
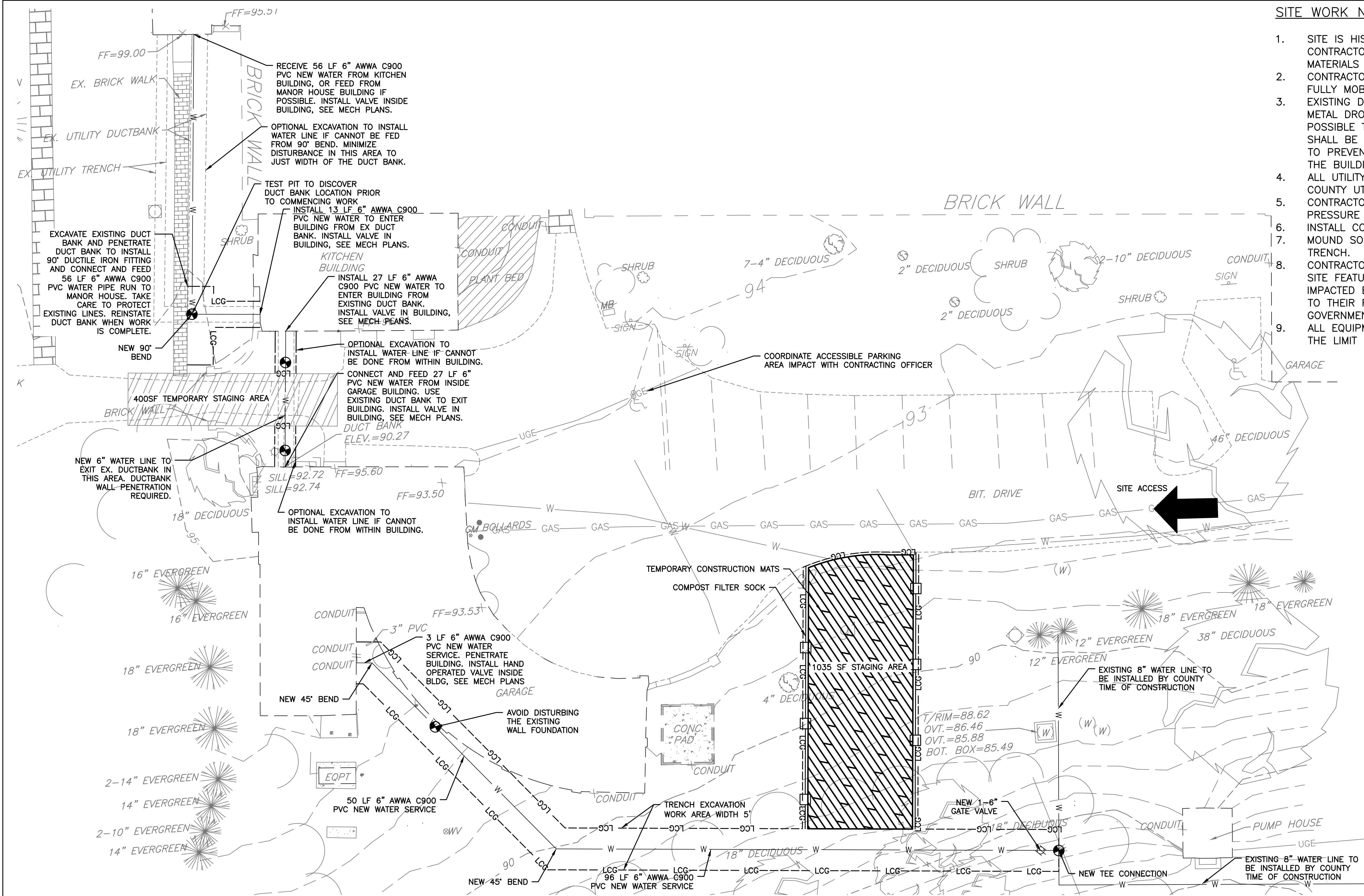


FREDERICKSBURG AND SPOTSYLVANIA NATIONAL MILITARY PARK

SOURCE DATA:
PARK MAP:<https://www.nps.gov/carto/hfc/carto/media/FRSPmap1.jpg> DETAIL MAP:<https://www.nps.gov/carto/hfc/carto/media/FRSPmap2.jpg>

ARCHITECTURE: EYP, INC
CIVIL ENGINEERING: LOUIS BERGER / WSP
FIRE PROTECTION: RHINO FIRE PROTECTION ENGINEERING, PLLC

	100 % DRAFT CD		TITLE OF DRAWING CHATHAM MANOR FIRE SUPPRESSION RENOVATION		DRAWING NO. _____	
	UNITED STATES DEPARTMENT OF THE INTERIOR		LOCATION WITHIN PARK CHATHAM MANOR		TBD	
	NATIONAL PARK SERVICE DENVER SERVICE CENTER		NAME OF THE PARK FREDRICKSBURG AND SPOTSYLVANIA NATIONAL MILITARY PARK		PKG NO. SHEET FRSP 201 1	
			REGION COUNTY STATE NORTH-EAST STAFFORD VIRGINIA		227 OF 19	



SITE WORK NOTES:

1. SITE IS HISTORICALLY AND ARCHEOLOGICALLY SENSITIVE. CONTRACTOR SHALL KEEP PERSONNEL, EQUIPMENT AND MATERIALS WITHIN THE LIMITS OF DISTURBANCE.
2. CONTRACTOR SHALL INVESTIGATE ALL TEST PIT AREAS BEFORE FULLY MOBILIZING MATERIALS.
3. EXISTING DUCT BANK SHOULD CONSIST OF CONCRETE SIDES AND METAL DROP IN LID. EXCAVATE DUCT BANK AS LITTLE AS POSSIBLE TO MINIMIZE DISTURBANCE TO THE SITE. DUCT BANK SHALL BE REINSTATED SO THAT IT IS SNUG AND WATER TIGHT, TO PREVENT MOISTURE IN THE TRENCH AND FROM GETTING INTO THE BUILDING.
4. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH STAFFORD COUNTY UTILITIES STANDARDS AND SPECIFICATIONS.
5. CONTRACTOR SHALL USE 45° BENDS OR LESS TO REDUCE PRESSURE LOSS, UNLESS NOTED OTHERWISE.
6. INSTALL COMPOST FILTER SOCK OR APPROVED EQUAL AS SHOWN.
7. MOUND SOIL FROM TRENCH EXCAVATION ON HIGH SIDE OF TRENCH.
8. CONTRACTOR SHALL PROTECT ALL EXISTING NATURAL AND BUILT SITE FEATURES TO THE GREATEST EXTENT POSSIBLE. SITE ITEMS IMPACTED BY THE WORK OF THIS CONTRACT SHALL BE RESTORED TO THEIR FORMER CONDITION, AT NO ADDITIONAL COST TO THE GOVERNMENT.
9. ALL EQUIPMENT AND PIPING MATERIALS SHALL BE STORED WITHIN THE LIMIT OF CLEARING AND STAGING AREA.

LEGEND

EXISTING

PLANT BED

BRICK SIDEWALK

SLATE SIDEWALK

CONCRETE PAD

DECIDUOUS TREE & SIZE 4" DECIDUOUS

EVERGREEN TREE & SIZE 2-10" EVERGREEN

WATER VAULT/VALVES

STRUCTURE

UNDERGROUND ELECTRIC LINE UGE

WATER LINE W

NATURAL GAS LINE

PROPOSED

ASPHALT STAGING AREA

CONSTRUCTION MAT

WATER VALVE

TEST PIT

LIMITS OF CLEARING AND GRADING LCG

NEW WATER LINE W

COMPOST FILTER SOCK

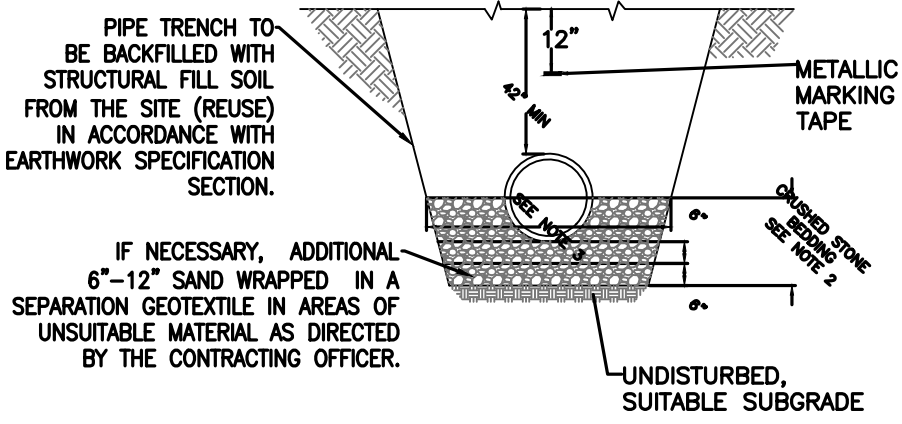
GENERAL CONSTRUCTION NOTES:

1. CONTRACTOR IS RESPONSIBLE TO HAVE ALL EXISTING BURIED UTILITIES NEAR EXCAVATIONS LOCATED PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL OBTAIN ALL PERMITS ASSOCIATED WITH THE WORK PRIOR TO COMMENCING CONSTRUCTION. THE PERMITS INCLUDE THE WATER CONNECTION PERMIT WITH STAFFORD COUNTY.
3. CALL STAFFORD COUNTY UTILITIES BEFORE ANY GROUND DISTURBANCE.
4. CONTRACTOR SHALL TEST PIT ALL NEW CROSSINGS WITH EXISTING UTILITIES PRIOR TO PERFORMING WORK.
5. PROTECT EXISTING UTILITY DUCTBANK AND ALL UTILITY LINES TO REMAIN.
6. CONTRACTOR SHALL MARK ALIGNMENT FLAG PEGS IN GRASS AREAS AND PAINT ON ASPHALT AREAS FOR NEW WATER LINE CONSTRUCTION AND SUBMIT PLAN FOR CONTRACTING OFFICER'S APPROVAL PRIOR TO STARTING WORK.
7. SITE SHALL BE RESTORED TO ITS EXISTING CONDITION UPON COMPLETION OF SITE ACTIVITIES. SITE SHALL BE CONSIDERED ACCEPTABLE UPON APPROVAL OF THE CONTRACTING OFFICER.

1 SITE PLAN
C3.2 SCALE: 1"=10'

10 0 10 20
SCALE OF FEET

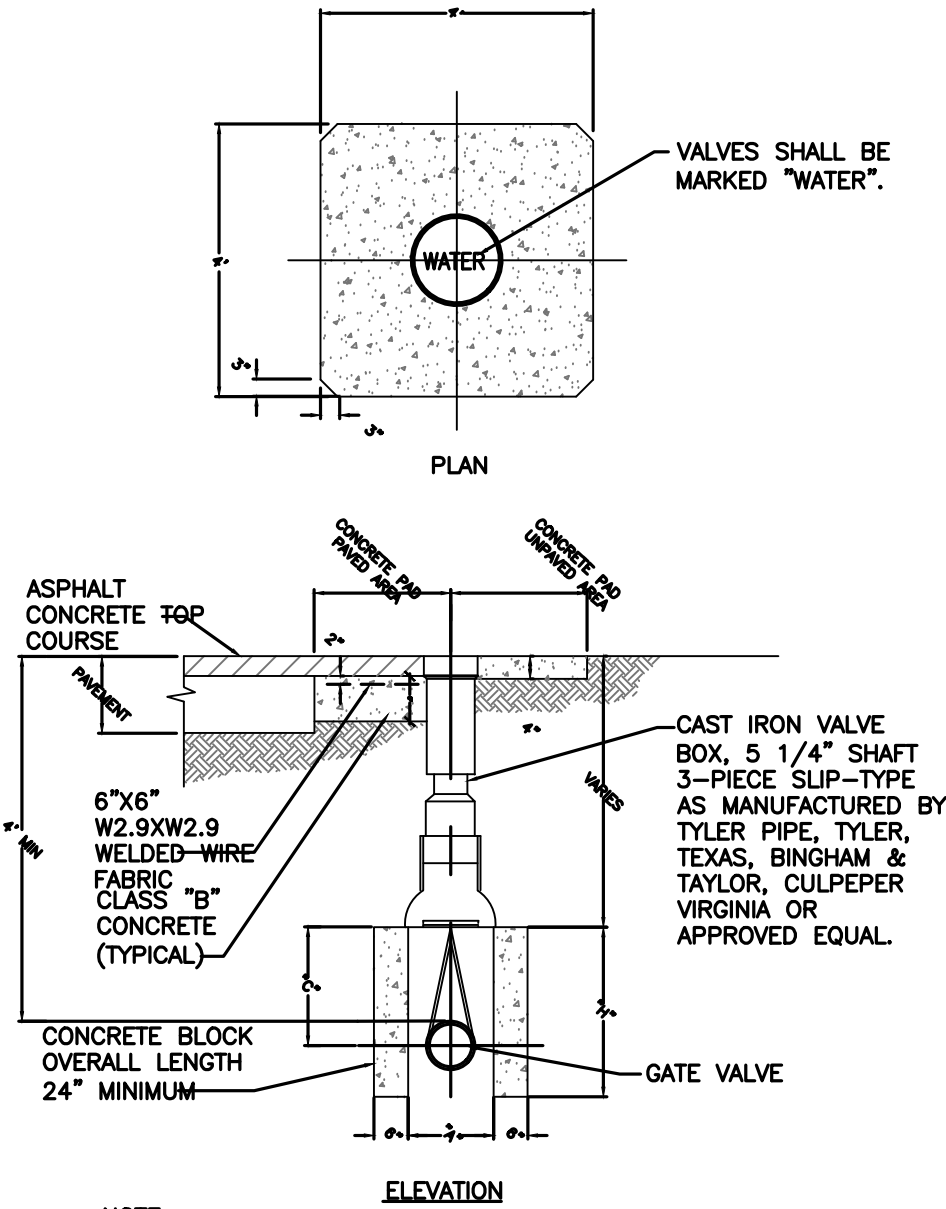
DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ALN	C1	SITE PLAN	404
GAED			80032
JS			PMIS/PKG NO.
TECH. REVIEW:			201227
JCS		CHATHAM MANOR FIRE SUPPRESSION RENOVATION FRSP NATIONAL MILITARY PARK	SHEET
DATE: 05.15.2020			3 OF 19



NOTES:

1. TRENCH SHALL BE BACKFILLED TO THE SURROUNDING EXISTING GROUND ELEVATION OR PAVEMENT SUBGRADE, WHICHEVER IS LOWER.
2. FOR FLEXIBLE PIPE BRING CRUSHED STONE TO SPRING LINE OF PIPE.
3. PIPE OUTSIDE DIAMETER + 2'-0" FOR PIPES UP TO AND INCLUDING 18" INSIDE DIAMETER,
4. GEOTEXTILE SHALL BE NON-WOVEN NEEDLE PUNCHED AND HAVE AN AVERAGE OPENING SIZE OF LESS THAN 0.6MM AND PERMEABILITY GREATER THAN 10 CM/SEC.
5. TRENCH BACKFILL AND COMPACTION SHALL BE PER EARTHWORKS SPECIFICATION.

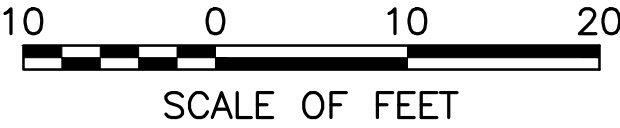
TYPICAL UTILITY MAIN TRENCH DETAIL
NO SCALE



NOTE:
LEFT OR RIGHT VALVE CLOSURE TO BE SUITABLY MARKED IN THE FIELD.

SCHEDULE				
PIPE SIZE	"A"	"C"	"H"	VALVE BOX BASE
1'-2"	11"	0'-6 1/4"	1'- 1"	NO. 4 ROUND
4"	11"	1'-2 3/4"	1'-10"	NO. 4 ROUND
6"	12"	1'-5 1/2"	2'- 2"	NO. 6 ROUND
8"	15"	1'-9"	2'- 6"	NO. 6 ROUND
10"	18"	2'-0 3/4"	3'- 0"	NO. 160 OVAL
12"	21"	2'-4 1/4"	3'- 5"	NO. 160 OVAL

DOMESTIC WATER LINE VALVE
NO SCALE



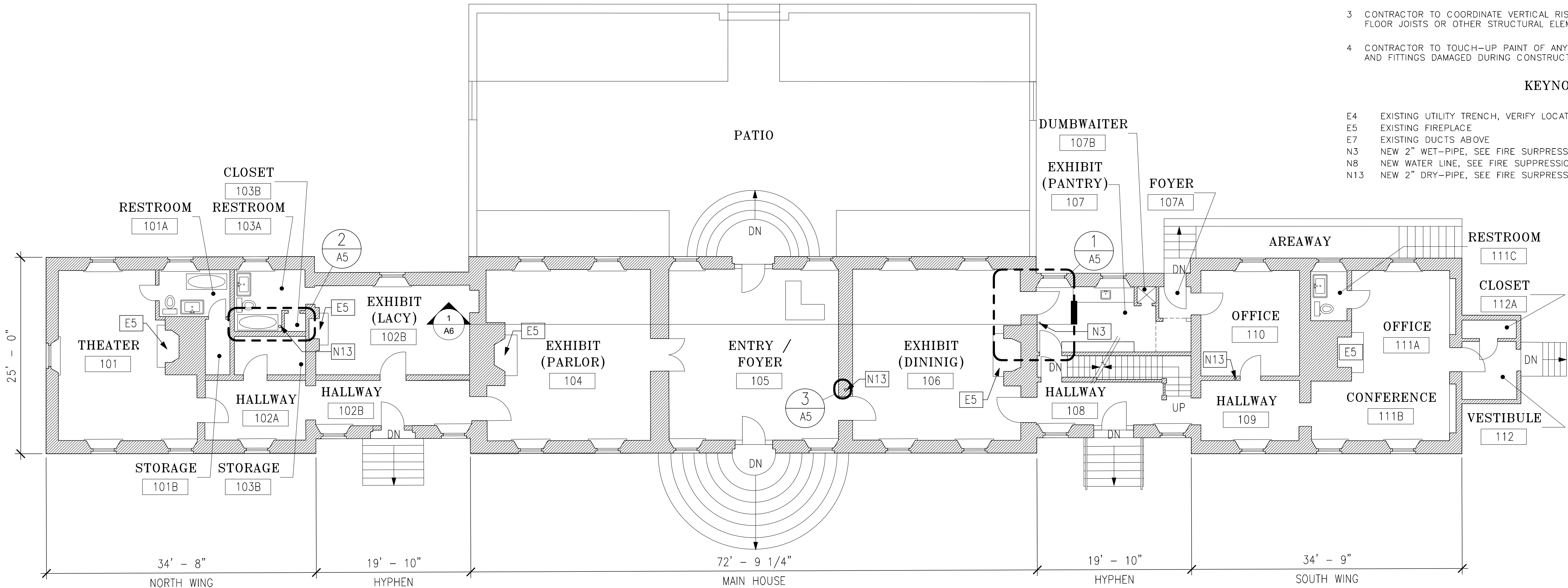
DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ALN	C2	CIVIL DETAILS	404
CHAD			80032
JS			PMIS/PKG NO.
TECH. REVIEW:			201227
JCS		CHATHAM MANOR FIRE SUPPRESSION RENOVATION	SHEET
DATE:		FRSP NATIONAL MILITARY PARK	4 OF 19
05.15.2020			

GENERAL CONSTRUCTION NOTES

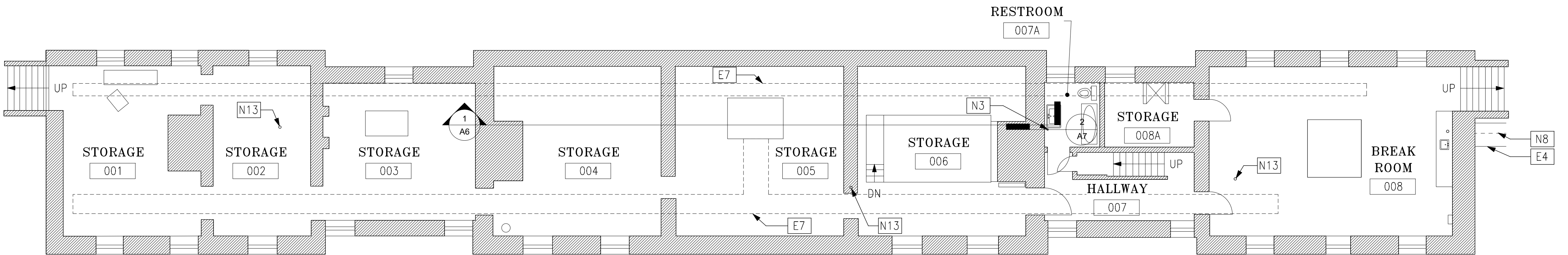
- 1
- EXISTING CONDITIONS SHOWN ARE AS OF EXISTING RECORD DWGS. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK.
- 2
- ALL EXISTING CONDITIONS DAMAGED FROM REMOVALS TO BE PATCHED AND REPAIRED WITH IN-KIND MATERIAL BY THE CONTRACTOR AND PAINTED TO MATCH ADJACENT EXISTING. COORDINATE W/THE CONTRACTING OFFICER.
- 3
- CONTRACTOR TO COORDINATE VERTICAL RISERS TO AVOID CUTTING OR DRILLING ANY EXISTING FLOOR JOISTS OR OTHER STRUCTURAL ELEMENTS.
- 4
- CONTRACTOR TO TOUCH-UP PAINT OF ANY FACTORY PAINTED EXPOSED PIPES, ACCESSORIES AND FITTINGS DAMAGED DURING CONSTRUCTION TO MATCH.

KEYNOTE LEGEND

- E4
- EXISTING UTILITY TRENCH, VERIFY LOCATION
- E5
- EXISTING FIREPLACE
- E7
- EXISTING DUCTS ABOVE
- N3
- NEW 2" WET-PIPE, SEE FIRE SUPPRESSION DWGS
- N8
- NEW WATER LINE, SEE FIRE SUPPRESSION DWGS
- N13
- NEW 2" DRY-PIPE, SEE FIRE SUPPRESSION DWGS



2 FLOOR PLAN - LEVEL 1
1/8" = 1'-0"



1 FLOOR PLAN - BASEMENT
1/8" = 1'-0"

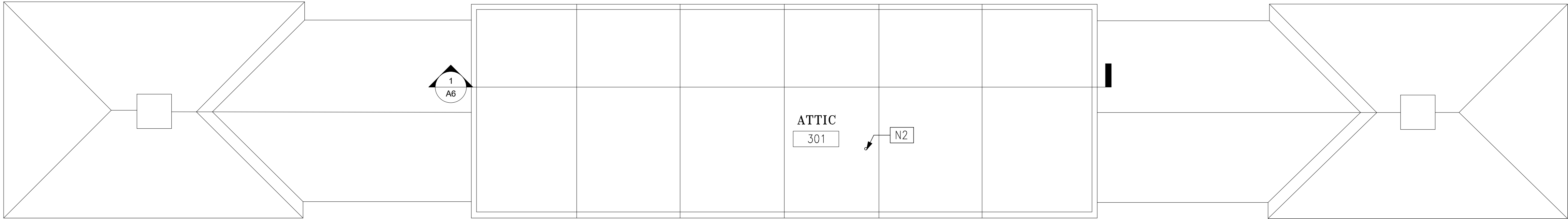


DESIGNED: AVB CADD DYE TECH. REVIEW: AVB DATE: 05/20/2020	SUB SHEET NO. A2	TITLE OF SHEET MANOR BUILDING - BASEMENT & LEVEL 1 PLANS CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD PMIS/PKG NO. 201227 SHEET 6 OF 19
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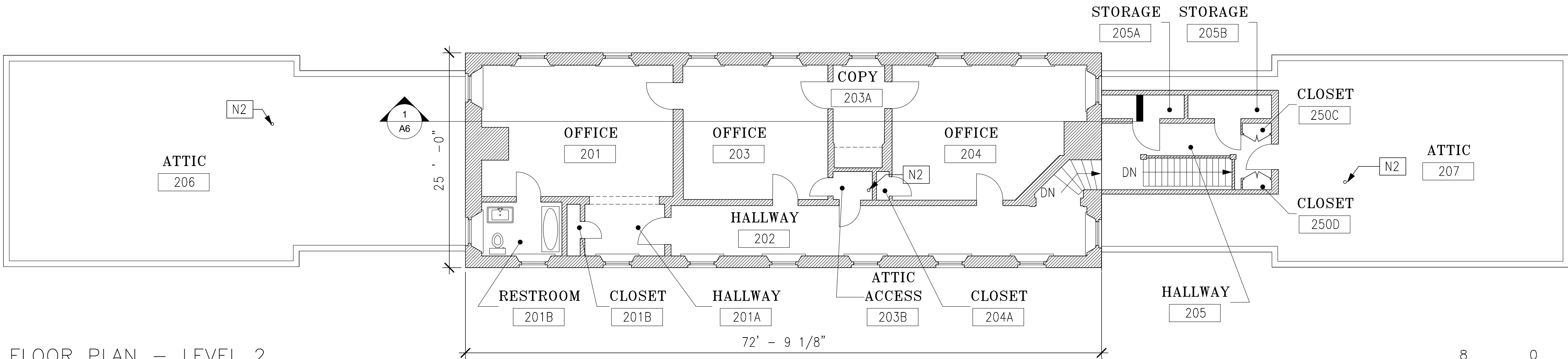
GENERAL CONSTRUCTION NOTES

- 1
- EXISTING CONDITIONS SHOWN ARE AS OF EXISTING RECORD DWGS. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK.
- 2
- ALL EXISTING CONDITIONS DAMAGED FROM REMOVALS TO BE PATCHED AND REPAIRED WITH IN-KIND MATERIAL BY THE CONTRACTOR AND PAINTED TO MATCH ADJACENT EXISTING. COORDINATE W/THE CONTRACTING OFFICER.
- 3
- CONTRACTOR TO COORDINATE VERTICAL RISERS TO AVOID CUTTING OR DRILLING ANY EXISTING FLOOR JOISTS OR OTHER STRUCTURAL ELEMENTS.
- 4
- CONTRACTOR TO TOUCH-UP PAINT OF ANY FACTORY PAINTED EXPOSED PIPES, ACCESSORIES AND FITTINGS DAMAGED DURING CONSTRUCTION.
- N2
- NEW 4" DRY-PIPE, SEE FIRE SUPPRESSION DWGS

KEYNOTE LEGEND

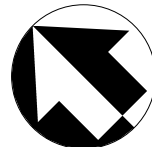


2 FLOOR PLAN — ATTIC
1/8" = 1'-0"



1 FLOOR PLAN — LEVEL 2
1/8" = 1'-0"

8 0 8 16 1/8" = 1'-0"
SCALE OF FEET



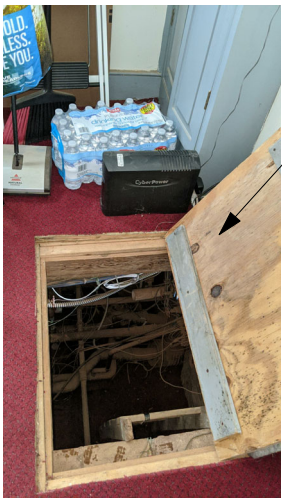
DESIGNED: AVB GAD DYE	SUB SHEET NO. A3	TITLE OF SHEET MANOR BUILDING — LEVEL 2 & ATTIC PLANS CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD PMIS/PKG NO. 201227 SHEET 7 OF 19
TECH. REVIEW: AVB DATE: 05/20/2020			

KEYNOTE LEGEND

- E4 EXISTING UTILITY TRENCH, VERIFY LOCATION
N8 NEW WATER LINE, SEE FIRE SUPPRESSION DWGS



8 PHOTO — CRAWLSPACE ACCESS (KITCHEN BLDG)
A4 NTS



7 PHOTO — CRAWLSPACE ACCESS (KITCHEN BLDG)
A4 NTS

CONTRACTOR TO CAREFULLY REMOVE AND PROTECT EXISTING ACCESS HATCH COVER TO PERFORM WORK AND PROTECT ADJACENT AREAS. COORDINATE ANY REPAIRS W/THE CONTRACTING OFFICER.



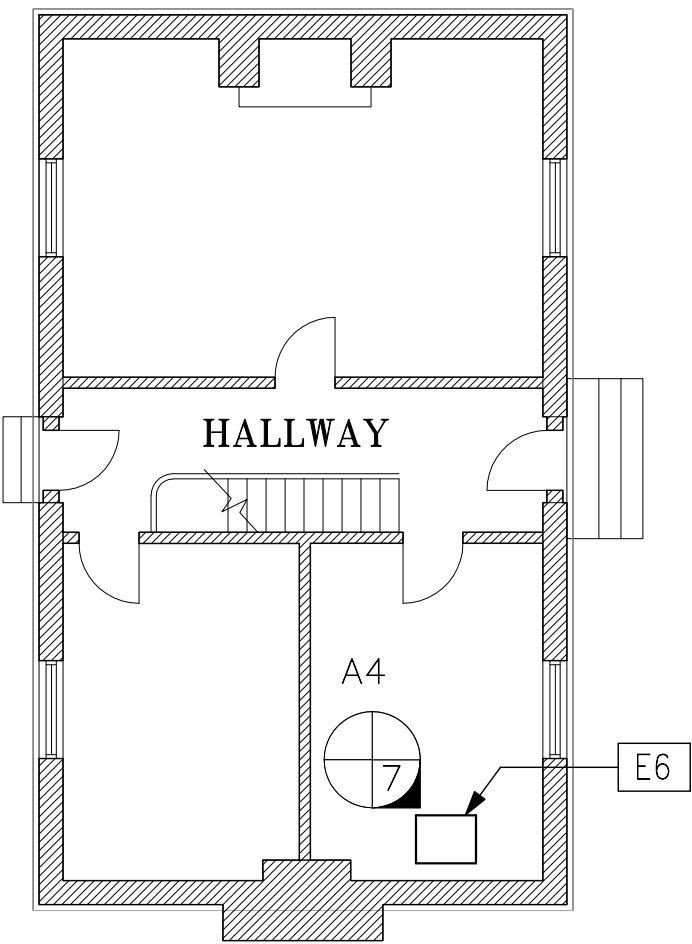
6 PHOTO — LEVEL 1 (UTILITY BLDG)
A4 NTS



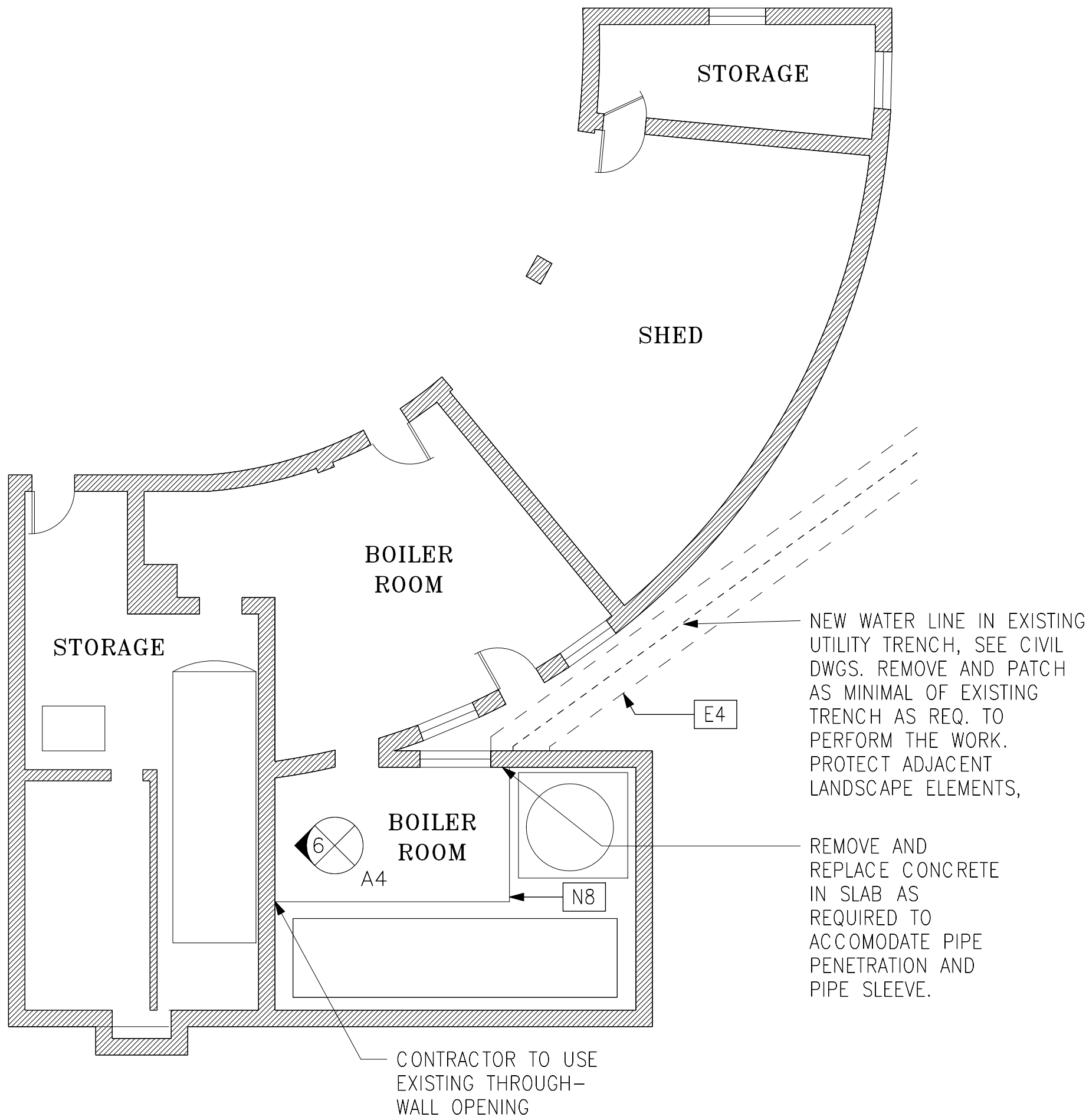
5 PHOTO — BASEMENT (UTILITY BLDG)
A4 NTS

GENERAL CONSTRUCTION NOTES

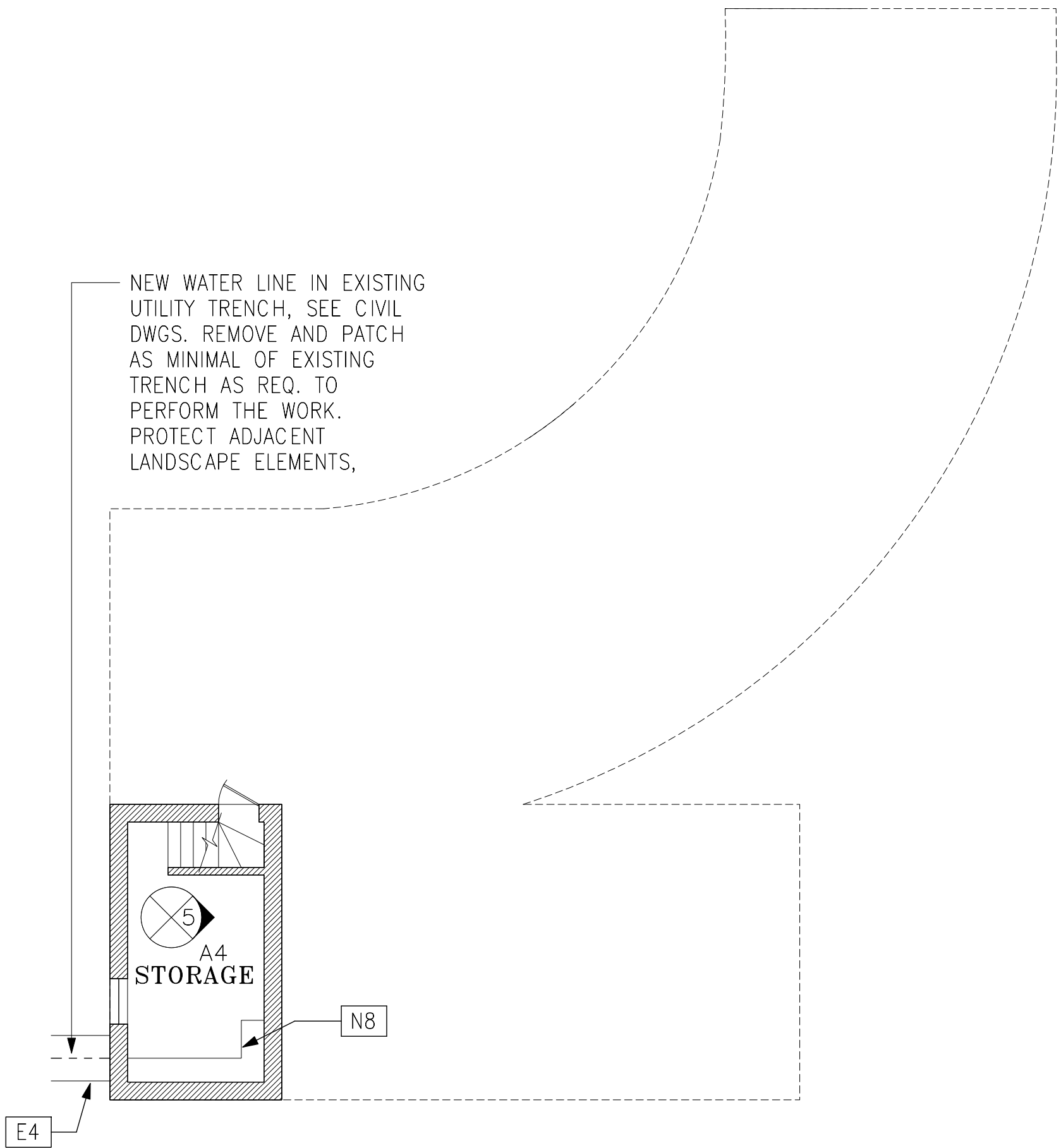
- 1 EXISTING CONDITIONS SHOWN ARE AS OF EXISTING RECORD DWGS. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK.
- 2 ALL EXISTING CONDITIONS DAMAGED FROM REMOVALS TO BE PATCHED AND REPAIRED WITH IN-KIND MATERIAL BY THE CONTRACTOR AND PAINTED TO MATCH ADJACENT EXISTING. COORDINATE W/THE CONTRACTING OFFICER.
- 3 CONTRACTOR TO COORDINATE VERTICAL RISERS TO AVOID CUTTING OR DRILLING ANY EXISTING FLOOR JOISTS OR OTHER STRUCTURAL ELEMENTS.
- 4 CONTRACTOR TO TOUCH-UP PAINT OF ANY FACTORY PAINTED EXPOSED PIPES, ACCESSORIES AND FITTINGS DAMAGED DURING CONSTRUCTION TO MATCH.



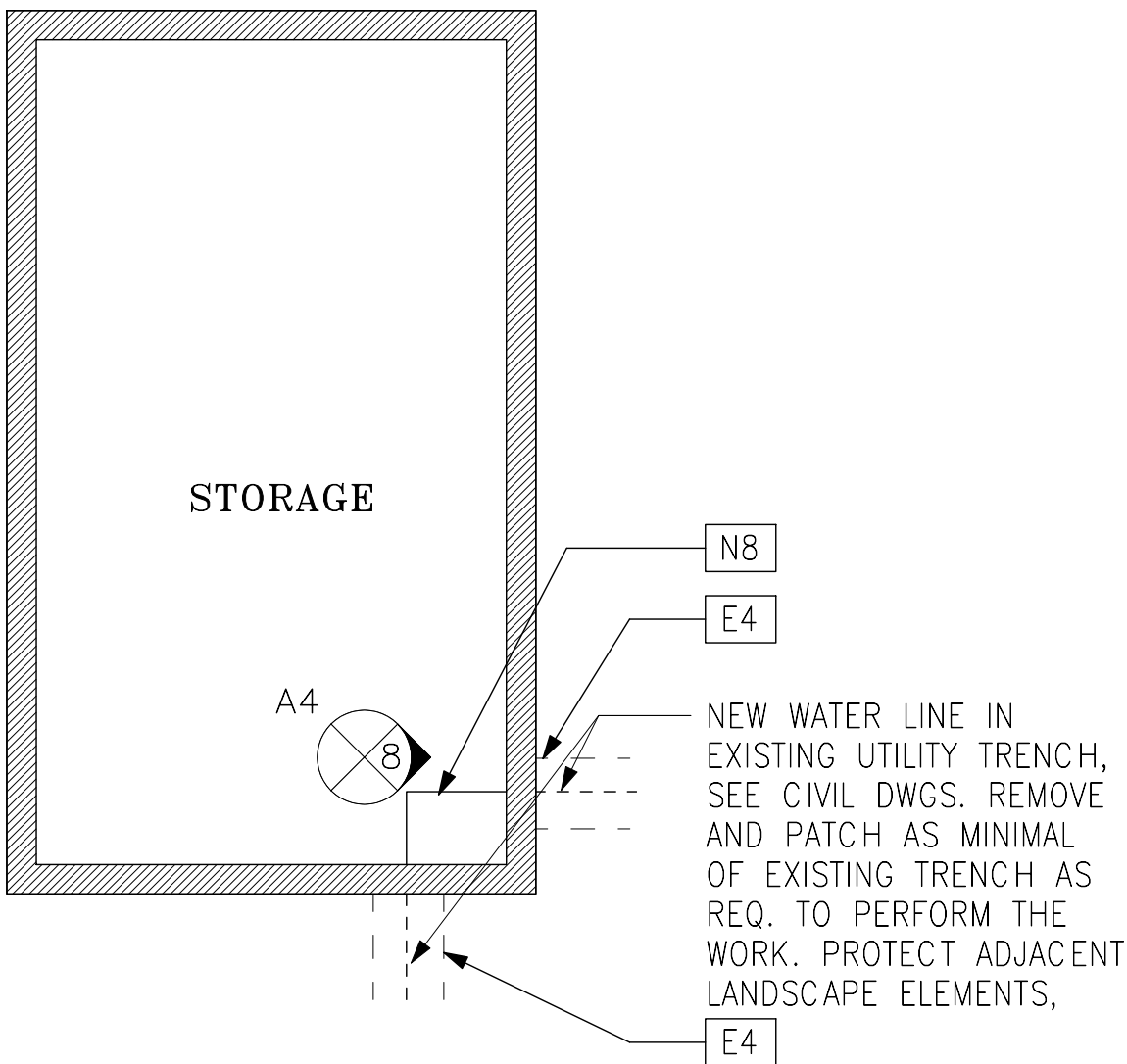
2 FLOOR PLAN — LEVEL 1 (KITCHEN BLDG)
A4 1/8" = 1'-0"



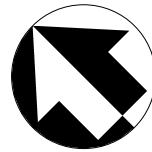
3 FLOOR PLAN — LEVEL 1 (UTILITY BLDG)
A4 1/8" = 1'-0"



4 FLOOR PLAN — BASEMENT (UTILITY BLDG)
A4 1/8" = 1'-0"



1 FLOOR PLAN — BASEMENT (KITCHEN BLDG)
A4 1/8" = 1'-0"



DESIGNED: AVB GAD DYE TECH. REVIEW: MSC DATE: 05/20/2020	SUB SHEET NO. A4	TITLE OF SHEET ANCILLARY BUILDINGS — BASEMENT & LEVEL 1 PLANS CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD PMIS/PKG NO. 201227 SHEET 8 OF 19
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KEYNOTE LEGEND

- E2 EXISTING WOOD JOIST BELOW
E3 EXISTING WOOD PLANK SUBFLOOR BELOW
N3 NEW 2" WET-PIPE, SEE FIRE SUPPRESSION DWGS
N13 NEW 2" DRY-PIPE, SEE FIRE SUPPRESSION DWGS

GENERAL CONSTRUCTION NOTES

- 1 EXISTING CONDITIONS SHOWN ARE AS OF EXISTING RECORD DWGS. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK.
- 2 ALL EXISTING CONDITIONS DAMAGED FROM REMOVALS TO BE PATCHED AND REPAIRED WITH IN-KIND MATERIAL BY THE CONTRACTOR AND PAINTED TO MATCH ADJACENT EXISTING. COORDINATE W/THE CONTRACTING OFFICER.
- 3 CONTRACTOR TO COORDINATE VERTICAL RISERS TO AVOID CUTTING OR DRILLING ANY EXISTING FLOOR JOISTS OR OTHER STRUCTURAL ELEMENTS.
- 4 CONTRACTOR TO TOUCH-UP PAINT OF ANY FACTORY PAINTED EXPOSED PIPES, ACCESSORIES AND FITTINGS DAMAGED DURING CONSTRUCTION TO MATCH.



EXISTING ACCESS WOOD PANEL – LOWER

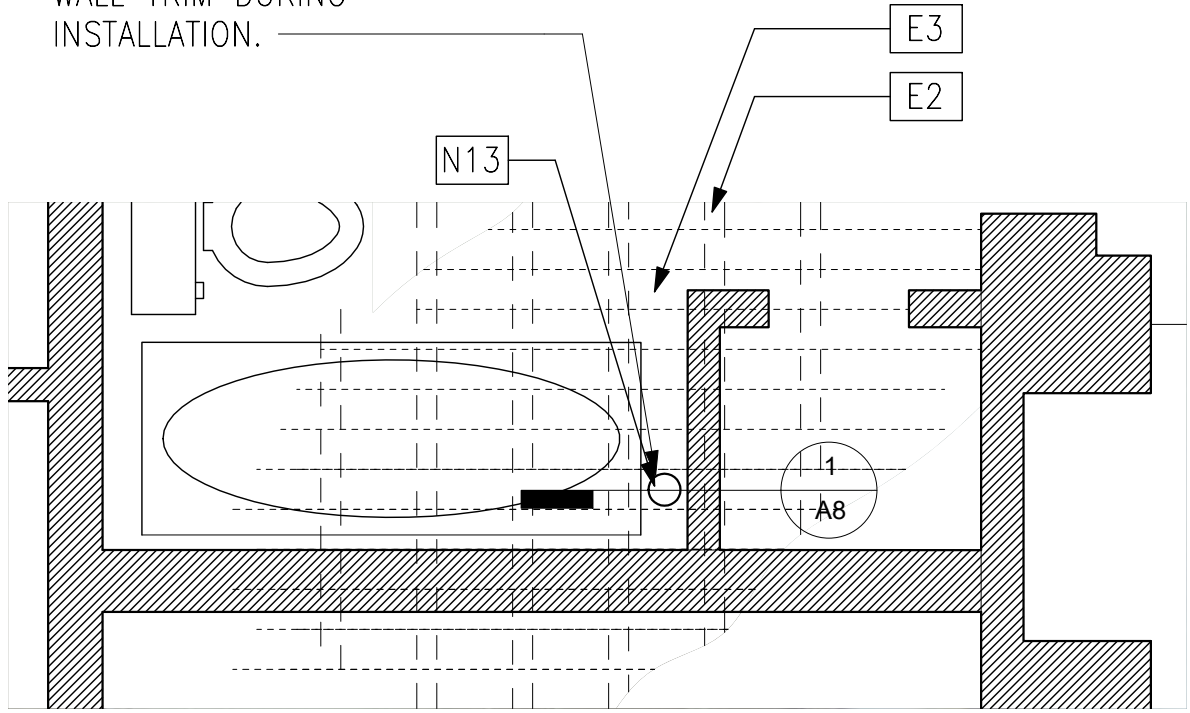


EXISTING CHASE

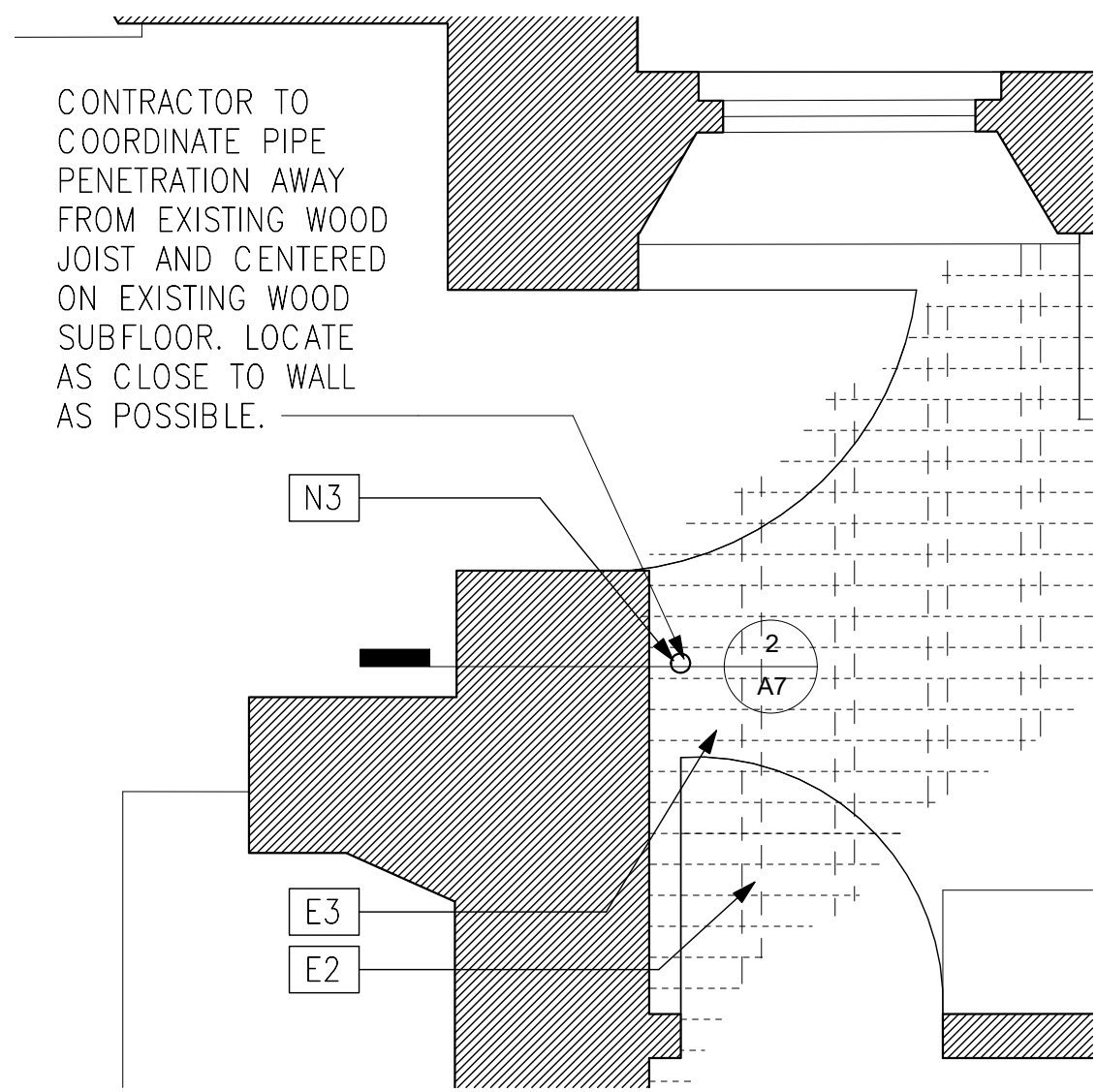


EXISTING ACCESS WOOD PANEL – UPPER

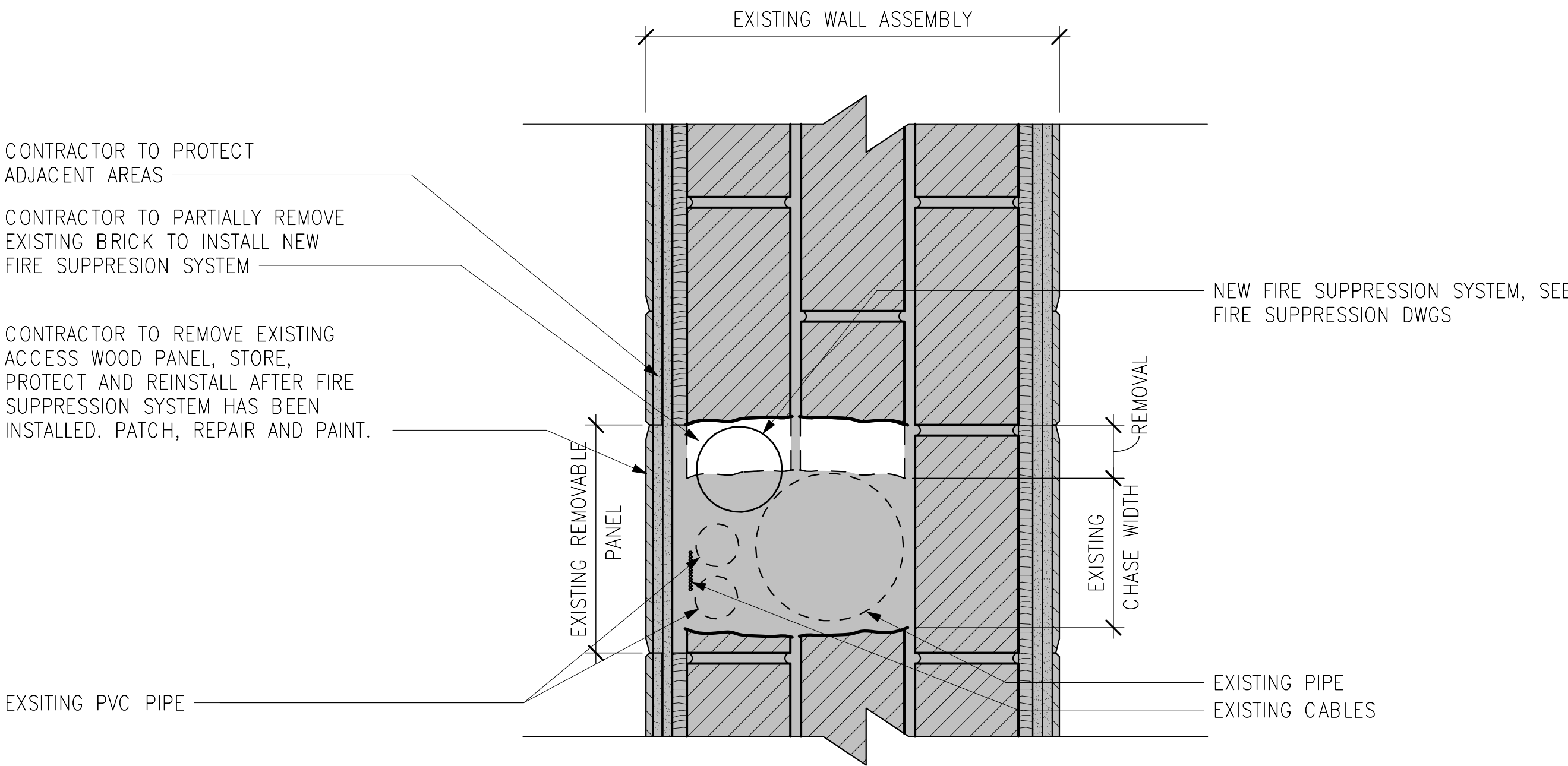
CONTRACTOR TO COORDINATE PIPE PENETRATION AWAY FROM EXISTING WOOD JOIST AND CENTERED ON EXISTING WOOD SUBFLOOR. PROTECT EXISTING CARPET, TUB AND WALL TRIM DURING INSTALLATION.



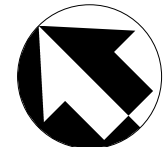
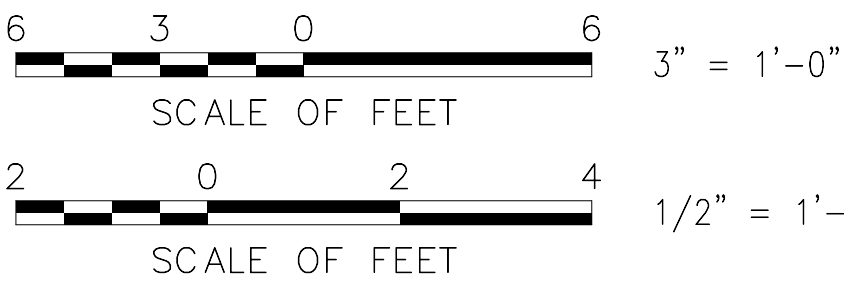
2 PLAN DETAIL – PENETRATION @ RESTROOM 103A
1/2" = 1'-0"



1 PLAN DETAIL – PENETRATION @ EXHIBIT (PANTRY)
1/2" = 1'-0"



NOTE: CONTRACTOR TO PROVIDE WORKPLAN TO CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO PERFORMING THE WORK. WORKPLAN TO INCLUDE BUT ARE NOT LIMITED TO DESCRIPTION OF PROTECTION MEASURES OF THE ADJACENT WOOD PANELING, PROCESS OF REMOVAL OF EXISTING BRICK, REINSTALLATION OF EXISTING ACCESS WOOD PANELS, PATCHING, REPAIRING AND PAINTING OF AREAS AFFECTED BY THIS WORK.



3 PLAN DETAIL – EXPANSION OF EXISTING CHASE
3" = 1'-0"

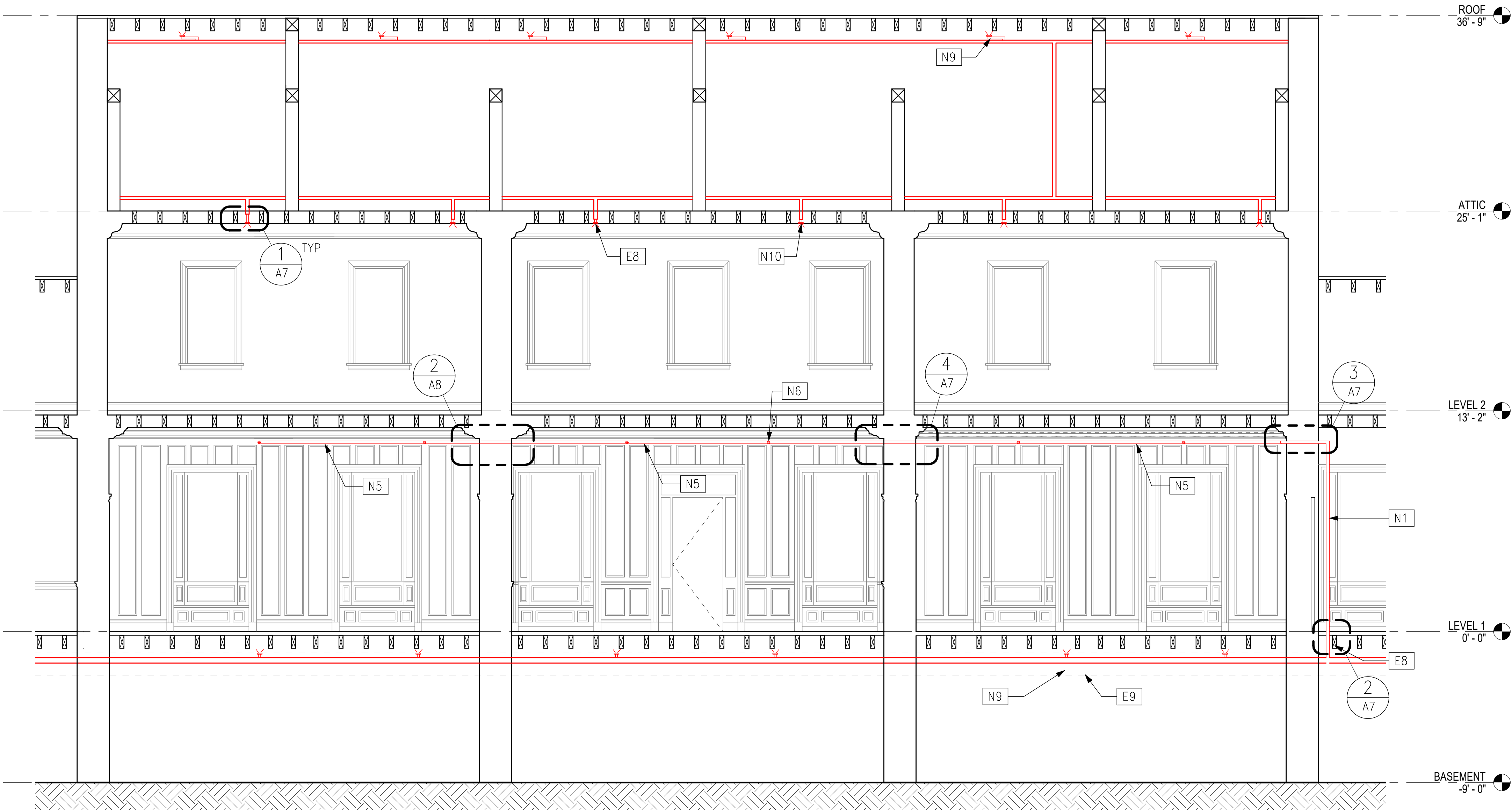
DESIGNED: AVB GAD DYE	SUB SHEET NO. A5	TITLE OF SHEET PLAN DETAILS	DRAWING NO. TBD
TECH. REVIEW: MSC			PMIS/PKG NO. 201227
DATE: 05/20/2020		CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	SHEET 9 OF 19

KEYNOTE LEGEND

- E8 CONTRACTOR TO AVOID CUTTING OR DRILLING THROUGH EXISTING WOOD JOISTS, TYP.
E9 EXISTING DUCTS
N1 NEW EXPOSED VERTICAL SPRINKLER PIPE. FACTORY PAINT EXPOSED PIPE, ACCESSORIES AND FITTINGS TO MATCH ADJACENT WALL
N5 NEW EXPOSED HORIZONTAL SPRINKLER PIPE. FACTORY PAINT EXPOSED PIPE, ACCESSORIES AND FITTINGS TO MATCH ADJACENT WALL
N6 NEW SIDEWALL SPRINKLER, SEE FIRE SUPPRESSION DWGS. COORDINATE FINAL LOCATIONS W/THE CONTRACTING OFFICER PRIOR TO INSTALLATION.
N9 NEW EXPOSED SPRINKLER SYSTEM, SEE FIRE SUPPRESSION DWGS
N10 NEW CONCEALED SPRINKLER SYSTEM, SEE FIRE SUPPRESSION DWGS

GENERAL CONSTRUCTION NOTES

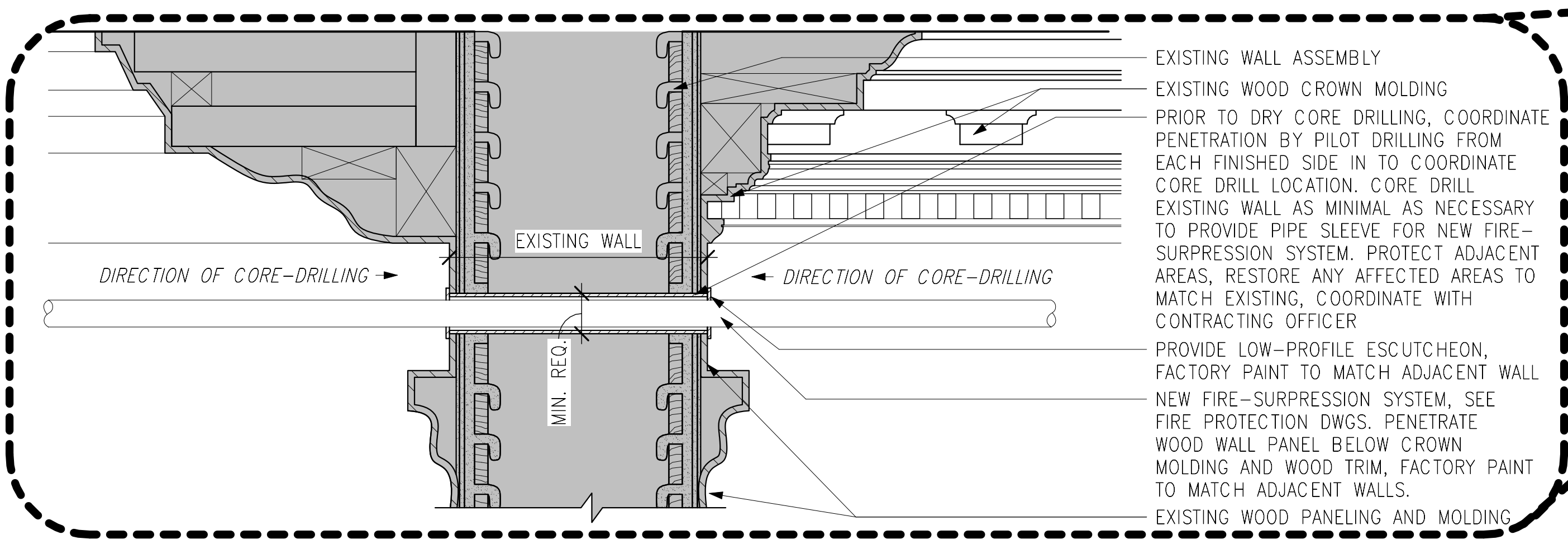
- 1 EXISTING CONDITIONS SHOWN ARE AS OF EXISTING RECORD DWGS. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK.
2 ALL EXISTING CONDITIONS DAMAGED FROM REMOVALS TO BE PATCHED AND REPAIRED WITH IN-KIND MATERIAL BY THE CONTRACTOR AND PAINTED TO MATCH ADJACENT EXISTING. COORDINATE W/THE CONTRACTING OFFICER.
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4 CONTRACTOR TO TOUCH-UP PAINT OF ANY FACTORY PAINTED EXPOSED PIPES, ACCESSORIES AND FITTINGS DAMAGED DURING CONSTRUCTION TO MATCH.



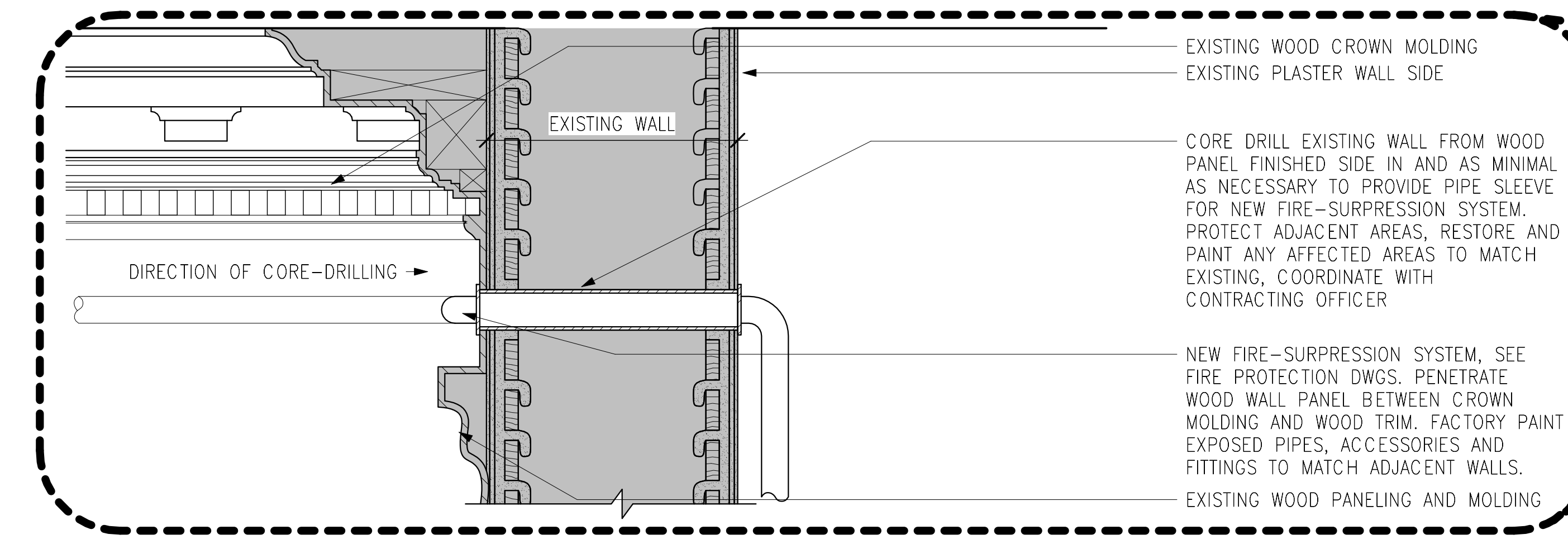
NOTE: DIAGRAMATICAL SECTION. DO NOT DIMENSION. REFER TO FIRE PROTECTION DRAWINGS FOR FIRE SPRINKLER SYSTEM

1 PARTIAL BUILDING SECTION – 'MAIN HOUSE' (NORTH)
A6 NTS

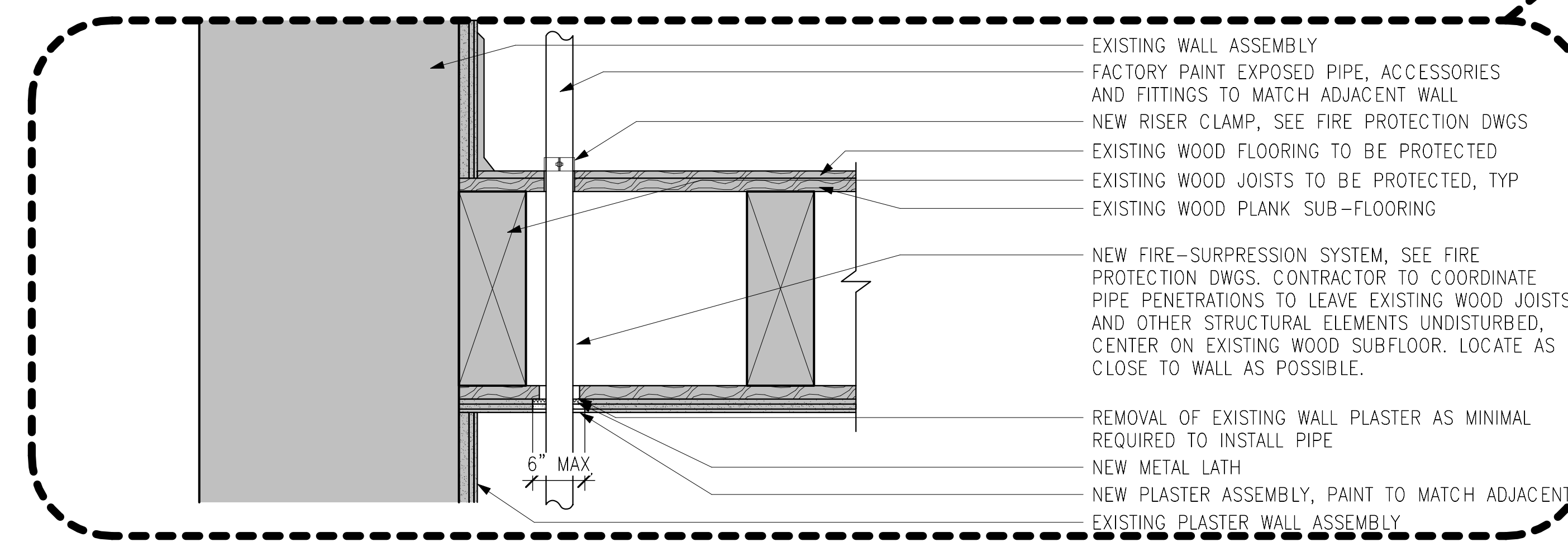
DESIGNED: AVB GAD DYE	SUB SHEET NO. A6	TITLE OF SHEET PARTIAL SECTIONS & ELEVATIONS CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD PMIS/PKG NO. 201227 SHEET 10 OF 19
TECH. REVIEW: MSC DATE: 05/20/2020			



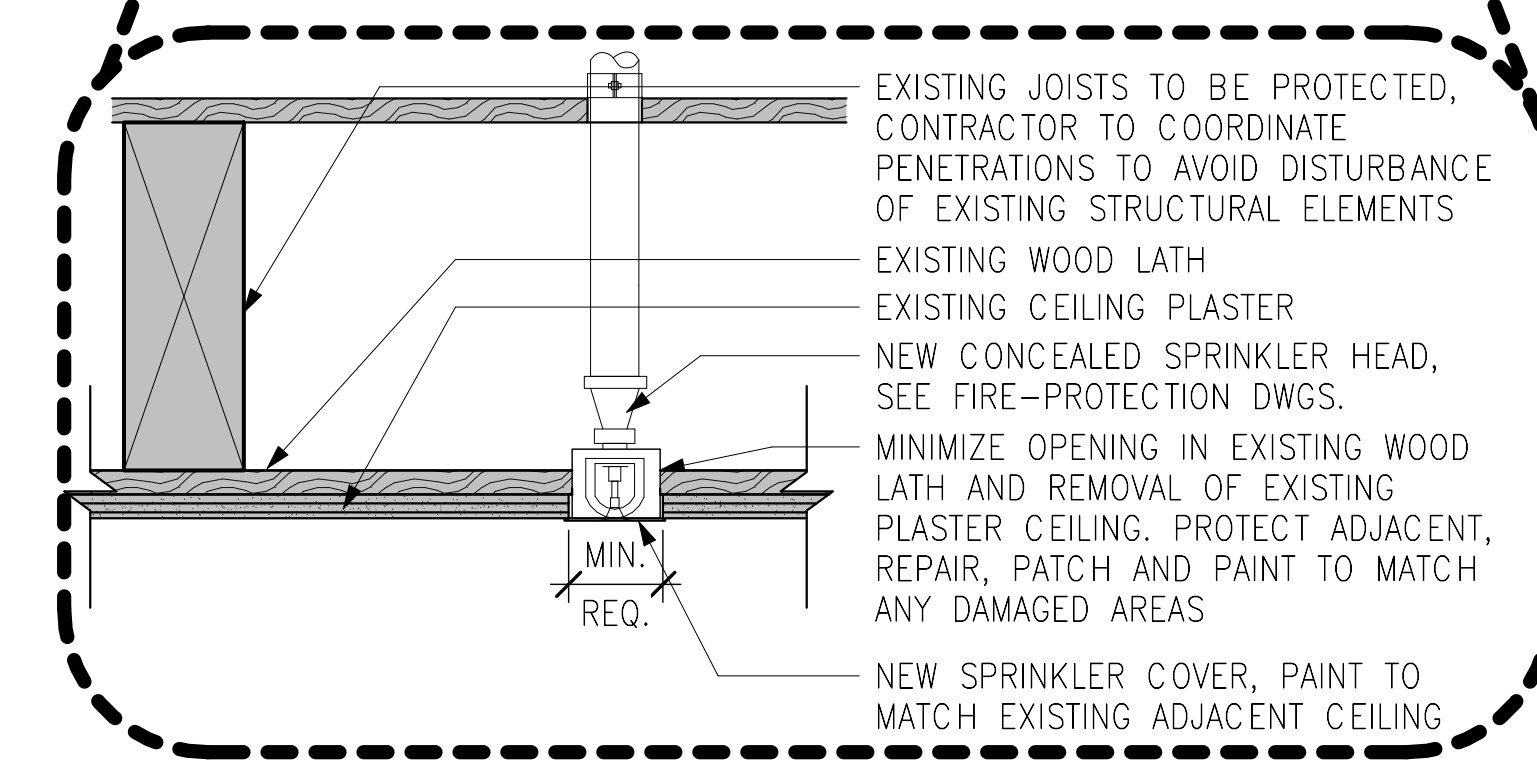
4 SECTION DETAIL – THROUGH-WALL PENETRATION @ WOOD PANELING
3" = 1'-0"



3 SECTION DETAIL – THROUGH-WALL PENETRATION
3" = 1'-0"



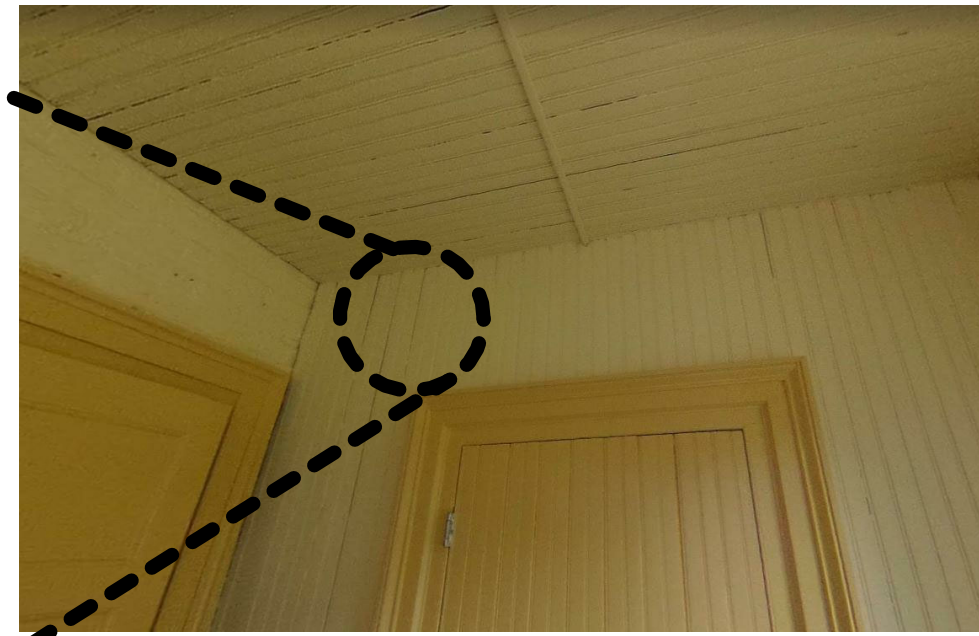
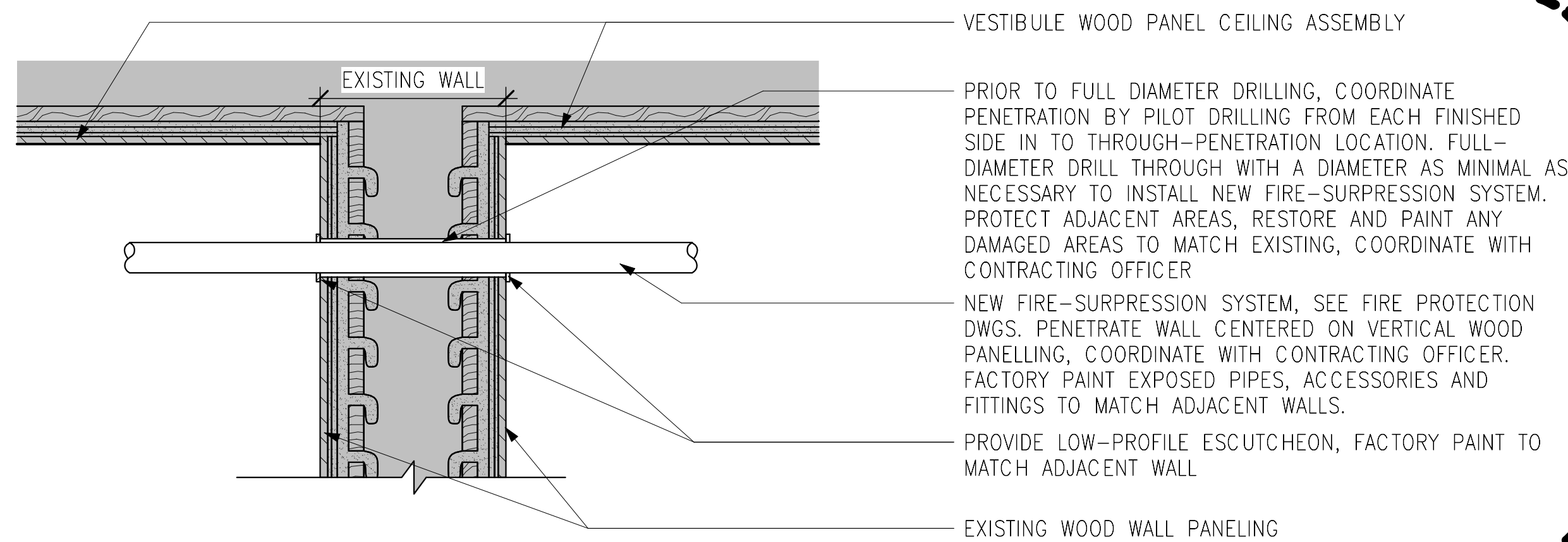
2 SECTION DETAIL – THROUGH-FLOOR PENETRATION
3" = 1'-0"



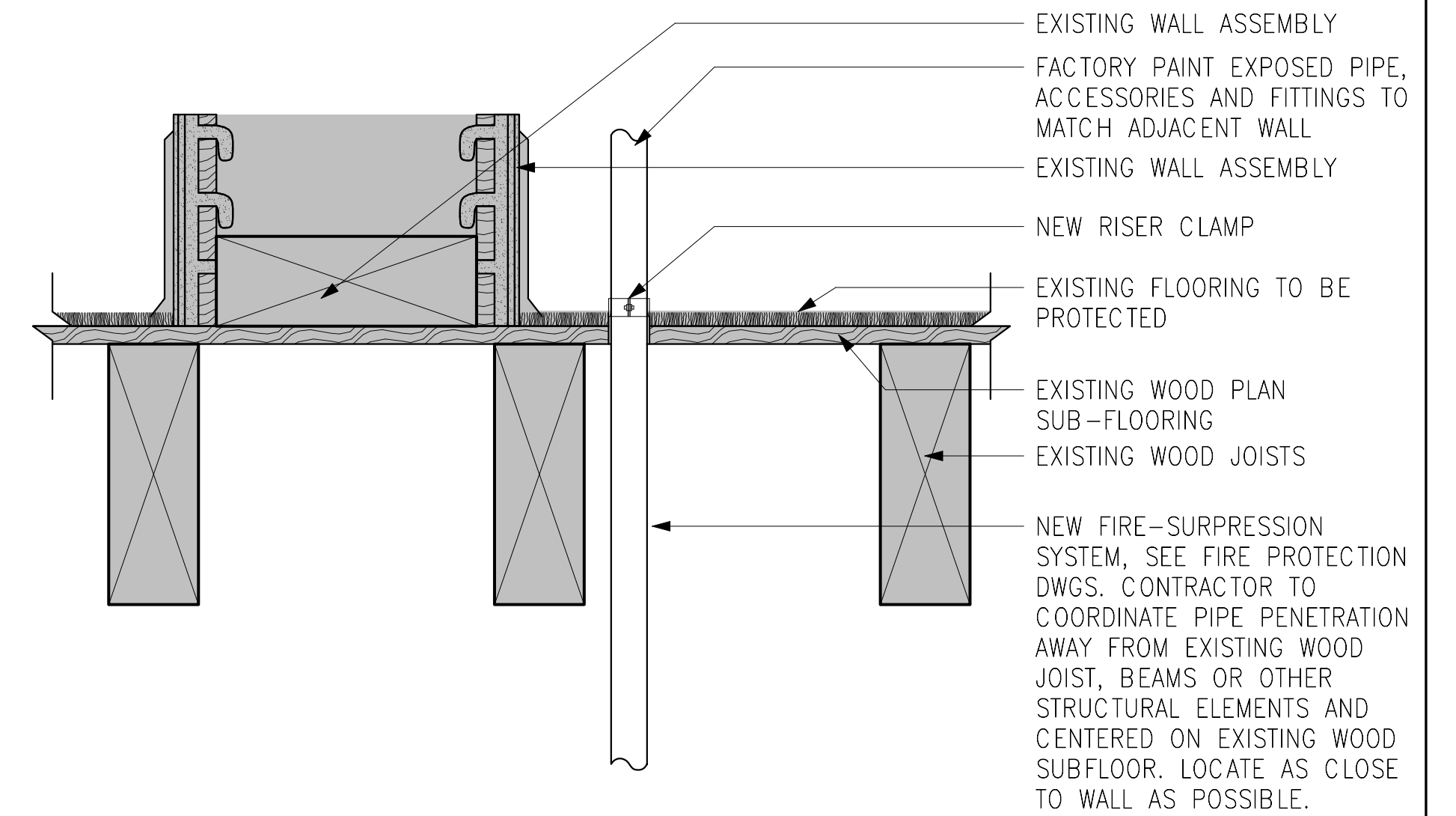
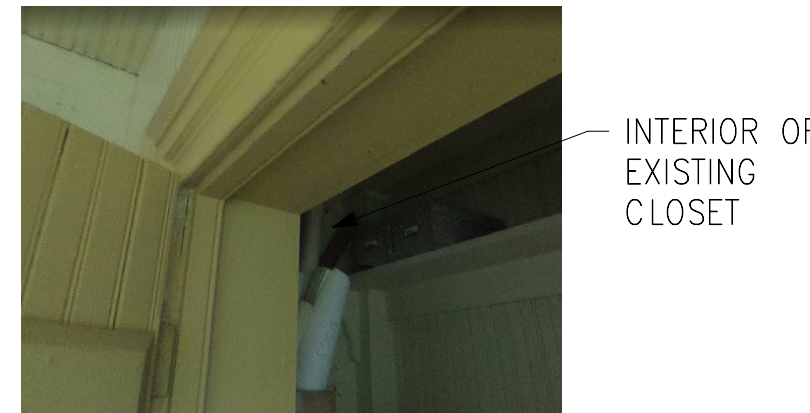
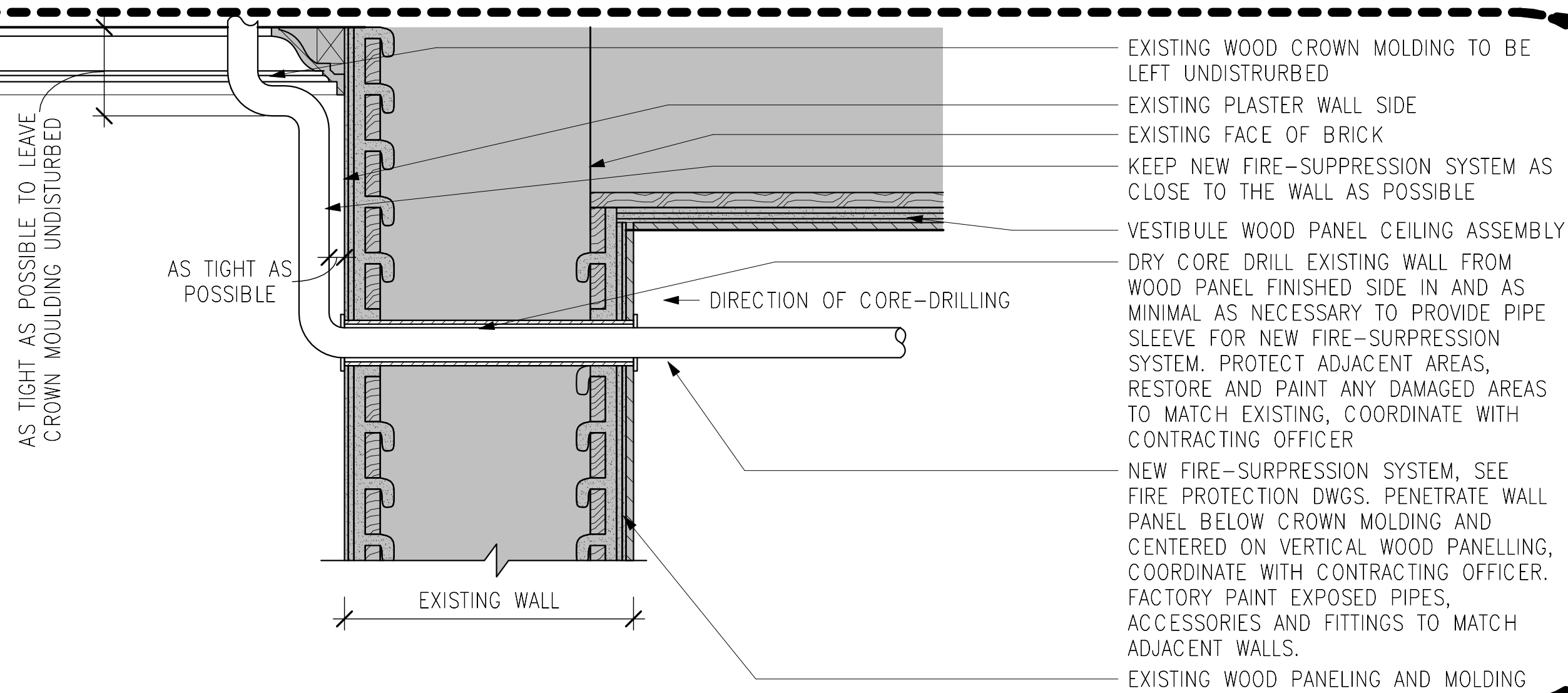
1 SECTION DETAIL – CEILING PENETRATION
3" = 1'-0"

6 3 0 6 3" = 1'-0"
SCALE OF FEET

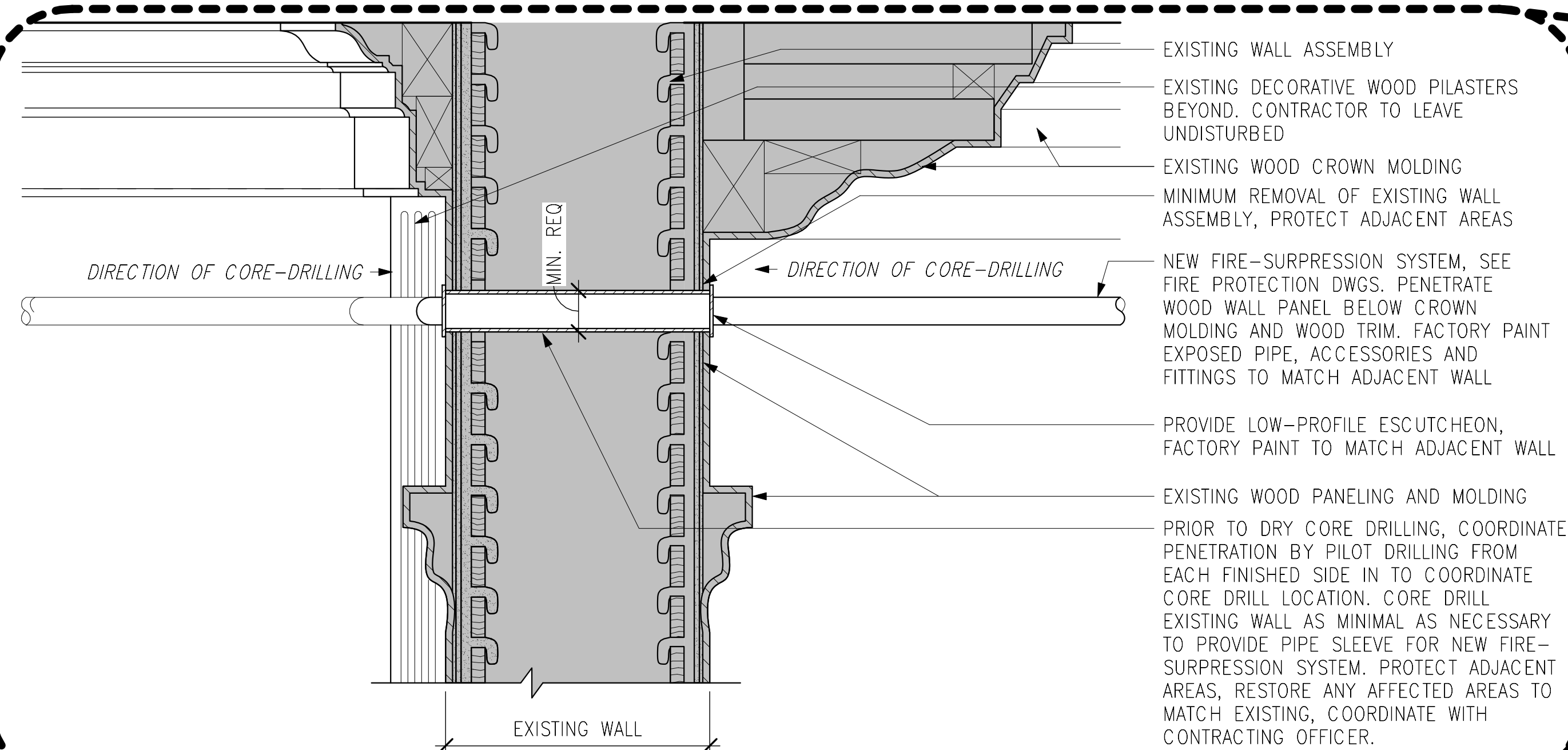
DESIGNED: AVB CADD DYE TECH. REVIEW: MSC DATE: 05/20/2020	SUB SHEET NO. A7	TITLE OF SHEET SECTION DETAILS CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD PMIS/PKG NO. 201227 SHEET 11 OF 19
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4
A8 SECTION DETAIL – THROUGH-WALL PENETRATION
NTS



1
A8 SECTION DETAIL – THROUGH-FLOOR PENETRATION
3" = 1'-0"



6 3 0 6
SCALE OF FEET 3" = 1'-0"

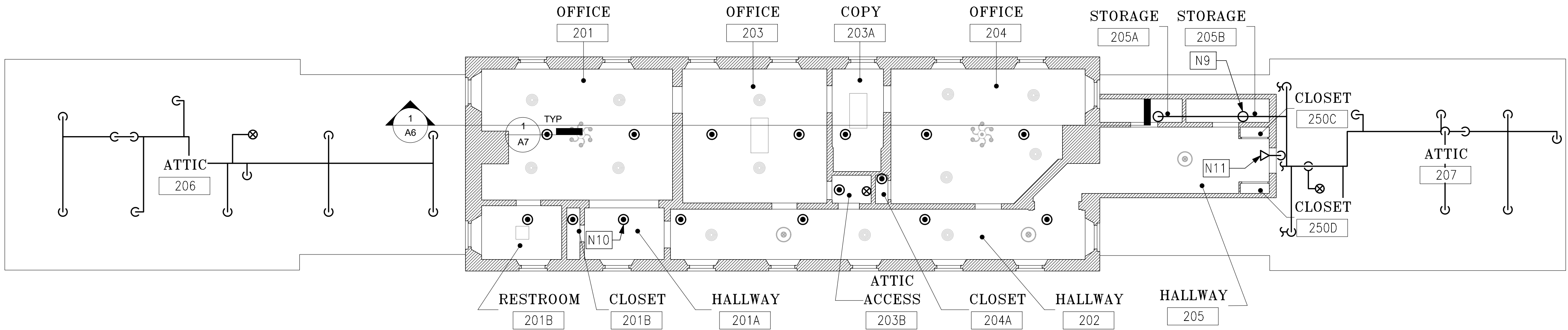
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A8 SECTION DETAIL – THROUGH-WALL PENETRATION @ WOOD PANELING
3" = 1'-0"

DESIGNED: AVB CADD DYE TECH. REVIEW: MSC DATE: 05/20/2020	SUB SHEET NO. A8	TITLE OF SHEET SECTION DETAILS CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD PMIS/PKG NO. 201227 SHEET 12 OF 19
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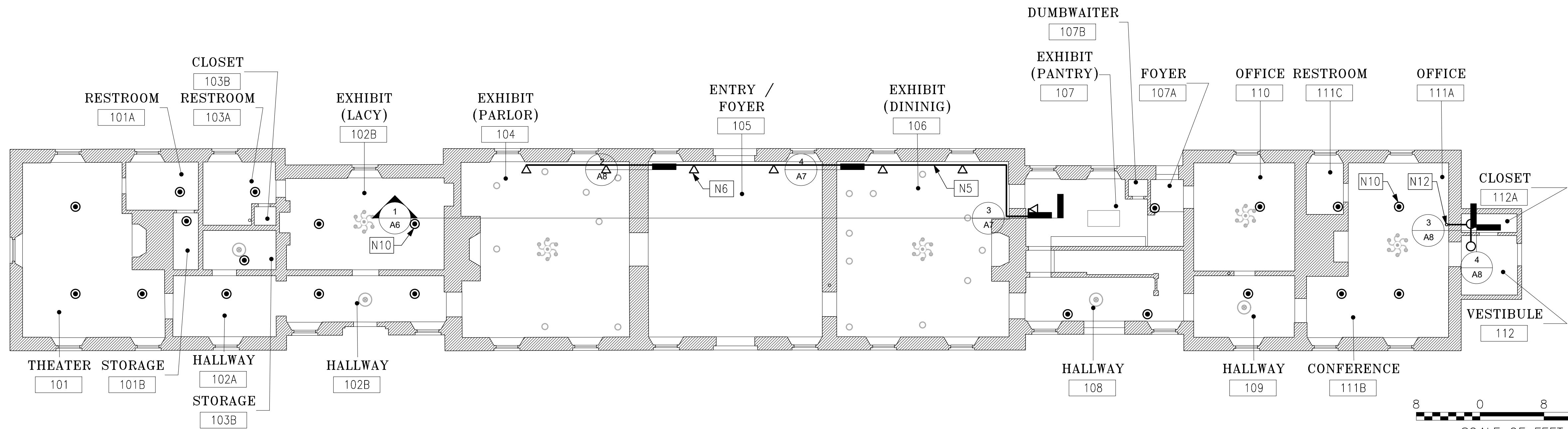
GENERAL CONSTRUCTION NOTES

- 1
- EXISTING CONDITIONS SHOWN ARE AS OF EXISTING RECORD DWGS. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK.
- 2
- ALL EXISTING CONDITIONS DAMAGED FROM REMOVALS TO BE PATCHED AND REPAIRED WITH IN-KIND MATERIAL BY THE CONTRACTOR AND PAINTED TO MATCH ADJACENT EXISTING. COORDINATE W/THE CONTRACTING OFFICER.
- 3
- CONTRACTOR TO COORDINATE VERTICAL RISERS TO AVOID CUTTING OR DRILLING ANY EXISTING FLOOR JOISTS OR OTHER STRUCTURAL ELEMENTS.
- 4
- CONTRACTOR TO TOUCH-UP PAINT OF ANY FACTORY PAINTED EXPOSED PIPES, ACCESSORIES AND FITTINGS DAMAGED DURING CONSTRUCTION TO MATCH ADJACENT EXISTING.
- 5
- NEW EXPOSED HORIZONTAL SPRINKLER PIPE. FACTORY PAINT EXPOSED PIPE, ACCESSORIES AND FITTINGS TO MATCH ADJACENT WALL.
- 6
- NEW SIDEWALL SPRINKLER, SEE FIRE SUPPRESSION DWGS. COORDINATE FINAL LOCATIONS W/THE CONTRACTING OFFICER PRIOR TO INSTALLATION.
- 9
- NEW EXPOSED SPRINKLER SYSTEM, SEE FIRE SUPPRESSION DWGS.
- 10
- NEW CONCEALED SPRINKLER SYSTEM, SEE FIRE SUPPRESSION DWGS.
- 11
- NEW SIDEWALL SPRINKLER, SEE FIRE SUPPRESSION DWGS.
- 12
- NEW 1.5" DRY-PIPE, SEE FIRE SUPPRESSION DWGS.

KEYNOTE LEGEND



2 CEILING PLAN – LEVEL 2
1/8" = 1'-0"



1 CEILING PLAN – LEVEL 1
1/8" = 1'-0"

DESIGNED: AVB GAD DYE	SUB SHEET NO. A9	TITLE OF SHEET MANOR BUILDING CEILING PLANS – LEVEL 1 & LEVEL 2 CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD PMIS/PKG NO. 201227 SHEET 13 OF 19
TECH. REVIEW: MSC			
DATE: 05/20/2020			

SPRINKLER GENERAL NOTES

1.

SCOPE OF WORK: PROVIDE COMPLETE HYDRAULICALLY CALCULATED AUTOMATIC WET AND DRY-PIPE SPRINKLER SYSTEM THROUGHOUT THE BUILDING. PROVIDE NITROGEN GENERATOR FOR THE DRY SYSTEM. ALL WORK AND INSTALLATION SHALL CONFORM TO THE APPLICABLE IN ACCORDANCE WITH NFPA 13 (2019 EDITION). PROVIDE ALL EQUIPMENT, LABOR AND MATERIAL FOR AN ACCEPTED AUTOMATIC SPRINKLER SYSTEM, INCLUDING WATER FLOW ALARM SWITCHES, VALVE SUPERVISORY SWITCHES, CHECK VALVES, CONTROL VALVES, PIPING, HANGERS, SPRINKLERS, AND ALL ASSOCIATED EQUIPMENT. NEW SPRINKLER SYSTEM TO BE FULLY MONITORED BY THE EXISTING FIRE ALARM SYSTEM. PROVIDE CONNECTIONS AS NECESSARY. EXISTING FIRE ALARM CONTROL PANEL IN LOCATED IN THE BASEMENT.
2.

THE CONTRACTOR SHALL COORDINATE SPRINKLER LOCATIONS WITH ALL TRADE SHOP DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH NFPA 13 OBSTRUCTION RULES, AVOIDING ALL CONFLICTS WITH LIGHTING FIXTURES, DIFFUSERS, GRILLS, DUCTS, STRUCTURAL MEMBERS, PIPES AND OTHER OBSTRUCTIONS ENCOUNTERED. THESE SPRINKLER DRAWINGS SHOW DESIGN INTENT ONLY.
3.

THE CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS ON THE DRAWINGS PRIOR TO THE EXECUTION OF THIS CONTRACT. SHOULD CONDITIONS BE DISCOVERED THAT PREVENT EXECUTION OF THE WORK AS INDICATED, IMMEDIATELY NOTIFY THE CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE ("COR") IN WRITING AND AWAIT DIRECTION BEFORE PROCEEDING WITH THE WORK.
4.

REFER TO ARCHITECTURAL DRAWINGS, REFLECTED CEILING PLANS, AND FINISH SCHEDULED FOR CEILING HEIGHTS AND OTHER DIMENSIONS.
5.

ALL AREAS ARE LIGHT HAZARD UNLESS NOTED OTHERWISE.
6.

ALL FIRE PROTECTION SYSTEM CONTROL VALVES SHALL BE INDICATING TYPE VALVES AND EQUIPPED WITH APPROVED VALVE SUPERVISORY SWITCHES. COORDINATE WITH FIRE ALARM SUBCONTRACTOR TO CONNECT SUPERVISORY (TAMPER) SWITCHES TO THE FIRE ALARM SYSTEM.
7.

ALL EQUIPMENT SHALL BE TESTED/APPROVED BY A NATIONAL TESTING LABORATORY WHEN REQUIRED PER NFPA CODES AND THE SPECIFICATIONS, AND INSTALLED PER THE LISTING AND MANUFACTURERS INSTALLATION INSTRUCTIONS.
8.

INSTALL HANGERS PER NFPA 13.
9.

PROVIDE SPRINKLER UNDER ALL OBSTRUCTIONS GREATER THAN 48" IN WIDTH AND AS NEEDED TO PROVIDE PROPER COVERAGE AS REQUIRED PER NFPA 13.
10.

ALL WALL AND FLOOR PENETRATIONS SHALL BE CORE-DRILLED. PROVIDE CLEARANCE AROUND PENETRATIONS IN ACCORDANCE WITH NFPA 13. ALL PENETRATIONS IN WALLS, CEILINGS AND FLOORS SHALL BE SEALED TO THE FULL THICKNESS OF THE PENETRATION WITH A UL LISTED FIRE STOP ASSEMBLY OF EQUAL OR GREATER FIRE RESISTANCE OF THE PENETRATED MEMBER.
11.

CONTRACTOR SHALL MAINTAIN AS MUCH HEAD ROOM CLEARANCE AS PRACTICAL BETWEEN THE FINISHED FLOOR AND BOTTOM OF SPRINKLER PIPE, FITTINGS, VALVES, AND SPRINKLERS IN ALL AREAS WITH EXPOSED PIPE.
12.

PIPING: ALL PIPE FOR WET AND DRY SYSTEMS SHALL BE BLACK STEEL PIPE, SCHEDULE 40. PIPE 2.5" AND LARGER SHALL BE PERMITTED TO BE BLACK STEEL PIPE, SCHEDULE 10.
13.

COMPRESSION TYPE / PLAIN END FITTINGS ARE NOT PERMITTED.
14.

CONTRACTOR SHALL MAKE PROVISIONS TO ENSURE ADEQUATE DRAINAGE OF ALL PIPING. AUXILIARY DRAINS SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 13.
15.

FITTINGS, MECHANICAL COUPLINGS, AND RUBBER GASKETS MUST BE FROM THE SAME MANUFACTURER.
16.

DO NOT ROUTE SPRINKLER SYSTEM PIPING OVER ELECTRICAL PANELS OR TELECOM EQUIPMENTS.
16.

TEMPERATURE RATING FOR SPRINKLERS NEAR HEATERS AND OTHER HEAT SOURCES SHALL BE PER NFPA 13.
17.

FLOW TEST DATA:

WATER FLOW TEST DATED: 6/20/18 4:30

CONDUCTED BY: DAVID ESCALANTE, PE. AND HUY THAI - RHINO FIRE PROTECTION ENGINEERING, PLLC

WITNESSED BY: NATIONAL PARK SERVICES, CHATHAM MANOR

LOCATION: CHATHAM MANOR DR. AND PRATT ST.

STATIC PRESSURE: 109 PSI.

RESIDUAL PRESSURE: 55 PSI.

FLOW: 755 GPM
18.

CONTRACTOR TO CONDUCT NEW FLOW TEST AND SUBMIT NEW HYDRAULIC CALCULATIONS WITH SHOP DRAWINGS. THE CALCULATIONS SHALL PROVE THAT THE EXISTING WATER SUPPLY IS ADEQUATE TO SUPPLY THE NEWLY RENOVATED SYSTEM.
19.

THE HYDRAULIC CALCULATIONS SHALL INCLUDE A MINIMUM SAFETY FACTOR OF 5 PSI OR 10 PERCENT, WHICHEVER IS GREATER. PIPE SIZE SHALL BE DETERMINED BY HYDRAULIC CALCULATIONS TO MAINTAIN WATER VELOCITY BELOW 20 FEET/SEC.
20.

CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS SHOWING ALL SPRINKLERS, SPACED AND LOCATED IN ACCORDANCE WITH NFPA 13. THE SHOP DRAWINGS SHALL BE APPROVED IN WRITING PRIOR TO FABRICATION AND/OR INSTALLATION.
21.









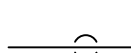
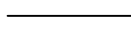


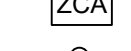








THE CONTRACTOR SHALL SUBMIT ELECTRONIC AND PAPER COPIES OF THE "AS-BUILT" DRAWINGS, REFLECTING ACCURATE FIELD CONDITIONS.
22.

DUE TO THE NATURE OF THE FACILITY, THE BUILDING AND ALL ASSOCIATED FUNCTIONS THEREOF WILL REMAIN IN OPERATION THROUGHOUT THE CONSTRUCTION AND DEMOLITION PERIOD. ANY INTERRUPTION OF ANY MECHANICAL AND/OR ELECTRICAL SERVICE SHALL OCCUR ONCE WRITTEN APPROVAL HAS BEEN RECEIVED FROM OWNER.
23.

THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF JOB SAFETY. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
24.

ALL MATERIAL AND LABOR SHALL BE UNDER WARRANTY IN ACCORDANCE WITH THE SPECIFICATIONS. ANY NEW DEVICES OR EQUIPMENT FOUND FAULTY SHALL BE REPLACED AS PART OF THE WARRANTY.

LEGEND

	UPRIGHT BACK TO BACK DUAL DIRECTION ATTIC SPRINKLER, K-FACTOR 5.6, INTERMEDIATE TEMPERATURE.
	UPRIGHT ATTIC PLUS SPRINKLER, K-FACTOR 5.6, INTERMEDIATE TEMPERATURE.
	DRY CONCEALED PENDENT SPRINKLER
	EXTENDED COVERAGE HORIZONTAL SIDEWALL SPRINKLER, K-FACTOR 8.0
	UPRIGHT SPRINKLER
	UPRIGHT SPRINKLER WITH GUARD
	PENDENT SPRINKLER
	HYDRAULIC SINGLE NODE
	HYDRAULIC CALCULATION AREA
	90 ELBOW
	TEE DOWN
	CAP
	PIPE CONTINUATION
	BUTTERFLY VALVE
	BACKFLOW PREVENTER
	ZONE CONTROL ASSEMBLY
	DRY PIPE VALVE
	FIRE DEPARTMENT CONNECTION
	BACKFLOW TEST HEADER
	NEW SPRINKLER / PIPE
	UNDERGROUND NEW SPRINKLER / PIPE

A	AMP	MECH	MECHANICAL ROOM
ABV	ABOVE	MI	MINERAL INSULATED
A/E	ARCHITECT/ENGINEER (OF RECORD)	MNS	MASS NOTIFICATION SYSTEM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MPS	MANUAL PULL STATION
A/S	AUTOMATIC SPRINKLER	NAC	NOTIFICATION APPLIANCE CIRCUIT
AWG	AMERICAN WIRE GAGE	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
BLDG	BUILDING	NO.	NUMBER
BOB	BOTTOM OF BEAM	NOS.	NUMBERS
BOJ	BOTTOM OF JOIST	NPT	NATIONAL PIPE THREAD
C	CEILING	NTS	NOT TO SCALE
CLO	CLOSET	OPG	OPENING
CMU	CONCRETE MASONRY UNIT	OS&Y	OUTSIDE STEM AND YOKE
COM	COMMUNICATIONS	P	PHASE
CONT	CONTINUED	P.S.	PIPE SHAFT
CORR	CORRIDOR	PSI	POUNDS PER SQUARE INCH
DS	DRY SPRINKLER	QR	QUICK RESPONSE
E	EXISTING DEVICE	RM	ROOM
EC	EXTENDED COVERAGE SPRINKLER	SPKLR	SPRINKLER
ELEC	ELECTRIC	SSU	STANDARD SPRAY UPRIGHT
ELOR	END OF LINE RESISTOR	STDP	STANDPIPE
EXIST	EXISTING	SF	SQUARE FOOT
FACP	FIRE ALARM CONTROL PANEL	SPD	SURGE PROTECTION DEVICE
FDC	FIRE DEPARTMENT CONNECTION	STO	STORAGE
GPM	GALLONS PER MINUTE	TC	TERMINAL CABINET
IN	INCH	TOJ	TOP OF JOIST
J.C.	JANITOR'S CLOSET	UNO	UNLESS NOTED OTHERWISE
LAT	LAY-IN ACOUSTICAL TILE	VAC	VOLTS ALTERNATING CURRENT
LED	LIGHT EMITTING DIODE	WP	WEATHER PROOF
MACH	MACHINE	W/	WITH

DESIGN DENSITIES

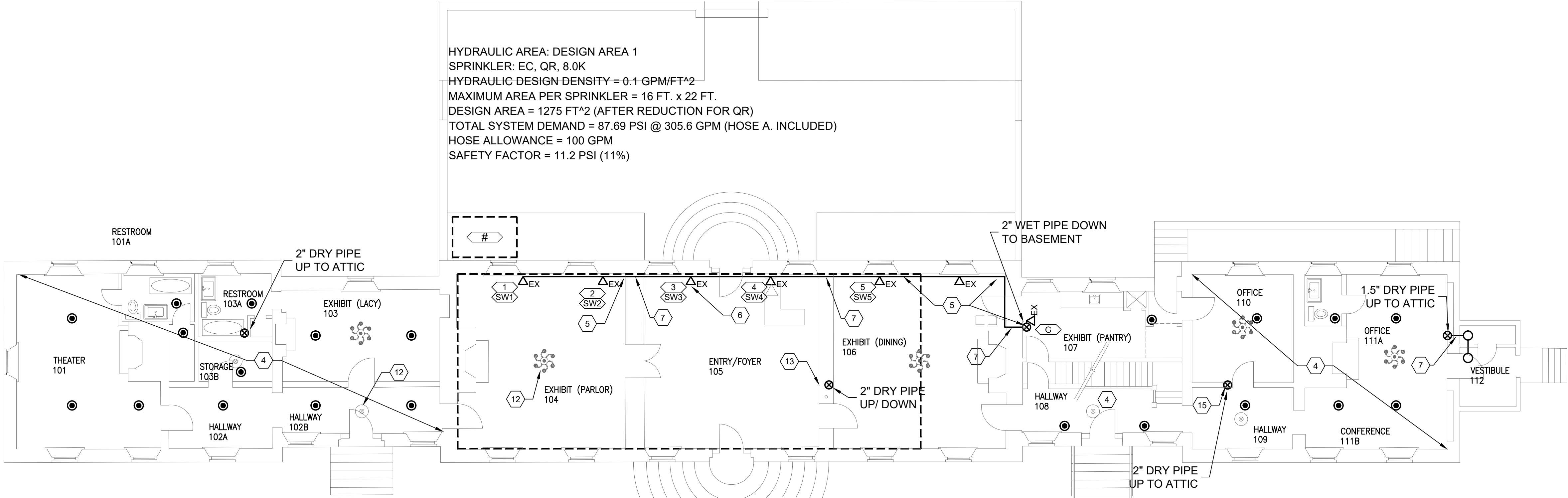
OCCUPANCY	DENSITY (GPM/SQ.FT)	AREA (SQ.FT)	HOSE ALLOWANCE (GPM)
LIGHT HAZARD	0.10	1500	100
ORDINARY HAZARD GROUP 1	0.15	1500	250
ORDINARY HAZARD GROUP 2	0.20	1500	250

ABBREVIATIONS

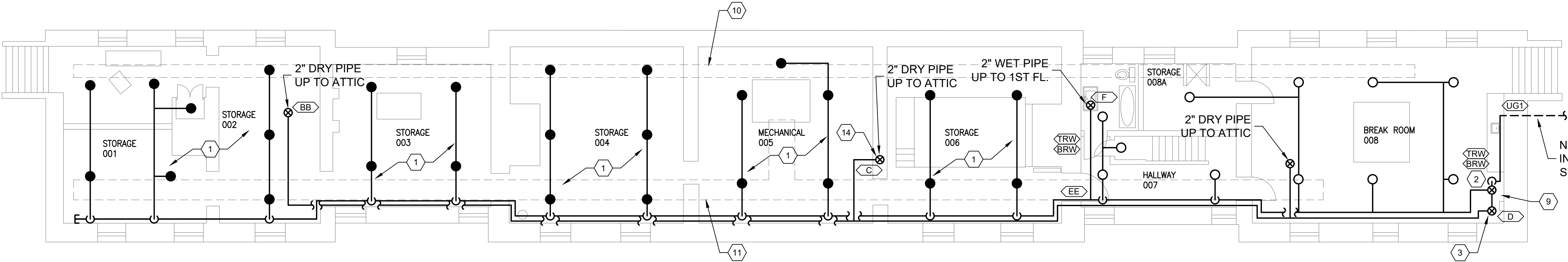
DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRE	SPO	CHATHAM MANOR HOUSE FIRE SUPPRESSION COVER SHEET	TBD
DATE: 05/15/2020			PMIS/PKG NO. TBD
			SHEET 14 OF 19

NEW WORK KEYNOTES

1. SPRINKLER PIPE TO BE HANGED BETWEEN THE WOOD JOISTS RUNNING PLAN NORTH TO SOUTH. PROVIDE FITTINGS AS NECESSARY TO ROUTE PIPE THROUGHOUT THE CONGESTED CEILING.
2. PROVIDE ZONE CONTROL ASSEMBLY INCLUDING A SUPERVISED CONTROL VALVE, FLOW SWITCH AND TEST/ DRAIN VALVE WITH PRESSURE RELIEF VALVE.
3. PROVIDE DRY PIPE VALVE WITH TRIM AND ALL ASSOCIATED COMPONENTS. PROVIDE NITROGEN GENERATOR.
4. PROVIDE CONCEALED DRY PENDENT SPRINKLERS. DRY SPRINKLERS FED BY DRY PIPE ON THE ATTIC.
5. RUN PIPE AS CLOSE AS POSSIBLE TO THE WALLS AS EXISTING CONDITIONS ALLOW IT IN ENTIRE LENGTH OF EXPOSED PIPE. IT IS THE INTENTION TO HAVE AS MANY CHANGES IN DIRECTION AS NECESSARY IN ORDER TO ACHIEVE THIS GOAL. HANG PIPE TO THE WALLS RIGHT BELOW THE CROWN MOLDINGS.
6. PROVIDE EXTENDED COVERAGE SIDEWALL SPRINKLERS IN ROOMS 104, 105 AND 106 WITH DEFLECTOR AT MAXIMUM 6" FROM THE CEILING AND MAXIMUM 6" FROM THE BACKWALL. EXACT LOCATION OF SPRINKLER WILL BE FURTHER COORDINATED AND PROVIDED ON NEXT SUBMITTAL WITH EXACT DIMENSIONS OF EACH CROWN MOLDING ON EACH ROOM.
7. PROVIDE LOW PROFILE ESCUTCHEONS ON BOTH SIDES OF THE WALL PENETRATION.
8. NOT USED.
9. THERE IS LIMITED SPACE ON THIS AREA. COORDINATE WITH EXISTING CONDITIONS TO PROVIDE DRY VALVE AND WET ZONE CONTROL ASSEMBLY.
10. EXISTING GENERAL PIPING FROM OTHER TRADES LOCATED ON THIS SIDE OF THE BASEMENT EXTENDING ALONG THE ENTIRE FLOOR. IT IS THE INTENTION OF THE DESIGN TO AVOID THESE ARE AS MUCH AS POSSIBLE DUE TO ALREADY CONGESTED SPACE AND AN WALL PENETRATIONS.
11. ALL EXISTING MPE WORK IS NOT SHOWN ON THIS SET OF DRAWINGS. CONTRACTOR SHALL SURVEY SITE PRIOR TO COMMENCE ANY WORK. EXISTING DUCTWORK INSTALLED AGAINST THE CEILING RUNNING ALONG THE ENTIRE FLOOR. SHOWN FOR VISUAL PURPOSES ONLY TO SHOW THE INTENT OF THE DESIGN DRAWINGS: SURROUNDING AREAS ARE VERY CONGESTED AND WILL REQUIRE DETAILED COORDINATION WITH EXISTING DUCTWORK THROUGHOUT THE BASEMENT TO ACHIEVE CODE COMPLIANCE SPRINKLER COVERAGE AND MAIN SPRINKLER PIPES LAYOUT. CONTRACTOR SHALL MAINTAIN AS MUCH HEAD ROOM CLEARANCE AS PRACTICAL BETWEEN THE FINISHED FLOOR AND BOTTOM OF SPRINKLER PIPE, FITTINGS, VALVES, AND SPRINKLERS IN ALL AREAS WITH EXPOSED PIPE.
12. EXISTING LIGHTS AND CEILING MISCELLANEOUS. SHOWN FOR COORDINATION PURPOSES ONLY.
13. PROVIDE NEW 2.5" DRY SPRINKLER RISER INSIDE WALL/CHASE. REMOVE EXISTING WOOD WALL BOARD PANEL UNDER NPS SUPERVISION TO EXPOSE CHASE. ONLY WOOD BOARD PANEL WITH EXISTING CUTS RENDERING IT REMOVABLE ARE ALLOWED TO BE REMOVED. CAREFULLY REMOVE ADDITIONAL BRICK TO OPEN UP CHASE FOR SPRINKLER RISER. DO NOT DISTURB WOOD STUDS OR ANY ADDITIONAL WOOD PANELS NOR EXISTING MECHANICAL PIPING.
14. PROVIDE NEW 2½" DRY SPRINKLER RISER INSIDE WALL/CHASE. CAREFULLY REMOVE ADDITIONAL BRICK TO OPEN UP CHASE FOR SPRINKLER RISER. DO NOT DISTURB EXISTING MECHANICAL PIPING.
15. PROVIDE NEW DRY SPRINKLER RISER INSIDE WALL/CHASE. REMOVAL OF EXISTING OBSOLETE "NOT IN SERVICE" FIRE HOSE STATION AND PIPE MIGHT BE NECESSARY TO MAKE ROOM FOR NEW SPRINKLER RISER.



2 FIRST FLOOR PLAN
SP1



1 BASEMENT FLOOR PLAN
SP1

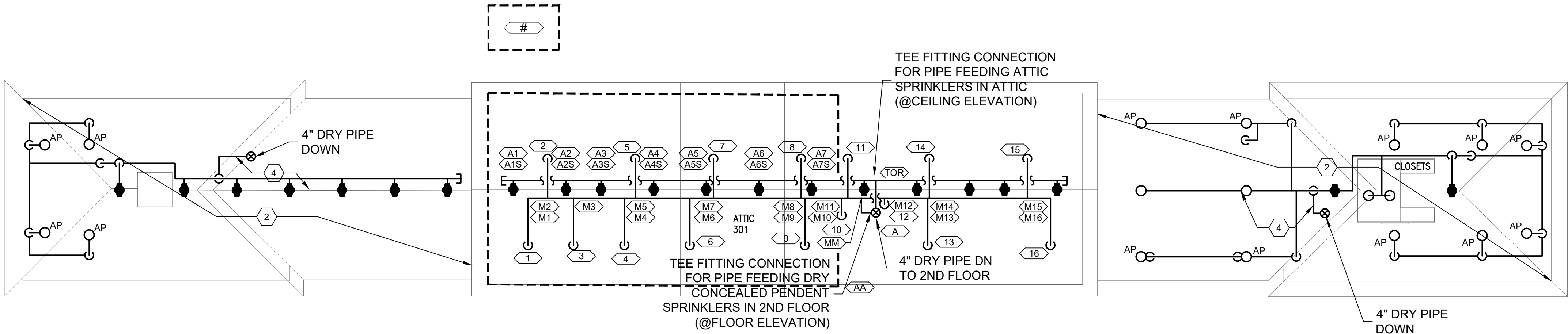


DESIGNED: DRE PAM TECH. REVIEW:	SUB SHEET NO. SP1	TITLE OF SHEET CHATHAM MANOR HOUSE FIRE SUPPRESSION BASEMENT & FIRST FLOOR CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD PMIS/PKG NO. TBD SHEET 15 OF 19
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NEW WORK KEYNOTES

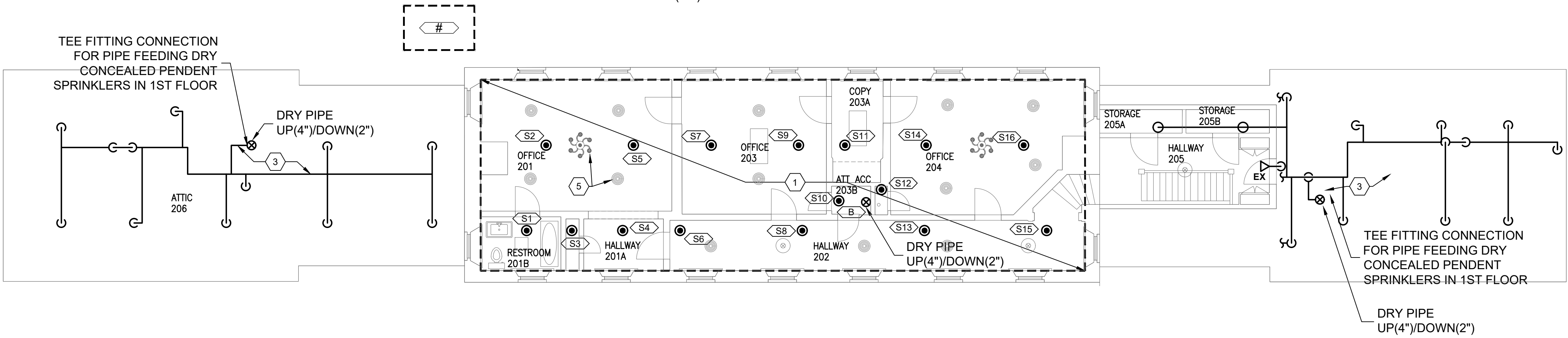
- 1. DRY CONCEALED PENDENT SPRINKLERS FED BY DRY PIPE ON THE ATTIC.
- 2. ATTIC SPRINKLERS AND PIPING ARE SHOWN ON THIS ROOF PLAN FOR VISUAL CLARIFICATION PURPOSES ONLY. THESE EQUIPMENT IS MEANT TO BE INSTALLED IN THE ATTIC AREA, BUT SHOWN HERE TO POINT OUT THE DIFFERENT PIPING AND SPRINKLERS AT DIFFERENT ELEVATIONS WITHIN THE ATTIC.
- 3. DRY PIPE FEEDING DRY CONCEALED PENDENT SPRINKLERS IN 1ST FLOOR TO BE INSTALLED AT FLOOR ELEVATION IN ATTIC.
- 4. DRY PIPE FEEDING ATTIC SPRINKLERS IN ATTIC TO BE INSTALLED AT CEILING ELEVATION IN ATTIC.
- 5. EXISTING LIGHTS AND CEILING MISCELLANEOUS. SHOWN FOR COORDINATION PURPOSES ONLY

HYDRAULIC AREA: DESIGN AREA 3
SPRINKLER: ATTIC SPRINKLER TYCO BB, 5.6K
HYDRAULIC DESIGN PARAMETER = MINIMUM 20 PSI @ 25 GPM
MAXIMUM AREA PER SPRINKLER = 15 FT. (ATTIC SPAN) x 12 FT.
DESIGN AREA = 7 ATTIC SPRINKLERS TYCO BB (PER PRODUCT LISTING)
TOTAL SYSTEM DEMAND = 63.88 PSI @ 431.2 GPM (HOSE A. INCLUDED)
HOSE ALLOWANCE = 250 GPM
SAFETY FACTOR = 26 PSI (29%)



2 CENTER ATTIC FLOOR PLAN
SP2

HYDRAULIC AREA: DESIGN AREA 2
SPRINKLER: QR, 5.6K
HYDRAULIC DESIGN DENSITY = 0.1 GPM/FT^2
MAXIMUM AREA PER SPRINKLER = 225 SQ. FT.
DESIGN AREA = 1512 FT^2
TOTAL SYSTEM DEMAND = 81.17 PSI @ 462.8 GPM (HOSE A. INCLUDED)
HOSE ALLOWANCE = 100 GPM
SAFETY FACTOR = 5.7 PSI (7%)



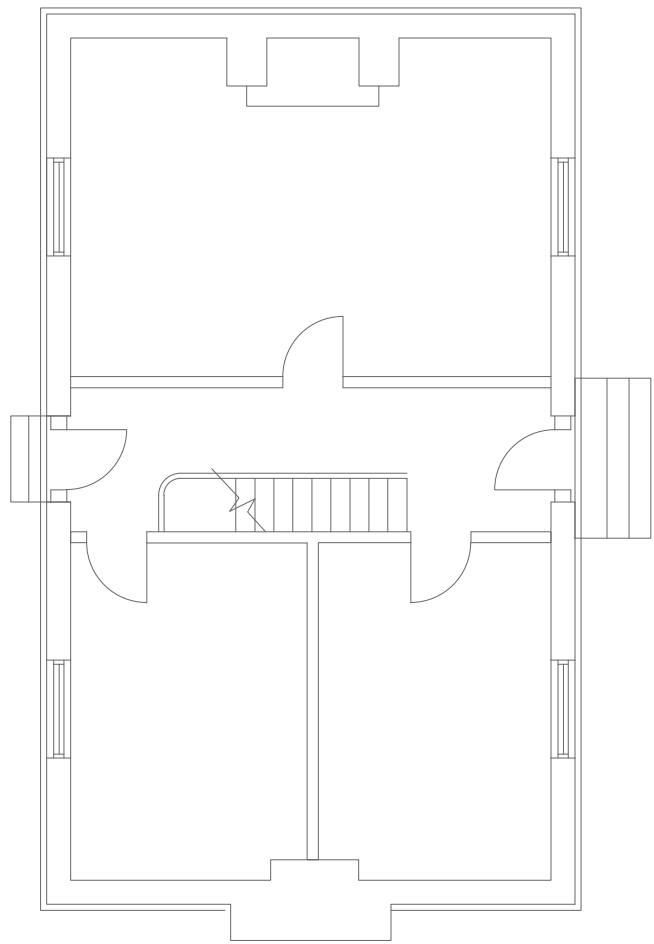
1 SECOND FLOOR EAST & WEST ATTIC FLOOR PLAN
SP2



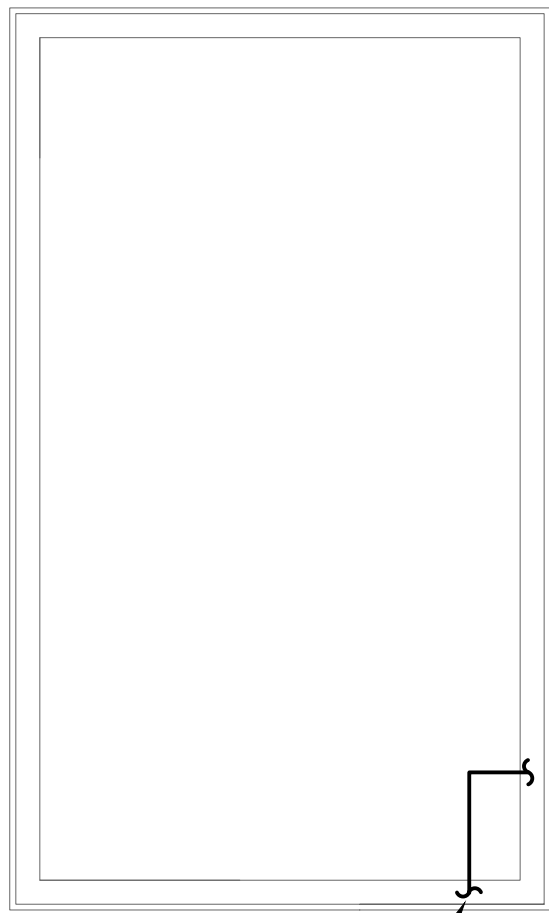
DESIGNED: DRE PAM TECH. REVIEW:	SUB SHEET NO. SP2	TITLE OF SHEET CHATHAM MANOR HOUSE FIRE SUPPRESSION SECOND & ATTIC FLOOR CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD PMIS/PKG NO. TBD SHEET 16 OF 19
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NEW WORK KEYNOTES

- 1. PROVIDE NEW 6" VERTICAL BACKFLOW PREVENTER ASSEMBLY.
- 2. PROVIDE 4" X 2½" (2) FIRE DEPARTMENT CONNECTION (FDC). PROVIDE SIGN SPECIFIC TO FDC RIGHT ABOVE FDC.
- 3. PROVIDE 4" CHECK VALVE.
- 4. PROVIDE 4" X 2½" (2) BACKFLOW TEST HEADER. PROVIDE SIGN SPECIFIC TO TEST HEADER RIGHT ABOVE IT.
- 5. PROVIDE 4" SUPERVISED BUTTERFLY VALVE IN NORMALLY CLOSED POSITION



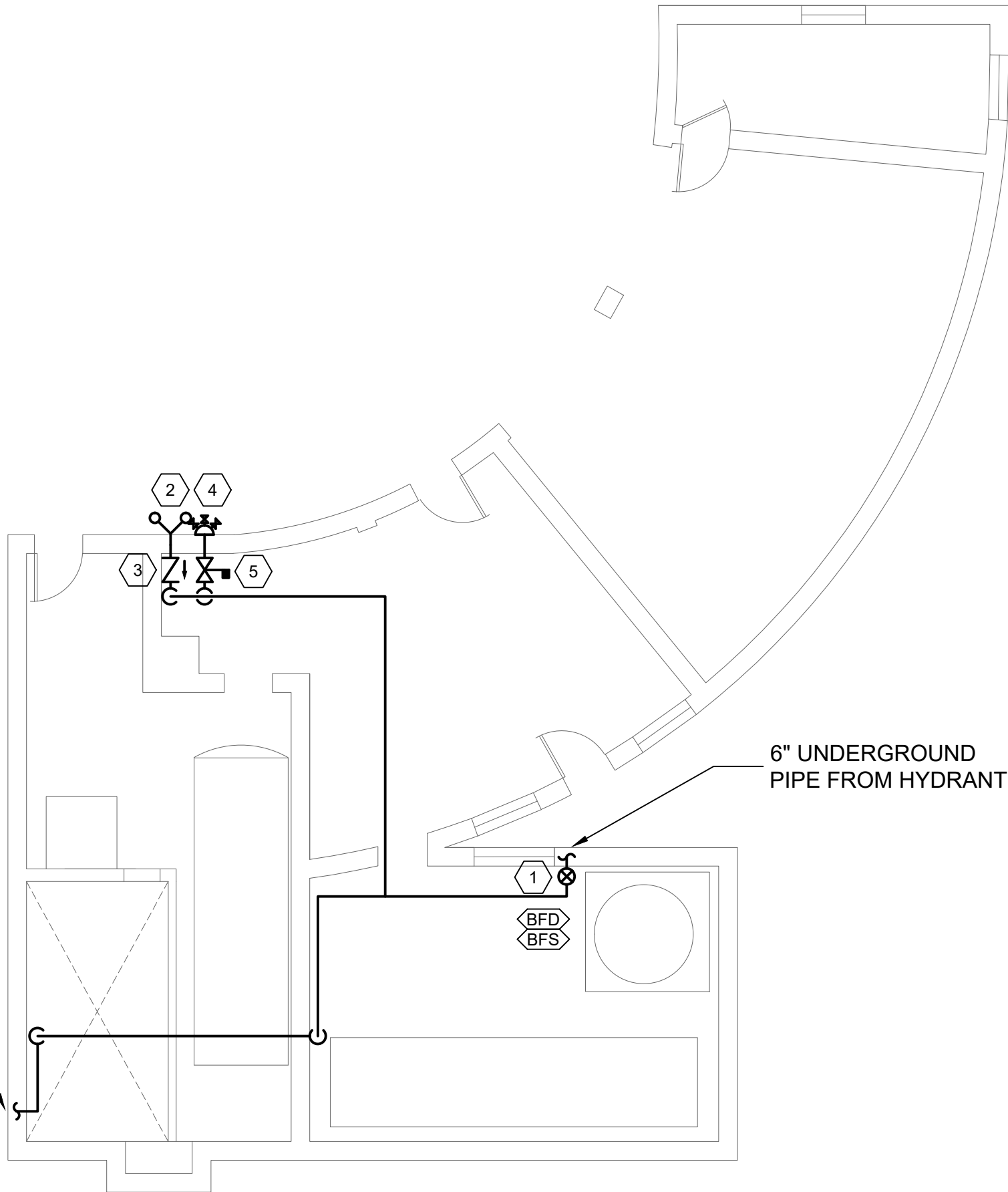
2 KITCHEN BLDG FIRST FLOOR PLAN
SP3



1 KITCHEN BLDG BASEMENT FLOOR PLAN
SP3

6" UNDERGROUND
PIPE TO CHATHAM
MANOR HOUSE

6" UNDERGROUND PIPE
FROM UTILITY BLDG.

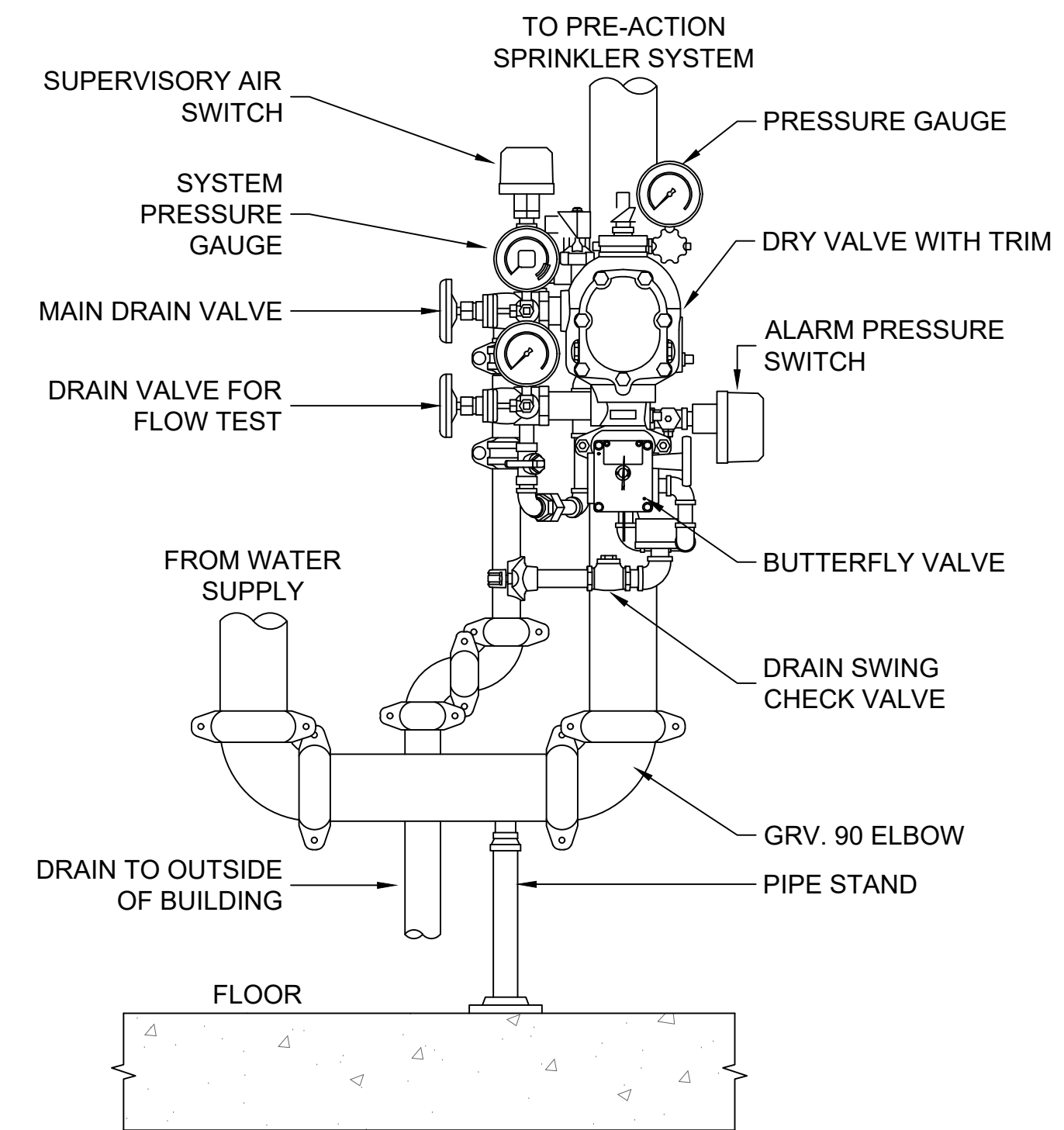


6" UNDERGROUND PIPE
TO KITCHEN BLDG.

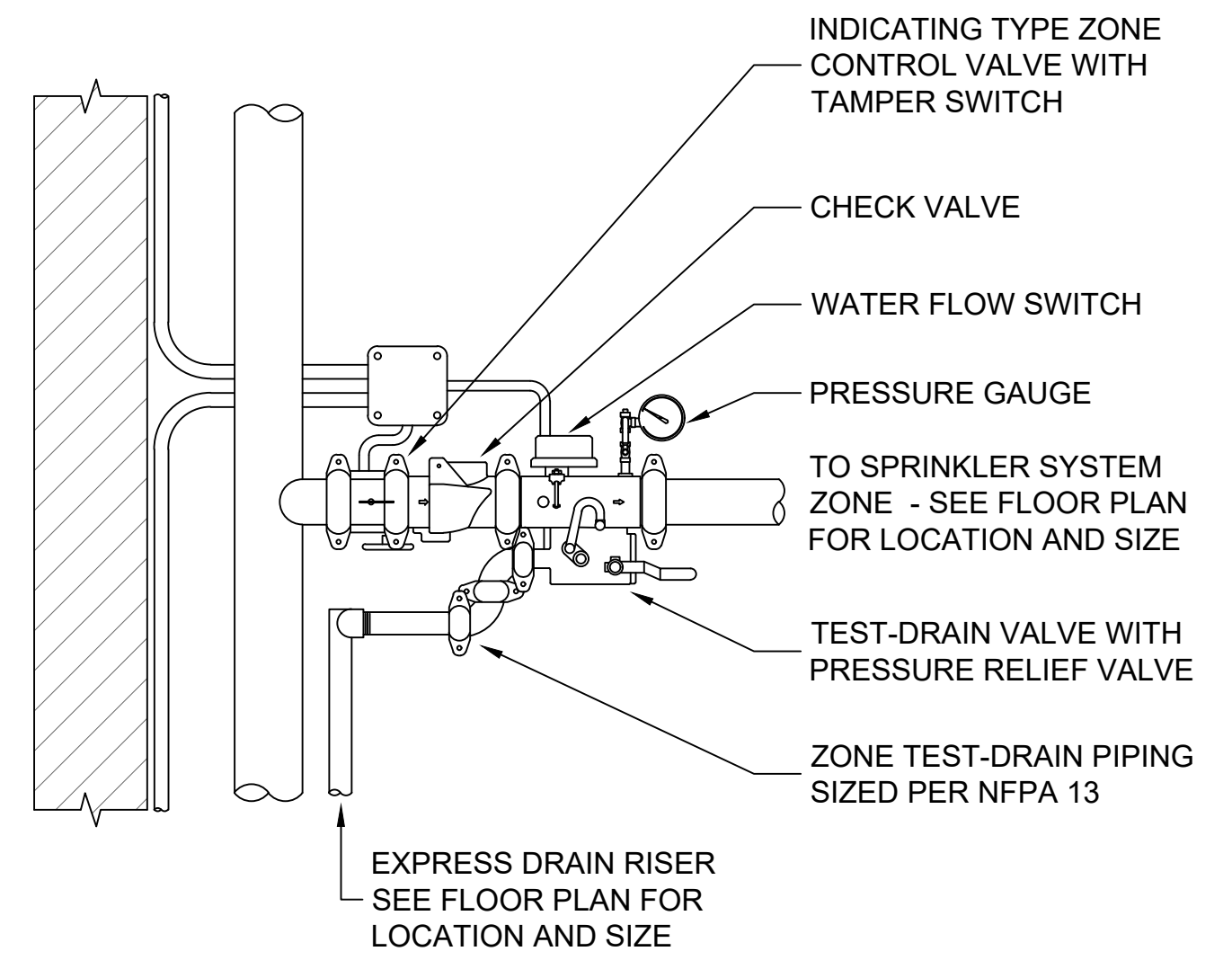
3 UTILITY BLDG FIRST FLOOR PLAN
SP3



DESIGNED: DRE 05/15/20	SUB SHEET NO. SP3	TITLE OF SHEET FIRE SUPPRESSION KITCHEN BLDG & UTILITY BLDG FLOOR PLANS CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD
TECH. REVIEW: PAM			PMIS/PKG NO. TBD
DATE: 05/15/2020			SHEET 17 OF 19

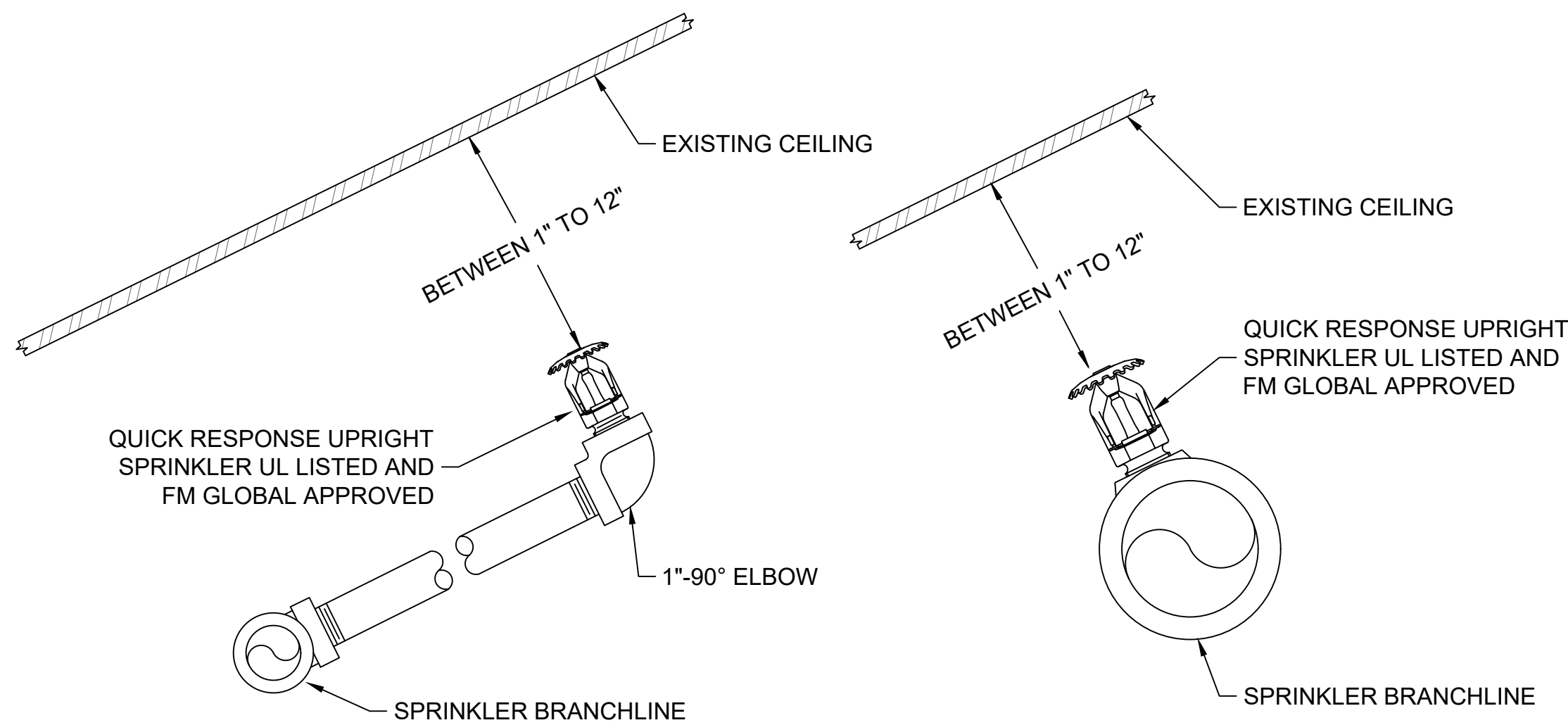


DRY PIPE VALVE
SCALE: N.T.S



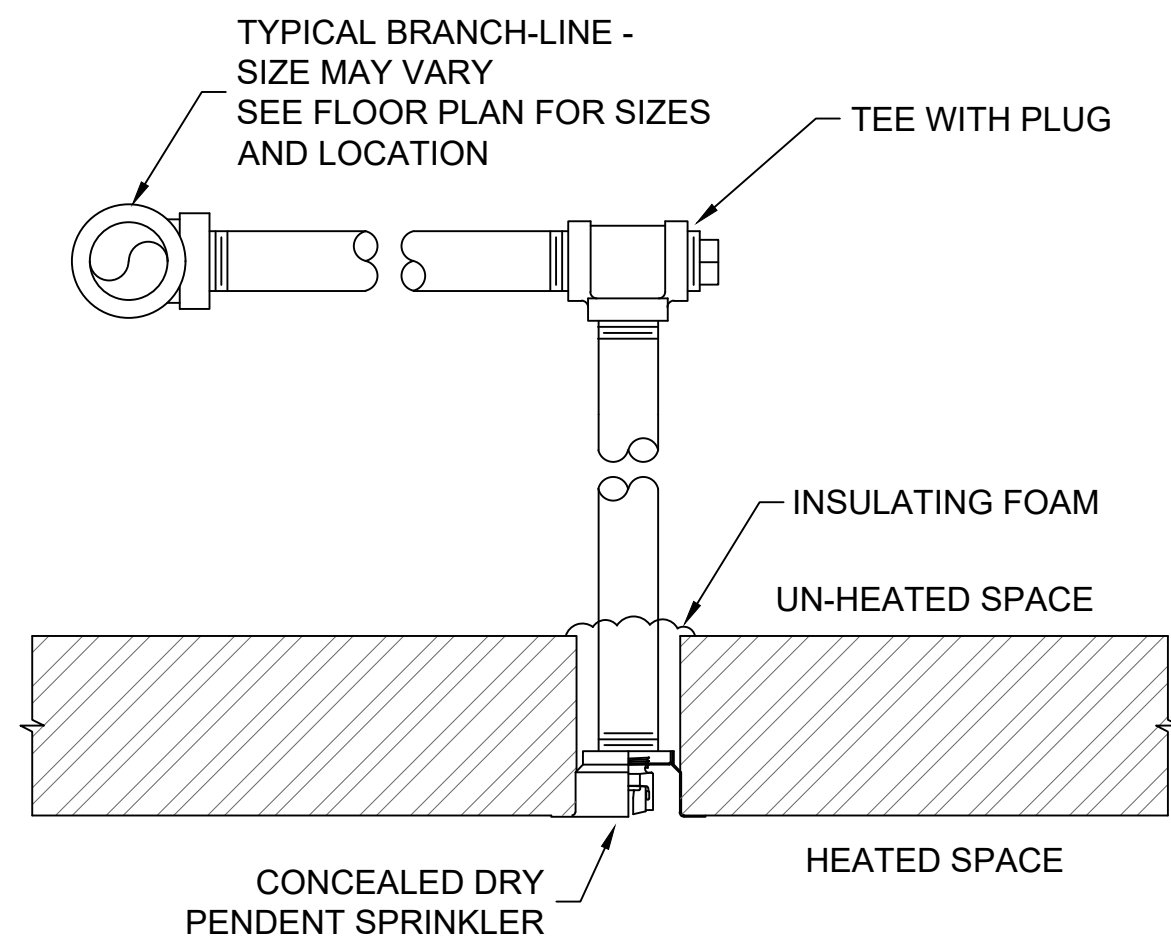
ZONE CONTROL ASSEMBLY
SCALE: N.T.S

DESIGNED: DRE PAM TECH. REVIEW:	SUB SHEET NO. SP4	TITLE OF SHEET CHATHAM MANOR HOUSE FIRE SUPPRESSION RISER DETIALS CHATHAM MANOR FIRE PROTECTION RENOVATION FRSP NATIONAL MILITARY PARK	DRAWING NO. TBD PMIS/PKG NO. TBD SHEET 18 OF 19
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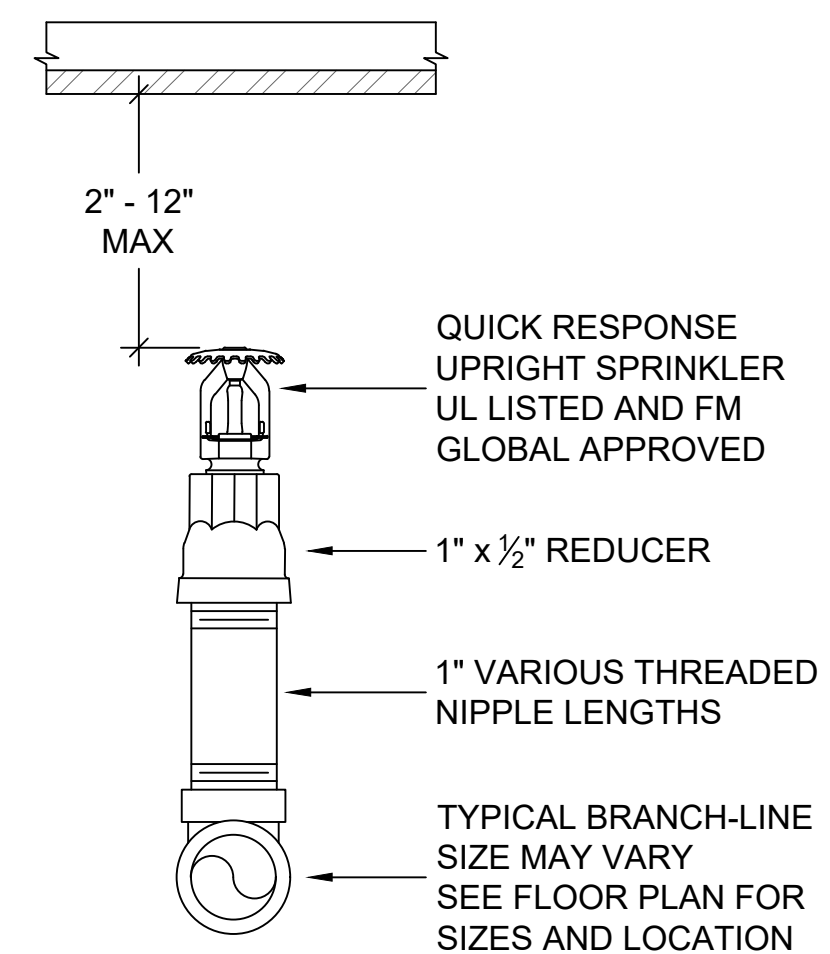
UPRIGHT SPRINKLER ON SLOPED CEILING

SCALE: N.T.S



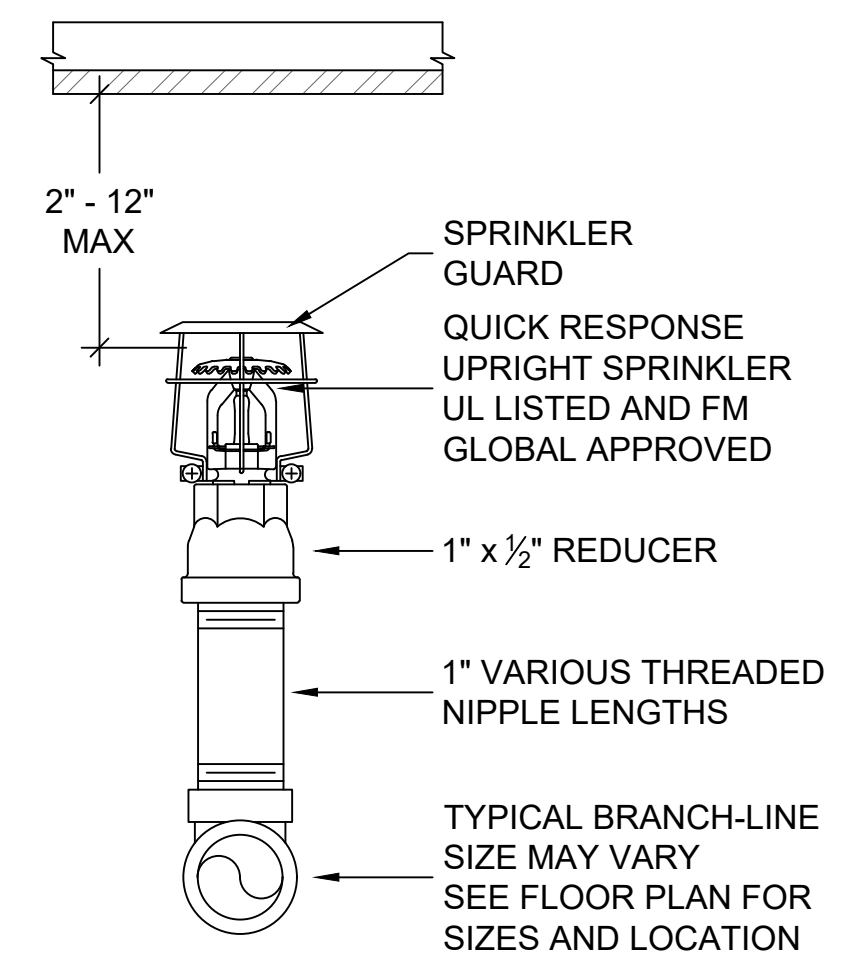
DRY CONCEALED PENDENT SPRINKLER

SCALE: N.T.S



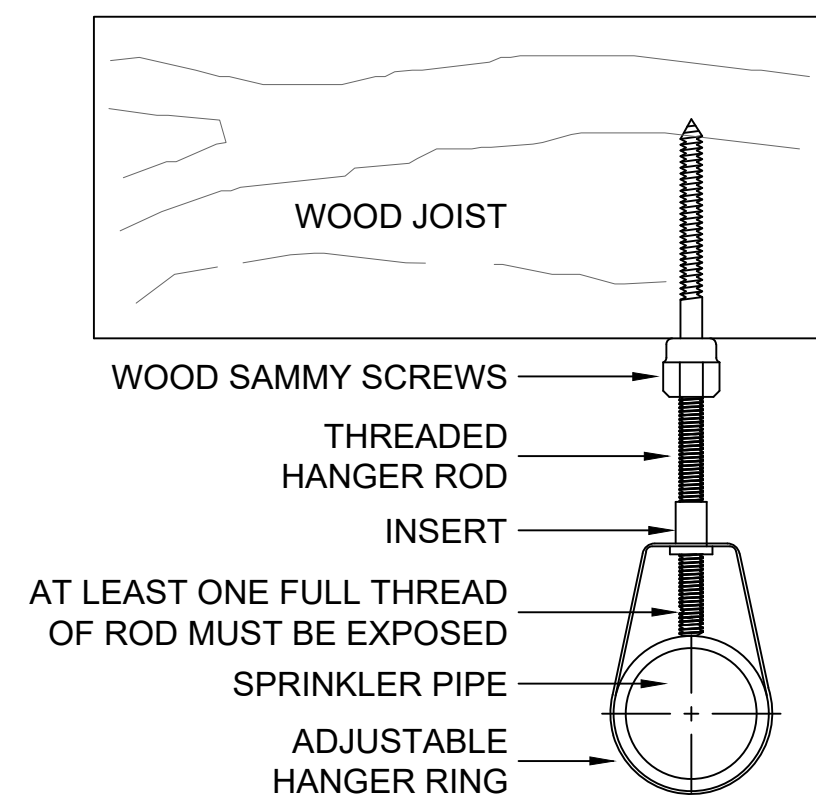
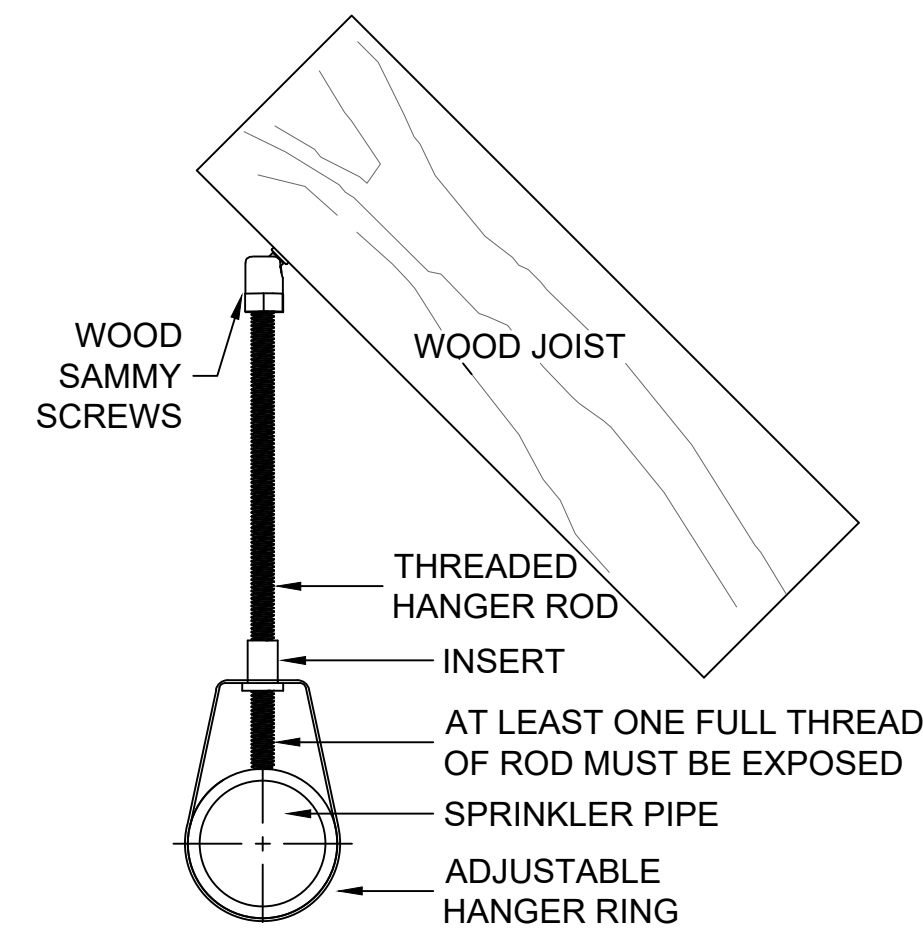
UPRIGHT SPRINKLER

SCALE: N.T.S



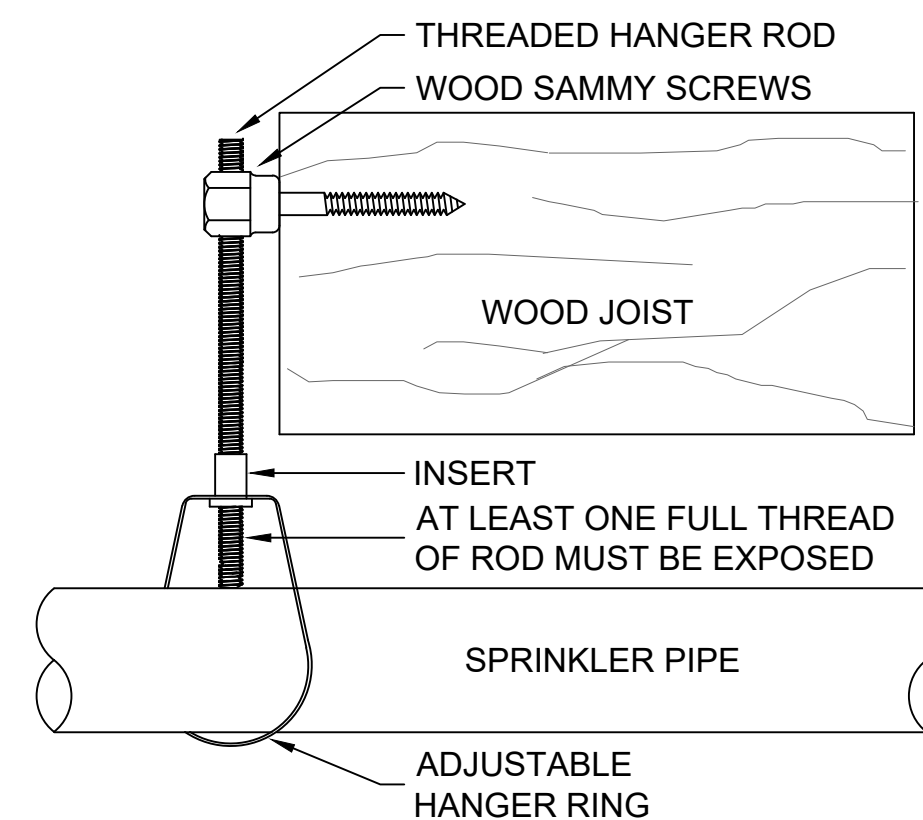
UPRIGHT SPRINKLER WITH GUARD

SCALE: N.T.S



WOOD JOIST PIPE HANGER

SCALE: N.T.S



DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
DRE	SP5	CHATHAM MANOR HOUSE	TBD
PAM		FIRE SUPPRESSION	PMIS/PKG NO.
TECH. REVIEW:		SPRINKLER DETAILS	TBD
DATE:		CHATHAM MANOR FIRE PROTECTION RENOVATION	SHEET
05/15/2020		FRSP NATIONAL MILITARY PARK	19 OF 19