

CRAWFORD,  
WILLIAMS  
ENGINEERING, Inc.

MECHANICAL  
ELECTRICAL  
PLUMBING  
& FIRE

6889 PROFESSIONAL PKWY. E.  
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tel (941) 907-0103 fax (941) 907-0152

CA 7029

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INBAR  
ARCHITECTURE, AIA

FLORIDA LICENSE NO. AA0002701

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EMAIL: inbararchitecture@gmail.com



REVISIONS		
No.	Description	Date
OWNER APPROVALS		
No.	Description	Date
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PROPOSED NEW HOME FOR:

NOKOMIS MEDICAL CENTER

498 S. TAMiami TrL.  
NOKOMIS, FL.

PERMIT #

FIRST FLOOR  
FIRE PROTECTION  
PLAN

Sheet Title

Drawing Name: NOKOMIS OFFICE

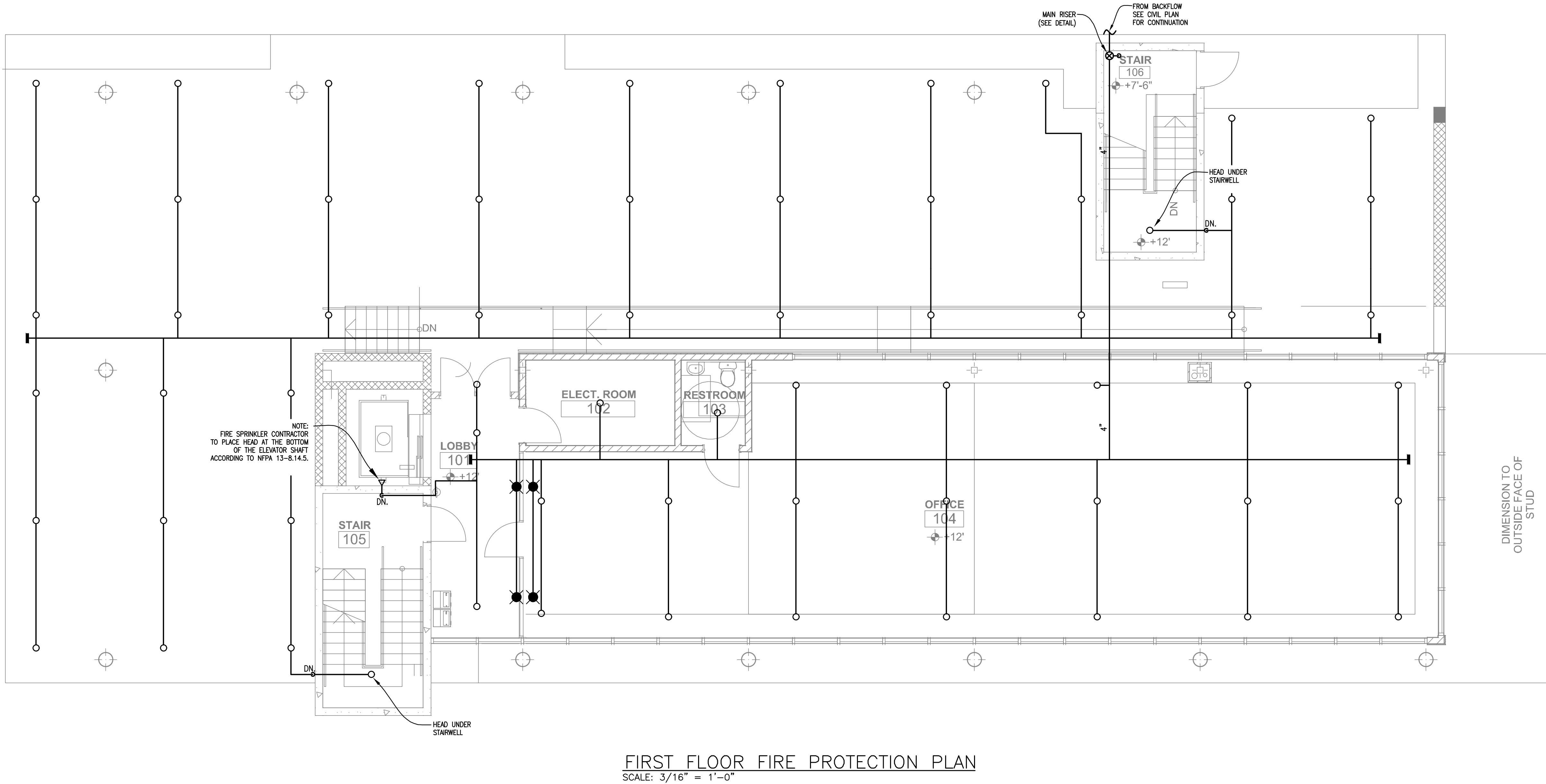
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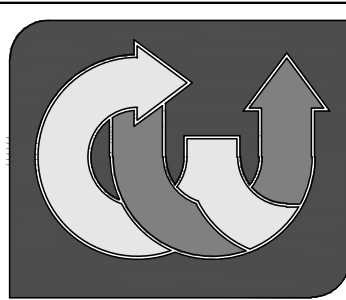
Issues: 08/24/2022

Job No.: 2203

Sheet Number:

F-1





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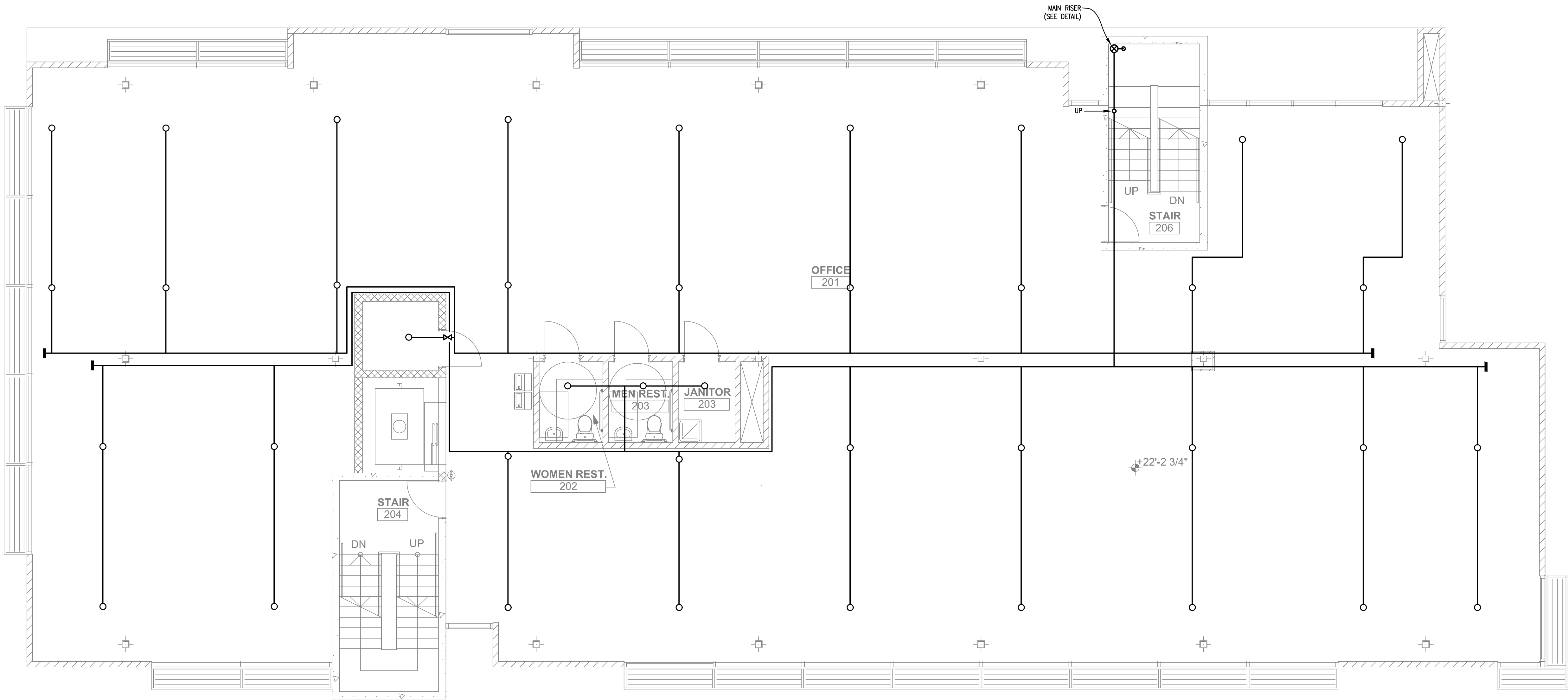
SECOND FLOOR  
FIRE PROTECTION  
PLAN

Sheet Title

Drawing Name:	NOKOMIS OFFICE
Design:	CWE
Issues:	08/24/2022
Job No.:	2203

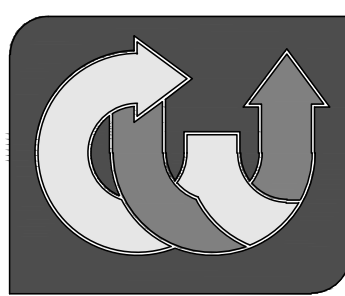
Sheet Number:

F-2



SECOND FLOOR FIRE PROTECTION PLAN  
SCALE: 3/16" = 1'-0"

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS AS DETERMINED IN ACCORDANCE WITH CHAPTERS 553 AND 633, FLORIDA STATUTES



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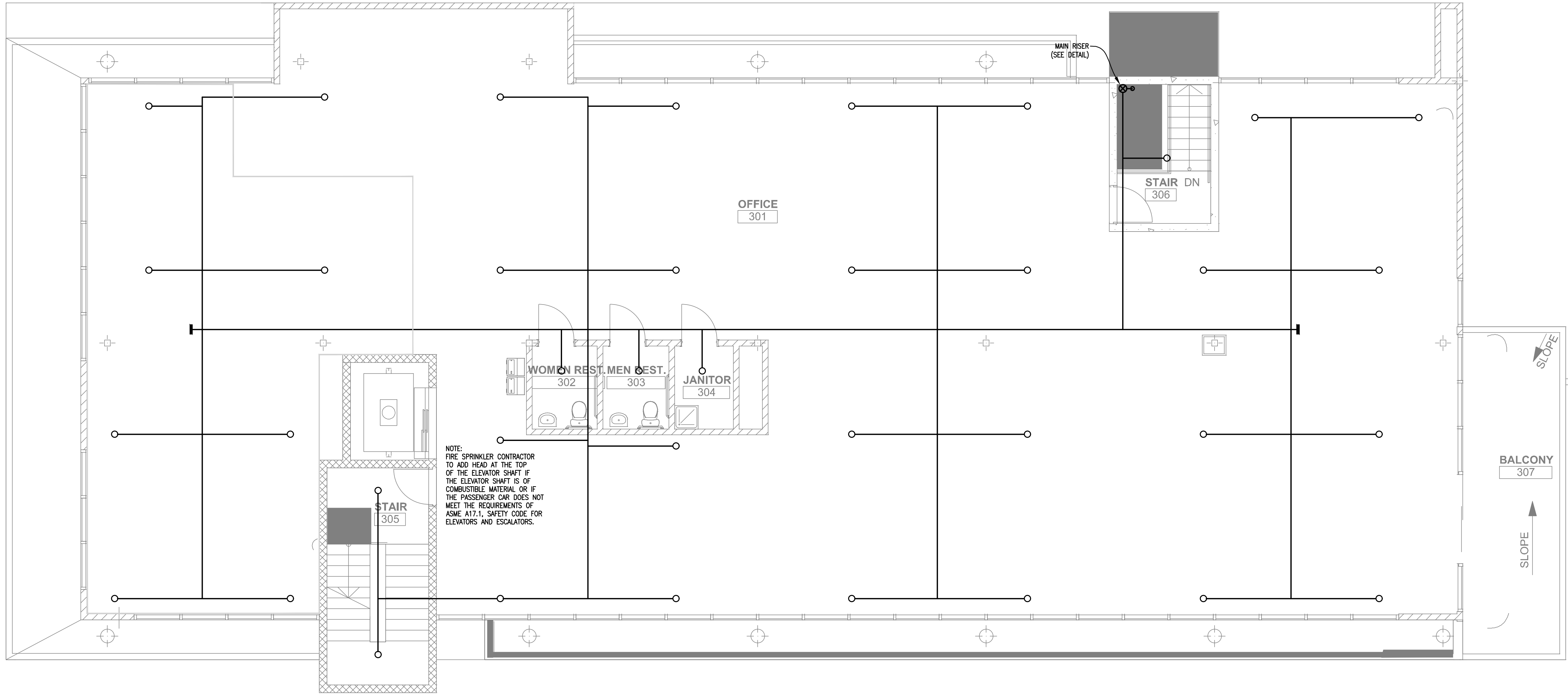
THIRD FLOOR  
FIRE PROTECTION  
PLAN

Sheet Title

Drawing Name:	NOKOMIS OFFICE
Design:	CWE
Issues:	08/24/2022
Job No.:	2203

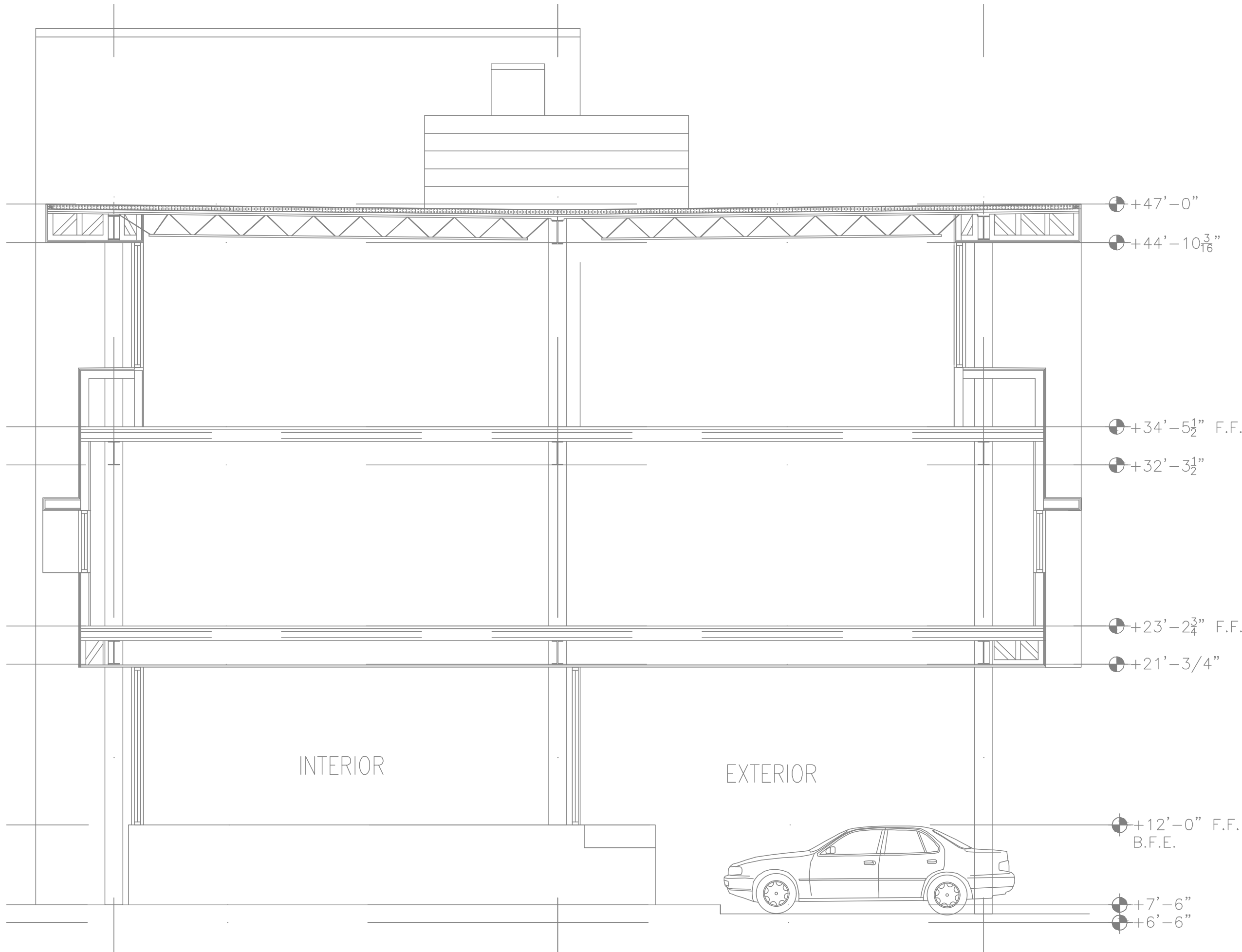
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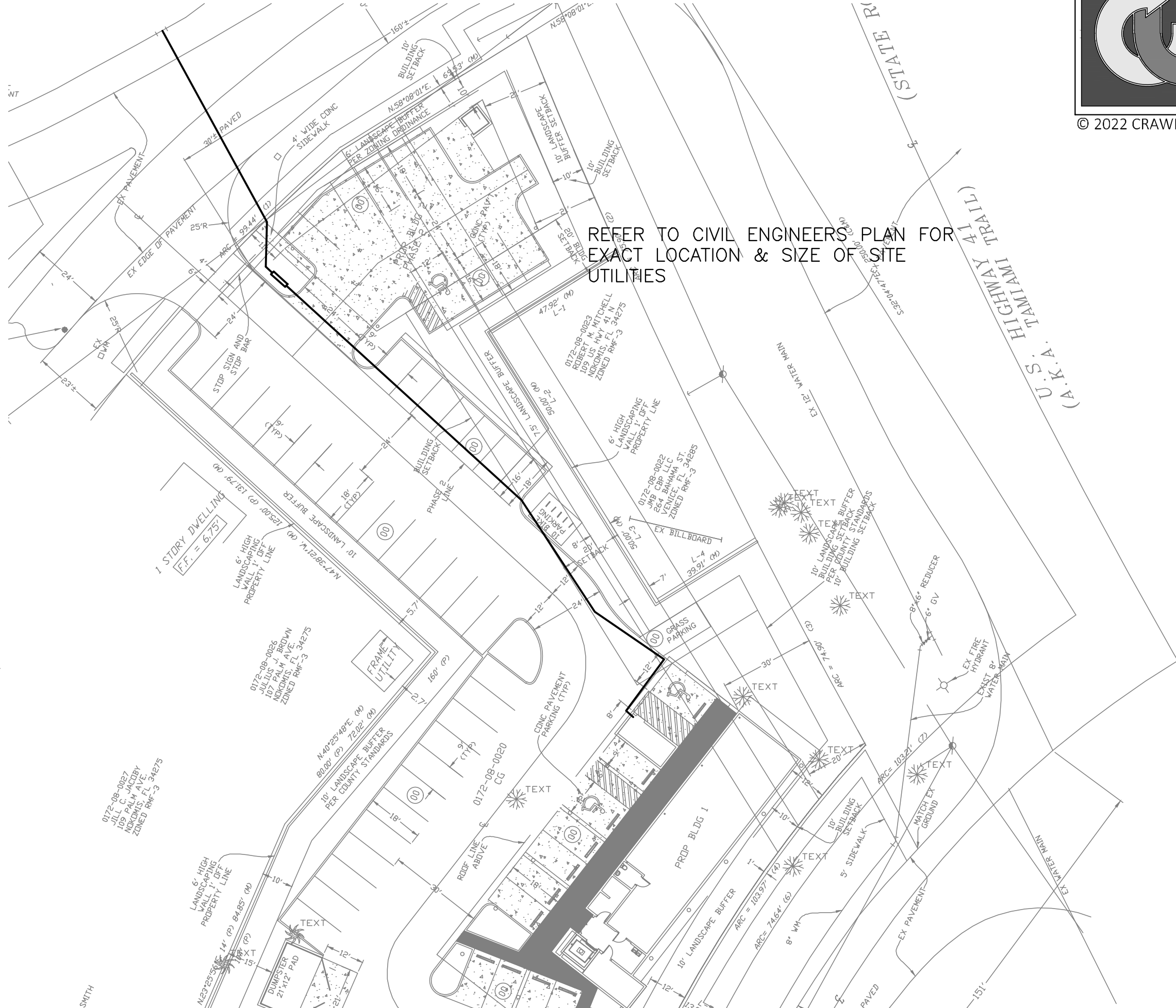


THIRD FLOOR FIRE PROTECTION PLAN  
SCALE: 3/16" = 1'-0"

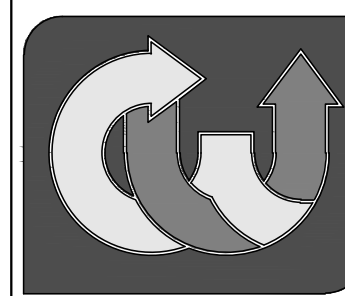
TO THE BEST OF THE ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS AS DETERMINED IN ACCORDANCE WITH CHAPTERS 553 AND 633, FLORIDA STATUTES



ARCHITECTURAL SECTION  
SCALE: N.T.S.



PARTIAL SITE PLAN  
SCALE: N.T.S.



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PROPOSED NEW HOME FOR:

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NOKOMIS, FL.

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Sheet Title

FIRE PROTECTION  
61G15 DESIGN  
CRITERIA

Drawing Name: NOKOMIS OFFICE

Design: CWE

Issues: 08/24/2022

Job No.: 2203

Sheet Number:

F-4

REQUIREMENTS FOR WATER BASED FIRE PROTECTION SYSTEM  
IN ACCORDANCE WITH 61G15.  
FOR: NOKOMIS MEDICAL CENTER ,  
SARASOTA COUNTY, FLORIDA

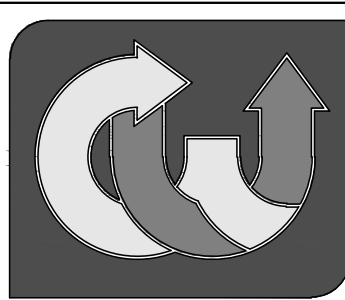
61G15-32.003 Common Requirements to all Fire Protection Engineering Documents.

- The scope of work is a new wet pipe sprinkler system to be fabricated and installed per NFPA 13, 2016. Fire protection piping, fittings and sprinklers shall be UL listed and FM approved. Piping 2" and smaller shall be standard weight black steel Sch.30 XL ASTM A53 with thread fittings, class 125, ASME B16.4. Piping 2 1/2" and larger shall be standard weight black steel lightwall Sch.10 ASTM A135 with grooved fittings and couplings, ASME B16.1. Outlets on mains shall be welded thread-lets or groove-lets. Hangers shall be Cadmium plated, adjustable and size and spaced in accordance with NFPA 13, 2013. Hanger rods shall be zinc electroplated steel. Blazemaster CPVC or other listed CPVC piping is allowable for 3" and smaller piping.  
  
Other fitting types, if accepted by the AHJ: Grooved-End, Cast Malleable Iron, ASTM A47 or Cast Ductile Iron ASTM A536.  
  
Other piping types for 3" and smaller, if accepted by the AHJ: CPVC ASTM F442, UL 1821, SDR 13.5, rated for 175 PSIG at 150°F with plain ends. Fittings shall be UL listed and FM approved.
- Acceptance testing shall be provided in accordance with NFPA 13, 2016.
- The occupancy classifications are as follows:  
  
Light Hazard: Office Area – NFPA 13, 2016  
Density = 0.10 GPM/FT<sup>2</sup>  
Hose Stream Demand(combined total inside & outside) = 100 GPM at 30 min.  
Sprinkler head protection area max = 225 FT<sup>2</sup> (Upright/Pendent)
- The fire protections contractor shall prepare the fire protection system layout documents and hydraulic calculations which shall be designed and prepared in accordance with NFPA 13, 2016, Florida Fire Prevention Code, 7th Edition and 2020 Florida Building Code, Chapter Nine Fire Protection Systems and shall strictly adhere to all other applicable city, county and state regulations. The fire protection system layout documents and hydraulic calculations shall be signed and sealed by the contractor's registered Fire Protection Engineer.
- Structural support and structural openings required by the Fire Protection System have been coordinated with the Structural Engineer.
- The requirements for activation of control systems, sequence, operating parameters, interlocks, safety related devices, indicators and alarms shall be coordinated with the Fire Alarm Contractor.
- The Fire Protection System Contractor will prepare the fire protection system layout documents and will assist the authority having jurisdiction in understanding the owner's intended use and proposed protection of the building or facility and to provide sufficient direction regarding the layout of the system(s).

61G15-32.004 Design of Water Based Fire Protection Systems.

- The point of service for the fire protection water supply is the water main from the local utility. (see Civil Engineer's plan for exact connection point).
- The fire protection sprinkler system shall be designed and prepared in accordance with NFPA 13, 2016, 2020 Florida Fire Prevention Code, 7th Edition and 2020 Florida Building Code, Chapter Nine. The documents shall strictly adhere to all other applicable city, county and state regulations.
- Occupancy Classifications: Refer to 61G15-32.003 (3)
- Sprinkler head temperature ratings shall be 175° for unconditioned spaces and 155° for conditioned spaces.
- Refer to the Fire Protection System layout documents which include the characteristics of water supply to be used, such as main size and location, whether it is dead-end or circulating; and if dead-end, the distance to the nearest circulating main, as well as its minimum duration and reliability for the most hydraulically demanding design area.
- A flow test must be performed on the nearest hydrant to determine the available water pressure and flow at the site. The hydrant flow test shall be used and indicated on the fire protection system layout documents. The fire protection system layout documents shall include a site plan indicating the water main, fire main and hydrant locations.
- The main riser will include a water flow switch and an OS&Y supervised gate valve with a tamper switch. Refer to the Fire Alarm System Engineering Documents which include all valving and alarm requirements to minimize potential for impairments and unrecognized flow of water. A new fire department connection shall be installed on site. The fire department connection are to be located so hose lines may be readily attached without interference from other objects, buildings or fences.
- The local utility purveyor and Fire Marshall continuously monitor the water supply for contaminants which may cause Microbial Induced Corrosion (MIC). When conditions are found that may result in MIC contamination of the fire protection piping, the Owner's Representative, Architect and/or Engineer of Record shall be notified so corrective measure may be taken.
- The backflow prevention device is new double detector check type.
- All yard and interior fire protection components shall be UL listed and FMP approved.
- Based on the available pressure at the site and the height of the building, a fire pump is not anticipated. The hydraulic calculations provided with the fire protection system layout documents will be required to model the systems performance and make the final determination if a fire pump will be required.
- The water source is the public utility so no onsite firewater storage tank is required.
- This facility is classified as Light Hazard with no storage occupancies; therefore an Owner's Certificate is not required.
- The Fire Protection System Contractor shall prepare the Fire Protection System layout documents and submit them to the authority having jurisdiction, Architect and Engineer of Record for approval prior to commencing work.

Wm Scott Crawford PE 39436



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PROPOSED NEW HOME FOR:

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498 S. TAMAMI TRL.  
NOKOMIS, FL.

PERMIT #

FIRE PROTECTION  
DETAILS

Sheet Title

Drawing Name: NOKOMIS OFFICE

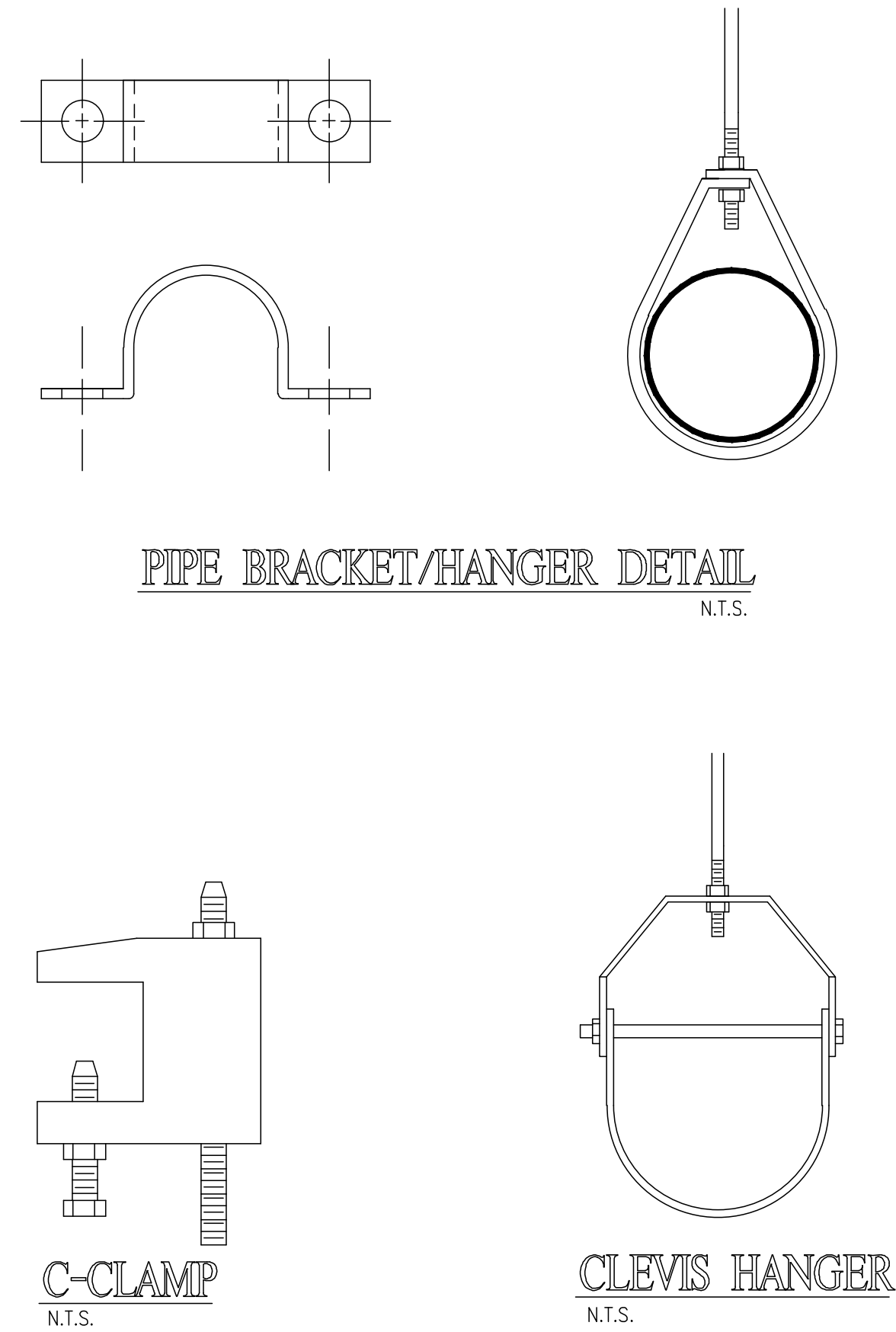
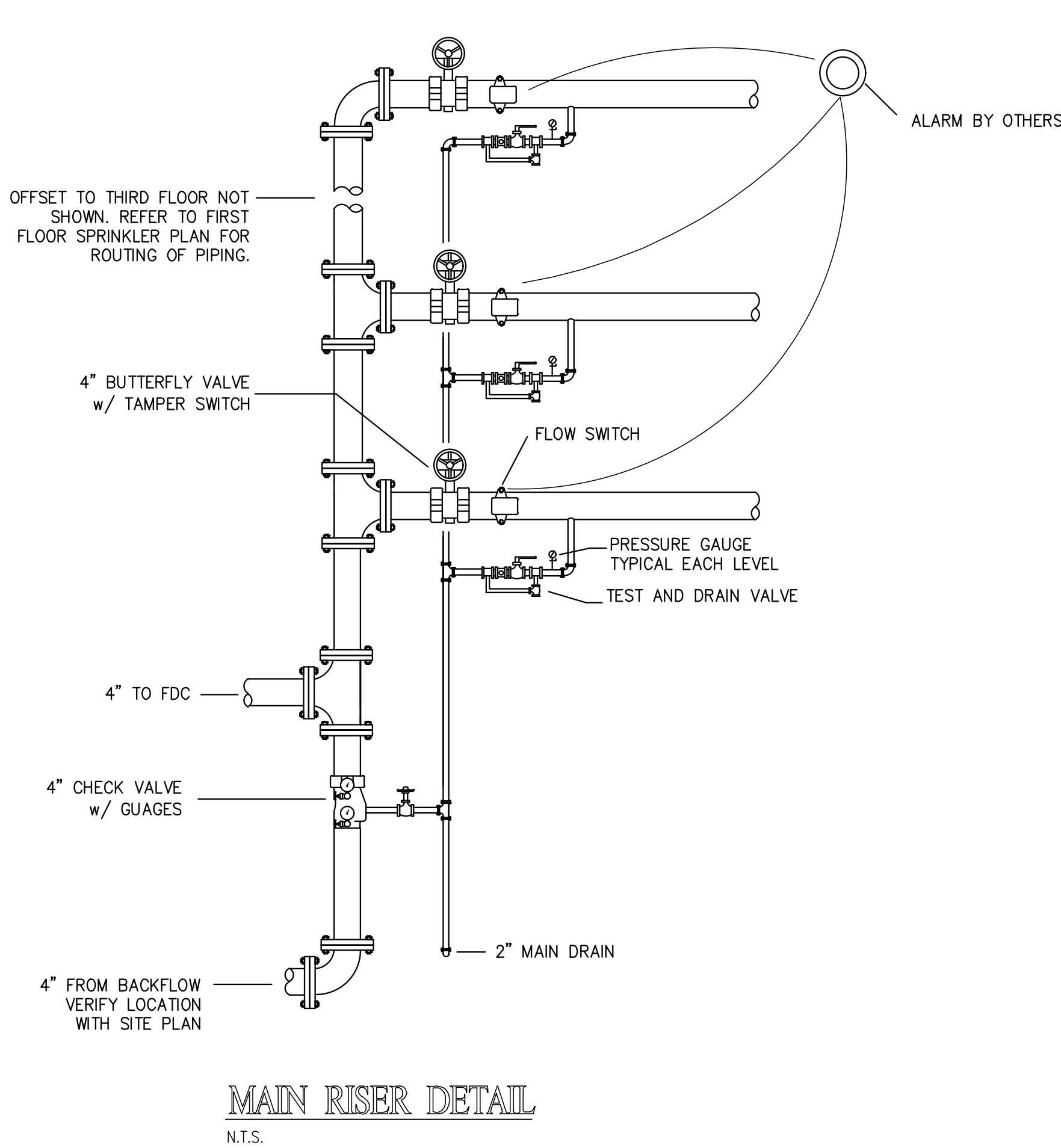
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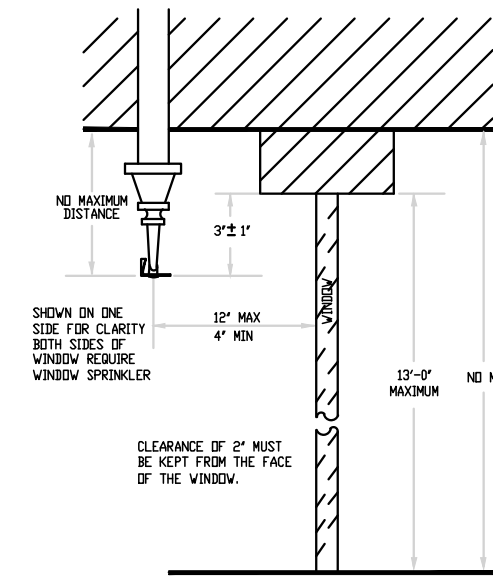
F-5



HEAD LEGEND		
SYMBOL	DESCRIPTION	QTY.
●	QUICK RESPONSE SEMI RECESSED PENDANT TYCO FRB K=5.6 155°F, WHITE	---
○	QUICK RESPONSE UPRIGHT HEAD TYCO TY-FRB K=8.0, 175°F, BRASS	144
▽	STANDARD SIDEWALL HEAD TYCO TY-FRB K=5.6, 175°F	02
⦿	WINDOW SPRINKLER TYCO WS K=5.6, 155°F	04
⑪	NODE NUMBER FOR HYDRAULIC CALCULATIONS	---

NFPA 13 6-2.9.5 REQUIRES STOCK OF SPARE SPRINKLERS FOR SYSTEMS WITH UNDER 300 SPRINKLERS, NO FEWER THAN 6 SPRINKLERS MUST BE PROVIDED

— FIRE SPRINKLER PIPE (1" UNLESS NOTED OTHERWISE)



- NOTES
1. SPRINKLER SYSTEM DESIGNED IN ACCORDANCE WITH NFPA 13. ALL WORK TO BE DONE IN ACCORDANCE WITH THESE PLANS, STATE, LOCAL, AND NATIONAL CODES.

2. THESE DRAWINGS ARE SCHEMATIC IN NATURE, AND ARE NOT INTENDED TO SHOW EVERY MINOR DETAIL. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED FOR A COMPLETE ACCEPTABLE WORKING INSTALLATION.

3. CONTRACTOR TO BID SYSTEM AS DESIGNED (SCHEMATICALLY) BY ENGINEER. ANY ALTERNATE DESIGNS BY CONTRACTOR ARE TO BE SUBMITTED AND APPROVED BY ENGINEER PRIOR TO BIDDING. ANY DEVIATIONS FROM THE ORIGINAL DESIGN INTENTION SHALL BE CLOUDED AND NOTED ON SHOP DRAWINGS.

4. CONTRACTOR TO PROVIDE SIX (6) SETS OF THE FOLLOWING:

A. COORDINATED SHOP DRAWINGS INCLUDING ALL CUT LENGTHS.

B. BOUND SUBMITTALS INCLUDING COVER PAGE, PIPING, HARDWARE, AND MATERIALS (INCLUDING FIRE STOPPING). COVER PAGE TO INCLUDE PROJECT NAME, SPRINKLER CONTRACTOR, GENERAL CONTRACTOR, ARCHITECT, AND DATE SUBMITTED FOR REVIEW.

5. FIRE SPRINKLER CONTRACTOR SHALL COORDINATE SHOP DRAWINGS WITH ALL OTHER TRADES. IT SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE THE COORDINATION BETWEEN SUBCONTRACTORS FOR ALL TRADES PRIOR TO COMMENCEMENT OF WORK. DRAWINGS WERE COORDINATED WITH STRUCTURAL, ARCHITECTURAL, AND HVAC DRAWINGS THAT WERE AVAILABLE AT TIME OF THIS DESIGN. HOWEVER FIELD COORDINATION IS REQUIRED TO ENSURE THAT TRADES ARE AWARE OF THE CROSSING OF SERVICES. FINAL CONSTRUCTION OF THE SYSTEM MAY REQUIRE ADDITIONAL OR RELOCATED HEADS AND PIPE DUE TO COORDINATION ISSUES IN THE FIELD. FIRE SPRINKLER CONTRACTOR RESPONSIBLE FOR REVIEWING THE COMPLETE SET OF ARCHITECTURAL PLANS, AND SHALL VERIFY THE EXACT LOCATION OF ANY TENANT SEPARATIONS AND WILL PROTECT ACCORDINGLY. THIS INCLUDES FIRESTOPPING, AND PROVIDING ADDITIONAL HEADS IF NECESSARY TO MAINTAIN ADEQUATE COVERAGE ON BOTH SIDES OF THE PARTITION. THIS SHALL BE INCLUDED IN THE FIRE SPRINKLER BID. ACTUAL SPACING FOR SPRINKLER PIPING AND HEADS MAY VARY WITH FIELD COORDINATION ISSUES. AS-BUILT DRAWINGS BY THE CONTRACTOR SHALL BE SUBMITTED TO THE ENGINEER AT THE COMPLETION OF CONSTRUCTION PRIOR TO C/O.

6. FIRE SPRINKLER CONTRACTOR TO INSTALL APPROPRIATE UL FIRE STOPPING SYSTEM FOR ALL FIREWALL PENETRATIONS. VERIFY EXACT LOCATION OF PENETRATIONS WITH ARCHITECTURAL PLAN. SUBMIT ON FIRESTOPPING MATERIALS PRIOR TO INSTALLATION.

7. PIPING TO BE AS FOLLOWS:

1) UNDERGROUND SITE PIPING TO BE SPECIFIED BY CIVIL ENGINEER. ALL UNDERGROUND PVC, C-900, OR OTHER PLASTIC PIPING THAT IS UTILIZED SHALL BE EQUIPPED WITH A SUITABLE MAGNETIC LOCATOR TAPE INSTALLED APPROPRIATELY TO THE TOP OF THE PIPING.

2) PIPING BENEATH BUILDING SLAB TO BE DUCTILE IRON WRAPPED WITH 8 MILLIMETER POLYETHYLENE WRAP. PROVIDE FLANGE STUB IN 12" AFF.

3) RISER PIPING TO BE SCHEDULE 40 GALVANIZED STEEL, "GRUVLOK" OR EQUAL FOR ALL FITTINGS, AND VALVES DOWNSTREAM OF STUB IN FLANGE.

ALL OTHER PIPING 2" AND LARGER TO BE SCHEDULE 10 "GRUVLOK", WELDED FITTINGS ARE PERMITTED. ALL PIPING 2" AND SMALLER TO BE SCH 30 THREADABLE LIGHTWALL.

8. FIRE SPRINKLER CONTRACTOR TO FLOW TEST THE NEAREST HYDRANT FOR EXACT FLOW DATA PRIOR TO SHOP DRAWINGS, ORDERING MATERIALS, OR FABRICATING PIPING. TO VERIFY MINIMUM FLOW REQUIREMENTS ARE MET. IF THE MINIMUM REQUIREMENTS ARE NOT MET THEN THE CONTRACTOR SHALL BRING THIS TO THE ATTENTION OF THE ENGINEER.

9. PRESSURE TEST SHALL BE DONE AFTER THE INSTALLATION OF ARM OVER AND OR DROPS, AND PRIOR TO THE INSTALLATION OF FIRE SPRINKLER PENDANTS.

10. THE CONCEALED SPACE ABOVE THE CEILING IS NON-COMBUSTIBLE.

11. CENTER LOAD CLAMPS AND CLEVIS HANGERS TO BE USED ON ALL PIPING 4" AND LARGER. 4" AND LARGER PIPING TO BE TRAPEZE HUNG WHERE PARALLEL TO JOISTS.

12. ACTUAL SPACING FOR SPRINKLER PIPING AND HEADS MAY VARY WITH FIELD COORDINATION ISSUES.

13. ALL HANGERS, THREADED ROD, AND HARDWARE SHALL BE GALVANIZED.

14. HANGERS SHALL NOT ATTACH TO THE BOTTOM CHORD OF JOIST AT ANY LOCATION.

15. SEE CIVIL ENGINEER'S SITE PLANS FOR EXACT LOCATION OF BACKFLOW AND FIRE DEPARTMENT CONNECTION. UNLESS OTHERWISE STATED ON CIVIL ENGINEER'S SITE PLANS, UNDERGROUND PIPING TO HAVE MINIMUM 36" OF COVER.

16. HEADS ARE TO BE LOCATED CENTER TILE (OR AS SHOWN) ACCORDING TO INDUSTRY STANDARDS AND PRACTICES.

17. HOSE VALVE BOXES ARE TO BE STAINLESS STEEL SATIN FINISH CONCEALED TYPE RECESSED BOXES WITH 2 1/2" HOSE VALVE. HOSE VALVE SHALL BE PRESSURE REGULATING TYPE SET FOR A DISCHARGE PRESSURE OF NOT MORE THAN 100 PSI (TYP.)

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS AS DETERMINED IN ACCORDANCE WITH CHAPTERS 553 AND 633, FLORIDA STATUTES