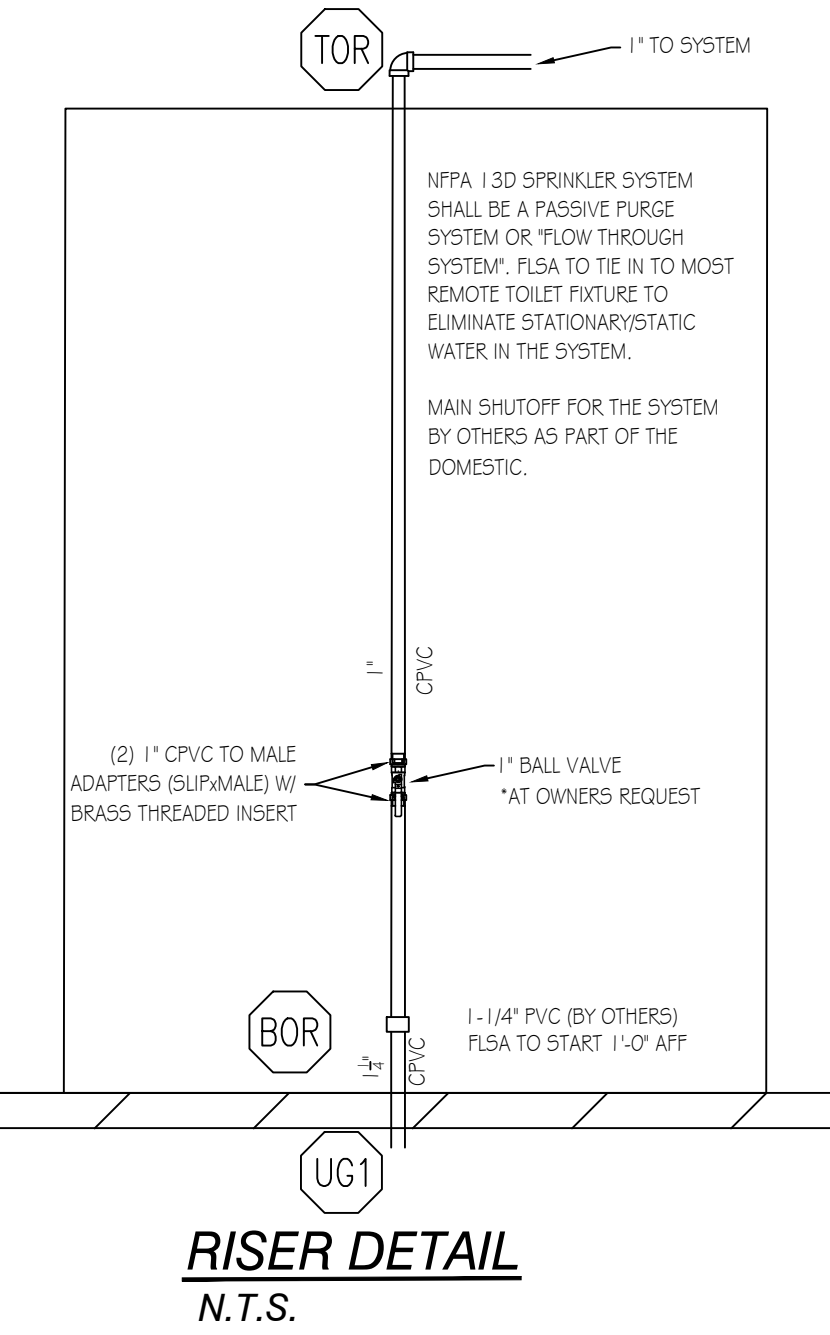
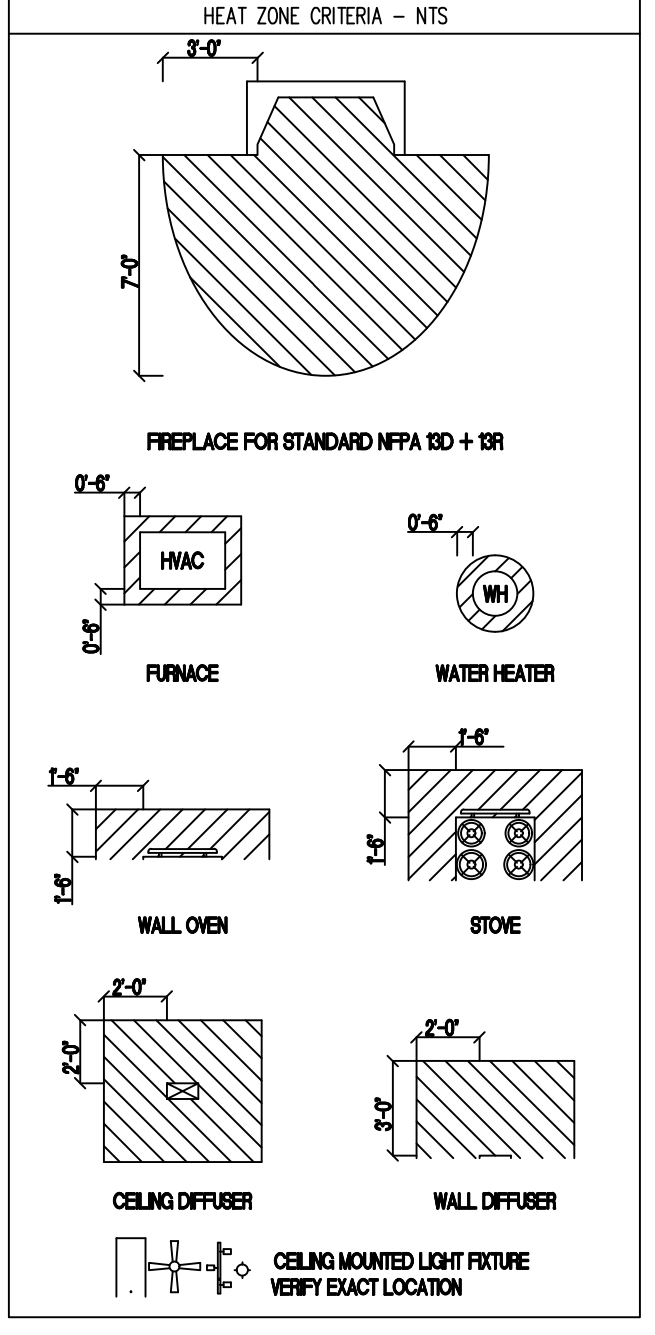
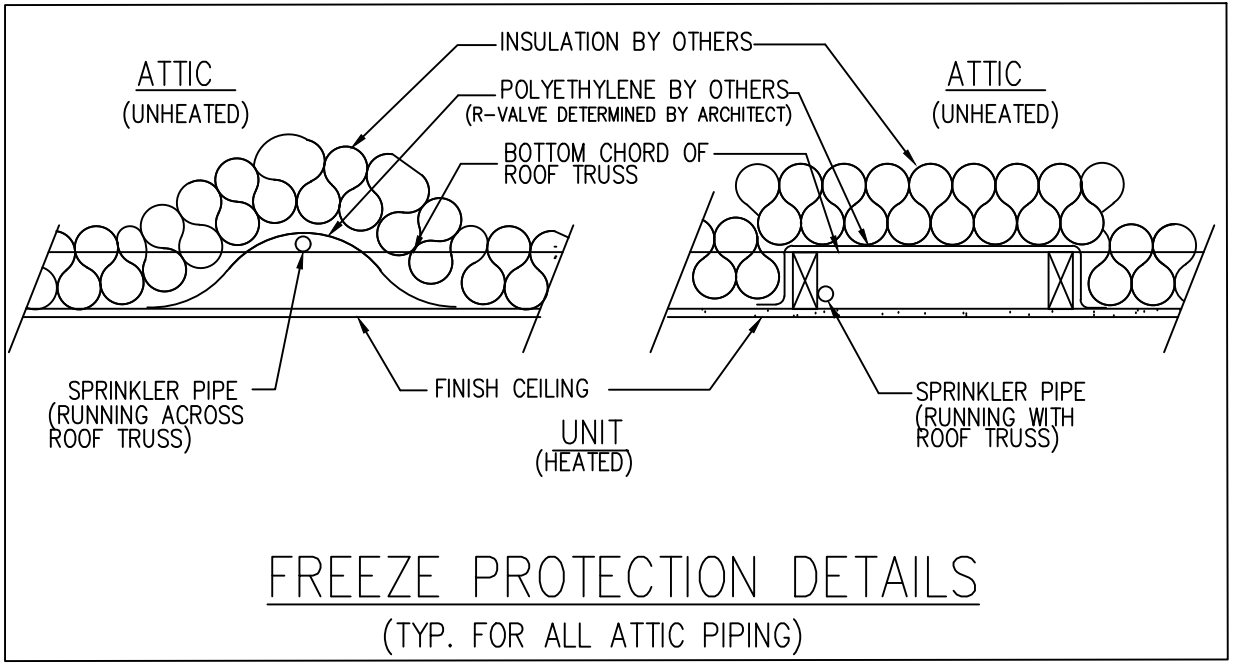
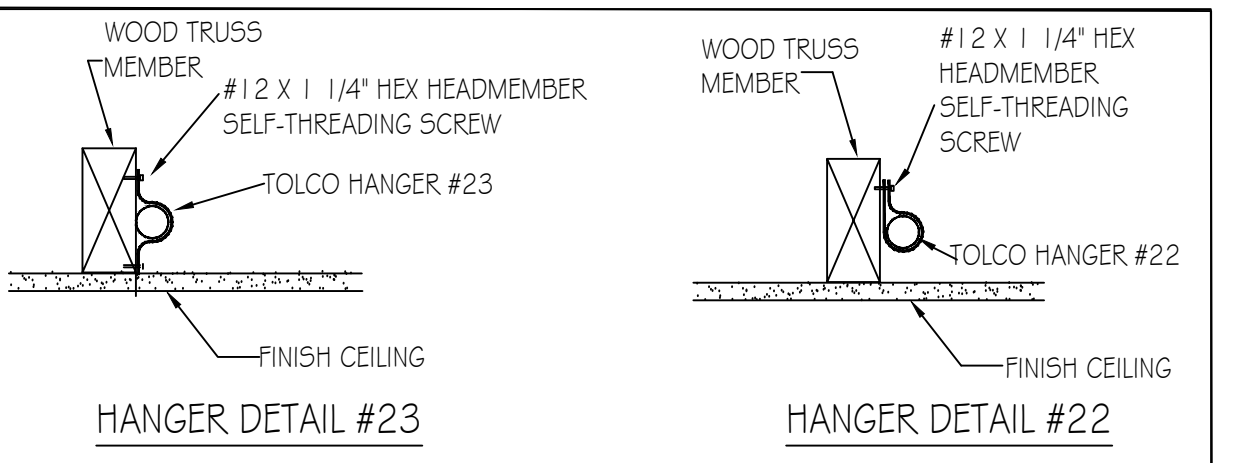
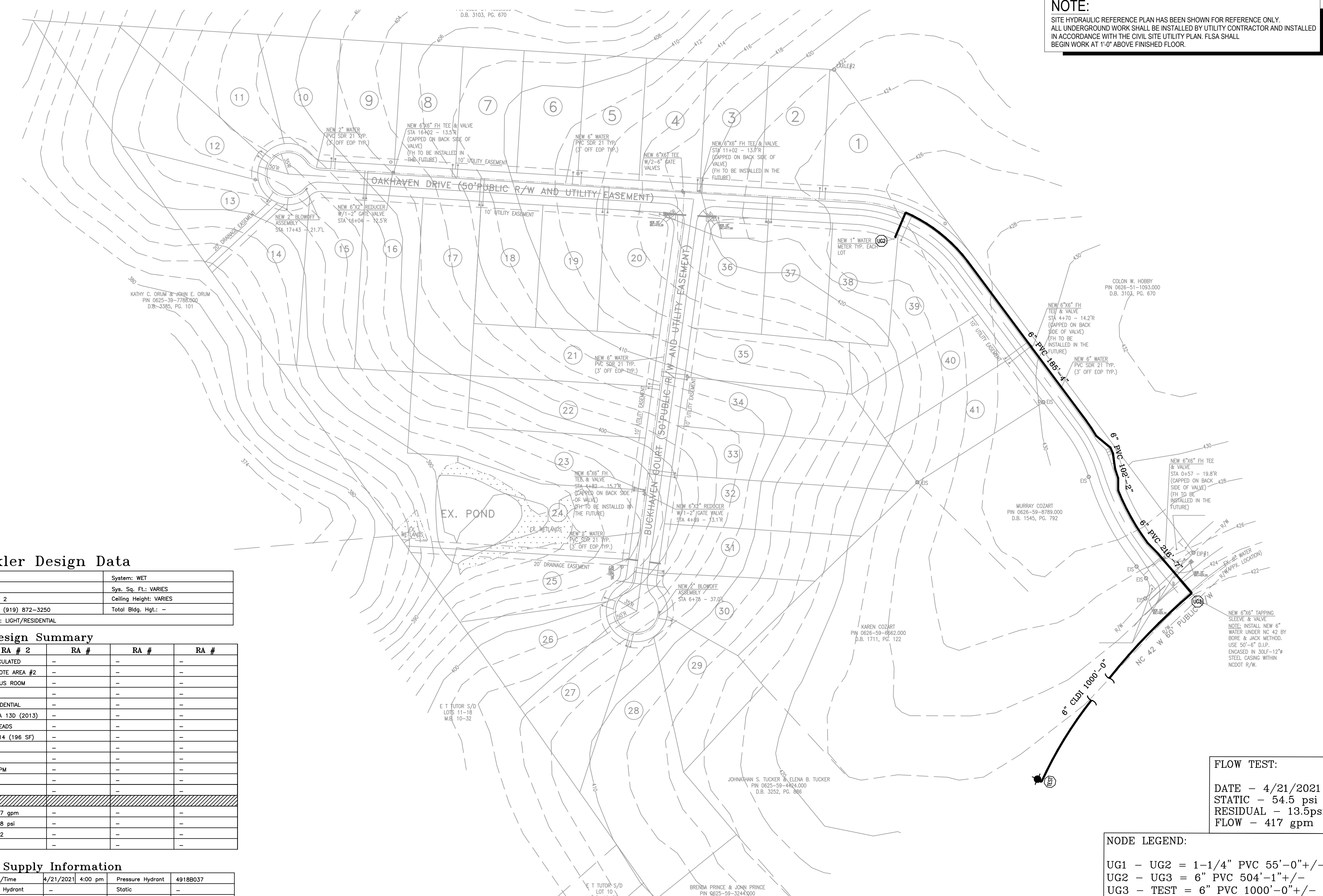


GENERAL NOTES

- 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 38	System: WET
Project Street Address: 157 OAKHAVEN DR	Sys. Sq. Ft.: VARIES
Suite: -	Floor#: 2
Location: MASTER BEDROOM	Ceiling Height: VARIES
Designed By: HALEY WEYANT	Phone: (919) 872-3250
Occupancy: RESIDENTIAL	Hazard: LIGHT/RESIDENTIAL
	Total Bldg. Hgt.: -

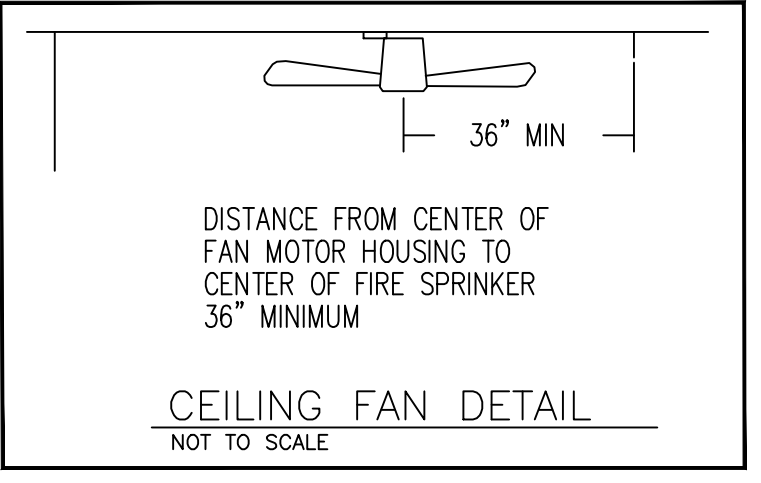
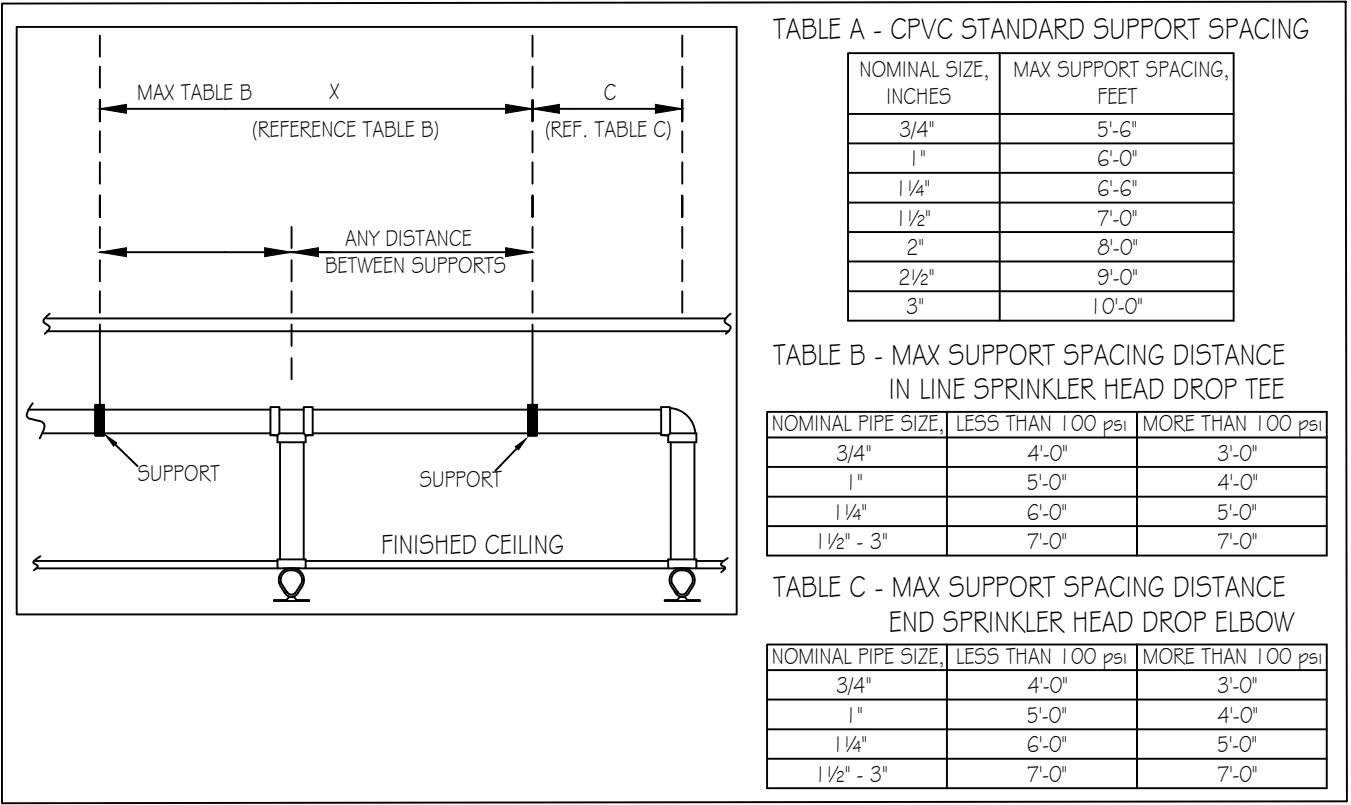
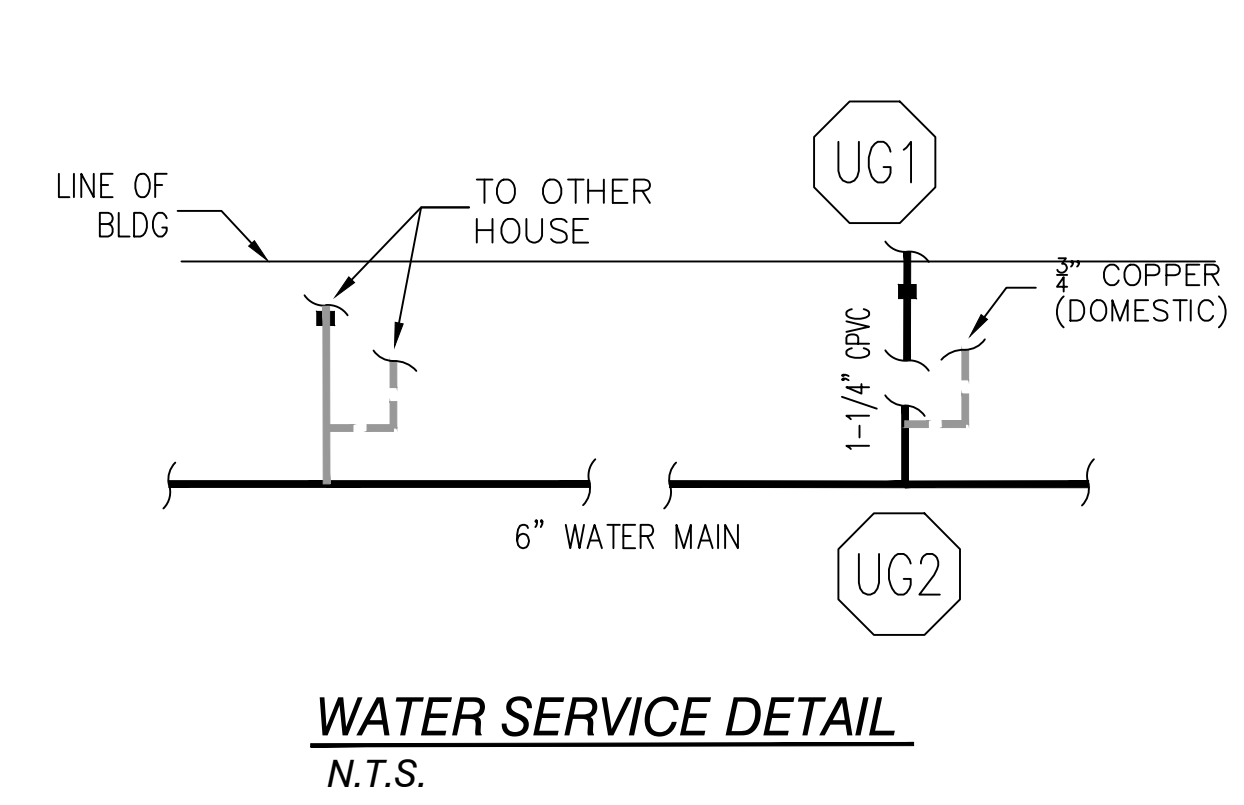
Design Summary

Design Method	RA # 1	RA # 2	RA #	RA #	RA #
Design Area #	1	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 HEAD	2 HEADS			
Sprinkler Spacing	20X20 (400 SF)	14X14 (196 SF)			
Density	.05	.05			
K-factor	4.9	4.9			
Domestic Flow	3 GPM	2 GPM			
# Design Sprinklers	1	2			
Special Application Spk.	-	-			
Requirement @ TEST	23.03 gpm	29.47 gpm			
G.P.M. Req'd	28.47 psi	29.48 psi			
P.S.I. Req'd	25.83	24.72			
Safety Factor @ TEST	-	-			
Volume of Dry System	-	-			

Water Supply Information

Tested by: -	Date/Time: 4/21/2021	4:00 pm	Pressure Hydrant: 4918037
Hydrant Elevation: -	Flow Hydrant: -	Static: -	Static (PSI): 54.5
Static (PSI): 54.5	Residual (PSI): 13.5	Flow (GPM): 417	

Copy of Water Test Data Included with Calculation is required



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

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

NODE LEGEND:
UG1 - UG2 = 1-1/4" PVC 55'-0"+/-
UG2 - UG3 = 6" PVC 504'-1"+/-
UG3 - TEST = 6" PVC 1000'-0"+/-

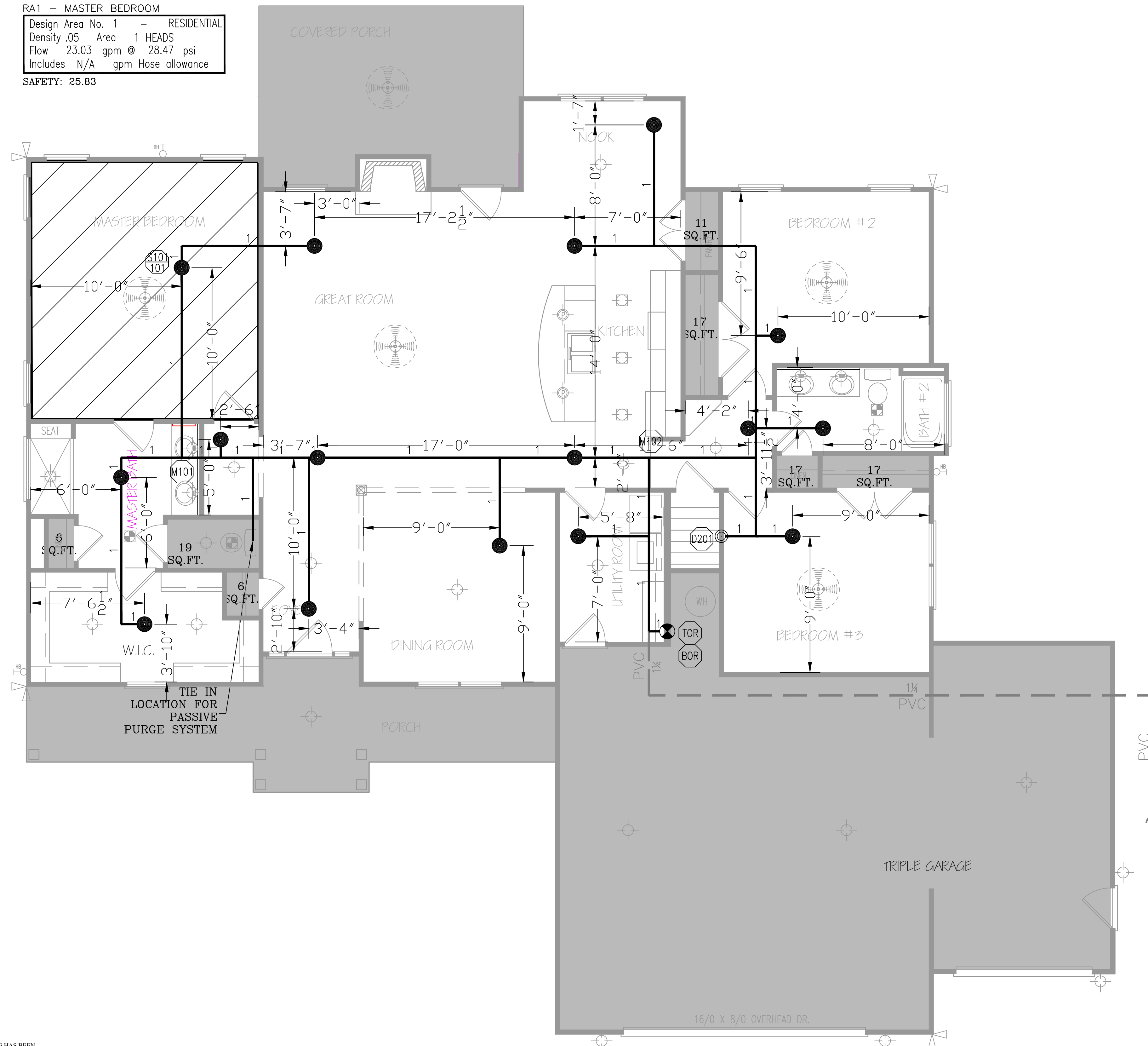
SYSTEM DESIGN CRITERIA TYPE SYSTEM: <input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY <input type="checkbox"/> DELUGE <input type="checkbox"/> NFPA STANDARD: <input type="checkbox"/> #13 <input type="checkbox"/> #13D <input type="checkbox"/> #13R <input type="checkbox"/> #14 <input type="checkbox"/> #20 <input type="checkbox"/> #22 <input type="checkbox"/> PREACTION <input type="checkbox"/> ANTI-FREEZE <input type="checkbox"/> #24 <input type="checkbox"/> #21 <input type="checkbox"/> #23C <input type="checkbox"/> #15 <input type="checkbox"/> #16 <input type="checkbox"/> #409 OCCUPANCY: RESIDENTIAL HAZARD: LIGHT LOCAL HOSE THREADS: N.S.T. SLEEVES REQUIRED: NO MAXIMUM SPACING: VARIES REQUIRED TO BE LOCATED IN THE CENTER OF THE CEILING TILES. SPRINKLERS ARE		APPROVING AGENCIES APPROVING AUTHORITY: HARNETT COUNTY UNDERWRITER: N/A		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 piping to ensure lead-in is plumbed, 2-holed, rodless, flushed, 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 (H) Hydraulic Reference Point (E) Elev. Below Top of Steel (A) Elev. Above Finished Floor (+) Top of Steel (C) Ceiling Height (H) Denotes Hanger Location (S) Denotes Seismic Support (R) Room name or use (S) Sleeve Location (P) FLSA Start Point		SPRINKLER SUMMARY <table border="1"> <tr> <th>SYMBOL</th> <th>TYPE</th> <th>FINISH</th> <th>TEMP</th> <th>ORIE.</th> <th>K*</th> <th>NPT</th> <th>MANUF.</th> <th>SIN#</th> <th>ESCUTCHEON</th> <th>QTY</th> </tr> <tr> <td>(H)</td> <td>RES. PENDENT</td> <td>WHITE</td> <td>200°</td> <td>1/2"</td> <td>4.9</td> <td>1/2"</td> <td>VIKING</td> <td>VK494</td> <td>CONCEALED</td> <td>0</td> </tr> <tr> <td>(A)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>(E)</td> <td></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></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>(C)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>(H)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>(S)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>(R)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td>(S)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> </tr> <tr> <td colspan="10">TOTAL SPRINKLERS THIS PROJECT</td> <td>18</td> </tr> <tr> <td colspan="10">TOTAL SPRINKLERS THIS DRAWING</td> <td>0</td> </tr> </table>		SYMBOL	TYPE	FINISH	TEMP	ORIE.	K*	NPT	MANUF.	SIN#	ESCUTCHEON	QTY	(H)	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494	CONCEALED	0	(A)										0	(E)										0	(+)										0	(C)										0	(H)										0	(S)										0	(R)										0	(S)										0	TOTAL SPRINKLERS THIS PROJECT										18	TOTAL SPRINKLERS THIS DRAWING										0	REVISIONS <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> <tr> <td>1</td> <td>12/20/2021</td> <td>SUBMITTAL TO AHJ</td> <td>HCW</td> </tr> </table>		NO.	DATE	DESCRIPTION	BY	1	12/20/2021	SUBMITTAL TO AHJ	HCW	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 1721 Round Rock Drive Raleigh, NC 27615 PHONE (919) 872-3250 FAX (919) 877-8776		JOB #: 22NC1551 DATE: 12/19/2021 DRAWN BY: H. WEYANT SCALE: AS NOTED		HYD. SITE PLAN, GENERAL NOTES & DETAILS OAKHAVEN LOT 38 157 OAKHAVEN DR. HOLLY SPRINGS, NC 27540 DRAWING #: FP1 OF 2	
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SPRINKLER LEGEND

- NO HEADS REQUIRED
- REMOTE AREA

- 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

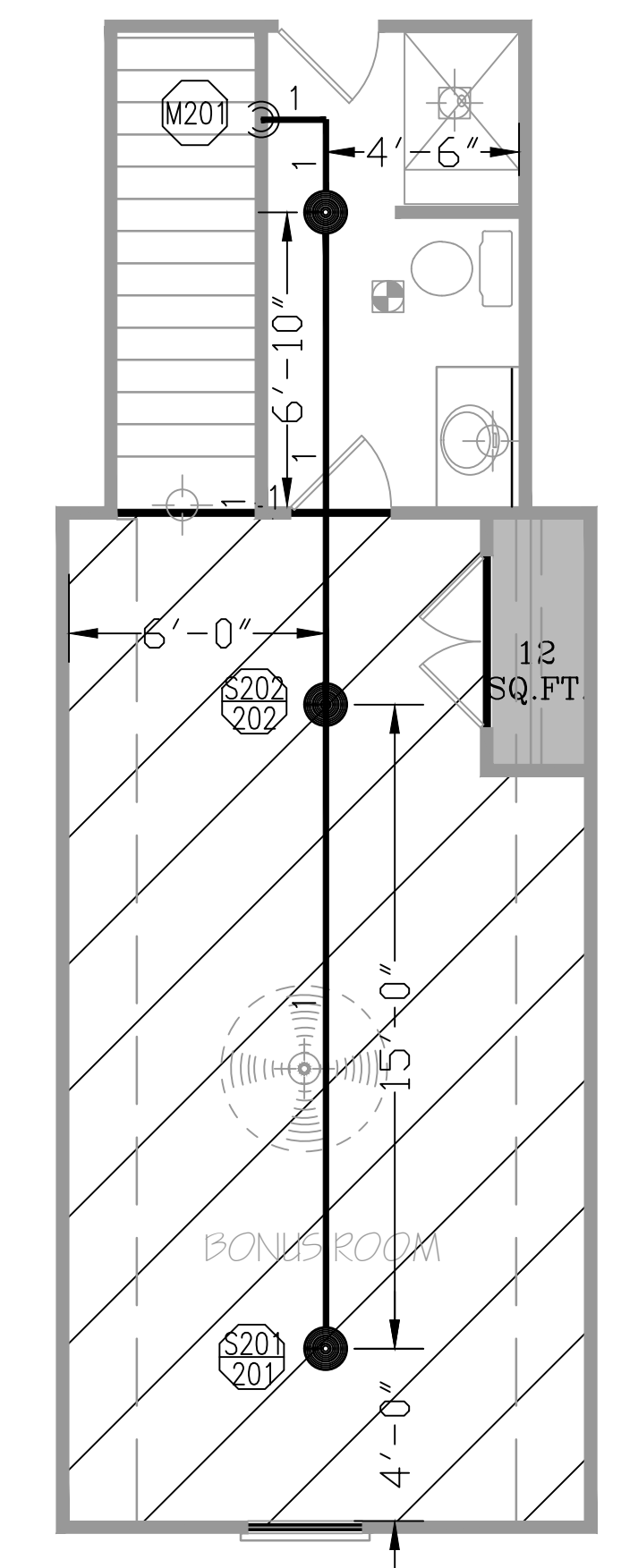
RA1 - MASTER BEDROOM
 Design Area No. 1 - RESIDENTIAL
 Density .05 Area 1 HEADS
 Flow 23.03 gpm @ 28.47 psi
 Includes N/A gpm Hose allowance
 SAFETY: 25.83



LEVEL 1 - SPRINKLER PLAN

1/4" = 1' - 0"

RA2 - BONUS ROOM
 Design Area No. 2 - RESIDENTIAL
 Density .05 Area 2 HEADS
 Flow 29.47 gpm @ 29.48 psi
 Includes N/A gpm Hose allowance
 SAFETY: 24.72



LEVEL 2 - SPRINKLER PLAN

1/4" = 1' - 0"



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SYSTEM DESIGN CRITERIA		APPROVING AGENCIES		GENERAL NOTES		LEGEND		SPRINKLER SUMMARY		REVISIONS		DRAWING INFORMATION																																	
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 type="checkbox"/> #13D <input 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 ID 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 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.:		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, rodded, flushed, 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 Elev. Below Top of Steel □ 12" AFF Elev. Above Finished Floor + TOS 12'-0" Elev. of Top of Steel (C) Ceiling Height / Denotes Hanger Location S Denotes Seismic Support [] Room name or use [] Sleeve Location [] FLSA Start Point		<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>200°</td> <td>1/2"</td> <td>4.9</td> <td>1/2"</td> <td>VIKING</td> <td>VK494</td> <td>CONCEALED</td> <td>0</td> </tr> </tbody> </table>		SYMBOL	TYPE	FINISH	TEMP	ORIF.	"K"	NPT	MANUF.	SIN#	ESCUTCHEON	QTY.	●	RES. PENDENT	WHITE	200°	1/2"	4.9	1/2"	VIKING	VK494	CONCEALED	0	<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12/20/2021</td> <td>SUBMITTAL TO AHJ</td> <td>JCW</td> </tr> </tbody> </table>		NO.	DATE	DESCRIPTION	BY	1	12/20/2021	SUBMITTAL TO AHJ	JCW	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 1721 Round Rock Drive Raleigh, NC 27615 PHONE (919) 872-3250 FAX (919) 877-0770		JOB #: 22NC1551 LEVEL 1 & 2 - SPRINKLER PLAN DRAWING #: DATE: 12/19/2021 OAKHAVEN LOT 38 FP2 DRAWN BY: H. WEYANT 157 OAKHAVEN DR. SCALE: AS NOTED HOLLY SPRINGS, NC 27540 OF 2	
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