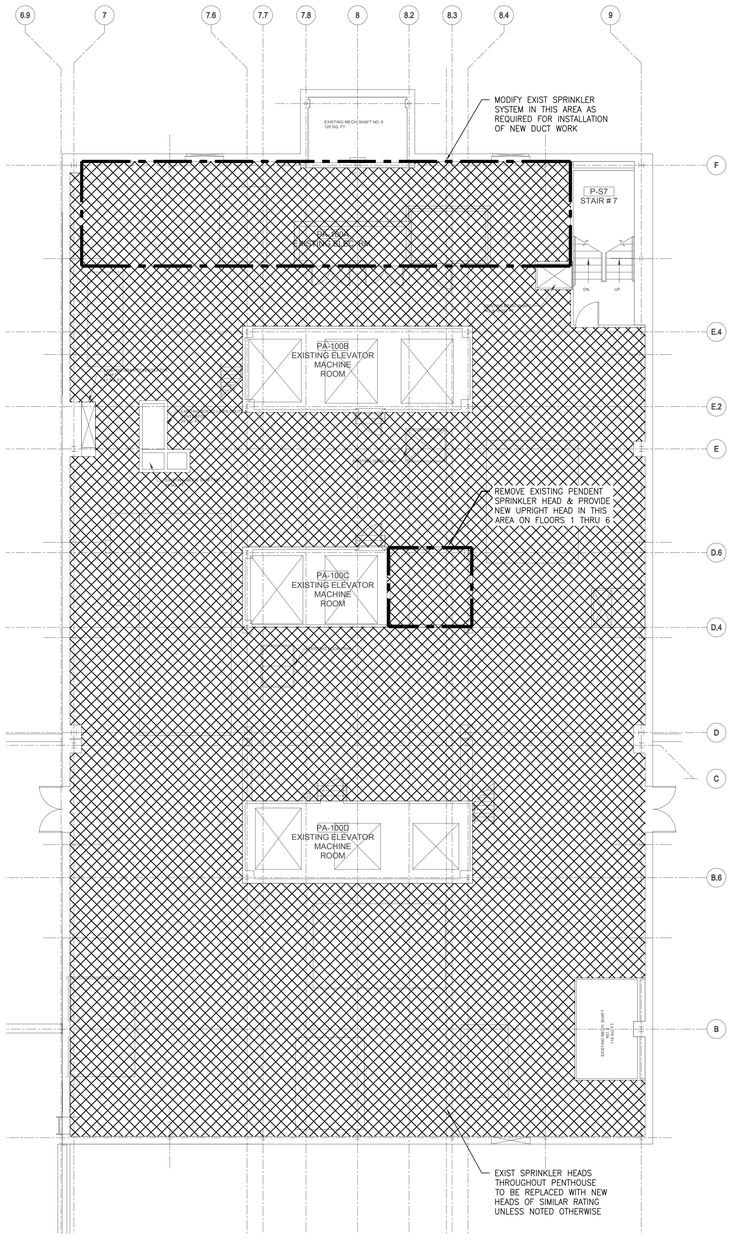


2 PENTHOUSE PLAN
SCALE: NONE

LEGEND

	EXISTING
	EXISTING TO BE REMOVED
F	FIRE PIPING
SPR	SPRINKLER PIPING
	CHECK VALVE
	CONTROL VALVE
	INSPECTORS TEST FITTING
	WATERFLOW SWITCH
	1 HR FIRE RATED WALL
	2 HR FIRE RATED WALL
	SMOKE WALL
	AREA OF WORK

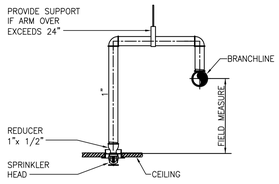
NOTE:
ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE INDICATED ON THE DRAWINGS.

ABV CLG	ABOVE THIS CEILING
BLW FLR	BELOW THIS FLOOR
(E)	EXISTING
FHV	FIRE HOSE VALVE
FDC	FIRE DEPARTMENT CONNECTION
SPR	SPRINKLER

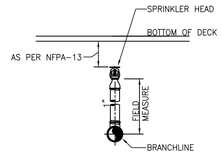
SPRINKLER HEAD LEGEND

UPRIGHT SPRINKLER HEADS
ORDINARY HAZARD

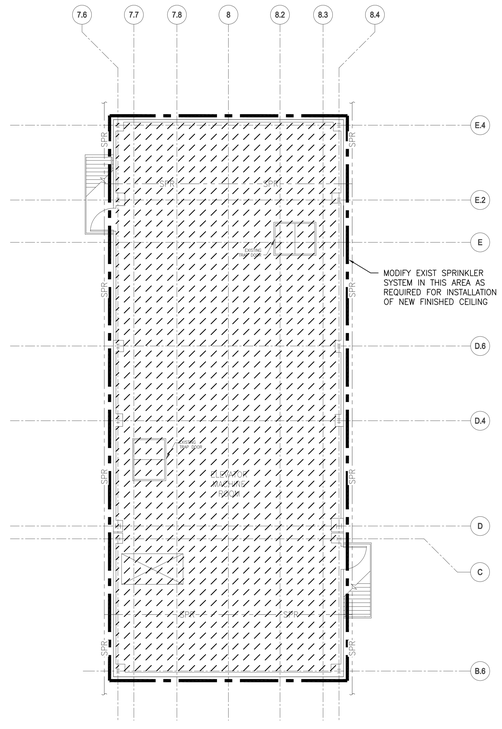
RECESSED PENDENT SPRINKLER HEADS
ORDINARY HAZARD



4 TYPICAL DROP PENDENT DETAIL
SCALE: NONE



3 TYPICAL UPRIGHT/SPRIG DETAIL
SCALE: NONE



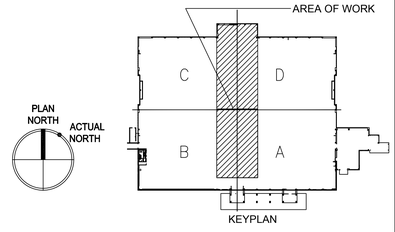
1 ELEVATOR MACHINE ROOM PLAN
SCALE: NONE

GENERAL NOTES

1. MODIFY EXISTING SPRINKLER SYSTEM WITHIN THE LIMIT OF CONSTRUCTION AS INDICATED ON THE CONTRACT DRAWINGS FOR THIS PROJECT. EXISTING SPRINKLER SYSTEM WITHIN THIS PROJECT CONSTRUCTION AREAS SHALL REMAIN OPERATIONAL FOR AS LONG AS POSSIBLE DURING THE CONSTRUCTION PERIOD. PROVISIONS SHALL BE MADE TO PROVIDE ADEQUATE AND APPROVED TEMPORARY MEANS OF FIRE PROTECTION FOR THE AREAS AFFECTED BY THIS CONSTRUCTION. UNLESS INDICATED OTHERWISE EXISTING FIRE PROTECTION SYSTEM AND EQUIPMENT IN ADJACENT AREAS TO REMAIN.
2. FIRE PROTECTION SPRINKLER INSTALLATION SHALL MEET THE REQUIREMENTS OF THE FOLLOWING:
   A. NFPA 13 AND 14, 2013 & 101 2012.
   B. LOCAL AND STATE REGULATIONS AND IBC 2010.
   C. DVA FIRE PROTECTION MANUAL; SIXTH ED.; REVISED SEPTEMBER 2011.
2. SPRINKLER HEADS SHALL BE FM APPROVED QUICK RESPONSE IN ALL AREAS EXCEPT WHERE SPECIFICALLY PROHIBITED, IN COMPLIANCE WITH VA GUIDELINES AND NFPA REQUIREMENTS.
3. SPRINKLERS THROUGHOUT THE BUILDING TO BE ORDINARY TEMPERATURE RATED EXCEPT FOR ELECTRICAL ROOMS/CLOSETS SHALL BE INTERMEDIATE TEMPERATURE RATED HEADS.
4. SPRINKLER PIPE SIZES AND SPRINKLER HEAD LOCATIONS SHALL CONFORM TO NFPA REQUIREMENTS. SPRINKLER HEADS INDICATED ON DRAWINGS ARE FOR DESIGN COORDINATION AND BUDGETARY PRICING ONLY.
5. PIPE HANGERS INCLUDING SEISMIC PROTECTION TO BE INSTALLED AS REQUIRED BY N.F.P.A. FOR SUPPORTING SPRINKLER PIPING. NO OTHER PIPING AND/OR DEVICES ARE TO BE ATTACHED TO THE SPRINKLER PIPE.
6. PIPING SHALL NOT BE LOCATED IN ANY ELECTRICAL ROOMS/CLOSETS OR TELECOMMUNICATION ROOMS/CLOSETS UNLESS THOSE PIPES SERVE ONLY THAT SPACE.
7. ALL SPRINKLER PIPE TO MAINTAIN A 6'-0" MIN VERTICAL CLEARANCE FROM TOP OF ELECTRICAL CONTROL PANELS & SWITCHGEAR/TRANFORMERS.
8. SPRINKLER ZONE CONTROL VALVE ASSEMBLY TO CONSIST OF CONTROL VALVE, CHECK VALVE, FLOW SWITCH, SELF-CONTAINED TEST AND DRAIN ASSEMBLY AND PRESSURE GAGE, ON THE SPRINKLER MAIN BRANCH SERVING EACH SMOKE ZONE.
9. INSTALL PIPING SO THAT VALVES ARE ACCESSIBLE AND STEMS EXTEND VERTICALLY UP. ALL CONTROL VALVES SHALL BE EQUIPPED WITH TAMPER SWITCHES.
10. ALL WATER FLOW SWITCHES MUST BE ISOLATED BY MEANS OF A FITTING OR UNION ON BOTH SIDE TO FACILITATE REMOVAL AND SERVICE OF THE FLOW SWITCH.
11. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE THE QUANTITY OF SPRINKLER HEADS AS REQUIRED TO MAINTAIN THE MINIMUM COVERAGE REQUIRED BY NFPA 13 IS ALL AREAS THE BUILDING.
12. COORDINATE THE EXACT LOCATION OF ALL SPRINKLER HEADS, PIPING, EQUIPMENT, AND DEVISES WITH ARCHITECTURAL DRAWINGS AND THE RESPECTIVE DRAWINGS OF PIPING, DUCTWORK, DIFFUSERS, BEAMS, LIGHTS, ETC. THIS CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF THESE COMPONENTS IN THE FIELD AND DOCUMENT ON THEIR SUBMITTALS.
13. PROVIDE COMPLETE AND FUNCTIONAL FIRE PROTECTION SYSTEMS FOR THE PROJECT. THE SYSTEMS SHALL CONFORM TO THE SPECIFICATIONS AND AS SHOWN ON DRAWINGS. ITEMS OR WORK NOT SHOWN OR SPECIFIED, BUT REQUIRED FOR COMPLETE SYSTEMS, SHALL BE PROVIDED AND CONFORM TO ACCEPTED TRADE PRACTICES. THE DRAWINGS AND SPECIFICATIONS ARE PRESENTED TO DEFINE SPECIFIC SYSTEM REQUIREMENTS AND SERVE TO EXPAND ON THE PRIMARY CONTRACT REQUIREMENTS OF PROVIDING COMPLETE SYSTEMS. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT AND ROUTING OF THE SYSTEMS INCLUDED IN THIS CONTRACTORS WORK.
14. THESE DRAWINGS WERE PREPARED FROM INFORMATION TAKEN FROM THE ORIGINAL BUILDING DRAWINGS AND FIELD SURVEY INFORMATION COMPILED BY THE ENGINEERING DESIGN TEAM FOR THE PURPOSE OF ENGINEERING DESIGN CONCEPT. EXISTING CONDITIONS ARE SHOWN AS ACCURATELY AS POSSIBLE. THERE IS THE POSSIBILITY THAT CONDITIONS SHOWN ARE NOT EXACTLY AS EXISTING. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, LOCATIONS, SIZES AND CONDITIONS AT THE SITE AND DOCUMENT THAT ON THEIR SUBMITTALS.
15. SPRINKLER CONTRACTOR IS RESPONSIBLE FOR ALL WORK RELATED TO ISOLATING, SHUTTING DOWN, DRAINING, FILLING AND TESTING SYSTEMS TO ALLOW FOR THE COMPLETION OF WORK. INTERRUPTIONS TO EXISTING SERVICES AND SYSTEMS SHALL BE AS SHORT AS POSSIBLE AND AT A TIME AND DURATION APPROVED WITH THE COR. INCLUDE ALL PREMIUM TIME ASSOCIATED WITH THE INTERRUPTIONS. ALL SYSTEM INTERRUPTIONS SHALL BE SCHEDULES WITH THE COR AND COORDINATED WITH OTHER TRADES.
16. THE CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING THAT ALL RULES AND REGULATIONS, INCLUDING THOSE WHICH MAY BE ISSUED BY THE OWNER, ARE BEING OBSERVED, PARTICULARLY WORKPLACE SAFETY AND THE CONDUCT OF ALL THOSE EMPLOYED DIRECTLY AND INDIRECTLY BY HIM ON THE PREMISES, AND THE OWNER'S EMPLOYEES WHO MAY BE IMPACTED OR AFFECTED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR WILL INSTALL SIGNAGE, BARRIERS, AND OTHER MEANS TO PROVIDE WARNING AND PERSONNEL SAFETY. PLACEMENT OF THESE ITEMS WILL BE COORDINATED WITH THE OWNER AND HIS ONGOING OPERATIONS AND WILL PROMPTLY BE RESTORED WHEN WORK IN A PARTICULAR AREA HAS BEEN COMPLETED.
17. CONTRACTOR SHALL MAKE ALL NECESSARY SUBMISSIONS AND OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO STARTING FABRICATION AND CONSTRUCTION.

FIRE PROTECTION DESIGN CRITERIA

1. SYSTEM TYPE; WET PIPE
2. SPRINKLER HEAD SPACING AND PIPE SIZING SHALL BE:
   a. MECHANICAL ROOMS; ORDINARY GROUP I HAZARD (0.15 GPM/SQ.FT. OVER 1500 SQ.FT, 130 SQ.FT PER SPRINKLER HEAD)
   b. STORAGE ROOMS; ORDINARY GROUP II HAZARD (0.20 GPM/SQ.FT. OVER 1500 SQ.FT, 130 SQ.FT. PER SPRINKLER HEAD)
3. PROVIDE FOR AN ADDITIONAL WATER ALLOWANCE OF 250 GPM FOR INSIDE AND OUTSIDE HOSE STREAMS TO THE SPRINKLER HYDRAULIC REQUIREMENTS.
4. THE CALCULATED DEMAND INCLUDING HOSE STREAM REQUIREMENTS SHALL FALL NO LESS THAN 10 PERCENT BELOW THE AVAILABLE WATER SUPPLY.
5. SYSTEM SHALL BE DESIGNED ON A HYDRAULICALLY CALCULATED BASIS UTILIZING THE AREA DENSITY METHOD PER THE NFPA 13 BY THE SPRINKLER CONTRACTOR. CALCULATIONS AND SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WEST VIRGINIA.
6. SPRINKLER PIPE SIZES SHALL BE DETERMINED BY HYDRAULIC CALCULATIONS BASED ON EXISTING FIRE PUMP HYDRAULIC FLOW TEST DATA (SEE VAMC-MARTINSBURG FOR CURRENT PUMP TEST DATA PRIOR TO START OF WORK)



100 % BID DOCUMENT - NOT FOR CONSTRUCTION

FULLY SPRINKLERED

NO.	DESCRIPTION	DATE

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PRINTS OF THIS DRAWING SHALL NOT BE USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER.

Drawing Title	FIRE PROTECTION ELEVATOR MACHINE ROOM AND PENTHOUSE PLANS
Approved: Project Director	
Project Title	BUILDING 500 AC-19, AC-20 REPLACEMENT & INTERSTITIAL UPGRADE
Location	VAMC MARTINSBURG, WV
Building Number	BLDG. 500
Date	07-08-2016
Checked	GE
Drawn	PD
Project Numbers	613-12-107 613-15-300 613-15-312
Drawing Number	FX101

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
D:\469-VAMC-0065-Martinsburg AC-20 Replacement\2-Drawings\1-Cad\1-Current Submittal Phase\4-Fire Protection\FX101.dwg 7-08-16 04:15:15 PM dsellars