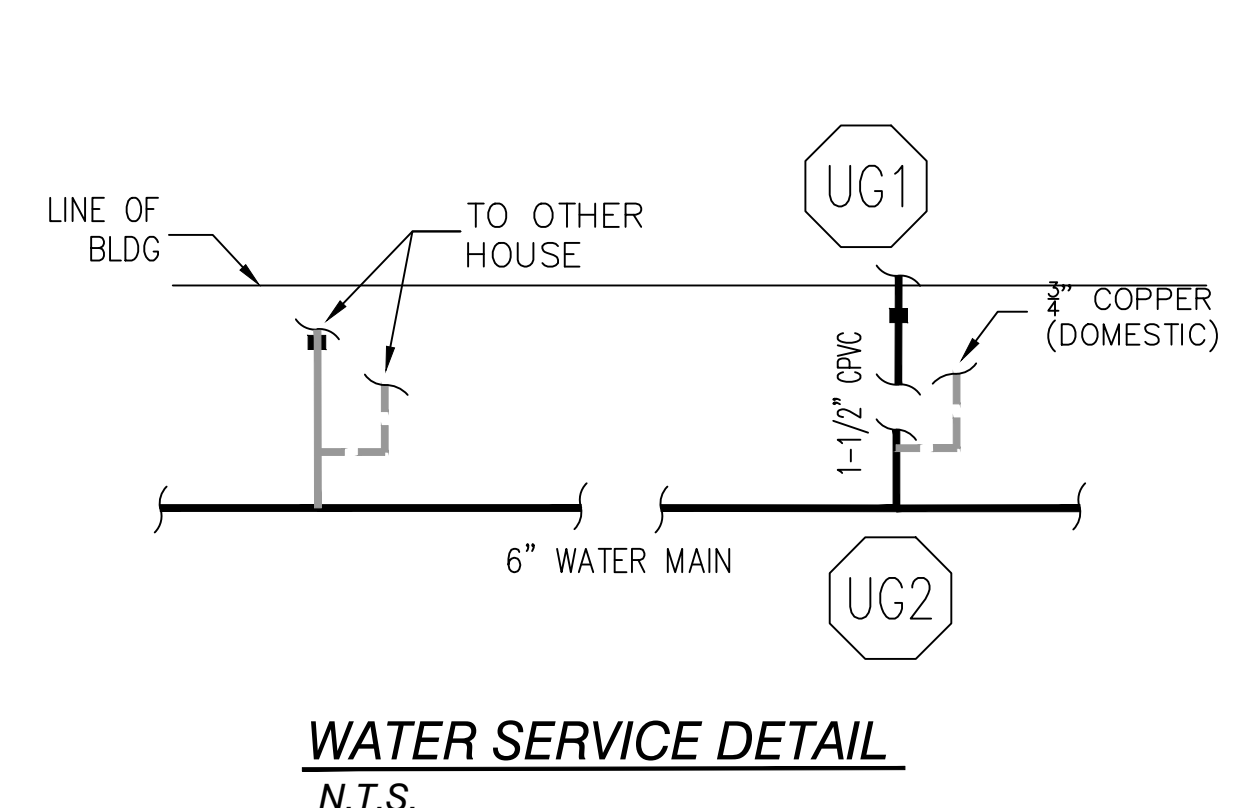
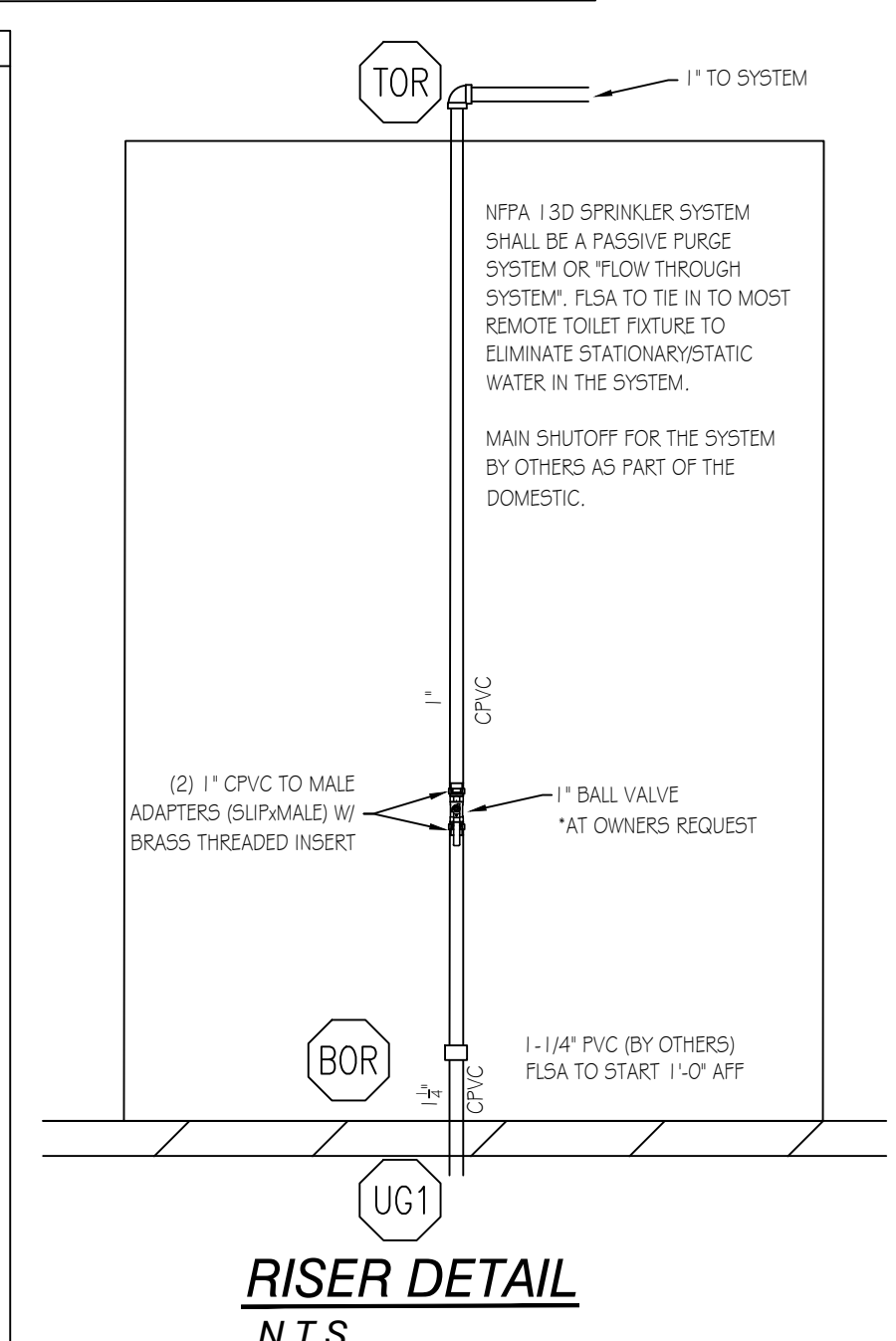
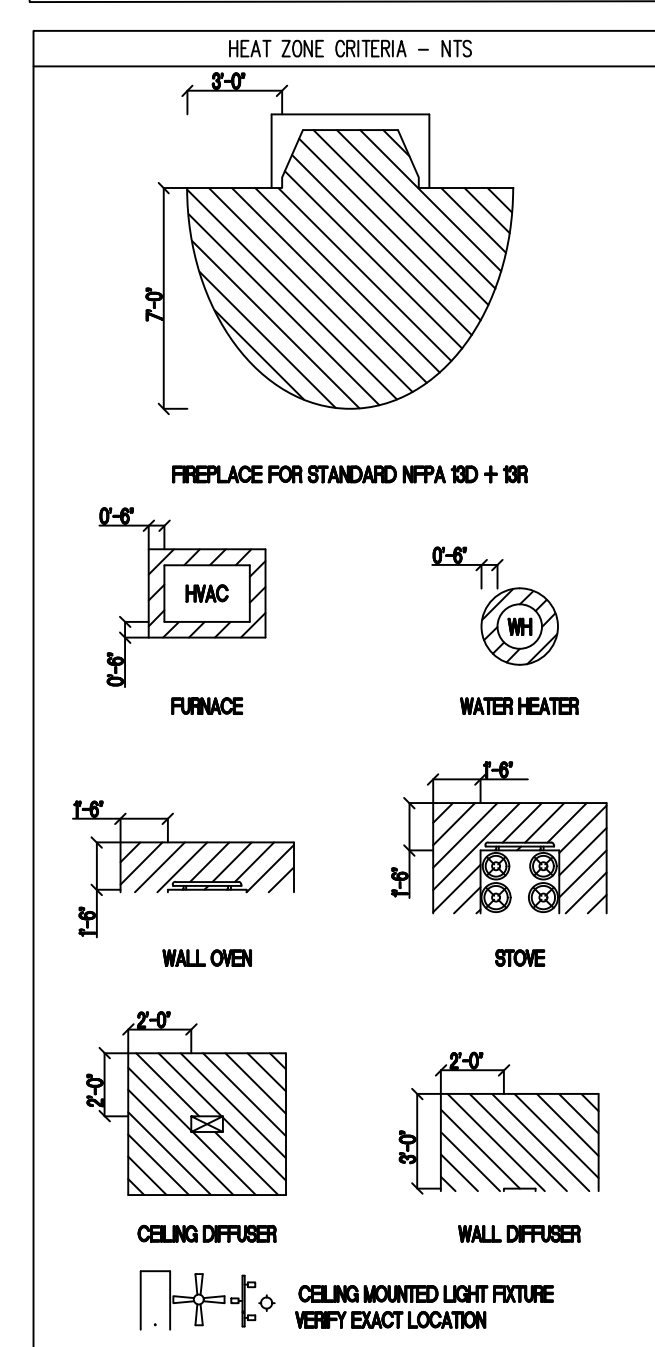
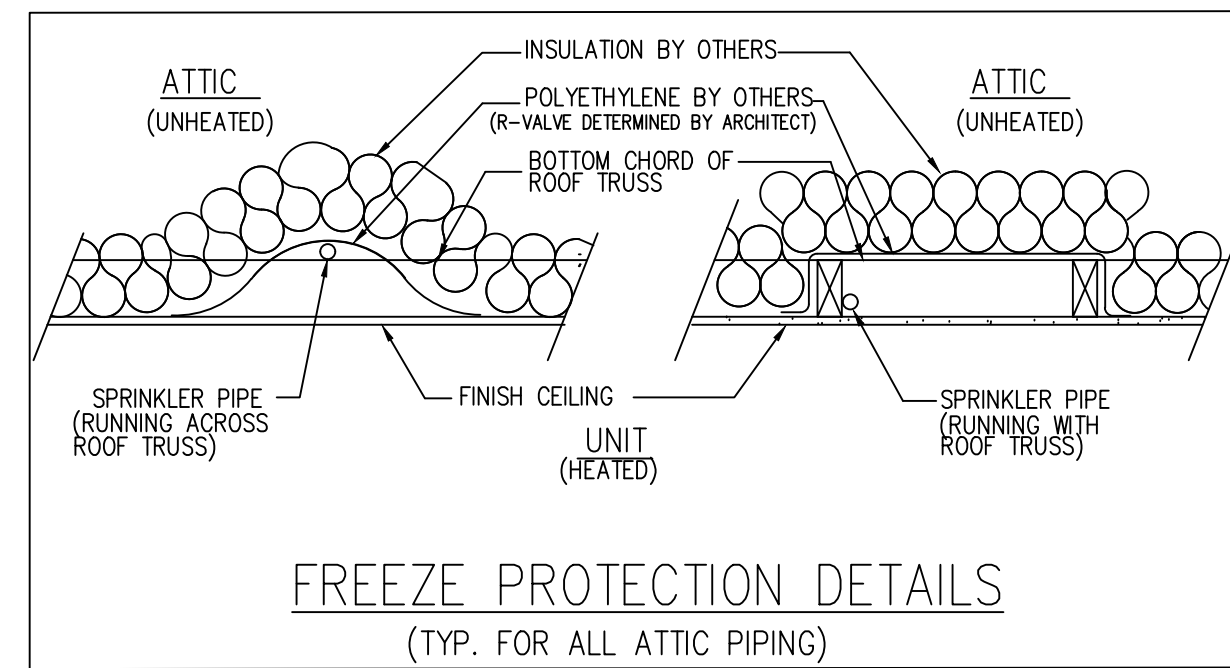
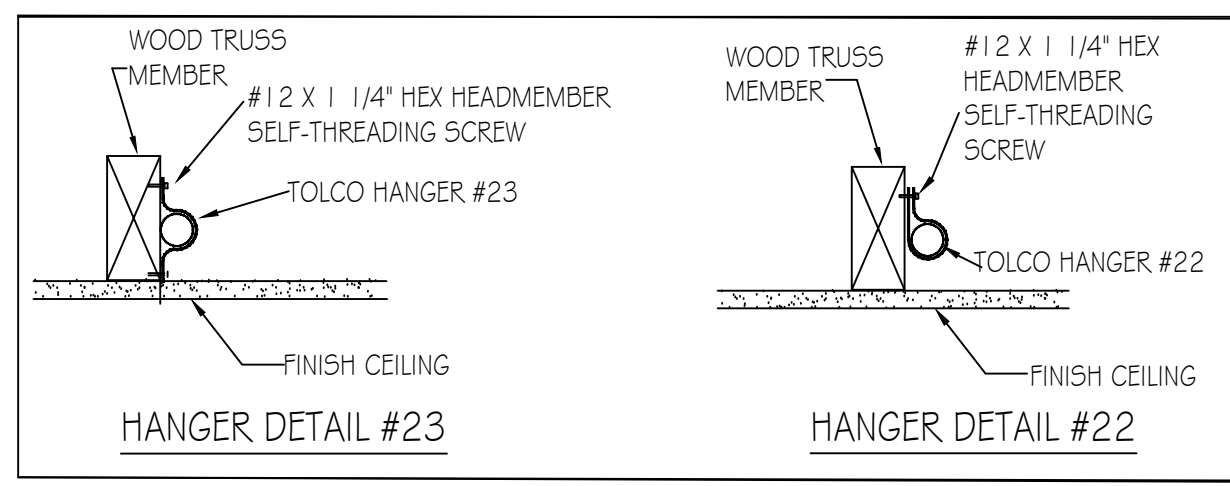


GENERAL NOTES

- 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 41	System: WET
Project Street Address: 83 OAKHAVEN DRIVE	Sys. Sq. Ft.: VARIES
Floor #: 2	Ceiling Height: VARIES
Designed By: HALEY WEYANT	Phone: (919) 872-3250
Occupancy: RESIDENTIAL	Hazard: LIGHT/RESIDENTIAL

Design Summary

Design Method	RA # 1	RA # 2	RA #	RA #
Design Area #	REMOTE AREA #1	REMOTE AREA #2	-	-
Location	MASTER BEDROOM	KITCHEN	-	-
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	29.05	-	-
P.S.I. Req'd	29.25	25.85	-	-
Safety Factor @ TEST	25.05	28.36	-	-
Volume of Dry System	-	-	-	-

Water Supply Information

Tested by	-	Date/Time	4/21/2021 4:00 pm	Pressure Hydrant	49188037
Hydrant Elevation	-	Flow Hydrant	13.5	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" PEX 55'-0"+/-
UG2 - UG3 = 6" PVC 470'-3"+/-
UG3 - TEST = 6" PVC 1000'-0"+/-

SITE PLAN - FOR HYDRAULIC REFERENCE ONLY

TABLE A - CPVC STANDARD SUPPORT SPACING

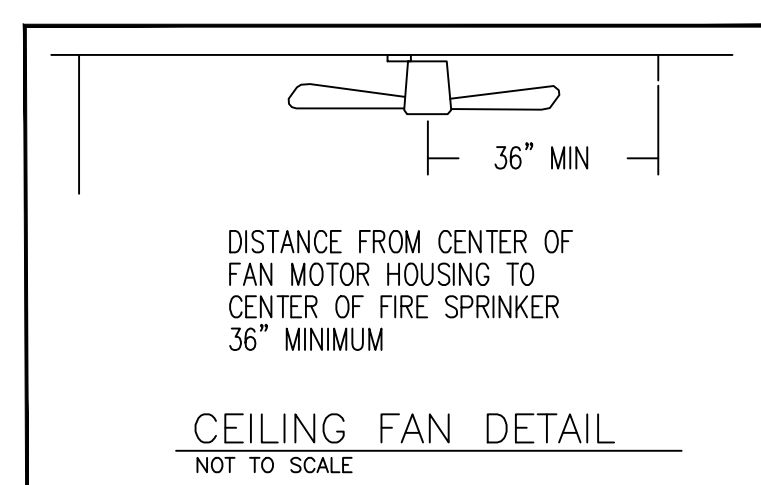
NOMINAL SIZE, INCHES	MAX SUPPORT SPACING, FEET
3/4"	5'-0"
1"	6'-0"
1 1/4"	6'-6"
1 1/2"	7'-0"
2"	8'-0"
2 1/2"	9'-0"
3"	10'-0"

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(8) IS FOR FIRE & LIFE SAFETY AMERICA, INC. AND 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
CHARLOTTE, NC
- CHESTERFIELD, VA
RALEIGH, NC
- ROANOKE, VA
BALTIMORE, MD
- SPRINGFIELD, VA
ATLANTA, GA
- ORLANDO, FL
AUSTIN, FL
- 1731 Round Rock Drive
Raleigh, NC 27615
PHONE (919) 872-3250
FAX (919) 877-5775
- FLSA
FIRE & LIFE SAFETY AMERICA
PROTECTING AMERICA
- JONATHAN STEBILA
LEVEL III AUTOMATIC SPRINKLER SYSTEMS
#111897
- NORTH CAROLINA STATE LICENSE #29733
PERMIT NUMBER: SFD2011-0043
- COPYRIGHT FIRE & LIFE SAFETY AMERICA, INC. ALL RIGHTS RESERVED.

SYSTEM DESIGN CRITERIA	APPROVING AGENCIES	GENERAL NOTES	LEGEND	SPRINKLER SUMMARY	GRAPHIC SCALE	REVISIONS	DATE	DESCRIPTION	BY
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"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22 <input type="checkbox"/> PREACTION <input type="checkbox"/> ANTI-FREEZE	APPROVING AUTHORITY: HARNETT COUNTY	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 plumbed, 2-holed, redded, 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.	Symbol Description Hydraulic Reference Point 18" BTS 12'-0" AFF TOS 12'-0" Calling Height Denotes Hanger Location Denotes Setback Support Room name or use Sleeve Location FLSA Start Point	TYPE: RES. PENDENT FINISH: WHITE TEMP: 200° ORIF: 1/2" K: 4.9 NPT: 1/2" MANUF: VIKING SIN# : VK494 ESCUTCHEON: CONCEALED	0 4 8 16 32 GRAPHIC SCALE: 1/8" = 1'-0"	DATE: 6/1/2021 SUBMITTAL TO AHJ	6/4/2021	SUBMITTAL TO AHJ	HCW
OCCUPANCY: RESIDENTIAL HAZARD: LIGHT LOCAL HOSING: N.S.T. PIPE REQUIRED: NO MAXIMUM SPACING: VARIES SPRINKLERS ARE REQUIRED TO BE LOCATED IN THE CENTER OF THE CEILING TILES.	UNDERWRITER: N/A			TOTAL SPRINKLERS THIS PROJECT: 17 TOTAL SPRINKLERS THIS DRAWING: 0					
PIPE TYPES AND FITTING TYPES LINE PIPING: CPVC LINE FITTINGS: CPVC MAIN PIPING: CPVC MAIN FITTINGS: CPVC	GENERAL CONTRACTOR: WATERMARK HOMES ADDRESS: 1303 FT BRAGG ROAD SUITE 201 CITY & STATE: FAYETTEVILLE, NC 28305 PHONE NO.: (910) 483-2229 FAX NO.:								

OAKHAVEN LOT 41
83 OAKHAVEN DR.
HOLLY SPRINGS, NC 27540

FP 1
OF 2

NOTES:

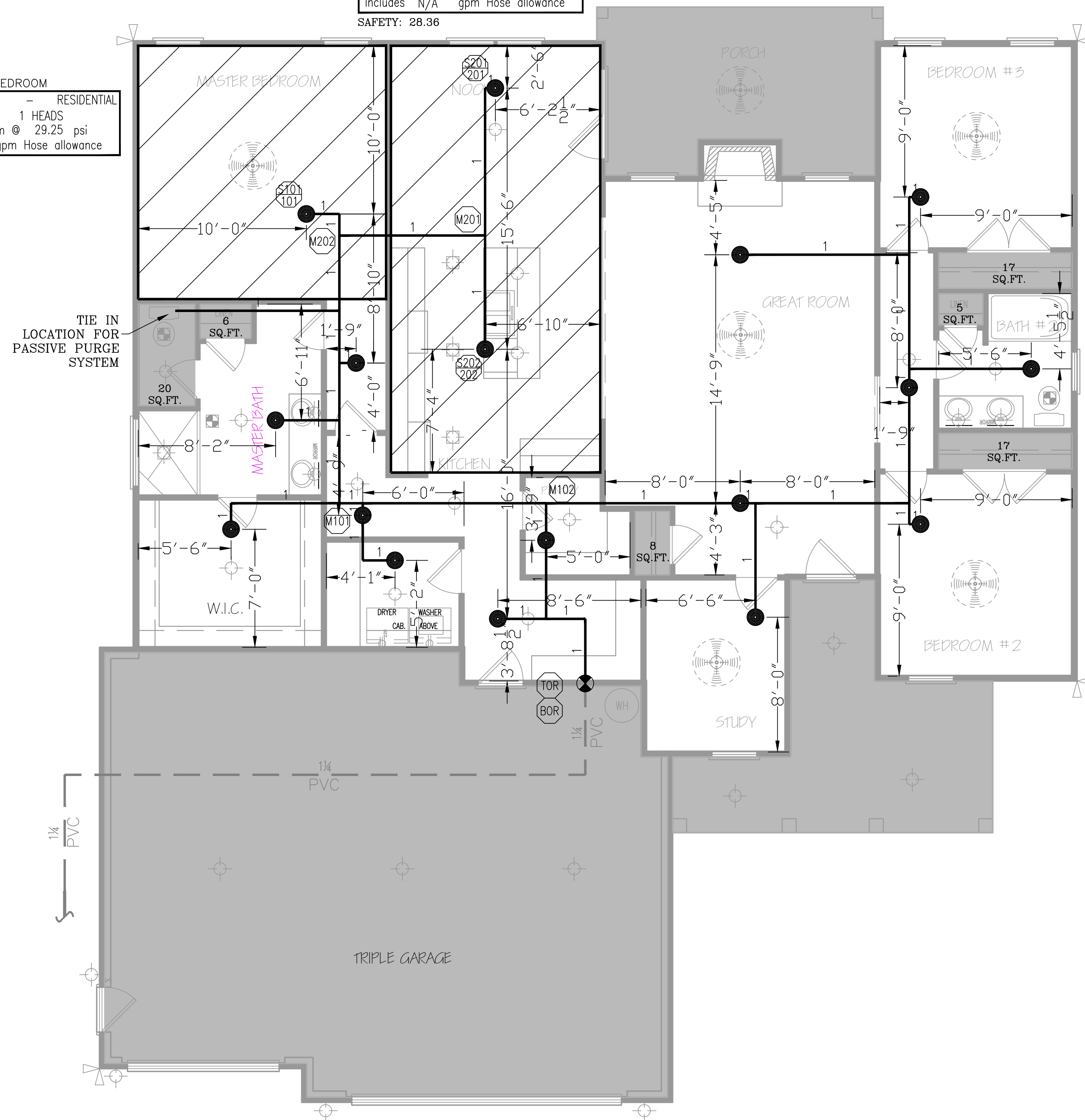
- PORCHES AND GARAGES ARE OMITTED PER NFPA 13D (2013) 8.3.4
- CLOSETS 24 SQ. FT. OR LESS IN AREA ARE UNSPRINKLERED PER NFPA 13D (2013) 8.3.3; WALLS AND CEILING TO BE SURFACED WITH NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIAL AS DEFINED BY NFPA 220
- BATHROOMS 55 SQ. FT. OR LESS IN AREA ARE UNSPRINKLERED 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 @ 29.25 psi
 Includes N/A gpm Hose allowance
 SAFETY: 25.05

RA2 - KITCHEN
 Design Area No. 2 - RESIDENTIAL
 Density .05 Area 2 HEADS
 Flow 29.05 gpm @ 25.85 psi
 Includes N/A gpm Hose allowance
 SAFETY: 28.36



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).

INSTALLATION WORK OR ANY OTHER WORK PERFORMED BY ANOTHER PERSON OR ENTITY IN RELIANCE UPON THIS DRAWING OR ANY COPY THEREOF IS STRICTLY PROHIBITED.

COPYRIGHT FIRE & LIFE SAFETY AMERICA, INC. ALL RIGHTS RESERVED.

LEVEL 1 - SPRINKLER PLAN

1/4" = 1' - 0"



JONATHAN STERBELA
 LEVEL III AUTOMATIC SPRINKLER SYSTEMS
 #111897
 NORTH CAROLINA STATE LICENSE #29733
 PERMIT NUMBER: SFD2011-0043

SYSTEM DESIGN CRITERIA	
TYPE SYSTEM: <input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY <input type="checkbox"/> DELUGE <input type="checkbox"/> PREACTION <input type="checkbox"/> ANTI-FREEZE	NFPA STANDARD: <input type="checkbox"/> #13 <input type="checkbox"/> #13D <input type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22 <input type="checkbox"/> #24 <input type="checkbox"/> #231 <input type="checkbox"/> #231C <input type="checkbox"/> #15 <input type="checkbox"/> #16 <input type="checkbox"/> #409
OCCUPANCY: RESIDENTIAL	HAZARD: LIGHT
MAXIMUM SPACING: VARIES	LOCAL HOSE THREADS: N.S.T.
PIPE TYPES AND FITTING TYPES	PIPE ID REQUIRED: NO
LINE PIPING: CPVC	LINE FITTINGS: CPVC
MAIN PIPING: CPVC	MAIN FITTINGS: CPVC

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

- 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.
- M.I.C. Protection: The owner is responsible for all detection/testing prevention.
- 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.
- Underground provider to ensure lead-in is plumbed, 2-hole, red-die, threaded, 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".
- This drawing is property of Fire and Life Safety America and is not to be duplicated and/or distributed without written authorization from FLSA.
- Hydrostatic testing will only be performed with water or air depending on adequate temperature. Any other form of testing is excluded.

LEGEND	
	Hydraulic Reference Point
	Elev. Below Top of Steel
	Elev. Above Finished Floor
	Elev. of Top of Steel
	Calling Height
	Denotes Hanger Location
	Denotes Seismic Support
	Room name or use
	Stave Location
	FLSA Start Point

SPRINKLER SUMMARY											
SYMBOL	DESCRIPTION	TYPE	FINISH	TEMP	ORIF	"K"	NPT	MANUF.	SIN#	ESCUTCHEON	QTY.
	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494		CONCEALED	17
TOTAL SPRINKLERS THIS PROJECT											17
TOTAL SPRINKLERS THIS DRAWING											17

REVISIONS		
NO.	DATE	DESCRIPTION
1	6/4/2021	SUBMITTAL TO AHJ

RICHMOND, VA HOUSTON, TX CHARLOTTE, NC	CHESAPEAKE, VA SAN ANTONIO, TX RALEIGH, NC	ROANOKE, VA DALLAS, TX BALTIMORE, MD	SPRINGFIELD, VA AUSTIN, FL ATLANTA, GA	1731 Round Rock Drive Raleigh, NC 27615 PHONE (919) 872-3250 FAX (919) 877-5775	
JOB #: 21NC1524 DATE: 6/1/2021 DRAWN BY: H. WEYANT SCALE: AS NOTED					DRAWING #: OAKHAVEN LOT 41 83 OAKHAVEN DR. HOLLY SPRINGS, NC 27540 OF 2