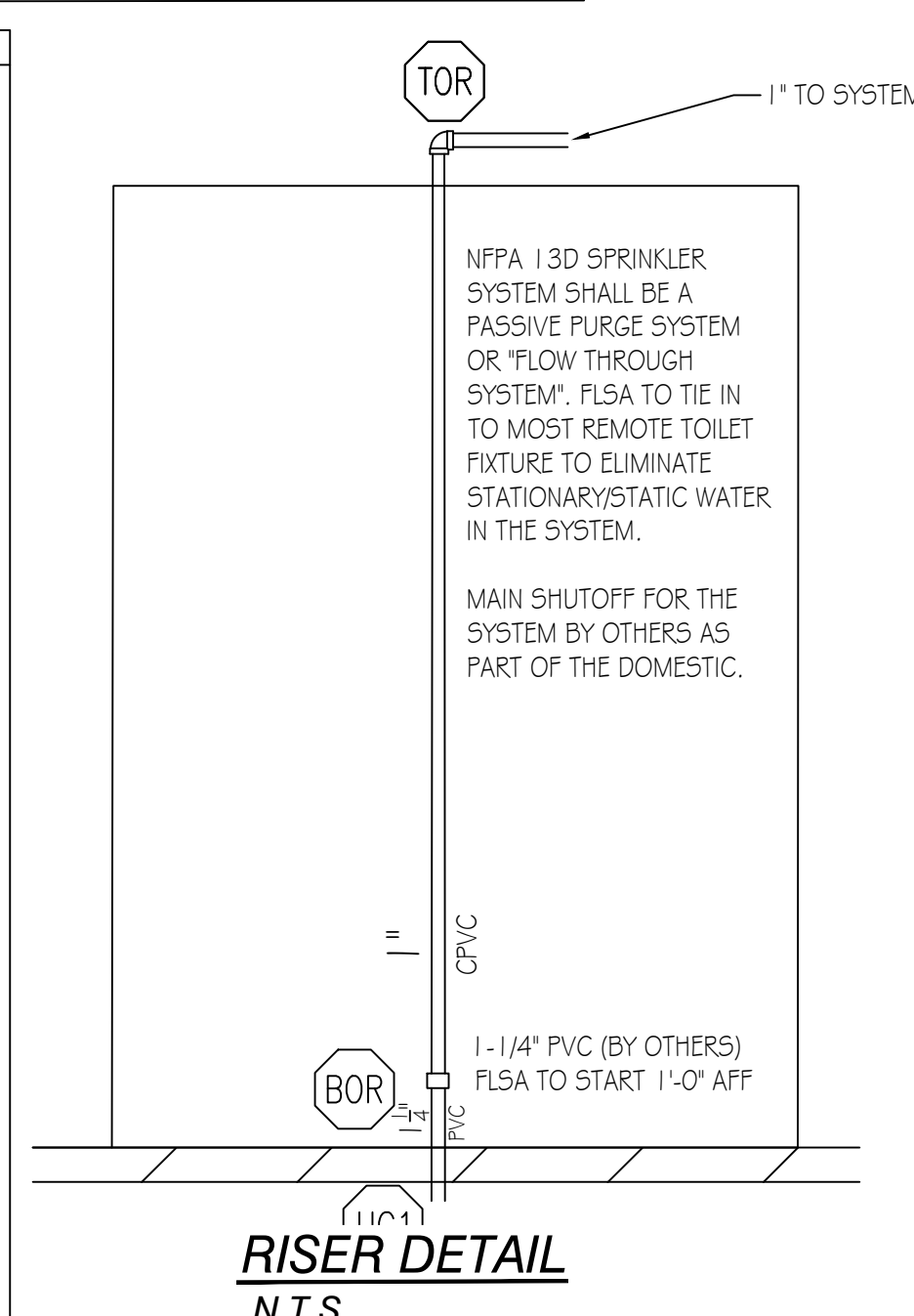
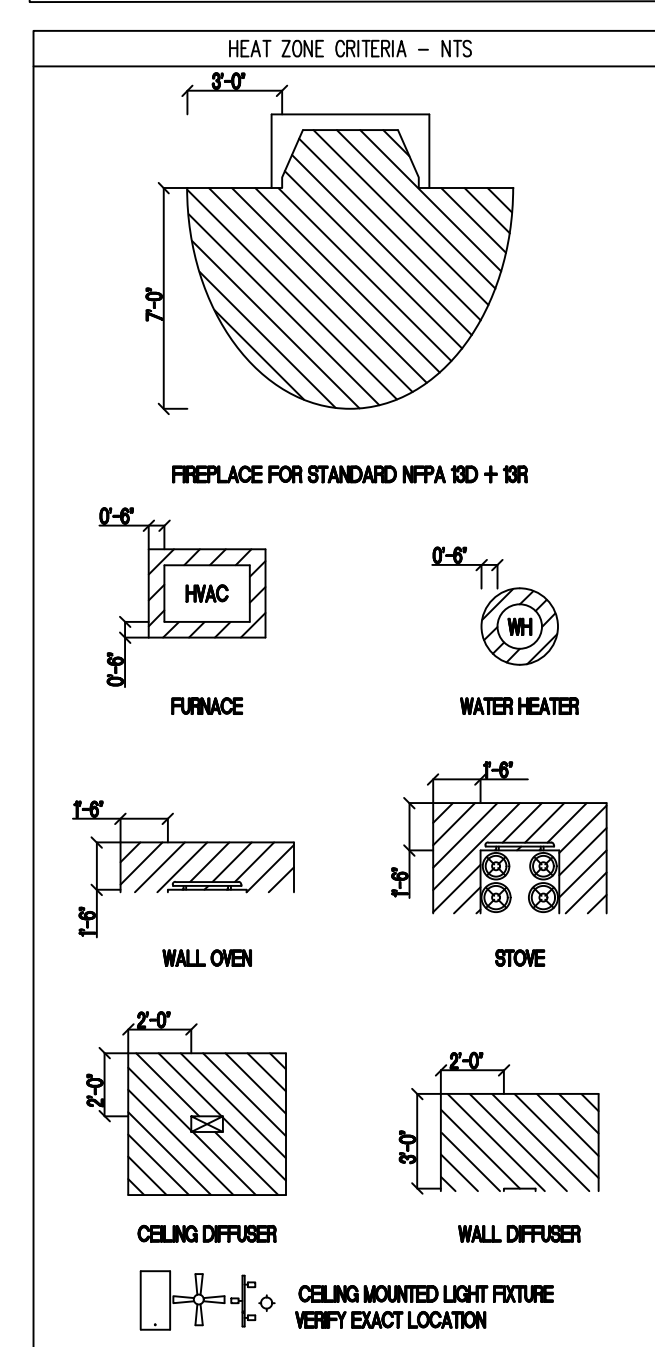
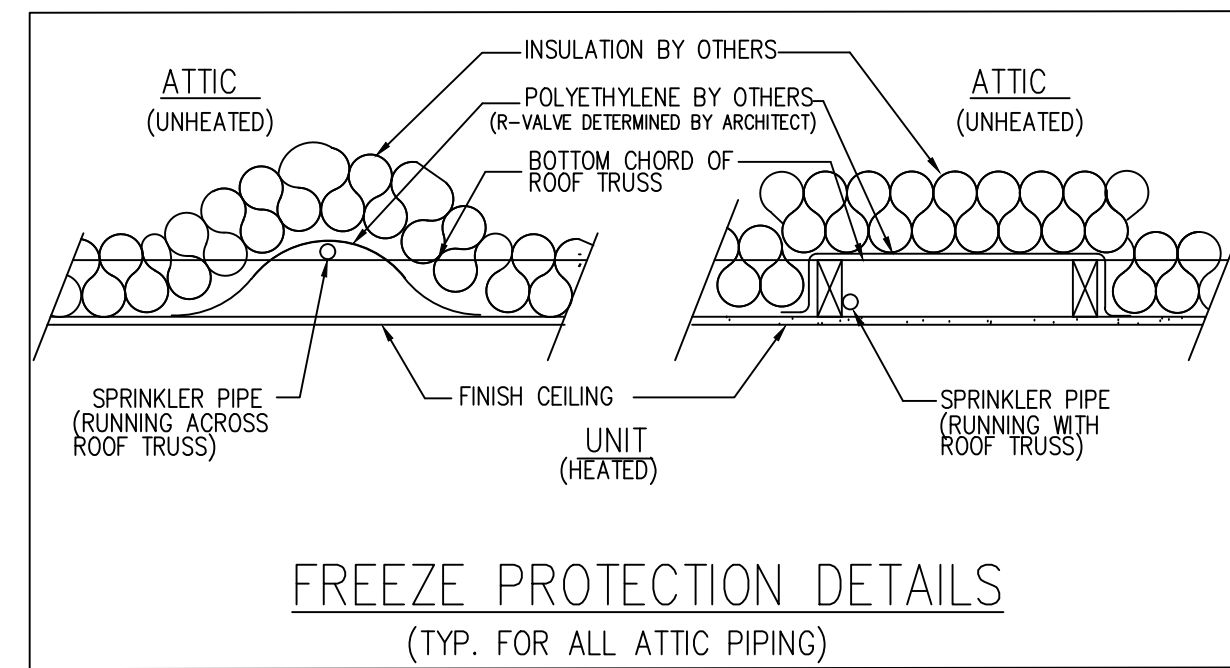
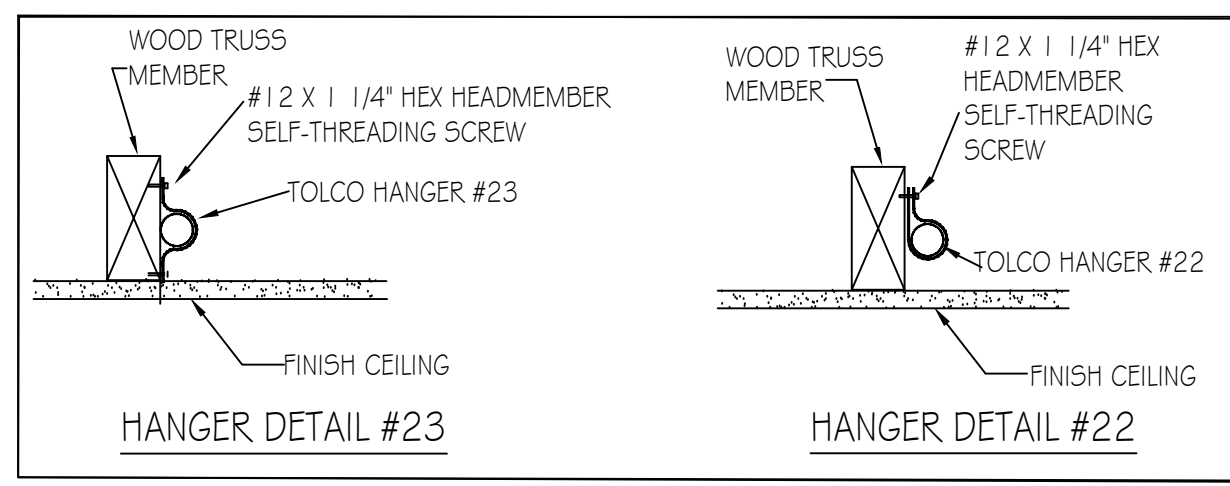


GENERAL NOTES

- THIS WET PIPE FIRE SPRINKLER SYSTEM IS DESIGNED AS LIGHT HAZARD/RESIDENTIAL OCCUPANCY WITH A DESIGN DENSITY OF .05 GPM/2 SPRINKLERS MAX IN ACCORDANCE WITH 13D (2013 EDITION) AND NFPA 13-11.3.1.1.
- HYDRAULIC CALCULATIONS ARE BASED UPON FLOW DATA PERFORMED BY FLSA ON 04/21/2021 AT 4:00PM. HYDRAULIC CALCULATIONS TO BE BASED ON NFPA 13D (2013 EDITION).
- FIRE SPRINKLER OVERHEAD PIPE AND FITTINGS ARE TO BE CPVC PIPE LISTED FOR FIRE PROTECTION USED UNLESS NOTED OTHERWISE.
- ALL HANGERS TO BE U.L. LISTED FOR FIRE PROTECTION SERVICES. HANGERS SHALL BE INSTALLED IN ACCORDANCE WITH THEIR LISTING. SPACING AND LOCATION TO COMPLY WITH NFPA 13.
- ALL EQUIPMENT TO BE U.L. LISTED FOR FIRE PROTECTION SERVICES AND LISTED IN ACCORDANCE WITH ITS LISTING.
- PENDENT SPRINKLERS ARE TO BE SPACED A MAXIMUM OF 18 FT. X 18 FT. AND A MINIMUM OF 8 FT. APART. PENDANTS MAY BE A MAXIMUM OF 9'-0" OFF OF ANY WALL.
- IN AREAS WHERE WET-TYPE SPRINKLER SYSTEM PIPING HAS BEEN INSTALLED, IT IS THE OWNERS' RESPONSIBILITY TO PROVIDE ADEQUATE HEAT. (AMBIENT TEMPERATURE OF A MINIMUM 40°F)
- ALL DRAINAGE TO COMPLY WITH NFPA 13D AND CONTRACT DOCUMENTS.
- [X'-X'] DENOTES CENTERLINE OF PIPE AFF.
- ALL SPRINKLER HEADS SHALL BE LISTED RESIDENTIAL SPRINKLER HEADS IN ACCORDANCE WITH 7.5.1 OF NFPA 13D.
- FLSA POINT OF CONNECTION IS AT 1'-0" AFF.
- UNDERGROUND PIPING TO BE FLUSHED PRIOR TO SPRINKLER PIPE CONNECTION. FLUSHING IS TO BE COMPLETED BY OTHERS.
- PIPING TO SPRINKLER HEADS 1" CPVC UNLESS OTHERWISE NOTED.

NOTE:
SITE HYDRAULIC REFERENCE PLAN HAS BEEN SHOWN FOR REFERENCE ONLY. ALL UNDERGROUND WORK SHALL BE INSTALLED BY UTILITY CONTRACTOR AND INSTALLED IN ACCORDANCE WITH THE CIVIL SITE UTILITY PLAN. FLSA SHALL BEGIN WORK AT 1'-0" ABOVE FINISHED FLOOR.



Sprinkler Design Data

Project Name: OAKHAVEN LOT 06	System: WET
Project Street Address: 256 OAKHAVEN DRIVE	Sys. Sp. Fl.: VARIES
Sub: -	Floor #: 2
Designed By: HALEY WEYANT	Phone: (919) 872-3250
Occupancy: RESIDENTIAL	Hazard: LIGHT/RESIDENTIAL
	Total Bldg. Hgt.: -

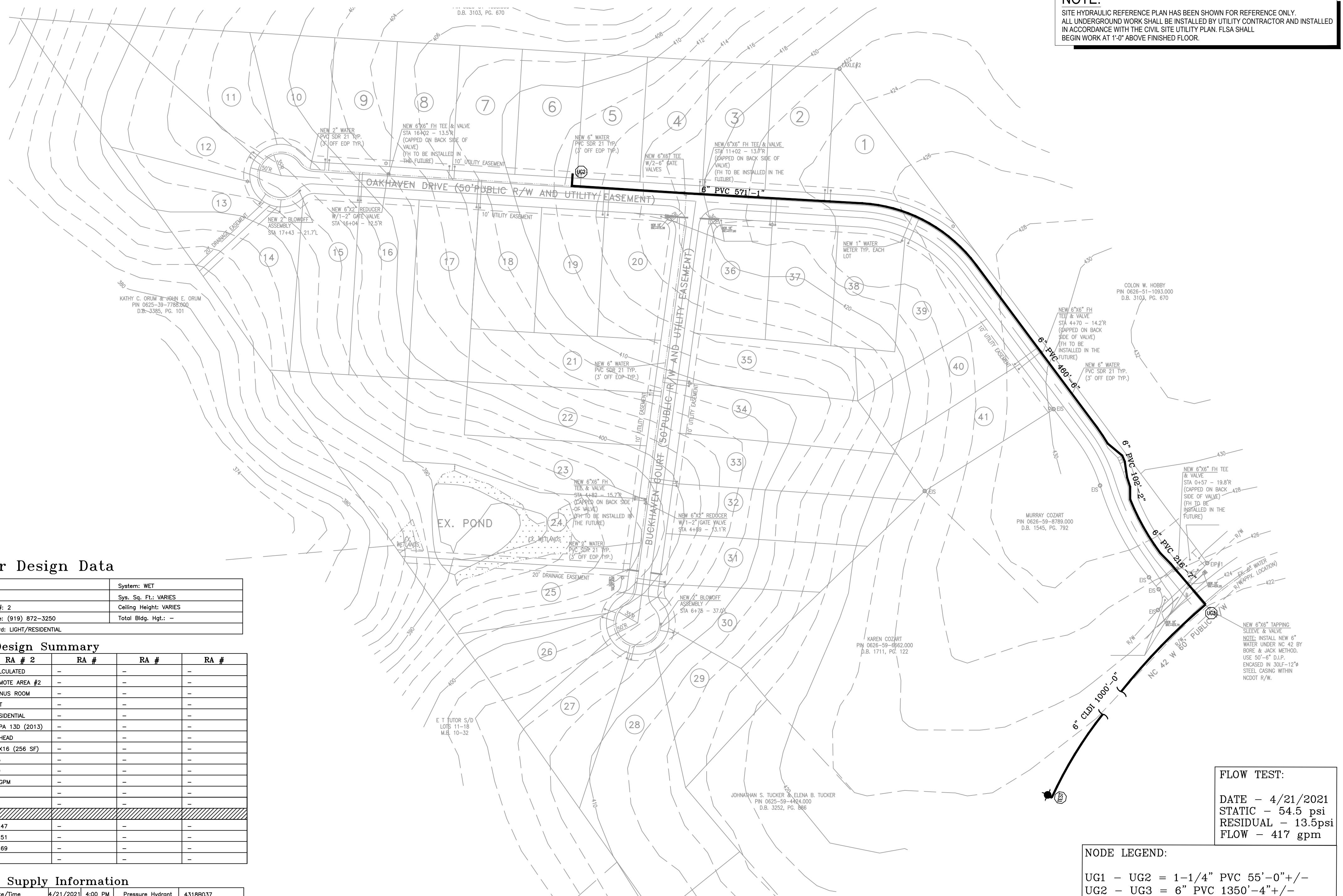
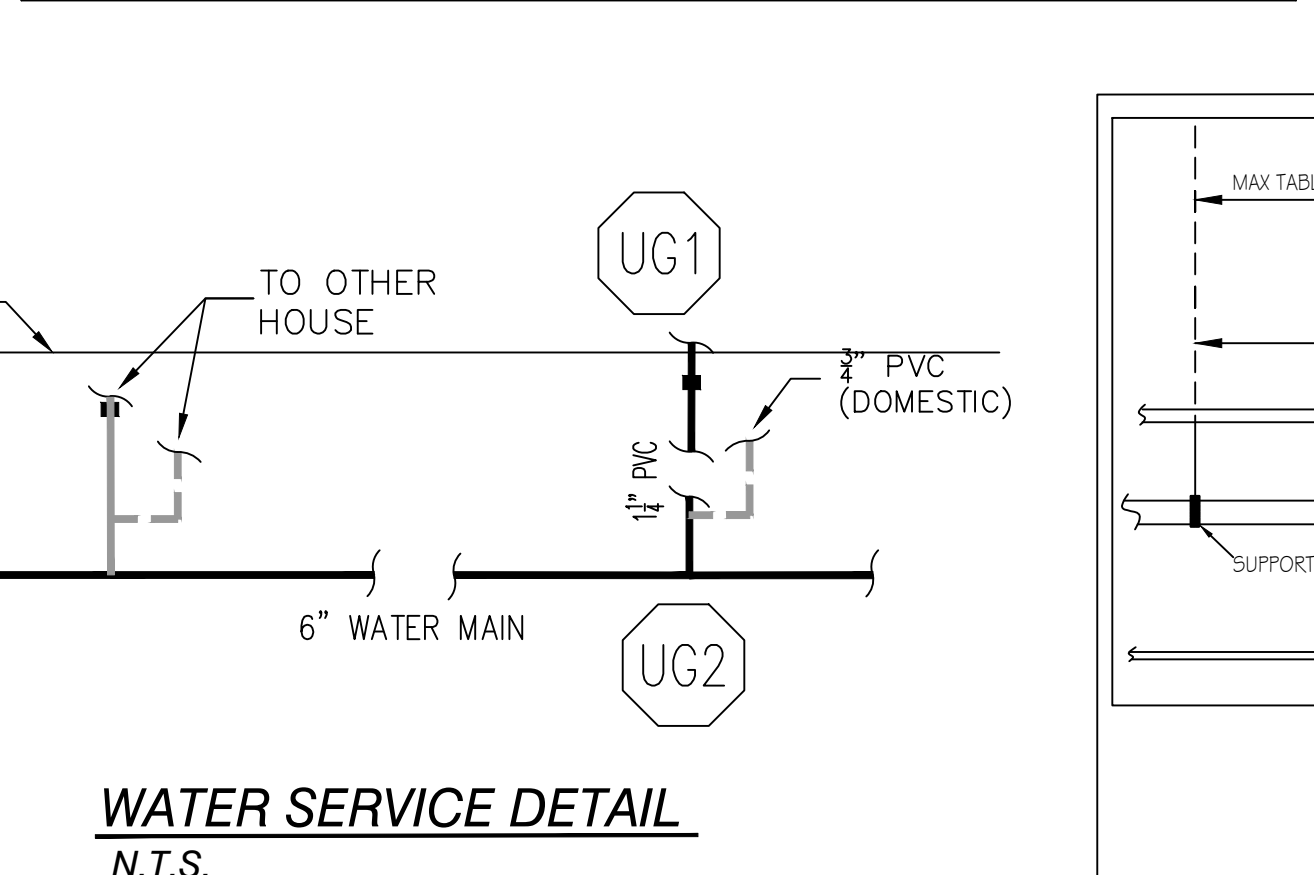
Design Summary

Design Method	RA # 1	RA # 2	RA #	RA #
Design Area #	REMOTE AREA #1	REMOTE AREA #2	-	-
Location	MASTER BEDROOM	BONUS ROOM	-	-
Type of System	WET	WET	-	-
Hazard Class	RESIDENTIAL	RESIDENTIAL	-	-
Criteria Form	NFPA 13D (2013)	NFPA 13D (2013)	-	-
Design Area	1 HEADS	2 HEAD	-	-
Sprinkler Spacing	20X20 (400 SF)	16X16 (256 SF)	-	-
Density	.05	.05	-	-
K-factor	4.9	4.9	-	-
Domestic Flow	3 GPM	3 GPM	-	-
# Design Sprinklers	1	2	-	-
Special Application Spk.	-	-	-	-
Requirement @ TEST	-	-	-	-
G.P.M. Req'd	23.03	29.47	-	-
P.S.I. Req'd	28.48	29.51	-	-
Safety Factor @ TEST	25.82	24.69	-	-
Volume of Dry System	-	-	-	-

Water Supply Information

Tested by	-	Date/Time	4/21/2021 4:00 PM	Pressure Hydrant	43188037
Hydrant Elevation	-	Flow Hydrant	-	Static	-
Static (PSI)	54.5	Residual (PSI)	13.5	Flow (GPM)	417

Copy of Water Test Data Included with Calculation is required



FLOW TEST:
DATE - 4/21/2021
STATIC - 54.5 psi
RESIDUAL - 13.5psi
FLOW - 417 gpm

NODE LEGEND:
UG1 - UG2 = 1-1/4" PVC 55'-0"+/-
UG2 - UG3 = 6" PVC 1350'-4"+/-
UG3 - TEST = 6" CLDI 1000'-0"+/-

SITE PLAN - FOR HYDRAULIC REFERENCE ONLY

N.T.S.

TABLE A - CPVC STANDARD SUPPORT SPACING

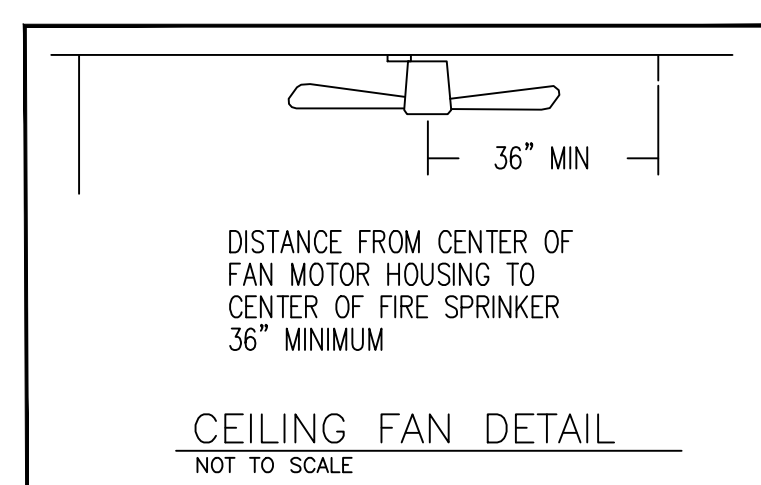
NOMINAL SIZE, INCHES	MAX SUPPORT SPACING, FEET
3/4"	5'-0"
1"	6'-0"
1 1/4"	6'-6"
1 1/2"	7'-0"
2"	8'-0"
2 1/2"	9'-0"
3"	10'-0"

TABLE B - MAX SUPPORT SPACING DISTANCE IN LINE SPRINKLER HEAD DROP TEE

NOMINAL PIPE SIZE, LESS THAN 100 PSI	LESS THAN 100 PSI	MORE THAN 100 PSI
3/4"	4'-0"	3'-0"
1"	5'-0"	4'-0"
1 1/4"	6'-0"	5'-0"
1 1/2" - 3"	7'-0"	7'-0"

TABLE C - MAX SUPPORT SPACING DISTANCE END SPRINKLER HEAD DROP ELBOW

NOMINAL PIPE SIZE, LESS THAN 100 PSI	LESS THAN 100 PSI	MORE THAN 100 PSI
3/4"	4'-0"	3'-0"
1"	5'-0"	4'-0"
1 1/4"	6'-0"	5'-0"
1 1/2" - 3"	7'-0"	7'-0"



SCOPE OF WORK

- FLSA TO BEGIN WORK AT 1'-0" AFF
 - FLSA TO INSTALL AUTOMATIC SPRINKLER SYSTEM UNDER NFPA 13D (2013) TO PROTECT NEW RESIDENTIAL HOME
 - FLSA TO TIE THE NEW SPRINKLER SYSTEM INTO PLUMBING FOR A PASSIVE PURGE SYSTEM.
 - ALL PIPING TO BE CPVC.
 - ALL UNDERGROUND AND RUN-IN BY OTHERS
- THIS FIRE SPRINKLER PLANNING AND DESIGN DRAWING HAS BEEN PREPARED BY FIRE & LIFE SAFETY AMERICA, INC. AS A LICENSED FIRE SPRINKLER CONTRACTOR UNDER ARTICLE 2 OF CHAPTER 87 OR THE GENERAL STATUTES FOR THE STATE OF NORTH CAROLINA.
- EXCLUSIVE USE PURSUANT TO G.S. 89C-25(B) IS FOR FIRE & LIFE SAFETY AMERICA, INC. AND FIRE & LIFE SAFETY AMERICA, INC. SHALL PERFORM ANY AND ALL INSTALLATION WORK AND OTHER WORK PERFORMED IN RELIANCE ON THE DRAWING PURSUANT TO G.S. 55B-15(A)(2).
- INSTALLATION WORK OR ANY OTHER WORK PERFORMED BY ANOTHER PERSON OR ENTITY IN RELIANCE UPON THIS DRAWING OR ANY COPY THEREOF IS STRICTLY PROHIBITED.
- RICHMOND, VA CHESAPEAKE, VA ROANOKE, VA SPRINGFIELD, VA ORLANDO, FL
HOUSTON, TX SAN ANTONIO, TX DALLAS, TX AUSTIN, FL
CHARLOTTE, NC RALEIGH, NC BALTIMORE, MD ATLANTA, GA
- 1731 Round Rock Drive
Raleigh, NC 27615
PHONE (919) 872-3250
FAX (919) 877-5775
- FLSA
FIRE & LIFE SAFETY AMERICA
PROTECTING AMERICA
- JONATHAN STIBILA
LEVEL III AUTOMATIC SPRINKLER SYSTEMS
#111897
- NORTH CAROLINA STATE LICENSE #29733
PERMIT NUMBER: SFD2011-0003
- COPYRIGHT FIRE & LIFE SAFETY AMERICA, INC. ALL RIGHTS RESERVED.

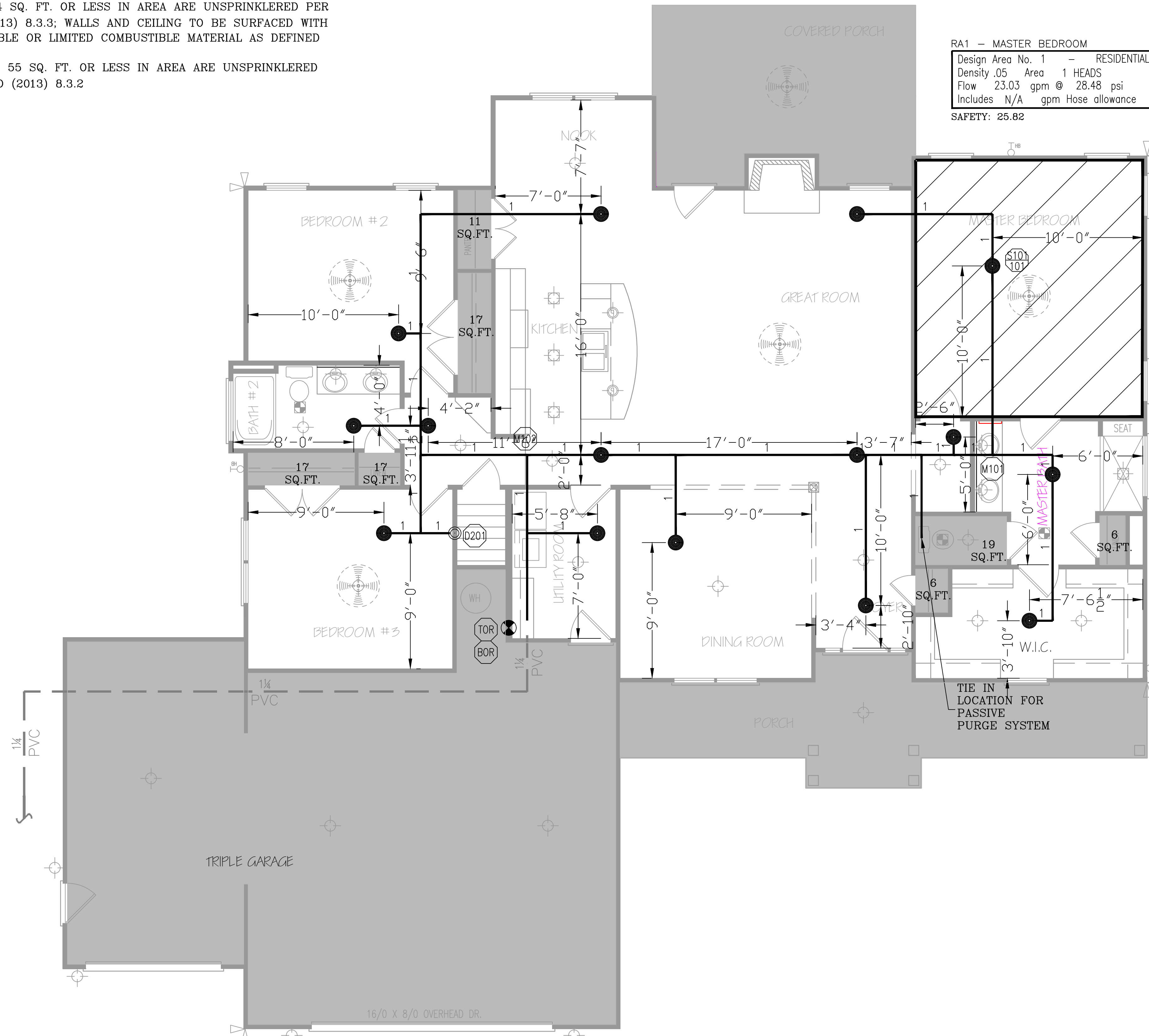
	SYSTEM DESIGN CRITERIA TYPE SYSTEM: <input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY <input type="checkbox"/> DELUGE <input type="checkbox"/> NFPA STANDARD: <input type="checkbox"/> #13 <input checked="" type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22 <input type="checkbox"/> PREACTION <input type="checkbox"/> ANTI-FREEZE OCCUPANCY: RESIDENTIAL HAZARD: LIGHT PIPE DR REQUIRED: NO MAXIMUM SPACING: VARIES LOCAL HOSE THREADS: N.S.T. SLEEVES REQUIRED: NO SPRINKLERS ARE REQUIRED TO BE LOCATED IN THE CENTER OF THE CEILING TILES.	APPROVING AGENCIES APPROVING AUTHORITY: HARNETT COUNTY UNDERWRITER: N/A GENERAL CONTRACTOR: WATERMARK HOMES ADDRESS: 1303 FT BRAGG ROAD SUITE 201 CITY & STATE: FAYETTEVILLE NC, 28305 PHONE NO.: (910) 483-2229 FAX NO.:	GENERAL NOTES 1. Freeze Protection: The owner is responsible for maintaining a min. of 40°F temperature for all wet systems and portions of other systems containing water. 2. M.I.C. Protection: The owner is responsible for all detection testing prevention. 3. Design is subject to minor deviations arising from field conditions and/or trade coordination. Such deviations shall not affect code compliance or scope of work and shall not require resubmittal except in "as-built" if required by contract documents. 4. Underground provider to ensure lead-in is plumb, 2-bolt, rod, threaded, flashed, thrust blocked and a fully executed underground test certificate required per NFPA to be provided to FLSA prior to connection. FLSA is not responsible for damage to its system or components due to debris entering the system from underground water lines provided "by others". 5. This drawing is property of Fire and Life Safety America and is not to be duplicated and/or distributed without written authorization from FLSA. 6. Hydrostatic testing will only be performed with water or air depending on adequate temperature. Any other form of testing is excluded.	LEGEND Symbol Description ○ Hydraulic Reference Point * 18" BTS Elev. Below Top of Steel * 12'-0" AFF Elev. Above Finished Floor * TOS 12'-0" Elev. of Top of Steel (10'-0") Ceiling Height Denotes Hanger Location Denotes Setback Support Room name or use Sleeve Location FLSA Start Point	SPRINKLER SUMMARY <table border="1"> <thead> <tr> <th>SYMBOL</th> <th>TYPE</th> <th>FINISH</th> <th>TEMP</th> <th>ORIF</th> <th>"K"</th> <th>NPT</th> <th>MANUF</th> <th>SIN#</th> <th>ESCUTCHEON</th> <th>QTY.</th> </tr> </thead> <tbody> <tr> <td>○</td> <td>RES. PENDENT</td> <td>WHITE</td> <td>200P</td> <td>1/2"</td> <td>4.9</td> <td>1/2"</td> <td>VIKING</td> <td>VK494</td> <td>CNCEALED</td> <td>0</td> </tr> <tr> <td>* 18" BTS</td> <td>Elev. Below Top of Steel</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>* 12'-0" AFF</td> <td>Elev. Above Finished Floor</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>* TOS 12'-0"</td> <td>Elev. of Top of Steel</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>(10'-0")</td> <td>Ceiling Height</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>○</td> <td>Denotes Hanger Location</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>○</td> <td>Denotes Setback Support</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>□</td> <td>Room name or use</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>○</td> <td>Sleeve Location</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>○</td> <td>FLSA Start Point</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> </tbody> </table>	SYMBOL	TYPE	FINISH	TEMP	ORIF	"K"	NPT	MANUF	SIN#	ESCUTCHEON	QTY.	○	RES. PENDENT	WHITE	200P	1/2"	4.9	1/2"	VIKING	VK494	CNCEALED	0	* 18" BTS	Elev. Below Top of Steel									0	* 12'-0" AFF	Elev. Above Finished Floor									0	* TOS 12'-0"	Elev. of Top of Steel									0	(10'-0")	Ceiling Height									0	○	Denotes Hanger Location									0	○	Denotes Setback Support									0	□	Room name or use									0	○	Sleeve Location									0	○	FLSA Start Point									0	GRAPHIC SCALE: 1/8" = 1'-0" REVISIONS <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>4/22/2021</td> <td>SUBMITTAL TO AHJ</td> <td>HCW</td> </tr> </tbody> </table>	DATE	DESCRIPTION	BY	4/22/2021	SUBMITTAL TO AHJ	HCW	JOB #: 21NC1514 DATE: 4/12/2021 DRAWN BY: H. WEYANT SCALE: AS NOTED DRAWING #: FP1 HYD. SITE PLAN, GENERAL NOTES & DETAILS OAK HAVEN LOT 06 256 OAK HAVEN DRIVE HOLLY SPRINGS, NC 27540 OF 2
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- NOTES:**
- PORCHES AND GARAGES ARE OMITTED PER NFPA 13D (2013) 8.3.4
 - CLOSETS 24 SQ. FT. OR LESS IN AREA ARE UNSPRINKLERED PER NFPA 13D (2013) 8.3.3; WALLS AND CEILING TO BE SURFACED WITH NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIAL AS DEFINED BY NFPA 220
 - BATHROOMS 55 SQ. FT. OR LESS IN AREA ARE UNSPRINKLERED PER NFPA 13D (2013) 8.3.2

SPRINKLER LEGEND

- NO HEADS REQUIRED
- REMOTE AREA

RA1 - MASTER BEDROOM
 Design Area No. 1 - RESIDENTIAL
 Density .05 Area 1 HEADS
 Flow 23.03 gpm @ 28.48 psi
 Includes N/A gpm Hose allowance
 SAFETY: 25.82

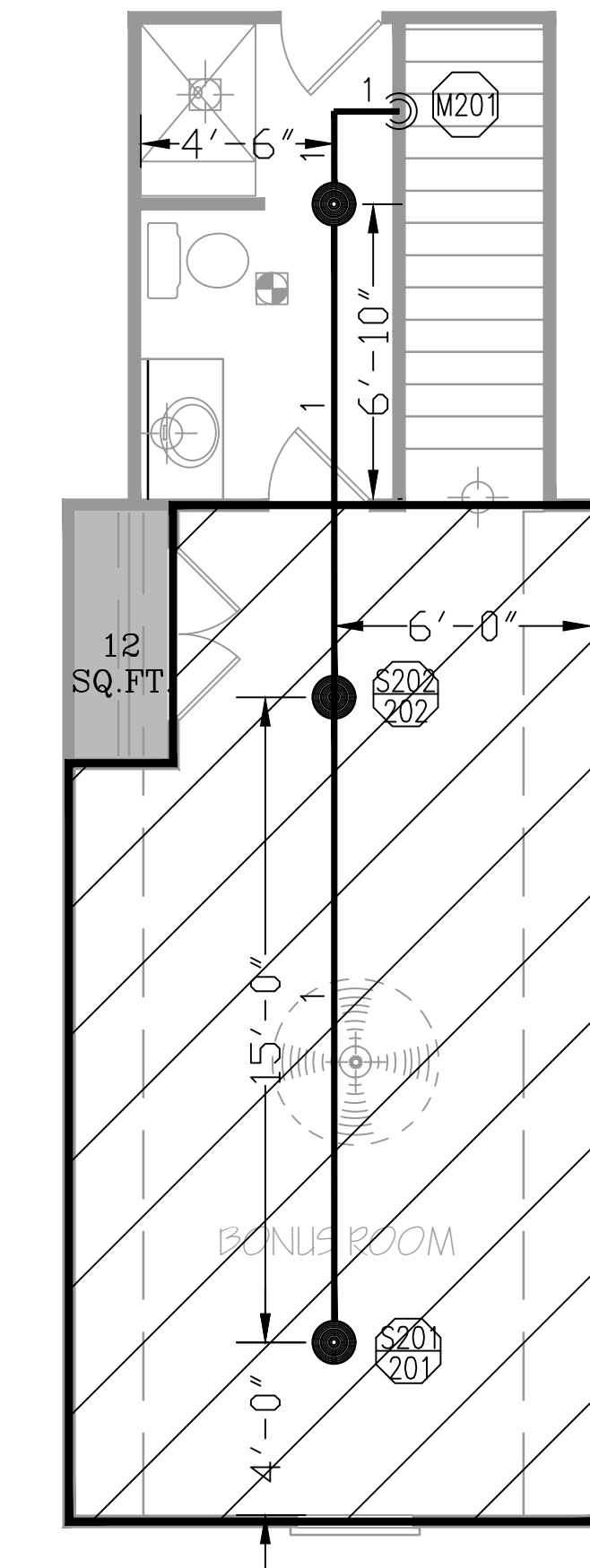


LEVEL 1 - SPRINKLER PLAN

1/4" = 1' - 0"

LEVEL 2 - SPRINKLER PLAN

1/4" = 1' - 0"



RA2 - BONUS ROOM
 Design Area No. 2 - RESIDENTIAL
 Density .05 Area 2 HEADS
 Flow 29.47 gpm @ 29.51 psi
 Includes N/A gpm Hose allowance
 SAFETY: 24.69

THIS FIRE SPRINKLER PLANNING AND DESIGN DRAWING HAS BEEN PREPARED BY FIRE & LIFE SAFETY AMERICA, INC. AS A LICENSED FIRE SPRINKLER CONTRACTOR UNDER ARTICLE 2 OF CHAPTER 87 OR THE GENERAL STATUTES FOR THE STATE OF NORTH CAROLINA.
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LEVEL 1 - SPRINKLER PLAN

1/4" = 1' - 0"

SYSTEM DESIGN CRITERIA		APPROVING AGENCIES		GENERAL NOTES		LEGEND		SPRINKLER SUMMARY		REVISIONS		RICHMOND, VA		CHESAPEAKE, VA		ROANOKE, VA		SPRINGFIELD, VA		ORLANDO, FL	
TYPE SYSTEM: <input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY <input type="checkbox"/> DELUGE	NFPA STANDARD: <input type="checkbox"/> #13 <input checked="" type="checkbox"/> #13D <input type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22	APPROVING AUTHORITY: HARNETT COUNTY	UNDERWRITER: N/A	1. Freeze Protection: The owner is responsible for maintaining a min. of 40° F temperature for all wet systems and portions of other systems containing water.	Symbol	DESCRIPTION	SYM	TYPE	FINISH	TEMP	ORIF	"K"	NPT	MANUF.	SIN#	ESCUTCHEON	QTY.	DATE	DESCRIPTION	BY	1731 Round Rock Drive Raleigh, NC 27615 PHONE (919) 872-3250 FAX (919) 877-5775
OCCUPANCY: RESIDENTIAL	HAZARD: LIGHT	PIPE ID REQUIRED: NO	GENERAL CONTRACTOR: WATERMARK HOMES	2. M.I.C. Protection: The owner is responsible for all detection/testing/prevention.	Hydraulic Reference Point	Elev. Below Top of Steel	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494	CONCEALED	18	4/22/2021	SUBMITTAL TO AHJ	HCW		FLSA
MAXIMUM SPACING: VARIES	LOCAL HOSE THREADS: N.S.T.	SLEEVES REQUIRED: NO	ADDRESS: 1303 FT BRAGG ROAD SUITE 201	3. Design is subject to minor deviations arising from field conditions and/or trade coordination. Such deviations shall not affect code compliance or scope of work and shall not require resubmittal except in "as-built" if required by contract documents.	12'-0" AFF	Elev. Above Finished Floor															LEVEL 1 & 2 - SPRINKLER PLAN
PIPE TYPES AND FITTING TYPES			CITY & STATE: FAYETTEVILLE NC, 28305	4. Underground provider to ensure lead-in is plumbed, 2-bolted, rod-died, flashed, thrust blocked and a fully executed underground test certificate required per NFPA to be provided to FLSA prior to connection. FLSA is not responsible for damage to its system or components due to debris entering the system from underground water lines provided "by others".	+ TOS 12'-0"	Elev. of Top of Steel															OAK HAVEN LOT 06
LINE PIPING: CPVC	LINE FITTINGS: CPVC		PHONE NO.: (910) 483-2229	5. This drawing is property of Fire and Life Safety America and is not to be duplicated and/or distributed without written authorization from FLSA.	Calling Height																256 OAK HAVEN DRIVE
MAIN PIPING: CPVC	MAIN FITTINGS: CPVC		FAX NO.:	6. Hydrostatic testing will only be performed with water or air depending on adequate temperature. Any other form of testing is excluded.	Denotes Hanger Location																HOLLY SPRINGS, NC 27540
																				DRAWING #: FP 2	
																				SCALE: AS NOTED	
																				TOTAL SPRINKLERS THIS PROJECT: 18	
																				TOTAL SPRINKLERS THIS DRAWING: 18	



PERMIT NUMBER: SFD2011-0003



LEVEL 1 & 2 - SPRINKLER PLAN
 OAK HAVEN LOT 06
 256 OAK HAVEN DRIVE
 HOLLY SPRINGS, NC 27540