM / SQ. FT.
	HOSE ALLOWANCE: GPM
	FLOW TEST: PSI STATIC / PSI RESIDUAL
	GPM FLOWING
0	TOTAL SPRINKLERS THIS SHEET

TRADE	COMPANY NAME	SIGNATURE	DATE
SPRINKLER	DALMATIAN FIRE, INC.		
PIPING			
PLUMBING			
ELECTRICAL			
HVAC			

SPRINKLERS

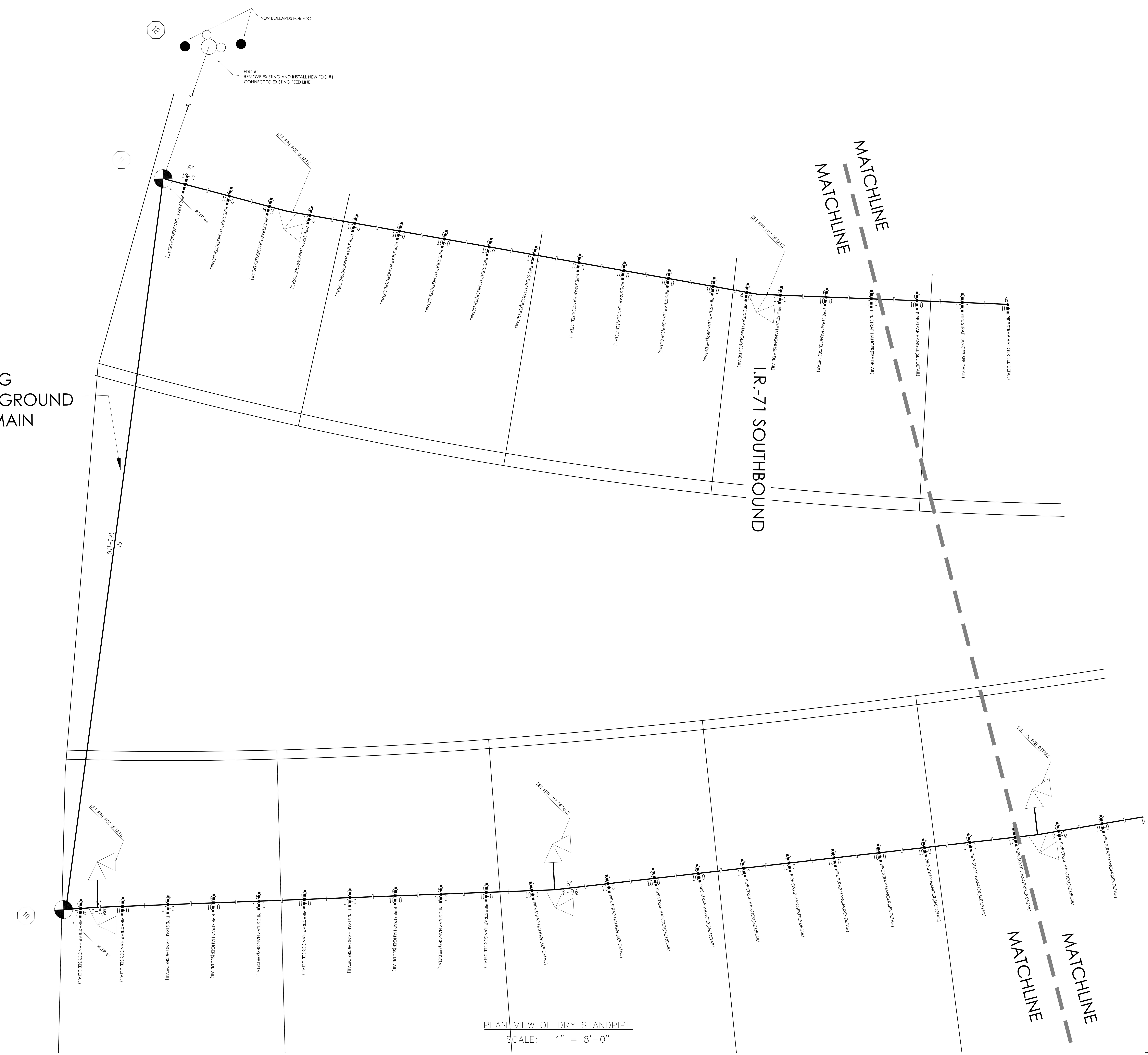
TITLE: DRY STANDPIPE PLAN VIEW OF STANDPIPE
SCALE: 1" = 30'-0"
DATE: 6.16.2016
DRAWN BY: Z.CRIPE
CHECKED BY: B.TANSY
FILE NAME:
CONTRACT No: 2585*
CONTRACT WITH:

LYTLE TUNNEL
I-71
CINCINNATI OHIO

DALMATIAN FIRE, INC.
4700 DUKE BLVD, SUITE 160
MASON, OHIO 45040
(513) 398-9300 FAX (513) 398-2880

SHEET No.
FP1 OF 9

Dalmatian FIRE, INC.



PLAN VIEW OF DRY STANDPIPE
SCALE: 1" = 8'-0"

AS-BUILT 06-15-17

DATE	SIGNATURE	COMPANY NAME	TRADE
		DALMATIAN FIRE, INC.	SPRINKLER
			PIPING
			PLUMBING
			ELECTRICAL
			HVAC

DESIGN DATA
OCCUPANCY:
DENSITY: GPM / SQ. FT.
HOSE ALLOWANCE: GPM
FLOW TEST: PSI STATIC PSI RESIDUAL GPM FLOWING

SPRINKLERS	QTY
TOTAL SPRINKLERS THIS SHEET	0

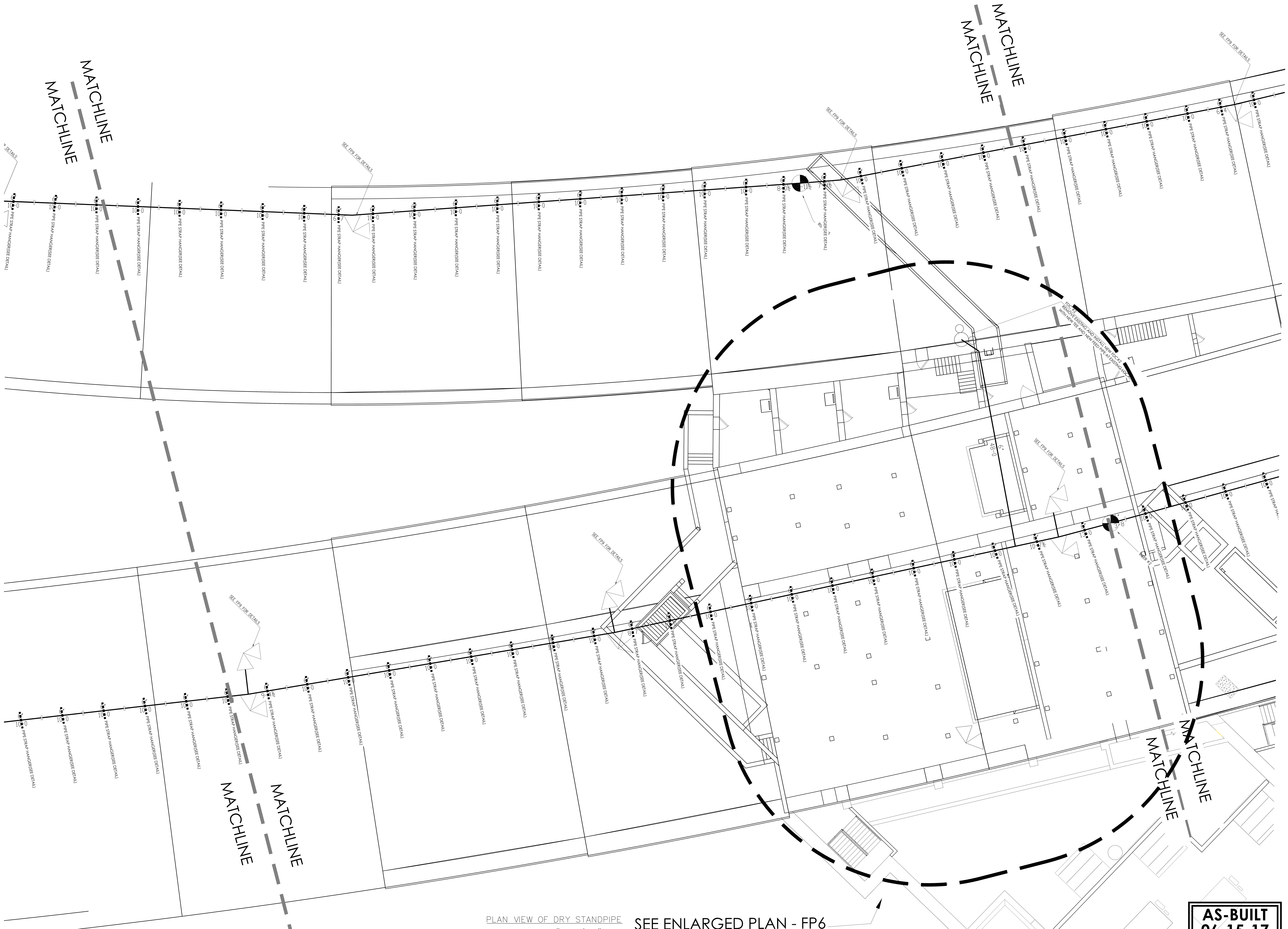
TITLE: DRY STANDPIPE PLAN VIEW
SCALE:
DATE: 6.16.2016
DRAWN BY: Z.CRIPE
CONTRACT No: 2585*
CHECKED BY: R.TANSY
FILE NAME:
CONTRACT WITH:

LYTLE TUNNEL
I-71
CINCINNATI OHIO

DALMATIAN FIRE, INC.
4700 DUKE BLVD, SUITE 160
MASON, OHIO 45040
(513) 398 4500 FAX (513) 398 2880

SHEET No.: FP2 OF 9

Dalmatian FIRE, INC



PLAN VIEW OF DRY STANDPIPE
SCALE: 1" = 8'-0"

SEE ENLARGED PLAN - FP6

SPRINKLERS	QTY	DESIGN DATA
		OCCUPANCY:
		DENSITY: GPM / SQ. FT.
		HOSE ALLOWANCE: GPM
		FLOW TEST: PSI STATIC PSI RESIDUAL GPM FLOWING
TOTAL SPRINKLERS THIS SHEET	0	

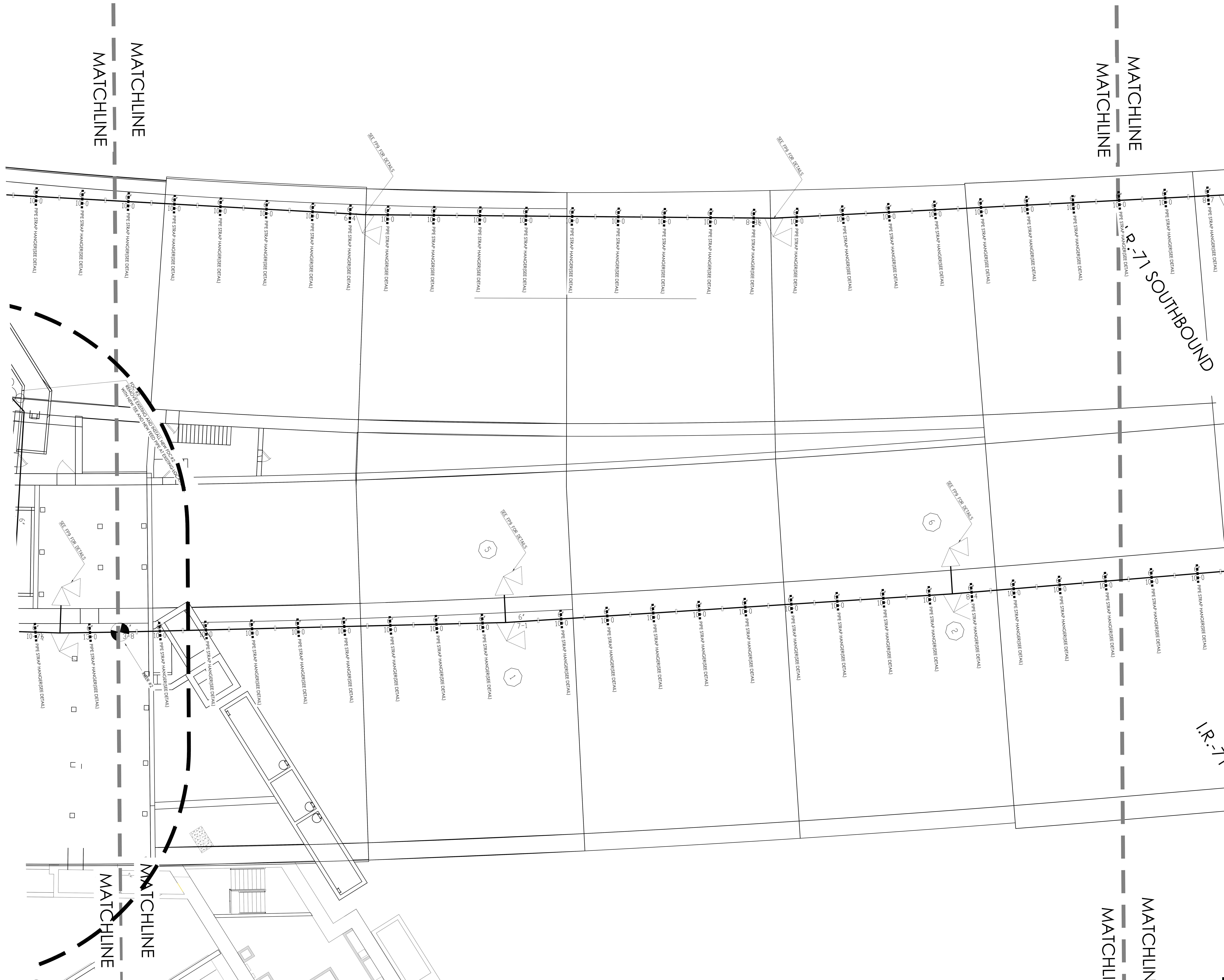
TRADE	COMPANY NAME	SIGNATURE	DATE
SPRINKLER	DALMATIAN FIRE, INC.		
PIPING			
PLUMBING			
ELECTRICAL			
HVAC			

TITLE: DRY STANDPIPE PLAN VIEW
SCALE:
DATE: 6.16.2016
DRAWN BY: Z.CRIPE
CONTRACT No: 2585*
CHECKED BY: R.TANSY
FILE NAME:
CONTRACT WITH:

LYTLE TUNNEL
I-71
CINCINNATI OHIO

DALMATIAN FIRE, INC.
4700 DUKE BLVD, SUITE 160
MASON, OHIO 45040
(513) 398 4500 FAX (513) 398 2880

SHEET No.: FP3 OF 9



PLAN VIEW OF DRY STANDPIPE

SCALE: 1" = 8'-0"

TRADE	COMPANY NAME	SIGNATURE	DATE
SPRINKLER	DALMATIAN FIRE, INC.		
PIPING			
PLUMBING			
ELECTRICAL			
HVAC			

QTY	DESIGN DATA
	OCCUPANCY:
	DENSITY: GPM / SQ. FT.
	HOSE ALLOWANCE: GPM
	FLOW TEST: PSI STATIC PSI RESIDUAL GPM FLOWING

SPRINKLERS

TOTAL SPRINKLERS THIS SHEET 0

TITLE: DRY STANDPIPE PLAN VIEW

SCALE:

DATE: 6.16.2016

DRAWN BY: Z.CRIPE

CONTRACT No: 2585*

CHECKED BY: R.TANSY

FILE NAME:

CONTRACT WITH:

LYTLE TUNNEL

CINCINNATI I-71 OHIO

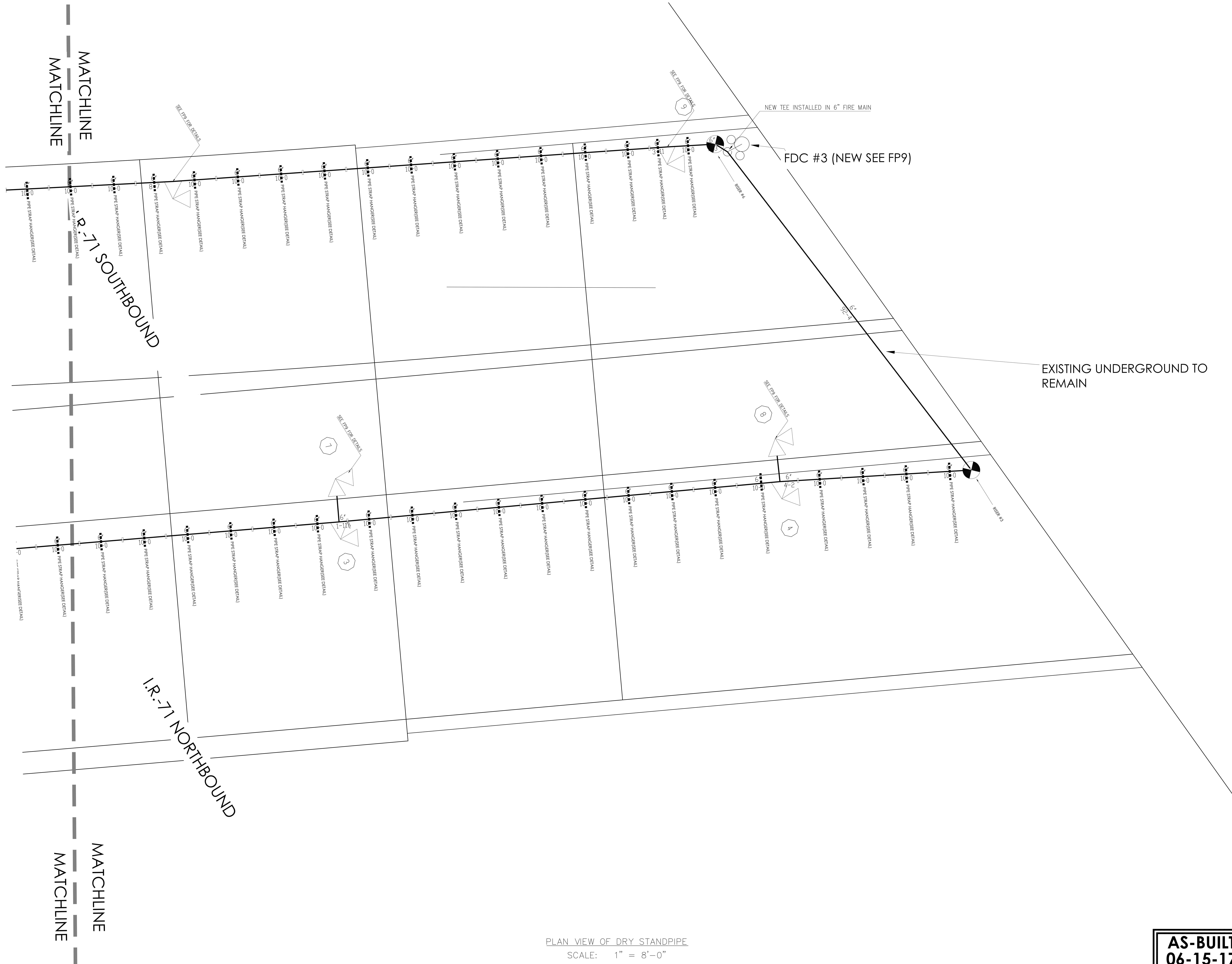
DALMATIAN FIRE, INC.

4700 DUKE BLVD, SUITE 160
MASON, OHIO 45040
(513) 398 4500 FAX (513) 398 2880

SHEET No.: FP4 OF 9

Dalmatian FIRE INC

AS-BUILT 06-15-17



PLAN VIEW OF DRY STANDPIPE
SCALE: 1" = 8'-0"

AS-BUILT
06-15-17

TRADE	COMPANY NAME	SIGNATURE	DATE
SPRINKLER	DALMATIAN FIRE, INC.		
PIPING			
PLUMBING			
ELECTRICAL			
HVAC			

SPRINKLERS	QTY	DESIGN DATA
		OCCUPANCY:
		DENSITY: GPM / SQ. FT.
		HOSE ALLOWANCE: GPM
		FLOW TEST: PSI STATIC PSI RESIDUAL GPM FLOWING
TOTAL SPRINKLERS THIS SHEET	0	

TITLE: DRY STANDPIPE PLAN VIEW

SCALE: | DATE: 6.16.2016 | DRAWN BY: Z.CRIPE
CONTRACT No: 2585* | CHECKED BY: R.TANSY | FILE NAME:
CONTRACT WITH:

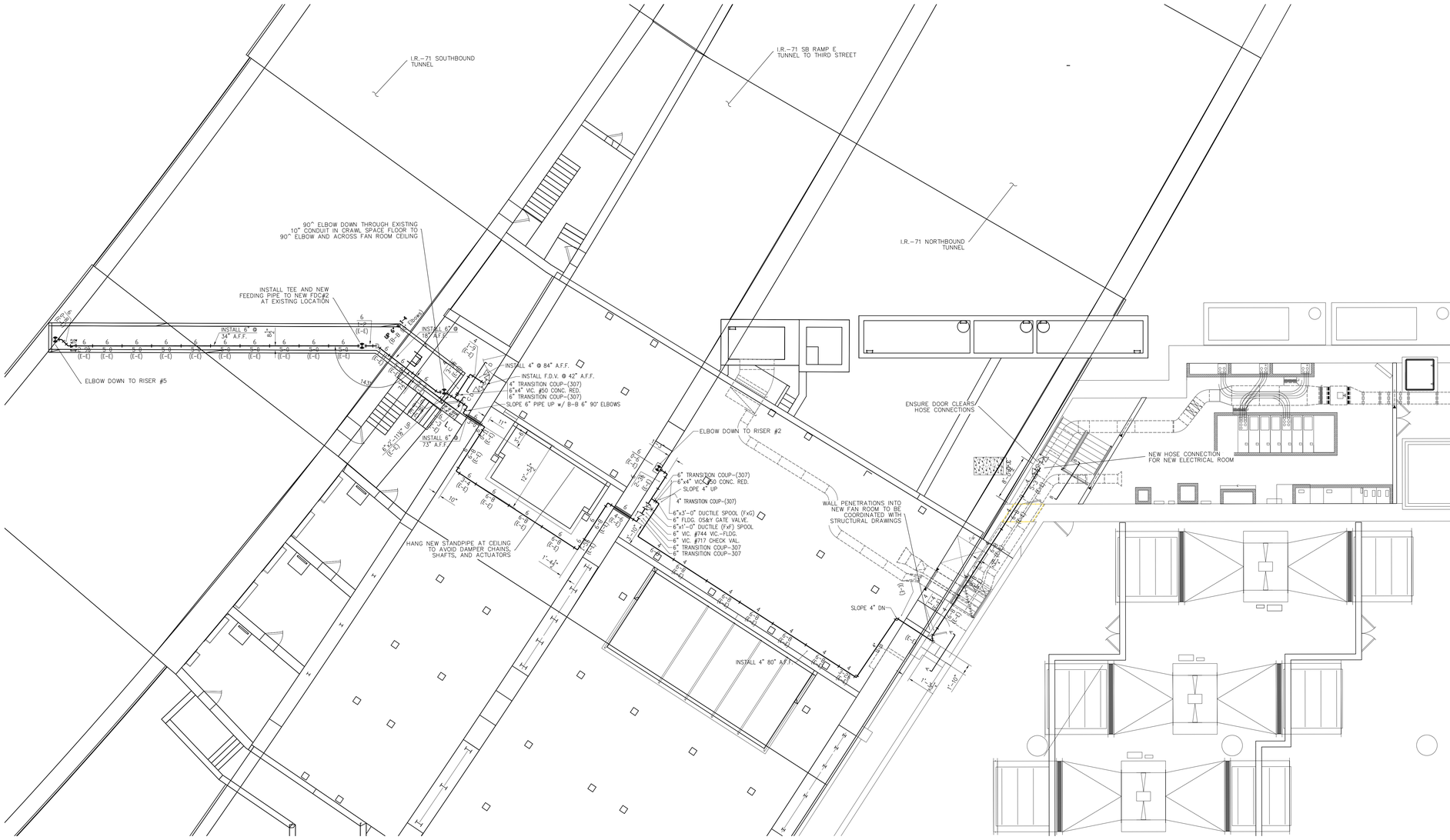
LYTLE TUNNEL

CINCINNATI I-71 OHIO

DALMATIAN FIRE, INC.
4700 DUKE BLVD. SUITE 160
MASON, OHIO 45040
(513) 398 4500 FAX (513) 398 2880

SHEET No.: FP5 OF 5

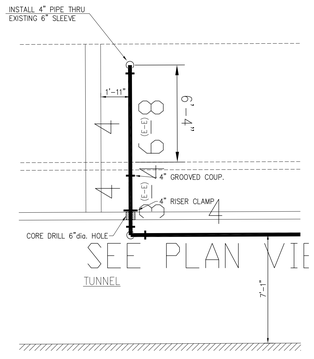
Dalmatian FIRE INC.



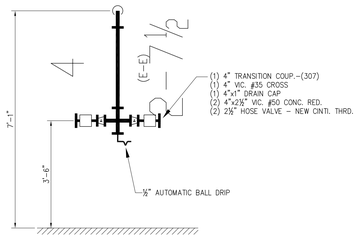
NEW WORK PLAN - FAN ROOM DRY STANDPIPE

SCALE: 1/8" = 1'-0"

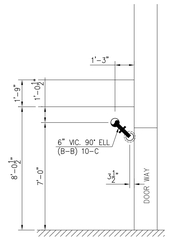
NORTH



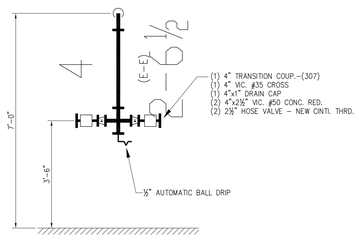
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

AS-BUILT 06-15-17

STATE OF OHIO CERTIFIED
COMPANY: DALMATIAN FIRE, INC. #53-83-1006
DESIGNER: ROBERT TANSY #3073

#3073

SPRINKLERS	QTY	DESIGN DATA
		OCCUPANCY:
		DENSITY: GPM / SQ. FT.
		HOSE ALLOWANCE: GPM
		FLOW TEST: PSI STATIC PSI RESIDUAL
		GPM FLOWING
TOTAL SPRINKLERS THIS SHEET	0	

TRADE	COMPANY NAME	SIGNATURE	DATE
SPRINKLER	DALMATIAN FIRE, INC.		
PIPING			
PLUMBING			
ELECTRICAL			
HVAC			

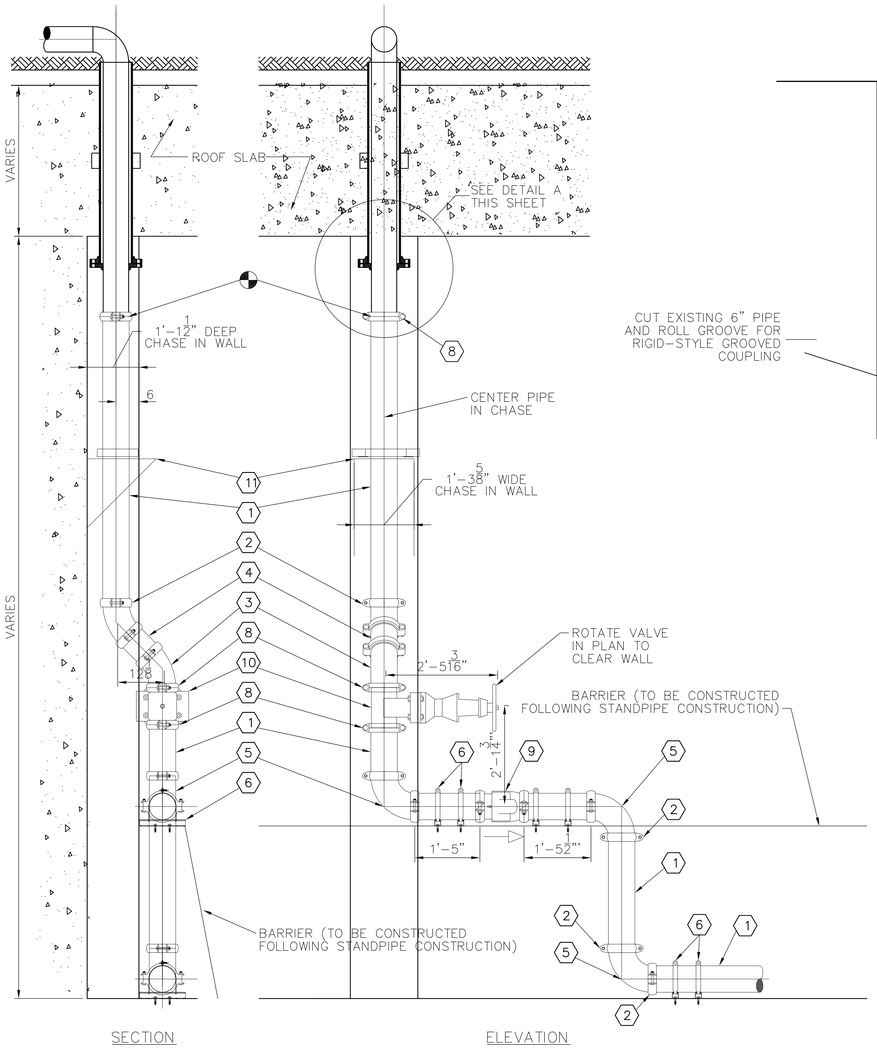
TITLE: DRY STANDPIPE FAN ROOM DETAIL FABRICATION PLAN
SCALE: NONE
DATE: 9.28.2016
DRAWN BY: C.BARRETT
CHECKED BY: R.TANSY
FILE NAME:
CONTRACT No: 2585*
CONTRACT WITH: LAKE ERIE CONSTRUCTION

LYTLE TUNNEL
I-71
CINCINNATI OHIO

DALMATIAN FIRE, INC.
4700 DUKE BLVD, SUITE 160
MASON, OHIO 45040
(513) 398-9300 FAX (513) 398-2880

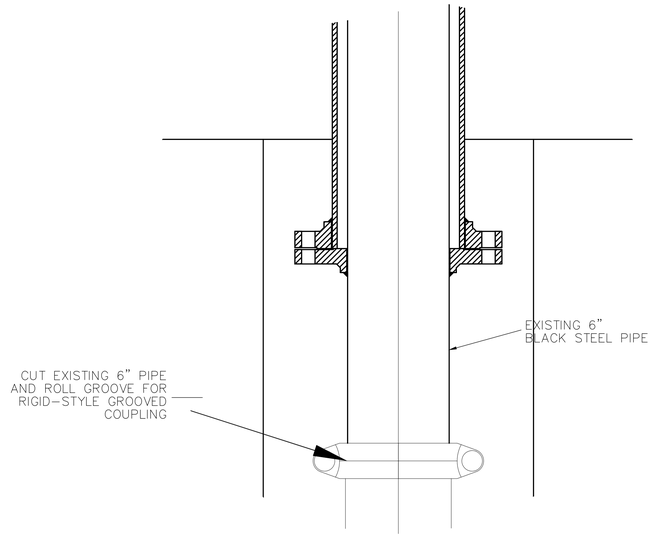
SHEET No.: FP6 OF 9

Dalmatian FIRE, INC



SECTION ELEVATION

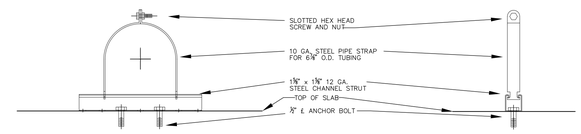
END RISER (RISERS #1, 3) (#4, 6 OPPOSITE HAND)
SCALE: NTS



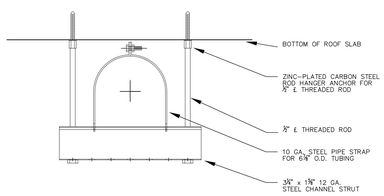
DETAIL A
SCALE: NTS

KEYNOTE LEGEND:

1. NEW 6" AWWA D.I. PIPE WITH GROOVED ENDS
2. NEW 6" AWWA D.I. GROOVED COUPLING
3. NEW 6" AWWA D.I. GROOVED 45^ ELBOW
4. NEW 6" AWWA D.I. GROOVED NIPPLE
5. NEW 6" AWWA D.I. GROOVED 90^ ELBOW
6. NEW 1†" x 1†" 12 GA. STEEL CHANNEL STRUT WITH 10 GA. STEEL PIPE STRAP FOR 6‡" O.D. TUBING AND ANCHOR BOLTS TO FLOOR
8. NEW 6" AWWA D.I. TO 6" NPS GROOVED TRANSITION COUPLING
9. NEW 6" UL/FM CHECK VALVE
10. NEW 6" UL/FM OS&Y VALVE
11. NEW BRACKET TO SUPPORT RISER CLAMP, WITH RISER CLAMP

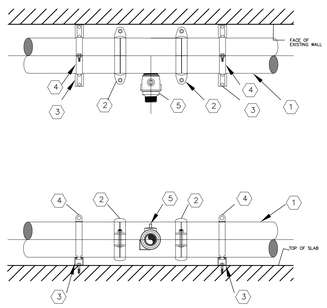


PIPE SUPPORT
SCALE: NTS

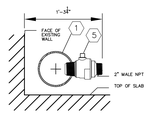


PIPE HANGER
SCALE: NTS

PIPE STRAP HANGER DETAIL
SCALE: NTS



ELEVATION
SCALE: NTS



SECTION

KEYNOTE LEGEND:

1. NEW 6" AWWA D.I. PIPE WITH GROOVED ENDS
2. NEW 6" AWWA D.I. GROOVED COUPLING
3. NEW 1⅝" x 1⅝" 12 GA. STEEL CHANNEL STRUT
4. NEW 10 GA. STEEL PIPE STRAP FOR 6⅞" O.D. TUBING
5. NEW 2" STANDARD AWWA CORPORATION STOP INLET THREAD, 2" MALE NPT OUTLET BALL CORPORATION STOP TAPPED INTO D.I. PIPE

DRY STANDPIPE DETAIL

AS-BUILT
06-15-17

STATE OF OHIO CERTIFIED
COMPANY: DALMATIAN FIRE, INC. #53-83-1006
DESIGNER: ROBERT TANSY #3073
#3073

SPRINKLERS | QTY | DESIGN DATA
OCCUPANCY:
DENSITY: GPM / SQ. FT.
HOSE ALLOWANCE: GPM
FLOW TEST: PSI STATIC GPM FLOWING PSI RESIDUAL
TOTAL SPRINKLERS THIS SHEET 0

TRADE	COMPANY NAME	SIGNATURE	DATE
SPRINKLER	DALMATIAN FIRE, INC.		
PIPING			
PLUMBING			
ELECTRICAL			
HVAC			

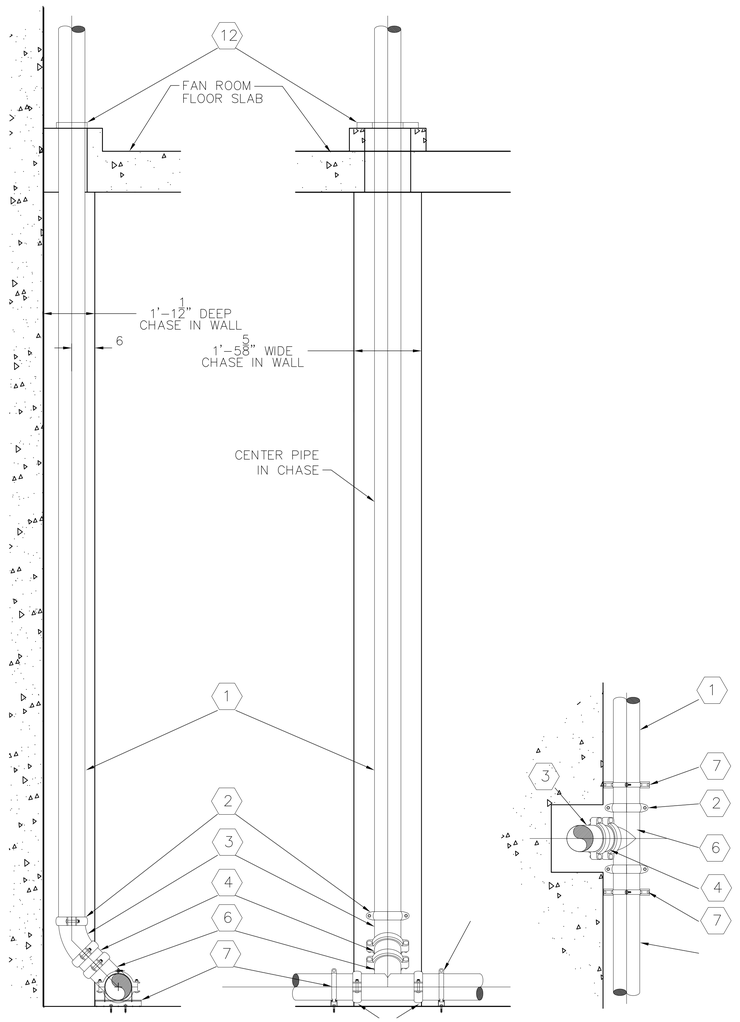
TITLE: DRY STANDPIPE END RISERS
SCALE:
DATE: 6.16.2016
DRAWN BY: Z.CRIPE
CONTRACT No: 2585*
CHECKED BY: R.TANSY
FILE NAME:
CONTRACT WITH:

LYTLE TUNNEL
I-71
CINCINNATI OHIO

DALMATIAN FIRE, INC.
4700 DUKE BLVD. SUITE 160
MASON, OHIO 45040
(513) 398-9500 FAX (513) 398-2880

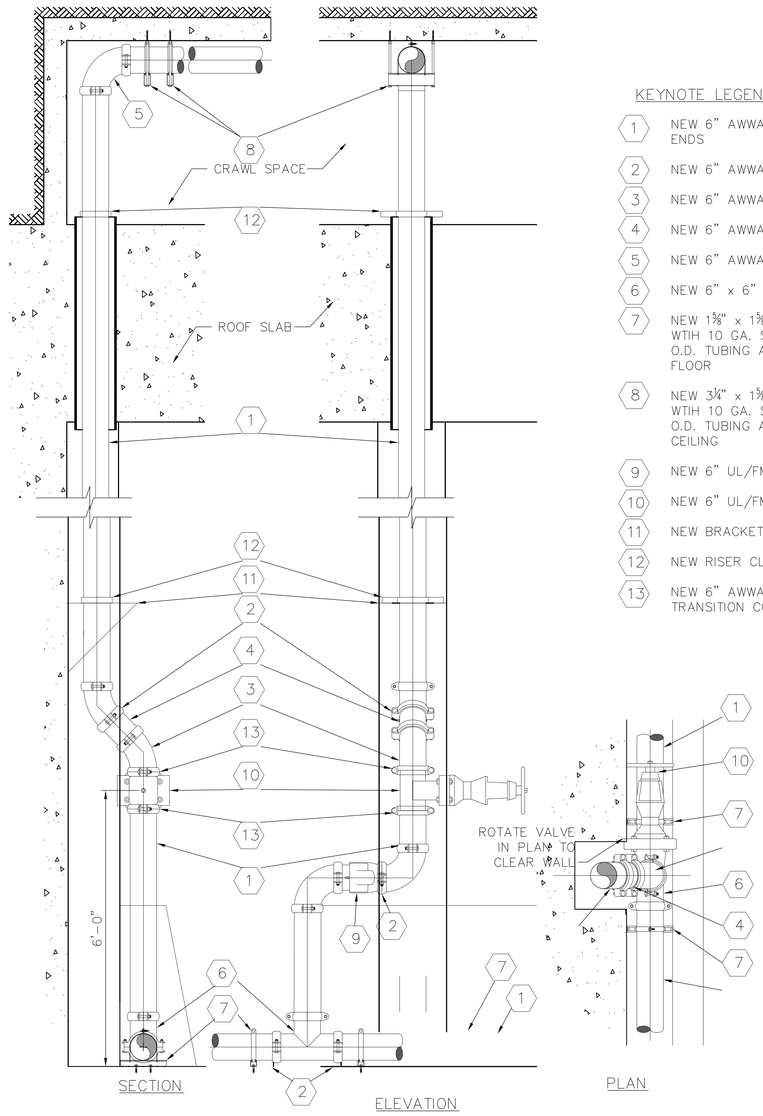
SHEET No.: F7 OF 9

Dalmatian FIRE INC



SECTION ELEVATION PLAN

INLINE RISER (RISER #2)
SCALE: NTS



SECTION ELEVATION PLAN

INLINE RISER (RISER #5)
SCALE: NTS

KEYNOTE LEGEND:

1. NEW 6" AWWA D.I. PIPE WITH GROOVED ENDS
2. NEW 6" AWWA D.I. GROOVED COUPLING
3. NEW 6" AWWA D.I. GROOVED 45^ ELBOW
4. NEW 6" AWWA D.I. GROOVED NIPPLE
5. NEW 6" AWWA D.I. GROOVED 90^ ELBOW
6. NEW 6" x 6" AWWA D.I. GROOVED TEE
7. NEW 1⅝" x 1⅝" STEEL CHANNEL STRUT WTIH 10 GA. STEEL PIPE STRAP FOR 6⅞" O.D. TUBING AND ANCHOR BOLTS TO FLOOR
8. NEW 3¼" x 1⅝" STEEL CHANNEL STRUT WTIH 10 GA. STEEL PIPE STRAP FOR 6⅞" O.D. TUBING AND ANCHOR RODS TO CEILING
9. NEW 6" UL/FM CHECK VALVE
10. NEW 6" UL/FM OS&Y VALVE
11. NEW BRACKET TO SUPPORT RISER CLAMP
12. NEW RISER CLAMP
13. NEW 6" AWWA D.I. TO 6" NPS GROOVED TRANSITION COUPLING

AS-BUILT 06-15-17

STATE OF OHIO CERTIFIED
COMPANY: DALMATIAN FIRE, INC. #53-83-1006
DESIGNER: ROBERT TANSY #3073
#3073

TRADE	COMPANY NAME	SIGNATURE	DATE
SPRINKLER	DALMATIAN FIRE, INC.		
PIPING			
PLUMBING			
ELECTRICAL			
HVAC			

SPRINKLERS | QTY | DESIGN DATA
OCCUPANCY: | SQ. FT.:
DENSITY: | GPM /
HOSE ALLOWANCE: | GPM
FLOW TEST: PSI STATIC | PSI RESIDUAL | GPM FLOWING
TOTAL SPRINKLERS THIS SHEET | 0

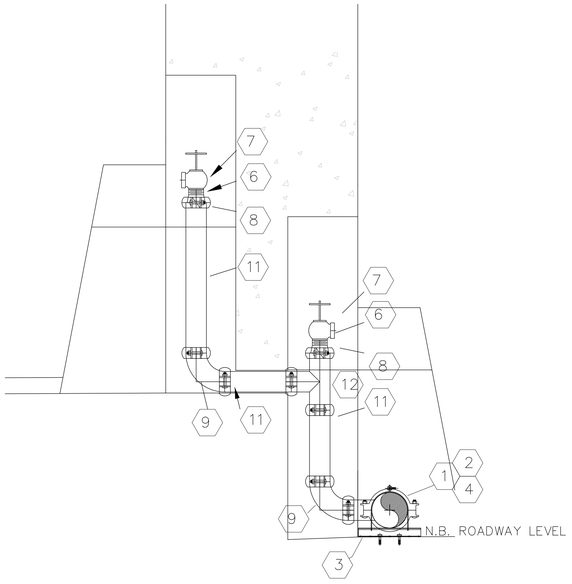
TITLE: DRY STANDPIPE DETAILS INLINE RISER DETAIL
SCALE:
DATE: 6.16.2016
DRAWN BY: Z.CRIPE
FILE NAME:
CHECKED BY: R.TANSY
CONTRACT No: 2585*
CONTRACT WITH:

LYTLE TUNNEL I-71 CINCINNATI OHIO

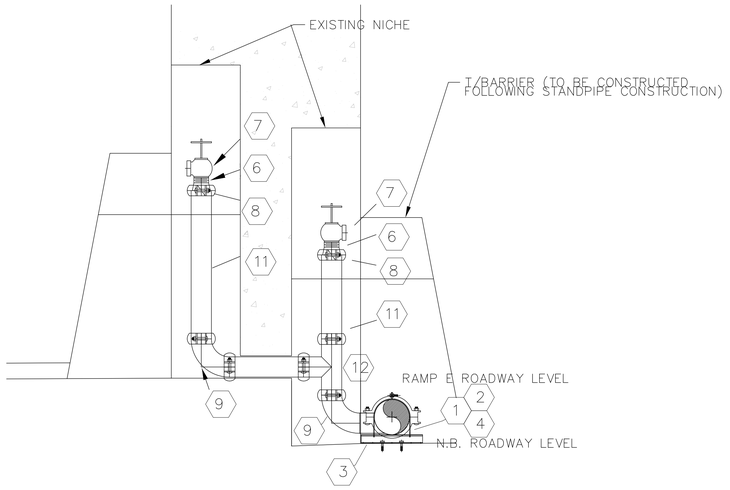
DALMATIAN FIRE, INC.
4700 DUKE BLVD, SUITE 160
MASON, OHIO 45040
(513) 398-4500 FAX (513) 398-2880

SHEET No.: FP8 OF 9

Dalmatian FIRE, INC



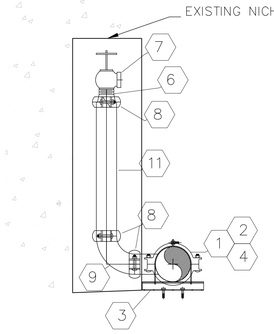
TYPICAL HOSE CONNECTION (NORTHBOUND/RAMP E)
EXCEPT HC9/HC18
SCALE: NTS



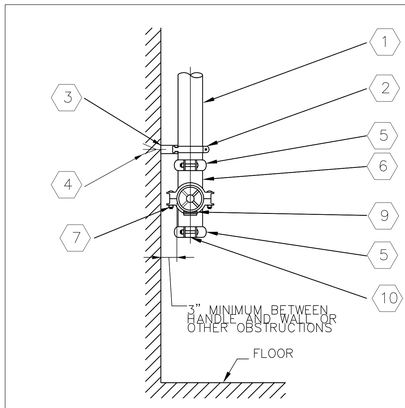
HOSE CONNECTION HC9/HC18 (NORTHBOUND/RAMP E)
SCALE: NTS

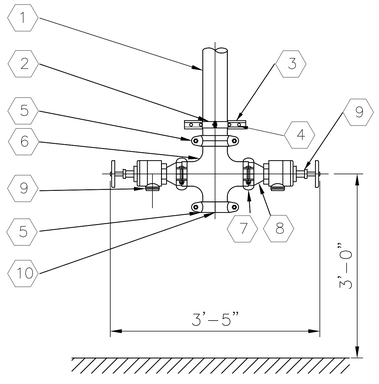
KEYNOTE LEGEND:

1. NEW 6" AWWA D.I. PIPE WITH GROOVED ENDS
2. NEW 6" AWWA D.I. GROOVED COUPLING
3. NEW 1⅝" x 1 STRUT WITH 10 GA. STEEL PIPE STRAP FOR 6⅞" O.D. TUBING AND ANCHOR BOLTS TO FLOOR
4. NEW 6" x 3" AWWA D.I. REDUCING TEE
5. NEW 3" AWWA D.I. TO 3" NPS GROOVED TRANSITION COUPLING
6. NEW THREADED REDUCER 3" NPS GROOVED x 2½" MALE NPT
7. NEW 2½" ANGLE HOSE VALVE. 2 NPT x 2½" MALE CITY OF CINCINNATI NEW HOSE THREAD FITTED WITH CAP AND CHAIN (CAP AND CHAIN NOT SHOWN)
8. NEW 3" GALVANIZED GROOVED COUPLING
9. NEW 3" GALVANIZED GROOVED 90^ ELBOW
10. NEW 3" GALVANIZED GROOVED 45^ ELBOW
11. NEW 3" GALVANIZED PIPE WITH ½" FEMALE GROOVED ENDS
12. NEW 3" GALVANIZED GROOVED TEE



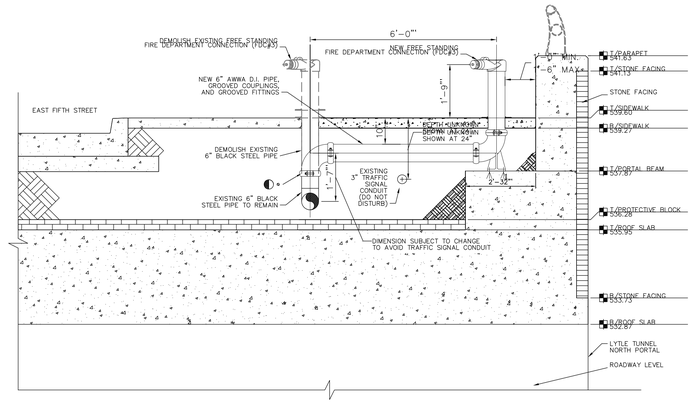
TYPICAL HOSE CONNECTION (SOUTHBOUND)
SCALE: NTS





KEYNOTE LEGEND:

1. NEW 4" AWWA D.I. PIPE WITH GROOVED ENDS
2. NEW 11 GA. STEEL PIPE STRAP FOR 4¾" O.D. TUBING
3. NEW 3¼" x 1⅝" 12 GA. STEEL CHANNEL STRUT
4. NEW ½" x 3" STAINLESS STEEL SCREW ANCHORS
5. NEW 4" AWWA D.I. GROOVED COUPLING
6. NEW 4" x 4" AWWA D.I. GROOVED CROSS
7. NEW 4" AWWA D.I. TO 4" NPS GROOVED TRANSITION COUPLING
8. NEW THREADED REDUCER 4" NPS GROOVED x 2½" MALE NPT
9. NEW 2½" ANGLE HOSE VALVE. 2½" FEMALE NPT x 2½" MALE CITY OF CINCINNATI NEW HOSE THREAD FITTED WITH CAP AND CHAIN (CAP AND CHAIN NOT SHOWN)
10. NEW 4" AWWA D.I. GROOVED CAP DRILLED AND TAPPED FOR AND WITH NEW AUTOMATIC BALL DRIP AND AIR-VACUUM VALVE



RELOCATION OF FDC #3
SCALE: NTS

AS-BUILT 06-15-17

STATE OF OHIO CERTIFIED
COMPANY: DALMATIAN FIRE, INC. #53-83-1006
DESIGNER: ROBERT TANSY #3073
#3073

SPRINKLERS
QTY DESIGN DATA
OCCUPANCY:
DENSITY: GPM / SQ. FT.
HOSE ALLOWANCE: GPM
FLOW TEST: PSI STATIC PSI RESIDUAL GPM FLOWING
TOTAL SPRINKLERS THIS SHEET 0

TRADE	COMPANY NAME	SIGNATURE	DATE
SPRINKLER	DALMATIAN FIRE, INC.		
PIPING			
PLUMBING			
ELECTRICAL			
HVAC			

TITLE: DRY STANDPIPE HOSE CONNECTIONS DETAIL
SCALE:
DATE: 6.16.2016
DRAWN BY: Z.CRIPE
FILE NAME:
CONTRACT No: 2585*
CHECKED BY: R.TANSY
CONTRACT WITH:

LYTLE TUNNEL I-71 CINCINNATI OHIO

DALMATIAN FIRE, INC.
4700 DUKE BLVD, SUITE 160
MASON, OHIO 45040
(513) 398 4500 FAX (513) 398 2880

SHEET No.:
FP9 OF 9

Dalmatian FIRE INC

CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR ABOVEGROUND PIPING

Standpipe System NFPA 14

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and the system left in service before the contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood that the owner's representative's signature in no way prejudices any claim against the contractor for faulty material, poor workmanship, or failure to comply with the approving authority's requirements or local ordinances.

Property name: LYTLE TUNNEL — Date: 7-13-17

Property address:

Plans	Accepted by approving authorities (names): CINCINNATI FIRE DEPARTMENT Address: Installation conforms to accepted plans? ☒ Yes ☐ No Equipment used is approved or listed? ☒ Yes ☐ No If no, explain deviations.
Type of System	Automatic dry ☐ Yes Automatic wet ☐ Yes Semiautomatic dry ☐ Yes Manual dry ☒ Yes Manual wet ☐ Yes Combination standpipe/sprinkler ☐ Yes If other, explain.
Water Supply Data Used for Design and As Shown on Plans	Fire pump data Manufacturer _____ Model _____ Type: ☐ Electric ☐ Diesel ☒ Other (explain) FIRE TRUCK Rated, gpm 1000 Rated, psi 150 Shutoff, psi _____
Water Supply Source Capacity, Gallons	☐ Public waterworks system ☐ Storage tank ☐ Gravity tank ☐ Open reservoir ☒ Other (explain) PUBLIC HYDRANTS AND FIRE TRUCK
If Public Waterworks System:	Static, psi _____ Residual, psi _____ Flow, gpm _____
Have Copies of the Following Been Left on the Premises?	☒ System components instructions ☐ Care and maintenance of system ☐ NFPA 25 ☐ Copy of accepted plans ☐ Hydraulic data/calculations
Supplies Building(s)	Main waterflow shutoff location N/A Number of standpipe risers 27 HOSE VALVES IN TUNNEL Do all standpipe risers have base of riser shutoff valves? ☒ Yes ☐ No
Valve Supervision	☒ Locked open ☐ Sealed and tagged ☐ Tamperproof switch ☐ Other If other, explain.
Pipe and Fittings	Type of pipe DUCTILE IRON Type of fittings A 1'
Hose Threads	Hose threads have been verfied for compliance with local fire department ☒ Yes ☐ No
Backflow Preventor	☐ Double check assembly ☐ Reduced-pressure device Size _____ Make and model _____

FIGURE 11.1.3(a) Sample Contractor's Material and Test Certificate for Aboveground Piping.

J

CONTROL VALVE DEVICE

Type	Size	Make	Model
N/A			

Time to trip through remote hose valve ____ Min ____ Sec Water pressure ____ Air pressure ____
Time water reached remote hose valve outlet N/A Min ____ Sec Trip point air pressure ____ psi
Alarm operated properly? ❑ Yes ❑ No If no, explain. ____

Time water reached remote hose valve outlet ____ Min ____ Sec
Hydraulic activation ❑ Yes
Electric activation ❑ Yes
Pneumatic activation ❑ Yes
Make and model of activation device N/A
Each activation device tested? ❑ Yes ❑ No If no, explain. ____

Each activation device operated properly? ❑ Yes ❑ No If no, explain. ____

PRESSURE-~~REGULATING DEVICE~~ AT Hose Valves

Location & Floor	Model	Nonflowing (psi) Inlet	Nonflowing (psi) Outlet	Flowing (psi) Inlet	Flowing (psi) Outlet	gpm
Tunnel Southbound	2 1/2" Hose	Outlet #1	Pito 10	Pito	10 PSI	292
	Valve	Outlet #2		Pito	10 PSI	292

All hose valves on system operated properly? ☒ Yes ❑ No If no, explain. ____

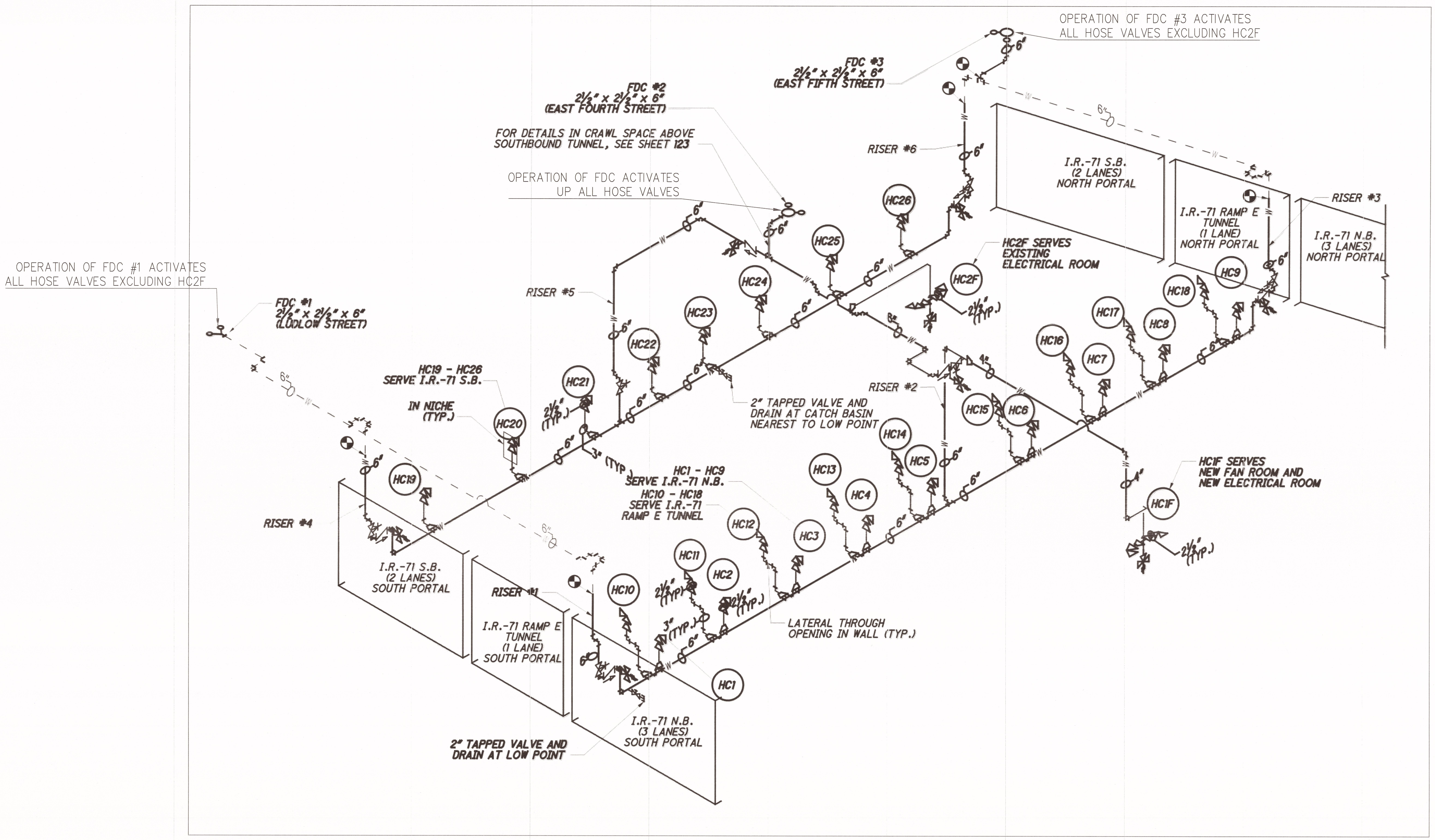
FIGURE 11.1.3(a) *Continued*

Test Description	*Hydrostatic:* Hydrostatic tests shall be made at not less than 200 psi (13.6 bar) for 2 hours or 50 psi (3.4 bar) above static pressure in excess of 150 psi (10.2 bar) for 2 hours. Differential dry pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped. *Pneumatic:* Establish 40 psi (2.7 bar) air pressure and measure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1½ psi (0.1 bar) in 24 hours.
Tests	All piping hydrostatically tested at 200 psi (___ bar) for 2 hrs Dry piping pneumatically tested? ❑ Yes ❑ No Equipment operates properly? ❑ Yes ❑ No If no, state reason. Do you certify as the standpipe contractor that additives and corrosive chemicals, sodium silicate, or derivatives of sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks? ❑ Yes ❑ No Drain test: Reading of gauge located near water supply test connection _____ psi (___ bar); Residual pressure with valve in test connection open wide _____ psi (___ bar) Underground mains and lead-in connections to system risers flushed before connection made to standpipe piping. Verified by copy of the U form no. 85b? ❑ Yes ❑ No ❑ Other (explain) _____ Flushed by installer of underground standpipe piping? ❑ Yes ❑ No _____
Blank Testing	Number used 0 Locations _____ Number removed _____
Welding	Welded piping ❑ Yes ☒ No **If yes . . .** Do you certify as the standpipe contractor that welding procedures comply with the requirements of at least AWS D10.9, Level AR-3? ❑ Yes ❑ No Do you certify that the welding was performed by welders qualified in compliance with the requirements of at least AWS D10.9, Level AR-3? ❑ Yes ❑ No Do you certify that welding was carried out in compliance with a documented quality control procedure to ensure that all discs are retrieved, that openings in piping are smooth, that slag and other welding residue are removed, and that the internal diameters of piping are not penetrated? ❑ Yes ❑ No
Cutouts (Discs)	Do you certify that you have a control feature to ensure that all cutouts (discs) are retrieved? N/A ❑ Yes ❑ No
Hydraulic Data Nameplate	Nameplate provided? ❑ Yes ❑ No ❑ If no, explain. N/A
Remarks	Date left in service with all control valves open: _____
Name of Sprinkler/ Standpipe Contractor	Name of contractor DALMATIAN FIRE INC. Address 4700 DUKE DRIVE State license number (if applicable) 53-83-1006
System Operating Test Witnessed by	Property owner _____ Title _____ Date _____ Sprinkler/standpipe contractor _____ Title _____ Date _____ Approving authorities _____ Title _____ Date _____
Additional Explanation and Notes	THIS TEST WAS performed with the USE OF A CINCINNATI FIRE TRUCK.

FIGURE 11.1.3(a) *Continued*

MIKE THOMAS 54.89.0608

JAKE ELMORE TGLCC



SCHEMATIC VIEW OF SYSTEM

NOT TO SCALE

AS-BUILT 10-12-17

STATE OF OHIO CERTIFIED
COMPANY: DALMATIAN FIRE, INC. #53-83-1006
DESIGNER: ROBERT TANSY #3073
#3073

DATE	SIGNATURE	COMPANY NAME	TRADE
		DALMATIAN FIRE, INC.	SPRINKLER
			PIPING
			PLUMBING
			ELECTRICAL
			HVAC

QTY DESIGN DATA
OCCUPANCY:
DENSITY: GPM / SQ. FT.
HOSE ALLOWANCE: GPM
FLOW TEST: PSI STATIC PSI RESIDUAL GPM FLOWING

SPRINKLERS

0 TOTAL SPRINKLERS THIS SHEET

TITLE: SCHEMATIC DETAIL HOSE OPERATION
SCALE:
DATE: 6.16.2016
DRAWN BY: Z.CRIPE
CONTRACT No: 2585*
CHECKED BY: R.TANSY
FILE NAME:
CONTRACT WITH:

LYTLE TUNNEL
I-71
CINCINNATI OHIO

DALMATIAN FIRE, INC.
4700 DUKE BLVD., SUITE 160
MASON, OHIO 45040
(513) 398 4500 FAX (513) 398 2880

SHEET No.: FP10 OF 10

Dalmatian

Project: Lytle Tunnel

Maintenance and Operation of the Fire Protection System

The attached copy of NFPA-25 offers a detailed list for Inspection, Testing and Maintenance of Standpipe Systems.

The standpipe system installed at this facility is a Manual Dry Standpipe system which has less maintenance items than what's shown in the NFPA-25 manual.

The items that need to be inspected and maintained are as follows:

1. Drain all low point drains at least Semi-annually and Annually.
2. Operate all control valves by closing and opening.
3. The control valve stems should be greased to prevent corrosion.
4. Visually inspect all fire hose valves annually to see that the caps are still in place.
5. Visually inspect all three Fire Department connections to see that the caps are in place.

Chapter 6 Standpipe and Hose Systems

6.1 General.

This chapter shall provide the minimum requirements for the routine inspection, testing, and maintenance of standpipe and hose systems. Table 6.1 shall be used to determine the minimum required frequencies for inspection, testing, and maintenance.

Table 6.1 Summary of Standpipe and Hose Systems Inspection, Testing, and Main

Item	Frequency	Reference
Inspection		
Control valves	Weekly/monthly	Table 13.1
Pressure regulating devices	Quarterly	Table 13.1
Piping	Annually	6.2.1
Hose connections	Annually	Table 13.1
Cabinet	Annually	NFPA 1962, *Standard fo and Use of Fire Hose, C and the Service Testing c*
Hose	Annually	NFPA 1962
Hose storage device	Annually	NFPA 1962
Hose nozzle	Annually and after each use	NFPA 1962
Test		
Waterflow devices	Quarterly/semiannually	Table 13.1
Valve supervisory devices	Semiannually	Table 13.1

Table 6.1 Summary of Standpipe and Hose Systems Inspection, Testing, and Main

Item	Frequency	Reference
Supervisory signal devices (except valve supervisory switches)	Semiannually	Table 13.1
Hose storage device	Annually	NFPA 1962
Hose	5 years/3 years	NFPA 1962
Pressure control valve	5 years	Table 13.1
Pressure reducing valve	5 years	Table 13.1
Hydrostatic test	5 years	6.3.2
Flow test	5 years	6.3.1
Main drain test	Annually	Table 13.1
Maintenance		
Hose connections	Annually	Table 6.2.2
Valves (all types)	Annually/as needed	Table 13.1

6.1.1 Valves and Connections. Valves and fire department connections shall be inspected, tested, and maintained in accordance with Chapter 13.

6.1.2 Impairments. Where the inspection, testing, and maintenance of standpipe and hose systems results or involves a system that is out of service, the procedures outlined in Chapter 15 shall be followed.

6.2 Inspection.

6.2.1 Components of standpipe and hose systems shall be visually inspected annually or as specified in Table 6.1.

6.2.2 Table 6.2.2 shall be used for the inspection, testing, and maintenance of all classes of standpipe and hose systems.

Table 6.2.2 Standpipe and Hose Systems

Component/Checkpoint	Corrective Action
Hose Connections	
Cap missing	Replace
Fire hose connection damaged	Repair
Valve handles missing	Replace
Cap gaskets missing or deteriorated	Replace
Valve leaking	Close or repair
Visible obstructions	Remove
Restricting device missing	Replace
Manual, semiautomatic, or dry standpipe — valve does not operate smoothly	Lubricate or repair

Table 6.2.2 Standpipe and Hose Systems

Component/Checkpoint	Corrective Action
Damaged piping	Repair
Control valves damaged	Repair or replace
Missing or damaged pipe support device	Repair or replace
Damaged supervisory devices	Repair or replace
Hose	
Inspect	Remove and inspect the hose, including gaskets, and rerack rereel at intervals in accordance with NFPA 1962, *Standard the Care, Use, and Service Testing of Fire Hose Including Couplings and Nozzles*
Mildew, cuts, abrasions, and deterioration evident	Replace with listed lined, jacketed hose
Coupling damaged	Replace or repair
Gaskets missing or deteriorated	Replace
Incompatible threads on coupling	Replace or provide thread adapter
Hose not connected to hose rack nipple or valve	Connect
Hose test outdated	Retest or replace in accordance with NFPA 1962
Hose Nozzle	
Hose nozzle missing	Replace with listed nozzle
Gasket missing or deteriorated	Replace
Obstructions	Remove
Nozzle does not operate smoothly	Repair or replace
Hose Storage Device	
Difficult to operate	Repair or replace
Damaged	Repair or replace
Obstruction	Remove
Hose improperly racked or rolled	Remove
Nozzle clip in place and nozzle correctly contained?	Replace if necessary
If enclosed in cabinet, will hose rack swing out at least 90 degrees?	Repair or remove any obstructions
Cabinet	
Check overall condition for corroded or damaged parts	Repair or replace parts; replace entire cabinet if necessary
Difficult to open	Repair
Cabinet door will not open fully	Repair or move obstructions
Door glazing cracked or broken	Replace
If cabinet is break-glass type, is lock functioning properly?	Repair or replace
Glass break device missing or not attached	Replace or attach
Not properly identified as containing fire equipment	Provide identification
Visible obstructions	Remove
All valves, hose, nozzles, fire extinguisher, etc., easily accessible	Remove any material not related

6.2.3 Checkpoints and corrective actions outlined in Table 6.2.2 shall be followed to determine that components are free of corrosion, foreign material, physical damage, tampering, or other conditions that adversely affect system operation.

6.3 Testing.

Where water damage is a possibility, an air test shall be conducted on the system at 25 psi (1.7 bar) prior to introducing water to the system.

6.3.1 Flow Tests.

6.3.1.1* A flow test shall be conducted every 5 years at the hydraulically most remote hose connections of each zone of an automatic standpipe system to verify the water supply still provides the design pressure at the required flow.

6.3.1.2 Where a flow test of the hydraulically most remote outlet(s) is not practical, the authority having jurisdiction shall be consulted for the appropriate location for the test.

6.3.1.3 All systems shall be flow tested and pressure tested at the requirements for the design criteria in effect at the time of the installation.

6.3.1.3.1 The actual test method(s) and performance criteria shall be discussed in advance with the authority having jurisdiction.

6.3.1.4 Standpipes, sprinkler connections to standpipes, or hose stations equipped with pressure reducing valves or pressure regulating valves shall have these valves inspected, tested, and maintained in accordance with the requirements of Chapter 13.

6.3.1.5 A main drain test shall be performed on all standpipe systems with automatic water supplies in accordance with the requirements of Chapter 13.

6.3.1.5.1 The test shall be performed at the low point drain for each standpipe or the main drain test connection where the supply main enters the building (when provided).

6.3.1.5.2 Pressure gauges shall be provided for the test and shall be maintained in accordance with 5.3.2.

6.3.2 Hydrostatic Tests.

6.3.2.1 Hydrostatic tests of not less than 200 psi (13.8 bar) pressure for 2 hours, or at 50 psi (3.4 bar) in excess of the maximum pressure, where maximum pressure is in excess of 150 psi (10.3 bar), shall be conducted every 5 years on manual standpipe systems and automatic-dry standpipe systems, including piping in the fire department connection.

6.3.2.2* Hydrostatic tests shall be conducted in accordance with 6.3.2.1 on any system that has been modified or repaired.

6.3.2.2.1 Manual wet standpipes that are part of a combined sprinkler/standpipe system shall not be required to be tested in accordance with 6.3.2.1.

6.3.2.3 The hydrostatic test pressure shall be measured at the low elevation point of the individual system or zone being tested. The inside standpipe piping shall show no leakage.

6.3.3 Alarm Devices. Where provided, waterflow alarm and supervisory devices shall be tested in accordance with 13.2.6 and 13.3.3.5.

6.3.3.1 Where freezing conditions necessitate a delay in testing, tests shall be performed as soon as weather allows.

6.4 Maintenance.

Maintenance and repairs shall be in accordance with 6.2.3 and Table 6.2.2.

6.4.1 Equipment that does not pass the inspection or testing requirements shall be repaired and tested again or replaced.

6.5 Component Action Requirements.

6.5.1 Whenever a component in a standpipe and hose system is adjusted, repaired, reconditioned or replaced, the action required in Table 6.5.1, Summary of Component Replacement Action Requirements, shall be performed.

Table 6.5.1 Summary of Component Replacement Action Requirements

Component	Adjust	Repair	Replace	Required Actio
Water Delivery Components				
Control valves	X	X	X	See Chapter 13
Hose valve pressure regulating devices	X	X	X	See Chapter 13
System pressure regulating devices	X	X	X	See Chapter 13
Piping	X	X	X	Hydrostatic test in conforma NFPA 14, *Standard for the I of Standpipe and Hose Syste*
Fire hose			X	
Hose valve	X	X	X	See Chapter 13
Fire department connections	X	X	X	See Chapter 13
Backflow prevention device	X	X	X	See Chapter 13
Valves				See Chapter 13
Fire pump				See Chapter 8
Alarm and Supervisory Components				
Vane-type waterflow	X	X		Operational test using inspec connection
Vane-type waterflow			X	Operational test using inspec connection
Pressure switch–type waterflow	X	X	X	Operational test using inspec connection
Water motor gong	X	X	X	Operational test using inspec connection

Table 6.5.1 Summary of Component Replacement Action Requirements

Component	Adjust	Repair	Replace	Required Actio
Valve supervisory device	X	X	X	Operational test for receipt c and verification of conforma NFPA 14 and/or *NFPA 72, I Fire Alarm Code*
Status-Indicating Components				
Gauges			X	Verify at 0 psi and system w pressure
System Housing and Protection Components				
Cabinet	X	X	X	Verify compliance with NFI
Hose storage rack	X	X	X	Verify compliance with NFI
Testing and Maintenance Components				
Drain riser	X	X	X	Check for leaks while flowir connection above the repair
Auxiliary drains	X	X	X	Check for leaks at system w pressure
Main drain	X	X	X	Check for leaks and residual during main drain test
Structural Components				
Hanger/seismic bracing	X	X	X	Verify conformance with NI
Pipe stands	X	X	X	Verify conformance with NI
Informational Components				
Identification signs	X	X	X	Verify conformance with NI
Hydraulic placards	X	X	X	Verify conformance with NI

6.5.1.1 Where the original installation standard is different from the cited standard, the use of the appropriate installing standard shall be permitted.

6.5.1.2 A main drain test shall be required if the control valve or other upstream valve was operated in accordance with 13.3.3.4.

6.5.1.3 These actions shall not require a design review, which is outside the scope of this standard.